

MAY 2019

ORDER OF SHEETS

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

TOTAL SHEETS = 142



DESIGN DESIGNATION

A.A.D.T.	(2016)	=	8,600 - 12,300
A.A.D.T.		=	-----
D.H.V.		=	-----
D.D.		=	-----
T.		=	6.2%
DESIGN SPEED		=	30 MPH
ESALS		=	-----

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

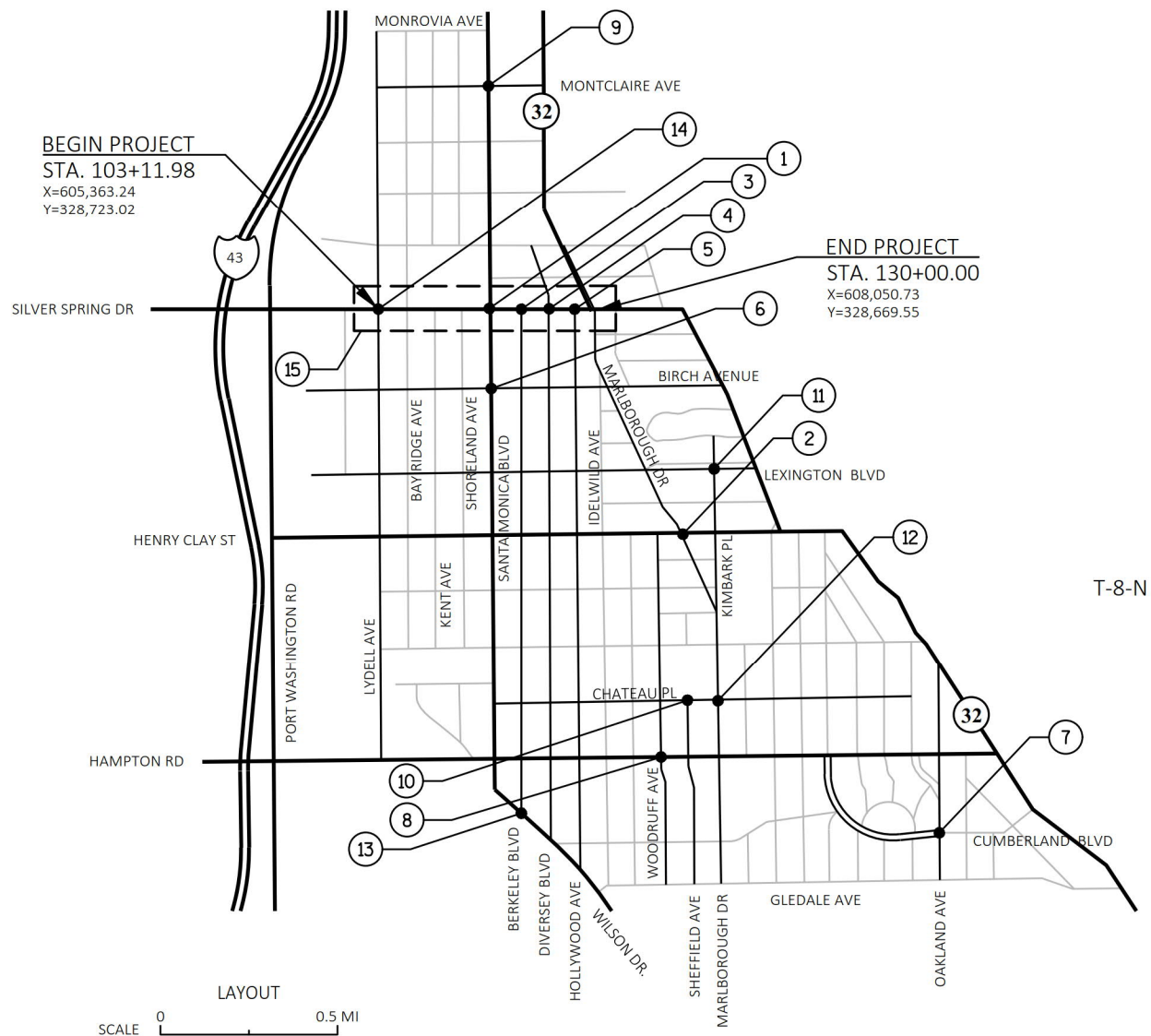
PLAN OF PROPOSED IMPROVEMENT

VARIOUS VILLAGE ROADS

14 INTERS AND SILVER SPRING CORRIDOR

LOCAL STREETS
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2998-06-70



LAYOUT
SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 0.509 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD88 (2012).

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2998-06-70	WISC 2019290	1

ACCEPTED FOR
VILLAGE _____ of _____ WHITEFISH BAY

2/1/2019 John C. Debeck P.E.
(Date) Dir. Public Works
(Signature & Title of Official)

ORIGINAL PLANS PREPARED BY:

SA
STRAND
ASSOCIATES®
126 N. JEFFERSON STREET, STE 350
MILWAUKEE, WISCONSIN 53202
(414) 271-0771

WISCONSIN
BHUPENDRA B.
BISTA
E - 34675
NEW BERLIN
WI
PROFESSIONAL ENGINEER
2/1/2019

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	STRAND ASSOCIATES
Designer	STRAND ASSOCIATES
Project Manager	KATHLEEN KRAMER
Regional Examiner	
Regional Supervisor	ADETOYE ADENIYI

APPROVED FOR THE DEPARTMENT
DATE: 2/24/19 K. Kramer
(Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

RE-TOPSOIL GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN 5 CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION.

EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE DEVICE IS NO LONGER REQUIRED.

THE LOCATION OF PROPOSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE APPROVED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT. SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

RADIUS DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

A SAWED JOINT SHALL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

SECTION 2 ORDER OF SHEETS

- GENERAL NOTES
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- INTERSECTION DETAILS
- EROSION CONTROL
- TRAFFIC SIGNALS
- PAVEMENT MARKING AND SIGNING
- TRAFFIC CONTROL
- LIGHTING
- ALIGNMENT DETAILS
- CONTROL POINT DATA SHEETS

UTILITIES

AT&T WISCONSIN

JAY BULANEK
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PH: (262) 896-7669
jb5175@att.com

CENTURYLINK COMMUNICATIONS

KIRK THOELKE
11111 DORSETT ROAD
MARYLAND HEIGHTS, MO 63043
PH: (636) 887-4752
kirk.thoelke@centurylink.com

CHARTER COMMUNICATIONS

PETER KRUZELA
1320 N DR MARTIN LUTHER KING JR DRIVE
MILWAUKEE, WI 53212
PH: (414) 277-4045
wis.engineering@charter.com

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

MICKI KLAPPA-SULLIVAN
260 W SEEBOTH STREET
MILWAUKEE, WI 53204
PH: (414) 225-2178
mklappasullivan@mmsd.com

WE ENERGIES ELECTRIC

NICOLE SMULLEN
333 W EVERETT ST - A299
MILWAUKEE, WI 53203
PH: (414) 221-5617
nicole.smullen@we-energies.com

WE ENERGIES GAS

NICOLE SMULLEN
333 W EVERETT ST - A299
MILWAUKEE, WI 53203
PH: (414) 221-5617
nicole.smullen@we-energies.com

OTHER CONTACTS

WISDOT REGION CONTACT

KATHLEEN KRAMER, P.E.
WISDOT SOUTHEAST REGION
WAUKESHA OFFICE
141 NW BARSTOW ST.
WAUKESHA, WI 53187
PH: (262) 548-8772
kathleen.kramer@dot.wi.gov

WISDNR CONTACT

KRISTINA BETZOLD
DNR SOUTHEAST REGION HEADQUARTERS
2300 N DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PH: (414) 263-8517
kristina.betzold@wisconsin.gov

VILLAGE OF WHITEFISH BAY

JOHN EDLEBECK, P.E.
155 W. FAIRMOUNT AVENUE
WHITEFISH BAY, WI 53217
PH: (414) 962-6690 EXT. 114
j.edlebeck@wfbvillage.org

CONSULTANT CONTACT

BHUPENDRA BISTA, P.E.
STRAND ASSOCIATES, INC.
126 N JEFFERSON ST
SUITE 350
MILWAUKEE, WI 53202
PH: (414) 271-0771
bhupendra.bista@strand.com

MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS) - ROUTES

MELANIE FLYNN
COORDINATOR OF STREET SUPERVISION
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PH: (414) 343-1764
mflynn@mcts.org

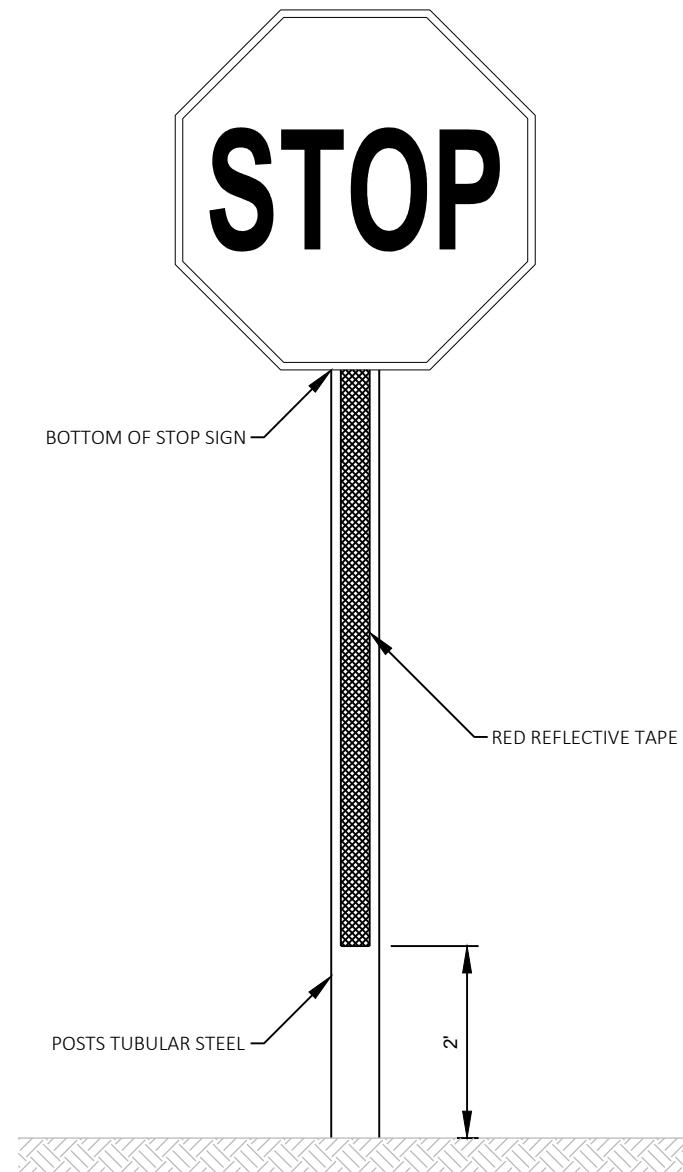
MILWAUKEE COUNTY TRANSIT SYSTEM (MCTS) - STOPS

ANDY TILLMAN
TRANSIT PLANNER
1942 N. 17TH ST.
MILWAUKEE, WI 53205
PH: (414) 343-1728
atillman@mcts.org

DIGGERSHOTLINE

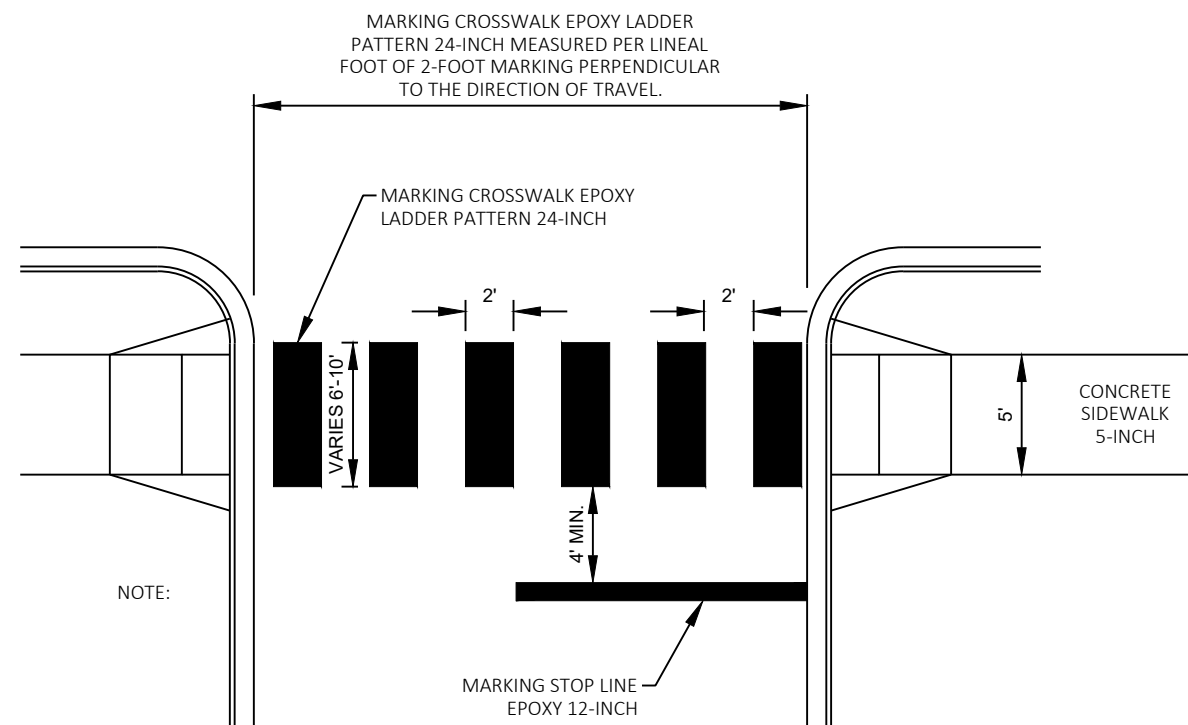
Dial 811 or (800)242-8511

www.DiggersHotline.com

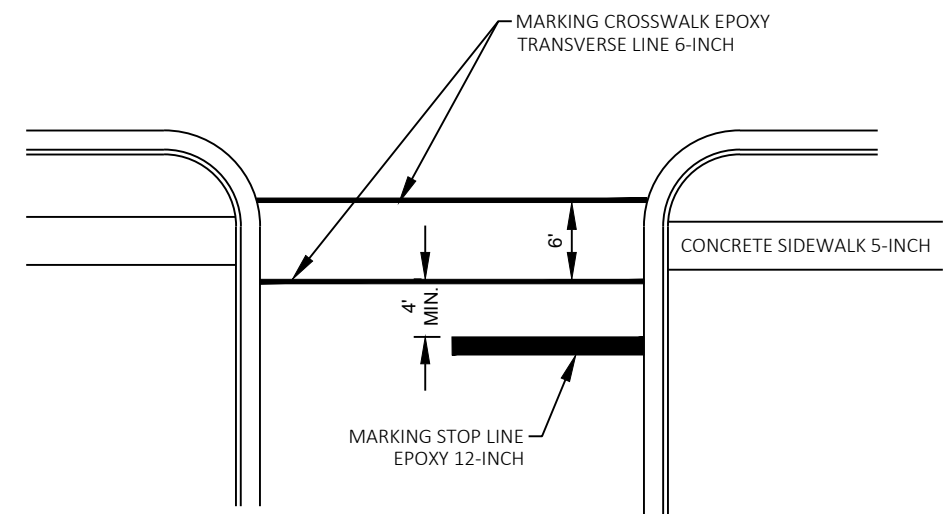


NOTE: RED REFLECTIVE TAPE SHALL EXTEND
TO THE BOTTOM OF THE STOP SIGN.

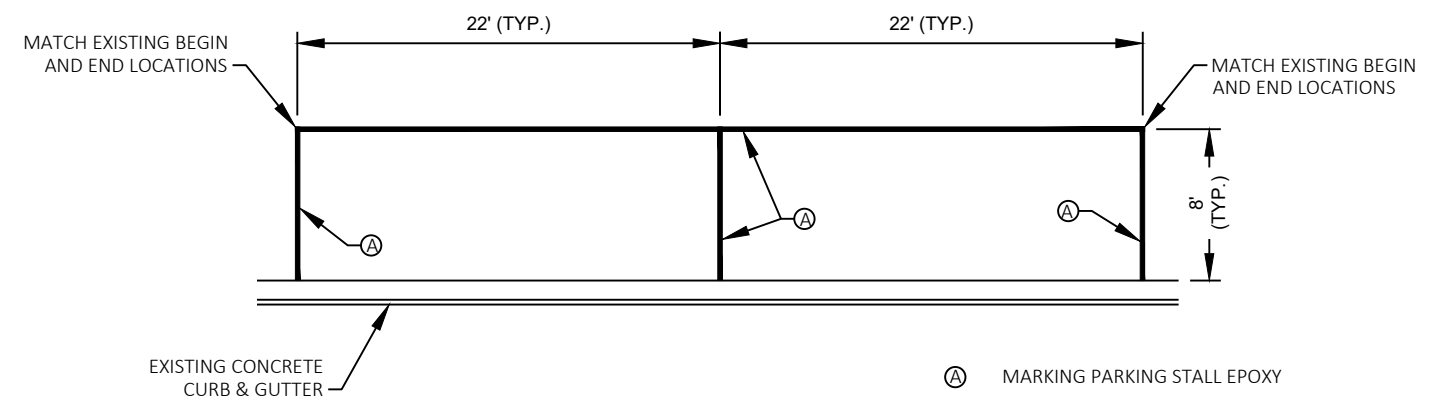
RED REFLECTIVE TAPE DETAIL



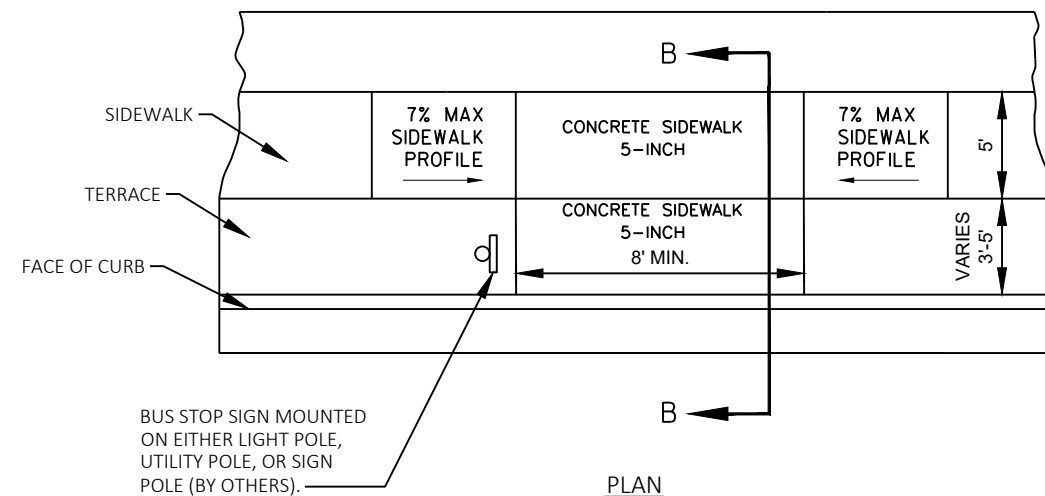
STOP LINE AND LADDER PATTERN CROSSWALK DETAIL



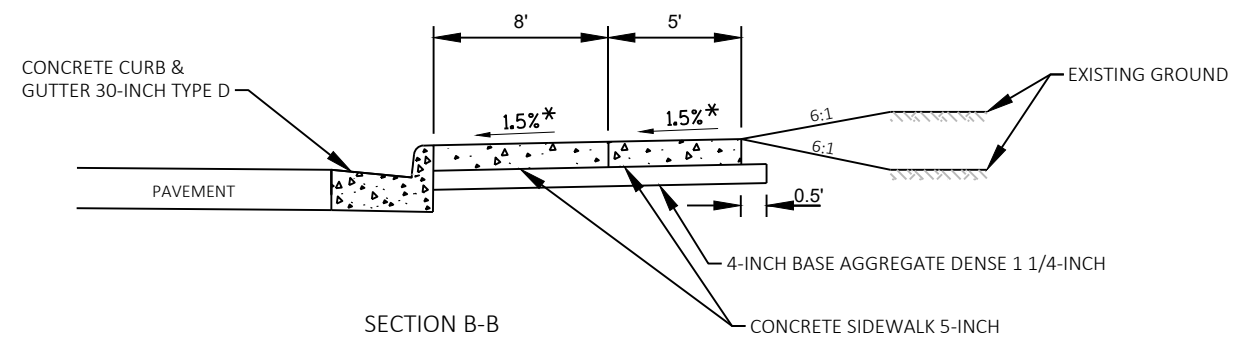
STOP LINE AND TRANSVERSE STYLE CROSSWALK DETAIL



MARKING PARKING STALL EPOXY DETAIL



PLAN



SECTION B-B

BUS PAD NOTES:

- ① BUS PAD SHALL HAVE A LENGTH OF 8 FEET (FROM CURB EDGE TO SIDEWALK) AND A WIDTH OF 10 FEET (IN THE DIRECTION PARALLEL TO THE ROADWAY)

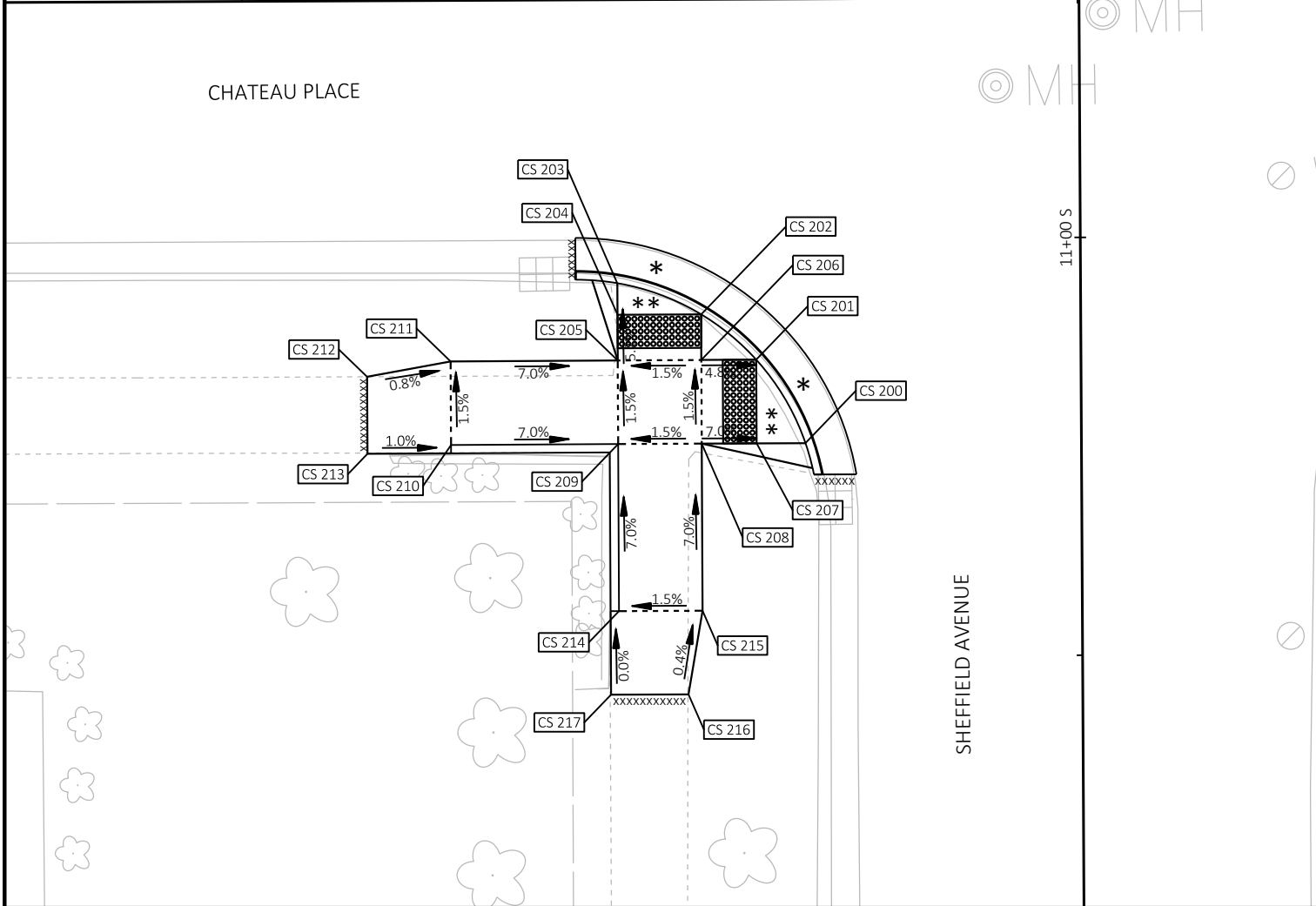
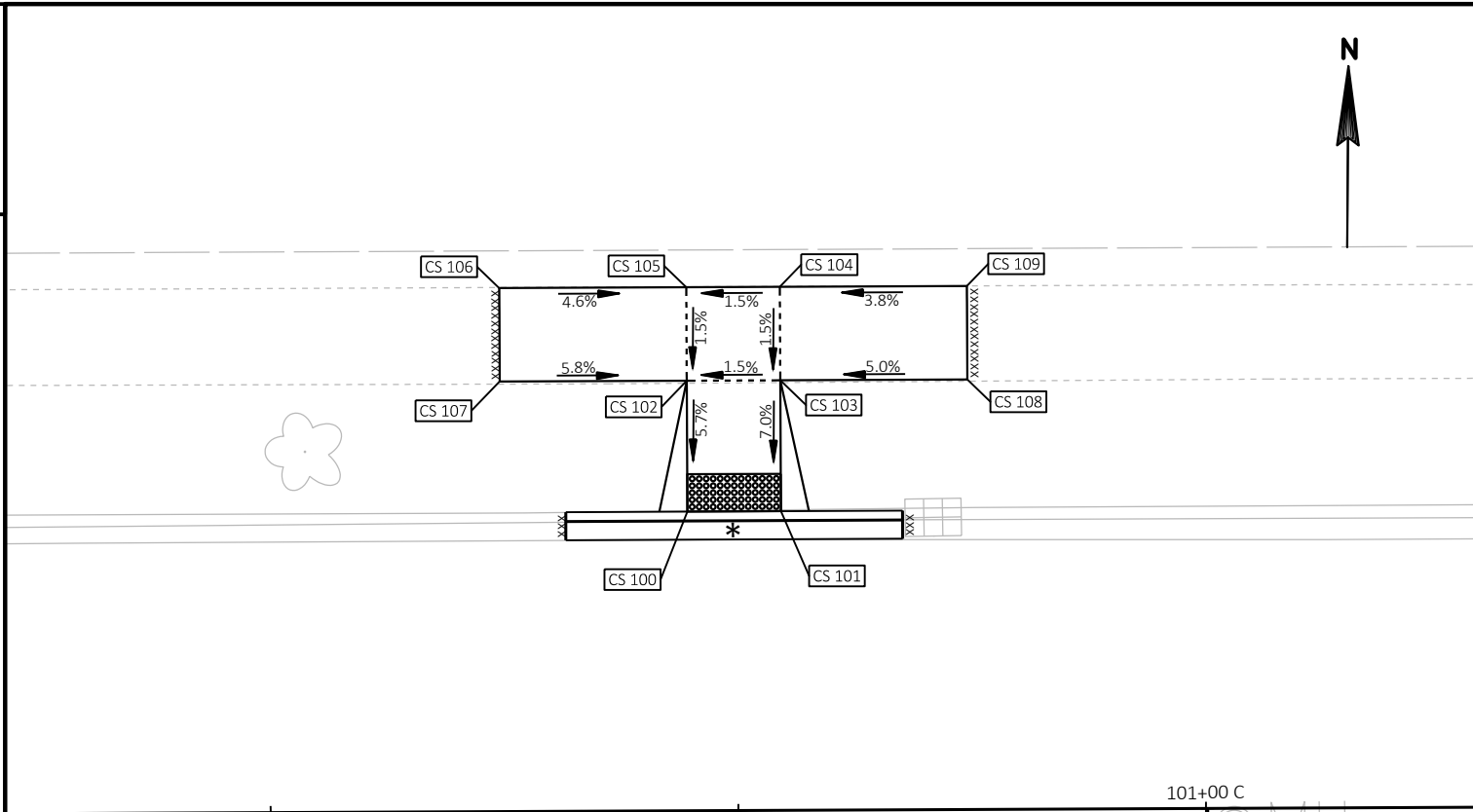
* ±0.5%

BUS PAD DETAIL

RUNOFF COEFFICIENT TABLE

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

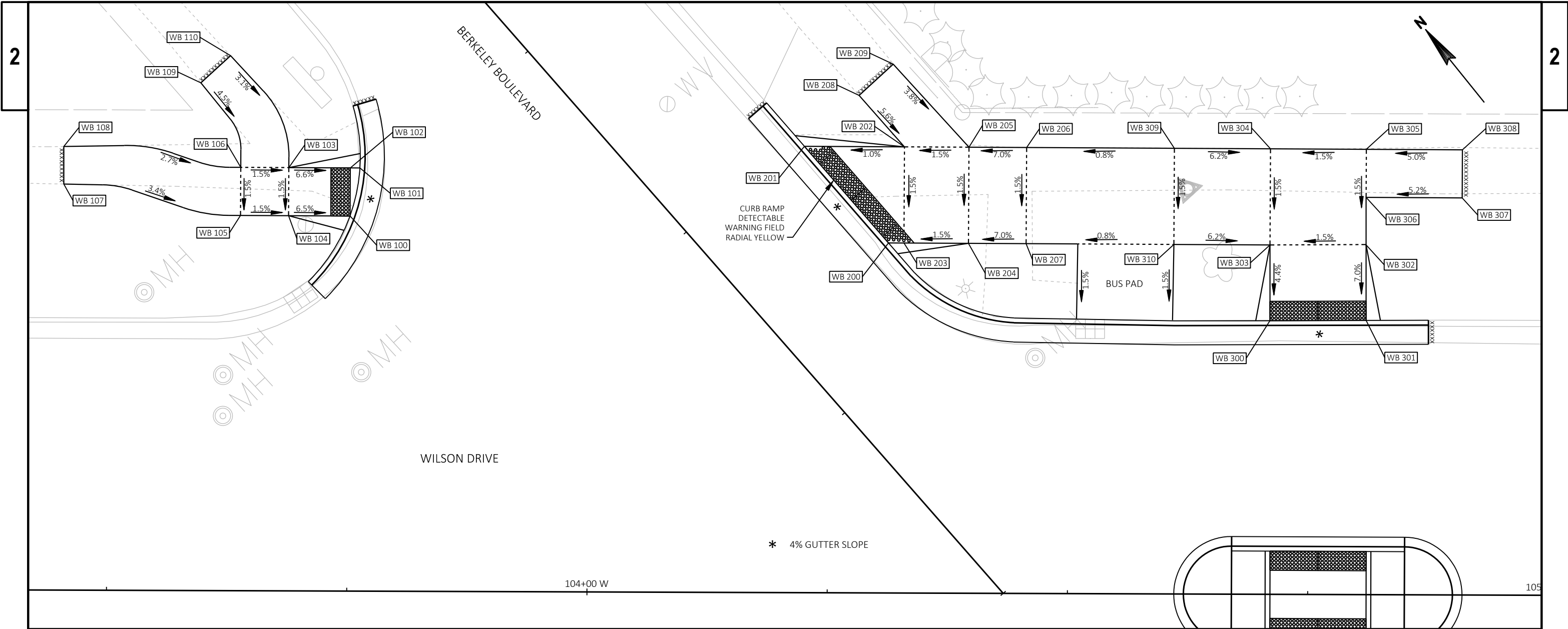
TOTAL PROJECT AREA = .084 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = .084 ACRES



* 4% GUTTER SLOPE
** MAXIMUM 1.5% SLOPE IN ALL DIRECTIONS IN FRONT OF DETECTABLE WARNING FIELDS.

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
CS 100	100+72.35 C	16.00' LT	324,056.04	608,875.65	643.44	
CS 101	100+77.35 C	16.00' LT	324,055.97	608,880.65	643.43	
CS 102	100+72.34 C	23.00' LT	324,063.03	608,875.75	643.81	
CS 103	100+77.34 C	23.00' LT	324,062.97	608,880.74	643.89	
CS 104	100+77.34 C	28.00' LT	324,067.97	608,880.81	643.97	
CS 105	100+72.34 C	28.00' LT	324,068.03	608,875.81	643.89	
CS 106	100+62.34 C	28.00' LT	324,068.17	608,865.81	644.35	MATCH EXISTING ELEVATION
CS 107	100+62.34 C	23.00' LT	324,063.17	608,865.74	644.39	MATCH EXISTING ELEVATION
CS 108	100+87.34 C	23.00' LT	324,062.83	608,890.74	644.39	MATCH EXISTING ELEVATION
CS 109	100+87.34 C	28.00' LT	324,067.83	608,890.81	644.35	MATCH EXISTING ELEVATION

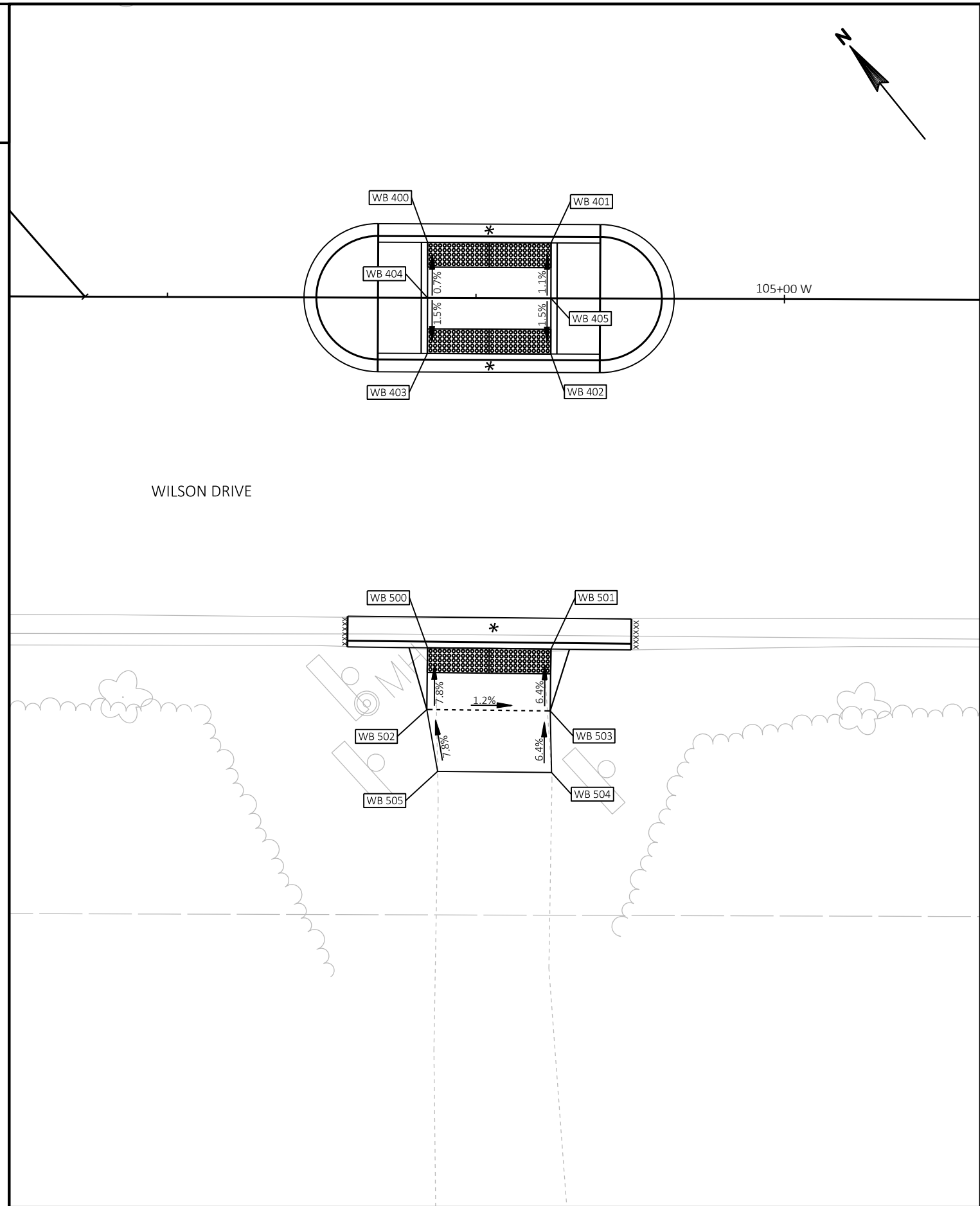
STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
CS 200	100+83.60 C	26.58' RT	324,013.30	608,886.33	643.46	
CS 201	100+80.67 C	21.58' RT	324,018.35	608,883.47	643.46	
CS 202	100+77.40 C	18.86' RT	324,021.11	608,880.23	643.43	
CS 203	100+72.39 C	16.97' RT	324,023.07	608,875.24	643.37	
CS 204	100+72.40 C	18.86' RT	324,021.18	608,875.23	643.40	
CS 205	100+72.39 C	21.59' RT	324,018.45	608,875.19	643.54	
CS 206	100+77.40 C	21.58' RT	324,018.39	608,880.19	643.62	
CS 207	100+80.68 C	26.58' RT	324,013.35	608,883.41	643.47	
CS 208	100+77.40 C	26.59' RT	324,013.38	608,880.12	643.70	
CS 209	100+72.40 C	26.59' RT	324,013.45	608,875.12	643.62	
CS 210	100+62.40 C	26.60' RT	324,013.58	608,865.12	644.32	
CS 211	100+62.39 C	21.60' RT	324,018.58	608,865.19	644.24	
CS 212	100+57.39 C	22.50' RT	324,017.75	608,860.18	644.28	MATCH EXISTING ELEVATION
CS 213	100+57.40 C	27.10' RT	324,013.14	608,860.12	644.37	MATCH EXISTING ELEVATION
CS 214	100+72.40 C	36.59' RT	324,003.45	608,874.99	644.32	
CS 215	100+77.40 C	36.59' RT	324,003.39	608,879.99	644.24	
CS 216	100+76.54 C	41.59' RT	323,998.40	608,879.06	644.26	MATCH EXISTING ELEVATION
CS 217	100+71.90 C	41.59' RT	323,998.46	608,874.42	644.32	MATCH EXISTING ELEVATION



STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
WB 100	103+75.22 W	39.01' LT	322,851.50	606,897.72	639.83	
WB 101	103+76.22 W	44.01' LT	322,854.50	606,901.84	639.90	
WB 102	103+75.22 W	44.01' LT	322,855.18	606,901.10	639.91	
WB 103	103+68.82 W	44.02' LT	322,859.51	606,896.39	640.33	
WB 104	103+68.81 W	39.02' LT	322,855.84	606,893.01	640.25	
WB 105	103+63.81 W	39.03' LT	322,859.23	606,889.33	640.33	
WB 106	103+63.82 W	44.03' LT	322,862.90	606,892.72	640.41	
WB 107	103+45.41 W	42.23' LT	322,874.03	606,877.93	640.97	MATCH EXISTING ELEVATION
WB 108	103+45.40 W	46.13' LT	322,876.91	606,880.56	640.93	MATCH EXISTING ELEVATION
WB 109	103+59.64 W	52.80' LT	322,872.19	606,895.57	640.86	MATCH EXISTING ELEVATION
WB 110	103+62.72 W	55.64' LT	322,872.20	606,899.75	640.75	MATCH EXISTING ELEVATION

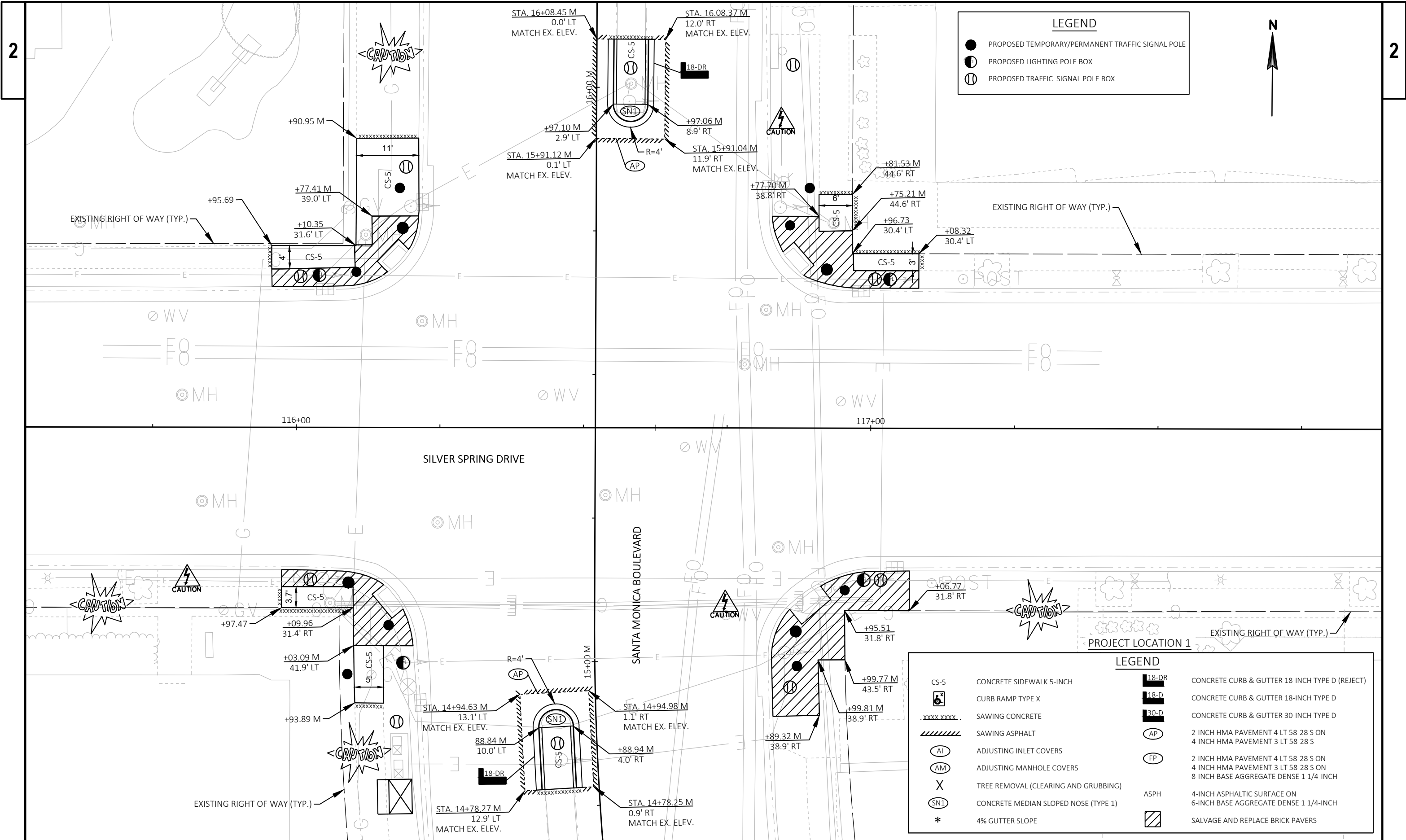
STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
WB 200	104+31.25 W	36.40' LT	322,811.69	606,937.24	640.04	
WB 201	104+22.47 W	46.42' LT	322,825.01	606,937.54	640.09	
WB 202	104+32.88 W	46.40' LT	322,817.96	606,945.20	640.20	
WB 203	104+32.86 W	36.40' LT	322,810.60	606,938.42	640.05	
WB 204	104+39.57 W	36.39' LT	322,806.05	606,943.36	640.15	
WB 205	104+39.59 W	46.39' LT	322,813.41	606,950.14	640.30	
WB 206	104+45.59 W	46.38' LT	322,809.34	606,954.55	640.72	
WB 207	104+45.57 W	36.38' LT	322,801.99	606,947.77	640.57	
WB 208	104+28.14 W	51.73' LT	322,825.09	606,945.31	640.60	MATCH EXISTING ELEVATION
WB 209	104+31.68 W	55.00' LT	322,825.10	606,950.13	640.74	MATCH EXISTING ELEVATION

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
WB 300	104+70.98 W	28.46' LT	322,778.98	606,961.14	639.73	
WB 301	104+80.98 W	28.52' LT	322,772.26	606,968.55	639.68	
WB 302	104+80.92 W	36.41' LT	322,778.11	606,973.84	640.22	
WB 303	104+70.95 W	36.33' LT	322,784.79	606,966.44	640.07	
WB 304	104+70.97 W	46.33' LT	322,792.15	606,973.21	640.22	
WB 305	104+80.95 W	46.31' LT	322,785.39	606,980.55	640.37	
WB 306	104+80.94 W	41.31' LT	322,781.71	606,977.16	640.29	
WB 307	104+90.94 W	41.29' LT	322,774.94	606,984.52	640.81	MATCH EXISTING ELEVATION
WB 308	104+90.95 W	46.29' LT	322,778.62	606,987.91	640.87	MATCH EXISTING ELEVATION
WB 309	104+60.97 W	46.35' LT	322,798.92	606,965.86	640.84	
WB 310	104+60.95 W	36.35' LT	322,791.57	606,959.08	640.69	



STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
WB 400	104+71.07 W	4.49' LT	322,761.26	606,945.00	640.47	
WB 401	104+81.07 W	4.49' LT	322,754.49	606,952.36	640.40	
WB 402	104+81.08 W	4.51' RT	322,747.85	606,946.28	640.38	
WB 403	104+71.08 W	4.51' RT	322,754.62	606,938.92	640.43	
WB 404	104+71.07 W	0.00'	322,757.95	606,941.96	640.50	
WB 405	104+81.07 W	0.00'	322,751.18	606,949.33	640.45	

STATION & OFFSET TABLE						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	REMARKS
WB 500	104+71.18 W	28.35' RT	322,736.99	606,922.87	639.64	
WB 501	104+81.18 W	28.43' RT	322,730.17	606,930.18	639.60	
WB 502	104+71.14 W	33.35' RT	322,733.33	606,919.46	640.03	
WB 503	104+81.14 W	33.43' RT	322,726.51	606,926.77	639.92	
WB 504	104+81.26 W	38.42' RT	322,722.75	606,923.49	640.24	MATCH EXISTING ELEVATION
WB 505	104+72.03 W	38.36' RT	322,729.04	606,916.73	640.42	MATCH EXISTING ELEVATION



EXISTING RIGHT OF WAY (TYP.)

+62.34 C

CS-5

+87.34 C

STA. 100+65.85 C
12.5' LT
MATCH EX. ELEV.

AP

5

STA. 100+83.85 C
12.5' LT
MATCH EX. ELEV.

18-D



101+00 C

STA. 100+69.89 C
12.3' RT
MATCH EX. ELEV.

2

30-D

CS-5

AP

2

STA. 100+88.7 C
28.5' RT
MATCH EX. ELEV.

11+00 S

EXISTING LANDSCAPING TIMER TO REMAIN
CONCRETE CURB PEDESTRIAN

+57.40 C

CS-5

5'

+72.79 S

SHEFFIELD AVENUE

CHATEAU PLACE

PROJECT LOCATION 10

LEGEND

CS-5

CONCRETE SIDEWALK 5-INCH

CURB RAMP TYPE X

XXXX XXXX

SAWING CONCRETE

XXXX XXXX

SAWING ASPHALT

AI

ADJUSTING INLET COVERS

AM

ADJUSTING MANHOLE COVERS

X

TREE REMOVAL (CLEARING AND GRUBBING)

SN1

CONCRETE MEDIAN SLOPED NOSE (TYPE 1)

*

4% GUTTER SLOPE

18-DR

CONCRETE CURB & GUTTER 18-INCH TYPE D (REJECT)

18-D

CONCRETE CURB & GUTTER 18-INCH TYPE D

30-D

CONCRETE CURB & GUTTER 30-INCH TYPE D

AP

2-INCH HMA PAVEMENT 4 LT 58-28 S ON

4-INCH HMA PAVEMENT 3 LT 58-28 S

EP

2-INCH HMA PAVEMENT 4 LT 58-28 S ON

4-INCH HMA PAVEMENT 3 LT 58-28 S ON

8-INCH BASE AGGREGATE DENSE 1 1/4-INCH

ASPH

4-INCH ASPHALTIC SURFACE ON

6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

SALVAGE AND REPLACE BRICK PAVERS

PROJECT NO: 2998-06-70

HWY: LOCAL STREETS

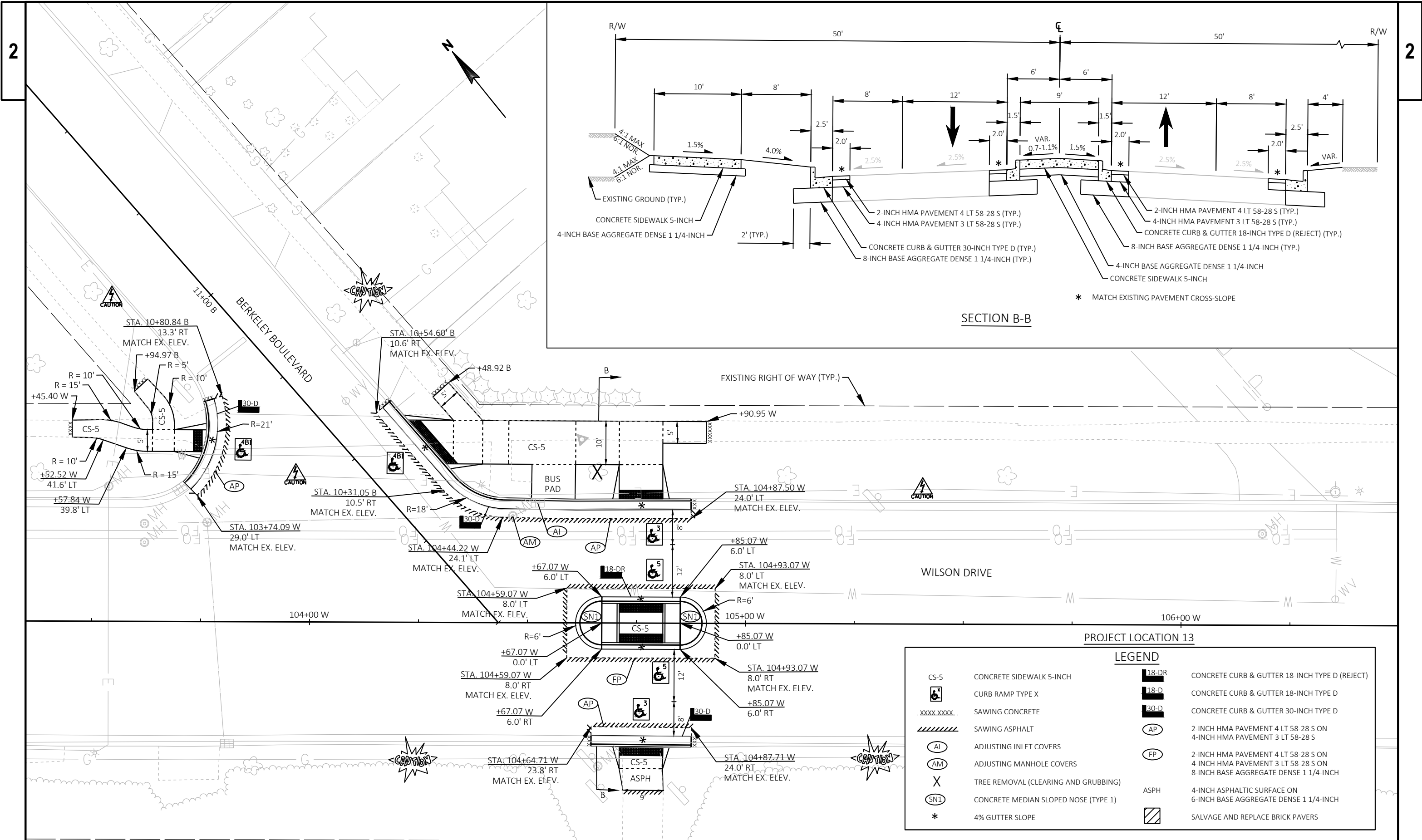
COUNTY: MILWAUKEE

INTERSECTION DETAIL: CHATEAU PL./SHEFFIELD AVE.

SHEET

10

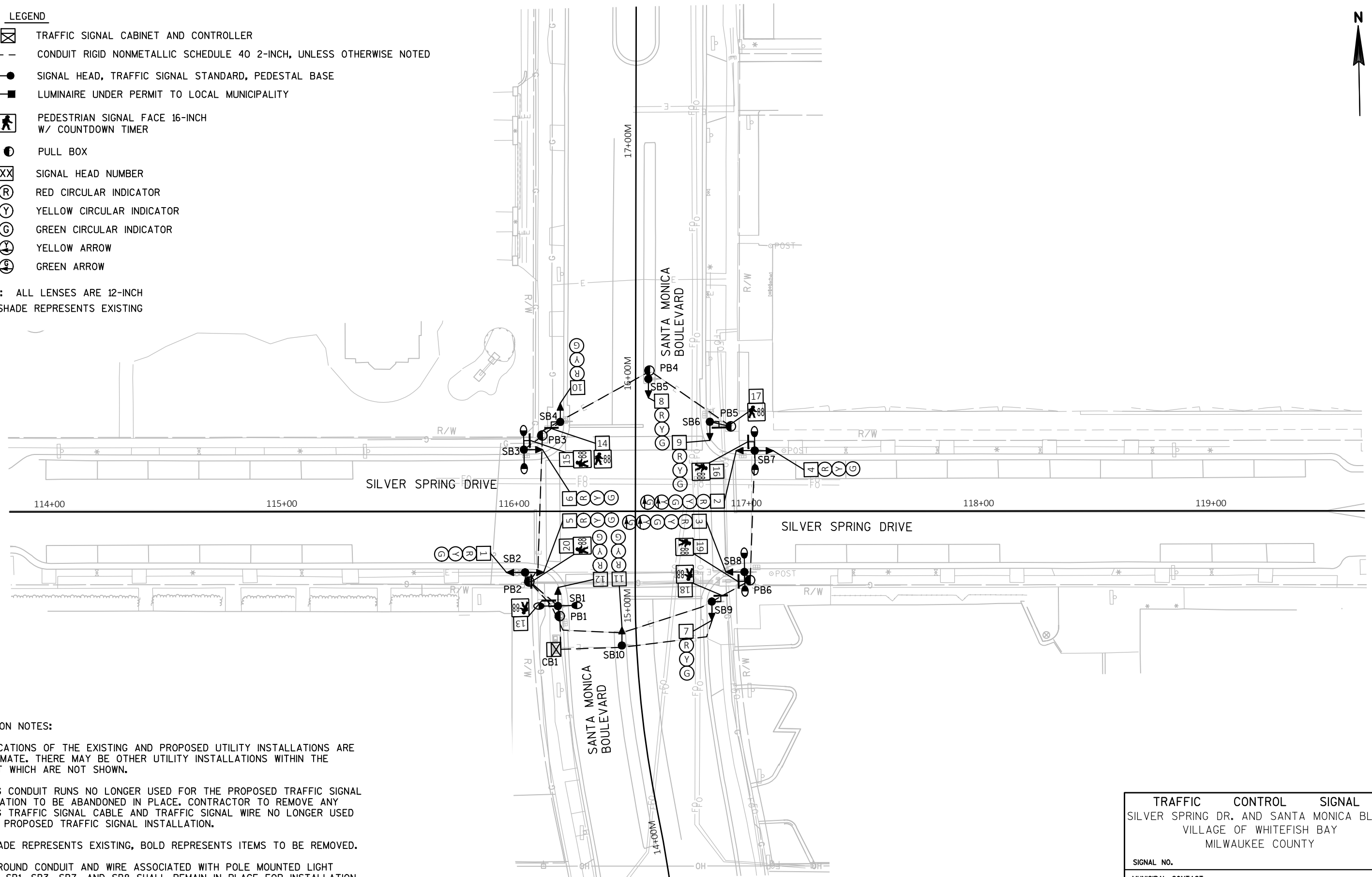
E



LEGEND

- ☒ TRAFFIC SIGNAL CABINET AND CONTROLLER
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
- ←● SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- ☒ PEDESTRIAN SIGNAL FACE 16-INCH
W/ COUNTDOWN TIMER
- PULL BOX
- ☒ SIGNAL HEAD NUMBER
- Ⓡ RED CIRCULAR INDICATOR
- Ⓢ YELLOW CIRCULAR INDICATOR
- Ⓢ GREEN CIRCULAR INDICATOR
- Ⓢ YELLOW ARROW
- Ⓢ GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE LOCATIONS OF THE EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS NO LONGER USED FOR THE PROPOSED TRAFFIC SIGNAL INSTALLATION TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY EXISTING TRAFFIC SIGNAL CABLE AND TRAFFIC SIGNAL WIRE NO LONGER USED TO THE PROPOSED TRAFFIC SIGNAL INSTALLATION.
3. GRAYSHADE REPRESENTS EXISTING, BOLD REPRESENTS ITEMS TO BE REMOVED.
4. UNDERGROUND CONDUIT AND WIRE ASSOCIATED WITH POLE MOUNTED LIGHT FIXTURE SB1, SB3, SB7, AND SB8 SHALL REMAIN IN PLACE FOR INSTALLATION THROUGH NEW PULL BOX. SEE LIGHTING PLAN FOR DETAILS.

TRAFFIC CONTROL SIGNAL	
SILVER SPRING DR. AND SANTA MONICA BLVD. VILLAGE OF WHITEFISH BAY MILWAUKEE COUNTY	
SIGNAL NO.	
MUNICIPAL CONTACT: DESIGNED BY: TADI	PAGE 1 OF 1

PROJECT NO: 2998-06-70

HWY: LOCAL STREETS

COUNTY: MILWAUKEE

TRAFFIC SIGNAL REMOVAL PLAN

SHEET

12

E

LEGEND

- OH— TEMPORARY SPAN WIRE - OVERHEAD
← SIGNAL HEAD, OVERHEAD MOUNT
● CLASS 4 WOOD POLE
○ LUMINAIRE, MOUNTED ON WOOD POLE
VX VIDEO DETECTION CAMERA
--- NON-INTRUSIVE DETECTION AREA
(XX) ● SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
XX SIGNAL HEAD NUMBER
- Ⓡ RED CIRCULAR INDICATOR
Ⓢ YELLOW CIRCULAR INDICATOR
Ⓣ GREEN CIRCULAR INDICATOR
Ⓡ RED ARROW
Ⓢ YELLOW ARROW
Ⓣ GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES CONTINUED:

- * THE TEMPORARY TRAFFIC SIGNAL HEADS INSTALLED ON THE TEMPORARY TRAFFIC SIGNAL SPAN WIRE SHALL BE ACTIVE UNTIL THE TROMBONE ARM IN FRONT OF THE TRAFFIC SIGNAL SPAN WIRE IS INSTALLED. THE CONTRACTOR SHALL OPERATE THE PERMANENT TRAFFIC SIGNAL HEADS ON THE TROMBONE ARMS WITH THE TEMPORARY TRAFFIC SIGNAL INSTALLED ONCE THE TROMBONE ARM IS INSTALLED IN FRONT OF THE TEMPORARY TRAFFIC SIGNAL SPAN WIRE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE MOST APPROPRIATE METHOD TO FEED THE PERMANENT TRAFFIC SIGNAL HEADS BEING USED WITH THE TEMPORARY TRAFFIC SIGNAL INSTALLATION. THE CONTRACTOR SHALL NOT DRILL ADDITIONAL HOLES INTO THE TROMBONE ARMS TO FEED THE SIGNAL HEADS. THE CONTRACTOR SHALL HAVE THE TRAFFIC SIGNAL HEADS ON THE TROMBONE ARMS OPERATIONAL WITH THE TEMPORARY TRAFFIC SIGNAL WITHIN 2 HOURS OF THE TROMBONE ARM INSTALLATION.



CONSTRUCTION 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 UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY CONFLICTS PRIOR TO ANY CONSTRUCTION.
4. ALL SIGNING, MARKING LINES, TRAFFIC SIGNALS, AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION.
5. THE CONTRACTOR SHALL PROVIDE THE TEMPORARY TRAFFIC SIGNAL CABINET. THE CONTRACTOR SHALL DETERMINE THE FIELD LOCATION FOR THIS ITEM TO BEST MATCH CONDITIONS.
5. TEMPORARY DETECTORS SHALL BE MOUNTED AT THE HEIGHT RECOMMENDED BY THE MANUFACTURER IN THE SPECIFICATIONS.
6. DETECTION ZONES ARE APPROXIMATE. COORDINATE SETTING DETECTION ZONES WITH THE VILLAGE OF WHITEFISH BAY A MINIMUM OF 5 DAYS PRIOR TO SETTING DETECTION ZONES.
7. THE VILLAGE OF WHITEFISH BAY SHALL BE NOTIFIED 5 WORKING DAYS BEFORE SWITCH TO TEMPORARY TRAFFIC SIGNALS.

PROJECT NO: 2998-06-70

HWY: LOCAL STREETS

COUNTY: MILWAUKEE

TEMPORARY TRAFFIC SIGNAL PLAN

SHEET

13

E

FILE NAME : F:\USERS\JFAIT\TADI JOBS\SHARED\WI\2176 SILVER SPRING AT SANTA MONICA SIGNALS\CAD\SILVER SPRING_SANTA MONICA_TEMP SIGNAL PLAN.DWG DATE : 1/4/2019 3:09 PM
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PLOT BY : JEFF FAIT

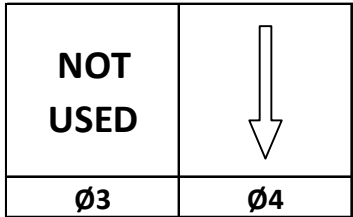
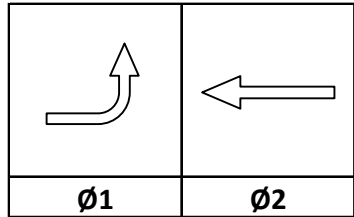
PLOT NAME :

PLOT SCALE : 1:40

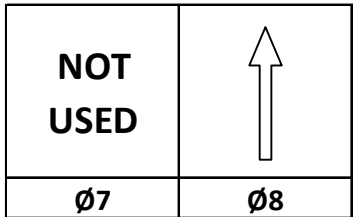
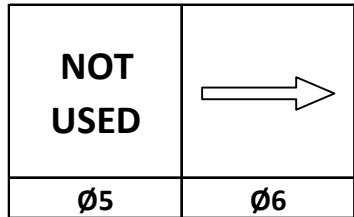
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	F L A S H
Ø1	2,3	-
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		

RING 1



RING 2



BARRIER

N

CONTROLLER LOGIC

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

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

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

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

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

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	22	42	62	82			
ASSIGNED PHASE	1	2	4	6	8			
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH			8		4			
EXTEND								
DELAY	X		X		X			

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	21	41	61	81				
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)								
ASSIGNED PHASE								
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)								
ASSIGNED PHASE								
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

SILVER SPRING DR. AND SANTA MONICA BLVD.	
VILLAGE OF WHITEFISH BAY	
MILWAUKEE COUNTY	
SIGNAL NO:	CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP	
DATE: 12/18	PAGE NO. 2 OF 2

LEGEND

- ☒ TRAFFIC SIGNAL CABINET AND CONTROLLER
--- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
● (XX) SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
● (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
--- VIDEO DETECTION AREA
VX VIDEO DETECTION CAMERA
PEDESTRIAN HEAD WITH PEDESTRIAN PUSH BUTTONS
● ● ● DECORATIVE LED LUMINAIRE, TRAFFIC POLE
PEDESTRIAN SIGNAL FACE 16-INCH
W/ COUNTDOWN TIMER
① PULL BOXES STEEL 24X42-INCH

LEGEND CONTINUED

- ⬢ EVP DESIGNATOR
+ EVP DETECTOR HEAD
XX SIGNAL HEAD NUMBER
R RED CIRCULAR INDICATOR
Y YELLOW CIRCULAR INDICATOR
G GREEN CIRCULAR INDICATOR
R RED ARROW
Y YELLOW ARROW
G GREEN ARROW

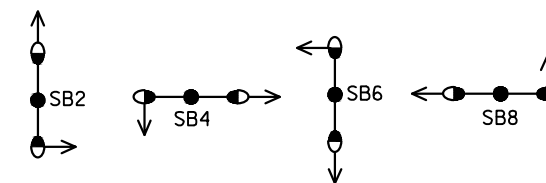
NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. ALL UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY CONFLICTS PRIOR TO ANY CONSTRUCTION.
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. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
4. THE CONTRACTOR SHALL HAVE THE PULLBOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING THE SIGNAL CABLE INTO SYSTEM. CONTACT THE VILLAGE OF WHITEFISH BAY.
5. DETECTION ZONE LOCATIONS ARE APPROXIMATE. COORDINATE SETTING DETECTION ZONES WITH THE VILLAGE OF WHITEFISH BAY A MINIMUM OF 5 DAYS PRIOR TO SETTING DETECTION ZONES.
6. INSTALL VIDEO DETECTION CAMERAS ON TOP OF TYPE 3 TRAFFIC SIGNAL POLES.
7. INSTALL SIGN R10-3B, 9"X12", ON ALL SIGNAL POLES. SIGNS ARE INCIDENTAL TO PEDESTRIAN PUSH BUTTONS.
8. ALL TRAFFIC SIGNAL HEAD VISOR AND HOUSING, POLES, TROMBONE ARMS, TRANSFORMER BASES, PEDESTRIAN FACES, AND SIGNAL MOUNTING HARDWARE SHALL BE BLACK IN COLOR. TRAFFIC SIGNAL BACKPLATES SHALL BE REFLECTIVE YELLOW IN COLOR.
9. DETECTABLE WARNING FIELDS SHOWN IN GRAYSHADE FOR PLAN CLARITY.

ARROW INDICATES LIGHT FIXTURE AIMING



TRAFFIC CONTROL SIGNAL		
SILVER SPRING DR. AND SANTA MONICA BLVD. VILLAGE OF WHITEFISH BAY MILWAUKEE COUNTY		
SIGNAL NO.		
MUNICIPAL CONTACT: DESIGNED BY: TADI		PAGE 1 OF 2

PROJECT NO: 2998-06-70

HWY: LOCAL STREETS

COUNTY: MILWAUKEE

TRAFFIC SIGNAL PLAN

SHEET

15

E

FILE NAME : C:\EGN\TTE\SHARED\WI\2176 SILVER SPRING AT SANTA MONICA SIGNALS\CAD\SILVER SPRING_SANTA MONICA_TRAFFIC SIGNAL PLAN.DWG

PLOT DATE : 12/4/2018 1:00 PM

PLOT BY : ALICIA DOUGHERTY

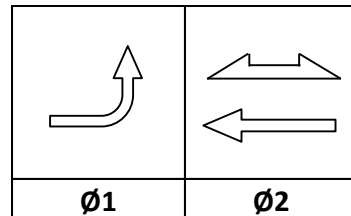
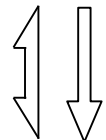
PLOT NAME :

PLOT SCALE : 1:40

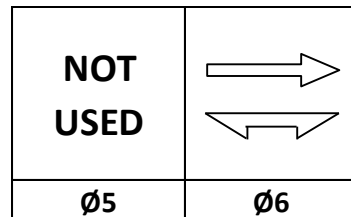
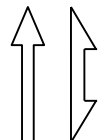
WISDOT/CADDs SHEET 42

	HEAD NUMBERS	F L A S H
Ø1	2,3	-
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P	15,16	
Ø4P	13,14	
Ø6P	19,20	
Ø8P	17,18	
OLA		
OLB		
OLC		
OLD		

RING 1

NOT
USED

RING 2

NOT
USED

BARRIER

N

CONTROLLER LOGIC

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

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+6	6+1	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.

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

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

TYPE OF COORDINATION

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

TYPE OF LIGHTING

BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT

NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	11	22	42	62	82			
ASSIGNED PHASE	1	2	4	6	8			
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH			8		4			
EXTEND								
DELAY	X		X		X			

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	21	41	61	81				
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY								

19	17	23	21	27	25	31	29
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

20	18	24	22	28	26	32	30
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH

DETECTOR INPUT	
PLAN LOOP DETECTOR*(S)	
ASSIGNED PHASE	
OPERATION MODE	
SWITCH	
EXTEND	
DELAY	

DETECTOR INPUT	
PLAN LOOP DETECTOR*(S)	
ASSIGNED PHASE	
OPERATION MODE	
SWITCH	
EXTEND	
DELAY	

SILVER SPRING DR. AND SANTA MONICA BLVD.

VILLAGE OF WHITEFISH BAY

MILWAUKEE COUNTY

SIGNAL NO: CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE: 12/18 PAGE NO. 2 OF 2

PROJECT NO: 2998-06-70

HWY: LOCAL STREETS

COUNTY: MILWAUKEE

SEQUENCE OF OPERATIONS

SHEET NO: 16

E

FILE NAME : _____

PLOT DATE : _____

PLOT BY : _____

PLOT NAME : _____

PLOT SCALE : 1:1

PROJECT ID:	2998-06-70
INTERSECTION:	SILVER SPRING DR. & SANTA MONICA BLVD.

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

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR								PED BUTTON	PED BUTTON 2
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK	
SB1		12	12	RED	ORG	GRN							
			13								BLK	BLU	
			B									WHT/BLK	
SB2		12	1	RED	ORG	GRN							
			5	RED/BLK	ORG/BLK	GRN/BLK							
			20								BLK	BLU	
			B									WHT/BLK	
SB3		12	6	RED	ORG	GRN							
			15								BLK	BLU	
			B									WHT/BLK	
SB4		12	8	RED	ORG	GRN							
			10	RED/BLK	ORG/BLK	GRN/BLK							
			14								BLK	BLU	
			B									WHT/BLK	
SB5		12	9	RED	ORG	GRN							
			17								BLK	BLU	
			B									WHT/BLK	
SB6		12	2	RED	ORG	GRN		BLU/BLK		GRN/WHT			
			4	RED/BLK	ORG/BLK	GRN/BLK							
			16								BLK	BLU	
			B									WHT/BLK	
SB7		12	3	RED	ORG	GRN		ORG/BLK		GRN/BLK			
			19								BLK	BLU	
			B									WHT/BLK	
SB8		12	7	RED	ORG	GRN							
			11	RED/BLK	ORG/BLK	BLK/WHT							
			18								BLK	BLU	
			B									WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	CB1

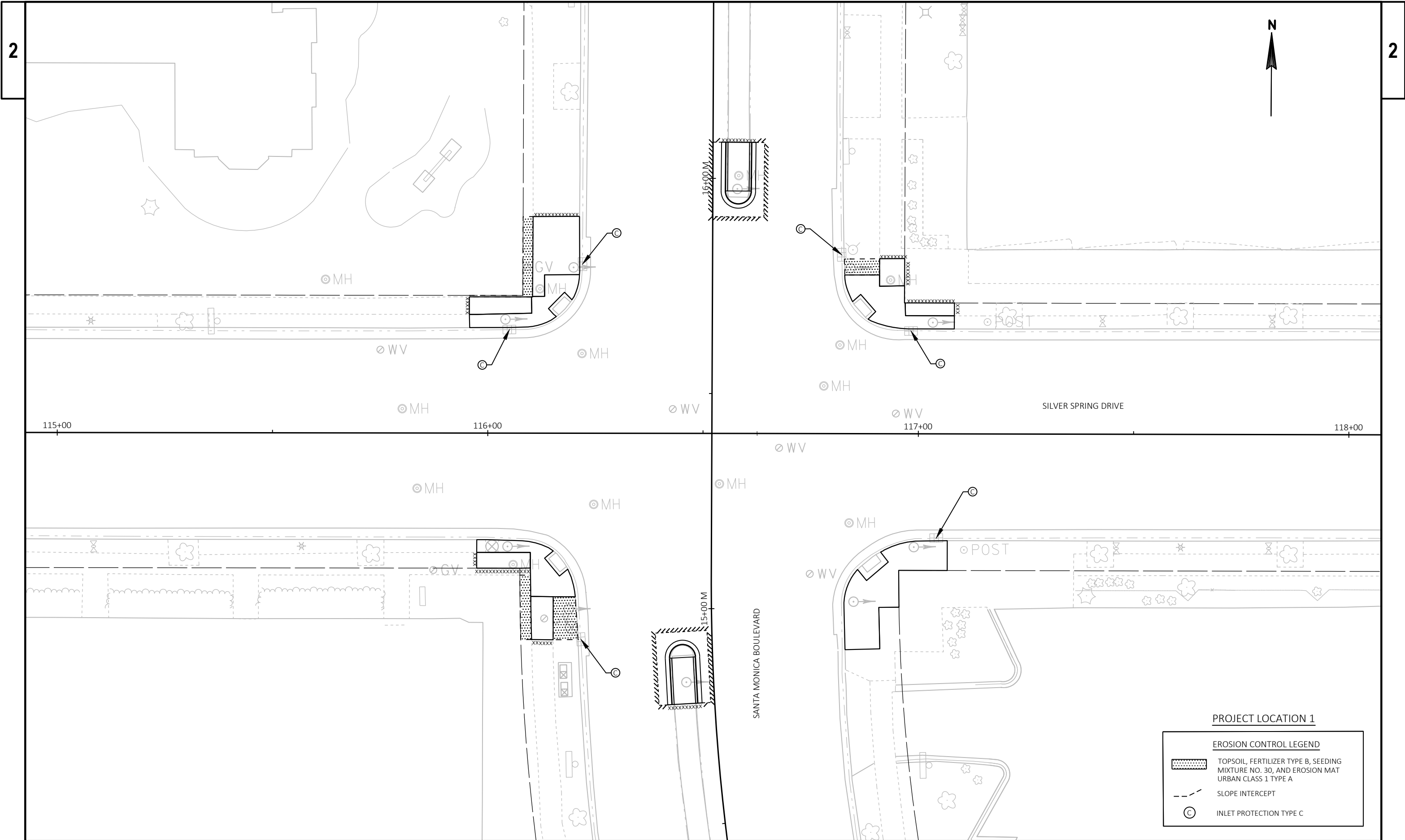
PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB2	PB2
SB3	PB3
SB4	PB4
SB4	PB5
SB5	PB6
SB6	PB7
SB7	PB8
SB8	PB9
CB1	PB10

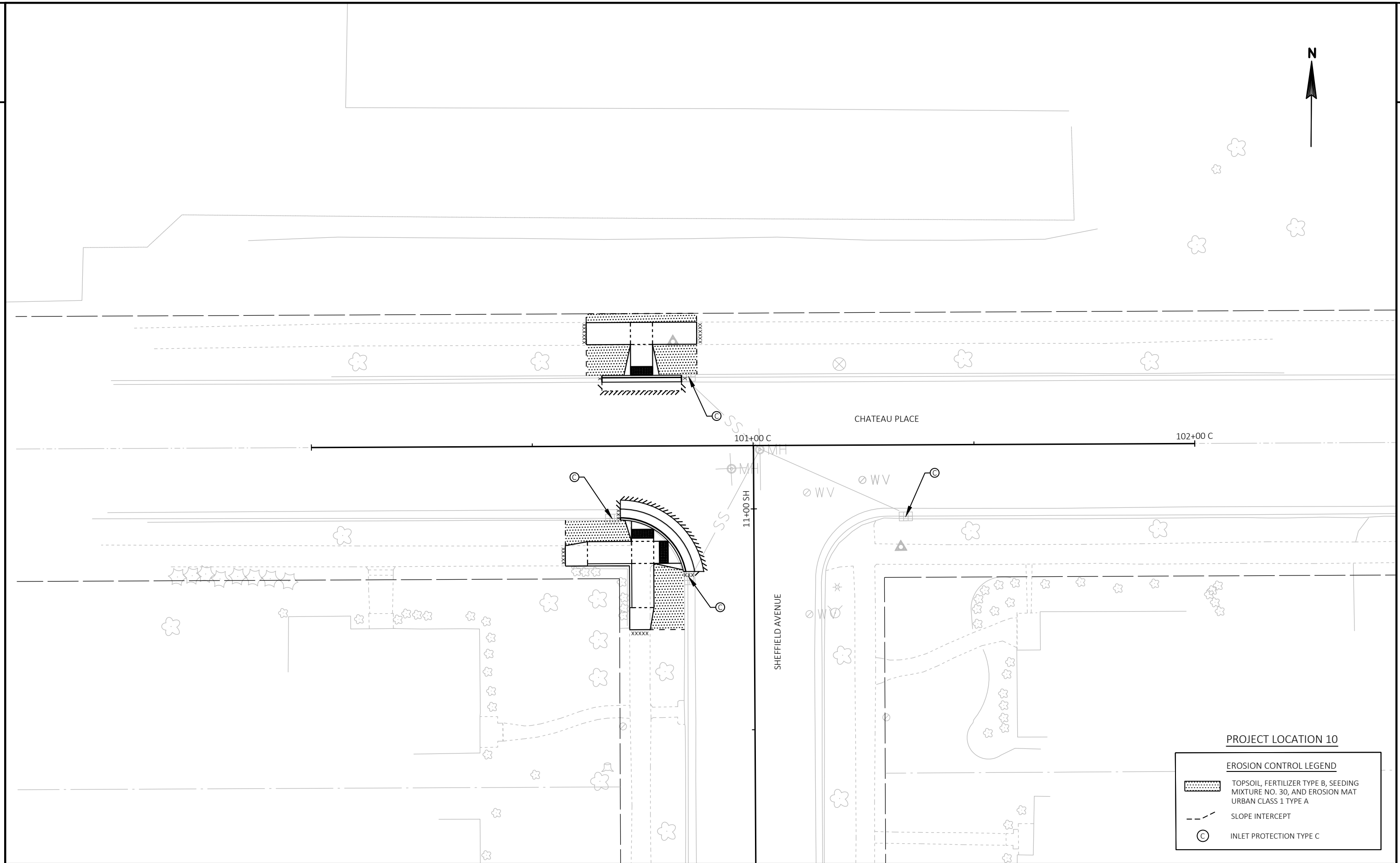
LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB2
SB2	SB4
CB1	SB8
SB8	SB6

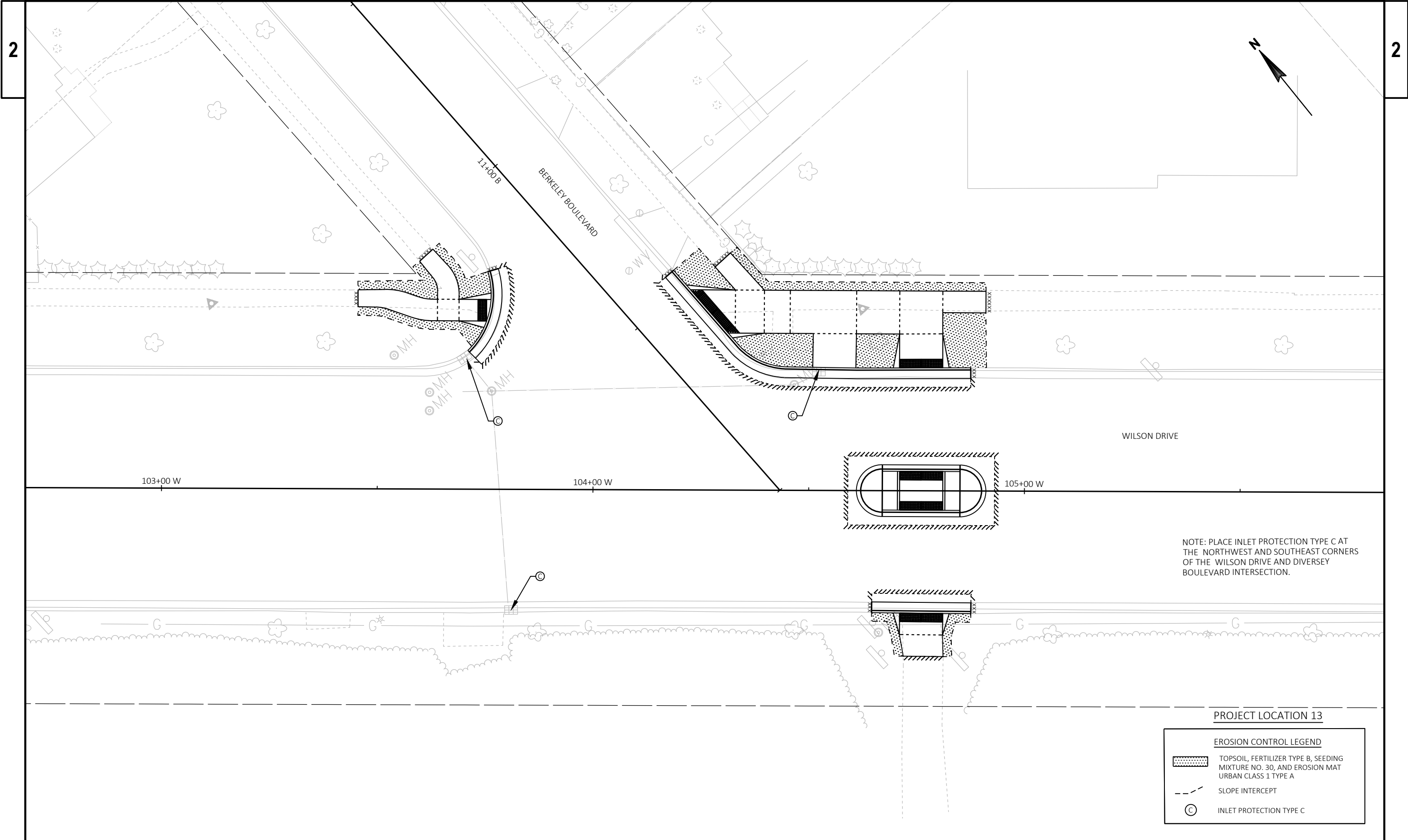
EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3 (HEAD A)
CB1	SB7 (HEAD B)
CB1	SB1 (HEAD C)
CB1	SB5 (HEAD D)

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB3 (V1)
CB1	SB7 (V2)
CB1	SB1 (V3)
CB1	SB5 (V4)

- NOTES:
- 1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
 - 2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
 - 3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.
 - 4. "OTHER" COLUMN MAY INCLUDE SHADOW BOX (BLANK OUT) SIGN.







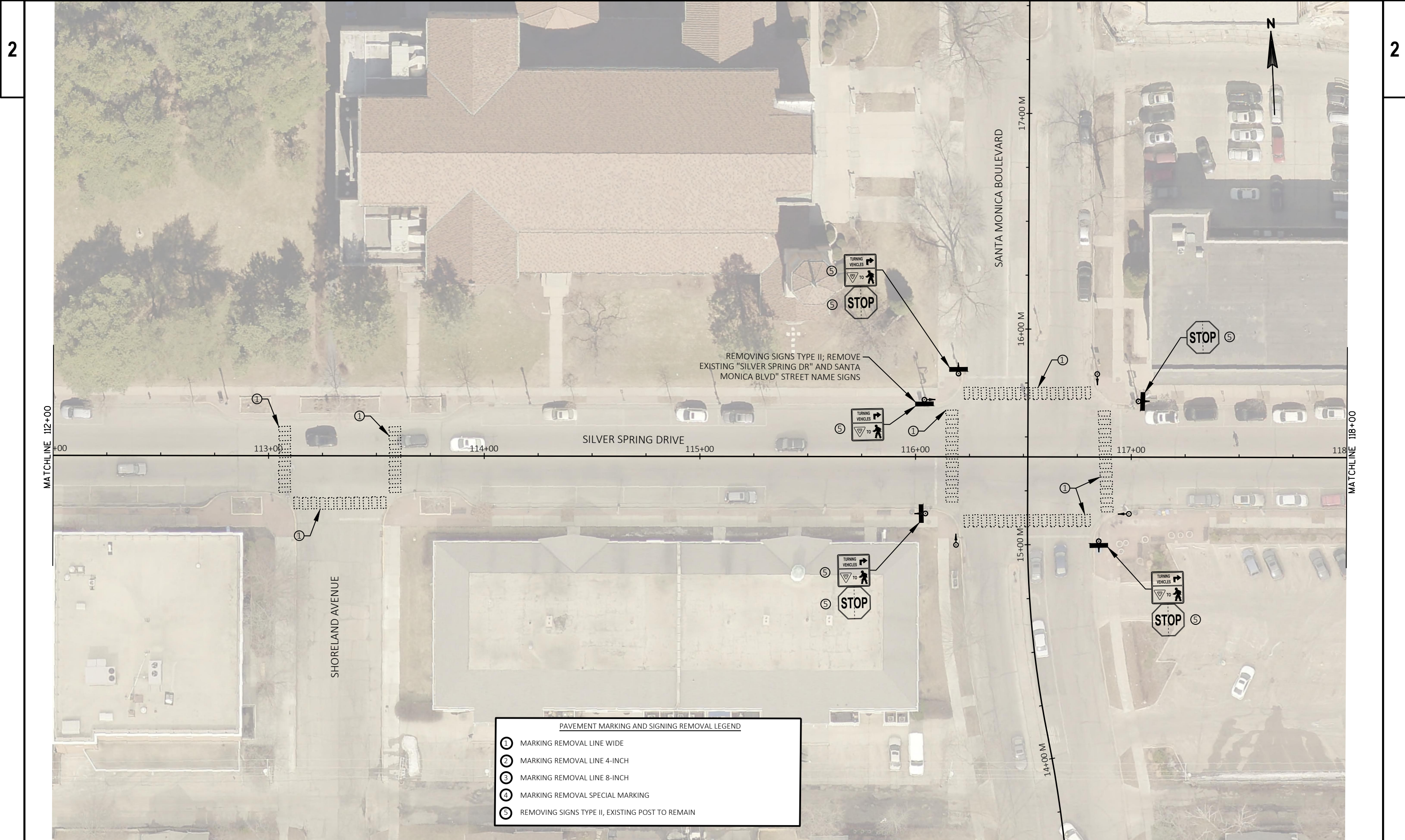
NOTE: PLACE INLET PROTECTION TYPE C AT THE NORTHWEST AND SOUTHEAST CORNERS OF THE WILSON DRIVE AND DIVERSEY BOULEVARD INTERSECTION.

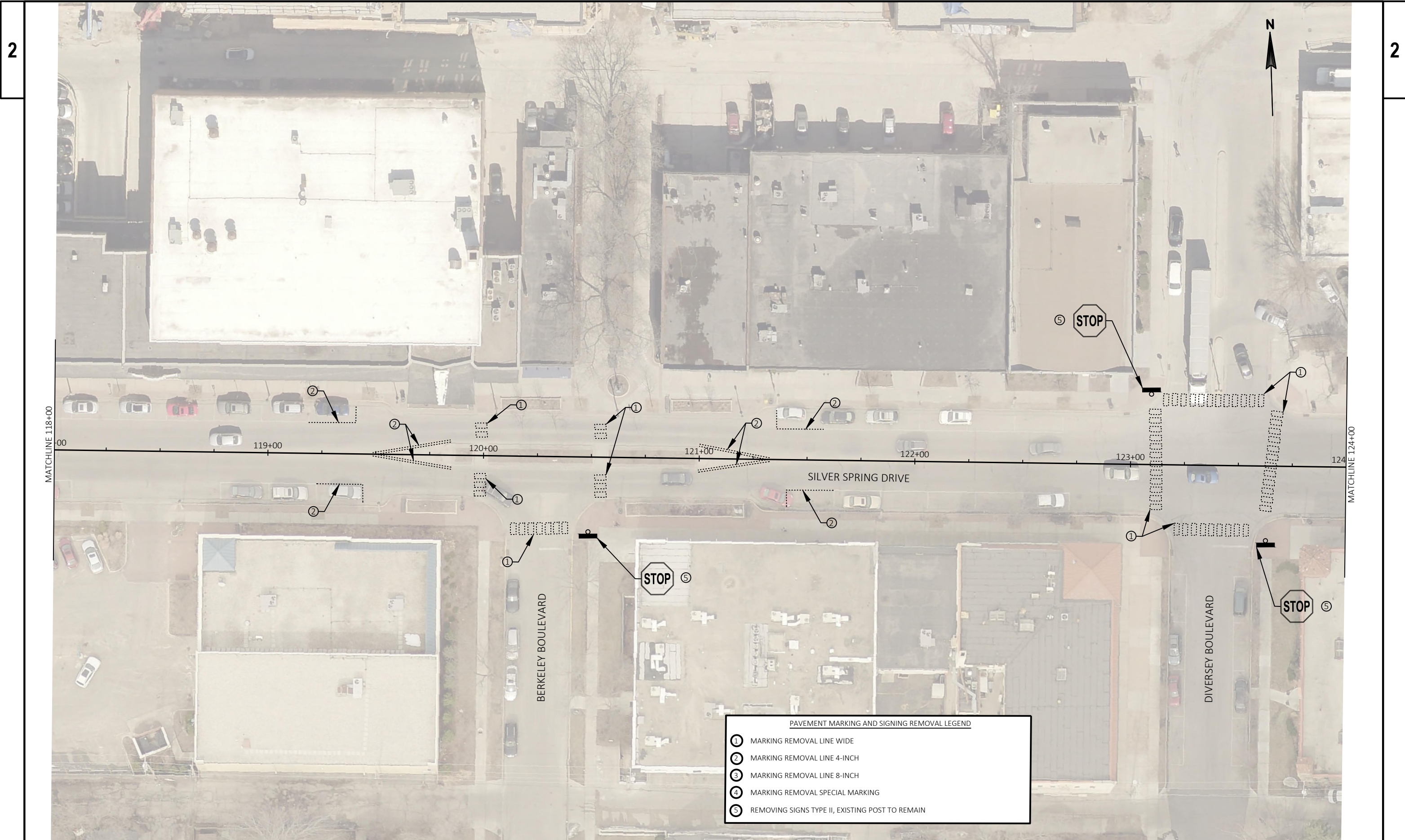
PROJECT LOCATION 13

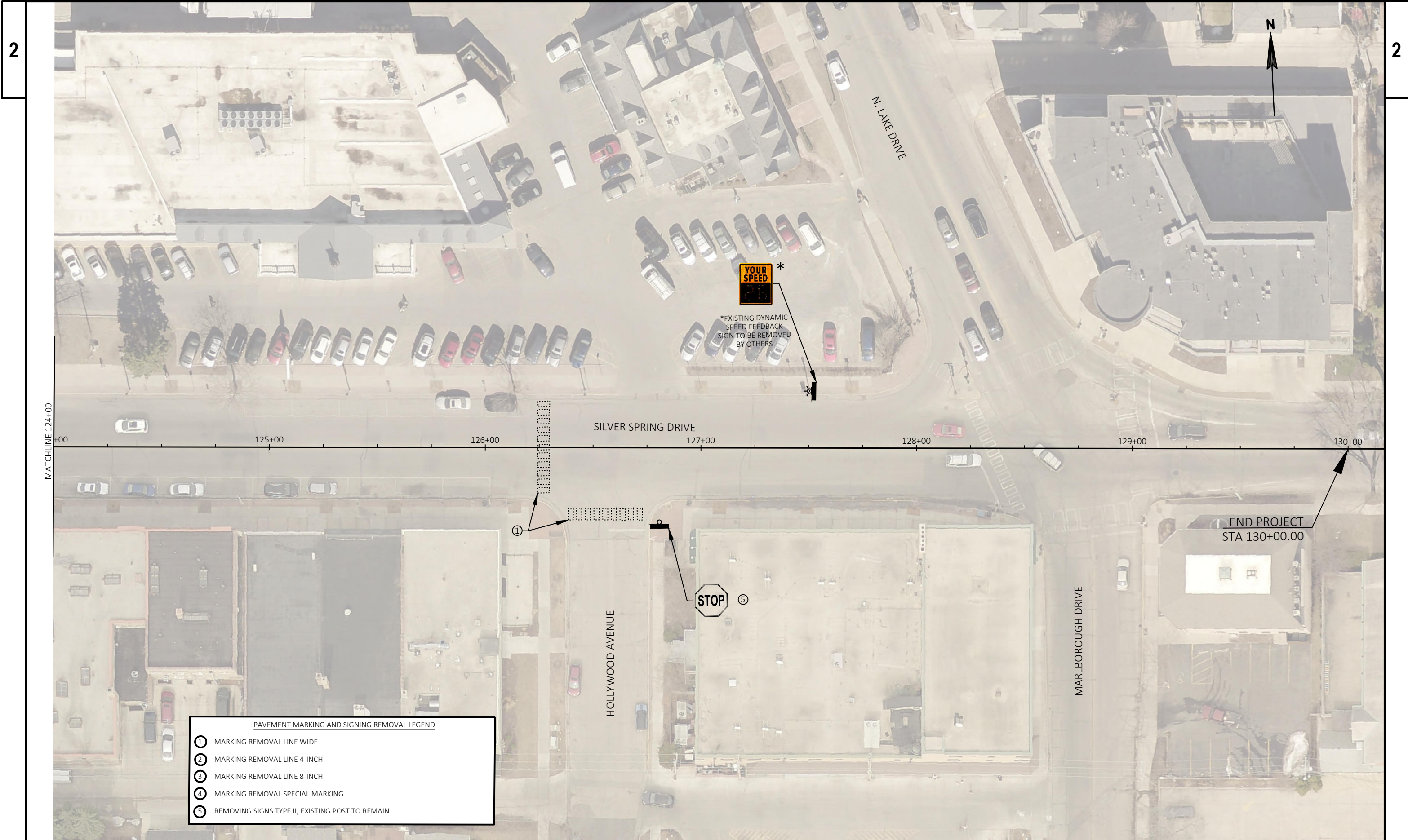
EROSION CONTROL LEGEND	
	TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 30, AND EROSION MAT URBAN CLASS 1 TYPE A
	SLOPE INTERCEPT
	INLET PROTECTION TYPE C







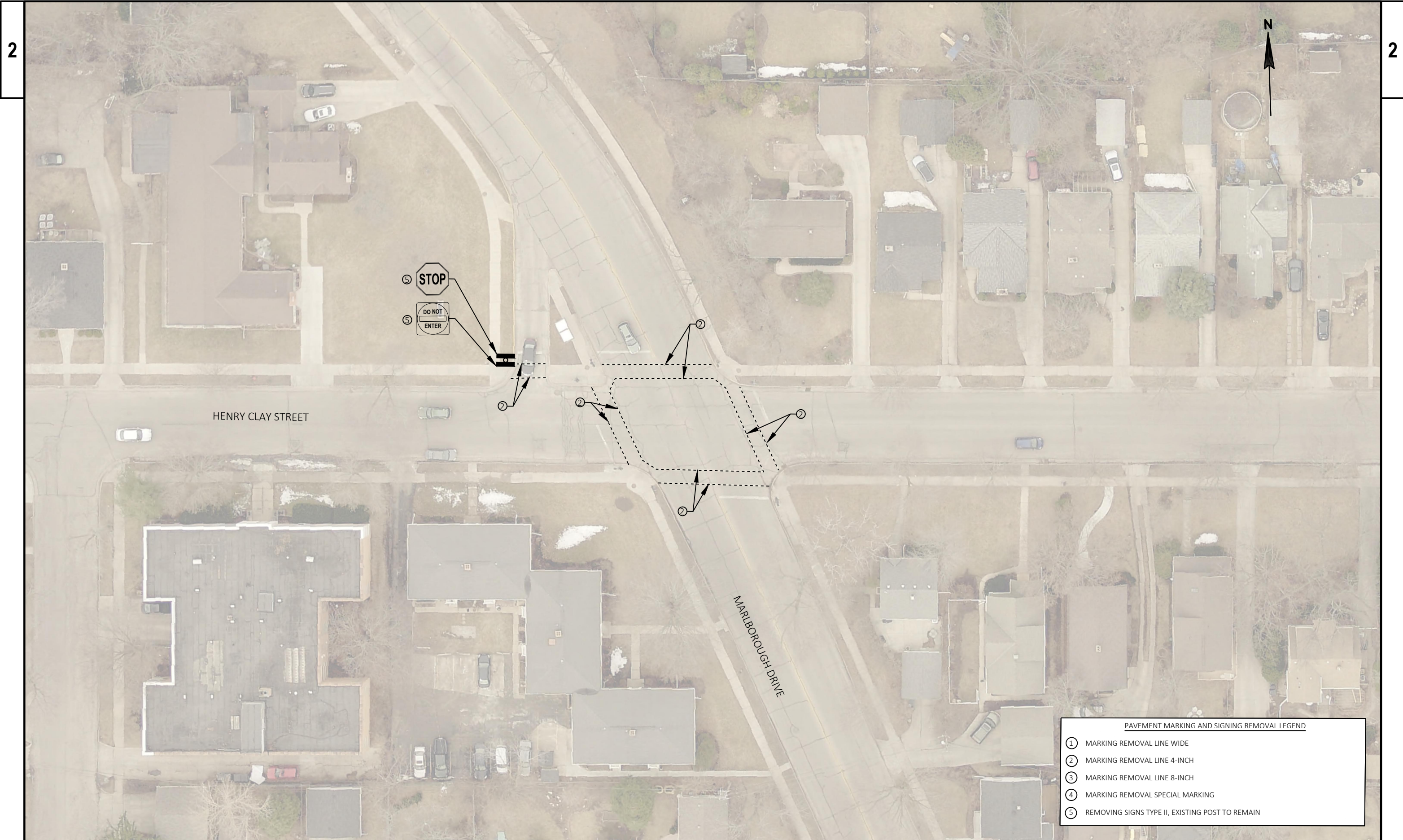




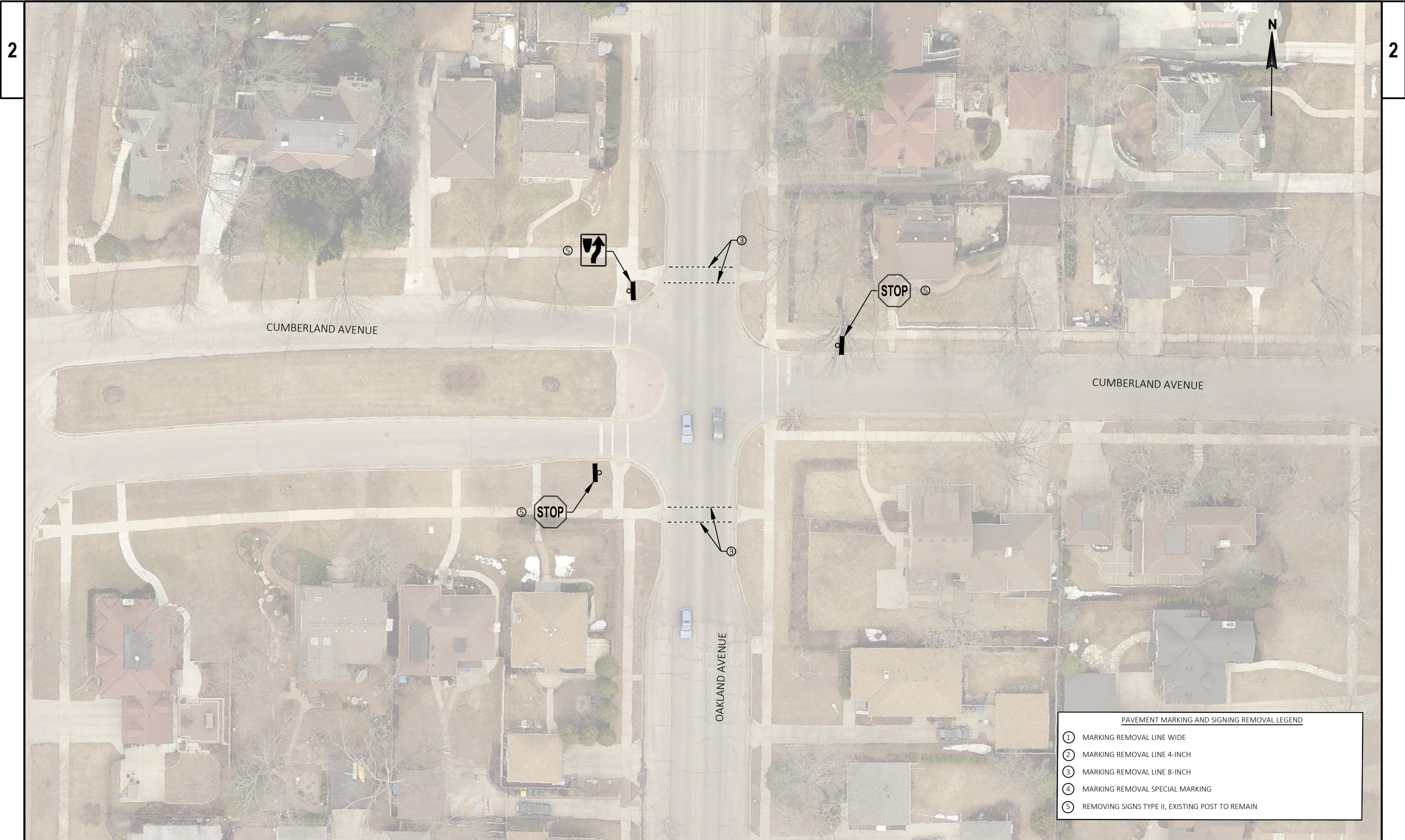
2

2

- PAVEMENT MARKING AND SIGNING REMOVAL LEGEND
- ① MARKING REMOVAL LINE WIDE
 - ② MARKING REMOVAL LINE 4-INCH
 - ③ MARKING REMOVAL LINE 8-INCH
 - ④ MARKING REMOVAL SPECIAL MARKING
 - ⑤ REMOVING SIGNS TYPE II, EXISTING POST TO REMAIN







PAVEMENT MARKING AND SIGNING REMOVAL LEGEND	
①	MARKING REMOVAL LINE WIDE
②	MARKING REMOVAL LINE 4-INCH
③	MARKING REMOVAL LINE 8-INCH
④	MARKING REMOVAL SPECIAL MARKING
⑤	REMOVING SIGNS TYPE II, EXISTING POST TO REMAIN

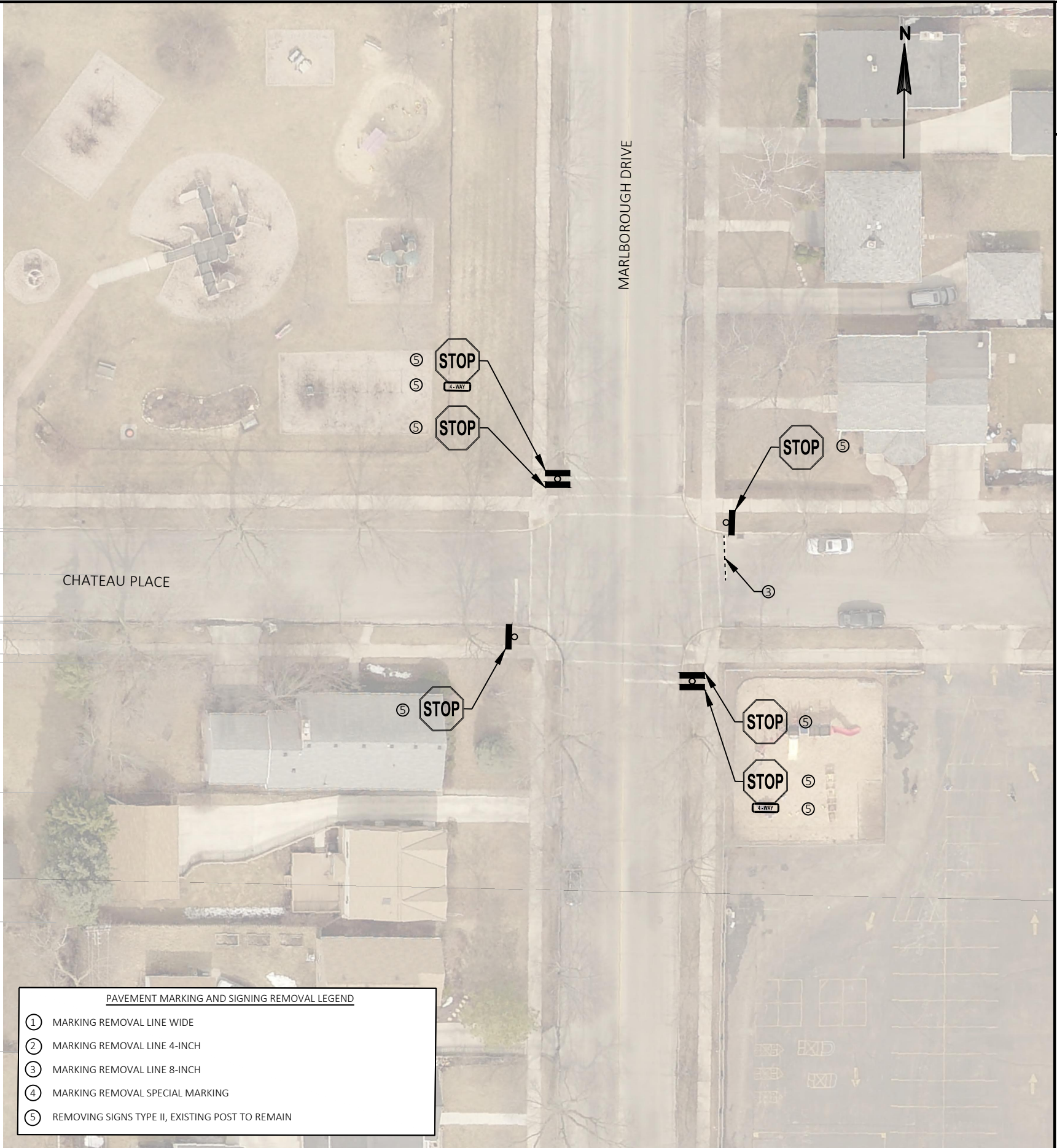
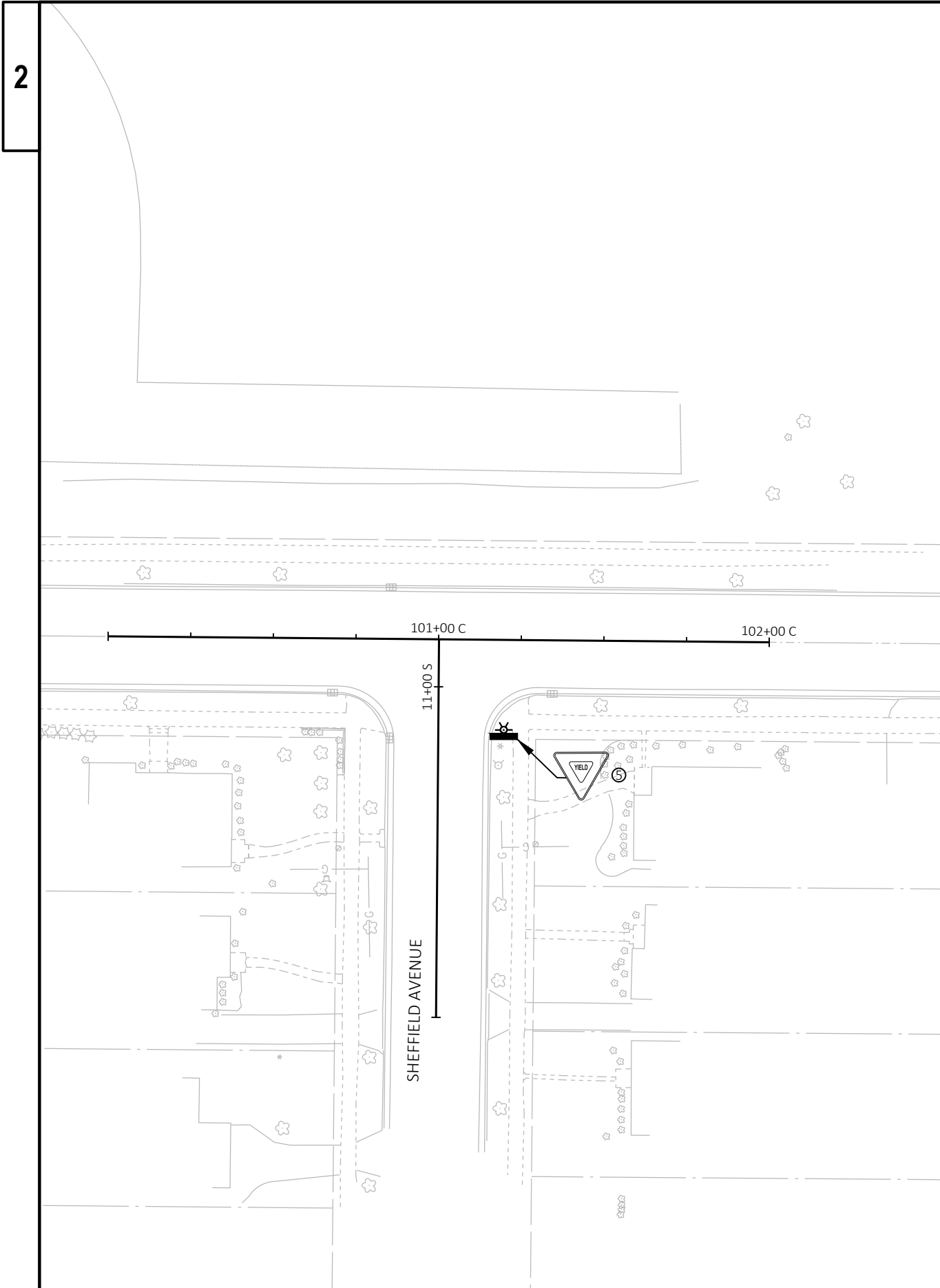


PAVEMENT MARKING AND SIGNING REMOVAL LEGEND	
①	MARKING REMOVAL LINE WIDE
②	MARKING REMOVAL LINE 4-INCH
③	MARKING REMOVAL LINE 8-INCH
④	MARKING REMOVAL SPECIAL MARKING
⑤	REMOVING SIGNS TYPE II, EXISTING POST TO REMAIN



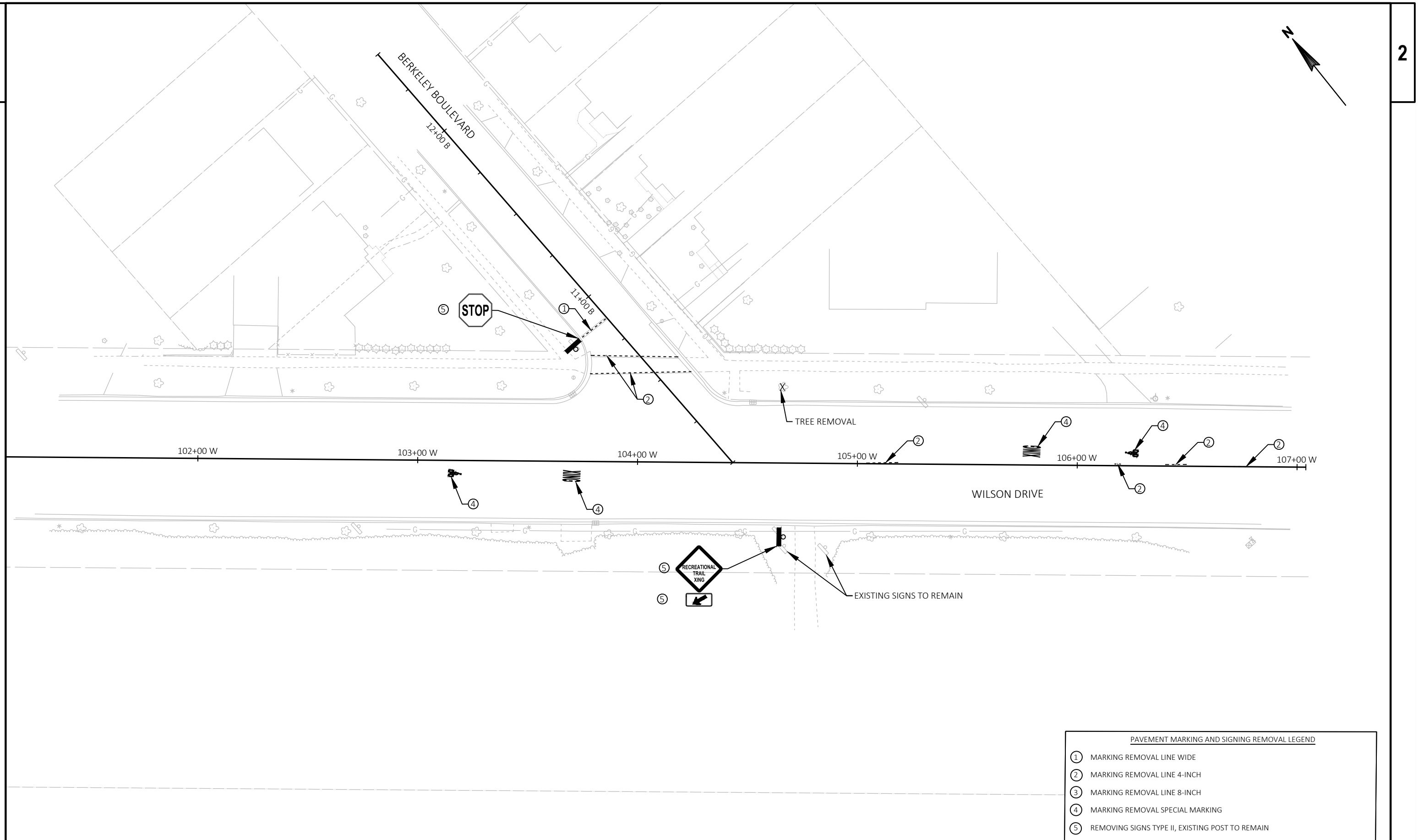
PAVEMENT MARKING AND SIGNING REMOVAL LEGEND	
①	MARKING REMOVAL LINE WIDE
②	MARKING REMOVAL LINE 4-INCH
③	MARKING REMOVAL LINE 8-INCH
④	MARKING REMOVAL SPECIAL MARKING
⑤	REMOVING SIGNS TYPE II, EXISTING POST TO REMAIN

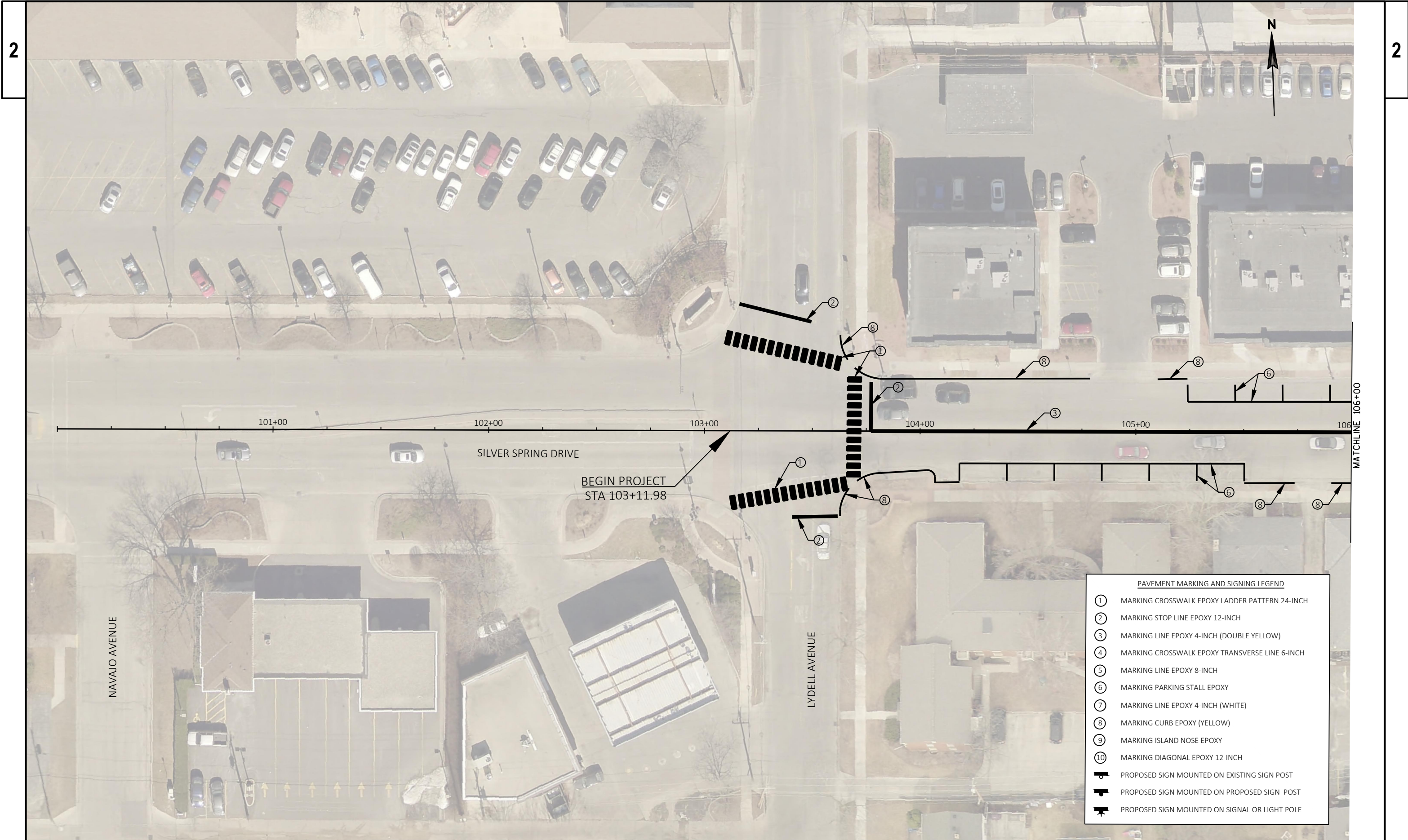


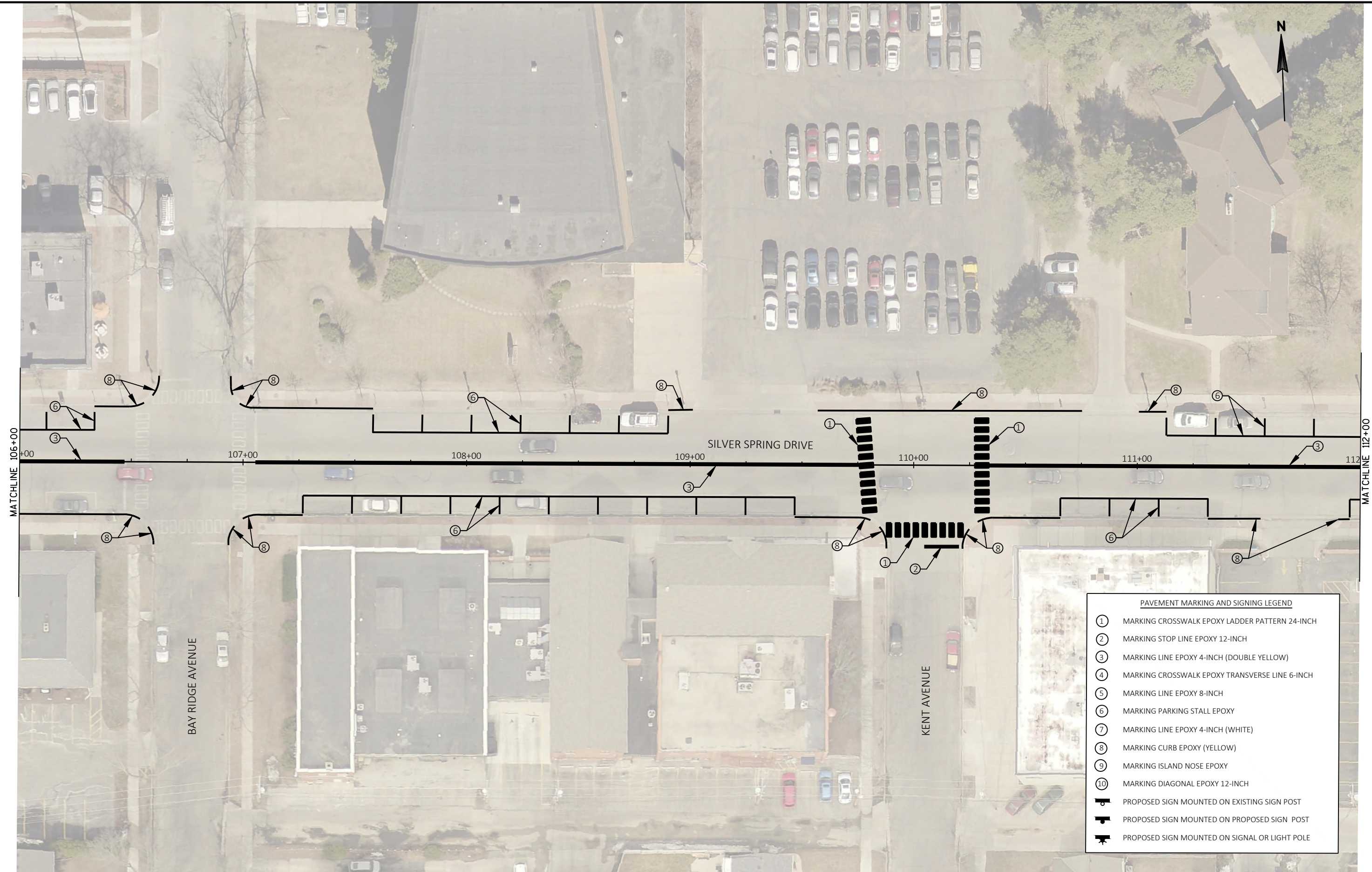


PAVEMENT MARKING AND SIGNING REMOVAL LEGEND

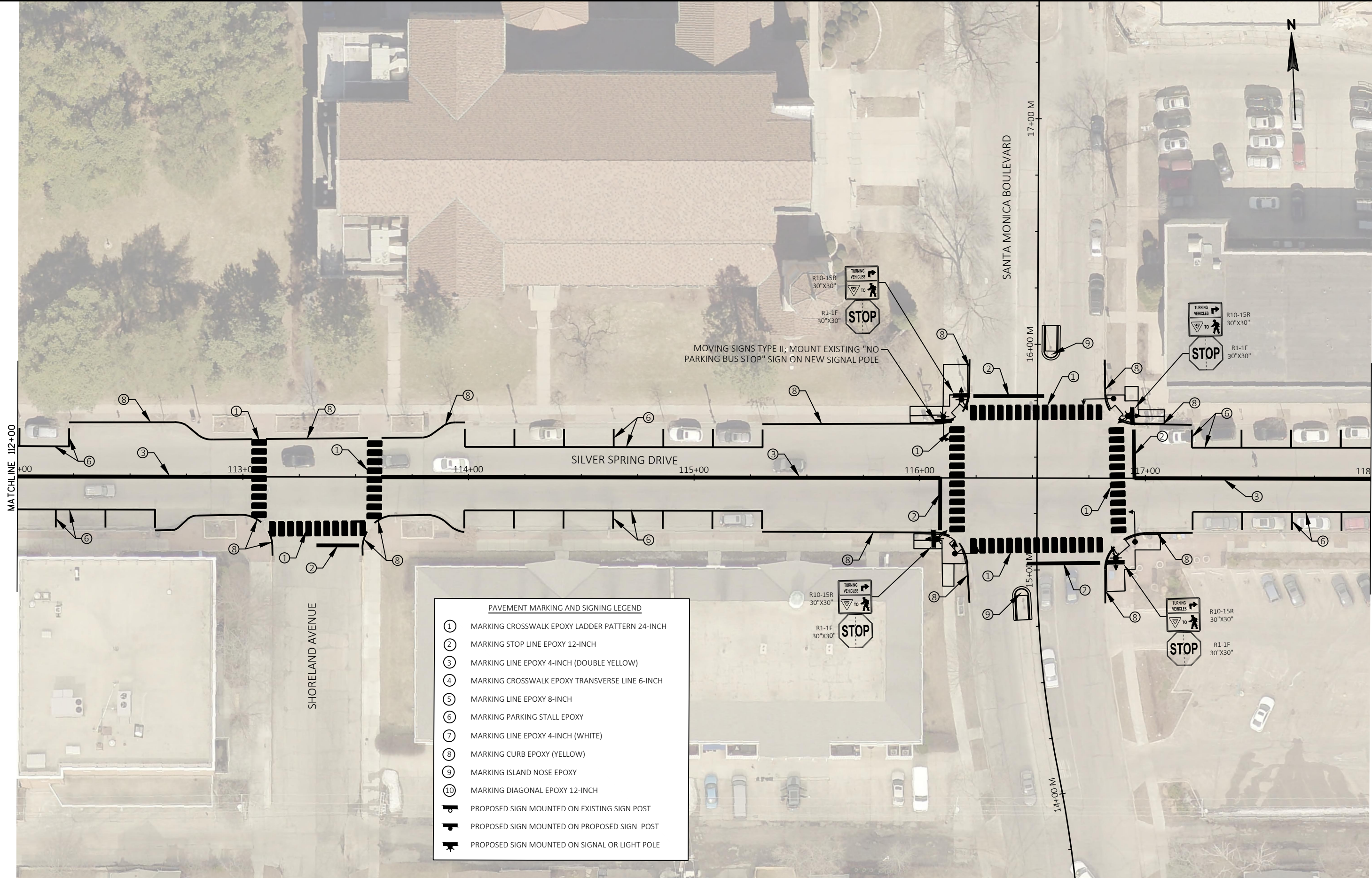
- ① MARKING REMOVAL LINE WIDE
- ② MARKING REMOVAL LINE 4-INCH
- ③ MARKING REMOVAL LINE 8-INCH
- ④ MARKING REMOVAL SPECIAL MARKING
- ⑤ REMOVING SIGNS TYPE II, EXISTING POST TO REMAIN

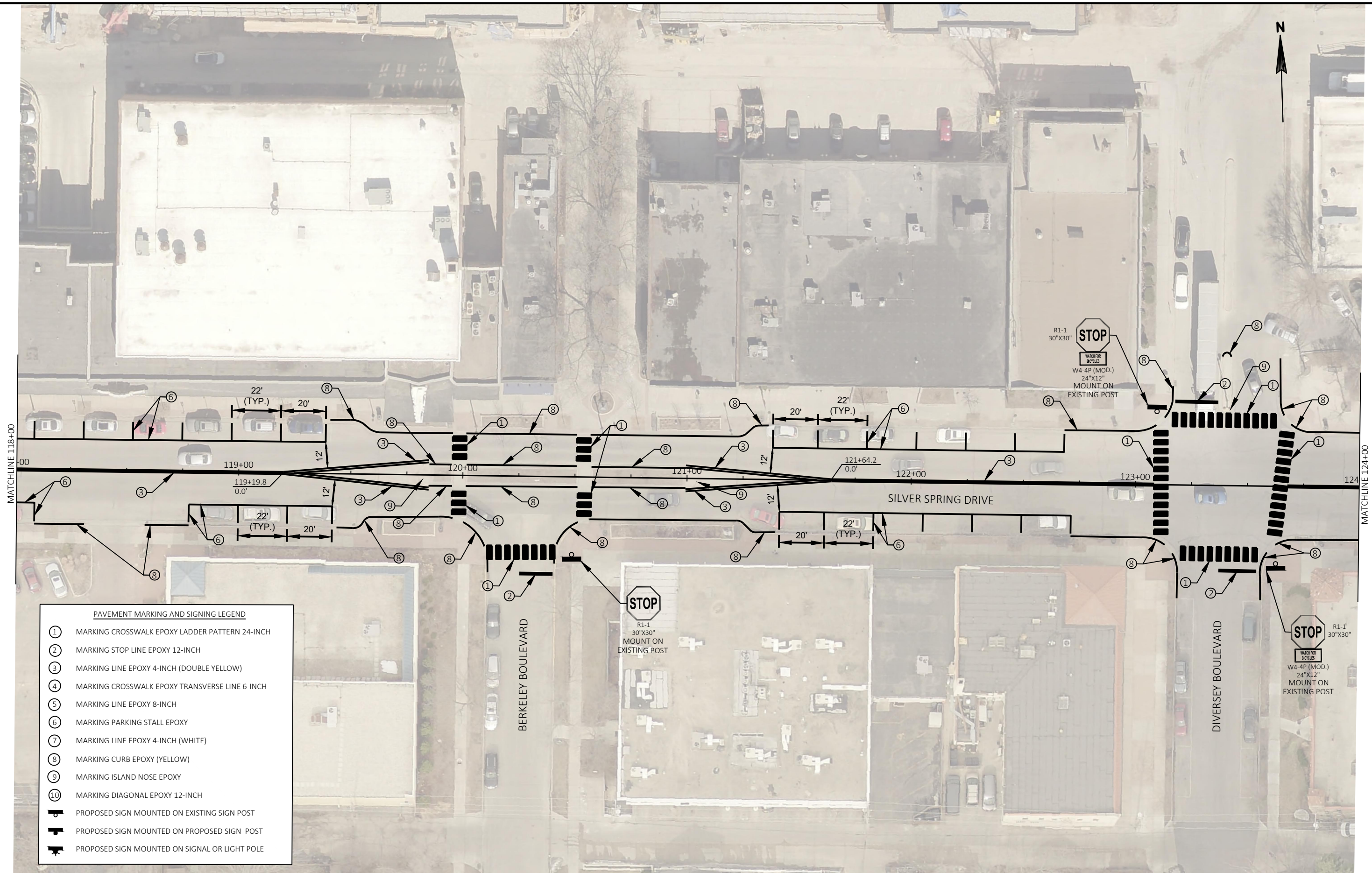


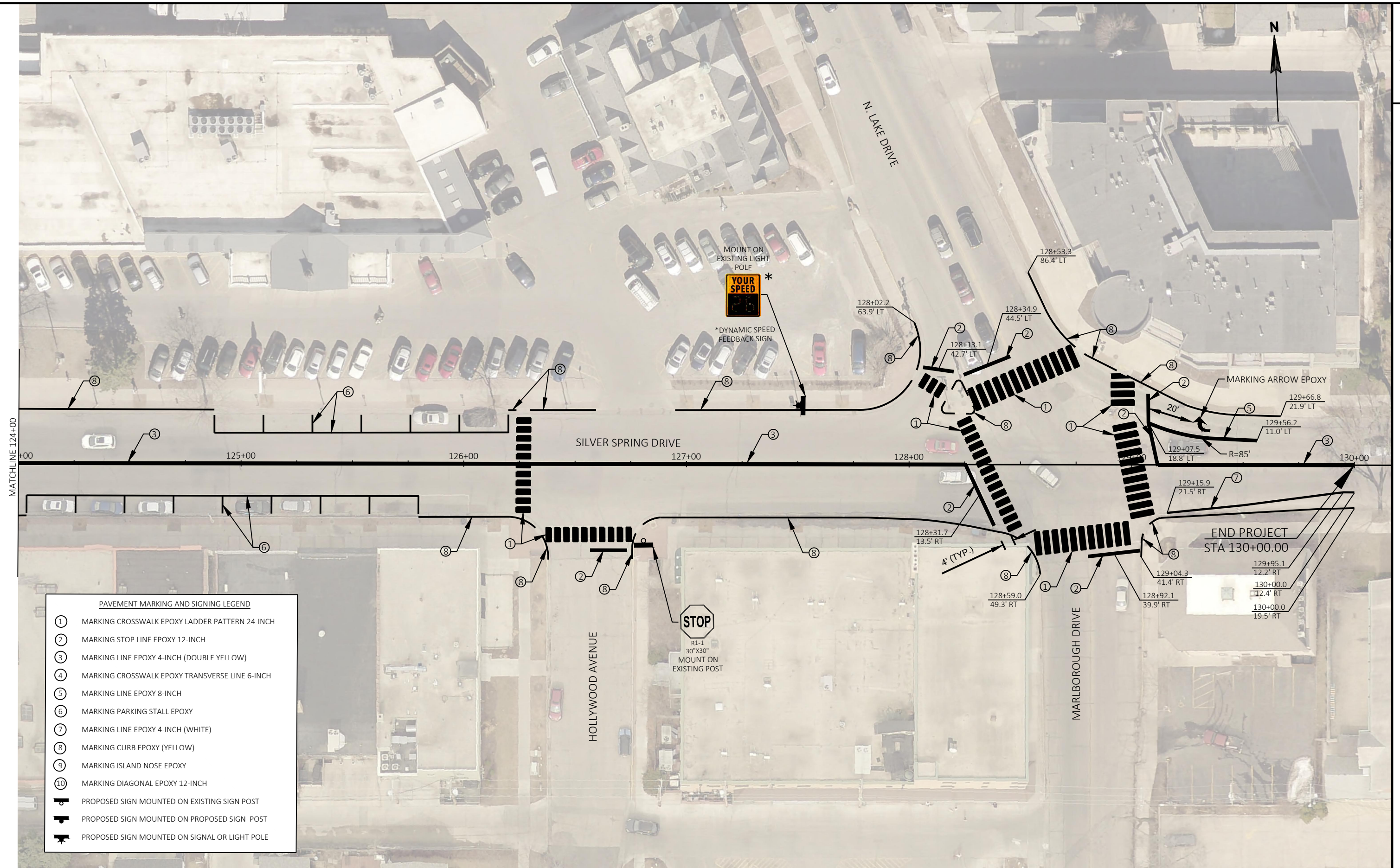


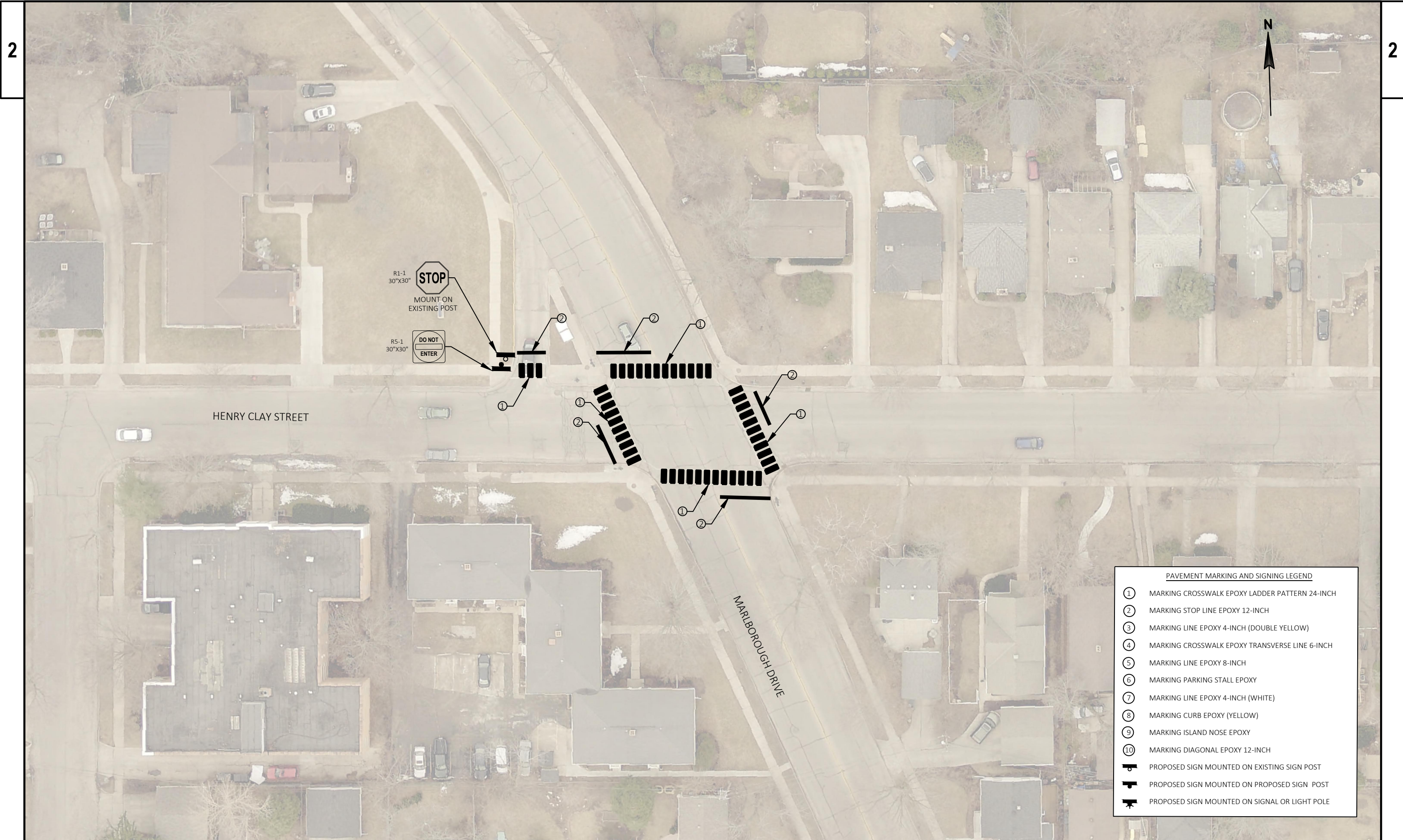


PAVEMENT MARKING AND SIGNING LEGEND	
①	MARKING CROSSWALK EPOXY LADDER PATTERN 24-INCH
②	MARKING STOP LINE EPOXY 12-INCH
③	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
④	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
⑤	MARKING LINE EPOXY 8-INCH
⑥	MARKING PARKING STALL EPOXY
⑦	MARKING LINE EPOXY 4-INCH (WHITE)
⑧	MARKING CURB EPOXY (YELLOW)
⑨	MARKING ISLAND NOSE EPOXY
⑩	MARKING DIAGONAL EPOXY 12-INCH
➤	PROPOSED SIGN MOUNTED ON EXISTING SIGN POST
➤	PROPOSED SIGN MOUNTED ON PROPOSED SIGN POST
➤	PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE

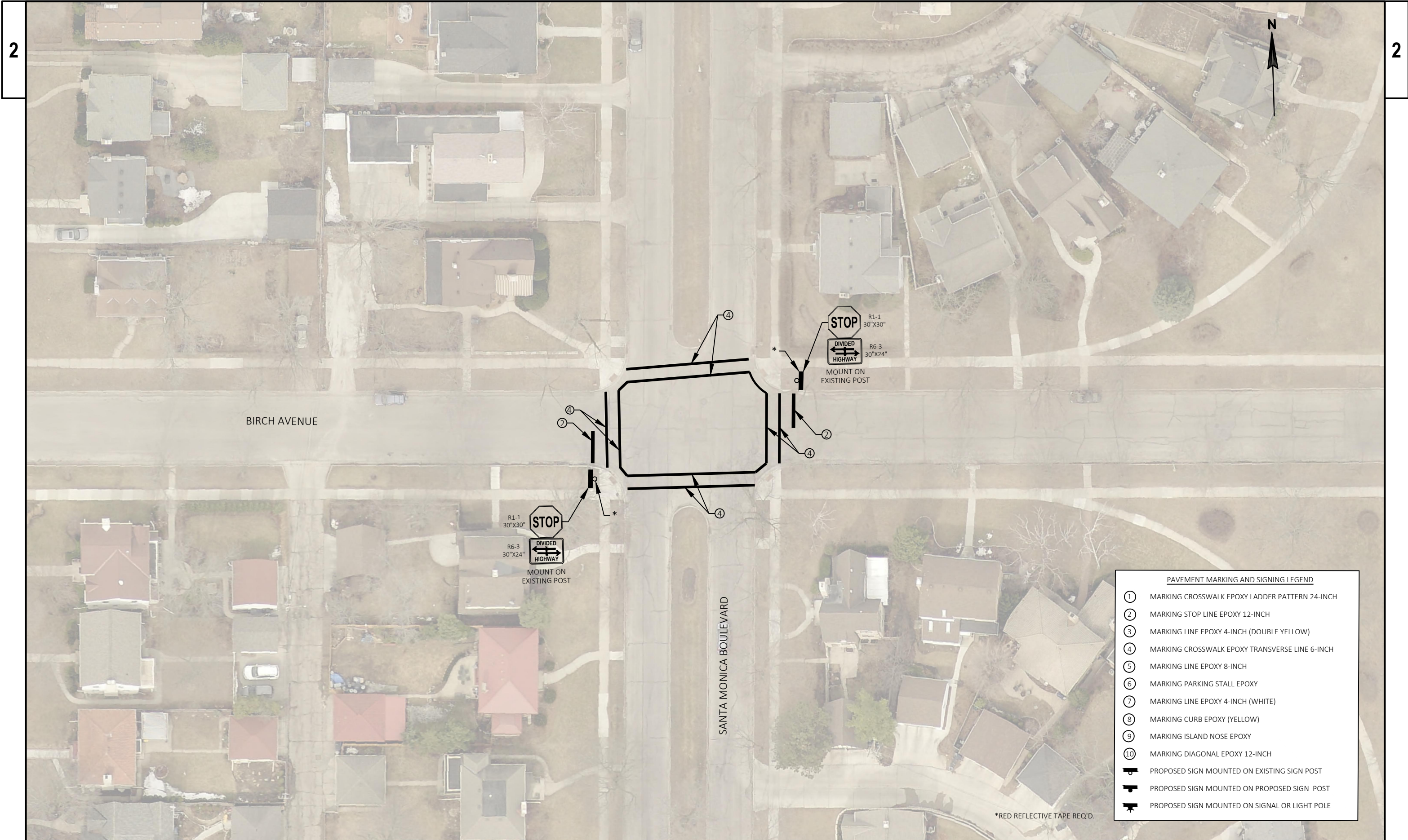




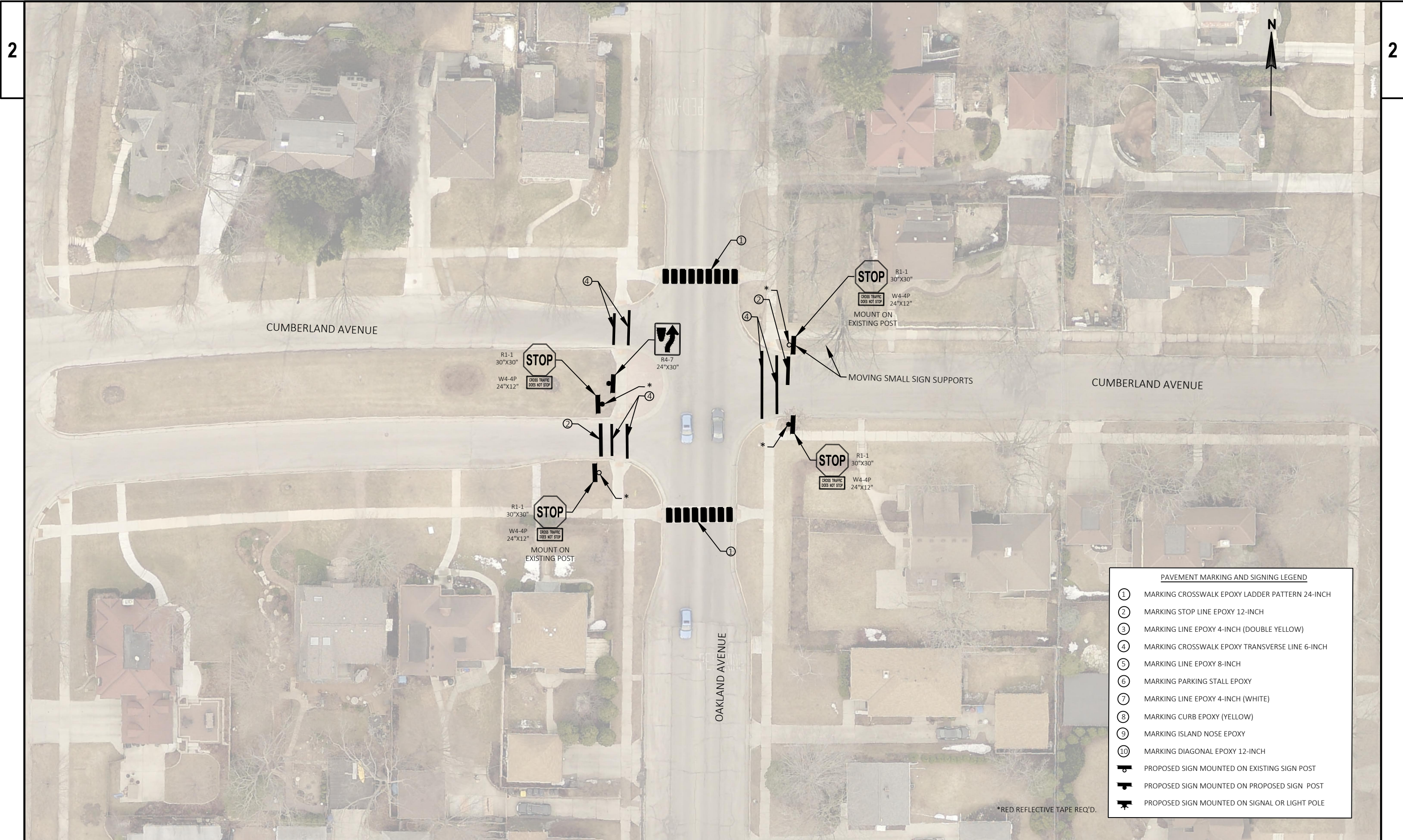


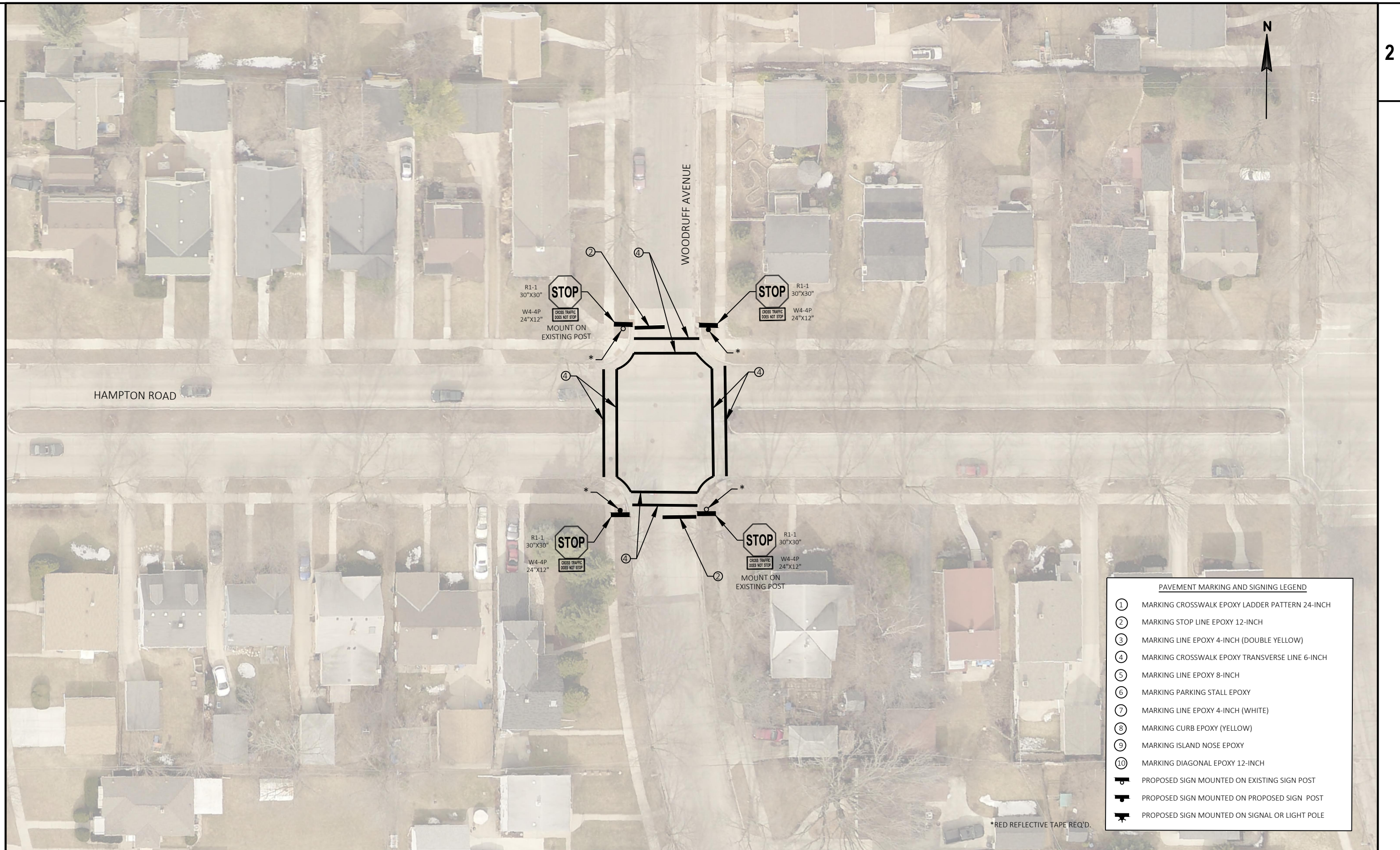


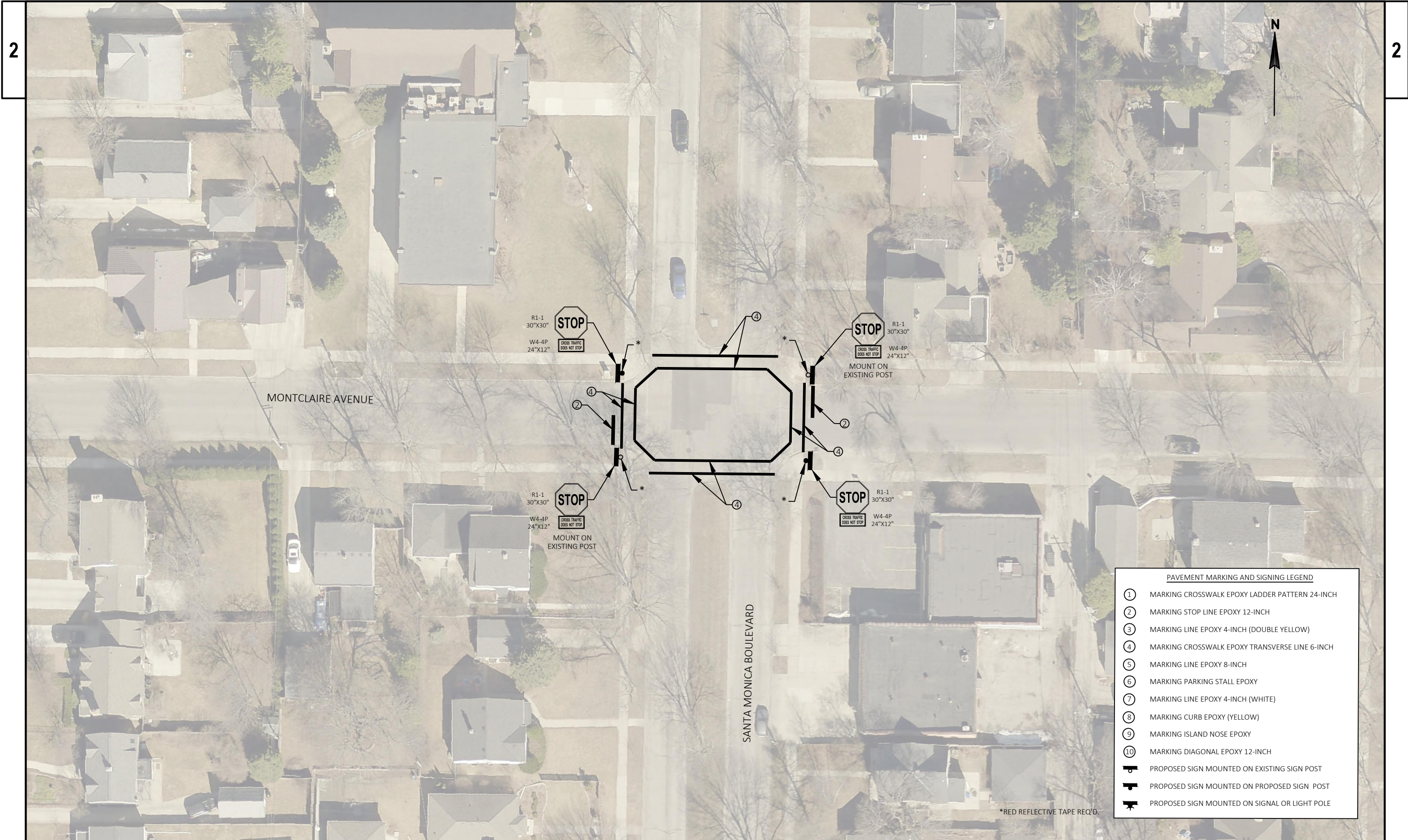
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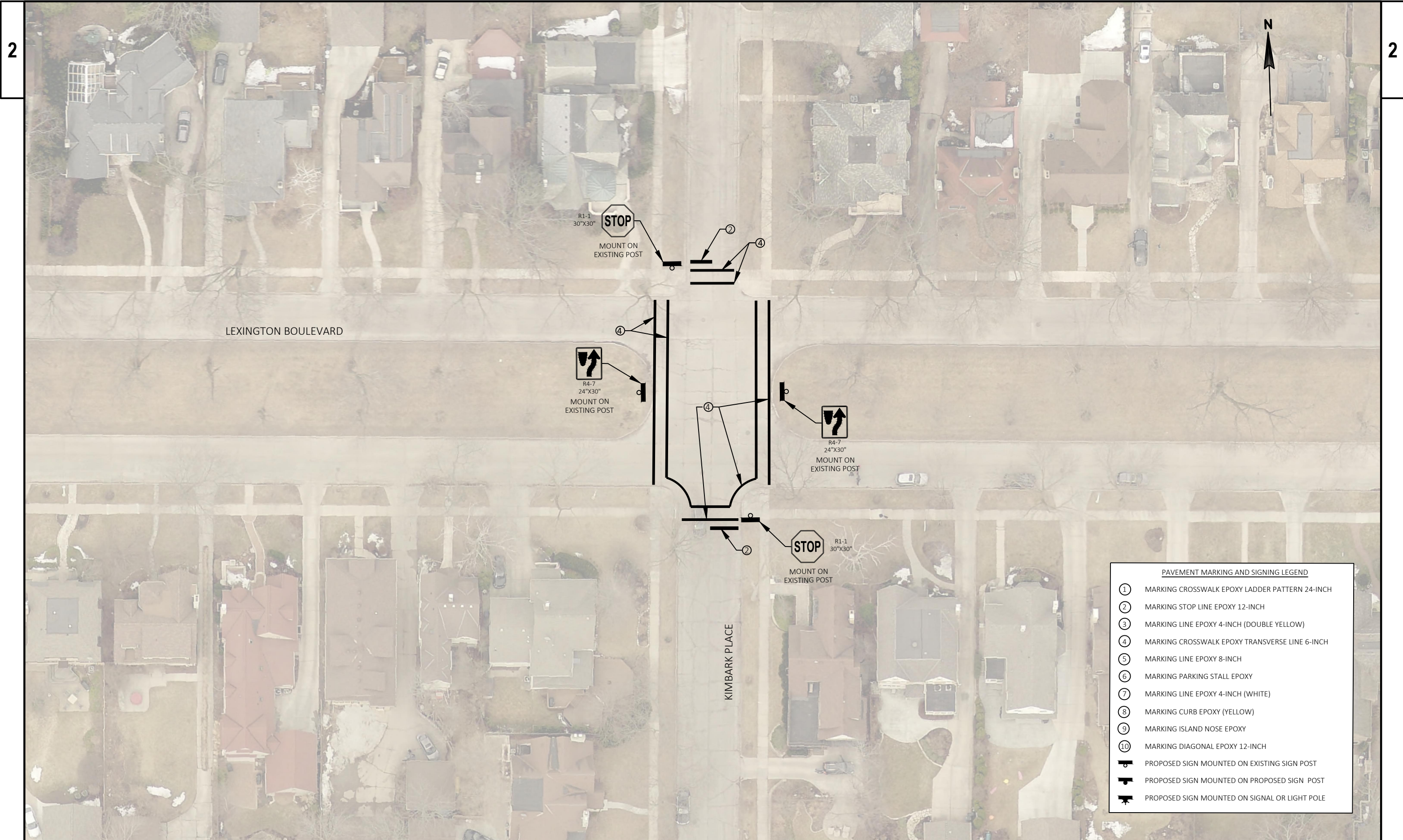
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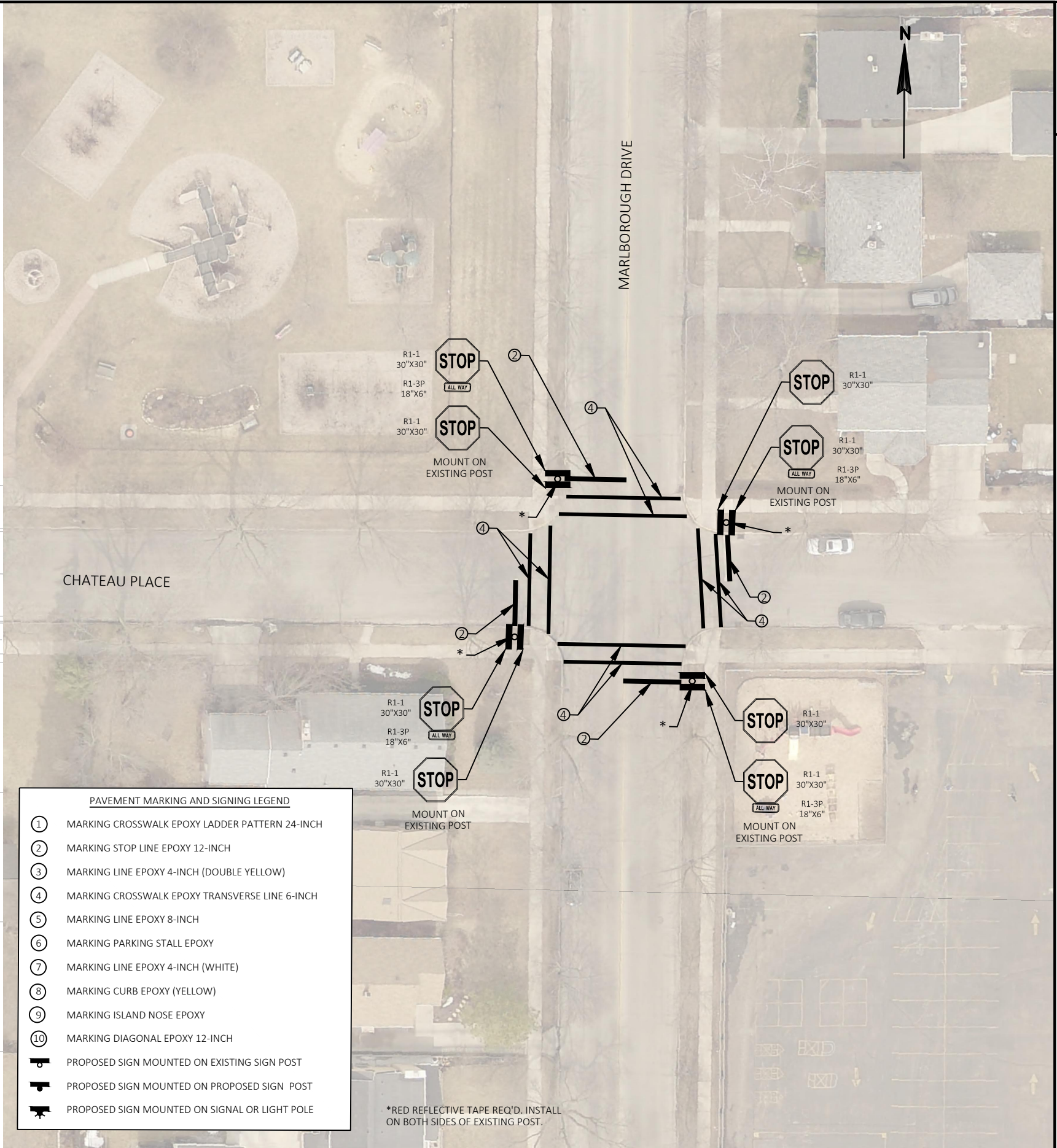
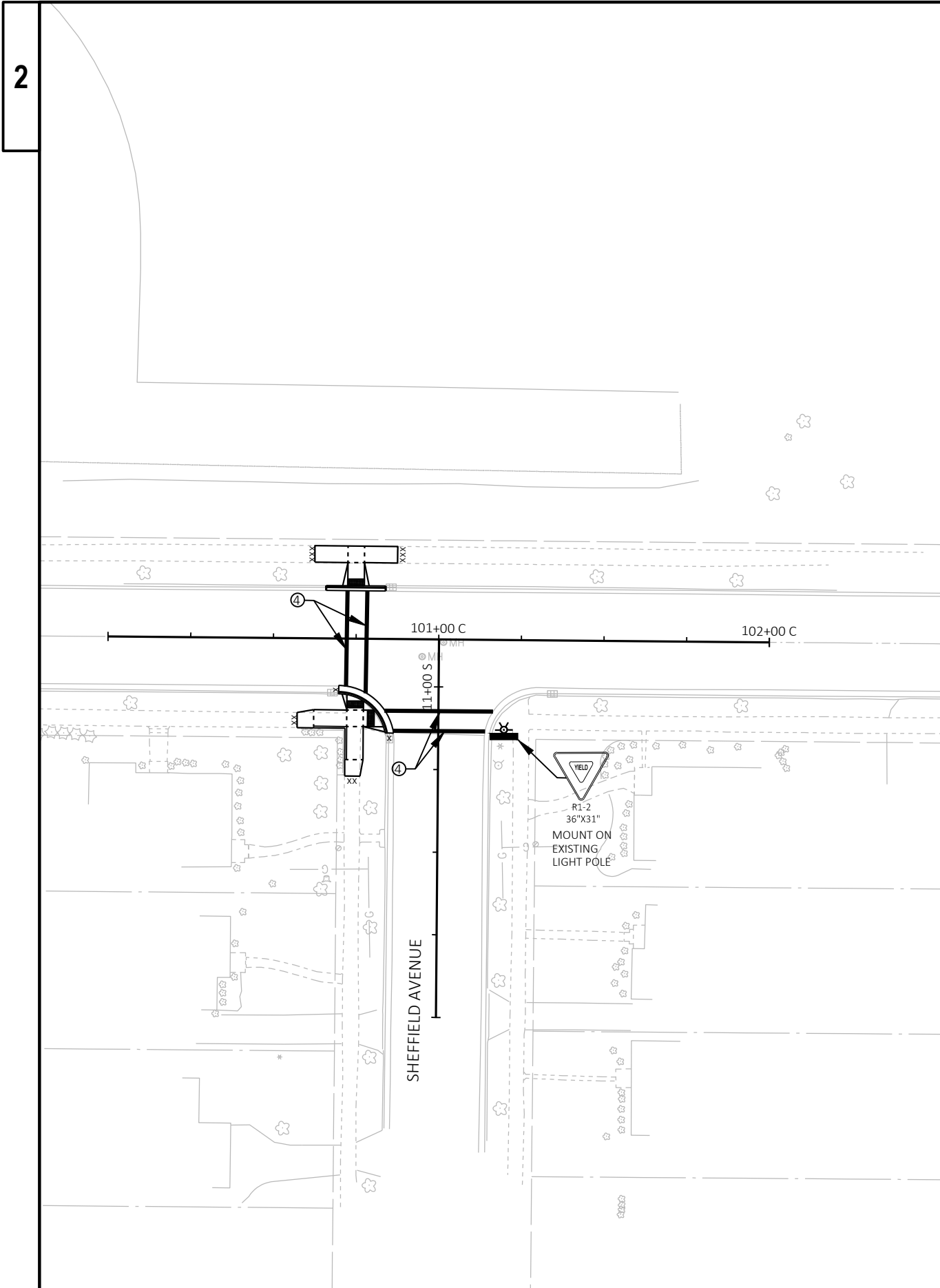






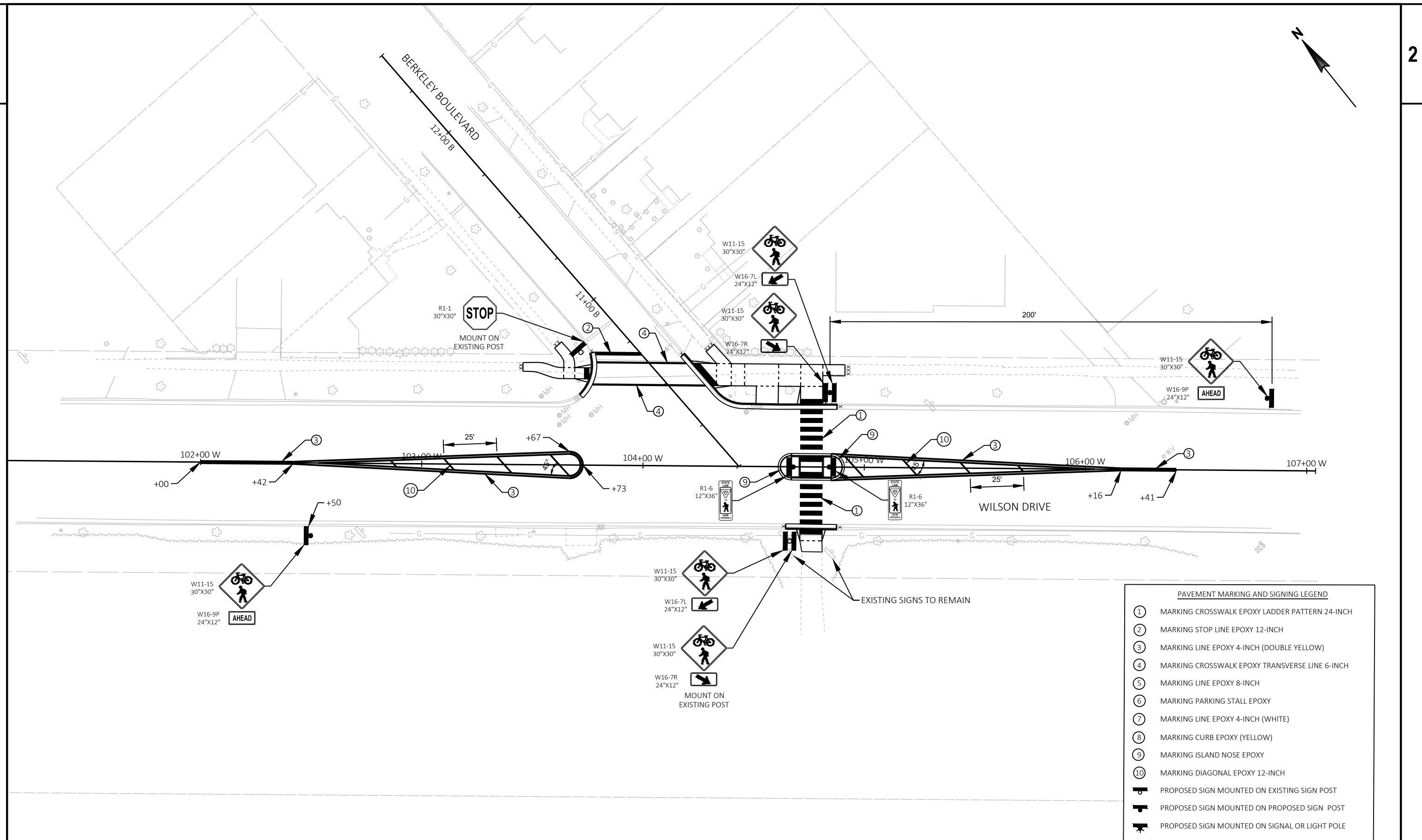
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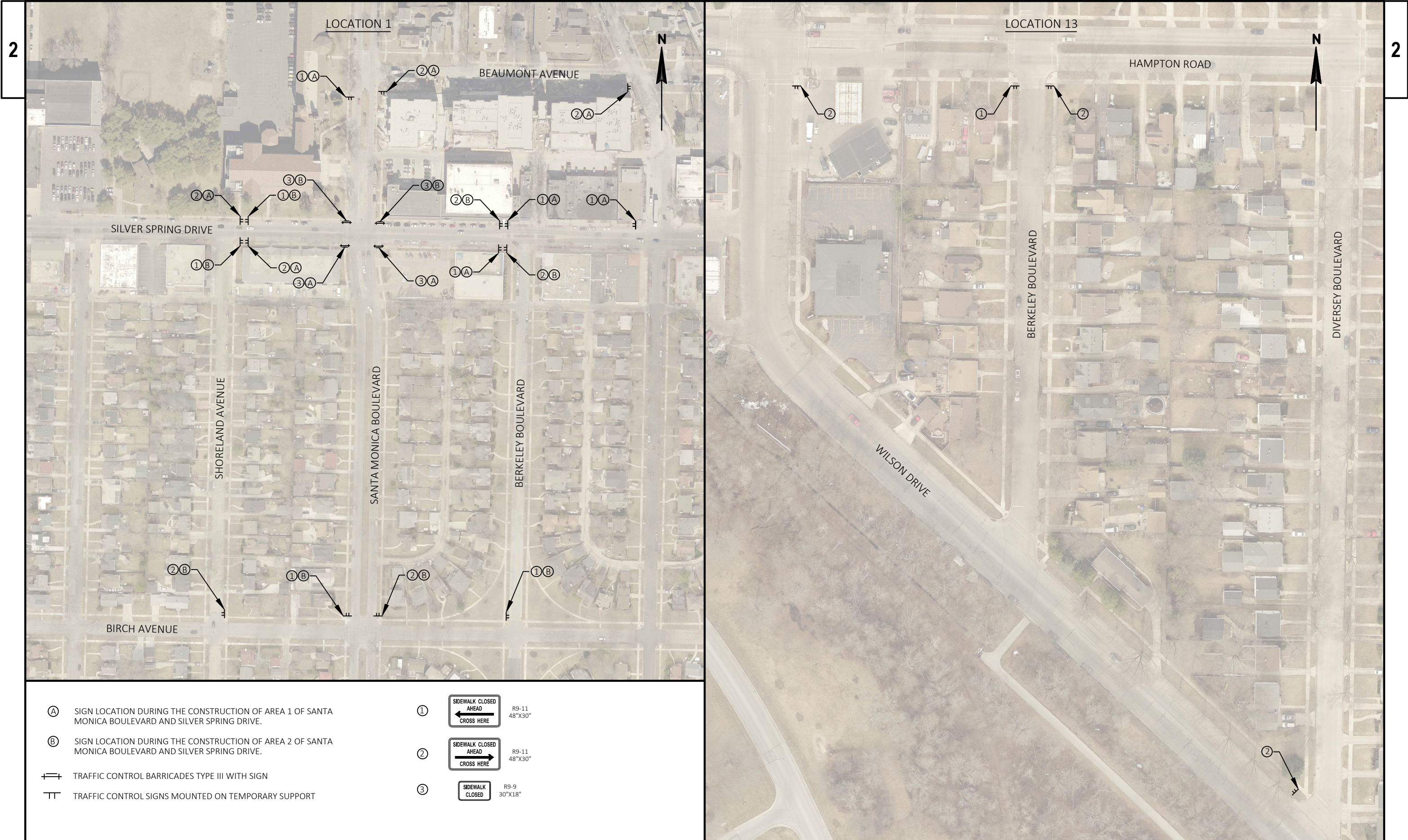




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	PROPOSED SIGN MOUNTED ON PROPOSED SIGN POST
	PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE

*RED REFLECTIVE TAPE REQ'D. INSTALL ON BOTH SIDES OF EXISTING POST.





CONSTRUCTION SEQUENCE:

CONSTRUCT AREA 1.

CONSTRUCT AREA 2 AFTER COMPLETION OF AREA 1 CONSTRUCTION.

GENERAL NOTES:

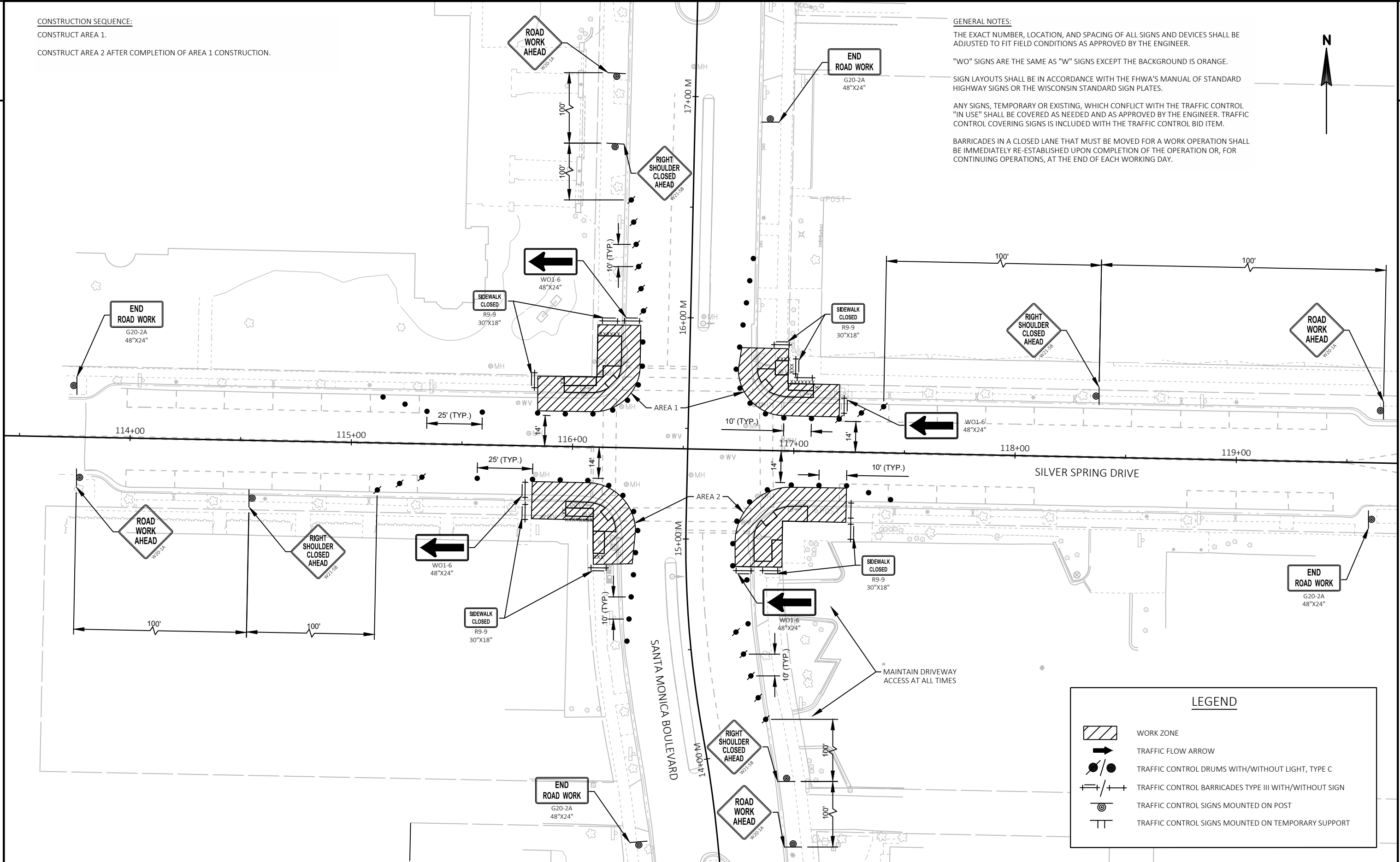
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

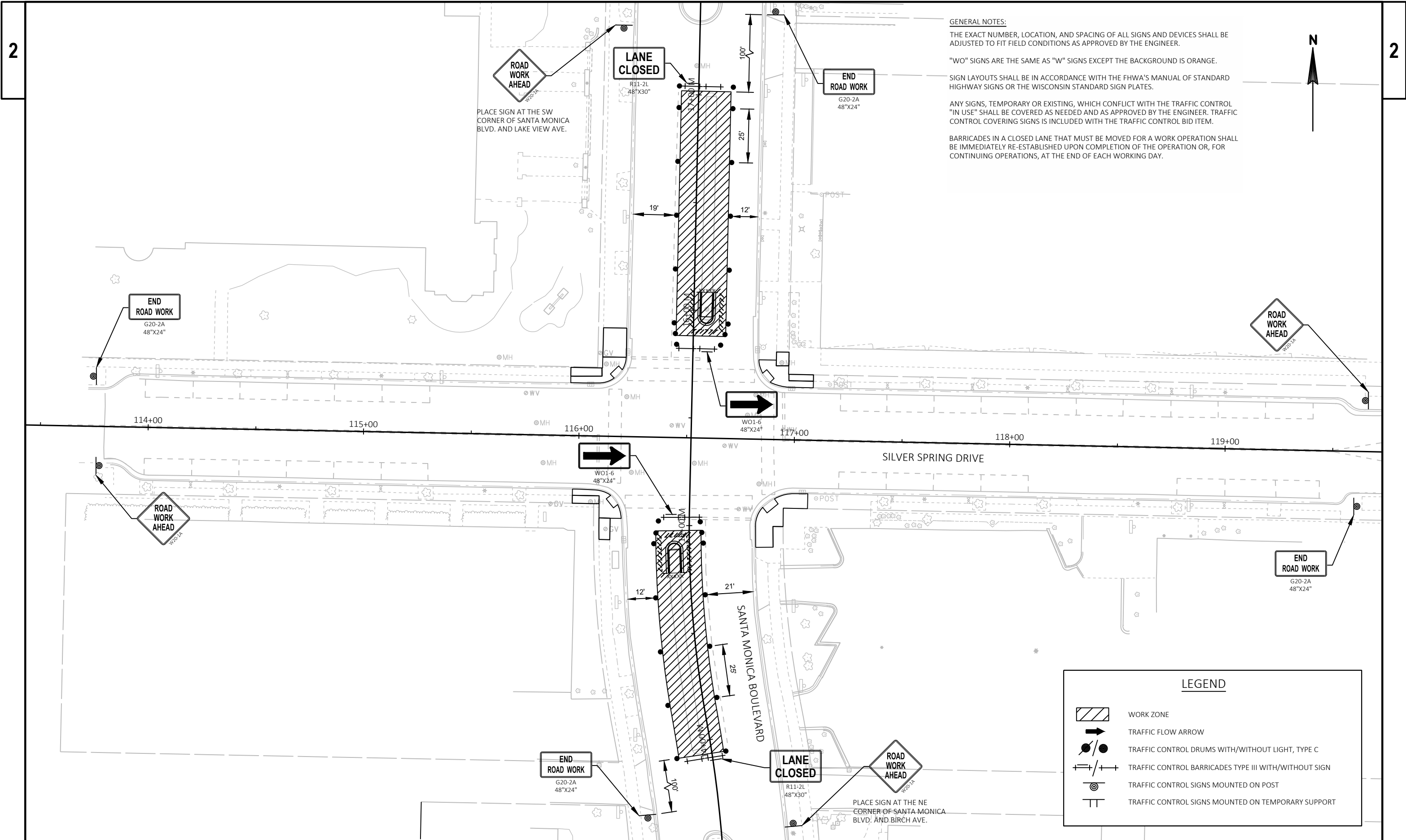
ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. TRAFFIC CONTROL COVERING SIGNS IS INCLUDED WITH THE TRAFFIC CONTROL BID ITEM.

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.



LEGEND

- WORK ZONE
- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUMS WITH/WITHOUT LIGHT, TYPE C
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL SIGNS MOUNTED ON POST
- TRAFFIC CONTROL SIGNS MOUNTED ON TEMPORARY SUPPORT



GENERAL NOTES:

SEE S.D.D. 15D 28-3 "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR ADDITIONAL INFORMATION.

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

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STAGE 1:

CONSTRUCT AREA 1 AND MAINTAIN TWO-WAY TRAFFIC ON CHATEAU PLACE WITH MINIMUM LANE WIDTHS OF 10 FEET.

STAGE 2:

CONSTRUCT AREA 2 AND MAINTAIN TWO-WAY TRAFFIC ON CHATEAU PLACE AND ON SHEFFIELD AVENUE WITH MINIMUM LANE WIDTHS OF 10 FEET.

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
48"x30"

NOTE: PLACE SIGN ON SIDEWALK OF NE WOODRUFF/CHATEAU INTERSECTION DURING CONSTRUCTION OF AREA 1.

END ROAD WORK
G20-2A
48"x24"

NOTE: PLACE SIGN ON SIDEWALK OF SE WOODRUFF/CHATEAU INTERSECTION DURING CONSTRUCTION OF AREA 2.

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
48"x30"

NOTE: PLACE SIGN ON SIDEWALK OF NW MARLBOROUGH/CHATEAU INTERSECTION DURING CONSTRUCTION OF AREA 1.

END ROAD WORK
G20-2A
48"x24"

NOTE: PLACE SIGN ON SIDEWALK OF SW MARLBOROUGH/CHATEAU INTERSECTION DURING CONSTRUCTION OF AREA 2.

SIDEWALK CLOSED
R9-9
30"x18"

SIDEWALK CLOSED
R9-9
30"x18"

WO1-6
48"x24"

WO1-6
48"x24"

SIDEWALK CLOSED
R9-9
30"x18"

SIDEWALK CLOSED
R9-9
30"x18"

END ROAD WORK
G20-2A
48"x24"

SIDEWALK CLOSED AHEAD
CROSS HERE
R9-11
48"x30"

NOTE: PLACE SIGN ON SIDEWALK OF NW HAMPTON/WOODRUFF INTERSECTION DURING CONSTRUCTION OF AREA 2.

RIGHT SHOULDER CLOSED AHEAD
W20-5B

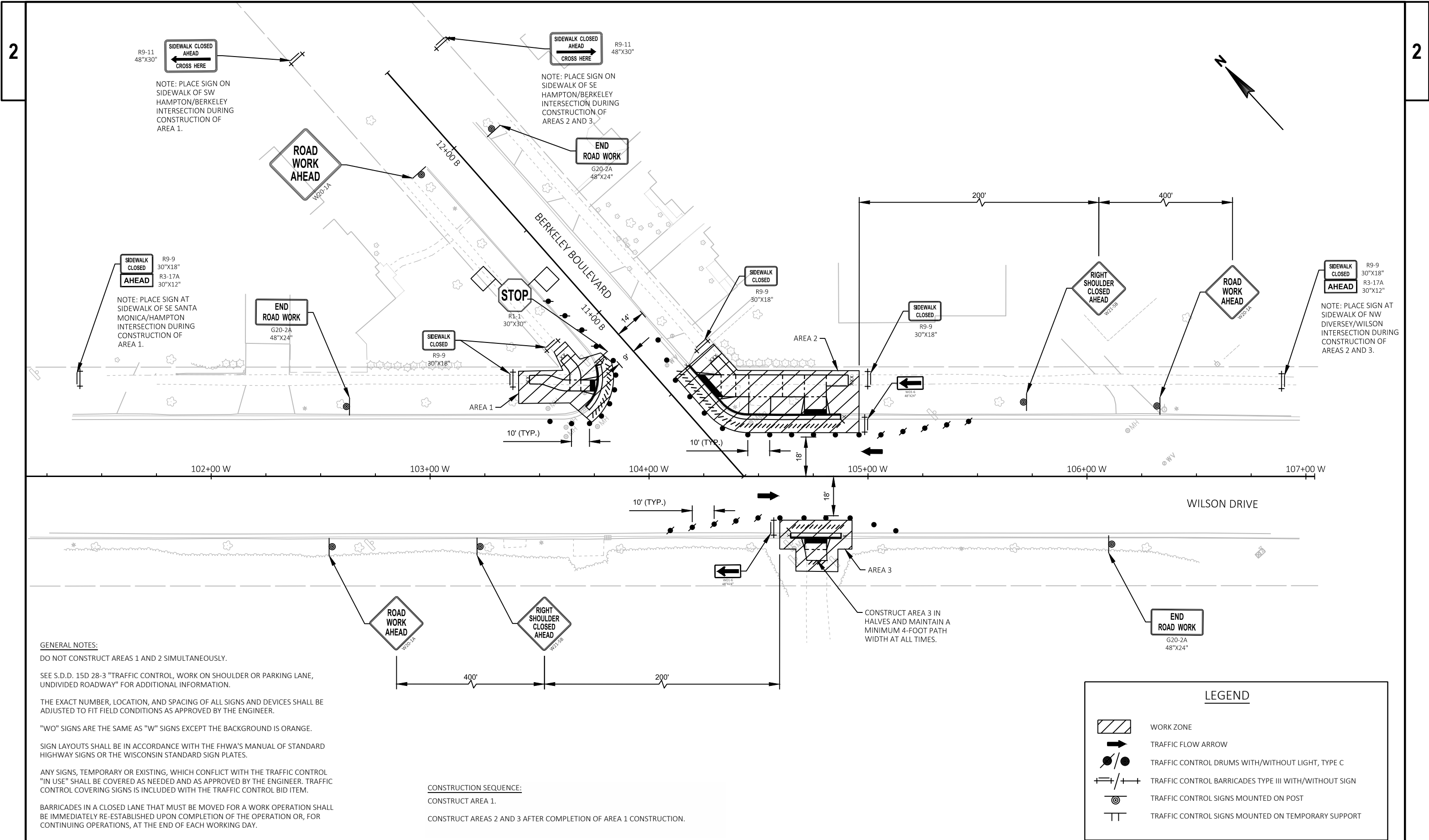
ROAD WORK AHEAD
W20-1A

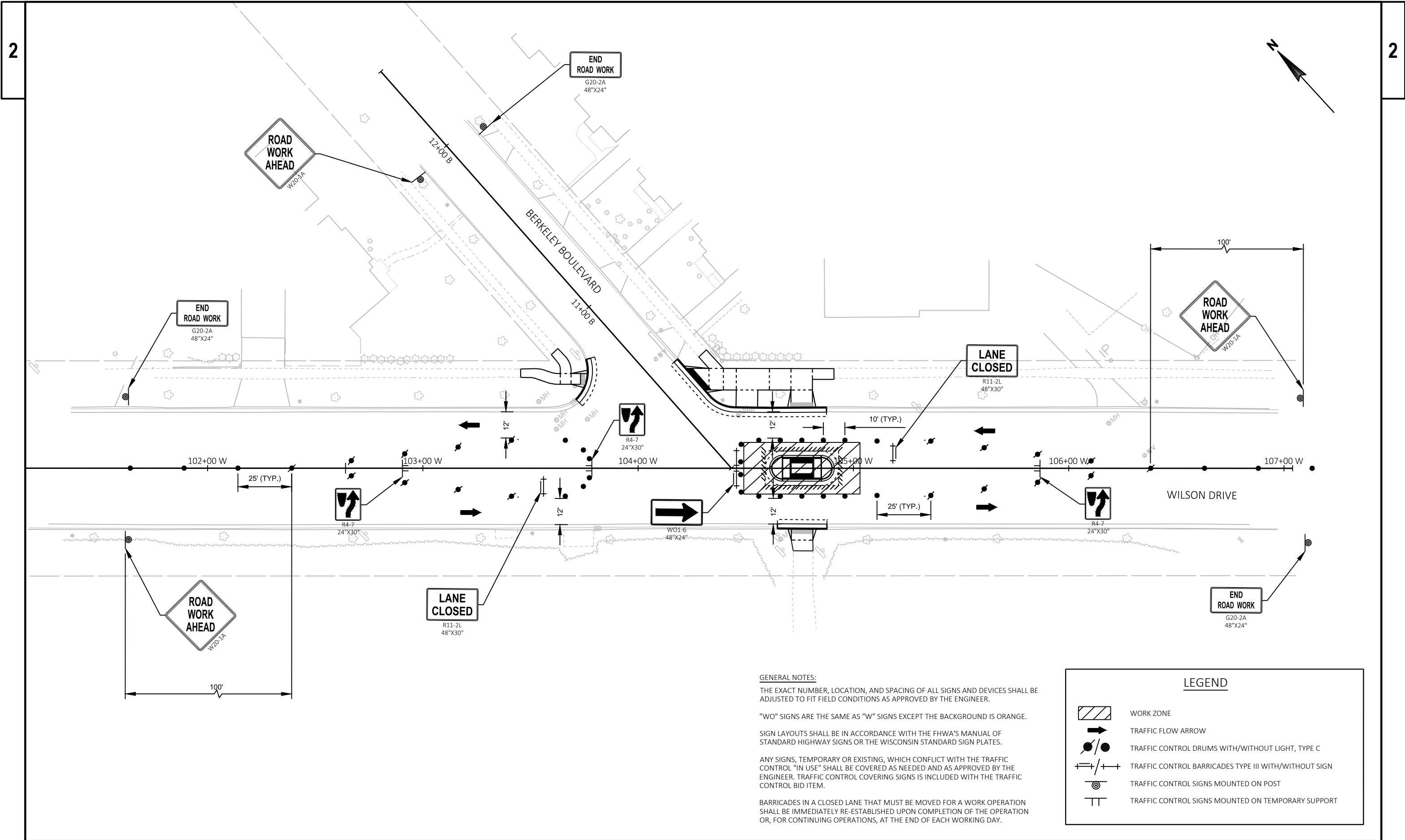
CHATEAU PLACE

SHEFFIELD AVENUE

LEGEND

- WORK ZONE
- TRAFFIC FLOW ARROW
- TRAFFIC CONTROL DRUMS WITH/WITHOUT LIGHT, TYPE C
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
- TRAFFIC CONTROL SIGNS MOUNTED ON POST
- TRAFFIC CONTROL SIGNS MOUNTED ON TEMPORARY SUPPORT





GENERAL NOTES:

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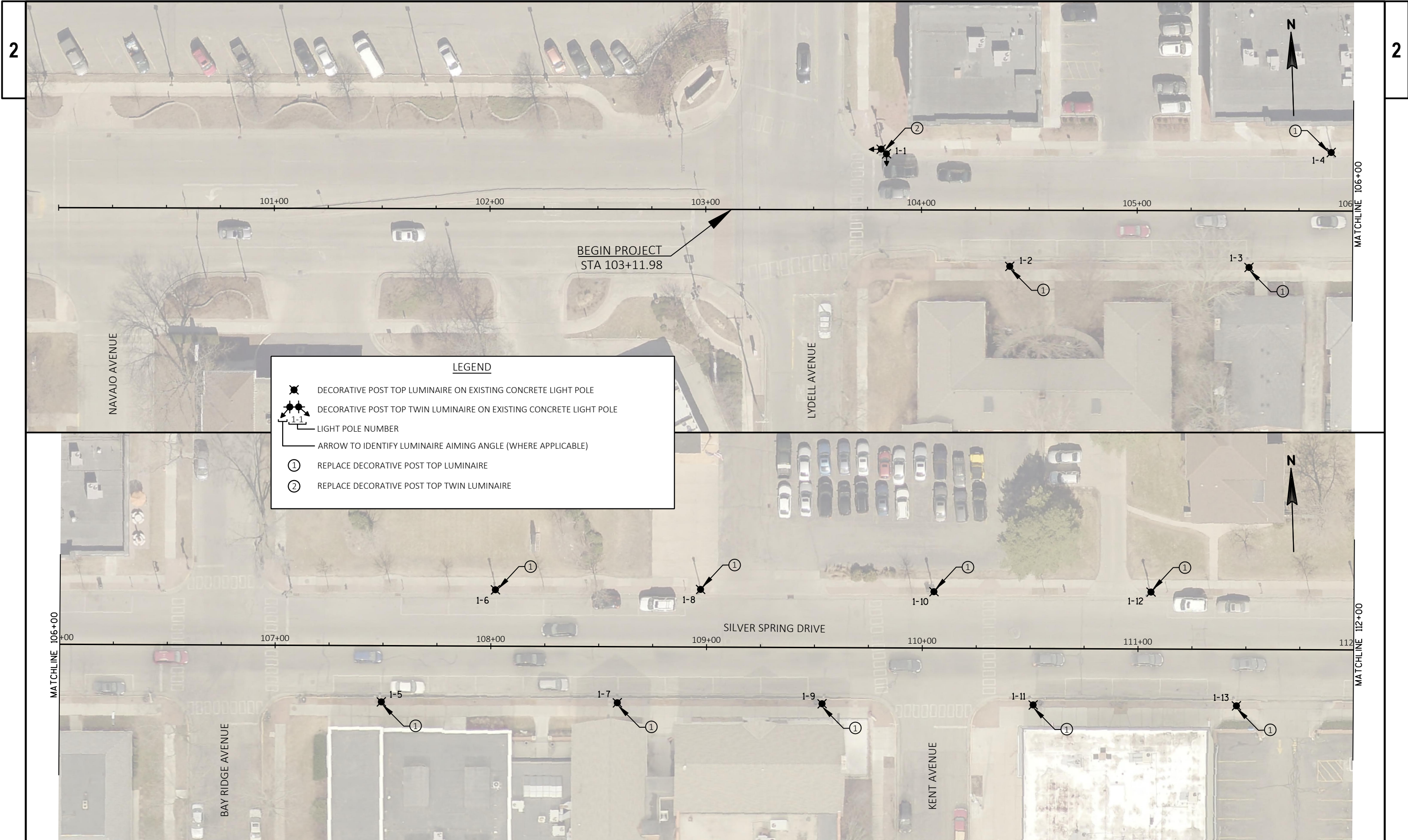
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LEGEND

	WORK ZONE
	TRAFFIC FLOW ARROW
	TRAFFIC CONTROL DRUMS WITH/WITHOUT LIGHT, TYPE C
	TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT SIGN
	TRAFFIC CONTROL SIGNS MOUNTED ON POST
	TRAFFIC CONTROL SIGNS MOUNTED ON TEMPORARY SUPPORT



LEGEND

DECORATIVE POST TOP LUMINAIRE ON EXISTING CONCRETE LIGHT POLE

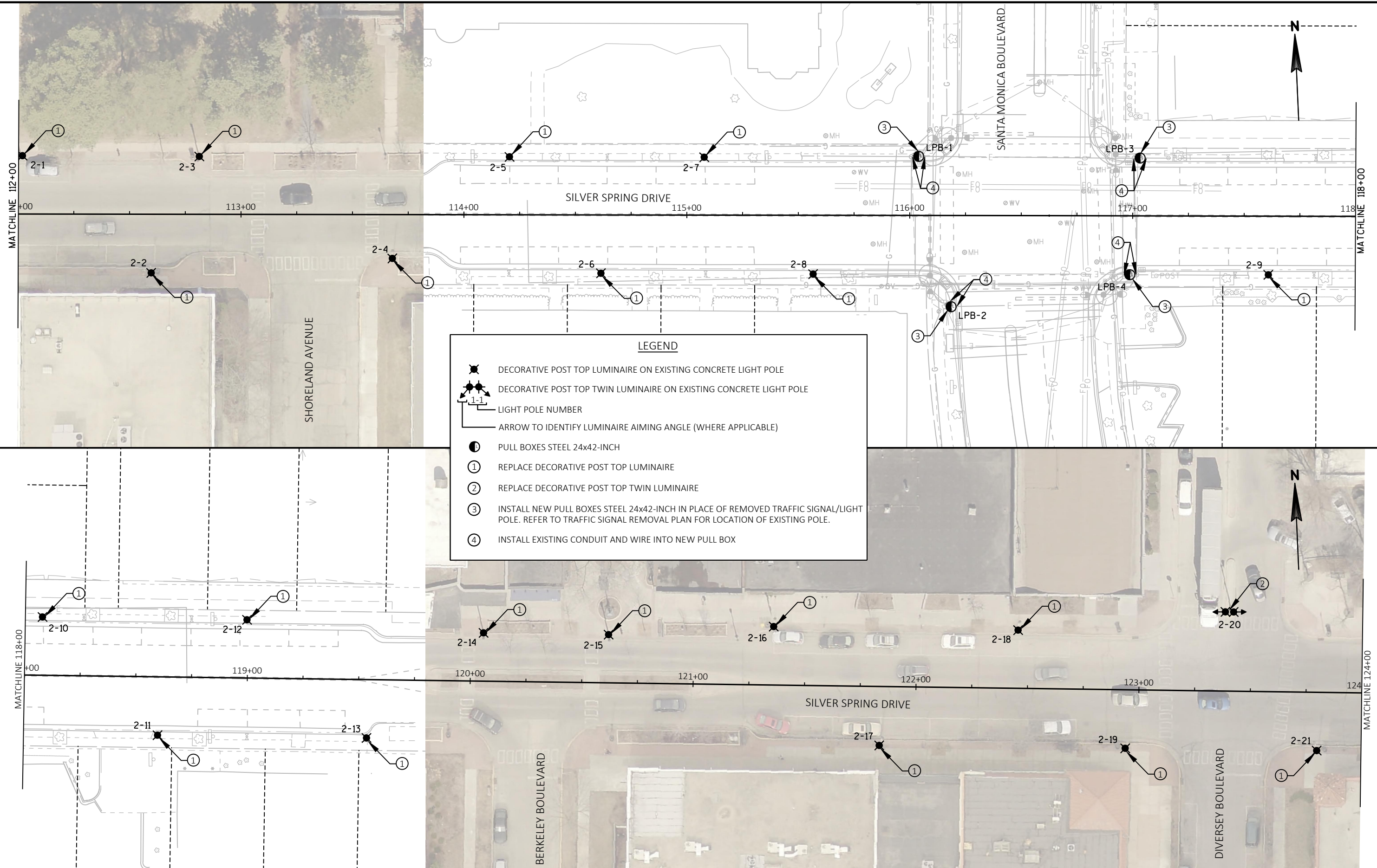
DECORATIVE POST TOP TWIN LUMINAIRE ON EXISTING CONCRETE LIGHT POLE

LIGHT POLE NUMBER

ARROW TO IDENTIFY LUMINAIRE AIMING ANGLE (WHERE APPLICABLE)

REPLACE DECORATIVE POST TOP LUMINAIRE

REPLACE DECORATIVE POST TOP TWIN LUMINAIRE



PROJECT NO: 2998-06-70

HWY: LOCAL STREETS

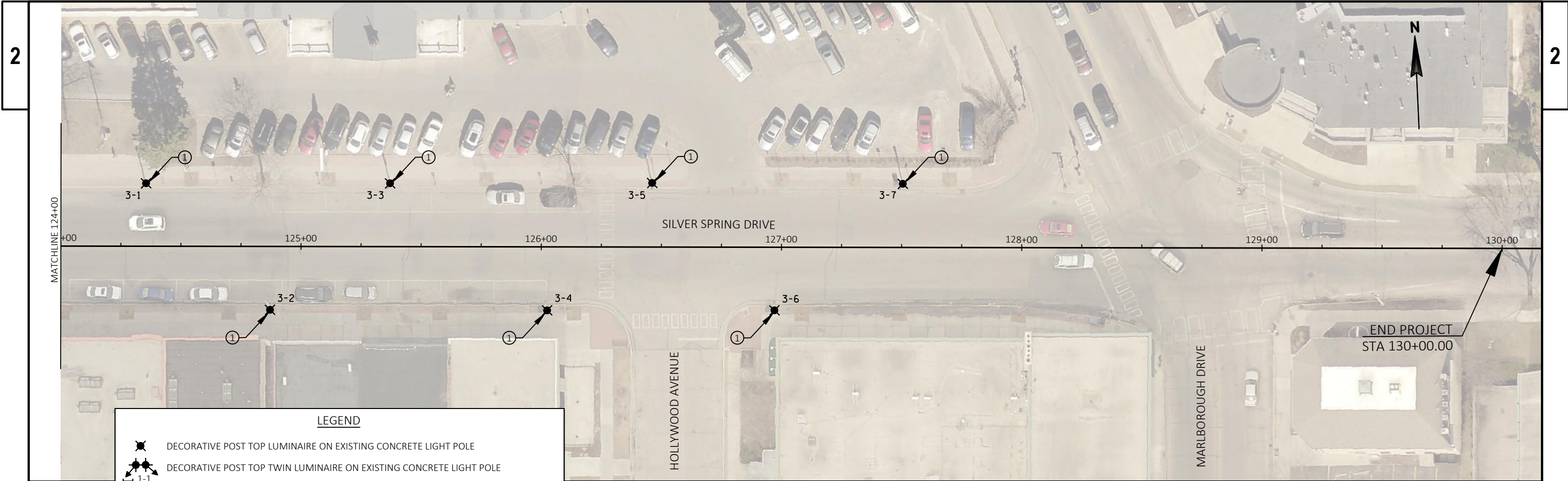
COUNTY: MILWAUKEE

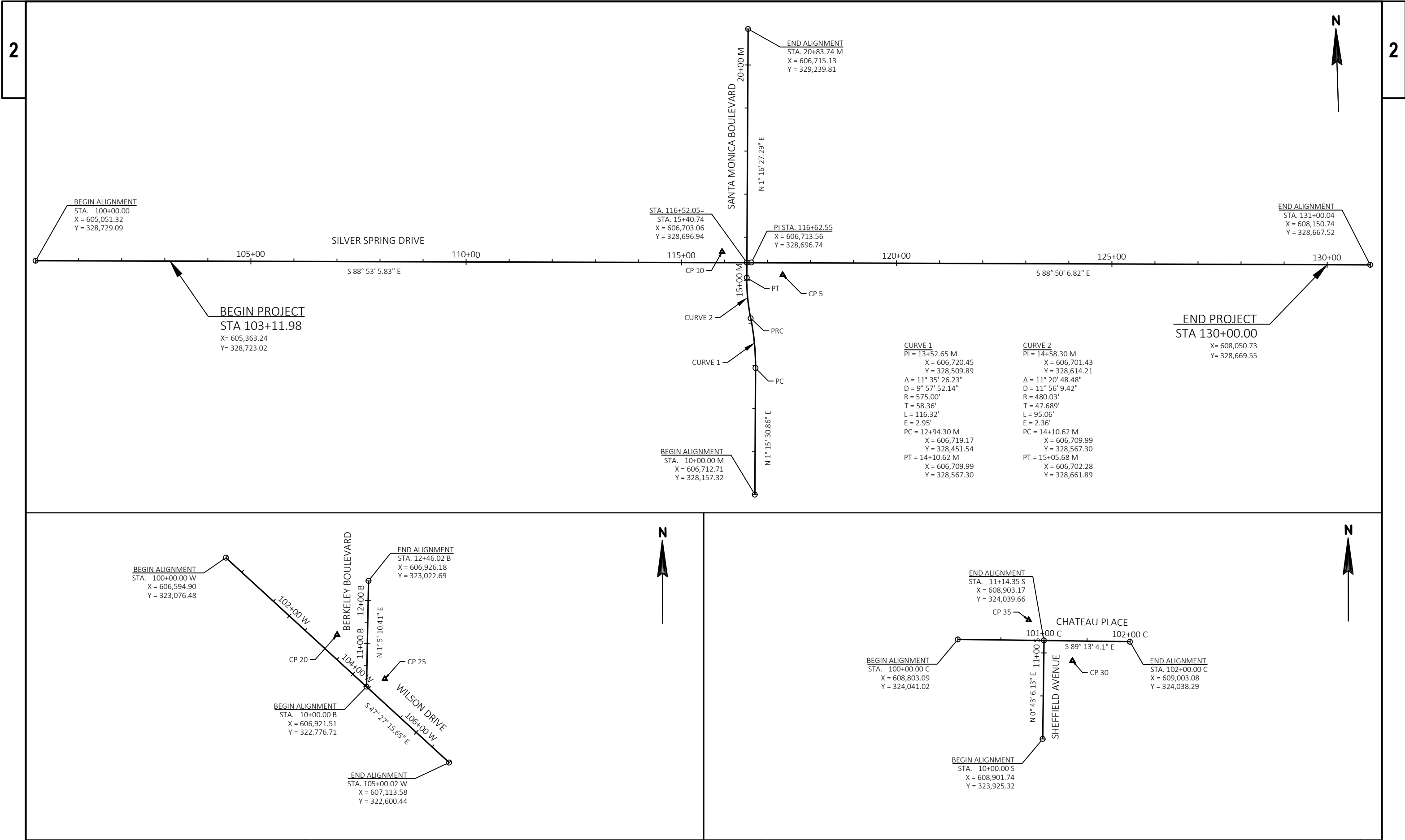
LIGHTING PLAN: SILVER SPRING DRIVE

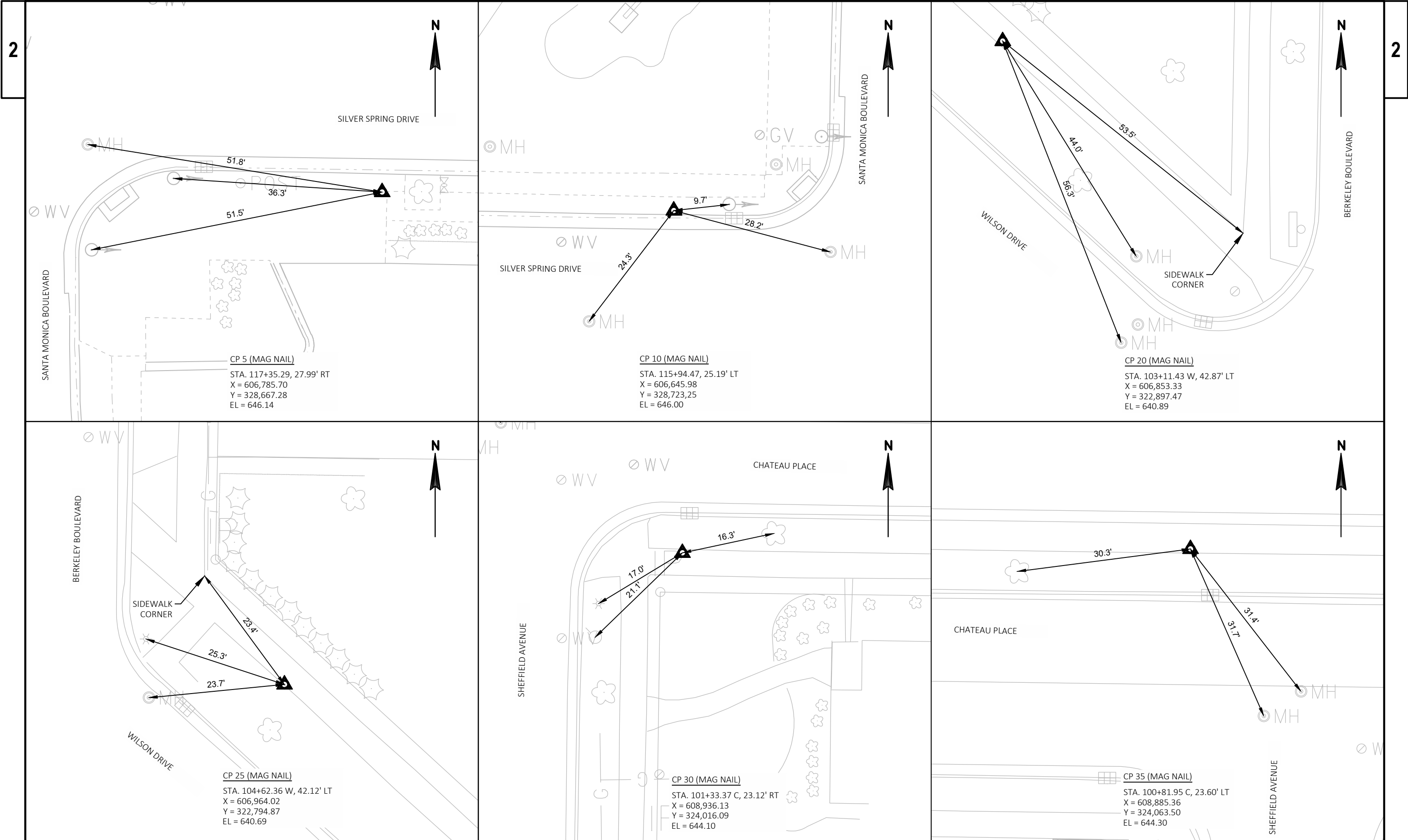
SHEET

54

E







Estimate Of Quantities

2998-06-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0120	Clearing	ID	2.000	2.000
0004	201.0220	Grubbing	ID	2.000	2.000
0006	204.0150	Removing Curb & Gutter	LF	205.000	205.000
0008	204.0155	Removing Concrete Sidewalk	SY	167.000	167.000
0010	204.0195	Removing Concrete Bases	EACH	6.000	6.000
0012	205.0100	Excavation Common	CY	76.000	76.000
0014	213.0100	Finishing Roadway (project) 01. 2998-06-70	EACH	1.000	1.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	125.000	125.000
0018	416.0620	Drilled Dowel Bars	EACH	20.000	20.000
0020	455.0605	Tack Coat	GAL	5.000	5.000
0022	460.5223	HMA Pavement 3 LT 58-28 S	TON	17.000	17.000
0024	460.5224	HMA Pavement 4 LT 58-28 S	TON	8.000	8.000
0026	465.0105	Asphaltic Surface	TON	1.000	1.000
0028	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	98.000	98.000
0030	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	143.000	143.000
0032	601.0600	Concrete Curb Pedestrian	LF	20.000	20.000
0034	602.0410	Concrete Sidewalk 5-Inch	SF	2,145.000	2,145.000
0036	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	120.000	120.000
0038	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	26.000	26.000
0040	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0042	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0044	619.1000	Mobilization	EACH	1.000	1.000
0046	620.0300	Concrete Median Sloped Nose	SF	165.000	165.000
0048	624.0100	Water	MGAL	1.000	1.000
0050	625.0100	Topsoil	SY	155.000	155.000
0052	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0054	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0056	628.2006	Erosion Mat Urban Class I Type A	SY	155.000	155.000
0058	628.7015	Inlet Protection Type C	EACH	15.000	15.000
0060	629.0210	Fertilizer Type B	CWT	0.400	0.400
0062	630.0130	Seeding Mixture No. 30	LB	5.000	5.000
0064	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	2.000	2.000
0066	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	11.000	11.000
0068	637.2210	Signs Type II Reflective H	SF	218.500	218.500
0070	637.2215	Signs Type II Reflective H Folding	SF	20.700	20.700
0072	637.2230	Signs Type II Reflective F	SF	83.500	83.500
0074	638.2102	Moving Signs Type II	EACH	1.000	1.000
0076	638.2602	Removing Signs Type II	EACH	43.000	43.000
0078	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0080	642.5001	Field Office Type B	EACH	1.000	1.000

Estimate Of Quantities

2998-06-70

Line	Item	Item Description	Unit	Total	Qty
0082	643.0300	Traffic Control Drums	DAY	4,912.000	4,912.000
0084	643.0420	Traffic Control Barricades Type III	DAY	1,312.000	1,312.000
0086	643.0715	Traffic Control Warning Lights Type C	DAY	1,338.000	1,338.000
0088	643.0900	Traffic Control Signs	DAY	3,262.000	3,262.000
0090	643.5000	Traffic Control	EACH	1.000	1.000
0092	646.1020	Marking Line Epoxy 4-Inch	LF	5,658.000	5,658.000
0094	646.3020	Marking Line Epoxy 8-Inch	LF	50.000	50.000
0096	646.5020	Marking Arrow Epoxy	EACH	1.000	1.000
0098	646.6020	Marking Stop Line Epoxy 12-Inch	LF	748.000	748.000
0100	646.7120	Marking Diagonal Epoxy 12-Inch	LF	69.000	69.000
0102	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	2,237.000	2,237.000
0104	646.7520	Marking Crosswalk Epoxy Ladder Pattern 24-Inch	LF	2,422.000	2,422.000
0106	646.8120	Marking Curb Epoxy	LF	2,746.000	2,746.000
0108	646.8220	Marking Island Nose Epoxy	EACH	7.000	7.000
0110	646.8320	Marking Parking Stall Epoxy	LF	2,917.000	2,917.000
0112	646.9000	Marking Removal Line 4-Inch	LF	935.000	935.000
0114	646.9100	Marking Removal Line 8-Inch	LF	137.000	137.000
0116	646.9200	Marking Removal Line Wide	LF	3,647.000	3,647.000
0118	646.9300	Marking Removal Special Marking	EACH	4.000	4.000
0120	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	241.000	241.000
0122	650.8500	Construction Staking Electrical Installations (project) 01. 2998-06-70	LS	1.000	1.000
0124	650.9000	Construction Staking Curb Ramps	EACH	9.000	9.000
0126	650.9910	Construction Staking Supplemental Control (project) 01. 2998-06-70	LS	1.000	1.000
0128	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	115.000	115.000
0130	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	340.000	340.000
0132	652.0615	Conduit Special 3-Inch	LF	520.000	520.000
0134	653.0140	Pull Boxes Steel 24x42-Inch	EACH	14.000	14.000
0136	653.0905	Removing Pull Boxes	EACH	6.000	6.000
0138	654.0102	Concrete Bases Type 2	EACH	4.000	4.000
0140	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000
0142	655.0230	Cable Traffic Signal 5-14 AWG	LF	440.000	440.000
0144	655.0240	Cable Traffic Signal 7-14 AWG	LF	80.000	80.000
0146	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,375.000	1,375.000
0148	655.0320	Cable Type UF 2-10 AWG Grounded	LF	555.000	555.000
0150	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	1,160.000	1,160.000
0152	655.0615	Electrical Wire Lighting 10 AWG	LF	940.000	940.000
0154	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. Silver Spring & Santa Monica	LS	1.000	1.000

Estimate Of Quantities

2998-06-70

Line	Item	Item Description	Unit	Total	Qty
0156	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	4.000	4.000
0158	657.0310	Poles Type 3	EACH	4.000	4.000
0160	657.0585	Trombone Arms 15-FT	EACH	2.000	2.000
0162	657.0590	Trombone Arms 20-FT	EACH	2.000	2.000
0164	658.0173	Traffic Signal Face 3S 12-Inch	EACH	10.000	10.000
0166	658.0175	Traffic Signal Face 5S 12-Inch	EACH	2.000	2.000
0168	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000
0170	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000
0172	658.5069	Signal Mounting Hardware (location) 01. Silver Spring & Santa Monica	LS	1.000	1.000
0174	661.0200	Temporary Traffic Signals for Intersections (location) 01. Silver Spring & Santa Monica	LS	1.000	1.000
0176	690.0150	Sawing Asphalt	LF	396.000	396.000
0178	690.0250	Sawing Concrete	LF	139.000	139.000
0180	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	400.000	400.000
0182	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	450.000	450.000
0184	SPV.0060	Special 01. Traffic Signal Cabinet and Controller	EACH	1.000	1.000
0186	SPV.0060	Special 02. Replace Decorative Post Top Luminaire	EACH	39.000	39.000
0188	SPV.0060	Special 03. Replace Decorative Post Top Twin Luminaire	EACH	2.000	2.000
0190	SPV.0060	Special 04. Decrative Luminaire House-Side Shield	EACH	30.000	30.000
0192	SPV.0060	Special 05. Decorative Traffic Signal Pole	EACH	4.000	4.000
0194	SPV.0060	Special 06. Install Existing Conduit and Wire Into New Pull Box	EACH	8.000	8.000
0196	SPV.0060	Special 07. Concrete Bases Type 5 Modified	EACH	4.000	4.000
0198	SPV.0060	Special 08. Dynamic Speed Feedback Sign	EACH	1.000	1.000
0200	SPV.0060	Special 09. TAPCO Swing Bracket	EACH	4.000	4.000
0202	SPV.0090	Special 01. Red Reflective Tape	LF	90.000	90.000
0204	SPV.0105	Special 01. Emergency Vehicle Preemption System, Silver Spring & Santa Monica	LS	1.000	1.000
0206	SPV.0105	Special 02. Temporary Non-Intrusive Vehicle Detection System, Silver Spring & Santa Moni	LS	1.000	1.000
0208	SPV.0105	Special 03. Remove Traffic Signals, Silver Spring & Santa Monica	LS	1.000	1.000
0210	SPV.0105	Special 04. Video Vehicle Detection System, Silver Spring & Santa Monica	LS	1.000	1.000
0212	SPV.0120	Special 01. Water for Seeded Areas	MGAL	5.000	5.000
0214	SPV.0165	Special 01. Salvage and Replace Brick Pavers	SF	649.000	649.000

CLEARING AND GRUBBING ITEMS

CATEGORY	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID
0010	WILSON DR./BERKELEY BLVD.	2	2
	TOTAL	2	2

REMOVING CURB & GUTTER

CATEGORY	LOCATION	204.0150 LF
0010	SILVER SPRING DR./SANTA MONICA BLVD.	44
	CHATEAU PL./SHEFFIELD AVE.	39
	WILSON DR./BERKELEY BLVD.	122
	TOTAL	205

REMOVING CONCRETE SIDEWALK

CATEGORY	LOCATION	204.0155 SY
0010	SILVER SPRING DR./SANTA MONICA BLVD.	57
	CHATEAU PL./SHEFFIELD AVE.	38
	WILSON DR./BERKELEY BLVD.	72
	TOTAL	167

EARTHWORK SUMMARY

CATEGORY	LOCATION	(C) CUT CY	(1) 205.0100 EXCAVATION COMMON CY	(S) SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(2) AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	(3) 120% EXPANDED FILL CY	(4) MASS ORDINATE EXCESS (SHORTAGE) CY	(5) 208.0100 BORROW CY
0010	SILVER SPRING DR./SANTA MONICA BLVD.	14	14	2	12	---	---	12	--
	CHATEAU PL./SHEFFIELD AVE.	10	10	1	9	---	---	9	--
	WILSON DR./BERKELEY BLVD.	53	53	10	43	---	---	43	--
	GRAND TOTAL	76	76	13	63	---	---	63	---
	TOTAL (PAY ITEMS)		76						

NOTES

- 1) EXCAVATION COMMON IS THE SUM OF THE CUT (C).
- 2) AVAILABLE MATERIAL = CUT (C) - (S).
- 3) EXPANDED FILL = (UNEXPANDED FILL * 120% FILL FACTOR).
- 4) MASS ORDINATE =AVAILABLE MATERIAL (2) - EXPANDED FILL (3) = BORROW OR WASTE
- 5) BORROW = MASS ORDINATE (SHORTAGE)

FINISHING ROADWAY

CATEGORY	PROJECT	213.0100 2998-06-70 EACH
0010	2998-06-70	1
	TOTAL	1

BASE AGGREGATE DENSE

CATEGORY	LOCATION	305.0120 1 1/4-INCH TON
0010	SILVER SPRING DR./SANTA MONICA BLVD.	20
	CHATEAU PL./SHEFFIELD AVE.	20
	WILSON DR./BERKELEY BLVD.	85
	TOTALS	125

3

3

PAVEMENT BARS		
CATEGORY	STATION - STATION	416.0620 DRILLED DOWEL BARS EACH
0010	SILVER SRPING DR./SANTA MONICA BLVD.	8
	CHATEAU PL./SHEFFIELD AVE.	2
	WILSON DR./BERKELEY BLVD.	10
	TOTALS	20

HMA PAVEMENT				
CATEGORY	LOCATION	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	455.0605 TACK COAT GAL
0010	SILVER SPRING DR./SANTA MONICA BLVD.	4	2	2
	CHATEAU PL./SHEFFIELD AVE.	2	1	1
	WILSON DR./BERKELEY BLVD.	10	5	2
	TOTALS	17	8	5

ASPHALTIC SURFACE		
CATEGORY	LOCATION	465.0105 TON
0010	WILSON DR./BERKELEY BLVD.	1
	TOTALS	1

CONCRETE CURB & GUTTER ITEMS					
CATEGORY	LOCATION	601.0407 18-INCH TYPE D LF	601.0411 30-INCH TYPE D LF	601.0600 CONCRETE CURB PEDESTRIAN LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
0010	SILVER SPRING DR./SANTA MONICA BLVD.	44	---	---	44
	CHATEAU PL./SHEFFIELD AVE.	18	21	20	39
	WILSON DR./BERKELEY BLVD.	36	122	---	158
	TOTALS	98	143	20	241

SIDEWALK ITEMS						
		602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	SPV.0165.01 SALVAGE AND REPLACE BRICK PAVERS SF
CATEGORY	LOCATION	SF	SF	SF	EACH	SF
0010	SILVER SPRING DR./SANTA MONICA BLVD	495	---	---	---	649
	CHATEAU PL./SHEFFIELD AVE.	403	30	---	3	---
	WILSON DR./BERKELEY BLVD.	1,247	90	26	6	---
	TOTALS	2,145	120	26	9	649

ADJUSTING COVERS			
CATEGORY	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH
0010	WILSON DR./BERKELEY BLVD.	1	1
	TOTAL	1	1

MOBILIZATION		
CATEGORY	PROJECT	619.1000 EACH
0010	2998-06-70	1
	TOTAL	1

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STATION	620.0300 SF
0010	SILVER SPRING DR./SANTA MONICA BLVD.	51
	WILSON DR./BERKELEY BLVD.	114
	TOTAL	165

WATER

CATEGORY	LOCATION	LOCATION	624.0100 MGAL
0010	2998-06-70	LT/RT	1
		TOTAL	1

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	628.1905 EACH
0010	2998-06-70	3
	TOTAL	3

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	LOCATION	628.1910 EACH
0010	2998-06-70	3
	TOTAL	3

INLET PROTECTION SUMMARY

CATEGORY	LOCATION	628.7015 INLET PROTECTION TYPE C EACH
0010	SILVER SPRING DR./SANTA MONICA BLVD.	6
	CHATEAU PL./SHEFFIELD AVE.	4
	WILSON DR./BERKELEY BLVD.	5
	TOTALS	15

FINISHING ITEMS

CATEGORY	STATION - STATION	625.0100 TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	SPV.0120.01 WATER FOR SEEDED AREAS MGAL
0010	SILVER SPRING DR./SANTA MONICA BLVD.	19	19	0.1	1	1
	CHATEAU PL./SHEFFIELD AVE.	39	39	0.1	1	1
	WILSON DR./BERKELEY BLVD.	83	83	0.1	2	2
	SUBTOTAL	141	141	0.3	4	4
	UNDISTRIBUTED	14	14	0.1	1	1
	TOTALS	155	155	0.4	5	5

PERMANENT SIGNING SUMMARY

CATEGORY	APPROX. STA.	LOC.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210 SIGNS TYPE II REFLECTIVE H		637.2230 SIGNS TYPE II REFLECTIVE F		634.0808 634.0814 POSTS TUBULAR STEEL 2x2-INCH		REMARKS
						SF	FOLDING	SF	SF	x 8-FT EACH	x 14-FT EACH	
0010	LOCATION 1	NE	RT	R10-15R	TURNING VEHICLES YIELD TO PEDESTRIANS	30 x 30	6.3	---	---	---	---	MOUNT ON WESTBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	NE	RT	R1-1F	FOLDING STOP	30 x 30	---	5.2	---	---	---	MOUNT ON WESTBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	SE	RT	R1-1F	FOLDING STOP	30 x 30	---	5.2	---	---	---	MOUNT ON NORTHBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	SE	RT	R10-15R	TURNING VEHICLES YIELD TO PEDESTRIANS	30 x 30	6.3	---	---	---	---	MOUNT ON NORTHBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	SW	RT	R10-15R	TURNING VEHICLES YIELD TO PEDESTRIANS	30 x 30	6.3	---	---	---	---	MOUNT ON EASTBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	SW	RT	R1-1F	FOLDING STOP	30 x 30	---	5.2	---	---	---	MOUNT ON EASTBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	NW	RT	R10-15R	TURNING VEHICLES YIELD TO PEDESTRIANS	30 x 30	6.3	---	---	---	---	MOUNT ON SOUTHBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 1	NW	RT	R1-1F	FOLDING STOP	30 x 30	---	5.2	---	---	---	MOUNT ON SOUTHBOUND NEAR-RIGHT SIGNAL POLE
	LOCATION 2	NW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 2	NW	RT	R5-1	DO NOT ENTER	30 x 30	6.3	---	---	---	1	
	LOCATION 3	120+49	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 4	123+09	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 4	123+09	RT	W4-4P (MOD.)	WATCH FOR BICYCLES	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW STOP SIGN
	LOCATION 4	123+63	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 4	123+63	RT	W4-4P (MOD.)	WATCH FOR BICYCLES	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW STOP SIGN
	LOCATION 5	126+81	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 5	127+50	LT	SPV.0060.08	DYNAMIC SPEED FEEDBACK SIGN	--- x ---	---	---	---	---	---	MOUNT ON EXISTING LIGHT POLE
	LOCATION 6	NE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 6	NE	RT	R6-3	DIVIDED HIGHWAY	30 x 24	5.0	---	---	---	---	MOUNT UNDER NEW NE STOP SIGN
	LOCATION 6	SW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 6	SW	RT	R6-3	DIVIDED HIGHWAY	30 x 24	5.0	---	---	---	---	MOUNT UNDER NEW SW STOP SIGN
	LOCATION 7	NE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST
	LOCATION 7	NE	RT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW NE STOP SIGN
	LOCATION 7	SE	LT	R1-1	STOP	30 x 30	5.2	---	---	---	1	
	LOCATION 7	SE	LT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW SE STOP SIGN
	LOCATION 7	SW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING STOP SIGN
	LOCATION 7	SW	RT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW SW STOP SIGN
	LOCATION 7	SW	MEDIAN	R1-1	STOP	30 x 30	5.2	---	---	---	1	
	LOCATION 7	SW	MEDIAN	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW SW MEDIAN STOP SIGN
	LOCATION 7	NW	MEDIAN	R4-7	DIVIDED HIGHWAY	24 x 30	5.0	---	---	---	1	
	LOCATION 8	NE	LT	R1-1	STOP	30 x 30	5.2	---	---	---	1	
	LOCATION 8	NE	LT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW NE STOP SIGN
LOCATION 8	SE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST	
LOCATION 8	SE	RT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW SE STOP SIGN	
LOCATION 8	SW	LT	R1-1	STOP	30 x 30	5.2	---	---	---	1		
LOCATION 8	SW	LT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW SW STOP SIGN	
LOCATION 8	NW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	MOUNT ON EXISTING POST	
LOCATION 8	NW	RT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	2.0	---	---	MOUNT UNDER NEW NW STOP SIGN	

CONTINUED ON NEXT PAGE

PERMANENT SIGNING SUMMARY (CONTINUED)

						637.2210		637.2215		637.2230		634.0808		634.0814		
						SIGN SIZE (W x H)		SIGN TYPE II REFLECTIVE H		SIGN TYPE II REFLECTIVE H		SIGN TYPE II REFLECTIVE F		POSTS TUBULAR STEEL 2x2-INCH		
		APPROX.		SIGN												
CATEGORY		STA.	LOC.	CODE	SIGN MESSAGE	IN	SF	SF	SF	SF	SF	x 8-FT EACH	x 14-FT EACH	REMARKS		
	LOCATION 9	NE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 9	NE	RT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER NEW NE STOP SIGN		
	LOCATION 9	SE	LT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	1			
	LOCATION 9	SE	LT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER NEW SE STOP SIGN		
	LOCATION 9	SW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 9	SW	RT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER NEW SW STOP SIGN		
	LOCATION 9	NW	LT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	1			
	LOCATION 9	NW	LT	W4-4P	CROSS TRAFFC DOES NOT STOP	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER NEW NW STOP SIGN		
	LOCATION 10	SE	RT	R1-2	YIELD	36 x 31	3.9	---	---	---	---	---	---	MOUNT ON EXISTING LIGHT POLE		
	LOCATION 11	SE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 11	NW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 11	W	MEDIAN	R4-7	DIVIDED HIGHWAY	24 x 30	5.0	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 11	E	MEDIAN	R4-7	DIVIDED HIGHWAY	24 x 30	5.0	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 12	NE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 12	NE	RT	R1-3P	ALL WAY	18 x 6	0.8	---	---	---	---	---	---	MOUNT UNDER NEW NE STOP SIGN		
	LOCATION 12	NE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT BEHIND NEW NE STOP SIGN		
	LOCATION 12	SE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 12	SE	RT	R1-3P	ALL WAY	18 x 6	0.8	---	---	---	---	---	---	MOUNT UNDER NEW SE STOP SIGN		
	LOCATION 12	SE	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT BEHIND NEW SE STOP SIGN		
	LOCATION 12	SW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 12	SW	RT	R1-3P	ALL WAY	18 x 6	0.8	---	---	---	---	---	---	MOUNT UNDER NEW SW STOP SIGN		
	LOCATION 12	SW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT BEHIND NEW SW STOP SIGN		
	LOCATION 12	NW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 12	NW	RT	R1-3P	ALL WAY	18 x 6	0.8	---	---	---	---	---	---	MOUNT UNDER NEW NW STOP SIGN		
	LOCATION 12	NW	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT BEHIND NEW NW STOP SIGN		
	LOCATION 13	102+50 W	RT	W11-15	PEDESTRIAN CROSSING	30 x 30	---	---	---	6.3	---	---	1			
	LOCATION 13	102+50 W	RT	W16-9P	AHEAD	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER W11-15		
	LOCATION 13	104+67 W	RT	W11-15	PEDESTRIAN CROSSING	30 x 30	---	---	---	6.3	---	---	---	MOUNT ON EXISTING POST		
	LOCATION 13	104+67 W	RT	W16-7L	ARROW	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER W11-15		
	LOCATION 13	104+67 W	RT	W11-15	PEDESTRIAN CROSSING	30 x 30	---	---	---	6.3	---	---	---	MOUNT BEHIND W11-15		
	LOCATION 13	104+67 W	RT	W16-7R	ARROW	24 x 12	---	---	---	2.0	---	---	---	MOUNT BEHIND W16-7L		
	LOCATION 13	104+67 W	MEDIAN	R1-6	PEDESTRIAN CROSSWALK	12 x 36	---	---	---	3.0	---	1	---	MOUNT BEHIND W11-15		
	LOCATION 13	104+86 W	MEDIAN	R1-6	PEDESTRIAN CROSSWALK	12 x 36	---	---	---	3.0	---	1	---	MOUNT BEHIND W16-7R		
	LOCATION 13	104+86 W	LT	W11-15	PEDESTRIAN CROSSING	30 x 30	---	---	---	6.3	---	---	1			
	LOCATION 13	104+86 W	LT	W16-7R	ARROW	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER W11-15		
	LOCATION 13	104+86 W	LT	W11-15	PEDESTRIAN CROSSING	30 x 30	---	---	---	6.3	---	---	---	MOUNT BEHIND W11-15		
	LOCATION 13	104+86 W	LT	W16-7L	ARROW	24 x 12	---	---	---	2.0	---	---	---	MOUNT BEHIND W16-7R		
	LOCATION 13	106+86 W	LT	W11-15	PEDESTRIAN CROSSING	30 x 30	---	---	---	6.3	---	---	1			
	LOCATION 13	106+86 W	LT	W16-9P	AHEAD	24 x 12	---	---	---	2.0	---	---	---	MOUNT UNDER W11-15		
	LOCATION 13	10+86 B	RT	R1-1	STOP	30 x 30	5.2	---	---	---	---	---	---	MOUNT ON EXISTING POST		
TOTALS								218.5		20.7		83.5		2		11

EXISTING SIGNS

CATEGORY	LOCATION	638.2102	638.2602	638.4000
		MOVING SIGNS	REMOVING SIGNS	MOVING SMALL
		TYPE II	TYPE II	SIGN SUPPORTS
		EACH	EACH	EACH
0010	SILVER SPRING DR. (103+00-117+00)	1	9	0
	SILVER SPRING DR. (117+00-130+00)	0	5	0
	HENRY CLAY ST./MARLBOROUGH DR.	0	2	0
	BIRCH AVE./SANTA MONICA BLVD.	0	4	0
	CUMBERLAND AVE./OAKLAND AVE.	0	3	1
	HAMPTON AVE./WOODRUFF AVE.	0	2	0
	MONTCLAIRE AVE./SANTA MONICA BLVD.	0	2	0
	CHATEAU PL./SHEFFIELD AVE.	0	1	0
	LEXINGTON BLVD./KIMBARK PL.	0	4	0
	CHATEAU PL./MARLBOROUGH DR.	0	8	0
	WILSON DR./BERKELEY BLVD.	0	3	0
	TOTALS	1	43	1

TRAFFIC CONTROL AND DETOUR ITEMS

CATEGORY	STATION	643.0300	643.0420	643.0715	643.0900
		TRAFFIC	TRAFFIC	TRAFFIC CONTROL	TRAFFIC
		CONTROL	CONTROL	WARNING	CONTROL
		DRUMS	BARRICADES	LIGHTS	SIGNS
		DAY	TYPE III	TYPE C	DAY
		DAY	DAY	DAY	DAY
0010	SILVER SPRING DR./SANTA MONICA BLVD.				
	STAGE 1	924	252	224	728
	STAGE 2	420	112	---	168
	SUBTOTAL	1,344	364	224	896
	CHATEAU PL./SHEFFIELD AVE.				
	STAGE 1	110	50	50	100
	STAGE 2	144	84	60	156
	SUBTOTAL	254	134	110	256
	WILSON DR./BERKELEY BLVD.				
	STAGE 1 (AREA 1)	96	32	32	104
	STAGE 1 (AREAS 2 & 3)	336	72	120	228
	STAGE 2	552	48	216	144
	SUBTOTAL	432	104	152	332
	UNDISTRIBUTED	300	60	150	150
	TOTAL	4,912	1,312	1,338	3,262

FIELD OFFICE TYPE B

CATEGORY	PROJECT	642.5001
		EACH
0010	2998-06-70	1
	TOTAL	1

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000
		EACH
0010	2998-06-70	1
	TOTAL	1

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	646.1020		646.3020		646.5020		646.6020		646.7120	646.7420	646.7520	646.8120	646.8220	646.8320
		MARKING LINE EPOXY 4-INCH		MARKING LINE EPOXY		MARKING		MARKING STOP		MARKING	MARKING	MARKING CROSSWALK	MARKING CURB	MARKING	MARKING
		(WHITE)	(DOUBLE YELLOW)	8-INCH	ARROW EPOXY	12-INCH	12-INCH	12-INCH	12-INCH	DIAGONAL	CROSSWALK	EPOXY LADDER	EPOXY	ISLAND NOSE	PARKING STALL
		LF	LF	LF	EACH	LF	LF	LF	LF	LF	LF	LF	LF	EACH	LF
0010	SILVER SPRING DR. (103+00-117+00)	---	2,117	---	---	223	---	---	---	---	---	924	1,199	2	1,571
	SILVER SPRING DR. (117+00-130+00)	85	2,316	50	1	191	---	---	---	---	---	1,008	1,547	3	1,346
	HENRY CLAY ST./MARLBOROUGH DR.	---	---	---	---	100	---	---	---	---	---	288	---	---	---
	BIRCH AVE./SANTA MONICA BLVD.	---	---	---	---	31	---	---	---	398	---	---	---	---	---
	CUMBERLAND AVE./OAKLAND AVE.	---	---	---	---	29	---	---	---	121	---	102	---	---	---
	HAMPTON AVE./WOODRUFF AVE.	---	---	---	---	29	---	---	---	360	---	---	---	---	---
	MONTCLAIRE AVE./SANTA MONICA BLVD.	---	---	---	---	29	---	---	---	387	---	---	---	---	---
	CHATEAU PL./SHEFFIELD AVE.	---	---	---	---	---	---	---	---	121	---	---	---	---	---
	LEXINGTON BLVD./KIMBARK PL.	---	---	---	---	23	---	---	---	460	---	---	---	---	---
	CHATEAU PL./MARLBOROUGH DR.	---	---	---	---	72	---	---	---	300	---	---	---	---	---
	WILSON DR./BERKELEY BLVD.	---	1,140	---	---	21	69	---	---	91	---	100	---	2	---
	TOTALS	85	5,573	50	1	748	69	---	---	2,237	---	2,422	2,746	7	2,917
	ITEM TOTALS	5,658													

REMOVING PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	646.9000		646.9100		646.9200		646.9300	
		MARKING		MARKING		MARKING		MARKING	
		REMOVAL	REMOVAL	REMOVAL	REMOVAL	REMOVAL	REMOVAL	REMOVAL	REMOVAL
		LINE 4-INCH	LINE 8-INCH	LINE 8-INCH	LINE 8-INCH	LINE WIDE	LINE WIDE	SPECIAL	MARKING
		LF	LF	LF	LF	LF	LF	LF	EACH
0010	SILVER SPRING DR. (103+00-117+00)	---	---	---	---	2,345	---	---	---
	SILVER SPRING DR. (117+00-130+00)	396	---	---	---	1,288	---	---	---
	HENRY CLAY ST./MARLBOROUGH DR.	410	---	---	---	---	---	---	---
	BIRCH AVE./SANTA MONICA BLVD.	---	---	---	---	---	---	---	---
	CUMBERLAND AVE./OAKLAND AVE.	---	121	---	---	---	---	---	---
	HAMPTON AVE./WOODRUFF AVE.	---	---	---	---	---	---	---	---
	MONTCLAIRE AVE./SANTA MONICA BLVD.	---	---	---	---	---	---	---	---
	CHATEAU PL./SHEFFIELD AVE.	---	---	---	---	---	---	---	---
	LEXINGTON BLVD./KIMBARK PL.	---	---	---	---	---	---	---	---
	CHATEAU PL./MARLBOROUGH DR.	---	16	---	---	---	---	---	---
	WILSON DR./BERKELEY BLVD.	129	---	---	---	14	---	4	---
	UNDISTRIBUTED	---	---	---	---	---	---	---	---
	TOTALS	935	137	---	---	3,647	---	4	---

CONSTRUCTION STAKING

CATEGORY	PROJECT	650.8500		650.9910	
		ELECTRICAL INSTALLATIONS		SUPPLEMENTAL CONTROL	
		LS	LS	LS	LS
0010	2998-06-70	1	---	1	---
	TOTALS	1	---	1	---

SAWING EXISTING PAVEMENT

CATEGORY	LOCATION	690.0150		690.0250	
		SAWING ASPHALT		SAWING CONCRETE	
		LF	LF	LF	LF
0010	SILVER SPRING DR./SANTA MONICA BLVD.	101	---	79	---
	CHATEAU PL./SHEFFIELD AVE.	53	---	27	---
	WILSON DR./BERKELEY BLVD.	242	---	33	---
	TOTALS	396	---	139	---

DECORATIVE LIGHTING ITEMS

CATEGORY	POLE NUMBER	LOCATION	SPV.0060.02	SPV.0060.03
			REPLACE DECORATIVE POST TOP	
			LUMINAIRE EACH	TWIN LUMINAIRE EACH
0010	1-1	LT		1
	1-2	RT	1	
	1-3	RT	1	
	1-4	LT	1	
	1-5	RT	1	
	1-6	LT	1	
	1-7	RT	1	
	1-8	LT	1	
	1-9	RT	1	
	1-10	LT	1	
	1-11	RT	1	
	1-12	LT	1	
	1-13	RT	1	
	2-1	LT	1	
	2-2	RT	1	
	2-3	LT	1	
	2-4	RT	1	
	2-5	LT	1	
	2-6	RT	1	
	2-7	LT	1	
	2-8	RT	1	
	2-9	RT	1	
	2-10	LT	1	
	2-11	RT	1	
	2-12	LT	1	
	2-13	RT	1	
	2-14	LT	1	
	2-15	LT	1	
	2-16	LT	1	
	2-17	RT	1	
	2-18	LT	1	
	2-19	RT	1	
	2-20	LT		1
	2-21	RT	1	
	3-1	LT	1	
	3-2	RT	1	
	3-3	LT	1	
	3-4	RT	1	
	3-5	LT	1	
	3-6	RT	1	
	3-7	LT	1	
TOTALS			39	2

LIGHTING PULL BOXES

CATEGORY	PULL BOX NUMBER	LOCATION**	653.0140*
			PULL BOXES STEEL 24x42-INCH EACH
0010	LPB-1	SILVER SPRING DRIVE/SANTA MONICA BLVD - NW CORNER	1
	LPB-2	SILVER SPRING DRIVE/SANTA MONICA BLVD - SW CORNER	1
	LPB-3	SILVER SPRING DRIVE/SANTA MONICA BLVD - NE CORNER	1
	LPB-4	SILVER SPRING DRIVE/SANTA MONICA BLVD - SE CORNER	1
	TOTALS		4

*ADDITIONAL QUANTITIES LISTED ELSEWHERE
**FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

DECORATIVE LUMINAIRE HOUSE-SIDE SHIELD

CATEGORY	LOCATION	SPV.0060.04 EACH	REMARKS
0010	UNDISTRIBUTED	30	LOCATION TO BE SELECTED BY THE VILLAGE
TOTAL		30	

INSTALL EXISTING CONDUIT AND WIRE INTO NEW PULL BOX

CATEGORY	INTERSECTION	LOCATION	SPV.0060.06 EACH	REMARKS
0010	SILVER SPRING/SANTA MONICA	NE QUADRANT	2	AT THE LOCATION OF REMOVED SIGNAL/LIGHT POLE
	SILVER SPRING/SANTA MONICA	NW QUADRANT	2	AT THE LOCATION OF REMOVED SIGNAL/LIGHT POLE
	SILVER SPRING/SANTA MONICA	SE QUADRANT	2	AT THE LOCATION OF REMOVED SIGNAL/LIGHT POLE
	SILVER SPRING/SANTA MONICA	SW QUADRANT	2	AT THE LOCATION OF REMOVED SIGNAL/LIGHT POLE
	TOTAL		8	

DYNAMIC SPEED FEEDBACK SIGN

CATEGORY	STATION	LOCATION	SPV.0060.08 EACH	REMARKS
0010	127+50	LT	1	AT THE LOCATION OF EXISTING SIGN
TOTAL			1	

RED REFLECTIVE TAPE

CATEGORY	INTERSECTION	LOCATION	SPV.0090.01 LF
0010	SILVER SPRING DR. (103+00-117+00)		---
	SILVER SPRING DR. (117+00-130+00)		---
	HENRY CLAY ST./MARLBOROUGH DR.		---
	BIRCH AVE./SANTA MONICA BLVD.	NE, SW QUADRANTS	8
	CUMBERLAND AVE./OAKLAND AVE.	NE, SE, SW QUADRANTS	16
	HAMPTON AVE./WOODRUFF AVE.	NE, NW, SE. SW QUADRANTS	16
	MONTCLAIRE AVE./SANTA MONICA BLVD.	NE, NW, SE. SW QUADRANTS	16
	CHATEAU PL./SHEFFIELD AVE.		---
	LEXINGTON BLVD./KIMBARK PL.		---
	CHATEAU PL./MARLBOROUGH DR.	NE, NW, SE. SW QUADRANTS	34
	WILSON DR./BERKELEY BLVD.		---
	TOTALS		90

3

REMOVING CONCRETE BASES	
204.0195	
REMOVING CONCRETE	
SIGNAL BASE NO.	BASES EACH
CB1	1
SB2	1
SB4	1
SB5	1
SB6	1
SB9	1
TOTAL	6

PULL BOXES			
653.0140*			
PULL BOXES			
STEEL			
PULL BOX NO.	LOCATION STA OFFSET		24x42-INCH EACH
PB1	14+90.6M	34.7' LT	1
PB2	116+02.5	26.5' RT	1
PB3	116+00.7	26.3' LT	1
PB4	15+86.0M	33.1' LT	1
PB5	16+03.4M	05.9' RT	1
PB6	16+04.0M	34.2' RT	1
PB7	117+00.7	25.9' LT	1
PB8	117+01.8	26.4' RT	1
PB9	14+93.3M	33.9' RT	1
PB10	14+86.2M	06.9' LT	1
TOTAL			10

* QUANTITY SHOWN ELSEWHERE ON PLAN

SILVER SPRING DRIVE & SANTA MONICA BLVD.

3

CONDUIT				
		652.0225	652.0235	652.0615
		CONDUIT RIGID	CONDUIT RIGID	CONDUIT
		NONMETALLIC	NONMETALLIC	SPECIAL
		SCHEDULE 40	SCHEDULE 40	3-INCH
		2-INCH	3-INCH	
FROM	TO	L.F.	L.F.	L.F.
CB1	PB1	--	60	--
PB1	SB1	20	--	--
PB1	PB2	--	70	--
PB2	SB2	10	--	--
PB2	PB3	--	--	110
PB3	SB3	10	--	--
PB3	PB4	--	60	--
PB4	SB4	15	--	--
PB4	PB5	--	--	90
PB5	PB6	--	--	60
PB6	SB5	30	--	--
PB6	PB7	--	90	--
PB7	SB6	10	--	--
PB7	PB8	--	--	110
PB8	SB7	10	--	--
PB8	PB9	--	60	--
PB9	SB8	10	--	--
PB9	PB10	--	--	90
PB10	PB1	--	--	60
TOTAL		115	340	520

REMOVE PULL BOXES	
653.0905	
REMOVING	
PULL BOX NO.	PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
TOTAL	6

3

CONCRETE BASES					
SIGNAL BASE NO.	LOCATION STA OFFSET		654.0102	654.0217	SPV.0060.07
			CONCRETE	CONCRETE CONTROL	CONCRETE
			BASES	CABINET BASES	BASES TYPE 5
			TYPE 2	TYPE 9 SPECIAL	MODIFIED
			EACH	EACH	EACH
CB1	14+82.7M	34.4' LT	--	1	--
SB1	15+07.1M	35.9' LT	1	--	--
SB2	116+09.1	27.0' RT	--	--	1
SB3	116+10.4	27.1' LT	1	--	--
SB4	15+75.4M	33.7' LT	--	--	1
SB5	15+76.1M	33.8' RT	1	--	--
SB6	116+92.3	27.6' LT	--	--	1
SB7	116+95.5	28.2' RT	1	--	--
SB8	15+05.2M	35.0' RT	--	--	1
TOTAL			4	1	4

TRAFFIC SIGNAL CABLE AND WIRE		
655.0260		
CABLE		
TRAFFIC SIGNAL		
12-14 AWG		
FROM	TO	L.F.
CB1	SB1	80
CB1	SB2	105
CB1	SB3	160
CB1	SB4	195
CB1	SB5	285
CB1	SB6	230
CB1	SB7	175
CB1	SB8	145
TOTAL		1375

SILVER SPRING DRIVE & SANTA MONICA BLVD.

3

TRAFFIC SIGNAL CABLE AND WIRE			
		655.0230	655.0240
		CABLE	CABLE
		TRAFFIC SIGNAL	TRAFFIC SIGNAL
		5-14 AWG	7-14 AWG
FROM	TO	L.F.	L.F.
SB1	HEAD 12	45	--
SB1	HEAD 13	20	--
SB2	HEAD 1	20	--
SB2	HEAD 5	20	--
SB2	HEAD 20	20	--
SB3	HEAD 6	45	--
SB3	HEAD 15	20	--
SB4	HEAD 8	20	--
SB4	HEAD 10	20	--
SB4	HEAD 14	20	--
SB5	HEAD 9	50	--
SB5	HEAD 17	20	--
SB6	HEAD 2	--	25
SB6	HEAD 4	20	--
SB6	HEAD 16	20	--
SB7	HEAD 3	--	55
SB7	HEAD 19	20	--
SB8	HEAD 7	20	--
SB8	HEAD 11	20	--
SB8	HEAD 18	20	--
TOTAL		440	80

TRAFFIC SIGNAL CABLE AND WIRE		
		655.0515
		ELECTRICAL
		WIRE TRAFFIC
		SIGNALS
		10 AWG
FROM	TO	L.F.
CB1	SB1	50
SB1	SB2	80
SB2	SB3	90
SB3	SB4	70
SB4	SB5	135
SB5	SB6	100
SB6	SB7	90
SB7	SB8	65
SB8	CB1	115
CB1	PB1	30
SB2	PB2	25
SB3	PB3	25
SB4	PB4	30
SB4	PB5	75
SB5	PB6	45
SB6	PB7	25
SB7	PB8	25
SB8	PB9	25
CB1	PB10	60
TOTAL		1160

SILVER SPRING DRIVE & SANTA MONICA BLVD.

TRAFFIC SIGNAL CABLE AND WIRE			
		655.0320	655.0615
		CABLE TYPE UF	ELECTRICAL
		2-10 AWG	WIRE
		GROUNDED	LIGHTING
			10 AWG
FROM	TO	L.F.	L.F.
CB1	SB2	105	--
SB2	LUMIN	--	235
SB2	SB4	155	--
SB4	LUMIN	--	235
CB1	SB8	145	--
SB8	LUMIN	--	235
SB8	SB6	150	--
SB6	LUMIN	--	235
TOTAL		555	940

SILVER SPRING DRIVE & SANTA MONICA BLVD.

ELECTRICAL SERVICE METER BREAKER PEDESTAL	
	656.0200.01
ELECTRICAL SERVICE METER BREAKER PEDESTAL	
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

POLES						
	657.0255	657.0310	657.0585	657.0590	658.0500	SPV.0060.05
	TRANSFORMER					
	BASES BREAKAWAY		TROMBONE	TROMBONE	PEDESTRIAN	DECORATIVE
	11 1/2-INCH	POLES	ARMS	ARMS	PUSH	TRAFFIC
SIGNAL	BOLT CIRCLE	TYPE 3	15-FT	20-FT	BUTTONS	SIGNAL POLE
BASE NO.	EACH	EACH	EACH	EACH	EACH	EACH
SB1	1	1	1	--	1	--
SB2	--	--	--	--	1	1
SB3	1	1	1	--	1	--
SB4	--	--	--	--	1	1
SB5	1	1	--	1	1	--
SB6	--	--	--	--	1	1
SB7	1	1	--	1	1	--
SB8	--	--	--	--	1	1
TOTAL	4	4	2	2	8	4

FACES				
		658.0173	658.0175	658.0416
		TRAFFIC	TRAFFIC	PEDESTRIAN
		SIGNAL FACE	SIGNAL FACE	SIGNAL FACE
SIGNAL	SIGNAL	3S 12-INCH	5S 12-INCH	16-INCH
BASE NO.	HEAD NO.	EACH	EACH	EACH
SB2	HEAD 1	1	--	--
SB6	HEAD 2	--	1	--
SB7	HEAD 3	--	1	--
SB6	HEAD 4	1	--	--
SB2	HEAD 5	1	--	--
SB3	HEAD 6	1	--	--
SB8	HEAD 7	1	--	--
SB4	HEAD 8	1	--	--
SB5	HEAD 9	1	--	--
SB4	HEAD 10	1	--	--
SB8	HEAD 11	1	--	--
SB1	HEAD 12	1	--	--
SB1	HEAD 13	--	--	1
SB4	HEAD 14	--	--	1
SB3	HEAD 15	--	--	1
SB6	HEAD 16	--	--	1
SB5	HEAD 17	--	--	1
SB8	HEAD 18	--	--	1
SB7	HEAD 19	--	--	1
SB2	HEAD 20	--	--	1
TOTAL		10	2	8

SILVER SPRING DRIVE & SANTA MONICA BLVD.

TRAFFIC SIGNAL MOUNTING HARDWARE	
	658.5069.01
	SIGNAL
	MOUNTING
	HARDWARE
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS	
	661.0200.01
	TEMPORARY TRAFFIC
	SIGNALS FOR INTERSECTIONS
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

3

TRAFFIC SIGNAL CABINET	
SPV.0060.01	
TRAFFIC SIGNAL CABINET AND CONTROLLER	
LOCATION	EACH
SILVER SPRING & SANTA MONICA	1
TOTAL	1

SILVER SPRING DRIVE & SANTA MONICA BLVD.

TAPCO SWING BRACKET	
SPV.0060.09	
TAPCO SWING BRACKET	
LOCATION	EACH
EASTBOUND SILVER SPRING DRIVE	1
WESTBOUND SILVER SPRING DRIVE	1
NORTHBOUND SANTA MONICA BOULEVARD	1
SOUTHBOUND SILVER SPRING DRIVE	1
TOTAL	4

3

EMERGENCY VEHICLE PREEMPTION	
SPV.0105.01	
EMERGENCY VEHICLE PREEMPTION SYSTEM	
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

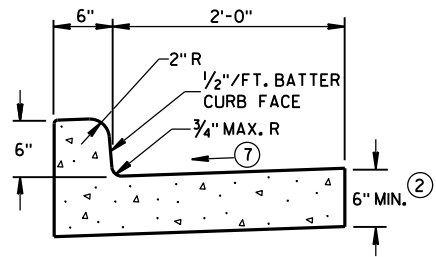
TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM	
SPV.0105.02	
TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM	
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

REMOVE TRAFFIC SIGNALS	
SPV.0105.03	
REMOVE TRAFFIC SIGNALS	
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

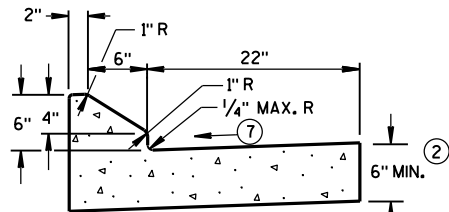
VIDEO DETECTION SYSTEM	
SPV.0105.04	
VIDEO VEHICLE DETECTION SYSTEM	
LOCATION	L.S.
SILVER SPRING & SANTA MONICA	1
TOTAL	1

Standard Detail Drawing List

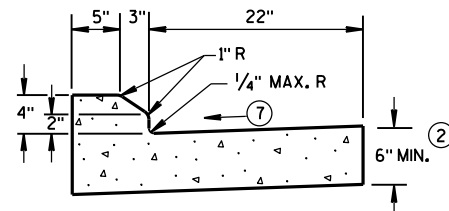
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-10	CONDUIT
09B04-11	PULL BOX
09C02-08	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C18-04	MEDIAN ISLAND MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-04A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-04B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-04C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



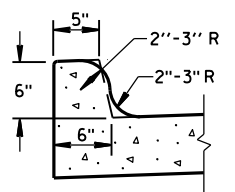
TYPES A^① & D



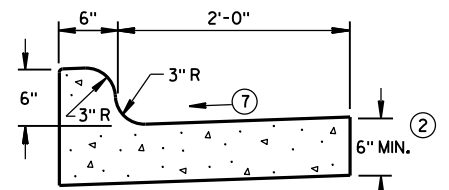
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

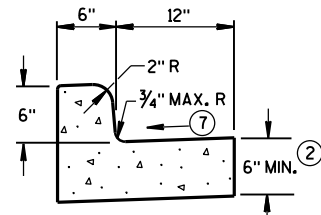


TYPES K^① & L
(OPTIONAL CURB SHAPE)



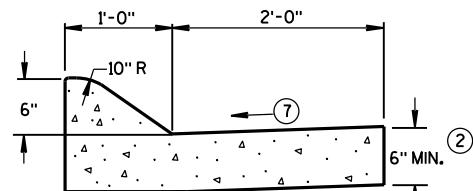
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

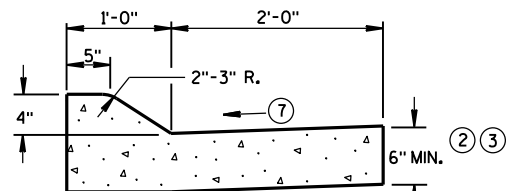


TYPES A^① & D

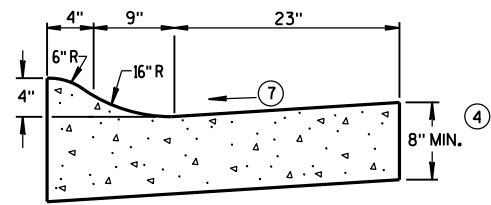
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

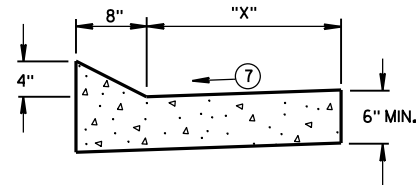


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

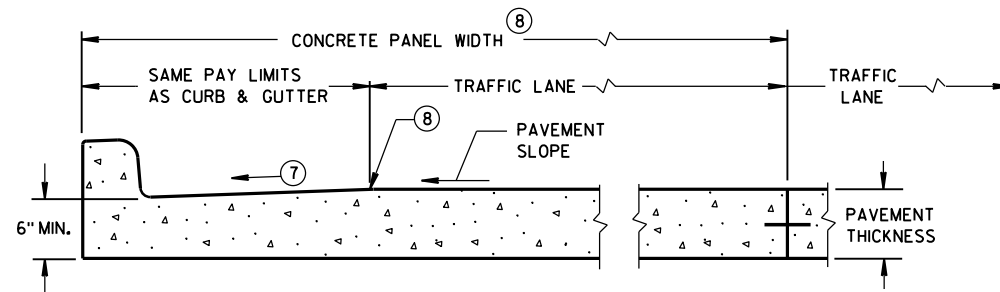
CONCRETE CURB & GUTTER 36"



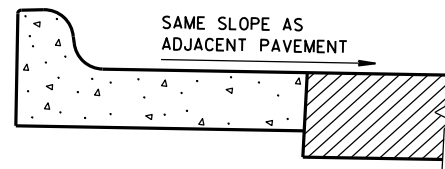
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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

GENERAL NOTES

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

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

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

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

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

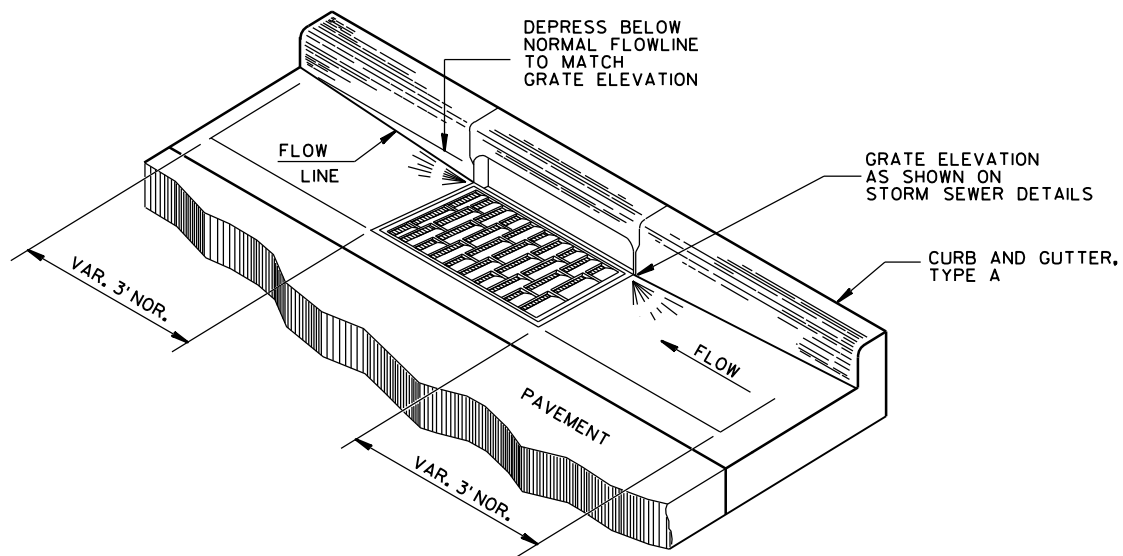
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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

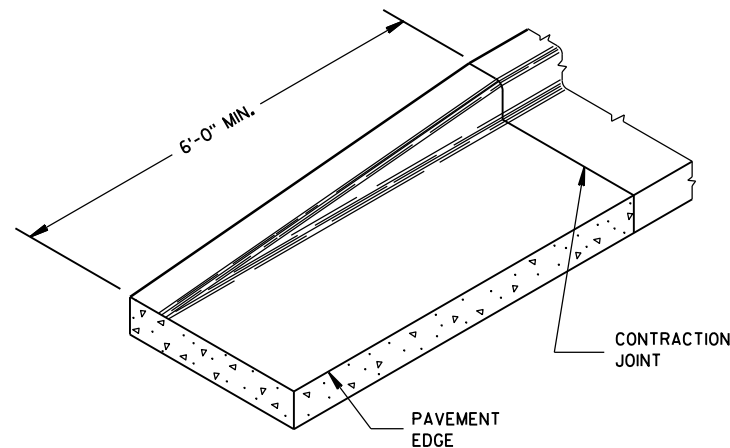
* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

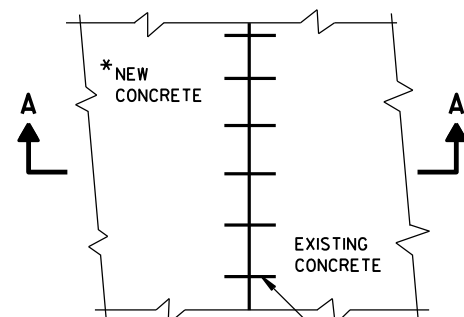
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



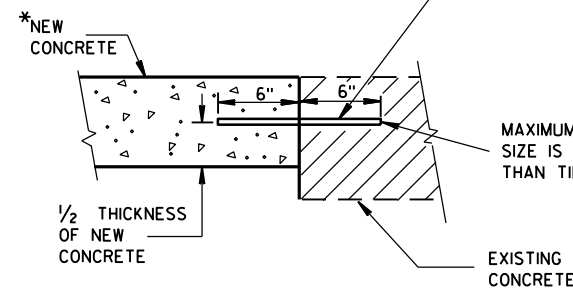
DETAIL OF CURB AND GUTTER AT INLETS
(TYPE H INLET COVER SHOWN)



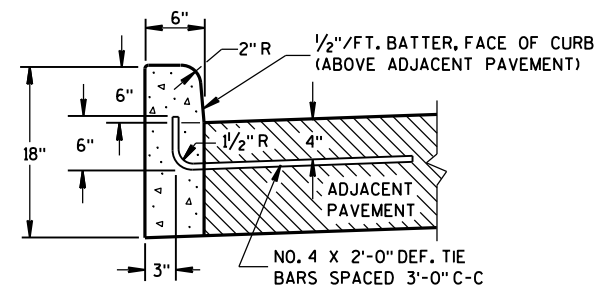
END SECTION CURB & GUTTER



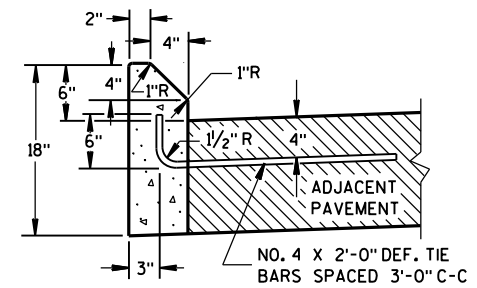
PLAN VIEW



SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT



TYPES A^① & D



TYPES G^① & J

GENERAL NOTES

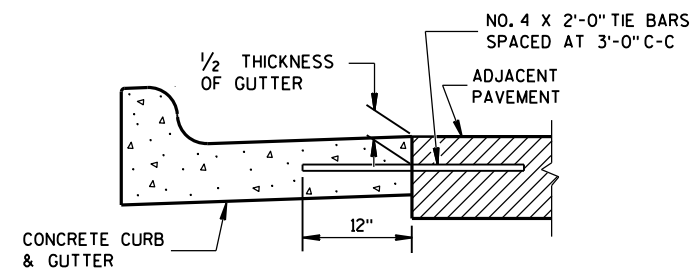
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

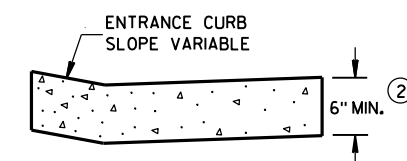
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

CONCRETE CURB

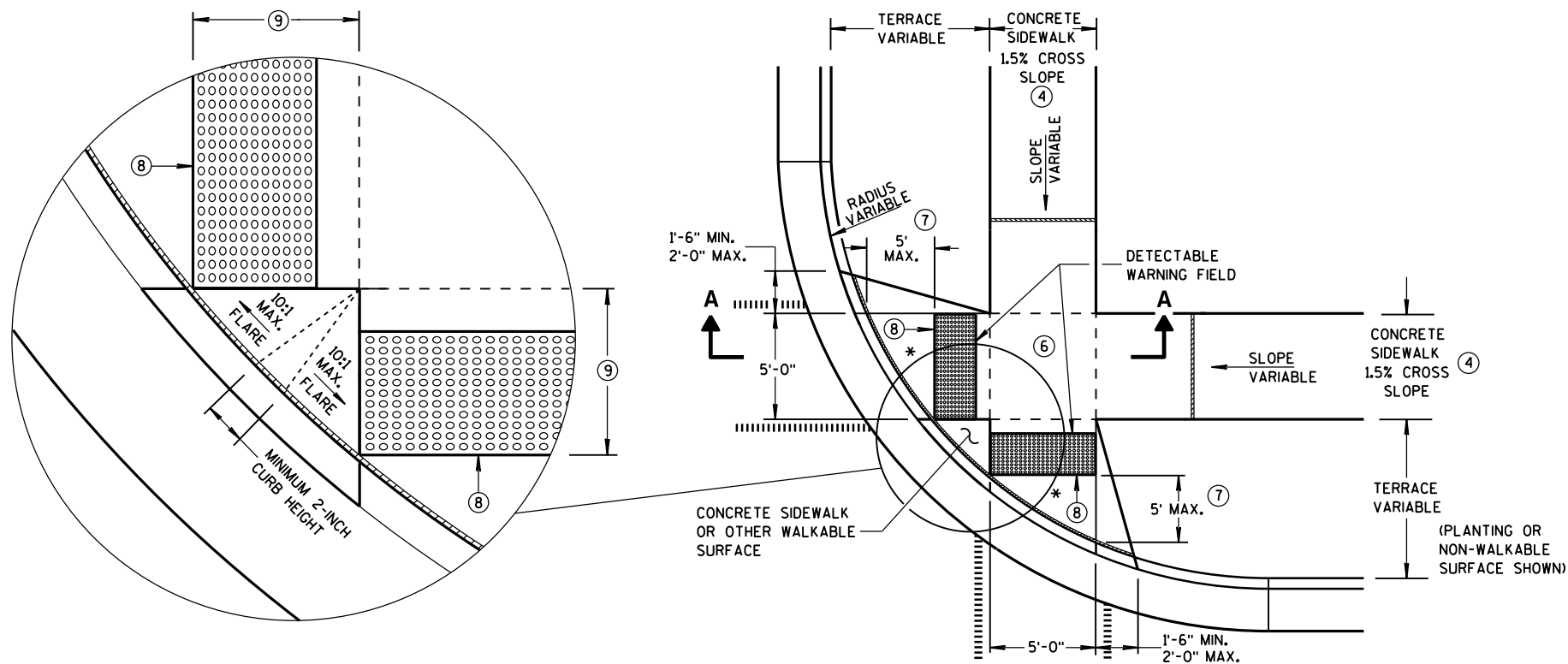


TYPICAL TIE BAR LOCATION^①



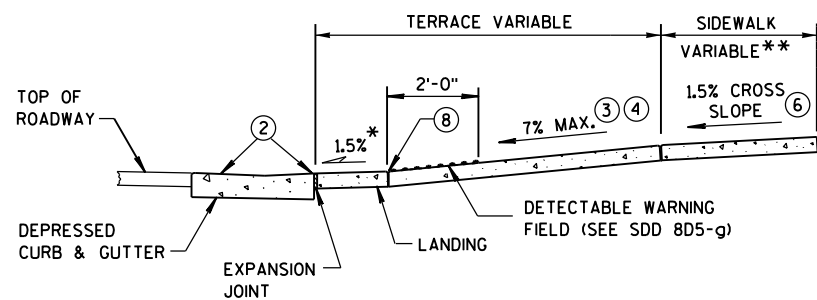
DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED June, 2017 DATE	/S/ Rodney Taylor ROADWAY STANDARDS UNIT SUPERVISOR	77 ENT	
FHWA			



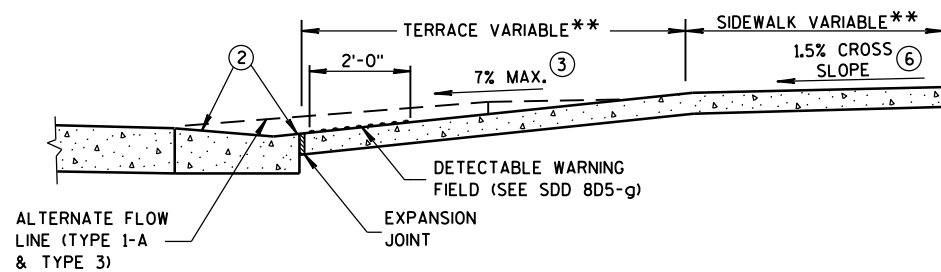
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

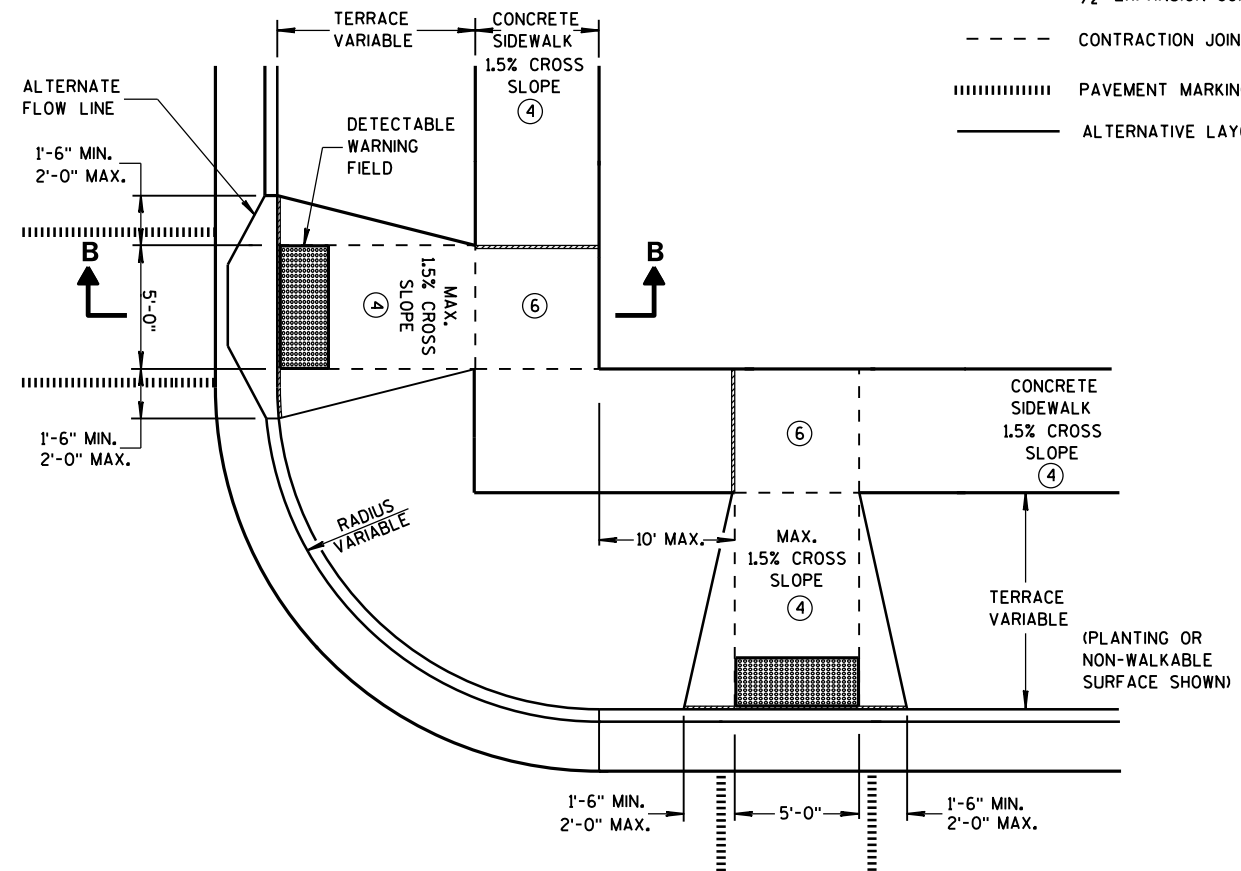
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

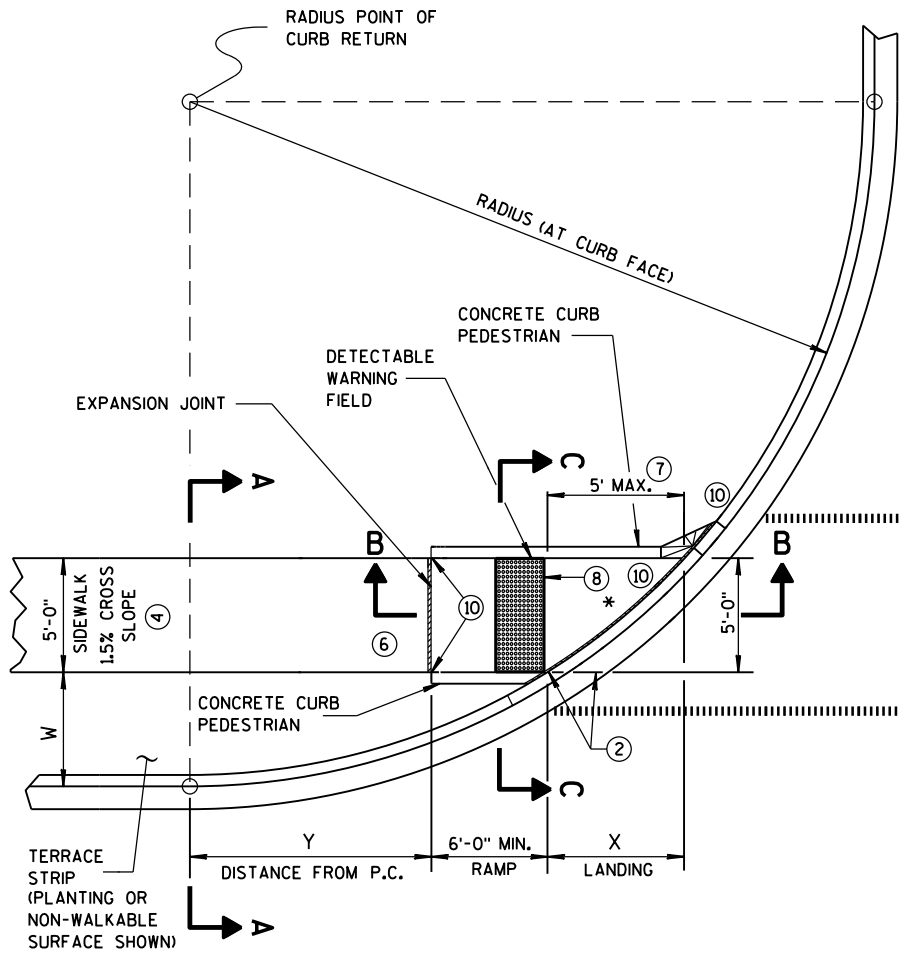
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



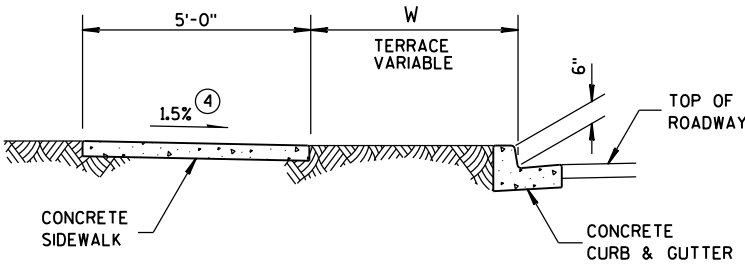
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

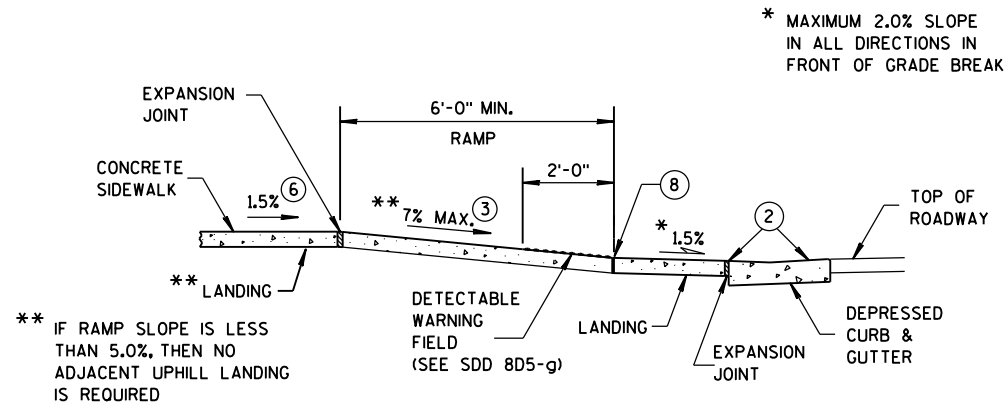
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B



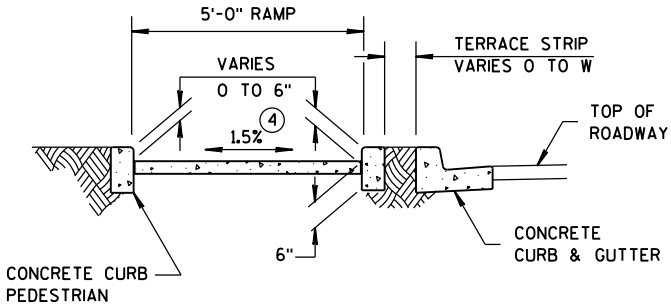
SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 1/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 1/4"	3'-1 1/4"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0'-10 3/4"	7'-7 1/4"
20 FEET	5'-9 3/4"	3'-6 1/2"	4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET			6'-9 1/4"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET									6'-1 3/4"	15'-8 1/2"	5'-8"	17'-2"	5'-3"	18'-5 3/4"	4'-10 3/4"	19'-8 1/4"
50 FEET															5'-10 1/4"	23'-2"

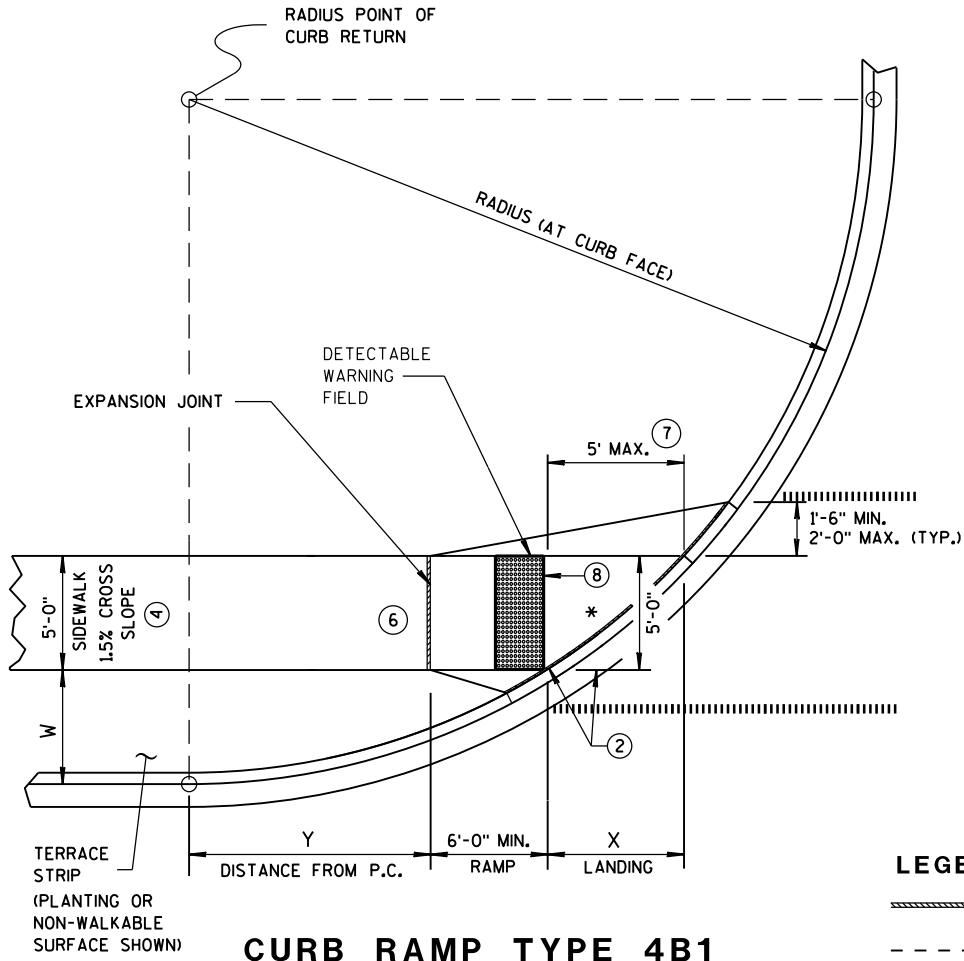
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

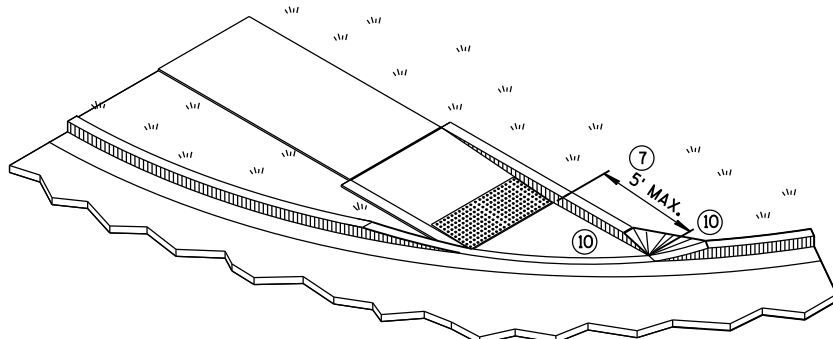
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



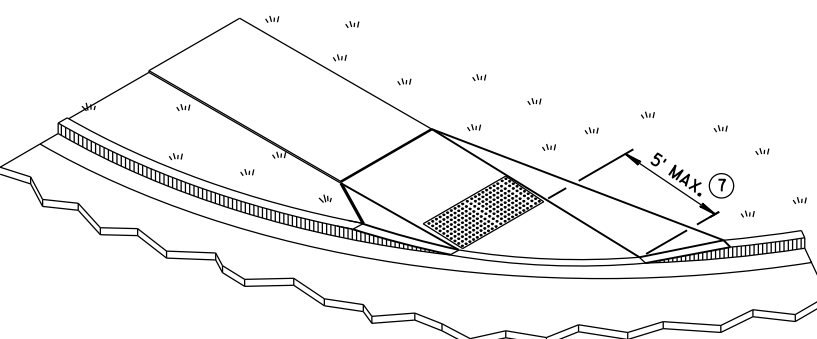
SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**



ISOMETRIC VIEW FOR TYPE 4B

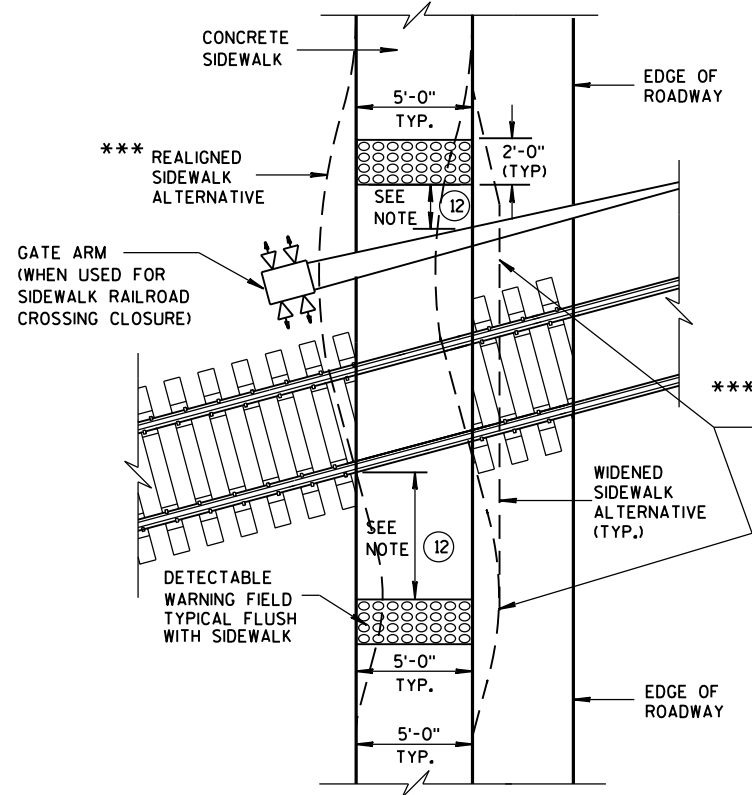


ISOMETRIC VIEW FOR TYPE 4B1

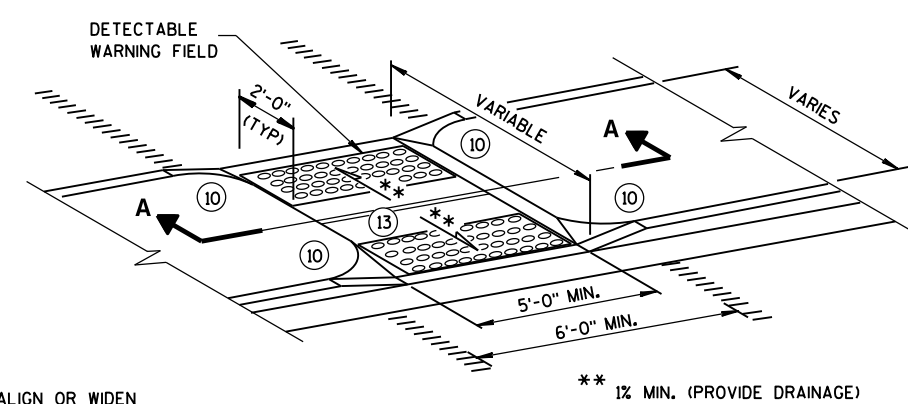
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING

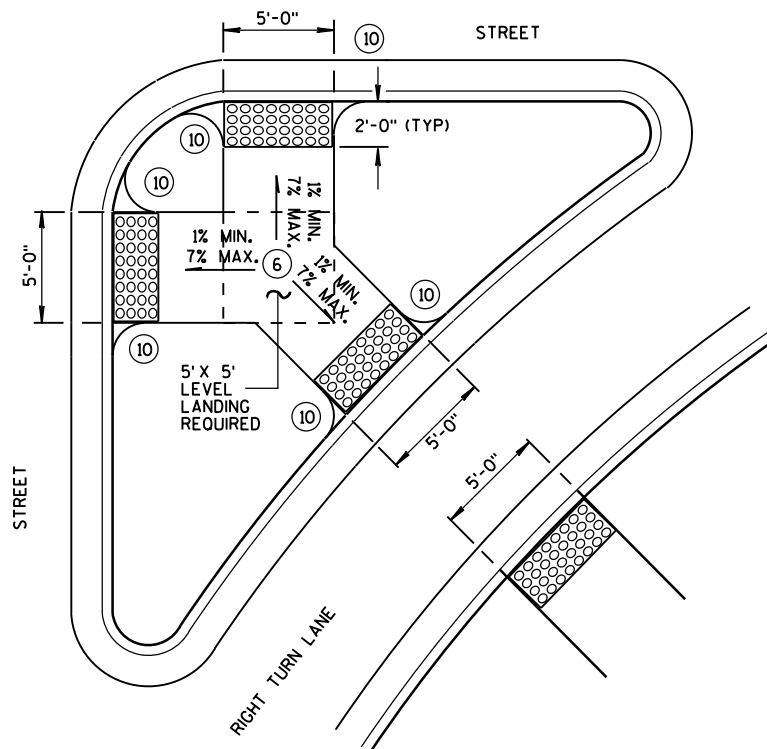


MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

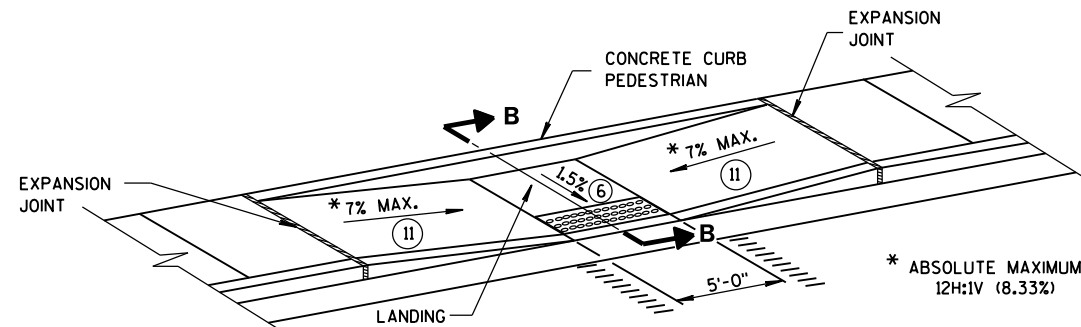
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 15 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

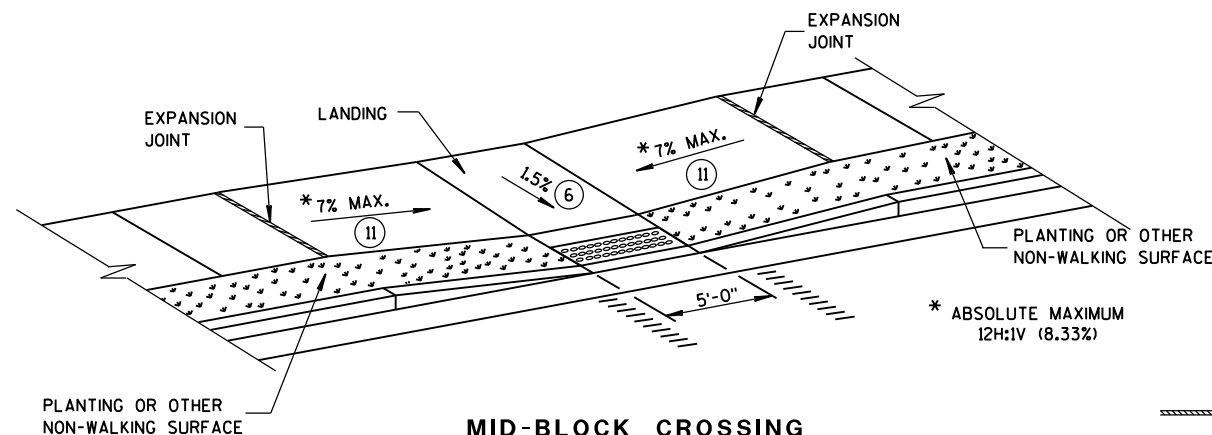
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS

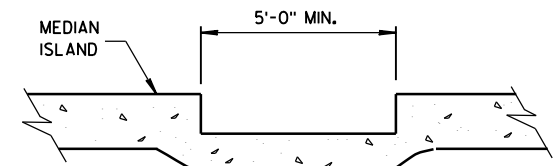


MID-BLOCK CROSSING
TYPE 7A

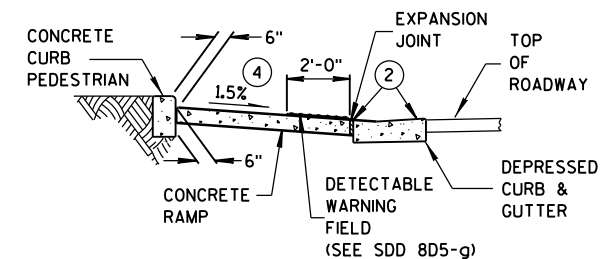


MID-BLOCK CROSSING
TYPE 7B

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



SECTION A-A



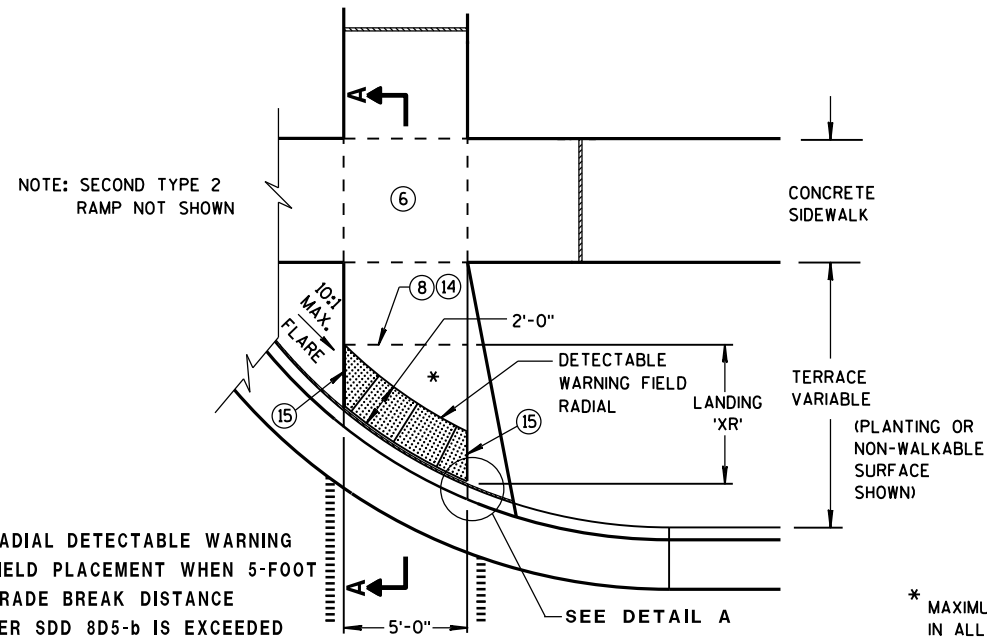
SECTION B-B

LEGEND

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

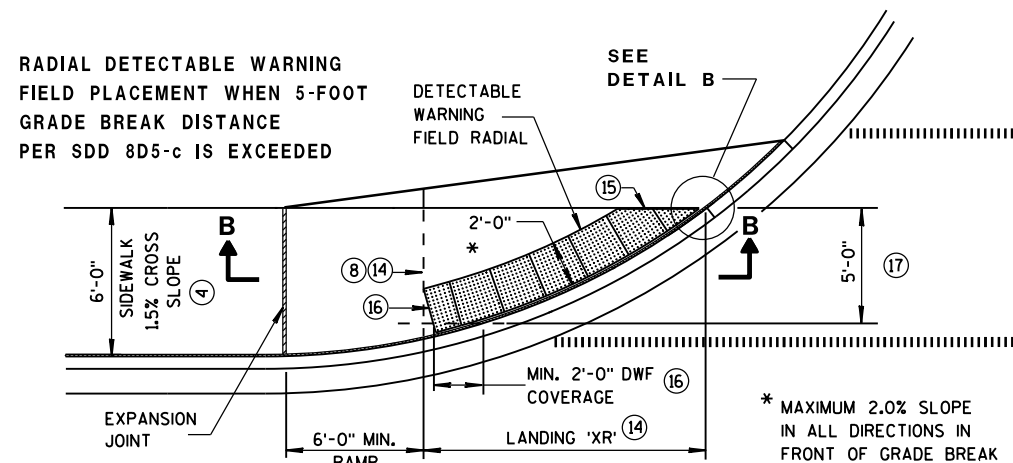
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



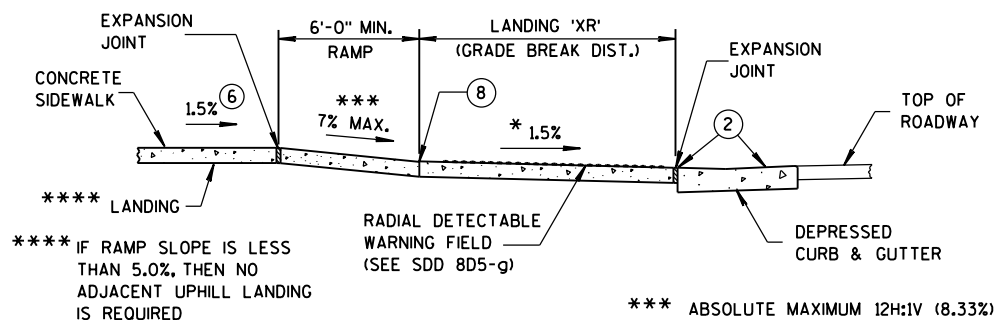
TYPE 2 RAMP PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

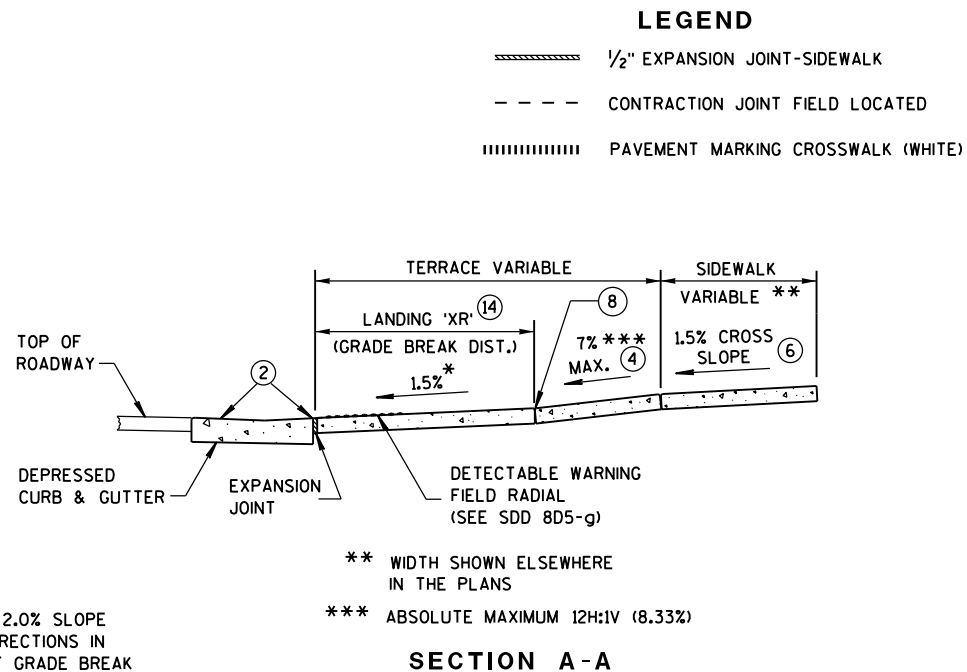


CURB RAMP TYPE 4A1 PLAN VIEW

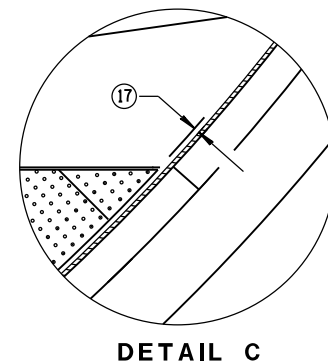
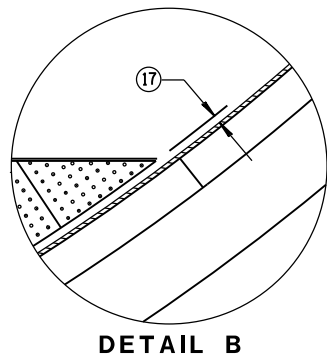
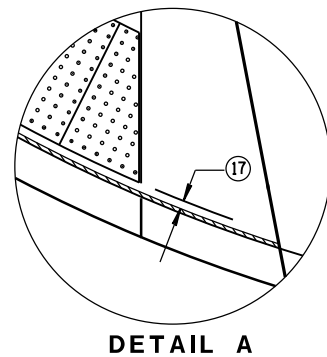
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



SECTION B-B FOR TYPE 4A1

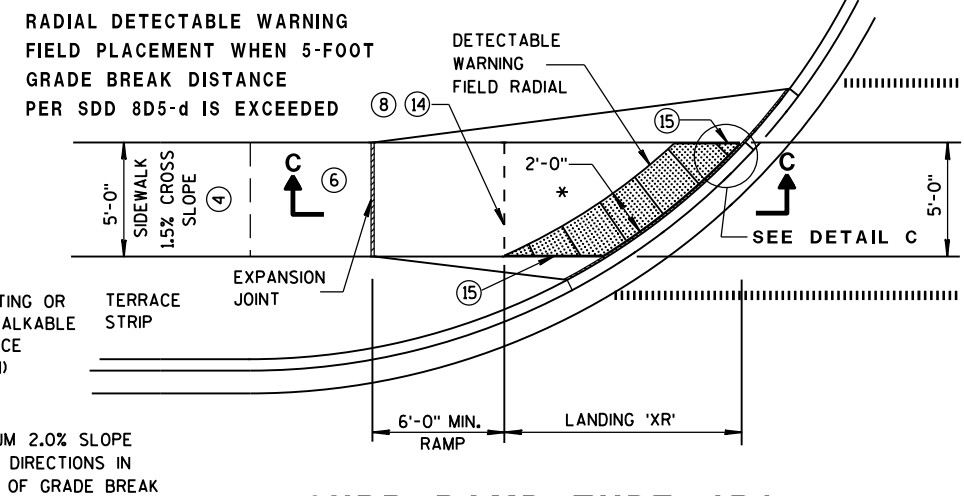


SECTION A-A



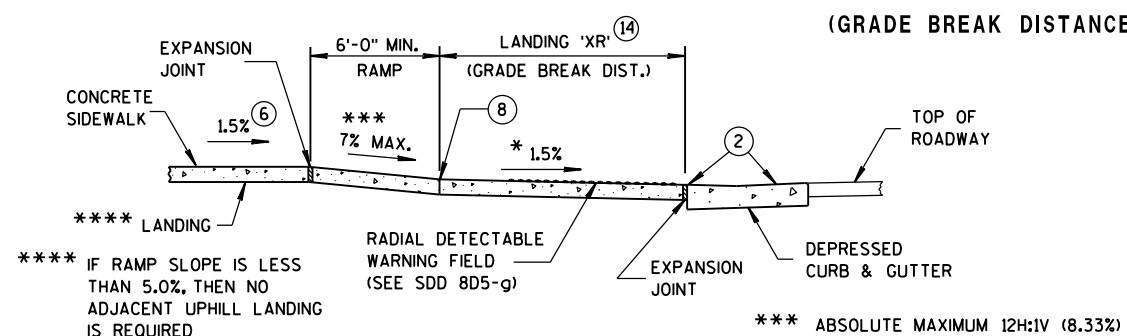
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



CURB RAMP TYPE 4B1 PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



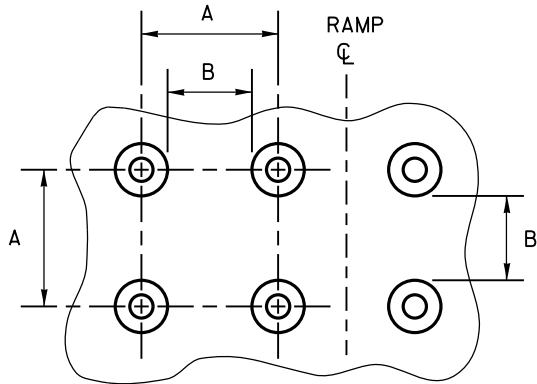
SECTION C-C FOR TYPE 4B1

**CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS**

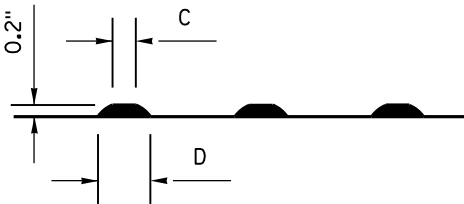
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

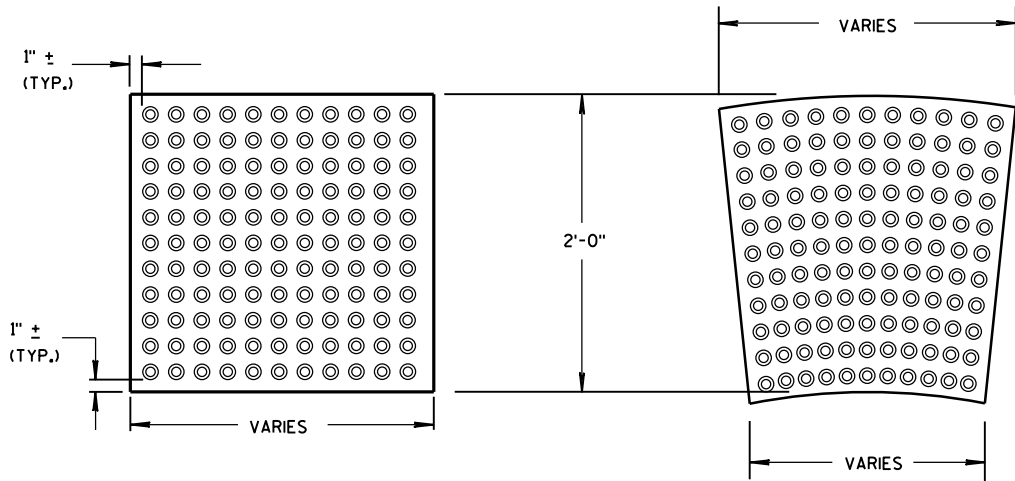


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES
RADIAL PLATES
DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW

GENERAL NOTES

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

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

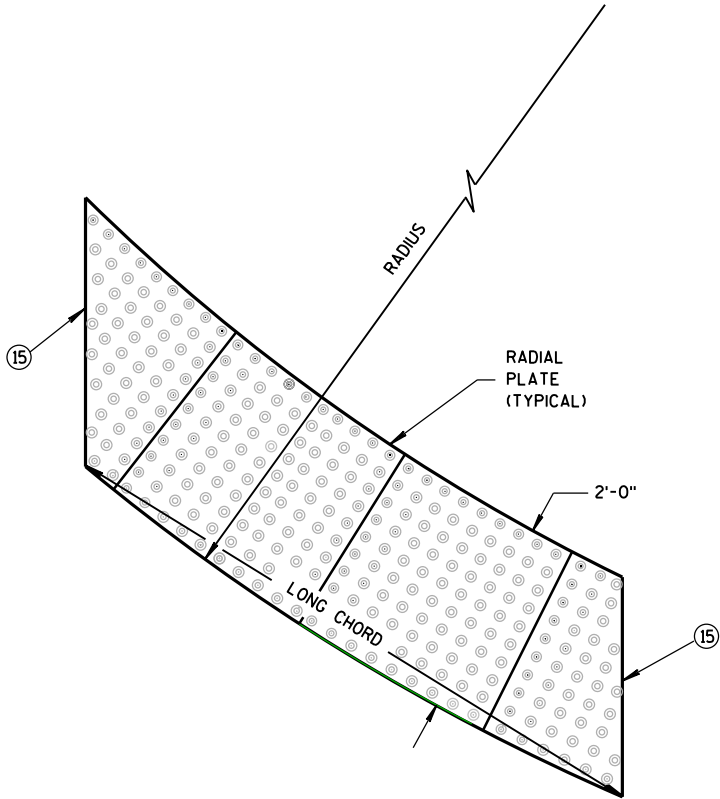
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGES IN COMBINATION WITH SQUARE PANELS ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

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



RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

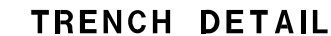
CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERV 82 ENT
FHWA



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

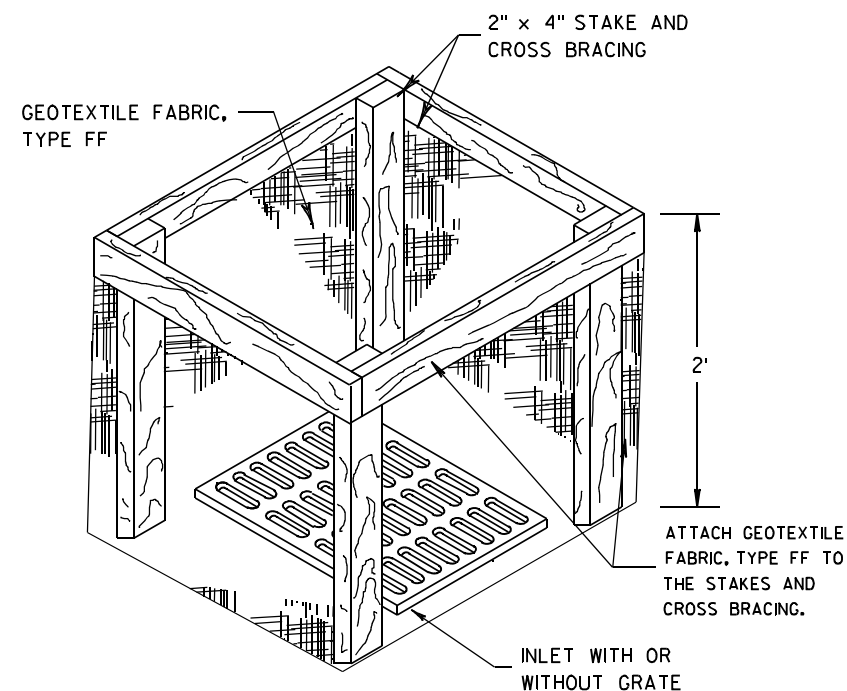
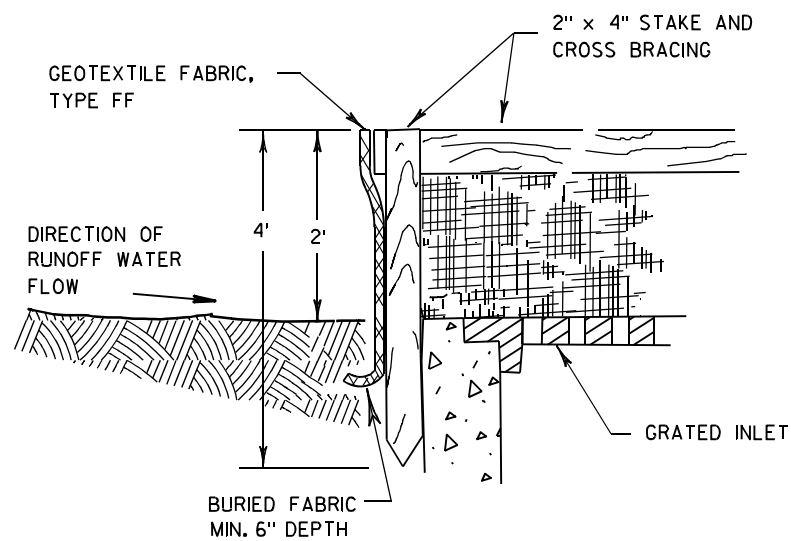


SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05
DATE /S/ Beth Cannata
CHIEF ROADWAY DEVELOP 83 INEEN

FHWA



INLET PROTECTION, TYPE A

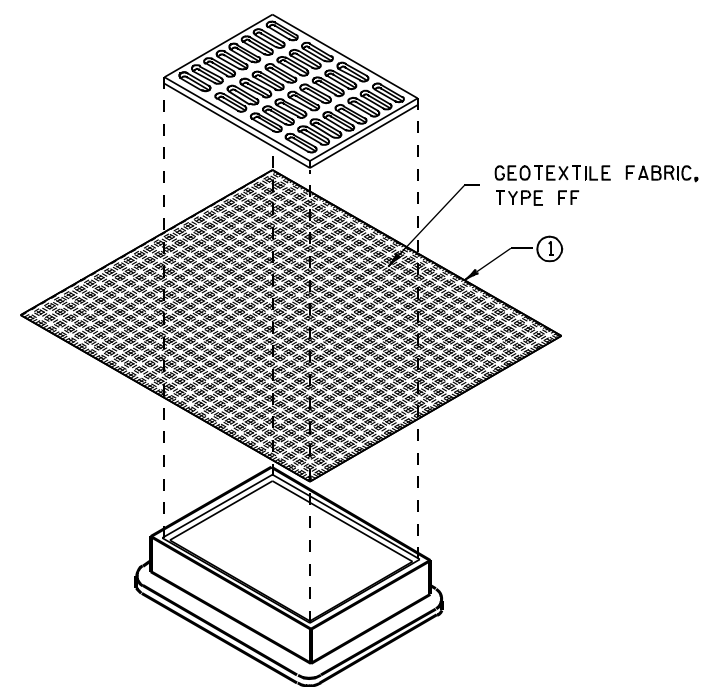
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

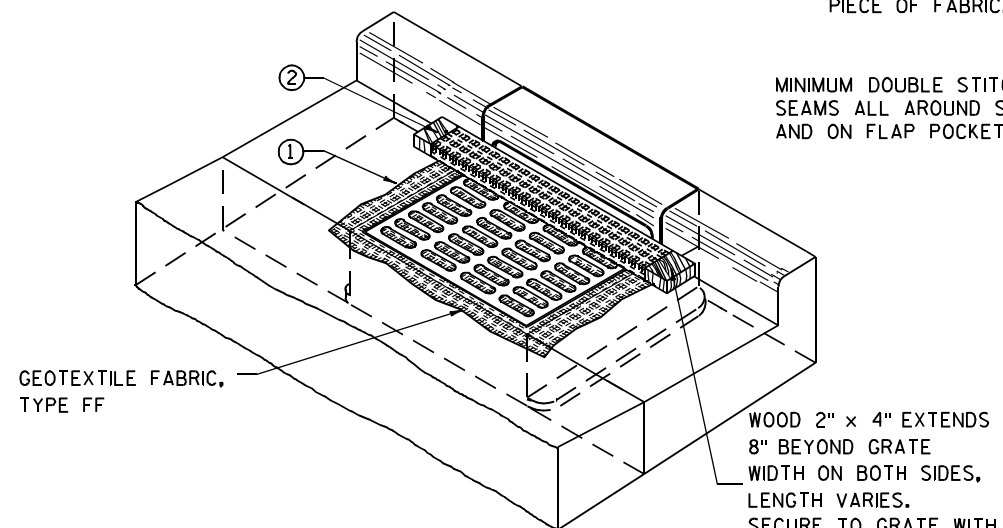
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

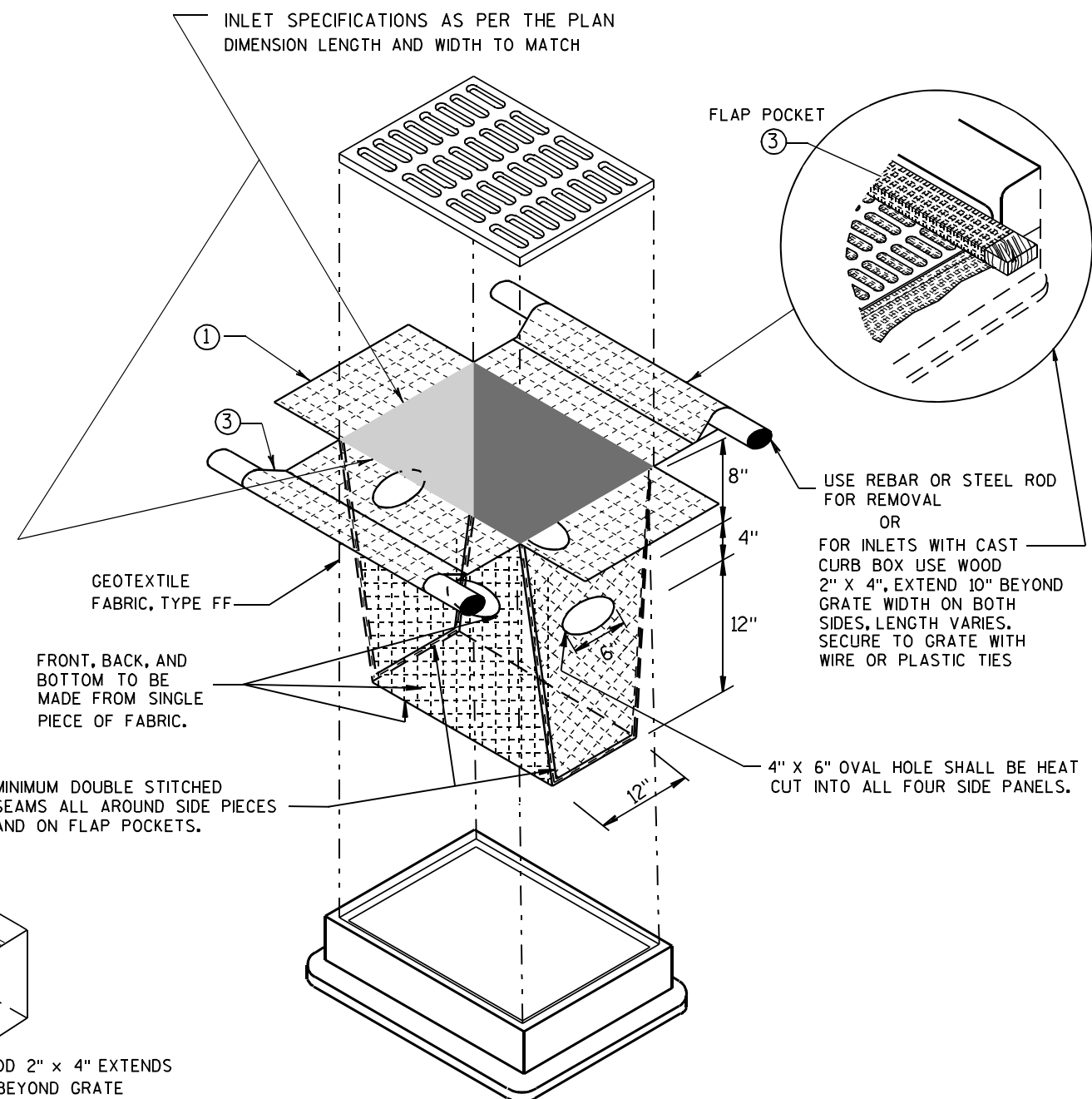
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



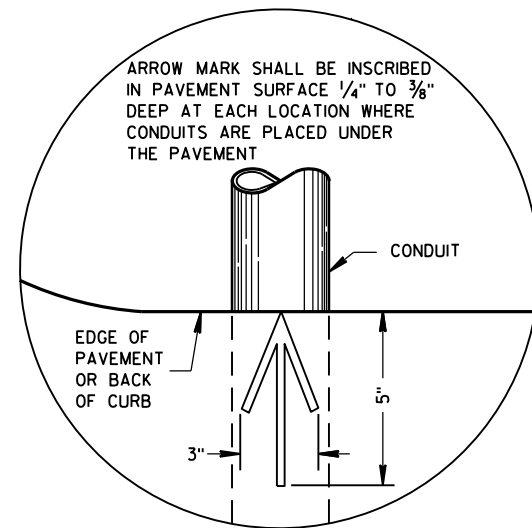
INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

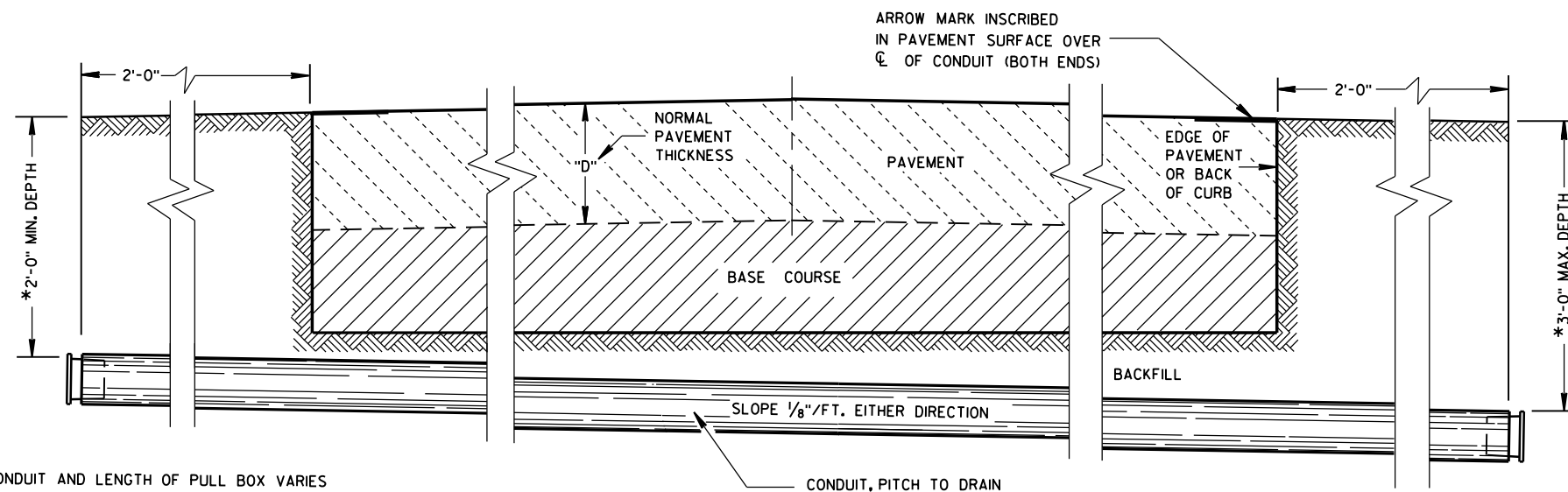
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 84
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



PLAN VIEW
ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES
WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

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

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March, 2017 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 85
FHWA	

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

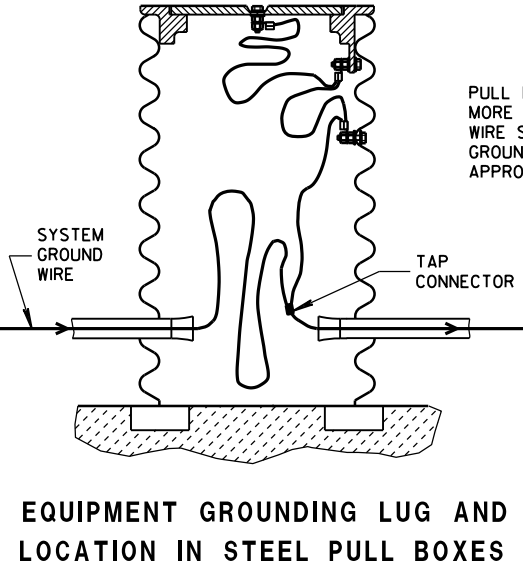
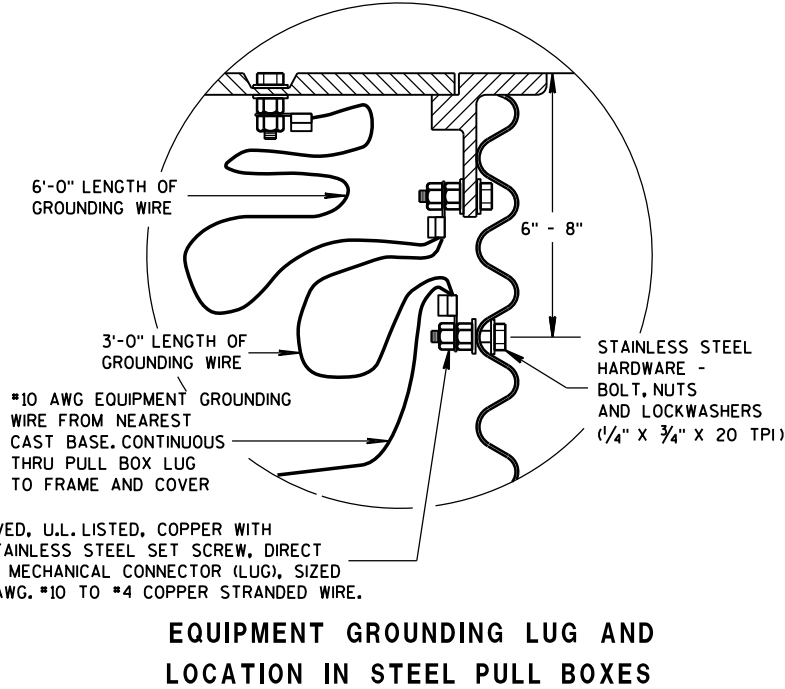
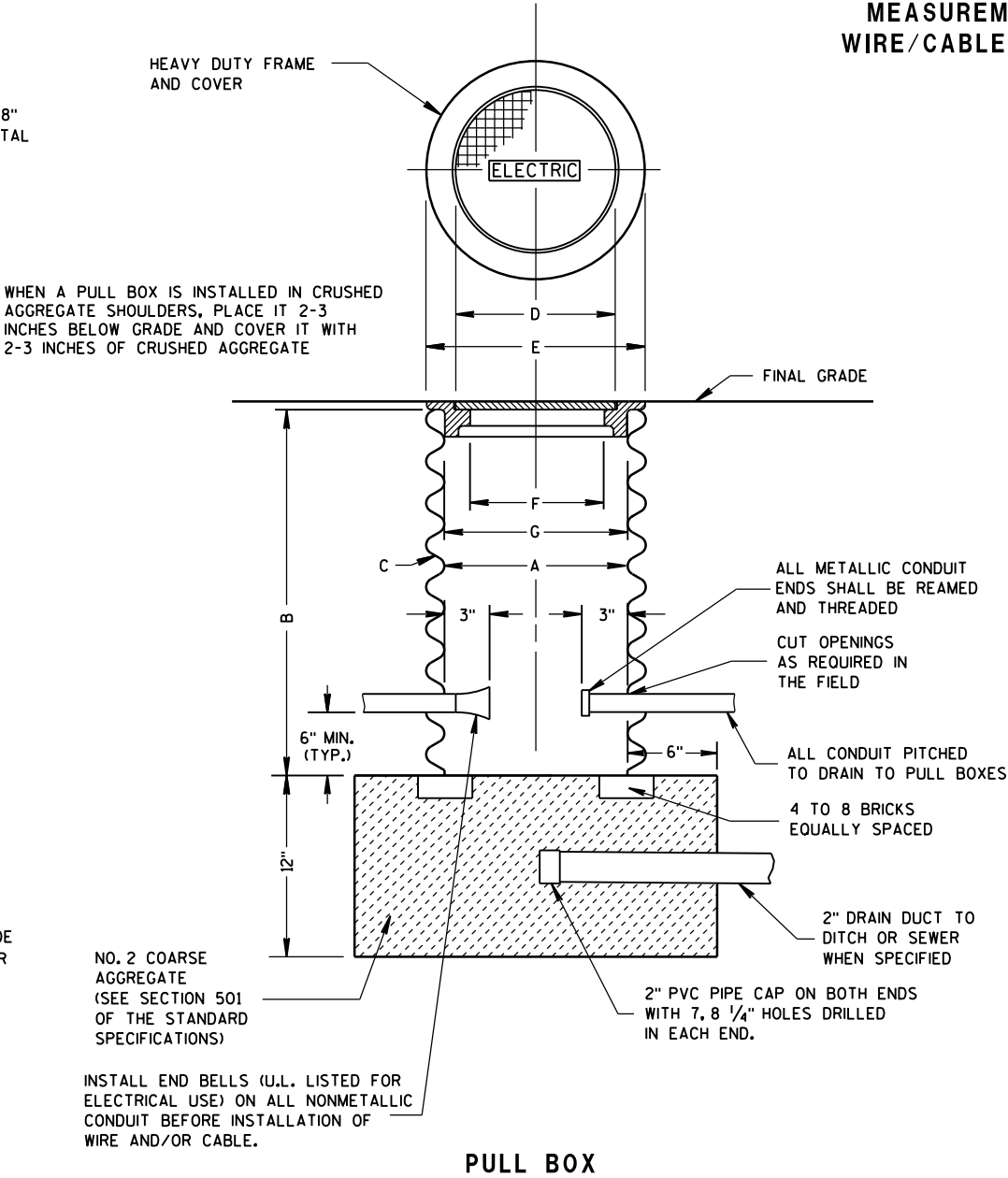
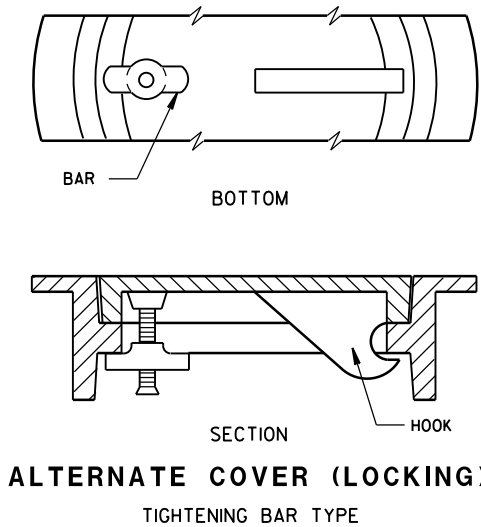
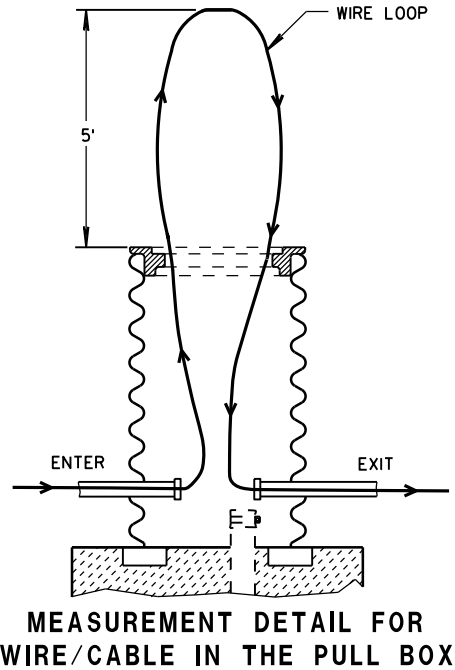
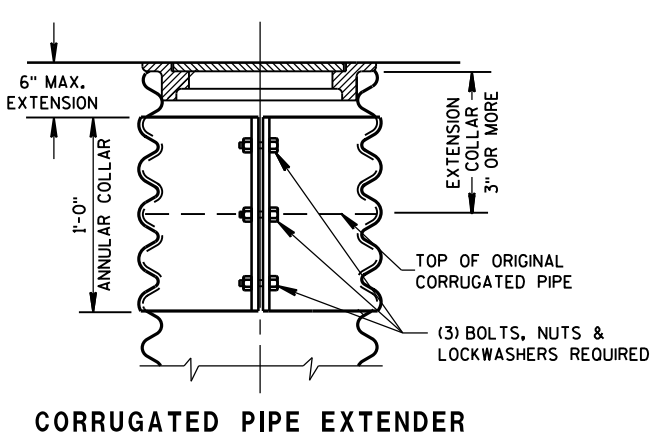
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

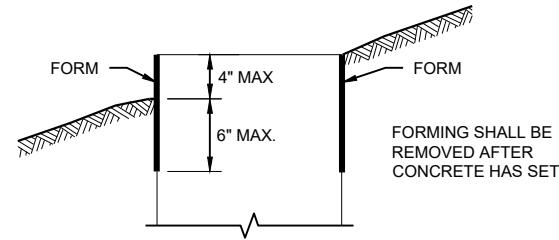
ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL 86
FHWA	

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



FORMING DETAIL

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

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE 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.

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

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

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

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

GENERAL NOTES

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

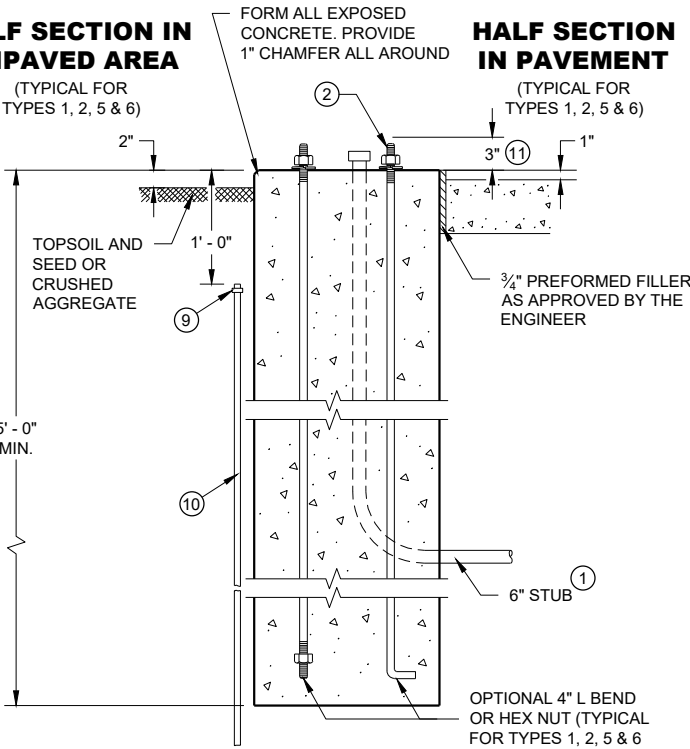
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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

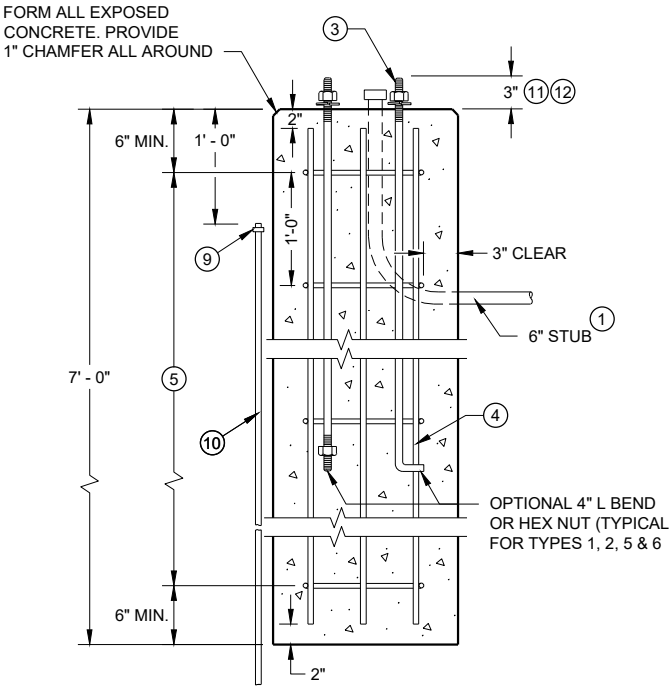
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- 2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- 4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- 7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- 9 EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- 10 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- 11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/2" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- 12 FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA



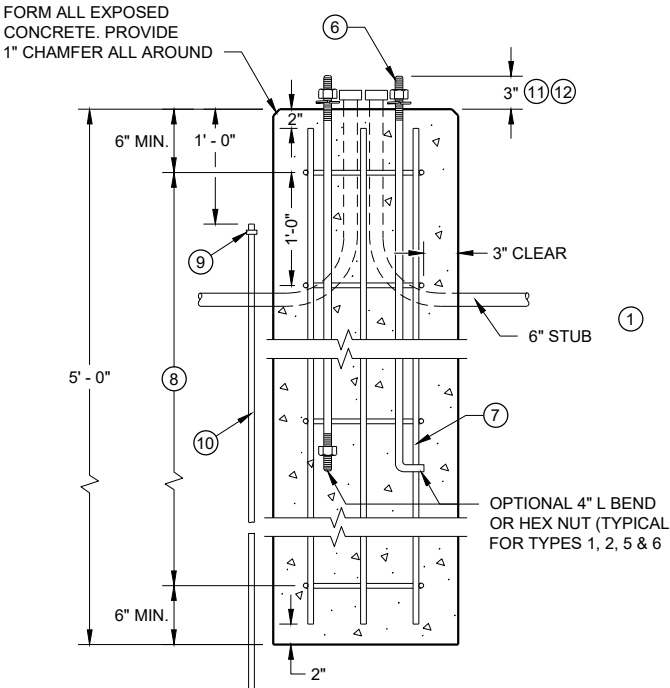
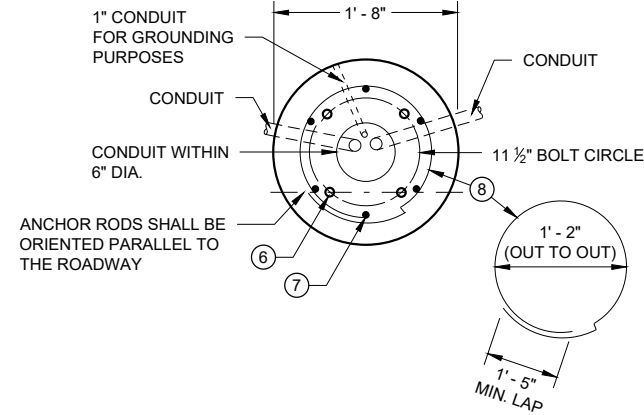
TYPE 1

HALF SECTION IN PAVEMENT

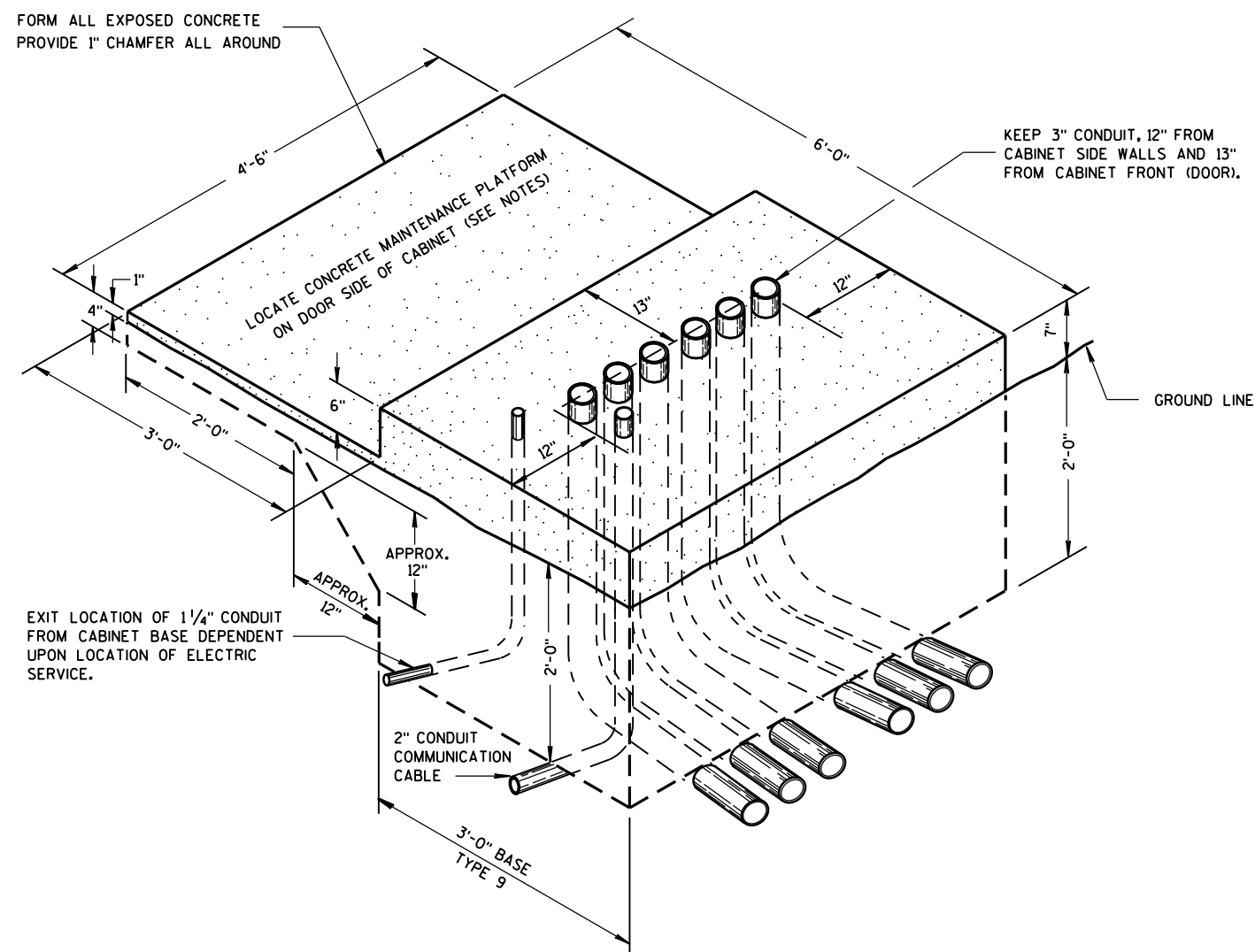


TYPE 2

CONCRETE BASES

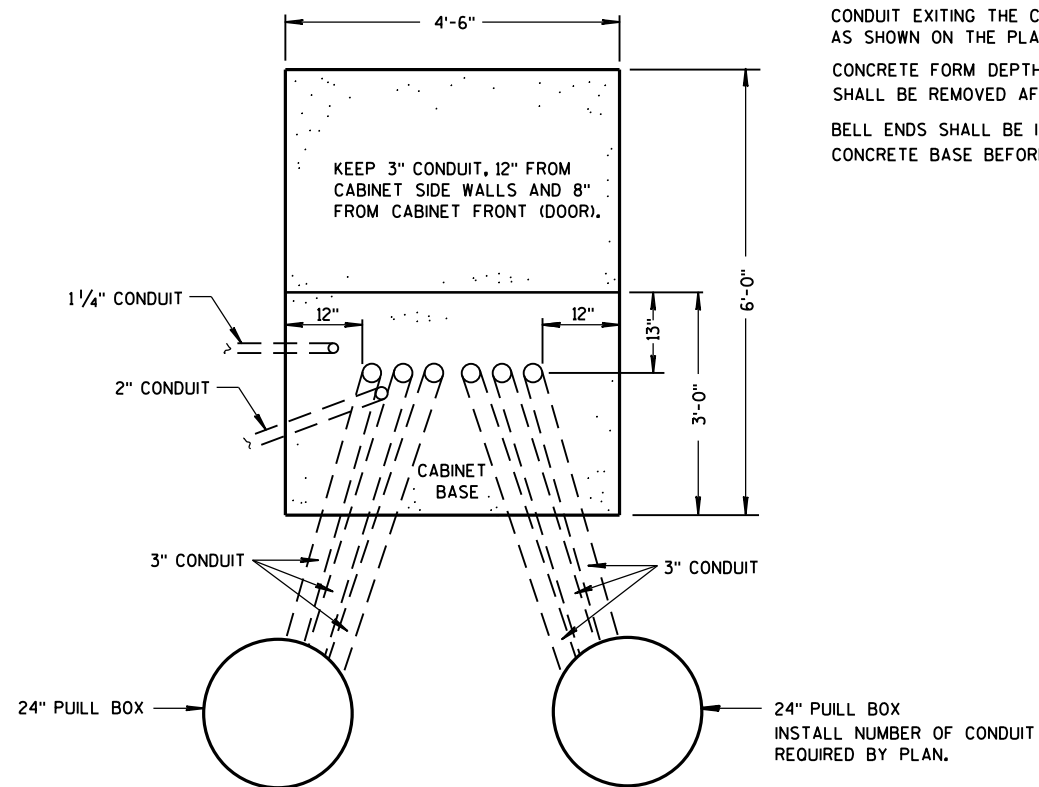


TYPE 5 & 6



ISOMETRIC VIEW
TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR 1/2 INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

CONCRETE CONTROL CABINET
BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

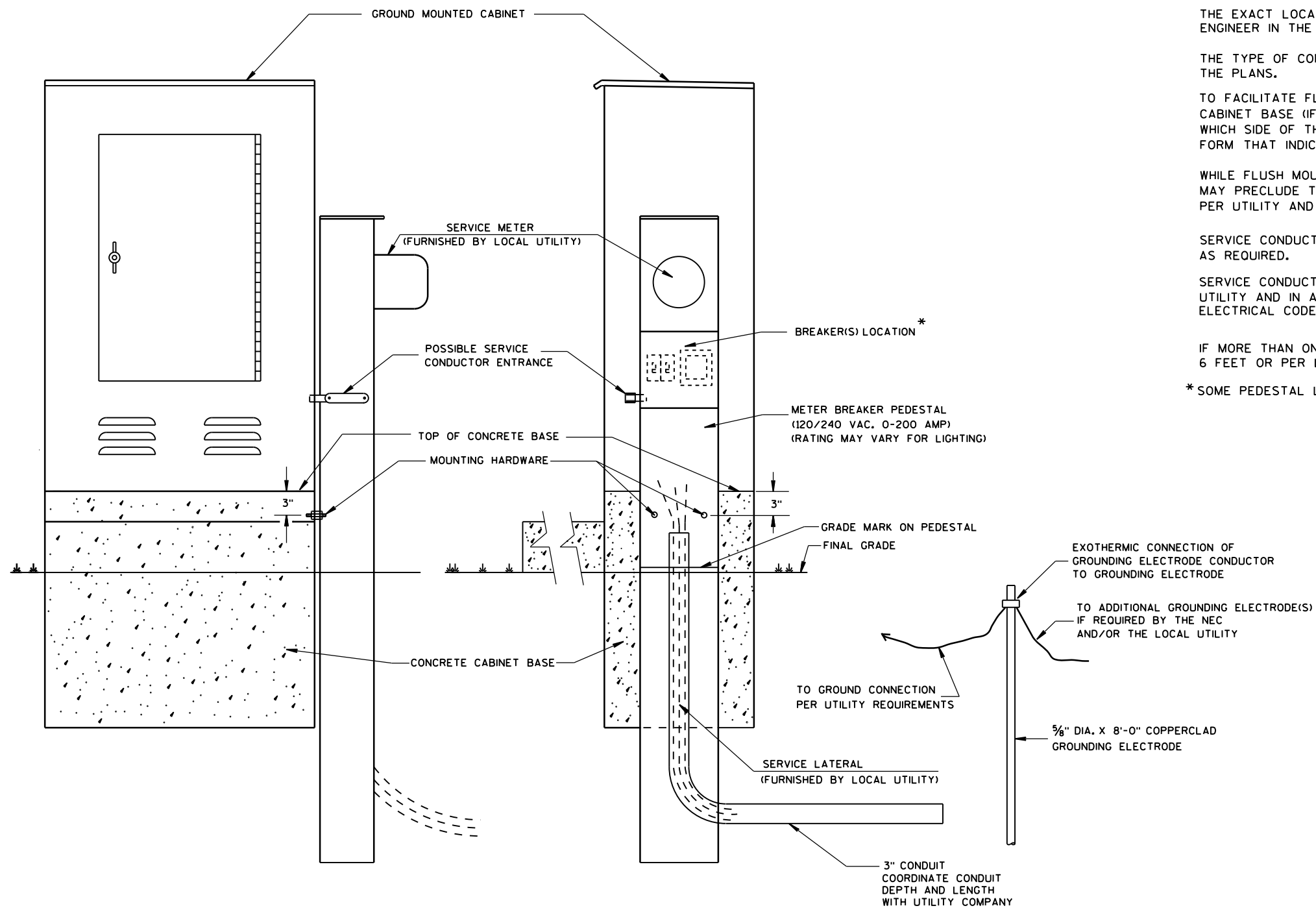
APPROVED

Sept. 2014

DATE

FHWA

/S/ Ahmet Demirbilek
STATE ELECTRICAL 88



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION
(METER BREAKER PEDESTAL)STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

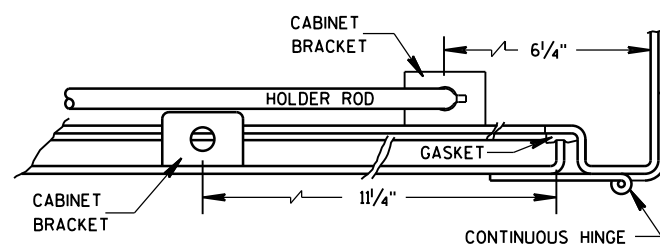
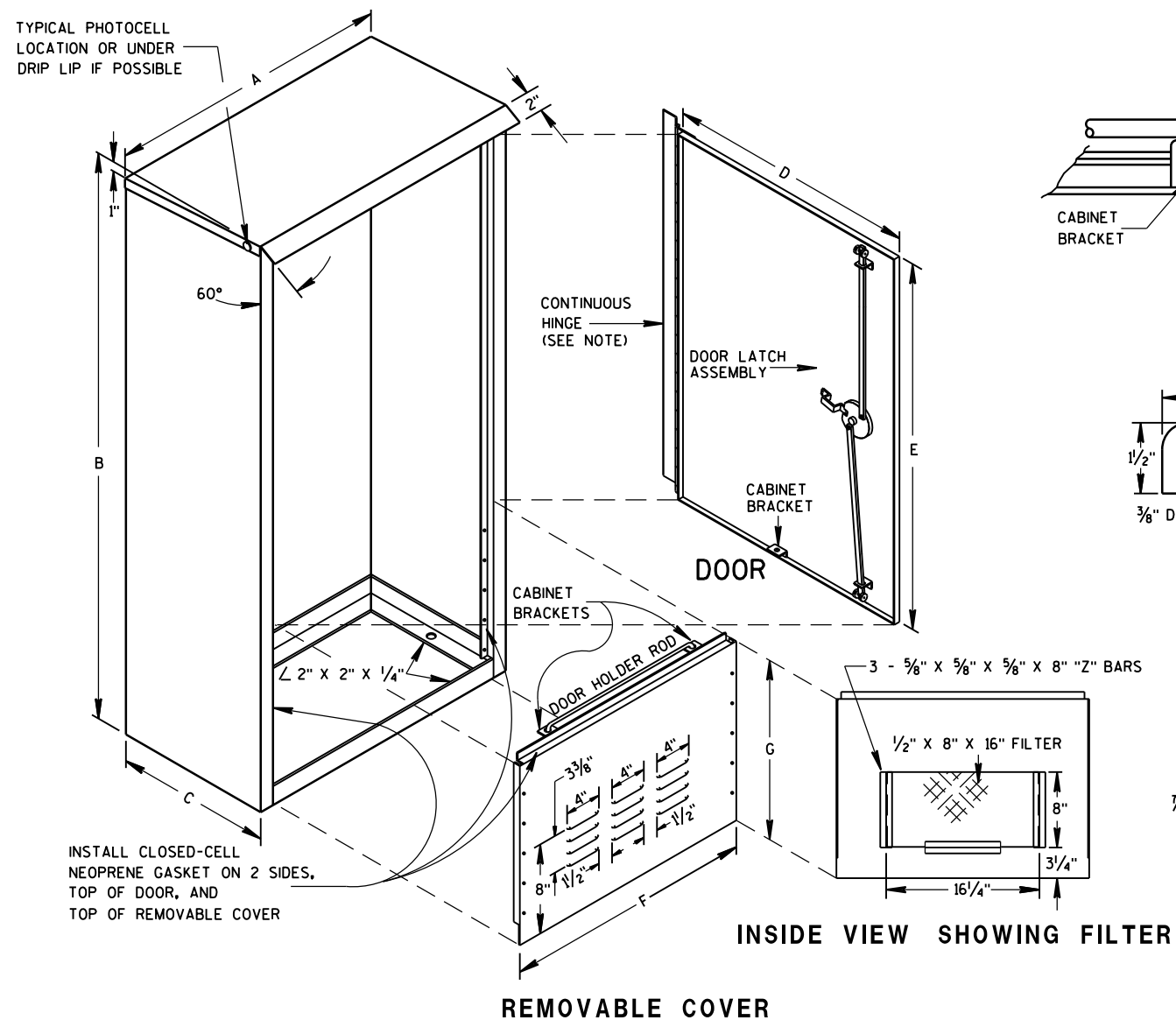
Sept. 2014

DATE

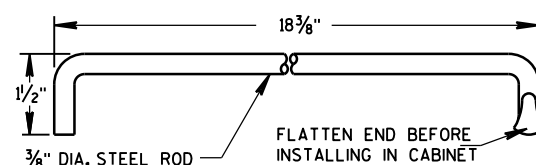
/S/ Ahmet Demirbilek

STATE ELECTRICAL 89

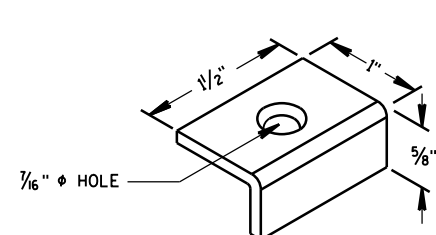
FHWA



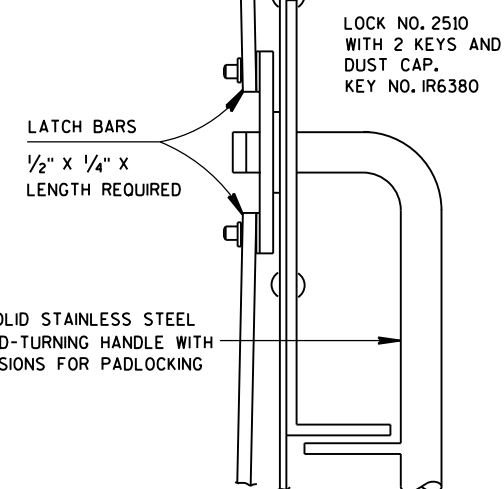
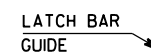
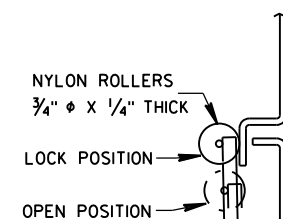
HINGE & DOOR HOLDER



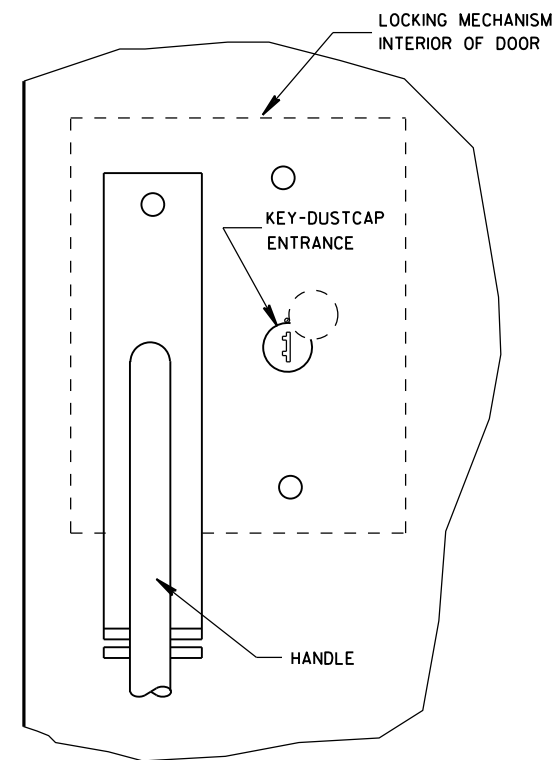
HOLDER ROD



CABINET BRACKET

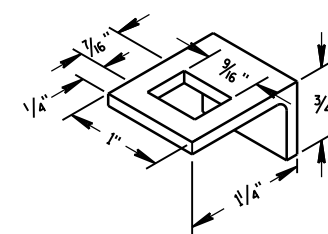


SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

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

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

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

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

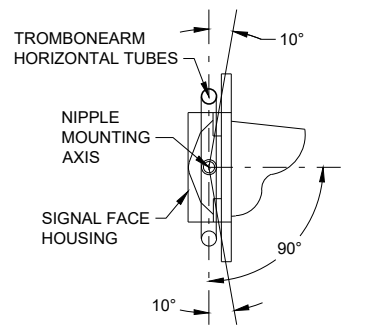
CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

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

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

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	$16\frac{1}{2}$	$16\frac{1}{2}$	24
D	$26\frac{1}{2}$	$34\frac{3}{4}$	$33\frac{3}{4}$
E	$38\frac{3}{4}$	$38\frac{3}{4}$	$38\frac{3}{4}$
F	$26\frac{1}{2}$	$34\frac{3}{4}$	$33\frac{3}{4}$
G	19	19	25
H	$16\frac{1}{2}$	$16\frac{1}{2}$	24
$\frac{H}{2}$	$8\frac{1}{4}$	$8\frac{1}{4}$	12
J	30	38	38
$\frac{J}{2}$	15	19	19
K	$13\frac{3}{4}$	$13\frac{3}{4}$	$21\frac{1}{4}$
L	$27\frac{1}{2}$	$35\frac{1}{2}$	$35\frac{1}{2}$

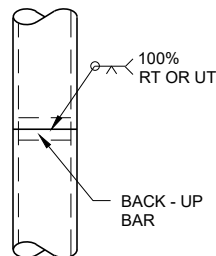


SECTION A-A

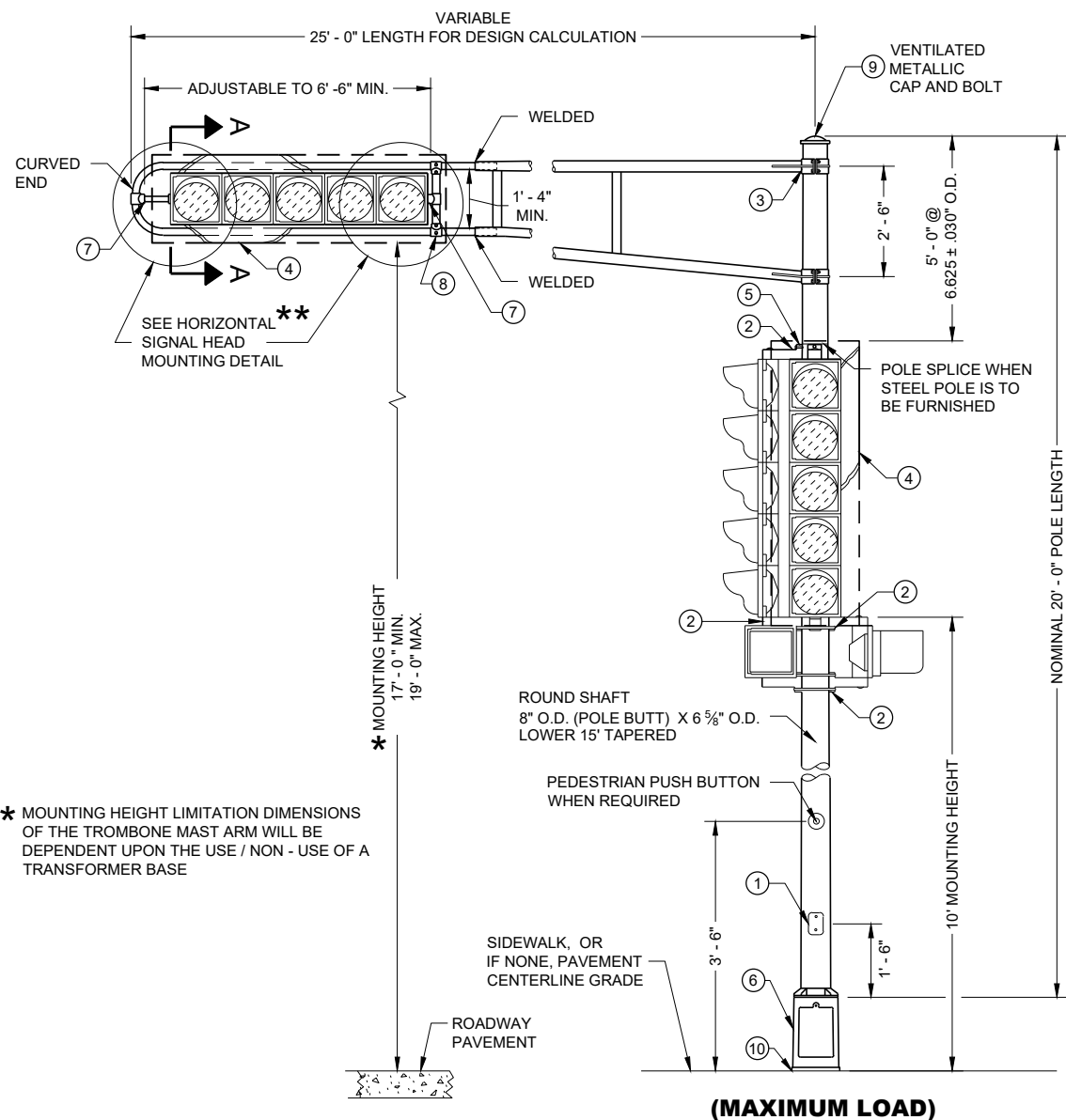
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

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



POLE SPLICE DETAIL



* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

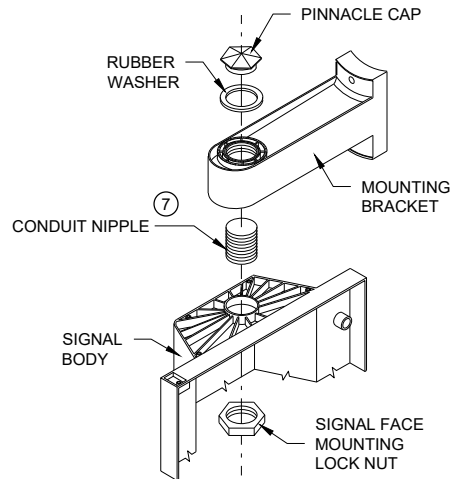
ROUND SHAFT
8" O.D. (POLE BUTT) X 6 5/8" O.D.
LOWER 15' TAPERED

PEDESTRIAN PUSH BUTTON
WHEN REQUIRED

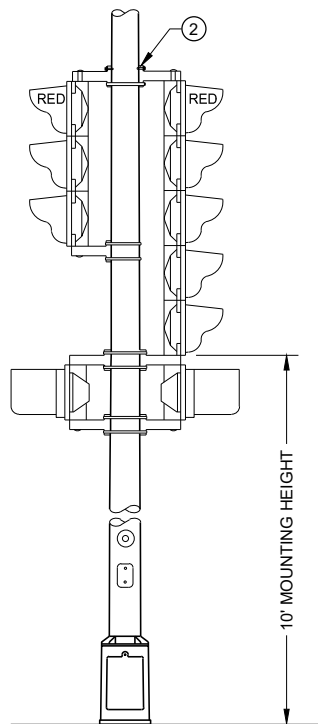
SIDEWALK, OR
IF NONE, PAVEMENT
CENTERLINE GRADE

ROADWAY
PAVEMENT

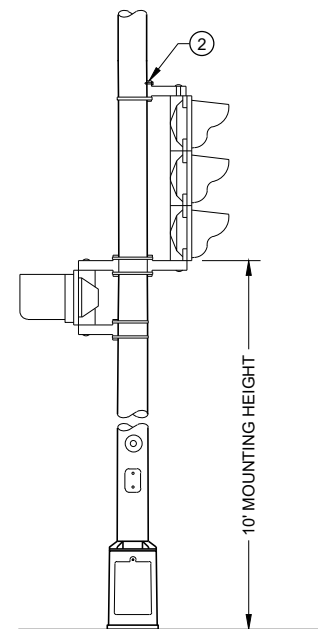
(MAXIMUM LOAD)



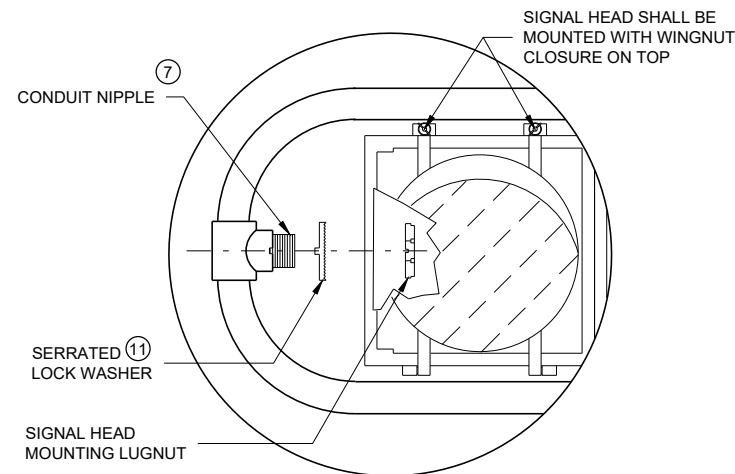
SIGNAL FACE MOUNTING DETAIL
(BANDED)



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



TYPICAL MOUNTING OF 3 SECTION
SIGNAL FACE



HORIZONTAL SIGNAL HEAD
MOUNTING DETAIL

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

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

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

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

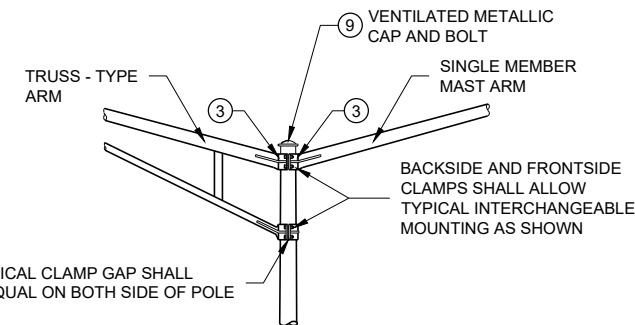
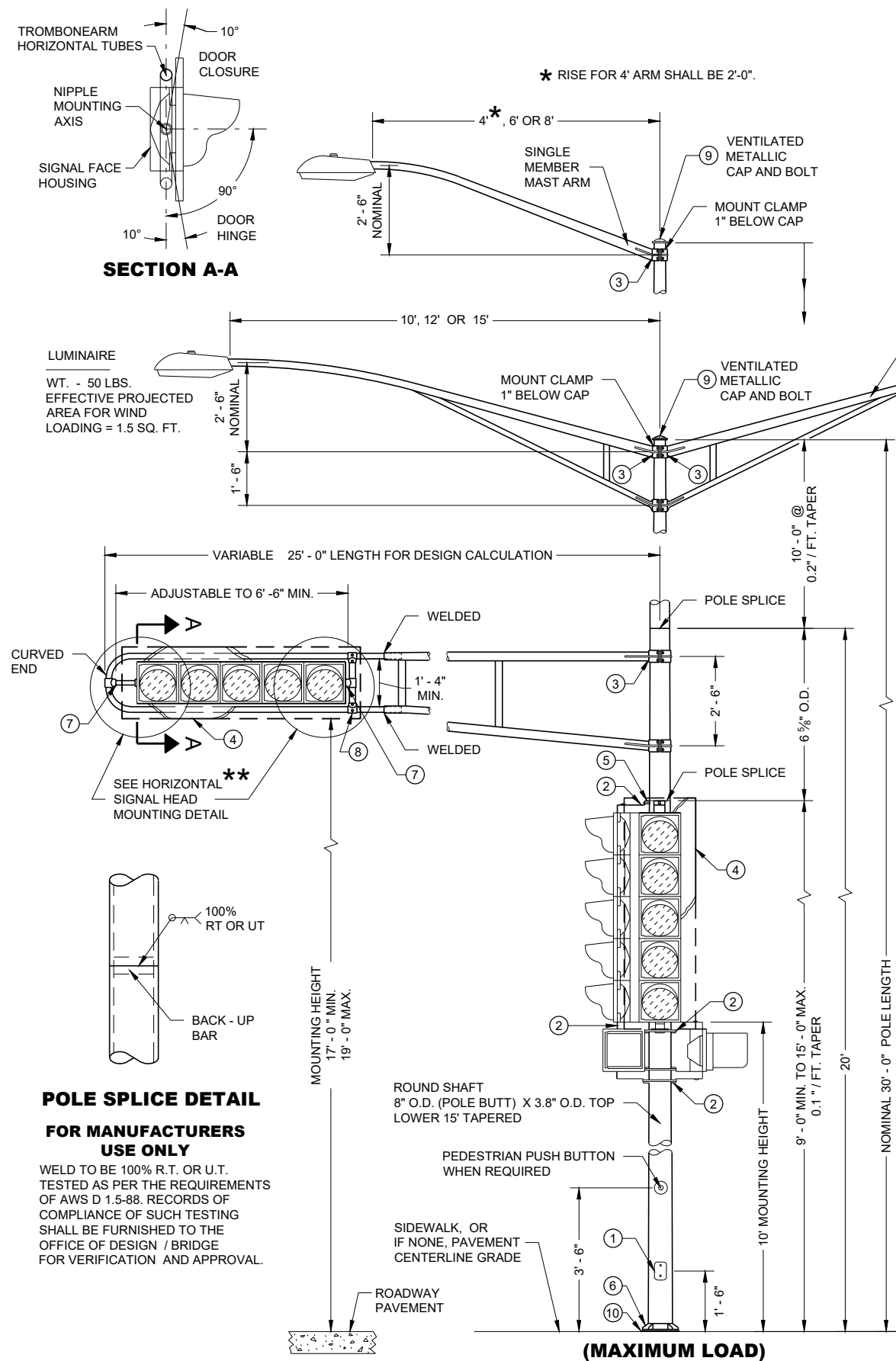
TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

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

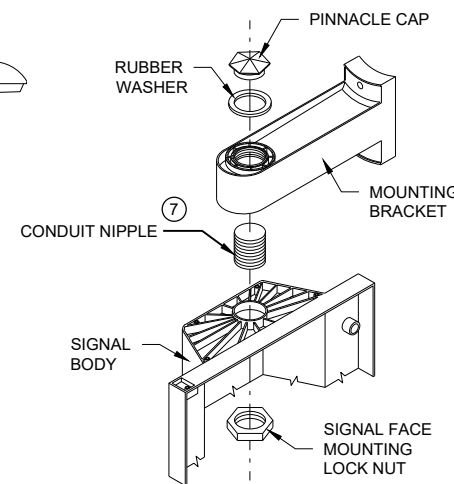
- 1 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI, STAINLESS STEEL, HEX HEAD BOLTS.
- 2 SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- 3 GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- 4 SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- 5 POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.
- 6 CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- 7 USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.
- 8 VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.
- 9 FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- 10 SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.
- 11 USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR
TRAFFIC SIGNALS
TYPE 2

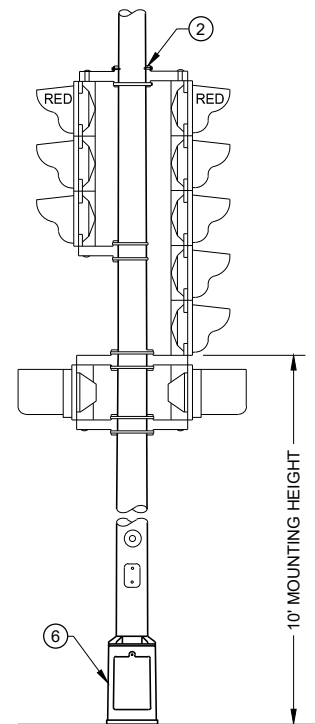
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



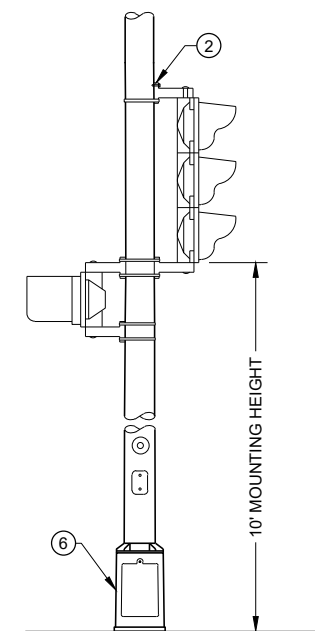
INTERCHANGEABLE MOUNTING DETAIL



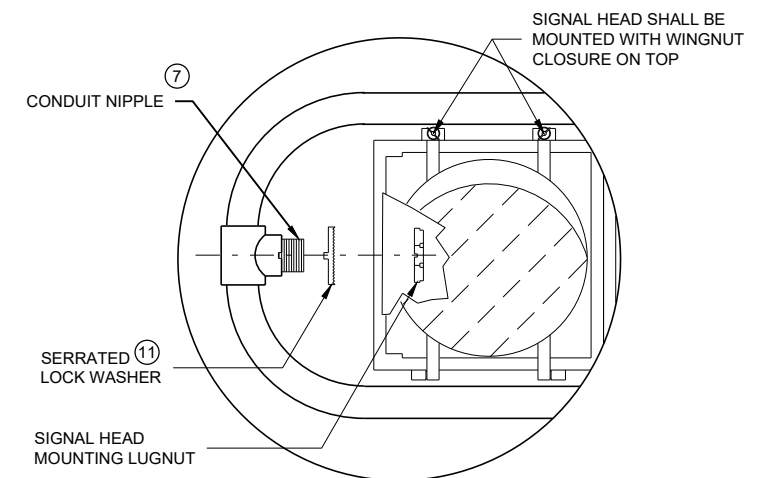
SIGNAL FACE MOUNTING DETAIL (BANDED)



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



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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

POLES SHALL BE GALVANIZED STEEL.

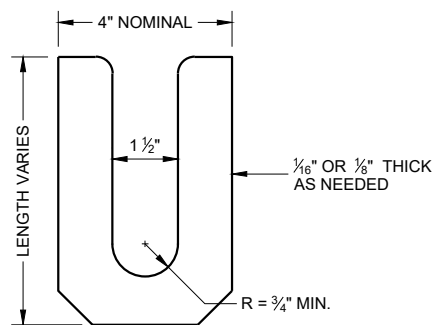
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

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

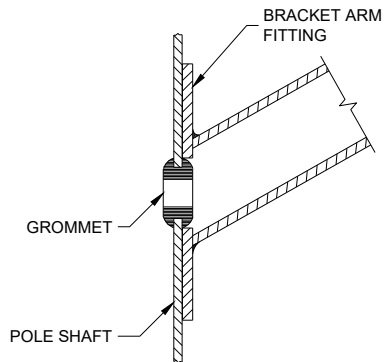
THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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

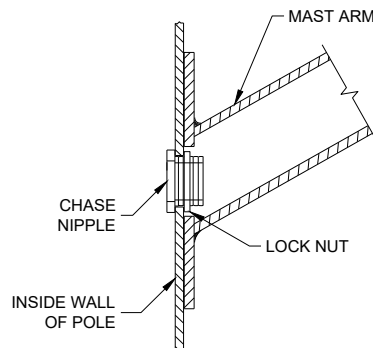
- 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI, STAINLESS STEEL, HEX HEAD BOLTS.
- SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
- CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.
- USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.
- VERTICAL STRUT (ADJUSTABLE), ONE (1) SET SCREW (1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.
- FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



LEVELING SHIM
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



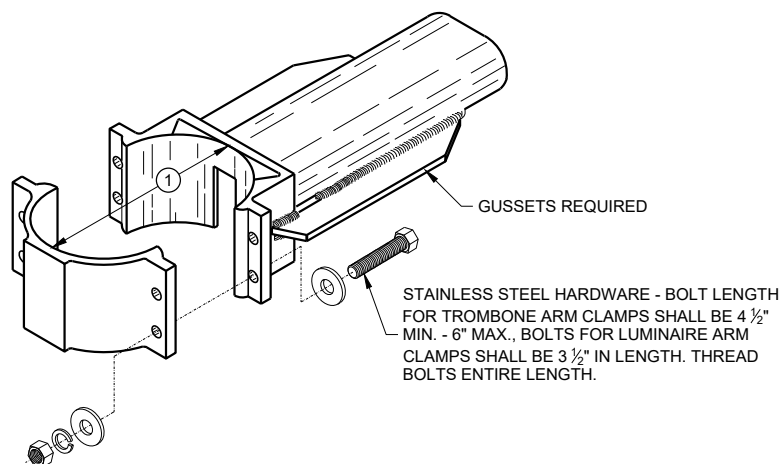
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

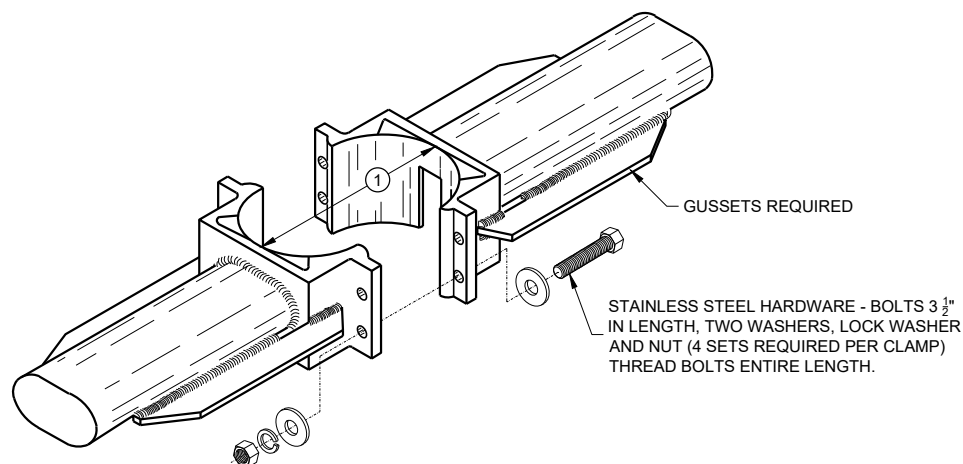
CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

- ① 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
- ② INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
- ③ BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
- ④ LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

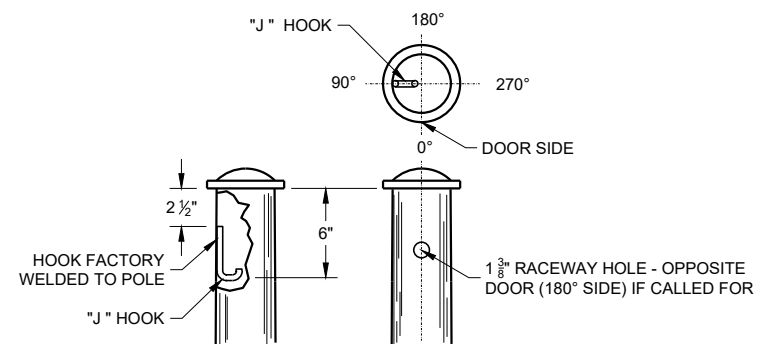
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



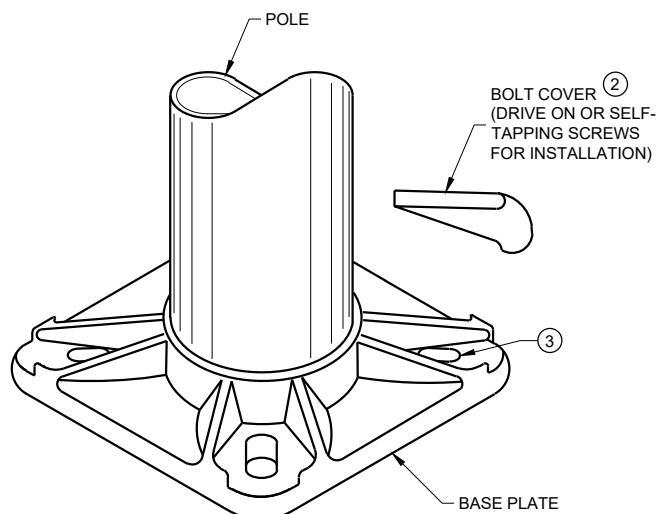
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



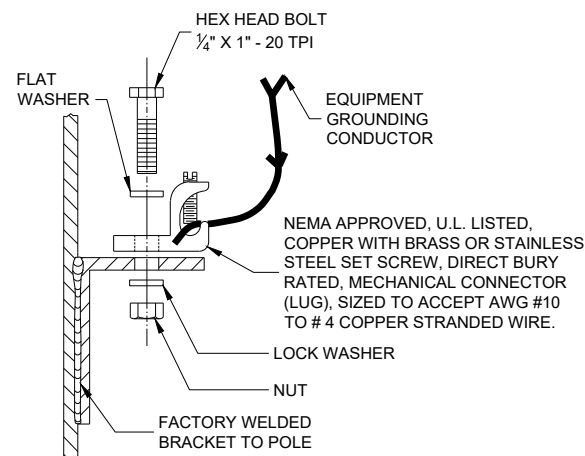
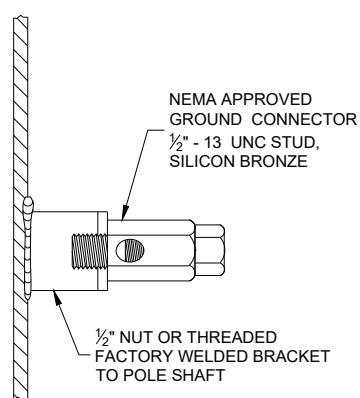
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



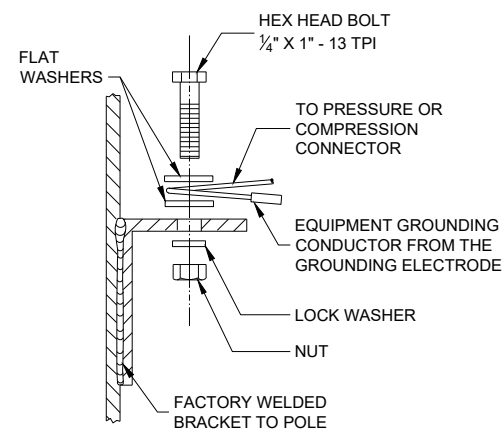
TYPICAL "J" HOOK LOCATION



BASE PLATE



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



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

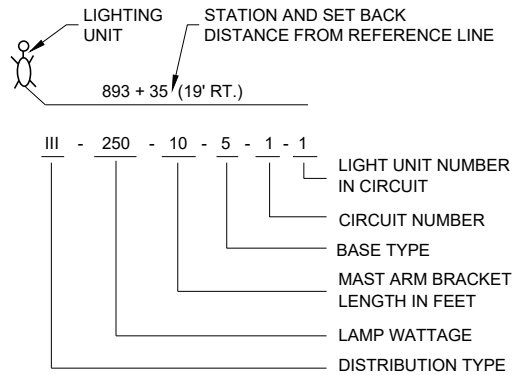
APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI 93
FHWA

GENERAL NOTES

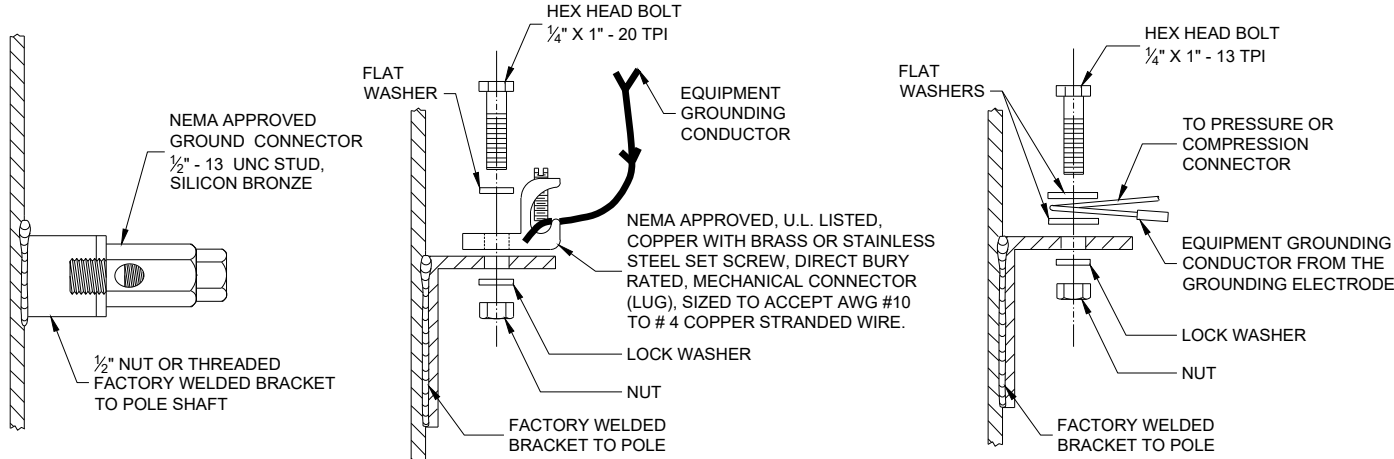
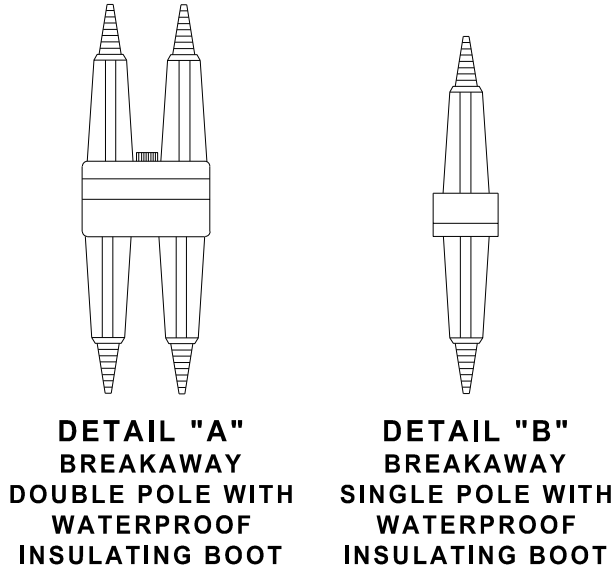
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

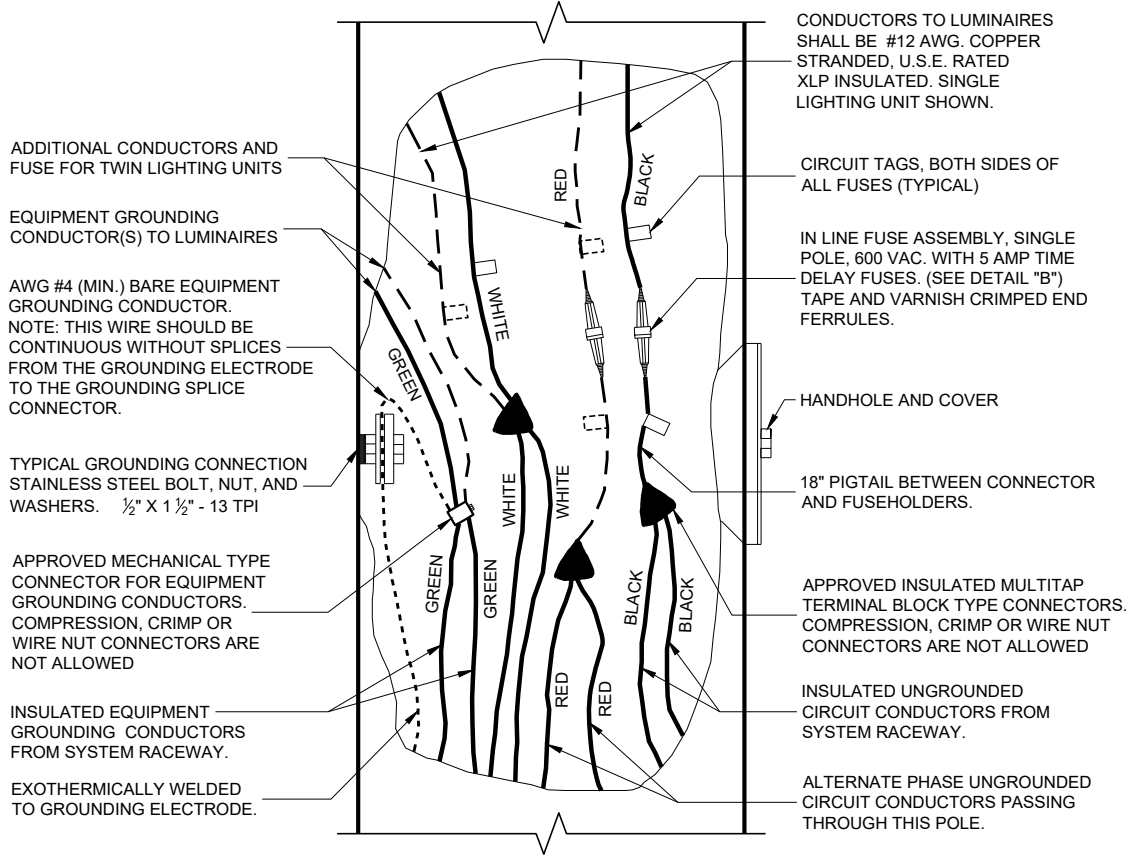
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



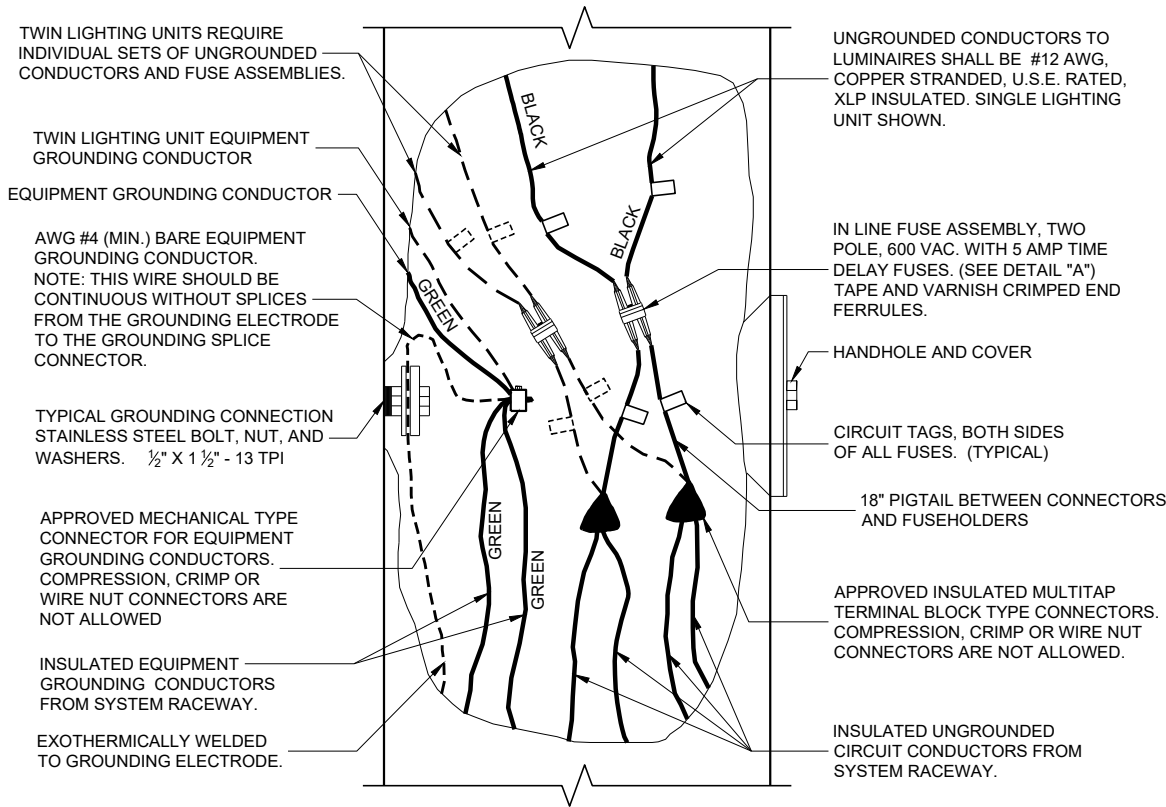
LIGHTING UNIT CODE (TYPICAL)



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



3 WIRE - 120, 240 OR 480 VAC (UNGROUND ED CONDUCTORS)
WITH GROUNDING CONDUCTOR AND
EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUND ED CONDUCTORS)
WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT
POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGI 94
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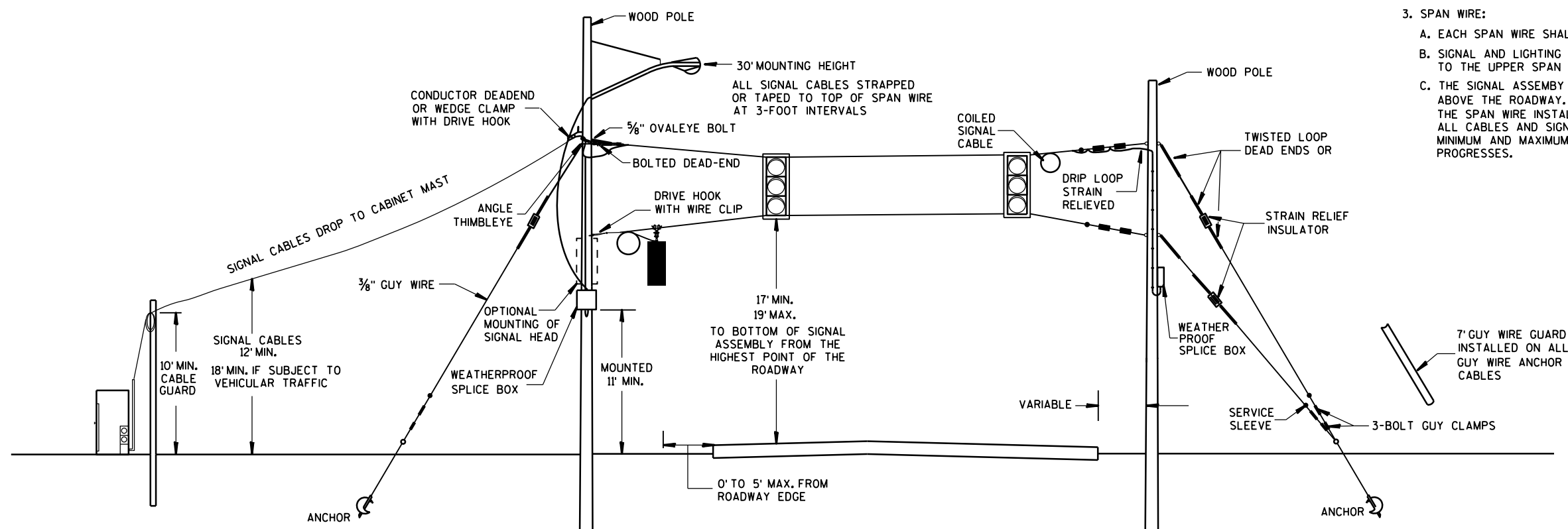
GENERAL NOTES

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

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'

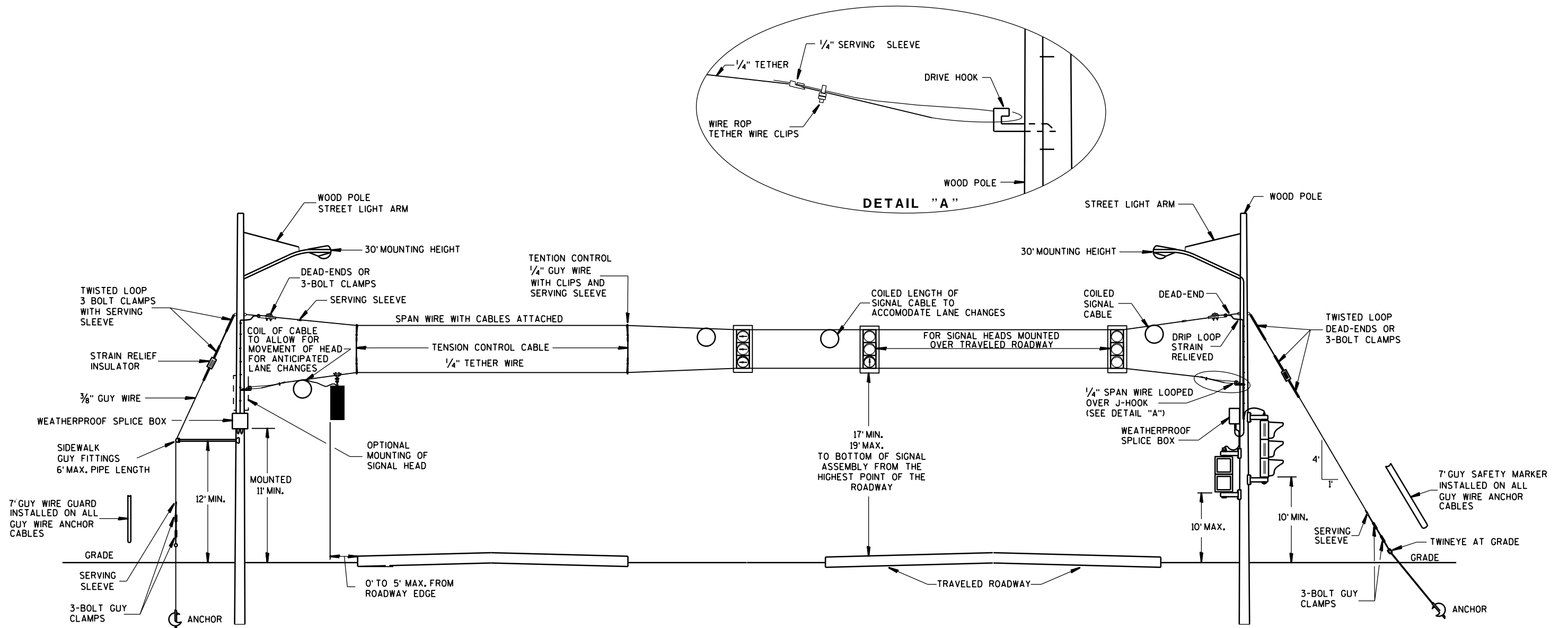
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 95

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GENERAL NOTES

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

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.

E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:

A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.

B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.

C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE TEMPORARY SIGNALS 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

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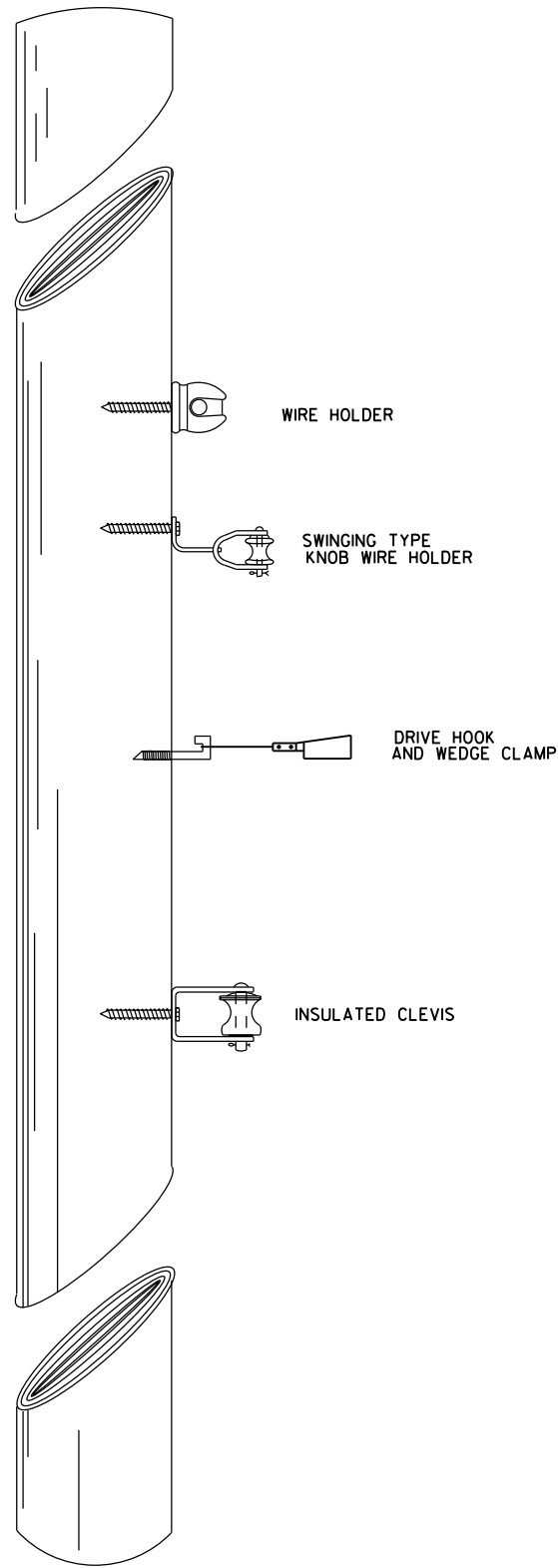
June, 2015

DATE

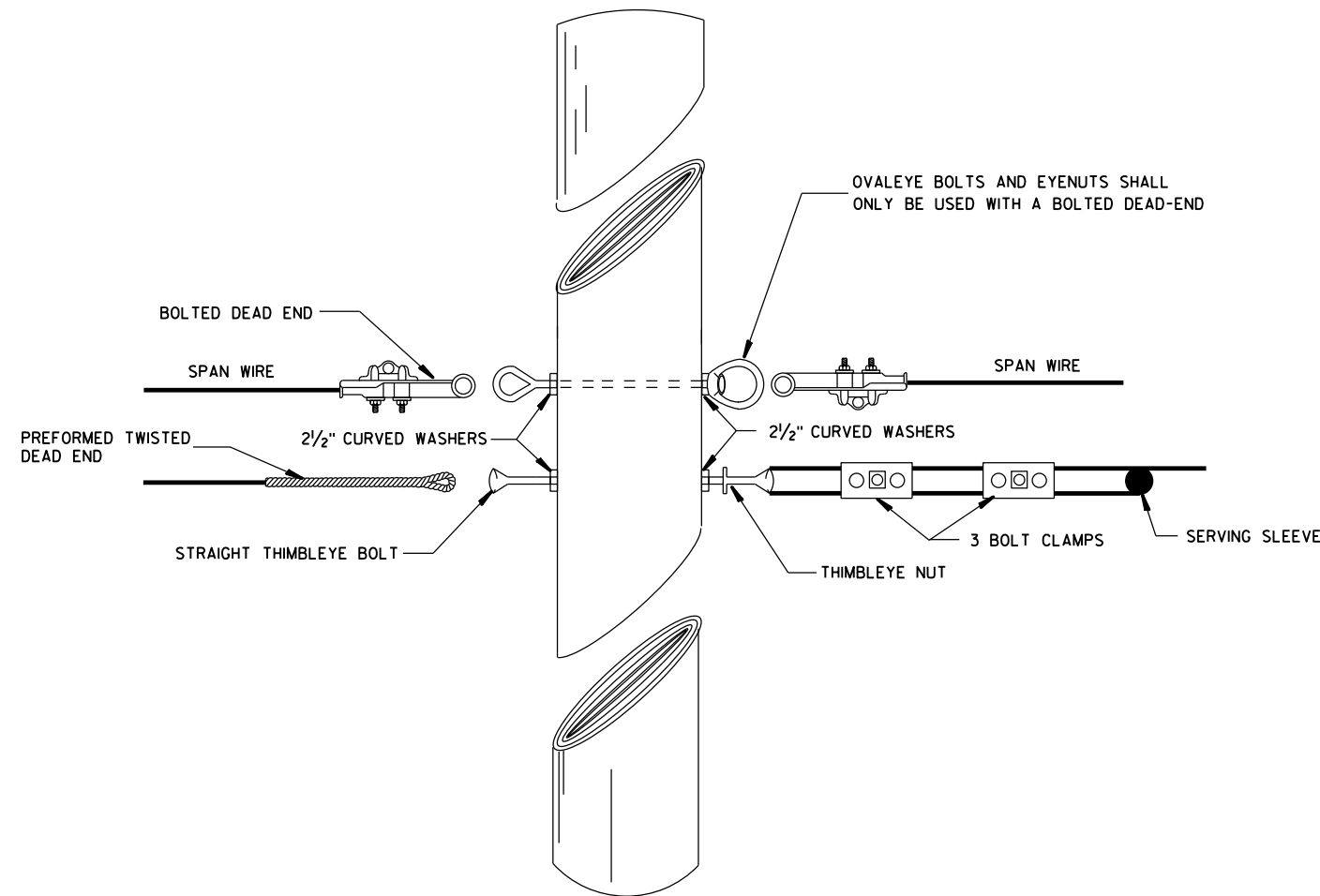
FHWA

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STATE ELECTRICAL 96

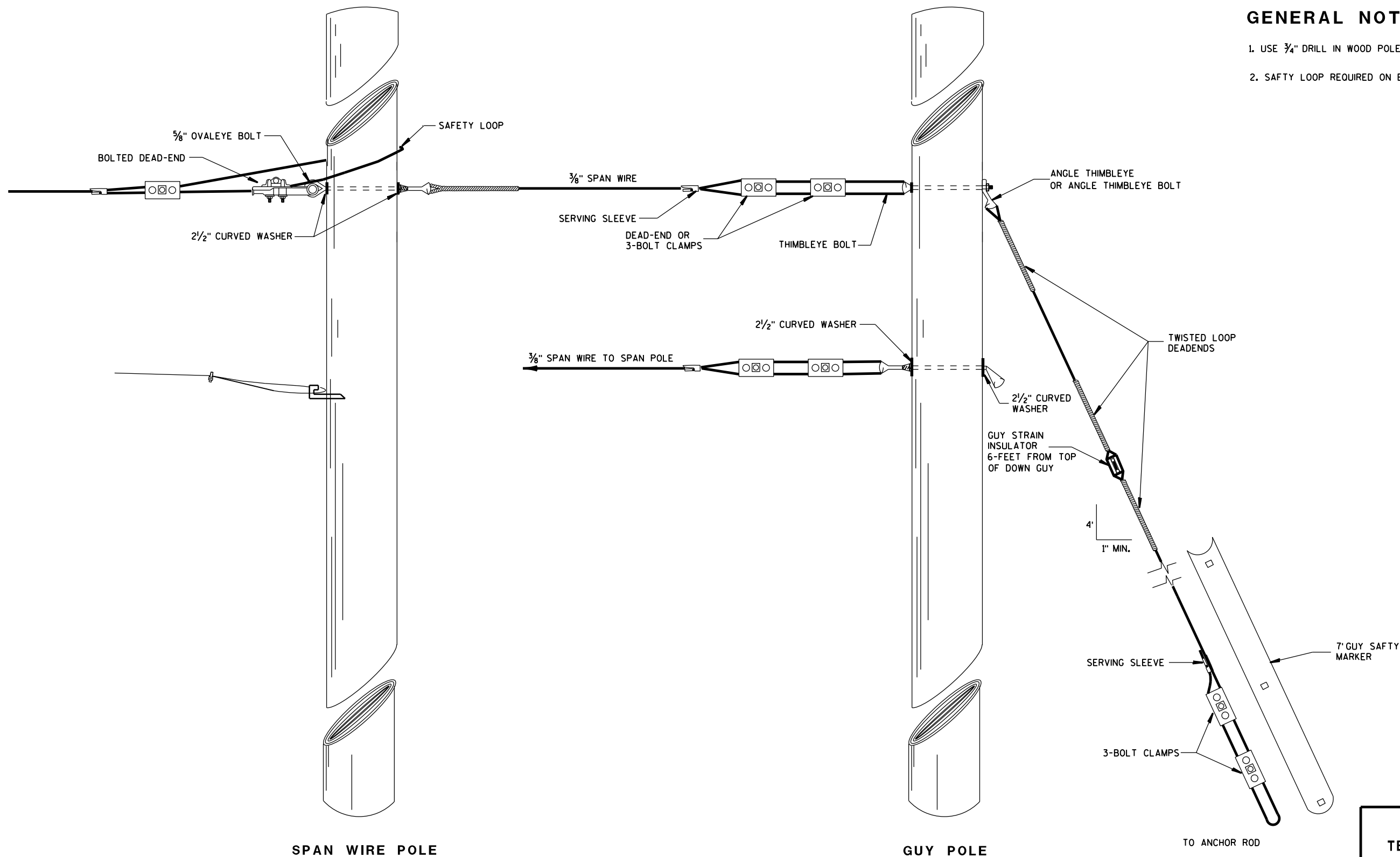


TYPICAL CABLE HANGERS



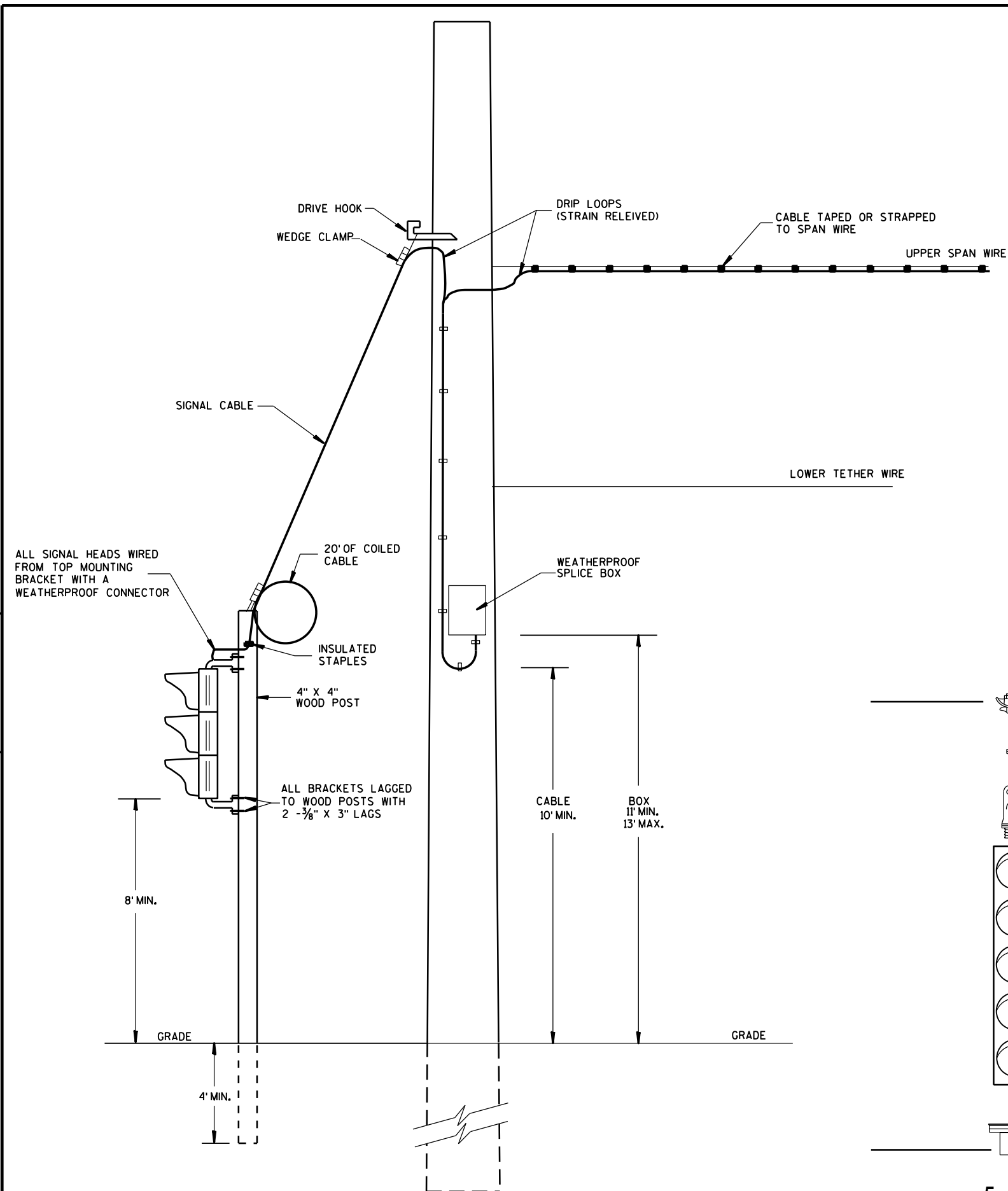
TYPICAL DEAD-ENDING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2015 DATE	/S/ Ahmet Demirblek STATE ELECTRICAL 97
FHWA	

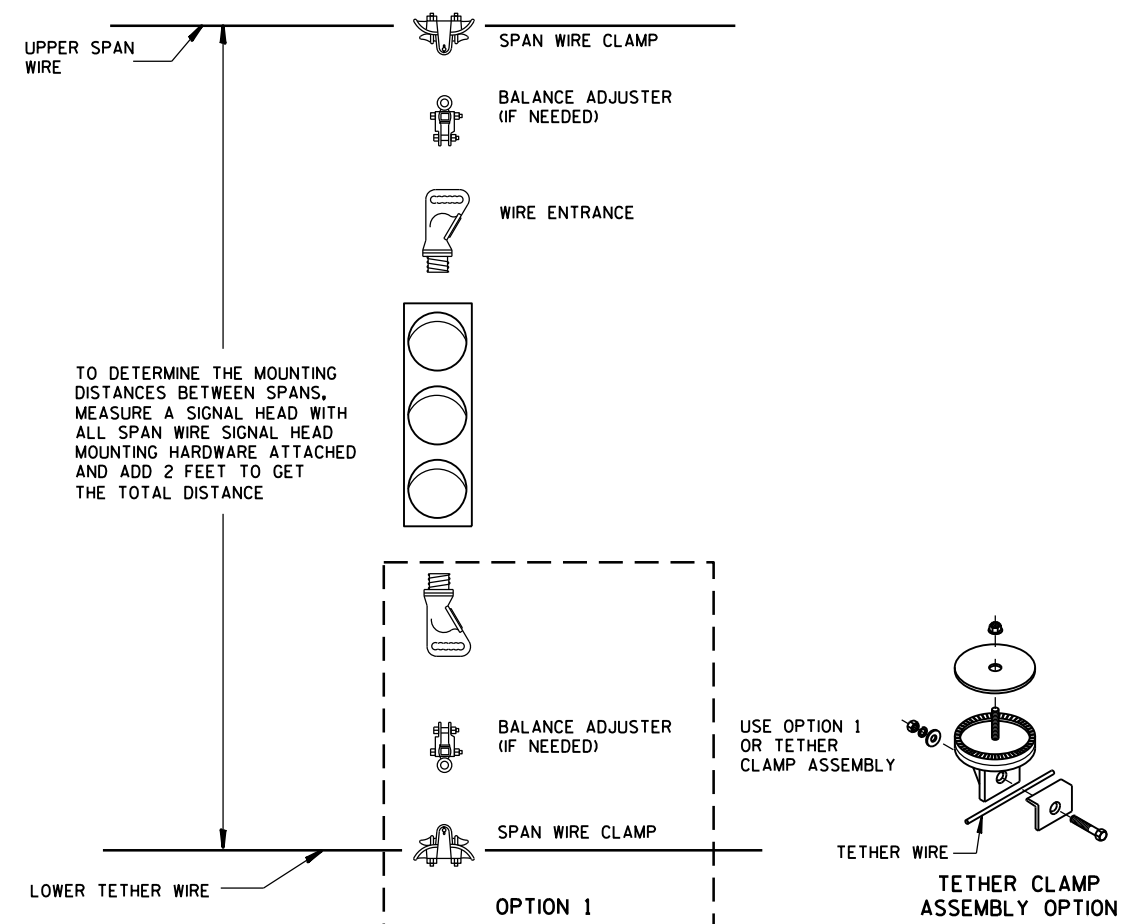


TYPICAL DEAD-ENDINGS OR GUYING

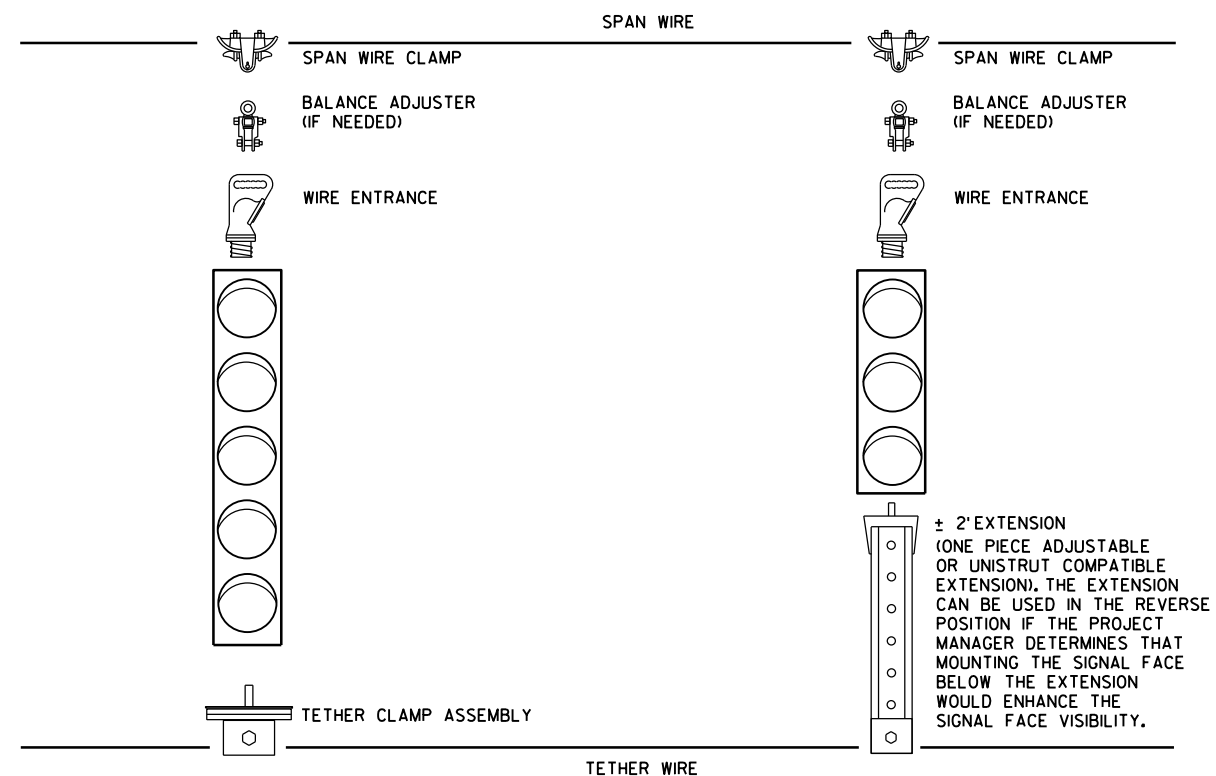
SPAN WIRE TEMPORARY TRAFFIC SIGNAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2015 DATE	/S/ Ahmet Demirelek STATE ELECTRICAL 98
FHWA	



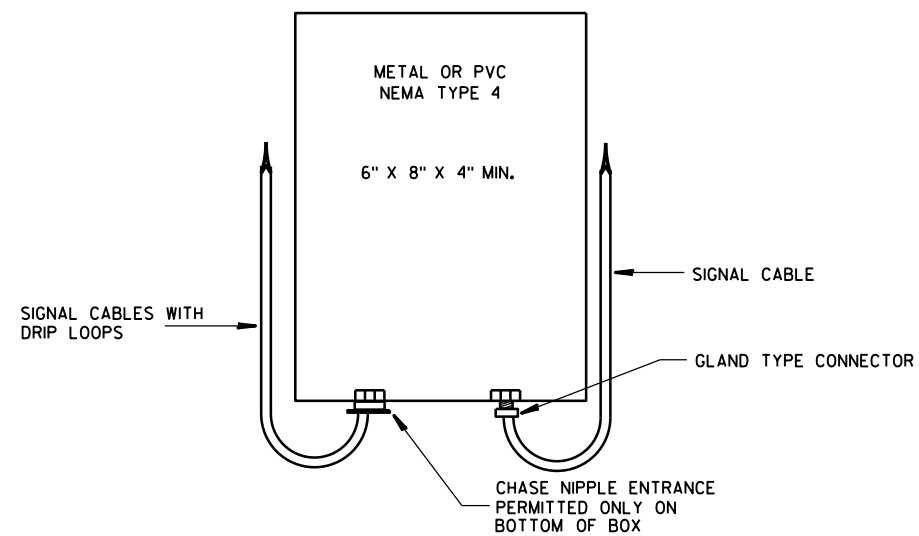
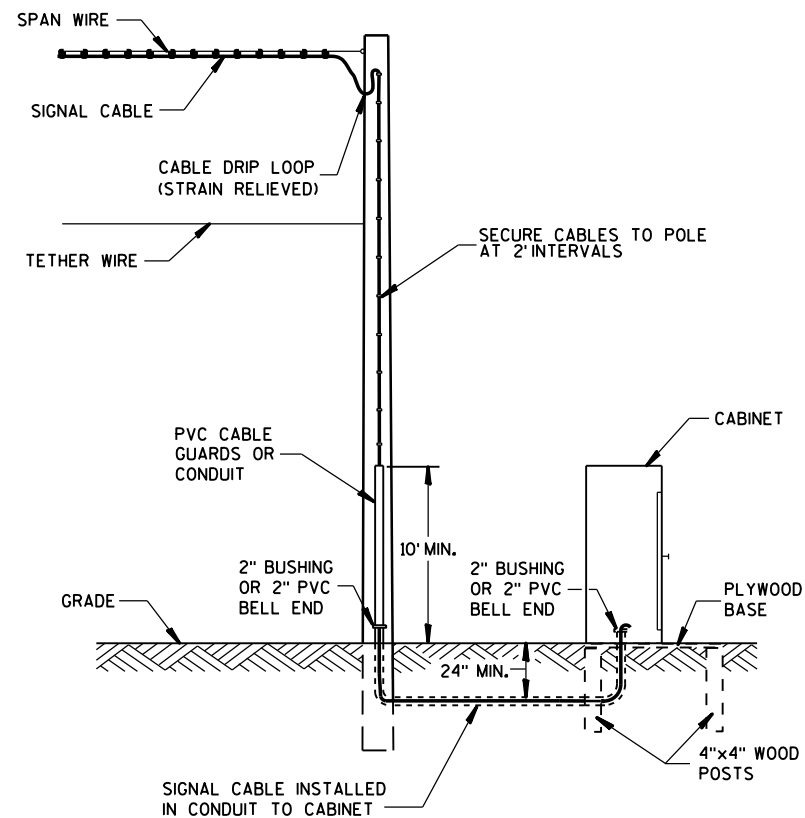
TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



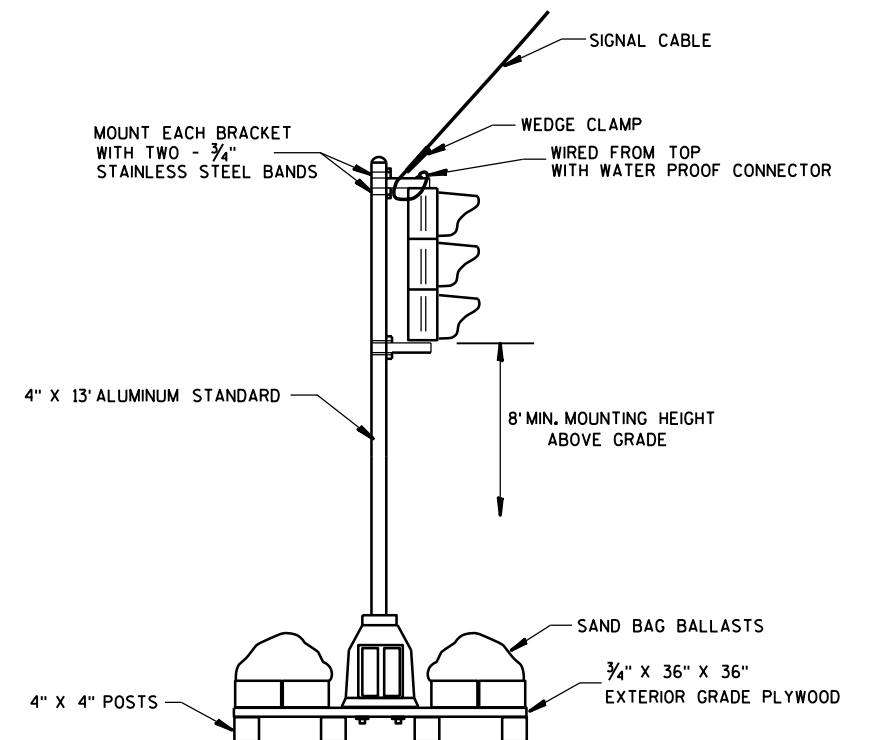
TYPICAL SPAN WIRE MOUNTING HARDWARE



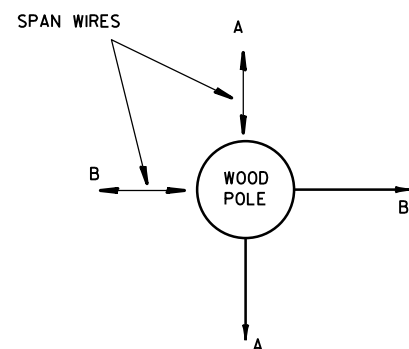
5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE



SPLICE BOX

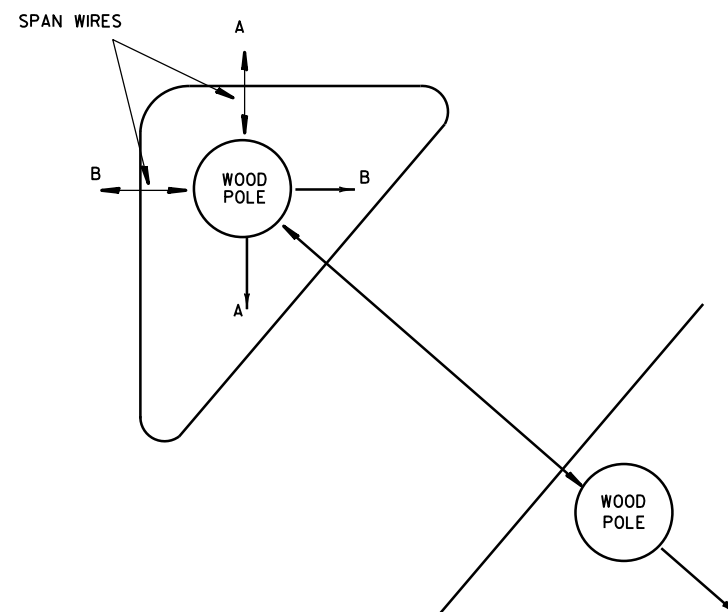


TYPICAL SKID TYPE TEMPORARY

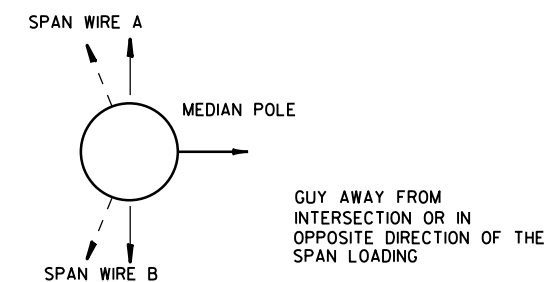


ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES

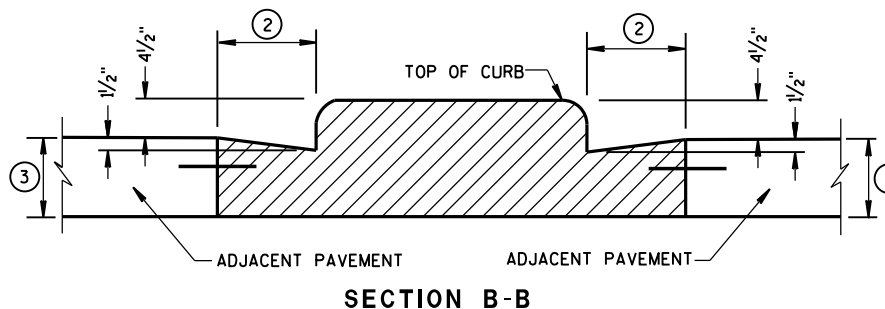
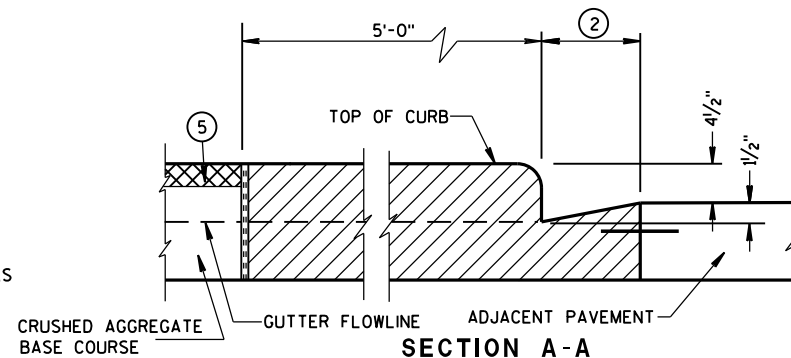
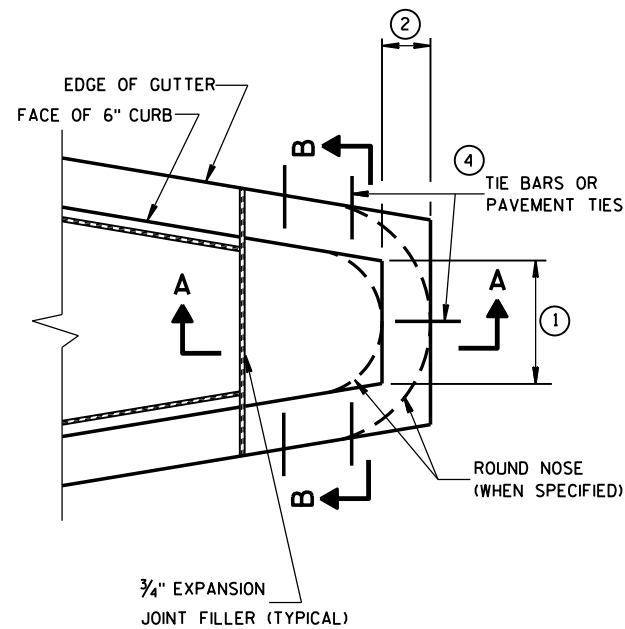
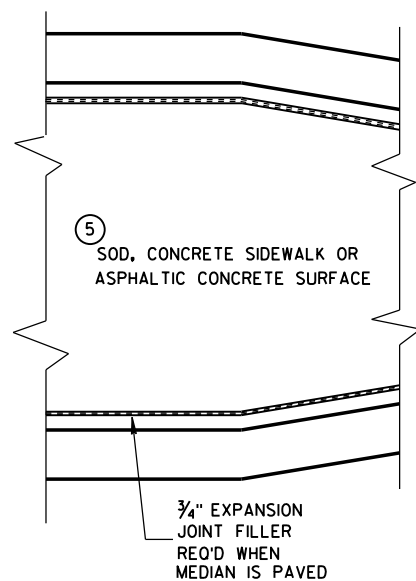


MEDIAN POLES

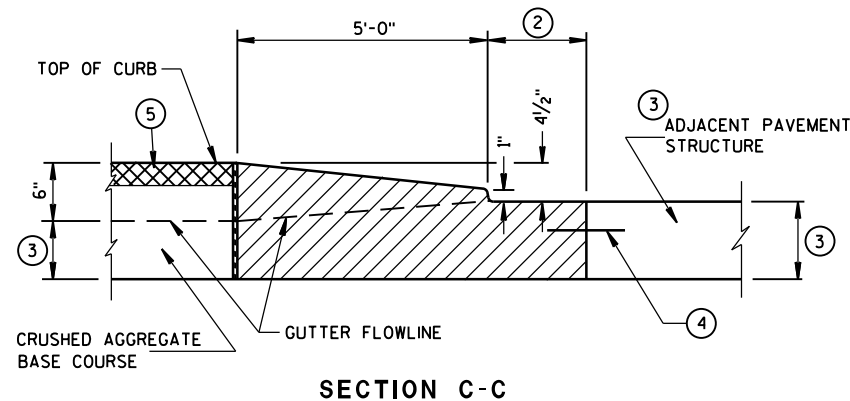
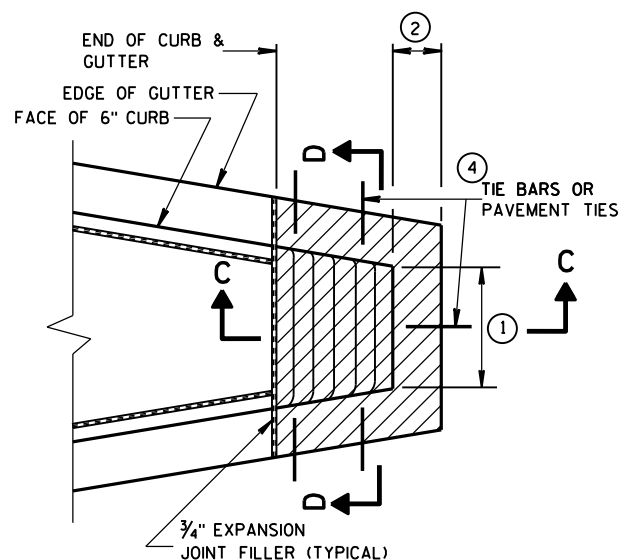
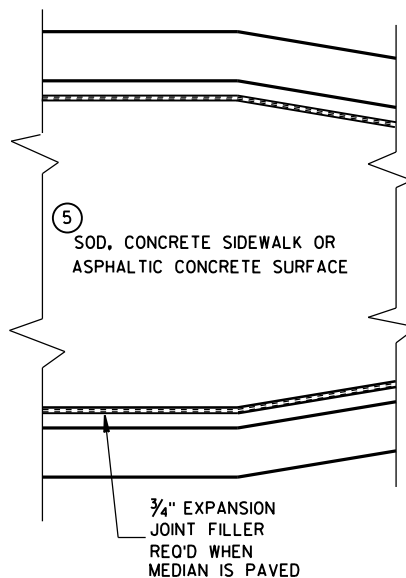
**SPAN WIRE
TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

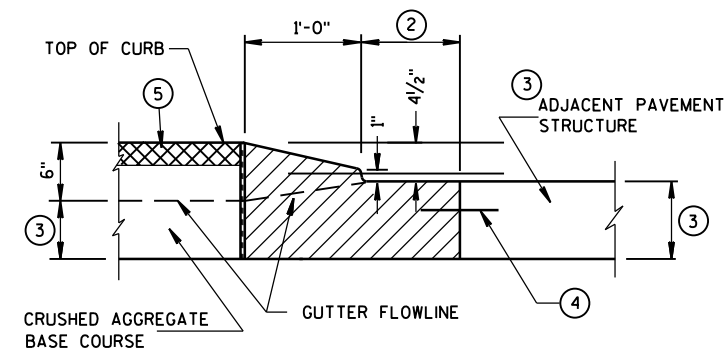
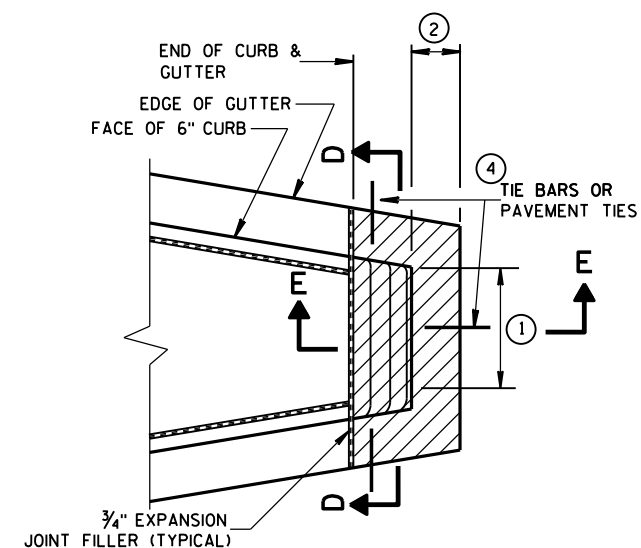
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June, 2015 /S/ Ahmet Demirbilek
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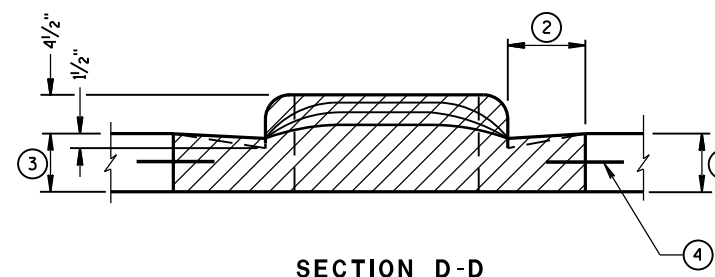
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

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

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

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006

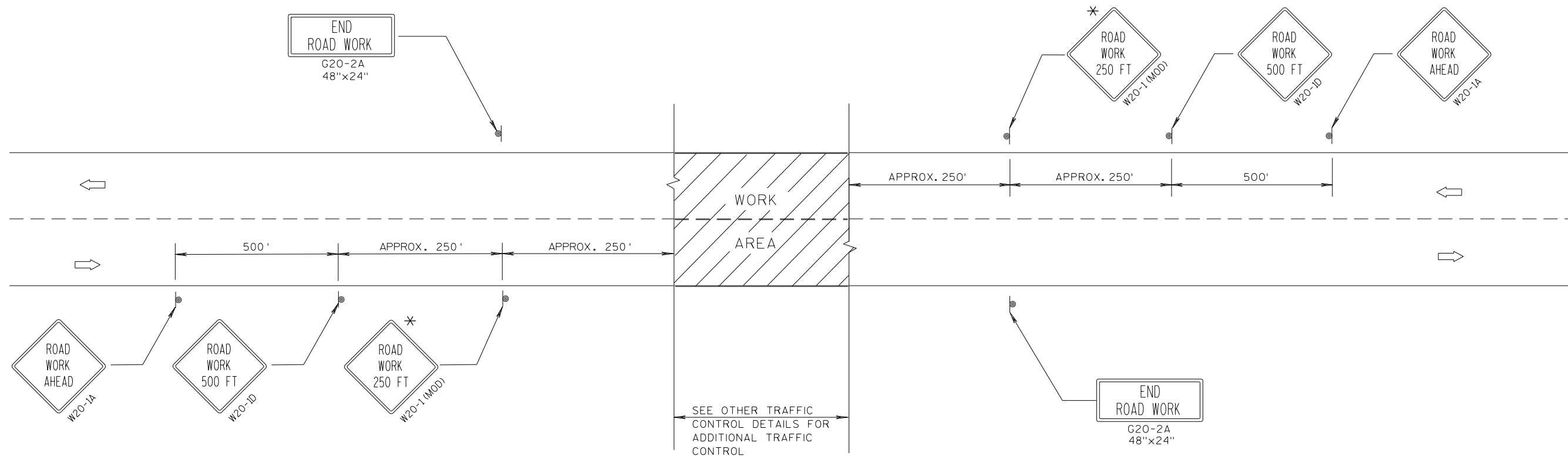
DATE

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/S/ Jerry H. Zoag
ROADWAY STANDARDS & ENGINEER

101

4T



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

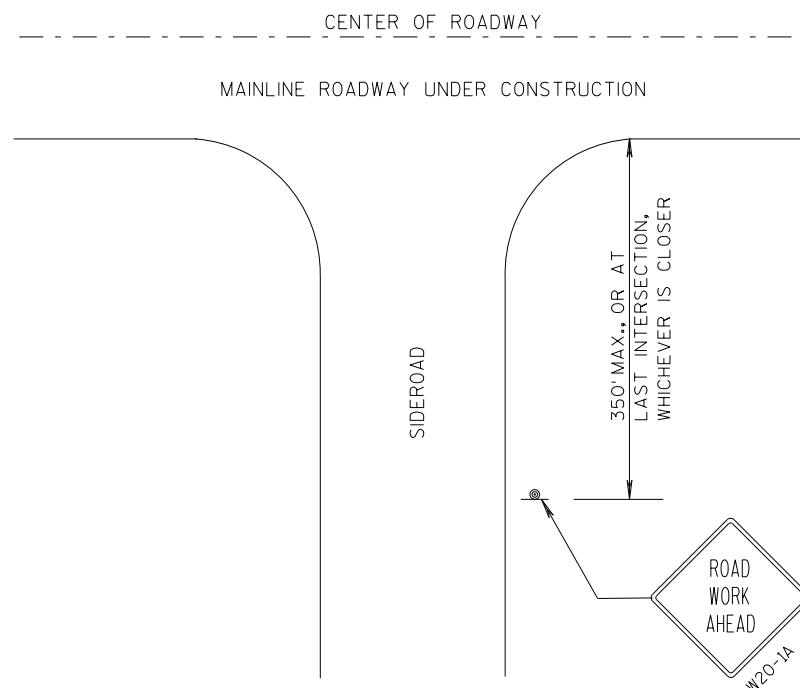
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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



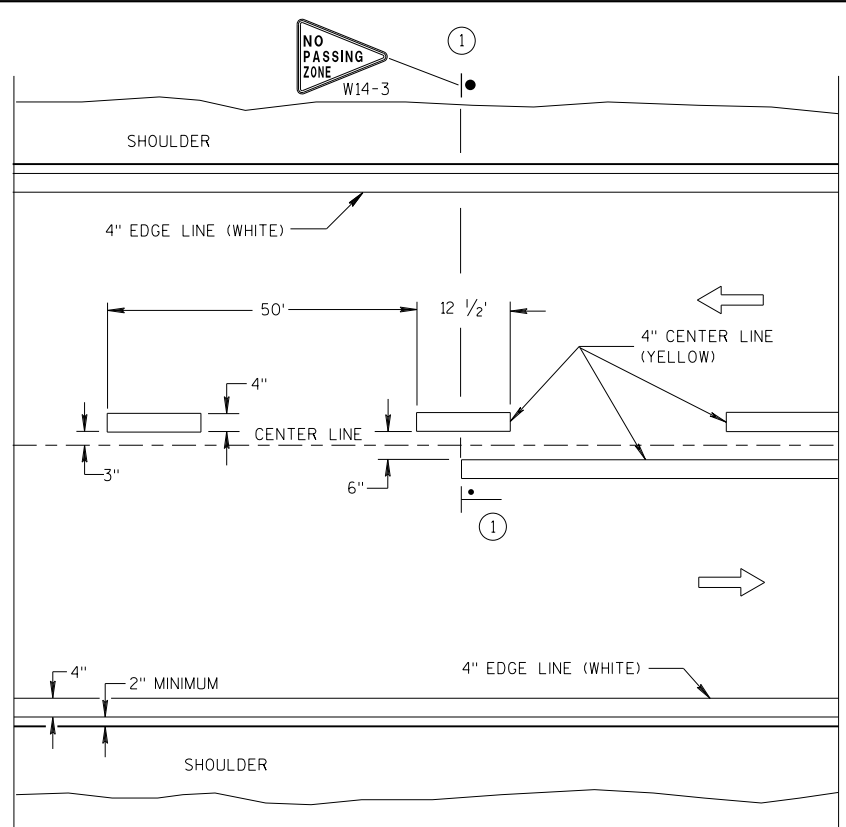
LEGEND

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

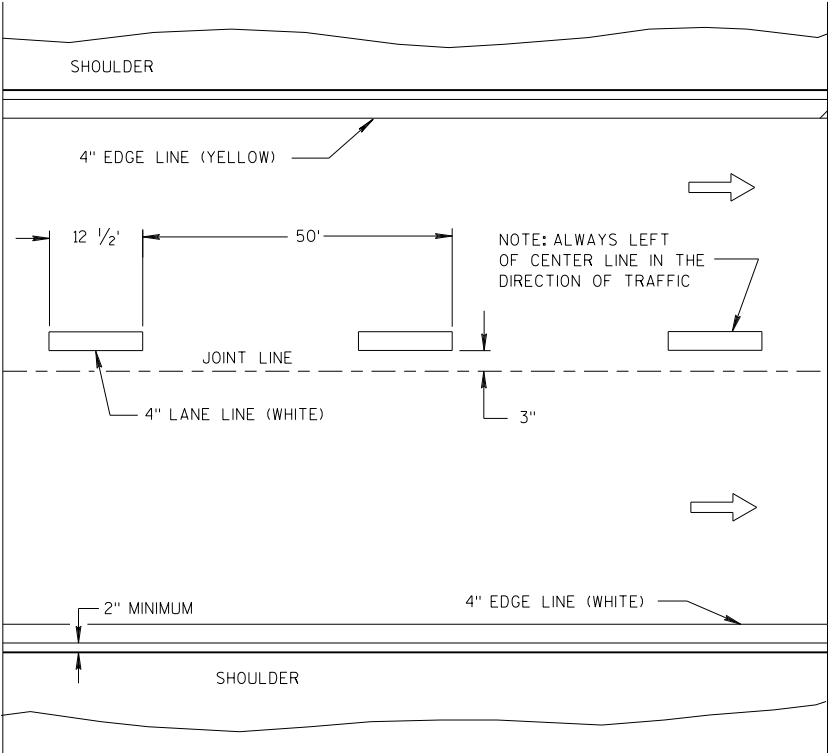
**TRAFFIC CONTROL. ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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FHWA 102

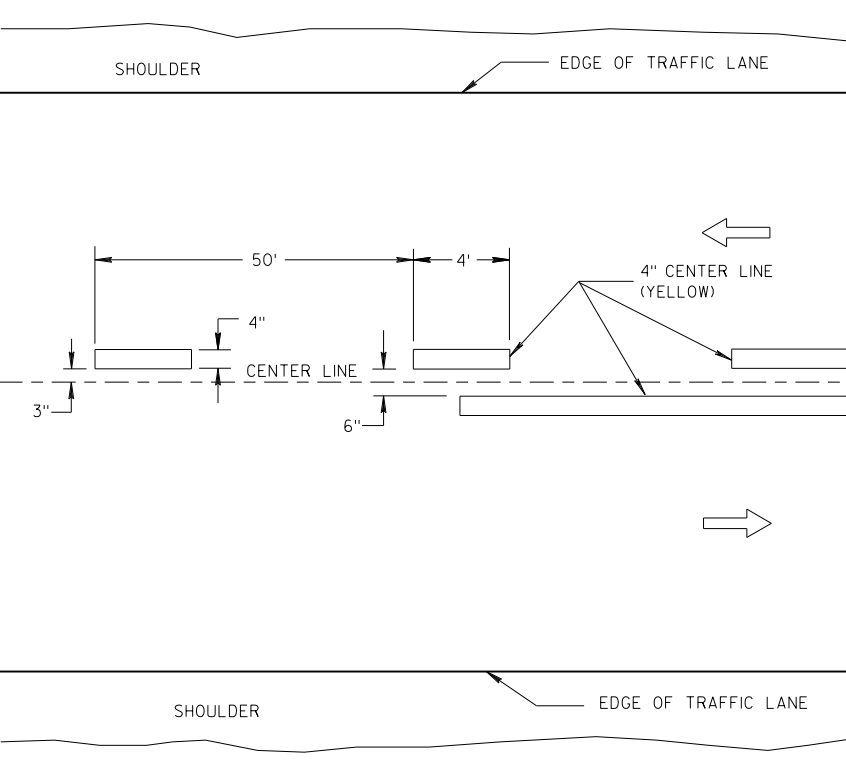


TWO WAY TRAFFIC

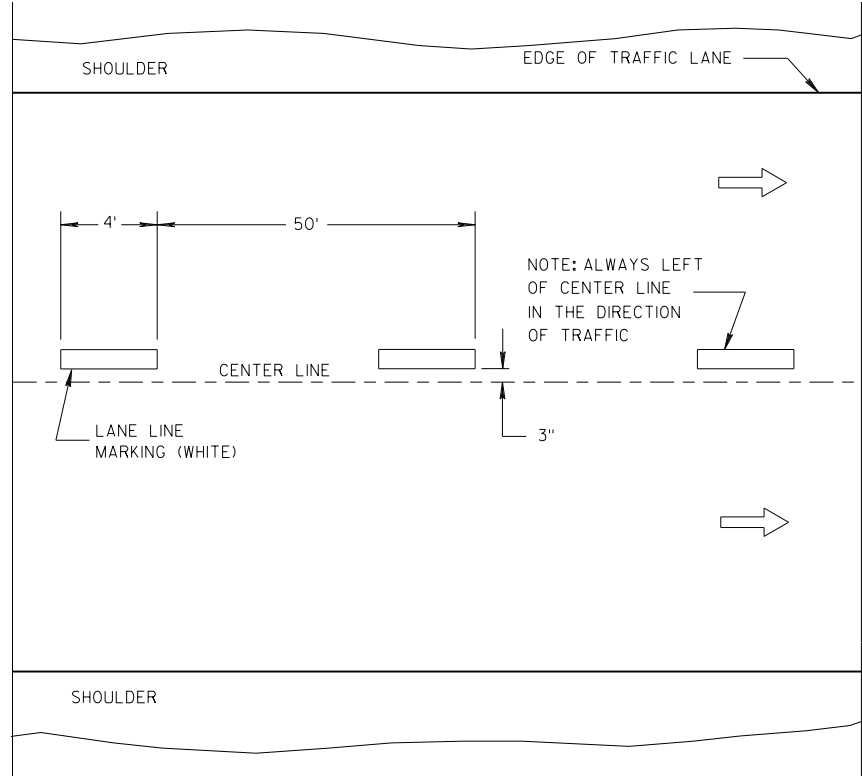


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

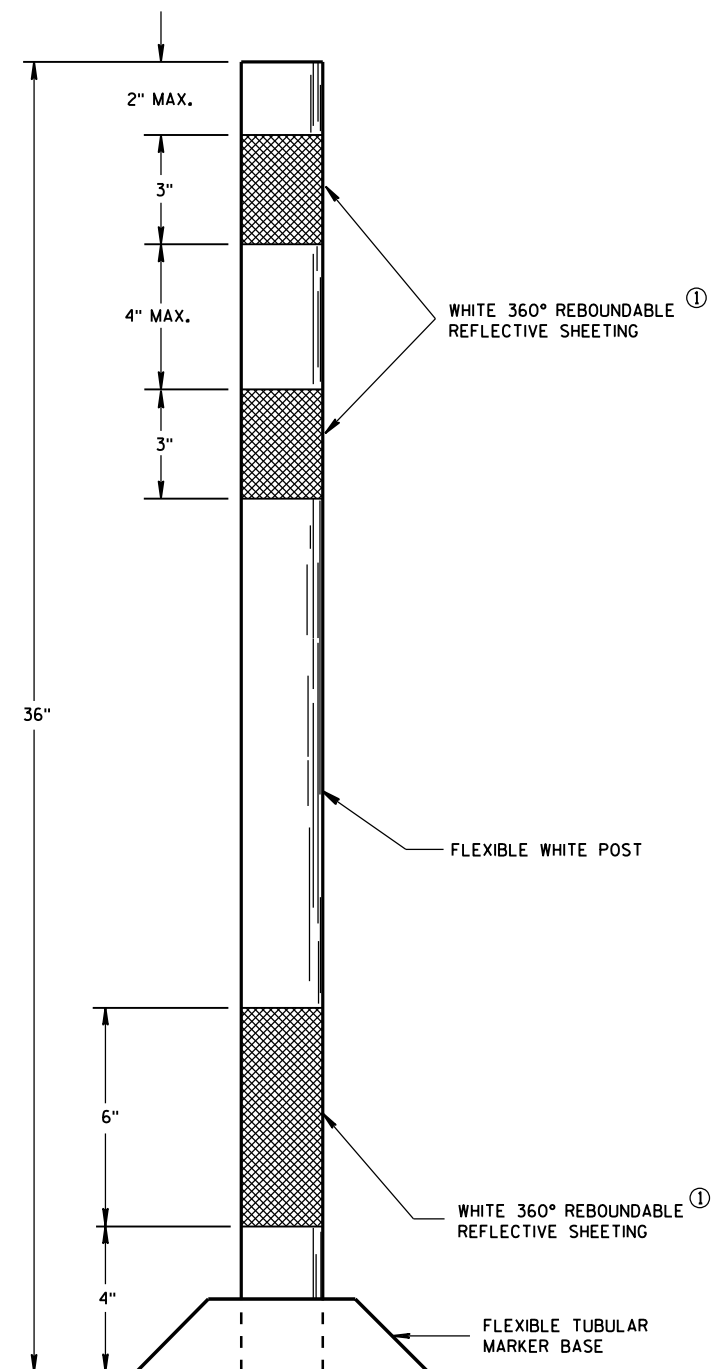
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

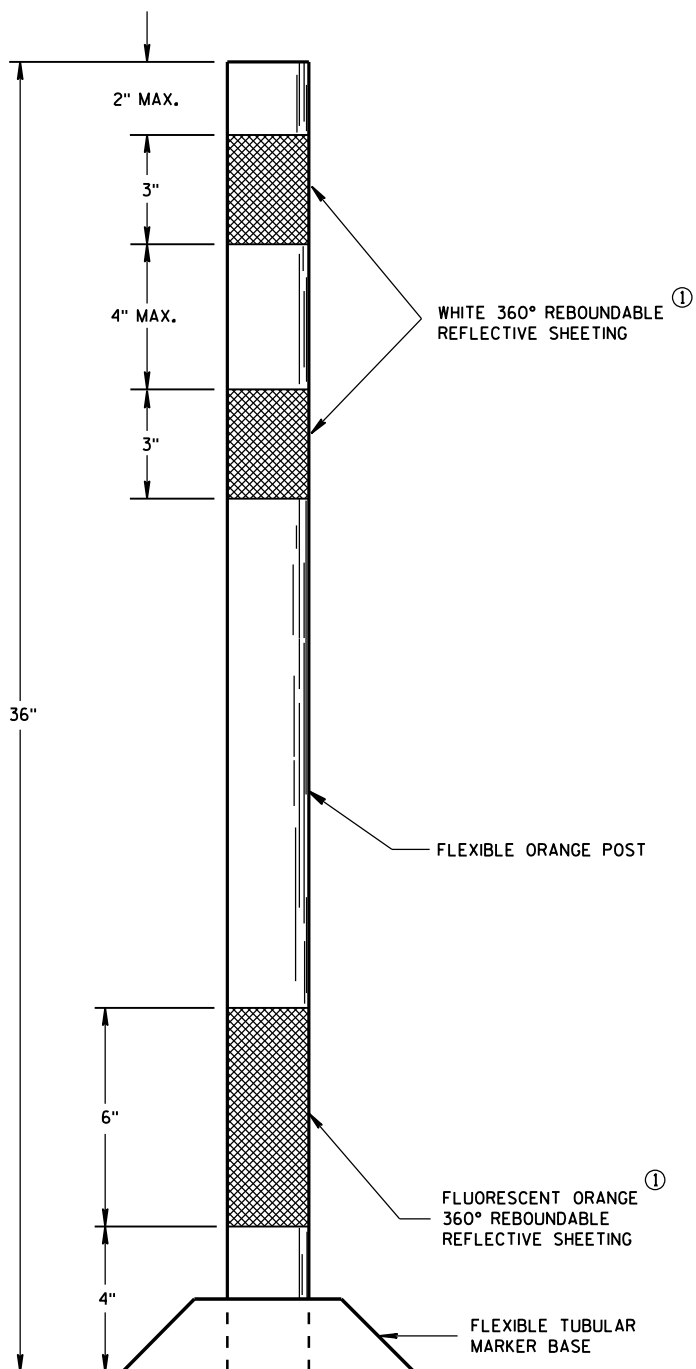
LONGITUDINAL MARKING (MAINLINE)

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**FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER**



**FLEXIBLE
TUBULAR MARKER POST
WORK ZONE**

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER
POST

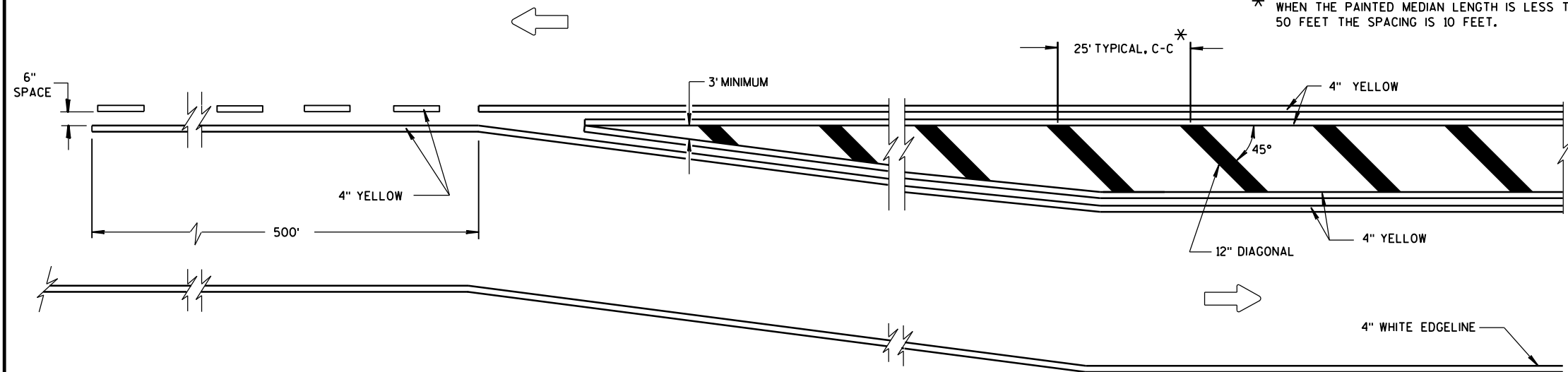
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER 104

FHWA

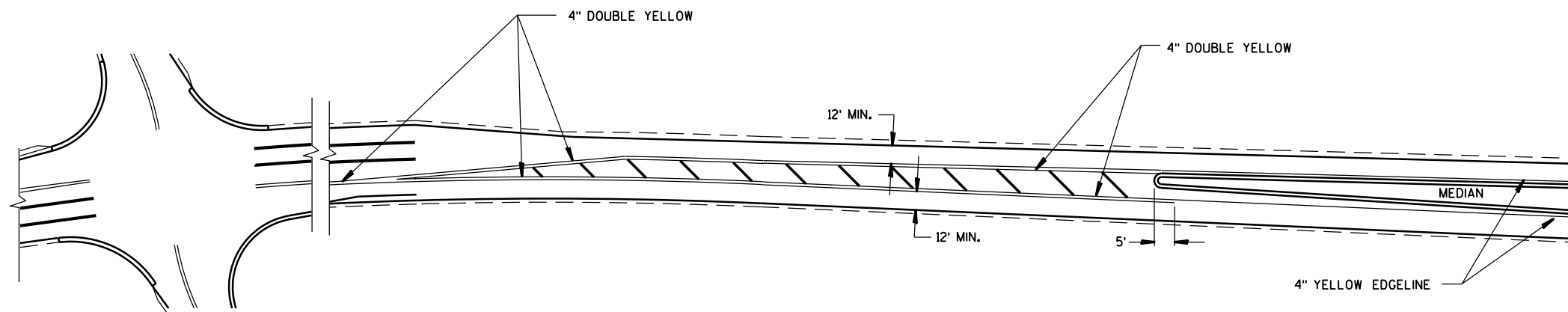


MEDIAN ISLAND DETAIL

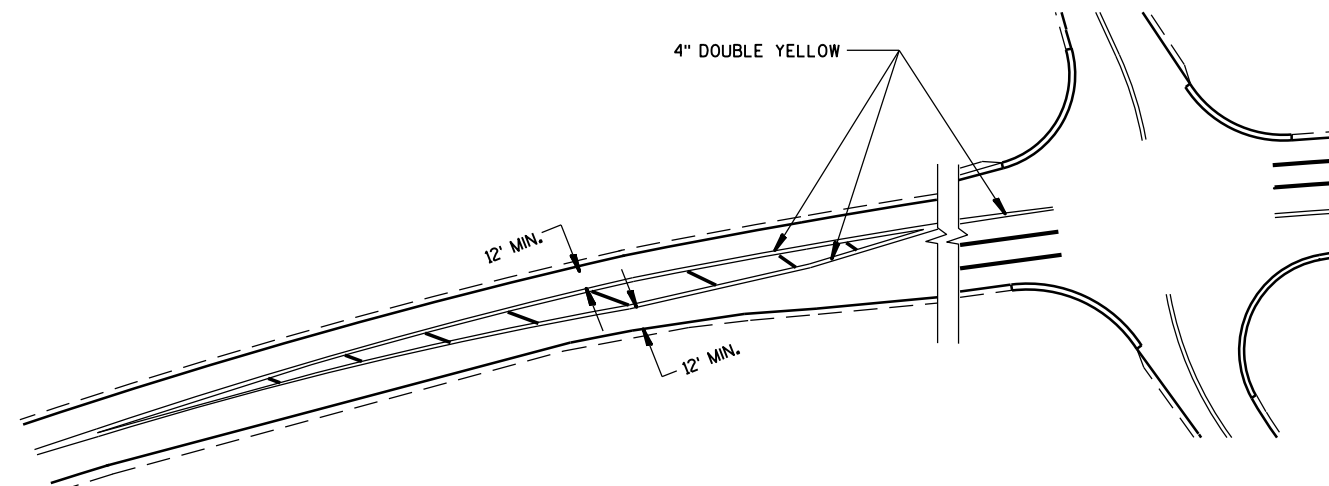
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

➡ DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

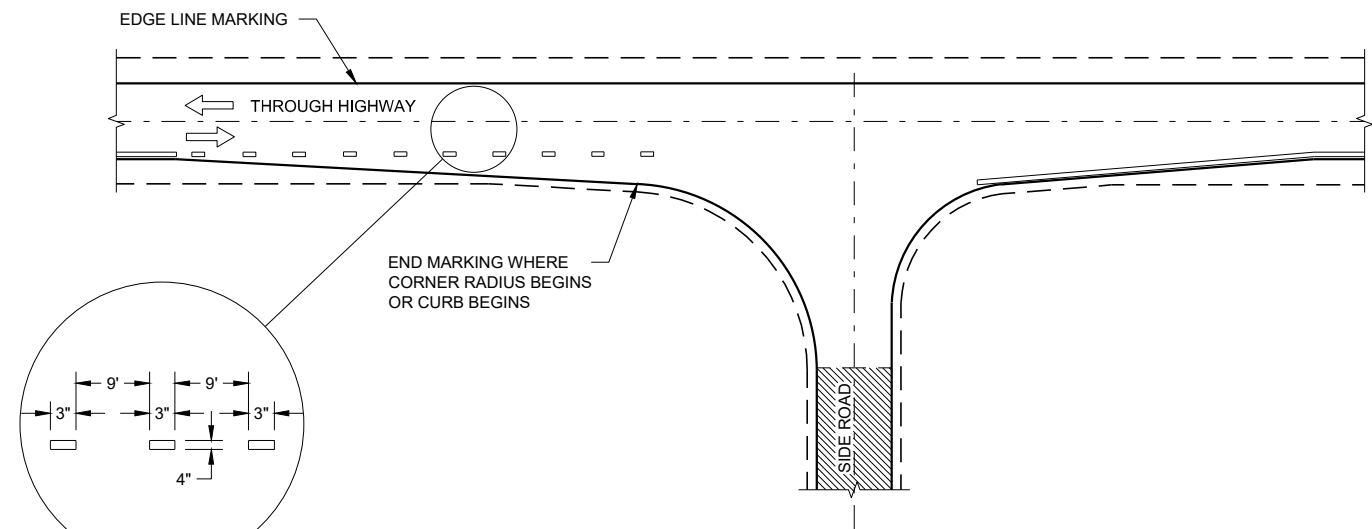


NON APPROACH MARKINGS

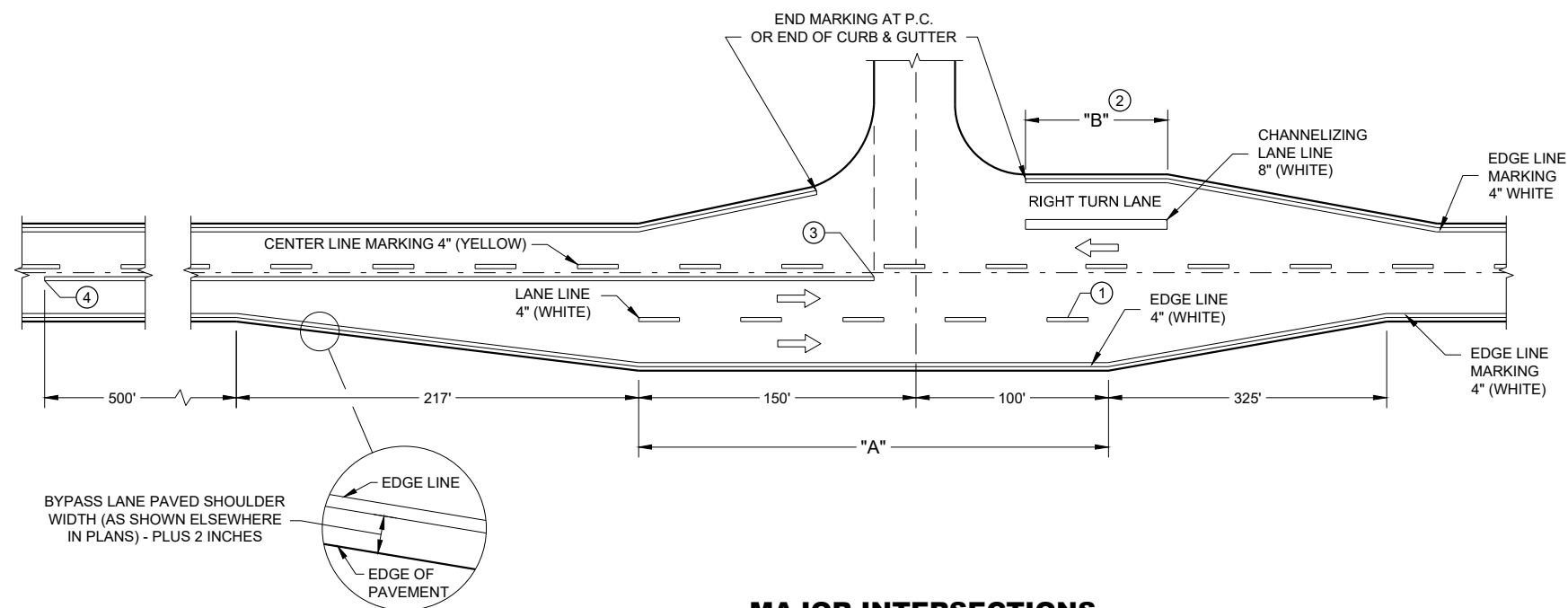
MEDIAN ISLAND MARKING

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DATE STATE SIGNING AND MARK 105 ER
FHWA



MINOR INTERSECTION



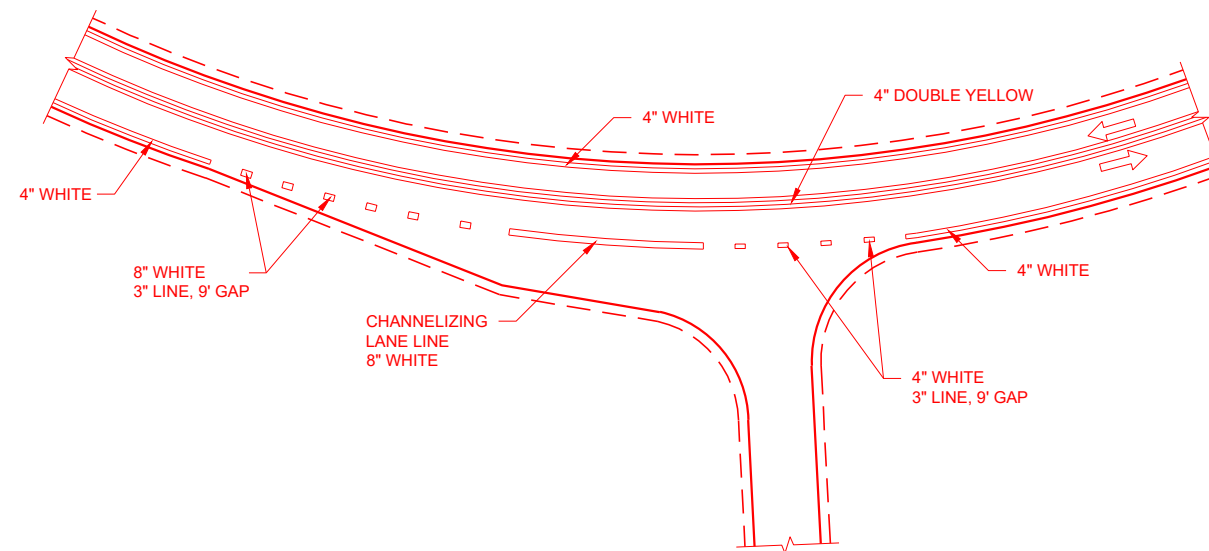
MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES 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 BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 106

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

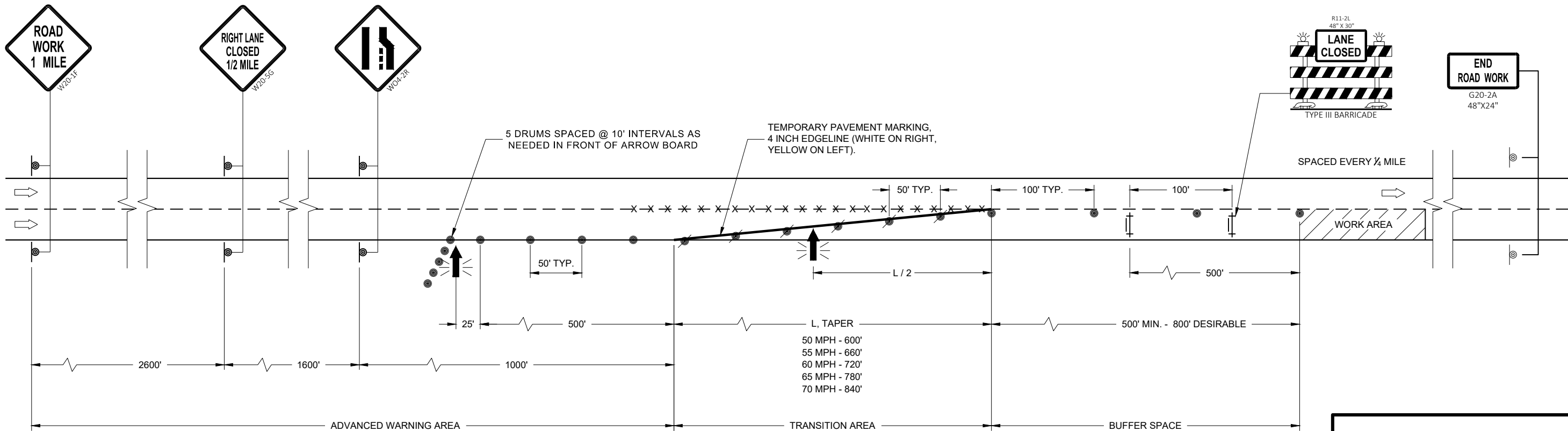
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD

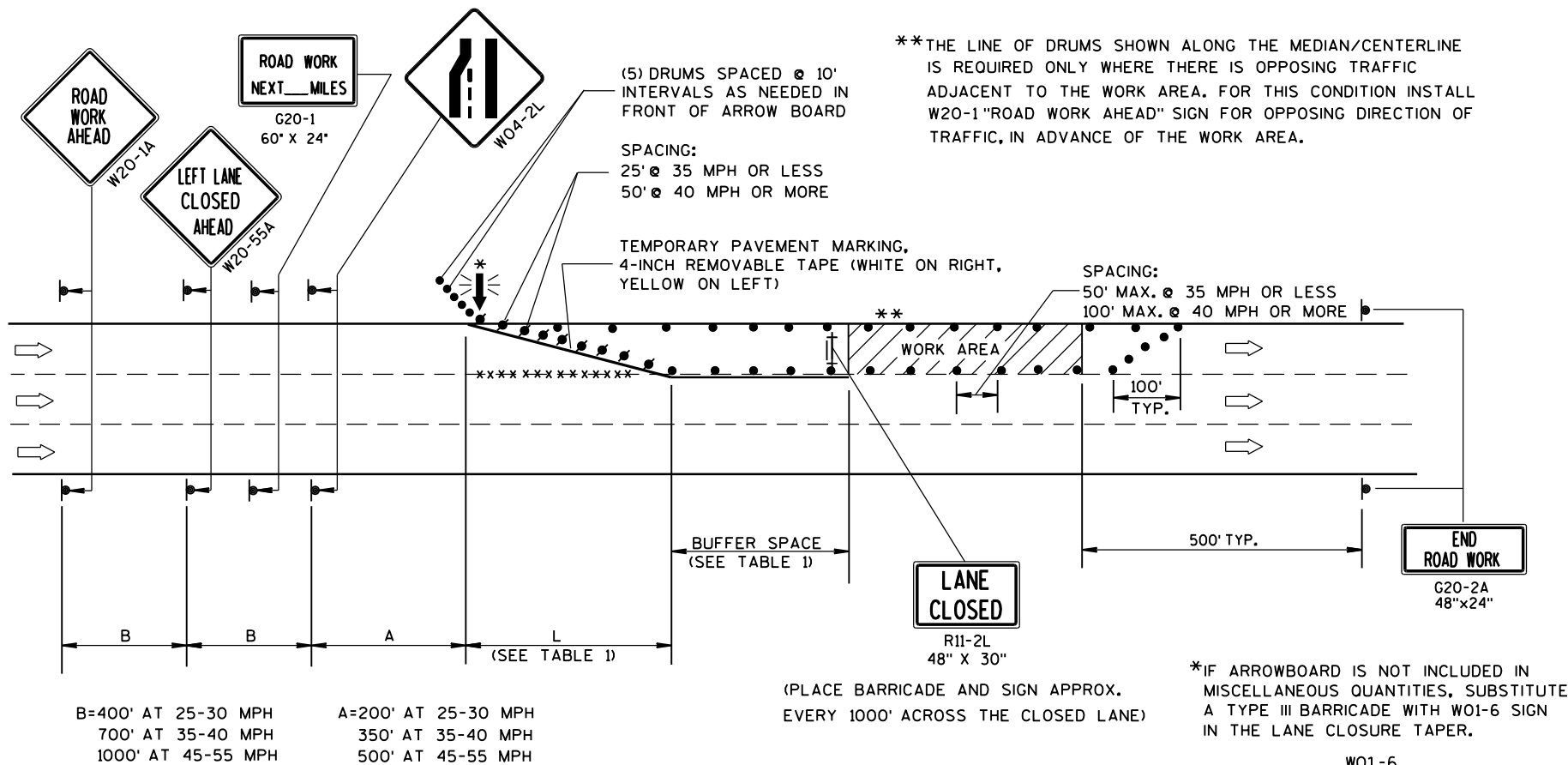


TRAFFIC CONTROL
LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 107

FHWA



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE SAFETY ENGINEER 108 IC
FHWA

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

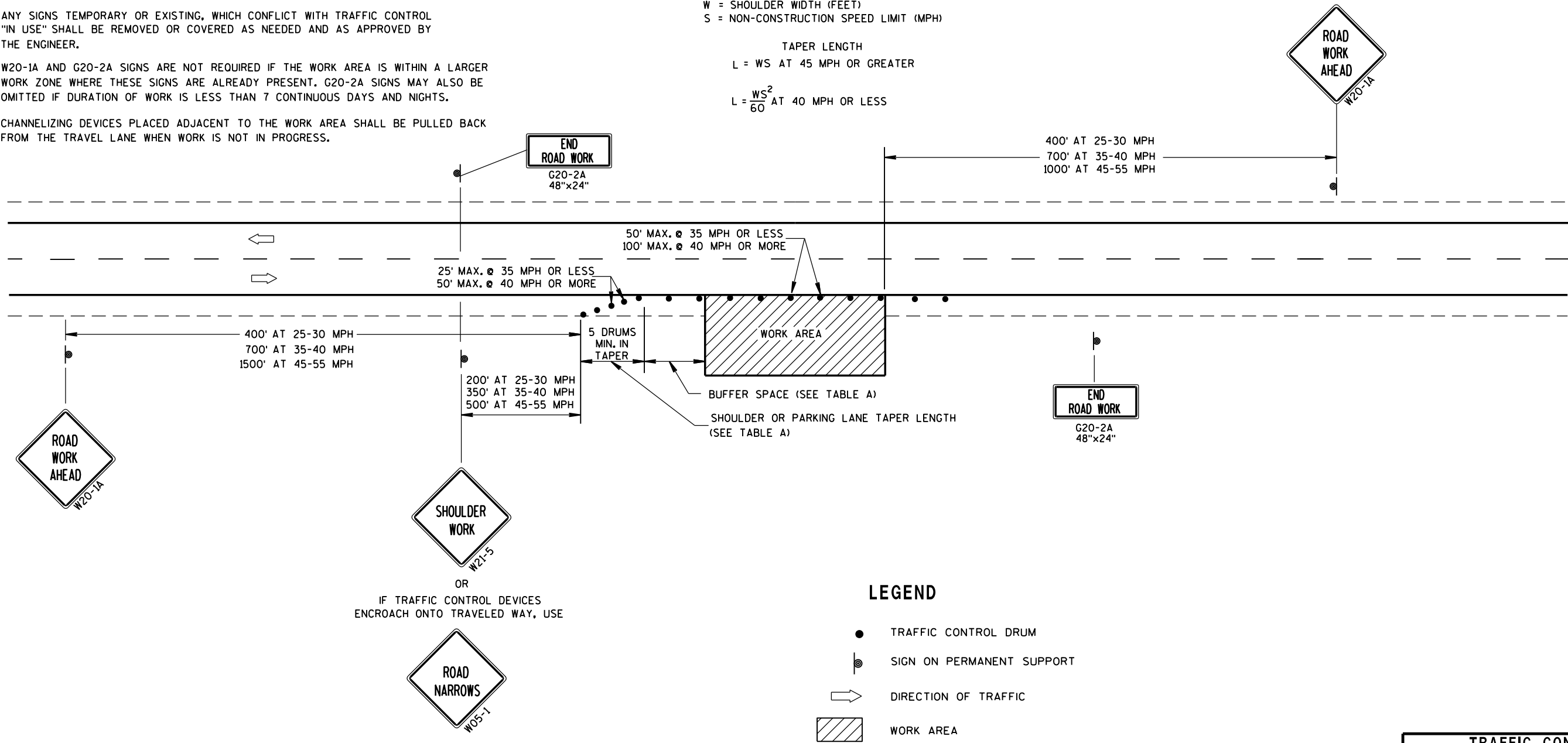
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH
L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

SHOULDER TAPER LENGTH = $\frac{1}{3}L$

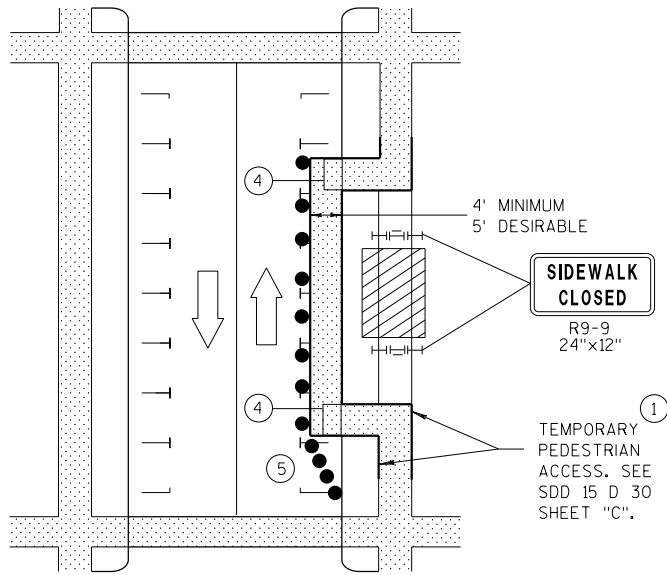


LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

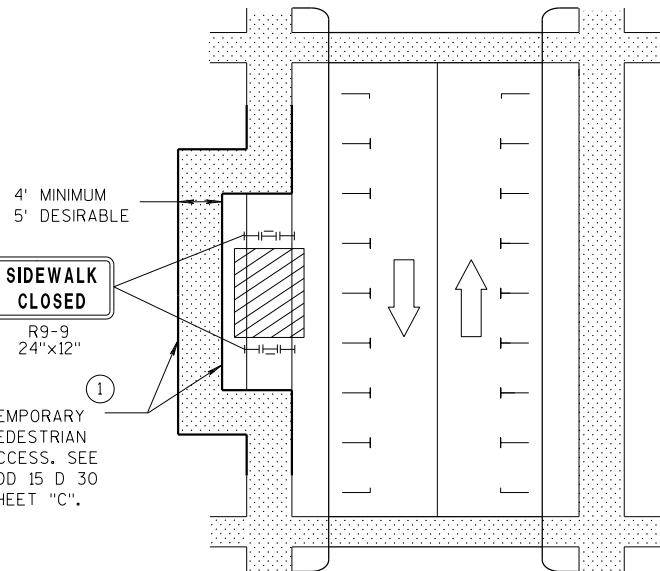
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE SAFETY ENGINEER	109 FIC
FHWA		

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

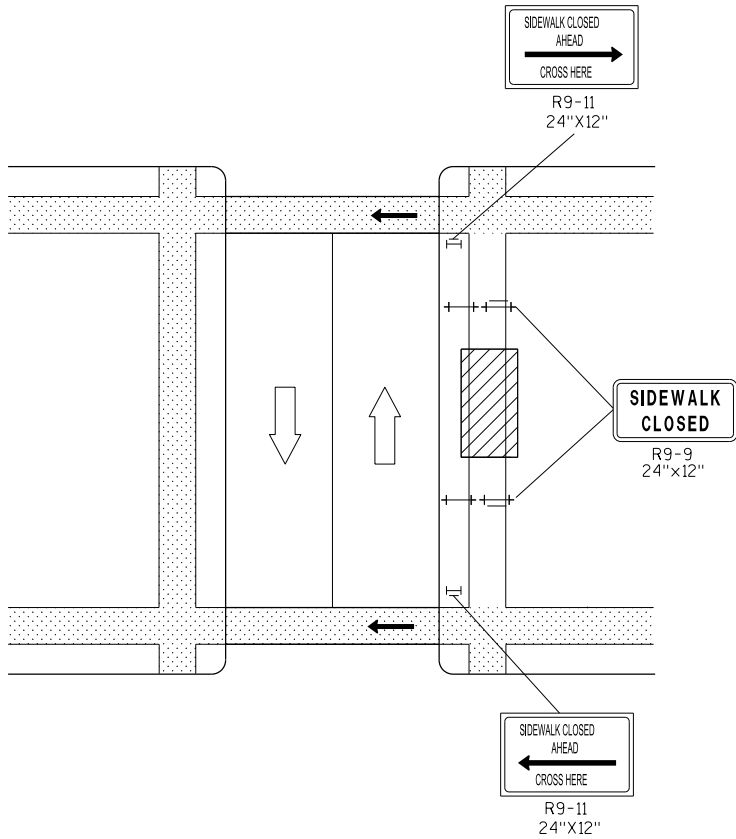


MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

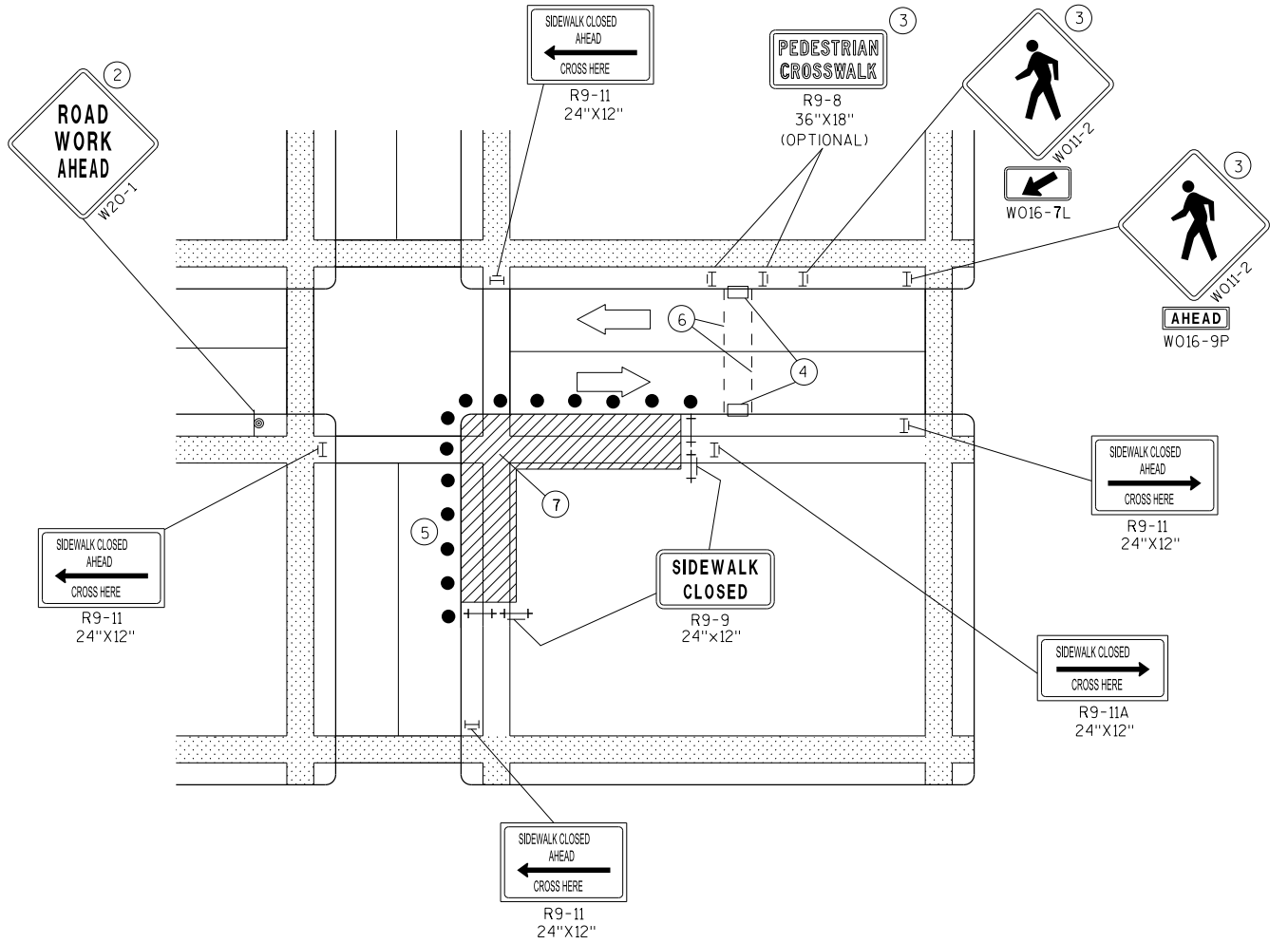
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECTABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.
- "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.
- IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".
- DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

	SIGN ON PERMANENT SUPPORT		DIRECTION OF TRAFFIC
	UNDER PEDESTRIAN TRAFFIC		TRAFFIC CONTROL DRUM
	WORK AREA		
	PEDESTRIAN CHANNELIZATION DEVICE		
	TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)		
	TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)		

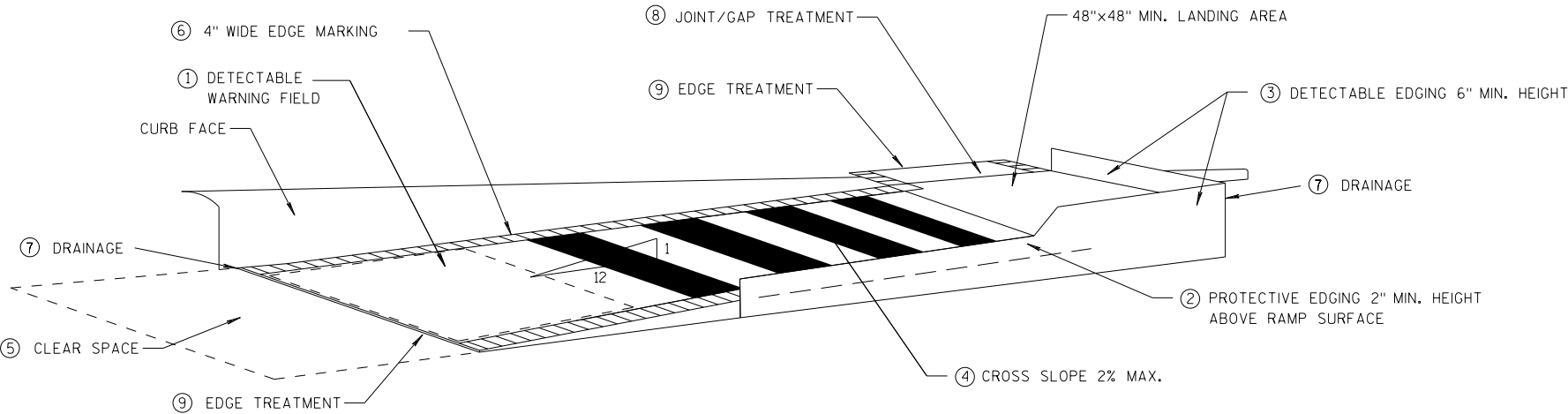
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

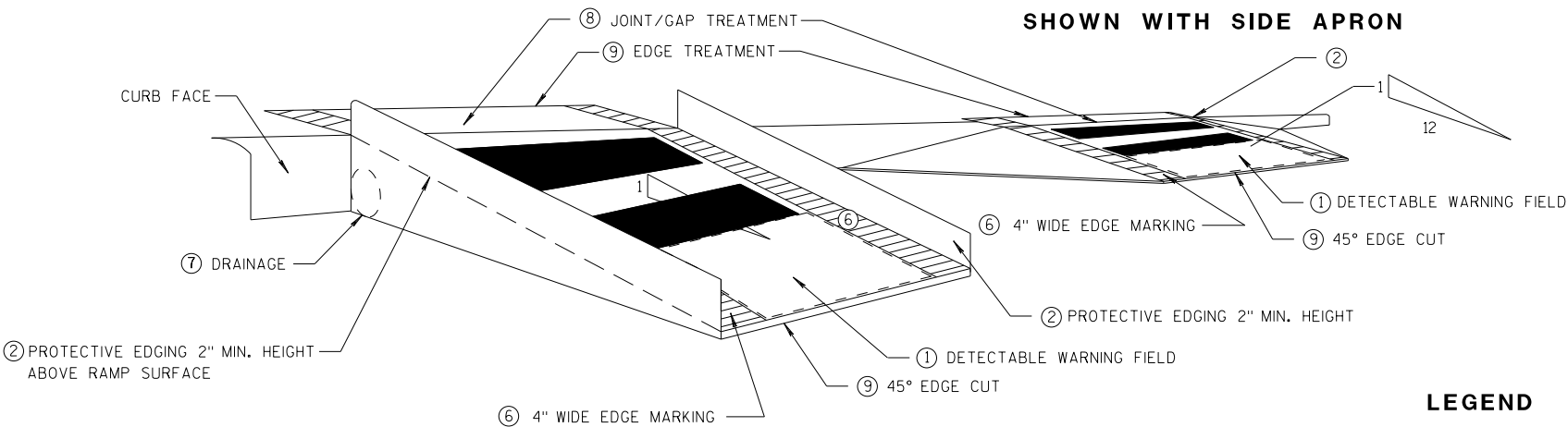
110

GENERAL NOTES

- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.
- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 805 SHEET "E".
 - 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
 - 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
 - 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
 - 5 CLEAR SPACE OF 48"x48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
 - 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
 - 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
 - 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
 - 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
 - 10 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.

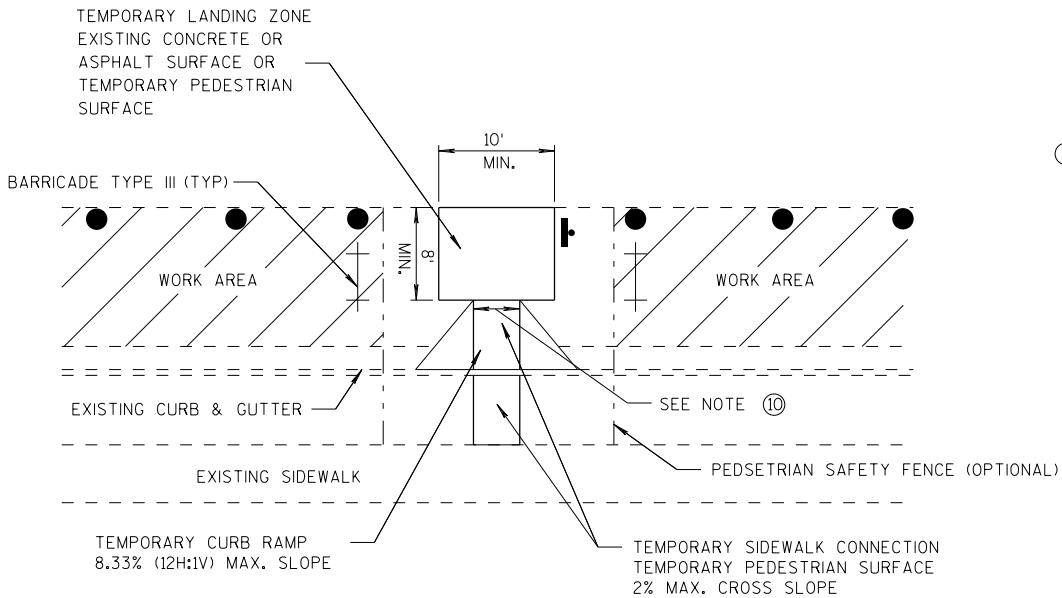


TEMPORARY CURB RAMP
PARALLEL TO CURB



SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP
PERPENDICULAR TO CURB

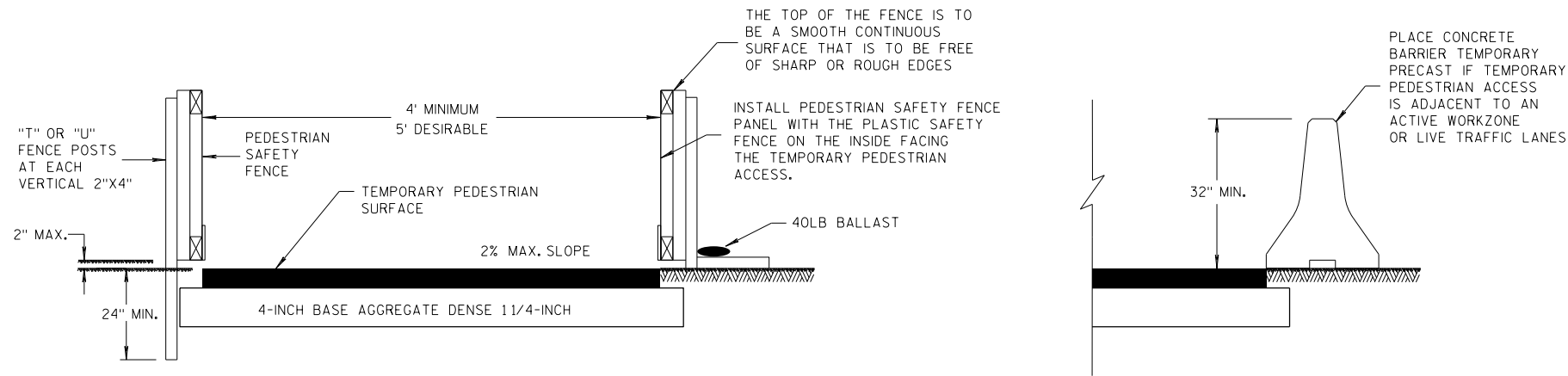


TEMPORARY BUS STOP PAD

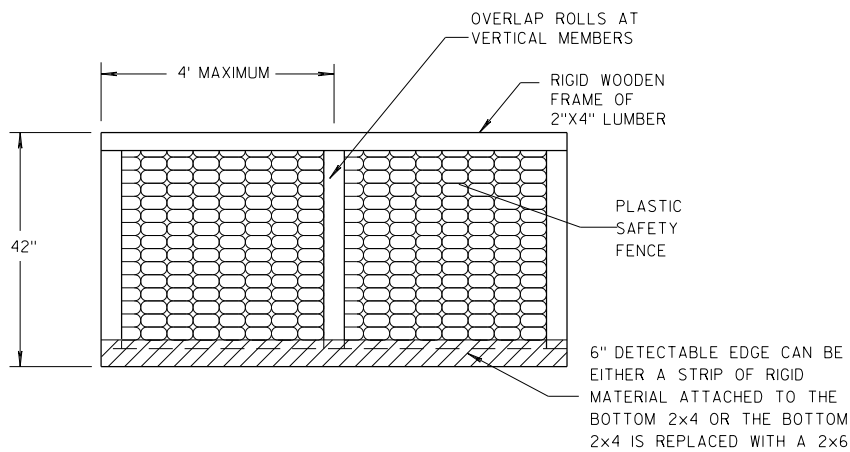
LEGEND

	WORK AREA
	TYPE III BARRICADE
	TRAFFIC CONTROL DRUM

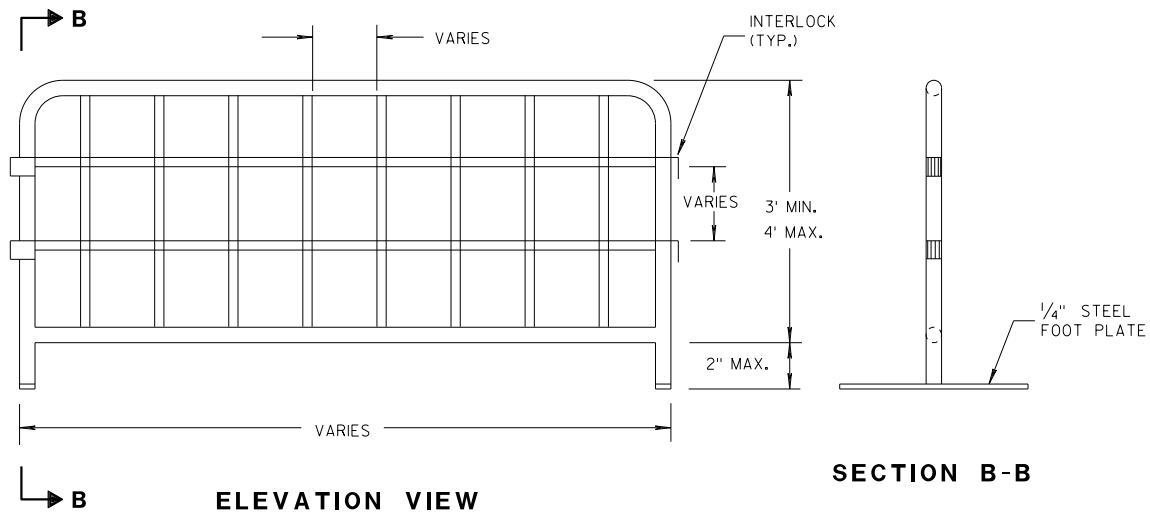
TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 7/2018	/S/ Andrew Heidtke WORK ZONE ENG 111
FHWA	



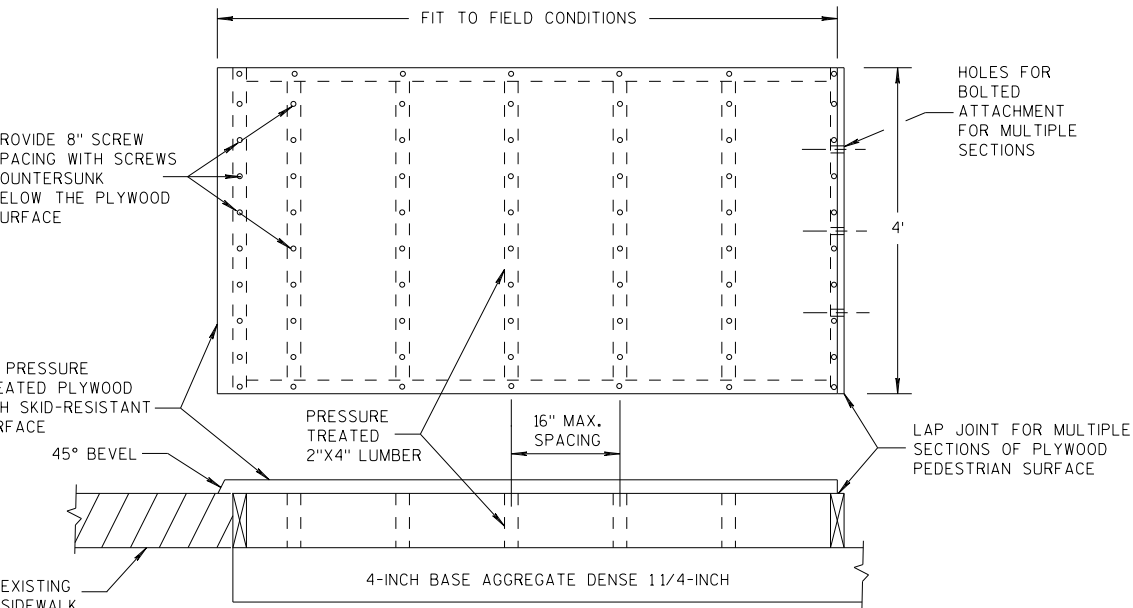
TEMPORARY PEDESTRIAN ACCESS



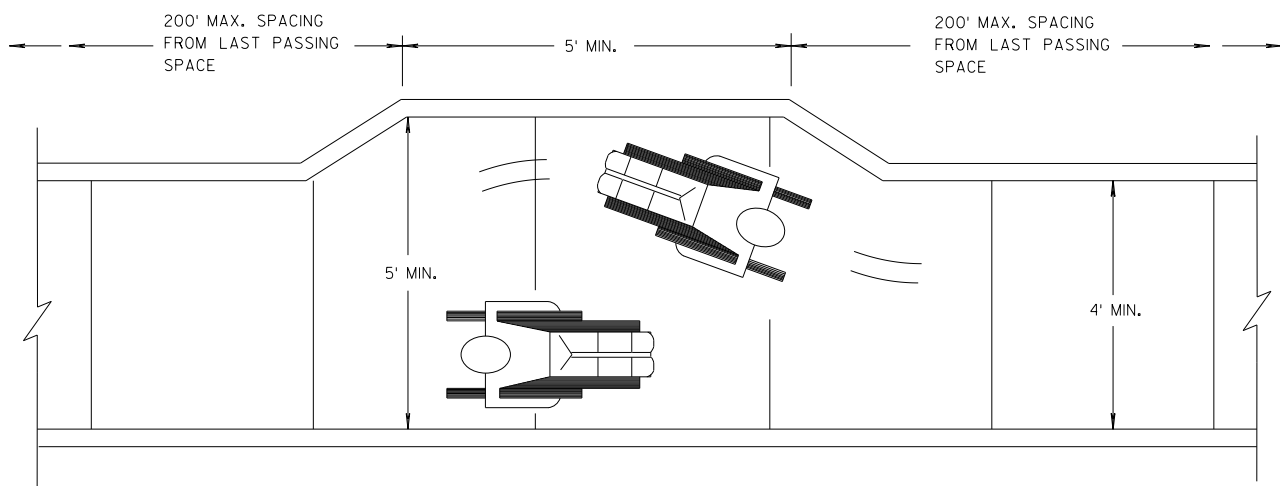
PEDESTRIAN SAFETY FENCE



TEMPORARY PEDESTRIAN STEEL BARRICADE

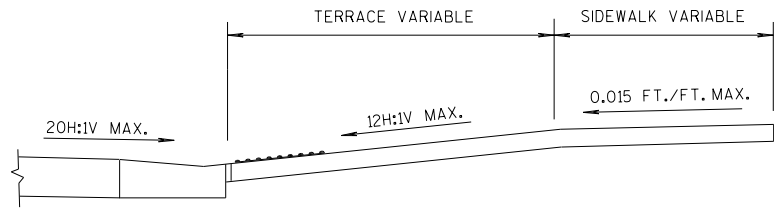


TEMPORARY PEDESTRIAN SURFACE PLYWOOD

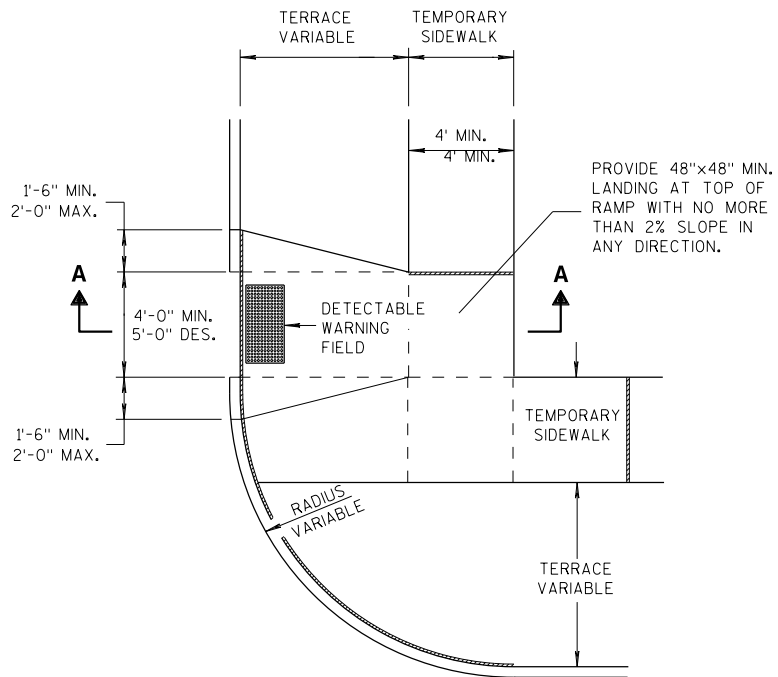


NARROW SIDEWALK PASSING DETAIL

- GENERAL NOTES**
- ① INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



PLAN VIEW

TEMPORARY TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENG 112
FHWA	



AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

6



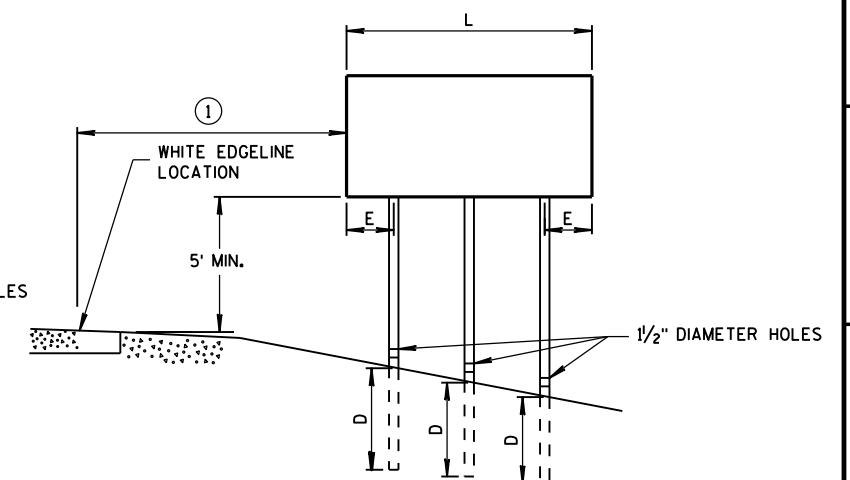
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



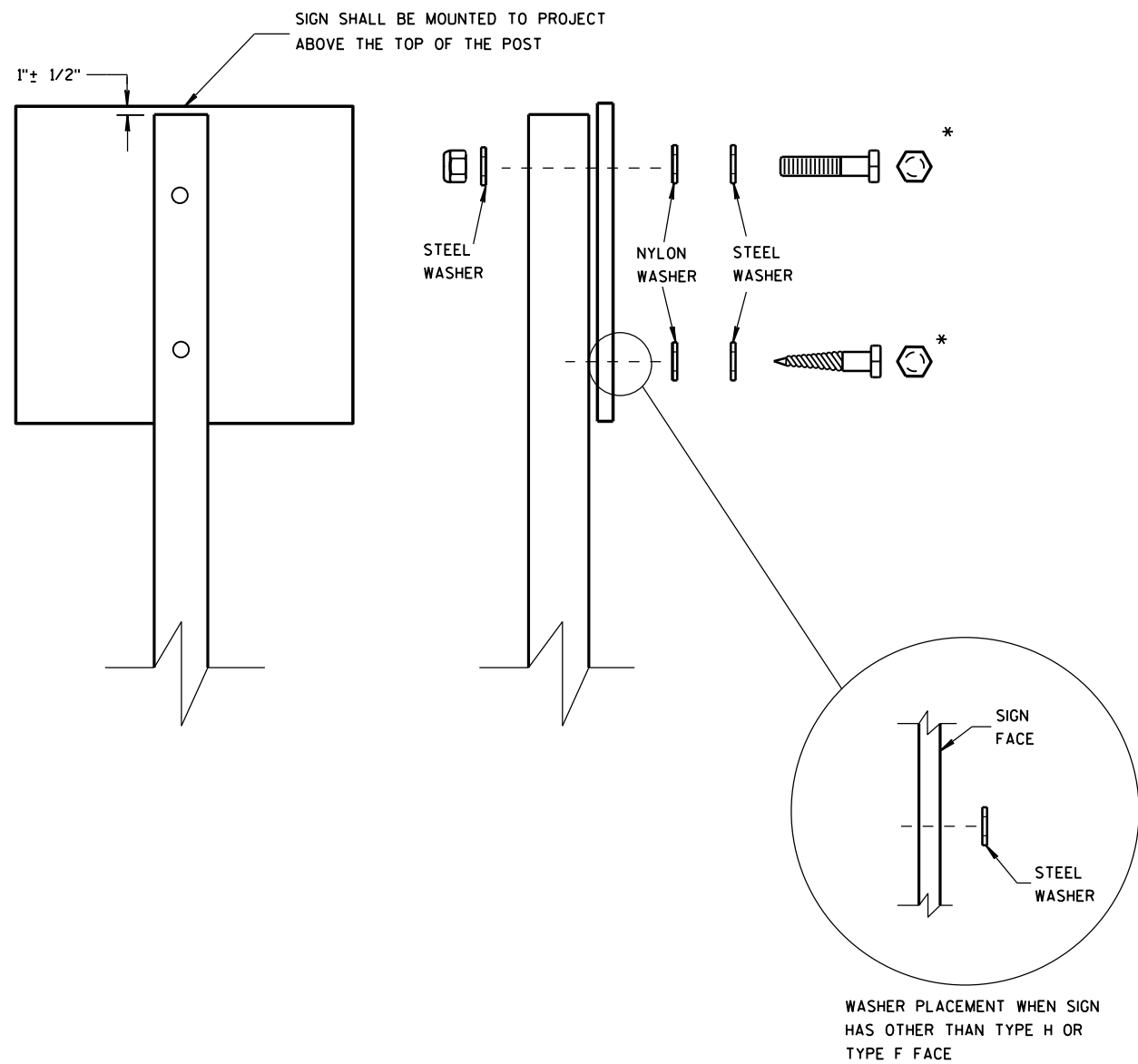
POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 113



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

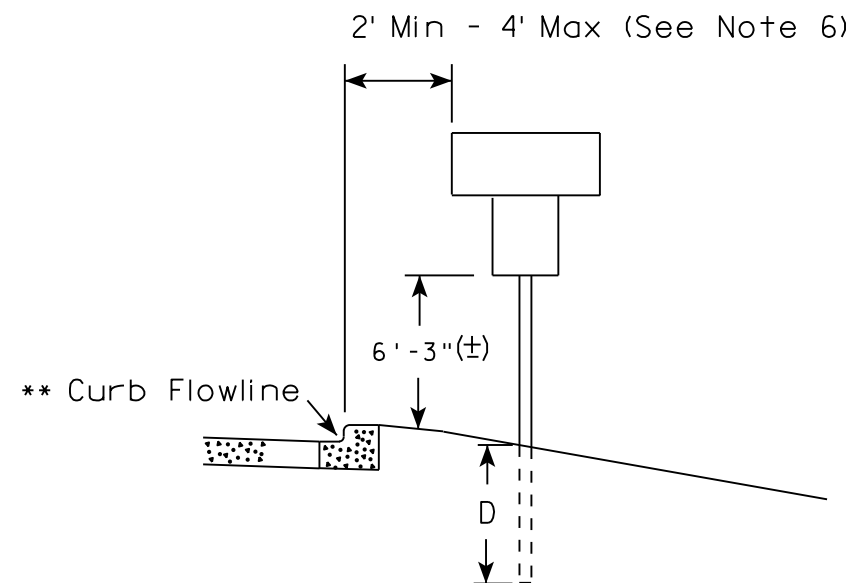
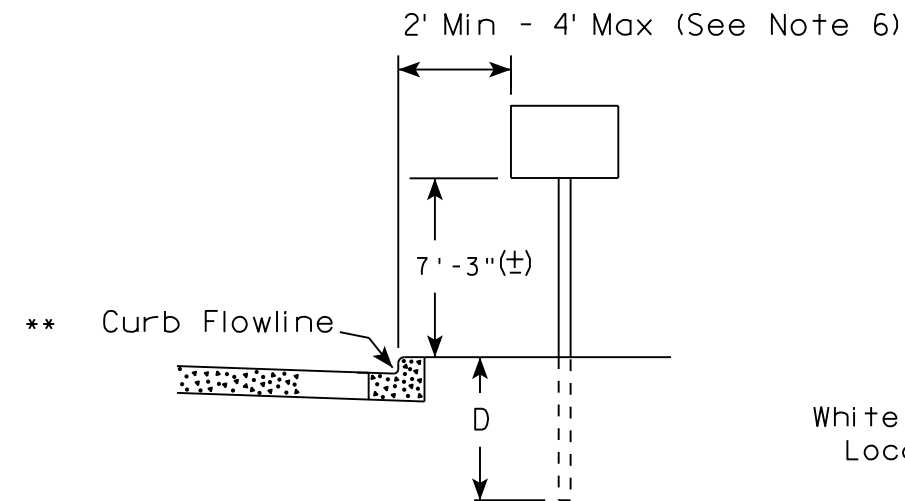
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS
 - RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

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

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

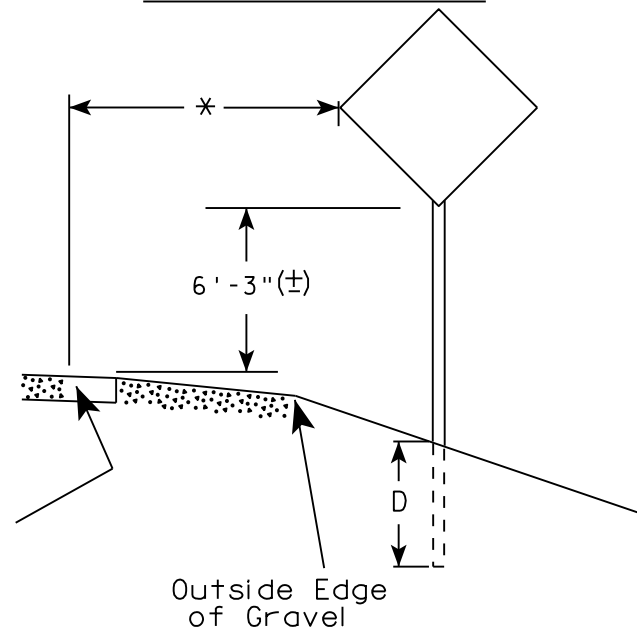
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENC 114
FHWA	

URBAN AREA

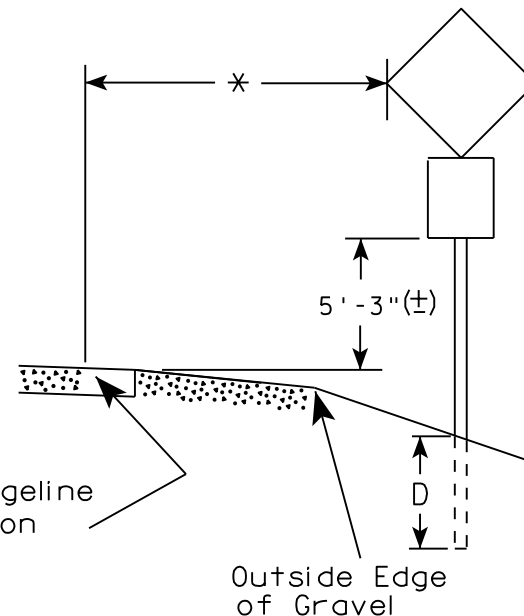


White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location



Outside Edge
of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as 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), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/21/17

PLATE NO. A4-3.21

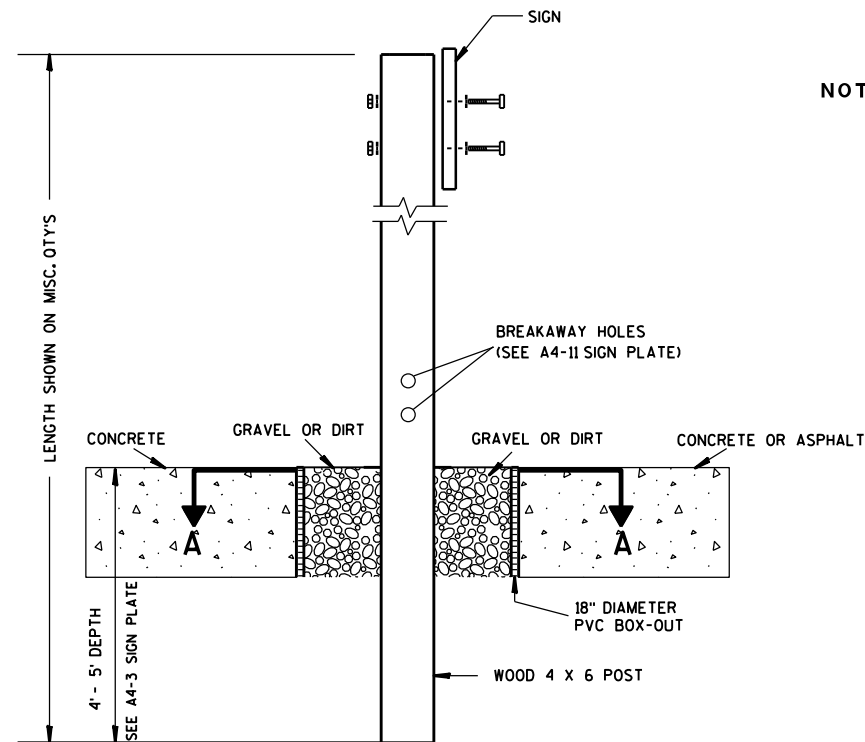
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 115

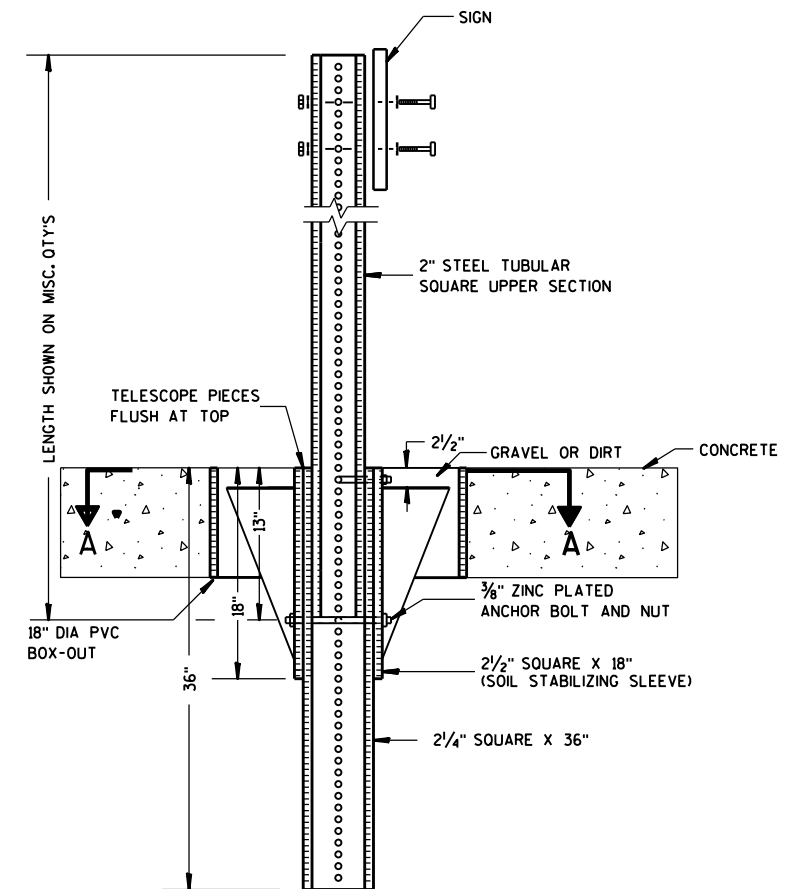
E



ELEVATION VIEW

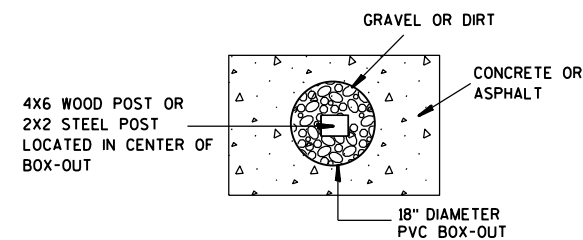
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 116 A4-3B.1

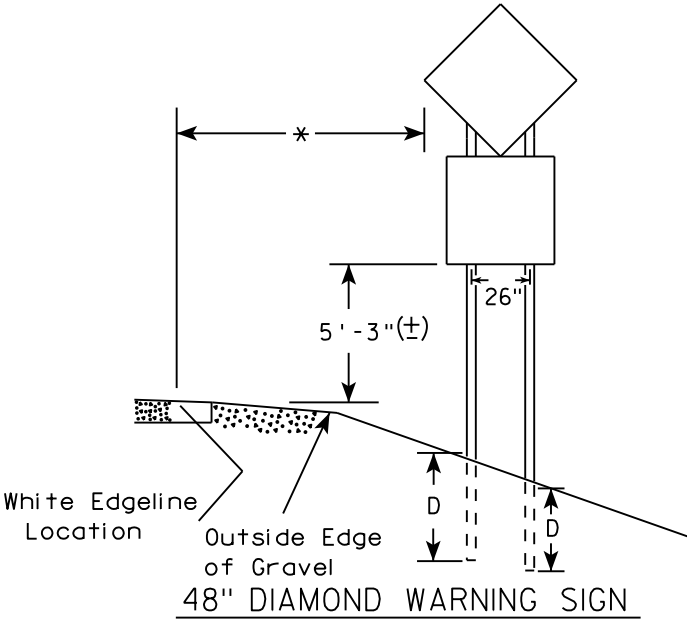
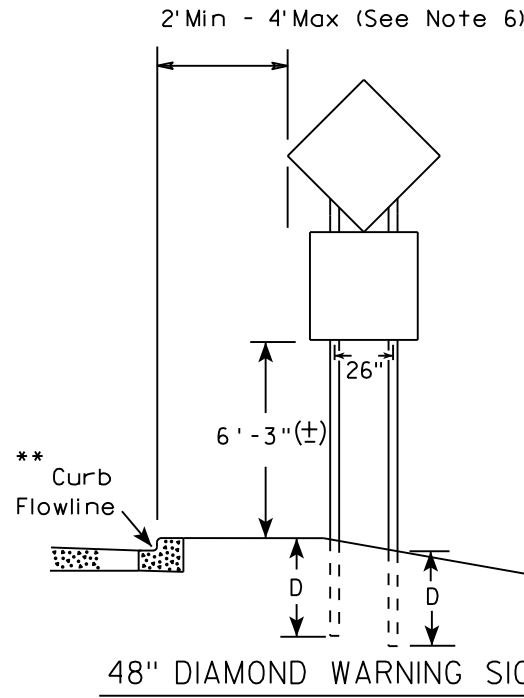
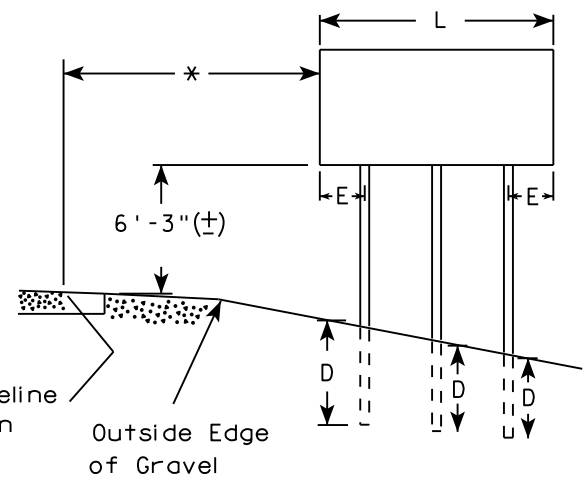
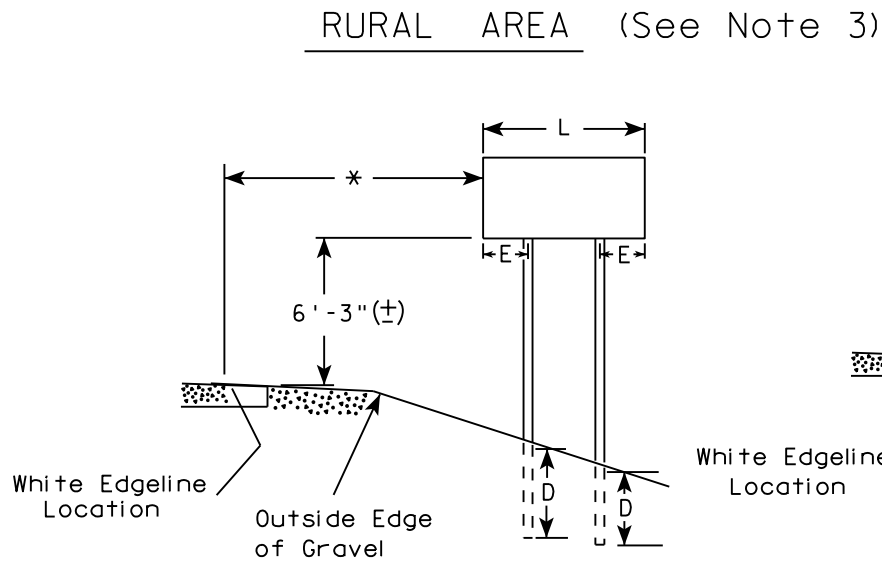
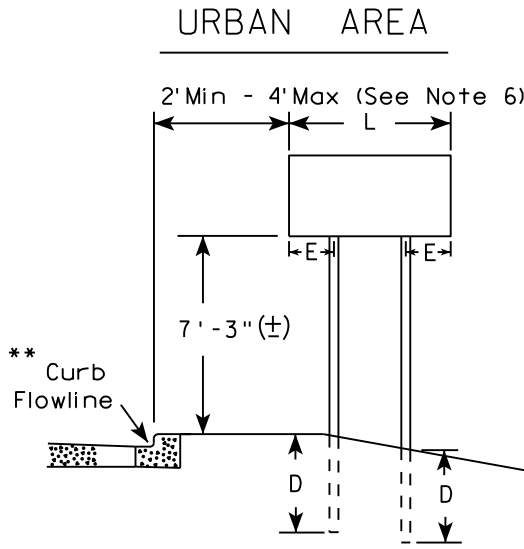
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

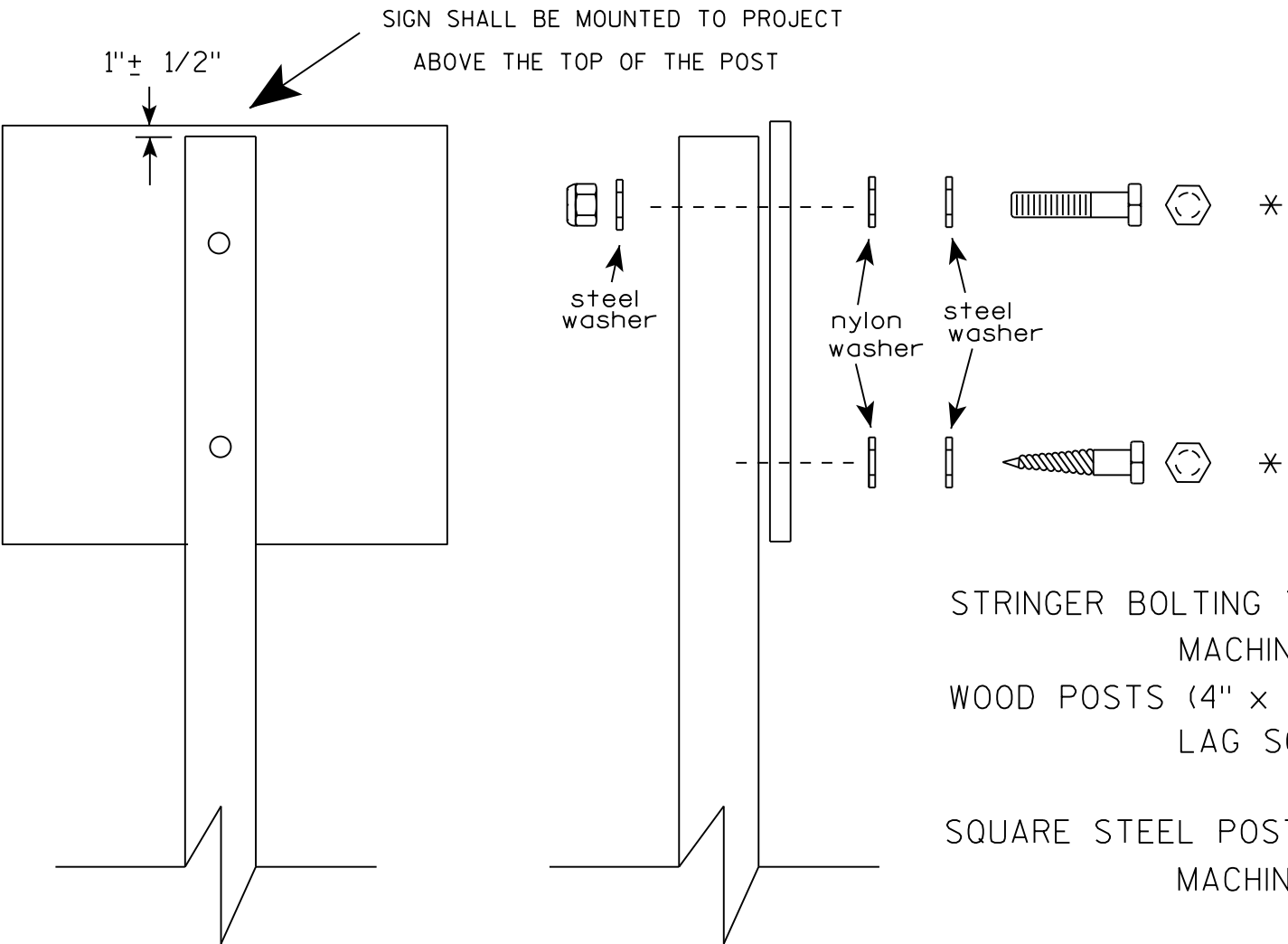
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 8/21/17	PLATE NO. A4-4.15

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

- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.



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

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

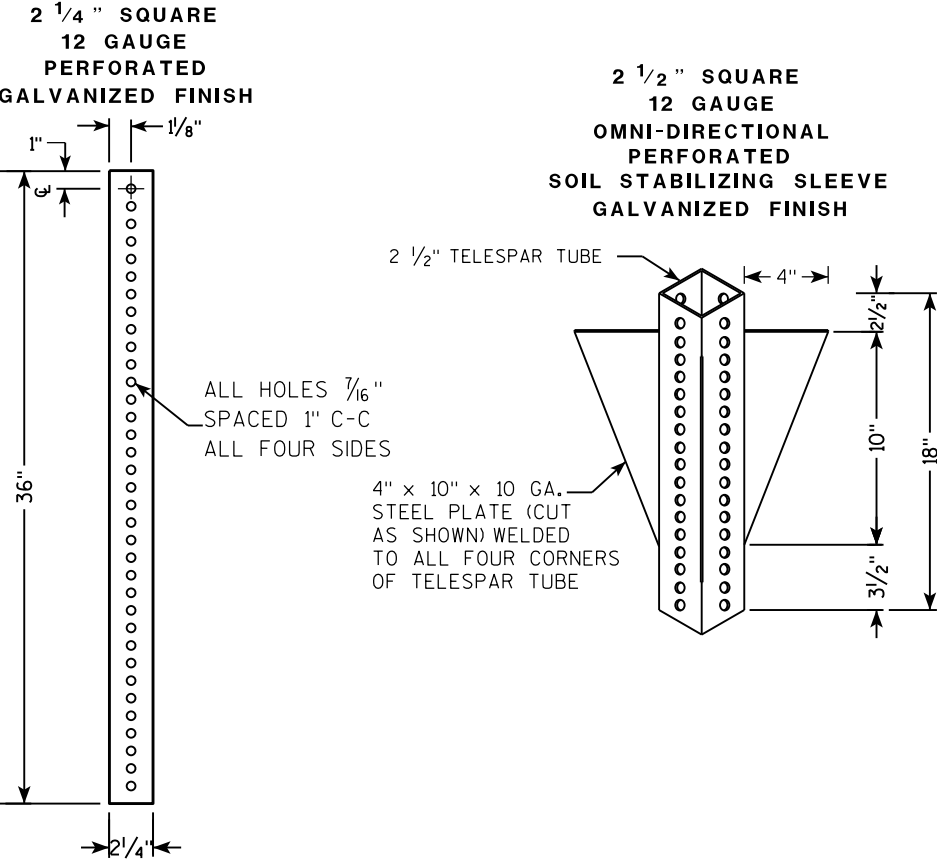
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

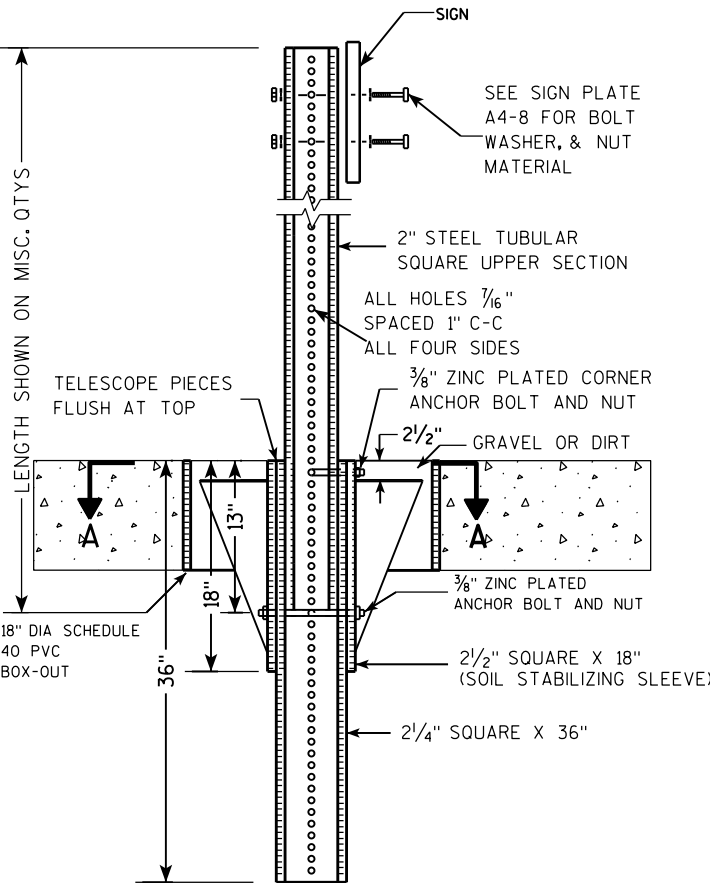
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8 118

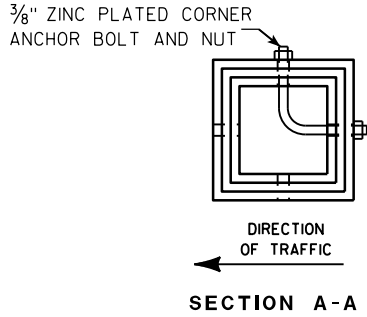
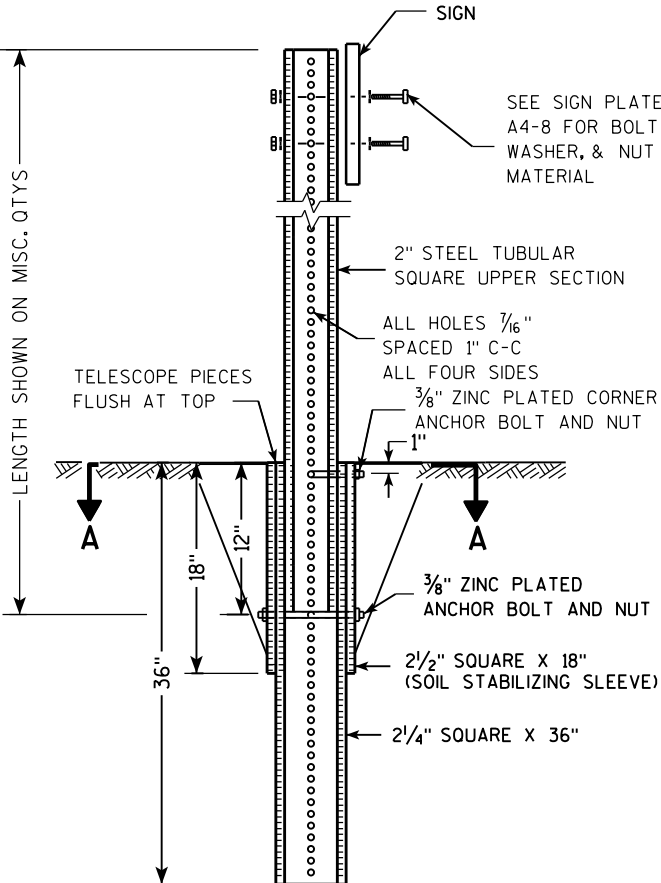
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

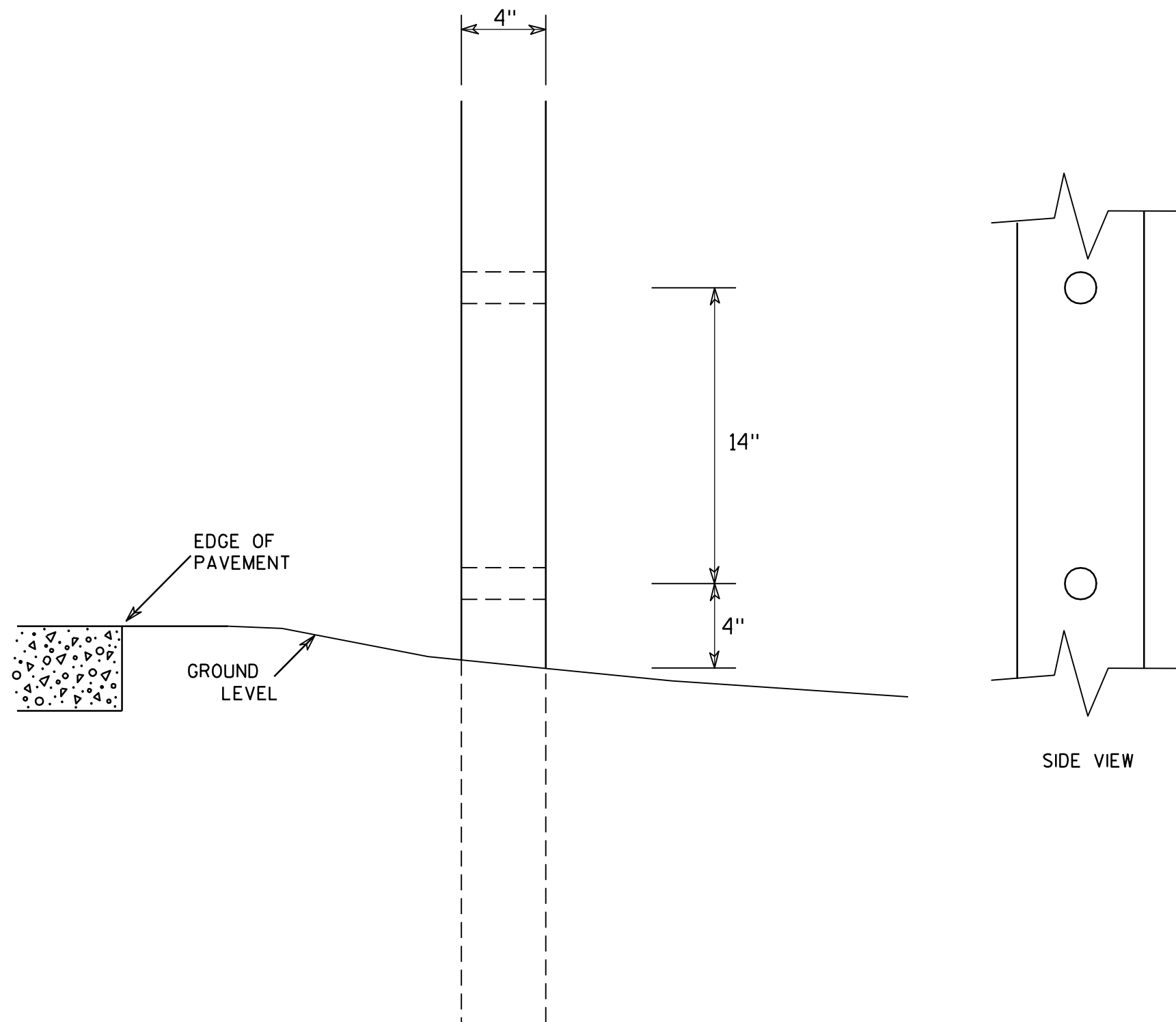
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 119 14-9.9

7

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

**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:

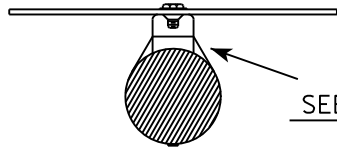
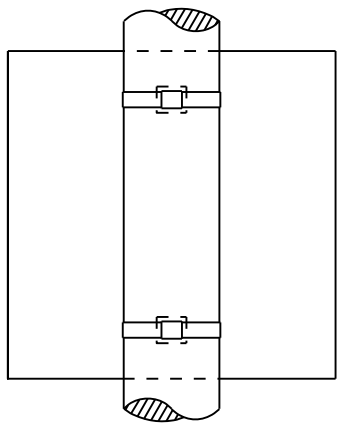
COUNTY:

SHEET NO: 120

E

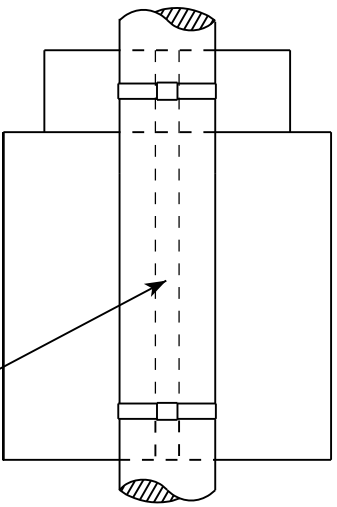
BANDING

SINGLE SIGN

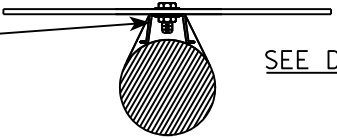


SEE DETAIL A

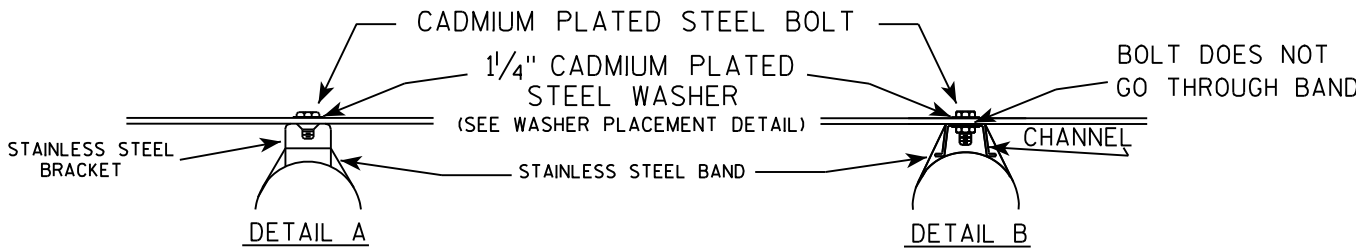
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



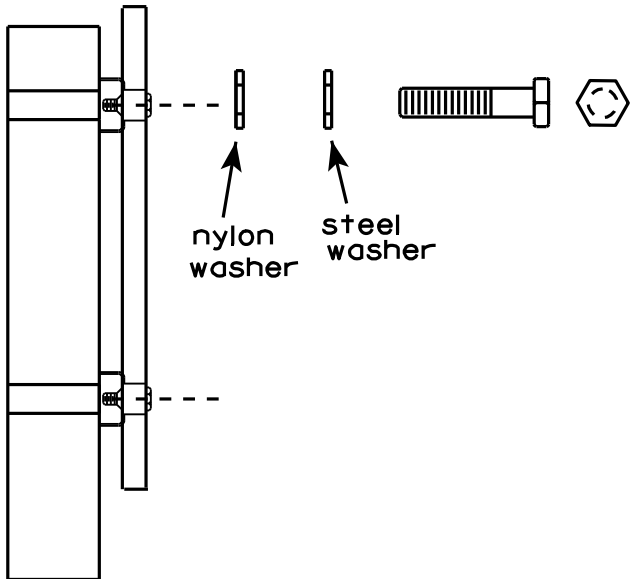
SEE DETAIL B



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



nylon washer
steel washer

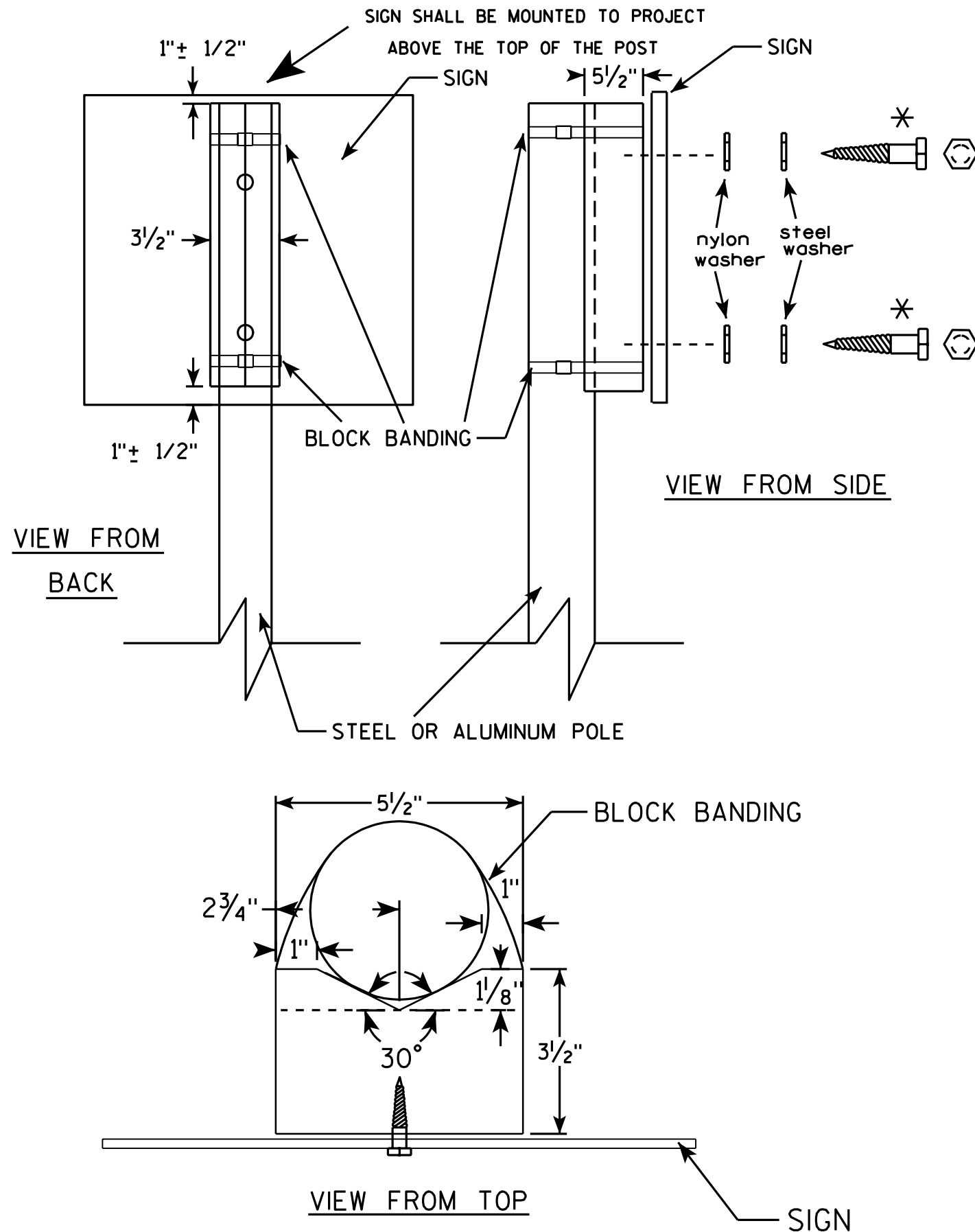
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

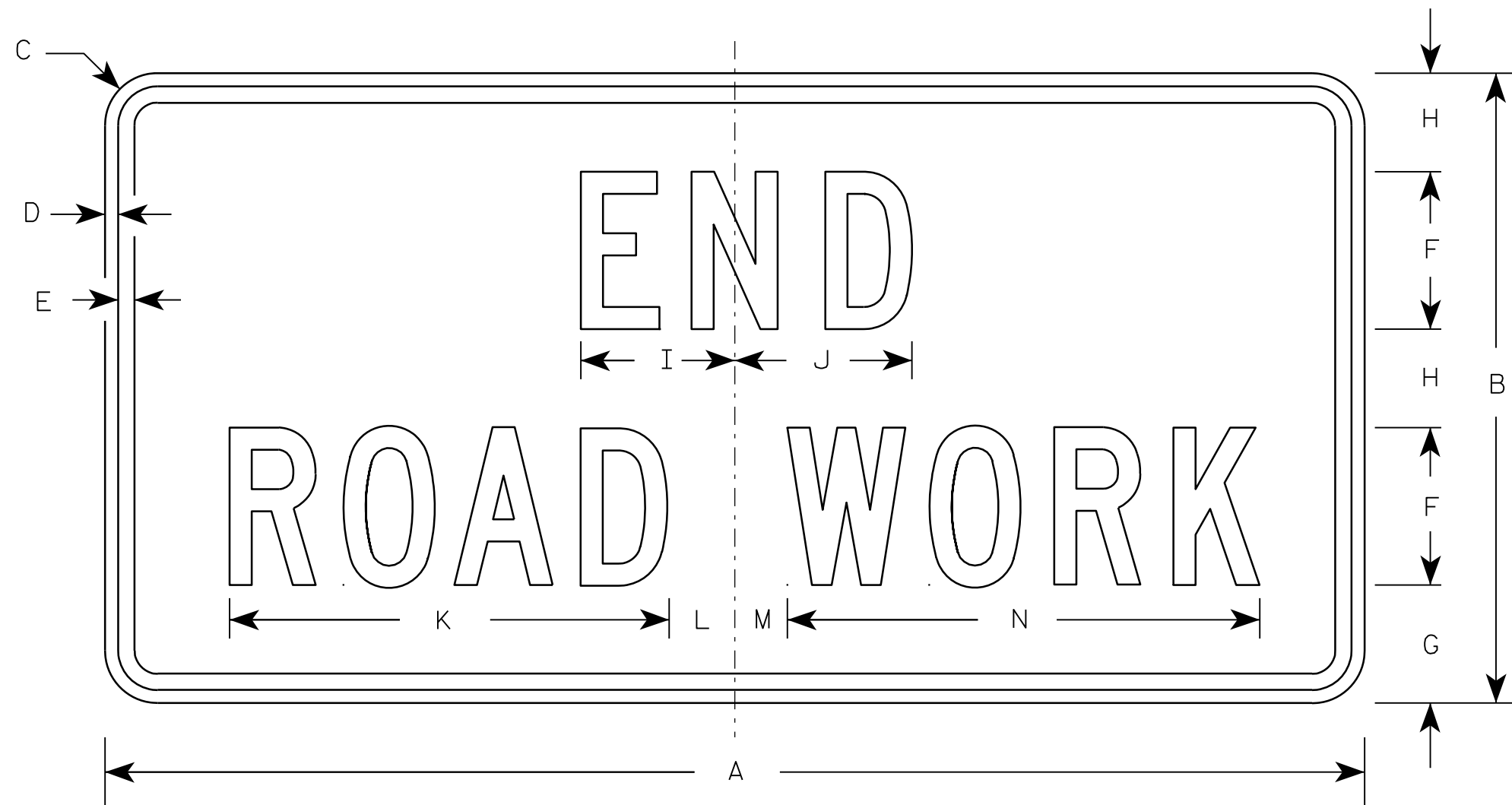
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 122

E

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- 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.

7

PROJECT NO:

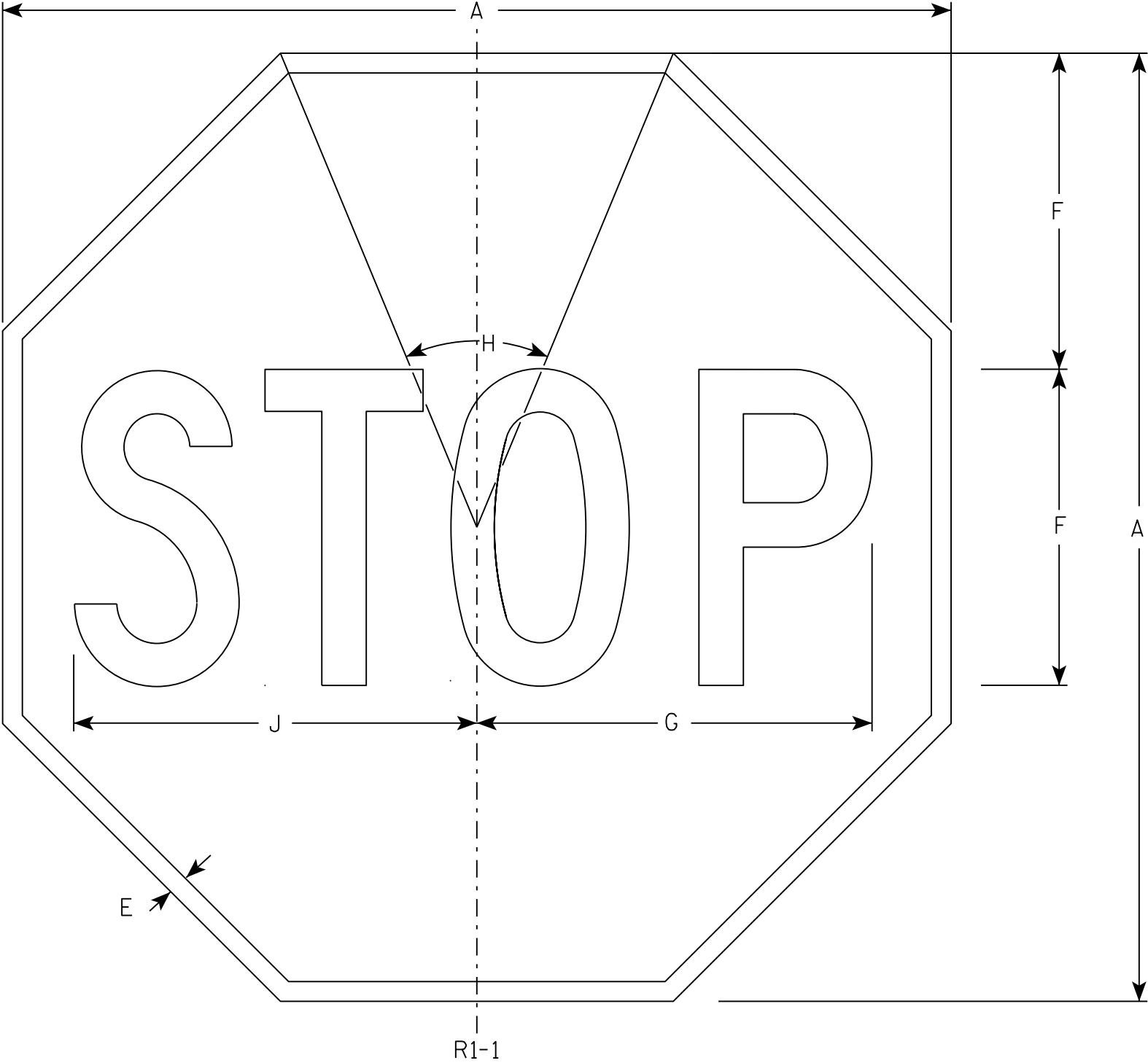
HWY:

COUNTY:

SHEET NO: 123

E

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

7

R1-1

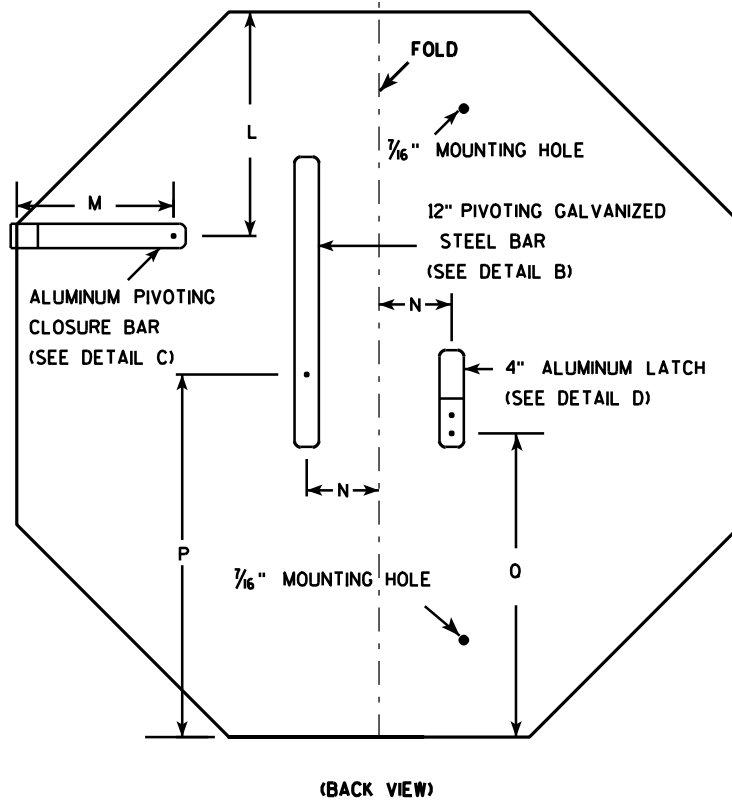
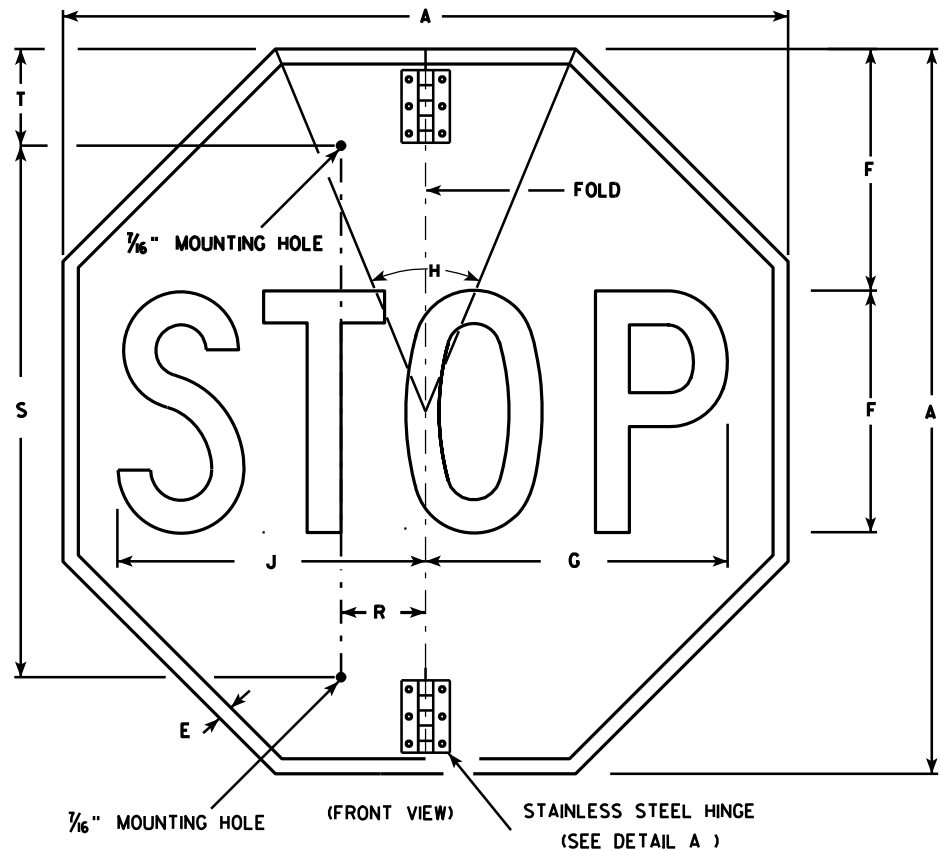
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

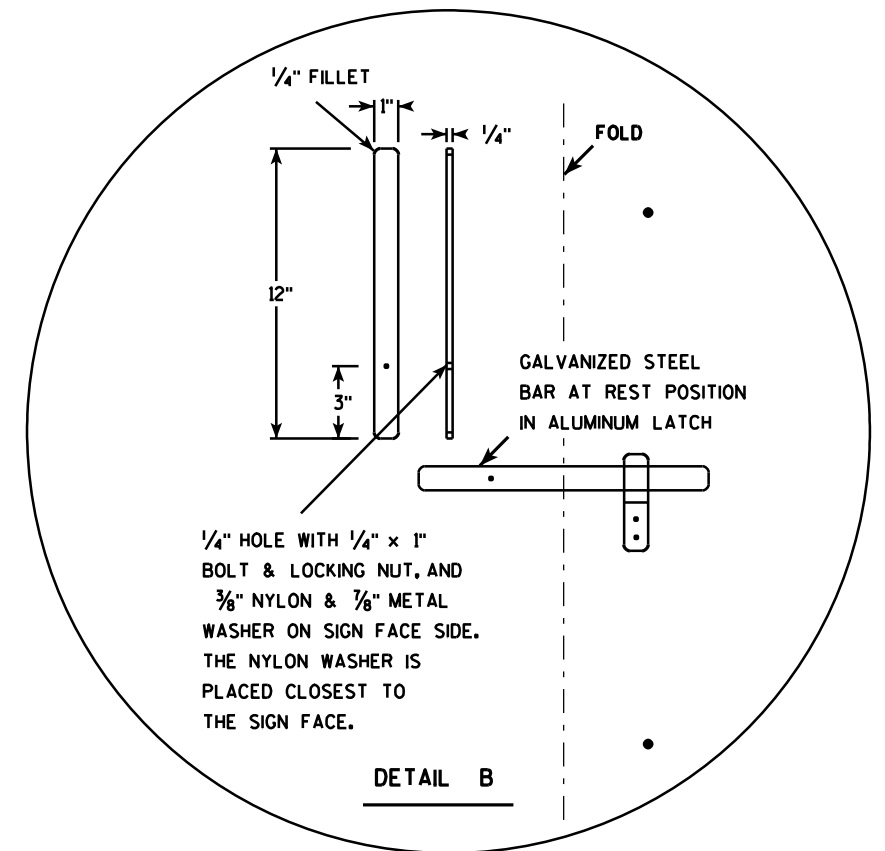
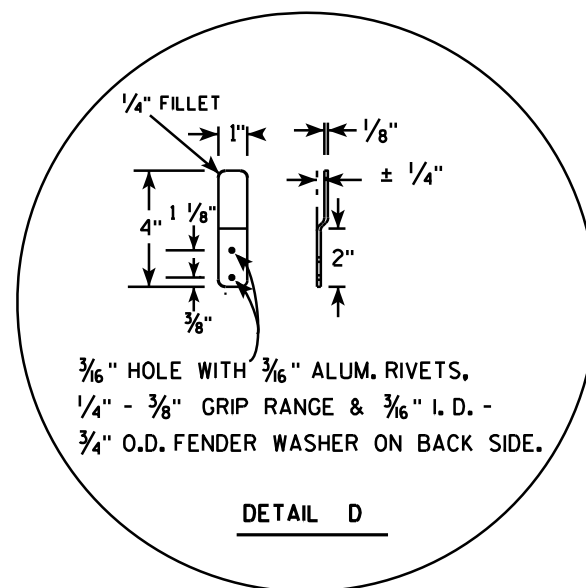
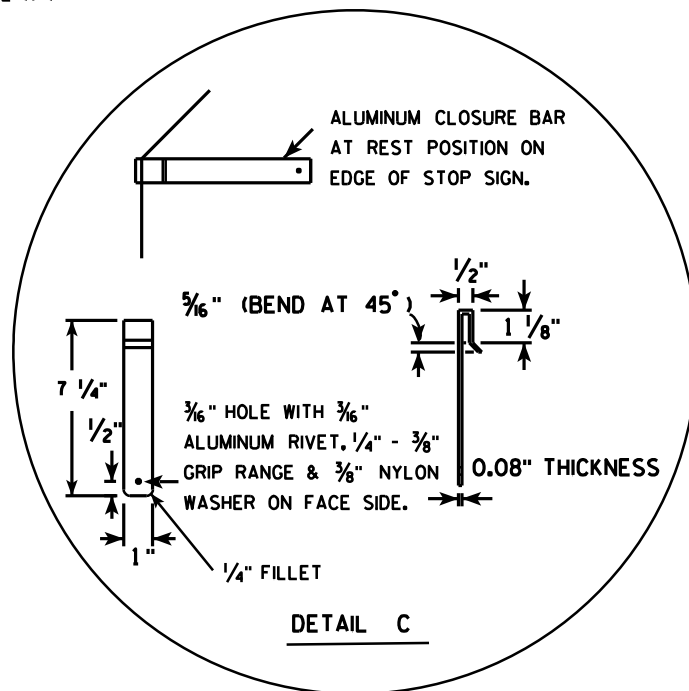
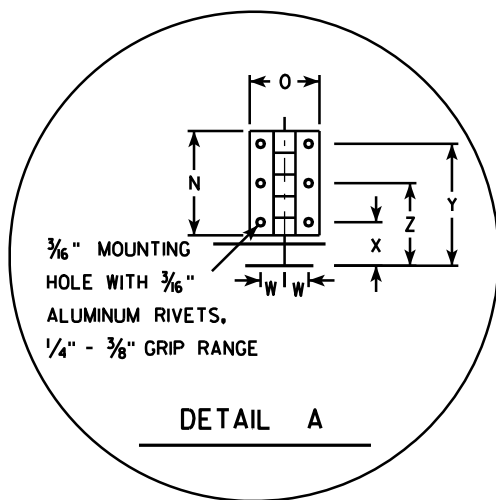
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Red
Message - White
- Message Series - C
- All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				$\frac{5}{8}$	10	12 $\frac{1}{2}$	45		12 $\frac{3}{4}$		9 $\frac{1}{4}$	6 $\frac{1}{2}$	3	2	15	12 $\frac{3}{8}$	2 $\frac{1}{2}$	22	5			$\frac{1}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	5.18
2M	36				$\frac{3}{4}$	12	15	45		15 $\frac{3}{8}$		11	6 $\frac{1}{2}$	3	2	18	15 $\frac{3}{8}$	2 $\frac{1}{2}$	26	5			$\frac{1}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	7.46
3	36				$\frac{3}{4}$	12	15	45		15 $\frac{3}{8}$		11	6 $\frac{1}{2}$	3	2	18	15 $\frac{3}{8}$	2 $\frac{1}{2}$	26	5			$\frac{1}{16}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$	2 $\frac{3}{8}$	7.46
4																											
5																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 125	E
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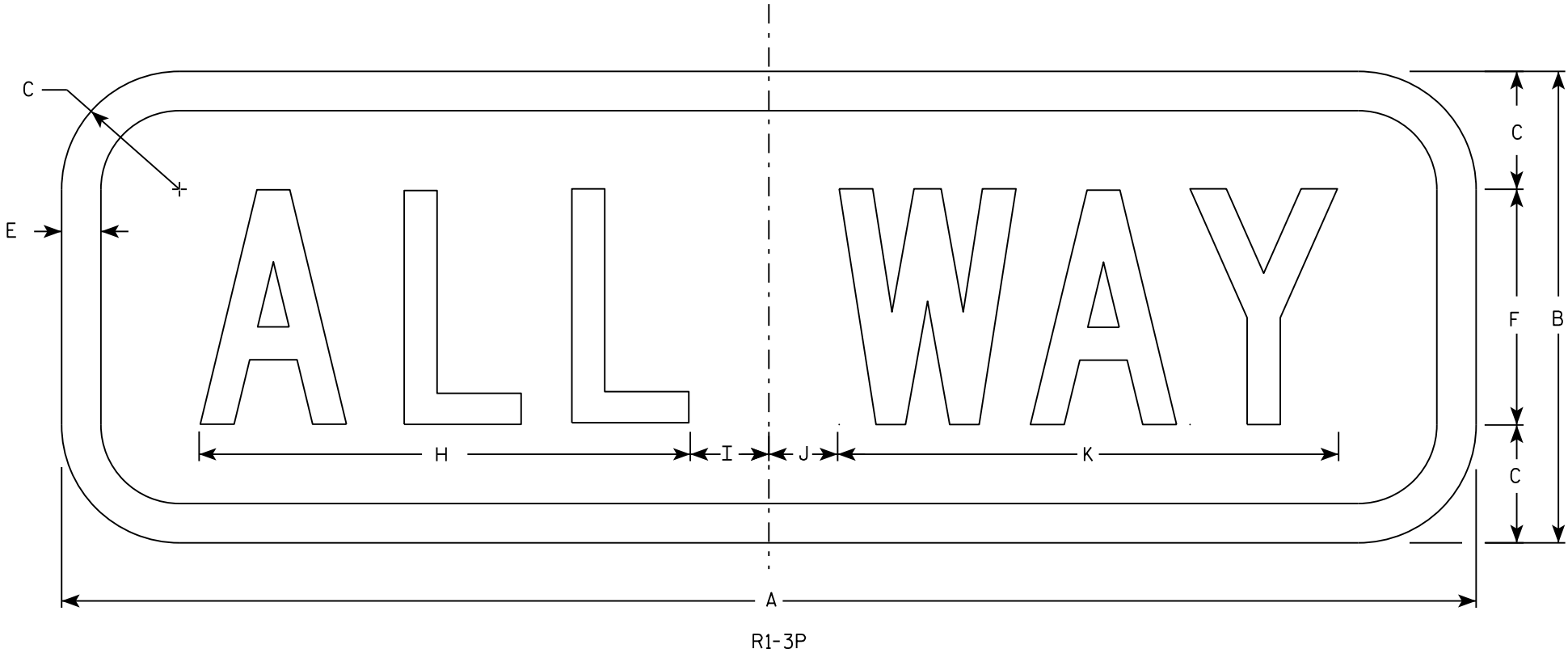
STANDARD SIGN R1-1F	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/03/10	PLATE NO. R1-1F.3

7

7

NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C
- 4. For 30"x30" R1-1 use 18"x6" R1-3P sign
For 36"x36" R1-1 use 24"x9" R1-3P sign
For 48"x48" R1-1 use 30"x12" R1-3P sign



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
4	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
5	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 126

E

STANDARD SIGN

R1 - 3P

WISCONSIN DEPT OF TRANSPORTATION

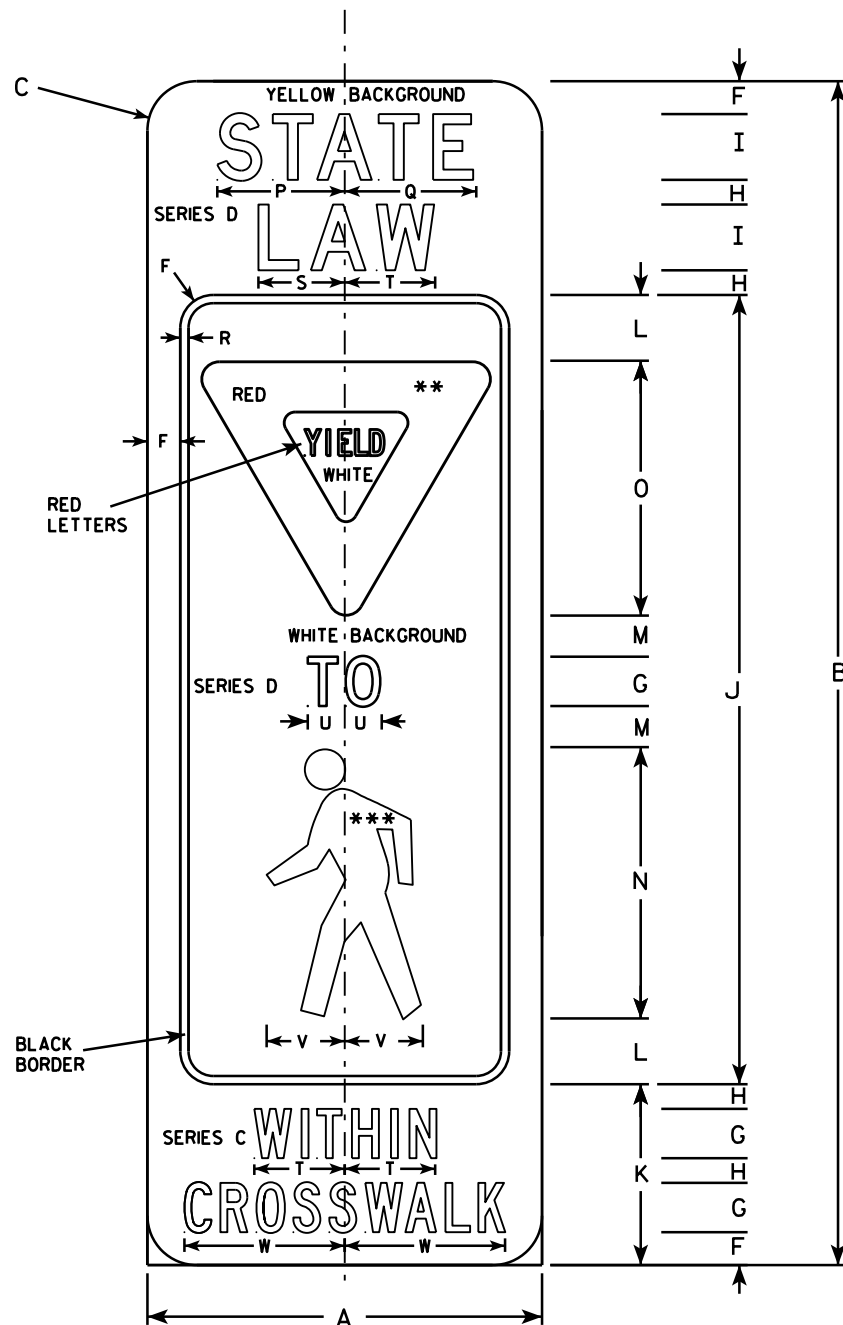
APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 11/29/16

PLATE NO. R1-3P.3



R1-6

** INSERT R1-2 AND SIZE TO FIT
*** INSERT W11-2 AND SIZE TO FIT

NOTES

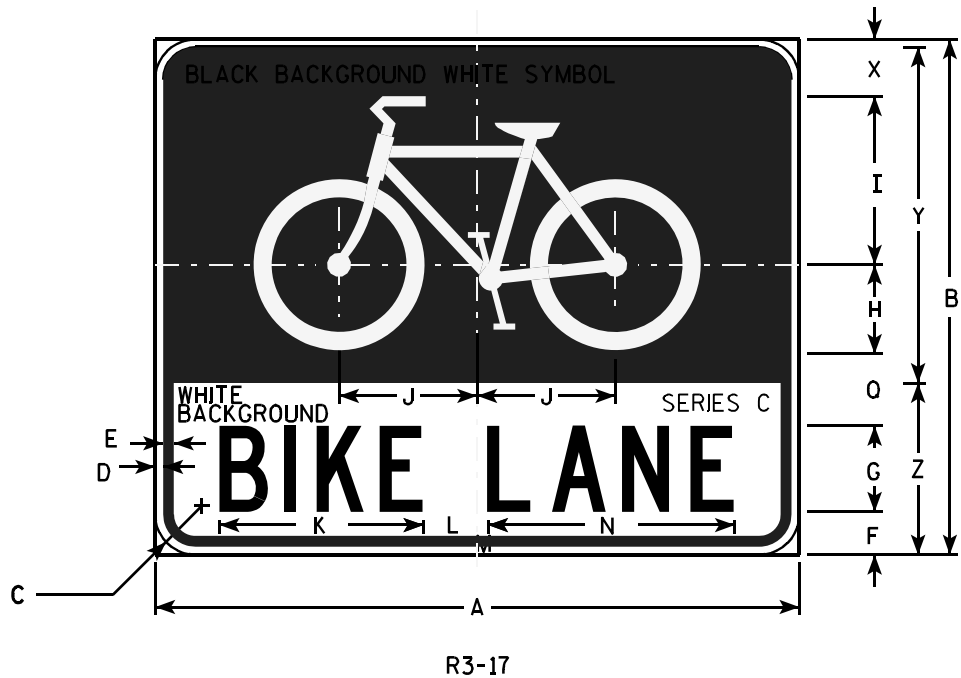
1. Sign is Type II - Type F Reflective
2. Color:
Background - YELLOW
Message - BLACK
YIELD SYMBOL - RED ON WHITE
PED SYMBOL - BLACK ON WHITE
3. Message Series - AS SHOWN AND IN TABLE
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36	1 1/2			1	1 1/2	C 3/4	2 D	24	5 1/2	2	1 1/4	8 1/4	7 3/4	3 7/8	4	1/4	2 5/8	2 3/4	1 1/8	2 3/8	4 7/8				3.0
2M	12	36	1 1/2			1	1 1/2	C 3/4	2 D	24	5 1/2	2	1 1/4	8 1/4	7 3/4	3 7/8	4	1/4	2 5/8	2 3/4	1 1/8	2 3/8	4 7/8				3.0
3																											
4																											
5																											

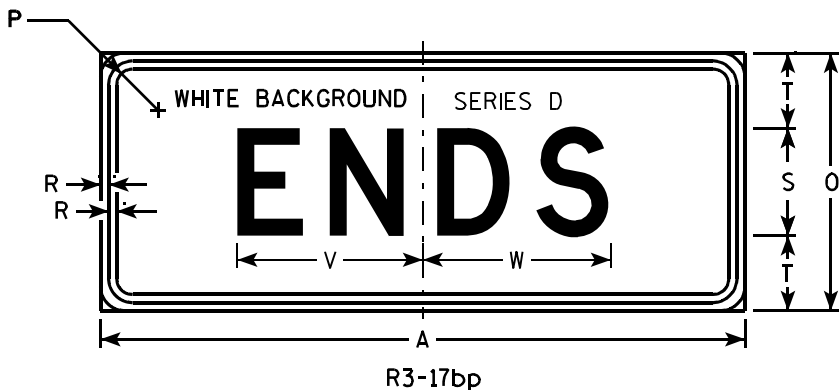
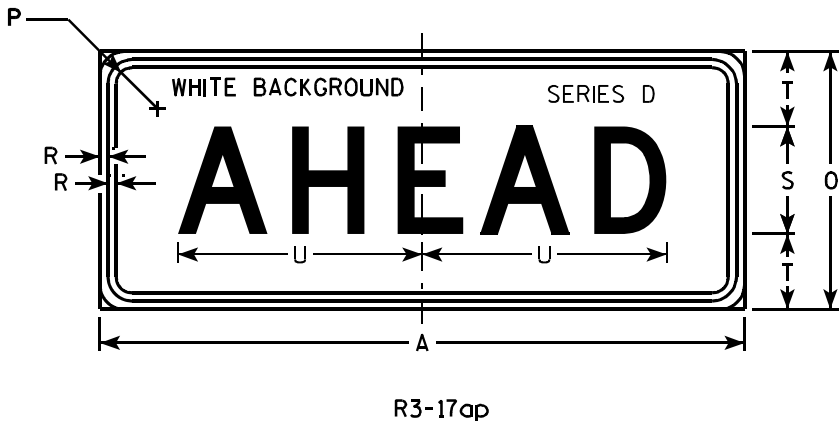
STANDARD SIGN
R1-6

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/29/14 PLATE 127 P1-6.3



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



																												R3-17	R3-17ap	R3-17bp
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.	Areq sq. ft.	Areq sq. ft.	
1																														
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5	
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5	
3																														
4																														
5																														

STANDARD SIGN

R3-17 & R3-17a&bp

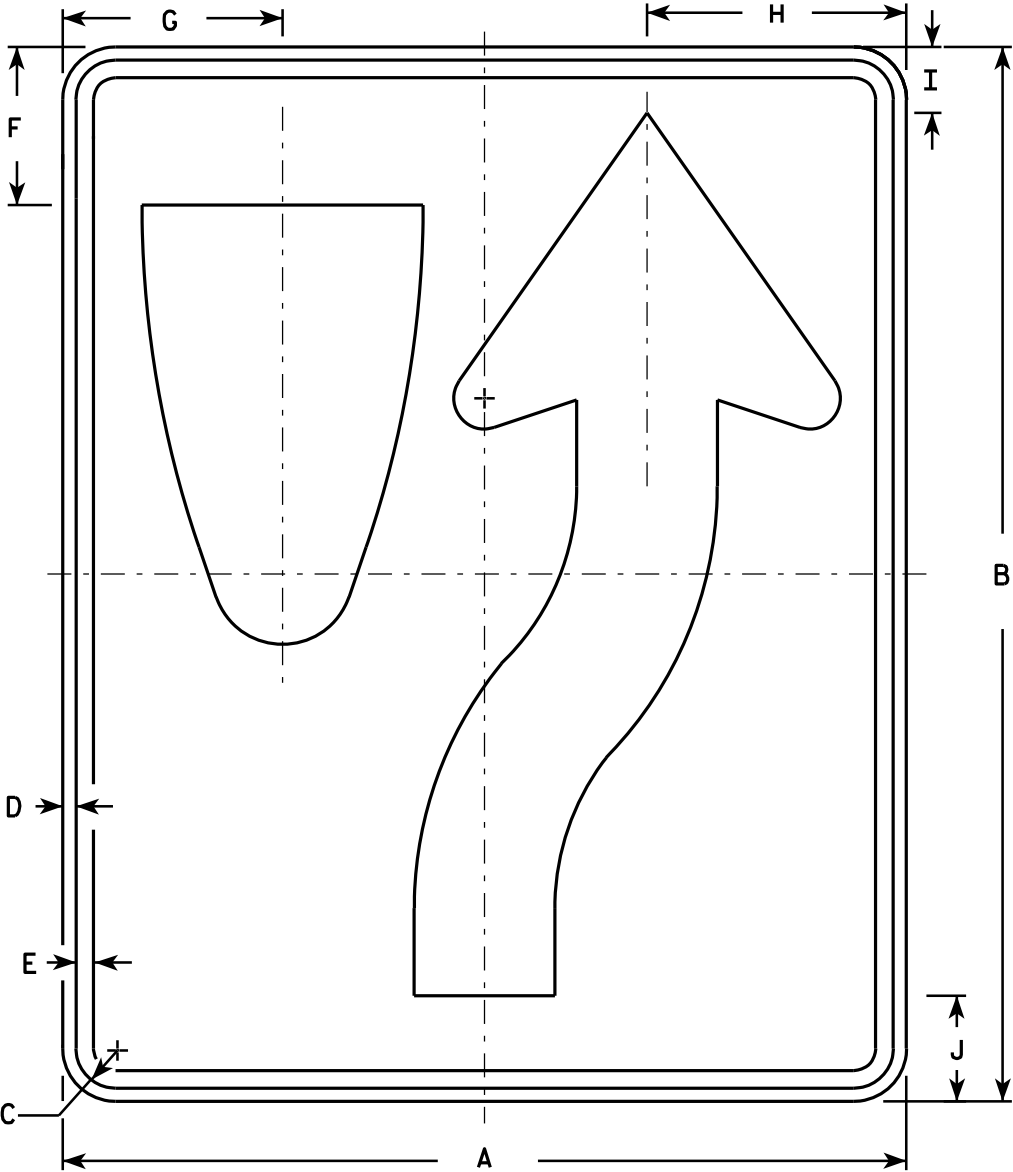
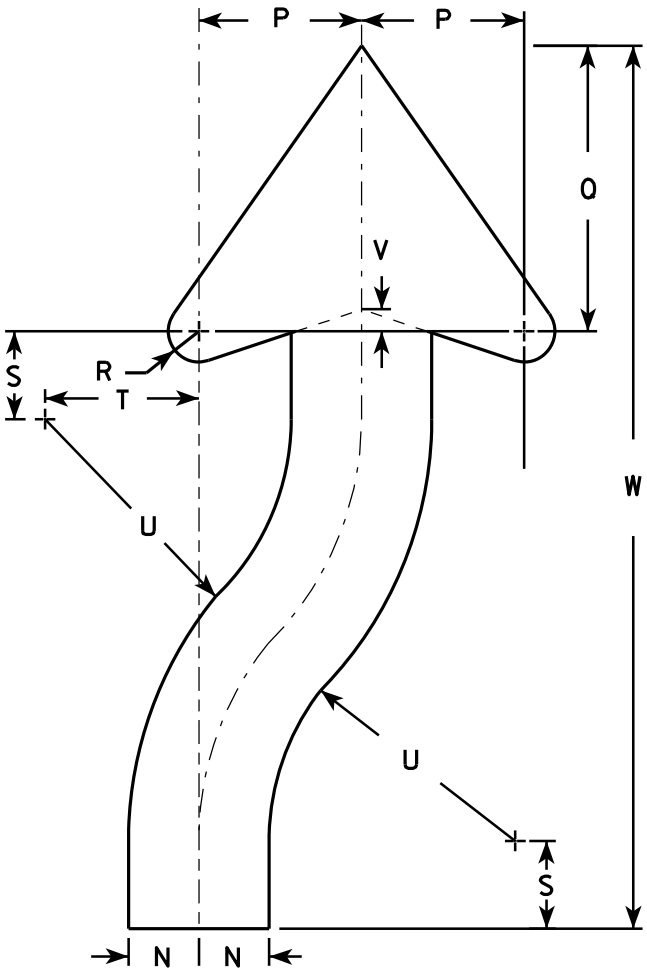
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

NOTES

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



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

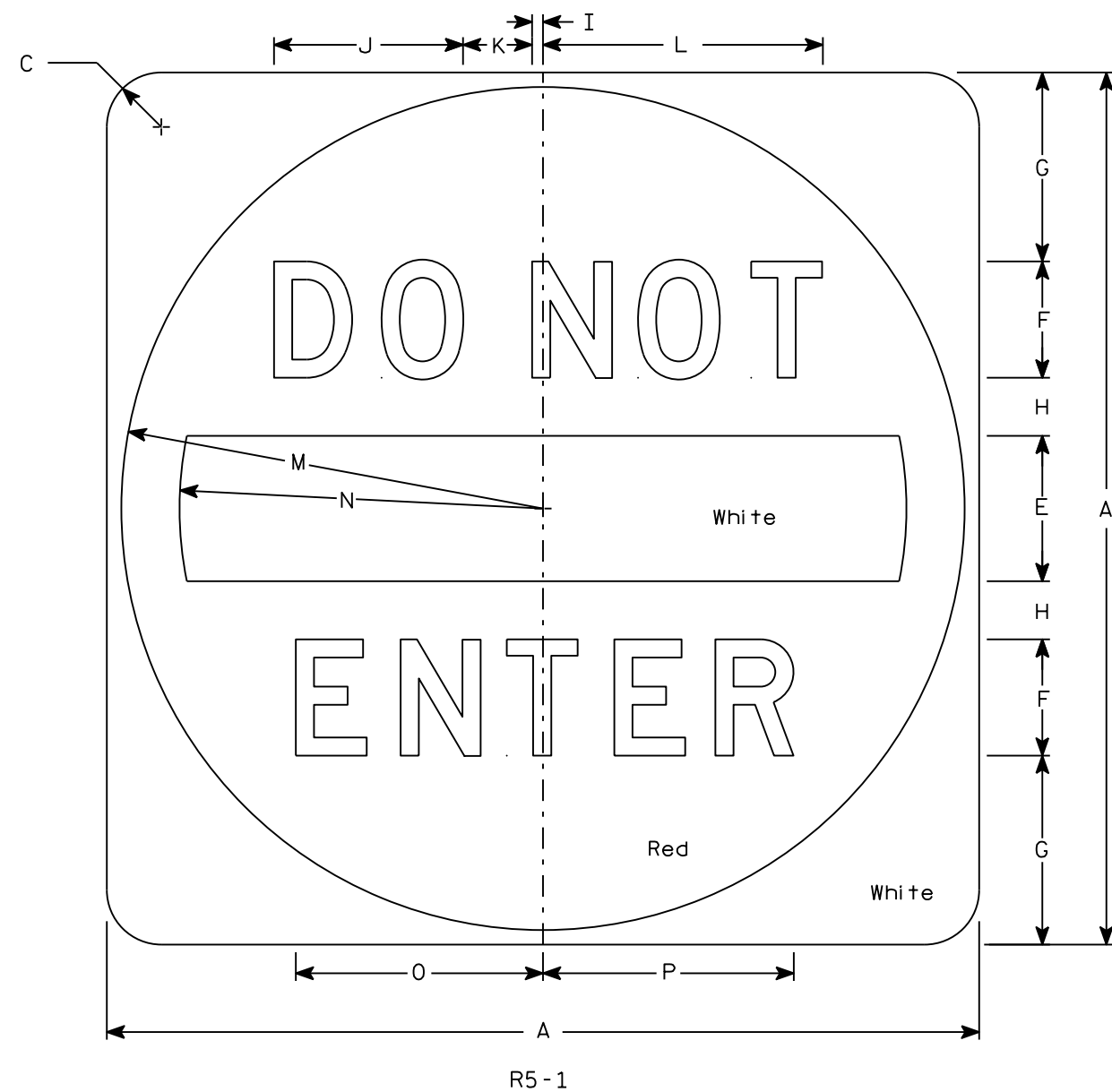
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



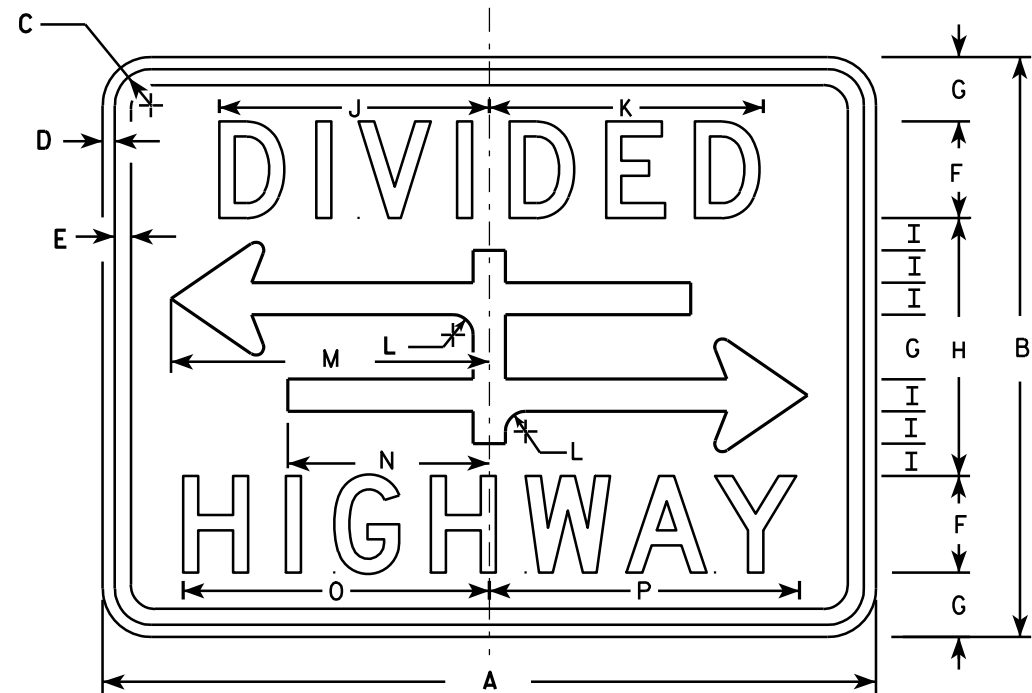
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D

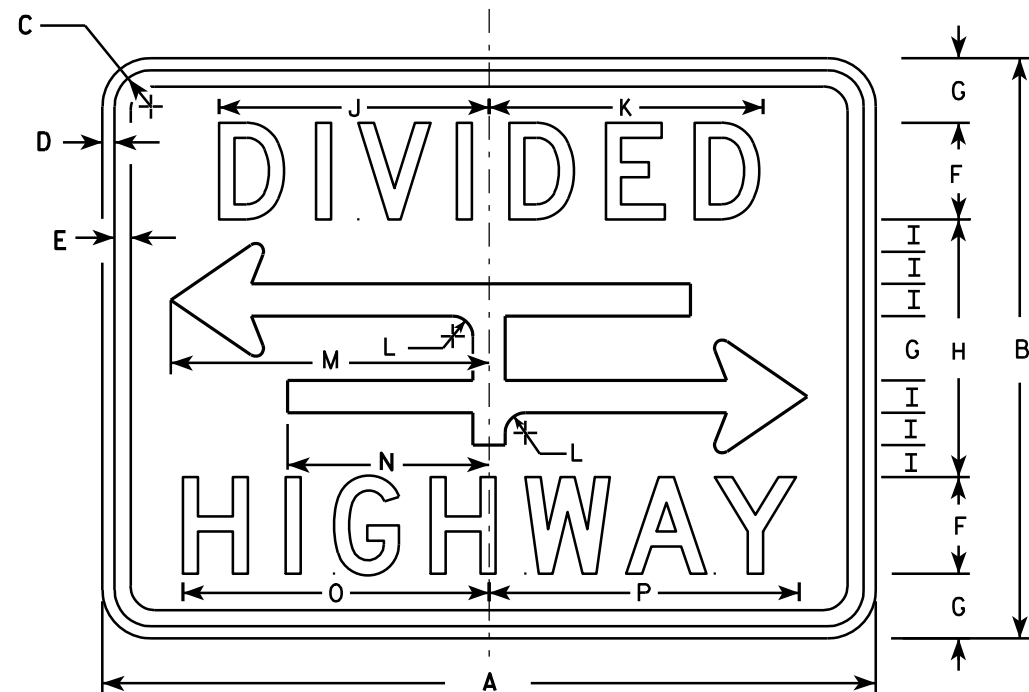
7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.25
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN R5-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/18	PLATE NO. R5-1.16



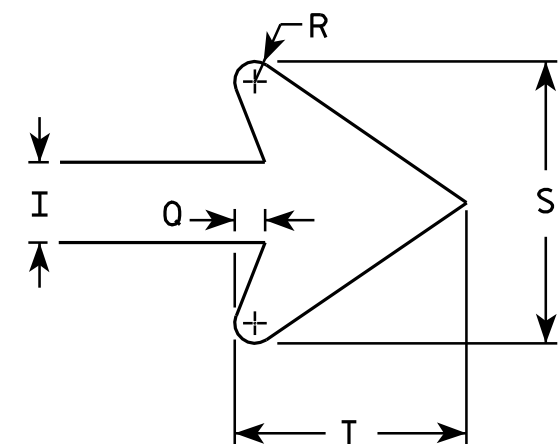
R6-3



R6-3A

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

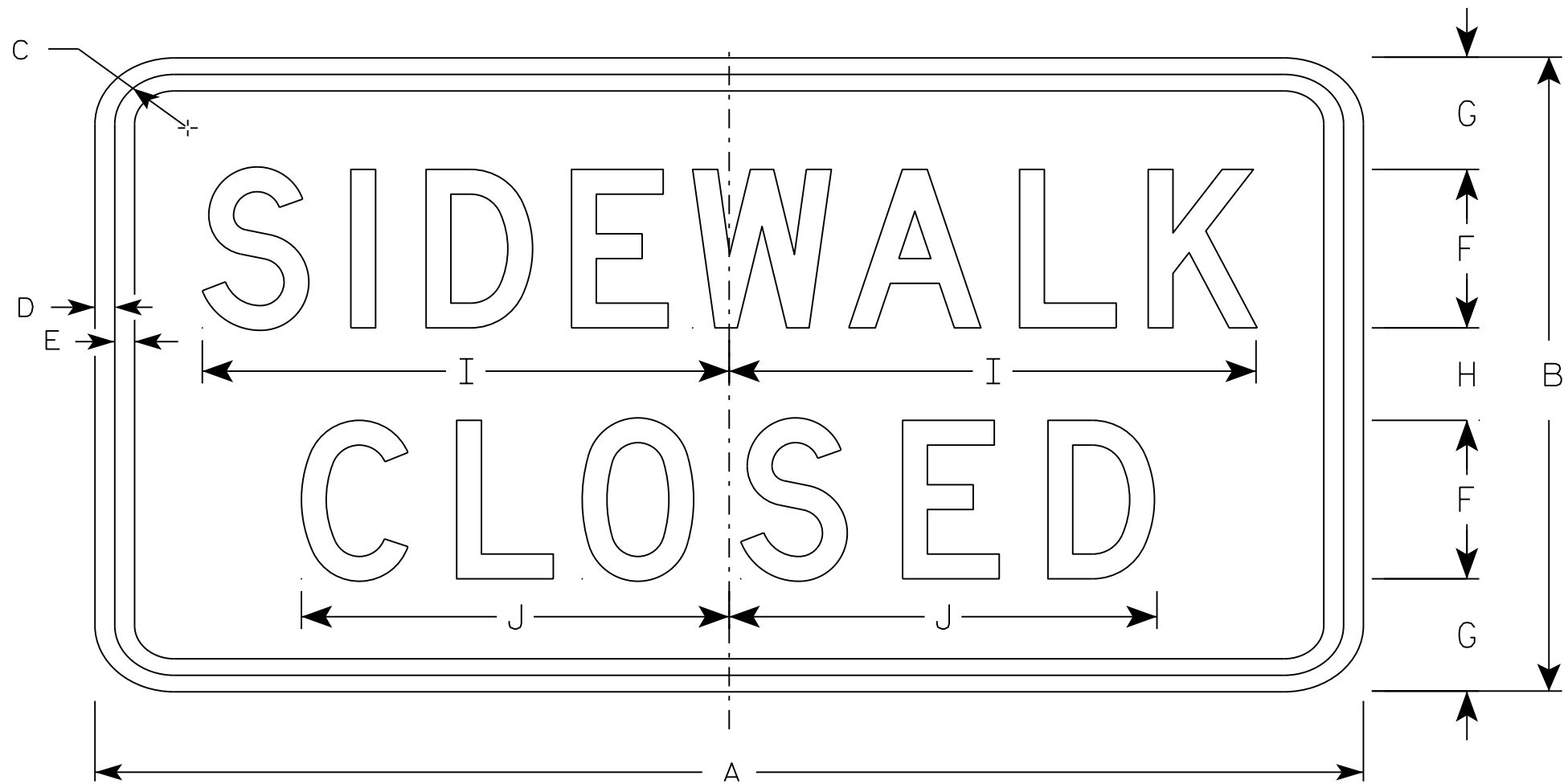
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 131

E



R9-9

NOTES

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

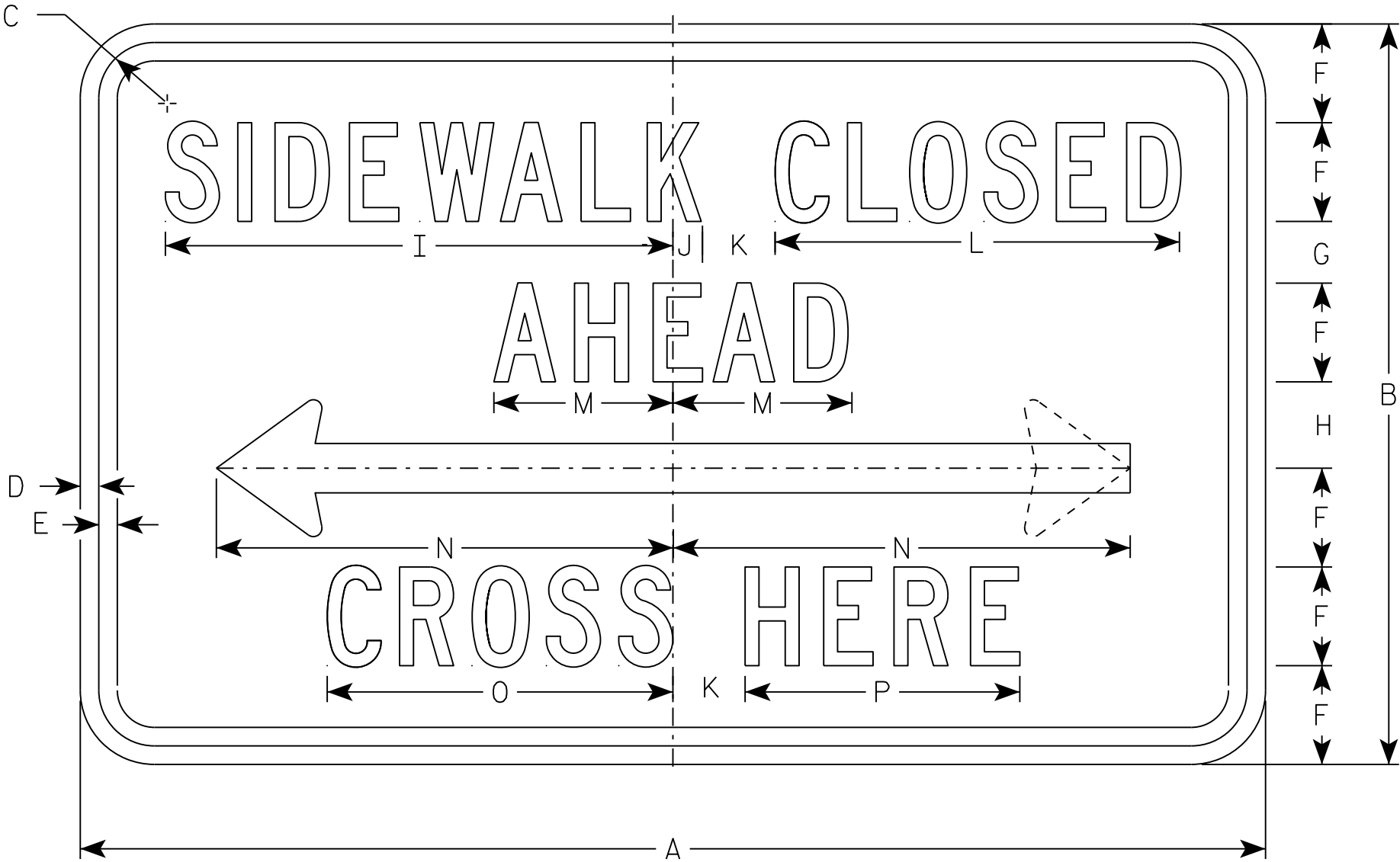
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 3/4	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 3/4	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

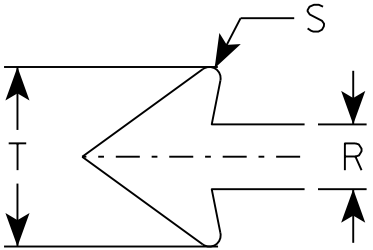
DATE 8/11/16 PLATE 132 R9-9.6



R9-11

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
2M	24	12	1 1/8	3/8	3/8	1 1/2	1 1/2	1 1/2	9 3/4	5/8	1 1/2	7 5/8	3 1/2	9 1/4	6 5/8	5 1/8		1	1/8	2 3/4							2.0
3	30	15	1 1/8	3/8	1/2	2	1 1/2	1 1/2	13	3/4	2	10 1/4	4 5/8	12 3/8	8 7/8	6 7/8		1 1/4	1/4	3 5/8							3.125
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 133

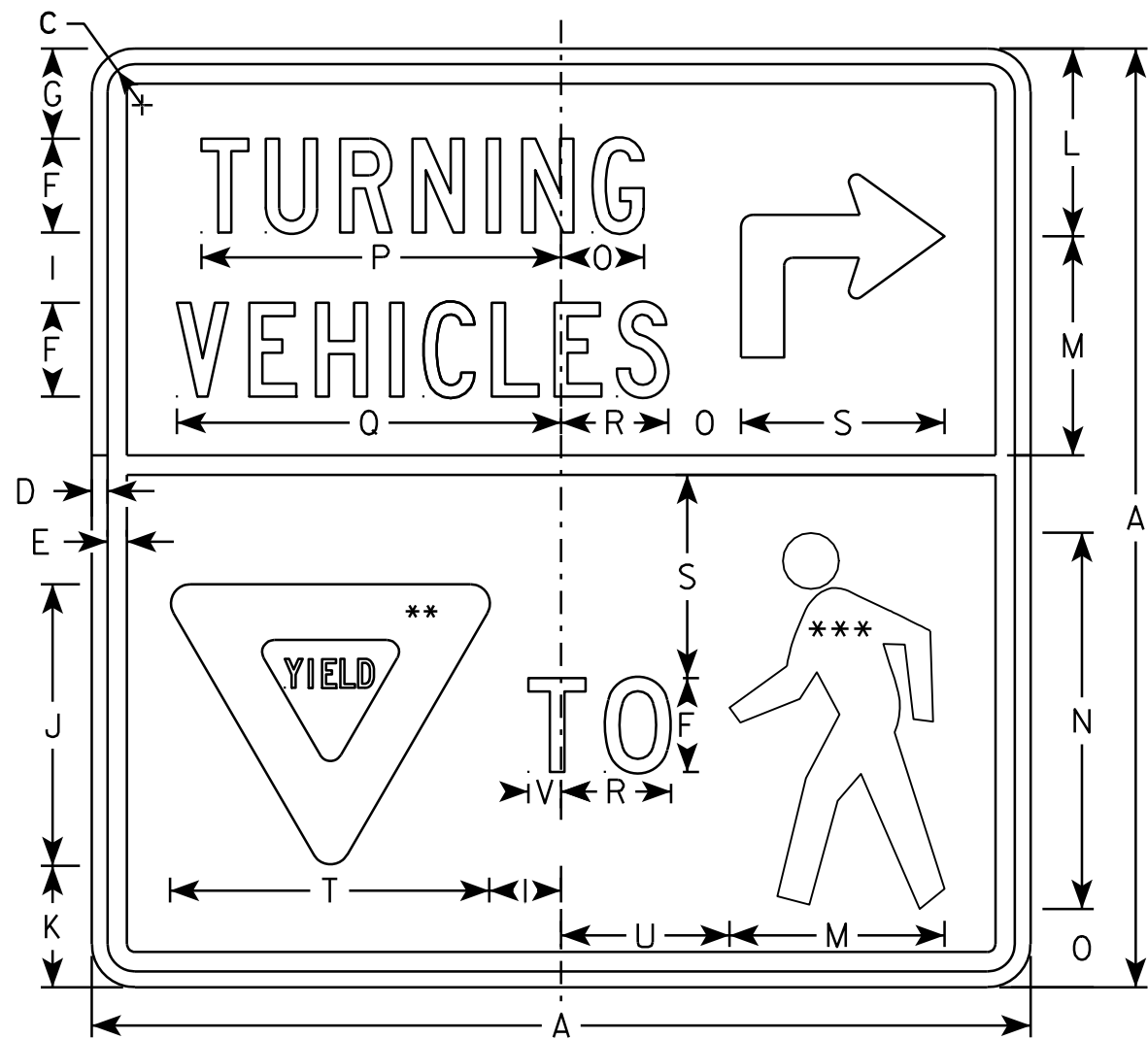
E

STANDARD SIGN
R9-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/29/16 PLATE NO. R9-11.3

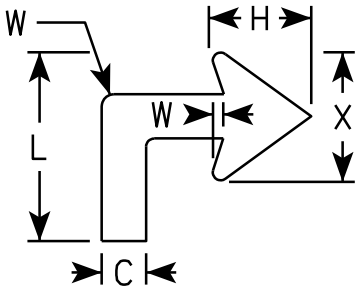


R10-15R

NOTES

- 1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Top Half- Yellow
 - Bottom Half - WHITE
 - Message - BLACK
 - YIELD SYMBOL - RED ON WHITE
 - PED SYMBOL - BLACK ON WHITE
- 3. Message Series - C except "T0" Series D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

** INSERT R1-2 AND SIZE TO FIT
*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 134

E



W4-4P

NOTES

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

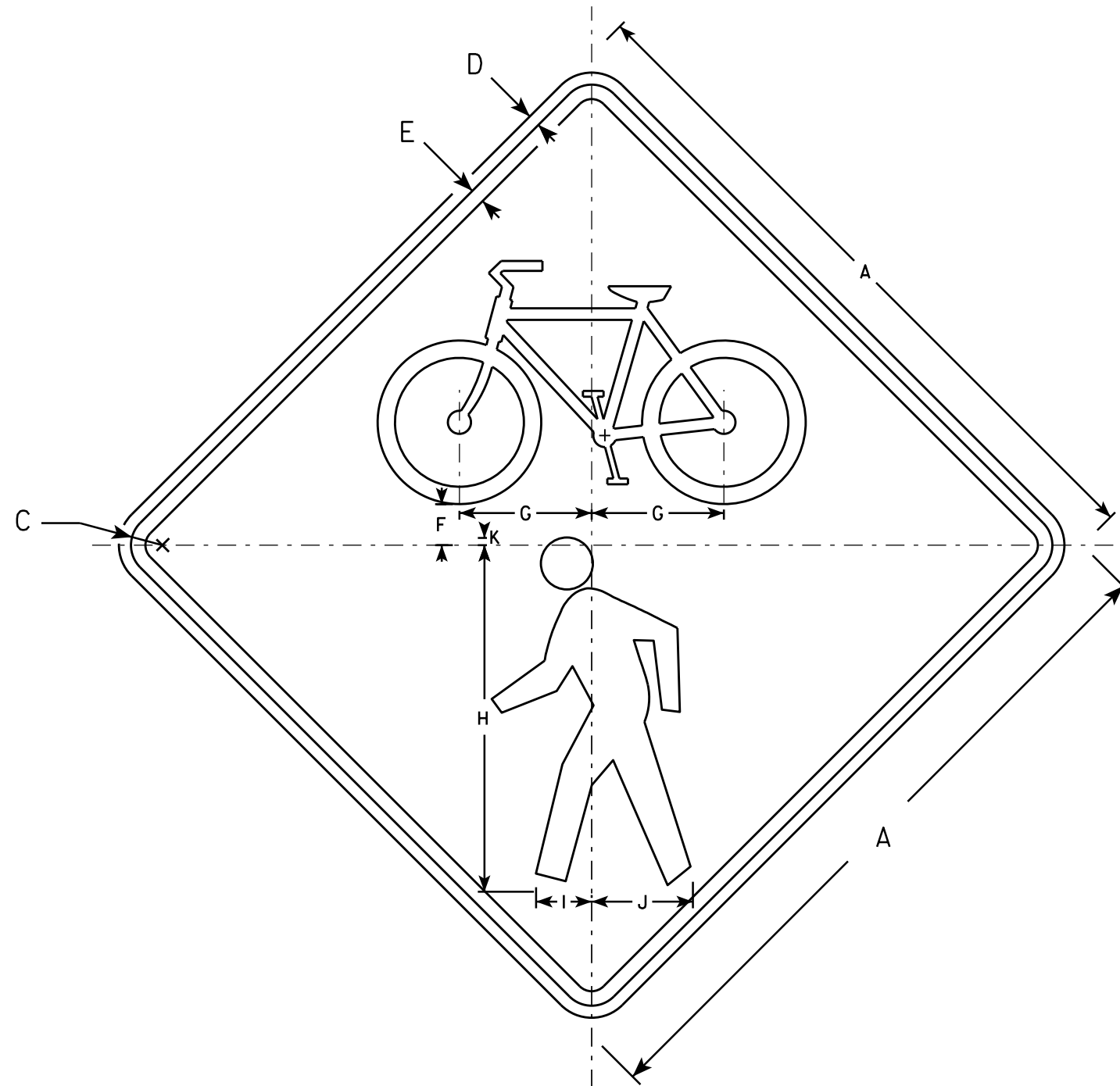
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	10 3/4	2 3/8	3/8	13 1/2	8 3/8	3	3 1/8	8 3/8											3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	13 3/8	3 1/8	3/8	16 7/8	10 1/2	3 5/8	3 7/8	10 3/8											5.25
5																											

STANDARD SIGN
W4-4P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rasch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4P.2



W11-15

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	1 3/8	4 5/8	12	1 7/8	3 1/2	1/4																4.0
2S	30		1 3/8	1/2	5/8	1 3/4	5 3/4	15	2 3/8	4 3/8	3/8																6.25
2M	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																9.0
3	36		1 5/8	5/8	3/4	2 1/8	6 7/8	18	2 7/8	5 1/4	3/8																16.0
4	48		2 1/4	3/4	1	2 7/8	9 1/8	24	3 7/8	7	1/2																16.0
5																											

STANDARD SIGN W11-15

WISCONSIN DEPT OF TRANSPORTATION

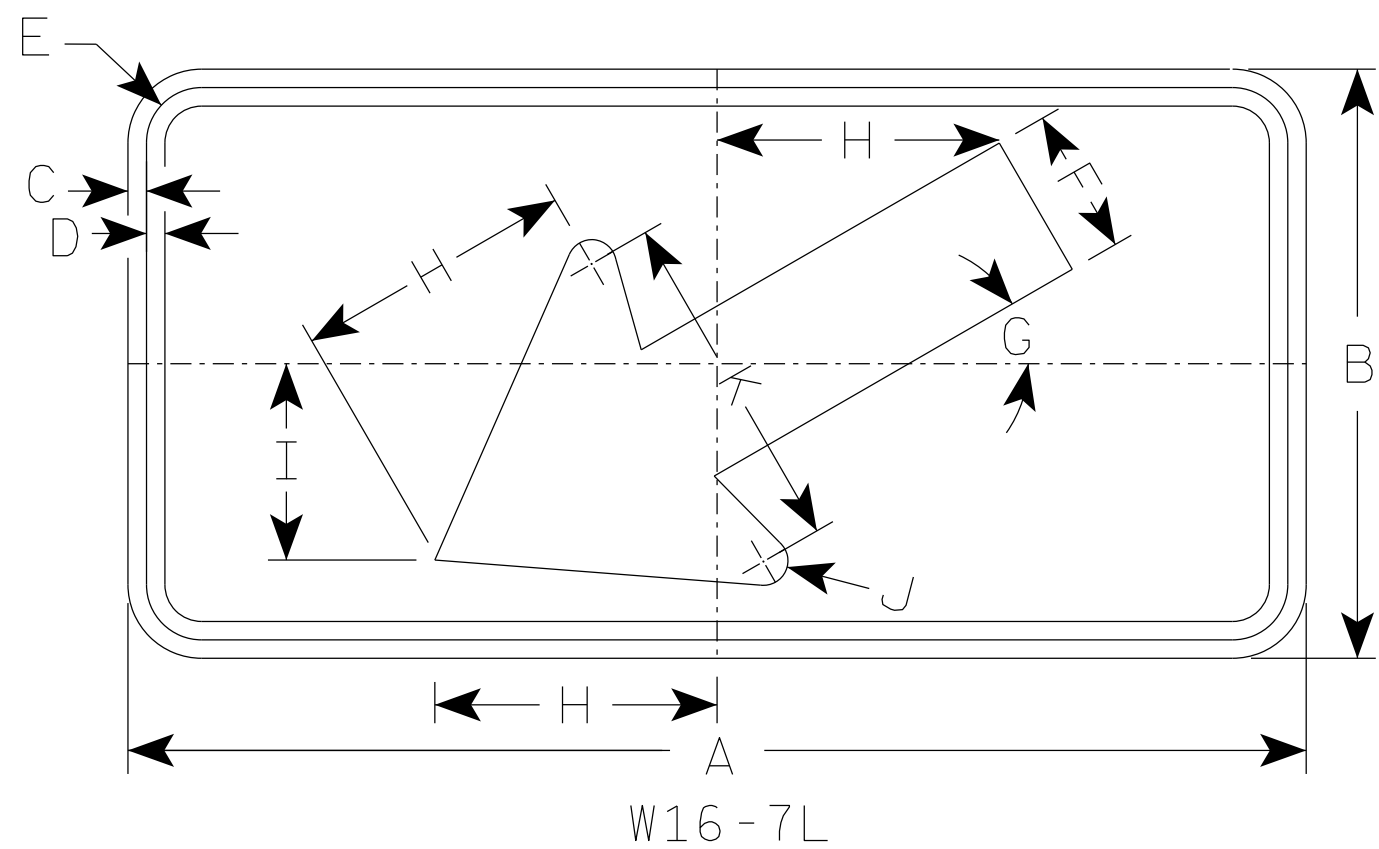
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/13/14 PLATE NO. W11-15.4
136

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. W16-7R is the same as W16-L
except the arrow is reversed along
the vertical centerline.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3⁄8	3⁄8	1 1⁄8	3	30°	5 3⁄4	4	1⁄2	7																2.0
2M	30	18	3⁄8	1⁄2	1 1⁄8	4 1⁄2	30°	8 1⁄2	6	5⁄8	10 1⁄4																3.75
3	30	18	3⁄8	1⁄2	1 1⁄8	4 1⁄2	30°	8 1⁄2	6	5⁄8	10 1⁄4																3.75
4	48	24	1⁄2	5⁄8	1 3⁄8	6	30°	11 1⁄2	8	1	14																8.0
5																											

STANDARD SIGN

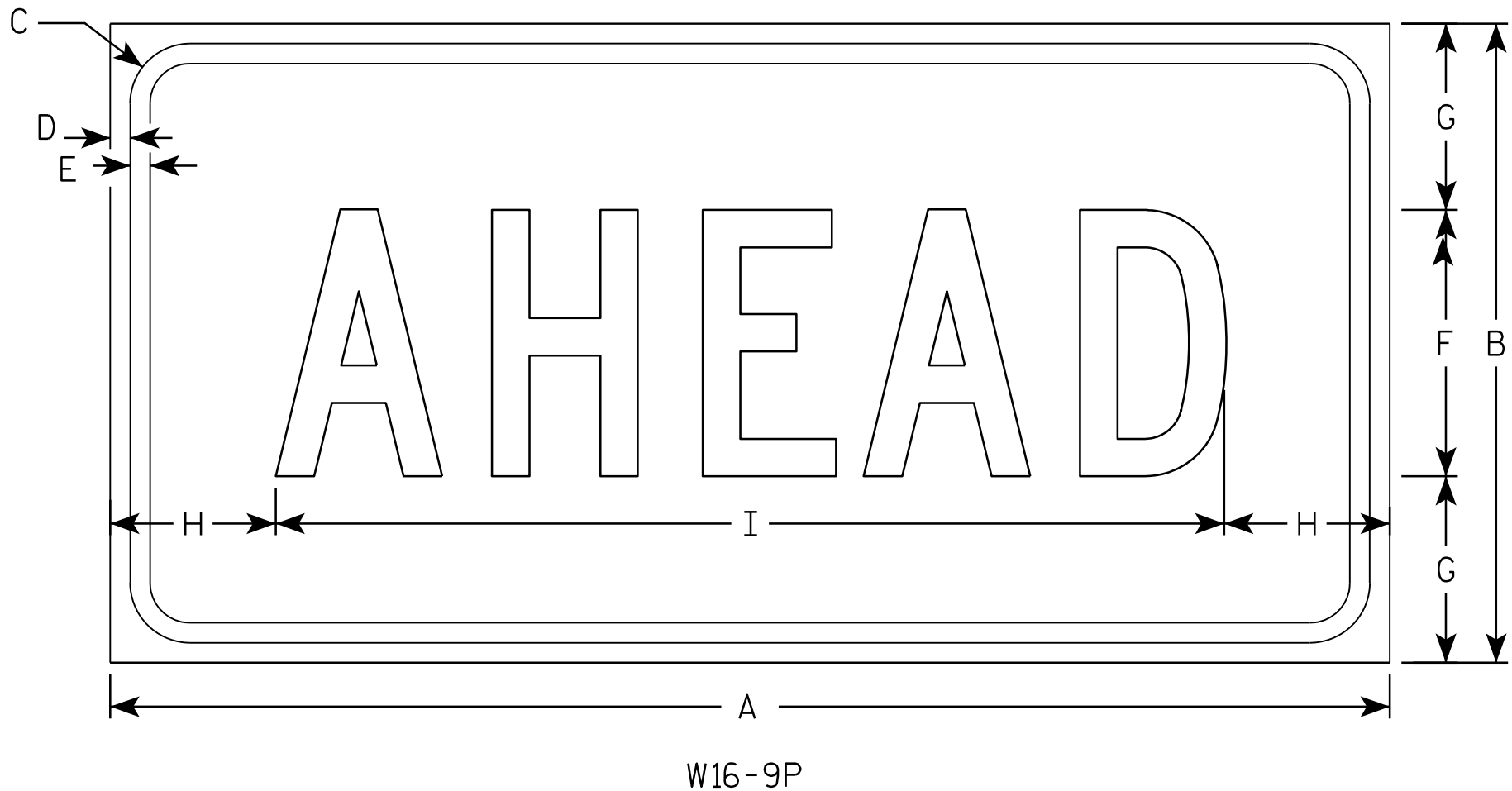
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 7/11/18 PLATE NO. W16-7.6

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

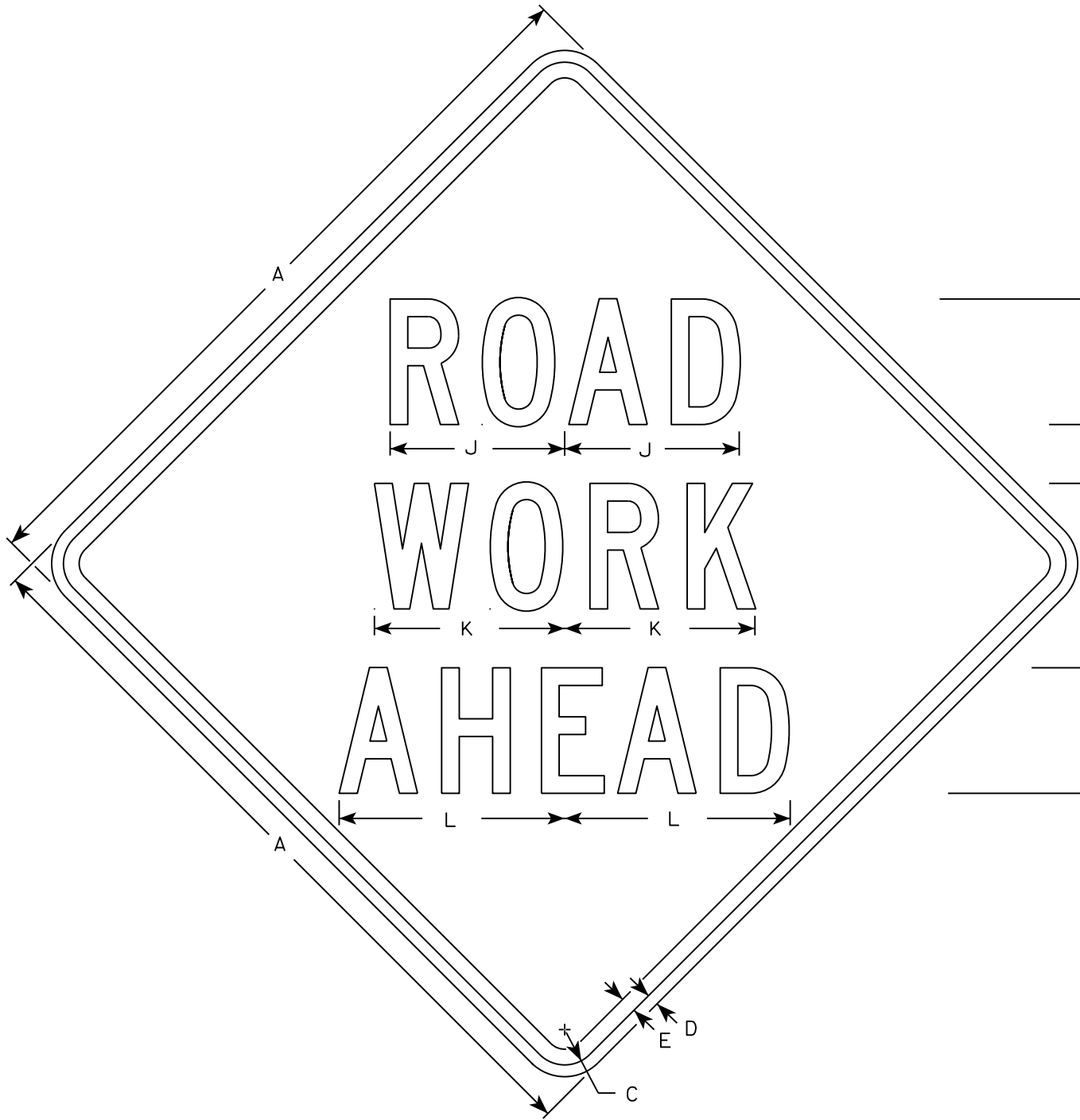
STANDARD SIGN

W16-9P

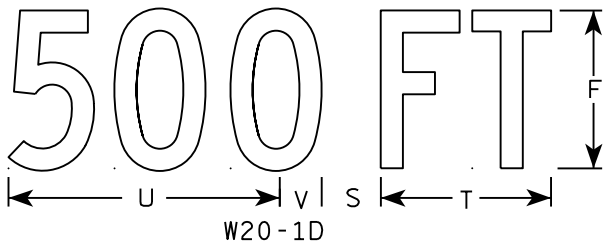
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

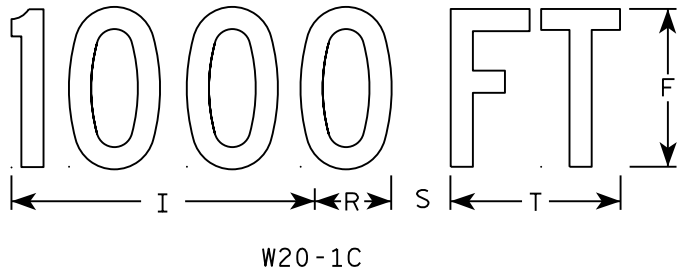
DATE 12/28/10 PLATE NO. W16-9P.6



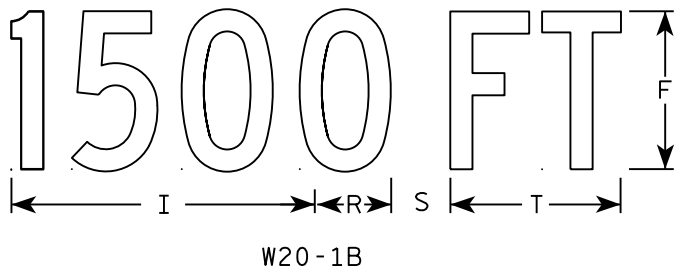
W20-1A



W20-1D



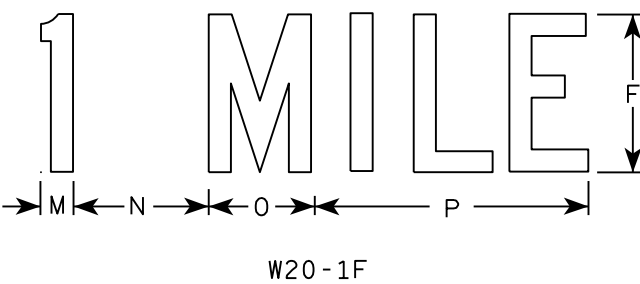
W20-1C



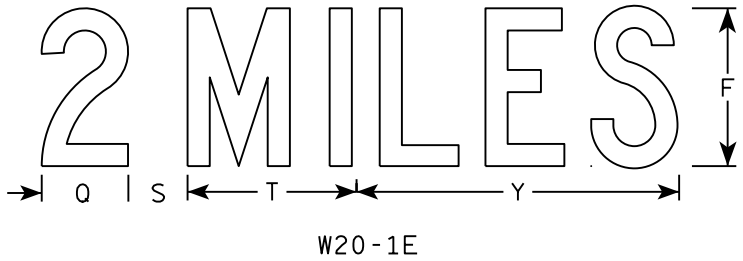
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

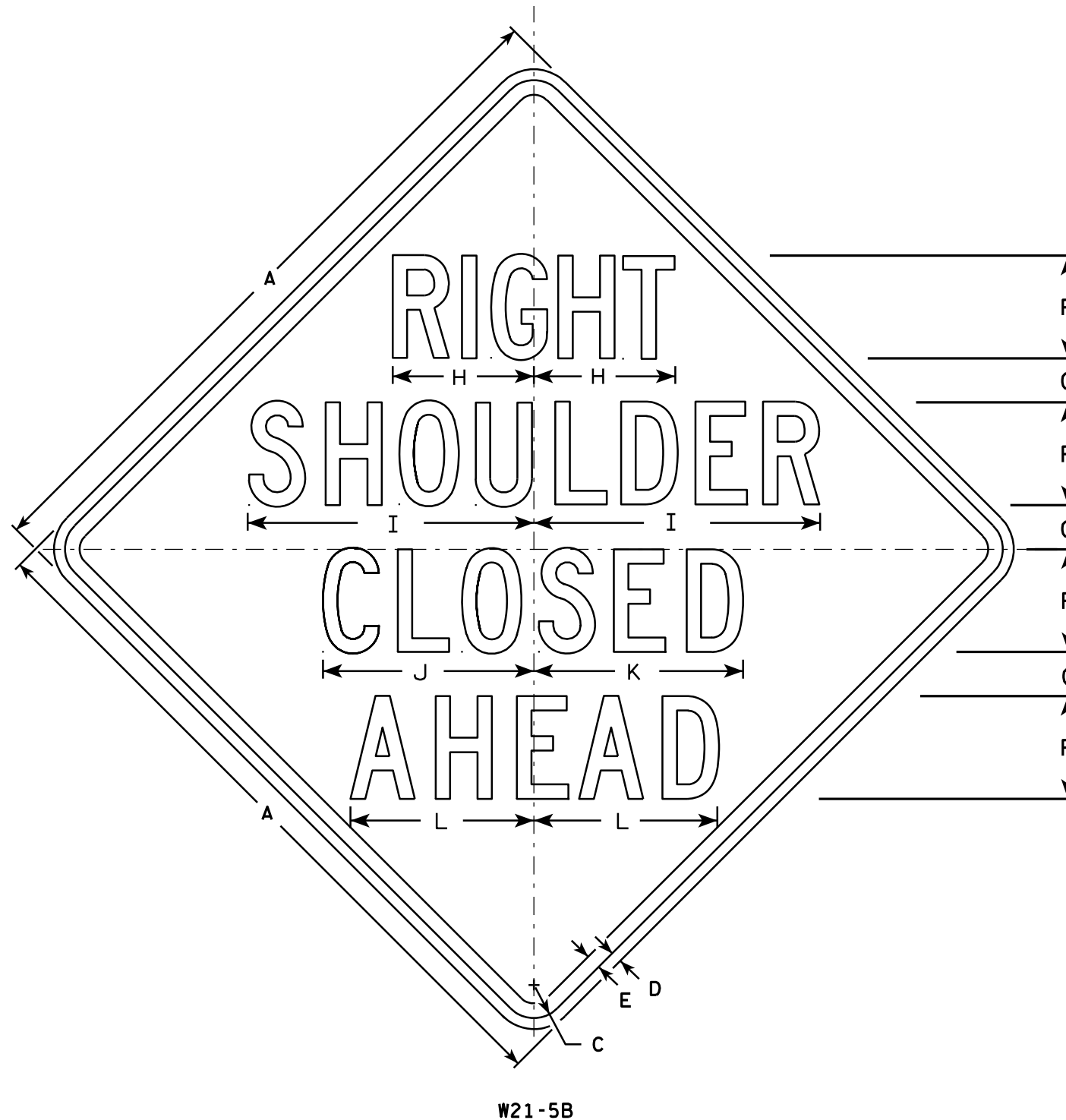
STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

139



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

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

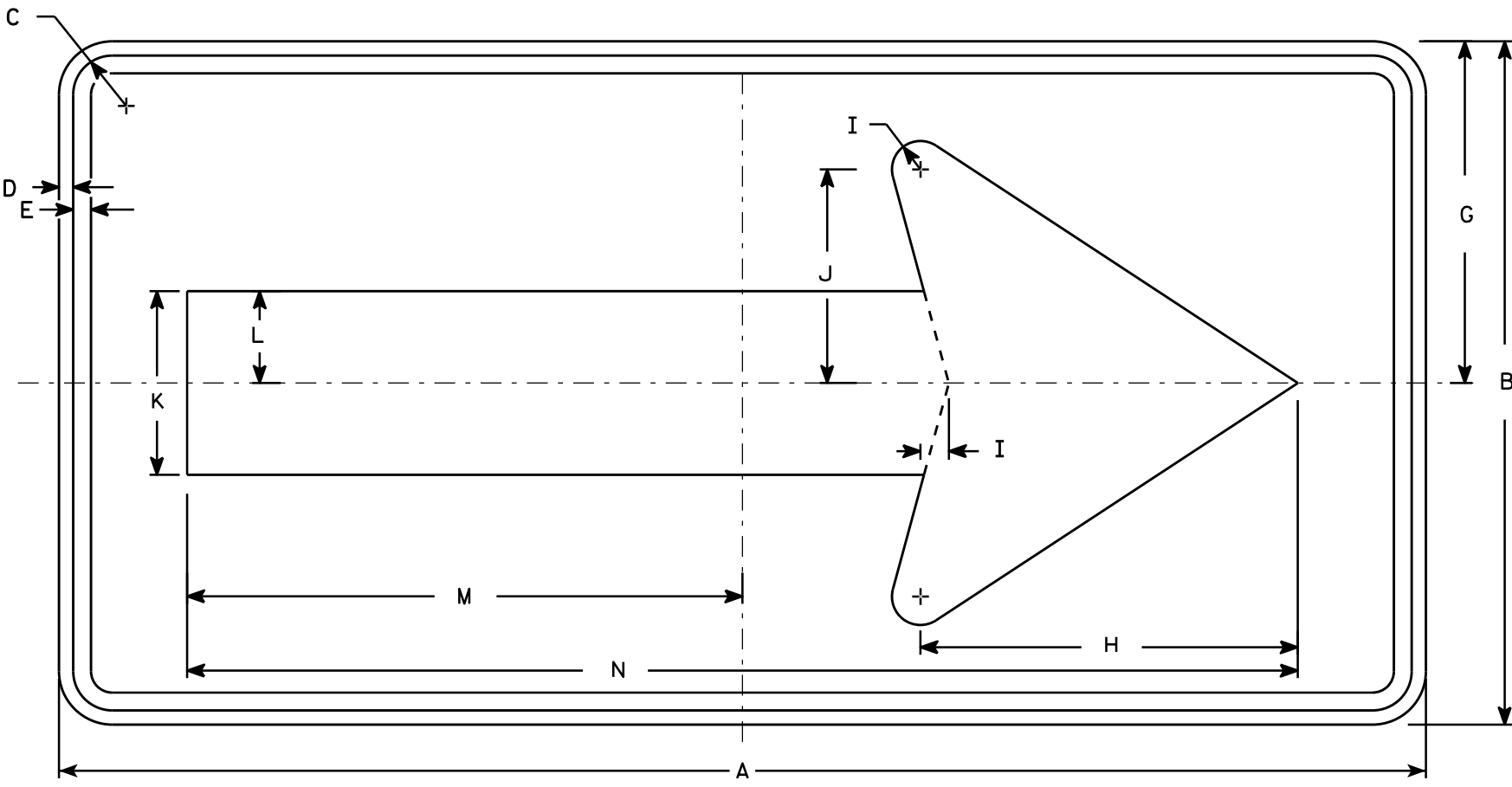
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 140	E
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STANDARD SIGN
W21-5B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5B.3



W01-6

NOTES

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

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

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

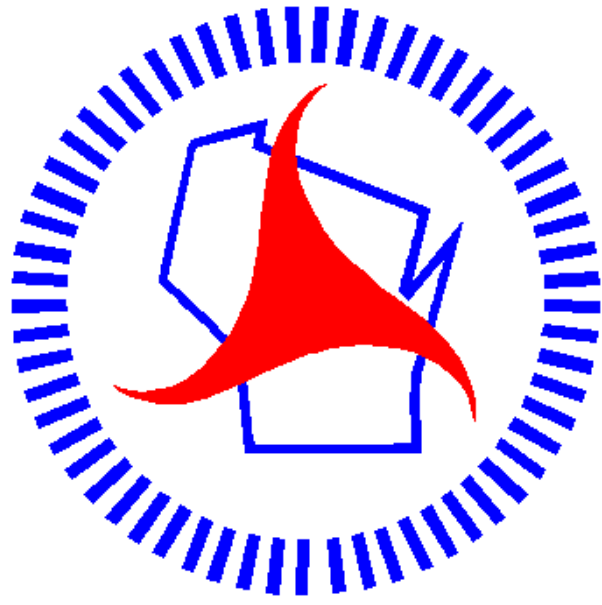
DATE 11/18/13 PLATE NO. 141 W01-6.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO: E



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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