WKE WITH: PROJECT ID 2025-11-71, 2025-16-70 COUNTY MILWAUKEE

MAR 13

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: 418



13

N

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WEST CAPITOL DRIVE, CITY OF MILWAUKEE

NORTH MAYFAIR ROAD TO NORTH 84TH STREET

BRIDGE OVER MENOMONEE RIVER

STH 190

CITY OF MILWAUKEE, MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2025-11-71		
2025-16-70		

STATE PROJECT NUMBER 2025-11-71

STATE PROJECT NUMBER 2025-16-70

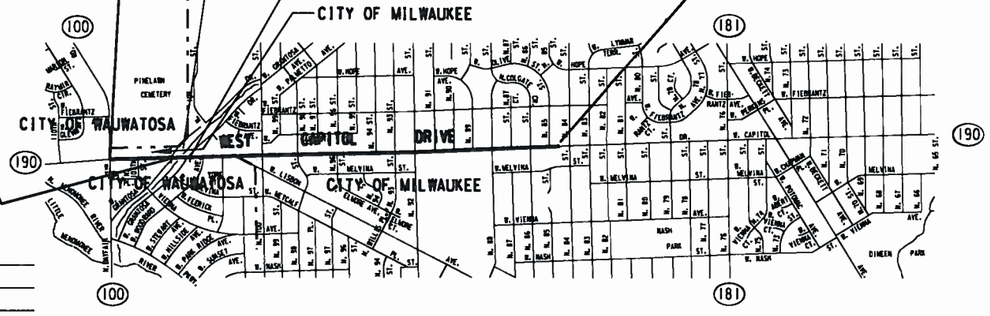
2025-11-71
BEGIN PROJECT
STA. 01+50.00, T/L
Y. = 403,248.050
X. = 2,521,536.380

STRUCTURE B-40-759

2025-16-70
END PROJECT
STA. 13+80.66, T/L

2025-11-71
END PROJECT
STA. 79+50.00, T/L

2025-16-70
BEGIN PROJECT
STA. 12+96.44, T/L
Y. = 403,279.918
X. = 2,522,781.090



DESIGN DESIGNATION

A.D.T. (CURRENT)	=	31,700
A.D.T. (2033)	=	38,000
D.H.V.	=	3,700
D.	=	54%
T.	=	4.2%
DESIGN SPEED	=	40 M.P.H.
ESALS	=	2,781,300

CONVENTIONAL SYMBOLS

PLAN

COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
CORPORATE OR CITY LIMITS
PROPERTY LINE — P.L.
STANDARD BENCH MARK
EXISTING RIGHT OF WAY LINE — R/W
PROPOSED SEWER LATERAL — (SIZE)
REFERENCE LINE
CONCRETE WALK/DWY. REMOVAL
LIMITS OF CONCRETE PAVEMENT REMOVAL — X X X X X X
COMBUSTIBLE FLUIDS — CAUTION
RAILROADS
FENCE — (TYPE)
CATCH BASIN OR INLET — EXISTING / PROPOSED

PROFILE

GRADE LINE
ORIGINAL GROUND
GRADE ELEVATION — 995.36

UTILITIES

ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	STO
TELEPHONE	T
WATER	W
TRAFFIC & ELECTRICAL SERVICES	TE&ES
MILWAUKEE METRO SEWERAGE DIST	MMSD
CABLE TELEVISION	TV
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.

2025-11-71
TOTAL NET LENGTH OF CENTERLINE = 1.461 MI. (URBAN)

2025-16-70
TOTAL NET LENGTH OF CENTERLINE = 0.016 MI. (URBAN)

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

COMBINATION SCALE AND SEA LEVEL REDUCTION FACTOR .99992542

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

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

Accepted For
City of Milwaukee

11/1/12 Ghassan Korban
(Date) Commissioner of Public Works

Original Plans Prepared By

WISCONSIN JEFFREY S. POLASKE E-32628 MILWAUKEE WIS. PROFESSIONAL ENGINEER

11/1/12 City Engineer
(Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor City of Milwaukee
Designer City of Milwaukee
Project Manager Mohammad Hossain
Region Examiner
Region Supervisor Reem Shahin
C.O. Examiner

APPROVED FOR THE DEPARTMENT

DATE: 11/1/12 Hossain
(Signature)

E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\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 DISTRUBED AREAS NOT SURFACED ARE TO BE COVERED WITH 4" OF TOPSOIL, SODDED AND FERTILIZED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

3 WHEN THE QUANTITY OF ITEMS OF BASE AGGREGATE & / 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 MEDIAN CURB AND GUTTER IS HIGH SIDE AND ALL REMAINING CURB AND GUTTER IS LOW SIDE UNLESS OTHERWISE INDICATED ON THE PLAN.

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

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

8 "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.

9 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.

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

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

12 FLANGE THICKNESS OF CURB AND GUTTER SHOULD MATCH ADJACENT PAVEMENT.

13 CONTACT SEWRPC 2 WEEKS PRIOR TO BEGINNING CONSTRUCTION.

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

SECTION 2 SHEET ORDER

GENERAL NOTES
CONSTRUCTION PERMITS
PLAN OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
LANDMARK REFERENCE MONUMENT
PLAN DETAIL
DRAINAGE DETAILS
UTILITIES & DRAINAGE
TREE PLANTING
CITY UNDERGROUND CONDUIT
STREET LIGHTING CONDUIT
TRAFFIC SIGNAL CONDUIT
PAVEMENT MARKINGS
TRAFFIC CONTROL

2

UTILITIES WITHIN PROJECT LIMITS

CITY OF MILWAUKEE
841 N. BROADWAY, RM 710 MILW.,WI 53202
MUSA ABU-KHADER TEL. (414) 286-2432
UTILITY COORDINATOR

WE ENERGIES (GAS)
500 S. 116TH ST. WEST ALLIS,WI 53214
TOM MINESAL, TEL. 944-5755

WE ENERGIES (ELECTRIC)
500 S. 116TH ST. WEST ALLIS, WI 53214
LEONARD WILSON, TEL. (414) 944-5690

AT&T WISCONSIN
7721 W. FOND DU LAC AVE. FL.1, MILW., WI 53218
KEVIN ANDERSON, TEL. (414) 536-2971

TIME WARNER CABLE
1320 N. DR. MARTIN LUTHER KING JR. DR
MILW., WI 53212
LUKAS LACROSSE, TEL. (414) 908-4766

MMSD
260 W. SEEBOTH ST., MILW., WI 53204
DEBRA JENSEN, TEL. (414) 225-2143

PAETEC
731 N. JACKSON ST, STE. 410, MILW., WI 53202
JAMES BIRKENHEIER, TEL. (414) 831-5252

WISDOT ELECTRIC SHOP, SE REGION
935 S. 60TH ST. WEST ALLIS, WI 53214
TEL. (414) 266-1170

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

CITY OF MILWAUKEE
841 N. BROADWAY, RM 902 MILW.,WI 53202
RATTAN MAHAY, DESIGN
TEL. (414) 286-8087

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

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

CITY OF WAUWATOSA, D.P.W.
7725 W. NORTH AVE., WAUWATOSA, WI 53213
WILLIAM WEHRLEY, CITY ENGINEER
TEL. (414) 479-8929

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

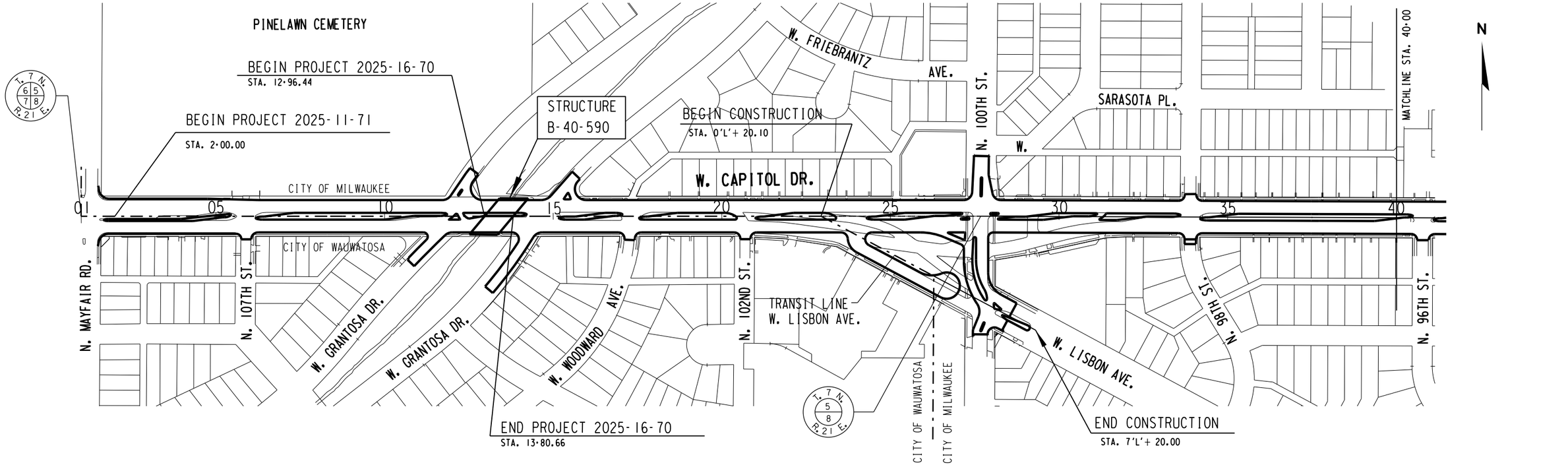
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITY CONTACTS	SCALE FEET 0' 40'	SHEET NO: 3	E

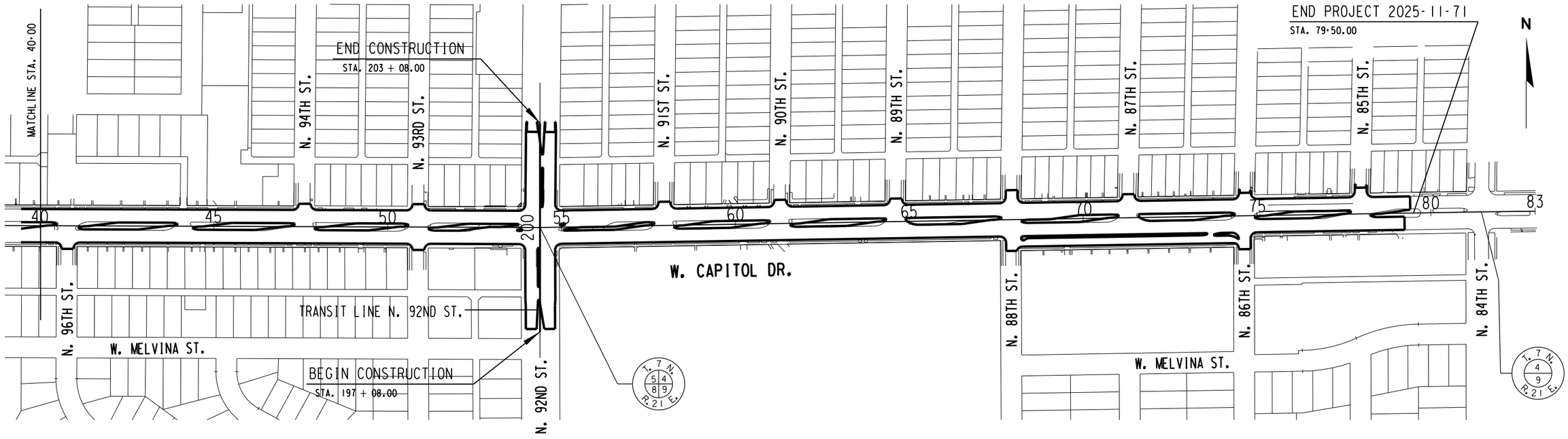
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CONSTRUCTION PERMIT LOCATIONS		
NUMBER	STATION	ADDRESS OF PROPERTY
1	2+80 TO 3+25, RT	10745 W CAPITOL DR
2	3+90 TO 4+10, RT	10721 W CAPITOL DR
3	4+40 TO 4+60, RT	10707 W CAPITOL DR
4	5+50 TO 6+30, LT	10700 W CAPITOL DR
5	16+90 TO 17+00, RT	10303 W CAPITOL DR
6	18+21 TO 18+50, RT	10229 W GRANTOSA DR
7	23+15 TO 23+20, RT	10101 W LISBON AV
8	23+15 TO 23+19, LT	10052 W CAPITOL DR
9	23+70 TO 23+74, LT	10046 W CAPITOL DR
10	1+32L TO 2+01L, RT	10051 W LISBON AV
11	4+25L TO 4+50L, RT	10031 W LISBON AV
12	25+29 TO 25+39, LT	10012 W CAPITOL DR
13	26+84 TO 27+25, LT	10000 W CAPITOL DR
14	28+38 TO 29+50, LT	9922 W CAPITOL DR
15	29+04 TO 29+70, RT	9921 W CAPITOL DR
16	30+62 TO 31+50, LT	9900 W CAPITOL DR
17	36+23 TO 36+26, RT	9709 W CAPITOL DR
18	44+83 TO 45+10, LT	9436 W CAPITOL DR
19	48+95 TO 49+31, LT	9330 W CAPITOL DR
20	50+53 TO 50+59, LT	9308 W CAPITOL DR
21	52+52 TO 53+85, LT	9208 W CAPITOL DR
22	60+15 TO 60+34, RT	9101 W CAPITOL DR
23	60+95 TO 61+55, RT	8901 W CAPITOL DR
24	66+75 TO 66+85, LT	8812 W CAPITOL DR
25	69+47 TO 69+61, RT	8640 W MELVINA ST
26	5+22L TO 5+50L, RT	10001 W LISBON AV
27	76+67 TO 76+91, RT	8411 W CAPITOL DR
28	202+15 TO 202+39, LT	4025 N 92ND ST

2

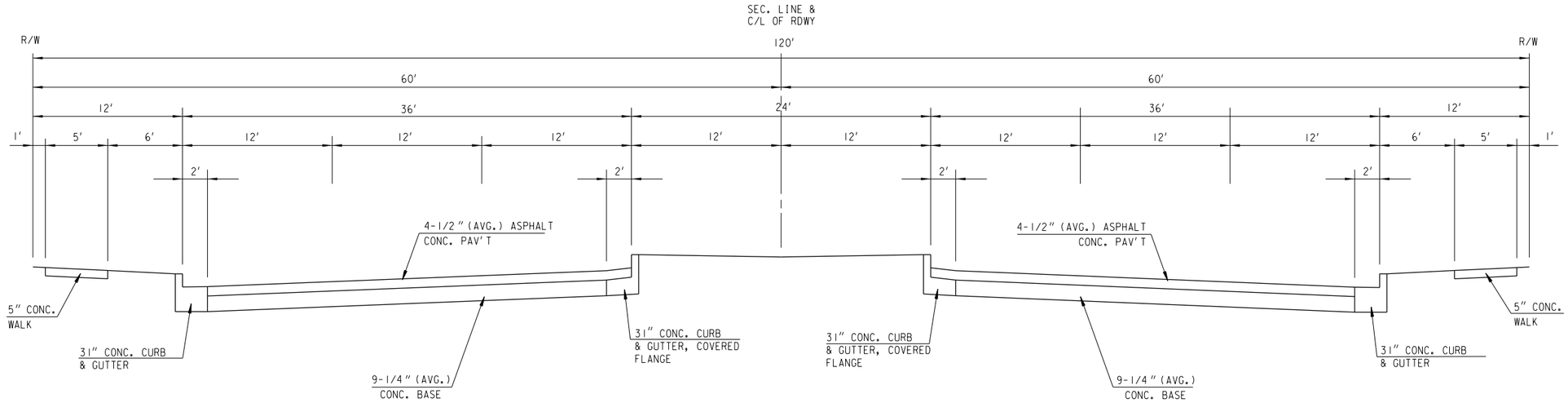
2





STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: HWY 190	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 300'	SHEET NO: 5	E

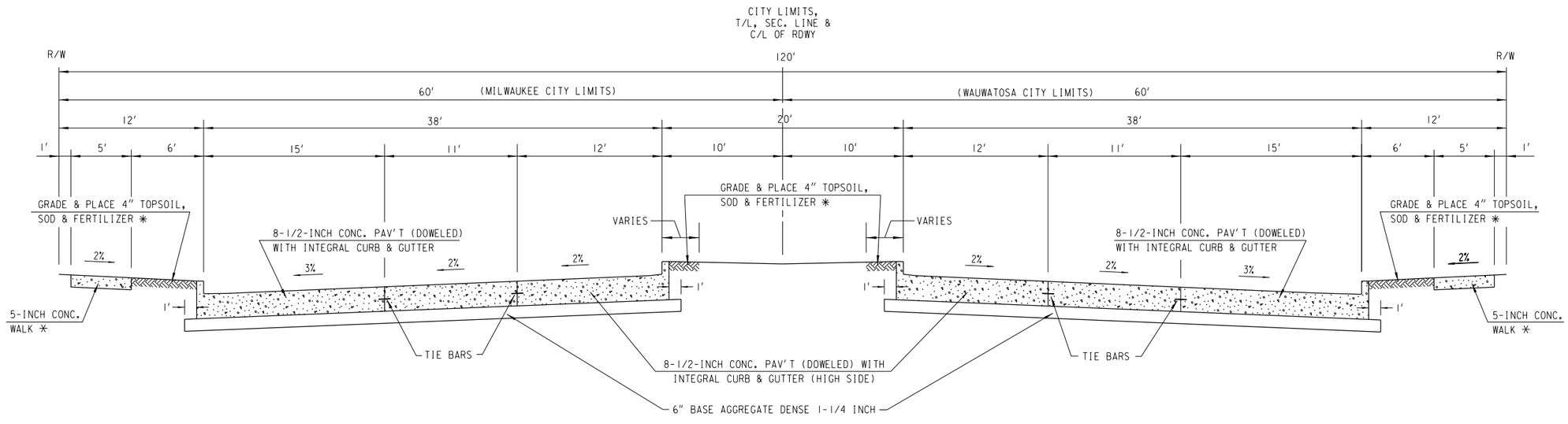
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TYPICAL EXISTING SECTION

WEST CAPITOL DRIVE

STA. 05 + 75 TO STA. 68 + 75
STA. 74 + 50 TO STA. 79 + 50



* WHERE SHOWN
ON PLAN

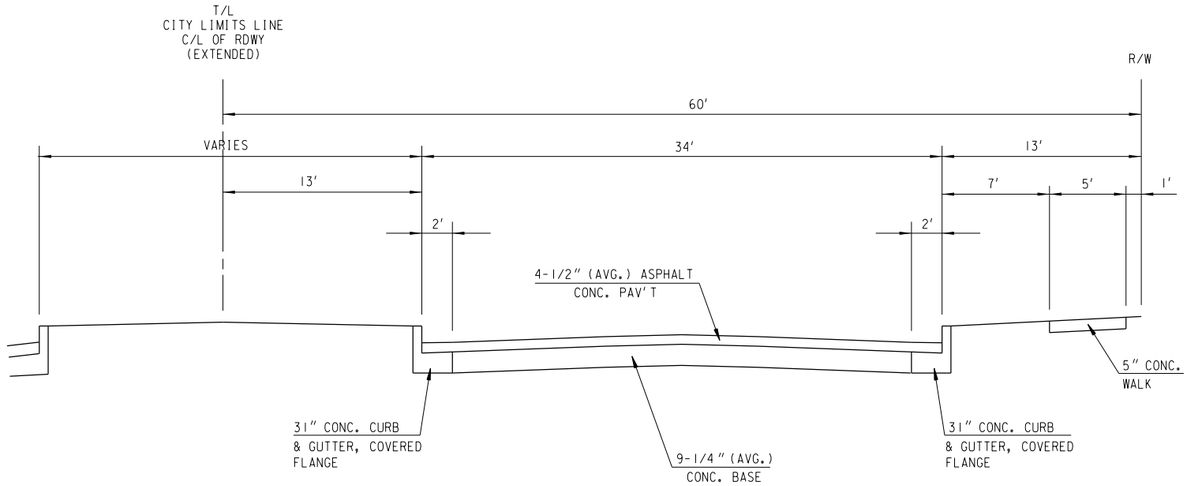
TYPICAL FINISHED SECTION

WEST CAPITOL DRIVE

STA. 05 + 75 TO STA. 15 + 00

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 6	E

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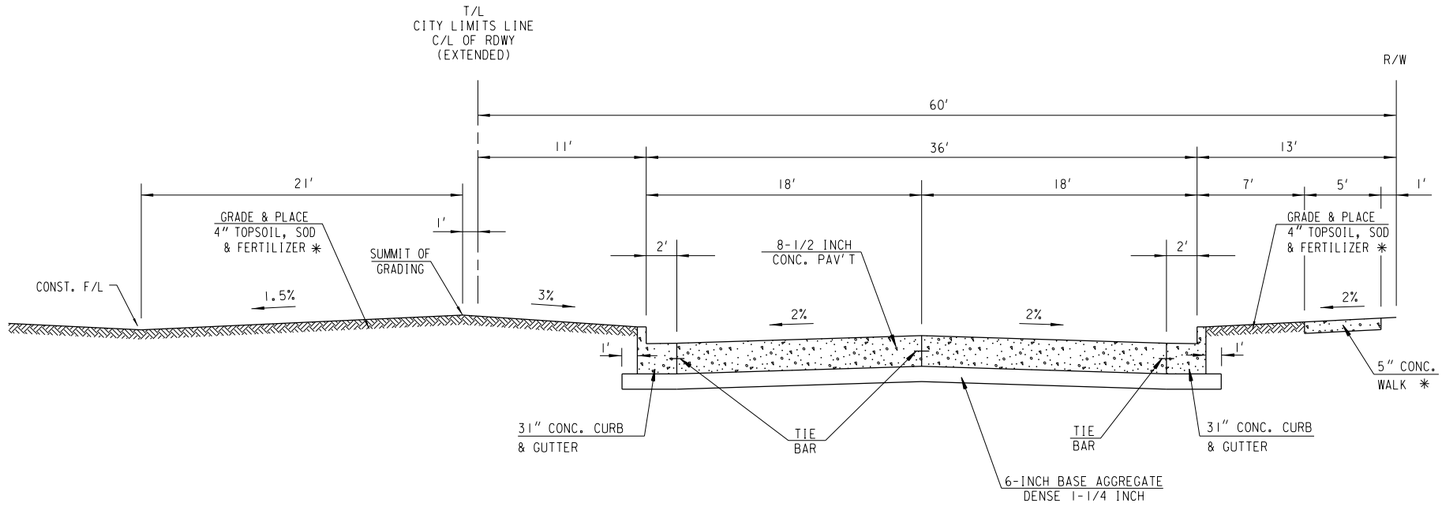


TYPICAL EXISTING SECTION

WEST LISBON AVENUE

(EASTBOUND LANE ONLY)

STA. 01'L' + 00.0 TO STA. 05'L' + 00.0



TYPICAL FINISHED SECTION

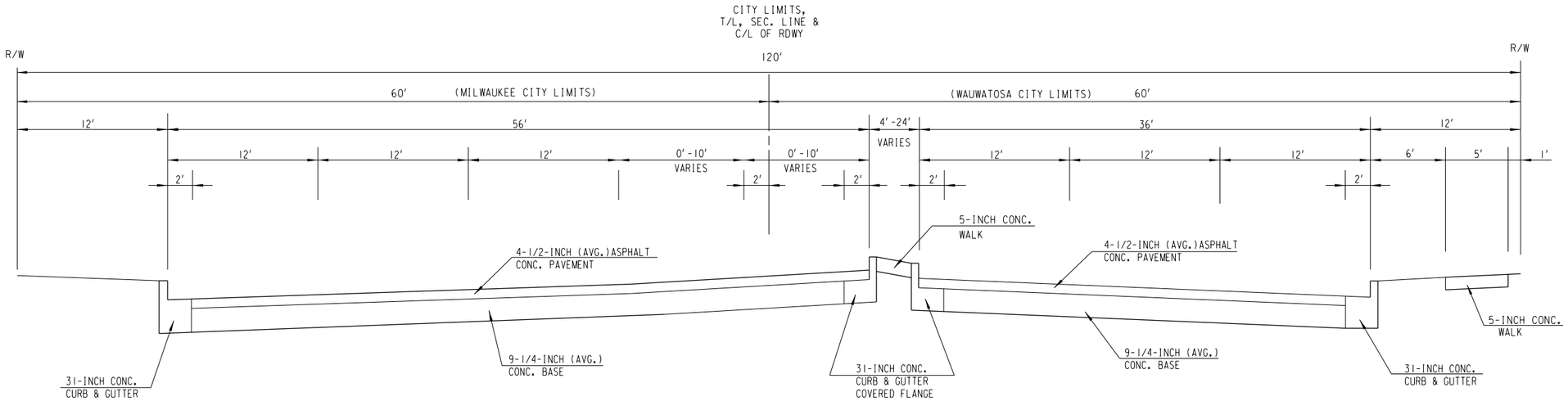
WEST LISBON AVENUE

STA. 01'L' + 00.0 TO STA. 05'L' + 00.0

* LOCATIONS AS SHOWN
ON CONSTRUCTION PLANS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 7	E

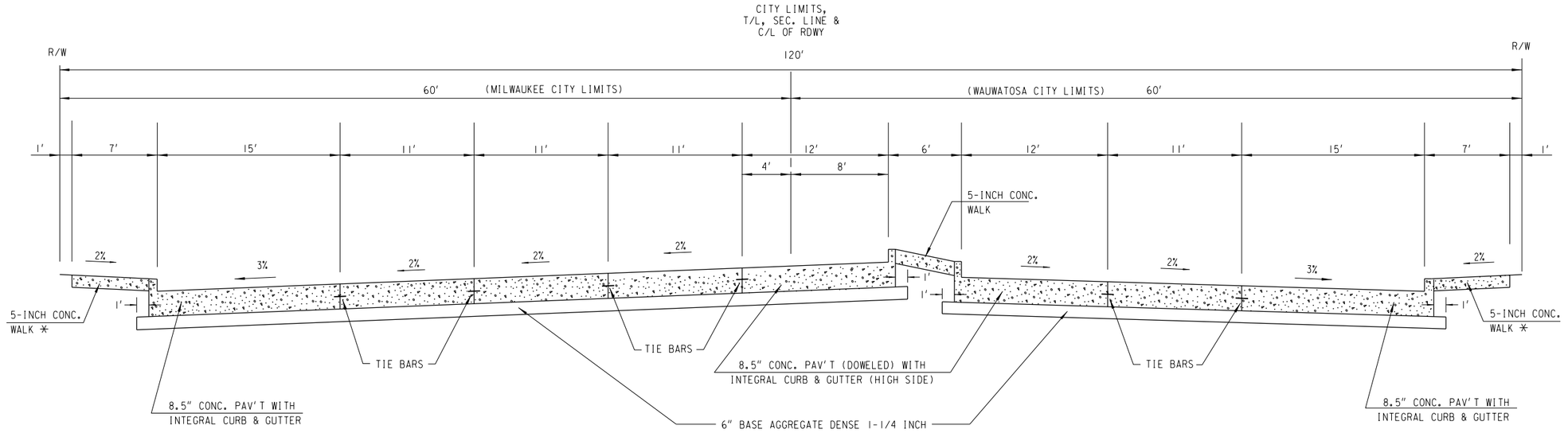
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TYPICAL EXISTING SECTION

WEST CAPITOL DRIVE

STA. 02 + 00 TO STA. 05 + 75



TYPICAL FINISHED SECTION

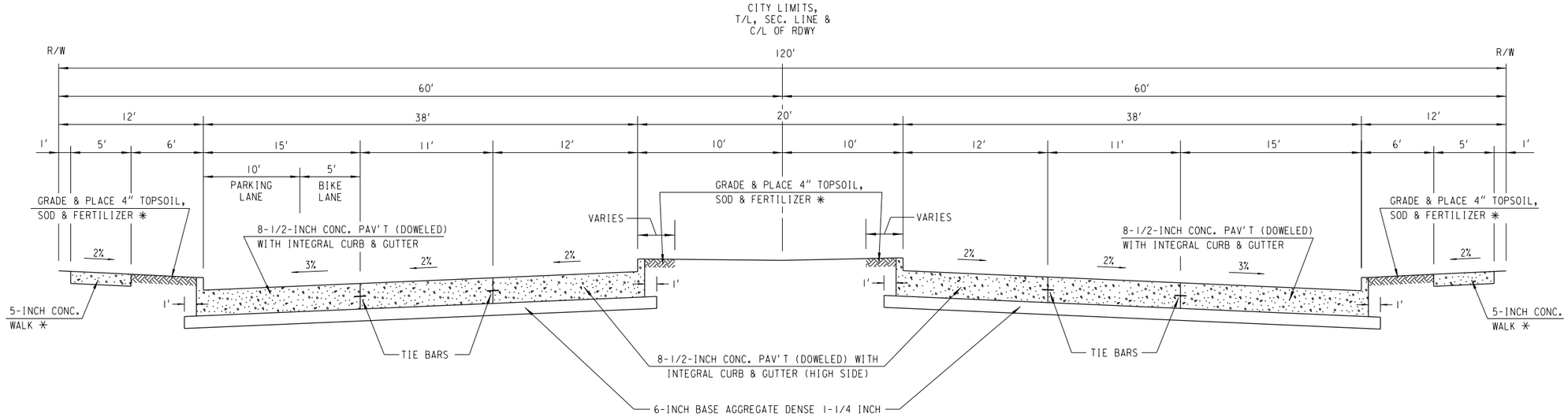
WEST CAPITOL DRIVE

STA. 02 + 00 TO STA. 05 + 75

* WHERE SHOWN
ON PLAN

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 8	E

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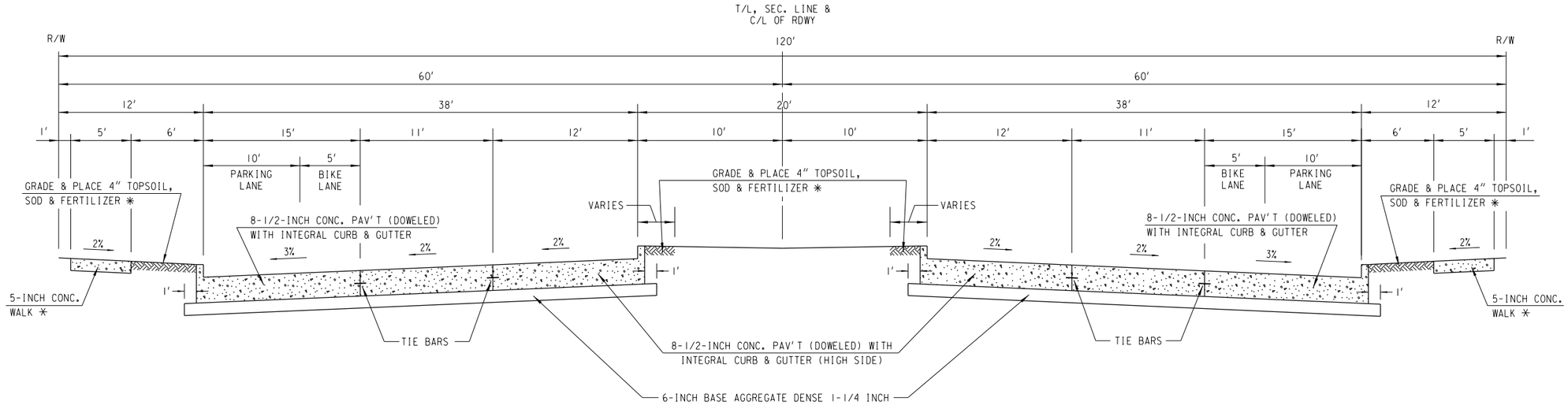


* WHERE SHOWN
ON PLAN

TYPICAL FINISHED SECTION

WEST CAPITOL DRIVE

STA. 15 + 00 TO STA. 27 + 50



* WHERE SHOWN
ON PLAN

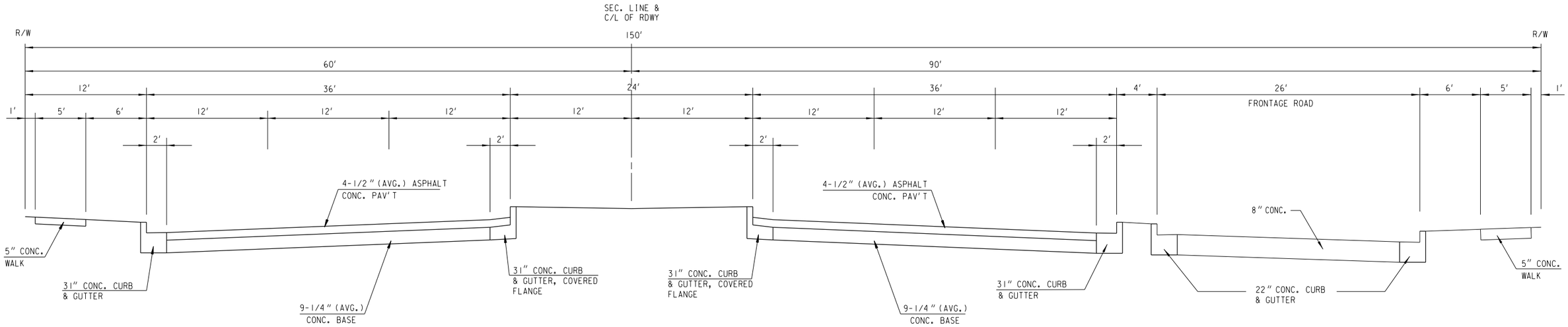
TYPICAL FINISHED SECTION

WEST CAPITOL DRIVE

STA. 27 + 50 TO STA. 68 + 25
STA. 74 + 50 TO STA. 79 + 50

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 9	E

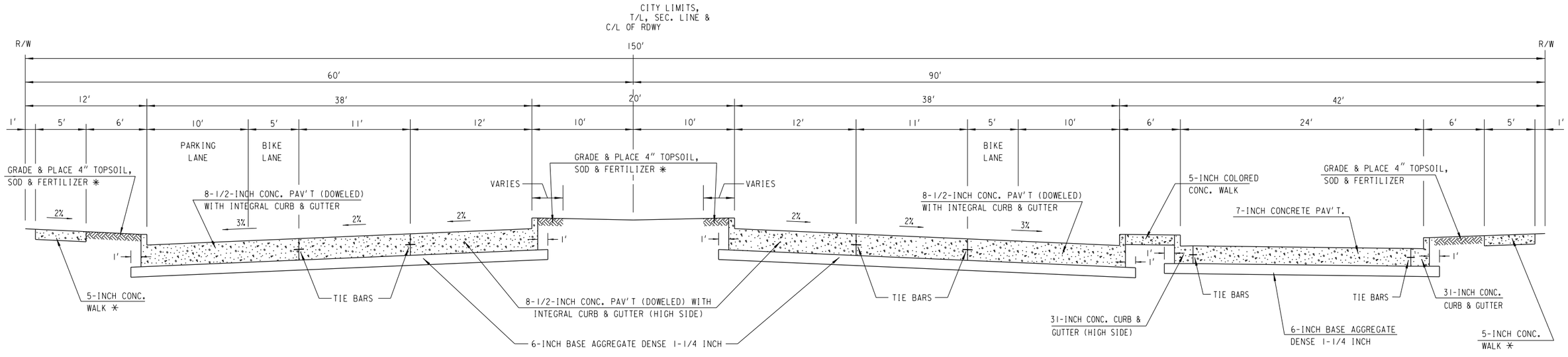
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TYPSEC.DGN



TYPICAL EXISTING SECTION

WEST CAPITOL DRIVE

STA. 68 + 25 TO STA. 74 + 50



* WHERE SHOWN
ON PLAN

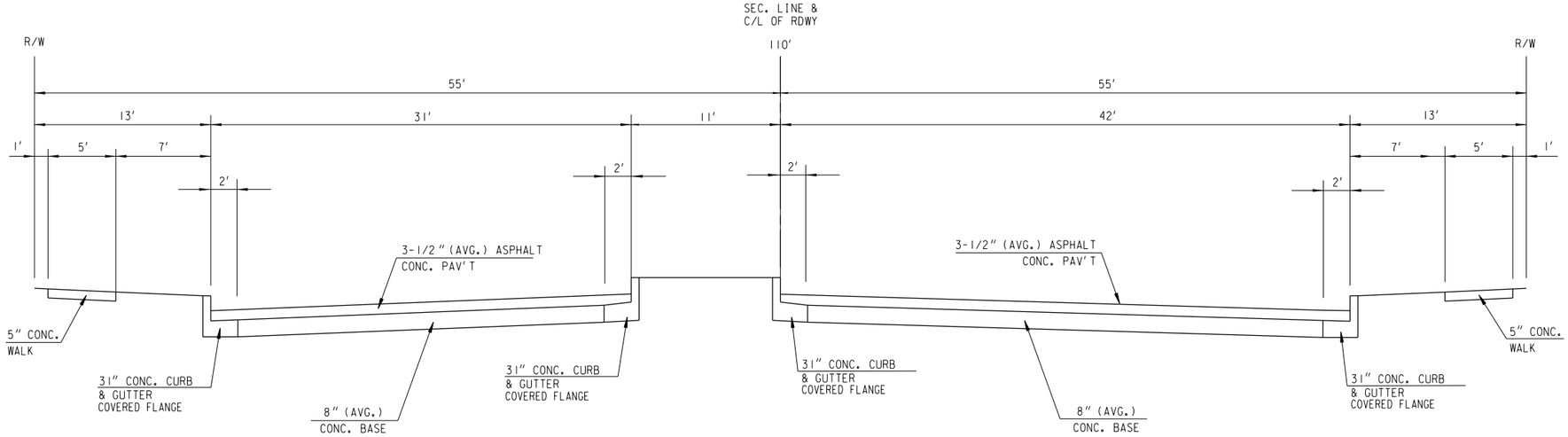
TYPICAL FINISHED SECTION

WEST CAPITOL DRIVE

STA. 68 + 25 TO STA. 74 + 50

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 10	E

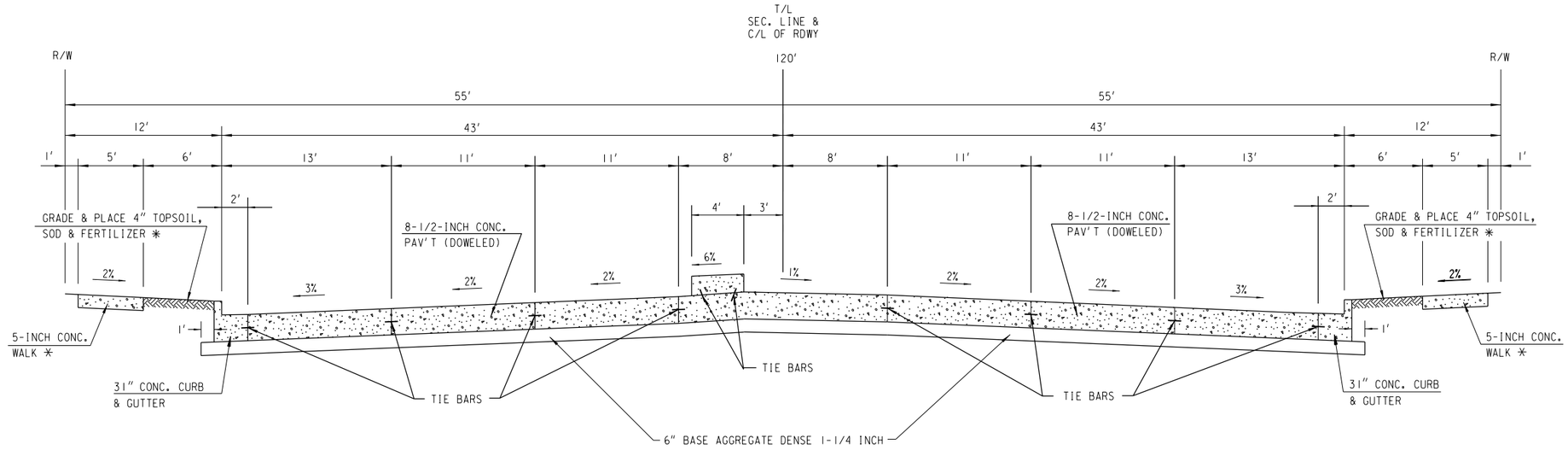
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TYPICAL EXISTING SECTION

NORTH 92ND STREET

STA. 199 + 08 TO STA. 199 + 53



* WHERE SHOWN
ON PLAN

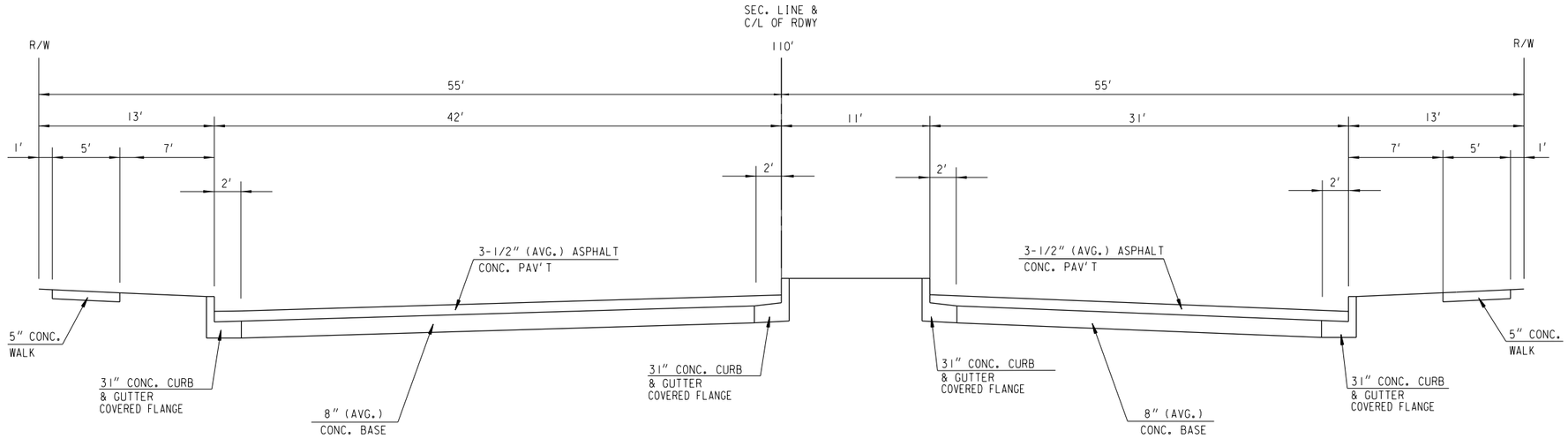
TYPICAL FINISHED SECTION

NORTH 92ND STREET

STA. 199 + 08 TO STA. 199 + 53

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 11	E

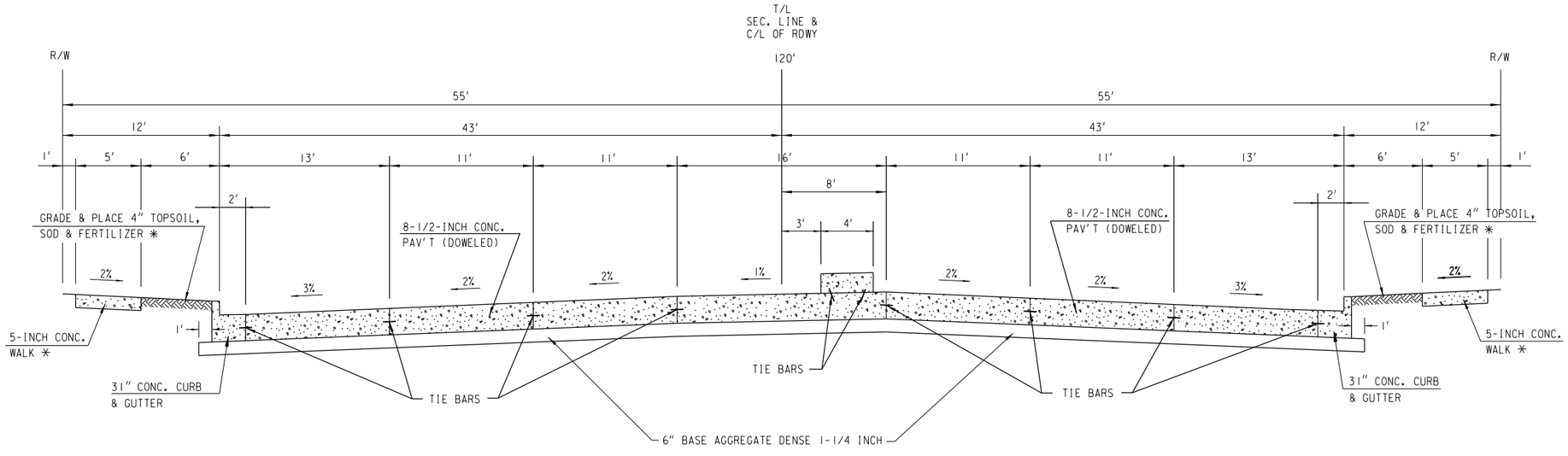
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TYPICAL EXISTING SECTION

NORTH 92ND STREET

STA. 200 + 47 TO STA. 203 + 08



* WHERE SHOWN
ON PLAN

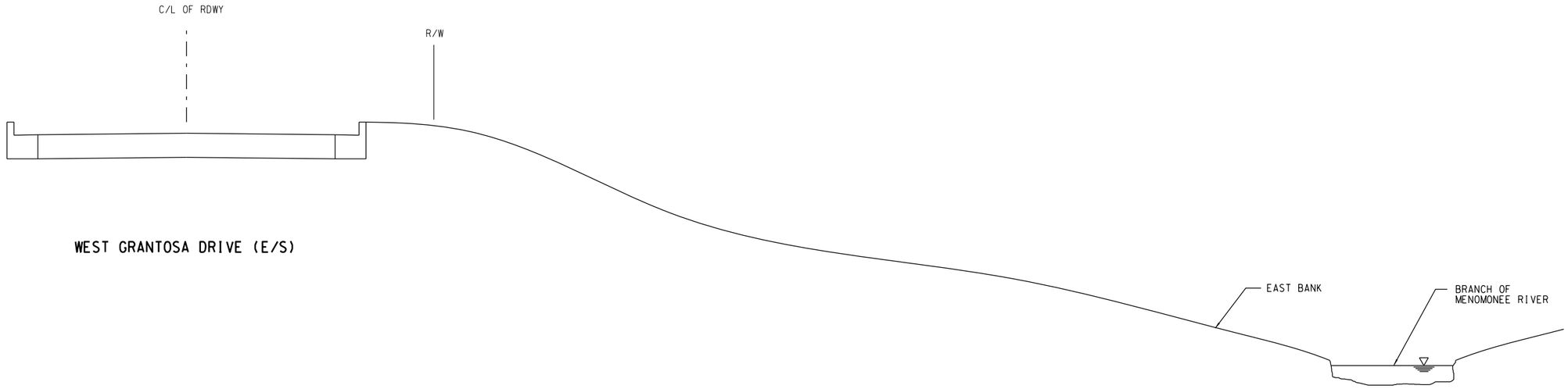
TYPICAL FINISHED SECTION

NORTH 92ND STREET

STA. 200 + 47 TO STA. 203 + 08

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 12	E

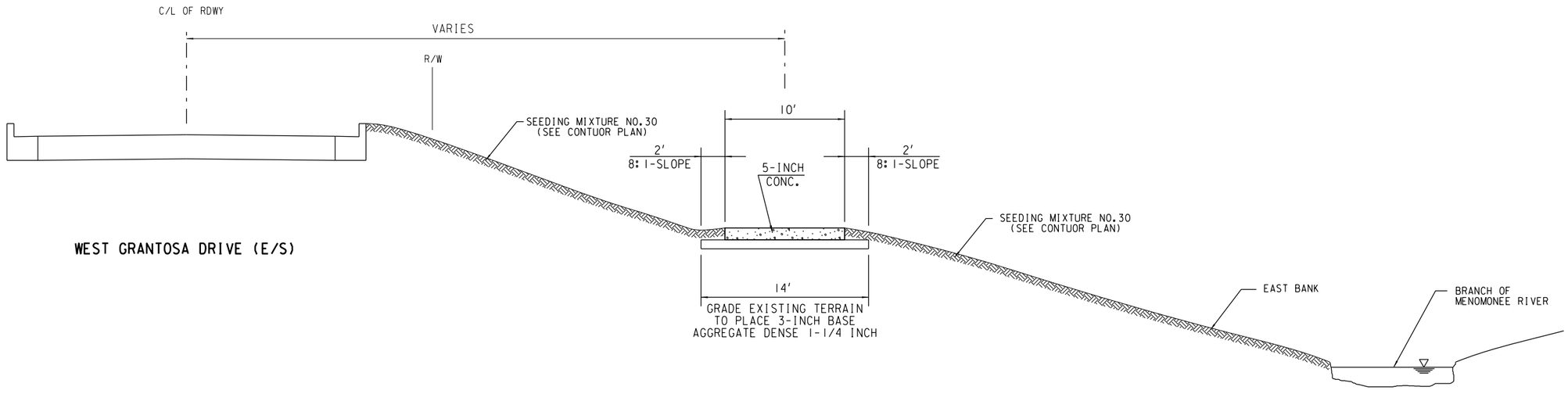
FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 60% TYPSEC.DGN



TYPICAL EXISTING SECTION

MULTI-USE PATH, NORTH AND SOUTH OF W. CAPITOL DR.

(LOOKING SOUTH)



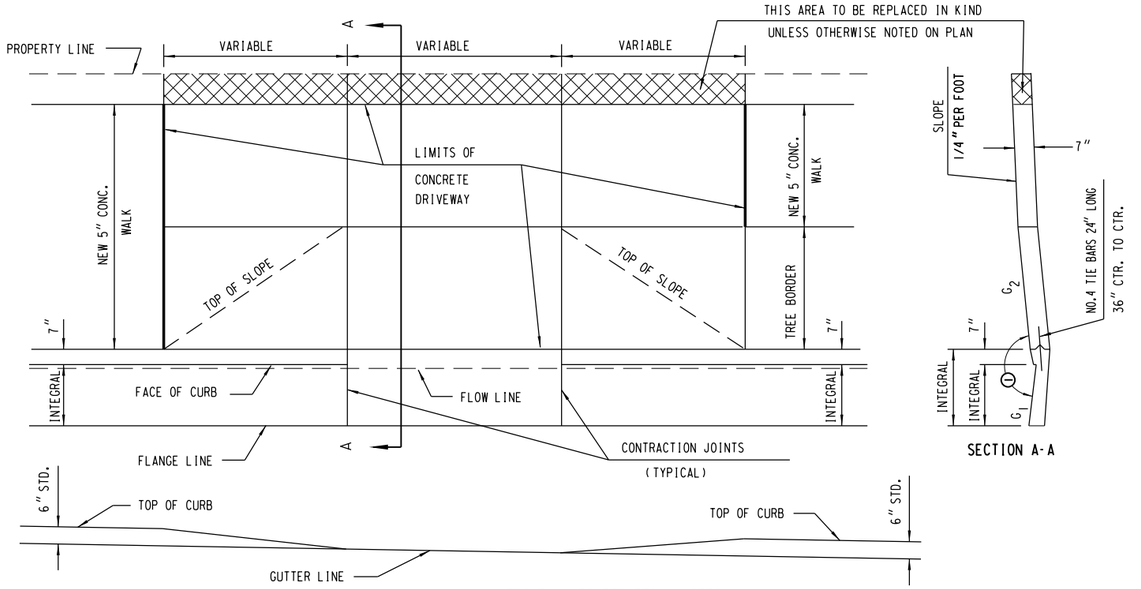
TYPICAL FINISHED SECTION

MULTI-USE PATH, NORTH AND SOUTH OF W. CAPITOL DR.

(LOOKING SOUTH)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TYPICAL SECTION	SCALE FEET	SHEET NO: 13	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 60% TYPSEC.DGN



HEAVY LINE INDICATES
1/2" EXPANSION JOINT
MATERIAL

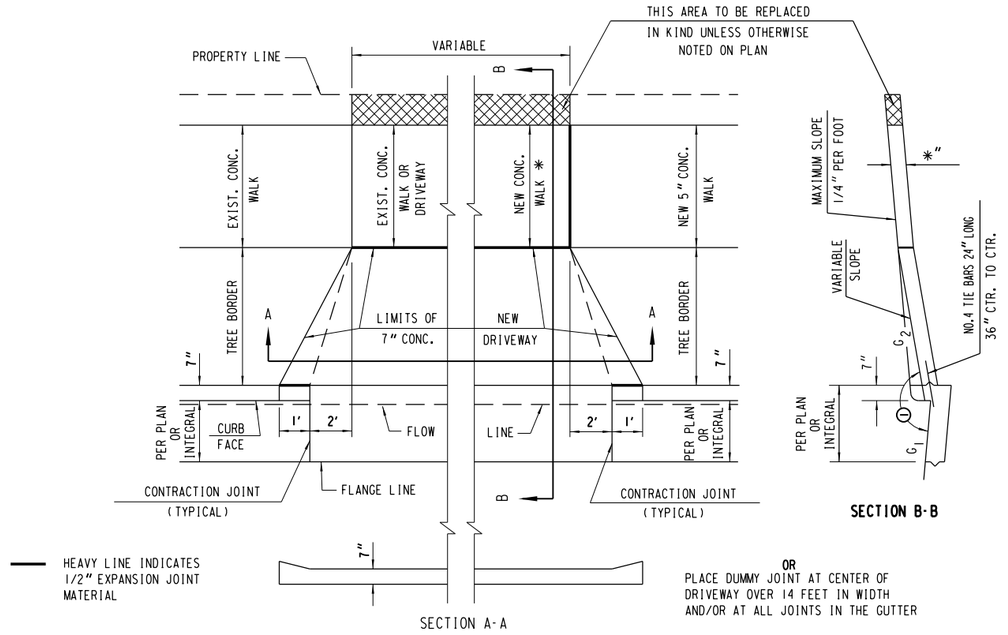
DRIVEWAY CONSTRUCTION NOTES

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)

Ⓓ



HEAVY LINE INDICATES
1/2" EXPANSION JOINT
MATERIAL

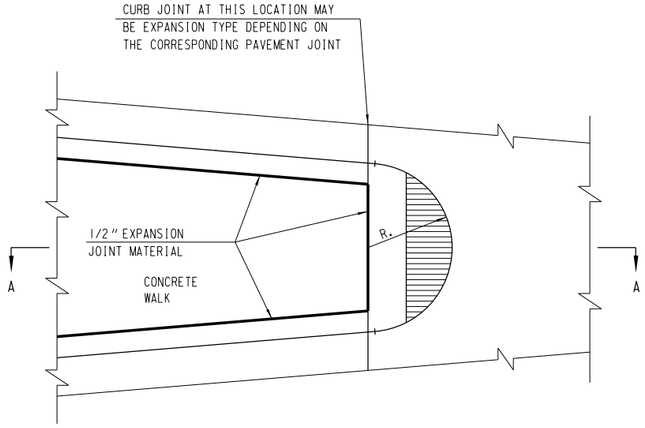
OR
PLACE DUMMY JOINT AT CENTER OF DRIVEWAY OVER 14 FEET IN WIDTH AND/OR AT ALL JOINTS IN THE GUTTER

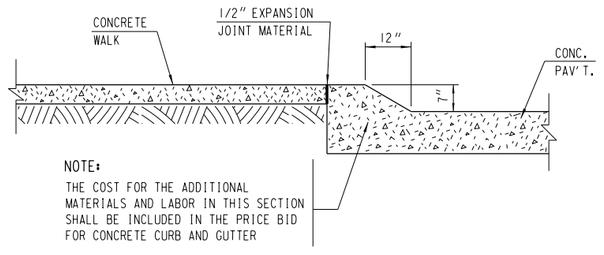
FLARED CONCRETE DRIVEWAY

Ⓕ

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.



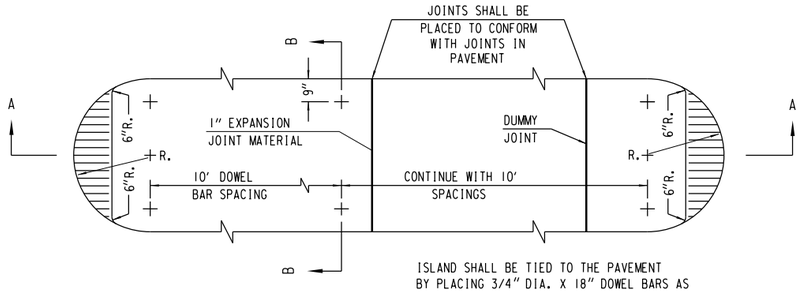


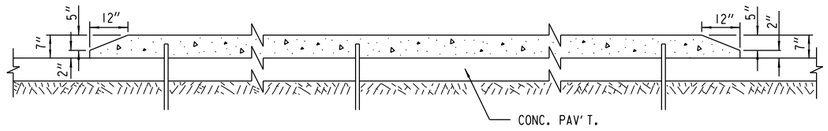
SECTION A-A

SNOWPLOWABLE MEDIAN ISLAND NOSE

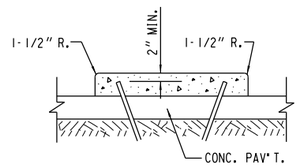
(TYPICAL SECTION OF CONCRETE CURB & GUTTER
TO BE CONSTRUCTED AT END OF MEDIAN ISLAND)

(Y)





SECTION A - A



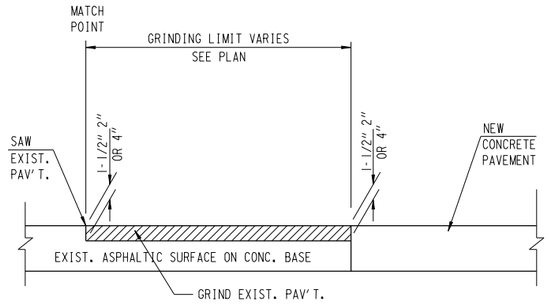
SECTION B - B

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)

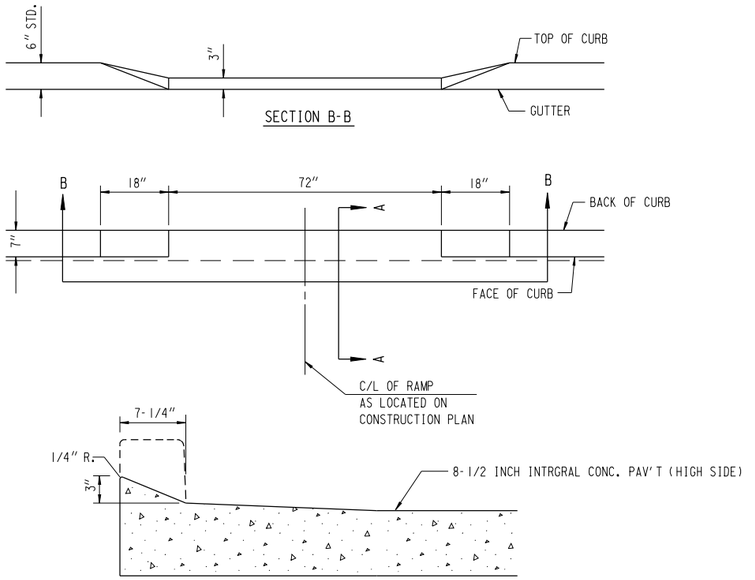
(Z)



REMOVING ASPHALTIC SURFACE BUTT JOINTS

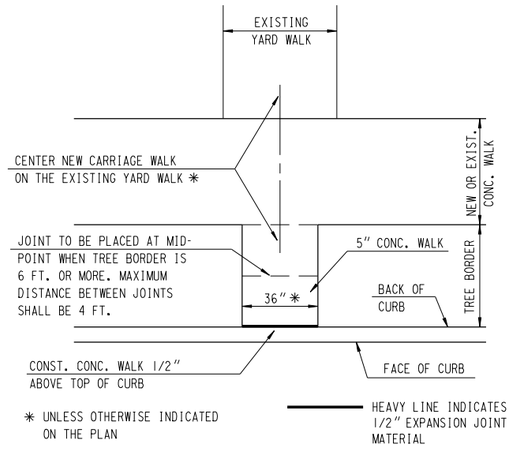
IN ROADWAY AT INTERSECTIONS AND ABUTTING PAVEMENT

Ⓖ Ⓗ Ⓖ4

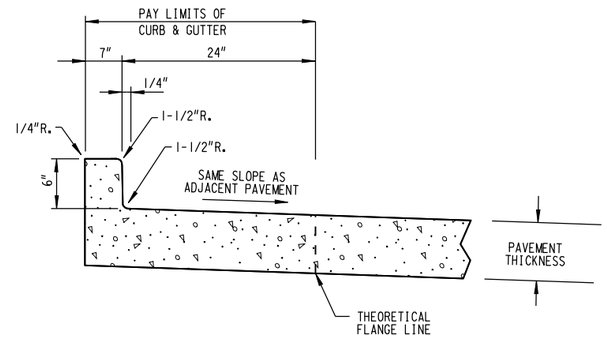


MAINTENANCE RAMP

Ⓧ



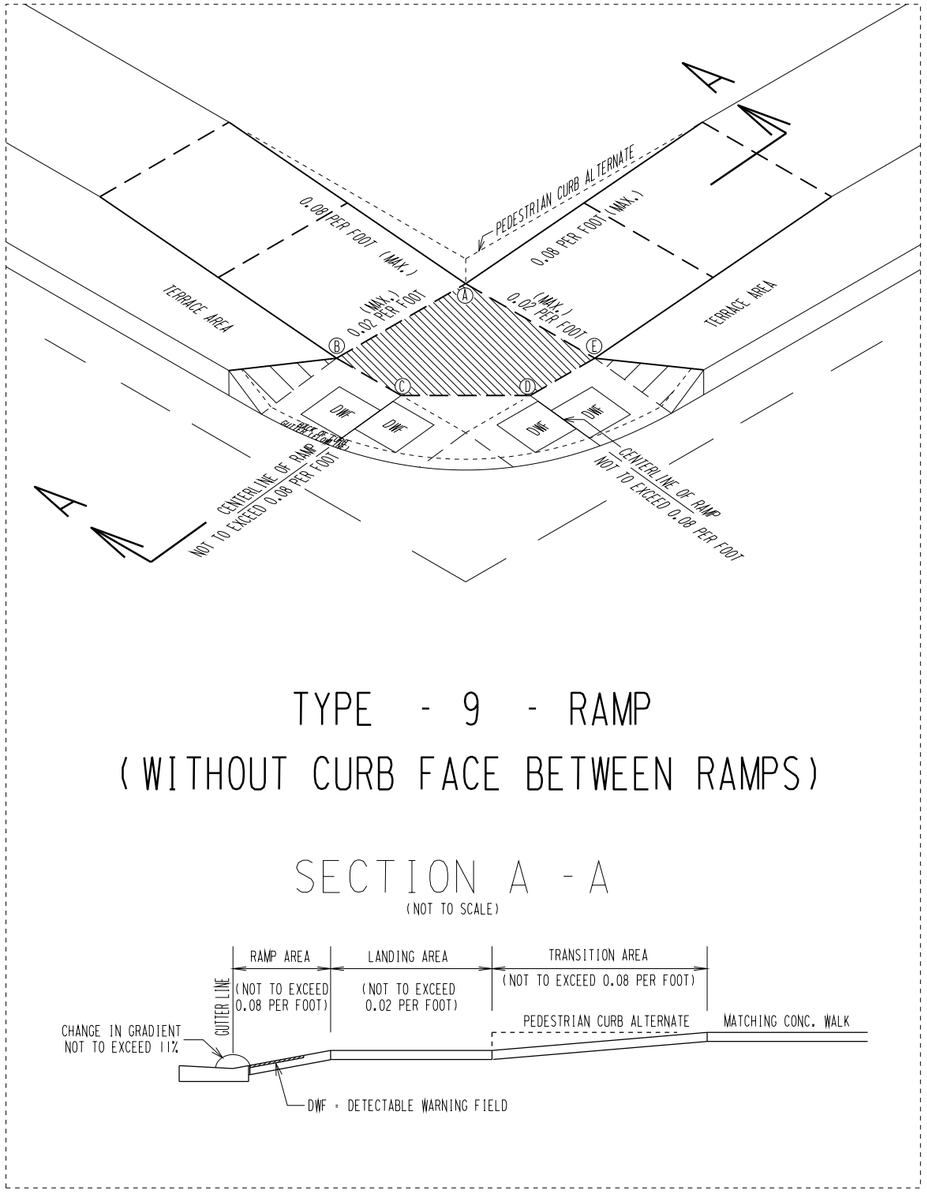
CARRIAGE WALK



CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D (TYP.)

(REVISED)

2



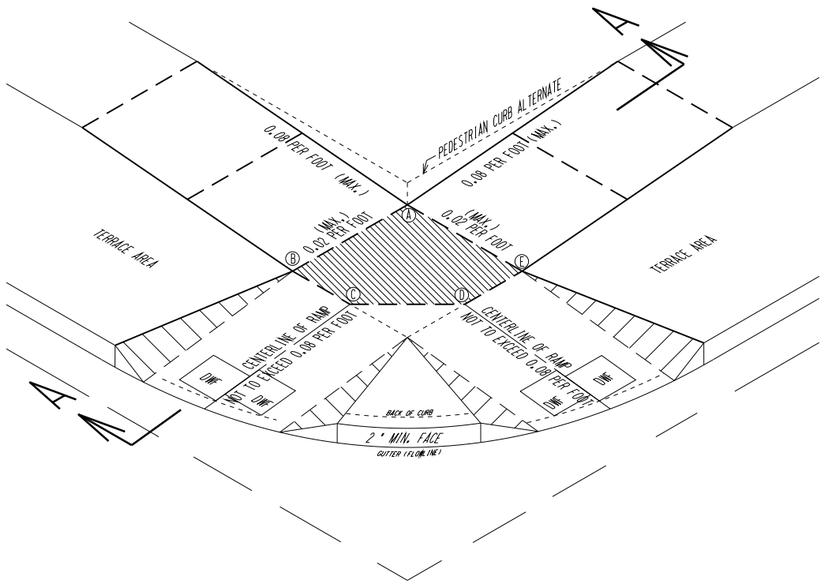
TYPE - 9 - RAMP
(WITHOUT CURB FACE BETWEEN RAMPS)

SECTION A - A
(NOT TO SCALE)

TYPE 9 RAMP GRADES

LOCATION	STATION	A	B	C	D	E	F (TOP OF PED CURB)
NE CORNER AT N 92ND ST	55+01, 59' LT	163.86	163.76	163.74	163.77	163.82	
NW CORNER AT N 92ND ST	53+87.4, 59' LT	162.60	162.50	162.47	162.49	162.54	
SE CORNER AT N 92ND ST	54+93.3, 59' RT	163.95	163.90	163.88	163.82	163.85	
SW CORNER AT N 92ND ST	53+86.6, 59' RT	162.41	162.41	162.36	162.31	162.31	162.66

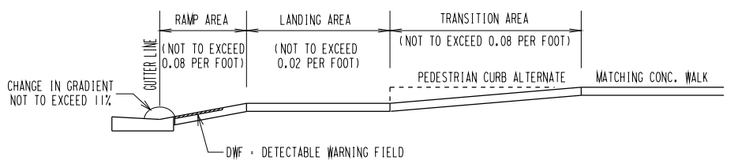
2



TYPE - 10 - RAMP

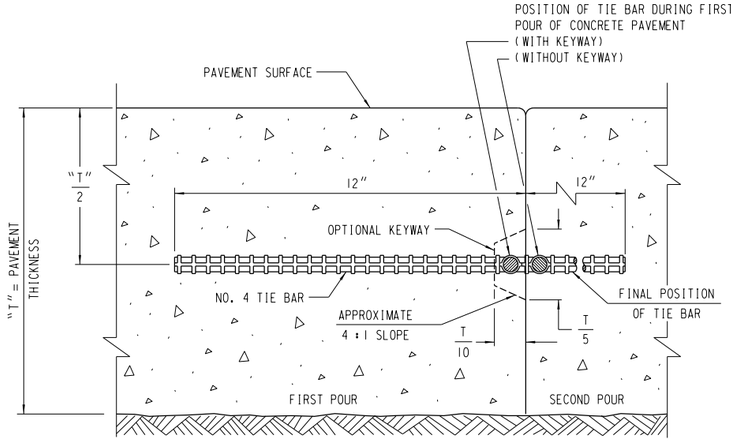
SECTION A - A

(NOT TO SCALE)

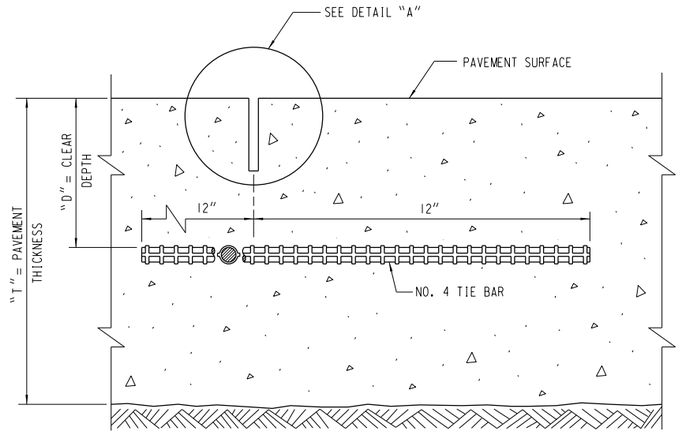


TYPE 10 RAMP GRADES

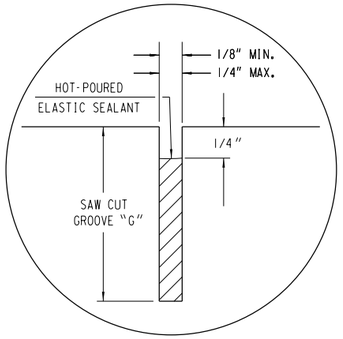
LOCATION	STATION	GRADES A	B	C	D	E	F (TOP OF PED CURB)
SW CORNER AT W. GRANTOSA DR (WEST)	11+08.5, 59' RT	129.80	129.75	129.70	129.75	129.90	
NW CORNER AT N 100TH ST	27+25, 59' LT	145.90	145.90	145.85	145.80	145.80	146.30
NE CORNER AT N 98TH ST	34+18.8, 59' LT	138.30	138.25	138.20	138.18	138.20	
NW CORNER AT N 98TH ST	33+61, 59' LT	137.46	137.36	137.34	137.36	137.41	
SE CORNER AT N 98TH ST	34+18, 59' RT	137.84	137.74	137.72	137.74	137.79	138.09
SW CORNER AT N 98TH ST	33+61, 59' RT	137.54	137.47	137.44	137.42	137.44	137.87
SW CORNER AT N 96TH ST	40+50.4, 59' RT	148.19	148.14	148.09	148.07	148.09	148.44
NE CORNER AT N 94TH ST	47+91.5, 59' LT	153.75	153.80	153.75	153.69	153.65	
NW CORNER AT N 94TH ST	47+32.6, 59' LT	153.22	153.17	153.14	153.14	153.17	
NW CORNER AT N 93RD ST	50+59.5, 59' LT	157.51	157.46	157.42	157.41	157.43	
NE CORNER AT N 93RD ST	51+17.5, 59' LT	157.87	157.77	157.76	157.79	157.84	158.20
SW CORNER AT N 93RD ST	50+59.6, 59' RT	157.56	157.51	157.46	157.43	157.46	
SE CORNER AT N 93RD ST	51+19.4, 59' RT	158.49	158.39	158.34	158.34	158.39	
NE CORNER AT N 91ST ST	58+26, 59' LT	174.83	174.73	174.73	174.78	174.83	175.16
NW CORNER AT N 91ST ST	57+68, 59' LT	173.22	173.12	173.10	173.12	173.17	
NW CORNER AT N 90TH ST	61+01, 59' LT	188.42	188.32	188.32	188.37	188.42	
NE CORNER AT N 89TH ST	64+91.4, 59' LT	200.09	200.01	199.97	200.00	200.04	200.42
NW CORNER AT N 89TH ST	64+33.5, 59' LT	199.32	199.24	199.22	199.23	199.27	199.74
NE CORNER AT N 88TH ST	68+23.9, 59' LT	201.83	201.78	201.74	201.73	201.75	202.16
NW CORNER AT N 88TH ST	67+66.1, 59' LT	201.95	201.87	201.85	201.86	201.90	202.28
SW CORNER AT N 88TH ST	67+65, 59' RT	201.65	201.60	201.58	201.58	201.60	201.98
NE CORNER AT N 87TH ST	71+60.6, 59' LT	199.28	199.33	199.28	199.21	199.18	199.61
NW CORNER AT N 87TH ST	71+02.5, 59' LT	199.85	199.75	199.75	199.80	199.85	



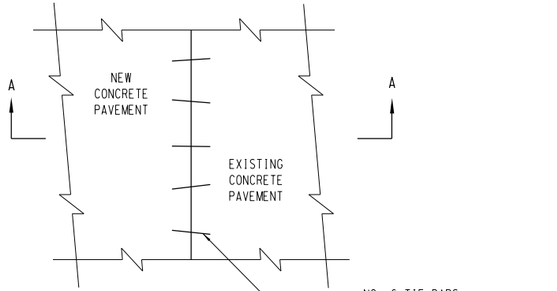
CONSTRUCTION JOINT



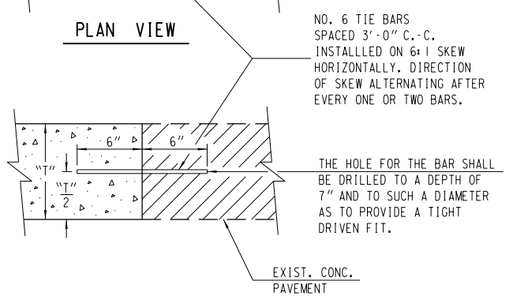
SAWED JOINT



DETAIL "A"



PLAN VIEW



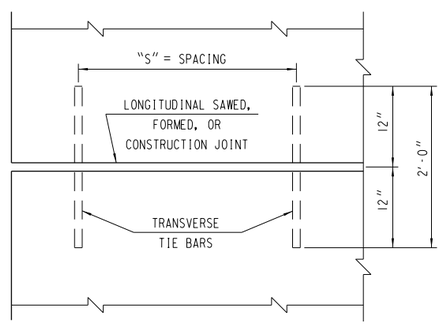
SECTION A-A
PAVEMENT TIES

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.

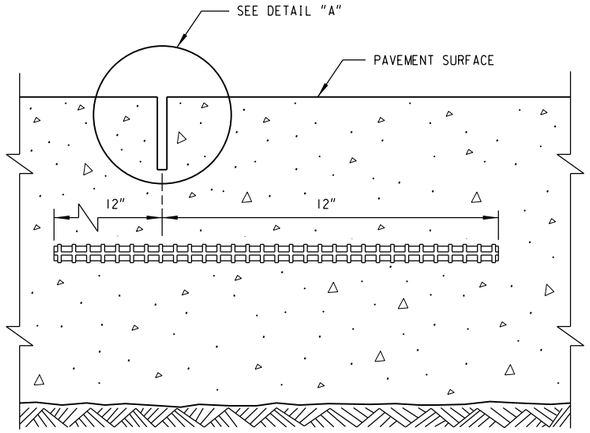


PLAN VIEW
SHOWING LOCATION OF TIE BARS

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\CONDET.DGN

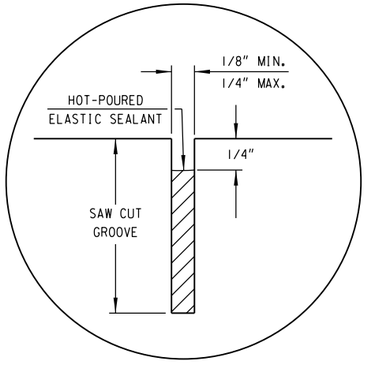
2

JOINTS WITH HOT POURED SEALANT

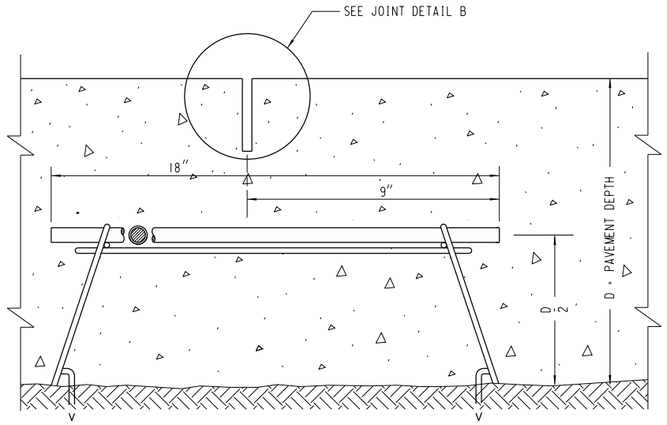


SAWED JOINT

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

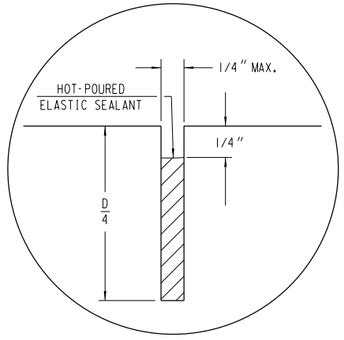


JOINT DETAIL "A"



DOWELED CONTRACTION JOINT

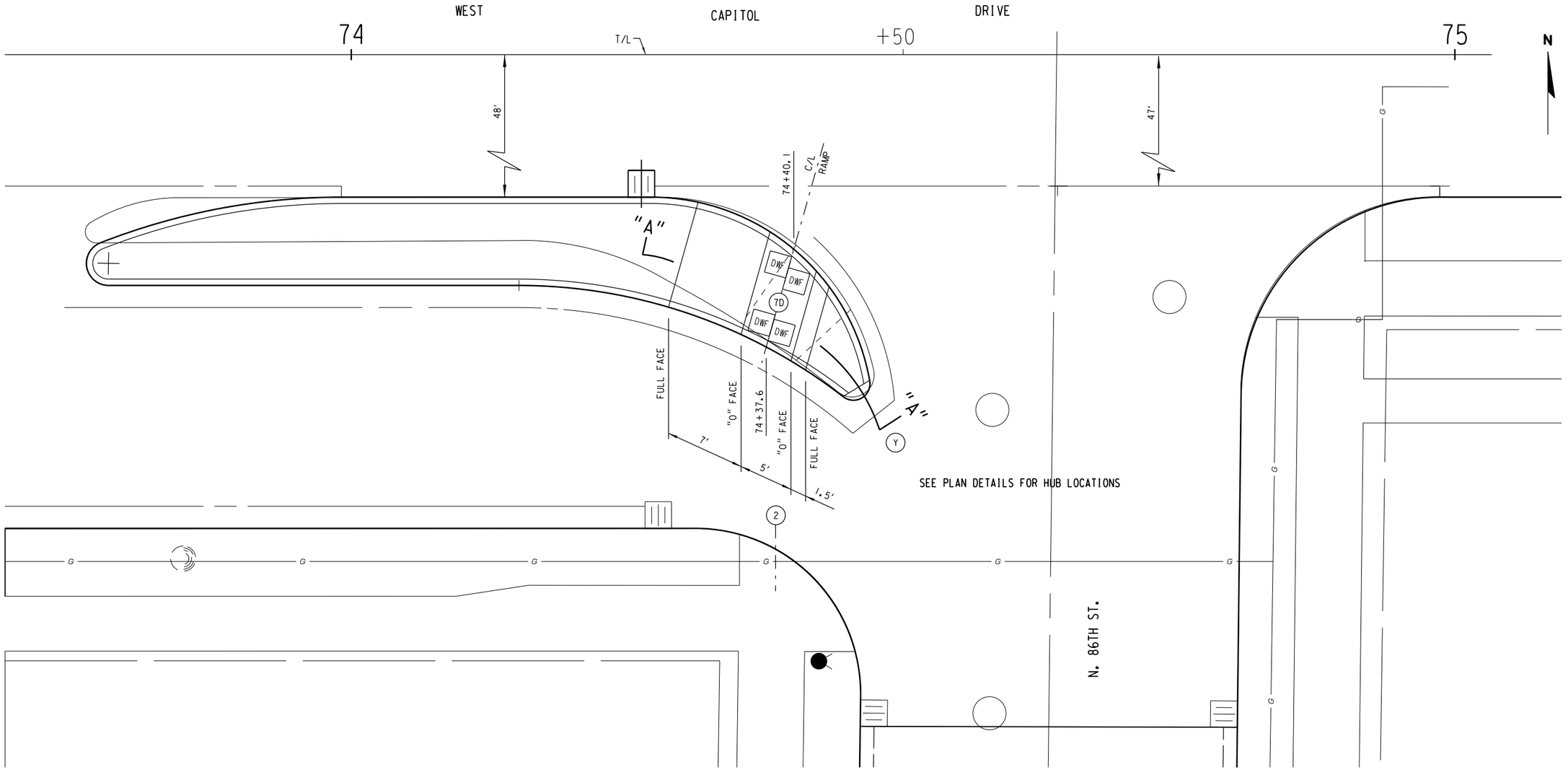
NOTE: 'JOINT DETAIL' SHOWN IN S.D.D. "URBAN DOWELED CONCRETE PAVEMENT" HAS BEEN REVISED AND SHOWN AS 'JOINT DETAIL B'.

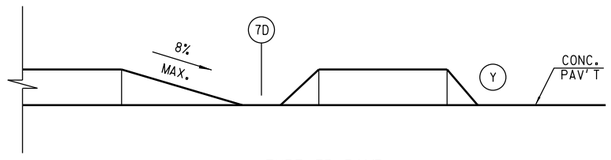


JOINT DETAIL "B"

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET	SHEET NO: 20	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\CONDET.DGN





TYPE 7D RAMP
SECTION A-A

(7D) CONST. CURB RAMP TYPE 7D WITH DETECTABLE WARNING FIELD
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
DWF - DETECTABLE WARNING FIELD

CONC. MEDIAN DETAILS - WEST CAPITOL DRIVE AND NORTH 86TH STREET

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET: N.T.S.	SHEET NO: 21	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\CONDET.DGN

2

2

WEST GRANTOSA DRIVE

N

(A) CONST. CONC. CURB & GUTTER 31-INCH
(AH) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
(M) CONST. 5" CONC. SIDEWALK
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
DWF - DETECTABLE WARNING FIELD

129.40C
128.82G
128.78F

129.27C
128.77G
128.73F

+39.8 - 59.0'LT.
129.25

+45.7 - 59.0'LT.
129.15

CURB RAMP TYPE 6

CURB RAMP TYPE 6

129.42C
129.17G
129.13F

129.25C
129.00G
128.96F

129.48C
129.23G
129.31F

129.32C
129.07G
129.15F

+36.6 - 54.0'LT.
129.35

+45.7 - 54.0'LT.
129.25

CURB RAMP TYPE 6

SEE PLAN DETAILS FOR HUB LOCATIONS

WEST CAPITOL DRIVE

15

T/L

+50

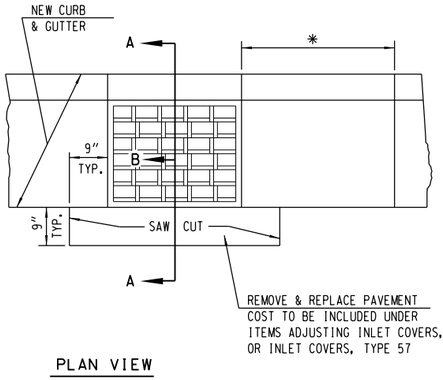
16

CONC. MEDIAN DETAILS - WEST CAPITOL DRIVE AND WEST GRANTOSA DRIVE (E/S)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SCALE FEET 0' 10'	SHEET NO: 22	E

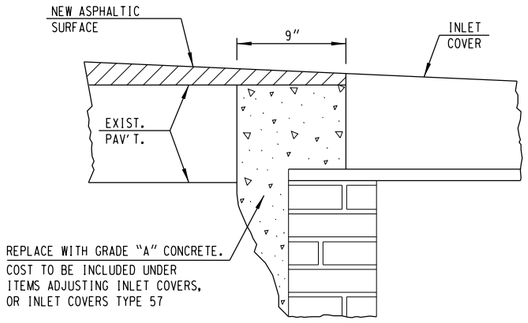
FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\CONDET.DGN

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

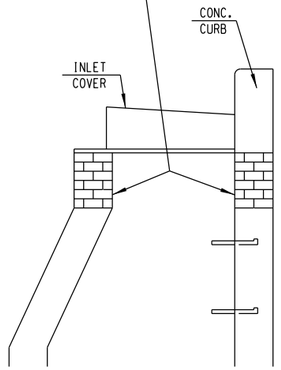


PLAN VIEW

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.

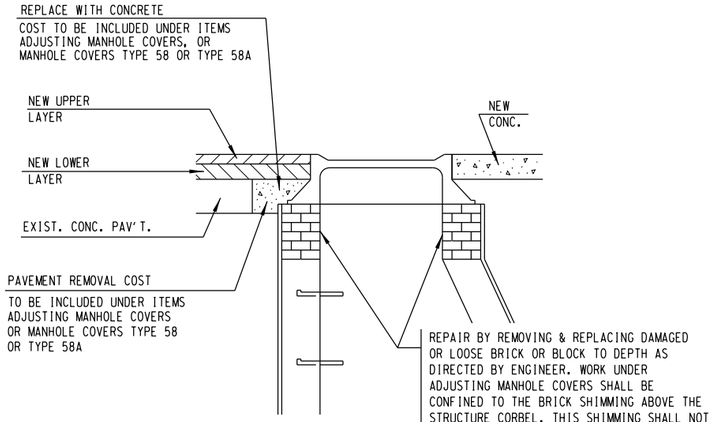


SECTION A-B

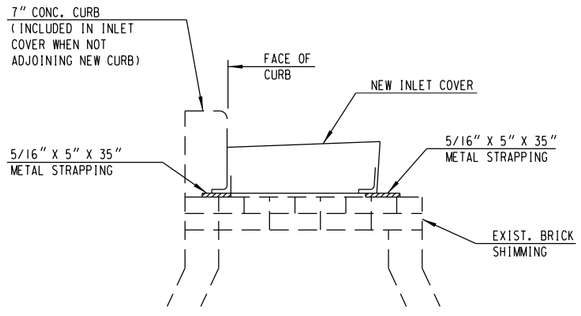


SECTION A-A

ADJUSTING INLET COVERS



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

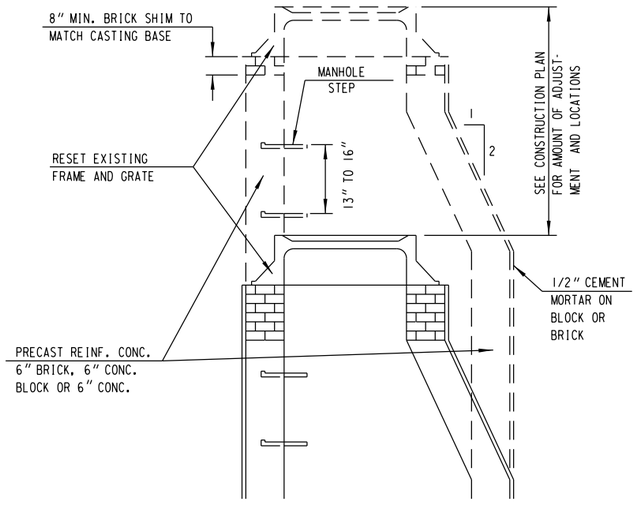


EXIST. DRAINAGE STRUCTURE

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.

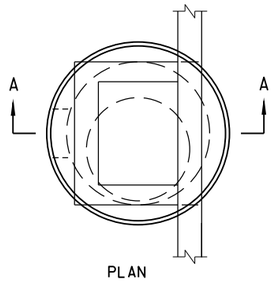
REPAIR BY REMOVING AND REPLACING DAMAGED OR LOOSE BRICK OR BLOCK TO THE DEPTH AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. DEPTHS AS INDICATED ON PLAN ARE ESTIMATES ONLY AND MAY VARY AT TIME OF CONSTRUCTION.

RECONSTRUCTING MANHOLES AND INLETS

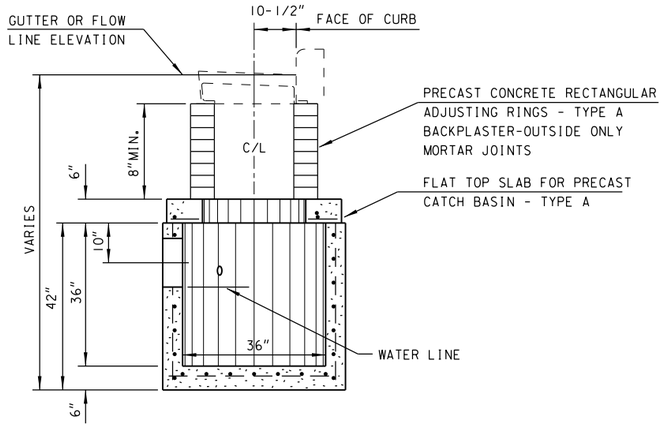
CONSTRUCTION NOTES

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.

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\DRAINDET.DGN



PLAN



SECTION A-A

INLET - TYPE 45A

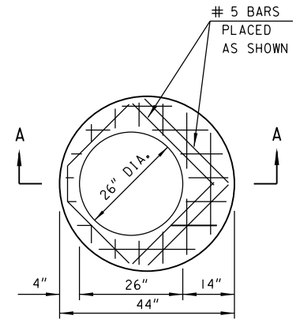
GENERAL NOTES

1. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199 AND ASTM DESIGNATION C-478 AND THESE DETAILED REQUIREMENTS WHICH SHALL GOVERN WHERE THEY ALTER THE AASHTO AND ASTM STANDARDS.

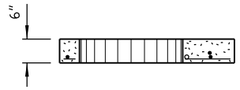
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.

3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4 IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.



PLAN



SECTION A-A

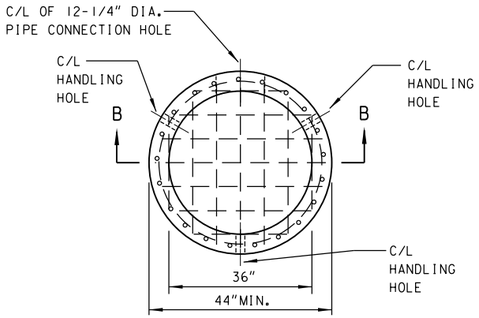
TOP SLAB - TYPE A

FLAT TOP SLAB SHALL BE 6" THICK REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER LINEAL FOOT IN BOTH DIRECTIONS, PLACED NEAR THE BOTTOM OF THE SLAB WITH 1" CLEAR COVER.

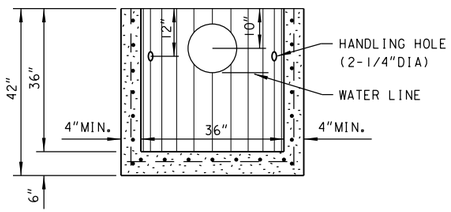
ADDITIONALLY, NO. 5 BARS SHALL BE PLACED AROUND TOP SLAB OPENING AS SHOWN.

REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

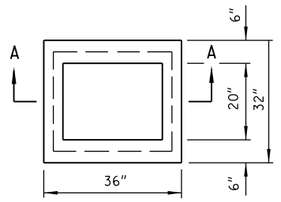
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE SHALL BE 4000 P.S.I.



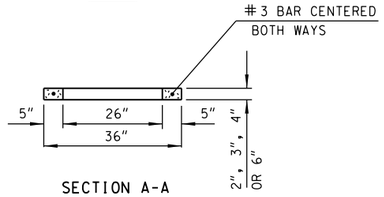
RISER SECTION WITH INTEGRAL BASE PLAN



SECTION B-B



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.

CIRCUMFERENTIAL AND LONGITUDINAL REINFORCEMENT IN THE RISER SECTON SHALL EACH CONSIST OF ONE LAYER OF STEEL NOT LESS THAN 0.12 SQ. IN. PER FOOT AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

THE BASE SLAB SHALL BE REINFORCED WITH ONE LAYER OF STEEL WITH A MINIMUM AREA OF 0.32 SQ. IN. PER FOOT IN BOTH DIRECTIONS, PLACED ABOVE THE MIDPOINT OF THE SLAB.

RISER SECTION AND BASE SLAB REINFORCEMENT SHALL BE TIED OR WELDED TOGETHER.

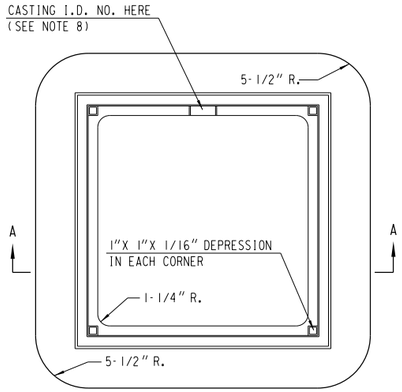
TWO TO THREE HANDLING HOLES 2-1/4" IN DIAMETER AND A PIPE CONNECTION HOLE 12-1/4" IN DIAMETER SHALL BE CAST OR CORED IN THE RISER SECTION AT THE LOCATIONS SHOWN. LIFTING DEVICES MAY BE SUBSTITUTED FOR HANDLING HOLES.

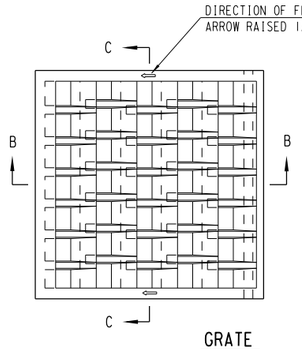
NO JOINTS OR HOLES SHALL BE BELOW THE WATERLINE.

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

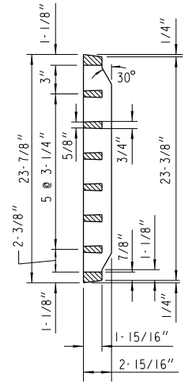
RISER SECTION MAY TAPER TO A 33" INTERNAL DIAMETER AT IT'S BOTTOM PROVIDED A 44" MINIMUM OUTSIDE DIAMETER IS MAINTAINED.

2

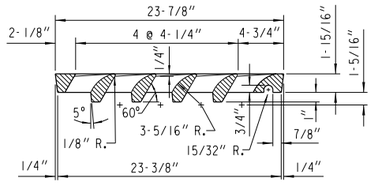




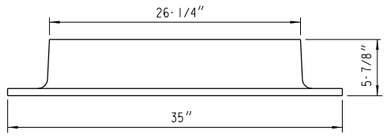
GRATE



SECTION C-C



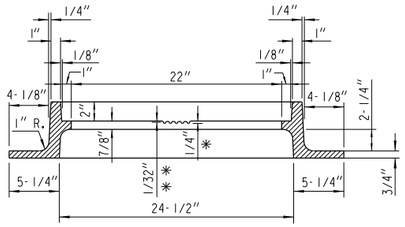
SECTION B-B



FRAME

INLET COVER - TYPE 55

LID-180 LBS., FRAME-315 LBS.



* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

SECTION A-A

GENERAL NOTES

ALL EDGES ARE TO BE GROUND.

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

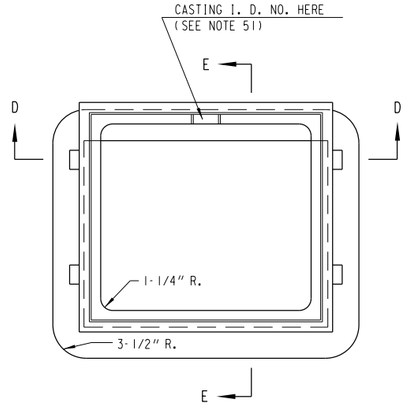
ON THE FRAME

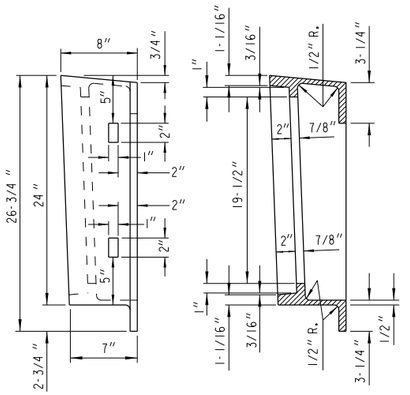
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

2. ON THE SEAT OF THE FRAME IN 3/4 INCH HIGH LETTERS, THE CASTING IDENTIFICATION NUMBER (8).

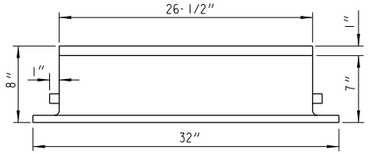
ON THE GRATE

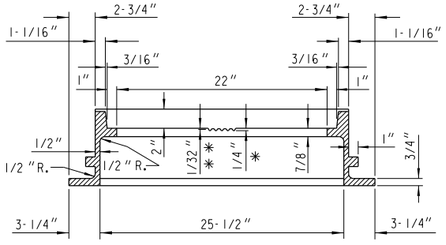
1. ON THE UPPER SIDE OF THE GRATE IN 1 INCH HIGH LETTERS, THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE, THE CASTING IDENTIFICATION NUMBER (55) AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.





SECTION E-E





SECTION D-D

* DEPRESSION FOR LETTERS

* * CLEARANCE FROM TOP OF LETTERS TO FACE OF SEAT

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

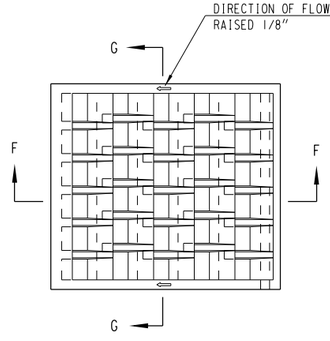
1. ON THE UPPER FACE OF THE FLANGE IN 1 INCH HIGH LETTERS THE INITIALS OR MONOGRAM OF THE FOUNDRY, THE YEAR MADE AND THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

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

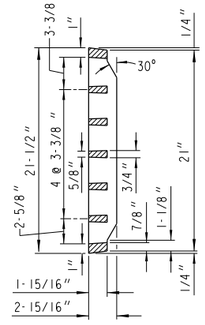
ON THE GRATE

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.

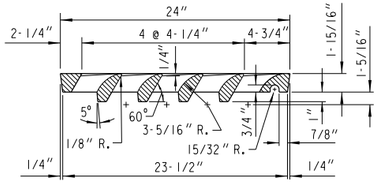
FRAME



GRATE



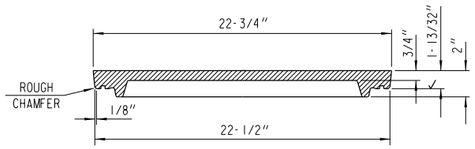
SECTION G-G



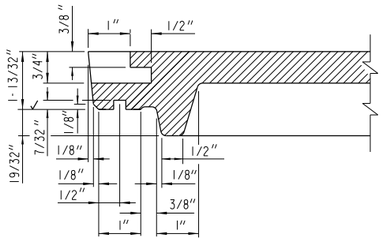
SECTION F-F

INLET COVER - TYPE 57

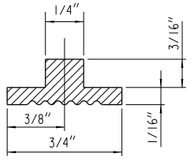
LID-145 LBS., FRAME-204 LBS.

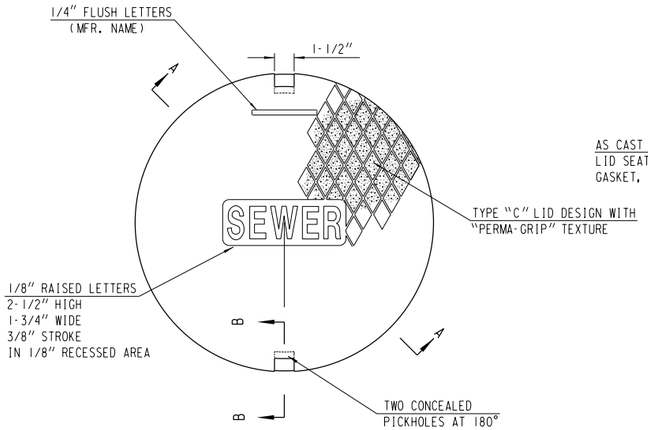


SECTION A-A

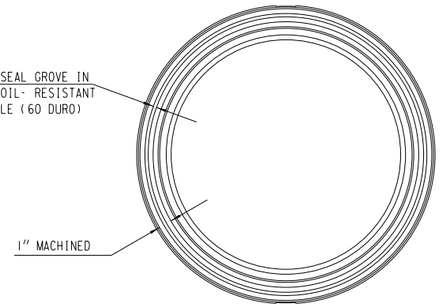


SECTION B-B





TOP VIEW



BOTTOM VIEW

MANHOLE COVER - TYPE 58-A

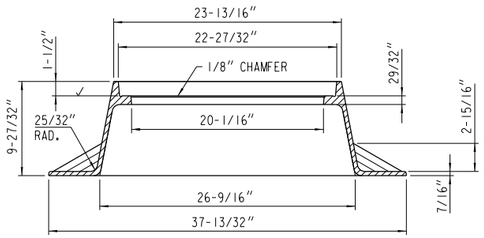
LID - 107 LBS.

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:

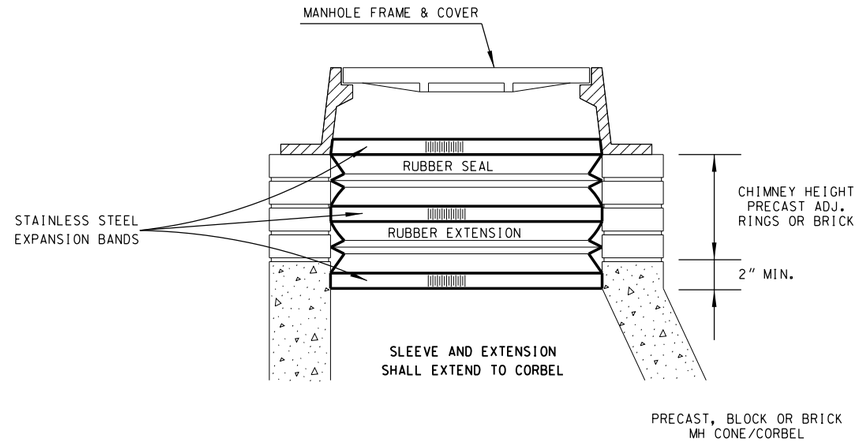
1. THE INITIALS OR MONOGRAM OF THE FOUNDRY.
2. THE CONTRACT NUMBER AND YEAR MADE.
3. THE CASTING IDENTIFICATION NUMBER.
4. THE SERIAL NUMBER OF THE INDIVIDUAL CASTING.

NOTE: ALL EXTERIOR EDGES SHALL BE GROUND.



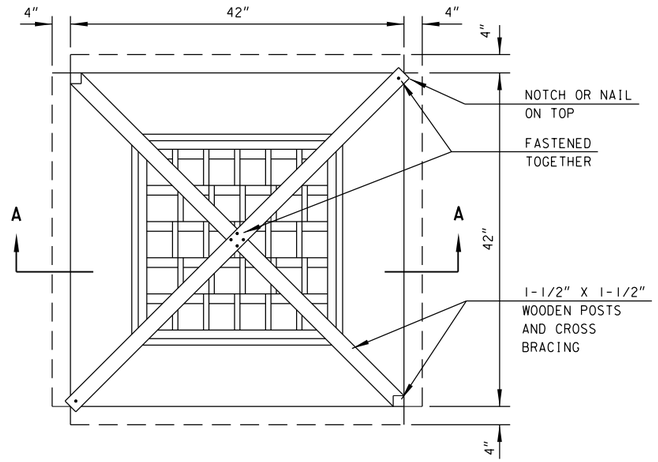
MANHOLE FRAME - TYPE MS21

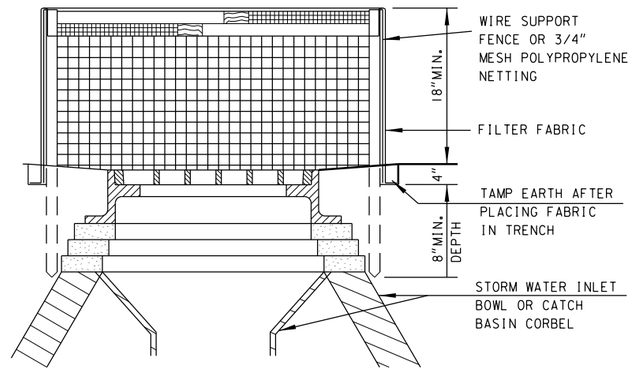
FRAME - 182 LBS.



INTERNAL SANITARY MANHOLE SEAL

2

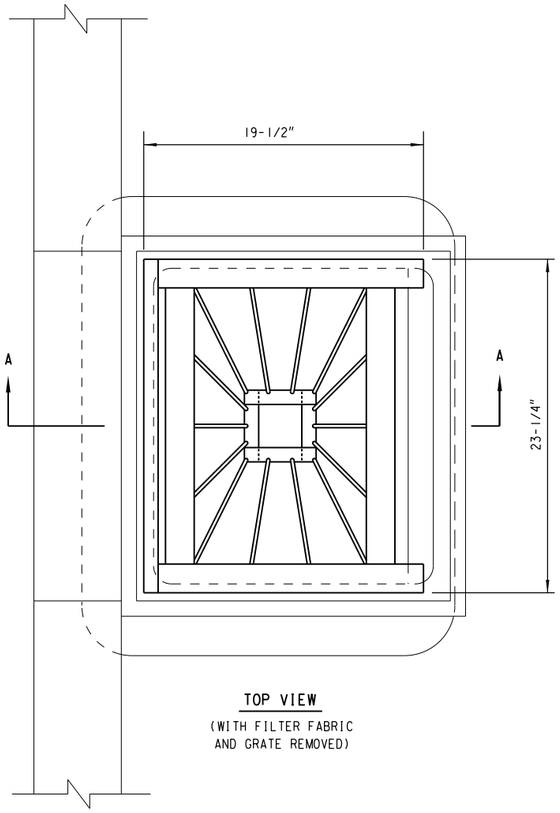




SECTION A-A

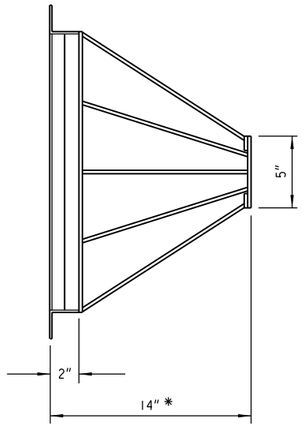
INLET SCREEN

(NOT PAVED) (TYPE R)



TOP VIEW

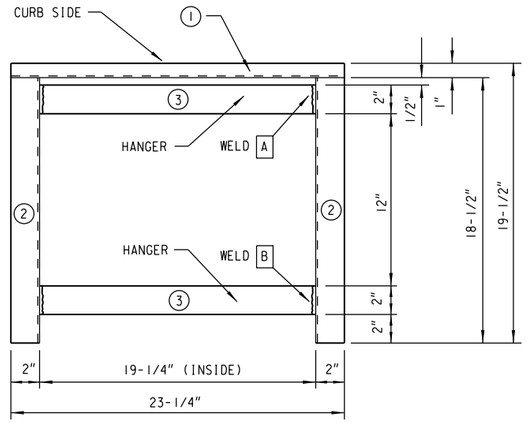
(WITH FILTER FABRIC AND GRATE REMOVED)



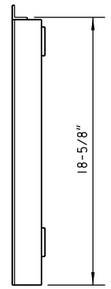
FRONT VIEW

(BASKET ONLY)

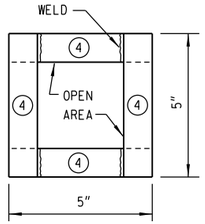
* MAY BE DECREASED IF INLET IS OF INSUFFICIENT DEPTH



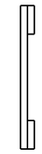
TOP VIEW



SIDE VIEW



TOP VIEW

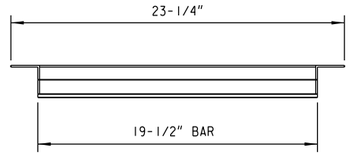


SIDE VIEW

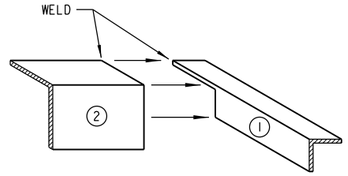
BAR SCHEDULE

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

BASKET BOTTOM



FRONT VIEW

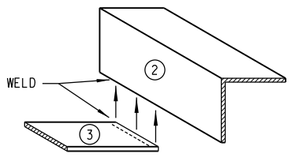


WELD CONNECTION - A

TOP FRAME

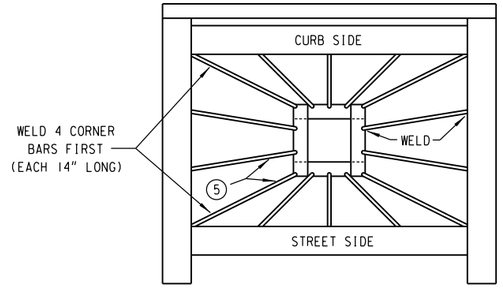
BAR SCHEDULE

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



WELD CONNECTION - B

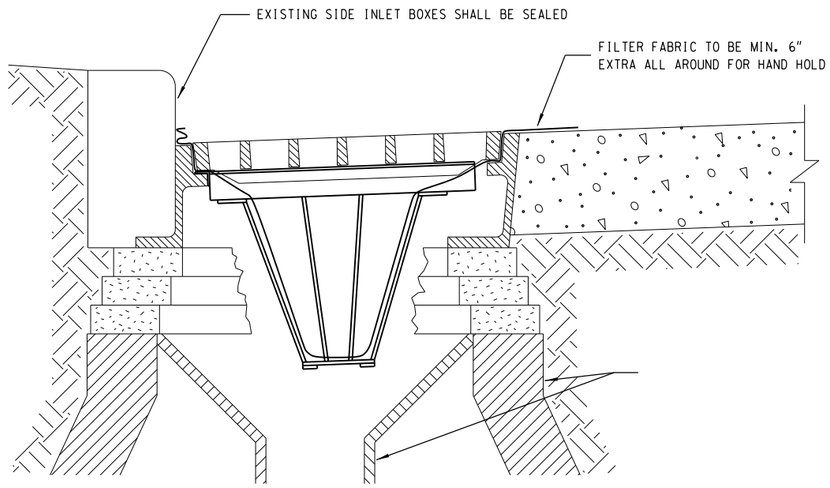
BASKET HANGER TO TOP FRAME



ROD PLACEMENT

ROD SCHEDULE

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

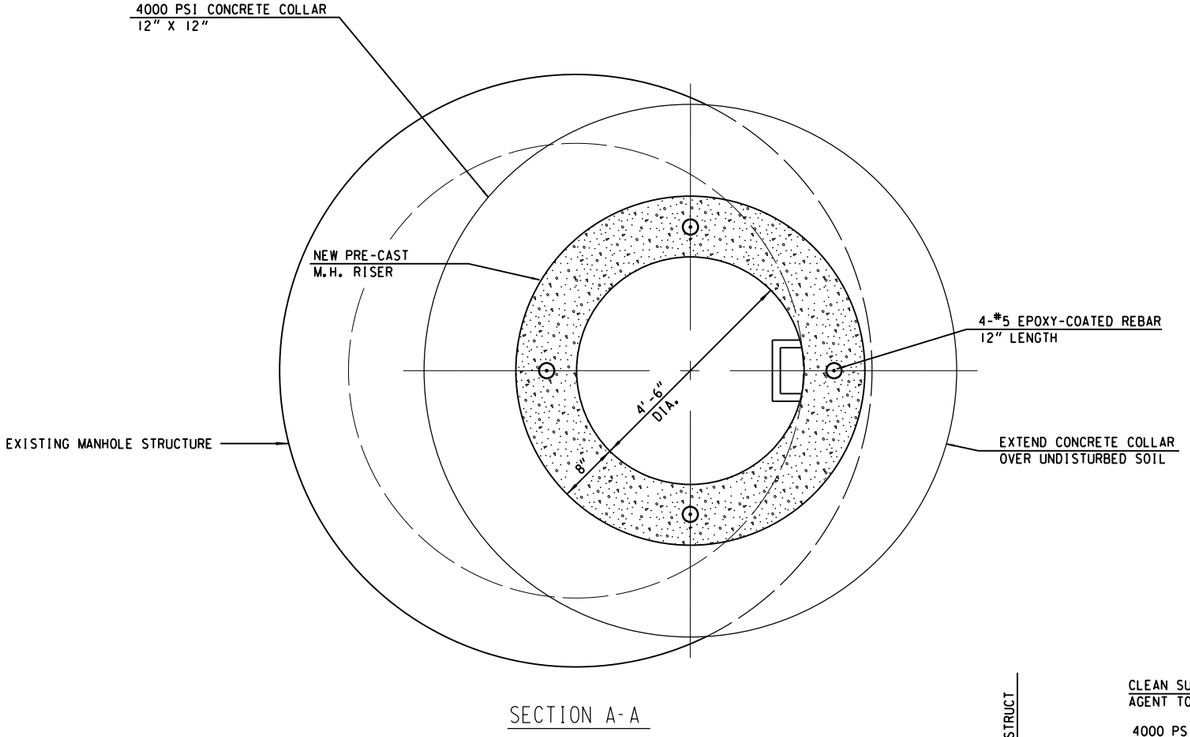


SECTION A-A

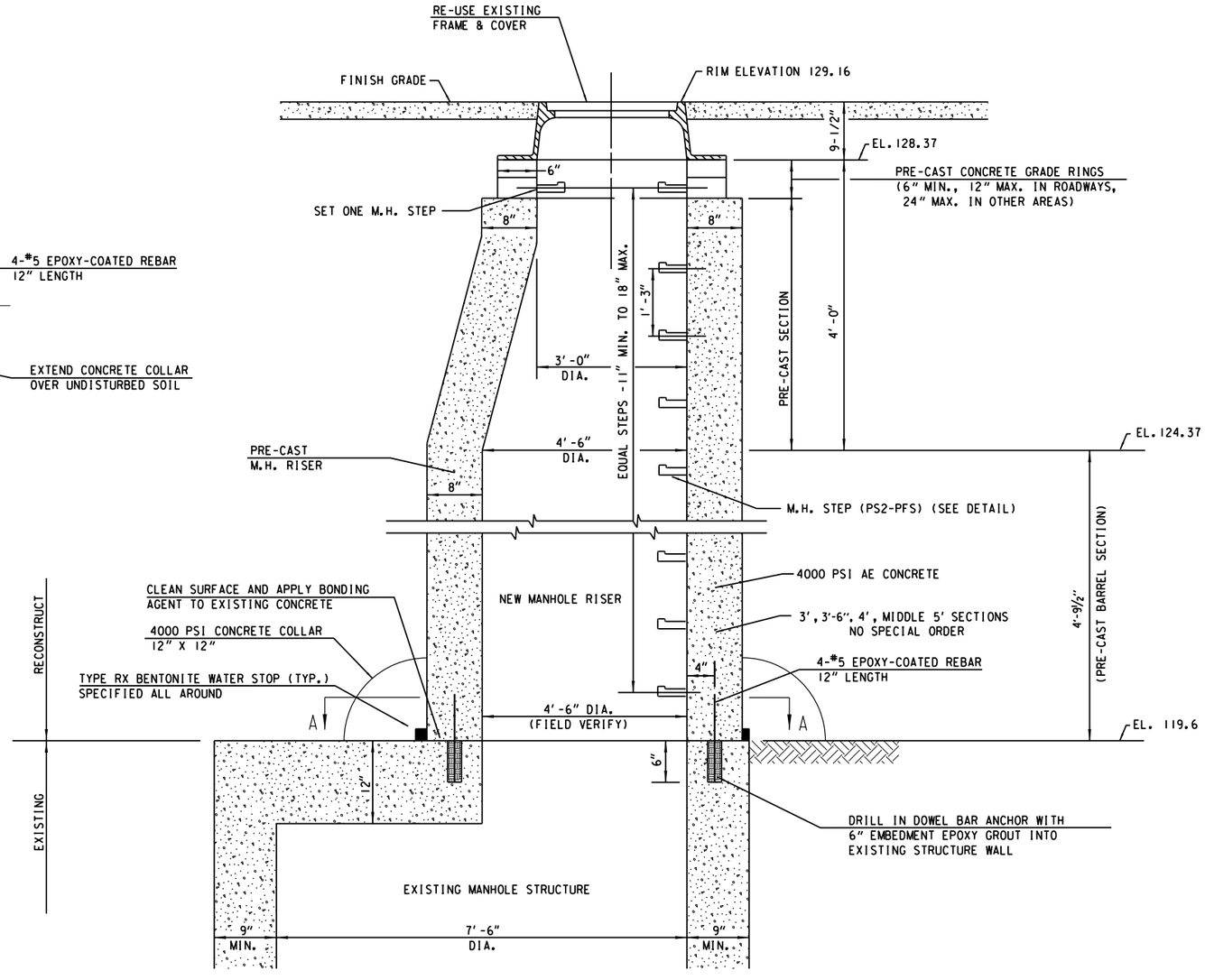
TYPE M
INLET BASKET

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 28	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\DRAINDET.DGN



SECTION A-A



DETAIL OF MIS MANHOLE RISER EXTENSION

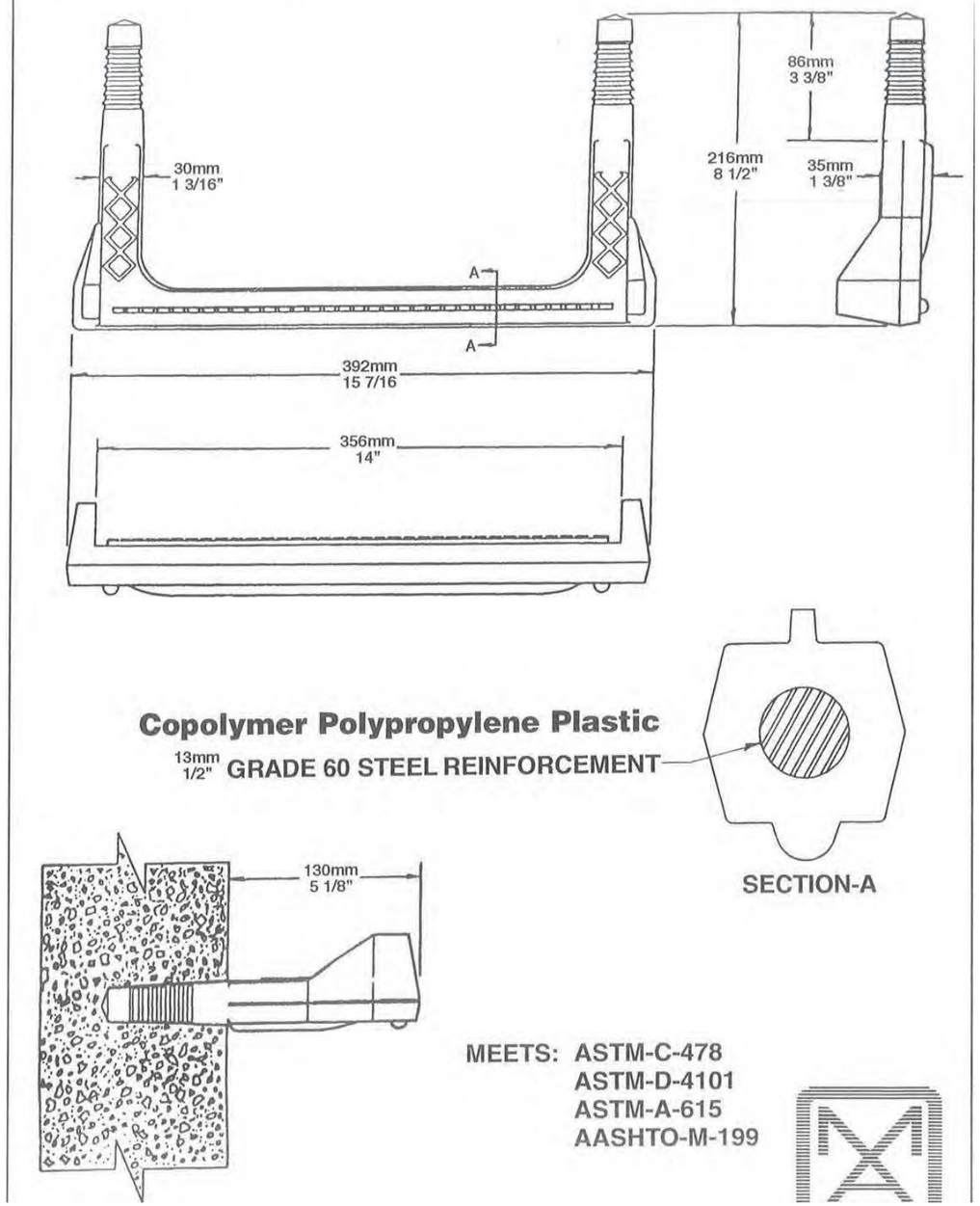
(14+26.5 - 40.1'RT.)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	DRAINAGE DETAILS	SCALE FEET	SHEET NO: 29	E

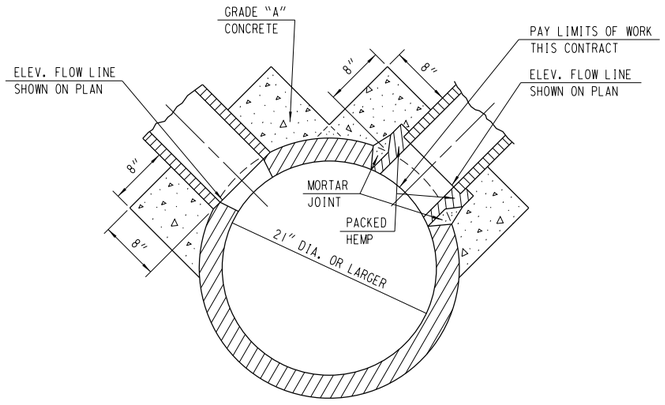
FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\DRAINDET.DGN

2

PS2-PFS **Manhole Step**



2



DETAIL OF CONNECTION TO STORM SEWER

(TO BE PAID AS CONCRETE COLLAR SPECIAL, SPV.0060.29)

2

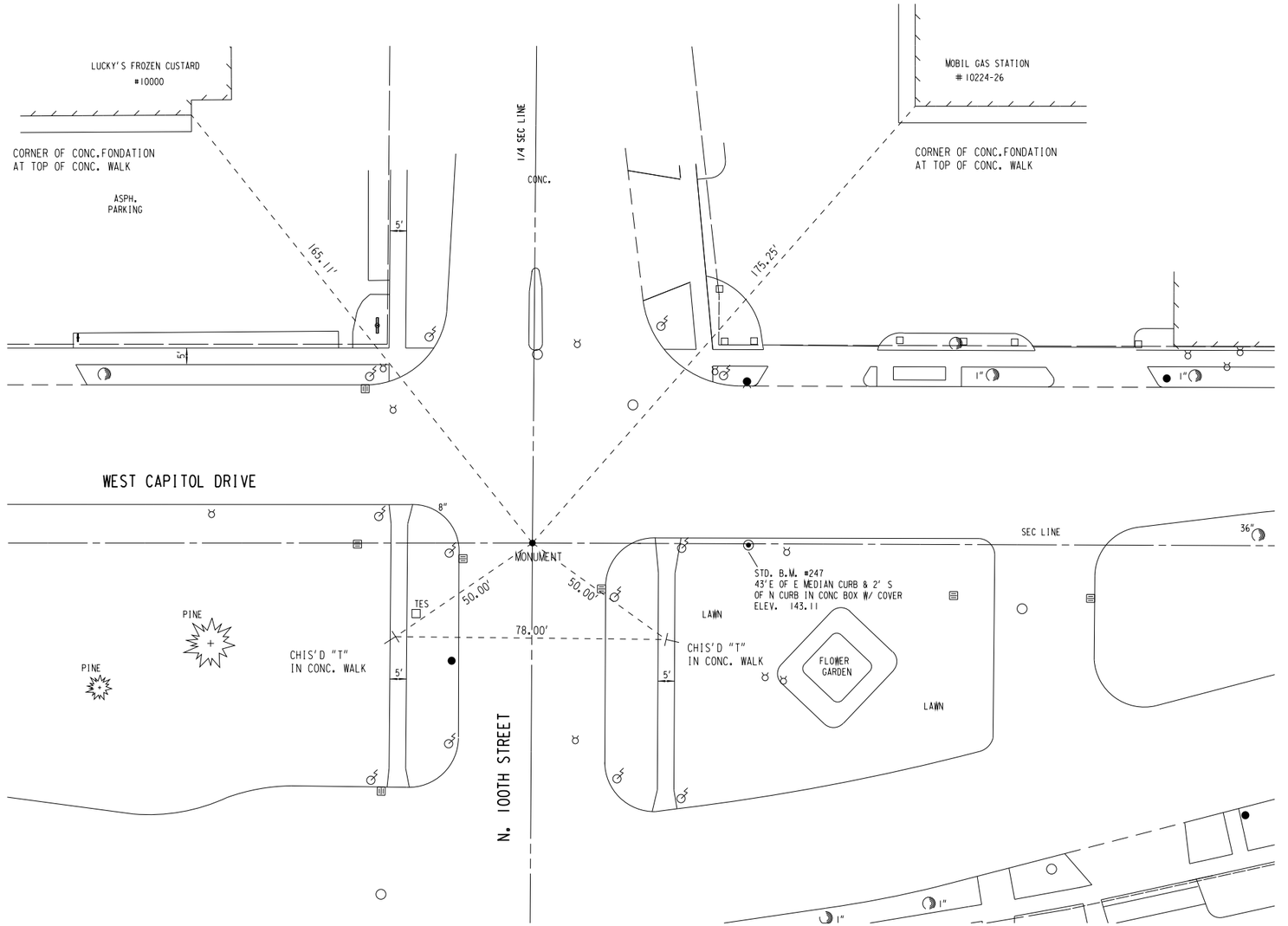
T. 7 N.
5 5
8 8
R. 21 E.

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

STATE PLANE COORDINATES OF SECTION CORNER
NORTH: 403,314.87
EAST: 2,524,153.16

SURVEY DATE: JUNE 29, 1988

NOTE: CORNER LOCATION
OFFSET ON CAP AS SHOWN



U.S. PUBLIC LAND SURVEY CORNER
W. CAPITOL DR. & N. 100TH ST.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET 0' 40'	SHEET NO: 32	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS LANDMARK 84-107.DGN

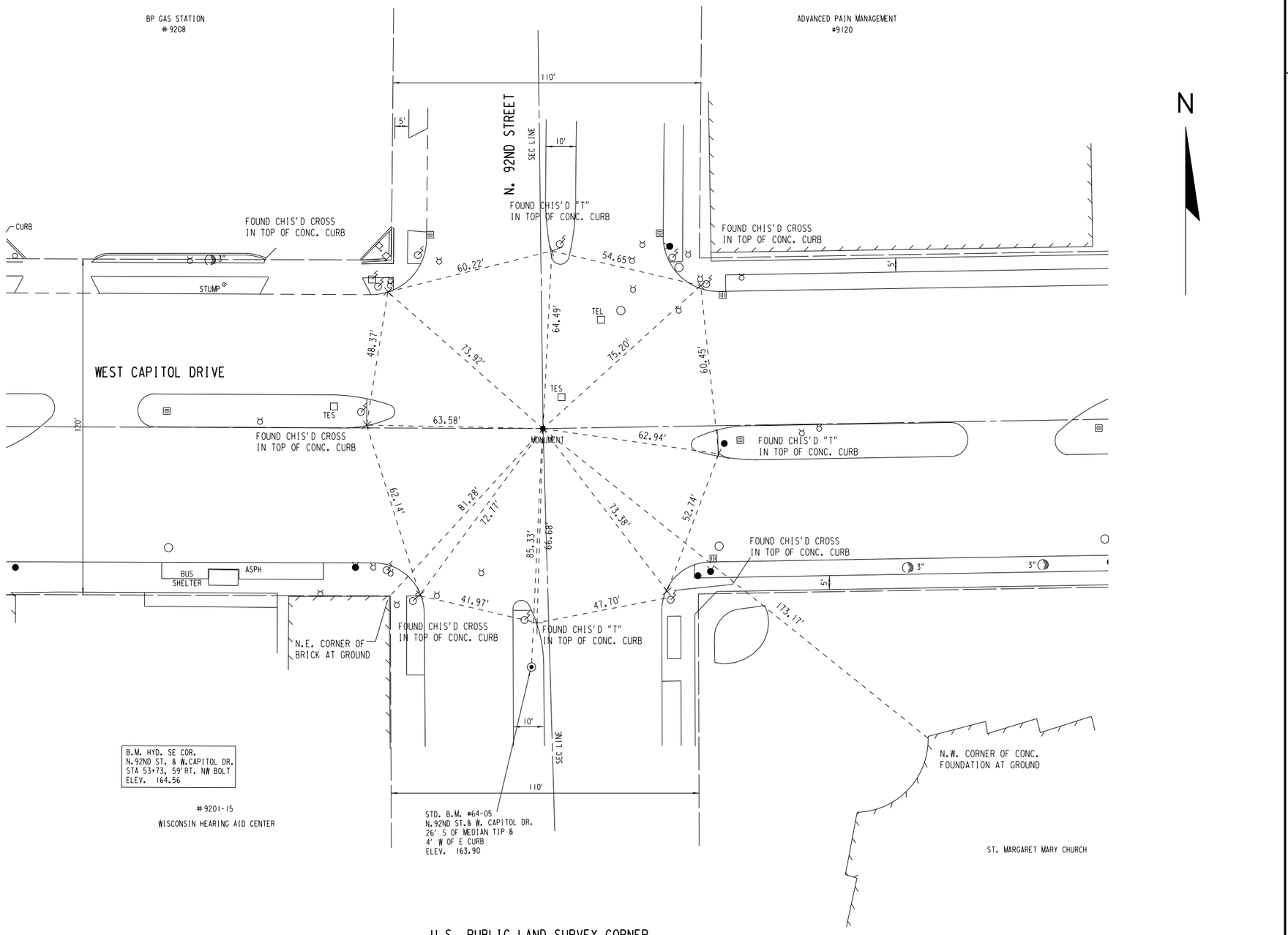
2

T. 7 N.
R. 21 E.
5 4
8 9

TOWNSHIP 7 NORTH, RANGE 21 EAST
MILWAUKEE COUNTY
CONCRETE MONUMENT W/ ALUMINUM CAP

STATE PLANE COORDINATES OF SECTION CORNER
NORTH: 403,373.30
EAST: 2,526,823.90

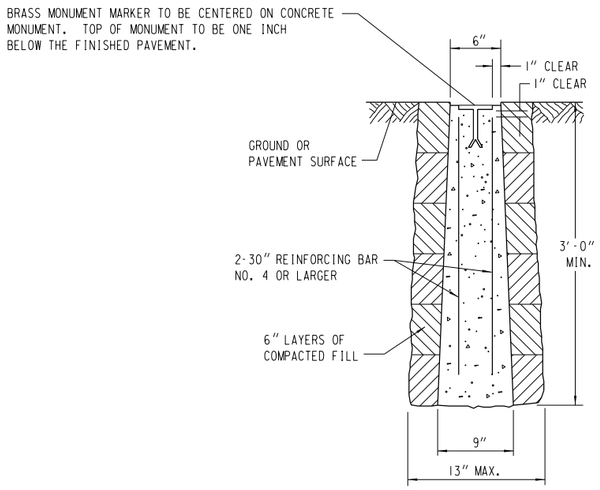
SURVEY DATE: NOV. 21, 1988



U.S. PUBLIC LAND SURVEY CORNER
W. CAPITOL DR. & N. 92ND ST.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	LANDMARK REFERENCE MONUMENT	SCALE FEET 0' 40'	SHEET NO: 33	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS LANDMARK 84-107.DGN



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.

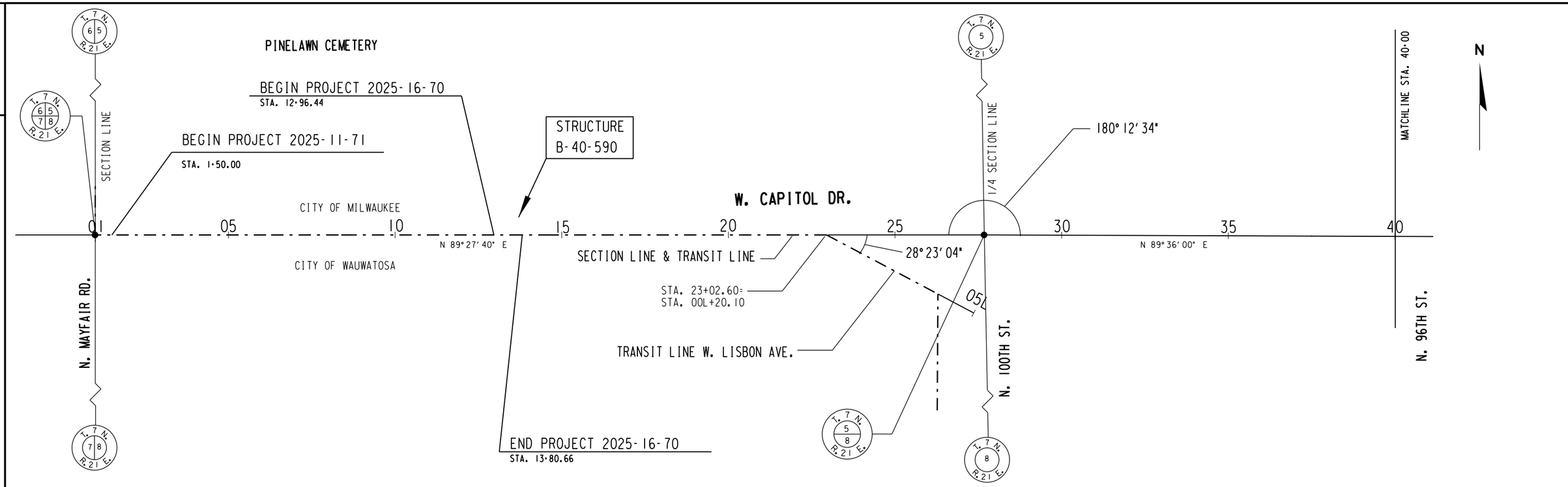
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION.

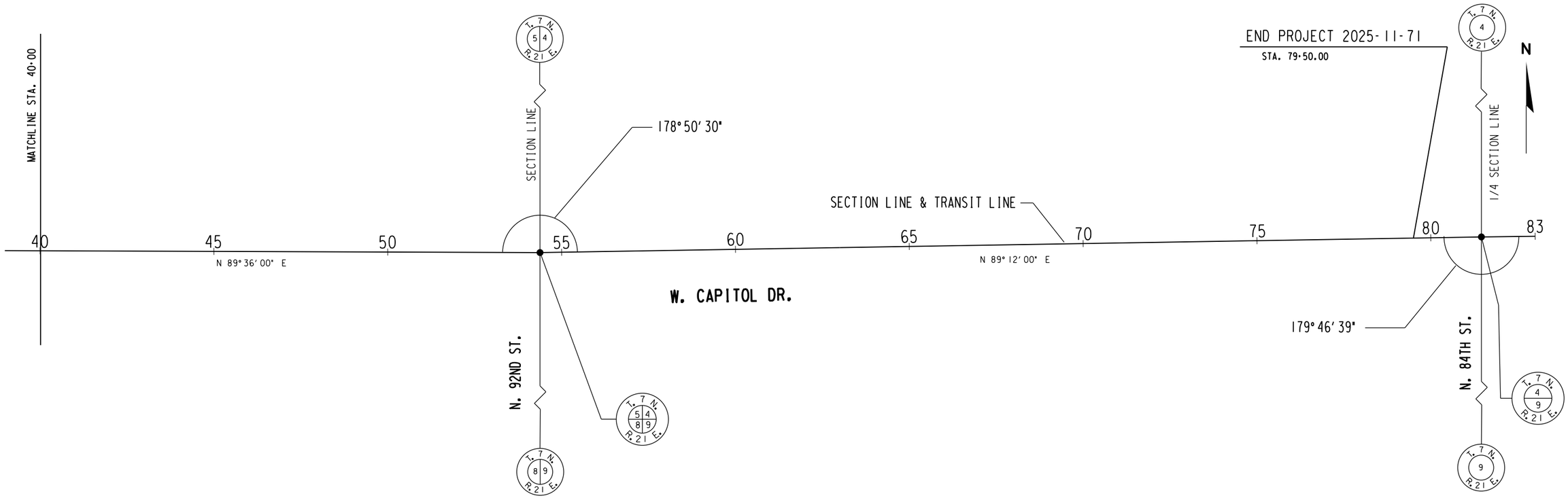
INSTALLATION OF PRECAST MONUMENT TO BE SUPERVISED BY CITY OF MILWAUKEE, INFRASTRUCTURE SERVICES DIVISION, CONSTRUCTION SECTION FOR ACCURACY OF LOCATION.

LANDMARK REFERENCE MONUMENT TO BE REPLACED

LOCATION	MONUMENT	STATION	REMARKS
W. CAPITOL DR.			
AT N. 100TH ST.	1	27+68.25 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS
AT N. 92ND ST.	1	54+40.07 ON T/L	SEE SPECIAL PROVISIONS FOR INFORMATION ON RESTORATION OF MONUMENTS

LANDMARK REFERENCE MONUMENT

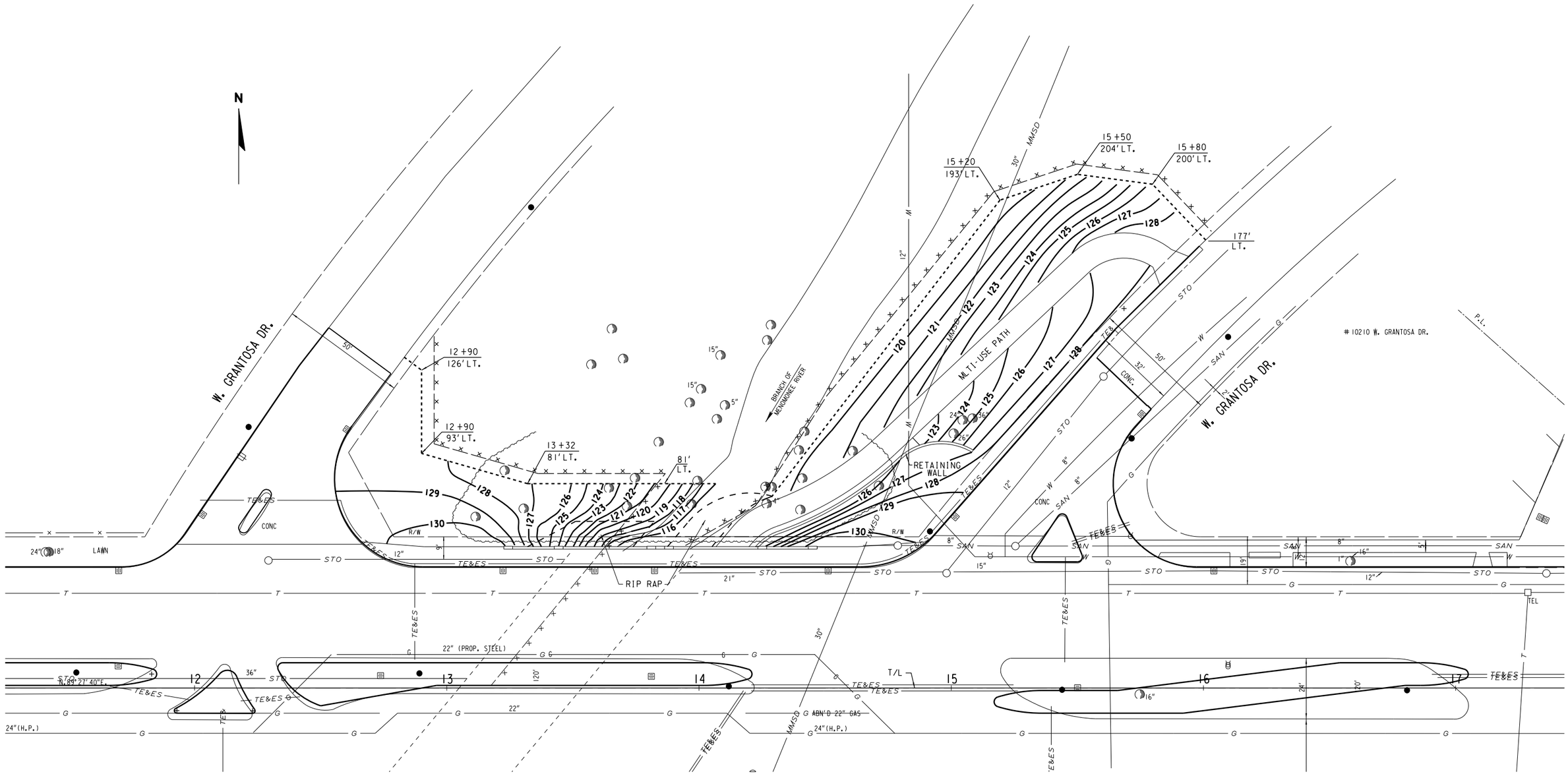




STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: HWY 190	COUNTY: MILWAUKEE	ALIGNMENT	SCALE FEET 0' 300'	SHEET NO: 35	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\ALIGNMENT84-107.DGN

2



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONTOUR PLAN	SCALE FEET 0' 40'	SHEET NO: 36	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\NS CONTOUR.DGN

2

WEST CAPITOL DRIVE

N

CITY OF MILWAUKEE
CITY OF WAUWATOSA

N.89°27'40"E.

22" (PROP. STEEL)

ABN'D 22" GAS

24"(H.P.)

T/L

RIP RAP

12"(WAUWATOSA)

FENCE ON RETAINING WALL

LAWN

ASPH

10512 W. GRANTOSA DR.

W. GRANTOSA DR.

WMSD

2"-12"

75' RT.

150' RT.

100' RT.

213' RT.

12+73
174' RT.

+89

BRANCH OF MENOMONEE RIVER

MULTI-USE PATH

RETAINING WALL

WATER

24" (WAUWATOSA)

8" SANITARY (WAUWATOSA)

SAN

CONC. DWY.

10405 W. GRANTOSA DR.

CONC. ALLEY

20'

GRADING LIMITS
125 PROPOSED CONTOUR LINE
SILT FENCE LIMITS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONTOUR PLAN	SCALE FEET 0' 40'	SHEET NO: 37	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LINITS\SS CONTOUR.DGN

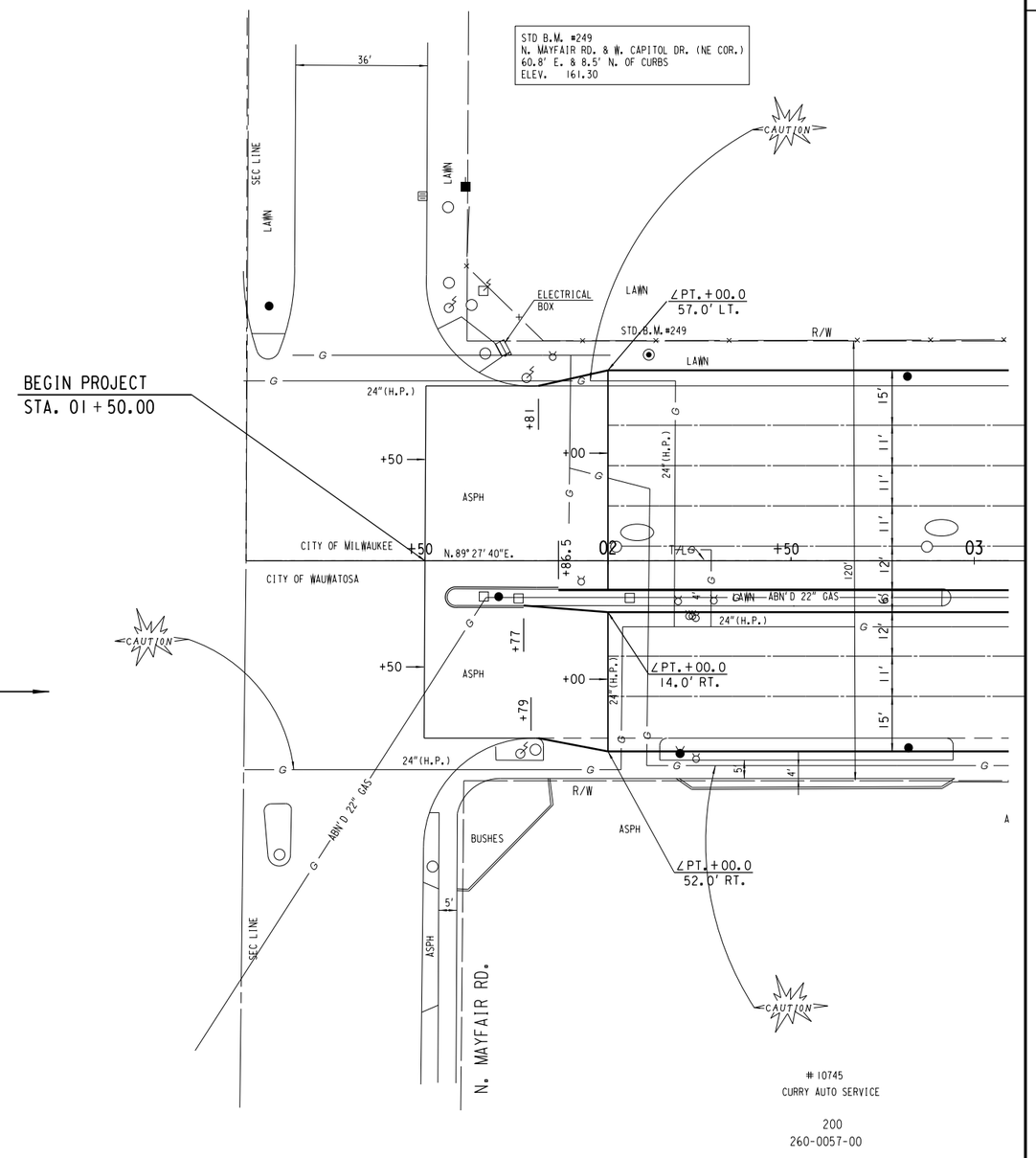
WEST CAPITOL DRIVE

2

N

BEGIN PROJECT
STA. 01+50.00

WORK TO BE DONE
BY WISDOT PROJECT
2030-09-00 TO BE
COMPLETED 2014

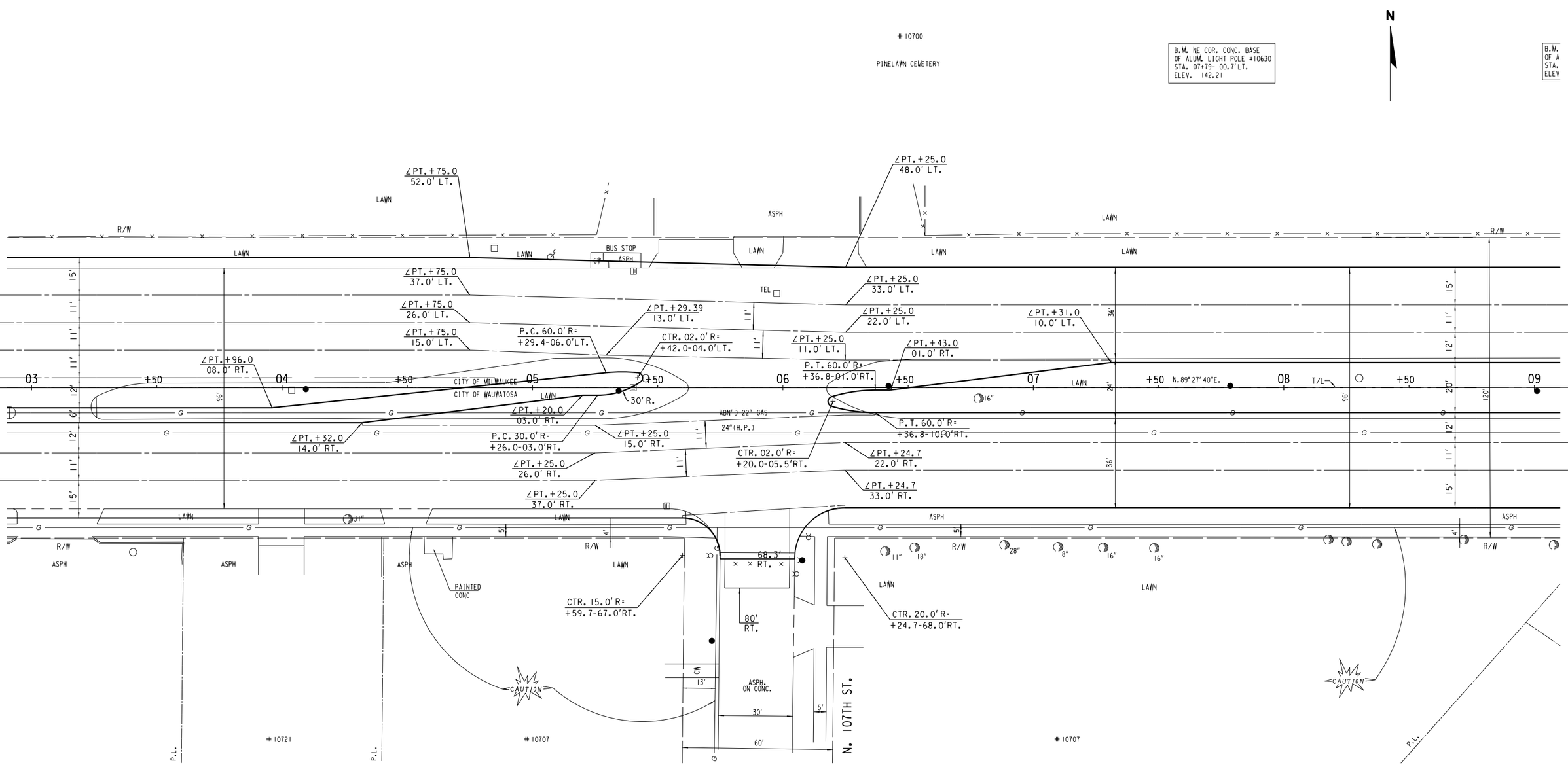


STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 38	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\00_03PDET.DGN

WEST CAPITOL DRIVE

2



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 39	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\03_09PDET.DGN

WEST CAPITOL DRIVE

B.M. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10606 STA. 09+01- 01.4'RT. ELEV. 137.08

B.M. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10600 STA. 10+28- 00.7'LT. ELEV. 132.97

N

W. GRANTOSA DR.

+53.2 142.8' LT.

∠PT.+41.5 127.8' LT.

+78.0 124.5' LT.

P.T. +96.1-61.1'LT.

CTR. 30.0' R= +71.0-78.0'LT.

CTR. 60.0' R= +64.8-45.1'LT.

CTR. 02.0' R= +19.5-63.5'LT.

CTR. 02.0' R= +28.5-76.7'LT.

P.T. +62.4-104.0'LT.

CTR. 35.0' R= +90.5-83.0'LT.

P.T. +93.2-60.7'LT.

CTR. 40.0' R= +64.0-88.1'LT.

RIP-RAP

MULTI-USE PATH

R/W

LAWN

24" 18"

P.R.C. +16.7-04.5'LT.

P.C.C. +33.2-07.0'XT.

CTR. 04.0' R= +13.0-03.0'LT.

P.R.C. +10.0-05.6'LT.

CTR. 02.0' R= +83.0-05.5'LT.

P.C. 60.0' R= +66.2-10.0'LT.

CTR. 60.0' R= +72.4-26.7'LT.

P.C. +35.0-10.0'LT.

CTR. 30.0' R= +59.6-21.4'LT.

CTR. 02.0' R= +35.0-08.0'LT.

EXISTING BRIDGE

24"(H.P.)

CTR. 02.0' R= +19.0-05.5'LT.

P.C. 60.0' R= +02.2-10.0'LT.

09 10 11 12 13 14 15

+50 +50 +50 +50

CITY OF MILWAUKEE

CITY OF WAUWATOSA

N.89°27'50"E. T/L

27"

∠PT.+00.0 10.0' RT.

∠PT.+88.0 01.0' LT.

ABN'D 22" GAS

P.C. 60.0' R= +66.2-01.0'LT.

24"(H.P.) P.R.C. +92.5-08.1'RT.

CTR. 01.0' R= +93.0-09.0'RT.

P.T. 01.0' R= +93.0-09.0'RT.

24" P.R.C. +23.8-08.5'LT. TO BE ABANDONED

CTR. 01.0' R= +23.0-09.0'RT.

P.C. +23.0-10.0'RT.

∠PT.+50.0 07.0' RT.

+30.55

∠PT.+96.0 04.0' LT. PROP. C/L NEW BRIDGE

22"

P.C. 60.0' R= +02.2-01.6'LT.

G ABN'D 22" GAS

24"(H.P.) TO BE ABANDONED

WISDOT PROJECT 2025-16-70

ASPH LAWN

R/W

FENCE ON RETAINING WALL

CTR. 12.5' R= +15.5-60.5'RT.

P.T. +24.2-69.5'LT.

+71.4 123.0' RT.

+68.0 128.9' RT.

+87.7 147.8' RT.

CAUTION

10512 W. GRANTOSA DR.

P.T.

CW

W. GRANTOSA DR.

WMSD

B. W. RR SPIKE IN WOOD POLE SE COR. W. GRANTOSA DR.(WEST RDWY) & W. CAPITOL DR. STA. 11+70, 70' RT. ELEV. 127.85

P.C. +79.0-56.5'RT.

CTR. 30.0' R= +01.0-78.0'RT.

4" 2"-12"

6" 18"

9"

RIP-RAP

MULTI-USE PATH

10'

10"

RETAINING WALL

CTR. 20.0' R= +78.1-68.0'RT.

P.C.C. +94.8-78.0'RT.

3"

WATER

1,285.0' R.

411.315.0' R.

+98.0 208.1' RT.

+20.8 227.7' RT.

CONC. DWY.

R/W

CTR. 30.0' R= +66.6-78.0'RT.

P.C. +41.1-62.2'RT.

P.T. +19.9-95.3'RT.

CAUTION

10405 W. GRANTOSA DR.

B.M HYD. SE COR. W. GRANTOSA DR. (EAST RDWY) & W. CAPITOL DR. STA. 14+73, 73'RT. NW BOLT ELEV. 128.40

STATE PROJECT NUMBER 2025-11-71 2025-11-16	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 40	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\09_15PDET.DGN

2

WEST CAPITOL DRIVE

N

MULTI-USE PATH

∠PT.+64.8
142.0' LT.

+98.4
175.2' LT.

W. GRANTOSA DR.

B.M HYD. NE COR. W. GRANTOSA DR. (EAST RDWY) & W. CAPITOL DR. STA. 15+75, 102' LT. NW BOLT ELEV. 129.81

10210 W. GRANTOSA DR.

+79.3
110.6' LT.

P.T.
+72.4-102.9' LT.

CTR. 33.0' R=
+96.6-81.0' LT.

CTR. 02.0' R=
+44.0-67.0' LT.

CONC. ALLEY

DAYCARE
10224-26

B.M SW COR. 1ST CONC. RISER @ #10024-26 W. CAPITOL DR. ELEV. 145.54

10210

10200-02

10124-26

10118

MULCH PLAYGROUND

FENCE

HANDRAIL

CAUTION

R/W

CTR. 02.0' R=
+30.0-51.0' LT.

CTR. 02.0' R=
+50.0-51.0' LT.

P.T. 60.0' R=
+35.8-01.0' RT.

∠PT.+54.0
10.0' LT.

P.C. 60.0' R=
+86.2-10.0' LT.

∠PT.+68.0
10.0' LT.

P.C. 60.0' R=
+08.4-10.0' XT.

CTR. 02.0' R=
+19.0-05.5' LT.

∠PT.+66.0
01.0' RT.

CTR. 02.0' R=
+03.0-05.5' LT.

P.T. 60.0' R=
+73.8-01.0' RT.

∠PT.+80.0
01.0' RT.

CTR. 02.0' R=
+02.0-05.5' RT.

CTR. 02.0' R=
+57.0-05.5' RT.

∠PT.+80.0
01.0' LT.

P.C. 60.0' R=
+86.2-01.0' LT.

P.T. XX.X' R=
+73.8-10.0' RT.

CTR. 05.0' R=
+40.0-05.0' RT.

P.T. 60.0' R=
+35.8-01.0' RT.

∠PT.+92.0
10.0' RT.

ABN'D 22" GAS

24"(H.P.)

T/L

N.89°27'40"E.

CITY OF WAUWATOSA

CITY OF MILWAUKEE

CTR. 18.0' R=
+93.3-66.0' RT.

+11.1
69.5' RT.

+41.4
70.9' RT.

CTR. 18.0' R=
+60.3-66.0' RT.

CTR. 18.0' R=
+36.8-66.0' RT.

ASPH. PARKING

ASPH. ON CONC.

LAWN

68' RT

80' RT

CONC. ALLEY

W. GRANTOSA DR.

W. WOODWARD AVE.

N. 102ND ST.

10311

10303

10309 W. WOODWARD AVE.

10225

10203

STATE PROJECT NUMBER 2025-11-71 2025-16-11	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 41	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\15_21PDET.DGN

2

WEST CAPITOL DRIVE

#10118-20 | #10110 | #10100 | #10052-54 | #10046-48 | #10036 | #10012 | LUCKY'S FROZEN CUSTARD #10000

B.M HYD.W.CAPITOL DR.
STA.21+35,49'LT.
NW BOLT
ELEV. 148.07

B.M. E END OF E WINDOW SILL @ #10012 W. CAPITOL DR.
ELEV. 152.06

W.CAPITOL DR. T/L - 23+02.60
W. LISBON AVE. T/L - OL+20.10

CONC. ALLEY 25'

ENT. ENT.

ASPH. PARKING

LAWN R/W

CTR. 02.0' R= +02.0-05.5'RT.

P.T. 60.0' R= +18.8-01.0'RT.

∠PT. +25.0 01.0' RT.

∠PT. +13.0 10.0' LT.

P.C. 60.0' R= +02.4-10.0'LT.

CTR. 05.0' R= +34.0-05.0'LT.

P.T. 60.0' R= +48.8-01.0'RT.

∠PT. +55.0 01.0' RT.

∠PT. +43.0 01.0' LT.

N.89°27'40"E.

15.1°36'56"

28°23'04"

CTR. 02.0' R= +32.0-05.5'RT.

P.T. 60.0' R= +48.8-10.0'RT.

∠PT. +43.0 10.0' RT.

∠PT. +31.0 01.0' LT.

∠PT. +61.0 01.0' LT.

P.C. 180 'R= +89.4-48.0'RT.

CTR. 01.0' R= +71.5-49.0'RT.

P.T. 180 'R= +59.7-62.3'RT.

CTR. 20.0' R= 23+55.7-68.0'RT.

CTR. 18.0' R= +03.2-66.0'RT.

ASPH. PARKING

ASPH. DWY.

PLAY EQUIP. KOHN SPORTS

#10101 ELITE FURNITURE (VACANT)

B.M SW COR. CONC. RISER @ #10052 W. CAPITOL DR. ELEV. 150.50

CTR. 50.0' R= 1L+58.2-03.0'LT.

CTR. 20.0' R= 24+47.4-68.0'RT.

CITY OF MILWAUKEE / CITY OF WAUWATOSA

CTR. 75.0' R= 3L+50.0-64.0'LT.

T/L S.62°09'16"E.

W. LISBON AVE.

WATER

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 42	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\21_27PDET.DGN

WEST CAPITOL DRIVE

PLACE LANDMARK REFERENCE
MONUMENT STA. 27+68.25-T/L

STD. B.M. #247
N. 100TH ST.& W. CAPITOL DR.
43'E OF E MEDIAN CURB & 2' S
OF N CURB IN CONC BOX W/ COVER
ELEV. 143.11

B.M. HYD IN MEDIAN
STA. 30+10,8'RT.
NW BOLT
ELEV. 142.44

N. 100TH ST.

MOBIL GAS STATION
#9922

GRACE CHRISTIAN FELLOWSHIP
#10224-26

ASPH. PARKING

NURSERY & GARDEN CTR

US BANK
#9921

#9921

#9817

#397-73 N. 98

+47.7
181'LT.

179'
LT.

CONC.

+93.3
180'LT

∠PT.+47.5
173.0'LT.

VAR. 11' 11' VAR.

∠PT.+90.8
122.7'LT.

CTR. 02.0'R=
+70.2-113 'LT.

LAWN

1/4 SEC LINE

CTR. 25.0'R=
+17.5-73.0'LT.

CTR. 02.0'R=
+69.0-61.0'LT.

P.C.
+02.5-67.7'LT.

CTR. 25.0'R=
+27.0-73.0'LT.

CAUTION

RAMP

R/W

FENCE

CONC. DWY.

CW

∠PT.+68.3
33.0'LT.

∠PT.+68.2
22.0'LT.

CTR. 02.0'R=
+11.0-08.0'LT.

CTR. 03.0'R=
+99.0-07.0'LT.

CTR. 02.0'R=
+19.0-08.0'LT.

∠PT.+71.0
01.0'RT.

∠PT.+01.0
01.0'RT.

∠PT.+89.0
10.0'LT.

CTR. 02.0'R=
+11.0-08.0'LT.

CTR. 02.0'R=
+41.3-08.0'LT.

27 +50 28 29 30 31 32 33

180°12'24"

T/L

S.89°36'00"E.

40'R.

∠PT.+68.2
T/L

∠PT.+68.2
11.0'RT.

∠PT.+68.2
22.0'RT.

∠PT.+68.2
33.0'RT.

CTR. 03.0'R=
+31.0-07.0'RT.

CTR. 02.0'R=
+11.0-08.0'RT.

CTR. 02.0'R=
+20.0-50.0'RT.

CTR. 02.0'R=
+18.5-68.0'RT.

CTR. 02.0'R=
+21.0-08.0'RT.

∠PT.+53.0
10.0'RT.

P.C. 60.0'R=
+87.4-01.0'LT.

CTR. 02.0'R=
+22.0-08.0'RT.

∠PT.+72.0
10.0'RT.

∠PT.+60.0
01.0'LT.

FLOWER GARDEN

BUS STOP

24"(H.P.)

CTR. 15.0'R=
+03.0-97.0'RT.

CTR. 04.0'R=
+50.0-66.0'RT.

CTR. 15.0'R=
+05.0-63.0'RT.

P.C. 173'R=
+54.0-128'RT.

∠PT.+43.0
120'RT.

P.C. 225'R=
+18.0-133'RT.

P.C. 200'R=
+43.0-133'RT.

WEP

TES

DRAIN

ASPH. PARKING

CAUTION

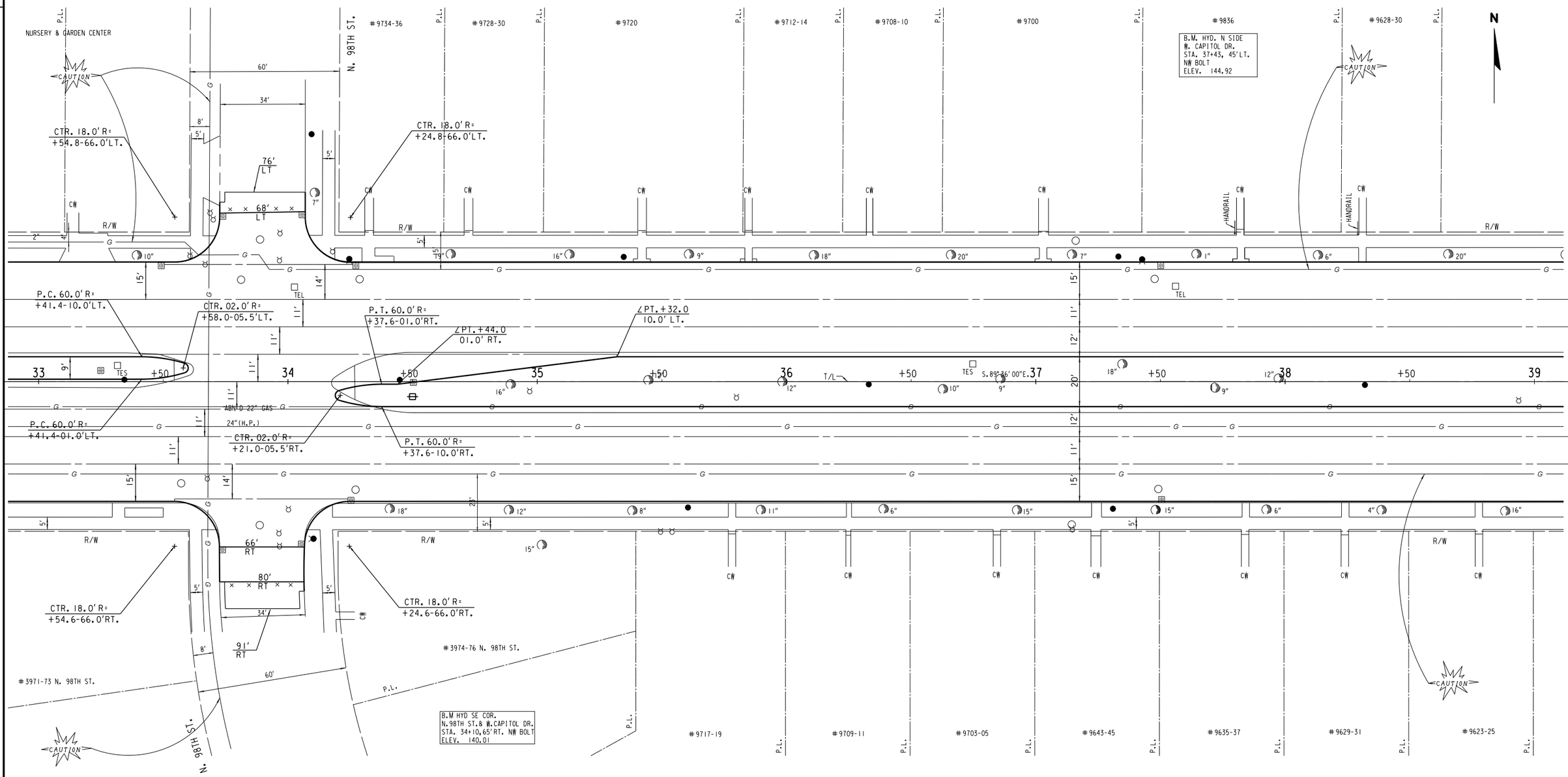
P.L.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 43	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\27_33PDET.DGN

WEST CAPITOL DRIVE

2



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 44	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\33_39PDET.DGN

WEST CAPITOL DRIVE

N

#9610 #9600 #9532 #9520 #9510 #9500 #9436

P.L. CITY OF MILWAUKEE CITY OF WAUWATOSA

B.M. HYD. W.CAPITOL DR.
N SIDE STA.40+72.45' LT.
NW BOLT
ELEV. 150.34

CONC. DWY.

20' CONC. ALLEY

ASPH. DWY.

LANNON STONE STEPS

CAUTION

CW HANDRAIL R/W

CITY OF WAUWATOSA

CITY OF MILWAUKEE

TEL WEP TES PINE

P.C. 60.0' R= +30.4-10.0'LT.
∠PT. +24.0 10.0' LT.
CTR. 02.0' R= +47.0-05.5'LT.
P.T. 60.0' R= +29.6-01.0'RT.
∠PT. +36.0 01.0' RT.
∠PT. +24.0 01.0' LT.
P.C. 60.0' R= +30.4-01.0'LT.
∠PT. +36.0 10.0' RT.
CTR. 02.0' R= +13.0-05.5'RT.
P.T. 60.0' R= +29.6-10.0'RT.
∠PT. +24.0 10.0' LT.
P.C. 60.0' R= +76.4-10.0'LT.
CTR. 02.0' R= +93.0-05.5'LT.
∠PT. +82.0 10.0' RT.
∠PT. +70.0 01.0' LT.
P.C. 60.0' R= +76.4-01.0'LT.
CTR. 02.0' R= +42.0-05.5'RT.
P.T. 60.0' R= +58.6-10.0'RT.
P.T. 60.0' R= +58.6-01.0'RT.
∠PT. +65.0 01.0' RT.

39 +50 40 +50 41 +50 42 +50 43 +50 44 +50 45

S.89° 36' 00"E.

ABN'D 22" GAS 24"(H.P.)

BUS STOP

66.3' RT

75' RT

CONC. 34' 60'

CTR. 18.0' R= +44.4-66.0'RT.

CTR. 18.0' R= +14.4-66.0'RT.

N. 96TH ST.

B.M. NE COR. 1ST CONC. RISER @ #9617 W.CAPITOL DR. ELEV. 146.62

B.M. HYD SE COR. N.96TH ST. & W.CAPITOL DR. STA 40+98, 68'RT. NW BOLT ELEV. 150.58

B.M. NE COR. 1ST CONC. RISER @ #9517 W.CAPITOL DR. ELEV. 151.78

#9617 #9605 #9531 #9523 #9517 #9507 #9501 #9439 #9429-31

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 45	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\39_45PDET.DGN

WEST CAPITOL DRIVE

LUTHERAN CHURCH & SCHOOL
#9420

#9404

P.L.

CAUTION

60'

8'
5'

34'

N. 94TH ST.

B.M. HYD. NE COR.
N.94TH ST. & W.CAPITOL DR.
STA 47+82, 55'LT. NW BOLT
ELEV. 155.82

SUNRISE LIQUOR DEPOT
#9330

N

THE RICK INN
#9308

CONC.

ASPH.
DWY.

76'
LT.

CTR. 18.0' R=
+26.2-66.0'LT.

CTR. 18.0' R=
+96.2-66.0'LT.

CTR. 18.0' R=
+53.4-66.0'LT.

79'
LT.

65.8'
LT.

CW

R/W

5'

13"

STUMP

16"

3"

15"

11"

12"

PHONE

TEL

∠PT.+53.0
10.0' LT.

P.C. 60.0' R=
+13.4-10.0'LT.

CTR. 02.0' R=
+30.0-05.5'LT.

WEP

P.T. 60.0' R=
+08.6-01.0'RT.

∠PT.+15.0
01.0' RT.

∠PT.+03.0
10.0' LT.

P.C. 60.0' R=
+40.4-10.0'LT.

45 +50 46 +50 47 +50 48 +50 49 +50 50 +50 51

TES

9"

11" 5" 14" 15"

S.89°36'00"E.

T/L

20'

24'

120'

36'

15'

12'

14'

11'

ABN'D 23S GAS
24"(H.P.)

CTR. 02.0' R=
+92.0-05.5'RT.

∠PT.+07.0
01.0' LT.

P.C. 60.0' R=
+13.4-01.0'LT.

∠PT.+19.0
10.0' RT.

P.T. 60.0' R=
+08.6-10.0'RT.

∠PT.+46.0
10.0' RT.

∠PT.+34.0
01.0' LT.

P.C. 60.0' R=
+40.4-01.0'LT.

CTR. 02.0' R=
+57.0-05.5'LT.

1" 12" 6" 12" 6" 6" 12" 5" 15" 2" 10"

GRAVEL
DWY.

66'
RT.

CTR. 18.0' R=
+53.6-66.0'RT.

13"

85'
RT.

10'
5'
34'

B.M. HYD. W.CAPITOL DR.
S/SIDE STA.44+79,58'RT.
NW BOLT
ELEV. 154.47

#9429-31 #9423-25 #9417-19 #9409-11 #93401-03 #9341-43 #9333-35 #9327-29 #9321-21A #9307-11

N. 93RD ST.

60'

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 46	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\45_51PDET.DGN

WEST CAPITOL DRIVE

SEE NORTH 92ND STREET PLAN DETAIL SHEET
(STA. 200+00 TO STA. 203+00)

LITTLE CAESARS
#9230

B.M. HYD. NE COR.
N.93RD ST. & W.CAPITOL DR.
STA 51+09, 53'LT. NW BOLT
ELEV. 160.04

BP GAS STATION
#9208

ADVANCED PAIN MANAGEMENT
#9120

B.M. HYD. NE COR.
N.92ND ST. & W.CAPITOL DR.
STA 54+86, 64'LT. NW BOLT
ELEV. 166.57

N. 92ND ST.

S.00°04'56"E.

SEC LINE

P.L.

ASPH. PARKING

ASPH. ON CONC.

ABN'D 2" GAS

CAUTION

CTR. 18.0' R=
+23.4-66.0'LT.

CTR. 18.0' R=
+79.4-66.0'LT.

CTR. 18.0' R=
+02.8-66.0'LT.

CURB

R/W

STUMP

TEL

TES

∠PT. +39.8
47.0' LT.

∠PT. +40.0
33.0' LT.

∠PT. +40.0
22.0' LT.

∠PT. +40.1
11.0' LT.

∠PT. +31.0
10.0' LT.

∠PT. +43.0
01.0' RT.

P.C. 60.0' R=
+36.6-01.0'RT.

CTR. 02.0' R=
+73.2-08.0'LT.

CTR. 02.5' R=
+77.5-07.5'LT.

CTR. 02.0' R=
+87.5-08.0'LT.

∠PT. +58.2
01.0' RT.

∠PT. +XX.X
XX.X' XT.

51 52 53 54 55 56 57

+50

T/L

S.89°36'00"E.

S.89°12'00"W.

178°50'30"

SEE T/L
DETAIL BELOW

ABN'D 22" GAS
24"(H.P.)

∠PT. +40.4
11.0' RT.

∠PT. +40.5
22.0' RT.

∠PT. +40.6
33.0' RT.

∠PT. +40.7
47.0' RT.

CTR. 02.0' R=
+20.0-05.5'RT.

P.C. 60.0' R=
+36.6-10.0'RT.

∠PT. +05.0
10.0' RT.

∠PT. +93.0
01.0' LT.

∠PT. +23.3
01.0' LT.

CTR. 02.0' R=
+74.0-08.0'RT.

CTR. 02.5' R=
+84.0-07.5'RT.

CTR. 02.0' R=
+08.3-08.0'RT.

∠PT. +XX.X
XX.X' XT.

ASPH

BUS SHELTER

CTR. 18.0' R=
+23.6-66.0'RT.

CTR. 18.0' R=
+79.5-66.0'RT.

CTR. 18.0' R=
+00.2-66.0'RT.

B.M. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

STD. B.M. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

N. 93RD ST.

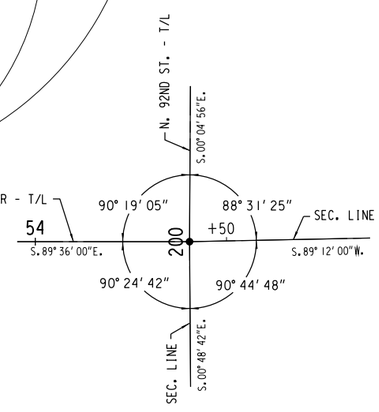
#9235
TOSA PHARMACY
GOLDEN VALLEY CENTER

#9201-15
WISCONSIN HEARING AID CENTER

#9101
ST. MARGARET MARY CHURCH

PLACE LANDMARK REFERENCE
WEST CAPITOL DRIVE T/L = 54 + 40.07
NORTH 92ND STREET T/L = 200 + 00.00

SEE NORTH 92ND STREET PLAN DETAIL SHEET
(STA. 196+00 TO STA. 201+00)



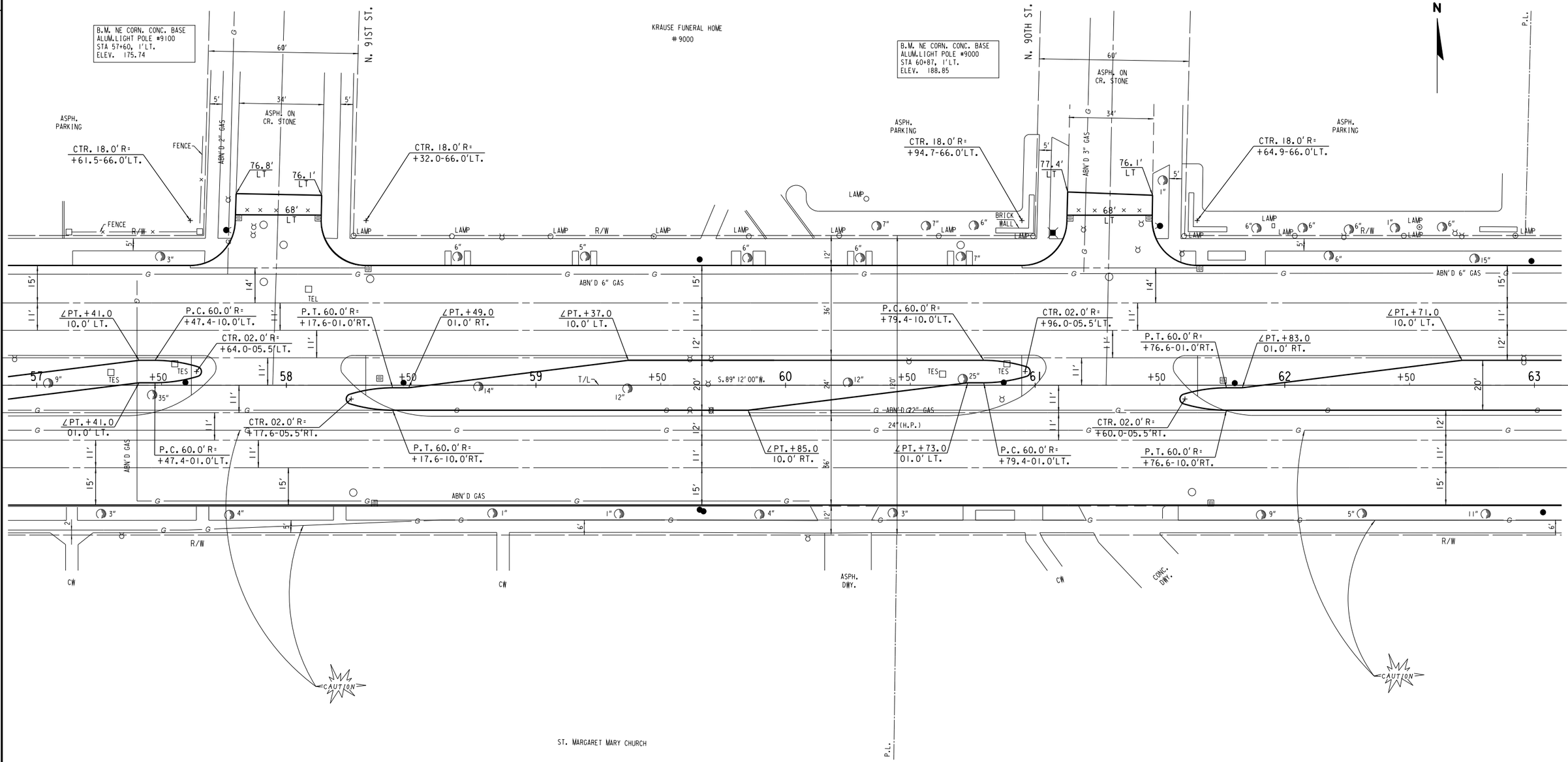
TRANSIT LINE @ N. 92ND ST.

∠PT. =
W.CAPITOL DR. T/L - 54+40.07
N. 92ND ST. T/L - 200+00.00

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 47	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\51_57PDET.DGN

WEST CAPITOL DRIVE



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 48	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\57_63PDET.DGN

2

WEST CAPITOL DRIVE

N

#8914 #8900 #8826 #8820 #8812 #8804 #8734

N. 89TH ST.

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8900
STA 64+14, 1'RT.
ELEV. 199.87

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8802
STA 67+42, 1'LT.
ELEV. 203.215

B.M. HYD. SE COR.
N.88TH ST. & W.CAPITOL DR.
STA 67+15, 52'RT. NW BOLT
ELEV. 204.37

CTR. 18.0' R=
+27.8-66.0'LT.

CTR. 18.0' R=
+97.8-66.0'LT.

CTR. 18.0' R=
+60.3-66.0'LT.

CTR. 18.0' R=
+30.2-66.0'LT.

P.C. 60.0' R=
+14.4-10.0'LT.

CTR. 02.0' R=
+31.0-05.5'LT.

CTR. 05.0' R=
+96.0-05.0'XT.

P.C. 60.0' R=
+46.4-10.0'LT.

CTR. 02.0' R=
+63.0-05.5'LT.

P.T. 60.0' R=
+41.6-01.0'RT.

∠PT.+03.0
01.0' RT.

∠PT.+20.0
10.0' RT.

∠PT.+08.0
01.0' LT.

P.C. 60.0' R=
+14.4-01.0'LT.

P.T. 60.0' R=
+27.6-10.0'RT.

∠PT.+52.0
10.0' RT.

∠PT.+40.0
01.0' LT.

P.C. 60.0' R=
+46.4-01.0'LT.

CTR. 02.0' R=
+25.0-05.5'RT.

P.T. 60.0' R=
+41.6-10.0'RT.

CTR. 06.0' R=
+27.0-54.0'RT.

P.T.
+27.0-48.0'RT.

P.T.
+43.6-54.0'RT.
V.C.P. CONC

P.C.C. 20.0' R=
+30.8-58.6'RT.

CTR. 18.0' R=
+59.4-66.0'RT.

CTR. 16.0' R=
+23.6-94.0'RT.

63 64 65 66 67 68 69

+50 +50 +50 +50 +50 +50

S.89°-12'-00"W.

ASPH. ON CR. STONE 34' 5' 5' 60'

ABN'D 3" GAS

ABN'D 6" GAS

ABN'D 22" GAS 24"(H.P.)

CONC. DWY.

ASPH. DWY.

BUS STOP

LAMP

R/W

CW

CONC. 30' 5' 5' 60'

N. 88TH ST.

#8729-29A

CAUTION

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 49	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\63_69PDET.DGN

WEST CAPITOL DRIVE

N

B.M. NE CORN. CONC. BASE ALUM. LIGHT POLE #8700 STA 70+78, 1'LT. ELEV. 200.76

B.M. NE CORN. CONC. BASE ALUM. LIGHT POLE #8600 STA 74+09, 1'LT. ELEV. 197.99

N. 87TH ST.

N. 86TH ST.

B.M. HYD. S\S W.CAPITOL DR. STA 71+63, 50'RT. NW BOLT ELEV. 201.16

B.M. HYD. SW COR. N.86TH ST. & W.CAPITOL DR. STA 74+42, 90'RT. NW BOLT ELEV. 197.96

STATE PROJECT NUMBER 2025-11-71 2025-16-71	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 50	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\69_75PDET.DGN

WEST CAPITOL DRIVE

N. 86TH ST. | N. 85TH ST.

#8532 | #8522 | #8516-18 | #8500 | #8430 | #8422 | #8412

B.M. NE CORN. CONC. BASE ALUM. LIGHT POLE #8500 STA 77+50, 1'LT. ELEV. 195.46

CTR. 18.0' R= +01.4-66.0'LT.

CTR. 18.0' R= +64.2-66.0'LT.

CTR. 18.0' R= +34.2-66.0'LT.

86' LT | 83' LT | 75' LT

ABN'D 2" GAS | ASPH. ON CR. STONE | ASPH. PARKING | R/W | P.L. | CW | ENT. | LANNON STONE WALL | ABN'D 6" GAS | TEL

P.T. 60.0' R= +12.6-01.0'RT.

∠PT. +09.0 10.0' LT.

∠PT. +21.0 01.0' RT.

P.C. 60.0' R= +51.4-10.0'LT.

CTR. 02.0' R= +68.0-05.6'LT.

P.T. 60.0' R= +46.6-01.0'RT.

∠PT. +53.0 01.0' RT.

END PROJECT STA. 79+41.0 T/L

75 | 76 | 77 | 78 | 79 | 80 | +50 | +41 | T/L | TES | S.89° 12' 00"W.

P.T. 60.0' R= +12.6-01.0'RT.

CTR. 02.0' R= +96.0-05.5'RT.

∠PT. +57.0 10.0' RT.

∠PT. +45.0 01.0' LT.

P.C. 60.0' R= +51.4-01.0'LT.

CTR. 02.0' R= +30.0-05.5'RT.

P.T. 60.0' R= +46.6-10.0'RT.

+24

CTR. 18.0' R= +98.6-66.0'RT.

PLANTER | ASPH. PARKING | CAUTION

#8531-35

#8411 MYKONOS

B.M. HYD. S\S W.CAPITOL DR. STA 78+25, 50'RT. NW BOLT ELEV. 195.46

#8401 STEINHAFELS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 51	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\75_80PDET.DGN

B. W. RR SPIKE IN WOOD POLE
SE COR. W. GRANTOSA DR. (WEST RDWY)
& W. CAPITOL DR. STA. 11+70, 70' RT.
ELEV. 127.85

12 W. CAPITOL DR. T/L

W. CAPITOL DRIVE

W. GRANTOSA DR.

CTR. 133 'R=
13+86.5-189.5'LT.

N

5" CONC. WALK ON
3" BASE AGGREGATE DENSE 1-1/4 INCH

RIP RAP

13 + 12.8
56.0'RT.

13 + 25.8
56.0'RT.

P.T.
13+20.4-62.4'RT.

100'R.

P.C.C.
12+87.0-126.7'RT.

RETAINING WALL

75'R.

13 + 15.0
175.4'RT.

CTR. 75.0'R=
13+72.0-126.7'RT.

CTR. 100 'R=
13+97.0-126.7'RT.

ASPH.

CONC. DWY.

24" (H.P.) TO BE ABANDONED

N.89°27'40"E.

G ABN-B-222-645

14 + 06.7
56.0'LT.

14 + 19.8
56.0'LT.

P.C.
14+20.9-57.3'LT.

CTR. 20.0'R=
14+37.7-43.1'LT.

P.R.C.
14+30.5-63.9'LT.

20'R.

133'R.

RETAINING WALL

P.T.
13+20.4-62.4'LT.

5" CONC. WALK ON
3" BASE AGGREGATE DENSE 1-1/4 INCH

P.C. 20.0'R=
15+54.8-165.0'LT.

15 + 80.0
166.8'LT.

CTR. 20.0'R=
15+68.5-150.4'LT.

CONC.

10405 W. GRANTOSA DR.

10210 W. GRANTOSA DR.

B.W HYD. SE COR. W. GRANTOSA DR.
(EAST RDWY) & W. CAPITOL DR.
STA. 14+73, 73'RT. NW BOLT
ELEV. 128.40

B.W HYD. NE COR. W. GRANTOSA DR.
(EAST RDWY) & W. CAPITOL DR.
STA. 15+75, 102'LT. NW BOLT
ELEV. 129.81

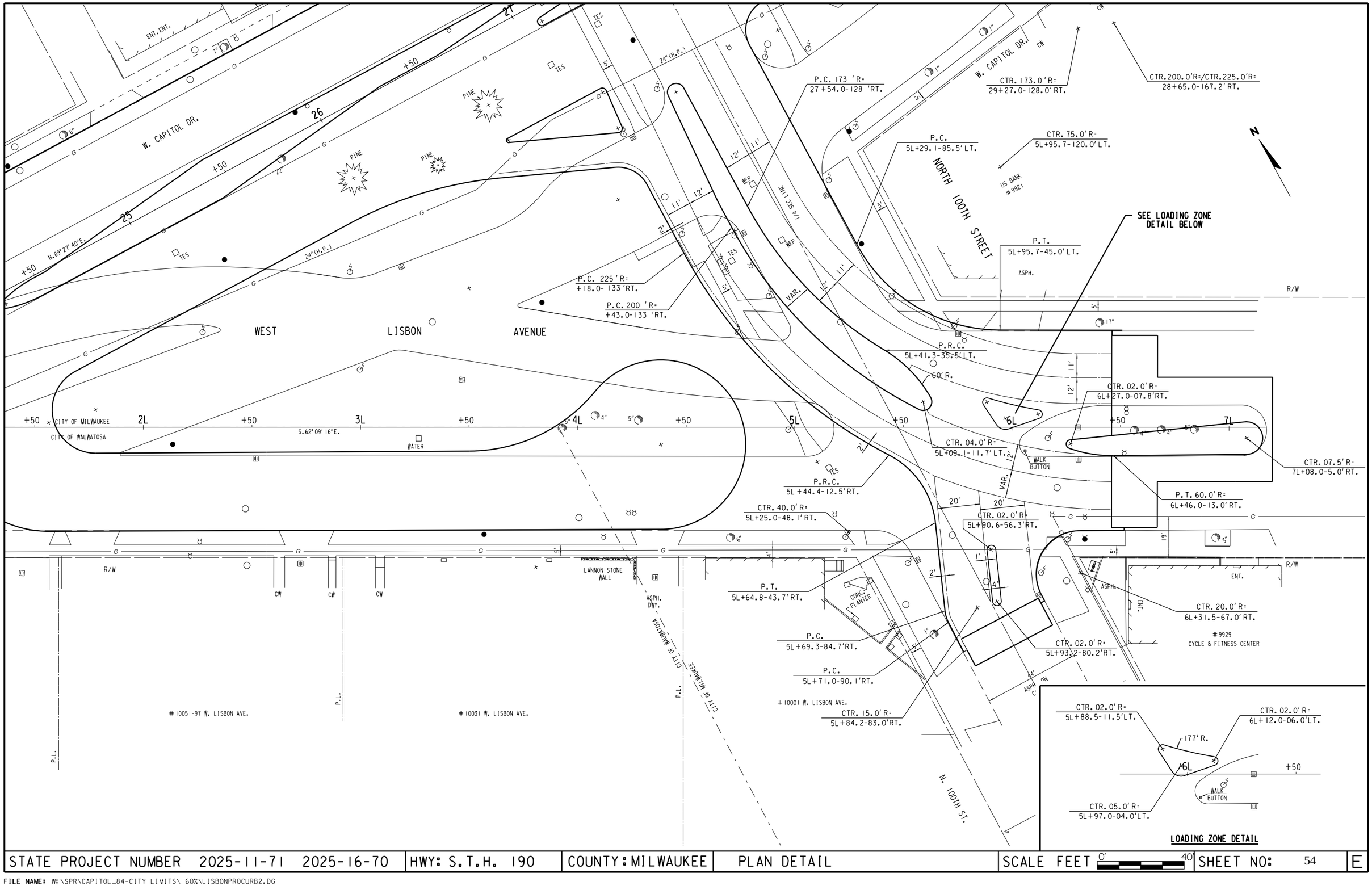
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	MULTI-USE PATH PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 52	E

FILE NAME: W:\SPR\

W. CAPITOL DR.
ENT.ENT.
7"
6"
G
+50
27
26
25
22
PINE
PINE
PINE
TES
5'
24"(H.P.)
N.89°27'40"E.
CTR. 75.0' R=
3L+50.0-64.0'LT.
WEST LISBON AVENUE
P.R.C.
4L+08.1-16.6'LT.
P.C.
3L+50.0-11.0'RT.
CITY OF MILWAUKEE
CITY OF WAUWATOSA
2L
3L
4L
5L
6L
7L
S.62°09'16"E.
WATER
CTR. 39.0' R=
4L+38.4-08.0'RT.
12.5'
14'
16'
+00
+25
+50
W. CAPITOL DR.
CW
1/4 SEC. LINE
MEP
US BANK
#9921
ASPH.
R/W
17"
WALK
BUTTON
N
R/W
LANNON STONE
WALL
ASPH.
DWY.
CITY OF WAUWATOSA
CITY OF MILWAUKEE
P.L.
P.C.
4L+38.4-47.0'RT.
CONC.
PLANTER
ASPH.
ENT.
#9929
CYCLE & FITNESS CENTER
14'
ASPH. ON
CONC.
#10051-97 W. LISBON AVE.
#10031 W. LISBON AVE.
#10001 W. LISBON AVE.
N. 100TH ST.
90'

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 53	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\ 60%\LISBONPROCURB2.DG



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 54	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\ 60%\LISBONPROCURB2.DG

NORTH 92ND STREET

N

W. MELVINA ST.

B.W. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

20'

CONC. ALLEY

#9201-15
WISCONSIN HEARING AID CENTER

ASPH. PARKING

WOOD CHIPS

BUS SHELTER

ASPH.

ASPH. DWY.

R/W

CAUTION

∠PT.+93.0
43.0'LT.

∠PT.+75.0
42.0'LT.

CW

CTR. 18.0'R=
+34.5-61.0'LT.

CTR. 2.0'R=
+89.7-4.7'LT.

CTR. 2.0'R=
+31.0-5.0'LT.

CTR. 2.0'R=
+39.0-5.0'LT.

BEGIN CONSTRUCTION
STA. 197+08.0 T/L

N. 92ND ST. T/L

LANNON STONE WALL

PLANTER

S.00°48'42"E.

LAWN

ASPH.

TES

WEP

ABN'D 2" GAS

W. CAPITOL DR. T/L

W. CAPITOL DR.

CURB

STUMP

TEL

90°24'42"

90°19'05"

90°44'48"

88°31'25"

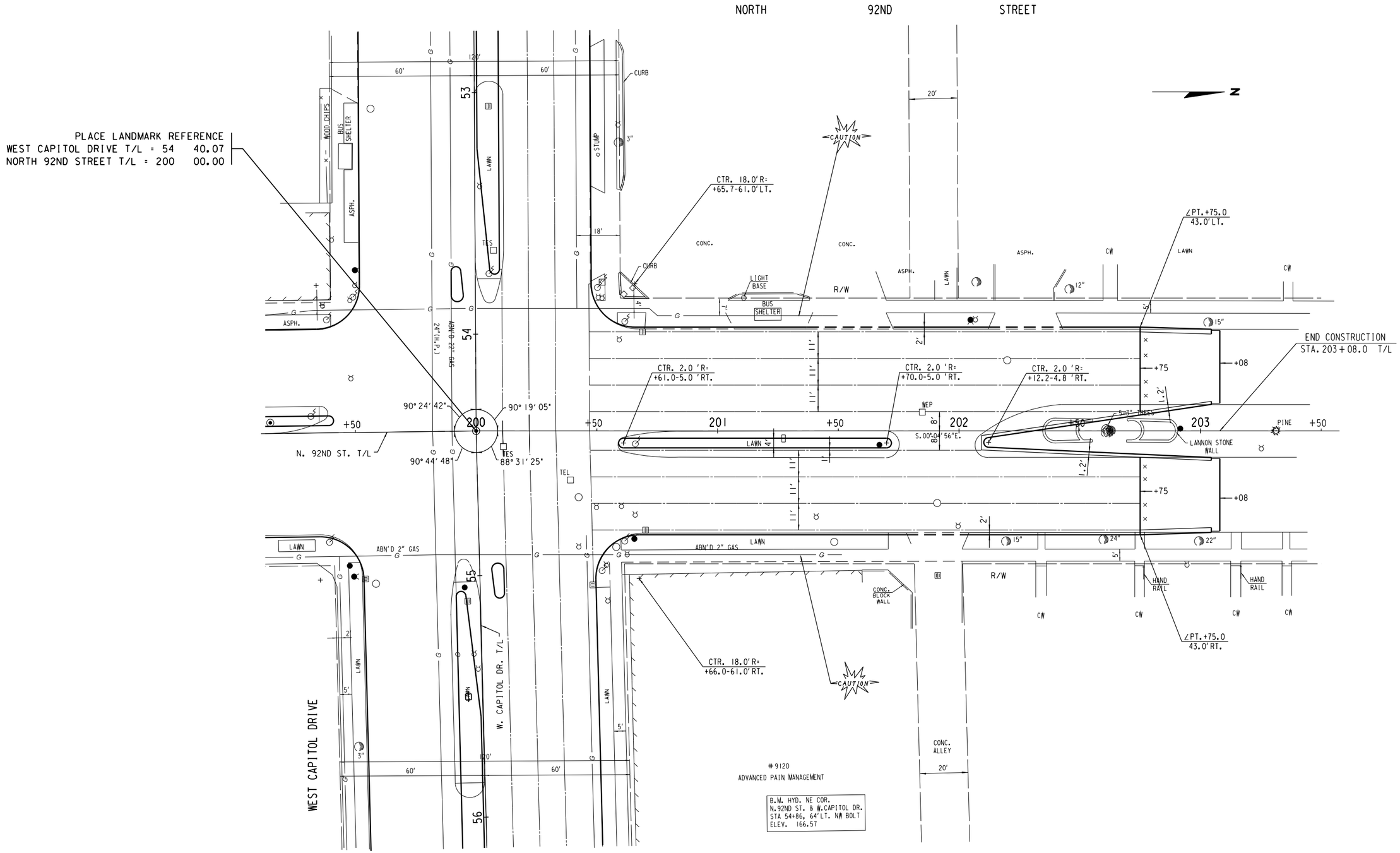
PLACE LANDMARK REFERENCE
WEST CAPITOL DRIVE T/L = 54 + 40.07
NORTH 92ND STREET T/L = 200 + 00.00

#9101
ST. MARGARET MARY CHURCH

STD. B.M. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 55	E

FILE NAME: W:\SPR\



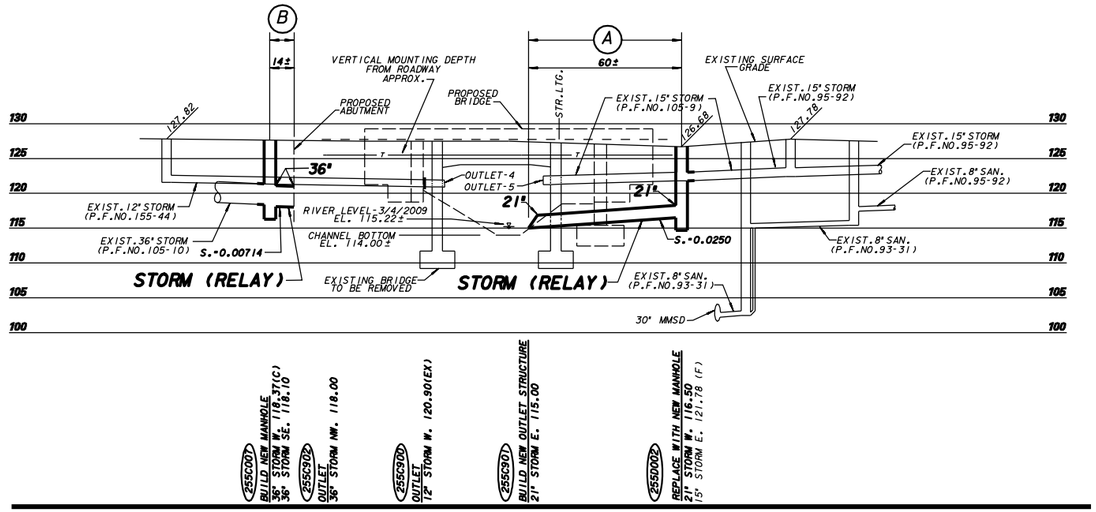
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN DETAIL	SCALE FEET 0' 40'	SHEET NO: 56	E

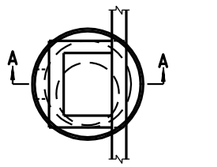
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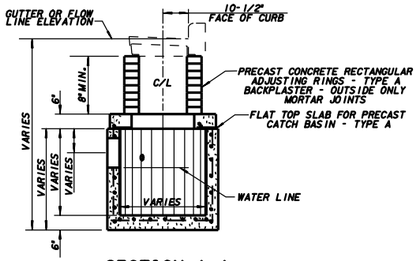
A		B	
21" DIA. STORM CLASS V RCP	CLASS "C" BEDDING	36" DIA. STORM CLASS IV RCP	CLASS "C" BEDDING

SPECIAL PROVISIONS FOR PLAN FILE NO. 228-6 ONLY

1. STANDARD SPECIAL PROVISIONS, PLAN FILE NUMBER 52-4-51, DATED AUGUST 22, 2011 (OR LATEST REVISION THERE OF). ARE PART OF THIS CONTRACT.
2. ALL SEWER RELAY WORK IS PART OF THE BRIDGE CONTRACT.
3. TO OBTAIN A STANDARD D-SIZE (24" X 36") COPY OF THIS PLAN, CONTACT SEWER DESIGN MANAGER, MR. ZAFAR YOUSUF, AT (414)286-2467.
4. AS PART OF THE BRIDGE CONTRACT, THE CONTRACTOR SHALL SAWCUT THE 12-INCH DIAMETER STORM SEWER IN WEST CAPITOL DRIVE FOUR FEET WEST OF THE WEST WALL OF THE PROPOSED ABUTMENT. THE CONTRACTOR SHALL RECONNECT THE 12" SEWER MAIN FROM THE NEW WEST ABUTMENT TO THE NEAREST REMAINING BELL AND SPIGOT. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE 12-INCH DIAMETER REINFORCED CONCRETE PIPE (CLASS III).
5. THE CONTRACTOR SHALL INSTALL A MS-5I FRAME AND MS-57 CATCH BASIN GRATE ON MANHOLE NO. 255D002. ALL FIELD WORK AND UTILITY COSTS ASSOCIATED WITH THIS INSTALLATION SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RESPECTIVE DIAMETER STORM MANHOLE WITH A 22-INCH SUMP.
6. THE CONTRACTOR MAY BE REQUIRED TO USE TEMPORARY PIPE DURING THE CONSTRUCTION OF THE BRIDGE ABUTMENT. THE CONTRACTOR SHALL REMOVE AND REPLACE ALL TEMPORARY PIPES WITH THE RESPECTIVE DIAMETER STORM SEWER, CLASS "C" BEDDING PRIOR TO COMPLETION OF THE PROJECT. THE STORM SEWER PIPE SHALL BE CLASS V CONCRETE AND SHALL BE REPLACED USING THE NEAREST UPSTREAM BELL OF THE EXISTING PIPE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE RESPECTIVE DIAMETER STORM SEWER, CLASS "C" BEDDING.



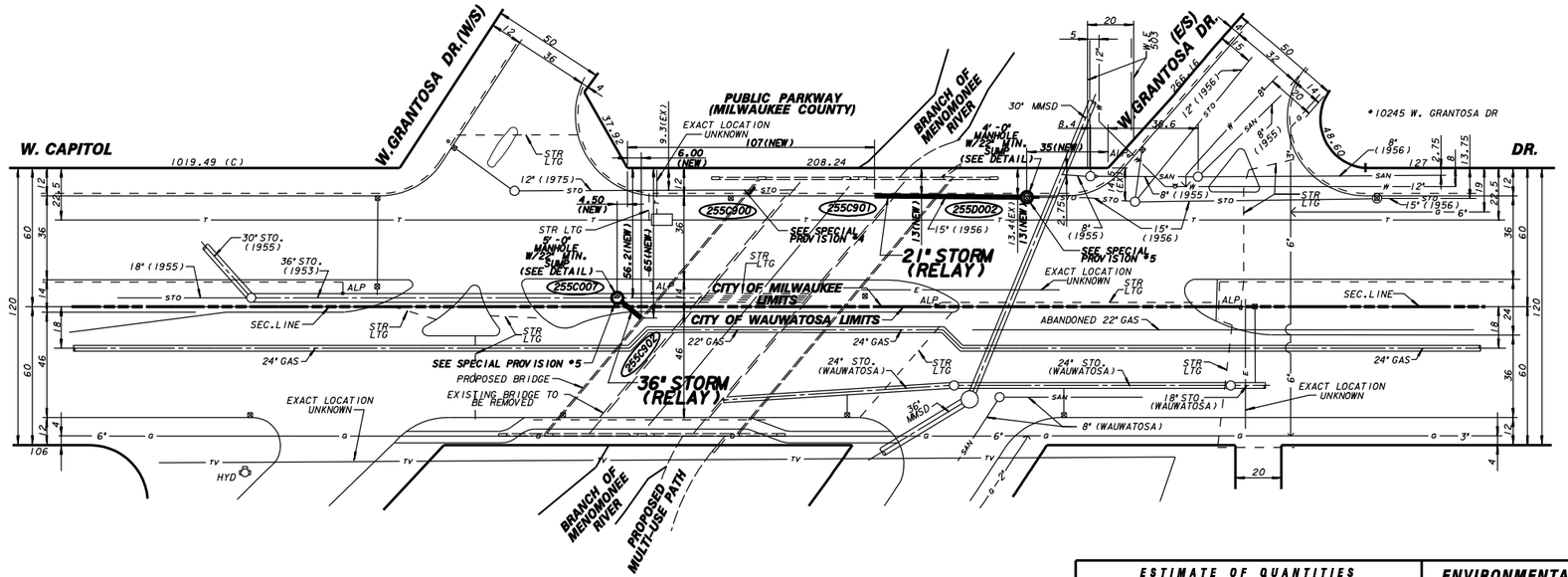




SECTION A-A

CATCH BASIN - TYPE 45A

1. PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199 AND ASTM DESIGNATION C-478 AND THESE DETAILED REQUIREMENTS WHICH SHALL COVERN WHERE THEY ALTER THE AASHTO AND ASTM STANDARDS.
2. ALL REINFORCEMENT STEEL SHALL BE GRADE 60 OR GREATER AND EMBEDDED AT LEAST 1" CLEAR.
3. PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 4" IN DEPTH WHICH MEETS REQUIREMENTS FOR GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.
4. SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON PLAN.



PAVEMENT BETWEEN W. GRANTOSA DR. (W/S) AND W. GRANTOSA DR. (E/S) ON W. CAPITOL DR.

2-1/2" ASPHALT CONCRETE (1978) ON
W 66' OF E 91' - 3" BITUMINOUS CONCRETE ON 9" CONCRETE BASE (1958)
W 45' OF E 136' REINFORCED CONCRETE BRIDGE (1958)
E 25' & W 110' 3" BITUMINOUS CONCRETE (1958) ON
N.11.5' 3" BITUMINOUS CONCRETE ON 9" CONCRETE BASE (1958)
8" BITUMINOUS CONCRETE (1950) ON (CRACK 'N' SEED)
8"-10" CONCRETE (1930)

PAVEMENT BETWEEN W. GRANTOSA DR. AND N.107TH ST

2-1/2" ASPHALT CONCRETE (1978) ON
3" BITUMINOUS CONCRETE (1958) ON
N.11.5' 3" BITUMINOUS CONCRETE ON 9" CONCRETE BASE (1958)
8" BITUMINOUS CONCRETE (1950) ON (CRACK 'N' SEED)
WIDENING 8" BITUMINOUS CONCRETE ON 8" CRUSHED STONE BASE (1950)
8"-10" CONCRETE BASE (1930)

SURVEY:
BOOK NO. 791, PP. 155-156
BM: HYDRANT SE. CORNER OF W. GRANTOSA DR. (EAST R/W) & W. CAPITOL DR. ELEV. 128.40
HYDRANT NE. CORNER OF W. GRANTOSA DR. (EAST R/W) & W. CAPITOL DR. ELEV. 129.81

LINE CODE LEGEND

GAS	G	SANITARY SEWER	SAN
ELECTRIC	E	STORM SEWER	STO
TELEPHONE	T	COMBINED SEWER	CMB
CABLE TELEVISION	TV	SEW.DISTRICT SEWER	MMSD
FIBER OPTICS	FO	WATER MAIN	W
CITY UNDERGROUND CONDUIT	CUC	SEWER/WATER 24" & OVER	
		STREET LIGHTING	
		PAVING LIMITS	
		STRUCTURE /BUILDING	
		FENCE	x

CALL DIGGERS HOTLINE 1-800-242-8511
TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND BEFORE YOU DIG. WISCONSIN STATUTE 182.0715 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

NO.	BY	REVISION	DATE

AS BUILT CONTRACT NO.
DATE ENT'D. ENT'D. BY

WISCONSIN ZAFAR S. YOUSUF E-30840 MILWAUKEE, WI PROFESSIONAL ENGINEER

ESTIMATE OF QUANTITIES

ITEM NO.	QUANTITY	DESCRIPTION
20211	60 FT.	21" DIA. STORM SEWER CLASS"C"BEDDING
20881	14 FT.	36" DIA. STORM SEWER CLASS"C"BEDDING
42412	1	4'-0" DIA. STORM MANHOLE W/INLET GRATE COVER AND SUMP
42413	1	5'-0" DIA. STORM MANHOLE W/INLET GRATE COVER AND SUMP
50001	LUMP SUM	BARRICADING
50015	LUMP SUM	EROSION CONTROL
55121	1	21" DIA.CONCRETE END SECTION
60002	113 FT.	SEWER EXAMS BY CCTV-POST CONSTRUCTION

THESE QUANTITIES ARE FOR INFORMATIONAL USE ONLY

ENVIRONMENTAL ENGINEERING SECTION
INFRASTRUCTURE SERVICES DIVISION
DEPARTMENT OF PUBLIC WORKS
MILWAUKEE, WISCONSIN

SEWER MAIN PLAN

IN W. CAPITOL DRIVE
FROM W. GRANTOSA DRIVE (E/S)
TO W. GRANTOSA DRIVE (W/S)

		APPROVED	DATE
SCALE	HORIZONTAL 1"=30' VERTICAL 1"=10'		
SW SEC. NO.	255,260	Zafar Yousuf	11/23/2011 DESIGN ENGINEER
PLAN DATE	9-15-2011	Timothy J. Thur	11/23/2011 CHIEF DESIGN ENGINEER
DESIGNED BY	J.J.RADOMSKI	Matthew Cegiewicz	11/23/2011 ENGINEER IN CHARGE
DRAWN BY	A.WIENKE		
CHECKED BY	R.C.TALLY		11/23/2011
SYSTEM NO.	2209,2210	CITY ENGINEER & SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS	
EASEMENT NO.	W.E. 503		
CONTRACT NO.		PROJECT NO.	C.C. FILE NO.
PROJ. ID.	SM495110010	OFF. NOTICE NO.	DATE ADOPTED

SHEET NO. OF PLAN FILE 57 8-6

STATE PROJECT NUMBER	HWY:	COUNTY: MILWAUKEE		SCALE FEET	SHEET NO: E

WEST CAPITOL DRIVE

N

W. GRANTOSA DR.

BEGIN PROJECT 2025-16-70
STA. 12+96.44

WISDOT PROJECT
2025-16-70

END PROJECT 2025-16-70
STA. 13+80.66

CITY OF MILWAUKEE
CITY OF WAUWATOSA

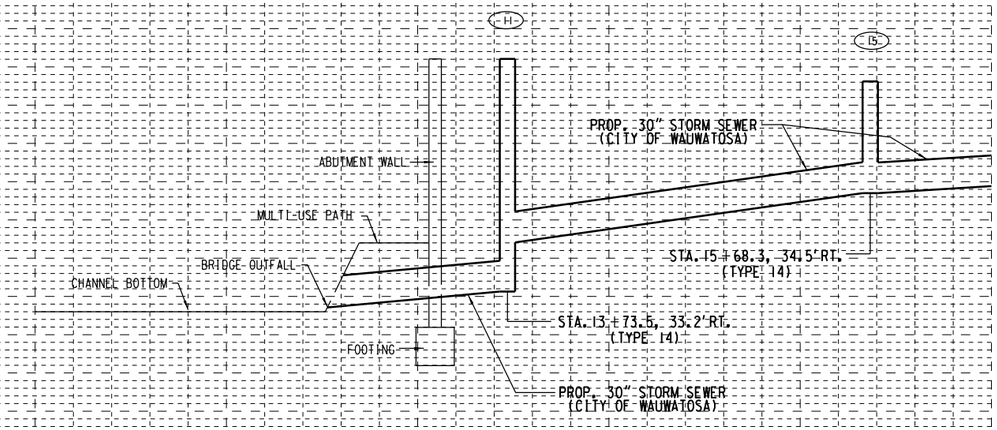
10512 W. GRANTOSA DR.

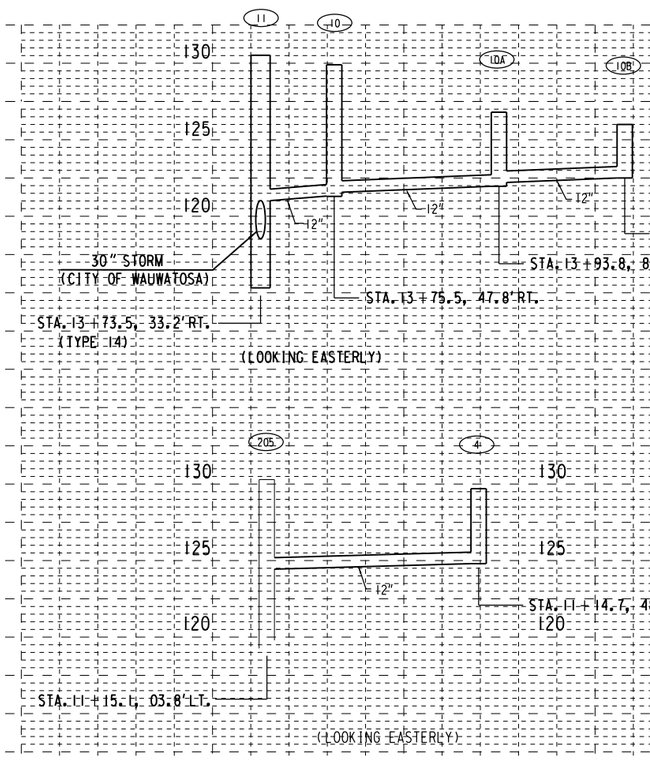
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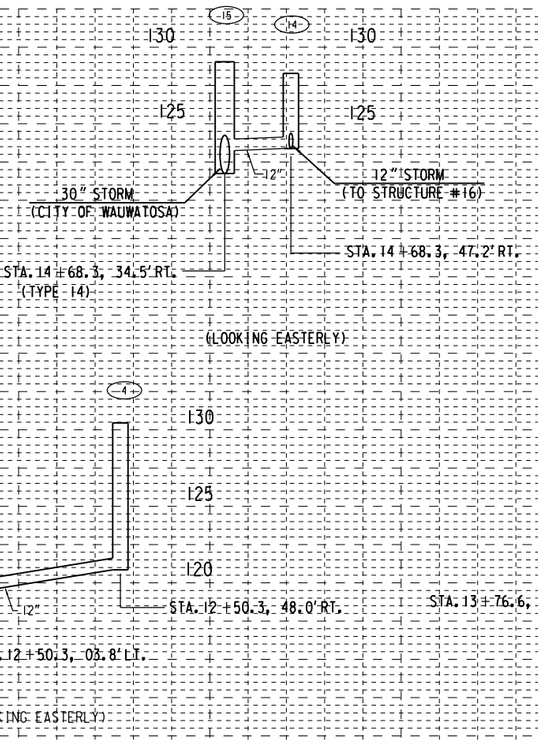
NOTE: CONTRACTOR TO VERIFY PROPOSED/ ABANDONED UTILITIES WITH UTILITIES PRIOR TO CONSTRUCTION.

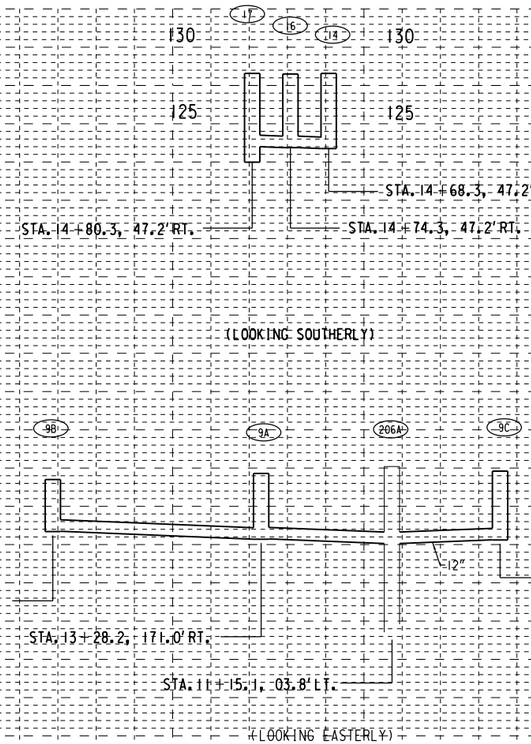
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	WAUWATOSA STORM SEWER	SCALE FEET 0' 40'	SHEET NO: 58	E

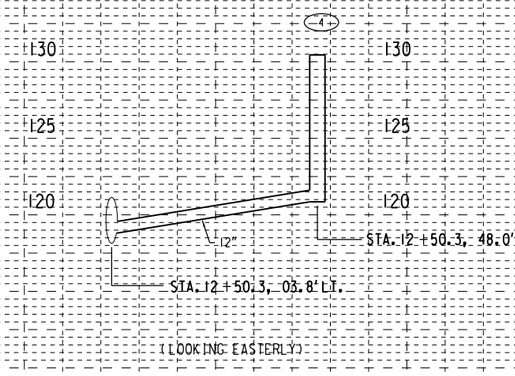
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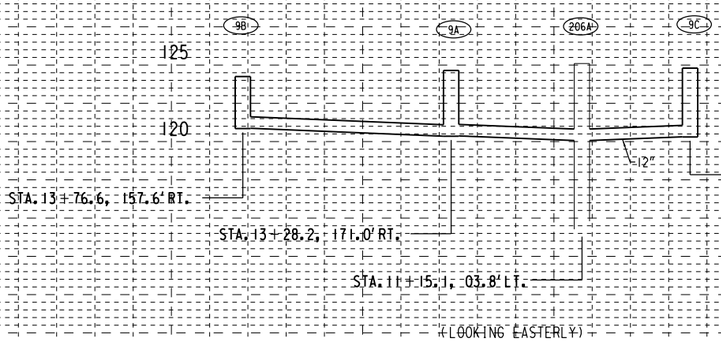












STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	WAUWATOSA STORM SEWER	SCALE FEET	SHEET NO: 59	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 09_15.DGN

2

WEST CAPITOL DRIVE

N

W. GRANTOSA DR.

10210 W. GRANTOSA DR.

DAYCARE # 10224-26

10210

10200-02

10124-26

10118

P.L.

CAUTION

BUS STOP

R/W

TE&ES

TEL

T/L

CITY OF WAUWATOSA

CITY OF MILWAUKEE

ABN'D 22" GAS

24"(H.P.)

PROPOSED 30" STORM (WAUWATOSA)

24" (WAUWATOSA)

18" (WAUWATOSA)

PROPOSED 24" STORM (WAUWATOSA)

15" (WAUWATOSA)

12" (WAUWATOSA)

PROPOSED 15" STORM (WAUWATOSA)

PROPOSED 18" STORM (WAUWATOSA)

PRIVATE STORM SEWER CONNECTION TO BE MAINTAINED (STA. 18+95)

ASPH. PARKING

LAWN

ASPH. ON CONC.

CONC. ALLEY

20'

30'

60'

W. WOODWARD AVE.

N. 102ND ST.

10311

10303

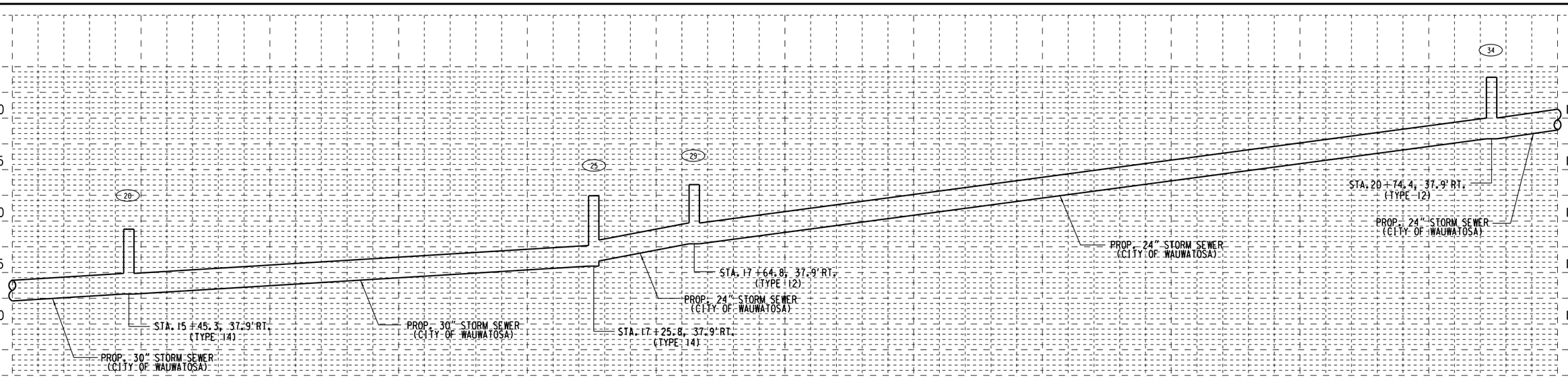
10309 W. WOODWARD AVE.

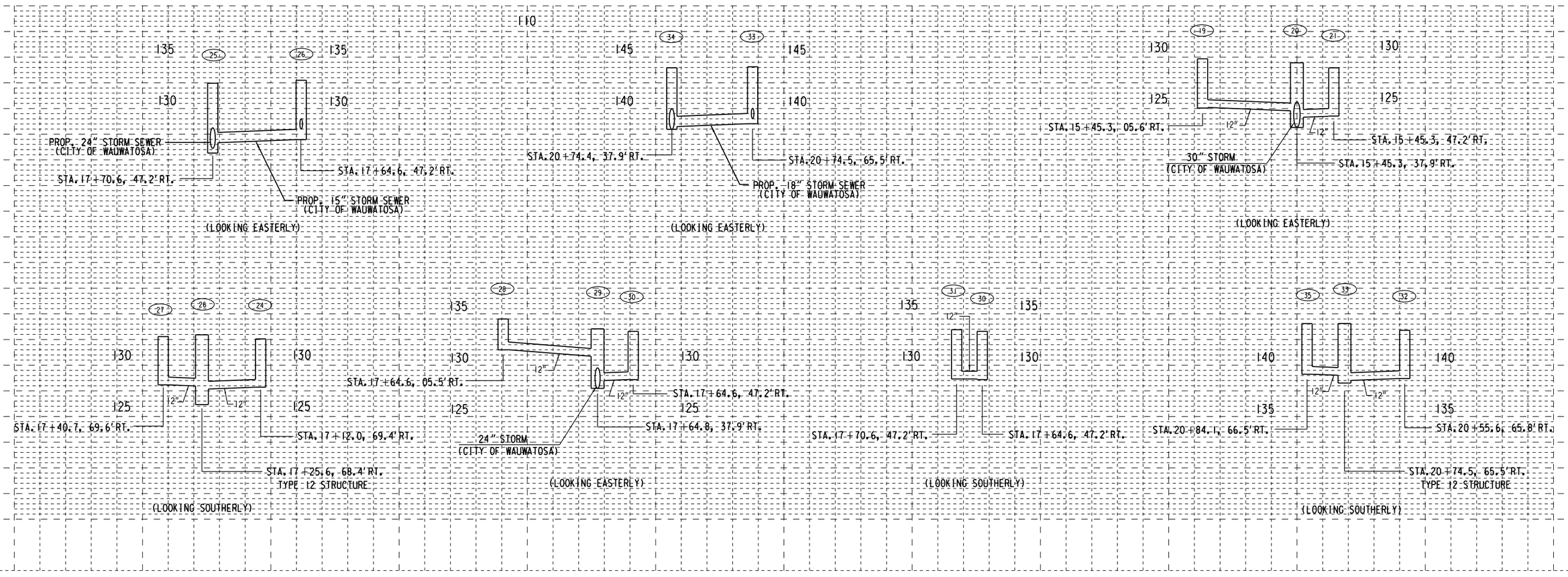
10225

10203

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	WAUWATOSA STORM SEWER	SCALE FEET 0' 40'	SHEET NO: 60	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 15_21.DGN





STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	WAUWATOSA STORM SEWER	SCALE FEET	SHEET NO: 61	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 15_21.DGN

WEST CAPITOL DRIVE

2

N

10118-20 | # 10110 | # 10100 | # 10052-54 | # 10046-48 | # 10036 | # 10012 | LUCKY'S FROZEN CUSTARD # 10000

P.L. P.L. P.L. P.L. P.L. P.L.

CAUTION CAUTION CAUTION

R/W R/W

W SAN STO G T

8" 16" 12" 8" 8" 8" 16" 12" 8"

19' 19'

TEL

TE&ES TE&ES TE&ES TE&ES TE&ES TE&ES TE&ES

81.5'

21 +50 22 +50 23 +50 24 +50 25 +50 26 +50 27

T/L 136 38 39 40 41 42 43

PROPOSED 24" STORM (WAUWATOSA)

PROPOSED 18" STORM (WAUWATOSA)

PROPOSED 18" STORM (WAUWATOSA)

PROPOSED 15" STORM (WAUWATOSA)

8" SAN 12" (WAUWATOSA)

12" (WAUWATOSA)

8" SAN 12" (WAUWATOSA)

24"(H.P.)

CITY OF MILWAUKEE
CITY OF WAUWATOSA

2L 3L 4L

PRIVATE STORM SEWER CONNECTION TO BE MAINTAINED (STA. 21+42)

PRIVATE STORM SEWER CONNECTION TO BE MAINTAINED (STA. 22+32)

PRIVATE STORM SEWER CONNECTION TO BE MAINTAINED (STA. 2L+47)

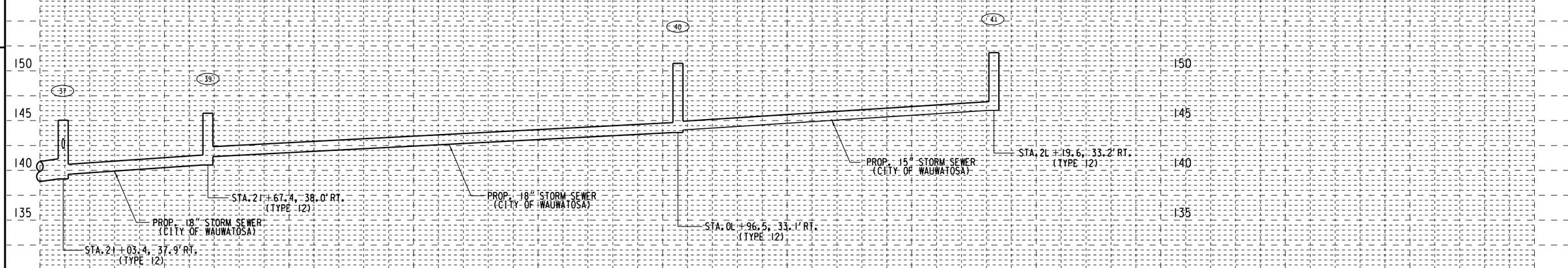
10111
PLAY IT AGAIN SPORTS

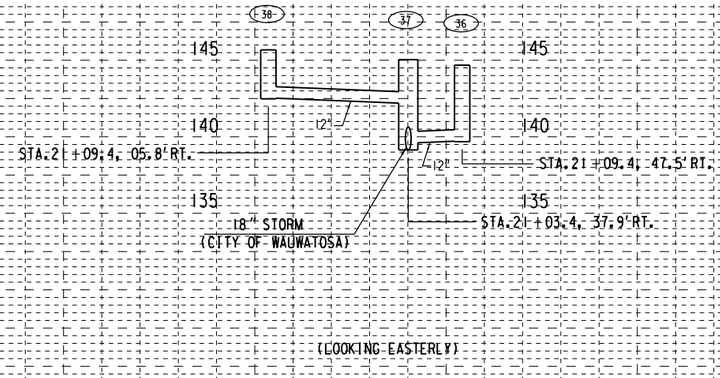
10101
ELITE FURNITURE
(VACANT)

W. LISBON AVE.

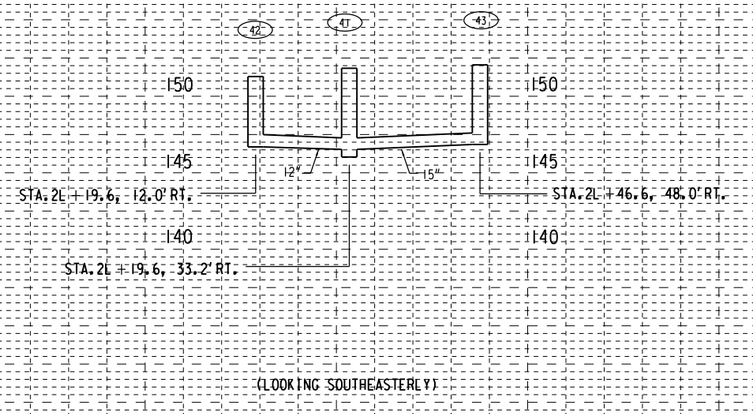
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	WAUWATOSA STORM SEWER	SCALE FEET 0' 40'	SHEET NO: 62	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 21_27.DGN





(LOOKING EASTERLY)



(LOOKING SOUTHEASTERLY)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	WAUWATOSA STORM SEWER	SCALE FEET	SHEET NO: 63	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 21_27.DGN

WEST

CAPITOL

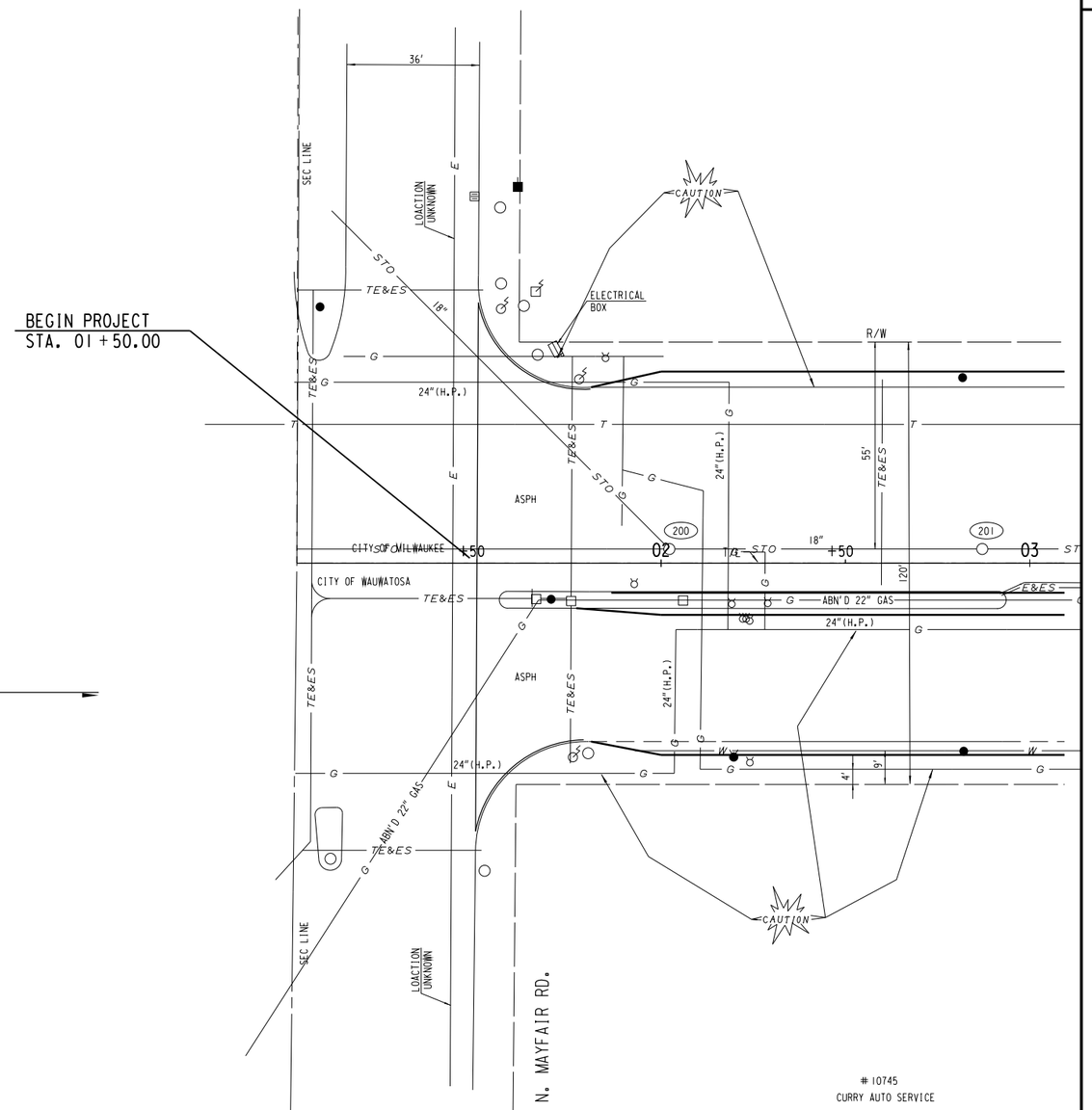
DRIVE

2

N

BEGIN PROJECT
STA. 01+50.00

WORK TO BE DONE
BY WISDOT PROJECT
2030-09-00 TO BE
COMPLETED 2014



NOTE: CONTRACTOR TO VERIFY PROPOSED/ ABANDONED UTILITIES
WITH UTILITIES PRIOR TO CONSTRUCTION.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 64	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 00_03.DGN

2

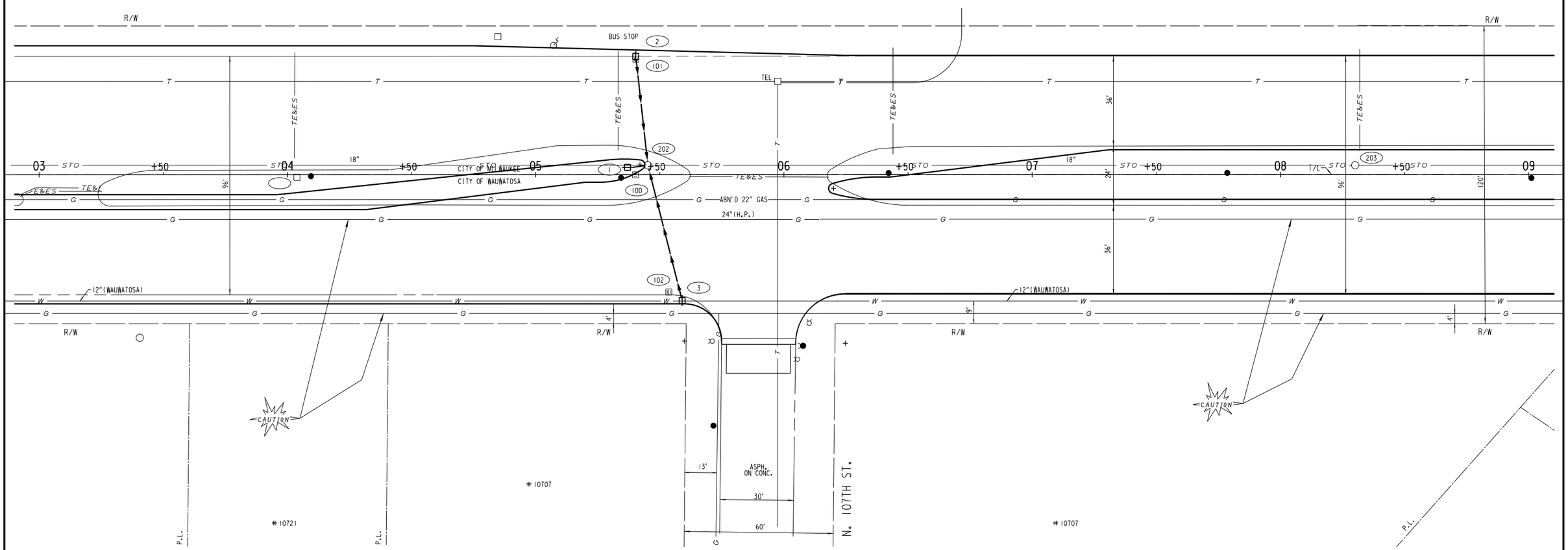
2

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 65	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 00_03.DGN

WEST CAPITOL DRIVE

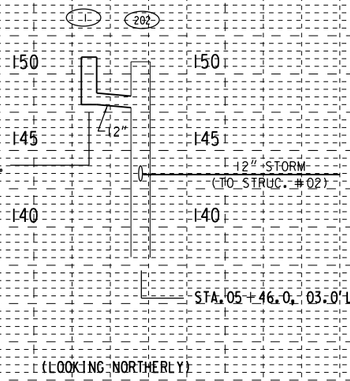
2

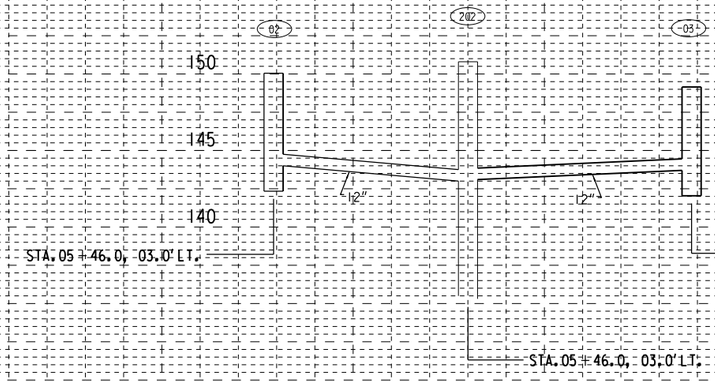


NOTE: CONTRACTOR TO VERIFY PROPOSED/ ABANDONED UTILITIES WITH UTILITIES PRIOR TO CONSTRUCTION.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 66	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 03_09.DGN





STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 67	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 03_09.DGN

WEST CAPITOL DRIVE

2 2

N

W. GRANTOSA DR.

BEGIN PROJECT 2025-16-70
STA. 12+96.44

WISDOT PROJECT
2025-16-70

END PROJECT 2025-16-70
STA. 13+80.66

SEE WAUWATOSA STORM SEWER PLAN

NOTE: CONTRACTOR TO VERIFY PROPOSED/ ABANDONED UTILITIES WITH UTILITIES PRIOR TO CONSTRUCTION.

10512 W. GRANTOSA DR.

10405 W. GRANTOSA DR.

CITY OF MILWAUKEE
CITY OF WAUWATOSA

09 10 11 12 13 14 15

STO +50 TE&ES R/W T/L G W TV SAN MMSD

18" 30" 36" 24" 12" 15" 21" STORM 8" SANITARY (WAUWATOSA)

ABN'D 22" GAS 24"(H.P.)

24" TO BE ABANDONED

PROP. C/L NEW BRIDGE TO BE ABANDONED

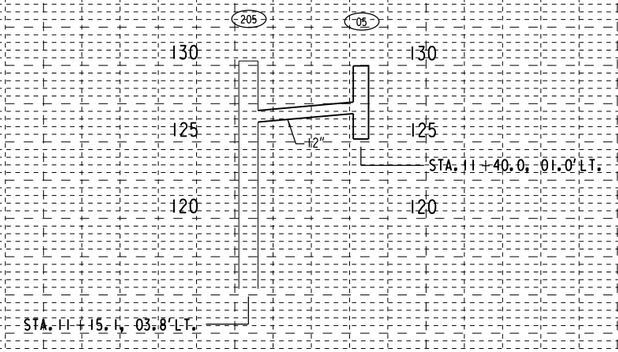
12"(WAUWATOSA) 24" (WAUWATOSA)

CONC WATER CAUTION P.I.

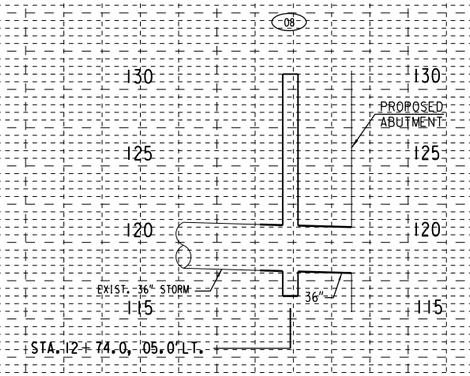
55' 120' 33' 13.2' 30' 70' 9' 4' 6"

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 68	E

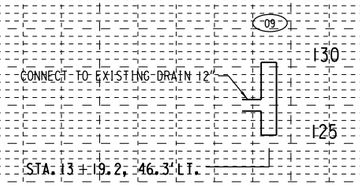
FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 09_15.DGN

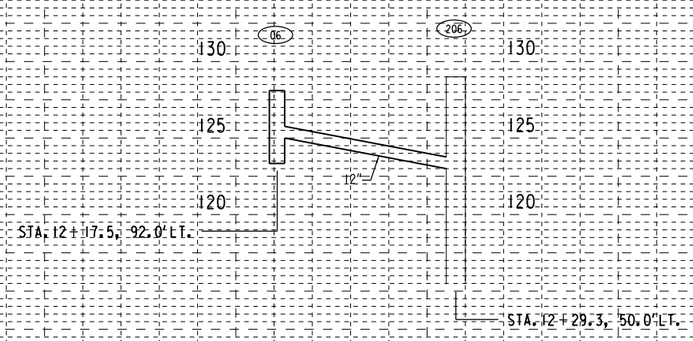


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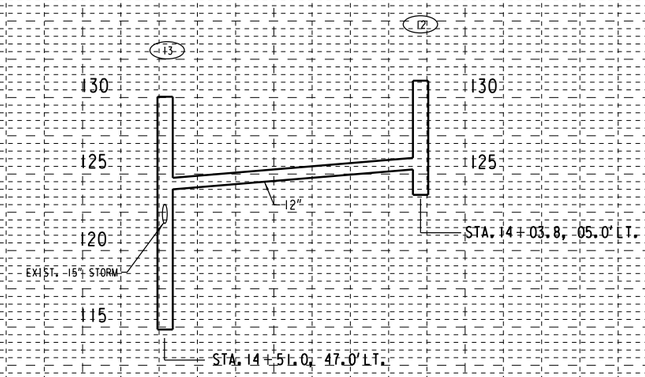


(LOOKING NORTHERLY)

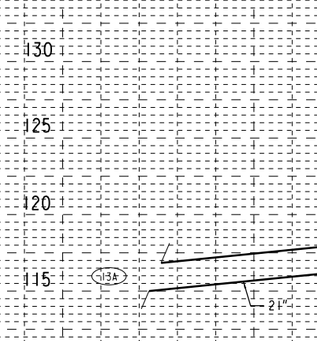




(LOOKING EASTERLY)



(LOOKING EASTERLY)



(LOOKING EASTERLY)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 69	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 09_15.DGN

WEST CAPITOL DRIVE

N

W. GRANTOSA DR.

10210 W. GRANTOSA DR.

DAYCARE # 10224-26

10210

10200-02

10124-26

10118

CONC. ALLEY 20'

CAUTION

BUS STOP

R/W

TE&ES

TEL

T/L

CITY OF WAUWATOSA

CITY OF MILWAUKEE

ABN'D 22" GAS

24"(H.P.)

24" (WAUWATOSA)

18" (WAUWATOSA)

15" (WAUWATOSA)

12"(WAUWATOSA)

ASPH. PARKING

ASPH. ON CONC.

LAWN

CONC. ALLEY 20'

W. GRANTOSA DR.

10311

10303

W. WOODWARD AVE.

10309 W. WOODWARD AVE.

10225

10203

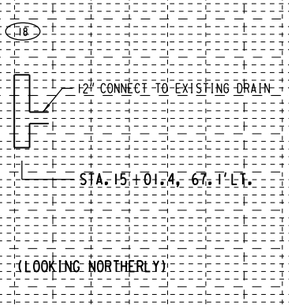
N. 102ND ST.

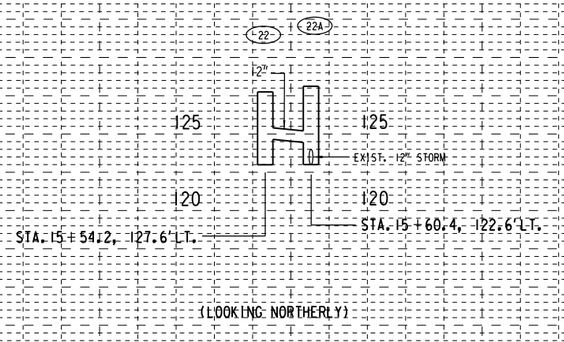
SEE WAUWATOSA STORM SEWER PLAN

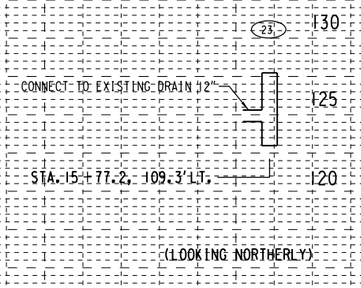
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 70	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 15_21.DGN

2







STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 71	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 15_21.DGN

WEST CAPITOL DRIVE

2

N

10118-20

10110

10100

10052-54

10046-48

10036

10012

LUCKY'S FROZEN CUSTARD
10000

P.L.

CAUTION

R/W

SAN 406 8" SAN 16" SAN 8" SAN SAN 409 8" SAN 16" SAN

W 19' W W W W W W W W 19' W

STO 135 STO STO STO STO 218 STO 220 STO 12" STO

G G G G G G G G G G G

T T T TEL T T T T T T T

TE&ES

21 +50 22 +50 T/L 23 +50 24 +50 25 +50 26 +50 27

136 38 134 47 45

600 TES TE&ES 602

216 405 133 36 217 407 42 221 48 138 46 139 137 219 43

12" STO SAN 8" 12" (WAUWATOSA) 12" (WAUWATOSA) 12" 24"(H.P.)

+50 CITY OF MILWAUKEE CITY OF WAUWATOSA

2L 3L 4L

T/L

9' 4' 9' R/W

10111
PLAY IT AGAIN SPORTS

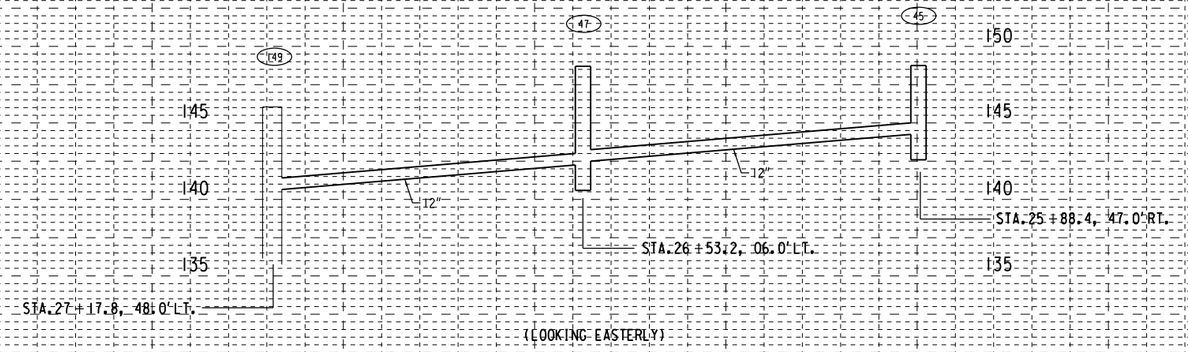
10101
ELITE FURNITURE
(VACANT)

W. LISBON AVE.

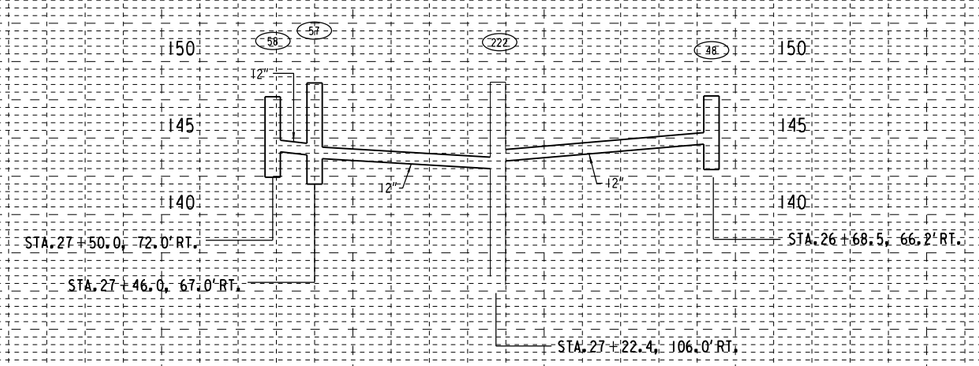
SEE WAUWATOSA STORM SEWER PLAN

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 72	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 21_27.DGN



(LOOKING EASTERLY)



(LOOKING SOUTHERLY)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 73	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 21_27.DGN

WEST CAPITOL DRIVE

2 2

N

N. 100TH ST.

CAUTION

CONC.

1/4 SEC LINE

SAN

TE&ES

STO

G

E

W

T

R/W

BUS STOP

RAMP

TEL

TES

WEP

ASPH. ON CONC.

24"(H.P.)

54" STO.

60" STO.

79° 47' 36"

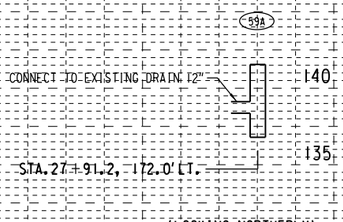
T/L

27 28 29 30 31 32 33

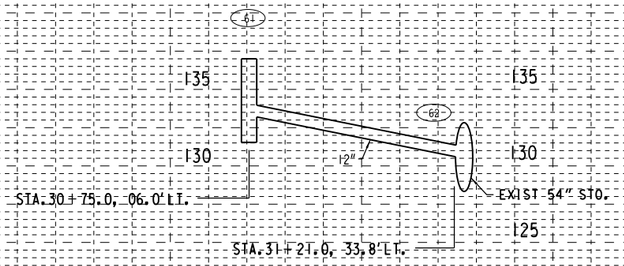
+50

STATE PROJECT NUMBER 2025-11-71 - -	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 74	E

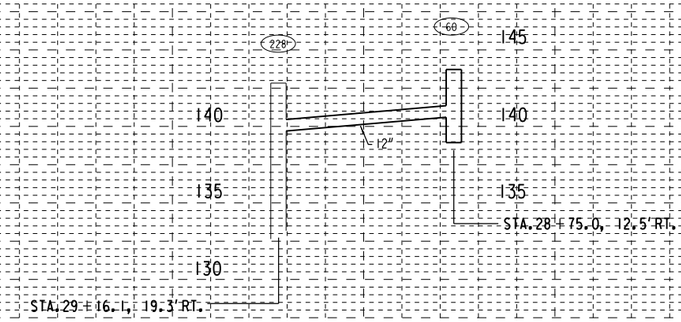
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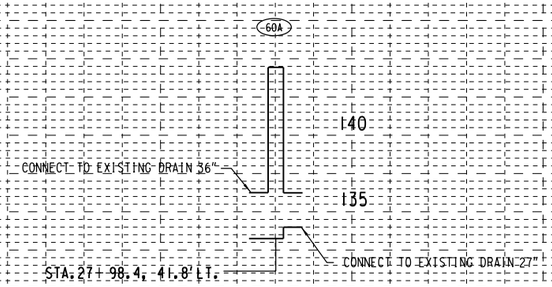
(LOOKING NORTHERLY)



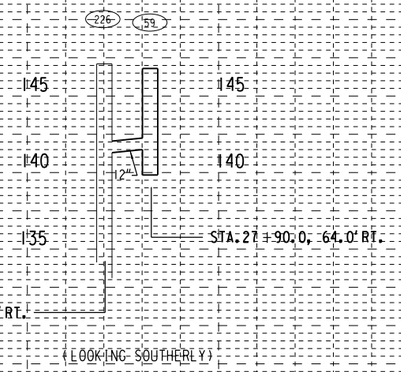
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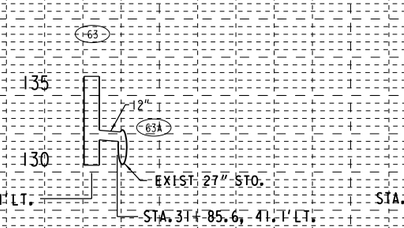
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(LOOKING EASTERLY)

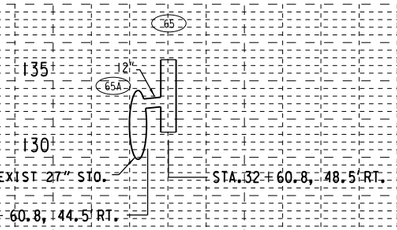


(LOOKING SOUTHERLY)



(LOOKING EASTERLY)

(LOOKING EASTERLY)



(LOOKING EASTERLY)

(LOOKING EASTERLY)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 75	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 27_33.DGN

WEST CAPITOL DRIVE

2 2

N

NURSERY & GARDEN CENTER

N. 98TH ST.

#9734-36 #9728-30 #9720 #9712-14 #9708-10 #9700 #9836 #9628-30

P.L.

CAUTION

LOC. UNKNOWN

R/W

TE&ES

ABN'D 22" GAS 24"(H.P.)

#3971-73 N. 98TH ST.

#3974-76 N. 98TH ST.

#9717-19 #9709-11 #9703-05 #9643-45 #9635-37 #9629-31 #9623-25

33 34 35 36 37 38 39

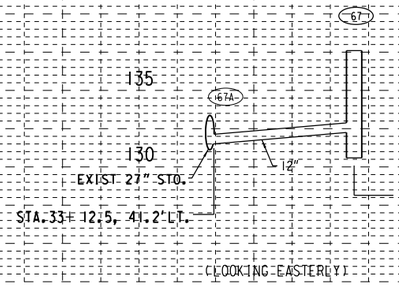
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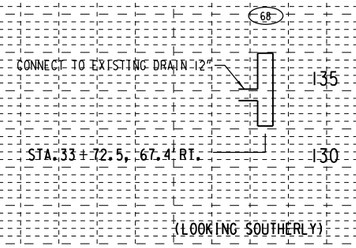
T/L

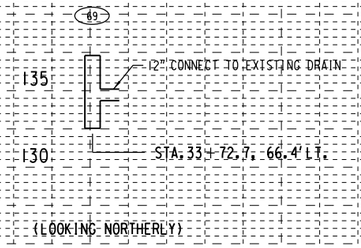
TES 610 TES 612

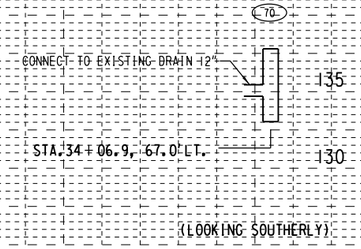
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 76	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 33_39.DGN







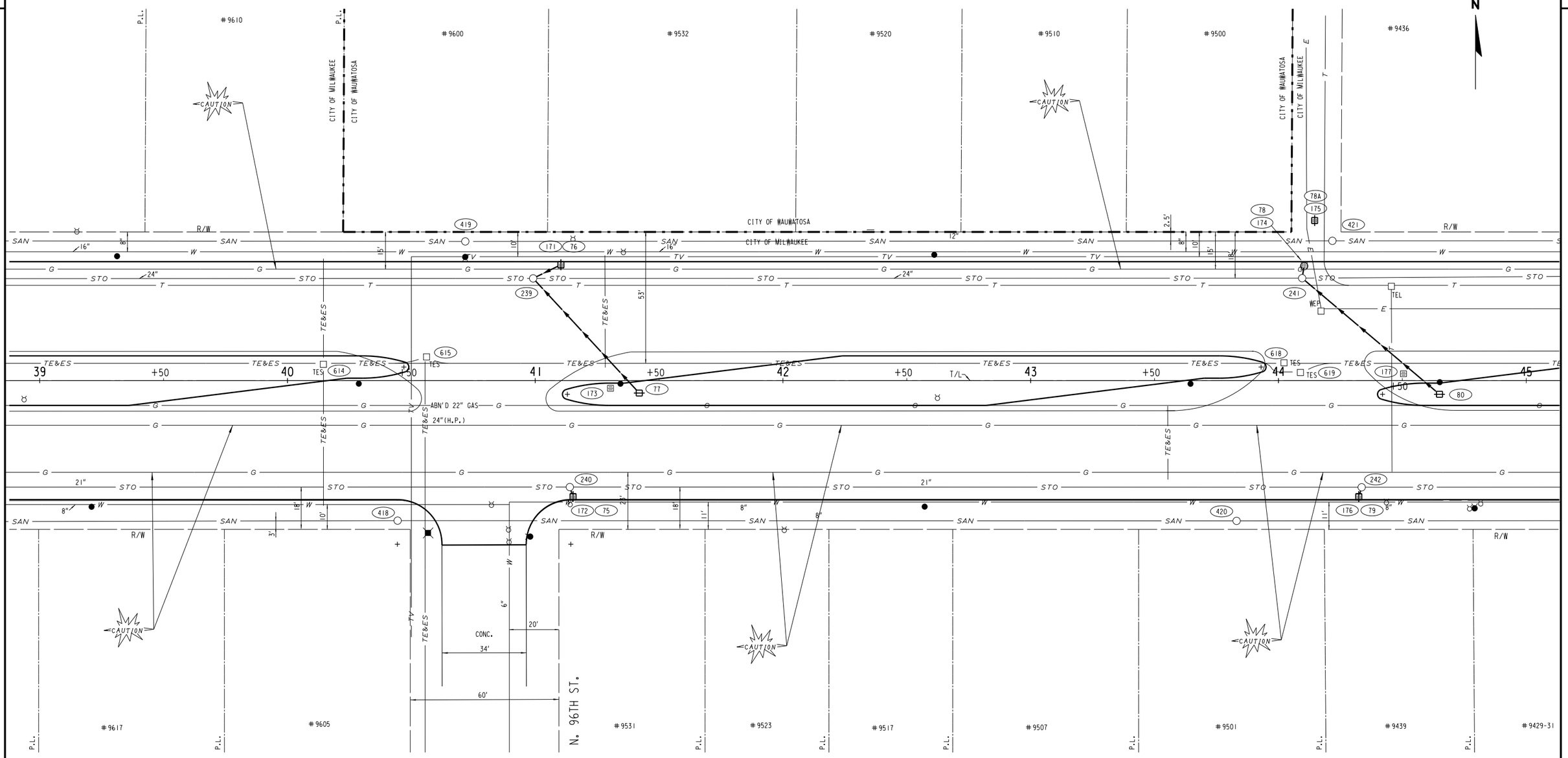


STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 77	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 33_39.DGN

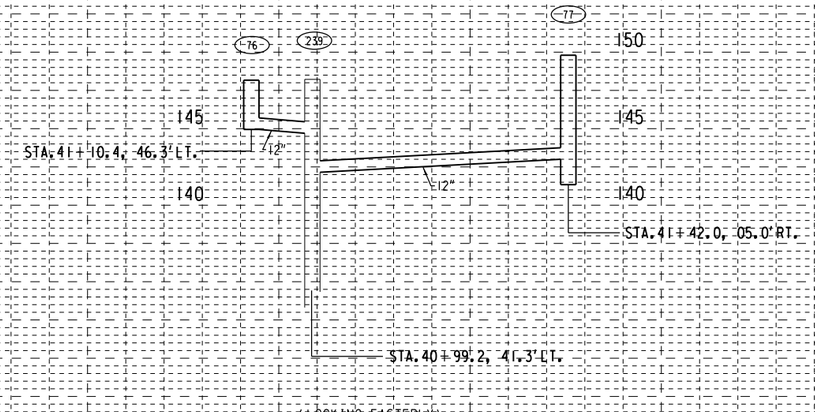
WEST CAPITOL DRIVE

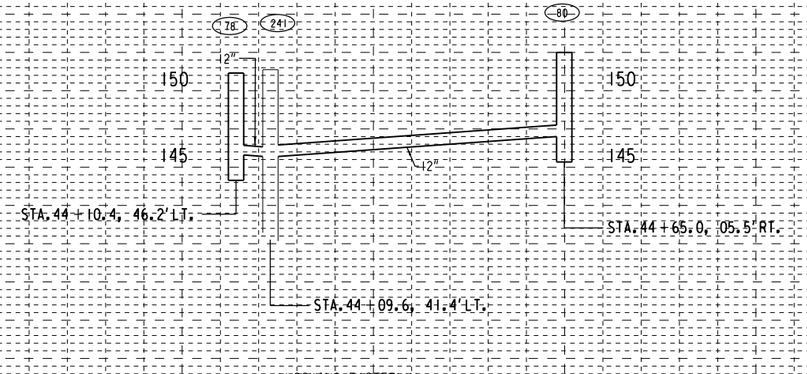
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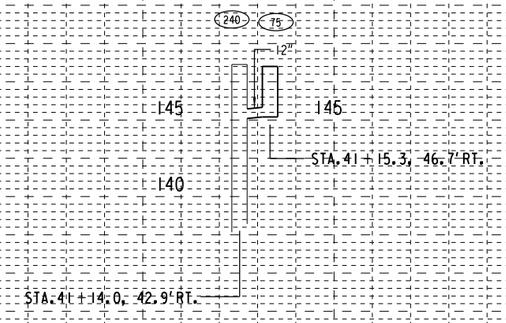


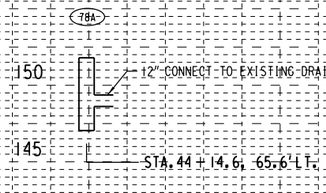
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 78	E

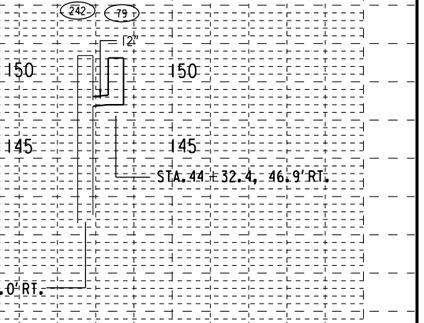
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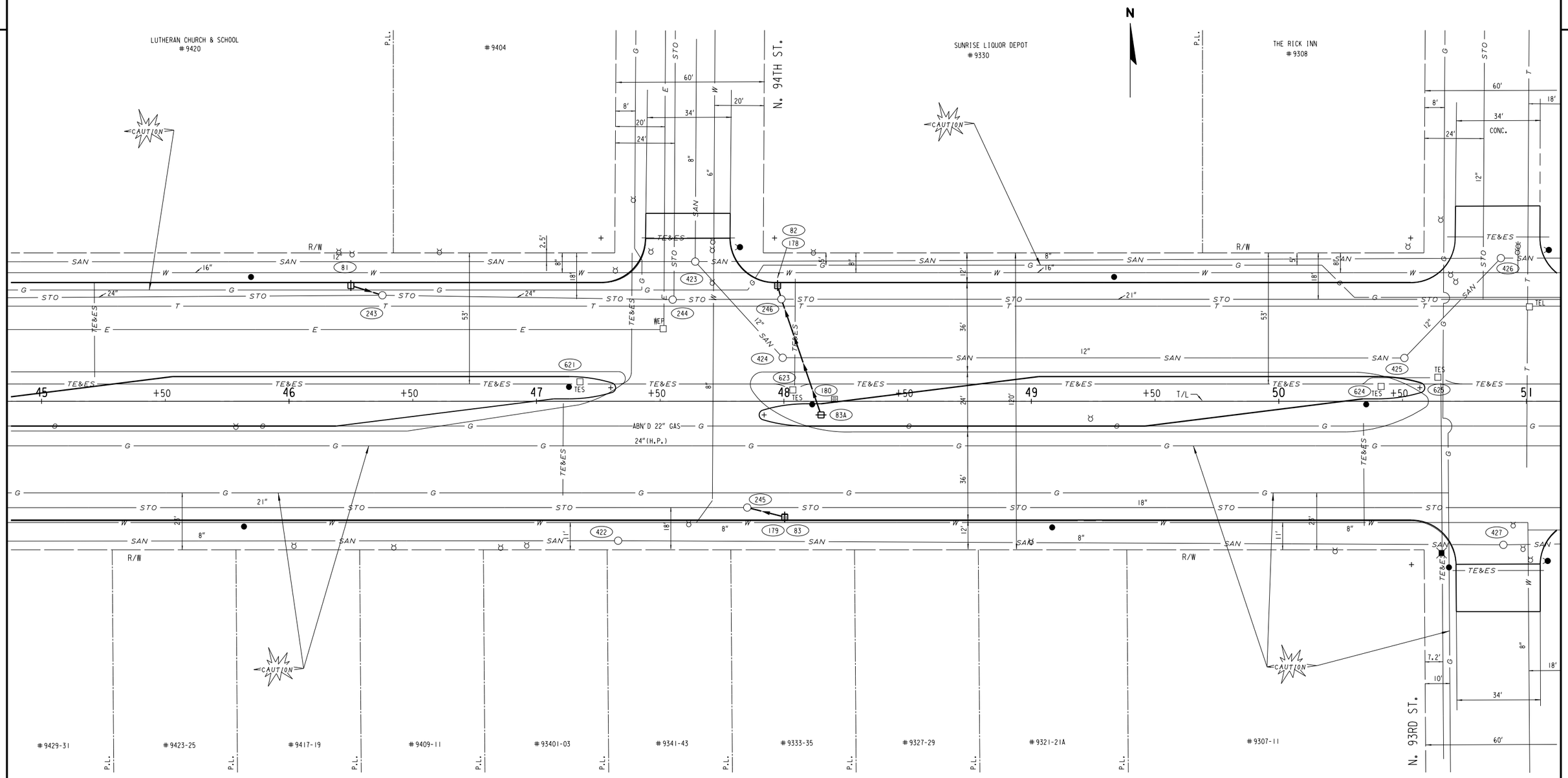


STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 79	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 39_45.DGN

WEST CAPITOL DRIVE

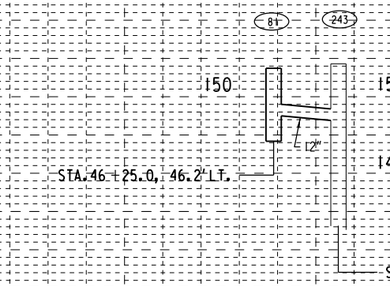
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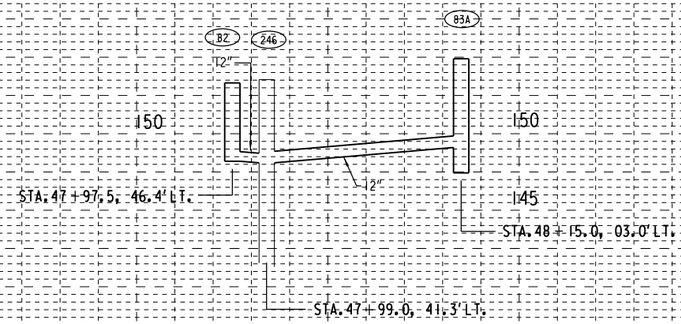
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 80	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 45_51.DGN

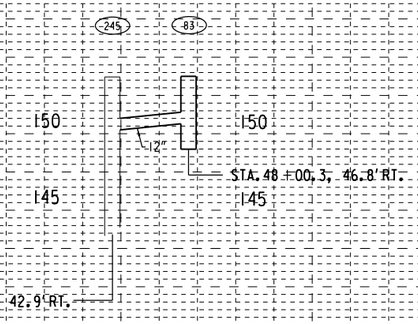
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(LOOKING EASTERLY)



(LOOKING EASTERLY)



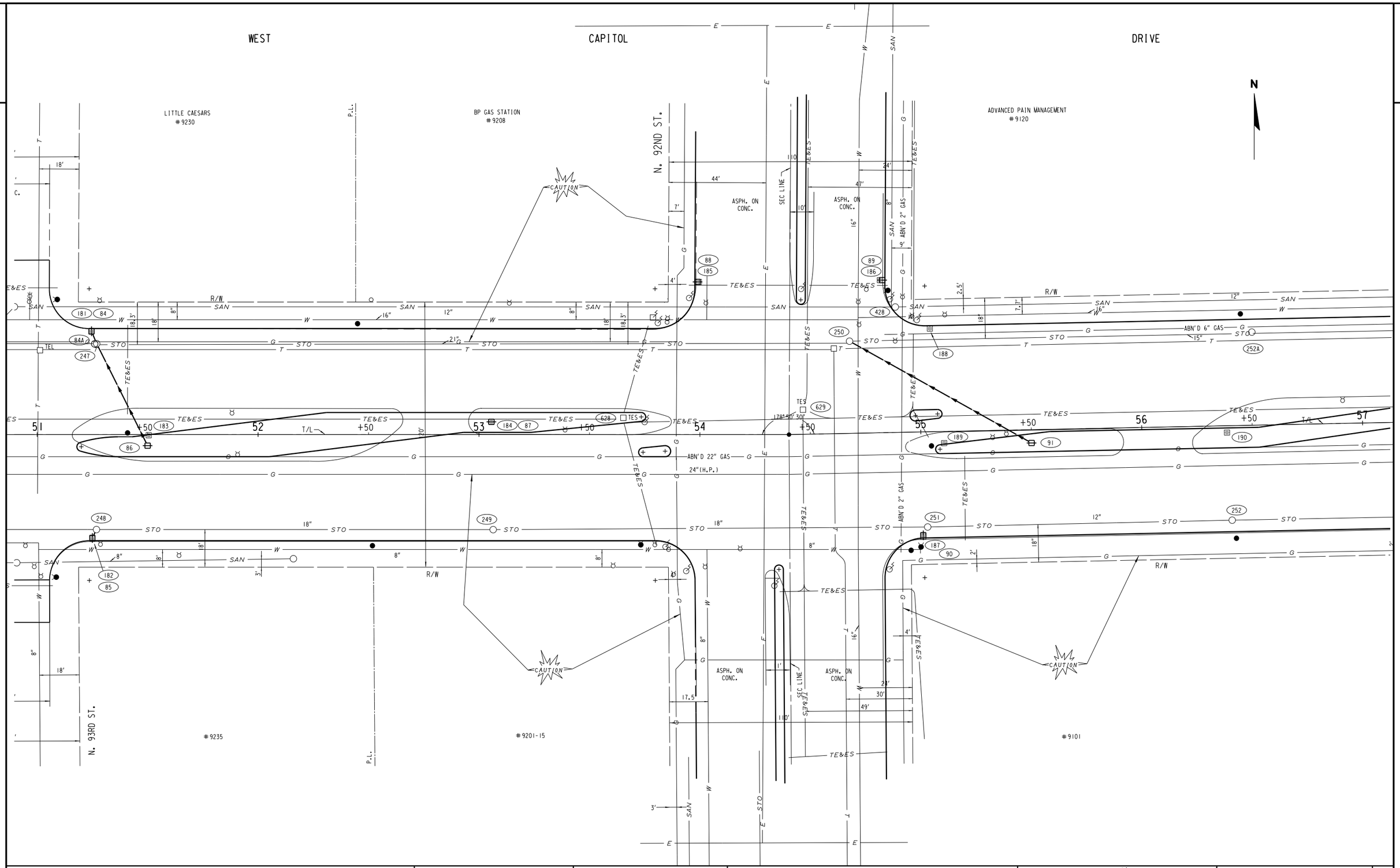
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STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 81	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 45_51.DGN

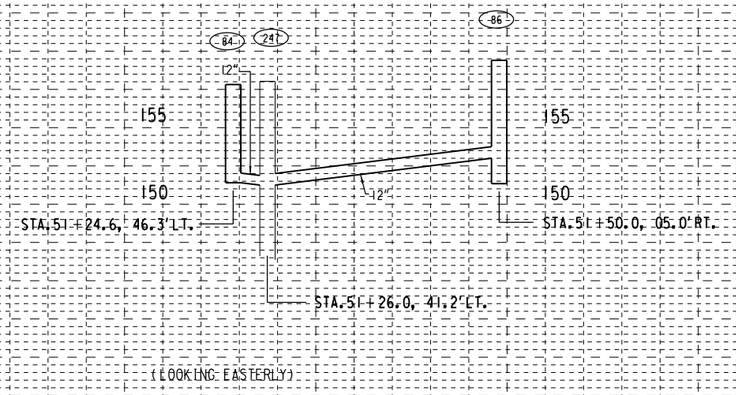
WEST CAPITOL DRIVE

2

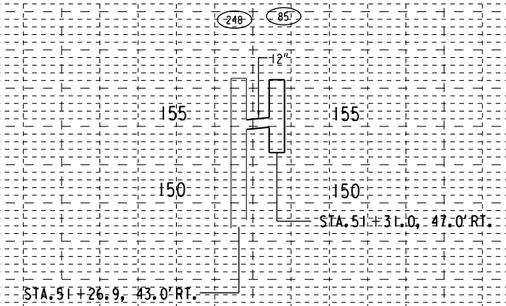


STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 82	E

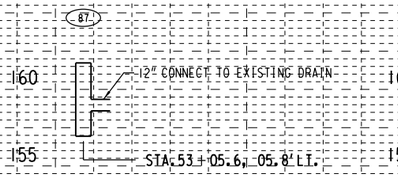
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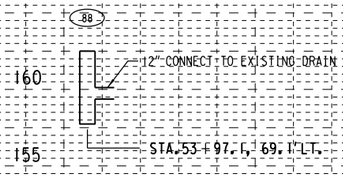
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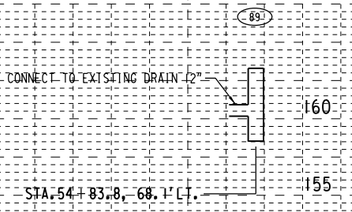
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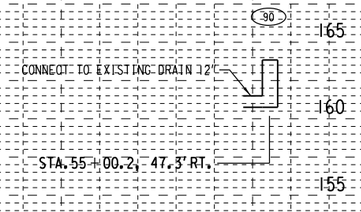
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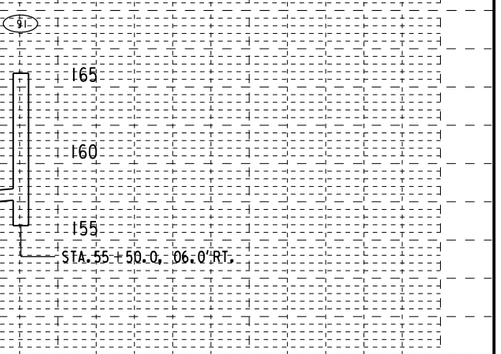
(LOOKING NORTHERLY)



(LOOKING NORTHERLY)



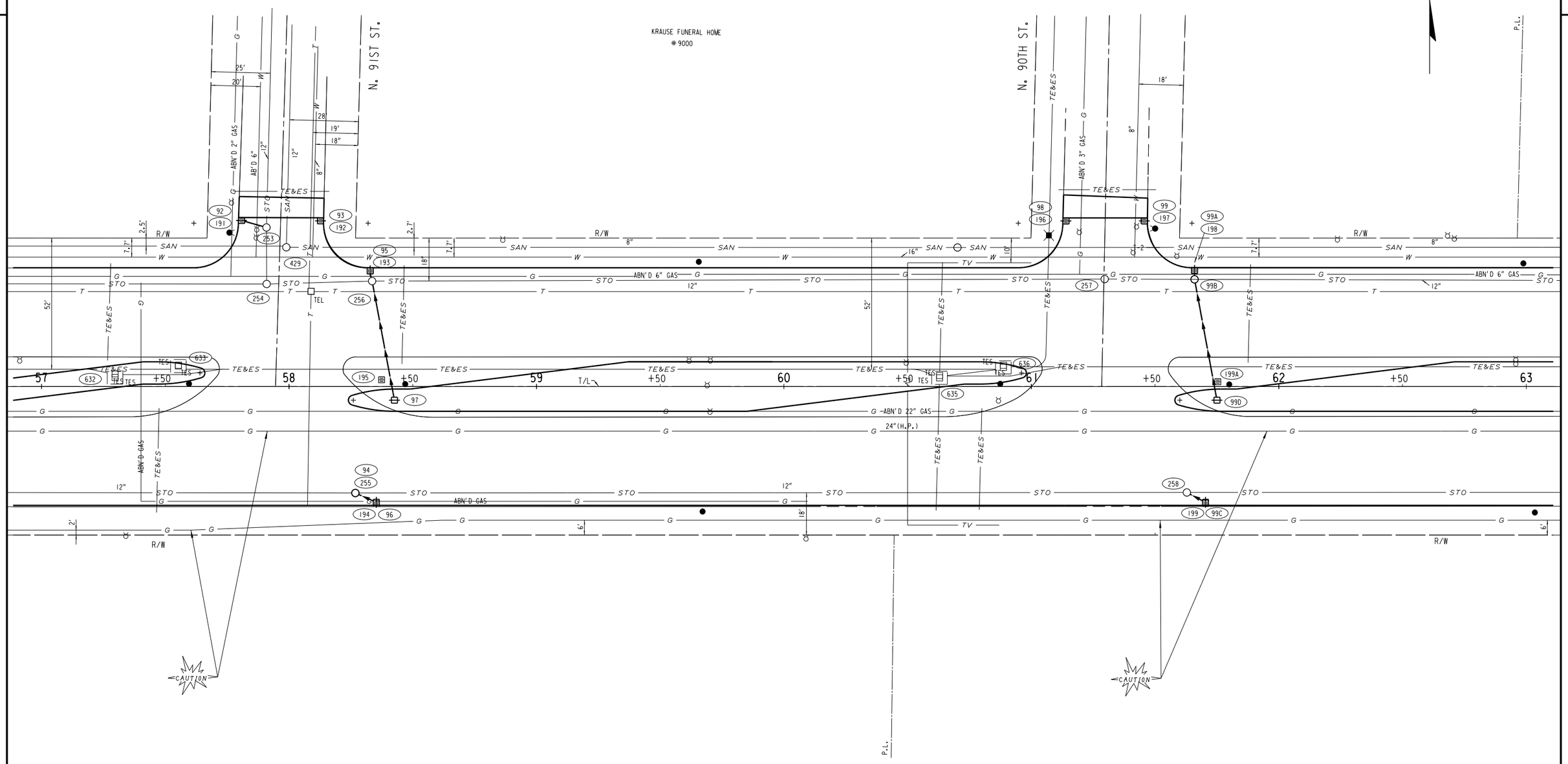
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(LOOKING EASTERLY)

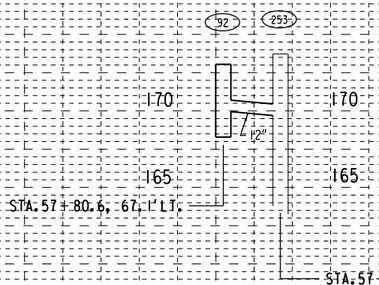
WEST CAPITOL DRIVE

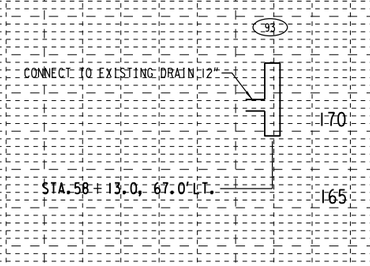
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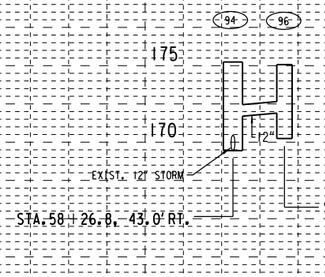


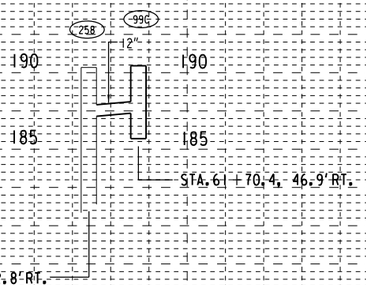
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 84	E

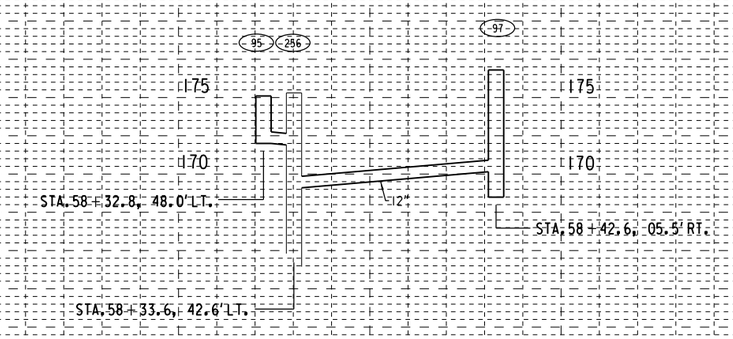
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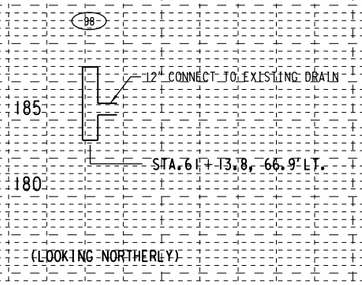


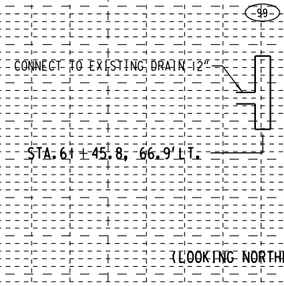


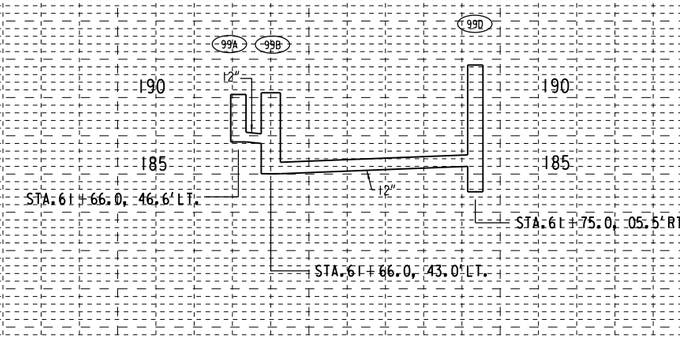












STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 85	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 57_63.DGN

WEST CAPITOL DRIVE

2

N

#8914 #8900 #8826 #8820 #8812 #8804 #8734

N. 89TH ST.

N. 88TH ST.

63 +50 64 +50 +50 65 24' 66 T/L +50 120' 67 +50 68 +50 69

R/W BUS STOP

ABN'D 3" GAS ABN'D 6" GAS ABN'D 22" GAS 24"(H.P.) ABN'D 6"

TE&ES TES W G SAN STO T

CONC.

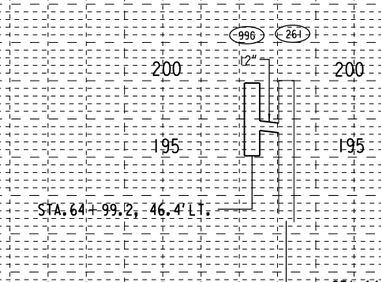
V.C.P. CO.

CAUTION

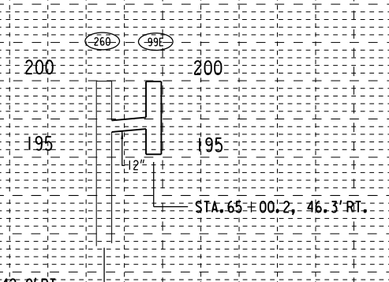
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STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 86	E

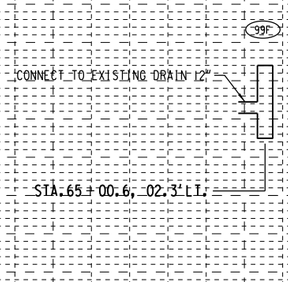
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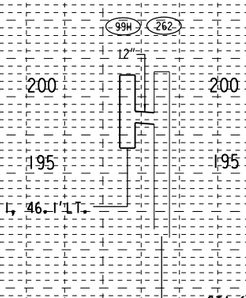
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(LOOKING EASTERLY)

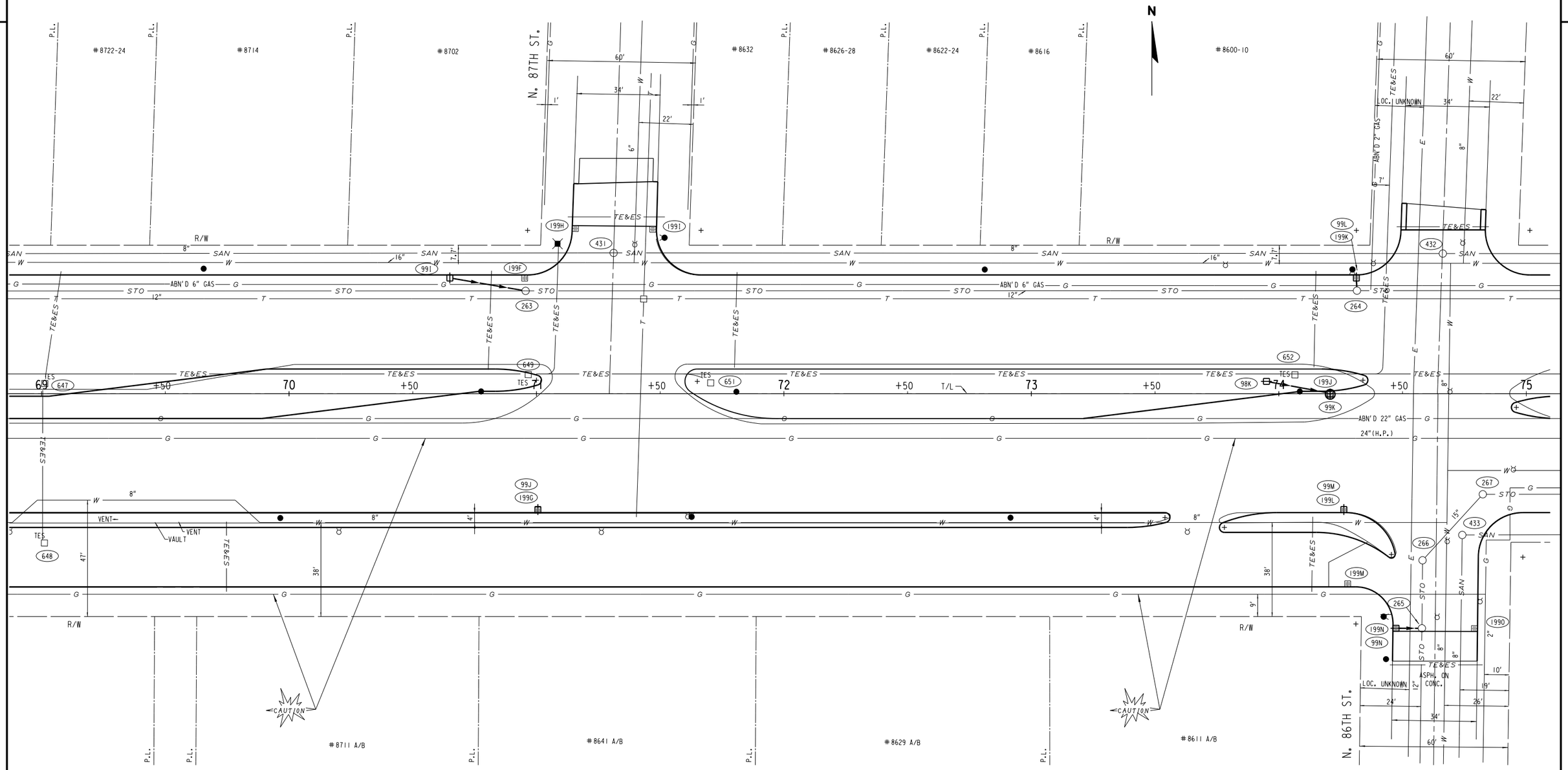


(LOOKING NORTHERLY)



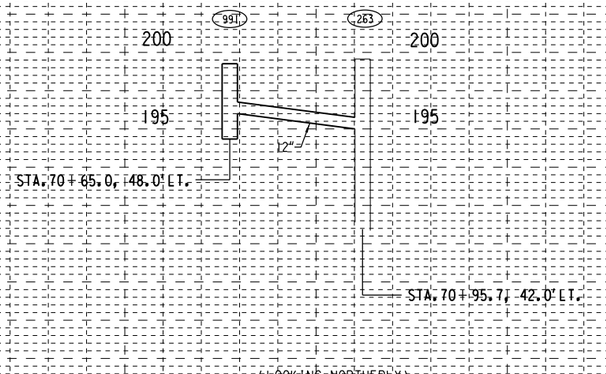
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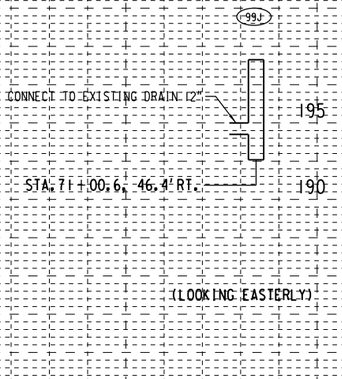
WEST CAPITOL DRIVE

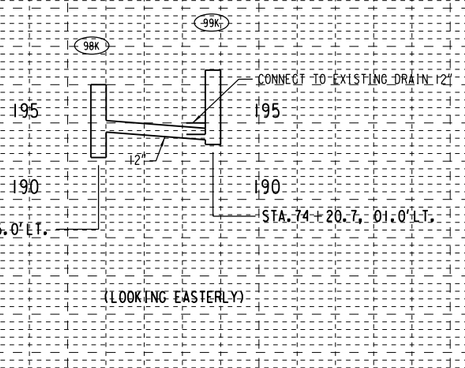


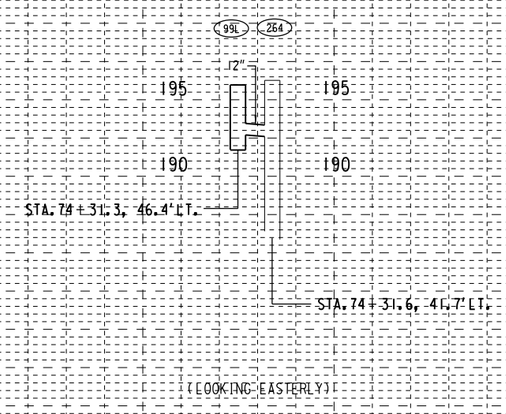
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 88	E

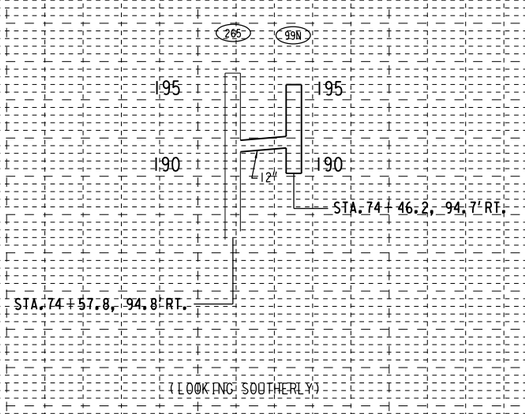
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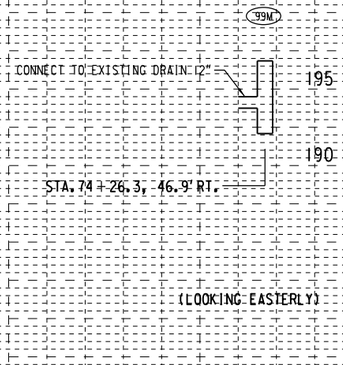








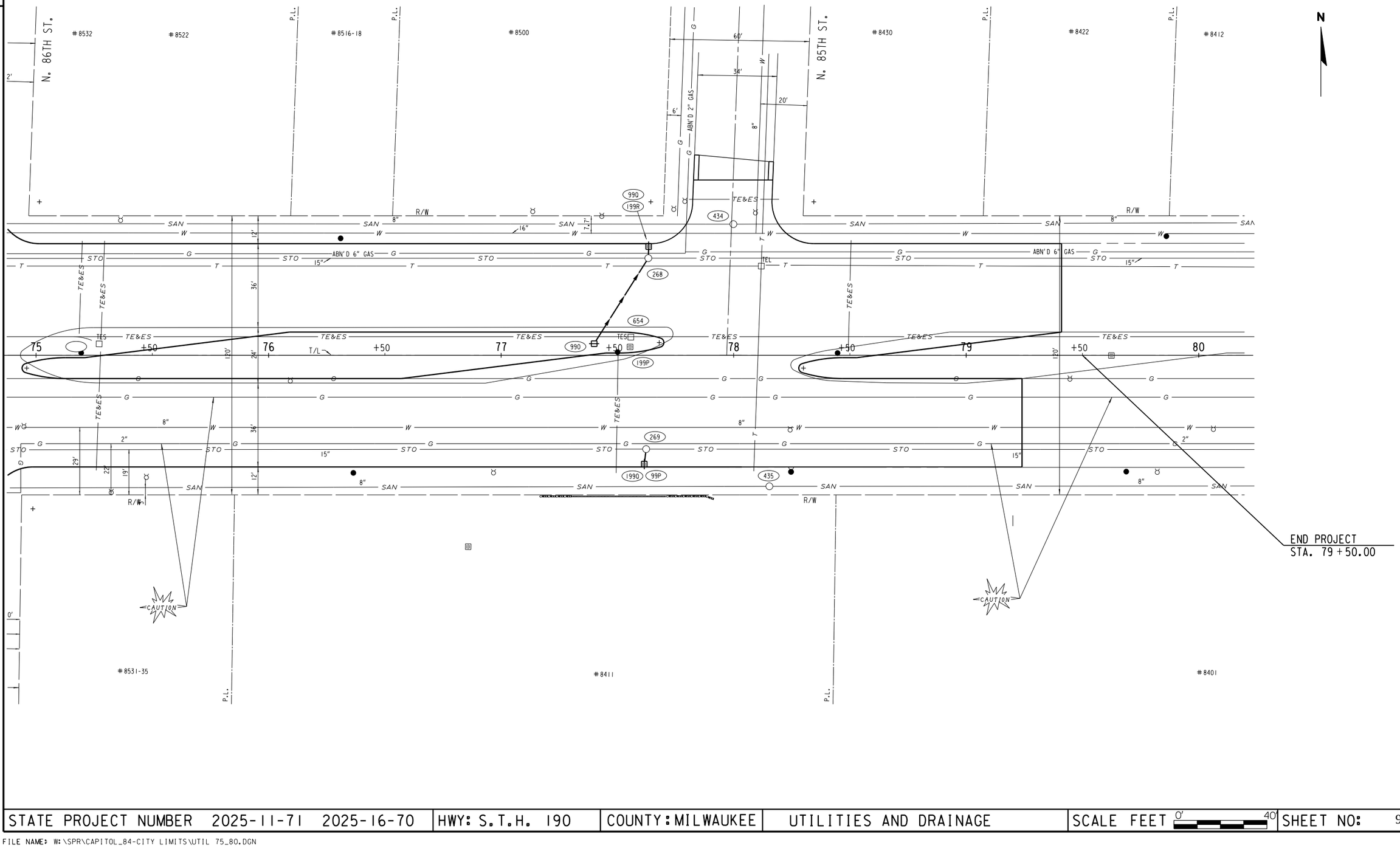




STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 89	E

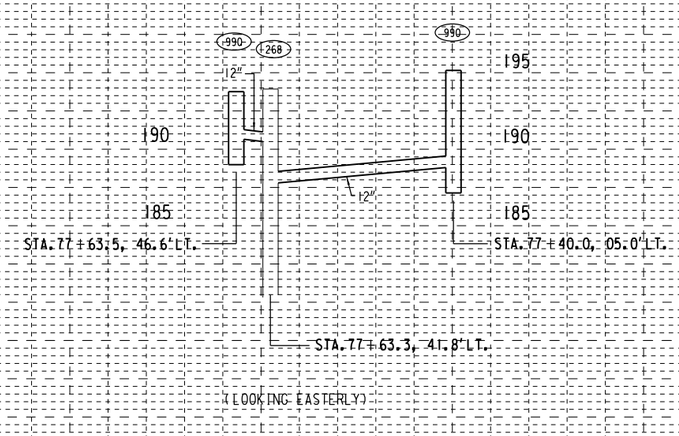
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WEST CAPITOL DRIVE

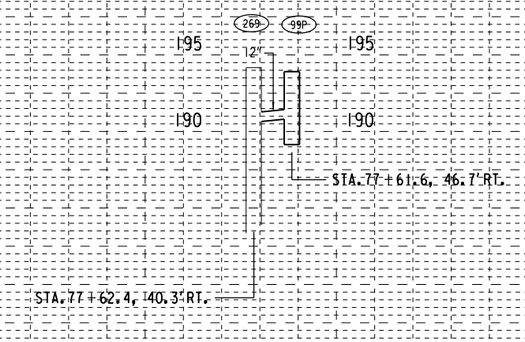


STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 90	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 75_80.DGN



(LOOKING EASTERLY)



(LOOKING SOUTHERLY)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET	SHEET NO: 91	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\UTIL 75_80.DGN

W. CAPITOL DR.

WEST LISBON AVENUE

N

US BANK #9921

ASPH.

R/W

1/4 SEC LINE

CITY OF MILWAUKEE

CITY OF WAUWATOSA

2L +50 3L +50 4L +50 5L +50 6L +50 7L

#10051-97 W. LISBON AVE.

#10031 W. LISBON AVE.

#10001 W. LISBON AVE.

#9929 CYCLE & FITNESS CENTER

CAUTION

WALK BUTTON

ASPH. DWY.

ASPH. ON CONC.

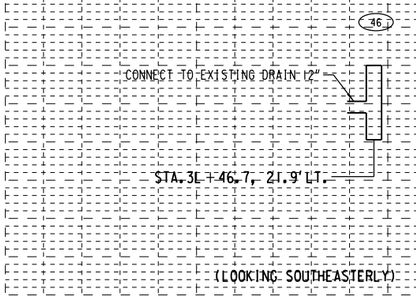
N. 100TH ST.

12"(WAUWATOSA)

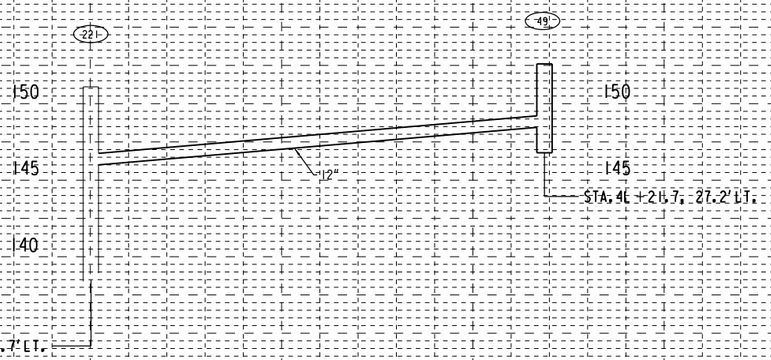
P.L.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 92	E

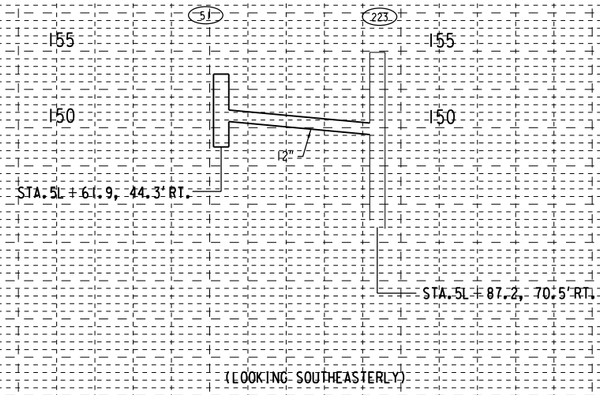
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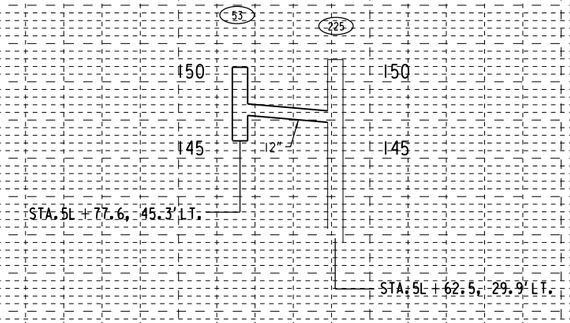
(LOOKING SOUTHEASTERLY)



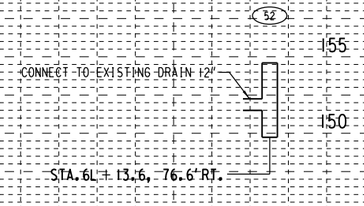
(LOOKING SOUTHEASTERLY)



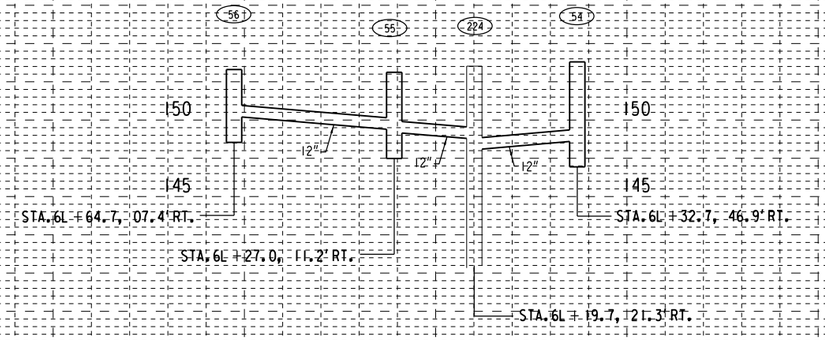
(LOOKING SOUTHEASTERLY)



(LOOKING EASTERLY)



(LOOKING SOUTHEASTERLY)



(LOOKING EASTERLY)

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 93	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMIT\ 60%\LISBONPROCURB.DGN

2

NORTH 92ND STREET

W. MELVINA ST.

B.W. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

#9201-15

BEGIN CONSTRUCTION
STA. 197+08.0 T/L

S.00°48'42"E.

90°24'42"

90°19'05"

90°44'48"

88°31'25"

W. CAPITOL DR.

STD. B.M. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

#9101

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 94	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\UTIL196 201.DGN

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 95 E

FILE NAME: W:\SPR\

2

NORTH 92ND STREET

N

CURB

R/W

LIGHT BASE

END CONSTRUCTION
STA. 203+08.0 T/L

N. 92ND ST. ℄ T/L

W. CAPITOL DR. ℄ T/L

WEST CAPITOL DRIVE

90°24'42" 90°19'05" 90°44'48" 88°31'25" S.00°04'56"E.

200 201 202 203 53 54 55 56

+50 +75 +08

LAWN

5-3" TREES

#9120
ADVANCED PAIN MANAGEMENT

B.M. HYD. NE COR.
N.92ND ST. & W.CAPITOL DR.
STA 54+86, 64'LT. NW BOLT
ELEV. 166.57

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DRAINAGE	SCALE FEET 0' 40'	SHEET NO: 96	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\UTIL200 203.DGN

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	UTILITIES AND DEAINAGE	SCALE FEET 0' 40'	SHEET NO: 97 E

FILE NAME: W:\SPR\

WEST

CAPITOL DRIVE

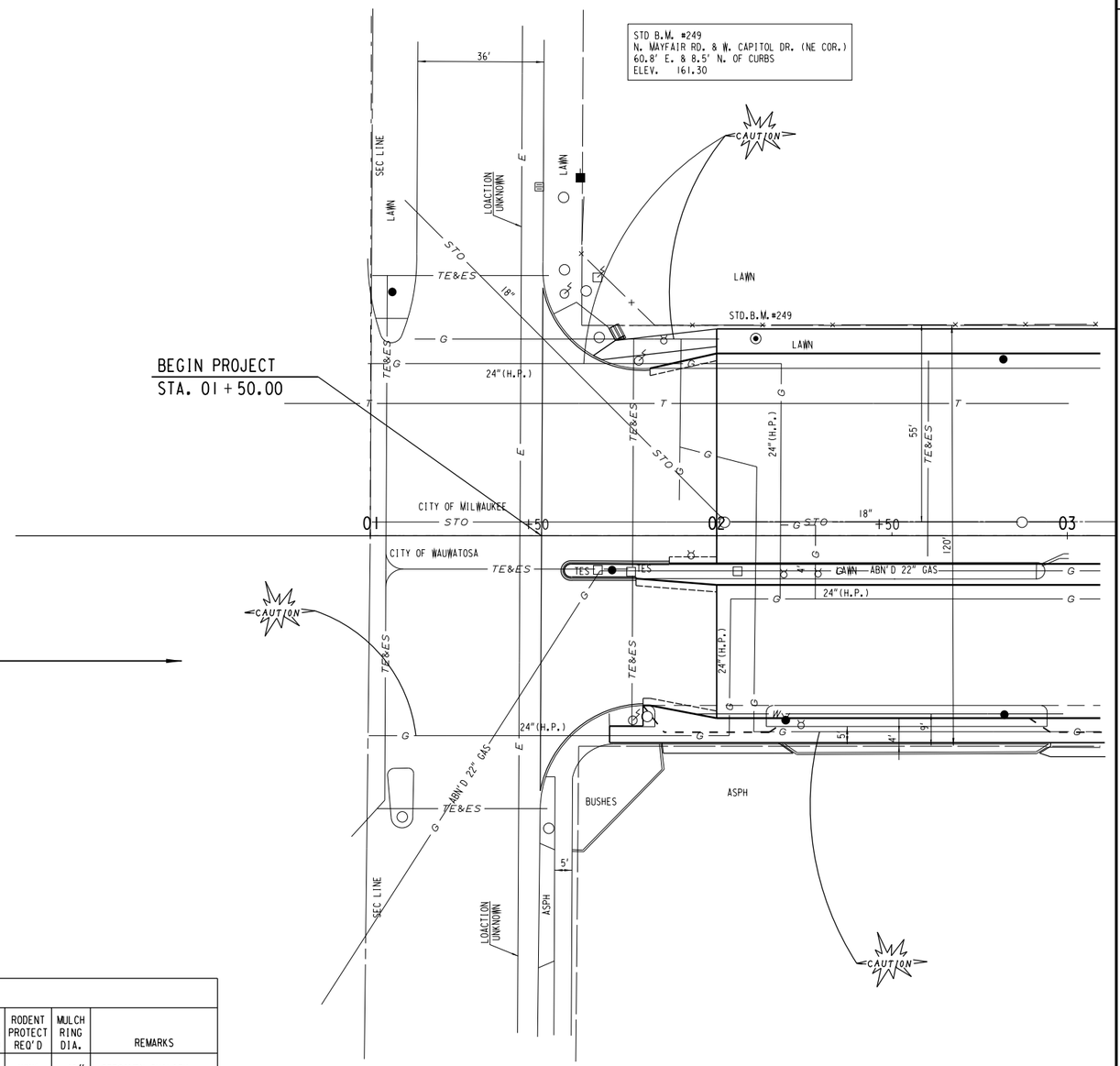
2

N

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

WORK TO BE DONE
BY WISDOT PROJECT
2030-09-00 TO BE
COMPLETED 2014



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD *	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 98	E

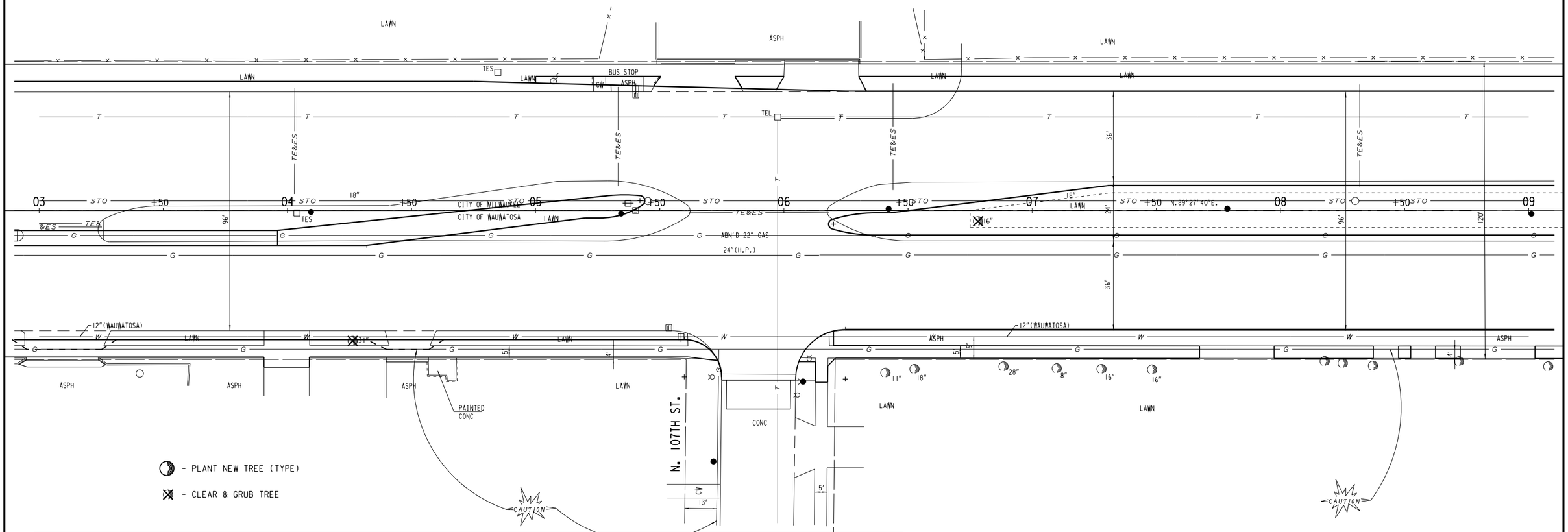
FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\00 03.DGN

WEST CAPITOL DRIVE

2

N

B.M. NE COR. CONC. BASE
OF ALUM. LIGHT POLE #10630
STA. 07+79- 00.7' LT.
ELEV. 142.21



- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD *	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 99	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 03 09.DGN

2

WEST CAPITOL DRIVE

B.M. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10606 STA. 09+01- 01.4' RT. ELEV. 137.08

B.M. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10600 STA. 10+28- 00.7' LT. ELEV. 132.97

N

W. GRANTOSA DR.

50'

STO

TE&ES

CONC

LAWN

24" 18"

12"

8"

SAN

15"

21" STORM

MMSD

26"

24"

12"

5"

15"

T

55'

30" STO

22" (PROP. STEEL)

G

09 10 11 12 13 14 15

+50

CITY OF MILWAUKEE

CITY OF WAUWATOSA

18"

27"

ABN'D 22" GAS

24"(H.P.)

36"

120'

13.2'

30" MMSD

WISDOT PROJECT
2025-16-70

12" (WAUWATOSA)

ASPH

W

4'

5'

FENCE ON RETAINING WALL

TV

8"

12"

30'

9"

4"
2"-12"

15"

6"
18"

10"

3"

WATER

8" SANITARY (WAUWATOSA)

CONC. DWY.

CAUTION

W. GRANTOSA DR.

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

B. M. RR SPIKE IN WOOD POLE
SE COR. W. GRANTOSA DR.(WEST RDWY)
& W. CAPITOL DR. STA. 11+70, 70' RT.
ELEV. 127.85

B.M HYD. SE COR. W. GRANTOSA DR.
(EAST RDWY) & W. CAPITOL DR.
STA. 14+73, 73' RT. NW BOLT
ELEV. 128.40

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
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 100	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 09 15.DGN

2

WEST CAPITOL DRIVE

N

B.W HYD. NE COR. W. GRANTOSA DR. (EAST RDWY) & W. CAPITOL DR. STA. 15+75, 102'LT. NW BOLT ELEV. 129.81

B.W SW COR. 1ST CONC. RISER @ #10024-26 W. CAPITOL DR. ELEV. 145.54

W. GRANTOSA DR.

CONC. ALLEY 20'

MULCH PLAYGROUND

FENCE

HANDRAIL

CALLERY PEAR

+95 51'LT.

CITY OF WAUWATOSA

CITY OF MILWAUKEE

N.89°27'40"E.

ABN'D 22" GAS

24"(H.P.)

W. WOODWARD AVE.

ASPH. PARKING

CONC. ALLEY 20'

LAWN

ASPH. ON CONC.

N. 102ND ST.

- 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
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 101	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 15 21.DGN

WEST CAPITOL DRIVE

B.M HYD.W.CAPITOL DR.
STA.21+35,49'LT.
NW BOLT
ELEV. 148.07

B.M. E END OF E
WINDOW SILL @
#10012 W. CAPITOL DR.
ELEV. 152.06

B.M SW COR.
CONC. RISER @ #10052
W. CAPITOL DR.
ELEV. 150.50

CONC. ALLEY

ASPH. PARKING

ASPH. DWY.

ENT. ENT.

CAUTION

N

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

KENTUCKY COFFEE +25 T/L

KENTUCKY COFFEE +50 T/L

ADIRONDACK CRABAPPLE +80 2' RT.

ADIRONDACK CRABAPPLE +00 3' LT.

CITY OF MILWAUKEE

CITY OF WAUWATOSA

W. LISBON AVE.

N. 89° 27' 40" E.

146.6

147.6

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
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 102	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 21 27.DGN

WEST CAPITOL DRIVE

STD. B.W. #247
N. 100TH ST.& W. CAPITOL DR.
43'E OF E MEDIAN CURB & 2' S
OF N CURB IN CONC BOX W/ COVER
ELEV. 143.11

N. 100TH ST.

1/4 SEC LINE

CAUTION

ASPH. PARKING

CONC. DWY.

FENCE

REGAL PRINCE OAK +20 4'RT.

REGAL PRINCE OAK +45 3'RT.

REGAL PRINCE OAK +77 0.5'LT. 81.2'

REGAL PRINCE OAK +10 4'LT.

DANADA CHARM ELM +52 51'RT.

FLOWER GARDEN

LAWN

ASPH. ON CONC.

S.89°36'E

108.27
261.0466

- 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
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

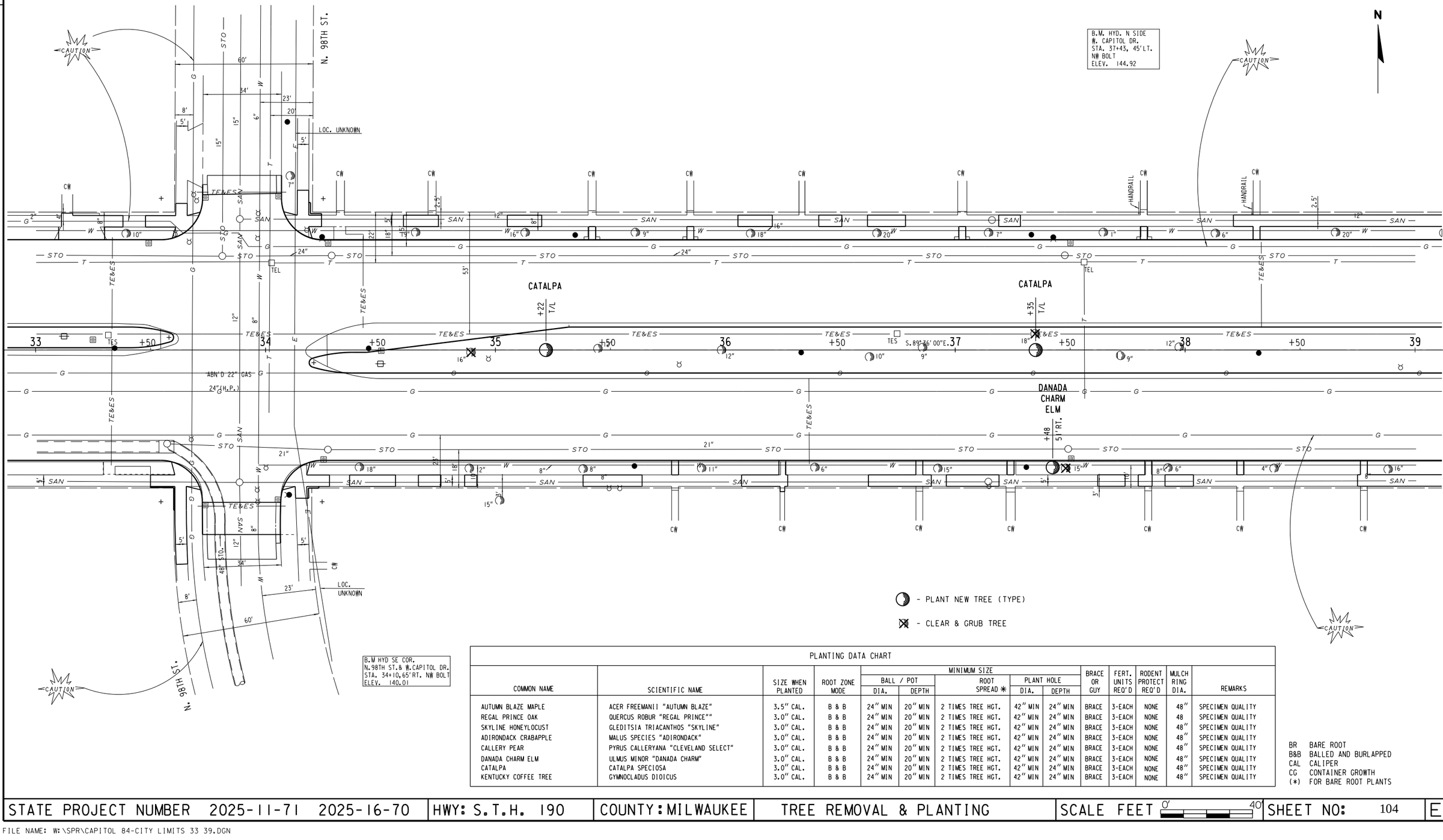
BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40	SHEET NO: 103	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 27 33.DGN

2

WEST CAPITOL DRIVE



PLANTING DATA CHART

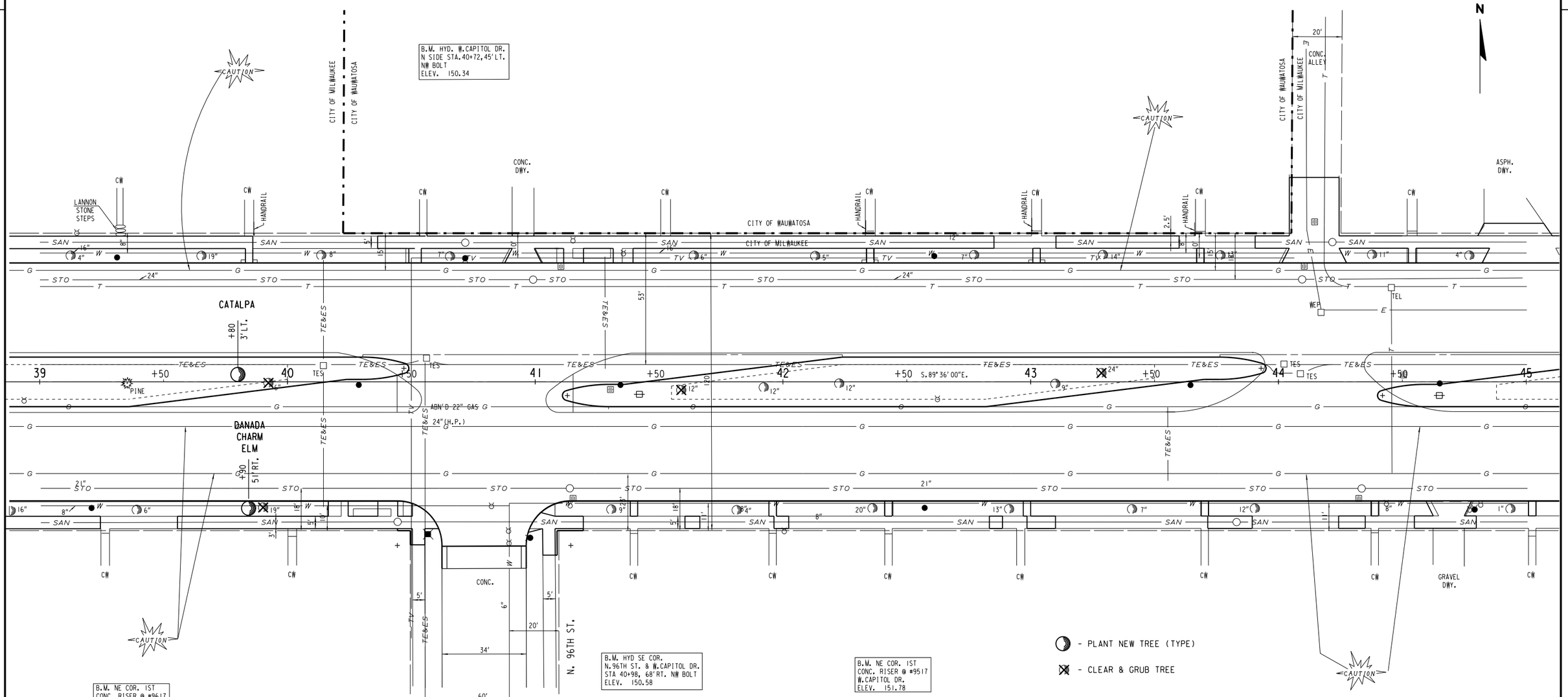
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD *	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
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ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 104	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 33 39.DGN

WEST CAPITOL DRIVE



PLANTING DATA CHART

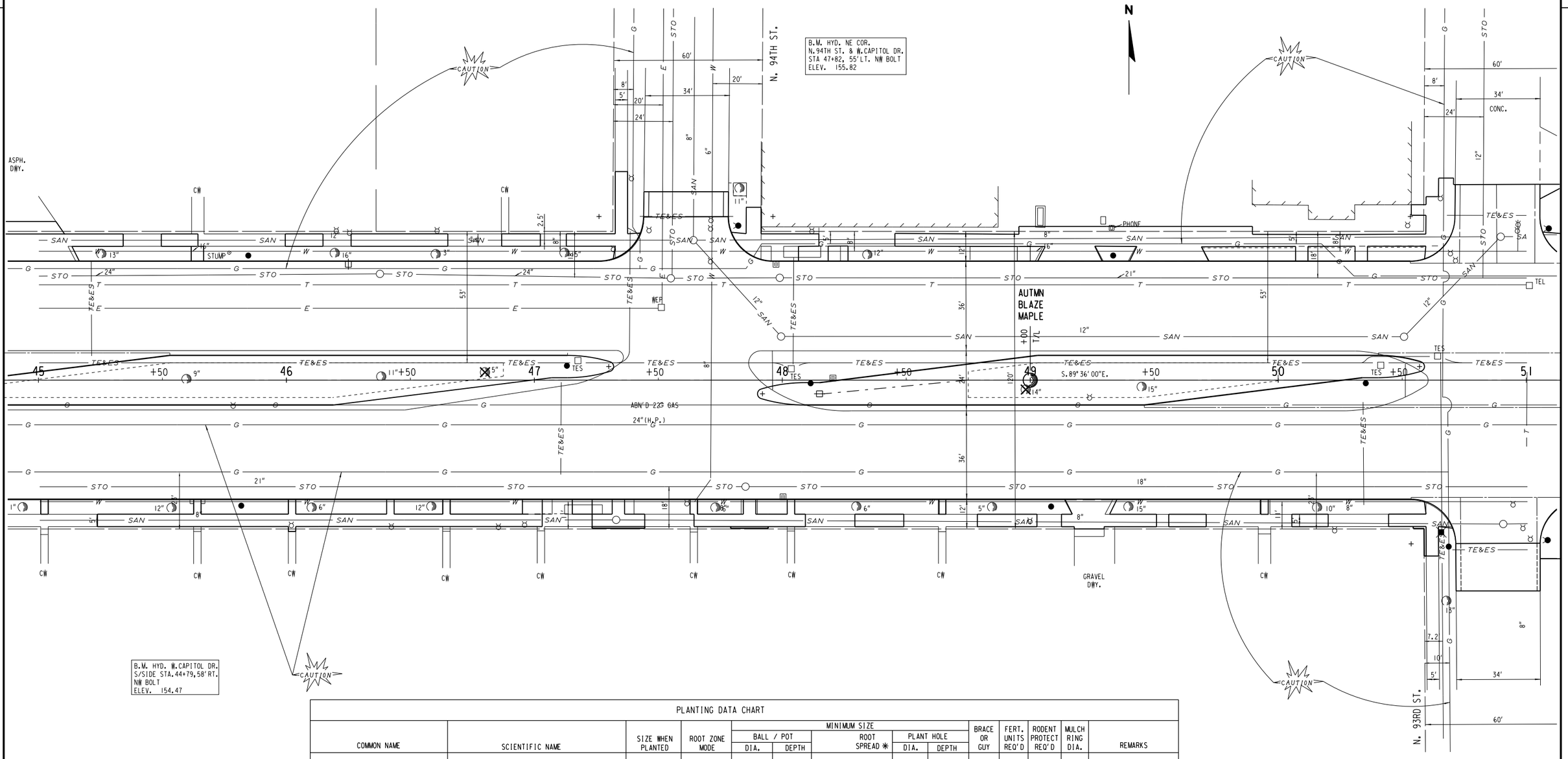
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD *	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 105	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 39 45.DGN

WEST CAPITOL DRIVE



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD *	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
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SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 106	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 45 51.DGN

WEST CAPITOL DRIVE

B.M. HYD. NE COR.
N.93RD ST. & W.CAPITOL DR.
STA 51+09, 53'LT. NW BOLT
ELEV. 160.04

B.M. HYD. NE COR.
N.92ND ST. & W.CAPITOL DR.
STA 54+86, 64'LT. NW BOLT
ELEV. 166.57

N

CAUTION

ASPH. PARKING

CURB

CURB

ASPH. ON CONC.

ASPH. ON CONC.

SEC LINE

AUTMN BLAZE MAPLE

STUMP

ABN'D 22" GAS

24"(H.P.)

ABN'D 2" GAS

ABN'D 6" GAS

ABN'D 21" GAS

S.89° 36' 00"E.

S.89° 12' 00"W

178° 50' 30"

BUS SHELTER

ASPH

CAUTION

B.M. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

STD. B.M. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

CAUTION

N. 93RD ST.

N. 92ND ST.

TOSA PHARMACY
GOLDEN VALLEY CENTER

ST. MARGARET MARY CHURCH

- 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
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 107	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 51 57.DGN

WEST CAPITOL DRIVE

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #9100
STA 57+60, 1'LT.
ELEV. 175.74

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #9000
STA 60+87, 1'LT.
ELEV. 188.85

N. 91ST ST.

N. 90TH ST.

N

ASPH. PARKING

ASPH. PARKING

ASPH. PARKING

FENCE

BRICK WALL

BUS STOP

CATALPA

CATALPA

SKYLINE HONEYLOCUST

PROPOSED PLANTING BED

S.89° 12' 00"W.

ABN'D 2" GAS

ABN'D 3" GAS

ABN'D 6" GAS

ABN'D GAS

24"(H.P.)

ASPH. DWY.

CONC. DWY.

CAUTION

CAUTION

ST. MARGARET MARY CHURCH

- PLANT NEW TREE (TYPE)

- CLEAR & GUBB 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
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 108	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 57 63.DGN

2

WEST CAPITOL DRIVE

N

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8900
STA 64+14, 1'RT.
ELEV. 199.87

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8802
STA 67+42, 1'LT.
ELEV. 203.215

N. 89TH ST.

N. 88TH ST.

SKYLINE
HONEYLOCUST

63 64 65 66 67 68 69

CAUTION

CAUTION

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

B.W. HYD. SE COR.
N.88TH ST. & W.CAPITOL DR.
STA 67+15, 52'RT. NW BOLT
ELEV. 204.37

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD *	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 109	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 63 69.DGN

WEST CAPITOL DRIVE

N

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #8700
STA 70+78, 1'LT.
ELEV. 200.76

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #8600
STA 74+09, 1'LT.
ELEV. 197.99

N. 87TH ST.

N. 86TH ST.

SKYLINE HONEYLOCUST

B.M. HYD. S\S W.CAPITOL DR.
STA 71+63, 50'RT. NW BOLT
ELEV. 201.16

B.M. HYD. SW COR.
N.86TH ST. & W.CAPITOL DR.
STA 74+42, 90'RT. NW BOLT
ELEV. 197.96

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

PLANTING DATA CHART

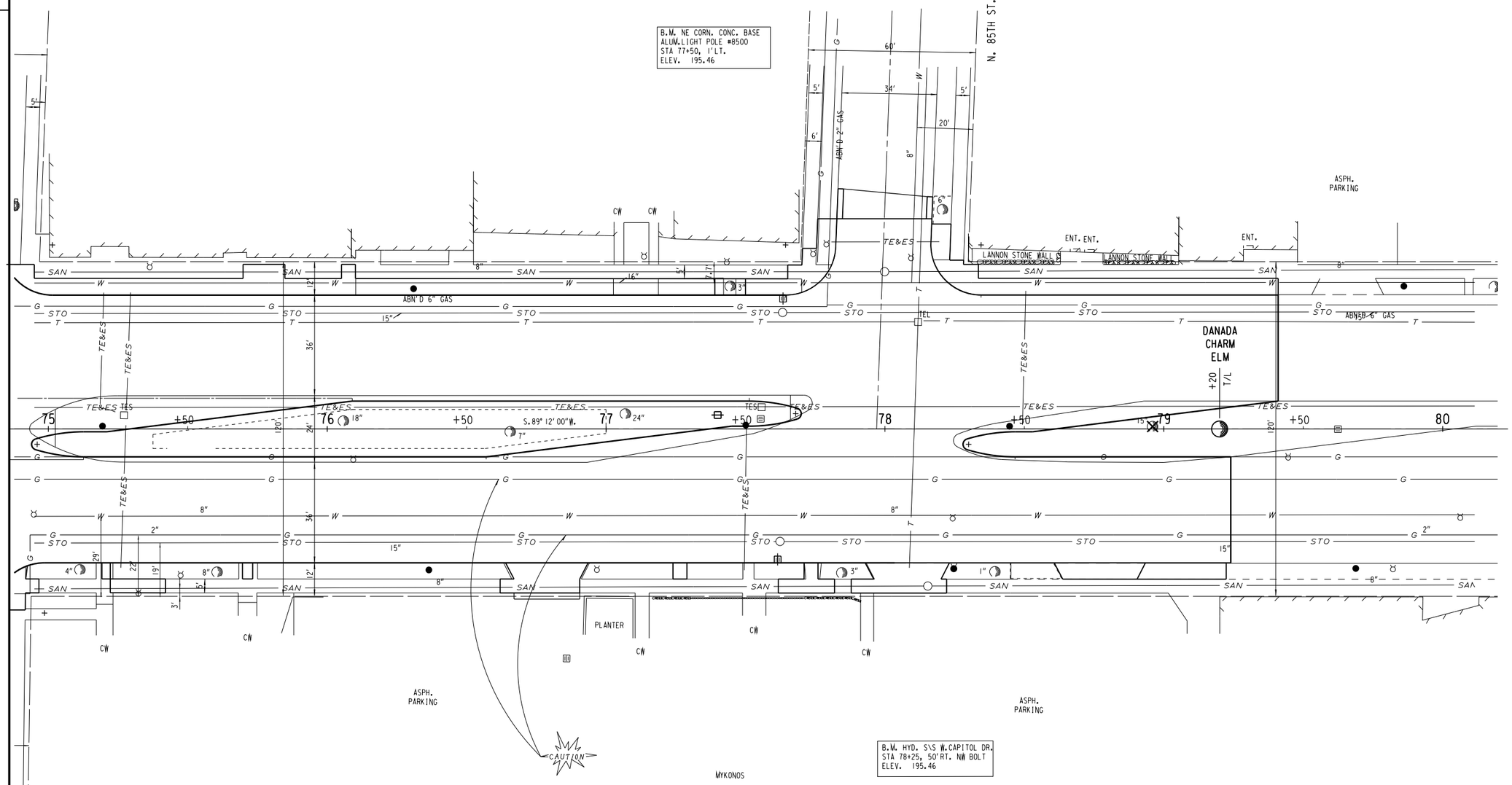
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	BALL / POT DEPTH	ROOT SPREAD *	PLANT HOLE DIA.	PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 110	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS 69 75.DGN

WEST CAPITOL DRIVE



N

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD *	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 111	E

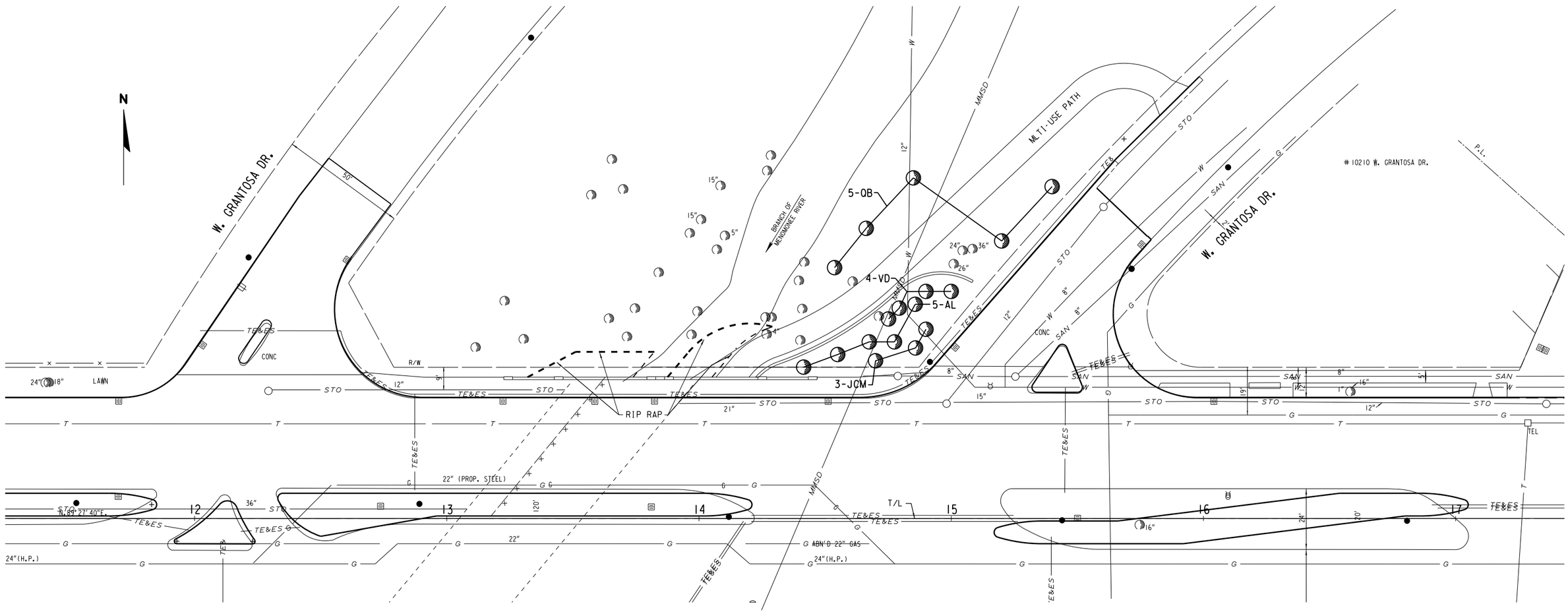
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2

PLANTING DATA CHART													
				MINIMUM SIZE									
				BALL / POT			PLANT HOLE						
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	DIA.	DEPTH	ROOT SPREAD *	DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ALLEGHANY SERVICEBERRY	AMELANCHIER "LEAVIS"	8'	B & B	24" MIN	18" MIN	2 TIMES TREE HGT.	36" MIN	24" MIN	N/A	4-EACH	NONE	36"	MULTISTEM
MOUNTBATTEN JUNIPER	JUNIPERUS CHINENSIS	5'	B & B	24" MIN	18" MIN	2 TIMES TREE HGT.	36" MIN	24" MIN	BRACE	4-EACH	NONE	36"	SPECIMEN QUALITY
SWAMP WHITE OAK	QUERCUS "BICOLOR"	3"	B & B	36" MIN	24" MIN	2 TIMES TREE HGT.	48" MIN	36" MIN	BRACE	8-EACH	NONE	60"	SPECIMEN QUALITY
ARROWWOOD VIBURNUM	VIBURNUM SPECIES	5.0" GAL.	B & B	12"	12"	36"	36"	9"	N/A	1-EACH	NONE	48"	SPECIMEN QUALITY

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

VB - ARROWWOOD VIBURNUM
AL - ALLEGHANY SERVICEBERRY
JCM - MOUNTBATTEN JUNIPER
OB - SWAMP WHITE OAK

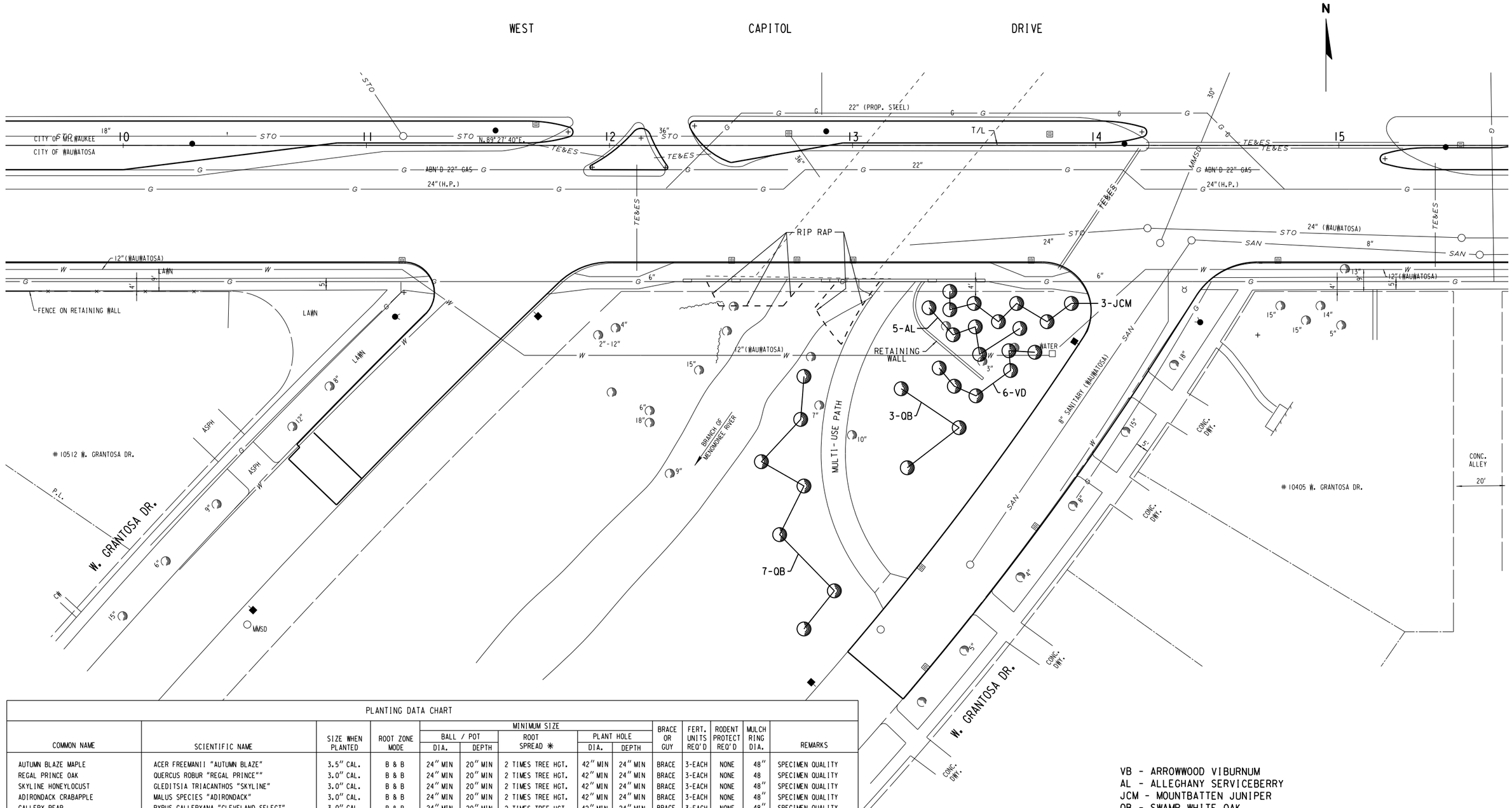


WEST CAPITOL DRIVE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONTOUR PLAN	SCALE FEET 0' 40'	SHEET NO: 112	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\NS CONTOUR.DGN

2



PLANTING DATA CHART													
				MINIMUM SIZE									
				BALL / POT			PLANT HOLE						
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	DIA.	DEPTH	ROOT SPREAD *	DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ALLEGHANY SERVICEBERRY	AMELANCHIER "LEAVIS"	8'	B & B	24" MIN	18" MIN	2 TIMES TREE HGT.	36" MIN	24" MIN	N/A	4-EACH	NONE	36"	MULTISTEM
MOUNTBATTEN JUNIPER	JUNIPERUS CHINENSIS	5'	B & B	24" MIN	18" MIN	2 TIMES TREE HGT.	36" MIN	24" MIN	BRACE	4-EACH	NONE	36"	SPECIMEN QUALITY
SWAMP WHITE OAK	QUERCUS "BICOLOR"	3"	B & B	36" MIN	24" MIN	2 TIMES TREE HGT.	48" MIN	36" MIN	BRACE	8-EACH	NONE	60"	SPECIMEN QUALITY
ARROWWOOD VIBURNUM	VIBURNUM SPECIES	5.0" GAL.	B & B	12"	12"	36"	36"	9"	N/A	1-EACH	NONE	48"	SPECIMEN QUALITY

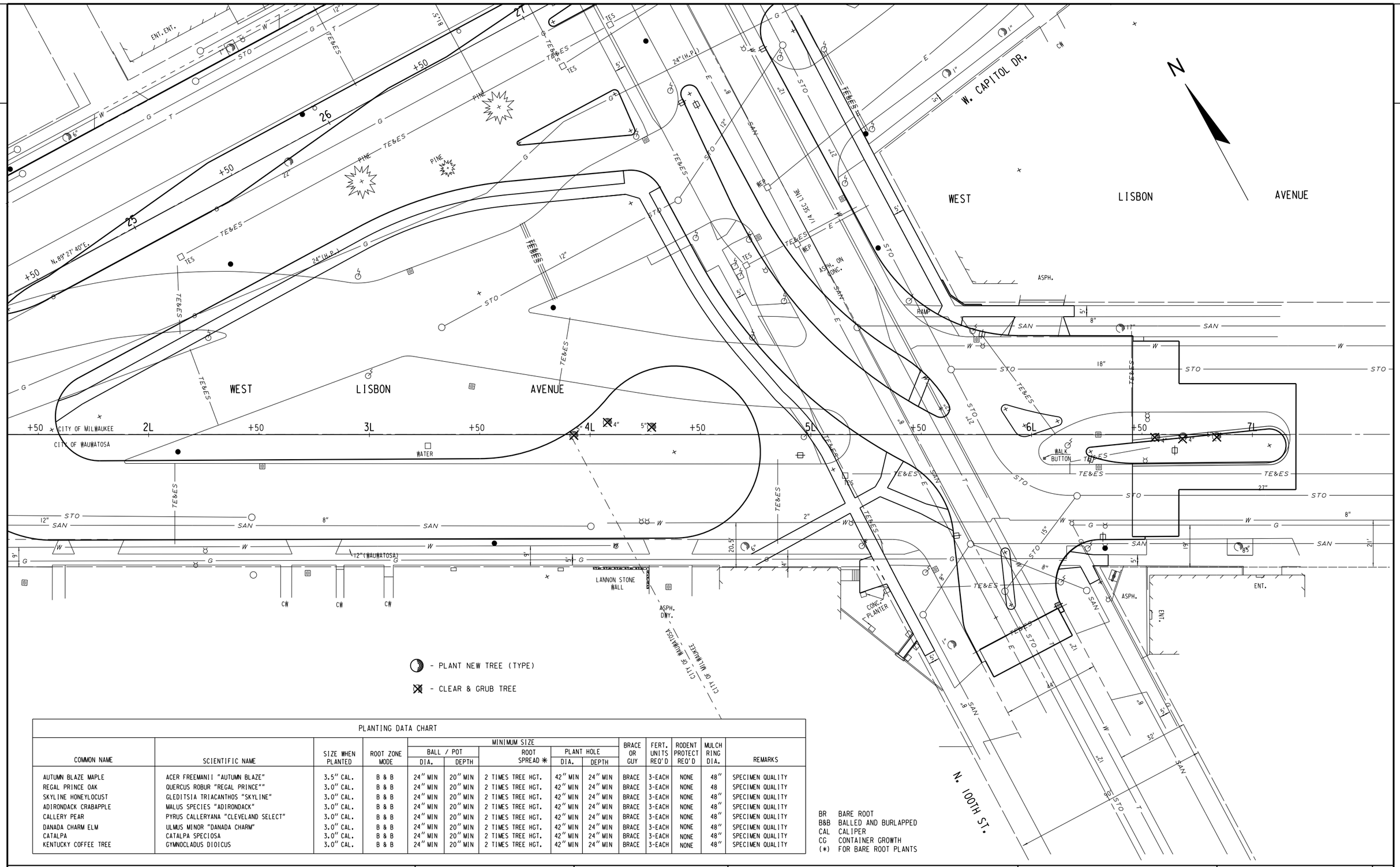
VB - ARROWWOOD VIBURNUM
AL - ALLEGHANY SERVICEBERRY
JCM - MOUNTBATTEN JUNIPER
QB - SWAMP WHITE OAK

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CONTOUR PLAN	SCALE FEET 0' 40'	SHEET NO: 113	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LINITS\SS CONTOUR.DGN

2



PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD *	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
SKYLINE HONEYLOCUST	GLEDITSIA TRIACANTHOS "SKYLINE"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
DANADA CHARM ELM	ULMUS MINOR "DANADA CHARM"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
CATALPA	CATALPA SPECIOSA	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICUS	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 114	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\ 100TH.DGN

2

NORTH 92ND STREET

N

B.W. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

#9201-15
WISCONSIN HEARING AID CENTER

20'
CONC. ALLEY

ASPH. PARKING

ASPH. DWY.

WOOD CHIPS

BUS SHELTER

CURB

STUMP

ABN'D 2" GAS

196 197 198 199 200

S.00° 08' 12"E.

LANNON STONE WALL

PLANTER

W. CAPITOL DR.

- PLANT NEW TREE (TYPE)
- CLEAR & GRUB TREE

#9101
ST. MARGARET MARY CHURCH

STD. B.W. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

PLANTING DATA CHART

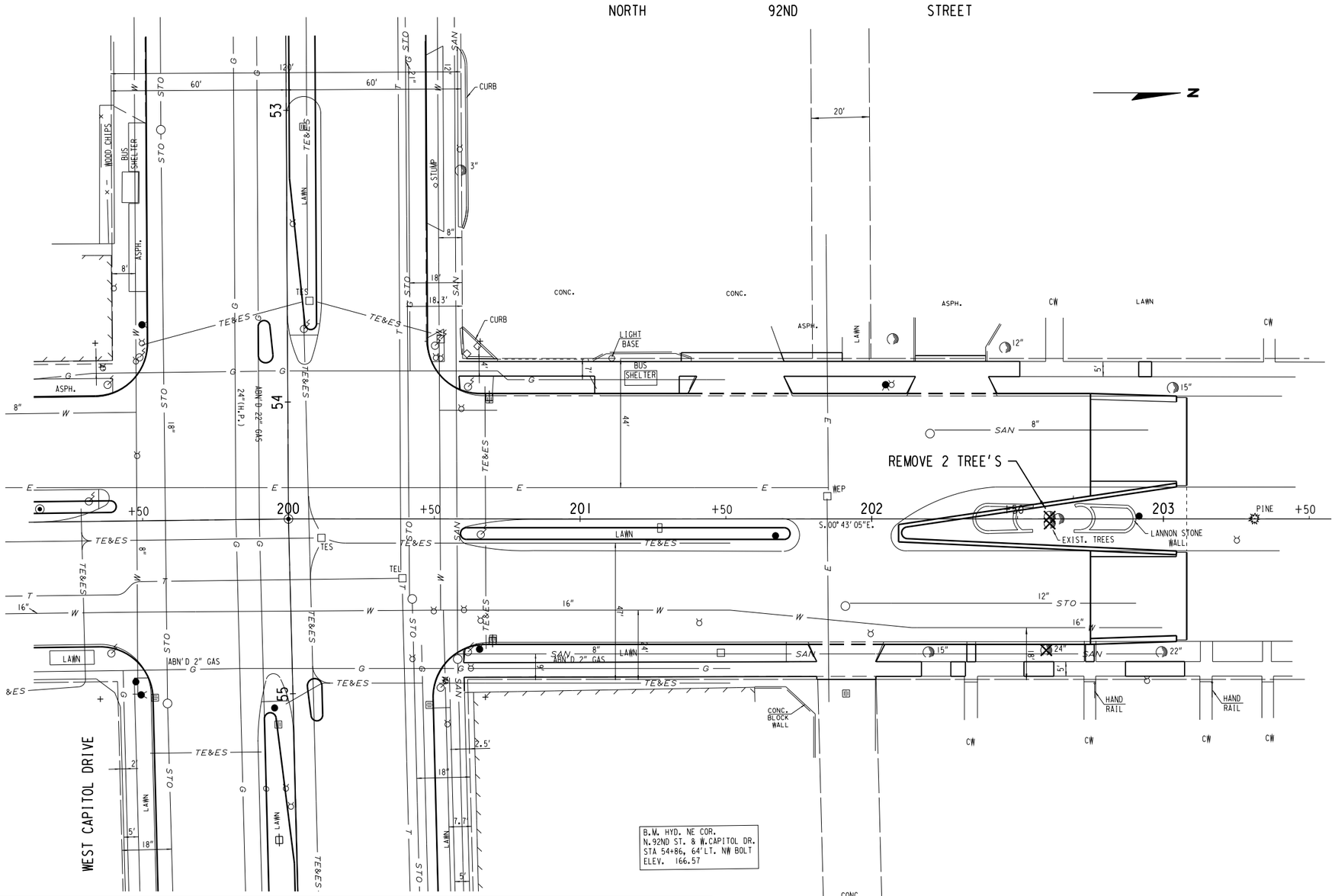
COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE BALL / POT DIA.	MINIMUM SIZE BALL / POT DEPTH	MINIMUM SIZE ROOT SPREAD *	MINIMUM SIZE PLANT HOLE DIA.	MINIMUM SIZE PLANT HOLE DEPTH	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 115	E

FILE NAME: W:\SPR\

2



- PLANT NEW TREE (TYPE)

- CLEAR & GRUB TREE

PLANTING DATA CHART

COMMON NAME	SCIENTIFIC NAME	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM SIZE					BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROTECT REQ'D	MULCH RING DIA.	REMARKS
				BALL / POT		ROOT SPREAD *	PLANT HOLE						
				DIA.	DEPTH		DIA.	DEPTH					
AUTUMN BLAZE MAPLE	ACER FREEMANII "AUTUMN BLAZE"	3.5" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
REGAL PRINCE OAK	QUERCUS ROBUR "REGAL PRINCE""	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48	SPECIMEN QUALITY
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ADIRONDACK CRABAPPLE	MALUS SPECIES "ADIRONDACK"	3.0" CAL.	B & B	24" MIN	20" MIN	2 TIMES TREE HGT.	42" MIN	24" MIN	BRACE	3-EACH	NONE	48"	SPECIMEN QUALITY
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BR BARE ROOT
B&B BALLED AND BURLAPPED
CAL CALIPER
CG CONTAINER GROWTH
(*) FOR BARE ROOT PLANTS

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TREE REMOVAL & PLANTING	SCALE FEET 0' 40'	SHEET NO: 116	E

FILE NAME: W:\SPR\

2

59 + 00

WEST CAPITOL DRIVE

60 + 00

N

EXISTING 12" HONEY LOCUST

EXISTING VACUM BREAKER PIPE

GRANITE COBBLE BED EDGING (TYP.)

24" HIGH GRANITE BOULDER WALL

CRUSHED STONE BORDER

RRS
SS
RS
HP
CN
DN
SD
MG
TS
ANNUALS

59 + 95

LAWN

12"

LAWN

T/L

59 + 25

RRS
SS

CRUSHED STONE BORDER

GRANITE COBBLE BED EDGING (TYP.)

SHRUBS

(05)	RRS	RED KNOCKOUT ROSE

PERENNIALS, GRASS, AND BULBS

(48)	CN	BLUE WONER CATMINT
(05)	DN	"SUMMER WINE" NINEBARK
(48)	HP	"PARDON ME" DAYLILIES
(24)	SS	"FRANCES WILLIAMS" HOSTAS
(12)	MG	MISCANTHUS GRASS
(12)	RS	RUSSIAN SAGE
(48)	SD	SHASTA DAISY
(03)	TS	"TIGER EYE" SUMAC

NOTE: BED AREA TO BE RAISED APPROX. 18" W/SOIL AND TAPER TO GRADE AT EXIST. HONEYLOCUST. BED TO CONTAIN SHREDDED BARK MULCH WITH PRE EMERGENT FERTILIZER. BED WILL BE IRRIGATED TO MEET CITY OF MILWAUKEE SPECIFICATIONS.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SCALE FEET 0' 10'	SHEET NO: 117 E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\LANDSCAPEDET.DGN

2

N

197+00

198+00

NORTH 92ND STREET

197+44
MATCH EXIST. WALL

REMOVE TREE & DOGWOODS

FINISHED CURB

EXIST. CURB

T/L

EXIST. LANNON STONE WALL

EXIST. 4"TREE

EXIST. 4"TREE

EXIST. 4"TREE

GC

EXIST. LANNON STONE WALL

EXIST. PLANTER

2'

2'

FINISHED CURB

EXIST. CURB

197+44

197+15
MATCH EXIST. WALL

REMOVE WALL

RE-BUILD LANNONSTONE WALL

SHRUBS

(07) GC ROSES "NEW" FLOWER CARPET GROUNDCOVER ROSES

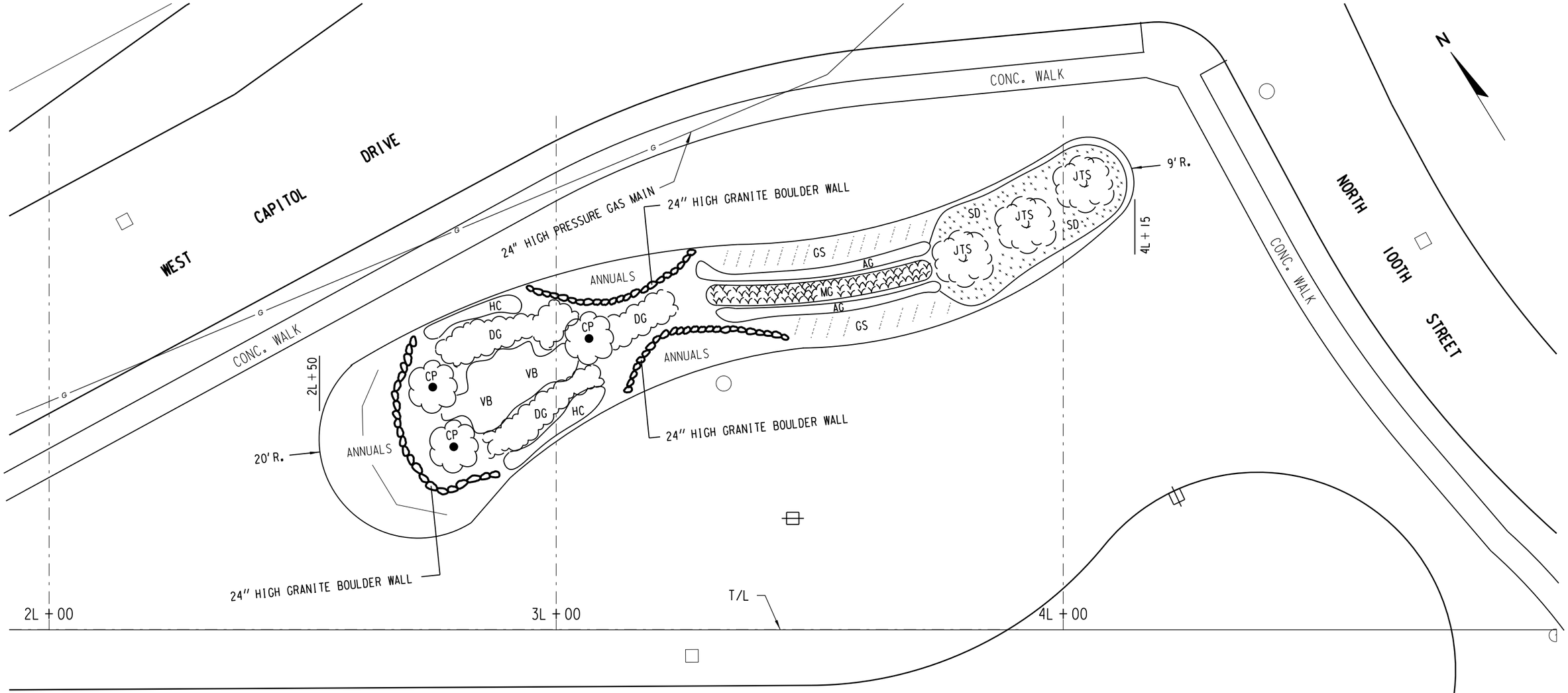
LANNON STONE WALL ITEM #

NOTE: BED WILL REMAIN INTACT AS MUCH AS POSSIBLE CONTRACTOR WILL RE-STORE BED AND IRRIGATION PER PLAN. INCLUDES NEW BARK MULCH AND ROSES INCLUDES STONE MULCH AND NECESSARY WALL REPAIR.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SCALE FEET 0' 10'	SHEET NO: 118	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\LANDSCAPEDET.DGN

2



TREES

(03) CP ORNAMENTAL PEAR
(03) JTS IVERY SILK LILACS

SHRUBS

(09) VB VIBURNUM ARROWWOOD
(13) DG CARDINAL DOGWOODS

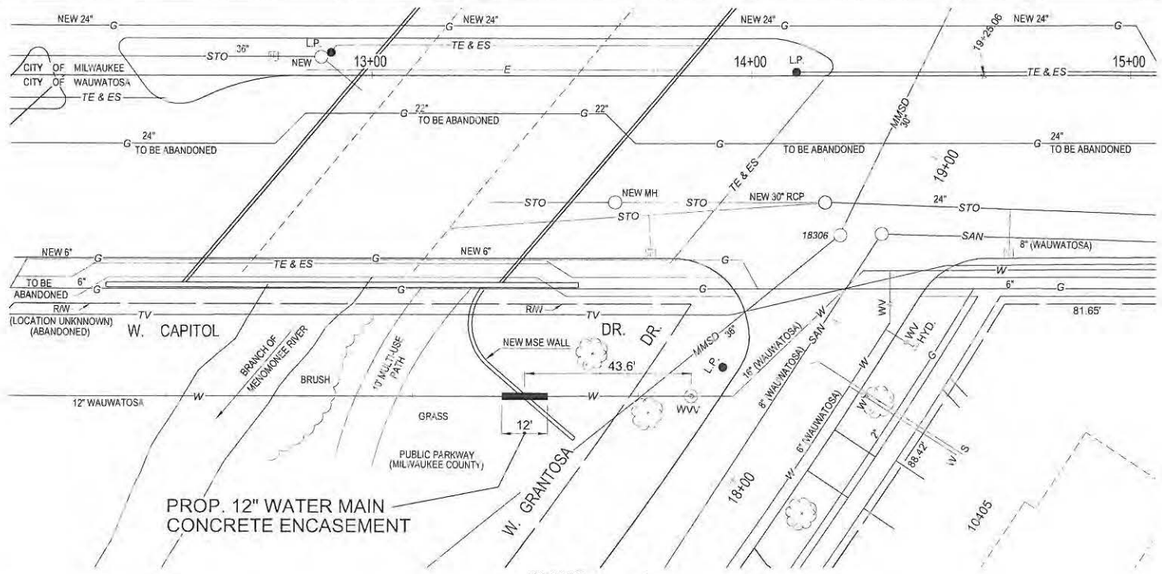
PERENNIALS, GRASS, AND BULBS

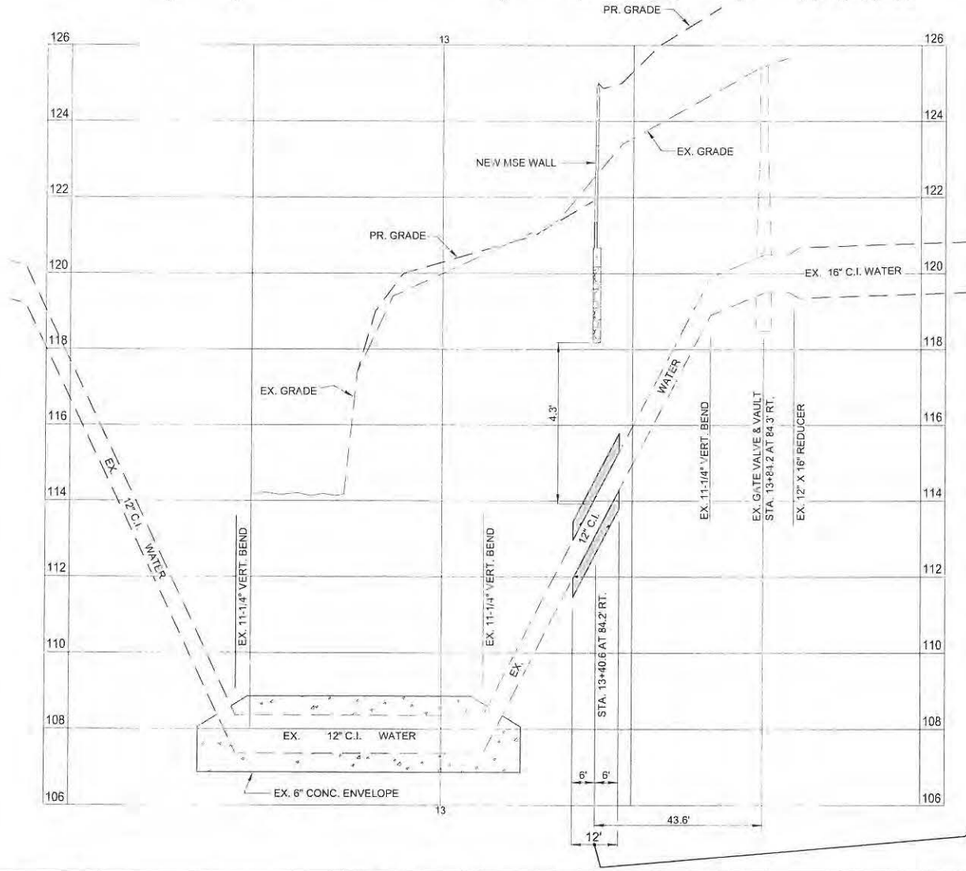
(144) AG AGASTACHE "BLUE FORTUNE"
(264) GS GOLDSTURM RUDBECKIA
(96) HC CARAMEL CORLA BELLS
(84) MG ORNAMENTAL GRASS
(144) SD SHASTA DAISY

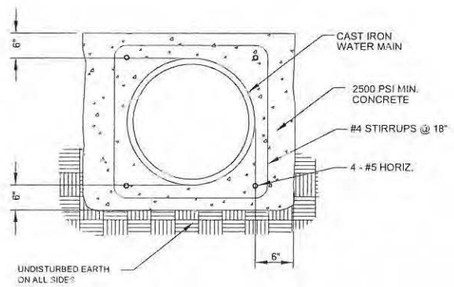
WEST LISBON AVENUE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SCALE FEET 0' 20'	SHEET NO: 119	E

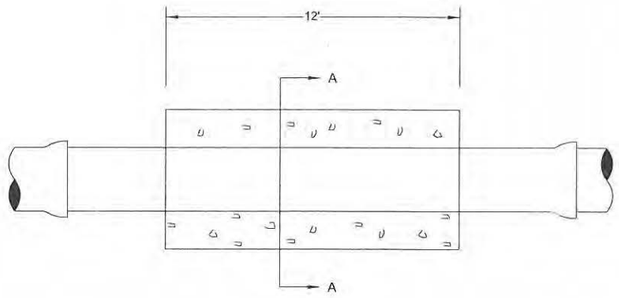
FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\LANDSCAPEDET.DGN







SECTION A-A



PROFILE

TYPICAL CONCRETE ENCASED PIPE
N.T.S.

N

ELEVATIONS ARE AT CITY OF MILWAUKEE DATUM

Underground utilities have been shown to a reasonable degree of accuracy using diggers hotline field locates and record drawings. However, the city does not guarantee their exact size, location or depth or that of others not shown. The contractor shall verify the existence of these utilities and those not shown. Costs for locating and delay shall be incidental to the contract.

12-INCH CAST IRON WATER MAIN CONCRETE ENCASEMENT, Payment for this item will be based upon the unit price per lump sum as stated in the bid for excavation, sheeting and shoring, spoil disposal, horizontal and vertical rebar reinforcement as shown in the detail, for concrete meeting a minimum strength of 2500 psi, for slurry backfill to existing surface. The concrete encasement shall extend 6-feet to the east and west of the plan view intersection with proposed MSE wall. The City of Wauwatosa Water Utility will only allow a one day shut off of the 12-inch water main to be concrete encased during construction, so plan accordingly. All other associated costs shall be incidental to the water main concrete encasement.

SUBMITTED FOR APPROVAL:
1/9/13
DATE
CITY ENGINEER

PROJECT NO: 2025-16-70	HWY: STH 190	COUNTY: MILWAUKEE	WATER MAIN CONCRETE ENCASEMENT SPV.0090.15	SHEET:	E

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

STATE PROJECT NUMBER	SHEET NO.
2025-11-71	

ESTIMATE OF QUANTITIES

FOR BIDDING

FURNISH PIPE AND INSTALL

(DUCTILE IRON PUSH-ON RUBBER GASKET JOINT)

55 FT. - 12" WATER MAIN (SPV 00.90.13)

(STEEL CASING PIPE, SPEC. DRWG. NO. 34)

20 FT. - 24" STEEL CASING (SPV 00.90.14)

CLEARING, GRUBBING, AND EROSION CONTROL

ALL CLEARING, GRUBBING, AND EROSION CONTROL SHALL BE COMPLETED UNDER STATE PROJECT 2025-16-70 PRIOR TO WATER MAIN ALTERATION

69 CU. YDS. EXCESS EXCAVATED MATERIAL

FOLLOWING IS A LIST OF THE FITTINGS SHOWN ON THIS CONSTRUCTION PLAN THAT WILL BE PROVIDED BY THE CONTRACTOR.

5 - 812-45
1 - SL12

NOTE:

PRIMARY LINE AND GRADE FOR THIS WORK IS THE RESPONSIBILITY OF THE PRIME CONTRACTOR. PRIOR TO STARTING WORK, PROPOSED CONNECTIONS SHALL BE LOCATED, WITH OFFSET STAKES AS NECESSARY, BY THE CONTRACTOR.

INSPECTION NOTES

ALL MATERIALS WILL REQUIRE INSPECTION BY THE CITY.

NOTIFY MR. STEVE BRENGOSZ AT 414-708-2808 OR MR. MARK SCHELLER AT 414-286-2427, FOR MATERIALS INSPECTION AND THE CITY OF MILWAUKEE'S CONSTRUCTION SECTION AT 414-286-2497, FOR INSTALLATION INSPECTION, FOUR DAYS PRIOR TO STARTING CONSTRUCTION.

GENERAL NOTES

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF MILWAUKEE "WATER MAIN INSTALLATION SPECIFICATIONS", DATED JANUARY 2, 1987. ADDITIONALLY, ALL WORK SHALL BE DONE IN ACCORDANCE WITH "THE MILWAUKEE WATER WORKS STANDARD PLAN NOTES REGARDING WATER MAIN CONSTRUCTION".

THE CONTRACTOR SHALL FURNISH ALL ITEMS REQUIRED TO COMPLETE THIS PROJECT.

WORK ORDER SHOWN ON PLAN IS FOR CITY EXPENSES RELATED TO INSPECTION.

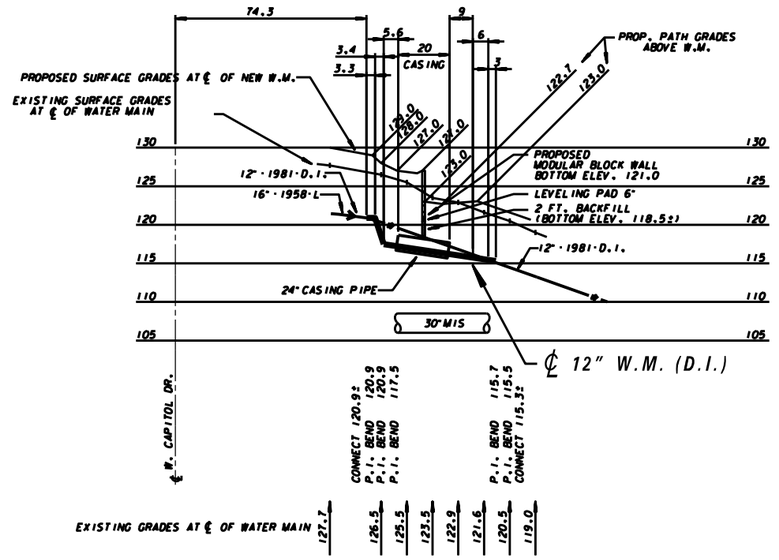
ABANDONMENT OF WATER MAINS, VALVES, AND HYDRANTS

51 FT. - 12"-1981-D.I. WATER MAIN

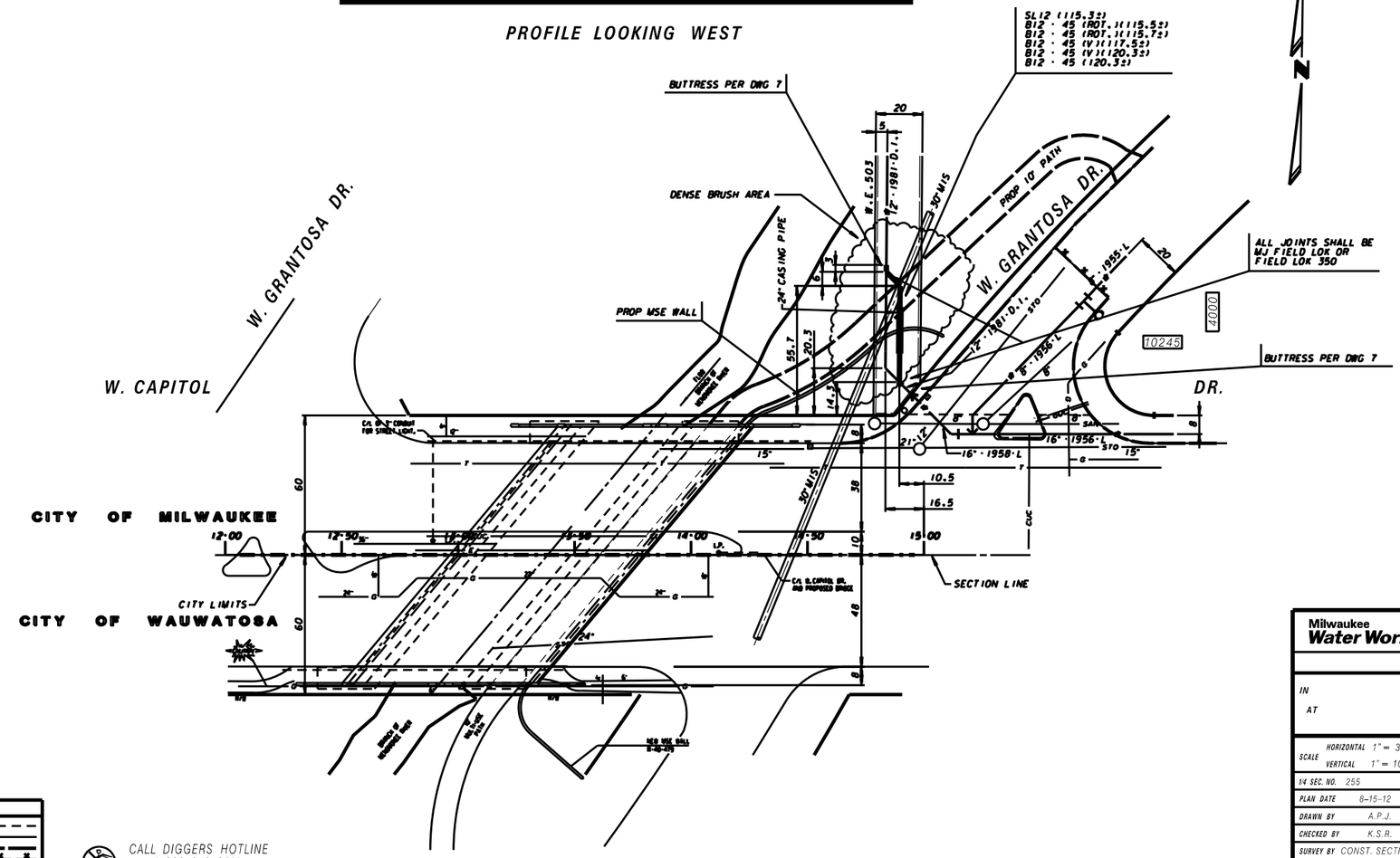
BENCHMARKS

N. MAYFAIR RD. & W. CAPITOL DR. (N.E.CORNER)
60.8' E. OF E. CURB OF N. MAYFAIR RD. &
8.5' N. OF N.CURB OF W. CAPITOL DR.

EL. 161.301



PROFILE LOOKING WEST



WISCONSIN
MARK J. SCHELLER
E-32004
MILWAUKEE, WI
PROFESSIONAL ENGINEER

PLAN LINE & UTILITY LEGEND

GAS ——G——	SANITARY SEWER	STREET LIGHTING
ELECTRIC ——E——	STORM SEWER	CITY UNDERGROUND CONDUIT —CUC—
TELEPHONE ——T——	COMBINED SEWER	PROPOSED CURB / PVMT
CABLE TELEVISION ——TV——	WATER MAIN ——W——	PAVING LIMITS
FIBER OPTICS ——FO——	WATER SERVICE	STRUCTURE / BUILDING
PROPOSED UTILITY	PRESSURE DISTRICT	FENCE ——x——

POWER POLES ○-CONCRETE □-ALUMINUM ◑-WOOD WATER MAIN VALVES —|—-GATE —|—-BUTTERFLY ○W-SERVICE

UTILITIES ⊠-TRAFFIC SIGNAL ⌑-TRAFFIC CONTROL BOX ⊙G-GAS VALVE HYDRANTS ⊙-1 NOZZLE ⊙-3 NOZZLE

CALL DIGGERS HOTLINE
1-800-242-8511
TOLL FREE TO OBTAIN LOCATION OF UNDERGROUND BEFORE YOU DIG. WISCONSIN STATUTE 182.0175 REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

NO.	BY	REVISION	DATE

Milwaukee Water Works — **Water Engineering**
Department of Public Works

WATER MAIN

IN W. CAPITOL DR.
AT W. GRANTOSA DR.

SCALE HORIZONTAL	1" = 30'
SCALE VERTICAL	1" = 10'
1/4 SEC. NO.	255
PLAN DATE	8-15-12
DRAWN BY	A.P.J.
CHECKED BY	K.S.R.
SURVEY BY	CONST. SECTION

APPROVED — DATE

9-5-12 MAINS DESIGN ENGINEER

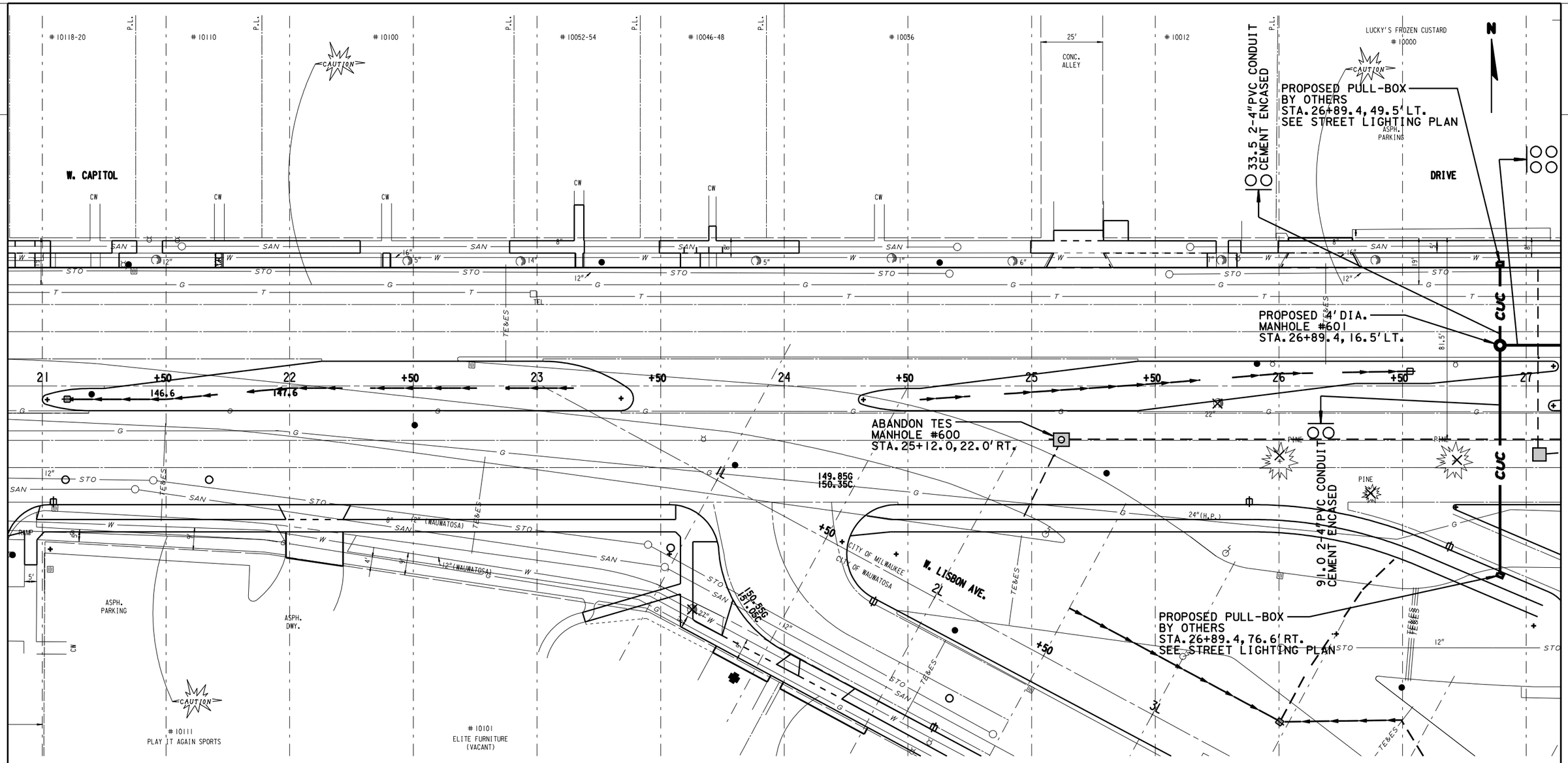
9-5-12 CHIEF DESIGN ENGINEER

9-5-12 SPECIAL DEPUTY COMMISSIONER OF PUBLIC WORKS

PROGRAM NO.	2012-754	CONTRACT NO.	
WORK ORDER	WT410110766	O.N. & PROJECT NO.	NA 121
FILE NO.	101096	ADOPTED	1-19-11

SHEET NO. 1 OF 1 PLAN FILE NO. 2012041

2



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.

LEGEND

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

SHEET 1 OF 16

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0 40	SHEET NO: 122	E

STA. 27+75.8, 178.4' LT.

42.5 1-4"PVC CONDUIT
CEMENT ENCASED
VENTED DUCT
SEE INSTALLATION
DETAIL

108.9 4-4"PVC CONDUIT
CEMENT ENCASED
CAP DUCT ENDS

PROPOSED TRAFFIC
CONTROL CABINET
BY OTHERS
STA. 27+34.6, 73.0' LT.

54.0 2-4"PVC CONDUIT
CEMENT ENCASED
CAP DUCT ENDS

HUB STA. 27+71.8, 69.5' LT.
90° 4' RADIUS BEND

50.0 5-4"PVC CONDUIT
CEMENT ENCASED

W. CAPITOL

PROPOSED 4' DIA. MANHOLE #607
STA. 27+75.8, 17.5' LT.

HUB STA. 27+37.2, 21.6' LT.
90° 4' RADIUS BEND

38.0 4-4"PVC CONDUIT
CEMENT ENCASED

STA. 28+15.8
16.5' LT.

MOBIL GAS STATION
#9922

GRACE CHRISTIAN FELLOWSHIP
10224-26

349.2 8-4"PVC CONDUIT
CEMENT ENCASED

ASPH.
PARKING

80.2 4-4"PVC CONDUIT
CEMENT ENCASED

75.0 8-4"PVC CONDUIT
CEMENT ENCASED

PROPOSED 4' DIA.
MANHOLE #609
STA. 32+05.0, 15.5' LT.

DRIVE

STA. 31+65.0
16.5' LT.

STA. 32+45.0
16.5' LT.

124.0 4-4"PVC CONDUIT
CEMENT ENCASED

ABANDON TES
MANHOLE #608
STA. 30+45.3, 21.6' RT.

38.0 4-4"PVC CONDUIT
CEMENT ENCASED

38.0 4-4"PVC CONDUIT
CEMENT ENCASED

ABANDON TES
MANHOLE #602
STA. 27+05.2, 27.6' RT.

ABANDON TES
MANHOLE #603
STA. 27+33.0, 21.3' RT.

ABANDON TES
MANHOLE #604
STA. 27+35.7, 146.6' RT.

291.0 4-4"PVC CONDUIT
CEMENT ENCASED

N. 100TH

#9921

#9817

#3971-73 N. 9

SEE SHEET 3 OF 16

NOTES:

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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.

LEGEND

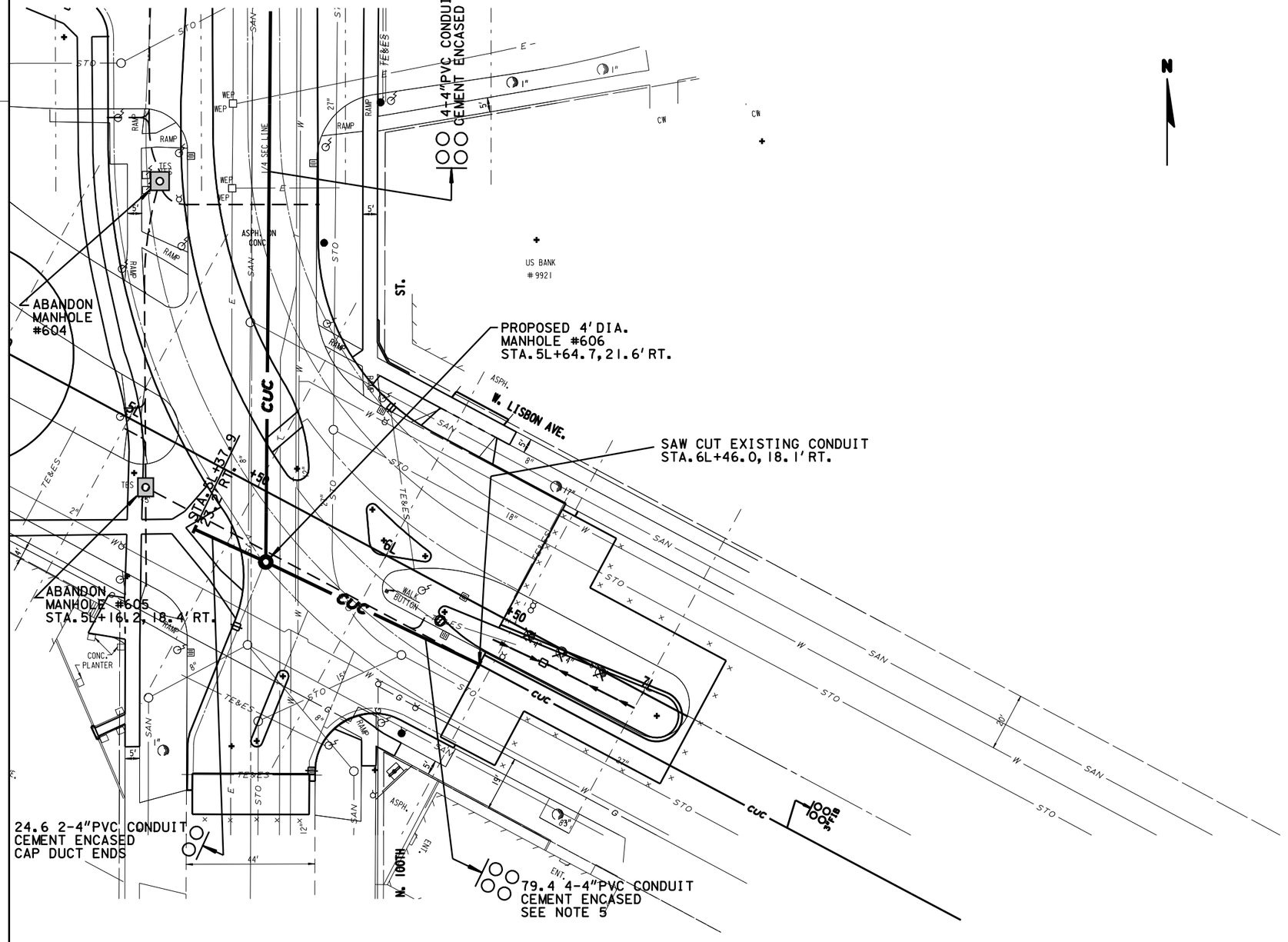
— CUC — PROPOSED 4-INCH CEMENT ENCASED NONMETALLIC CONDUIT, NUMBER OF RUNS AS NOTED.

PROPOSED TES MANHOLE

CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: W. CAPITOL DR.	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0 40	SHEET NO: 123	E

SEE SHEET 2 OF 16

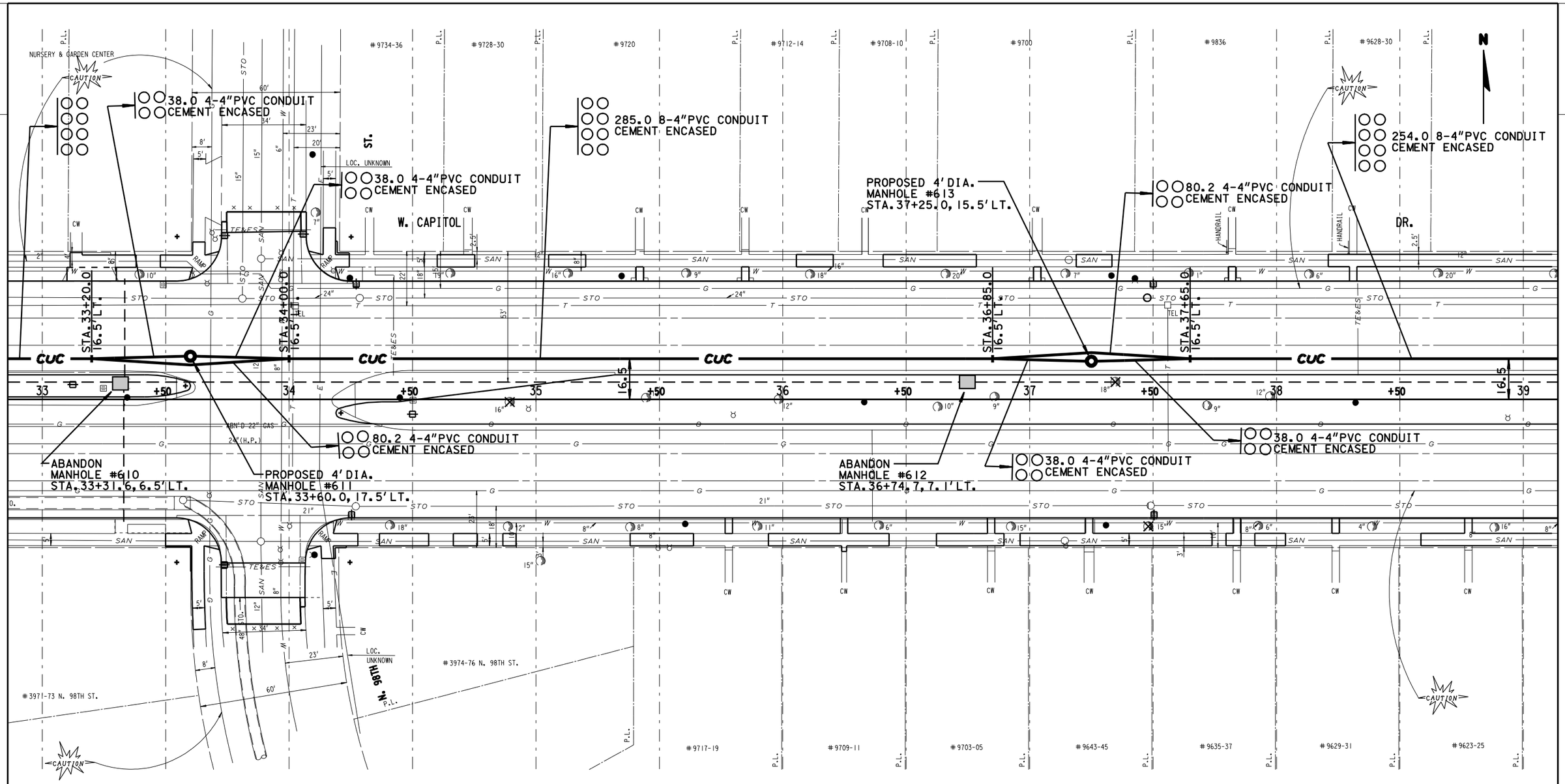


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3) DIMENSIONS SHOWN ARE TO CENTER OF MANHOLE, DUCT PACKAGE OR UTILITY.
4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
5) ATTACH PROPOSED 4" PVC TO EXISTING 3" FIBER DUCT USING APPROPRIATE ADAPTOR. REMOVE ABANDONED 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



NOTES:

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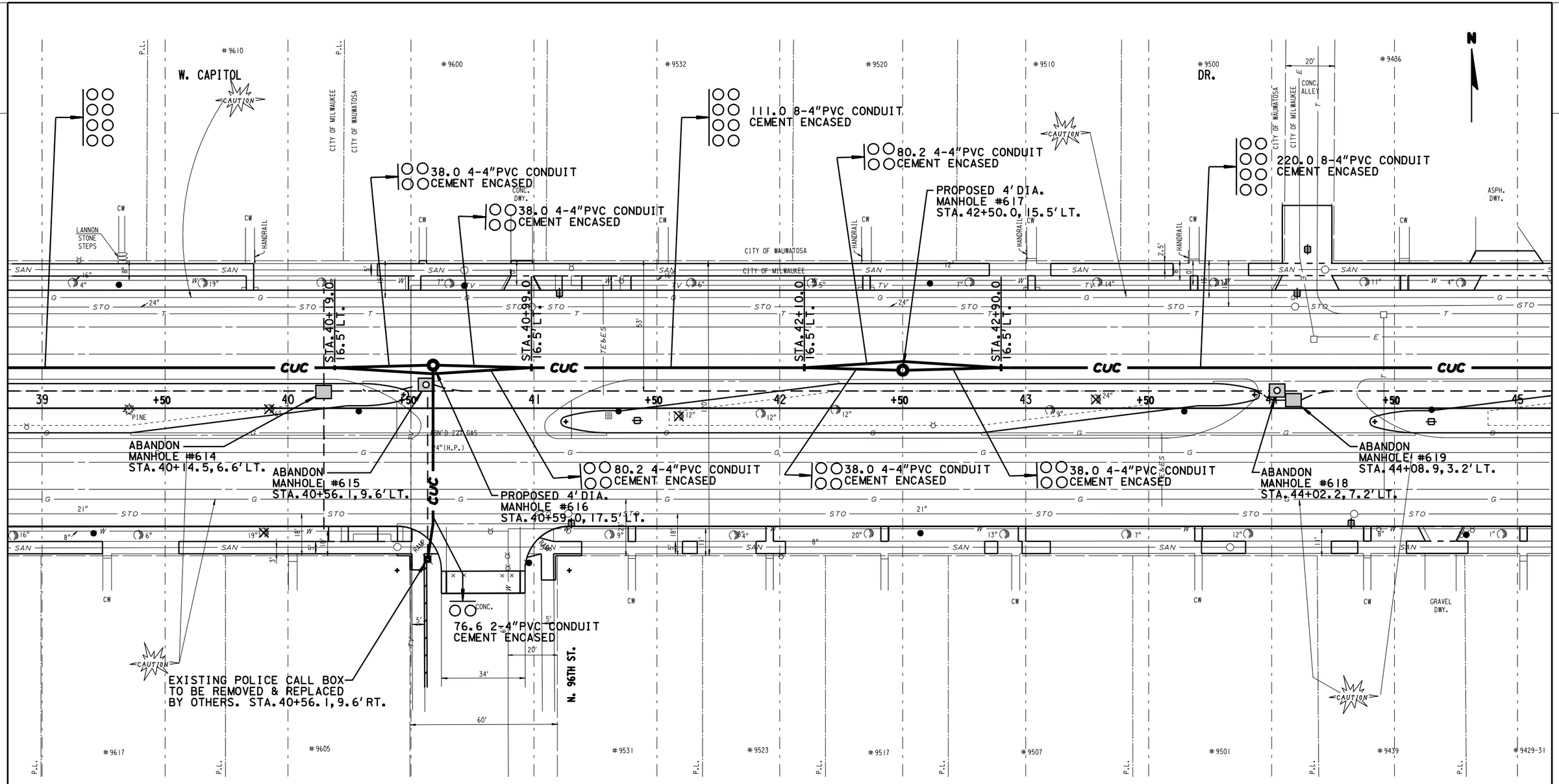
LEGEND

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

SHEET 4 OF 16

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0 40	SHEET NO: E

2



NOTES:

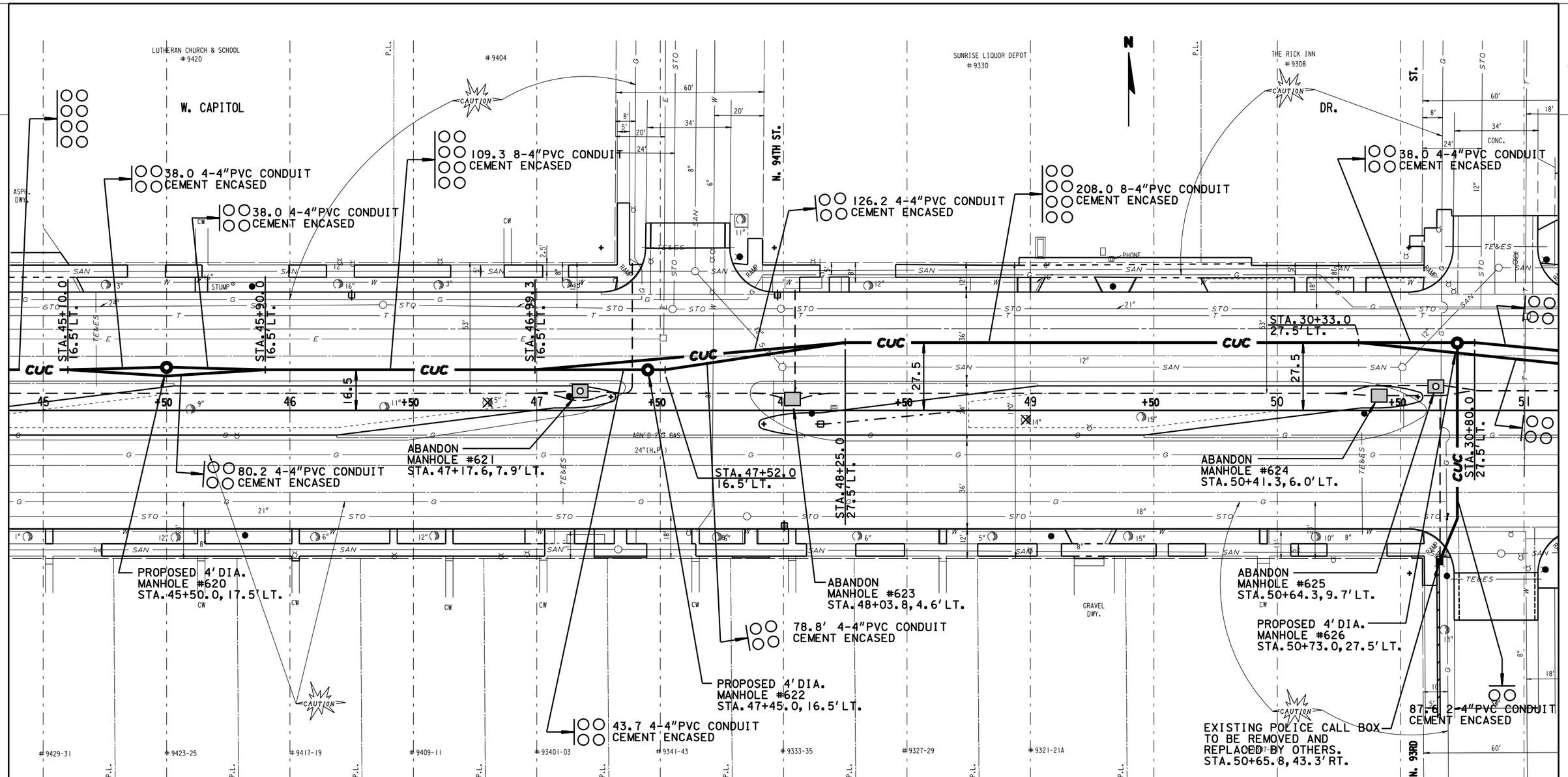
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LEGEND

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

SHEET 5 OF 16

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 126 E



NOTES:

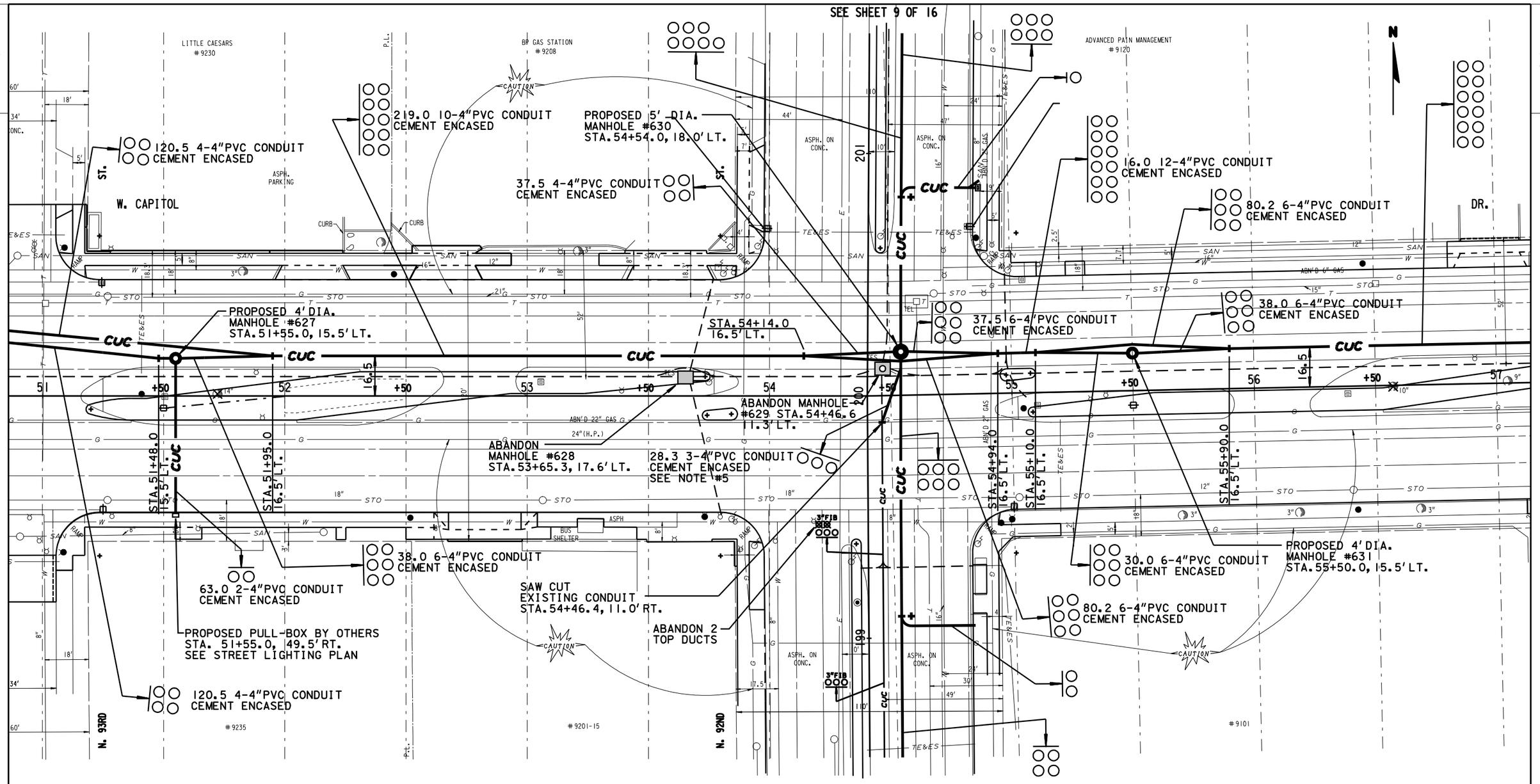
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LEGEND

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

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 127	E

SEE SHEET 9 OF 16



SEE SHEET 8 OF 16

NOTES:

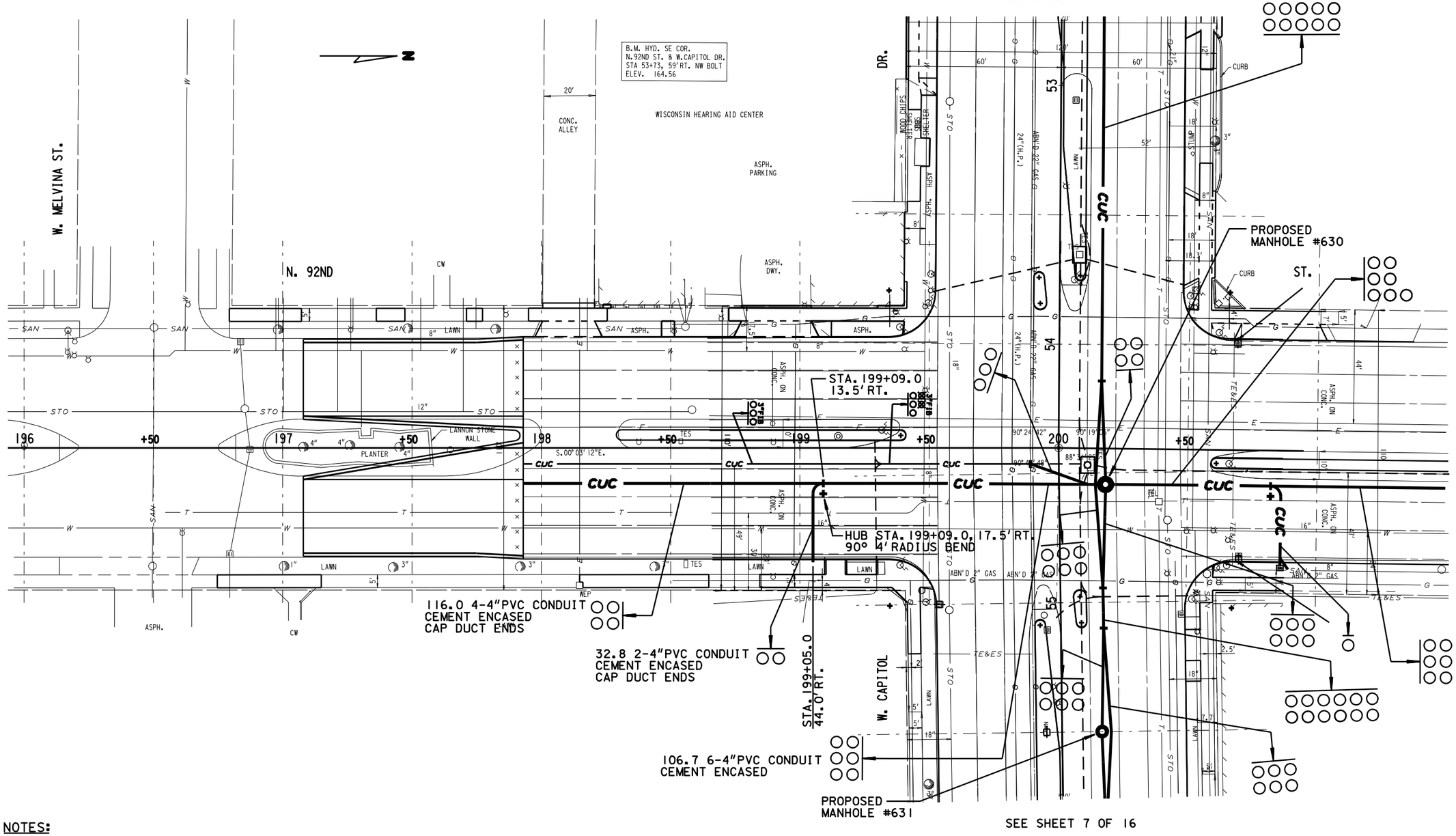
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4) MAINTAIN A STANDARD DEPTH OF 39-INCHES BETWEEN FINISHED GROUND AND TOP OF CONDUIT.
5) ATTACH PROPOSED 4" PVC TO THE BOTTOM THREE EXISTING 3" FIBER DUCTS USING APPROPRIATE ADAPTORS. REMOVE ABANDONED CONDUIT AS NEEDED FOR PROPOSED INSTALLATION.

LEGEND

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

STATE PROJECT NUMBER	HWY:	COUNTY:	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET	SHEET NO:	
2025-11-71 2025-16-70	S.T.H. 190	MILWAUKEE		0' 40'	128	E

SEE SHEET 7 OF 16



SEE SHEET 9 OF 16

SEE SHEET 7 OF 16

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LEGEND

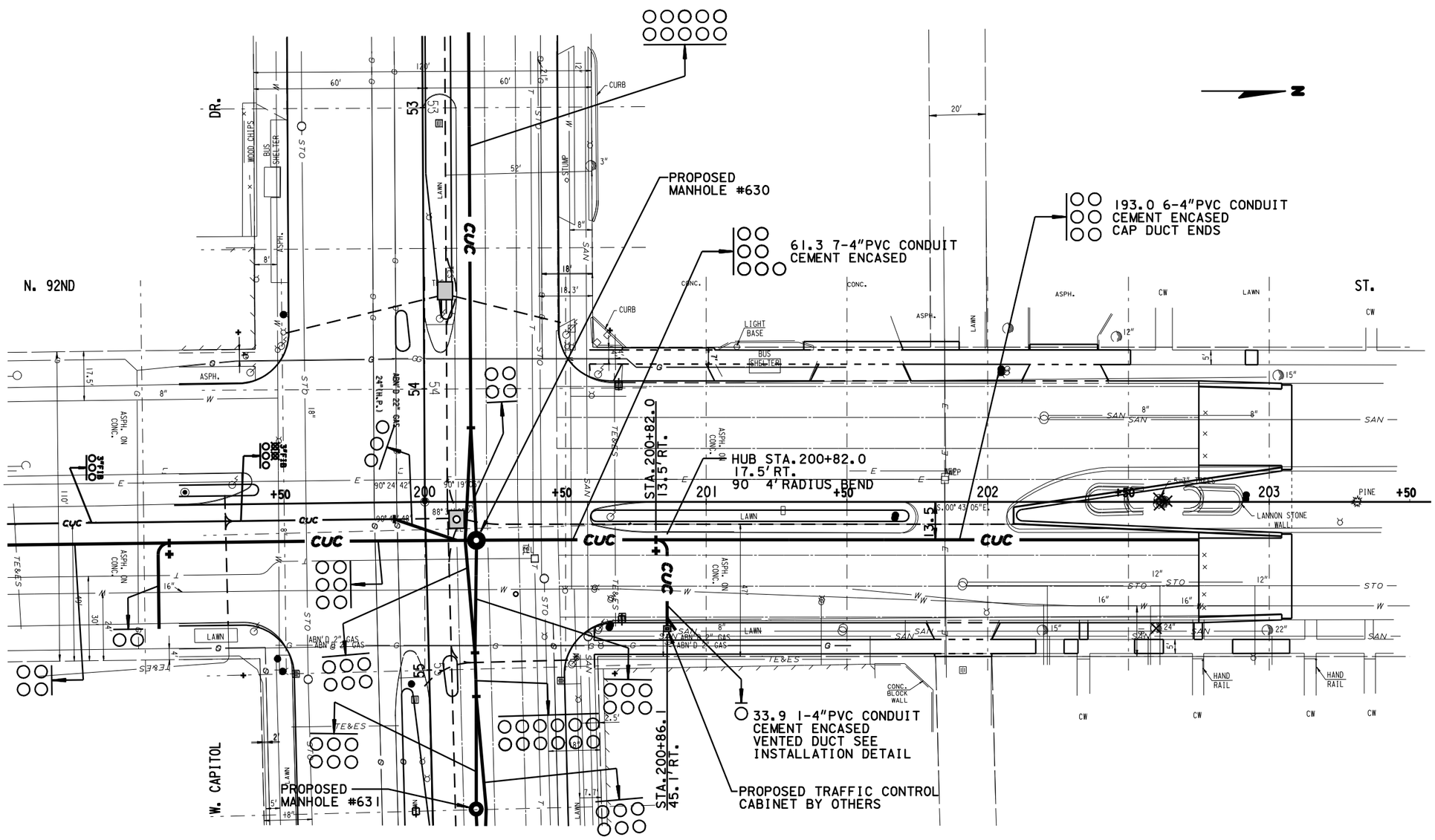
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○	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0 40	SHEET NO: 129	E

2

SEE SHEET 7 OF 16

SEE SHEET 8 OF 16



SEE SHEET 7 OF 16

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LEGEND

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O	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 130	E

2

N

N. 91ST ST.

N. 90TH ST.

W. CAPITOL DR.

KRAUSE FUNERAL HOME
9000

PROPOSED 4' DIA. MANHOLE #637
STA. 61+00.0, 17.5' LT.

310.0 12-4"PVC CONDUIT
CEMENT ENCASED

80.0 12-4"PVC CONDUIT
CEMENT ENCASED

80.2 6-4"PVC CONDUIT
CEMENT ENCASED

38.0 6-4"PVC
CONDUIT
CEMENT ENCASED

POLICE CALL BOX TO BE
REMOVED & REPLACED
BY OTHERS

42.2 2-4"PVC CONDUIT
CEMENT ENCASED

240.0 12-4"PVC CONDUIT
CEMENT ENCASED

38.0 6-4"PVC CONDUIT
CEMENT ENCASED

ABANDON
MANHOLE #632
STA. 57+29.7, 5.1' LT.

ABANDON
MANHOLE #633
STA. 57+55.3, 8.6' LT.

ABANDON
MANHOLE #635
STA. 60+62.9, 4.5' LT.

ABANDON
MANHOLE #636
STA. 60+88.7, 8.6LT.

PROPOSED MANHOLE #634
STA. 59+40.0, 15.5' LT.

38.0 6-4"PVC CONDUIT
CEMENT ENCASED

80.2 6-4"PVC CONDUIT
CEMENT ENCASED

STA. 59+00.0
16.5' LT.

STA. 59+80.0
16.5' LT.

STA. 60+60.0
16.5' LT.

STA. 61+40.0
16.5' LT.

CAUTION

NOTES:

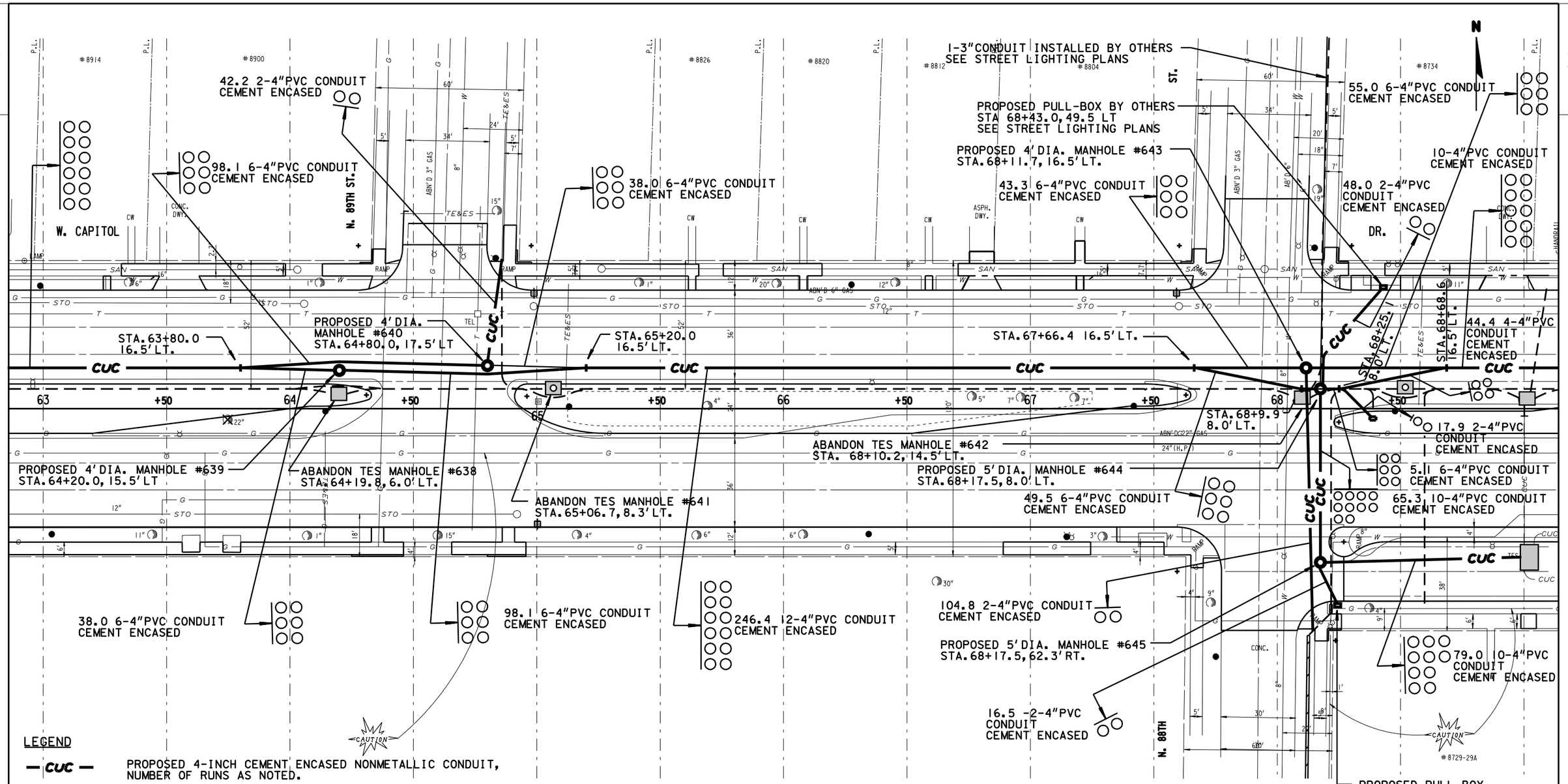
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LEGEND

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

PROPOSED TES MANHOLE

— — — — CONDUIT TO BE ABANDONED IN PLACE



LEGEND

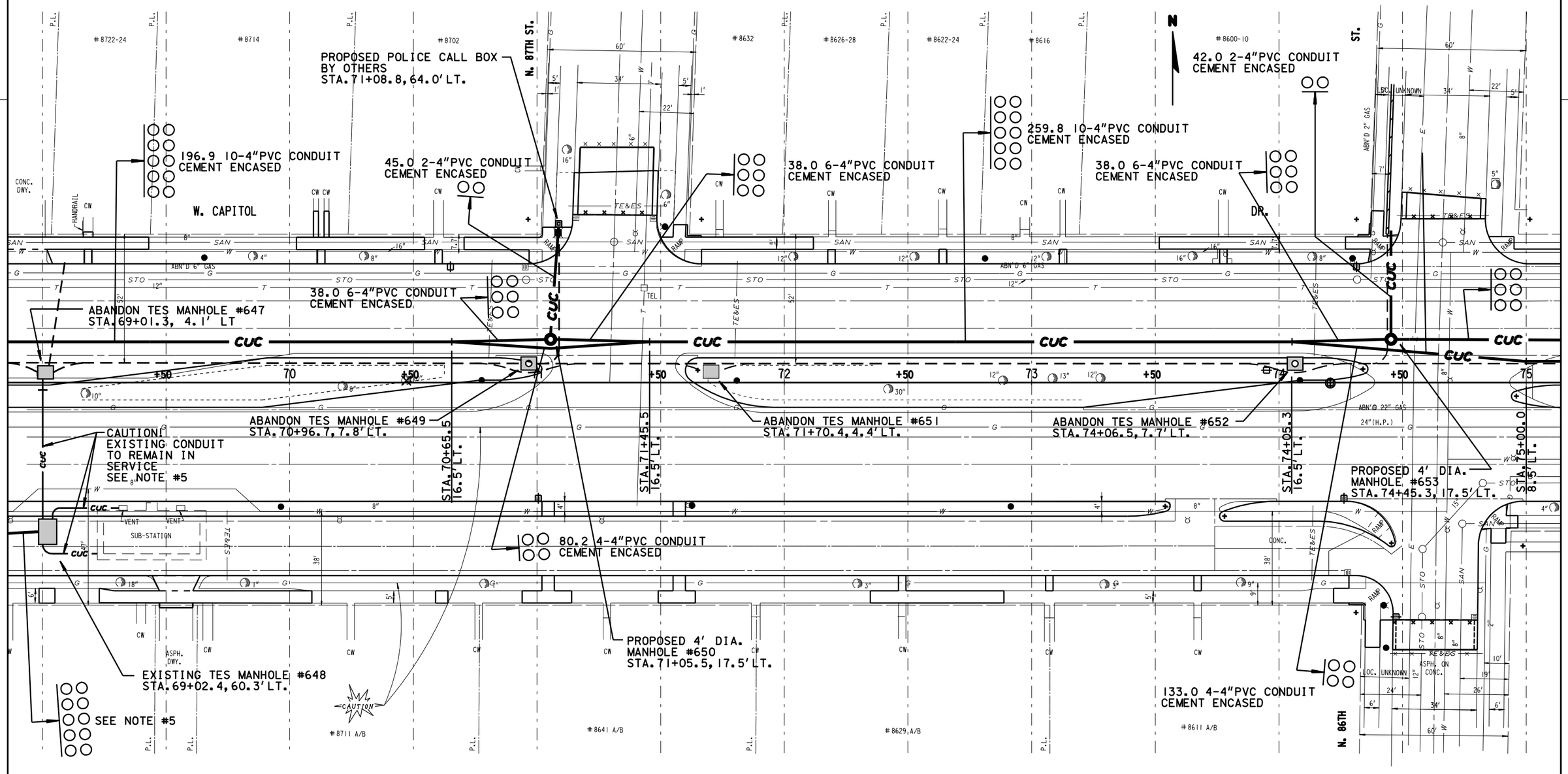
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5) CAUTION! ENERGIZED STREET LIGHTING CABLES IN MANHOLE. CONTACT MR. DENNIS MILLER AT (414) 286-5942 OR (414) 708-4251 PRIOR TO ENTERING OR INSTALLING CONDUIT INTO MANHOLE #648.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 132	E

2



B.M. HYD. SW COR.
N. 86TH ST. & W. CAPITOL DR.
STA 74+42, 90' RT. NW BOLT
ELEV. 197.96

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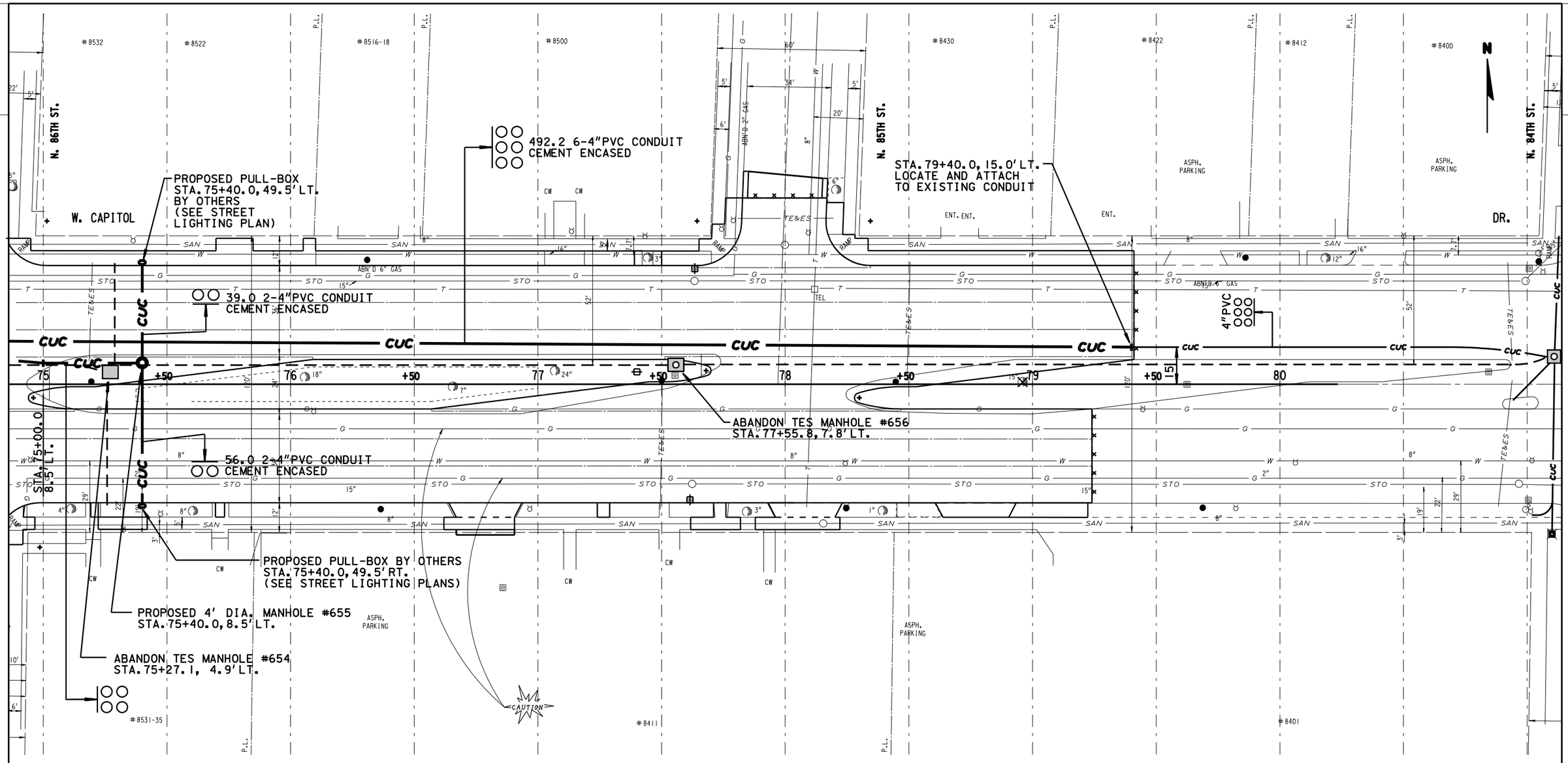
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PROPOSED TES MANHOLE

— — — — CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: E



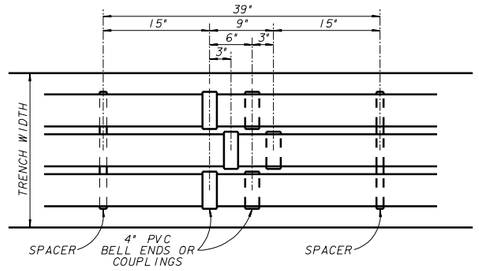
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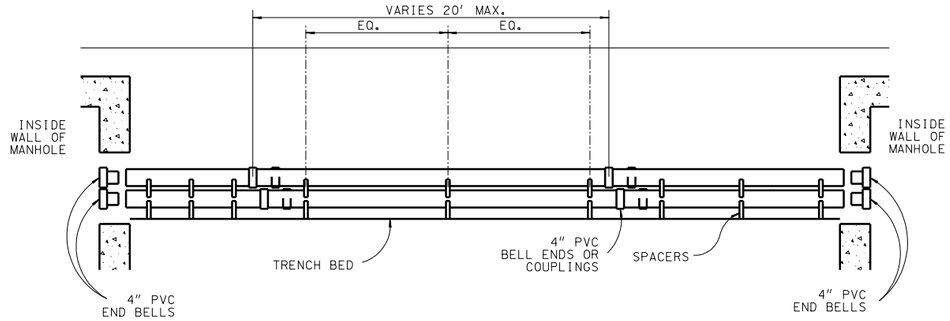
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●	PROPOSED TES MANHOLE
— — — —	CONDUIT TO BE ABANDONED IN PLACE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UNDERGROUND CONDUIT (TES)	SCALE FEET 0' 40'	SHEET NO: 134	E

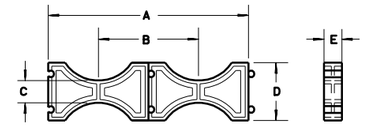


PLAN VIEW
N.T.S.



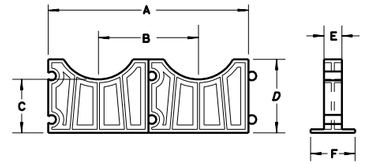
SECTION VIEW
N.T.S.

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅞"
C	1 ½"	1 ¼"
D	3 ¼"	3 ½"
E	1"	1"



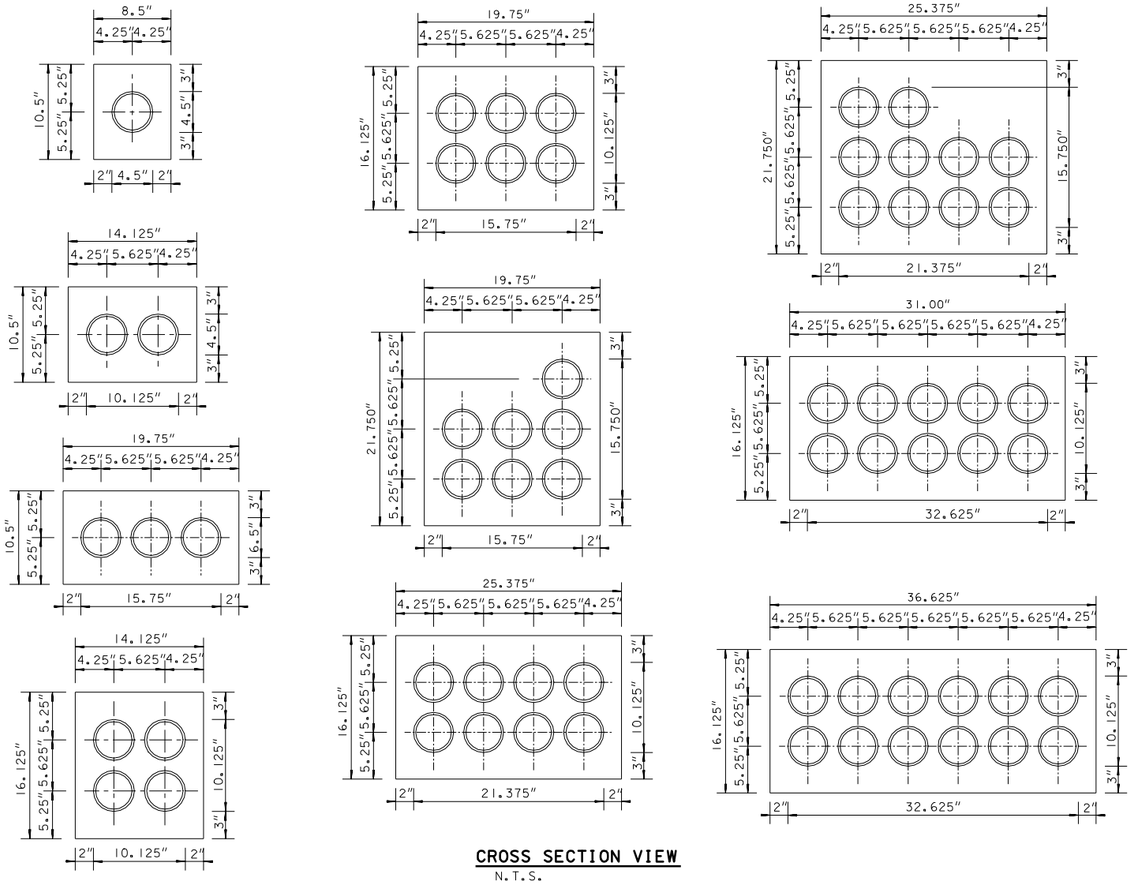
INTERMEDIATE SPACER

COND.	3"	4"
A	10"	11 ½"
B	5"	5 ⅞"
C	3"	3"
D	3 ⅞"	4 ⅛"
E	1"	1"
F	2 ⅛"	2 ⅛"

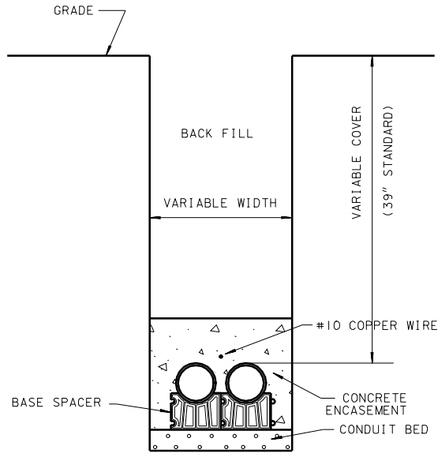


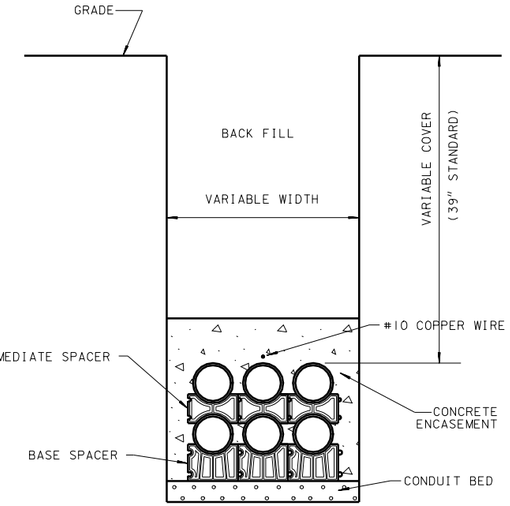
BASE SPACER

INTERMEDIATE AND BASE SPACER DETAIL



CROSS SECTION VIEW
N.T.S.



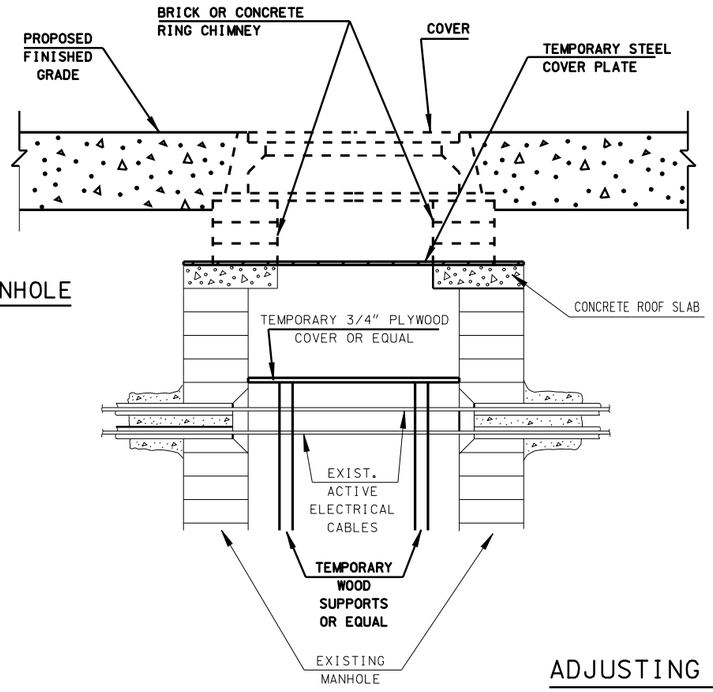


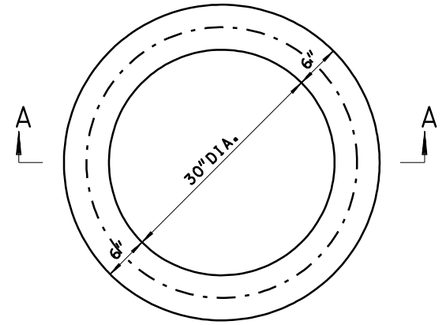
CROSS SECTION VIEW, TYP.
N.T.S.

STATE PROJECT NUMBER 2025-11-70 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET	SHEET NO: 135	E

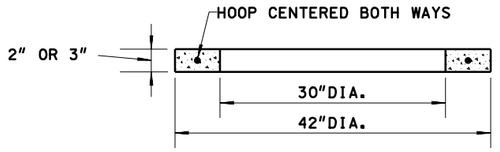
2

BLOCK OR PRECAST MANHOLE





PLAN



SECTION A-A

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

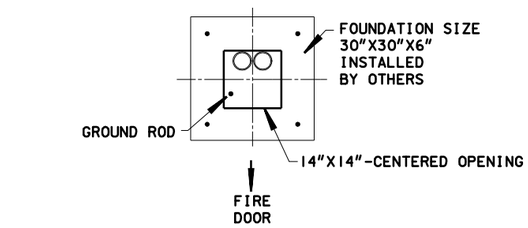
THE CIRCUMFERENTIAL STEEL SHALL BE CENTERED WITHIN THE RING.

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

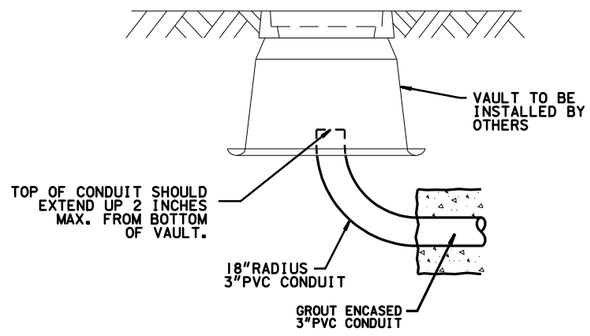
THE MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE CORE SHALL BE 4000 P.S.I.

CONCRETE ADJUSTING RING

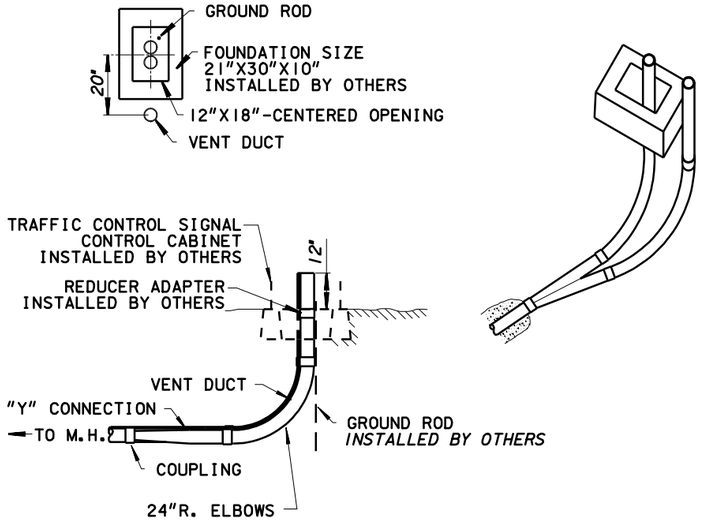
ADJUSTING TES MANHOLES



POLICE CALL BOX DETAIL

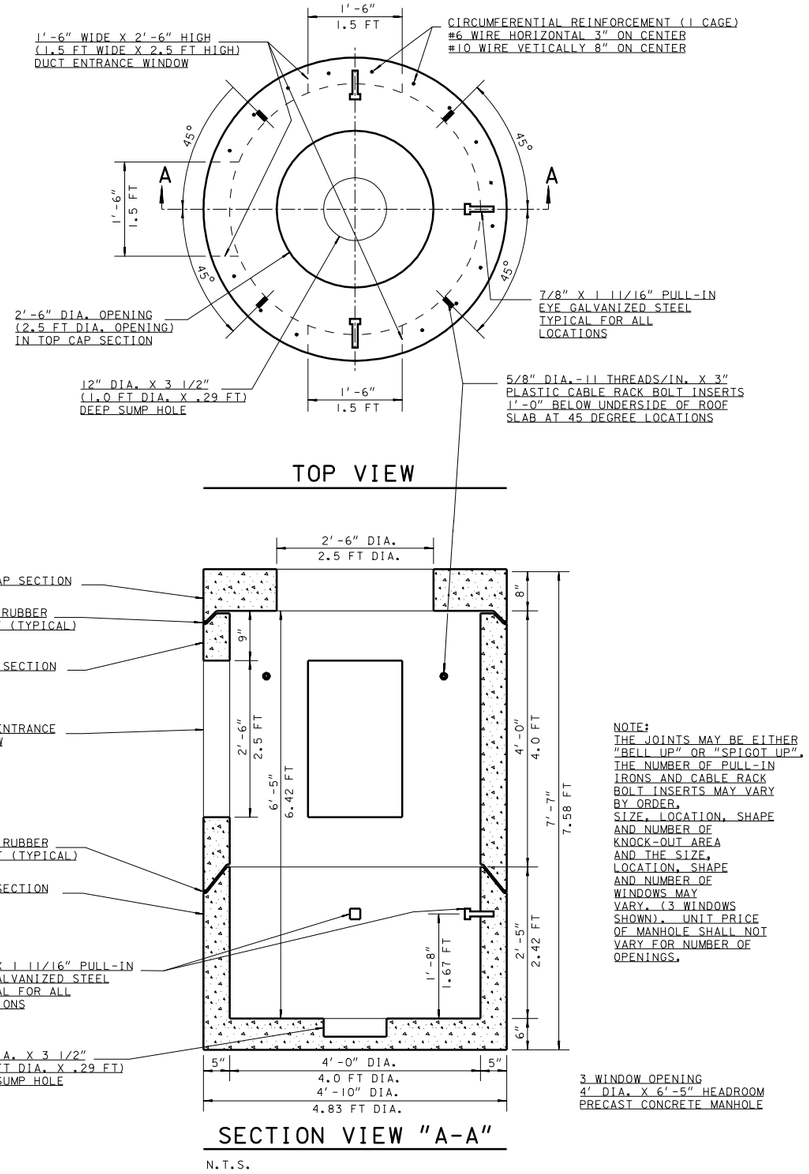


TYPICAL CONDUIT - VAULT ENTRY

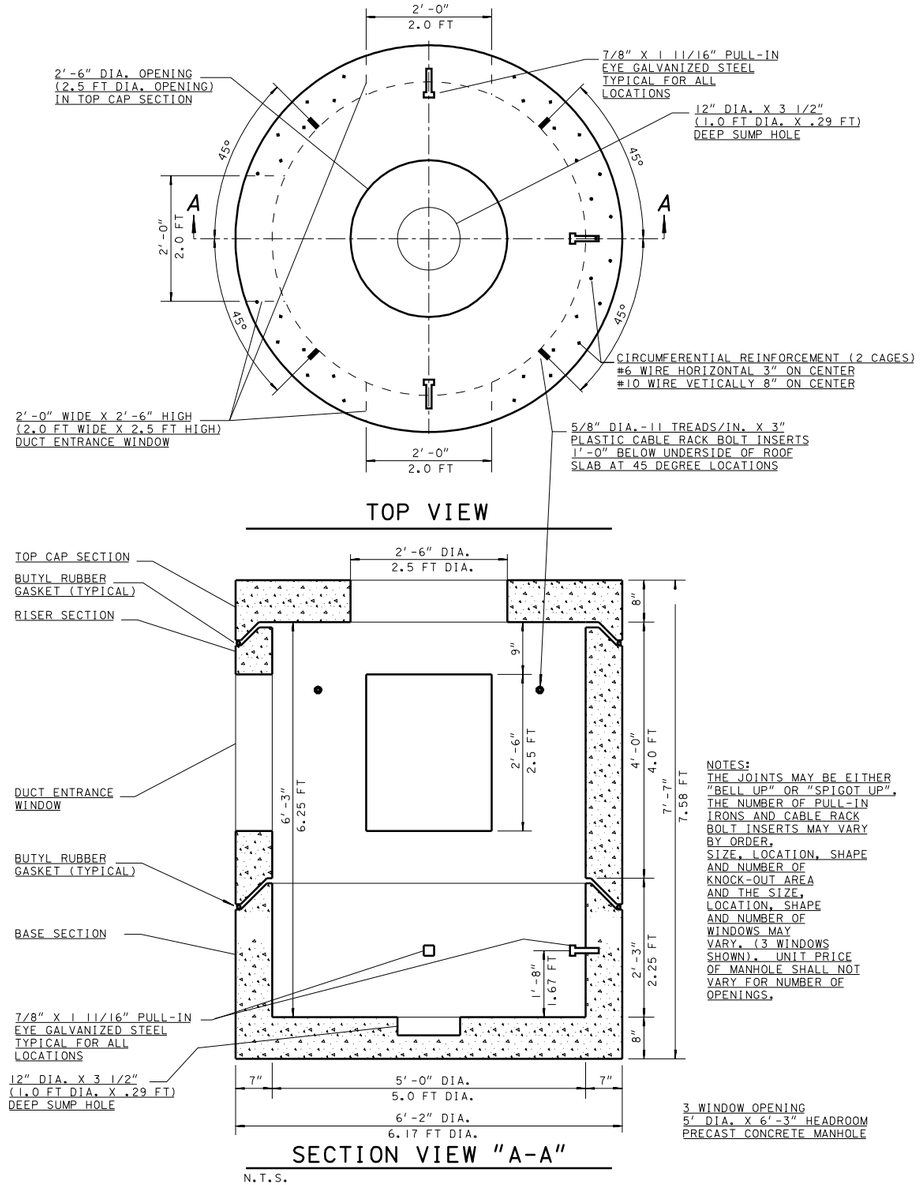


TRAFFIC CONTROL CABINET DETAIL

STATE PROJECT NUMBER 2025-11-70 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET	SHEET NO: 136	E



4' DIAMETER MANHOLE TYPE TES DETAIL



5' DIAMETER MANHOLE TYPE TES DETAIL

2

SHEET 16 OF 16

STATE PROJECT NUMBER 2025-11-70 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	CITY UG CONDUIT DETAILS (TES)	SCALE FEET	SHEET NO: 137	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 WITHIN 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.

2

TRAFFIC & STREET LIGHTING GENERAL NOTES:

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.

UTILITY LINE CODE

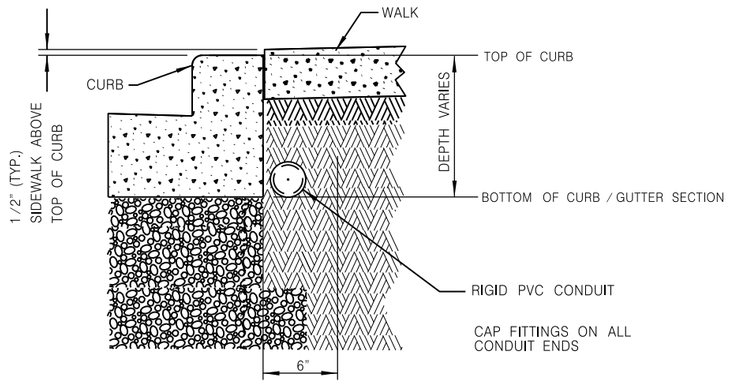
- SAN — SANITARY SEWER
- STO — STORM SEWER
- W — WATER
- G — GAS
- G — PROPOSED GAS
- E — ELECTRIC
- TE&ES — TRAFFIC & STREET LIGHTING
- OLD CITY UNDERGROUND CONDUIT
- CUC — PROPOSED CITY UNDERGROUND CONDUIT
- T — TELEPHONE
- TV — CABLE

SHEET 1 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 138	E

2

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



100 DETAIL "A"

TYPICAL CONDUIT INSTALLATION
BEHIND CURB

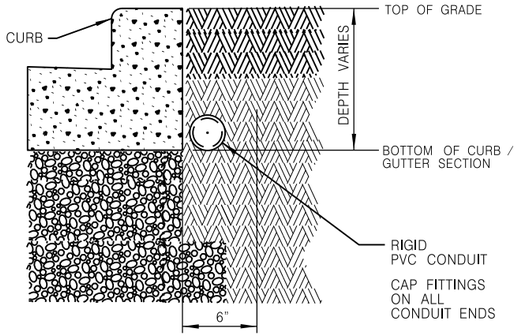
NOT TO SCALE

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

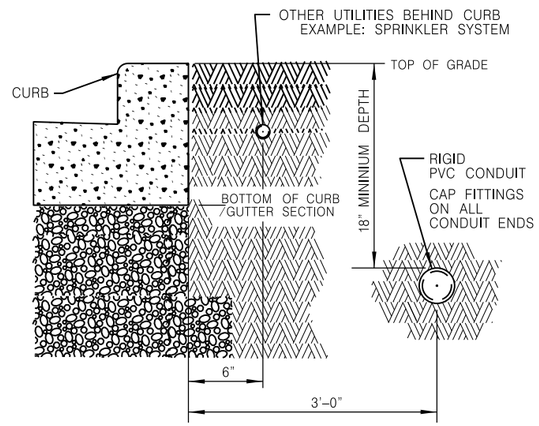
NOTE: 1.) KEEP AREA BEHIND CURB FREE OF DEBRIS AND CONCRETE OVERPOUR.

DETAIL "B"

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



DETAIL "C"

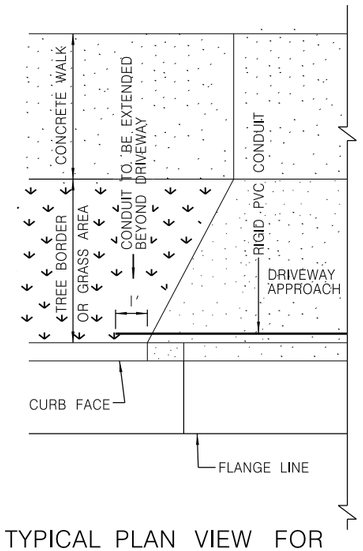


100 DETAIL "B" & "C"

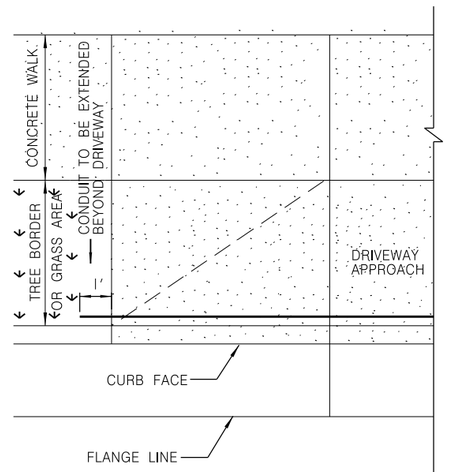
TYPICAL CONDUIT INSTALLATION
BEHIND CURB

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.



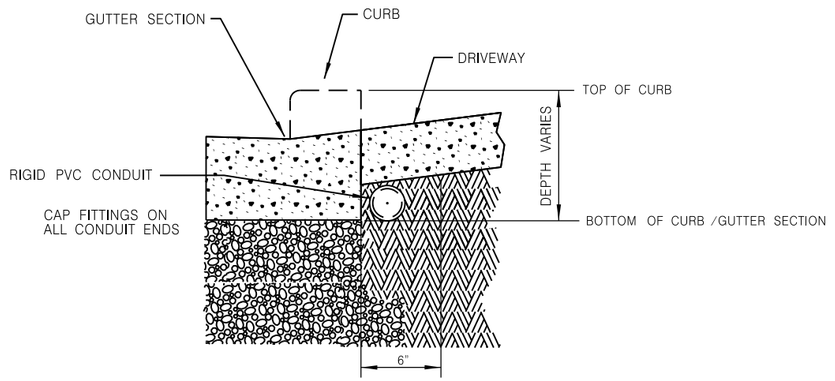
TYPICAL PLAN VIEW FOR
FLARED DRIVEWAY



TYPICAL PLAN VIEW FOR
DEPRESSED DRIVEWAY

2

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



101 DETAIL

TYPICAL CONDUIT INSTALLATION
UNDER DRIVEWAYS OR PEDESTRIAN RAMPS

NOT TO SCALE

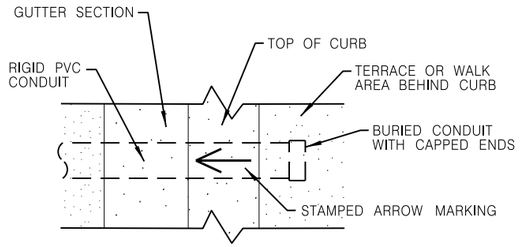
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286-5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 2 OF 46

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 139	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitol Dr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:04
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

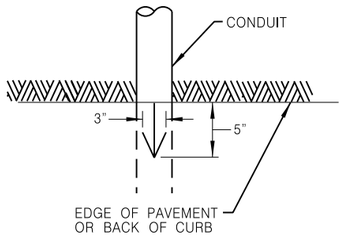


TOP VIEW OF CURB STAMPING

NOT TO SCALE

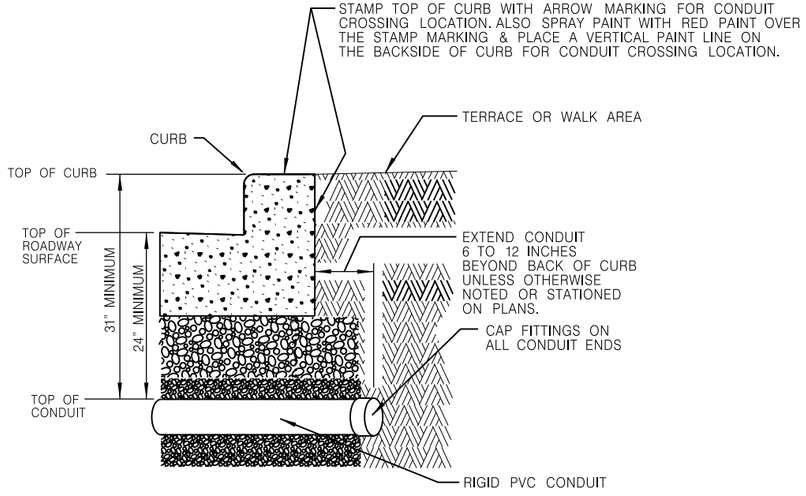
NOTE:

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

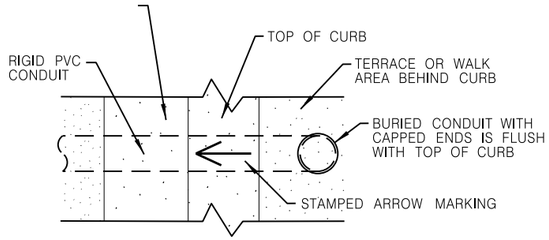


102 DETAIL VERSION #1

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.

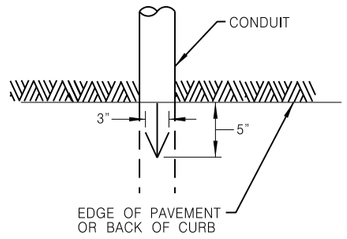


TOP VIEW OF CURB STAMPING

NOT TO SCALE

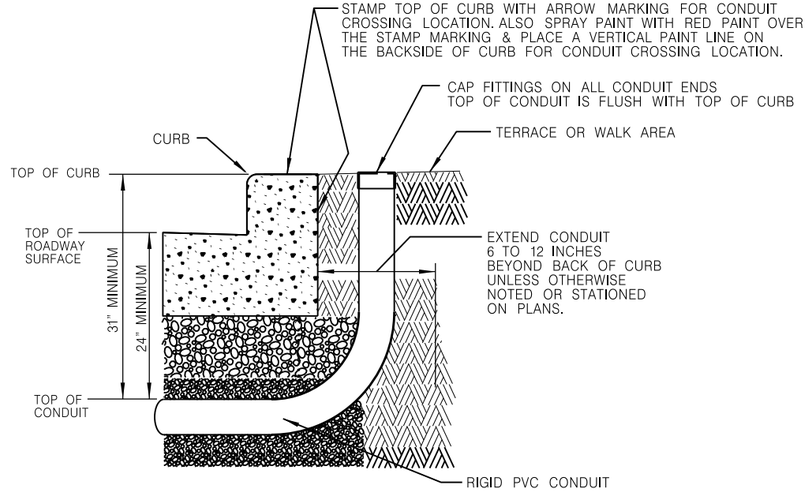
NOTE:

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

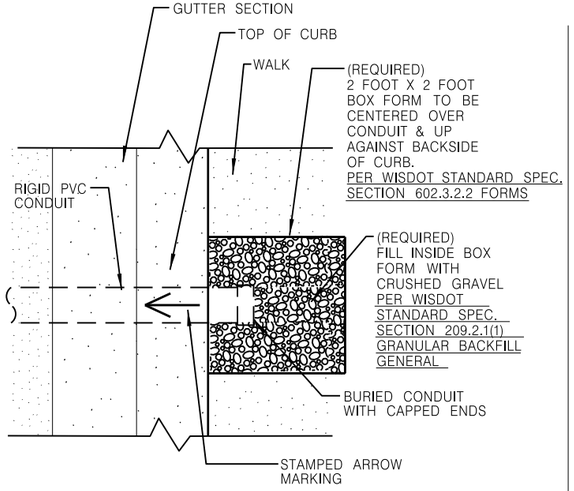
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

2

SHEET 3 OF 46

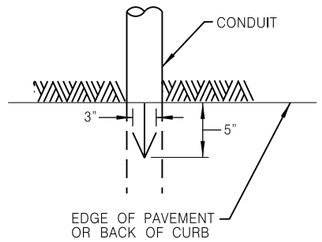
PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 140	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:04
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



TOP VIEW OF CURB STAMPING

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



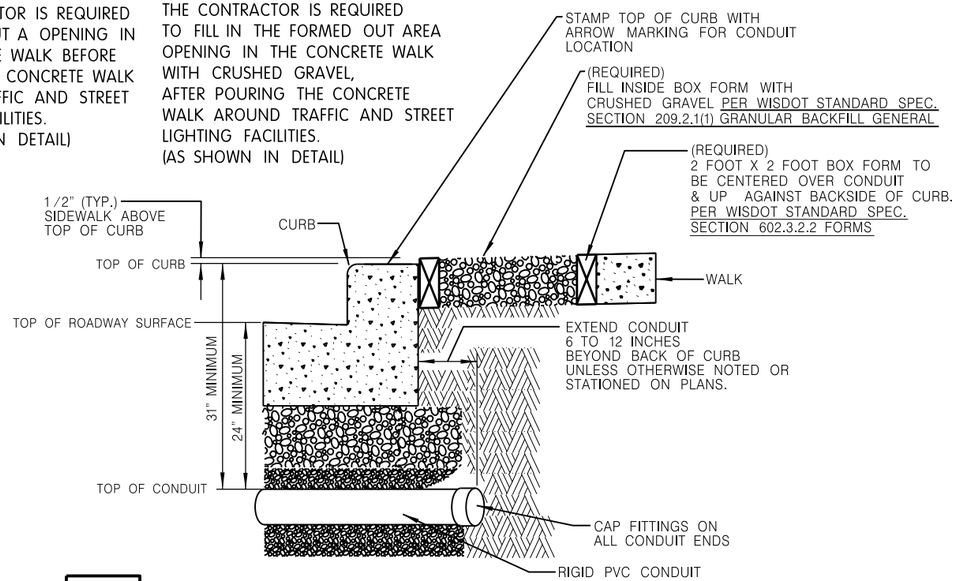
ARROW MARK

NOT TO SCALE

NOT TO SCALE

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 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 DETAIL)

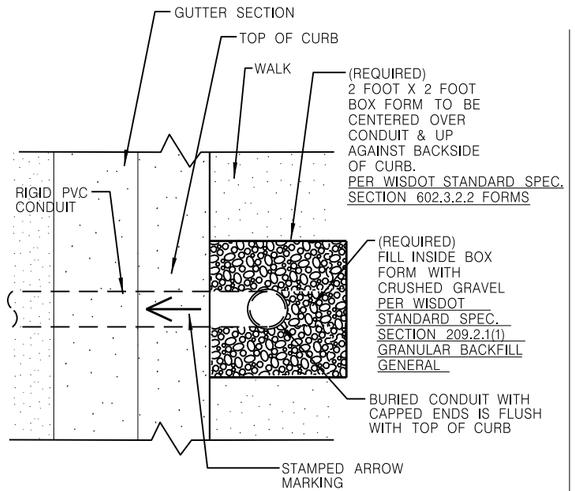


103 DETAIL VERSION 1

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK AREAS

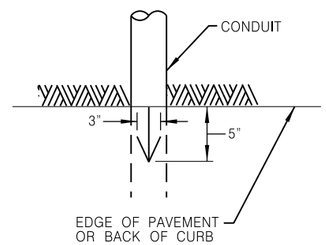
NOT TO SCALE

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



TOP VIEW OF CURB STAMPING

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



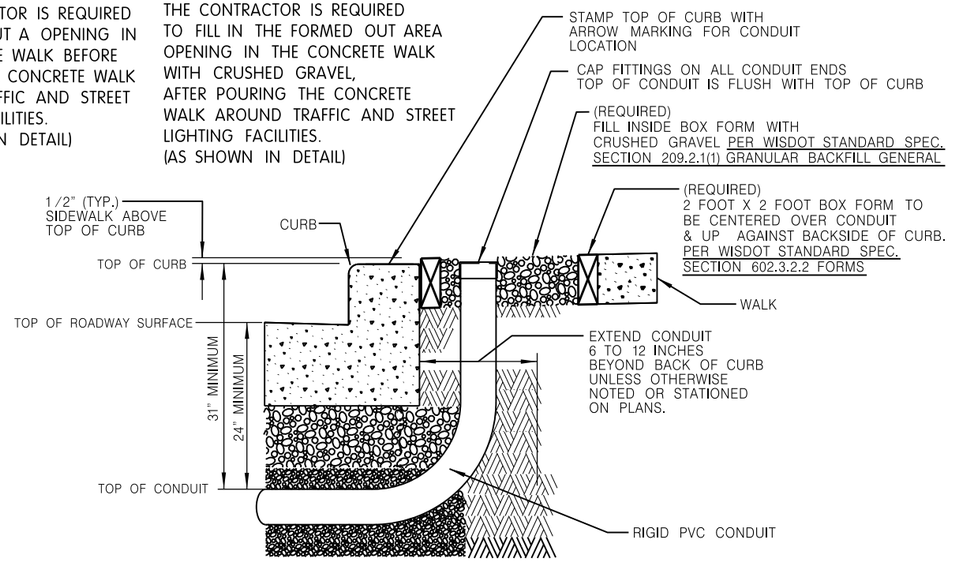
ARROW MARK

NOT TO SCALE

NOT TO SCALE

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 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 DETAIL)



103 DETAIL VERSION #2

TYPICAL CONDUIT INSTALLATION FOR CROSSING ROADWAYS FROM FULL WALK AREAS

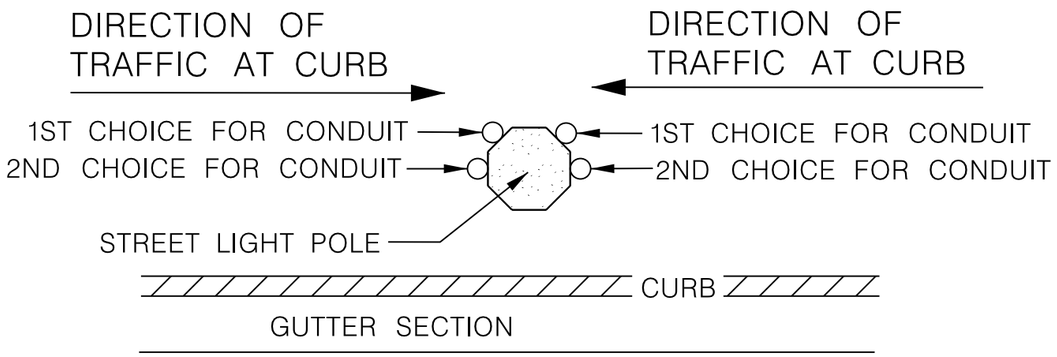
NOT TO SCALE

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

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 141	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitol Dr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:04
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

NOTE: CAP FITTINGS ON CONDUIT ENDS



104 DETAIL

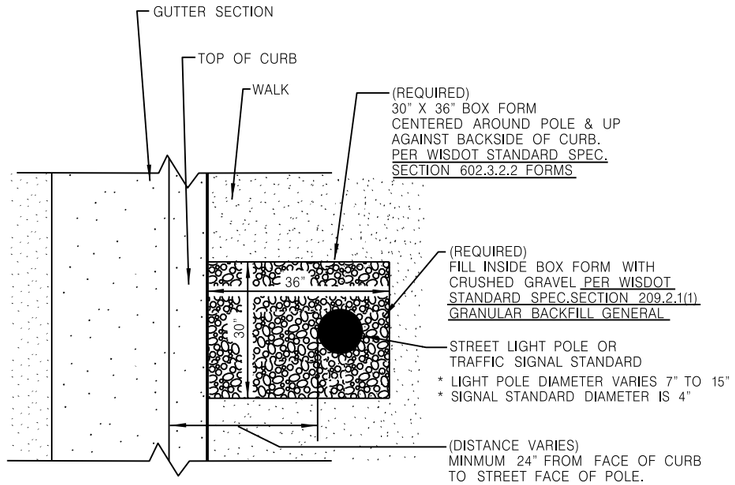
TYPICAL TRAFFIC SIGNAL RISER CONDUIT LOCATIONS ON STREET LIGHT POLE DEPENDING ON DIRECTION OF TRAFFIC AT CURB

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

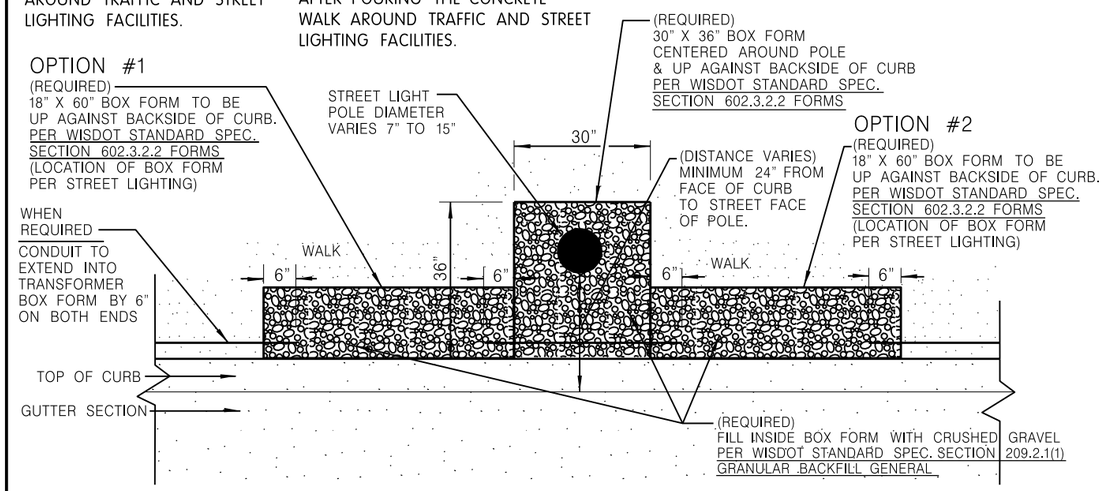
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.

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.

STREET LIGHTING FORCES TO DETERMINE LOCATION OF TRANSFORMER BOX FORM



106 DETAIL VERSION #1

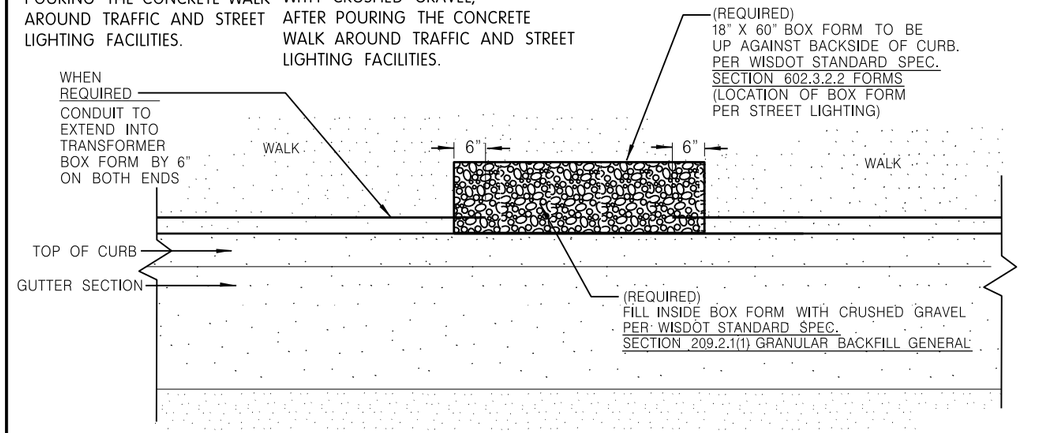
TYPICAL 18" X 60" BOX FORM FOR STREET LIGHTING TRANSFORMER

NOT TO SCALE

THE CONTRACTOR IS REQUIRED TO FORM OUT A OPENING IN THE CONCRETE WALK BEFORE POURING THE CONCRETE WALK AROUND TRAFFIC AND STREET LIGHTING FACILITIES.

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.

STREET LIGHTING FORCES TO DETERMINE LOCATION OF TRANSFORMER BOX FORM



106 DETAIL VERSION #2

TYPICAL 18" X 60" BOX FORM FOR STREET LIGHTING TRANSFORMER

NOT TO SCALE

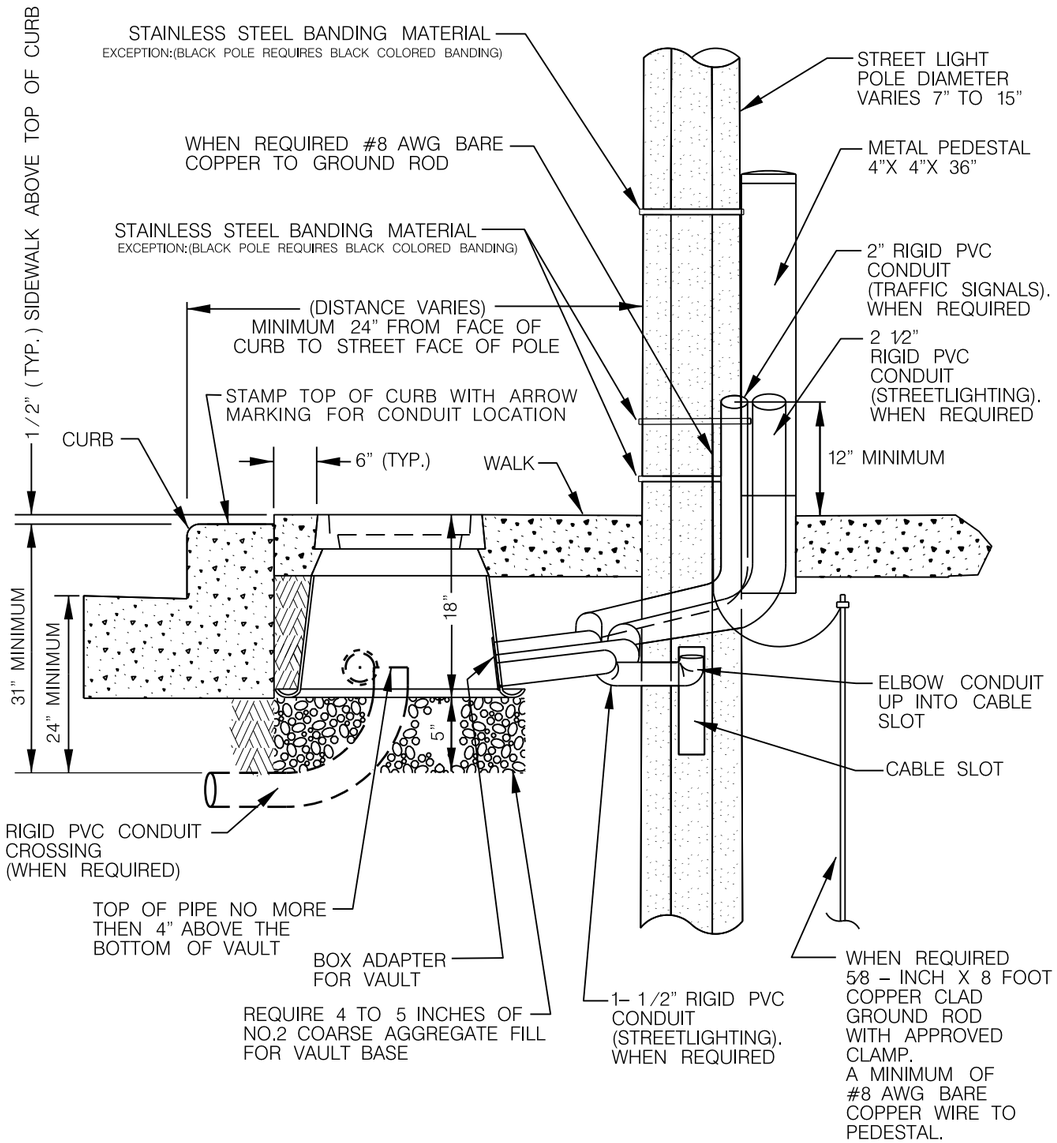
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 5 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 142	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:04
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2

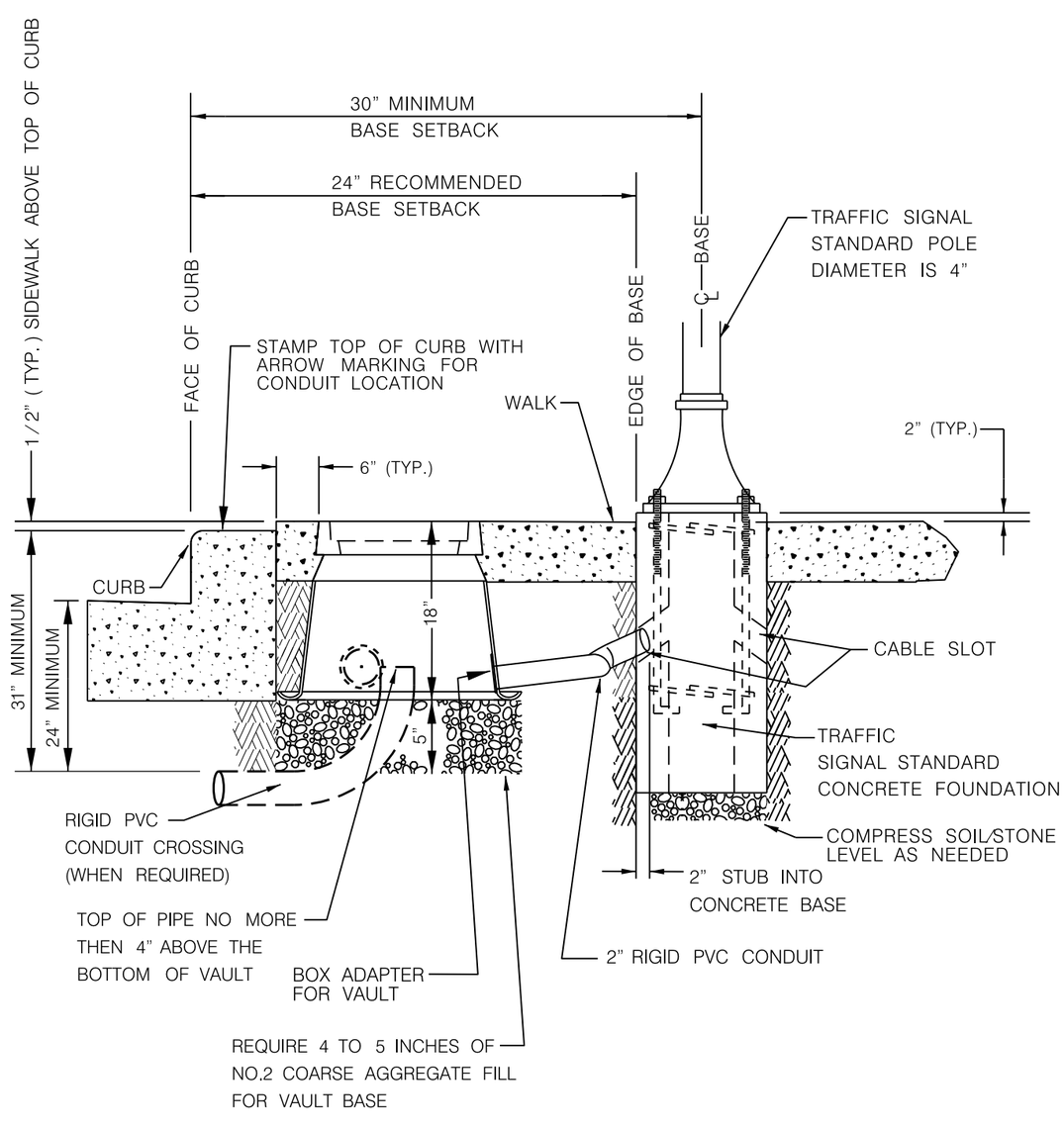


108 DETAIL

TYPICAL CONDUIT INSTALLATION FROM VAULT TO POLE

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.



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 TRAFFIC & LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

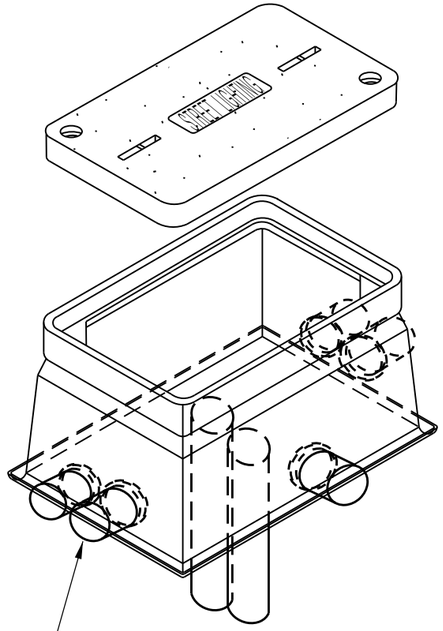
2

SHEET 6 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 143	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:04
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

2



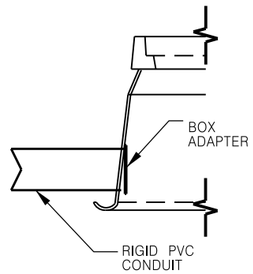
HEAVY DUTY COVER
W/ STREETLIGHTING LOGO
& W / 2 BOLTS
COLOR: GRAY

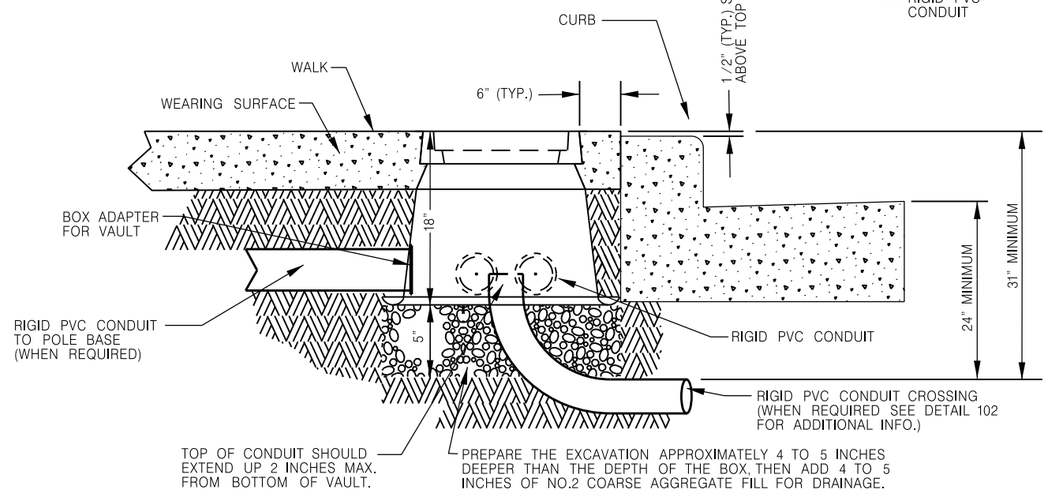
ELECTRICAL VAULT
FLARED WALL
BOX W / NO BASE
COLOR: GRAY

(VARIOUS SIZES)

PLUG OR CAP FITTINGS ON ALL
UNUSED CONDUITS IN THE ENCLOSURE

BOX ADAPTERS, COUPLINGS
TO ALL PVC CONDUITS



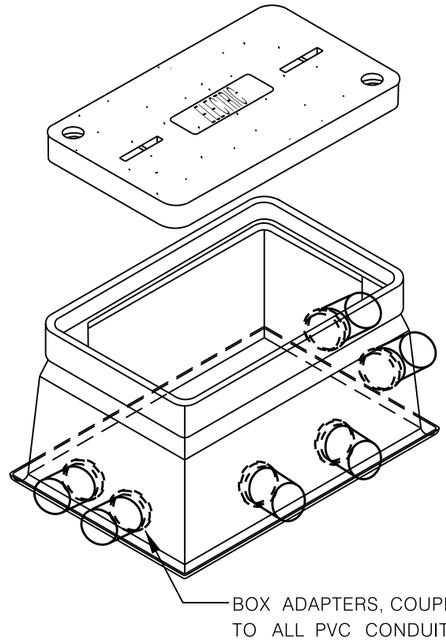


112 DETAIL

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.

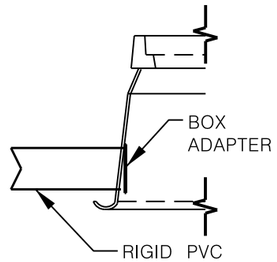


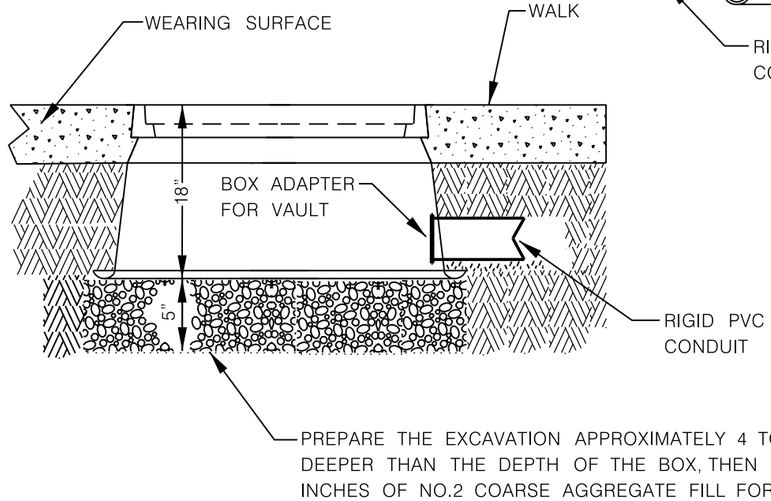
HEAVY DUTY COVER
W/ ELECTRIC LOGO
& W / 2 BOLTS
COLOR: GRAY

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

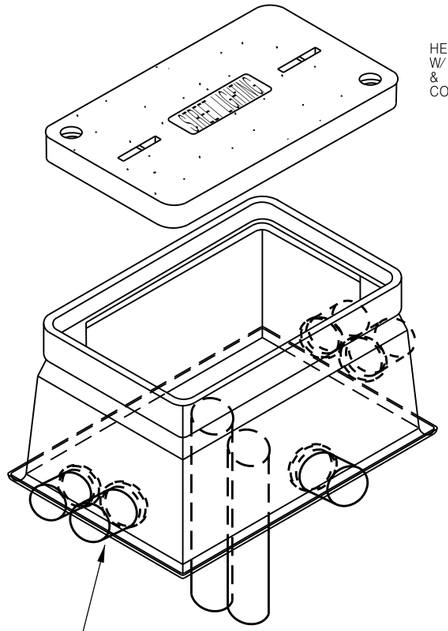
TYPICAL VAULT INSTALLATION
IN SIDEWALK

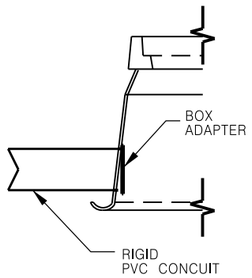
NOT TO SCALE

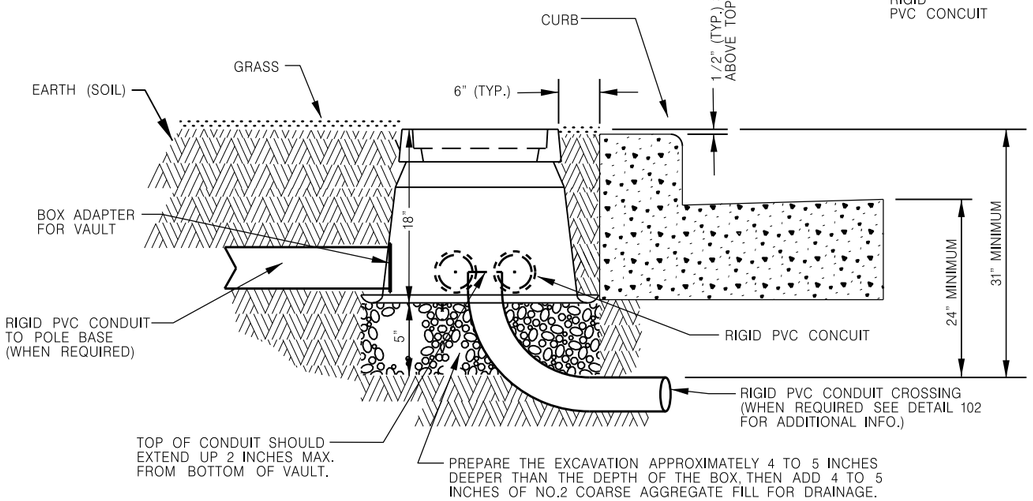
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 7 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 144	E







121 DETAIL

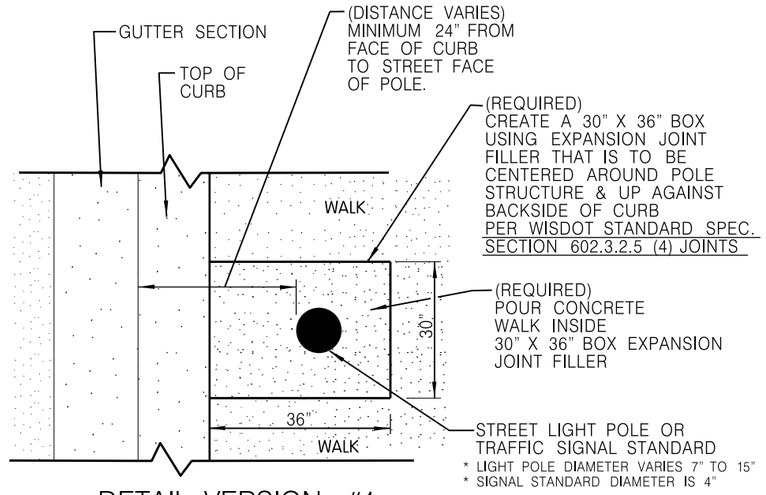
TYPICAL VAULT INSTALLATION IN GRASS AREA

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.

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

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



122 DETAIL VERSION #1

TYPICAL 30" X 36" BOX EXPANSION JOINT FILLER AROUND STREET LIGHTING POLE OR TRAFFIC SIGNAL STANDARD

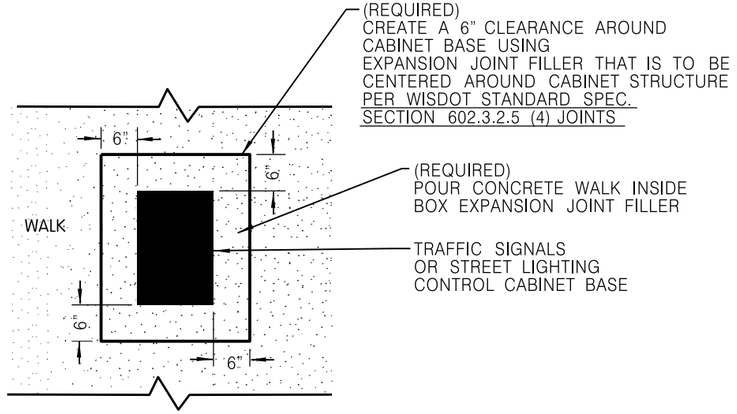
NOT TO SCALE

13-NOV-2012 15.05

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

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

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



122 DETAIL VERSION #2

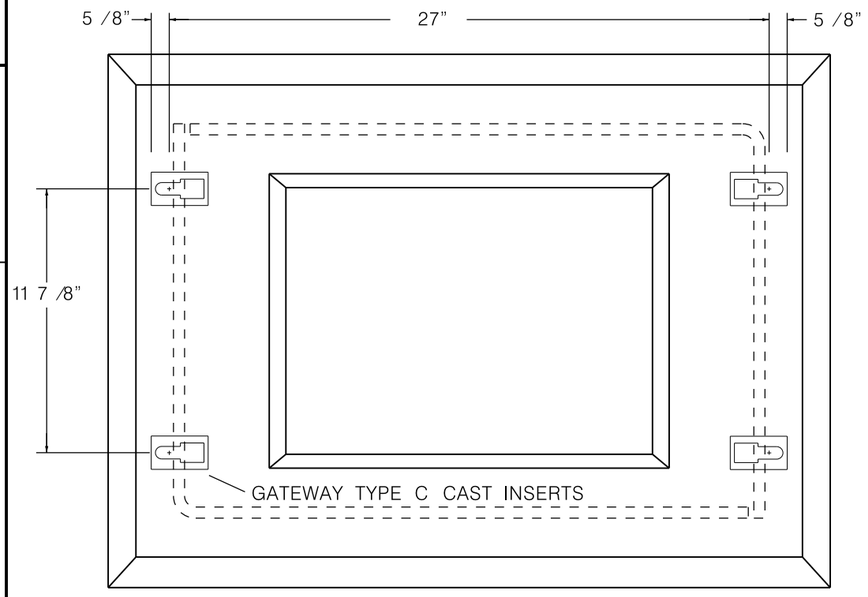
TYPICAL BOX EXPANSION JOINT FILLER AROUND TRAFFIC SIGNAL OR STREET LIGHTING CONTROL CABINET

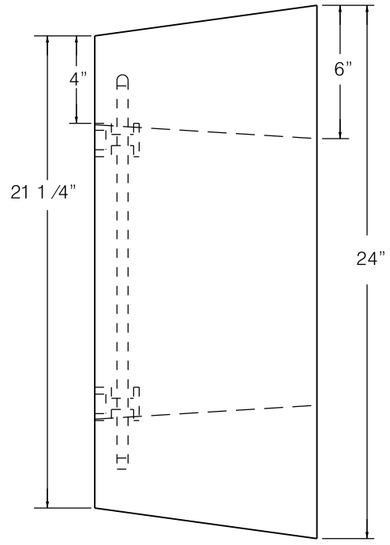
NOT TO SCALE

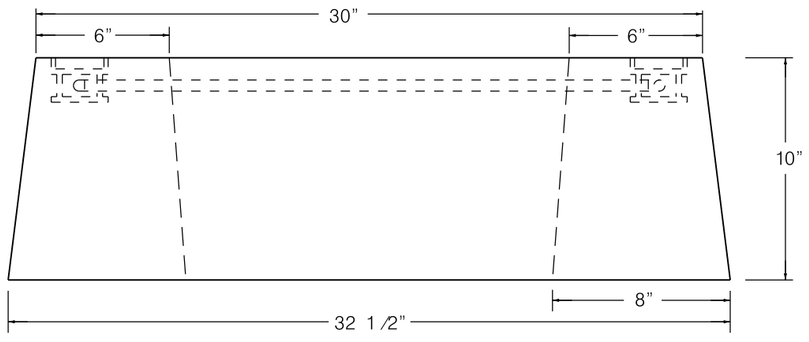
ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

SHEET 8 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 145	E







NOT TO SCALE

6 BAG MIX #1 STONE

COMM. CODE 1238-927

CONCRETE FOUNDATION

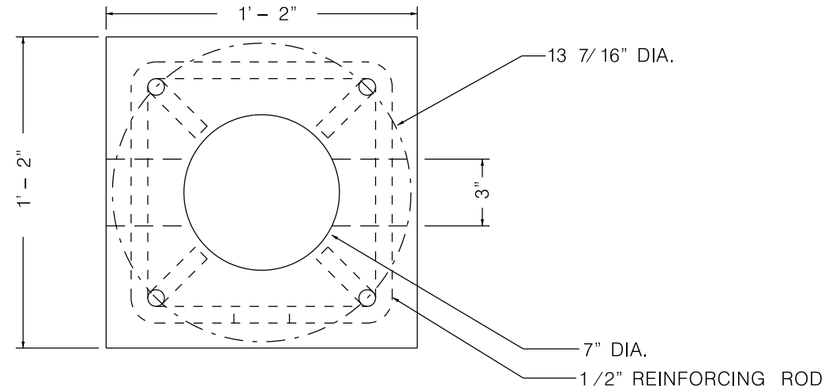
TRAFFIC SIGNAL CONTROL CABINET

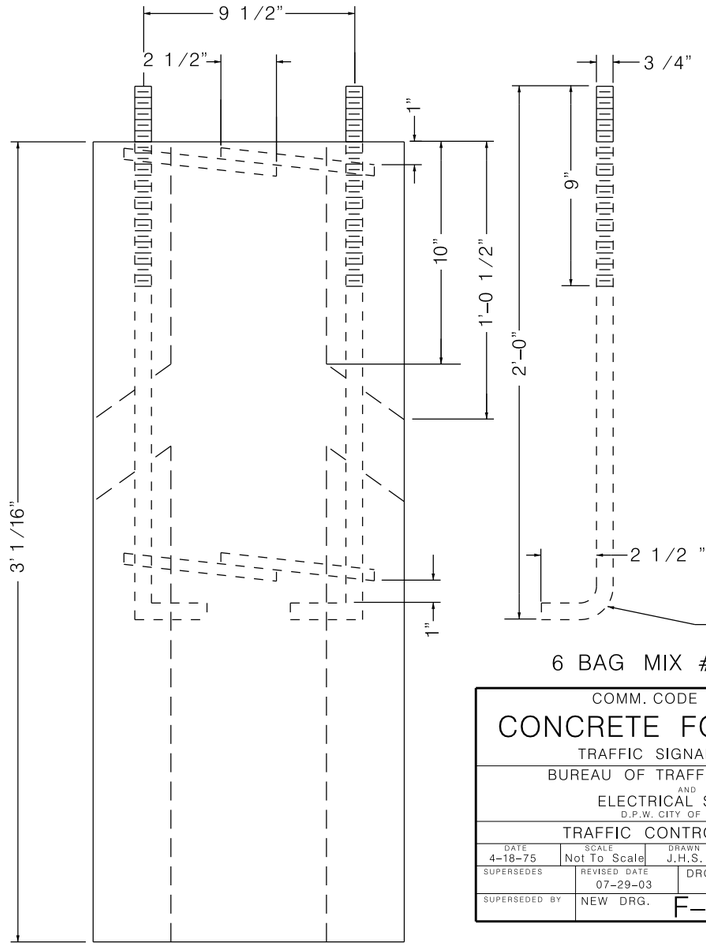
BUREAU OF TRAFFIC ENGINEERING
AND
ELECTRICAL SERVICES
D.P.W. CITY OF MILWAUKEE

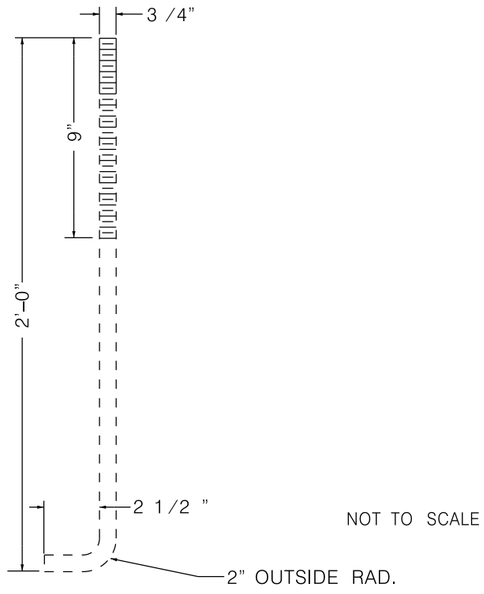
TRAFFIC CONTROL MATERIAL

DATE	SCALE	DRAWN	CHECKED	APPROVED
4-22-75	1/4" = 1"	J.H.S.	B.J.T.	R.J.B.

SUPERSEDES	REVISED DATE	DRG.
C-65-546-T	01-30-02	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	SCALE	DRAWN	CHECKED	APPROVED
4-18-75	Not To Scale	J.H.S.	B.J.T.	R.J.B.

SUPERSEDES	REVISED DATE	DRG.
	07-29-03	C-75-563-T
SUPERSEDED BY	NEW DRG.	F-82-535-T

SHEET 9 OF 46

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 146	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitol Dr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:05
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
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).

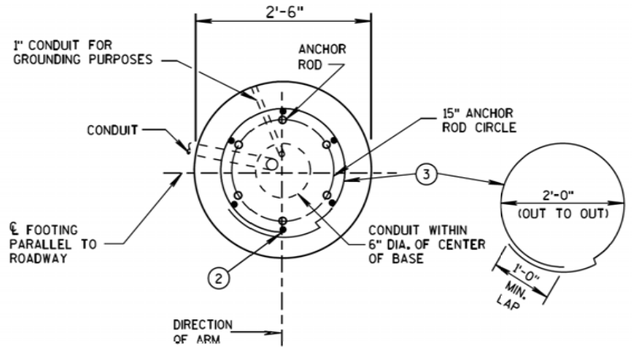
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

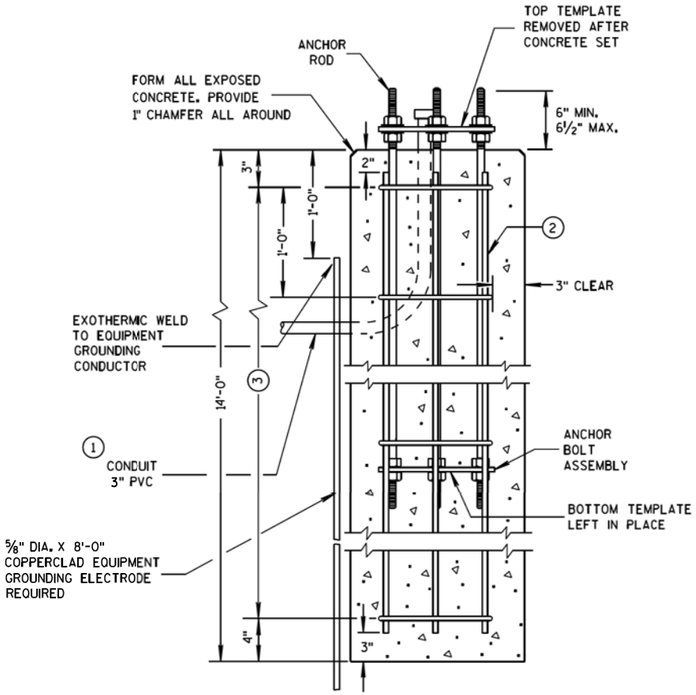
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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.

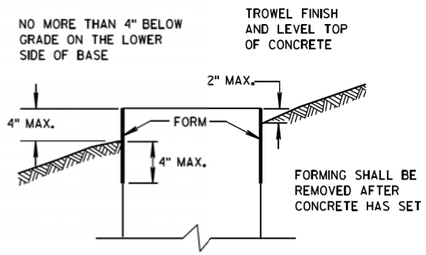
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



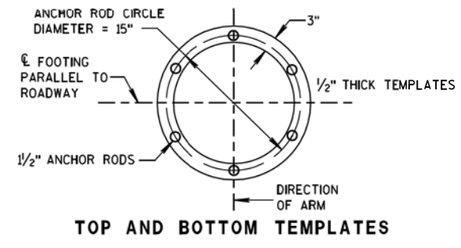


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

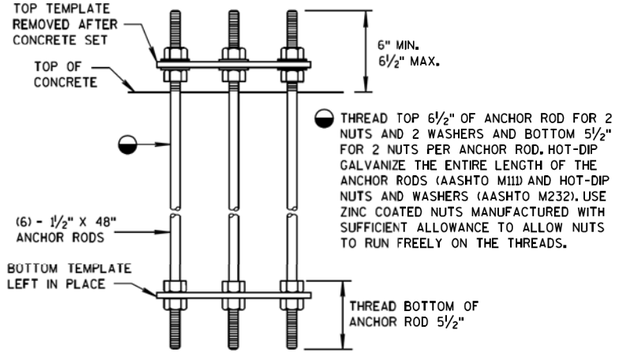
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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. Gorring
STATE ELECTRICAL ENGINEER FOR HWYS
FHWA

S.D.D. 9 C 11-2

S.D.D. 9 C 11-2

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 147	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:05
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

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).

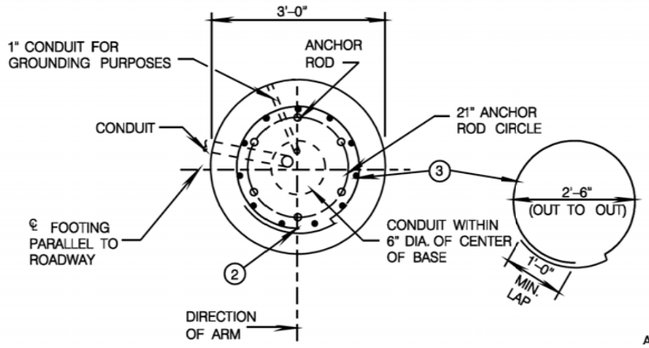
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1.40 FROM VERTICAL.

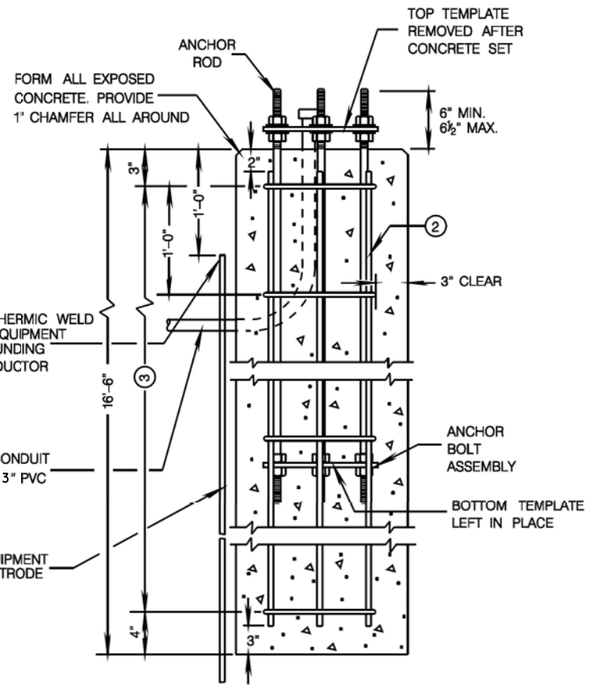
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN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

(2) (11) NO. 8 X 16'-1" BAR STEEL REINFORCEMENT.

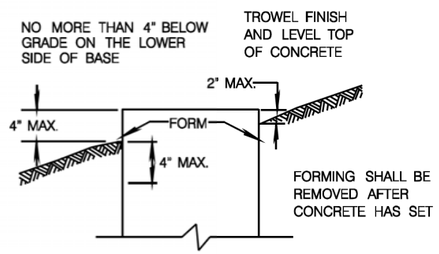
(3) (17) NO. 4 X 9'-0" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

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

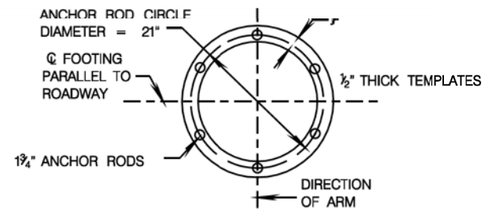




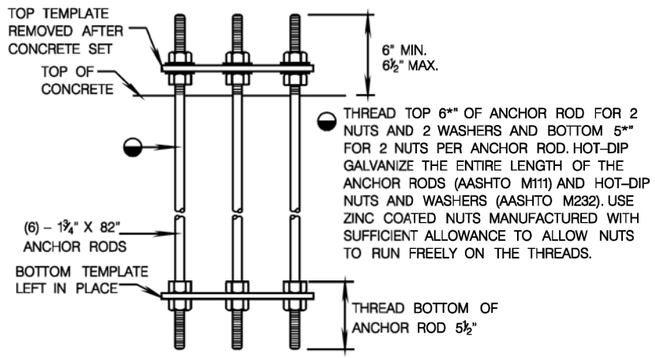
CONCRETE BASE TYPE 10 SPECIAL



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 SPECIAL

ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	4.32
LBS. OF HOOP BAR STEEL	103
LBS. OF VERTICAL BAR STEEL	473

CONCRETE BASE TYPE 10 SPECIAL

CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS

APPROVED

DATE

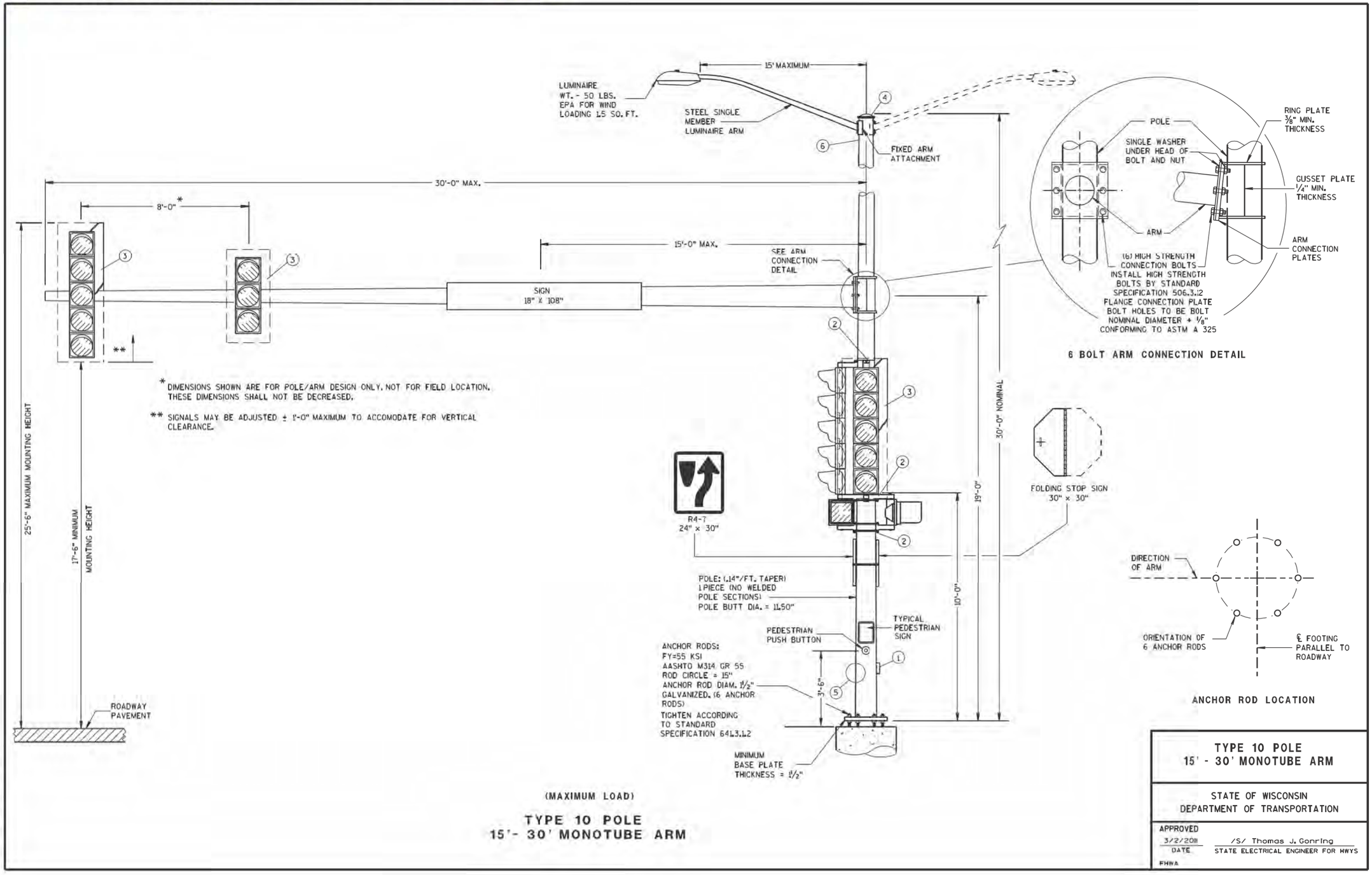
FHWA

SHEET 11 OF 46

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 148	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitol Dr 84th-Mayfair Conduit.dgn PLOT DATE : 13-NOV-2012 15:06 PLOT BY : dkozel 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 FHWA	/S/ Thomas J. Gonring STATE ELECTRICAL ENGINEER FOR HWYS

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

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

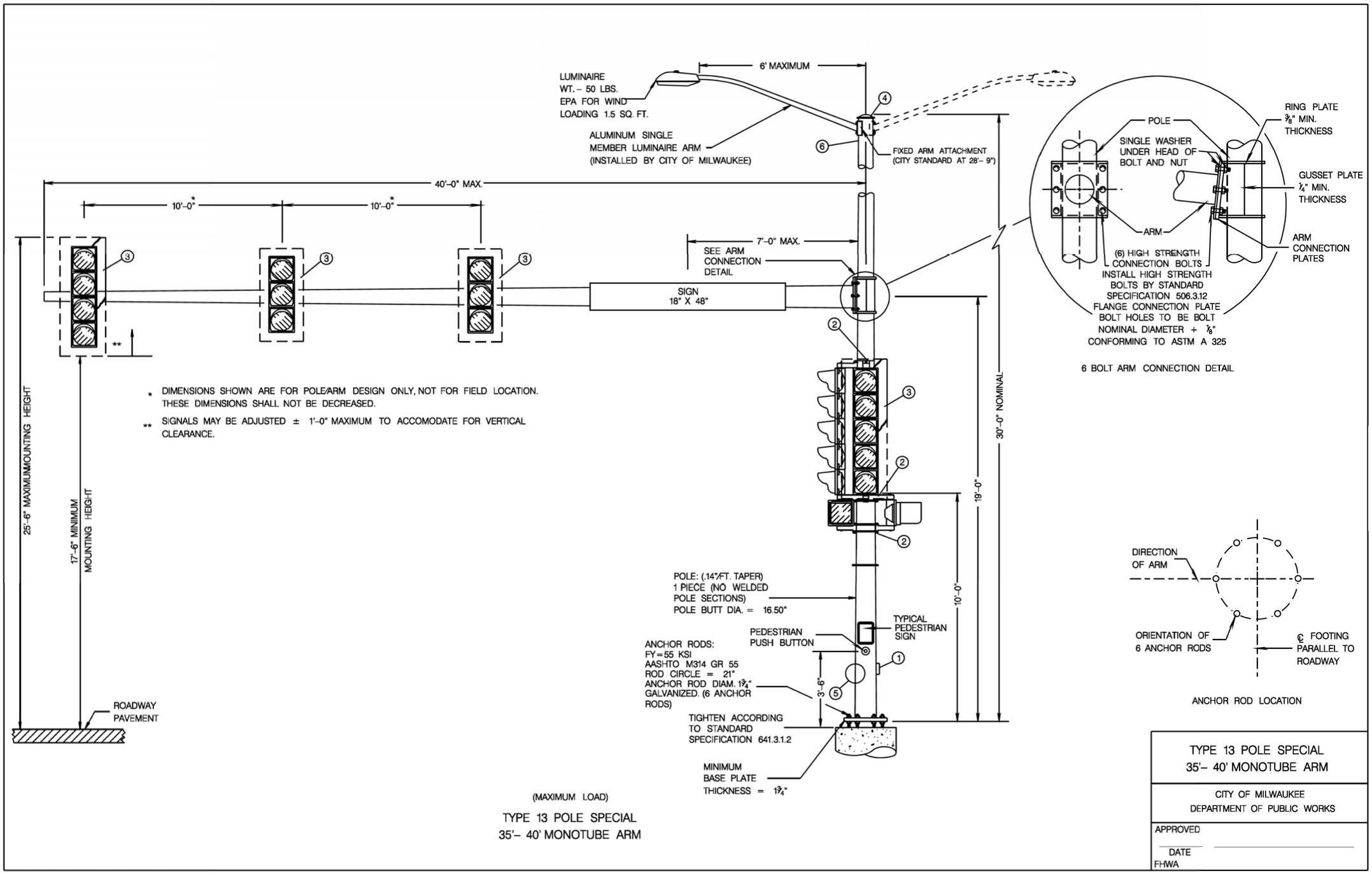
SHEET 12 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 149	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:10 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

2



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

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

6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE SPECIAL
35'– 40' MONOTUBE ARM

TYPE 13 POLE SPECIAL 35'– 40' MONOTUBE ARM
CITY OF MILWAUKEE DEPARTMENT OF PUBLIC WORKS
APPROVED DATE FHWA

SHEET 13 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 150	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:11 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

2

STD B.M. #249
N. MAYFAIR RD. & W. CAPITOL DR. (NE COR.)
60.8' E. & 8.5' N. OF CURBS
ELEV. 161.30

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

WORK TO BE DONE BY OTHERS
WITH WISDOT PROJECT 2030-09-00

W. CAPITOL DR.

N. MAYFAIR RD.

CITY OF MILWAUKEE
CITY OF WAUWATOSA

#10728
POLE INSTALLED BY
CITY FORCES AT
STA. 02+81, 11'RT.

2.5" INSTALLED
3' BACK OF CURB

#10720
POLE INSTALLED BY
CITY FORCES AT
STA. 04+05.6, 10.5'RT.

2.5" INSTALLED
3' BACK OF CURB

100
DETAIL C

100
DETAIL C

LEGEND

- 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 14 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 151	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:13
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

LEGEND

- 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:

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

W. CAPITOL DR.

CITY OF MILWAUKEE

CITY OF WAUWATOSA

2.5" INSTALLED 3' BACK OF CURB

STA. 05+33.9 3.3' LT.

STA. 06+28 4.6' RT.

DETAIL C 100

#10704 POLE INSTALLED BY CITY FORCES AT STA. 05+29.4, 1.6' LT.

#10638 POLE INSTALLED BY CITY FORCES AT STA. 06+45.0, 5.3' RT.

102 VERSION#2

ABN'D 22" GAS

24"(H.P.)

BUS STOP

ASPH

LAWN

STO

G

T

W

TE&ES

CAUTION

36'

24'

18"

16"

12"(WAUWATOSA)

11"

28"

8"

PAINTED CONC

CONC

30'

13'

5'

60'

N. 107TH ST.

SCALE, FEET 0 20

SHEET 15 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 152	E

2

B.M. NE COR. CONC. BASE
OF ALUM. LIGHT POLE #10630
STA. 07+79- 00.7'LT.
ELEV. 142.21

B.M. NE COR. CONC. BASE
OF ALUM. LIGHT POLE #10606
STA. 09+01- 01.4'RT.
ELEV. 137.08

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.

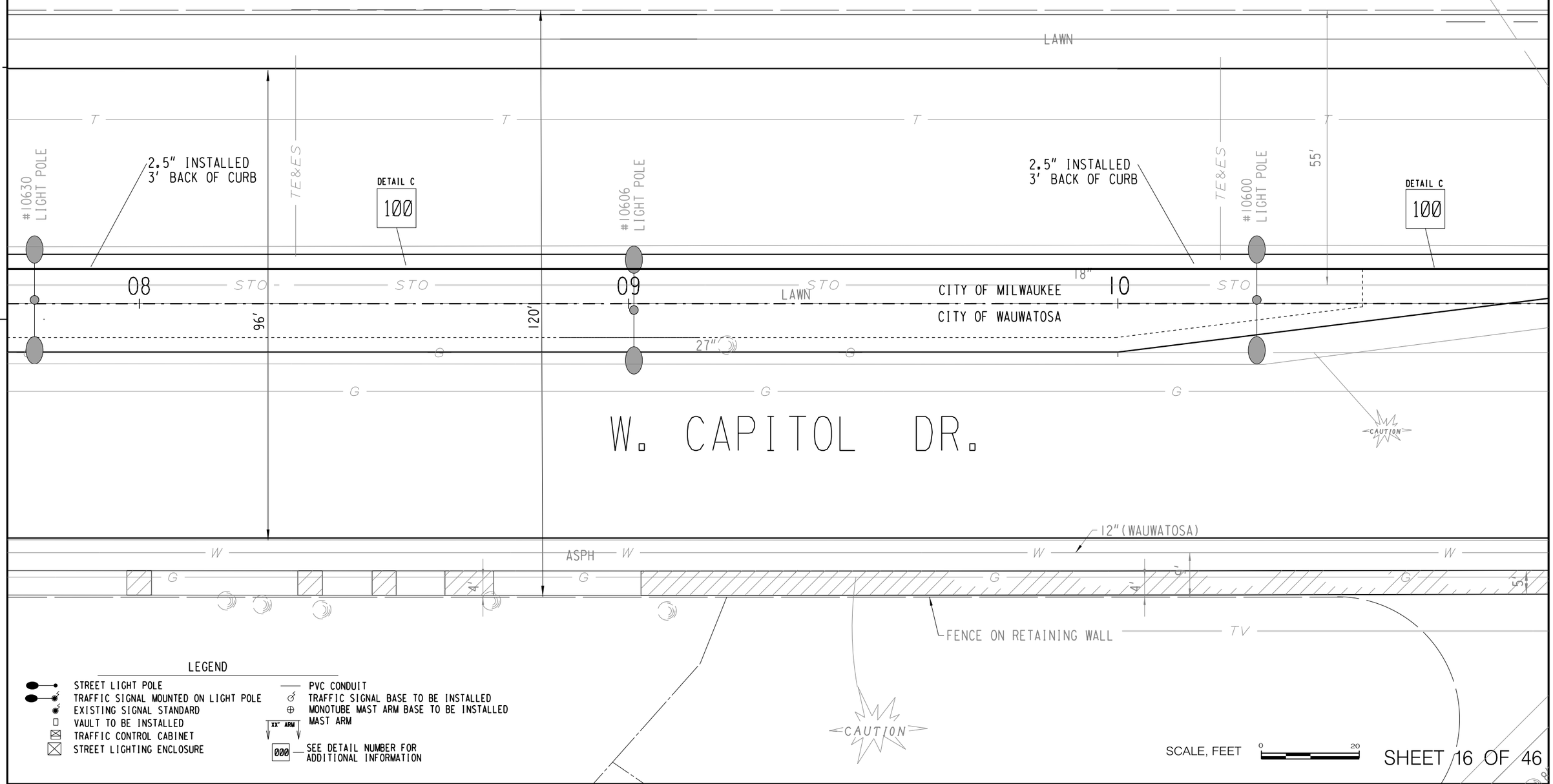
ALL POLES WILL BE RELOCATED BY CITY FORCES.

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

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

B.M. NE COR. CONC. BASE
OF ALUM. LIGHT POLE #10600
STA. 10+28- 00.7'LT.
ELEV. 132.97

2



LEGEND

- 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

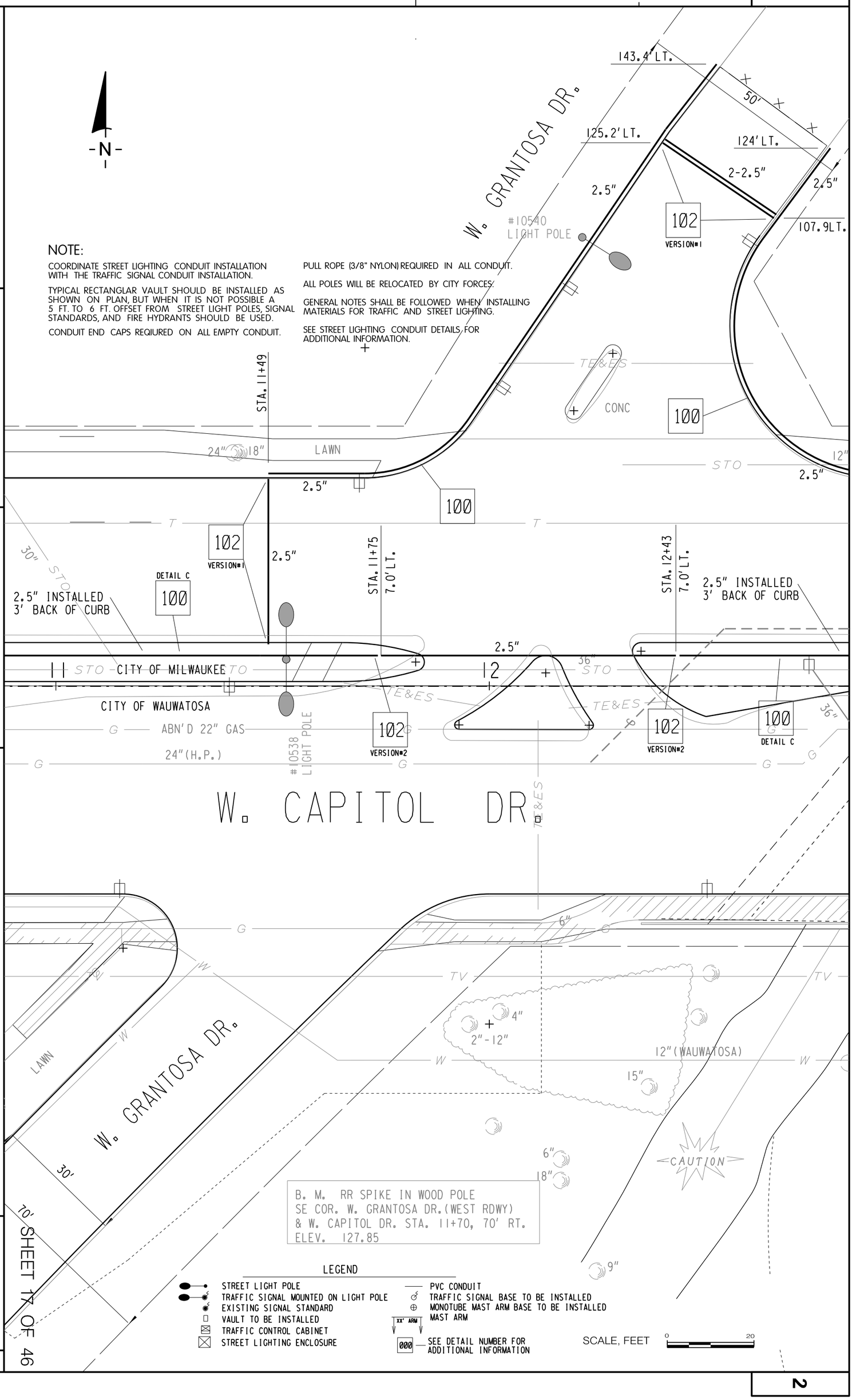
SCALE, FEET 0 20

SHEET 16 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 153	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:13 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42



PROJECT NO: 2025-11-71 2025-16-70

HWY: S.T.H. 190

COUNTY: MILWAUKEE

STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN

SHEET 17 OF 46

154

E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn

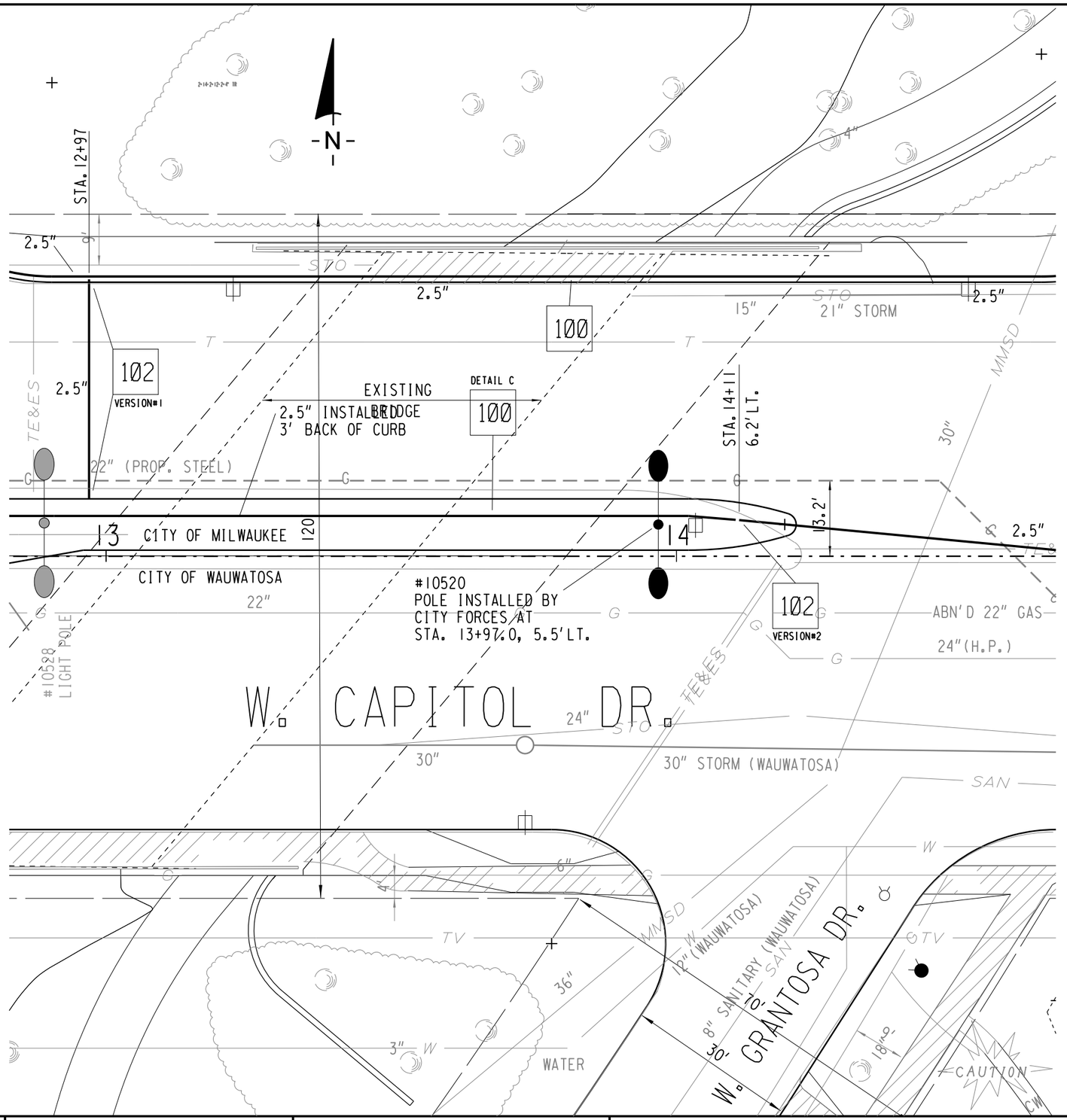
PLOT DATE : 13-NOV-2012 15:13

PLOT BY : dkozel

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

- 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 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 155	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:13
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:13
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

175.8'LT.

100

W. GRANTOSA DR.

2.5"

50'

32'

STO CONC.

2-2.5"

123.7'LT.

109.9'LT.

102.8'LT.

102
VERSION#2

#10245
LIGHT POLE

#10272
LIGHT POLE

B.M HYD. NE COR. W. GRANTOSA DR.
(EAST RDWY) & W. CAPITOL DR.
STA. 15+75, 102'LT. NW BOLT
ELEV. 129.81

STA. 16+00

CONC

2.5"

100

102
VERSION#1
VERSION#1

DETAIL C
100

2.5" INSTALLED
3' BACK OF CURB

STA. 15+27
4.6'RT.

15

16

CITY OF MILWAUKEE

CITY OF WAUWATOSA

102
VERSION#2

#10504
POLE INSTALLED BY
CITY FORCES AT
STA. 15+42.0, 5.5'RT.

W. CAPITOL DR.

24" (WAUWATOSA)

30" STORM (WAUWATOSA)

18" (WAUWATOSA)

12" (WAUWATOSA)

CAUTION

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

- 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

B.M HYD. SE COR. W. GRANTOSA DR.
(EAST RDWY) & W. CAPITOL DR.
STA. 14+73, 73'RT. NW BOLT
ELEV. 128.40

20'
CONC.
ALLEY

SCALE, FEET 0 20

LEGEND

- 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

B.M SW COR. IST
CONC. RISER @ #10024-26
W. CAPITOL DR.
ELEV. 145.54

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

W. CAPITOL DR.

2.5" INSTALLED 3' BACK OF CURB

STA. 16+94.9 6.2' LT.

STA. 17+65 4.6' RT.

2.5" INSTALLED 3' BACK OF CURB

DETAIL C 100

2.5" INSTALLED 3' BACK OF CURB

100 DETAIL C

102 VERSION#2

#10302 POLE INSTALLED BY CITY FORCES AT STA. 16+77.7, 5.3' LT.

102 VERSION#2

#10232 POLE INSTALLED BY CITY FORCES AT STA. 17+83.0, 5.3' RT.

#10218 LIGHT POLE

CITY OF WAUWATOSA

CITY OF MILWAUKEE

15" (WAUWATOSA)

24" STORM (WAU

12" (WAUWATOSA)

CAUTION

ASPH. PARKING

W. WOODWARD AVE.

SCALE, FEET 0 20

SHEET 20 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 157	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:13 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

- 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

B.M HYD. W. CAPITOL DR.
STA. 21+35, 49' LT.
NW BOLT
ELEV. 148.07

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

W. CAPITOL DR.

DETAIL C
100
2.5" INSTALLED
3' BACK OF CURB

STA. 20+34.5
0.3' LT.

STA. 21+10
6.2' RT.

#10122
POLE INSTALLED BY
CITY FORCES AT
STA. 21+30.0, 5.2' RT.

#10100
POLE INSTALLED BY
CITY FORCES AT
STA. 22+53.5, T/L.

9" CITY OF MILWAUKEE
CITY OF WAUWATOSA

20 21 22

2.5"

TE&ES
ABN'D 22" GAS
24"(H.P.)

102
VERSION#2

#10202
LIGHT POLE

2.5" INSTALLED
3' BACK OF CURB

DETAIL C

8" SAN
22" W
2.5"
12" STO
12" G
12" T
12" SAN
16" W
5" W
2.5" STO
G
T
SAN
STO
W
CW
CAUTION

WATOSA)
8" SAN
STO
24" 12" STO
18" SAN
18" STORM (WAUWATOSA)
8" 12" (WAUWATOSA)
SAN
STO
W
G
5'
9'
4'
5'
TE&ES
18"
15"
N. 102ND ST
LAWN
ASPH. ON CONC. 30'
15"
60'
ASPH. PARKING
ASPH. DWY.

SCALE, FEET 0 20

SHEET 21 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 158	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:13
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

PROJECT NO: 2025-11-71 2025-16-70
HWY: S.T.H. 190
COUNTY: MILWAUKEE
STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN
SHEET 159 E
FILE NAME : W:\bes\pwings\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:14
PLOT BY : dkozel
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

- 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

-N-

W. CAPITOL DR.

W. LISBON AVE.

W. LISBON AVE

#10052 LIGHT POLE

#10032 LIGHT POLE

#10051
POLE INSTALLED BY CITY FORCES AT STA. 23+48.7, 50.5'RT.

#10033
POLE INSTALLED BY CITY FORCES AT STA. 24+62.0, 50.5'RT.

2.5" INSTALLED 3' BACK OF CURB

100 DETAIL C

102 VERSION#2

CITY OF MILWAUKEE
CITY OF WAUWATOSA

STA. 23+08

64.4'RT.

18" STORM (WAUWATOSA)

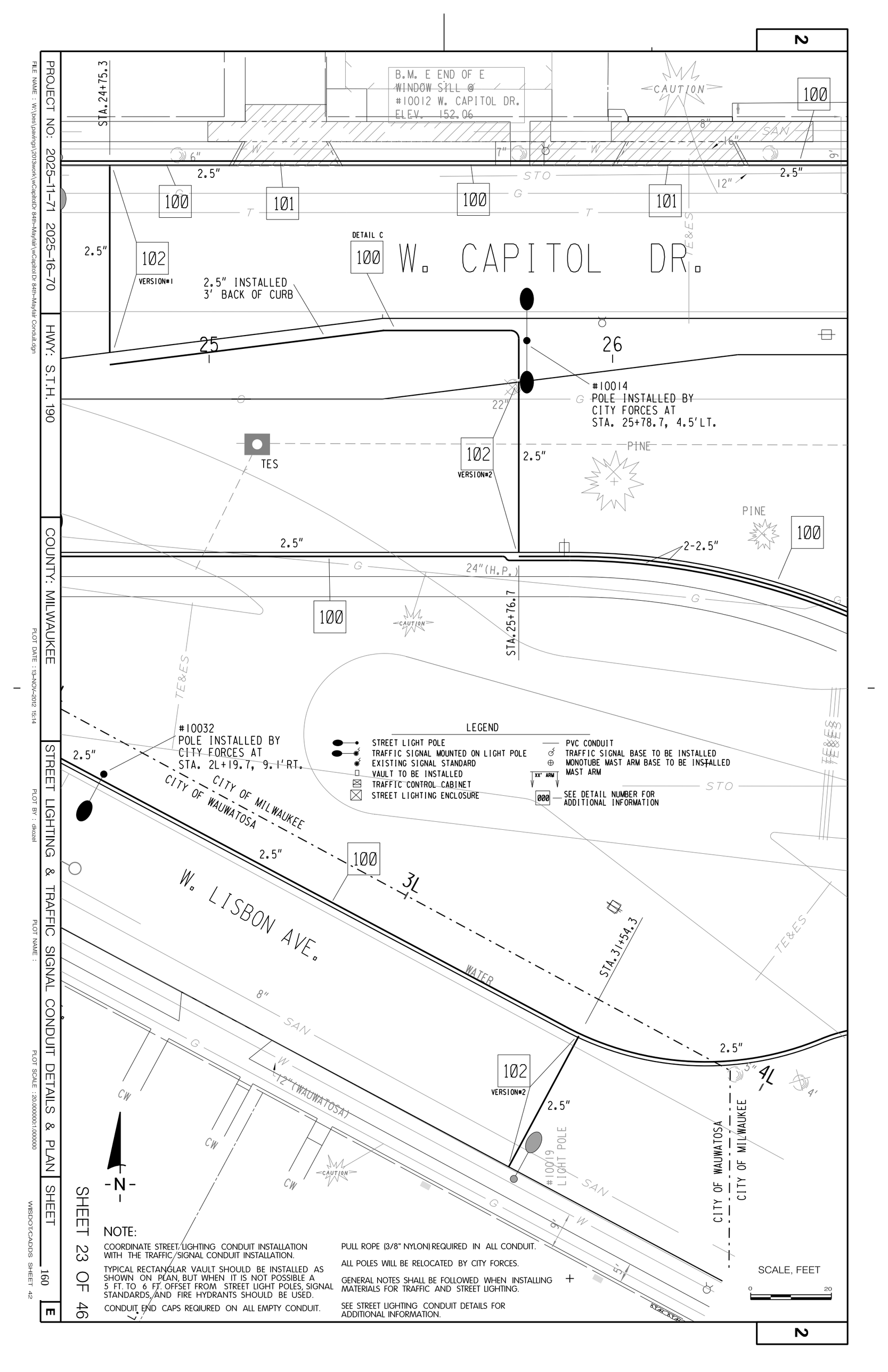
#10101
LITE FURNITURE
(VACANT)

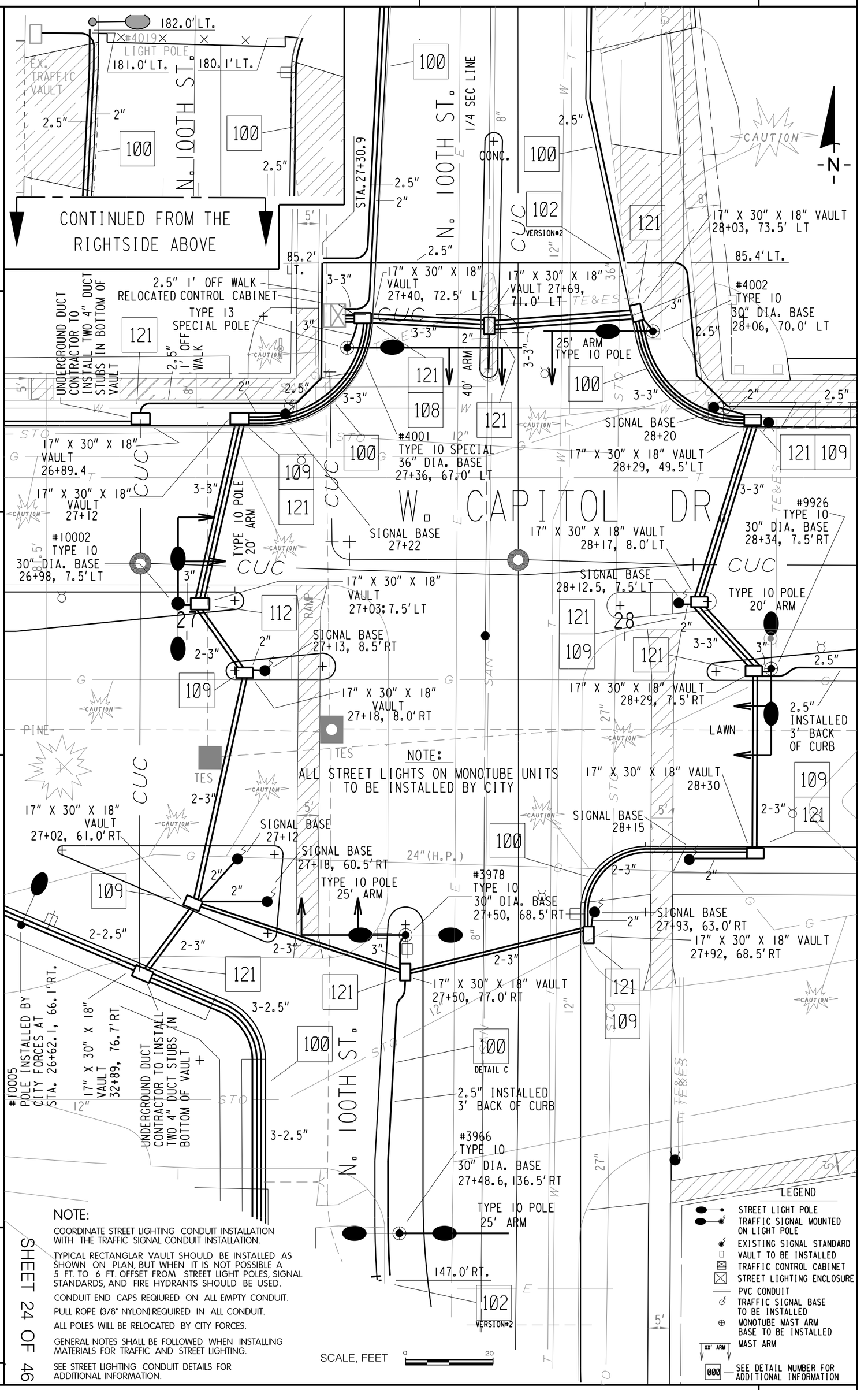
B.M SW COR.
CONC. RISER @ #10052
W. CAPITOL DR.
ELEV. 150.50

CAUTION

SCALE, FEET 0 20

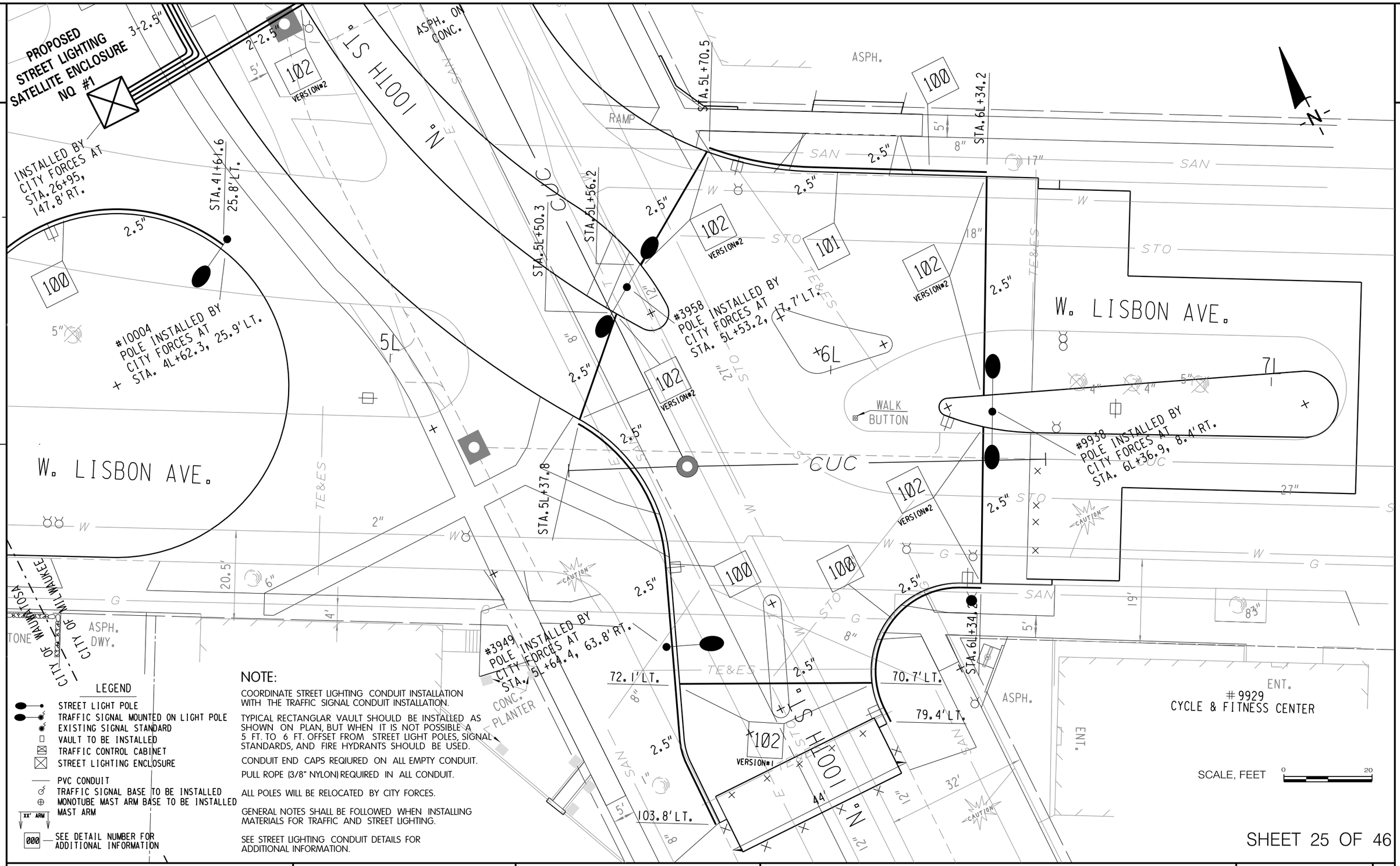
SHEET 22 OF 46


PROJECT NO: 2025-11-71 2025-16-70
HWY: S.T.H. 190
COUNTY: MILWAUKEE
STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN
SHEET 160 E
SHEET 23 OF 46
FILE NAME : W:\bes\pwrngs\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:14
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42
B.M. E END OF E WINDOW SILL @ #10012 W. CAPITOL DR. ELEV. 152.06
STA. 24+75.3
W. CAPITOL DR.
DETAIL C
2.5" INSTALLED 3' BACK OF CURB
#10014 POLE INSTALLED BY CITY FORCES AT STA. 25+78.7, 4.5'LT.
#10032 POLE INSTALLED BY CITY FORCES AT STA. 2L+19.7, 9.1'RT.
STA. 25+76.7
STA. 31+54.3
W. LISBON AVE.
CITY OF MILWAUKEE
CITY OF WAUWATOSA
TES
PINE
WATER
SAN
STO
TE&ES
CAUTION
#10019 LIGHT POLE
VERSION#1
VERSION#2
LEGEND
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
SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION
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.
SCALE, FEET
0
20
N



PROJECT NO: 2025-11-71 2025-16-70
HWY: S.T.H. 190
COUNTY: MILWAUKEE
STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN
SHEET 24 OF 46
161
E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:14
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



LEGEND

- 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:

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 25 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 162	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:14 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

FILE NAME : W:\bes\pwdrngs\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:14
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42

STD. B.M. #247
N. 100TH ST.& W. CAPITOL DR.
43'E OF E MEDIAN CURB & 2' S
OF N CURB IN CONC BOX W/ COVER
ELEV. 143.11

N

CAUTION

2.5"

16"

1"

4"

2.5"

101

100

W. CAPITOL DR.

TE&ES

CUC

DETAIL C

100

81.2'

2.5" INSTALLED
3' BACK OF CURB

#9916
POLE INSTALLED BY
CITY FORCES AT
STA.29+54.3, 2.2'RT.

29

30

36"

2.5" INSTALLED
3' BACK OF CURB

TES

FLOWER
GARDEN

24"(H.P.)

LAWN

12"

STO

E

4"

1"

B.M. HYD IN MEDIAN
STA. 30+10, 8'RT.
NW BOLT
ELEV. 142.44

#9921

US BANK
#9921

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.

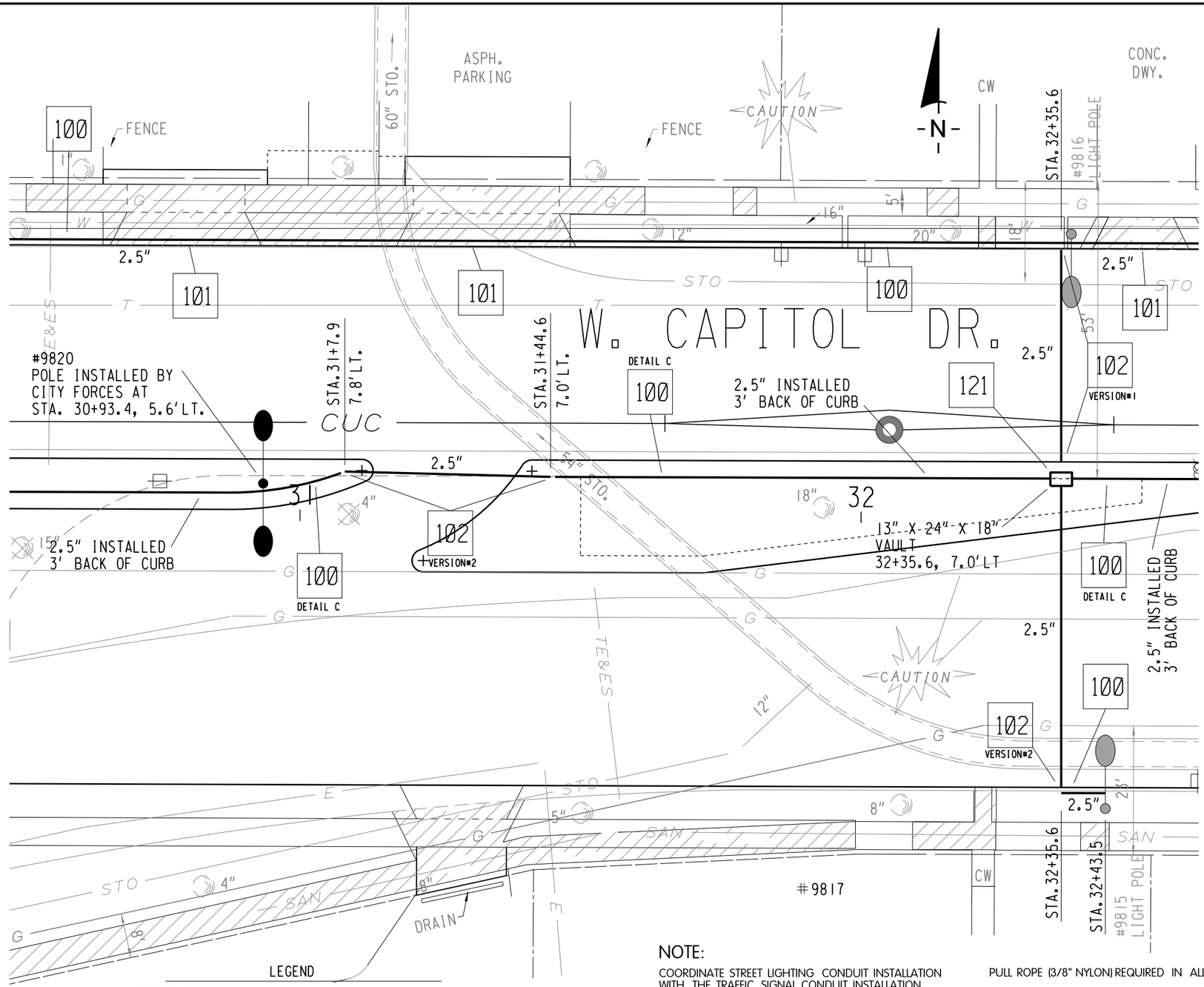
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

LEGEND

- 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 26 OF 46



LEGEND

- 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:

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.

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 164	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:14 PLOT BY : dkozel 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.

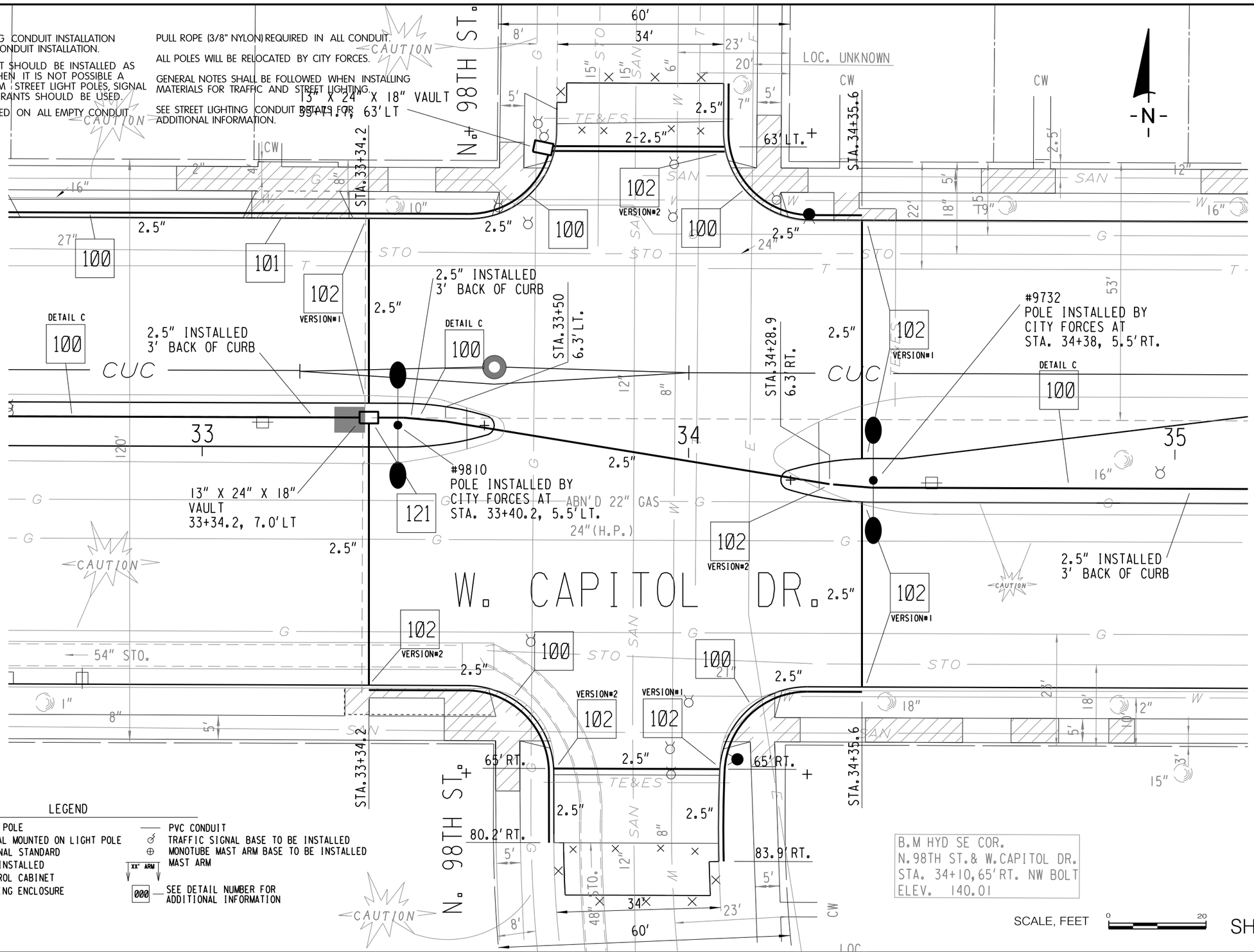
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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.



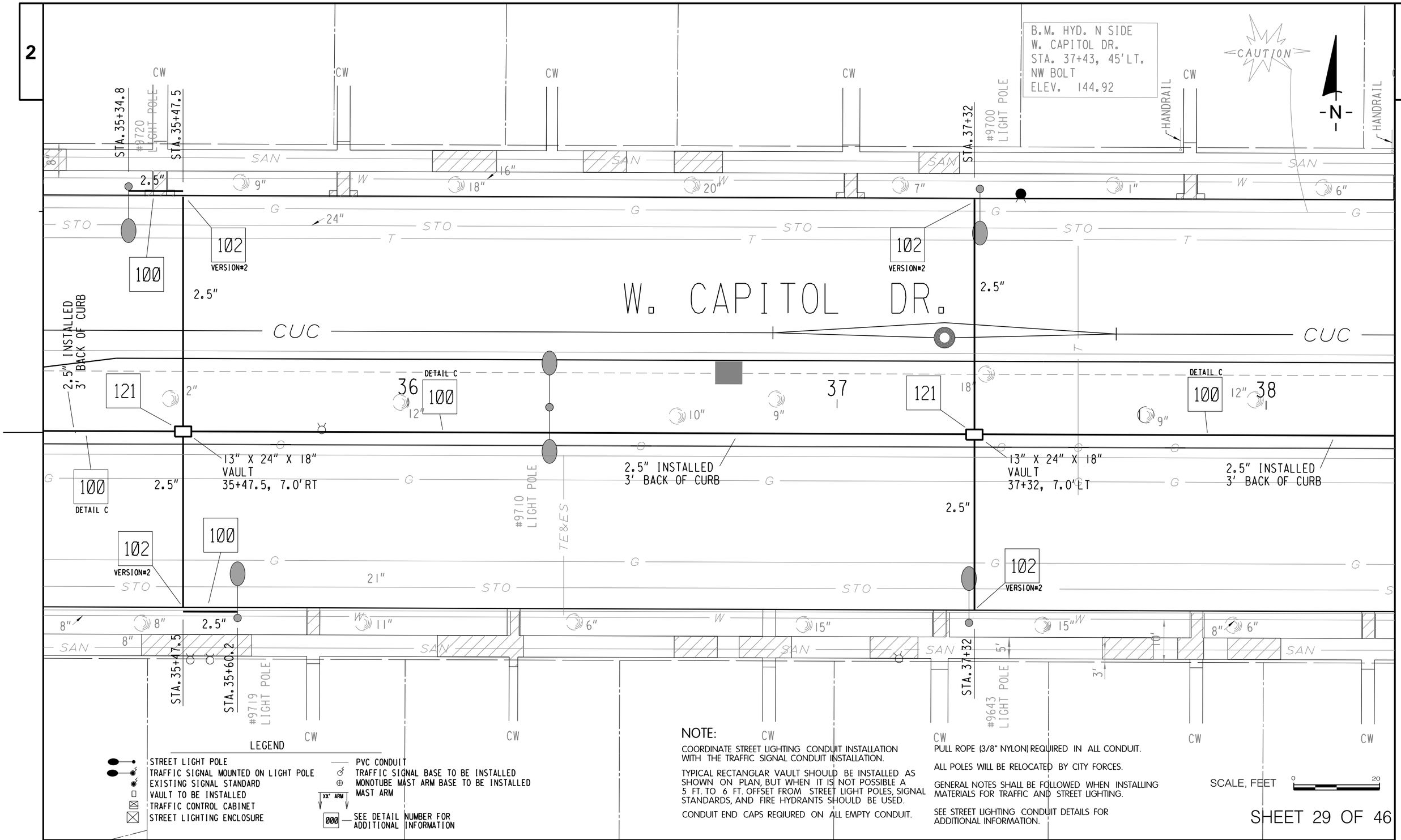
LEGEND

- 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

SHEET 28 OF 46

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 165	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitol Dr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:14
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



LEGEND

- 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:

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.

SCALE, FEET 0 20

SHEET 29 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 166	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:14 PLOT BY : dkozel 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.

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

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

2

CW

2.5'

12" SAN

20" W

16" 4"

STA. 39+26

8"

CW

LANNON STONE STEPS

CW

HANDRAIL

CITY OF MILWAUKEE

CITY OF WAUWATOSA

B.M. HYD. W.CAPITOL DR.
N SIDE STA.40+72, 45' LT.
NW BOLT
ELEV. 150.34

CW

CONC. DWY.

N

5'

15

SAN W 8"

SAN W 19"

SAN W 7" TV

10'

2

TE&ES STO T G

102
VERSION#2

#9616 LIGHT POLE

24"

2.5"

CAUTION

W. CAPITOL DR.

CUC

#9606
POLE INSTALLED BY
CITY FORCES AT
STA. 40+25.8, 5.5' LT.

#9532
POLE INSTALLED BY
CITY FORCES AT
STA. 41+37.3, 5.6' RT.

STA. 41+20.9
4.6' RT.

DETAIL C
100

2.5" INSTALLED
3' BACK OF CURB
53'

13" X 24" X 18"
VAULT
40+30.3, 4.1' LT

39

121

40

41

PINE

6"

2.5"

2.5" INSTALLED
3' BACK OF CURB

100
DETAIL C

#9630 LIGHT POLE

CAUTION

13" X 24" X 18"
VAULT
39+26, 7.0' RT

2.5"

100
DETAIL C

121

ABN'D 22" GAS
24"(H.P.)

2.5"

102
VERSION#2

102
VERSION#2

102
VERSION#1

2.5"

102
VERSION#2

100

100

2.5"

21"

4" W 16" 8" W 6" 19" 18' W 9"

8" SAN 5' 10' SAN 3' SAN

#9617 LIGHT POLE

STA. 39+26

CW

CAUTION

STA. 40+30.3

65' RT.

N. 96TH ST.

2.5"

CONC.

20'

6"

5' 34' 5'

60'

65' RT.

STA. 41+36.1

B.M. HYD SE COR.
N. 96TH ST. & W.CAPITOL DR.
STA 40+98, 68' RT. NW BOLT
ELEV. 150.58

CW

LEGEND

- 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

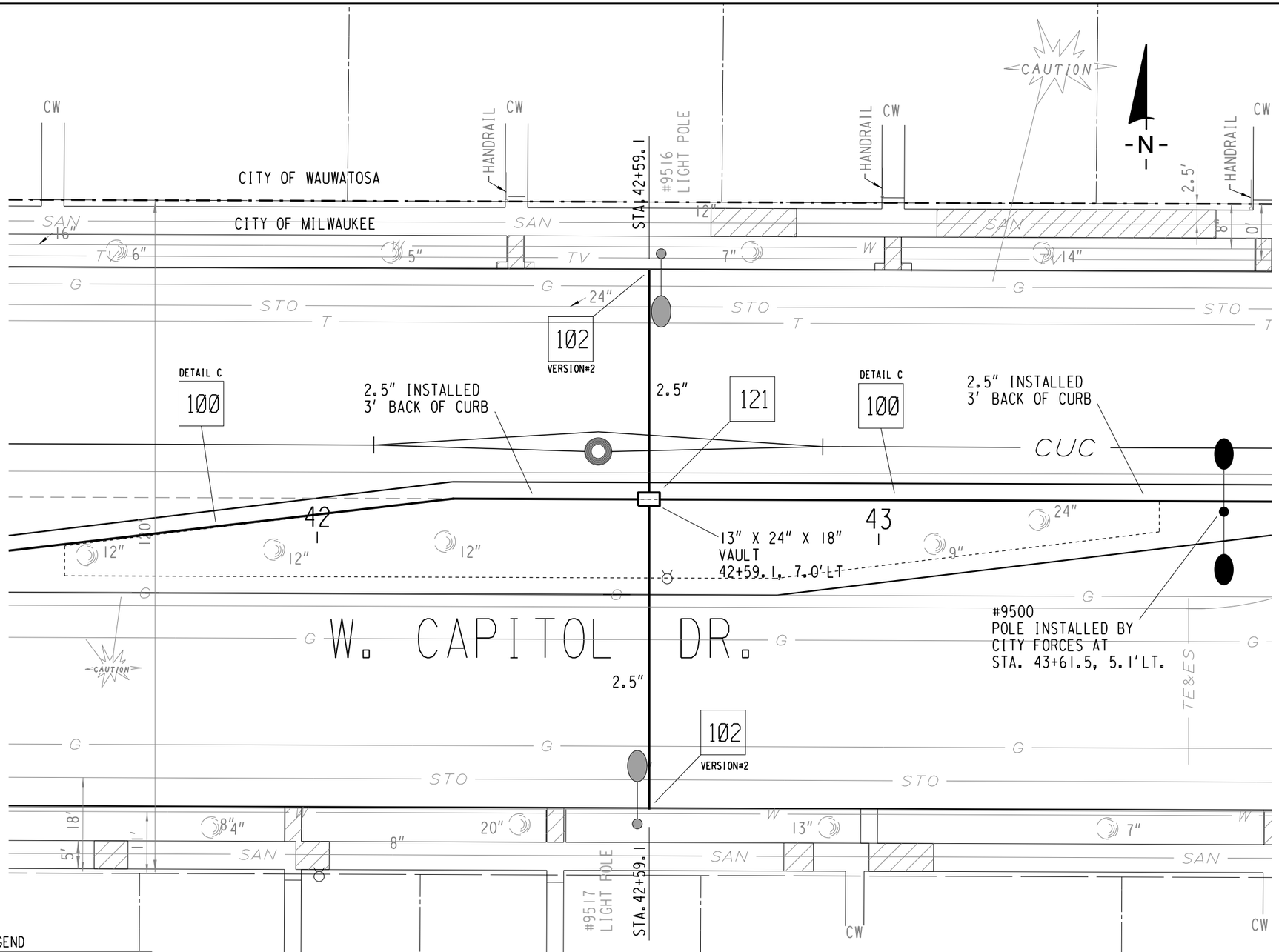
B.M. NE COR. IST
CONC. RISER @ #9617
W.CAPITOL DR.
ELEV. 146.62

SCALE, FEET 0 20

SHEET 30 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 167	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:15
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



LEGEND

- 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

B.M. NE COR. IST
CONC. RISER @ #9517
W.CAPITOL DR.
ELEV. 151.78

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.

SCALE, FEET 0 20

SHEET 31 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 168	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:15 PLOT BY : dkozel 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.

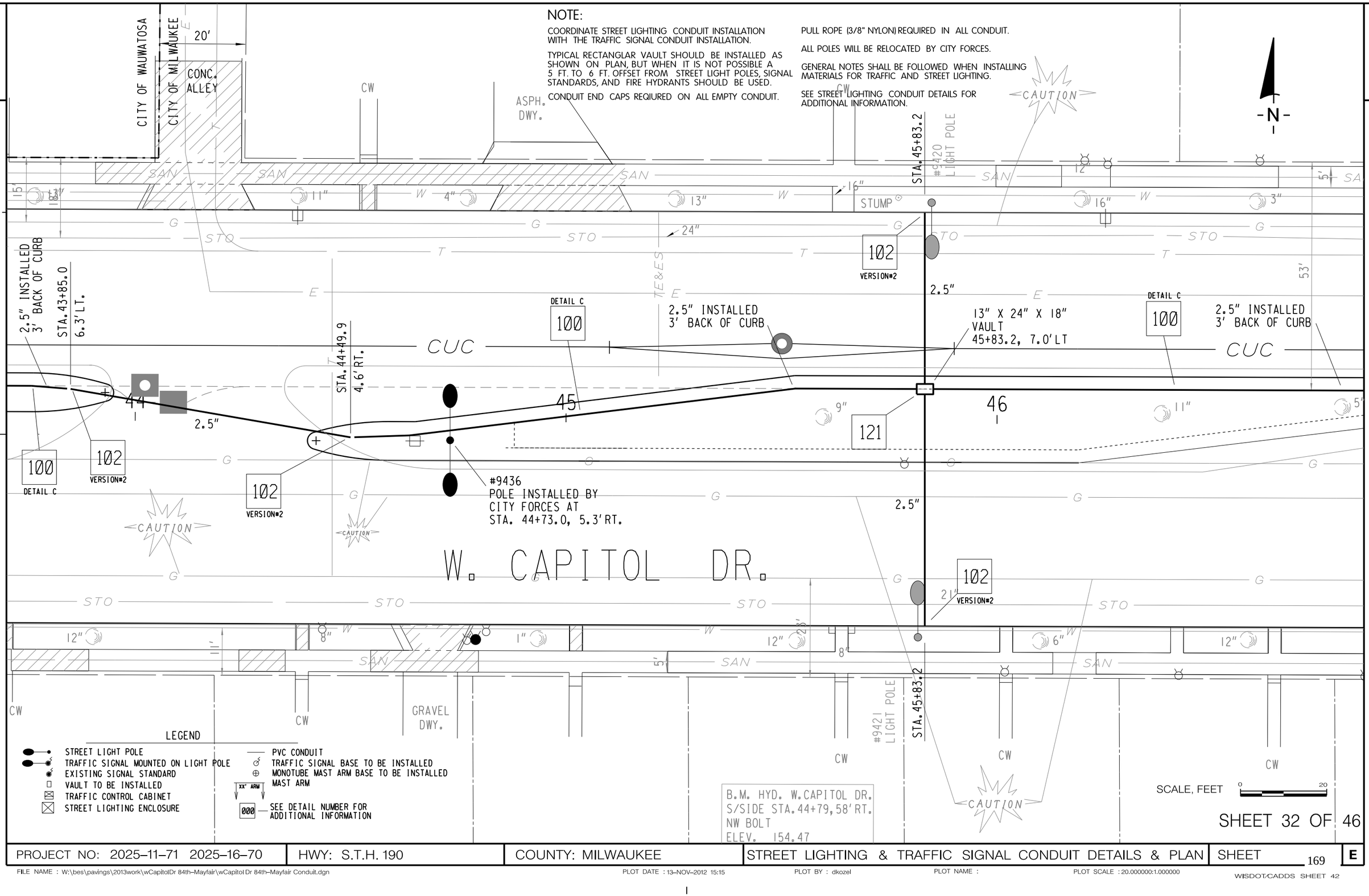
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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.



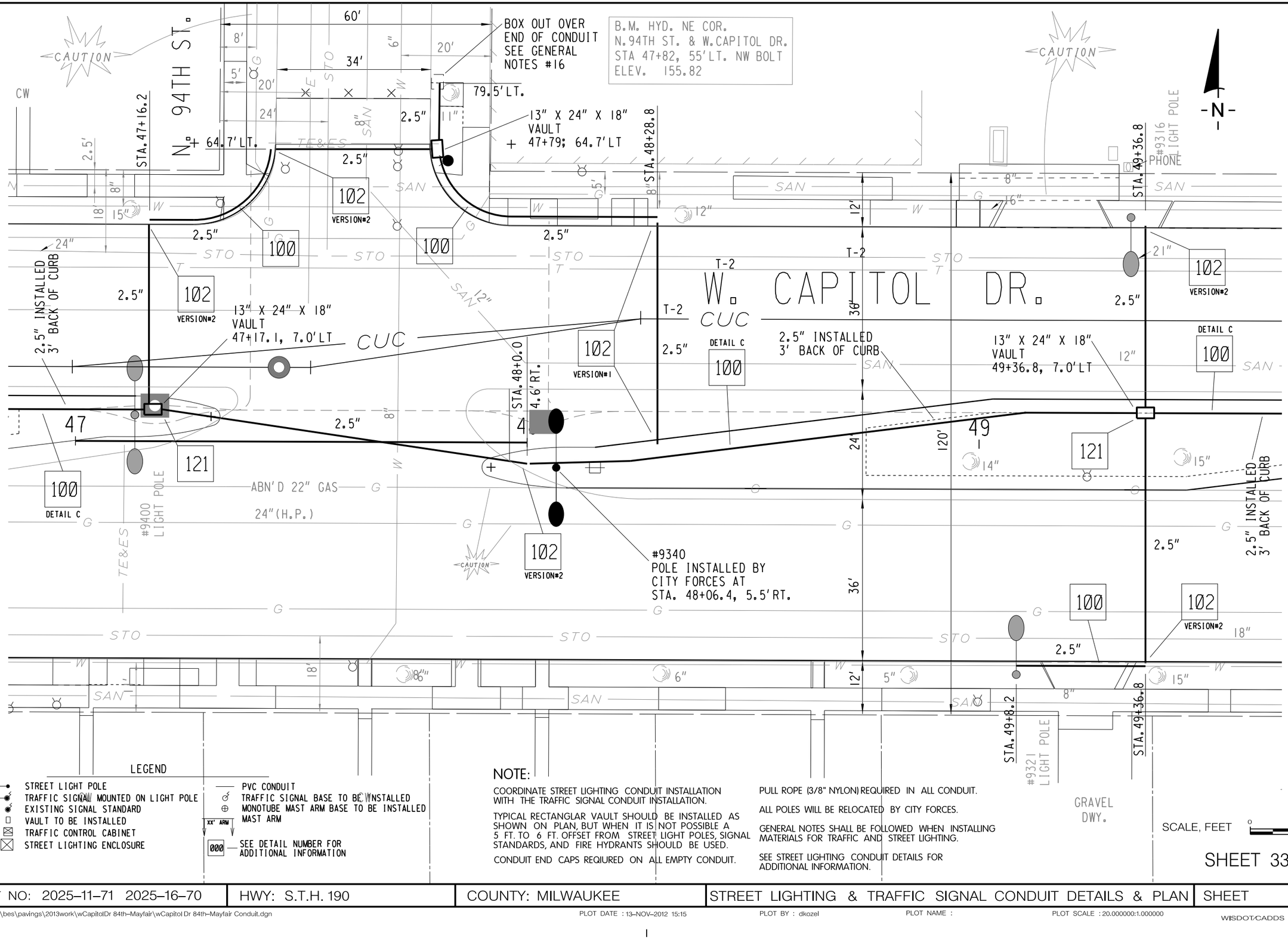
LEGEND

- 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

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 169	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:15
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



LEGEND

- 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

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 33 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 170	E

LEGEND

- 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

N. 93RD ST.

W. CAPITOL DR.

B.M. HYD. NE COR.
N.93RD ST. & W.CAPITOL DR.
STA 51+09, 53'LT. NW BOLT
ELEV. 160.04

ASPH. PARKING

CURB

#9226 LIGHT POLE

STA.52+48.4

CAUTION

78.8'LT.

60'LT.

60'

34'

8'

24'

5'

18'

CONC.

12"

2.5"

STA.50+49.0
6.3'LT.

STA.50+57.9

STA.51+19.4

STA.51+27.9
4.6'LT.

53'

18'

8"

5'

DETAIL C
100

2.5" INSTALLED
3' BACK OF CURB

102
VERSION#2

102
VERSION#1

101

121

122

112

108

CUC

SAN

STO

G

W

T

TE&ES

50

51

52

#9304
POLE INSTALLED BY
CITY FORCES AT
STA. 50+32.3, 5.5'LT.

#9236
POLE INSTALLED BY
CITY FORCES AT
STA. 51+43.9, 5.5'RT.

13" X 24" X 18"
VAULT
52+48.4, 6.9'LT

17" X 30" X 18"
VAULT
51+54.9, 49.5'RT

13" X 24" X 18"
VAULT
51+06.9, 61.1'RT

UNDERGROUND DUCT
CONTRACTOR TO INSTALL
TWO 4" DUCT STUBS IN
BOTTOM OF VAULT

13" X 24" X 18"
VAULT
52+48.4, 49.5'RT

#3977
LIGHT POLE

#9215
LIGHT POLE

STA.50+30.3

STA.51+41.6

61.1'RT.

85'RT.

2-2.5"

14"

16"

10"

3"

7.2'

10'

13"

2.5" INSTALLED
3' BACK OF CURB

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.

SCALE, FEET 0 20

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 171	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:15
PLOT BY : dkozel
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.

B.M. HYD. NE COR.
N.92ND ST. & W.CAPITOL DR.
STA 54+86, 64'LT. NW BOLT
ELEV. 166.57

B.M. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

W. CAPITOL DR.

N. 92ND ST

17" X 30" X 18" VAULT 53+95; 65.5' LT
17" X 30" X 18" VAULT 53+81
17" X 30" X 18" VAULT 53+33
17" X 30" X 18" VAULT 53+33, 6.0'LT
17" X 30" X 18" VAULT 53+64
17" X 30" X 18" VAULT 53+96; 78.5' RT
17" X 30" X 18" VAULT 53+77; 8.0' RT
17" X 30" X 18" VAULT 54+45.5; 73.5' LT
17" X 30" X 18" VAULT 54+85; 79.0' LT
17" X 30" X 18" VAULT 54+88; 61.5' LT
17" X 30" X 18" VAULT 55+08.5
17" X 30" X 18" VAULT 55+05; 8.0' LT
17" X 30" X 18" VAULT 55+15; 7.5' RT
17" X 30" X 18" VAULT 54+85.5; 78.5' RT
17" X 30" X 18" VAULT 54+36; 78.5' RT

#4001 POLE INSTALLED BY CITY FORCES AT STA. 53+93, 61.5'LT.
#9204 TYPE 10 30" DIA. BASE 53+56; 7.0' LT
#3977 TYPE 10 30" DIA. BASE 53+94; 65.0' RT
#4002 TYPE 10 30" DIA. BASE 54+86.5; 72.5' LT
#9143 TYPE 10 SPECIAL 36" DIA. BASE 55+07; 51.5' RT
#3978 POLE INSTALLED BY CITY FORCES AT STA. 54+87, 63.5'RT.

TYPE 10 POLE 20' ARM
TYPE 10 POLE 30' ARM
TYPE 13 POLE SPECIAL 35' ARM
RELOCATED POLE
RELOCATED CONTROL CABINET
#9144 LIGHT POLE
#9120 ADVANCED PAIN MANAGEMENT

SIGNAL BASE 53+83.5
SIGNAL BASE 53+84.5; 7.5' RT
SIGNAL BASE 53+82; 51.1' RT
SIGNAL BASE 54+98; 7.5' LT
SIGNAL BASE 54+96
SIGNAL BASE 55+18; 7.5' RT

2.5" INSTALLED 3' BACK OF CURB
2.5" INSTALLED 3' BACK OF CURB

NOTE:
ALL STREET LIGHTS ON MONOTUBE UNITS TO BE INSTALLED BY CITY

DETAIL C

BUS SHELTER
WOOD CHIPS

LEGEND
- 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

ST. MARGARET MARY CHURCH

SCALE, FEET 0 20

SHEET 35 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 172	E

LEGEND

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
SEE DETAIL NUMBER FOR ADDITIONAL INFORMATION

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.

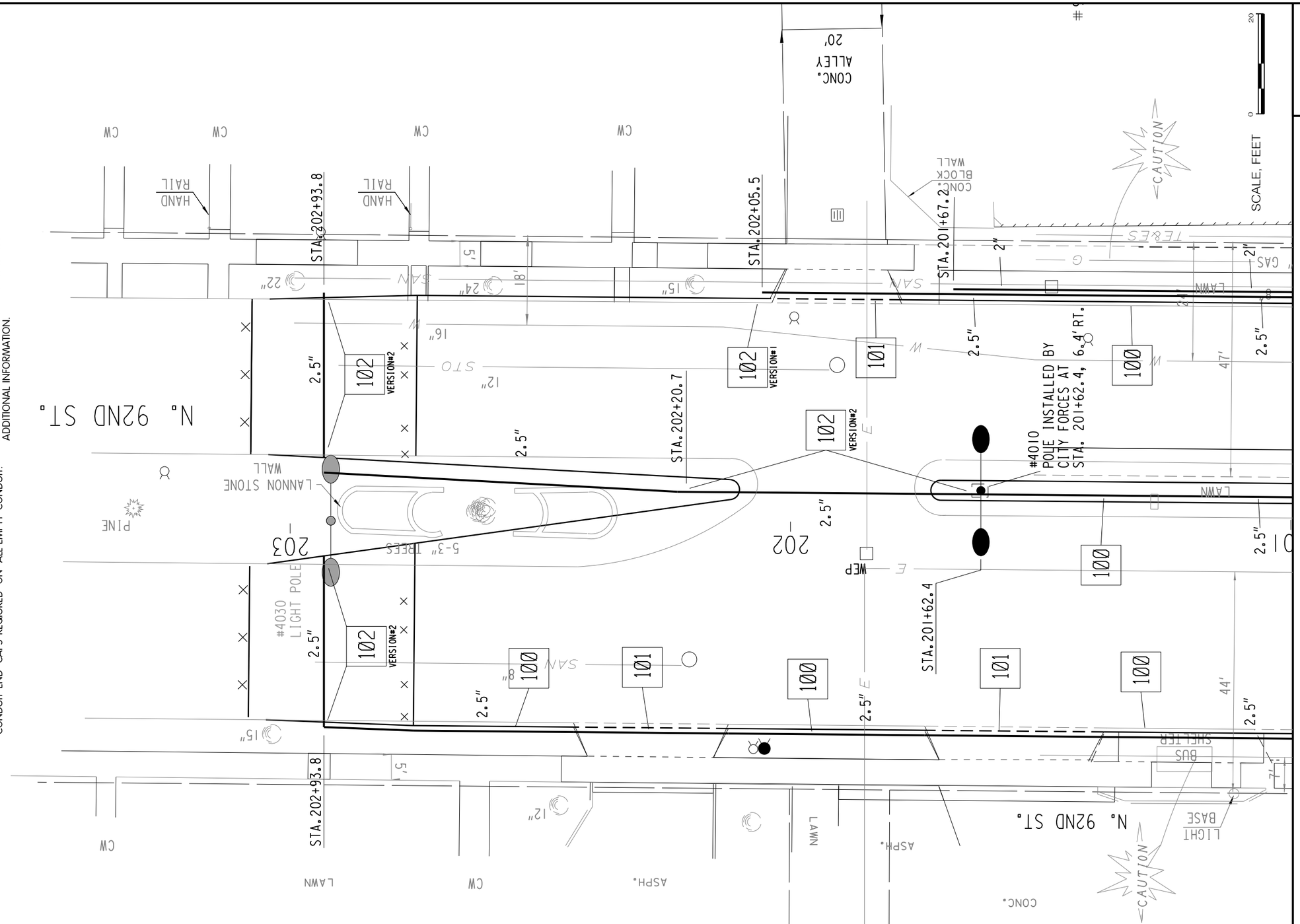
CONDUIT END CAPS REQIURED ON ALL EMPTY CONDUIT.

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.

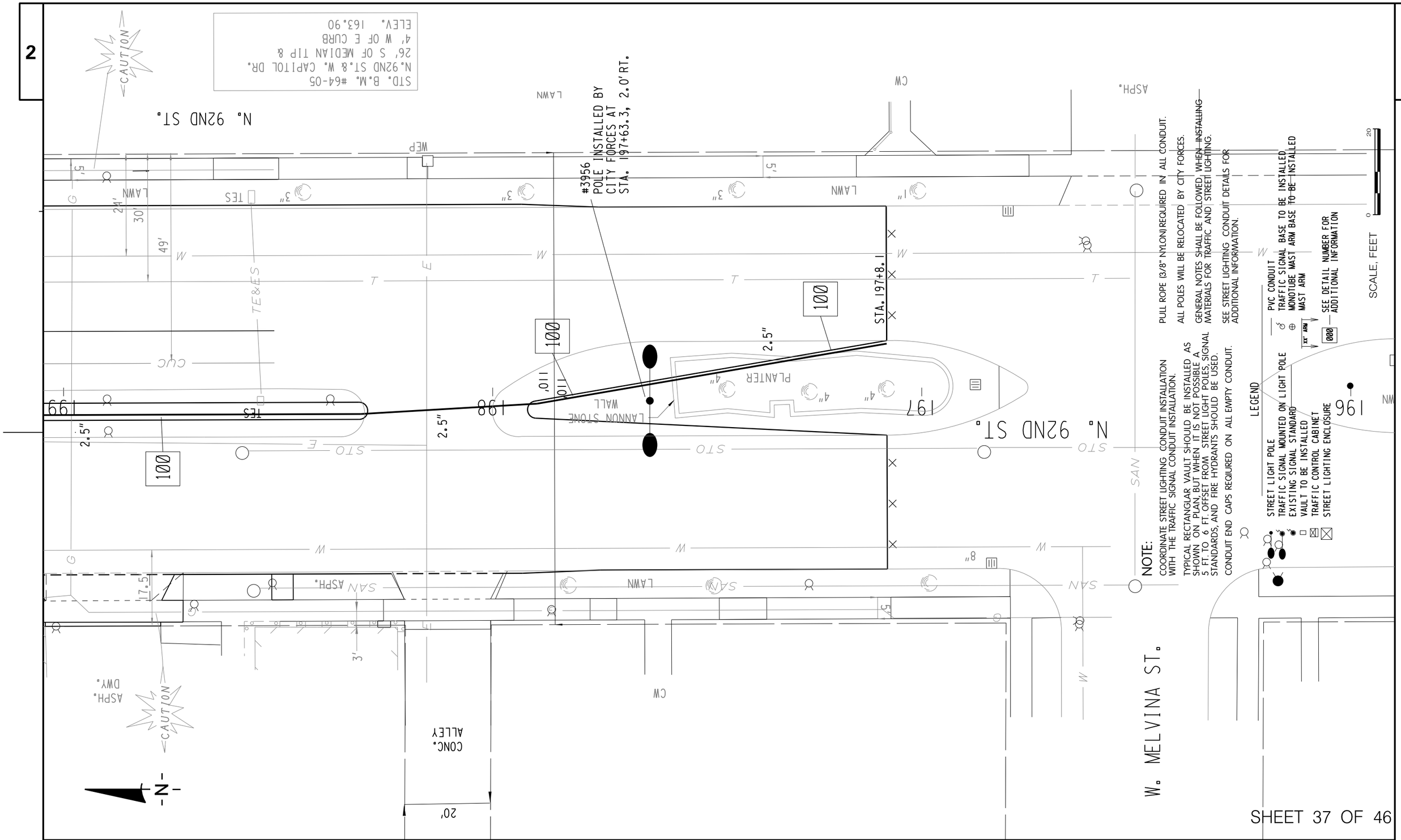
SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.



SHEET 36 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 173	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn
PLOT DATE : 13–NOV–2012 15:15
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



SHEET 37 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 174	E

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #9100
STA 57+60, 1'LT.
ELEV. 175.74

N. 91ST ST.

W. CAPITOL DR.

STA.56+43.3
#9116 LIGHT POLE

STA.57+42.6

STA.57+55.8
6.3'LT.

STA.58+34
4.6'RT.

13" X 24" X 18"
VAULT
58+47.3

13" X 24" X 18"
VAULT
56+43.3, 4.0'LT

#9100
POLE INSTALLED BY
CITY FORCES AT
STA. 57+52.3, 5.6'LT.

#9044
POLE INSTALLED BY
CITY FORCES AT
STA. 58+50.0, 5.5'RT.

STA.56+43.3
#9117 LIGHT POLE

2.5" INSTALLED
3' BACK OF CURB

DETAIL C

VERSION#1

VERSION#2

CAUTION

56 57 58 59

121

60'
34'
28'
25'
20'
19'
18'
12'
5'
66'LT.
76.7'LT.
76.1'LT.
52'

ABN'D 2" GAS
ABN'D 6" GAS
ABN'D GAS
TEL
LAMP
PLANTER

LEGEND

- 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

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 38 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 175	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:15 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #9000
STA 60+87, 1'LT.
ELEV. 188.85

13" X 24" X 18" VAULT 59+59.8

#9042 LIGHT POLE

13" X 24" X 18" VAULT 60+78

BRICK WALL

77.4'LT.

76.1'LT.

66'LT.

66'LT.

60'

34'

18'

5'

N. 90TH ST.

STA. 61+95.4

BUS STOP

2.5"

VERSION#2

VERSION#1

ABN'D 6" GAS

ABN'D 3" GAS

#8934
POLE INSTALLED BY
CITY FORCES AT
STA. 61+83.0, 5.5'RT.

STA. 60+87.8
6.3'LT.

STA. 61+68.1
4.6'RT.

2.5" INSTALLED
3' BACK OF CURB

DETAIL C

CUC

13" X 24" X 18" VAULT
59+59.8, 7.0'LT

ABN'D 22" GAS

24"(H.P.)

STA. 60+78

#9000
POLE INSTALLED BY
CITY FORCES AT
STA. 60+80.5, 5.2'LT.

W. CAPITOL DR.

ASPH. DWY.

CONC. DWY.

CAUTION

STA. 59+59.8

#9019 LIGHT POLE

LEGEND

- 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

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.

SCALE, FEET 0 20

SHEET 39 OF 46

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 176	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.

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #8900
STA 64+14, 1'RT.
ELEV. 199.87

N. 89TH ST.

W. CAPITOL DR.

CONC. DWY.

#8918 LIGHT POLE

STA.63+01.1

STA.64+05

STA.64+22.9
6.3'LT.

STA.65+01.9
7'LT.

STA.65+16.2

13" X 24" X 18"
VAULT
63+01.1, 7.0'LT

#8900
POLE INSTALLED BY
CITY FORCES AT
STA. 64+11.3, 5.5'LT.

#8838 LIGHT POLE

#8915 LIGHT POLE

2.5" INSTALLED
3' BACK OF CURB

DETAIL C

VERSION#1

VERSION#2

CAUTION

LEGEND

- 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

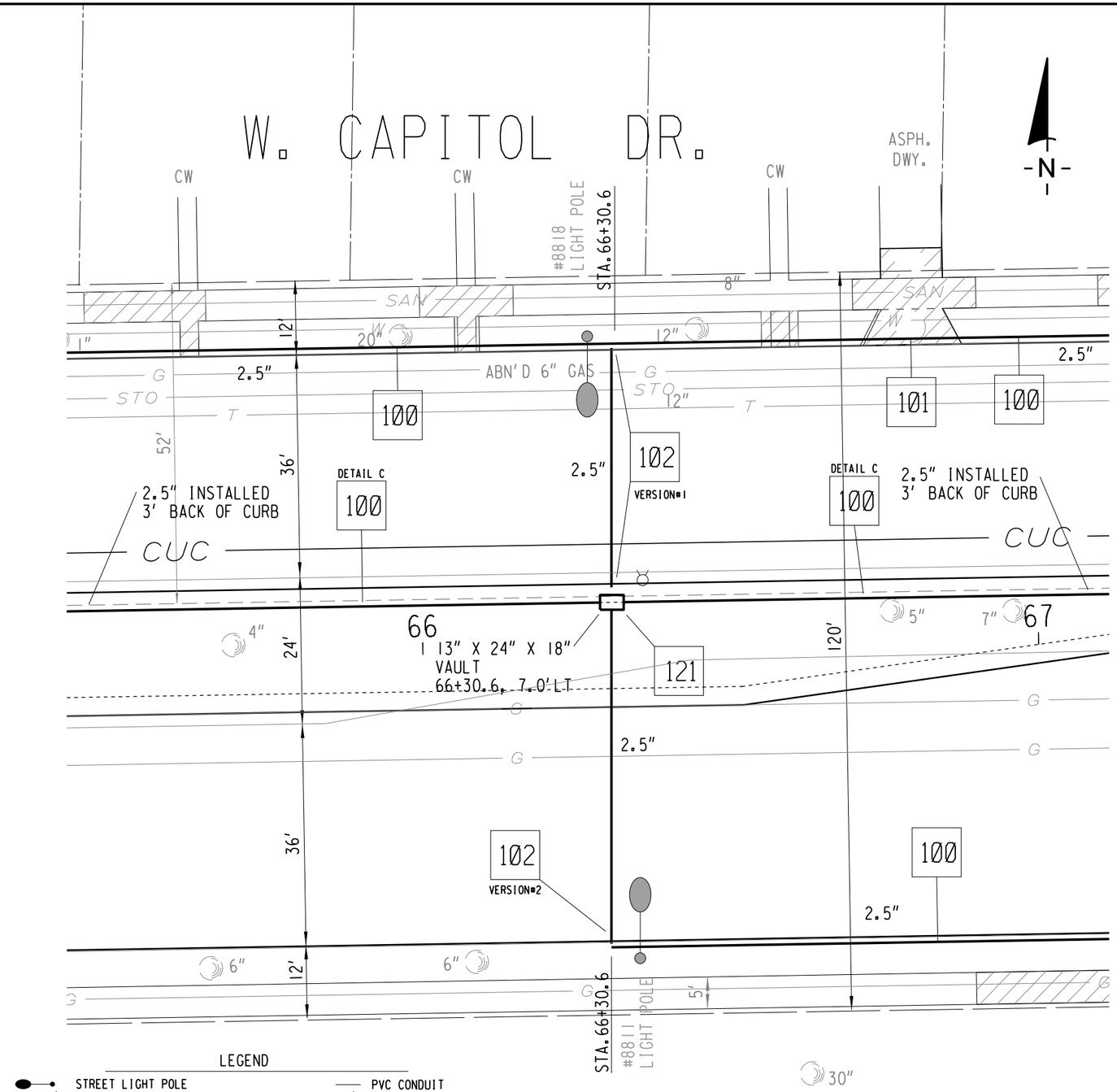
SCALE, FEET 0 20

SHEET 40 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 177	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:16 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42



LEGEND

- 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:

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.

SCALE, FEET 0 20

SHEET 41 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 178	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:16 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000 WISDOT/CADDS SHEET 42

FILE NAME : W:\bes\pwings\2013work\wCapitolDr 84th-Mayfair\wCapitolDr 84th-Mayfair Conduit.dgn
PLOT DATE : 13-NOV-2012 15:16
PLOT BY : dkozel
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.

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #8802
STA 67+42, 1' LT.
ELEV. 203.215

LEGEND

- 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

N. 88TH ST.

WE-ENERGIES WOOD POLE
179.9' LT.

4" PVC (SCH. 40) STUBBED UP 12" ABOVE GRADE & CAPPED ALSO BAND TO WOOD POLE IN ALLEY

-N-

P.L.

#8804

#8734

60'

4" PVC (SCH. 40) CONCRETE ENCASED & INSTALLED 36" BELOW GRADE & 1' OFF THE LOW SIDE OF SIDEWALK
SPV.0090.03

5' 34' 5'

20'

18"

7'

94.5' LT.

ABN'D 3" GAS

ABN'D 6"

2.5"

19"

17" X 30" X 18" VAULT 68+43.6, 49.4' LT CONTRACTOR INSTALLING UNDERGROUND DUCT TO INSTALL TWO 4" DUCT STUBS IN BOTTOM OF VAULT STA. 68+58

CONC. DWY.

CW

70' LT.

2-2.5"

70' LT.

STA. 67+35.1

16"

7"

102 VERSION#2

100

100

SAN

W

2.5"

4" PVC (SCH. 40) CONCRETE ENCASED & INSTALLED 36" BELOW GRADE
SPV.0090.03

2-2.5"

2-2.5"

STO

G

T

121

101

102 VERSION#1

DETAIL C 100

2.5" INSTALLED 3' BACK OF CURB

STA. 67+54.8
6.3' LT.

INSTALL 4"PVC (SCH. 40) CONCRETE ENCASED DUCT INTO NEW PROPOSED BES MANHOLE. (VIF)

CUC

TE&ES

8"

7"

2.5"

68

UNDERGROUND DUCT CONTRACTOR TO INSTALL TWO 4" DUCT STUBS IN BOTTOM OF VAULT

#8736 POLE INSTALLED BY CITY FORCES AT STA. 68+50.8, 5.5' RT.

ABN'D 22" GAS

24" (H.P.)

#8802 POLE INSTALLED BY CITY FORCES AT STA. 67+38.7, 5.5' LT.

CAUTION

17" X 30" X 18" VAULT 25+84, 7.0' LT

W. CAPITOL DR.

CUC

3"

4'

BUS STOP

STA. 67+35.1

VERSION#2

8"

4'

9"

9'

6'

38'

V.C.P.

CONC

17" X 30" X 18" VAULT 68+27.5, 79.5' RT

89.5' RT.

UNDERGROUND DUCT CONTRACTOR TO INSTALL TWO 4" DUCT STUBS IN BOTTOM OF VAULT

B.M. HYD. SE COR.
N. 88TH ST. & W. CAPITOL DR.
STA 67+15, 52' RT. NW BOLT
ELEV. 204.37

#3977 LIGHT POLE

30'

60'

SCALE, FEET 0 20

SHEET 42 OF 46

LEGEND

- 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

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #8700
STA 70+78, 1'LT.
ELEV. 200.76

B.M. HYD. S\S W. CAPITOL DR.
STA 71+63, 50'RT. NW BOLT
ELEV. 201.16

#8718
POLE INSTALLED BY
CITY FORCES AT
STA. 69+62.6, 2.4'RT.

#8700
POLE INSTALLED BY
CITY FORCES AT
STA. 70+74.5, 5.5'LT.

#8634
LIGHT POLE

2.5" INSTALLED
3' BACK OF CURB

N. 87TH ST.

W. CAPITOL DR.

CAUTION!!!
STREET LIGHTING
UNDERGROUND
ENCLOSURE

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.

SCALE, FEET 0 20

SHEET 43 OF 46

PROJECT NO: 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 180	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th-Mayfair\wCapitol Dr 84th-Mayfair Conduit.dgn PLOT DATE : 13-NOV-2012 15:16 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

LEGEND

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

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8600
STA 74+09, 1'LT.
ELEV. 197.99

B.M. HYD. SW COR.
N.86TH ST. & W.CAPITOL DR.
STA 74+42, 90'RT. NW BOLT
ELEV. 197.96

W. CAPITOL DR.

N. 86TH ST.

2.5" INSTALLED 3' BACK OF CURB

DETAIL C

#8616 POLE INSTALLED BY CITY FORCES AT STA. 72+84.3, T/L

#8600 POLE INSTALLED BY CITY FORCES AT STA. 74+5.3, 5.4'LT.

#8534 POLE INSTALLED BY CITY FORCES AT STA. 75+22.4, 5.5'RT.

BOX OUT OVER END OF CONDUIT SEE GENERAL NOTES #16

13" X 24" X 18" VAULT 74+84.3, 65'RT

STA. 74+07

STA. 75+20.2

STA. 75+04 4.6'RT.

STA. 74+25.9 6.3'RT.

STA. 75+13.8

STA. 75+10.5

76.9'LT.

74.3'LT.

65'LT.

93'RT.

108'RT.

V.C.P. CONC

ABN'D 6" GAS

ABN'D 2" GAS

ABN'D 22" GAS

24"(H.P.)

PROPOSED 4" PE

LOC. UNKNOWN

#3973 LIGHT POLE

CUC

STO

SAN

W

G

T

TE&ES

CW

CAUTION

NOTE:

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

TYPICAL RECTANGULAR 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.

SCALE, FEET 0 20

SHEET 44 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 181	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:16 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

WISDOT/CADDS SHEET 42

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8500
STA 77+50, 1'LT.
ELEV. 195.46

BOX OUT OVER END OF CONDUIT SEE GENERAL NOTES #16

BOX OUT OVER END OF CONDUIT SEE GENERAL NOTES #16

13" X 24" X 18" VAULT 77+80.1, 67'LT

13" X 24" X 18" VAULT 78+16.5, 67'LT

17" X 30" X 18" VAULT 75+39.8

UNDERGROUND DUCT CONTRACTOR TO INSTALL TWO 4" DUCT STUBS IN BOTTOM OF VAULT

#8516 LIGHT POLE STA. 76+33

STA. 77+71

STA. 78+40

N. 85TH ST.

W. CAPITOL DR.

2.5" INSTALLED 3' BACK OF CURB

2.5" INSTALLED 3' BACK OF CURB

#8500 POLE INSTALLED BY CITY FORCES AT STA. 77+46.9, 5.5'LT.

#8432 POLE INSTALLED BY CITY FORCES AT STA. 78+47.7, 5.5'RT.

STA. 77+59.8 5.7'LT.

STA. 78+38.1 5.6'RT.

STA. 76+34 #8515 LIGHT POLE

PLANTER

LANNON STONE

CAUTION

17" X 30" X 18" VAULT 75+39.8, 49.4'RT

UNDERGROUND DUCT CONTRACTOR TO INSTALL TWO 4" DUCT STUBS IN BOTTOM OF VAULT

LEGEND

- 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

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.

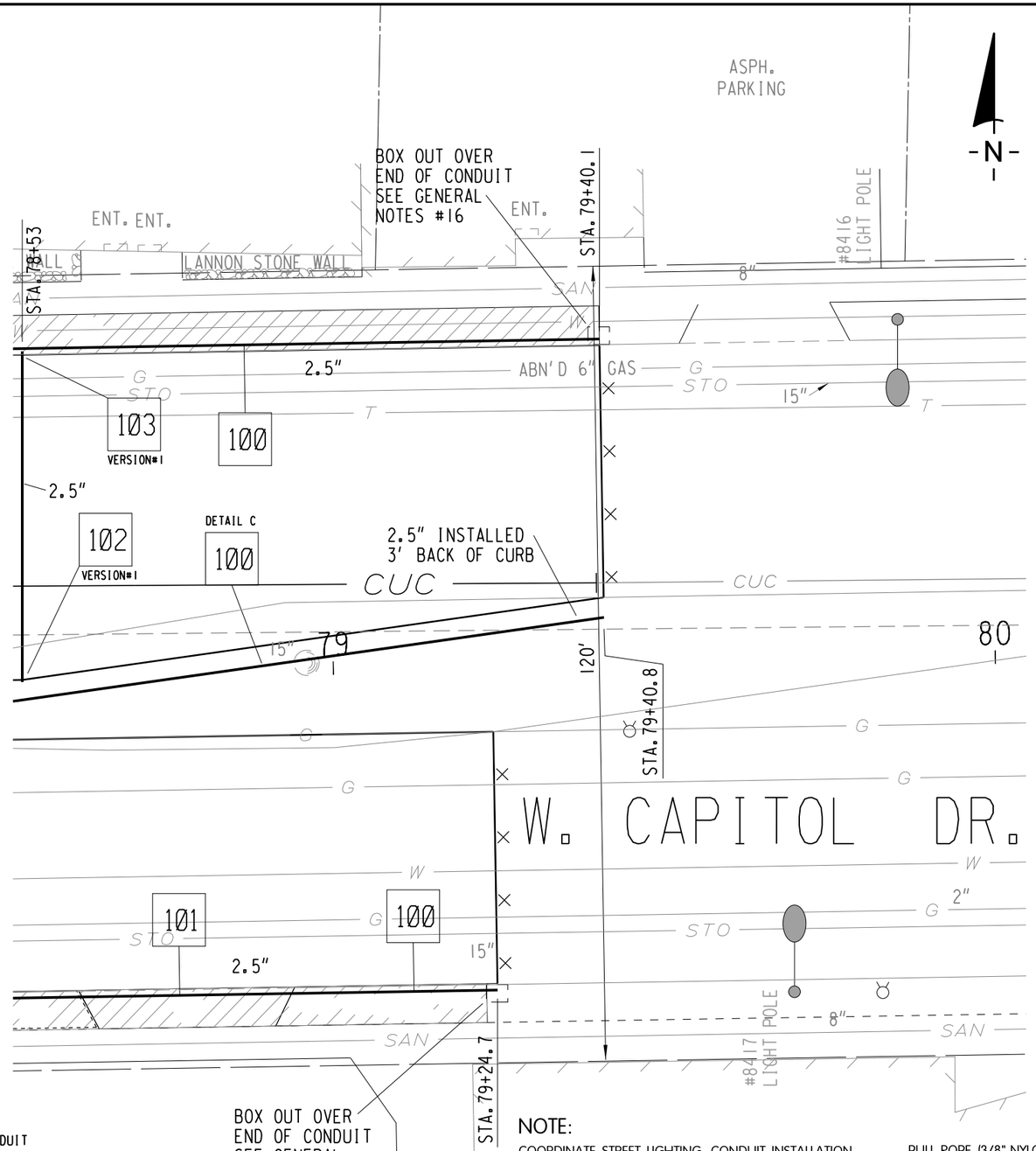
GENERAL NOTES SHALL BE FOLLOWED WHEN INSTALLING MATERIALS FOR TRAFFIC AND STREET LIGHTING.

SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

B.M. HYD. S\S W.CAPITOL DR. STA 78+25, 50'RT. NW BOLT ELEV. 195.46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 182	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:16 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000
WISDOT/CADDS SHEET 42



SCALE, FEET 0 20

LEGEND

- 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:

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

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SEE STREET LIGHTING CONDUIT DETAILS FOR ADDITIONAL INFORMATION.

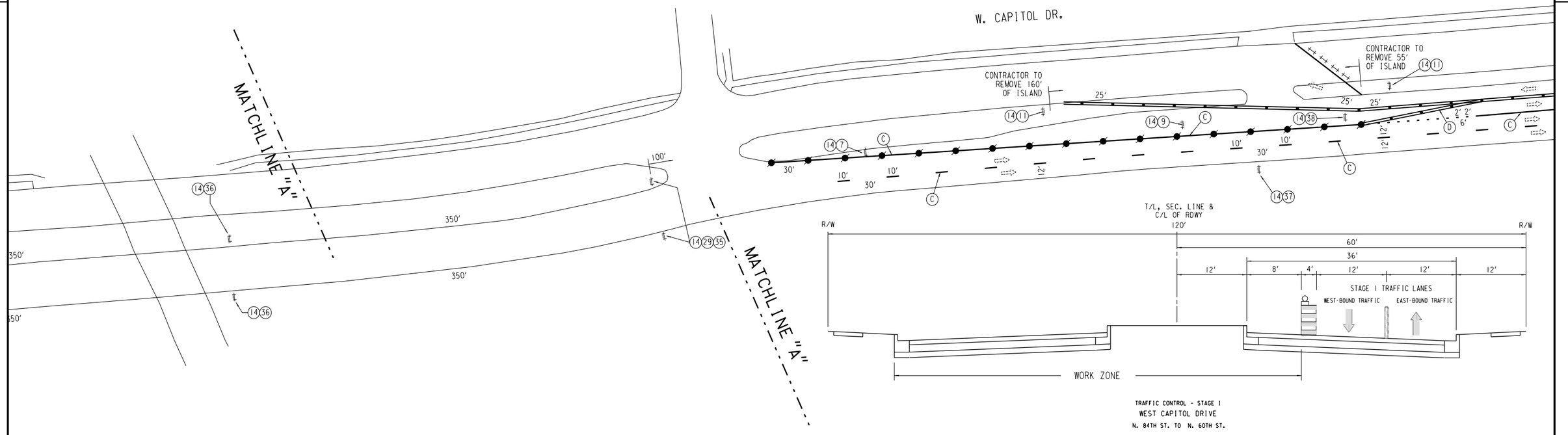
SHEET 46 OF 46

PROJECT NO: 2025–11–71 2025–16–70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	STREET LIGHTING & TRAFFIC SIGNAL CONDUIT DETAILS & PLAN	SHEET 183	E

FILE NAME : W:\bes\pavings\2013work\wCapitolDr 84th–Mayfair\wCapitol Dr 84th–Mayfair Conduit.dgn PLOT DATE : 13–NOV–2012 15:16 PLOT BY : dkozel PLOT NAME : PLOT SCALE : 20.000000:1.000000

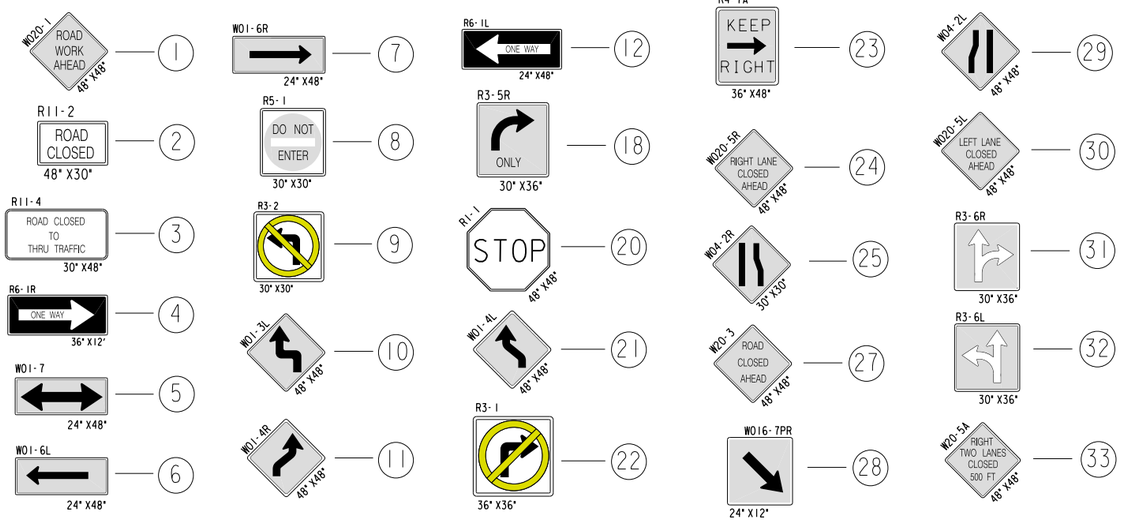
WISDOT/CADDS SHEET 42

STAGE I



TRAFFIC CONTROL - STAGE I
WEST CAPITOL DRIVE
N. 84TH ST. TO N. 60TH ST.

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, REFLECTIVE PAINT 24" WHITE
(H) TPM, REFLECTIVE PAINT, 8" WHITE
(M) MATCH
(X) TPM, WORDS, REFLECTIVE PAINT
(Z) TPM, ARROWS, REFLECTIVE PAINT

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.

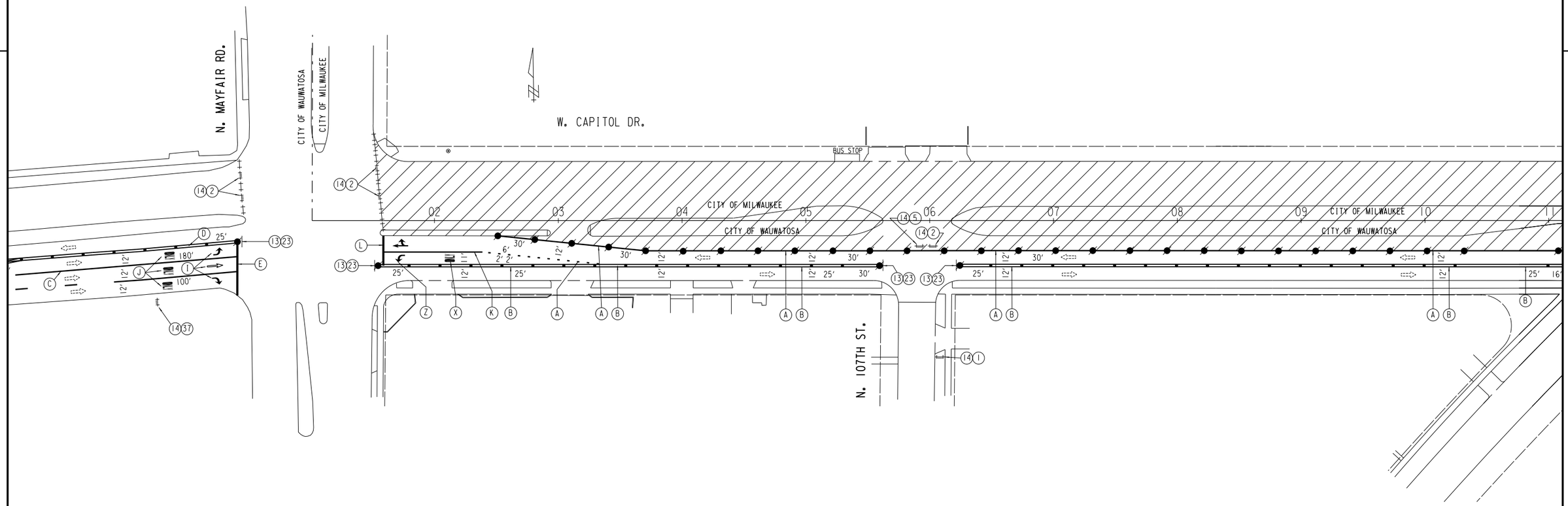
SHEET 1 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 184 E

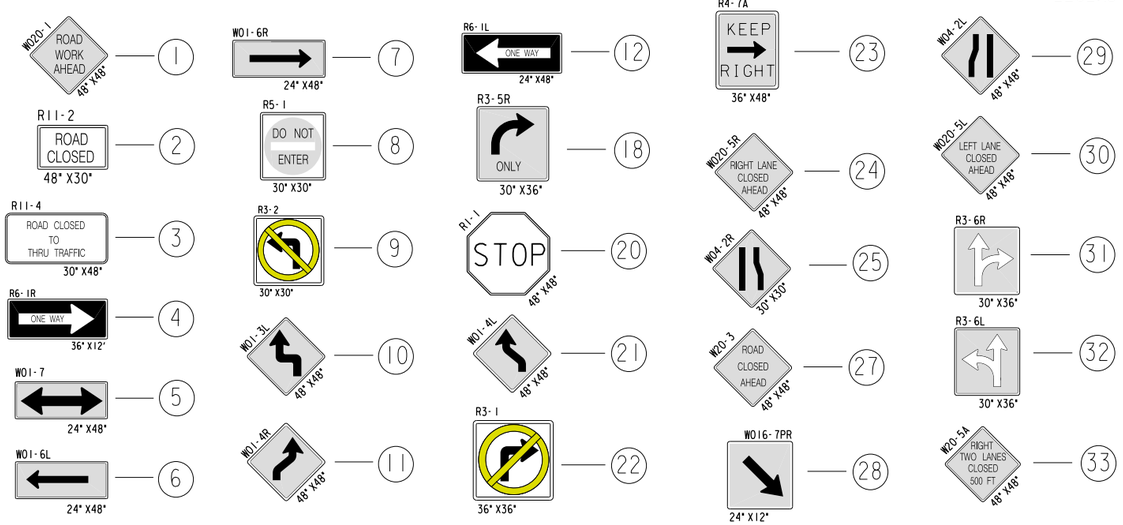
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 1-18-2012

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
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

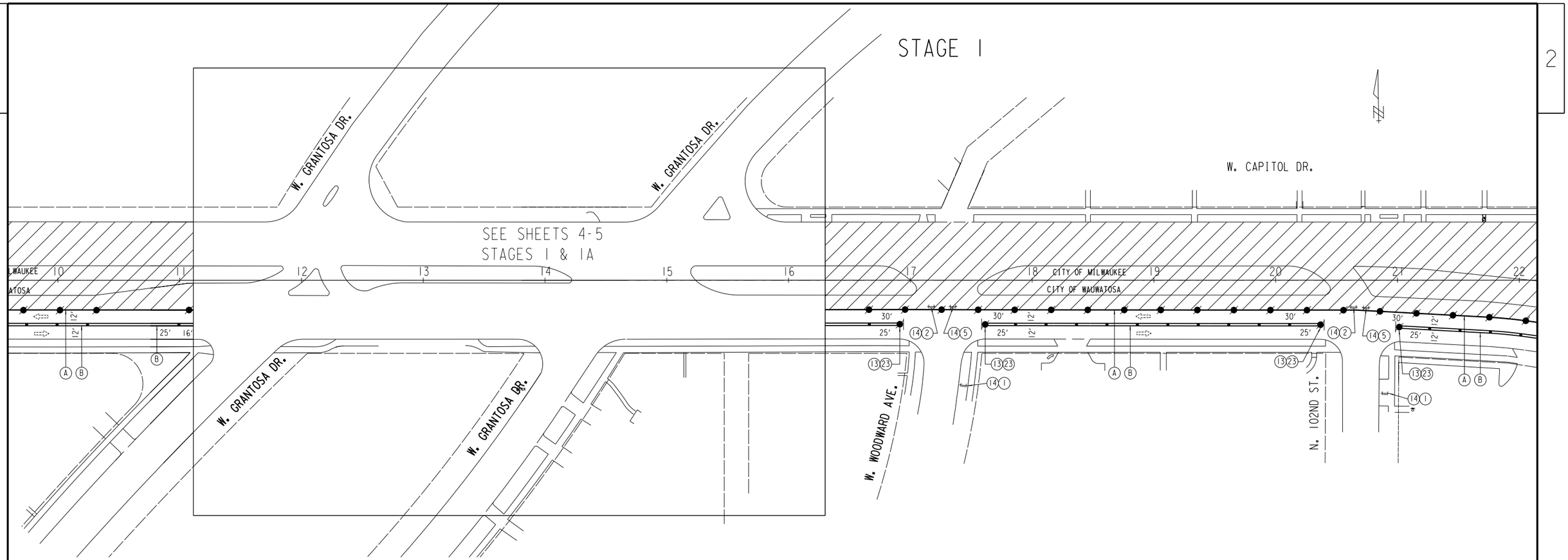
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

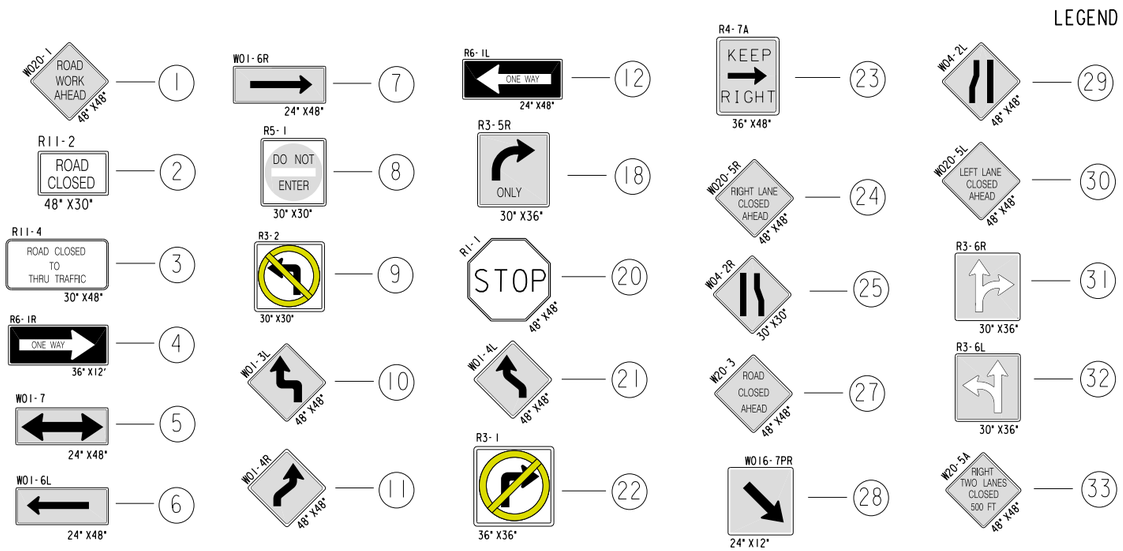
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 185

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 10-8-12

STAGE I





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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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.

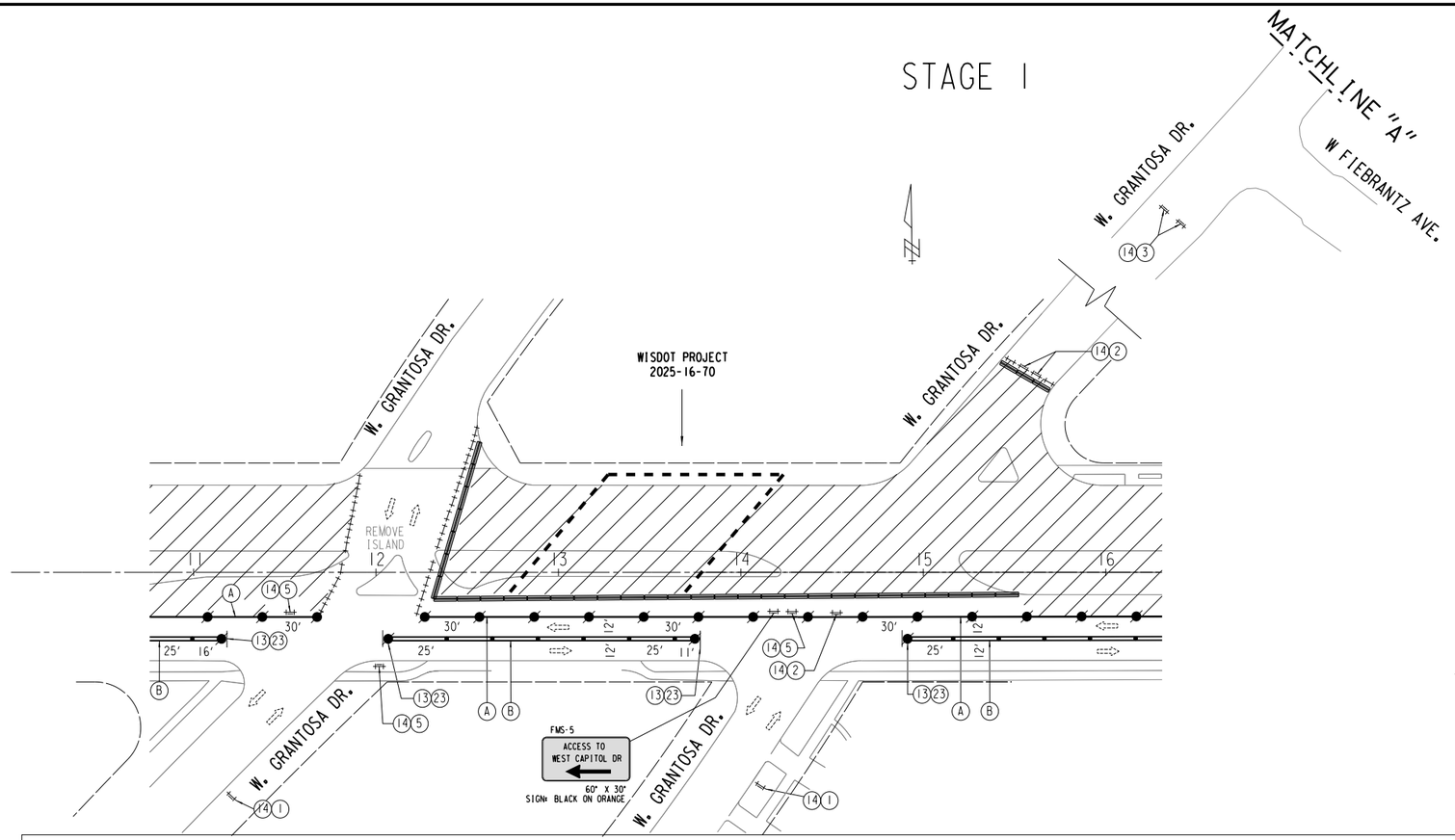
SHEET 3 OF 28

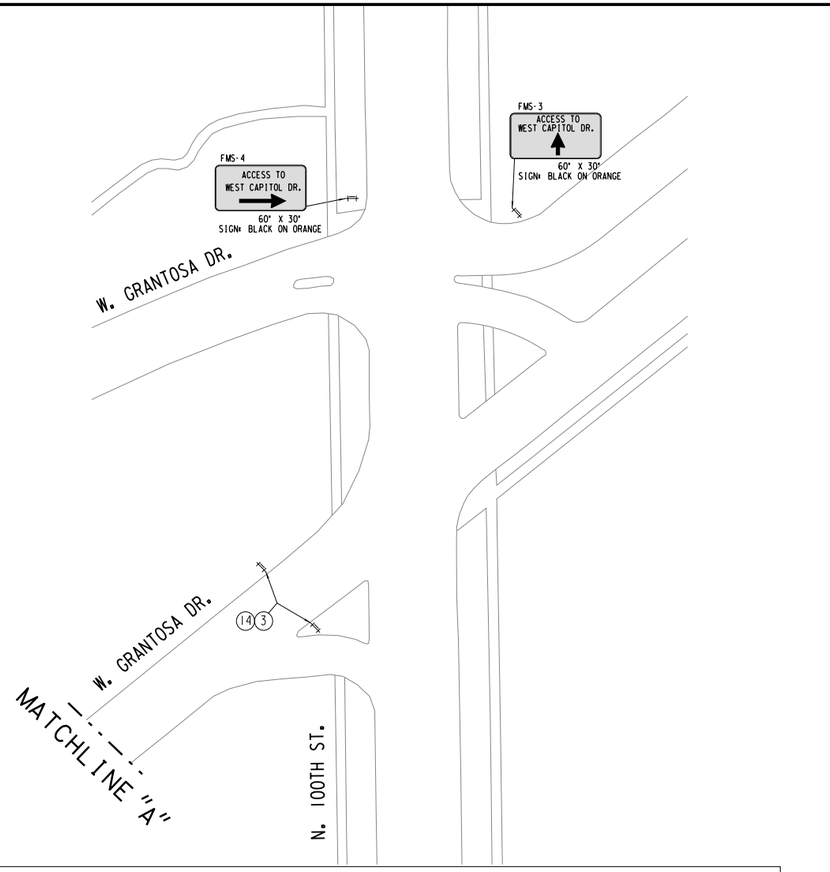
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80	SHEET NO: 186 E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

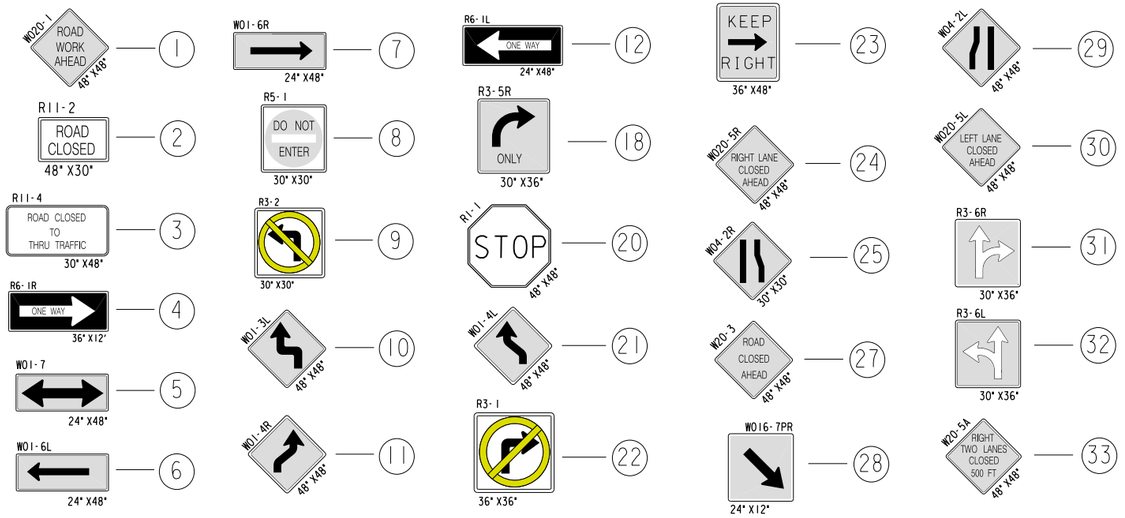
REVISED: 12-22-2011

STAGE 1





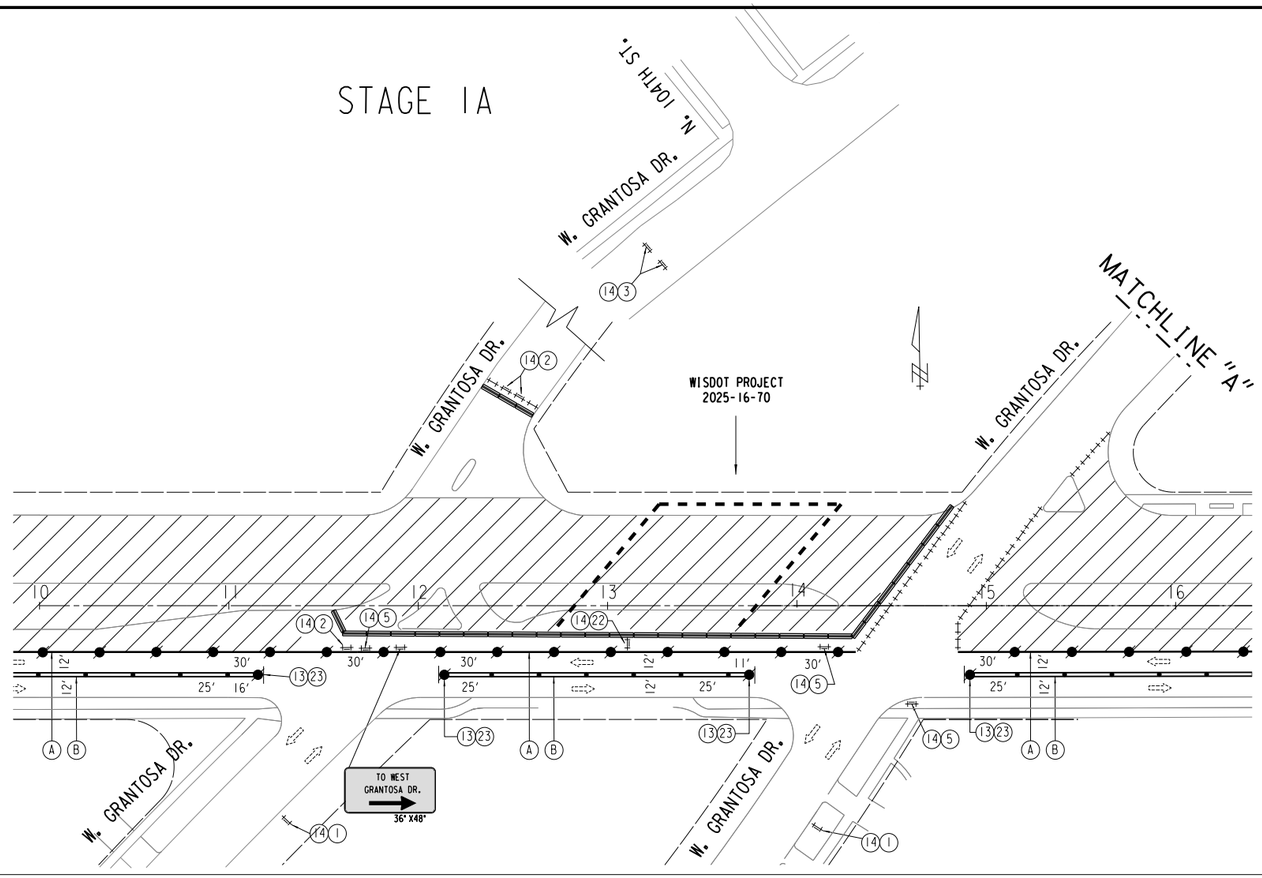
LEGEND

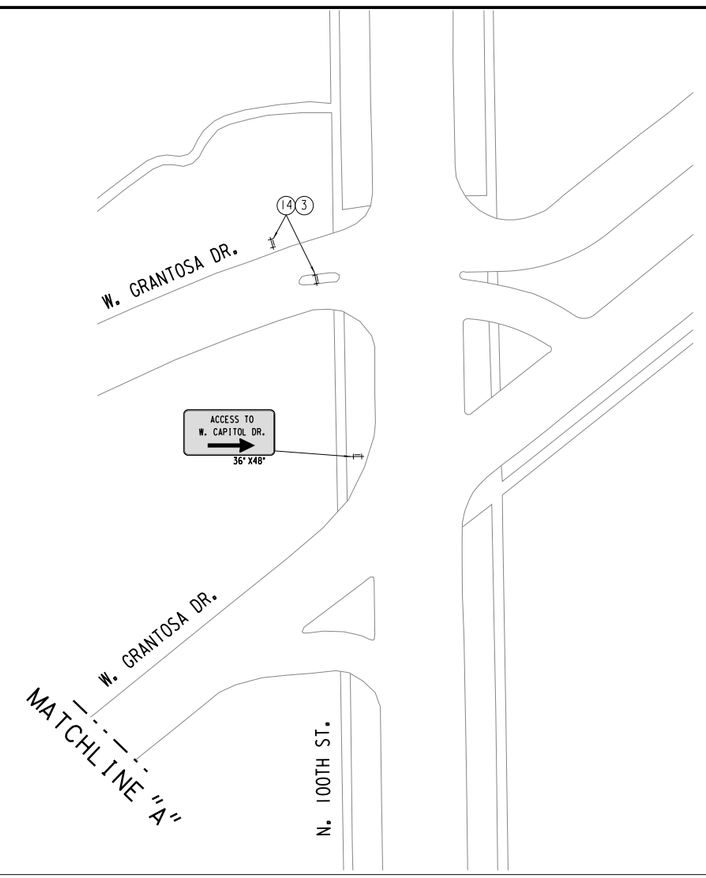


- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE,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

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 1A





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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

DRUMS W/LIGHTS 30' SPACING — (13)

TYPE III BARRICADES — (14)

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

SIGNS BANDED TO UTILITY POLE

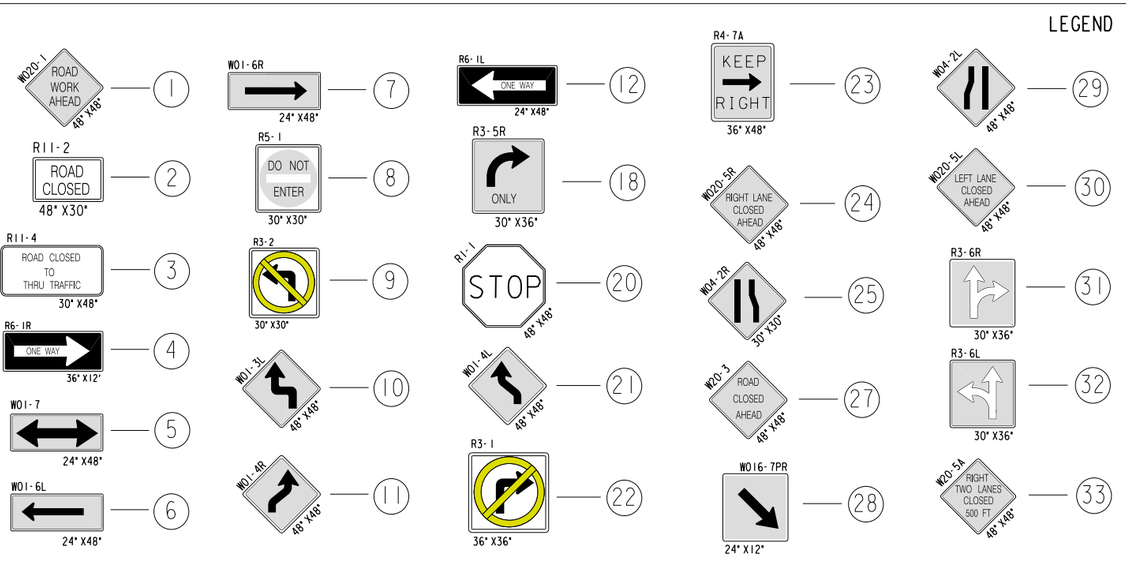
WORK AREA

DIRECTION OF TRAFFIC

TUBULAR MARKERS 25' SPACING

CONCRETE BARRIERS

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.



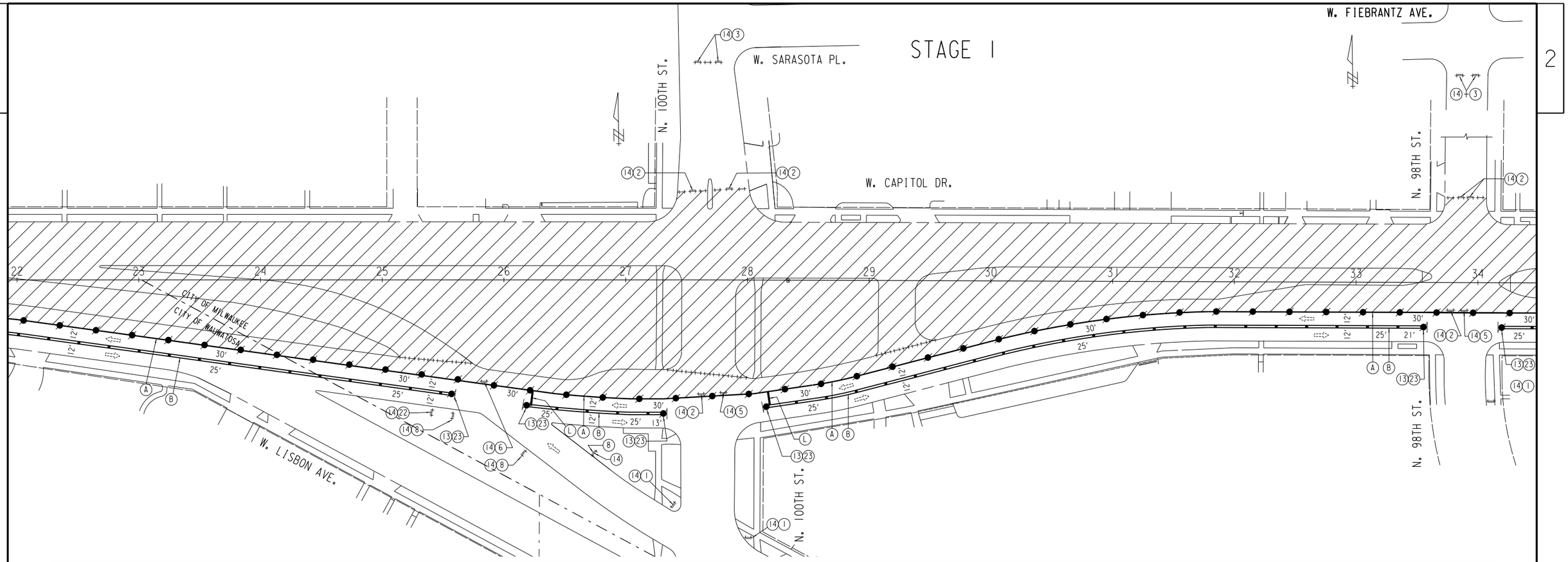
SHEET 5 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 188 E

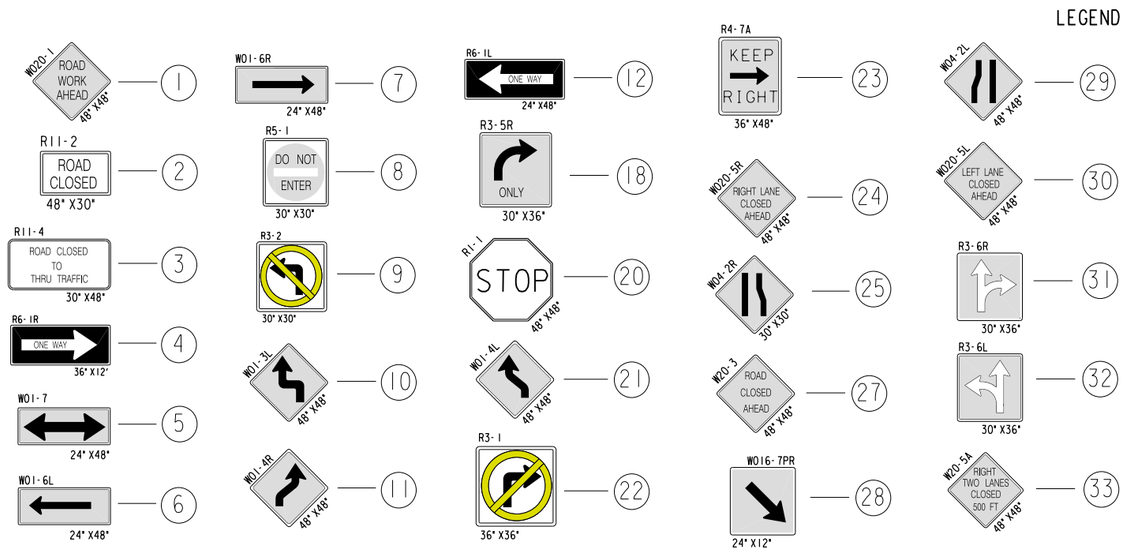
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 3-7-2012

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
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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.

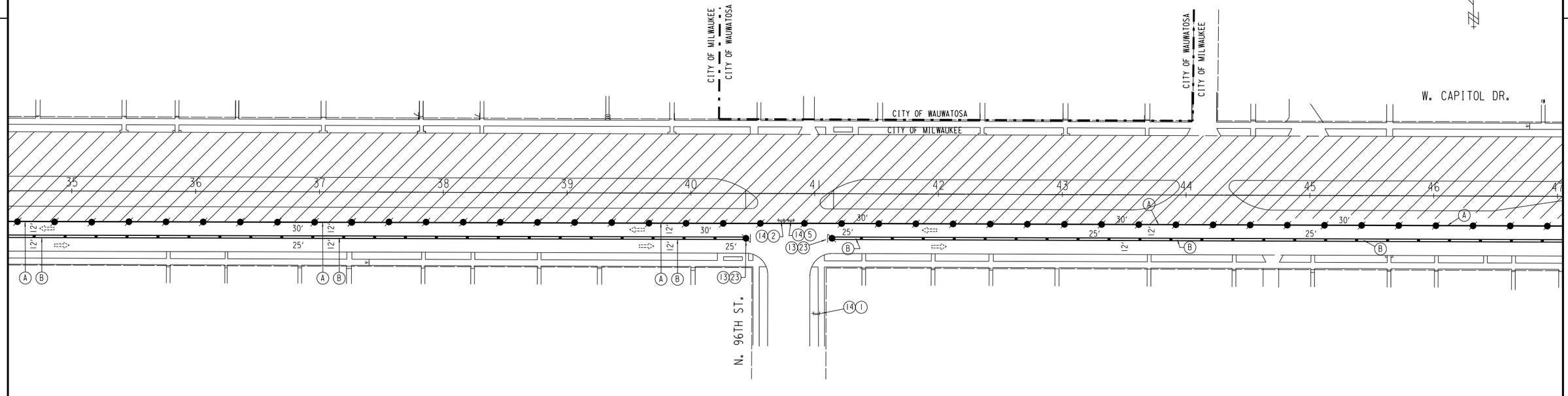
SHEET 6 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 189 E

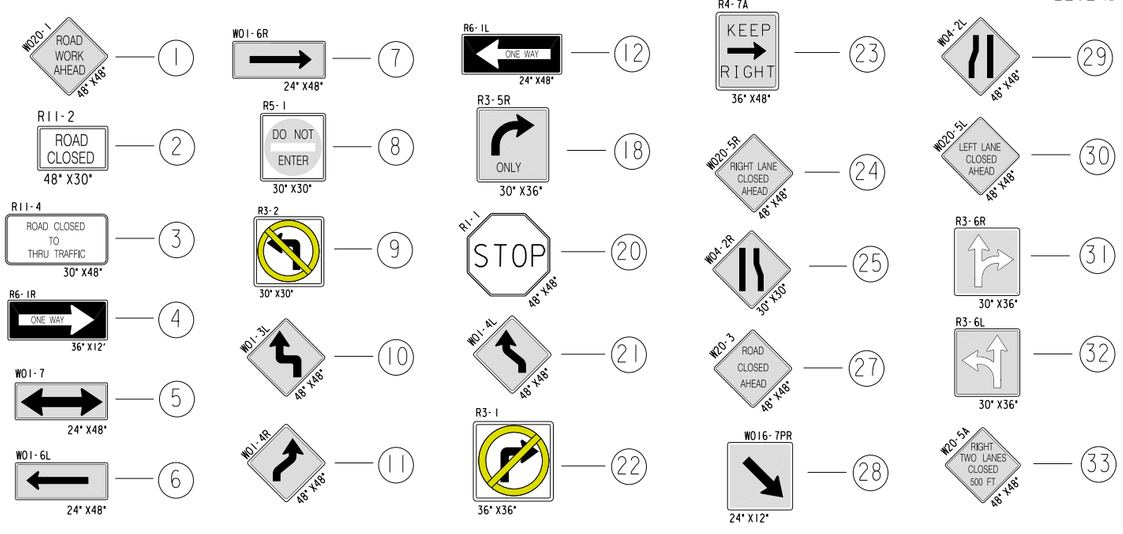
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE I.DGN

REVISED: 12-22-2011

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
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

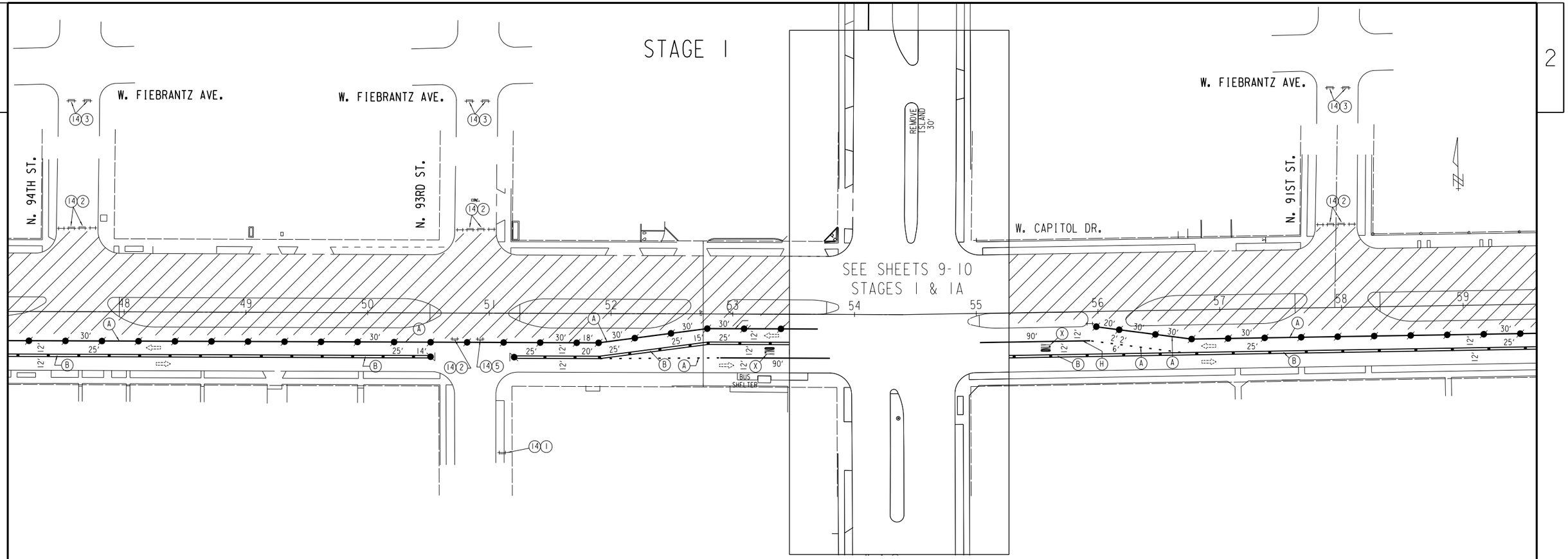
SHEET 7 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 190 E

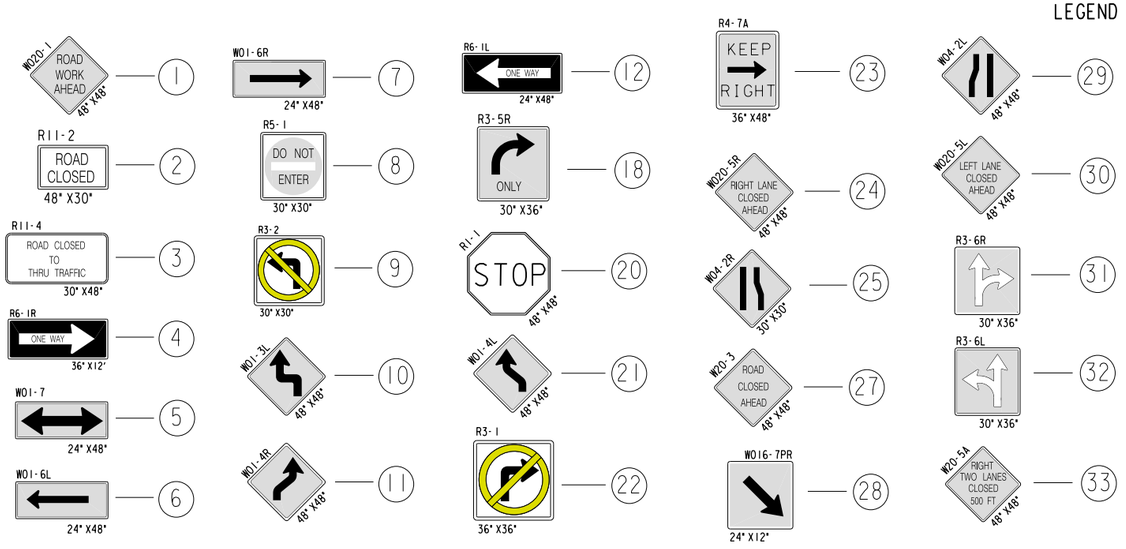
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REVISED: 12-22-2011

STAGE 1



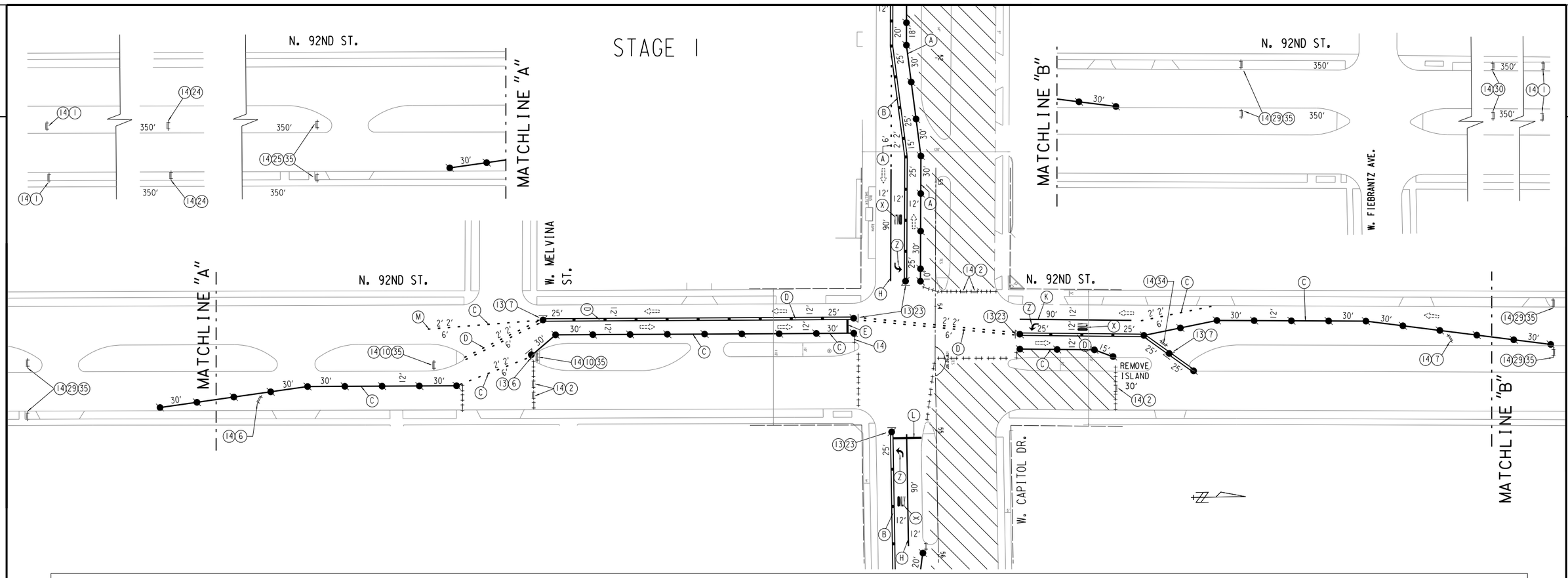
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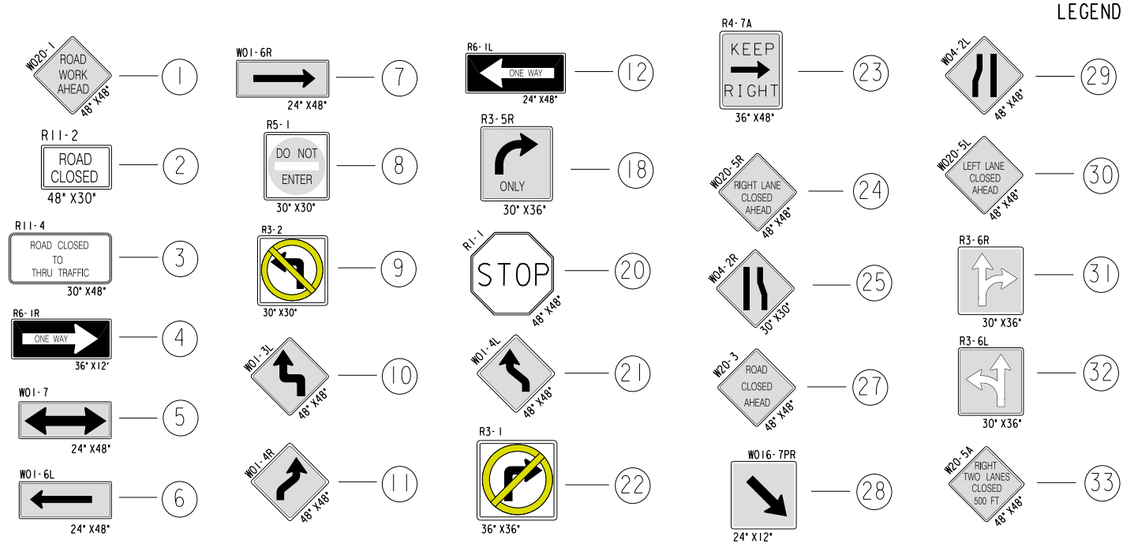
- (A) TPM, REFLECTIVE PAINT, 4" WHITE
- (B) TPM, REFLECTIVE PAINT, 4" DOUBLE YELLOW
- (C) TPM, REMOVABLE TAPE, 4" WHITE
- (D) TPM, REMOVABLE TAPE, 4" DOUBLE YELLOW
- (E) TPM, STOP LINE, REMOVABLE TAPE 24" WHITE
- (I) TPM, ARROWS, REMOVABLE TAPE
- (J) TPM, WORDS, REMOVABLE TAPE
- (K) TPM, REMOVABLE TAPE,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

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 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
- (K) TPM, REMOVABLE TAPE, 8" WHITE
- (L) TPM, STOP LINE, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

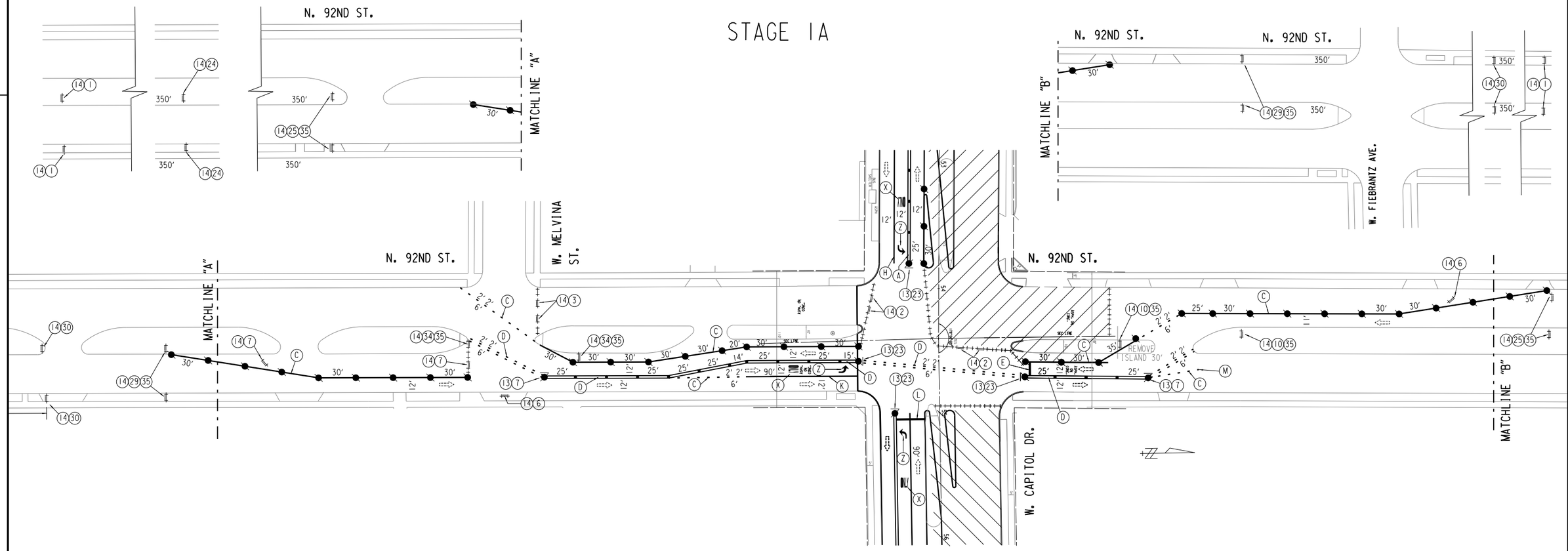
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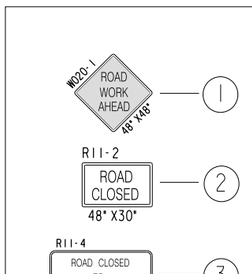
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 192 E

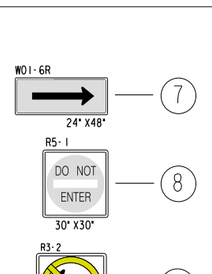
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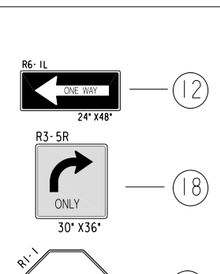
REVISED: 12-22-2011

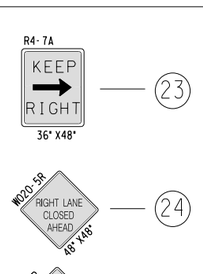
STAGE 1A

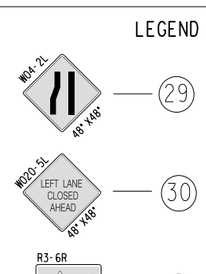




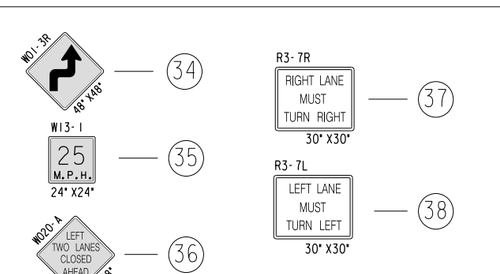








LEGEND



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, REFLECTIVE PAINT 24" WHITE
- H TPM, REFLECTIVE PAINT, 8" WHITE
- M MATCH
- X TPM, WORDS, REFLECTIVE PAINT
- Z TPM, ARROWS, REFLECTIVE PAINT

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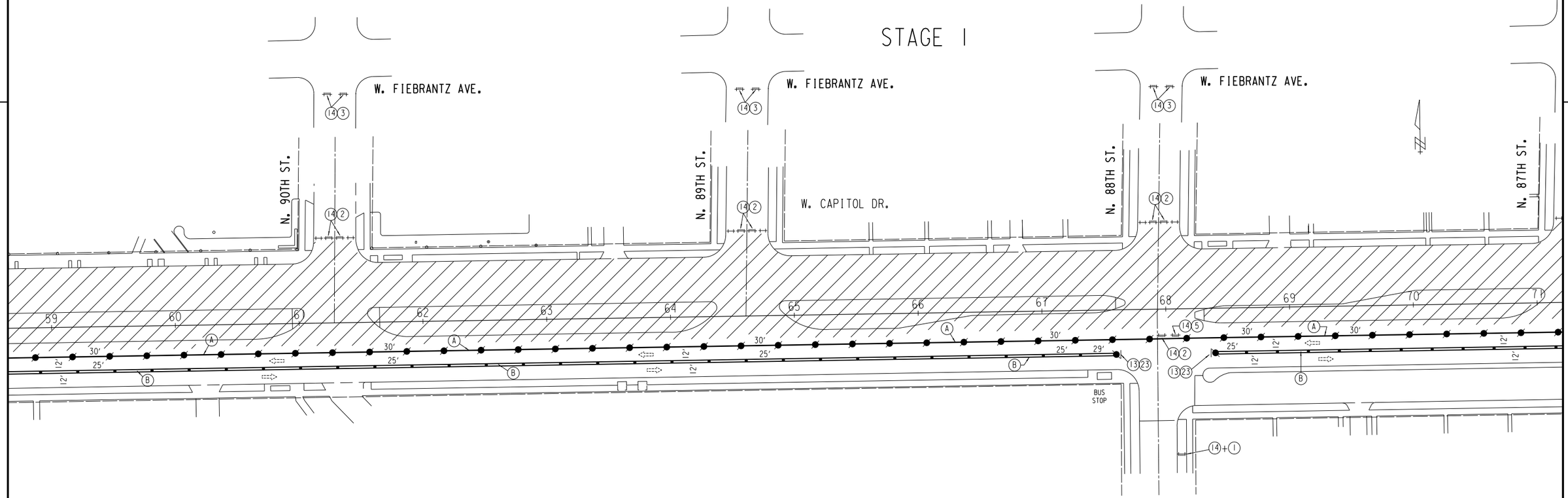
SHEET 10 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 193 E

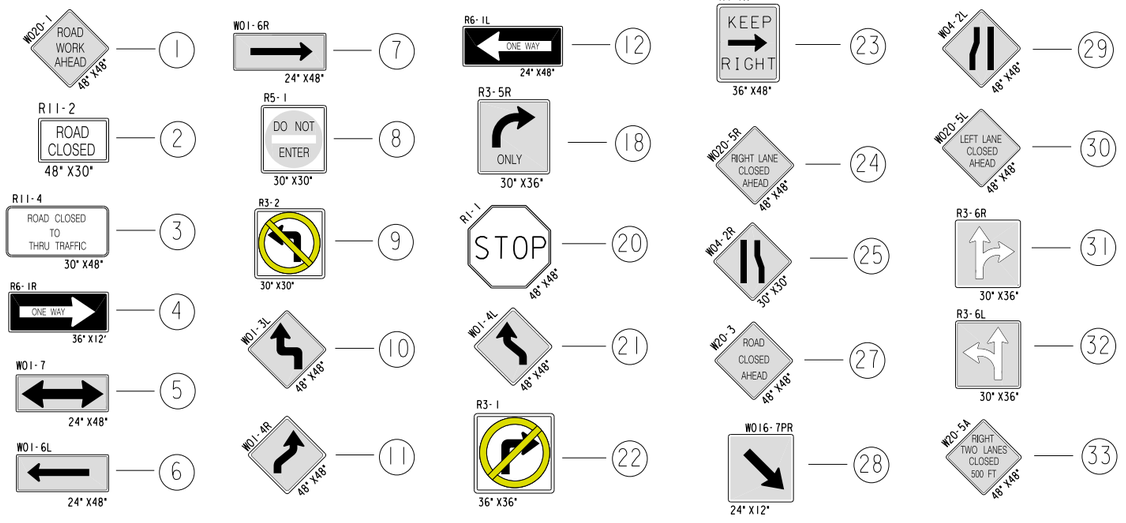
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 12-22-2011

STAGE 1



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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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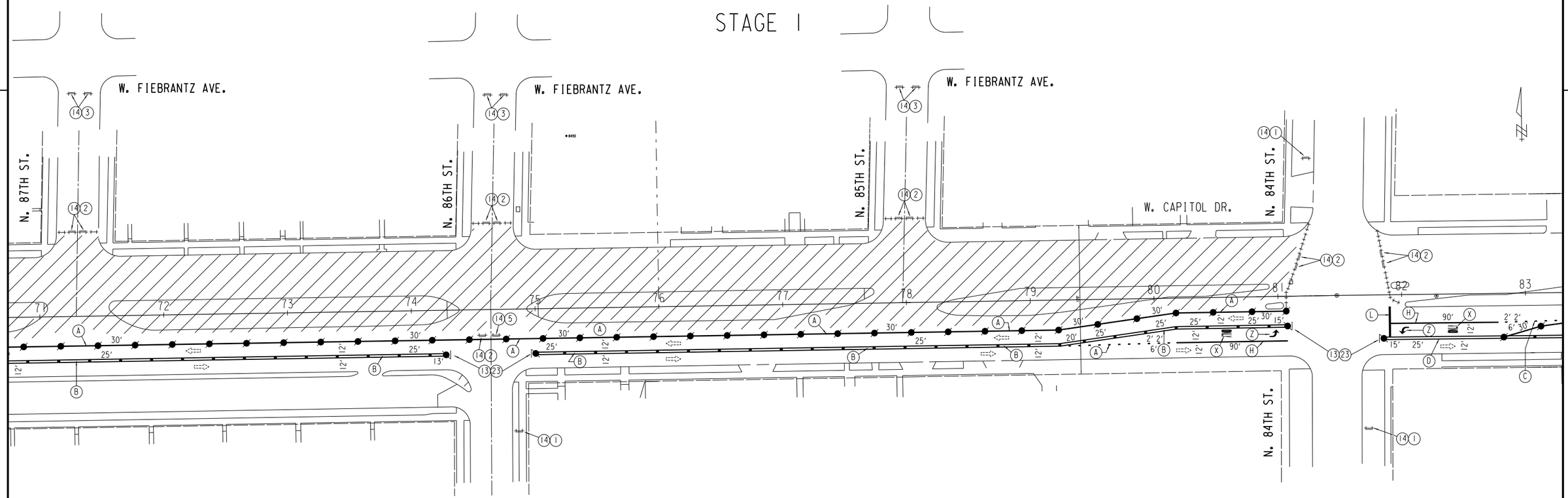
SHEET 11 OF 28

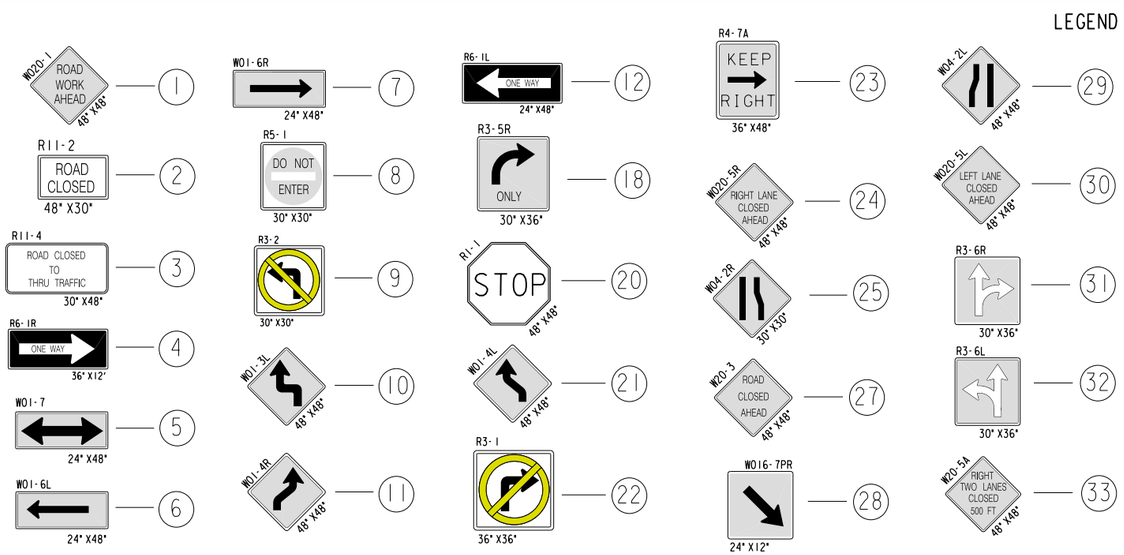
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 194 E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 12-22-2011

STAGE 1





LEGEND

1 2 3 4 5 6 7 8 9 10 11 12 18 20 21 22 23 24 25 27 28 29 30 31 32 33 34 35 36 37 38

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, REFLECTIVE PAINT 24" WHITE
- H TPM, REFLECTIVE PAINT, 8" WHITE
- M MATCH
- X TPM, WORDS, REFLECTIVE PAINT
- Z TPM, ARROWS, REFLECTIVE PAINT

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.

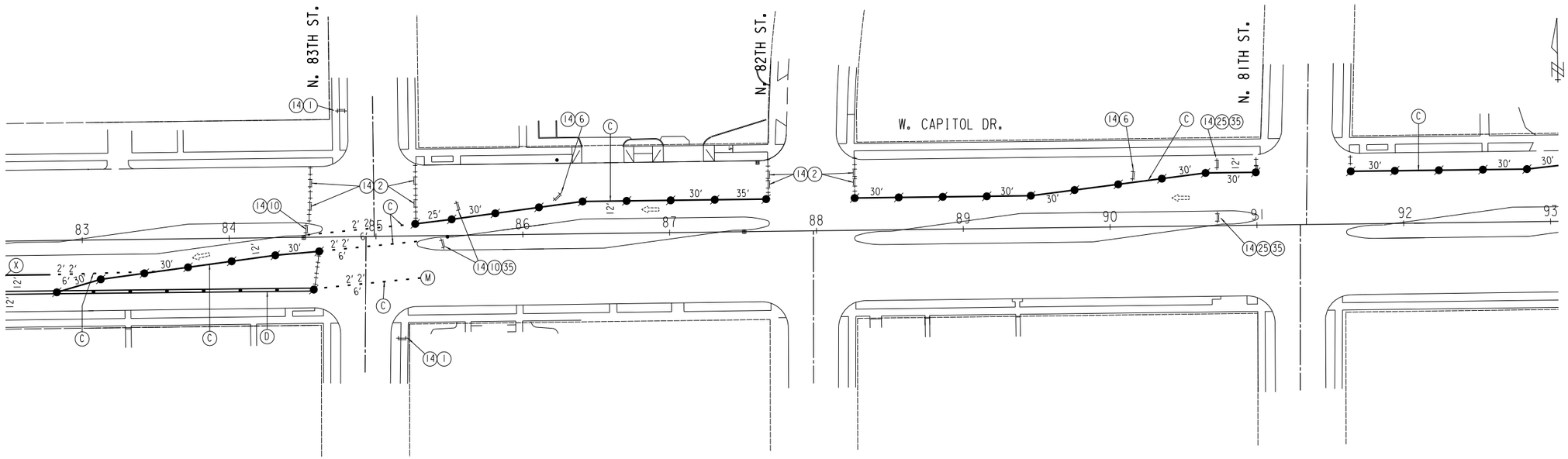
SHEET 12 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 195 E

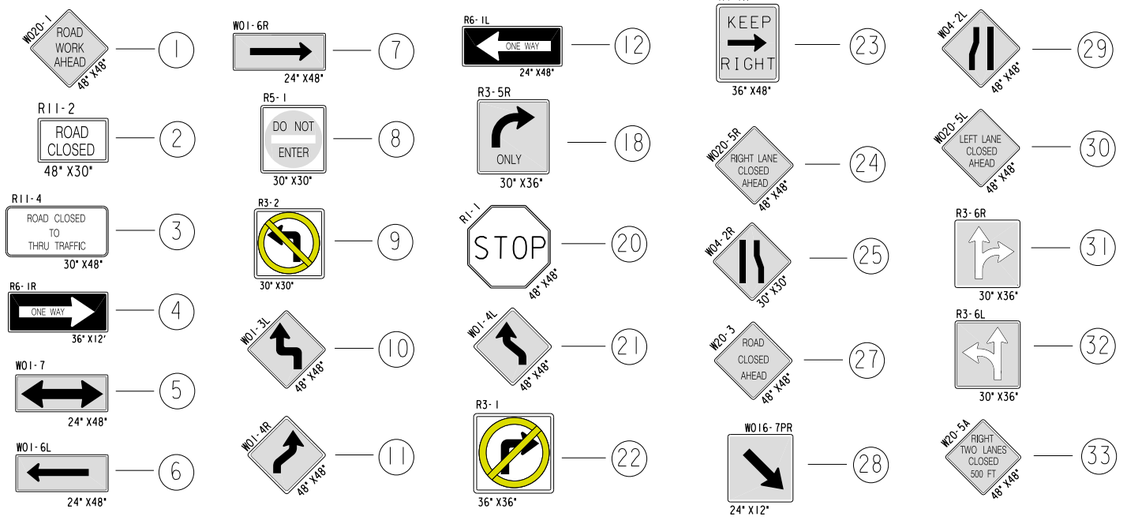
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 12-22-2011

STAGE 1



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, REFLECTIVE PAINT 24" WHITE
- H TPM, REFLECTIVE PAINT, 8" WHITE
- M MATCH
- X TPM, WORDS, REFLECTIVE PAINT
- Z TPM, ARROWS, REFLECTIVE PAINT

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.

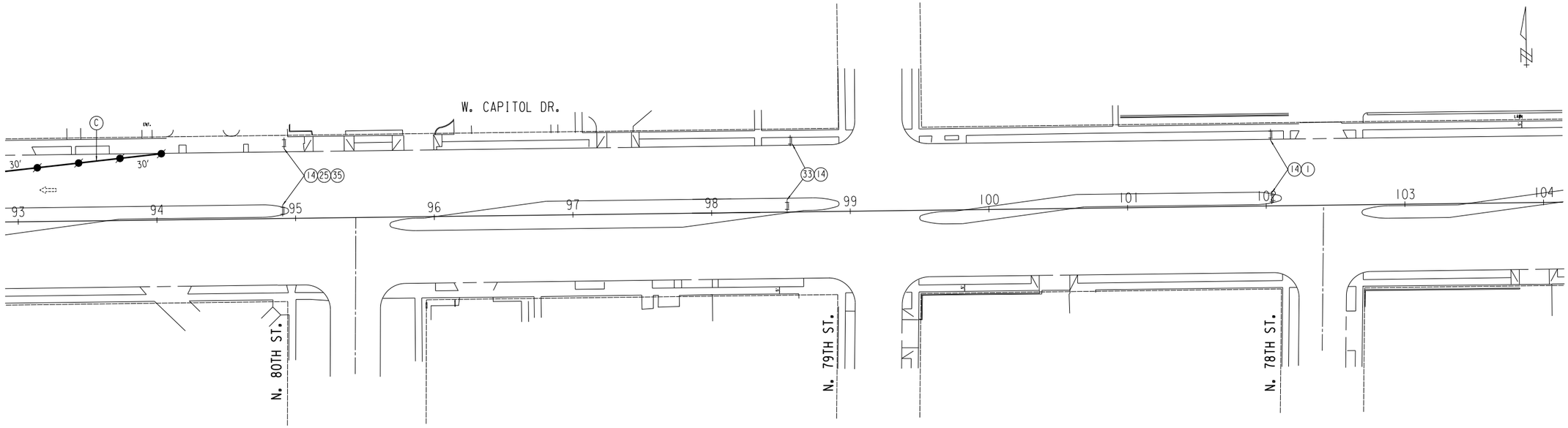
SHEET 13 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 196 E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

REVISED: 12-22-2011

STAGE I



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 36" X12" — 4
W01-7 24" X48" — 5
W01-6L 24" X48" — 6
W01-6R 24" X48" — 7
R5-1 DO NOT ENTER 30" X30" — 8
R3-2 30" X30" — 9
W01-3L 48" X48" — 10
W01-4R 48" X48" — 11
R6-1L ONE WAY 24" X48" — 12
R3-5R ONE WAY 30" X36" — 18
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
W20-3 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
R3-6R 30" X36" — 31
R3-6L 30" X36" — 32
W020-5A RIGHT TWO LANES CLOSED 500 FT 48" X48" — 33
W01-3R 48" X48" — 34
W13-1 25 M.P.H. 24" X24" — 35
W020-4 LEFT TWO LANES CLOSED AHEAD 48" X48" — 36
R3-7R RIGHT LANE MUST TURN RIGHT 30" X30" — 37
R3-7L LEFT LANE MUST TURN LEFT 30" X30" — 38

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, REFLECTIVE PAINT 24" WHITE
(H) TPM, REFLECTIVE PAINT, 8" WHITE
(M) MATCH
(X) TPM, WORDS, REFLECTIVE PAINT
(Z) TPM, ARROWS, REFLECTIVE PAINT

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.

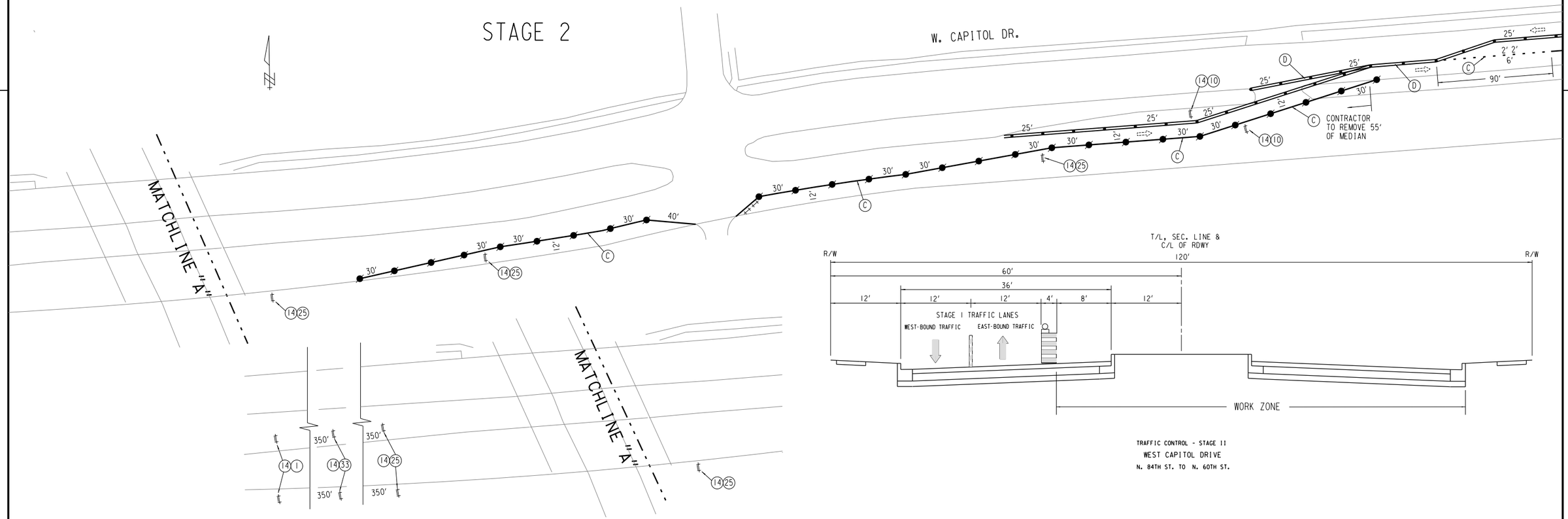
SHEET 14 OF 28

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 197 E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE1.DGN

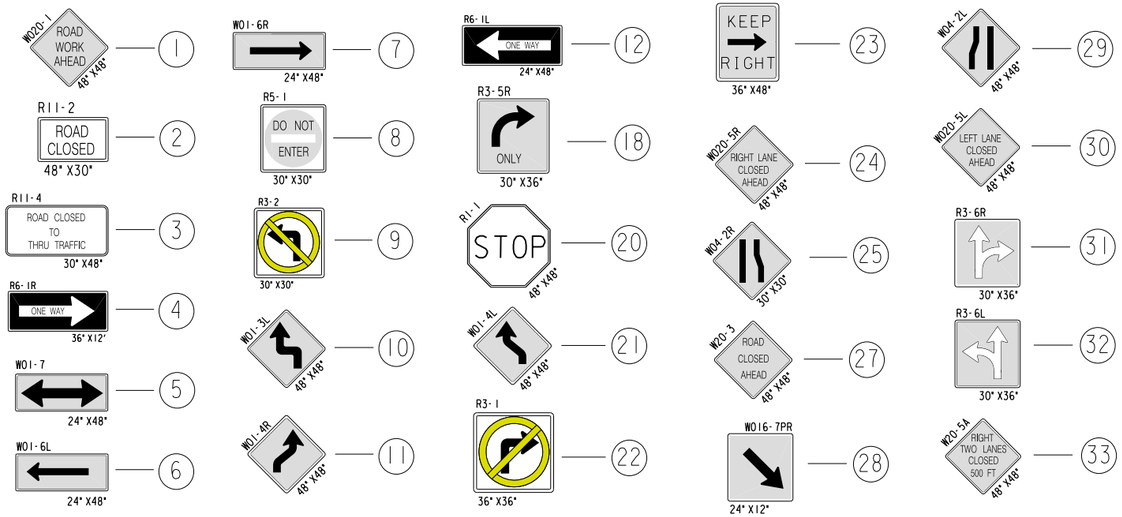
REVISED: 12-22-2011

STAGE 2



TRAFFIC CONTROL - STAGE II
WEST CAPITOL DRIVE
N. 84TH ST. TO N. 60TH ST.

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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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.

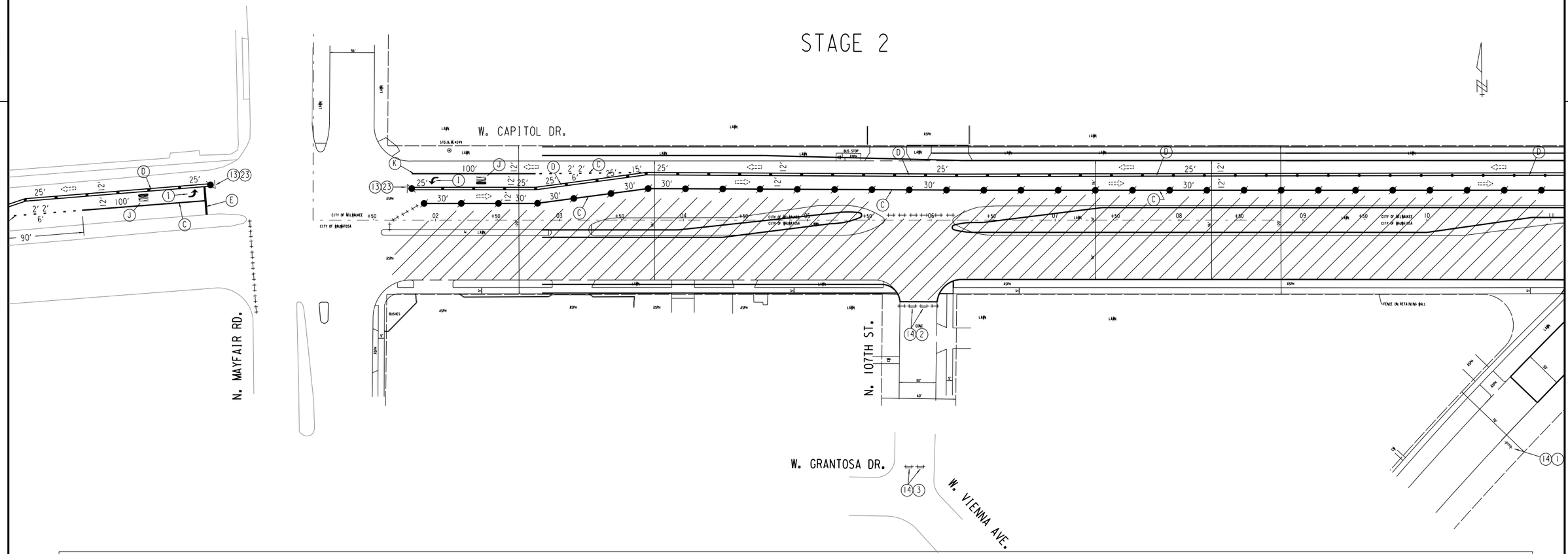
SHEET 15 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 198	E

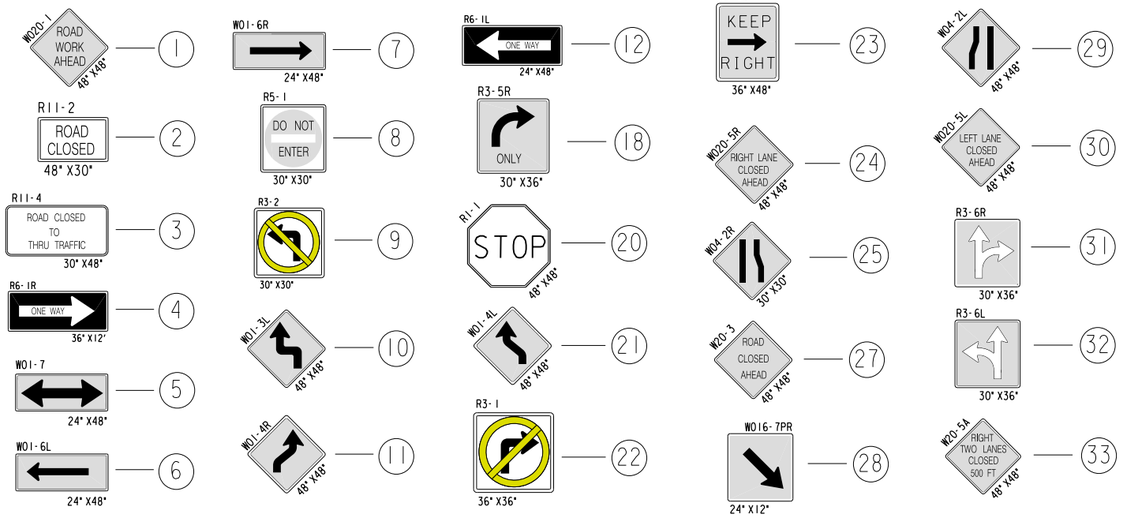
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 1-18-2012

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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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 16 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 199 E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 1-18-2012

2

STAGE 2

W. CAPITOL DR.

WISDOT PROJECT
2025-16-00

SEE SHEETS 18-19
STAGES 2 & 2A

W. WOODWARD AVE.

N. 102ND ST.

W. GRANTOSA DR.

W. MELVINA ST.

W. WOODWARD AVE.

W. MELVINA ST.

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 36" X12"
- (5) W01-7 24" X48"
- (6) W01-6L 24" X48"
- (7) W01-6R 24" X48"
- (8) R5-1 DO NOT ENTER 30" X30"
- (9) R3-2 30" X30"
- (10) W01-3L 48" X48"
- (11) W01-4R 48" X48"
- (12) R6-1L ONE WAY 24" 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
- (18) R3-5R ONLY 30" X36"
- (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"
- (31) R3-6R 30" X36"
- (32) R3-6L 30" X36"
- (33) W020-5A RIGHT TWO LANES CLOSED 500 FT 48" X48"
- (34) W01-3R 48" X48"
- (35) W13-1 25 M.P.H. 24" X24"
- (36) W020-4 LEFT TWO LANES CLOSED AHEAD 48" X48"
- (37) R3-7R RIGHT LANE MUST TURN RIGHT 30" X30"
- (38) R3-7L LEFT LANE MUST TURN LEFT 30" X30"

- (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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

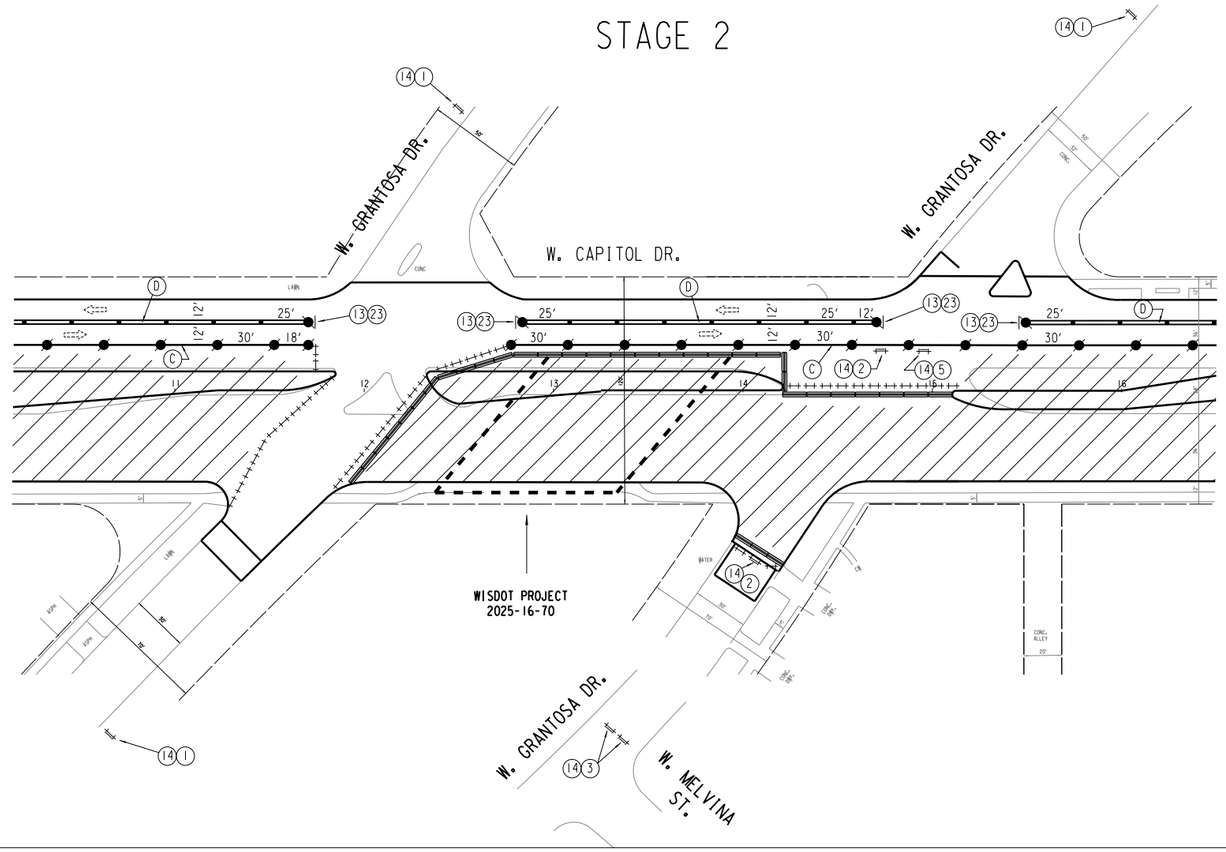
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
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CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 200	E

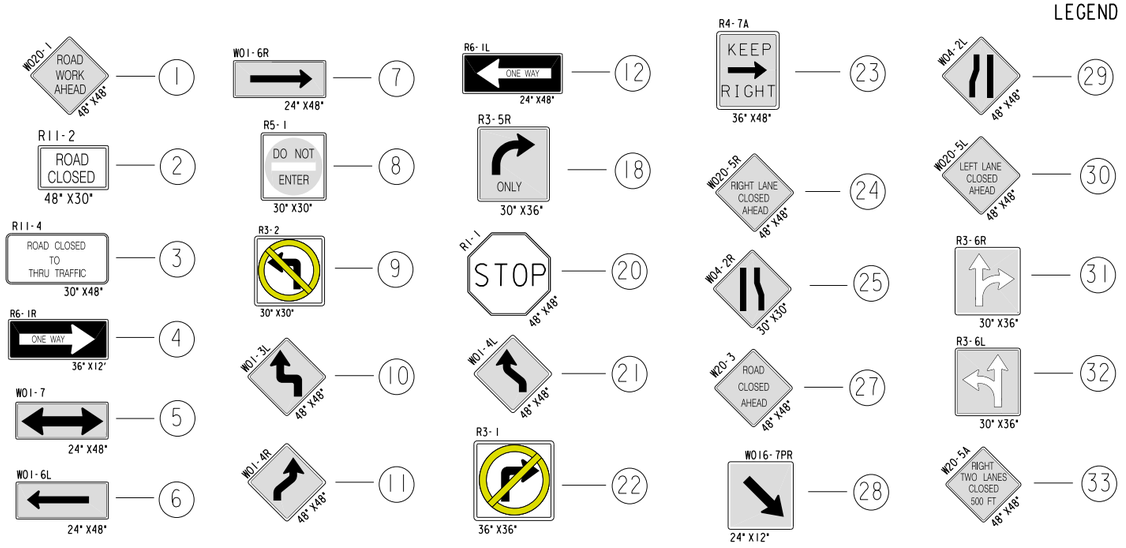
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 12-27-2011

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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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.

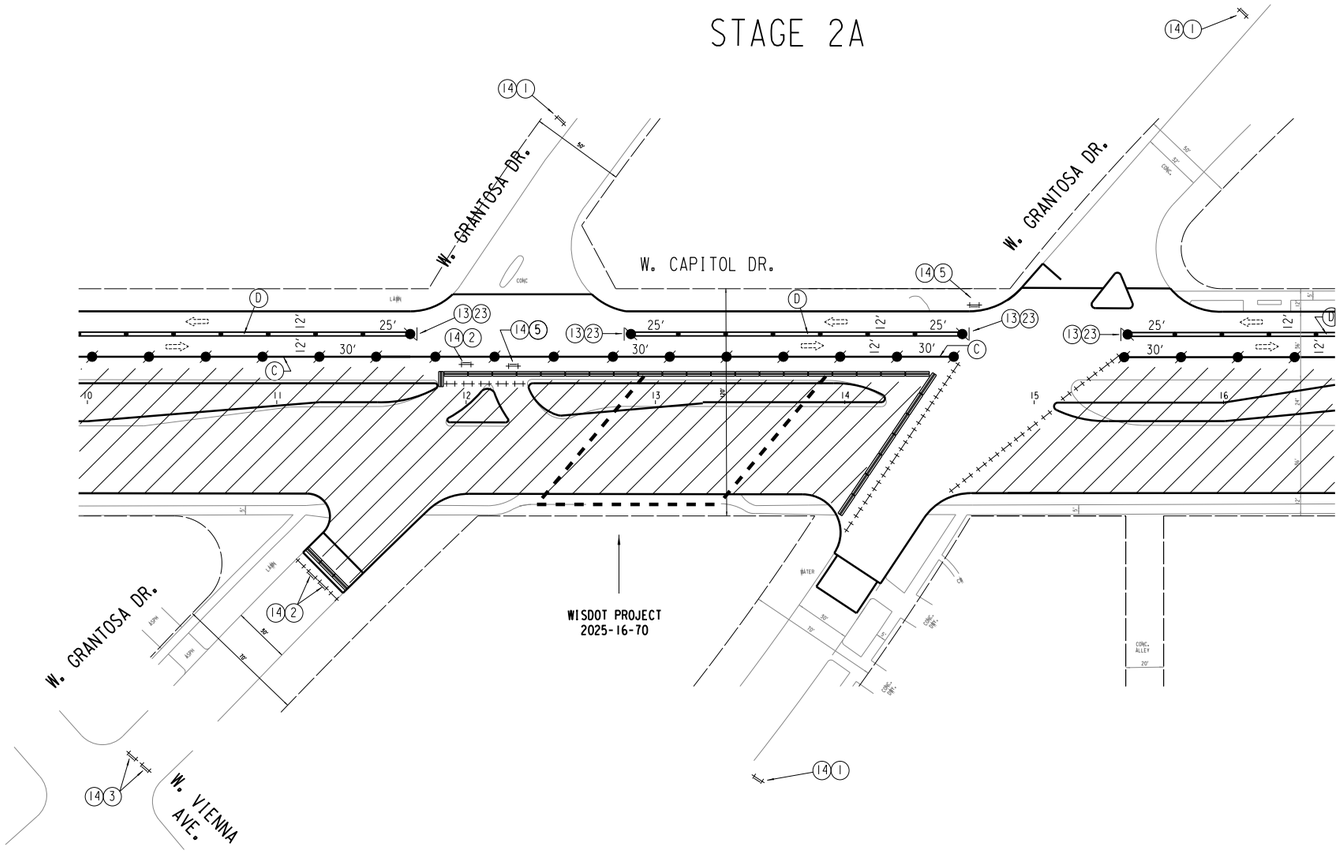
SHEET 18 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 201	E

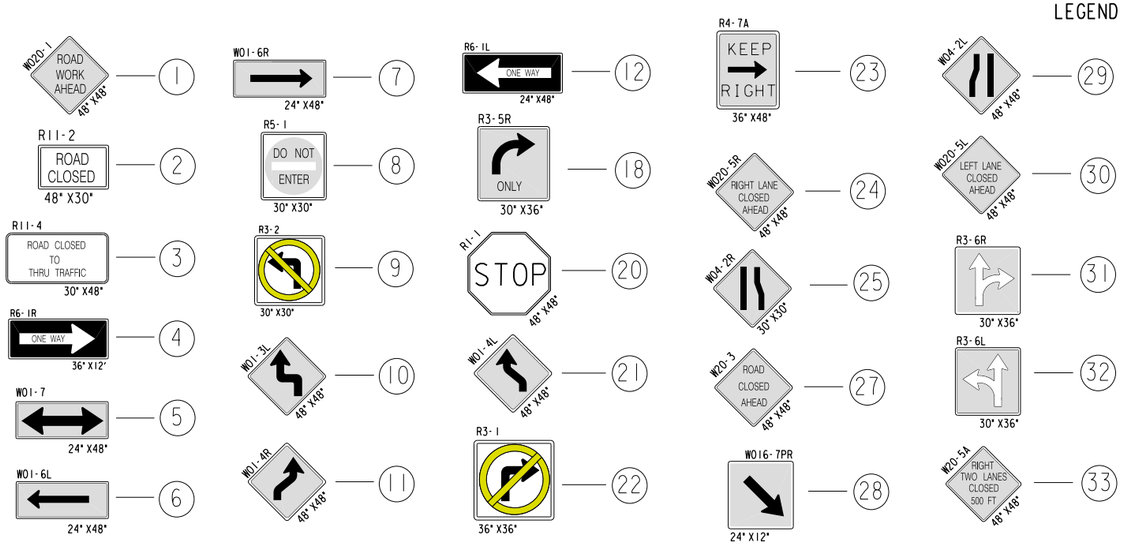
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 3-7-2012

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
- (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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

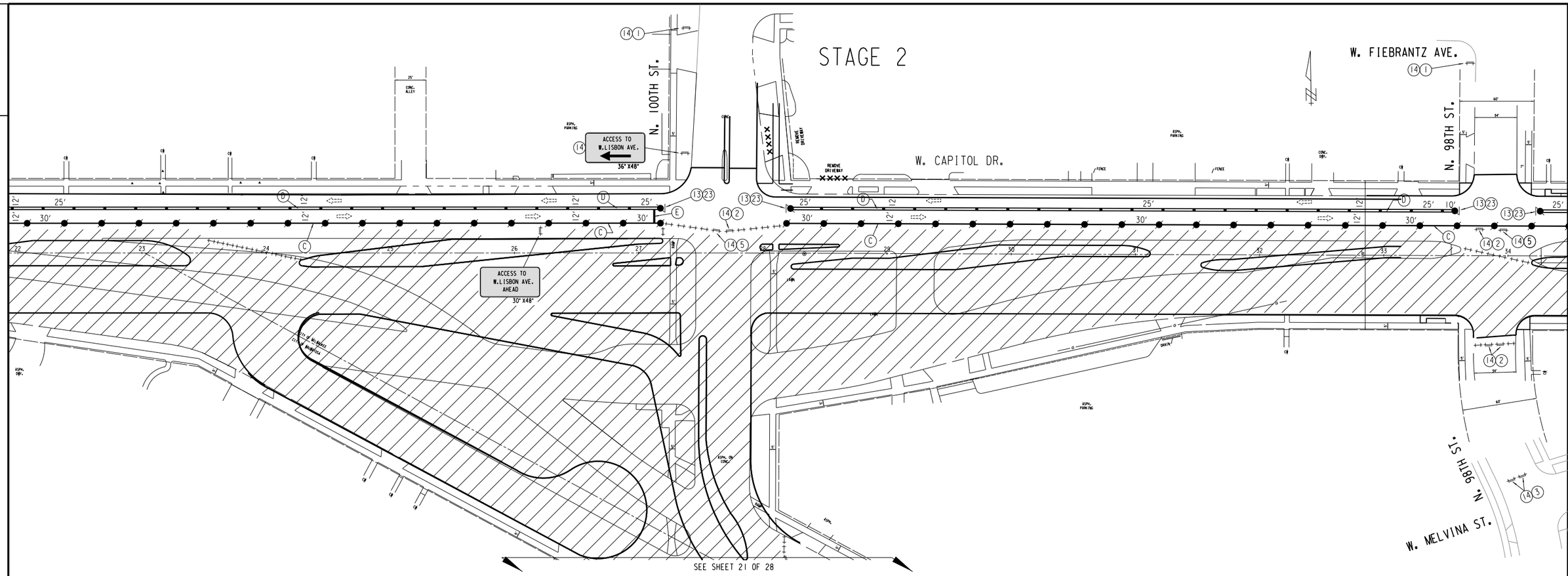
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

SHEET 19 OF 28

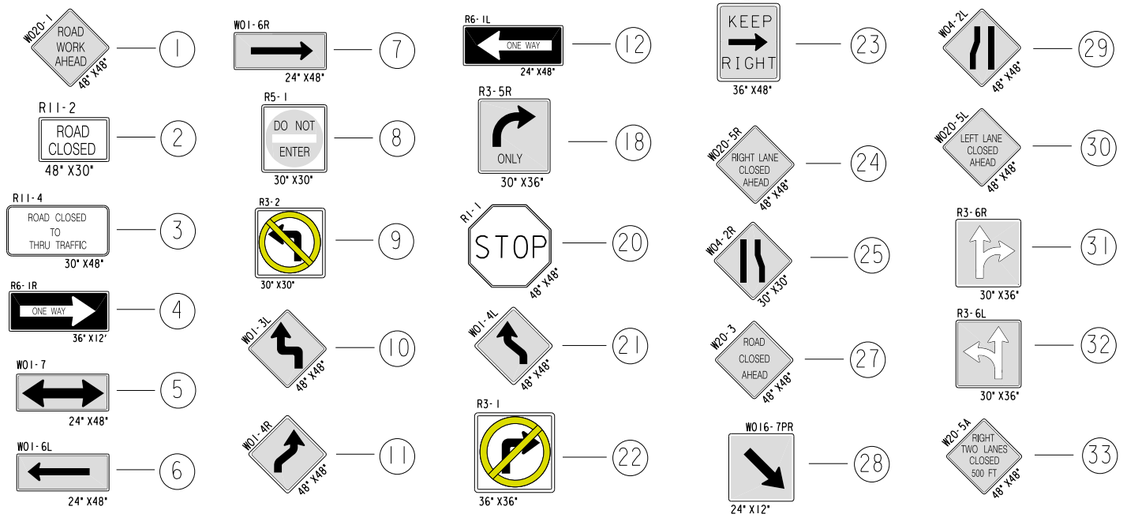
STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 202

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 3-7-2012



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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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 20 OF 28

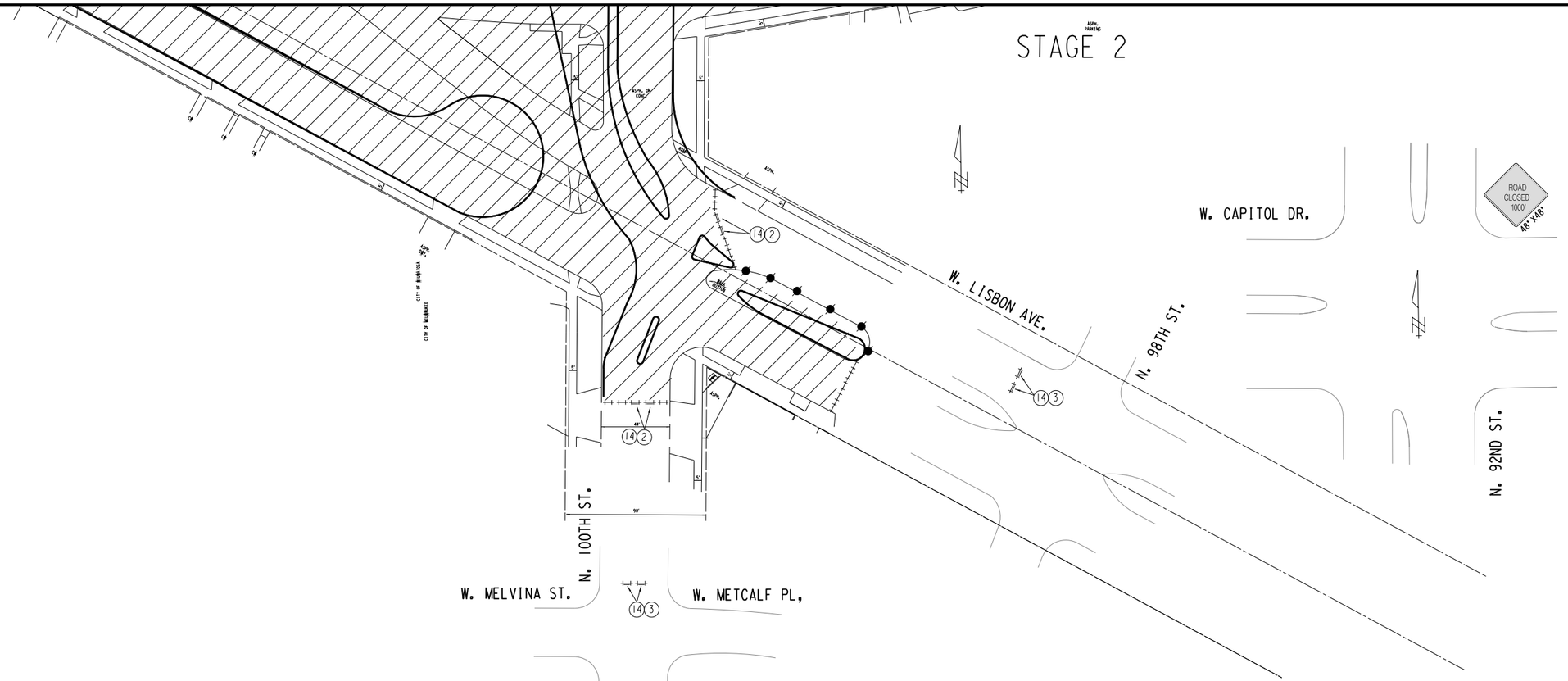
STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 203	E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

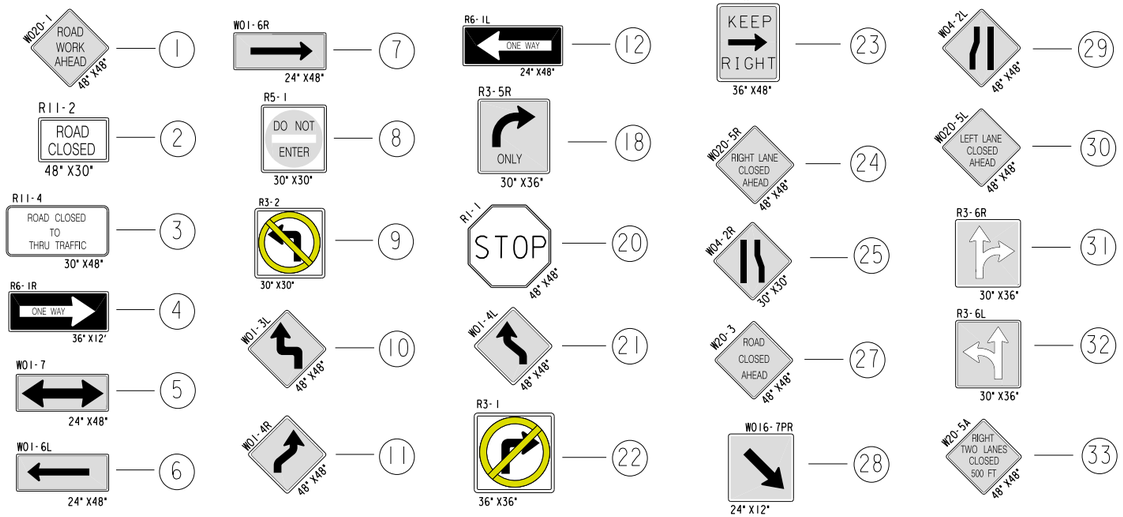
REVISED: 12-27-2011

2

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, REFLECTIVE PAINT 24" WHITE
- H TPM, REFLECTIVE PAINT, 8" WHITE
- M MATCH
- X TPM, WORDS, REFLECTIVE PAINT
- Z TPM, ARROWS, REFLECTIVE PAINT

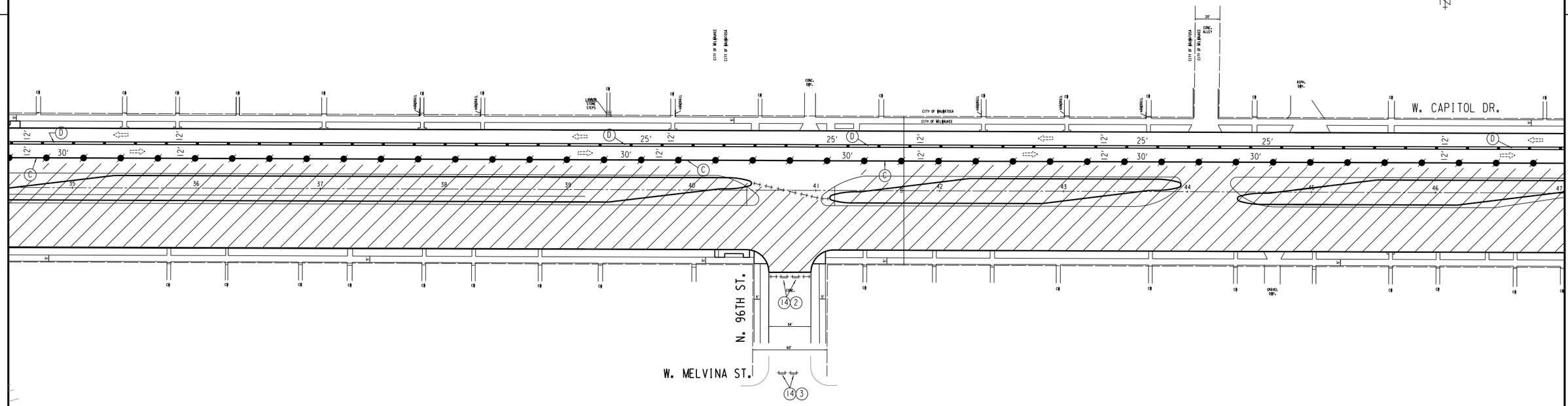
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY. ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED. CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 204	E

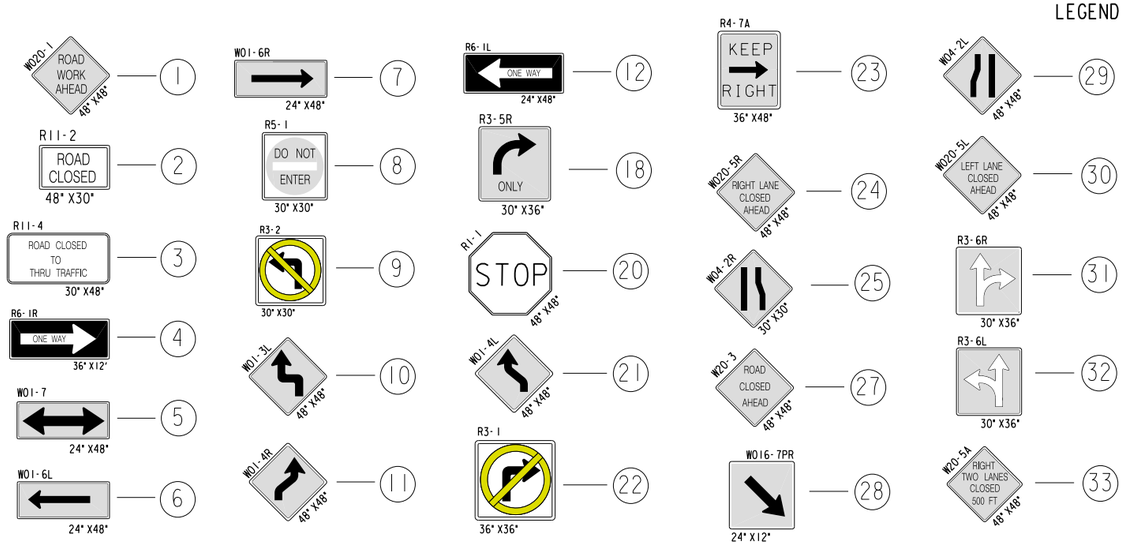
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 12-27-2011

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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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

W. FIEBRANTZ AVE.

W. FIEBRANTZ AVE.

W. FIEBRANTZ AVE.

N. 94TH ST.

N. 93RD ST.

N. 92ND ST.

N. 91ST ST.

W. CAPITOL DR.

W. MELVINA ST.

TO WEST LISBON RD.
30" X48"

SEE SHEETS 24-25
STAGES 2 & 2A

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 36" X12"
- 5 — W01-7 24" X48"
- 6 — W01-6L 24" X48"
- 7 — W01-6R 24" X48"
- 8 — R5-1 DO NOT ENTER 30" X30"
- 9 — R3-2 30" X30"
- 10 — W01-3L 48" X48"
- 11 — W01-4R 48" X48"
- 12 — R6-1L ONE WAY 24" X48"
- 18 — R3-5R ONLY 30" X36"
- 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 — W016-7PR 24" X12"
- 29 — W04-2L 48" X48"
- 30 — W20-5L LEFT LANE CLOSED AHEAD 48" X48"
- 31 — R3-6R 30" X36"
- 32 — R3-6L 30" X36"
- 33 — W20-5A RIGHT TWO LANES CLOSED 500 FT. 48" X48"
- 34 — W01-3R 48" X48"
- 35 — W13-1 25 M.P.H. 24" X24"
- 36 — W20-4 LEFT TWO LANES CLOSED AHEAD 48" X48"
- 37 — R3-7R RIGHT LANE MUST TURN RIGHT 30" X30"
- 38 — R3-7L LEFT LANE MUST TURN LEFT 30" X30"

- 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
- L — TPM, STOP LINE, REFLECTIVE PAINT 24" WHITE
- H — TPM, REFLECTIVE PAINT, 8" WHITE
- M — MATCH
- X — TPM, WORDS, REFLECTIVE PAINT
- Z — TPM, ARROWS, REFLECTIVE PAINT

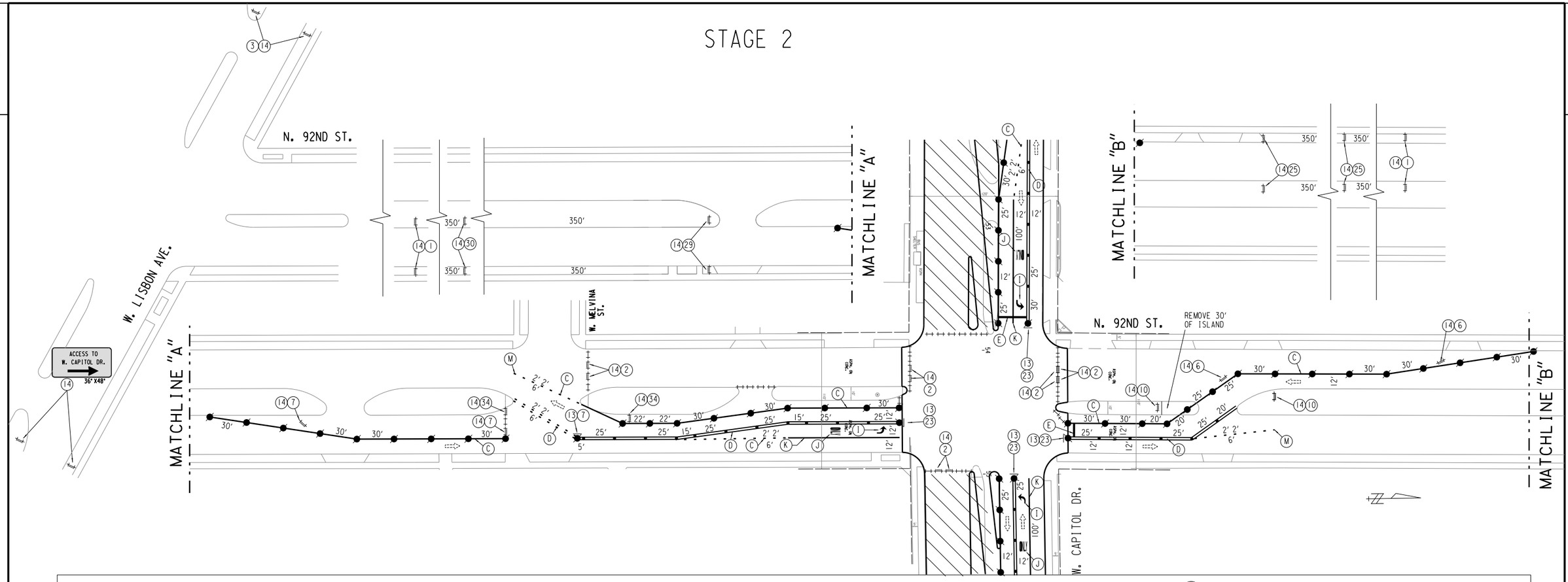
NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.
ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.
CONTRACTOR RESPONSIBLE FOR COVERING ALL CONFLICTING PAVEMENT MARKINGS.

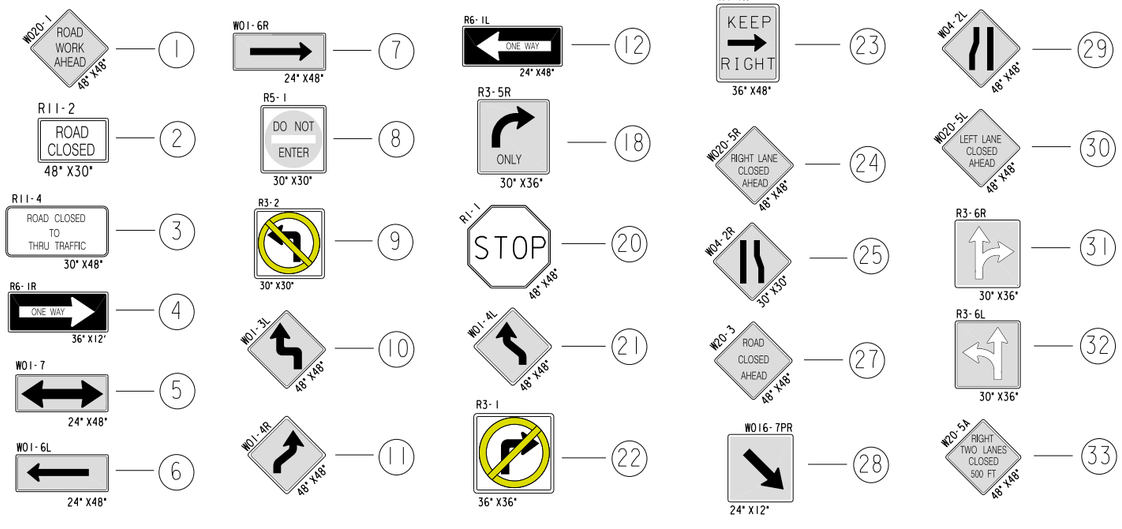
STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 206	E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 12-27-2011

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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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.

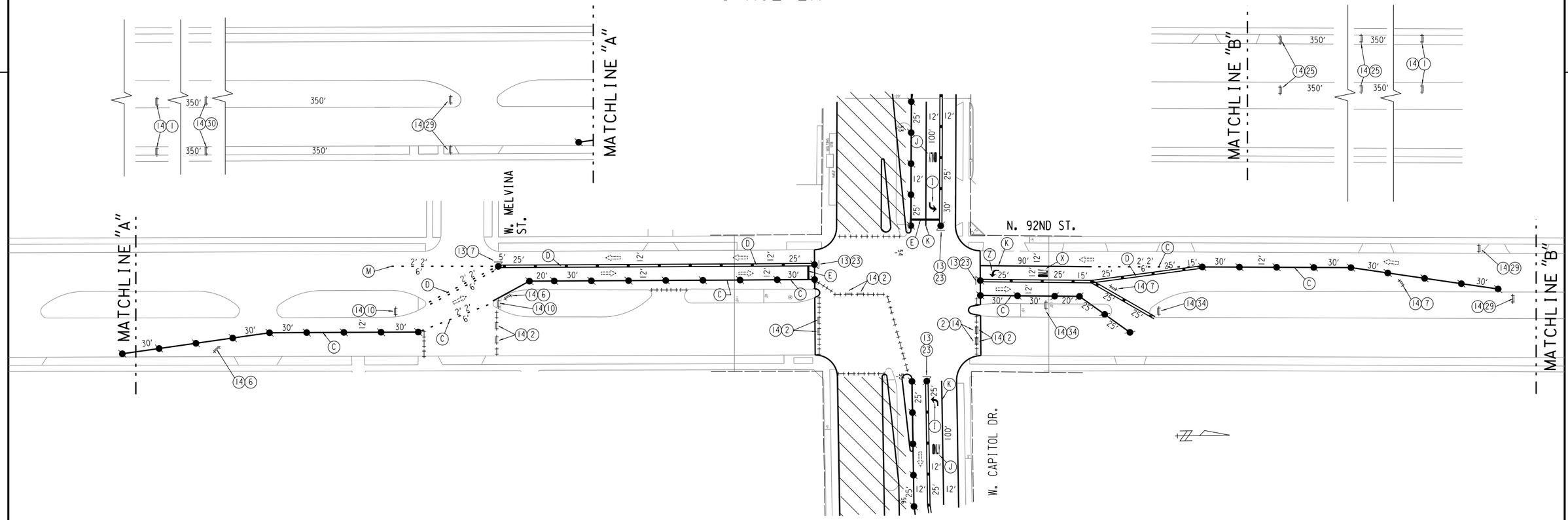
SHEET 24 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 207	E

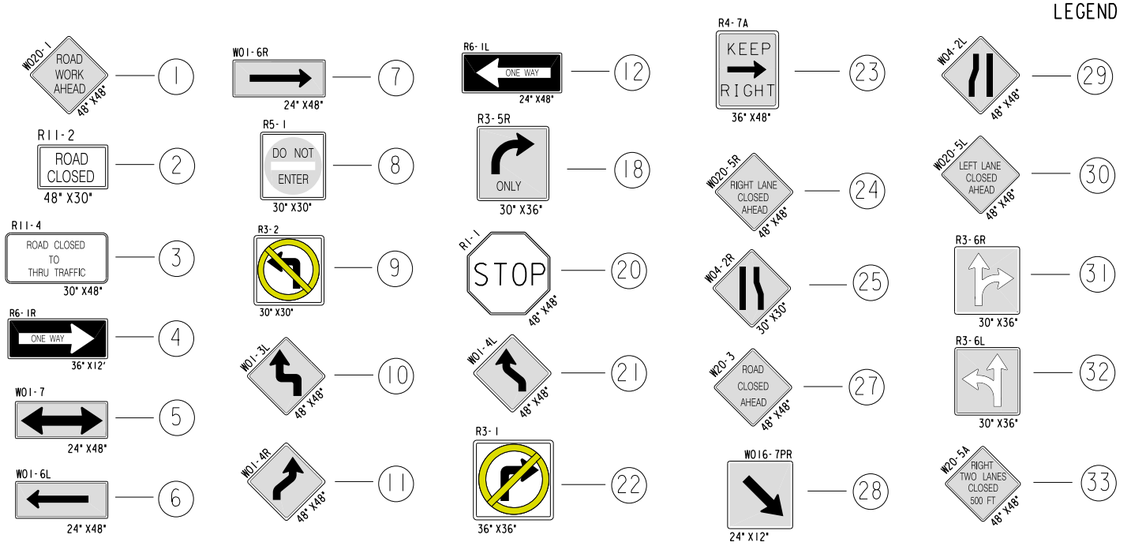
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGNN

REVISED: 12-27-2011

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
- (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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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.

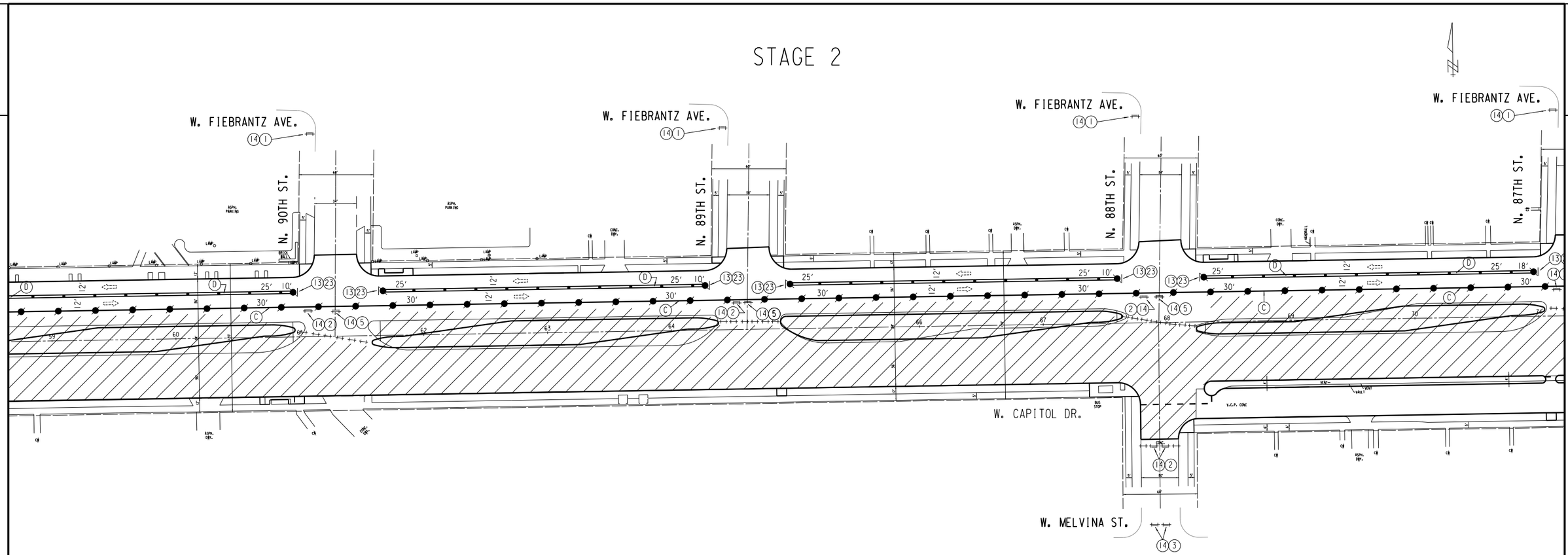
SHEET 25 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 208	E

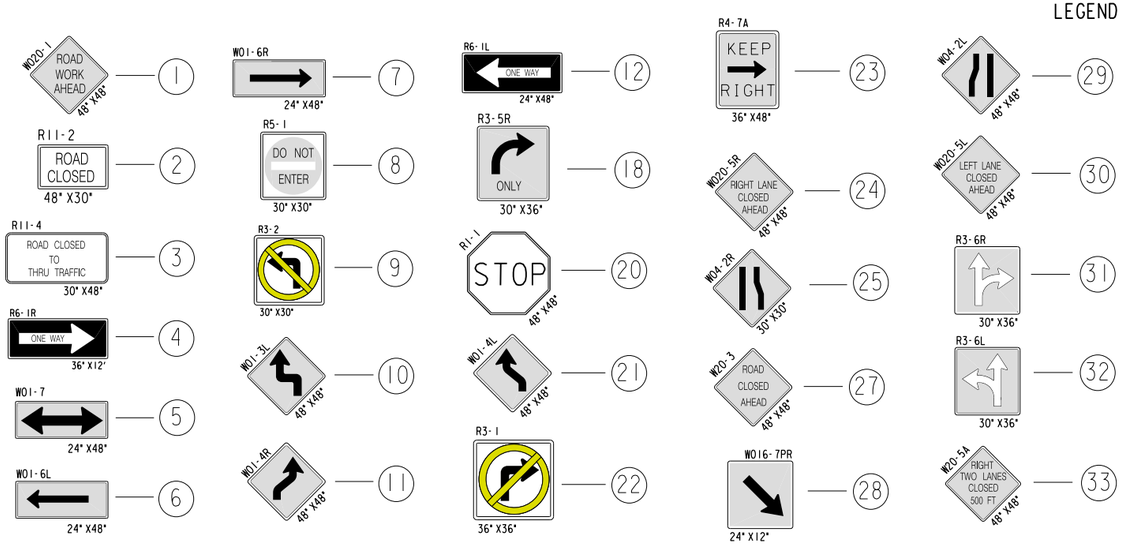
FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 12-27-2011

STAGE 2



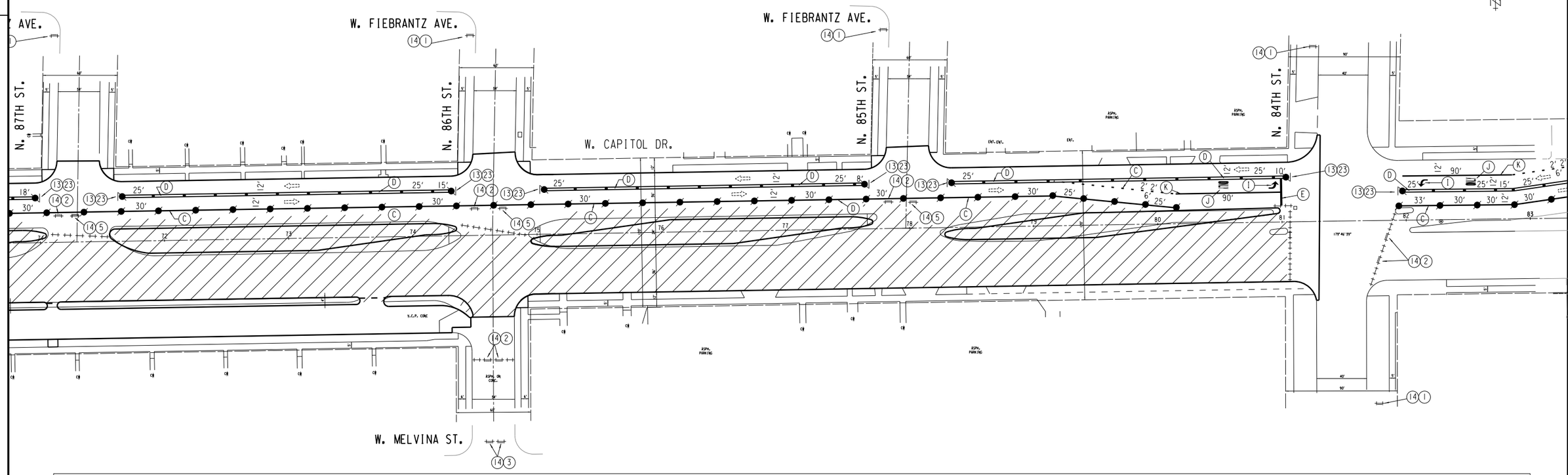
LEGEND



- (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, REFLECTIVE PAINT 24" WHITE
- (H) TPM, REFLECTIVE PAINT, 8" WHITE
- (M) MATCH
- (X) TPM, WORDS, REFLECTIVE PAINT
- (Z) TPM, ARROWS, REFLECTIVE PAINT

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

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 36" X12"
5. W01-7 24" X48"
6. W01-6L 24" X48"
7. W01-6R 24" X48"
8. R5-1 DO NOT ENTER 30" X30"
9. R3-2 30" X30"
10. W01-3L 48" X48"
11. W01-4R 48" X48"
12. R6-1L ONE WAY 24" X48"
13. R3-5R ONLY 30" X36"
14. R1-1 STOP 48" X48"
15. W01-4L 48" X48"
16. R3-1 36" X36"
17. R4-7A KEEP RIGHT 36" X48"
18. W20-5R RIGHT LANE CLOSED AHEAD 48" X48"
19. W04-2R 30" X30"
20. W20-3 ROAD CLOSED AHEAD 48" X48"
21. W016-7PR 24" X12"
22. W04-2L 48" X48"
23. W20-5L LEFT LANE CLOSED AHEAD 48" X48"
24. R3-6R 30" X36"
25. R3-6L 30" X36"
26. W20-5A RIGHT TWO LANES CLOSED 500 FT 48" X48"
27. W01-3R 48" X48"
28. W13-1 25 M.P.H. 24" X24"
29. W20-4A LEFT TWO LANES CLOSED AHEAD 48" X48"
30. R3-7R RIGHT LANE MUST TURN RIGHT 30" X30"
31. R3-7L LEFT LANE MUST TURN LEFT 30" X30"

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, REFLECTIVE PAINT 24" WHITE
- H TPM, REFLECTIVE PAINT, 8" WHITE
- M MATCH
- X TPM, WORDS, REFLECTIVE PAINT
- Z TPM, ARROWS, REFLECTIVE PAINT

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.

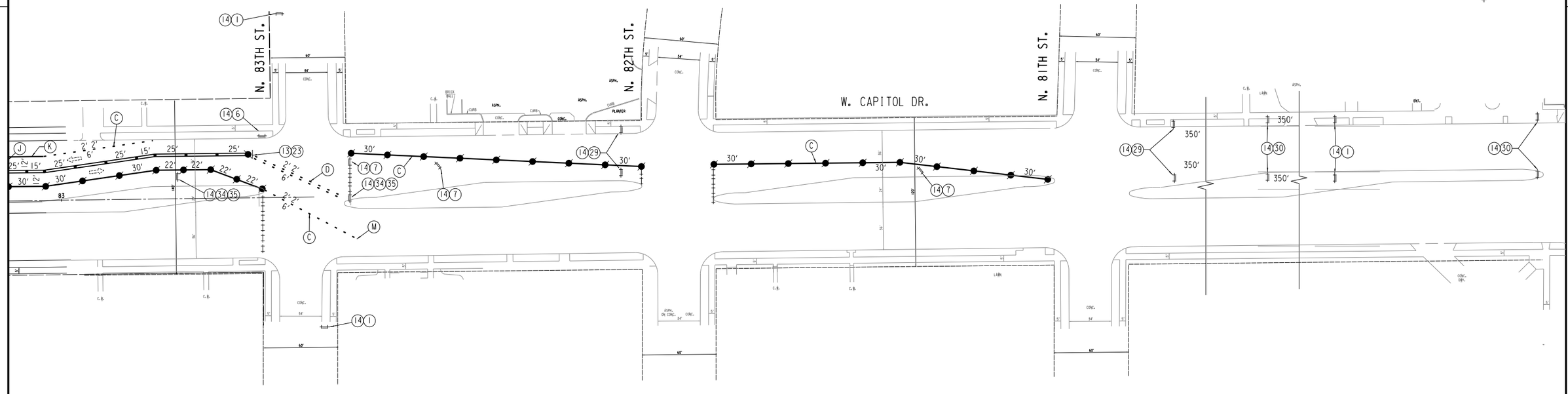
SHEET 27 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 210 E

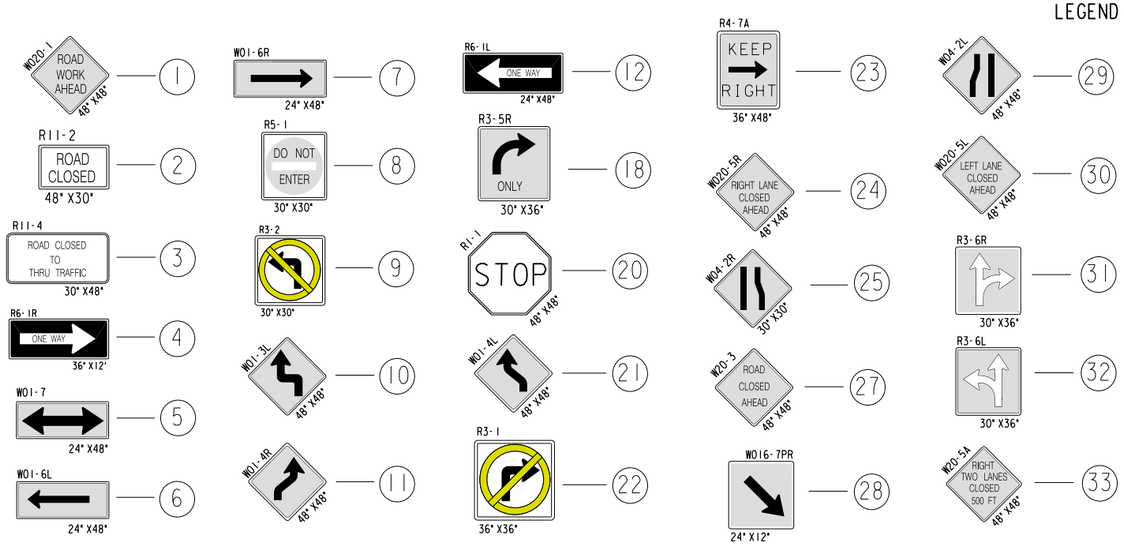
FILE NAME: W:\SPR\CAPITOL 84 CITY TRAFFIC STAGE2.DGNLIMITS\

REVISED: 12-27-2011

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, REFLECTIVE PAINT 24" WHITE
- H TPM, REFLECTIVE PAINT, 8" WHITE
- M MATCH
- X TPM, WORDS, REFLECTIVE PAINT
- Z TPM, ARROWS, REFLECTIVE PAINT

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 28 OF 28

STATE PROJECT NUMBER 2025-11-71 - -	HWY: LOCAL	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 211	E

FILE NAME: W:\SPR\CAPITOL 84 CITY LIMITS\TRAFFIC STAGE2.DGN

REVISED: 12-27-2011

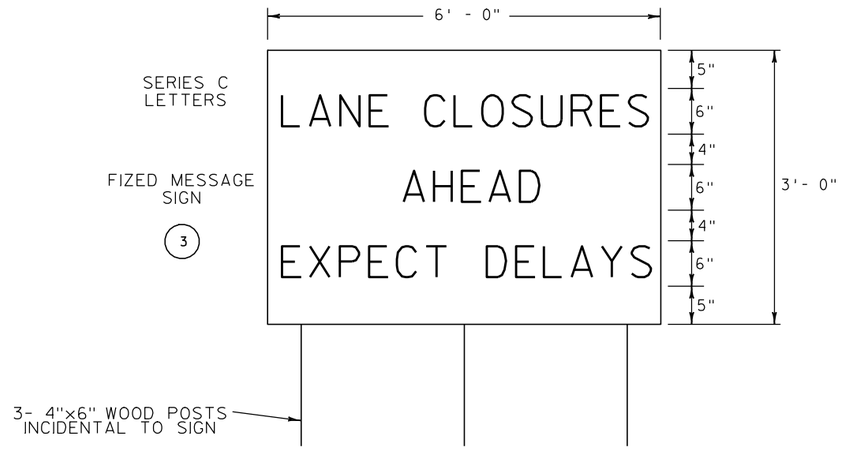


FIXED MESSAGE SIGNS (DETAILS SHEETS)

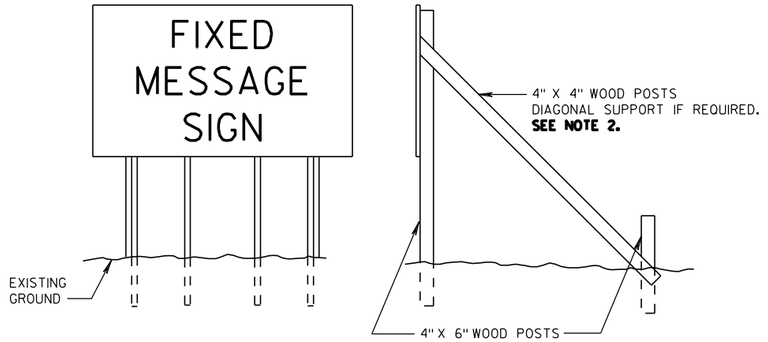
GENERAL NOTES:

1. ALL SIGNS TO HAVE FLUORESCENT REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE PROJECT ENGINEER SHALL VERIFY EACH SIGN LOCATION.
3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN.
4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS."
5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE FLUORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   12" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C"
7. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
9. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 643 & 637.
10. SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.

(X) = SIGN NUMBER



2



FRONT VIEW

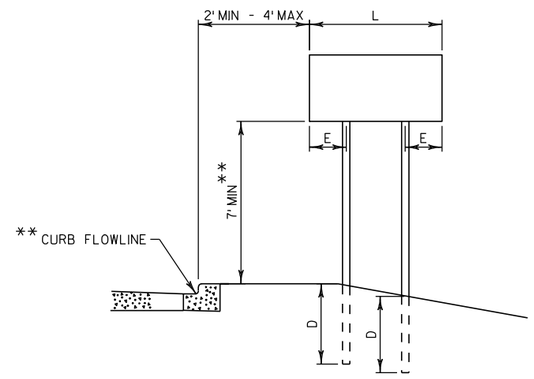
SIDE VIEW

NOTES

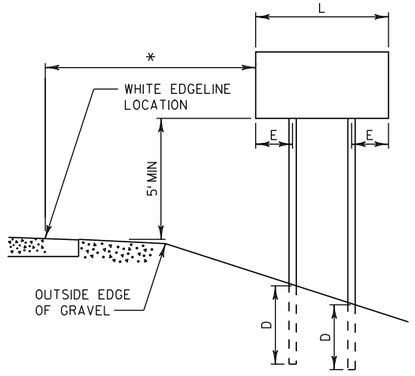
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12' LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

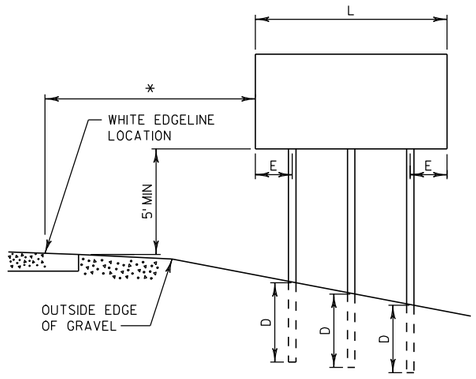
* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA





RURAL AREA

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"

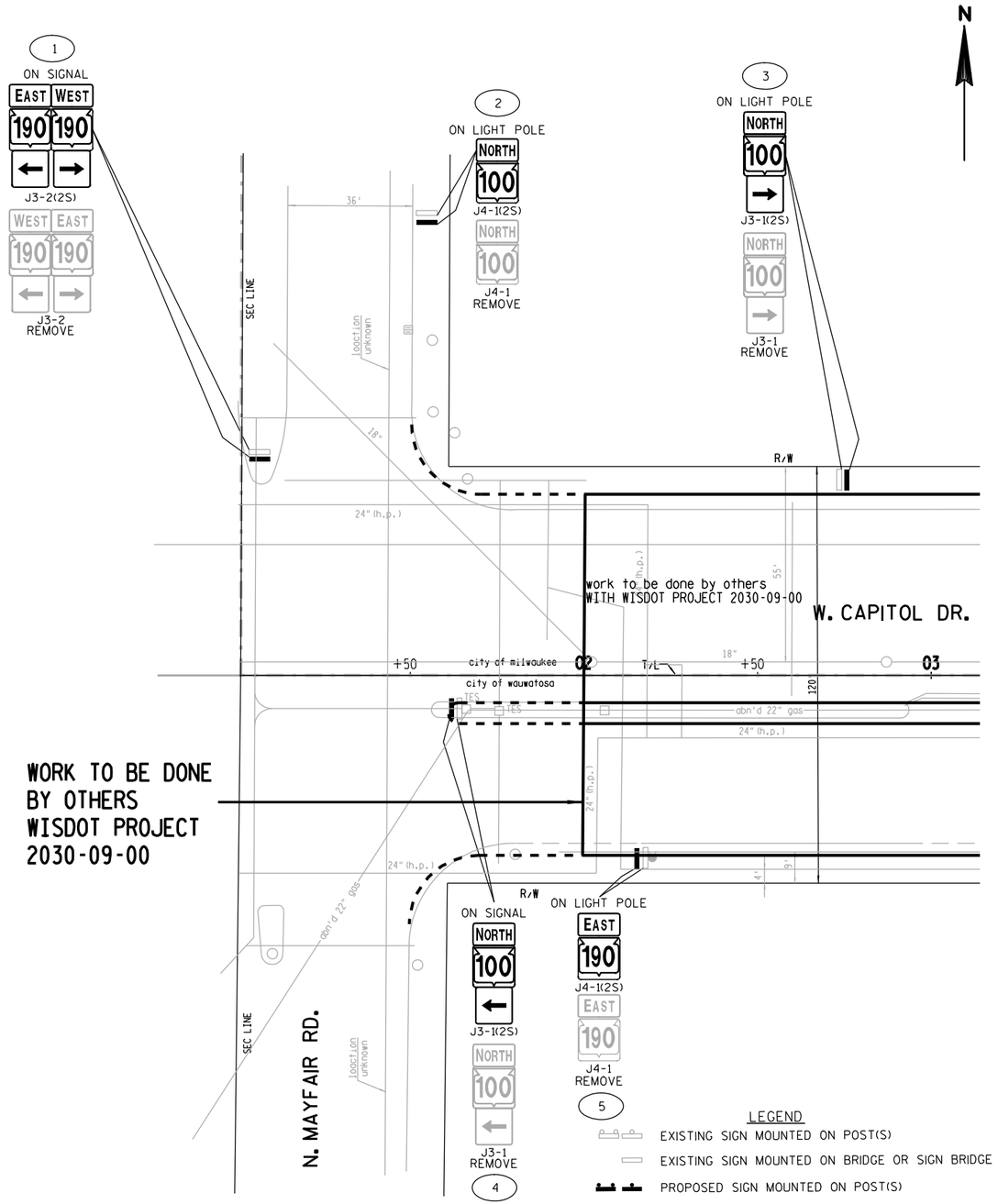
POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

NOTE TO DESIGNERS: SHOW POSTS ON FMS SIGN DETAILS.

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS

2



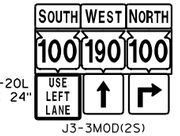
PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET	E

2

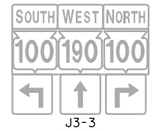
N

6

M4-20L
24" X 24"



J3-3MOD(2S)



J3-3
REMOVE



r/w
TES
BUS STOP
TEL
W. CAPITOL DR.
03
04
05
06
07
08
09
+50
18'
96'
city of milwaukee
city of wauwatosa
abn'd 22" gas
24" (h.p.)
36'
24'
N.89°27'40"E.
t/l
120'
12" (wauwatosa)
N. 107TH ST.
13'
30'
60'



J3-1(2S)



J3-1
ON LIGHT POLE
REMOVE

7

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 2 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET	E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

2

N

8
ON LIGHT POLE
190
J13-1(2S)

9
ON LIGHT POLE
JCT
100
J1-1(2S)
JCT
100
J1-1
REMOVE

W. GRANTOSA DR.

W. CAPITOL DR.

09 +50 10 11 12 13 14 15

city of milwaukee
city of wauwatosa

CONC
TEL
WATER

abn'd 22" gas
24" (h.p.)

22" (prop. shell)

24" storm (wauwatosa)
12" (wauwatosa)
8" sanitary (wauwatosa)

WISDOT PROJECT
2025-16-00

W. GRANTOSA DR.

EAST
190
J3-1(2S)
ON LIGHT POLE
10

W. GRANTOSA DR.

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 3 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET	E

2

N

W. GRANTOSA DR.

50'

33'

concr

CONC

12"

8"

15"

R/W

8"

16"

12"

tel

W. CAPITOL DR.

15

16

17

18

T/L

city of wauwatosa

19

city of milwaukee

20

21

abn'd 22" gas

24" (h.p.)

24"

8"

18"

12" (wauwatosa)

W. WOODWARD AVE.

8'

asphalt

concrete

N. 102ND ST.

60'

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

(XX) DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

(X) INDICATES SIGN SIZE

SHEET 4 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

2

N

11

WEST
190

J4-1(2S)

12

WEST
190

J4-1(2S)

WEST
190

J4-1
REMOVE

r/w

8"

16"

12"

tel

W. CAPITOL DR.

21

22

t/l

23

24

25

26

27

81.5'

tes

12"

8"

12" (wauwatosa)

r/w

24" (h.p.)

city of milwaukee

city of wauwatosa

190

J13-1(2S)

14

EAST
190

J3-1
REMOVE

13

W. LISBON AVE.

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

(XX) DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

(X) INDICATES SIGN SIZE

SHEET 5 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

2

N

15

ON LIGHT POLE

190

J13-1(2S)

1/4 SEC LINE

conc.

R/W

W. CAPITOL DR.

179°47'36"

27 28 29 30 31 32 33

60" STO.

54" STO.

tel

tes

WEP

24" (h.p.)

N. 100TH ST.

1/4 SEC LINE

EAST

190

J4-1(2S)

M1-6

REMOVE

16

17

J13-1(2S)

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

(XX) DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

(X) INDICATES SIGN SIZE

SHEET 6 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

N

W. CAPITOL DR.

N. 98TH ST.

R/W

tel

tes

T/L

S.89°36'00"E.

abn'd 22" gas
24" (h.p.)

loc. unknown

33 34 35 36 37 38 39

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 7 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

R/W

R/W

16"

8"

15"

24"

16"

12"

53'

2.5'

8"

15"

18"

24"

W. CAPITOL DR.

tel

wep

tes

tes

tes

tes

39

40

41

42

T/L

43

44

45

abn'd 22" gas

24" (h.p.)

21"

8"

18"

10"

3'

21"

18"

2'

11"

8"

8"

8"

11"

R/W

R/W

conc.

6"

20'

34'

N. 96TH 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

(XX) DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

(X) INDICATES SIGN SIZE

SHEET 8 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

N

N. 94TH ST.

W. CAPITOL DR.

N. 93RD ST.

R/W

conc.

tel

wep

tes

abn'd 22" gas
24" (h.p.)

45 46 47 48 49 S.89°36'00"E. 50 51

T/L

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 9 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

2

2

N

19
ON LIGHT POLE
190
J13-1(2S)

18
ON LIGHT POLE
WEST
190
J4-1(2S)

W. CAPITOL DR.

N. 93RD ST.

N. 92ND ST.

R/W

asph. on conc.

SEC LINE

TES

178°50'30"

T/L

abn'd 22" gas
24" (h.p.)

abn'd 2" gas

abn'd 6" gas

tel

190
J13-1(2S)
ON LIGHT POLE
20

EAST
190
J4-1(2S)
ON LIGHT POLE
21

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 10 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

N

N. 91ST ST.

N. 90TH ST.

W. CAPITOL DR.

R/W

R/W

R/W

R/W

57 58 59 60 61 62 63

T/L

tel

tes

tes

abn'd 2" gas

abn'd 3" gas

abn'd 6" gas

abn'd 6" gas

abn'd 22" gas

24" (n.p.)

abn'd gas

abn'd gas

25'

20'

28'

19'

18'

52'

52'

12"

12"

12"

12"

8"

8"

16"

6"

18"

2'

6'

6'

2.5'

2.7'

7.7'

7.7'

7.7'

7.7'

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 11 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

N

N. 89TH ST.

N. 88TH ST.

W. CAPITOL DR.

R/W

63 64 65 66 67 68 69

T/L

abn'd 3" gas

abn'd 6" gas

abn'd 22" gas
24" (h.p.)

tel

tes

12"

16"

8"

6"

24'

20'

7'

2.7'

18"

52'

7.7'

4'

8'

9'

1'

V.C.P. CONC.

38'

TES

conc.

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 12 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

N

N. 87TH ST.

N. 86TH ST.

W. CAPITOL DR.

S.89°12'00"W.

T/L

69 70 71 72 73 74 75

tes

tel

abn'd 6" gas

abn'd 22" gas

24" (h.p.)

loc. unknown

abn'd 2" gas

TES

vent

sub-station

conc.

asphl. on conc.

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

(XX) DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

(X) INDICATES SIGN SIZE

SHEET 13 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

2

N

N. 86TH ST.

N. 85TH ST.

22
ON LIGHT POLE

WEST
190
J4-1(2S)

W. CAPITOL DR.

R/W

abn'd 6" gas

abn'd 2" gas

tel

tes

T/L

75 76 77 78 79 80 81

22' 6" 20' 8" 52' 7.7' 16" 15" 2" 29' 19' 3' 10' 9'

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 14 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET	E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

2

N

W. CAPITOL DR.

N. 84TH ST.

1/4 sec line

1/4 sec line

179°46'39"

T/L

tel

tes

tes

tes

abn'd 22" gas

24" (h.p.)

abn'd 22" gas

EAST
190
J4-1(2S)

EAST
190
J4-1
ON LIGHT POLE
REMOVE
23

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
- (XX) DENOTES SIGN NUMBER
- ESTR EXISTING SIGN TO REMAIN
- (X) INDICATES SIGN SIZE

SHEET 15 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

2

W. CAPITOL DR.

W. CAPITOL DR.

N

WEST LISBON AVE

N. 100TH ST.

1/4 SEC LINE

city of milwaukee

city of wauwatosa

city of wauwatosa

city of milwaukee

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

(XX) DENOTES SIGN NUMBER

ESTR EXISTING SIGN TO REMAIN

(X) INDICATES SIGN SIZE

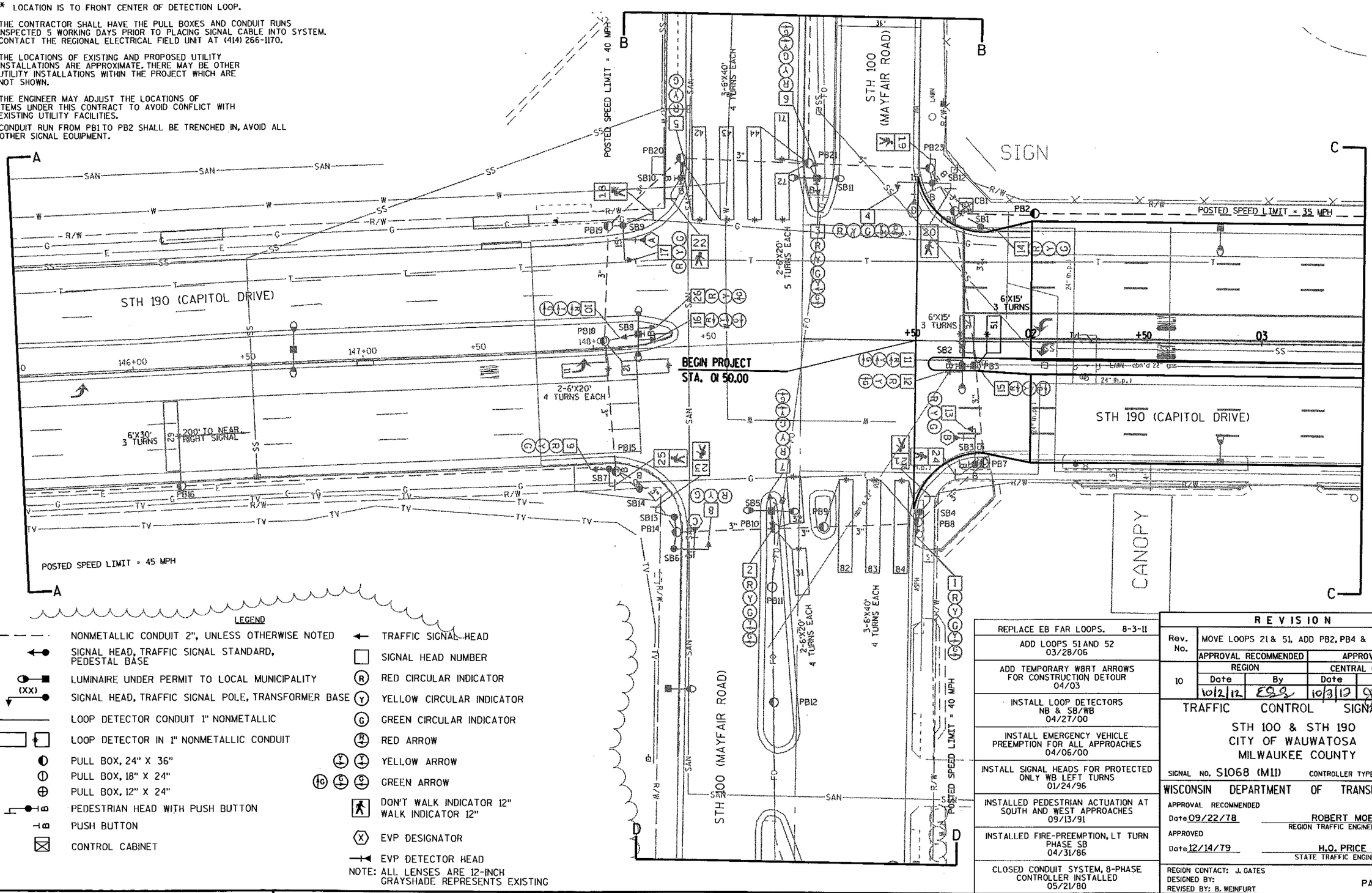
SHEET 16 OF 16

PROJECT NO: 2025-11-71	HWY: STH 190	COUNTY: MILWAUKEE	SIGNING PLAN	SHEET E

FILE NAME : J:\projects\d2_20251171\sign\sign_plan.dgn PLOT DATE : 12-MAR-2012 16:13 PLOT BY : msckvw PLOT NAME : PLOT SCALE : 40:1

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTION LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE REGIONAL ELECTRICAL FIELD UNIT AT (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. CONDUIT RUN FROM PB1 TO PB2 SHALL BE TRENCHED IN, AVOID ALL OTHER SIGNAL EQUIPMENT.



LEGEND

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED	TRAFFIC SIGNAL HEAD
SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE	SIGNAL HEAD NUMBER
LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY	RED CIRCULAR INDICATOR
(XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE	YELLOW CIRCULAR INDICATOR
LOOP DETECTOR CONDUIT 1" NONMETALLIC	GREEN CIRCULAR INDICATOR
LOOP DETECTOR IN 1" NONMETALLIC CONDUIT	RED ARROW
PULL BOX, 24" X 36"	YELLOW ARROW
PULL BOX, 18" X 24"	GREEN ARROW
PULL BOX, 12" X 24"	DON'T WALK INDICATOR 12" WALK INDICATOR 12"
PEDESTRIAN HEAD WITH PUSH BUTTON	EVP DESIGNATOR
PUSH BUTTON	EVP DETECTOR HEAD
CONTROL CABINET	

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

REPLACE EB FAR LOOPS. 8-3-11
ADD LOOPS 51 AND 52 03/28/05
ADD TEMPORARY WBRT ARROWS FOR CONSTRUCTION DETOUR 04/03
INSTALL LOOP DETECTORS NB & SB/WB 04/27/00
INSTALL EMERGENCY VEHICLE PREEMPTION FOR ALL APPROACHES 04/06/00
INSTALL SIGNAL HEADS FOR PROTECTED ONLY WB LEFT TURNS 01/24/96
INSTALLED PEDESTRIAN ACTUATION AT SOUTH AND WEST APPROACHES 09/13/91
INSTALLED FIRE-PREEMPTION, LT TURN PHASE SB 04/31/86
CLOSED CONDUIT SYSTEM, 8-PHASE CONTROLLER INSTALLED 05/21/80

REVISION

Rev. No.	MOVE LOOPS 21 & 51, ADD PB2, PB4 & 2" CONDUIT			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
10	Date	By	Date	By
	10/2/12	ESS	10/3/12	GBB

TRAFFIC CONTROL SIGNAL

STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11) CONTROLLER TYPE: LC 8000

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 09/22/78 — ROBERT MOE, REGION TRAFFIC ENGINEER

APPROVED
Date 12/14/79 — H.O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

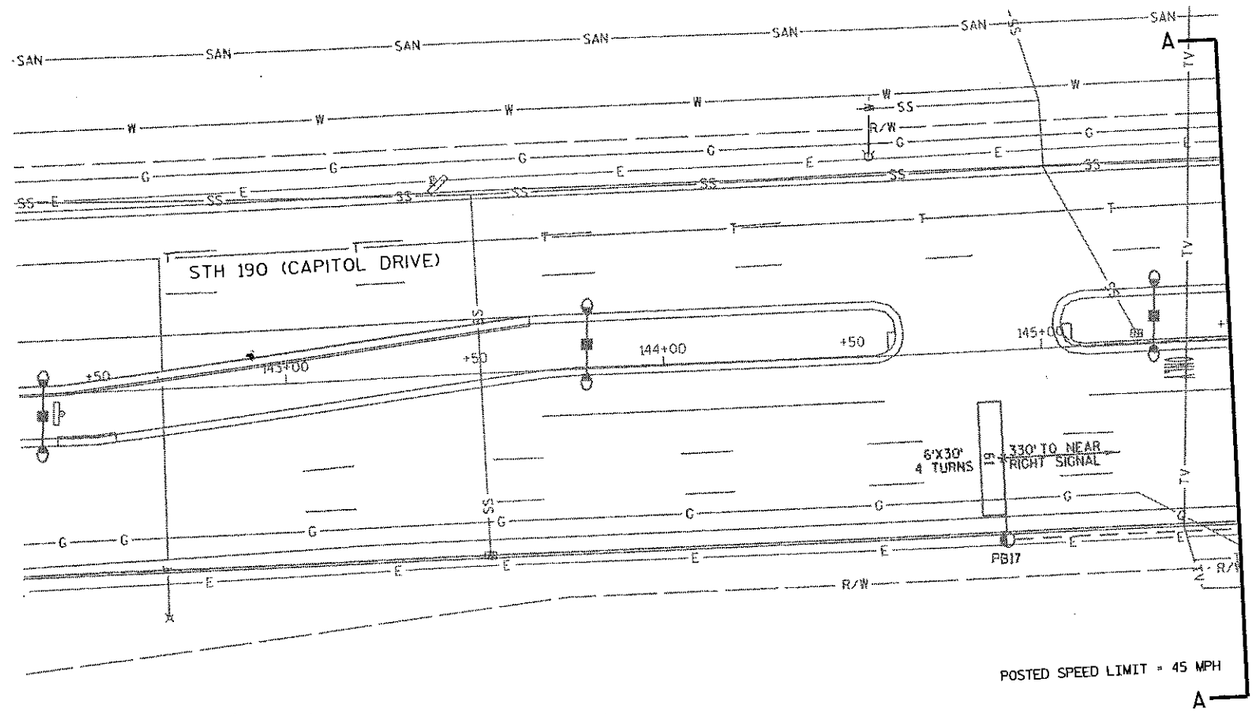
PAGE 1 OF 4

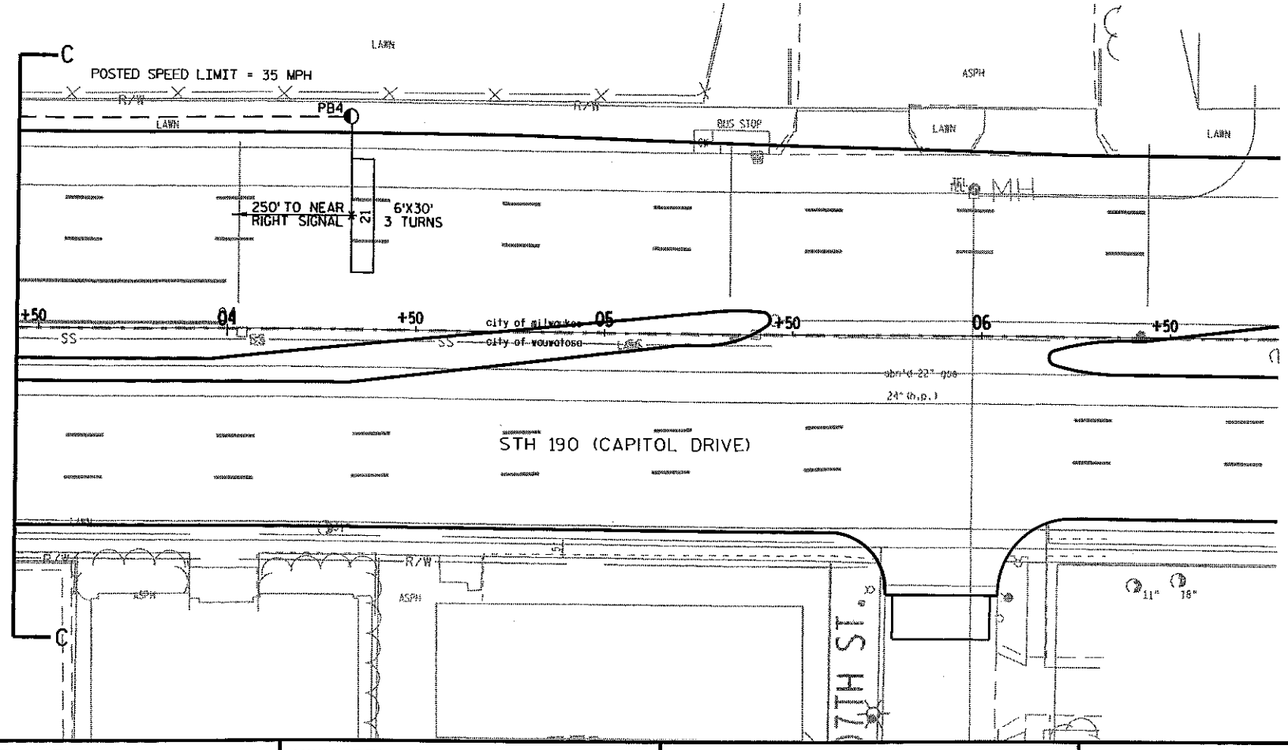
PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 230 E

FILE NAME : J:\projects\d2_20251171\SIGNAL\S1068_J.dgn PLOT DATE : 28-SEP-2012 13:48 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

JMG 10/1/2012





N

2

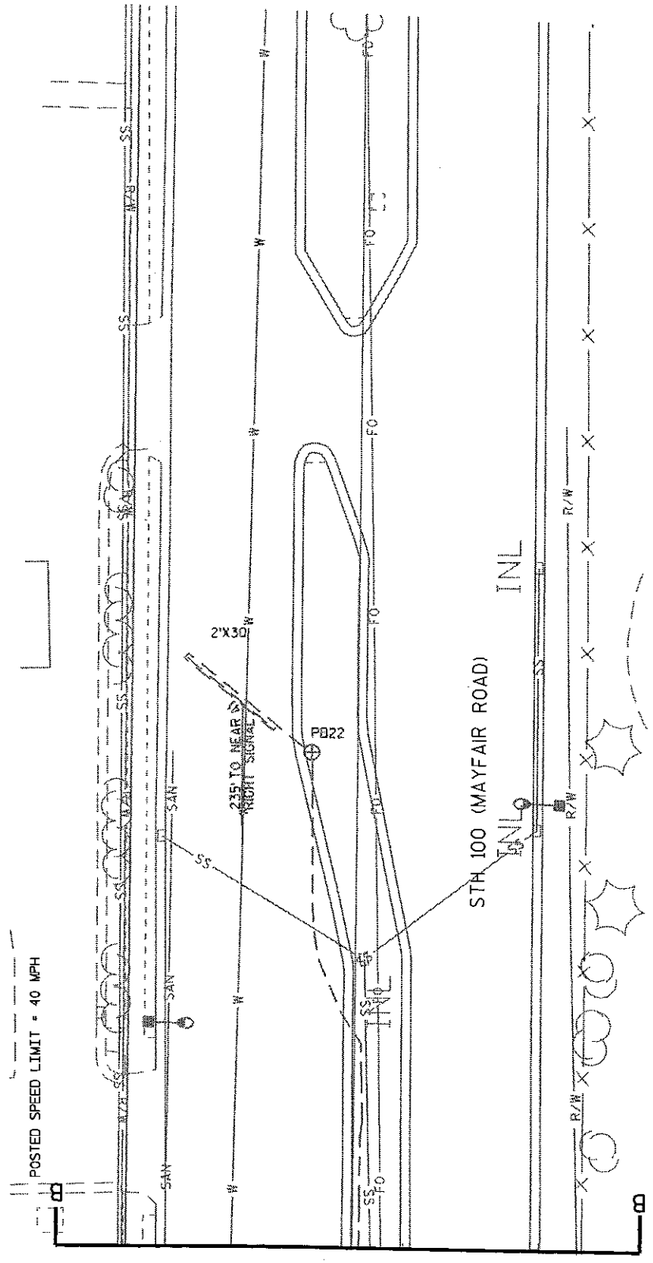
TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

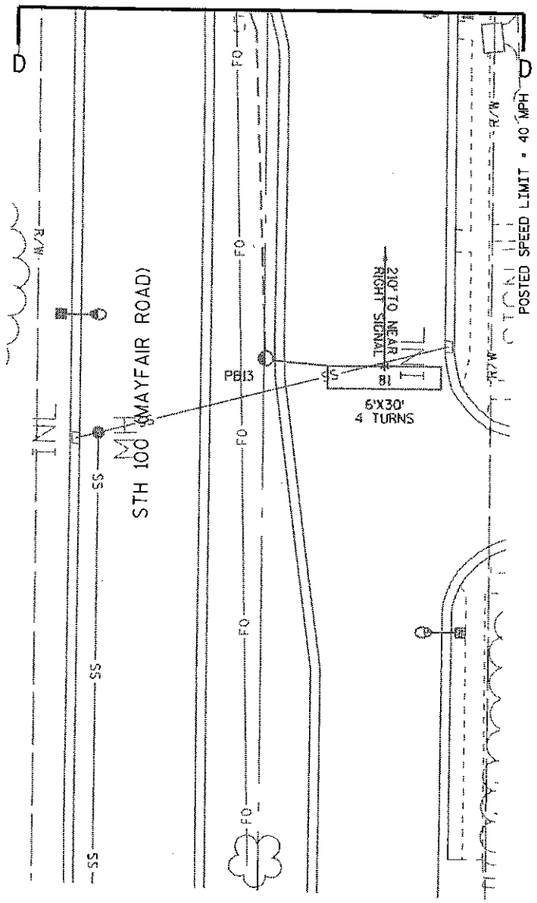
SIGNAL NO. S1068 (M11)

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 2 OF 4

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 231 E





TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11)

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 3 OF 4

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 232	E

FILE NAME : J:\projects\d2_20251171\SIGNAL\S1068_J.dgn PLOT DATE : 28-SEP-2012 07:40 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1

2

SEQUENCE OF OPERATION

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **			Ø2 R/W	Ø2 CLEAR TO **			Ø3 R/W	Ø3 CLEAR TO **			Ø4 R/W	Ø4 CLEAR TO **			FLASH
Ø1	10,11	G	Y	R		R	R	R		R	R	R		R	R	R		R
Ø2	14,17,26	R	R	R		G,G	Y	R		R	R	R		R	R	R		R
Ø3	2,3	-	-	-		-	-	-		G	Y	-		-	-	-		-
Ø4	5,6,7,8	R	R	R		R	R	R		R	R	R		G	Y	R		R
RING 1 Ø5	1,4,15,16	B	B	B		B	B	B		B	B	B		B	B	B		B
Ø6	9,12,13	R	R	R		R	R	R		R	R	R		R	R*	R		R
Ø7	6,7	-	-	-		-	-	-		-	-	-		-	-	-		-
Ø8	1,2,3,4	R	R	R		R	R	R		R	R	R		R	R	R		R
Ø2P	18,19	D	D	D		*	D	D		D	D	D		D	D	D		
Ø4P	22,23	D	D	D		D	D	D		D	D	D		*	D	D		
Ø6P	24,25	D	D	D		D	D	D		D	D	D		D	D	D		
Ø8P	20,21	D	D	D		D	D	D		D	D	D		D	D	D		
OLA																		
OLB																		
OLC																		
OLD																		

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **			Ø6 R/W	Ø6 CLEAR TO **			Ø7 R/W	Ø7 CLEAR TO **			Ø8 R/W	Ø8 CLEAR TO **		
Ø1	10,11	R	R	R		R	R	R		R	R	R		R	R	R	
Ø2	14,17,26	R	R	R		R	R	R		R	R	R		R	R	R	
Ø3	2,3	-	-	-		-	-	-		-	-	-		-	-	-	
Ø4	5,6,7,8	R	R	R		R	R	R		R	R	R		R	R	R	
RING 2 Ø5	1,4,15,16	G,G	A	B		B	B	B		B	B	B		B	B	B	
Ø6	9,12,13	R	R	R		G,G	Y	R		R	R	R		R	R	R	
Ø7	6,7	-	-	-		-	-	-		G	Y	-		-	-	-	
Ø8	1,2,3,4	R	R	R		R	R	R		R	R	R		G	Y	R	
Ø2P	18,19	D	D	D		D	D	D		D	D	D		D	D	D	
Ø4P	22,23	D	D	D		D	D	D		D	D	D		D	D	D	
Ø6P	24,25	D	D	D		*	D	D		D	D	D		D	D	D	
Ø8P	20,21	D	D	D		D	D	D		D	D	D		*	D	D	
OLA																	
OLB																	
OLC																	
OLD																	

A = Y,Y

B = R,R

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK

N

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

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				6X20	4
12	1	X			1	1				6X20	4
21	2	X			2	2				6X30	3
31	3	X			3	3				6X20	4
32	3	X			3	3				6X20	4
41	4			X		4			X	2X30	-
42	5	X			4	4		X		6X40	4
43	6	X			4	4				6X40	4
44	6	X			4	4				6X40	4
51	7	X			5	5				6X15	3
52	8	X			5	5				6X15	3
61	9	X			6	6				6X30	4
62	9	X			6	6				6X30	3
71	10	X			7	7				6X20	5
72	10	X			7	7				6X20	5
81	11			X		8			X	6X30	4
82	12	X			8	8				6X40	4
83	12	X			8	8				6X40	4
84	13	X			8	8		X		6X40	4

CONTROLLER LOGIC

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

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
3M	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	CHANNEL A	CHANNEL B	CHANNEL C	CHANNEL D
MOVEMENT	←	→	↓	↑
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASE 4+8.

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4,7,8
2	5 OR 6	1,3,4,7,8
3	7 OR 8	1,2,4,5,6
4	7 OR 8	1,2,3,5,6
5	1 OR 2	3,4,6,7,8
6	1 OR 2	3,4,5,7,8
7	3 OR 4	1,2,5,6,8
8	3 OR 4	1,2,5,6,7

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1)
3. DURING PHASE 8, GREEN RIGHT TURN OVERLAP IS NOT DISPLAYED.
4. IF PHASES 4 AND 8 ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11)

CONTROLLER TYPE: EPAC

DATE 10/12

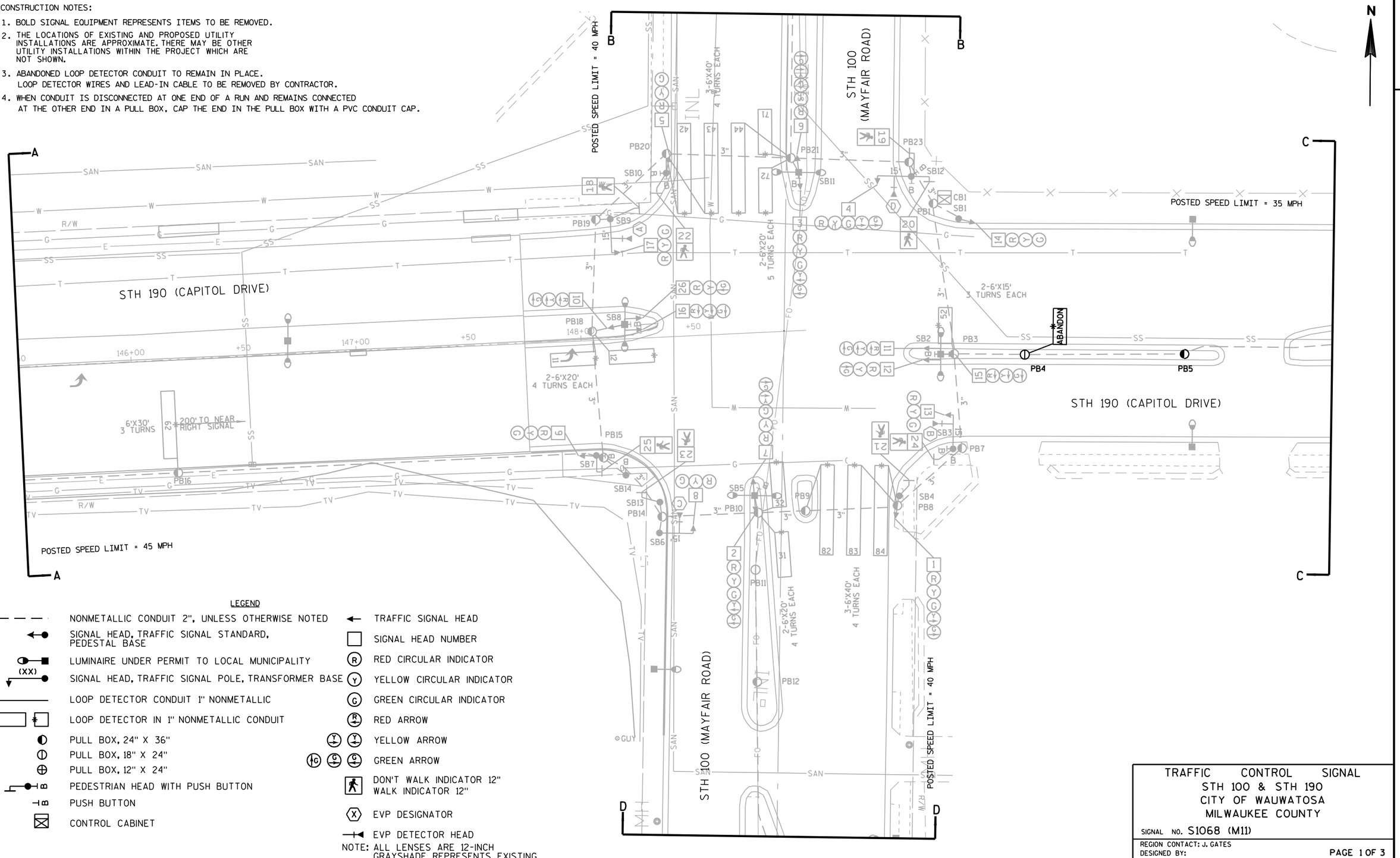
PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 233	E

FILE NAME : J:\projects\d2_20251171\SIGNAL\S1068_J.dgn PLOT DATE : 28-SEP-2012 13:48 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40.000373:1 WISDOT/CADDS SHEET 42

JMG 10/1/2012 ESS 10/2/12

CONSTRUCTION NOTES:

1. BOLD SIGNAL EQUIPMENT REPRESENTS ITEMS TO BE REMOVED.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRES AND LEAD-IN CABLE TO BE REMOVED BY CONTRACTOR.
4. WHEN CONDUIT IS DISCONNECTED AT ONE END OF A RUN AND REMAINS CONNECTED AT THE OTHER END IN A PULL BOX, CAP THE END IN THE PULL BOX WITH A PVC CONDUIT CAP.



LEGEND

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED	TRAFFIC SIGNAL HEAD
SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE	SIGNAL HEAD NUMBER
LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY	RED CIRCULAR INDICATOR
(XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE	YELLOW CIRCULAR INDICATOR
LOOP DETECTOR CONDUIT 1" NONMETALLIC	GREEN CIRCULAR INDICATOR
LOOP DETECTOR IN 1" NONMETALLIC CONDUIT	RED ARROW
PULL BOX, 24" X 36"	YELLOW ARROW
PULL BOX, 18" X 24"	GREEN ARROW
PULL BOX, 12" X 24"	DON'T WALK INDICATOR 12" WALK INDICATOR 12"
PEDESTRIAN HEAD WITH PUSH BUTTON	EVP DESIGNATOR
PUSH BUTTON	EVP DETECTOR HEAD
CONTROL CABINET	

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

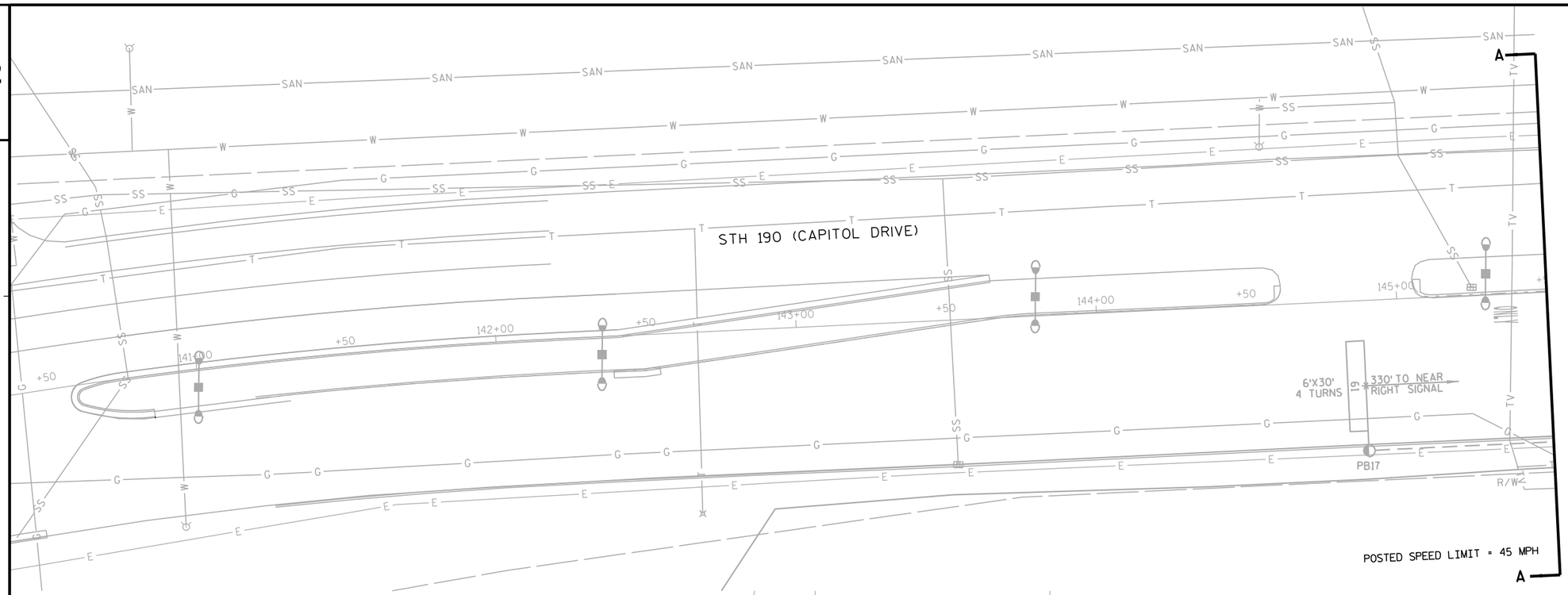
SIGNAL NO. S1068 (M11)

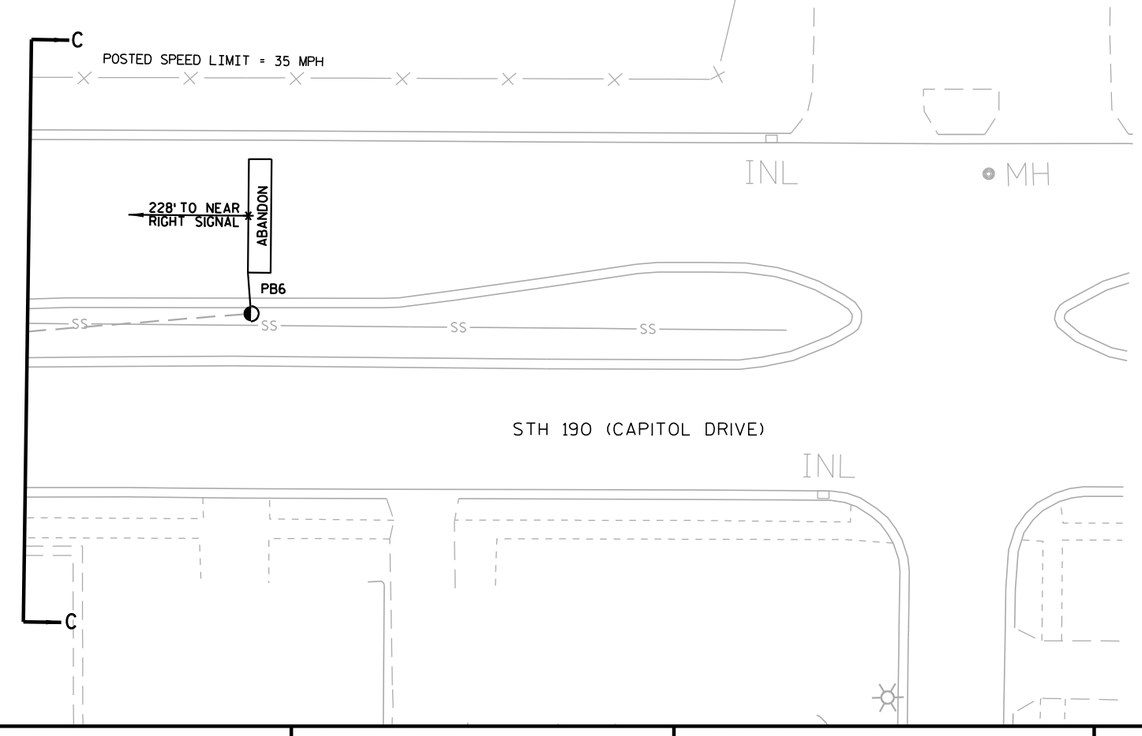
REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 1 OF 3

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET E

FILE NAME : j:\projects\d2_20251171\SIGNAL\S1068_REM.dgn PLOT DATE : 24-AUG-2012 12:44 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1





N

2

TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11)

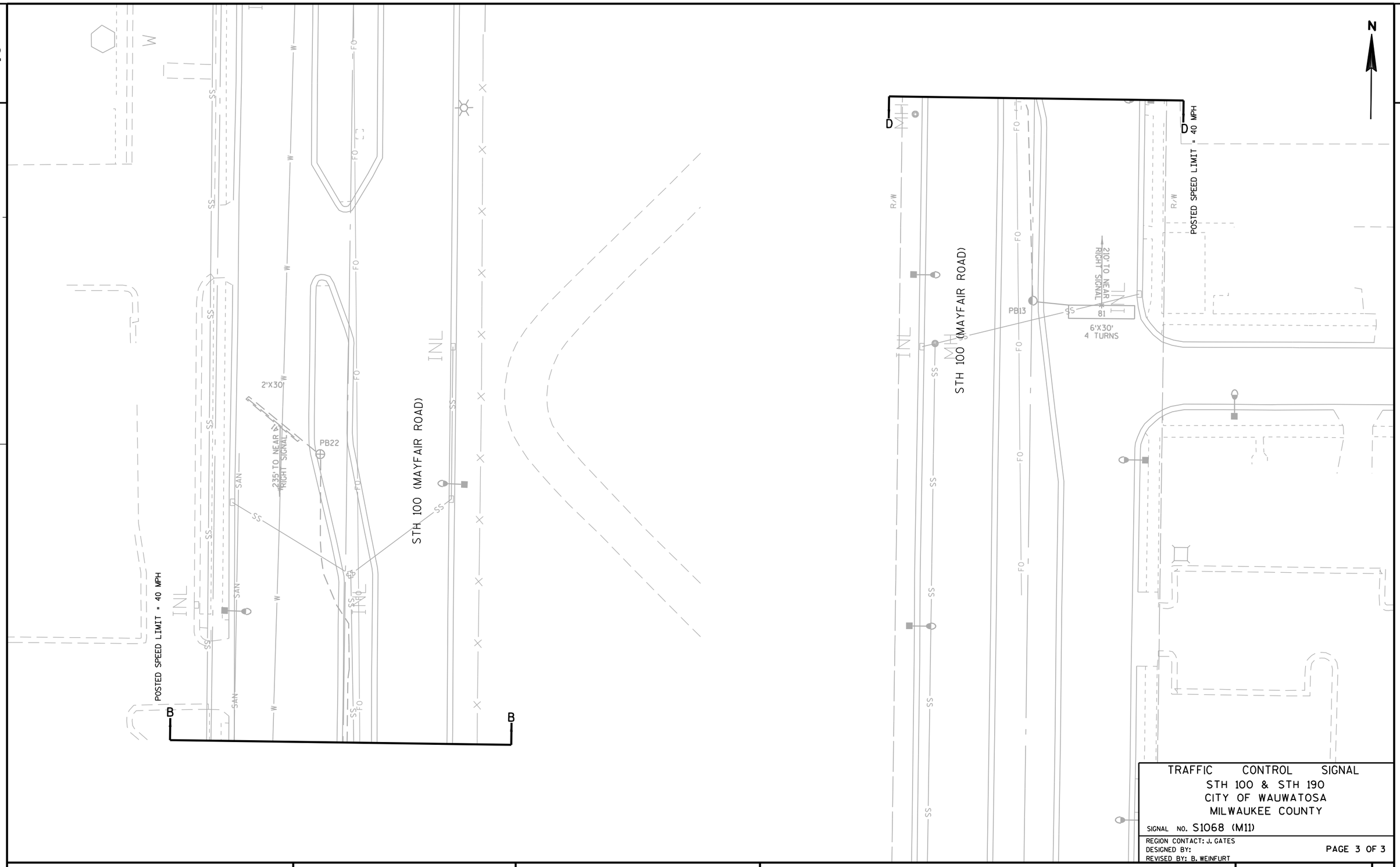
REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 2 OF 3

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET	E

FILE NAME : j:\projects\d2_20251171\SIGNAL\S1068_REM.dgn PLOT DATE : 24-AUG-2012 12:44 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11)

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 3 OF 3

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET E

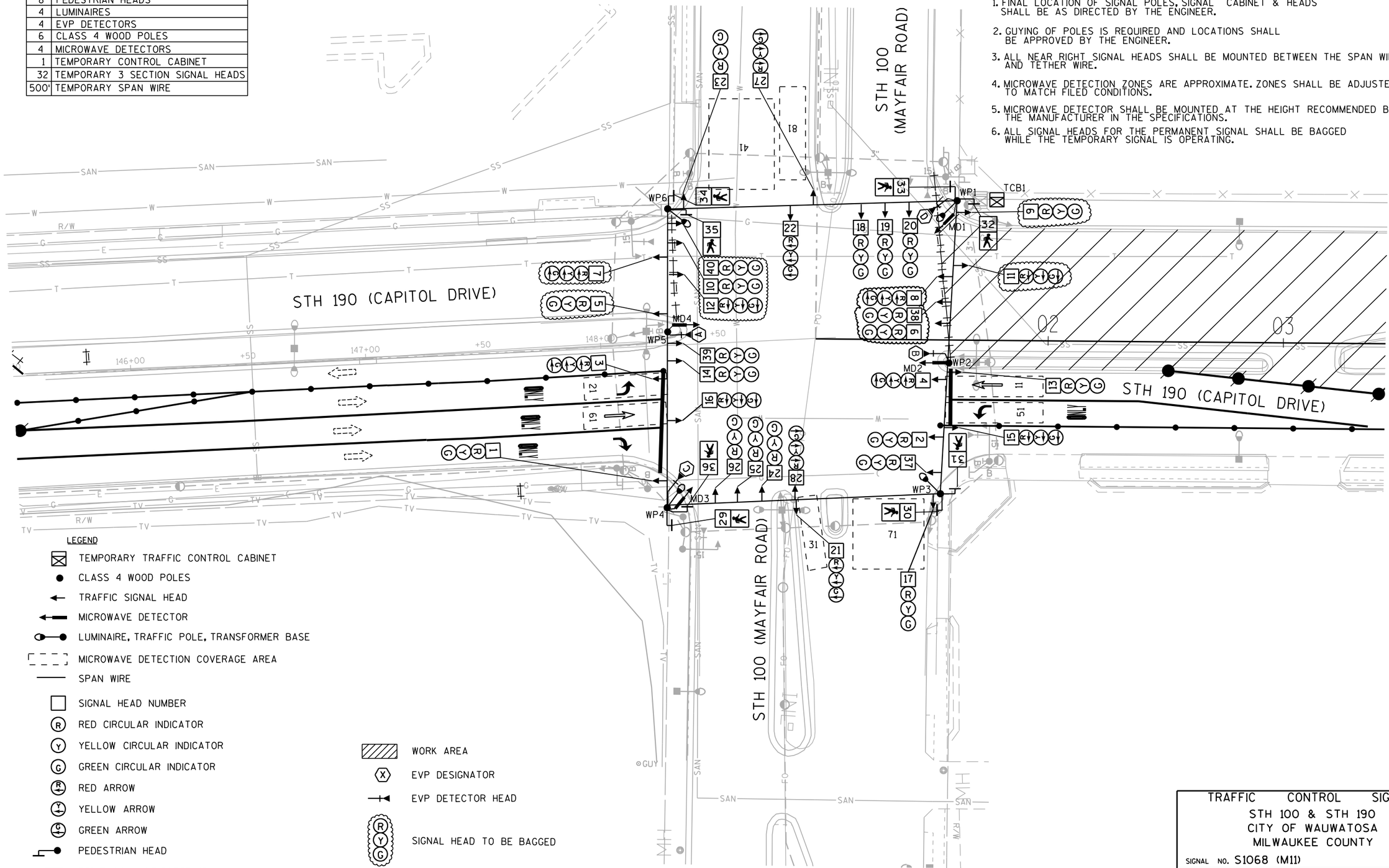
FILE NAME : j:\projects\d2_20251171\SIGNAL\S1068_REM.dgn PLOT DATE : 24-AUG-2012 12:44 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

8	PEDESTRIAN HEADS
4	LUMINAIRES
4	EVP DETECTORS
6	CLASS 4 WOOD POLES
4	MICROWAVE DETECTORS
1	TEMPORARY CONTROL CABINET
32	TEMPORARY 3 SECTION SIGNAL HEADS
500'	TEMPORARY SPAN WIRE

GENERAL NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET & HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ALL NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN WIRE AND TETHER WIRE.
4. MICROWAVE DETECTION ZONES ARE APPROXIMATE. ZONES SHALL BE ADJUSTED TO MATCH FILED CONDITIONS.
5. MICROWAVE DETECTOR SHALL BE MOUNTED AT THE HEIGHT RECOMMENDED BY THE MANUFACTURER IN THE SPECIFICATIONS.
6. ALL SIGNAL HEADS FOR THE PERMANENT SIGNAL SHALL BE BAGGED WHILE THE TEMPORARY SIGNAL IS OPERATING.



LEGEND

- TEMPORARY TRAFFIC CONTROL CABINET
- CLASS 4 WOOD POLES
- TRAFFIC SIGNAL HEAD
- MICROWAVE DETECTOR
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION COVERAGE AREA
- SPAN WIRE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- PEDESTRIAN HEAD
- DON'T WALK INDICATOR 12" / WALK INDICATOR 12"
- WORK AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- SIGNAL HEAD TO BE BAGGED

TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11)

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 1 OF 3

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN STAGE 1	SHEET	E

FILE NAME : j:\projects\d2_20251171\SIGNAL\S1068_TEMP1.dgn PLOT DATE : 24-AUG-2012 12:44 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

8	PEDESTRIAN HEADS
4	LUMINAIRES
4	EVP DETECTORS
6	CLASS 4 WOOD POLES
4	MICROWAVE DETECTORS
1	TEMPORARY CONTROL CABINET
32	TEMPORARY 3 SECTION SIGNAL HEADS
500'	TEMPORARY SPAN WIRE

GENERAL NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET & HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ALL NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN WIRE AND TETHER WIRE.
4. MICROWAVE DETECTION ZONES ARE APPROXIMATE. ZONES SHALL BE ADJUSTED TO MATCH FILED CONDITIONS.
5. MICROWAVE DETECTOR SHALL BE MOUNTED AT THE HEIGHT RECOMMENDED BY THE MANUFACTURER IN THE SPECIFICATIONS.
6. ALL SIGNAL HEADS FOR THE PERMANENT SIGNAL SHALL BE BAGGED WHILE THE TEMPORARY SIGNAL IS OPERATING.

N

STH 190 (CAPITOL DRIVE)

STH 190 (CAPITOL DR.)

STH 100 (MAYFAIR ROAD)

STH 100 (MAYFAIR ROAD)

WP1 WP2 WP3 WP4 WP5 WP6 MD1 MD2 MD3 MD4 TCB1

LEGEND

- TEMPORARY TRAFFIC CONTROL CABINET
- CLASS 4 WOOD POLES
- TRAFFIC SIGNAL HEAD
- MICROWAVE DETECTOR
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- MICROWAVE DETECTION COVERAGE AREA
- SPAN WIRE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- PEDESTRIAN HEAD
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"
- WORK AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- SIGNAL HEAD TO BE BAGGED

TRAFFIC CONTROL SIGNAL
STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068 (M11)

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: B. WEINFURT

PAGE 2 OF 3

PROJECT NO: 2025-11-71	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN STAGE 2	SHEET E

FILE NAME : j:\projects\d2_20251171\SIGNAL\S1068_TEMP2.dgn PLOT DATE : 24-AUG-2012 12:44 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **						Ø2 R/W	Ø2 CLEAR TO **						Ø3 R/W	Ø3 CLEAR TO **						Ø4 R/W	Ø4 CLEAR TO **						FLASH
Ø1	9,10,13,14,39,40	G	Y	R					R	R	R					R	R	R					R	R					R
Ø2	3,4,7,8	R	R	R					G	Y	R					R	R	R					R	R					R
Ø3	21,22	R	R	R					R	R	R					G	Y	R					R	R					R
Ø4	23,24,25,26	R	R	R					R	R	R					R	R	R					G	Y					R
Ø5	11,12,15,16	R	R	R					R	R	R					R	R	R					R	R					R
Ø6	1,2,5,6,37,38	R	R	R					R	R	R					R	R	R					R	R					R
Ø7	17,18,19,20	R	R	R					R	R	R					R	R	R					R	R					R
Ø8	27,28	R	R	R					R	R	R					R	R	R					R	R					R
Ø1P	33,34	*	DW	DW					DW	DW	DW					DW	DW	DW					DW	DW					
Ø4P	35,36	DW	DW	DW					DW	DW	DW					DW	DW	DW					*	DW					
Ø6P	29,30	DW	DW	DW					DW	DW	DW					DW	DW	DW					DW	DW					
Ø7P	31,32	DW	DW	DW					DW	DW	DW					DW	DW	DW					DW	DW					

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **						Ø6 R/W	Ø6 CLEAR TO **						Ø7 R/W	Ø7 CLEAR TO **						Ø8 R/W	Ø8 CLEAR TO **					
Ø1	9,10,13,14,39,40	R	R	R					R	R	R					R	R	R					R	R	R				
Ø2	3,4,7,8	R	R	R					R	R	R					R	R	R					R	R	R				
Ø3	21,22	R	R	R					R	R	R					R	R	R					R	R	R				
Ø4	23,24,25,26	R	R	R					R	R	R					R	R	R					R	R	R				
Ø5	11,12,15,16	G	Y	R					R	R	R					R	R	R					R	R	R				
Ø6	1,2,5,6,37,38	R	R	R					G	Y	R					R	R	R					R	R	R				
Ø7	17,18,19,20	R	R	R					R	R	R					G	Y	R					R	R	R				
Ø8	27,28	R	R	R					R	R	R					R	R	R					G	Y	R				
Ø1P	33,34	DW	DW	DW					DW	DW	DW					DW	DW	DW					DW	DW	DW				
Ø4P	35,36	DW	DW	DW					DW	DW	DW					DW	DW	DW					DW	DW	DW				
Ø6P	29,30	DW	DW	DW					*	DW	DW					DW	DW	DW					DW	DW	DW				
Ø7P	31,32	DW	DW	DW					DW	DW	DW					*	DW	DW					DW	DW	DW				

BARRIER

N

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

* WHEN CALLED, TIMED STEADY WALK, THEN FLASHING DON'T WALK, THEN GOES TO STEADY DON'T WALK

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4,7,8
2	5 OR 6	1,3,4,7,8
3	7 OR 8	1,2,4,5,6
4	7 OR 8	1,2,3,5,6
5	1 OR 2	3,4,6,7,8
6	1 OR 2	3,4,5,7,8
7	3 OR 4	1,2,5,6,8
8	3 OR 4	1,2,5,6,7

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					MICRO
21		X			2	2					MICRO
31		X			3	3					MICRO
41		X			4	4					MICRO
51		X			5	5					MICRO
61		X			6	6					MICRO
71		X			7	7					MICRO
81		X			8	8					MICRO

CONTROLLER LOGIC

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

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	1+5	6+2	4+8	7+3

AFTER PREEMPTION SEQUENCE 1+5 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 1+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 7+3, CONTROLLER SHALL RETURN TO PHASES 4+7.

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
FIBER OPTIC	
RADIO	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS- -

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

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

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

STH 100 & STH 190
CITY OF WAUWATOSA
MILWAUKEE COUNTY

SIGNAL NO. S1068
CONTROLLER TYPE: TEMP
DATE 8/12 PAGE NO. 3 OF 3

PROJECT NO: 2025-11-71 | HWY: STH 100 | COUNTY: MILWAUKEE | SEQUENCE OF OPERATIONS - ALL STAGES | SHEET E

CONDUIT

LOC.	TO	LOC.	652.0225 CONDUIT NONMET. 2-INCH L.F.
PB2		PB4	264
PB1		PB2	34
		TOTAL	298

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES 24"x36" EACH
PB2	02+0.0, 54.0' LT	1
PB4	04+68.0, 56.0' LT	1
	TOTAL	2

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVE PULL BOXES

PULL BOX NO.	653.0905 REMOVE PULL BOX EACH
PB 4	1
PB5	1
PB6	1
TOTAL	3

TRAFFIC DETECTOR LOOPS

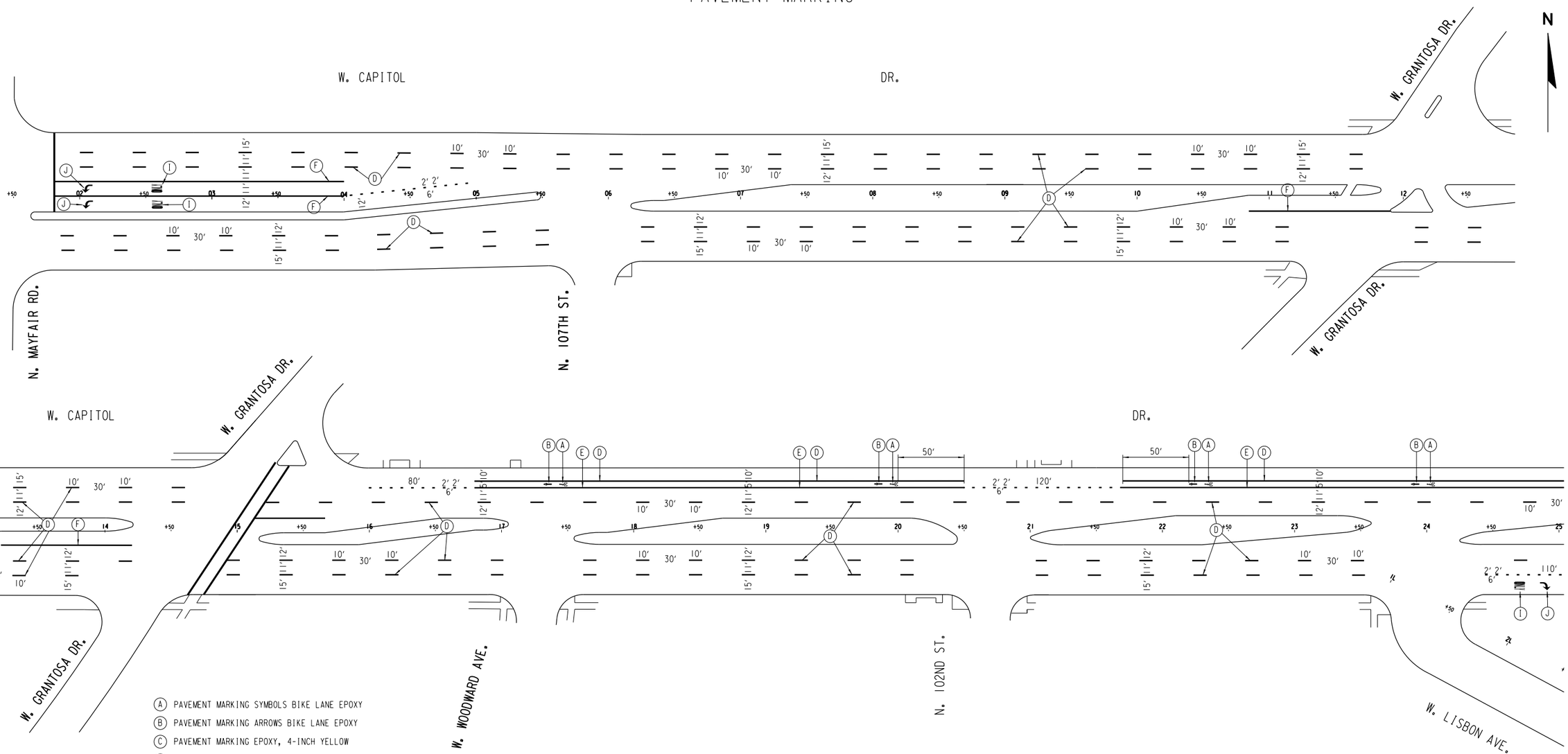
LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB4	04+68.5, 29.9' LT	6' X 30'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	81	305	252
51	PB3	01+81.0, 3.3' LT	6' X 15'	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	48	72	162
						TOTAL	129	377	414

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.01 REMOVE LOOP WIRE & LEAD-IN CABLE L.S.
STH 100 & STH 190	1
TOTAL	1

PAVEMENT MARKING



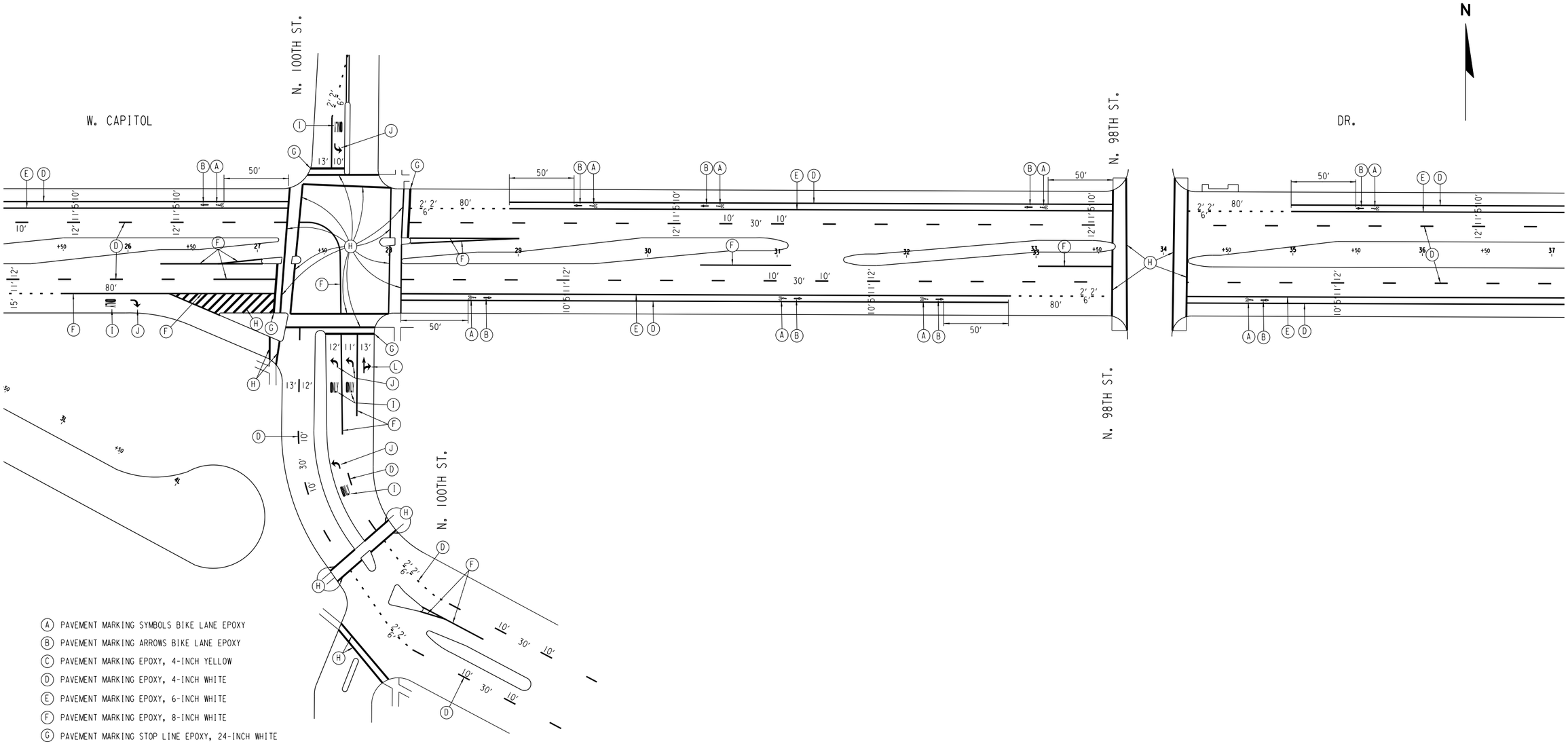
SHEET 1 OF 6

STATE PROJECT NUMBER: 2025-11-71 - -	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 241	E

FILE NAME: DGNFILENAME

REVISED: 10-8-12

PAVEMENT MARKING



(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
(D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(I) PAVEMENT MARKING WORDS EPOXY
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH))
(L) PAVEMENT MARKING ARROWS EPOXY TYPE 3 (THROUGH, RIGHT TURN)
(M) MATCH

SHEET 2 OF 6

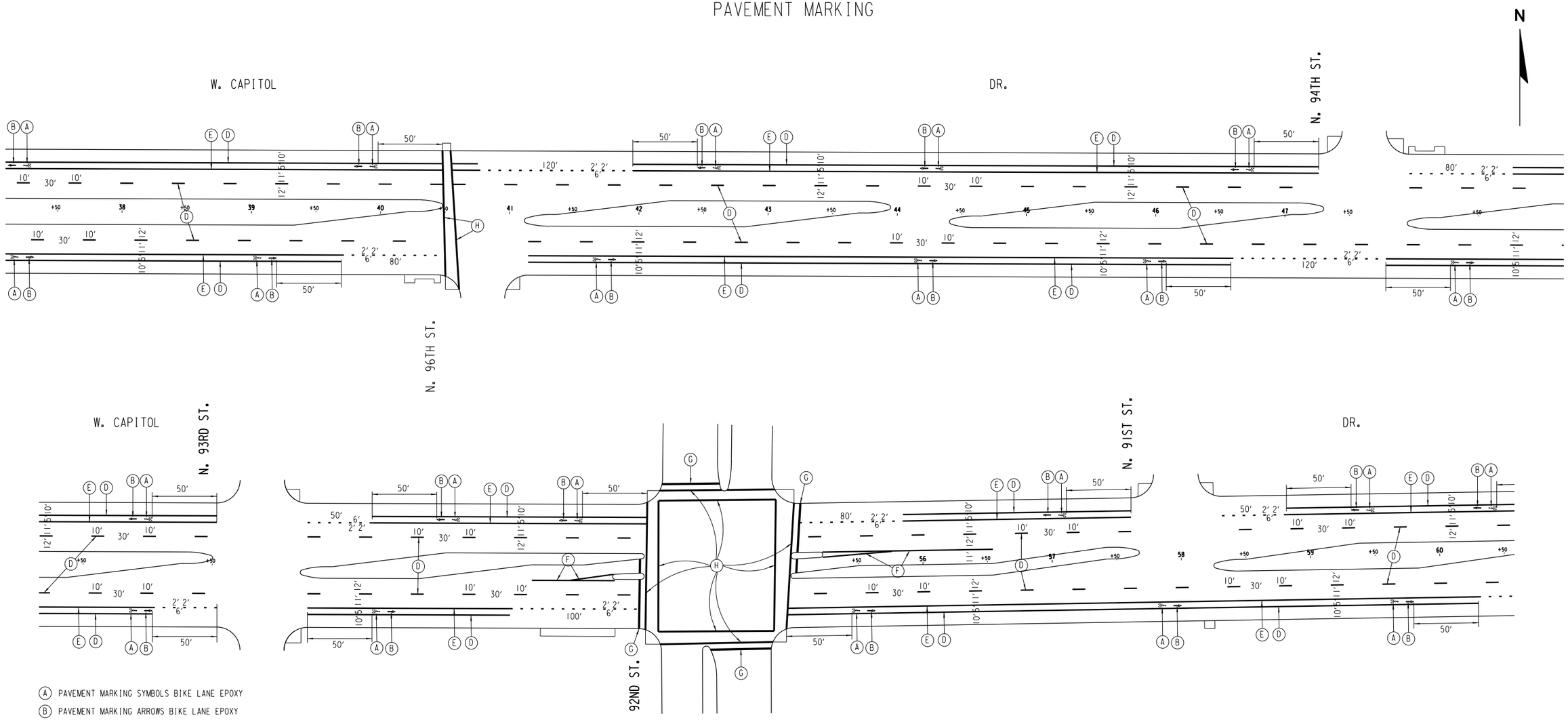
STATE PROJECT NUMBER: 2025-11-73 - -	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 242	E

FILE NAME: DGNFILENAME

REVISED: 10-8-12

2

PAVEMENT MARKING



- (A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
- (B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
- (C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
- (D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
- (E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
- (F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
- (G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
- (H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
- (I) PAVEMENT MARKING WORDS EPOXY
- (J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
- (K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH))
- (L) PAVEMENT MARKING ARROWS EPOXY TYPE 3 (THROUGH, RIGHT TURN)
- (M) MATCH

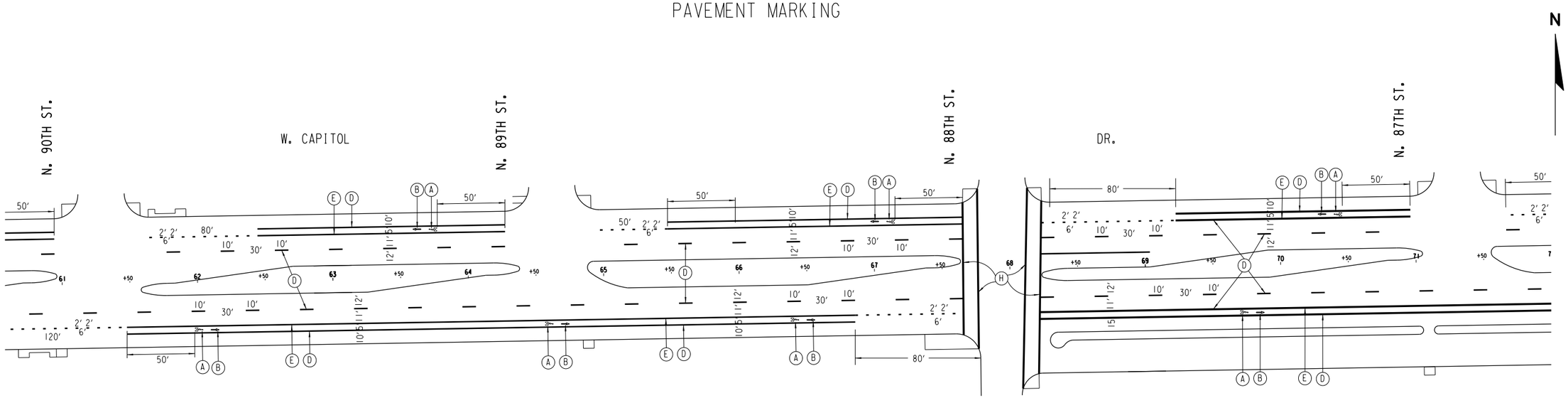
SHEET 3 OF 6

STATE PROJECT NUMBER: 2025-11-73 - -	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 243	E

FILE NAME: DGNFILENAME

REVISED:

PAVEMENT MARKING



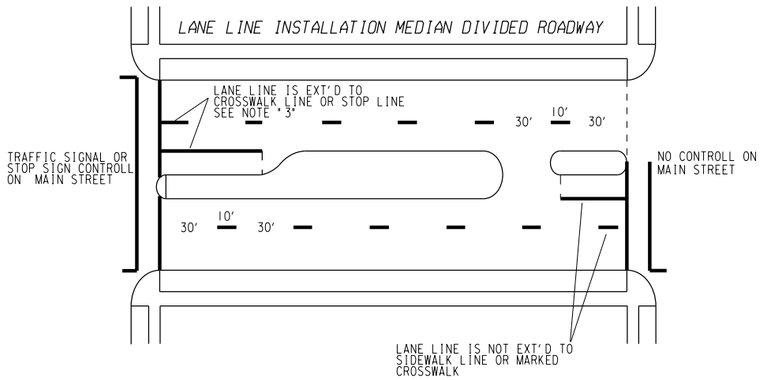
(A) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY
(B) PAVEMENT MARKING ARROWS BIKE LANE EPOXY
(C) PAVEMENT MARKING EPOXY, 4-INCH YELLOW
(D) PAVEMENT MARKING EPOXY, 4-INCH WHITE
(E) PAVEMENT MARKING EPOXY, 6-INCH WHITE
(F) PAVEMENT MARKING EPOXY, 8-INCH WHITE
(G) PAVEMENT MARKING STOP LINE EPOXY, 24-INCH WHITE
(H) PAVEMENT MARKING CROSS WALK EPOXY, 12-INCH WHITE
(I) PAVEMENT MARKING WORDS EPOXY
(J) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (LEFT TURN)
(K) PAVEMENT MARKING ARROWS EPOXY TYPE 1 (THROUGH))
(L) PAVEMENT MARKING ARROWS EPOXY TYPE 3 (THROUGH, RIGHT TURN)
(M) MATCH

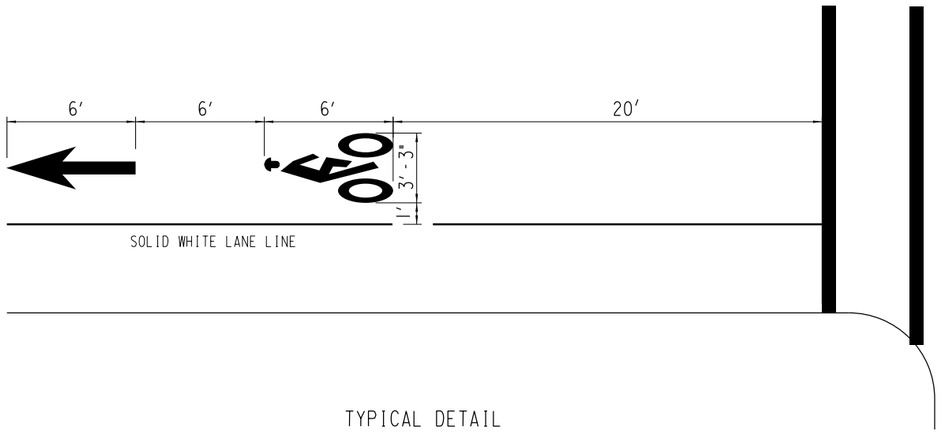
SHEET 4 OF 6

STATE PROJECT NUMBER: 2025-11-73 - -	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 244	E

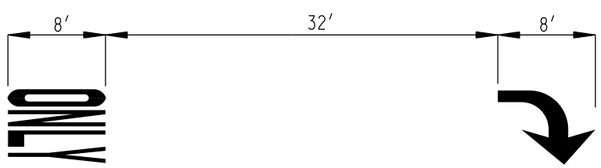
FILE NAME: DGNFILENAME

REVISED: 9-6-2012

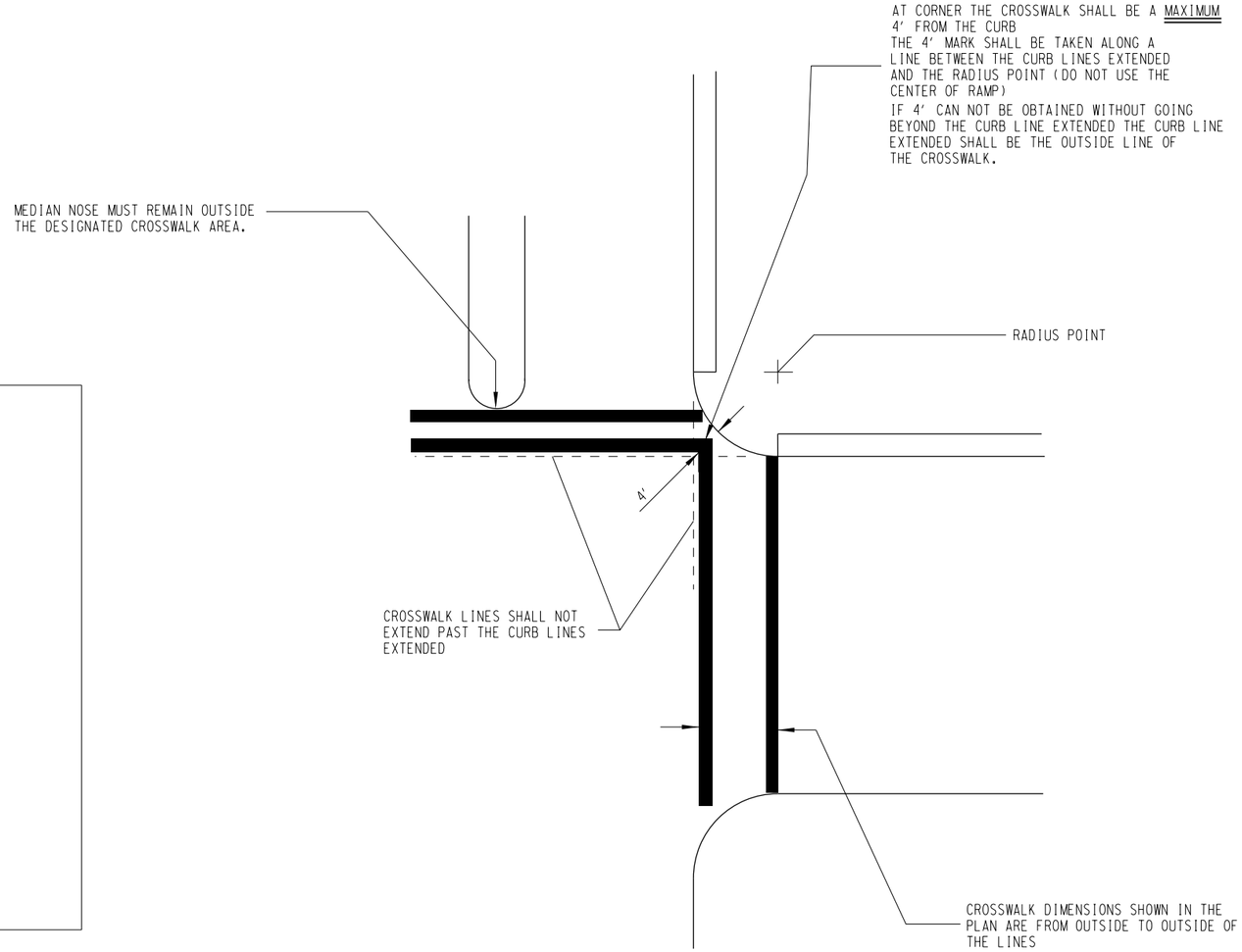




TYPICAL DETAIL
BIKE LANE



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.

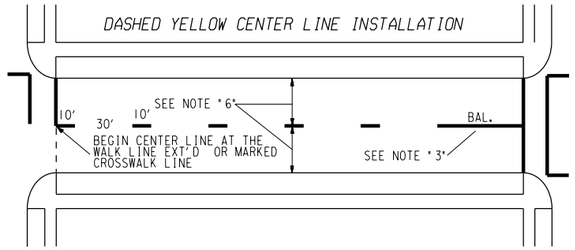
STATE PROJECT NUMBER 2025-11-73 - -	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 245	E

FILE NAME: DGNFILENAME

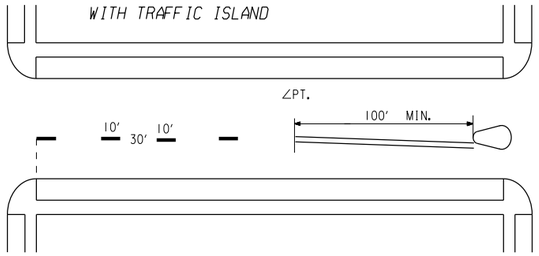
REVISED:

2

DASHED YELLOW CENTER LINE INSTALLATION

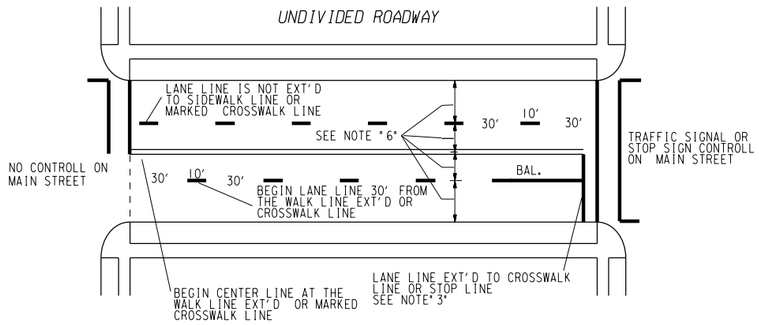


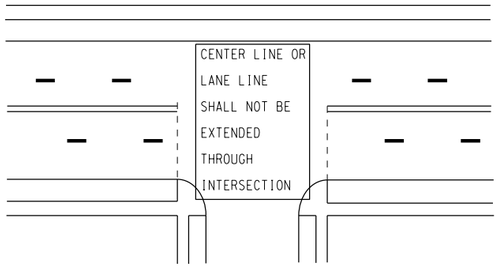
DASHED YELLOW CENTER LINE INSTALLATION WITH TRAFFIC ISLAND



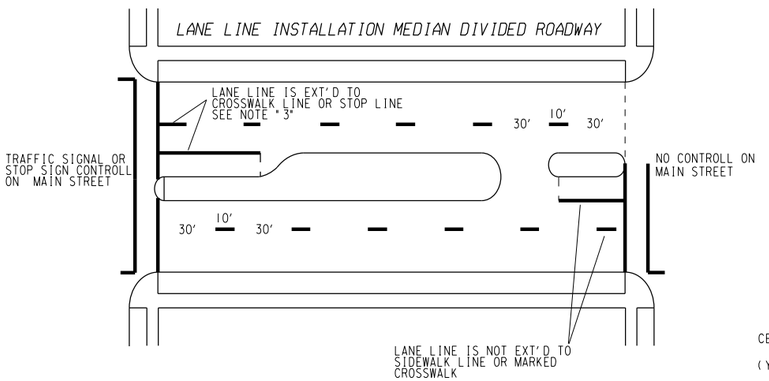
DOUBLE YELLOW CENTER LINE & LANE LINE INSTALLATION

UNDIVIDED ROADWAY



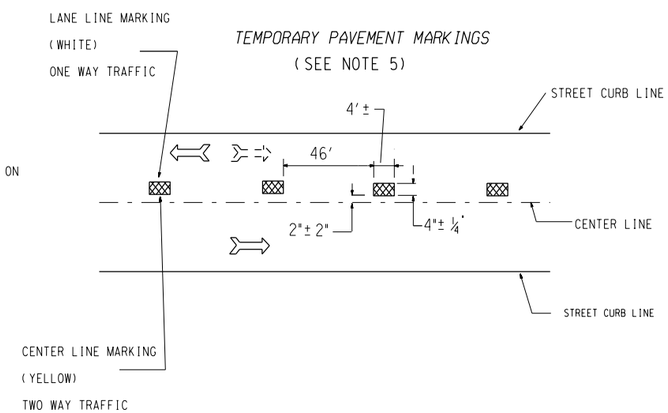


LANE LINE INSTALLATION MEDIAN DIVIDED ROADWAY



TEMPORARY PAVEMENT MARKINGS

(SEE NOTE 5)



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.

DATE 15JAN13 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	2025-11-71 QUANTITY	2025-16-70 QUANTITY
0010	201.0110	CLEARING	SY	1,040.000	1,040.000	
0020	201.0120	CLEARING	ID	686.000	686.000	
0030	201.0210	GRUBBING	SY	1,040.000	1,040.000	
0040	201.0220	GRUBBING	ID	686.000	686.000	
0050	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 13+38.55	LS	1.000		1.000
0060	204.0100	REMOVING PAVEMENT	SY	85,100.000	85,100.000	
0070	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	1,850.000	1,850.000	
0080	204.0150	REMOVING CURB & GUTTER	LF	2,550.000	2,550.000	
0090	204.0155	REMOVING CONCRETE SIDEWALK	SY	8,290.000	8,290.000	
0100	204.0210	REMOVING MANHOLES	EACH	12.000	12.000	
0110	204.0220	REMOVING INLETS	EACH	65.000	65.000	
0120	204.0250	ABANDONING MANHOLES	EACH	34.000	34.000	
0130	204.0260	ABANDONING INLETS	EACH	29.000	29.000	
0140	205.0100	EXCAVATION COMMON	CY	51,258.000	51,258.000	
0150	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	400.000	400.000	
0160	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-40-759	LS	1.000		1.000
0170	210.0100	BACKFILL STRUCTURE	CY	2,699.000		2,699.000
0180	213.0100	FINISHING ROADWAY (PROJECT) 01. 2025-11-71	EACH	1.000	1.000	
0190	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	30,700.000	30,700.000	
0200	320.0125	CONCRETE BASE 6-INCH	SY	300.000	300.000	
0210	415.0070	CONCRETE PAVEMENT 7-INCH	SY	1,420.000	1,420.000	
0220	415.0085	CONCRETE PAVEMENT 8 1/2-INCH	SY	77,900.000	77,900.000	
0230	415.0210	CONCRETE PAVEMENT GAPS	EACH	13.000	13.000	
0240	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	1,060.000	1,060.000	
0250	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	1,680.000	1,680.000	
0260	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	40.000	40.000	
0270	416.0610	DRILLED TIE BARS	EACH	170.000	170.000	
0280	440.4410.S	INCENTIVE IRI RIDE	DOL	18,000.000	18,000.000	
0290	455.0605	TACK COAT	GAL	100.000	100.000	
0300	465.0105	ASPHALTIC SURFACE	TON	360.000	360.000	
0310	465.0110	ASPHALTIC SURFACE PATCHING	TON	50.000	50.000	
0320	502.0100	CONCRETE MASONRY BRIDGES	CY	1,039.000		1,039.000
0330	502.3200	PROTECTIVE SURFACE TREATMENT	SY	9,252.000		9,252.000
0340	503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	1,040.000		1,040.000
0350	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	52,475.000		52,475.000
0360	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	75,614.000		75,614.000
0370	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	26.000		26.000
0380	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-40-759	EACH	11.000		11.000
0390	512.1000	PILING STEEL SHEET TEMPORARY	SF	6,965.000		6,965.000
0400	516.0100	DAMPPROOFING	SY	344.000		344.000
0410	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	66.000		66.000
0420	517.1010.S	CONCRETE STAINING (STRUCTURE) 01. B-40-759	SF	2,471.000		2,471.000
0430	550.0500	PILE POINTS	EACH	98.000		98.000
0440	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	2,463.000		2,463.000
0450	601.0322	CONCRETE CURB & GUTTER 22-INCH	LF	730.000	730.000	
0460	601.0331	CONCRETE CURB & GUTTER 31-INCH	LF	4,730.000	4,730.000	

3

DATE 15JAN13 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	2025-11-71 QUANTITY	2025-16-70 QUANTITY
0470	601.0452	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D	LF	28,950.000	28,950.000	
0480	601.0600	CONCRETE CURB PEDESTRIAN	LF	440.000	440.000	
0490	602.0410	CONCRETE SIDEWALK 5-INCH	SF	73,650.000	73,650.000	
0500	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	750.000	750.000	
0510	602.1000	CONCRETE LOADING ZONE	SF	1,700.000	1,700.000	
0520	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	1,572.000	1,572.000	
0530	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	1,572.000	1,572.000	
0540	606.0300	RIPRAP HEAVY	CY	467.000		467.000
0550	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	1,761.000	1,761.000	
0560	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	384.000	384.000	
0570	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	400.000	400.000	
0580	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	397.000	397.000	
0590	608.0436	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH	LF	14.000	14.000	
0600	608.0512	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	LF	432.000	432.000	
0610	608.0515	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 15-INCH	LF	90.000	90.000	
0620	608.0521	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 21-INCH	LF	60.000	60.000	
0630	611.0420	RECONSTRUCTING MANHOLES	EACH	5.000	5.000	
0640	611.0555	MANHOLE COVERS TYPE Q	EACH	12.000	12.000	
0650	611.1230	CATCH BASINS 2X3-FT	EACH	3.000	3.000	
0660	611.2004	MANHOLES 4-FT DIAMETER	EACH	20.000	20.000	
0670	611.2005	MANHOLES 5-FT DIAMETER	EACH	1.000	1.000	
0680	611.2006	MANHOLES 6-FT DIAMETER	EACH	4.000	4.000	
0690	611.2044	MANHOLES 4X4-FT	EACH	11.000	11.000	
0700	611.8110	ADJUSTING MANHOLE COVERS	EACH	91.000	91.000	
0710	611.8115	ADJUSTING INLET COVERS	EACH	10.000	10.000	
0720	611.9705	SALVAGED MANHOLE COVERS	EACH	84.000	84.000	
0730	611.9710	SALVAGED INLET COVERS	EACH	9.000	9.000	
0740	612.0104	PIPE UNDERDRAIN 4-INCH	LF	150.000	150.000	
0750	612.0106	PIPE UNDERDRAIN 6-INCH	LF	372.000		372.000
0760	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	8.000		8.000
0770	616.0204	FENCE CHAIN LINK 4-FT	LF	150.000	150.000	
0780	619.1000	MOBILIZATION	EACH	1.000		1.000
0790	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	2.000	2.000	
0800	623.0200	DUST CONTROL SURFACE TREATMENT	SY	76,060.000	76,060.000	
0810	625.0100	TOPSOIL	SY	25,040.000	25,040.000	
0820	625.0105	TOPSOIL	CY	200.000	200.000	
0830	627.0200	MULCHING	SY	100.000	100.000	
0840	628.1504	SILT FENCE	LF	435.000	435.000	
0850	628.1520	SILT FENCE MAINTENANCE	LF	435.000	435.000	
0860	628.2023	EROSION MAT CLASS II TYPE B	SY	1,040.000	1,040.000	
0870	628.5505	POLYETHYLENE SHEETING	SY	110.000		110.000
0880	629.0210	FERTILIZER TYPE B	CWT	14.000	14.000	
0890	630.0130	SEEDING MIXTURE NO. 30	LB	18.000	18.000	
0900	630.0170	SEEDING MIXTURE NO. 70	LB	4.000	4.000	

3

DATE 15JAN13 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	2025-11-71 QUANTITY	2025-16-70 QUANTITY
0910	631.1000	SOD LAWN	SY	24,000.000	24,000.000	
0920	632.0101	TREES (SPECIES, ROOT, SIZE) 01. AUTUMN BLAZE MAPLE B&B 3.5" CAL	EACH	2.000	2.000	
0930	632.0101	TREES (SPECIES, ROOT, SIZE) 02. REGAL PRINCE OAK B&B 3" CAL	EACH	4.000	4.000	
0940	632.0101	TREES (SPECIES, ROOT, SIZE) 03. SKYLINE HONEY LOCUST B&B 3" CAL	EACH	3.000	3.000	
0950	632.0101	TREES (SPECIES, ROOT, SIZE) 04. ADIRONDACK CRABAPPLE B&B 3" CAL	EACH	2.000	2.000	
0960	632.0101	TREES (SPECIES, ROOT, SIZE) 05. CALLERY PEAR B&B 3" CAL	EACH	4.000	4.000	
0970	632.0101	TREES (SPECIES, ROOT, SIZE) 06. DANADA CHARM ELM B&B, 3" CAL	EACH	5.000	5.000	
0980	632.0101	TREES (SPECIES, ROOT, SIZE) 07. CATAPA B&B 3" CAL	EACH	4.000	4.000	
0990	632.0101	TREES (SPECIES, ROOT, SIZE) 08. KENTUCKY COFFEE TREE B&B 3" CAL	EACH	2.000	2.000	
1000	632.0101	TREES (SPECIES, ROOT, SIZE) 09. JAPANESE TREE LILAC B&B 2.5" CAL	EACH	3.000	3.000	
1010	632.0101	TREES (SPECIES, ROOT, SIZE) 10 ALLEGHANY SERVICEBERRY B&B 8' HT	EACH	10.000	10.000	
1020	632.0101	TREES (SPECIES, ROOT, SIZE) 11. MOUNTBATTEN JUNIPERB&B 5' HT	EACH	10.000	10.000	
1030	632.0101	TREES (SPECIES, ROOT, SIZE) 12. SWAMP WHITE OAK B&B 2" CAL	EACH	15.000	15.000	
1040	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 01. TIGER EYE SUMAC CG 5 GAL	EACH	3.000	3.000	
1050	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 02. SUMMAR WINE NINEBARK CG 5 GAL	EACH	5.000	5.000	
1060	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 03. RED KNOCKOUT ROSE CG 5 GAL	EACH	12.000	12.000	
1070	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 04. ARROWWOOD VIBURNUM CG 5 GAL	EACH	19.000	19.000	
1080	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 05. CARDINAL DOGWOODS CG 5 GAL	EACH	13.000	13.000	
1090	632.0301	VINES (SPECIES, ROOT, SIZE) 01. CATMINT CG 1 GAL	EACH	48.000	48.000	
1100	632.0301	VINES (SPECIES, ROOT, SIZE) 02. DWARF DAYLILIES CG 1 GAL	EACH	48.000	48.000	
1110	632.0301	VINES (SPECIES, ROOT, SIZE) 03. SUM N SUBSTANCE HOSTA CG 1 GAL	EACH	12.000	12.000	
1120	632.0301	VINES (SPECIES, ROOT, SIZE) 04. ORNAMENTAL GRASS CG 5 GAL	EACH	84.000	84.000	
1130	632.0301	VINES (SPECIES, ROOT, SIZE) 05. SHASTA DAISY CG 1 GAL	EACH	144.000	144.000	
1140	632.0301	VINES (SPECIES, ROOT, SIZE) 06. RUSSIAN SAGE CG 1 GAL	EACH	12.000	12.000	
1150	632.0301	VINES (SPECIES, ROOT, SIZE) 07. BLACK EYES SUSANS CG 1 GAL	EACH	264.000	264.000	
1160	632.0301	VINES (SPECIES, ROOT, SIZE) 08. CARAMEL CORLA BELLS CG 1 GAL	EACH	96.000	96.000	
1170	632.0301	VINES (SPECIES, ROOT, SIZE) 09. GIANT HYSSOP CG 1 GAL	EACH	144.000	144.000	
1180	632.0301	VINES (SPECIES, ROOT, SIZE) 10. PETUNIAS, FLATS	EACH	10.000	10.000	
1190	632.0301	VINES (SPECIES, ROOT, SIZE) 11. MARIGOLDS, FLATS	EACH	10.000	10.000	

DATE 15JAN13 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	2025-11-71 QUANTITY	2025-16-70 QUANTITY
1200	632.0301	VINES (SPECIES, ROOT, SIZE) 12. DAFFODIL BULBS, 3"X3"	EACH	1,000.000	1,000.000	
1210	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	26.000	26.000	
1220	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	3.000	3.000	
1230	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	2.000	2.000	
1240	634.0816	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	EACH	2.000	2.000	
1250	637.0202	SIGNS REFLECTIVE TYPE II	SF	192.500	192.500	
1260	638.2602	REMOVING SIGNS TYPE II	EACH	11.000	11.000	
1270	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	2.000	2.000	
1280	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000	
1290	643.0100	TRAFFIC CONTROL (PROJECT) 01. 2025-11-71	EACH	1.000	1.000	
1300	643.0300	TRAFFIC CONTROL DRUMS	DAY	80,963.000	80,963.000	
1310	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	72,522.000	72,522.000	
1320	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	693.000	693.000	
1330	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	693.000	693.000	
1340	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	145,044.000	145,044.000	
1350	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	80,963.000	80,963.000	
1360	643.0900	TRAFFIC CONTROL SIGNS	DAY	35,859.000	35,859.000	
1370	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	390.000	390.000	
1380	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	372.000		372.000
1390	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	705.000		705.000
1400	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	12,236.000	12,236.000	
1410	646.0116	PAVEMENT MARKING EPOXY 6-INCH	LF	7,820.000	7,820.000	
1420	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	2,090.000	2,090.000	
1430	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	8.000	8.000	
1440	647.0176	PAVEMENT MARKING ARROWS EPOXY TYPE 3	EACH	1.000	1.000	
1450	647.0206	PAVEMENT MARKING ARROWS BIKE LANE EPOXY	EACH	45.000	45.000	
1460	647.0306	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY	EACH	45.000	45.000	
1470	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	8.000	8.000	
1480	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24-INCH	LF	336.000	336.000	
1490	647.0776	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	LF	3,624.000	3,624.000	
1500	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	24,518.000	24,518.000	
1510	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	38,156.000	38,156.000	
1520	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	644.000	644.000	
1530	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	1,130.000	1,130.000	
1540	649.1300	TEMPORARY PAVEMENT MARKING STOP LINE 24-INCH	LF	122.000	122.000	
1550	649.1400	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH	LF	164.000	164.000	
1560	649.1700	TEMPORARY PAVEMENT MARKING ARROWS	EACH	11.000	11.000	
1570	649.1800	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	EACH	14.000	14.000	
1580	649.1900	TEMPORARY PAVEMENT MARKING WORDS	EACH	12.000	12.000	
1590	649.2000	TEMPORARY PAVEMENT MARKING WORDS REMOVABLE TAPE	EACH	14.000	14.000	
1600	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	232.000	232.000	
1610	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	18,450.000	18,450.000	
1620	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	5,460.000	5,460.000	

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DATE 15JAN13 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	2025-11-71 QUANTITY	2025-16-70 QUANTITY
1630	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) (B-40-759)	LS	1.000		1.000
1640	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	18,450.000	18,450.000	
1650	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 2025-11-71	LS	1.000	1.000	
1660	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 2025-11-71	LS	1.000	1.000	
1670	652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	40.000	40.000	
1680	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	643.000	643.000	
1690	652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	LF	22,380.000	22,020.000	360.000
1700	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	4,450.000	4,450.000	
1710	652.0800	CONDUIT LOOP DETECTOR	LF	129.000	129.000	
1720	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	2.000	2.000	
1730	653.0905	REMOVING PULL BOXES	EACH	3.000	3.000	
1740	654.0110	CONCRETE BASES TYPE 10	EACH	7.000	7.000	
1750	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	337.000	337.000	
1760	655.0800	LOOP DETECTOR WIRE	LF	414.000	414.000	
1770	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 01. STH 190 & STH 100	LS	1.000	1.000	
1780	690.0150	SAWING ASPHALT	LF	1,550.000	1,550.000	
1790	690.0250	SAWING CONCRETE	LF	410.000	410.000	
1800	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	23,370.000	23,370.000	
1810	SPV.0060	SPECIAL 01. INLET COVERS, TYPE 57	EACH	77.000	77.000	
1820	SPV.0060	SPECIAL 02. INLET COVERS, TYPE 55	EACH	26.000	26.000	
1830	SPV.0060	SPECIAL 03. MANHOLE COVERS, TYPE 58A	EACH	8.000	8.000	
1840	SPV.0060	SPECIAL 04. INLET TYPE 45A	EACH	87.000	87.000	
1850	SPV.0060	SPECIAL 05. INLET SCREENS TYPE M	EACH	147.000	147.000	
1860	SPV.0060	SPECIAL 06. INLET SCREENS TYPE R	EACH	102.000	102.000	
1870	SPV.0060	SPECIAL 07. INTERNAL SANITARY MANHOLE SEALS	EACH	39.000	39.000	
1880	SPV.0060	SPECIAL 08. ADJUSTING TES MANHOLES	EACH	25.000	25.000	
1890	SPV.0060	SPECIAL 09. ADJUSTING WATER BOXES	EACH	201.000	201.000	
1900	SPV.0060	SPECIAL 10. ADJUSTING WATER MANHOLES	EACH	2.000	2.000	
1910	SPV.0060	SPECIAL 11. RECTANGULAR VAULT 13" X 24" X 18"	EACH	37.000	37.000	
1920	SPV.0060	SPECIAL 12. RECTANGULAR VAULT 17" X 30" X 18"	EACH	29.000	29.000	
1930	SPV.0060	SPECIAL 13. CONCRETE BASE TYPE 10 SPECIAL	EACH	1.000	1.000	
1940	SPV.0060	SPECIAL 15. POLES TYPE 10	EACH	6.000	6.000	
1950	SPV.0060	SPECIAL 17. POLES TYPE 13 SPECIAL	EACH	1.000	1.000	
1960	SPV.0060	SPECIAL 18. PRE-CAST TRAFFIC SIGNAL BASES	EACH	11.000	11.000	
1970	SPV.0060	SPECIAL 19. MONOTUBE ARMS 20-FT SPECIAL	EACH	3.000	3.000	
1980	SPV.0060	SPECIAL 20. MONOTUBE ARMS 25-FT SPECIAL	EACH	2.000	2.000	
1990	SPV.0060	SPECIAL 21. MONOTUBE ARMS 30-FT SPECIAL	EACH	2.000	2.000	
2000	SPV.0060	SPECIAL 22. MONOTUBE ARMS 35-FT SPECIAL	EACH	1.000	1.000	
2010	SPV.0060	SPECIAL 23. MONOTUBE ARMS 40-FT SPECIAL	EACH	1.000	1.000	
2020	SPV.0060	SPECIAL 26. 4 FOOT DIAMETER TES MANHOLE	EACH	21.000	21.000	
2030	SPV.0060	SPECIAL 27. 5' DIAMETER TES MANHOLE	EACH	3.000	3.000	

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DATE 15JAN13 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	2025-11-71 QUANTITY	2025-16-70 QUANTITY
2040	SPV.0060	SPECIAL 28. CONDUIT INTO EXISTING MANHOLE	EACH	2.000	2.000	
2050	SPV.0060	SPECIAL 29. CONCRETE COLLAR SPECIAL	EACH	5.000	5.000	
2060	SPV.0060	SPECIAL 30. MIS MANHOLE RISER EXTENSION	EACH	1.000	1.000	
2070	SPV.0060	SPECIAL 31. SAWING CONCRETE-ENCASED DUCT PACKAGE	EACH	2.000	2.000	
2080	SPV.0090	SPECIAL 01. CONSTRUCTION STAKING CONCRETE SIDEWALK	LF	6,610.000	6,610.000	
2090	SPV.0090	SPECIAL 02. STORM SEWER PIPE 8-INCH PVC	LF	64.000	64.000	
2100	SPV.0090	SPECIAL 03. 1 - DUCT CONDUIT CEMENT ENCASED 4-INCH CONDUIT DB-60	LF	268.000	268.000	
2110	SPV.0090	SPECIAL 04. 2 - DUCT CONDUIT CEMENT ENCASED DB-6	LF	919.000	919.000	
2120	SPV.0090	SPECIAL 05. 3 - DUCT CONDUIT CEMENT ENCASED DB-6	LF	28.000	28.000	
2130	SPV.0090	SPECIAL 06. 4 - DUCT CONDUIT CEMENT ENCASED DB-6	LF	2,518.000	2,518.000	
2140	SPV.0090	SPECIAL 07. 5 - DUCT CONDUIT CEMENT ENCASED DB-6	LF	50.000	50.000	
2150	SPV.0090	SPECIAL 08. 6 - DUCT CONDUIT CEMENT ENCASED DB-6	LF	1,955.000	1,955.000	
2160	SPV.0090	SPECIAL 09. 7 - DUCT CONDUIT CEMENT ENCASED DB-6	LF	61.000	61.000	
2170	SPV.0090	SPECIAL 10/ 8 - DUCT CONDUIT CEMENT ENCASED DB-60	LF	1,611.000	1,611.000	
2180	SPV.0090	SPECIAL 11. 10 - DUCT CONDUIT CEMENT ENCASED DB-60	LF	820.000	820.000	
2190	SPV.0090	SPECIAL 12. 12 - DUCT CONDUIT CEMENT ENCASED DB-60	LF	892.000	892.000	
2200	SPV.0090	SPECIAL 13. DUCTILE IRON WATER MAIN 12-INCH	LF	55.000	55.000	
2210	SPV.0090	SPECIAL 14. STEEL CASING PIPE 24-INCH	LF	20.000	20.000	
2220	SPV.0105	SPECIAL 01.CUSTOM STEEL DIAPHRAGM (B-40-759)	LS	1.000		1.000
2230	SPV.0105	SPECIAL 02.EAST ABUTMENT ELECTRICAL WORK	LS	1.000		1.000
2240	SPV.0105	SPECIAL 04. REMOVE LOOP DETECTOR WIRE AND LEAD -IN CABLE, INTERSEC OF STH 190 & STH 100	LS	1.000	1.000	
2250	SPV.0105	SPECIAL 05. INFRARED EVP SYSTEM FOR TEMPORARY SIGNALS, INTERSEC OF STH 190 & STH 100	LS	1.000	1.000	
2260	SPV.0105	SPECIAL 06. 12-INCH CAST IRON WATER MAIN CONCRETE ENCASEMENT	LS	1.000	1.000	
2270	SPV.0105	SPECIAL 07. RAILING STEEL TYPE C2 GALVANIZED B-40-759	LS	1.000		1.000
2280	SPV.0165	SPECIAL 01.ARCHITECTURAL SURFACE TREATMENT	SF	3,409.000		3,409.000
2290	SPV.0165	SPECIAL 02. WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	940.000	940.000	
2300	SPV.0180	SPECIAL 01. JOINT SEALING	SY	77,900.000	77,900.000	
2310	SPV.0195	SPECIAL 01. GRANITE BOULDERS	TON	10.000	10.000	
2320	SPV.0195	SPECIAL 02. RECLAIMED GRANITE PAVERS 5"X5"X8.5"	TON	10.000	10.000	
2330	SPV.0195	SPECIAL 03. 6" SNAPPED-WIDTH WALL STONE	TON	10.000	10.000	
2340	SPV.0195	SPECIAL 04. CRUSHED STONE, MOUNTAIN SHADOWS	TON	20.000	20.000	

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REMOVALS

2025-11-71

ITEM NO.		CLEARING 201.0110	CLEARING 201.0110	CLEARING 201.0120	GRUBBING 201.0210	GRUBBING 201.0210	GRUBBING 201.0220	REMOVING PAVEMENT 204.0100	REMOVING PAVEMENT 204.0100	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115	REMOVING CURB & GUTER 204.0150	REMOVING CURB & GUTER 204.0150	REMOVING CONCRETE SIDEWALK 204.0155	REMOVING CONCRETE SIDEWALK 204.0155
UNIT PAY		SY	SY	ID	SY	SY	ID	SY	SY	SY	SY	LF	LF	SY	SY
CATEGORY		A	B	A	A	B	A	A	F	A	F	A	F	A	F
LOCATION															
STA 0+00 TO STA 3+00	LT		0	0		0	0	870	0	110	0	0	0	20	0
STA 3+00 TO STA 9+00	LT		0	16		0	16	2350	0	0	0	0	0	90	0
STA 9+00 TO STA 15+00	LT	520	40	19	520	40	19	3000	0	0	0	0	0	0	0
STA 15+00 TO STA 21+00	LT		0	52		0	52	2700	0	0	0	490	0	210	0
STA 21+00 TO STA 27+00	LT		0	58		0	58	2780	0	0	0	400	0	300	0
STA 27+00 TO STA 33+00	LT		0	73		0	73	3660	0	30	0	0	0	640	0
STA 33+00 TO STA 39+00	LT		0	34		0	34	2650	0	30	0	10	0	170	0
STA 39+00 TO STA 45+00	LT		0	42		0	42	2550	0	10	0	0	0	150	0
STA 45+00 TO STA 51+00	LT		0	19		0	19	2770	0	30	0	10	0	550	0
STA 51+00 TO STA 57+00	LT		0	51		0	51	4760	0	210	0	270	0	600	0
STA 57+00 TO STA 63+00	LT		0	95		0	95	2800	0	60	0	0	0	370	0
STA 63+00 TO STA 69+00	LT		0	22		0	22	3010	0	60	0	20	0	290	0
STA 69+00 TO STA 75+00	LT		0	22		0	22	2970	0	60	0	10	0	170	0
STA 75+00 TO STA 80+00	LT		0	0		0	0	2030	0	30	0	20	0	190	0
SUB TOTALS (LEFT)		**520**	**40**	**503**	**520**	**40**	**503**	**38,900**	**0**	**630**	**0**	**1,230**	**0**	**3,750**	**0**
STA 0+00 TO STA 3+00	RT		0	0		0	0	0	740	0	120	0	0	0	120
STA 3+00 TO STA 9+00	RT		0	21		0	21	0	2730	0	40	0	0	0	330
STA 9+00 TO STA 15+00	RT	435	45	57	435	45	57	0	3730	0	0	0	0	0	330
STA 15+00 TO STA 21+00	RT		0	0		0	0	0	2770	0	60	460	60	0	290
STA 21+00 TO STA 27+00	RT		0	62		0	62	1430	3,830	0	0	0	120	0	250
STA 27+00 TO STA 33+00	RT		0	5		0	5	6390	0	220	100	270	0	940	330
STA 33+00 TO STA 39+00	RT		0	15		0	15	2760	0	20	0	10	0	170	0
STA 39+00 TO STA 45+00	RT		0	19		0	19	2750	0	0	0	0	0	130	0
STA 45+00 TO STA 51+00	RT		0	0		0	0	2490	0	30	0	20	0	250	0
STA 51+00 TO STA 57+00	RT		0	4		0	4	4250	0	590	0	350	0	520	0
STA 57+00 TO STA 63+00	RT		0	0		0	0	2680	0	0	0	0	0	200	0
STA 63+00 TO STA 69+00	RT		0	0		0	0	3310	0	0	0	0	0	180	0
STA 69+00 TO STA 75+00	RT		0	0		0	0	4510	0	40	0	30	0	350	0
STA 75+00 TO STA 80+00	RT		0	0		0	0	1830	0	0	0	0	0	150	0
SUB TOTALS (RIGHT)		**435**	**45**	**183**	**435**	**45**	**183**	**32,400**	**13,800**	**900**	**320**	**1,140**	**180**	**2,890**	**1,650**
GRAND TOTALS		**955**	**85**	**686**	**955**	**85**	**686**	**71,300**	**13,800**	**1,530**	**320**	**2,370**	**180**	**6,640**	**1,650**

A = CATEGORY 0010 (100% State)
B = CATEGORY 0020 (80% Fed, 20% State)
C = CATEGORY 0030 (91.8% State, 8.2% Milwaukee)
E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

CONCRETE CONSTRUCTION ITEMS

2025-11-71

ITEM NO.		BASE AGGREGATE DENSE 1¼-INCH 305.0120	BASE AGGREGATE DENSE 1¼-INCH 305.0120	CONCRETE BASE 6-INCH 320.0125	CONCRETE BASE 6-INCH 320.0125	CONCRETE PAVEMENT 7-INCH 415.0070	CONCRETE PAVEMENT 7-INCH 415.0070	CONCRETE PAVEMENT 8 1/2-INCH 415.0085	CONCRETE PAVEMENT 8 1/2-INCH 415.0085	CONCRETE APPROACH SLAB 415.0410	CONCRETE APPROACH SLAB 415.0410	CONCRETE DRIVEWAY 7-INCH 416.0170	CONCRETE DRIVEWAY 7-INCH 416.0170	CONCRETE DRIVEWAY 7-INCH HES 416.0270
UNIT PAY		TON	TON	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY
CATEGORY		A	F	A	F	A	E	C	F	A	F	A	F	A
LOCATION														
STA 0+00 TO STA 3+00	LT	330	0	0	0	0	0	930		0	0	0	0	0
STA 3+00 TO STA 9+00	LT	950	0	0	0	0	0	2,540		0	0	50	0	0
STA 9+00 TO STA 15+00	LT	1130	0	0	0	0	0	2,250		530	0	0	0	0
STA 15+00 TO STA 21+00	LT	980	0	0	0	0	0	2,640		0	0	30	0	0
STA 21+00 TO STA 27+00	LT	990	0	0	0	10	0	2,590		0	0	70	0	0
STA 27+00 TO STA 33+00	LT	1210	0	10	0	0	0	3,210		0	0	370	0	0
STA 33+00 TO STA 39+00	LT	970	0	0	0	0	0	2,530		0	0	0	0	0
STA 39+00 TO STA 45+00	LT	990	0	0	0	10	0	2,600		0	0	40	0	0
STA 45+00 TO STA 51+00	LT	1010	0	0	0	10	0	2,660		0	0	80	0	0
STA 51+00 TO STA 57+00	LT	1750	0	40	0	10	0	4,790		0	0	220	0	0
STA 57+00 TO STA 63+00	LT	1060	0	0	0	0	0	2,830		0	0	40	0	0
STA 63+00 TO STA 69+00	LT	1060	0	0	0	0	0	2,790		0	0	30	0	0
STA 69+00 TO STA 75+00	LT	1040	0	0	0	0	0	2,740		0	0	0	0	0
STA 75+00 TO STA 80+00	LT	740	0	0	0	0	0	1,950		0	0	0	0	0
SUB TOTALS (LEFT)		**14,210**	**0**	**50**	**0**	**40**	**0**	**37,050**	**0**	**530**	**0**	**930**	**0**	**0**
STA 0+00 TO STA 3+00	RT	0	290	0	0	0	0	0	720	0	0	0	40	0
STA 3+00 TO STA 9+00	RT	0	1030	0	0	0	0	0	2,640	0	0	0	50	0
STA 9+00 TO STA 15+00	RT	0	1410	0	0	0	0	0	3,070	0	530	0	60	0
STA 15+00 TO STA 21+00	RT	0	1030	0	0	0	0	0	2,700	0	0	0	30	0
STA 21+00 TO STA 27+00	RT	510	1140	0	25	0	0	960	3,370	0	0	0	190	0
STA 27+00 TO STA 33+00	RT	2210	0	105	0	0	0	5,590		0	0	40	40	40
STA 33+00 TO STA 39+00	RT	980	0	0	0	30	0	2,510		0	0	0	0	0
STA 39+00 TO STA 45+00	RT	960	0	0	0	0	0	2,530		0	0	10	0	0
STA 45+00 TO STA 51+00	RT	1000	0	0	0	0	0	2,660		0	0	10	0	0
STA 51+00 TO STA 57+00	RT	1560	0	120	0	0	0	4,120		0	0	80	40	0
STA 57+00 TO STA 63+00	RT	1000	0	0	0	0	0	2,630		0	0	70	0	0
STA 63+00 TO STA 69+00	RT	1110	0	0	0	0	160	2,790		0	0	0	0	0
STA 69+00 TO STA 75+00	RT	1610	0	0	0	0	1,190	2,820		0	0	10	0	0
STA 75+00 TO STA 80+00	RT	650	0	0	0	0		1,740		0	0	80	0	0
SUB TOTALS (RIGHT)		**11,590**	**4,900**	**225**	**25**	**30**	**1,350**	**28,350**	**12,500**	**0**	**530**	**300**	**450**	**40**
GRAND TOTALS		**25,800**	**4,900**	**275**	**25**	**70**	**1,350**	**65,400**	**12,500**	**530**	**530**	**1,230**	**450**	**40**

A = CATEGORY 0010 (100% State)
B = CATEGORY 0020 (80% Fed, 20% State)
C = CATEGORY 0030 (91.8% State, 8.2% Milwaukee)
E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

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CONCRETE CONSTRUCTION ITEMS (continued)

2025-11-71

		DRILLED TIE BARS	CONCRETE CURB & GUTTER 22-INCH	CONCRETE CURB & GUTTER 22-INCH	CONCRETE CURB & GUTTER 31-INCH	CONCRETE CURB & GUTTER 31-INCH	CONCRETE CURB & GUTTER 31-INCH	CONCRETE CURB & GUTTER INTEGRAL 30-inch TYPE D	CONCRETE CURB & GUTTER INTEGRAL 30-inch TYPE D	CONCRETE CURB PEDESTRIAN	CONCRETE CURB PEDESTRIAN	CONCRETE SIDEWALK 5-INCH	CONCRETE SIDEWALK 5-INCH	CONCRETE SIDEWALK 5-INCH	CONCRETE LOADING ZONE	CONCRETE LOADING ZONE	DUST CONTROL SURFACE TREATMENT	DUST CONTROL SURFACE TREATMENT	SAWING ASPHALT	SAWING ASPHALT	SAWING CONCRETE	SAWING CONCRETE
ITEM NO.		416.0610	601.0322	601.0322	601.0331	601.0331	601.0331	601.0452	601.0452	601.0600	601.0600	602.0410	602.0410	602.0410	602.1000	602.1000	623.0200	623.0200	690.0150	690.0150	690.0250	690.0250
UNIT PAY		EA	LF	LF	LF	LF	LF	LF	LF	LF	LF	SF	SF	SF	SF	SF	SY	SY	LF	LF	LF	LF
CATEGORY		A	A	F	A	E	F	A	F	A	F	A	E	F	A	F	C	F	A	F	A	F
LOCATION																						
STA 0+00 TO STA 3+00	LT	18	0	0	0	0	0	180	0	0	0	880	0	0	0	0	930	0	0	0	0	0
STA 3+00 TO STA 9+00	LT	0	0	0	0	0	0	940	0	0	0	3,340	0	0	0	0	2,540	0	0	0	40	0
STA 9+00 TO STA 15+00	LT	0	0	0	260	0	0	900	0	0	0	4,650	0	0	60	0	2,780	0	0	0	0	0
STA 15+00 TO STA 21+00	LT	0	0	0	0	0	0	930	0	0	0	1,020	350	0	0	0	2,640	0	0	0	0	0
STA 21+00 TO STA 27+00	LT	0	0	0	0	0	0	1,120	0	0	0	2,020	120	0	0	0	2,590	0	30	0	30	0
STA 27+00 TO STA 33+00	LT	12	0	0	30	0	0	1,220	0	10	0	2,260	80	0	100	0	3,210	0	230	0	0	0
STA 33+00 TO STA 39+00	LT	0	0	0	10	0	0	1,170	0	10	0	1,200	380	0	0	0	2,530	0	30	0	0	0
STA 39+00 TO STA 45+00	LT	0	0	0	0	0	0	1,090	0	0	0	2,150	430	0	0	0	2,600	0	0	0	0	0
STA 45+00 TO STA 51+00	LT	10	0	0	20	0	0	1,120	0	0	0	1,890	520	0	0	0	2,660	0	30	0	60	0
STA 51+00 TO STA 57+00	LT	16	200	0	420	0	0	960	0	30	0	2,490	570	0	350	0	3,290	0	140	0	160	0
STA 57+00 TO STA 63+00	LT	16	0	0	40	0	0	1,080	0	60	0	2,700	80	0	0	0	2,830	0	0	0	0	0
STA 63+00 TO STA 69+00	LT	8	0	0	20	0	0	1,140	0	40	0	1,820	660	0	0	0	2,790	0	70	0	0	0
STA 69+00 TO STA 75+00	LT	8	0	0	40	0	0	1,130	0	30	0	1,310	450	0	0	0	2,740	0	60	0	0	0
STA 75+00 TO STA 80+00	LT	8	0	0	20	0	0	800	0	0	0	2,540	0	0	0	0	1,950	0	50	0	0	0
SUB TOTALS (LEFT)		**96**	**200**	**0**	**860**	**0**	**0**	**13,780**	**0**	**180**	**0**	**30,270**	**3,640**	**0**	**510**	**0**	**36,080**	**0**	**640**	**0**	**290**	**0**
STA 0+00 TO STA 3+00	RT	10	0	0	0	0	10	0	430	0	50	0	0	1,740	0	0	0	720	0	50	0	0
STA 3+00 TO STA 9+00	RT	8	0	0	0	0	60	0	1,250	0	0	0	150	2,620	0	0	0	2,640	0	90	0	40
STA 9+00 TO STA 15+00	RT	0	0	0	0	0	590	0	700	0	0	0	0	4,100	0	220	0	3,600	0	50	0	10
STA 15+00 TO STA 21+00	RT	8	0	0	0	0	0	0	1,170	0	0	0	30	3,090	0	0	0	2,700	0	80	0	0
STA 21+00 TO STA 27+00	RT	0	0	0	330	0	120	410	780	0	0	320	50	4,060	0	0	0	2,850	40	80	0	0
STA 27+00 TO STA 33+00	RT	16	70	80	600	0	0	2,280	0	0	0	6,450	180	0	480	0	5,590	0	260	0	10	0
STA 33+00 TO STA 39+00	RT	0	0	0	50	0	0	1,100	0	20	0	690	790	0	0	0	2,510	0	30	0	0	0
STA 39+00 TO STA 45+00	RT	8	0	0	0	0	0	1,080	0	0	0	850	290	350	0	0	2,530	0	0	0	0	0
STA 45+00 TO STA 51+00	RT	8	0	0	20	0	0	1,060	0	10	0	1,790	510	0	0	0	2,660	0	20	0	0	0
STA 51+00 TO STA 57+00	RT	16	350	0	300	0	0	1,100	0	0	0	3,190	700	0	490	0	2,850	0	130	0	30	0
STA 57+00 TO STA 63+00	RT	0	0	0	0	0	0	1,080	0	50	0	1,200	0	0	0	0	2,630	0	20	0	30	0
STA 63+00 TO STA 69+00	RT	0	0	0	140	0	0	1,040	0	80	0	1,670	210	0	0	0	2,950	0	0	0	0	0
STA 69+00 TO STA 75+00	RT	0	30	0	140	1,510	0	1,000	0	50	0	3,500	700	0	0	0	4,010	0	0	0	0	0
STA 75+00 TO STA 80+00	RT	0	0	0	0	0	0	690	0	0	0	510	0	0	0	0	1,740	0	60	0	0	0
SUB TOTALS (RIGHT)		**74**	**450**	**80**	**1,580**	**1,510**	**780**	**10,840**	**4,330**	**210**	**50**	**20,170**	**3,610**	**15,960**	**970**	**220**	**27,470**	**12,510**	**560**	**350**	**70**	**50**
GRAND TOTALS		**170**	**650**	**80**	**2,440**	**1,510**	**780**	**24,620**	**4,330**	**390**	**50**	**50,440**	**7,250**	**15,960**	**1,480**	**220**	**63,550**	**12,510**	**1,200**	**350**	**360**	**50**

A = CATEGORY 0010 (100% State)
B = CATEGORY 0020 (80% Fed, 20% State)
C = CATEGORY 0030 (91.8% State, 8.2% Milwaukee)
E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

MISCELLANEOUS ITEMS

2025-11-71

ITEM NO. / UNIT PAY		EXCV. HAUL. & DISPOSAL OF PETRO CONTAM. SOIL 205.0501.S TON	FINISHING ROADWAY (PROJECT) 213.0100 EA	CONCRETE PAVEMENT GAPS 415.0210 EACH	DETECTABLE WARNING FIELDS 602.0505 SF	DETECTABLE WARNING FIELDS 602.0505 SF	LANDMARK REFERENCE MONUMENTS 621.0100 EACH	FIELD OFFICE TYPE D (PROJECT) 642.5401 EACH	INLET SCREEN TYPE M SPV.0060.05 EACH	INLET SCREEN TYPE R SPV.0060.06 EACH	JOINT SEALING SPV.0180.01 SY	JOINT SEALING SPV.0180.01 SY
CATEGORY		A	A	A	A	F	A	A	A	A	E	G
LOCATION												
STAGE 1												
STA 0+00 TO STA 3+00	LT				10	0					930	0
STA 3+00 TO STA 9+00	LT			1	0	0					2,540	0
STA 9+00 TO STA 15+00	LT				60	0					2,250	0
STA 15+00 TO STA 21+00	LT			1	20	0					2,640	0
STA 21+00 TO STA 27+00	LT			1	0	0					2,590	0
STA 27+00 TO STA 33+00	LT	50		2	20	0	1				3,210	0
STA 33+00 TO STA 39+00	LT				20	0					2,530	0
STA 39+00 TO STA 45+00	LT			1	0	0					2,600	0
STA 45+00 TO STA 51+00	LT				20	0					2,660	0
STA 51+00 TO STA 57+00	LT	50		1	20	0	1				4,790	0
STA 57+00 TO STA 63+00	LT				30	0					2,830	0
STA 63+00 TO STA 69+00	LT				30	0					2,790	0
STA 69+00 TO STA 75+00	LT				30	0					2,740	0
STA 75+00 TO STA 80+00	LT				30	0					1,950	0
SUB TOTALS (LEFT)		**100**		**7**	**290**	**0**	**2**				**37,050**	**0**
STAGE2												
STA 0+00 TO STA 3+00	RT	50			0	20					0	720
STA 3+00 TO STA 9+00	RT			1	0	20					0	2640
STA 9+00 TO STA 15+00	RT				0	50					0	3070
STA 15+00 TO STA 21+00	RT				20	30					0	2700
STA 21+00 TO STA 27+00	RT	50		2	20	0					960	3370
STA 27+00 TO STA 33+00	RT	100		1	100	0					5,590	0
STA 33+00 TO STA 39+00	RT				20	0					2,510	0
STA 39+00 TO STA 45+00	RT				20	0					2,530	0
STA 45+00 TO STA 51+00	RT				20	0					2,660	0
STA 51+00 TO STA 57+00	RT	100		1	20	0					4,120	0
STA 57+00 TO STA 63+00	RT				20	0					2,630	0
STA 63+00 TO STA 69+00	RT				30	0					2,790	0
STA 69+00 TO STA 75+00	RT			1	60	0					2,820	0
STA 75+00 TO STA 80+00	RT				10	0					1,740	0
SUB TOTALS (RIGHT)		**300**		**6**	**340**	**120**					**28,350**	**12,500**
GRAND TOTALS		**400**	**1**	**13**	**630**	**120**	**2**	**1**	**147**	**102**	**65,400**	**12,500**

A = CATEGORY 0010 (100% State)
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E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

EARTH WORK SUMMARY

	CATEGORY	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
	0010	1+50 TO 23+0, LT and 23+0 TO 79+50, LT & RT	43,570								
	0060	1+50 TO 27+0, RT	7,688								
TOTALS			**51,258**	0	28,352	22,906	12,243	14,692	8,214	36,566	0

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1) No EBS is anticipated, if EBS is required it will be paid as Excavation common, Item number 205.0100
2) Salvaged/Unsuable 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/Unusuable 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 aggregated dense 1-1/4"

See Section 9 of Plan for Cut & Fill Quantities

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ASPHALT ITEMS

2025-11-71

ITEM NO. / UNIT PAY / CATEGORY / LOCATION		TACK COAT 455.0605 GAL A	TACK COAT 455.0605 GAL F	ASPHALTIC SURFACE 465.0105 TON A	ASPHALTIC SURFACE 465.0105 TON F	ASPHALTIC SURFACE PATCHING 465.0110 TON A
STA 0+00 TO STA 3+00	LT	10		20	0	
STA 3+00 TO STA 9+00	LT	0		0	0	
STA 9+00 TO STA 15+00	LT	0		0	0	
STA 15+00 TO STA 21+00	LT	0		0	0	
STA 21+00 TO STA 27+00	LT	0		0	0	UNDISTRIBUTED
STA 27+00 TO STA 33+00	LT	0		10	0	
STA 33+00 TO STA 39+00	LT	0		0	0	
STA 39+00 TO STA 45+00	LT	0		0	0	
STA 45+00 TO STA 51+00	LT	0		10	0	
STA 51+00 TO STA 57+00	LT	10		30	0	
STA 57+00 TO STA 63+00	LT	0		10	0	
STA 63+00 TO STA 69+00	LT	10		10	0	
STA 69+00 TO STA 75+00	LT	0		10	0	
STA 75+00 TO STA 80+00	LT	0		10	0	
SUB TOTALS (LEFT)		**30**	**0**	**110**	**0**	
STA 0+00 TO STA 3+00	RT		10	0	30	
STA 3+00 TO STA 9+00	RT		0	0	0	
STA 9+00 TO STA 15+00	RT		0	0	0	
STA 15+00 TO STA 21+00	RT		0	0	10	
STA 21+00 TO STA 27+00	RT	0		10	0	
STA 27+00 TO STA 33+00	RT	30		110	0	
STA 33+00 TO STA 39+00	RT	0		0	0	
STA 39+00 TO STA 45+00	RT	0		0	0	
STA 45+00 TO STA 51+00	RT	0		0	0	
STA 51+00 TO STA 57+00	RT	30		80	0	
STA 57+00 TO STA 63+00	RT	0		0	0	
STA 63+00 TO STA 69+00	RT	0		0	0	
STA 69+00 TO STA 75+00	RT	0		10	0	
STA 75+00 TO STA 80+00	RT	0		0	0	
SUB TOTALS (RIGHT)		60	10	210	40	
GRAND TOTALS		**90**	**10**	**320**	**40**	**50**

WATER ITEMS

2025-11-71/2025-16-70

ITEM NO. / UNIT PAY / **CATEGORY** / LOCATION	ADJUSTING WATER BOX SPV.0060.09 EACH E	ADJUSTING WATER BOX SPV.0060.09 EACH G	ADJUST WATER MANHOLES SPV.0060.10 EACH G	DUCTILE IRON WATER MAIN 12-INCH SPV.0090.13 LF G	STEEL CASING PIPE 24-INCH SPV.0090.14 LF G
STA 2+00 TO STA 76+50	192	9	2	55	20
TOTALS	**192**	**9**	**2**	**55**	**20**

A = CATEGORY 0010 (100% State)
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C = CATEGORY 0030 (91.8% State, 8.2% Milwaukee)
E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

MISCELLANEOUS SPECIAL ITEMS

2025-11-71

ITEM NO. / UNIT PAY / **CATEGORY** / LOCATION	12-INCH CAST IRON WATER MAIN CONCRETE ENCASEMENT SPV.0105.06 EACH G	MIS MANHOLE RISER EXTENSION SPV.0060.30 EACH A	CONCRETE COLLAR SPECIAL SPV.0060.29 EACH A
STA 2+00 TO STA 76+50	1	1	
STA 27+00 TO 33+00			5
TOTALS	**1**	**1**	**5**

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CONSTRUCTION STAKING ROADWAY ITEMS

2025-11-71

ITEM NO. / UNIT PAY / CATEGORY / LOCATION		CONSTRUCTION STAKING STORM SEWER 650.4000 EACH A	CONSTRUCTION STAKING STORM SEWER 650.4000 EACH E	CONSTRUCTION STAKING STORM SEWER 650.4000 EACH F	CONSTRUCTION STAKING STORM SEWER 650.4000 EACH G	CONSTRUCTION STAKING SUBGRADE 650.4500 LF A	CONSTRUCTION STAKING SUBGRADE 650.4500 LF F	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF A	CONSTRUCTION STAKING CONCRETE PAVEMENT 650.7000 LF A	CONSTRUCTION STAKING CONCRETE PAVEMENT 650.7000 LF F	STAKING ELECTRICAL INSTALLATIONS (PROJECT) 650.8500 LUMP SUM A	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 650.9910 LUMP SUM A	CONSTRUCTION STAKING CONCRETE SIDEWALK SPV.0090.01 LF A	CONSTRUCTION STAKING CONCRETE SIDEWALK SPV.0090.01 LF F
STA 0+00 TO STA 3+00	LT					160	0	0	160	0			130	0
STA 3+00 TO STA 9+00	LT					600	0	0	600	0			600	0
STA 9+00 TO STA 15+00	LT					720	0	260	720	0			650	0
STA 15+00 TO STA 21+00	LT					600	0	0	600	0			140	0
STA 21+00 TO STA 27+00	LT					600	0	0	600	0			230	0
STA 27+00 TO STA 33+00	LT					720	0	30	720	0			210	0
STA 33+00 TO STA 39+00	LT					600	0	10	600	0			30	0
STA 39+00 TO STA 45+00	LT					600	0	0	600	0			50	0
STA 45+00 TO STA 51+00	LT					600	0	20	600	0			110	0
STA 51+00 TO STA 57+00	LT					1,100	0	620	1,100	0			260	0
STA 57+00 TO STA 63+00	LT					600	0	40	600	0			80	0
STA 63+00 TO STA 69+00	LT					600	0	20	600	0			90	0
STA 69+00 TO STA 75+00	LT					600	0	40	600	0			80	0
STA 75+00 TO STA 79+50	LT					440	0	20	440	0			0	0
SUB TOTALS (LEFT)						**8,540**	**0**	**1,060**	**8,540**	**0**			**2,660**	**0**
STA 0+00 TO STA 3+00	RT					0	160	10	0	160			0	170
STA 3+00 TO STA 9+00	RT					0	600	60	0	600			0	500
STA 9+00 TO STA 15+00	RT					0	840	590	0	840			0	140
STA 15+00 TO STA 21+00	RT					0	600	0	0	600			0	200
STA 21+00 TO STA 27+00	RT					0	630	730	0	630			0	440
STA 27+00 TO STA 33+00	RT					1,230	190	750	1,230	190			1,920	0
STA 33+00 TO STA 39+00	RT					600	0	50	600	0			0	0
STA 39+00 TO STA 45+00	RT					600	0	0	600	0			50	0
STA 45+00 TO STA 51+00	RT					600	0	20	600	0			40	0
STA 51+00 TO STA 57+00	RT					1,080	0	650	1,080	0			140	0
STA 57+00 TO STA 63+00	RT					600	0	0	600	0			150	0
STA 63+00 TO STA 69+00	RT					660	0	140	660	0			40	0
STA 69+00 TO STA 75+00	RT					1,100	0	1,400	1,100	0			80	0
STA 75+00 TO STA 80+00	RT					420	0	0	420	0			80	0
SUB TOTALS (RIGHT)						**6,890**	**3,020**	**4,400**	**6,890**	**3,020**			**2,500**	**1,450**
GRAND TOTALS		**162**	**32**	**31**	**7**	**15,430**	**3,020**	**5,460**	**15,430**	**3,020**	**1**	**1**	**5,160**	**1,450**

A = CATEGORY 0010 (100% State)
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E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

MISCELLANEOUS LANDSCAPING ITEMS

2025-11-71

ITEM NO.		TOPSOIL 625.0100	TOPSOIL 625.0100	SILT FENCE 628.1504	SILT FENCE 628.1504	SILT FENCE MAINTENANCE 628.1520	SILT FENCE MAINTENANCE 628.1520	EROSION MAT CLASS II TYPE B 628.2023	EROSION MAT CLASS II TYPE B 628.2023	SEEDING MIXTURE NO. 30 630.0130	SEEDING MIXTURE NO. 30 630.0130	SEEDING MIXTURE NO. 70 630.0170	SEEDING MIXTURE NO. 70 630.0170	SOD LAWN 631.1000	SOD LAWN 631.1000	FERTILIZER TYPE B 629.0210	MULCHING 627.0200
UNIT PAY		SY	SY	LF	LF	LF	LF	SY	SY	LB	LB	LB	LB	SY	SY	CWT	SY
CATEGORY		A	F	A	F	A	F	A	F	A	F	A	F	A	F	A	F
LOCATION																	
STA 0+00 TO STA 3+00	LT	40	0	0	0	0	0	0	0	0	0	0	0	40	0		0
STA 3+00 TO STA 9+00	LT	380	0	0	0	0	0	0	0	0	0	0	0	380	0		0
STA 9+00 TO STA 15+00	LT	2,330	0	218	0	218	0	520	0	9	0	2	0	1,810	0		0
STA 15+00 TO STA 21+00	LT	660	0	0	0	0	0	0	0	0	0	0	0	660	0		0
STA 21+00 TO STA 27+00	LT	660	0	0	0	0	0	0	0	0	0	0	0	660	0		0
STA 27+00 TO STA 33+00	LT	680	0	0	0	0	0	0	0	0	0	0	0	680	0		0
STA 33+00 TO STA 39+00	LT	510	0	0	0	0	0	0	0	0	0	0	0	510	0		0
STA 39+00 TO STA 45+00	LT	480	0	0	0	0	0	0	0	0	0	0	0	480	0		0
STA 45+00 TO STA 51+00	LT	450	0	0	0	0	0	0	0	0	0	0	0	450	0		0
STA 51+00 TO STA 57+00	LT	940	0	0	0	0	0	0	0	0	0	0	0	940	0		0
STA 57+00 TO STA 63+00	LT	290	0	0	0	0	0	0	0	0	0	0	0	290	0		0
STA 63+00 TO STA 69+00	LT	440	0	0	0	0	0	0	0	0	0	0	0	440	0		0
STA 69+00 TO STA 75+00	LT	400	0	0	0	0	0	0	0	0	0	0	0	400	0		0
STA 75+00 TO STA 80+00	LT	190	0	0	0	0	0	0	0	0	0	0	0	190	0		0
SUB TOTALS (LEFT)		**8,450**	**0**	**218**	**0**	**218**	**0**	**520**	**0**	**9**	**0**	**2**	**0**	**7,930**	**0**	**6**	**0**
STA 0+00 TO STA 3+00	RT	0	0	0	0	0	0	0	0	0	0	0	0	0	0		70
STA 3+00 TO STA 9+00	RT	0	420	0	0	0	0	0	0	0	0	0	0	0	420		10
STA 9+00 TO STA 15+00	RT	0	2,740	0	217	0	217	0	520	0	9	0	2	0	2,220		0
STA 15+00 TO STA 21+00	RT	0	770	0	0	0	0	0	0	0	0	0	0	0	770		0
STA 21+00 TO STA 27+00	RT	3,100	930	0	0	0	0	0	0	0	0	0	0	3,100	930		0
STA 27+00 TO STA 33+00	RT	4,610	0	0	0	0	0	0	0	0	0	0	0	4,610	0		0
STA 33+00 TO STA 39+00	RT	500	0	0	0	0	0	0	0	0	0	0	0	500	0		0
STA 39+00 TO STA 45+00	RT	480	0	0	0	0	0	0	0	0	0	0	0	480	0		0
STA 45+00 TO STA 51+00	RT	490	0	0	0	0	0	0	0	0	0	0	0	490	0		0
STA 51+00 TO STA 57+00	RT	800	0	0	0	0	0	0	0	0	0	0	0	800	0		0
STA 57+00 TO STA 63+00	RT	450	0	0	0	0	0	0	0	0	0	0	0	450	0		0
STA 63+00 TO STA 69+00	RT	470	0	0	0	0	0	0	0	0	0	0	0	470	0		0
STA 69+00 TO STA 75+00	RT	460	0	0	0	0	0	0	0	0	0	0	0	460	0		0
STA 75+00 TO STA 80+00	RT	370	0	0	0	0	0	0	0	0	0	0	0	370	0		0
SUB TOTALS (RIGHT)		**11,730**	**4,860**	**0**	**217**	**0**	**217**	**0**	**520**	**0**	**9**	**0**	**2**	**11,730**	**4,340**	**8**	**80**
GRAND TOTALS		**20,180**	**4,860**	**218**	**217**	**218**	**217**	**520**	**520**	**9**	**9**	**2**	**2**	**19,660**	**4,340**	**14**	**80**

A = CATEGORY 0010 (100% State)
B = CATEGORY 0020 (80% Fed, 20% State)
C = CATEGORY 0030 (91.8% State, 8.2% Milwaukee)
E = CATEGORY 0050 (100% Milwaukee)
F = CATEGORY 0060 Wauwatosa (100% State)
G = CATEGORY 0070 (100% Wauwatosa)

QUANTITIES FOR LANDSCAPING BEDS

BID ITEM NUMBER	UNIT	QUANT	SYM	COMMON NAME	SCIENTIFIC NAME	SIZE @ PLANTING	ROOT ZONE MODE	BALL/ POT DIA.	DEPTH	ROOT SPREAD	PLANT HOLE DIA.	DEPTH	BRACE OR GUY	FERT. UNITS REQUIRED	RODENT PROECT.	MULCH RING DIA.	REMARKS	LOCATION
				TREES														
632.0101.05	EACH	**3**	CP	CALLERY PEAR	PYRUS CALLERYANA "CLEVELAND SELECT"	3"	B&B	24" MIN.	18" MIN.	2 TIMES TREE HGT.	42" MIN.	24" MIN.	BRACE	4 EACH	NONE	60"	SPECIMEN QUALITY	
632.0101.09	EACH	**3**	JTS	JAPANESE TREE LILAC	SYRINGA RETICULATA "IVORY SILK"	2.5"	B&B	24" MIN.	18" MIN.	2 TIMES TREE HGT.	42" MIN.	24" MIN.	BRACE	4 EACH	NONE	60"	SPECIMEN QUALITY	
632.0101.10	EACH	**10**	AL	ALLEGHANY SERVICEBERRY	AMELANCHIER 'LEAVIS'	8'	B&B	24" MIN.	18" MIN.	2 TIMES TREE HGT.	36" MIN	24" MIN.		4 EACH	NONE	36"	MULTISTEM	On County Park grounds
632.0101.11	EACH	**10**	JCM	MOUNTBATTEN JUNIPER	JUNIPERUS CHINENSIS	5'	B&B	24" MIN.	18" MIN.	2 TIMES TREE HGT.	36" MIN	24" MIN.	BRACE	4 EACH	NONE	36"	SPECIMEN QUALITY	On County Park grounds
632.0101.12	EACH	**15**	QB	SWAMP WHITE OAK	QUERCUS "BICOLOR"	2"	B&B	36" MIN	24" MIN	2 TIMES TREE HGT.	48" MIN	36" MIN	BRACE	8 EACH	NONE	60"	SPECIMEN QUALITY	On County Park grounds
				SHRUBS														
632.0201.01	EACH	**3**	TS	TIGER EYE SUMAC	RHUS SPECIES	5 GAL	CG	12"	12"	36"	36"	9"	N/A	1 EACH	NONE	48"	SPECIMEN QUALITY	
632.0201.02	EACH	**5**	DN	SUMMER WINE NINEBARK	PHYSOCARPUS 'DIABLO	5 GAL	CG	12"	12"	36"	36"	9"	N/A	1 EACH	NONE	48"	SPECIMEN QUALITY	
632.0201.03	EACH	**12**	RRS	RED KNOCKOUT ROSE	ROSA SPECIES	5 GAL	CG	12"	12"	36"	36"	9"	N/A	1 EACH	NONE	48"	SPECIMEN QUALITY	
632.0201.04	EACH	**19**	VB	ARROWWOOD VIBURNUM	VIBURNUM SPECIES	5 GAL	CG	12"	12"	36"	36"	9"	N/A	1 EACH	NONE	48"	SPECIMEN QUALITY	(10 on County Park grounds)
632.0201.05	EACH	**13**	DG	CARDINAL DOGWOODS	CORNUS SPECIES	5 GAL	CG	12"	12"	36"	36"	9"	N/A	1 EACH	NONE	48"	SPECIMEN QUALITY	
632.0301.01	EACH	**48**	CN	CATMINT	NEPETA "WALJKERS LOW"	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.02	EACH	**48**	HP	DWARF DAYLILIES	HEMEROCALLIS "PARDON ME"	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.03	EACH	**12**	SS	SUM N SUBSTANCE HOSTA	HOSTA SPECIES	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.04	EACH	**84**	MG	ORNAMENTAL GRASS	MISCANTHUS "GRAZIELLA"	5 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.05	EACH	**144**	SD	SHASTA DAISY	LEUCANTHEMUM"ALASKA"	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.06	EACH	**12**	RS	RUSSIAN SAGE	PEROVSKIA SPECIES	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.07	EACH	**264**	GS	BLACK EYES SUSANS	GOLDTURM RUDBECKIA	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.08	EACH	**96**	HC	CARAMEL CORLA BELLS	HEUCHERA 'CARAMEL"	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
632.0301.09	EACH	**144**	AG	GIANT HYSSOP	AGASTACHE "BLUE FORTUNE"	1 GAL.	CG	9"	6"	24"	30"	9"	N/A	1 EACH	NONE	36"	SPECIMEN QUALITY	
				ANNUALS														
632.0301.10	EACH	**10**	PW	PETUNIAS	WAVE SPECIES	FLATS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SPECIMEN QUALITY	
632.0301.11	EACH	**10**	MG	MARIGOLDS	LARGE YELLOW	FLATS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	SPECIMEN QUALITY	
				BULBS														
632.0301.12	EACH	**1000**	NB	DAFFODIL BULBS	NARCISSUS	3" X 3"	BULB	3"	3"	N/A	9"	9"	N/A	N/A	NONE	N/A	PLANTED IN NEW BED AREAS	

CATEGORY 0020

NOTE: SEE LANDSCAPE PLANS FOR LOCATIONS

BID ITEM NUMBER	UNIT	QUANT.		ITEM	LOCATION
SPV.0195.01	TON	**10**		GRANITE BOULDERS	STA 2+00L TO 4+00L, LT
SPV.0195.02	TON	**10**		RECLAIMED GRANITE PAVERS, 5"X5"X8.5"	STA 59+00 TO 60+00, RT & LT
SPV.0195.03	TON	**10**		6" SNAPPED-WIDTH WALLSTONE	STA 196+80 TO 197+44, RT & LT
SPV.0195.04	TON	**20**		CRUSHED STONE, MOUNTAIN SHADOWS	STA 59+00 TO 60+00, RT & LT
627.0200	SY	**20**		MULCHING	STA 2+00L TO 4+00L, 59+00 TO 60+00, 196+80 TO 197+44
625.0105	CY	**200**		TOPSOIL	STA 2+00L TO 4+00L, 59+00 TO 60+00, 196+80 TO 197+44
632.9101	EA	**26**		LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	STA 2+00 TO 79+50

CATEGORY 0020

TREE PLANTING

CATEGORY		LOCATION	0020							
ITEM NUMBER			632.0101.01	632.0101.02	632.0101.03	632.0101.04	632.0101.05	632.0101.06	632.0101.07	632.0101.08
DESCRIPTION			AUTUMN BLAZE MAPLE, B&B, 3.5"	REGAL PRINCE OAK, B&B, 3"	SKYLINE HONEY LOCUST, B&B, 3"	ADIRONDACK CRABAPPLE, B&B, 3"	CALLERY PEAR, B&B, 3"	DANADA CHARM ELM, B&B, 3"	CATALPA, B&B, 3"	KENTUCKY COFFEETREE, B&B, 3"
UNIT PAY			EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
STATION TO STATION	STA. 01+50 TO STA. 03+00	LT								
	STA. 03+00 TO STA. 09+00	LT								
	STA. 09+00 TO STA. 15+00	LT								
	STA. 15+00 TO STA. 21+00	LT					1			
	STA. 21+00 TO STA. 27+00	LT				1				2
	STA. 27+00 TO STA. 33+00	LT		2						
	STA. 33+00 TO STA. 39+00	LT						1	1	
	STA. 39+00 TO STA. 45+00	LT							1	
	STA. 45+00 TO STA. 51+00	LT	1							
	STA. 51+00 TO STA. 57+00	LT	1							
	STA. 57+00 TO STA. 63+00	LT							2	
	STA. 63+00 TO STA. 69+00	LT			1					
	STA. 69+00 TO STA. 75+00	LT			1					
	STA. 75+00 TO STA. 81+00	LT						1		
	STA. 01+50 TO STA. 03+00	RT								
	STA. 03+00 TO STA. 09+00	RT								
	STA. 09+00 TO STA. 15+00	RT								
	STA. 15+00 TO STA. 21+00	RT								
	STA. 21+00 TO STA. 27+00	RT				1				
	STA. 27+00 TO STA. 33+00	RT		2				1		
	STA. 33+00 TO STA. 39+00	RT						1		
	STA. 39+00 TO STA. 45+00	RT						1		
	STA. 45+00 TO STA. 51+00	RT								
	STA. 51+00 TO STA. 57+00	RT								
	STA. 57+00 TO STA. 63+00	RT			1					
	STA. 63+00 TO STA. 69+00	RT								
	STA. 69+00 TO STA. 75+00	RT								
	STA. 75+00 TO STA. 81+00	RT								
TOTALS			2	4	3	2	1	5	4	2

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Capitol-Mayfair to 84th

PAVEMENT MARKING QUANTITIES

STATION	PAVEMENT MARKING EPOXY 4-INCH ITEM 646.0106 LF	PAVEMENT MARKING EPOXY 4-INCH ITEM 646.0106 LF	PAVEMENT MARKING EPOXY 6-INCH ITEM 646.0116 LF	PAVEMENT MARKING EPOXY 6-INCH ITEM 646.0116 LF	PAVEMENT MARKING EPOXY 8-INCH ITEM 646.0126 LF	PAVEMENT MARKING EPOXY 8-INCH ITEM 646.0126 LF	PAVEMENT MARKING ARROWS EPOXY TYPE 2 ITEM 647.0166 EACH	PAVEMENT MARKING ARROWS EPOXY TYPE 3 ITEM 647.0176 EACH	PAVEMENT MARKING ARROWS BIKE LANE EPOXY ITEM 647.0206 EACH	PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY ITEM 647.0306 EACH	PAVEMENT MARKING WORDS EPOXY ITEM 647.0356 EACH	PAVEMENT MARKING STOP LINE EPOXY 24-INCH ITEM 647.0576 LF	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH ITEM 647.0776 LF	PAVEMENT MARKING CROSSWALK EPOXY 12-INCH ITEM 647.0776 LF
CATEGORY	A	F	A	F	A	F	A	A	A	A	A	A	A	F
STATION														
STA. 2+00 TO STA. 12+50	500	500	0	0	440	110	2	0	0	0	2	0	0	0
STA. 12+50 TO STA. 25+00	1070	480	732	20	54	100	1	0	4	4	1	0	120	120
STA. 25+00 TO STA. 37+00	2394	0	1704	0	1024	0	5	1	9	9	5	146	1548	0
STA. 37+00 TO STA. 49+00	2446	0	1972	0	0	0	0	0	11	11	0	0	200	0
STA. 49+00 TO STA. 60+50	1982	0	1584	0	282	0	0	0	11	11	0	190	672	0
STA. 60+50 TO STA. 72+00	1668	0	1050	0	80	0	0	0	5	5	0	0	496	0
STA. 72+00 TO STA. 79+50	1196	0	758	0	0	0	0	0	5	5	0	0	468	0
TOTAL	**11256**	**980**	**7800**	**20**	**1880**	**210**	**8**	**1**	**45**	**45**	**8**	**336**	**3504**	**120**

CATEGORY 0010 Milwaukee (100% State) = A
CATEGORY 0060 Wauwatosa (100% State) = F

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

Estimate of Traffic Control Items Required (0010 Participating-MILWAUKEE)

Items		Stage 1 (Each) * (Days)	Stage 1A (Each) * (Days)	Stage 2 (Each) * (Days)	Stage 2A (Each) * (Days)	Total
(1)643.0300	Traffic Control Drums	287 26,117	33 660	398 42,984	72 1,440	71,201
(2)643.0420	Traffic Control Barricades Type III	231 21,021	65 1,300	369 39,852	114 2,280	64,453
643.0705	Traffic Control Warning Lights Type A	462 42,042	130 2,600	738 79,704	228 4,560	128,906
643.0715	Traffic Control Warning Lights Type C	287 26,117	33 660	398 42,984	72 1,440	71,201
643.0900	Traffic Control Signs	119 10,829	40 800	170 18,360	53 1,060	31,049
643.1000	Traffic Control Signs Fixed Message					290
603.8000	Concrete Barrier Temporary Precast Delivered	0	0	392	336	728
603.8125	Concrete Barrier Temporary Precast Installed	0	0	392	336	728
643.0500	Traffic Control Flexible Tubular Marker Posts	214	16	314	43	587
643.0600	Traffic Control Flexible Tubular Marker Bases	214	16	314	43	587
649.0200	Temporary Pavement Marking Reflective Paint 4-Inch	16838	482	0	0	17320
(3) 649.0400	Temporary Pavement Marking Removable Tape 4-Inch	3,308	1772	27154	4038	36272
649.0701	Temporary Pavement Marking 8-Inch	448	196	0	0	644
(3) 649.0801	Temporary Pavement Marking Removable Tape 8-Inch	90	90	580	290	1050
649.1300	Temporary Pavement Marking Stop Line 24-Inch	74	24	0	0	98
(3) 649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	12	12	66	34	124
649.1700	Temporary Pavement Marking Arrows	5	3	0	1	9
649.1800	Temporary Pavement Marking Arrows Removable Tape	0	0	9	2	11
649.1900	Temporary Pavement Marking Words	7	3	0	1	11
649.2000	Temporary Pavement Marking Words Removable Tape	0	0	9	2	11

NOTES:

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

THIS WORK WILL BE INCIDENTAL TO THE ITEM OF TRAFFIC CONTROL.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVELLED LANE WHEN WORK IS NOT IN PROGRESS.

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

(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 1A	Stage 2	Stage 2A	Size (")	TOTAL SF
WO20-1	17	4	25	7	48x48	
R11-2	28	2	39	13	48x30	
R11-4	11	1	19	2	30x48	
WO1-7	6	0	11	2	24x48	
WO1-6L	3	2	3	2	24x48	
WO1-6R	3	4	6	3	24x48	
R5-1	0	0	0	0	30x30	
WO1-3L	4	2	4	2	48x48	
WO1-4R	0	0	0	0	48x48	
R3-1	1	0	0	0	36x36	
R4-7A	15	4	33	8	36x48	
WO20-5R	2	2	0	0	38x48	
WO4-2R	6	3	10	4	30x30	
WO4-2L	4	3	6	4	48x48	
WO20-5L	2	2	6	2	48x48	
W20-5A	2	0	2	0	48x48	
WO1-3R	1	1	4	4	48x48	
W13-1	14	10	2		24x24	
WO20-A	0	0	0		48x48	
R3-7R	0	0	0		30x30	
R3-7L	0	0	0		30x30	
ACCESS TO W. CAPITOL DR. (RIGHT ARROW)			2		48x60	40
ACCESS TO W. LISBON AVE. (LEFT ARROW)			1		48x60	20
ACCESS TO W. LISBON AVE. AHEAD			1		48x60	20
TO W. LISBON AVE. (RIGHT ARROW)			1		48x60	20
ROAD CLOSED 1000'			1		48x48	16
LANE CLOSURES CAPITOL DRIVE EAST EXPECT DELAYS	2		2		144x78	156
LANE CLOSURES AHEAD EXPECT DELAYS	1		1		72x36	18
Total	119	40	170	53		290

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Estimate of Traffic Control Items Required (0060 Participating-WAUWATOSA)

Items		Stage 1 (Each) * (Days)	Stage 1A (Each) * (Days)	Stage 2 (Each) * (Days)	Stage 2A (Each) * (Days)	Total
(1)643.0300	Traffic Control Drums	102 9,282	24 480			9,762
(2)643.0420	Traffic Control Barricades Type III	79 7,189	44 880			8,069
643.0705	Traffic Control Warning Lights Type A	158 14,378	88 1,760			16,138
643.0715	Traffic Control Warning Lights Type C	102 9,282	24 480			9,762
643.0900	Traffic Control Signs	50 4,550	13 260			4,810
643.1000	Traffic Control Signs Fixed Message					100
603.8000	Concrete Barrier Temporary Precast Delivered	442	402			844
603.8125	Concrete Barrier Temporary Precast Installed	442	402			844
643.0500	Traffic Control Flexible Tubular Marker Posts	90	16			106
643.0600	Traffic Control Flexible Tubular Marker Bases	90	16			106
649.0200	Temporary Pavement Marking Reflective Paint 4-Inch	5730	1468			7198
(3) 649.0400	Temporary Pavement Marking Removable Tape 4-Inch	1,884	0			1884
649.0701	Temporary Pavement Marking 8-Inch	0	0			0
(3) 649.0801	Temporary Pavement Marking Removable Tape 8-Inch	80	0			80
649.1300	Temporary Pavement Marking Stop Line 24-Inch	24	0			24
(3) 649.1400	Temporary Pavement Marking Stop Line Removable Tape 24-Inch	40	0			40
649.1700	Temporary Pavement Marking Arrows	2	0			2
649.1800	Temporary Pavement Marking Arrows Removable Tape	3	0			3
649.1900	Temporary Pavement Marking Words	1	0			1
649.2000	Temporary Pavement Marking Words Removable Tape	3	0			3

NOTES:

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

(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 1A	Stage 2	Stage 2A	Size (")	TOTAL SF
WO20-1	5	2			48x48	
R11-2	9	2			48x30	
R11-4	4	2			30x48	
WO1-7	6	3			24x48	
WO1-6L	1	0			24x48	
WO1-6R	1	0			24x48	
R5-1	3	0			30x30	
WO1-3L	0	0			48x48	
WO1-4R	2	0			48x48	
R3-1	0	0			36x36	
R4-7A	12	4			36x48	
WO20-5R	0	0			38x48	
WO4-2R	0	0			30x30	
WO4-2L	1	0			48x48	
WO20-5L	0	0			48x48	
W20-5A	0	0			48x48	
WO1-3R	0	0			48x48	
W13-1	1	0			24x24	
WO20-A	2	0			48x48	
R3-7R	2	0			30x30	
R3-7L	1	0			30x30	
TO WEST GRANTOSA DR. (LEFT ARROW)	1				48x60	20
TO WEST GRANTOSA DR. (RIGHT ARROW)		1			48x60	20
ACCESS TO W. CAPITOL DR. (RIGHT ARROW)	1	1			48x60	40
ACCESS TO W. CAPITOL DR. (UP ARROW)	1				48x60	20
Total	50	13	0	0		100

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3

CONDUIT

LOC.	TO	LOC.	652.0225 CONDUIT NONMET. 2-INCH L.F.
PB2		PB4	224
PB1		PB2	34
		TOTAL	258

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES 24"x36" EACH
PB2	02+0.0, 54.0' LT	1
PB4	04+28.0, 56.0' LT	1
	TOTAL	2

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVE PULL BOXES

PULL BOX NO.	653.0905 REMOVE PULL BOX EACH
PB 4	1
PB5	1
PB6	1
TOTAL	3

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB4	04+28.5, 29.9' LT	6' X 30'	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	81	265	252
51	PB3	01+81.0, 3.3' LT	6' X 15'	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	48	72	162
						TOTAL	129	337	414

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

LOCATION	661.0200 TEMPORARY TRAFFIC SIGNALS L.S.
STH 100 & STH 190	1
TOTAL	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.01 REMOVE LOOP WIRE & LEAD-IN CABLE L.S.
STH 100 & STH 190	1
TOTAL	1

EMERGENCY VEHICLE PREEMPTION
INFRARED EVP SYSTEM FOR TEMPORARY SIGNAL

LOCATION	SPV.0105.02 TEMPORARY TRAFFIC SIGNALS L.S.
STH 100 & STH 190	1
TOTAL	1

FILE NAME : J:\projects\d2_20251171\SIGNAL\1068_qty.dgn PLOT DATE : 10-JAN-2013 10:42 PLOT BY : dotbgw PLOT NAME : PLOT SCALE : 310.3125:1
WISDOT/CADDS SHEET 43

TRAFFIC & LIGHTING MISCELLANEOUS QUANTITIES

Item No.	Description	Unit	Quantity
652.0220	Conduit Rigid Nonmetallic Schedule 40 1 1/2-Inch	LF	40
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	385
652.0230	Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	LF	22,020
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	4,450
654.0110	Concrete Bases Type 10	Each	7
SPV.0060.11	Rectangular Vault 13"x24"x18"	Each	37
SPV.0060.12	Rectangular Vault 17"x30"x18"	Each	29
SPV.0060.13	Concrete Base Type 10 Special	Each	1
SPV.0060.15	Poles Type 10	Each	6
SPV.0060.17	Poles Type 13 Special	Each	1
SPV.0060.18	Pre-Cast Traffic Signal Bases	Each	11
SPV.0060.19	Monotube Arms 20-FT Special	Each	3
SPV.0060.20	Monotube Arms 25-FT Special	Each	2
SPV.0060.21	Monotube Arms 30-FT Special	Each	2
SPV.0060.22	Monotube Arms 35-FT Special	Each	1
SPV.0060.23	Monotube Arms 40-FT Special	Each	1
SPV.0090.03	1-Duct Conduit Cement Encased,4-Inch Conduit DB-60	LF	195

ALL ITEMS ARE CATEGORY 0010

MISCELLANEOUS COMMUNITY SENSITIVE DESIGN ITEMS

2025-11-71

Item No.	Description	Unit	Quantity
612.0104	Pipe Underdrain 4-Inch	LF	150
616.0204	Fence Chain Link 4-FT	LF	150
SPV.0165.02	Wall Modular Block Mechanically Stabilized Earth LRFD	SF	940

ALL ITEMS ARE CATEGORY 0020

ADJUST MANHOLE COVERS

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	REMARKS
0010	200	2+02	3.7' North	161.24	repair 9" of brickwork
0010	201	2+87.1	3.7' North	160.09	repair 9" of brickwork
0010	202	5+46	3.7' North	150.90	
0010	204	10+82.3	52.8' LT	130.24	
0010	205	11+15.1	3.8' North	130.29	grass/median area
0010	206	12+29.3	50' North	129.01	
0050	401	14+78.8	56.5' LT	130.10	
0010	208	14+98	45.2' North	129.58	repair 12" of brickwork
0050	402	15+25.4	56.3' North	129.17	
0010	212	17+36.0	45.4' LT	132.46	repair 12" of brickwork/NEW TYPE 58A COVER
0050	406	21+56.4	56.5' North	146.53	
0010	218	24+66.8	45.5' North	149.34	repair 6" of brickwork
0010	220	25+55.7	45.2' North	148.83	repair 12" of brickwork
0050	409	25+64.1	56.3' North	149.56	
0010	222	27+22.4	106' RT	148.65	repair 3" of brickwork
0050	412	27+69.8	56.9' North	144.85	
0010	226	27+98	66.6' RT	147.05	
0010	228	29+16.1	19.3' South	142.83	
0050	413	30+91.3	70.8' South	139.41	
0010	230	31+15.9	60.5' North	137.75	
0050	414	31+55.4	56.2' South	137.99	
0010	231	31+77.9	41.9' South	137.20	repair 11" of brickwork
0010	232	31+92.4	28.5' South	137.24	repair 12" of brickwork
0010	233	33+57.2	40.8' South	137.25	
0010	234	33+81.2	40.9' North	137.51	repair 9" of brickwork
0050	415	33+88.8	57' North	137.75	
0050	416	33+88.7	57.5' South	137.63	
0010	235	34+27.1	43.3' South	137.54	repair 3" of brickwork
0050	417	37+14.4	57.3' RT	142.33	
0010	238	37+49.2	43' South	142.30	repair 3" of brickwork
0050	418	40+44.5	56.5' South	148.25	
0050	419	40+71.8	56.2' North	148.53	
0010	239	34.00	41.3' North	148.34	
0010	240	41+14	42.9' South	148.63	repair 12" of brickwork
0050	420	43+83.1	56.6' South	152.09	
0010	241	44+09.6	41.4' North	151.37	
0050	421	44+21.8	56.4' LT	151.85	
0010	242	44+33.6	43' South	151.71	
0010	243	46+37.7	42.9' LT	152.15	repair 9" of brickwork
0050	422	47+33	56.1' South	153.54	

NOTE: Use salvaged covers unless noted in Remarks.

ADJUST MANHOLE COVERS

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	REMARKS
0010	244	47+55	41.1' North	153.31	
0050	423	47+64.2	56.6' North	153.33	
0010	245	47+85.2	42.9' South	153.71	repair 12" of brickwork
0050	424	47+99.5	17.6' North	154.02	
0050	425	50+50.8	17.5' North	157.46	
0050	426	50+89.7	57.9' North	157.55	
0050	427	50+90.8	58' South	157.85	
0010	248	51+26.9	43' South	158.14	repair 3" of brickwork
0010	249	53+06.4	43' South	160.74	repair 6" of brickwork
0010	250	54+68.6	41.7' North	163.70	repair 12" of brickwork
0050	428	54+89.6	56.8' North	163.63	
0010	251	55+02.2	43.1' South	163.97	repair 8" of brickwork
0010	252A	56+50.9	42.1' North	167.61	
0010	253	57+90.9	64.3' North	173.72	
0010	254	57+91	40.8' North	173.83	repair 3" of brickwork
0050	429	57+98.9	56.3' North	174.03	
0010	256	58+33.6	42.6' North	175.30	repair 6" of brickwork
0010	257	61+29.6	43.4' LT	189.16	repair 12" of brickwork
0010	258	61+62.8	42.8' South	190.34	
0010	259	64+05.8	42.6' North	198.25	
0010	260	64+92	42.8' RT	199.97	repair 9" of brickwork
0010	261	64+98.7	41.9' North	200.01	repair 12" of brickwork
0010	262	67+60.2	41.3' North	201.63	repair 3" of brickwork
0050	430	67+94.9	56.5' LT	201.66	
0050	431	71+31.2	56.9' LT	199.44	
0010	265	74+57.8	94.8' South	196.74	
0010	266	74+58.1	67.3' South	196.62	
0050	432	74+66.3	56.6' North	196.02	repair 8" of brickwork
0050	433	74+74.1	57.1' South	196.44	
0010	267	74+82.4	40.6' South	196.45	repair 12" of brickwork
0010	269	77+62.4	40.3' South	194.17	
0010	268	77+63.3	41.8' North	193.93	repair 3" of brickwork
0050	434	77+99.9	56.4' North	193.85	
0050	435	78+15.4	56.3' South	194.02	
0050	410	5+21.2L	48.8' LT	151.34	
0010	225	5+63.8L	29.8' LT	151.47	
0050	411	5+72.7L	19.3' RT	153.68	
0010	223	5+88.3L	70.6' RT	154.65	
0010	224	6+20.9L	27.4' RT	153.52	

NOTE: Use salvaged covers unless noted in Remarks.

3

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CONTINUED FROM PREVIOUS PAGE

ADJUST MANHOLE COVERS

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	REMARKS
0010	249A	198+58.3	14.7' LT	162.45	
0050	437	201+48.3	45.9' RT	164.45	
0010	250A	201+91.0	29.9' RT	164.66	
0050	436	202+20.0	29.3' LT	164.24	
WAUWATOSA					
0060	206A	13+11.6	199.1' RT	125.10	
0070	400	13+48.3	172.4' RT	124.75	
0070	400A	14+39.4	39.2' RT	129.01	
0070	403	15+57.9	45.0' RT	128.94	
0070	404	18+12.7	42.0' RT	134.83	
0070	405	21+37.5	41.8' RT	145.64	
0070	407	23+51.7	73.2' RT	151.20	
0070	408	4+00.7L	41.4' RT	153.63	

NOTE: Use salvaged covers unless noted in Remarks.

0010	ADJUSTING MANHOLE COVERS (611.8110)	51
0050	ADJUSTING MANHOLE COVERS (611.8110)	32
0060	ADJUSTING MANHOLE COVERS (611.8110)	1
0070	ADJUSTING MANHOLE COVERS (611.8110)	7
0050	INTERNAL MANHOLE SEALS (SPV.0060.07)	32
0070	INTERNAL MANHOLE SEALS (SPV.0060.07)	7
0010	SALVAGED MANHOLE COVERS (611.9705)	46
0050	SALVAGED MANHOLE COVERS (611.9705)	32
0060	SALVAGED MANHOLE COVERS (611.9705)	1

3

MANHOLE COVERS

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	COVER TYPE	REMARKS
0010	212	17+36	45.4' LT	132.46	58A	repair 12" of brickwork
0010	259	64+05.8	42.6' LT	198.25	58A	

0010 MANHOLE COVERS (SPV.0060.03) **2**

3

ABANDONING MANHOLES

GROUP CODE	NUMBER	STATION	OFFSET
0060	211	17+30.6	65.0 RT
0060	219	24+84.4	140.9 RT

0060 ABANDONING MANHOLES (204.0250) **2**

REMOVING MANHOLES

GROUP CODE	NUMBER	STATION	OFFSET
0060	207	14+19.7	34.2 RT
0060	209	15+50.5	38.0 RT
0060	213	17+34.8	38.1 RT
0060	215	20+76.9	37.1 RT
0060	214	20+74.5	65.5 RT
0060	216	21+44.9	38.2 RT
0060	217	23+44.9	64.2 RT

0060 REMOVING MANHOLES (204.0210) **7**

RECONSTRUCTING MANHOLES

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	REMARKS
0010	236	34+28.8	41.1' LT	137.97	repair 20" of brickwork
0010	246	47+99	41.3' LT	153.54	repair 15" of brickwork
0010	252	56+40.1	42.8' RT	167.29	repair 22" of brickwork
0010	263	70+95.7	42' LT	199.57	repair 15" of brickwork
0010	264	74+31.6	41.7' LT	196.27	repair 15" of brickwork

0010 RECONSTRUCT MANHOLES (611.0420) **5**

0010 SALVAGED MANHOLE COVERS (611.9705) **5**

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

ADJUST INLET COVERS

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	REMARKS
0010	105	11+69.9	48.0 LT	128.85	
0010	108	12+61.5	101.7 LT	128.20	
0010	144	27+88.9	140.2' RT	148.95	
0010	149	27+17.9	48.0 LT	146.05	repair 9" of brickwork/INLET COVER
0010	164	34+06.6	65.1' RT	137.67	
0010	188	55+05.1	48.0 LT	163.75	
0010	199H	71+14.5	66.8 LT	199.48	
0010	199I	71+48.5	66.4 LT	199.10	
0010	199M	74+27.8	78 RT	195.90	
0010	199O	74+80.2	94.8 RT	196.20	

0010 ADJUSTING INLET COVERS (611.8115) **10**

INLET COVERS

GROUP CODE	NUMBER	STATION	OFFSET	COVER ELEV.	COVER TYPE	REMARKS
0010	106	12+01.9	69.6' LT	128.30	57	
0010	125	16+04.1	48.0 LT	129.20	57	Storm MH With Inlet Frame & Grate
0010	130	18+82.9	48.0 LT	137.05	57	Storm MH With Inlet Frame & Grate
0010	135	21+37	48.0 LT	145.30	57	Storm MH With Inlet Frame & Grate
0010	154	31+59	1' RT	137.57	55	
0010	155	31+61.2	1' RT	137.55	55	

0010 INLET COVERS, TYPE 57 (SPV.0060.01) **4**
0010 INLET COVERS, TYPE 55 (SPV.0060.02) **2**

ABANDONING INLETS

GROUP CODE	NUMBER	STATION	OFFSET	ELEVATION
0010	100	5+40.1	0.2' RT	151.45
0060	102	5+53.7	47.5' RT	149.04
0010	104	11+69.7	8.7' LT	129.29
0060	114	13+39.3	157.2' RT	124.80
0010	117	13+81	4.5' LT	128.13
0010	123	15+50.2	0	129.27
0010	136	22+73.7	8.7' LT	149.27
0010	138	26+00.6	75.5' RT	150.37
0010	148	27+15.7	0.3' RT	147.41
0010	140	27+22.6	73.5' RT	148.17
0010	141	5+55.7L	61.5' RT	154.04
0010	142	27+46.3	138' RT	148.73
0010	146	6+30.4L	0.5' LT	153.19
0010	147	6+30.7L	12.8' RT	153.10
0010	150	27+46.1	4.8' RT	146.15
0010	151	27+90.4	13.9' RT	145.74
0010	153	29+38.1	16.1' RT	141.91
0010	160	33+25	4.4' LT	137.53
0010	161	33+49.2	46' LT	136.95
0010	168	34+50.4	0.3' RT	139.04
0010	173	41+30.4	3.1' RT	149.61
0010	177	44+50.6	2.8' LT	152.86
0010	180	48+20.4	0.9' LT	154.53
0010	183	51+50.6	0.3' RT	159.40
0010	189	55+10.4	5.3' RT	165.16
0010	190	56+38.5	3.1' RT	168.36
0010	195	58+37.4	2.8' LT	176.53
0010	199A	61+75.3	2.0' LT	191.88
0010	199F	70+95.2	48.0' LT	199.09
0010	199P	77+55.4	3.6' LT	194.88

0010 ABANDONING INLETS (204.0260) **27**
0060 ABANDONING INLETS (204.0260) **2**

3

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

REMOVING INLETS

GROUP CODE	NUMBER	STATION	OFFSET
0010	101	5+40.4	46.7' LT
0060	103	11+14.7	48' RT
0060	107	12+50	48' RT
0010	109	12+75	5' LT
0010	112	13+22	48' LT
0010	117	13+81.5	4.6' LT
0060	118	13+73	48' RT
0010	120	14+51	48' LT
0060	121	14+67	48.5' RT
0010	122	15+01	68' LT
0010	124	15+77	108' LT
0060	126	17+11	71' RT
0060	127	17+70	69.6' RT
0060	128	17+62	48' RT
0060	131	20+55	65.8' RT
0060	132	20+84	66.5' RT
0060	134	21+09	5.8' RT
0010	139	3+46.7L	21.9' LT
0010	145	5+75.2L	44' LT
0010	147	6+30.7L	12.8' RT
0010	151A	27+93	169.4' LT
0010	152	28+95.5	15.4' RT
0010	156	31+85.6	48.0' LT
0010	157	32+00.6	48.0' LT
0010	158	32+60.1	48.0' RT
0010	159	32+75.5	48.0' RT
0010	162	33+72.5	67.4' RT
0010	163	33+72.7	66.4' LT
0010	165	34+06.9	67' LT
0010	166	34+25.3	48.0' RT
0010	167	34+27.2	48.0' LT

REMOVING INLETS (continued)

GROUP CODE	NUMBER	STATION	OFFSET
0010	169	37+50.2	48.0' LT
0010	170	37+50.4	48.0' RT
0010	171	41+10.4	48.0' LT
0010	172	41+15.3	48.0' RT
0010	174	44+10.4	48.0' LT
0010	175	44+14.6	65.6' LT
0010	176	44+32.4	48.0' RT
0010	178	47+97.5	48.0' LT
0010	179	48+00.3	48.0' RT
0010	181	51+24.6	48.0' LT
0010	182	51+25	48.0' RT
0010	184	53+05.6	5.8 LT
0010	185	53+97.4	69.1' LT
0010	186	54+84.8	68.1' LT
0010	187	55+00.2	48.0' RT
0010	191	57+80.6	67.1' LT
0010	192	58+13.9	67' LT
0010	193	58+32.8	48.0' LT
0010	194	58+35.3	48.0' RT
0010	196	61+12.8	66.9' LT
0010	197	61+46.8	66.9' LT
0010	198	61+66	48.0' LT
0010	199	61+70.4	48.0' RT
0010	199B	65+00.2	48.0' RT
0010	199C	65+00.6	2.9' LT
0010	199D	64+98.9	48.0' LT
0010	199E	67+59.1	48.0' LT
0010	199G	71+00.6	48.0' RT
0010	199J	73+95.0	5.0' LT
0010	199K	74+31.3	48.0' LT
0010	199L	74+26.3	48.0' RT
0010	199N	74+46.2	94.7' RT
0010	199Q	77+61.6	48.0' RT
0010	199R	77+63.5	48.0' LT

0010	REMOVING INLETS (204.0220)	**54**
0060	REMOVING INLETS (204.0220)	**11**

CATEGORY 0010--City of Milwaukee

	DRAINAGE STRUCTURES							REINFORCED CONCRETE, STORM SEWER PIPE							
NUMBER	TYPE OF STRUCTURE	STATION	CENTERLINE OFFSET	COVER ELEV.	STRUCT.	FRAME & LID	REPLACE OR NEW STRUCTURE	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	INVERT ELEV. INLET	INVERT ELEV. OUTLET	PIPE SLOPE	DEPTH	REMARKS
1	Inlet	5+37	3' LT	151.10	4'X4' MH	55	NEW	202	12	9	148.00	147.80	0.02222	3.10	
2	Inlet	5+40.5	50.3' LT	150.05	45A	57	NEW	202	12	46	144.00	143.00	0.02174	7.71	
3	Inlet	5+58.6	52.0' RT	149.15	45A	57	NEW	202	12	56	143.70	143.10	0.01071	7.11	
5	Inlet	11+40	1.0' LT	129.97	45A	57	NEW	205	12	25	126.85	126.30	0.02200	4.78	
6	Inlet	12+17.5	92' LT	128.10	45A	57	NEW	206	12	43	125.00	123.00	0.04651	4.76	Protect and Support TE&ES
8	Storm MH	12+74.0	5.0' LT	131.00	5' DIA MH	57	NEW	West Bridge Abutment @ 5.0' RT	36	14	118.10	118.00	0.00714	14.50	New Storm Sewer Main
9	Inlet	13+22.3	48.0' LT	130.30	45A	57	REPLACE	Use Existing Drains	12	5	127.20			4.76	-
12	Inlet	14+03.8	5' LT	131.10	45A	55	NEW	13	12	63	125.30	124.00	0.02063	7.46	Protect & Support Telephone, Should go in before Gas
13	Storm MH	14+51.0	47.0' LT	130.05	4' DIA MH	57	REPLACE	East Bridge Abutment @ 47' LT	21	60	116.50	115.00	0.02500	15.21	New Storm Sewer Main
18	Inlet	15+00.7	68.7' LT	128.85	45A	57	REPLACE	Use Existing Drains	12	5	125.75			4.76	
22	Inlet	15+53.2	128.5' LT	127.75	45A	57	NEW	22A	12	8	124.65	124.45	0.02500	4.76	
22A	Storm MH	15+60.4	122.6' LT	128.12	4' DIA MH	58A	REPLACE	Connect to Existing Mains			123.00	123.00		5.12	24" of repairs would have been needed
23	Inlet	15+76.5	107.7' LT	127.74	45A	47	REPLACE	Use Existing Drains	12	5	124.65			4.75	
45	Inlet	25+88.4	48.0' RT	148.75	45A	57	NEW	47	12	84	144.25	142.50	0.02083	6.16	Abandoned 22" Gas Main, Protect & Support TE&ES
47	Storm MH	26+53.2	6' LT	148.70	4' DIA MH	55	NEW	149	12	77	142.25	140.65	0.02078	8.11	Sump & Inlet Cover- Protect & Support Telephone, TE&ES
48	Inlet	26+68.5	66.2' RT	147.75	45A	57	NEW	222	12	52	144.60	143.50	0.02115	4.81	
57	Storm MH	27+46.0	67' RT	148.60	4' DIA MH	57	NEW	222	12	44	143.65	143.00	0.01477	6.61	Protect & Support TE&ES
58	Inlet	27+50	72' RT	147.70	45A	55	NEW	57	12	7	144.10	143.90	0.02857	5.26	
59	Inlet	27+90	64' RT	146.60	45A	57	NEW	226	12	8	141.50	141.30	0.02500	6.76	Storm MH with Inlet frame & grate
59A	Inlet	27+91.2	172' LT	141.55	45A	57	REPLACE	Use Existing Drains	12	5	138.45			4.76	
60A	Storm MH	27+98.4	41.8' LT	144.44	4' DIA MH	58A	REPLACE	Connect to Existing Mains			133.99	133.25		11.19	26" of repairs would have been needed
60	Inlet	28+75	10.0' RT	143.72	45A	57	NEW	228	12	42	140.60	139.70	0.02143	4.78	
61	Inlet	30+75	6' LT	139.00	45A	55	NEW	62	12	53	133.20	130.60	0.04906	7.46	Protect & Support TE&ES, Concrete Collar
63	Inlet	31+85.6	48.0' LT	136.25	45A	57	REPLACE	63A	12	5	132.10	132.00	0.02000	5.81	Concrete Collar
64	Inlet	32+00.6	48.0' LT	136.15	45A	57	REPLACE	64A	12	5	132.10	132.00	0.02000	5.71	Concrete Collar
65	Inlet	32+60.1	48.0' RT	136.54	45A	57	REPLACE	65A	12	4	133.30	133.20	0.02500	4.90	Concrete Collar
66	Inlet	32+75.5	48.0' RT	136.46	45A	57	REPLACE	66A	12	4	133.30	133.20	0.02500	4.82	Concrete Collar
67	Inlet	33+12.5	6' LT	137.60	45A	55	NEW	67A	12	35	132.25	131.50	0.02143	7.01	Storm Sewer F/L is 131.15 © at 33+12.5
68	Inlet	33+72.5	67.4' RT	137.45	45A		REPLACE	Use Existing Drains	12	5	134.35			4.76	Reuse Type 57 Frame & Grate, Protect & Support TE&ES
69	Inlet	33+72.7	66.4' LT	137.30	45A	57	REPLACE	Use Existing Drains	12	5	134.20			4.76	
70	Inlet	34+06.9	67' LT	137.80	45A	57	REPLACE	Use Existing Drains	12	5	134.70			4.76	
71	Inlet	34+25.3	48.0' RT	137.37	4'X4' MH		REPLACE	235	12	4	134.25	134.15	0.02500	3.12	Reuse Type 57 Frame & Grate
71A	Inlet	34+27.2	48.0' LT	137.74	4'X4' MH		REPLACE	236	12	5	134.65	134.55	0.02000	3.09	Reuse Type 57 Frame & Grate, Protect & Support 2" Gas
72	Inlet	34+50	6' RT	138.80	45A	55	NEW	236	12	52	133.70	133.10	0.01154	6.76	Protect & Support Telephone, TE&ES
73A	Storm MH	37+47.6	41.1' LT	142.37	4' DIA MH	58A	REPLACE	Connect to Existing Mains			136.69	136.69		5.68	25" of repairs would have been needed
73	Inlet	37+50.2	48.0' LT	142.20	45A		REPLACE	73A	12	6	139.10	138.95	0.02500	4.76	Protect & Support 2" Gas Main, Reuse Type 57 Frame & Grate
74	Inlet	37+50.4	48.0' RT	142.15	4'X4' MH	57	REPLACE	238	12	4	139.05	138.95	0.02500	3.10	
76	Inlet	41+10.4	48.0' LT	148.31	4'X4' MH	57	REPLACE	239	12	12	144.95	144.70	0.02083	3.36	Protect & Support 2" Gas Main
75	Inlet	41+15.3	48.0' RT	148.50	4'X4' MH	57	REPLACE	240	12	4	145.20	145.10	0.02500	3.30	
77	Inlet	41+42	5' RT	149.80	45A	55	NEW	239	12	63	143.00	142.15	0.01349	8.46	Protect & Support Telephone, TE&ES
78	Storm MH	44+10.4	48.0' LT	151.15	4' DIA MH	57	REPLACE	241	12	5	145.80	145.70	0.02000	7.01	Storm MH with Inlet Cover & Sump
78A	Inlet	44+14.6	65.6' LT	151.80	45A	55	REPLACE	Use Existing Drains	12	5	148.70			4.76	
79	Inlet	44+32.4	48.0' RT	151.56	4'X4' MH		REPLACE	242	12	4	148.50	148.40	0.02500	3.06	Reuse Type 57 Frame & Grate
80	Inlet	44+65	5.5' RT	152.50	45A	55	NEW	241	12	73	147.00	145.70	0.01781	7.16	Protect & Support Telephone, Electric Conduits
81	Inlet	46+25	48.0' LT	151.86	45A	57	NEW	243	12	13	148.75	148.45	0.02308	4.77	Protect & Support 2" Gas
82	Inlet	47+97.5	48.0' LT	153.32	4'X4' MH	57	REPLACE	246	12	5	148.20	148.10	0.02000	5.12	Protect & Support 2" Gas
83	Inlet	48+00.3	48.0' RT	153.75	45A	57	REPLACE	245	12	16	150.65	150.25	0.02500	4.76	Protect 8" WM @ Curb
83A	Inlet	48+15	5.0' RT	154.90	45A	55	NEW	246	12	47	149.10	148.10	0.02128	7.46	Protect & Support Telephone, TE&ES
84	Inlet	51+24.6	48.0' LT	157.82	4'X4' MH	57	REPLACE	84A	12	5	151.40	151.25	0.03000	6.42	
84A	Storm MH	51+26	41.2' LT	158.03	4' DIA MH	58A	REPLACE	Connect to existing main							
85	Inlet	51+25	48.0' RT	158.00	45A	57	REPLACE	248	12	6	154.95	154.80	0.02500	4.71	Not on Plans - Found By Inspectors - Approx. Elevation

Note: Offset is to face of curb on inlet structures and to center of MH structures.

CATEGORY 0010--City of Milwaukee

	DRAINAGE STRUCTURES							REINFORCED CONCRETE, STORM SEWER PIPE							
NUMBER	TYPE OF STRUCTURE	STATION	CENTERLINE OFFSET	COVER ELEV.	STRUCT.	FRAME & LID	REPLACE OR NEW STRUCTURE	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	INVERT ELEV. INLET	INVERT ELEV. OUTLET	PIPE SLOPE	DEPTH	REMARKS
86	Inlet	51+50	5' RT	159.40	45A	55	NEW	247	12	57	153.00	151.25	0.03070	8.06	Protect & Support 2" Gas, Telephone, TE&ES
87	Inlet	53+05.6	5.8 LT	161.73	45A	55	REPLACE	Use Existing Drains	12	5	158.60			4.79	
88	Inlet	53+97.4	69.1' LT	162.50	45A	57	REPLACE	Use Existing Drains	12	5	159.40			4.76	
89	Inlet	54+84.8	68.1' LT	163.30	45A	57	REPLACE	Use Existing Drains	12	5	160.20			4.76	Protect & Support TE&ES
90	Inlet	55+00.2	48.0' RT	163.84	4'X4' MH		REPLACE	Use Existing Drains	12	5	160.75			3.09	
91	Inlet	55+50	6' RT	165.90	45A	55	NEW	258	12	94	157.60	155.50	0.02234	9.96	
92	Inlet	57+80.6	67.1' LT	173.15	45A	57	REPLACE	253	12	11	169.95	169.70	0.02273	4.86	
93	Inlet	58+13.9	67' LT	174.15	45A	57	REPLACE	Use Existing Drains	12	5	171.35			4.46	
94	Storm MH	58+26.8	43' RT	174.83	4' DIA MH	58A	REPLACE	Connect to Existing Mains			169.43	169.43		5.79	25" of repairs would have been needed
95	Inlet	58+32.8	48.0' LT	175.10	45A	57	REPLACE	256	12	4	172.00	171.90	0.025	3.10	
96	Inlet	58+35.3	48.0' RT	175.07	45A		REPLACE	94	12	9	171.90	171.70	0.02222	4.83	Reuse Type 57 Frame & Grate
97	Inlet	58+42.6	5.5' RT	176.80	45A	55	NEW	256	12	49	170.15	169.10	0.02143	8.31	
98	Inlet	61+12.8	66.9' LT	188.47	45A	57	REPLACE	Use Existing Drains	12	5	185.35			4.78	
99	Inlet	61+46.8	66.9' LT	189.25	45A	57	REPLACE	Use Existing Drains	12	5	186.15			4.76	
99A	Inlet	61+66	48.0' LT	190.20	4'X4' MH		REPLACE	99B	12	4	187.10	187.00	0.02500	3.10	Reuse Type 57 Frame & Grate
99B	Storm MH	61+66	43' LT	190.37	4' DIA MH	58A	NEW	Connect to Existing Mains						5.29	Estimated Elevation in F/L 185.02
99C	Inlet	61+70.4	48.0' RT	190.45	45A	57	REPLACE	258	12	9	187.35	187.15	0.02222	4.76	
99D	Inlet	61+75	5.5' RT	191.85	45A	55	NEW	99B	12	49	185.50	185.00	0.01020	8.01	
99G	Inlet	64+98.9	48.0' LT	199.85	45A	57	REPLACE	261	12	5	196.75	196.60	0.03000	4.76	
99E	Inlet	65+00.2	48.0' RT	199.95	45A	57	REPLACE	260	12	9	196.85	196.65	0.02222	4.76	
99F	Inlet	65+00.6	2.9' LT	201.00	45A	55	REPLACE	Use Existing Drains	12	5	197.90			4.76	
99H	Inlet	67+59.1	48.0' LT	201.45	45A	57	REPLACE	262	12	5	198.30	198.20	0.02000	4.81	
99I	Inlet	70+65.0	48.0' LT	199.26	45A	57	NEW	263	12	31	196.00	195.00	0.03226	4.92	
99J	Inlet	71+00.6	48.0' RT	199.13	45A	57	REPLACE	Use Existing Drains	12	5	194.25			6.54	
98K	Inlet	73+95.0	5.0' LT	197.50	45A	55	NEW	99K	12	26	194.40	193.90	0.01923	4.76	
99K	Storm MH	74+20.7	1.0' LT	197.45	4' DIA MH	57	REPLACE	Use Existing Drains	12	5	194.25			7.11	Storm MH with Inlet Cover
99M	Inlet	74+26.3	48.0' RT	196.84	45A	57	REPLACE	Use Existing Drains	12	5	193.75			4.75	
99L	Inlet	74+31.3	48.0' LT	196.03	45A		REPLACE	264	12	5	192.70	192.60	0.02000	4.99	Reuse Type 57 Frame & Grate
99N	Inlet	74+46.2	94.7' RT	196.05	45A		REPLACE	265	12	12	191.85	191.60	0.020833333	5.86	Reuse Type 57 Frame & Grate
99O	Inlet	77+40	5' LT	195.15	45A	55	NEW	268	12	44	188.80	187.80	0.022727273	8.01	
99P	Inlet	77+61.6	48.0' RT	193.91	45A	57	REPLACE	269	12	6	190.80	190.65	0.02500	4.77	
99Q	Inlet	77+63.5	48.0' LT	193.76	45A		REPLACE	268	12	5	190.65	190.50	0.03000	4.77	Reuse Type 57 Frame & Grate
	W LISBON AVE														
46	Inlet	3+46.7L	21.9' Left	150.00	45A	55	REPLACE	Use Existing Drains	12	5	146.90			4.76	
49	Inlet	4+21.7L	27.2' Left	152.60	45A	57	NEW	221	12	115	148.45	146.00	0.02130	5.81	
51	Inlet	5+64.9L	44.7' RT	153.50	45A	57	NEW	223	12	37	150.40	149.55	0.02297	4.76	Protect San. MH, TE&ES
53	Inlet	5+78.8L	46.9' LT	150.95	45A	57	NEW	225	12	21	147.80	147.35	0.02143	4.81	Protect TE&ES
52	Inlet	6+13.6L	76.6' Right	154.60	45A	57	REPLACE	Use Existing Drains	12	5	151.50			4.76	Protect & Support TE&ES
55	Sto. MH	6+27.5L	10.0' RT	153.12	4' DIA MH	57	NEW	224	12	17	149.15	148.80	0.02059	5.63	Sto. MH with Inlet Cover & Sump
56	Inlet	6+64.7L	7.4' Right	153.30	45A	55	NEW	55	12	38	150.20	149.40	0.02105	4.76	Protect & Support TE&ES

Note: Offset is to face of curb on inlet structures and to center of MH structures.

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ITEM	INLET COVERS, TYPE 57	INLET COVERS, TYPE 55	MANHOLE COVERS, TYPE 58A	INLET TYPE 45A	REINFORCED CONCRETE (CLASS III) 12-INCH	REINFORCED CONCRETE (CLASS V) 21-INCH	REINFORCED CONCRETE (CLASS IV) 36-INCH	Manhole 4' Diameter	4' X 4' Manhole	REMOVING MANHOLES	SALVAGED INLET COVERS	Manhole 5' Diameter
	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04	608.0312	608.0521	608.0436	611.2004	611.2044	204.0210	611.9710	611.2005
TOTALS	**52**	**21**	**6**	**66**	**1761.0**	**60.0**	**14**	**12**	**11**	**5**	**9**	**1**

WAUWATOSA STORM SEWER

	DRAINAGE STRUCTURES							REINFORCED CONCRETE, STORM SEWER PIPE					Depth	REMARKS
NUMBER	TYPE OF STRUCTURE	STATION	CENTERLINE OFFSET	COVER ELEV.	STRUCT.	FRAME & LID	REPLACE OR NEW STRUCTURE	CONNECTION STRUCTURE	SIZE (IN)	LENGTH (FT)	INVERT ELEV. INLET	INVERT ELEV. OUTLET	(ft)	
4	INLET	11+14.7	48.0' RT	129.70	45A	57	REPLACE	205	12	51.4	124.80	124.44	4.9	24" HIGH PRESSURE GAS MAIN PRESENT
7	INLET	12+50.0	48.0' RT	130.45	45A	57	REPLACE	EX. 36" STORM	12	51.2	120.85	118.80	7.3	24" HIGH PRESSURE GAS MAIN PRESENT
9A	INLET	13+28.2	171.0' RT	124.65	45A	57	NEW	206A	12	30.2	120.37	120.07	4.3	
9B	INLET	13+75.4	156.8' RT	124.25	Catch Basin 2x3-ft	57	REPLACE	9A	12	50.5	120.87	120.37	3.4	6" WATER MAIN PRESENT
9C	INLET	13+30.1	214.6' RT	124.80	Catch Basin 2x3-ft	57	REPLACE	206A	12	24.3	120.31	120.07	4.5	6" WATER MAIN PRESENT
10	INLET	13+73.5	48.0' RT	129.90	45A	57	REPLACE	11	12	14.8	121.32	121.02	8.6	
10A	INLET	13+96.1	79.3' RT	126.80	45A	57	NEW	10	12	39.1	121.96	121.57	4.8	6" GAS MAIN ALTERATION MAY BE REQ'D
10B	INLET	14+24.9	87.6' RT	126.00	Catch Basin 2x3-ft	57	NEW	10A	12	28.9	122.50	122.21	3.5	6" AND 16" WATER MAIN PRESENT
11	STORM MH	13+73.5	33.2' RT	130.52	14	Q	NEW	To Bridge outfall	30	47.7	115.28	114.28	15.2	
14	INLET	14+68.3	48.0' RT	128.30	45A	57	NEW	15	12	12.8	123.38	123.25	4.9	
15	STORM MH	14+68.3	34.5' RT	128.87	14	Q	NEW	11	30	94.9	121.75	118.53	6.1	
16	INLET	14+75.0	48.0' RT	128.25	45A	57	NEW	14	12	6.0	123.44	123.38	4.8	
17	INLET	14+81.0	48.0' RT	128.30	45A	57	NEW	16	12	6.0	123.50	123.44	5.8	
19	INLET	15+45.3	5.0' RT	129.60	45A	55	NEW	20	12	32.3	124.86	124.54	4.8	24" HIGH PRESSURE GAS MAIN PRESENT
20	STORM MH	15+45.3	37.9' RT	129.01	14	Q	NEW	15	30	77.0	122.91	121.75	6.3	
21	INLET	15+45.3	48.0' RT	128.72	45A	57	NEW	20	12	9.9	124.00	123.91	4.7	
24	INLET	17+11.3	69.4' RT	132.35	45A	57	NEW	26	15	18.4	127.65	127.47	4.7	
25	STORM MH	17+25.8	37.9' RT	132.46	14	Q	NEW	20	30	180.5	125.62	122.91	6.8	6" GAS MAIN ALTERATION MAY BE REQ'D
26	STORM MH	17+25.6	68.4' RT	132.95	12	Q	NEW	25	15	30.5	126.97	126.67		
27	INLET	17+41.4	69.6' RT	132.55	45A	57	REPLACE	26	15	10.6	127.88	127.77	4.7	
28	INLET	17+64.6	5.5' RT	134.50	45A	55	NEW	29	8	32.4	131.51	130.87	3.0	24" HIGH PRESSURE GAS MAIN PRESENT
29	STORM MH	17+64.8	37.9' RT	133.48	12	Q	REPLACE	25	24	39.0	127.79	126.12	5.8	3" GAS MAIN PRESENT
30	INLET	17+64.6	48.0' RT	133.30	45A	57	NEW	29	12	9.4	128.60	128.51	4.7	
31	INLET	17+70.6	48.0' RT	133.46	45A	57	NEW	30	12	6.0	128.66	128.60	4.8	
32	INLET	20+54.8	65.8' RT	143.40	45A	57	NEW	33	12	19.0	138.70	138.52	4.7	CONNECT PRIVATE STORM SEWER AT STA 18+95, 37.9' RT
33	STORM MH	20+74.5	65.5' RT	144.06	12	Q	NEW	34	18	27.5	138.52	138.24		3" GAS MAIN PRESENT
34	STORM MH	20+74.4	37.9' RT	143.92	12	Q	NEW	29	24	309.6	137.99	127.79	6.0	
35	INLET	20+85.2	66.5' RT	144.05	45A	57	NEW	33	12	10.1	139.12	139.02		
36	INLET	21+09.4	48.0' RT	144.68	45A	57	NEW	37	12	9.6	139.71	139.61	5.0	
37	STORM MH	21+09.4	37.9' RT	144.93	12	Q	NEW	34	24	35.0	139.11	137.99	5.9	
38	INLET	21+09.4	5.8' RT	145.68	45A	55	NEW	37	8	32.1	142.52	142.20	3.2	24' HIGH PRESSURE GAS MAIN PRESENT
39	STORM MH	21+67.4	38.0' RT	145.74	12	Q	NEW	37	18	58.1	140.54	139.61	5.2	CONNECT PRIVATE STORM SEWER AT STA 21+42, 37.9' RT
W LISBON AVE.														
40	STORM MH	0+96.5L	33.2' RT	150.75	12	Q	NEW	39	18	188.7	143.81	140.79	6.9	CONNECT PRIVATE STORM SEWER AT STA 22+32, 47.4' RT
41	STORM MH	2+19.6L	33.2' RT	151.83	12	Q	NEW	40	18	123.1	146.03	144.06	5.8	
42	INLET	2+19.6L	11.0' RT	151.29	45A	57	NEW	41	12	20.5	146.74	146.53	4.6	
43	INLET	2+46.6L	47.0' RT	152.05	45A	57	NEW	41	15	30.2	146.85	146.53	5.2	CONNECT PRIVATE STORM SEWER TO INLET

ITEM	INLET COVERS, TYPE 57	INLET COVERS, TYPE 55	INLET TYPE 45A	REINFORCED CONCRETE (CLASS III) 30-INCH	REINFORCED CONCRETE (CLASS III) 24-INCH	REINFORCED CONCRETE (CLASS IV) 18-INCH	REINFORCED CONCRETE (CLASS V) 15-INCH	REINFORCED CONCRETE (CLASS V) 12-INCH	CATCH BASINS 2X3-FT	MANHOLE 4' DIAMETER	MANHOLE 6' DIAMETER	MANHOLE COVERS TYPE Q	STORM SEWER PIPE 8-INCH PVC
	SPV.0060.01	SPV.0060.02	SPV.0060.04	608.0330	608.0324	608.0418	608.0515	608.0512	611.1230	611.2004	611.2006	611.0555	SPV.0090.02
TOTALS	21	3	21	400	384	397	90	432	3	8	4	12	64

All items are Category 0060

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REMOVING SIGNS TYPE II (EA)	638.3000 REMOVING SMALL SIGN SUPPORTS (EA)	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"X 6"x16' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	REMARKS / NEW SIGN LOCATION
1	J3-2(2S)	--	48 x 57	19.00	1	--	--	--	--	MOUNT ON SIGNAL POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
2	J4-1(2S)	--	24 x 36	6.00	1	--	--	--	--	ON LIGHT POLE
	M3-1	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
3	J3-1(2S)	--	24 x 57	9.50	1	--	--	--	--	ON LIGHT POLE
	M3-1	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
4	J3-1(2S)	--	24 x 57	9.50	1	--	--	--	--	MOUNT ON SIGNAL POLE
	M3-1	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
5	J4-1(2S)	--	24 x 36	6.00	1	--	--	--	--	ON LIGHT POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
6	J3-3MOD(2S)	--	72 x 60	30.00	1	2	--	--	2	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
	M4-20L	--	24 x 24	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--

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TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REMOVING SIGNS TYPE II (EA)	638.3000 REMOVING SMALL SIGN SUPPORTS (EA)	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"X 6"x16' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	REMARKS / NEW SIGN LOCATION
	M5-1R	--	21 x 21	--	--	--	--	--	--	--
7	J3-1(2S)	--	24 x 57	9.50	1	--	--	--	--	ON LIGHT POLE
	M3-3	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
8	J13-1(2S)	--	24 x 45	7.50	--	--	--	--	--	ON LIGHT POLE
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-4	--	21 x 21	--	--	--	--	--	--	--
9	J1-1(2S)	--	24 x 39	6.50	1	--	--	--	--	ON LIGHT POLE
	M2-1	--	21 x 15	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
10	J3-1(2S)	--	24 x 57	9.50	--	--	--	--	--	ON LIGHT POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--
11	J4-1(2S)	--	24 x 36	6.00	--	--	--	1	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
12	J4-1(2S)	--	24 x 36	6.00	1	--	--	1	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
13	J13-1	--	-- x --	--	1	--	--	--	--	--
14	J13-1(2S)	--	24 x 45	7.50	--	--	1	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-4	--	21 x 21	--	--	--	--	--	--	--
15	J13-1(2S)	--	24 x 45	7.50	--	--	--	--	--	ON LIGHT POLE
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-4	--	21 x 21	--	--	--	--	--	--	--
16	J13-1(2S)	--	24 x 45	7.50	--	--	1	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--

CONTINUED ON NEXT PAGE

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W x H [IN.] x [IN.]	637.0202 SIGNS REFLC TYPE II [SF]	638.2602 REMOVING SIGNS TYPE II (EA)	638.3000 REMOVING SMALL SIGN SUPPORTS (EA)	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT [EA]	634.0616 WOOD POSTS 4"X 6"x16' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	REMARKS / NEW SIGN LOCATION
	M6-4	--	21 x 21	--	--	--	--	--	--	--
17	J4-1(2S)	--	24 x 36	6.00	1	--	--	1	--	--
	M3-2	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
18	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	ON LIGHT POLE
	M3-4	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
19	J13-1(2S)	--	24 x 45	7.50	--	--	--	--	--	ON LIGHT POLE
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-4	--	21 x 21	--	--	--	--	--	--	--
20	J13-1(2S)	--	24 x 45	7.50	--	--	--	--	--	MOUNT ON SIGNAL POLE
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
	M6-4	--	21 x 21	--	--	--	--	--	--	--
21	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	ON LIGHT POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
22	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	ON LIGHT POLE
	M3-4	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
23	J4-1(2S)	--	24 x 36	6.00	--	--	--	--	--	ON LIGHT POLE
	M3-2	--	24 x 12	--	--	--	--	--	--	--
	M1-6	STH 190	24 x 24	--	--	--	--	--	--	--
TOTALS				192.50	11	2	2	3	2	--

CITY UNDERGROUND CONDUIT 4-INCH

LOCATION	CATEGORY 0010									CATEGORY 0050		
	SPV.0090.03 1-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.04 2-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.06 4-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.07 5-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.08 6-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.09 7-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.10 8-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.11 10-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.12 12-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.04 2-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.05 3-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.06 4-DUCT CONDUIT CEMENT ENCASED DB-60 LF
MH 601 to PULL BOX LT		34										
MH 601 to PULL BOX RT		91										
MH 601 to STA 28 + 15.7			124									
MH 606 to STA 5L + 37.9, 23.2 RT										25		
MH 606 to STA 6L + 46.0, 18.1 RT												80
MH 606 to MH 607												291
MH 607 to STA 27 + 33.2, 60.4 LT										54		
MH 607 to STA 27+75.8, 69.5 LT				50								
STA 27+75.8, 69.5 LT to TRAFFIC CONTROL CABINET	43											
STA 27+75.8, 69.5 LT to STA 27 + 75.8, 178.4 LT			109									
MH 607 to STA 28 + 15.8, 16.5 LT			38									
STA 28 + 15.8, 16.5 LT to STA 31 + 65.0, 16.5 LT							349					
STA 31 + 65.0, 16.5 LT to STA 32 + 45.0, 16.5 LT			80									
STA 31 + 65.0, 16.5 LT to MH 609			38									
MH 609 TO STA 32 + 45.0, 16.5 LT			38									
STA 32 + 45.0, 16.5 LT to STA 33 + 20.0, 16.5 LT							75					
STA 33 + 20.0, 16.5 LT to STA 34 + 00.0, 16.5 LT			80									
STA 33 + 20.0, 16.5 LT to MH 611			38									
MH 611 to STA 34 + 00.0, 16.5 LT			38									
STA 34 + 00.0, 16.5 LT to STA 36 + 85.0, 16.5 LT							285					
STA 36 + 85.0, 16.5 LT to STA 37 + 65.0, 16.5 LT			80									
STA 36 + 85.0, 16.5 LT to MH 613			38									
MH 613 to STA 37 + 65.0, 16.5 LT			38									
STA 37 + 65.0, 16.5 LT to STA 40 + 19.0, 16.5 LT							254					
STA 40 + 19.0, 16.5 LT to STA 40 + 99.0, 16.5 LT			80									
STA 40 + 19.0, 16.5 LT to MH 616			38									
MH 616 to POLICE CALL BOX										77		
MH 616 to STA 40 + 99.0, 16.5 LT			38									
STA 40 + 99.0, 16.5 LT to STA 42 + 10.0, 16.5 LT							111					
STA 42 + 10.0, 16.5 LT to STA 42 + 90.0, 16.5 LT			80									
STA 42 + 10.0, 16.5 LT to MH 617			38									
MH 617 to STA 42 + 90.0, 16.5 LT			38									
STA 42 + 90, 16.5 LT to STA 45 + 10.0, 16.5 LT							220					
STA 45 + 10.0, 16.5 LT to STA 45 + 90.0, 16.5 LT			80									
STA 45 + 10.0, 16.5 LT to MH 620			38									
MH 620 to STA 45 + 90.0, 16.5 LT			38									
STA 45 + 90.0, 16.5 LT to STA 46 + 99.3, 16.5 LT							109					
STA 46 + 99.3, 16.5 LT to STA 48 + 25.0, 27.5 LT			126									
STA 46 + 99.3, 16.5 LT to MH 622			44									
MH 622 to STA 48 + 25.0, 27.5 RT			79									
STA 48 + 25.0, 27.5 RT to STA 50 + 33.0, 27.5 LT							208					
STA 50 + 33.0, 2705 LT to MH 627			121									
STA 50 + 33.0, 27.5 LT to MH 626			38									
MH 626 to POLICE CALL BOX										88		
MH 626 to STA 51 + 95.0, 16.5 LT			121									
MH 627 to PULL-BOX		63										
MH 627 to STA 51 + 95.0, 16.5 LT					38							
STA 51 + 95.0, 16.5 to STA 54 + 14.0, 16.5 LT								219				
STA 54 + 14.0, 16.5 LT to STA 54 + 94.0, 16.5 LT					80							
STA 54 + 14.0, 16.5 LT to MH 630			38									
MH 630 to STA 54 + 46.4, 11.0 RT											28	
MH 630 to STA 54 + 94.0, 16.5 LT					38							
SUBTOTAL	43	188	1774	50	156	0	1611	219	0	244	28	371

PROJECT NO:	HWY:	COUNTY:	MISCELLANEOUS QUANTITIES	SHEET: 279	E

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

CITY UNDERGROUND CONDUIT 4-INCH (CONTINUED)

LOCATION	CATEGORY 0010									CATEGORY 0050		
	SPV.0090.03 1-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.04 2-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.06 4-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.07 5-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.08 6-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.09 7-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.10 8-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.11 10-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.12 12-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.04 2-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.05 3-DUCT CONDUIT CEMENT ENCASED DB-60 LF	SPV.0090.06 4-DUCT CONDUIT CEMENT ENCASED DB-60 LF
STA 54 + 94.0, 16.5 LT to STA 55 + 10.0, 16.5 LT									16			
STA 55 + 10.0, 16.5 LT to STA 55 + 90.0, 16.5 LT					80							
STA 55 + 10.0, 16.5 LT to MH 631					38							
MH 631 to STA 55 + 90.0, 16.5 LT					38							
STA 55 + 90.0, 16.5 LT to STA 59 + 00.0, 16.5 LT									310			
STA 59 + 00.0, 16.5 LT to STA 59 + 80.0, 16.5 LT					80							
STA 59 + 00.0, 16.5 LT to MH 634					38							
MH 634 to STA 59+80.0, 16.5 LT					38							
STA 59 + 80.0, 16.5 LT to STA 60 + 60.0, 16.5 LT									80			
STA 60 + 60.0, 16.5 LT to STA 61 + 40.0, 16.5 LT					80							
STA 60 + 60.0, 16.5 LT to MH 637					38							
MH 637 to Police Call Box										42		
MH 637 to STA 61 + 40.0, 16.5 LT					38							
STA 61 + 40 .0, 16.5 LT to STA 63 + 80.0, 16.5 LT									240			
STA 63 + 80.0, 16.5 LT to MH 640					38							
STA 63 + 80.0, 16.5 LT to MH 639					98							
MH 639 to STA 65 + 20.0, 16.5 LT					98							
MH 640 to STA 64 + 85.9, 61.1 LT										42		
MH 640 to STA 65 + 20.0, 16.5 LT					38							
STA 65 + 20.0, 16.5 LT TO STA 67 + 66.4, 16.5 LT									246			
STA 67 + 66.4, 16.5 LT to MH 643					43							
STA 67 + 66.4, 16.5 LT to MH 644					50							
MH 643 to STA 65 + 14.4, 90.2 RT										105		
MH 643 to STA 68 + 68.6, 16.5 LT					55							
MH 644 TO PULL-BOX LT		48										
MH 644 TO STA 68 + 25.1, 8.0 LT					5							
STA 68 + 68.6, 8.0 LT to PULL-BOX		18										
STA 68 + 68.6, 8.0 LT to STA 68 + 68.6, 16.5 LT			44									
MH 644 to MH 645								65				
MH 645 to PULL-BOX		17										
MH 645 to MH 648								79				
STA 68 + 68.6, 16.5 LT to STA 70 + 65.5, 16.5 LT								197				
STA 70 + 65.5, 16.5 LT to STA 71 + 45.5, 16.5 LT			80									
STA 70 + 65.5, 16.5 LT to MH 650					38							
MH 650 to POLICE CALL BOX										45		
MH 650 to STA 71 + 45.5, 16.5 LT					38							
STA 71 + 45.5, 16.5 LT to STA 74 + 05.3, 16.5 LT								260				
STA 74 + 05.3, 16.5 LT to MH 653					38							
STA 74 + 05.3, 16.5 LT to MH 655			133									
MH 653 to STA 74 + 45.3, 61.5 LT										42		
MH 653 to STA 79 + 40.0, 15.0 LT					492							
MH 655 to PULL-BOX RT		56										
MH 655 to PULL-BOX LT		39										
STA 197.93.0 , 13.5 RT to 199 + 09.0, 13.5 RT			116									
STA 199 + 09.0, 13.5 RT TO MH					107							
STA 199 + 09.0, 15.5 RT TO STA 199 + 05.0, 44.0 RT										33		
MH 630 to STA 200 + 82.0, 13.5 RT						61						
STA 200 + 82.0, 13.5 RT to TRAFIC CONTROL CABINET	34											
STA 200 + 82.0, 13.5 RT to STA 202 + 75, 13.5 RT					193							
SUBTOTAL	34	178	373	0	1799	61	0	601	892	309	0	0
TOTAL	**77**	**366**	**2147**	**50**	**1955**	**61**	**1611**	**820**	**892**	**553**	**28**	**371**

CITY UNDERGROUND CONDUIT

LOCATION	CATEGORY 0050 SPV.0060.31 SAWING CONCRETE-ENCASED DUCT PACKAGE EACH	CATEGORY 0010 SPV.0060.28 CONDUIT INTO EXISTING MANHOLE EACH	204.0250 ABANDON MANHOLE EACH	SPV.0060.26 4' DIAMETER TES MANHOLE EACH	SPV.0060.27 5' DIAMETER TES MANHOLE EACH	SPV.0060.08 ADJUSTING TES MANHOLE COVER EACH
MANHOLE 600 - STA 25 + 12.0, 22.0 RT			1			
MANHOLE 601 - STA 26 + 89.4, 16.5 LT				1		1
MANHOLE 602 - STA 27 + 05.2, 27.6.5 RT			1			
MANHOLE 603 - STA 27 + 33.0, 21.3 RT			1			
MANHOLE 604 - STA 27 + 35.7, 146.6 RT			1			
MANHOLE 605 - STA 5L + 16.2, 18.4 RT			1			
MANHOLE 606 - STA 6L + 46.0, 18.1 RT				1		1
STA 6L + 46.0, 18.1 RT	1					
MANHOLE 607 - STA 27 + 75.8, 17.5 LT				1		1
MANHOLE 608 - STA 30 + 45.3, 21.6 RT			1			
MANHOLE 609 - STA 32 + 05.0, 16.5 LT				1		1
MANHOLE 610 - STA 33 + 31.6, 6.5 LT			1			
MANHOLE 611 - STA 33 + 60.0, 17.5 LT				1		1
MANHOLE 612 - STA 36 + 74.7, 7.1 RT			1			
MANHOLE 613 - STA 37 + 25.0, 15.5 LT				1		1
MANHOLE 614 - STA 40 + 14.5, 6.6 LT			1			
MANHOLE 615 - STA 40 + 56.1, 9.6 LT			1			
MANHOLE 616 - STA 40 + 59.0, 17.5 LT				1		1
MANHOLE 617 - STA 42 + 50.0, 15.5 LT				1		1
MANHOLE 618 - STA 44 + 02.2, 7.2 LT			1			
MANHOLE 619 - STA 44 + 08.9, 3.2 LT			1			
MANHOLE 620 - STA 42 + 50.0, 15.5 LT				1		1
MANHOLE 621 - STA 47 + 17.6, 7.9 LT			1			
MANHOLE 622 - STA 47 + 45.0, 16.5 LT				1		1
MANHOLE 623 - STA 48 + 03.8, 4.6 LT			1			
MANHOLE 624 - STA 50 + 41.3, 6.0 LT			1			
MANHOLE 625 - STA 50 + 64.3, 9.7 LT			1			
MANHOLE 626 - STA 50 + 73.0, 27.5 LT				1		1
MANHOLE 627 - STA 51 + 55.0, 15.5 LT				1		1
SUBTOTAL	1	0	16	12	0	12

LOCATION	CATEGORY 0050 SPV.0060.31 SAWING CONCRETE-ENCASED DUCT PACKAGE EACH	CATEGORY 0010 SPV.0060.28 CONDUIT INTO EXISTING MANHOLE EACH	204.0250 ABANDON MANHOLE EACH	SPV.0060.26 4' DIAMETER TES MANHOLE EACH	SPV.0060.27 5' DIAMETER TES MANHOLE EACH	SPV.0060.08 ADJUSTING TES MANHOLE COVER EACH
MANHOLE 628 - STA 53 + 65.3, 17.5 LT			1			
MANHOLE 629 - STA 54 + 46.6, 11.3 LT			1			
STA 54 + 45.4, 11.0 RT	1					
MANHOLE 630 - STA 54 + 54.0, 18.0 LT					1	1
MANHOLE 631 - STA 55 + 50.0, 15.5 LT				1		1
MANHOLE 632 - STA 57 + 29.7, 5.1 LT			1			
MANHOLE 633 - STA 57 + 55.3, 8.6 LT			1			
MANHOLE 634 - STA 59 + 40.0, 15.5 LT				1		1
MANHOLE 635 - STA 60 + 62.9, 4.5 LT			1			
MANHOLE 636 - STA 60 + 88.7, 8.6 LT			1			
MANHOLE 637 - STA 61 + 00.0, 17.5 LT				1		1
MANHOLE 638 - STA 64 + 19.2, 6.0 LT			1			
MANHOLE 639 - STA 64 + 20.0, 15.5 LT				1		1
MANHOLE 640 - STA 64 + 80.0, 17.5 LT				1		1
MANHOLE 641 - STA 65 + 06.7, 8.3 LT			1			
MANHOLE 642 - STA 68 + 10.2, 4.5 LT			1			
MANHOLE 643 - STA 68 + 11.7, 16.5 LT				1		1
MANHOLE 644 - STA 68 + 17.5, 8.0 LT					1	1
MANHOLE 645 - STA 68 + 17.5, 62.3 RT					1	1
MANHOLE 646 - STA 68 + 59.1, 8.6 LT			1			
MANHOLE 647 - STA 69 + 01.3, 4.1 LT			1			
MANHOLE 648 - STA 69 + 02.4, 60.3 RT		2				1 – NEW COVER
MANHOLE 649 - STA 70 + 96.7, 7.8 LT			1			
MANHOLE 650 - STA 71 + 05.5, 17.5 LT				1		1
MANHOLE 651 - STA 71 + 70.4, 4.4 LT			1			
MANHOLE 652 - STA 74 + 06.5, 7.7 LT			1			
MANHOLE 653 - STA 74 + 45.3, 17.5 LT				1		1
MANHOLE 654 - STA 77 + 55.8, 7.8 LT			1			
MANHOLE 655 - STA 77 + 40.0, 8.5 LT				1		1
MANHOLE 656 - STA 77 + 55.8, 7.8 LT			1			
SUBTOTAL	1	2	16	9	3	13
TOTALS	**2**	**2**	**32**	**21**	**3**	**25**

PROJECT NO:	HWY:	COUNTY:	MISCELLANEOUS QUANTITIES	SHEET: 281	E

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

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2025-16-20		
FEDERAL PROJECT NUMBER ----------	4.01	4

PLAT OF RIGHT-OF-WAY REQUIRED FOR

WEST CAPITOL DRIVE

LOVERS LANE (S.T.H. 100) TO BRANCH OF MENO. RIVER

S.T.H 190 MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER
2025-16-70

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN — ⅝" (OR UNLESS NOTED)
R/W MONUMENT — ●(SET)
R/W STANDARD — ▲(SET)
SIGN — SIGN
SECTION CORNER MONUMENT — ●
SECTION CORNER SYMBOL — SEC COR
FEE (HATCH VARIES)
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT — RWB20
PARCEL NUMBER — 02
UTILITY PARCEL NUMBER — U2
SIGN NUMBER (OFF PREMISE) — 21-1
BUILDING

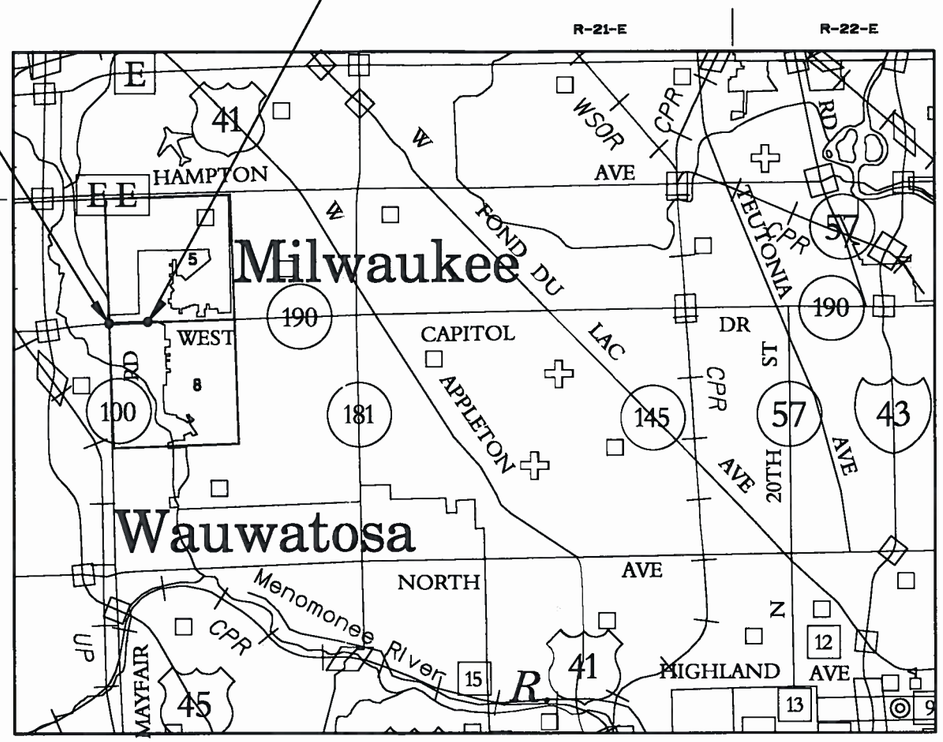
PROPOSED R/W LINE
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
ACCESS RESTRICTED (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER —W—		
GAS —G—		
TELEPHONE —T—		
OVERHEAD —OH—		
TRANSMISSION LINES		
ELECTRIC —E—		
CABLE TELEVISION —TV—		
FIBER OPTIC —FO—		
SANITARY SEWER —SAN—		
STORM SEWER —SS—		
POWER POLE	●	●
TELEPHONE POLE	ø	ø
TELEPHONE PEDESTAL	⌘	⌘
ELECTRIC TOWER	⊠	

END RELOCATION ORDER
STA. 17+00.00
1067.99' WEST AND 27.22'
SOUTH OF THE SOUTH QUARTER CORNER
OF SECTION 5-7-21
Y=403287.66
X=2523085.49

BEGIN RELOCATION ORDER
STA. 1+00.00
0.15 EAST AND 0.01
NORTH OF THE SOUTHWEST CORNER
OF SECTION 5-7-21
Y=403246.89
X=2521486.01



GN

NOTES:
COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD (27) AND SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION TECHNICAL REPORT 7 (3RD EDITION) ADJUSTMENT. ALL PLAT DISTANCES ARE GROUND LENGTH AND MAY BE CONVERTED TO GRID LENGTH BY MULTIPLYING THE DISTANCE BY THE GRID FACTOR PROVIDED ON DETAIL SHEET. (GRID FACTOR = 0.99991250)

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

LAYOUT
SCALE 0 0.5 1.0

TOTAL NET LENGTH OF CENTERLINE = 0.303 MI.

ACCEPTED FOR
CITY OF WAUWATOSA
FORMERLY MUNICIPALITY CITY ENGINEER
7-19-12 (Date) (Signature & Title of Official)

ACCEPTED FOR
CITY OF MILWAUKEE
7/19/12 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY
SPANN & ASSOCIATES
Consulting Engineers
WISCONSIN LAND SURVEYOR — CHARLES A. FORMOE S-1878 MILWAUKEE, WI
JUNE 8, 2012

REVISION DATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT
DATE: N/A (Signature) N/A

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

*INDICATES COMPUTED AREA, NO TAX ROLL AREA FOUND

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (S.F.)			TOTAL REMAINING	TLE (S.F.)	PLE (S.F.)	PARCEL NUMBER
					NEW	EXISTING	TOTAL				
1	4.04	MILWAUKEE COUNTY	PLE, TLE						13544	6113	1
2	4.04	MILWAUKEE COUNTY	PLE,TLE						29890	6503	2
3	4.04	KATHLEEN PECHACEK	TLE						326		3
4	4.04	SANDRA E. ROBINSON	TLE						2047		4
UTILITY NUMBER											
101	4.04	City of Milwaukee Water Works	ROR								
102	4.04	MMSD	ROR								
103	4.04	City of Wauwatosa Water	ROR								
104	4.04	WE-Energies-Gas	ROR								
105	4.04	WE-Energies-Electric	ROR								
106	4.04	AT&T-WISCONSIN	ROR								

4

4

REVISION DATE	DATE JUNE 8, 2012		HWY: STH 190	STATE R/W PROJECT NUMBER 2025-16-20	PLAT SHEET 4.02	
			COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2025-16-70	PS&E SHEET 283	E

4

4

T 7 N
R 21 E
6 5
7 8

T 7 N
R 21 E
5 5
8 8

SW-SW

SE-SW

CONC. MON.
W/ BRASS CAP
Y=403,246.89
X=2,521,485.86

CONC. MON.
W/ BRASS CAP
Y=403,314.87
X=2,524,153.16

GN

PINELAWN
CEMETERY

STH 100

CITY OF WAUWATOSA LIMITS

CITY OF MILWAUKEE LIMITS

W. GRANTOSA DR.

W. GRANTOSA DR.

BRANCH OF MENOMONEE RIVER

CITY OF MILWAUKEE

CITY OF WAUWATOSA

STH 190 (CAPITOL DR.)

10+00

15+00

17+00

R/L STH 190

CITY OF WAUWATOSA LIMITS

BEGIN RELOCATION ORDER
STA. 1+00.00
Y=403246.89
X=2521486.01

LOVERS LANE

PARK RIDGE

PARK RIDGE

BRANCH OF MENOMONEE RIVER

W. WOODWARD AVE

END RELOCATION ORDER
STA. 17+00.00
Y=403287.66
X=2523085.49

NW-NW

NE-NW

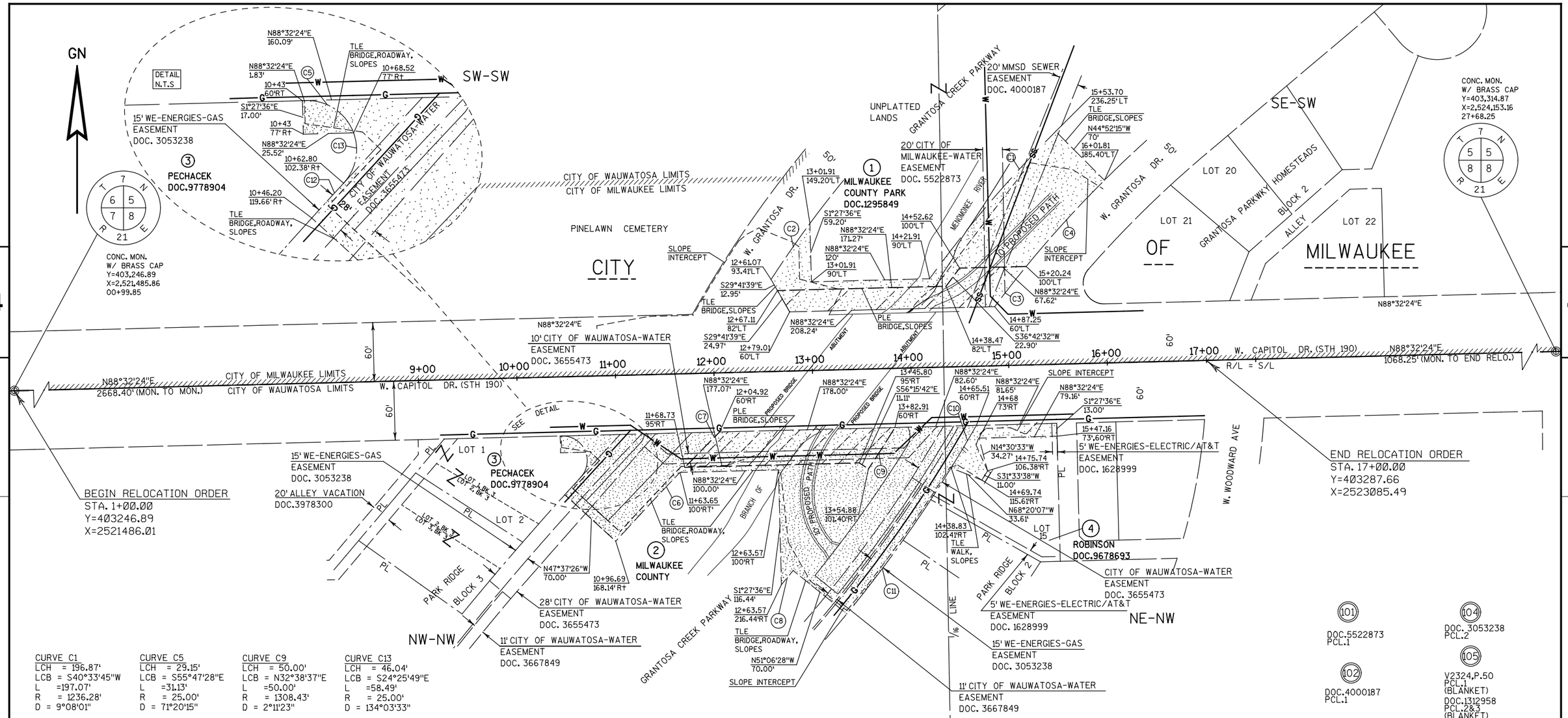
CITY OF WAUWATOSA

CITY OF MILWAUKEE

REVISION DATE	DATE JUNE 8, 2012	NOT TO SCALE	HWY: STH 190	STATE R/W PROJECT NUMBER 2025-16-20	PLAT SHEET 4.03	
	GRID FACTOR 0.99991250		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2025-16-70	PS&E SHEET 284	E

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

STH 190 2025-16-20 4.03



CURVE C1
LCH = 196.87'
LCB = S40°33'45"W
L = 197.07'
R = 1236.28'
D = 9°08'01"

CURVE C2
LCH = 69.15'
LCB = N34°44'50"E
L = 69.16'
R = 1126.28'
D = 3°31'06"

CURVE C3
LCH = 51.85'
LCB = S38°03'05"W
L = 51.85'
R = 1168.28'
D = 2°32'50"

CURVE C4
LCH = 118.09'
LCB = S42°13'38"W
L = 118.15'
R = 1168.28'
D = 5°48'15"

CURVE C5
LCH = 29.15'
LCB = S55°47'28"E
L = 31.13'
R = 25.00'
D = 71°20'15"

CURVE C6
LCH = 95.54'
LCB = S43°02'17"W
L = 95.54'
R = 3144.33'
D = 1°44'27"

CURVE C7
LCH = 50.35'
LCB = N44°29'50"E
L = 50.35'
R = 3144.33'
D = 0°55'03"

CURVE C8
LCH = 18.57'
LCB = S39°45'52"W
L = 18.57'
R = 1308.43'
D = 0°48'47"

CURVE C9
LCH = 50.00'
LCB = N32°38'37"E
L = 50.00'
R = 1308.43'
D = 2°11'23"

CURVE C10
LCH = 50.10'
LCB = N30°43'10"E
L = 50.10'
R = 1378.43'
D = 2°4'58"

CURVE C11
LCH = 232.03'
LCB = N34°30'22"E
L = 232.31'
R = 1378.43'
D = 9°39'22"

CURVE C12
LCH = 23.96'
LCB = S42°23'09"W
L = 23.96'
R = 3214.33'
D = 0°25'37"

CURVE C13
LCH = 46.04'
LCB = S24°25'49"E
L = 58.49'
R = 25.00'
D = 134°03'33"

NOTES:
COORDINATES AND BEARINGS ON THIS PLAT ARE ORIENTED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM SOUTH ZONE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION TECHNICAL REPORT NO. 7 (3RD EDITION) ADJUSTMENT. ALL PLAT DISTANCES ARE GROUND LENGTH AND MAY BE CONVERTED TO GRID LENGTH BY MULTIPLYING THE DISTANCE BY THE GRID FACTOR PROVIDED ON THIS SHEET.

HIGHWAY/STREET	BASIS OF EXISTING RIGHT-OF-WAY	DATE	WIDTH
STH 190 (W. CAPITOL DR.):	PROJECT TO U06-1(37)	1957	120'
STH 190 (W. CAPITOL DR.):	WD3412372 (V3461,P11)	1955	60'
STH 190 (W. CAPITOL DR.):	QCD (V903,P826)	ILLEGABLE	ILLEGABLE
ALLEY VACATION	DOC.3978300	1962	20'
W. GRANTOSA DR. (WESTLY,NORTH)	QCD 4974426	1976	VARIES
W. GRANTOSA DR. (EASTERLY AND WESTERLY,NORTH)	QCD 3487444 (V3568,P10)	1956	VARIES

REVISION DATE	DATE JUNE 8, 2012	SCALE, FEET 0 100	HWY: STH 190	STATE R/W PROJECT NUMBER 2025-16-20	PLAT SHEET 4.04
	GRID FACTOR 0.99991250		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2025-16-70	PS&E SHEET 285 E

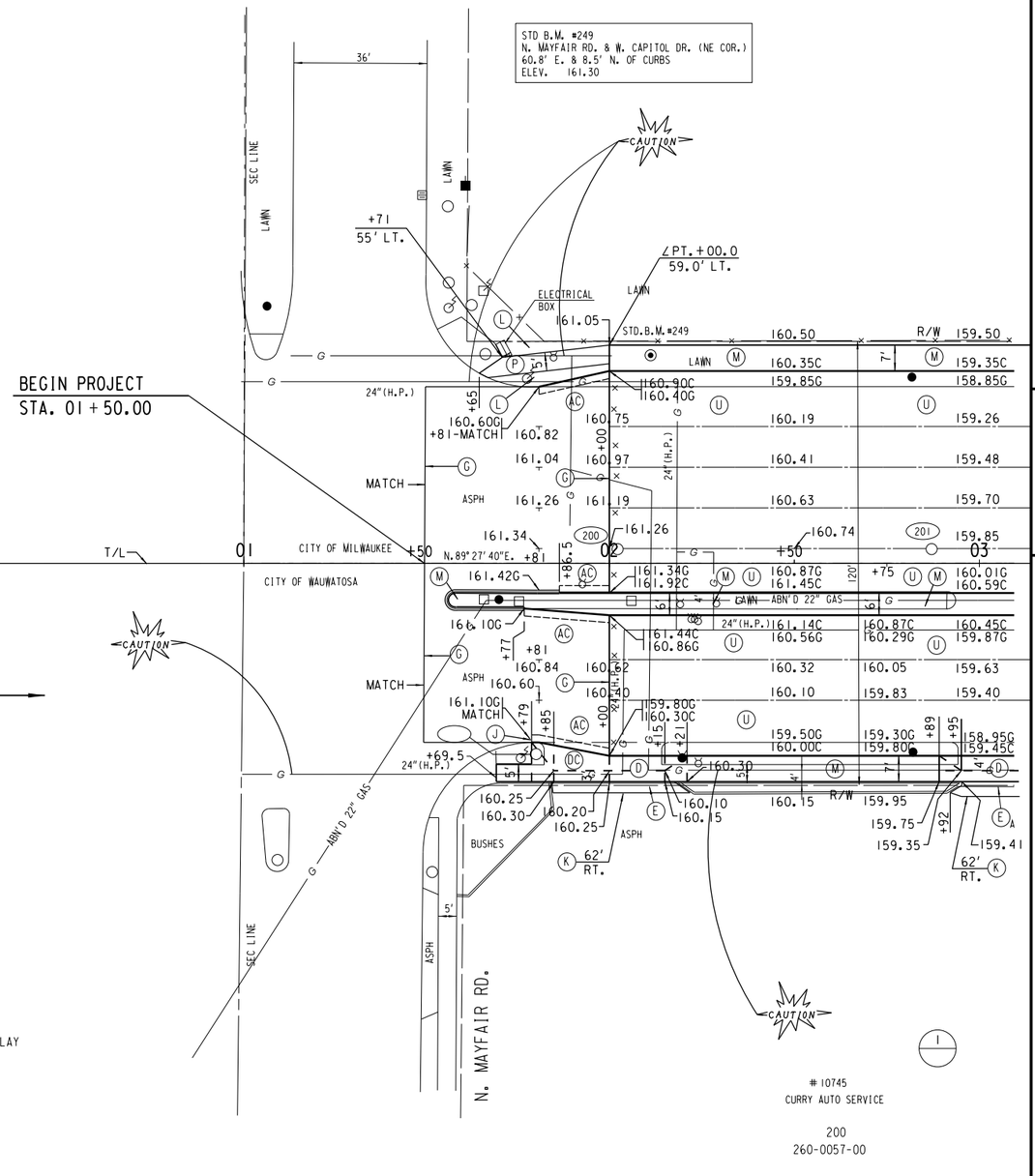
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WEST

CAPITOL

DRIVE

N



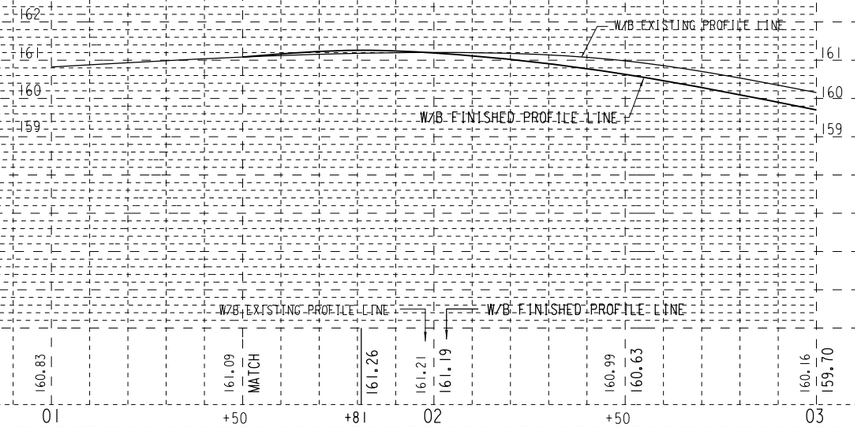
WORK TO BE DONE
BY WISDOT PROJECT
2030-09-00 TO BE
COMPLETED 2014

(AC) CONST. CONC. CURB & GUTTER 31-INCH (COVERED FLANGE)
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(DC) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH) (SPEC. CURB SEC.)
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(P) REMOVE & PLACE 2" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER

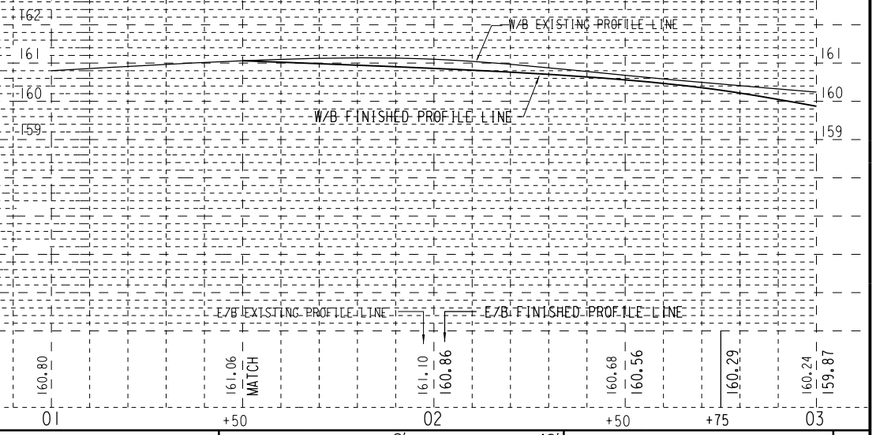
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 286	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\00_03.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 287	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\00_03.DGN

WEST CAPITOL DRIVE

STATIONS FOR CONC WALK

B.W. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10630 STA. 07+79- 00.7' LT. ELEV. 142.21

B.W. OF A STA. ELEV

PINELAWN CEMETERY

10700

N

10721

10707

10707

N. 107TH ST.

CITY OF MILWAUKEE

CITY OF WAUWATOSA

P.I.

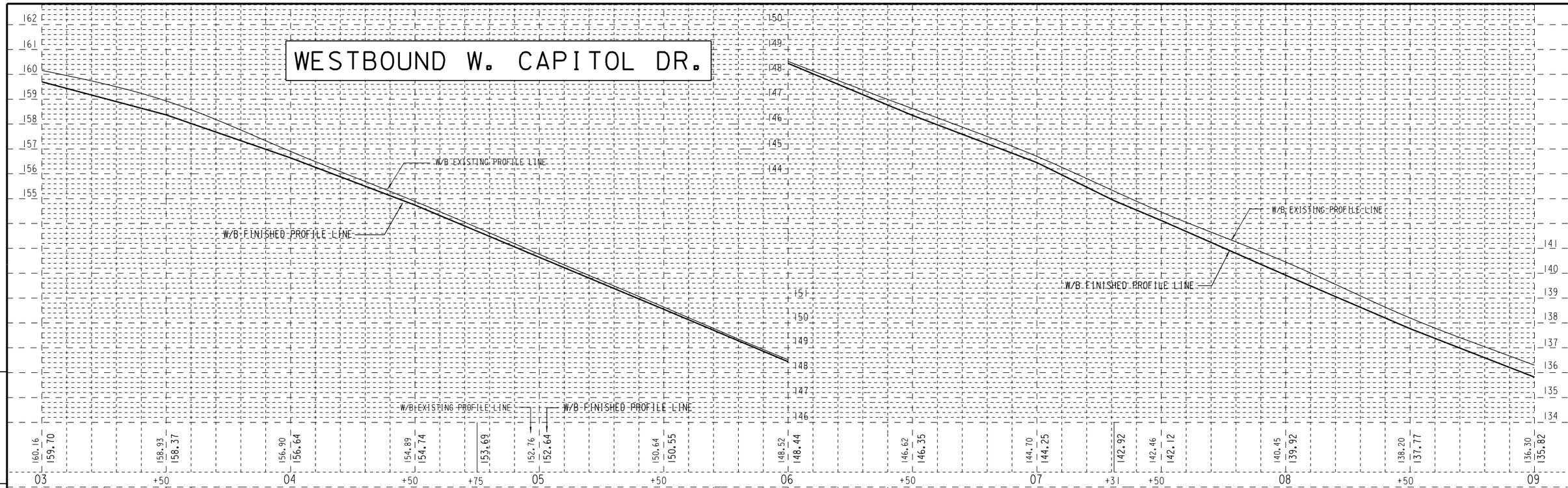
P.I.

- (2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
- (A) CONST. CONC. CURB & GUTTER 31-INCH
- (D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
- (E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
- (F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
- (H) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 2-INCH MIN. ASPH. OVERLAY
- (J) SAWING CONCRETE
- (K) SAWING ASPHALT
- (L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
- (M) CONST. 5" CONC. SIDEWALK
- (MC) CONST. PEDESTRIAN CURBING
- (P) REMOVE & PLACE 2" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
- (R) SAWING CONCRETE AT BASE OF CONC. STEP
- (U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
- (X) CONST. MAINTENANCE RAMP
- (Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

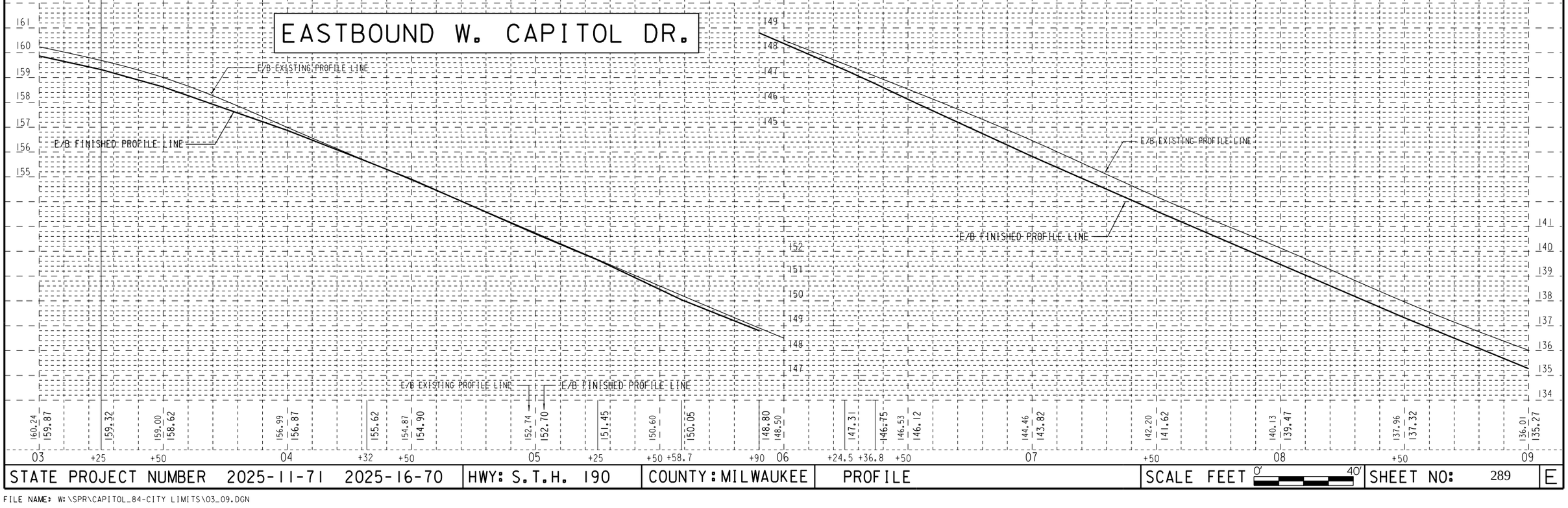
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 288	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\03_09.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 289	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\03_09.DGN

WEST CAPITOL DRIVE

B.M. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10606 STA. 09+01- 01.4'RT. ELEV. 137.08

B.M. NE COR. CONC. BASE OF ALUM. LIGHT POLE #10600 STA. 10+28- 00.7'LT. ELEV. 132.97

N

W. GRANTOSA DR.

WISDOT PROJECT 2025-16-70

SEE MULTI-USE PATH PLAN

RETAINING WALL

CAUTION

10512 W. GRANTOSA DR.

10405 W. GRANTOSA DR.

CITY OF MILWAUKEE

CITY OF WAUWATOSA

N.89°27'50"E.

ABN'D 22" GAS

24"(H.P.)

TO BE ABANDONED

EXISTING BRIDGE

NEW BRIDGE

PROP. C/L

FENCE ON RETAINING WALL

78.2' RT MATCH

P.I.

B. M. RR SPIKE IN WOOD POLE SE COR. W. GRANTOSA DR.(WEST RDWY) & W. CAPITOL DR. STA. 11+70, 70' RT. ELEV. 127.85

B.M HYD. SE COR. W. GRANTOSA DR. (EAST RDWY) & W. CAPITOL DR. STA. 14+73, 73'RT. NW BOLT ELEV. 128.40

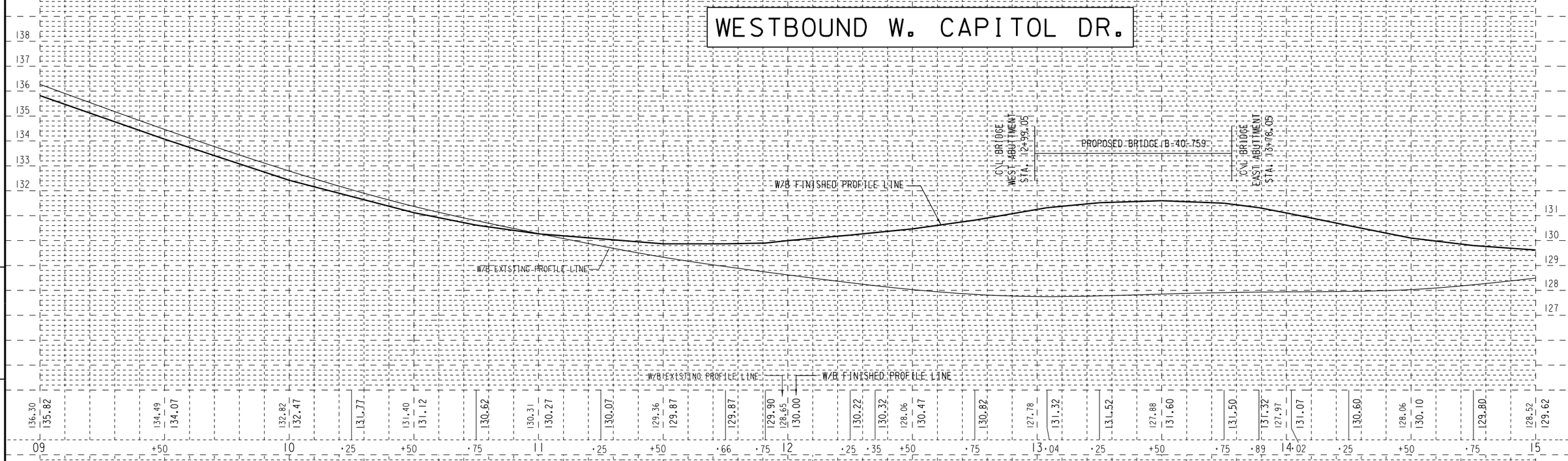
NOTE: SEE CONTOUR PLAN FOR GRADING AND SEEDING

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(4A) CONST. CURB RAMP TYPE 4A WITH DETECTABLE WARNING FIELD
(4B) CONST. CURB RAMP TYPE 4B WITH DETECTABLE WARNING FIELD
(5) CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD- SEE CONSTRUCTION DETAIL IN SECTION 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G4) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 4-INCH MIN. ASPH. OVERLAY
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(V) CONST. 7-INCH CONC. PAVEMENT
(W) CONST. 8-INCH CONC. PAVEMENT
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Z) CONST. CONC. LOADING ZONE WITH 7-INCH FACE
(WW) CONST. CONC. PAVEMENT APPROACH SLAB

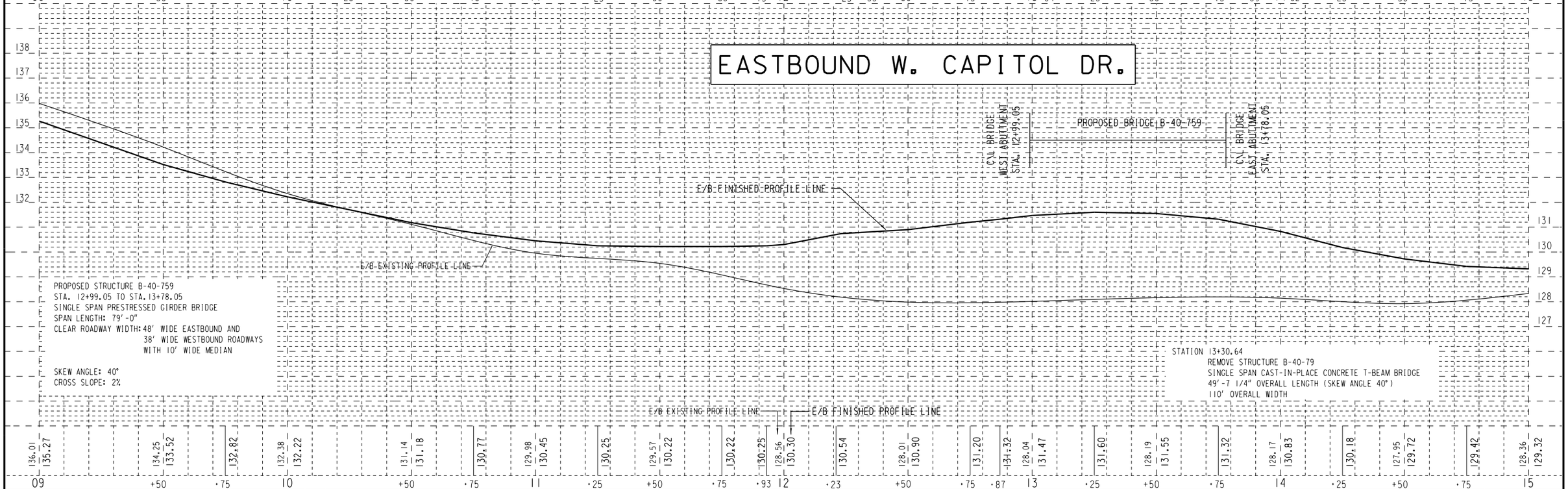
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40	SHEET NO: 290	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\09_15.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



PROPOSED STRUCTURE B-40-759
STA. 12+99.05 TO STA. 13+78.05
SINGLE SPAN PRESTRESSED GIRDER BRIDGE
SPAN LENGTH: 79'-0"
CLEAR ROADWAY WIDTH: 48' WIDE EASTBOUND AND
38' WIDE WESTBOUND ROADWAYS
WITH 10' WIDE MEDIAN

SKEW ANGLE: 40°
CROSS SLOPE: 2%

STATION 13+30.64
REMOVE STRUCTURE B-40-79
SINGLE SPAN CAST-IN-PLACE CONCRETE T-BEAM BRIDGE
49'-7 1/4" OVERALL LENGTH (SKEW ANGLE 40°)
110' OVERALL WIDTH

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 291	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\09_15.DGN

WEST CAPITOL DRIVE

STATIONS FOR CONC WALK

STATIONS FOR CONC WALK

B.M HYD. NE COR. W. GRANTOSA DR. (EAST RDWY) & W. CAPITOL DR. STA. 15+75, 102'LT. NW BOLT ELEV. 129.81

10210 W. GRANTOSA DR.

B.M SW COR. 1ST CONC. RISER @ #10024-26 W. CAPITOL DR. ELEV. 145.54

DAYCARE # 10224-26

10210

10200-02

10124-26

10118

N

SEE MULTIUSE PATH PLAN

W. GRANTOSA DR.

CONC. ALLEY

MULCH PLAYGROUND

FENCE

HANDRAIL

CAUTION

SEE ABOVE

SEE CONSTRUCTION DETAILS FOR MEDIAM INFORMATION

FLOW LINE

CONST 14" CONST.

TEL

CITY OF MILWAUKEE

CITY OF WAUWATOSA

N. 89° 27' 40" E.

ABN'D 22" GAS

SEE TWO STEP DETAIL BELOW

69' RT MATCH

CONST. STEP 61' RT. 129.34 128.82

CONST. STEP 62' RT. 128.81 128.29

STEP DETAIL STA. 15+14

W. WOODWARD AVE.

10311

10303

10309 W. WOODWARD AVE.

10225

10203

N. 102ND ST.

ASPH. PARKING

ASPH. ON CONC.

LAWN

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD

(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD

(A) CONST. CONC. CURB & GUTTER 31-INCH

(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE

(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)

(H) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 2-INCH MIN. ASPH. OVERLAY

(K) SAWING ASPHALT

(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER

(M) CONST. 5" CONC. SIDEWALK

(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER

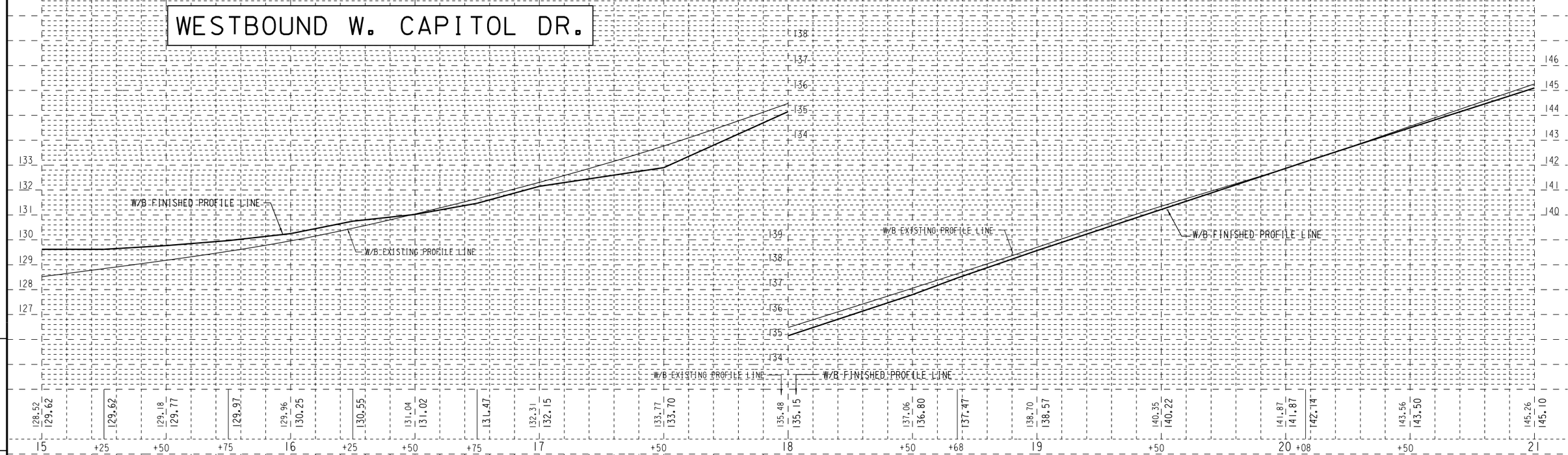
(X) CONST. MAINTENANCE RAMP

(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

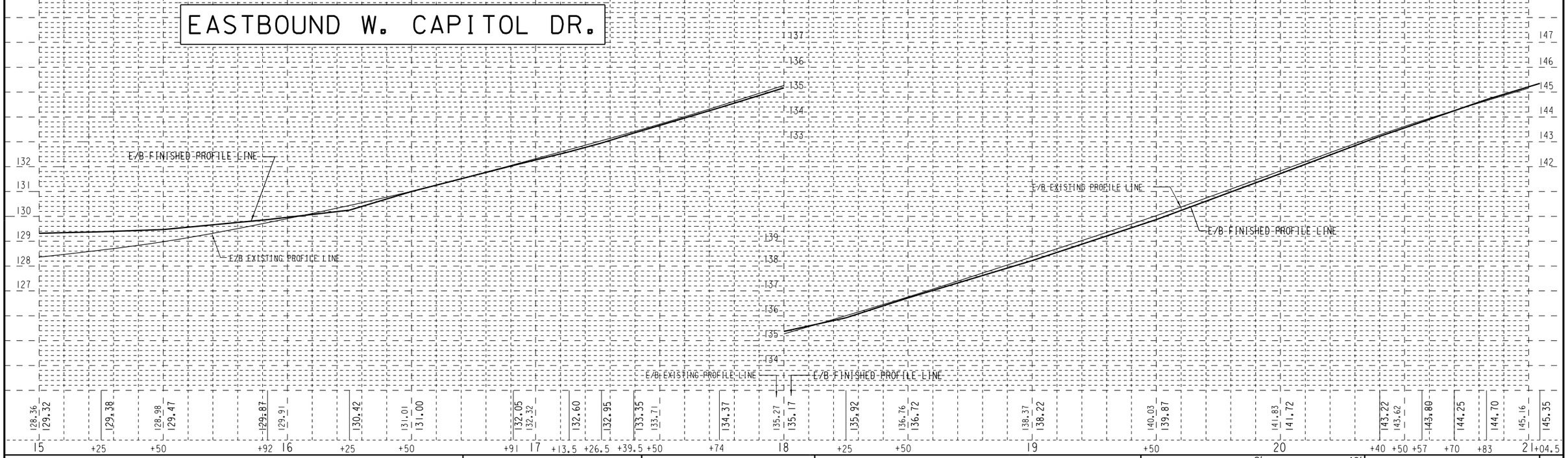
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 292	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\15_21.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 293	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\15_21.DGN

WEST CAPITOL DRIVE

STATIONS FOR CONC WALK

W.CAPITOL DR. T/L - 23+02.60
W. LISBON AVE. T/L - 0L+20.10

B.M HYD.W.CAPITOL DR.
STA.21+35,49'LT.
NW BOLT
ELEV. 148.07

B.M E END OF E WINDOW SILL @ #10012 W. CAPITOL DR.
ELEV. 152.06

#10118-20 | #10110 | #10100 | #10052-54 | #10046-48 | #10036 | #10012 | LUCKY'S FROZEN CUSTARD #10000

CONC. ALLEY 25'

ASPH. PARKING

SEE ABOVE

PROPOSED PLANTING BED

MATCH POINT W. LISBON AVE.

#10111 PLAY IT AGAIN SPORTS

#10101 ELITE FURNITURE (VACANT)

B.W SW COR. CONC. RISER @ #10052 W. CAPITOL DR. ELEV. 150.50

CITY OF MILWAUKEE / CITY OF WAUWATOSA

N. 89° 27' 40" E.

S. 62° 09' 16" E.

28° 23' 04"

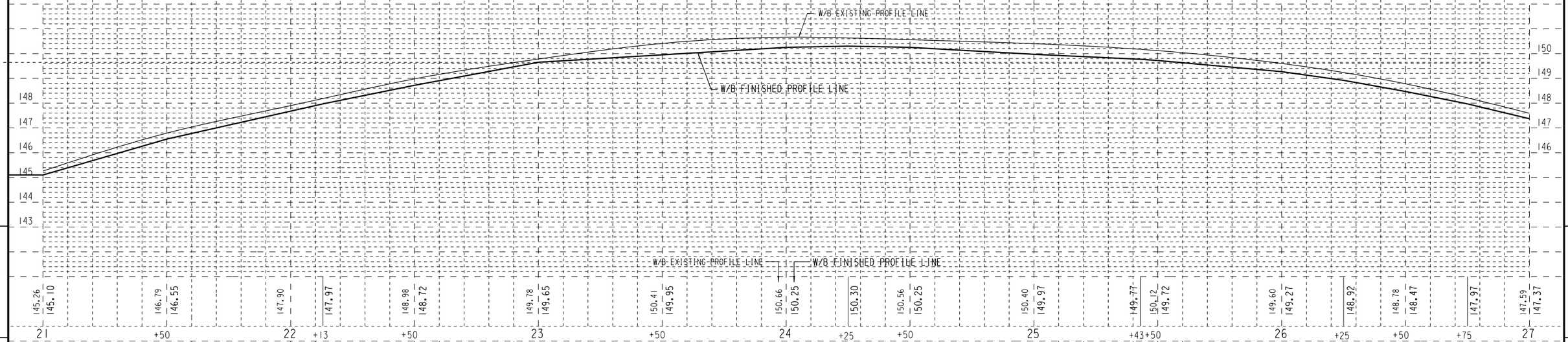
151° 36' 56"

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(3) CONST. CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER 31-INCH
(E) REMOVE & PLACE 3" ASPH. SURFACE ON CONC. BASE 6-INCH
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(P3) REMOVE & PLACE 3" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(T) SAWING CONCRETE AT OR NEAR BUILDING, OR WALL
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(V) CONST. 7-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

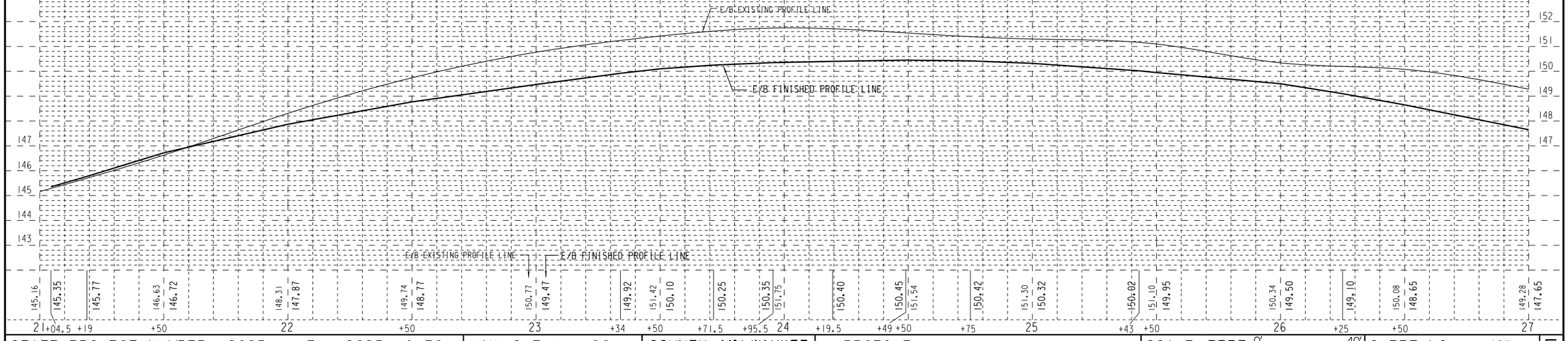
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 294	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\21_27.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 295	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\21_27.DGN

CAPITOL DRIVE

WEST

N. 100TH ST.

PLACE LANDMARK REFERENCE
MONUMENT STA. 27+68.25-T/L

STD. B.M. #247
N. 100TH ST.& W. CAPITOL DR.
43'E OF E MEDIAN CURB & 2' S OF N CURB IN CONC BOX W/ COVER
ELEV. 143.11

MOBIL GAS STATION #9922

GRACE CHRISTIAN FELLOWSHIP #10224-26

STATIONS FOR CONCRETE WALK

ASPH. PARKING

CONC. DWY.

NURSERY & GRI

ATTN: STD B.M. +50

MATCH LINE

FLOWER GARDEN

US BANK #9921

#9921

#9817

#3971-73 N. 98

P.C. +65.0-69.0'RT. 142.10

P.C. +35.0-69.0'RT. 142.90

AT R/W LINE

SEE ABOVE

CONST. FLOW LINE

DRAIN

CW

R/W

1/4 SEC LINE

TES

WEP

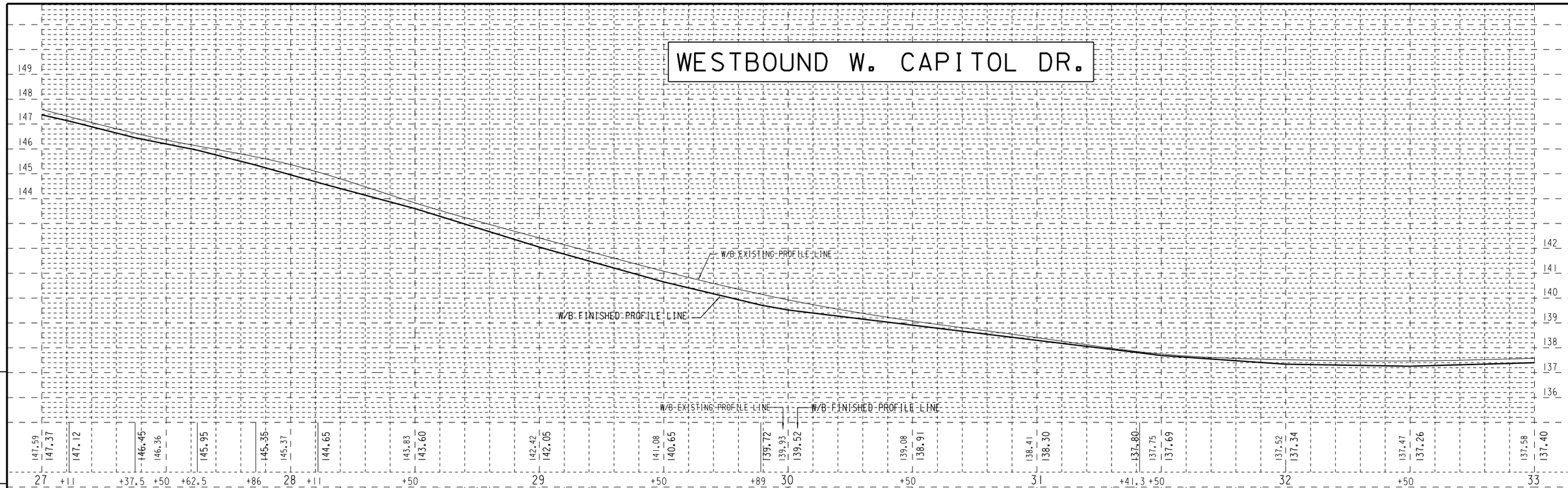
CAUTION

(1) CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(5) CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER 31-INCH
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(H) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 2-INCH MIN. ASPH. OVERLAY
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(P3) REMOVE & PLACE 3" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(MC) CONST. PEDESTRIAN CURBING
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Z) CONST. CONC. LOADING ZONE WITH 7-INCH FACE

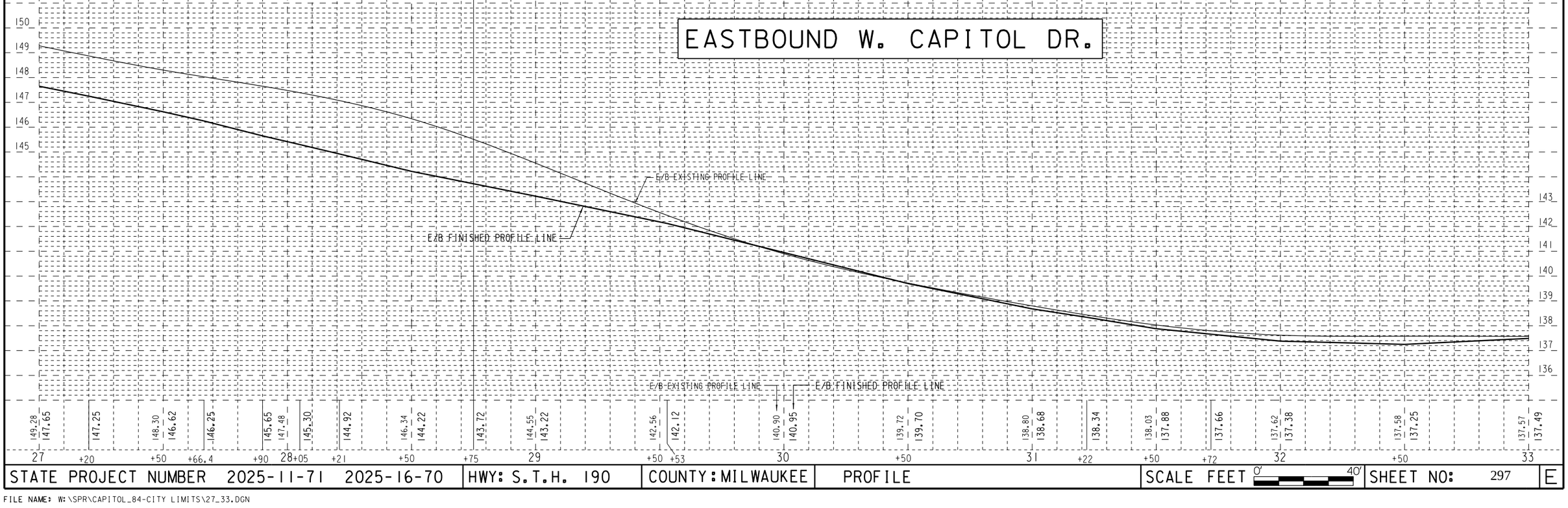
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 296	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\27_33.DGN

WESTBOUND W. CAPITOL DR.



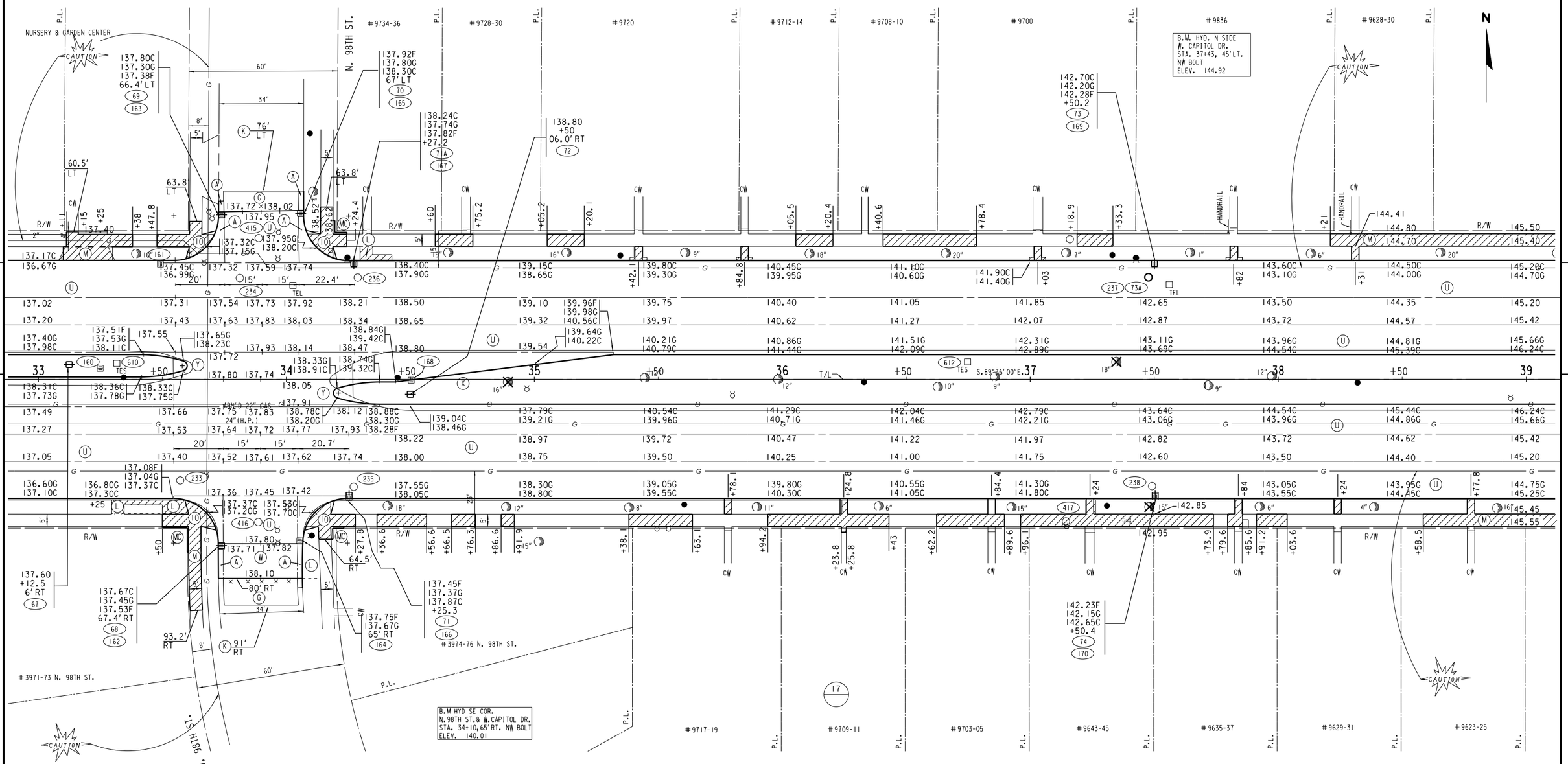
EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 297	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\27_33.DGN

WEST CAPITOL DRIVE

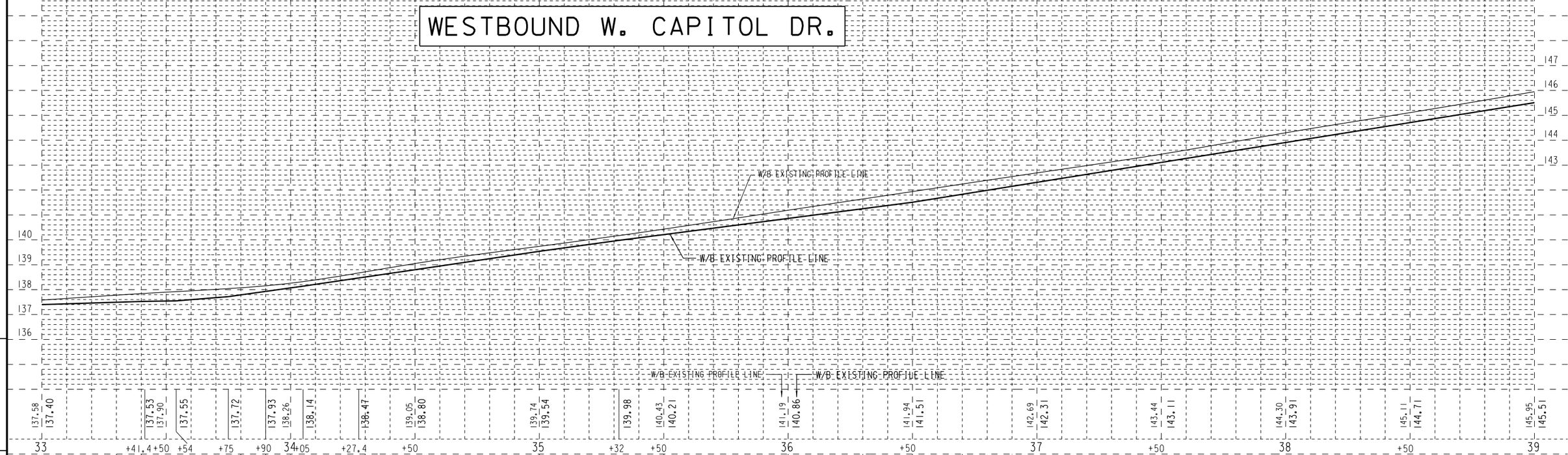


(IO) CONST. CURB RAMP TYPE IO WITH DETECTABLE WARNING FIELD
(A) CONST. CONC. CURB & GUTTER 31-INCH
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(MC) CONST. PEDESTRIAN CURBING
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(V) CONST. 7-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

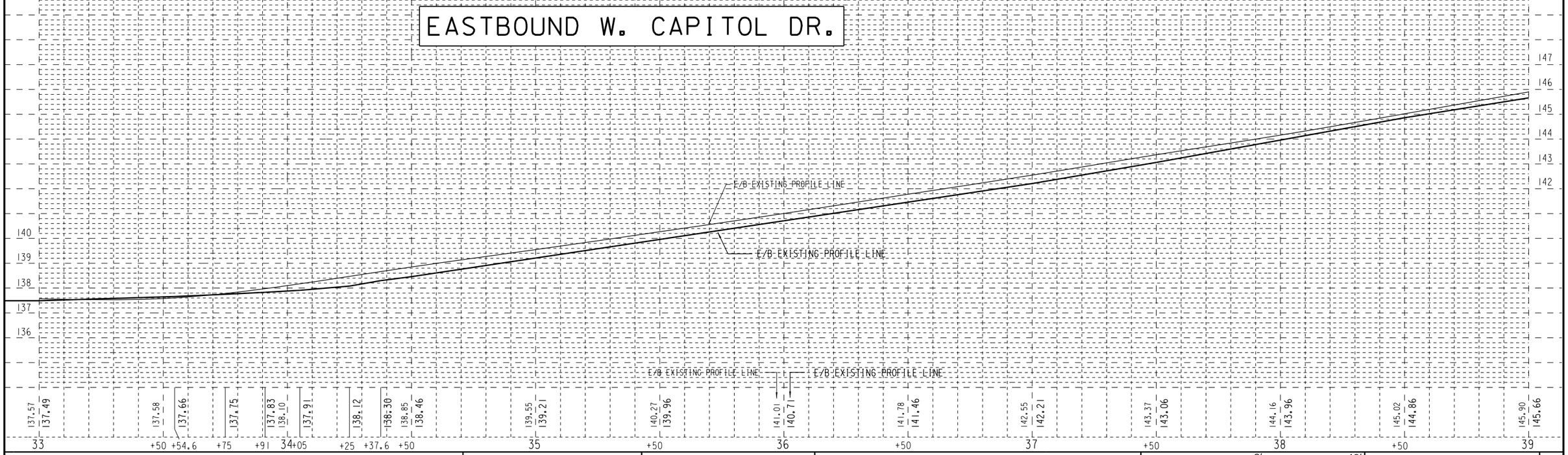
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 298	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\33_39.DGN

WESTBOUND W. CAPITOL DR.



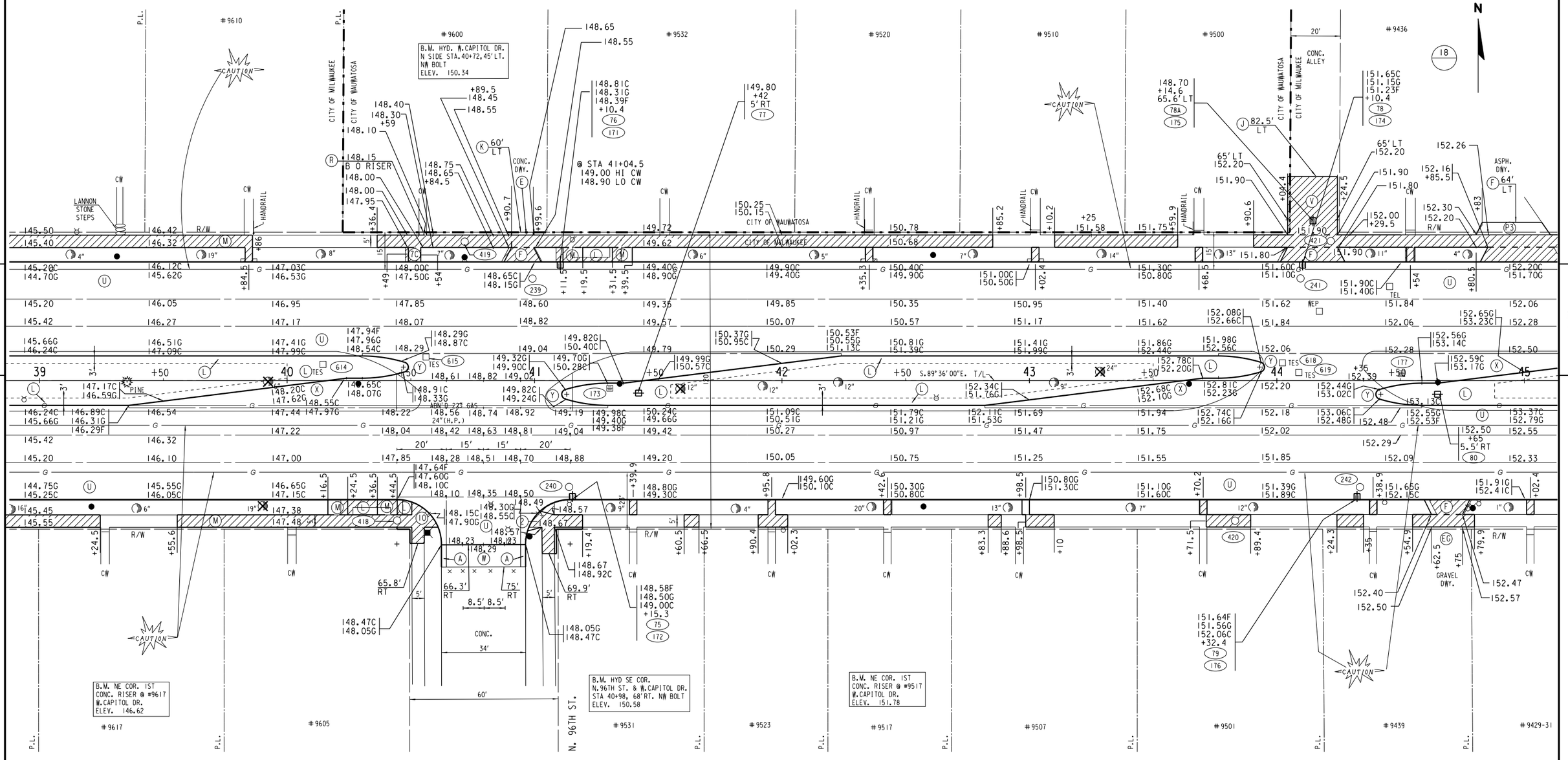
EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 299	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\33_39.DGN

WEST CAPITOL DRIVE

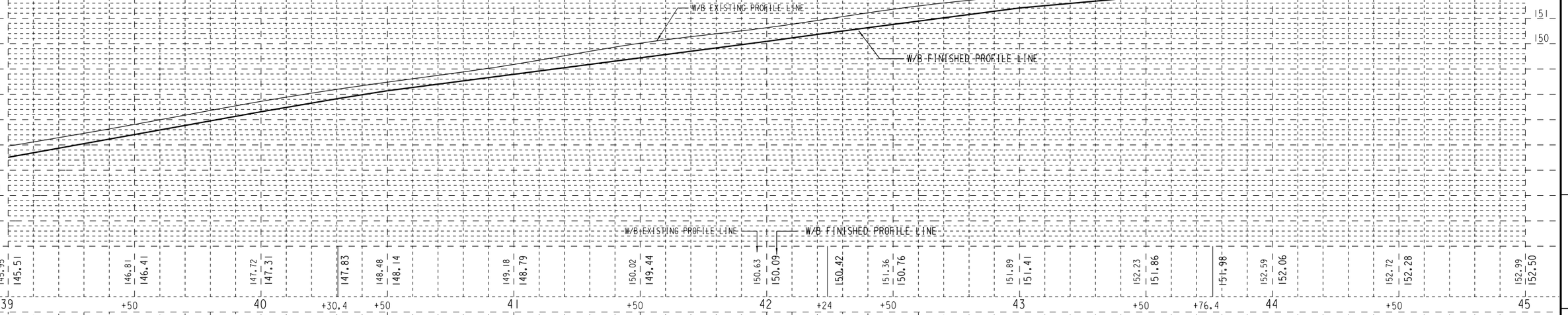


(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(7C) CONST. CURB RAMP TYPE 7B WITH DETECTABLE WARNING FIELD, NO PEDESTRIAN CURB
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(EG) RESHAPE GRAVEL DRIVEWAY
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(P3) REMOVE & PLACE 3" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(W) CONST. 8 1/2-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

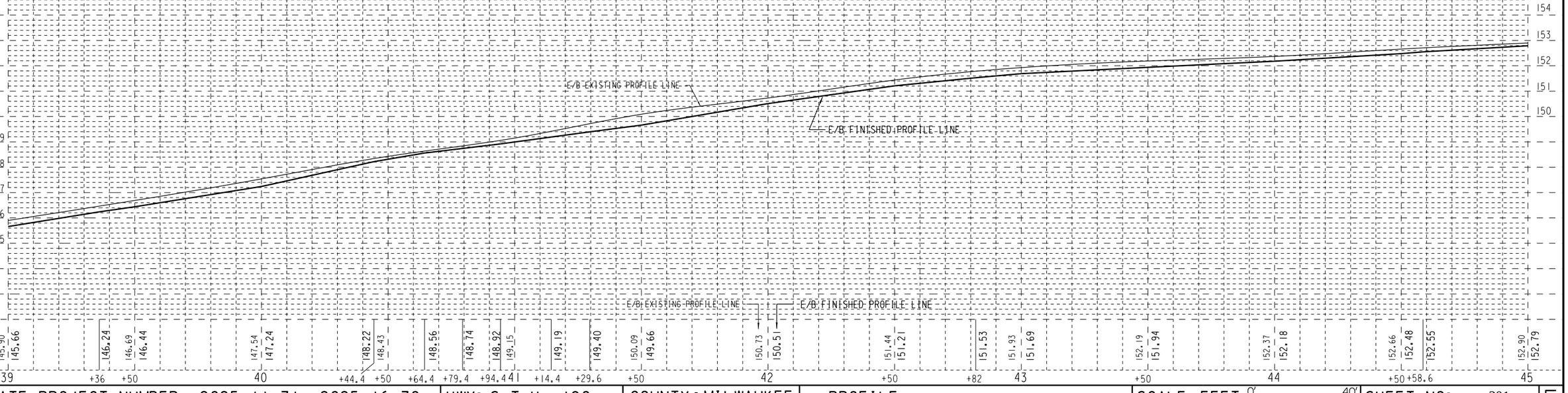
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 300	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\39_45.DGN

WESTBOUND W. CAPITOL DR.



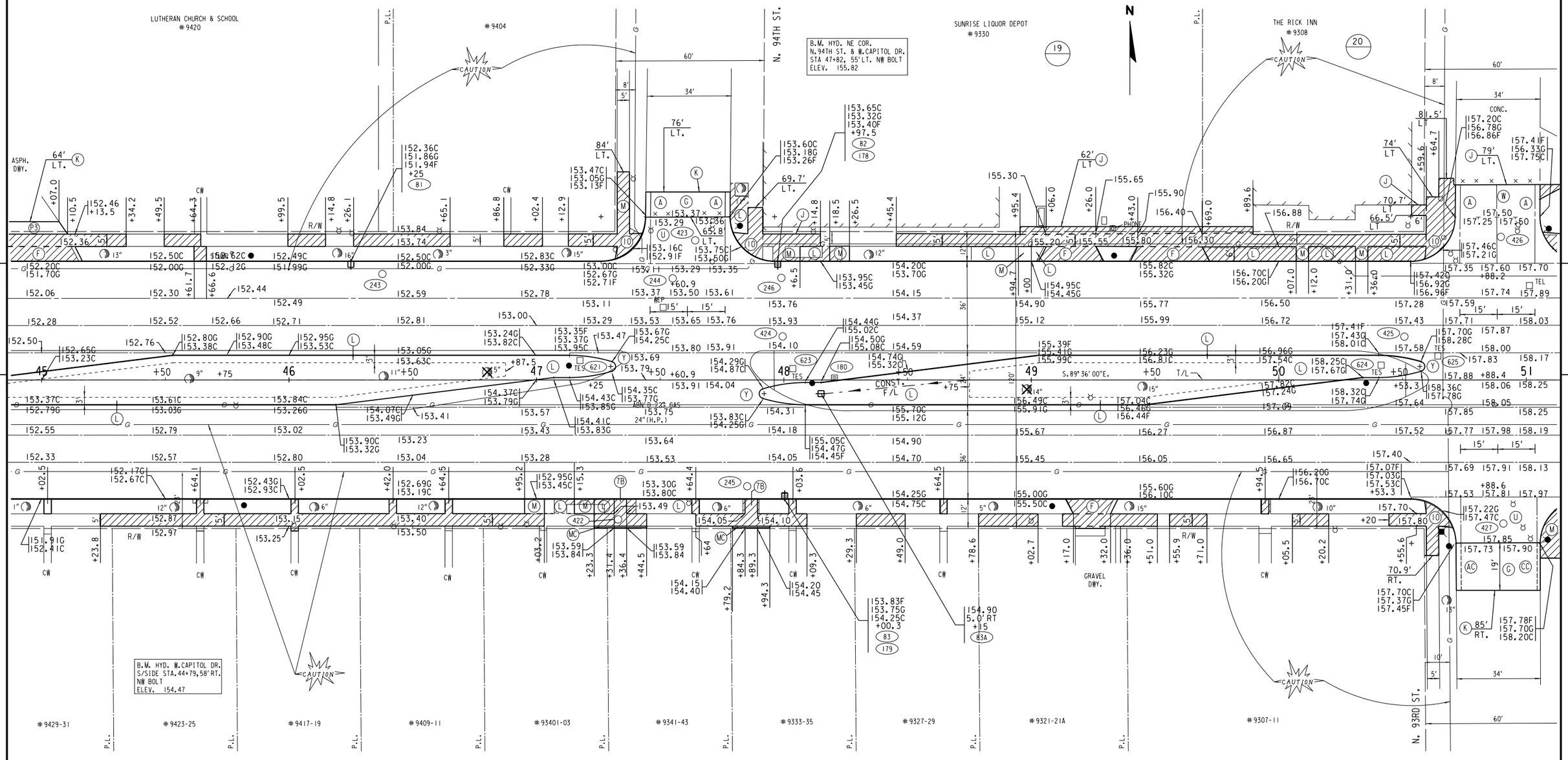
EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 301	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\39_45.DGN

WEST CAPITOL DRIVE

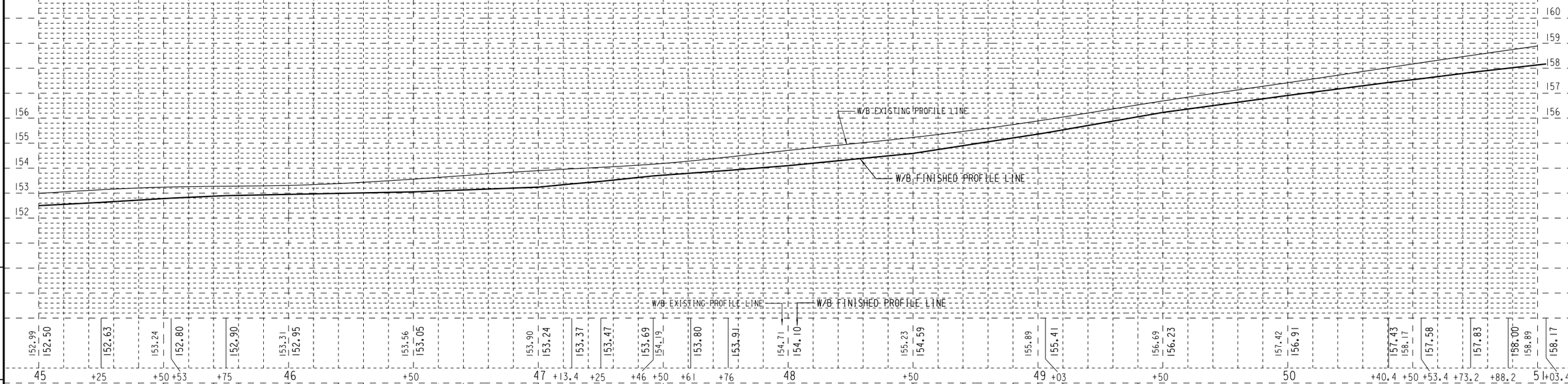


(7B) CONST. CURB RAMP TYPE 7B WITH DETECTABLE WARNING FIELD AND PEDESTRIAN CURB
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD- SEE CONSTRUCTION DETAIL IN SECTION 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(AC) CONST. CONC. CURB & GUTTER 31-INCH (COVERED FLANGE)
(CC) CONST. CONC. CURB & GUTTER 22-INCH (COVERED FLANGE)
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(MC) CONST. PEDESTRIAN CURBING
(P3) REMOVE & PLACE 3" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(W) CONST. 8 1/2-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP

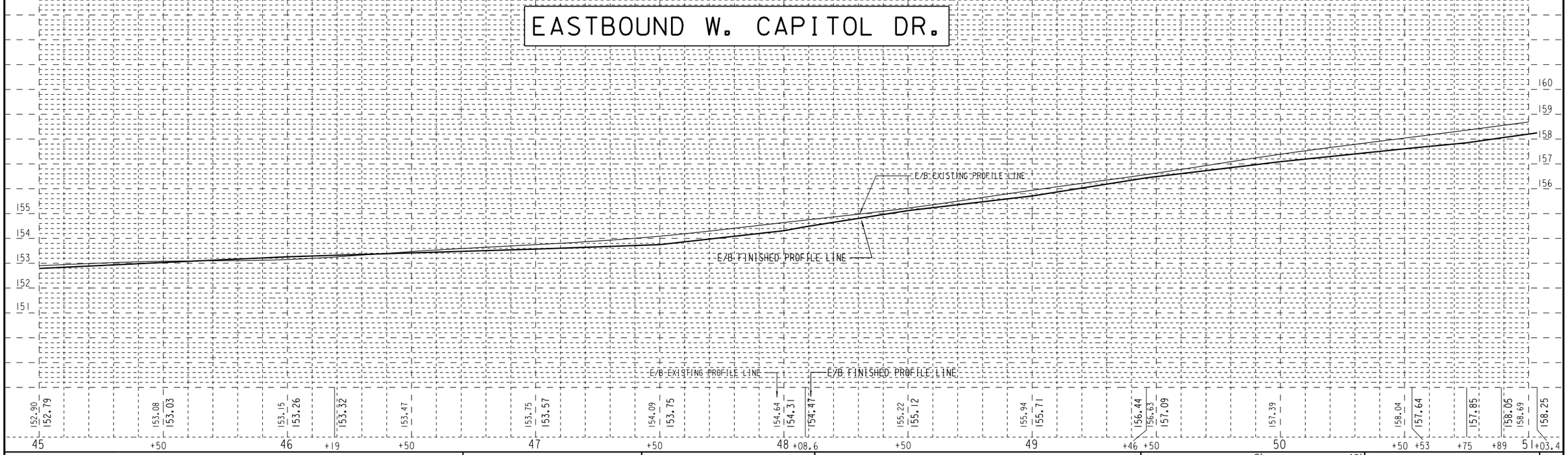
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 302	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\45_51.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 303	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\45_51.DGN

WEST CAPITOL DRIVE

PLACE LANDMARK REFERENCE
WEST CAPITOL DRIVE T/L = 54 + 40.07
NORTH 92ND STREET T/L = 200 + 00.00

SEE NORTH 92ND STREET PLAN SHEET
(STA. 200+00 TO STA. 203+00)

LITTLE CAESARS
#9230

B.M. HYD. NE COR.
N.93RD ST. & W.CAPITOL DR.
STA 51+09, 53'LT. NW BOLT
ELEV. 160.04

BP GAS STATION
#9208

CAUTION

N. 92ND ST.

S.00°04'56"E.

SEC LINE

ASPH. ON CONC.

ADVANCED PAIN MANAGEMENT
#9120

B.M. HYD. NE COR.
N.92ND ST. & W.CAPITOL DR.
STA 54+86, 64'LT. NW BOLT
ELEV. 166.57

ABN'D 2" GAS

ABN'D 6" GAS

ASPH. PARKING

SAW CURB

CURB

R/W

P.L.

ABN'D 22" GAS

24"(H.P.)

ASPH

BUS SHELTER

STUMP

CONSTR. F/L

T/L

S.89°36'00"E.

S.89°12'00"W.

N. 93RD ST.

#9235
TOSA PHARMACY
GOLDEN VALLEY CENTER

#9201-15
WISCONSIN HEARING AID CENTER

B.M. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

STD. B.M. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

#9101
ST. MARGARET MARY CHURCH

W. CAPITOL DR - T/L

N. 92ND ST. - T/L

90° 19' 05"
88° 31' 25"
90° 24' 42"
90° 44' 48"
SEC. LINE
S.00°48'42"E.
S.00°04'56"E.
S.89°36'00"E.
S.89°12'00"W.

(9) CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD- SEE CONSTRUCTION DETAIL IN SECTION 2
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(W) CONST. 8-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

SEE NORTH 92ND STREET PLAN SHEET
(STA. 196+00 TO STA. 201+00)

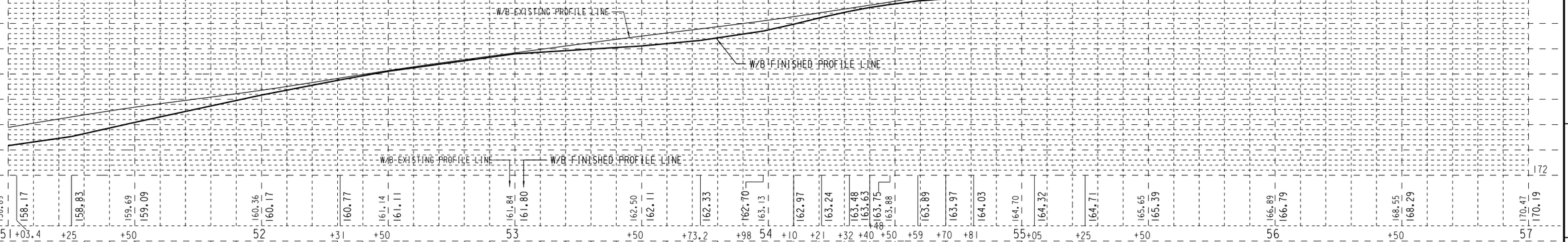
TRANSIT LINE @ N. 92ND ST.

℄PT.=
W.CAPITOL DR. T/L - 54+40.07
N. 92ND ST. T/L - 200+00.00

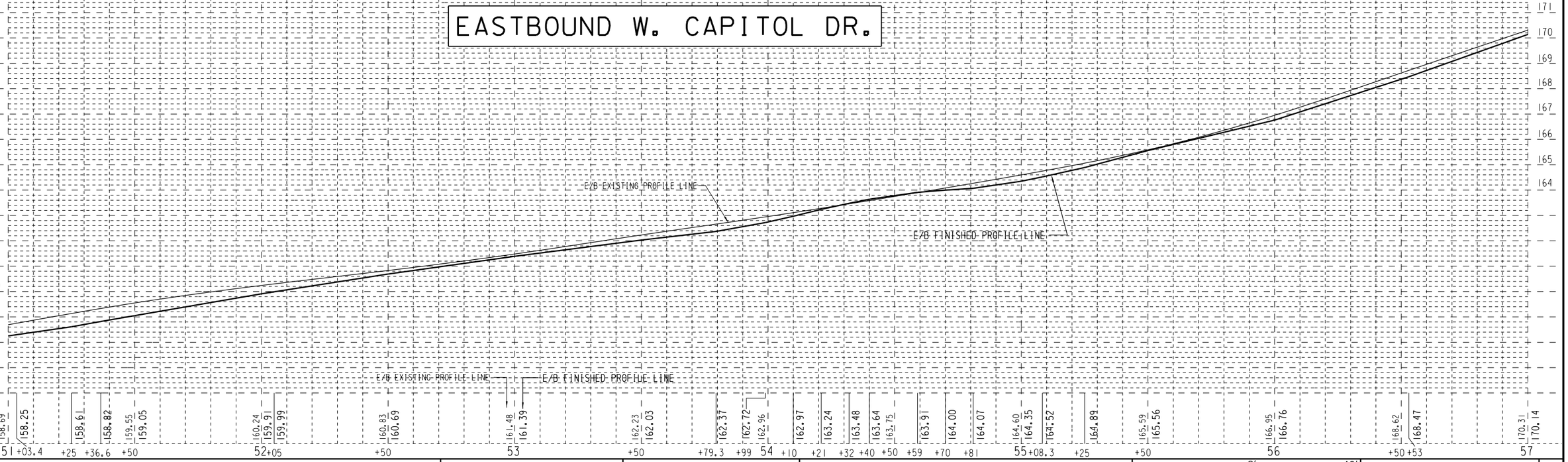
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 304	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\51_57.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 305	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\51_57.DGN

WEST CAPITOL DRIVE

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #9100
STA 57+60, 1'LT.
ELEV. 175.74

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #9000
STA 60+87, 1'LT.
ELEV. 188.85

N. 91ST ST.

N. 90TH ST.

KRAUSE FUNERAL HOME
#9000

60+00
STATIONS FOR CONC DWY

ASPH. PARKING

ASPH. ON CR. STONE

ABN'D 3" GAS

ABN'D 6" GAS

ABN'D GAS

ABN'D 2" GAS

FENCE

BRICK WALL

BUS STOP

R/W

P.L.

T/L

PROPOSED PLANTING BED

S.89° 12' 00"W.

24" (H.P.)

CW

CONC. DWY.

ASPH. DWY.

ST. MARGARET MARY CHURCH

SEE WALK DETAIL BELOW
FOR ADDITIONAL WALK LOCATIONS

WALK DETAIL

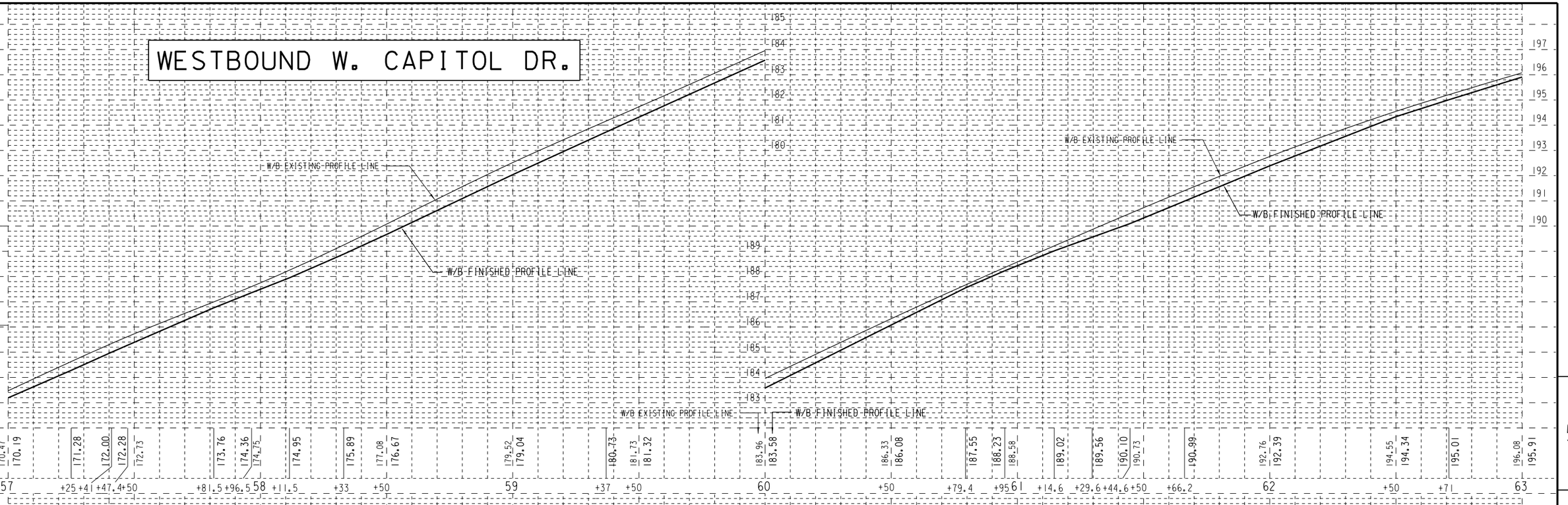
CAUTION

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(7B) CONST. CURB RAMP TYPE 7B WITH DETECTABLE WARNING FIELD AND PEDESTRIAN CURB
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD-
SEE CONSTRUCTION DETAIL IN SECTION 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(D) CONST. CONC. DRIVEWAY DEPRESSED - MODIFIED (7-INCH)
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(MC) CONST. PEDESTRIAN CURBING
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

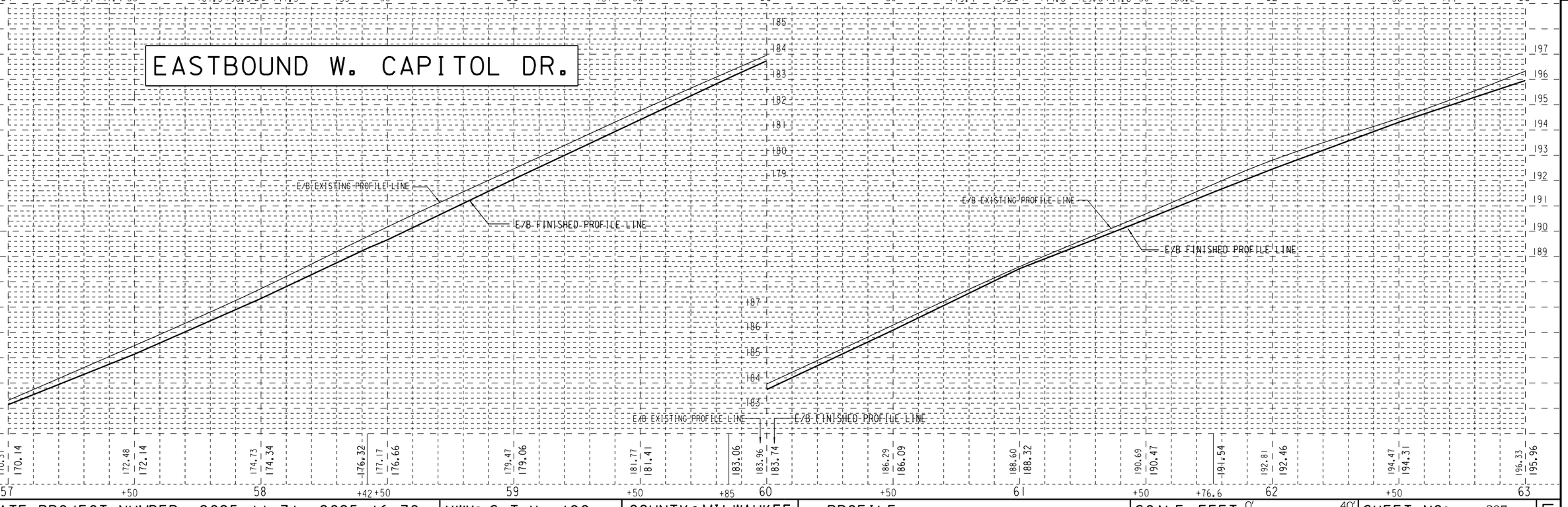
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 306	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\57_63.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 307	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\57_63.DGN

WEST CAPITOL DRIVE

N

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8900
STA 64+14, 1'RT.
ELEV. 199.87

B.M. NE CORN. CONC. BASE
ALUM.LIGHT POLE #8802
STA 67+42, 1'LT.
ELEV. 203.215

N. 89TH ST.

N. 88TH ST.

WALK/GAS CO VAULT DETAIL

B.W. HYD. SE COR.
N.88TH ST. & W.CAPITOL DR.
STA 67+15, 52'RT. NW BOLT
ELEV. 204.37

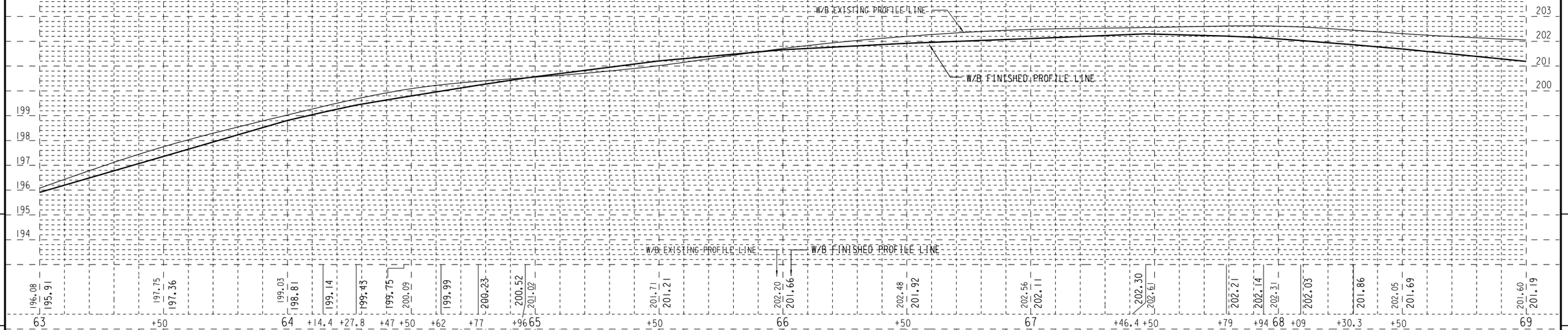
#8729-29A

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(7B) CONST. CURB RAMP TYPE 7B WITH DETECTABLE WARNING FIELD AND PEDESTRIAN CURB
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD-
SEE CONSTRUCTION DETAIL IN SECTION 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(AH) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(MC) CONST. PEDESTRIAN CURBING
(P3) REMOVE & PLACE 3" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(V) CONST. 7-INCH CONC. PAVEMENT
(W) CONST. 8-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

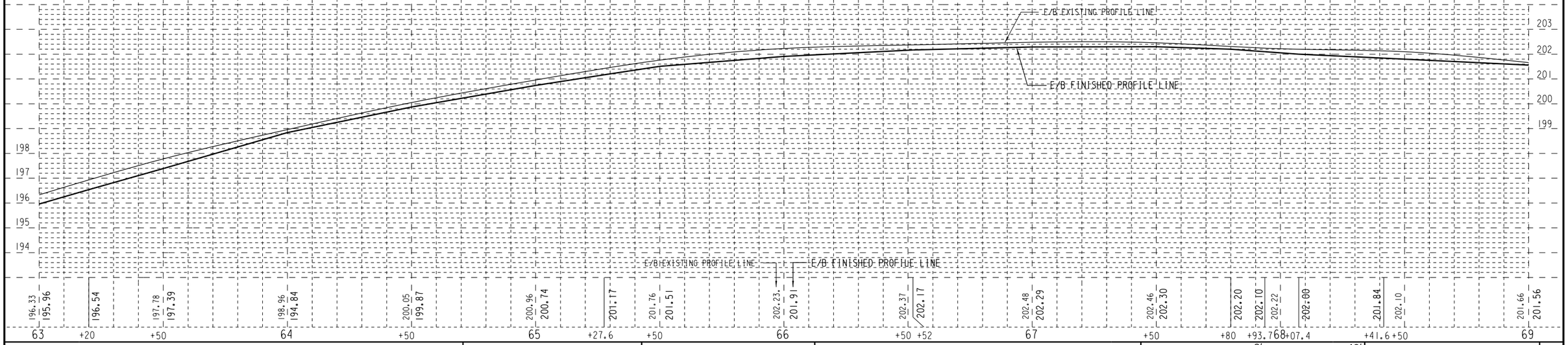
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 308	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\63_69.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 309	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\63_69.DGN

WEST CAPITOL DRIVE

N

N. 87TH ST.

B.M. NE CORN. CONC. BASE ALUM. LIGHT POLE #8700 STA 70+78, 1'LT. ELEV. 200.76

B.M. NE CORN. CONC. BASE ALUM. LIGHT POLE #8600 STA 74+09, 1'LT. ELEV. 197.99

B.M. HYD. S\S W. CAPITOL DR. STA 71+63, 50'RT. NW BOLT ELEV. 201.16

B.M. HYD. SW COR. N. 86TH ST. & W. CAPITOL DR. STA 74+42, 90'RT. NW BOLT ELEV. 197.96

SEE CONSTUCTION DETAILS FOR RAMP GRADES AND LOCATIONS

#8722-24 #8714 #8702 #8632 #8626-28 #8622-24 #8616 #8600-10

#8711 A/B #8641 A/B #8629 A/B #8611 A/B

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(5) CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(7B) CONST. CURB RAMP TYPE 7B WITH DETECTABLE WARNING FIELD AND PEDESTRIAN CURB
(7D) CONST. CURB RAMP TYPE 7D WITH DETECTABLE WARNING FIELD- SEE CONSTRUCTION DETAIL IN SECTION 2
(9) CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD- SEE CONSTRUCTION DETAIL IN SECTION 2
(10) CONST. CURB RAMP TYPE 10 WITH DETECTABLE WARNING FIELD- SEE CONSTRUCTION DETAIL IN SECTION 2

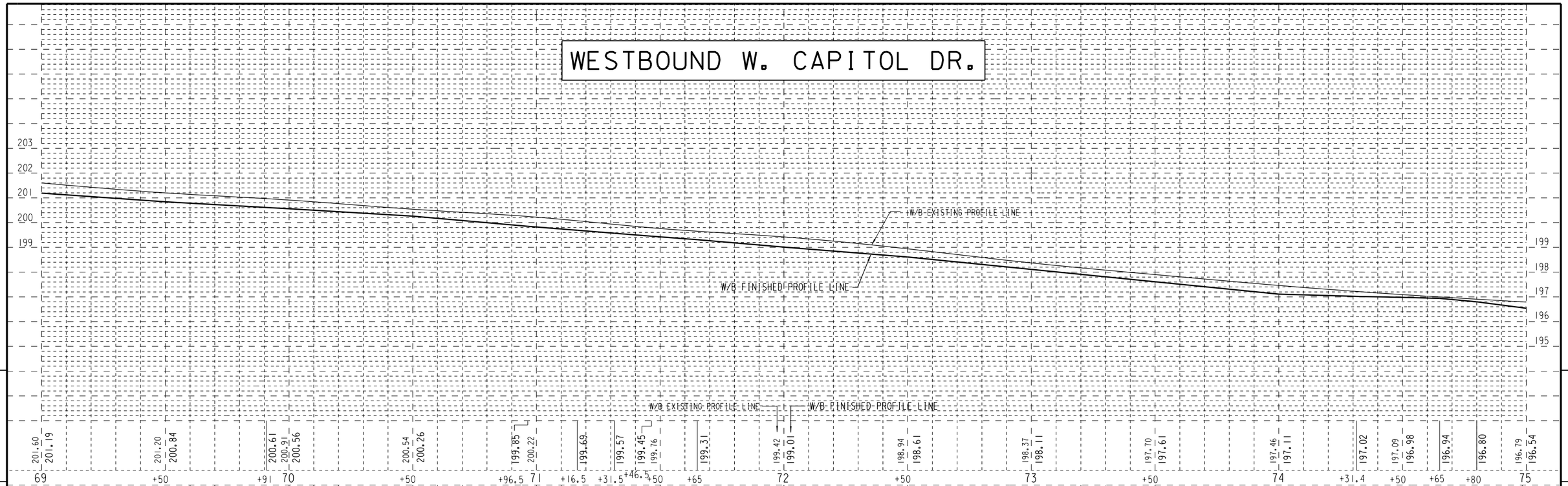
(A) CONST. CONC. CURB & GUTTER 31-INCH
(AH) CONST. CONC. CURB & GUTTER 31-INCH (HIGH SIDE)
(CC) CONST. CONC. CURB & GUTTER 22-INCH (COVERED FLANGE)
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER

(M) CONST. 5" CONC. SIDEWALK
(MC) CONST. PEDESTRIAN CURBING
(R) SAWING CONCRETE AT BASE OF CONC. STEP
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(W) CONST. 8-INCH CONC. PAVEMENT
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

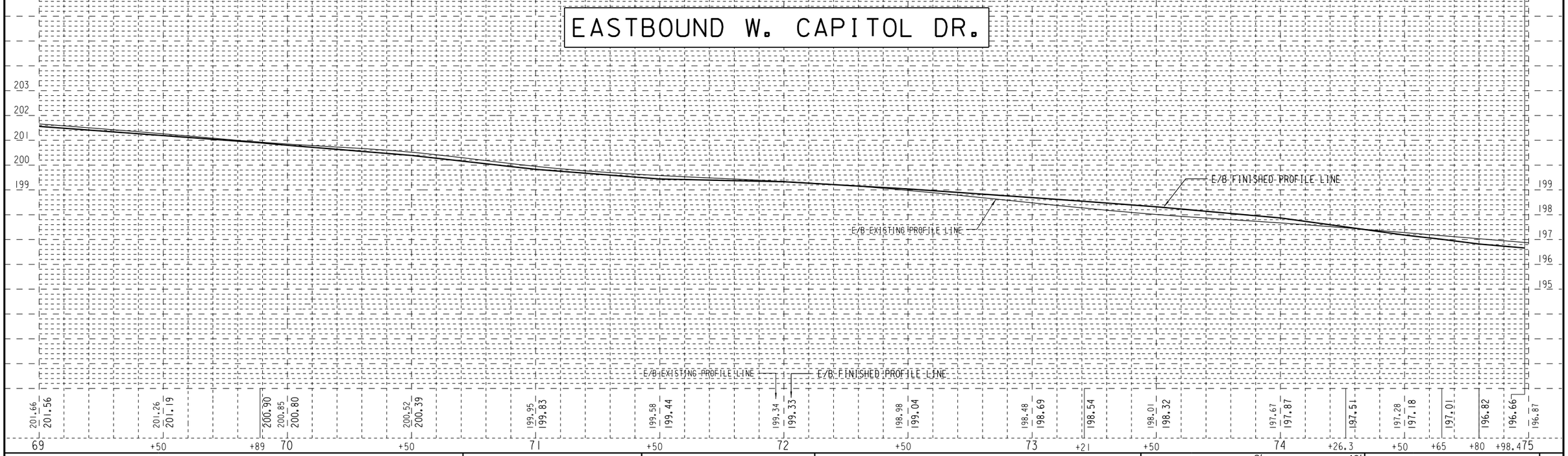
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 310	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\69_75.DGN

WESTBOUND W. CAPITOL DR.



EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 311	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\69_75.DGN

WEST CAPITOL DRIVE

N. 86TH ST. N. 85TH ST.

#8532 #8522 #8516-18 #8500 #8430 #8422 #8412

B.M. NE CORN. CONC. BASE
ALUM. LIGHT POLE #8500
STA 77+50, 1'LT.
ELEV. 195.46

B.M. HYD. S\S W.CAPITOL DR.
STA 78+25, 50'RT. NW BOLT
ELEV. 195.46

#8531-35 #8411 MYKONOS #8401 STEINHAFELS

ASPH. PARKING

ASPH. ON CR. STONE

ABN'D 2" GAS

ABN'D 6" GAS

CANNON STONE WALL

PLANTER

MATCH

END PROJECT
STA. 79+41.0 T/L

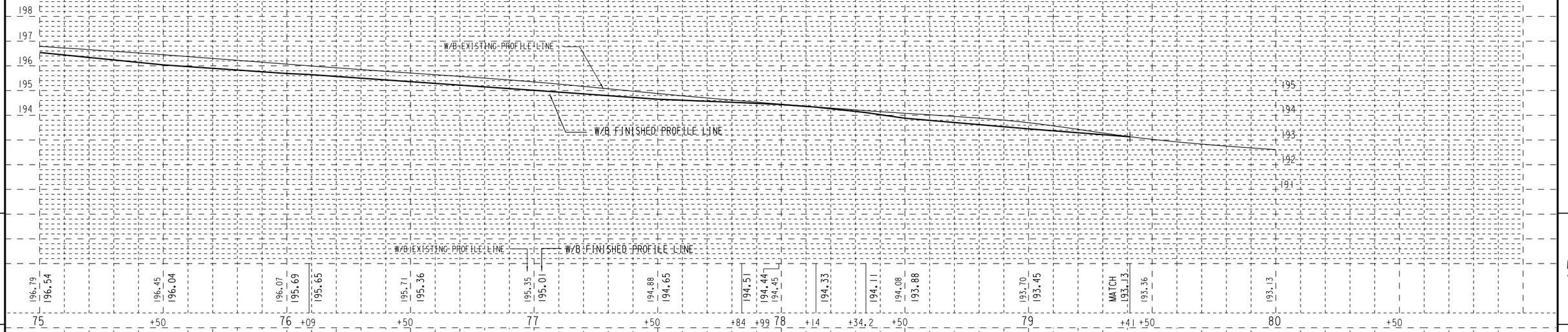
CAUTION

(2) CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(9) CONST. CURB RAMP TYPE 9 WITH DETECTABLE WARNING FIELD-SEE CONSTRUCTION DETAIL IN SECTION 2
(A) CONST. CONC. CURB & GUTTER 31-INCH
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(G) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 1 1/2-INCH MIN. ASPH. OVERLAY
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(U) CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE

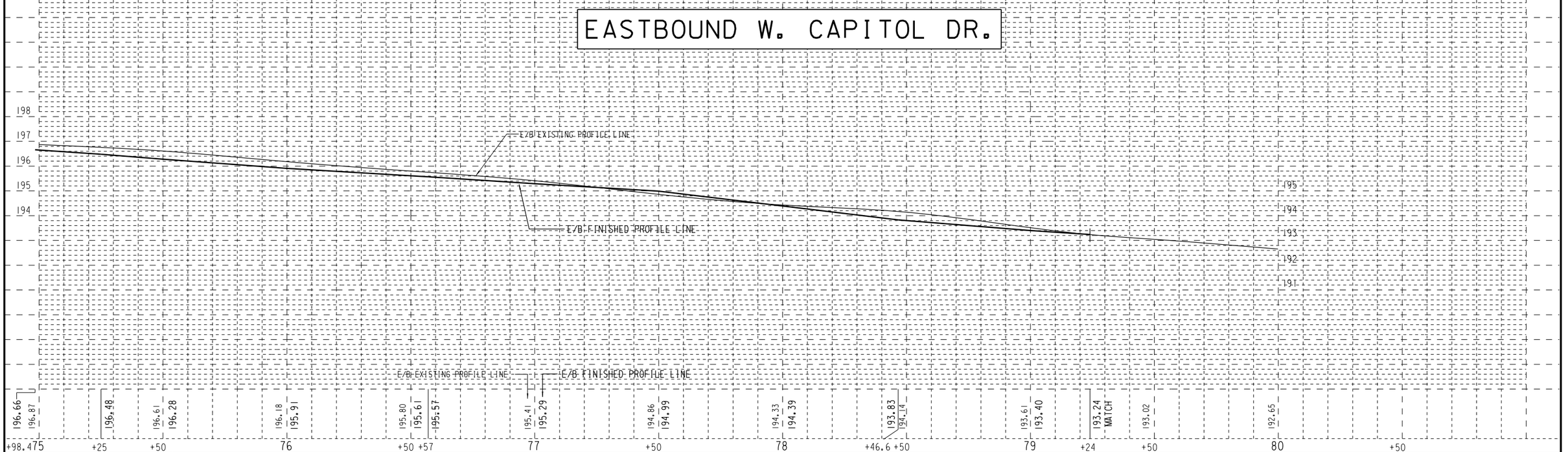
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 312	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\75_80.DGN

WESTBOUND W. CAPITOL DR.

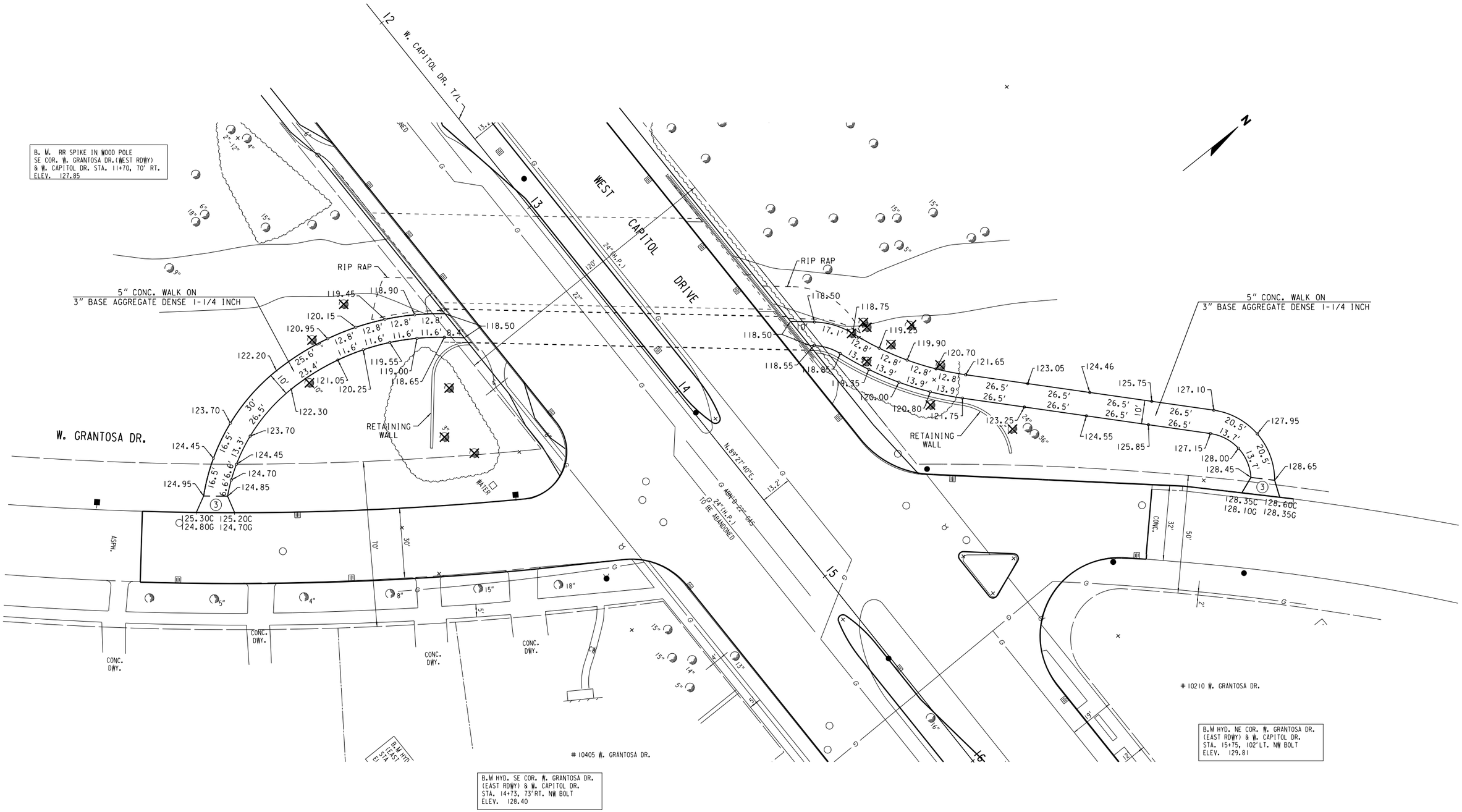


EASTBOUND W. CAPITOL DR.



STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 313	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\75_80.DGN



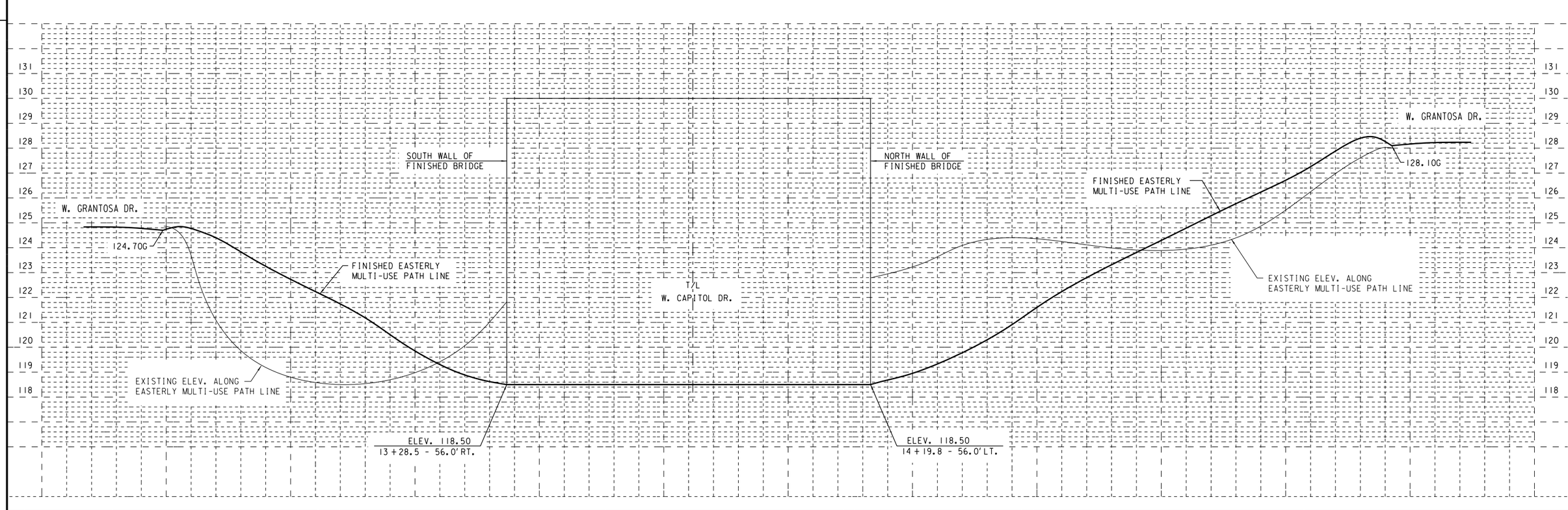
NOTE: SEE CONTOUR PLAN FOR GRADING AND SEEDING

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	MULTI-USE PATH PLAN	SCALE FEET 0' 40'	SHEET NO: 314	E

FILE NAME: W:\SPR\

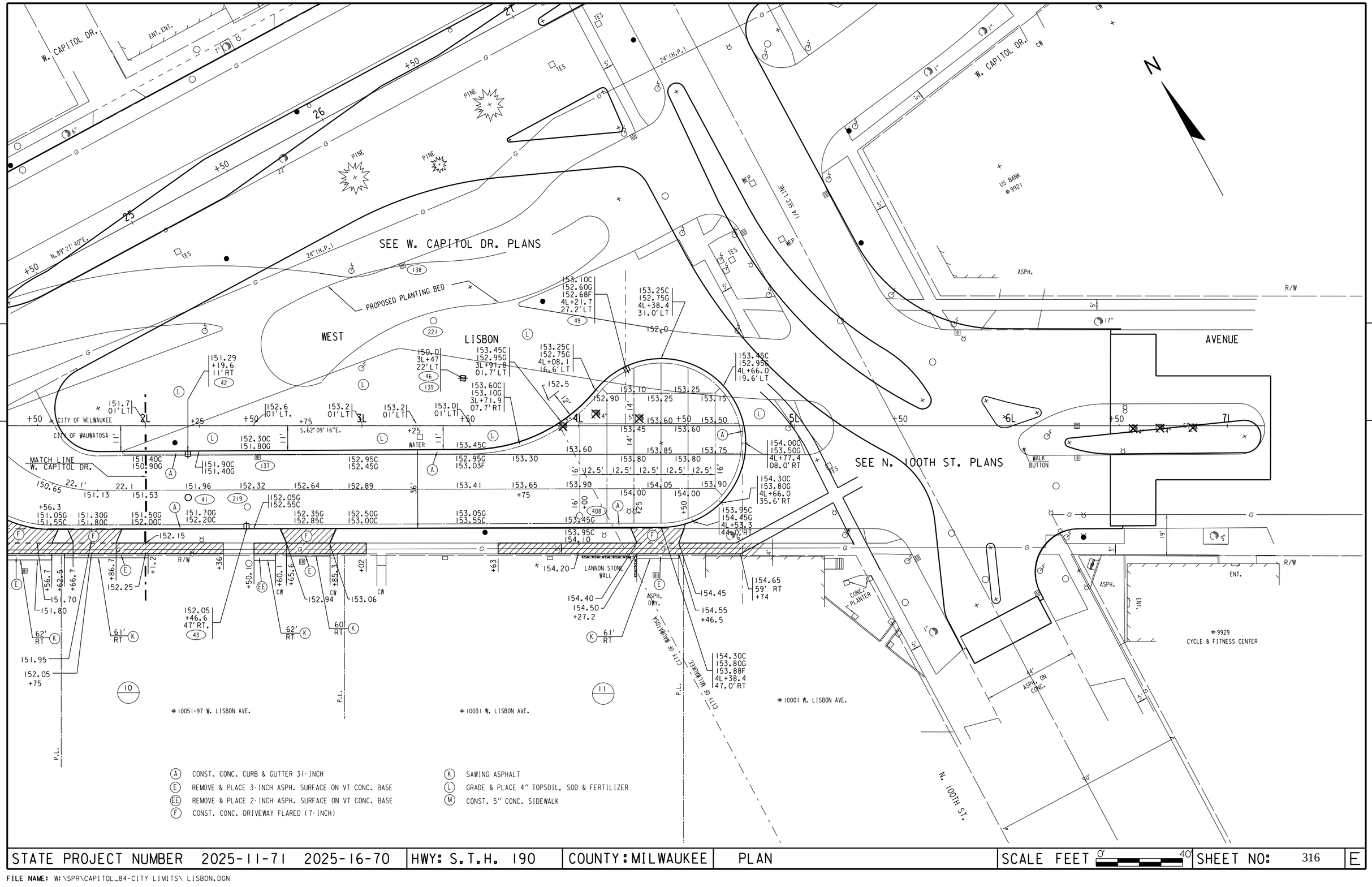
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STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	MULTI-USE PATH PROFILE	SCALE FEET 0' 40'	SHEET NO: 315	E

FILE NAME: W:\SPR\



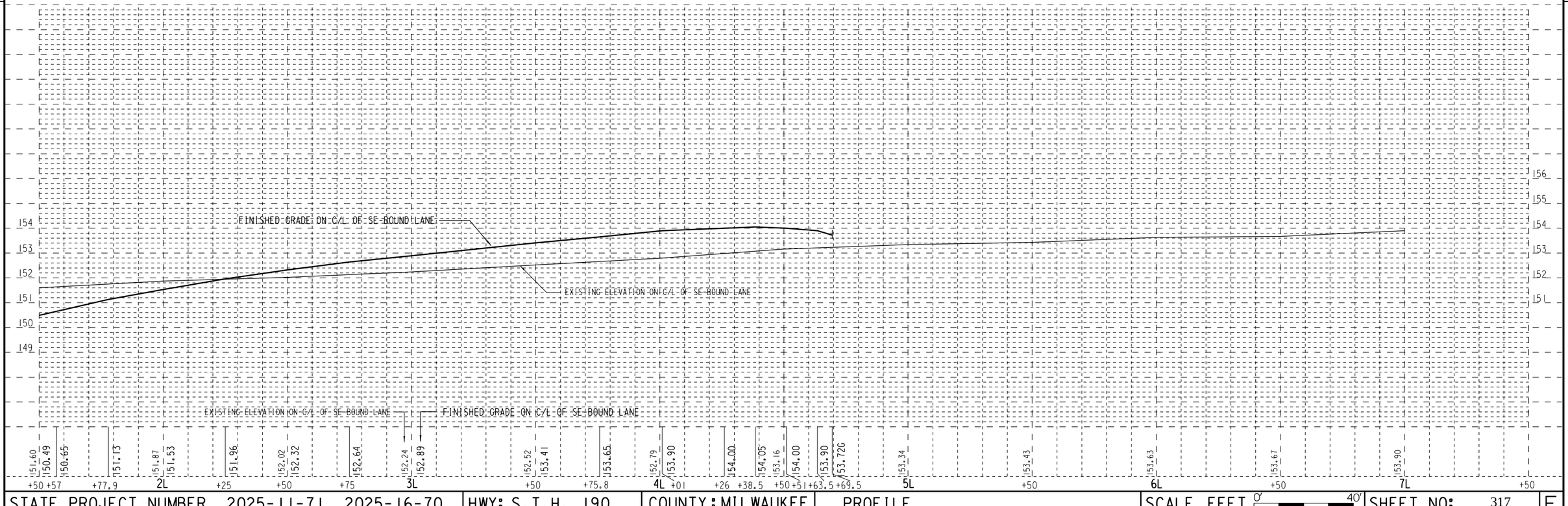
(A) CONST. CONC. CURB & GUTTER 31-INCH
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(EE) REMOVE & PLACE 2-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 316	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\ LISBON.DGN

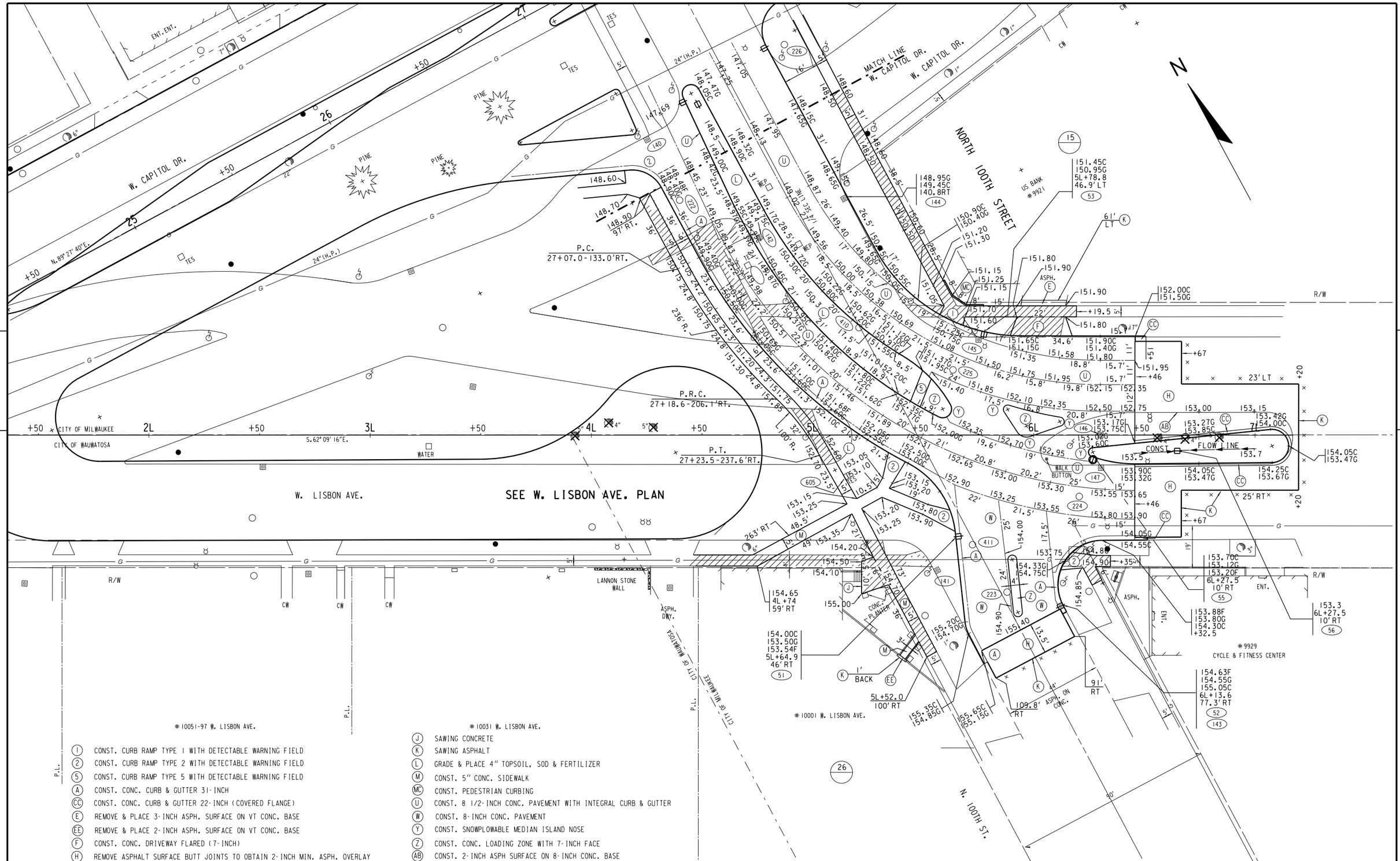
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STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 317	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\LISBON.DGN



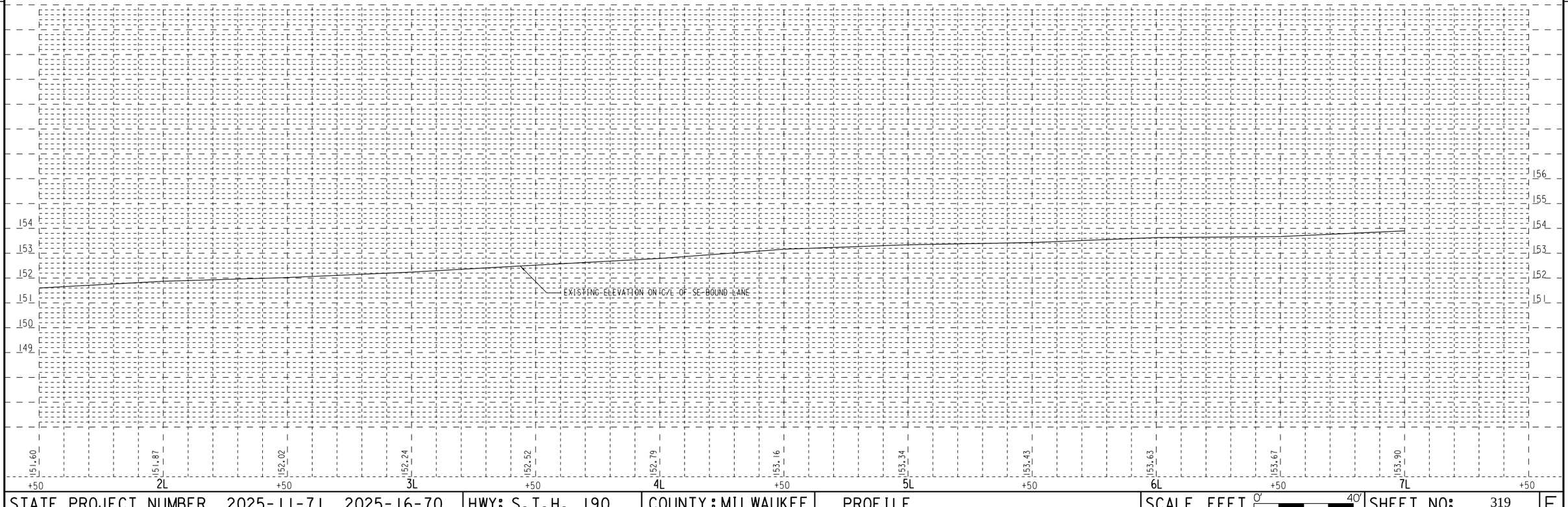
(I)	CONST. CURB RAMP TYPE 1 WITH DETECTABLE WARNING FIELD
(2)	CONST. CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD
(5)	CONST. CURB RAMP TYPE 5 WITH DETECTABLE WARNING FIELD
(A)	CONST. CONC. CURB & GUTTER 31-INCH
(CC)	CONST. CONC. CURB & GUTTER 22-INCH (COVERED FLANGE)
(E)	REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(EE)	REMOVE & PLACE 2-INCH ASPH. SURFACE ON VT CONC. BASE
(F)	CONST. CONC. DRIVEWAY FLARED (7-INCH)
(H)	REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 2-INCH MIN. ASPH. OVERLAY
(J)	SAWING CONCRETE
(K)	SAWING ASPHALT
(L)	GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M)	CONST. 5" CONC. SIDEWALK
(MC)	CONST. PEDESTRIAN CURBING
(U)	CONST. 8 1/2-INCH CONC. PAVEMENT WITH INTEGRAL CURB & GUTTER
(W)	CONST. 8-INCH CONC. PAVEMENT
(Y)	CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Z)	CONST. CONC. LOADING ZONE WITH 7-INCH FACE
(AB)	CONST. 2-INCH ASPH SURFACE ON 8-INCH CONC. BASE

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 318 E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMITS\ 100TH.DGN

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STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 319	E

FILE NAME: W:\SPR\CAPITOL 84-CITY LIMIT\ 60%\LISBONPROCURB.DGN

NORTH 92ND STREET

W. MELVINA ST.

B.W. HYD. SE COR.
N.92ND ST. & W.CAPITOL DR.
STA 53+73, 59'RT. NW BOLT
ELEV. 164.56

#9201-15
WISCONSIN HEARING AID CENTER

ASPH. PARKING

CONC. ALLEY

BEGIN CONSTRUCTION
STA. 197+08.0 T/L

N. 92ND ST. T/L

S.00°48'42"E.

PLACE LANDMARK REFERENCE
WEST CAPITOL DRIVE T/L = 54 + 40.07
NORTH 92ND STREET T/L = 200 + 00.00

90°24'42"
90°19'05"
90°44'48"
88°31'25"

W. CAPITOL DR.

W. CAPITOL DR. T/L

(A) CONST. CONC. CURB & GUTTER 31-INCH
(C) CONST. CONC. CURB & GUTTER 22-INCH
(CH) CONST. CONC. CURB & GUTTER 22-INCH (HIGH SIDE)
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(EE) REMOVE & PLACE 2-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(H) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 2-INCH MIN. ASPH. OVERLAY
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(W) CONST. 8 1/2-INCH CONC. PAVEMENT
(AB) CONST. 2-INCH ASPH SURFACE ON 8-INCH CONC. BASE
(V) CONST. 7-INCH CONC. PAVEMENT
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Z) CONST. CONC. LOADING ZONE WITH 7-INCH FACE

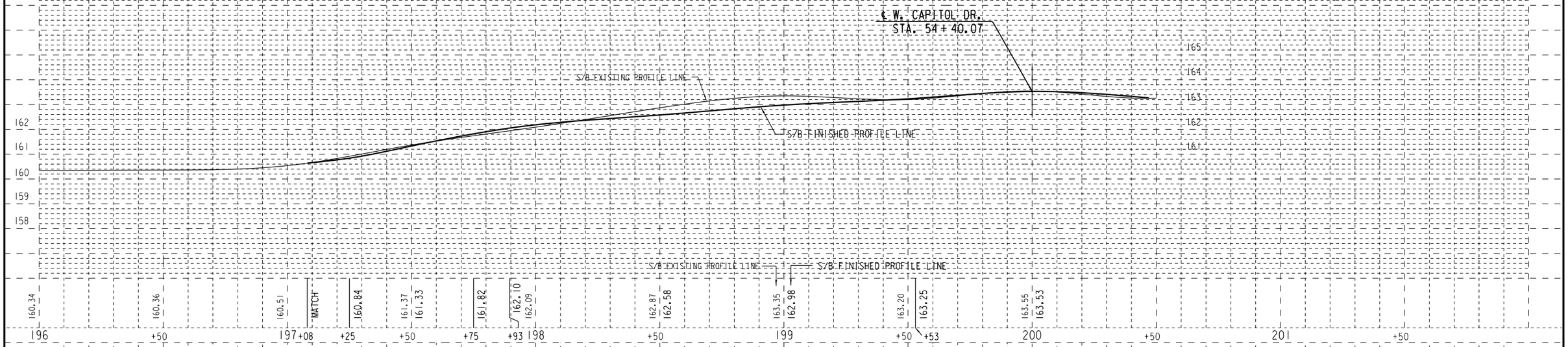
#9101
ST. MARGARET MARY CHURCH

STD. B.M. #64-05
N.92ND ST.& W. CAPITOL DR.
26' S OF MEDIAN TIP &
4' W OF E CURB
ELEV. 163.90

STATE PROJECT NUMBER		HWY:	COUNTY:		SCALE FEET	SHEET NO:	
2025-11-71	2025-16-70	S.T.H. 190	MILWAUKEE	PLAN	0' 40'	320	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\196_201.DGN

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.

STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PROFILE	SCALE FEET 0' 40'	SHEET NO: 321	E

FILE NAME: W:\SPR\

PLACE LANDMARK REFERENCE
WEST CAPITOL DRIVE T/L = 54 40.07
NORTH 92ND STREET T/L = 200 00.00

SEE WEST CAPITOL DRIVE PLAN SHEET
(STA. 51+00 TO STA. 57+00)

NORTH 92ND STREET

N. 92ND ST. T/L

WEST CAPITOL DRIVE

W. CAPITOL DR. T/L

END CONSTRUCTION
STA. 203+08.0 T/L

#9120
ADVANCED PAIN MANAGEMENT

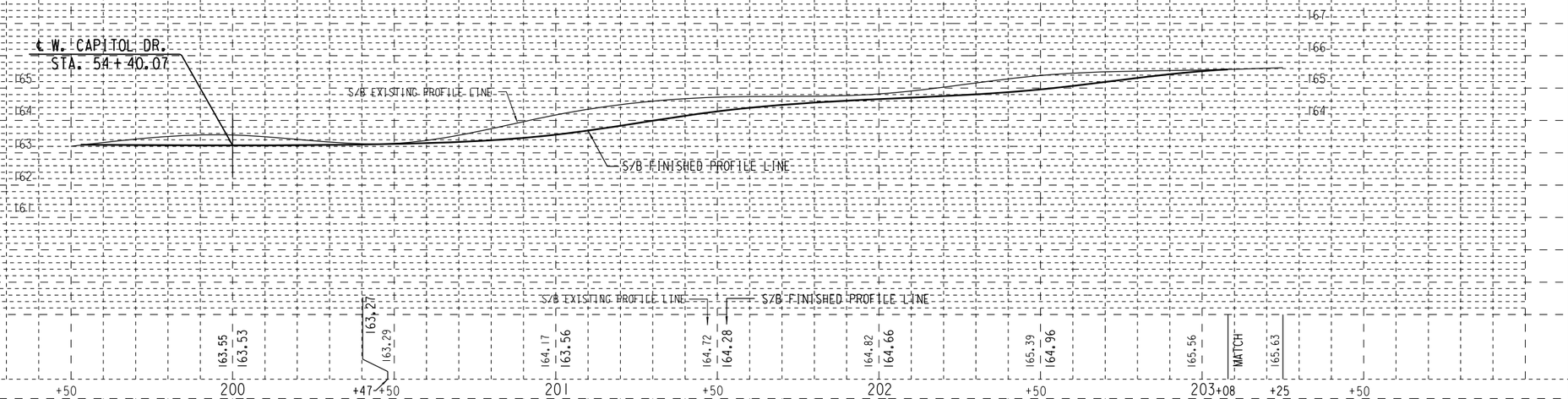
B.W. HYD. NE COR.
N.92ND ST. & W.CAPITOL DR.
STA 54+86, 64'LT. NW BOLT
ELEV. 166.57

(A) CONST. CONC. CURB & GUTTER 31-INCH
(CH) CONST. CONC. CURB & GUTTER 22-INCH (HIGH SIDE)
(E) REMOVE & PLACE 3-INCH ASPH. SURFACE ON VT CONC. BASE
(F) CONST. CONC. DRIVEWAY FLARED (7-INCH)
(H) REMOVE ASPHALT SURFACE BUTT JOINTS TO OBTAIN 2-INCH MIN. ASPH. OVERLAY
(J) SAWING CONCRETE
(K) SAWING ASPHALT
(L) GRADE & PLACE 4" TOPSOIL, SOD & FERTILIZER
(M) CONST. 5" CONC. SIDEWALK
(P3) REMOVE & PLACE 3" ASPH. SURFACE ON V.T. CRUSHED STONE BASE
(W) CONST. 8 1/2-INCH CONC. PAVEMENT
(AB) CONST. 2-INCH ASPH SURFACE ON 8-INCH CONC. BASE
(X) CONST. MAINTENANCE RAMP
(Y) CONST. SNOWPLOWABLE MEDIAN ISLAND NOSE
(Z) CONST. CONC. LOADING ZONE WITH 7-INCH FACE

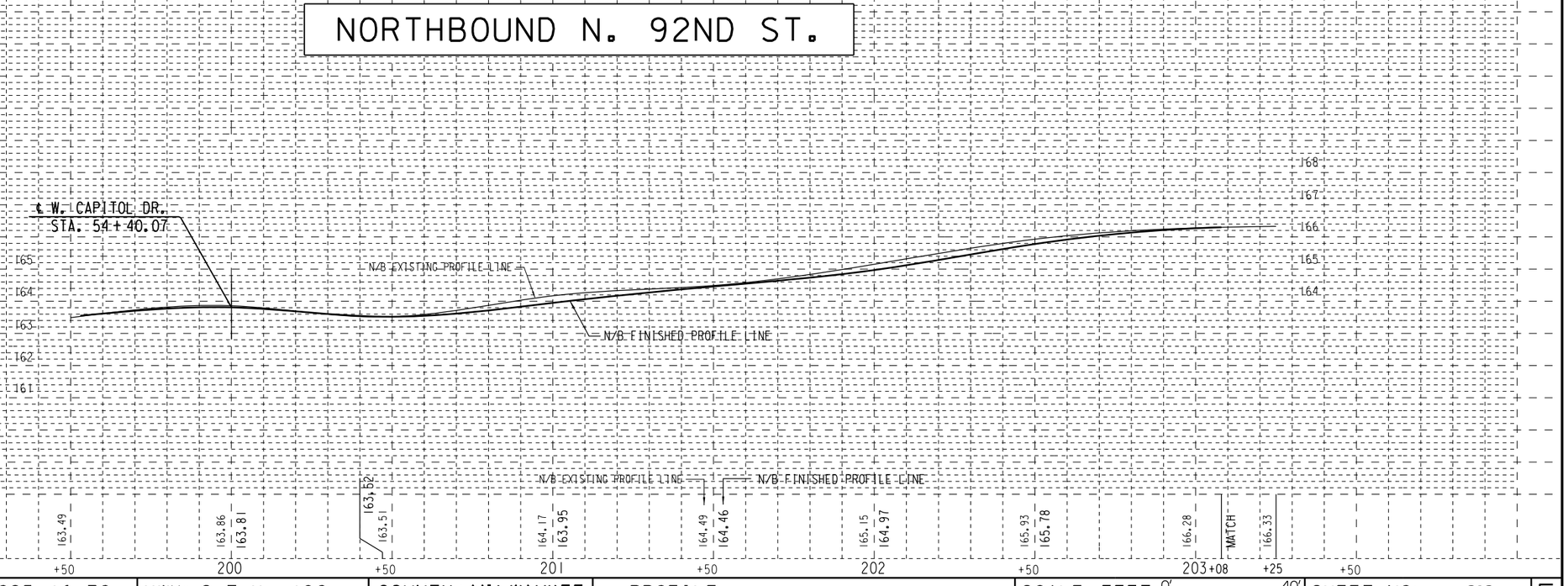
STATE PROJECT NUMBER 2025-11-71 2025-16-70	HWY: S.T.H. 190	COUNTY: MILWAUKEE	PLAN	SCALE FEET 0' 40'	SHEET NO: 322	E

FILE NAME: W:\SPR\CAPITOL_84-CITY LIMITS\200_203.DGN

SOUTHBOUND N. 92ND ST.



NORTHBOUND N. 92ND ST.



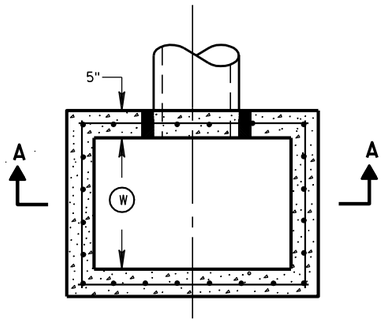
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FILE NAME: W:\SPR\

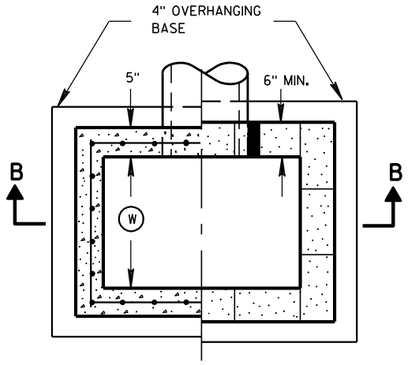
Standard Detail Drawing List

08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
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
09C11-02	CONCRETE BASE TYPE 10
09C13-01	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
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
09F01-03	DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT
09F13-03	LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
12A03-10	NAME PLATE (STRUCTURES)
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C13-07	URBAN DOWELED CONCRETE PAVEMENT
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
13C18-01A	CONCRETE PAVEMENT JOINTING
13C18-01B	CONCRETE PAVEMENT STEEL REINFORCEMENT
14A02-01	TREE PLANTING DETAIL
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
15B03-12A	CHAIN LINK FENCE
15B03-12B	CHAIN LINK FENCE
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)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C29-02C	URBAN BICYCLE LANE MARKING
15C29-02E	PAVEMENT MARKING FOR BIKE LANES
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

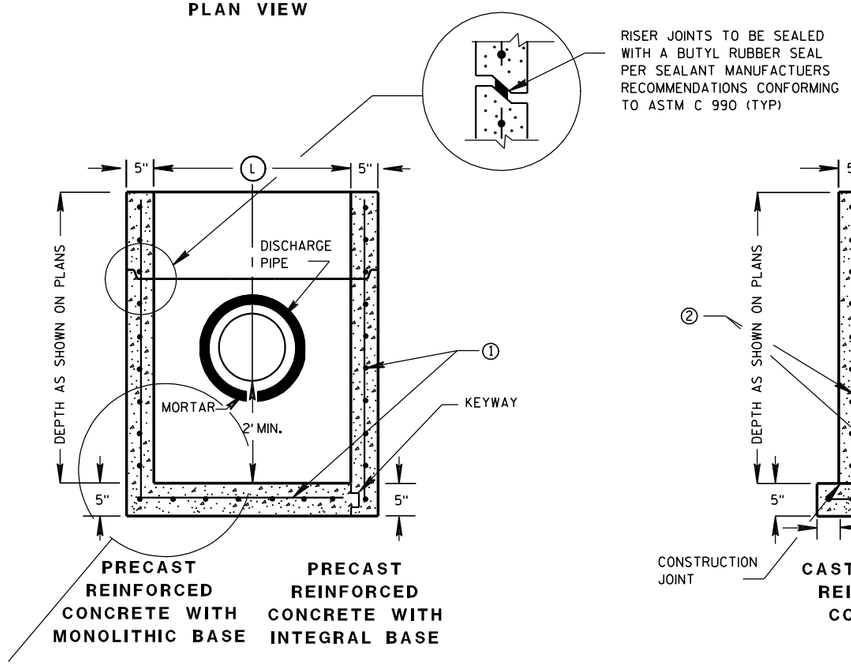
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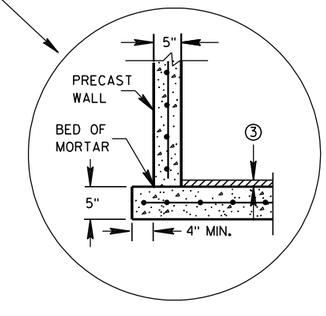
PLAN VIEW



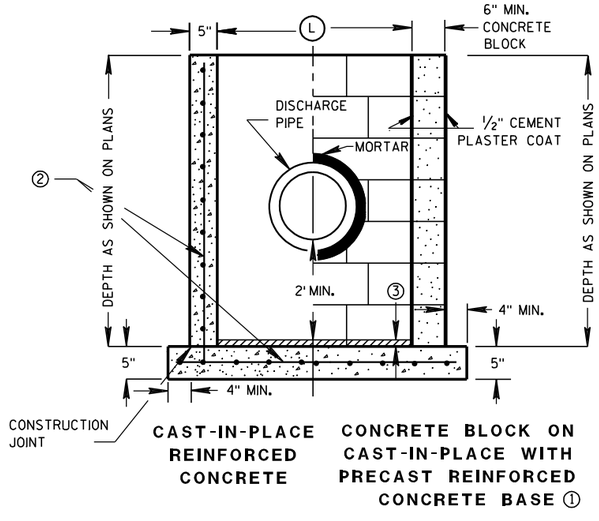
PLAN VIEW



SECTION A-A



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

GENERAL NOTES

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

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

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

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

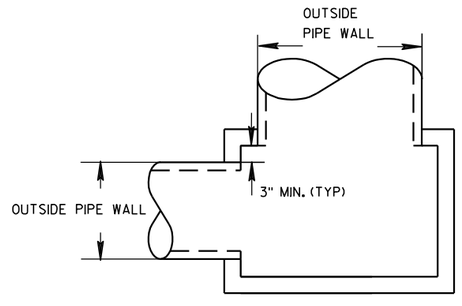
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

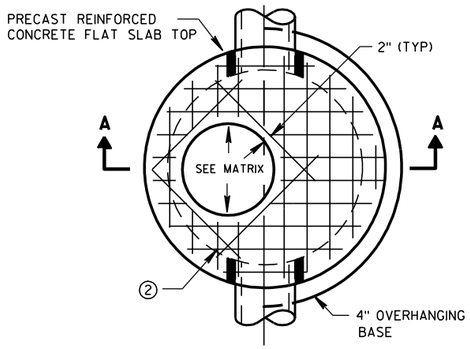
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

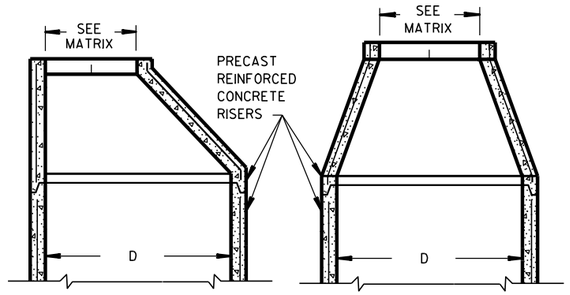
S.D.D. 8 A 9-1

6

S.D.D. 8 A 9-1

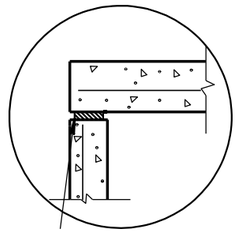


PLAN VIEW CIRCULAR OPENING

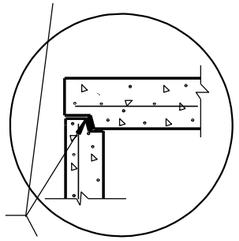


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

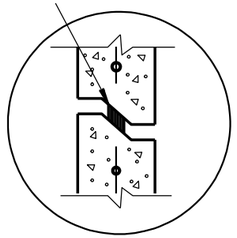


TOP WITH PLAIN END JOINT



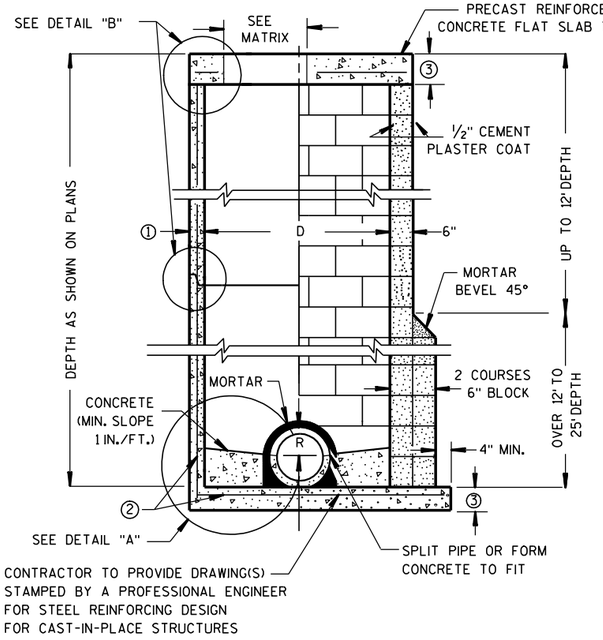
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



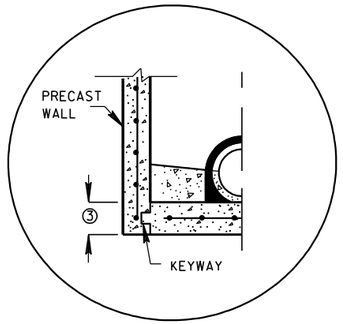
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

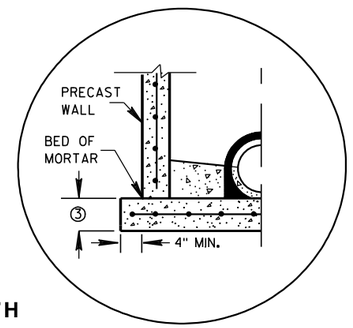


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

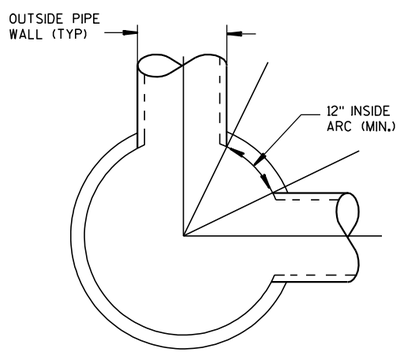


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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

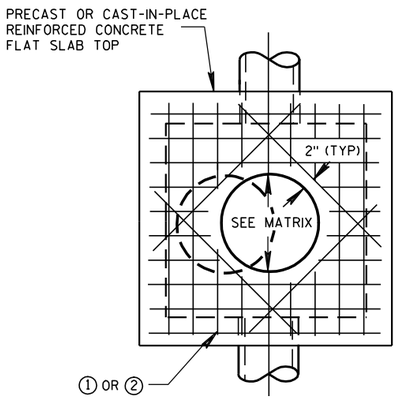
APPROVED

6/5/2012
DATE

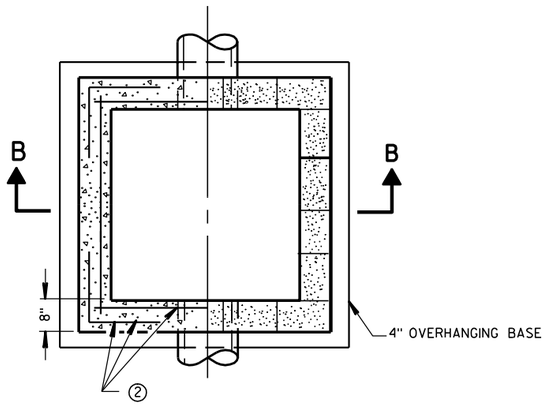
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

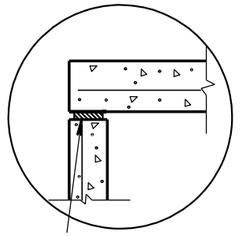
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S.D.D. 8 B 9-1



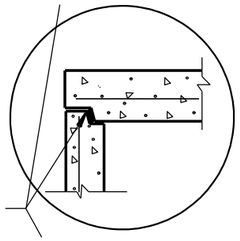
PLAN VIEW
CIRCULAR OPENING



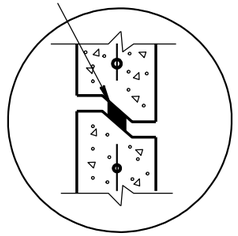
SECTION A-A
PLAN VIEW



TOP WITH PLAIN END JOINT

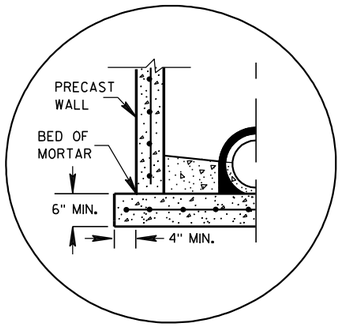


TOP WITH TONGUE AND GROOVE JOINT



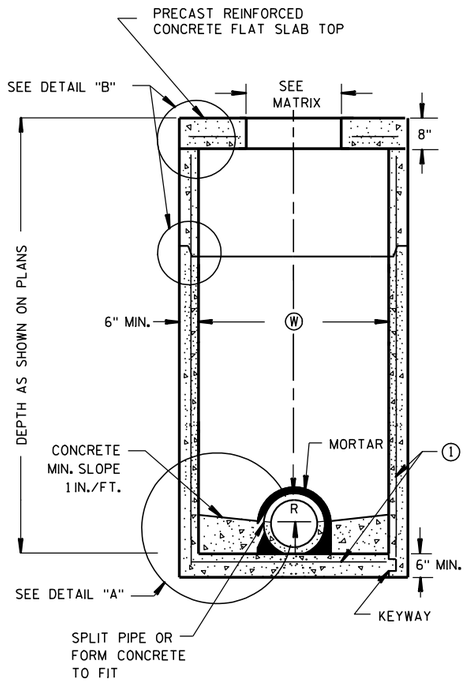
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

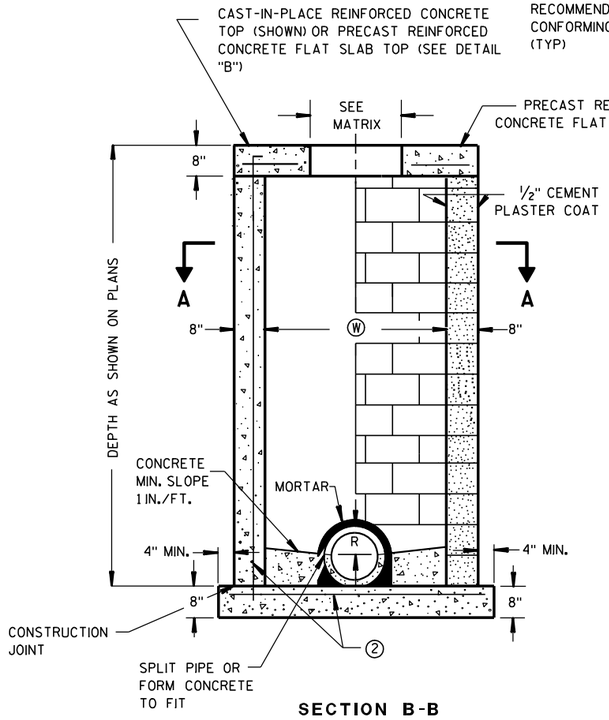


SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE



SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

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

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 FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

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

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

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

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 ASTM C 913.

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.

MAXIMUM PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "C". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

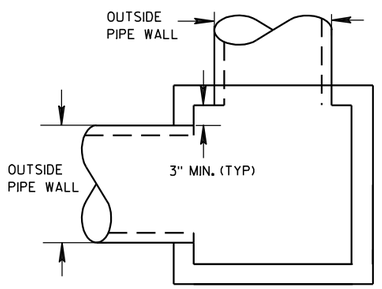
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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	
	WIDTH Ⓦ (IN)	LENGTH Ⓛ (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

327

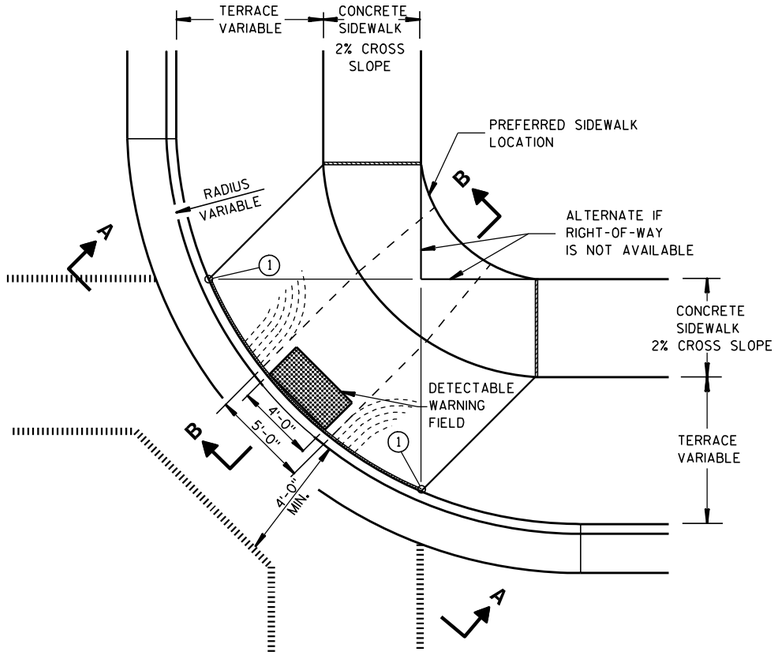
FHWA

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S.D.D. 8 B 10-1

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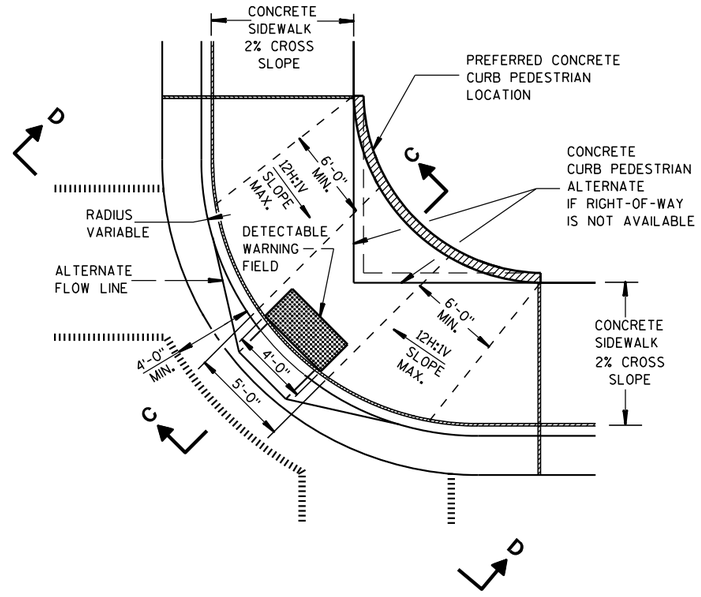
S.D.D. 8 B 10-1



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".

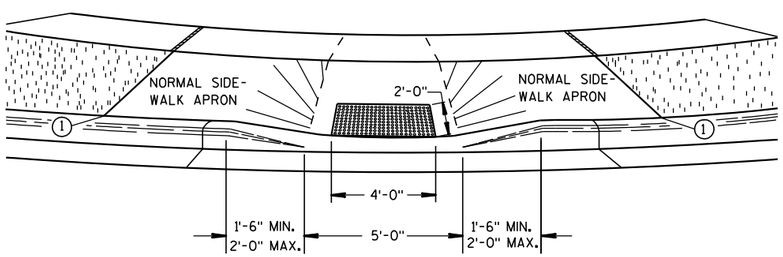
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

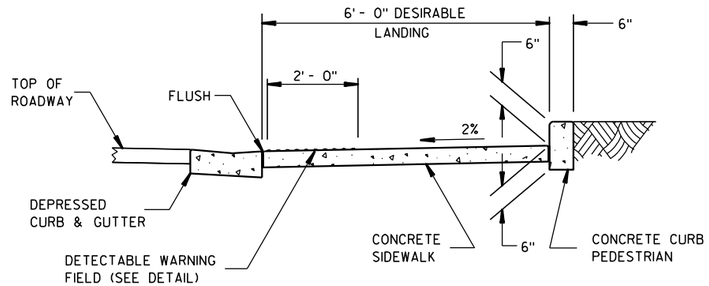
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

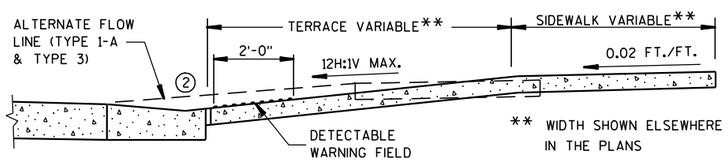
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



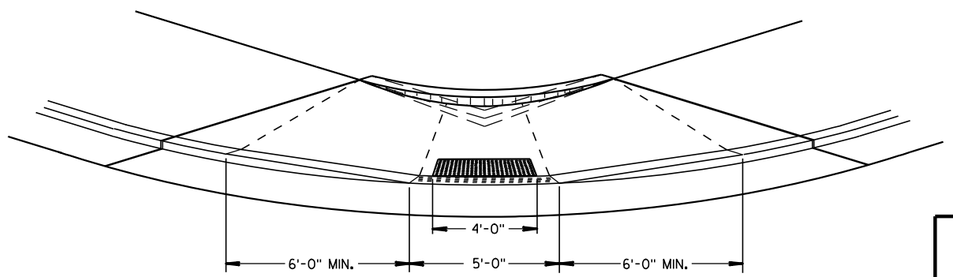
VIEW A-A



SECTION C-C



SECTION B-B



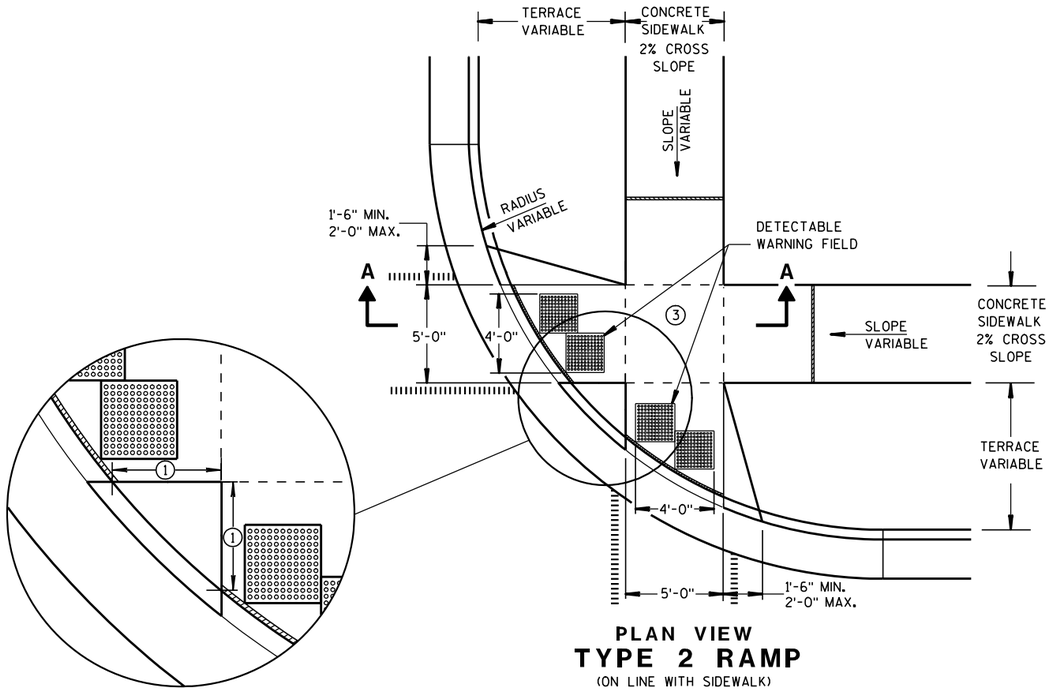
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

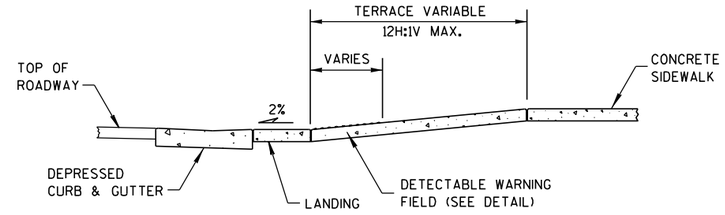
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

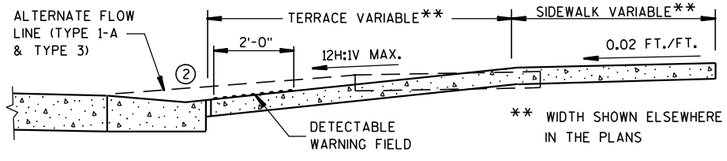
S.D.D. 8 D 5-14a



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.

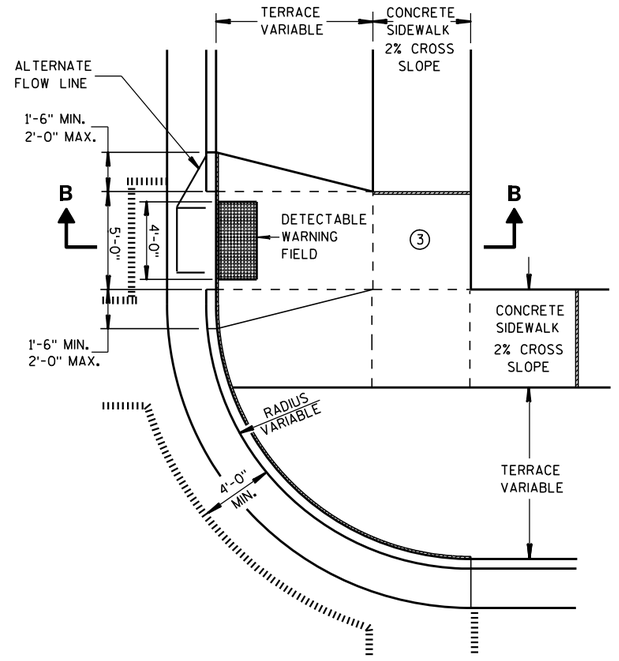
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(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

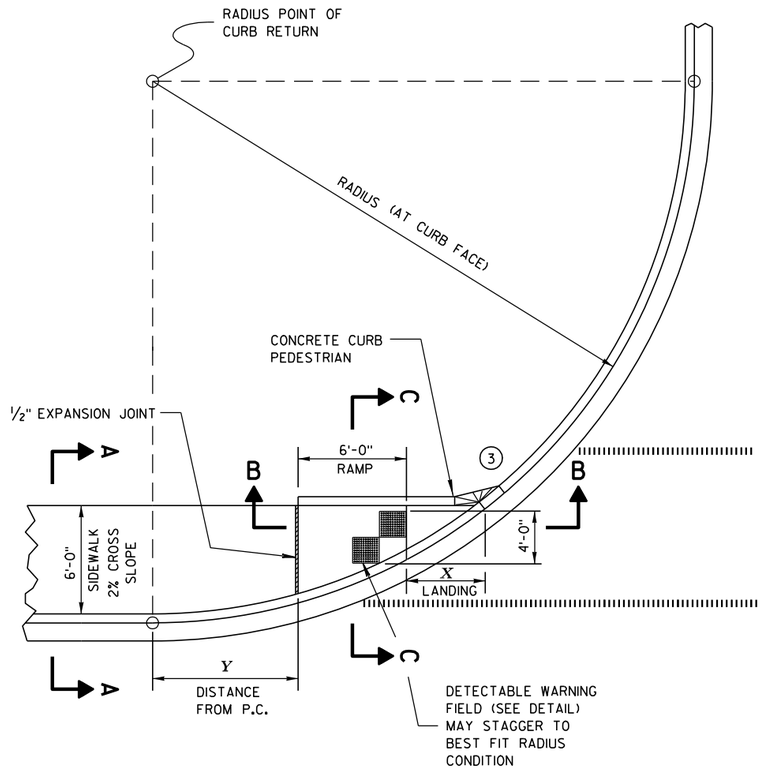


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

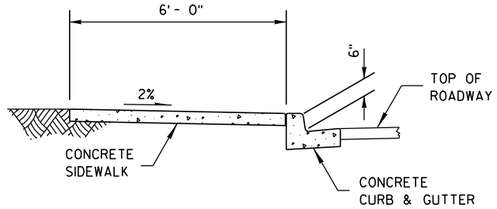
6
S.D.D. 8 D 5-14b



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

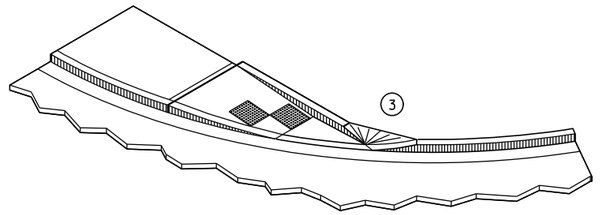
GENERAL NOTES

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

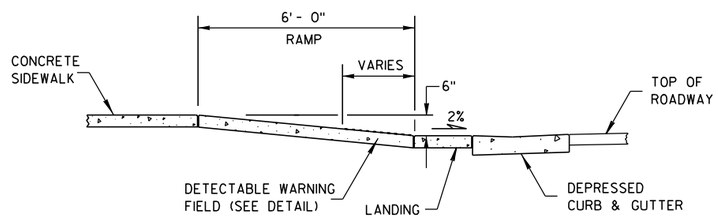
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

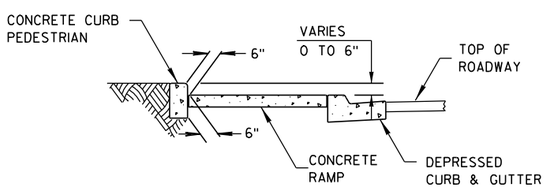
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

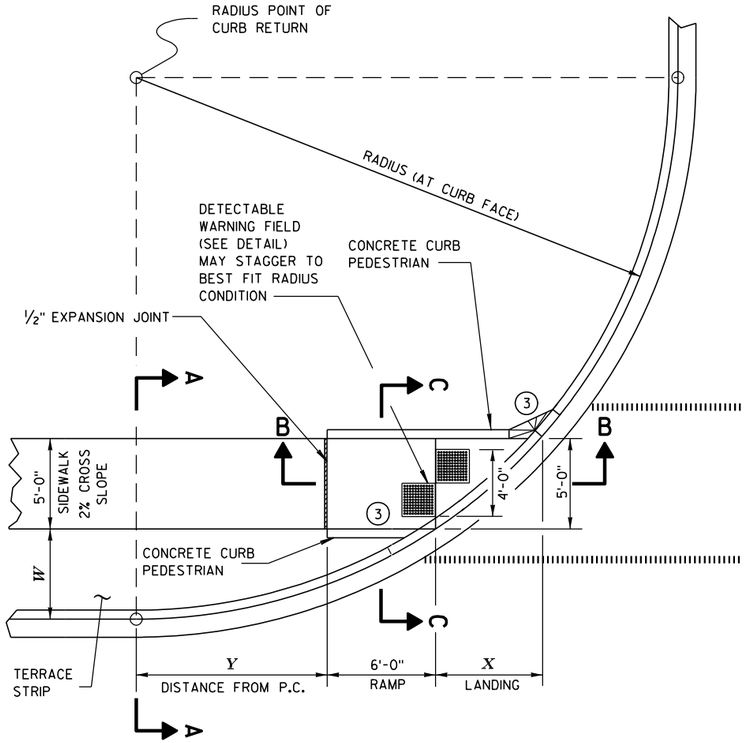
LEGEND

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

CURB RAMPS TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
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.

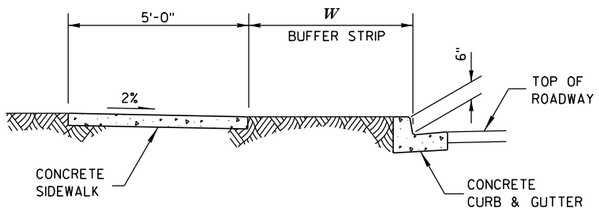
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

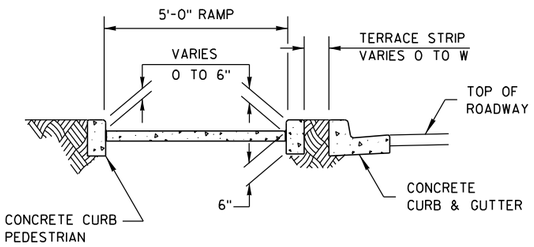
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

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"

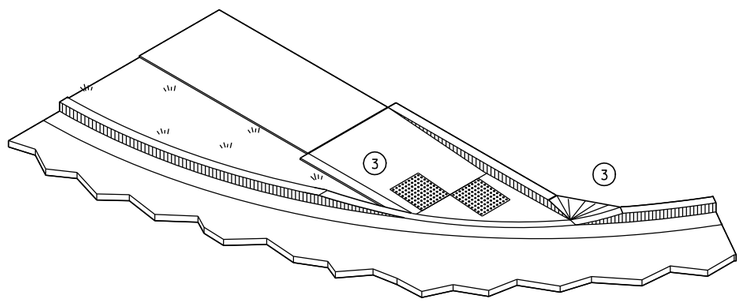
INTERMEDIATE RADII CAN BE INTERPOLATED



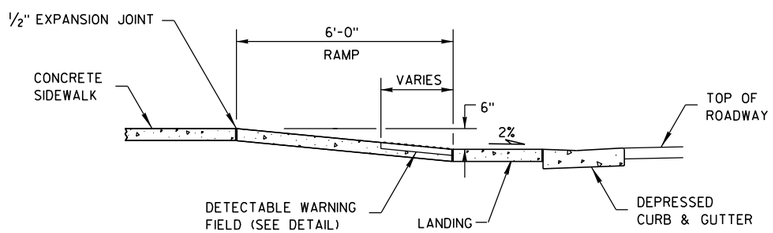
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

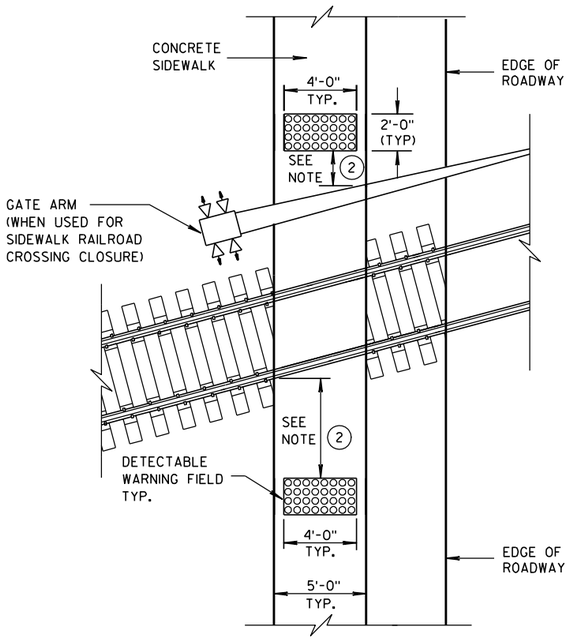
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

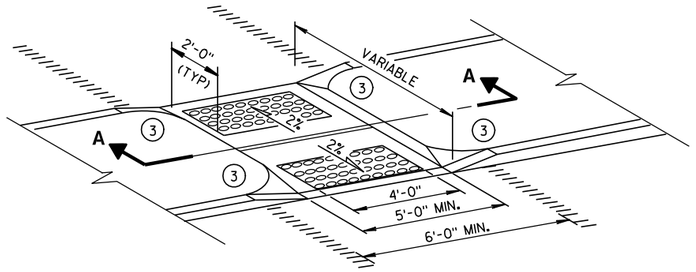
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

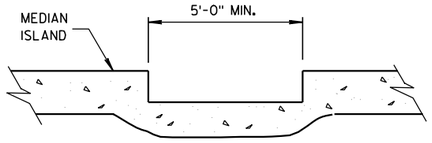
S.D.D. 8 D 5-14d



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%.

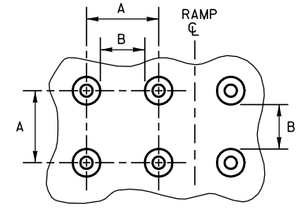
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

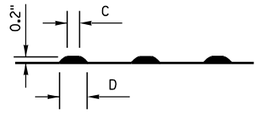
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

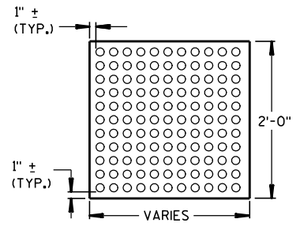
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



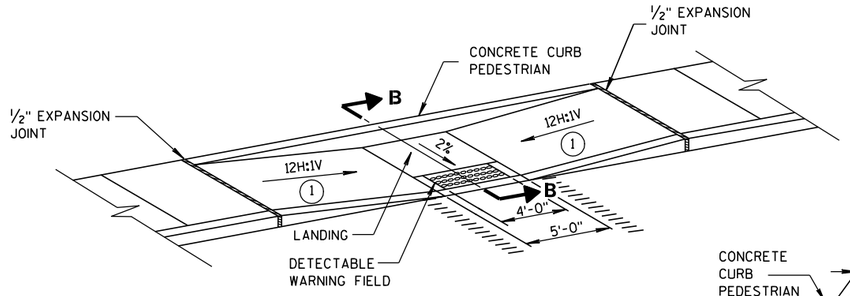
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

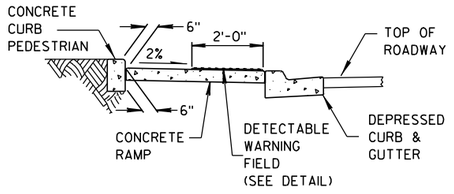


PLAN VIEW

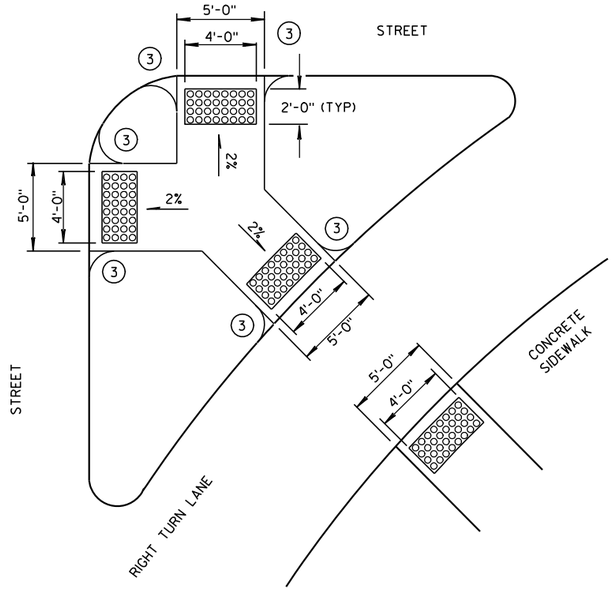
DETECTABLE WARNING FIELD (TYPICAL)



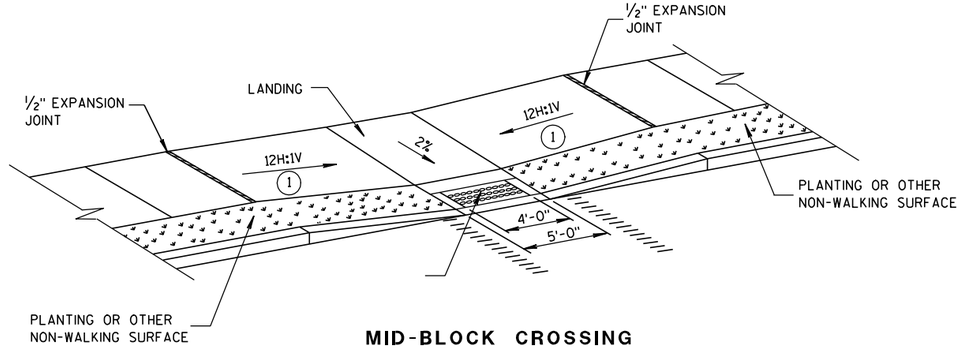
MID-BLOCK CROSSING
TYPE 7A



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

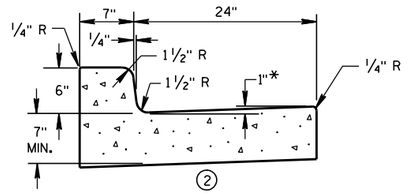
APPROVED
2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER 332 ENT
FHWA

6

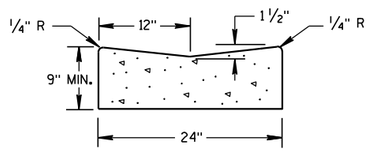
S.D.D. 8 D 5-14e

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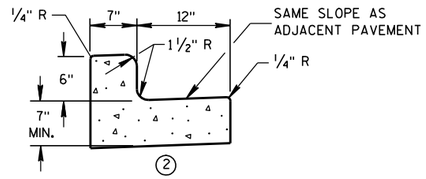
S.D.D. 8 D 5-14e



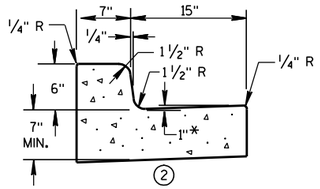
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

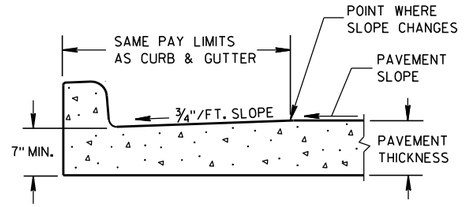


① CONCRETE CURB & GUTTER 19"



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.

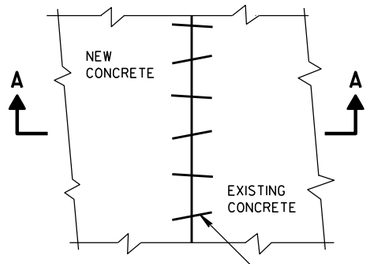
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

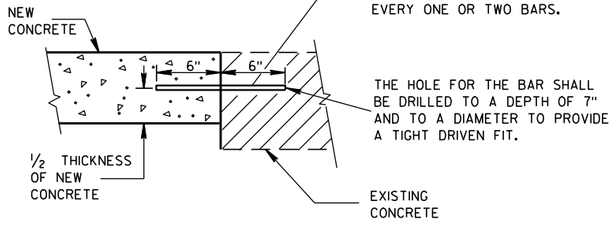
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

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

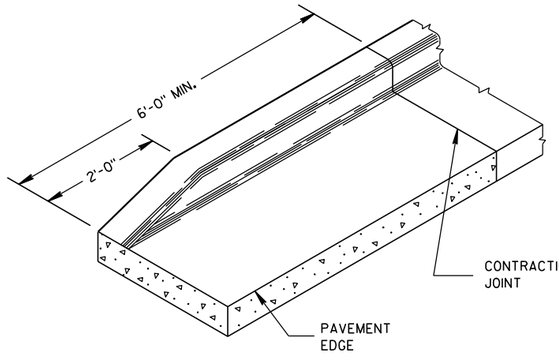
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



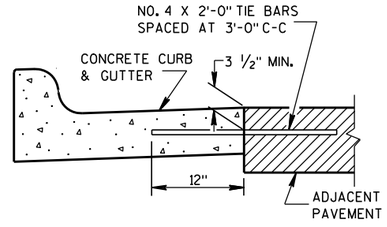
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

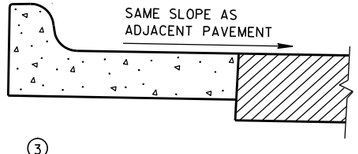
PAVEMENT TIES



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

333

ENT

FHWA

6

S.D.D. 8 D 16-10

6

S.D.D. 8 D 16-10

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).

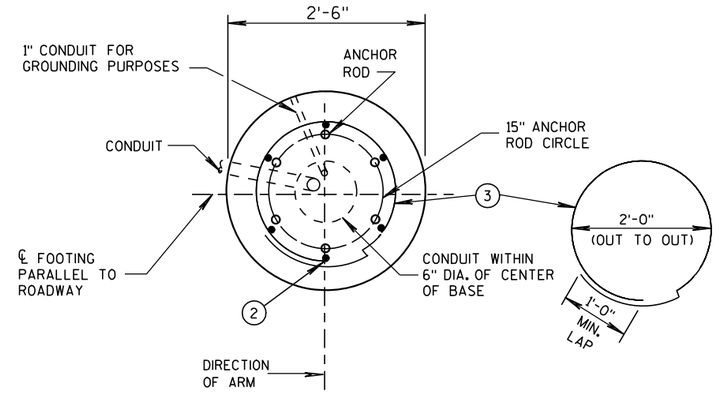
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

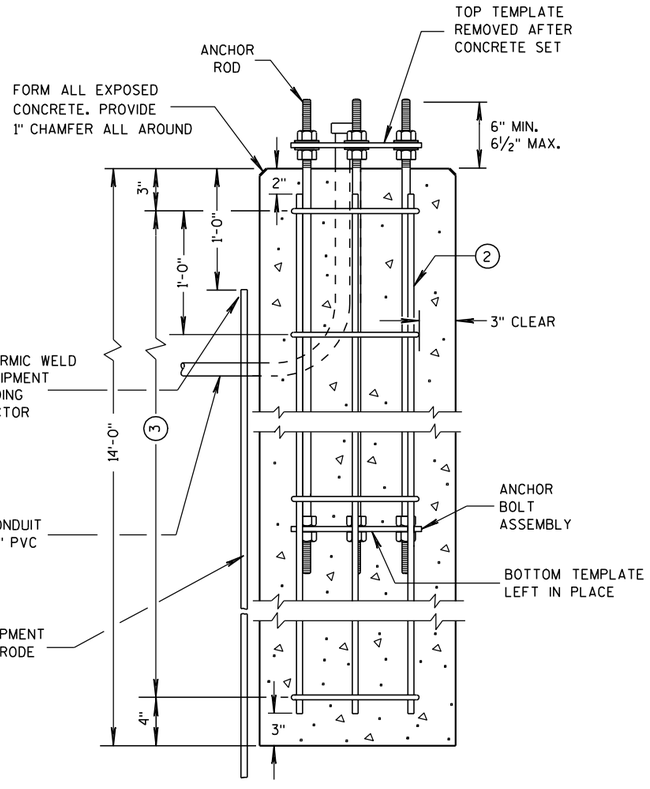
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES. (GREATER THAN 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.

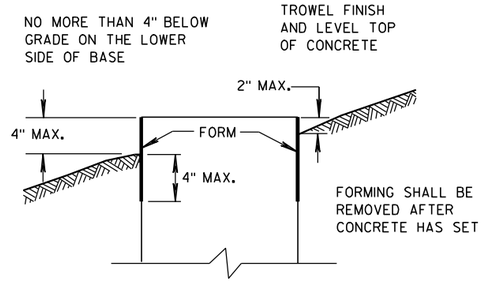
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



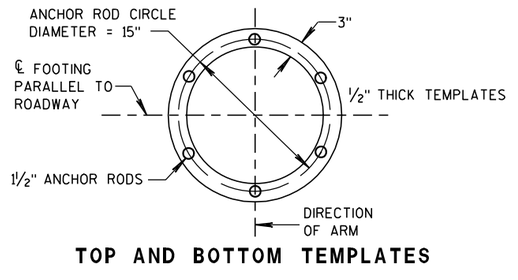


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

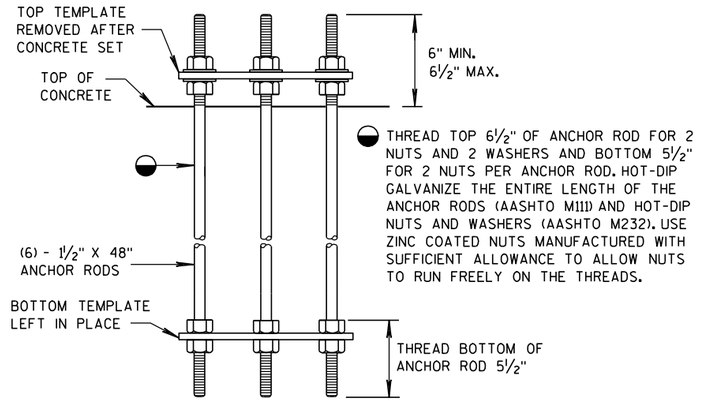
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



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

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3-2-11 DATE

/S/ Thomas J. Cornips
STATE ELECTRICAL ENGI

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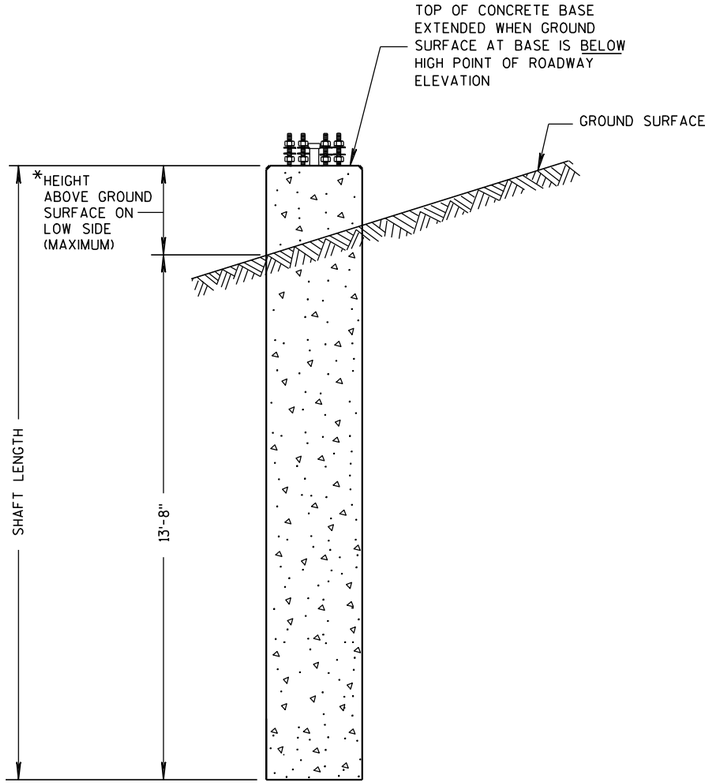
S.D.D. 9 C 11-2

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

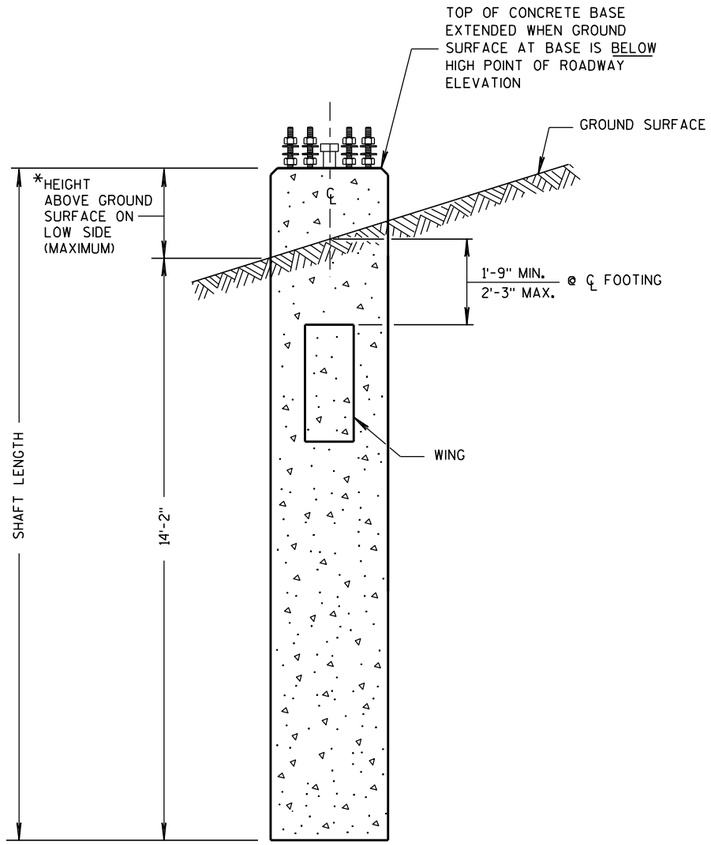
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 10 (EXTENDED)



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-3-10 DATE — /S/ Joanna L. Rush STATE ELECTRICAL ENGI — HWYS

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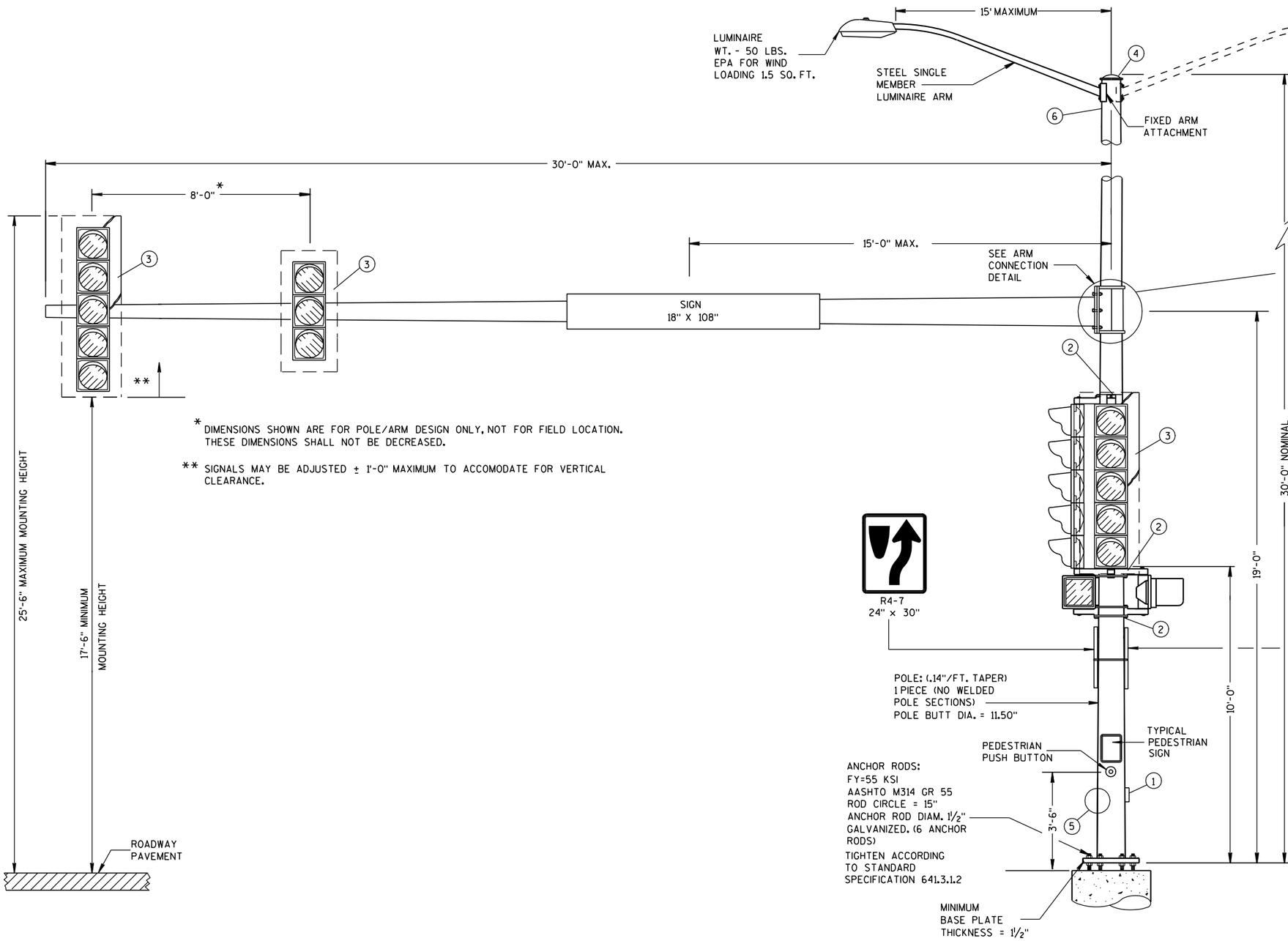
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S.D.D. 9 C 13-1

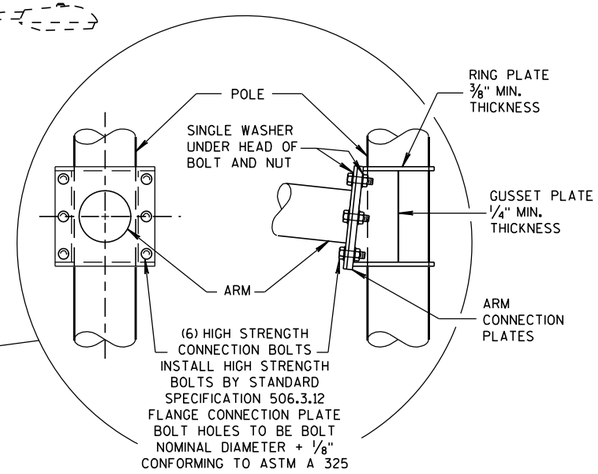
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S.D.D. 9 C 13-1

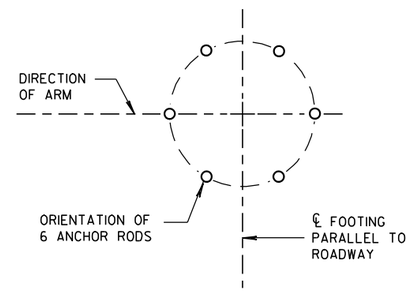


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

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



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. Corrigan STATE ELECTRICAL ENGI
FHWA	336 HWYS

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

6

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

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.

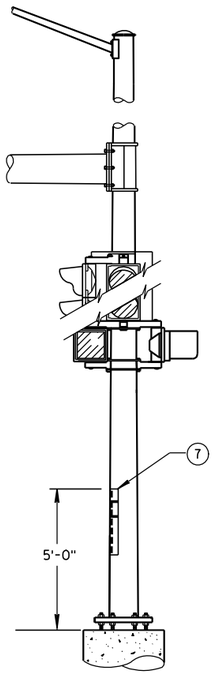
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

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

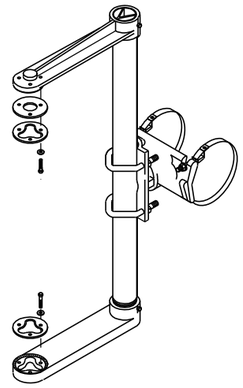
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

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.

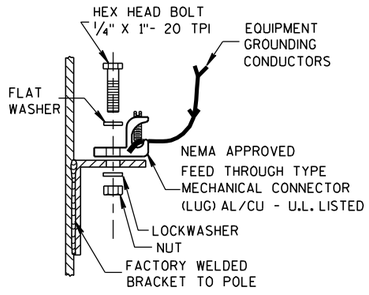


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



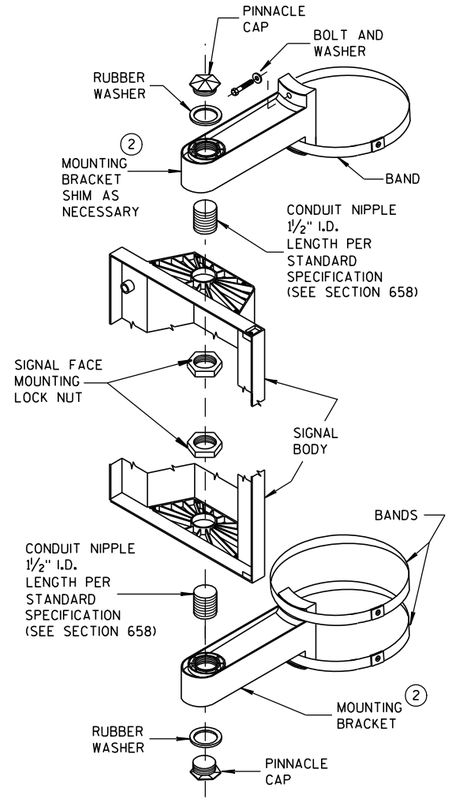
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

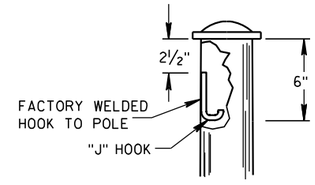


TYPICAL GROUNDING CONNECTIONS (5)

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

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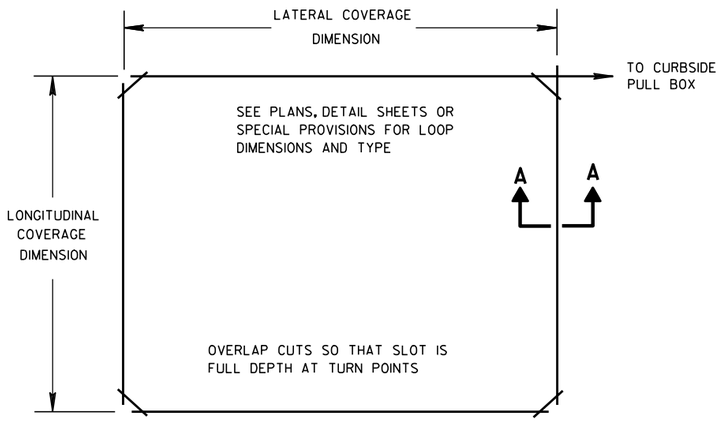
3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI 337 HWYS

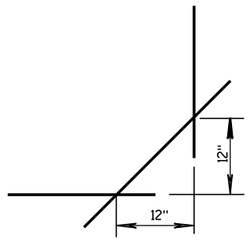
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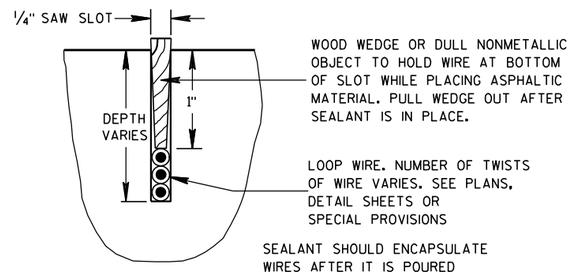
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LOOP WIRE SLOT CONSTRUCTION

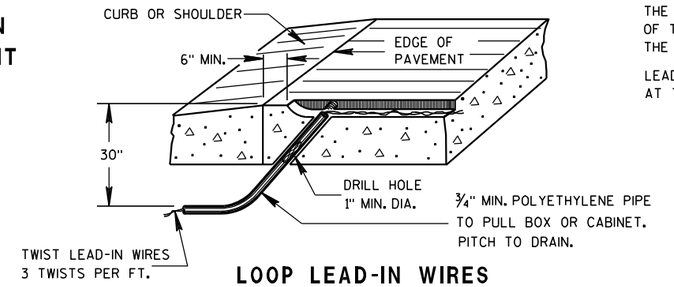


**EXPANDED VIEW
SAW CUT CORNERS**



SECTION A-A

**LOOP AND LEAD-IN
WIRES IN PAVEMENT**



**LOOP LEAD-IN WIRES
THROUGH PAVEMENT**

GENERAL NOTES

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

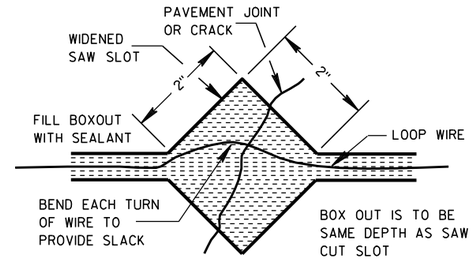
THE SLOTS IN THE PAVEMENT SHALL BE CUT TO DIMENSION WITH A SAW. THE SLOTS SHALL BE CLEANED FREE OF DIRT, DUST, MOISTURE AND DEBRIS PRIOR TO INSTALLATION OF THE WIRE.

AFTER PLACING THE WIRE IN THE SLOT, FILL THE SLOT WITH AN ASPHALTIC MATERIAL IN ACCORDANCE WITH THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

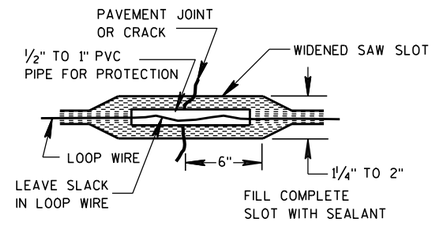
IN THE EVENT ASPHALTIC MATERIAL IS UNAVAILABLE, A FLEXIBLE TYPE EPOXY MAY BE USED AS A LOOP SLOT FILLER. THE LOOP SLOT SHALL BE CLEAN AND DRY BEFORE EPOXY IS INSTALLED. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED ONLY AFTER WRITTEN APPROVAL BY THE BY THE PROJECT ENGINEER.

THE TWO SINGLE CONDUCTOR LOOP WIRES SHALL BE TWISTED TOGETHER AT A RATE OF THREE TWISTS PER FOOT FROM THE PAVEMENT EDGE TO THE SPLICE CONNECTION WITH THE LOOP LEAD-IN CABLE.

LEAD-IN CABLES AND LOOP LEAD-IN WIRES SHALL BOTH BE CUT TO 6 FEET IN LENGTH AT THE SPLICING PULL BOX.

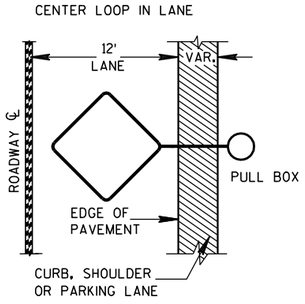


PLAN VIEW

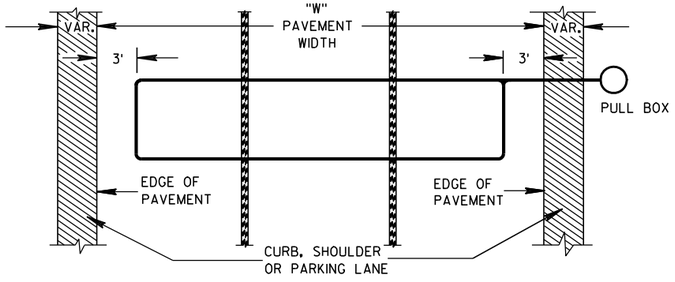


FRONT VIEW

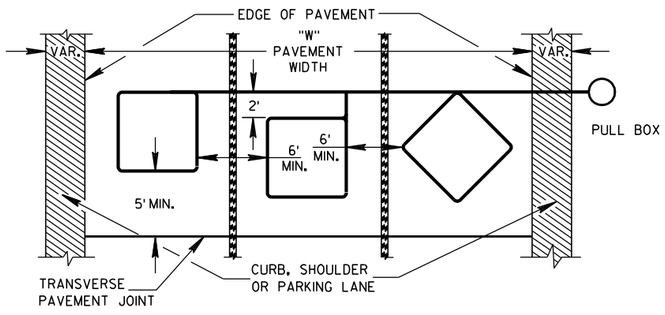
**LOOP WIRE INSTALLATION ACROSS
PAVEMENT JOINT OR CRACK**



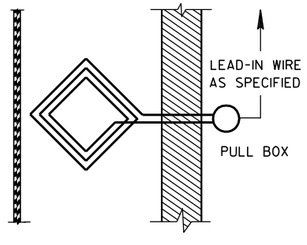
LOOP WIRE SLOT PLAN



LOOP WIRE SLOT PLAN

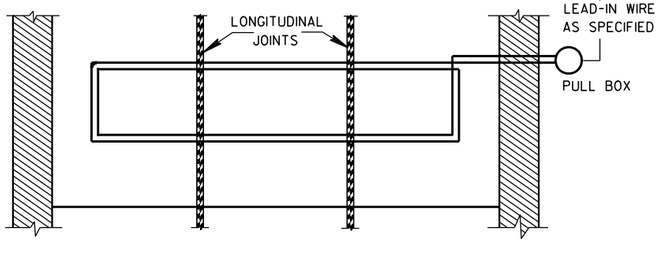


LOOP WIRE SLOT PLAN



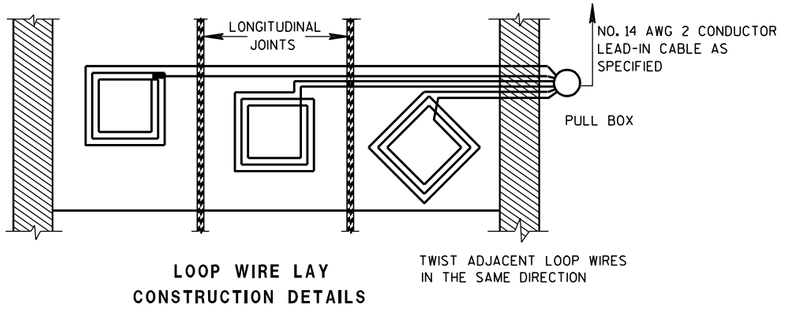
**LOOP WIRE LAY
CONSTRUCTION DETAILS**

SINGLE LANE LOOP DETECTION



**LOOP WIRE LAY
CONSTRUCTION DETAILS**

MULTIPLE LANE MASS LOOP DETECTION



**LOOP WIRE LAY
CONSTRUCTION DETAILS**

**MULTIPLE LANE DETECTION BY
INDIVIDUAL LANES, TYPICAL TYPE LOOPS**

DETAILS FOR THE INSTALLATION OF TEMPORARY TRAFFIC SIGNAL LOOP DETECTOR WIRES IN ANY EXISTING PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

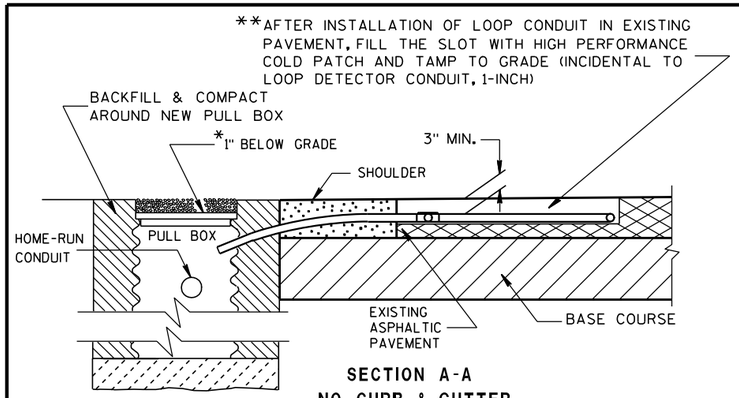
APPROVED
12/12/00 — DATE
/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI
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FHWA

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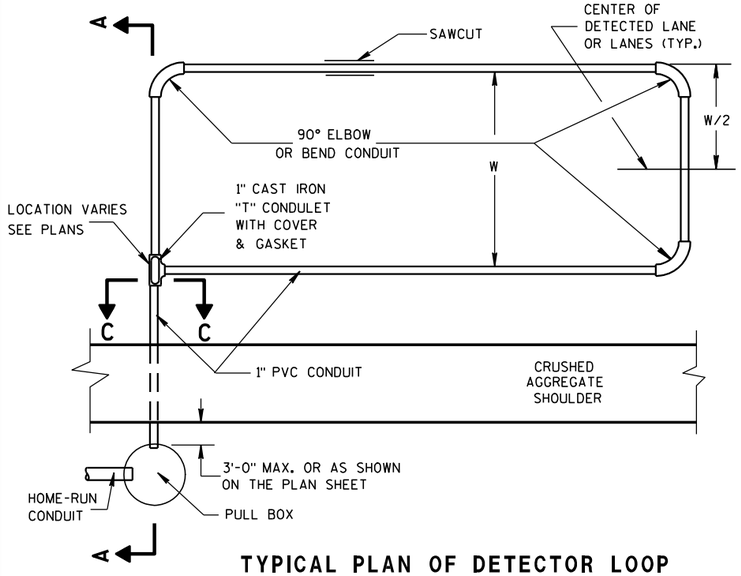
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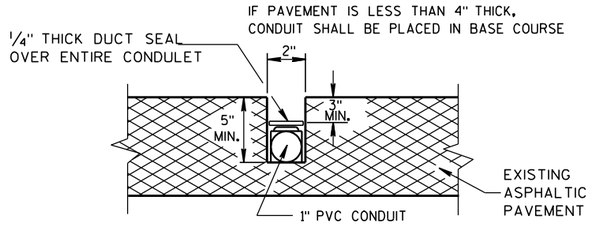
SECTION A-A
NO CURB & GUTTER

TYPICAL PLAN OF LOOP DETECTOR

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF DETECTOR LOOP



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISITANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

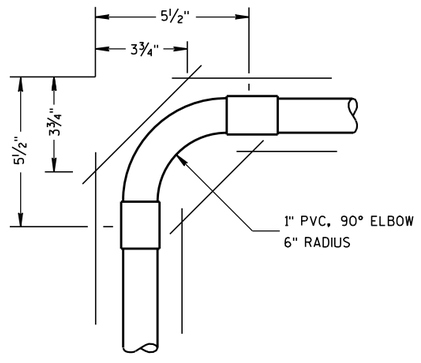
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

IN THE EVENT THAT THE EXISTING PAVEMENT IS MORE THAN 5 INCHES THICK, AND THEREFORE , THE 1 INCH CONDUIT DOES NOT REQUIRE INSTALLATION BELOW THE PAVEMENT INTO THE BASE COURSE, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH BEFORE INSTALLATION OF THE CONDUIT. IF THE CONDUIT MUST BE PLACED IN THE BASE COURSE, DO NOT PLACE THE TAR OR EPOXY SEALANT IN THE SLOT.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

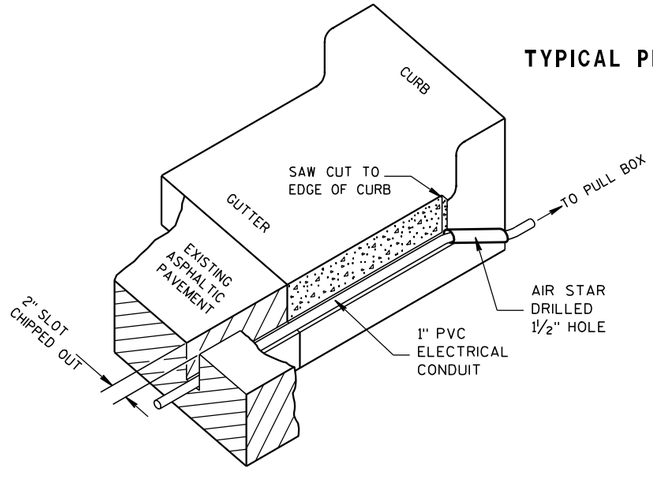
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

IN THE EVENT HIGH PERFORMANCE COLD PATCH IS NOT AVAILABLE, AND FLEXIBLE TYPE EPOXY IS USED AS A LOOP SLOT FILLER, THE 2 INCH SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION. EPOXY USE SHALL BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER AND THE FURNISHED EPOXY SHALL BE INSTALLED AFTER WRITTEN APPROVAL BY THE PROJECT ENGINEER.



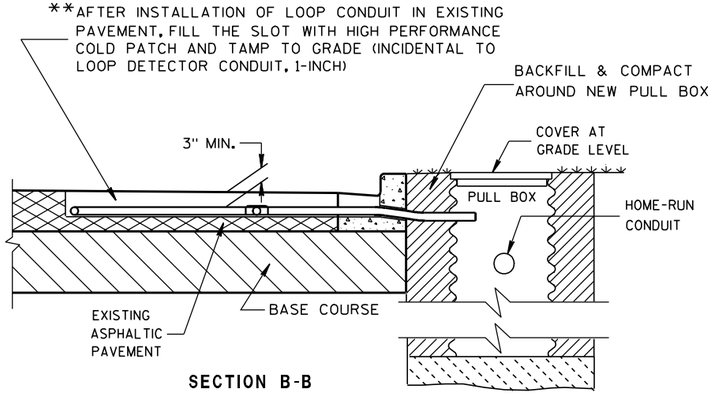
TOP VIEW

CORNER SAW SLOT DETAIL



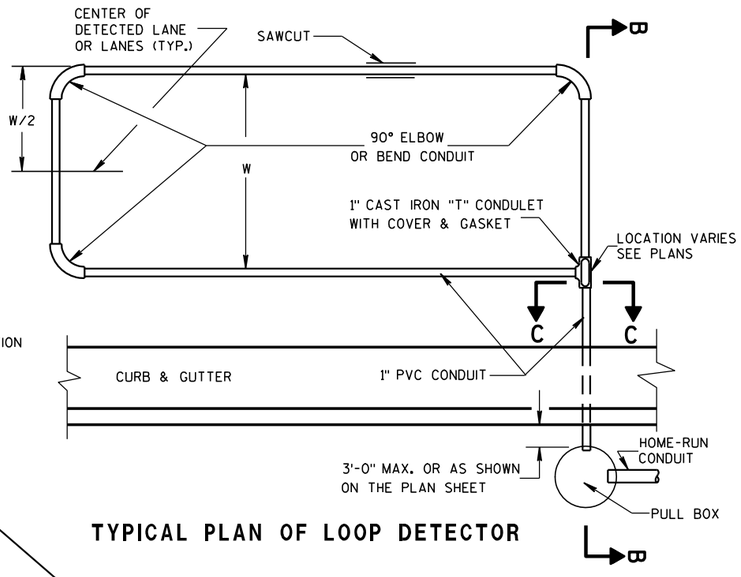
ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR INSTALLED IN EXISTING ASPHALTIC PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 339 HWYS
FHWA

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S.D.D. 9 F 13-3

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S.D.D. 9 F 13-3

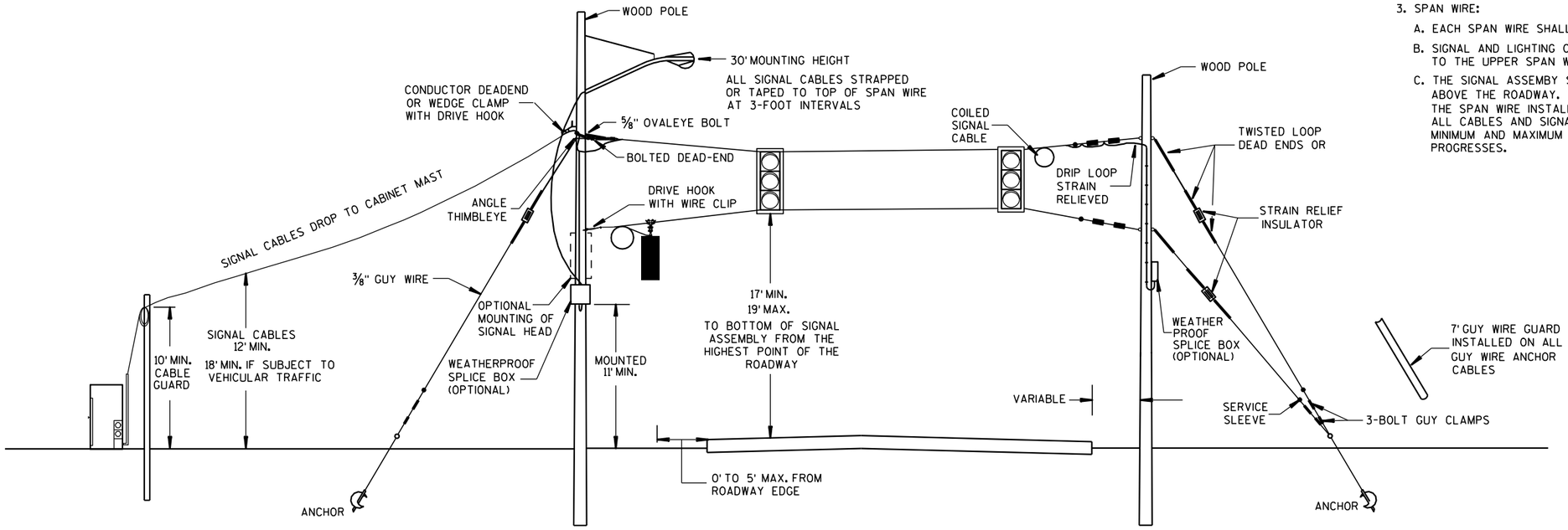
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

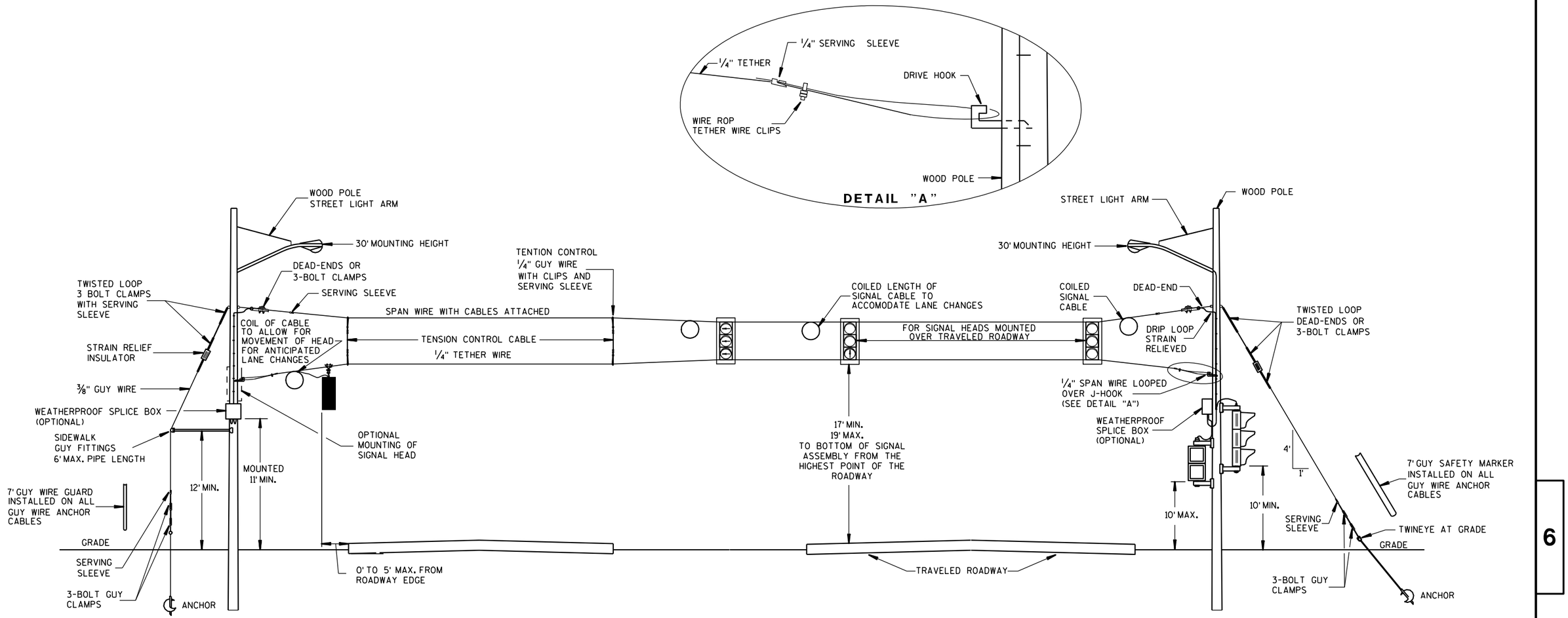
MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Ananthar [illegible] n
STATE ELECTRICAL ENGI 340 HWYS
FHWA

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S.D.D. 9 G 1-3a



GENERAL NOTES

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

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

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

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE — /S/ Balu Ananthanarayanan STATE ELECTRICAL ENGI

HWYS

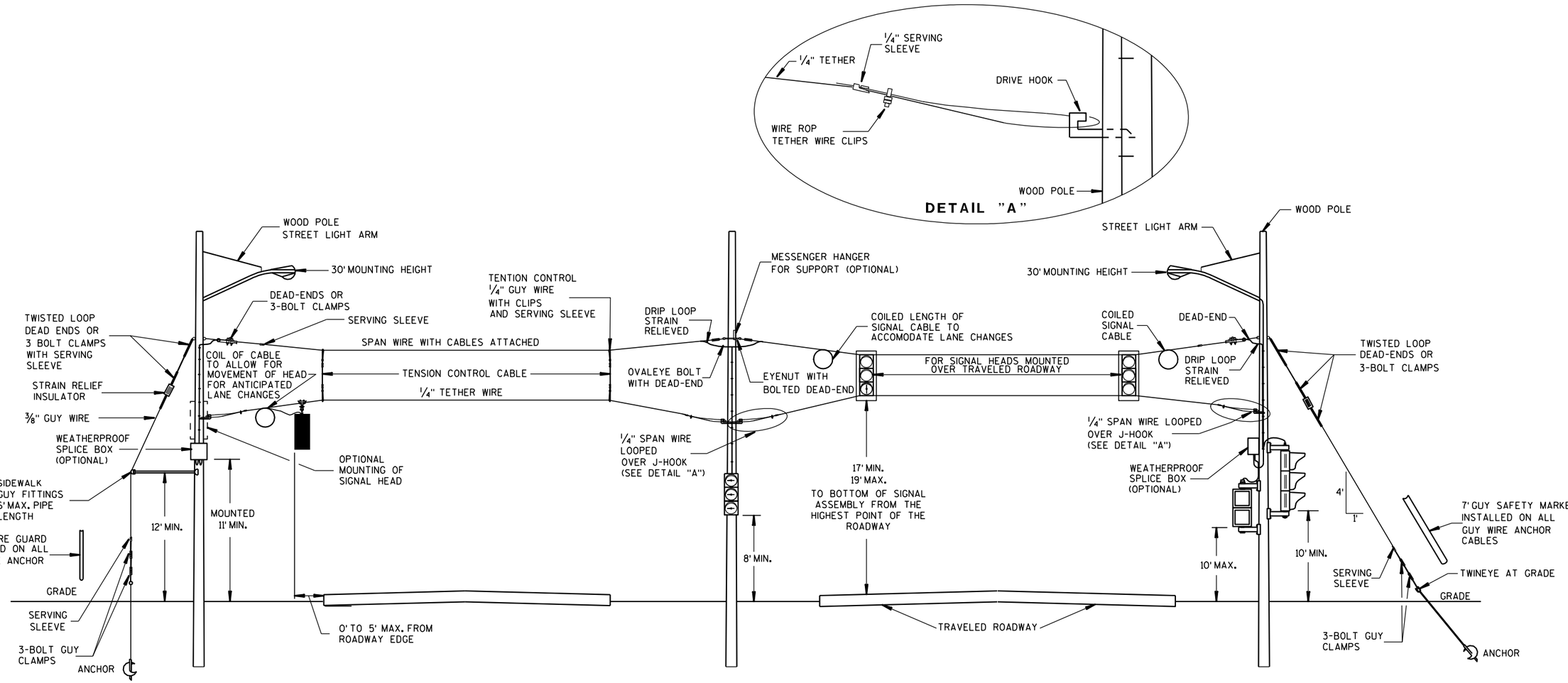
FHWA

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S.D.D. 9 G 1-3b

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S.D.D. 9 G 1-3b



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Aganthangarayanan
STATE ELECTRICAL ENGI

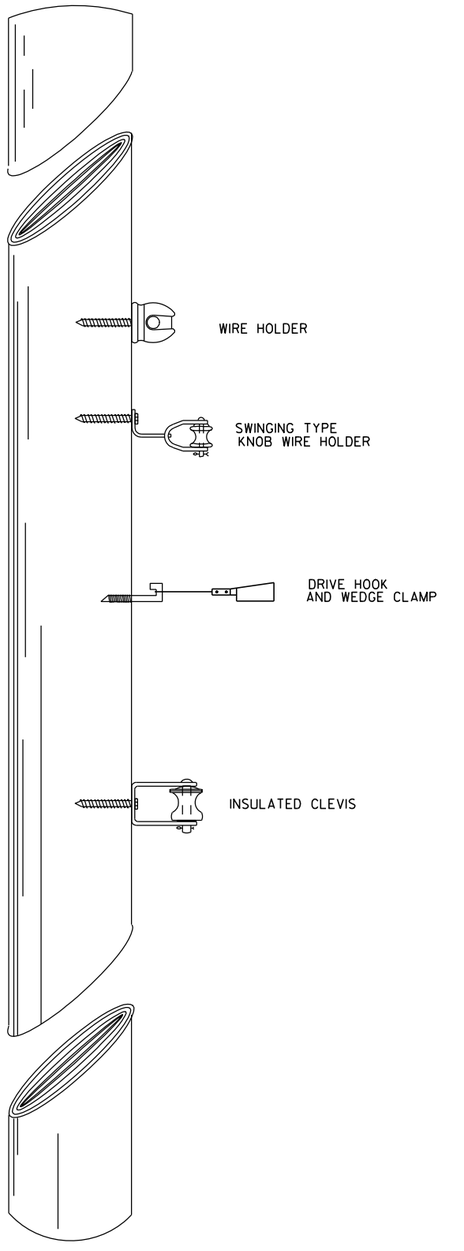
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HWYS

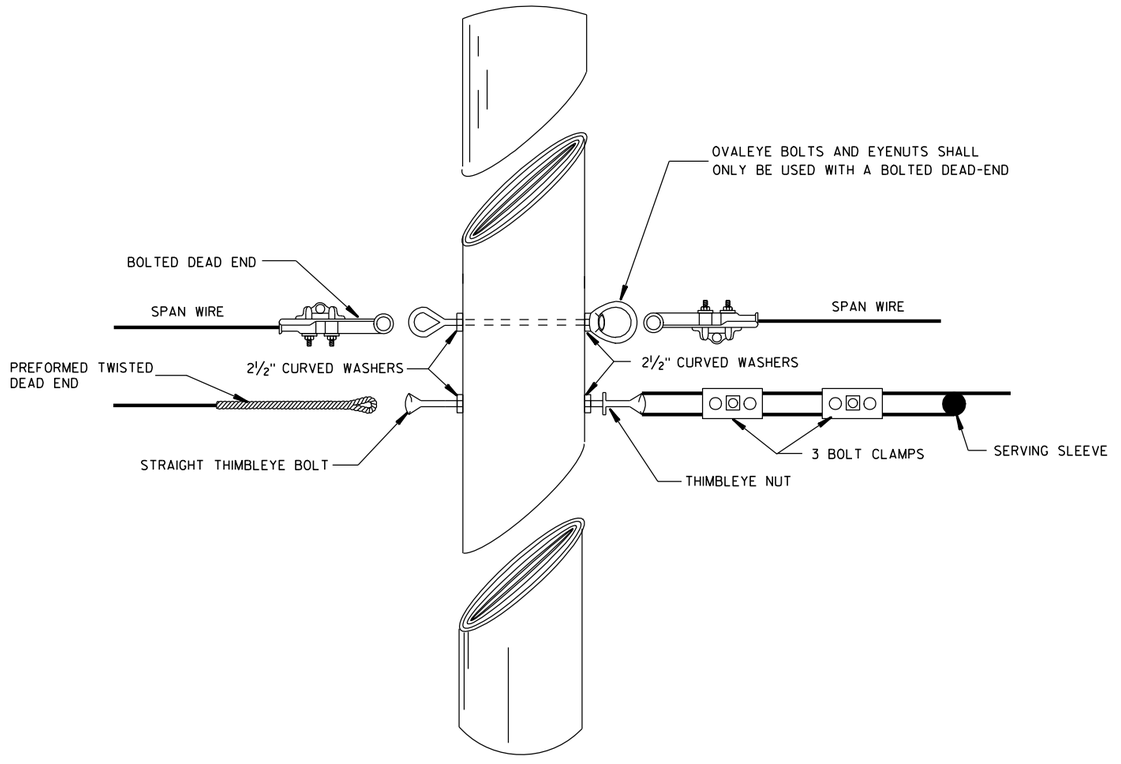
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S.D.D. 9 G 1-3c



TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

6

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S.D.D. 9 G 1-3d

S.D.D. 9 G 1-3d

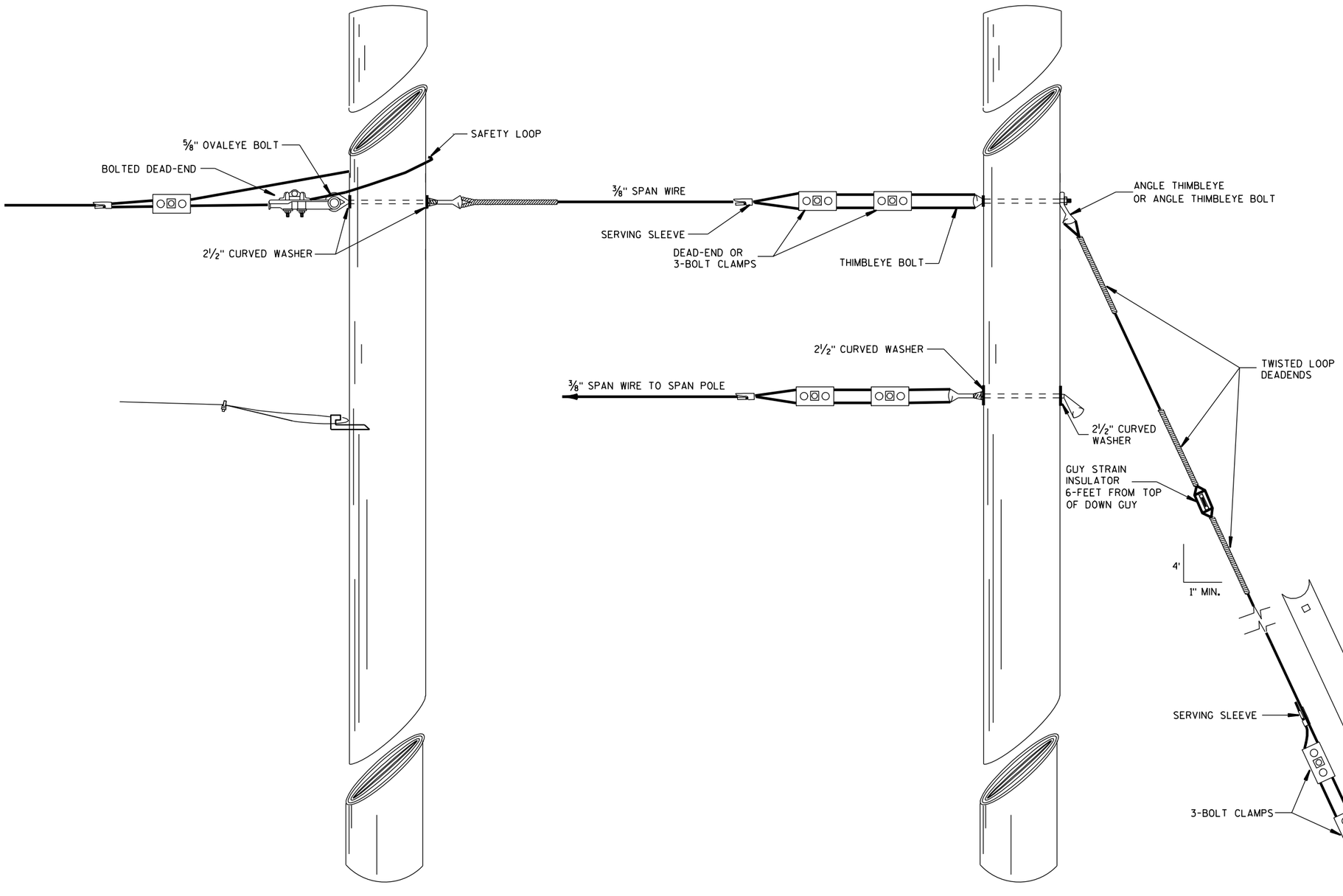
SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08
DATE
/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 343 HWYS
FHWA

GENERAL NOTES

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



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

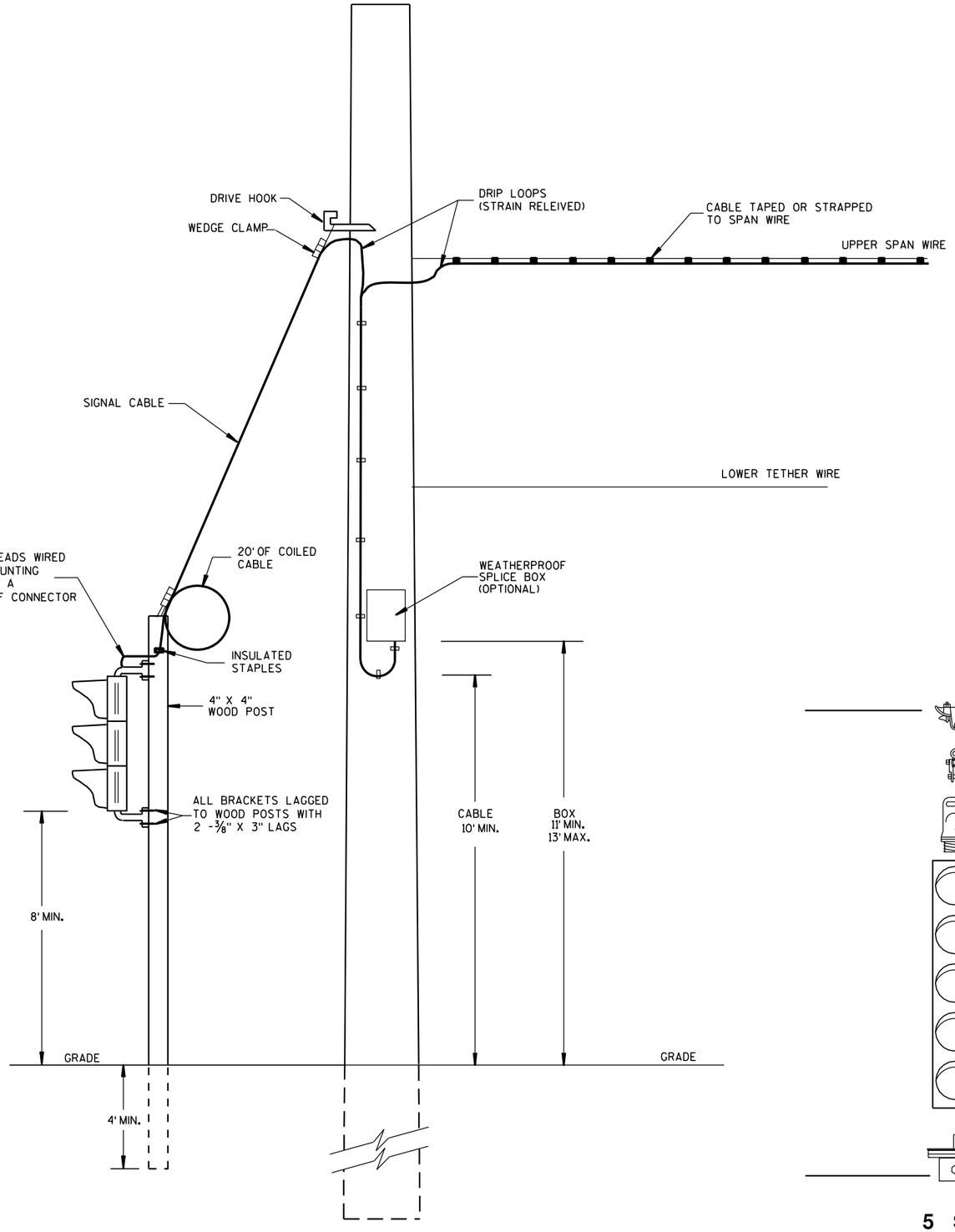
APPROVED
7-14-08 DATE
/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI HWYS
FHWA

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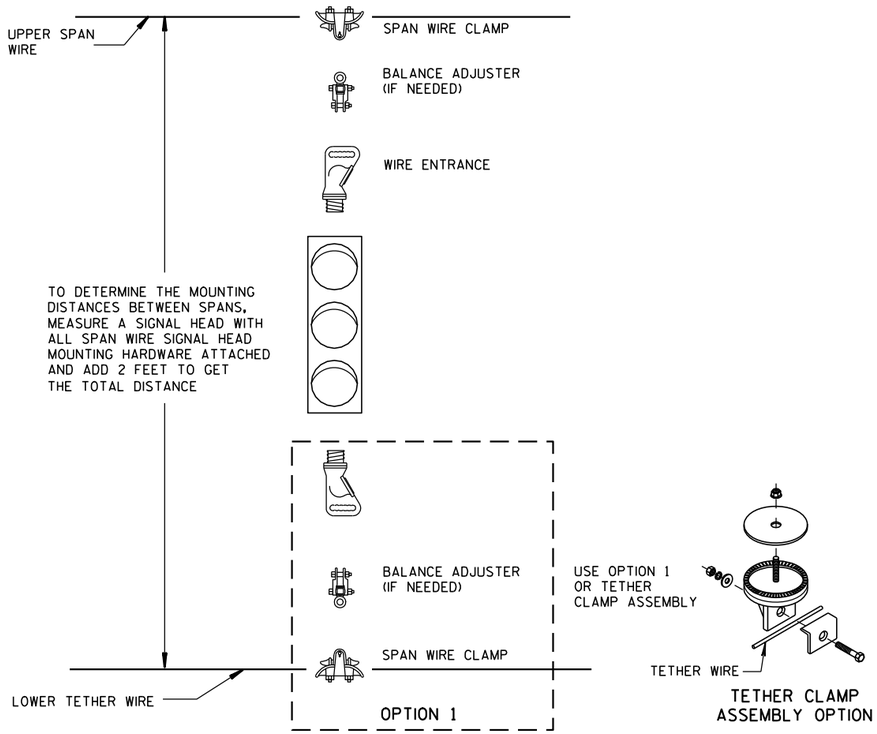
S.D.D. 9 G 1-3e

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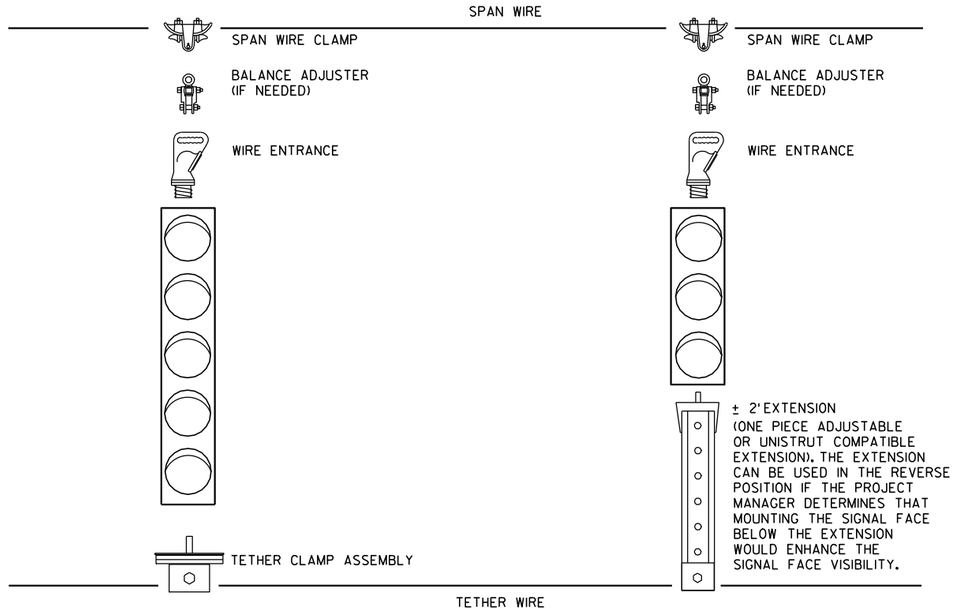
S.D.D. 9 G 1-3e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



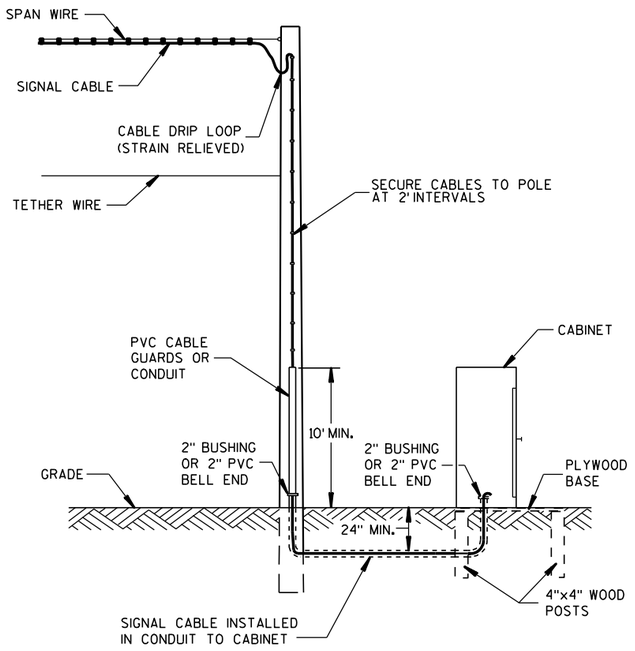
5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

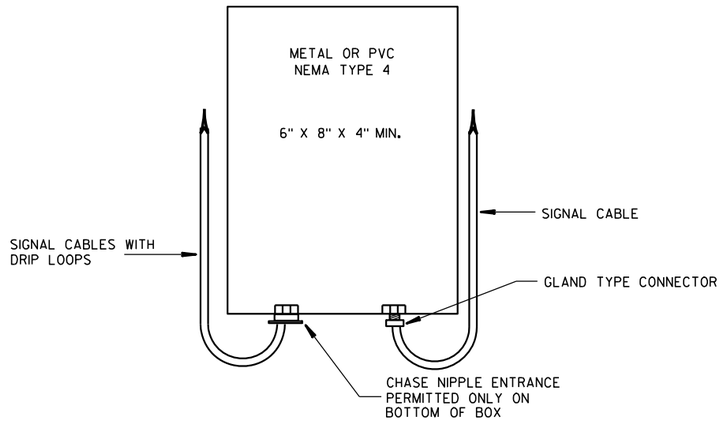
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

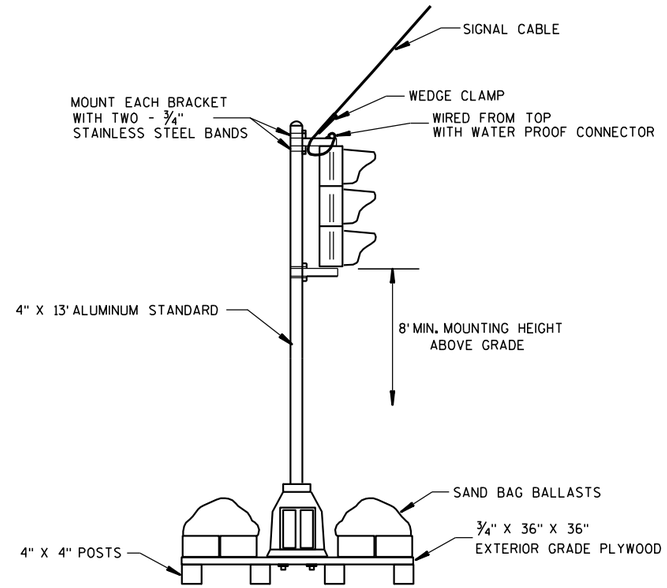
APPROVED
7-14-08 DATE
/S/ Balu Aganthangarayanan
STATE ELECTRICAL ENGI 345 HWYS
FHWA

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S.D.D. 9 G 1-3f

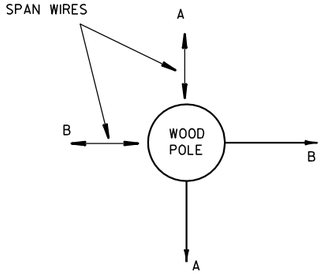




SPLICE BOX

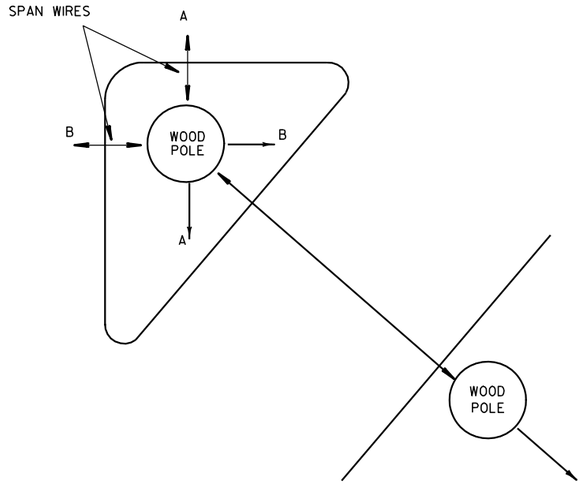


TYPICAL SKID TYPE TEMPORARY

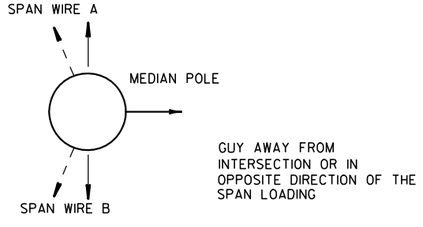


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

HWYS

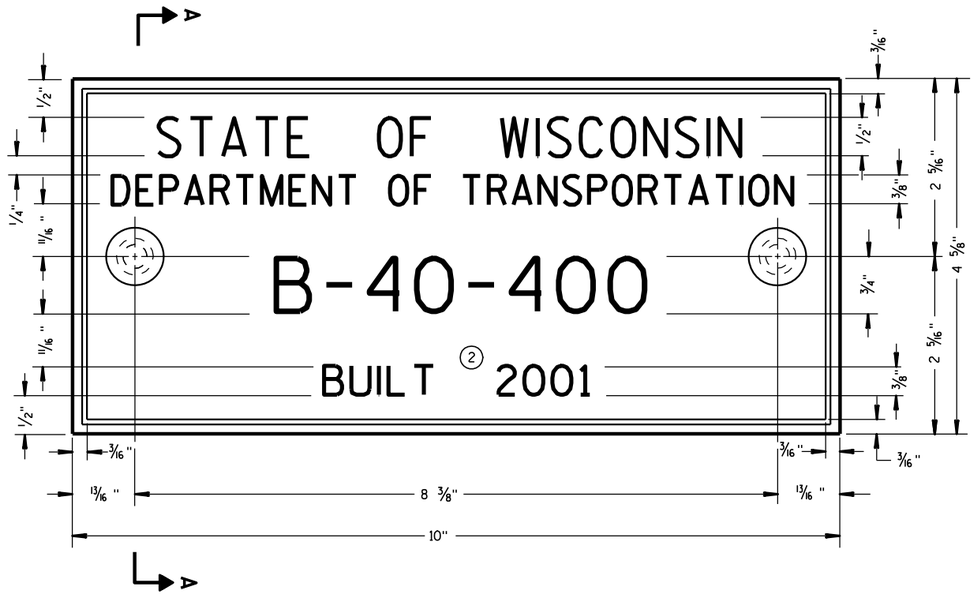
FHWA

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S.D.D. 9 G 1-3g

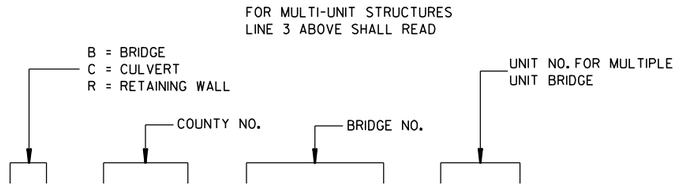
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S.D.D. 9 G 1-3g



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

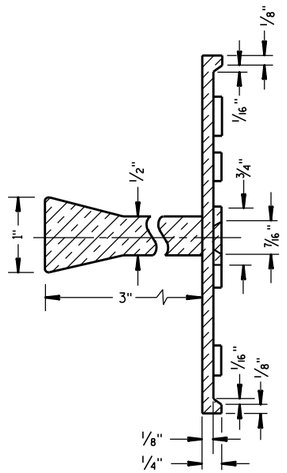
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

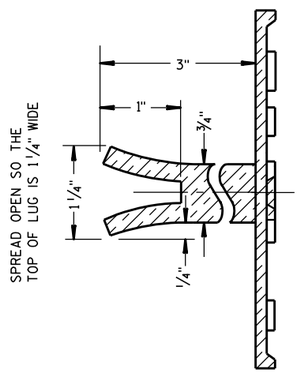
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

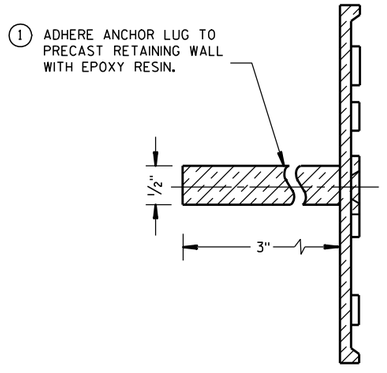
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

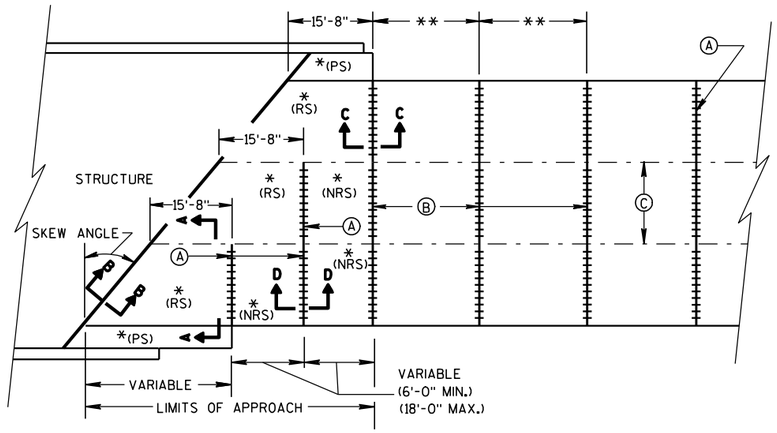
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

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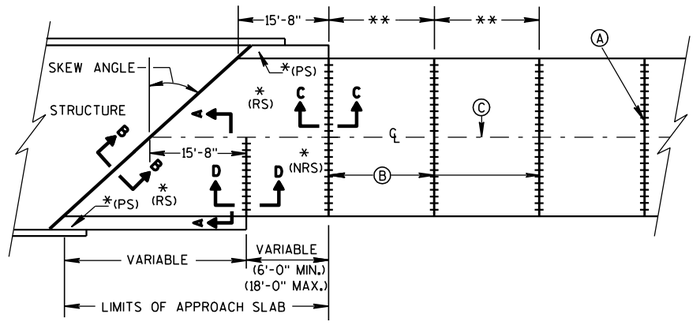
S.D.D. 12 A 3-10

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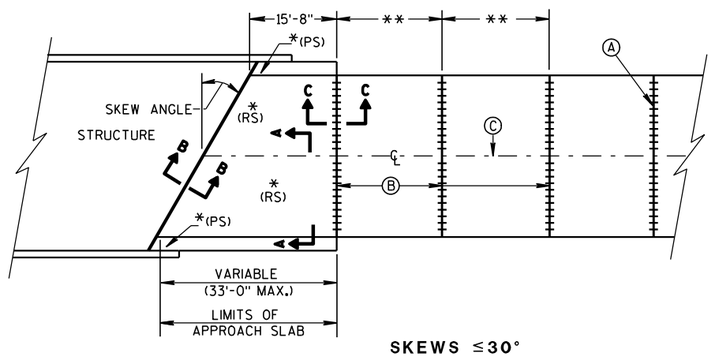
S.D.D. 12 A 3-10



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



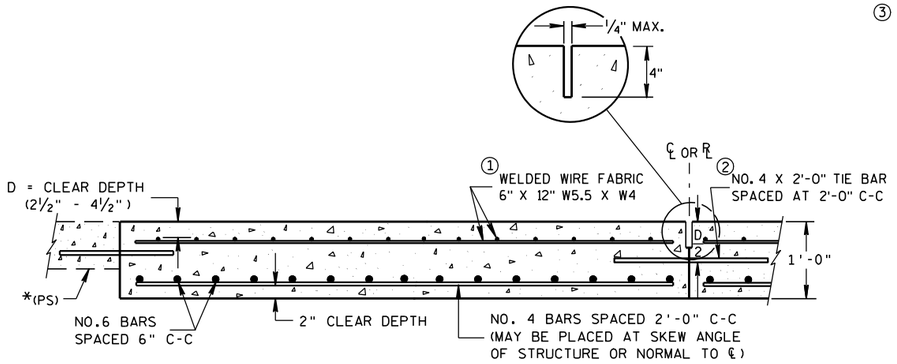
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

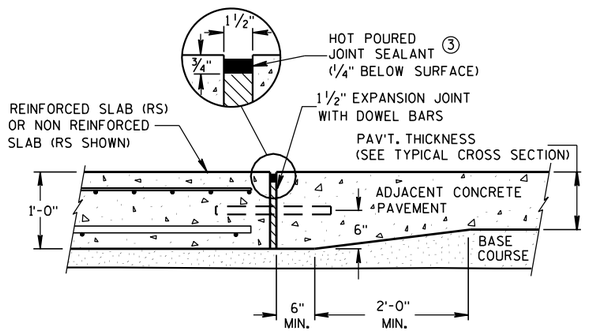
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

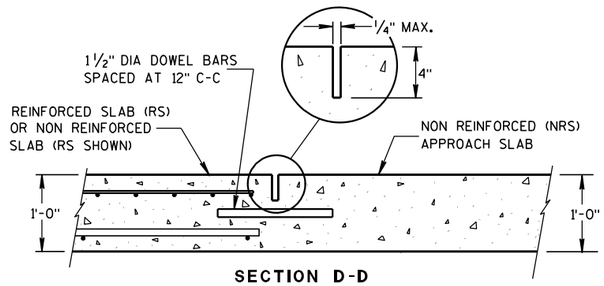
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

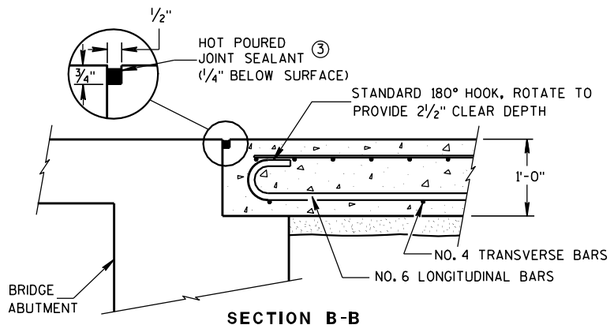
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

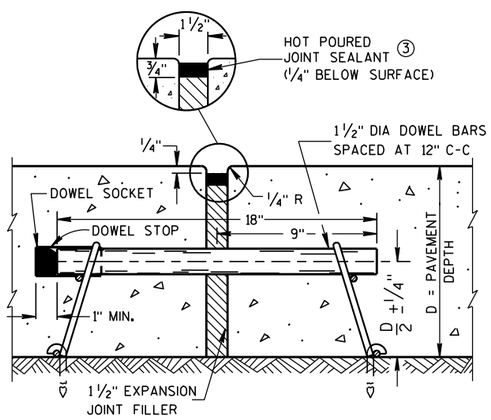
(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT

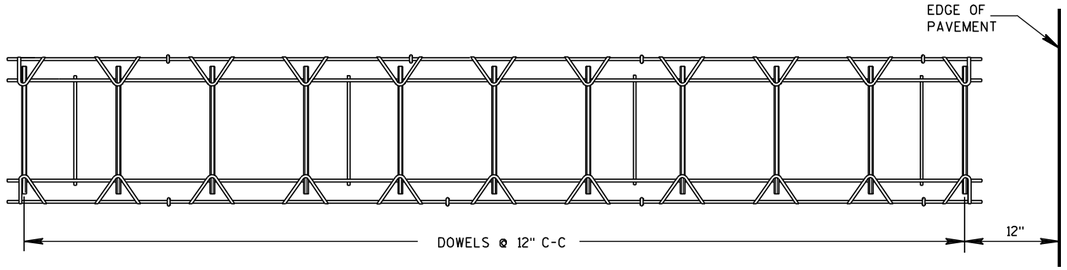


EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/11/2009 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE 348 — NEER
FHWA

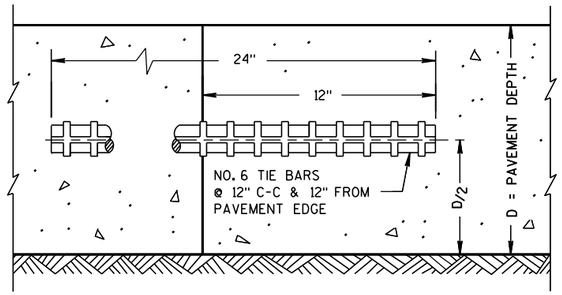


PLAN VIEW



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.

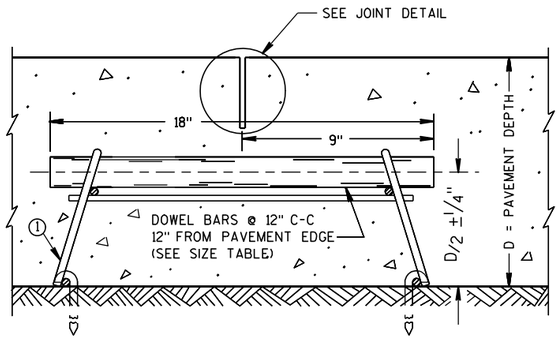
④ SPACE DOWEL BARS INSTALLED BY DRILLING 1'-3" ON CENTER. CENTER THE GROUPING OF DOWEL BARS INSIDE THE SLAB BASED ON ALL THE FOLLOWING SITUATIONS:

BETWEEN THE EDGES OF PAVEMENTS WITHOUT LONGITUDINAL JOINTS OR BETWEEN THE EDGE OF PAVEMENT AND NEAREST LONGITUDINAL JOINT OR BETWEEN TWO ADJACENT LONGITUDINAL JOINTS.

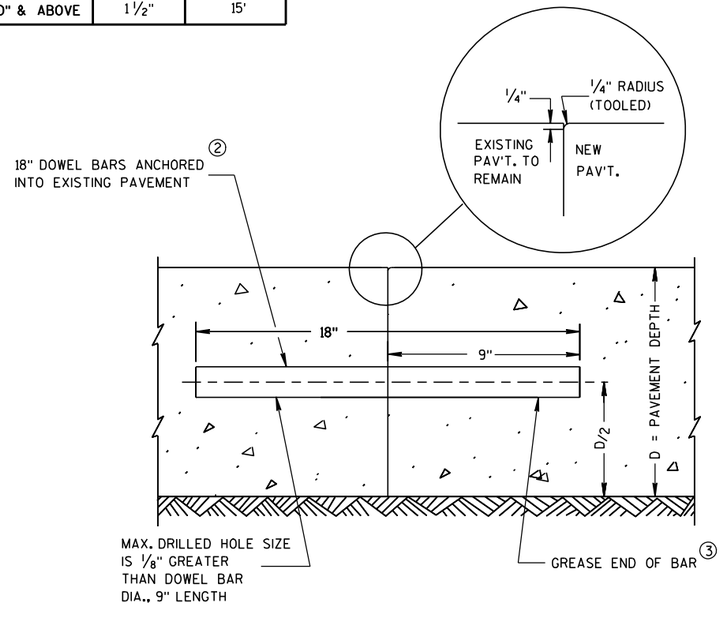
⑤ SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

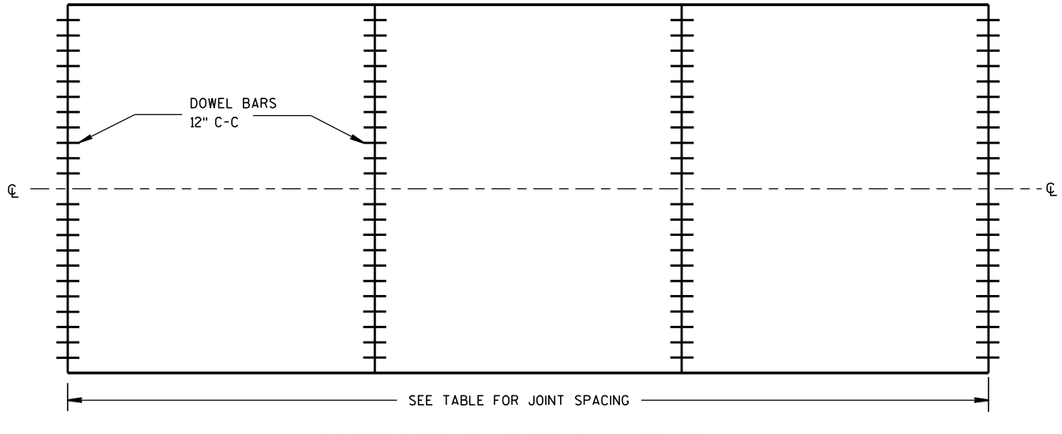


DOWELED CONTRACTION JOINT

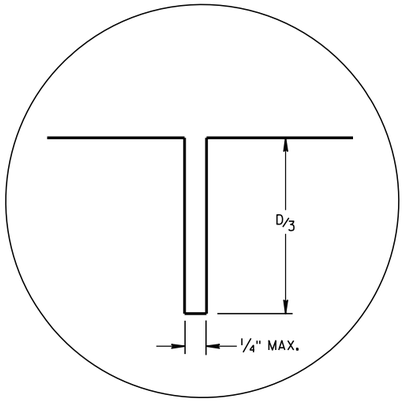


TRANSVERSE CONTRACTION JOINTS ABUTTING EXISTING PAVEMENT

④ DOWEL BAR DETAIL



CONTRACTION JOINT LOCATIONS



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

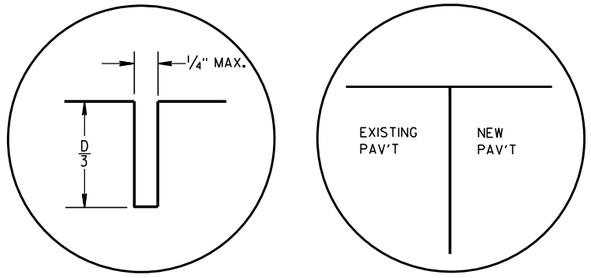
APPROVED
12/11/2009 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
NEER
FHWA

6

S.D.D. 13 C 13-7

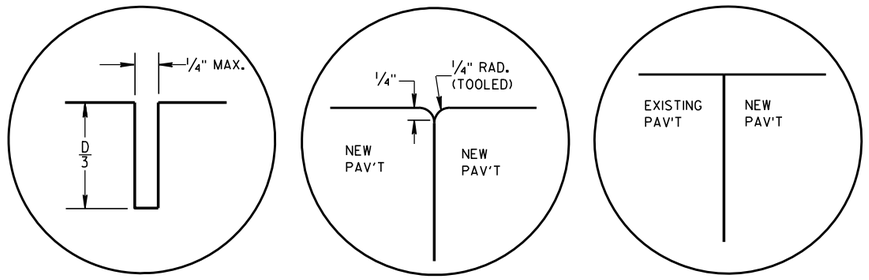
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S.D.D. 13 C 13-7



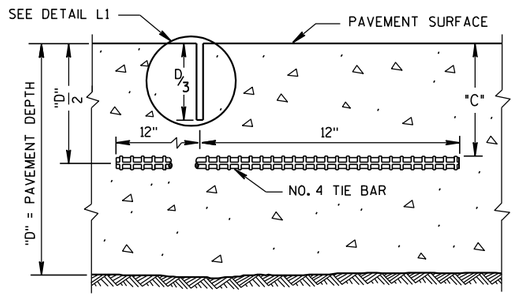
C1 C2

TRANSVERSE JOINTS



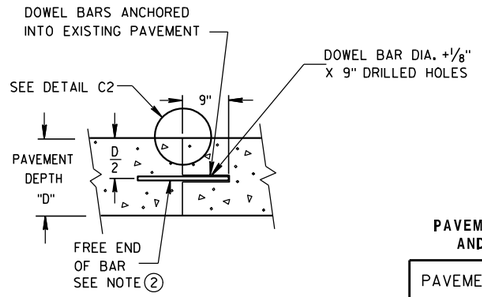
L1 L2 L3

LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

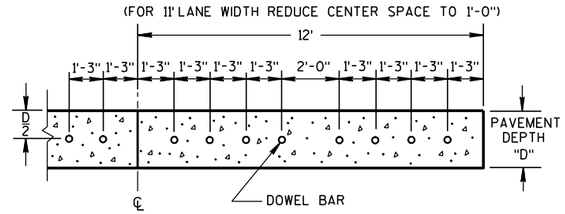
GENERAL NOTES

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

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

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



SECTION E-E

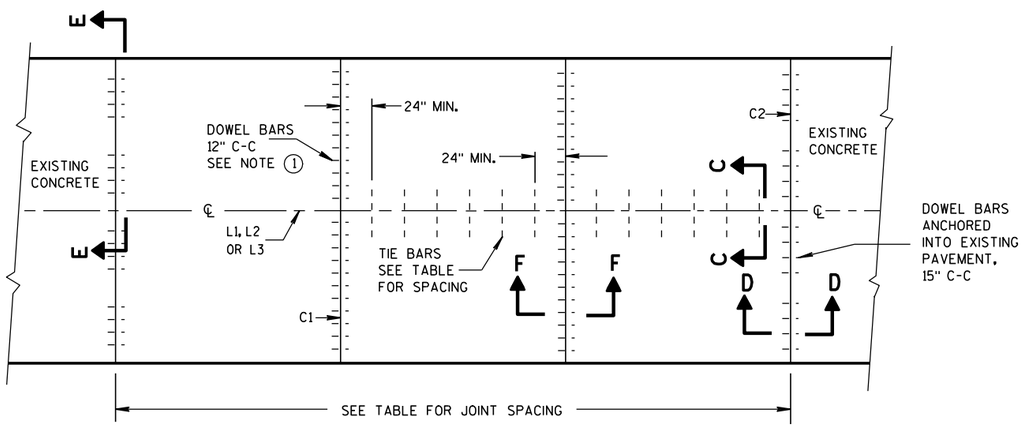
SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH "D"	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

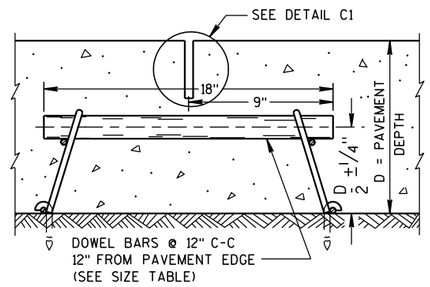
TIE BAR LOCATION TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING C-C	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 ½"	3"±½"	48"	42"
7, 7 ½"	3 ¼"±1"	45"	36"
8, 8 ½"	3 ¾"±1"	39"	30"
9, 9 ½"	4 ¼"±1"	33"	27"
10, 10 ½"	4 ¾"±1"	30"	24"
11, 11 ½"	5 ¼"±1"	27"	21"
12"	5 ¾"±1"	24"	21"



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

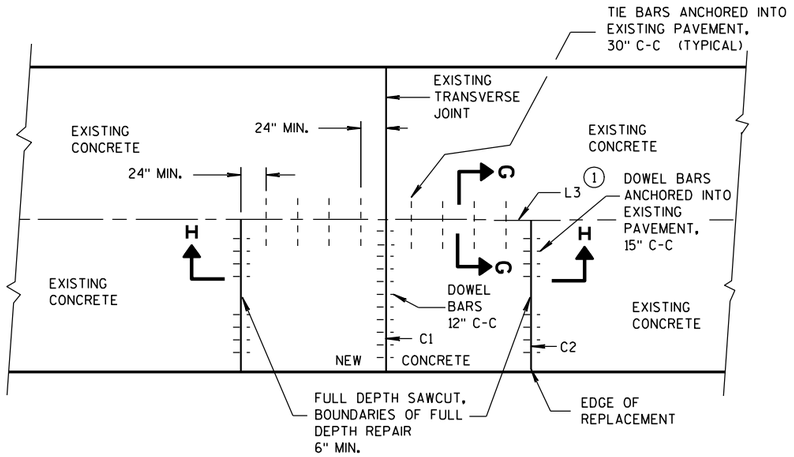
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 15-5a

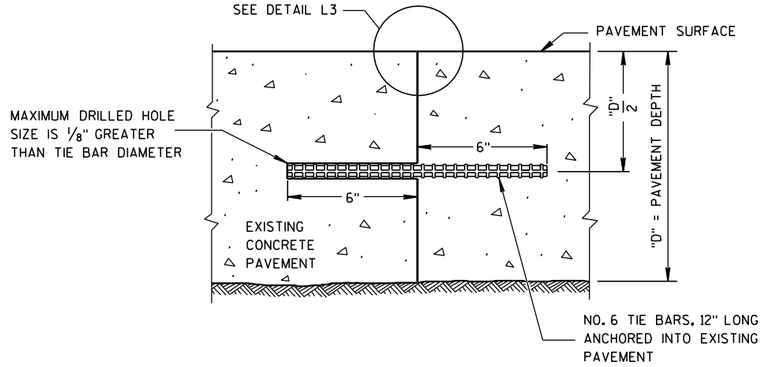
GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.



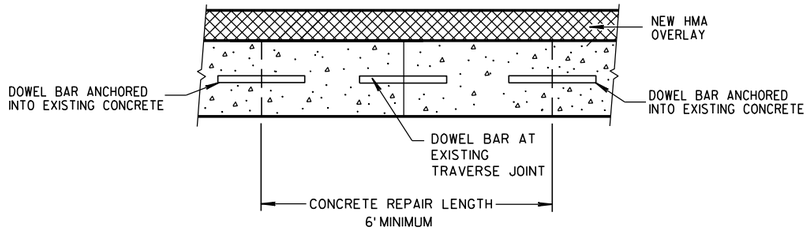
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

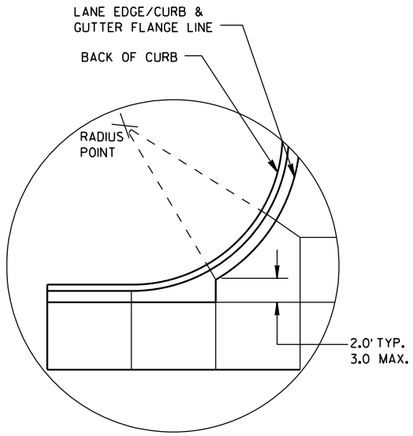
TIE BARS ANCHORED INTO EXISTING PAVEMENT



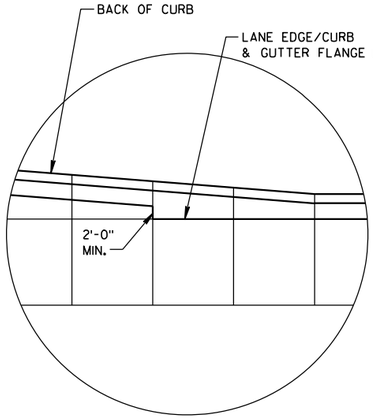
SECTION H-H

CONCRETE BASE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-11-2009 DATE FHWA	/S/ Deb Bischoff PAVEMENT POLICY & D 351 ENGINEER

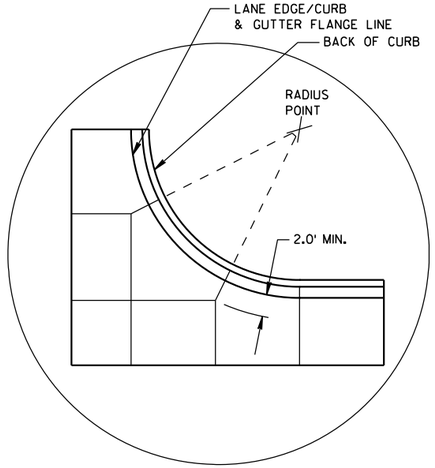
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S.D.D. 13 C 15-5b



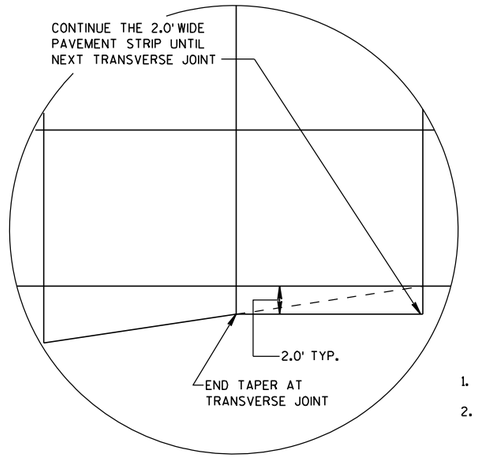
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

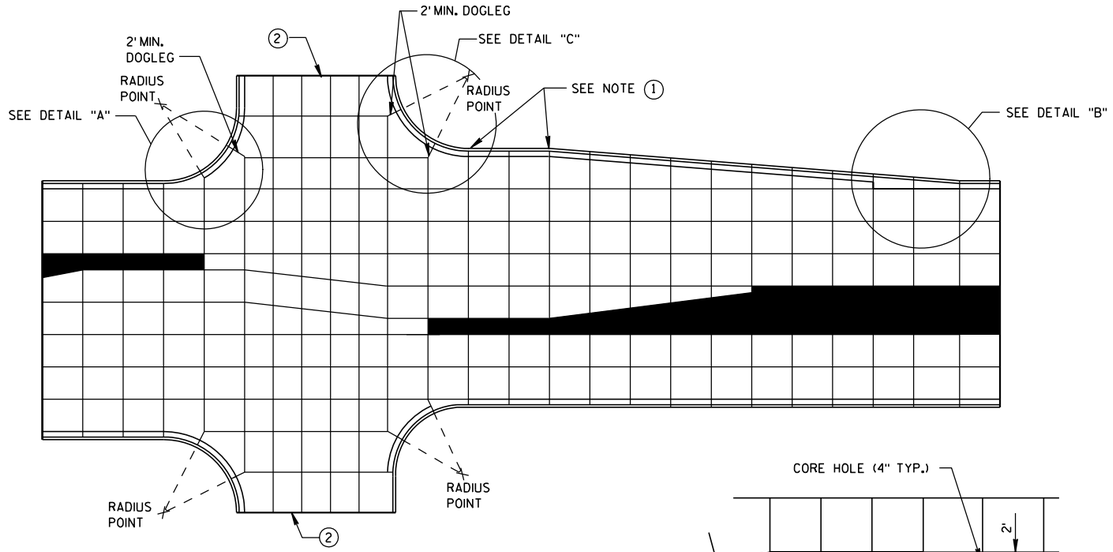
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

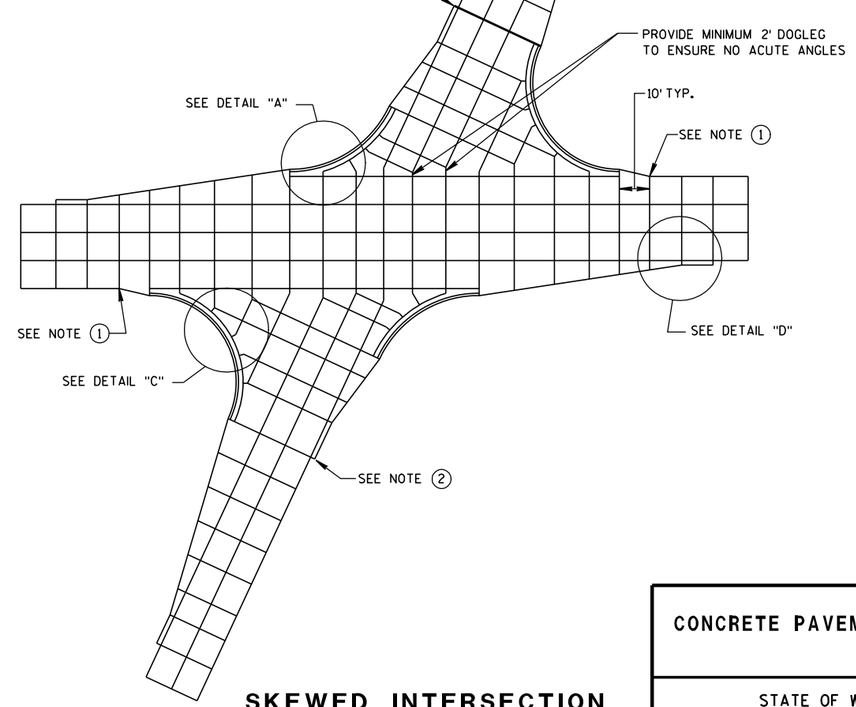
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



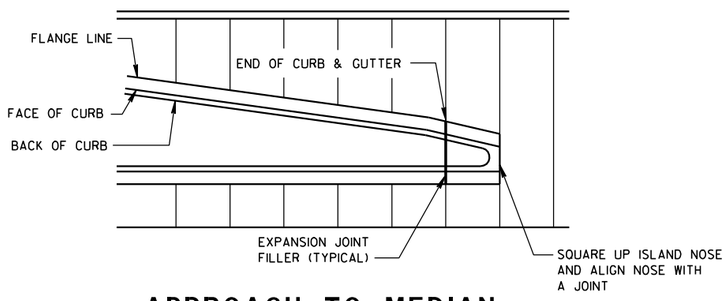
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

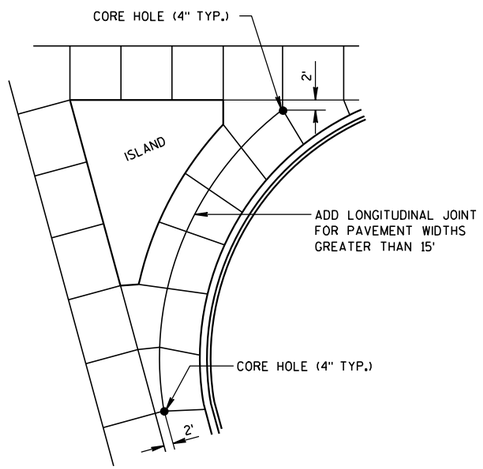
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

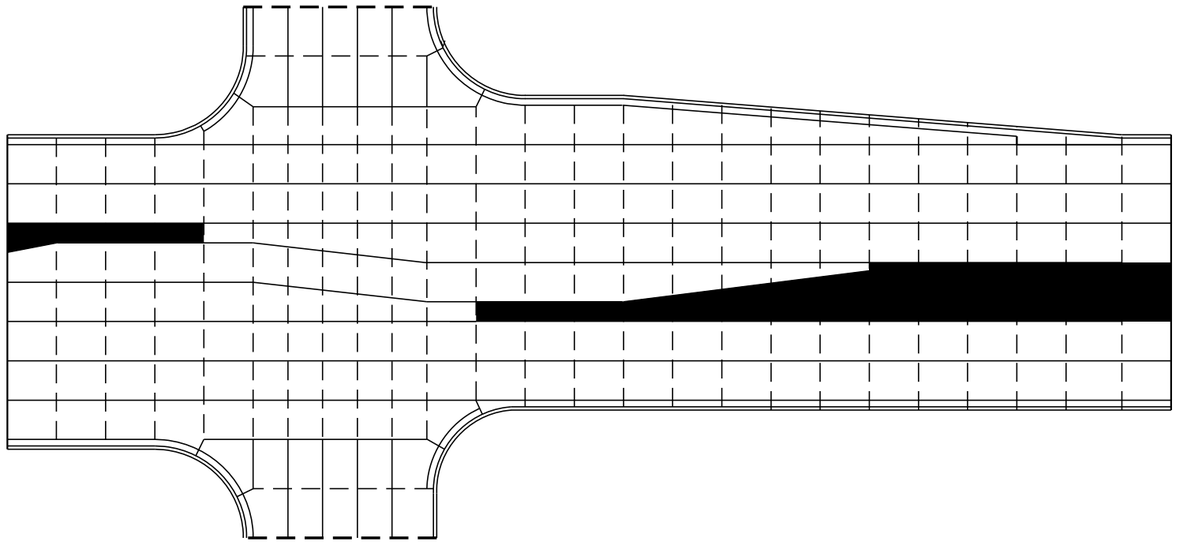
S.D.D. 13 C 18-1a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

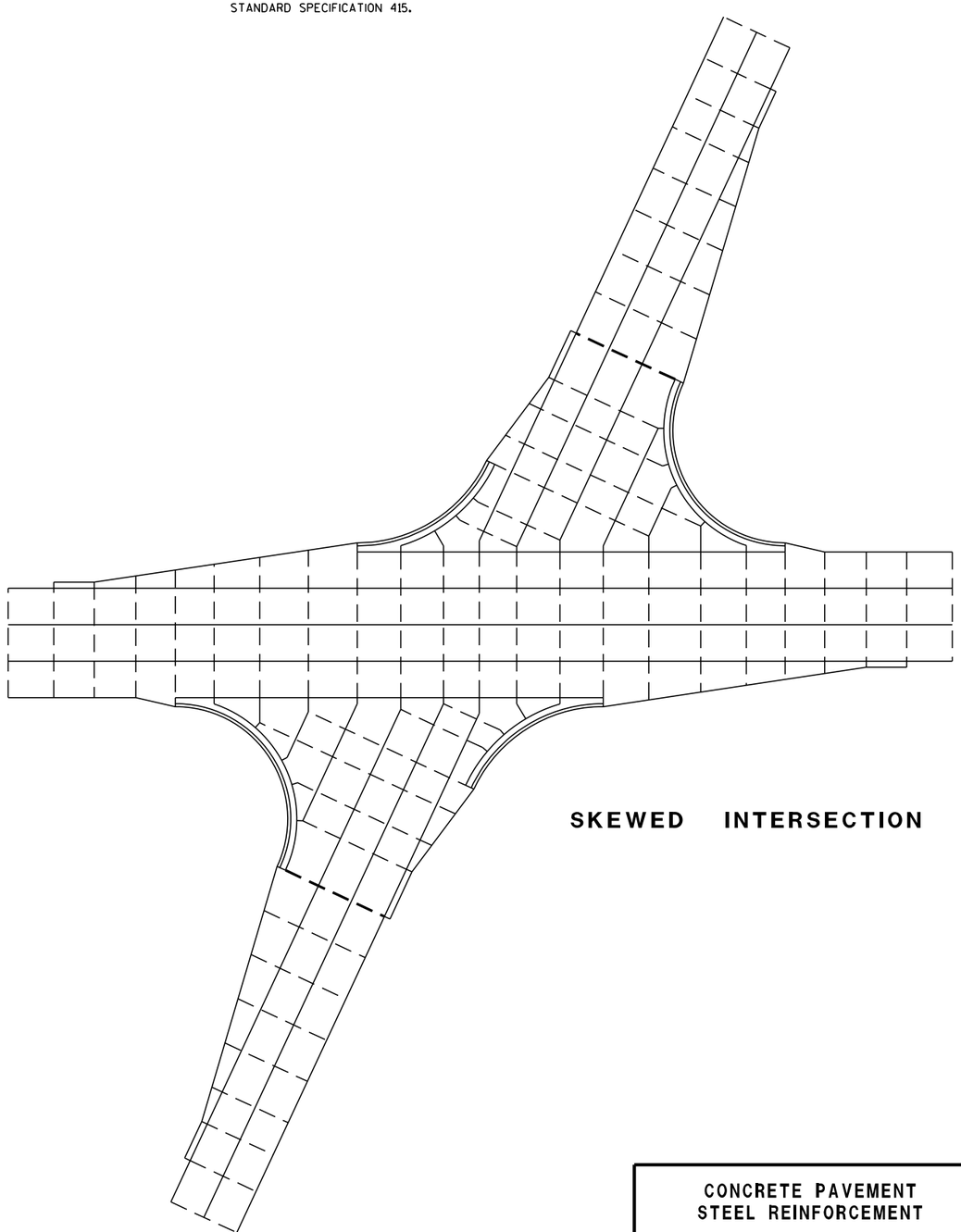
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

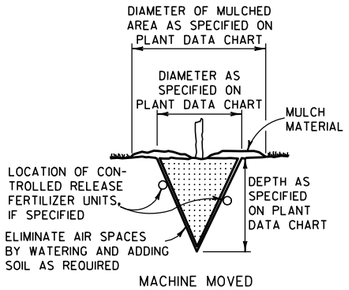
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S.D.D. 13 C 18-1b

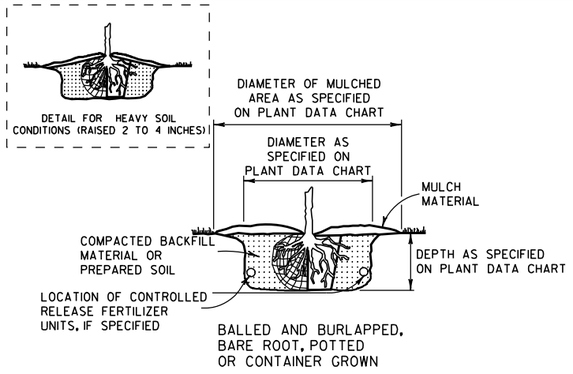
S.D.D. 13 C 18-1b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

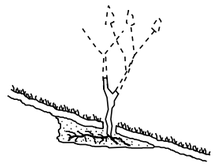
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MACHINE MOVED

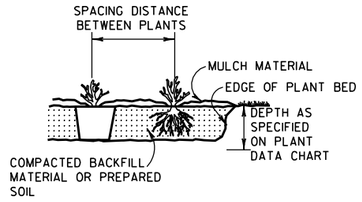


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



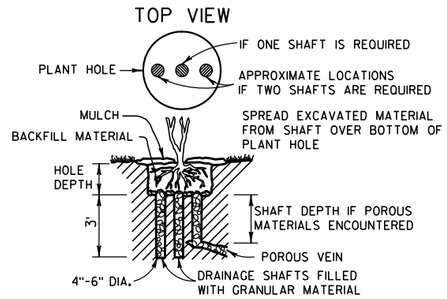
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



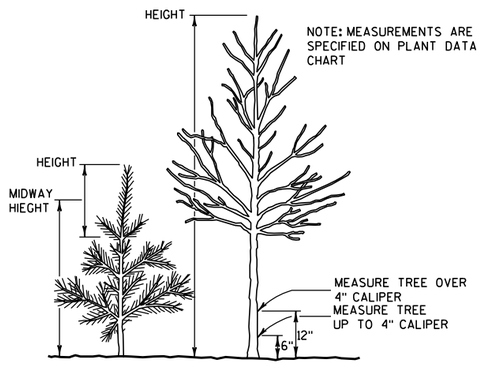
PREPARED BED (BARE ROOT AND POTTED)

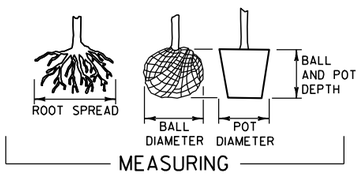
PLANTING



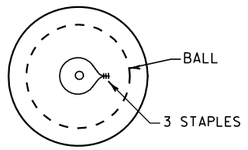
NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

DRAINING

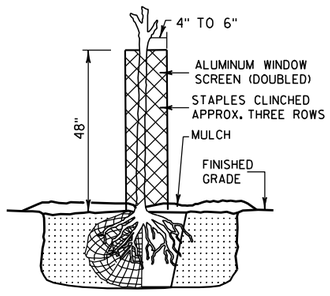




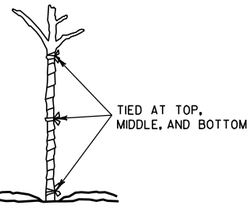
MEASURING



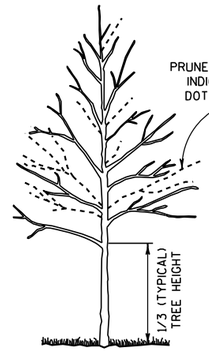
TOP VIEW



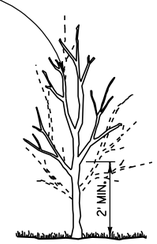
RODENT PROTECTION



WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)



MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

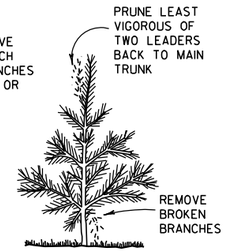
NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES



SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

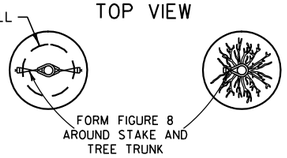


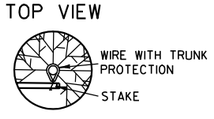
SUMAC

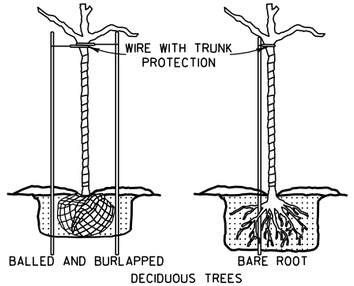


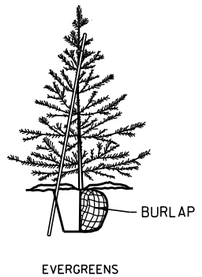
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



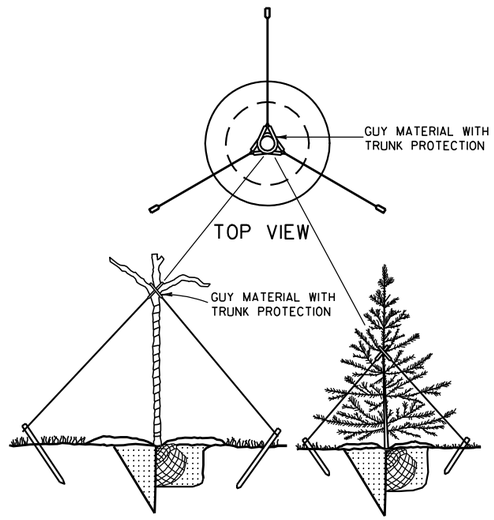






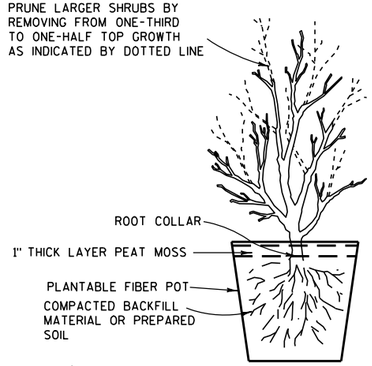
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

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

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

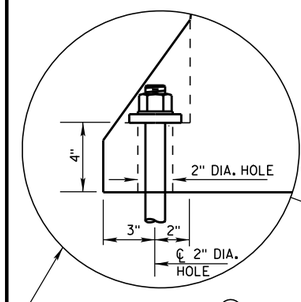
TREE PLANTING DETAIL

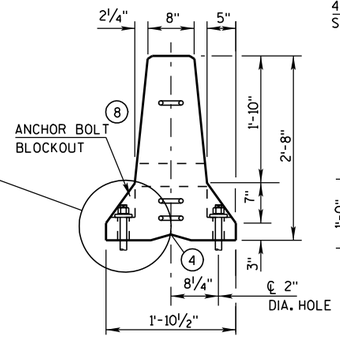
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

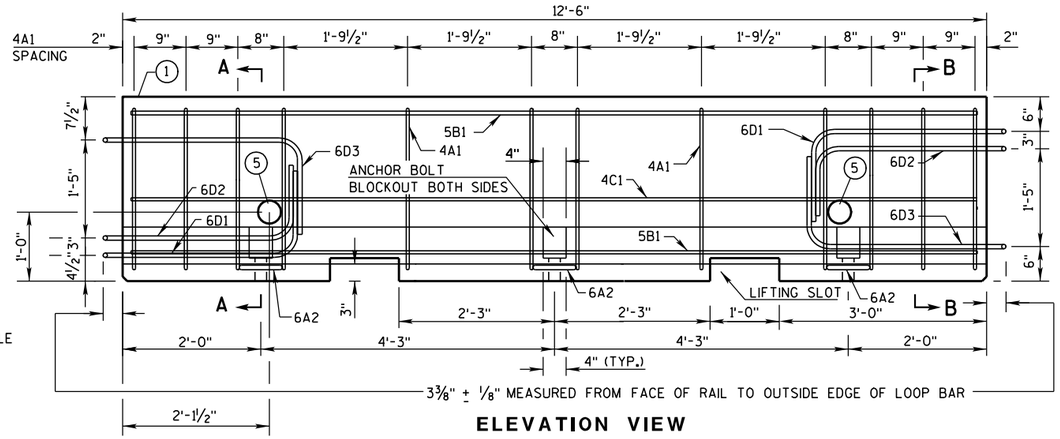
S.D.D. 14 A 2-1

6

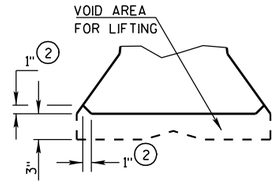




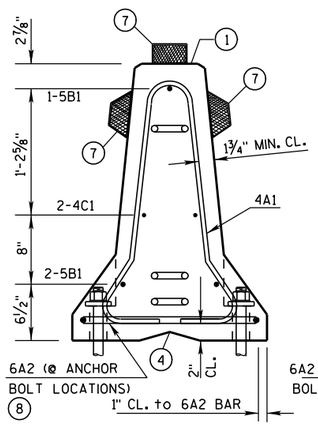
END VIEW



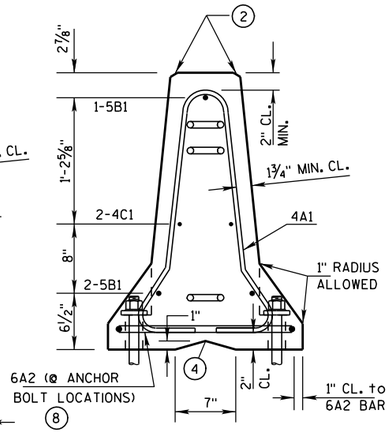
ELEVATION VIEW



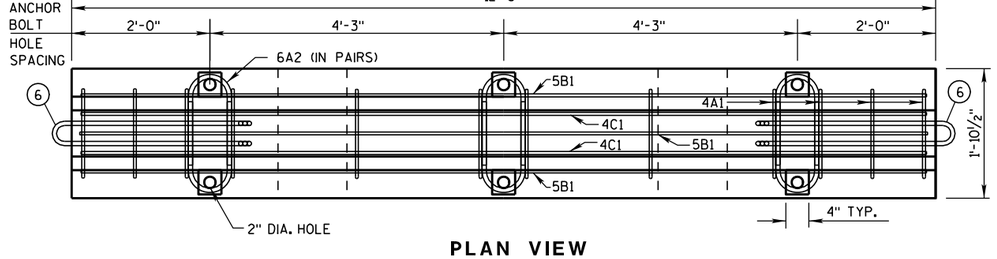
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

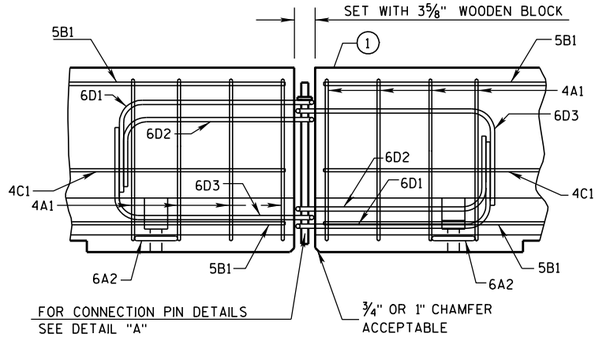


SECTION B-B
(STIRRUP PLACEMENT)

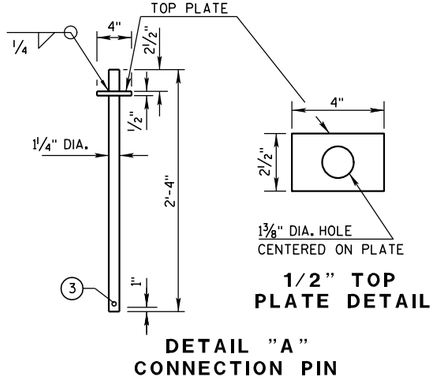


PLAN VIEW

DETAILS OF BARRIER SECTION

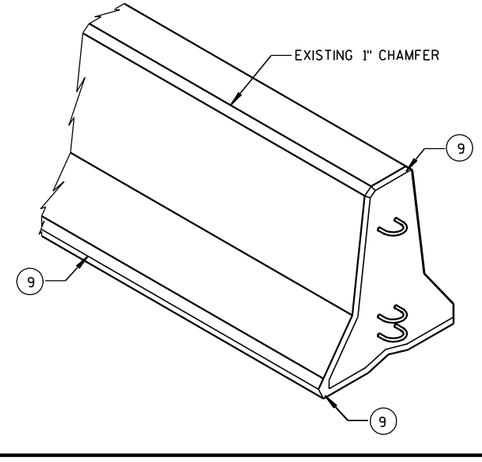


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE: WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

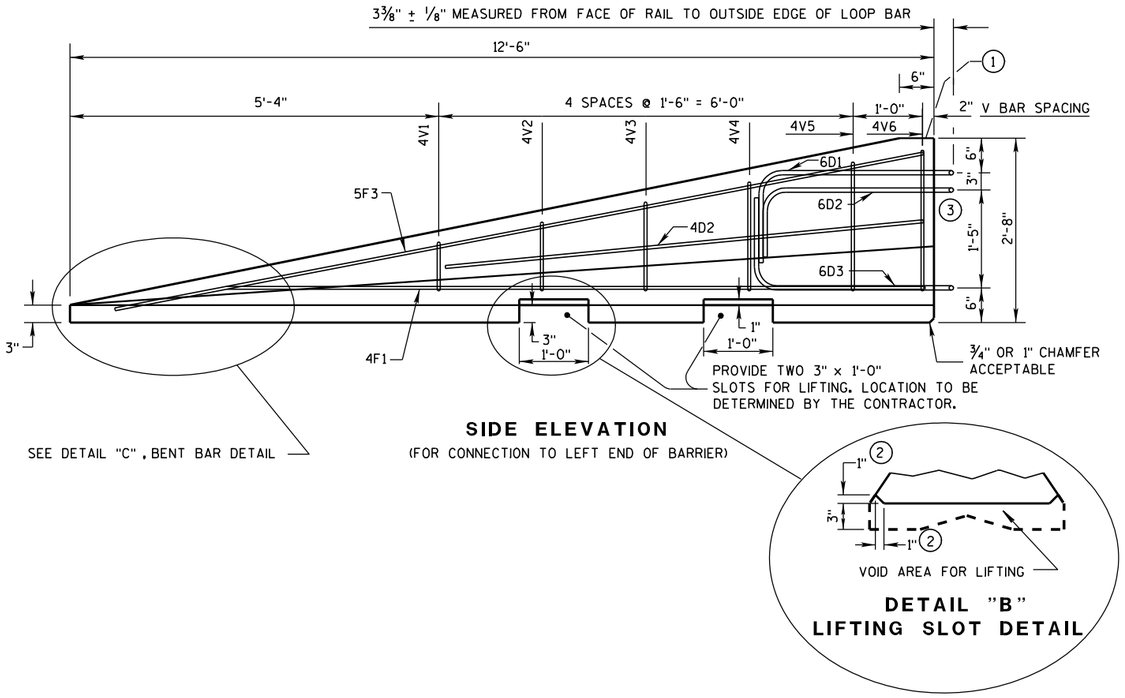
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

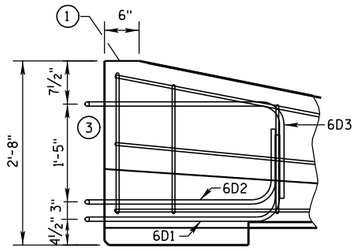
S.D.D. 14 B 7-13a



SIDE ELEVATION

(FOR CONNECTION TO LEFT END OF BARRIER)

DETAIL "B"
LIFTING SLOT DETAIL



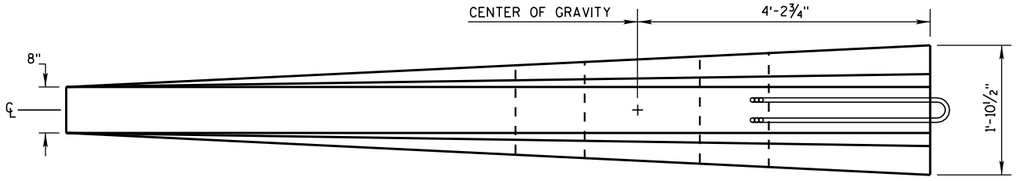
SIDE ELEVATION

LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END.

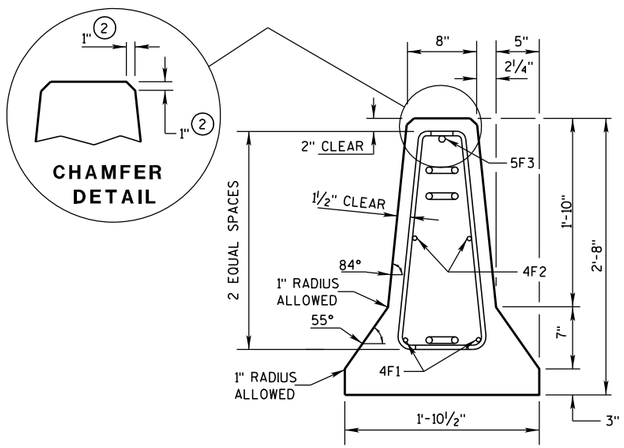
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

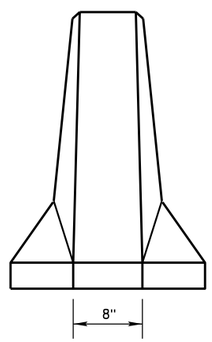
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



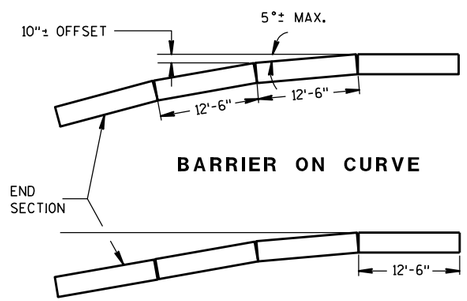
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

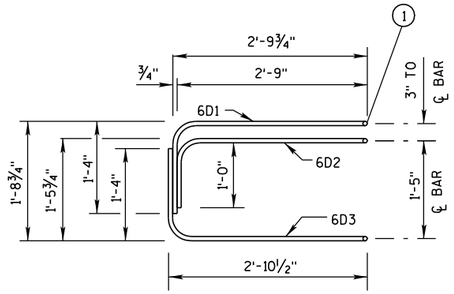
6

S.D.D. 14 B 7-13b

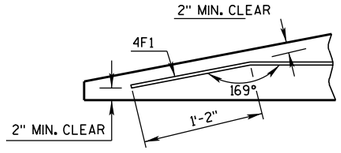
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

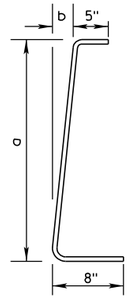
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

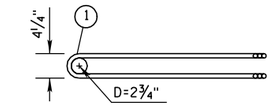
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

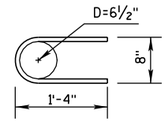
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

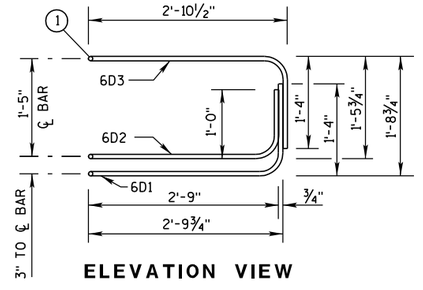
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



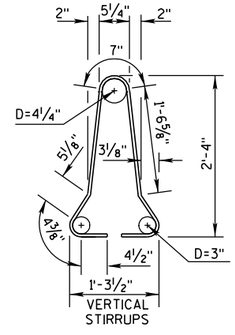
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



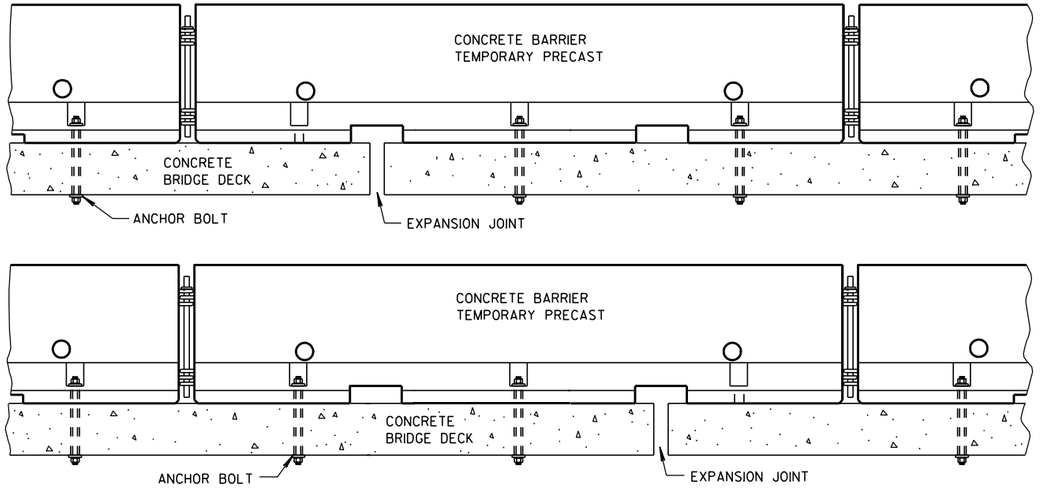
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

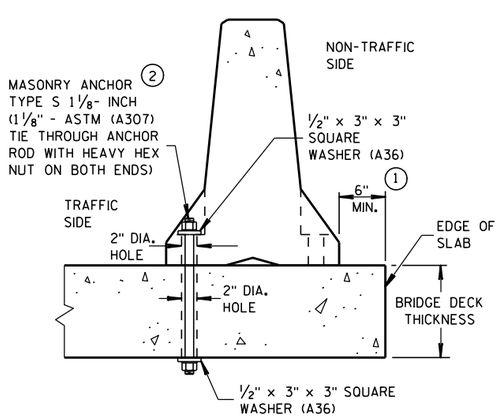
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13c



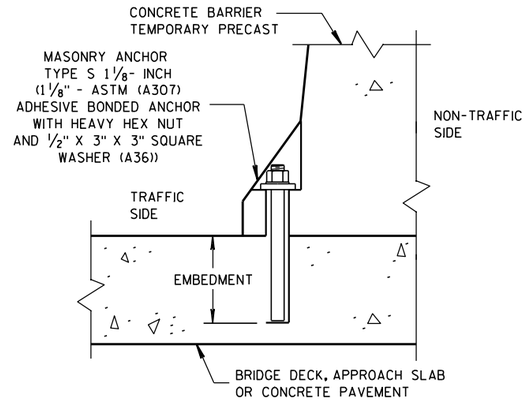
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

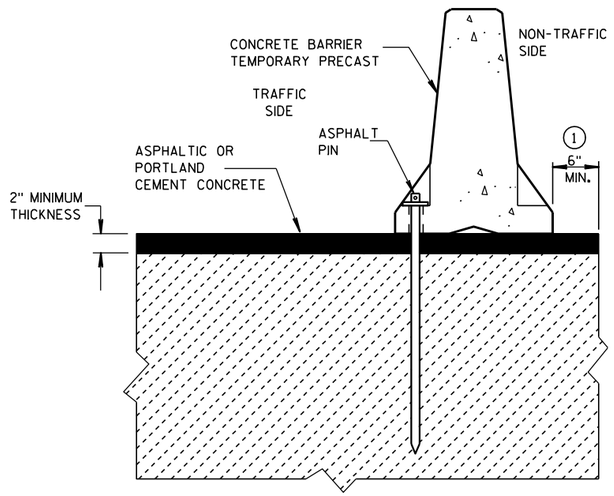
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

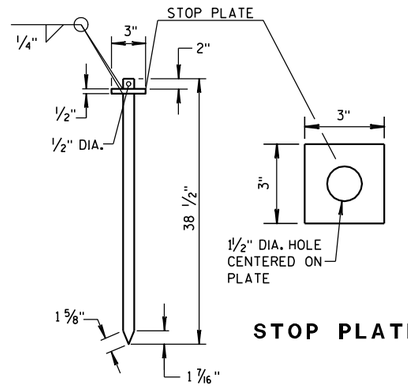
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

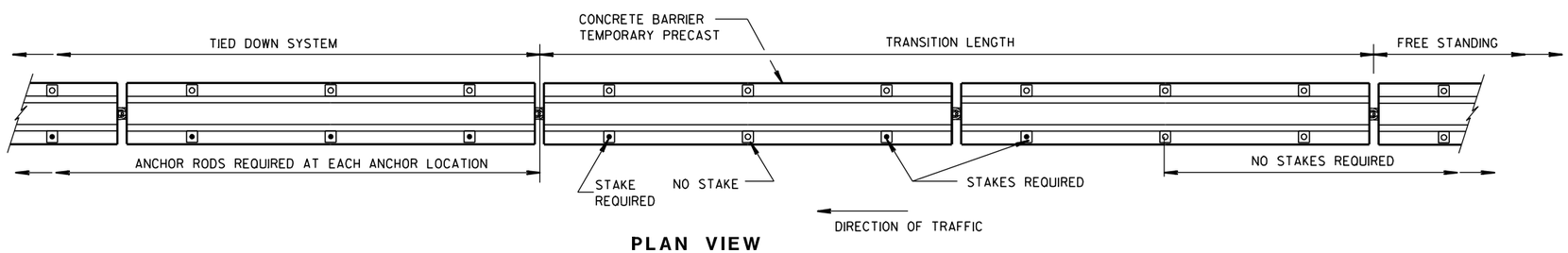
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



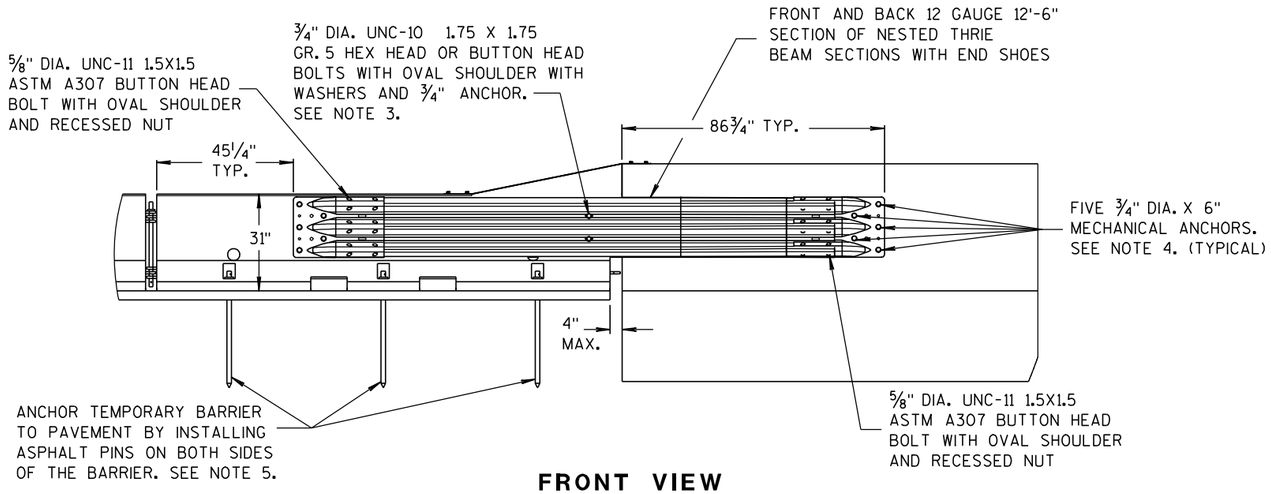
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

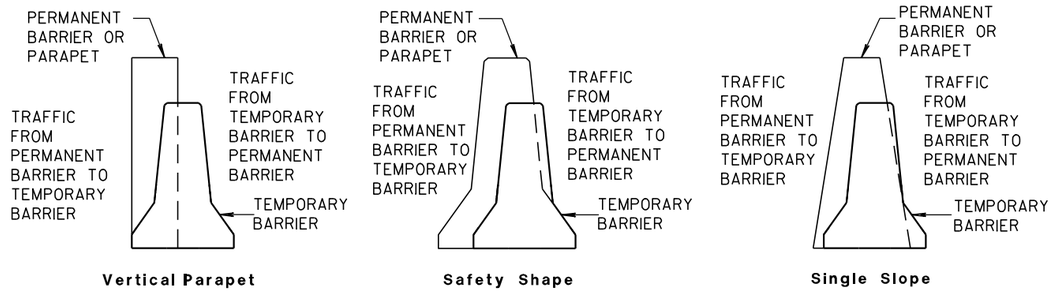
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...



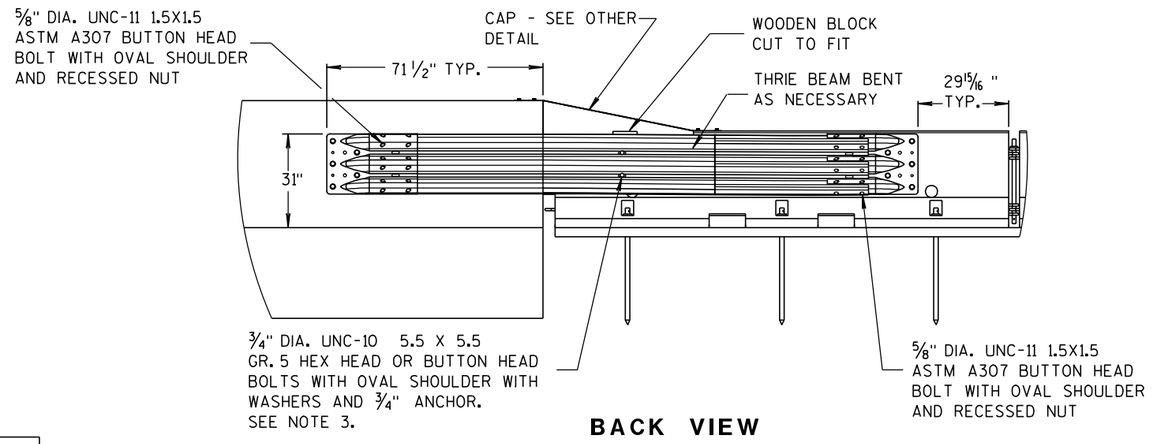
FRONT VIEW

NOTES

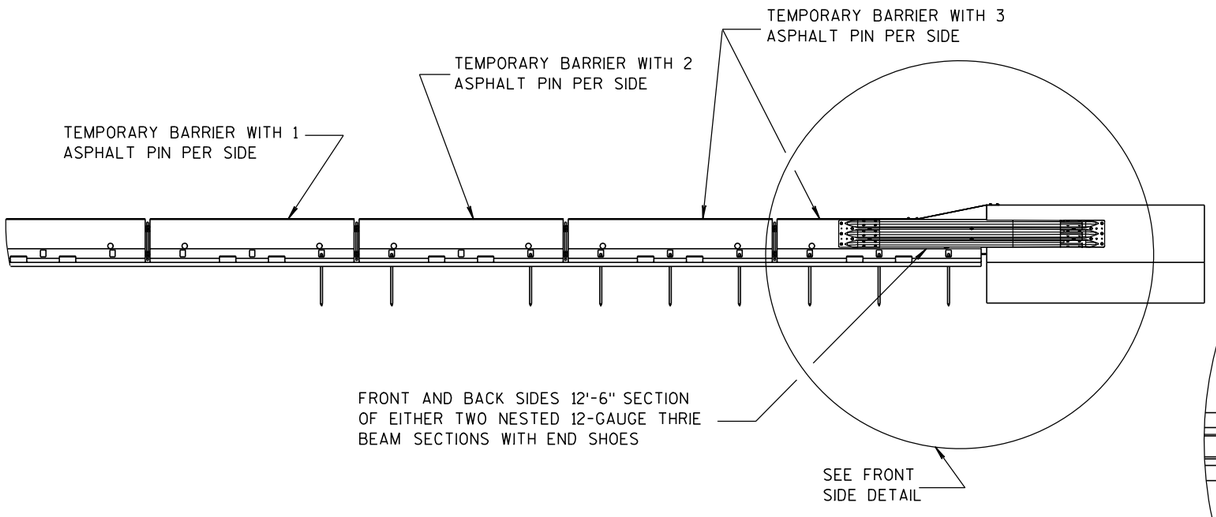
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



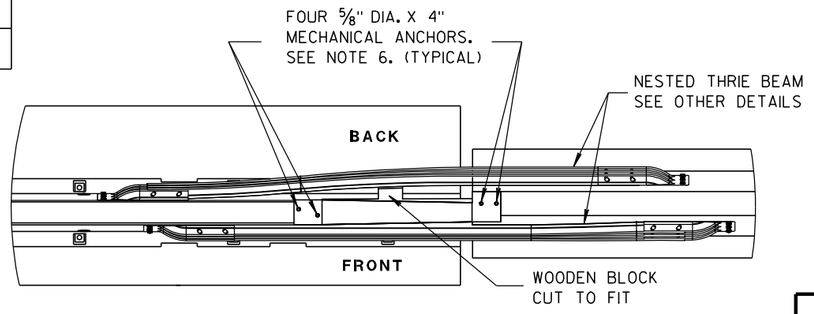
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



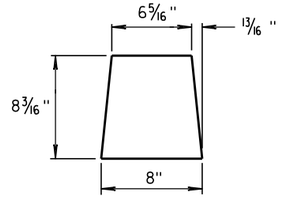
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

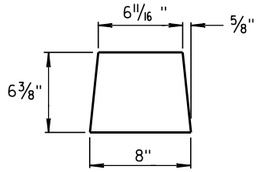
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

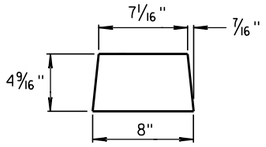
6
S.D.D. 14 B 7-13e



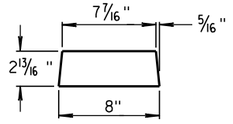
GUSSET 1



GUSSET 2

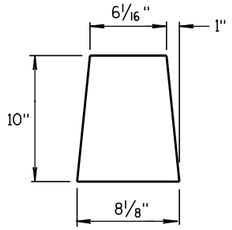


GUSSET 3

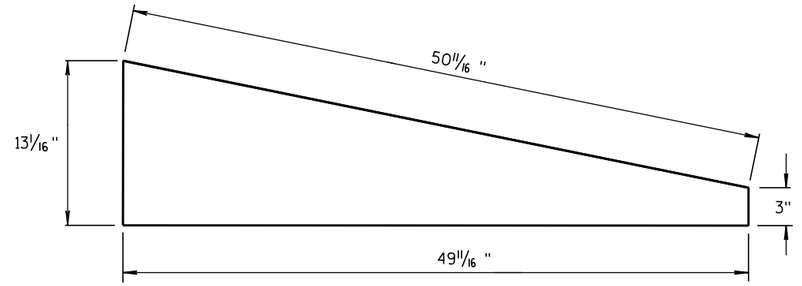


GUSSET 4

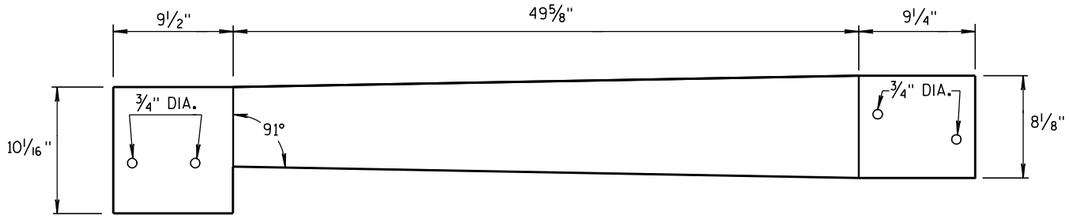
GUSSETS

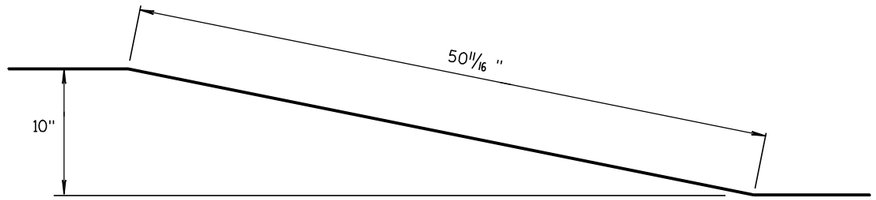


END PLATE

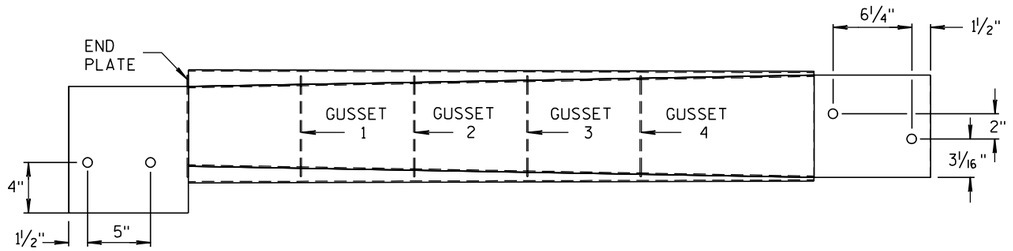


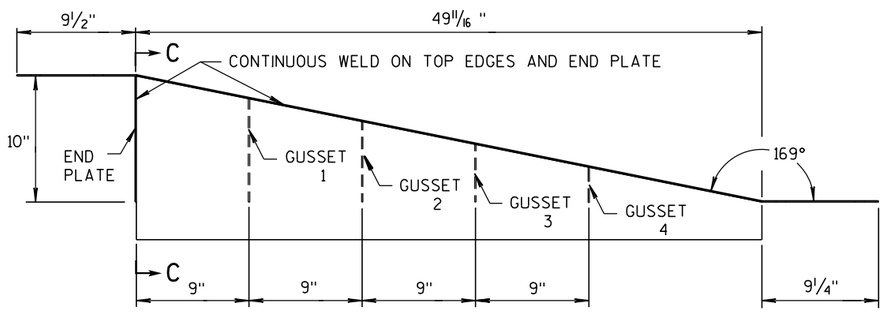
SIDE PLATE

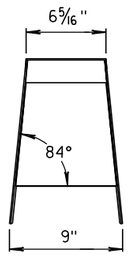




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

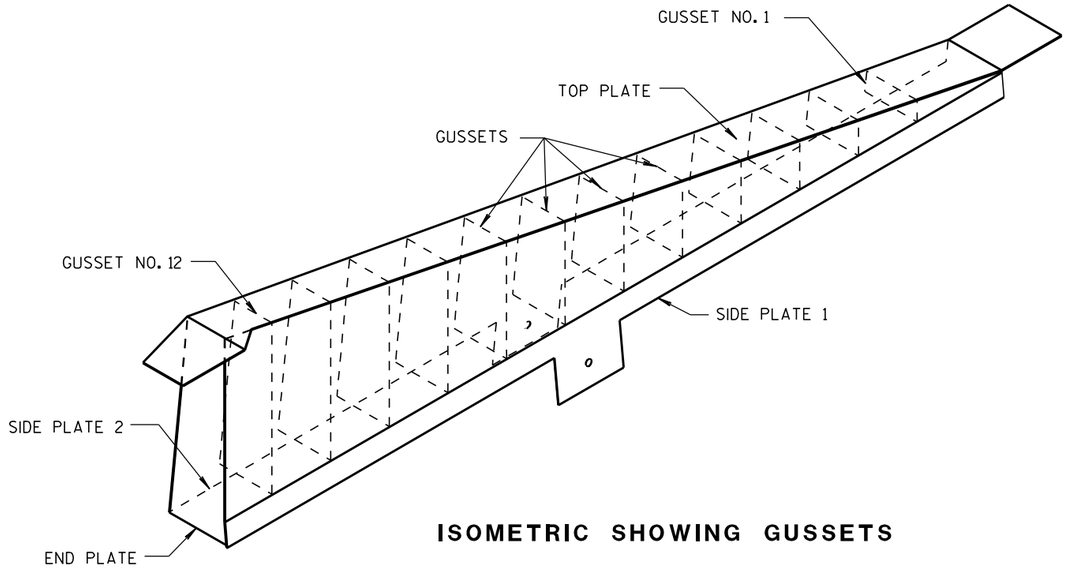
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

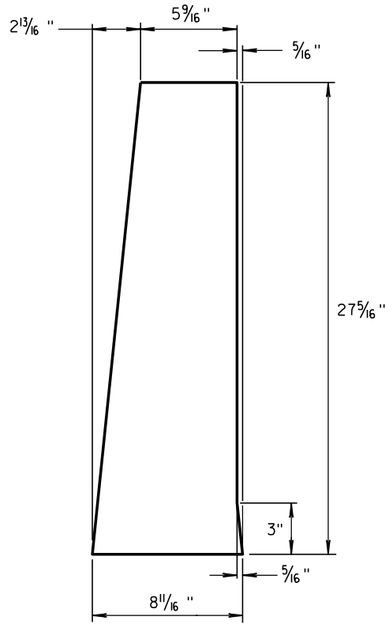
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 7-13f

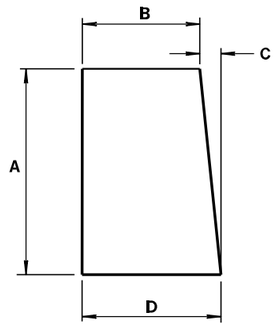


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

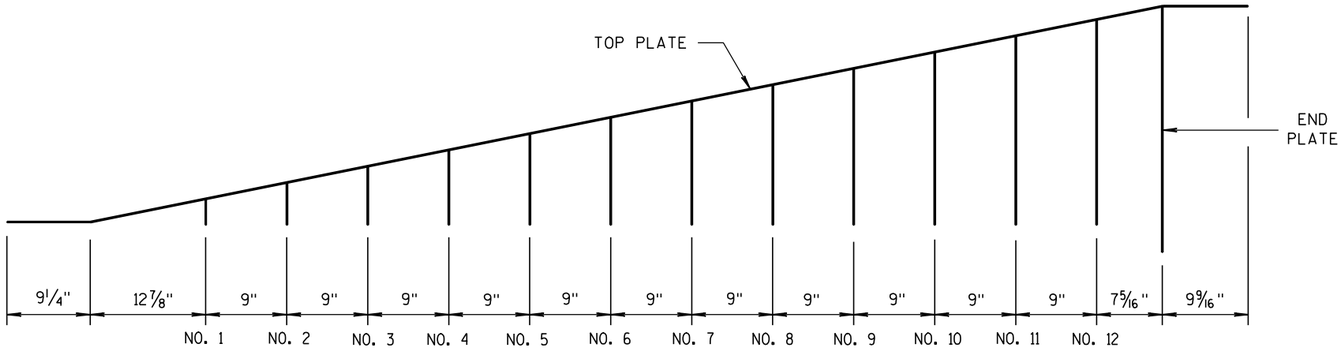
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

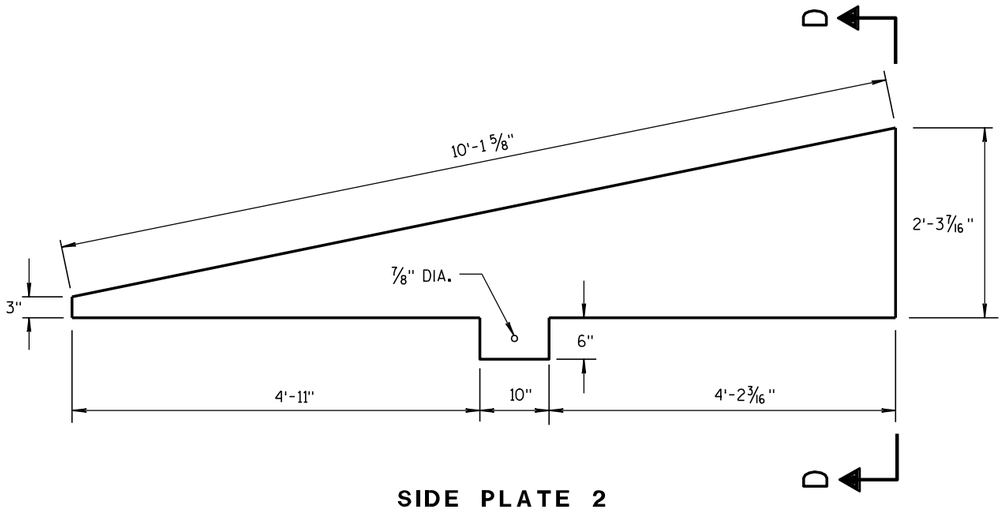
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

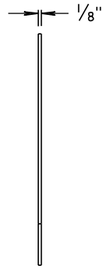
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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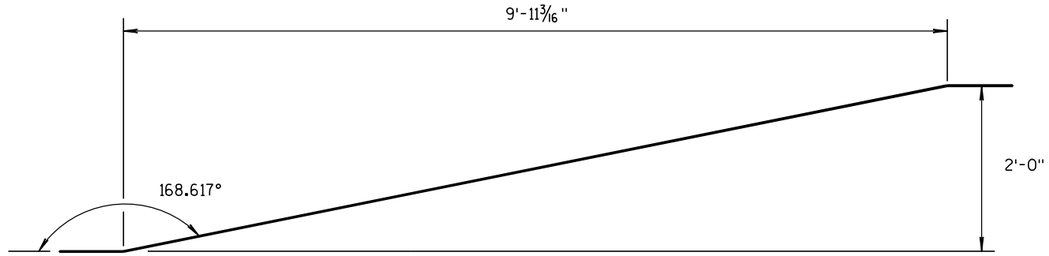
S.D.D. 14 B 7-13g



SIDE PLATE 2

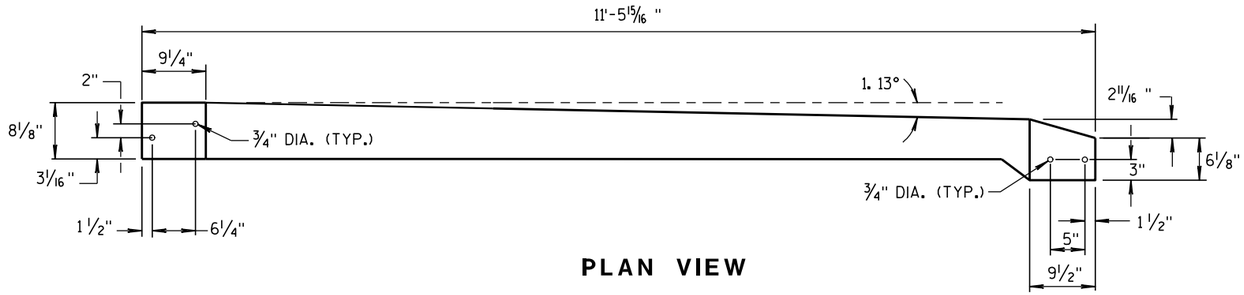


END VIEW



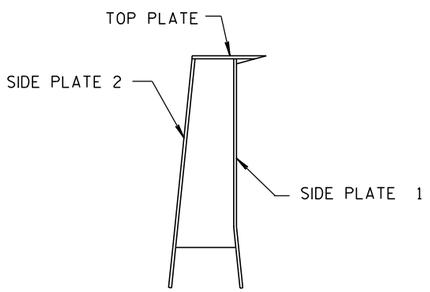
SIDE VIEW

TOP PLATE

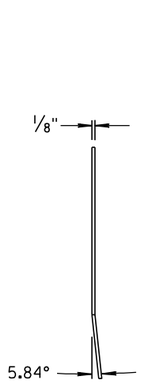


PLAN VIEW

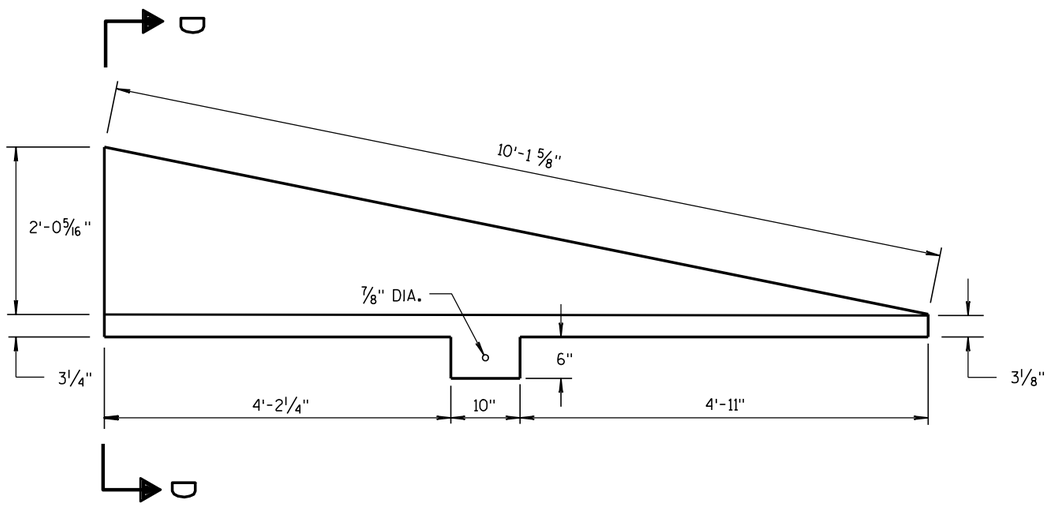
TOP PLATE



SECTION D-D



END VIEW



SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

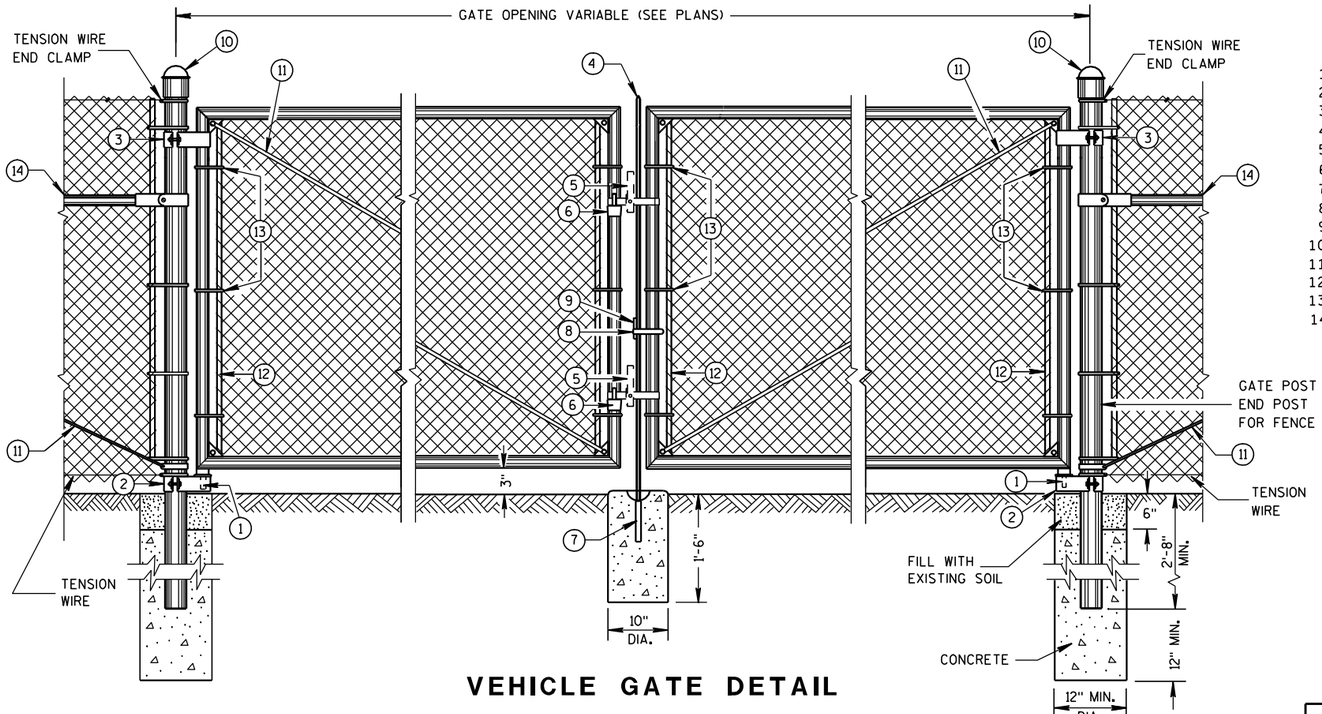
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. ---- ROADWAY STANDARDS ENGINEER
FHWA	362 ENT

6

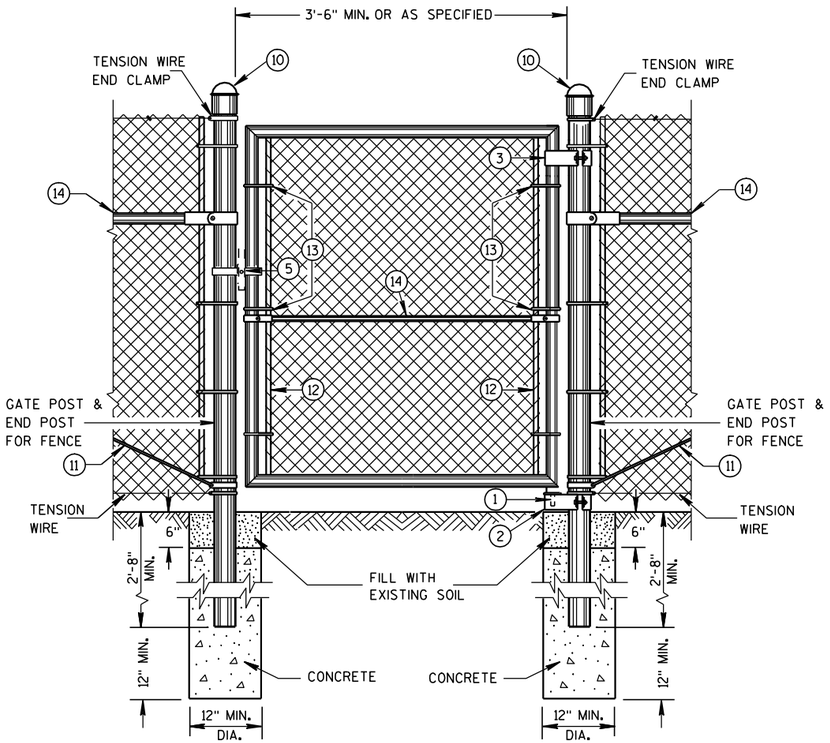
S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

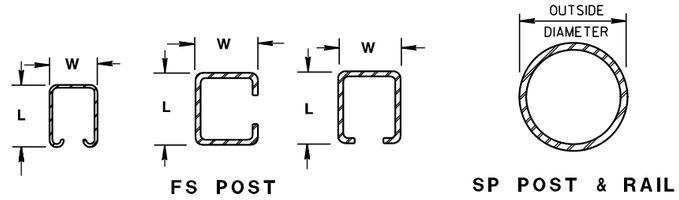
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

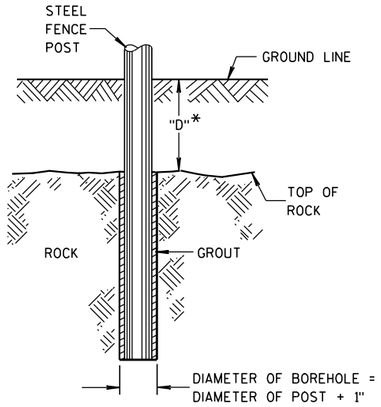
POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

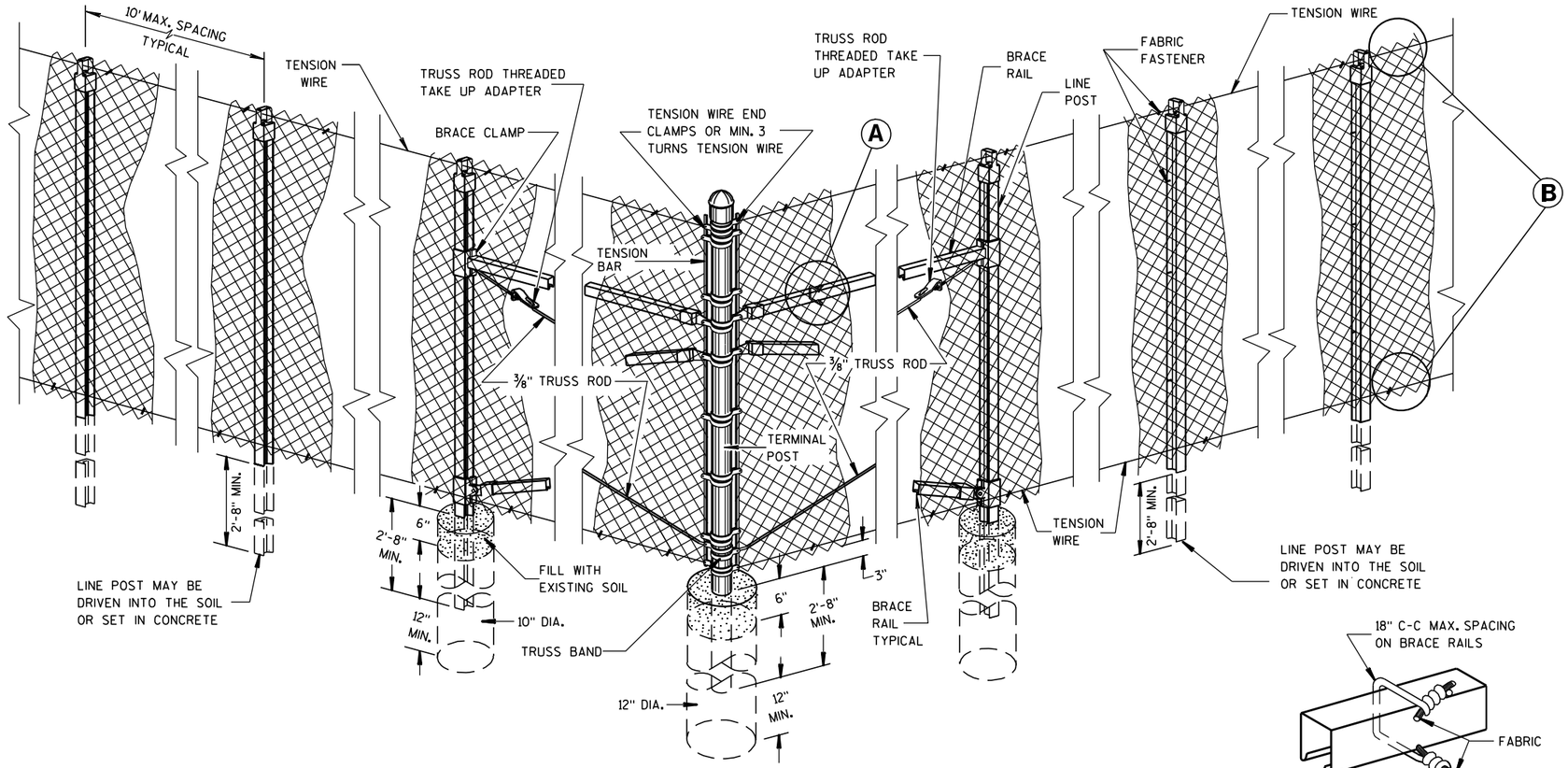
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S.D.D. 15 B 3-12a

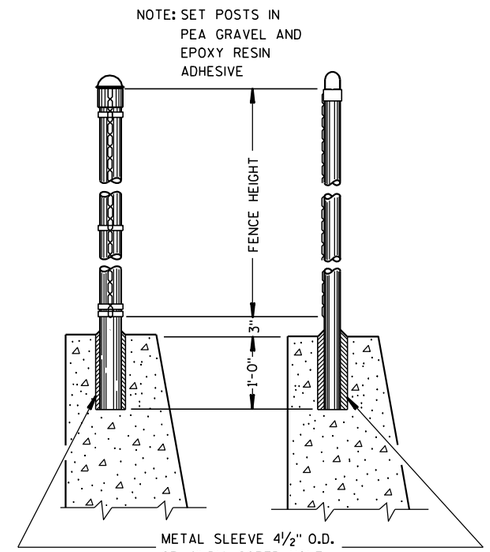


* IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

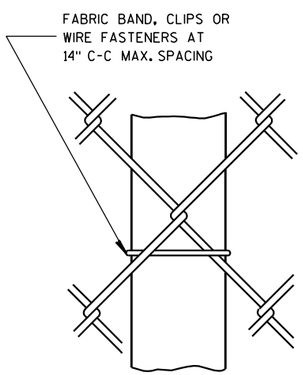


END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



END POST & CORNER POST LINE POST

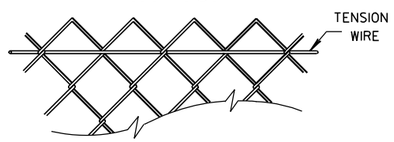
DETAILS OF FENCE ON WALL

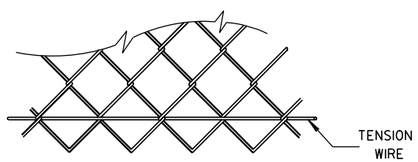


LINE POST

FABRIC FASTENER

AT TOP

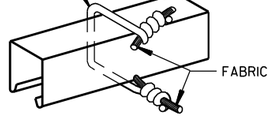




AT BOTTOM

SELVAGES

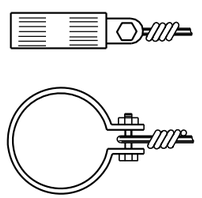
(B)



BRACE RAIL

FABRIC FASTENER

(A)



TENSION WIRE END CLAMP

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/19/2010 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 15 B 3-12b

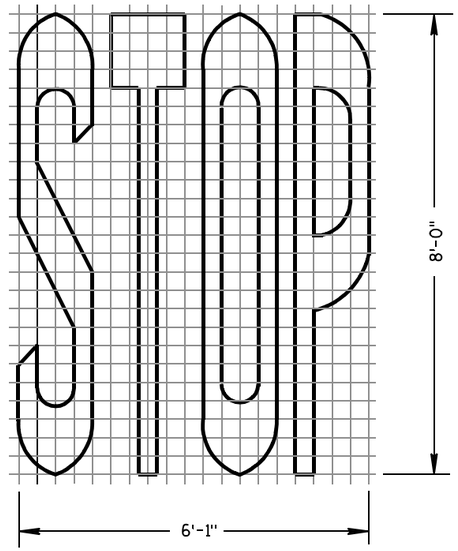
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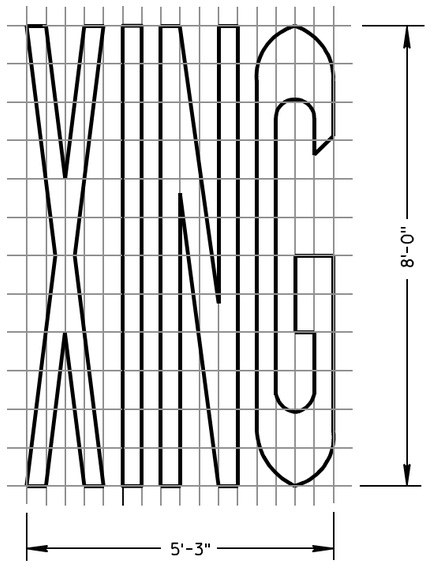
S.D.D. 15 B 3-12b

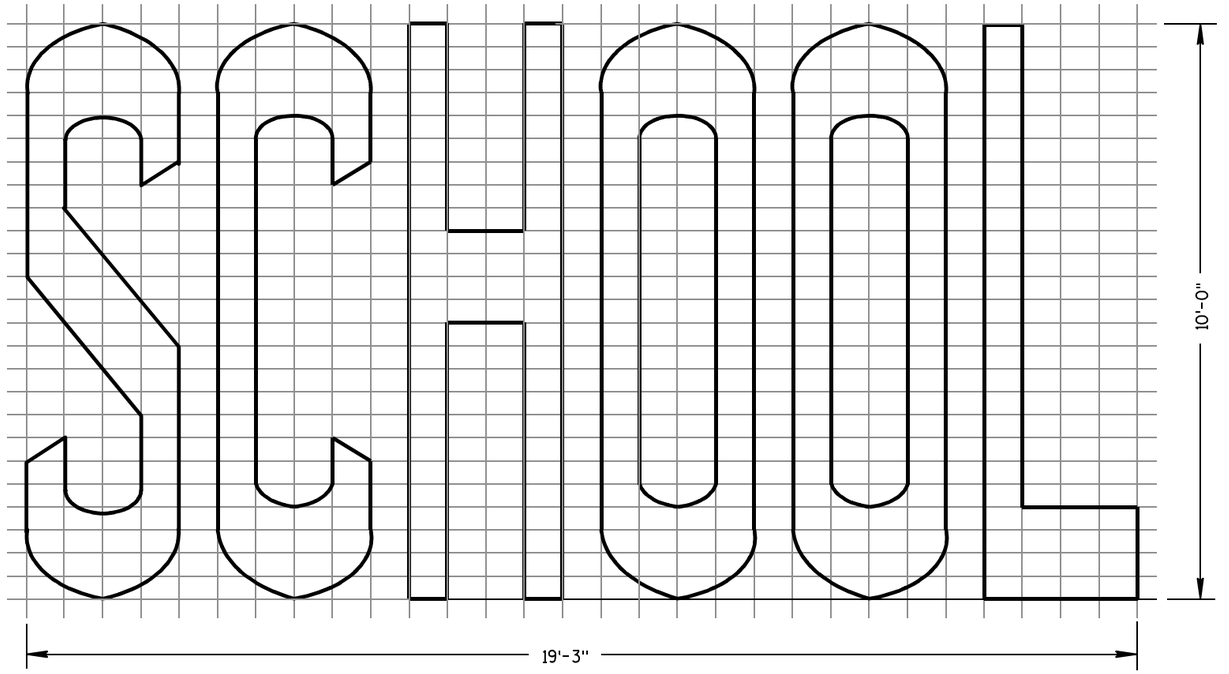
GENERAL NOTES

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.

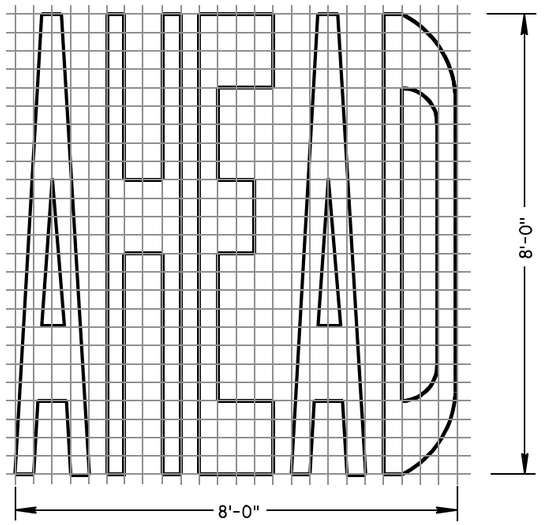
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

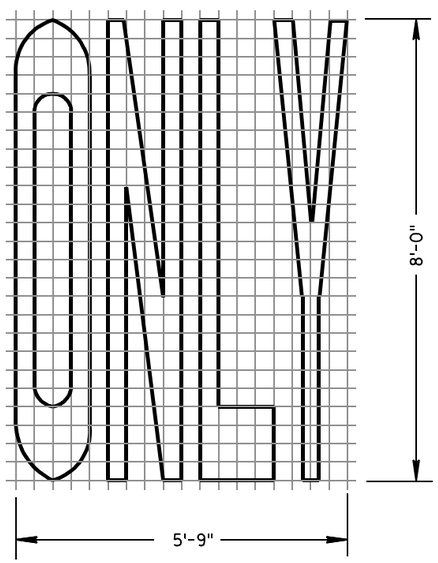


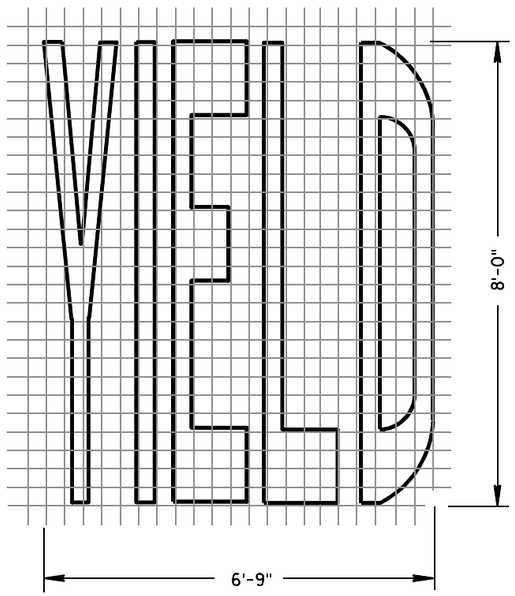


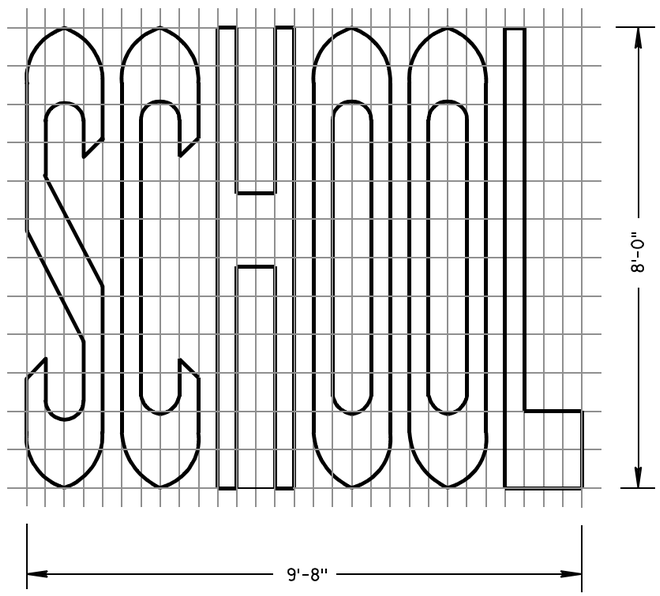


TWO-LANE









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

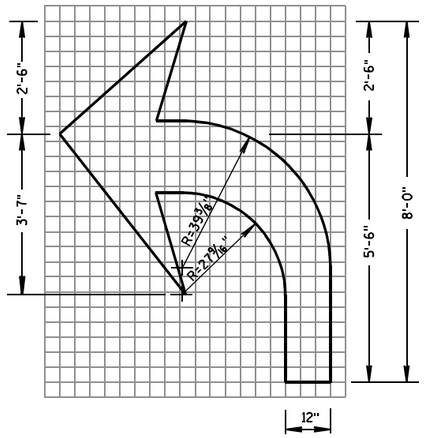
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S.D.D. 15 C 7-12b

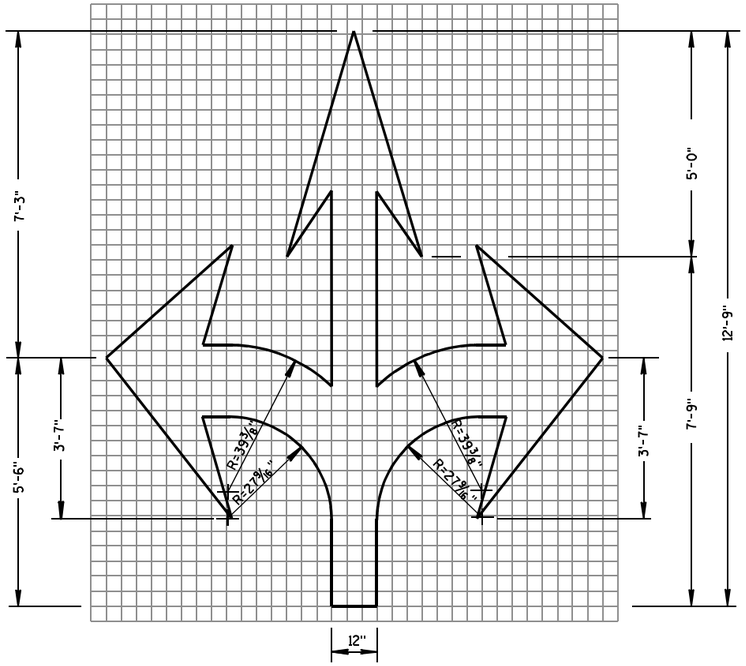
GENERAL NOTES

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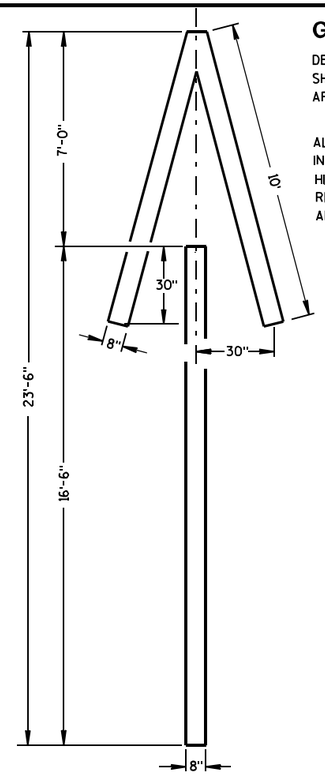
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



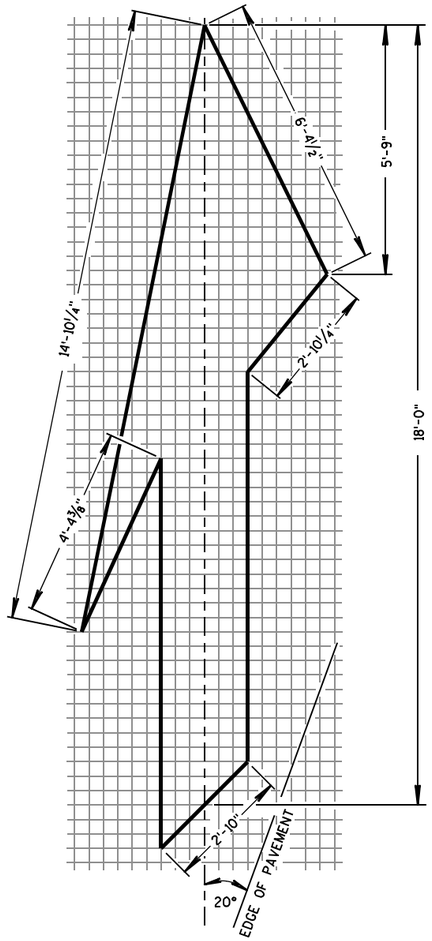
TYPE 2



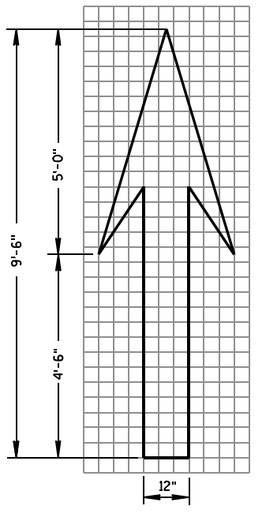
TYPE 6



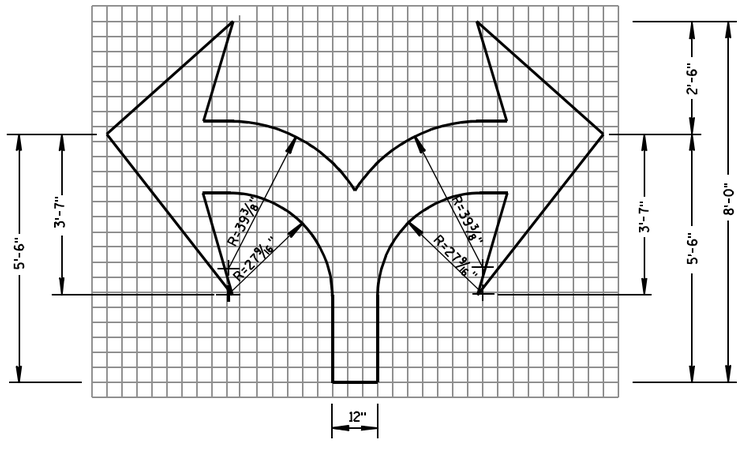
TYPE 4



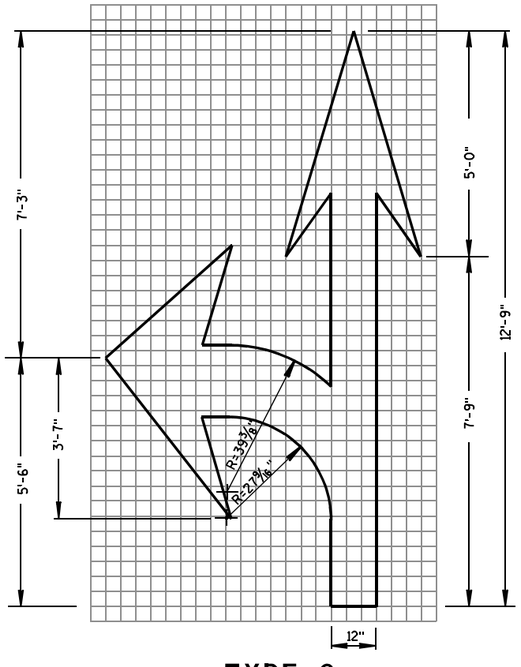
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

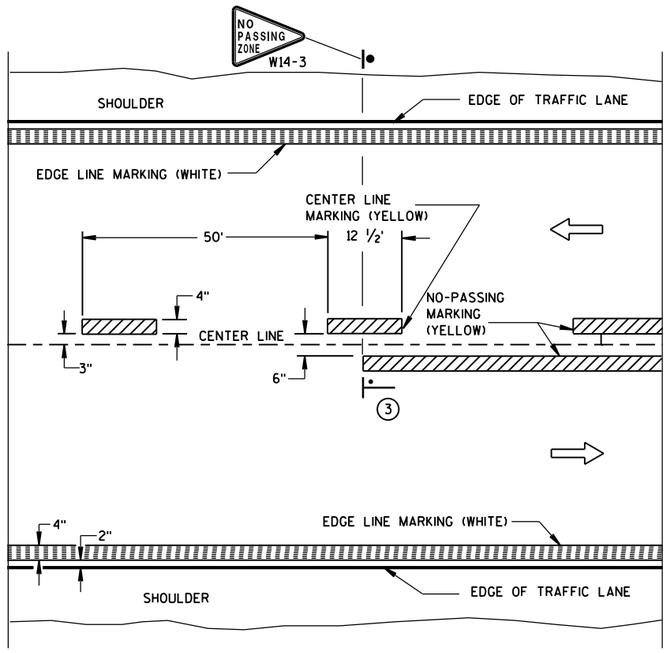
FHWA

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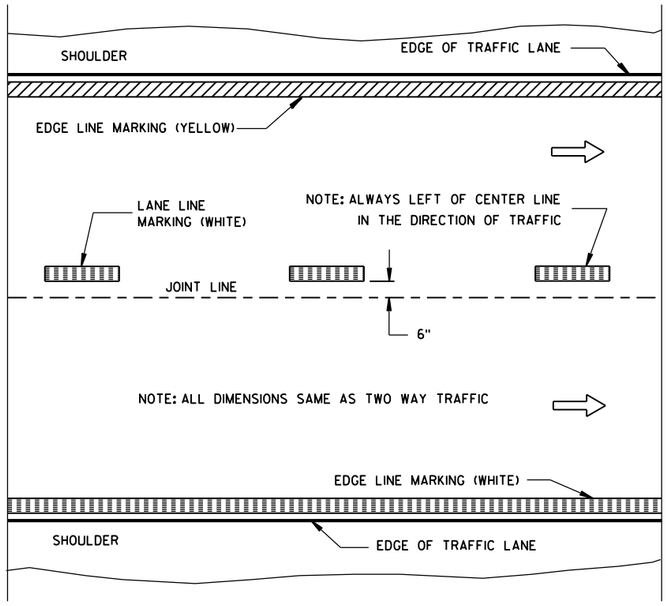
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

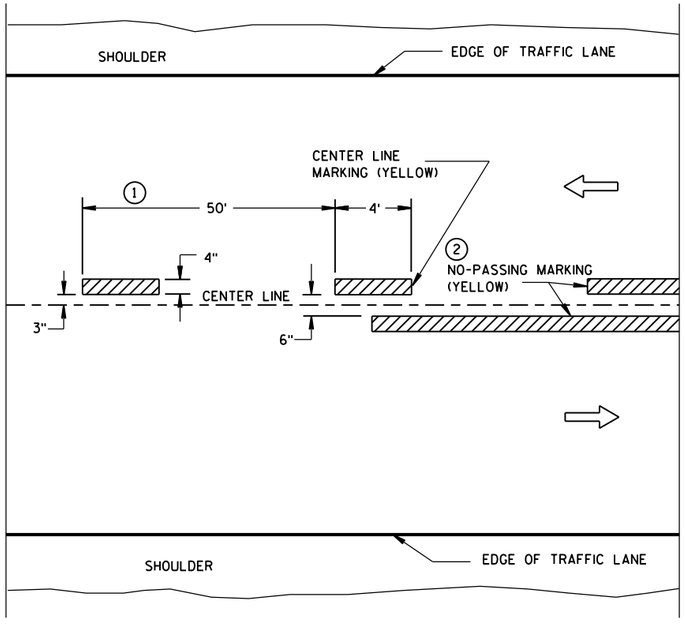


TWO WAY TRAFFIC

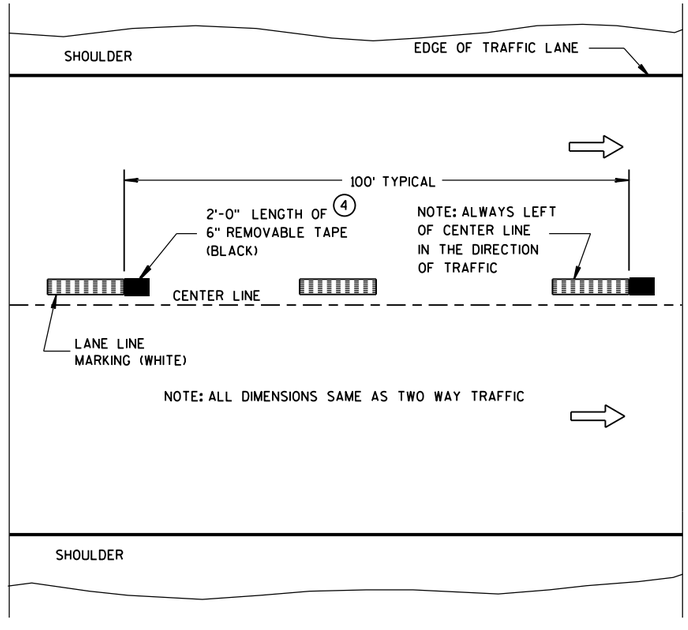


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

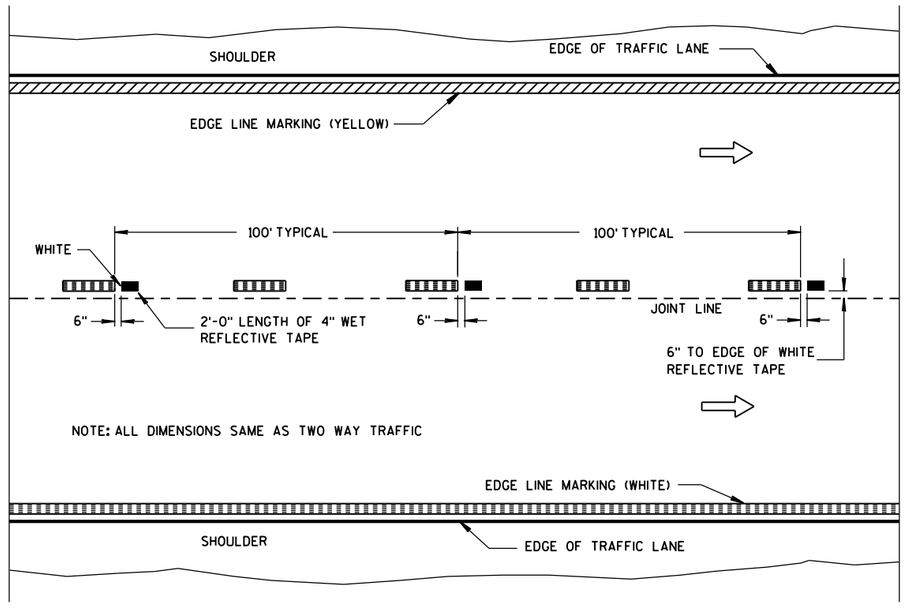
GENERAL NOTES

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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

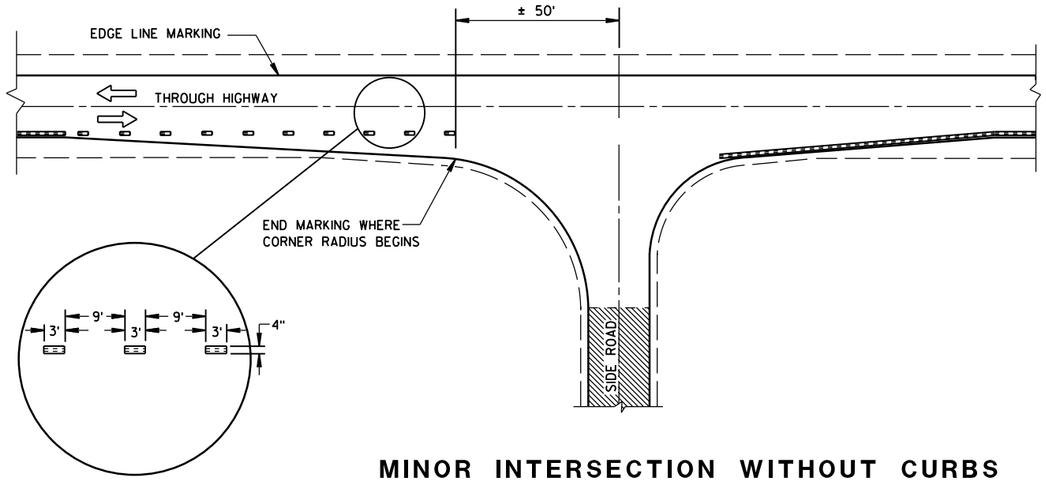
APPROVED
10-1-2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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.

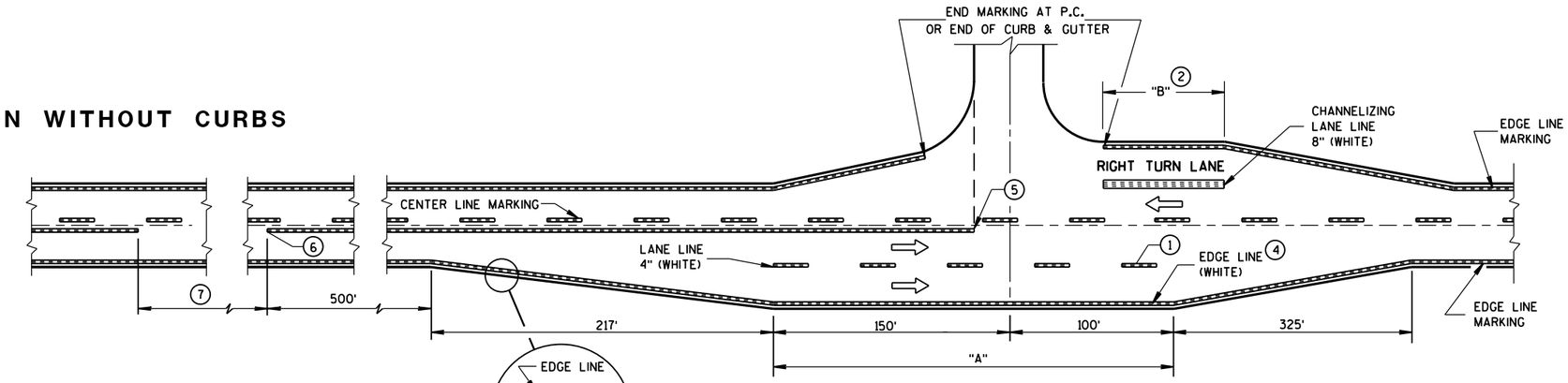
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

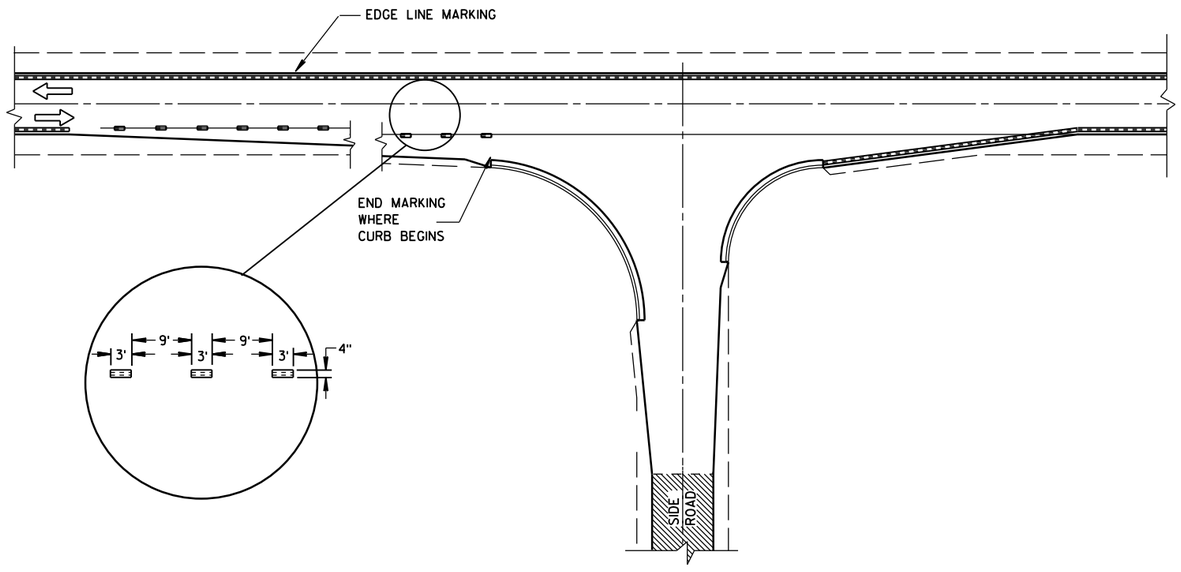
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



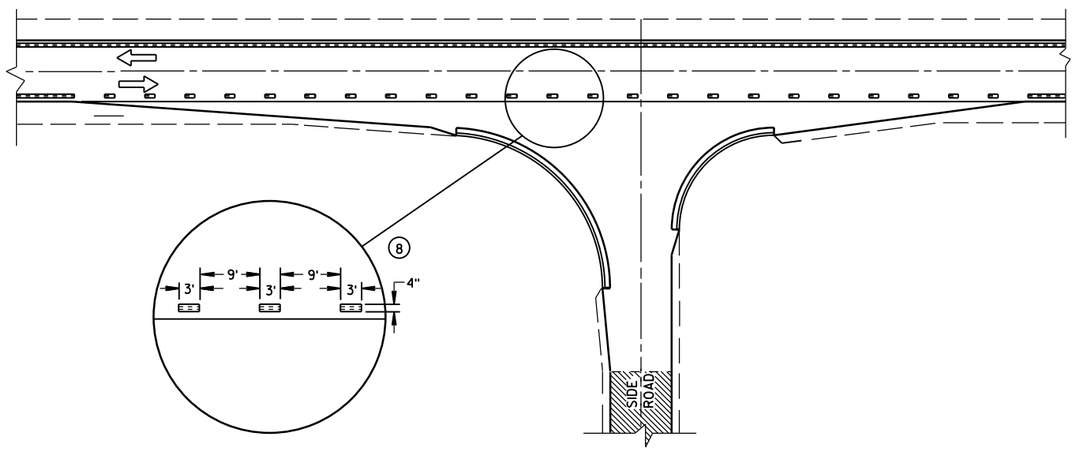
MAJOR INTERSECTIONS

(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)

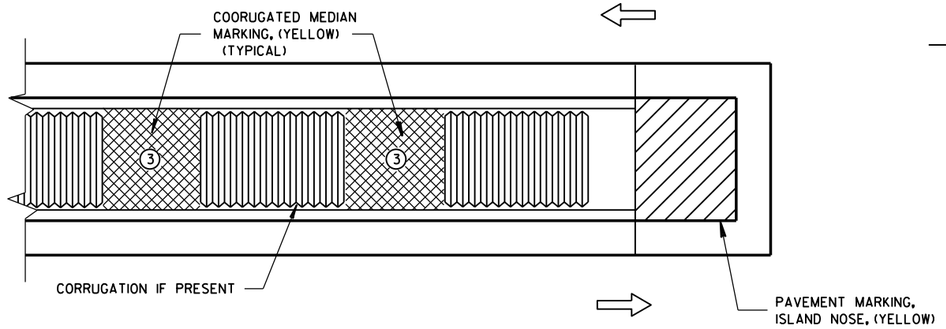
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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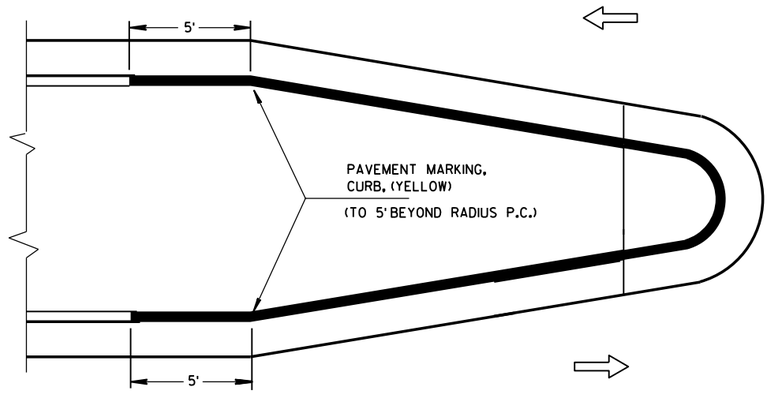
S.D.D. 15 C 8-15b

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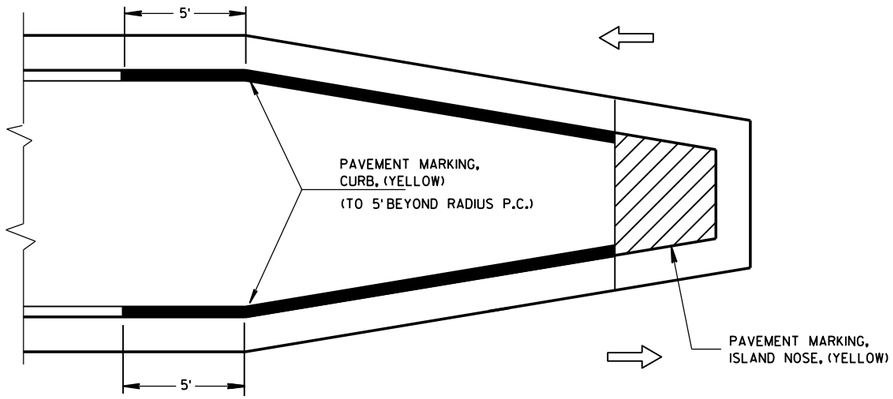
S.D.D. 15 C 8-15b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

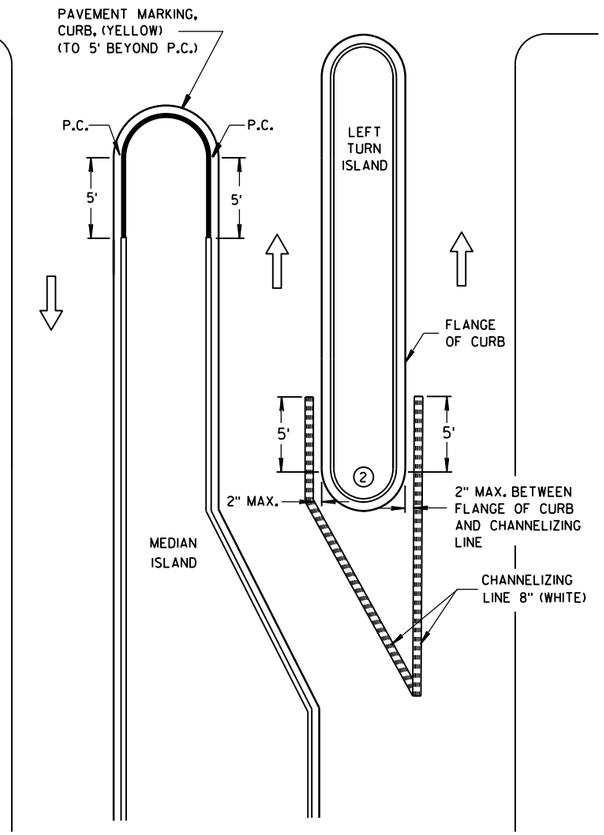


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

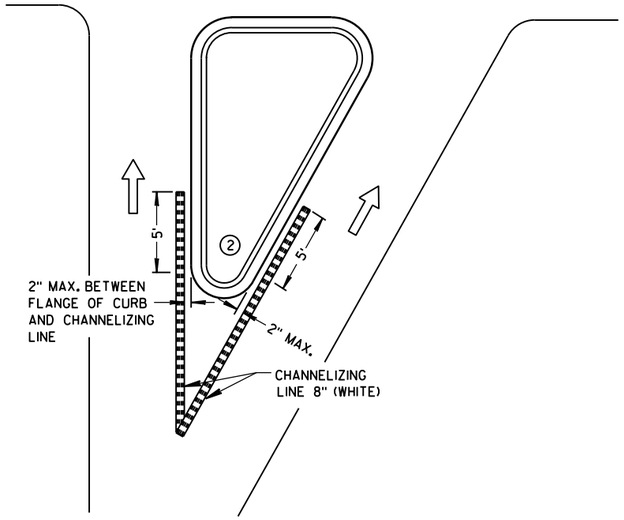
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



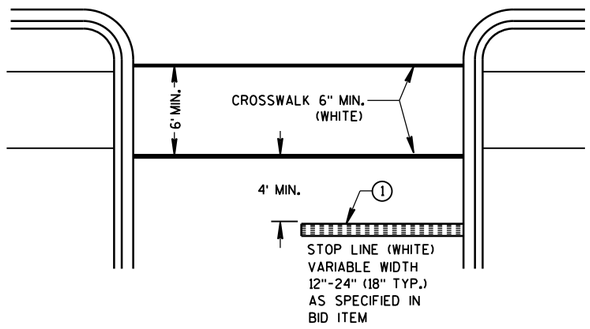
LEFT TURN & MEDIAN ISLAND

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)

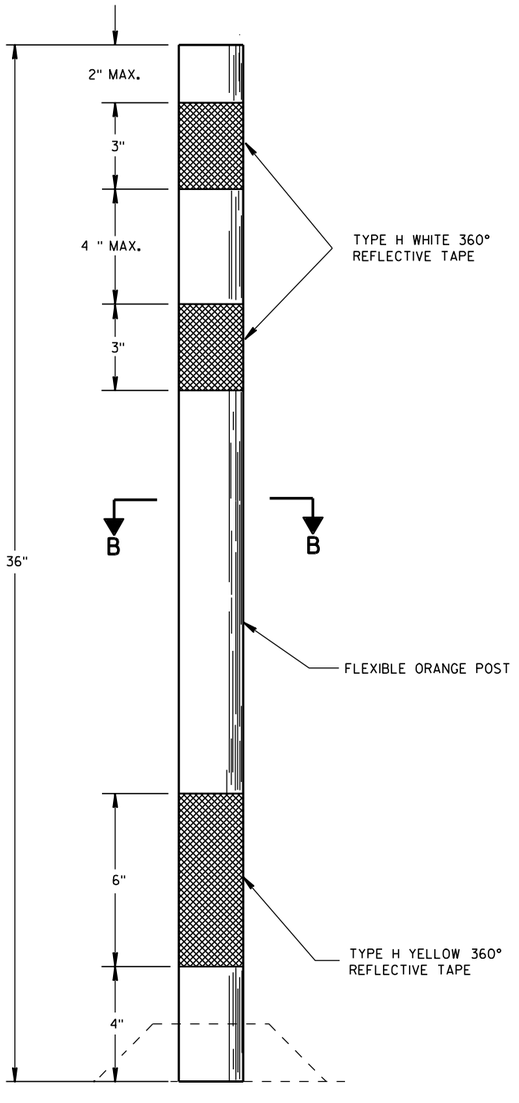
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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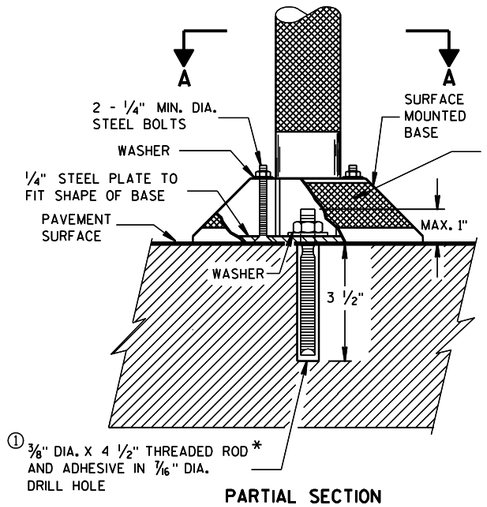
S.D.D. 15 C 8-15f

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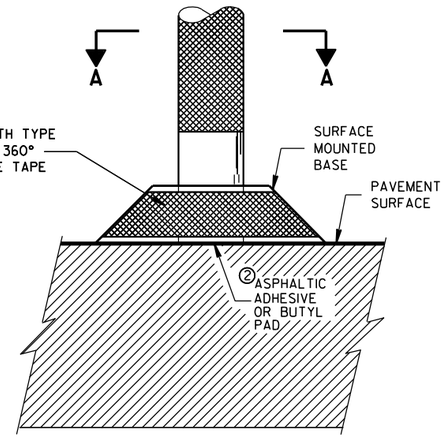
S.D.D. 15 C 8-15f



FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT

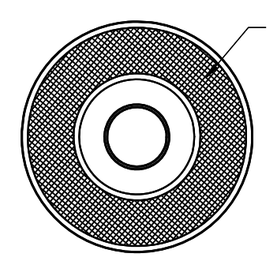
GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

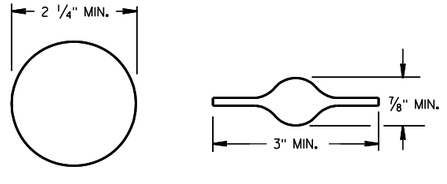
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



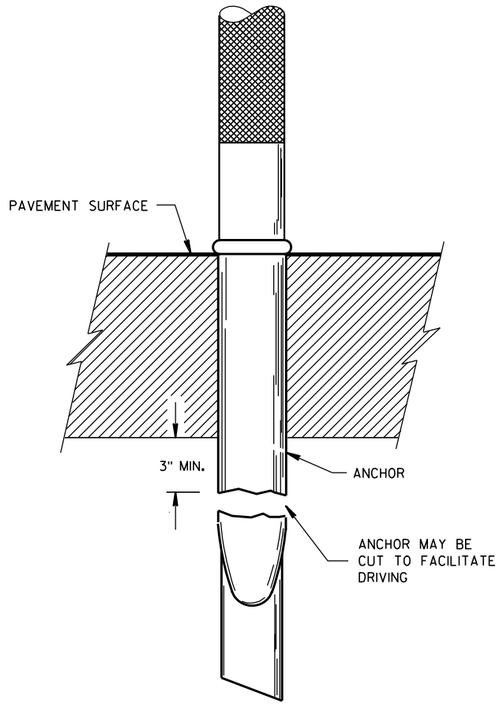
SECTION A-A

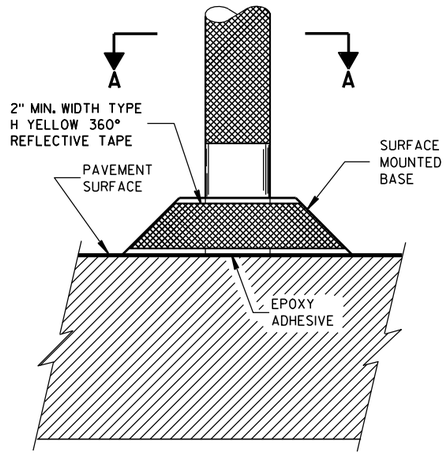
SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

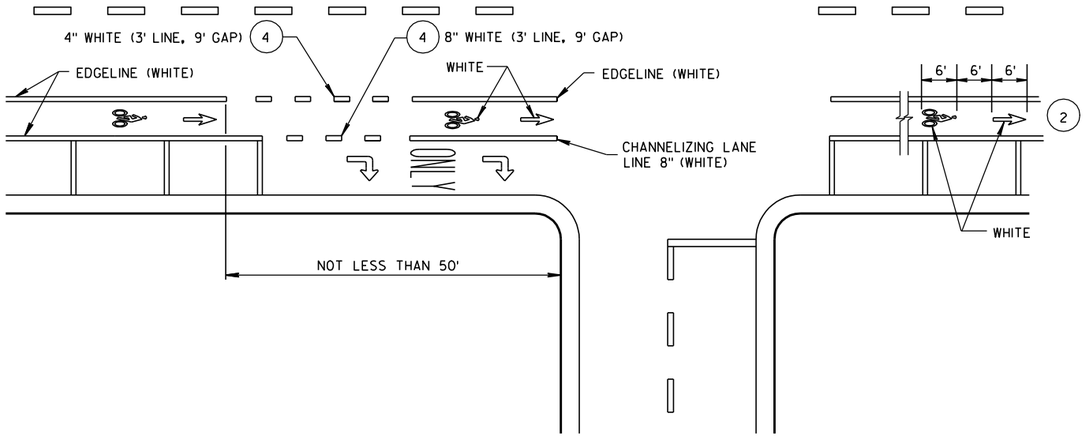
FHWA

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S.D.D. 15 C 11-5

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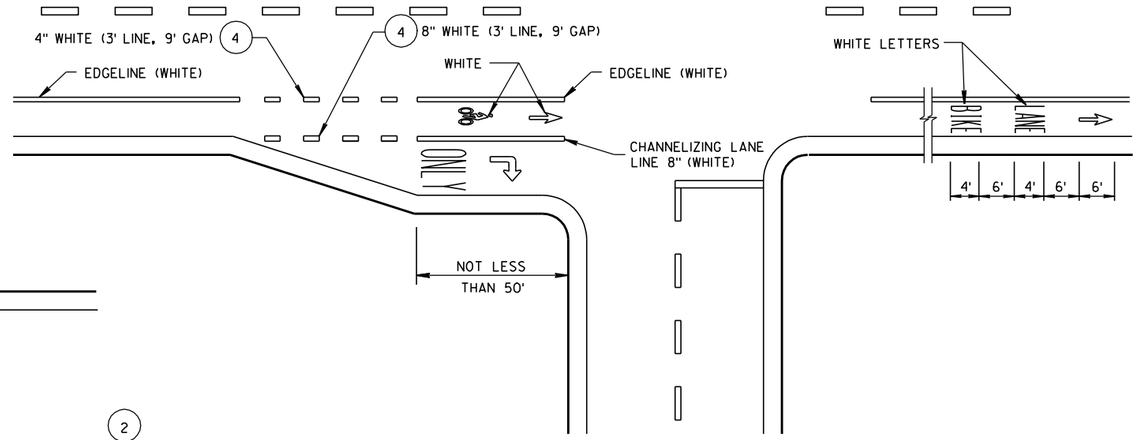
S.D.D. 15 C 11-5



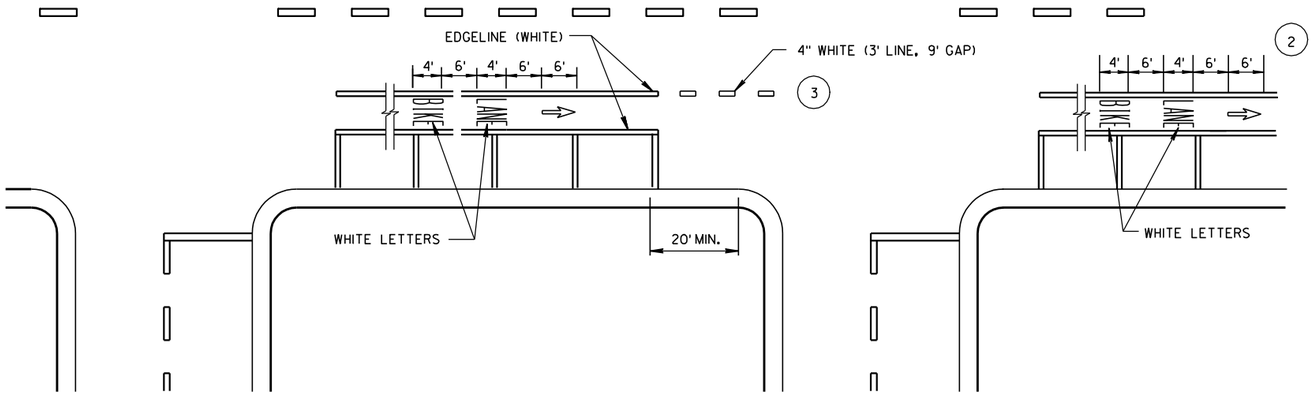
DESIGNATED BICYCLE LANE

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
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

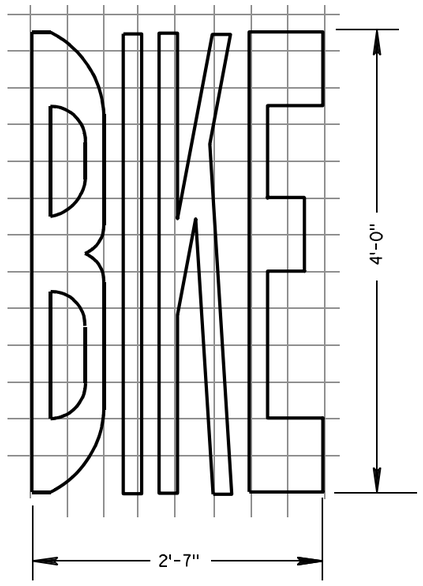
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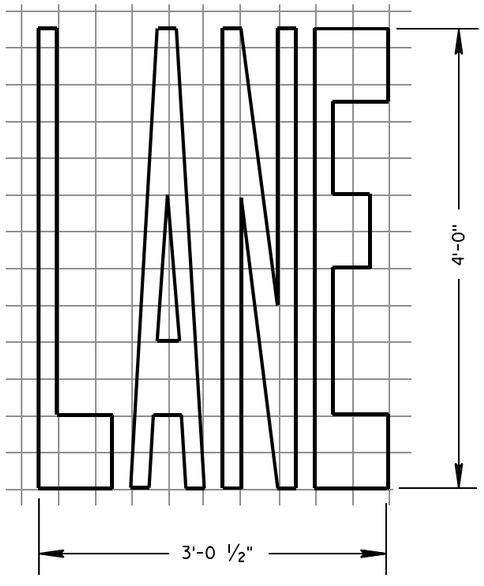
S.D.D. 15 C 29-2c

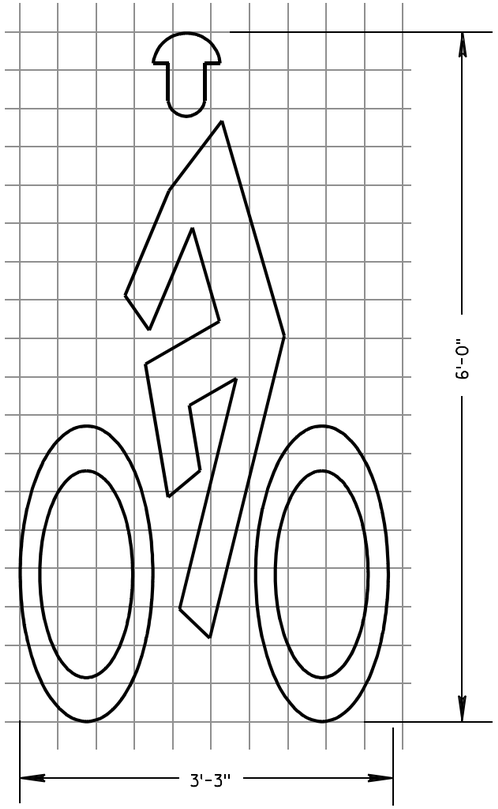
GENERAL NOTES

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.

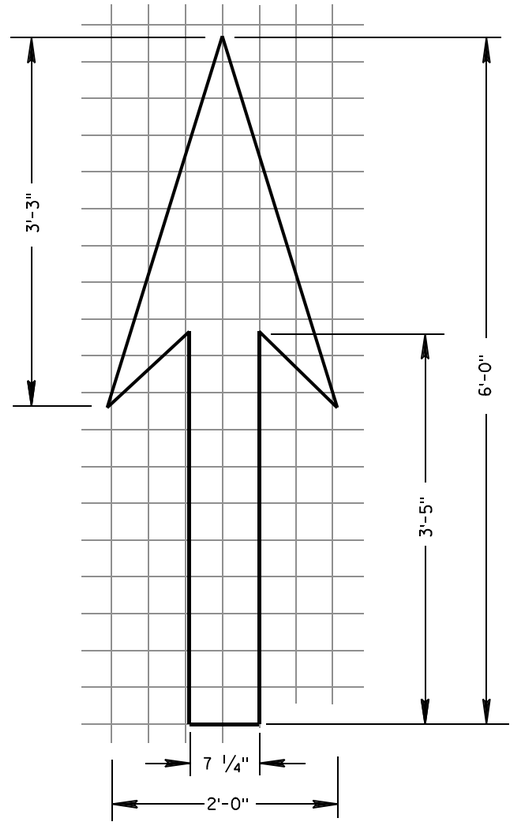
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



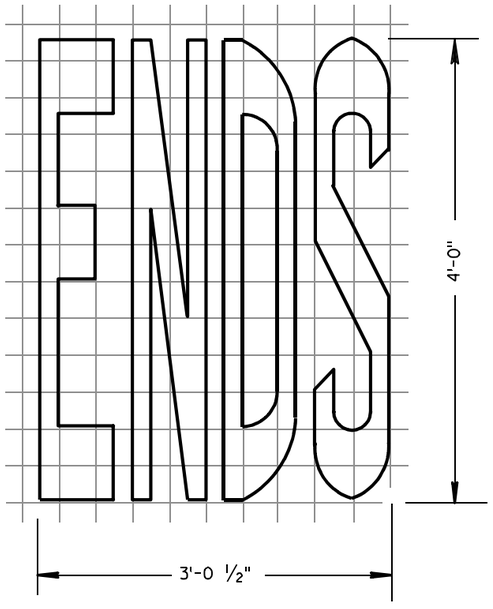




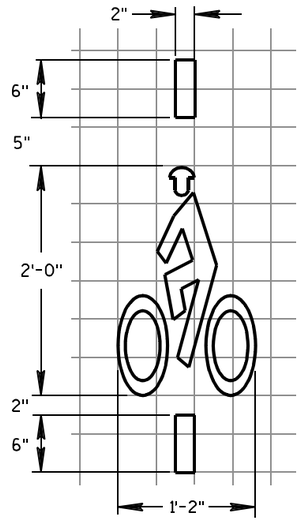
BIKE LANE SYMBOL



BIKE LANE ARROW



BIKE LANE WORDS



BICYCLE DETECTOR PAVEMENT MARKING

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

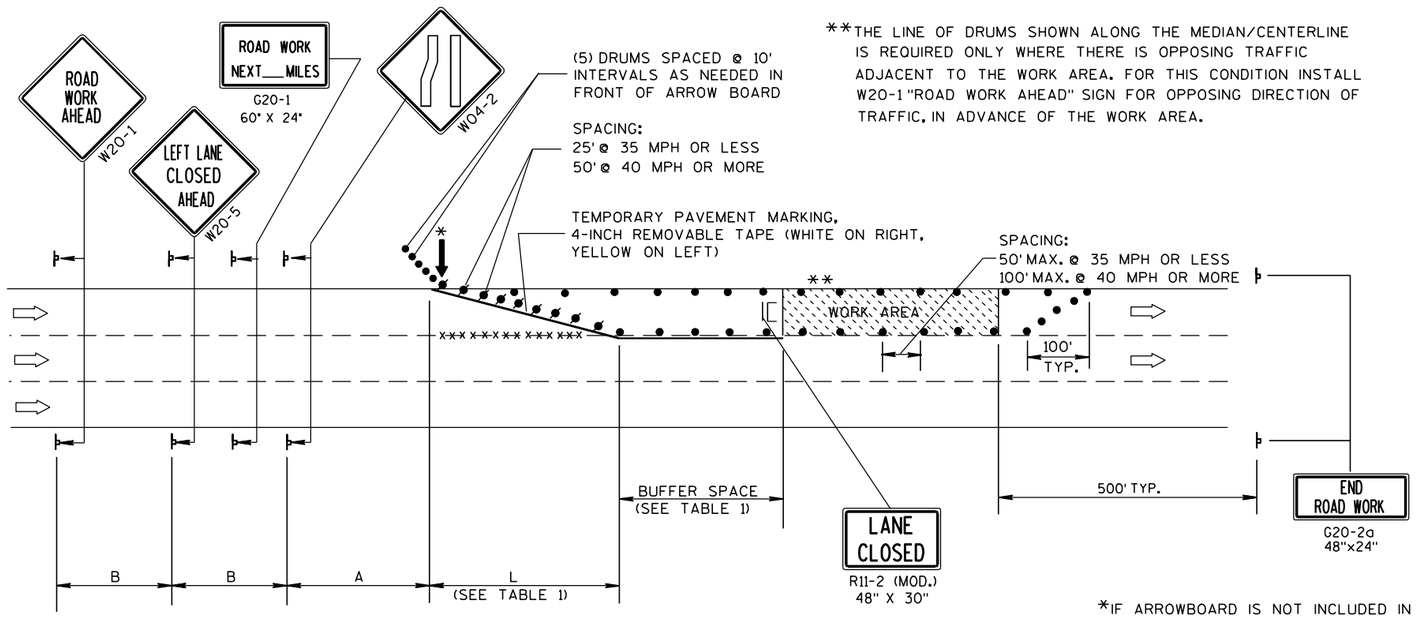
GN

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S.D.D. 15 C 29-2e

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S.D.D. 15 C 29-2e



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

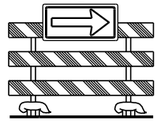


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

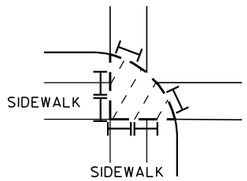
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

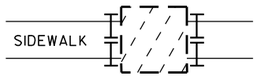
APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

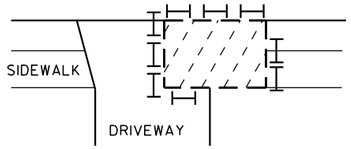
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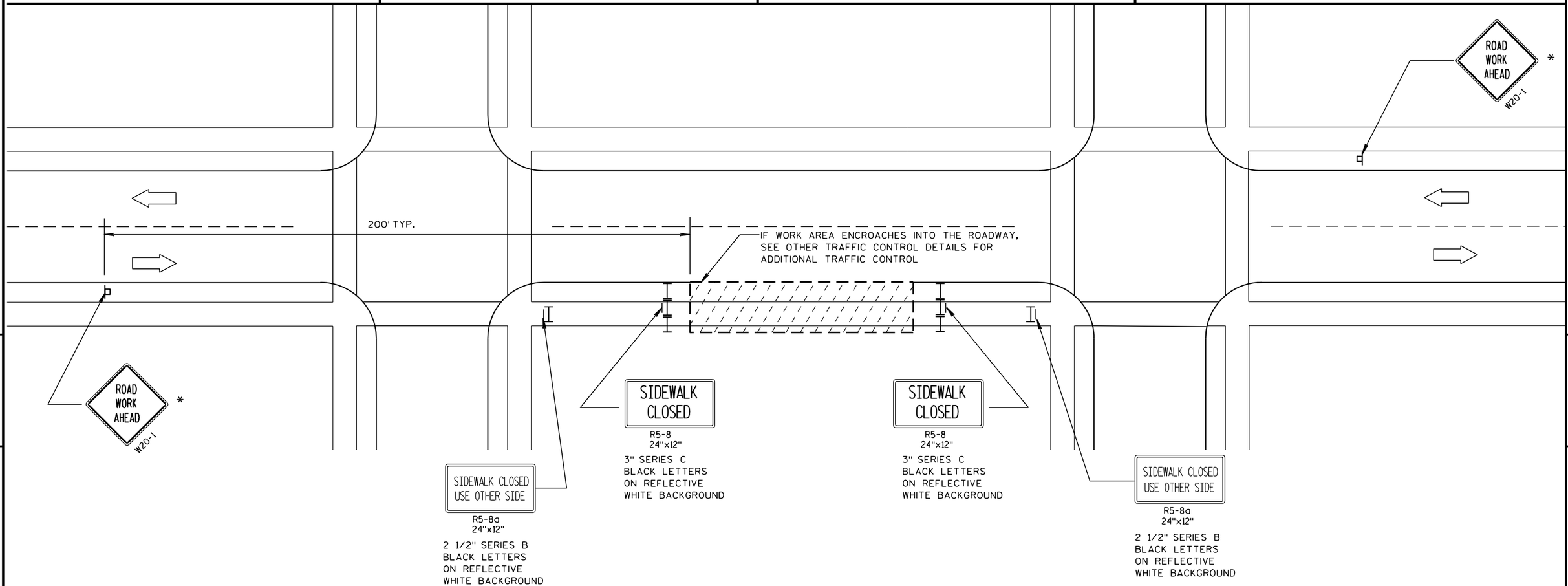
S.D.D. 15 D 20-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

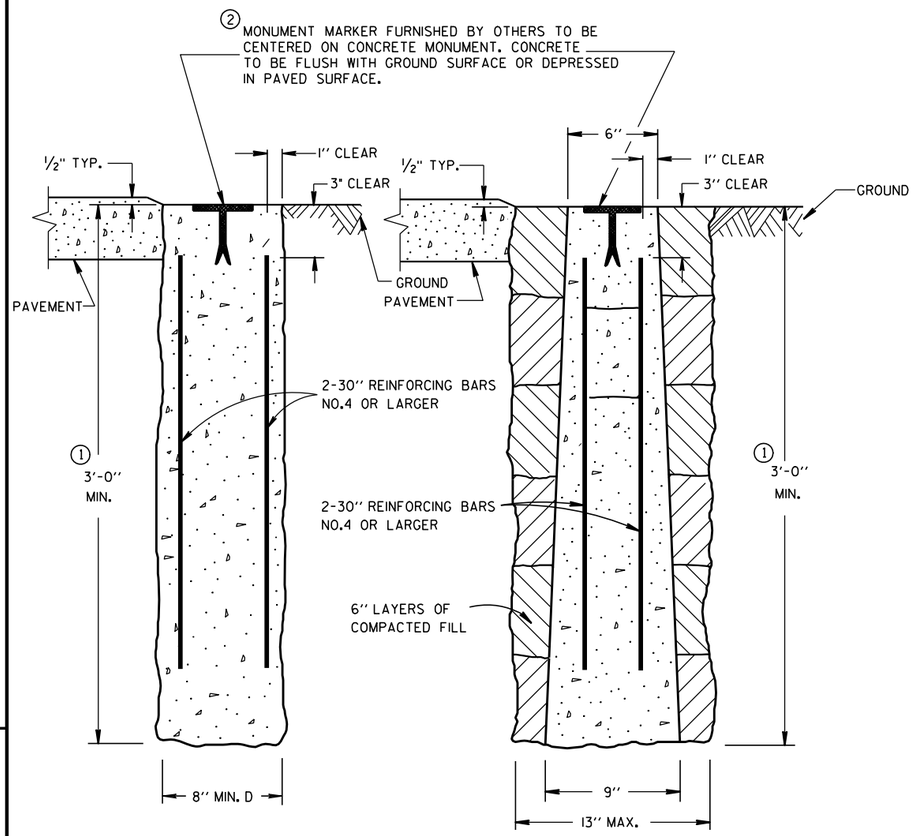
5/23/2000 DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER

FHWA

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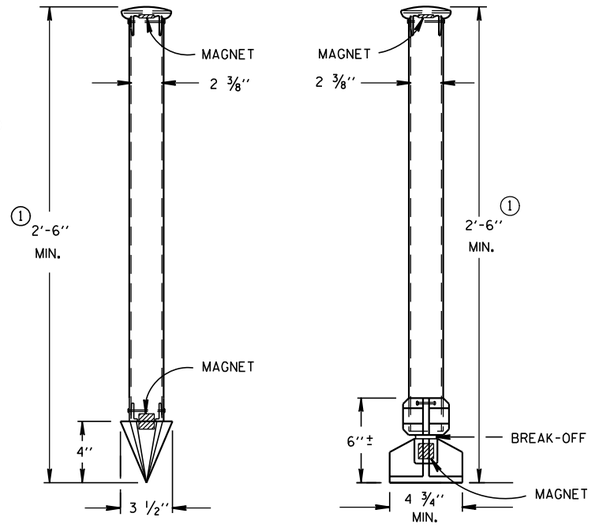
S.D.D. 15 D 30-1



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C TYPE D

DRIVE-IN MONUMENT 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.

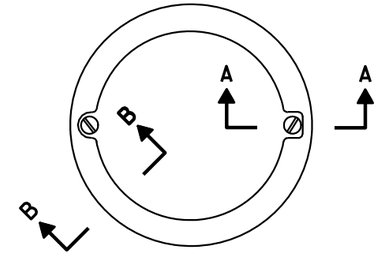
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

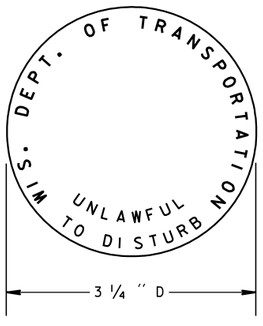
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

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.

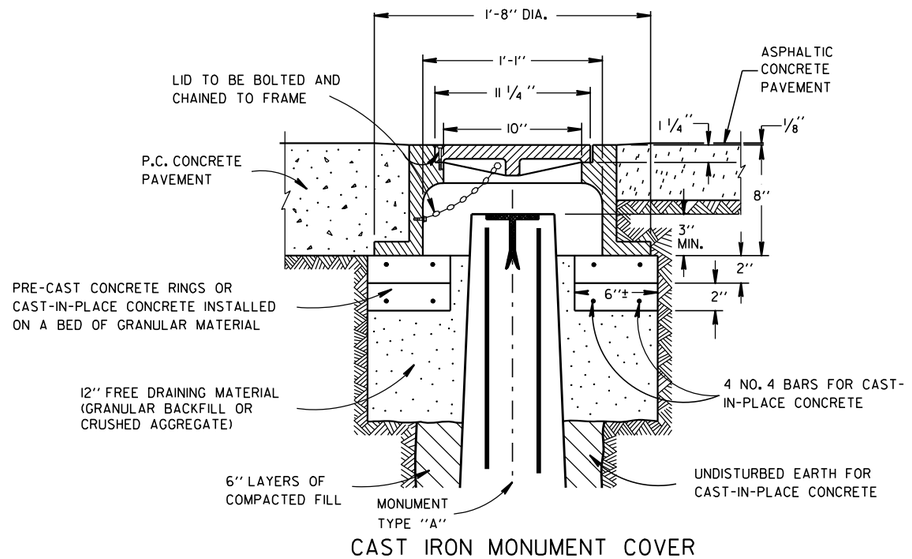


TOP VIEW



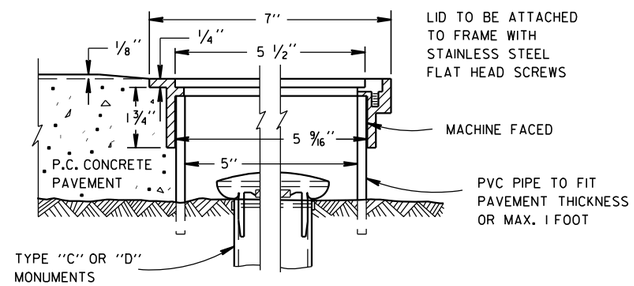
② WIS DOT MONUMENT MARKER LOGO

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

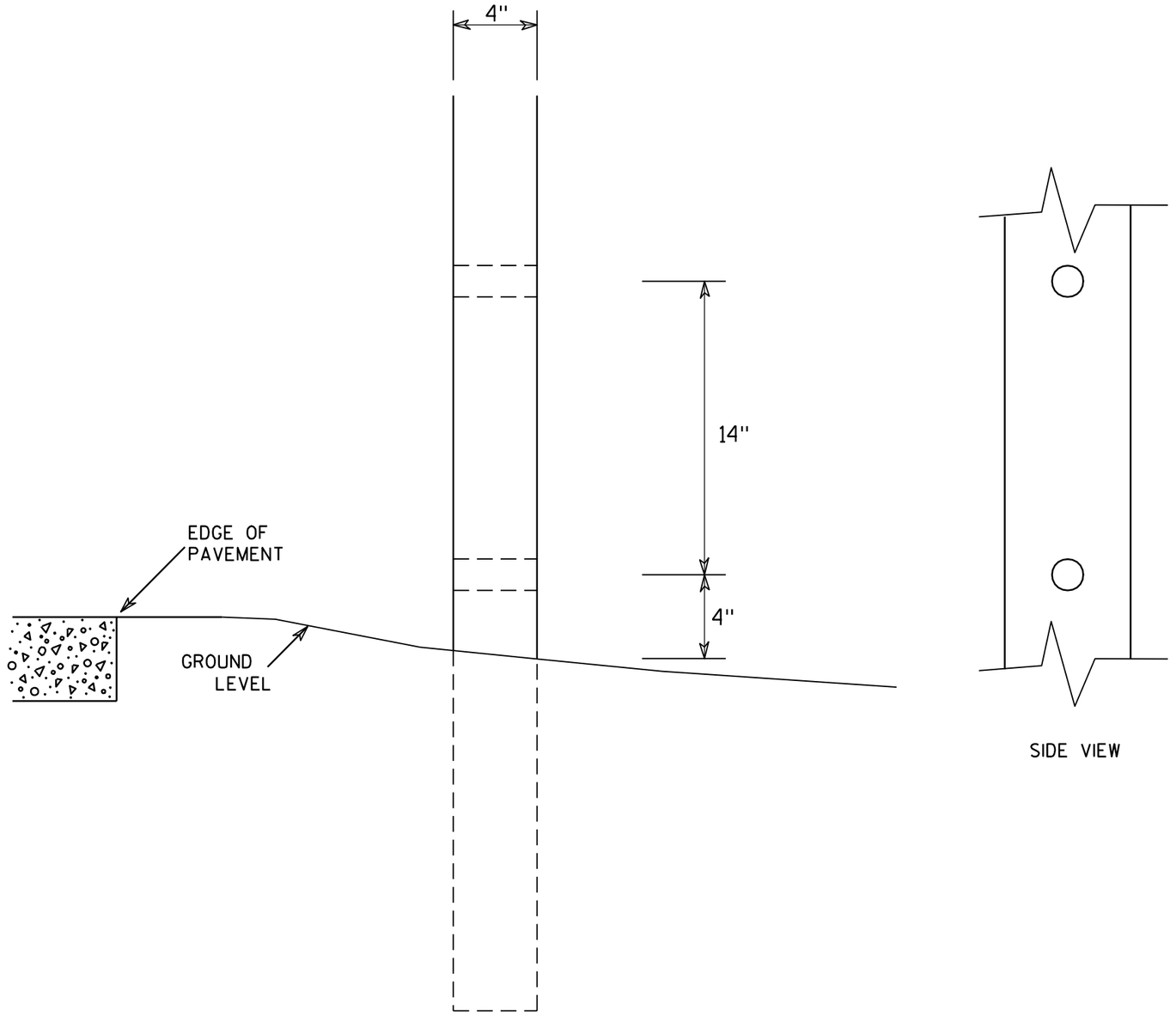
9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 16 A 1-6



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

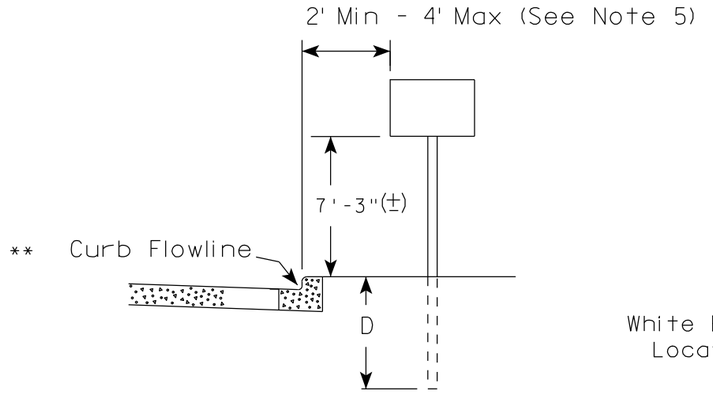
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

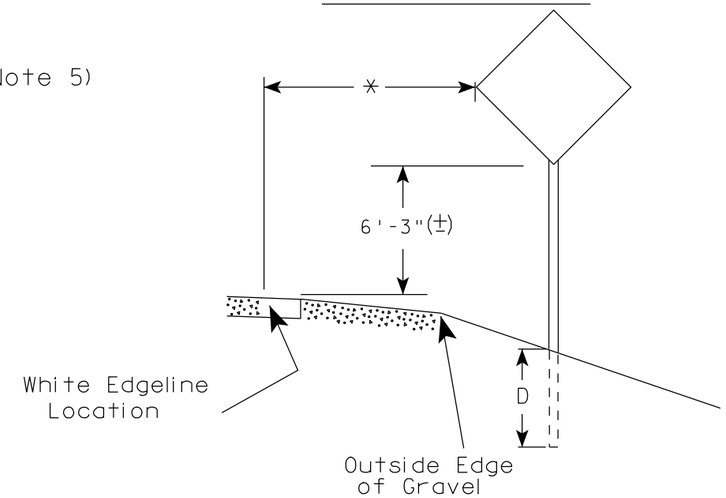
DATE 3/27/97 PLATE NO. A4-11.2

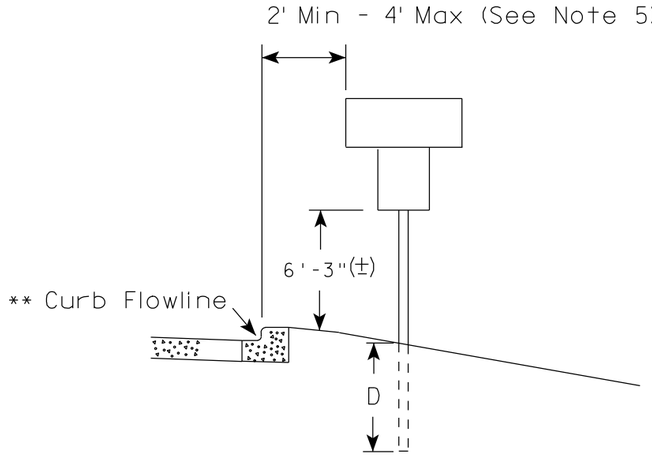
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 376	E

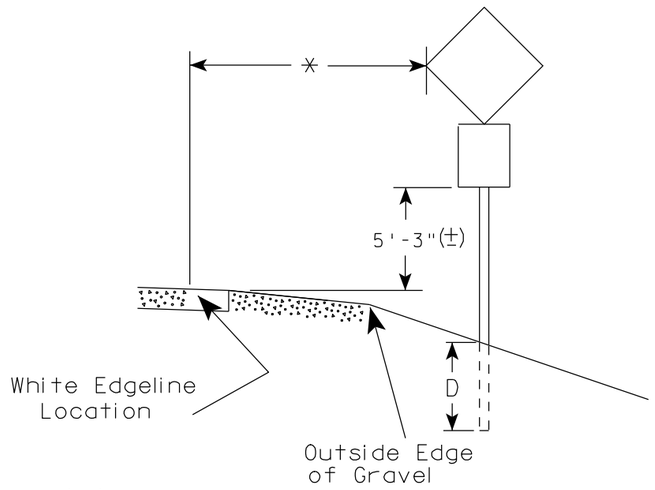
URBAN AREA



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

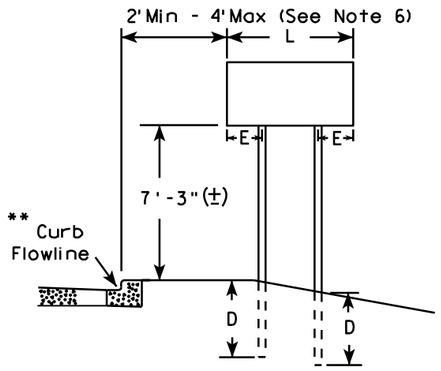
DATE 9/21/2011 PLATE NO. A4-3.16

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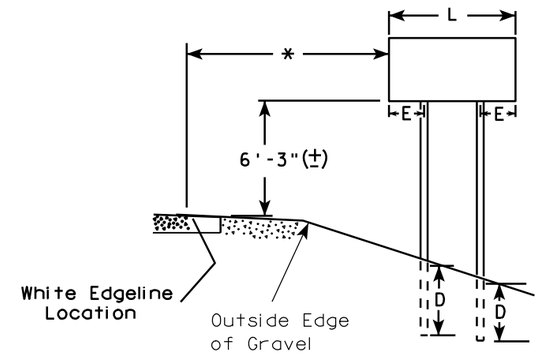
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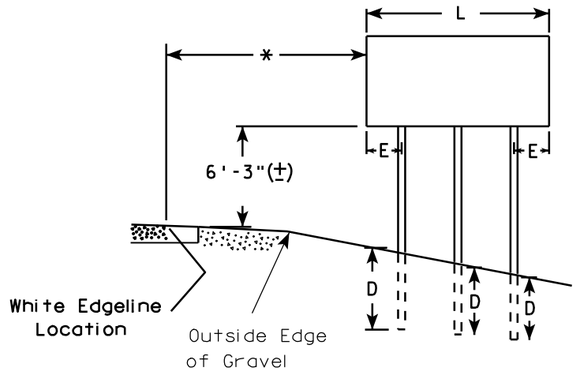
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 377 | E

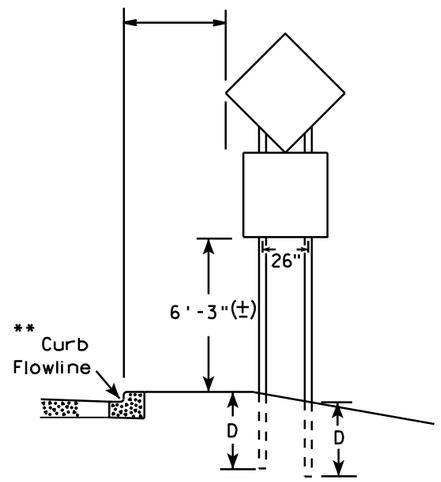
URBAN AREA



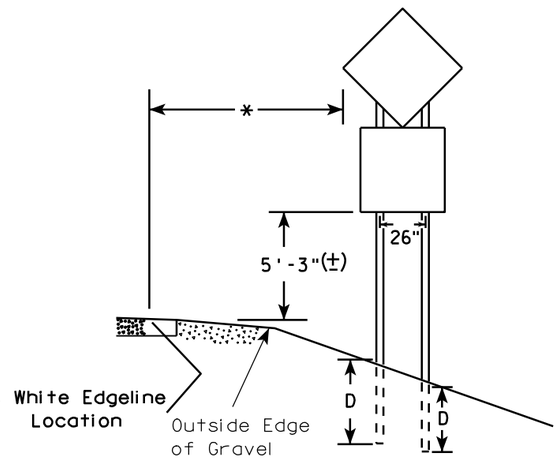
RURAL AREA (See Note 3)







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

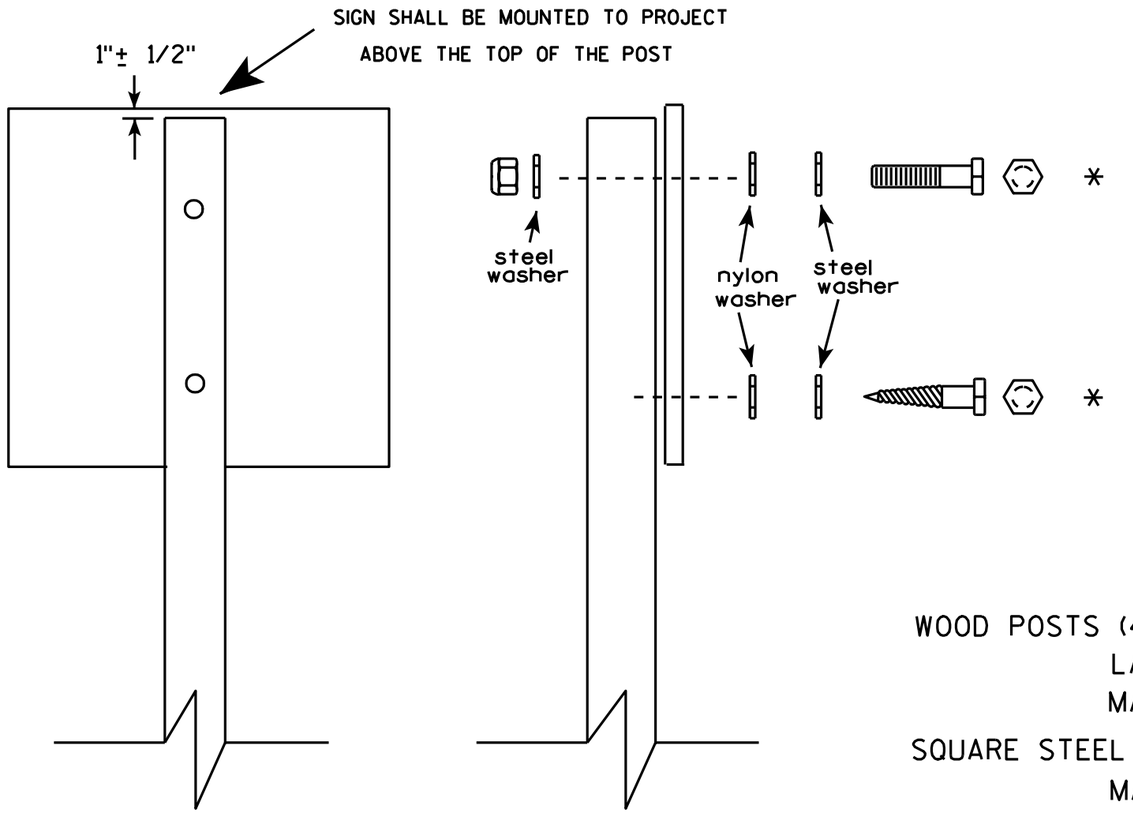
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 378	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A44.DGN PLOT DATE : 21-SEP-2011 13:36 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 109.249131:1.000000 WISDOT/CADDS SHEET 42



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

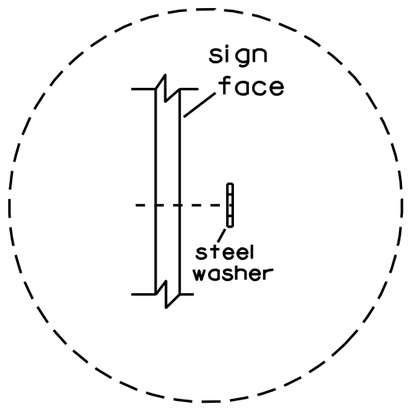
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

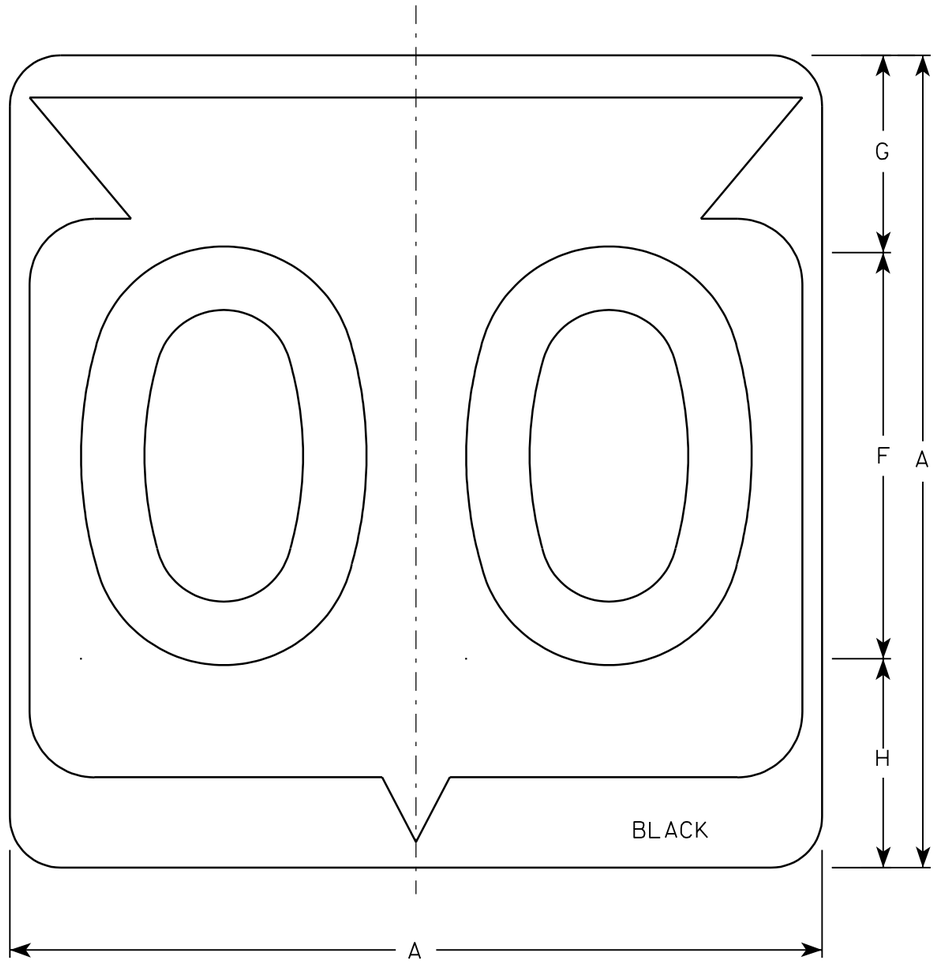
DATE 3/23/10 PLATE NO. A4-8.7

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PROJECT NO:

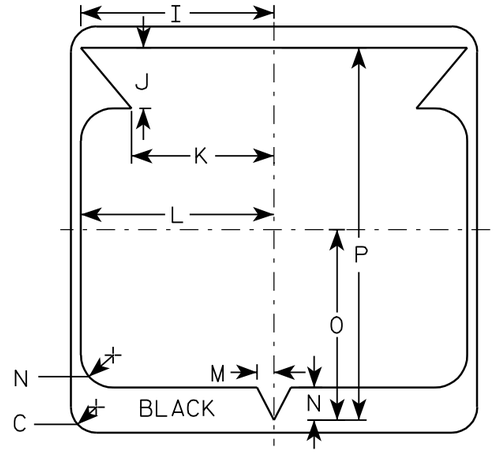
SHEET NO: 379 E



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: 380	E

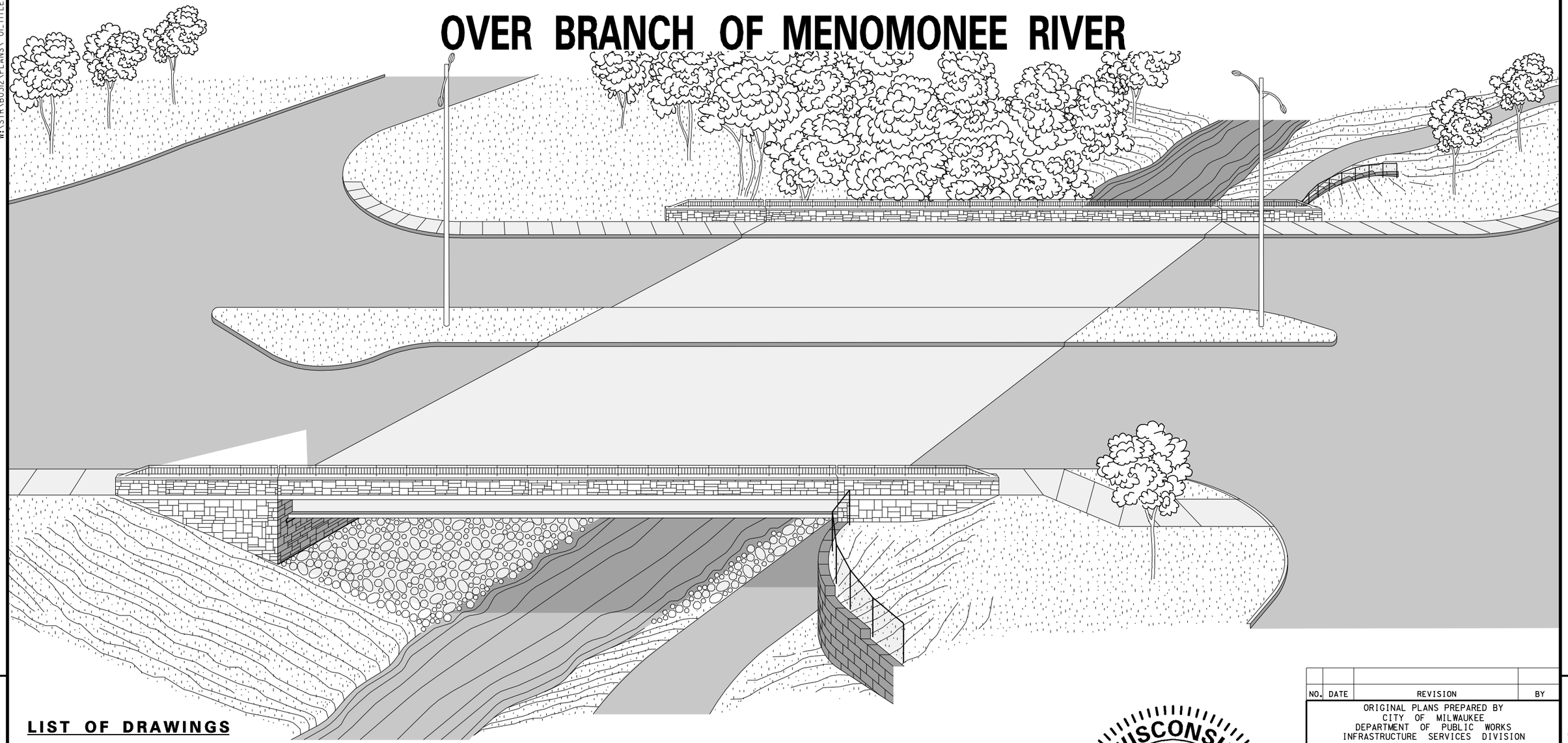
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STATE PROJECT NUMBER

2025 - 16 - 70

WEST CAPITOL DRIVE BRIDGE

OVER BRANCH OF MENOMONEE RIVER



8

LIST OF DRAWINGS

1. TITLE SHEET
2. SITE PLAN
3. CROSS SECTION AND ESTIMATE OF QUANTITIES
4. CONTOUR PLAN
5. SUBSURFACE EXPLORATION
6. EAST ABUTMENT PILE LAYOUT PLAN
7. EAST ABUTMENT FOOTING PLAN
8. EAST ABUTMENT PLAN AND ELEVATION STAGE 1
9. EAST ABUTMENT PLAN AND ELEVATION STAGE 2
10. EAST ABUTMENT DETAILS
11. EAST ABUTMENT BILL OF BARS
12. N.E. WING WALL PLAN, ELEVATIONS AND SECTION
13. S.E. WING WALL PLAN, ELEVATIONS AND SECTION
14. WEST ABUTMENT PLAN AND ELEVATION STAGE 1
15. WEST ABUTMENT PLAN AND ELEVATION STAGE 2
16. WEST ABUTMENT WING WALL PLAN
17. WEST ABUTMENT DETAILS AND BILL OF BARS
18. ARCHITECTURAL SURFACE TREATMENT ABUTMENTS
19. ARCHITECTURAL SURFACE TREATMENT WING WALLS
20. 36W" PRESTRESSED GIRDER DETAILS
21. DECK PLAN
22. DECK CROSS SECTION
23. DECK BILL OF BARS
24. GIRDER AND INTERMEDIATE DIAPHRAGM LAYOUT AND DECK ELEVATIONS
25. DIAPHRAGM DETAILS
26. SUPERSTRUCTURE DETAILS
27. RAILING PLAN
28. BRIDGE RAILING – ELEVATIONS, BAR DETAILS AND RAILING PLAN
29. FORM LINER DETAILS AND BILL OF BARS
30. STEEL RAILING DETAILS
31. DETAILS OF WE-ENERGIES GAS MAIN SUPPORTING HANGERS AND MODIFIED DIAPHRAGM

WISCONSIN
CRAIG S. LIBERTO
E-23746
MILWAUKEE
WIS.
PROFESSIONAL ENGINEER

Craig S. Liberto 12-19-2012

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE SERVICES DIVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 01/08/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-759

STH 190 OVER BRANCH OF MENOMONEE RIVER

COUNTY	MILWAUKEE	~~TOWN~~/CITY/~~VILLAGE~~	MILWAUKEE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDT/JPH	RVK/AR	KPS	AR JDT/JPH

TITLE SHEET

SHEET 1 OF 31

381

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STATE PROJECT NUMBER

2025 - 16 - 70

SITE PLAN

(SINGLE SPAN PRESTRESSED CONCRETE GIRDER TYPE I 36W-INCH)

SOUTH ELEVATION

VICINITY MAP

CITY OF MILWAUKEE
STD. B.M. 249

N. MAYFAIR RD. & W. CAPITOL DR.
(N. E. CORNER)
60.8' E. OF E. CURB OF N. MAYFAIR RD. &
8.5' N. OF N. CURB OF W. CAPITOL DR.

EL. 161.301

CITY OF MILWAUKEE CONTACT:
CRAIG LIBERTO 414-286-3294

WISCONSIN DOT BRIDGE OFFICE CONTACT:
WILLIAM DREHER 608-266-8489

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY G.J.R. | PLANS CK'D. J.R.S. A.R.

SITE PLAN

SHEET 382 OF 31

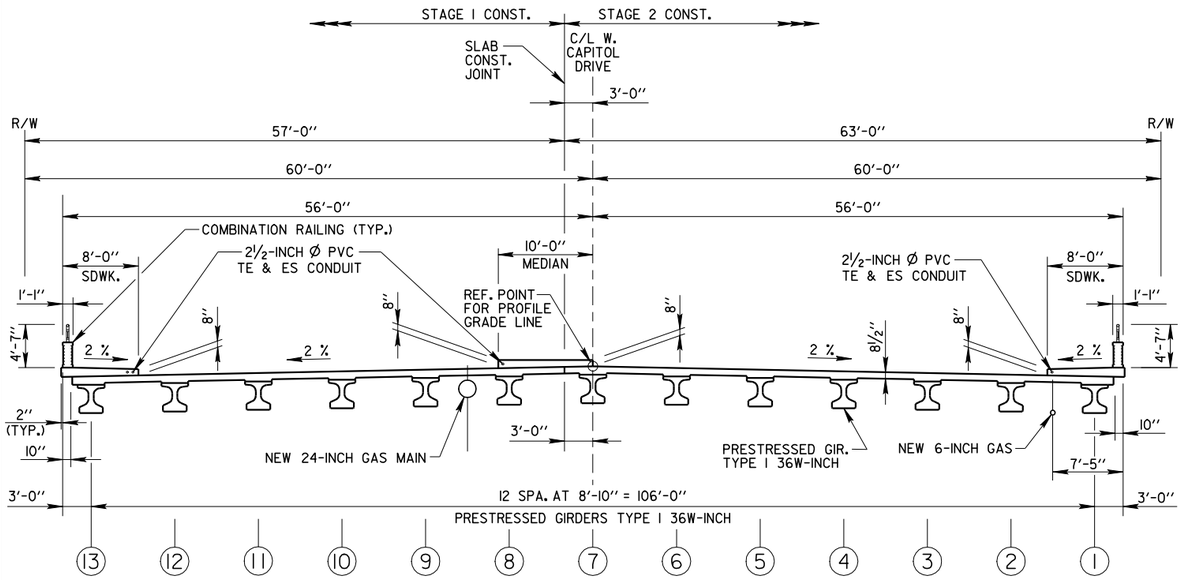
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STATE PROJECT NUMBER

2025 - 16 - 70



CROSS SECTION THRU C/L OF NEW BRIDGE LOOKING EAST

ESTIMATE OF QUANTITIES

ITEM NO.	BID ITEM	UNIT	ABUTMENTS		SUPER-STRUCTURE	TOTAL
			EAST	WEST		
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 13+38.55	LS				1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES (B-40-759)	LS				1
210.0100	BACKFILL STRUCTURE	CY	1,904	795		2,699
502.0100	CONCRETE MASONRY BRIDGES	CY	420	169	450	1,039
502.3200	PROTECTIVE SURFACE TREATMENT	SY			9,252	9,252
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF			1,040	1,040
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	40,105	12,370		52,475
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	3,465	3,702	68,447	75,614
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	13	13		26
506.4000	STEEL DIAPHRAGMS (B-40-759)	EACH			11	11
512.1000	PILING STEEL SHEET TEMPORARY	SF	5,845	1,120		6,965
516.0100	DAMPPROOFING	SY	223	121		344
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	36	30		66
517.1010.S	CONCRETE STAINING (B-40-759)	SF	303	236	1,932	2,471
550.0500	PILE POINTS	EACH	72	26		98
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	1,553	910		2,463
606.0300	RIPRAP HEAVY	CY	199	268		467
612.0106	PIPE UNDERDRAIN 6-INCH	LF	186	186		372
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	4	4		8
628.5505	POLYETHYLENE SHEETING	SY	55	55		110
645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	186	186		372
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	300	405		705
652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2½-INCH	LF			360	360
SPV.0105	CUSTOM STEEL DIAPHRAGM (B-40-759)	LS			1	1
SPV.0105	EAST ABUTMENT ELECTRICAL WORK	LS	1			1
SPV.0105	RAILING STEEL TYPE C2 GALVANIZED B-40-759	LS				1
SPV.0165	ARCHITECTURAL SURFACE TREATMENT	SF	1,409	830	1170	3,409

TRAFFIC VOLUME

ADT (2013) = 31,000
ADT (2033) = 38,000
R.D.S. = 40 MPH

DESIGN DATA

DEAD LOAD

CONC. = 150 LB/CF
F.W.S. = 20 LB/SF
PARAPET = 693 LB/LF

LIVE LOAD

DESIGN RATING: HL-93
INVENTORY RATING: 1.26
OPERATIONAL RATING: 1.96
MAX. STD. PERMIT VEHICLE LOAD = 250 KIPS

ULTIMATE DESIGN STRESSES

CONC. MASONRY (SLAB)	f'_C = 4,000 PSI
CONC. MASONRY (ALL OTHERS)	f'_C = 3,500 PSI
BAR STEEL REINF.	f_y = 60,000 PSI
36W-INCH PRESTRESSED STR. CONC.	f'_C = 8,000 PSI

HYDRAULIC DATA

INSTANTANEOUS PEAK DISCHARGE, 100-YR	= 1,290 CFS
VELOCITY THRU BRIDGE	= 5.83 FPS
WATERWAY AREA THRU BRIDGE	= 221.3 SF
DRAINAGE AREA	= 1.8 SQ MI
100-YR FLOOD STAGE	= 703.12 FT ABOVE NATIONAL GEODETIC VERTICAL DATUM, 1929 ADJUSTMENT (NGVD 29)
REGULATORY FLOOD STAGE (PER 2008 FIS)	= NONE (DETAILED FLOODPLAIN NOT DELINEATED)
SCOUR CRITICAL CODE	= 5
CITY OF MILWAUKEE ZERO DATUM	= 580.60 (NGVD 29)
RDWY. OVERTOPPING	= NO
HIGH WATER EL.	= NO SPECIFIC HIGH WATER MARK AVAILABLE
2-YR FLOOD STAGE	= 700.15 FT ABOVE NGVD29

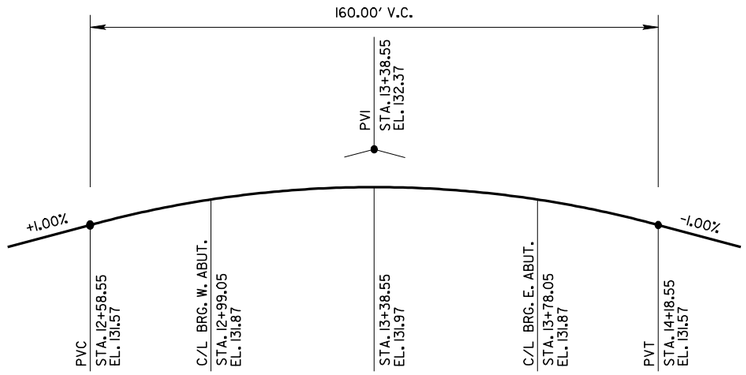
FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 12X53 PILES, ESTIMATED LENGTH 18-FT FOR EAST ABUTMENT & 28-FT FOR WEST ABUTMENT.

EMBEDMENT DEPTHS INTO END BEARING UNIT (VERY DENSE GLACIAL TILL) ARE TO BE 4.0-FT FOR HP 12X53 PILES OF EAST & WEST ABUTMENTS BASED ON DRIVABILITY ANALYSIS.

HP 12X53 STEEL PILING WITH REQUIRED DRIVING RESISTANCE OF 90-TON* (FOR BATTERED) & 93-TON* (FOR VERTICAL) PER PILE ON EAST ABUTMENT & 155-TON* PER PILE ON WEST ABUTMENT AS DETERMINED BY MODIFIED GATES DYNAMIC EQUATION.

*FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS REQUIRED DRIVING RESISTANCE MULTIPLIED BY RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



PROFILE GRADE LINE ALONG C/L OF W. CAPITOL DR. BRIDGE

GENERAL NOTES

- DETAILS, MATERIALS & FABRICATION SHALL CONFORM TO STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION OF THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 2013 EDITION EXCEPT AS OTHERWISE NOTED.
- STATIONS & ELEVATIONS ARE IN FEET.
- ELEVATIONS ARE REFERRED TO CITY OF MILWAUKEE DATUM.
- DRAWINGS SHALL NOT BE SCALED.
- CHAMFER EXPOSED CONCRETE EDGES 1" UNLESS OTHERWISE NOTED.
- BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.
- REINFORCING BARS ARE ENGLISH & FIRST OR FIRST TWO DIGITS OF BAR MARK SIGNIFIES BAR SIZE.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.
- SEE ROADWAY PLANS FOR EXISTING & PROPOSED UTILITY LOCATION.
- EXISTING GROUND LINE SHALL BE UPPER LIMITS OF EXCAVATION FOR STRUCTURE.
- SPACES EXCAVATED & NOT OCCUPIED BY NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.
- BACKFILL FRONT FACE OF WALLS BEFORE BACK FACE.
- JOINT FILLER SHALL CONFORM TO AASHTO DESIGNATION M153 TYPE I, II, OR III, OR AASHTO DESIGNATION M213.
- SLOPE OF FILL IN FRONT OF ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP & GEOTEXTILE FABRIC TYPE 'HR' TO EXTENT SHOWN ON SHEET 2 & IN ABUTMENT DETAILS.
- CONCRETE INSERTS & PIPE SLEEVES FOR GAS MAINS ON ABUTMENT DIAPHRAGMS TO BE FURNISHED BY UTILITY COMPANY & PLACED BY CONTRACTOR. COST OF PLACING INSERTS SHALL BE INCLUDED IN BID PRICE FOR CONCRETE MASONRY BRIDGES.
- PRESTRESSED GIRDER BRIDGES - HAUNCH CONCRETE QUANTITY IS BASED ON AVERAGE HAUNCH SHOWN ON PRESTESSED GIRDER DETAIL SHEET.
- LOCATIONS OF EXISTING & PROPOSED UTILITY INSTALLATIONS AS SHOWN ON PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN PROJECT AREA THAT ARE NOT SHOWN.

BRIDGE REMOVAL AND CONSTRUCTION NOTES

EXISTING BRIDGE PLANS ARE ON FILE IN INFRASTRUCTURE SERVICES DIVISION'S STRUCTURAL DESIGN UNIT, ROOM 907, FRANK P. ZEIDLER MUNICIPAL BUILDING, 841 NORTH BROADWAY, MILWAUKEE, WI 53202, PHONE (414) 286-3294.

EXISTING BRIDGE WILL BE REMOVED IN TWO STAGES TO KEEP CAPITOL DRIVE OPEN FOR TRAFFIC DURING CONSTR. EXISTING WESTBOUND STRUCTURE IS TO BE REMOVED FIRST WHILE BOTH DIRECTIONS OF TRAFFIC ARE CARRIED BY EXISTING EASTBOUND BRIDGE. AFTER PROPOSED WESTBOUND STRUCTURE IS COMPLETED, TRAFFIC WILL BE DIVERTED TO NEW BRIDGE & EXISTING EASTBOUND STRUCTURE WILL BE REMOVED.

WISCONSIN WETLANDS INVENTORY REVIEW INDICATES PRESENCE OF WETLANDS ADJACENT TO ROADWAY. WETLANDS MUST BE AVOIDED TO EXTENT PRACTICABLE. WETLANDS EXISTING NEAR AREA SHOULD BE AVOIDED & PROTECTED AGAINST EROSION & SEDIMENTATION DURING PROJECT CONSTRUCTION PHASE.

REMOVE EXISTING STRUCTURE B-40-59 OVER BRANCH OF MENOMONEE RIVER IN LARGE SECTIONS & CONFORMING TO CONTRACTOR'S APPROVED STRUCTURE REMOVAL & CLEAN-UP PLAN. DURING SUPERSTRUCTURE REMOVAL, PREVENT LARGE PIECES & MINIMIZE SMALL PIECES FROM ENTERING WATERWAY OR WETLAND.

AVOID PERMANENT OR LONG-TERM DEBRIS DEPOSITION IN WATERWAY. LIMIT MATERIAL DEPOSITION WITHIN WATERWAY. BRIDGE DECK REMOVAL IN SECTIONS IS PREFERRED TO KNOCKING IT DOWN INTO WATERWAY. MAINTAIN UNIMPEDED, NATURAL STREAM FLOW THROUGH STRUCTURE TO MAINTAIN STREAM ENVIRONMENT INTEGRITY.

REMOVE EXISTING ABUTS. TO 2-FT BELOW RIVERBED OR PROPOSED GRADE, WHICHEVER IS APPLICABLE.

REMOVE EXISTING WING WALL PORTIONS INTERFERING WITH NEW ABUTMENT PILE DRIVING, MULTI-USE PATH & PROPOSED RIPRAP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY G.J.R. | PLANS CK'D. J.R.S. A.R.

CROSS SECTION AND ESTIMATE OF QUANTITIES

SHEET 7 OF 31

8

8

W:\STR\B0312\PLANS\ 04_CONTOUR.DGN 12-07-2012

STATE PROJECT NUMBER

2025 - 16 - 70

EAST SIDE SILT FENCE INCLUDED IN MULTI-USE PATH QUANTITIES

NEW MSE WALL R-40-478

10' MULTI-USE PATH

FLOW BRANCH OF MENOMONEE RIVER

C/L OF 12" CONN. FOR STORM SEWER

C/L OF 3" CONDUIT FOR STREET LIGHT.

C/L OF DUCTS FOR TELEPHONE CO.

C/L OF 15" CONN. FOR STORM SEWER

C/L OF CONDUITS FOR TRAFFIC-FIRE & POLICE ALARM

C/L BRIDGE W. ABUT. STA. 12+99.05

BACK OF ABUT. STA. 12+96.44

C/L OF EXISTING & NEW BRIDGE

C/L OF STRUCTURE STA. 13+38.55

C/L BRIDGE E. ABUT. STA. 13+78.05

BACK OF ABUT. STA. 13+80.66

CITY OF MILWAUKEE
CITY OF WAUWATOSA

ELEC. DUCTS ARE REMOVED

C/L W. CAPITOL DR. & PROPOSED BRIDGE

TO BE ABANDONED

C/L OF 6-INCH CONN. FOR GAS MAIN

NEW 30" RCP

TO BE ABANDONED

EAST SIDE SILT FENCE INCLUDED IN MULTI-USE PATH QUANTITIES

NEW MSE WALL R-40-479

SILT FENCE LIMIT 11+90

BRANCH OF MENOMONEE RIVER

HORIZ. CLEARANCE

79'-0"

84'-2 5/8"

CONTOUR PLAN

NOTE -
SEE PLAT SHEET 4.04 FOR S.T.H. 190 (W. CAPITOL DR.) STATE PROJECT NUMBERS 2025-16-20 & 2025-16-70 FOR FULL CONTOUR & EROSION CONTROL PLANS FOR MULTI-USE PATH ALONG EAST SIDE OF RIVER.

GRADING LIMITS
SILT FENCE LIMITS
EXISTING CONTOUR LINE
PROPOSED CONTOUR LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

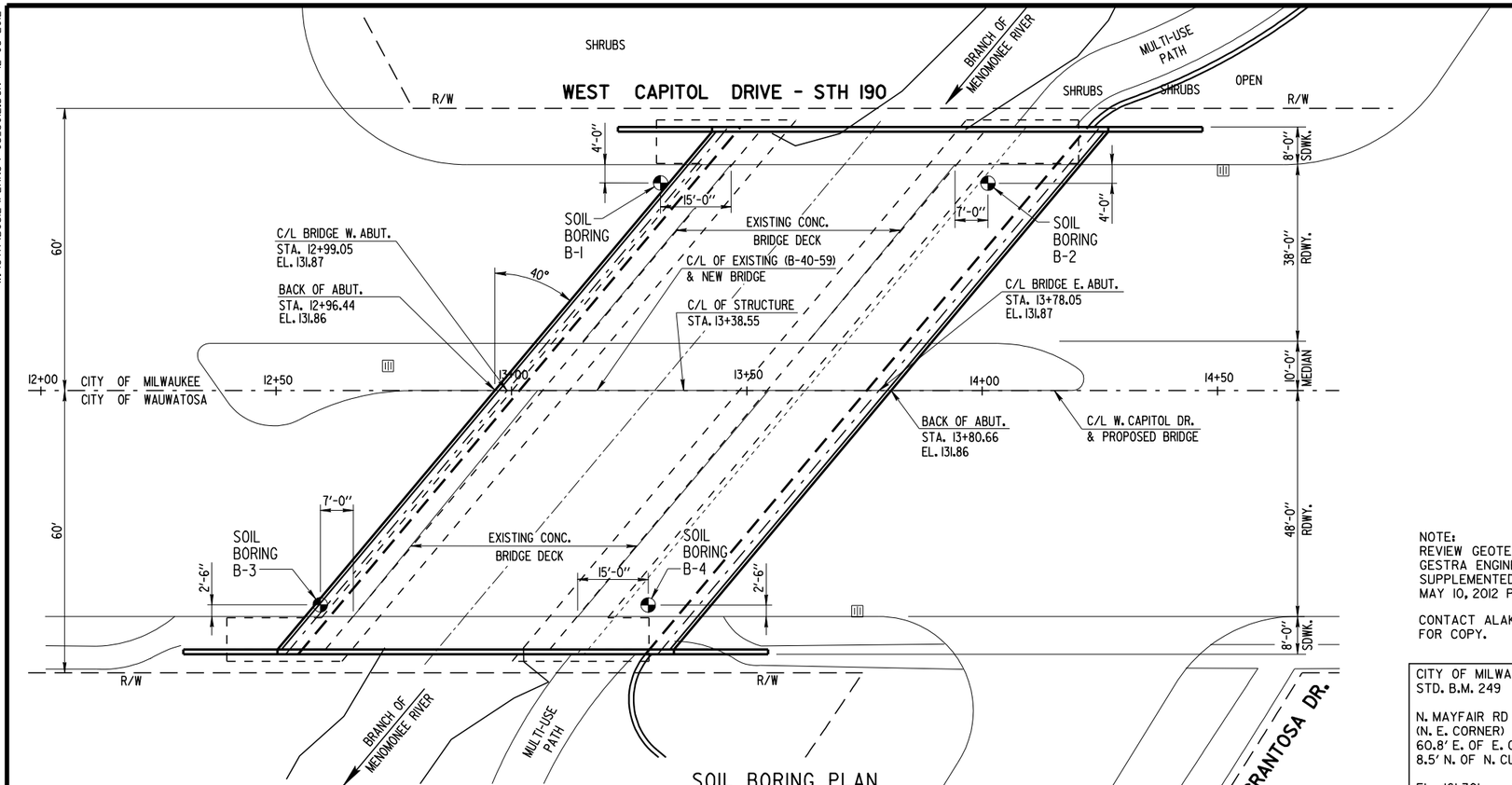
DRAWN BY G.J.R. | PLANS CK'D. J.R.S. A.R.

CONTOUR PLAN

SHEET 384 OF 31

8

W:\STR\BOS12\PLANS\ 05_SOIL.DGN 12-05-2012



SOIL BORING PLAN

(SINGLE SPAN PRESTRESSED CONCRETE GIRDER TYPE I 36W-INCH)

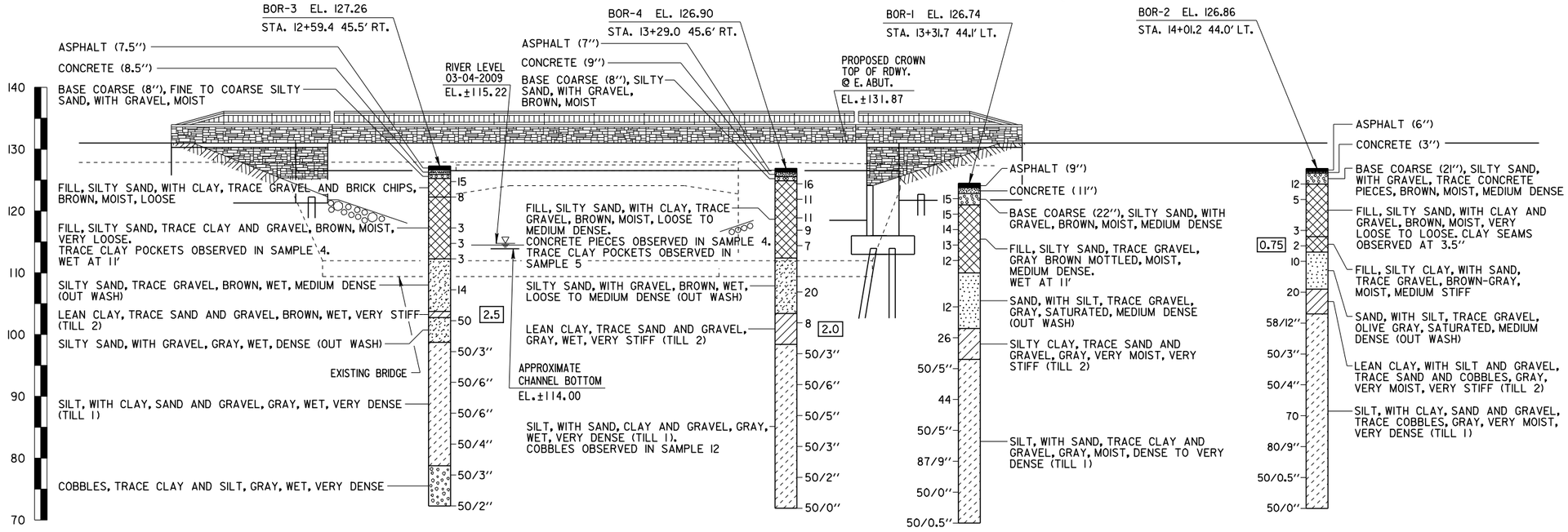
NOTE:
REVIEW GEOTECHNICAL REPORTS PREPARED BY GESTRA ENGINEERING DATED APRIL 19, 2009 & SUPPLEMENTED ON SEPTEMBER 1, 2010, & MAY 10, 2012 PRIOR TO SUBMITTING BID.

CONTACT ALAK ROY AT 414-286-0451 FOR COPY.

CITY OF MILWAUKEE
STD. B.M. 249

N. MAYFAIR RD & W. CAPITOL DR.
(N. E. CORNER)
60.8' E. OF E. CURB OF N. MAYFAIR RD &
8.5' N. OF N. CURB OF W. CAPITOL DR.

EL. 161.301



SOIL BORING LOG

STATE PROJECT NUMBER

2025 - 16 - 70

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

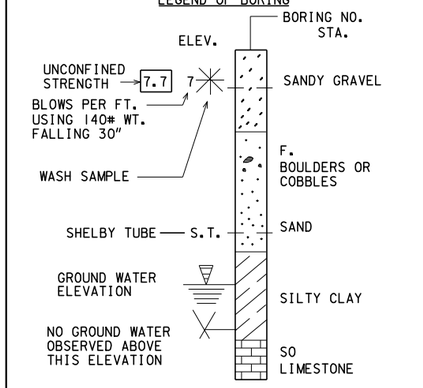
TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

PROBING NO.
STATION
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

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SUBSURFACE EXPLORATION

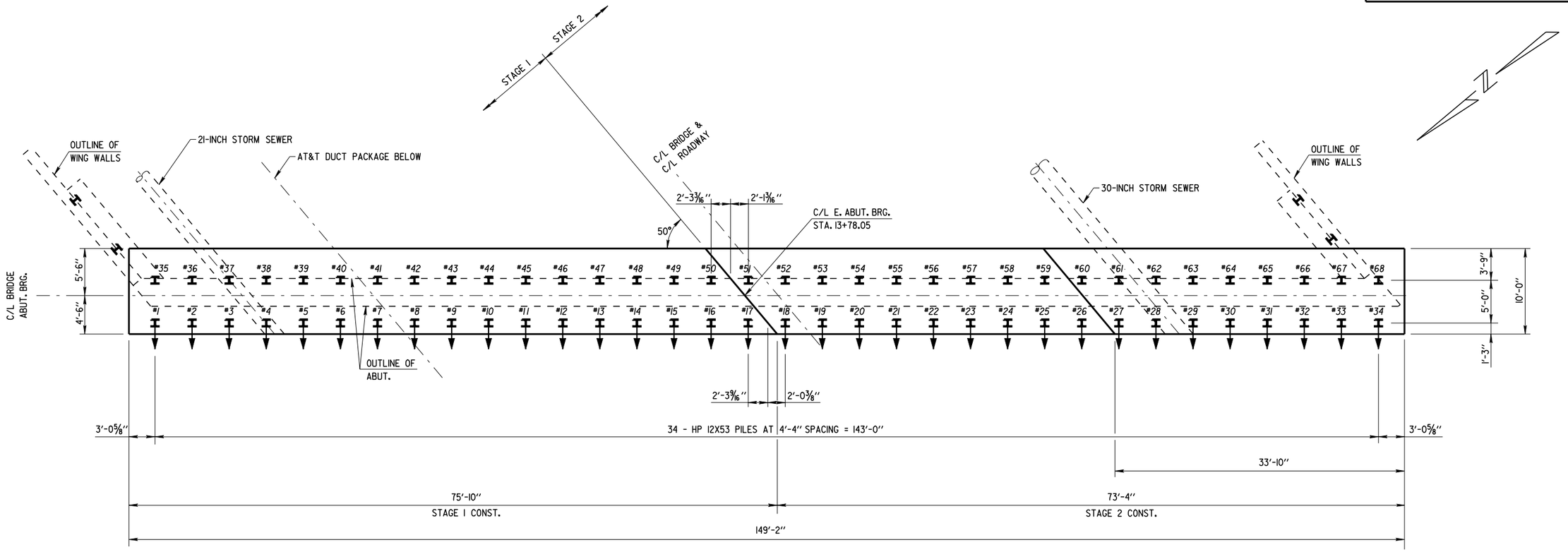
SHEET 385 OF 31

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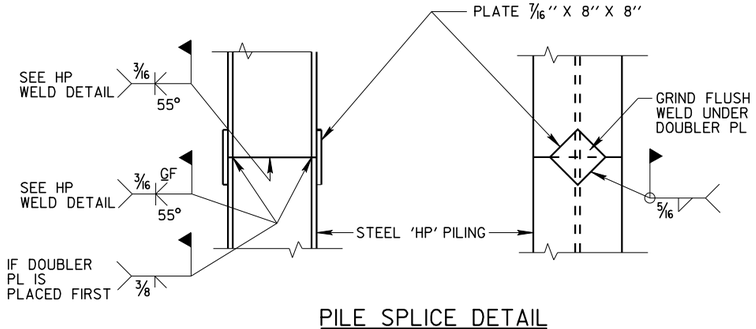
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STATE PROJECT NUMBER
2025 - 16 - 70

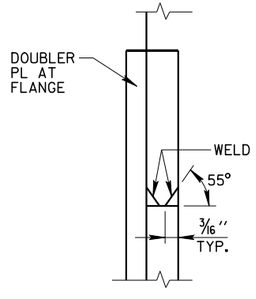


PLAN VIEW

DIRECTION OF 1:4 PILE BATTER



PILE SPLICE DETAIL
TYPICAL



HP WELD DETAIL
FLANGE SHOWN
WEB SIMILAR

NOTES:
EXISTING STORM SEWERS TO REMAIN IN SERVICE DURING NEW CONSTRUCTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

EAST ABUTMENT PILE LAYOUT PLAN

SHEET 386 OF 31

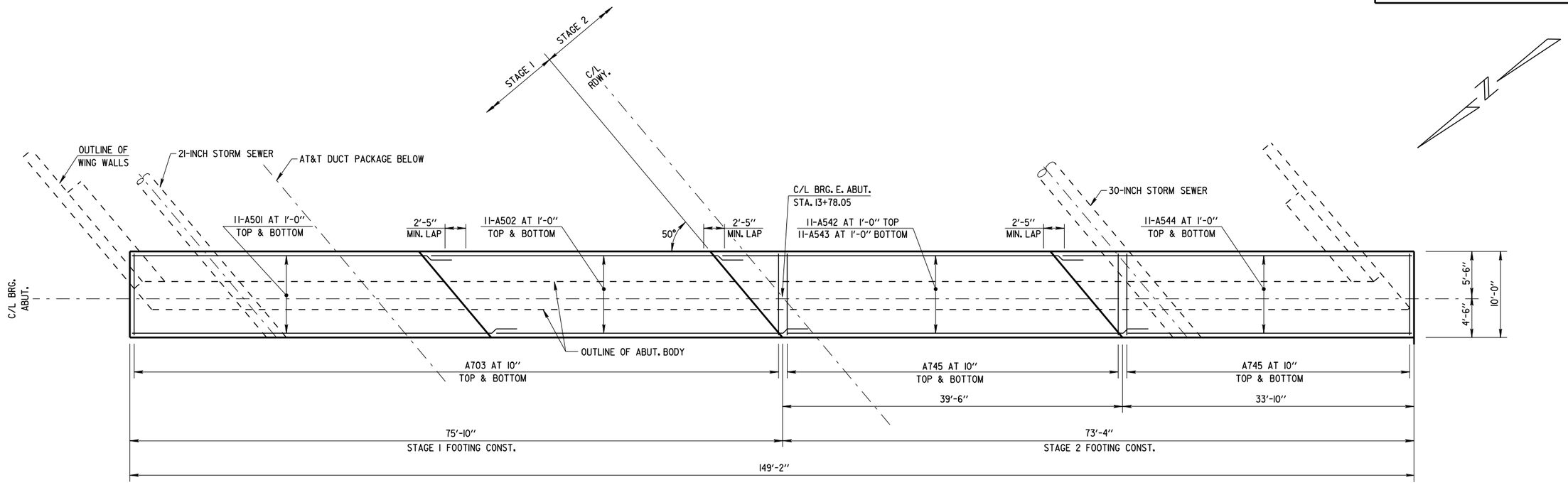
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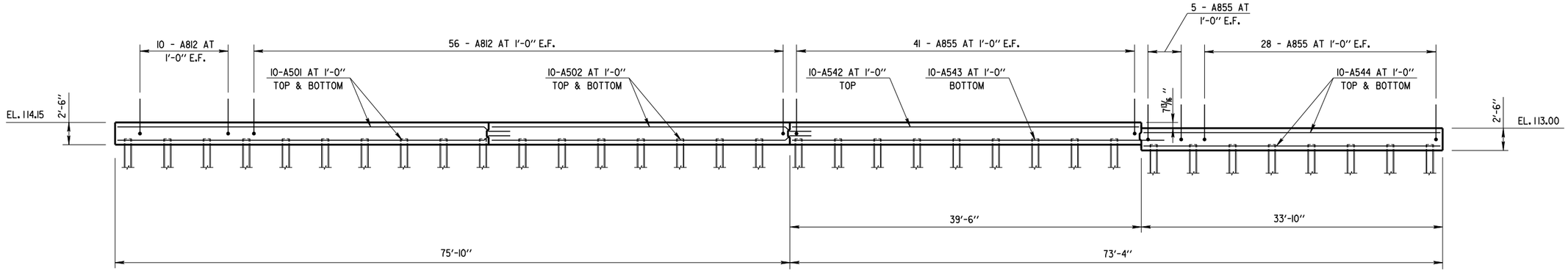
W:\STR\B03I2\PLANS\ 07_E_ABUTFOOTING.DGN 10-12-2012

STATE PROJECT NUMBER

2025 - 16 - 70



PLAN VIEW



ELEVATION

NOTES:

MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE NOTED OR SHOWN.

EXISTING STORM SEWERS TO REMAIN IN SERVICE DURING NEW CONSTRUCTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

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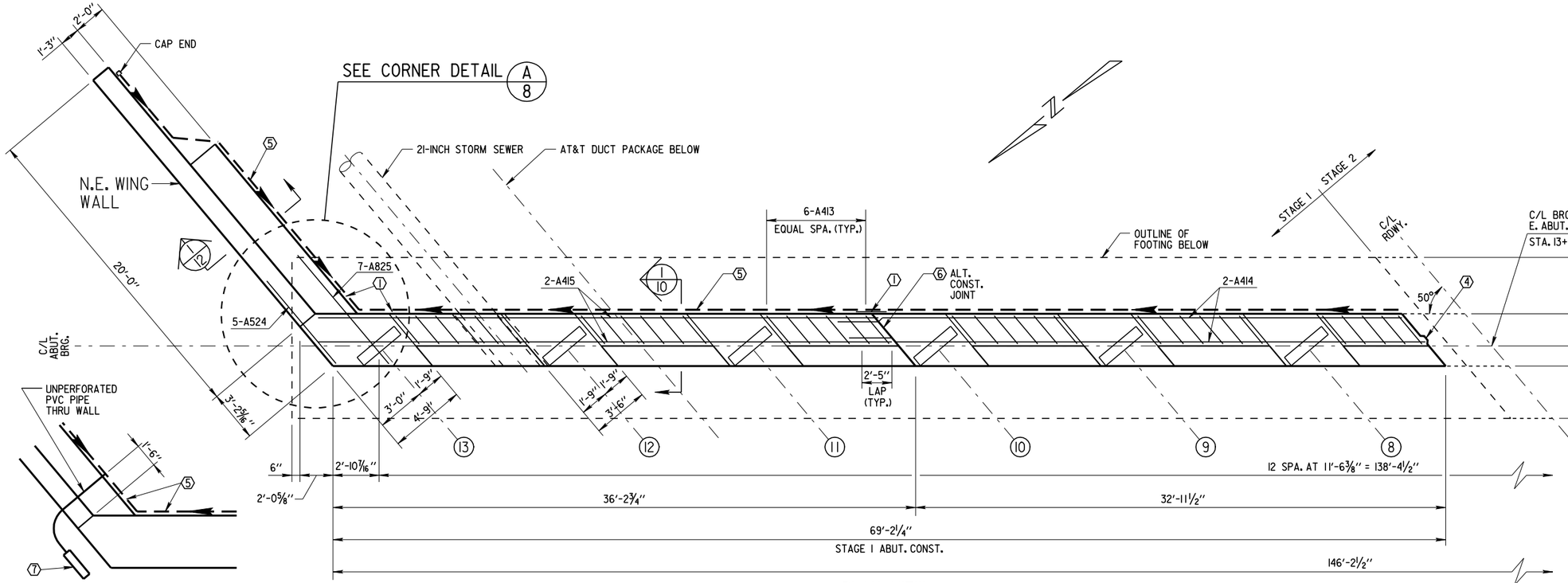
EAST ABUTMENT FOOTING PLAN

SHEET 387 OF 31

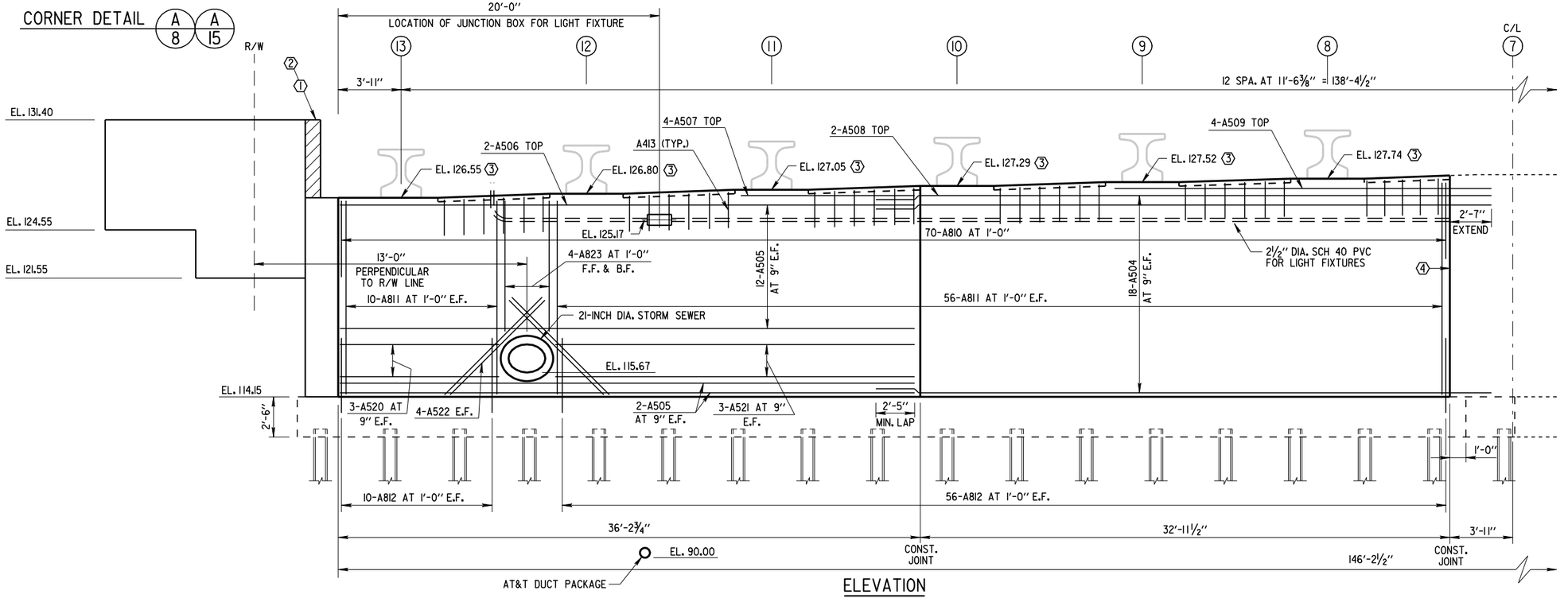
W:\STR\B03\2\PLANS\ 08_E_ABUT1.DGN 11-27-2012

STATE PROJECT NUMBER

2025 - 16 - 70



PLAN VIEW



ELEVATION

ABUTMENT NOTES:

(1) 18-INCH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL & VERTICAL JOINTS ON BACKFACE. VERTICAL WATERPROOFING TO EXTEND FROM TOP OF FOOTING TO BEARING SEAT & BEARING SEAT TO TOP OF WING.

(2) FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

(3) TOP OF SEAT ELEVATION GIVEN AT C/L OF BRIDGE.

(4) 2" X 1'-4" KEYED VERTICAL CONSTRUCTION JOINT ON C/L OF ABUTMENT FROM TOP OF FOOTING TO TOP OF ABUTMENT BODY, USE 3/4" V-GROOVE ON FRONT FACE.

(5) 6-INCH DIA. PERFORATED PIPE UNDERDRAIN ALONG BACK FACE OF ABUTMENT AND WING WALLS.

(6) ALTERNATE CONSTRUCTION JOINT AT ABUTMENT. SEE SHEET 10 FOR DETAILS.

(7) ATTACH RODENT SHIELD PER S.D.D. REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE SHOWN OR NOTED.

EXISTING STORM SEWERS TO REMAIN IN SERVICE DURING NEW CONSTRUCTION.

F.F. - FRONT FACE
B.F. - BACK FACE
E.F. - EACH FACE

HATCHED AREA INDICATES PORTION TO BE PLACED WITH OR AFTER SUPERSTRUCTURE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

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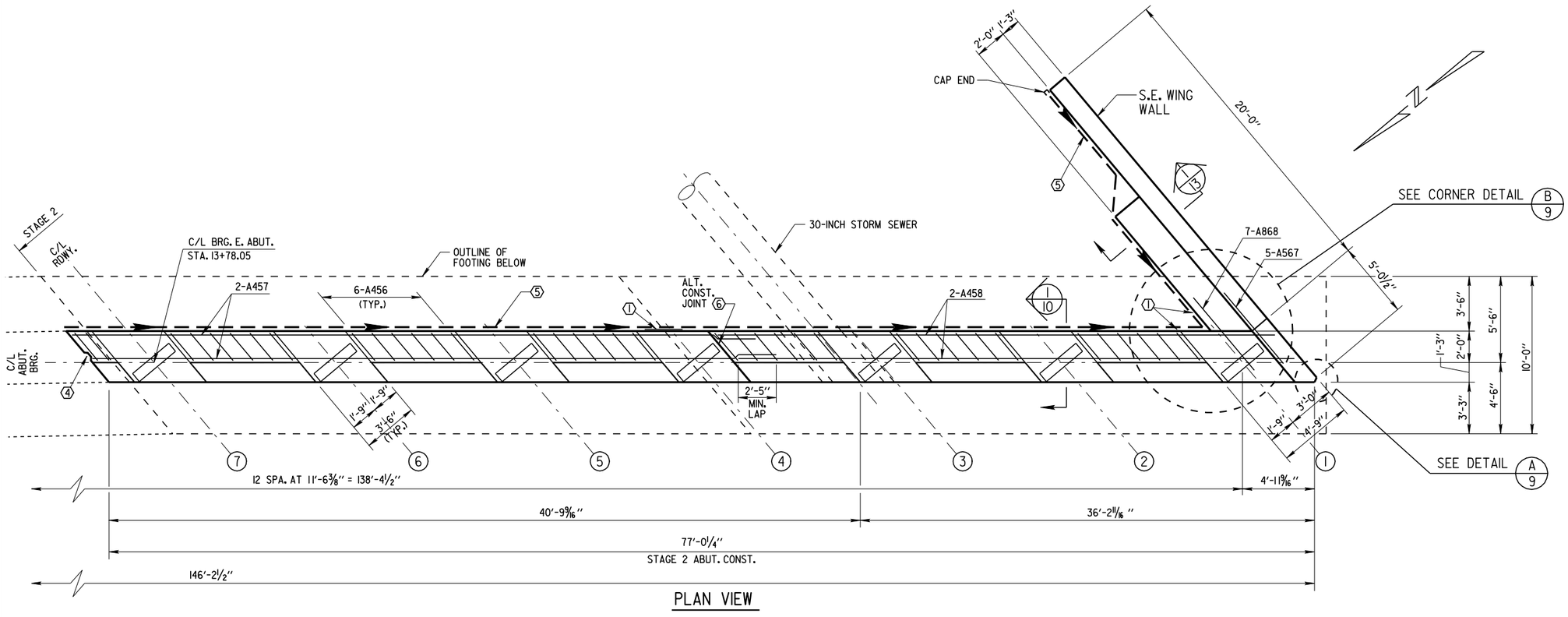
EAST ABUTMENT PLAN AND ELEVATION STAGE 1

SHEET 388 OF 31

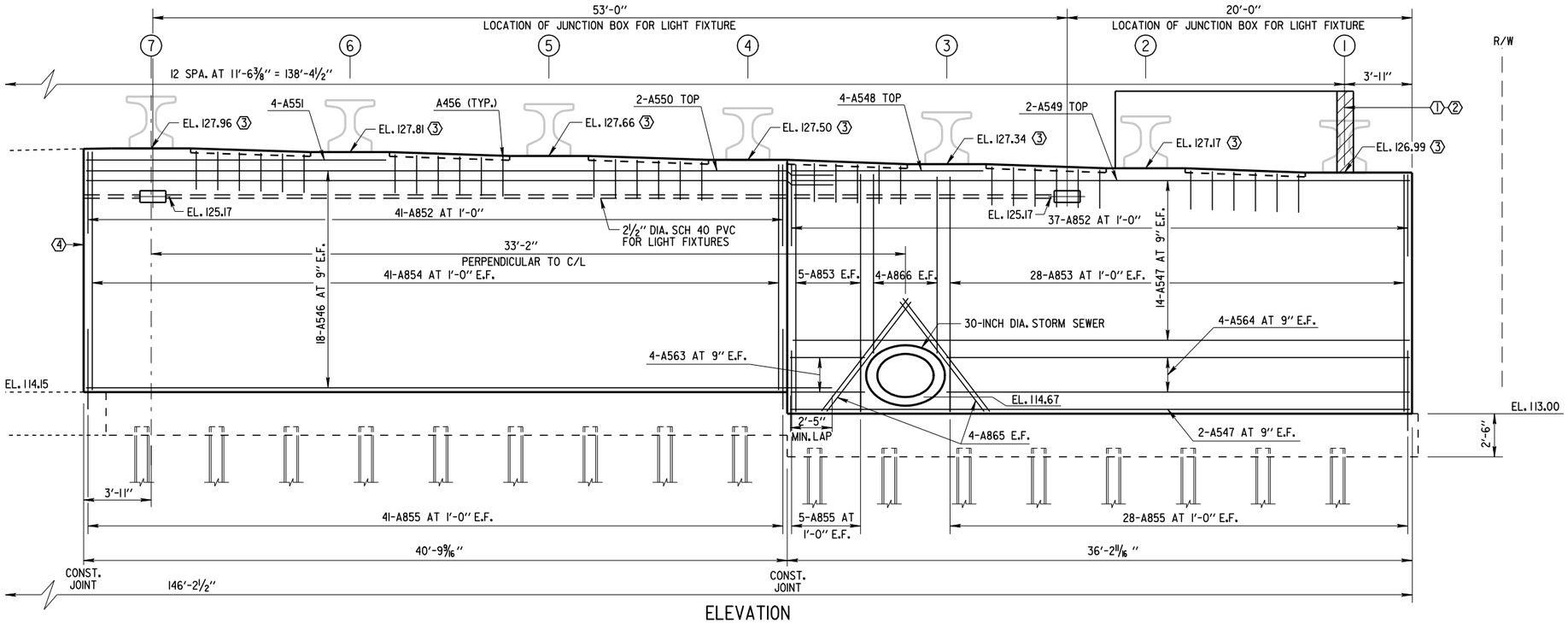
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STATE PROJECT NUMBER

2025 - 16 - 70



PLAN VIEW



ELEVATION

ABUTMENT NOTES:

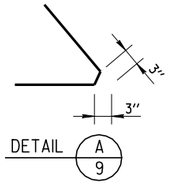
1. 18-INCH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL & VERTICAL JOINTS ON BACKFACE. VERTICAL WATERPROOFING TO EXTEND FROM TOP OF FOOTING TO BEARING SEAT & BEARING SEAT TO TOP OF WING.
2. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).
3. TOP OF SEAT ELEVATION GIVEN AT C/L OF BRIDGE.
4. 2" X 1'-4" KEYED VERTICAL CONSTRUCTION JOINT ON C/L OF ABUTMENT FROM TOP OF FOOTING TO TOP OF ABUTMENT BODY, USE ¾" V-GROOVE ON FRONT FACE.
5. 6-INCH DIA. PERFORATED PIPE UNDERDRAIN ALONG BACK FACE OF ABUTMENT & WING WALLS.
6. ALTERNATE CONSTRUCTION JOINT AT ABUTMENT. SEE SHEET 10 FOR DETAILS.
7. ATTACH RODENT SHIELD PER S.D.D. REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN.

MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE SHOWN OR NOTED.

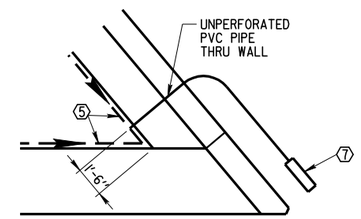
EXISTING STORM SEWERS TO REMAIN IN SERVICE DURING NEW CONSTRUCTION.

F.F. - FRONT FACE
B.F. - BACK FACE
E.F. - EACH FACE

HATCHED AREA INDICATES PORTION TO BE PLACED WITH OR AFTER SUPERSTRUCTURE



DETAIL A 9



CORNER DETAIL B 9 B 14

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

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EAST ABUTMENT PLAN AND ELEVATION STAGE 2

SHEET 389 OF 31

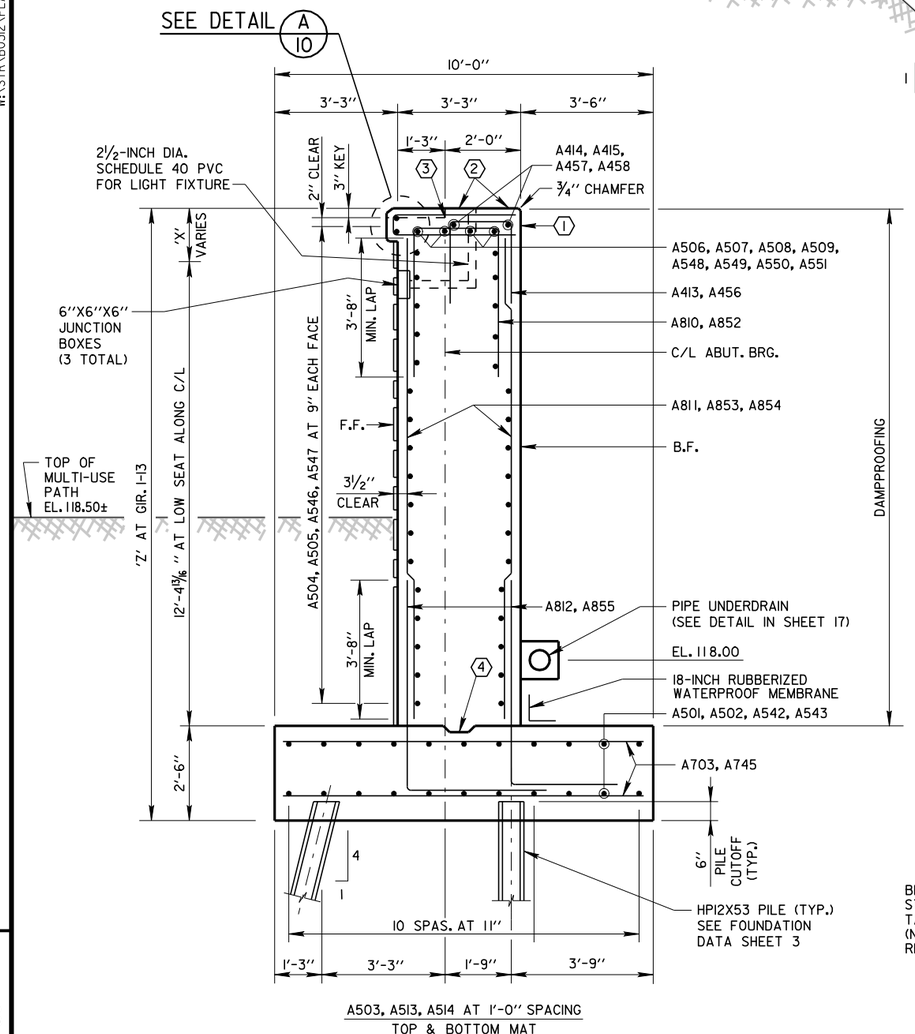
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STATE PROJECT NUMBER

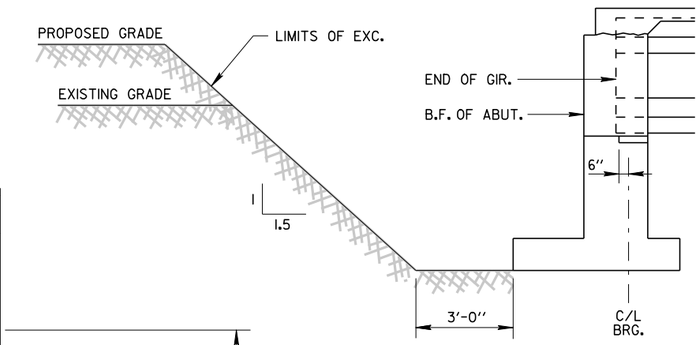
2025 - 16 - 70



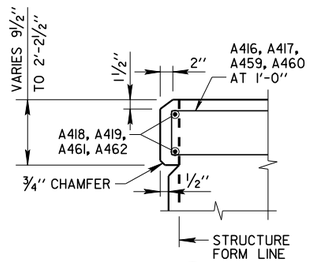
A503, A513, A514 AT 1'-0" SPACING
TOP & BOTTOM MAT

1/8 1/9 SECTION THRU ABUTMENT

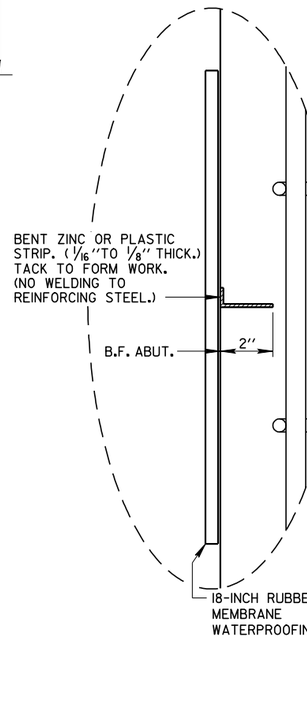
(SEE SHEET 18 FOR ARCHITECTURAL SURF. TREATMENT DETAILS)

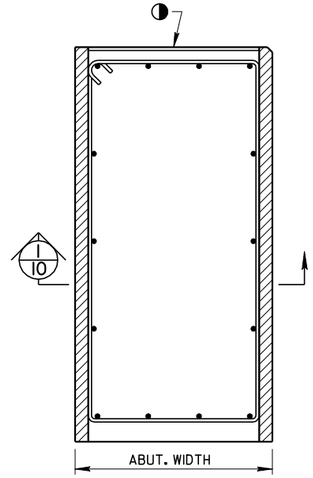


LIMITS OF EXCAVATION



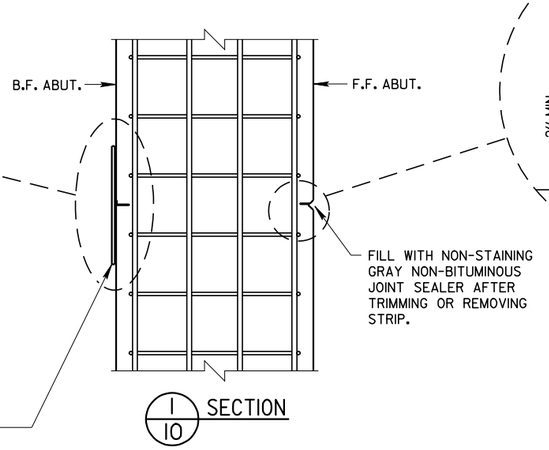
CAP DETAIL A 10



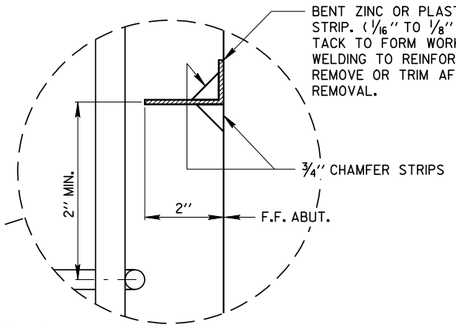


SECTION THRU ABUTMENT BODY

A1 ABUT. SHOWN, A5 SIMILAR



1 10 SECTION



ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

TABLE FOR TYPICAL SECTION

GIRDER LINE	BEAM SEAT ELEVATION	AT C/L OF GIRDER	
		'X'	'Z'
1	126.99	1'-7 1/16"	14'-0"
2	127.17	1'-9 3/16"	14'-2"
3	127.34	1'-11 5/16"	14'-4"
4	127.50	0'-11 3/8"	13'-4 1/4"
5	127.66	1'-1 3/8"	13'-6"
6	127.81	1'-3 1/8"	13'-7 7/8"
7	127.96	1'-4 15/16"	13'-9 3/4"
8	127.74	1'-2 5/16"	13'-7"
9	127.52	0'-11 5/8"	13'-4 3/8"
10	127.29	0'-9"	13'-1 5/8"
11	127.05	0'-6"	12'-10 3/4"
12	126.80	0'-3"	12'-7 3/4"
13	126.55	0'-0"	12'-4 3/4"

ABUTMENT NOTES:

(1) 18-INCH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS ON BACKFACE.

(2) STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEET SHALL BE AT LEAST 0.03".

(3) TOP OF WALL ELEVATION GIVEN AT THIS POINT.

(4) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 1'-4".

BAR MARK NOTES:

MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE SHOWN OR NOTED

F.F. = FRONT FACE
B.F. = BACK FACE
E.F. = EACH FACE
T = TOP
B = BOTTOM

ALTERNATE CONSTRUCTION JOINT NOTES:

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH PERMISSION OF ENGINEER, AT CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF BULKHEAD.

◑ USE JOINT TOOL TO CONSTRUCT CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

EAST ABUTMENT DETAILS

SHEET 390 OF 31

8

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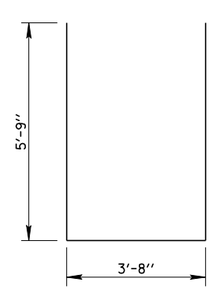
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BILL OF BARS - EAST ABUTMENT

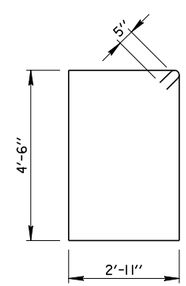
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A501		22	40'-6"		△	STAGE 1 - E. ABUT. - FOOTING - TRAN. TOP & BOTTOM
A502		22	36'-6"			STAGE 1 - E. ABUT. - FOOTING - TRAN. TOP & BOTTOM
A703		184	9'-8"			STAGE 1 - E. ABUT. - FOOTING - LONGIT. TOP & BOTTOM
A504		36	35'-3"			STAGE 1 - E. ABUT. - HORIZ. F.F. & B.F.
A505		28	35'-10"			STAGE 1 - E. ABUT. - HORIZ. F.F. & B.F.
A506		2	29'-11"			STAGE 1 - E. ABUT. - HORIZ. TOP
A507		4	11'-1"			STAGE 1 - E. ABUT. - HORIZ. TOP
A508		2	16'-6"			STAGE 1 - E. ABUT. - HORIZ. TOP
A509		4	24'-0"			STAGE 1 - E. ABUT. - HORIZ. TOP
A810		70	12'-5"	X		STAGE 1 - E. ABUT. - VERT. TOP
A811		132	12'-0"			STAGE 1 - E. ABUT. - VERT. F.F. & B.F.
A812		132	9'-4"	X		STAGE 1 - E. ABUT. - VERT. SEAT DOWEL F.F. & B.F.
A413		35	6'-0"	X		STAGE 1 - E. ABUT. - TOP STIRRUP AT 3" NOTCH
A414		2	35'-10"			STAGE 1 - E. ABUT. - TOP B.F. HORIZ. AT 3" NOTCH
A415		2	35'-9"			STAGE 1 - E. ABUT. - TOP B.F. HORIZ. AT 3" NOTCH
A416		36	6'-4"	X		STAGE 1 - E. ABUT. - STIRRUP CAP
A417		34	7'-2"	X		STAGE 1 - E. ABUT. - STIRRUP CAP
A418		2	35'-10"			STAGE 1 - E. ABUT. - CAP TRAN. BAR
A419		2	35'-9"			STAGE 1 - E. ABUT. - CAP TRAN. BAR
A520		6	9'-9"			STAGE 1 - E. ABUT. - HORIZ. AT 21-INCH STORM F.F. & B.F.
A521		6	22'-5"			STAGE 1 - E. ABUT. - HORIZ. AT 21-INCH STORM F.F. & B.F.
A522		8	7'-9"			STAGE 1 - E. ABUT. - DIAGONAL AT 21-INCH STORM F.F. & B.F.
A823		8	8'-0"			STAGE 1 - E. ABUT. - VERT. AT 21-INCH STORM F.F. & B.F.
A524	X	6	6'-7"			STAGE 1 - E. ABUT. - HORIZ. AT WING WALL
A825	X	7	8'-9"			STAGE 1 - E. ABUT. - HORIZ. AT WING WALL
A426	X	5	6'-2"			STAGE 1 - N.E. WING WALL - F.F. VERT.
A627	X	2	19'-8"			STAGE 1 - N.E. WING WALL - CAP HORIZ.
A528	X	6	13'-2"			STAGE 1 - N.E. WING WALL - F.F. HORIZ.
A429	X	4	19'-8"			STAGE 1 - N.E. WING WALL - F.F. HORIZ.
A430	X	10	15'-2"	X		STAGE 1 - N.E. WING WALL - FOOTING STIRRUP
A431	X	2	7'-10"			STAGE 1 - N.E. WING WALL - F.F. HORIZ.
A532	X	24	9'-5"	X		STAGE 1 - N.E. WING WALL - RAILING DOWEL
A533	X	9	11'-7"	X		STAGE 1 - N.E. WING WALL - STIRRUP VERT.
A534	X	19	11'-11"	X		STAGE 1 - N.E. WING WALL - STIRRUP VERT.
A435	X	2	7'-8"			STAGE 1 - N.E. WING WALL - B.F. HORIZ.
A436	X	7	19'-8"			STAGE 1 - N.E. WING WALL - B.F. HORIZ.
A837	X	7	15'-0"			STAGE 1 - N.E. WING WALL - B.F. HORIZ.
A838	X	2	13'-2"			STAGE 1 - N.E. WING WALL - TOP FOOTING HORIZ.
A440	X	3	19'-8"			STAGE 1 - N.E. WING WALL - CAP HORIZ.
A441	X	1	19'-10"			STAGE 1 - N.E. WING WALL - SDWK. LEDGE HORIZ.
A542		11	39'-0"			STAGE 2 - E. ABUT. - FOOTING - TRAN. TOP
A543		11	41'-9"			STAGE 2 - E. ABUT. - FOOTING - TRAN. BOTTOM
A544		22	37'-7"		△	STAGE 2 - E. ABUT. - FOOTING - TRAN. TOP & BOTTOM
A745		178	9'-8"			STAGE 2 - E. ABUT. - FOOTING - LONGIT. TOP & BOTTOM
A546		36	43'-3"			STAGE 2 - E. ABUT. - HORIZ. F.F. & B.F.
A547		30	35'-10"			STAGE 2 - E. ABUT. - HORIZ. F.F. & B.F.
A548		4	11'-6"			STAGE 2 - E. ABUT. - HORIZ. TOP
A549		2	26'-11"			STAGE 2 - E. ABUT. - HORIZ. TOP
A550		2	27'-11"			STAGE 2 - E. ABUT. - HORIZ. TOP
A551		4	17'-6"			STAGE 2 - E. ABUT. - HORIZ. TOP
A852		78	12'-5"	X		STAGE 2 - E. ABUT. - VERT. TOP
A853		66	13'-7"			STAGE 2 - E. ABUT. - VERT. F.F. & B.F.
A854		82	12'-11"			STAGE 2 - E. ABUT. - VERT. F.F. & B.F.
A855		148	9'-4"	X		STAGE 2 - E. ABUT. - VERT. SEAT DOWEL F.F. & B.F.
A456		38	6'-0"	X		STAGE 2 - E. ABUT. - TOP STIRRUP AT 3" NOTCH
A457		2	43'-3"			STAGE 2 - E. ABUT. - TOP B.F. HORIZ. AT 3" NOTCH
A458		2	35'-10"			STAGE 2 - E. ABUT. - TOP B.F. HORIZ. AT 3" NOTCH
A459		37	6'-4"	X		STAGE 1 - E. ABUT. - STIRRUP CAP
A460		41	7'-2"	X		STAGE 1 - E. ABUT. - STIRRUP CAP
A461		2	43'-3"			STAGE 1 - E. ABUT. - CAP TRAN. BAR
A462		2	35'-10"			STAGE 1 - E. ABUT. - CAP TRAN. BAR
A563		8	4'-2"			STAGE 2 - E. ABUT. - HORIZ. AT 30-INCH STORM F.F. & B.F.
A564		8	27'-6"			STAGE 2 - E. ABUT. - HORIZ. AT 30-INCH STORM F.F. & B.F.
A865		8	7'-8"			STAGE 2 - E. ABUT. - DIAGONAL AT 30-INCH STORM F.F. & B.F.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A866		8	9'-11"			STAGE 2 - E. ABUT. - VERT. AT 30-INCH STORM F.F. & B.F.
A567	X	6	6'-7"			STAGE 2 - E. ABUT. - HORIZ. AT WING WALL
A868	X	7	8'-9"			STAGE 2 - E. ABUT. - HORIZ. AT WING WALL
A469	X	5	6'-6"			STAGE 2 - S.E. WING WALL - F.F. VERT.
A670	X	2	19'-8"			STAGE 2 - S.E. WING WALL - CAP HORIZ.
A571	X	6	13'-2"			STAGE 2 - S.E. WING WALL - F.F. HORIZ.
A472	X	4	19'-8"			STAGE 2 - S.E. WING WALL - F.F. HORIZ.
A473	X	10	15'-2"	X		STAGE 2 - S.E. WING WALL - FOOTING STIRRUP
A474	X	2	7'-8"			STAGE 2 - S.E. WING WALL - F.F. HORIZ.
A575	X	24	9'-5"	X		STAGE 2 - S.E. WING WALL - RAILING DOWEL
A576	X	9	12'-0"	X		STAGE 2 - S.E. WING WALL - STIRRUP VERT.
A577	X	19	12'-4"	X		STAGE 2 - S.E. WING WALL - STIRRUP VERT.
A478	X	2	7'-8"			STAGE 2 - S.E. WING WALL - B.F. HORIZ.
A479	X	7	19'-8"			STAGE 2 - S.E. WING WALL - B.F. HORIZ.
A880	X	7	11'-4"			STAGE 2 - S.E. WING WALL - B.F. HORIZ.
A881	X	2	12'-2"			STAGE 2 - S.E. WING WALL - TOP FOOTING HORIZ.
A483	X	3	19'-8"			STAGE 2 - S.E. WING WALL - CAP HORIZ.
A484	X	1	19'-6"			STAGE 2 - S.E. WING WALL - SDWK. LEDGE HORIZ.
A485	X	54	4'-2"	X		STAGE 1 & 2 - N.E. & S.E. WING WALL - CAP DOWEL VERT.
A486	X	42	2'-2"	X		STAGE 1 & 2 - N.E. & S.E. WING WALL - CAP STIRRUP
A487	X	42	2'-10"	X		STAGE 1 & 2 - N.E. & S.E. WING WALL - SDWK. LEDGE DOWEL

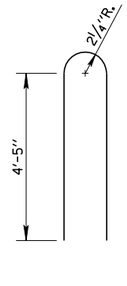
△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH & SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTH.



A812, A855



A430, A473



A532, A575

A486

BAR SERIES TABLE

BAR MARK	NO. REQUIRED	LENGTH
A501	2 SERIES OF 11	36'-6" TO 44'-6"
A544	2 SERIES OF 11	33'-7" TO 41'-8"

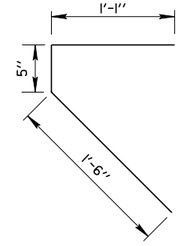
BUNDLE & TAG EACH SERIES SEPARATELY

EAST ABUTMENT QUANTITIES

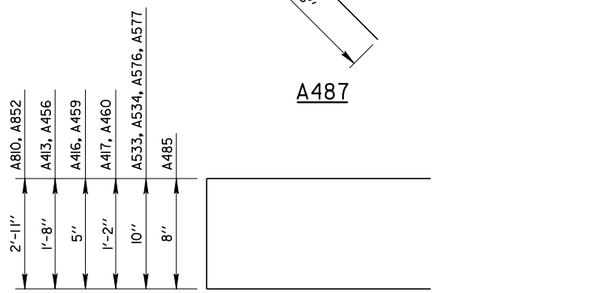
CONCRETE MASONRY BRIDGES	420 CY
BAR STEEL REINFORCEMENT HS BRIDGES	40,105 LB
BAR STEEL REINFORCEMENT HS COATED BRIDGES	3465 LB
BEARING PADS ELASTOMERIC NON-LAMINATED	13 EACH
DAMPPROOFING	223 SY
RUBBERIZED MEMBRANE WATERPROOFING	36 SY
CONCRETE STAINING (B-40-759)	303 SF
PILE POINTS	72 EACH
PILING STEEL HP 12-INCH X 53 LB	1,553 LF
PIPE UNDERDRAIN 6-INCH	186 LF
GEOTEXTILE FABRIC TYPE DF SCHEDULE A	186 SY
ARCHITECTURAL SURFACE TREATMENT	1,409 SF
FELT FILLER	1/2"
.03 POLYETHELENE SHEETS	55 SY

STATE PROJECT NUMBER

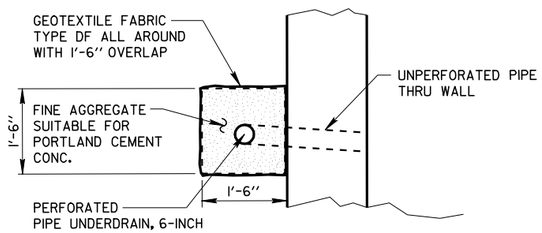
2025 - 16 - 70



A487



A810, A413, A416, A417, A533, A534, A852
A456, A459, A460, A576, A577, A485



NOTES:
SLOPE UNDERDRAIN .005'/" MIN TO DRAIN. CAP UPPER END.
FINE AGGREGATE INCIDENTAL TO PIPE UNDERDRAIN 6-INCH.

DETAIL FOR PIPE UNDERDRAIN AT ABUTMENTS AND WINGWALLS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

EAST ABUTMENT BILL OF BARS

SHEET 391 OF 31

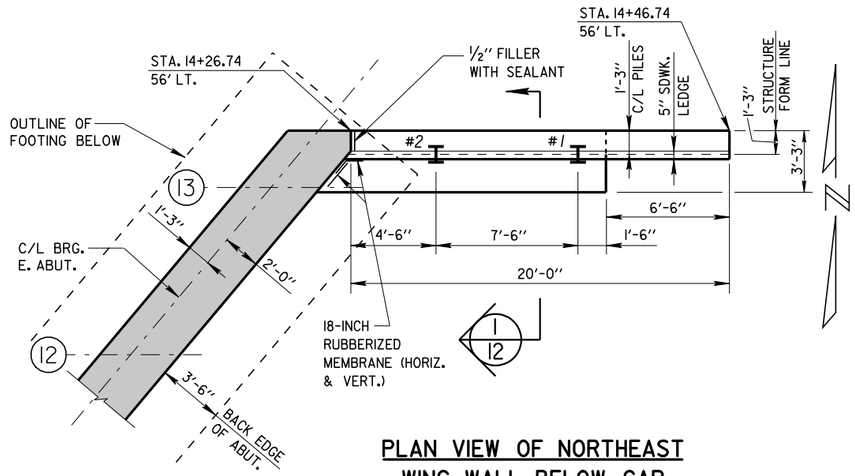
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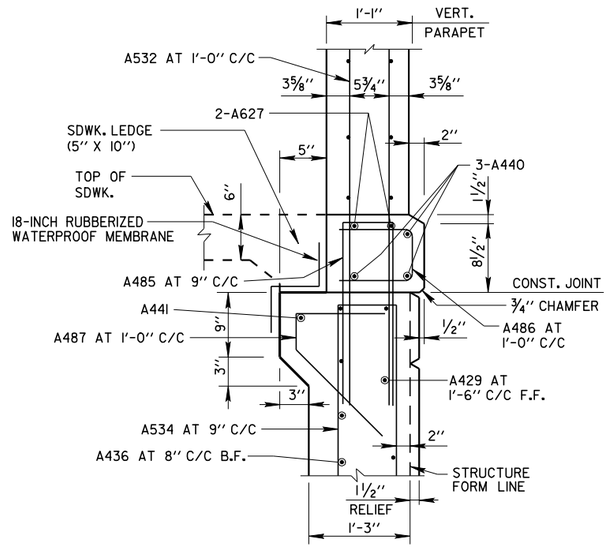
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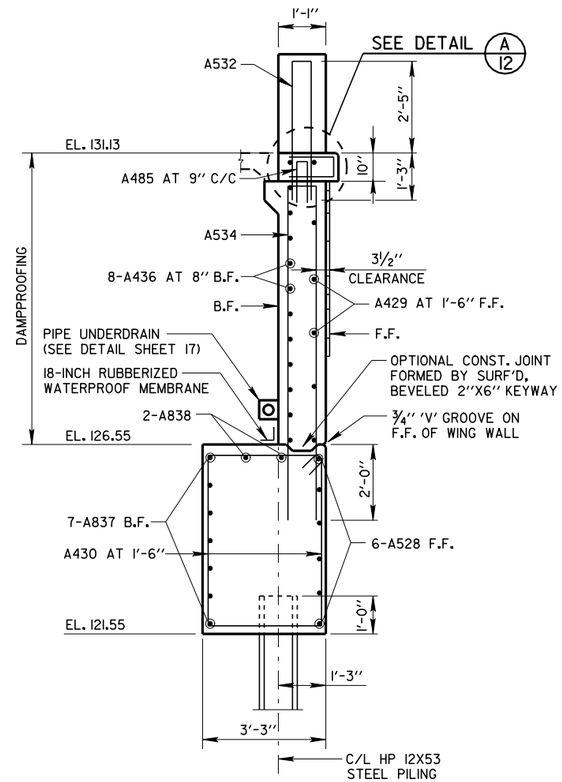
2025 - 16 - 70



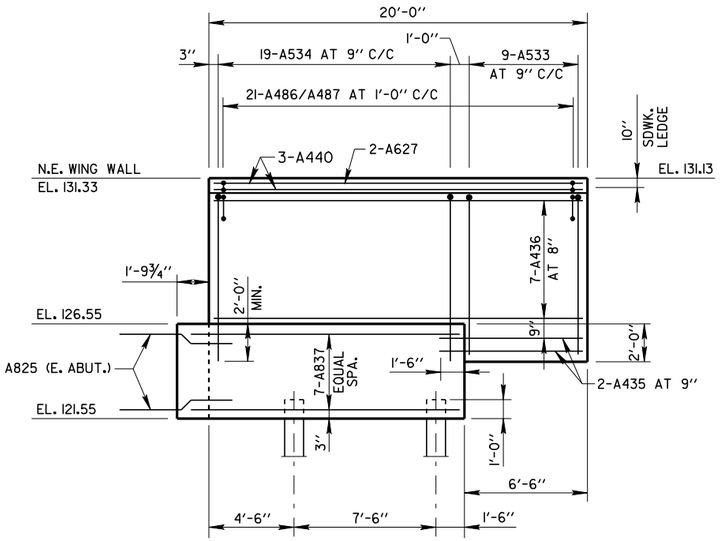
PLAN VIEW OF NORTHEAST WING WALL BELOW CAP



DETAIL (CAP DETAIL) A 12

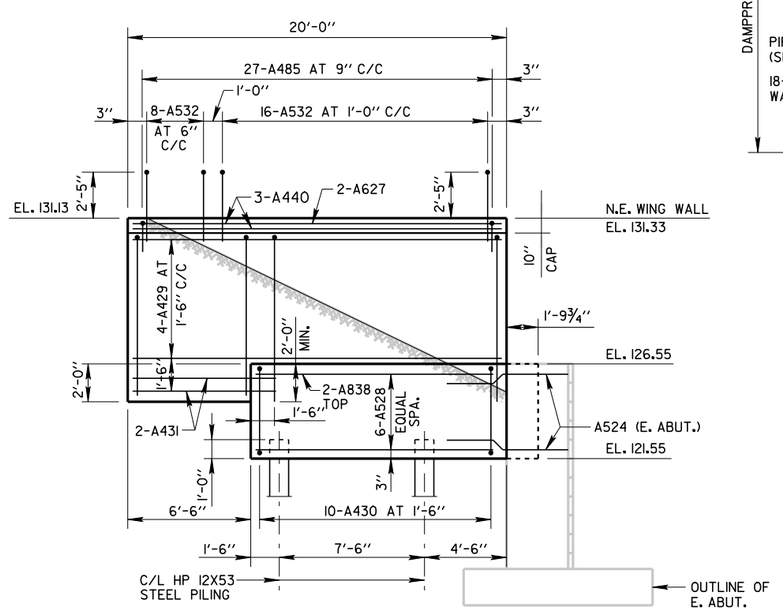


SECTION 1 12



NORTHEAST WING WALL ELEVATION

BACK FACE



NORTHEAST WING WALL ELEVATION

FRONT FACE

NOTE:
MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE NOTED OR SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY	K.P.S.	PLANS CK'D.	J.P.H. A.R.

N.E. WING WALL PLAN, ELEVATIONS AND SECTION

SHEET 12 OF 31

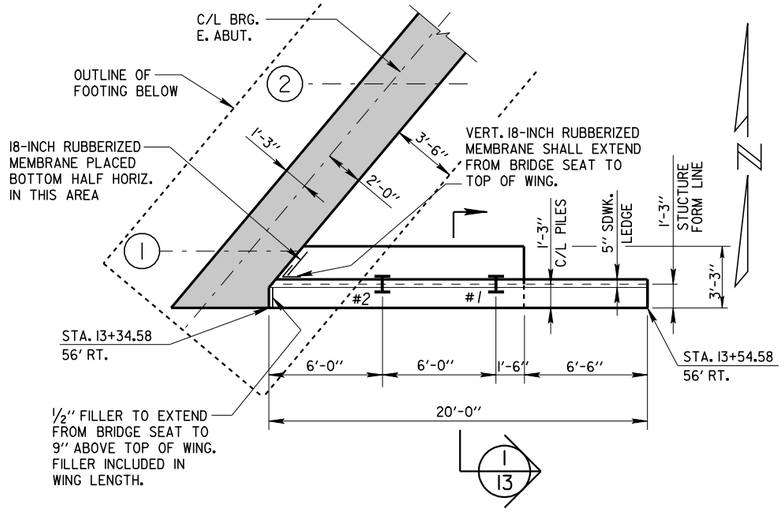
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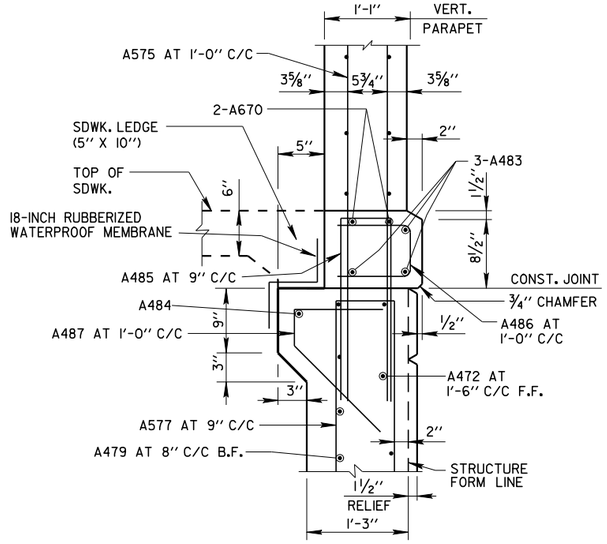
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STATE PROJECT NUMBER

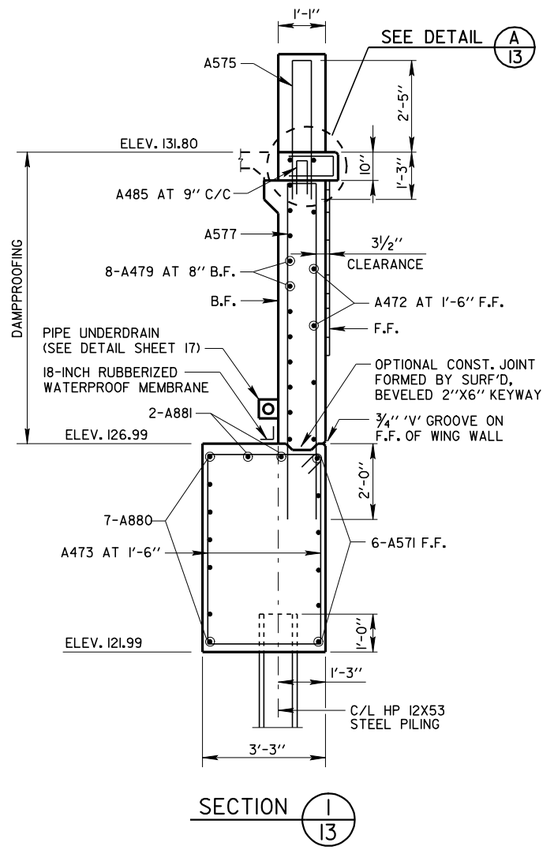
2025 - 16 - 70



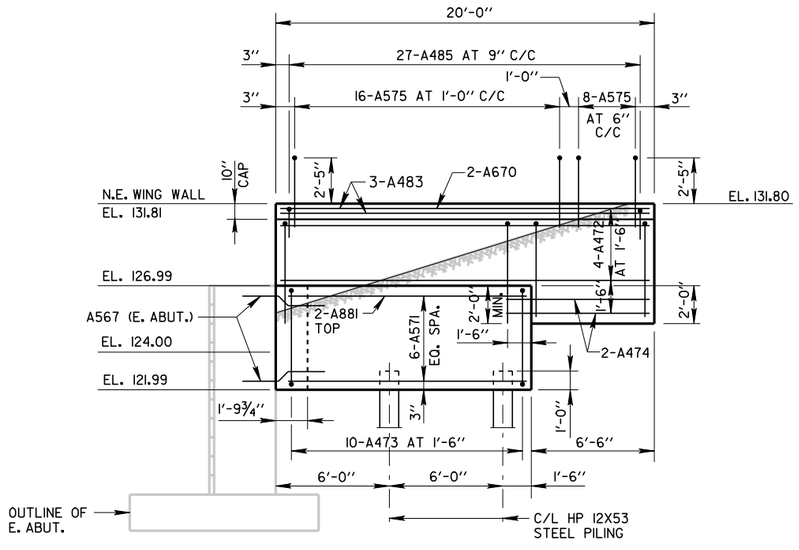
PLAN VIEW OF SOUTHEAST WING WALL BELOW CAP



DETAIL (CAP DETAIL) A/13

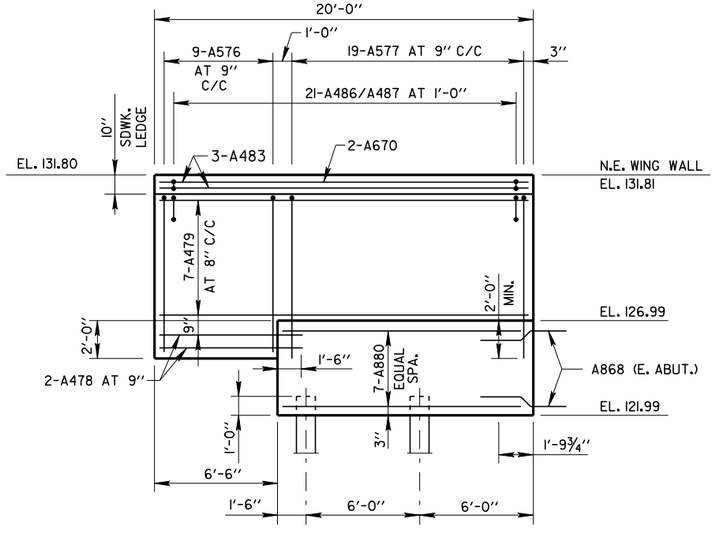


SECTION 1/13



SOUTHEAST WING WALL ELEVATION

FRONT FACE



SOUTHEAST WING WALL ELEVATION

BACK FACE

NOTE:
MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE
NOTED OR SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY	K.P.S.	PLANS CK'D.	J.P.H. R.V.K.

S.E. WING WALL PLAN, ELEVATIONS AND SECTION

SHEET 17 OF 31

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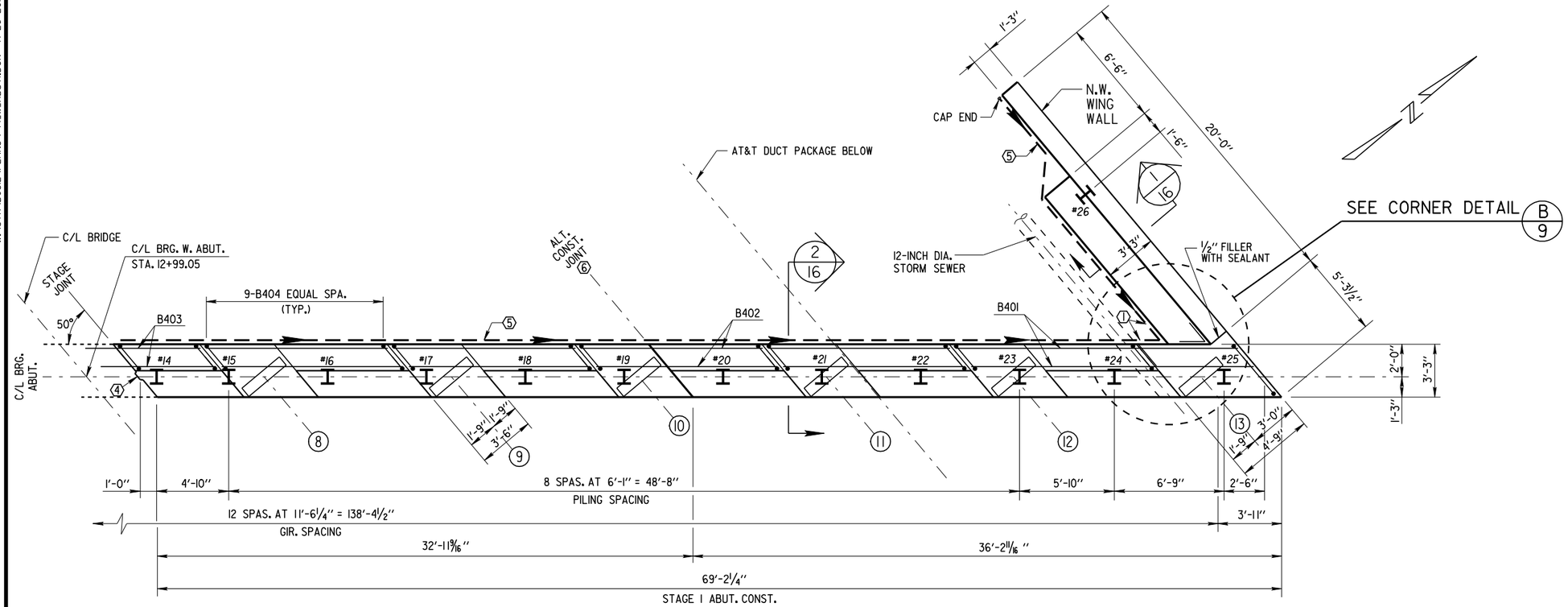
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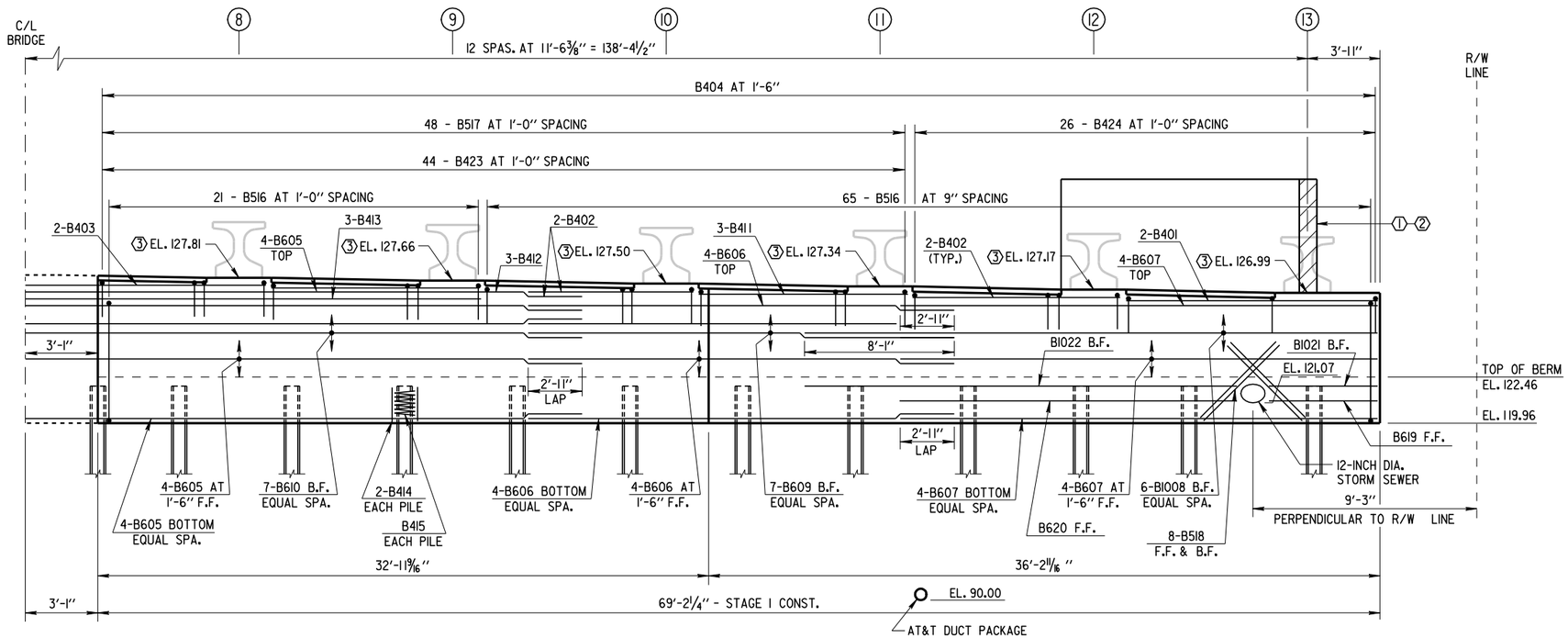
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STATE PROJECT NUMBER

2025 - 16 - 70



PLAN VIEW OF WEST ABUTMENT



FRONT FACE OF WEST ABUTMENT

STAGE I - LOOKING WEST

ABUTMENT NOTES:

1. 18-INCH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL & VERTICAL JOINTS ON BACKFACE. VERTICAL WATERPROOFING TO EXTEND FROM TOP OF FOOTING TO BEARING SEAT & BEARING SEAT TO TOP OF WING.
2. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).
3. TOP OF SEAT ELEVATION GIVEN AT C/L OF BRIDGE.
4. 2" X 1'-4" KEYED VERTICAL CONSTRUCTION JOINT ON C/L OF ABUTMENT FROM TOP OF FOOTING TO TOP OF ABUTMENT BODY, USE 3/4" V-GROOVE ON FRONT FACE.
5. 6-INCH DIA. PERFORATED PIPE UNDERDRAIN ALONG BACK FACE OF ABUTMENT & WING WALLS.
6. ALTERNATE CONSTRUCTION JOINT AT ABUTMENT. SEE SHEET 10 FOR DETAILS.

MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE SHOWN OR NOTED.

EXISTING STORM SEWERS TO REMAIN IN SERVICE DURING NEW CONSTRUCTION.

F.F. - FRONT FACE
B.F. - BACK FACE
E.F. - EACH FACE

HATCHED AREA INDICATES PORTION TO BE PLACED WITH OR AFTER SUPERSTRUCTURE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

WEST ABUTMENT PLAN AND ELEVATION STAGE I

SHEET 14 OF 31

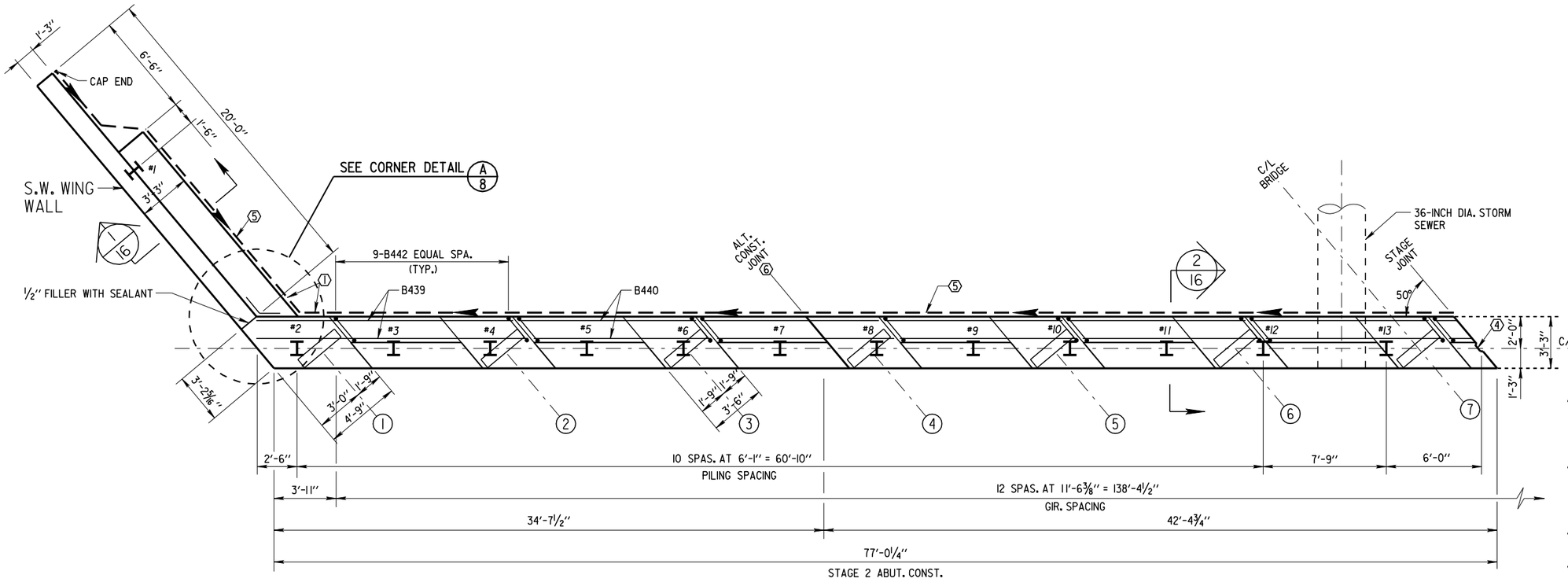
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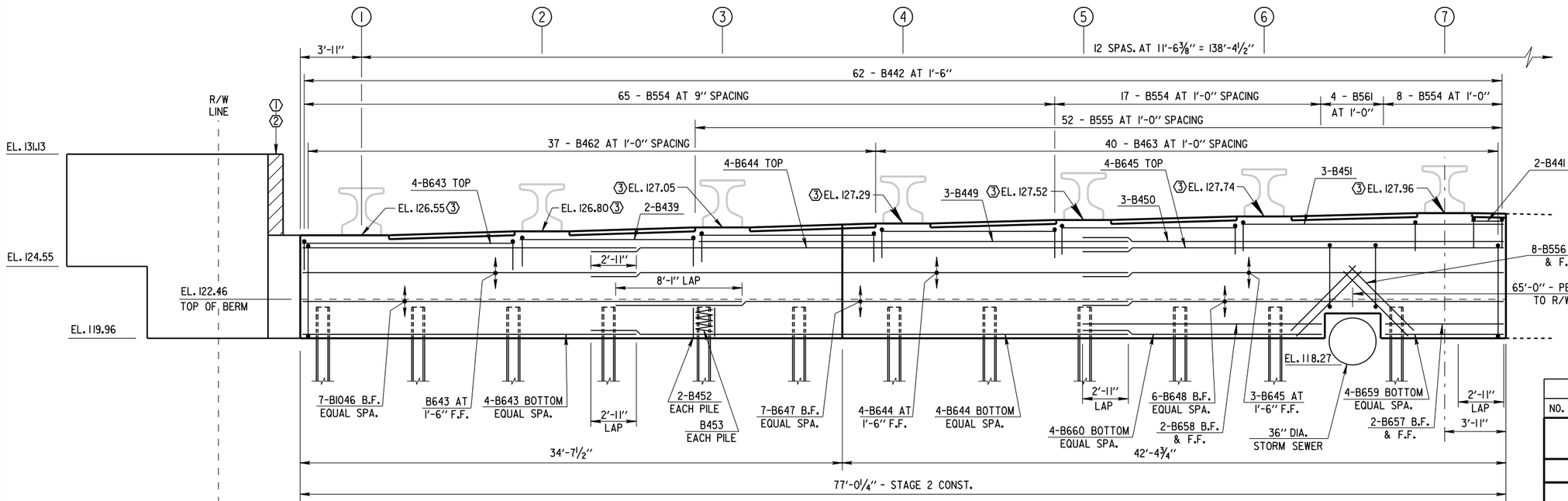
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STATE PROJECT NUMBER

2025 - 16 - 70



PLAN VIEW OF WEST ABUTMENT



FRONT FACE OF WEST ABUTMENT

LOOKING WEST

ABUTMENT NOTES:

(1) 18-INCH RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL & VERTICAL JOINTS ON BACKFACE. VERTICAL WATERPROOFING TO EXTEND FROM TOP OF FOOTING TO BEARING SEAT & BEARING SEAT TO TOP OF WING.

(2) FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

(3) TOP OF SEAT ELEVATION GIVEN AT C/L OF BRIDGE.

(4) 2" x 1'-4" KEYED VERTICAL CONSTRUCTION JOINT ON C/L OF ABUTMENT FROM TOP OF FOOTING TO TOP OF ABUTMENT BODY, USE 3/4" V-GROOVE ON FRONT FACE.

(5) 6" DIA. PERFORATED PIPE UNDERDRAIN ALONG BACK FACE OF ABUTMENT & WING WALLS.

(6) ALTERNATE CONSTRUCTION JOINT AT ABUTMENT. SEE SHEET 10 FOR DETAILS.

MAINTAIN 2" CLEAR FOR REBAR UNLESS OTHERWISE SHOWN OR NOTED.

EXISTING STORM SEWERS TO REMAIN IN SERVICE DURING NEW CONSTRUCTION.

F.F. - FRONT FACE
B.F. - BACK FACE
E.F. - EACH FACE

HATCHED AREA INDICATES PORTION TO BE PLACED WITH OR AFTER SUPERSTRUCTURE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

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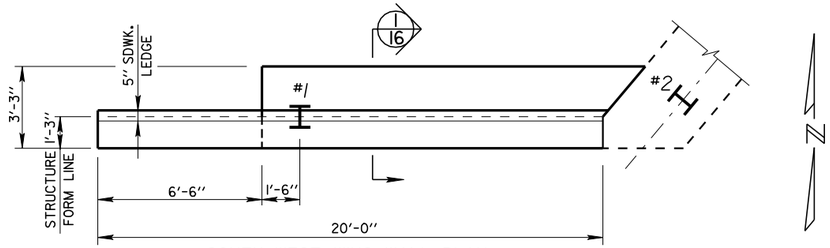
WEST ABUTMENT PLAN AND ELEVATION STAGE 2

SHEET 8 OF 31

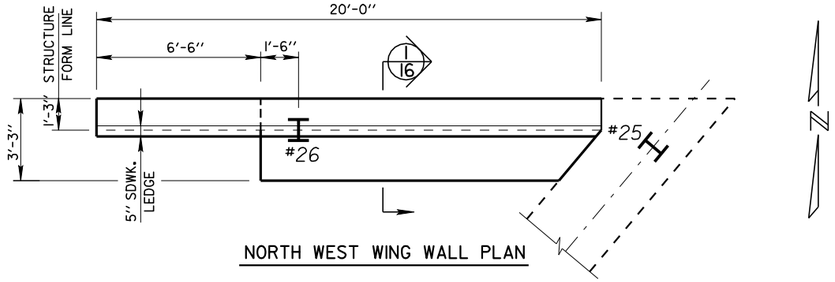
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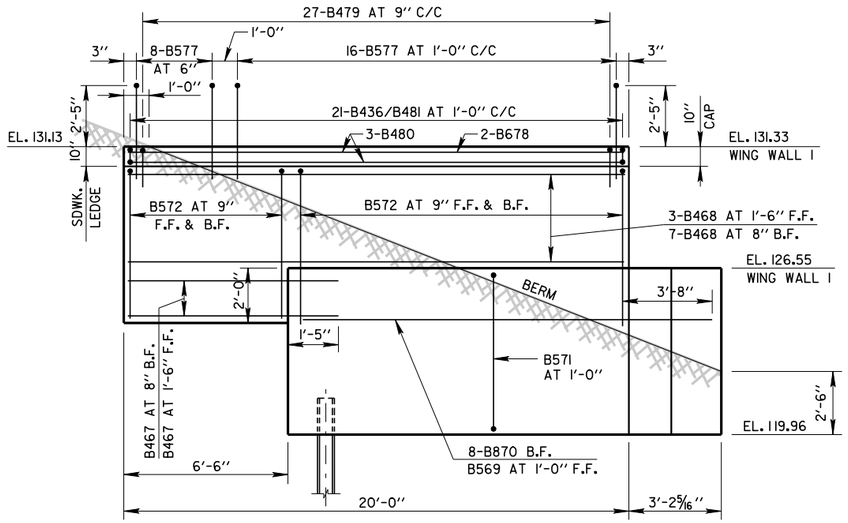
2025 - 16 - 70



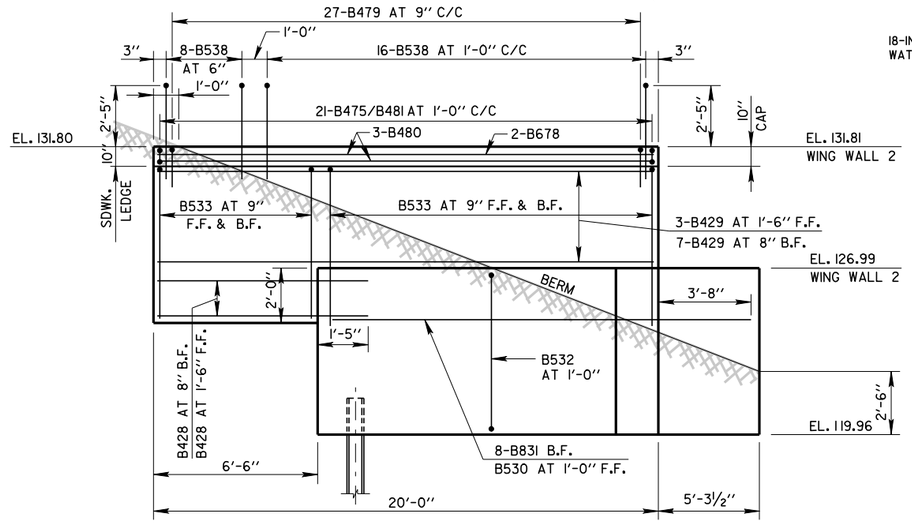
SOUTH WEST WING WALL PLAN



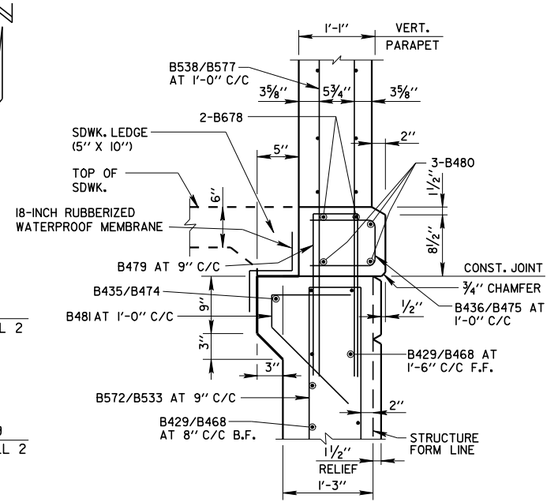
NORTH WEST WING WALL PLAN



SOUTH WEST WING WALL ELEVATION

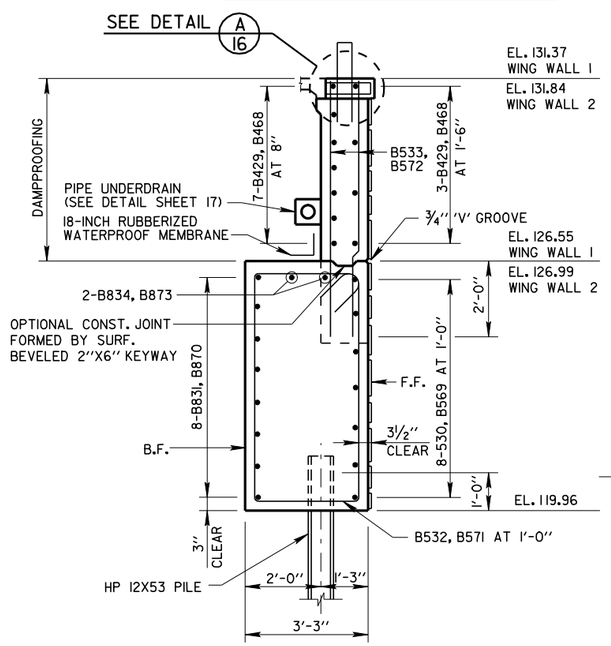


NORTH WEST WING WALL ELEVATION

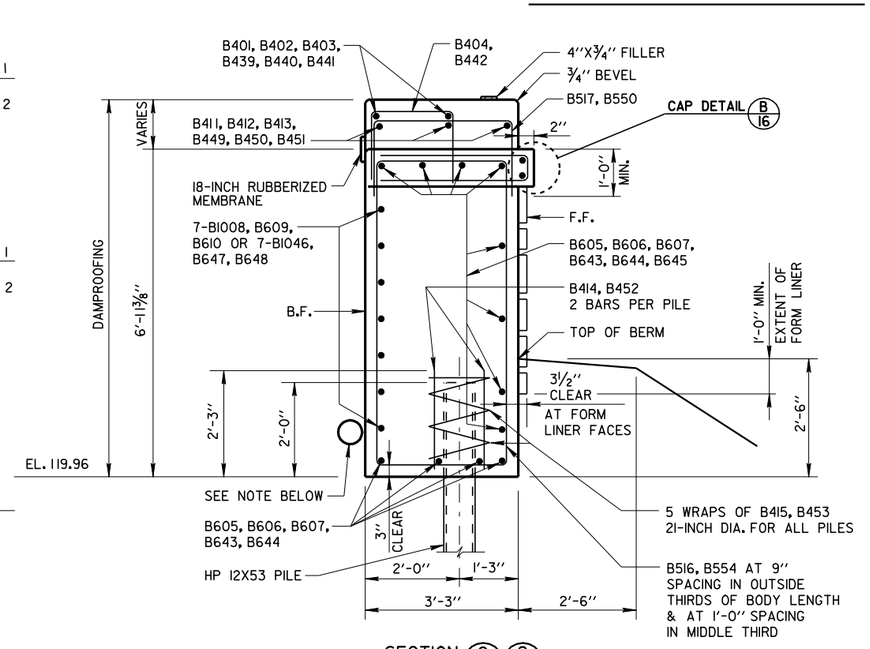


DETAIL (A / 16) (CAP DETAIL)

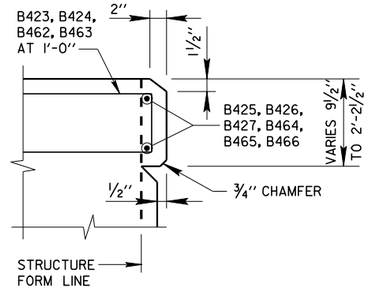
SEE DETAIL (A / 16)



SECTION (1/14) (1/15) (1/16) WING WALL 1



SECTION (2/14) (2/15)



CAP DETAIL (B / 16)

NOTE:
ELEVATION 122.25 PIPE UNDERDRAIN (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON S.D.D. REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN. CONNECT TO 36-INCH DIA. STORM SEWER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

WEST ABUTMENT WING WALL PLAN

SHEET 396 OF 31

8

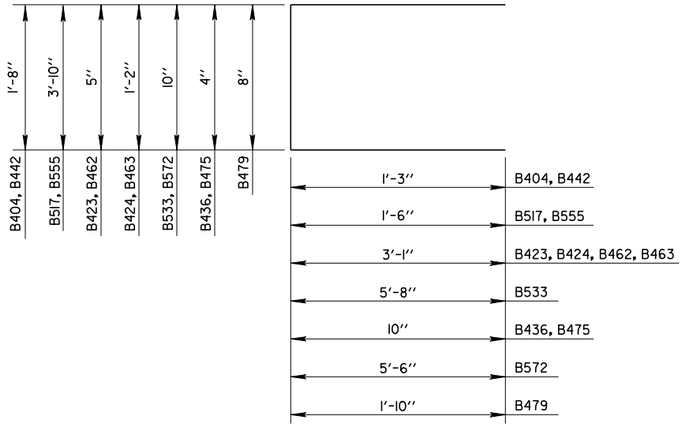
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W:\STR\B032\PLANS\ 17_W_ABUTDET.DGN 12-06-2012

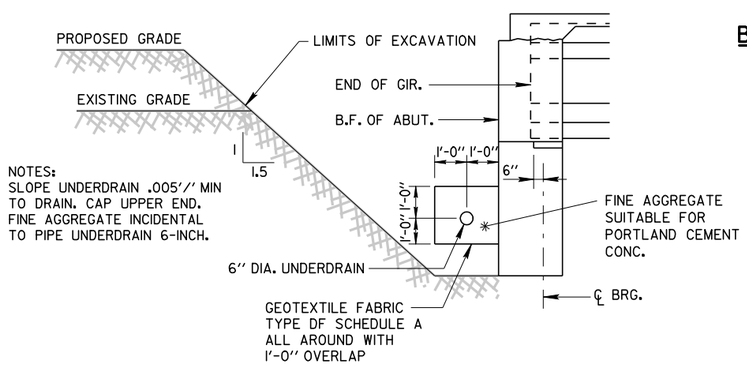
BILL OF BARS - WEST ABUTMENT

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401		2	17'-5"			STAGE 1 - W. ABUT. - TOP B.F. AT 3" NOTCH
B402		8	11'-2"			STAGE 1 - W. ABUT. - TOP B.F. AT 3" NOTCH
B403		2	6'-4"			STAGE 1 - W. ABUT. - TOP B.F. AT 3" NOTCH
B404		53	4'-0"	X		STAGE 1 - W. ABUT. - TOP B.F. AT 3" NOTCH - STIRRUP
B605		12	30'-1"			STAGE 1 - W. ABUT. - HORIZ. BOTTOM, F.F. & TOP
B606		12	23'-0"			STAGE 1 - W. ABUT. - HORIZ. BOTTOM, F.F. & TOP
B607		7	25'-9"			STAGE 1 - W. ABUT. - HORIZ. BOTTOM, F.F. & TOP
B1008		6	28'-1"			STAGE 1 - W. ABUT. - HORIZ. B.F. N. END
B609		7	25'-10"			STAGE 1 - W. ABUT. - HORIZ. B.F.
B610		7	30'-1"			STAGE 1 - W. ABUT. - HORIZ. B.F.
B411		3	20'-4"			STAGE 1 - W. ABUT. - HORIZ. TOP
B412		3	30'-1"			STAGE 1 - W. ABUT. - HORIZ. TOP
B413		3	24'-7"			STAGE 1 - W. ABUT. - HORIZ. TOP
B414		32	2'-3"			STAGE 1 - W. ABUT. - PILING
B415		16	28'-0"	X		STAGE 1 - W. ABUT. - PILING
B516		86	19'-1"	X		STAGE 1 - W. ABUT. - MAIN VERT. STIRRUPS
B517		48	6'-7"	X		STAGE 1 - W. ABUT. - VERT. STIRRUPS
B518		8	6'-0"			STAGE 1 - W. ABUT. - DIAGONAL AT 12-INCH STORM SEWER
B619		1	5'-10"			STAGE 1 - W. ABUT. - HORIZ. F.F. AT 12-INCH STORM
B620		1	18'-3"			STAGE 1 - W. ABUT. - HORIZ. F.F. AT 12-INCH STORM
B1021		1	5'-10"			STAGE 1 - W. ABUT. - HORIZ. B.F. AT 12-INCH STORM
B1022		1	23'-3"			STAGE 1 - W. ABUT. - HORIZ. B.F. AT 12-INCH STORM
B423		44	6'-4"	X		STAGE 1 - W. ABUT. - STIRRUP CAP
B424		26	7'-2"	X		STAGE 1 - W. ABUT. - STIRRUP CAP
B425		2	30'-1"			STAGE 1 - W. ABUT. - CAP TRAN. BAR
B426		2	23'-0"			STAGE 1 - W. ABUT. - CAP TRAN. BAR
B427		2	25'-9"			STAGE 1 - W. ABUT. - CAP TRAN. BAR
B428	X	4	7'-9"			STAGE 1 - N.W. WING WALL - HORIZ. FRONT & B.F.
B429	X	10	19'-8"			STAGE 1 - N.W. WING WALL - HORIZ. FRONT & B.F.
B530	X	8	17'-0"			STAGE 1 - N.W. WING WALL - HORIZ. F.F.
B831	X	8	17'-0"			STAGE 1 - N.W. WING WALL - HORIZ. B.F.
B532	X	14	19'-4"	X		STAGE 1 - N.W. WING WALL - MAIN VERT. STIRRUP
B533	X	27	11'-11"	X		STAGE 1 - N.W. WING WALL - VERT. STIRRUP
B834	X	2	17'-0"			STAGE 1 - N.W. WING WALL - HORIZ. TOP
B435	X	1	19'-6"			STAGE 1 - N.W. WING WALL - HORIZ. SDWK.LEDGE
B436	X	21	2'-2"	X		STAGE 1 - N.W. WING WALL - STIRRUP CAP HORIZ.
B538	X	24	9'-5"	X		STAGE 1 - N.W. WING WALL - RAILING DOWEL
B439		2	16'-4"			STAGE 2 - W. ABUT. - TOP B.F. AT 3" NOTCH
B440		10	11'-2"			STAGE 2 - W. ABUT. - TOP B.F. AT 3" NOTCH
B441		2	13'-2"			STAGE 2 - W. ABUT. - TOP B.F. AT 3" NOTCH
B442		62	4'-0"	X		STAGE 2 - W. ABUT. - TOP B.F. AT 3" NOTCH - STIRRUP
B643		12	21'-4"			STAGE 2 - W. ABUT. - HORIZ. BOTTOM, F.F. & TOP
B644		12	34'-1"			STAGE 2 - W. ABUT. - HORIZ. BOTTOM, F.F. & TOP
B645		7	26'-8"			STAGE 2 - W. ABUT. - HORIZ. F.F. & TOP
B1046		7	28'-1"			STAGE 2 - W. ABUT. - HORIZ. B.F. S. END
B647		7	32'-9"			STAGE 2 - W. ABUT. - HORIZ. B.F.
B648		6	26'-8"			STAGE 2 - W. ABUT. - HORIZ. B.F.
B449		3	24'-6"			STAGE 2 - W. ABUT. - HORIZ. TOP
B450		3	29'-9"			STAGE 2 - W. ABUT. - HORIZ. TOP
B451		3	16'-7"			STAGE 2 - W. ABUT. - HORIZ. TOP
B452		36	2'-3"			STAGE 2 - W. ABUT. - PILING
B453		18	28'-0"	X		STAGE 2 - W. ABUT. - PILING
B554		90	19'-1"	X		STAGE 2 - W. ABUT. - MAIN VERT. STIRRUP
B555		52	6'-7"	X		STAGE 2 - W. ABUT. - VERT. STIRRUP
B556		8	6'-0"			STAGE 2 - W. ABUT. - DIAGONAL AT 36-INCH STORM SEWER
B657		2	7'-7"			STAGE 2 - W. ABUT. - HORIZ. B.F. & F.F. AT 36-INCH STORM
B658		1	15'-4"			STAGE 2 - W. ABUT. - HORIZ. B.F. & F.F. AT 36-INCH STORM
B659		4	7'-7"			STAGE 2 - W. ABUT. - HORIZ. BOTTOM AT 36-INCH STORM
B660		4	15'-4"			STAGE 2 - W. ABUT. - HORIZ. BOTTOM AT 36-INCH STORM
B561		4	16'-3"	X		STAGE 2 - W. ABUT. - VERT. STIRRUP AT 36-INCH STORM
B462		37	6'-4"	X		STAGE 2 - W. ABUT. - STIRRUP CAP
B463		40	7'-2"	X		STAGE 2 - W. ABUT. - STIRRUP CAP
B464		2	21'-4"			STAGE 2 - W. ABUT. - CAP TRAN. BAR
B465		2	34'-1"			STAGE 2 - W. ABUT. - CAP TRAN. BAR

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B466		2	26'-8"			STAGE 2 - W. ABUT. - CAP TRAN. BAR
B467	X	4	7'-9"			STAGE 2 - S.W. WING WALL - HORIZ. FRONT & B.F.
B468	X	10	19'-8"			STAGE 2 - S.W. WING WALL - HORIZ. FRONT & B.F.
B569	X	8	17'-0"			STAGE 2 - S.W. WING WALL - HORIZ. F.F.
B870	X	8	17'-0"			STAGE 2 - S.W. WING WALL - HORIZ. B.F.
B571	X	14	18'-9"	X		STAGE 2 - S.W. WING WALL - MAIN VERT. STIRRUP
B572	X	27	11'-8"	X		STAGE 2 - S.W. WING WALL - VERT. STIRRUP
B873	X	2	17'-0"			STAGE 2 - S.W. WING WALL - HORIZ. TOP
B474	X	1	19'-10"			STAGE 2 - S.W. WING WALL - HORIZ. SDWK. LEDGE
B475	X	21	2'-2"	X		STAGE 2 - S.W. WING WALL - STIRRUP CAP HORIZ.
B577	X	24	9'-5"	X		STAGE 2 - S.W. WING WALL - RAILING DOWEL
B678	X	4	19'-8"			STAGE 1 & 2 - N.W. & S.W. CAP - HORIZ.
B479	X	54	4'-2"	X		STAGE 1 & 2 - N.W. & S.W. CAP - DOWEL VERT.
B480	X	6	19'-8"			STAGE 1 & 2 - N.W. & S.W. CAP - HORIZ.
B481	X	42	2'-10"	X		STAGE 1 & 2 - N.W. & S.W. CAP - SDWK. LEDGE DOWEL

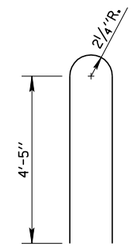


B404, B517, B423, B424, B533, B436, B442, B555, B462, B463, B475, B572, B479

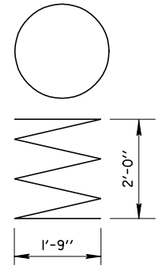


NOTES:
SLOPE UNDERDRAIN .005'/" MIN TO DRAIN. CAP UPPER END. FINE AGGREGATE INCIDENTAL TO PIPE UNDERDRAIN 6-INCH.

UNDERDRAIN DETAIL



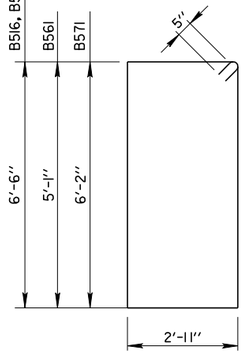
B538, B577



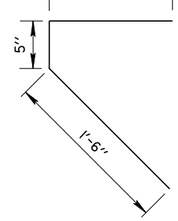
B415, B453

WEST ABUTMENT QUANTITIES

CONCRETE MASONRY BRIDGES	169 CY
BAR STEEL REINFORCEMENT HS BRIDGES	12,370 LB
BAR STEEL REINFORCEMENT HS COATED BRIDGES	3,702 LB
BEARING PADS ELASTOMERIC NON-LAMINATED	13 EACH
DAMPPROOFING	121 SY
RUBBERIZED MEMBRANE WATERPROOFING	30 SY
CONCRETE STAINING (B-40-759)	236 SF
PILE POINTS	26 EACH
PILING STEEL HP 12-INCH X 53 LB	910 LF
PIPE UNDERDRAIN 6-INCH	186 LF
GEOTEXTILE FABRIC TYPE DF SCHEDULE A	186 SY
ARCHITECTURAL SURFACE TREATMENT	830 SF
FELT FILLER	1/2"
.03 POLYETHELENE SHEETS	53 SY



B516, B532, B554, B561, B571



B481

NOTES:

1. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, 1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE.
2. CONTRACTOR MAY SUBSTITUTE 1/8" ZINC OR PLASTIC PLATE WITH HOLES FOR REBARS AT C/L OF CONSTRUCTION JOINT IN ABUTMENT BODY TO MAKE ONE POUR, SEAL JOINT WITH GRAY JOINT SEALER, FRONT FACE.

STATE PROJECT NUMBER

2025 - 16 - 70

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS J.P.H. CK'D. J.D.T./A.R.

WEST ABUTMENT DETAILS AND BILL OF BARS

SHEET 17 OF 31

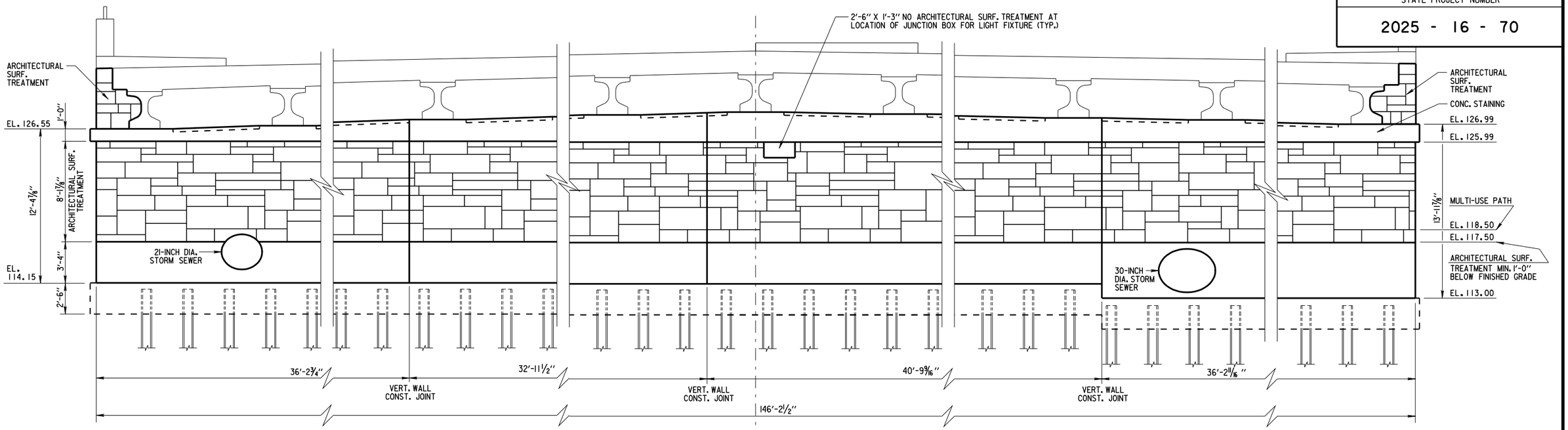
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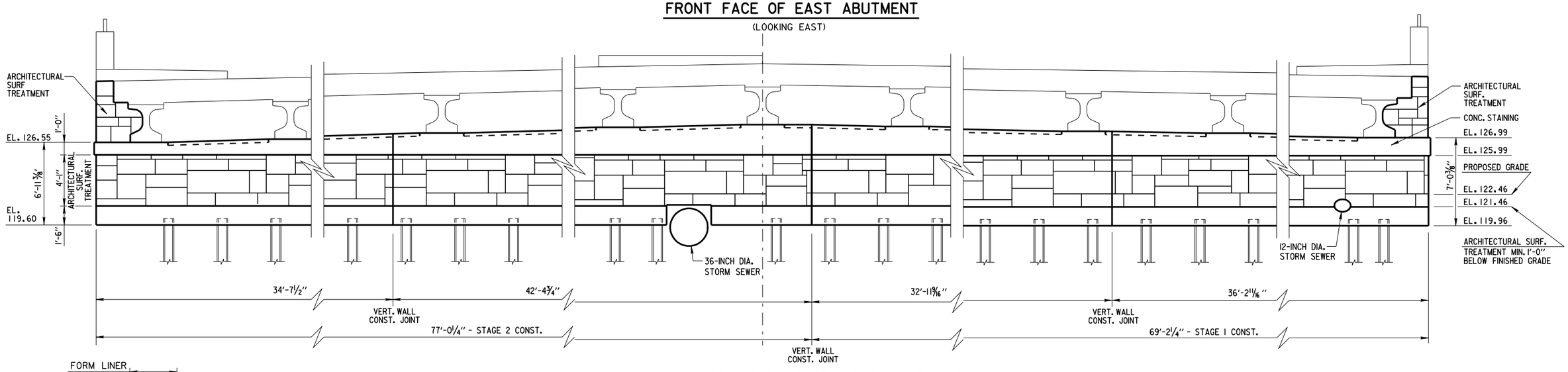
STATE PROJECT NUMBER

2025 - 16 - 70



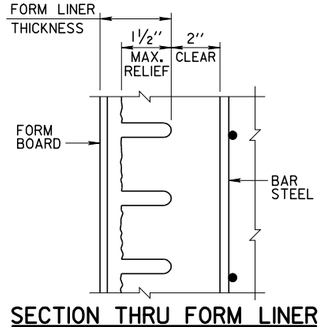
FRONT FACE OF EAST ABUTMENT

(LOOKING EAST)

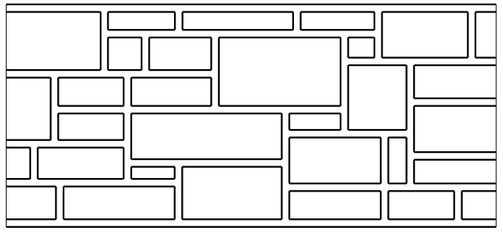


FRONT FACE OF WEST ABUTMENT

(LOOKING WEST)



SECTION THRU FORM LINER



ASHLAR STONE FORM LINER

STONE SIZE = 8-INCH TO 32-INCH, RELIEF = 1½-INCH

ABUTMENT NOTES

FORM LINER COURSING ON ABUTMENTS & WING WALLS SHALL BE LEVEL.

FORM LINER COURSING ON WINGS SHALL BE VERTICALLY ALIGNED WITH FORM LINER COURSING ON FRONT OF ABUTMENT & ABUTMENT DIAPHRAGM.

FORMLINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

PLACE FORMLINER TO MINIMUM OF 1'-6" BELOW FINISHED GRADE FOR ABUTMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

ARCHITECTURAL SURFACE TREATMENT ABUTMENTS

SHEET 398 OF 31

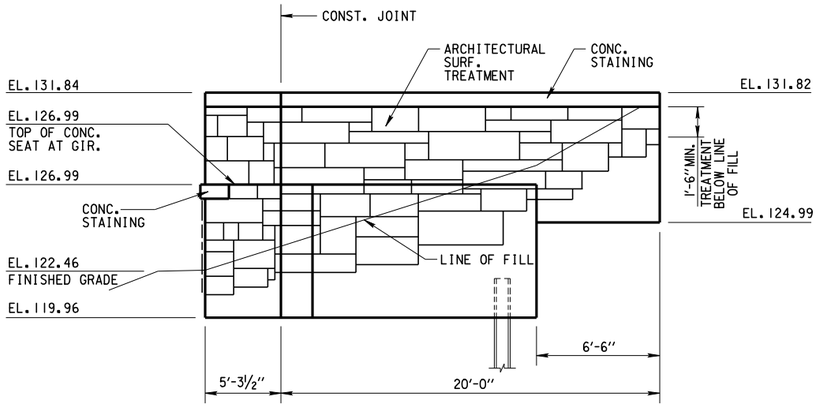
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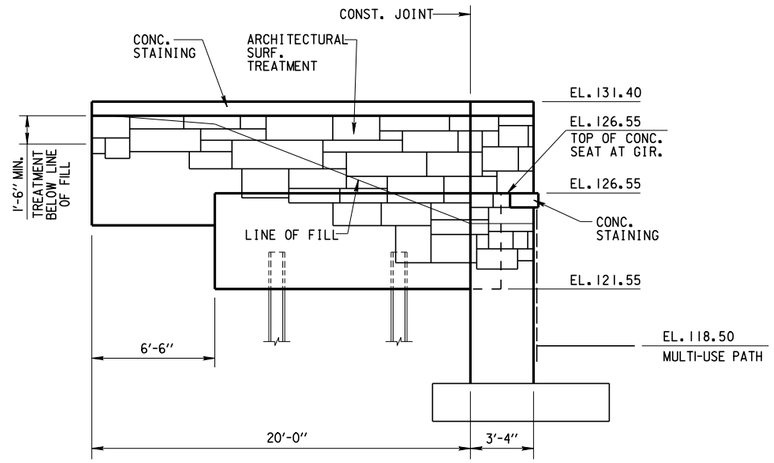
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STATE PROJECT NUMBER

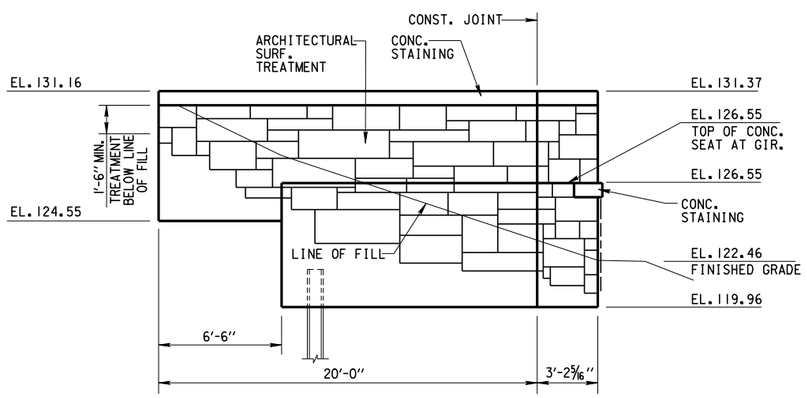
2025 - 16 - 70



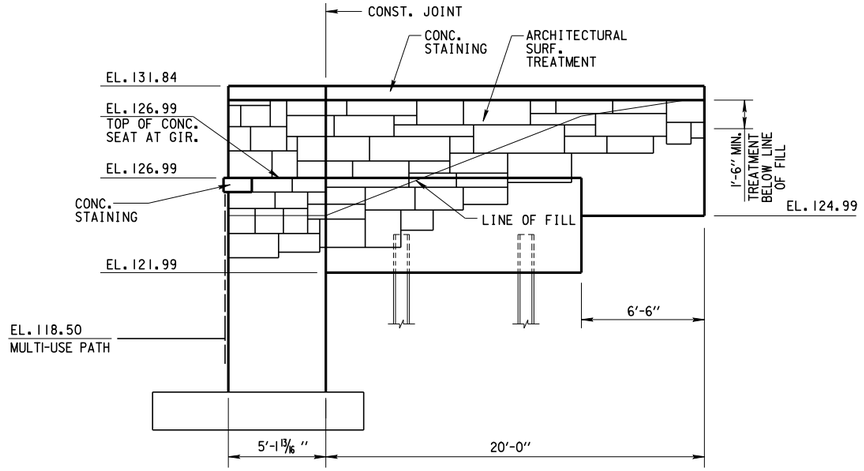
NORTHWEST WING WALL ELEVATION



NORTHEAST WING WALL ELEVATION



SOUTHWEST WING WALL ELEVATION



SOUTHEAST WING WALL ELEVATION

WING WALL NOTES

FORM LINER COURSING ON ABUTMENTS & WING WALLS SHALL BE LEVEL.

FORM LINER PATTERN SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.

PLACE FORM LINER TO MINIMUM OF 1'-6" BELOW FINISHED GRADE FOR WING WALLS.

SEE SHEET 18 FOR ASHLAR STONE FORM LINER DETAIL.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.D.T. A.R.

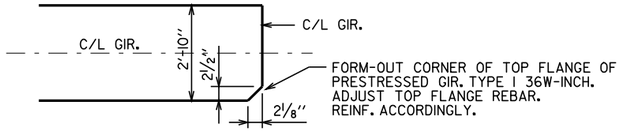
ARCHITECTURAL SURFACE TREATMENT WING WALLS

SHEET 18 OF 31

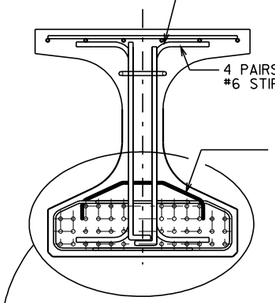
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STATE PROJECT NUMBER

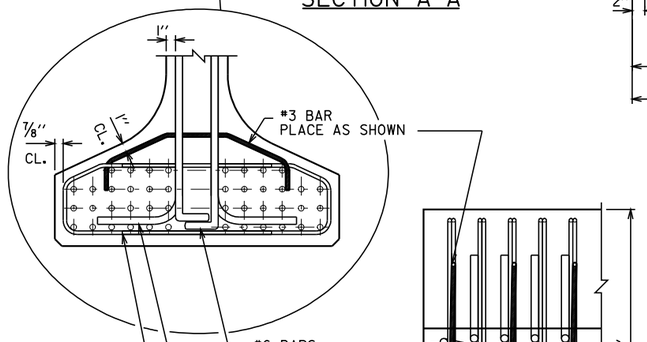
2025 - 16 - 70

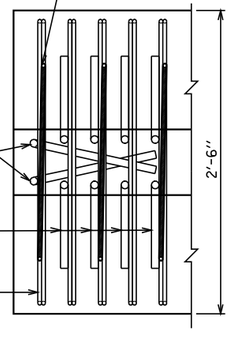


TOP VIEW OF GIRDER ENDS

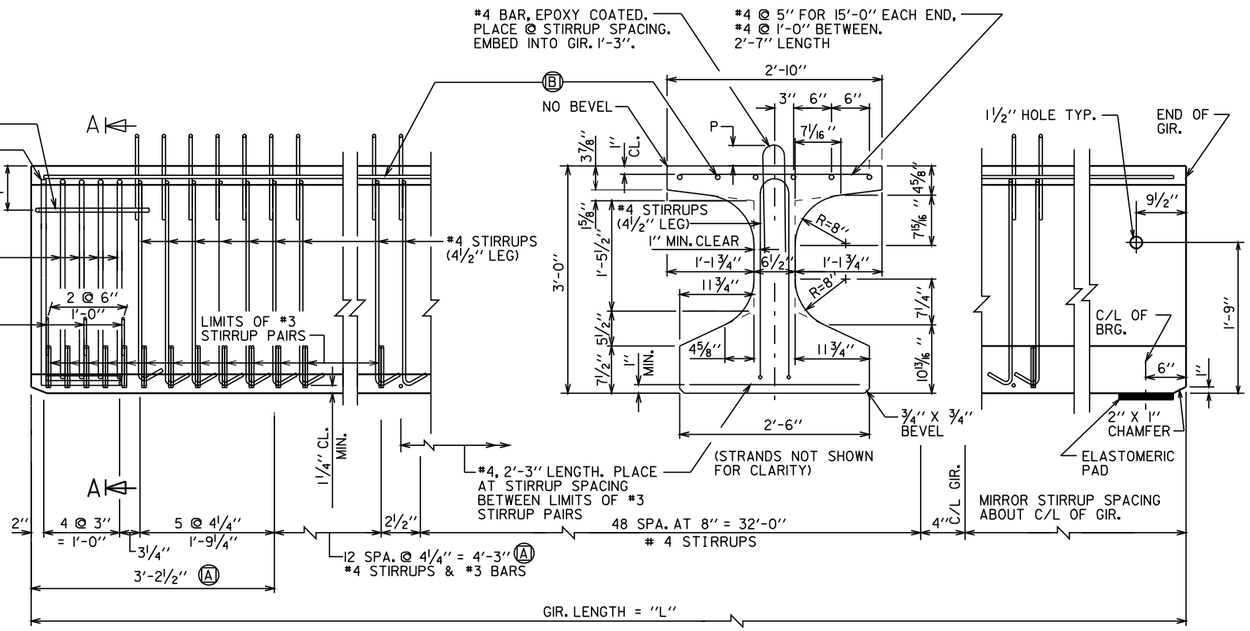


SECTION A-A





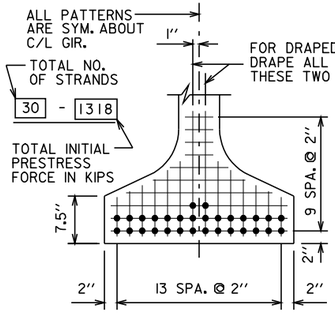
BOTTOM FLANGE



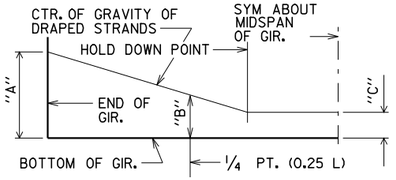
SIDE VIEW AND TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. @ EACH END

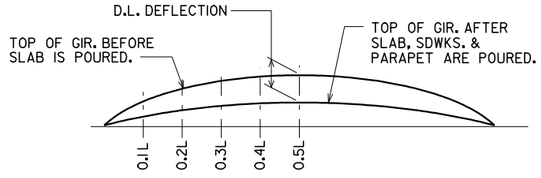
Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"



TYPICAL STRAND PATTERN



DRAPED STRAND PROFILE



DEAD LOAD DEFLECTION DIAGRAM

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED & BROOMED TRANSVERSELY FOR BONDING TO SLAB, EXCEPT OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE SMOOTH FINISH. APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING OUTSIDE 8" OF TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

GIRDERS SHALL BE PROVIDED WITH SUITABLE LIFTING DEVICE FOR HANDLING & ERECTING GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.6"ø - 7 WIRE LOW-RELAXATION STRANDS WITH ULTIMATE STRENGTH OF 270,000 PSI.

STRANDS SHALL BE FLUSH WITH END OF GIRDER FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE. ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT GIRDER ENDS, EXPOSED STRAND ENDS & ALL NON-BONDING SURFACES WITHIN 2 FT OF GIRDER ENDS WITH NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED & PRIOR TO APPLICATION OF SEALER.

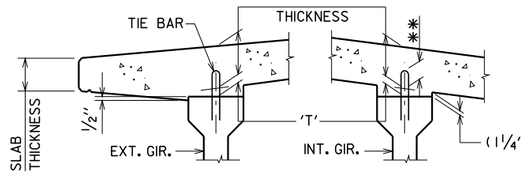
FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "DIAPHRAGM DETAILS" SHEET 25 & SPECIAL DIAPHRAGM ON SHEET 31.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF FABRICATOR WANTS TO BUILD BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO #4 STIRRUPS, I OPTION IS AVAILABLE:

USE ASTM A706, GRADE 60 REINFORCEMENT & STIRRUP SPACING AS SHOWN ON PLANS.

ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF STRUCTURES DEVELOPMENT CHIEF, SCOT BECKER, (608) 266-5161.



SLAB HAUNCH DETAIL

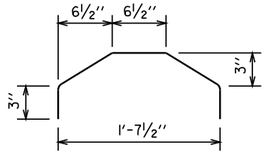
IF 1¼" MIN. HAUNCH HEIGHT @ EDGE OF GIR. CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SEC. IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MIN. DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

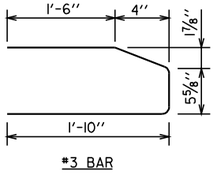
TO DETERMINE 'T', EL. OF TOP OF GIRS. @ C/L OF SUBSTRUCTURE UNITS & AT ⅛ POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK EL. @ FINAL GRADE
- TOP OF GIR. EL.
+ D.L. DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

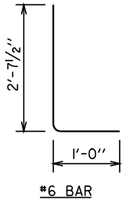
NOTE: AN AVERAGE HAUNCH ('T') OF 2.5" WAS USED IN THE QUAN. "CONCRETE MASONRY BRIDGES".



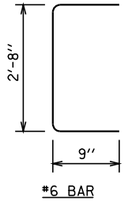
#3 BAR
3 AT EACH END
(EPOXY COAT)



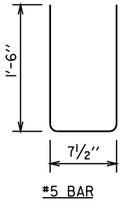
#3 BAR
23 AT EACH END
(EPOXY COAT)



#6 BAR
2 AT EACH END



#6 BAR
8 AT EACH END



#5 BAR
1 AT EACH END

GIRDER DATA

	SPAN	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 0.1L	0.2L	0.3L	0.4L	0.5L	CONC. STRGTH. F'C (P.S.I.)	"P"	DIA. OF STRAND (INCH)	DRAPED PATTERN TOTAL NO. OF STRANDS	F'CI (P.S.I.) ▲	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
INTERIOR	1	80'-0"	½"	⅞"	1¼	1½"	1 9/16"	8000	7"	0.6"	30	6800	31	10.75	13.75	4
EXTERIOR			7/16"	13/16"	1⅛	1⅝"	1⅜"									

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIR. SHOTS. THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

▲ MIN. CYLINDER STRENGTH OF CONC. AT TIME OF TRANSFER OF PRESTRESS FORCE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY J.P.H. | PLANS CK'D. J.P.H. R.V.K.

36W" PRESTRESSED GIRDER DETAILS

SHEET 400 OF 31

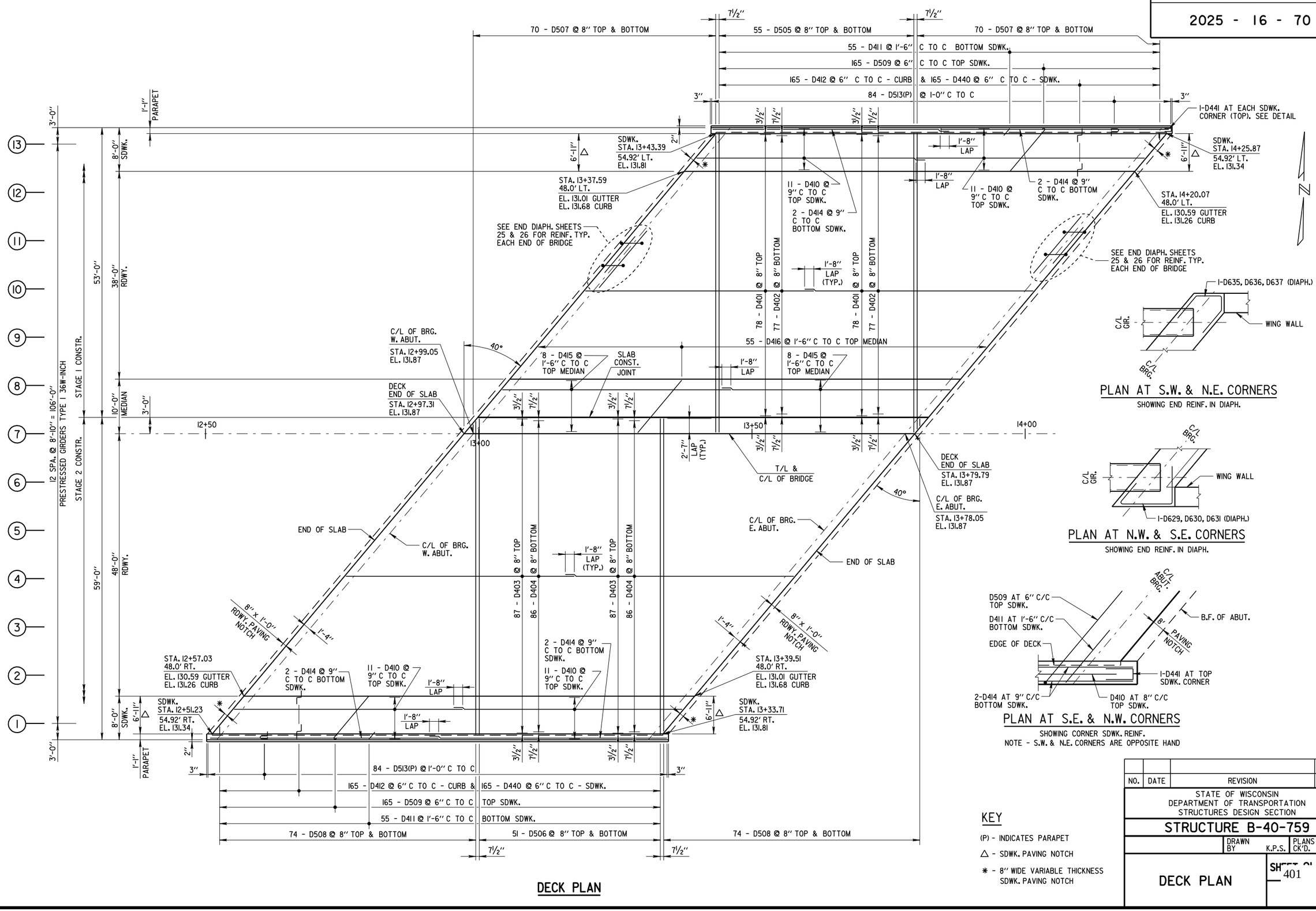
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STATE PROJECT NUMBER

2025 - 16 - 70



DECK PLAN

PLAN AT S.W. & N.E. CORNERS

SHOWING END REINF. IN DIAPH.

PLAN AT N.W. & S.E. CORNERS

SHOWING END REINF. IN DIAPH.

PLAN AT S.E. & N.W. CORNERS

SHOWING CORNER SDWK. REINF.
NOTE - S.W. & N.E. CORNERS ARE OPPOSITE HAND

KEY

(P) - INDICATES PARAPET

△ - SDWK. PAVING NOTCH

✱ - 8" WIDE VARIABLE THICKNESS SDWK. PAVING NOTCH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

DECK PLAN

SHEET 401 OF 31

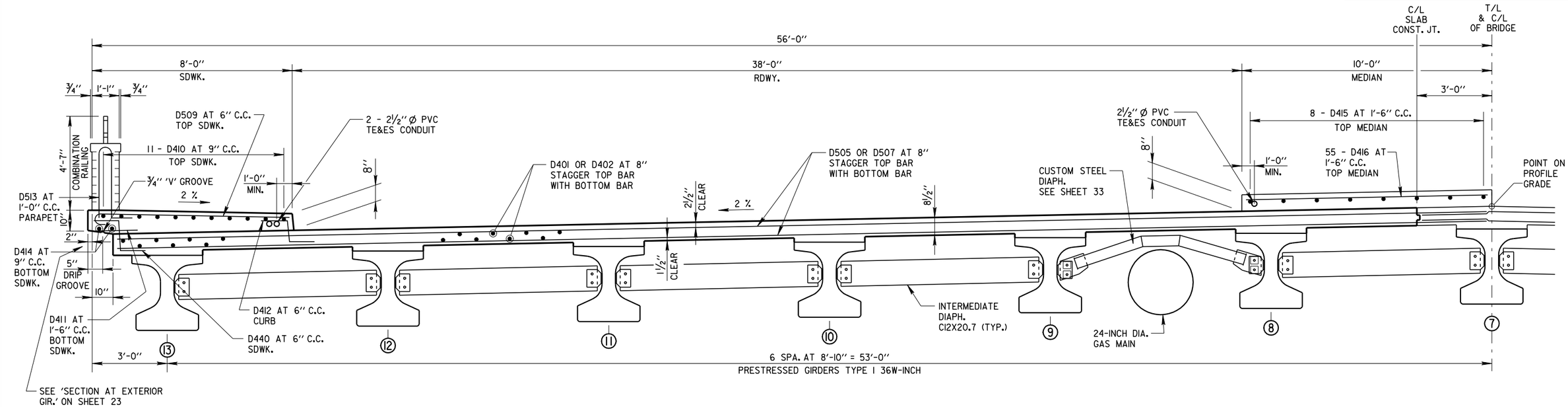
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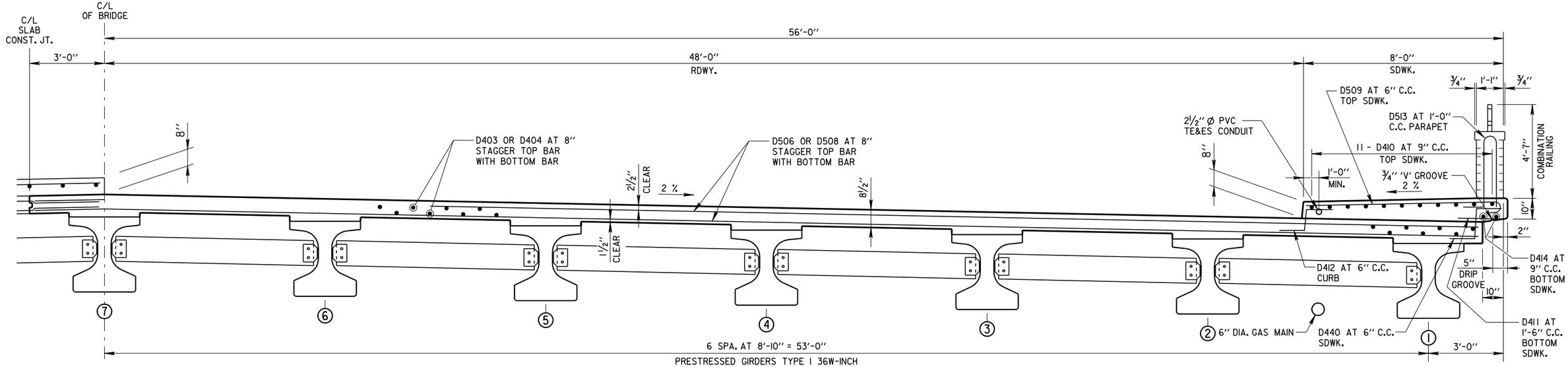
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STATE PROJECT NUMBER

2025 - 16 - 70



CROSS SECTION LOOKING EAST - STAGE 1



CROSS SECTION LOOKING EAST - STAGE 2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY	K.P.S.	PLANS CK'D.	J.P.H. R.V.K.

DECK CROSS SECTION

SHEET 22 OF 31

W:\STR\B03\2\ 23_DECKBILLOFBAR.DGN 12-06-2012

STATE PROJECT NUMBER

2025 - 16 - 70

BILL OF BARS - DECK

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES		LOCATION
D401	×	156	41'-10"				STAGE 1 - DECK TOP - LONGIT.
D402	×	154	41'-10"				STAGE 1 - DECK BOTTOM - LONGIT.
D403	×	174	41'-10"				STAGE 2 - DECK TOP - LONGIT.
D404	×	172	41'-10"				STAGE 2 - DECK BOTTOM - LONGIT.
D505	×	110	54'-9"				STAGE 1 - DECK TOP & BOTTOM - TRAN.
D506	×	102	57'-9"				STAGE 2 - DECK TOP & BOTTOM - TRAN.
D507	×	280	27'-9"		△		STAGE 1 - DECK TOP & BOTTOM - TRAN.
D508	×	296	29'-3"		△		STAGE 2 - DECK TOP & BOTTOM - TRAN.
D509	×	330	10'-9"	×			SDWK. - TRAN. - TOP
D410	×	44	41'-10"				SDWK. - LONGIT. - TOP
D411	×	110	1'-10"				SDWK. - TRAN. - BOTTOM
D412	×	330	2'-10"	×			SDWK. - CURB STIRRUPS
D513	×	168	6'-11"	×			PARAPET
D414	×	8	42'-11"				SDWK. - LONGIT. - BOTTOM
D415	×	16	41'-10"				MEDIAN - LONGIT. - TOP
D416	×	55	12'-7"				MEDIAN - TRAN. - TOP
D619	×	4	10'-0"				DIAPH. AT SDWK. - HORIZ.
D420	×	168	3'-8"	×			DIAPH. AT ABUT. - VERT.
D421	×	48	5'-8"				DIAPH. AT ABUT. - HORIZ.
D522	×	52	10'-6"	×			DIAPH. AT ABUT. - VERT.
D523	×	188	13'-4"	×			DIAPH. AT ABUT. - VERT.
D624	×	20	37'-9"				DIAPH. AT B.F. & DECK - HORIZ. - STAGE 1
D625	×	20	39'-11"				DIAPH. AT B.F. & DECK - HORIZ. - STAGE 2
D626	×	144	6'-6"				DIAPH. AT F.F. - HORIZ.
D527	×	188	7'-1"	×			DIAPH. AT DECK - VERT. DECK TIE
D528	×	52	6'-0"				DIAPH. AT THROUGH GIRDER
D629	×	2	11'-4"	×			DIAPH. AT F.F. HORIZ. - BOTTOM - CORNER N.W. & S.E.
D630	×	2	12'-7"	×			DIAPH. AT F.F. HORIZ. - MIDDLE - CORNER N.W. & S.E.
D631	×	2	11'-1"	×			DIAPH. AT F.F. HORIZ. - TOP - CORNER N.W. & S.E.
D532	×	32	9'-1"	×			DIAPH. AT SDWK. - VERT. SDWK. TIE
D633	×	8	10'-0"				DIAPH. AT HORIZ. - SDWK.
D534	×	32	15'-4"	×			DIAPH. AT VERT. - OUTER BAY
D635	×	2	8'-9"	×			DIAPH. AT HORIZ. - BOTTOM - CORNER S.W. & NE
D636	×	2	10'-0"	×			DIAPH. AT HORIZ. - MIDDLE - CORNER S.W. & NE
D637	×	2	8'-6"	×			DIAPH. AT HORIZ. - TOP - CORNER S.W. & NE
D638	×	8	2'-8"				DIAPH. AT 24" GAS MAIN - B.F. & F.F.
D639	×	8	1'-6"				DIAPH. AT 6" GAS MAIN - B.F. & F.F.
D440	×	330	3'-2"	×			SDWK. - SDWK. STIRRUPS
D441	×	4	6'-2"	×			SDWK. AT ABUT. CORNERS - TOP

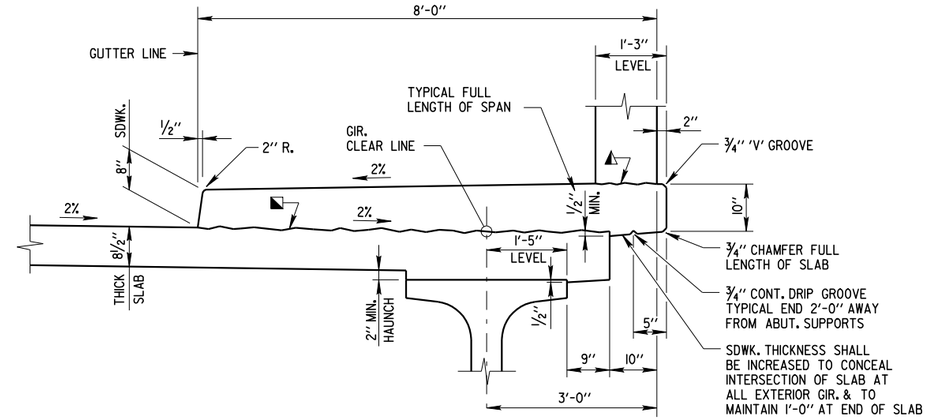
△ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH & SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
D507	4 SERIES OF 70	1'-1" TO 54'-4"
D508	4 SERIES OF 74	1'-1" TO 57'-4"

BUNDLE & TAG EACH SERIES SEPARATELY

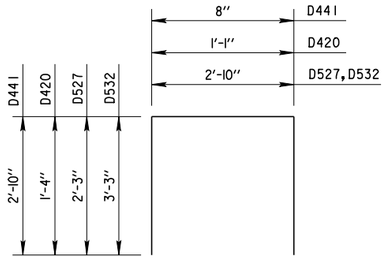
DECK QUANTITIES	
CONCRETE MASONRY BRIDGES	423 CY
PROTECTIVE SURFACE TREATMENT	9,252 SY
PRESTRESSED GIRDER TYPE I 36W-INCH	1,040 LF
BAR STEEL REINFORCEMENT HS COATED BRIDGES	67,103 LB
STEEL DIAPHRAGMS (B-40-759)	11 EACH
CONCRETE STAINING (B-40-759)	1,462 SF
CONDUIT RIGID NONMETALLIC SCHEDULE 40 2½-INCH	360 LF
CUSTOM STEEL DIAPHRAGM (B-40-759)	1 LS



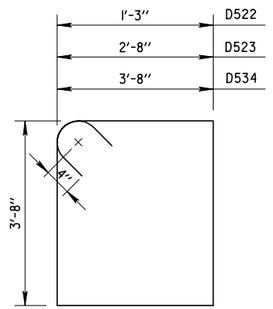
HORIZONTAL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN & LEAVE ROUGH

CONSTRUCTION JOINT, LEVEL - LEAVE ROUGH UNDER RAILING

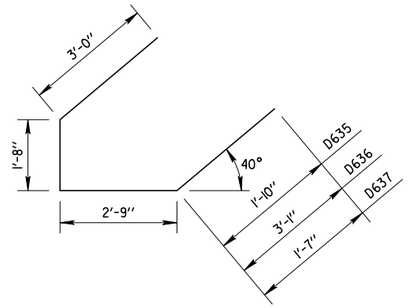
SECTION AT EXTERIOR GIRDER



D420, D527, D532, D441

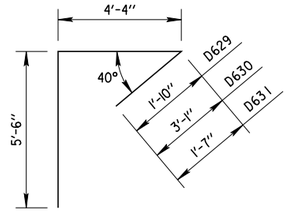


D522, D523, D534



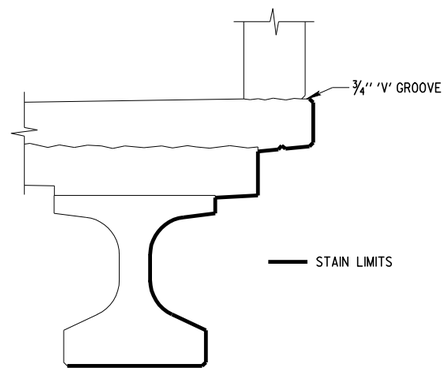
D635, D636, D637

(CORNER S.W. & N.E.)

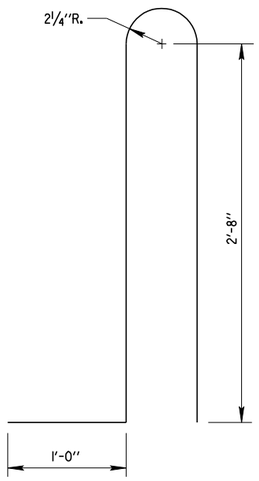


D629. D630, D631

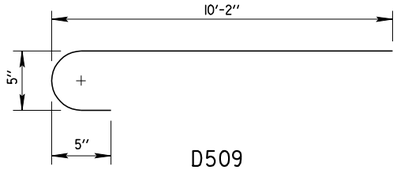
(CORNER N.W. & SE)



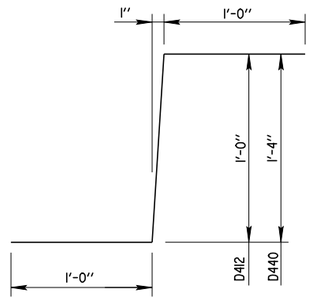
STAIN LIMITS AT EXTERIOR OF BRIDGE



D513



D509



D412, D440

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

DECK BILL OF BARS

SHEET 403 OF 31

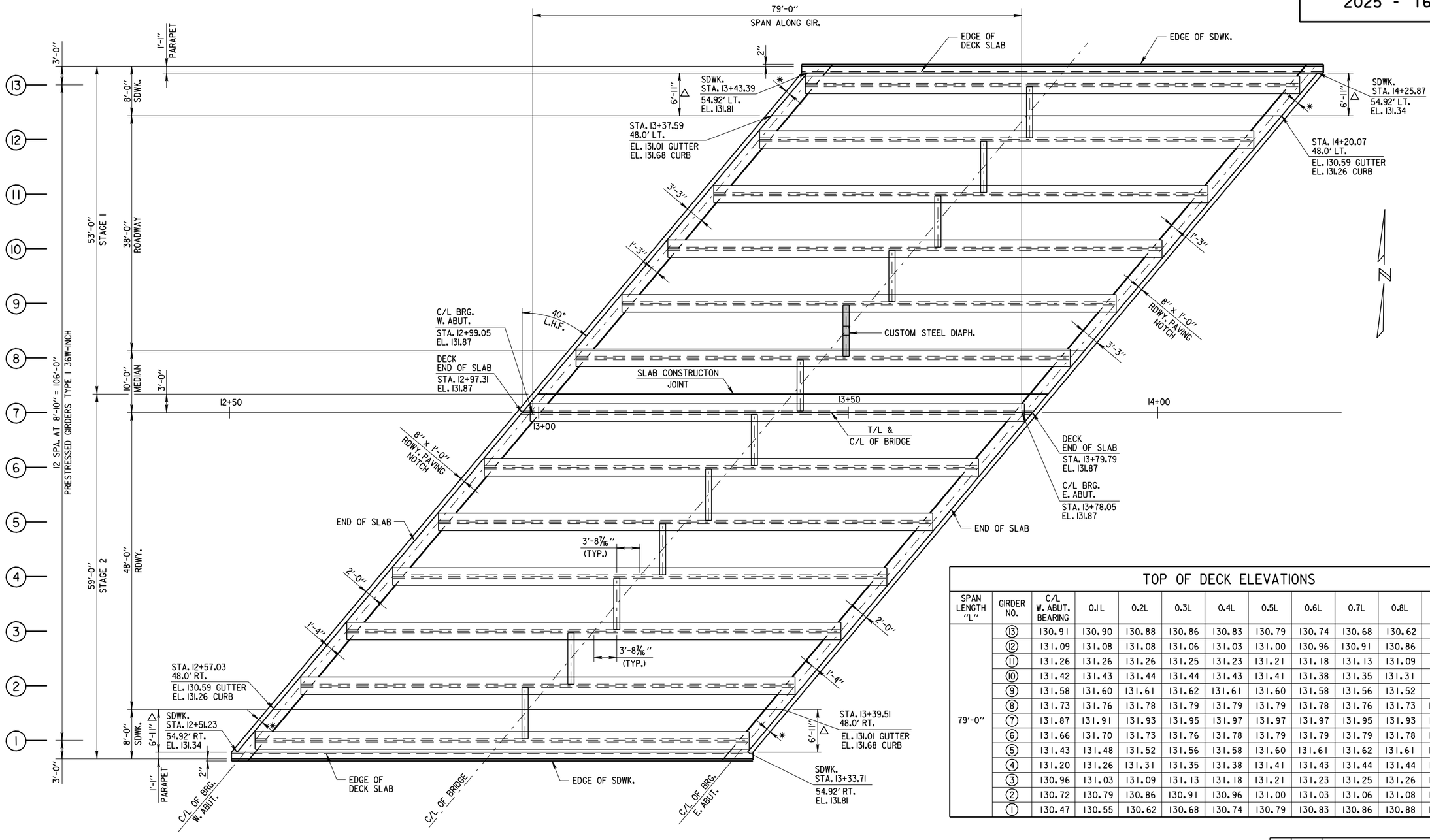
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STATE PROJECT NUMBER

2025 - 16 - 70



DECK PLAN

GIRDER AND INTERMEDIATE IN-SPAN STEEL DIAPHRAGM LAYOUT

TOP OF DECK ELEVATIONS

SPAN LENGTH "L"	GIRDER NO.	C/L W. ABUT. BEARING	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	C/L E. ABUT. BEARING
79'-0"	⑬	130.91	130.90	130.88	130.86	130.83	130.79	130.74	130.68	130.62	130.55	130.47
	⑫	131.09	131.08	131.08	131.06	131.03	131.00	130.96	130.91	130.86	130.79	130.72
	⑪	131.26	131.26	131.26	131.25	131.23	131.21	131.18	131.13	131.09	131.03	130.96
	⑩	131.42	131.43	131.44	131.44	131.43	131.41	131.38	131.35	131.31	131.26	131.20
	⑨	131.58	131.60	131.61	131.62	131.61	131.60	131.58	131.56	131.52	131.48	131.43
	⑧	131.73	131.76	131.78	131.79	131.79	131.79	131.78	131.76	131.73	131.70	131.66
	⑦	131.87	131.91	131.93	131.95	131.97	131.97	131.97	131.95	131.93	131.91	131.87
	⑥	131.66	131.70	131.73	131.76	131.78	131.79	131.79	131.79	131.78	131.76	131.73
	⑤	131.43	131.48	131.52	131.56	131.58	131.60	131.61	131.62	131.61	131.60	131.58
	④	131.20	131.26	131.31	131.35	131.38	131.41	131.43	131.44	131.44	131.43	131.42
	③	130.96	131.03	131.09	131.13	131.18	131.21	131.23	131.25	131.26	131.26	131.26
	②	130.72	130.79	130.86	130.91	130.96	131.00	131.03	131.06	131.08	131.08	131.09
	①	130.47	130.55	130.62	130.68	130.74	130.79	130.83	130.86	130.88	130.90	130.91

KEY

△ - SDWK. PAVING NOTCH

✱ - 8" WIDE VARIABLE THICKNESS SDWK. PAVING NOTCH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

GIRDER & INTERMEDIATE DIAPHRAGM LAYOUT AND DECK ELEVATIONS

SHEET 24 OF 31

404

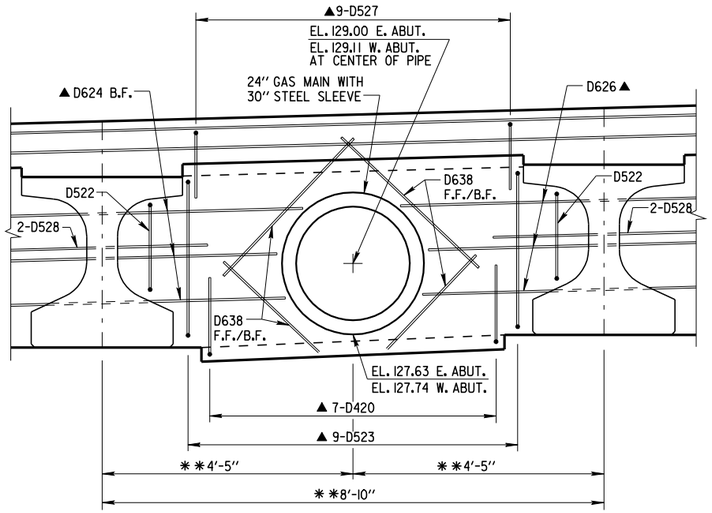
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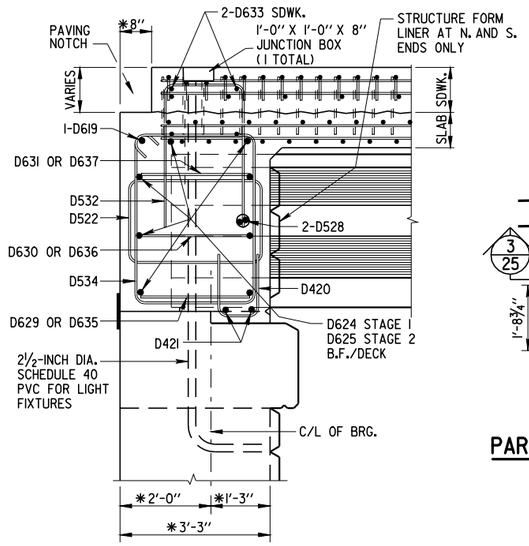
STATE PROJECT NUMBER

2025 - 16 - 70



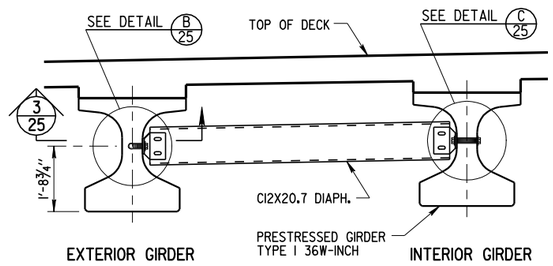
DETAIL A 26

▲ CUT BAR IN FIELD



AT ABUTMENT SIDEWALK

SECTION PART LONGITUDINAL 1 26



PART TRANSVERSE SECTION AT INTERMEDIATE DIAPHRAGM

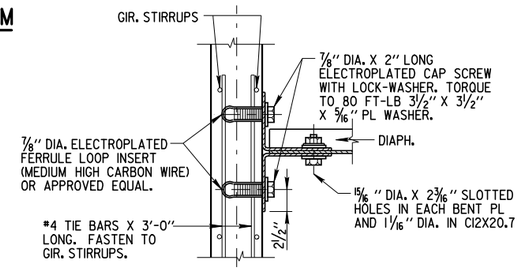
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN CONCRETE GIRDER SHALL BE PAID FOR AT UNIT PRICE BID FOR "STEEL DIAPHRAGMS (B-40-759)", EACH.

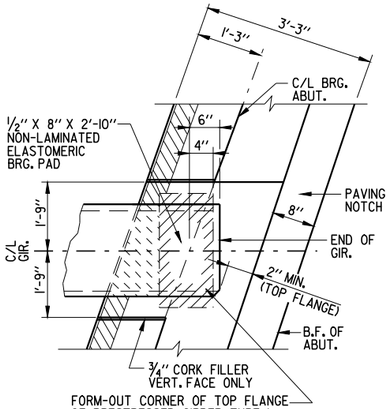
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE I.

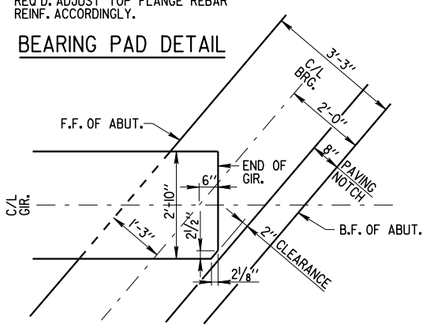
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH REQUIREMENTS OF ASTM A563 AND SHALL MEET REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



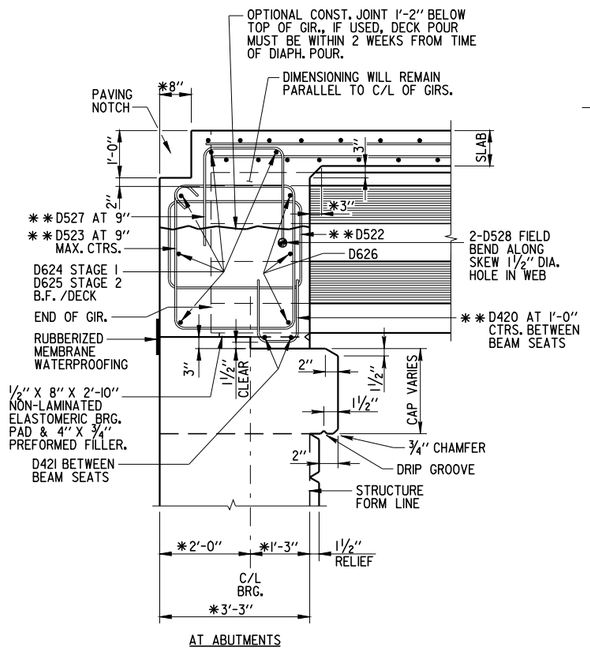
SECTION (FOR EXTERIOR ATTACHMENT) 3 25



BEARING PAD DETAIL



TOP VIEW OF GIRDER END



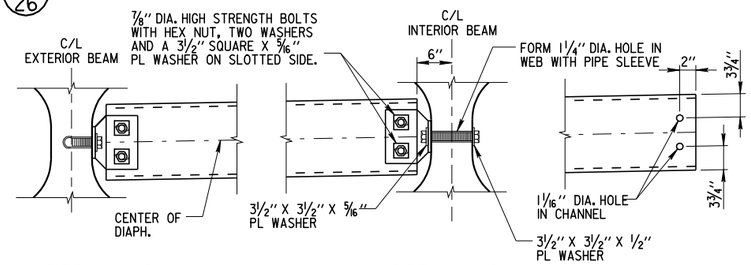
AT ABUTMENTS

SECTION PART LONGITUDINAL 2 26

NOTE:

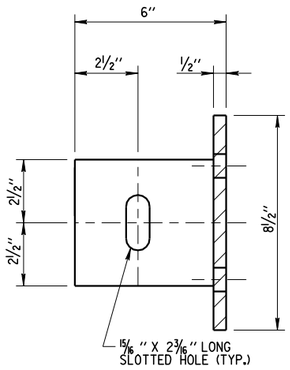
✱ DIMENSION IS TAKEN NORMAL TO C/L SUBST. UNITS.

✱✱ DIMENSION IS TAKEN PARALLEL TO C/L GIR.

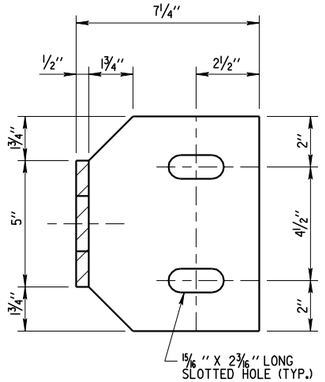


DETAIL B 25

DETAIL C 25

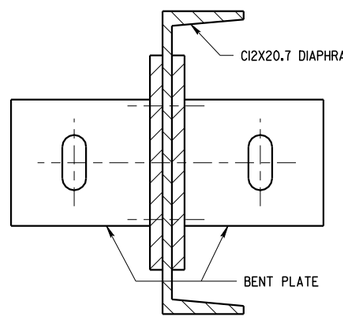


BEAM FACE



DIAPHRAGM FACE

BENT PLATE



ATTACHMENT TO CHANNEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

DIAPHRAGM DETAILS

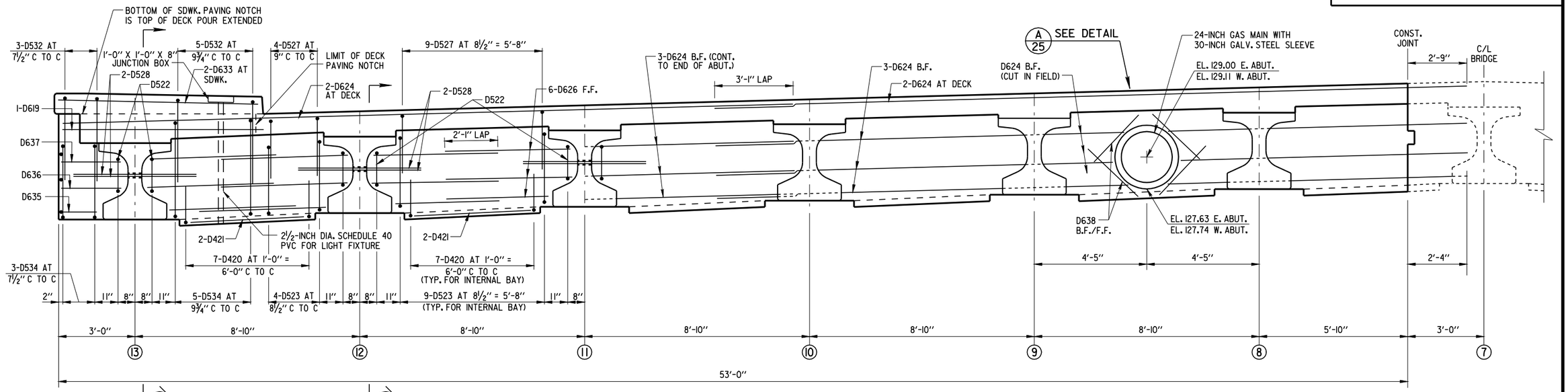
SHEET 405 OF 31

8

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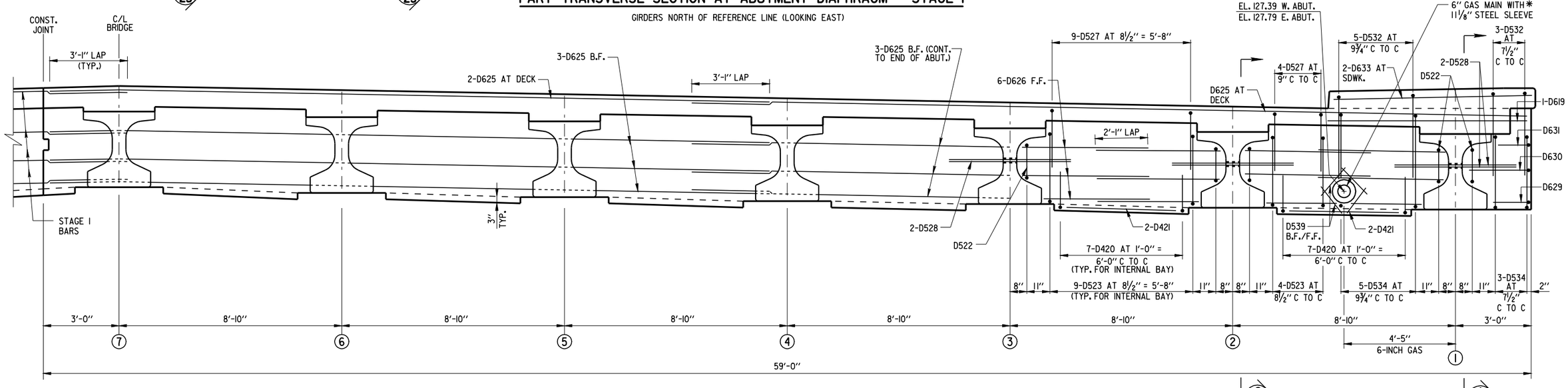
STATE PROJECT NUMBER

2025 - 16 - 70



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM - STAGE 1

GIRDERS NORTH OF REFERENCE LINE (LOOKING EAST)



PART TRANSVERSE SECTION AT ABUTMENT DIAPHRAGM - STAGE 2

GIRDERS SOUTH OF REFERENCE LINE (LOOKING EAST)

NOTE:

* ADJUST DIAPHRAGM BARS TO CLEAR 11.1" DIAMETER STEEL SLEEVE.

ALL DIMENSIONS ARE TAKEN PERPENDICULAR TO C/L OFBRIDGE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

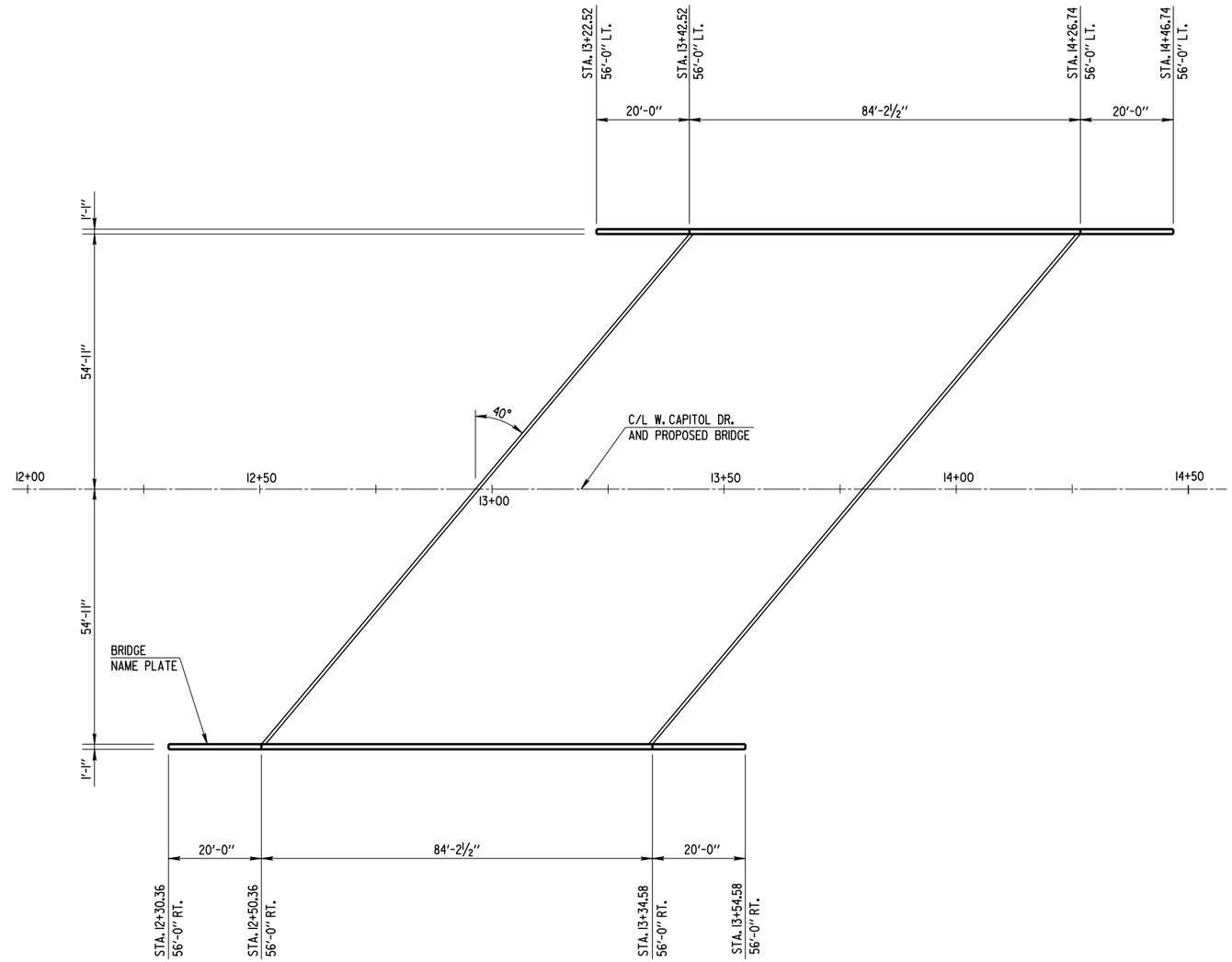
SUPERSTRUCTURE DETAILS

SHEET 406 OF 31

W:\STR\B032\PLANS\ 27_RAILING.DGN 12-06-2012

STATE PROJECT NUMBER

2025 - 16 - 70



RAILING PLAN

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

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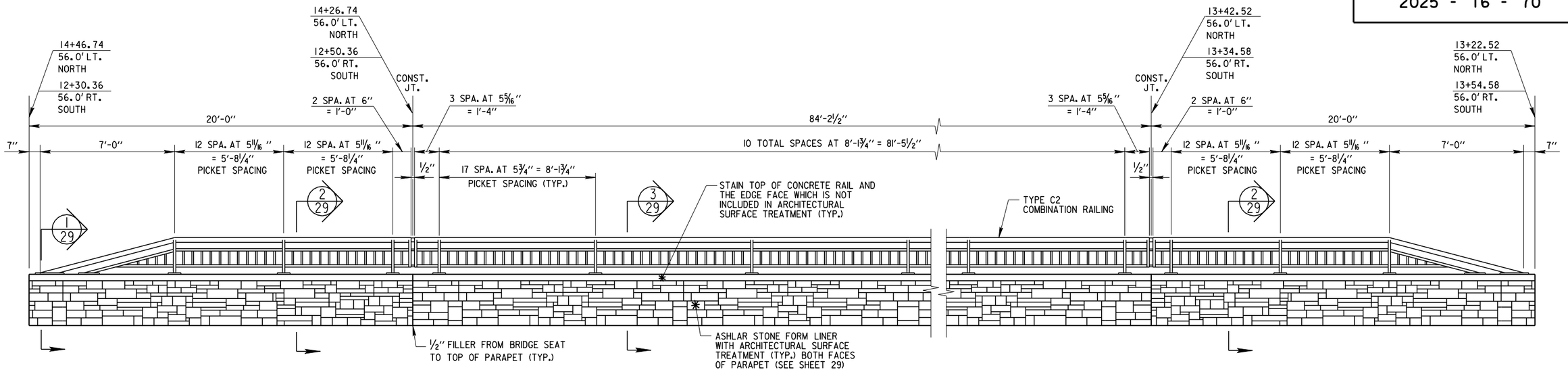
RAILING PLAN

SHEET 27 OF 31

W:\STR\B032\PLANS\ 28_RAILINGELEV.DGN 12-13-2012

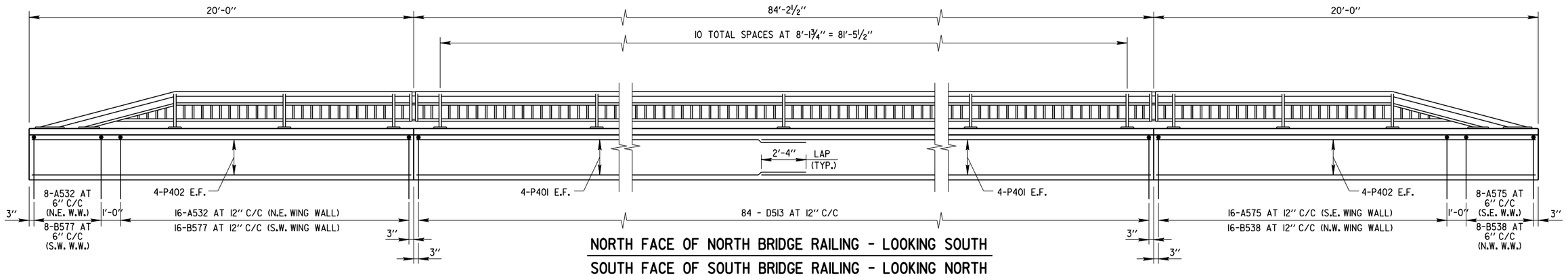
STATE PROJECT NUMBER

2025 - 16 - 70



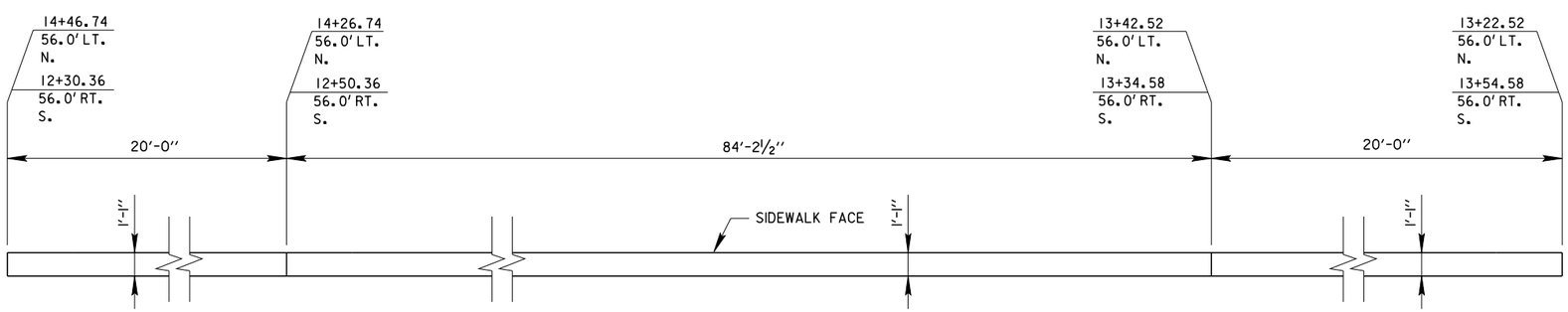
NORTH FACE OF NORTH BRIDGE RAILING - LOOKING SOUTH

SOUTH FACE OF SOUTH BRIDGE RAILING - LOOKING NORTH



NORTH FACE OF NORTH BRIDGE RAILING - LOOKING SOUTH

SOUTH FACE OF SOUTH BRIDGE RAILING - LOOKING NORTH



PLAN VIEW OF BRIDGE RAILING

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

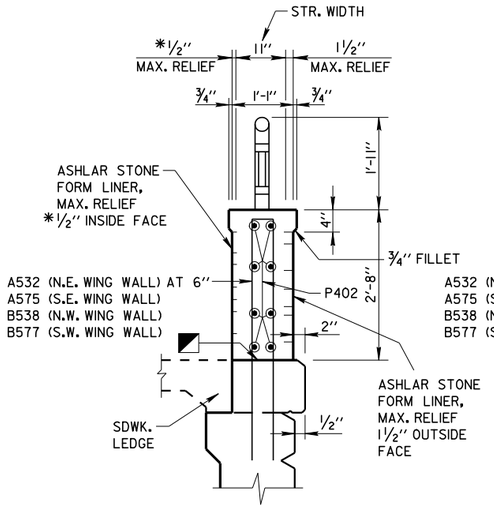
DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

BRIDGE RAILING ELEVATIONS, BAR DETAILS & RAILING PLAN

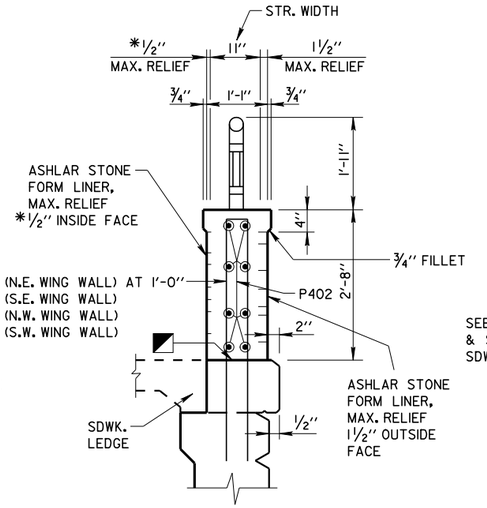
SHEET 28 OF 31

STATE PROJECT NUMBER

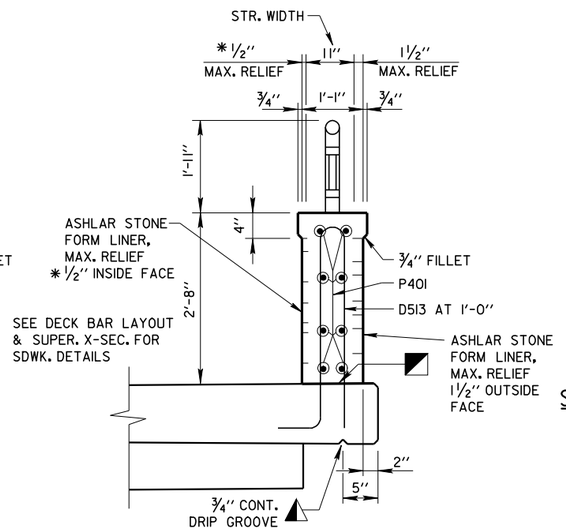
2025 - 16 - 70



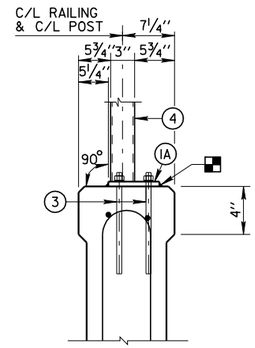
SECTION 1/28



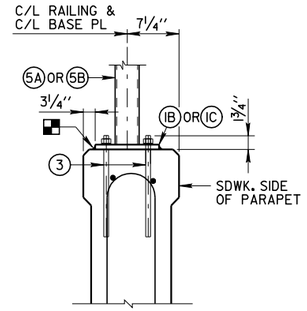
SECTION 2/28



SECTION 3/28



SECTION THRU PARAPET ON BRIDGE



ANCHORAGE FOR END RAIL

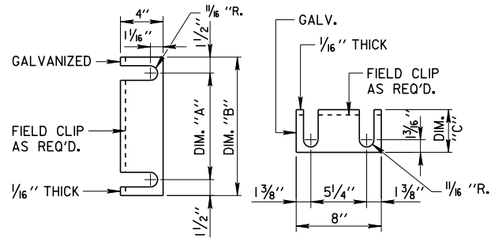
NOTE:
SEE LEGEND & RAILING NOTES ON SHEET 30

BILL OF BARS - VERTICAL PARAPET WALL

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P401	X	32	43'-2"			PARAPET WALL - HORIZ.
P402	X	32	19'-8"			PARAPET WALL - HORIZ.

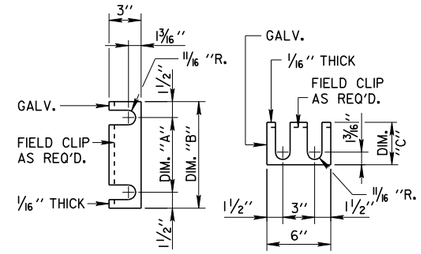
◪ HORIZ. CONST. JOINT-STRIKE OFF AS SHOWN AND LEAVE ROUGH.

◭ END 2'-0" AWAY FROM FACE OF ABUT.



END RAIL SHIM DETAIL

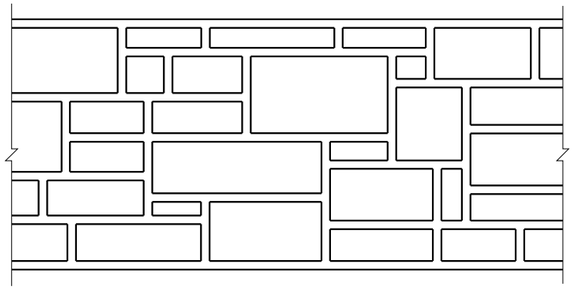
8" X 1'-1" BASE PLATE (1B) DIM. "A" = 10", DIM. "B" = 1'-1", DIM. "C" = 6½"
8" X 1'-6" BASE PLATE (1C) DIM. "A" = 1'-3", DIM. "B" = 1'-6", DIM. "C" = 9"
(2 SETS PER POST)



RAIL POST SHIM DETAIL

6" X 8" BASE PL (1A) DIM. "A" = 5", DIM. "B" = 8", DIM. "C" = 4".
(2 SETS PER POST)

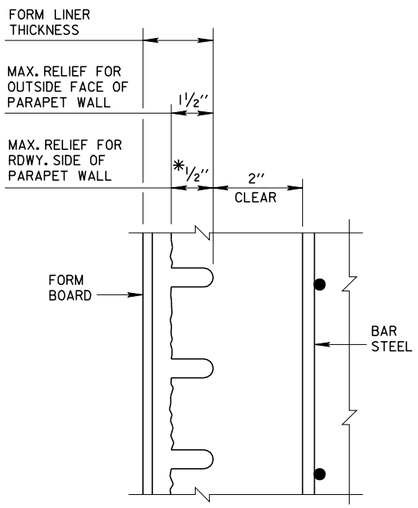
PARAPET QUANTITIES	
CONCRETE MASONRY BRIDGES	27 CY
BAR STEEL REINFORCEMENT HS COATED BRIDGES	1344 LB
CONCRETE STAINING (B-40-759)	470 SF
RAILING STEEL TYPE C2 GALVANIZED B-40-759	1 LS
ARCHITECTURAL SURFACE TREATMENT	1170 SF



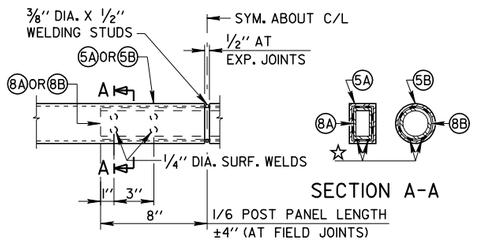
ASHLAR STONE FORM LINER

STONE SIZE = 8-INCH TO 16-INCH, RELIEF = *½-INCH
FOR INSIDE FACE AND 1½" OUTSIDE FACE OF PARAPET WALL

* NOTE:
MAX. RELIEF OF 1½" ALLOWED FOR JOINTS UP TO ¾" WIDTH ON INSIDE FACE.

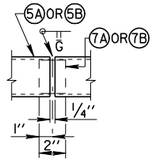


SECTION THRU FORM LINER



FIELD ERECTION JOINT DETAIL

☆ MIN. ⅝" FLAT SURF. DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALT.



SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

FORM LINER DETAILS AND BILL OF BARS

SHEET 409 OF 31

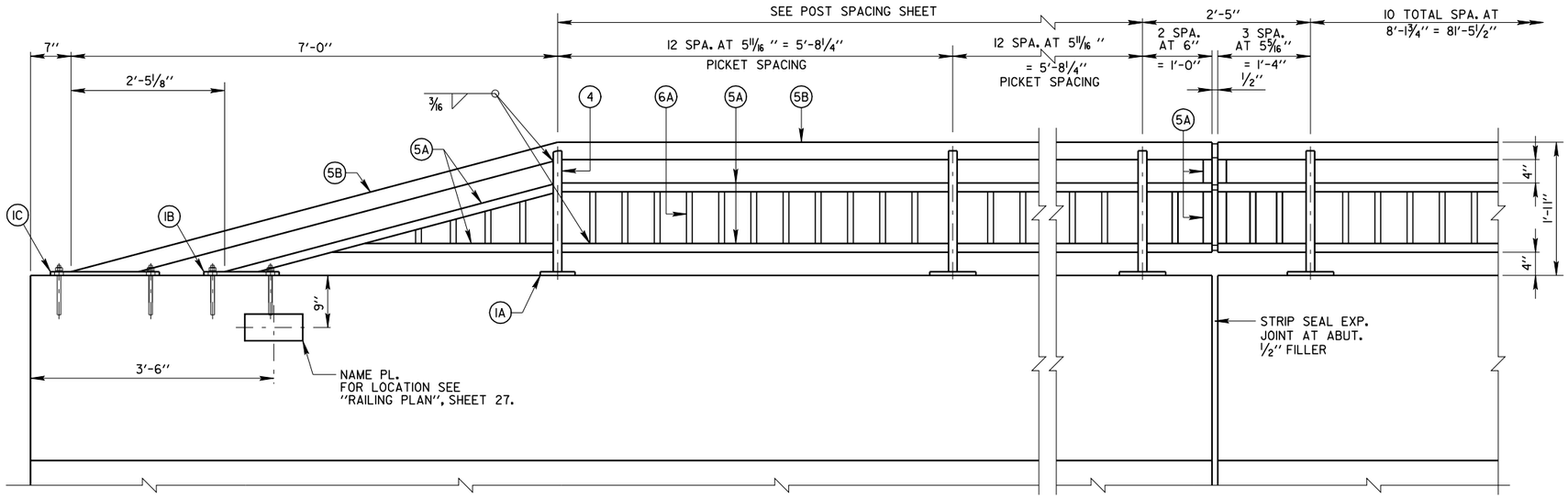
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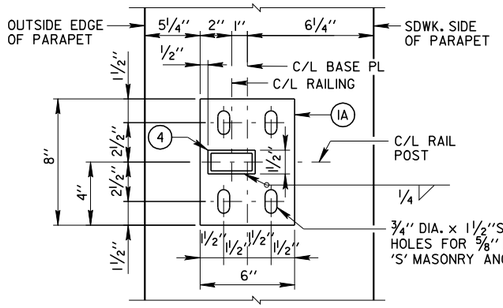
W:\STR\B312\PLANS\ 30_STEEL RAILINGDET.DGN 12-19-2012

STATE PROJECT NUMBER

2025 - 16 - 70

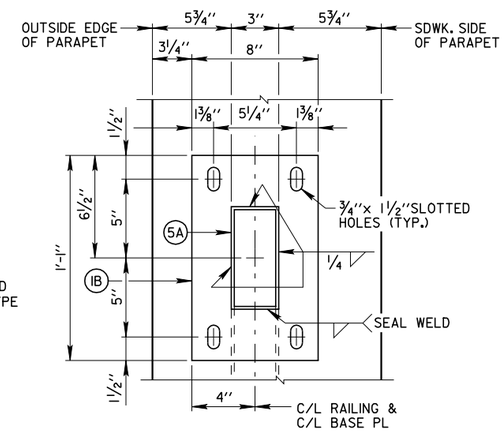


INSIDE ELEVATION OF PARAPET



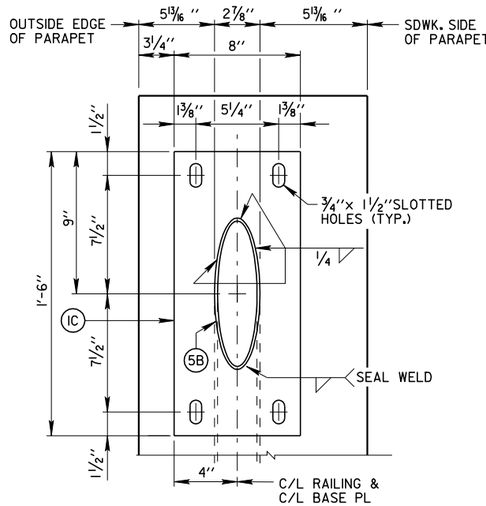
TYPICAL RAIL POST BASE PLATE

FOR 3" X 1½" X 3/16" POSTS (4)



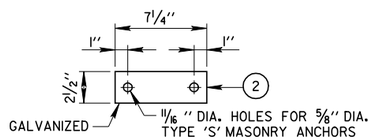
END RAIL BASE PLATE

FOR 3"x1½"x3/16" POSTS (5A)



END RAIL BASE PLATE

FOR 2½" DIA. STD. PIPE RAIL 5B (○)



END RAIL ANCHOR PLATE

FOR END RAIL BASE PLATES (IB) (IC)

2 REQ'D PER END RAIL BASE PL

LEGEND

(IA) PLATE ⅝" x 6" x 8" WITH ¾" x 1½" SLOTTED HOLES.

(IB) PLATE ⅝" x 8" x 1'-1" WITH ¾" x 1½" SLOTTED HOLES.

(IC) PLATE ⅝" x 8" x 1'-6" WITH ¾" x 1½" SLOTTED HOLES.

(2) ¼" x 2½" x 7¼" ANCHOR PLATE WITH 11/16 " DIA. HOLES FOR THREADED RODS NO. 3.

(3) 4 STAINLESS STEEL CONCRETE MASONRY ANCHORS (MIN. TENSILE STRENGTH = 70 KSI) TYPE 'S' (EPOXY), ⅝" DIA. MINIMUM PULLOUT CAPACITY OF 13 KIPS. EMBED A MIN. OF 7" FOR RAIL POSTS AND 5" FOR END RAILS.

(4) STRUCTURAL TUBING 3" x 1½" x 3/16". PLACE VERTICAL. WELD TO NO. 1 & NO. 5.

(5A) STRUCTURAL TUBING 3" x 1½" x 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(5B) 2½" DIA. STANDARD PIPE RAIL (2.875" O.D.). WELD TO NO. 1 & NO. 4. INSIDE OF PIPE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" x 1" PICKETS. WELD TO NO. 5 (SPACE AT 6" MAX. C/L TO C/L SPACING). PLACE VERTICAL.

(7A) RECTANGULAR SLEEVE FABRICATED FROM 3/16"PLATES. PROVIDE "SLIDING FIT".

(7B) CIRCULAR SLEEVE FABRICATED FROM 2" DIA. STANDARD PIPE.

(8A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" AT FIELD ERECTION JOINTS) (1'-4" AT STRIP SEAL EXPANSION JOINTS.)

(8B) CIRCULAR SLEEVE FABRICATED FROM 2" DIA. STANDARD PIPE. (1'-4" AT FIELD ERECTION JOINTS) (1'-4" AT STRIP SEAL EXPANSION JOINTS.)

RAILING NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C2 GALVANIZED B-40-759", WHICH SHALL INCLUDE ALL WORK SHOWN ON THIS SHEET.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO. 1, 2, 6, 7 AND 8 SHALL CONFORM TO ASTM A709 GRADE 36. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B (NO. 4 & NO. 5).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED OR STAINLESS STEEL.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL STANDARD COLOR NO. 14062.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

MATERIAL THICKNESS OF THICKER PART JOINED	MINIMUM SIZE OF FILLET WELD *
TO ½" INCLUSIVE	3/16"
OVER ½" TO ¾"	¼"
OVER ¾" TO 1½"	5/16"
OVER 1½" TO 2¼"	⅜"
OVER 2¼" TO 6"	½"

* EXCEPT THAT WELD SIZE SHALL NOT EXCEED THICKNESS OF THINNER PART JOINED.

NOTES

RAILING SHALL BE HOT DIP GALVANIZED AND PAINTED WITH WISDOT APPROVED TWO COAT PAINT SYSTEM.

PAINT POSTS, RAILS, SHIMS, AND EXPOSED PORTIONS OF ANCHOR BOLTS. FINISH COAT COLOR SHALL BE FEDERAL STANDARD COLOR NO. 14062.

INCLUDE PAINTING COST IN BID ITEM "RAILING STEEL TYPE C2 GALVANIZED B-40-759".

⅝" DIA. CONCRETE MASONRY ANCHORS TYPE 'S': MINIMUM PULLOUT STRENGTH 13 KIPS, EMBED 7" MIN. FOR RAIL POSTS AND 5" MIN. FOR END RAILS STAINLESS STEEL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

STEEL RAILING DETAILS

SHEET 30 OF 31

410

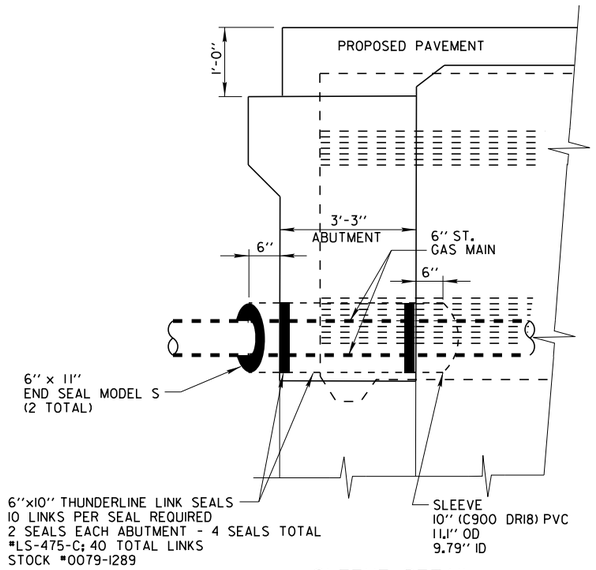
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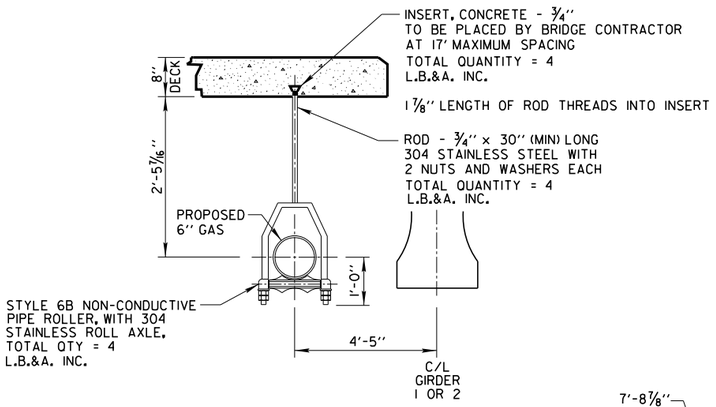
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STATE PROJECT NUMBER

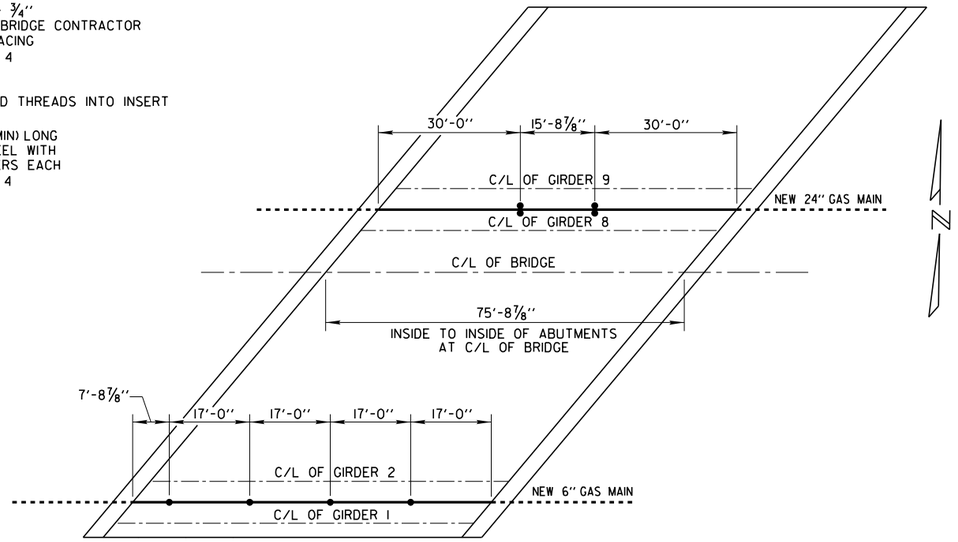
2025 - 16 - 70



SLEEVE DETAIL

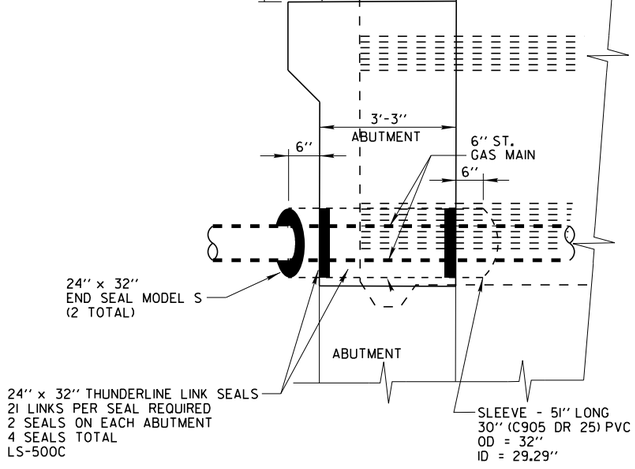


HANGER DETAIL

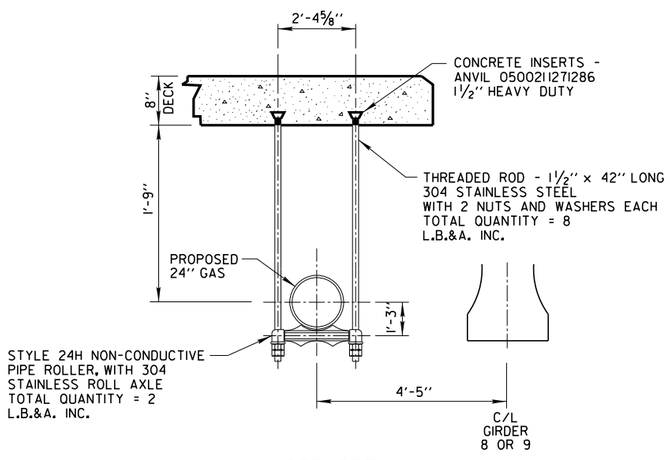


CONCRETE INSERT SPACING

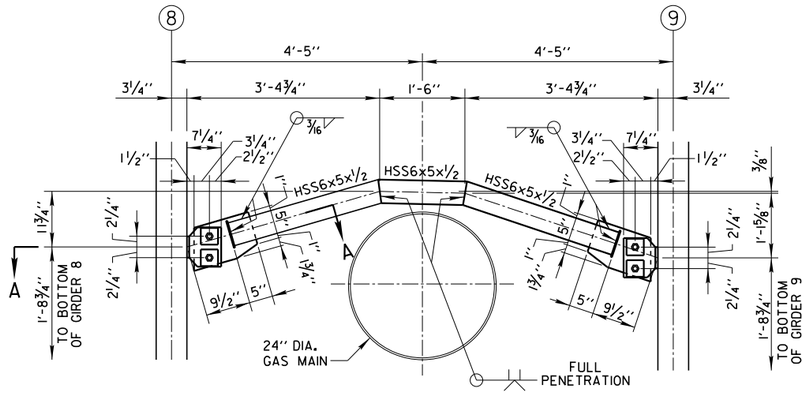
6" MAIN ON BRIDGE BETWEEN GIRDERS 1 AND 2



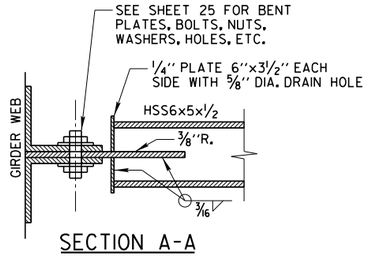
SLEEVE DETAIL



HANGER DETAIL



DIAPHRAGM AROUND 24" GAS MAIN
BETWEEN GIRDERS 8 AND 9



SECTION A-A

24" GAS MAIN ON BRIDGE BETWEEN GIRDERS 8 AND 9

NOTES:

1. CONNECTING BENT PLATES BOLTS, NUTS, WASHERS, PLATE WASHERS, CAP SCREWS, LOOP INSERTS AND HOLES SHALL BE AS SHOWN ON SHEET 25 OF 31, DIAPHRAGM DETAILS.
2. HSS 6x5x1/2 STEEL SHALL BE ASTM A500 GRADE B, F_Y =46 KSI AND SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
3. PIPE SLEEVES FOR 24" AND 6" GAS MAINS NEEDED ON BOTH EAST AND WEST ABUTMENT DIAPHRAGMS WILL BE PROVIDED BY WE ENERGIES GAS. CONTACT TOM MINESAL AT (414) 944-5755 MINIMUM 10 DAYS IN ADVANCE BEFORE INSTALLATION. INSTALLATION OF SLEEVES WILL BE PAID UNDER CONCRETE MASONRY BRIDGES.

we energies

OTIE
Oneida Total Integrated Enterprises

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-759

DRAWN BY K.P.S. | PLANS CK'D. J.P.H. R.V.K.

DETAILS OF
WE-ENERGIES GAS MAIN
SUPPORTING HANGERS
AND MODIFIED DIAPHRAGM

SHEET 31 OF 31

411

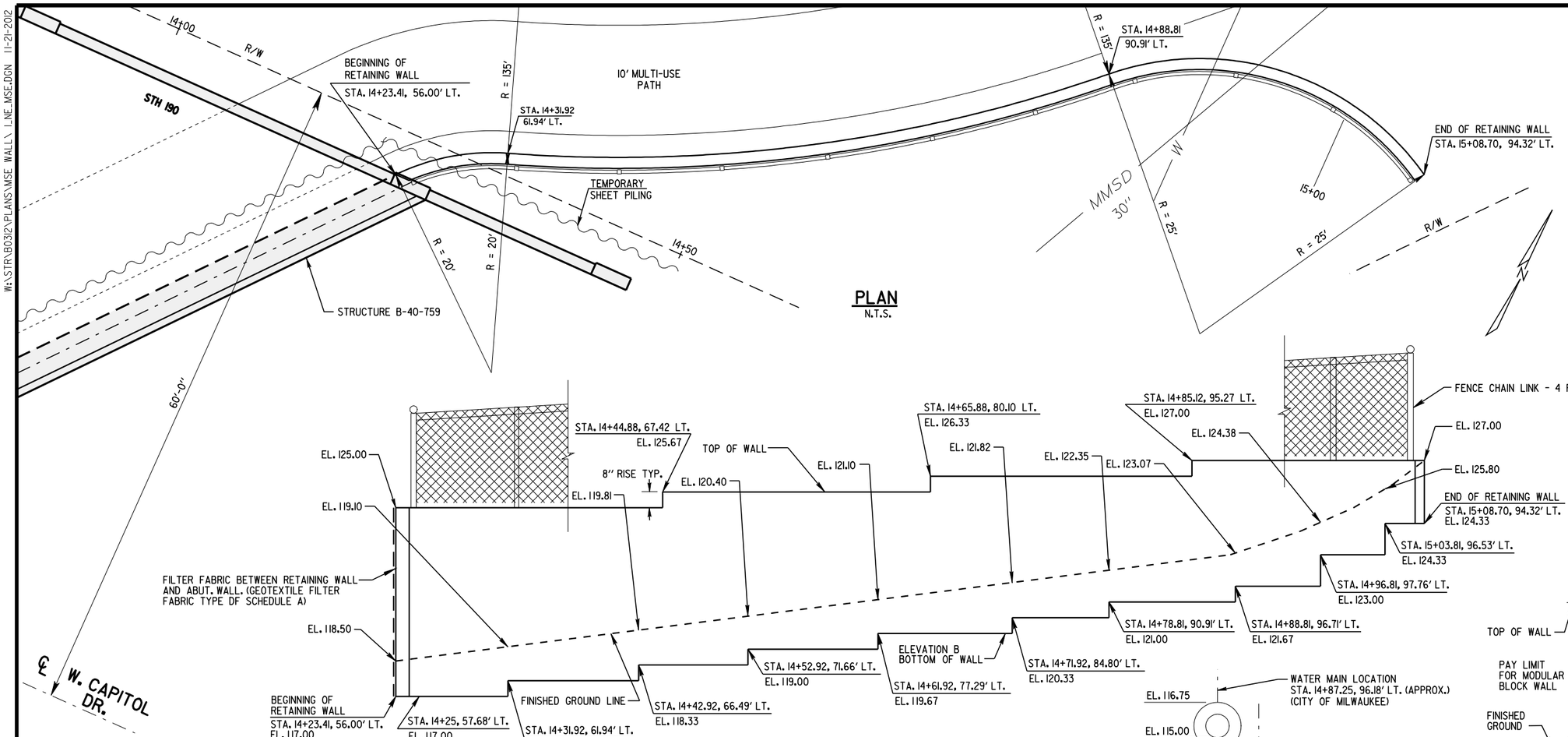
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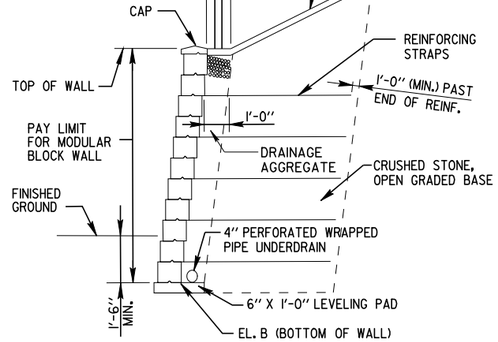
W:\STR\B032\PLANS\MSE WALL\ LNE_MSE.DGN 11-21-2012

STATE PROJECT NUMBER

2025 - 16 - 70



ELEVATION
N.T.S.



TYP. CROSS SECT. OF RETAINING WALL

WISCONSIN
CRAIG S. LIBERTO
E-23746
MILWAUKEE
WIS.
PROFESSIONAL ENGINEER

Craig S. Liberto 11/28/2012

ALLOWABLE WALL SYSTEMS

MSE WALLS WITH 8" HIGH MODULAR BLOCK STRAIGHT FACINGS

GENERAL NOTES

CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR RETAINING WALLS IN ACCORDANCE WITH SPECIAL PROVISIONS. RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO CONTRACTOR DURING CONSTRUCTION. COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN UNIT PRICE FOR "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO WALL SYSTEM SELECTED.

CONTRACTOR SHALL VERIFY THAT WALL SYSTEM SELECTED WILL CONFORM TO REQUIRED ALIGNMENTS AND DETAILS.

RETAINING WALL IS TO BE DESIGNED USING ELEVATIONS GIVEN ON THIS SHEET.

DESIGN WALL FOR LIVE LOAD SURCHARGE OF 100 PSF.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE BEHIND WALL AS SHOWN.

MODULAR BLOCK MATERIAL TO BE COLOR SIMILAR TO ADJACENT STRUCTURE B-40-759 EAST ABUTMENT. SUBMIT SAMPLE FOR APPROVAL.

COST OF GEOTEXTILE FILTER FABRIC TYPE DF SCHEDULE A IS INCIDENTAL TO MSE RETAINING WALL CONSTRUCTION.

COST OF CONCRETE GROUT IS INCIDENTAL TO "FENCE CHAIN LINK 4-FT" CONSTRUCTION.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
612.0104	PIPE UNDERDRAIN 4-INCH	LF	100
616.0204	FENCE CHAIN LINK 4-FT	LF	100
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	540

NOTE:
CLEARING, GRUBBING, TOPSOIL, EROSION MAT CLASS II TYPE B AND SEEDING MIXTURE NO. 70 NEEDED BEHIND MSE WALL ARE INCLUDED WITH PAVING QUANTITIES OF STATE PROJECT NO. 2025-11-71.

SOIL PARAMETERS

STRATUM LOCATION & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
FOUNDATION SOIL	130	30	0
RETAINED SOIL	130	30	0

SAFETY FACTORS

MINIMUM DOT STANDARD	MSE WALL
SLIDING (FS > 1.5)	1.5
OVERTURNING (FS > 2.0)	2.0
GLOBAL STABILITY (FS > 1.3)	1.3
ULTIMATE BEARING CAPACITY (FS > 2.0) BASED ON WALL WIDTHS & IMBEDMENT DEPTHS SHOWN IN TABLE	2.0

BENCHMARK

NO.	LOCATION	DESCRIPTION	ELEVATION
249	N. MAYFAIR RD. & W. CAPITOL DR. (N.E. CORNER) 60.8' E. OF E. CURB OF N. MAYFAIR RD. & 8.5' N. OF N. CURB OF W. CAPITOL DR.	CITY OF MILWAUKEE STD. B.M. 249	161.301

WEST CAPITOL DRIVE NORTHEAST MSE RETAINING WALL GENERAL PLAN AND ELEVATION

CITY OF MILWAUKEE CONTACT:
CRAIG LIBERTO
414-286-3294

WISCONSIN D.O.T. BRIDGE OFFICE CONTACT:
WILLIAM DREHER
608-266-8489

LIST OF DRAWINGS

1. **NORTHEAST MSE RETAINING WALL**
2. **SUBSURFACE EXPLORATION**

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE SERVICES DIVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-478

STH 190 OVER BRANCH OF MENOMONEE RIVER

COUNTY	MILWAUKEE	~~TOWN~~/CITY/ ~~VILLAGE~~	MILWAUKEE

DESIGN SPEC. AASHTO LRFD SPECIFICATION

DESIGNED BY	A.R.	DESIGN CK'D.	J.D.T.	DRAWN BY	G.J.R.	PLANS CK'D.	J.D.T.

NORTHEAST MSE RETAINING WALL

SHEET 412 OF 2

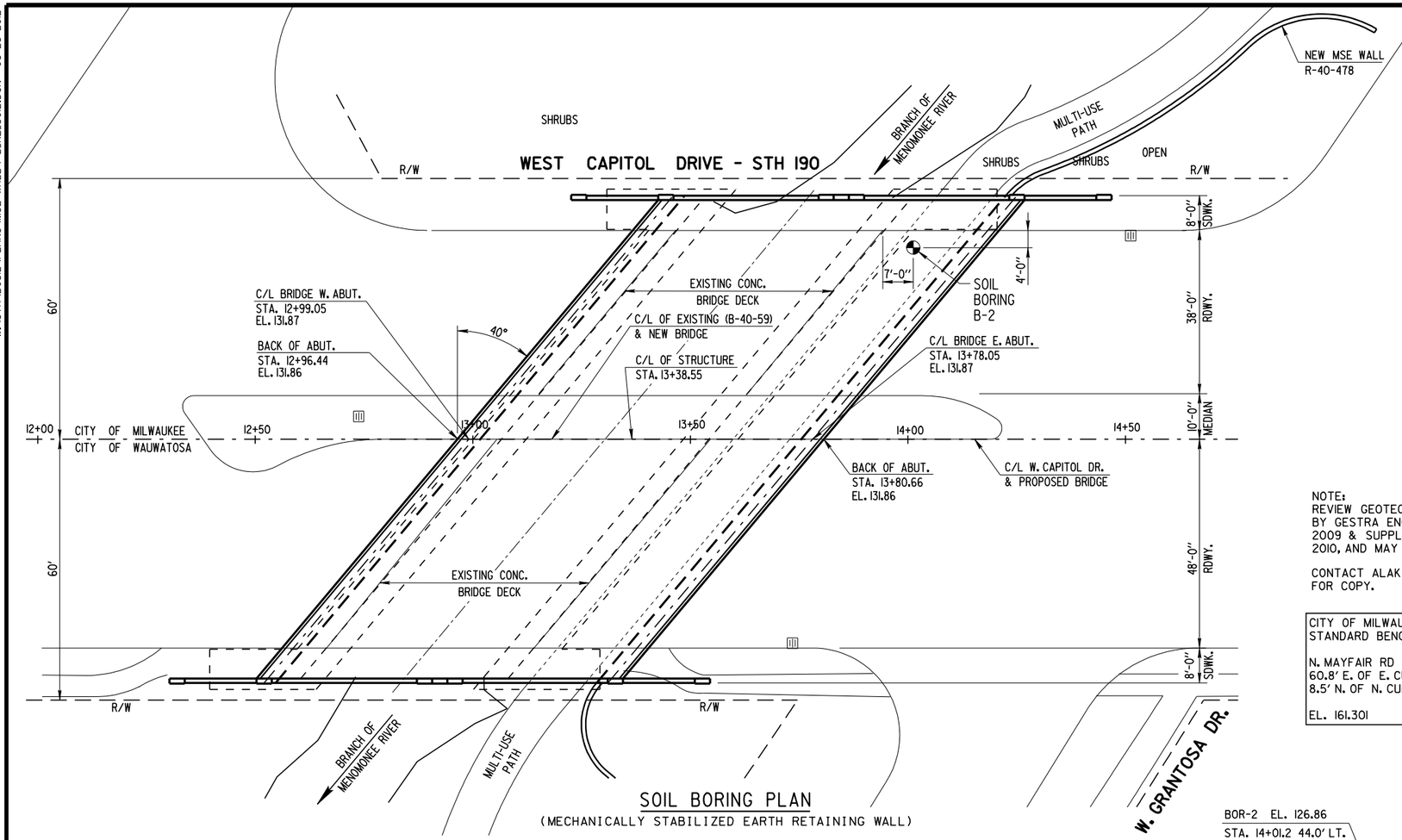
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STATE PROJECT NUMBER

2025 - 16 - 70



SOIL BORING PLAN

(MECHANICALLY STABILIZED EARTH RETAINING WALL)

NOTE:
REVIEW GEOTECHNICAL REPORTS PREPARED BY GESTRA ENGINEERING DATED APRIL 19, 2009 & SUPPLEMENTED ON SEPTEMBER 1, 2010, AND MAY 10, 2012 PRIOR TO SUBMITTING BID.

CONTACT ALAK ROY AT 414-286-0451 FOR COPY.

CITY OF MILWAUKEE
STANDARD BENCH MARK 249

N. MAYFAIR RD & W. CAPITOL DR. (N. E. CORNER)
60.8' E. OF E. CURB OF N. MAYFAIR RD &
8.5' N. OF N. CURB OF W. CAPITOL DR.

EL. 161.301

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

PROBING NO.
STATION
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

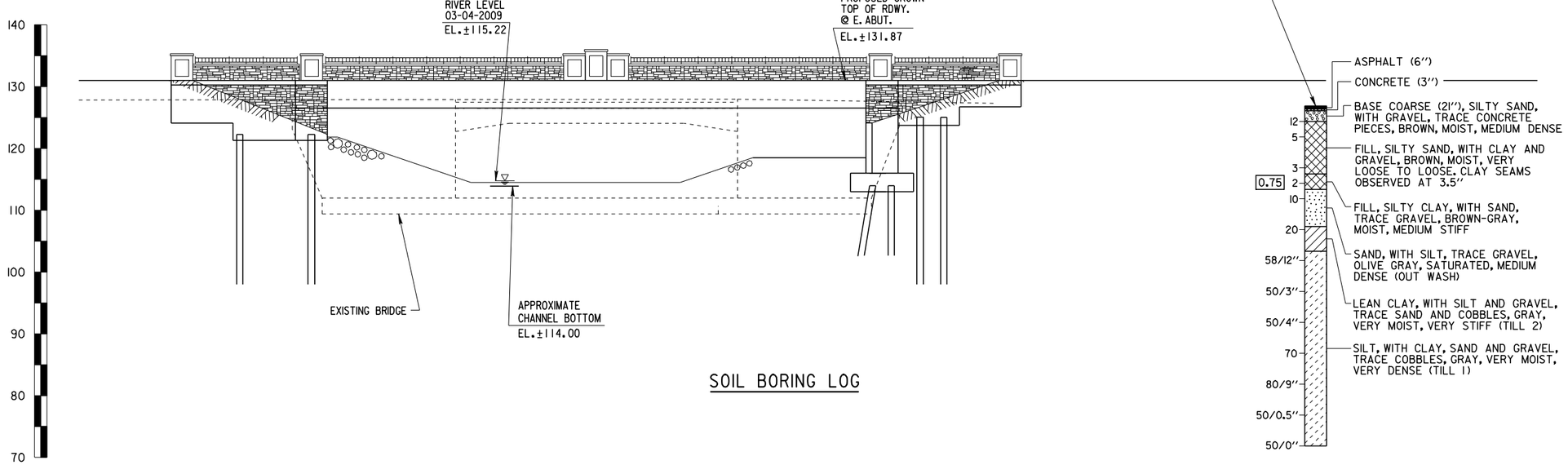
LEGEND OF BORING

BORING NO.
STA.
ELEV.
UNCONFINED STRENGTH 7.7
7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.



SOIL BORING LOG

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-478

DRAWN BY G.J.R. | PLANS CK'D. A.R. J.D.T.

SUBSURFACE EXPLORATION

SHEET 2 OF 2

413

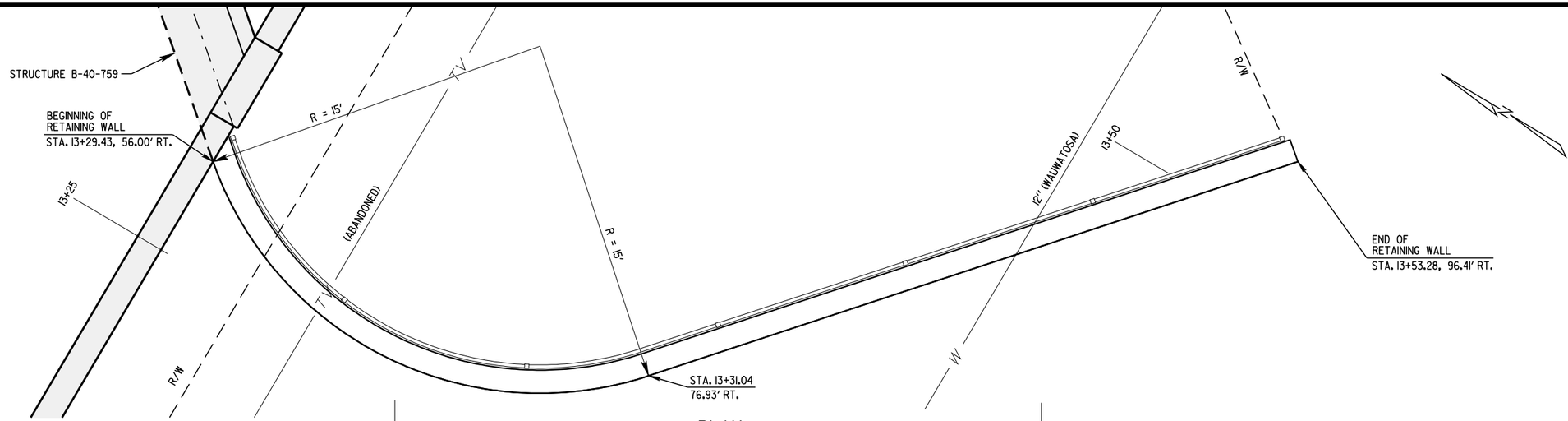
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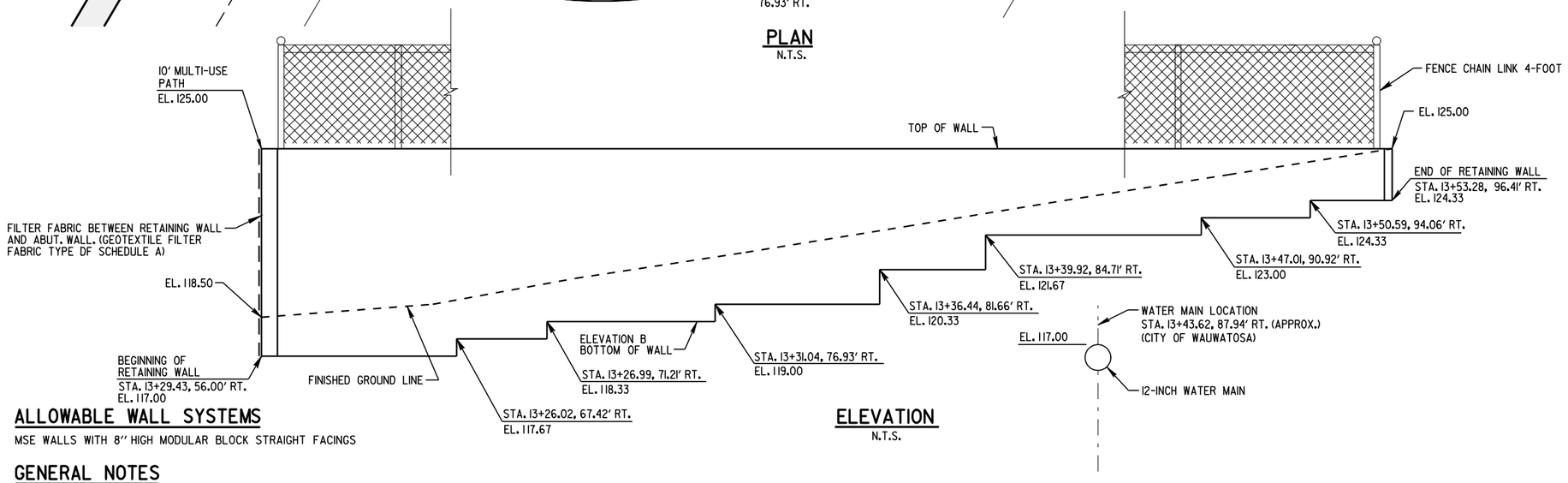
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STATE PROJECT NUMBER

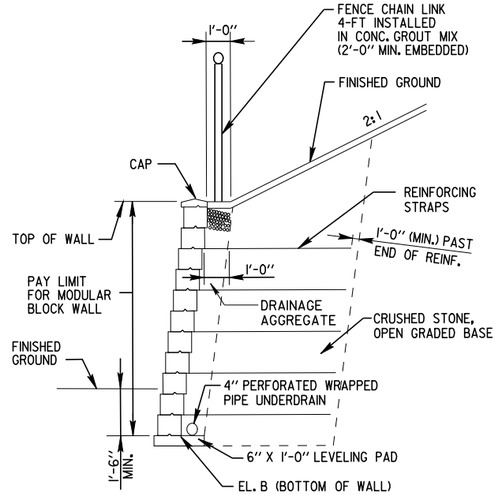
2025 - 16 - 70



PLAN
N.T.S.



ELEVATION
N.T.S.



TYP. CROSS SECT. OF RETAINING WALL

ALLOWABLE WALL SYSTEMS

MSE WALLS WITH 8" HIGH MODULAR BLOCK STRAIGHT FACINGS

GENERAL NOTES

CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR RETAINING WALLS IN ACCORDANCE WITH SPECIAL PROVISIONS. RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO CONTRACTOR DURING CONSTRUCTION. COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN UNIT PRICE FOR "WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD".

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO WALL SYSTEM SELECTED.

CONTRACTOR SHALL VERIFY THAT WALL SYSTEM SELECTED WILL CONFORM TO REQUIRED ALIGNMENTS AND DETAILS.

RETAINING WALL IS TO BE DESIGNED USING ELEVATIONS GIVEN ON THIS SHEET.

DESIGN WALL FOR LIVE LOAD SURCHARGE OF 100 PSF.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE BEHIND WALL AS SHOWN.

MODULAR BLOCK MATERIAL TO BE COLOR SIMILAR TO ADJACENT STRUCTURE B-40-759 EAST ABUTMENT. SUBMIT SAMPLE FOR APPROVAL.

COST OF GEOTEXTILE FILTER FABRIC TYPE DF SCHEDULE A IS INCIDENTAL TO MSE RETAINING WALL CONSTRUCTION.

COST OF CONCRETE GROUT IS INCIDENTAL TO "FENCE CHAIN LINK 4-FT" CONSTRUCTION.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
612.0104	PIPE UNDERDRAIN 4-INCH	LF	53
616.0204	FENCE CHAIN LINK 4-FT	LF	53
SPV.0165	WALL MODULAR BLOCK MECHANICALLY STABILIZED EARTH LRFD	SF	395

NOTE:
CLEARING, GRUBBING, TOPSOIL, EROSION MAT CLASS II TYPE B AND SEEDING MIXTURE NO. 70 NEEDED BEHIND MSE WALL ARE INCLUDED WITH PAVING QUANTITIES OF STATE PROJECT NO. 2025-11-71.

SOIL PARAMETERS

STRATUM LOCATION & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
FOUNDATION SOIL	130	30	0
RETAINED SOIL	130	30	0

SAFETY FACTORS

MINIMUM DOT STANDARD	MSE WALL
SLIDING (FS > 1.5)	1.5
OVERTURNING (FS > 2.0)	2.0
GLOBAL STABILITY (FS > 1.3)	1.3
ULTIMATE BEARING CAPACITY (FS > 2.0) BASED ON WALL WIDTHS & IMBEDMENT DEPTHS SHOWN IN TABLE	2.0

BENCHMARK

NO.	LOCATION	DESCRIPTION	ELEVATION
249	N. MAYFAIR RD. & W. CAPITOL DR. (N.E. CORNER) 60.8' E. OF E. CURB OF N. MAYFAIR RD. & 8.5' N. OF N. CURB OF W. CAPITOL DR.	CITY OF MILWAUKEE STD. B.M. 249	161.301

WEST CAPITOL DRIVE SOUTHEAST MSE RETAINING WALL GENERAL PLAN AND ELEVATION

LIST OF DRAWINGS

1. **SOUTHEAST MSE RETAINING WALL**
2. **SUBSURFACE EXPLORATION**

CITY OF MILWAUKEE CONTACT:
CRAIG LIBERTO
414-286-3294

WISCONSIN D.O.T. BRIDGE OFFICE CONTACT:
WILLIAM DREHER
608-266-8489

WISCONSIN
CRAIG S. LIBERTO
E-23746
MILWAUKEE
WIS.
PROFESSIONAL ENGINEER
Craig S. Liberto 11/28/2012

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE SERVICES DIVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-40-479

STH 190 OVER BRANCH OF MENOMONEE RIVER

COUNTY MILWAUKEE | ~~TOWN~~/CITY/~~VILLAGE~~ MILWAUKEE

DESIGN SPEC. AASHTO LRFD SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
A.R.	J.D.T.	G.J.R.	J.D.T.

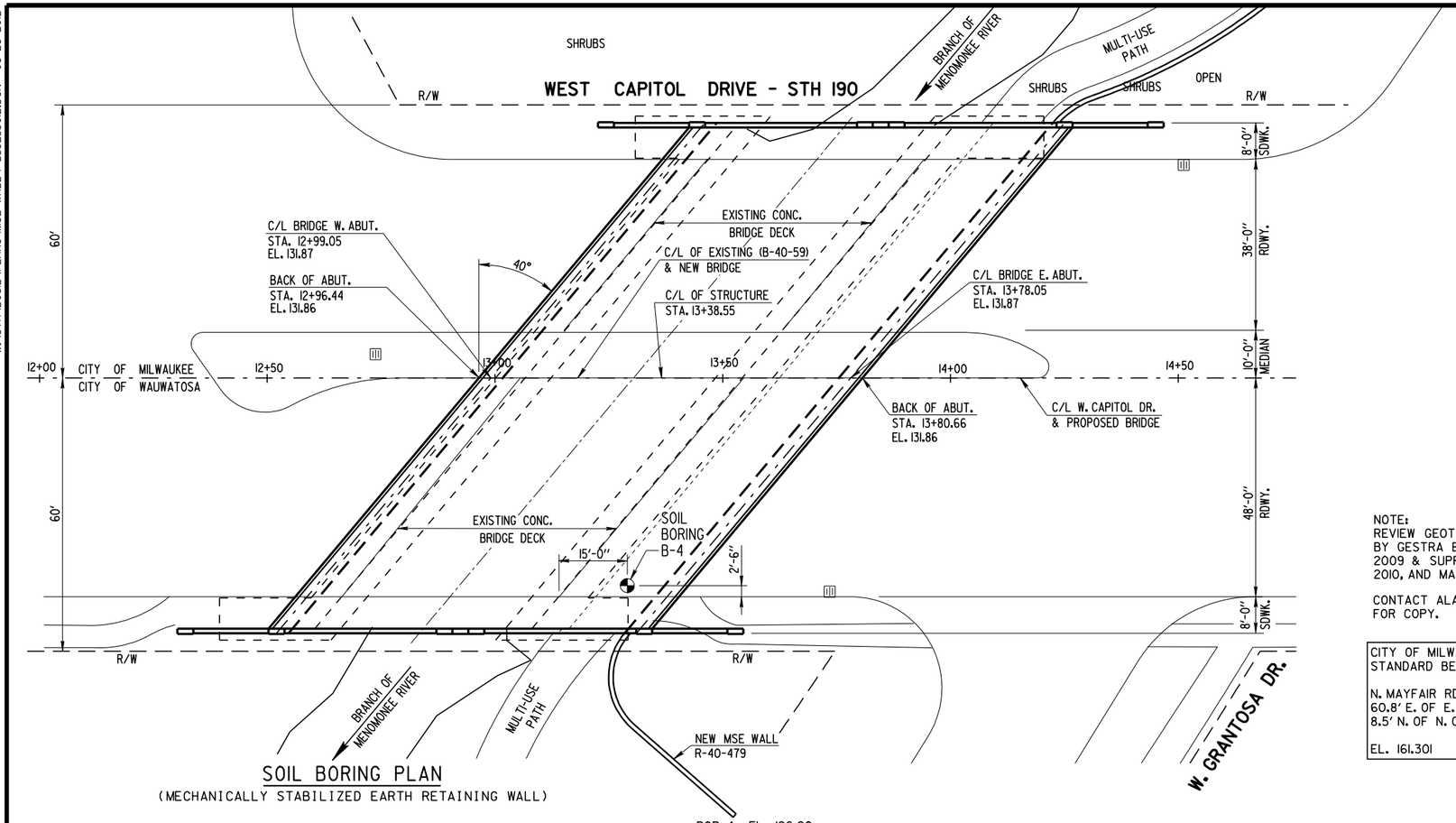
SOUTHEAST MSE RETAINING WALL

SHEET 414 OF 2

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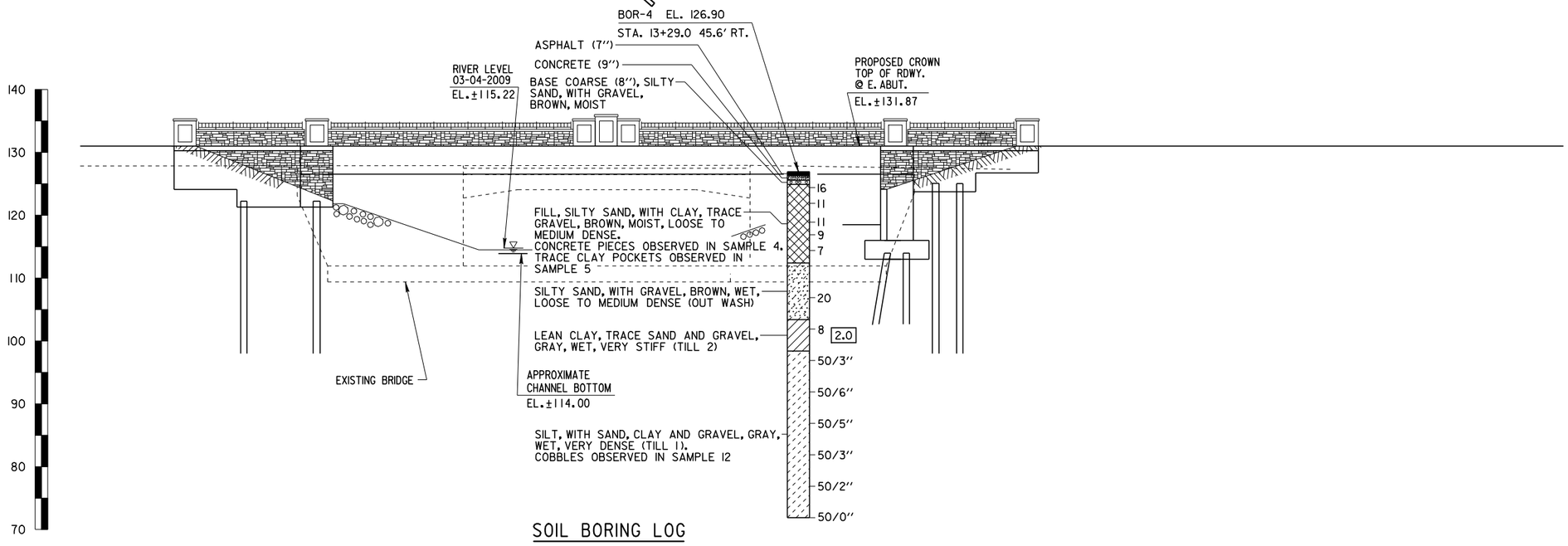
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SOIL BORING PLAN

(MECHANICALLY STABILIZED EARTH RETAINING WALL)



SOIL BORING LOG

NOTE:
REVIEW GEOTECHNICAL REPORTS PREPARED BY GESTRA ENGINEERING DATED APRIL 19, 2009 & SUPPLEMENTED ON SEPTEMBER 1, 2010, AND MAY 10, 2012 PRIOR TO SUBMITTING BID.

CONTACT ALAK ROY AT 414-286-0451 FOR COPY.

CITY OF MILWAUKEE
STANDARD BENCH MARK 249

N. MAYFAIR RD & W. CAPITOL DR. (N. E. CORNER)
60.8' E. OF E. CURB OF N. MAYFAIR RD &
8.5' N. OF N. CURB OF W. CAPITOL DR.

EL. 161.301

STATE PROJECT NUMBER

2025 - 16 - 70

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

PROBING NO.
STATION
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

BORING NO.
STA.
ELEV.
UNCONFINED STRENGTH 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-479

DRAWN BY G.J.R. | PLANS CK'D. A.R. J.D.T.

SUBSURFACE EXPLORATION

SHEET 415 OF 2

8

8

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
1 + 50	0	0		0
2 + 00	123	2	2.68	0.46
2 + 50	145	4	2.66	0.34
3 + 00	158	3	2.69	0.20
3 + 50	146	3	2.45	0.50
4 + 00	114	7	2.00	0.50
4 + 50	63	10	1.81	0.40
5 + 00	61	7	1.60	0.53
5 + 50	77	8	1.88	0.62
6 + 00	68	4	1.75	0.67
6 + 50	64	3	0.58	0.07
7 + 00	88	1	0.86	0.15
7 + 50	91	1	1.37	0.13
8 + 00	105	0	1.27	0.00
8 + 50	103	0	0.78	0.09
9 + 00	97	1	1.07	1.55
9 + 50	137	13	2.25	0.06
10 + 00	104	3	1.98	0.12
10 + 50	69	12	19.9	0.56
11 + 00	41	49	1.83	1.10
11 + 50	22	158	1.30	1.91
12 + 00	10	347	0.81	2.68
12 + 50	13	555	1.27	3.50
13 + 00	25	974	1.67	3.62
13 + 50	42	877	2.57	4.00
14 + 00	1	561	0.00	2.78
14 + 50	109	665	5.68	3.36
15 + 00	118	389	3.87	1.75
15 + 50	66	428	4.54	3.92
16 + 00	48	101	1.73	1.69
16 + 50	90	18	1.77	0.75
17 + 00	88	9	1.65	0.75
17 + 50	37	4	1.90	0.75
18 + 00	69	9	1.92	0.75
18 + 50	88	7	1.80	0.75
19 + 00	54	7	1.77	0.75
19 + 50	54	7	1.81	0.75
20 + 00	50	7	1.70	0.75
20 + 50	41	7	2.15	0.75
21 + 00	76	5	1.88	1.35
21 + 50	87	18	1.76	1.35
22 + 00	94	36	1.76	1.35
22 + 50	135	73	1.82	1.35
23 + 00	144	95	1.94	1.35
23 + 50	172	70	2.20	1.35
24 + 00	182	2	1.95	1.35
24 + 50	236	139	2.55	0.00
25 + 00	236	892	1.80	0.33
25 + 50	175	3	1.83	0.00
26 + 00	312	122	1.81	0.51
26 + 50	281	165	1.68	1.00
27 + 00	321	463	1.68	1.00
27 + 50	390	240	1.77	
28 + 00	383	218	1.73	
28 + 50	339	75	2.16	
29 + 00	225	97	1.16	0.90
29 + 50	115	62	1.08	0.90
30 + 00	145	57	0.83	0.90
30 + 50	112	41	1.15	0.90
31 + 00	90	18	0.90	0.90
31 + 50	0	18	0.56	0.90
32 + 00	50	0	0.70	
32 + 50	55	0	0.56	
33 + 00	55	0	0	
33 + 50	69	0	0.48	0.07
34 + 00	98	0	0.64	
34 + 50	108	0	0.82	
35 + 00	103	0	0.92	
35 + 50	93	0	0.84	
36 + 00	93	0	0.76	
36 + 50	101	0	0.89	0.17
37 + 00	102	0	0.85	
37 + 50	99	0	0.77	
38 + 00	94	0	0.70	0.28
38 + 50	91	0	0.68	

STATION	CUT C.Y.	FILL (-) C.Y.	LARGEST CUT IN FEET	LARGEST FILL (-) IN FEET
39 + 00	93	0	0.81	
39 + 50	82	0	0.86	
40 + 00	81	0	0.81	
40 + 50	89	0	0.65	
41 + 00	89	0	0.66	
41 + 50	106	0	0.80	
42 + 00	11	0	0.97	
42 + 50	96	0	0.98	
43 + 00	92	0	0.92	
43 + 50	90	0	0.85	
44 + 00	81	0	0.67	
44 + 50	96	0	0.98	
45 + 00	104	0	0.72	
45 + 50	62	0	0.65	
46 + 00	63	0	0.90	
46 + 50	76	0	0.95	
47 + 00	79	0	0.93	
47 + 50	81	0	1.23	
48 + 00	118	0	0.87	
48 + 50	76	0	0.86	
49 + 00	65	0	0.73	
49 + 50	55	0	0.75	
50 + 00	64	0	0.76	
50 + 50	72	0	0.81	
51 + 00	123	12	1.02	0.63
51 + 50	109	0	0.84	
52 + 00	91	0	0.56	
52 + 50	68	0	0.48	
53 + 00	57	9	0.37	0.70
53 + 50	78	0	0.61	
54 + 00	109	0	0.75	
54 + 50	456	0	1.39	
55 + 00	454	0	0.70	
55 + 50	74	0	0.64	
56 + 00	74	0	0.56	
56 + 50	79	13	0.63	1.12
57 + 00	82	0	0.62	
57 + 50	120	0	0.73	
58 + 00	112	0	0.72	0.08
58 + 50	116	0	0.74	
59 + 00	123	0	0.73	
59 + 50	97	0	0.64	
60 + 00	83	0	0.71	
60 + 50	87	0	0.74	
61 + 00	92	0	0.56	
61 + 50	86	0	0.85	
62 + 00	105	0	0.73	
62 + 50	104	0	0.64	
63 + 00	81	0	0.62	
63 + 50	87	0	0.64	0.14
64 + 00	96	0	0.64	
64 + 50	71	2	0.57	0.13
65 + 00	71	2	0.59	0.02
65 + 50	70	3	1.16	0.31
66 + 00	87	3	0.84	
66 + 50	102	0	0.91	
67 + 00	100	0	0.98	0.36
67 + 50	97	0	0.72	
68 + 00	87	1	0.90	0.14
68 + 50	92	1	0.64	
69 + 00	86	0	0.83	0.17
69 + 50	48	9	0.54	0.22
70 + 00	31	6	0.62	0.04
70 + 50	54	0	0.77	0.04
71 + 00	76	1	0.87	0.11
71 + 50	70	1	0.75	0.11
72 + 00	82	0	0.99	
72 + 50	70	0	0.89	
73 + 00	52	5	0.87	0.29
73 + 50	41	6	0.69	0.10
74 + 00	53	1	1.26	0.06
74 + 50	74	0	1.32	0.06
75 + 00	113	0	0.87	0.06
TOTAL	22906	14692		

EARTHWORK SUMMARY

COMMON EXCAVATION (205.0100)	51,258 C.Y.
(INCLUDES 28,352 C.Y. PAV'T. REMOVAL)	
FILL (INCLUDING 20% SHRINKAGE)	14,692 C.Y.
WASTE	36,566 C.Y.

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

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