WKE

PROJECT ID: 3831-07-72

WITH: N/A

COUNTY: KENOSHA

26

Feb 14, 2023

ORDER OF SHEETS

| | | |
|---|---|---|
| Section No. | 1 | Title |
| Section No. | 2 | Typical Sections and Details (Includes Erosion Control Plans) |
| 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. | 9 | Computer Earthwork Data |
| Section No. | 9 | Cross Sections |

TOTAL SHEETS = 204

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

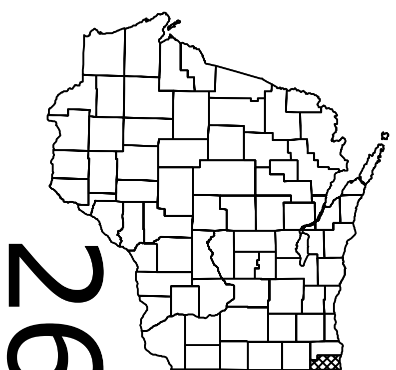
| STATE PROJECT | FEDERAL PROJECT: PROJECT | FEDERAL PROJECT: CONTRACT |
|---|---|---|
| 3831-07-72 | WISC 2023230 | 1 |

# C KENOSHA WASHINGTON ROAD

INTERSECTION WITH 39TH AVE

## LOCAL STREET
## KENOSHA COUNTY

STATE PROJECT NUMBER
**3831-07-72**



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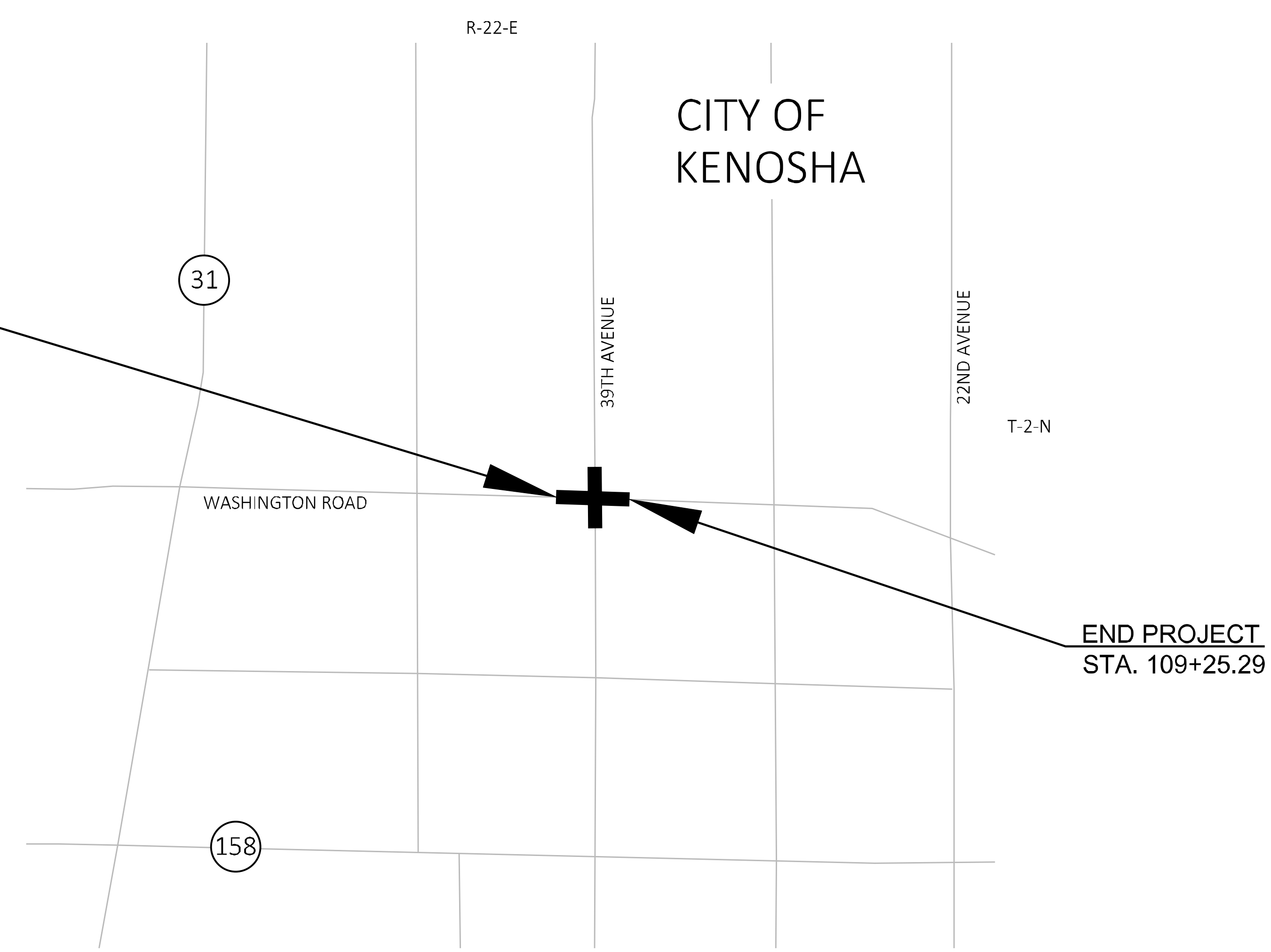



LAYOUT

SCALE 0 — 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.159

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83 (2011). IN U.S. SURVEY FEET.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012).

DESIGN DESIGNATION

| | | | |
|---|---|---|---|
| A.A.D.T. | 2023 | = | 20,565 |
| A.A.D.T. | 2043 | = | 25,910 |
| D.H.V. | | = | N/A |
| D.D. | | = | 54/46 |
| T. | | = | 2% |
| DESIGN SPEED | | = | 35 - 45 MPH |
| ESALS | | = | N/A |

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 (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC — E —
- FIBER OPTIC — FO —
- GAS — G —
- SANITARY SEWER — SAN —
- STORM SEWER — SS —
- TELEPHONE — T —
- WATER — W —
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR

CITY of KENOSHA

10/31/22 (Date) Interim Director of Public Works (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY:

STRAND ASSOCIATES®
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715-1943
(608) 251-4843

WISCONSIN ADAM J WALTER E-46386 MILWAUKEE WI PROFESSIONAL ENGINEER

10-28-2022

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

| | |
|---|---|
| Surveyor | CITY OF KENOSHA |
| Designer | STRAND ASSOCIATES, INC. |
| Project Manager | GREG HAFEMAN, P.E. |
| Regional Examiner | |
| Regional Supervisor | BRIAN BOOTHBY, P.E. |

APPROVED FOR THE DEPARTMENT

DATE: 10/31/22 (Signature)

E

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\010101_TI.DWG PLOT DATE : 10/3/2022 1:19 PM PLOT BY : WALTER, ADAM PLOT NAME :

## 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.

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 & GUTTER ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.

ELEVATIONS SHOWN ON THE PLANS ARE ALONG THE EDGE OF LANE OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

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

CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC), AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

## SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
PAVING GRADES
EROSION CONTROL
STORM SEWER
PAVEMENT MARKING AND PERMANENT SIGNING
LIGHTING
TRAFFIC SIGNALS
TRAFFIC CONTROL
DETOUR
ALIGNMENT

## ABBREVIATIONS

| | |
|---|---|
| BOC | BACK OF CURB |
| BOS | BACK OF SIDEWALK |
| BP | BREAK POINT |
| COR | CORNER |
| DIM | DIMENSION |
| EOP | EDGE OF PAVEMENT |

## UTILITY CONTACTS

* AT&T WISCONSIN
MIKE VANBOVEN
435 SOUTH 95TH STREET
MILWAUKEE, WI 53214
(262) 636-0514
MV3658@ATT.COM

* KENOSHA WATER UTILITY
CURT CZARNECKI
4401 GREEN BAY ROAD
KENOSHA, WI 53144
(262) 653-4306
CCZARNECKI@KENOSHA.ORG

* MIDWEST FIBER NETWORKS
SHEILA BONNIWELL
3701 WEST BURNHAM STREET
MILWAUKEE, WI 53215
(414) 672-2729
SBONNIWELL@MIDWESTFIBERNETWORKS.COM

* SPECTRUM
BEAU ABUYA
1320 DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
(414) 758-9241
BEAU.ABUYA@CHARTER.COM

* WE ENERGIES ELECTRICITY
JAMES NELSON
7815 NORTHWESTERN AVENUE
RACINE, WI 53406
262-884-6734
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM
JAMES.NELSON@WE-ENERGIES.COM

* WE ENERGIES GAS
CHRIS DEGRAVE
7815 NORTHWESTERN AVENUE
RACINE, WI 53406
262-886-7018
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM
CHRIS.DEGRAVE@WE-ENERGIES.COM

## OTHER CONTACTS

CITY OF KENOSHA CONTACT
ANTHONY STUPAR
ROAD FACILITY
625 52ND STREET
KENOSHA, WI 53140
(262) 653-4166
ASTUPAR@KENOSHA.ORG

DESIGN CONSULTANT
ADAM WALTER, P.E.
STRAND ASSOCIATES, INC.
126 N JEFFERSON STREET
MILWAUKEE, WI 53202
(414) 271-0771
ADAM.WALTER@STRAND.COM

KENOSHA AREA TRANSIT CONTACT
JONATHAN RIOS
4303 39TH AVENUE
KENOSHA, WI 53144
(262) 653-4287
JRIOS@KENOSHA.ORG

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ANDY TRAEGER
CONSTRUCTION COORDINATOR
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4296
CELL (262) 853-8463
ATRAEGER@SEWRPC.ORG

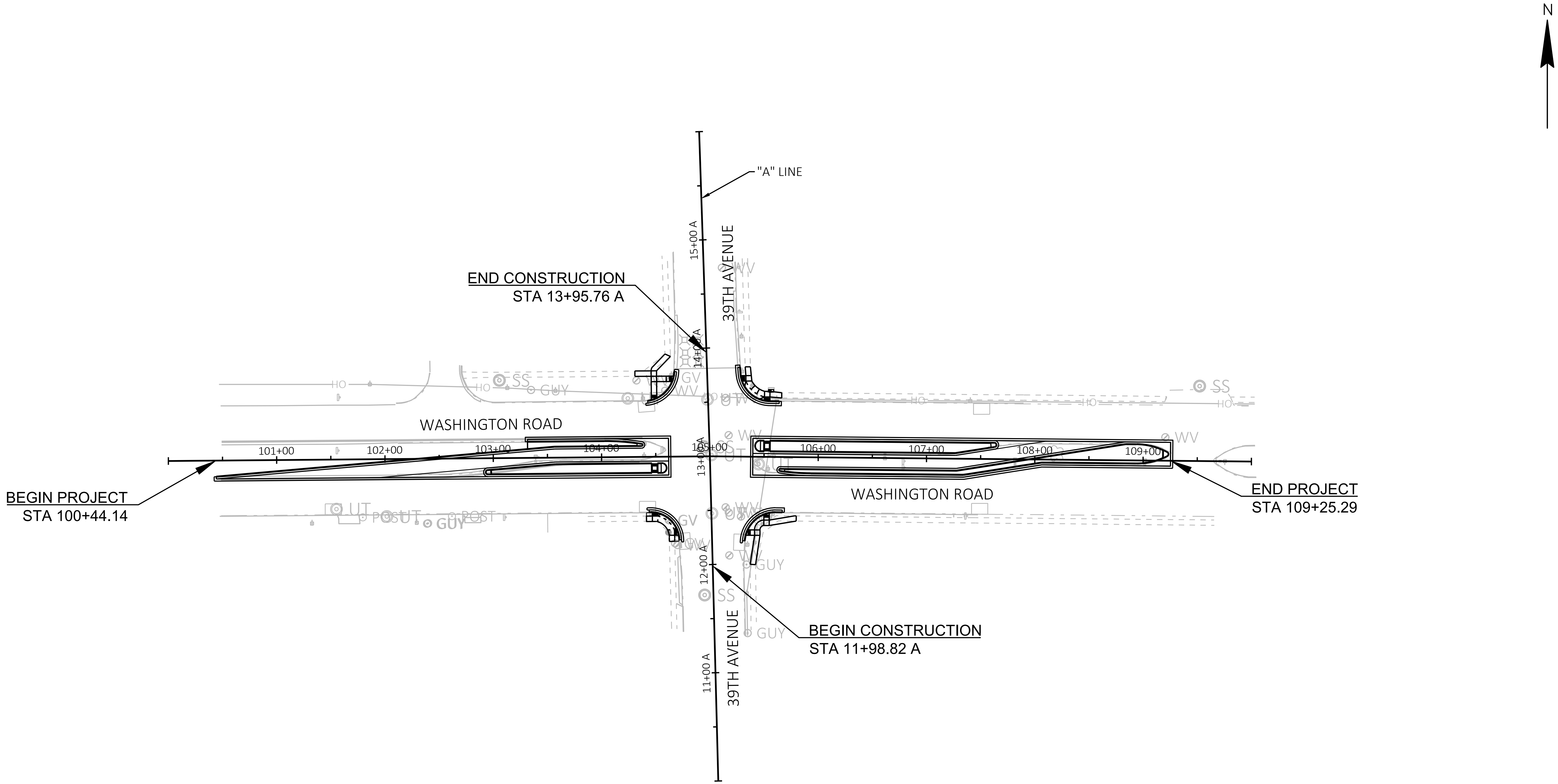
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
ROB MERRY
CHIEF SURVEYOR
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4289
CELL (920) 912-1036
RMERRY@SEWRPC.ORG

WISDNR CONTACT
BENTON STELZEL
DNR SOUTHEAST REGION
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 623-0194
BENTON.STELZEL@WISCONSIN.GOV

WISDOT REGION CONTACT
GREG HAFEMAN, P.E.
WISDOT SOUTHEAST REGION
WAUKESHA OFFICE
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 548-8677
GREG.HAFEMAN@DOT.WI.GOV

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

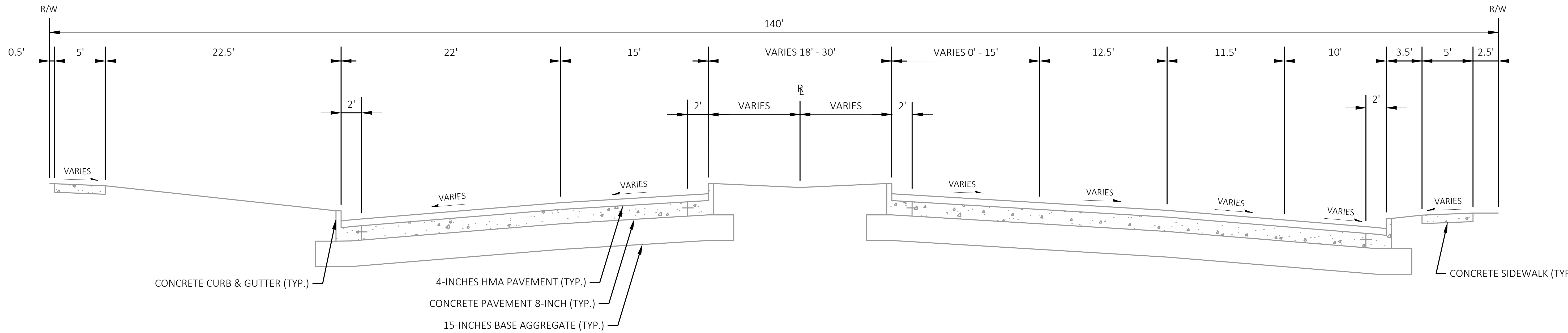
* DENOTES DIGGERS HOTLINE MEMBER




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PROJECT OVERVIEW | SHEET 3 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201_po
PLOT DATE : 10/21/2022 9:23 AM PLOT BY : WALTER, ADAM PLOT NAME : PLOT SCALE : 1 IN:100 FT

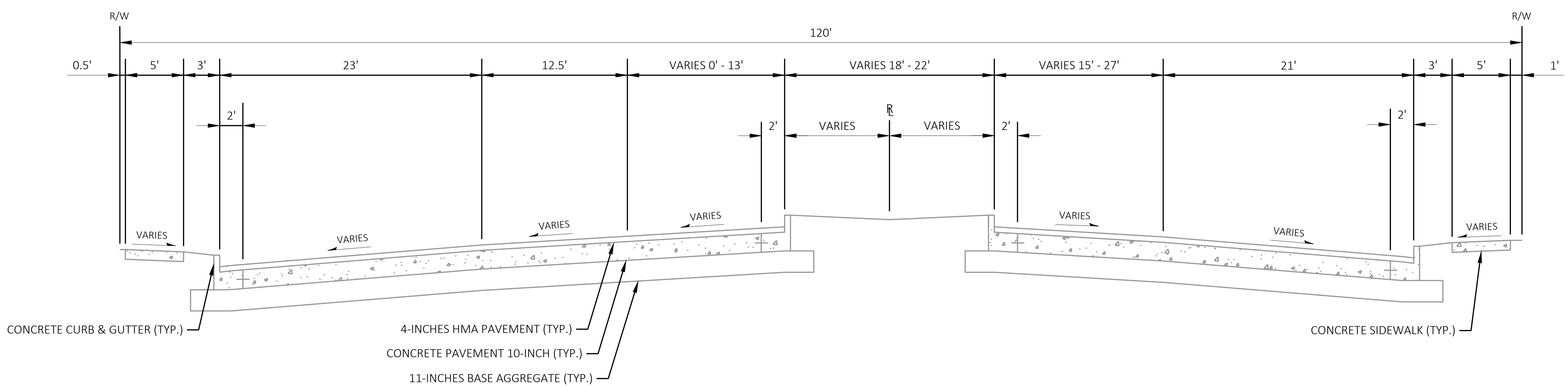
2




TYPICAL EXISTING SECTION

WASHINGTON ROAD

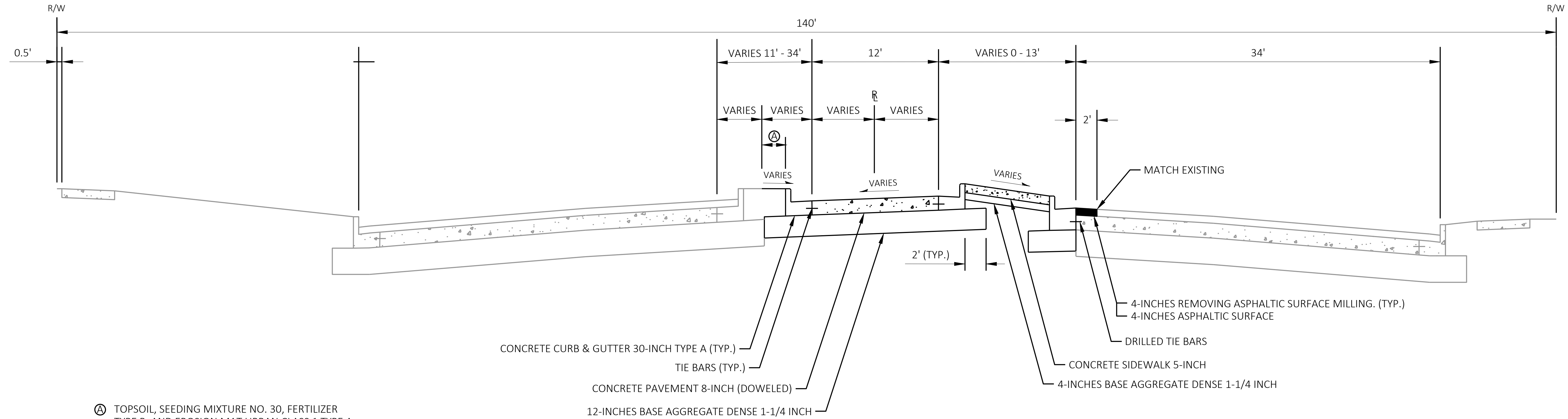
STA. 100+44.14 TO STA. 104+61.93




TYPICAL EXISTING SECTION

WASHINGTON ROAD

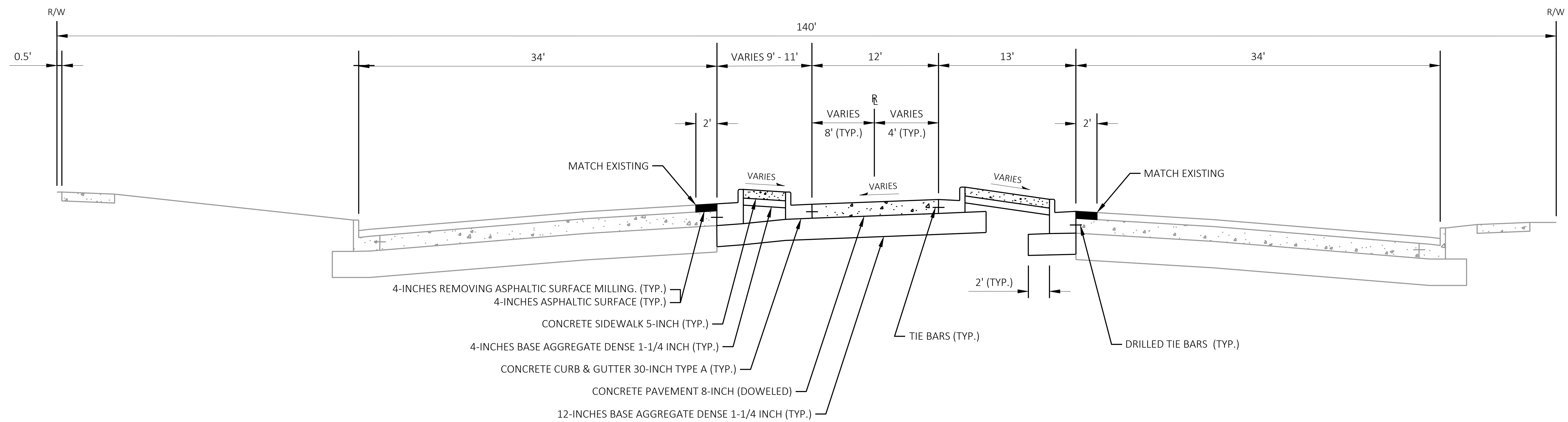
STA. 105+39.62 TO STA. 109+25.29




Ⓐ TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER
TYPE B, AND EROSION MAT URBAN CLASS 1 TYPE A

## TYPICAL FINISHED SECTION

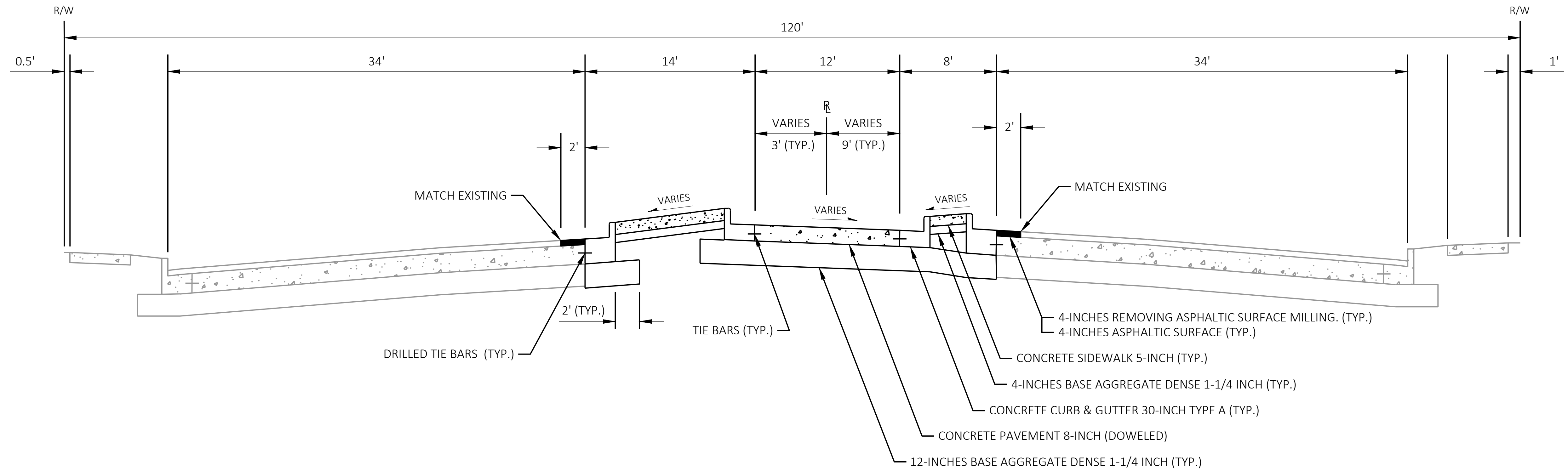
WASHINGTON ROAD
STA. 100+44.14 TO STA. 103+31.72



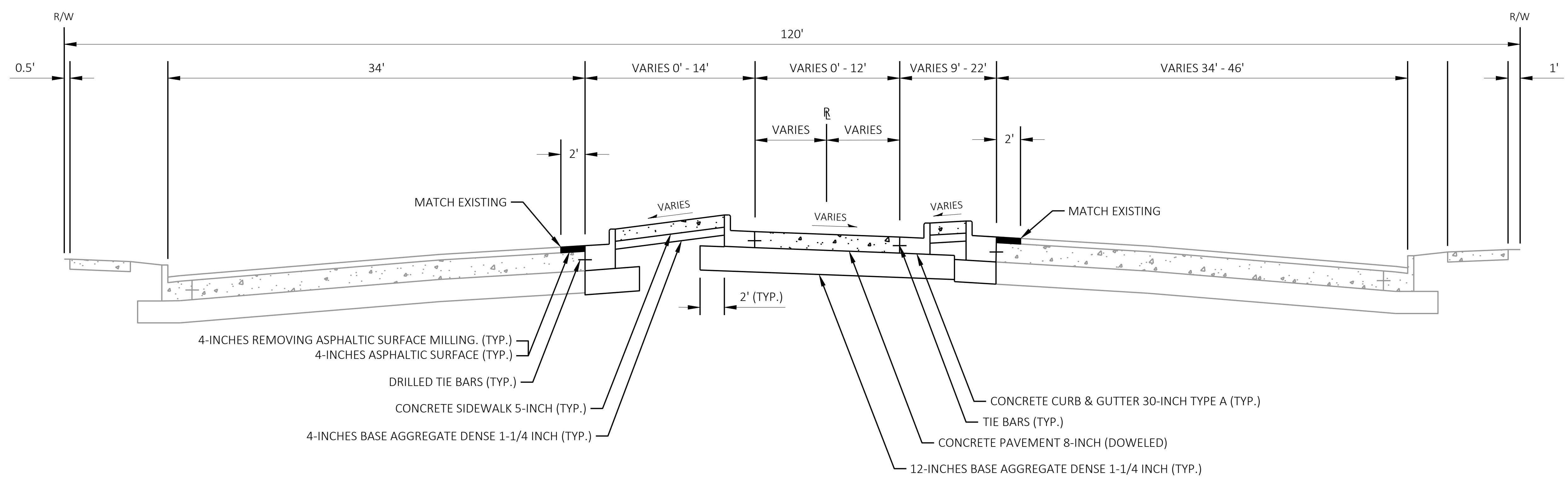

## TYPICAL FINISHED SECTION

WASHINGTON ROAD
STA. 103+31.72 TO STA. 104+61.93

2



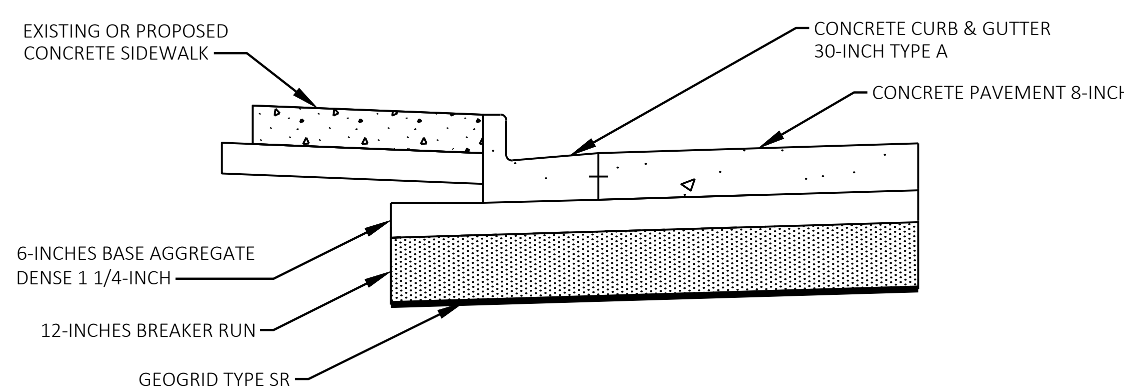

TYPICAL FINISHED SECTION
WASHINGTON ROAD
STA. 105+39.62 TO STA. 107+27.71




TYPICAL FINISHED SECTION
WASHINGTON ROAD
STA. 107+27.71 TO STA. 109+25.29

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TYPICAL SECTIONS | SHEET 6 | E |
|---|---|---|---|---|---|

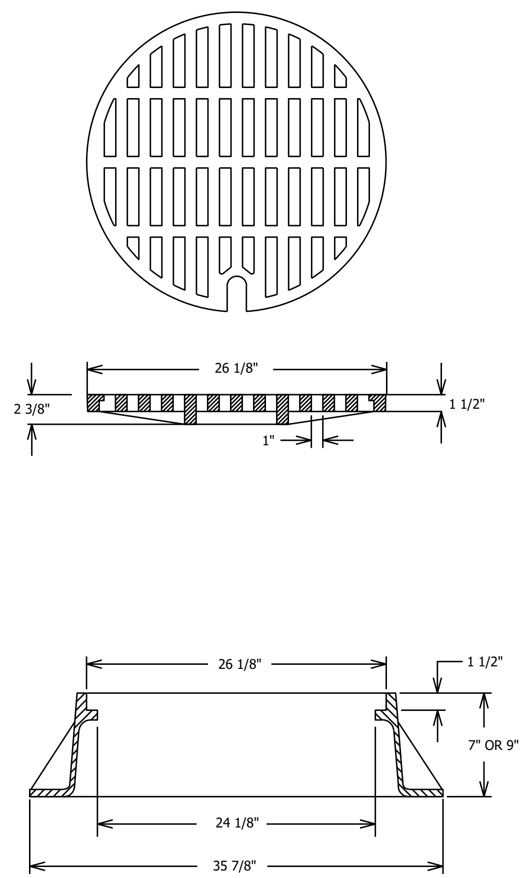
2



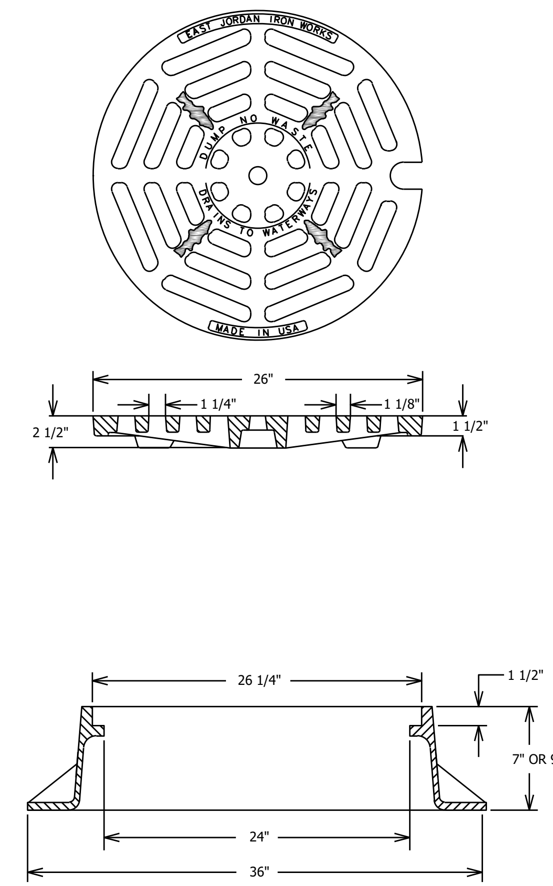

EXCAVATION BELOW SUBGRADE

NOTE: IF A TEST ROLL SECTION HAS FAILED, INSTALL GEOGRID AND BREAKER RUN AS DIRECTED BY THE ENGINEER IN THE FIELD.

2




CORRESPONDS TO NEENAH
7" R-1642-2010 FRAME & TYPE 'G' GRATE WITH OPEN PICK HOLE
9" R-1642-2014 FRAME & TYPE 'G' GRATE WITH OPEN PICK HOLE
1 1/2" ADJUSTING RING 1642-7150
2" ADJUSTING RING 1642-7200
2 1/2" ADJUSTING RING 1642-7250




CORRESPONDS TO EAST JORDAN IRON WORKS
7" 1045 FRAME & TYPE 'M1' GRATE WITH OPEN PICK HOLE
9" 1048 FRAME & TYPE 'M1' GRATE WITH OPEN PICK HOLE
ADJUSTING RING 1040

MANHOLE COVERS STORM
N.T.S.

| STATION & OFFSET TABLE | | | | | |
|---|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS | ELEVATION |
| C 01 | 104+46.43 | 6.00 RT | 227182.424 | 2545716.783 | 641.03 |
| C 02 | 104+46.43 | 15.00 RT | 227173.425 | 2545716.861 | 640.97 |
| C 03 | 104+51.43 | 6.00 RT | 227182.468 | 2545721.783 | 640.94 |
| C 04 | 104+51.43 | 15.00 RT | 227173.468 | 2545721.861 | 640.88 |

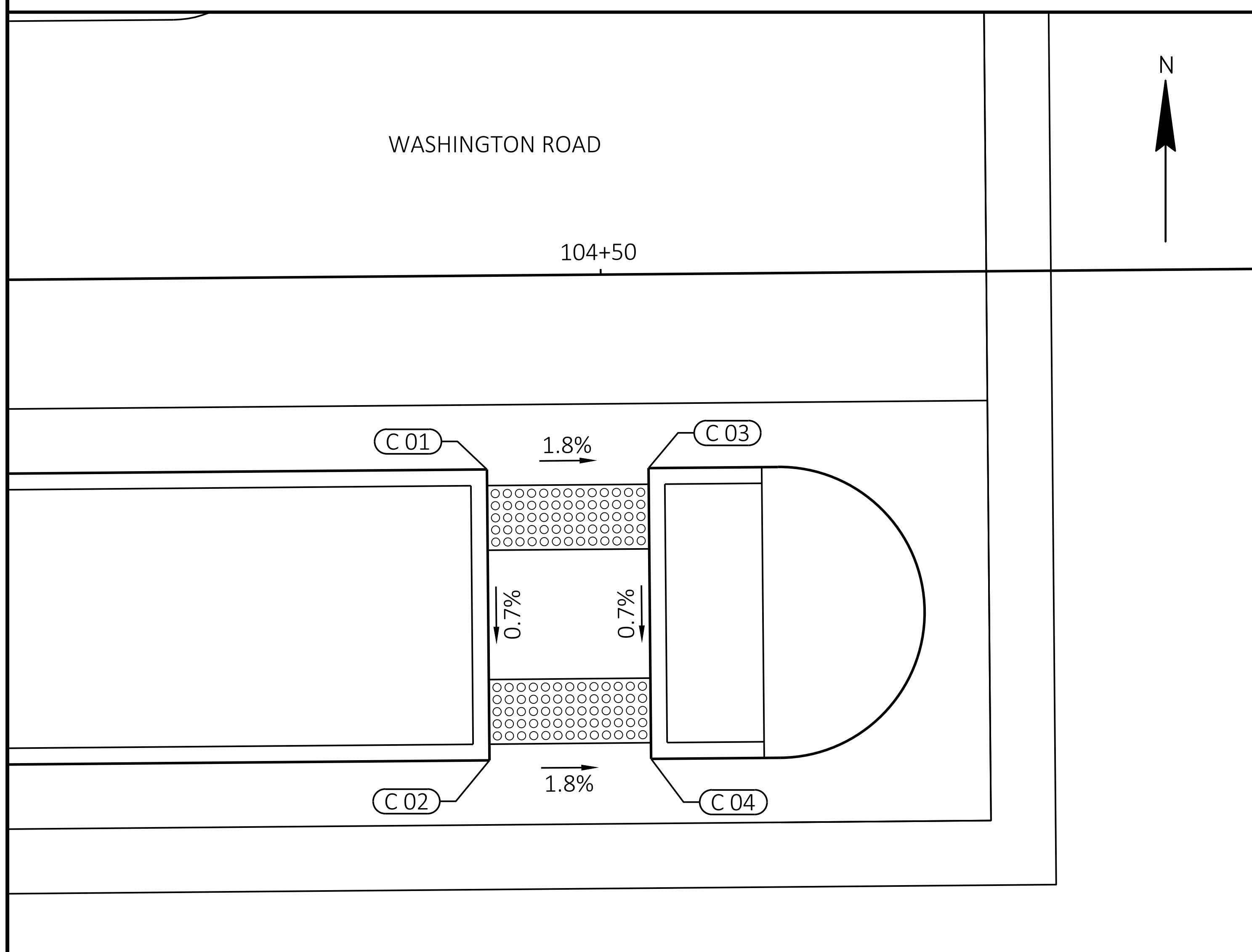
** MATCH EXISTING

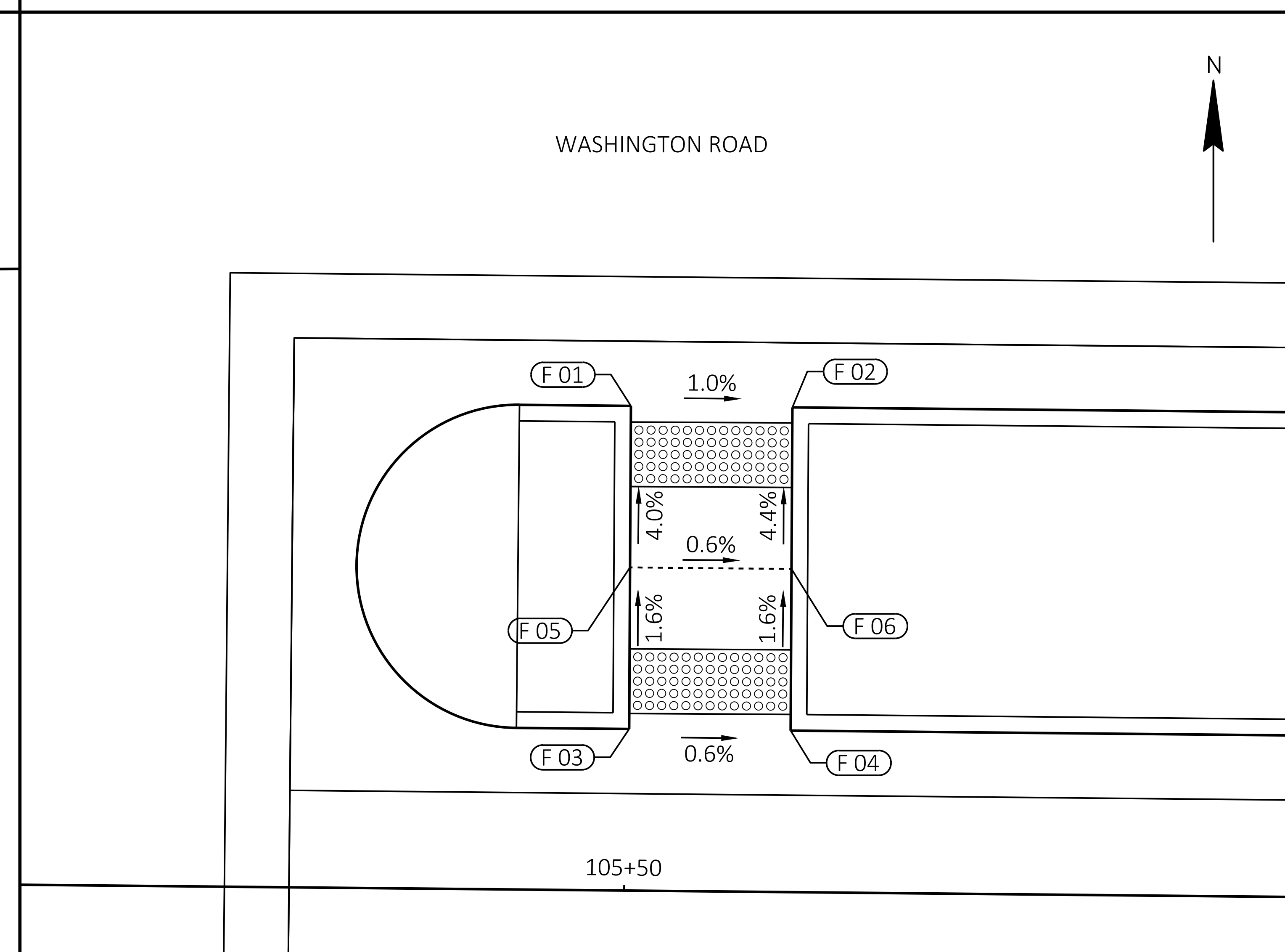
NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
3. SEE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR ADDITIONAL CURB RAMP REQUIREMENTS.
4. ALL STATION AND OFFSET INFORMATION REFERENCES THE MAINLINE WASHINGTON ROAD ALIGNMENT UNLESS OTHERWISE SPECIFIED.

2

| STATION & OFFSET TABLE | | | | | |
|---|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS | ELEVATION |
| F 01 | 105+50.07 | 15.00 LT | 227203.405 | 2545820.511 | 639.49 |
| F 02 | 105+55.07 | 15.00 LT | 227203.357 | 2545825.511 | 639.44 |
| F 03 | 105+50.11 | 5.00 LT | 227193.405 | 2545820.454 | 639.77 |
| F 04 | 105+55.11 | 5.00 LT | 227193.357 | 2545825.454 | 639.74 |
| F 05 | 105+50.09 | 10.00 LT | 227198.405 | 2545820.482 | 639.69 |
| F 06 | 105+55.09 | 10.00 LT | 227198.357 | 2545825.482 | 639.66 |



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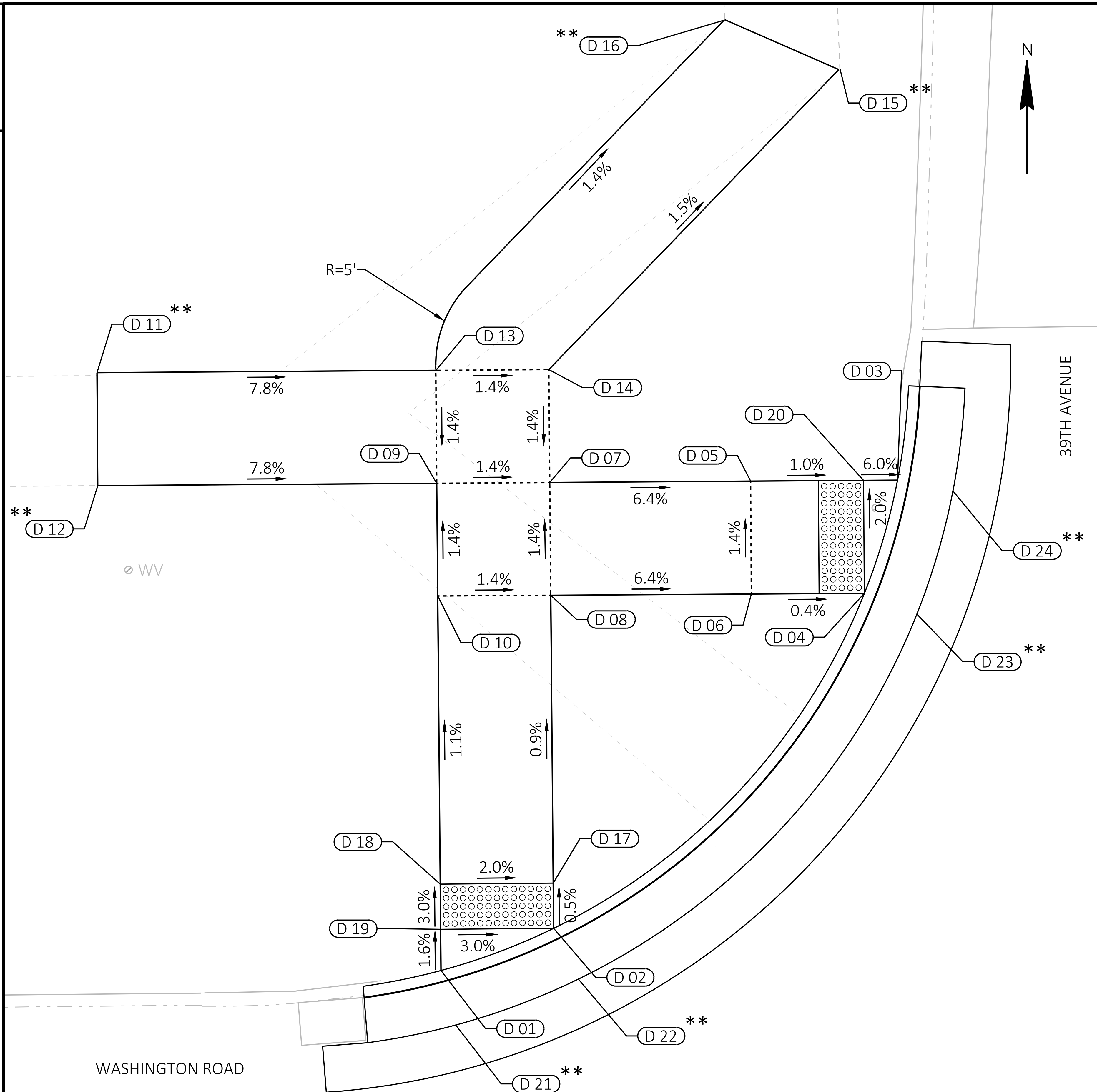



| STATION & OFFSET TABLE | | | | | |
|---|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS | ELEVATION |
| D 01 | 104+46.43 | 52.81 LT | 227241.236 | 2545716.274 | 640.37 |
| D 02 | 104+51.43 | 54.64 LT | 227243.104 | 2545721.258 | 640.19 |
| D 03 | 104+66.81 | 74.35 LT | 227262.944 | 2545736.472 | 639.29 |
| D 04 | 104+65.30 | 69.35 LT | 227257.935 | 2545735.006 | 639.48 |
| D 05 | 104+60.32 | 74.36 LT | 227262.902 | 2545729.975 | 639.43 |
| D 06 | 104+60.30 | 69.36 LT | 227257.902 | 2545730.006 | 639.50 |
| D 07 | 104+51.43 | 74.38 LT | 227262.840 | 2545721.087 | 640.00 |
| D 08 | 104+51.43 | 69.38 LT | 227257.847 | 2545721.131 | 640.07 |
| D 09 | 104+46.43 | 74.39 LT | 227262.807 | 2545716.087 | 640.07 |
| D 10 | 104+46.43 | 69.39 LT | 227257.815 | 2545716.131 | 640.14 |
| D 11 | 104+31.44 | 79.41 LT | 227267.705 | 2545701.054 | 641.31 |
| D 12 | 104+31.43 | 74.41 LT | 227262.699 | 2545701.088 | 641.24 |
| D 13 | 104+46.44 | 79.39 LT | 227267.806 | 2545716.054 | 640.14 |
| D 14 | 104+51.43 | 79.38 LT | 227267.840 | 2545721.044 | 640.07 |
| D 15 | 104+64.43 | 92.55 LT | 227281.126 | 2545733.933 | 639.79 |
| D 16 | 104+59.32 | 94.78 LT | 227283.308 | 2545728.805 | 639.86 |
| D 17 | 104+51.43 | 56.64 LT | 227245.104 | 2545721.241 | 640.18 |
| D 18 | 104+46.43 | 56.64 LT | 227245.061 | 2545716.241 | 640.28 |
| D 19 | 104+46.43 | 54.64 LT | 227243.061 | 2545716.258 | 640.34 |
| D 20 | 104+65.31 | 74.35 LT | 227262.935 | 2545734.973 | 639.38 |
| D 21 | 104+47.06 | 50.39 LT | 227238.823 | 2545716.925 | 640.44 |
| D 22 | 104+52.50 | 52.38 LT | 227240.858 | 2545722.354 | 640.26 |
| D 23 | 104+67.62 | 68.41 LT | 227257.011 | 2545737.329 | 639.55 |
| D 24 | 104+69.26 | 73.85 LT | 227262.469 | 2545738.927 | 639.36 |

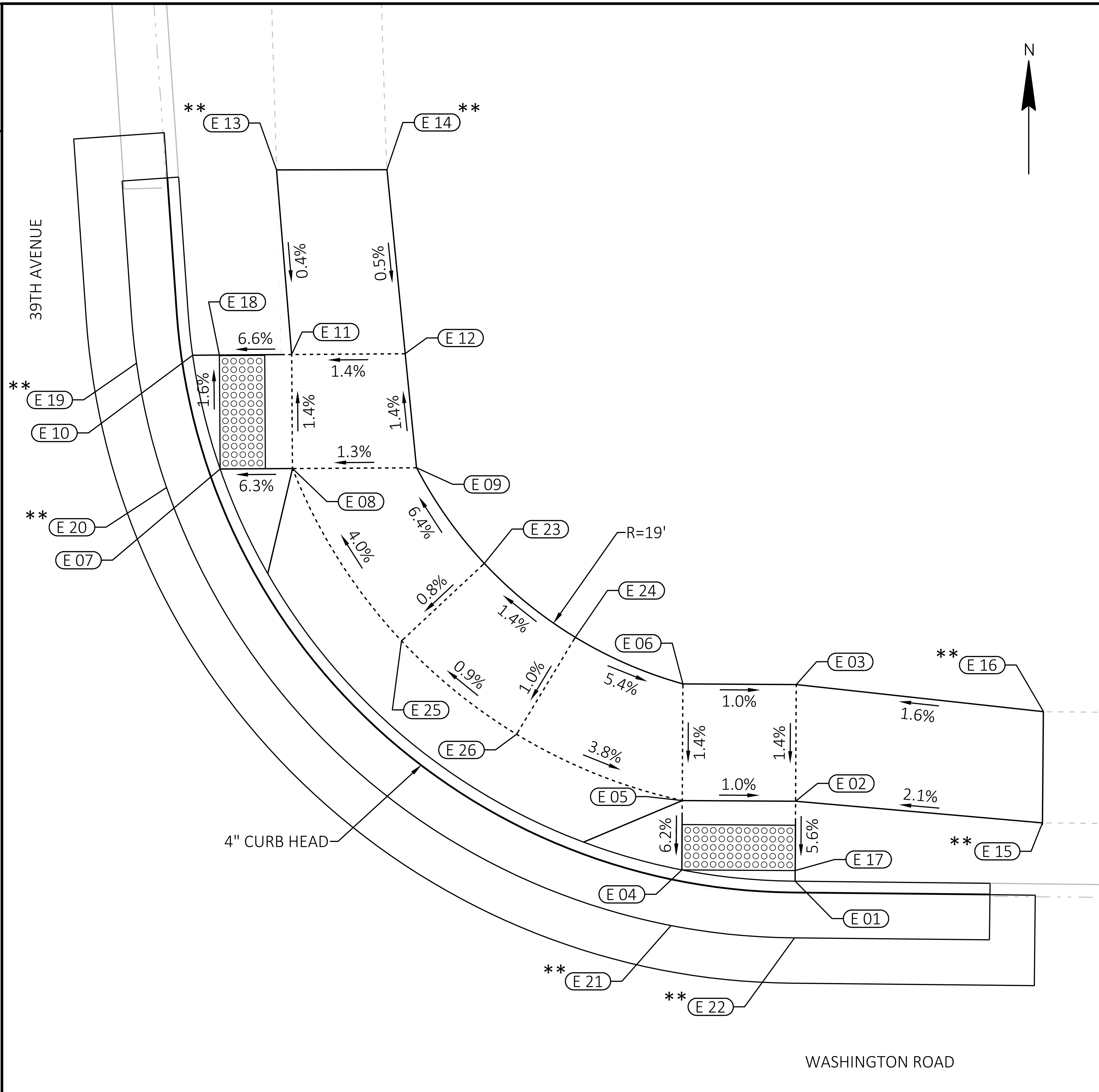
** MATCH EXISTING

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
3. SEE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR ADDITIONAL CURB RAMP REQUIREMENTS.
4. ALL STATION AND OFFSET INFORMATION REFERENCES THE MAINLINE WASHINGTON ROAD ALIGNMENT UNLESS OTHERWISE SPECIFIED.

2

2



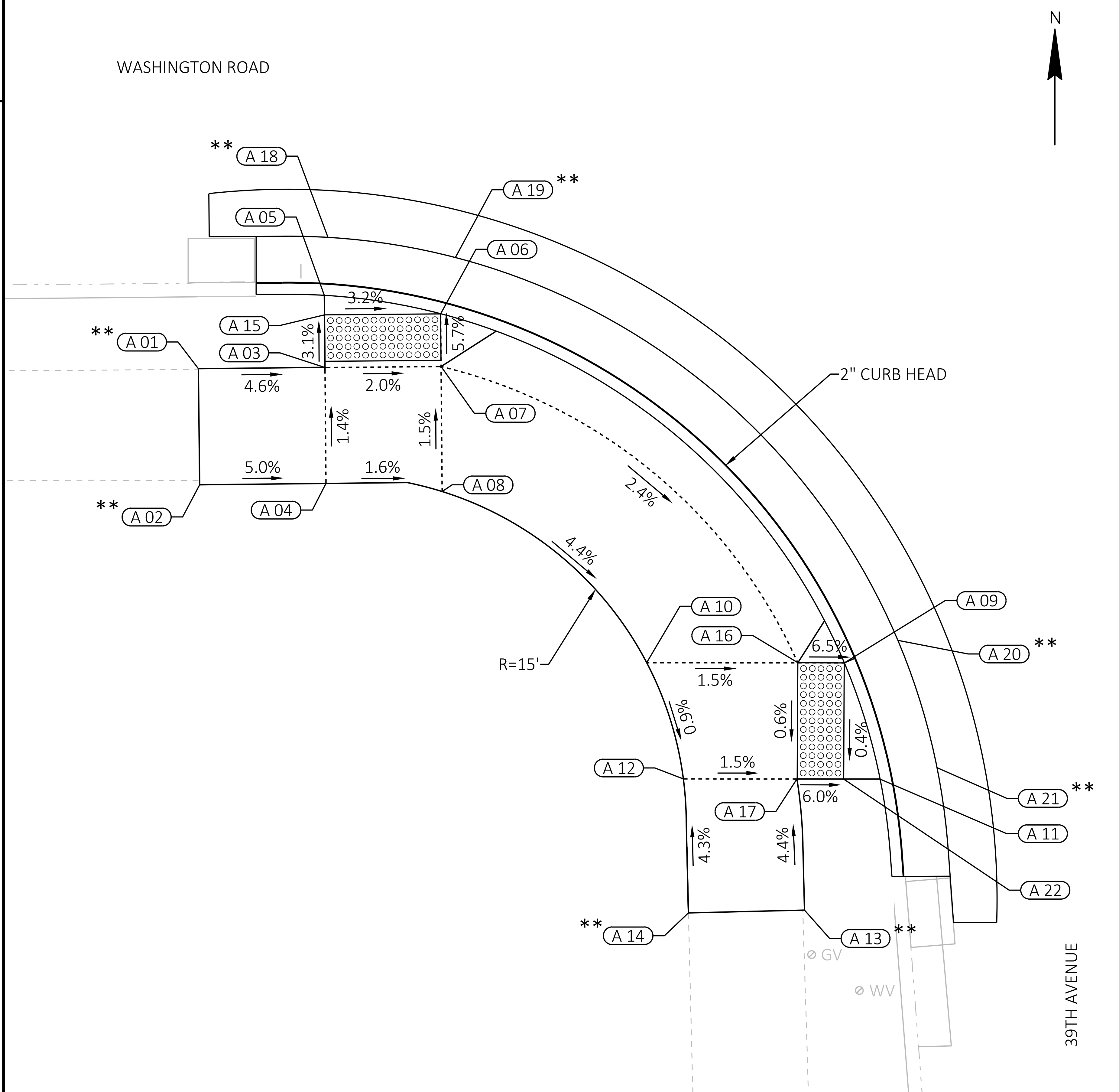

2

| STATION & OFFSET TABLE | | | | | |
|---|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS | ELEVATION |
| E 01 | 105+54.92 | 51.81 LT | 227240.171 | 2545825.721 | 638.95 |
| E 02 | 105+54.91 | 55.34 LT | 227243.699 | 2545825.741 | 639.12 |
| E 03 | 105+54.89 | 60.49 LT | 227248.842 | 2545825.770 | 639.19 |
| E 04 | 105+49.92 | 52.26 LT | 227240.668 | 2545820.723 | 638.98 |
| E 05 | 105+49.91 | 55.32 LT | 227243.727 | 2545820.741 | 639.17 |
| E 06 | 105+49.89 | 60.47 LT | 227248.871 | 2545820.770 | 639.24 |
| E 07 | 105+29.39 | 69.75 LT | 227258.349 | 2545800.360 | 638.85 |
| E 08 | 105+32.58 | 69.80 LT | 227258.369 | 2545803.550 | 639.05 |
| E 09 | 105+38.05 | 69.89 LT | 227258.404 | 2545809.022 | 639.12 |
| E 10 | 105+28.13 | 74.75 LT | 227263.368 | 2545799.147 | 638.75 |
| E 11 | 105+32.50 | 74.83 LT | 227263.398 | 2545803.516 | 638.98 |
| E 12 | 105+37.50 | 74.91 LT | 227263.431 | 2545808.516 | 639.05 |
| E 13 | 105+31.75 | 82.96 LT | 227271.542 | 2545802.848 | 639.01 |
| E 14 | 105+36.62 | 83.02 LT | 227271.550 | 2545807.717 | 639.09 |
| E 15 | 105+65.81 | 54.49 LT | 227242.742 | 2545836.629 | 639.35 |
| E 16 | 105+65.81 | 59.39 LT | 227247.645 | 2545836.678 | 639.37 |
| E 17 | 105+54.92 | 52.28 LT | 227240.639 | 2545825.723 | 638.95 |
| E 18 | 105+29.31 | 74.77 LT | 227263.376 | 2545800.326 | 638.77 |
| E 19 | 105+25.66 | 74.38 LT | 227263.016 | 2545796.672 | 638.82 |
| E 20 | 105+27.03 | 68.91 LT | 227257.532 | 2545797.997 | 638.92 |
| E 21 | 105+49.47 | 49.80 LT | 227238.214 | 2545820.246 | 639.05 |
| E 22 | 105+54.92 | 49.31 LT | 227237.671 | 2545825.696 | 639.02 |
| E 23 | 105+41.08 | 65.69 LT | 227254.183 | 2545812.010 | 639.45 |
| E 24 | 105+45.12 | 62.48 LT | 227250.925 | 2545816.025 | 639.52 |
| E 25 | 105+37.46 | 62.24 LT | 227250.766 | 2545808.361 | 639.41 |
| E 26 | 105+42.57 | 58.18 LT | 227246.650 | 2545813.432 | 639.47 |

** MATCH EXISTING

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
3. SEE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR ADDITIONAL CURB RAMP REQUIREMENTS.
4. ALL STATION AND OFFSET INFORMATION REFERENCES THE MAINLINE WASHINGTON ROAD ALIGNMENT UNLESS OTHERWISE SPECIFIED.




| STATION & OFFSET TABLE | | | | | |
|---|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS | ELEVATION |
| A 01 | 104+40.97 | 54.73 RT | 227133.647 | 2545711.751 | 640.33 |
| A 02 | 104+40.98 | 59.73 RT | 227128.648 | 2545711.804 | 640.42 |
| A 03 | 104+46.43 | 54.73 RT | 227133.696 | 2545717.205 | 640.08 |
| A 04 | 104+46.43 | 59.72 RT | 227128.706 | 2545717.248 | 640.15 |
| A 05 | 104+46.43 | 51.62 RT | 227136.802 | 2545717.178 | 640.01 |
| A 06 | 104+51.43 | 52.46 RT | 227136.007 | 2545722.185 | 639.85 |
| A 07 | 104+51.43 | 54.73 RT | 227133.739 | 2545722.205 | 639.98 |
| A 08 | 104+51.43 | 60.12 RT | 227128.355 | 2545722.251 | 640.06 |
| A 09 | 104+68.68 | 67.64 RT | 227120.979 | 2545739.569 | 639.37 |
| A 10 | 104+60.17 | 67.56 RT | 227120.987 | 2545731.060 | 639.58 |
| A 11 | 104+70.18 | 72.66 RT | 227115.977 | 2545741.112 | 639.34 |
| A 12 | 104+61.71 | 72.57 RT | 227115.986 | 2545732.638 | 639.53 |
| A 13 | 104+66.88 | 78.27 RT | 227110.339 | 2545737.858 | 639.72 |
| A 14 | 104+61.88 | 78.34 RT | 227110.216 | 2545732.860 | 639.78 |
| A 15 | 104+46.43 | 52.46 RT | 227135.963 | 2545717.185 | 640.01 |
| A 16 | 104+66.68 | 67.61 RT | 227120.988 | 2545737.569 | 639.50 |
| A 17 | 104+66.60 | 72.62 RT | 227115.981 | 2545737.532 | 639.47 |
| A 18 | 104+46.61 | 49.13 RT | 227139.297 | 2545717.335 | 640.08 |
| A 19 | 104+52.08 | 50.05 RT | 227138.426 | 2545722.816 | 639.92 |
| A 20 | 104+70.99 | 66.69 RT | 227121.953 | 2545741.871 | 639.44 |
| A 21 | 104+72.64 | 72.18 RT | 227116.471 | 2545743.563 | 639.41 |
| A 22 | 104+68.61 | 72.64 RT | 227115.979 | 2545739.545 | 639.35 |

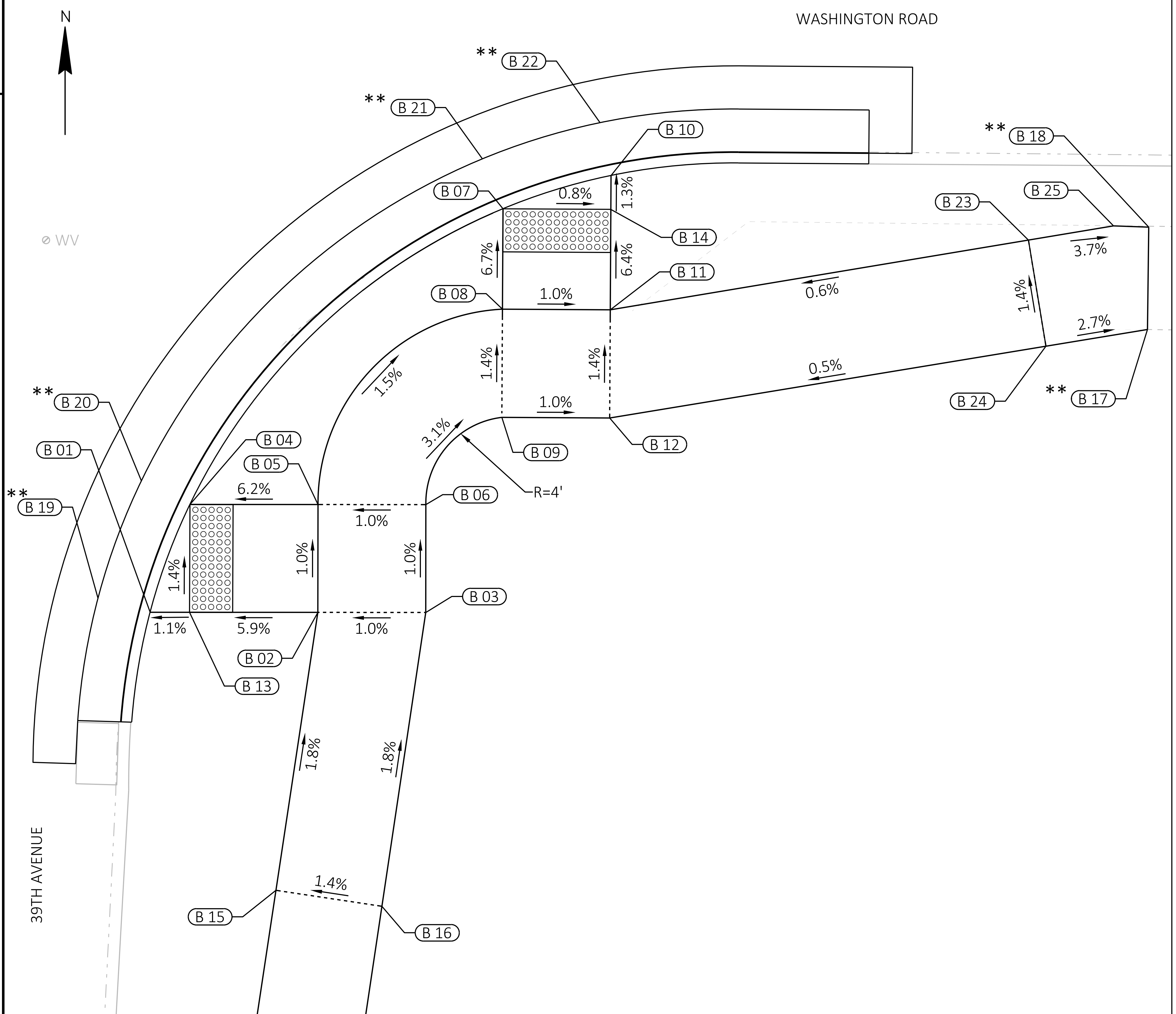
** MATCH EXISTING

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
3. SEE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR ADDITIONAL CURB RAMP REQUIREMENTS.
4. ALL STATION AND OFFSET INFORMATION REFERENCES THE MAINLINE WASHINGTON ROAD ALIGNMENT UNLESS OTHERWISE SPECIFIED.

2

2



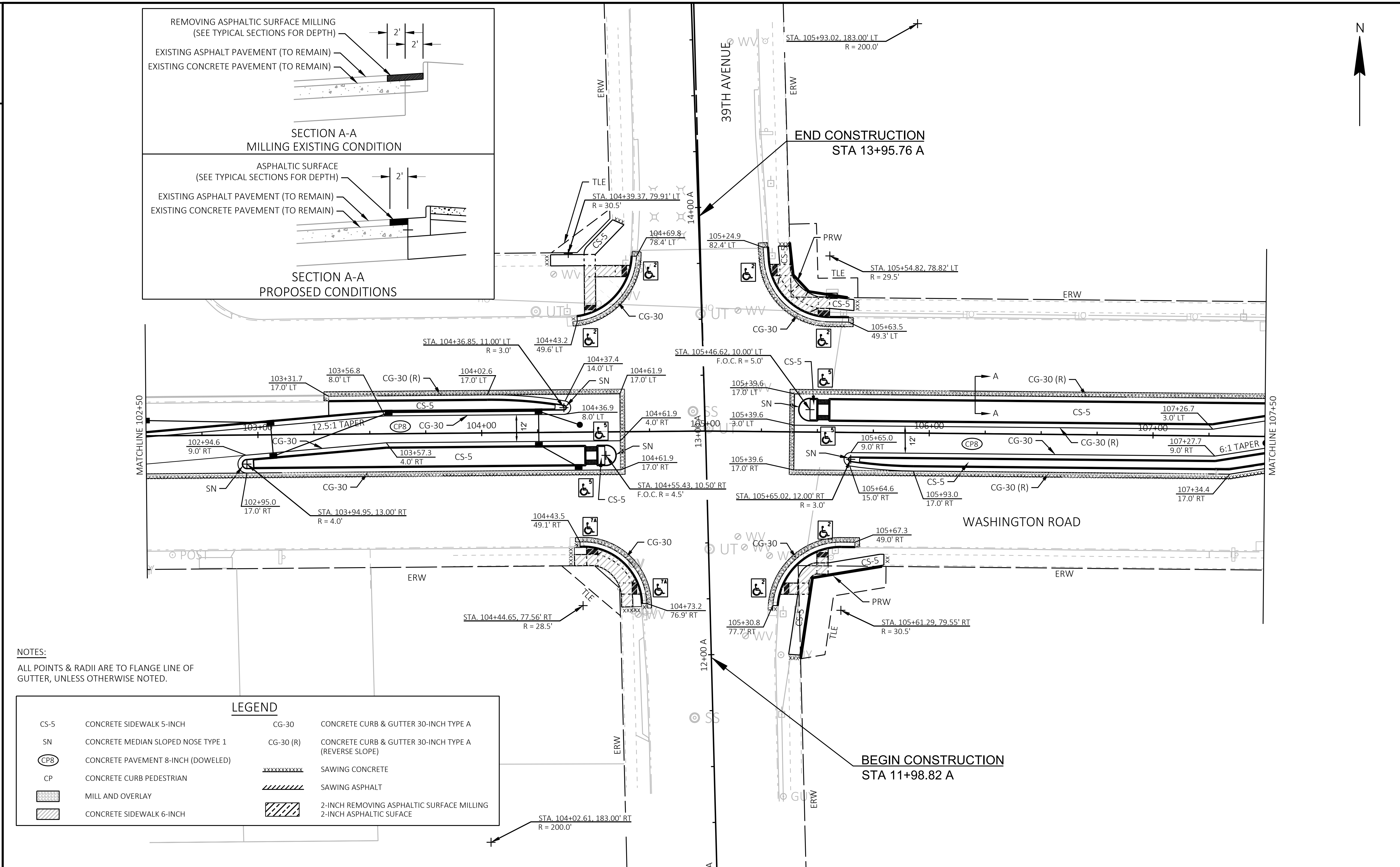

2

| STATION & OFFSET TABLE | | | | | |
|---|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS | ELEVATION |
| B 01 | 105+34.16 | 72.64 RT | 227115.918 | 2545803.756 | 639.13 |
| B 02 | 105+41.93 | 72.58 RT | 227115.911 | 2545811.534 | 639.50 |
| B 03 | 105+46.93 | 72.53 RT | 227115.905 | 2545816.534 | 639.55 |
| B 04 | 105+35.96 | 67.63 RT | 227120.916 | 2545805.604 | 639.08 |
| B 05 | 105+41.89 | 67.58 RT | 227120.910 | 2545811.539 | 639.45 |
| B 06 | 105+46.89 | 67.53 RT | 227120.905 | 2545816.539 | 639.50 |
| B 07 | 105+50.34 | 53.78 RT | 227134.623 | 2545820.119 | 638.94 |
| B 08 | 105+50.36 | 58.44 RT | 227129.968 | 2545820.092 | 639.25 |
| B 09 | 105+50.38 | 63.45 RT | 227124.951 | 2545820.063 | 639.32 |
| B 10 | 105+55.33 | 52.19 RT | 227136.165 | 2545825.127 | 638.88 |
| B 11 | 105+55.36 | 58.42 RT | 227129.940 | 2545825.092 | 639.20 |
| B 12 | 105+55.38 | 63.43 RT | 227124.922 | 2545825.063 | 639.27 |
| B 13 | 105+35.98 | 72.63 RT | 227115.916 | 2545805.582 | 639.15 |
| B 14 | 105+55.34 | 53.76 RT | 227134.593 | 2545825.119 | 638.90 |
| B 15 | 105+40.11 | 85.48 RT | 227103.024 | 2545809.590 | 639.73 |
| B 16 | 105+45.03 | 86.17 RT | 227102.284 | 2545814.502 | 639.80 |
| B 17 | 105+80.27 | 59.09 RT | 227129.027 | 2545850.001 | 639.25 |
| B 18 | 105+80.28 | 54.34 RT | 227133.773 | 2545850.058 | 639.10 |
| B 19 | 105+31.73 | 72.03 RT | 227116.557 | 2545801.339 | 639.20 |
| B 20 | 105+33.69 | 66.56 RT | 227122.002 | 2545803.352 | 639.15 |
| B 21 | 105+49.36 | 51.48 RT | 227136.933 | 2545819.163 | 639.01 |
| B 22 | 105+54.80 | 49.75 RT | 227138.612 | 2545824.619 | 638.95 |
| B 23 | 105+74.71 | 55.00 RT | 227133.174 | 2545844.481 | 639.31 |
| B 24 | 105+75.57 | 59.91 RT | 227128.252 | 2545845.291 | 639.38 |
| B 25 | 105+78.65 | 54.30 RT | 227133.832 | 2545848.426 | 639.16 |

** MATCH EXISTING

NOTES

1. CONTRACTOR TO FIELD VERIFY ELEVATIONS, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. DASHED SIDEWALK JOINT LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATIONAL PURPOSES ONLY AND DO NOT INDICATE EXACT JOINT LOCATIONS.
3. SEE STANDARD DETAIL DRAWINGS "CURB RAMPS" FOR ADDITIONAL CURB RAMP REQUIREMENTS.
4. ALL STATION AND OFFSET INFORMATION REFERENCES THE MAINLINE WASHINGTON ROAD ALIGNMENT UNLESS OTHERWISE SPECIFIED.



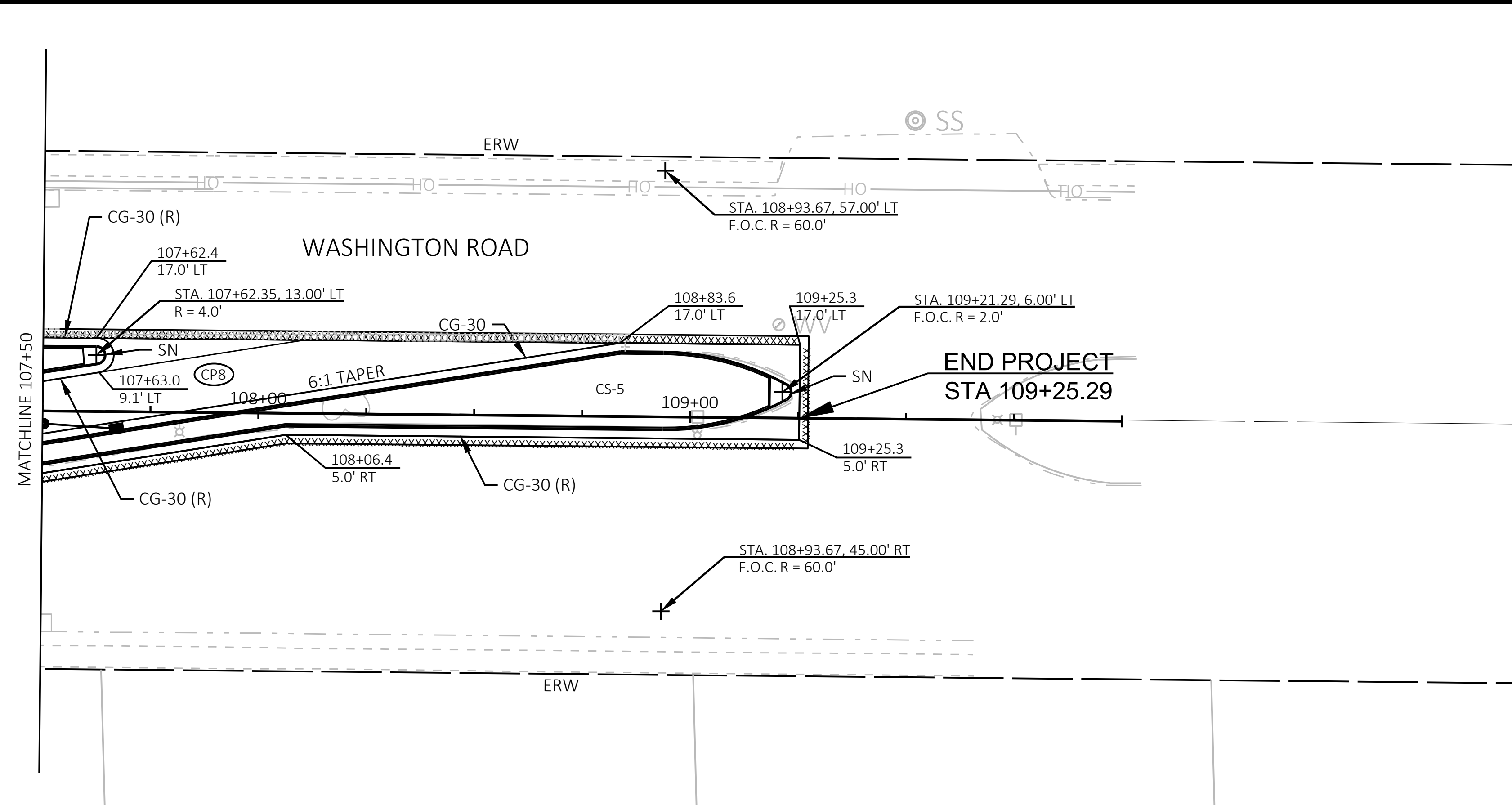

NOTES:

ALL POINTS & RADII ARE TO FLANGE LINE OF GUTTER, UNLESS OTHERWISE NOTED.

## LEGEND

| | | | |
|---|---|---|---|
| CS-5 | CONCRETE SIDEWALK 5-INCH | CG-30 | CONCRETE CURB & GUTTER 30-INCH TYPE A |
| SN | CONCRETE MEDIAN SLOPED NOSE TYPE 1 | CG-30 (R) | CONCRETE CURB & GUTTER 30-INCH TYPE A (REVERSE SLOPE) |
| CP8 | CONCRETE PAVEMENT 8-INCH (DOWELED) | xxxxxxxxxxx | SAWING CONCRETE |
| CP | CONCRETE CURB PEDESTRIAN | | SAWING ASPHALT |
| | MILL AND OVERLAY | | 2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH ASPHALTIC SUFACE |
| | CONCRETE SIDEWALK 6-INCH | | |

2


N

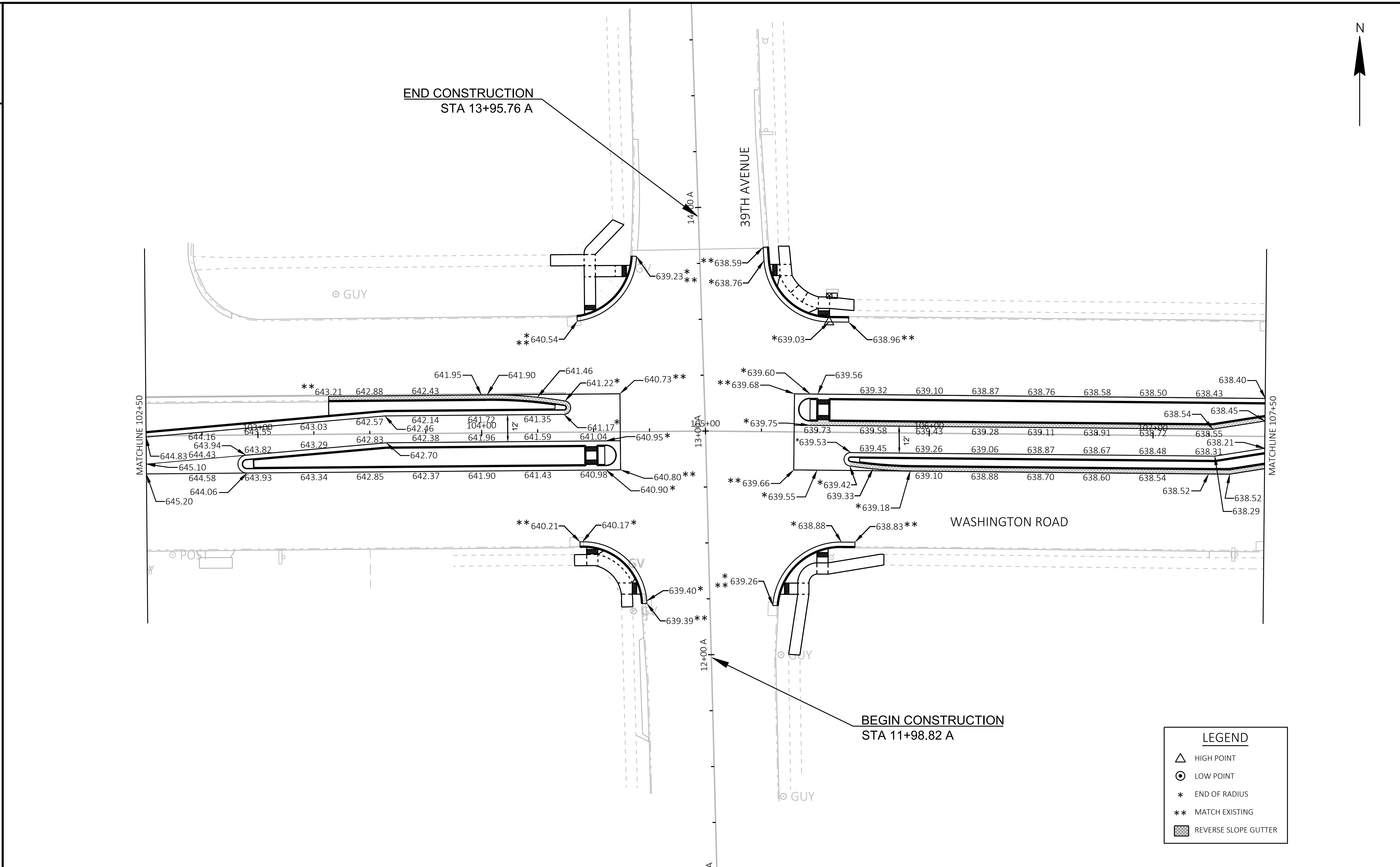
NOTES:

ALL POINTS & RADII ARE TO FLANGE LINE OF GUTTER, UNLESS OTHERWISE NOTED.

LEGEND

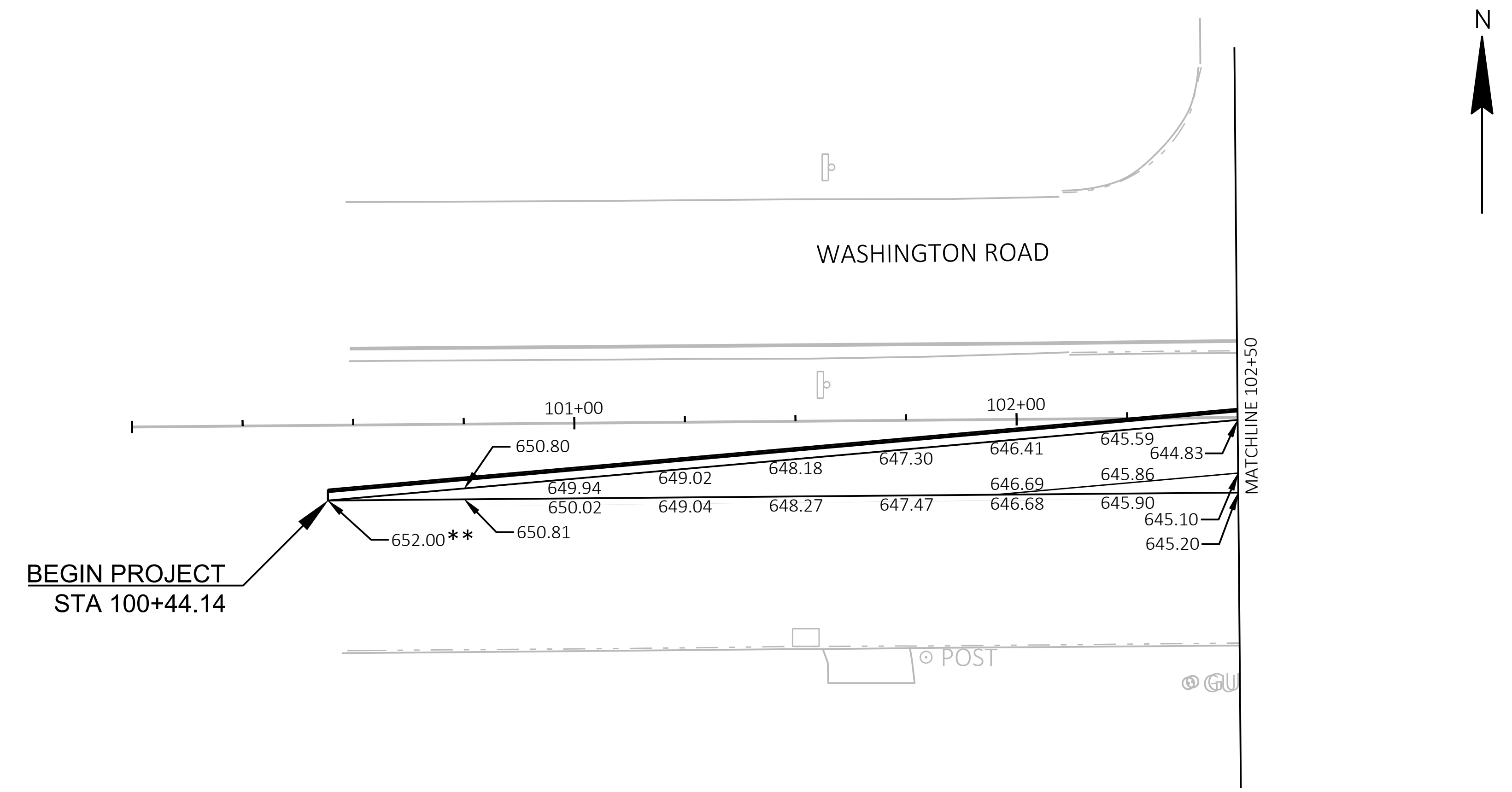
| | | | |
|---|---|---|---|
| CS-5 | CONCRETE SIDEWALK 5-INCH | CG-30 | CONCRETE CURB & GUTTER 30-INCH TYPE A |
| SN | CONCRETE MEDIAN SLOPED NOSE TYPE 1 | CG-30 (R) | CONCRETE CURB & GUTTER 30-INCH TYPE A (REVERSE SLOPE) |
| CP8 | CONCRETE PAVEMENT 8-INCH (DOWELED) | xxxxxxxxxxx | SAWING CONCRETE |
| CP | CONCRETE CURB PEDESTRIAN | | SAWING ASPHALT |
| | MILL AND OVERLAY | | 2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH ASPHALTIC SUFACE |
| | CONCRETE SIDEWALK 6-INCH | | |

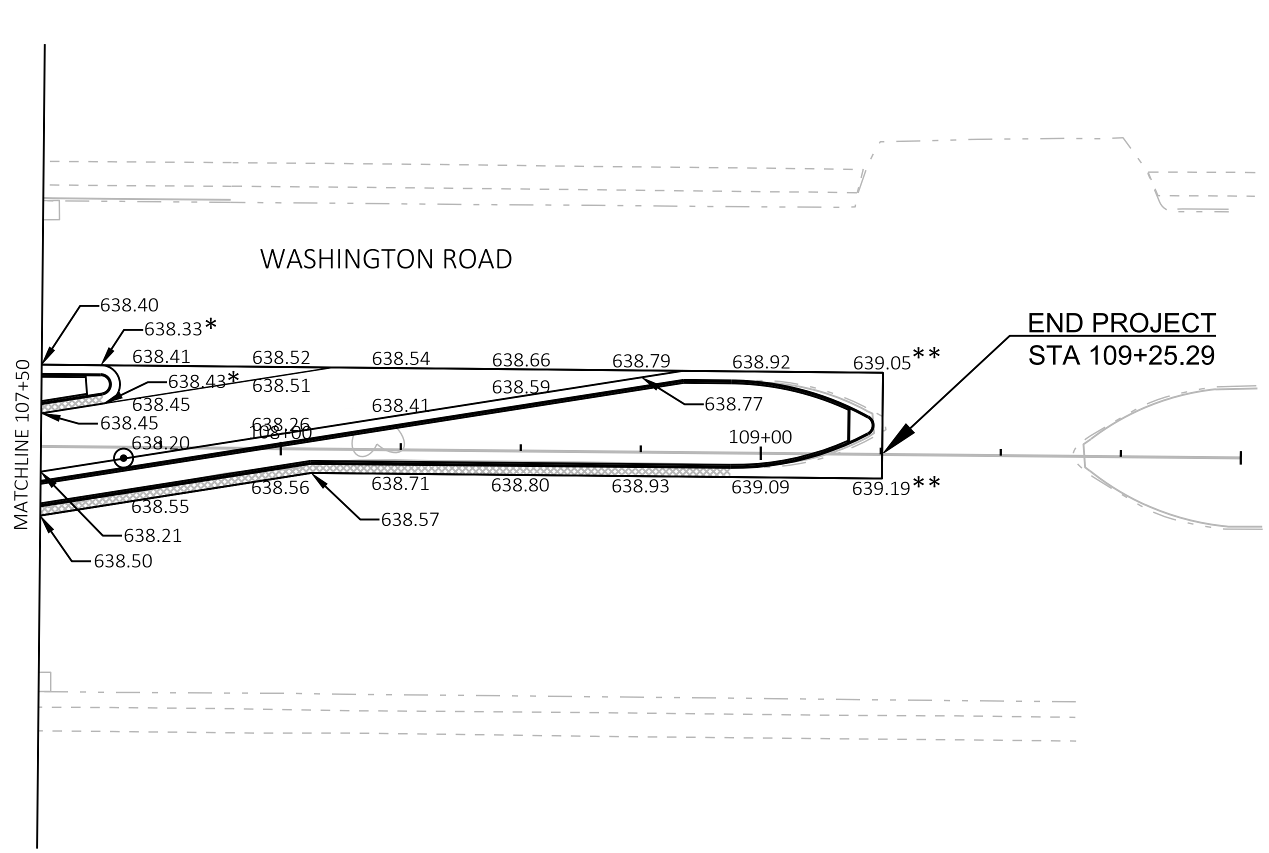
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PLAN DETAILS | SHEET 15 | E |
|---|---|---|---|---|---|




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PAVING GRADES | SHEET 16 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\021401_JD.DWG
LAYOUT NAME - 021401_jd
PLOT DATE : 10/21/2022 9:31 AM PLOT BY : WALTER, ADAM PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



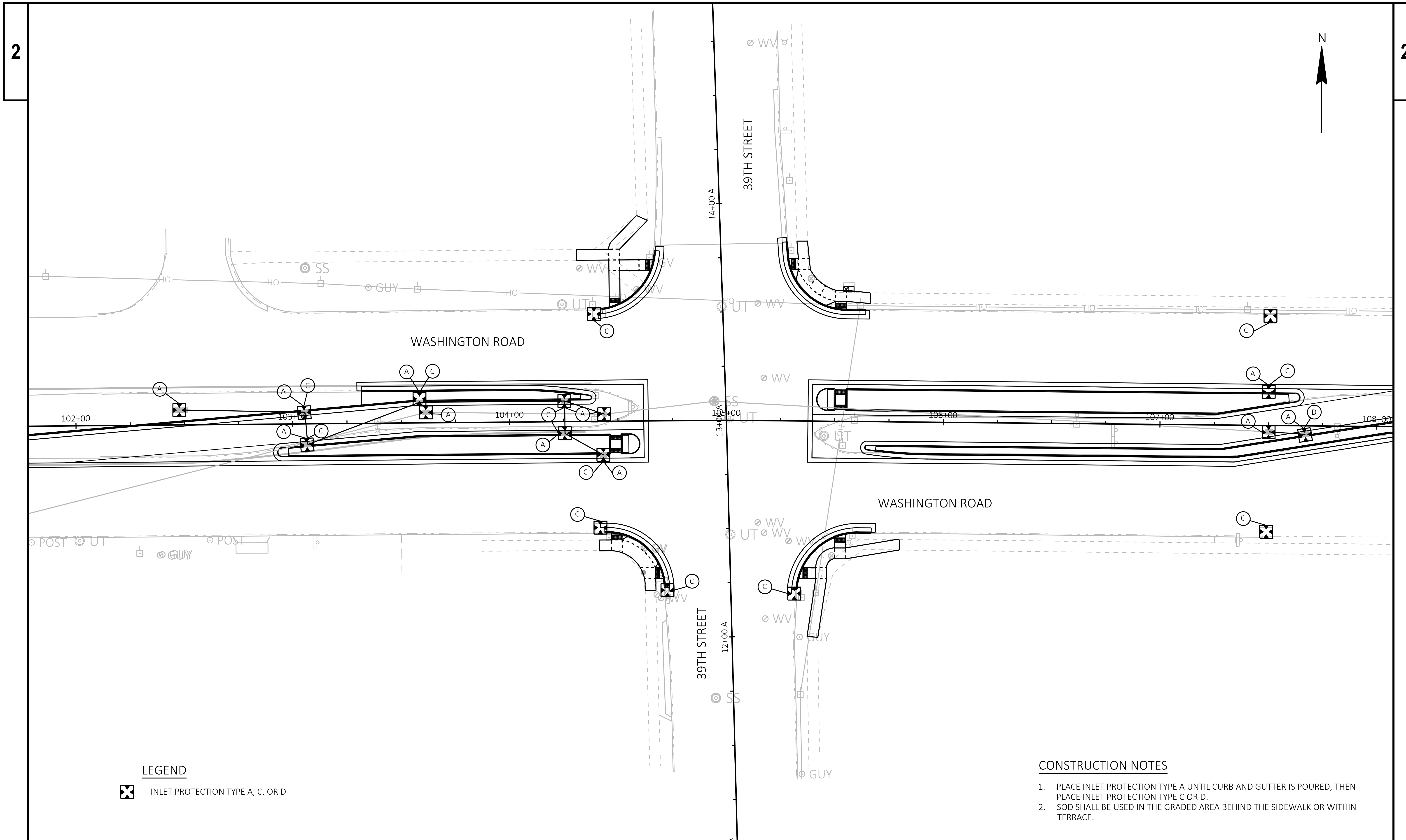

LEGEND

- △ HIGH POINT
- ⊙ LOW POINT
- * END OF RADIUS
- ** MATCH EXISTING
- ▩ REVERSE SLOPE GUTTER

| | | | | | |
|---|---|---|---|---|---|
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PAVING GRADES | SHEET 17 | E |

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\021401_JD.DWG
LAYOUT NAME - 021402_jd
PLOT DATE : 10/21/2022 9:32 AM PLOT BY : WALTER, ADAM PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42




## LEGEND

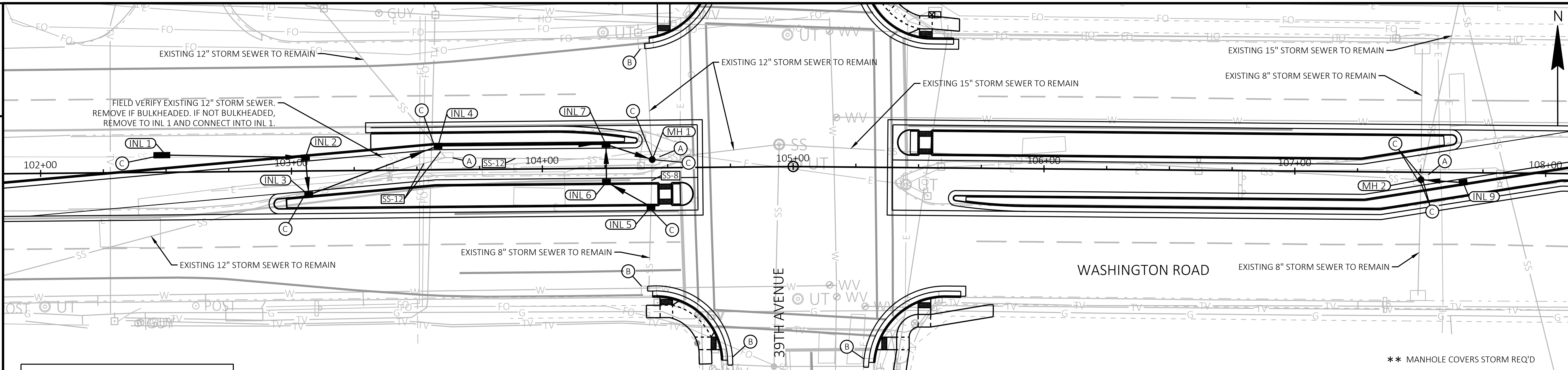
INLET PROTECTION TYPE A, C, OR D

## CONSTRUCTION NOTES

1. PLACE INLET PROTECTION TYPE A UNTIL CURB AND GUTTER IS POURED, THEN PLACE INLET PROTECTION TYPE C OR D.
2. SOD SHALL BE USED IN THE GRADED AREA BEHIND THE SIDEWALK OR WITHIN TERRACE.

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | EROSION CONTROL | SHEET 18 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022001_ec
PLOT DATE : 10/17/2022 8:28 PM PLOT BY : ANDERSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

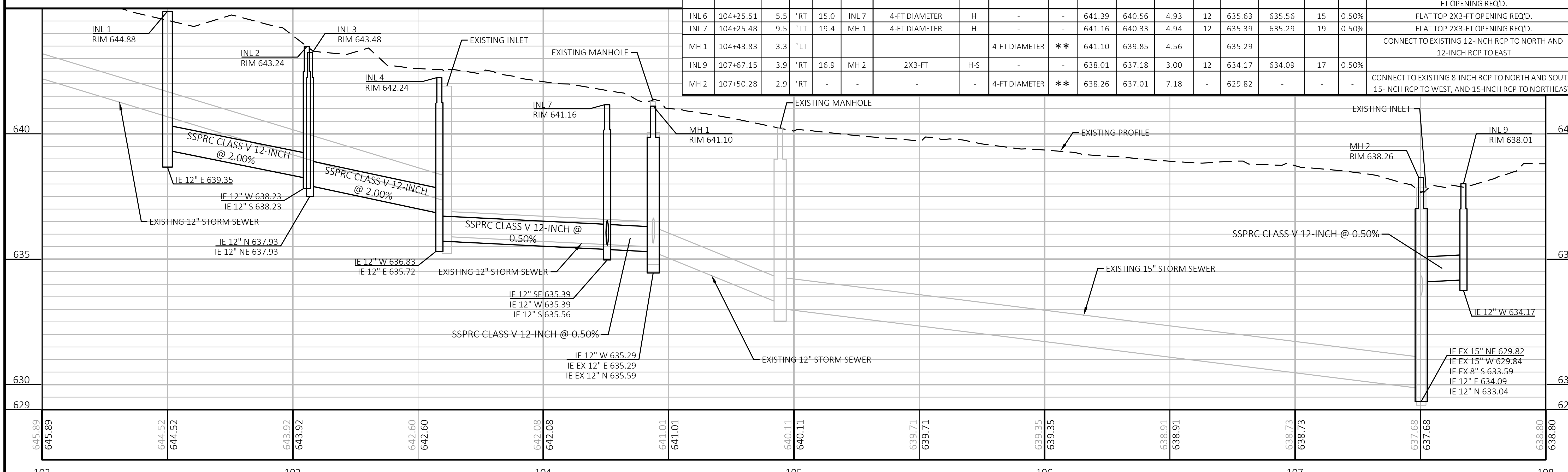



## LEGEND

- (A) REMOVING INLETS REQ'D
- (B) ADJUSTING INLET COVERS REQ'D
- (C) CONCRETE COLLARS FOR PIPE REQ'D
- SS-XX REMOVING STORM SEWER REQ'D (XX-INCH)

** MANHOLE COVERS STORM REQ'D

| STRUCT NO. | STATION | OFFSET | | C-C (FT) | TO STRUCT | INLET TYPE | COVER | MH TYPE | COVER | RIM/ GRATE ELEV. | T.O.S. ELEV. | DEPTH (FT) | DISCHARGE PIPE SIZE (IN) | INLET ELEV. | DISCHARGE ELEV. | LENGTH (FT) | SLOPE (%) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INL 1 | 102+50.00 | 6.8 | 'LT | 55.6 | INL 2 | MEDIAN 2 GRATE | MS-A | - | - | 644.88 | 644.88 | 5.54 | 12 | 639.35 | 638.23 | 56 | 2.00% | |
| INL 2 | 103+05.61 | 5.4 | 'LT | 15.0 | INL 3 | 4-FT DIAMETER | H | - | - | 643.24 | 642.41 | 4.19 | 12 | 638.23 | 637.93 | 15 | 2.00% | FLAT TOP 2X3-FT OPENING REQ'D. |
| INL 3 | 103+06.82 | 9.5 | 'RT | 55.1 | INL 4 | 4-FT DIAMETER | H | - | - | 643.48 | 642.65 | 4.73 | 12 | 637.93 | 636.83 | 55 | 2.00% | CONNECT TO EXISTING 12-INCH RCP TO SOUTHWEST. FLAT TOP 2X3-FT OPENING REQ'D. |
| INL 4 | 103+58.51 | 9.5 | 'LT | 67.0 | INL 7 | - | H | 5-FT DIAMETER | - | 642.24 | 641.41 | 5.69 | 12 | 635.72 | 635.39 | 67 | 0.50% | CONNECT TO EXISTING 12-INCH RCP TO NORTHWEST. FLAT TOP 2X3-FT OPENING REQ'D. |
| INL 5 | 104+43.18 | 15.5 | 'RT | 20.3 | INL 6 | 4-FT DIAMETER | H | - | - | 640.90 | 639.74 | 4.01 | 12 | 635.73 | 635.63 | 20 | 0.50% | CONNECT TO EXISTING 8-INCH RCP TO SOUTH. FLAT TOP 2X3-FT OPENING REQ'D. |
| INL 6 | 104+25.51 | 5.5 | 'RT | 15.0 | INL 7 | 4-FT DIAMETER | H | - | - | 641.39 | 640.56 | 4.93 | 12 | 635.63 | 635.56 | 15 | 0.50% | FLAT TOP 2X3-FT OPENING REQ'D. |
| INL 7 | 104+25.48 | 9.5 | 'LT | 19.4 | MH 1 | 4-FT DIAMETER | H | - | - | 641.16 | 640.33 | 4.94 | 12 | 635.39 | 635.29 | 19 | 0.50% | FLAT TOP 2X3-FT OPENING REQ'D. |
| MH 1 | 104+43.83 | 3.3 | 'LT | - | - | - | - | 4-FT DIAMETER | ** | 641.10 | 639.85 | 4.56 | - | 635.29 | - | - | - | CONNECT TO EXISTING 12-INCH RCP TO NORTH AND 12-INCH RCP TO EAST |
| INL 9 | 107+67.15 | 3.9 | 'RT | 16.9 | MH 2 | 2X3-FT | H-S | - | - | 638.01 | 637.18 | 3.00 | 12 | 634.17 | 634.09 | 17 | 0.50% | |
| MH 2 | 107+50.28 | 2.9 | 'RT | - | - | - | - | 4-FT DIAMETER | ** | 638.26 | 637.01 | 7.18 | - | 629.82 | - | - | - | CONNECT TO EXISTING 8-INCH RCP TO NORTH AND SOUTH, 15-INCH RCP TO WEST, AND 15-INCH RCP TO NORTHEAST. |

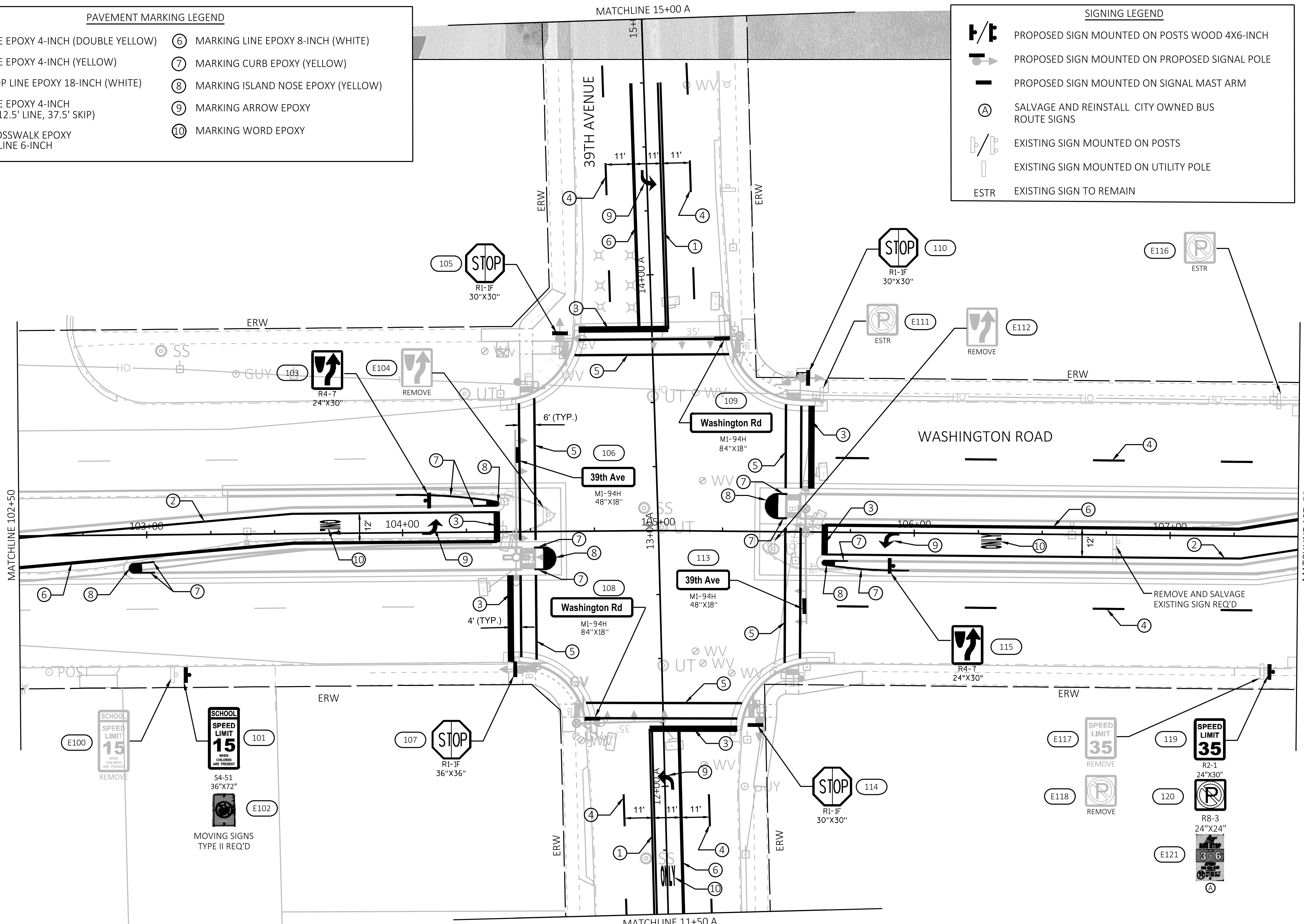


PAVEMENT MARKING LEGEND

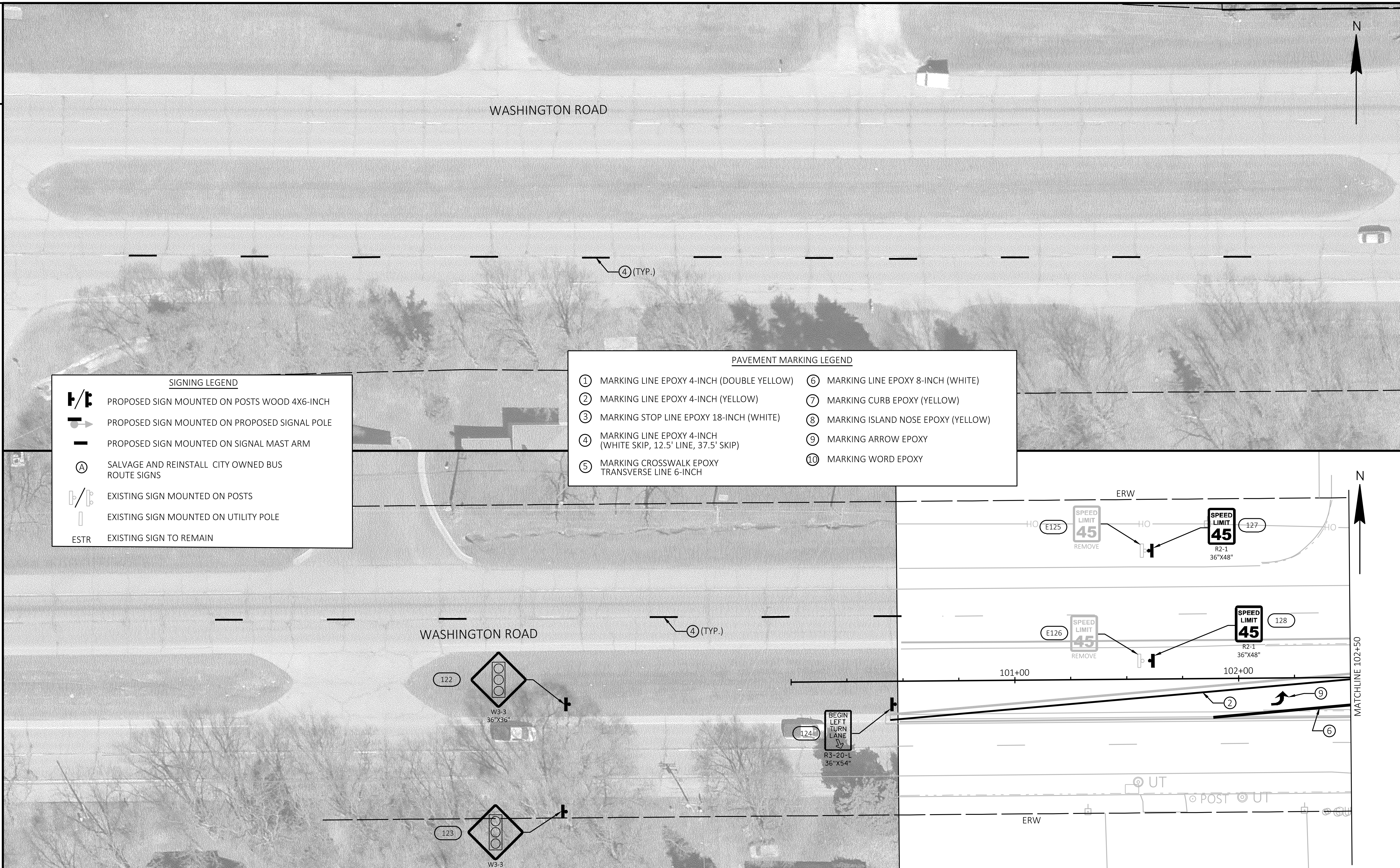
1. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING STOP LINE EPOXY 18-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE EPOXY 8-INCH (WHITE)
7. MARKING CURB EPOXY (YELLOW)
8. MARKING ISLAND NOSE EPOXY (YELLOW)
9. MARKING ARROW EPOXY
10. MARKING WORD EPOXY

SIGNING LEGEND

- PROPOSED SIGN MOUNTED ON POSTS WOOD 4X6-INCH
- PROPOSED SIGN MOUNTED ON PROPOSED SIGNAL POLE
- PROPOSED SIGN MOUNTED ON SIGNAL MAST ARM
- (A) SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGNS
- EXISTING SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON UTILITY POLE
- ESTR EXISTING SIGN TO REMAIN




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PAVEMENT MARKING AND PERMANENT SIGNING | SHEET 20 | E |
|---|---|---|---|---|---|




SIGNING LEGEND

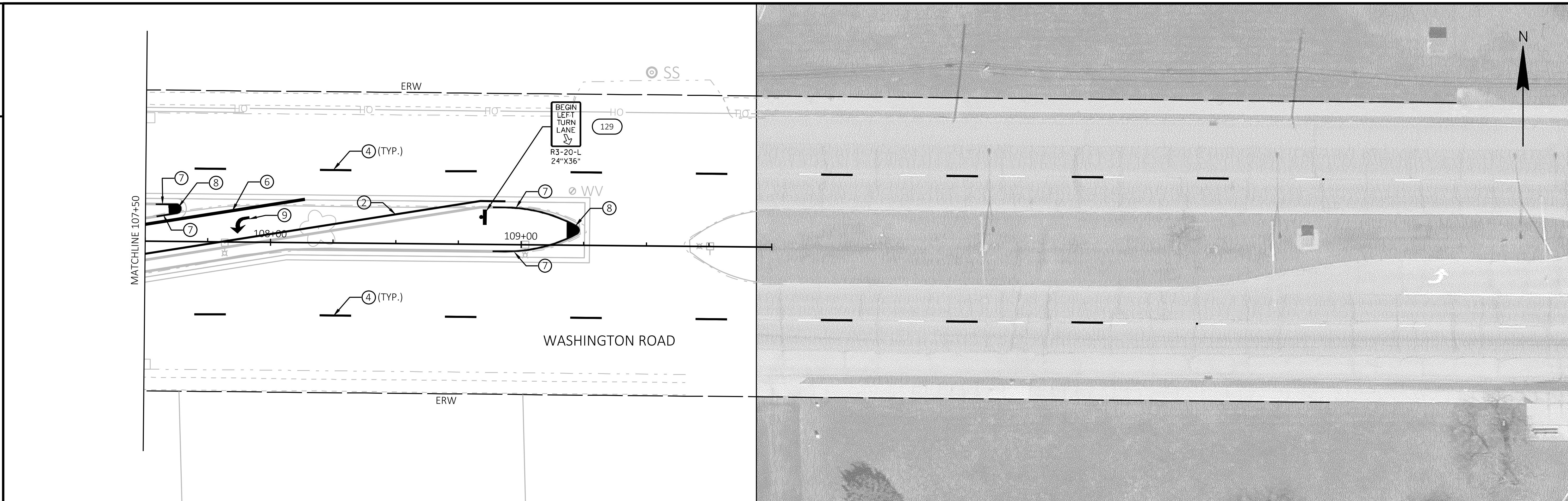
| | |
|---|---|
| | PROPOSED SIGN MOUNTED ON POSTS WOOD 4X6-INCH |
| | PROPOSED SIGN MOUNTED ON PROPOSED SIGNAL POLE |
| | PROPOSED SIGN MOUNTED ON SIGNAL MAST ARM |
| A | SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGNS |
| | EXISTING SIGN MOUNTED ON POSTS |
| | EXISTING SIGN MOUNTED ON UTILITY POLE |
| ESTR | EXISTING SIGN TO REMAIN |

PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING STOP LINE EPOXY 18-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE EPOXY 8-INCH (WHITE)
7. MARKING CURB EPOXY (YELLOW)
8. MARKING ISLAND NOSE EPOXY (YELLOW)
9. MARKING ARROW EPOXY
10. MARKING WORD EPOXY

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PAVEMENT MARKING AND PERMANENT SIGNING | SHEET 21 | E |
|---|---|---|---|---|---|

2




2

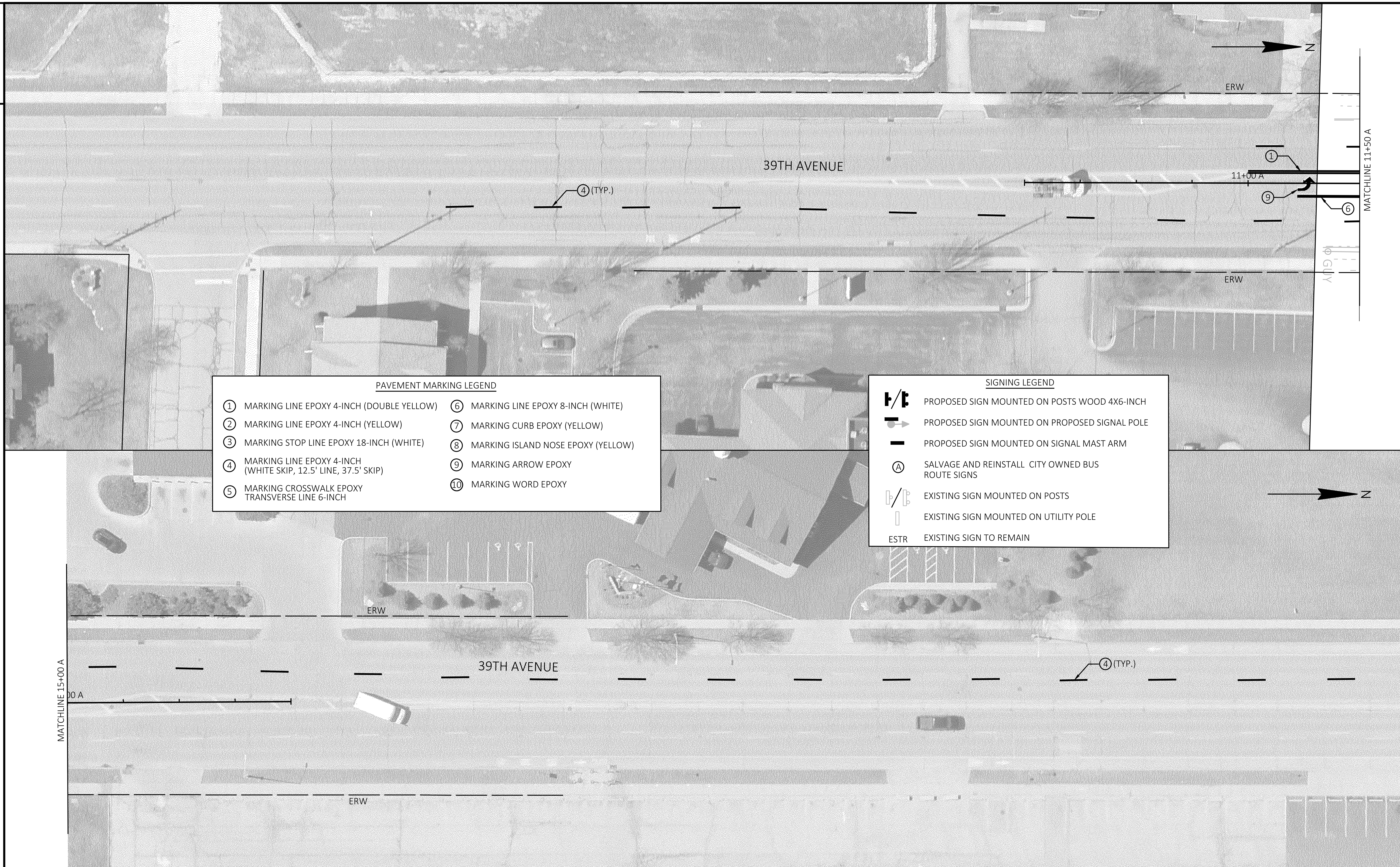
PAVEMENT MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING STOP LINE EPOXY 18-INCH (WHITE)
4. MARKING LINE EPOXY 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP)
5. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
6. MARKING LINE EPOXY 8-INCH (WHITE)
7. MARKING CURB EPOXY (YELLOW)
8. MARKING ISLAND NOSE EPOXY (YELLOW)
9. MARKING ARROW EPOXY
10. MARKING WORD EPOXY

SIGNING LEGEND

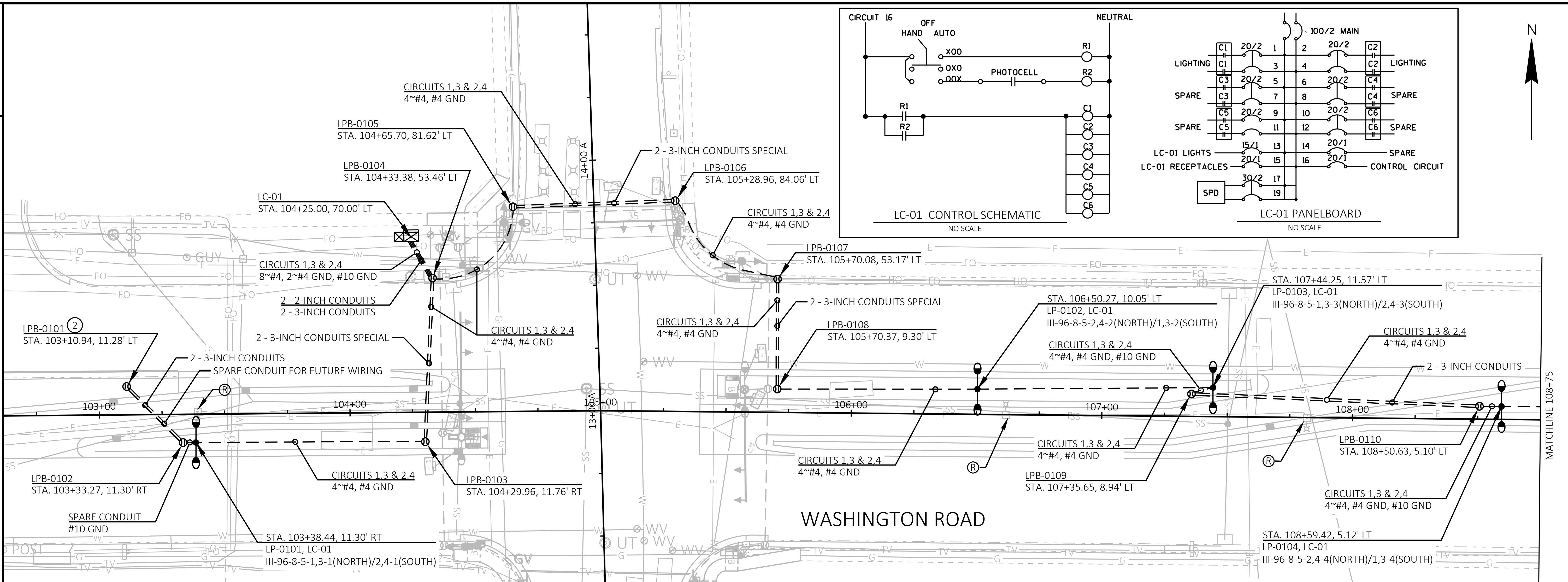
- PROPOSED SIGN MOUNTED ON POSTS WOOD 4X6-INCH
- PROPOSED SIGN MOUNTED ON PROPOSED SIGNAL POLE
- PROPOSED SIGN MOUNTED ON SIGNAL MAST ARM
- (A) SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGNS
- EXISTING SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON UTILITY POLE
- ESTR EXISTING SIGN TO REMAIN

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PAVEMENT MARKING AND PERMANENT SIGNING | SHEET 22 | E |
|---|---|---|---|---|---|






| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | PAVEMENT MARKING AND PERMANENT SIGNING | SHEET 23 | E |
|---|---|---|---|---|---|




## LEGEND

- CONTROL CABINET (CONCRETE CONTROL CABINET BASES TYPE L30)
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
- STANDARD POLE, LUMINAIRE AND TWIN MAST ARM
- PULL BOXES STEEL 24x42-INCH
- EXISTING STREET LIGHT POLE
- REMOVING STREET LIGHT POLES

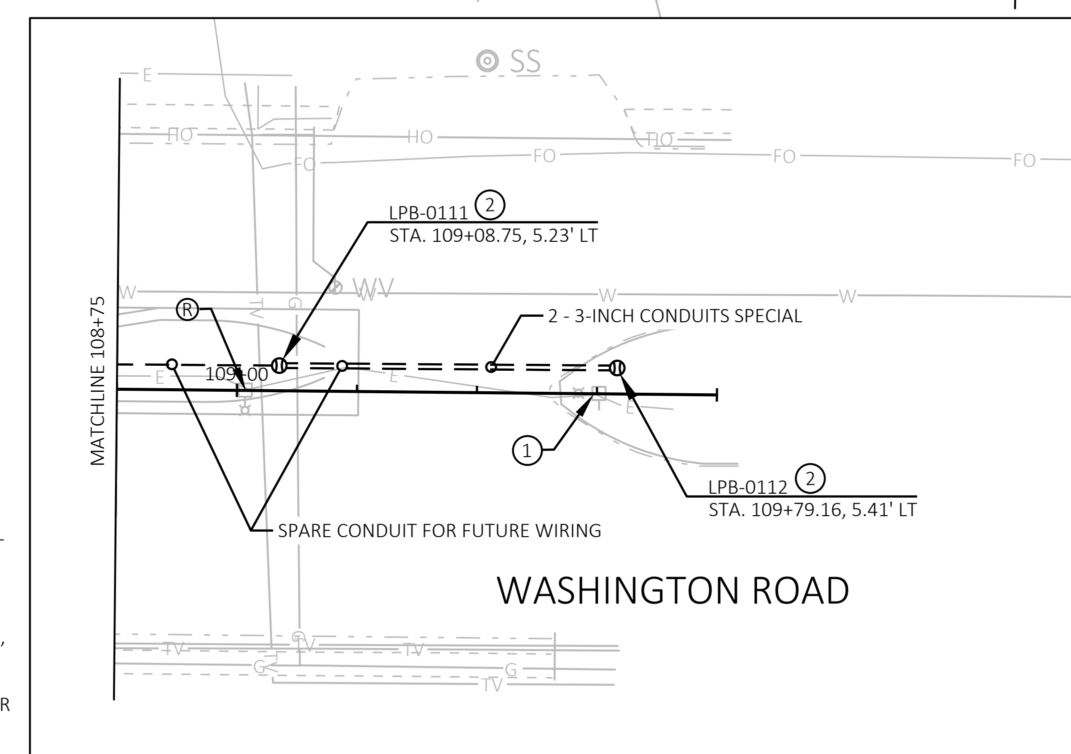
STA. XX+XX.XX, XX.XX' LT — STATION AND SET BACK DISTANCE FROM REFERENCE LINE
LP-XX, LC-2 — CONTROL CABINET DESIGNATION; LIGHT POLE NUMBER
III-LED-8-5-1,3-1 — LIGHT UNIT NUMBER IN CIRCUIT; CIRCUIT NUMBERS; BASE TYPE; MAST ARM BRACKET LENGTH IN FEET; LAMP WATTAGE; DISTRIBUTION TYPE

## GENERAL NOTES

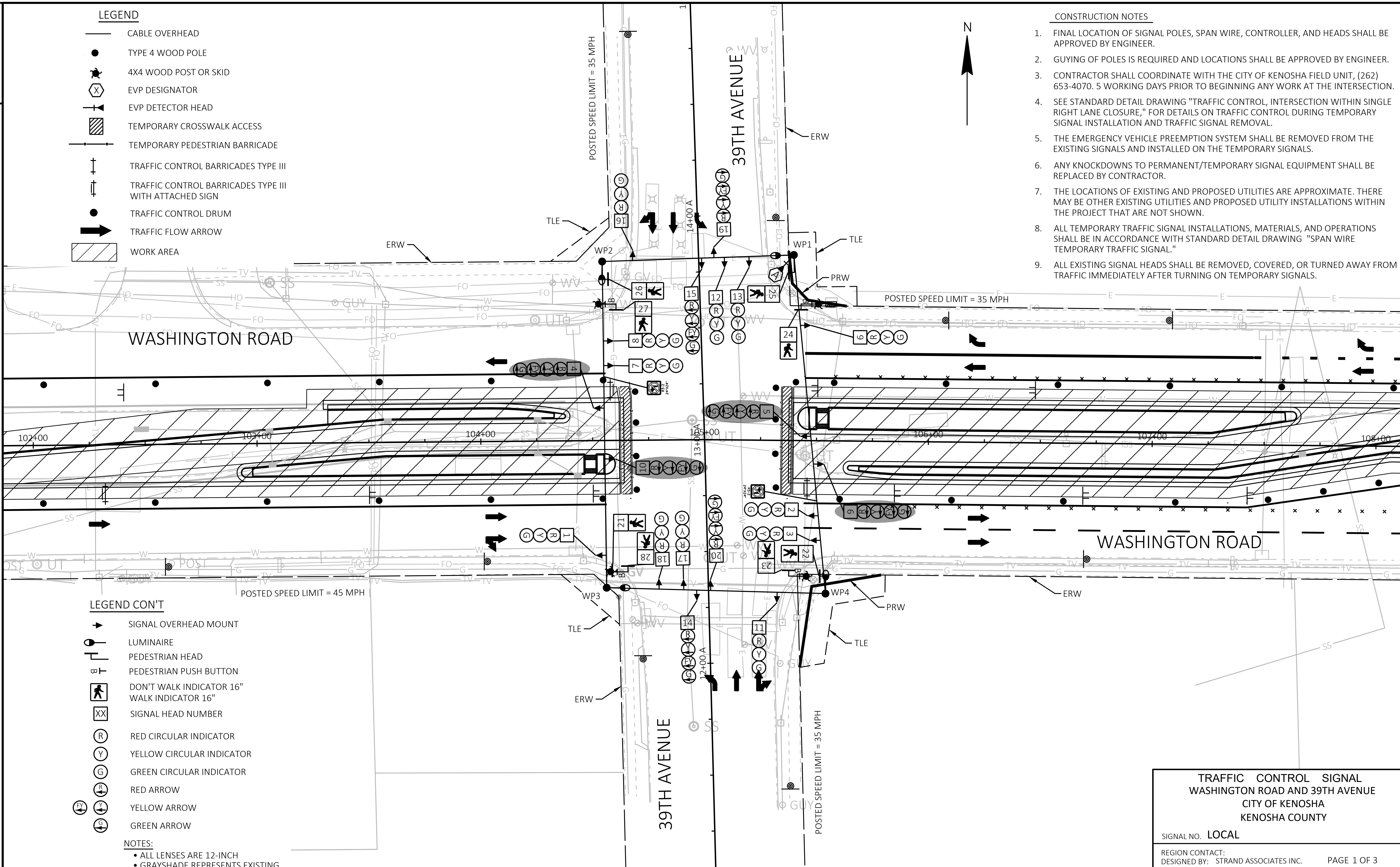
LIGHTING:
1. ALL LUMINARIES SHALL BE WIRED AT 240 VOLT AND BE LED.
2. CONDUIT SHALL BE PLACED 2 FEET BELOW GRADE AND LOCATED PARALLEL TO CURB AND/OR ROADWAY WHEN POSSIBLE.
3. ALL LIGHTING SHALL HAVE A MINIMUM 2-FOOT SETBACK FROM THE FACE OF THE POLE TO THE FACE OF CURB.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER EXISTING UTILITIES AND PROPOSED UTILITY INSTALLATIONS WITHIN THE PROJECT THAT ARE NOT SHOWN.

## KEY NOTES

1. REMOVE EXISTING LIGHTING CIRCUIT WIRE ASSOCIATED WITH LIGHT POLES BEING REMOVED BACK TO NEAREST EXISTING LIGHT POLE TO REMAIN EAST OF PROJECT LIMIT. MAINTAIN ELECTRICAL SERVICE TO ALL LIGHT FIXTURES EAST OF PROJECT LIMIT FROM THE EXISTING LIGHTING CONTROL CABINET (NOT SHOWN, AT APPROX. STA. 112+15).
2. GROUNDING WIRE SHALL BE PROVIDED BETWEEN PULL BOX, COVER, AND COVER FRAME PER WISDOT SDDs. PROVIDE 15 FOOT LENGTH OF GROUNDING WIRE CONNECTED TO PULL BOX GROUNDING LUG NEATLY COILED WITHIN PULL BOX FOR FUTURE CONNECTION TO SYSTEM GROUND WIRE.




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | LIGHTING PLAN | SHEET 24 | E |
|---|---|---|---|---|---|




## LEGEND

- CABLE OVERHEAD
- TYPE 4 WOOD POLE
- 4X4 WOOD POST OR SKID
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- TEMPORARY CROSSWALK ACCESS
- TEMPORARY PEDESTRIAN BARRICADE
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW
- WORK AREA

## LEGEND CON'T

- SIGNAL OVERHEAD MOUNT
- LUMINAIRE
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- FY YELLOW ARROW
- GREEN ARROW

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

## CONSTRUCTION NOTES

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER, AND HEADS SHALL BE APPROVED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. CONTRACTOR SHALL COORDINATE WITH THE CITY OF KENOSHA FIELD UNIT, (262) 653-4070. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
4. SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE," FOR DETAILS ON TRAFFIC CONTROL DURING TEMPORARY SIGNAL INSTALLATION AND TRAFFIC SIGNAL REMOVAL.
5. THE EMERGENCY VEHICLE PREEMPTION SYSTEM SHALL BE REMOVED FROM THE EXISTING SIGNALS AND INSTALLED ON THE TEMPORARY SIGNALS.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY CONTRACTOR.
7. THE LOCATIONS OF EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE. THERE MAY BE OTHER EXISTING UTILITIES AND PROPOSED UTILITY INSTALLATIONS WITHIN THE PROJECT THAT ARE NOT SHOWN.
8. ALL TEMPORARY TRAFFIC SIGNAL INSTALLATIONS, MATERIALS, AND OPERATIONS SHALL BE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "SPAN WIRE TEMPORARY TRAFFIC SIGNAL."
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

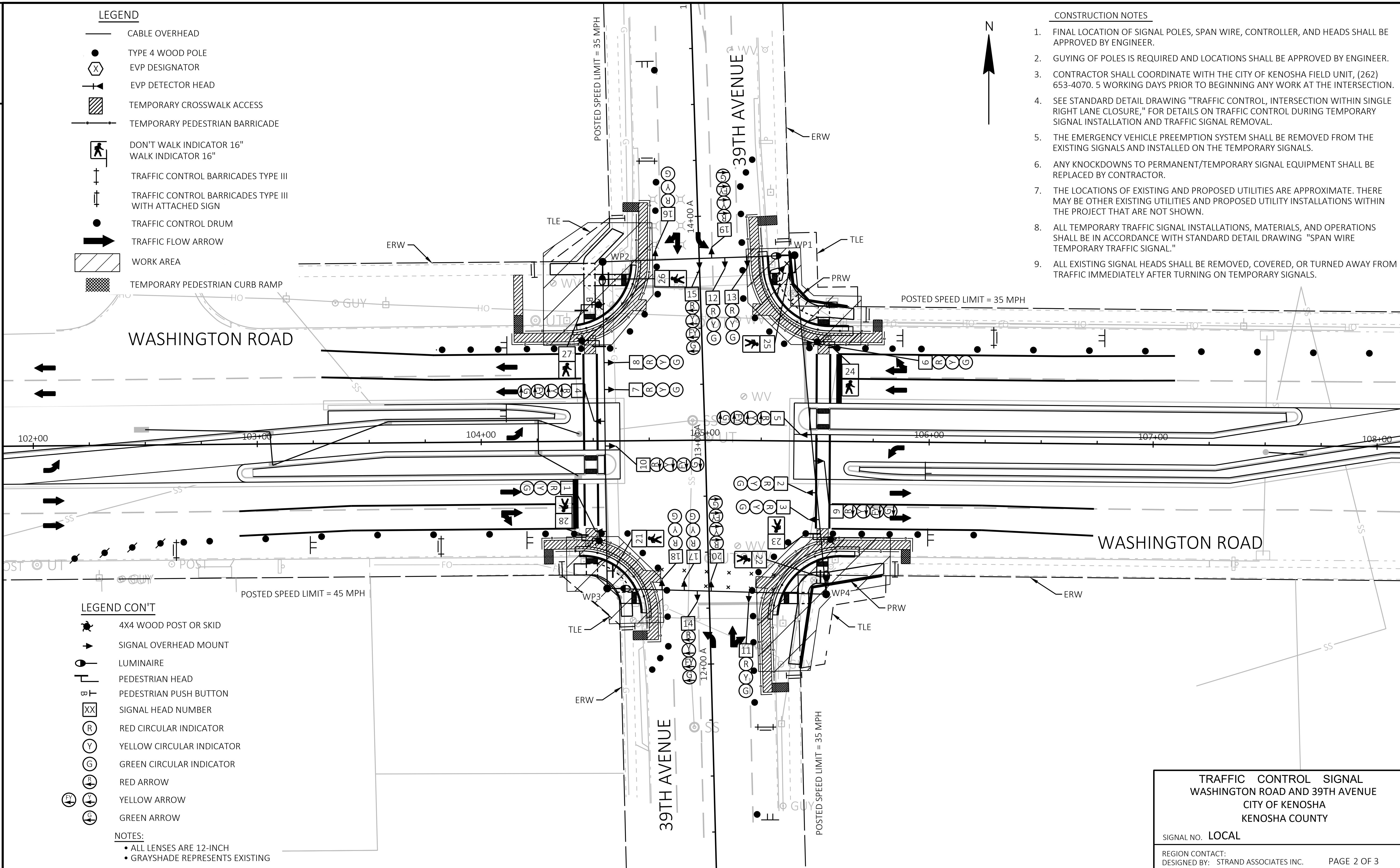
SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:

PAGE 1 OF 3

## LEGEND

- CABLE OVERHEAD
- TYPE 4 WOOD POLE
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- TEMPORARY CROSSWALK ACCESS
- TEMPORARY PEDESTRIAN BARRICADE
- DON'T WALK INDICATOR 16" WALK INDICATOR 16"
- TRAFFIC CONTROL BARRICADES TYPE III
- TRAFFIC CONTROL BARRICADES TYPE III WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW
- WORK AREA
- TEMPORARY PEDESTRIAN CURB RAMP




## CONSTRUCTION NOTES

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER, AND HEADS SHALL BE APPROVED BY ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY ENGINEER.
3. CONTRACTOR SHALL COORDINATE WITH THE CITY OF KENOSHA FIELD UNIT, (262) 653-4070. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
4. SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE," FOR DETAILS ON TRAFFIC CONTROL DURING TEMPORARY SIGNAL INSTALLATION AND TRAFFIC SIGNAL REMOVAL.
5. THE EMERGENCY VEHICLE PREEMPTION SYSTEM SHALL BE REMOVED FROM THE EXISTING SIGNALS AND INSTALLED ON THE TEMPORARY SIGNALS.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY CONTRACTOR.
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8. ALL TEMPORARY TRAFFIC SIGNAL INSTALLATIONS, MATERIALS, AND OPERATIONS SHALL BE IN ACCORDANCE WITH STANDARD DETAIL DRAWING "SPAN WIRE TEMPORARY TRAFFIC SIGNAL."
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

## LEGEND CON'T

- 4X4 WOOD POST OR SKID
- SIGNAL OVERHEAD MOUNT
- LUMINAIRE
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW

NOTES:
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

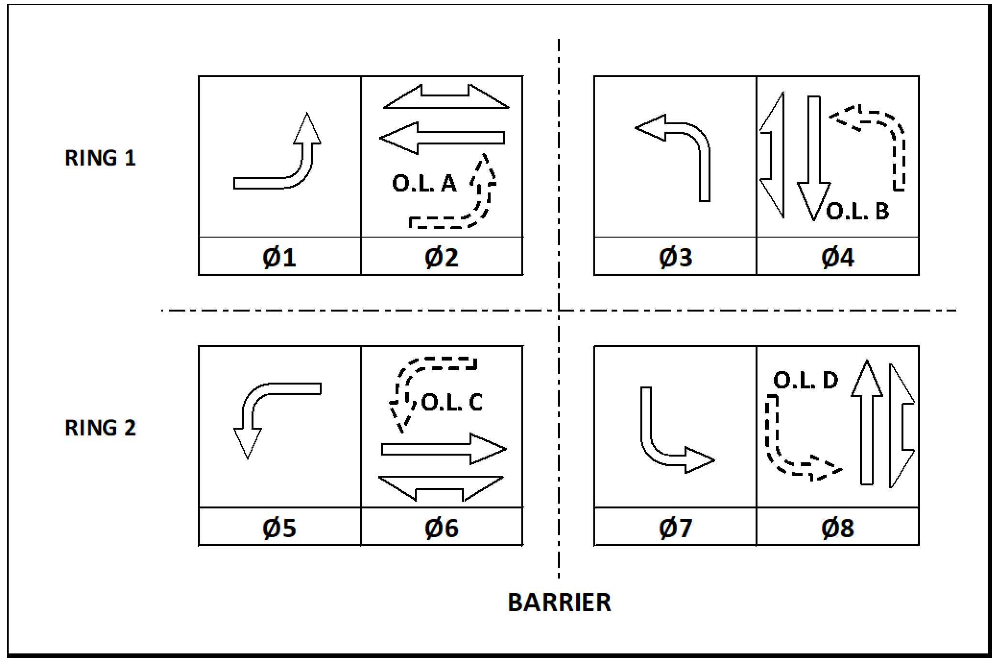
SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:

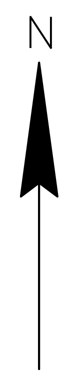
PAGE 2 OF 3

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2 | SHEET 26 | E |
|---|---|---|---|---|---|

| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 4,5 | - |
| Ø2 | 6,7,8 | R |
| Ø3 | 14,15 | R ← |
| Ø4 | 16,17,18 | R |
| Ø5 | 9,10 | - |
| Ø6 | 1,2,3 | R |
| Ø7 | 19,20 | - |
| Ø8 | 11,12,13 | R |
| Ø2P | 25,26 | |
| Ø4P | 27,28 | |
| Ø6P | 21,22 | |
| Ø8P | 23,24 | |
| OLA | 4,5 | R ← |
| OLB | 14,15 | R ← |
| OLC | 9,10 | R ← |
| OLD | 19,20 | R ← |




NOTE: PHASE 1, PHASE 5, O.L. A, AND O.L. C NOT ACTIVE DURING STAGE 1.




## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | MAX | X |
| 2 | | 6 | MAX | X |
| 3 | | | MAX | X |
| 4 | | 8 | MAX | X |
| 5 | | | MAX | X |
| 6 | | 2 | MAX | X |
| 7 | | | MAX | X |
| 8 | | 4 | MAX | 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 | X |
| IN SEPARATE DOT LIGHTING CABINET | |

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

### EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE APPROACH | EASTBOUND | WESTBOUND | NORTHBOUND | SOUTHBOUND |
|---|---|---|---|---|
| MOVEMENT | | | | |
| PHASE | 1+6 | 2+5 | 3+8 | 4+7 |

**AFTER PREEMPTION SEQUENCE 1+6 OR 2+5 , CONTROLLER SHALL RETURN TO PHASES 2+6.**

**AFTER PREEMPTION SEQUENCE 3+8 OR 4+7, CONTROLLER SHALL RETURN TO PHASES 4+8.**

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:
PAGE 3 OF 3

2

CONSTRUCTION NOTES

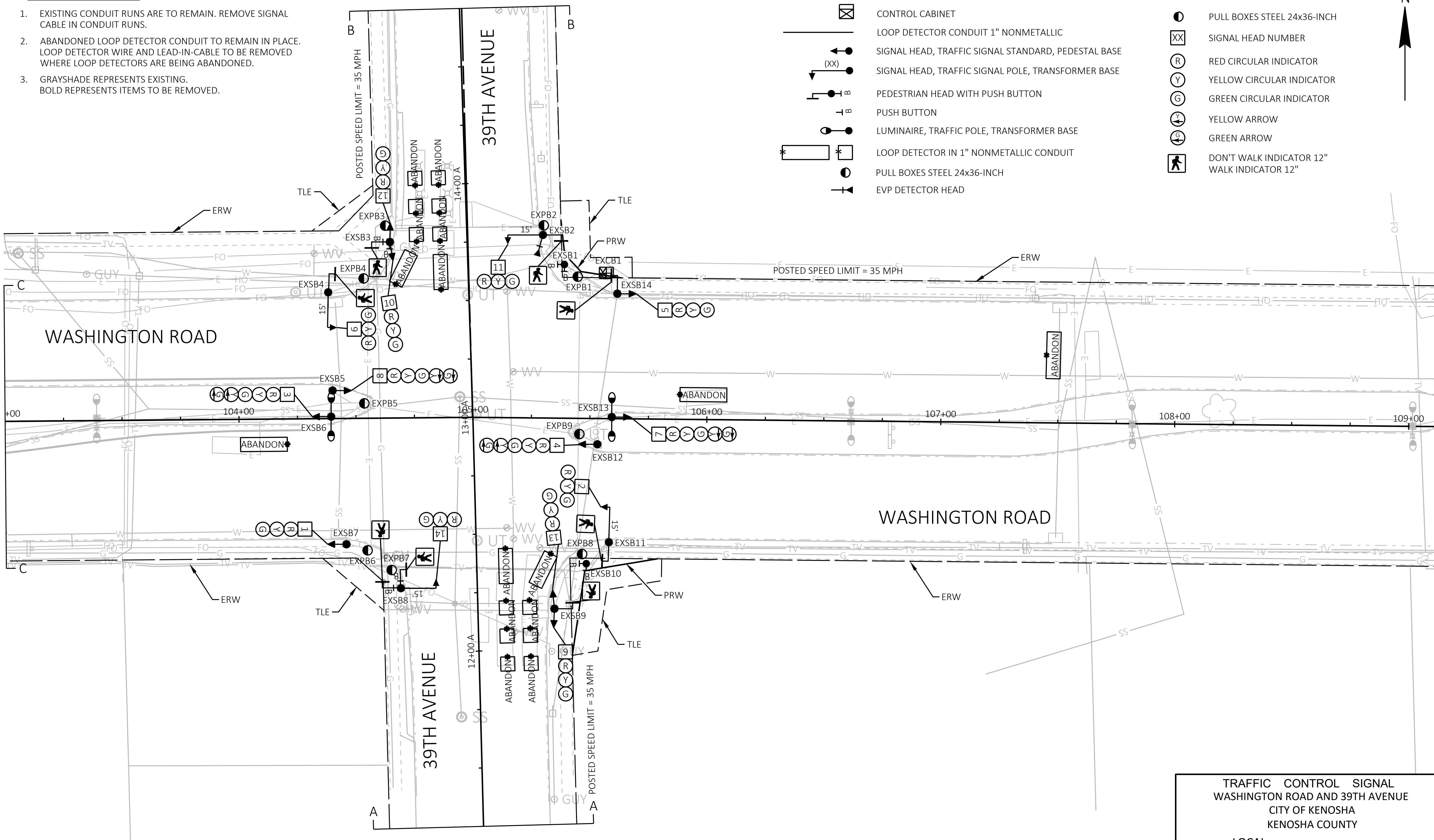
1. EXISTING CONDUIT RUNS ARE TO REMAIN. REMOVE SIGNAL CABLE IN CONDUIT RUNS.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN-CABLE TO BE REMOVED WHERE LOOP DETECTORS ARE BEING ABANDONED.
3. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

LEGEND

- CONTROL CABINET
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOXES STEEL 24x36-INCH
- EVP DETECTOR HEAD
- PULL BOXES STEEL 24x36-INCH
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 12" WALK INDICATOR 12"

N

2



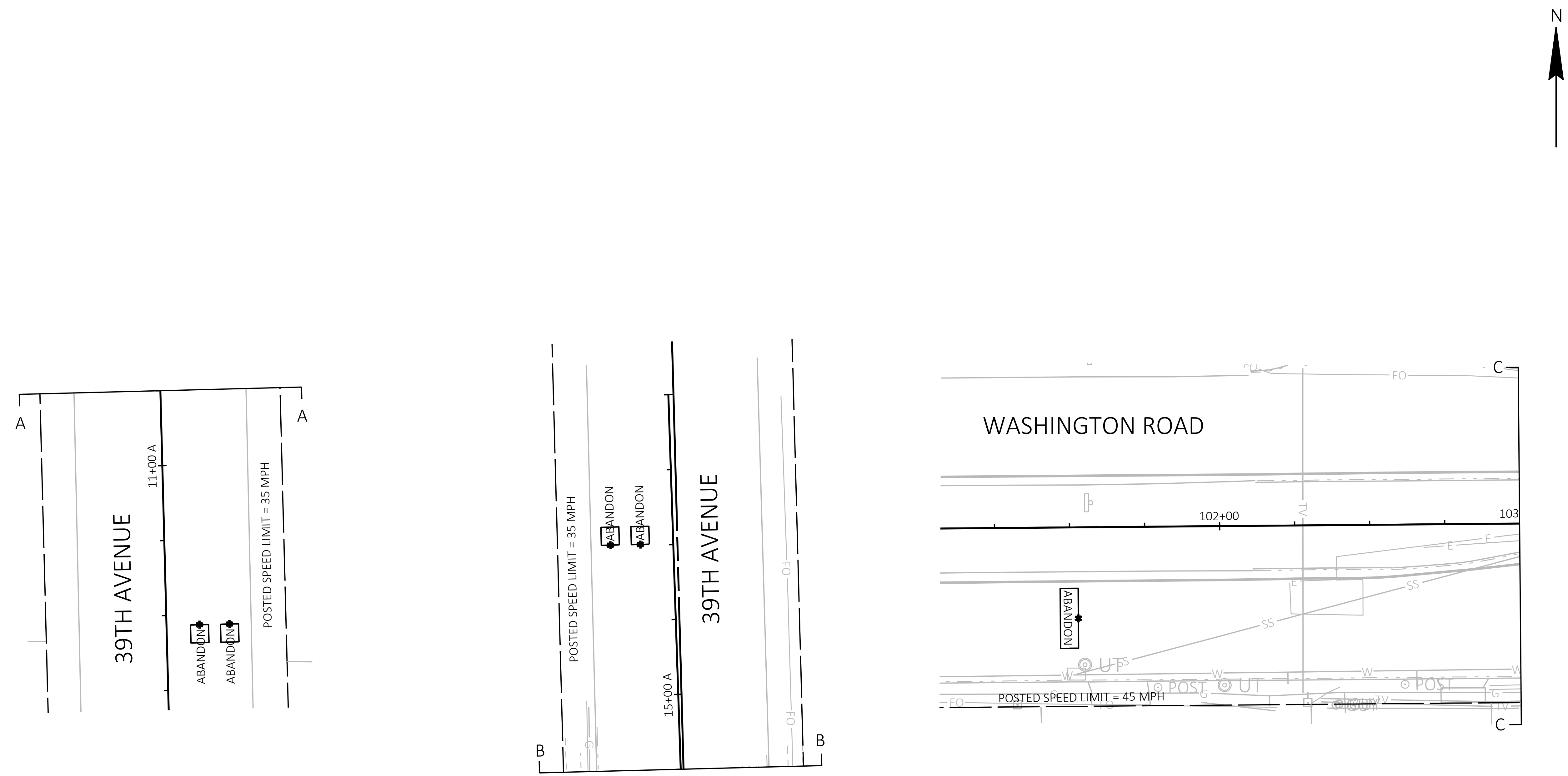

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:

PAGE 1 OF 2

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC SIGNAL REMOVAL PLAN | SHEET 28 | E |
|---|---|---|---|---|---|




TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:

PAGE 2 OF 2

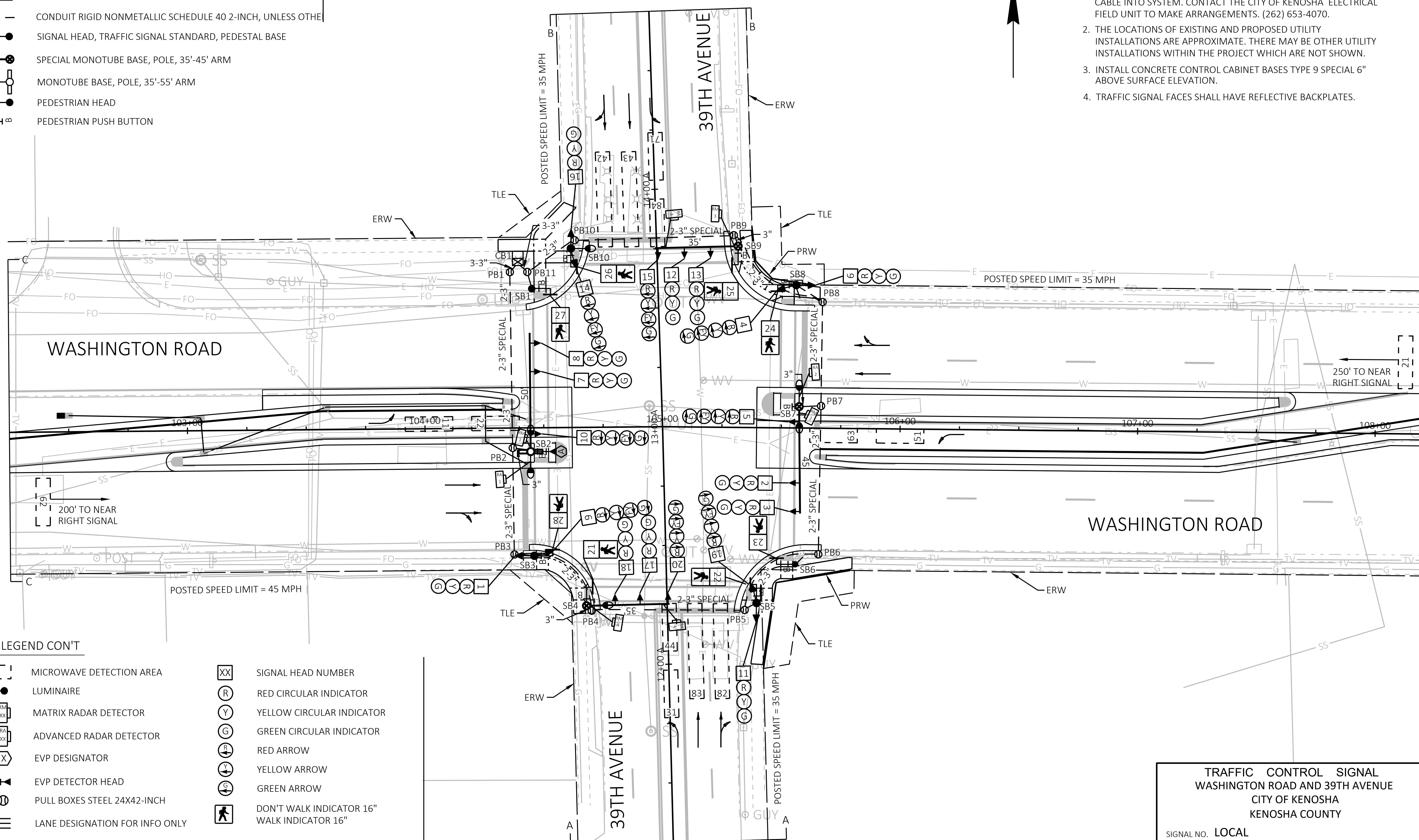
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC SIGNAL REMOVAL PLAN | SHEET 29 | E |
|---|---|---|---|---|---|

## LEGEND

- TRAFFIC SIGNAL CONTROLLER AND CABINET
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHE
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SPECIAL MONOTUBE BASE, POLE, 35'-45' ARM
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD
- PEDESTRIAN PUSH BUTTON

## CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE CITY OF KENOSHA ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (262) 653-4070.
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 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL 6" ABOVE SURFACE ELEVATION.
4. TRAFFIC SIGNAL FACES SHALL HAVE REFLECTIVE BACKPLATES.




## LEGEND CON'T

- MICROWAVE DETECTION AREA
- LUMINAIRE
- MATRIX RADAR DETECTOR
- ADVANCED RADAR DETECTOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- PULL BOXES STEEL 24X42-INCH
- LANE DESIGNATION FOR INFO ONLY
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"

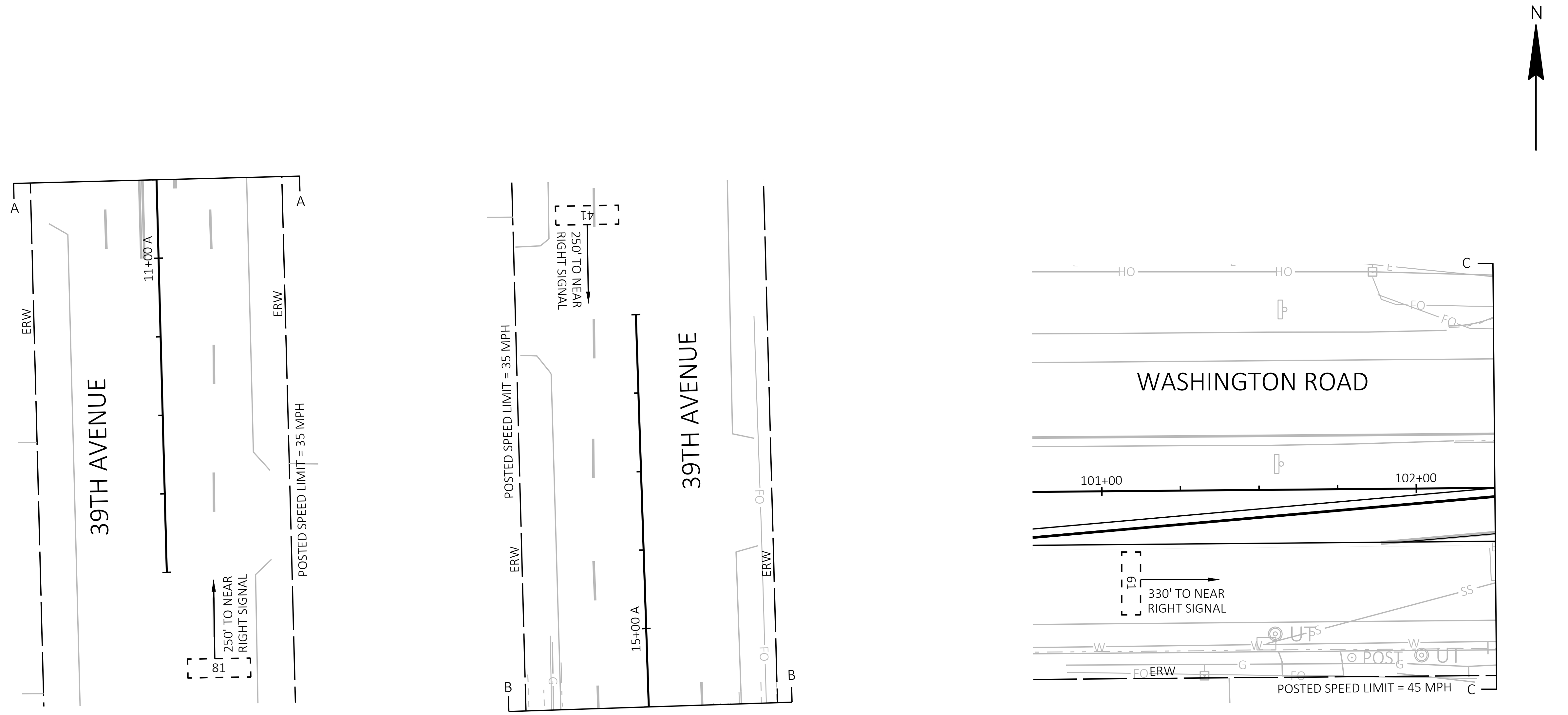
NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:
PAGE 1 OF 4

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC SIGNAL PLAN | SHEET 30 | E |
|---|---|---|---|---|---|




LEGEND

MICROWAVE DETECTION AREA

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

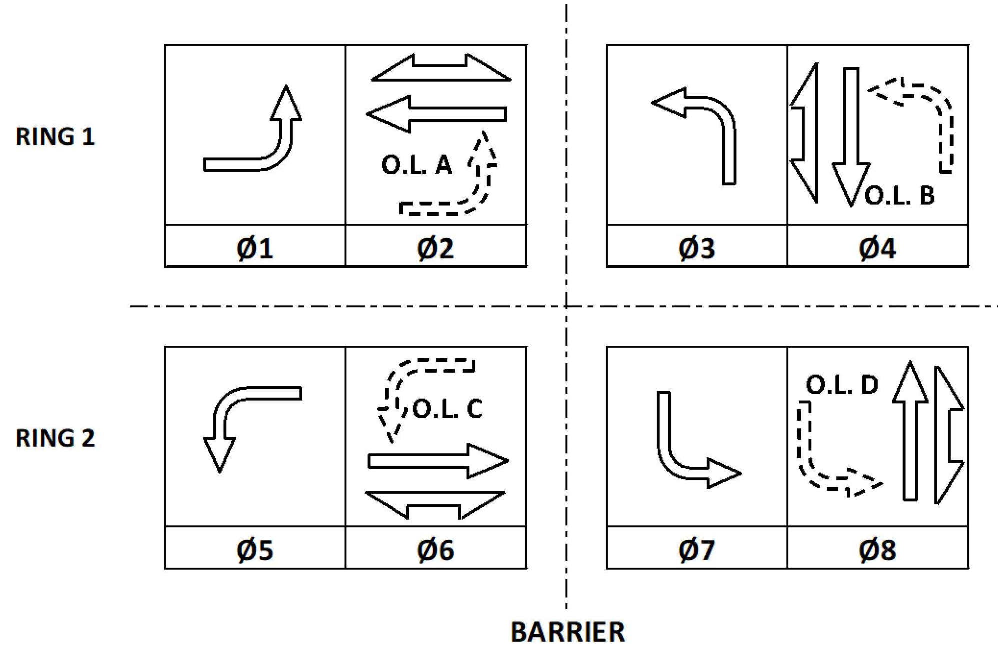
SIGNAL NO. LOCAL

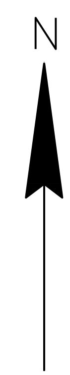
REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:
PAGE 2 OF 4

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC SIGNAL PLAN | SHEET 31 | E |
|---|---|---|---|---|---|

2

| | HEAD NUMBERS | FLASH |
|---|---|---|
| Ø1 | 4,5 | - |
| Ø2 | 6,7,8 | R |
| Ø3 | 14,15 | R |
| Ø4 | 16,17,18 | R |
| Ø5 | 9,10 | - |
| Ø6 | 1,2,3 | R |
| Ø7 | 19,20 | - |
| Ø8 | 11,12,13 | R |
| Ø2P | 25,26 | |
| Ø4P | 27,28 | |
| Ø6P | 21,22 | |
| Ø8P | 23,24 | |
| OLA | 4,5 | R |
| OLB | 14,15 | R |
| OLC | 9,10 | R |
| OLD | 19,20 | R |




## CONTROLLER LOGIC

| PHASE NUMBER | PHASE LOCKING | DUAL ENTRY W / Ø | PHASE RECALL | PHASE ACTIVE |
|---|---|---|---|---|
| 1 | | | | X |
| 2 | X | 6 | MIN | X |
| 3 | | | | X |
| 4 | | 8 | | X |
| 5 | | | | X |
| 6 | X | 2 | MIN | X |
| 7 | | | | X |
| 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 | |
| TBC | X |
| 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 | X |
| TOMAR | |
| HARDWIRE | |
| OTHER | |
| LIFT BRIDGE | |
| QUEUE DETECTION | |

EMERGENCY VEHICLE PREEMPTION SEQUENCE

| EMERGENCY VEHICLE APPROACH | EASTBOUND | WESTBOUND | NORTHBOUND | SOUTHBOUND |
|---|---|---|---|---|
| MOVEMENT | | | | |
| PHASE | 1+6 | 2+5 | 3+8 | 4+7 |

AFTER PREEMPTION SEQUENCE 1+6 OR 2+5 , CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 3+8 OR 4+7, CONTROLLER SHALL RETURN TO PHASES 4+8.

## DETECTOR LOGIC

| DETECTOR INPUT | 3 | 1 | 7 | 5 | 11 | 9 | 15 | 13 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR*(S) | 11 | 22 | 41 | 43 | 51 | 62 | 71 | 82 |
| ASSIGNED PHASE | 1 | 2 | 4 | 4 | 5 | 6 | 7 | 8 |
| OPERATION MODE | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH |
| SWITCH | | | | | | | | |
| EXTEND | X | | X | X | X | X | X | X |
| DELAY | | | | | | | | |

| DETECTOR INPUT | 19 | 17 | 23 | 21 | 27 | 25 | 31 | 29 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR*(S) | 84 | | | | | | | |
| ASSIGNED PHASE | 8 | | | | | | | |
| OPERATION MODE | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH |
| SWITCH | | | | | | | | |
| EXTEND | | | | | | | | |
| DELAY | | | | | | | | |

| DETECTOR INPUT | 4 | 2 | 8 | 6 | 12 | 10 | 16 | 14 |
|---|---|---|---|---|---|---|---|---|
| PLAN LOOP DETECTOR*(S) | 21 | 31 | 42 | 44 | 61 | 63 | 81 | 83 |
| ASSIGNED PHASE | 2 | 3 | 4 | 4 | 6 | 6 | 8 | 8 |
| OPERATION MODE | VEH | VEH | VEH | VEH | VEH | VEH | VEH | VEH |
| SWITCH | | | | | | | | |
| EXTEND | X | X | X | | X | | X | X |
| 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 | | | | | | | | |

WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO: LOCAL | CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE
DATE: 11/1/2022 | PAGE NO. 3 OF 4



2

| | |
|---|---|
| PROJECT ID: | 3831-07-72 |
| INTERSECTION: | Washington Road and 39th Avenue |

| Signal Wire Color Coding | BLK - black | RED - red | GRN - green |
|---|---|---|---|
| | WHT - white | BLU - blue | ORG - orange |

| CB1 TO | NO. OF CONDUCTORS | HEAD NO. | SIGNAL INDICATION WIRE COLOR | | | | | | | | | PED BUTTON | OTHER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | RED | YELLOW | GREEN | <RED> | <YELLOW> | <GREEN> | <FLASHING YELLOW> | D/WALK | WALK | | |
| SB1 | 7 | 27 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB2 | 12 | 7 | RED | ORG | GRN | | | | | | | | |
| | | 8 | RED | ORG | GRN | | | | | | | | |
| | | 10 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB3 | 12 | 1 | RED | ORG | GRN | | | | | | | | |
| | | 9 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | 28 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB4 | 12 | 17 | RED | ORG | GRN | | | | | | | | |
| | | 18 | RED | ORG | GRN | | | | | | | | |
| | | 20 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | 21 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB5 | 12 | 11 | RED | ORG | GRN | | | | | | | | |
| | | 19 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | 22 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB6 | 7 | 23 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB7 | 12 | 2 | RED | ORG | GRN | | | | | | | | |
| | | 3 | RED | ORG | GRN | | | | | | | | |
| | | 5 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB8 | 12 | 4 | RED | ORG | GRN | | | | | | | | |
| | | 6 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | 24 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB9 | 12 | 12 | RED | ORG | GRN | | | | | | | | |
| | | 13 | RED | ORG | GRN | | | | | | | | |
| | | 15 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | 25 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |
| SB10 | 12 | 14 | RED | ORG | GRN | | | | | | | | |
| | | 16 | | | | RED/BLK | ORG/BLK | GRN/BLK | BLK/WHT | | | | |
| | | 26 | | | | | | | | BLK | BLU | | |
| | | B | | | | | | | | | | WHT/BLK | |

*Use the white conductor in the cable assembly as the grounded conductor for all traffic signal indications
*Ensure the grounded conductor in the feeder cable and the pole cables are both 18" longer than the ungrounded conductors.
*Use IMSA 50-2 loop lead-in cable to wire the push button from the cabinet.
*Reconnect the grounding conductors wherever the circuit has been interrupted to ensure the grounding circuit is complete.

| Equipment grounding conductor 10 AWG Green XLP | |
|---|---|
| From | TO |
| CB1 | SB1 |
| SB1 | SB2 |
| SB2 | SB3 |
| SB3 | SB4 |
| SB4 | SB5 |
| SB5 | SB6 |
| SB6 | SB7 |
| SB7 | SB8 |
| SB8 | SB9 |
| SB9 | SB10 |
| SB10 | CB1 |

| Pull Box Bonding Jumper 10 AWG Green XLP | |
|---|---|
| From | To |
| PB1 | CB1 |
| PB2 | SB2 |
| PB3 | SB3 |
| PB4 | SB4 |
| PB5 | SB5 |
| PB6 | SB6 |
| PB7 | SB7 |
| PB8 | SB8 |
| PB9 | SB9 |
| PB10 | SB10 |
| PB11 | CB1 |

| MICROWAVE DETECTION CABLE | |
|---|---|
| From | To |
| CB1 | SB2 (RM1) |
| CB1 | SB2 (RA1) |
| CB1 | SB4 (RM4) |
| CB1 | SB4 (RA4) |
| CB1 | SB7 (RM2) |
| CB1 | SB7 (RA2) |
| CB1 | SB9 (RM3) |
| CB1 | SB9 (RA3) |

| Lighting UF 2-10 AWG Grounded | |
|---|---|
| From | To |
| CB1 | SB2 |
| SB2 | SB4 |
| CB1 | SB10 |
| SB10 | SB7 |

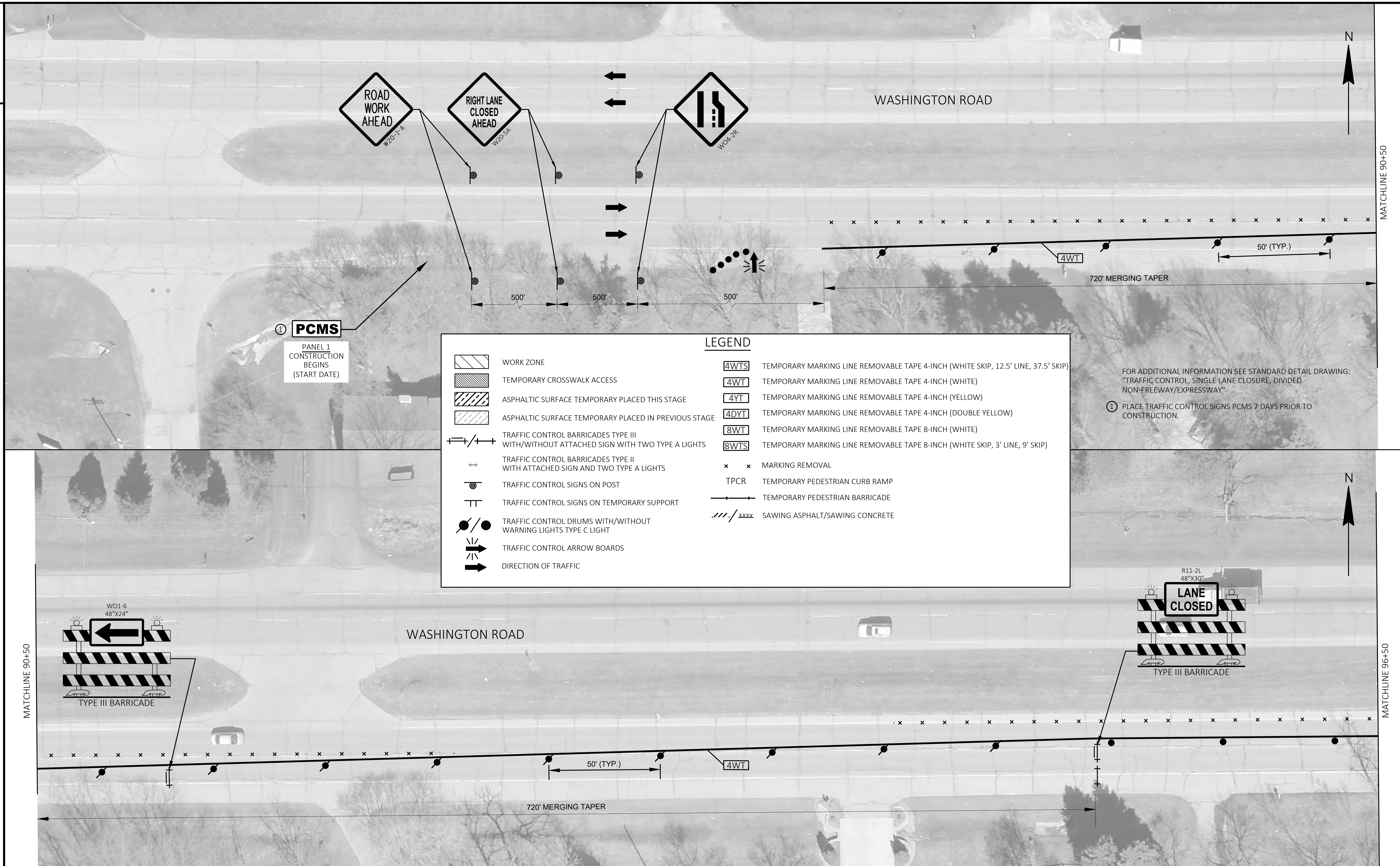
| EVP CABLE | |
|---|---|
| From | To |
| CB1 | SB2 (HEAD A) |

TRAFFIC CONTROL SIGNAL
WASHINGTON ROAD AND 39TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
DESIGNED BY: STRAND ASSOCIATES INC.
REVISED BY:

PAGE 4 OF 4




## LEGEND

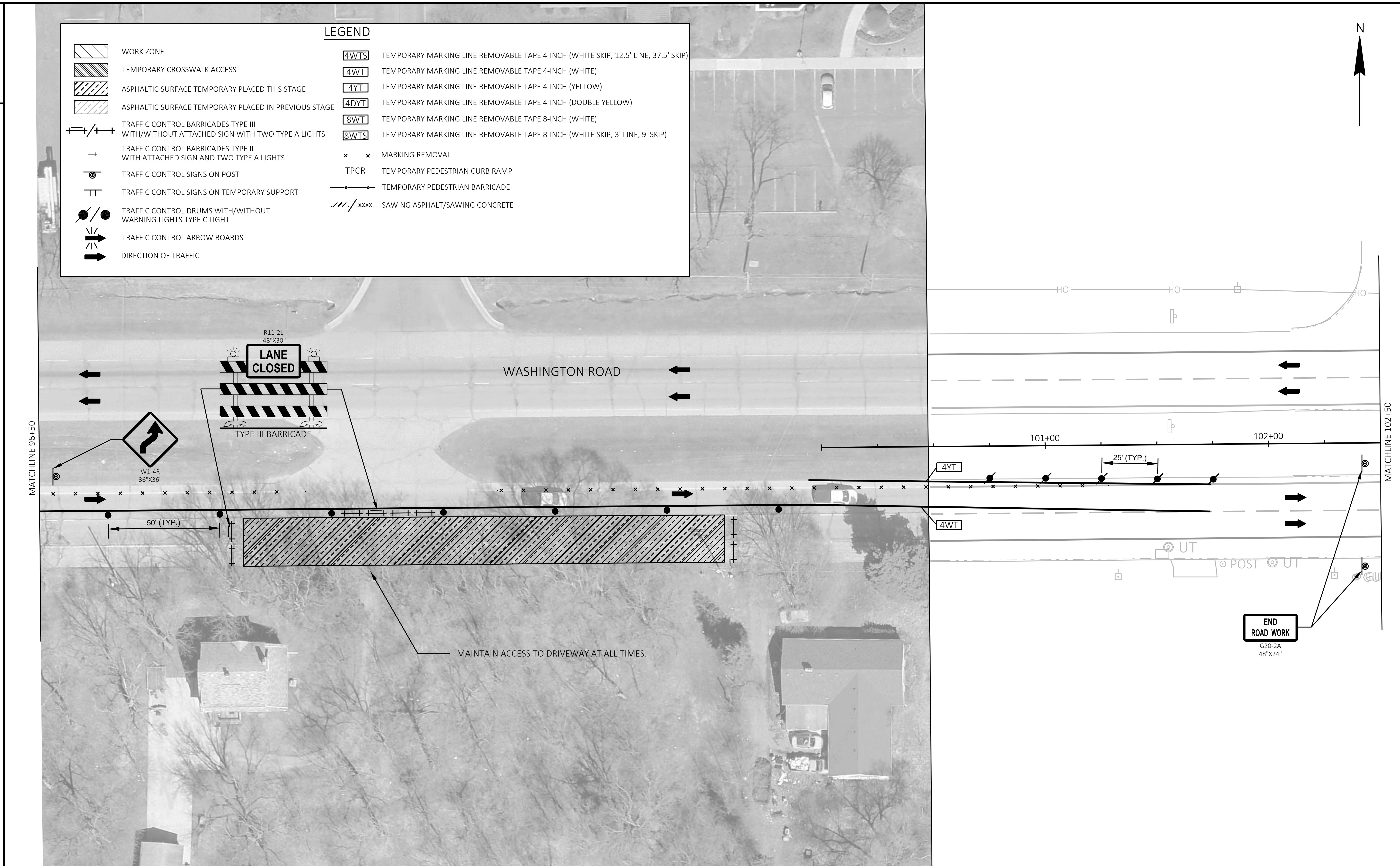
| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| xxxx | SAWING ASPHALT/SAWING CONCRETE |

FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWING: "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"

1 PLACE TRAFFIC CONTROL SIGNS PCMS 7 DAYS PRIOR TO CONSTRUCTION.

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: PRE STAGE 1 | SHEET 34 | E |
|---|---|---|---|---|---|

2




2

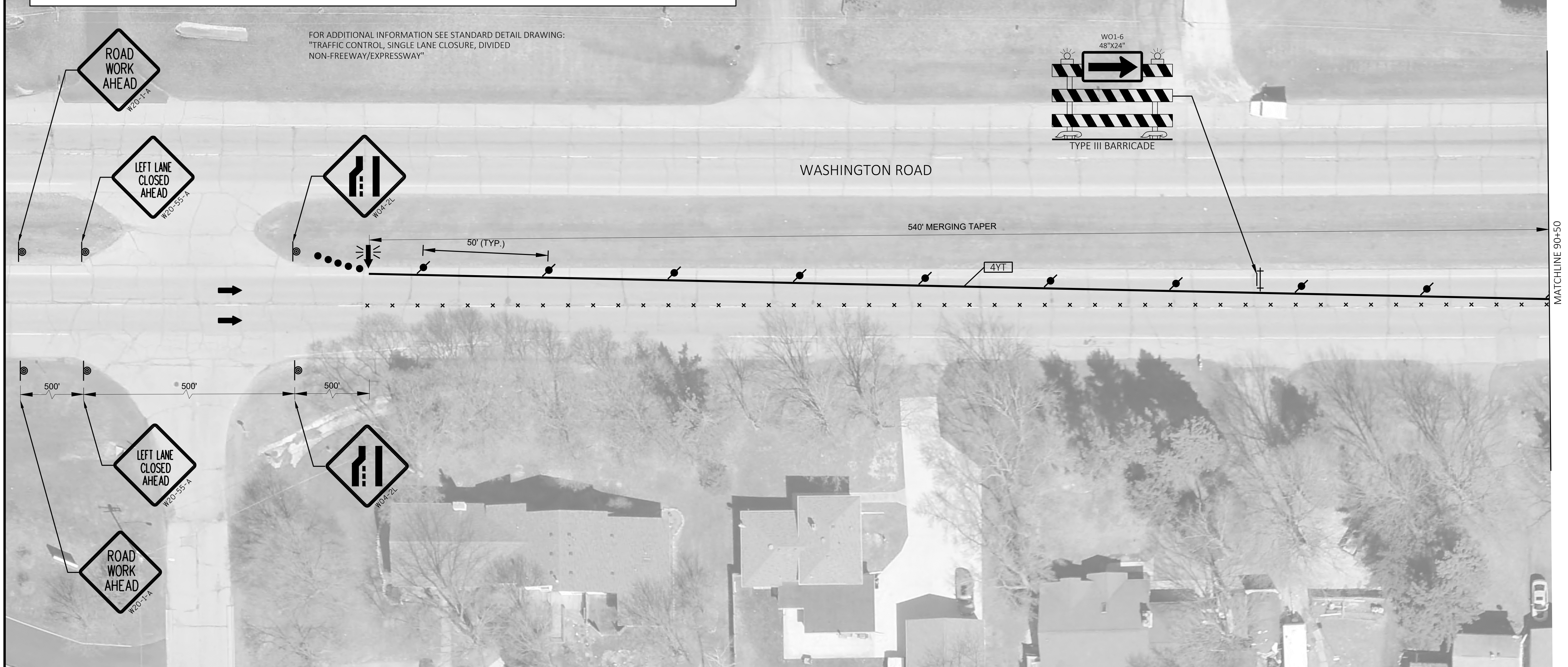
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: PRE STAGE 1 | SHEET 35 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\026001_PRES1.DWG
LAYOUT NAME - 026002_PreS1
PLOT DATE : 11/15/2022 8:53 AM
PLOT BY : WALTER, ADAM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

## LEGEND

| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| xxxx | SAWING ASPHALT/SAWING CONCRETE |

FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWING: "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 1 | SHEET 36 | E |
|---|---|---|---|---|---|

2


2

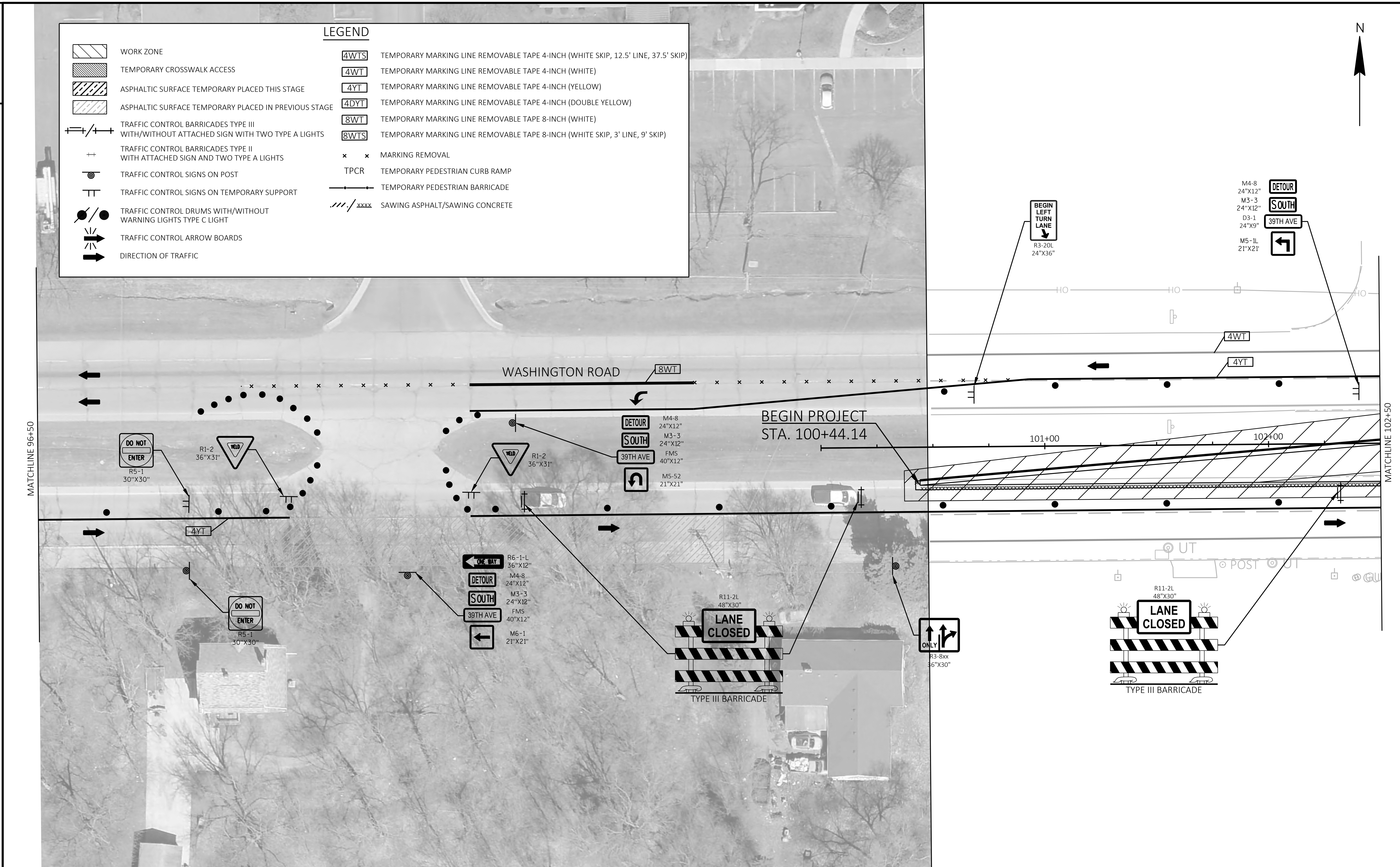
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 1 | SHEET 37 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\026001_S1.DWG
LAYOUT NAME - 026002_S1
PLOT DATE : 11/15/2022 8:53 AM
PLOT BY : WALTER, ADAM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

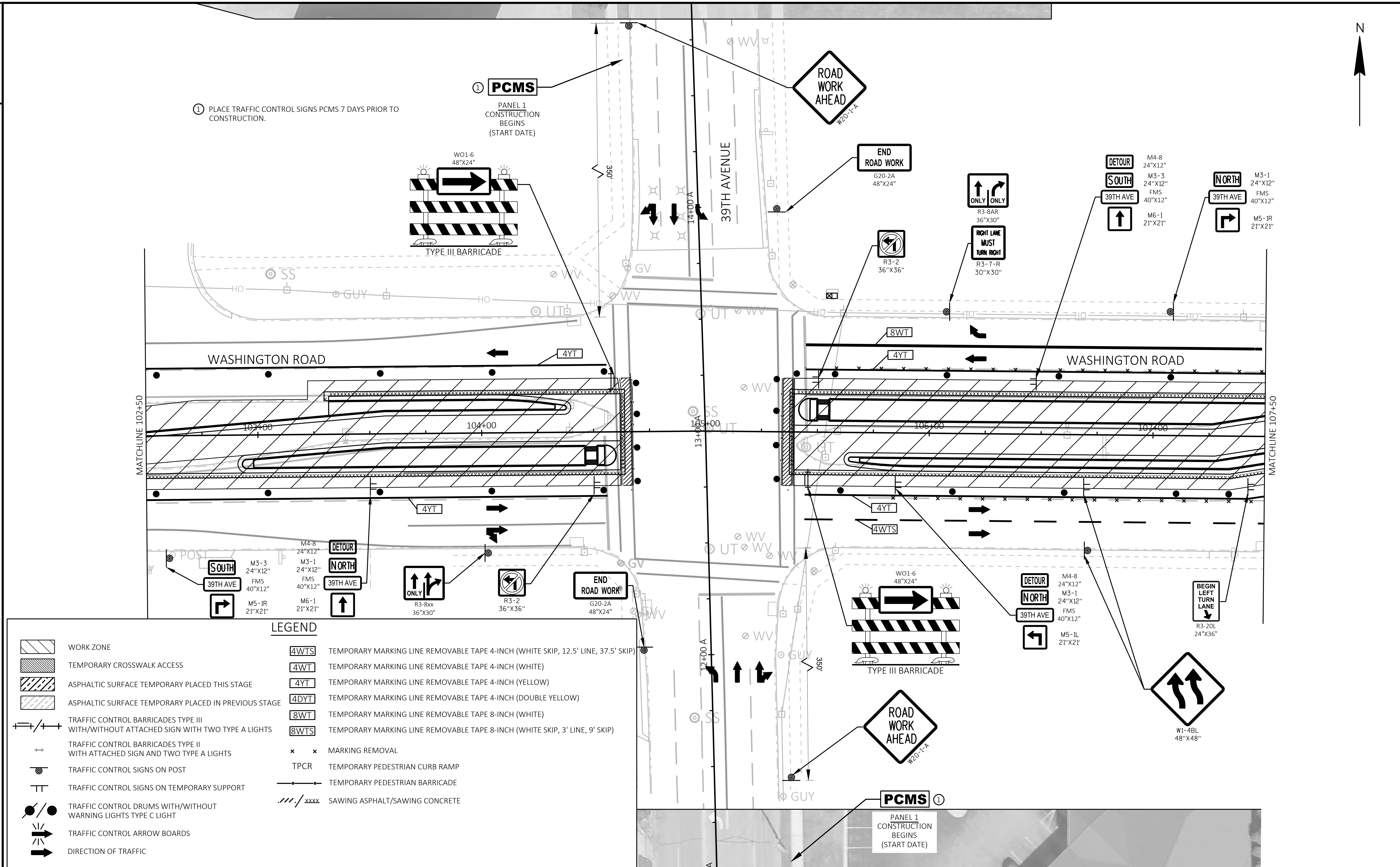
## LEGEND

| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| xxxx | SAWING ASPHALT/SAWING CONCRETE |




2

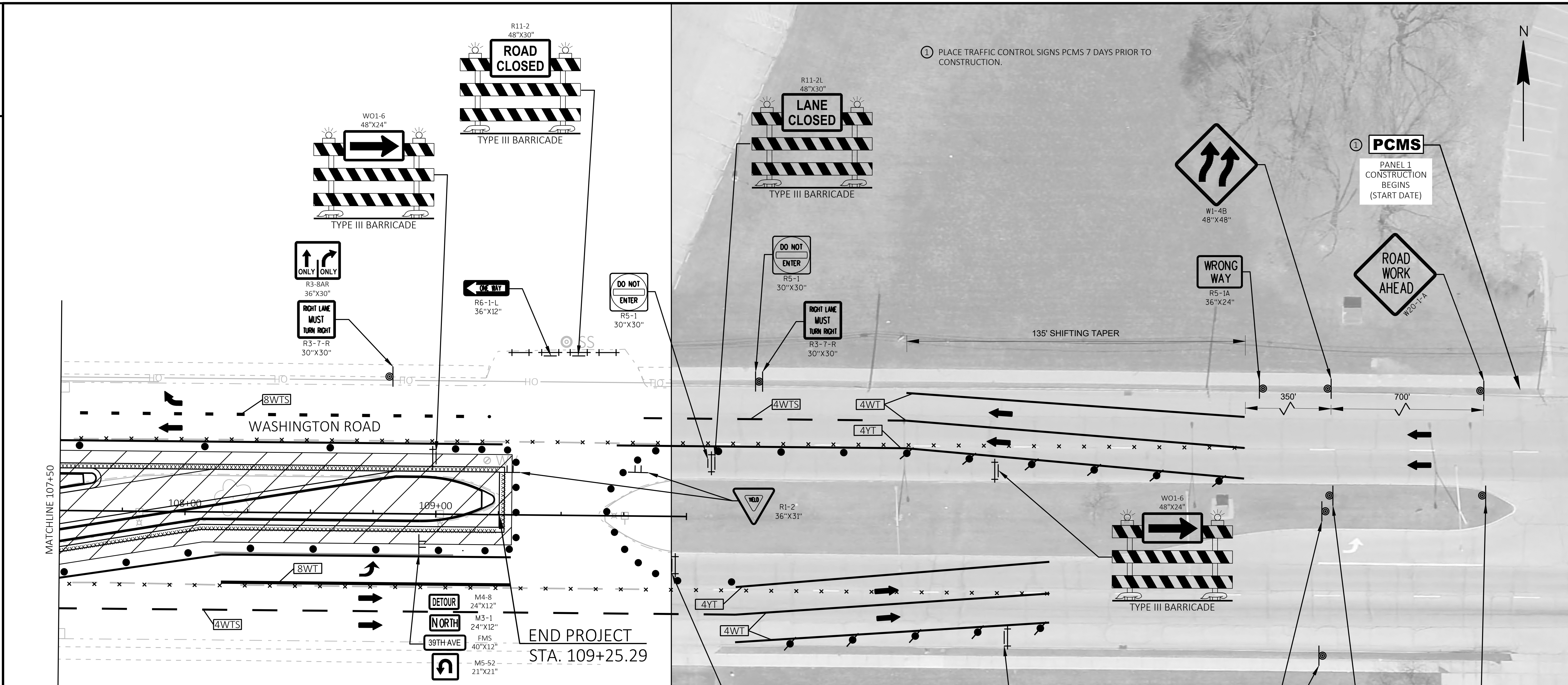
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 1 | SHEET 38 | E |
|---|---|---|---|---|---|




## LEGEND

- WORK ZONE
- TEMPORARY CROSSWALK ACCESS
- ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE
- ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE
- TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS
- TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
- TRAFFIC CONTROL SIGNS ON POST
- TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT
- TRAFFIC CONTROL ARROW BOARDS
- DIRECTION OF TRAFFIC
- 4WTS TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP)
- 4WT TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- 4YT TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- 4DYT TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- 8WT TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- 8WTS TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP)
- MARKING REMOVAL
- TPCR TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN BARRICADE
- xxxx SAWING ASPHALT/SAWING CONCRETE

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 1 | SHEET 39 | E |
|---|---|---|---|---|---|

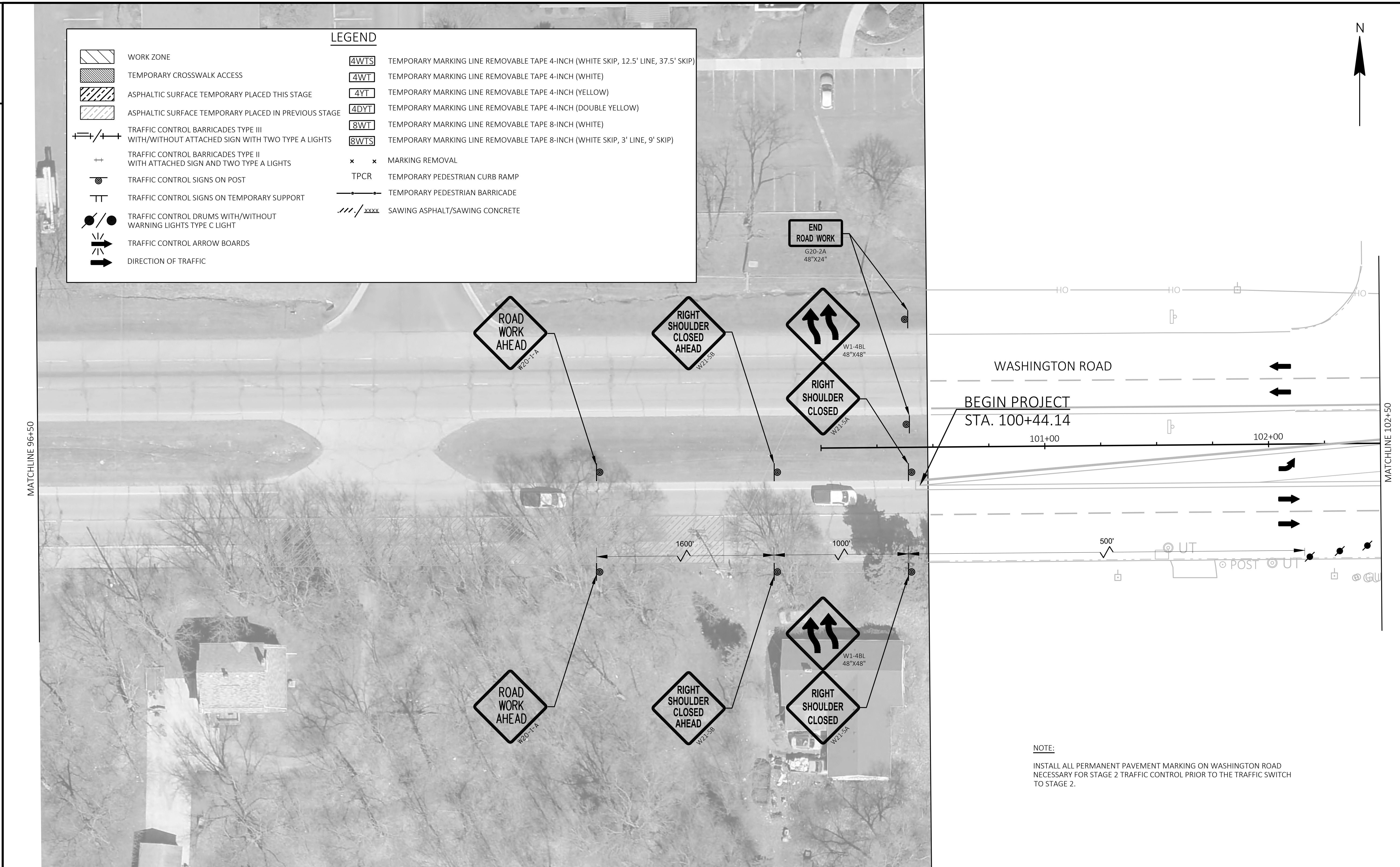



## LEGEND

| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| xxxx | SAWING ASPHALT/SAWING CONCRETE |

| | | | | | |
|---|---|---|---|---|---|
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 1 | SHEET 40 | E |

2




NOTE:

INSTALL ALL PERMANENT PAVEMENT MARKING ON WASHINGTON ROAD NECESSARY FOR STAGE 2 TRAFFIC CONTROL PRIOR TO THE TRAFFIC SWITCH TO STAGE 2.

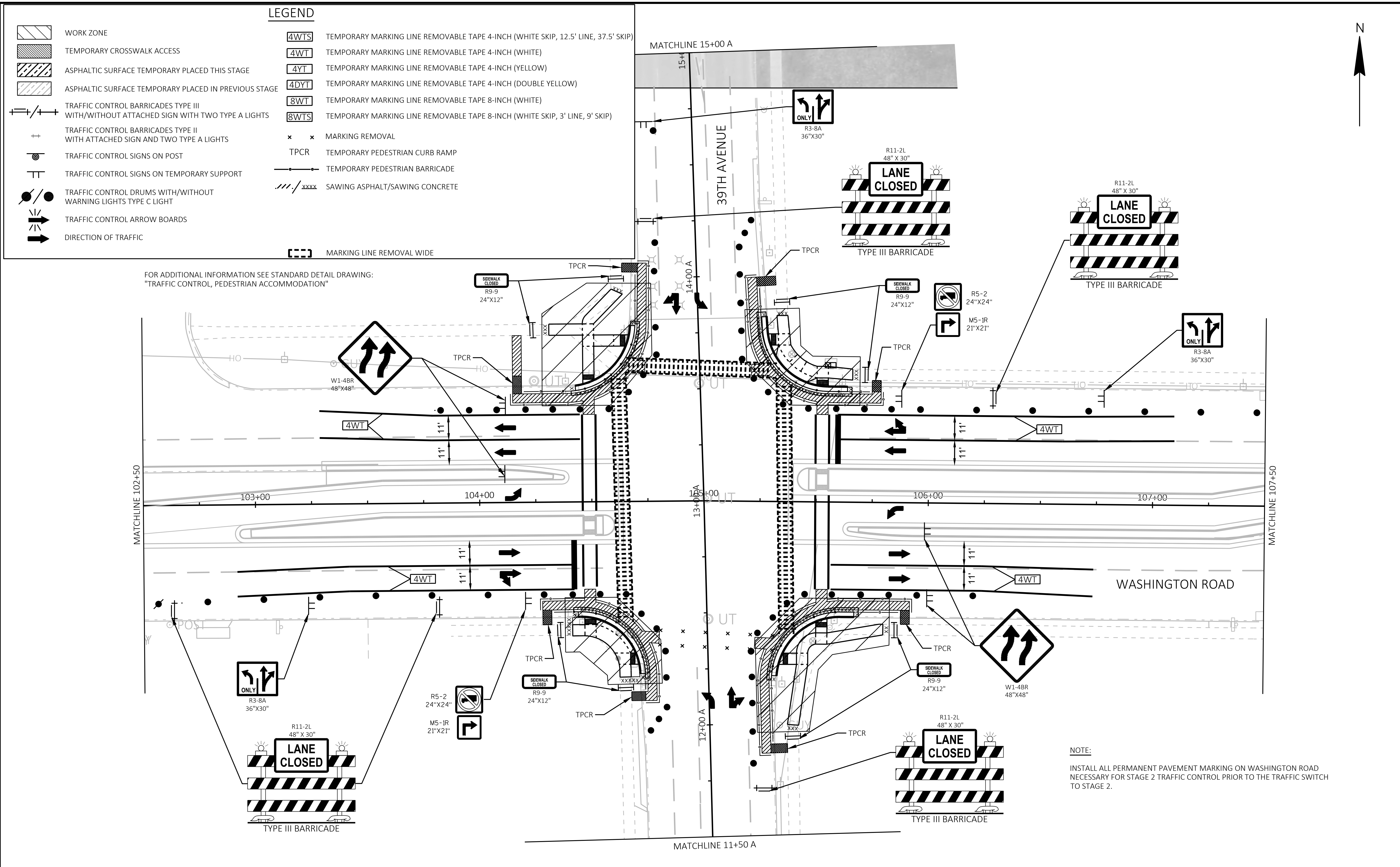
2

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 2 | SHEET 41 | E |
|---|---|---|---|---|---|

## LEGEND

| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| x x | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| /// / xxxx | SAWING ASPHALT/SAWING CONCRETE |
| | MARKING LINE REMOVAL WIDE |

FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWING: "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"

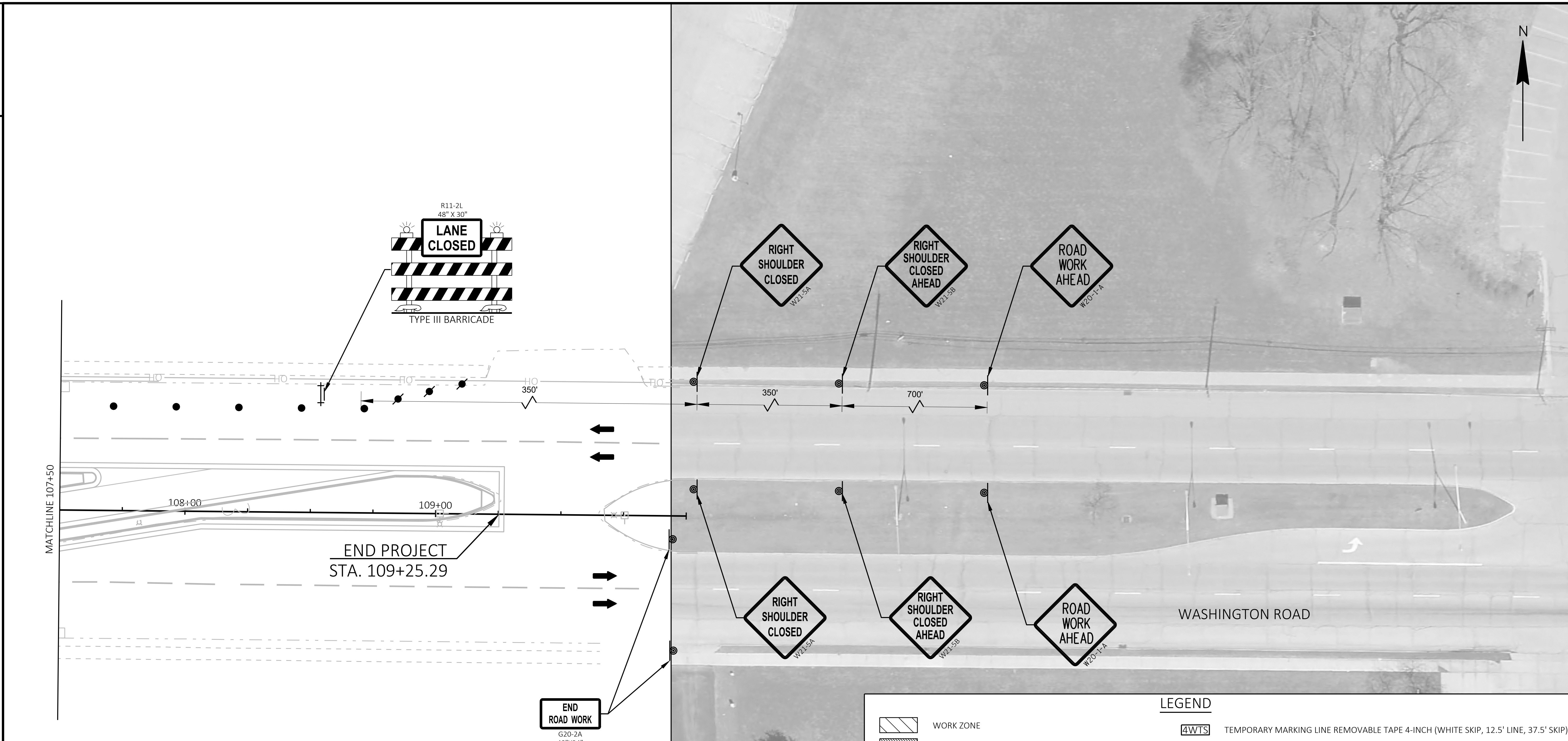



NOTE:

INSTALL ALL PERMANENT PAVEMENT MARKING ON WASHINGTON ROAD NECESSARY FOR STAGE 2 TRAFFIC CONTROL PRIOR TO THE TRAFFIC SWITCH TO STAGE 2.

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 2 | SHEET 42 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\026001_S2.DWG
LAYOUT NAME - 026002_S2
PLOT DATE : 11/15/2022 8:54 AM
PLOT BY : WALTER, ADAM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT




NOTE:

INSTALL ALL PERMANENT PAVEMENT MARKING ON WASHINGTON ROAD NECESSARY FOR STAGE 2 TRAFFIC CONTROL PRIOR TO THE TRAFFIC SWITCH TO STAGE 2.

## LEGEND

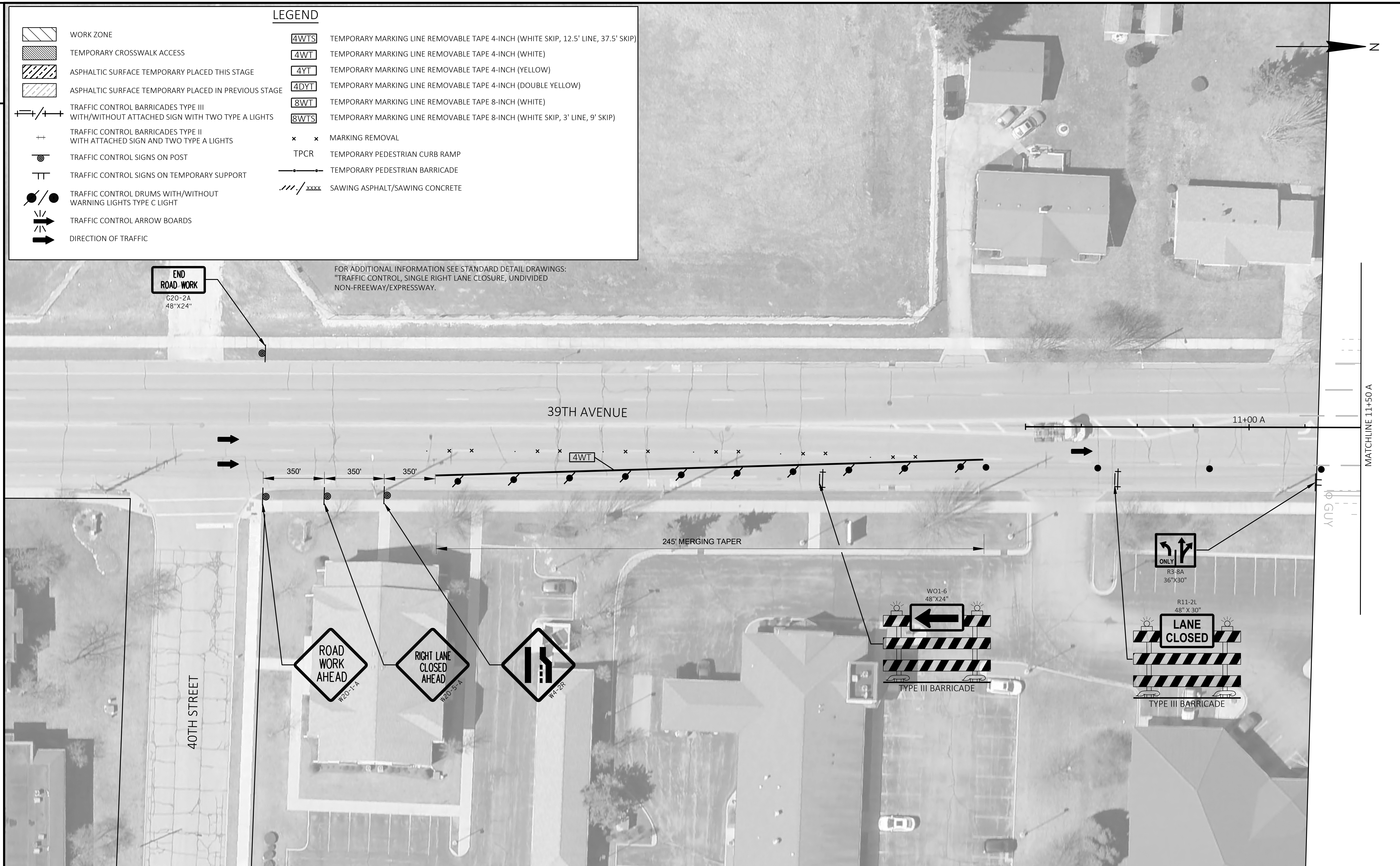
| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| ///./ xxxx | SAWING ASPHALT/SAWING CONCRETE |

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 2 | SHEET 43 E |

## LEGEND

| | |
|---|---|
| WORK ZONE | |
| TEMPORARY CROSSWALK ACCESS | |
| ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE | |
| ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE | |
| TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS | |
| TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS | |
| TRAFFIC CONTROL SIGNS ON POST | |
| TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT | |
| TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT | |
| TRAFFIC CONTROL ARROW BOARDS | |
| DIRECTION OF TRAFFIC | |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| xxxx | SAWING ASPHALT/SAWING CONCRETE |

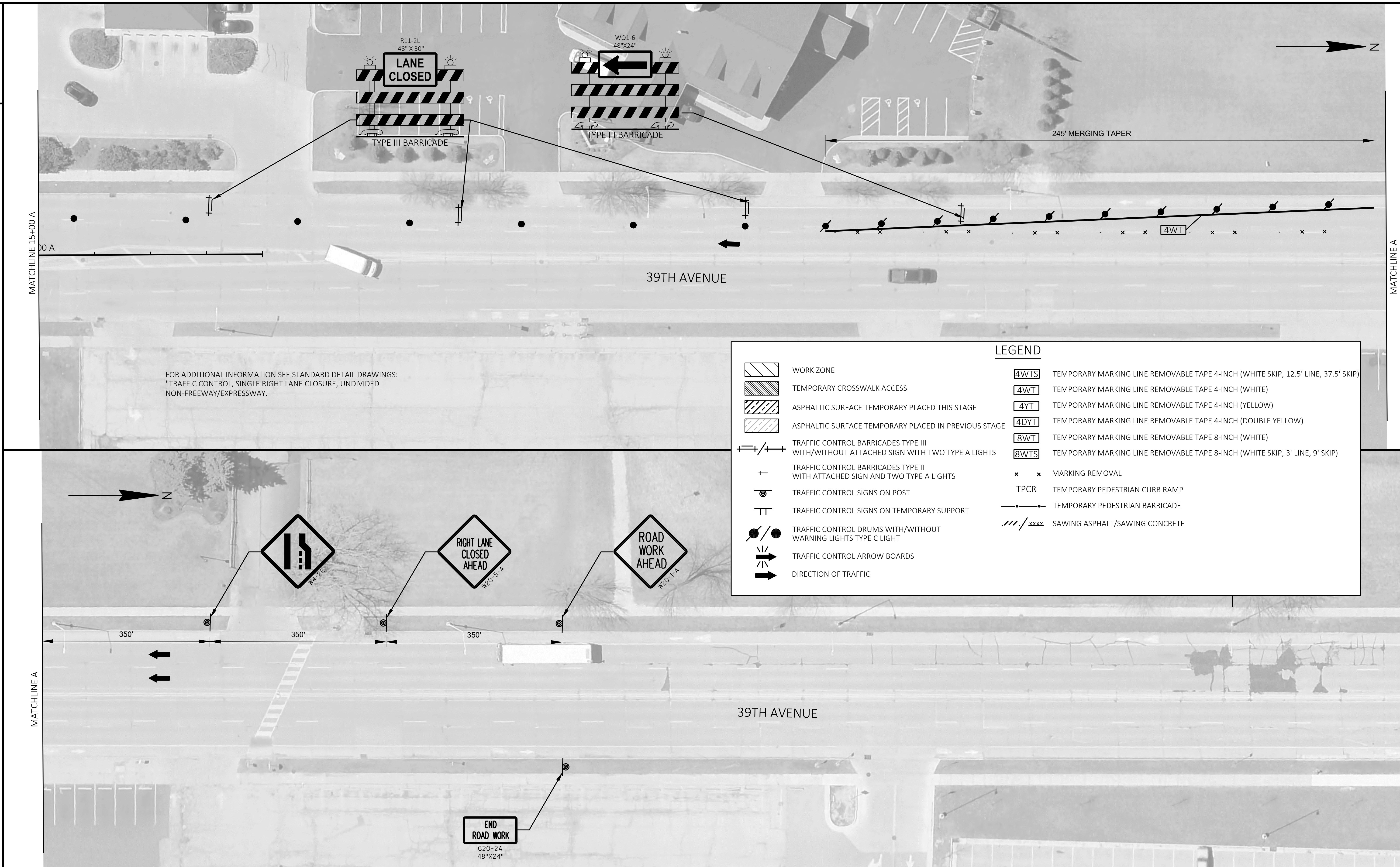
FOR ADDITIONAL INFORMATION SEE STANDARD DETAIL DRAWINGS: "TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY.




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 2 | SHEET 44 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\026001_S2.DWG
LAYOUT NAME - 026004_S2
PLOT DATE : 11/15/2022 8:54 AM
PLOT BY : WALTER, ADAM
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2




## LEGEND

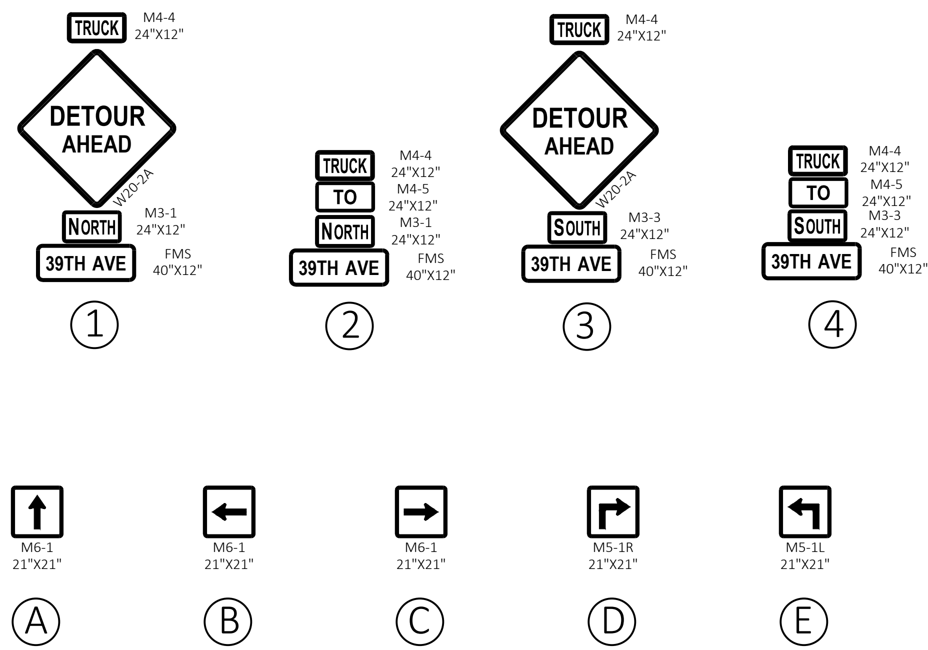
| | |
|---|---|
| | WORK ZONE |
| | TEMPORARY CROSSWALK ACCESS |
| | ASPHALTIC SURFACE TEMPORARY PLACED THIS STAGE |
| | ASPHALTIC SURFACE TEMPORARY PLACED IN PREVIOUS STAGE |
| | TRAFFIC CONTROL BARRICADES TYPE III WITH/WITHOUT ATTACHED SIGN WITH TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL BARRICADES TYPE II WITH ATTACHED SIGN AND TWO TYPE A LIGHTS |
| | TRAFFIC CONTROL SIGNS ON POST |
| | TRAFFIC CONTROL SIGNS ON TEMPORARY SUPPORT |
| | TRAFFIC CONTROL DRUMS WITH/WITHOUT WARNING LIGHTS TYPE C LIGHT |
| | TRAFFIC CONTROL ARROW BOARDS |
| | DIRECTION OF TRAFFIC |
| 4WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE SKIP, 12.5' LINE, 37.5' SKIP) |
| 4WT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) |
| 4YT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) |
| 4DYT | TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW) |
| 8WT | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE) |
| 8WTS | TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE SKIP, 3' LINE, 9' SKIP) |
| × × | MARKING REMOVAL |
| TPCR | TEMPORARY PEDESTRIAN CURB RAMP |
| | TEMPORARY PEDESTRIAN BARRICADE |
| xxxx | SAWING ASPHALT/SAWING CONCRETE |

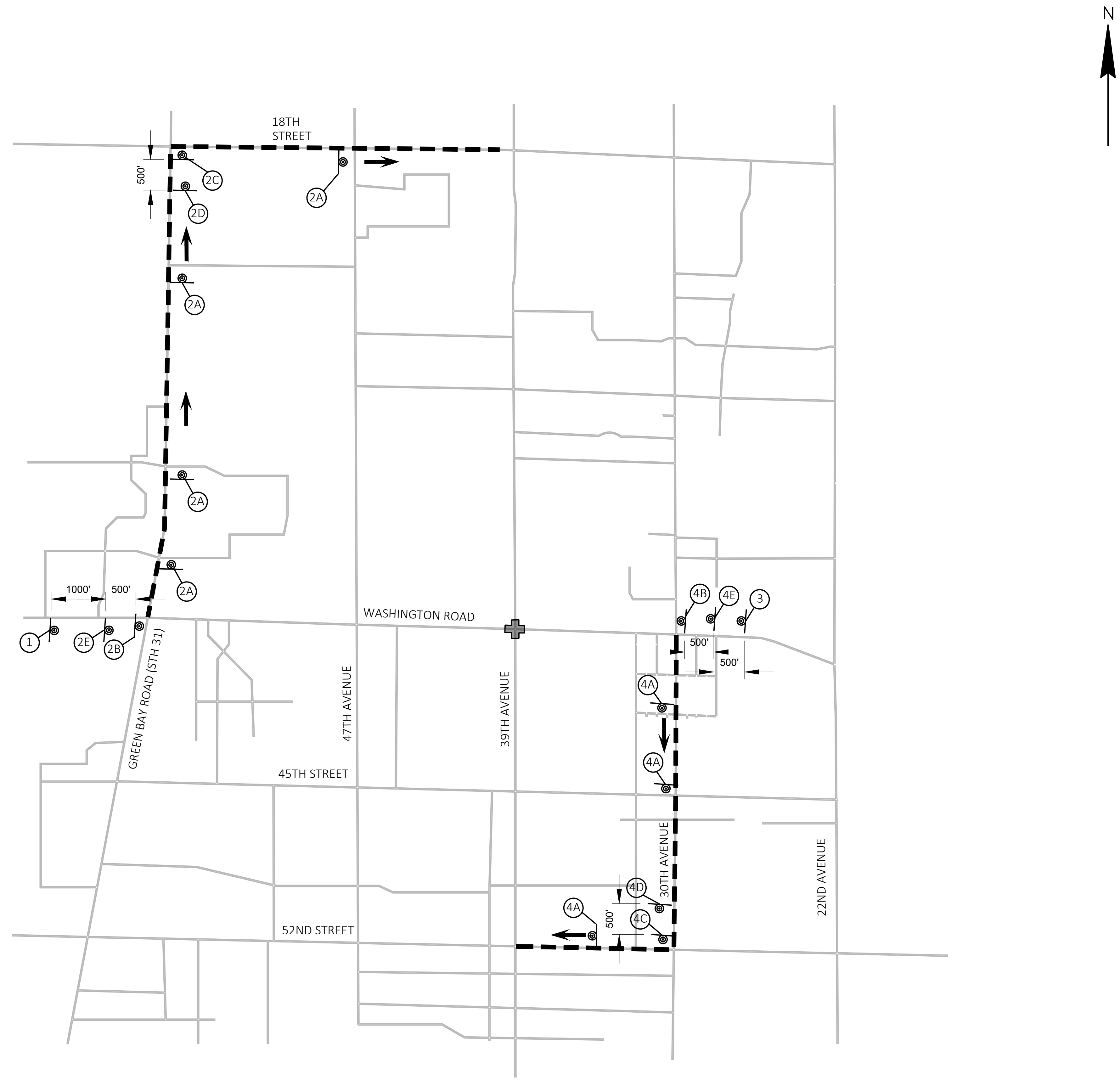
2

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | TRAFFIC CONTROL: STAGE 2 | SHEET 45 | E |
|---|---|---|---|---|---|

2

2



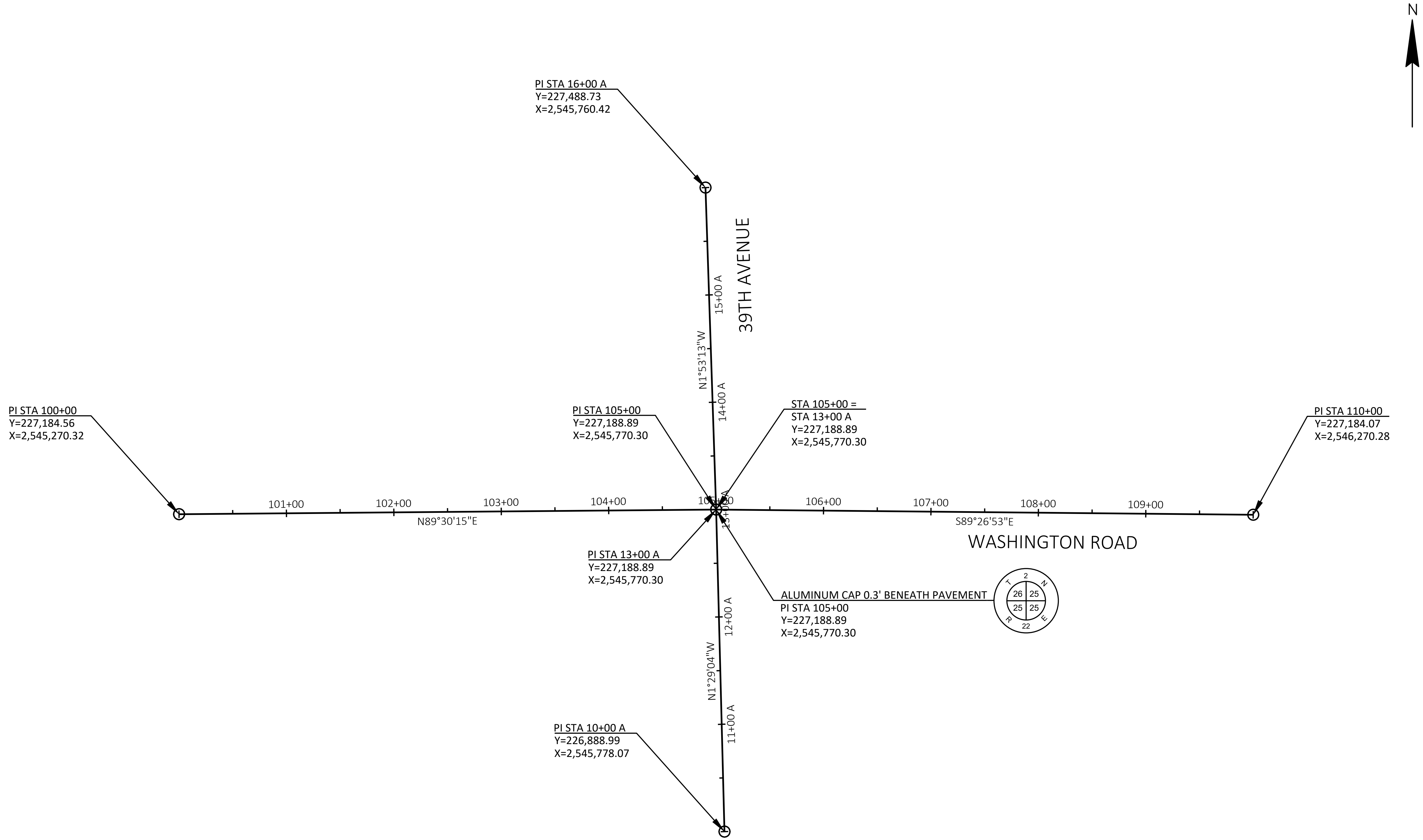

LEGEND

SIGN ON PERMANENT SUPPORT

DETOUR NOTES

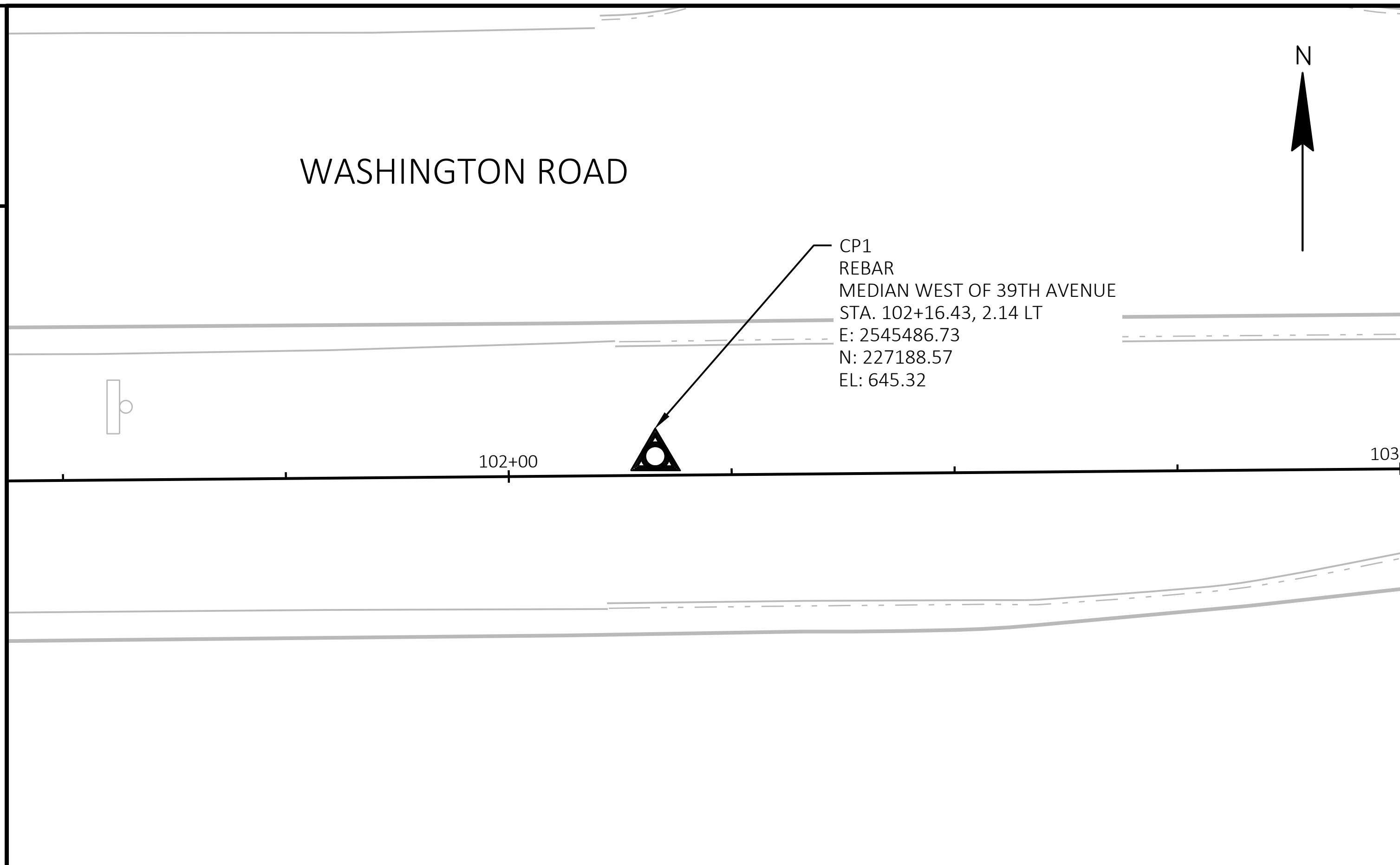
1. DETOUR ONLY FOR TRUCK EASTBOUND AND WESTBOUND LEFT-TURN MOVEMENTS.
2. COMBINE SIGN ASSEMBLY FOR NUMBER AND CALLOUTS AS SHOWN ON THE PLANS.
3. THE ERECTION AND PLACEMENT OF SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL.
4. SEE STANDARD DETAIL DETOUR SIGNING FOR MAINLINE CLOSURE FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
5. DIMENSION SHOWN ON PLAN ARE NOT TO SCALE.

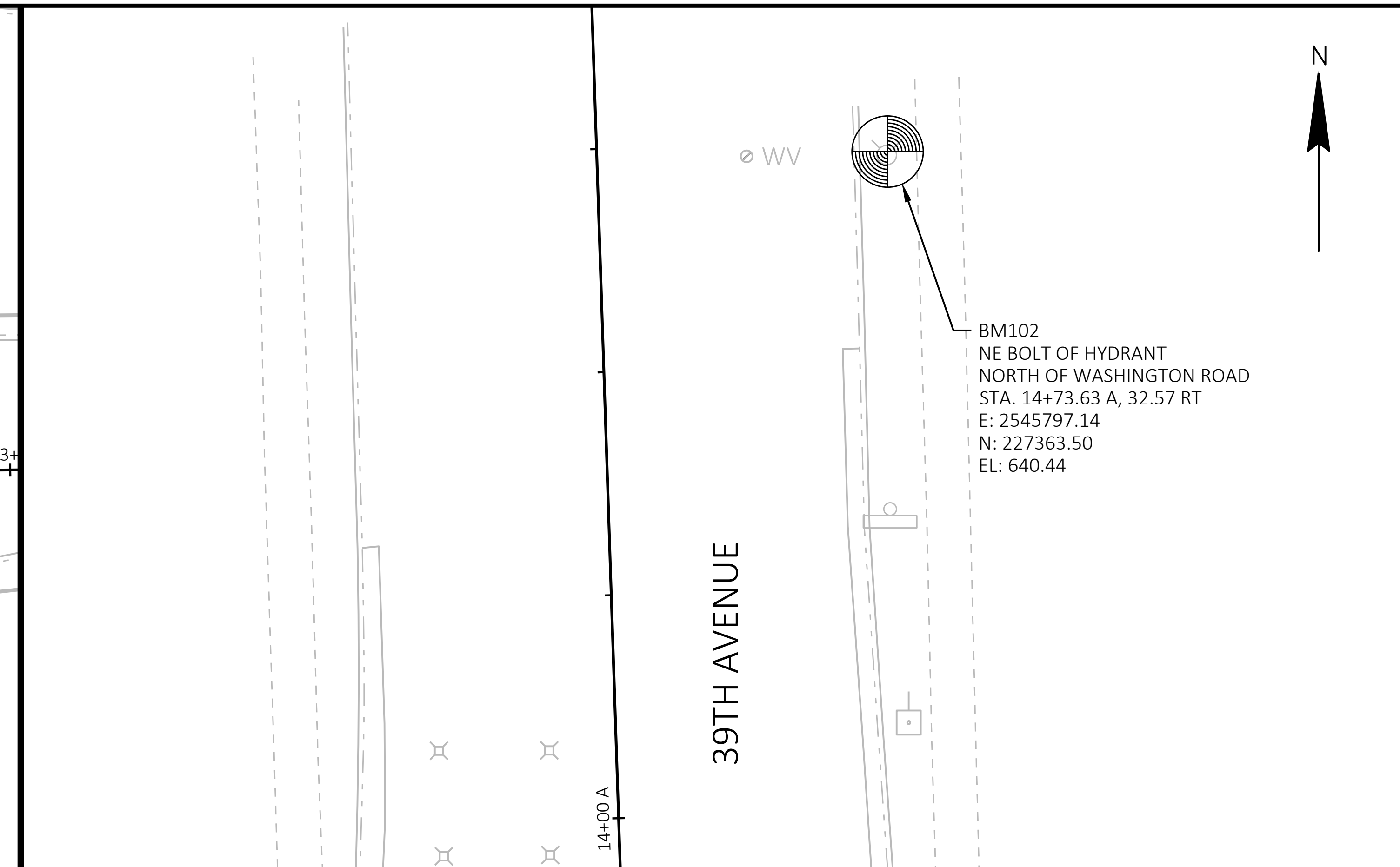
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | DETOUR | SHEET 46 | E |
|---|---|---|---|---|---|



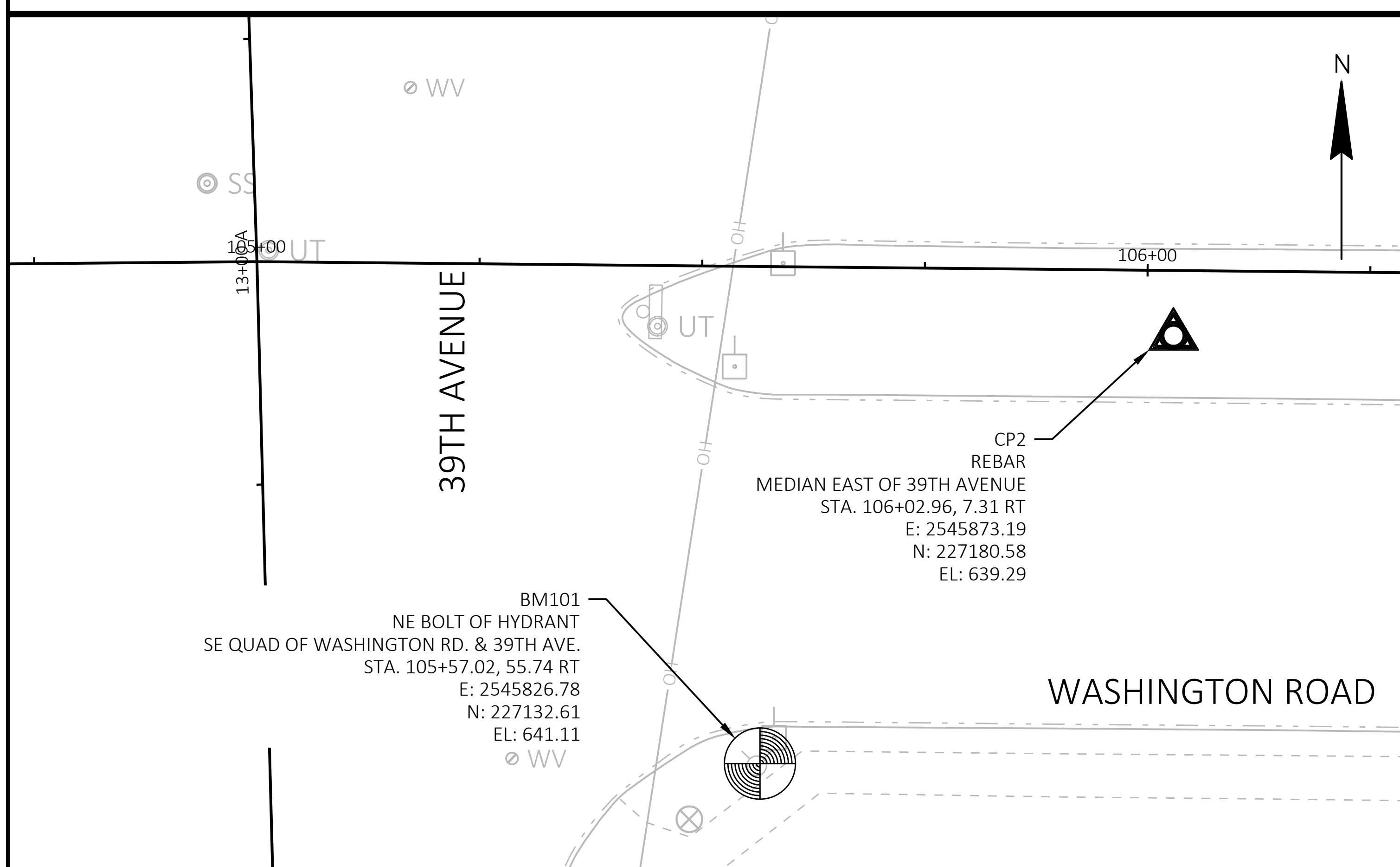

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | ALIGNMENT DETAIL | SHEET 47 E |

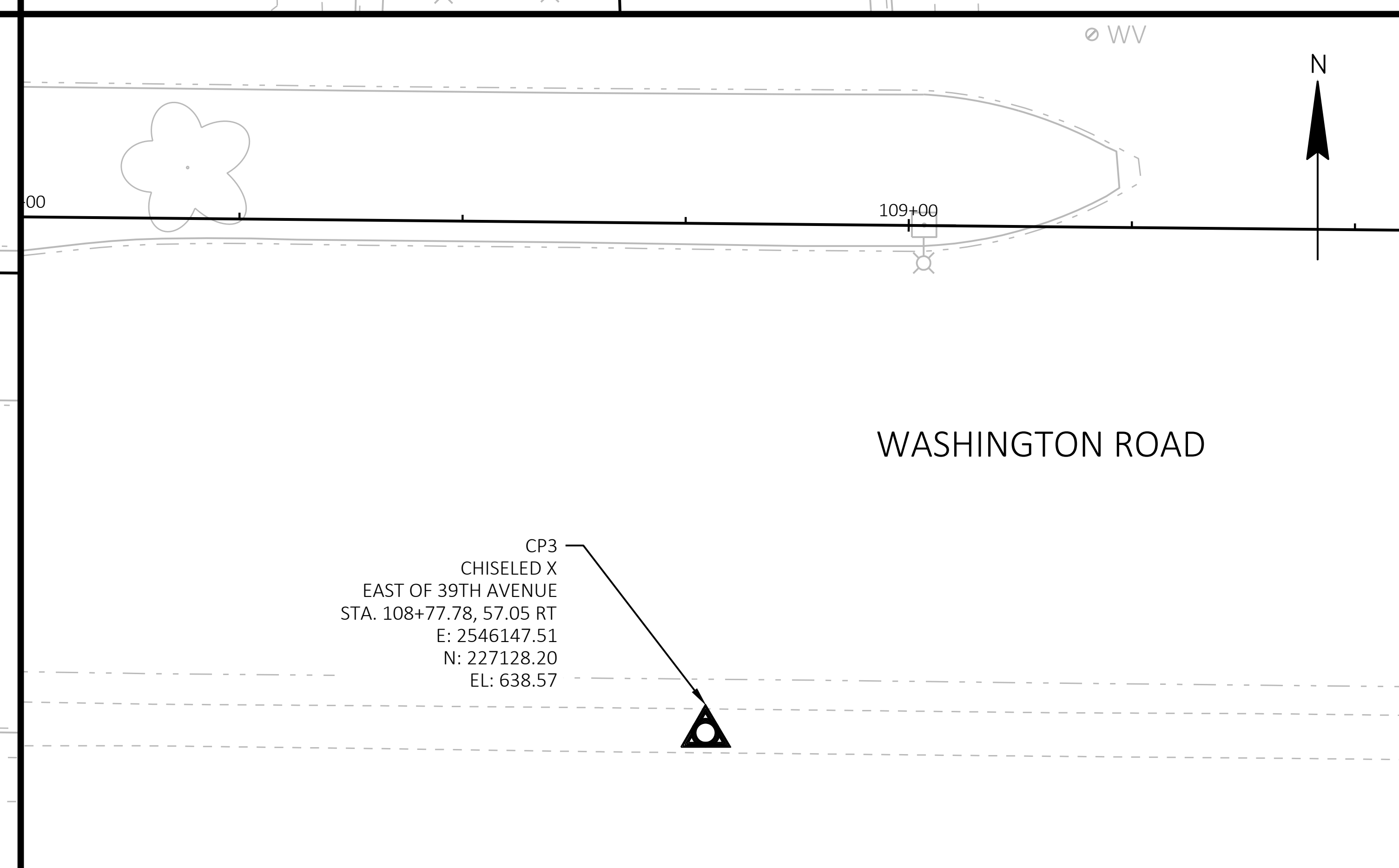
2




2




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | ALIGNMENT LAYOUT SURVEY CONTROL | SHEET 48 | E |
|---|---|---|---|---|---|

3831-07-72

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0002 | 204.0100 | Removing Concrete Pavement | SY | 937.000 | 937.000 |
| 0004 | 204.0120 | Removing Asphaltic Surface Milling | SY | 710.000 | 710.000 |
| 0006 | 204.0155 | Removing Concrete Sidewalk | SY | 145.000 | 145.000 |
| 0008 | 204.0195 | Removing Concrete Bases | EACH | 18.000 | 18.000 |
| 0010 | 204.0220 | Removing Inlets | EACH | 3.000 | 3.000 |
| 0012 | 204.0245 | Removing Storm Sewer (size) 01. 8-Inch | LF | 22.000 | 22.000 |
| 0014 | 204.0245 | Removing Storm Sewer (size) 02. 12-Inch | LF | 265.000 | 265.000 |
| 0016 | 204.9060.S | Removing (item description) 01. Street Light Poles | EACH | 4.000 | 4.000 |
| 0018 | 204.9060.S | Removing (item description) 02. Traffic Signals Washington Road & 39th Avenue | EACH | 1.000 | 1.000 |
| 0020 | 205.0100 | Excavation Common | CY | 1,602.000 | 1,602.000 |
| 0022 | 213.0100 | Finishing Roadway (project) 01. 3831-07-72 | EACH | 1.000 | 1.000 |
| 0024 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 1,830.000 | 1,830.000 |
| 0026 | 311.0110 | Breaker Run | TON | 1,075.000 | 1,075.000 |
| 0028 | 415.0080 | Concrete Pavement 8-Inch | SY | 985.000 | 985.000 |
| 0030 | 415.4100 | Concrete Pavement Joint Filling | SY | 1,290.000 | 1,290.000 |
| 0032 | 416.0610 | Drilled Tie Bars | EACH | 673.000 | 673.000 |
| 0034 | 416.0620 | Drilled Dowel Bars | EACH | 56.000 | 56.000 |
| 0036 | 455.0605 | Tack Coat | GAL | 90.000 | 90.000 |
| 0038 | 465.0105 | Asphaltic Surface | TON | 146.000 | 146.000 |
| 0040 | 520.8000 | Concrete Collars for Pipe | EACH | 10.000 | 10.000 |
| 0042 | 601.0409 | Concrete Curb & Gutter 30-Inch Type A | LF | 2,134.000 | 2,134.000 |
| 0044 | 602.0410 | Concrete Sidewalk 5-Inch | SF | 6,056.000 | 6,056.000 |
| 0046 | 602.0415 | Concrete Sidewalk 6-Inch | SF | 881.000 | 881.000 |
| 0048 | 602.0515 | Curb Ramp Detectable Warning Field Natural Patina | SF | 120.000 | 120.000 |
| 0050 | 608.0512 | Storm Sewer Pipe Reinforced Concrete Class V 12-Inch | LF | 264.000 | 264.000 |
| 0052 | 611.0535 | Manhole Covers Type J-Special | EACH | 2.000 | 2.000 |
| 0054 | 611.0624 | Inlet Covers Type H | EACH | 6.000 | 6.000 |
| 0056 | 611.0639 | Inlet Covers Type H-S | EACH | 1.000 | 1.000 |
| 0058 | 611.0645 | Inlet Covers Type MS-A | EACH | 2.000 | 2.000 |
| 0060 | 611.2004 | Manholes 4-FT Diameter | EACH | 2.000 | 2.000 |
| 0062 | 611.2005 | Manholes 5-FT Diameter | EACH | 1.000 | 1.000 |
| 0064 | 611.3004 | Inlets 4-FT Diameter | EACH | 5.000 | 5.000 |
| 0066 | 611.3230 | Inlets 2x3-FT | EACH | 1.000 | 1.000 |
| 0068 | 611.3902 | Inlets Median 2 Grate | EACH | 1.000 | 1.000 |
| 0070 | 611.8115 | Adjusting Inlet Covers | EACH | 4.000 | 4.000 |
| 0072 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 |
| 0074 | 620.0300 | Concrete Median Sloped Nose | SF | 159.000 | 159.000 |
| 0076 | 625.0100 | Topsoil | SY | 259.000 | 259.000 |
| 0078 | 628.1905 | Mobilizations Erosion Control | EACH | 5.000 | 5.000 |
| 0080 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 2.000 | 2.000 |
| 0082 | 628.7005 | Inlet Protection Type A | EACH | 12.000 | 12.000 |
| 0084 | 628.7015 | Inlet Protection Type C | EACH | 13.000 | 13.000 |
| 0086 | 628.7020 | Inlet Protection Type D | EACH | 1.000 | 1.000 |
| 0088 | 629.0210 | Fertilizer Type B | CWT | 0.200 | 0.200 |
| 0090 | 631.0300 | Sod Water | MGAL | 5.800 | 5.800 |
| 0092 | 631.1000 | Sod Lawn | SY | 259.000 | 259.000 |
| 0094 | 637.2210 | Signs Type II Reflective H | SF | 97.000 | 97.000 |
| 0096 | 637.2215 | Signs Type II Reflective H Folding | SF | 21.000 | 21.000 |
| 0098 | 637.2220 | Signs Type II Reflective SH | SF | 18.000 | 18.000 |

3831-07-72

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0100 | 637.2230 | Signs Type II Reflective F | SF | 18.000 | 18.000 |
| 0102 | 638.2102 | Moving Signs Type II | EACH | 1.000 | 1.000 |
| 0104 | 638.2602 | Removing Signs Type II | EACH | 8.000 | 8.000 |
| 0106 | 638.3000 | Removing Small Sign Supports | EACH | 6.000 | 6.000 |
| 0108 | 642.5001 | Field Office Type B | EACH | 1.000 | 1.000 |
| 0110 | 643.0300 | Traffic Control Drums | DAY | 4,521.000 | 4,521.000 |
| 0112 | 643.0410 | Traffic Control Barricades Type II | DAY | 104.000 | 104.000 |
| 0114 | 643.0420 | Traffic Control Barricades Type III | DAY | 552.000 | 552.000 |
| 0116 | 643.0705 | Traffic Control Warning Lights Type A | DAY | 1,104.000 | 1,104.000 |
| 0118 | 643.0715 | Traffic Control Warning Lights Type C | DAY | 873.000 | 873.000 |
| 0120 | 643.0800 | Traffic Control Arrow Boards | DAY | 24.000 | 24.000 |
| 0122 | 643.0900 | Traffic Control Signs | DAY | 4,491.000 | 4,491.000 |
| 0124 | 643.1050 | Traffic Control Signs PCMS | DAY | 28.000 | 28.000 |
| 0126 | 643.3150 | Temporary Marking Line Removable Tape 4-Inch | LF | 5,386.000 | 5,386.000 |
| 0128 | 643.3250 | Temporary Marking Line Removable Tape 8-Inch | LF | 459.000 | 459.000 |
| 0130 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 |
| 0132 | 644.1430 | Temporary Pedestrian Surface Plate | SF | 72.000 | 72.000 |
| 0134 | 644.1440 | Temporary Pedestrian Surface Matting | SF | 72.000 | 72.000 |
| 0136 | 644.1601 | Temporary Pedestrian Curb Ramp | DAY | 104.000 | 104.000 |
| 0138 | 644.1810 | Temporary Pedestrian Barricade | LF | 765.000 | 765.000 |
| 0140 | 645.0220 | Geogrid Type SR | SY | 460.000 | 460.000 |
| 0142 | 646.1020 | Marking Line Epoxy 4-Inch | LF | 1,993.000 | 1,993.000 |
| 0144 | 646.3020 | Marking Line Epoxy 8-Inch | LF | 695.000 | 695.000 |
| 0146 | 646.5020 | Marking Arrow Epoxy | EACH | 7.000 | 7.000 |
| 0148 | 646.5120 | Marking Word Epoxy | EACH | 3.000 | 3.000 |
| 0150 | 646.6120 | Marking Stop Line Epoxy 18-Inch | LF | 159.000 | 159.000 |
| 0152 | 646.7420 | Marking Crosswalk Epoxy Transverse Line 6-Inch | LF | 579.000 | 579.000 |
| 0154 | 646.8120 | Marking Curb Epoxy | LF | 172.000 | 172.000 |
| 0156 | 646.8220 | Marking Island Nose Epoxy | EACH | 7.000 | 7.000 |
| 0158 | 646.9000 | Marking Removal Line 4-Inch | LF | 737.000 | 737.000 |
| 0160 | 646.9200 | Marking Removal Line Wide | LF | 289.000 | 289.000 |
| 0162 | 650.4000 | Construction Staking Storm Sewer | EACH | 10.000 | 10.000 |
| 0164 | 650.4500 | Construction Staking Subgrade | LF | 881.000 | 881.000 |
| 0166 | 650.5500 | Construction Staking Curb Gutter and Curb & Gutter | LF | 848.000 | 848.000 |
| 0168 | 650.7000 | Construction Staking Concrete Pavement | LF | 881.000 | 881.000 |
| 0170 | 650.8501 | Construction Staking Electrical Installations (project) 01. 3831-07-72 | EACH | 1.000 | 1.000 |
| 0172 | 650.9000 | Construction Staking Curb Ramps | EACH | 10.000 | 10.000 |
| 0174 | 650.9911 | Construction Staking Supplemental Control (project) 01. 3831-07-72 | EACH | 1.000 | 1.000 |
| 0176 | 652.0225 | Conduit Rigid Nonmetallic Schedule 40 2-Inch | LF | 541.000 | 541.000 |
| 0178 | 652.0235 | Conduit Rigid Nonmetallic Schedule 40 3-Inch | LF | 831.000 | 831.000 |
| 0180 | 652.0615 | Conduit Special 3-Inch | LF | 1,077.000 | 1,077.000 |
| 0182 | 653.0140 | Pull Boxes Steel 24x42-Inch | EACH | 23.000 | 23.000 |
| 0184 | 653.0905 | Removing Pull Boxes | EACH | 9.000 | 9.000 |
| 0186 | 654.0101 | Concrete Bases Type 1 | EACH | 5.000 | 5.000 |
| 0188 | 654.0102 | Concrete Bases Type 2 | EACH | 1.000 | 1.000 |
| 0190 | 654.0105 | Concrete Bases Type 5 | EACH | 4.000 | 4.000 |
| 0192 | 654.0113 | Concrete Bases Type 13 | EACH | 1.000 | 1.000 |
| 0194 | 654.0120 | Concrete Bases Type 10-Special | EACH | 3.000 | 3.000 |
| 0196 | 654.0217 | Concrete Control Cabinet Bases Type 9 Special | EACH | 1.000 | 1.000 |

| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| | | | | | 3831-07-72 |
| 0198 | 654.0230 | Concrete Control Cabinet Bases Type L30 | EACH | 1.000 | 1.000 |
| 0200 | 655.0230 | Cable Traffic Signal 5-14 AWG | LF | 870.000 | 870.000 |
| 0202 | 655.0240 | Cable Traffic Signal 7-14 AWG | LF | 408.000 | 408.000 |
| 0204 | 655.0260 | Cable Traffic Signal 12-14 AWG | LF | 1,664.000 | 1,664.000 |
| 0206 | 655.0320 | Cable Type UF 2-10 AWG Grounded | LF | 605.000 | 605.000 |
| 0208 | 655.0515 | Electrical Wire Traffic Signals 10 AWG | LF | 1,364.000 | 1,364.000 |
| 0210 | 655.0610 | Electrical Wire Lighting 12 AWG | LF | 1,854.000 | 1,854.000 |
| 0212 | 655.0615 | Electrical Wire Lighting 10 AWG | LF | 332.000 | 332.000 |
| 0214 | 655.0630 | Electrical Wire Lighting 4 AWG | LF | 4,535.000 | 4,535.000 |
| 0216 | 655.0635 | Electrical Wire Lighting 2 AWG | LF | 30.000 | 30.000 |
| 0218 | 656.0201 | Electrical Service Meter Breaker Pedestal (location) 01. Washington Road & 39th Avenue | EACH | 1.000 | 1.000 |
| 0220 | 656.0201 | Electrical Service Meter Breaker Pedestal (location) 02. Lighting | EACH | 1.000 | 1.000 |
| 0222 | 657.0100 | Pedestal Bases | EACH | 5.000 | 5.000 |
| 0224 | 657.0255 | Transformer Bases Breakaway 11 1/2-Inch Bolt Circle | EACH | 5.000 | 5.000 |
| 0226 | 657.0310 | Poles Type 3 | EACH | 1.000 | 1.000 |
| 0228 | 657.0322 | Poles Type 5-Aluminum | EACH | 4.000 | 4.000 |
| 0230 | 657.0352 | Poles Type 10-Special | EACH | 3.000 | 3.000 |
| 0232 | 657.0360 | Poles Type 13 | EACH | 1.000 | 1.000 |
| 0234 | 657.0410 | Traffic Signal Standards Aluminum 9-FT | EACH | 2.000 | 2.000 |
| 0236 | 657.0420 | Traffic Signal Standards Aluminum 13-FT | EACH | 5.000 | 5.000 |
| 0238 | 657.0536 | Monotube Arms 35-FT-Special | EACH | 2.000 | 2.000 |
| 0240 | 657.0546 | Monotube Arms 45-FT-Special | EACH | 1.000 | 1.000 |
| 0242 | 657.0550 | Monotube Arms 50-FT | EACH | 1.000 | 1.000 |
| 0244 | 657.0614 | Luminaire Arms Single Member 4-Inch Clamp 8-FT | EACH | 1.000 | 1.000 |
| 0246 | 657.0615 | Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT | EACH | 8.000 | 8.000 |
| 0248 | 657.0808 | Luminaire Arms Steel 8-FT | EACH | 5.000 | 5.000 |
| 0250 | 658.0173 | Traffic Signal Face 3S 12-Inch | EACH | 12.000 | 12.000 |
| 0252 | 658.0174 | Traffic Signal Face 4S 12-Inch | EACH | 8.000 | 8.000 |
| 0254 | 658.0416 | Pedestrian Signal Face 16-Inch | EACH | 8.000 | 8.000 |
| 0256 | 658.0500 | Pedestrian Push Buttons | EACH | 10.000 | 10.000 |
| 0258 | 658.5070 | Signal Mounting Hardware (location) 01. Washington Road & 39th Avenue | EACH | 1.000 | 1.000 |
| 0260 | 659.2130 | Lighting Control Cabinets 120/240 30-Inch | EACH | 1.000 | 1.000 |
| 0262 | 661.0201 | Temporary Traffic Signals for Intersections (location) 01. Washington Road & 39th Avenue | EACH | 1.000 | 1.000 |
| 0264 | 690.0250 | Sawing Concrete | LF | 1,675.000 | 1,675.000 |
| 0266 | 715.0720 | Incentive Compressive Strength Concrete Pavement | DOL | 500.000 | 500.000 |
| 0268 | ASP.1T0A | On-the-Job Training Apprentice at $5.00/HR | HRS | 400.000 | 400.000 |
| 0270 | ASP.1T0G | On-the-Job Training Graduate at $5.00/HR | HRS | 250.000 | 250.000 |
| 0272 | SPV.0060 | Special 02. Traffic Signal Cabinet and Controller, Washington Road & 39th Avenue | EACH | 1.000 | 1.000 |
| 0274 | SPV.0060 | Special 03. Radar Sensor System, Washington Road & 39th Avenue | EACH | 1.000 | 1.000 |
| 0276 | SPV.0060 | Special 04. Emergency Vehicle Preemption | EACH | 1.000 | 1.000 |
| 0278 | SPV.0060 | Special 05. 2-3/8-Inch OD, 16 Gauge, 12-Foot Galvanized Steel Poles | EACH | 10.000 | 10.000 |
| 0280 | SPV.0060 | Special 06. 30-Inch Round V-Loc | EACH | 10.000 | 10.000 |
| 0282 | SPV.0060 | Special 07. 2-3/8-Inch Z-Bracket, Single Sided, Round, Pair | EACH | 10.000 | 10.000 |
| 0284 | SPV.0060 | Special 08. Salvage And Reinstall City Owned Bus Route Sign | EACH | 1.000 | 1.000 |
| 0286 | SPV.0060 | Special 09. Utility Line Opening (ULO) | EACH | 4.000 | 4.000 |
| 0288 | SPV.0060 | Special 10. Luminaires Utility LED 96 Watts | EACH | 15.000 | 15.000 |
| 0290 | SPV.0060 | Special 11. Section Corner Monuments Special | EACH | 1.000 | 1.000 |

3

## REMOVING CONCRETE PAVEMENT

| CATEGORY | STATION - STATION | 204.0100 SY |
|---|---|---|
| 0010 | 100+44 - 105+00 | 393 |
| | 105+00 - 109+25 | 543 |
| | TOTAL | 937 |

## EARTHWORK SUMMARY

| CATEGORY | LOCATION | STA TO STA | ( C ) CUT CY | ( E ) UNDISTRIBUTED EBS EXCAVATION CY | ( 2 ) 205.0100 EXCAVATION COMMON CY | ( S ) SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY | ( 4 ) AVAILABLE MATERIAL CY | ( 5 ) 0% REDUCED EBS IN FILL CY | ( 6 ) 130.0% EXPANDED EBS BACKFILL CY | UNEXPANDED FILL CY | ( 7 ) 100.0% UNDISTRIBUTED 311.0110 BREAKER RUN TON** | ( 8 ) * 130.00% EXPANDED FILL CY | ( 9 ) MASS ORDINATE EXCESS (SHORTAGE) CY | ( 10 ) 208.0100 BORROW CY | WASTE CY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD | 100+44 - 105+00 | 532 | 242 | 774 | 131 | 401 | -- | 315 | 18 | 566 | 24 | 377 | -- | -- |
| | & 39TH AVENUE | 105+00 - 109+25 | 610 | 218 | 828 | 196 | 414 | -- | 283 | 19 | 509 | 25 | 389 | -- | -- |
| | GRAND TOTAL | | 1,142 | 460 | 1,602 | 327 | 815 | -- | 597 | 37 | 1,075 | 49 | 766 | -- | 766 |

NOTES

1) UNDISTRIBUTED EBS EXCAVATION ( E ) = 50% OF CUT AREA UNDER TRAVEL LANE
2) EXCAVATION COMMON IS THE SUM OF THE CUT ( C ).
3) EBS EXCAVATION ( E ) TO BE BACKFILLED WITH BREAKER RUN.
4) AVAILABLE MATERIAL = CUT ( C ) - ( S ).
5) SOILS REMOVED AS EBS MUST BE WASTED OFFSITE AND NOT REUSED AS FILL.
6) EXPANDED EBS BACKFILL. THIS IS TO BE FILLED WITH BREAKER RUN. EBS EXPANSION FACTOR 1.30.
7) UNDISTRIBUTED QUANTITY OF BREAKER RUN USED TO FILL EBS.
8) EXPANDED FILL = {UNEXPANDED FILL * 130% FILL FACTOR}.
9) MASS ORDINATE =AVAILABLE MATERIAL ( 5 ) - EXPANDED FILL ( 10 ) = BORROW AND SELECT BORROW OR WASTE
10) BORROW = MASS ORDINATE (SHORTAGE) - SELECT BORROW

* FILL EXPANSION FACTOR = 1.30
** CY TO TON CONVERSION FACTOR = 1.80 TON/CY

## REMOVING ASPHALTIC SURFACE MILLING

| CATEGORY | STAGE | STATION - STATION | 204.0120 SY |
|---|---|---|---|
| 0010 | Prestage 1 | 97+41 - 100+44 | 510 |
| | 1 & 2 | 100+44 - 105+00 | 300 |
| | 1 & 2 | 105+00 109+25 | 410 |
| | | TOTAL | 710 |

## REMOVING CONCRETE SIDEWALK

| CATEGORY | STATION - STATION | 204.0155 SY |
|---|---|---|
| 0010 | 104+00 - 106+00 | 145 |

## REMOVING STORM SEWER SUMMARY

| CATEGORY | 204.0220 REMOVING INLETS EACH | 204.0245 REMOVING STORM SEWER 01. 8-INCH LF | 204.0245 REMOVING STORM SEWER 02. 12-INCH LF | 611.8115 ADJUSTING INLET COVERS EACH |
|---|---|---|---|---|
| 0010 | 3 | 22 | 265 | 4 |

## CONCRETE PAVEMENT ITEMS

| CATEGORY | STATION - STATION | LOCATION | 415.0080 CONCRETE PAVEMENT 8-INCH SY | 415.4100 CONCRETE PAVEMENT JOINT FILLING SY |
|---|---|---|---|---|
| 0010 | 100+00 - 105+00 | LT/RT | 529 | 684 |
| | 105+00 - 110+00 | LT/RT | 456 | 606 |
| | | TOTALS | 985 | 1,290 |

## REMOVING CONCRETE BASES

| CATEGORY | INTERSECTION | BASE NO. | STATION | LOCATION | 204.0195 EACH |
|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH STREET | EXSB1 | 105+39 | 66 LT | 1 |
| | | EXSB2 | 13+77 A | 32 RT | 1 |
| | | EXSB3 | 13+76 A | 33 LT | 1 |
| | | EXSB4 | 104+39 | 54 LT | 1 |
| | | EXSB5 | 104+40 | 12 LT | 1 |
| | | EXSB6 | 104+39 | 1 LT | 1 |
| | | EXSB7 | 104+45 | 54 RT | 1 |
| | | EXSB8 | 12+28 A | 33 LT | 1 |
| | | EXSB9 | 12+17 A | 33 RT | 1 |
| | | EXSB10 | 105+49 | 62 RT | 1 |
| | | EXSB11 | 105+59 | 53 RT | 1 |
| | | EXSB12 | 105+53 | 11 RT | 1 |
| | | EXSB13 | 105+59 | 1 LT | 1 |
| | | EXSB14 | 105+61 | 53 LT | 1 |
| | | EXLP | 103+39 | 1 LT | 1 |
| | | EXLP | 106+62 | 0 RT | 1 |
| | | EXLP | 107+82 | 0 RT | 1 |
| | | EXLP | 109+02 | 0 RT | 1 |
| | | | | TOTAL | 18 |

## REMOVING STREET LIGHT POLES

| CATEGORY | INTERSECTION | BASE NO. | STATION | LOCATION | 204.9060.S.01 EACH |
|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH STREET | EXLP | 103+39 | 1 LT | 1 |
| | | EXLP | 106+62 | 0 RT | 1 |
| | | EXLP | 107+82 | 0 RT | 1 |
| | | EXLP | 109+02 | 0 RT | 1 |
| | | | | TOTAL | 4 |

## PAVEMENT BARS

| CATEGORY | STATION - STATION | LOCATION | 416.0610 DRILLED TIE BARS EACH | 416.0620 DRILLED DOWEL BARS EACH |
|---|---|---|---|---|
| 0010 | 100+44 - 105+00 | LT & RT | 253 | 28 |
| | 105+00 - 109+25 | LT & RT | 352 | 28 |
| | TOTALS | | 673 | 56 |

## BASE AGGREGATE DENSE

| CATEGORY | STATION - STATION | 305.0120 1 1/4-INCH TON |
|---|---|---|
| 0010 | 100+44 - 105+00 | 710 |
| | 105+00 - 109+25 | 880 |
| | 15% Undistributed | 240 |
| | TOTAL | 1,830 |

## ASPHALTIC ITEMS

| CATEGORY | STATION - STATION | 465.0105 ASPHALTIC SURFACE TON | 455.0605 TACK COAT GAL |
|---|---|---|---|
| 0010 | 97+41 - 100+44 | 60 | 40 |
| | 100+44 - 105+00 | 36 | 20 |
| | 105+00 - 109+25 | 50 | 30 |
| | TOTALS | 146 | 90 |

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## CONCRETE CURB & GUTTER ITEMS

| CATEGORY | STATION - STATION | | | 601.0409 30-INCH TYPE A LF |
|---|---|---|---|---|
| 0010 | 100+00 | - | 105+00 | 894 |
| | 105+00 | | 110+00 | 1,240 |
| | | | TOTAL | 2,134 |

## SIDEWALK ITEMS

| CATEGORY | STATION | - | STATION | 602.0410 CONCRETE SIDEWALK 5-INCH SF | 602.0415 CONCRETE SIDEWALK 6-INCH SF | 602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF |
|---|---|---|---|---|---|---|
| 0010 | 100+00 | - | 105+00 | 1,750 | 455 | 60 |
| | 105+00 | | 109+25 | 4,306 | 426 | 60 |
| | TOTALS | | | 6,056 | 881 | 120 |

## STORM SEWER SUMMARY

| CATEGORY | FROM STRUCTURE | TO STRUCTURE | 608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH LF | 520.8000 CONCRETE COLLARS FOR PIPE EACH |
|---|---|---|---|---|
| 0010 | INL 1 | INL 2 | 56 | 1 |
| | INL 2 | INL 3 | 15 | --- |
| | INL 3 | INL 4 | 55 | 1 |
| | INL 4 | INL 7 | 67 | 1 |
| | INL 5 | INL 6 | 20 | 1 |
| | INL 6 | INL 7 | 15 | --- |
| | INL 7 | MH 1 | 19 | --- |
| | MH 1 | - | --- | 2 |
| | INL 9 | MH 2 | 17 | --- |
| | MH 2 | - | --- | 4 |
| | TOTALS | | 264 | 10 |

## CONCRETE MEDIAN SLOPED NOSE

| CATEGORY | STATION | LOCATION | 620.0300 SF | REMARKS |
|---|---|---|---|---|
| 0010 | 102+98 | 12.9 RT | 19 | TYPE 1 |
| | 104+33 | 11 LT | 11 | TYPE 1 |
| | 104+55 | 11 RT | 36 | TYPE 1 |
| | 105+46 | 10 LT | 39 | TYPE 1 |
| | 105+69 | 12 RT | 11 | TYPE 1 |
| | 107+59 | 13 LT | 19 | TYPE 1 |
| | 109+18 | 6 LT | 24 | TYPE 1 |
| | TOTAL | | 159 | |

## STORM SEWER ITEMS

| CATEGORY | STRUCT. ID# | STATION | OFFSET | 611.2004 MANHOLES 4-FT DIAMETER EACH | 611.2005 MANHOLES 5-FT DIAMETER EACH | 611.3004 INLETS 4-FT DIAMETER EACH | 611.3230 INLETS 2X3-FT EACH | 611.0535 MANHOLE COVERS TYPE J-S SPECIAL EACH | 611.0624 INLET COVERS TYPE H EACH | 611.0639 INLET COVERS TYPE H-S EACH | 611.0645 INLET COVERS TYPE MS-A EACH | 611.3902 INLETS MEDIAN 2 GRATE EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | INL 1 | 102+50.00 | 6.841 ' LT | --- | --- | --- | --- | --- | --- | --- | 2 | 1 |
| | INL 2 | 103+05.61 | 5.409 ' LT | --- | --- | 1 | --- | --- | 1 | --- | --- | --- |
| | INL 3 | 103+06.82 | 9.547 ' RT | --- | --- | 1 | --- | --- | 1 | --- | --- | --- |
| | INL 4 | 103+58.51 | 9.5 ' LT | --- | 1 | --- | --- | --- | 1 | --- | --- | --- |
| | INL 5 | 104+43.18 | 15.499 ' RT | --- | --- | 1 | --- | --- | 1 | --- | --- | --- |
| | INL 6 | 104+25.51 | 5.5 ' RT | --- | --- | 1 | --- | --- | 1 | --- | --- | --- |
| | INL 7 | 104+25.48 | 9.5 ' LT | --- | --- | 1 | --- | --- | 1 | --- | --- | --- |
| | MH 1 | 104+43.83 | 3.266 ' LT | 1 | --- | --- | --- | 1 | --- | --- | --- | --- |
| | INL 9 | 107+67.15 | 3.942 ' RT | --- | --- | --- | 1 | --- | --- | 1 | --- | --- |
| | MH 2 | 107+50.28 | 2.947 ' RT | 1 | --- | --- | --- | 1 | --- | --- | --- | --- |
| | | | TOTALS | 2 | 1 | 5 | 1 | 2 | 6 | 1 | 2 | 1 |

## MOBILIZATIONS EROSION CONTROL

| CATEGORY | STATION - STATION | 628.1905 EACH |
|---|---|---|
| 0010 | 100+44 - 109+25 | 5 |

## MOBILIZATIONS EMERGENCY EROSION CONTROL

| CATEGORY | STATION - STATION | 628.1910 EACH |
|---|---|---|
| 0010 | 100+44 - 109+25 | 2 |

## INLET PROTECTION

| CATEGORY | STATION - STATION | LOCATION | 628.7005 INLET PROTECTION TYPE A EACH | 628.7015 INLET PROTECTION TYPE C EACH | 628.7020 INLET PROTECTION TYPE D EACH |
|---|---|---|---|---|---|
| 0010 | 100+44 - 109+25 | LT/RT | 12 | 13 | 1 |

## FINISHING ITEMS

| CATEGORY | STATION - STATION | LOCATION | 625.0100 TOPSOIL SY | 629.0210 FERTILIZER TYPE B CWT | 631.0300 SOD WATER MGAL | 631.1000 SOD LAWN SY |
|---|---|---|---|---|---|---|
| 0010 | 100+44 - 109+25 | LT/RT | 259 | 0.2 | 5.8 | 259 |

## PERMANENT SIGNING SUMMARY

| CATEGORY | SIGN NO. | SIGN CODE | SIGN MESSAGE | SIGN SIZE (W x H) IN | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 637.2220 SIGNS TYPE II REFLECTIVE SH SF | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH | 638.2102 MOVING SIGNS TYPE II EACH | SPV.0060.05 2-3/8-INCH OD, 16 GAUGE, 12-FOOT GALVANIZED STEEL POLES EACH | SPV.0060.06 30-INCH ROUND V-LOC EACH | SPV.0060.07 2-3/8-INCH Z-BRACKET, SINGLE SIDED, ROUND, PAIR EACH | SPV 0060.08 SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGN EACH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | E100 | S4-51 | SCHOOL SPEED LIMIT | 36 x 72 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | --- | |
| | 101 | S4-51 | SCHOOL SPEED LIMIT | 36 72 | --- | --- | --- | 18.00 | --- | --- | --- | 1 | 1 | 1 | --- | |
| | E102 | | NO CELL PHONE | --- x --- | --- | --- | --- | --- | --- | --- | 1 | --- | --- | --- | --- | MOVING SIGN TYPE II REQ'D, MOUNTED WITH 101 |
| | 103 | R4-7 | KEEP RIGHT | 24 x 30 | 5.00 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | E104 | R4-7 | KEEP RIGHT | 24 x 30 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | --- | |
| | 105 | R1-1F | STOP (FOLDING) | 30 x 30 | --- | 5.18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON PROPOSED SIGNAL POLE |
| | 106 | M1-94H | 39TH AVE | 48 x 18 | 6.00 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON SIGNAL MAST ARM |
| | 107 | R1-1F | STOP (FOLDING) | 30 x 30 | --- | 5.18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON PROPOSED SIGNAL POLE |
| | 108 | M1-94H | WASHINGTON RD | 84 x 18 | 10.50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON SIGNAL MAST ARM |
| | 109 | M1-94H | WASHINGTON RD | 84 x 18 | 10.50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON SIGNAL MAST ARM |
| | 110 | R1-1F | STOP (FOLDING) | 30 x 30 | --- | 5.18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON PROPOSED SIGNAL POLE |
| | E111 | | NO PARKING SYMBOL | 24 x 24 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | --- | --- | ESTR |
| | E112 | R4-7 | KEEP RIGHT | 24 x 30 | 5.00 | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | --- | |
| | 113 | M1-94H | 39TH AVE | 48 x 18 | 6.00 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON SIGNAL MAST ARM |
| | 114 | R1-1F | STOP (FOLDING) | 30 x 30 | --- | 5.18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNT ON PROPOSED SIGNAL POLE |
| | 115 | R4-7 | KEEP RIGHT | 24 x 30 | 5.00 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | E116 | | NO PARKING SYMBOL | 24 x 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ESTR |
| | E117 | R2-1 | SPEED LIMIT_ MPH | 24 x 30 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | --- | |
| | E118 | | NO PARKING SYMBOL | 24 x 24 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | --- | --- | |
| | 119 | R2-1 | SPEED LIMIT_ MPH | 24 x 30 | 5.00 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | 120 | | NO PARKING SYMBOL | 24 x 24 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | MOUNTED WITH 119 |
| | E121 | | BUS STOP | --- x --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1 | ESTR MOUNTED WITH 119 |
| | 122 | W3-3 | SIGNAL AHEAD | 36 x 36 | --- | --- | 9.00 | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | 123 | W3-3 | SIGNAL AHEAD | 36 x 36 | --- | --- | 9.00 | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | 124 | R3-20L | BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW | 36 x 54 | 13.50 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | E125 | R2-1 | SPEED LIMIT_ MPH | 36 x 48 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | --- | |
| | E126 | R2-1 | SPEED LIMIT_ MPH | 36 x 48 | --- | --- | --- | --- | 1 | 1 | --- | --- | --- | --- | --- | |
| | 127 | R2-1 | SPEED LIMIT_ MPH | 36 x 48 | 12.00 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | 128 | R2-1 | SPEED LIMIT_ MPH | 36 x 48 | 12.00 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | 129 | R3-20L | BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW | 24 x 36 | 6.00 | --- | --- | --- | --- | --- | --- | 1 | 1 | 1 | --- | |
| | | | | TOTALS | 97 | 21 | 18 | 18 | 8 | 6 | 1 | 10 | 10 | 10 | 1 | |

## FIELD OFFICE TYPE B

| CATEGORY | PROJECT | 642.5001 EACH |
|---|---|---|
| 0010 | 3831-07-72 | 1 |

## TRAFFIC CONTROL

| CATEGORY | PROJECT | 643.5000 EACH |
|---|---|---|
| 0010 | 3831-07-72 | 1 |

## TRAFFIC CONTROL AND DETOUR ITEMS

| CATEGORY | Stage | 643.0300 TRAFFIC CONTROL DRUMS DAY | 643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY | 643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY | 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY | 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY | 643.0800 TRAFFIC CONTROL ARROW BOARDS DAY | 643.0900 TRAFFIC CONTROL SIGNS DAY | 643.1050 TRAFFIC CONTROL SIGNS PCMS DAY |
|---|---|---|---|---|---|---|---|---|---|
| 0010 | PRE STAGE 1 | 68 | --- | 22 | 44 | 38 | 2 | 26 | 7 |
| | Stage 1 | 3,036 | --- | 374 | 748 | 484 | 22 | 3,828 | 21 |
| | Stage 2 | 1,417 | 104 | 156 | 312 | 351 | --- | 637 | --- |
| | | 4,521 | 104 | 552 | 1,104 | 873 | 24 | 4,491 | 28 |

## TEMPORARY PEDESTRIAN ACCOMODATIONS

| CATEGORY | Stage | 644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF | 644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF | 644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY | 644.1810 TEMPORARY PEDESTRIAN BARRICADE LF |
|---|---|---|---|---|---|
| 0010 | 2 | 72 | 72 | 104 | 765 |



3

3

## TEMPORARY PAVEMENT MARKING ITEMS

| CATEGORY | STATION | 643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF | 643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF |
|---|---|---|---|
| 0010 | PRE Stage 1 | 1,552 | --- |
| | Stage 1 | 3,831 | 459 |
| | Stage 2 | 1,555 | --- |
| | TOTALS | 5,386 | 459 |

## CONSTRUCTION STAKING

| CATEGORY | STATION - STATION | 650.4000 STORM SEWER EACH | 650.4500 SUBGRADE LF | 650.5500 CURB GUTTER AND CURB & GUTTER LF | 650.7000 CONCRETE PAVEMENT LF | 650.8501 ELECTRICAL INSTALLATIONS (ID 3831-07-72) EACH | 650.9000 CURB RAMPS EACH | 650.9911 SUPPLEMENTAL CONTROL (ID 3831-07-72) EACH |
|---|---|---|---|---|---|---|---|---|
| 0010 | 100+44 - 109+25 | 10 | 881 | 848 | 881 | 1 | 10 | 1 |

## TRAFFIC SIGNAL CONDUIT SUMMARY

| CATEGORY | INTERSECTION | FROM | TO | 652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0615* CONDUIT SPECIAL 3-INCH LF |
|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | CB1 | PB1 | -- | 15 | -- |
| | | PB1 | PB2 | -- | 76 | 72 |
| | | PB2 | PB3 | -- | -- | 90 |
| | | PB3 | PB4 | -- | 90 | -- |
| | | PB4 | PB5 | -- | -- | 130 |
| | | PB5 | PB6 | -- | 86 | -- |
| | | PB6 | PB7 | -- | 52 | 72 |
| | | PB7 | PB8 | -- | -- | 88 |
| | | PB8 | PB9 | -- | 96 | -- |
| | | PB9 | PB10 | -- | -- | 135 |
| | | PB10 | PB11 | -- | 48 | -- |
| | | PB11 | CB1 | 12 | 18 | -- |
| | | PB11 | SB1 | 7 | -- | -- |
| | | PB2 | SB2 | -- | -- | -- |
| | | PB3 | SB3 | 8 | -- | -- |
| | | PB4 | SB4 | -- | 4 | -- |
| | | PB5 | SB5 | 6 | -- | -- |
| | | PB6 | SB6 | 11 | -- | -- |
| | | PB7 | SB7 | -- | 9 | -- |
| | | PB8 | SB8 | 13 | -- | -- |
| | | PB9 | SB9 | -- | 5 | -- |
| | | PB10 | SB10 | 4 | -- | -- |
| | | | TOTALS | 61 | 499 | 587 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

## GEOGRID TYPE SR

| CATEGORY | PROJECT | 645.0220 SY | NOTES |
|---|---|---|---|
| 0010 | 3831-07-72 | 460 | UNDISTRIBUTED |

## MARKING REMOVAL LINE

| CATEGORY | STAGE | 646.9000 4-INCH LF | 646.9200 WIDE LF |
|---|---|---|---|
| 0010 | PRE STAGE 1 | 716 | --- |
| | 1 | 500 | --- |
| | 2 | 237 | 289 |
| | TOTAL | 737 | 289 |

## PERMANENT PAVEMENT MARKING ITEMS

| CATEGORY | STATION - STATION | 646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF | 646.1020 MARKING LINE EPOXY 4-INCH WHITE SKIP 12.5-FOOT SEG. 37.5-FOOT GAP LF | 646.3020 MARKING LINE EPOXY 8-INCH WHITE LF | 646.5020 MARKING ARROW EPOXY EACH | 646.5120 MARKING WORD EPOXY EACH | 646.6120 MARKING STOP LINE EPOXY 18-INCH LF | 646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF | 646.8120 MARKING CURB EPOXY LF | 646.8220 MARKING ISLAND NOSE EPOXY EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | 100+44 - 104+60 | 394 | 182 | 249 | 2 | 1 | 46 | 174 | 58 | 3 |
| | 105+35 - 110+00 | 331 | 313 | 250 | 2 | 1 | 44 | 169 | 114 | 4 |
| | 11+00 A - 15+00 A | 438 | 335 | 196 | 3 | 1 | 69 | 236 | --- | --- |
| | TOTALS | 1,993 | | 695 | 7 | 3 | 159 | 579 | 172 | 7 |

3

## TRAFFIC SIGNAL PULL BOX SUMMARY

| CATEGORY | INTERSECTION | PULL BOX NO. | LOCATION** STATION | LOCATION** OFFSET | 653.0140* PULL BOXES STEEL 24X42-INCH EACH |
|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | PB1 | 104+36.3 | 65.6 LT | 1 |
| | | PB2 | 104+36.9 | 8.4 RT | 1 |
| | | PB3 | 104+37.2 | 53.2 RT | 1 |
| | | PB4 | 12+23.4 A | 31.8 LT | 1 |
| | | PB5 | 12+22.0 A | 32.5 RT | 1 |
| | | PB6 | 105+66.05 | 53.1 RT | 1 |
| | | PB7 | 105+66.7 | 9.4 LT | 1 |
| | | PB8 | 105+66.9 | 53.1 LT | 1 |
| | | PB9 | 13+79.6 A | 32.6 RT | 1 |
| | | PB10 | 13+79.7 A | 34.4 LT | 1 |
| | | PB11 | 104+43.6 | 65.6 LT | 1 |
| | | | | TOTAL | 11 |

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

## REMOVING PULL BOXES

| CATEGORY | | PULL BOX NO. | STATION | LOCATION | 653.0905 EACH |
|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | EXPB1 | 105+44.2 | 60.6 LT | 1 |
| | | EXPB2 | 13+81.1 A | 32.9 RT | 1 |
| | | EXPB3 | 13+82.9 A | 33.2 LT | 1 |
| | | EXPB4 | 104+53.8 | 59.8 LT | 1 |
| | | EXPB5 | 104+53.6 | 6.4 LT | 1 |
| | | EXPB6 | 104+54.5 | 57 RT | 1 |
| | | EXPB7 | 12+35.6 A | 36.4 LT | 1 |
| | | EXPB8 | 105+47.2 | 58.0 RT | 1 |
| | | EXPB9 | 105+45.5 | 6.7 RT | 1 |
| | | | | TOTAL | 9 |

## CONCRETE BASES

| CATEGORY | INTERSECTION | SB NO. | STATION | LOCATION | 654.0101 CONCRETE BASES TYPE 1 EACH | 654.0102 CONCRETE BASES TYPE 2 EACH | 654.0120 CONCRETE BASES TYPE 10 SPECIAL EACH | 654.0113 CONCRETE BASES TYPE 13 EACH | 654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH | SPV.0060.09 UTILITY LINE OPENING (ULO) EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | CB1 | 104+39.7 | 69.9 LT | -- | -- | -- | -- | 1 | -- |
| | | SB1 | 104+45.5 | 58.7 LT | 1 | -- | -- | -- | -- | -- |
| | | SB2 | 104+44.4 | 10.0 RT | -- | -- | -- | 1 | -- | 1 |
| | | SB3 | 104+45.5 | 53.9 RT | 1 | -- | -- | -- | -- | -- |
| | | SB4 | 12+26.4 A | 33.9 LT | -- | -- | 1 | -- | -- | 1 |
| | | SB5 | 12+24.8 A | 37.6 RT | 1 | -- | -- | -- | -- | -- |
| | | SB6 | 105+56.3 | 57.4 RT | 1 | -- | -- | -- | -- | -- |
| | | SB7 | 105+57.4 | 9.0 LT | -- | -- | 1 | -- | -- | 1 |
| | | SB8 | 105+55.7 | 60.2 LT | 1 | -- | -- | -- | -- | -- |
| | | SB9 | 13+74.9 A | 34.3 RT | -- | -- | 1 | -- | -- | 1 |
| | | SB10 | 13+76.2 A | 36.1 LT | -- | 1 | -- | -- | -- | -- |
| | | | | TOTALS | 5 | 1 | 3 | 1 | 1 | 4 |

## TRAFFIC SIGNAL CABLE SUMMARY

| CATEGORY | INTERSECTIONS | FROM | TO | 655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF | 655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF | 655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF |
|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | CB1 | SB1 | -- | 43 | -- |
| | | SB2 | HEAD 27 | 14 | -- | -- |
| | | CB1 | SB2 | -- | -- | 130 |
| | | SB2 | HEAD 8 | 71 | -- | -- |
| | | SB2 | HEAD 7 | 59 | -- | -- |
| | | SB2 | HEAD 10 | 34 | -- | -- |
| | | CB1 | SB3 | -- | -- | 190 |
| | | SB3 | HEAD 1 | | | |
| | | SB3 | HEAD 9 | 22 | -- | -- |
| | | SB3 | HEAD 28 | 14 | -- | -- |
| | | CB1 | SB4 | -- | -- | 250 |
| | | SB4 | HEAD 20 | 61 | -- | -- |
| | | SB4 | HEAD 17 | 48 | -- | -- |
| | | SB4 | HEAD 18 | 37 | -- | -- |
| | | SB4 | HEAD 21 | 14 | -- | -- |
| | | CB1 | SB5 | -- | -- | 330 |
| | | SB5 | HEAD 11 | 19 | -- | -- |
| | | SB5 | HEAD 19 | 22 | -- | -- |
| | | SB5 | HEAD 22 | 14 | -- | -- |
| | | CB1 | SB6 | -- | 365 | -- |
| | | SB6 | HEAD 23 | 14 | -- | -- |
| | | CB1 | SB7 | -- | -- | 290 |
| | | SB7 | HEAD 3 | 69 | -- | -- |
| | | SB7 | HEAD 2 | 57 | -- | -- |
| | | SB7 | HEAD 5 | 32 | -- | -- |
| | | CB1 | SB8 | -- | -- | 235 |
| | | SB8 | HEAD 6 | 19 | -- | -- |
| | | SB8 | HEAD 4 | 22 | -- | -- |
| | | SB8 | HEAD 24 | 14 | -- | -- |
| | | CB1 | SB9 | -- | -- | 160 |
| | | SB9 | HEAD 15 | 60 | -- | -- |
| | | SB9 | HEAD 12 | 48 | -- | -- |
| | | SB9 | HEAD 13 | 37 | -- | -- |
| | | SB9 | HEAD 25 | 14 | -- | -- |
| | | CB1 | SB10 | -- | -- | 79 |
| | | SB10 | HEAD 14 | 22 | -- | -- |
| | | SB10 | HEAD 16 | 19 | -- | -- |
| | | SB10 | HEAD 26 | 14 | -- | -- |
| | | | TOTALS | 870 | 408 | 1,664 |

## TRAFFIC SIGNAL LIGHTING WIRE SUMMARY

| CATEGORY | INTERSECTIONS | LOCATION FROM | LOCATION TO | 655.0320* CABLE TYPE UF 2-10 AWG GROUNDED LF | 655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF |
|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | CB1 | SB2 | 135 | -- |
| | | SB2 | LUMN | -- | 258 |
| | | SB2 | SB4 | 150 | -- |
| | | SB4 | LUMN | -- | 129 |
| | | CB1 | SB10 | 82 | -- |
| | | SB10 | LUMN | -- | 129 |
| | | SB10 | SB7 | 238 | -- |
| | | SB7 | LUMN | -- | 258 |
| | | | TOTALS | 605 | 774 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

## TRAFFIC SIGNAL BASES, POLES, MONOTUBE ARMS, PUSH BUTTONS, AND LUMINAIRES

| CATEGORY | INTERSECTION | SIGNAL BASE NO. | 657.0100 PEDESTAL BASES EACH | 657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH | 657.0310 POLES TYPE 3 EACH | 657.0352 POLES TYPE 10 SPECIAL EACH | 657.0360 POLES TYPE 13 EACH | 657.0410 TRAFFIC SIGNAL STANDARDS ALUMINUM 9-FT EACH | 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH | 657.0536 MONOTUBE ARMS 35-FT-SPECIAL EACH | 657.0546 MONOTUBE ARMS 45-FT-SPECIAL EACH | 657.0550 MONOTUBE ARMS 50-FT EACH | 657.0614 LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 8-FT EACH | 657.0808 LUMINAIRE ARMS STEEL 8-FT EACH | 658.0500 PEDESTRIAN PUSH BUTTONS EACH | SPV.0060.10* LUMINAIRES UTILITY LED 96 WATTS EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | SB1 | 1 | -- | -- | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | 1 | -- |
| | | SB2 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | 1 | -- | 2 | 1 | 2 |
| | | SB3 | 1 | -- | -- | -- | -- | -- | 1 | -- | -- | -- | -- | -- | 1 | -- |
| | | SB4 | -- | -- | -- | 1 | -- | -- | -- | 1 | -- | -- | -- | 1 | 1 | 1 |
| | | SB5 | 1 | -- | -- | -- | -- | -- | 1 | -- | -- | -- | -- | -- | 1 | 1 |
| | | SB6 | 1 | -- | -- | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 1 | -- |
| | | SB7 | -- | -- | -- | 1 | -- | -- | -- | -- | 1 | -- | -- | 2 | 1 | 2 |
| | | SB8 | 1 | -- | -- | -- | -- | -- | 1 | -- | -- | -- | -- | -- | 1 | -- |
| | | SB9 | -- | -- | -- | 1 | -- | -- | -- | 1 | -- | -- | -- | -- | 1 | -- |
| | | SB10 | -- | 1 | 1 | -- | -- | -- | 1 | -- | -- | -- | 1 | -- | 1 | 1 |
| | | TOTALS | 5 | 1 | 1 | 3 | 1 | 2 | 5 | 2 | 1 | 1 | 1 | 5 | 10 | 7 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

## ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

| CATEGORY | INTERSECTION | FROM | TO | 655.0515 LF |
|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | CB1 | SB2 | 135 |
| | | SB2 | SB3 | 97 |
| | | SB3 | SB4 | 93 |
| | | SB4 | SB5 | 110 |
| | | SB5 | SB6 | 96 |
| | | SB6 | SB7 | 120 |
| | | SB7 | SB8 | 100 |
| | | SB8 | SB9 | 100 |
| | | SB9 | SB10 | 110 |
| | | SB10 | SB1 | 56 |
| | | SB1 | CB1 | 46 |
| | | PB1 | CB1 | 35 |
| | | PB2 | SB2 | 26 |
| | | PB3 | SB3 | 26 |
| | | PB4 | SB4 | 22 |
| | | PB5 | SB5 | 24 |
| | | PB6 | SB6 | 29 |
| | | PB7 | SB7 | 27 |
| | | PB8 | SB8 | 31 |
| | | PB9 | SB9 | 23 |
| | | PB10 | SB11 | 22 |
| | | PB11 | CB1 | 36 |
| | | | TOTAL | 1,364 |

## ELECTRICAL SERVICE METER BREAKER PEDESTAL

| CATEGORY | BASE NO. | LOCATION* | 656.0201 EACH |
|---|---|---|---|
| 0010 | CB1 | WASHINGTON ROAD & 39TH AVENUE | 1 |

*FINAL LOCATION TO BE DETERMINED BY THE FIELD ENGINEER

## TRAFFIC SIGNAL FACES SUMMARY

| CATEGORY | INTERSECTION | SIGNAL HEAD NO. | SIGNAL BASE NO. | 658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH | 658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH | 658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH |
|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 | SB3 | 1 | -- | -- |
| | | 2 | SB7 | 1 | -- | -- |
| | | 3 | SB7 | 1 | -- | -- |
| | | 4 | SB8 | -- | 1 | -- |
| | | 5 | SB7 | -- | 1 | -- |
| | | 6 | SB8 | 1 | -- | -- |
| | | 7 | SB2 | 1 | -- | -- |
| | | 8 | SB2 | 1 | -- | -- |
| | | 9 | SB3 | -- | 1 | -- |
| | | 10 | SB2 | -- | 1 | -- |
| | | 11 | SB5 | 1 | -- | -- |
| | | 12 | SB9 | 1 | -- | -- |
| | | 13 | SB9 | 1 | -- | -- |
| | | 14 | SB10 | -- | 1 | -- |
| | | 15 | SB9 | -- | 1 | -- |
| | | 16 | SB10 | 1 | -- | -- |
| | | 17 | SB4 | 1 | -- | -- |
| | | 18 | SB4 | 1 | -- | -- |
| | | 19 | SB5 | -- | 1 | -- |
| | | 20 | SB4 | -- | 1 | -- |
| | | 21 | SB4 | -- | -- | 1 |
| | | 22 | SB5 | -- | -- | 1 |
| | | 23 | SB6 | -- | -- | 1 |
| | | 24 | SB8 | -- | -- | 1 |
| | | 25 | SB9 | -- | -- | 1 |
| | | 26 | SB10 | -- | -- | 1 |
| | | 27 | SB1 | -- | -- | 1 |
| | | 28 | SB3 | -- | -- | 1 |
| | | | TOTALS | 12 | 8 | 8 |

3

## STREET LIGHTING CONDUIT SUMMARY

| CATEGORY | INTERSECTION | FROM | TO | 652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF | 652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF | 652.0615* CONDUIT SPECIAL 3-INCH LF |
|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | LPB-0101 | LPB-0102 | -- | 64 | -- |
| | | LPB-0102 | LP-0101 | 5 | -- | -- |
| | | LP-0101 | LPB-0103 | 92 | -- | -- |
| | | LPB-0103 | LPB-0104 | -- | -- | 130 |
| | | LPB-0104 | LC-01 | 38 | 38 | -- |
| | | LPB-0104 | LPB-0105 | 48 | -- | -- |
| | | LPB-0105 | LPB-0106 | -- | -- | 130 |
| | | LPB-0106 | LPB-0107 | 55 | -- | -- |
| | | LPB-0107 | LPB-0108 | -- | -- | 88 |
| | | LPB-0108 | LP-0102 | 80 | -- | -- |
| | | LP-0102 | LP-0103 | 94 | -- | -- |
| | | LP-0103 | LPB-0109 | 9 | -- | -- |
| | | LPB-0109 | LPB-0110 | -- | 230 | -- |
| | | LPB-0110 | LP-0104 | 9 | -- | -- |
| | | LP-0104 | LPB-0111 | 50 | -- | -- |
| | | LPB-0111 | LPB-0112 | -- | -- | 142 |
| | | | TOTALS | 480 | 332 | 490 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

## LIGHTING CONTROL CABINET SUMMARY

| CATEGORY | NO. | LOCATION STATION | LOCATION OFFSET | 654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH | 655.0635 ELECTRICAL WIRE LIGHTING 2 AWG LF | 656.0201.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH | 659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH |
|---|---|---|---|---|---|---|---|
| 0010 | LC-01 | 104+25.00 | 70.00' LT | 1 | 30 | 1 | 1 |

## STREET LIGHTING WIRE SUMMARY

| CATEGORY | INTERSECTIONS | LOCATION FROM | LOCATION TO | 655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF |
|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | LC-01 | LP-0101 | 916 |
| | | LC-01 | LP-0102 | 1,636 |
| | | LP-0102 | LP-0103 | 400 |
| | | LP-0103 | LP-0104 | 676 |
| | | | TOTALS | 3628 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

## STREET LIGHTING PULL BOX SUMMARY

| CATEGORY | INTERSECTION | PULL BOX NO. | LOCATION** STATION | LOCATION** OFFSET | 653.0140* PULL BOXES STEEL 24X42-INCH EACH |
|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | LPB-0101 | 103+10.94 | 11.28 LT | 1 |
| | | LPB-0102 | 103+33.27 | 11.30 RT | 1 |
| | | LPB-0103 | 104+29.96 | 11.76 RT | 1 |
| | | LPB-0104 | 104+33.38 | 53.46 LT | 1 |
| | | LPB-0105 | 104+65.70 | 81.62 LT | 1 |
| | | LPB-0106 | 105+28.96 | 84.06 LT | 1 |
| | | LPB-0107 | 105+70.08 | 53.17 LT | 1 |
| | | LPB-0108 | 105+70.37 | 9.30 LT | 1 |
| | | LPB-0109 | 107+35.65 | 8.94 LT | 1 |
| | | LPB-0110 | 108+50.53 | 5.10 LT | 1 |
| | | LPB-0111 | 109+08.75 | 5.23 LT | 1 |
| | | LPB-0112 | 109+79.16 | 5.41 LT | 1 |
| | | | | TOTAL | 12 |

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

## STREET LIGHTING GROUNDING WIRE SUMMARY

| CATEGORY | INTERSECTION | LOCATION FROM | LOCATION TO | 655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF | 655.0630* ELECTRICAL WIRE LIGHTING 4 AWG LF | REMARKS |
|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | | | | | |
| | | LC-01 | LPB-0104 | 63 | --- | |
| | | LC-01 | LP-0101 | 24 | 229 | INSTALL TAP TO CONNECT LPB-0103 TO SYSTEM GROUND |
| | | LP-0101 | LPB-0102 | 32 | --- | |
| | | LC-01 | LP-0102 | 96 | 409 | INSTALL TAP TO CONNECT LPB-0105, LPB-0106, LPB-0107 AND LPB-0108 TO GROUND |
| | | LP-0102 | LP-0103 | --- | 100 | |
| | | LP-0103 | LPB-0109 | 36 | --- | |
| | | LPB-0110 | LP-0104 | 36 | --- | |
| | | LP-0103 | LP-0104 | --- | 169 | |
| | | LPB-0101 | | 15 | --- | |
| | | LPB-0111 | | 15 | --- | |
| | | LPB-0112 | | 15 | --- | |
| | | | TOTAL | 332 | 907 | |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

3

## STANDARD STREET LIGHTING SUMMARY

| CATEGORY | INTERSECTION | LIGHT NO. | LOCATION STATION | LOCATION OFFSET | 654.0105 CONCRETE BASES TYPE 5 EACH | 657.0255* TRANSFORMER BASES BREAKAWAY 11 1/2 INCH BOLT CIRCLE EACH | 657.0322 POLES TYPE 5 ALUMINUM EACH | 657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH | SPV.0060.10* LUMINAIRES UTILITY LED 96 WATTS EACH | 655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF | 655.0610* ELECTRICAL WIRE LIGHTING 12 AWG (GROUND) LF |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | LP-0101 | 103+38.44 | 11.30 RT | 1 | 1 | 1 | 2 | 2 | 180 | 90 |
| | | LP-0102 | 106+50.27 | 10.05 LT | 1 | 1 | 1 | 2 | 2 | 180 | 90 |
| | | LP-0103 | 107+44.25 | 11.57 LT | 1 | 1 | 1 | 2 | 2 | 180 | 90 |
| | | LP-0104 | 108+59.42 | 5.12 LT | 1 | 1 | 1 | 2 | 2 | 180 | 90 |
| | | TOTALS | | | 4 | 4 | 4 | 8 | 8 | 720 | 360 |

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

## TRAFFIC SIGNAL MOUNTING HARDWARE

| CATEGORY | LOCATION | 658.5070 EACH |
|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 |

## TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

| CATEGORY | LOCATION | 661.0201 EACH |
|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 |

## SAWING EXISTING PAVEMENT

| CATEGORY | STATION | - | STATION | LOCATION | 690.0250 SAWING CONCRETE LF |
|---|---|---|---|---|---|
| 0010 | 100+44 | - | 105+00 | LT/RT | 706 |
| | 105+00 | - | 109+25 | LT/RT | 969 |
| | | | | TOTAL | 1,675 |

*Sawing asphalt is included under the sawing concrete bid item

## REMOVING TRAFFIC SIGNALS

| CATEGORY | LOCATION | 204.9060.S.02 EACH |
|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 |

## TRAFFIC SIGNAL CABINET AND CONTROLLER

| CATEGORY | LOCATION | SPV.0060.02 EACH |
|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 |

## RADAR SENSOR SYSTEM

| CATEGORY | LOCATION | SPV.0060.03 EACH |
|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 |

## EMERGENCY VEHICLE PREEMPTION

| CATEGORY | LOCATION | SPV.0060.04 EACH |
|---|---|---|
| 0010 | WASHINGTON ROAD & 39TH AVENUE | 1 |

## SECTION CORNER MONUMENTS SPECIAL

| CATEGORY | STATION | LOCATION | SPV.0060.11 EACH | REMARKS |
|---|---|---|---|---|
| 0010 | 105+00 | 0.0' RT | 1 | SECTION LINE 26, 26, 25, AND 25 |

3

# TRANSPORTATION PROJECT PLAT NO: 3831-07-02 - 4.01

THAT PART OF LOT 2, CSM 1781 LOCATED IN THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 AND PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4, SECTION 26 AND PART OF THE LOT 1, CSM 2181 LOCATED IN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 AND PART OF SOUTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 25, T 2 N, R 22 E, CITY OF KENOSHA, KENOSHA COUNTY, WISCONSIN.

RELOCATION ORDER WASHINGTON RD, KENOSHA (39TH AVE INTERSECTION), KENOSHA COUNTY)

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF KENOSHA DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

(101) WE ENERGIES- ELECTRIC
NO RECORDED EASEMENT
PARCEL 2 & 3

(102) AT&T WISCONSIN
NO RECORDED EASEMENT
PARCELS 2, 3 & 4

## SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY

| PARCEL NUMBER | OWNERS | INTERESTS REQUIRED | R/W S.F REQUIRED NEW | EXISTING | TOTAL | TLE S.F. |
|---|---|---|---|---|---|---|
| 1 | KT REAL ESTATE HOLDINGS LLC | TLE | --- | --- | --- | 143 |
| 2 | KENOSHA UNIFIED SCHOOL DISTRICT NO. 1 | FEE,TLE | 85 | --- | 85 | 471 |
| 3 | KAH V LLC | FEE,TLE | 232 | --- | 232 | 601 |
| 4 | PAT INC | TLE | --- | --- | --- | 232 |

## UTILITY INTERESTS REQUIRED

| UTILITY NUMBER | UTILITY OWNER(S) | INTERESTS REQUIRED |
|---|---|---|
| 101 | WE ENERGIES-ELECTRIC | RELEASE OF RIGHTS |
| 102 | AT&T WISCONSIN | RELEASE OF RIGHTS |

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 3831-07-02-4.01
SHEET 1 OF 2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF REGISTER OF DEEDS IN KENOSHA COUNTY AS SHEET 2 OF 2 OF THIS DOCUMENT.

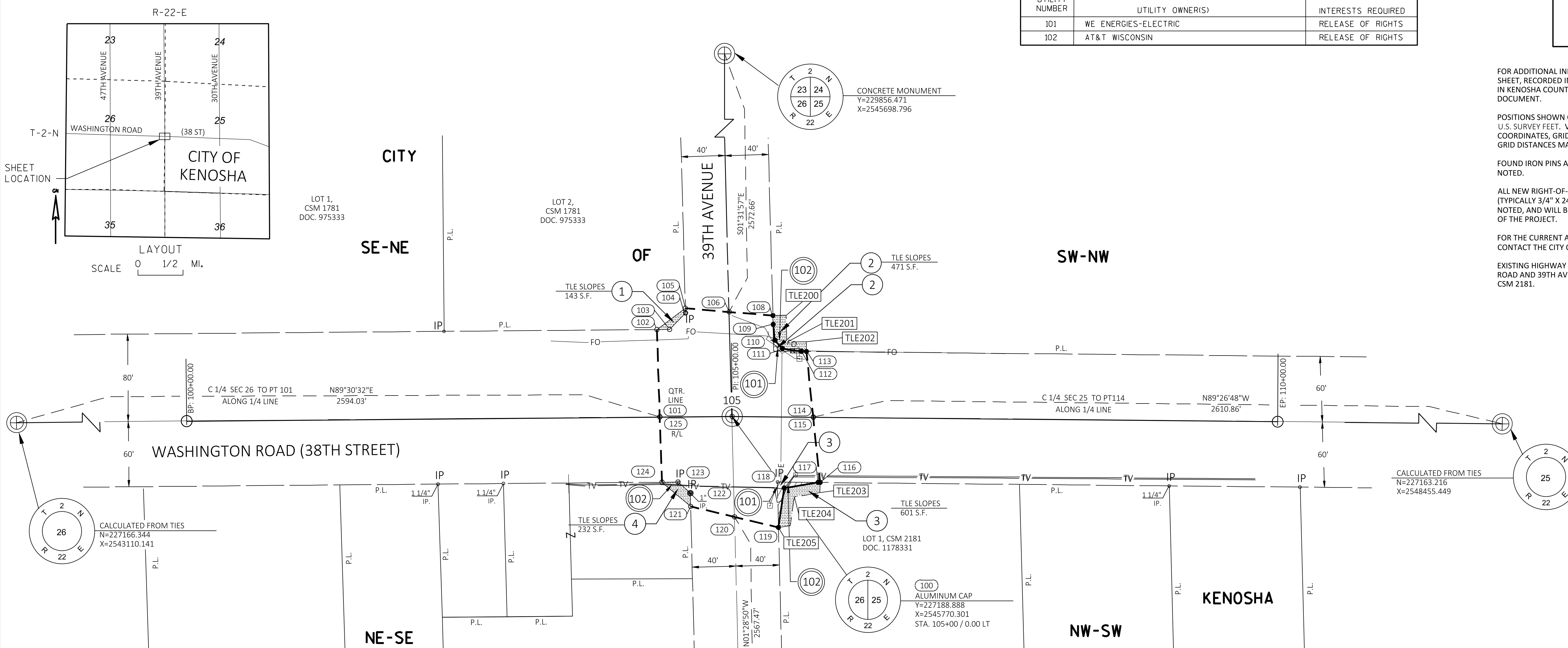
POSITIONS SHOWN ON THIS PLAT ARE NAD83(2011 ), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOUND IRON PINS ARE 3/4" REBAR UNLESS OTHERWISE NOTED.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION CONTACT THE CITY OF KENOSHA PLANNING & ZONING.

EXISTING HIGHWAY RIGHT-OF-WAY ON WASHINGTON ROAD AND 39TH AVENUE ARE BASED ON CSM 1781 AND CSM 2181.




| R/W OFFSET AND COORDINATE TABLE | | | | |
|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS |
| 101 | 104+33.77 | -0.27 | 227188.584 | 2545704.076 |
| 102 | 104+31.81 | -80.27 | 227268.564 | 2545701.414 |
| 103 | 104+43.35 | -80.27 | 227268.663 | 2545712.956 |
| 104 | 104+58.13 | -95.30 | 227283.820 | 2545727.603 |
| 105 | 104+58.05 | -99.56 | 227288.084 | 2545727.489 |
| 106 | 104+98.12 | -95.86 | 227284.729 | 2545767.593 |
| 108 | 105+36.50 | -92.84 | 227281.375 | 2545807.697 |
| 109 | 105+36.80 | -84.68 | 227273.213 | 2545807.915 |
| 110 | 105+38.52 | -70.20 | 227258.710 | 2545809.494 |
| 111 | 105+45.56 | -62.80 | 227251.247 | 2545816.461 |
| 112 | 105+63.00 | -60.26 | 227248.537 | 2545833.876 |
| 113 | 105+67.55 | -60.26 | 227248.493 | 2545838.424 |

| R/W OFFSET AND COORDINATE TABLE | | | | |
|---|---|---|---|---|
| POINT | STATION | OFFSET | Y COORDS | X COORDS |
| 114 | 105+74.41 | -0.26 | 227188.430 | 2545844.709 |
| 115 | 105+74.44 | 0.00 | 227188.171 | 2545844.736 |
| 116 | 105+81.27 | 59.74 | 227128.366 | 2545850.993 |
| 117 | 105+79.45 | 59.74 | 227128.384 | 2545849.171 |
| 118 | 105+48.45 | 65.15 | 227123.273 | 2545818.123 |
| 119 | 105+43.48 | 101.37 | 227087.101 | 2545812.801 |
| 120 | 105+03.13 | 92.14 | 227096.723 | 2545772.539 |
| 121 | 104+61.26 | 82.21 | 227106.345 | 2545732.277 |
| 122 | 104+61.09 | 69.99 | 227118.561 | 2545732.002 |
| 123 | 104+49.90 | 59.73 | 227128.724 | 2545720.718 |
| 124 | 104+35.25 | 59.73 | 227128.598 | 2545706.072 |
| 125 | 104+33.78 | 0.00 | 227188.315 | 2545704.085 |

| TLE STATION & OFFSET TABLE | | |
|---|---|---|
| POINT | STATION | OFFSET |
| TLE200 | 105+48.69 | -93.29 |
| TLE201 | 105+49.63 | -68.80 |
| TLE202 | 105+67.37 | -69.15 |
| TLE203 | 105+81.25 | 69.07 |
| TLE204 | 105+57.94 | 73.14 |
| TLE205 | 105+54.34 | 99.43 |

ALIGNMENT INFORMATION
PI = STA 100+00
Y = 227184.561
X = 2545270.319

ALIGNMENT INFORMATION
PI = STA 105+00
Y = 227188.888
X = 2545770.301
DELTA = 01°02'52" RT

ALIGNMENT INFORMATION
PI = STA 110+00
Y = 227184.072
X = 2546270.278

| R/W COURSE TABLE | | |
|---|---|---|
| COURSE | BEARING | DISTANCE |
| 100 - 101 | S89°44' 12"W | 66.23' |
| 101 - 102 | N01°54'22"W | 80.02' |
| 102 - 103 | N89°30'32"E | 11.54' |
| 103 - 104 | N44°01'09"E | 21.08' |
| 104 - 105 | N01°31'57"E | 4.27' |
| 105 - 106 | S85°13'05"E | 40.24' |
| 106 - 108 | S85°13'05"E | 40.24' |
| 108 - 109 | S01°31'57"E | 8.16' |
| 109 - 110 | S06°12'38"E | 14.59' |
| 110 - 111 | S43°02'05"E | 10.21' |
| 111 - 112 | S81°09'20"E | 17.62' |
| 112 - 113 | S89°26'48"E | 4.55' |
| 113-114 | S05°58'24"E | 60.39' |
| 114-115 | S05°58'24"E | 0.26' |

| R/W COURSE TABLE | | |
|---|---|---|
| COURSE | BEARING | DISTANCE |
| 115 - 116 | S05°58'24"E | 60.13' |
| 116 - 117 | N89°26'48"W | 1.82' |
| 117 - 118 | S80°39'09"W | 31.47' |
| 118 - 119 | S08°22'14"W | 36.56' |
| 119 - 120 | N76°33'35"W | 41.40' |
| 120 - 121 | N76°33'35"W | 41.40' |
| 121 - 122 | N01°17'22"W | 12.22' |
| 122 - 123 | N47°59'33"W | 15.19' |
| 123 - 124 | S89°30'32"W | 14.65' |
| 124 - 125 | N01°54'22"W | 59.75' |
| 125 - 101 | N01°54'22"W | 0.27' |
| 100 -120 | S01° 23' 28"E | 92.19' |
| 100 - 114 | S89° 38' 51"E | 74.41' |
| 100 - 106 | N01° 37' 06"W | 95.88' |


**STRAND ASSOCIATES, INC.** ®
910 WEST WINGRA DRIVE, MADISON, WI 53715
(608) 251-4843


I, ERIC E. LINDAAS, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF KENOSHA, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN ERIC E LINDAAS S-2919 McFARLAND WI LAND SURVEYOR

SIGNATURE: Eric Lindaas DATE:03/09/22
PRINT NAME: ERIC E. LINDAAS
REGISTRATION NUMBER:S-2919

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR FOR THE CITY OF KENOSHA

SIGNATURE: ______ DATE:
PRINT NAME:

## Standard Detail Drawing List

| | |
|---|---|
| 08A05-19A | INLET COVERS TYPE A, H, A-S, H-S & Z |
| 08A05-19B | INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM |
| 08A05-19D | INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M |
| 08C06-02 | INLETS 3-FT AND 4-FT DIAMETER |
| 08C07-02 | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT |
| 08C08-02 | INLETS MEDIAN 1 AND 2 GRATE |
| 08D01-22A | CONCRETE CURB & GUTTER |
| 08D01-22B | CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS |
| 08D05-20A | CURB RAMPS TYPES 1 AND 1-A |
| 08D05-20B | CURB RAMPS TYPES 2 AND 3 |
| 08D05-20D | CURB RAMPS TYPE 4B AND 4B1 |
| 08D05-20E | CURB RAMPS TYPES 5, 6, 7A, 7B & 8 |
| 08D05-20F | CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS |
| 08D05-20G | CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES |
| 08E10-02 | INLET PROTECTION TYPE A, B, C AND D |
| 08E14-01 | TRACKING PAD |
| 08F04-08 | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL |
| 09B02-10 | CONDUIT |
| 09B04-12 | PULL BOX |
| 09C02-09 | CONCRETE BASES, TYPES 1, 2, 5, & 6 |
| 09C03-04 | TRANSFORMER/PEDESTAL BASES |
| 09C06-07 | CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL |
| 09C12-09A | CONCRETE BASE TYPE 13 |
| 09C12-09B | CONCRETE BASE TYPE 13 |
| 09C14-03 | CONCRETE CONTROL CABINET BASE, TYPE L |
| 09C15-01 | CONCRETE BASE TYPE 10 SPECIAL |
| 09D01-05 | CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL) |
| 09D04-03 | LIGHTING CONTROL CABINET 120/240 VOLT |
| 09E01-15B | POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY) |
| 09E01-15D | POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET) |
| 09E01-15G | HARDWARE DETAILS FOR POLE MOUNTINGS |
| 09E03-06 | NON-FREEWAY LIGHTING UNIT POLE WIRING |
| 09E06-05 | TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT. |
| 09E07-06 | TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS |
| 09E08-09B | TYPE 9 SPECIAL POLE 35' MONOTUBE ARM |
| 09E08-09F | TYPE 10 SPECIAL POLE 35' MONOTUBE ARM |
| 09E08-09H | TYPE 10 SPECIAL POLE 45' MONOTUBE ARM |
| 09E08-09J | TYPE 13 POLE 35'-55' MONOTBE ARM |
| 09E08-09K | GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS |
| 09G01-04A | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04B | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04C | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04D | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04E | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04F | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 09G01-04G | SPAN WIRE TEMPORARY TRAFFIC SIGNAL |
| 11B02-02 | CONCRETE MEDIAN NOSE |
| 13C01-19 | CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES |
| 13C13-10 | URBAN DOWELED CONCRETE PAVEMENT |
| 13C18-07A | CONCRETE PAVEMENT JOINTING |
| 13C18-07B | CONCRETE PAVEMENT STEEL REINFORCEMENT |
| 13C18-07C | CONCRETE PAVEMENT JOINT TYPES |
| 13C18-07D | CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES |
| 13C18-07F | CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER |
| 13C18-07G | CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE |
| 15C07-15B | PAVEMENT MARKING WORDS |
| 15C07-15C | PAVEMENT MARKING ARROWS |
| 15C08-22A | LONGITUDINAL MARKING (MAINLINE) |
| 15C08-22B | TEMPORARY LONGITUDINAL PAVEMENT MARKING |
| 15C08-22C | PAVEMENT MARKING (TURN LANES) |
| 15C08-22D | PAVEMENT MARKING (TURN LANES) |
| 15C11-09B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |
| 15C18-06B | MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE |
| 15C18-06C | MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT |
| 15C33-04 | STOP LINE AND CROSSWALK PAVEMENT MARKING |
| 15D20-06A | TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY |
| 15D21-07A | TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE |


6

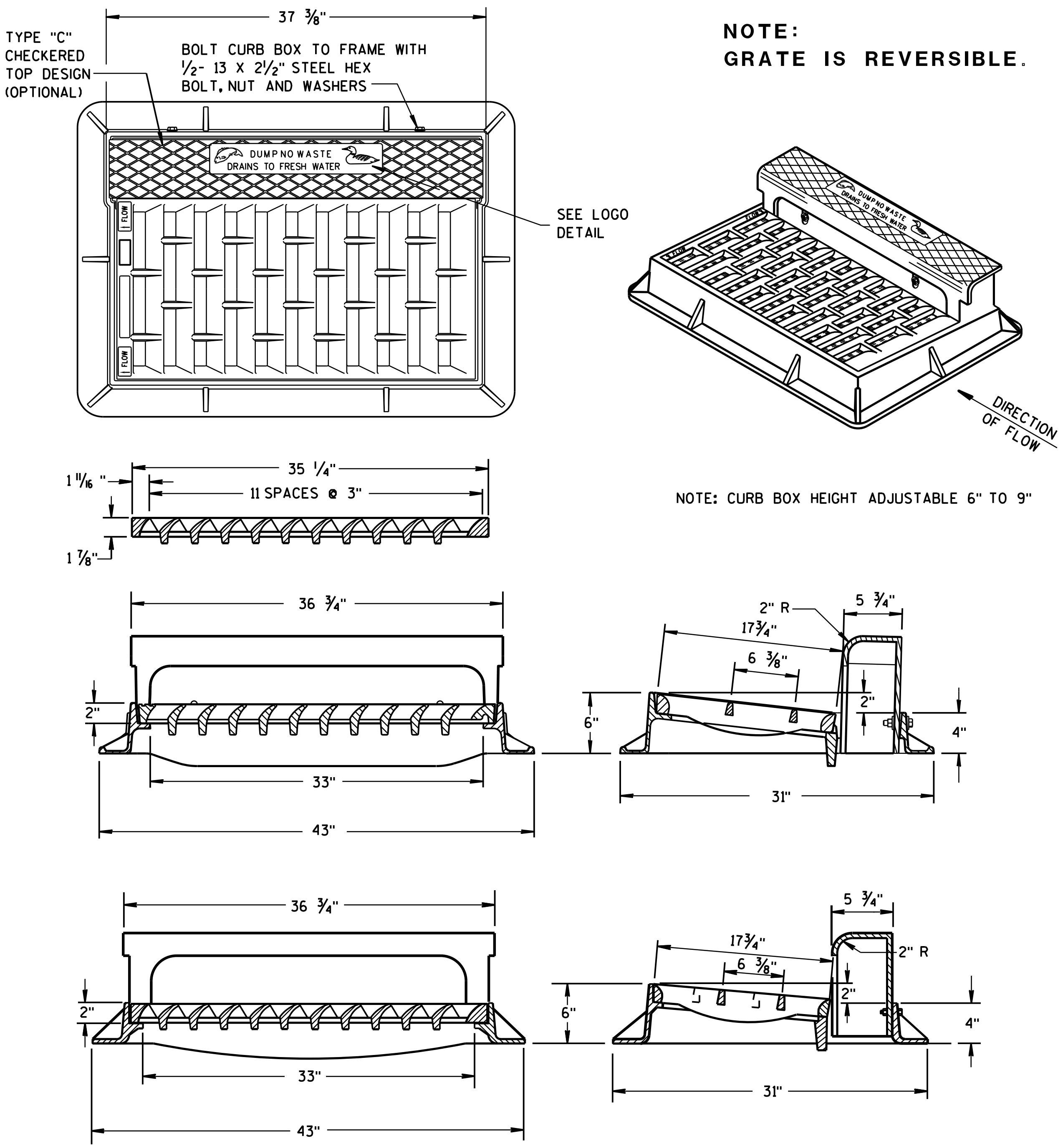
## Standard Detail Drawing List

| | |
|---|---|
| 15D21-07B | TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE |
| 15D27-03 | TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH |
| 15D30-07A | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-07B | TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION |
| 15D30-07C | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-07D | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-07E | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-07I | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D30-07J | TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION |
| 15D39-02 | TRAFFIC CONTROL, DROP-OFF SIGNING |
| 15D40-04C | TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER |

6

6

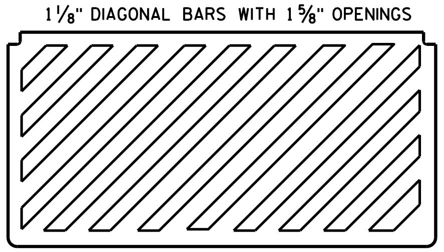
NOTE:
GRATE IS REVERSIBLE.




## TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

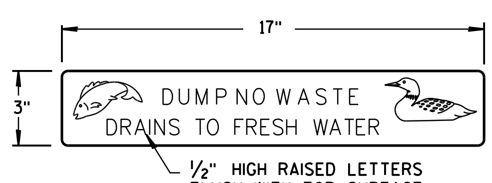
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



## SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)




## LOGO DETAIL

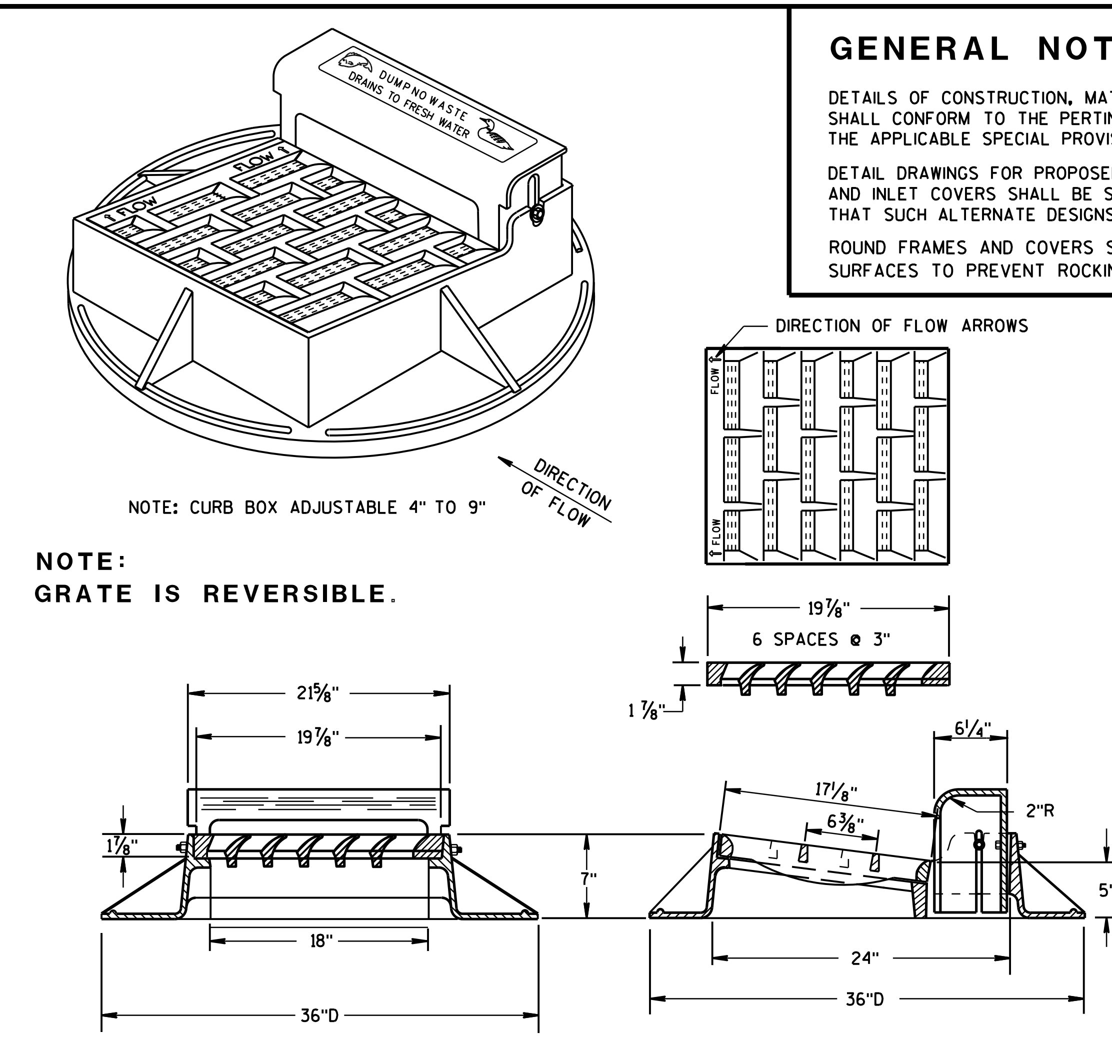
## GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

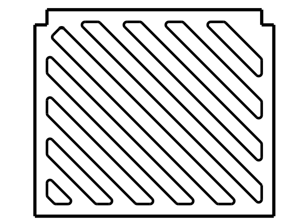
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

NOTE:
GRATE IS REVERSIBLE.




## TYPE "A"

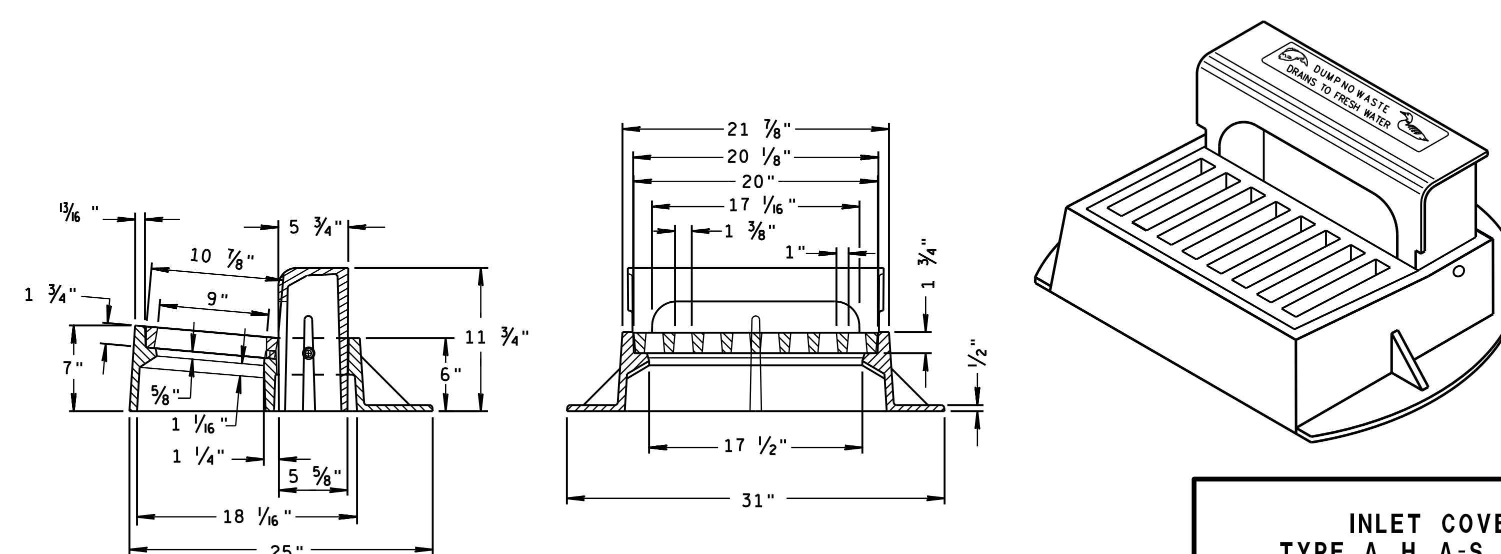
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



## SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)




## TYPE "Z"

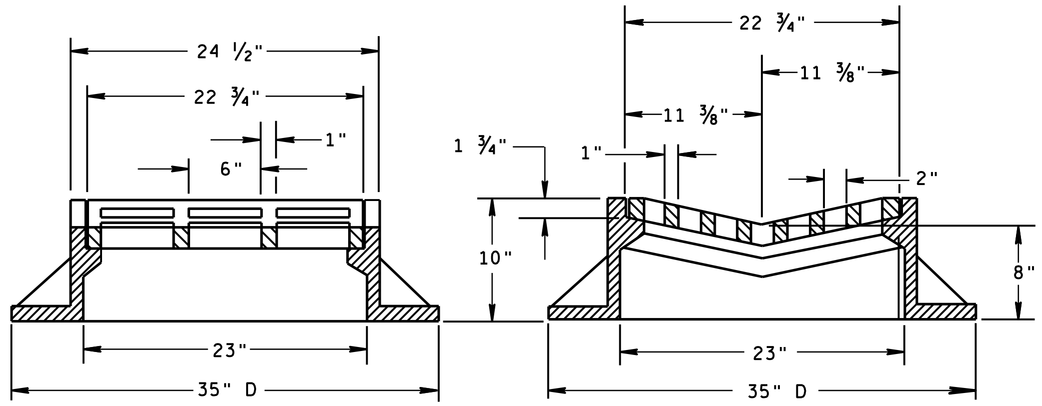
| INLET COVERS TYPE A, H, A-S, H-S & Z |
|---|
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION |
| APPROVED 11-27-13 DATE — /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER — FHWA |

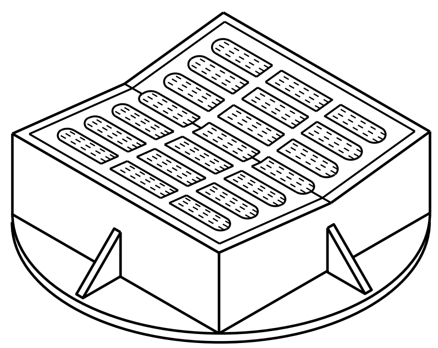
6

6

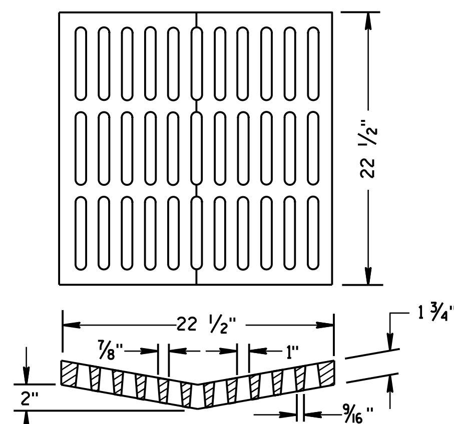
S.D.D. 8 A 5-19a

S.D.D. 8 A 5-19a



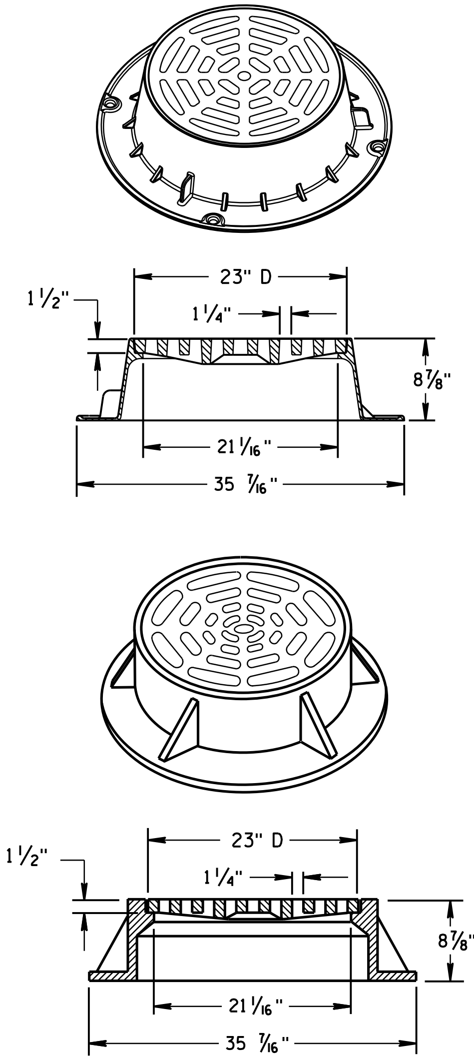
TYPE "B"




ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

**NOTED AS TYPE B-A ON THE DRAINAGE TABLE**




TYPE "C"

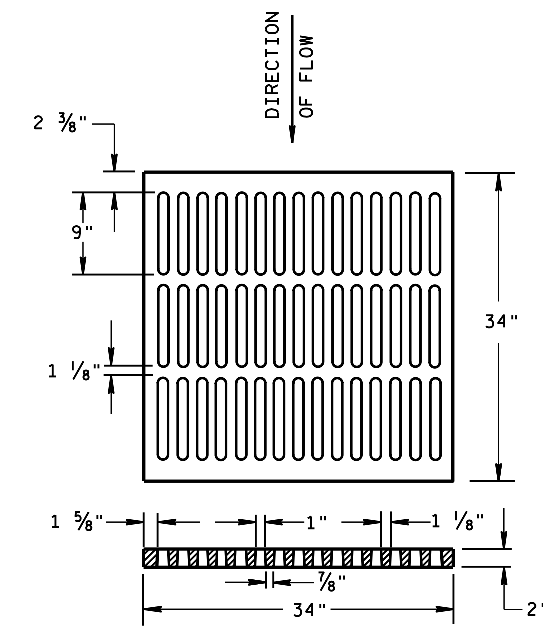
NOTE: EITHER CASTING IS ACCEPTABLE

## 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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

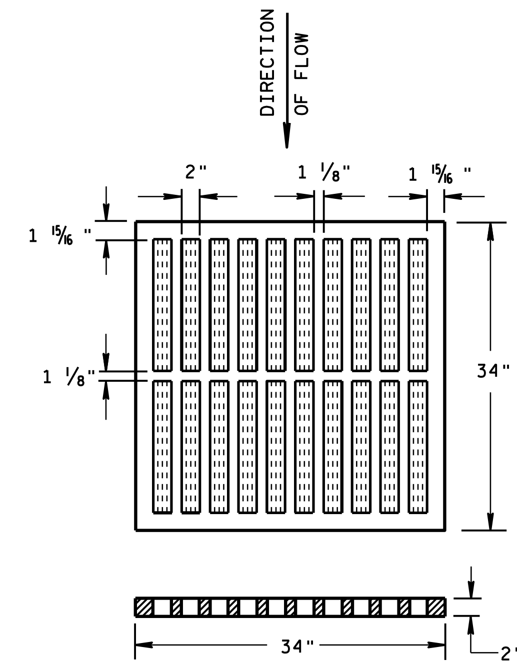
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.




ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

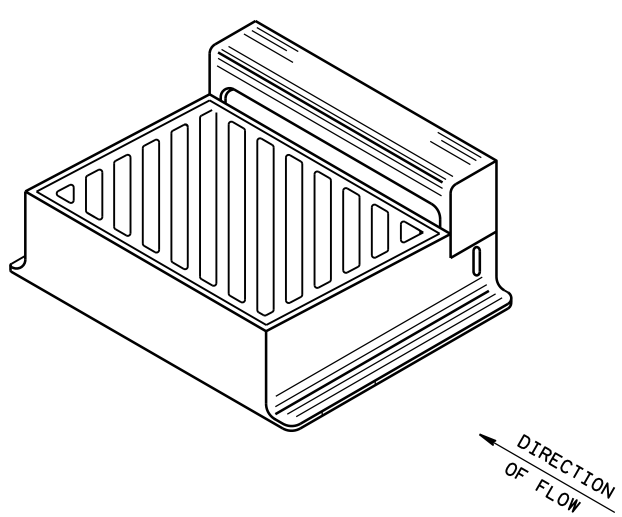
**NOTED AS TYPE MS-A ON THE DRAINAGE TABLE**



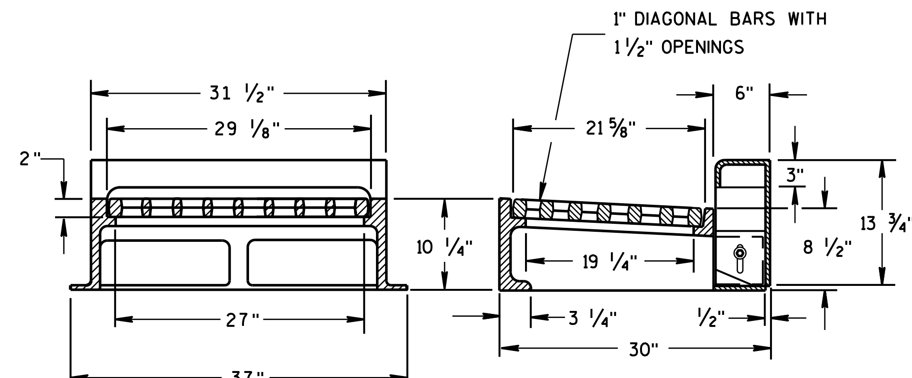

TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

**NOTED AS TYPE MS ON DRAINAGE TABLE**




DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



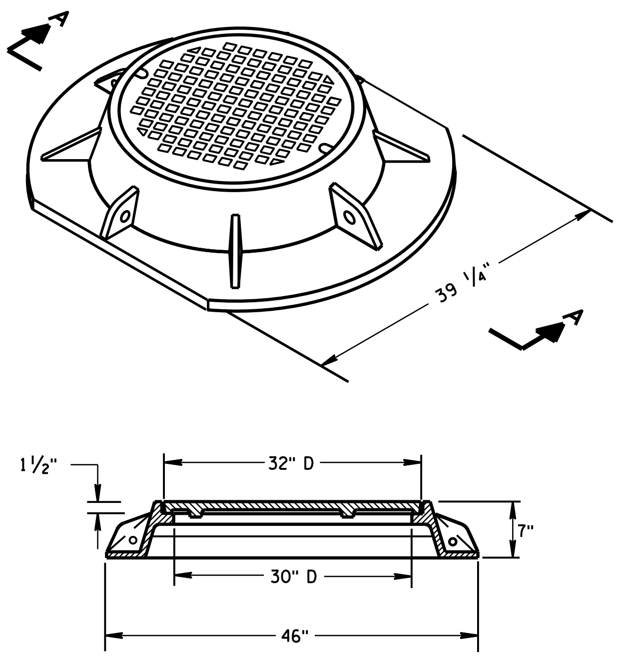

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

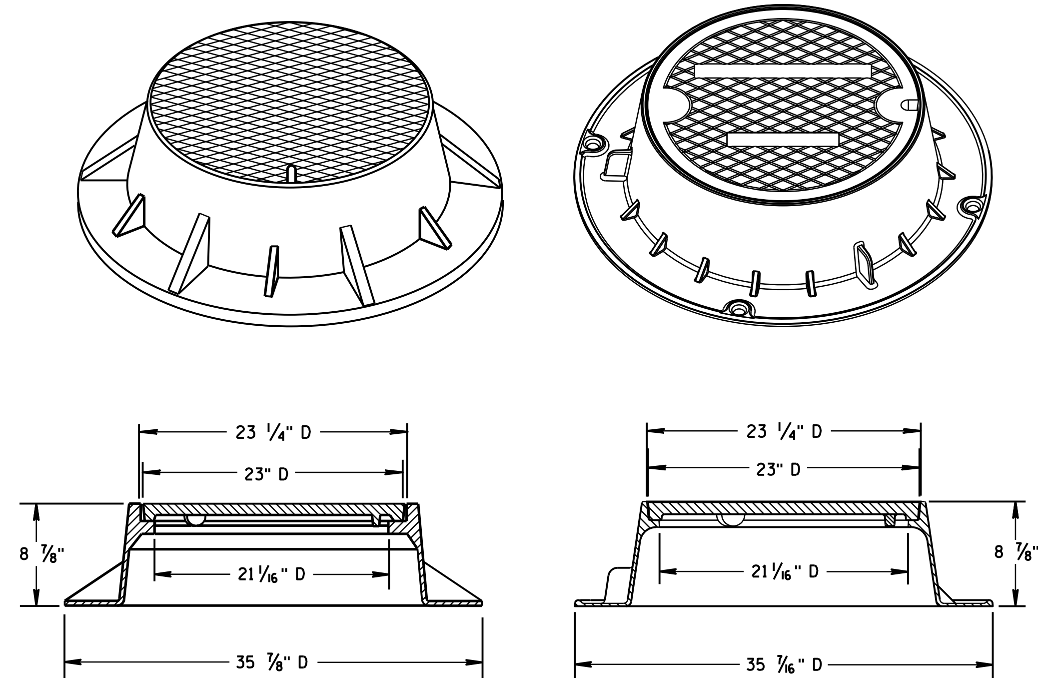
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

| APPROVED | |
|---|---|
| 11/27/2013 | /S/ Jerry H. Zogg |
| DATE | ROADWAY STANDARDS DEVELOPMENT ENGINEER |
| FHWA | |




SECTION A-A
TYPE "K"



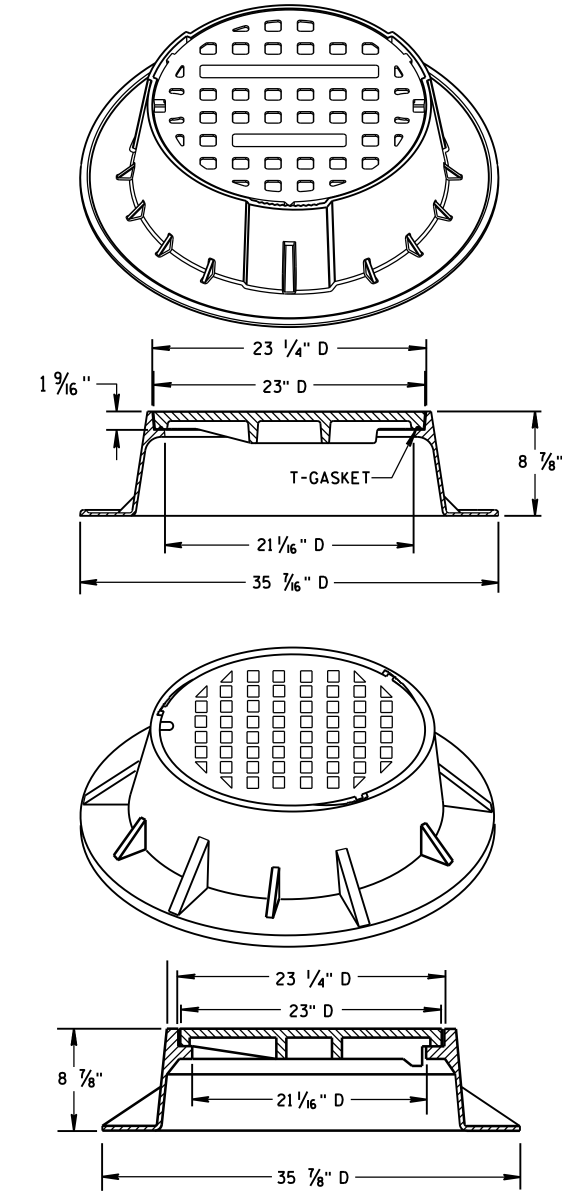

TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

## 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.

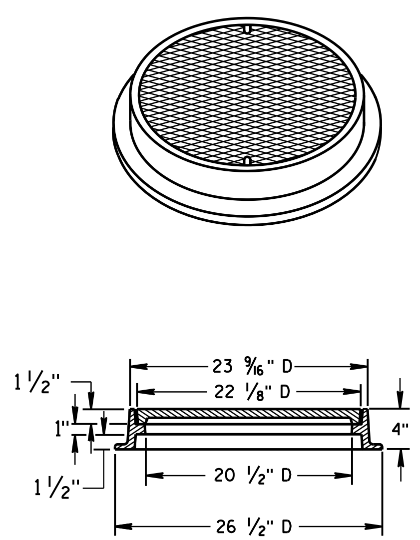
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

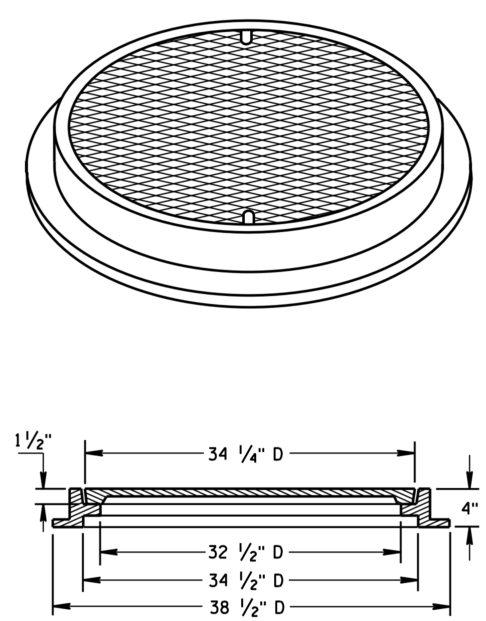



TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE

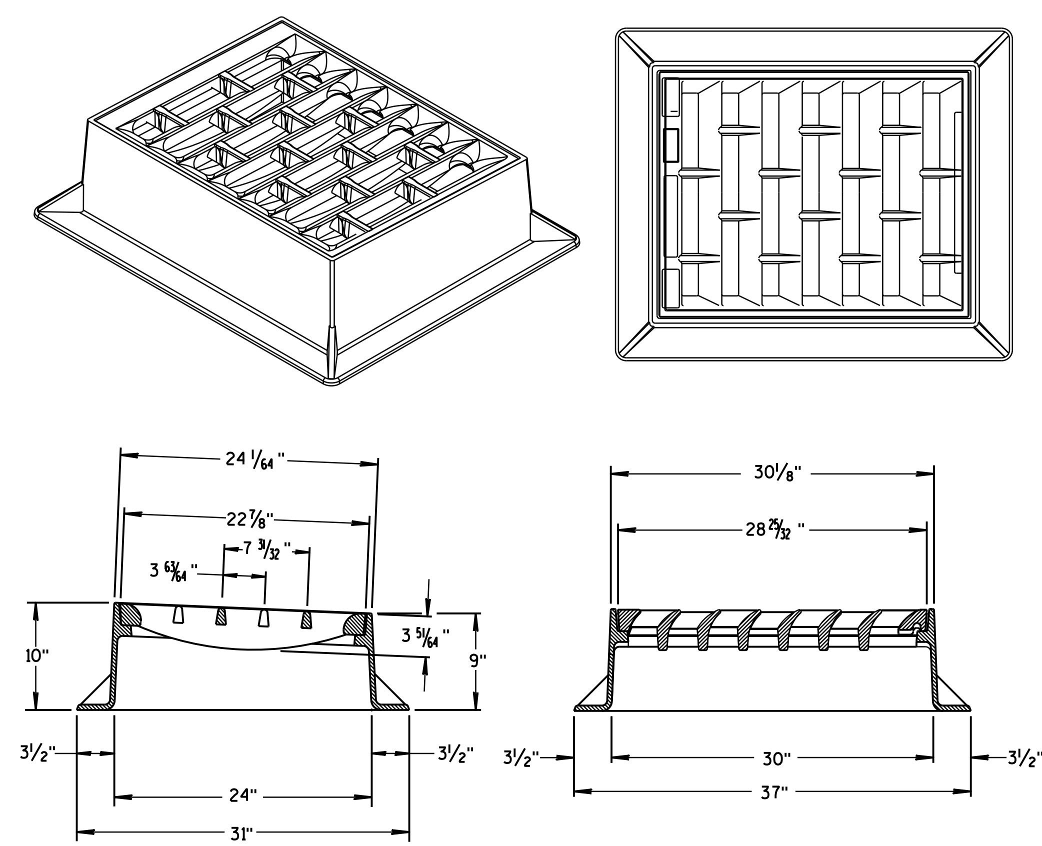
6




TYPE "L"




TYPE "M"




INLET COVER TYPE "BW"

6

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

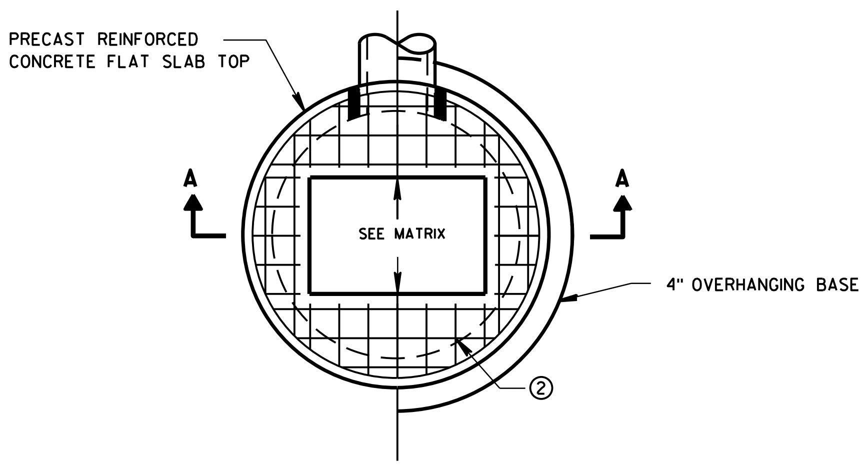
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

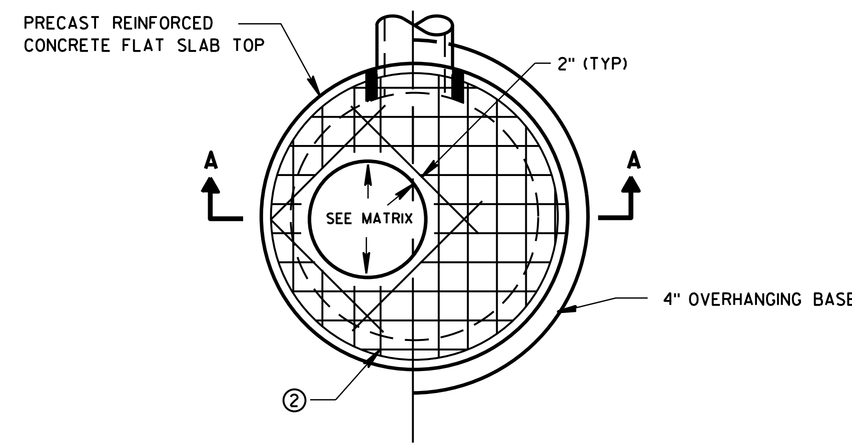
APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



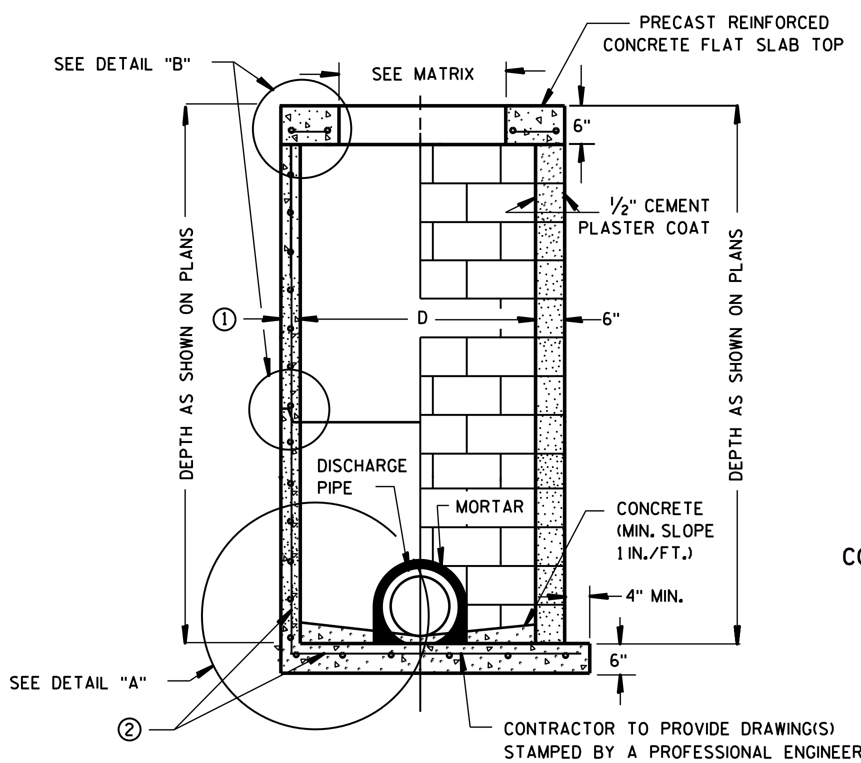
S.D.D. 8 A 5-19d




PLAN VIEW RECTANGULAR OPENING




PLAN VIEW CIRCULAR OPENING

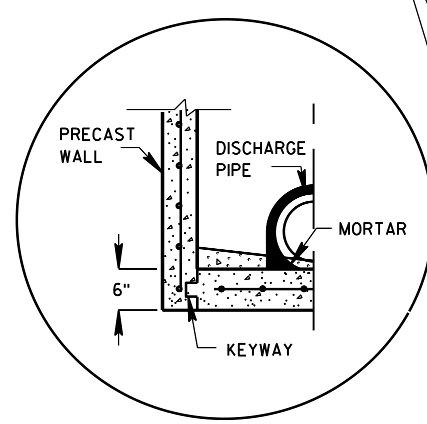



SECTION A-A

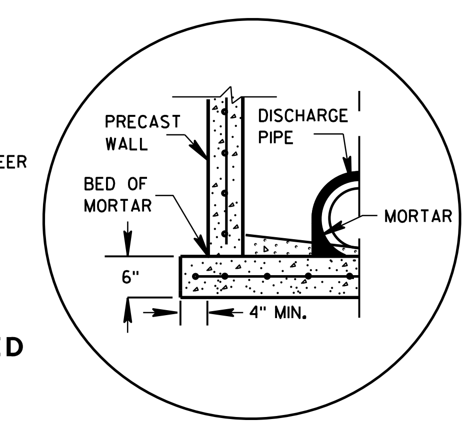
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

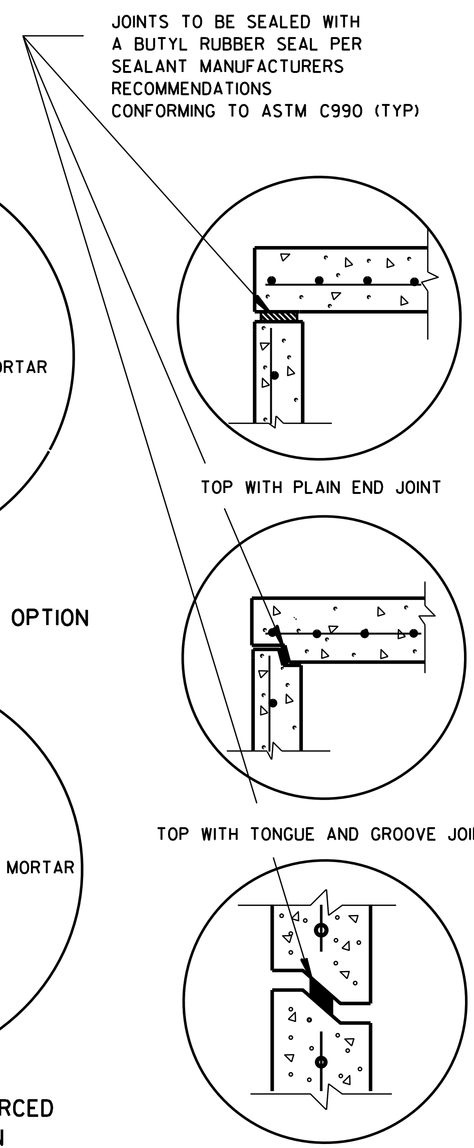



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION




SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"




TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

## GENERAL NOTES

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

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

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

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

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

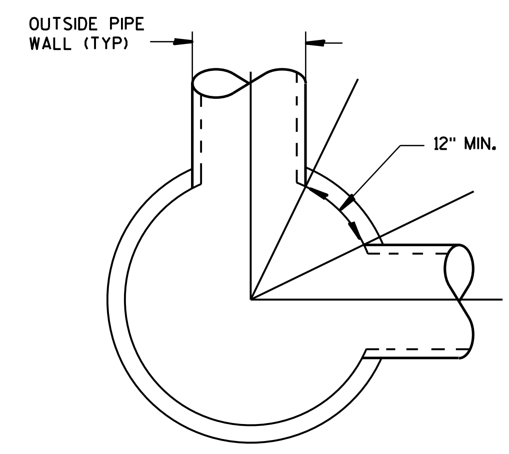
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

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

## INLET COVER OPENING MATRIX

| | INLET COVER TYPE | ALL A'S | ALL B'S | BW | C | F | ALL H'S | S | T | V | WM | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INLET SIZE | OPENING SIZE (FT) | | | | | | | | | | | |
| 3-FT | 2 DIA. | | | | X | | | | | | | X |
| | 2X2 | X | X | | | | | X | | X | | |
| 4-FT | 2 DIA. | | | | X | | | | | | | X |
| | 2X2 | X | X | | | | | X | | X | | |
| | 2X2.5 | | | X | | | | X | X | X | X | |
| | 2X3 | | | | | | X | | | | | |
| | 2.5X3 | | | | | X | | | | | | |




DETAIL "C"

## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES | |
|---|---|---|
| | 180° SEPARATION (IN) | 90° SEPARATION (IN) |
| 3-FT | 15 | 12 |
| 4-FT | 24 | 18 |

INLETS 3-FT AND 4-FT DIAMETER

INLETS 3-FT
AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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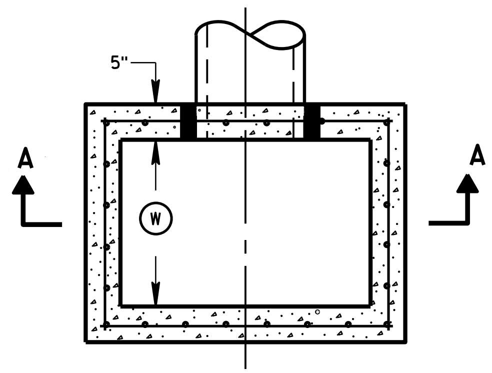
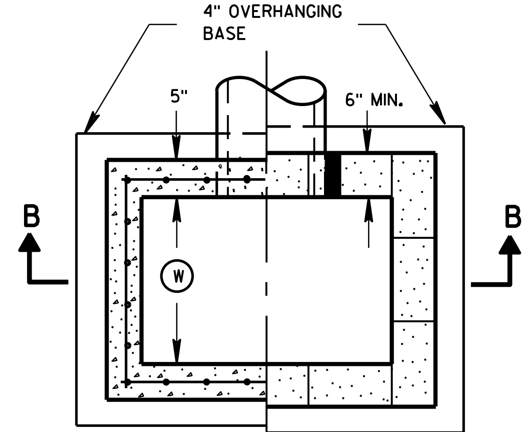
6

S.D.D. 8 C 6-2

S.D.D. 8 C 6-2




PLAN VIEW




PLAN VIEW

# GENERAL NOTES

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

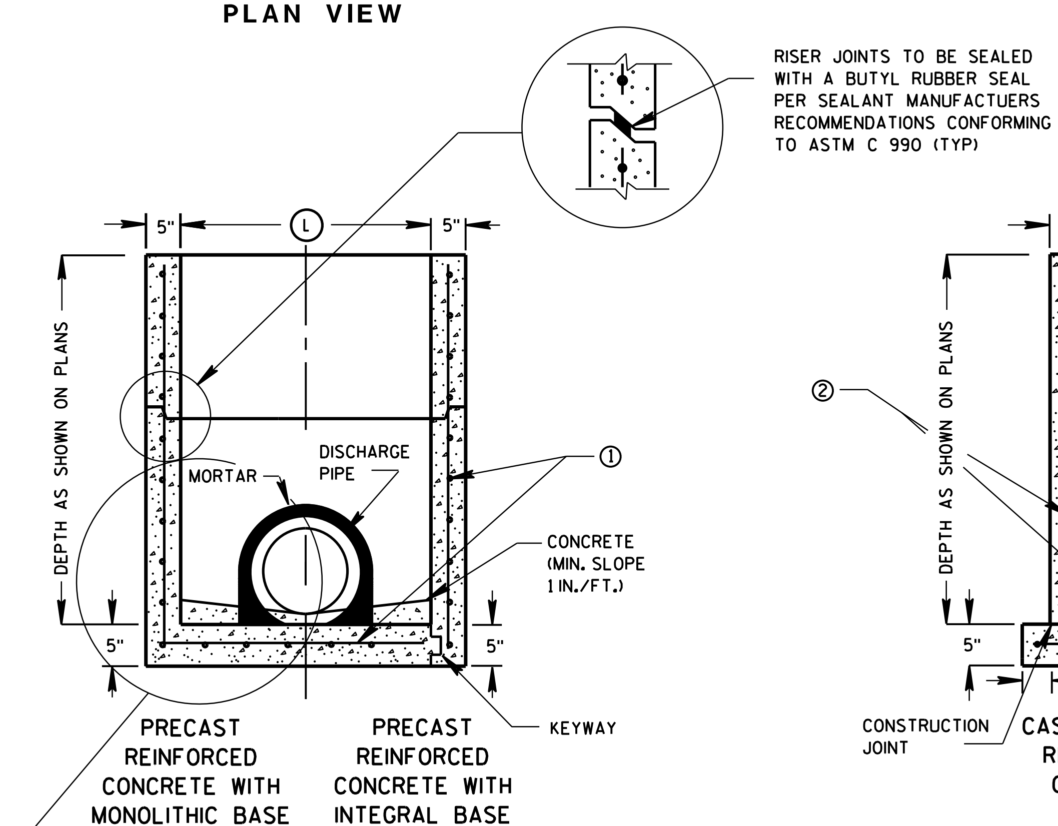
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

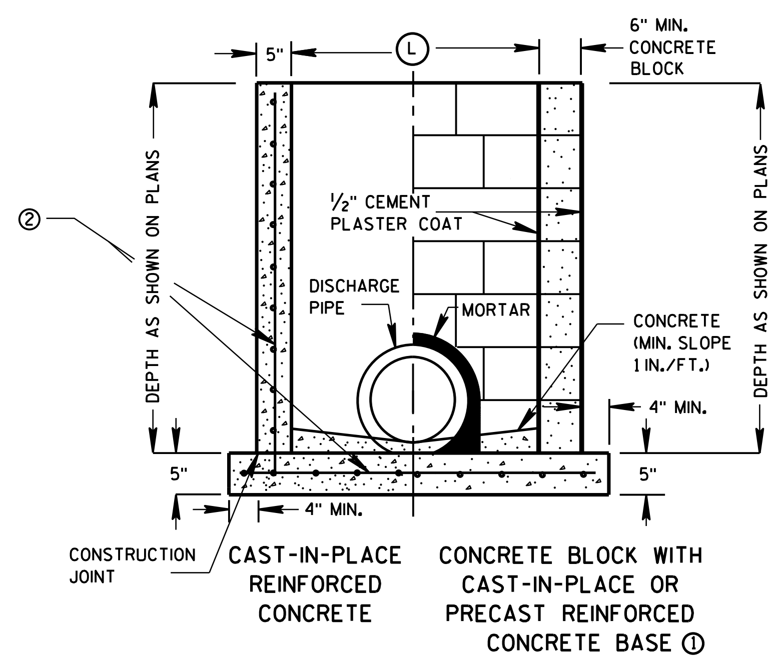
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

## INLET COVER MATRIX

| INLET SIZE | | INLET COVER TYPE | ALL A'S | ALL B'S | BW | F | ALL H'S | S | T | V | WM |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | WIDTH (W) (FT) | LENGTH (L) (FT) | | | | | | | | | |
| 2X2-FT | 2 | 2 | X | X | | | | X | | X | |
| 2X2.5-FT | 2 | 2.5 | | | X | | | X | X | X | X |
| 2X3-FT | 2 | 3 | | | | | X | | | | |
| 2.5X3-FT | 2.5 | 3 | | | | X | | | | | |



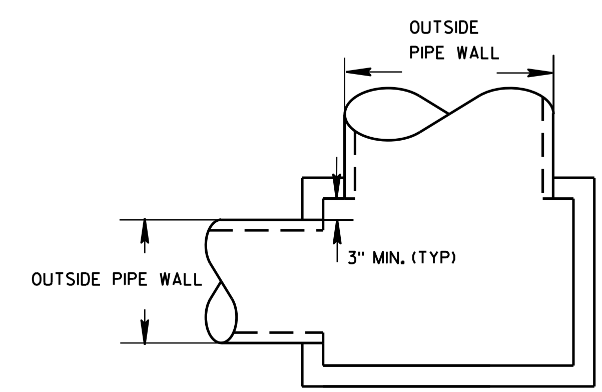

SECTION A-A



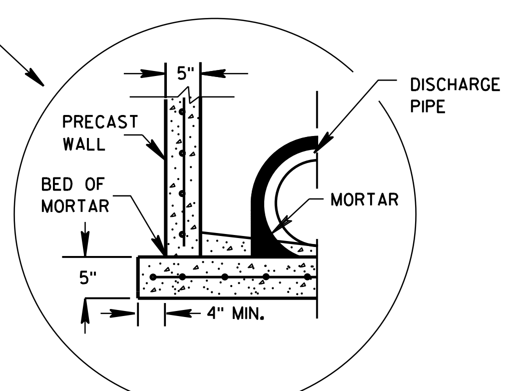

SECTION B-B

## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER | |
|---|---|---|
| | WIDTH (IN) | LENGTH (IN) |
| 2X2-FT | 12 | 12 |
| 2X2.5-FT | 12 | 18 |
| 2X3-FT | 12 | 24 |
| 2.5X3-FT | 18 | 24 |




DETAIL "A"



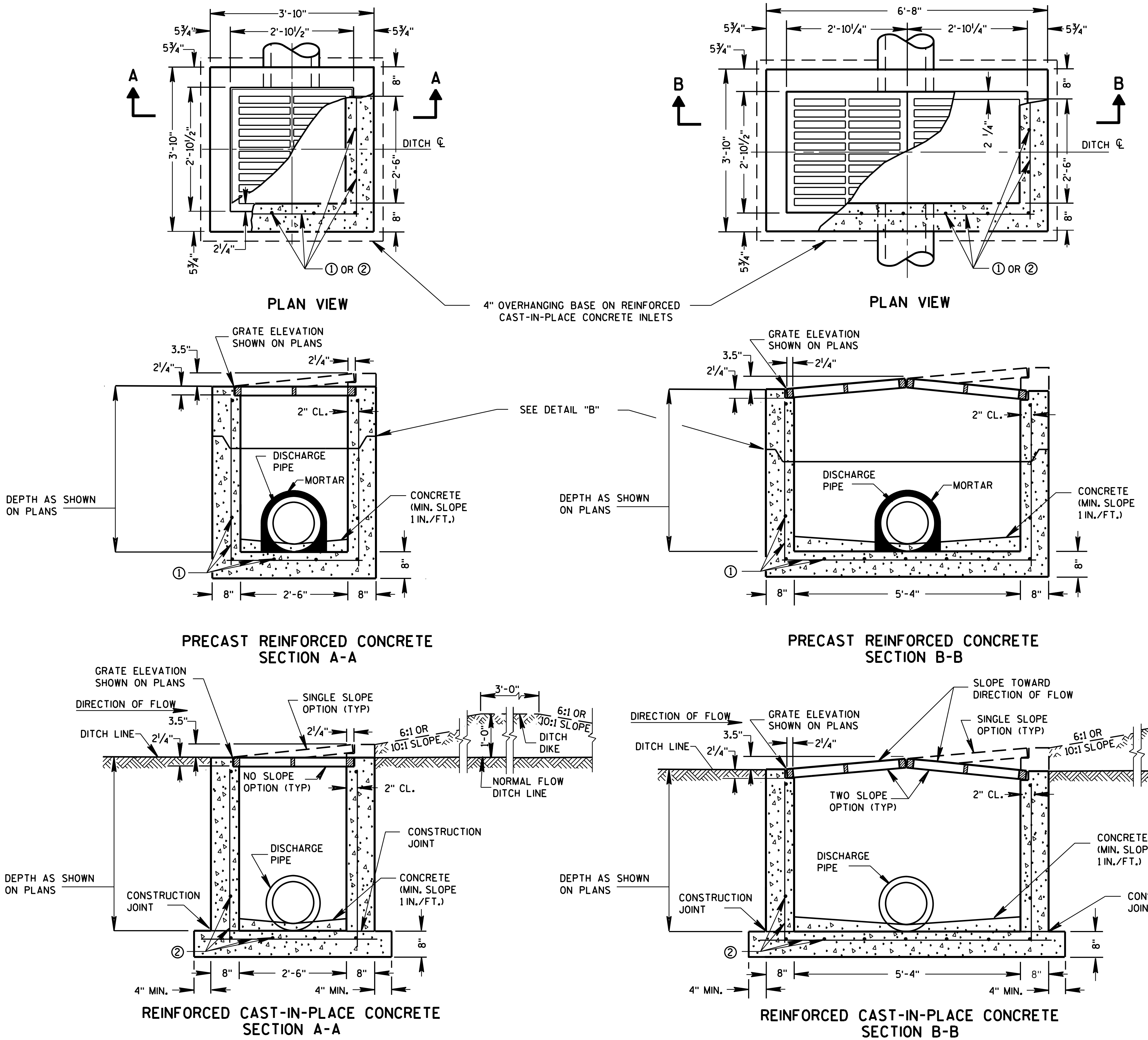

SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

# INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA




**INLETS MEDIAN 1 GRATE**

**INLETS MEDIAN 2 GRATE**

## GENERAL NOTES

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

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

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

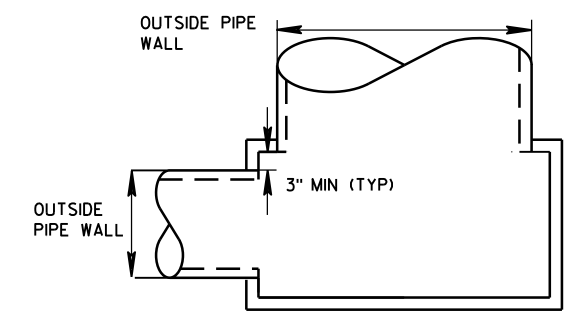
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

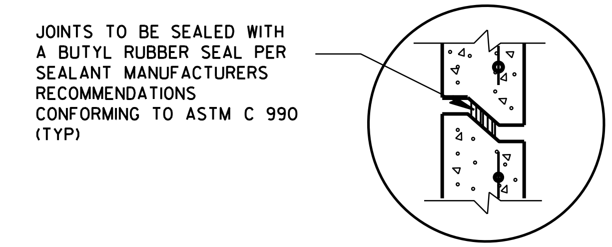
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

### PIPE MATRIX

| | MAXIMUM INSIDE PIPE DIAMETER | |
|---|---|---|
| INLET SIZE | WIDTH (IN) | LENGTH (IN) |
| 1 GRATE | 18 | 18 |
| 2 GRATE | 18 | 42 |




DETAIL "A"




DETAIL "B"

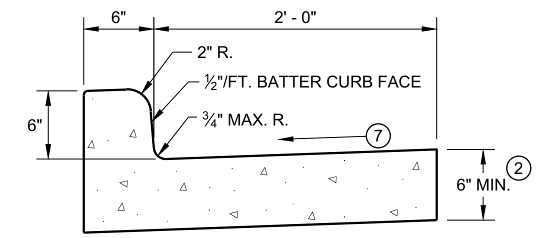
6

**INLETS MEDIAN 1 AND 2 GRATE**

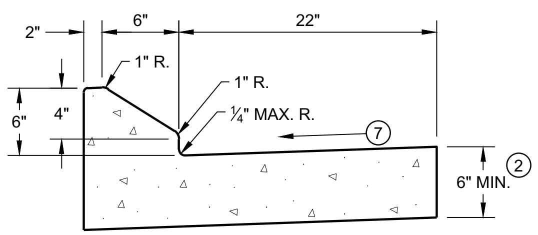
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

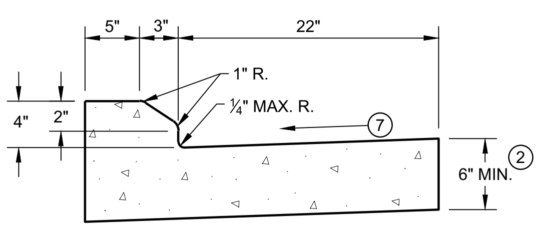
S.D.D. 8 C 8-2



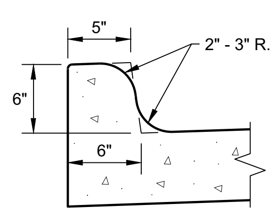

TYPES A 1 & D



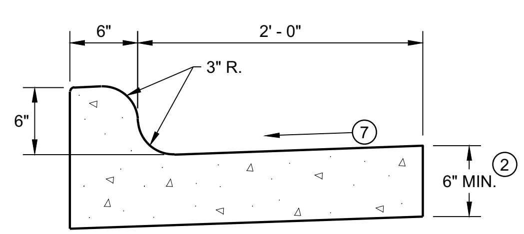

6" SLOPED CURB TYPES G 1 & J




4" SLOPED CURB TYPES G 1 & J

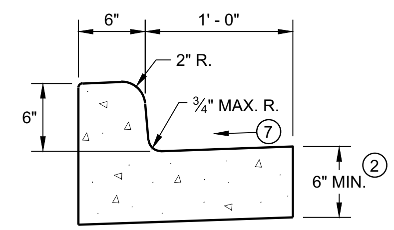



TYPES K 1 & L
(OPTIONAL CURB SHAPE)




TYPES K 1 & L

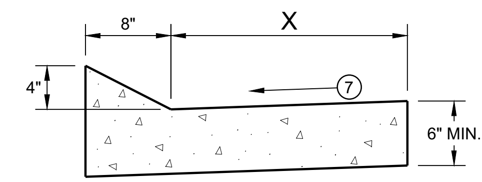
## CONCRETE CURB AND GUTTER 30"




TYPES A 1 & D

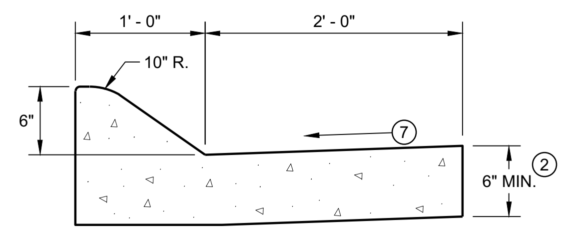
## CONCRETE CURB AND GUTTER 18"

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

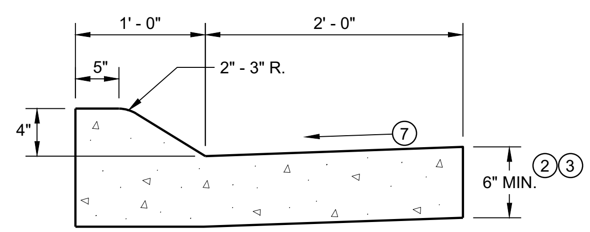



TYPES TBT & TBTT 1

## CONCRETE CURB AND GUTTER

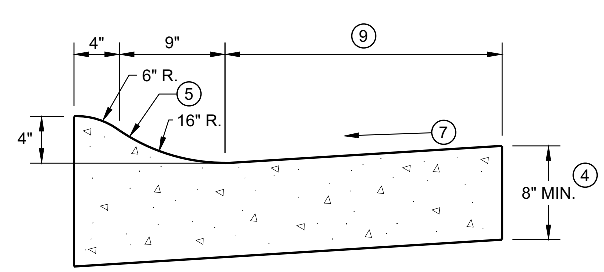



6" SLOPED CURB TYPES A 1 & D




4" SLOPED CURB TYPES A 1 & D

## CONCRETE CURB AND GUTTER 36"




4" SLOPED CURB TYPES R 1 & T

## GENERAL NOTES

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

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

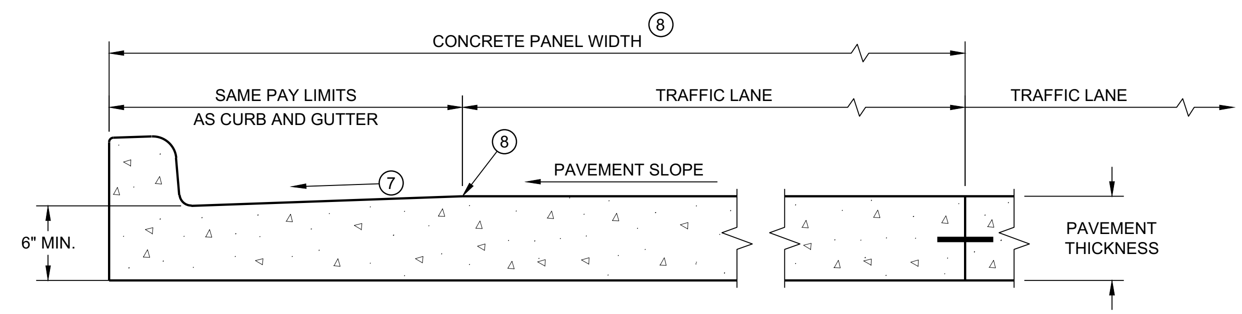
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

1. TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
2. THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
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. UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES 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.
9. CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

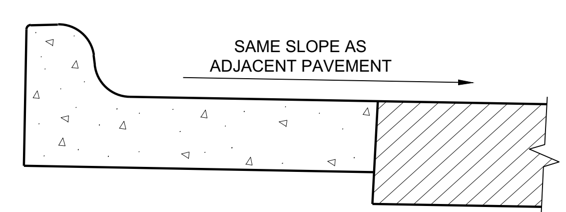
### PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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




## PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

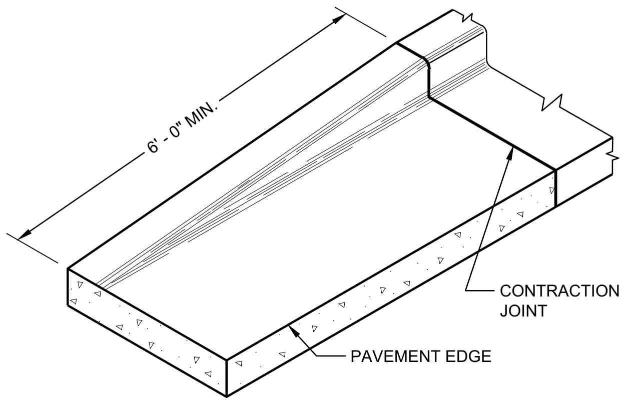
* BIKE LANE IS NOT SHOWN



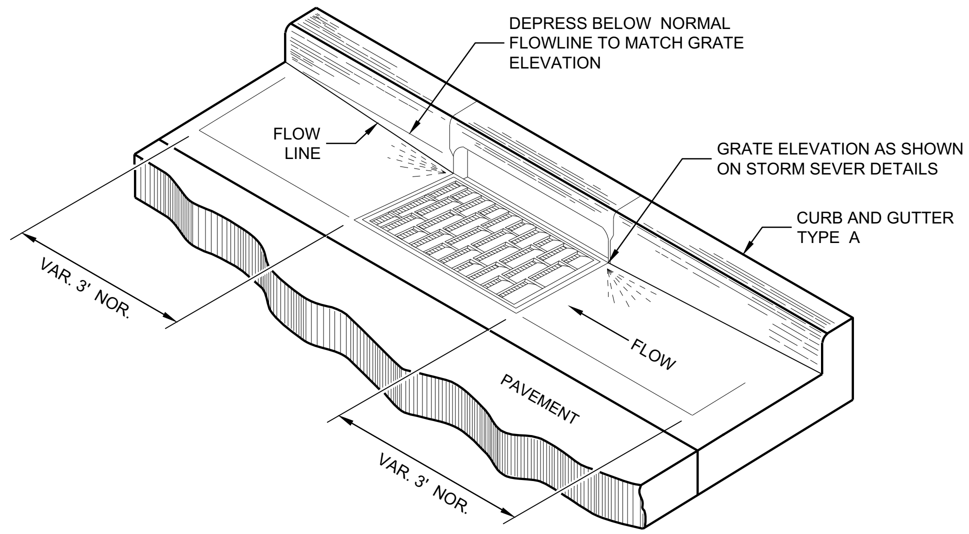

## REVERSE SLOPE GUTTER 6
(TYPICAL FOR ALL CURB & GUTTER TYPES)

**CONCRETE CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT




**END SECTIONCURB AND GUTTER**




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

## GENERAL NOTES

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

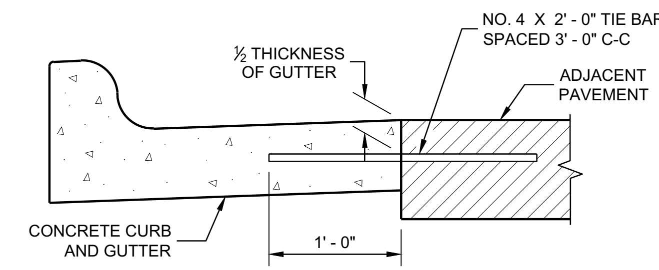
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

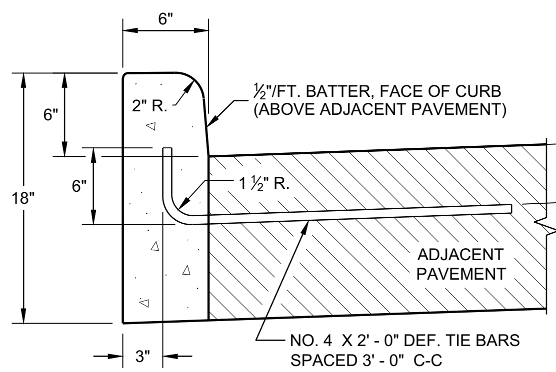
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

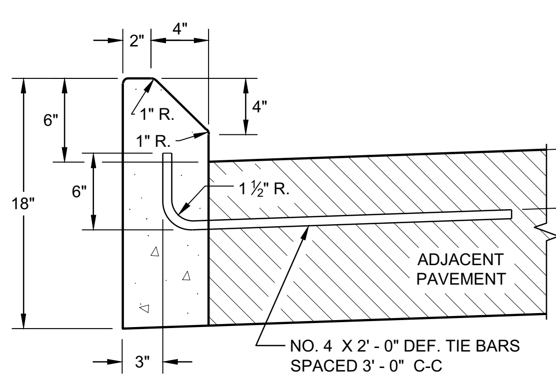
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.




**TYPICAL TIE BAR LOCATION (1)**

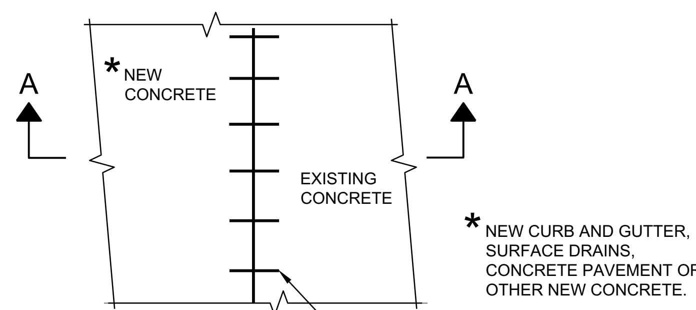



**TYPES A(1) & D**

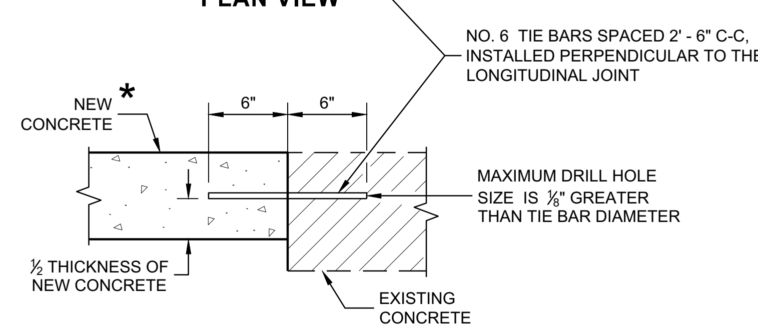



**TYPES G(1) & J**

**CONCRETE CURB**

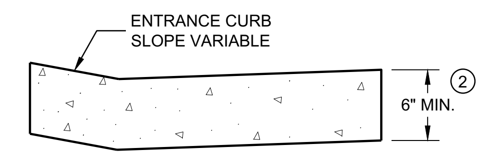



**PLAN VIEW**




**SECTION A - A**

**TIE BARS DRILLED INTO EXISTING PAVEMENT**




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



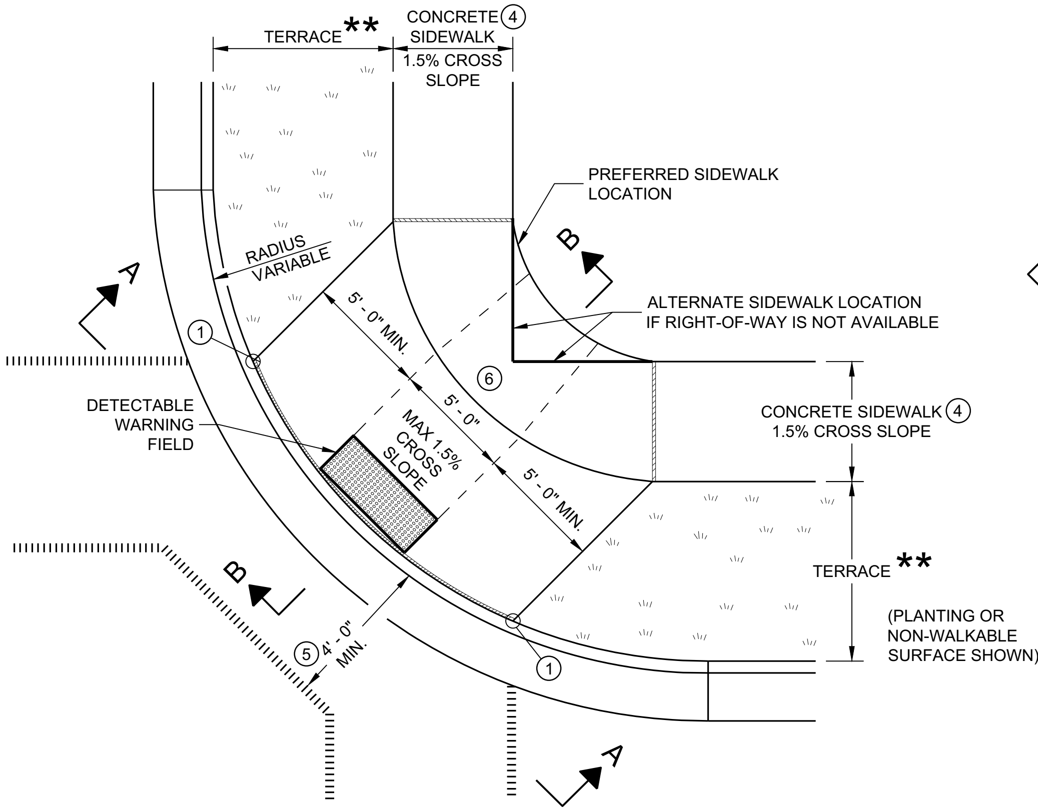


**CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT ENGINEER

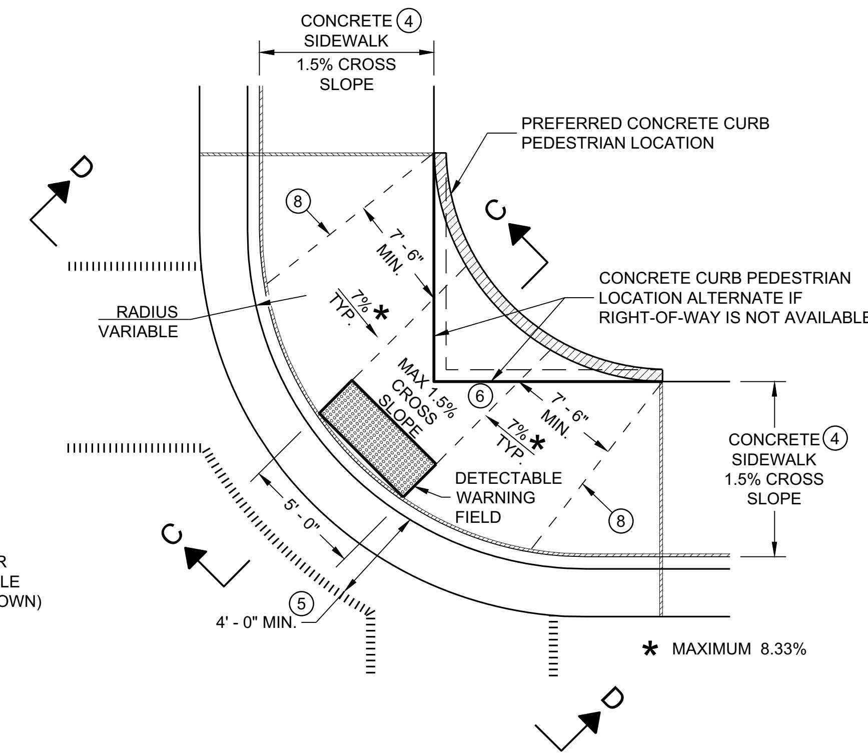
FHWA




**PLAN VIEW**

**CURB RAMP TYPE 1**

**(CENTER OF CORNER RADIUS)**




**PLAN VIEW**

**CURB RAMP TYPE 1 - A**

**(NO TERRACE)**

## GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

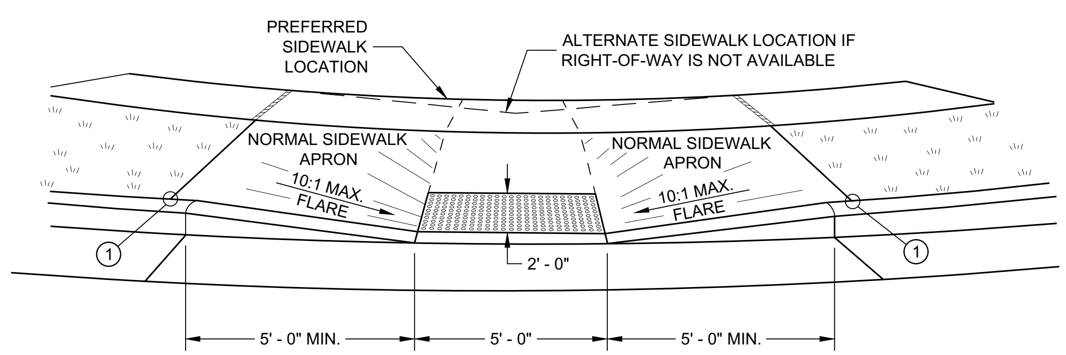
SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

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

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

1. THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
2. GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
3. MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
4. ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
5. PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
6. PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
8. PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

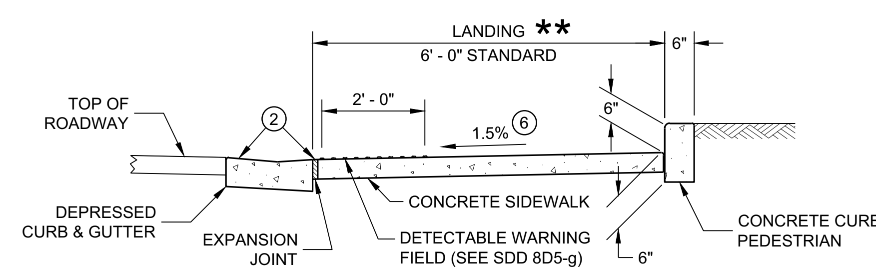
6




**VIEW A - A FOR TYPE 1**

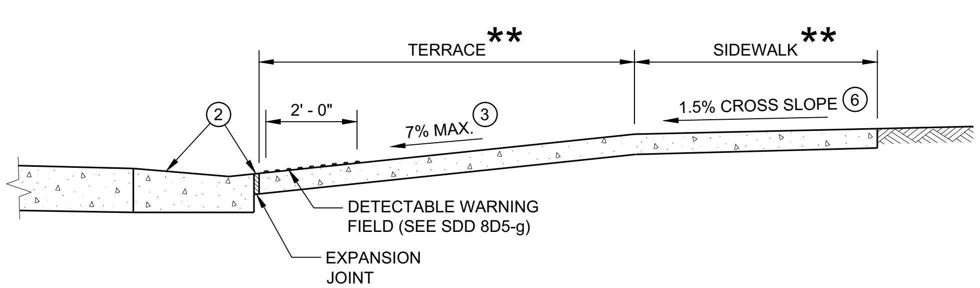
## LEGEND

| | |
|---|---|
| (expansion joint symbol) | ½" EXPANSION JOINT SIDEWALK |
| — — — — | CONTRACTION JOINT FIELD LOCATED |
| IIIIIIIIIIII | PAVEMENT MARKING CROSSWALK (WHITE) |

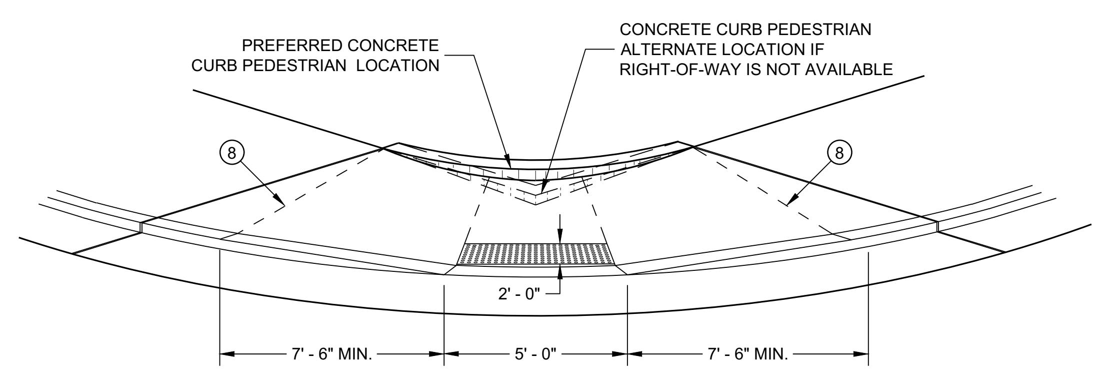



**SECTION C - C FOR TYPE 1 - A**

** WIDTH SHOWN ELSEWHERE IN THE PLANS




**SECTION B - B FOR TYPE 1**

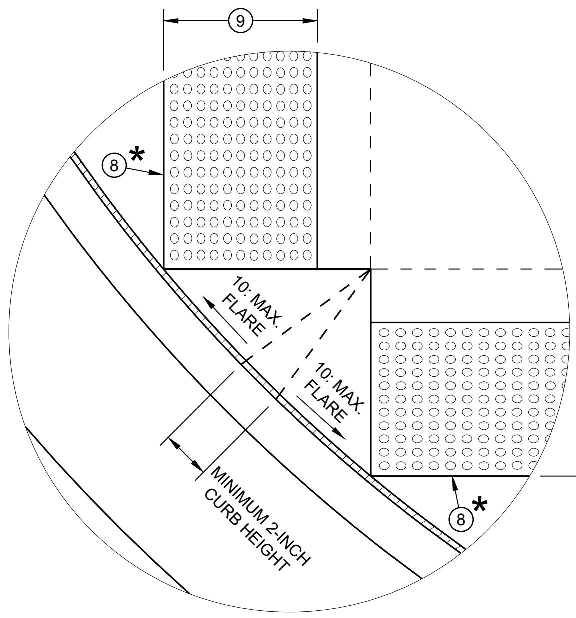



**VIEW D - D FOR TYPE 1 - A**

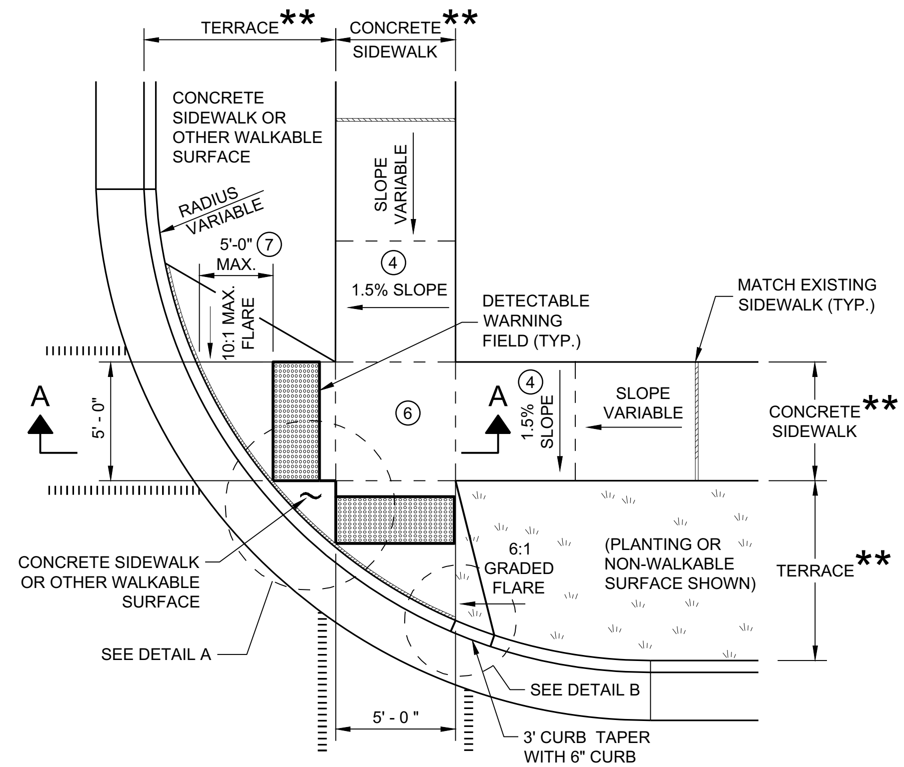
**CURB RAMPS TYPE 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

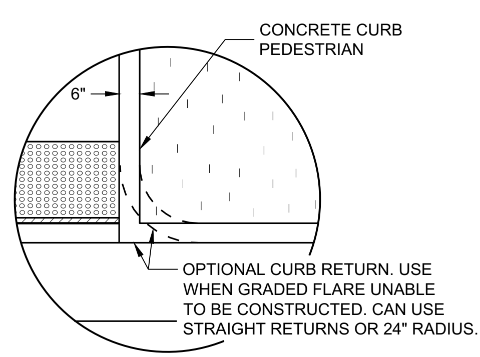
**SDD 08D05 - 20a**



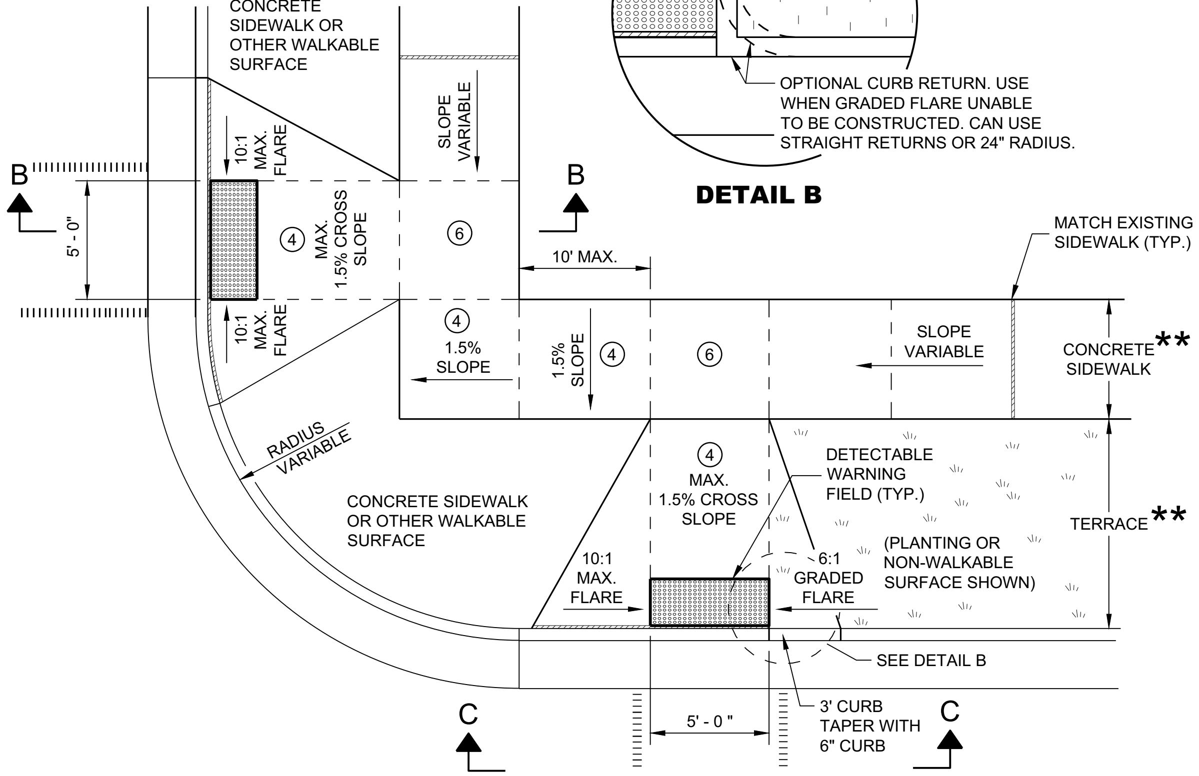

DETAIL A




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




DETAIL B




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

## GENERAL NOTES

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

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

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

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

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

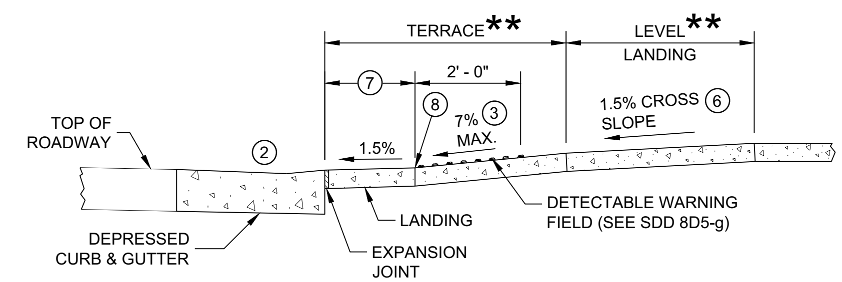
4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

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

8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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




**SECTION A - A FOR TYPE 2**

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

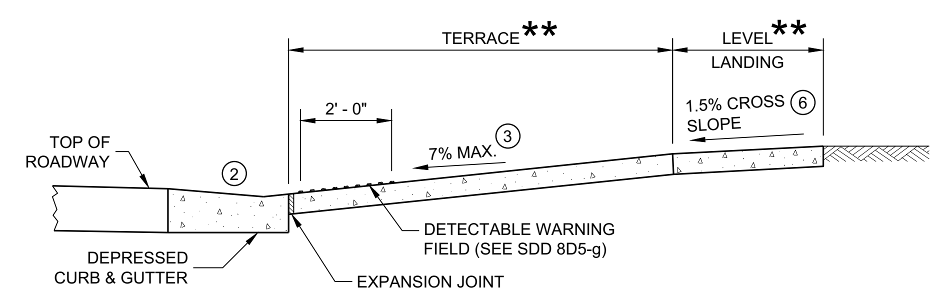
** WIDTH SHOWN ELSEWHERE IN THE PLANS

## LEGEND

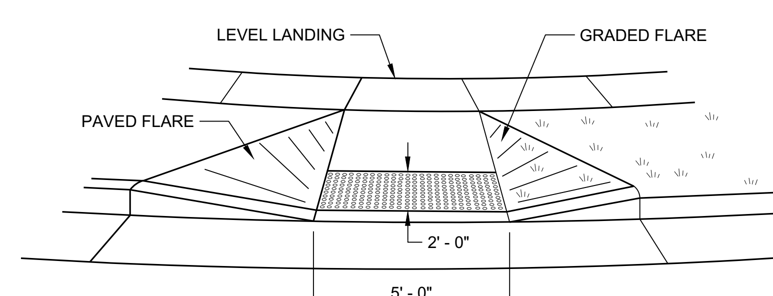
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)




**SECTION B - B FOR TYPE 3**




**VIEW C - C FOR TYPE 3**

**CURB RAMPS**
**TYPE 2 AND 3**

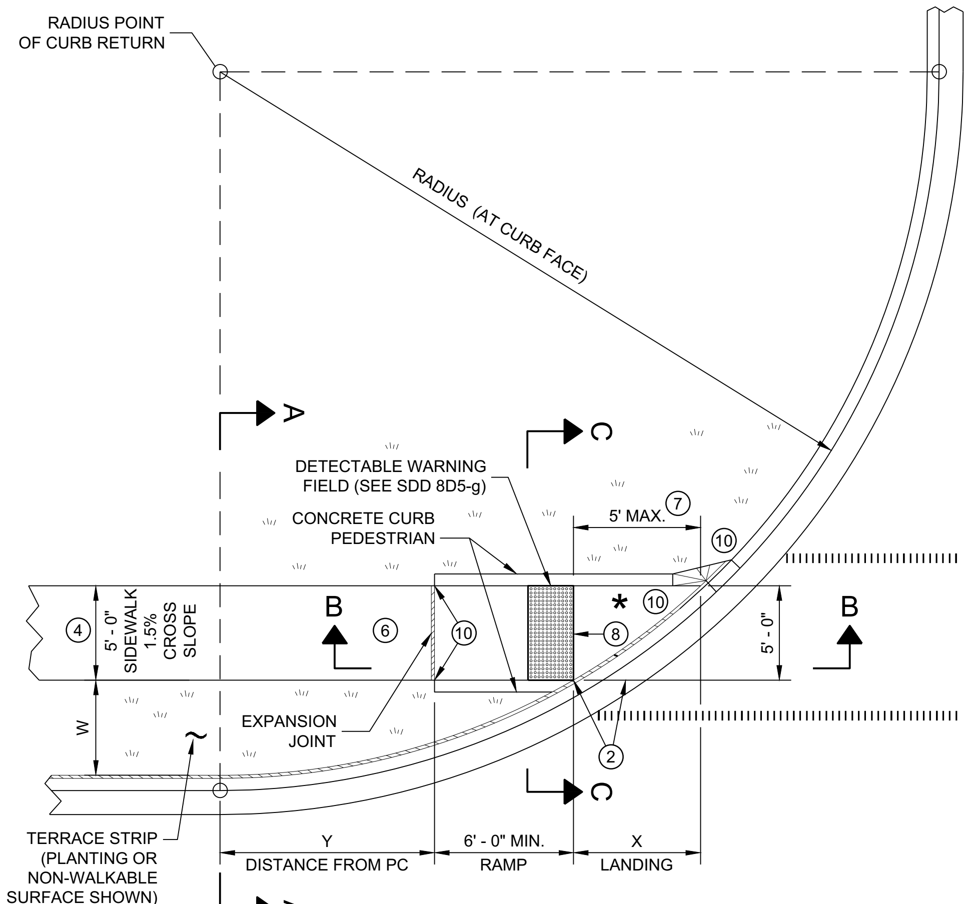
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 08D05 - 20b

SDD 08D05 - 20b




PLAN VIEW

**CURB RAMP TYPE 4B**

| RADIUS (AT CURB FACE) | W = 3' - 0" | | W = 4' - 0" | | W = 5' - 0" | | W = 6' - 0" | | W = 7' - 0" | | W = 8' - 0" | | W = 9' - 0" | | W = 10' - 0" | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X | Y | X | Y | X | Y | X | Y | X | Y | X | Y | X | Y | X | Y |
| 10 FEET | 2' - 10 ¼" | 0' - 5" | 2' - 1" | 1' - 4 ½" | 1' - 5" | 2' - 1" | 0' - 10" | 2' - 7 ½" | 0' - 3 ¼" | 3' - 0 ¼" | | | | | | |
| 15 FEET | 4' - 6 ¾" | 2' - 1 ¾" | 3' - 9" | 3' - 5 ¾" | 3' - 1 ¼" | 4' - 6" | 2' - 6 ¾" | 5' - 4 ½" | 2' - 1" | 6' - 1" | 1' - 8" | 6' - 8 ½" | 1' - 3 ¼" | 7' - 2 ½" | 0' - 10 ¾" | 7' - 7 ¼" |
| 20 FEET | 5' - 9 ¾" | 3' - 6 ½" | 4' - 11 ½" | 5' - 1 ¾" | 4' - 3 ¼" | 6' - 5 ½" | 3' - 8 ¾" | 7' - 7" | 3' - 3" | 8' - 6 ½" | 2' - 10" | 9' - 4 ½" | 2' - 5 ½" | 10' - 1 ¼" | 2' - 1 ¼" | 10' - 9" |
| 30 FEET | | | 6' - 9 ¼" | 7' - 11 ¼" | 6' - 0 ¼" | 9' - 8" | 5' - 5" | 11' - 1 ¾" | 4' - 10 ¾" | 12' - 5 ¾" | 4' - 5 ½" | 13' - 7 ¾" | 4' - 0 ¾" | 14' - 8 ½" | 3' - 8 ½" | 15' - 8 ¼" |
| 40 FEET | | | | | | | | | 6' - 1 ¾" | 15' - 8 ½" | 5' - 8" | 17' - 2" | 5' - 3" | 18' - 5 ¾" | 4' - 10 ¾" | 19' - 8 ¼" |
| 50 FEET | | | | | | | | | | | | | | | 5' - 10 ¼" | 23' - 2" |

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

## LEGEND

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

## GENERAL NOTES

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

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

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

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

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

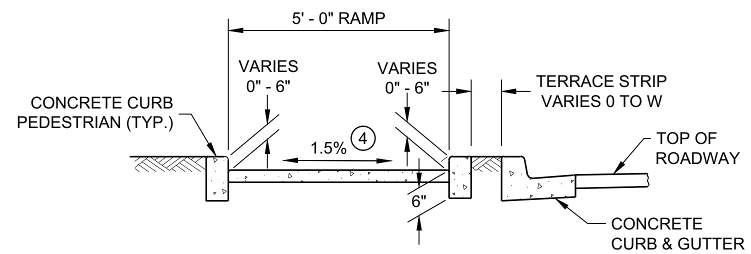
4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

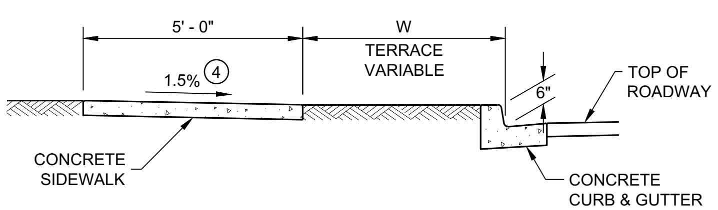
7 WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

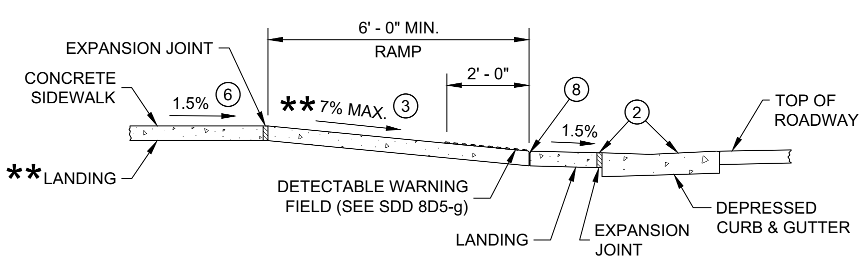



**SECTION C - C FOR TYPE 4B**



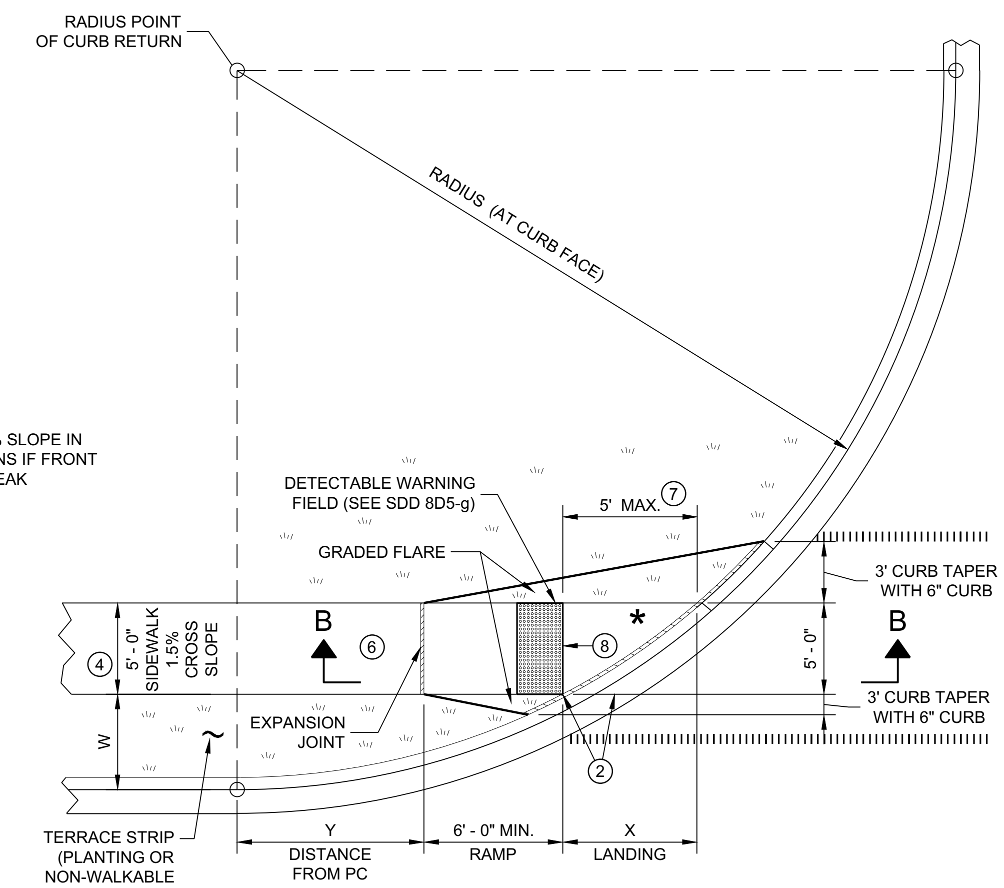

**SECTION A - A FOR TYPE 4B**

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



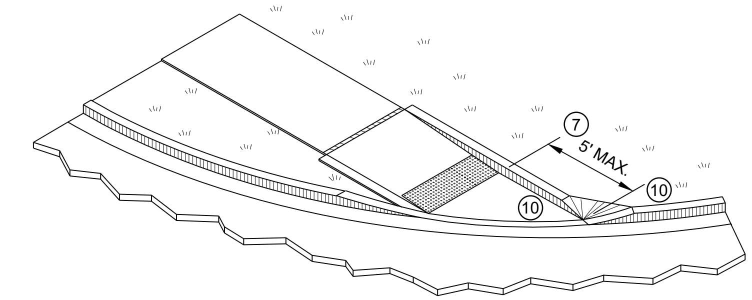

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

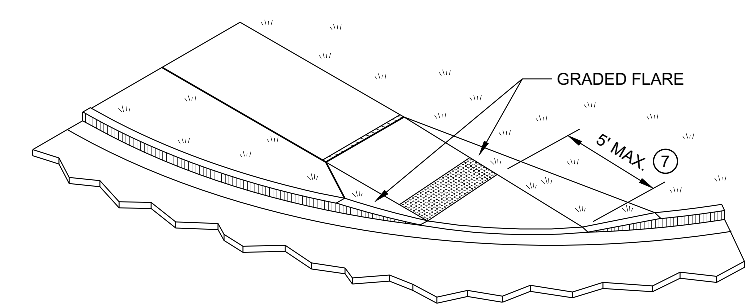



PLAN VIEW

**CURB RAMP TYPE 4B1**




**ISOMETRIC VIEW FOR TYPE 4B**




**ISOMETRIC VIEW FOR TYPE 4B1**

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

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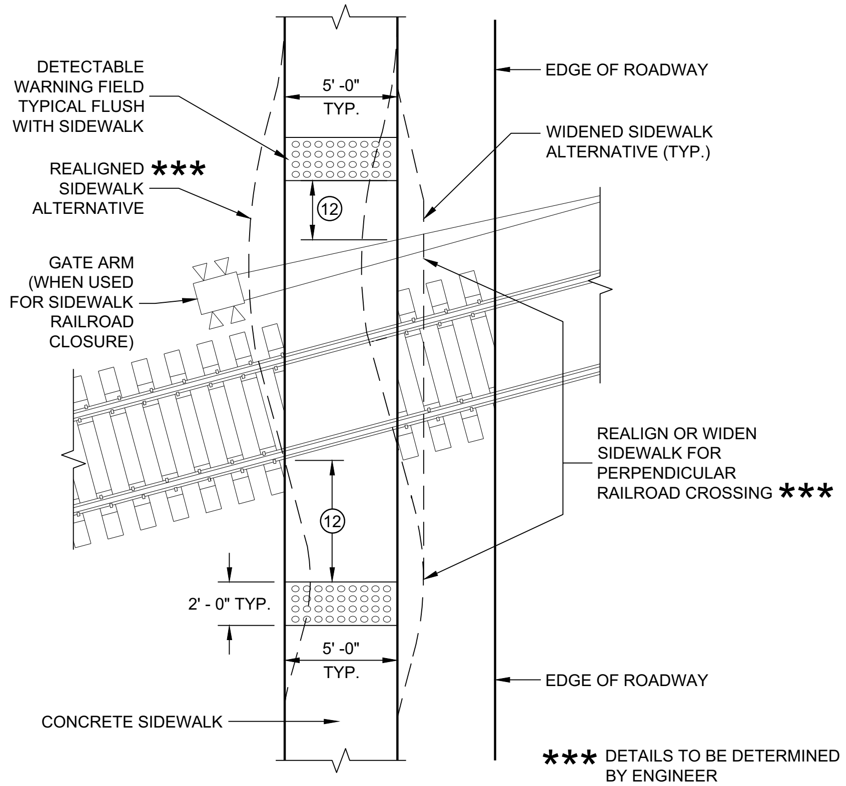
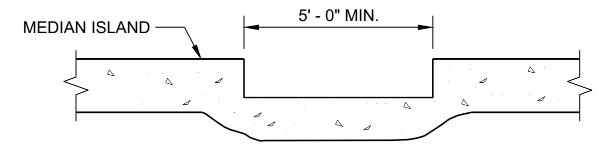
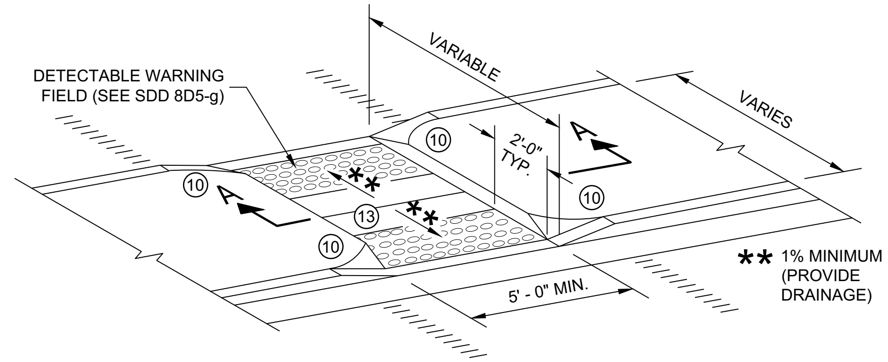



## CURB RAMP TYPE 8

### DETECTABLE WARNINGS AT RAILROAD CROSSING




### SECTION A - A FOR TYPE 5




## CURB RAMP TYPE 5

### MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

## GENERAL NOTES

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

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

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

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

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

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

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

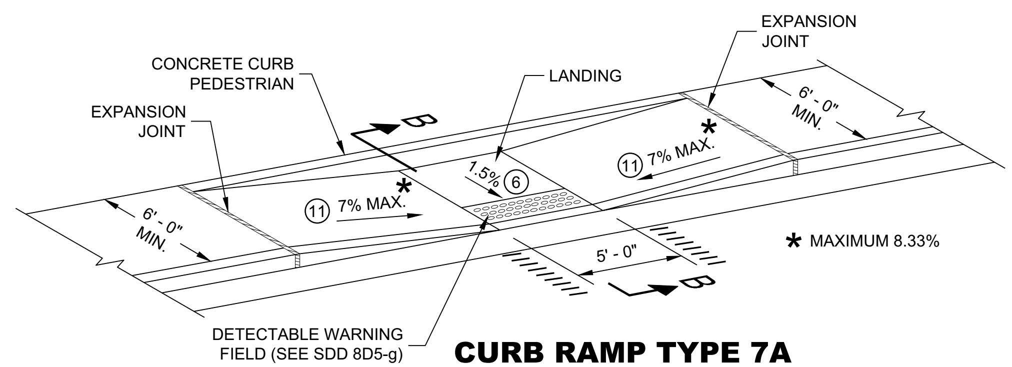
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

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

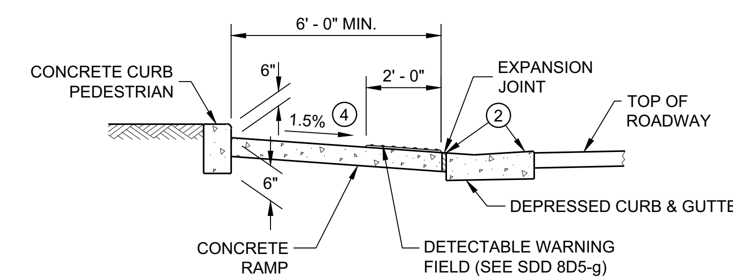
## LEGEND

| | |
|---|---|
| (hatched line) | ½" EXPANSION JOINT SIDEWALK |
| — — — | CONTRACTION JOINT FIELD LOCATED |
| (dashed bars) | PAVEMENT MARKING CROSSWALK (WHITE) |

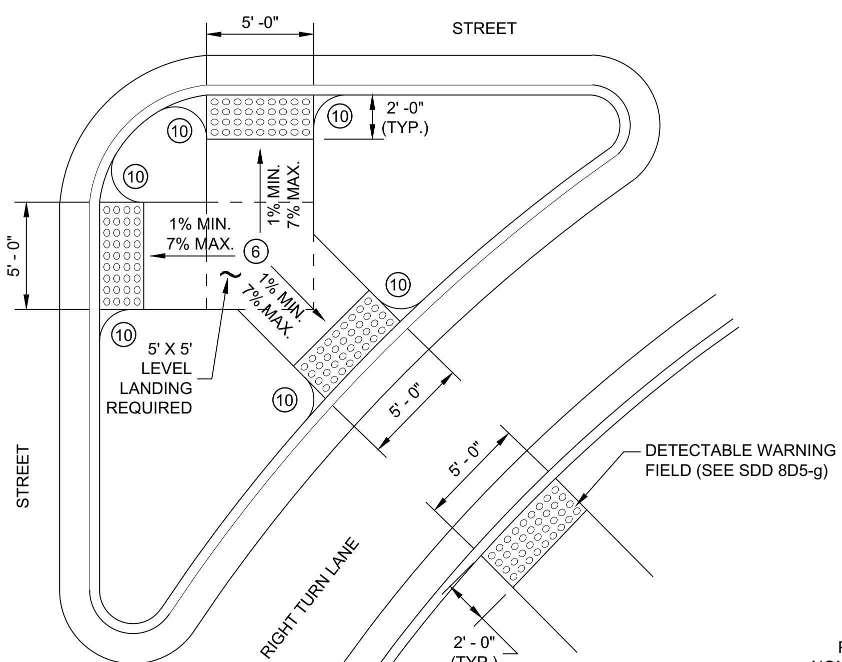



## CURB RAMP TYPE 7A

### MID BLOCK CROSSING



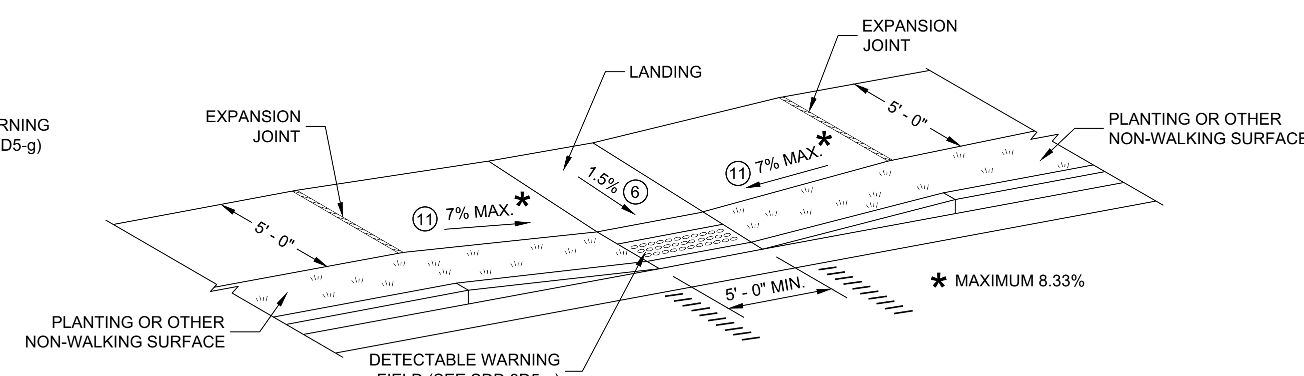

### SECTION B - B FOR TYPE 7A




## CURB RAMP TYPE 6

### DETECTABLE WARNING AT ISLANDS

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




## CURB RAMP TYPE 7B

### MID BLOCK CROSSING

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

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

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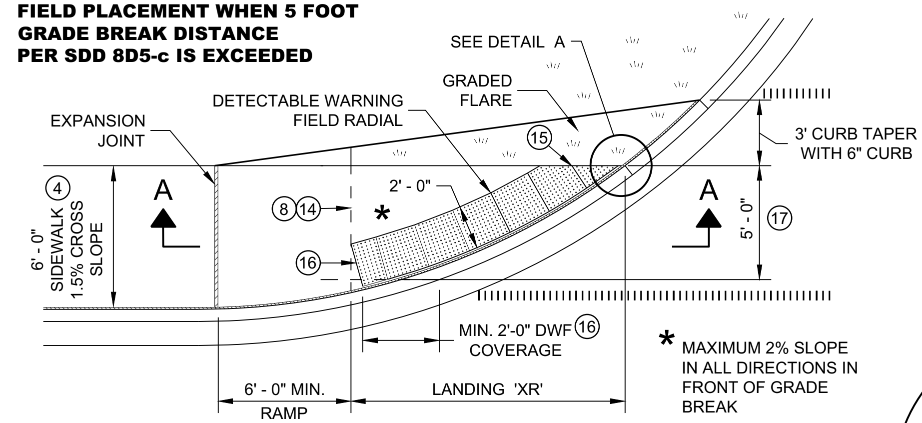
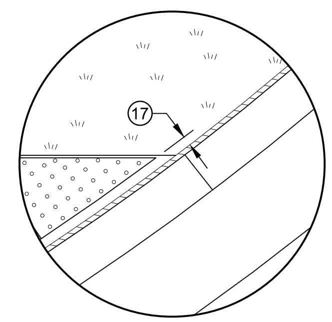


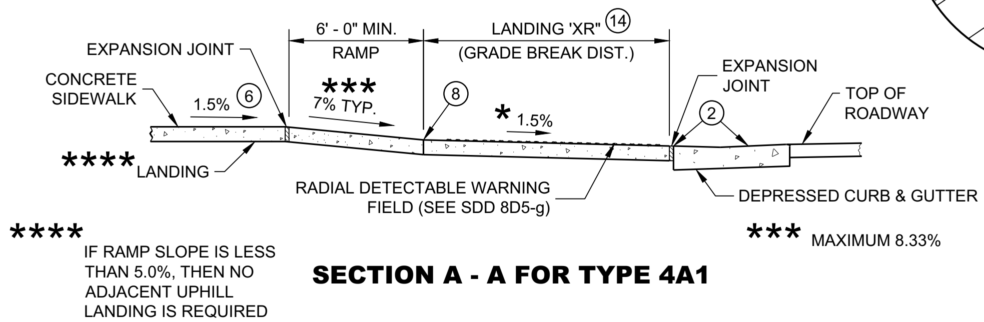

PLAN VIEW

**CURB RAMP TYPE 4A1**

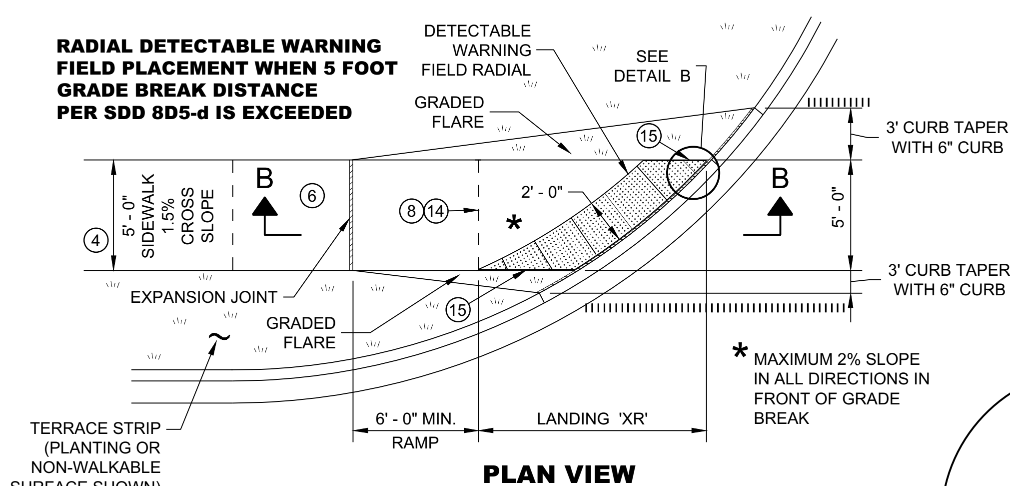
**(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**DETAIL A**



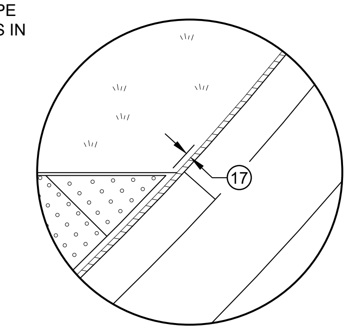

**SECTION A - A FOR TYPE 4A1**



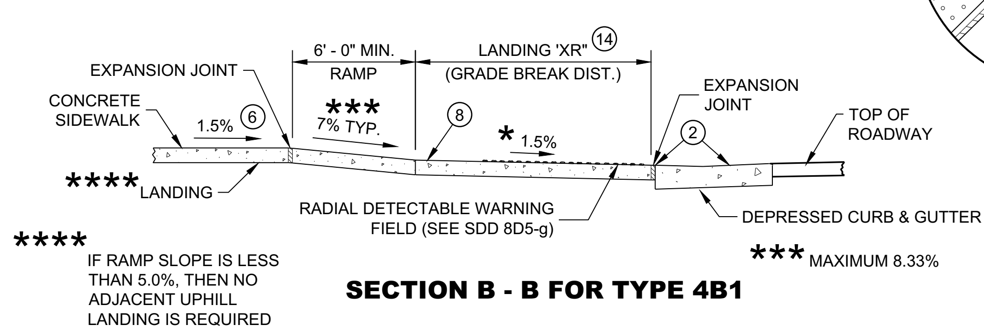

PLAN VIEW

**CURB RAMP TYPE 4B1**

**(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



**DETAIL B**




**SECTION B - B FOR TYPE 4B1**

## LEGEND

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

## GENERAL NOTES

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

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

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

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

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

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

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

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

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

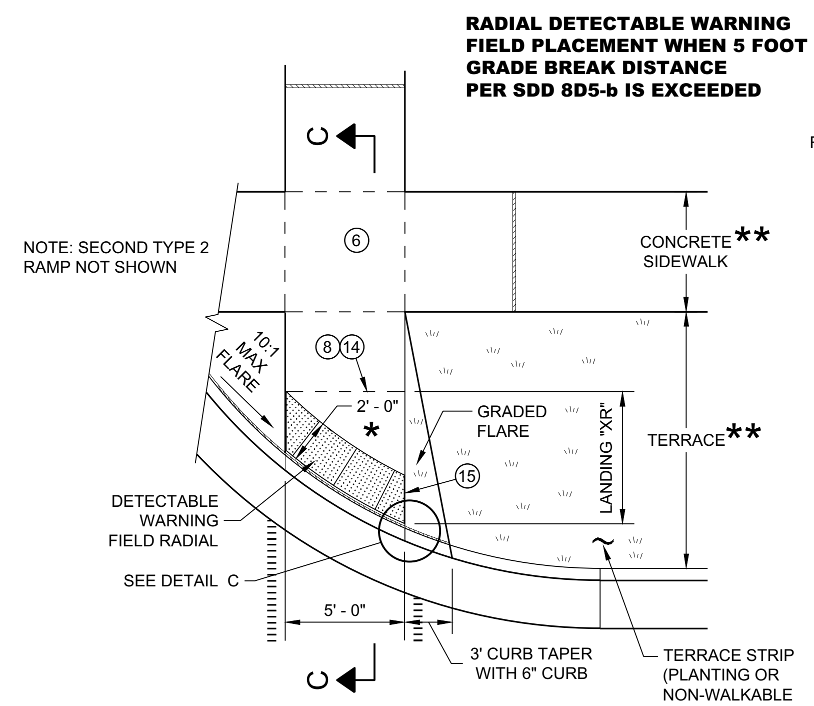
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

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

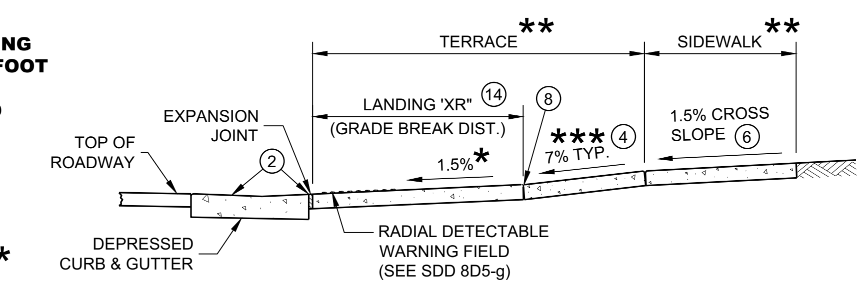



PLAN VIEW

**CURB RAMP TYPE 2**

**(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

**(ON LINE WITH SIDEWALK)**

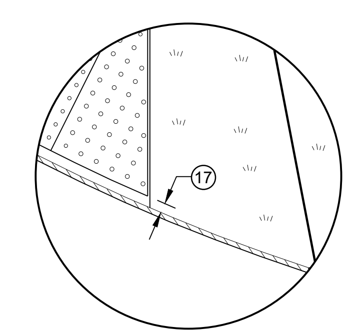



**SECTION C - C FOR TYPE 2**

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



**DETAIL C**

**CURB RAMPS**
**RADIAL DETECTABLE WARNING FIELD APPLICATIONS**

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## GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

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

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

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

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

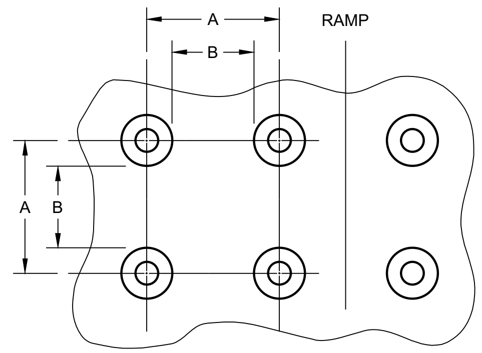
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

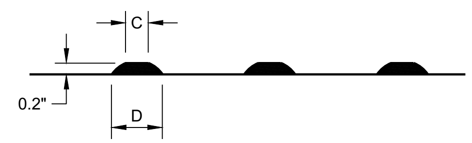
(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

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

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

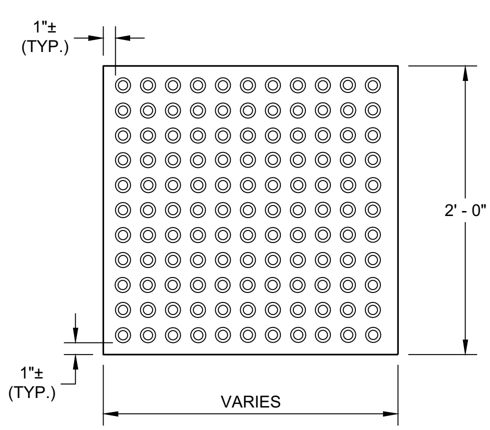



**PLAN VIEW**

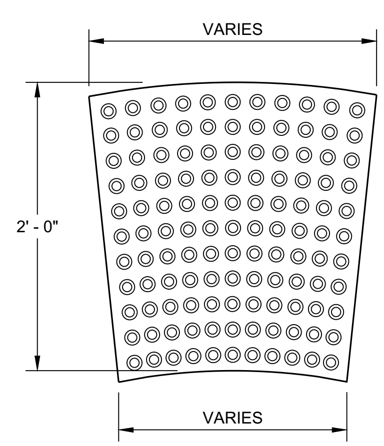



**ELEVATION VIEW**

### TRUNCATED DOMES
**DETECTABLE WARNING PATTERN DETAIL**

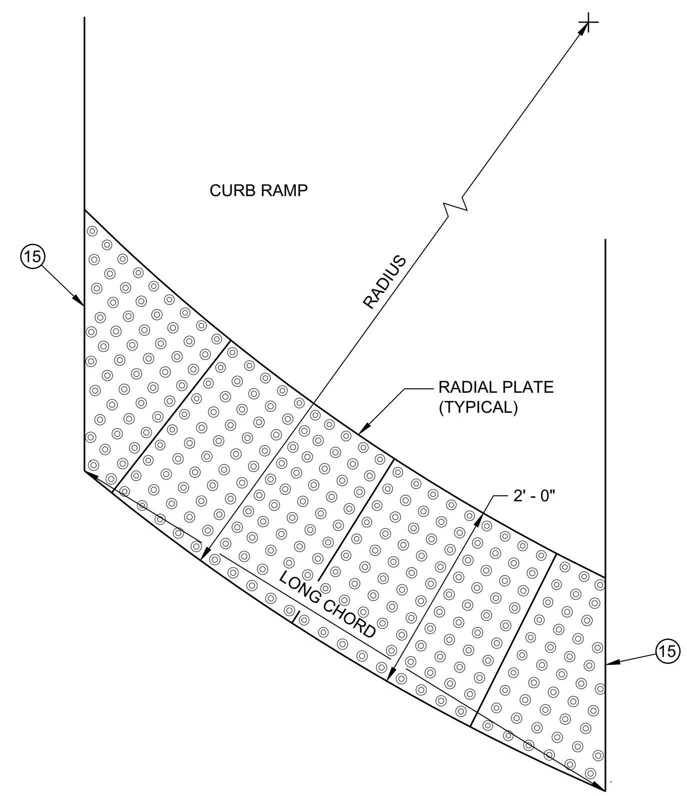



**RECTANGULAR PLATES**

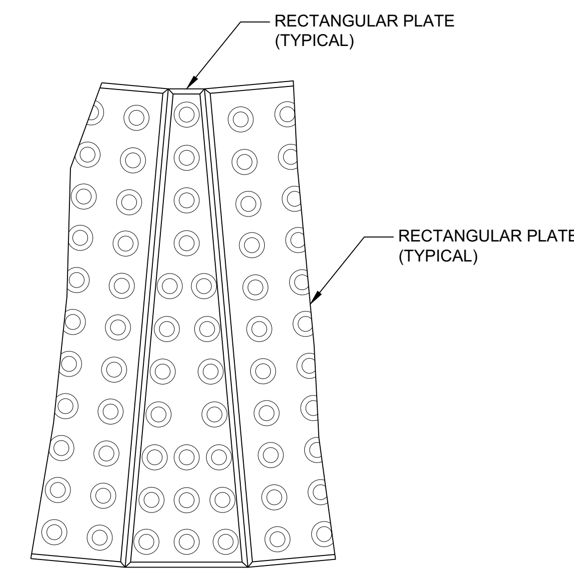



**RADIAL PLATES**

**PLAN VIEW**
### DETECTABLE WARNING FIELDS (TYPICAL)




**PLAN VIEW**
### RADIAL DETECTABLE WARNING FIELD ATTRIBUTES




**PLAN VIEW**
### RADIAL WEDGE PLATE CONNECTION DETAIL

### CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

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


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SDD 08D05 - 20g

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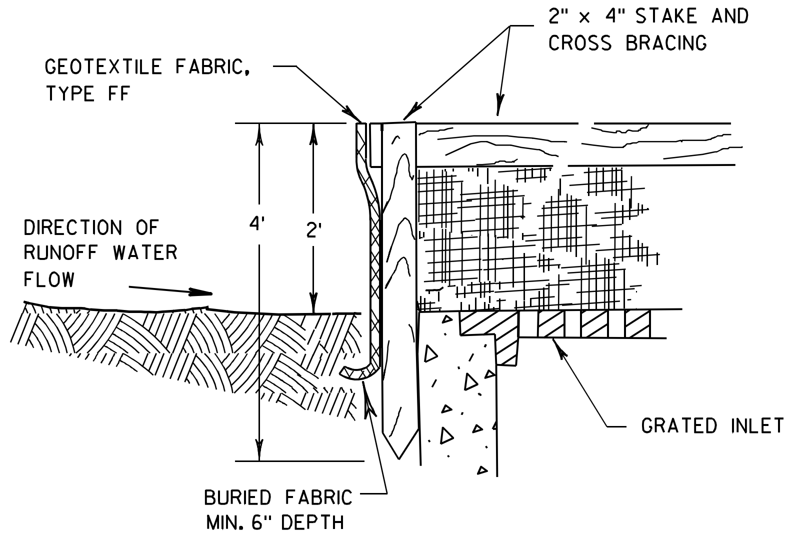
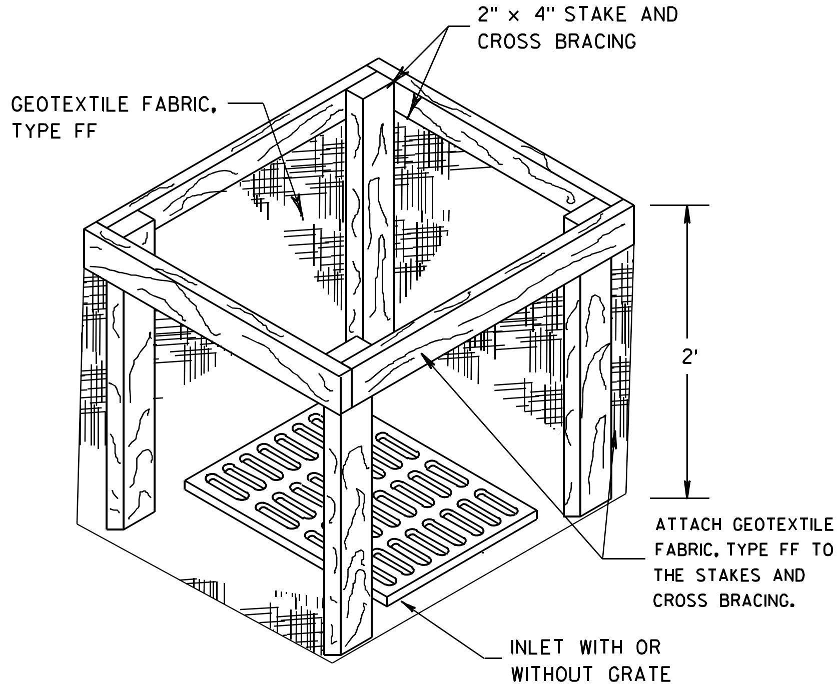
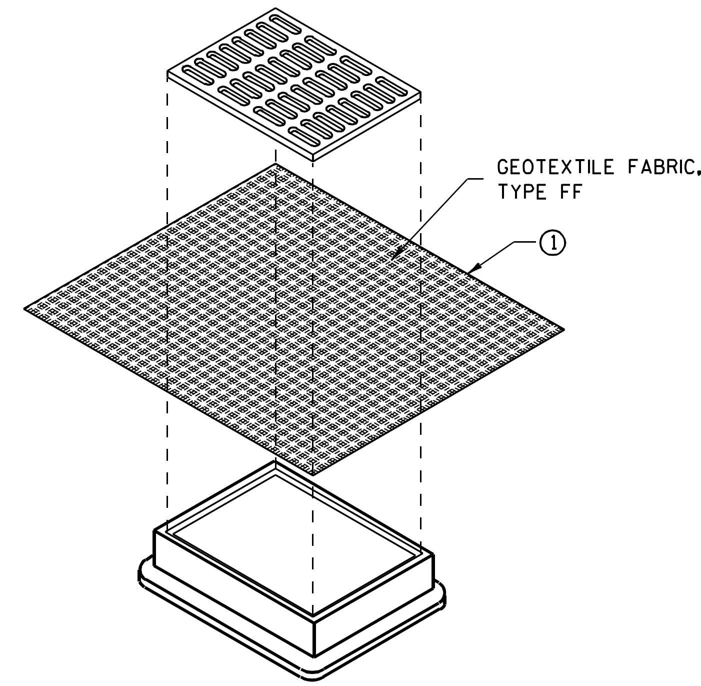


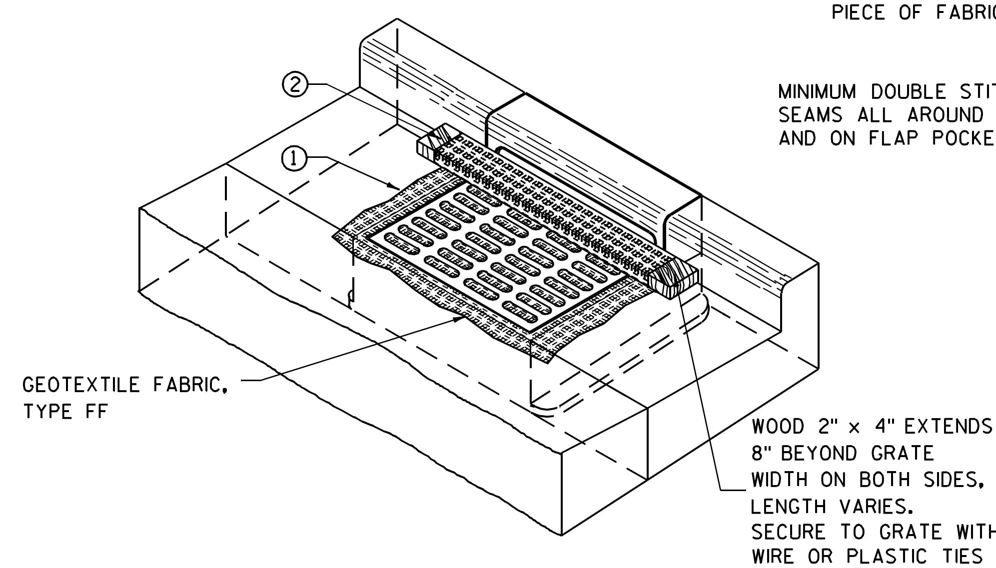




## INLET PROTECTION, TYPE A

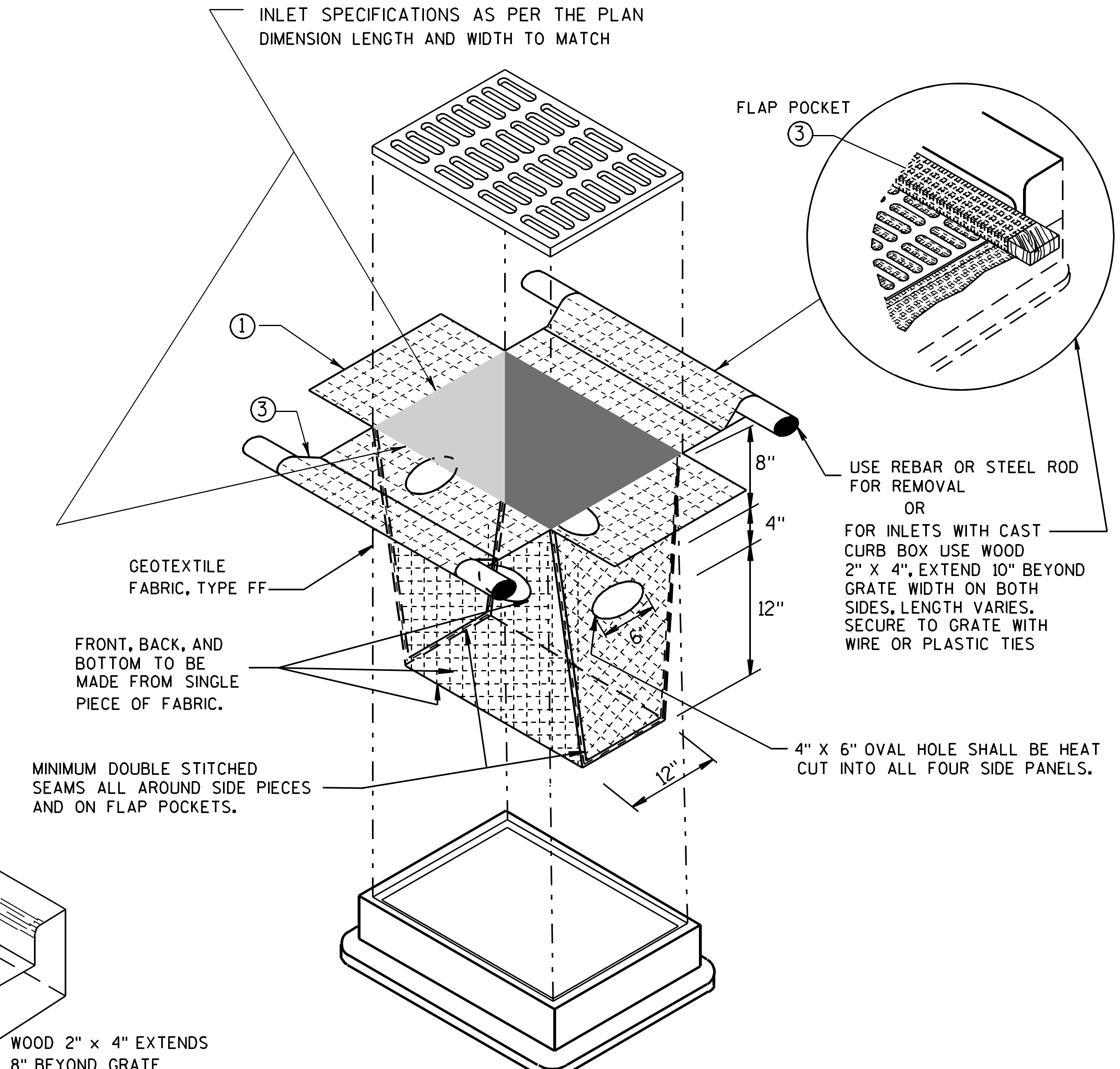



## INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

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




## INLET PROTECTION, TYPE C (WITH CURB BOX)




## INLET PROTECTION, TYPE D

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

## GENERAL NOTES

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

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

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

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

## INSTALLATION NOTES

### TYPE B & C

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

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

### TYPE D

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

## GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

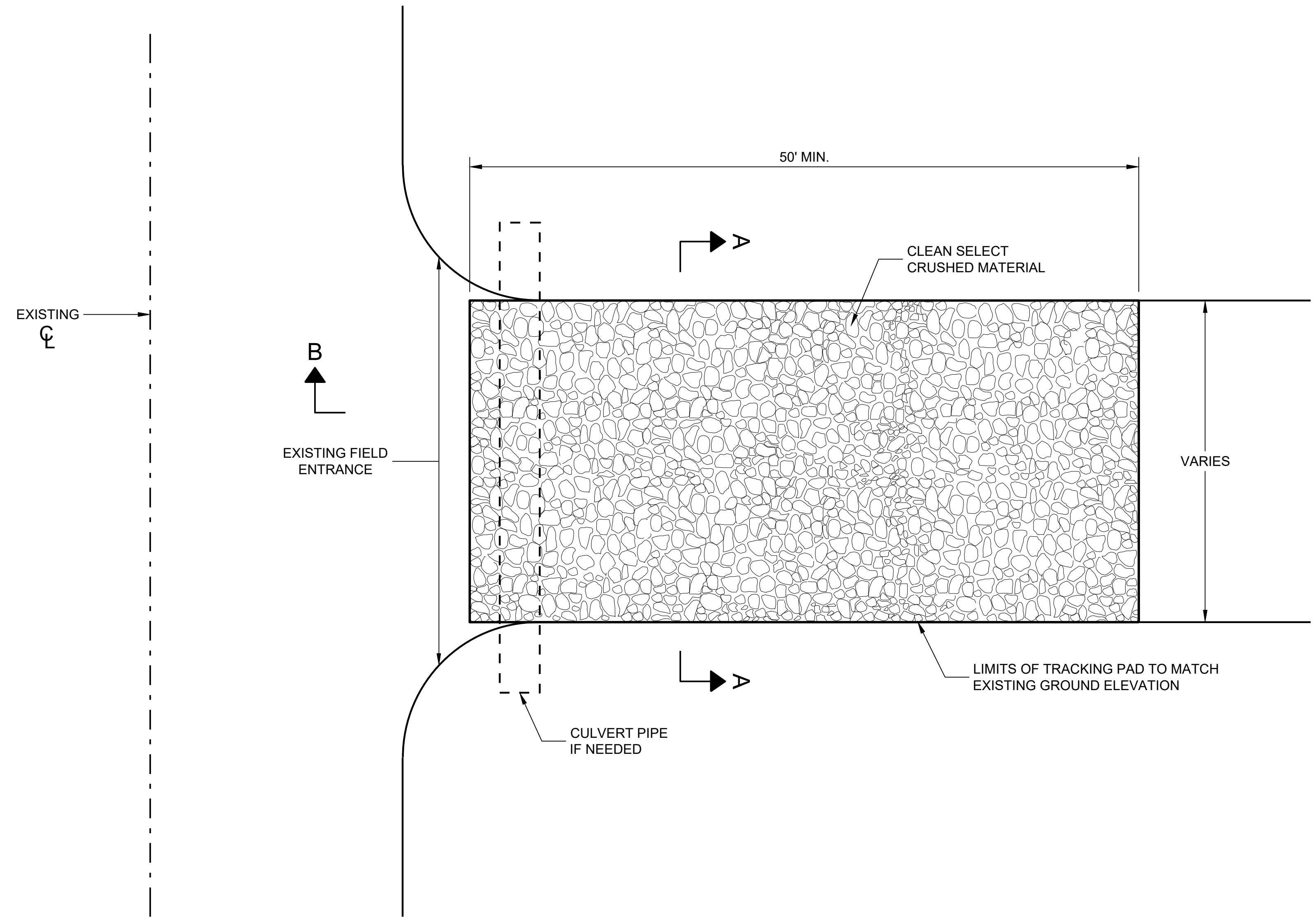
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

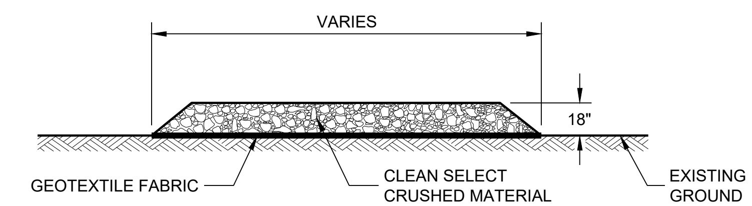
TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

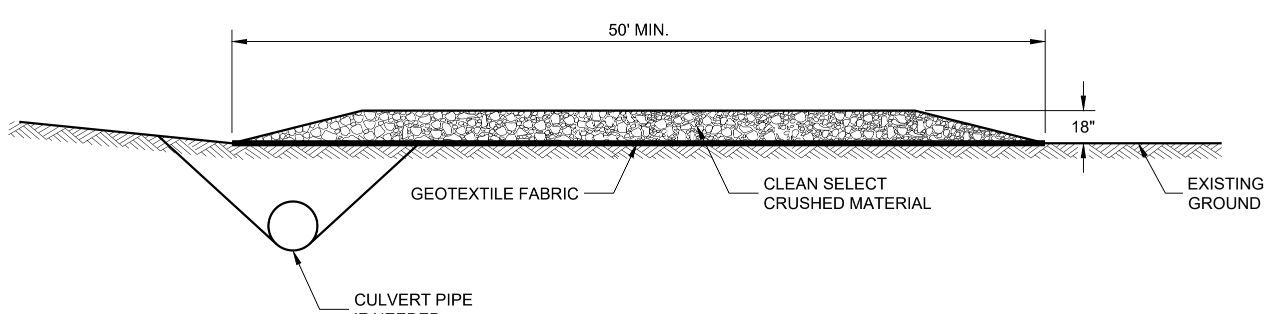
CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.




**SECTION A - A**




**SECTION B - B**

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6

**TRACKING PAD**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011 /S/ Jerry H. Zogg

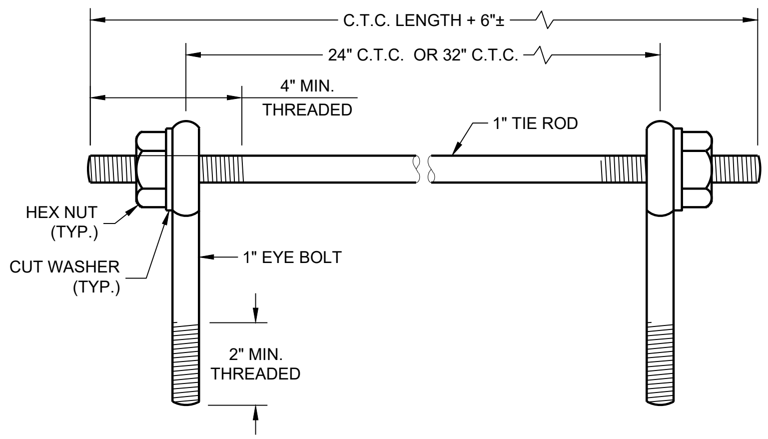
DATE ROADWAY STANDARDS DEVE ENGINEER

FHWA

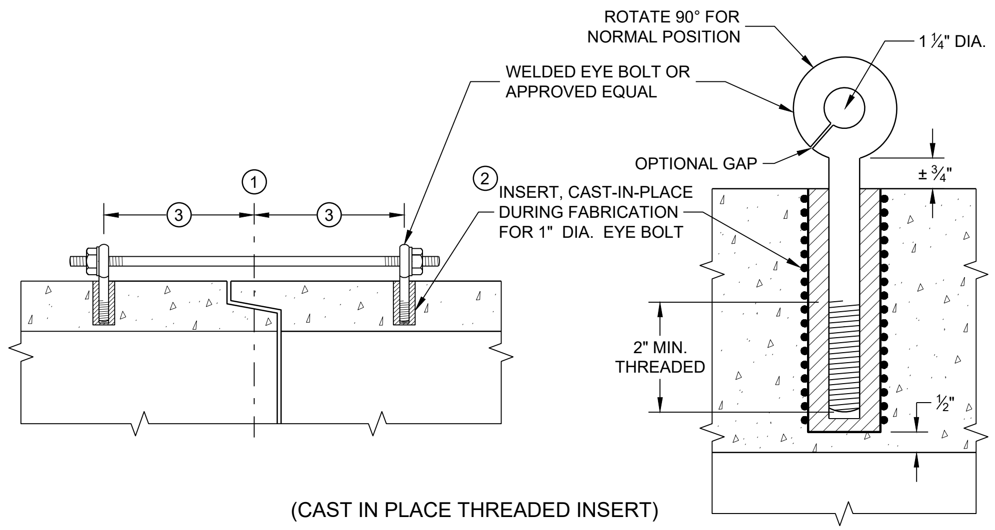


**SDD 08E14 - 01**

**SDD 08E14 - 01**




**EYE BOLTS AND TIE ROD**




(CAST IN PLACE THREADED INSERT)

**LONGITUDINAL SECTIONS**

## EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

## GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

1. CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
2. THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
3. HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
4. BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
5. OPENING TO BE ROD DIAMETER PLUS 1 INCH.
6. LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.
7. EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

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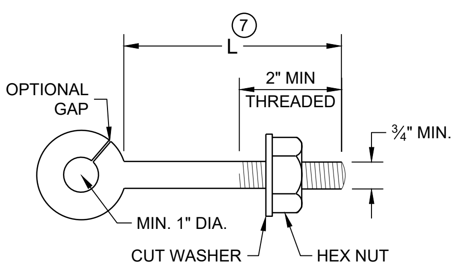
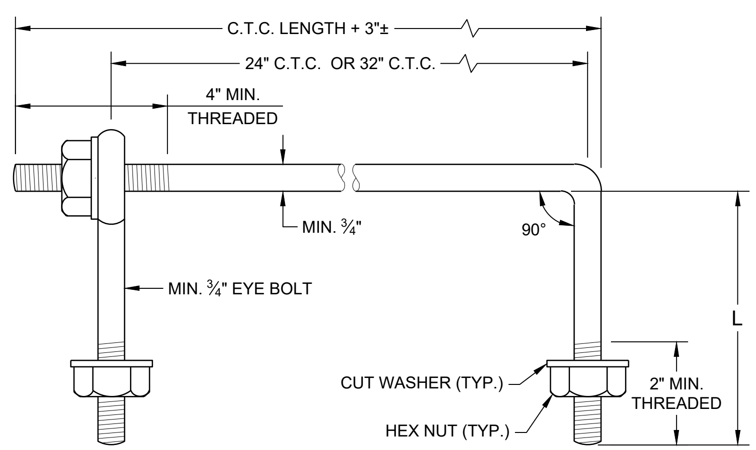
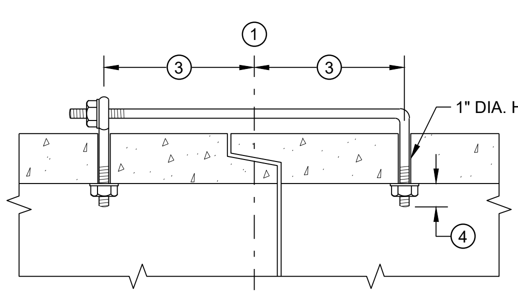



**EYE BOLT** 7

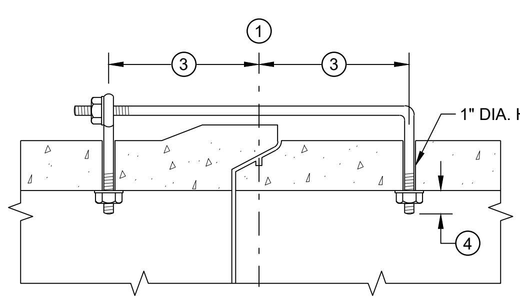
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.




**EYE BOLT AND TIE ROD**




(TONGUE AND GROOVE PIPE)




(MODIFIED BELL PIPE)

**LONGITUDINAL SECTION**

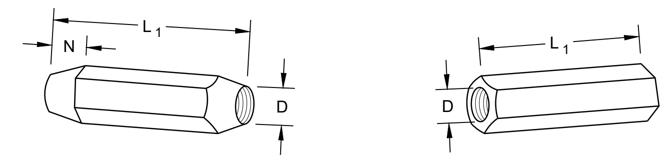
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

## EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

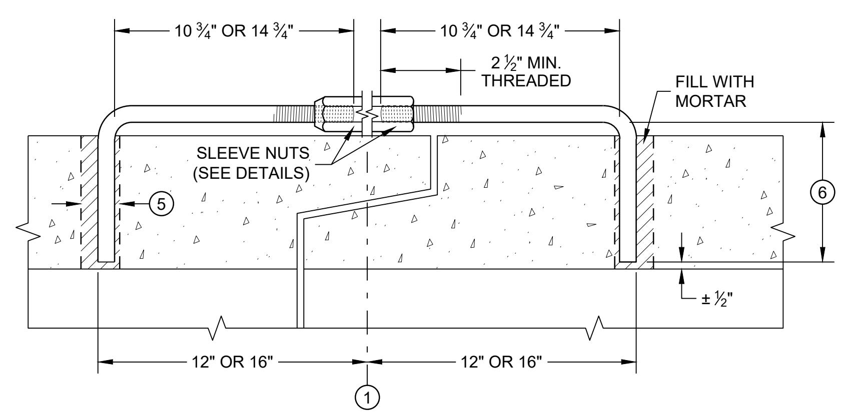
| PIPE DIAMETER | TIE ROD DIAMETER | D | $L_1$ | N |
|---|---|---|---|---|
| 12 - 60 | ⅝ | ⅝ | 5 | ½ |
| 66 - 84 | ¾ | ¾ | 5 | ½ |
| 90 - 144 | 1 | 1 | 7 | 1 7/16 |

DIMENSIONS SHOWN ARE IN INCHES



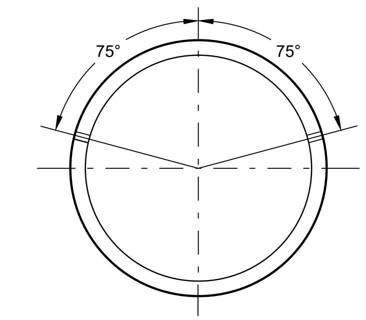

RIGHT AND LEFT THREADS

**SLEEVE NUTS**



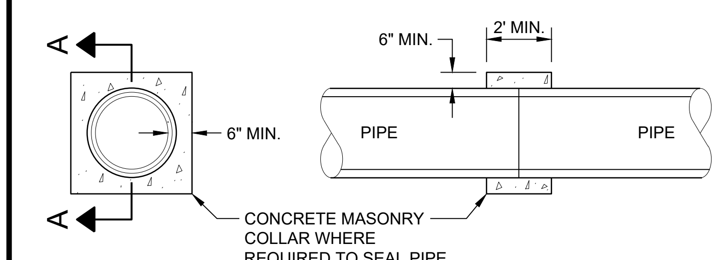

**LONGITUDINAL SECTION**

## ADJUSTABLE TIE ROD (ALTERNATE NO. 3)




PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

**TRANSVERSE SECTION**




**SECTION A - A**

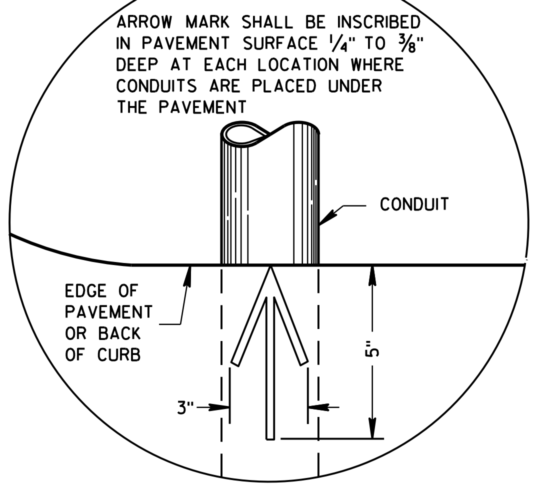
## CONCRETE COLLAR DETAIL

## JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

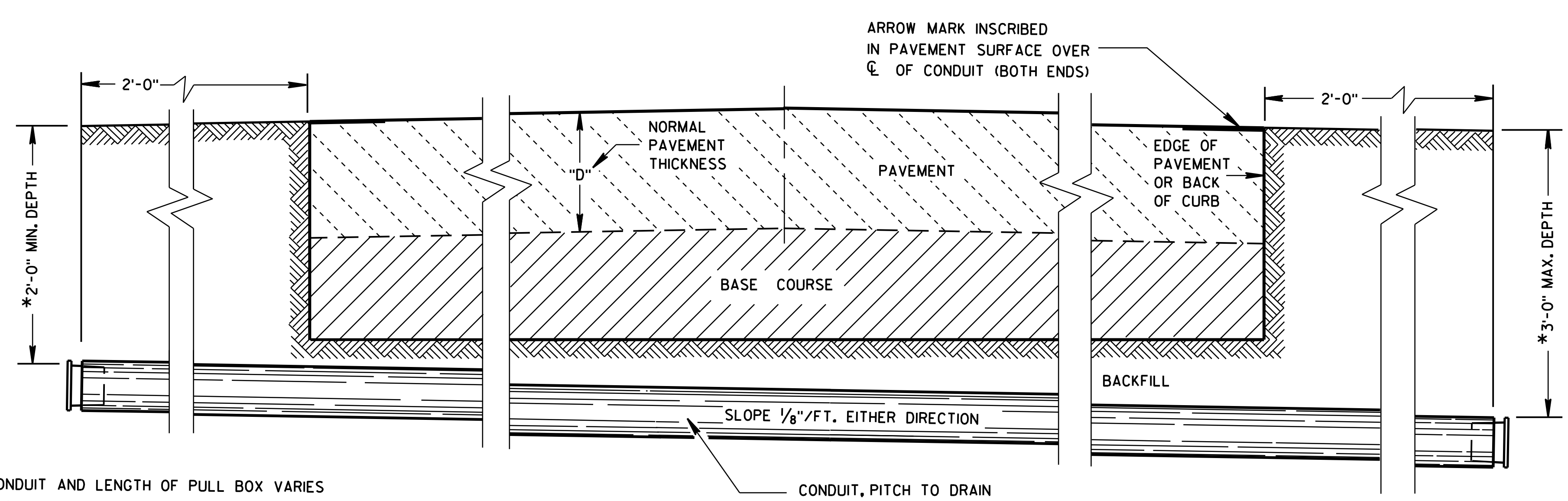
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6




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.

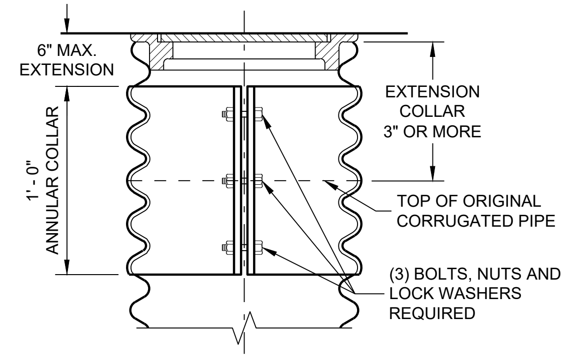
ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

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.).

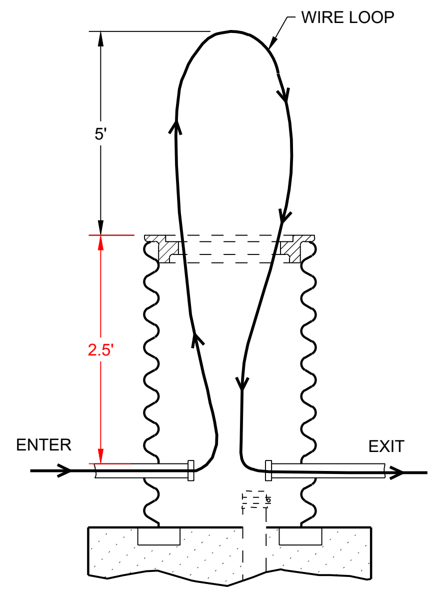
TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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.

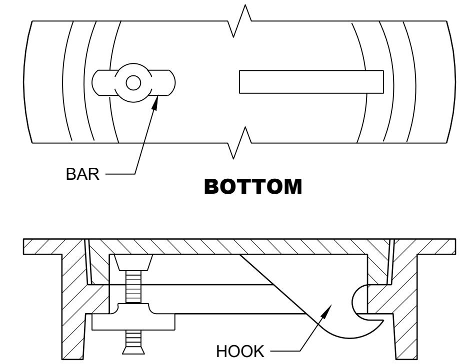
| | |
|---|---|
| CONDUIT | |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION | |
| APPROVED<br>March, 2017<br>DATE | /S/ Ahmet Demirbilek<br>STATE ELECTRICAL |
| FHWA | |




**CORRUGATED PIPE EXTENDER**




**MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX**




**ALTERNATE COVER (LOCKING)**

TIGHTENING BAR TYPE

## GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

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

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

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

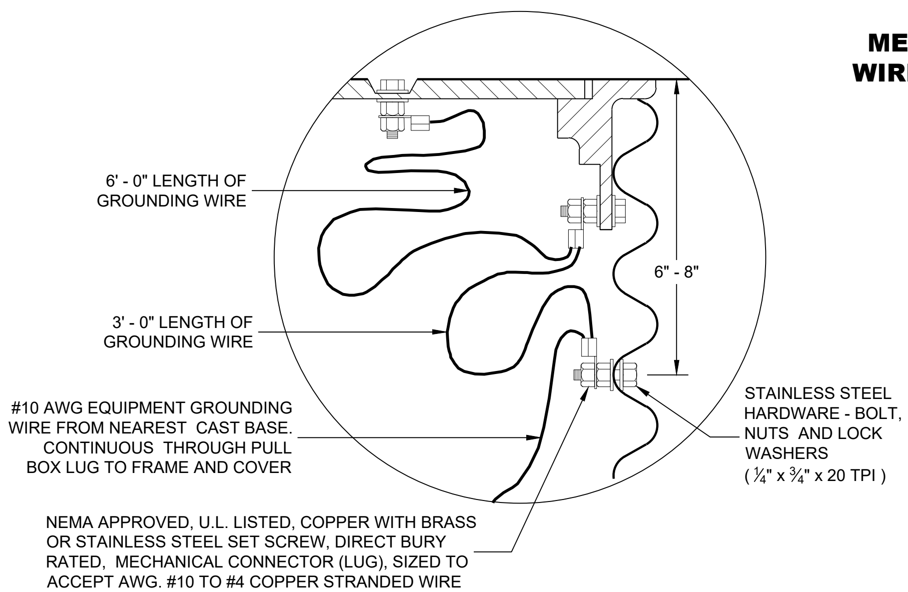
WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

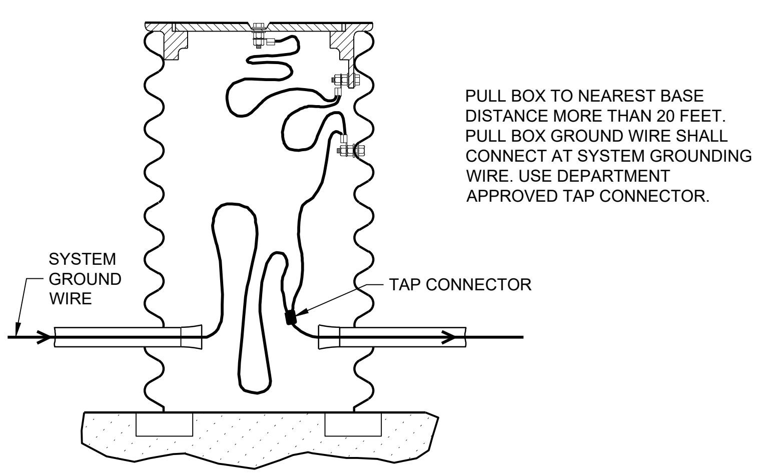
| DIMENSION IN INCHES | | CORRUGATED STEEL PIPE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PIPE DIAMETER (INSIDE) | A | 12 | 12 | 12 | 18 | 18 | 18 | 24 | 24 | 24 |
| PIPE LENGTH ** | B | 24 | 30 | 36 | 24 | 30 | 36 | 36 | 42 | 48 |
| WALL THICKNESS | C | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 | 0.064 |
| COVER | D | 10 ¼ | 10 ¼ | 10 ¼ | 16 ¼ | 16 ¼ | 16 ¼ | 22 ¼ | 22 ¼ | 22 ¼ |
| FRAME | E | 14 ½ | 14 ½ | 14 ½ | 20 ½ | 20 ½ | 20 ½ | 26 ½ | 26 ½ | 26 ½ |
| FRAME | F | 8 ½ | 8 ½ | 8 ½ | 14 ½ | 14 ½ | 14 ½ | 20 ½ | 20 ½ | 20 ½ |
| FRAME | G | 11 ½ | 11 ½ | 11 ½ | 17 ½ | 17 ½ | 17 ½ | 23 ½ | 23 ½ | 23 ½ |
| WEIGHT IN POUNDS * | | | | | | | | | | |
| FRAME AND COVER | | 60 | 60 | 60 | 110 | 110 | 110 | 155 | 155 | 155 |

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

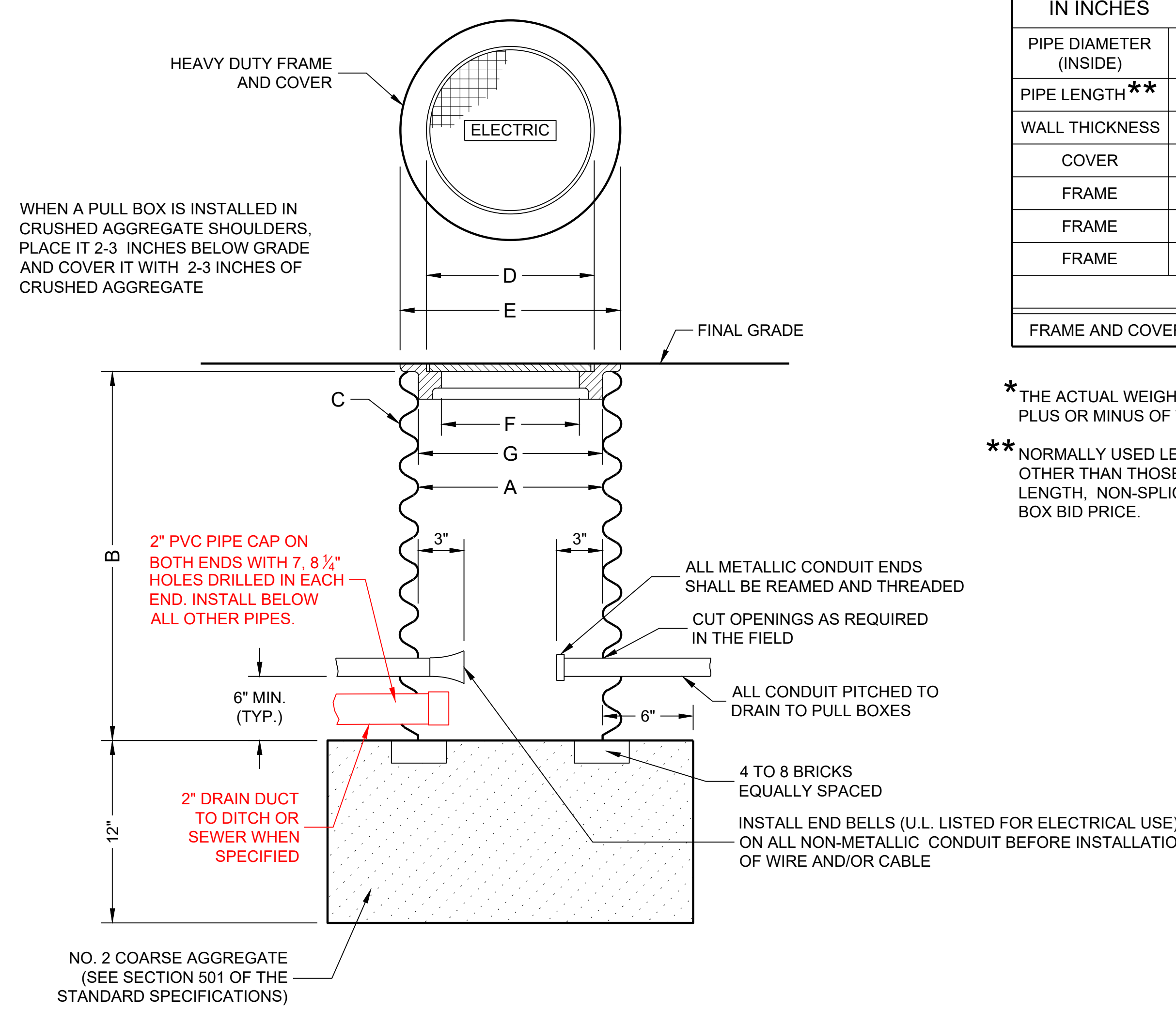
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.




**EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES**




**EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES**




**PULL BOX**

**PULL BOX**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA







SDD 09B04-12

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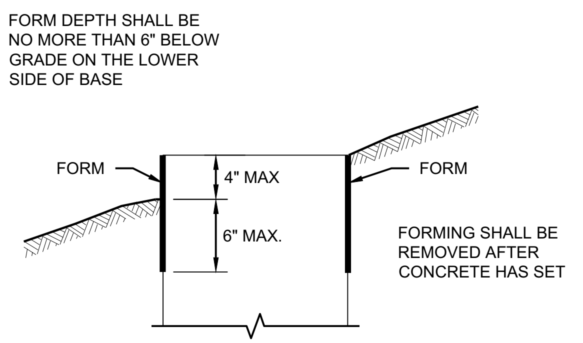



## FORMING DETAIL

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

## GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

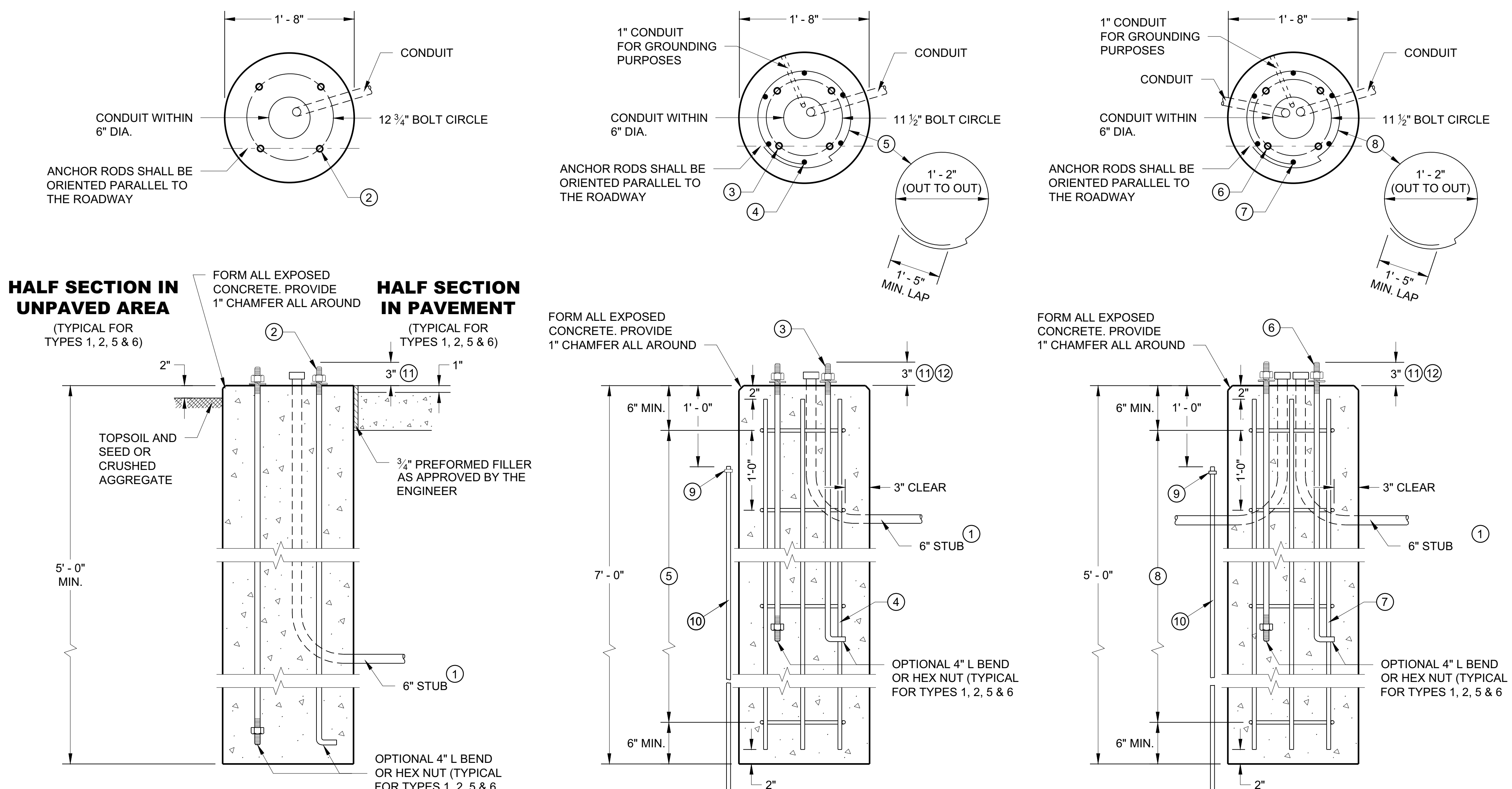
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

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

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

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

1. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
2. (4) 1" DIA. X 3' - 6" ANCHOR RODS.
3. (4) 1" DIA. X 5' - 0" ANCHOR RODS.
4. (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
5. (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
6. (4) 1" DIA. X 3' - 6" ANCHOR RODS.
7. (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
8. (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.
9. EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR
10. ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
11. ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
12. FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.




TYPE 1

TYPE 2

TYPE 5 & 6

## CONCRETE BASES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



FHWA

## GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO $4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

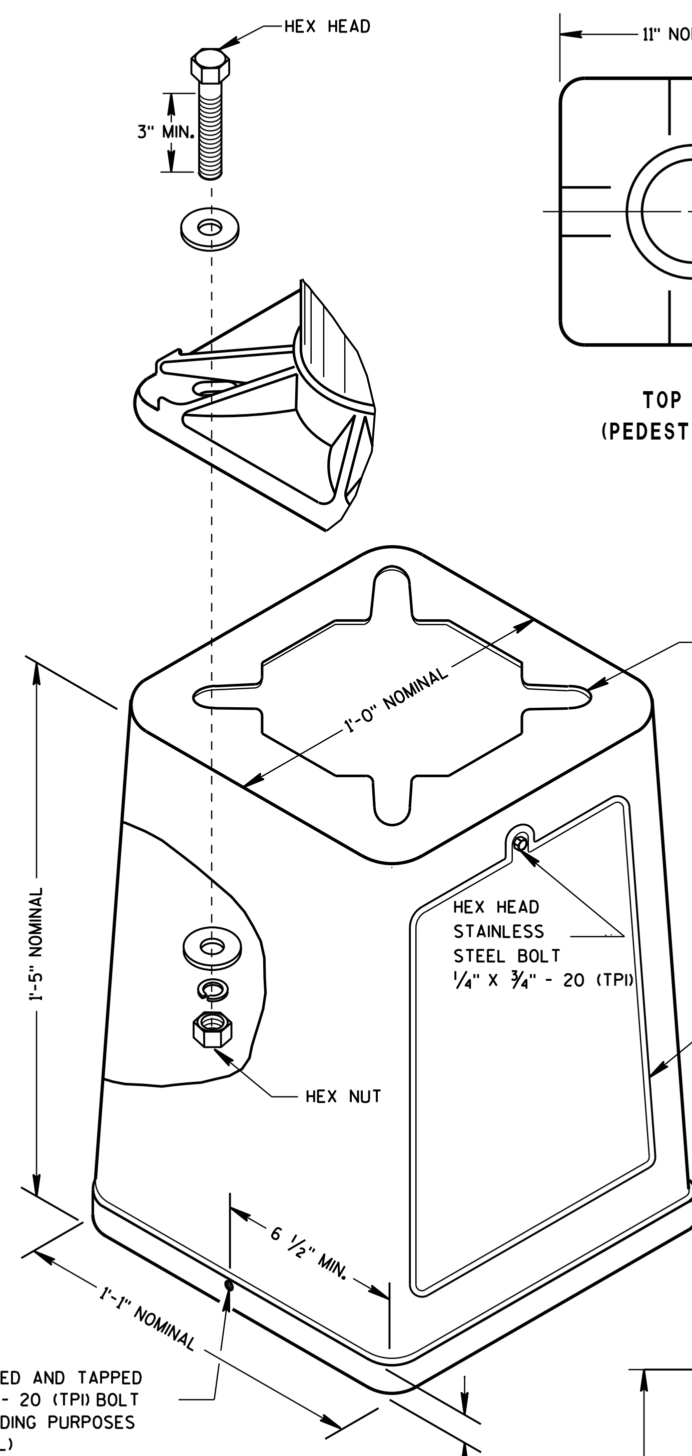
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

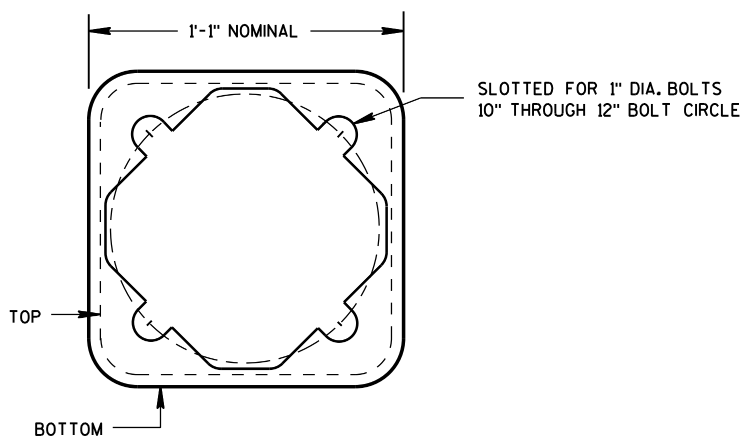
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



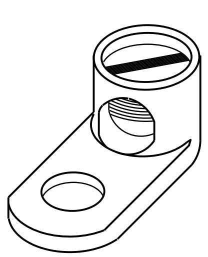

ISOMETRIC VIEW




BOTTOM VIEW
(TRANSFORMER BASE)

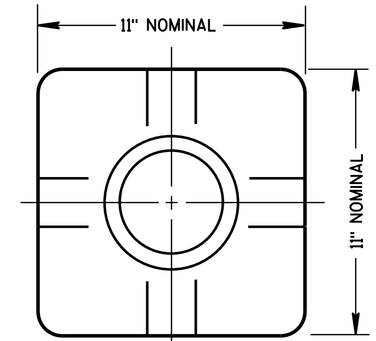
### TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

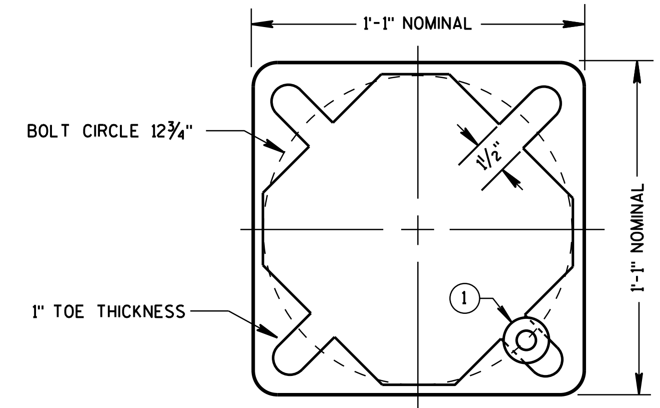


### TYPICAL MECHANICAL CONNECTOR LUG

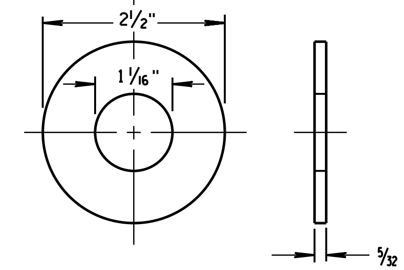
TO BE FURNISHED WITH EACH BASE




TOP VIEW
(PEDESTAL BASE)

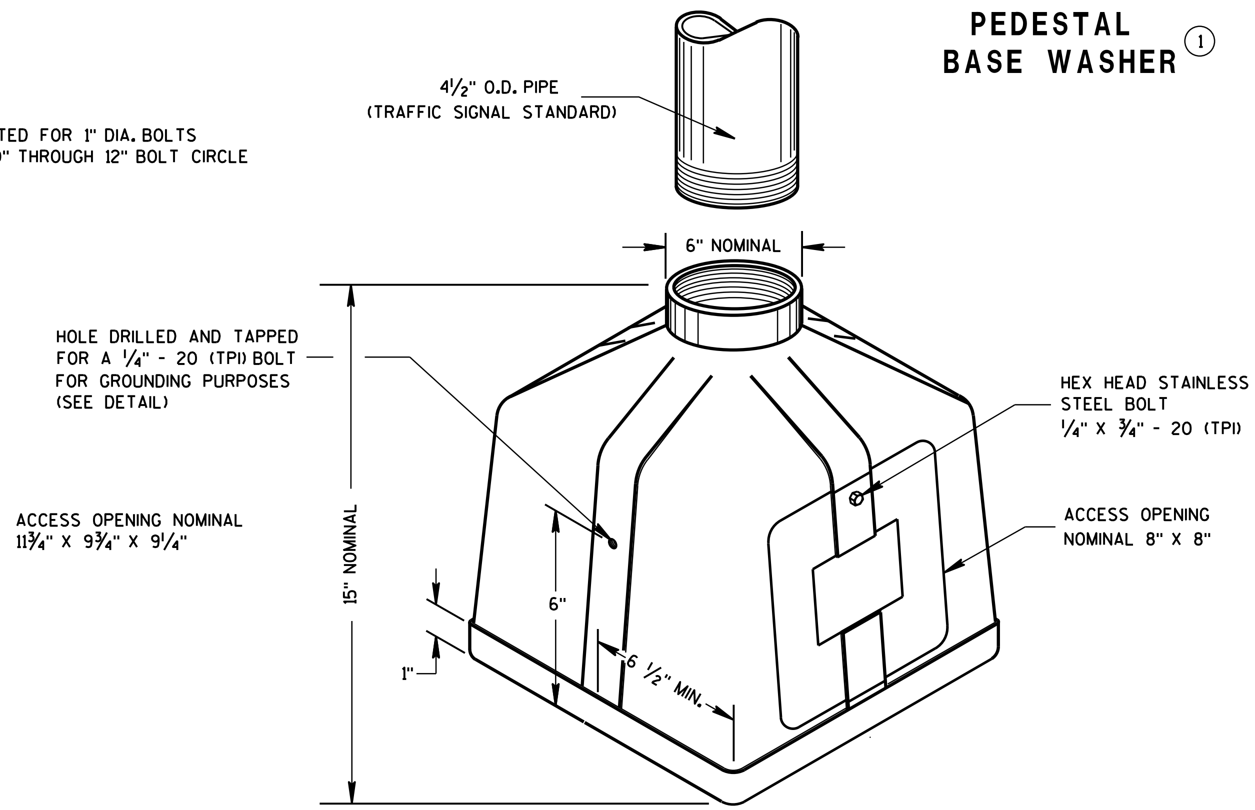



BOTTOM VIEW
(PEDESTAL BASE)



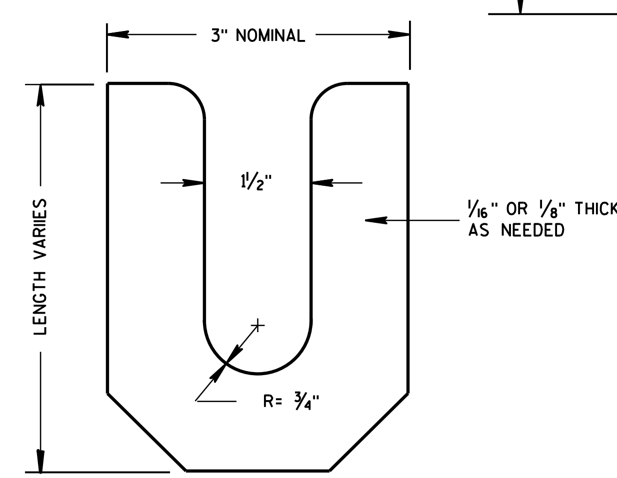

ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

### PEDESTAL BASE WASHER (1)




ISOMETRIC VIEW

### PEDESTAL BASE




### LEVELING SHIM

| TRANSFORMER/PEDESTAL BASES |
|---|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |
| APPROVED<br>Sept. 2014 — /S/ Ahmet Demirbilek<br>DATE — STATE ELECTRICAL<br>FHWA |

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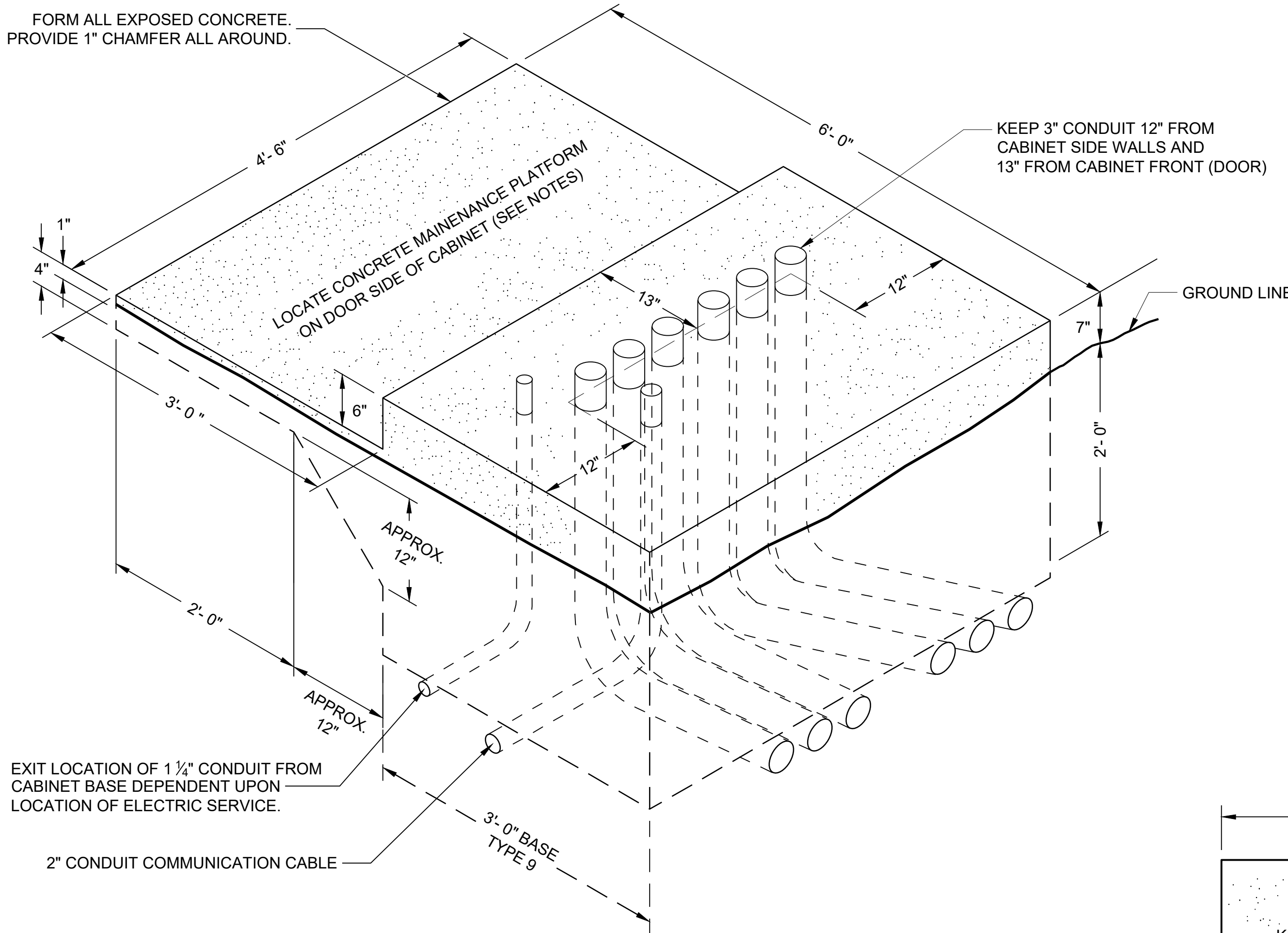
S.D.D. 9 C 3-4

S.D.D. 9 C 3-4




**ISOMETRIC VIEW**

**TYPE 9 SPECIAL**

( C.Y. CONCRETE = APPROX. 1.56 )

## GENERAL NOTES

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

INSTALL FOUR 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 NON - METALLIC 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 LEVEL.

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

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES 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.

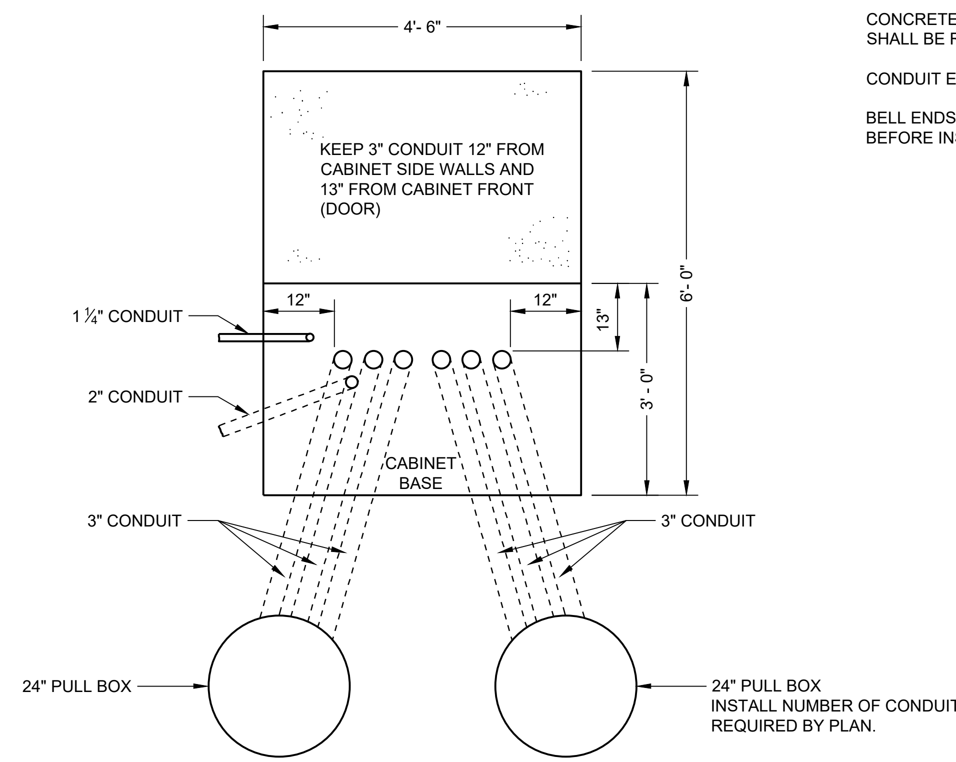
PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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

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

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

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




**PLAN VIEW**

**CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL**

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**CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

September 2014 — DATE

/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGI

FHWA





SDD 09C06 - 07

## GENERAL NOTES

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, 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.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

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

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½ INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

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

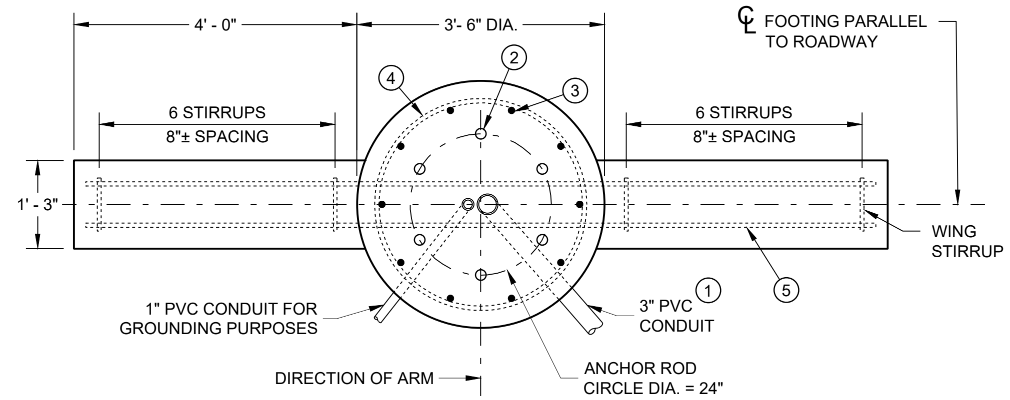
A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

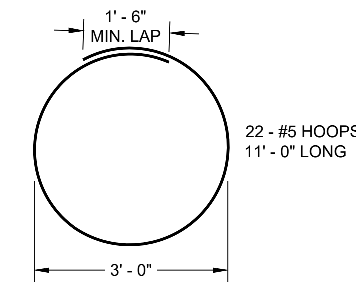
THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

1. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
2. (6) 1¾" DIA. X 7' - 2" ANCHOR RODS
3. (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.
4. (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.
5. (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

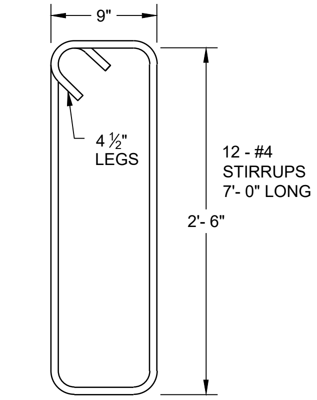
CONCRETE MASONRY........................fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60........................fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 ( IN ACCORDANCE ........................fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES,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



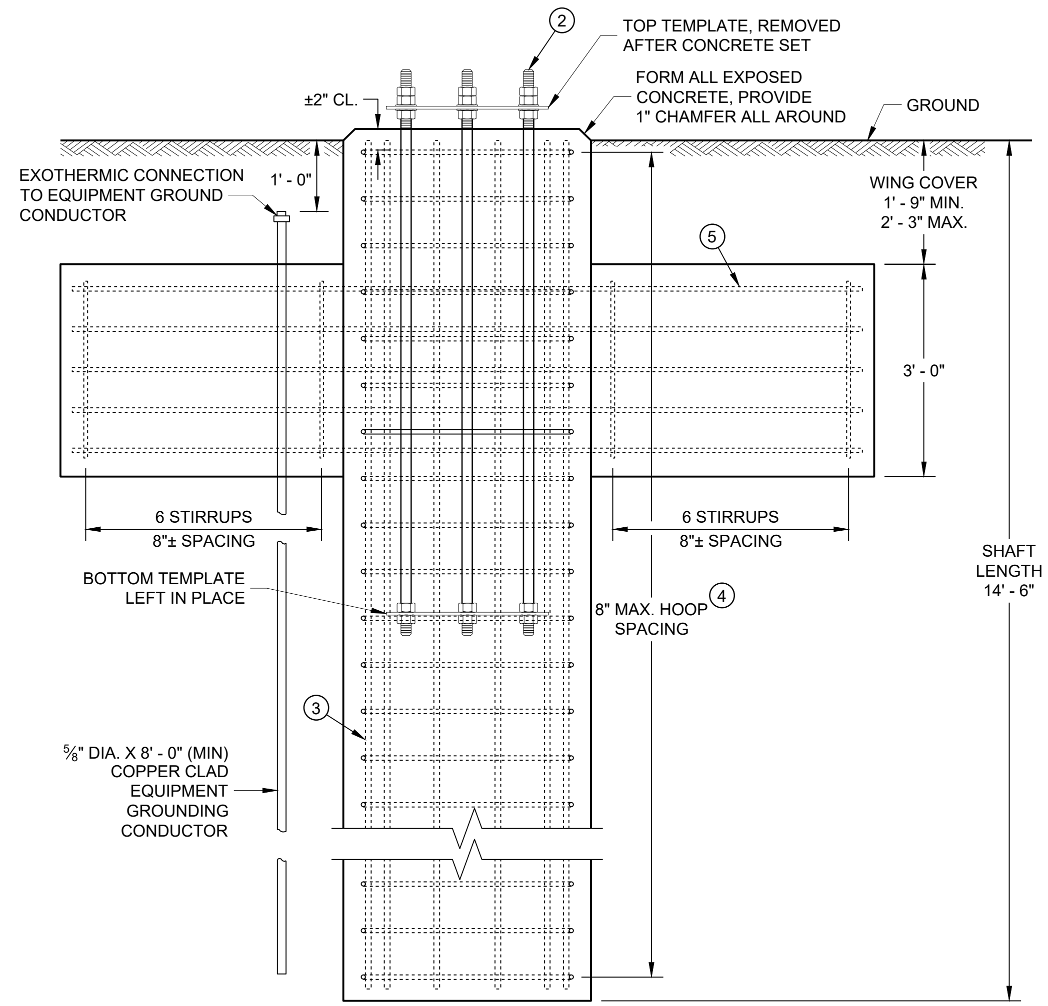

**PLAN VIEW**



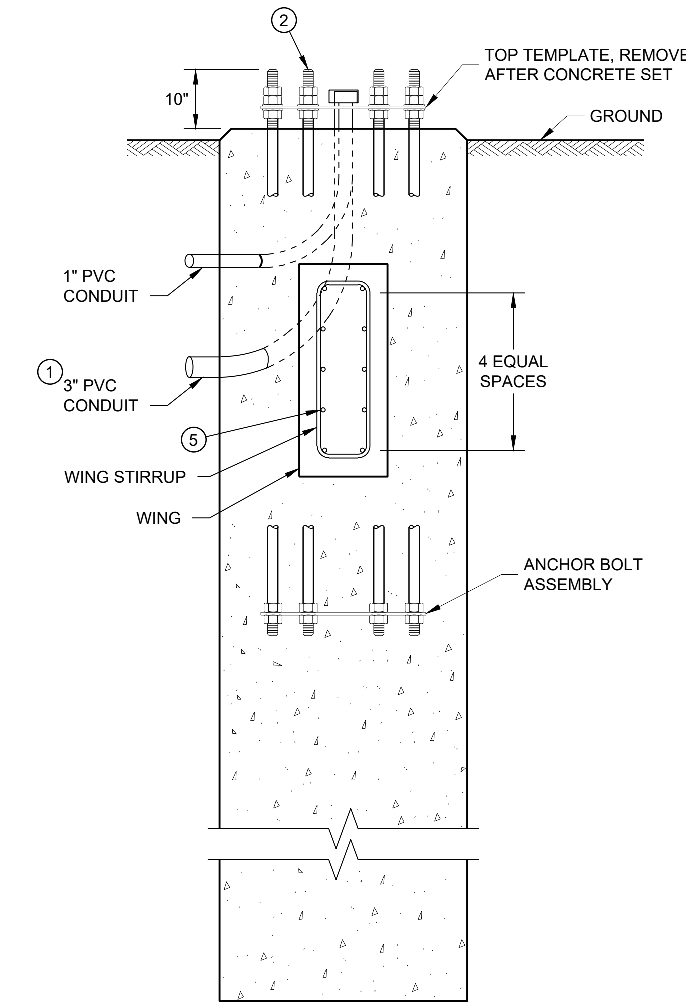

**HOOP DETAIL**




**WING STIRRUP DETAIL**




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




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

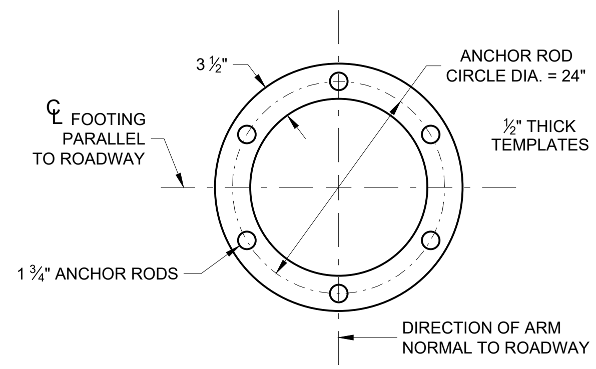
## CONCRETE BASE, TYPE 13
### (FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

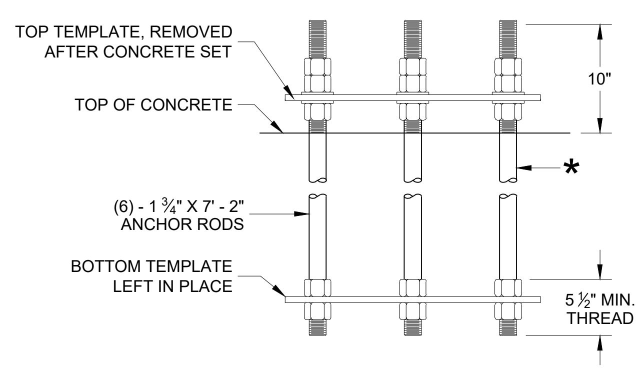
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

**CONCRETE BASE TYPE 13**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

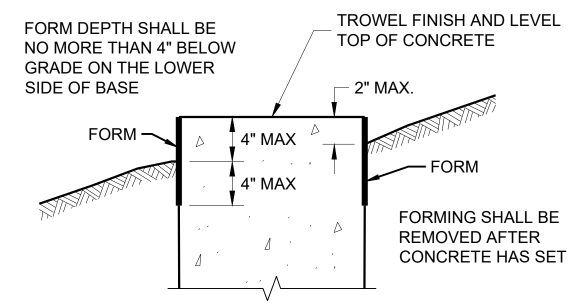



## TOP AND BOTTOM TEMPLATE




## ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.




## FORMING DETAIL

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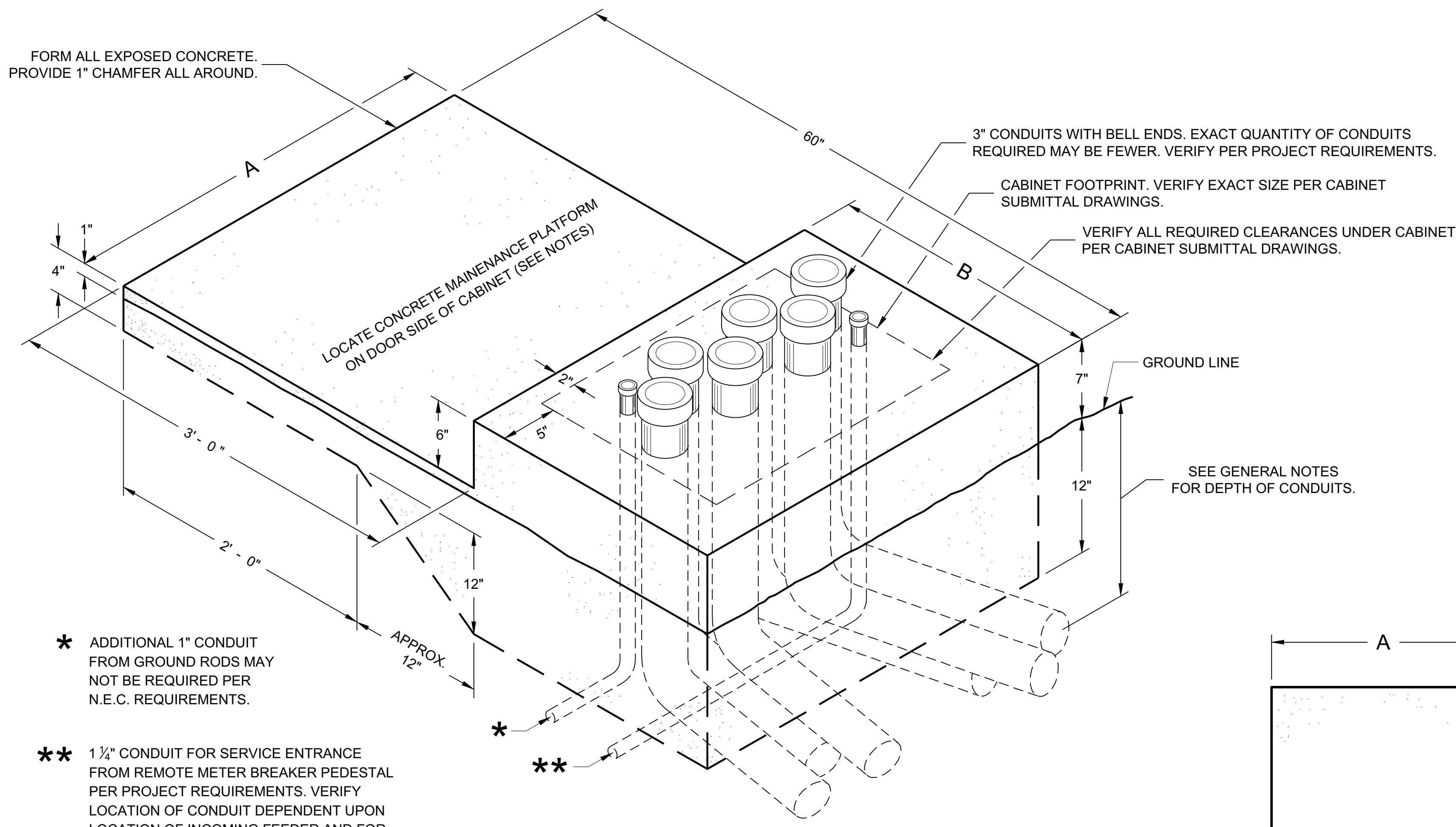
SDD 09C12 - 09b

SDD 09C12 - 09b

| | |
|---|---|
| **CONCRETE BASE TYPE 13** | |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION | |
| APPROVED<br>May 2017<br>DATE | /S/ Ahmet Demirbilek<br>WIND LOADED STRUCTURES<br>PROGRAM LEADER |
| FHWA | |



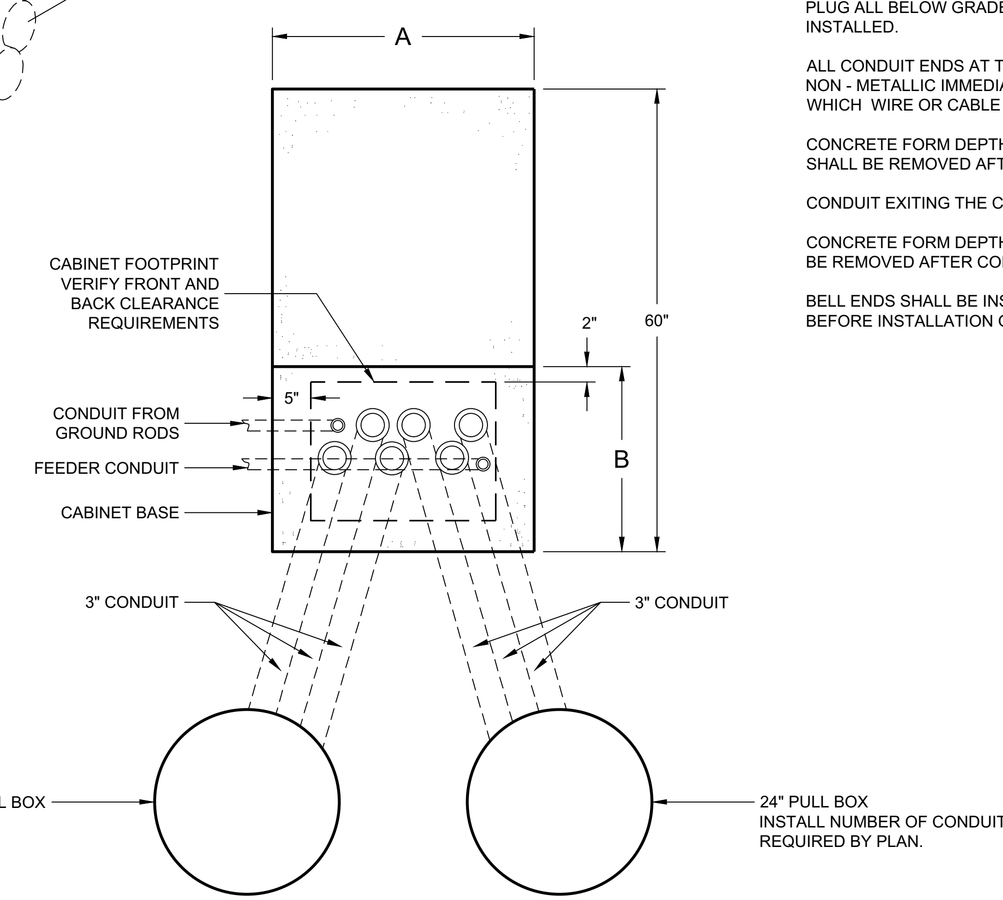

* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

## ISOMETRIC VIEW
## CONCRETE CONTROL CABINET BASE, TYPE L

( C.Y. CONCRETE = APPROX. 0.4 )

| CONCRETE BASE TYPE | CABINET WIDTH | DIMENSIONS | | MAXIMUM 3" CONDUITS |
|---|---|---|---|---|
| | | A | B | |
| L24 | 24" | 34" | 24" | 4 |
| L30 | 30" | 40" | 24" | 6 |




## PLAN VIEW
## CONCRETE CONTROL CABINET BASE, TYPE L

## GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC 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.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

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

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

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

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES 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 NON - METALLIC 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 NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

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

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH 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 L**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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SDD 09C14 - 03

## GENERAL NOTES

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

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

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

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

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

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

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

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

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

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

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

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

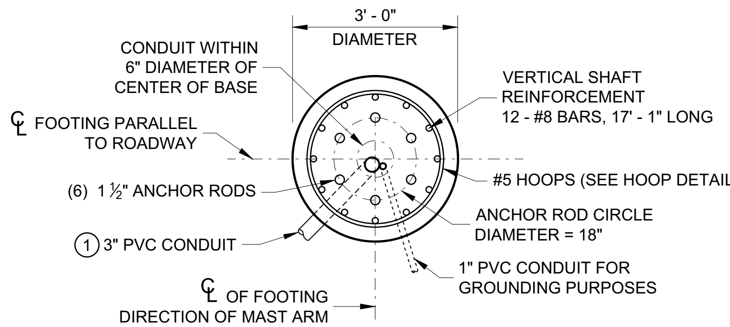
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

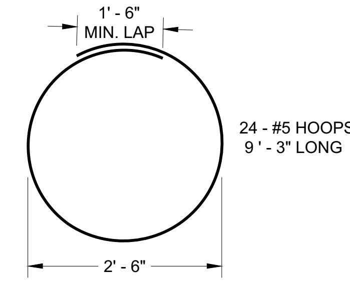
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

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

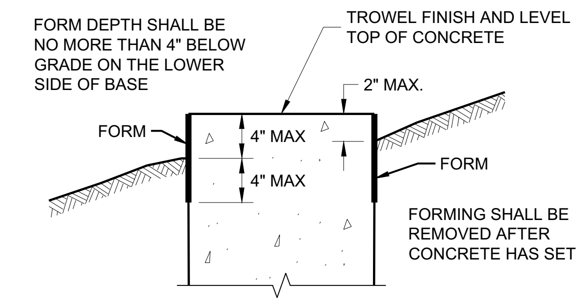
CONCRETE MASONRY......................................................fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60......................fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 ( IN ACCORDANCE ..................fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)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



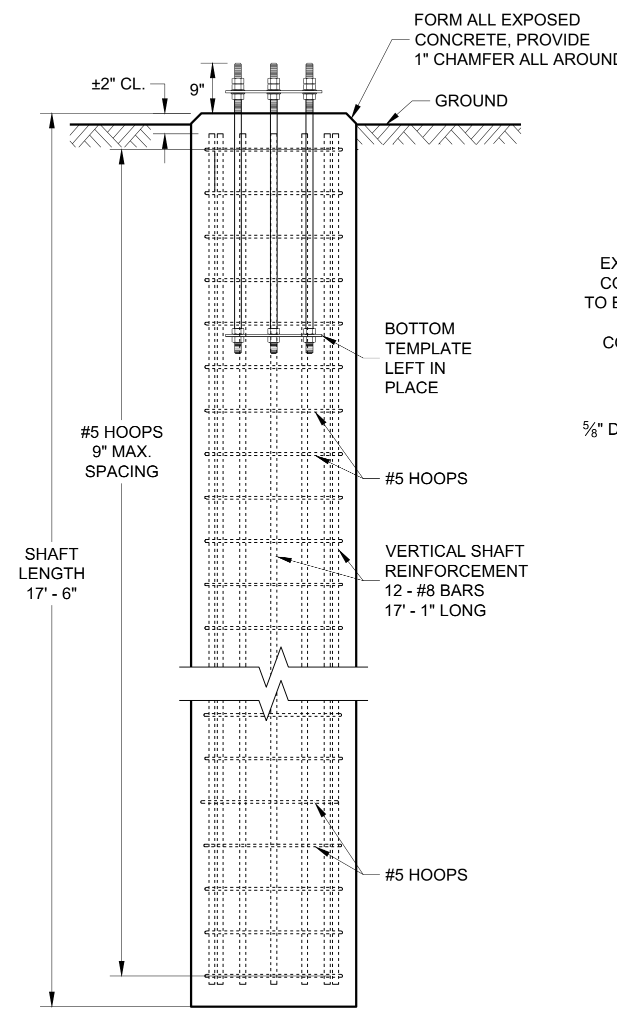

**PLAN VIEW**



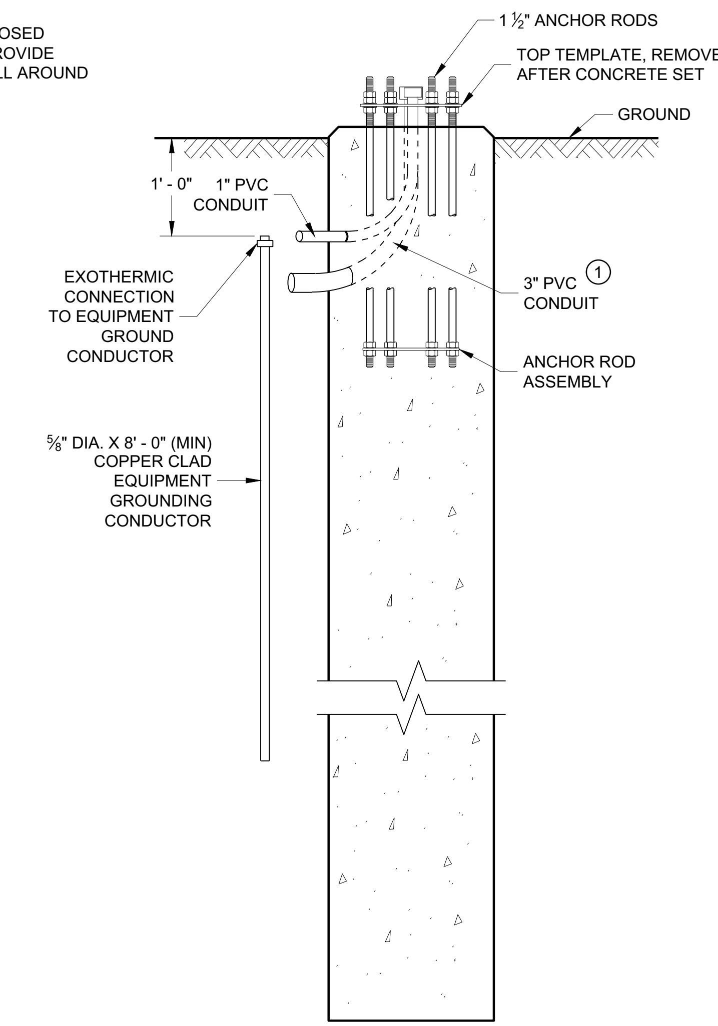

**HOOP DETAIL**



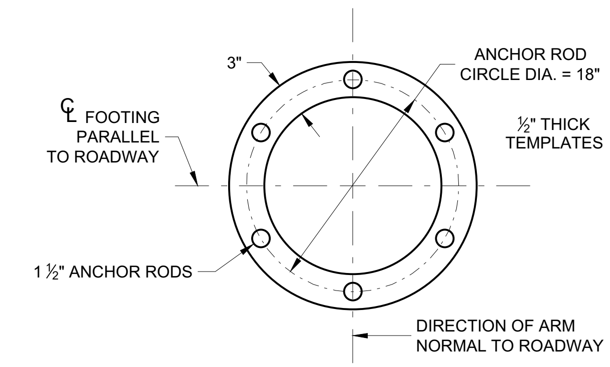

**FORMING DETAIL**



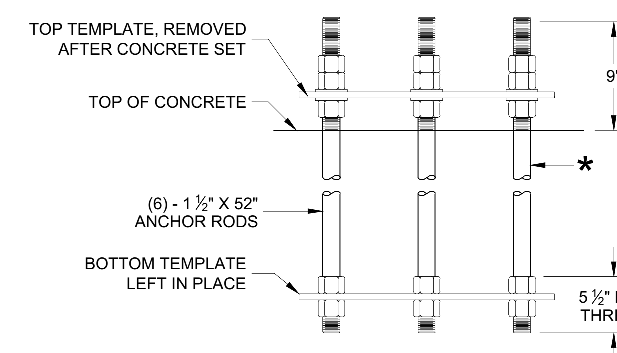

**ELEVATION VIEW**
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)




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




**TOP AND BOTTOM TEMPLATE**




**ANCHOR ROD ASSEMBLY DETAILS**

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

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

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

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

**CONCRETE BASE TYPE 10 SPECIAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

## 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.

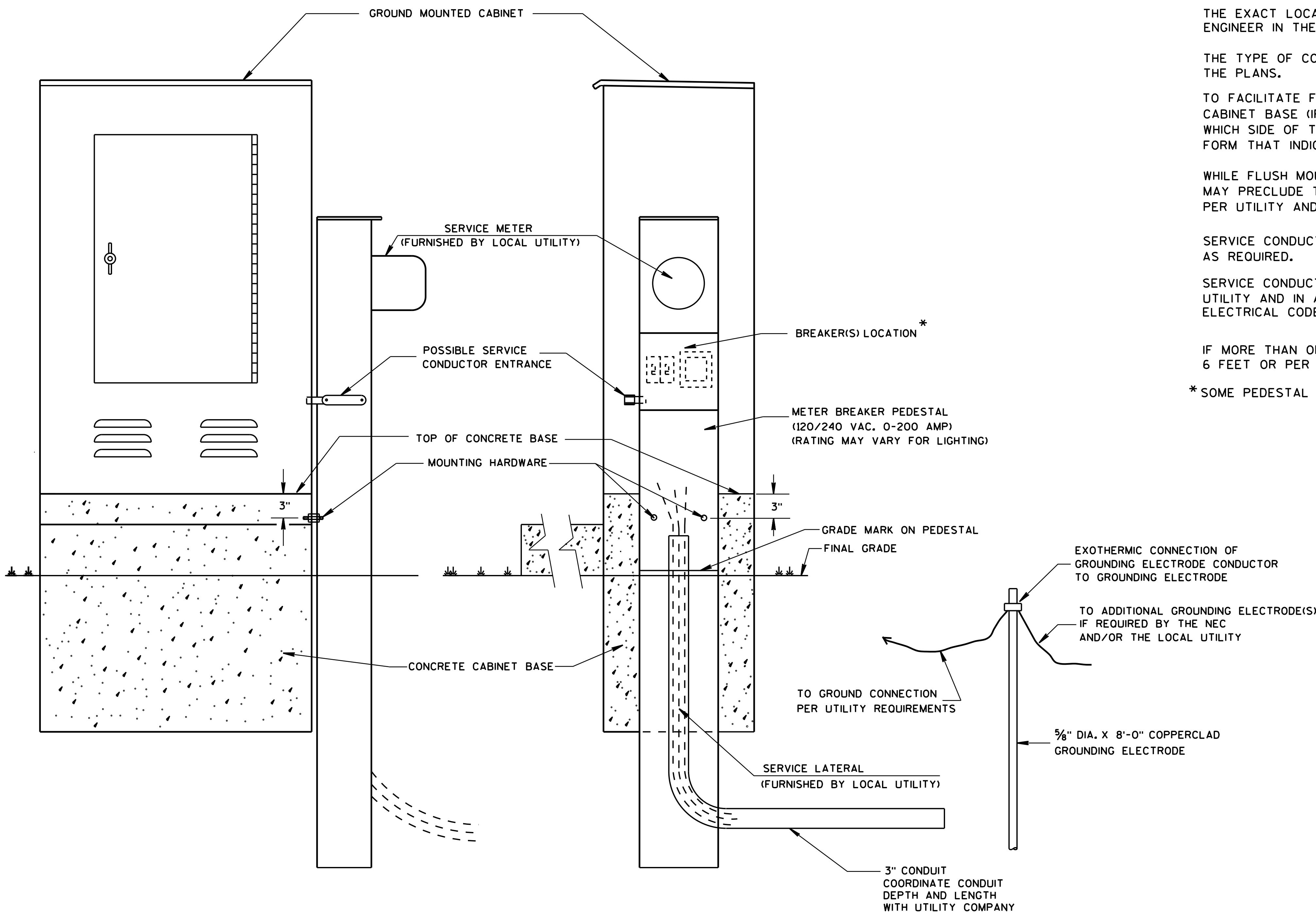
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

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.




**TYPICAL CABINET SERVICE INSTALLATION**

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| | |
|---|---|
| **CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)** | |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | |
| APPROVED | |
| Sept. 2014 | /S/ Ahmet Demirbilek |
| DATE | STATE ELECTRICAL |
| FHWA | |



S.D.D. 9 D 1-5

## 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.

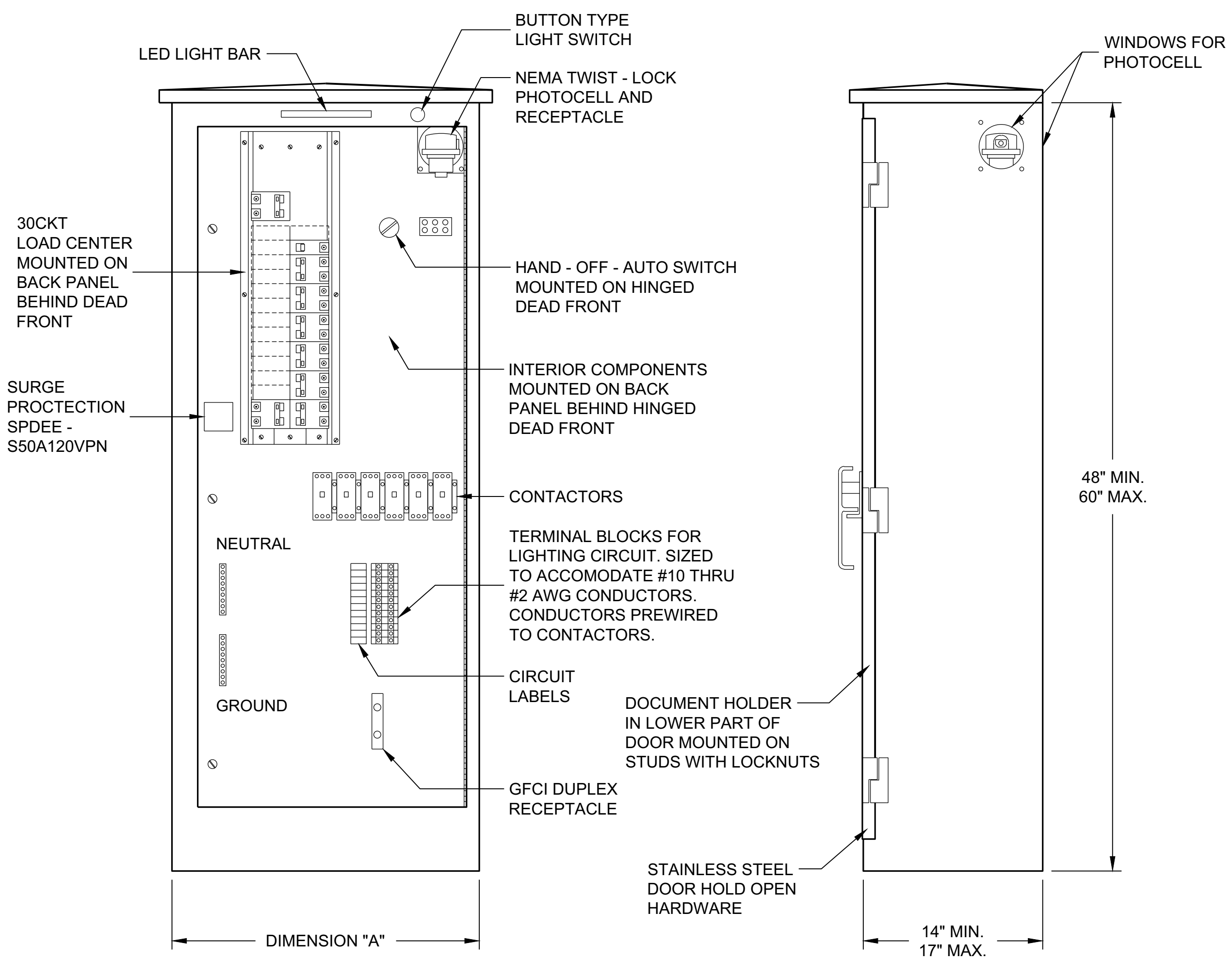
ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

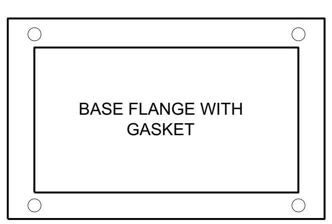
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

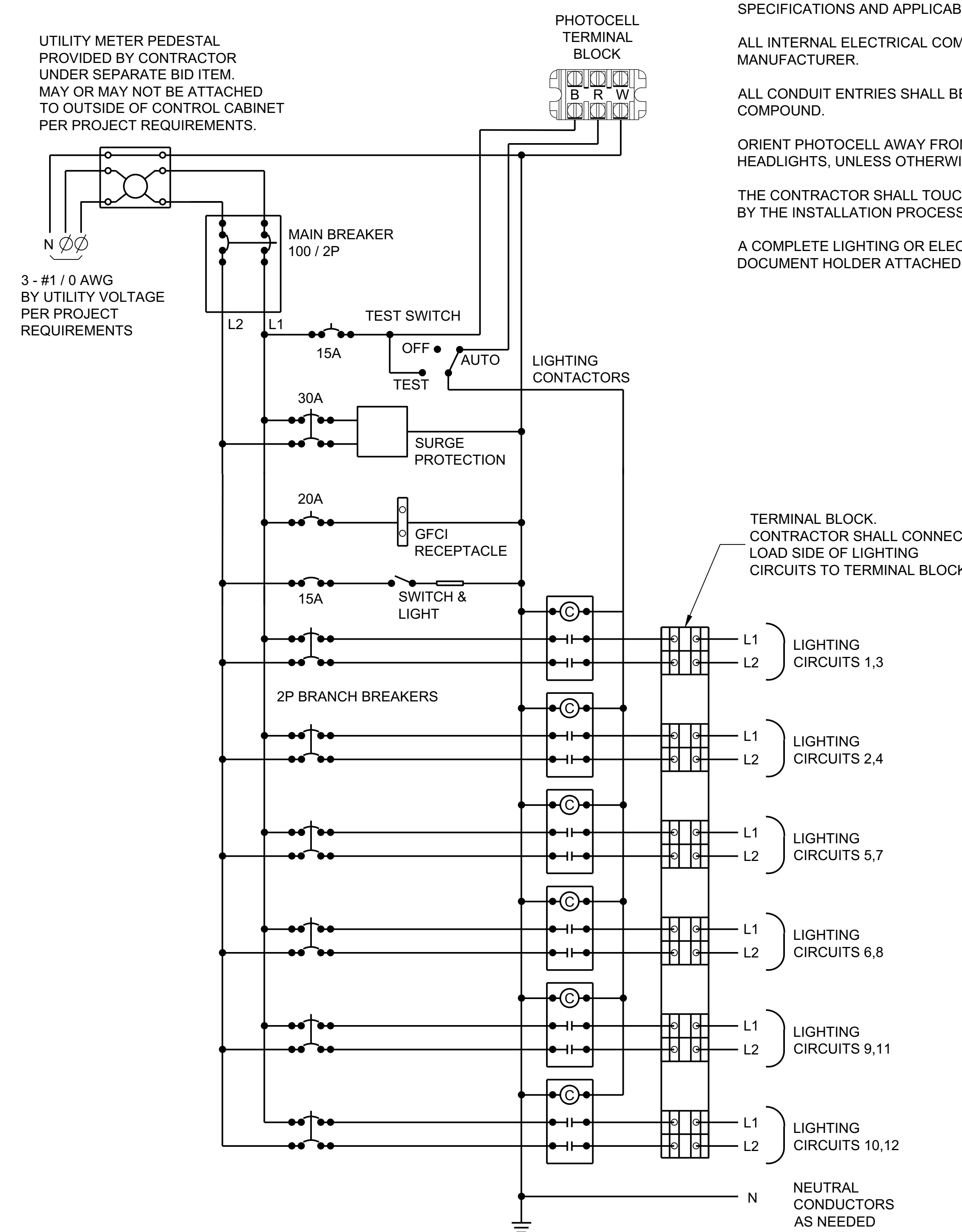
A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.




| TABLE OF DIMENSIONS (INCHES) | | |
|---|---|---|
| CONCRETE BASE TYPE | CABINET WIDTH | DIMENSION "A" |
| L24 | 24" | 24" |
| L30 | 30" | 30" |

**LIGHTING CONTROL CABINET**




**CONTROL CABINET SCHEMATIC**

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**LIGHTING CONTROL CABINET**
**120 / 240 VOLT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA





SDD 09D04 - 03

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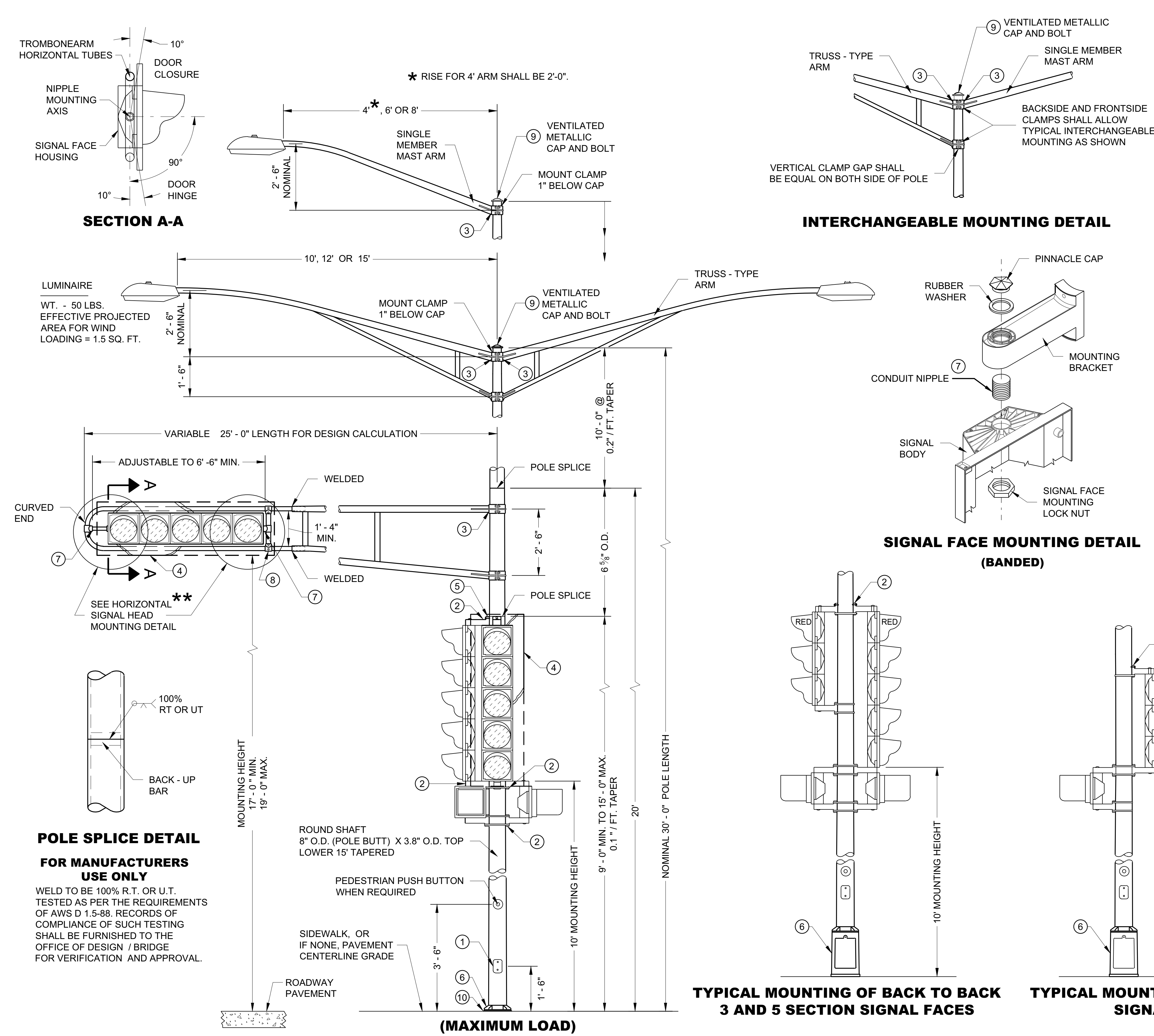



## GENERAL NOTES

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

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.

(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 FACE.

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

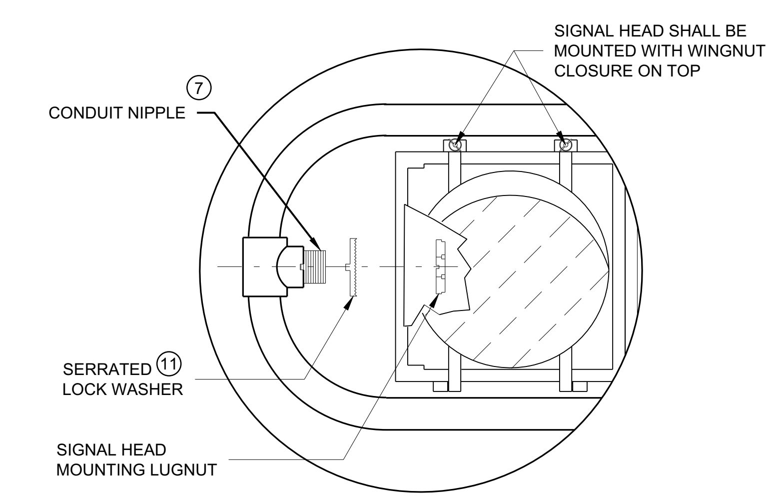
(7) USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE 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 POLE.

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




**HORIZONTAL SIGNAL HEAD** MOUNTING DETAIL**

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

## TYPE 3 POLE MOUNTING CONFIGURATION

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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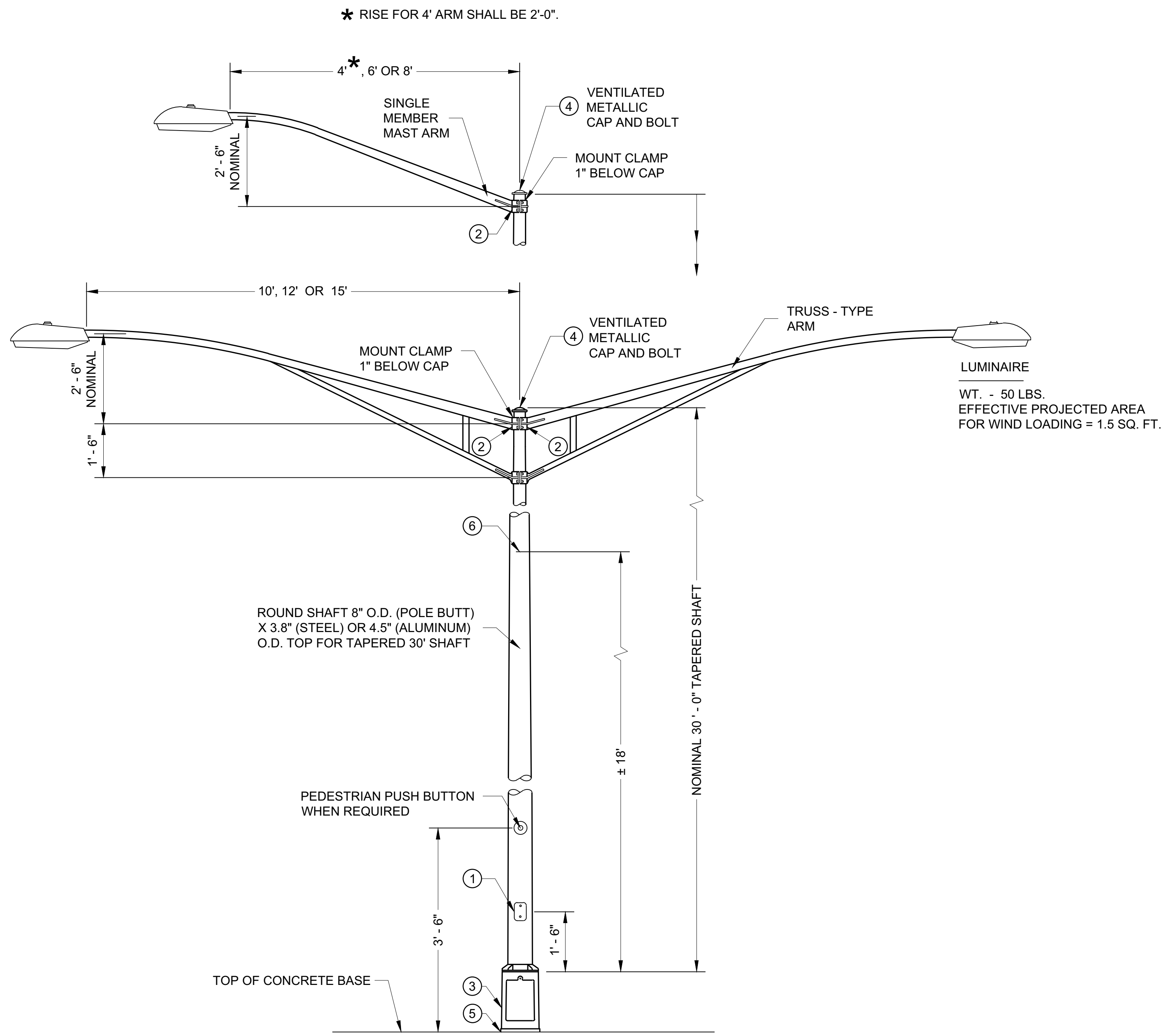
SDD 09E01 - 15b




**TYPE 5 POLE MOUNTING CONFIGURATION**

**(MAXIMUM LOAD)**

**LIGHTING ONLY**

## GENERAL NOTES

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

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

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

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

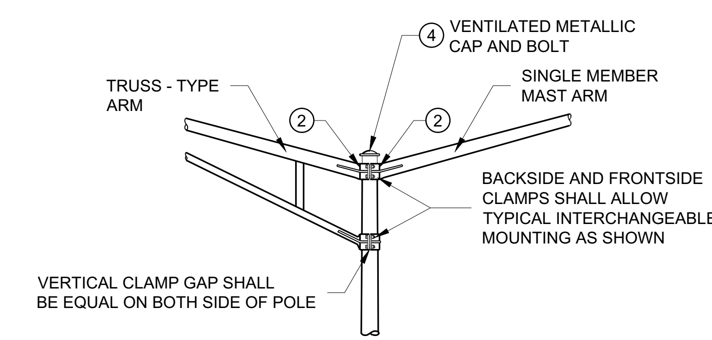
TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 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.

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. GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
3. CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
4. FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
5. SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
6. INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.




**INTERCHANGEABLE MOUNTING DETAIL**

**POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 ( 30 FEET )**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA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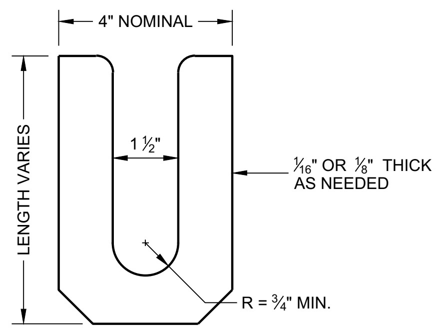
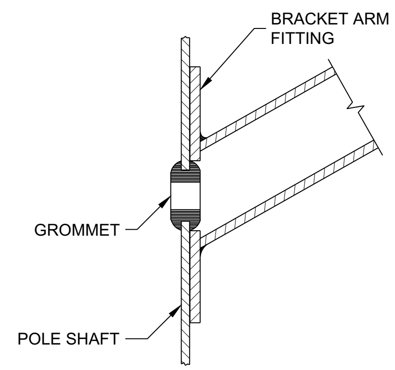
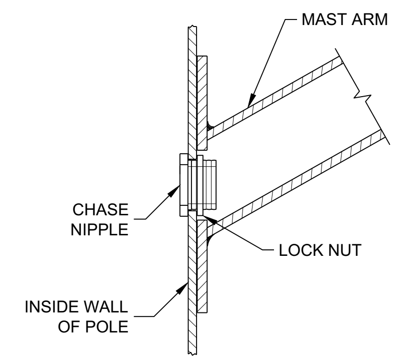



**LEVELING SHIM** (1)

SHALL BE ALUMINUM




**TYPICAL APPLICATION OF GROMMET IN POLE SHAFT**




**TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT**

## GENERAL NOTES

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

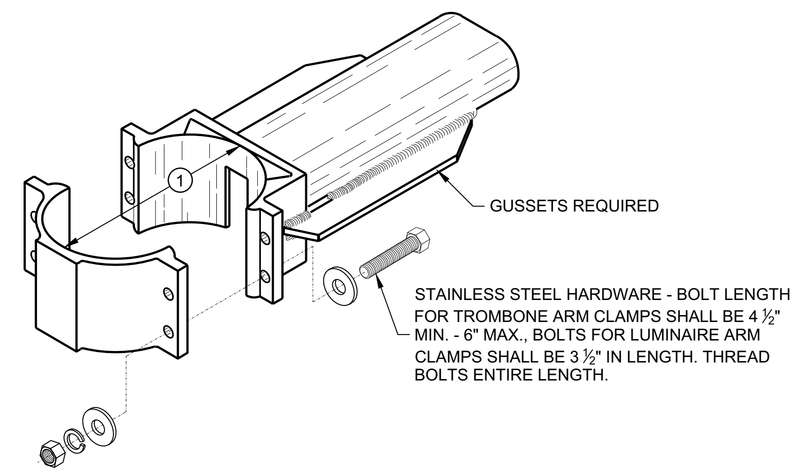
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

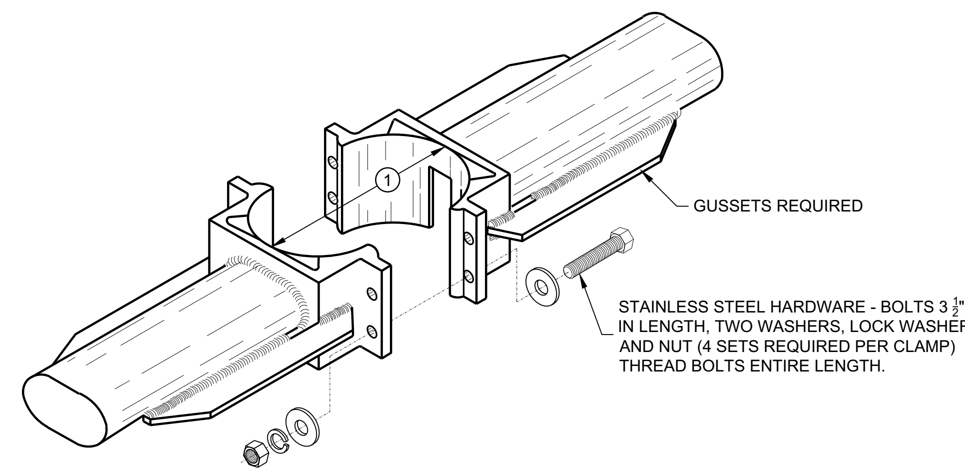
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

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

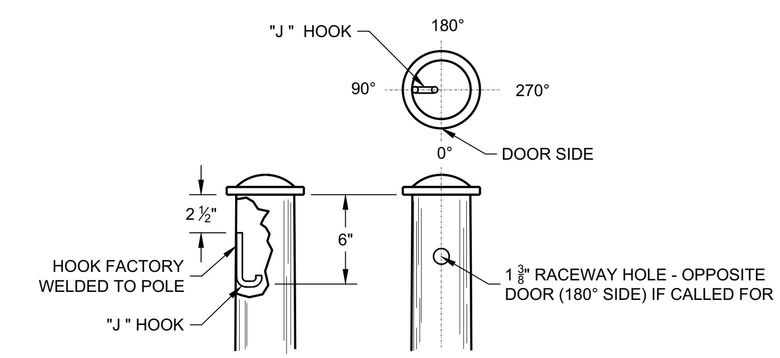
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.




**TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP**




**TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS**




**TYPICAL "J" HOOK LOCATION**

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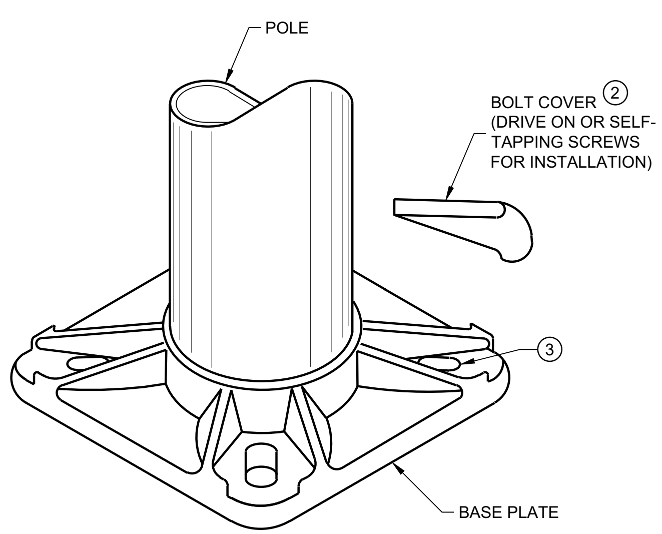
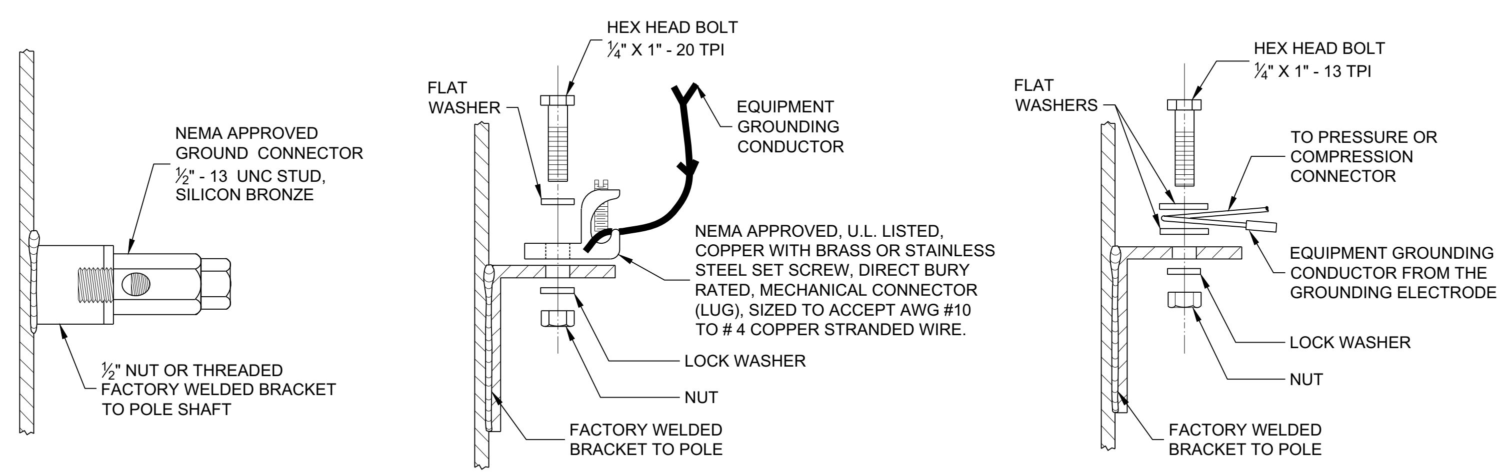



**BASE PLATE**




**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

FHWA



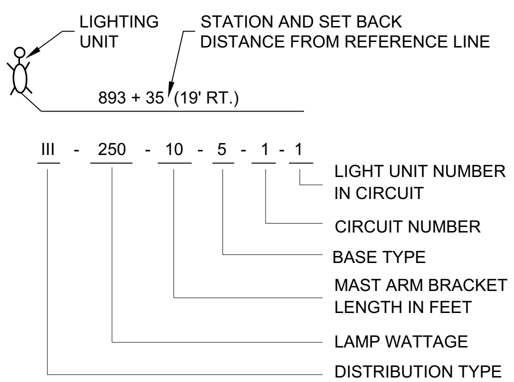
SDD09E01 - 15g

## GENERAL NOTES

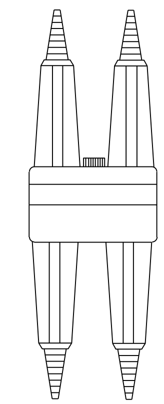
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

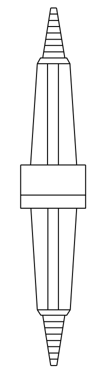
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.



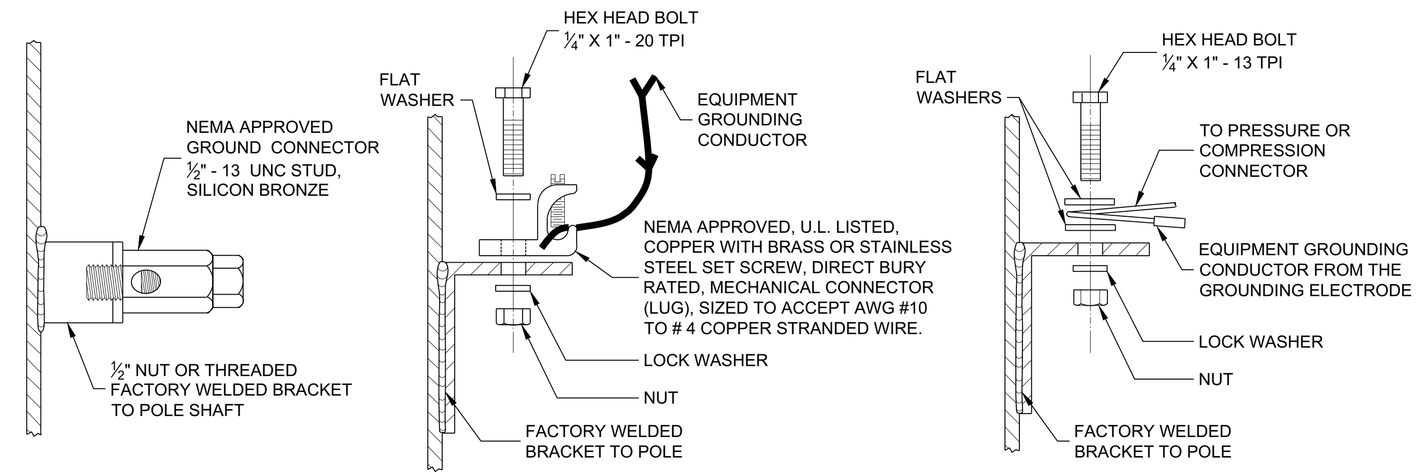

LIGHTING UNIT CODE
(TYPICAL)



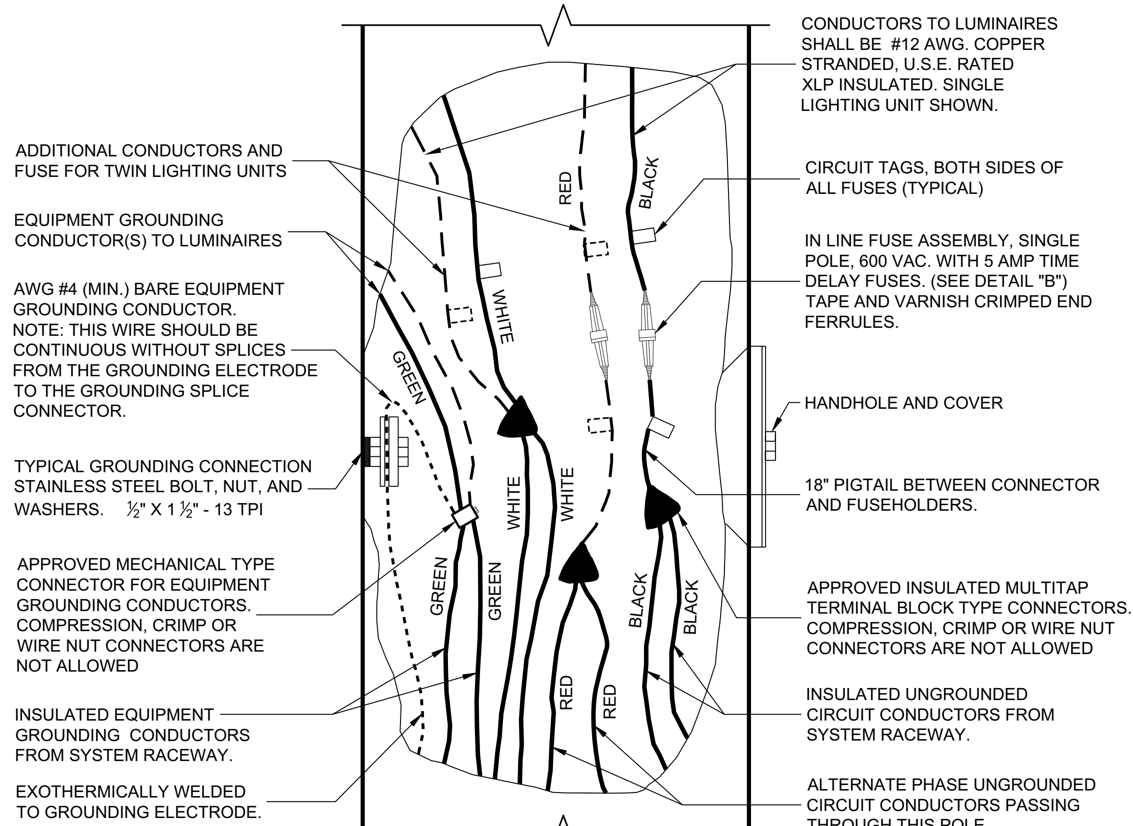
DETAIL "A"
BREAKAWAY
DOUBLE POLE WITH WATERPROOF INSULATING BOOT



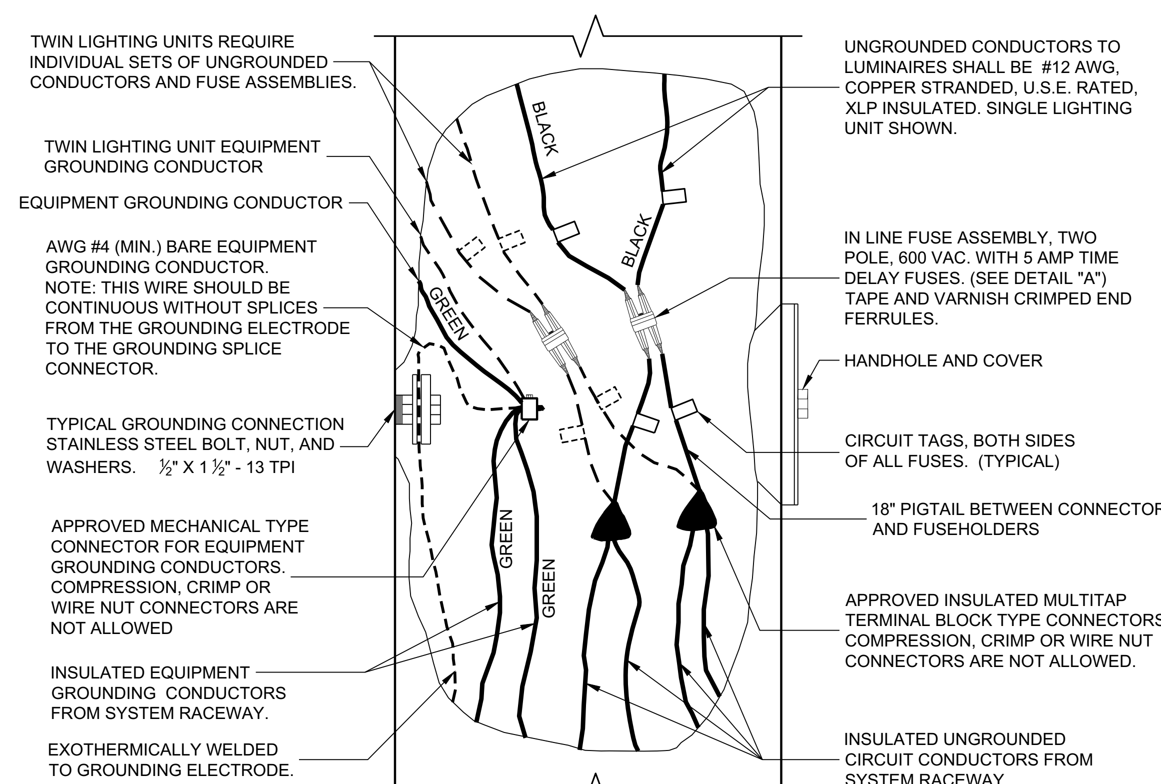
DETAIL "B"
BREAKAWAY
SINGLE POLE WITH WATERPROOF INSULATING BOOT




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




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

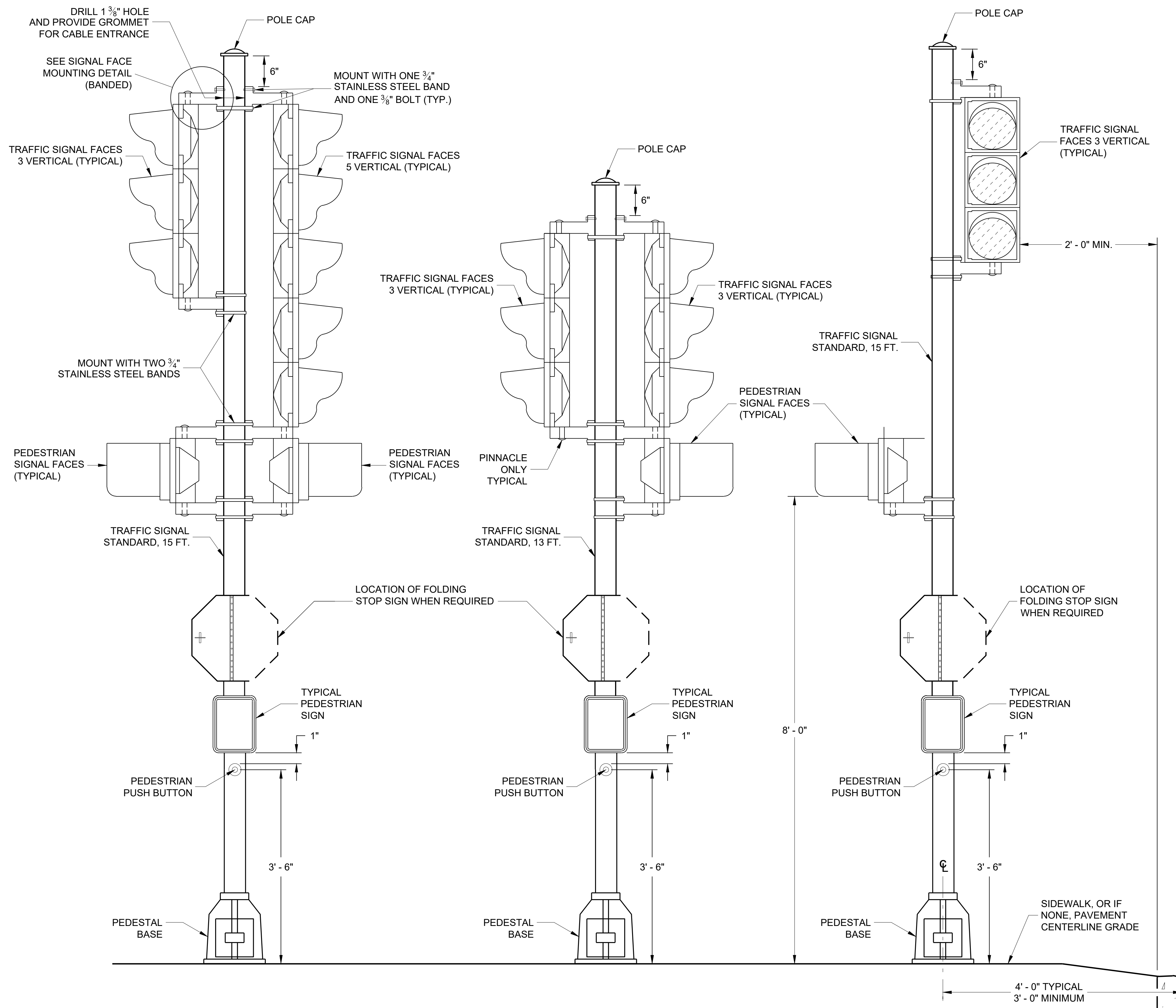



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

**NON - FREEWAY LIGHTING UNIT POLE WIRING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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




**TRAFFIC SIGNAL STANDARD - 15 FT.**

**TRAFFIC SIGNAL STANDARD - 13 FT.**

**TRAFFIC SIGNAL TANDARD - 15 FT.**
**3M MOUNTING (TYPICAL)**

## GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

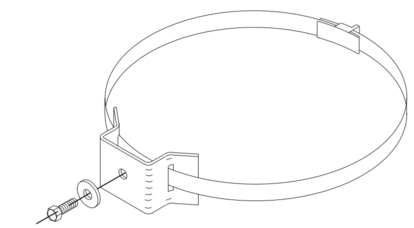
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

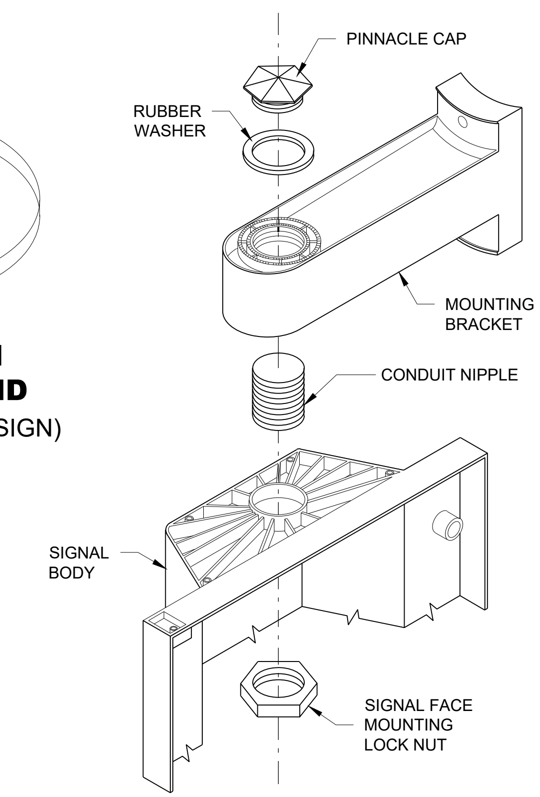
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



**TYPICAL SIGN MOUNTING BAND**
(TOP AND BOTTOM OF SIGN)




**SIGNAL FACE MOUNTING DETAIL (BANDED)**

**TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 /S/ Ahmet Demirbilek
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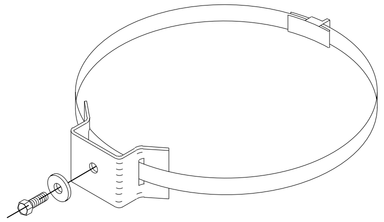
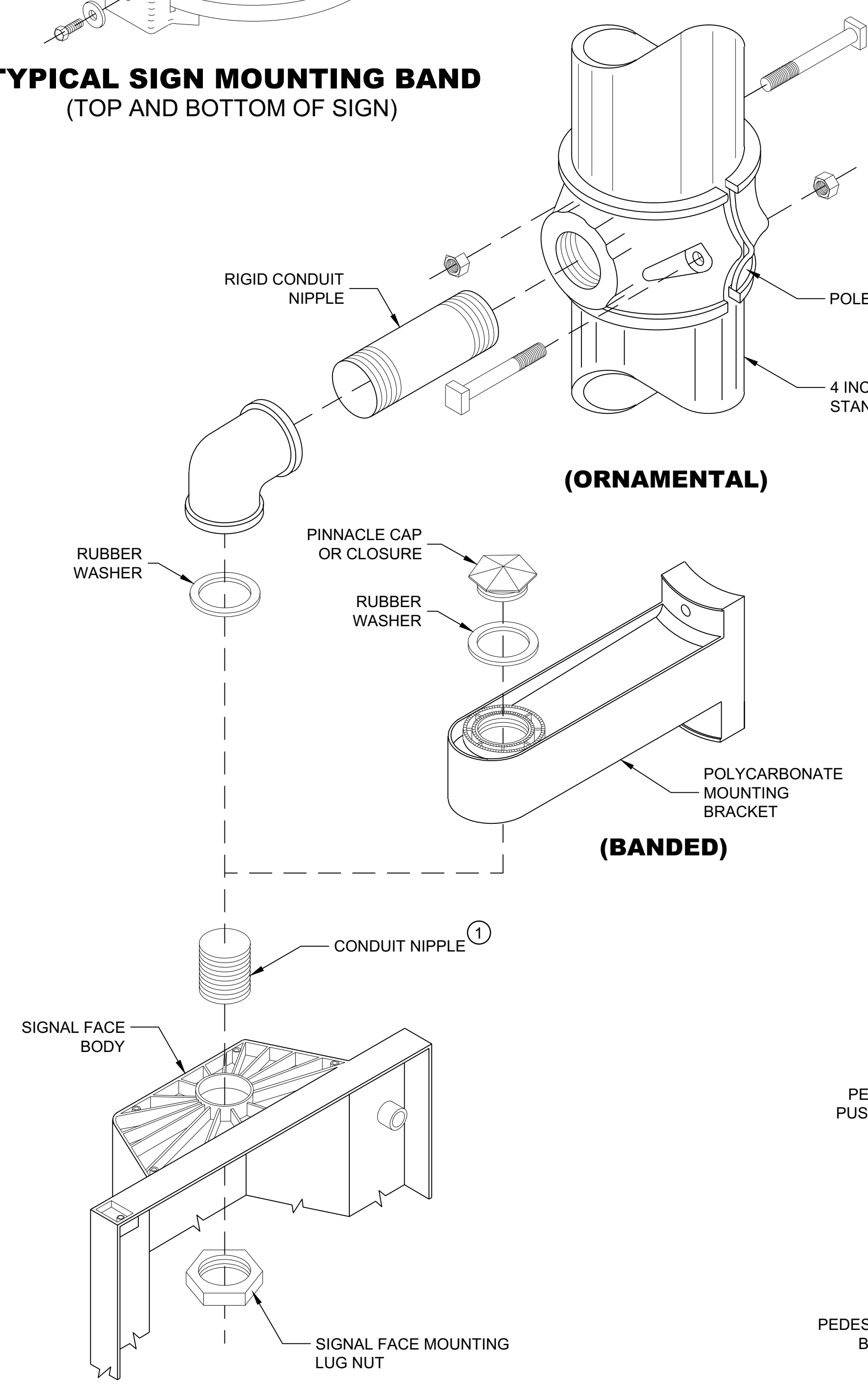
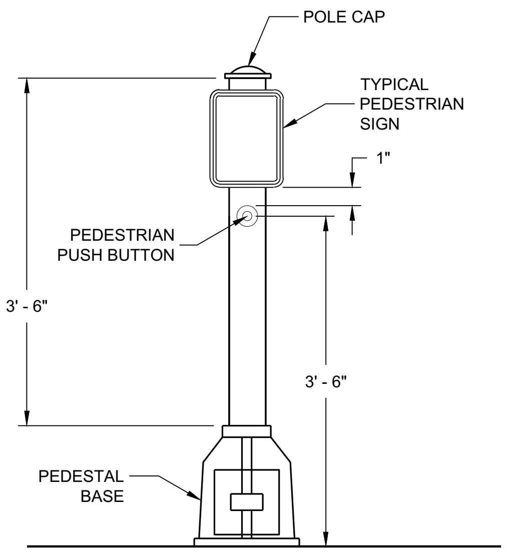


**TYPICAL SIGN MOUNTING BAND**
(TOP AND BOTTOM OF SIGN)




**SIGNAL FACE MOUNTING DETAILS**




**PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING**

## GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

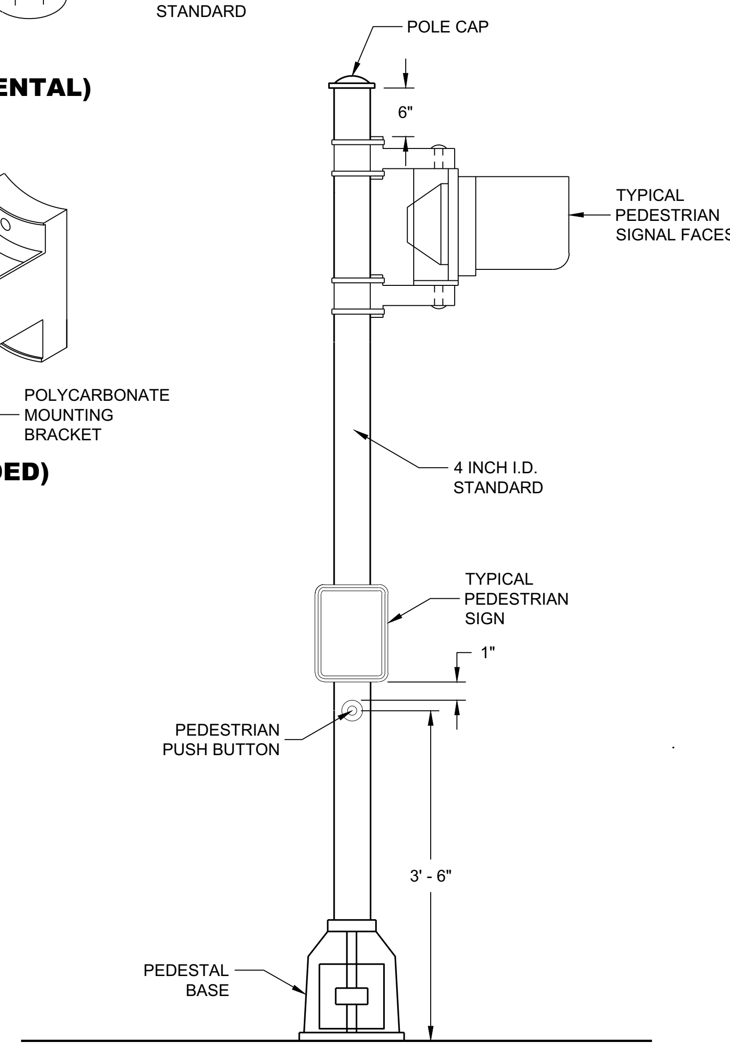
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

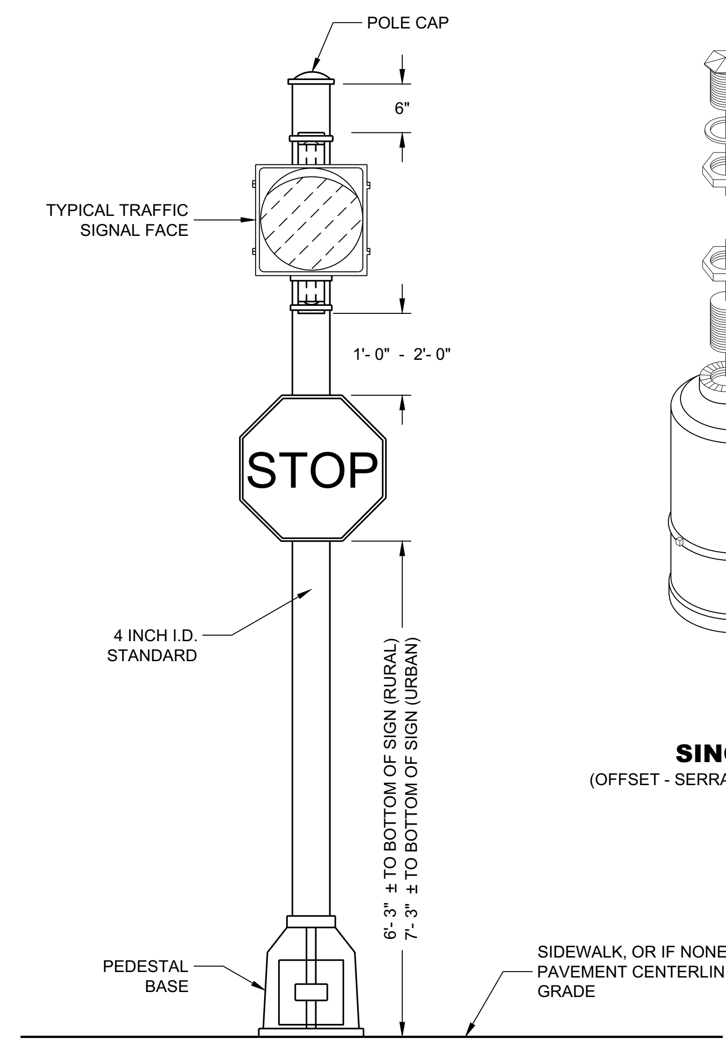
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

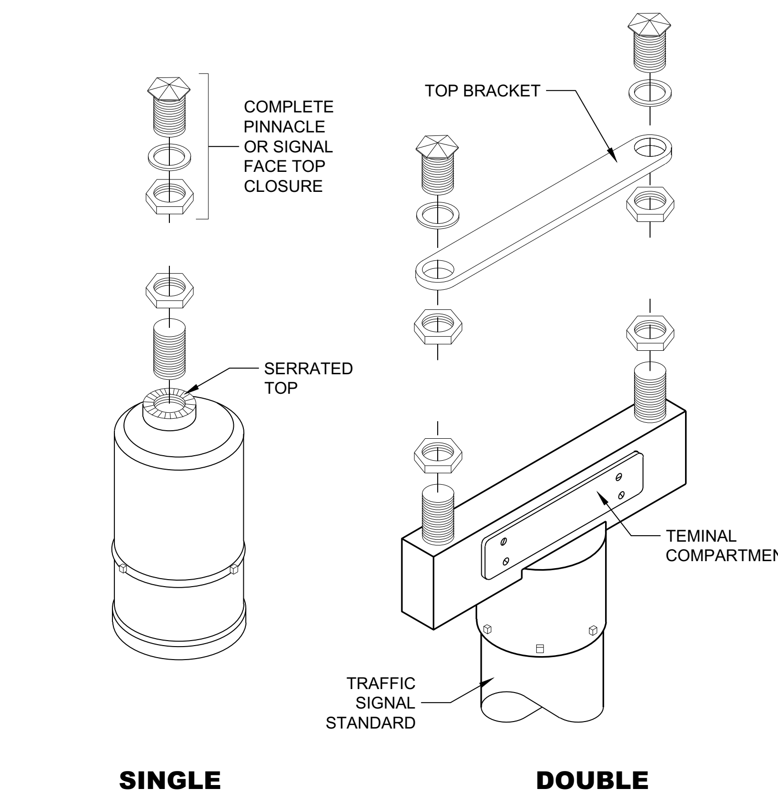
1 USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACESAND BRACKET ENDS.




**PEDESTRIAN FACE STANDARD - 10 FT.**
(WALK - DON'T WALK)




**STANDARD FLASHER**
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED




**SINGLE**
(OFFSET - SERRATED MOUNTING)

**DOUBLE**
(SERRATED MOUNTING)

**SLIPFITTERS**

**TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGI

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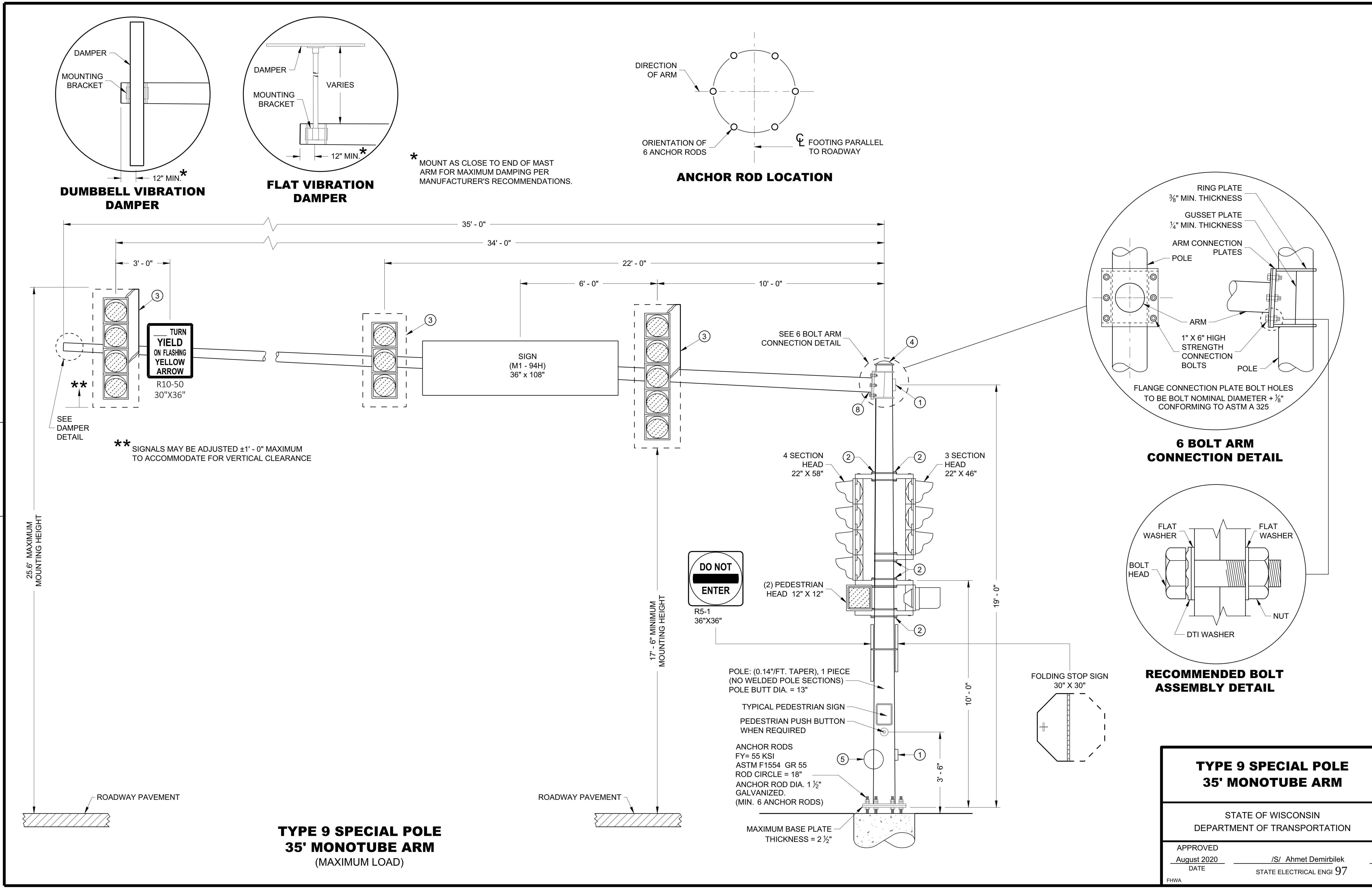


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**TYPE 9 SPECIAL POLE**
**35' MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Ahmet Demirbilek
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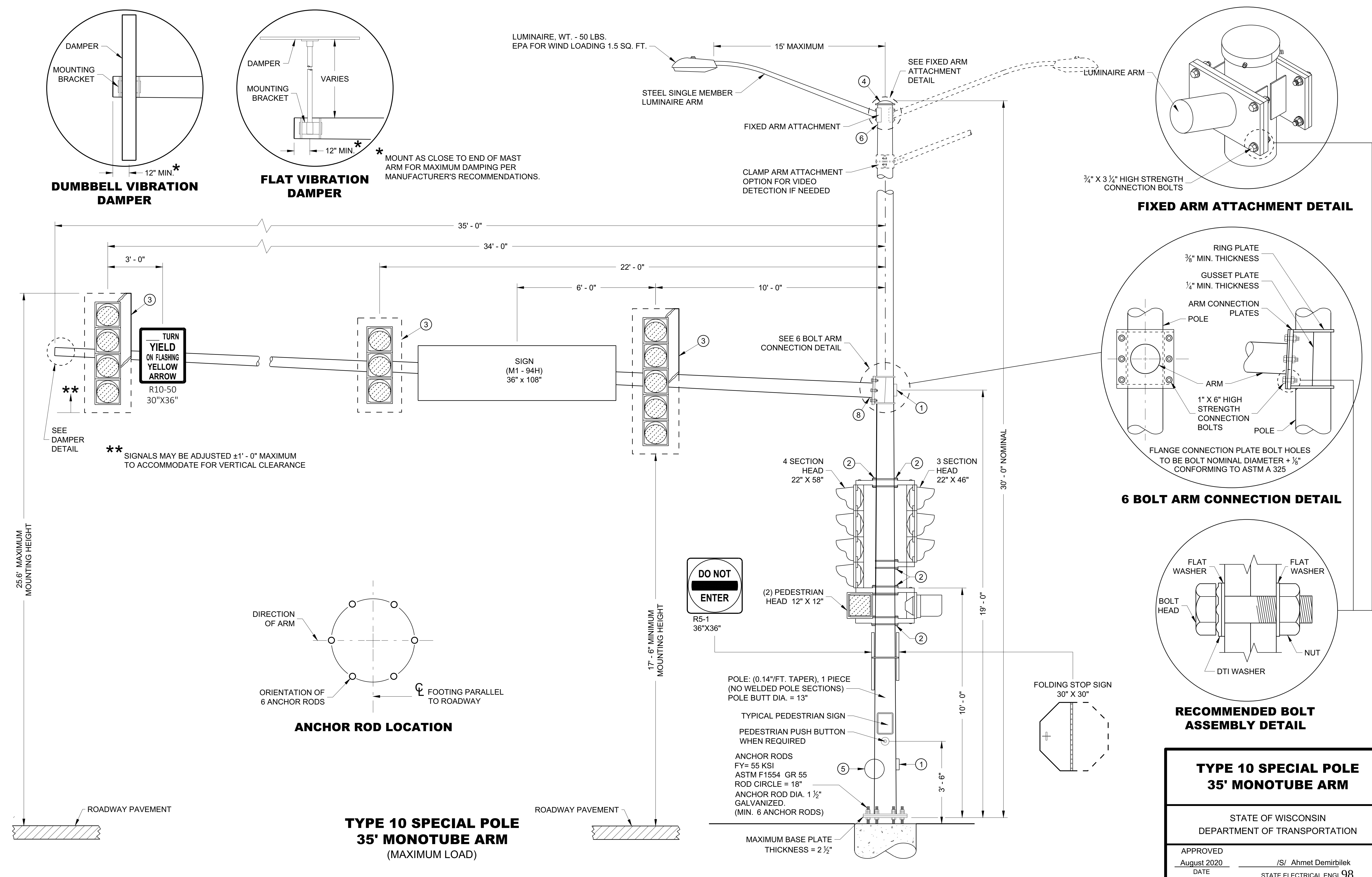
**SDD 09E08 - 09b**

**SDD 09E08 - 09b**

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**TYPE 10 SPECIAL POLE**
**35' MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI

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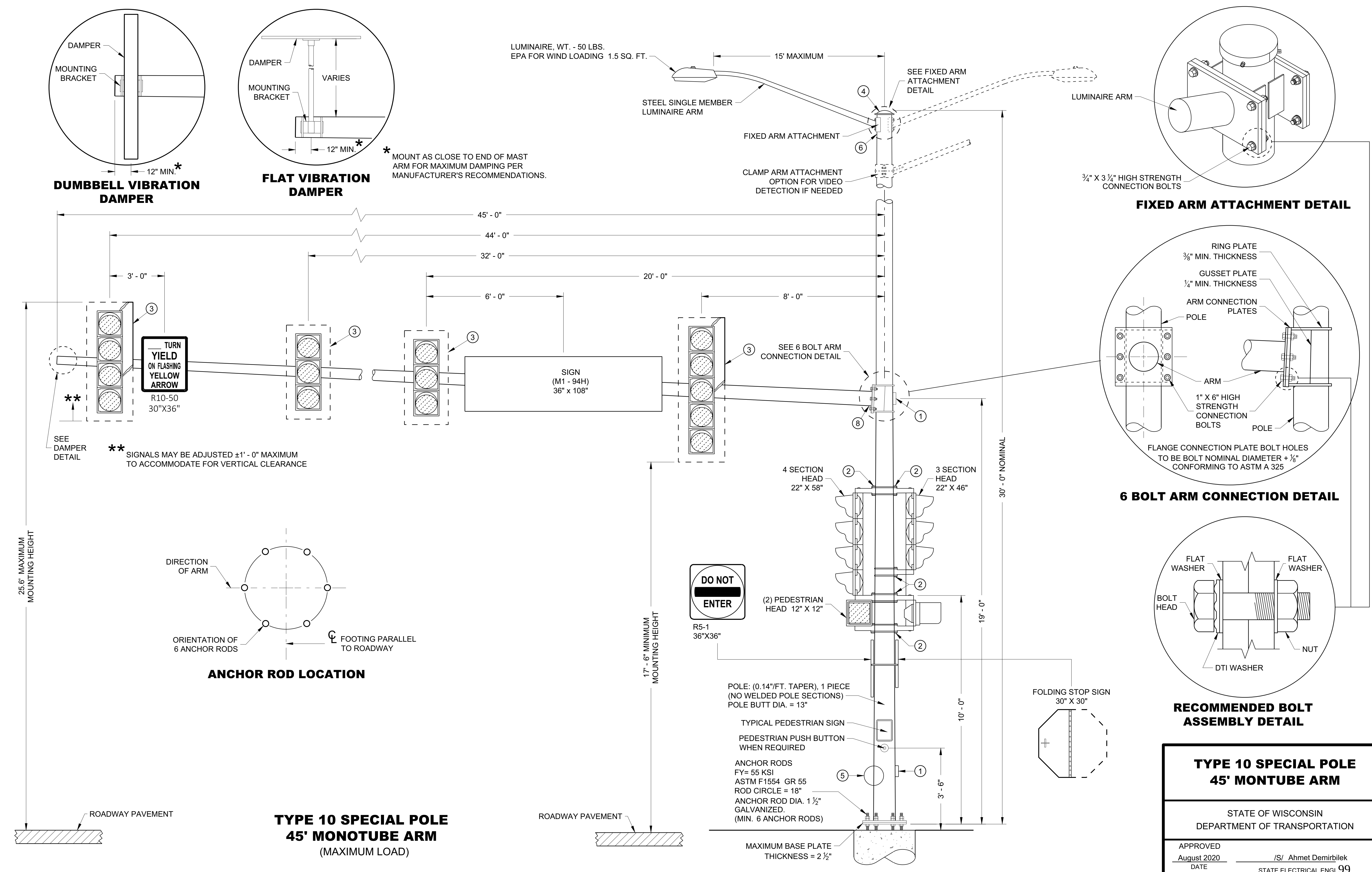
**SDD 09E08 - 09f**




**TYPE 10 SPECIAL POLE 45' MONTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGI
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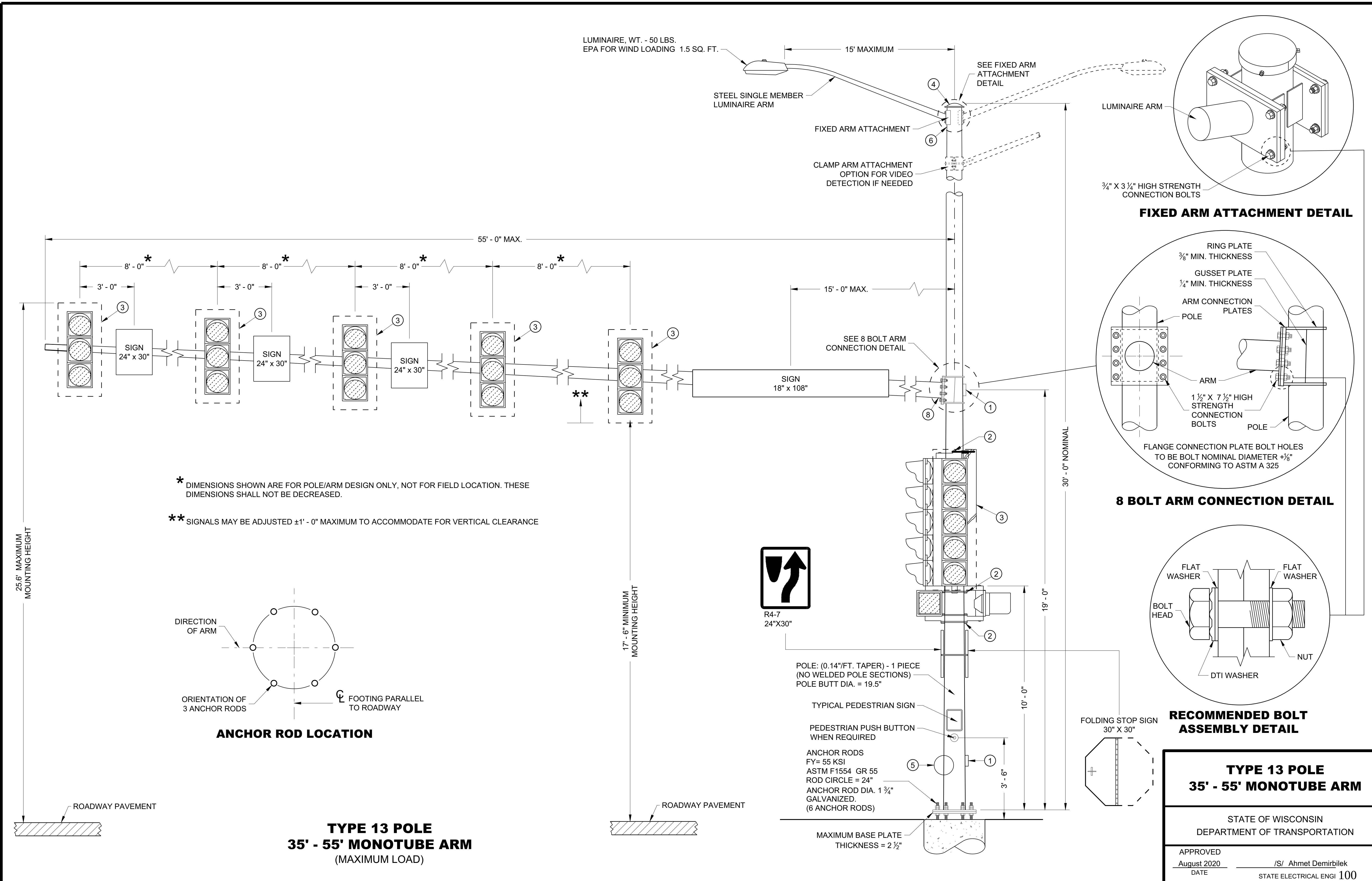


**TYPE 13 POLE**
**35' - 55' MONOTUBE ARM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGI

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SDD 09E08 - 09j

## GENERAL NOTES

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

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

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

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

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

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

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

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

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

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

> CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
>
> CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.
>
> CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.
>
> 115 MPH (700 YEAR MRI BASIC WIND SPEED).

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

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

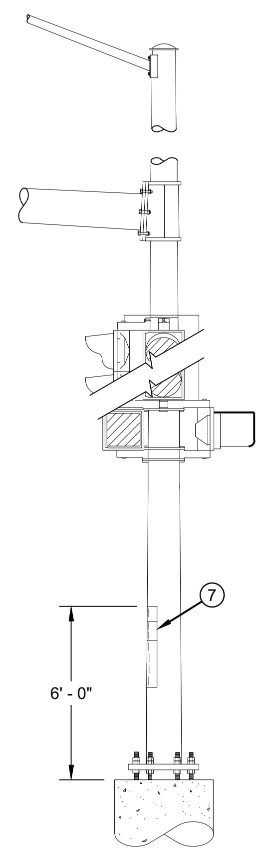
SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

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

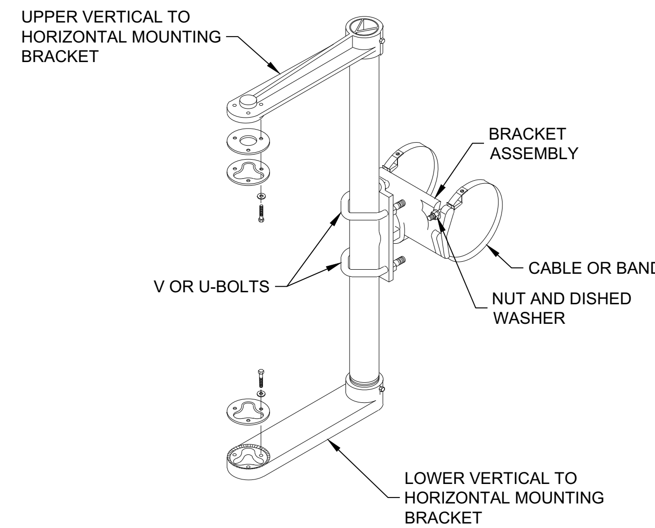
1. DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.
2. SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).
3. SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.
4. THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.
5. FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.
6. FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.
7. INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

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

   MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.
8. FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

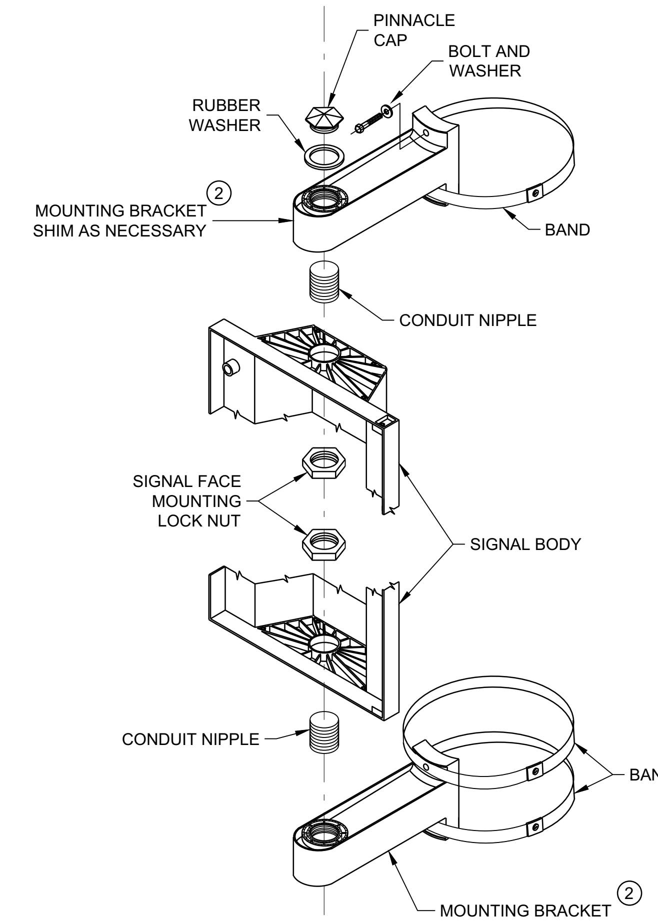



**STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT**

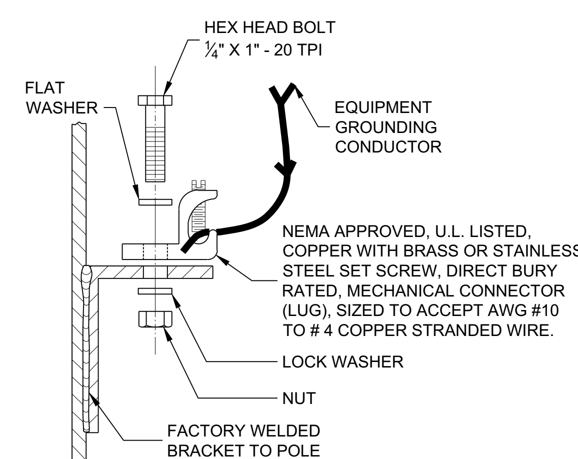



**SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM**

(MOUNT PER MANFACTURER'S RECOMMENDATION)

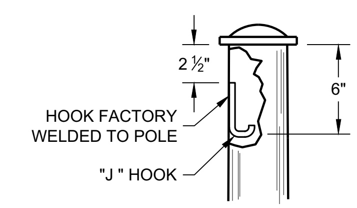



**SIGNAL FACE VERTICAL MOUNTING DETAIL**




**TYPICAL GROUNDING CONNECTIONS** 5

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL




**TYPICAL "J" HOOK WIRE SUPPORT** 6

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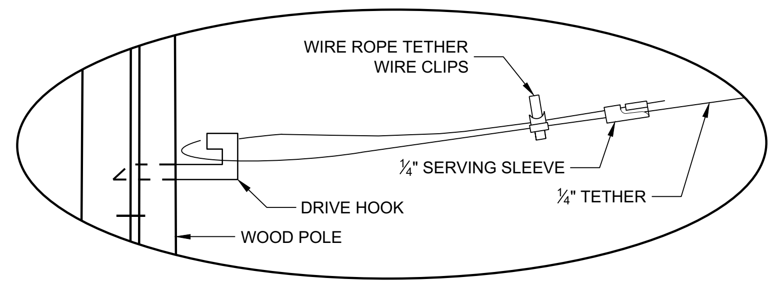
|---|
| **GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS** |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |
| APPROVED<br>August 2020 — DATE<br>/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER<br>FHWA |

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




## DETAIL "A"

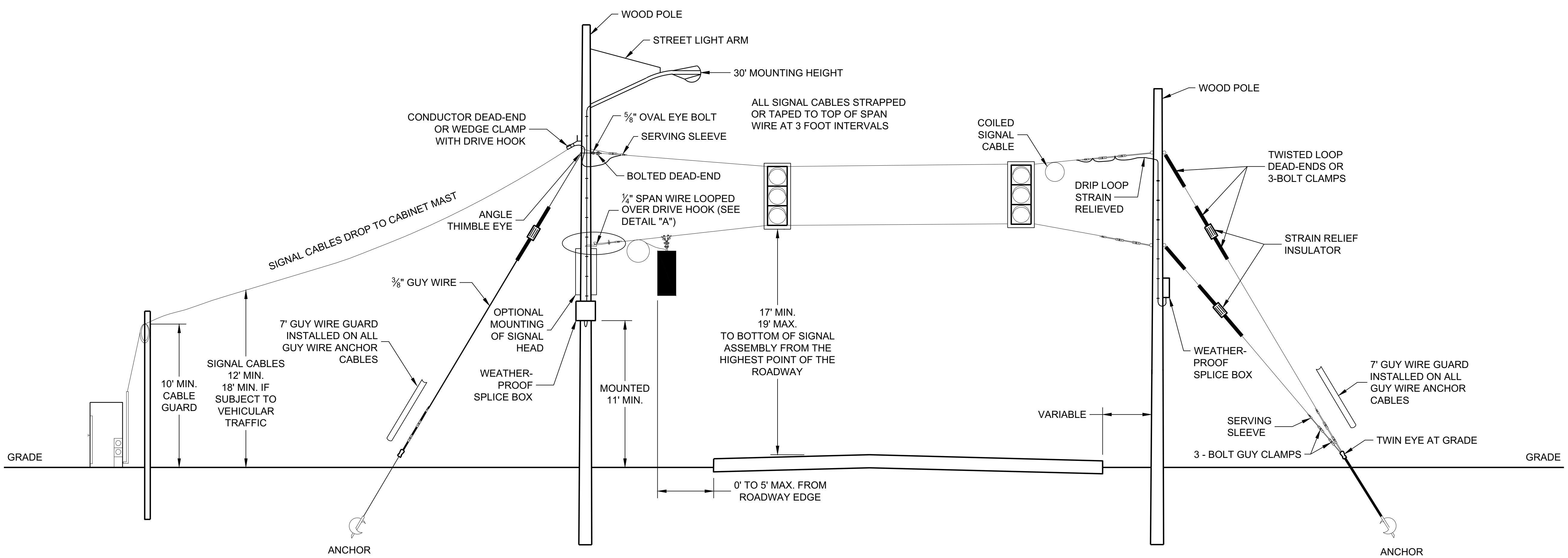
## GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   - A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   - B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   - C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   - A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   - B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   - C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.




## SPAN WIRE TEMPORARY SIGNALS

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SDD09G01 - 04a

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**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015 — DATE

/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGI

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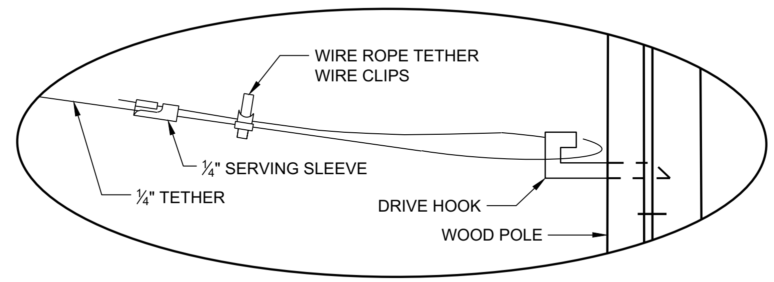
| MINIMUM POLE LENGTHS | CLASS | POLE BURIAL DEPTHS |
|---|---|---|
| 25' | V | 5' |
| 30' | V | 6' |
| 35' | IV | 7' |
| 40' | IV | 8' |
| 45' | IV | 9' |




**DETAIL "A"**

## GENERAL NOTES

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1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
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   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.

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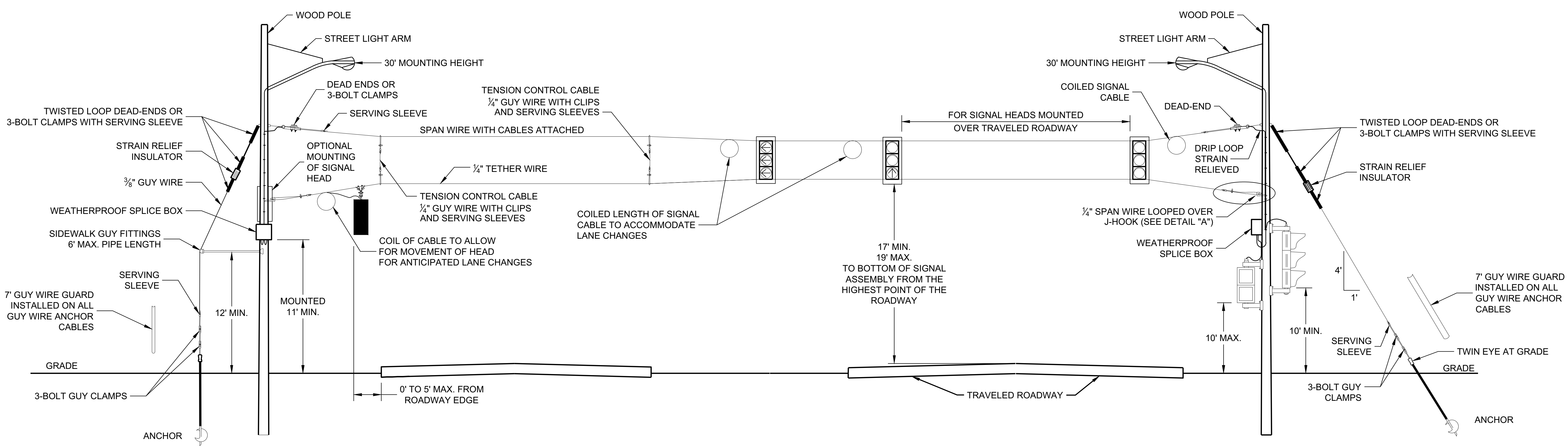


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**SPAN WIRE**
**TEMPORARY SIGNALS**
**4 LANE ROADWAYS**

**SDD09G01 - 04b**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

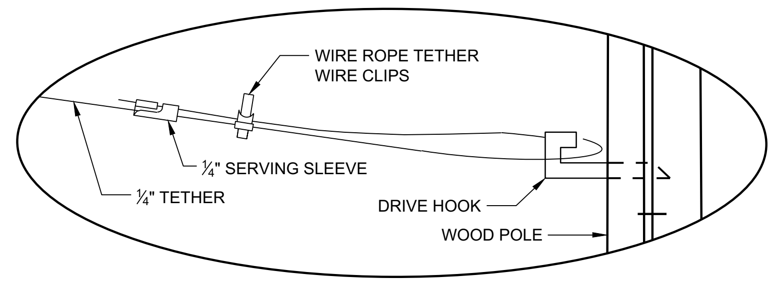
APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI

FHWA



**SDD09G01 - 04b**

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




**DETAIL "A"**

## GENERAL NOTES

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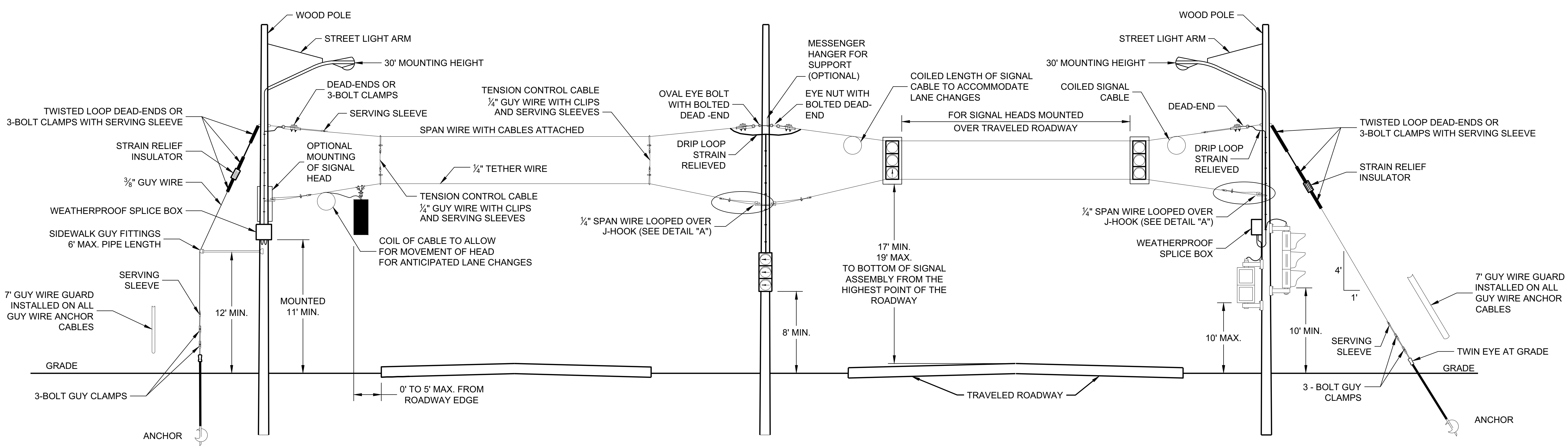
   - B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   - C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE 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**

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SDD09G01 - 04c

SDD09G01 - 04c

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE STATE ELECTRICAL ENGI

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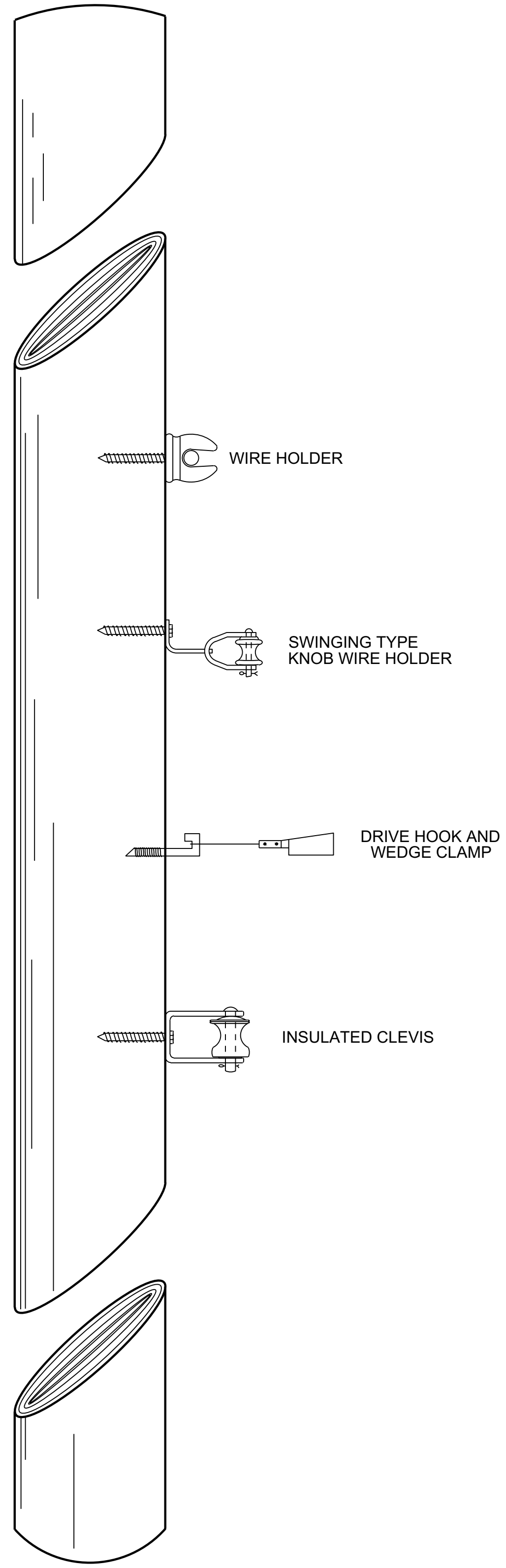


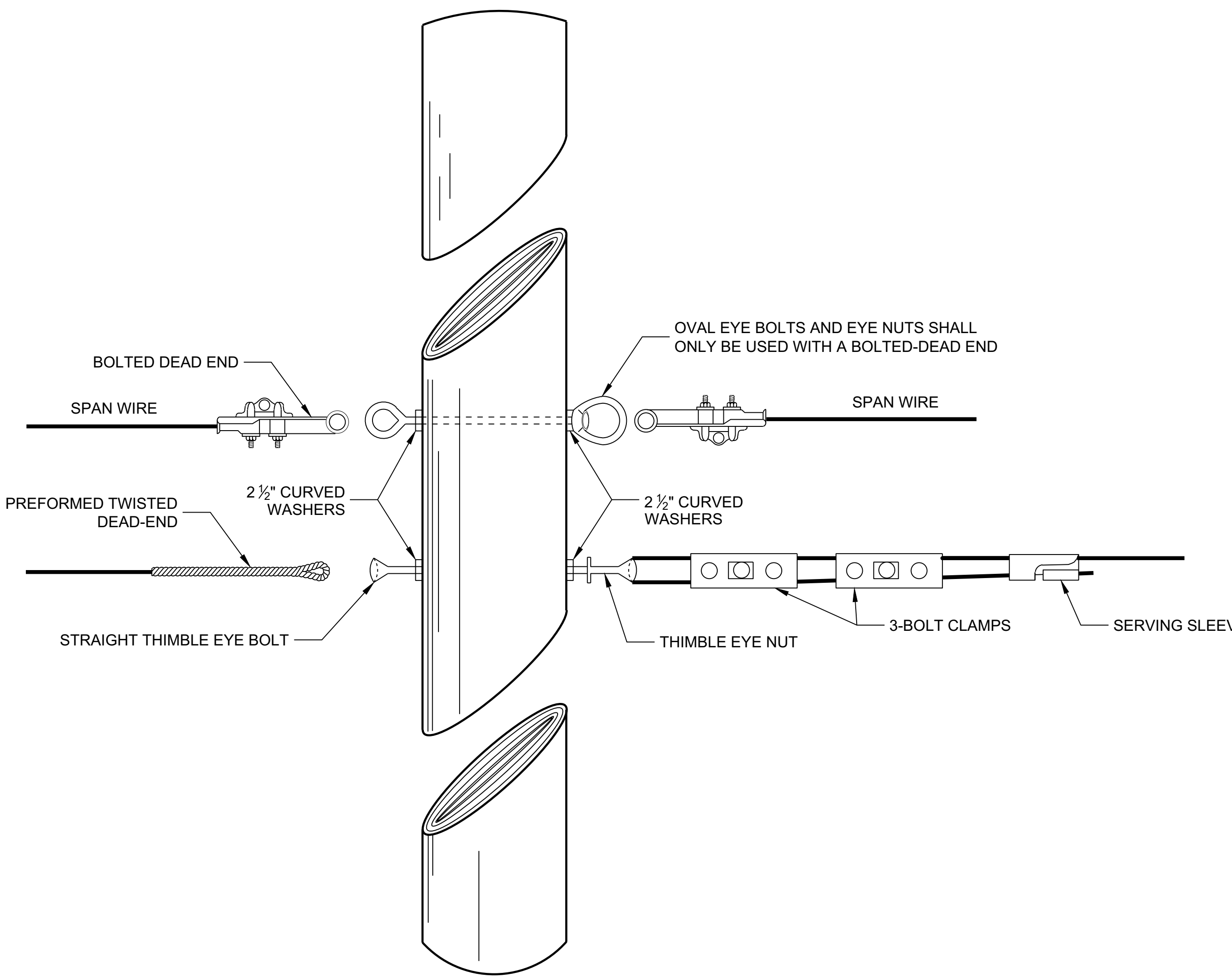


**SPAN WIRE TEMPORARY**
**TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA




SDD 09G01 - 4d
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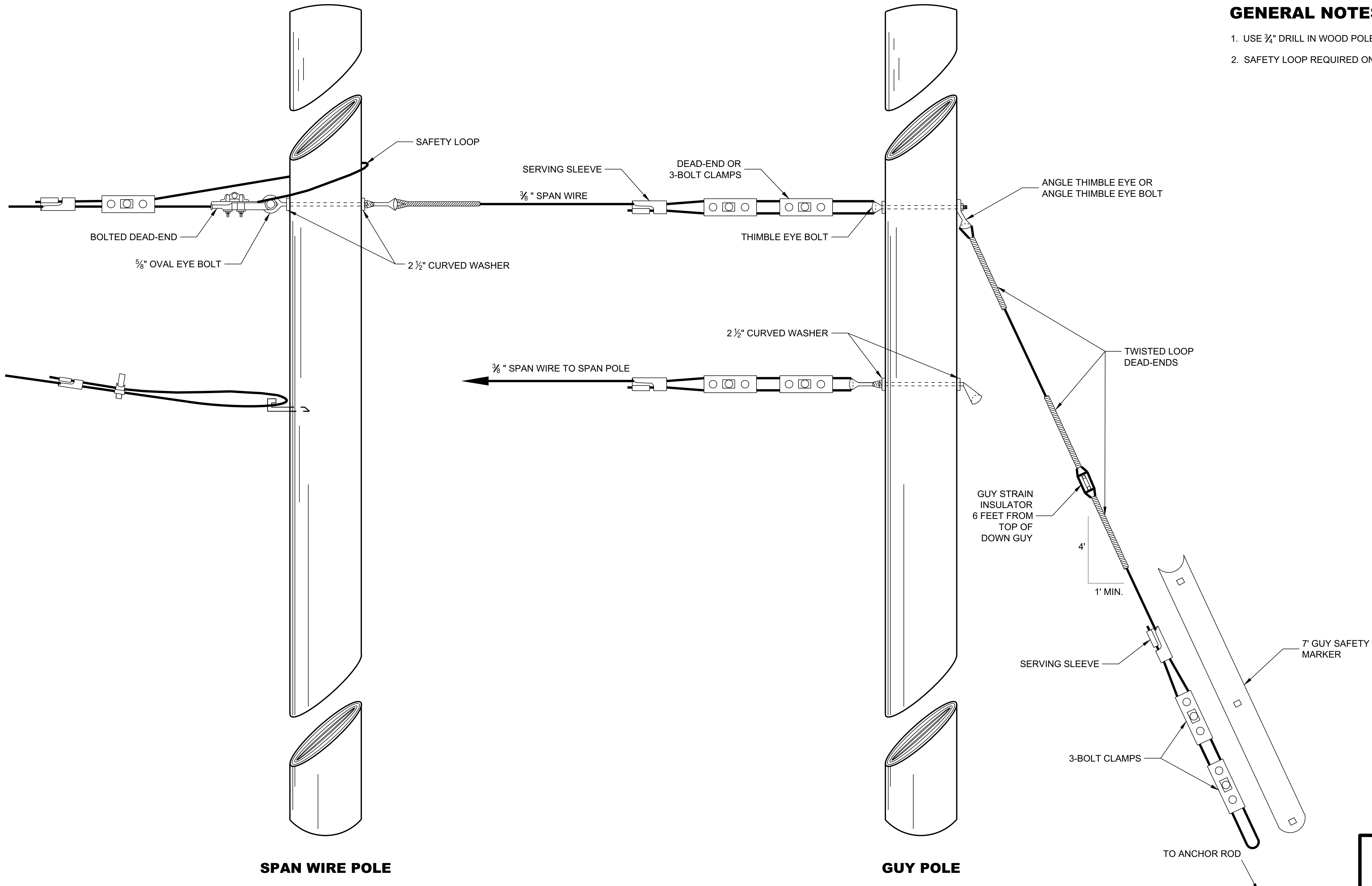
## GENERAL NOTES

1. USE $\frac{3}{4}$" DRILL IN WOOD POLE TO PROVIDE FOR $\frac{5}{8}$" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.




### TYPICAL DEAD-ENDINGS OR GUYING

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015 — DATE

/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVELOPMENT ENGINEER

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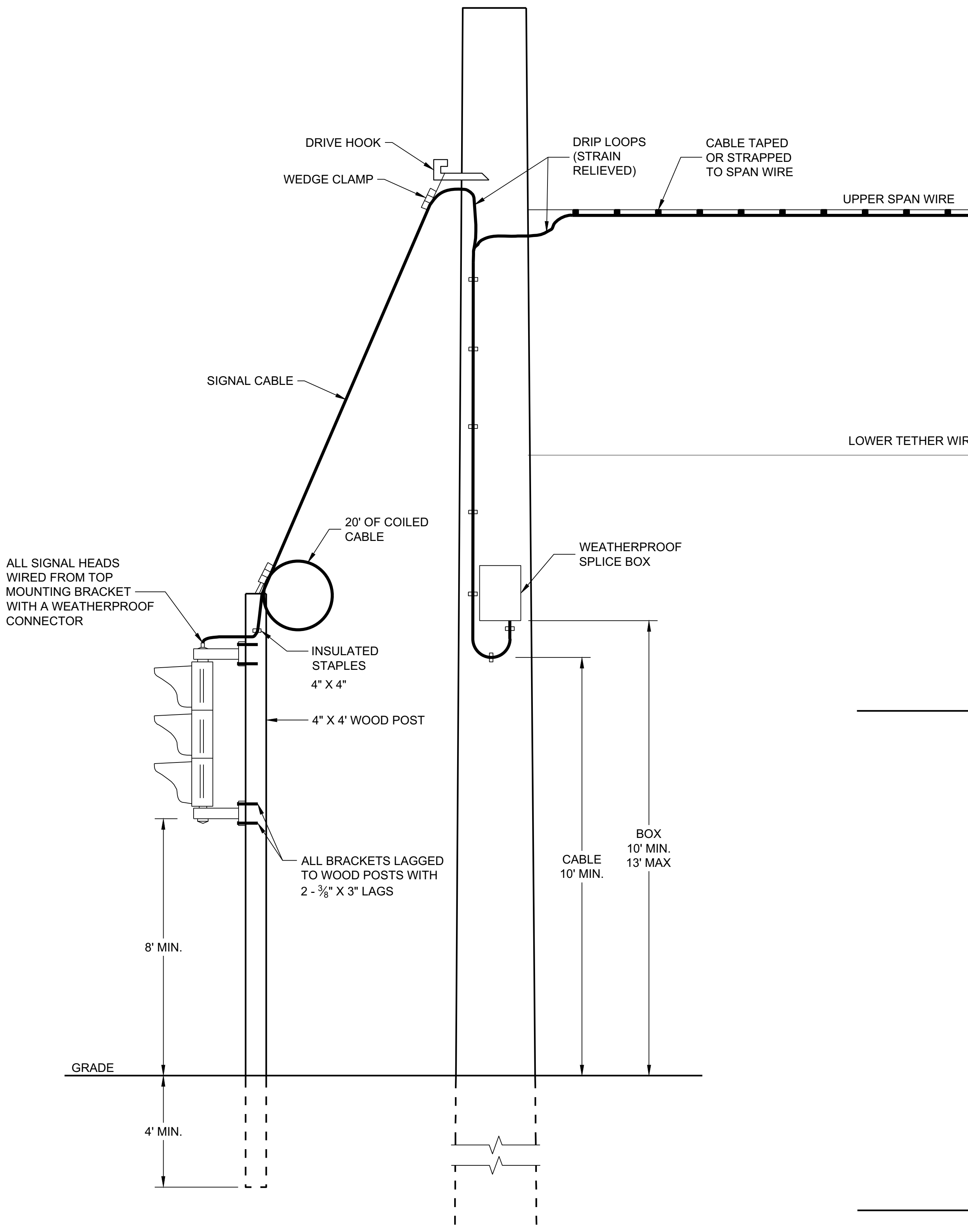
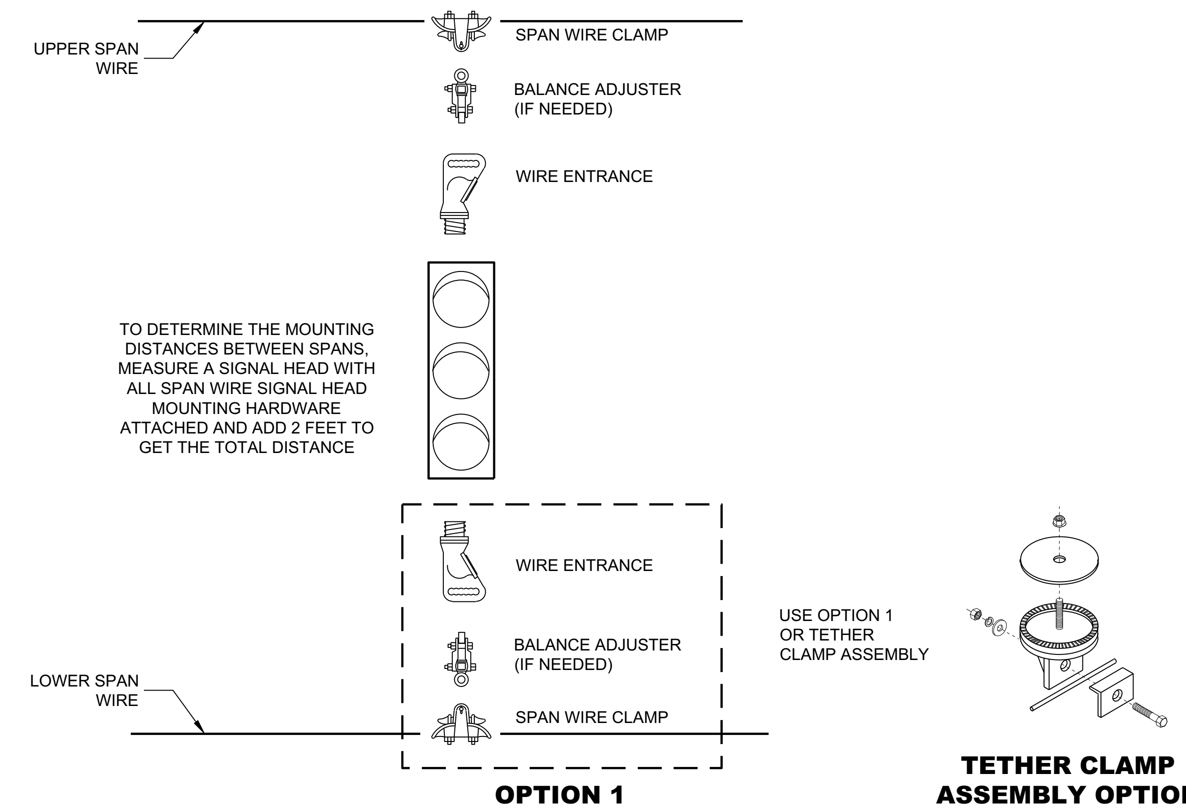
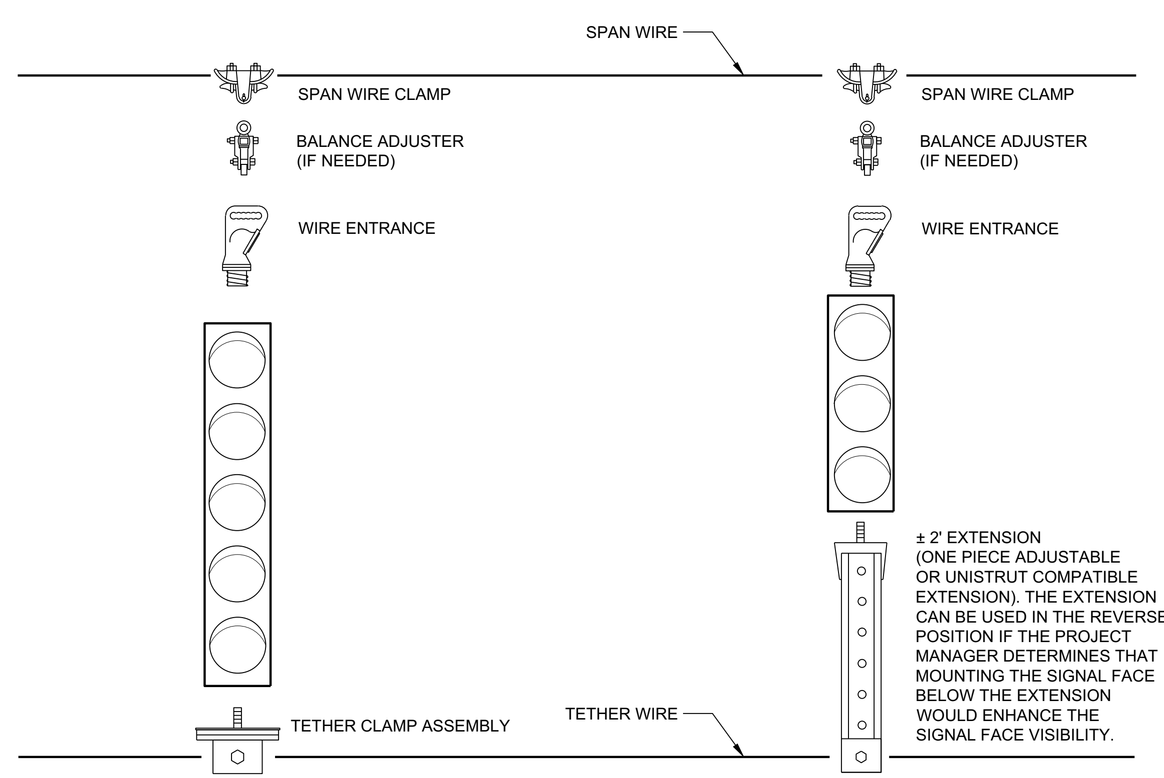



**TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL**




**TYPICAL SPAN WIRE MOUNTING HARDWARE**




**5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015 — DATE

/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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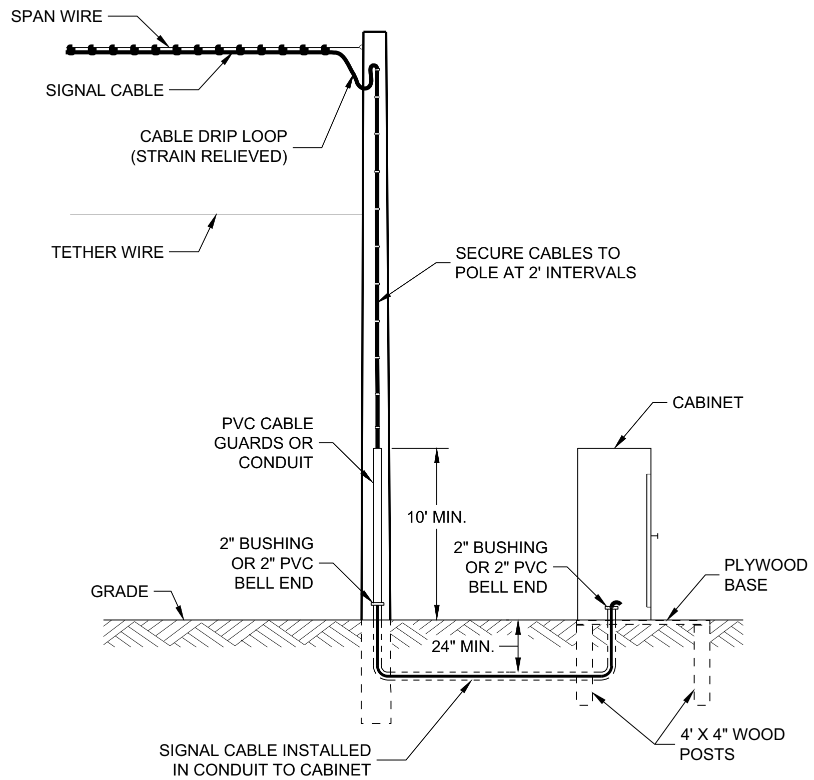
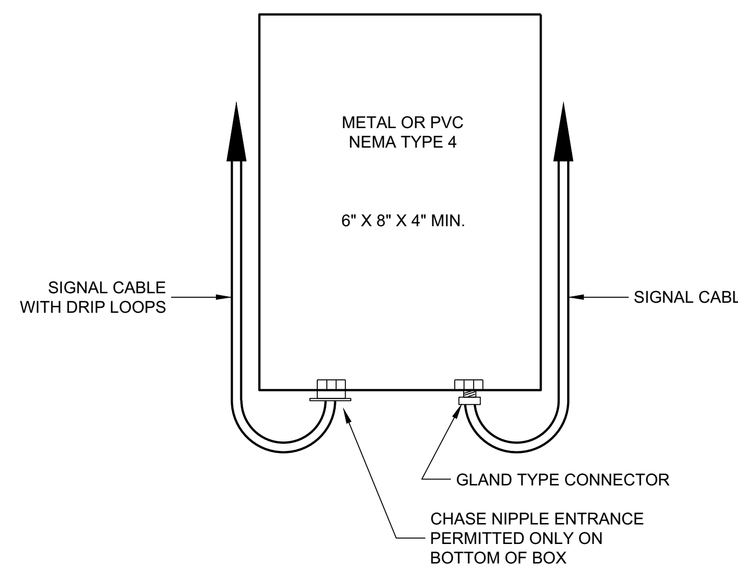
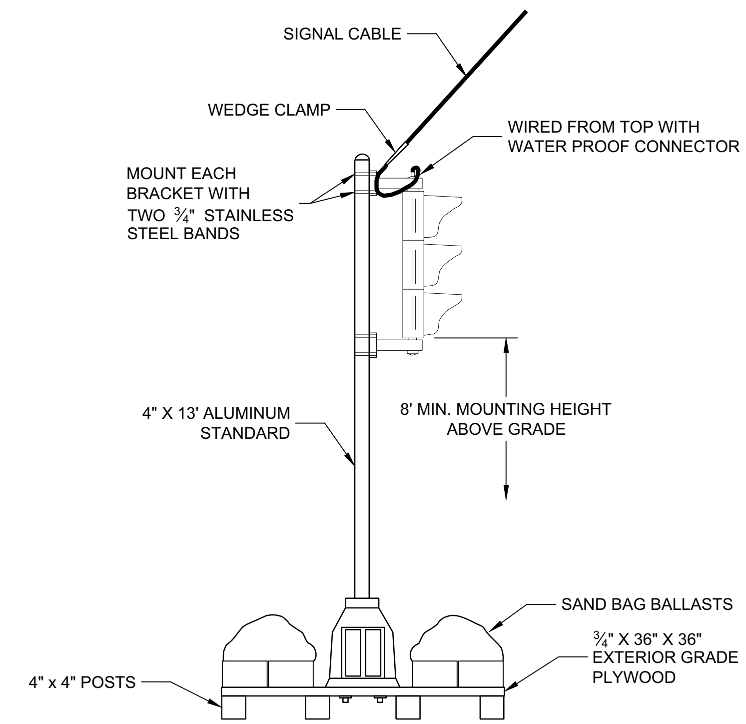
SDD 09G01 - 4f

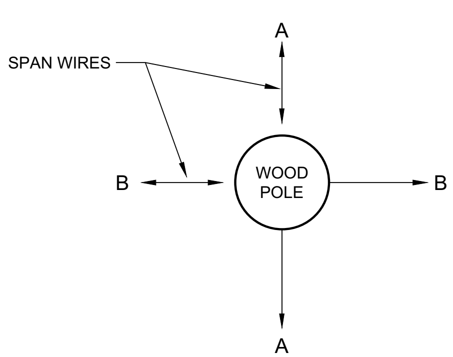



**SPLICE BOX**

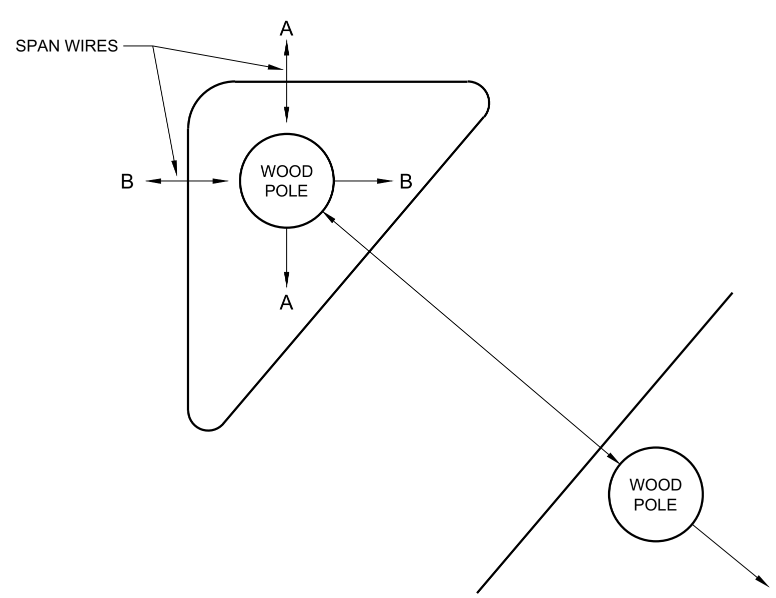



**TYPICAL SKID TYPE TEMPORARY**

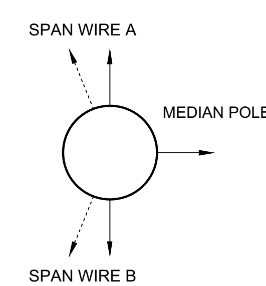



ALL DOWN OR SIDEWALK GUYS SHALL BE INSTALLED IN THE OPPOSITE DIRECTION OF THE STRAIN OF THE SPAN WIRE

**CORNER POLES**




**ISLAND POLES**




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

**MEDIAN POLES**

**SPAN WIRE TEMPORARY TRAFFIC SIGNAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



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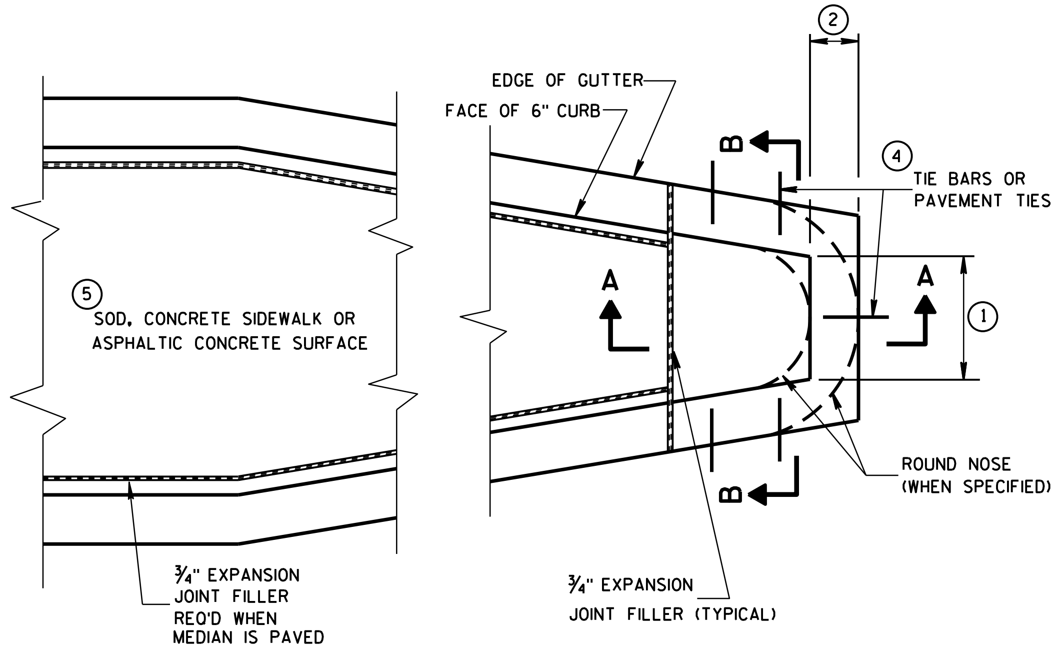
SDD 09G01 - 4g

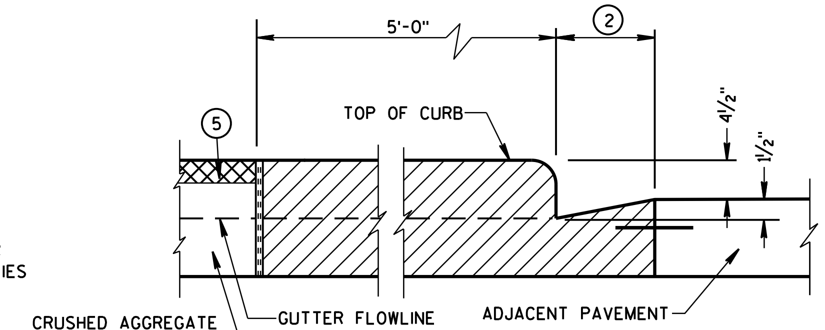
## GENERAL NOTES

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.

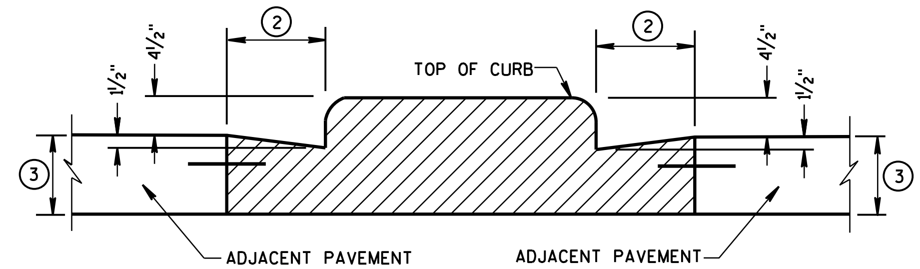
1. SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
2. WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
3. DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
   (1) NEW OR EXISTING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



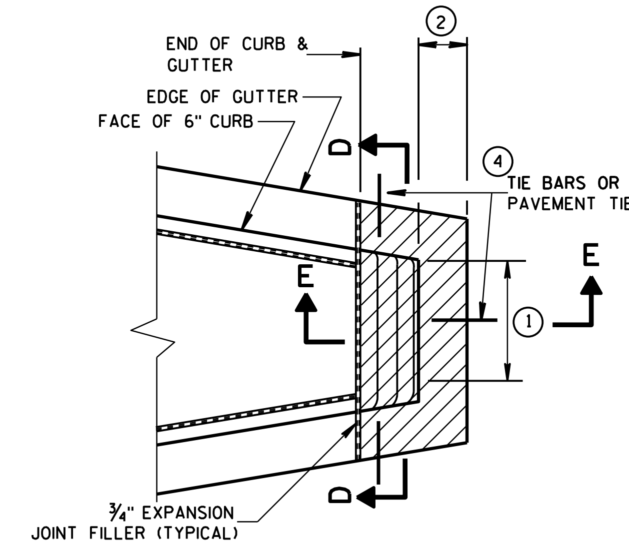



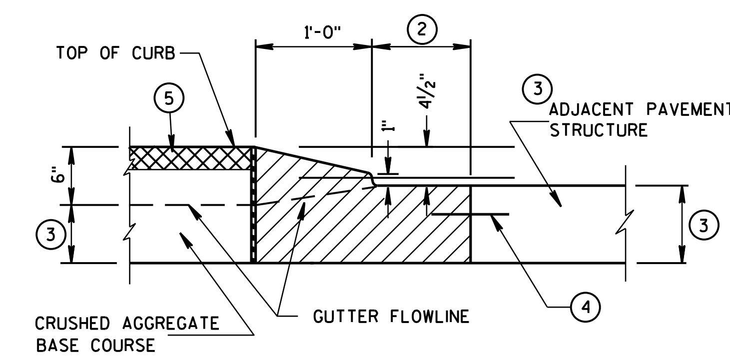

SECTION A-A




SECTION B-B

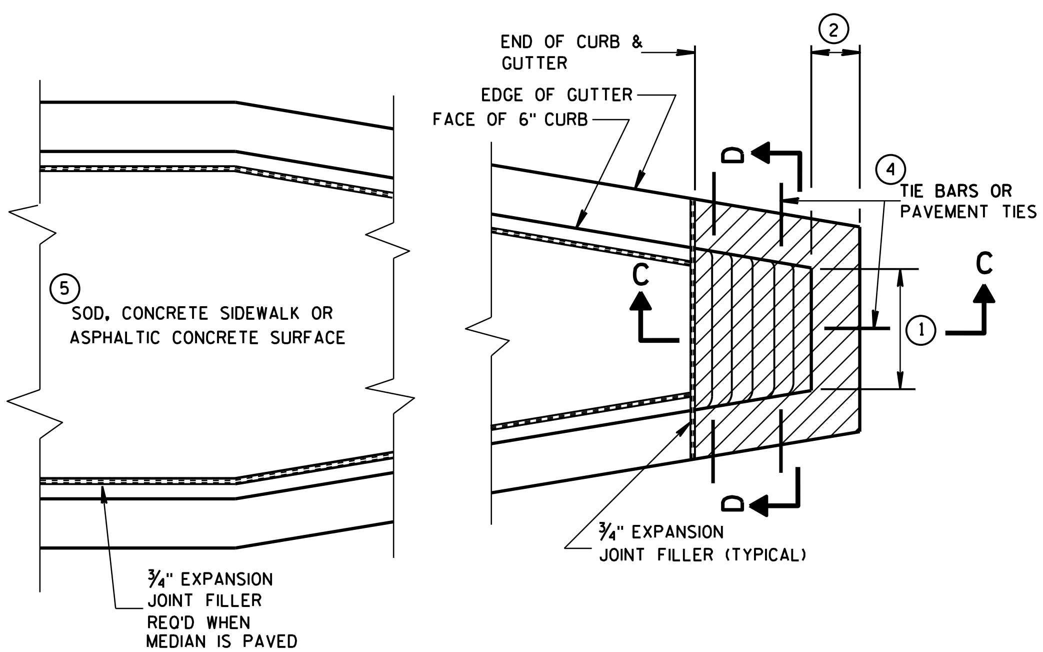
## CONCRETE MEDIAN BLUNT NOSE DETAIL

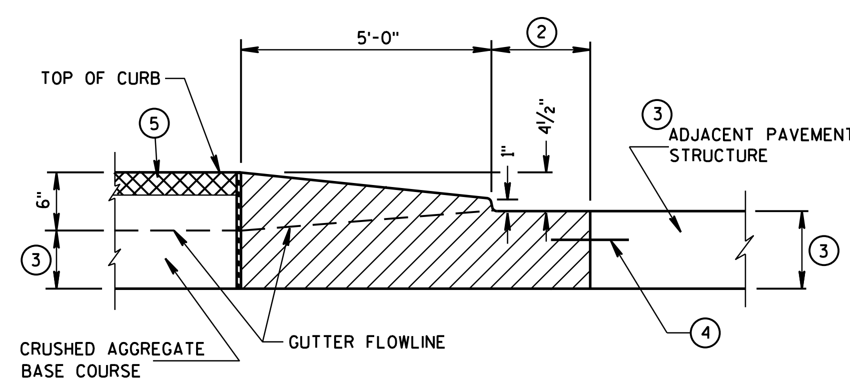



SECTION E-E

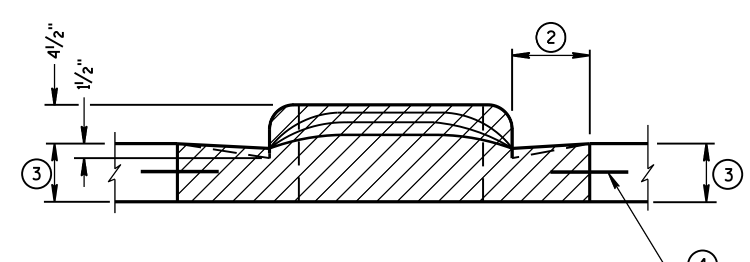
## CONCRETE MEDIAN SLOPED NOSE TYPE 2




SECTION C-C

## CONCRETE MEDIAN SLOPED NOSE TYPE 1




SECTION D-D

| CONCRETE MEDIAN NOSE |
|---|
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION |
| APPROVED 6/8/2006 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA |

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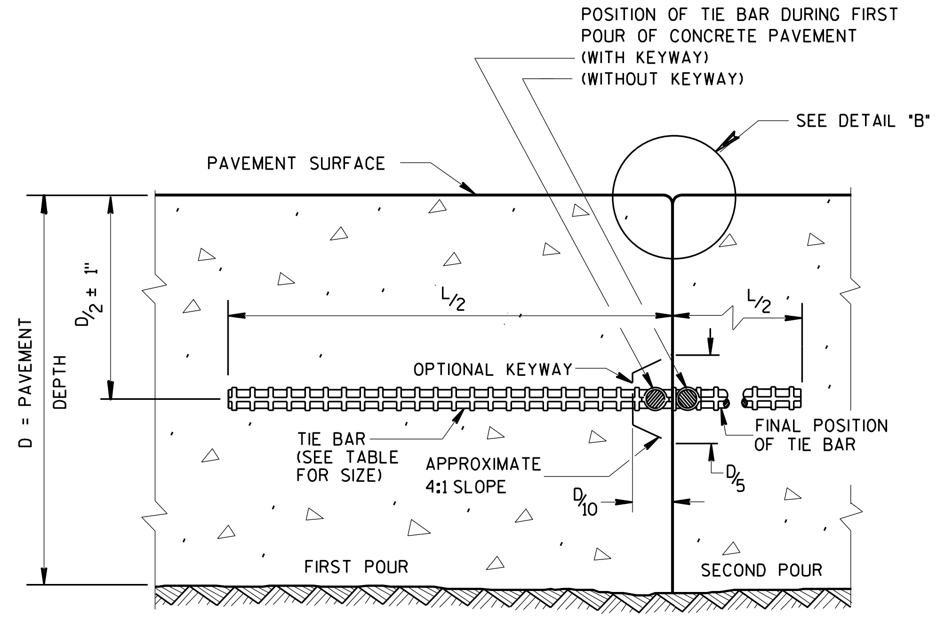
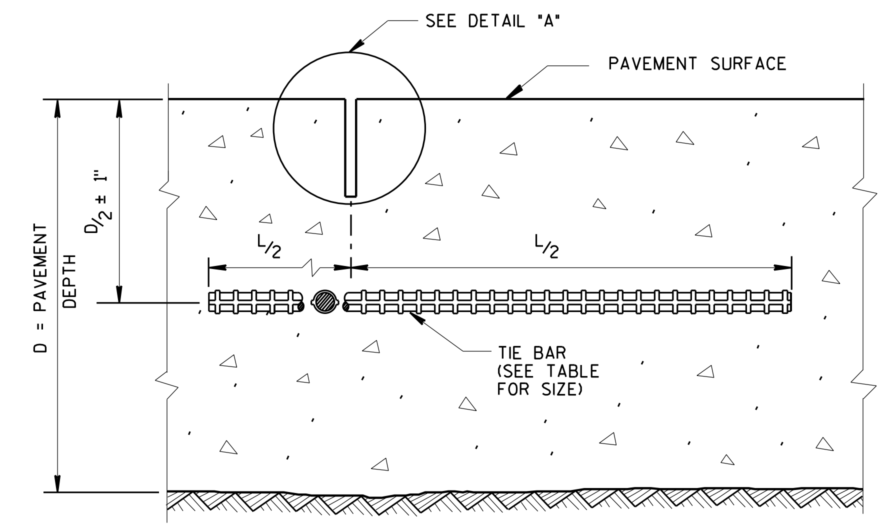



## CONSTRUCTION JOINT




## SAWED JOINT

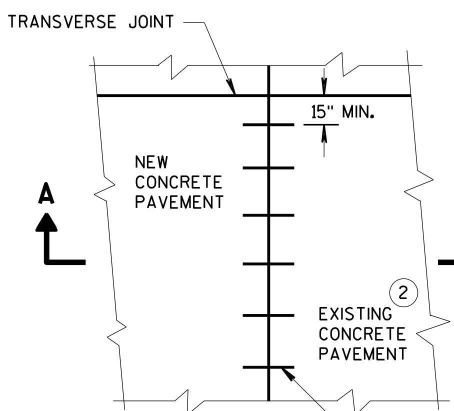
## GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

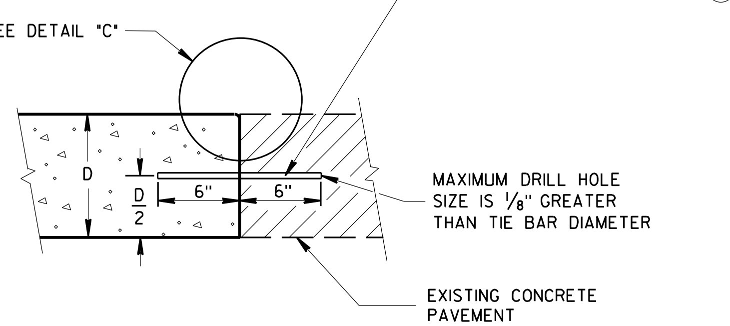
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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

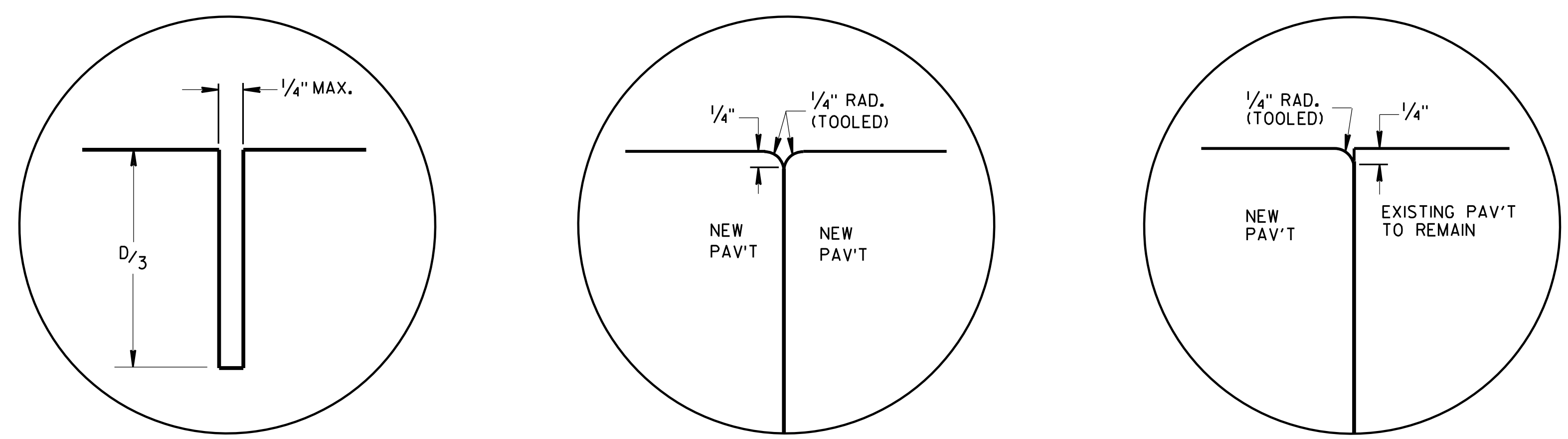



## PLAN VIEW

NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. (1)




## SECTION A-A
## LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



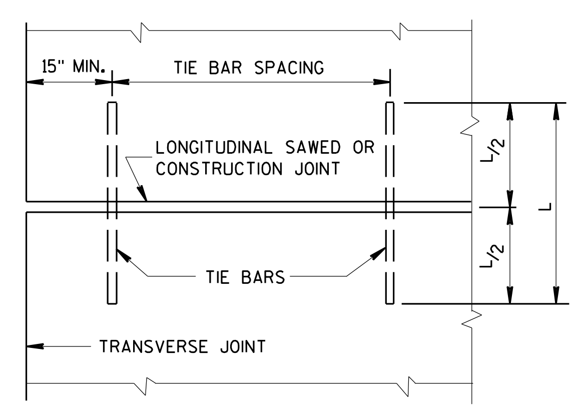

DETAIL "A" DETAIL "B" DETAIL "C"

## TIE BAR TABLE

| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 1/2" | NO. 4 | 30" | 36" |
| ≥ 10 1/2" | NO. 5 | 36" | 36" |
| | NO. 4 * | 30" | 24" ** |

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

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




## PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED March 2018 DATE /S/ Peter Kemp P.E. PAVEMENT SUPV.

FHWA

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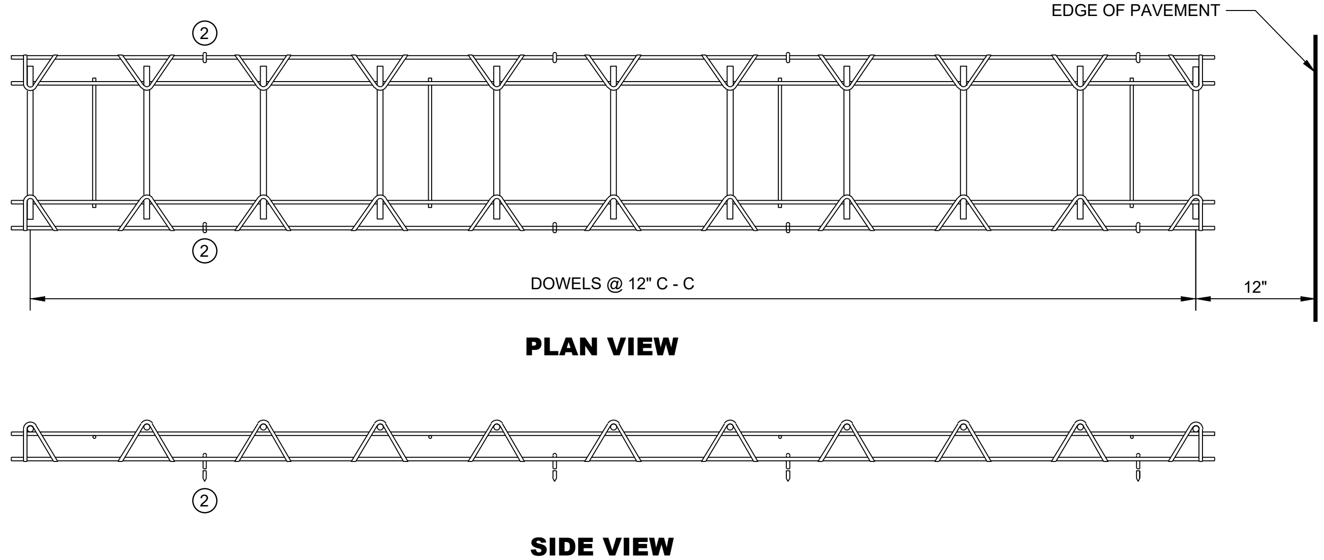
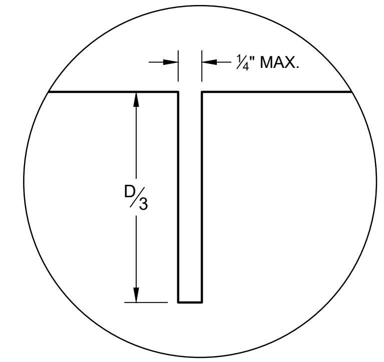



**CONTRACTION JOINT DOWEL ASSEMBLY** 1




**JOINT DETAIL**

## GENERAL NOTES

CONTRACTION JOINTS

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

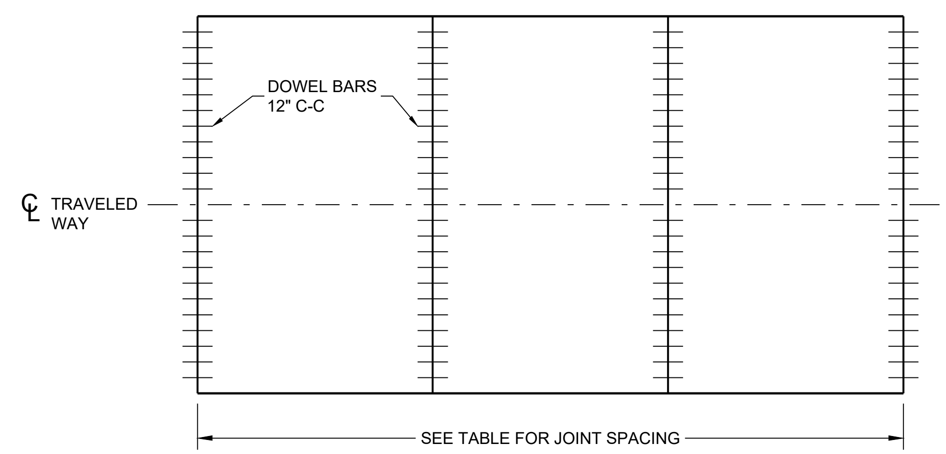
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

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

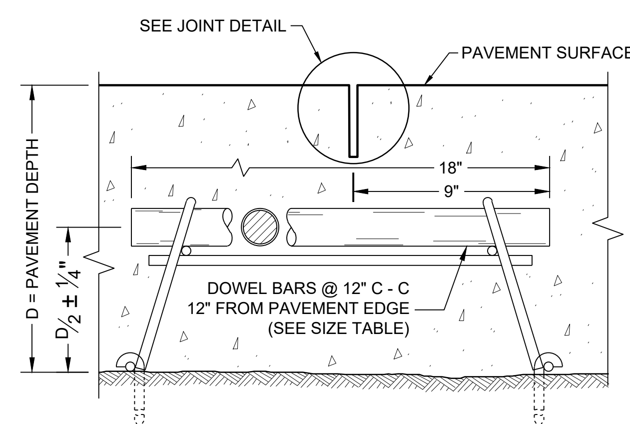
CONSTRUCTION JOINTS

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

1. OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
2. SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
3. FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.
4. PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
5. INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.
6. APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
7. ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



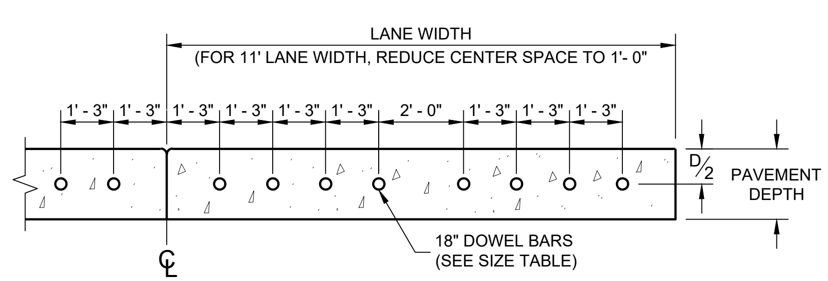

**CONTRACTION JOINT LOCATIONS**



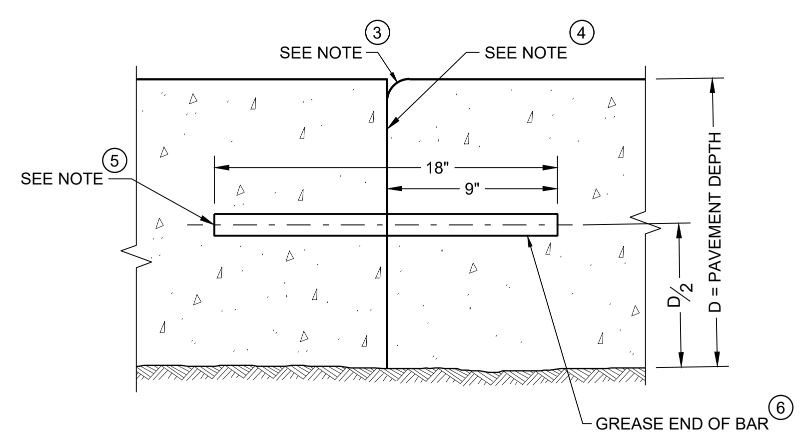

**DOWELED CONTRACTION JOINT**

**PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE**

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




**DRILLED DOWEL BAR CONSTRUCTION JOINT** 7




**TRANSVERSE CONSTRUCTION JOINT**

**URBAN DOWELED CONCRETE PAVEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

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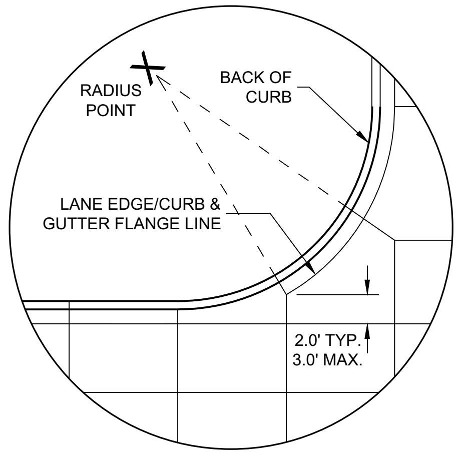
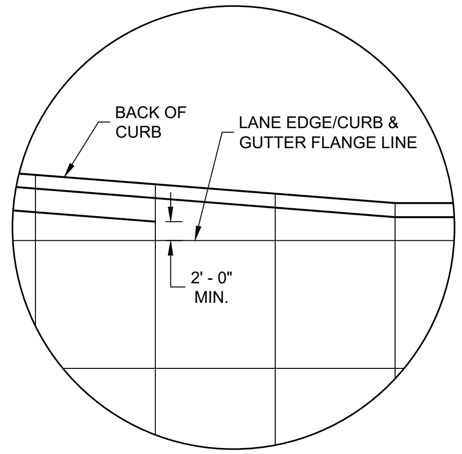
SDD 13C13 - 10

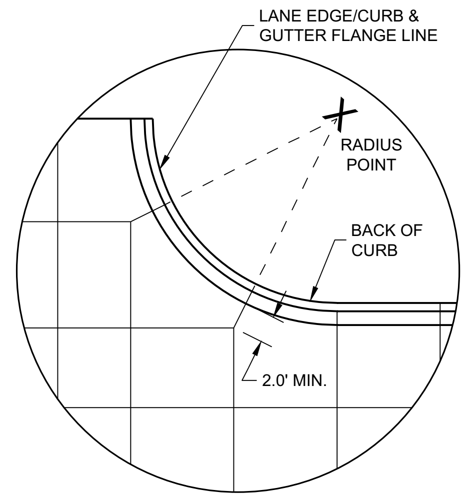
SDD 13C13 - 10



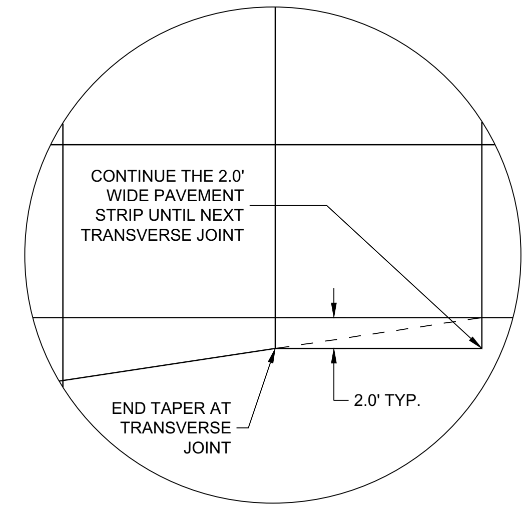

DETAIL "A"




DETAIL "B"




DETAIL "C"




DETAIL "D"

## GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

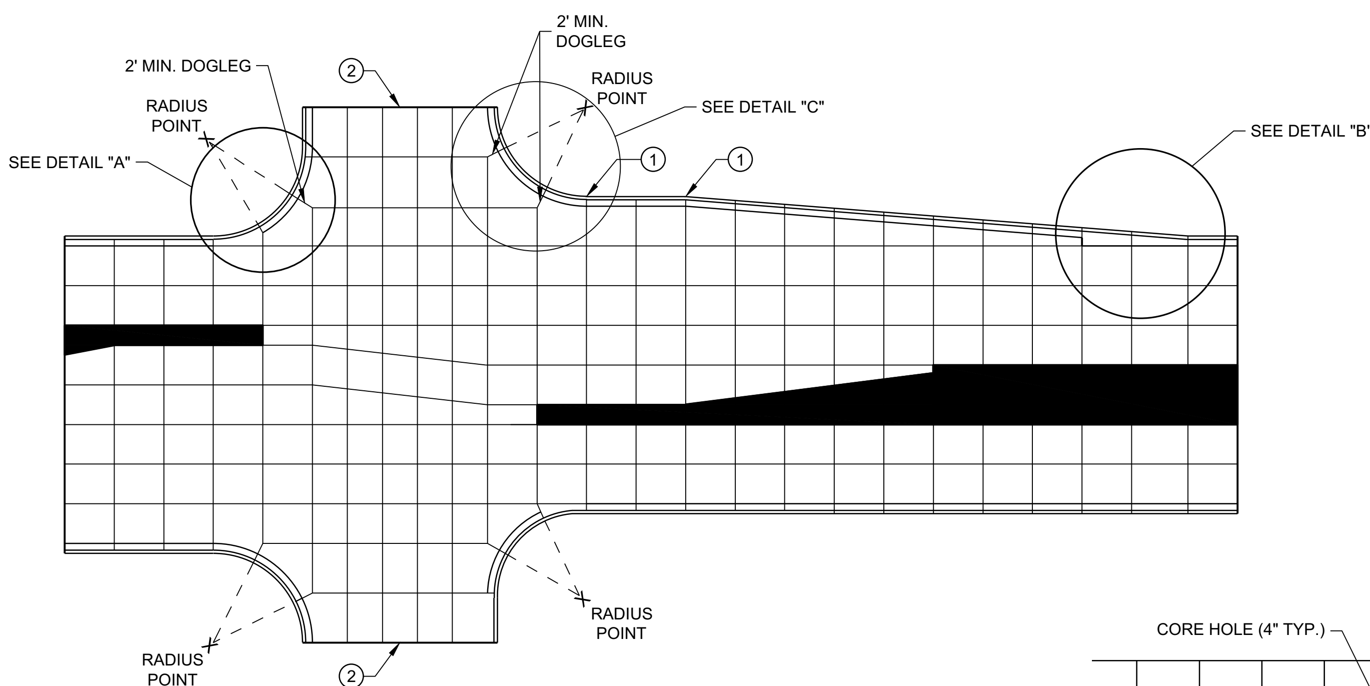
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

1 PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

2 CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

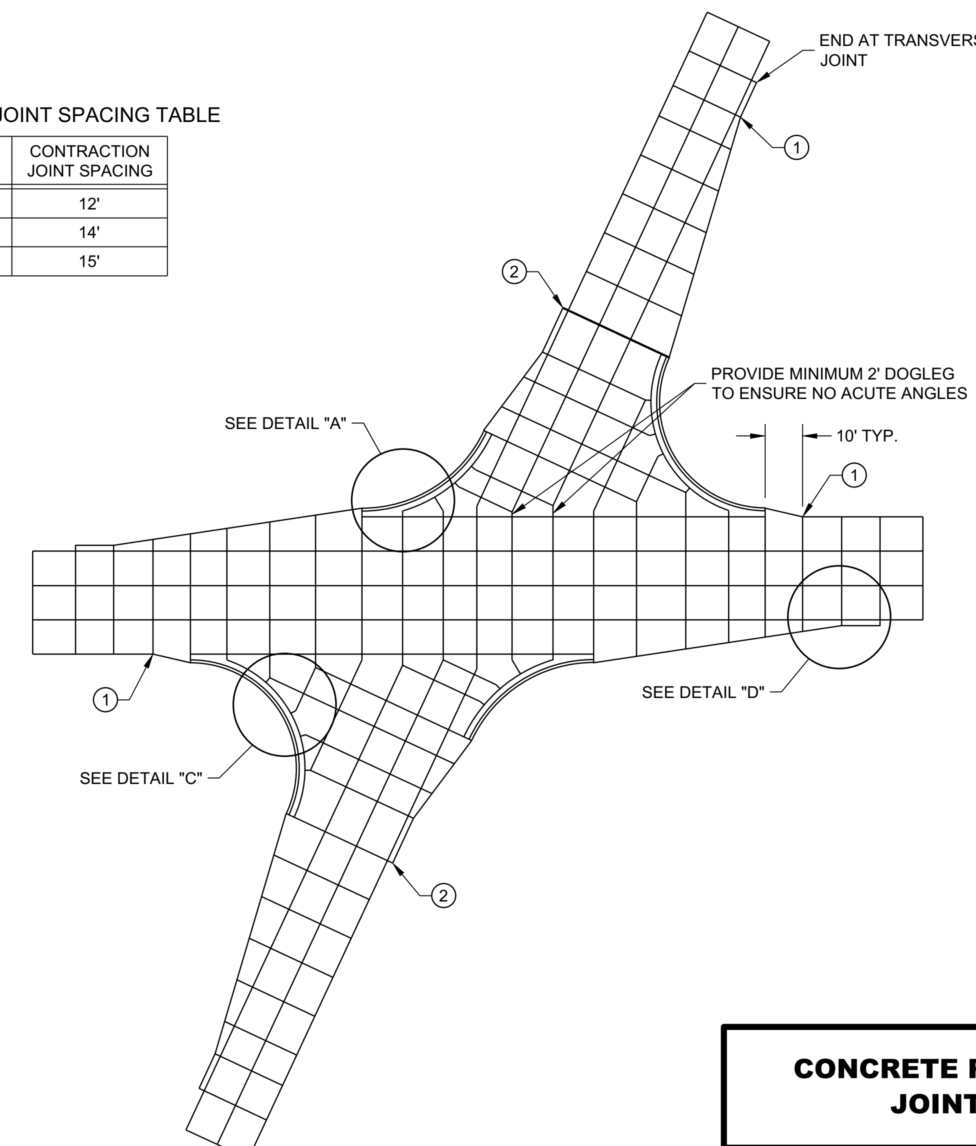
3 THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

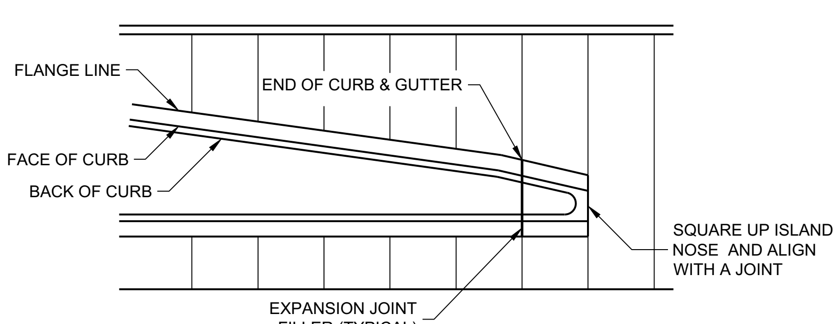



STANDARD INTERSECTION

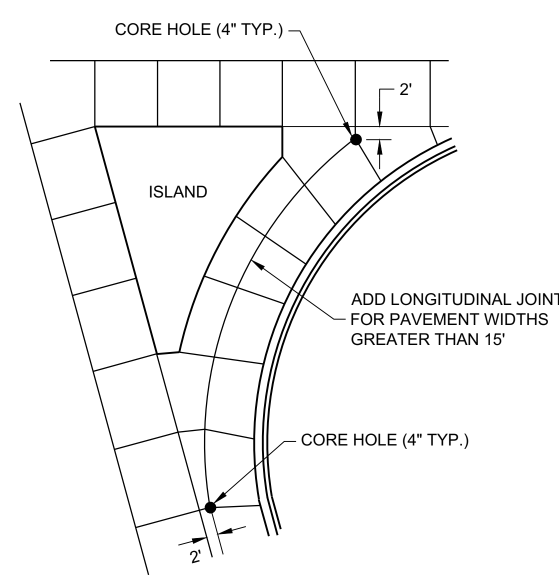
PAVEMENT DEPTH AND JOINT SPACING TABLE

| PAVEMENT DEPTH (D) | CONTRACTION JOINT SPACING |
|---|---|
| 6", 6 ½" | 12' |
| 7", 7 ½" | 14' |
| 8" & ABOVE | 15' |




APPROACH TO MEDIAN




LARGE RIGHT TURN

SKEWED INTERSECTION

**CONCRETE PAVEMENT JOINTING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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SDD 13C18 - 07a

SDD 13C18 - 07a

## LEGEND

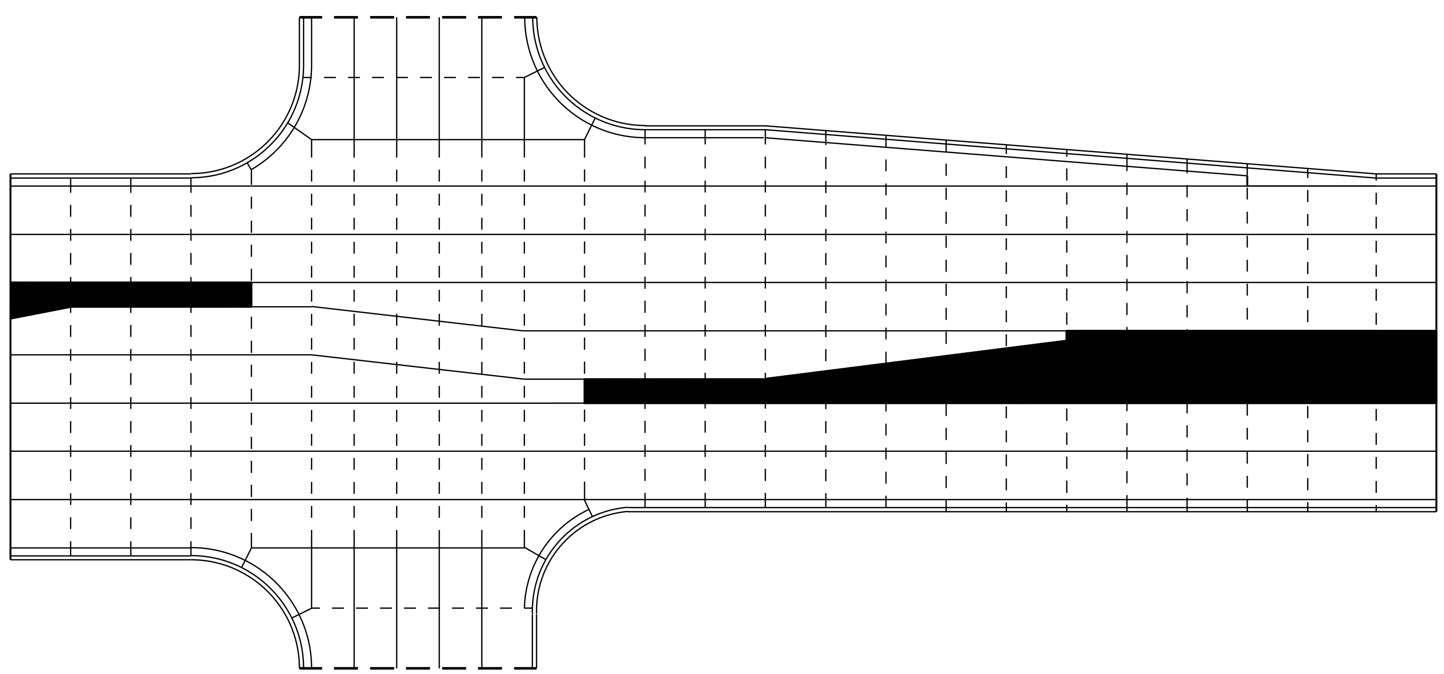
POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

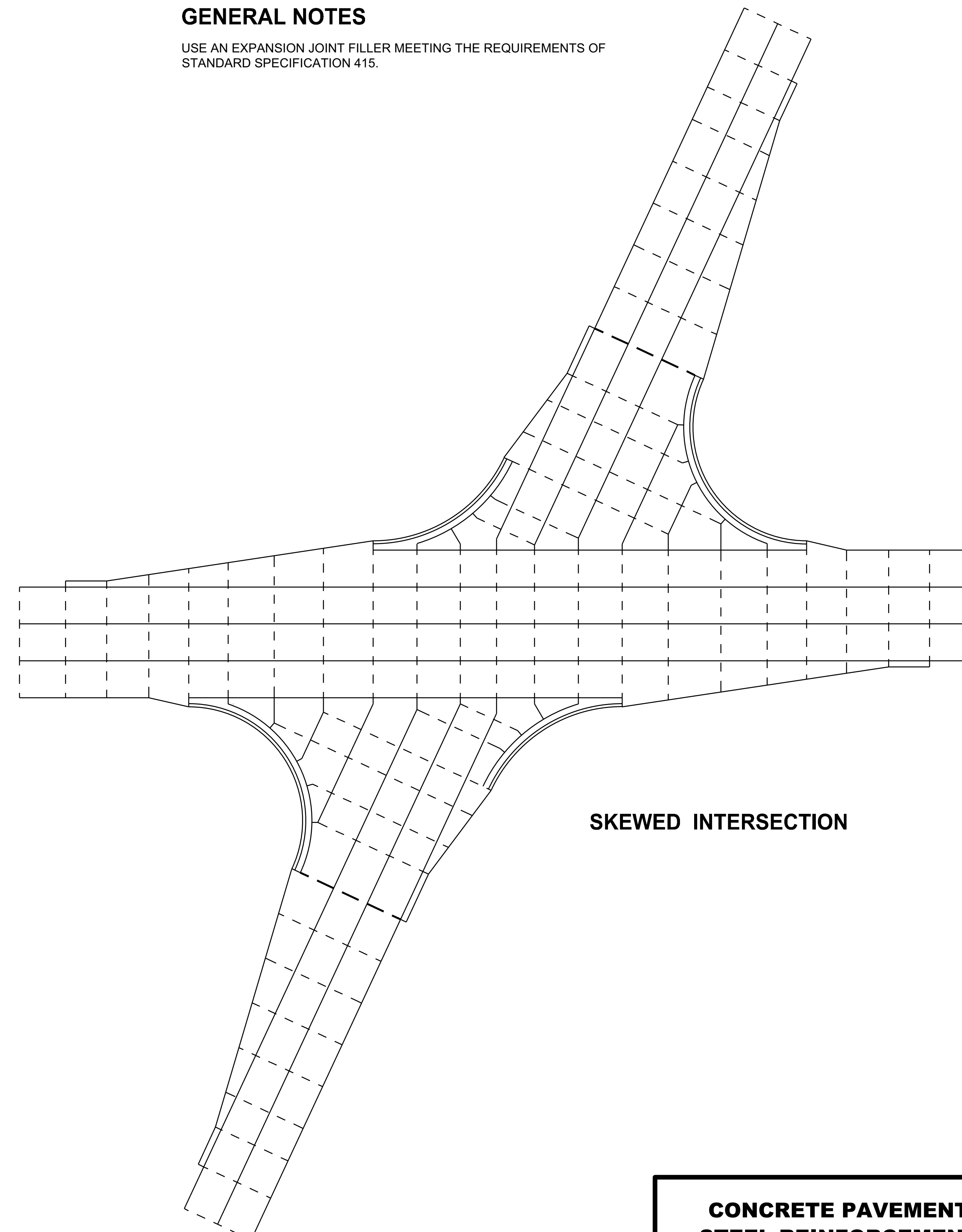
TIED JOINT

## GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



STANDARD INTERSECTION



SKEWED INTERSECTION

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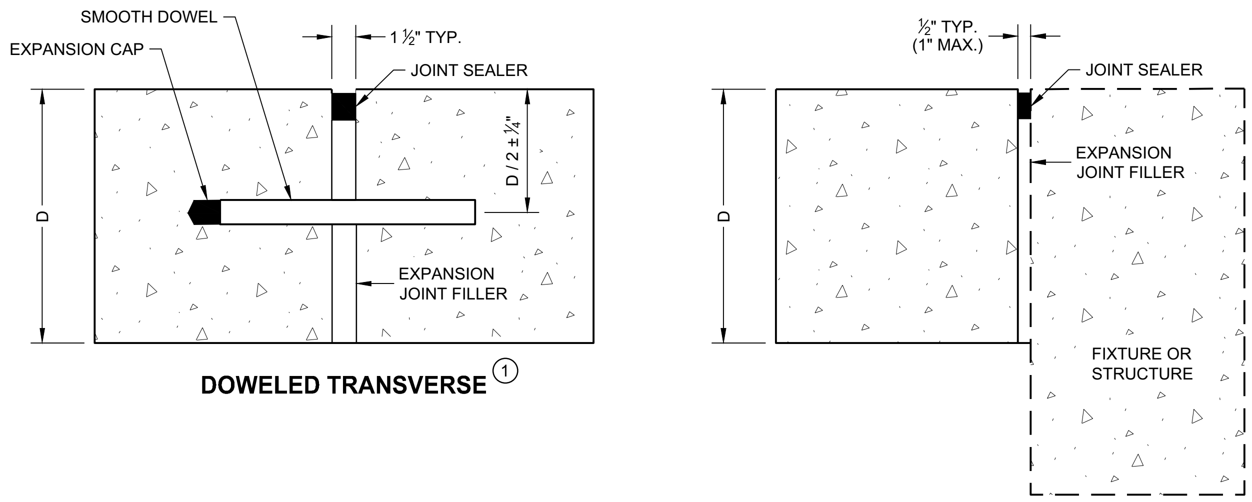
**CONCRETE PAVEMENT STEEL REINFORCEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT



SDD 13C18 - 07b

SDD 13C18 - 07b




EXPANSION JOINTS

UNTIED - LONGITUDINAL

## TIE BAR TABLE

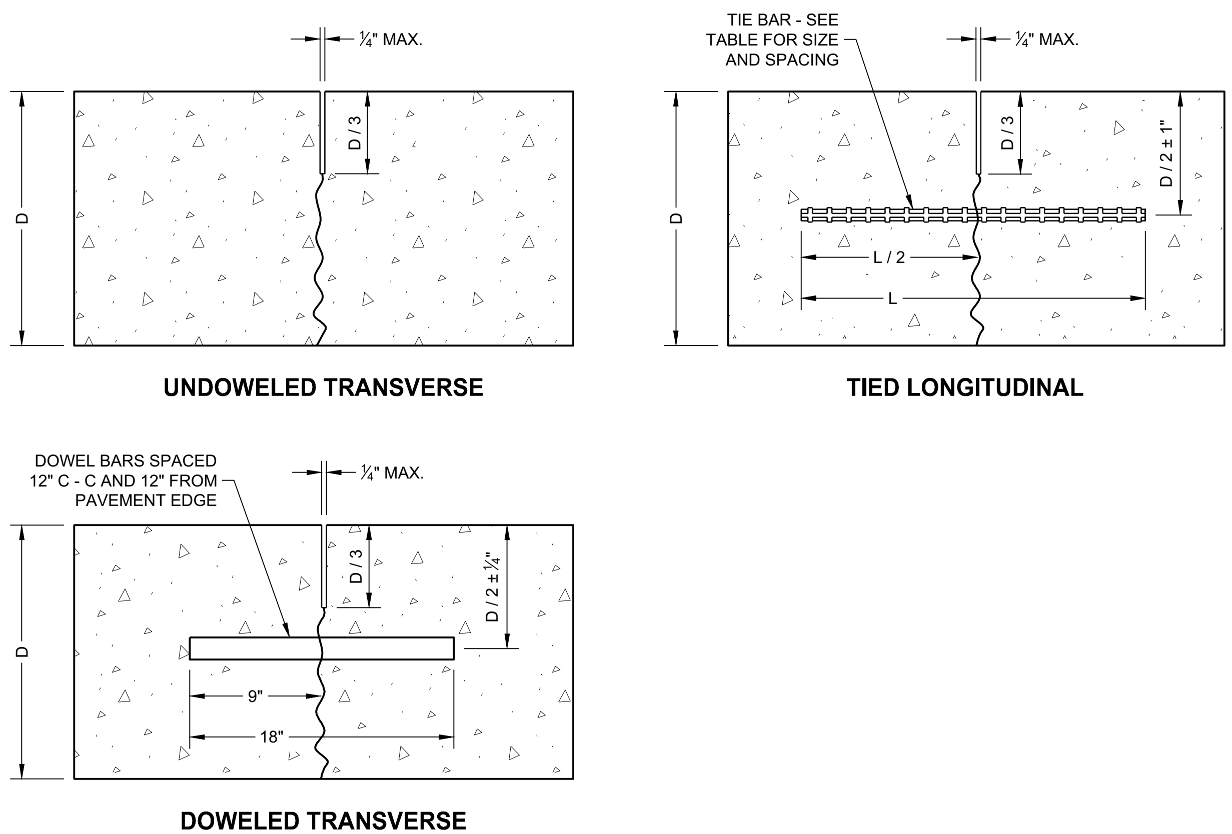
| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 ½" | NO. 4 | 30" | 36" |
| ≥ 10 ½" | NO. 5 | 36" | 36" |
| | NO. 4 * | 30" | 24" ** |

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

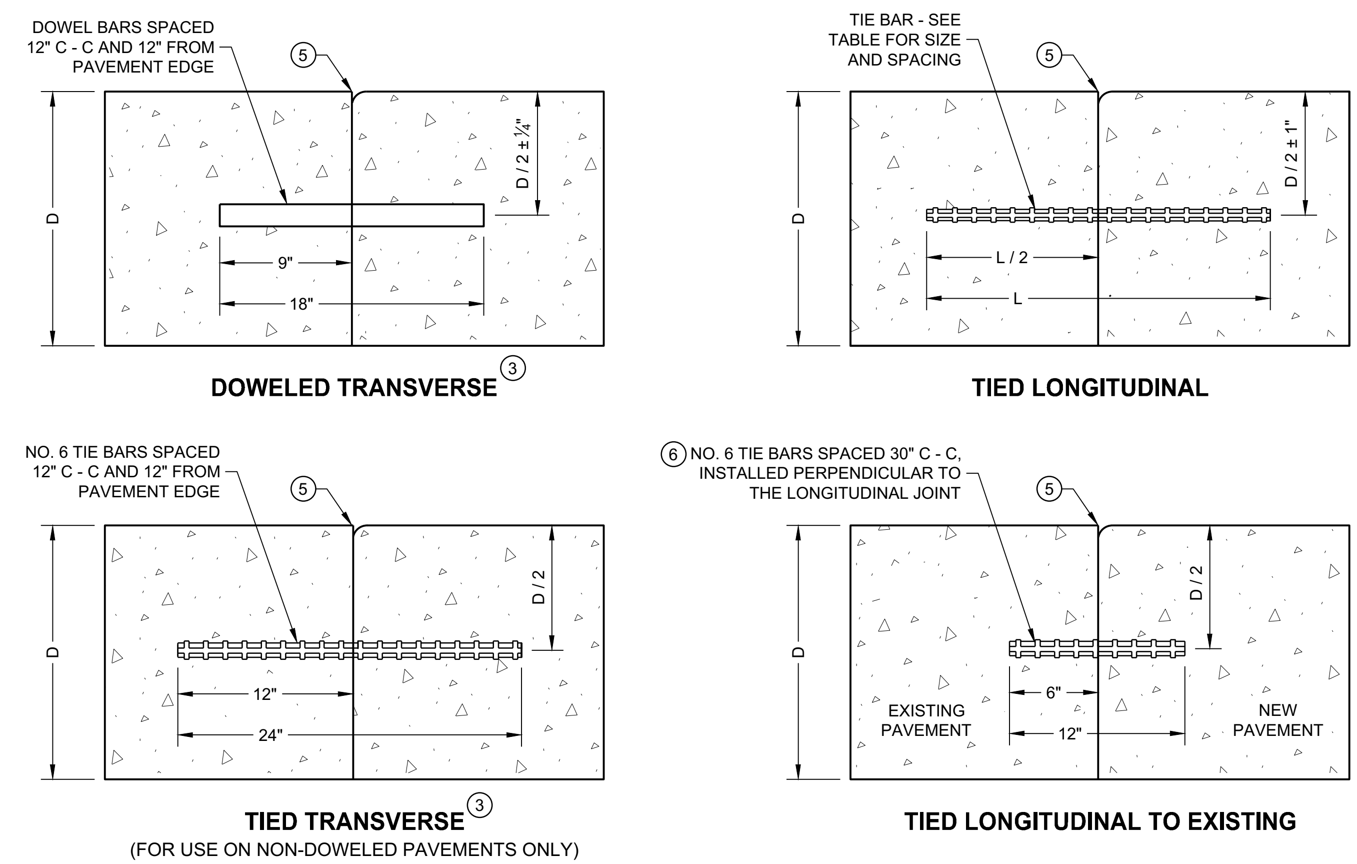
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

## GENERAL NOTES

1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.




CONTRACTION JOINTS ②




CONSTRUCTION JOINTS ④

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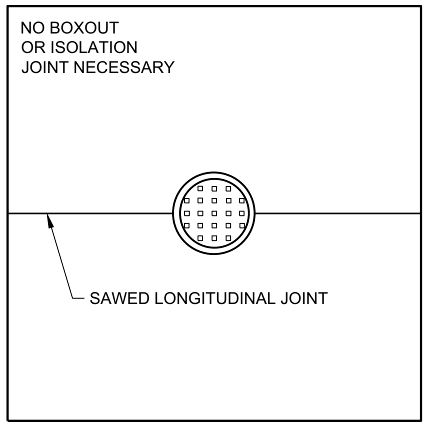
**CONCRETE PAVEMENT JOINT TYPES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

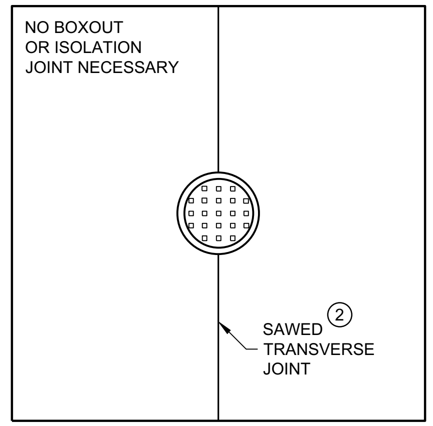




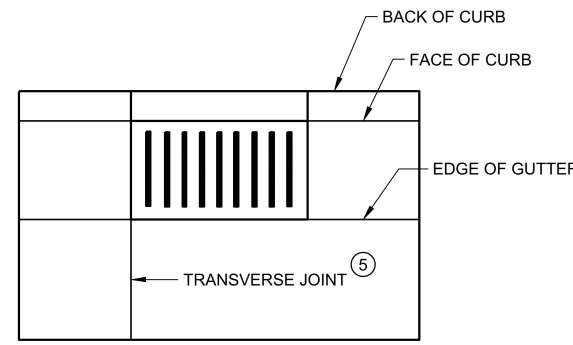
SDD 13C18 - 07c




**MANHOLE WITH LONGITUDINAL JOINT**




**MANHOLE WITH TRANSVERSE JOINT**




**INLET WITH TRANSVERSE JOINT**

## GENERAL NOTES

1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

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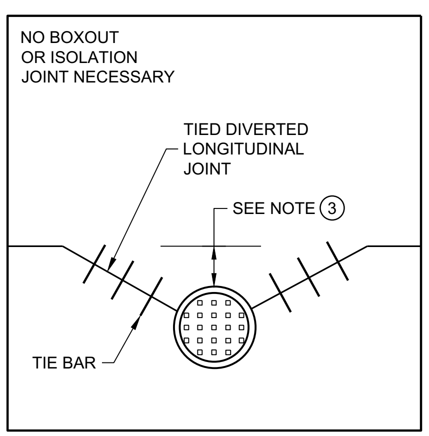
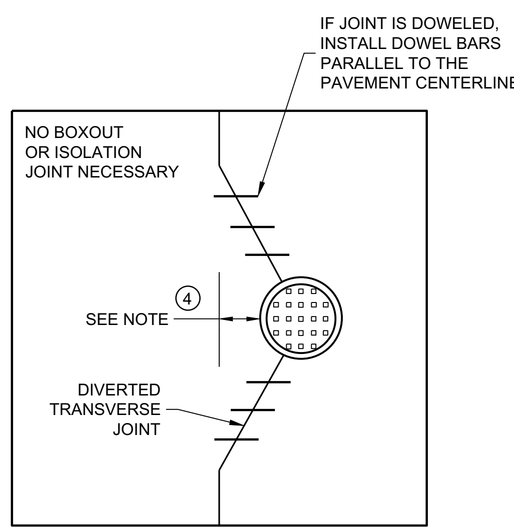
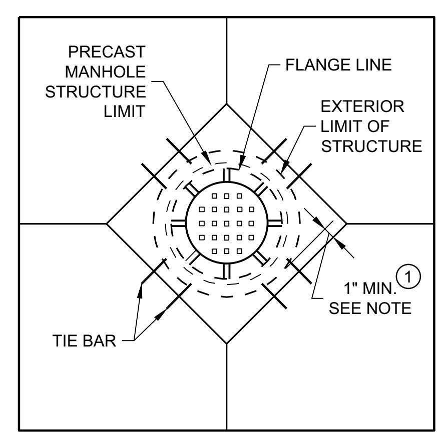



**MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT**




**MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT**




**DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS**

**CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Peter Kemp P.E.
DATE PAVEMENT SUPERVISOR
FHWA

SDD 13C18 - 07d

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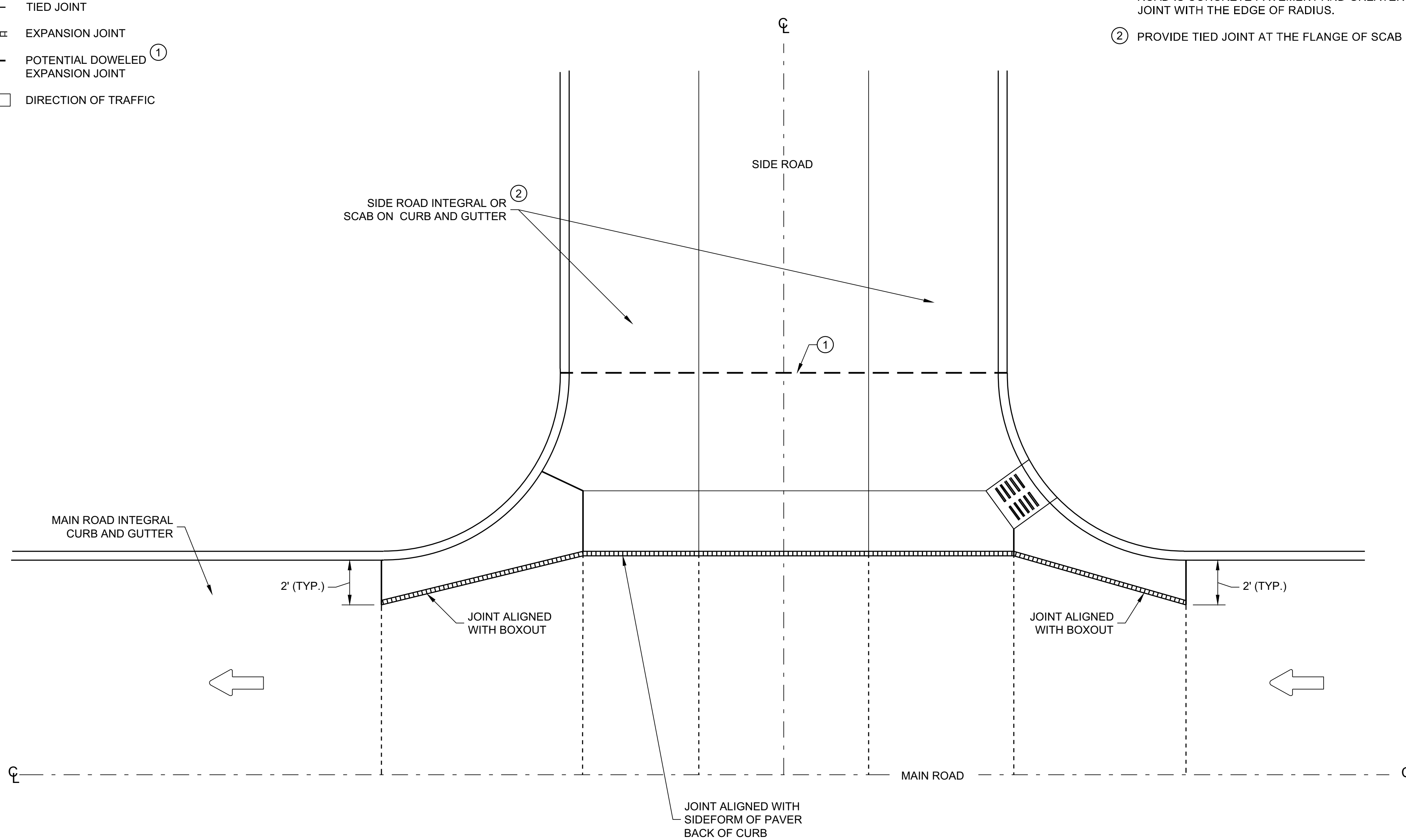
SDD 13C18 - 07d

## LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED (1) EXPANSION JOINT
- DIRECTION OF TRAFFIC

## GENERAL NOTES

1. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.
2. PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.




**INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER**

**CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2018 — DATE

/S/ Peter Kemp P.E. — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA





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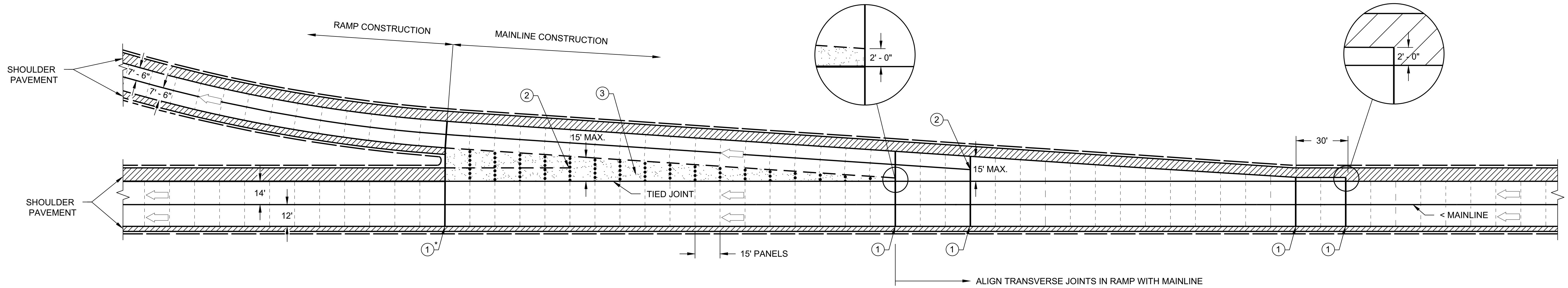
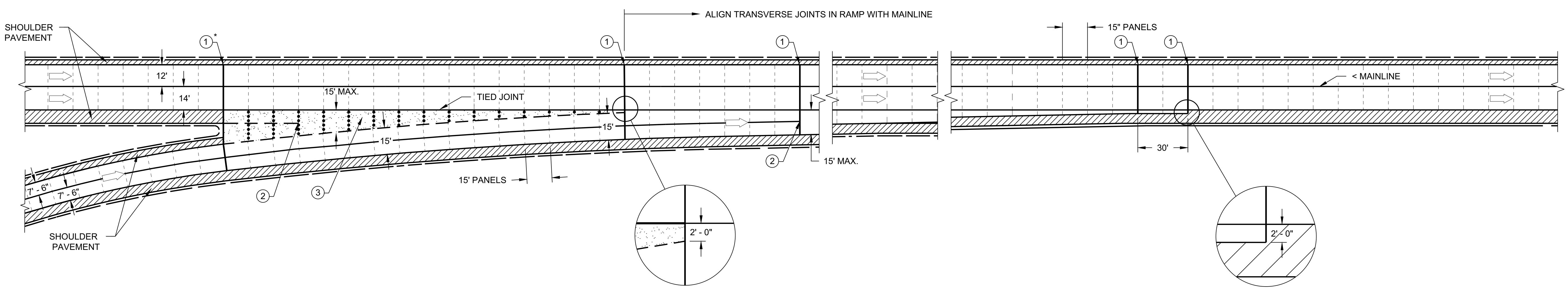
SDD 13C18 - 07f




DECELERATION LANE




ACCELERATION LANE

## GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

1. CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES. (1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).
2. STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.
3. DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

## LEGEND

| | |
|---|---|
| - - - - - | DOWELED JOINT |
| ••••••••• | UNDOWELED JOINT |
| ——— | TIED JOINT |
| — — — | UNTIED JOINT |
| | GORE |
| ⇨ | DIRECTION OF TRAVEL |

**CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE**

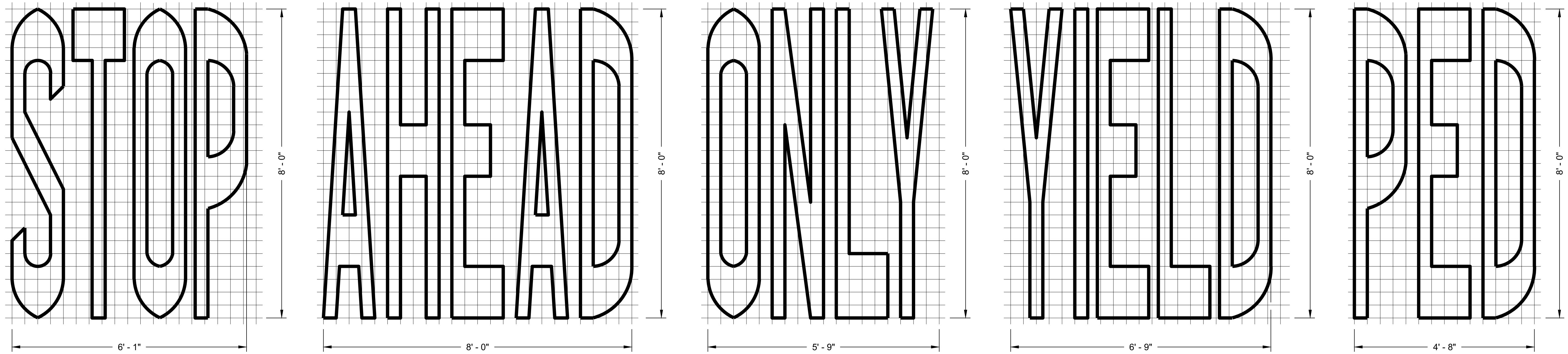
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

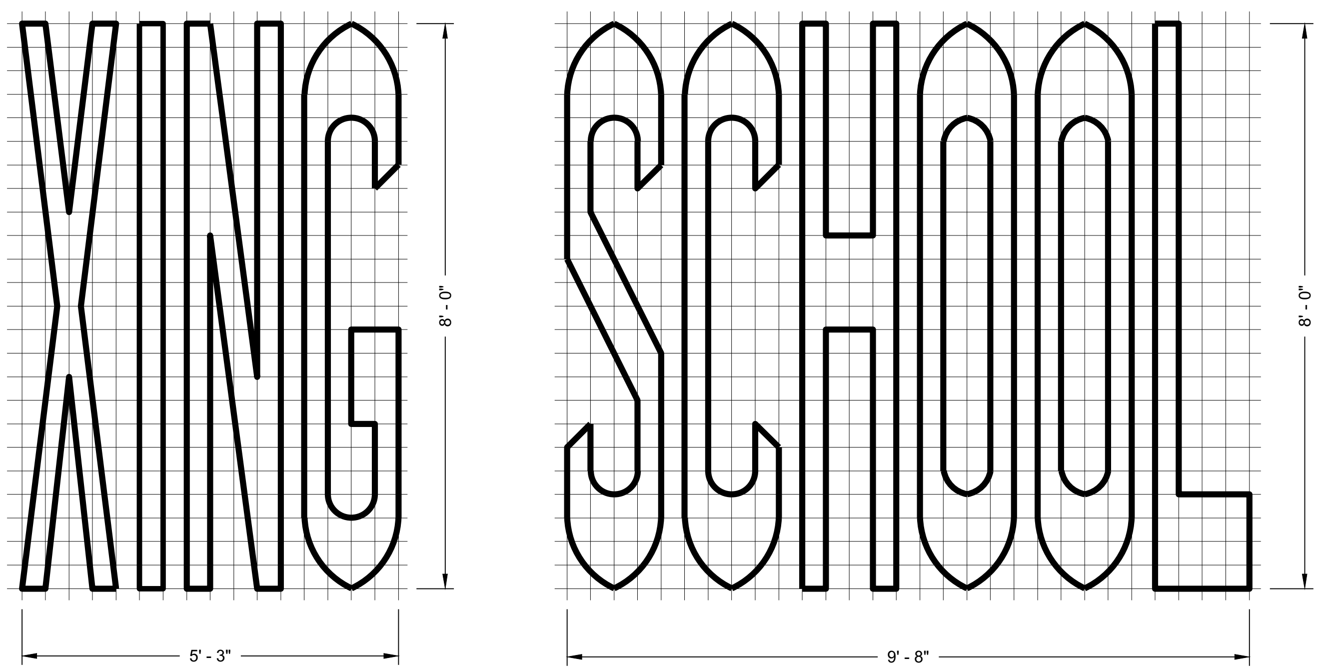
APPROVED

November 2018 /S/ Peter Kemp P.E.

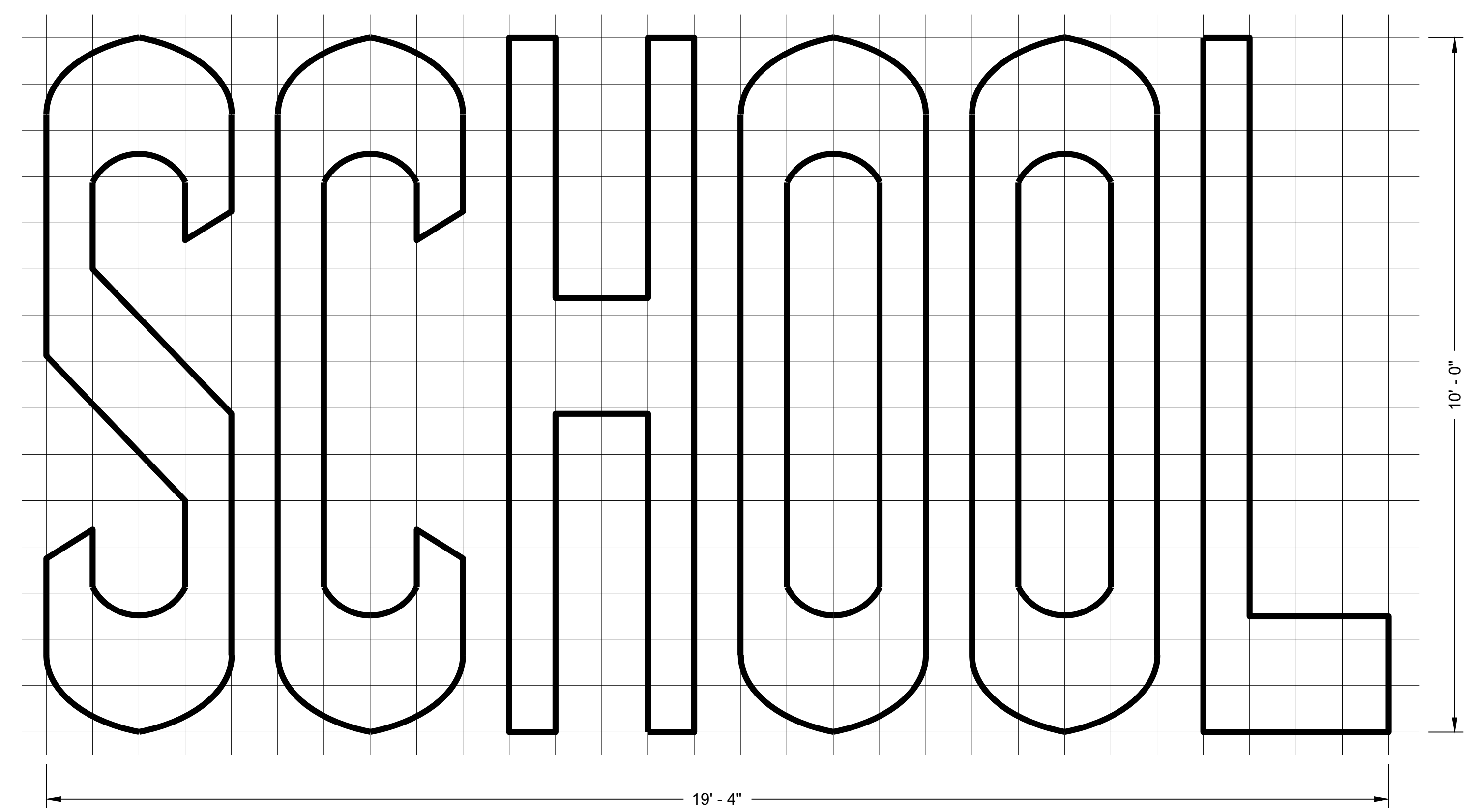
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA




SINGLE LANE




TWO - LANE

## GENERAL NOTES

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

**PAVEMENT MARKING WORDS**

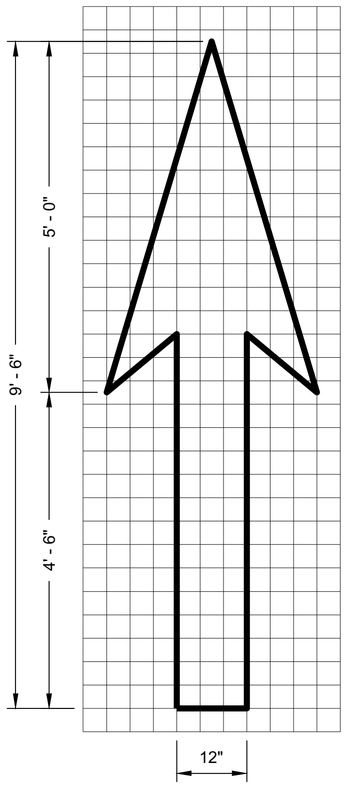
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

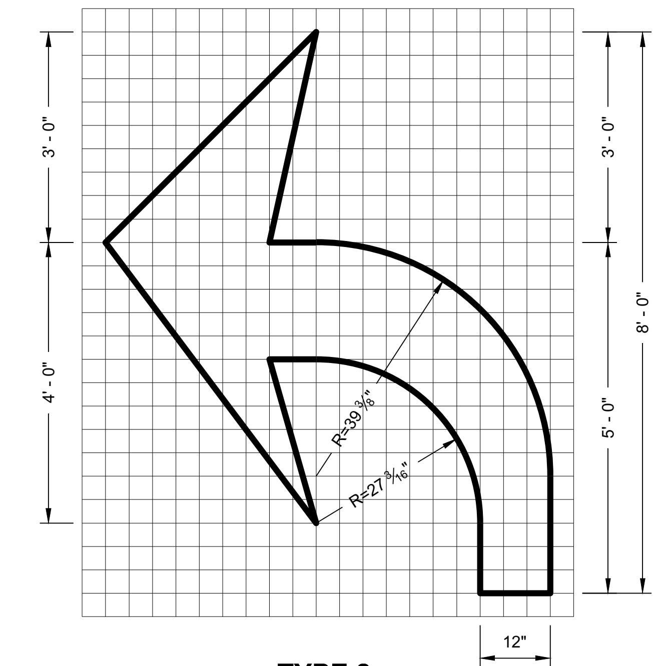
November 2019 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

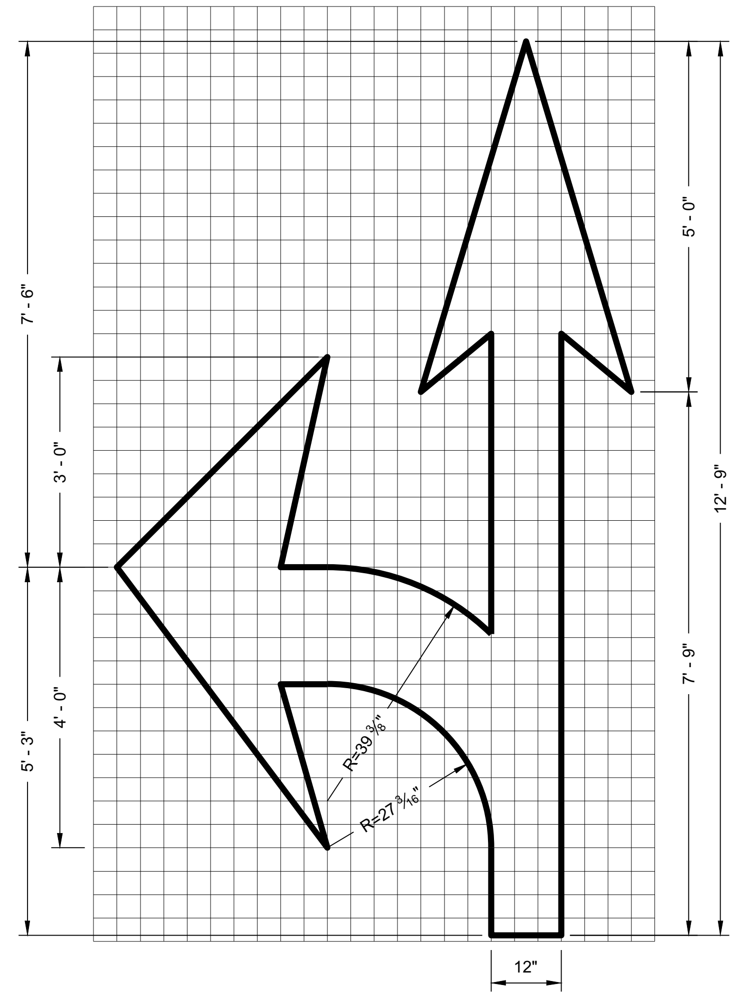
FHWA



TYPE 1



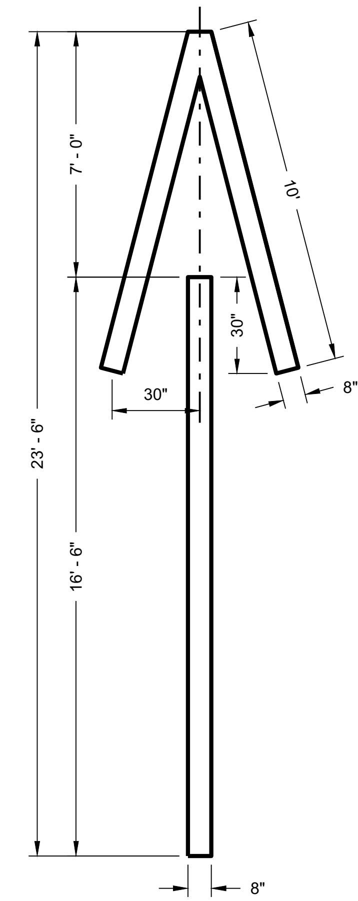
TYPE 2



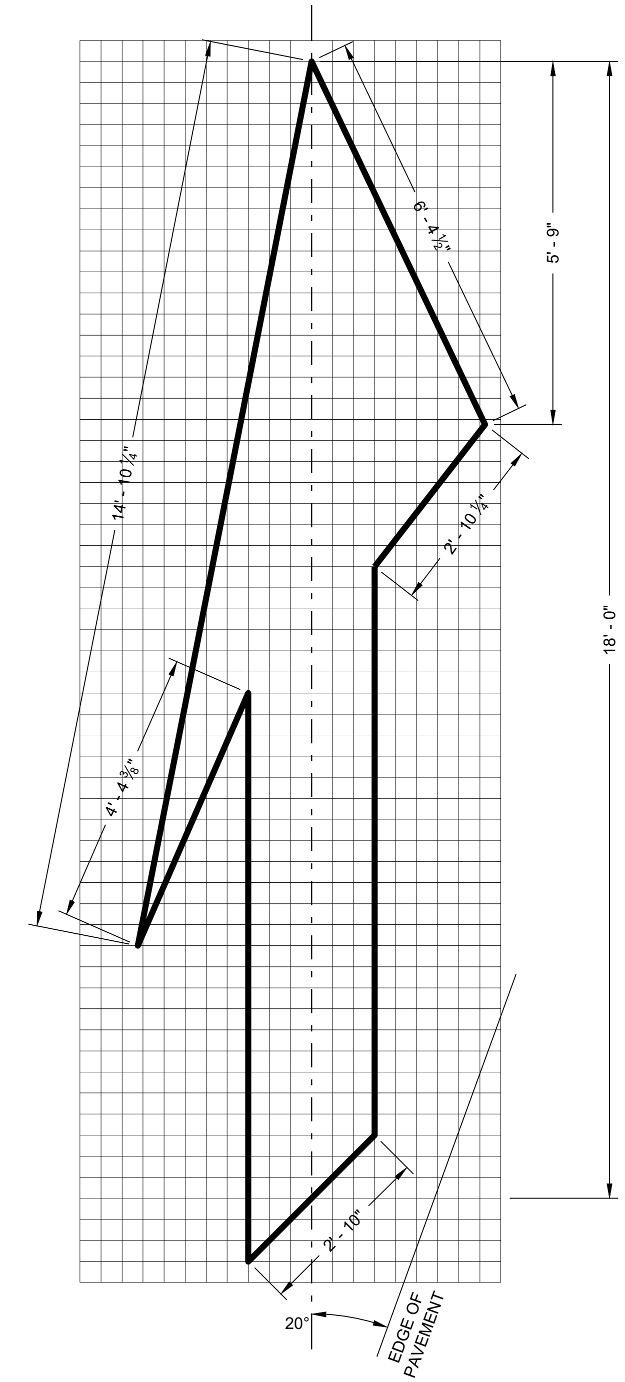
TYPE 3

## GENERAL NOTES

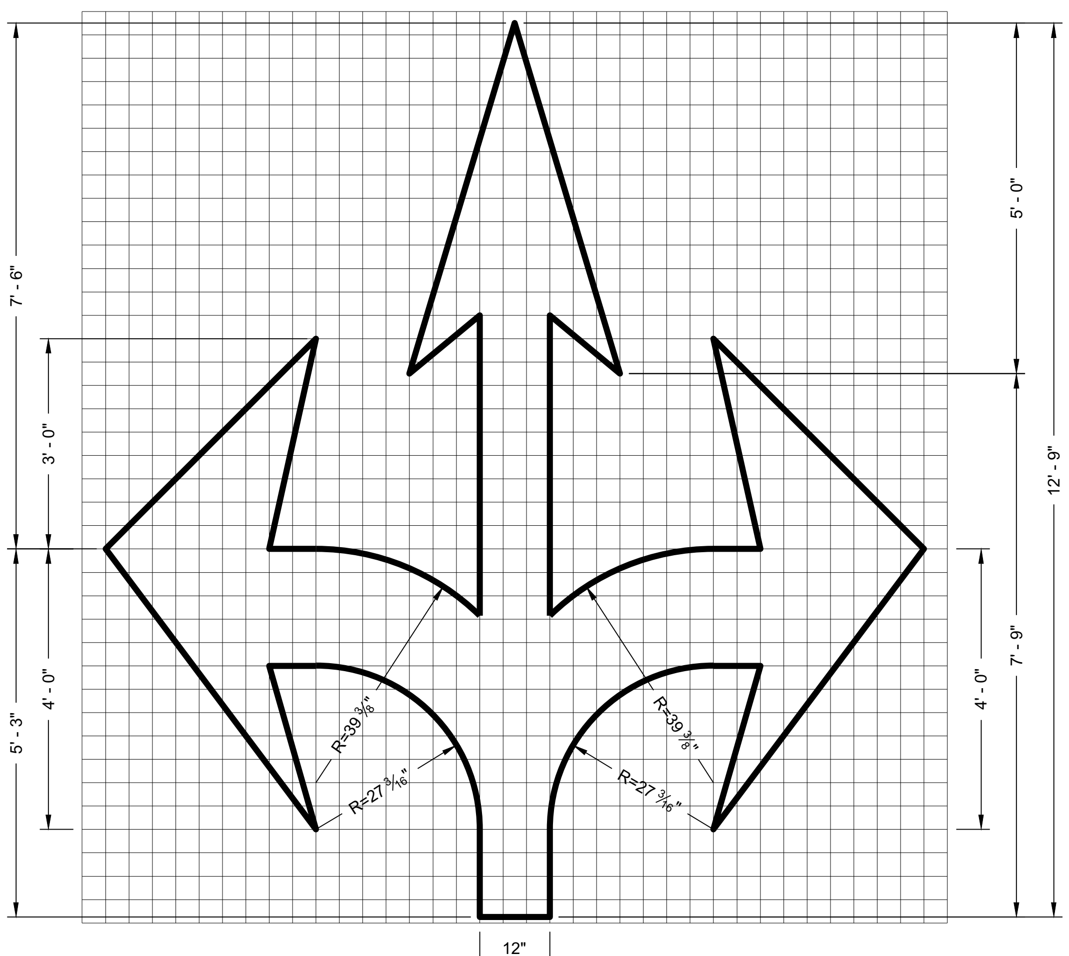
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



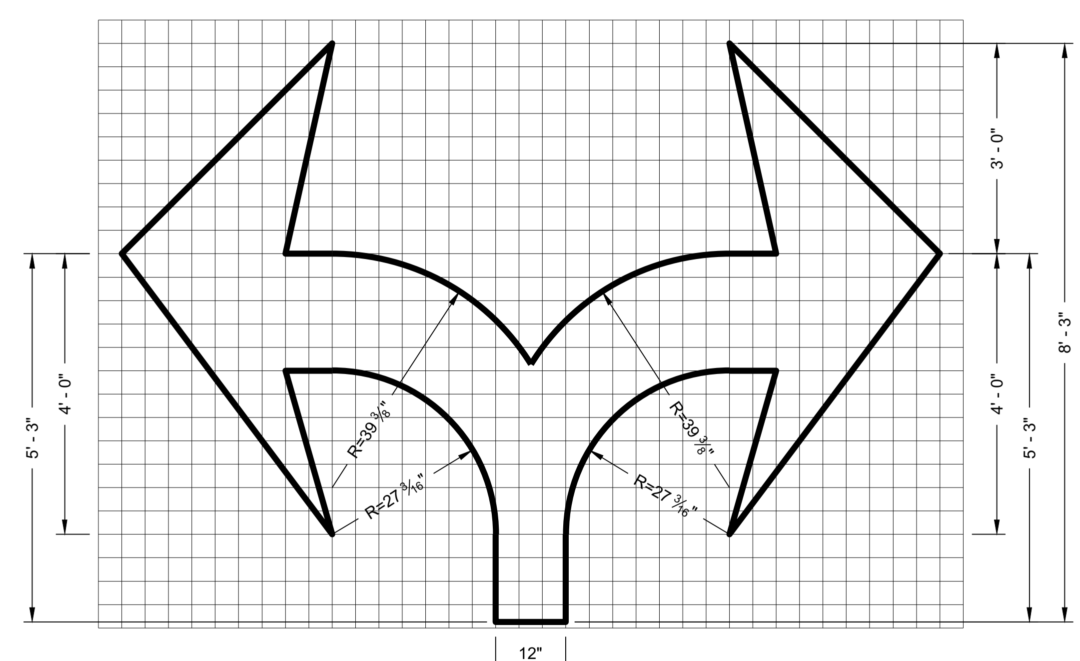
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

**PAVEMENT MARKING ARROWS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

| | |
|---|---|
| November 2019 | /S/ Matthew Rauch |
| DATE | STATE SIGNING AND MARKING ENGINEER |

FHWA

## GENERAL NOTES

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

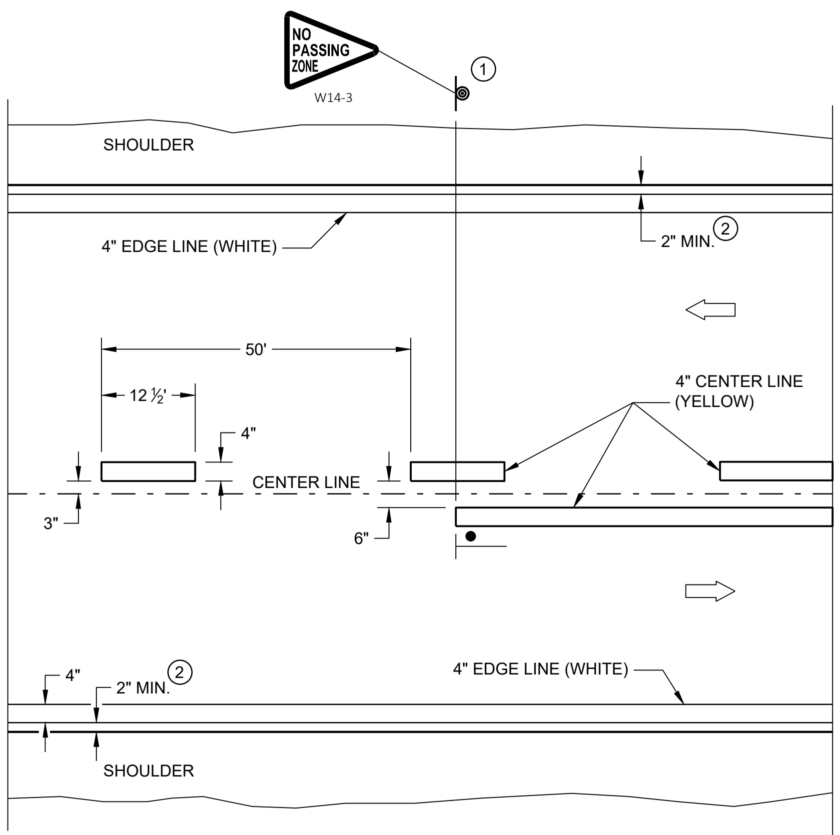
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

## LEGEND

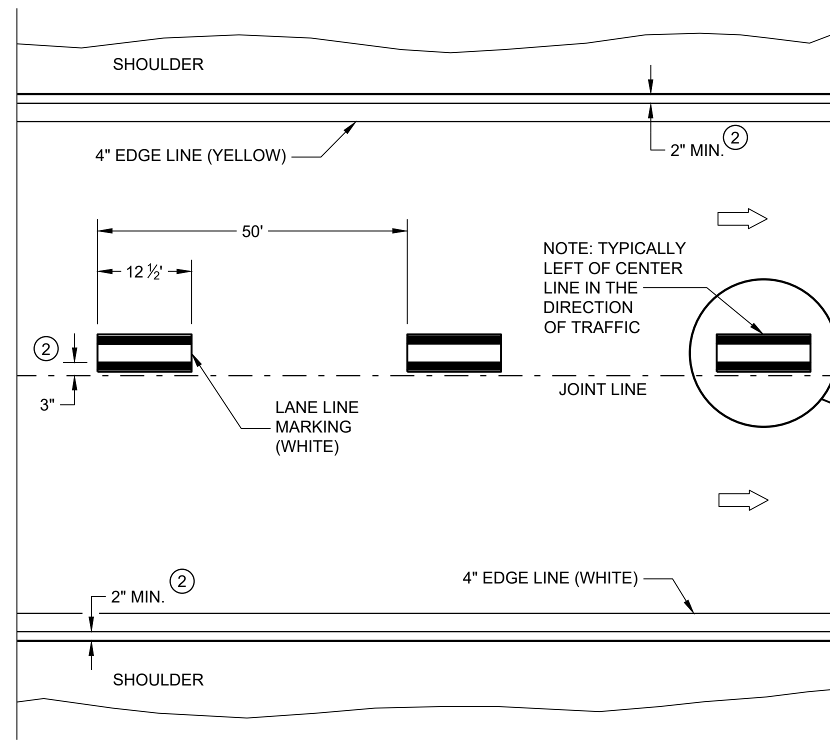
"T" MARKING

SIGN ON PERMANENT SUPPORT

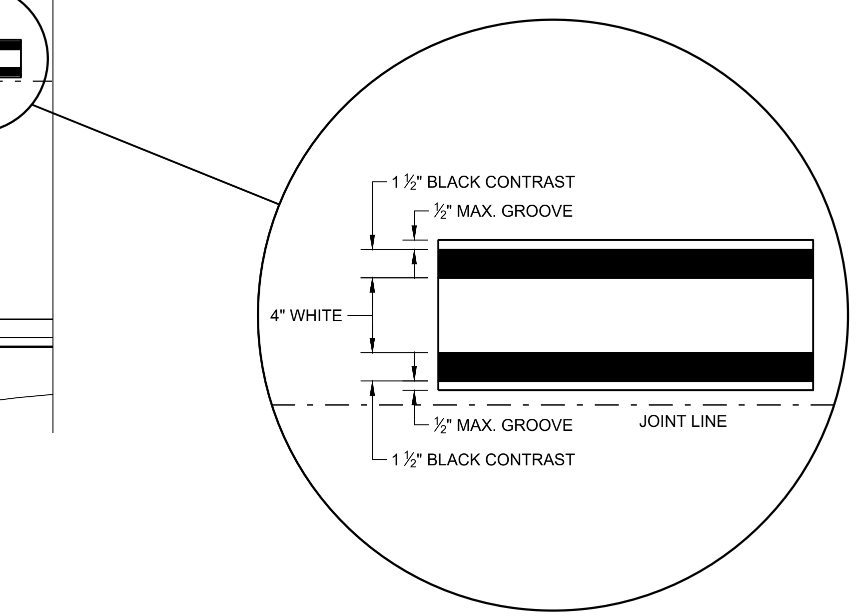
DIRECTION OF TRAFFIC




**TWO WAY TRAFFIC**




**ONE WAY TRAFFIC**




**PERMANENT PAVEMENT MARKING**

**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

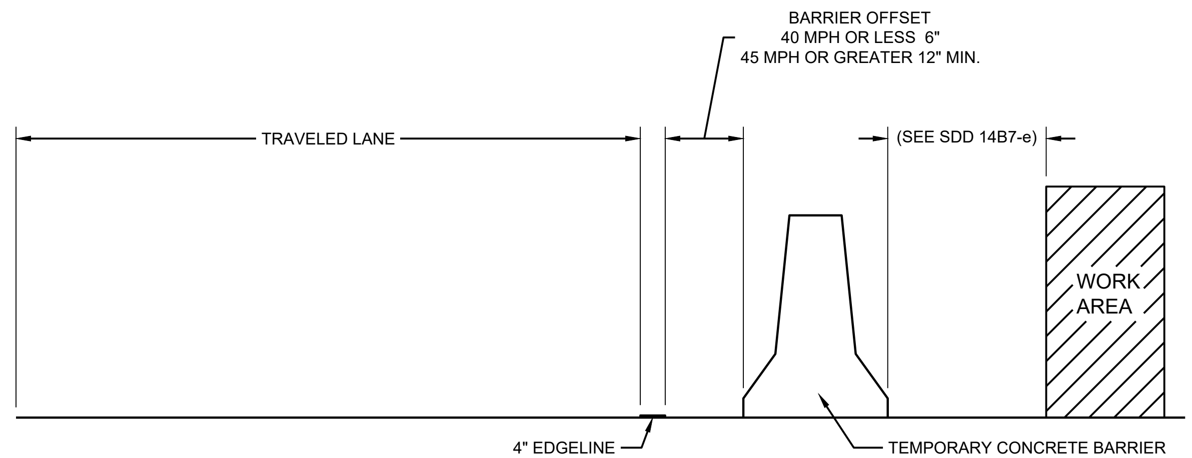
FHWA

## GENERAL NOTES

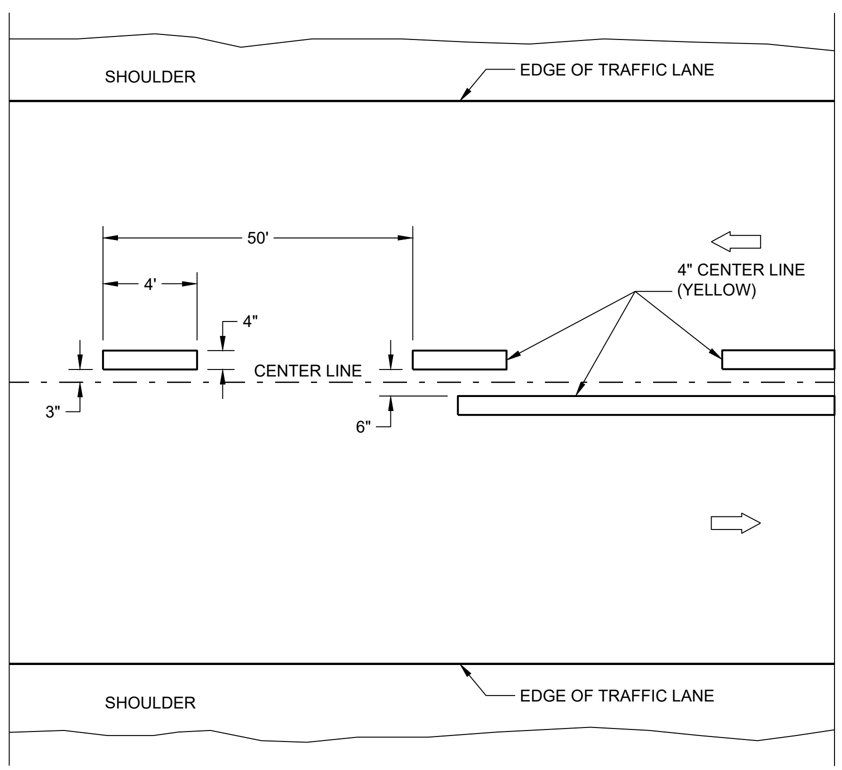
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

## LEGEND

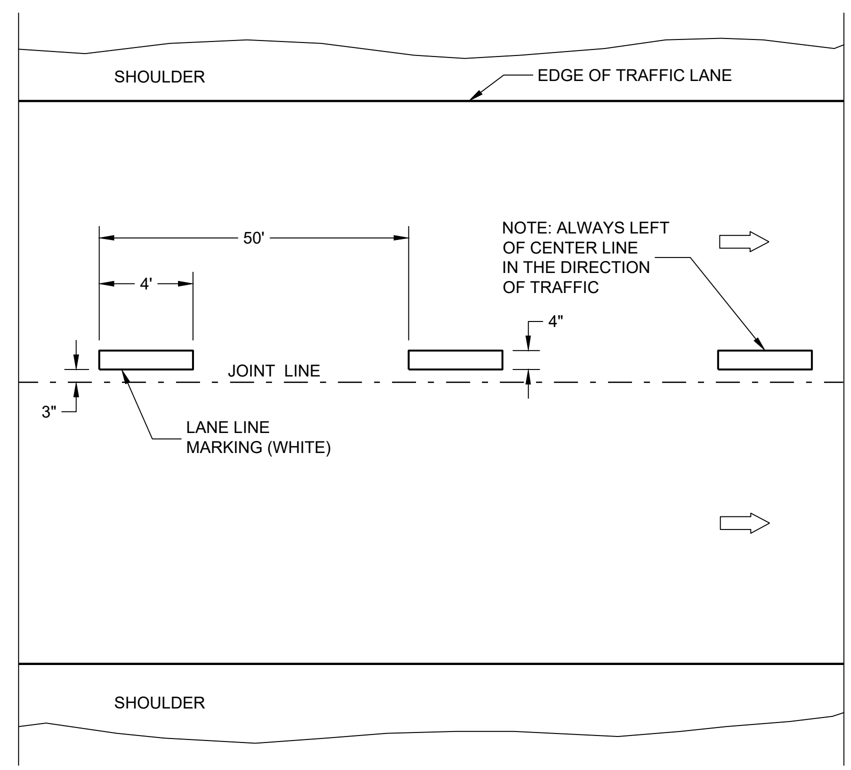
DIRECTION OF TRAFFIC



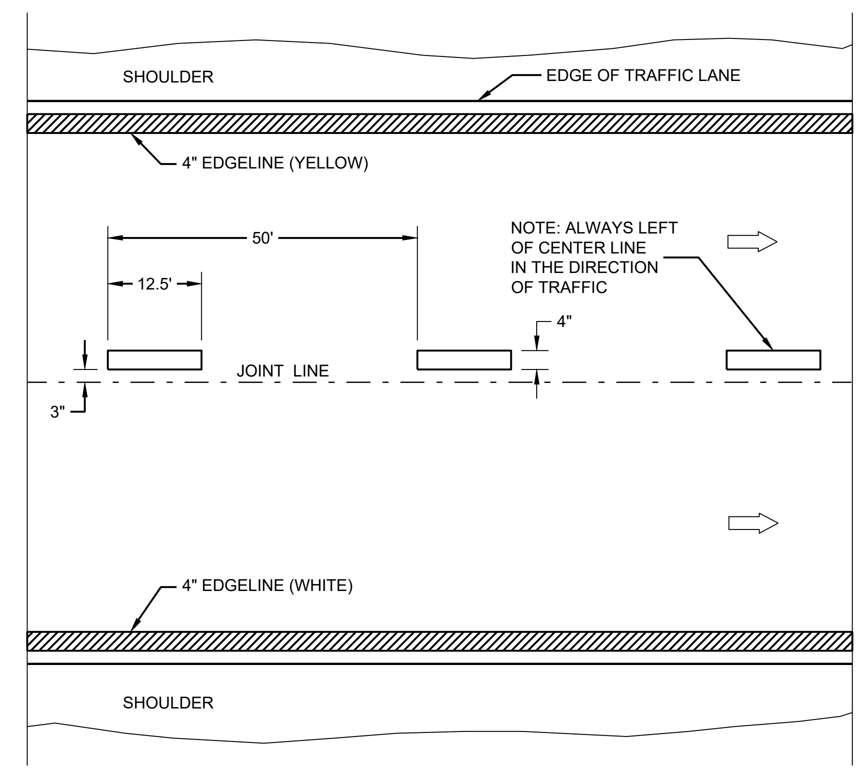

**TEMPORARY BARRIER OFFSET FROM EDGELINE**




**TWO WAY TRAFFIC**




**ONE WAY TRAFFIC**




**FREEWAYS AND EXPRESSWAYS**

**TEMPORARY PAVEMENT MARKING**

**TEMPORARY LONGITUDINAL PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER
FHWA





6

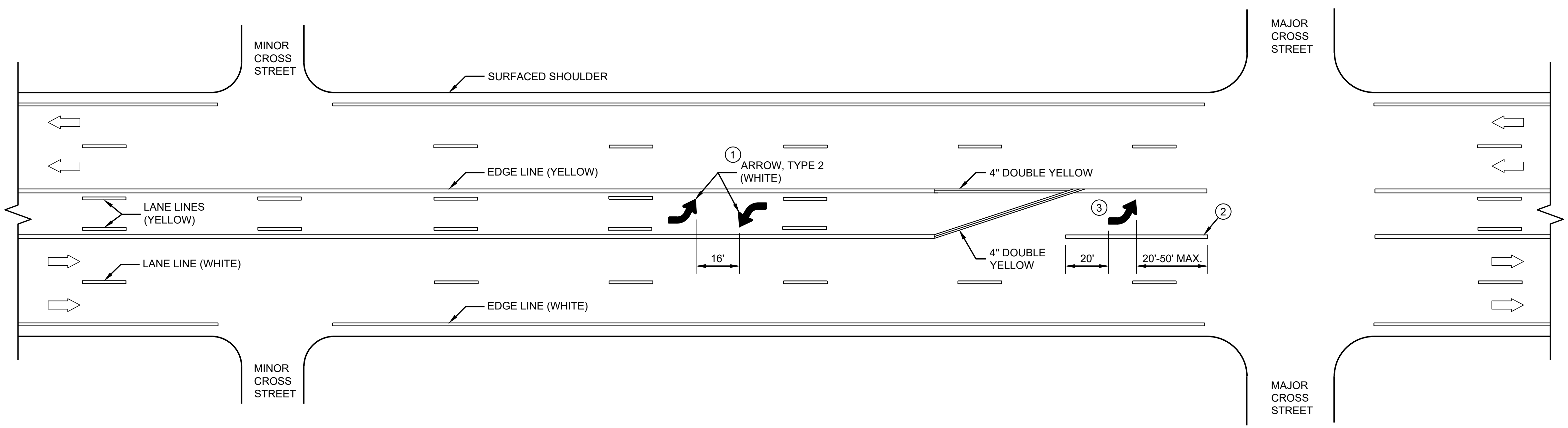


SDD 15C08 - 22b

## GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC




**TWO WAY LEFT TURN LANE**

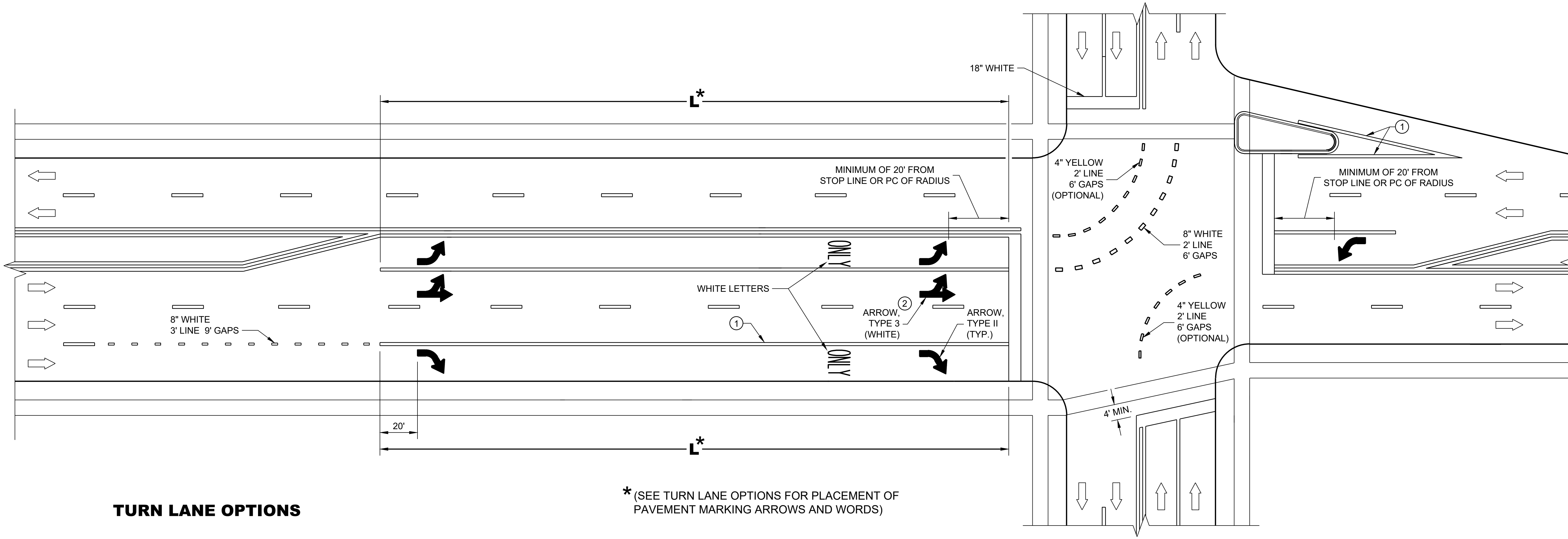
SDD 15C08 - 22c

**PAVEMENT MARKING (TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI



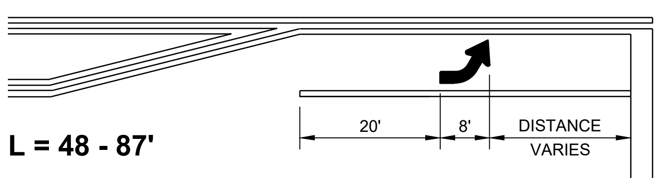
SDD 15C08 - 22c



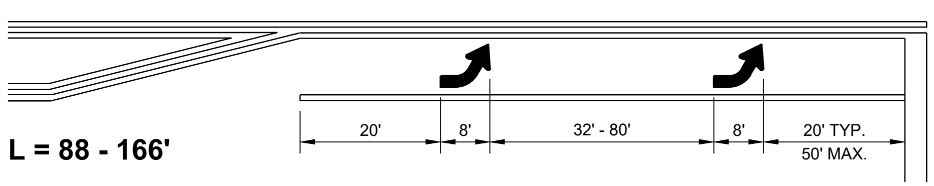

*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

## TURN LANE OPTIONS

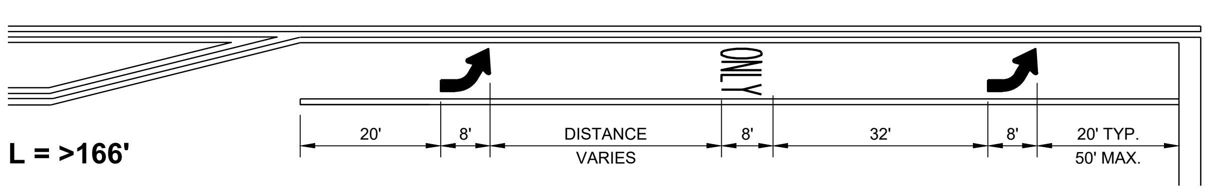
LENGTH OF TURN BAY ( **L** ) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS




**L = 48 - 87'**




**L = 88 - 166'**




**L = >166'**

## GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

**L** = LENGTH OF TURN BAY

6

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SDD 15C08 - 22d

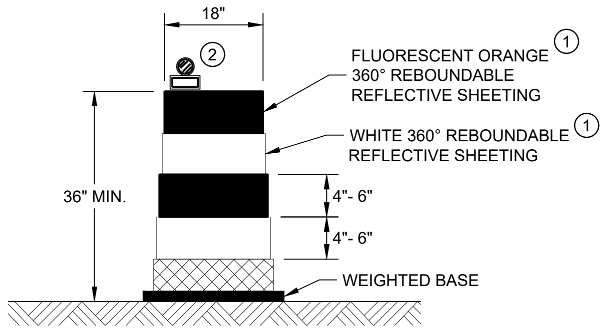
SDD 15C08 - 22d

**PAVEMENT MARKING (TURN LANES)**

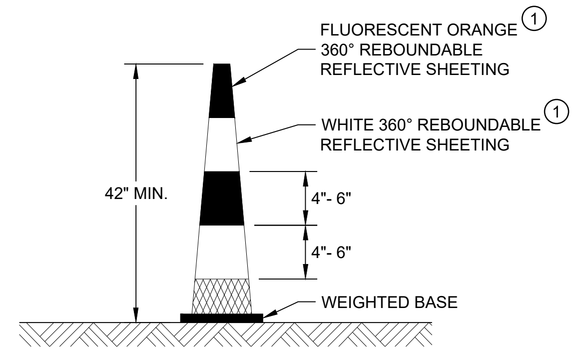
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

## GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

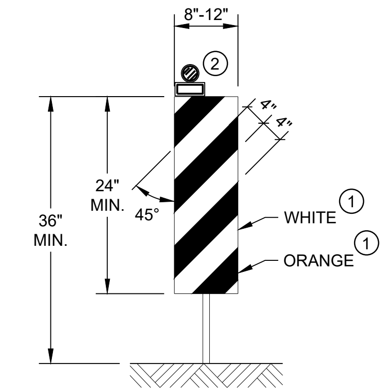



### DRUM



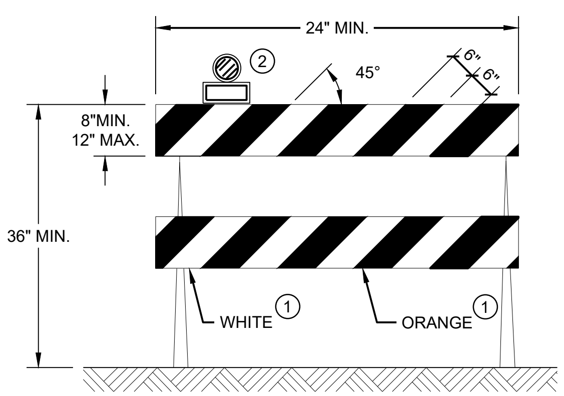

### 42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



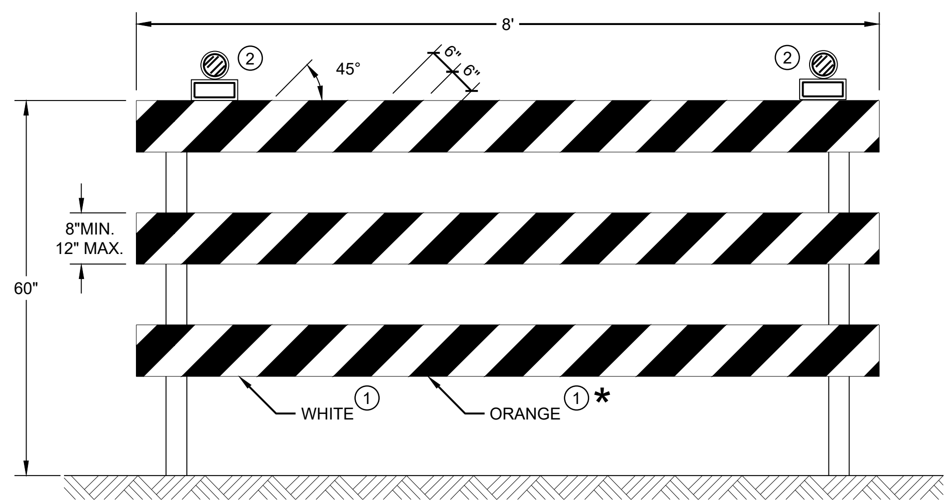

### VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

6

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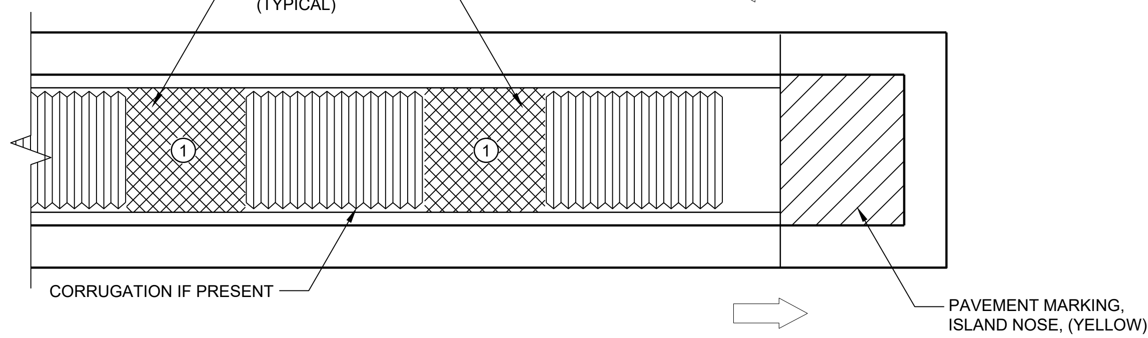
SDD 15C11 - 09b

SDD 15C11 - 09b

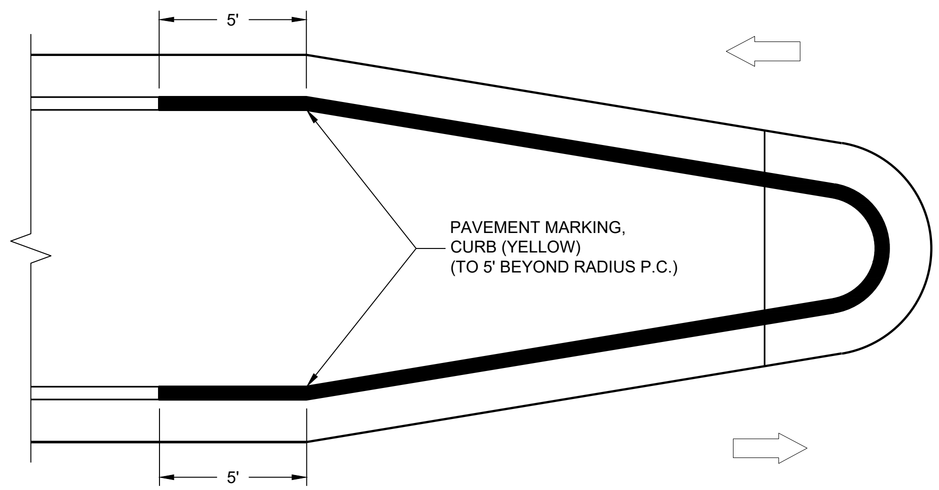
**CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

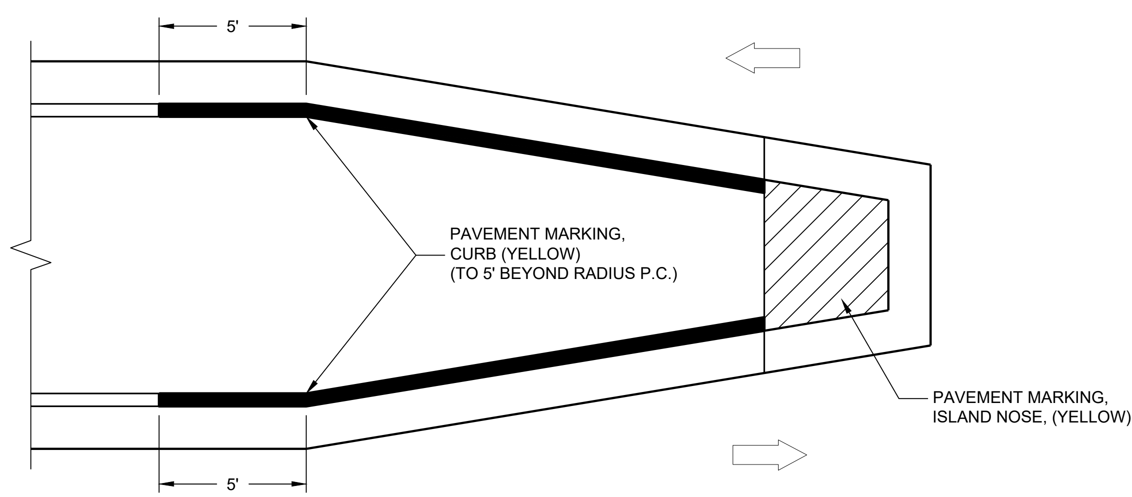
APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA




**MEDIAN ISLAND WITH SQUARE BLUNT NOSE**




**MEDIAN ISLAND WITH ROUND BLUNT NOSE**



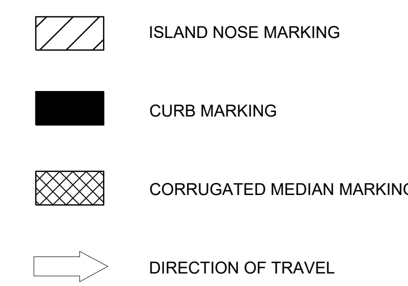

**MEDIAN ISLAND WITH SLOPED NOSE**

**TYPICAL PLACEMENT OF**
**PAVEMENT MARKING ON MEDIAN ISLANDS**

## GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

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SDD 15C18 - 06b

**PAVEMENT MARKINGS, MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER
FHWA



SDD 15C18 - 06b

| REQUIREMENTS FOR EDGE LINES | | |
|---|---|---|
| POSTED SPEED | IS THERE CONTINUOUS LIGHTING? | |
| | YES | NO |
| ≤ 30 MPH | NO | OPTIONAL |
| 35 OR 40 MPH | OPTIONAL | RECOMMENDED |
| ≥ 45 MPH | RECOMMENDED | REQUIRED |

## GENERAL NOTES

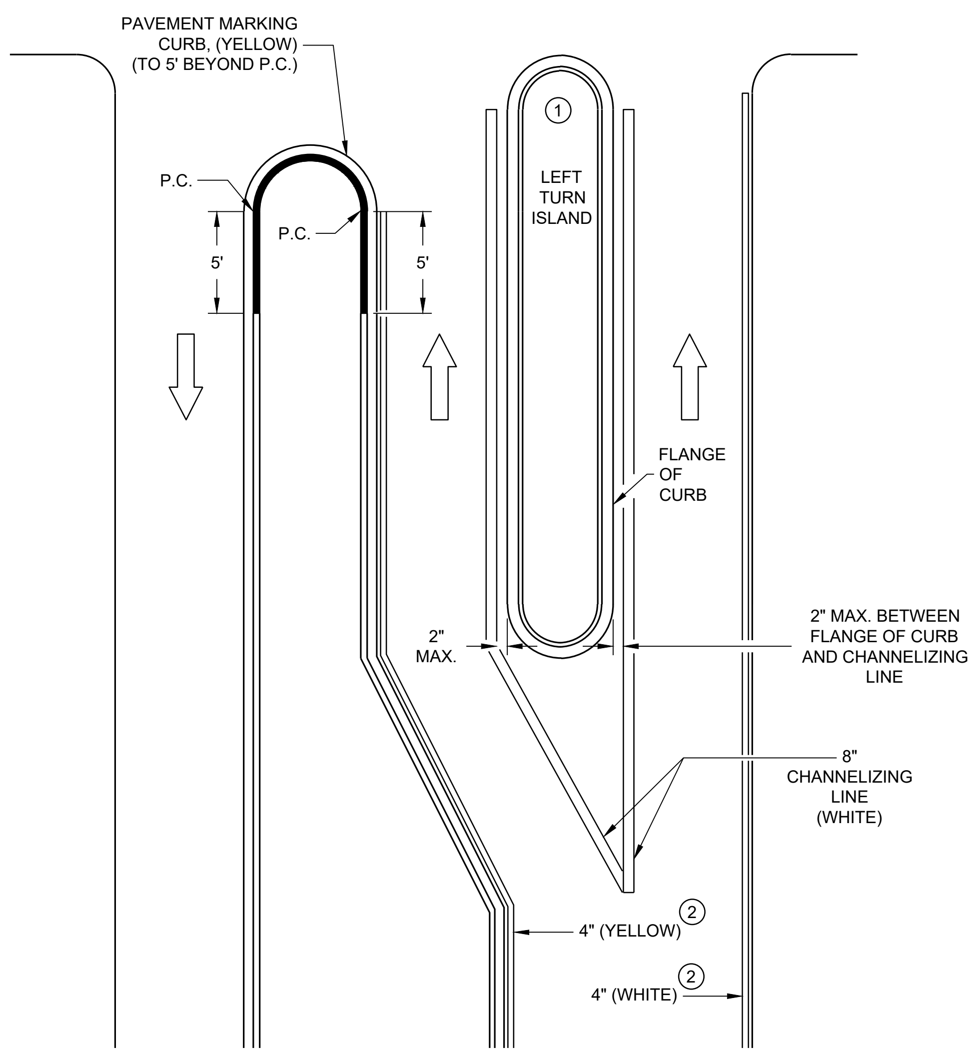
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

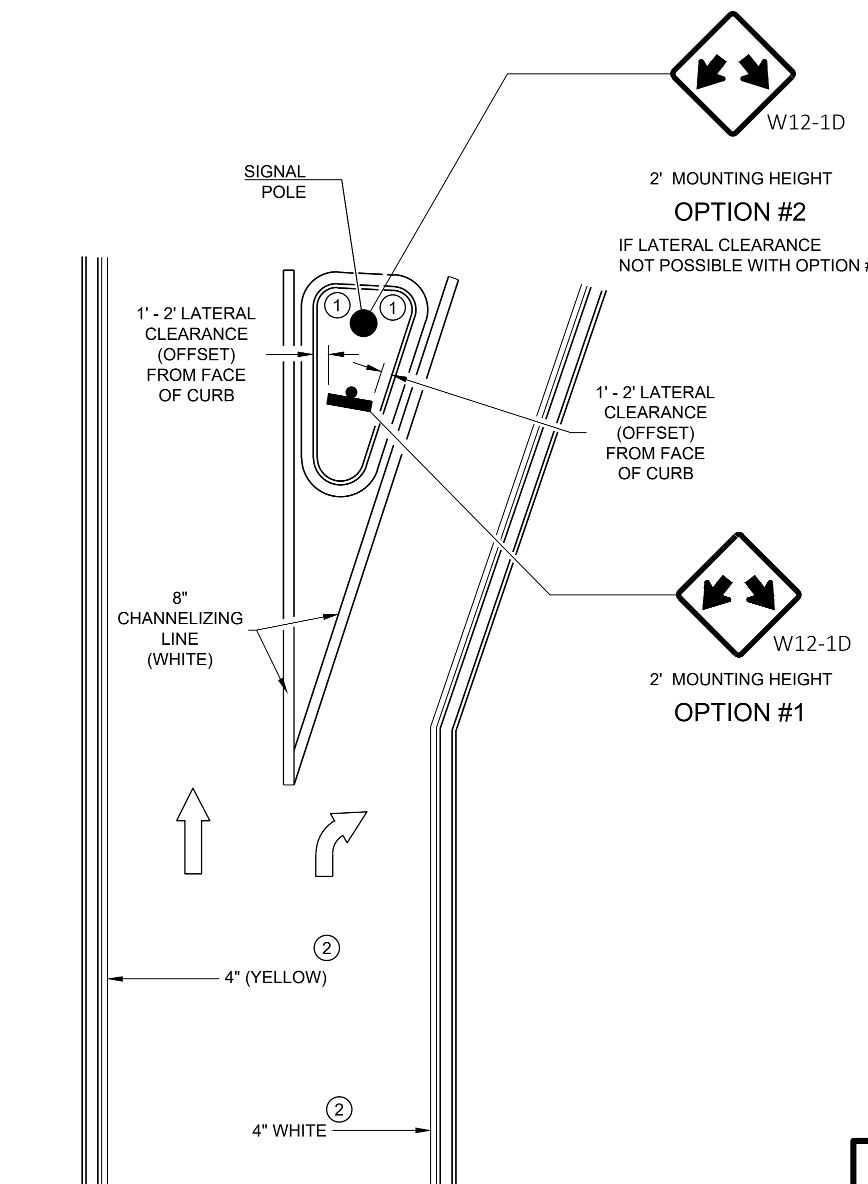
(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL




**LEFT TURN & MEDIAN ISLAND**




**RIGHT TURN ISLAND**

6

6

SDD 15C18 - 06c

SDD 15C18 - 06c

**MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT**

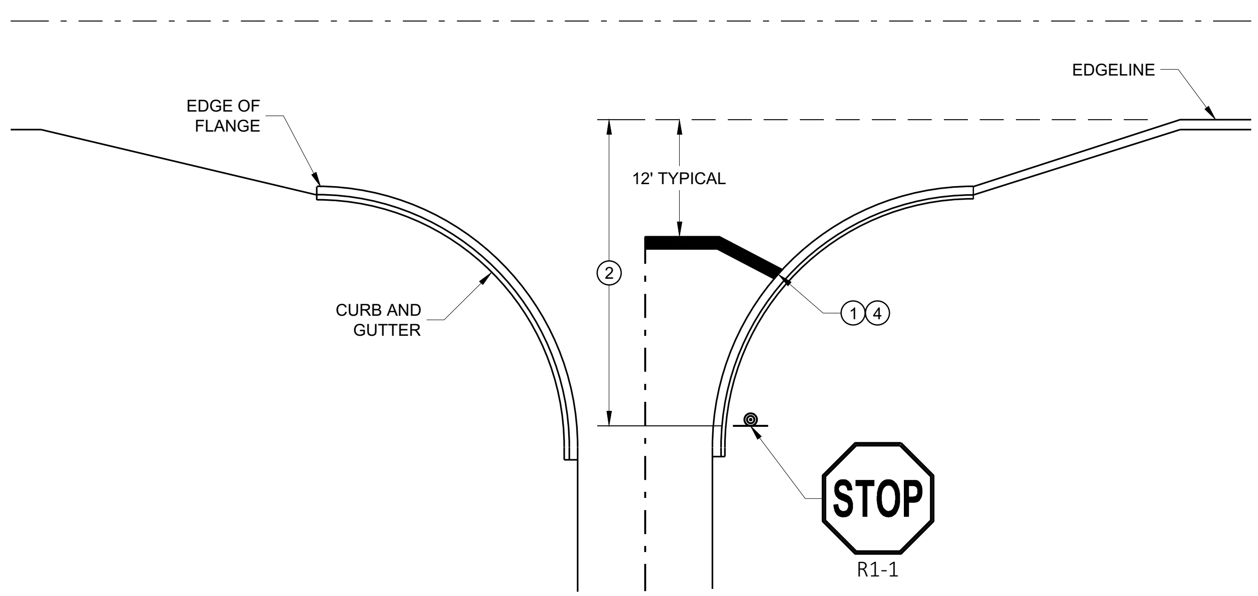
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER
FHWA

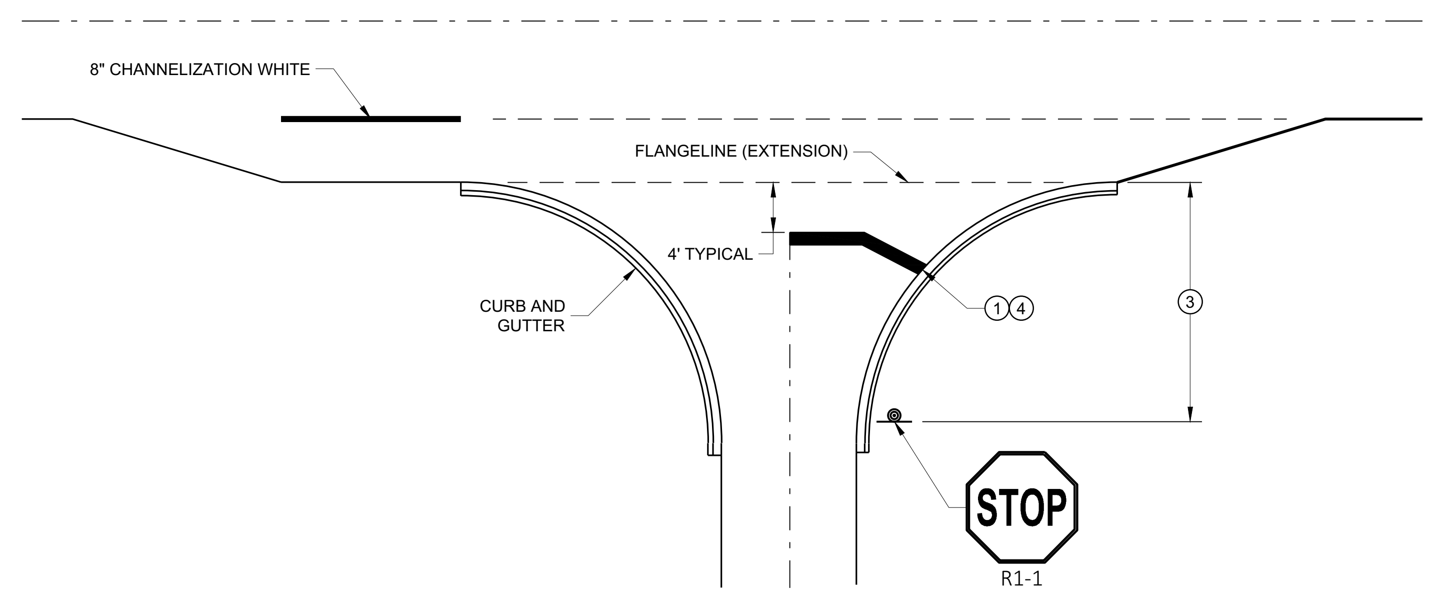
## GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

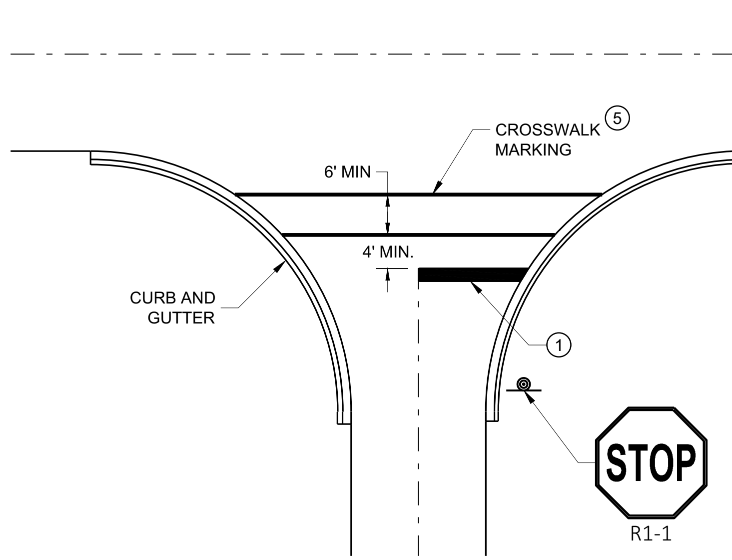
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



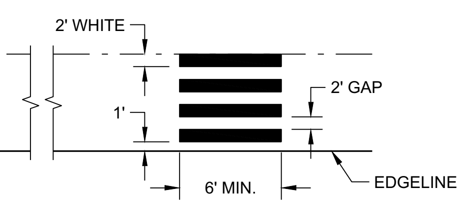

**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**



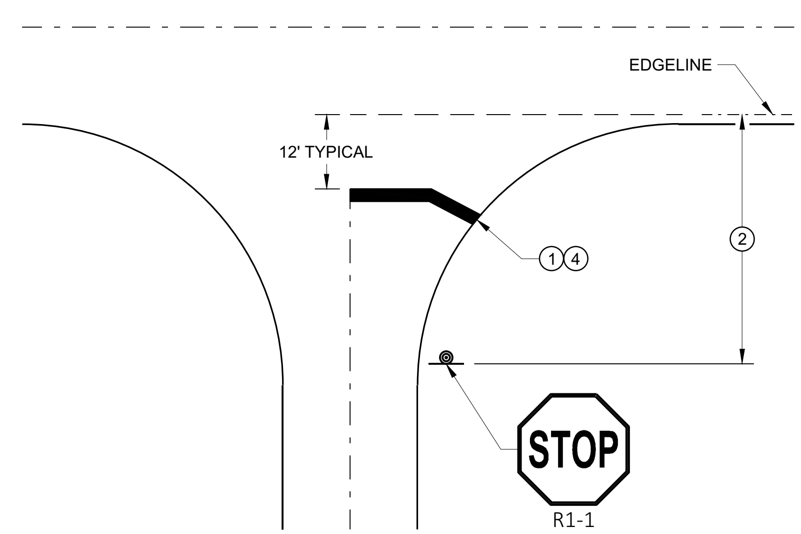

**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**




**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**




**TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK** 5




**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

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SDD 15C33 - 04

SDD 15C33 - 04

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

## LEGEND

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

## GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

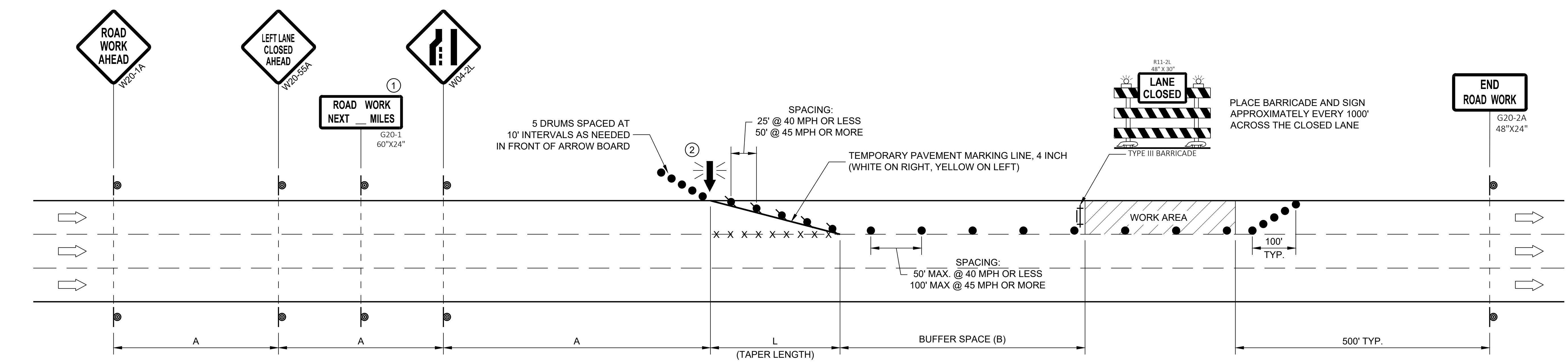
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

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

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.




| POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH) | ADVANCE WARNING SIGN SPACING (A) FEET | TAPER LENGTH (12 FT. LANE) (L) FEET | BUFFER SPACE (B) FEET |
|---|---|---|---|
| 25 | 200' | 125' | 55' |
| 30 | 200' | 180' | 85' |
| 35 | 350' | 245' | 120' |
| 40 | 350' | 320' | 170' |
| 45 | 500' | 540' | 220' |

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

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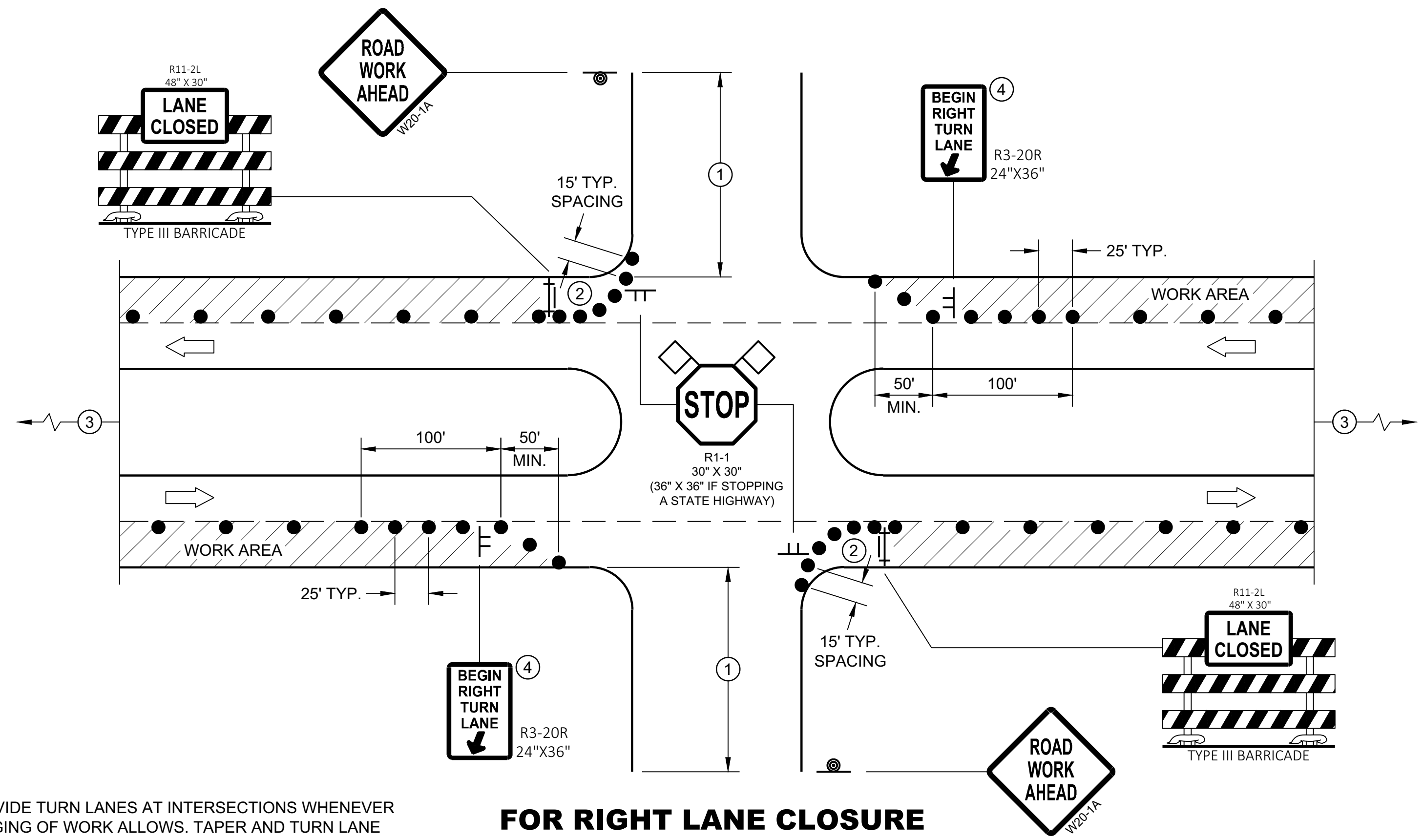
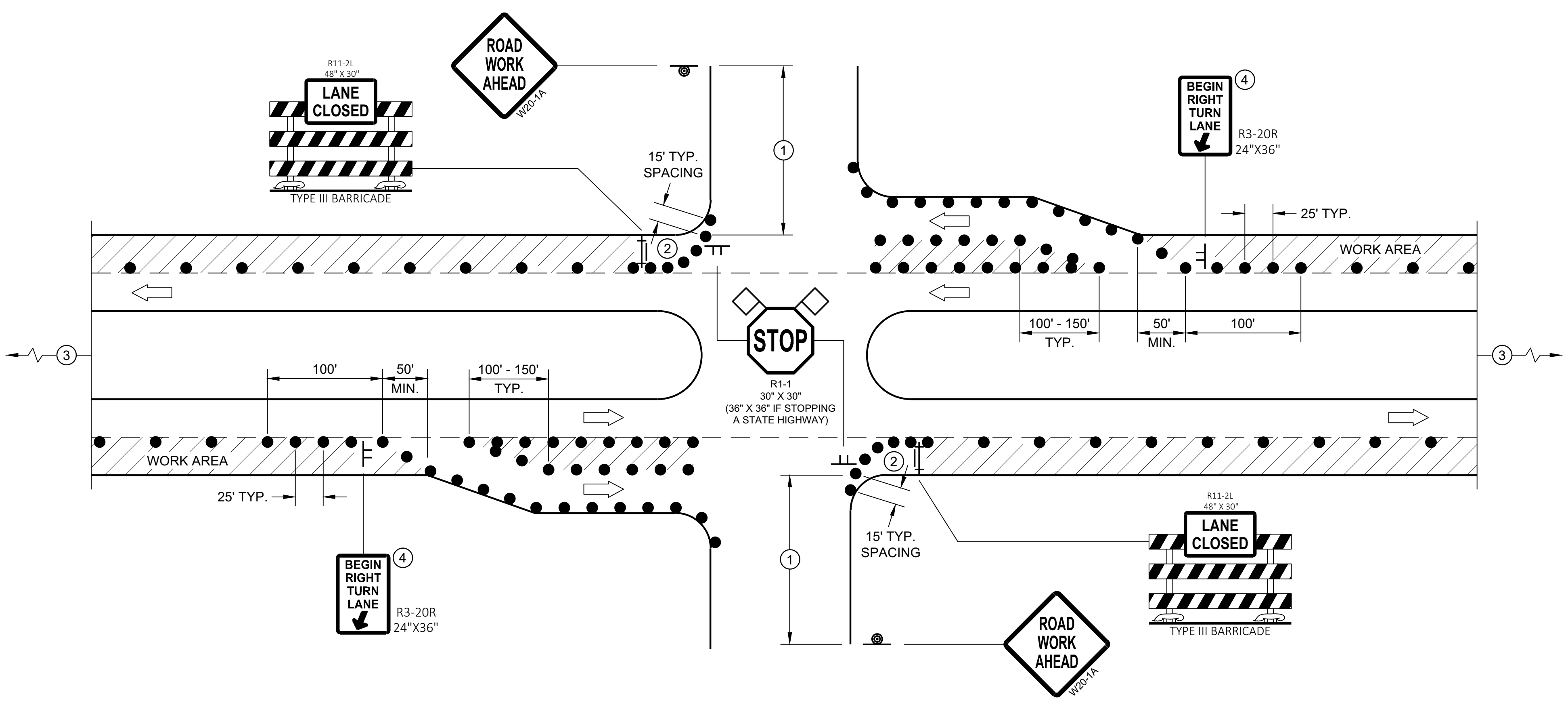
SDD 15D20 - 06a




PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

**FOR RIGHT LANE CLOSURE AT INTERSECTION**




**FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)**

## GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

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

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

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

1. 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
   350' IF 35 - 40 MPH.
   200' IF 25 - 30 MPH.
2. ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
3. SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
4. MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

## LEGEND

SIGN ON TEMPORARY SUPPORT

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

FLAGS, 16" X 16" MIN., ORANGE

WORK AREA

**TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D21 - 07a

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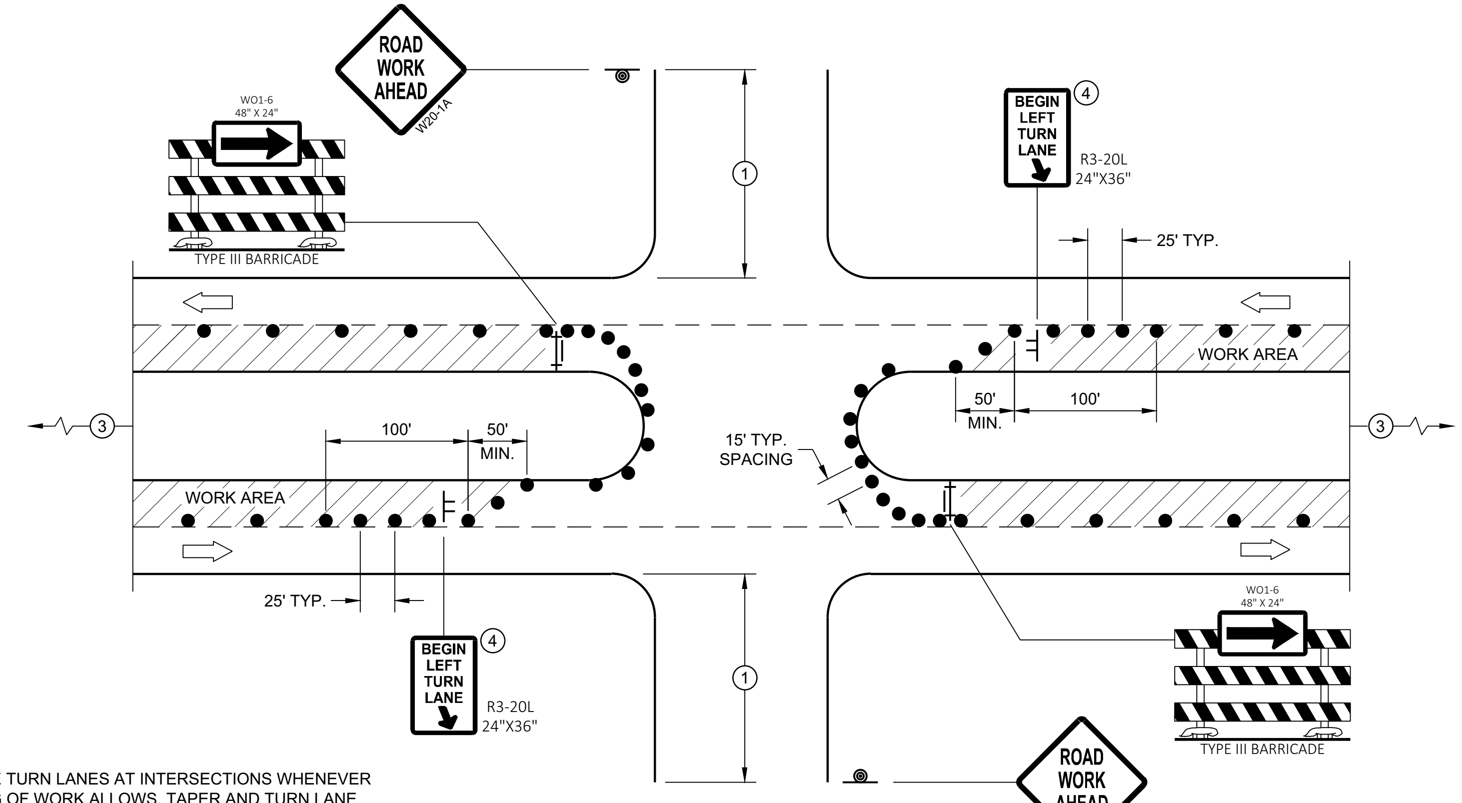
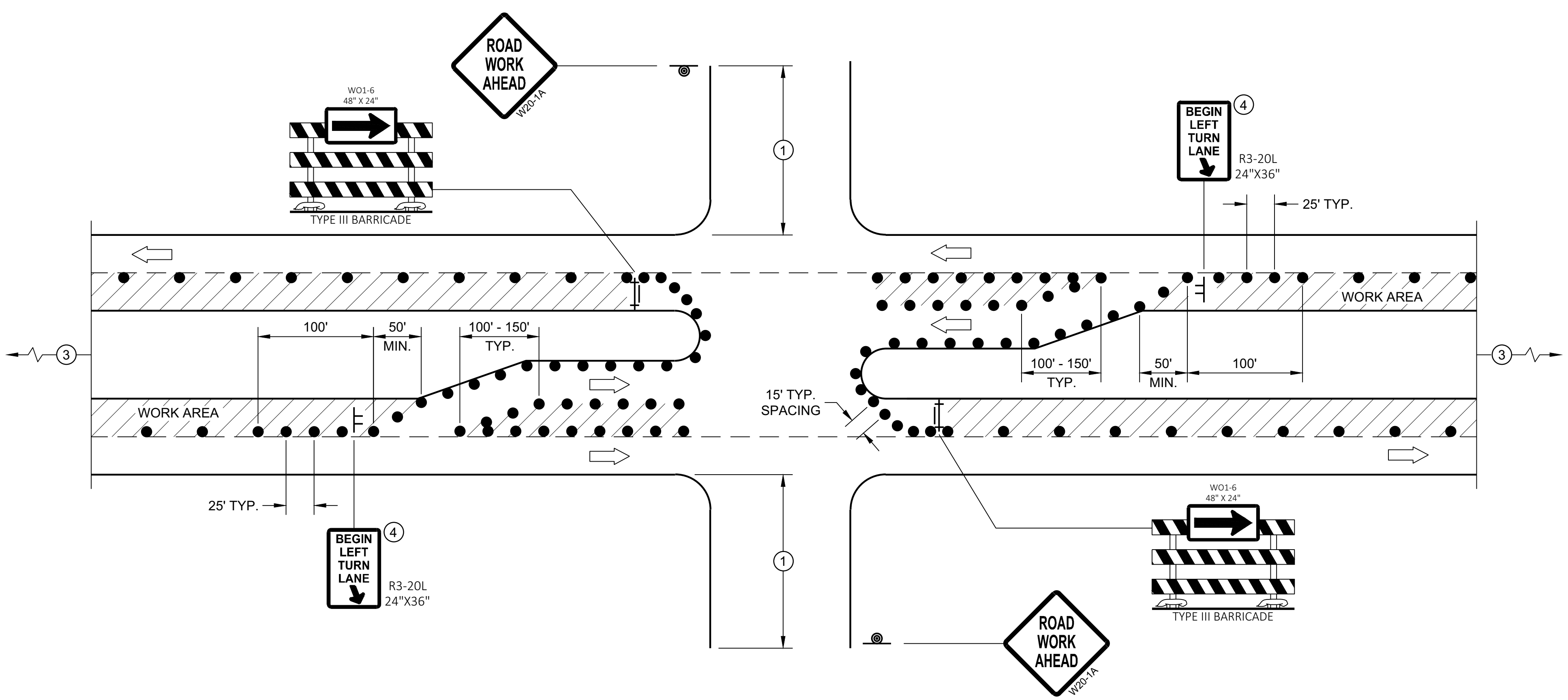
SDD 15D21 - 07a




PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

**FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING**




**FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)**

## GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

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

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

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

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

1 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

2 ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

3 SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

4 MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

## LEGEND

SIGN ON TEMPORARY SUPPORT

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

FLAGS, 16" X 16" MIN., ORANGE

WORK AREA

**TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA




6
SDD 15D21 - 07b

## LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

## GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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.

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

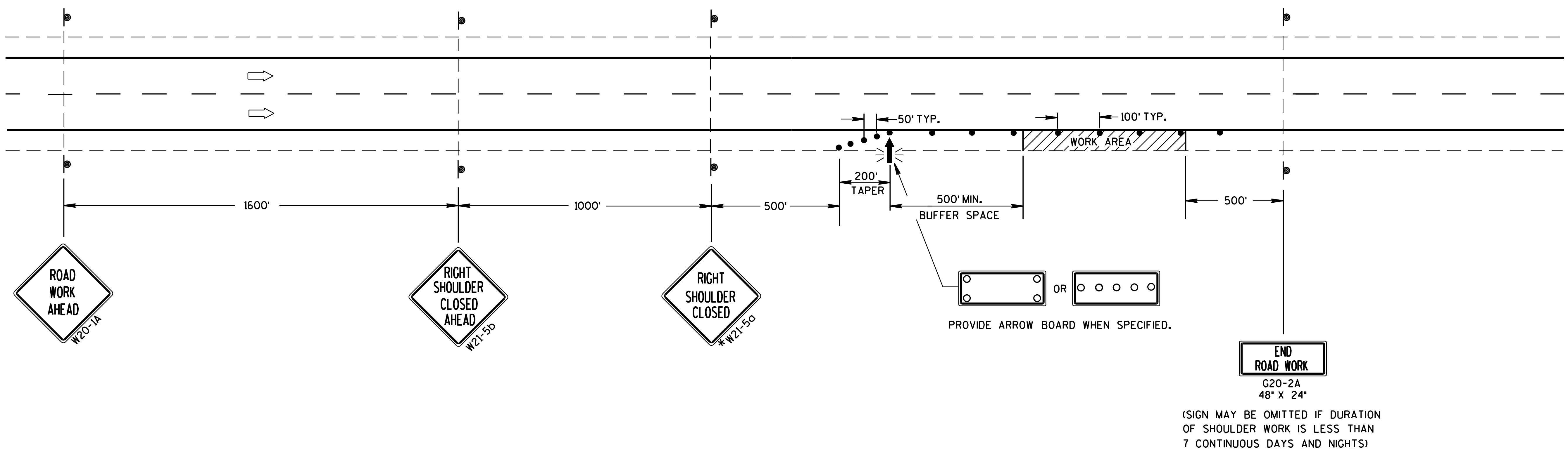
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.

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S.D.D. 15 D 27-3

### TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO FIC SAFETY ENGI

FHWA

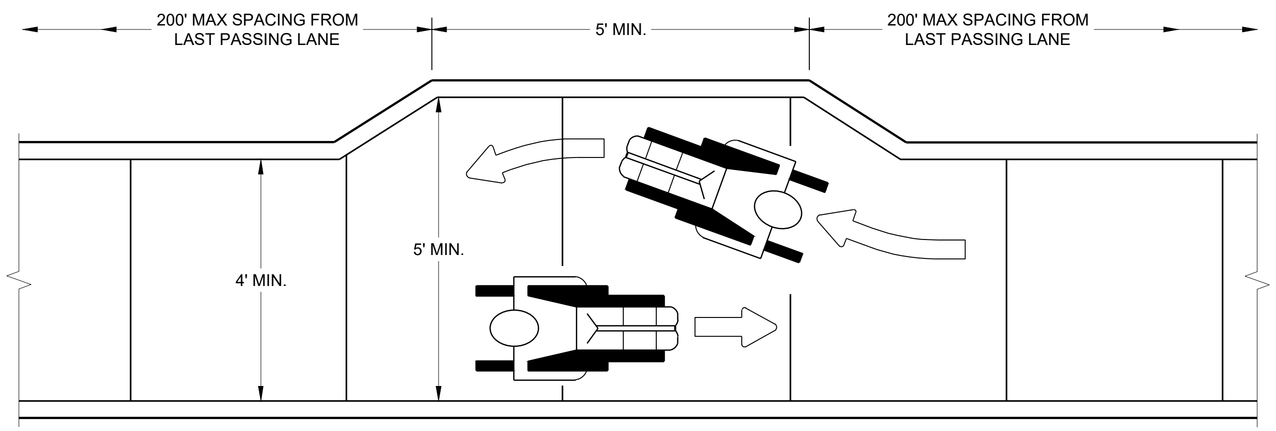
S.D.D. 15 D 27-3

## GENERAL NOTES

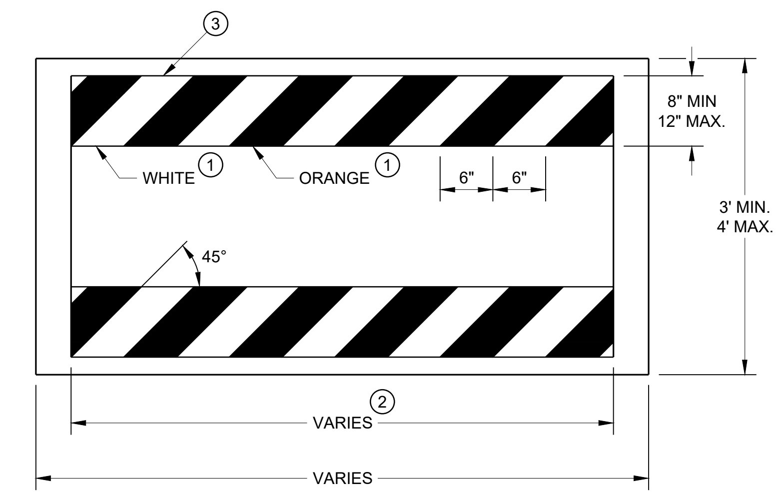
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

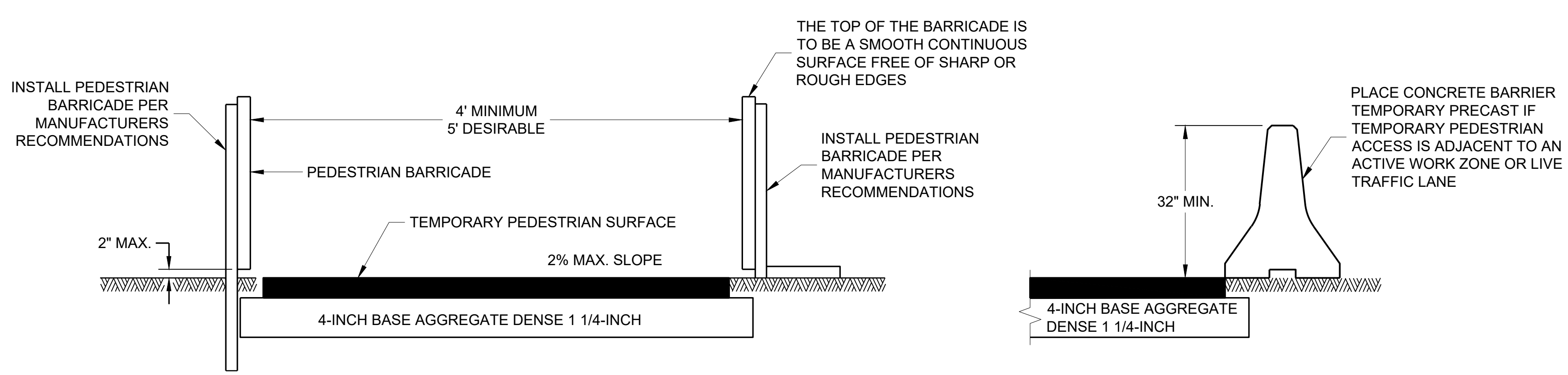
* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.




**NARROW SIDEWALK PASSING DETAIL**




**TEMPORARY PEDESTRIAN BARRICADE***




**TEMPORARY PEDESTRIAN ACCESS**

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SDD 15D30 - 07a

SDD 15D30 - 07a

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

## GENERAL NOTES

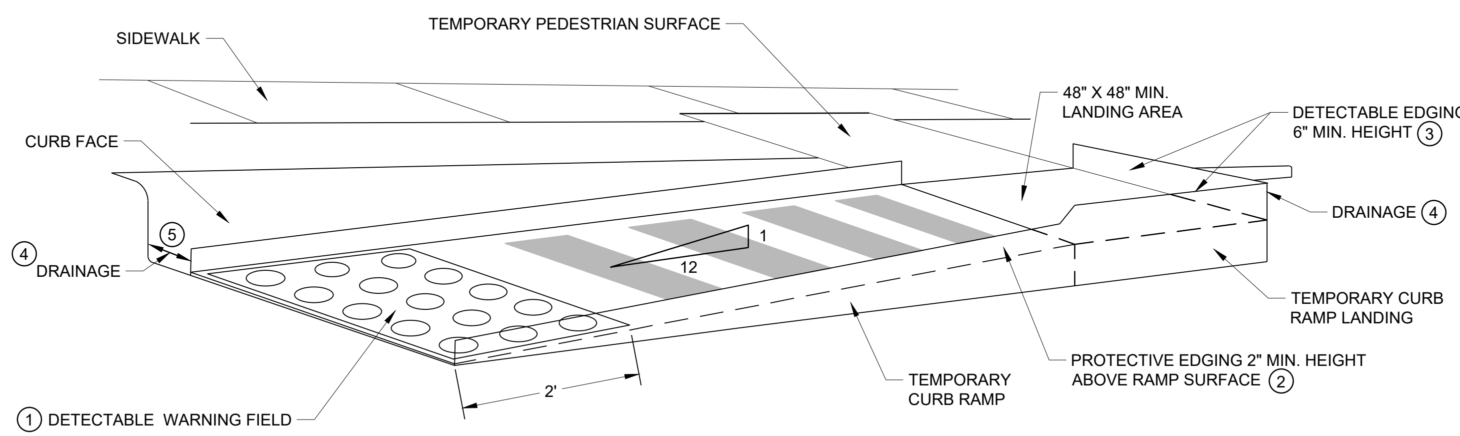
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

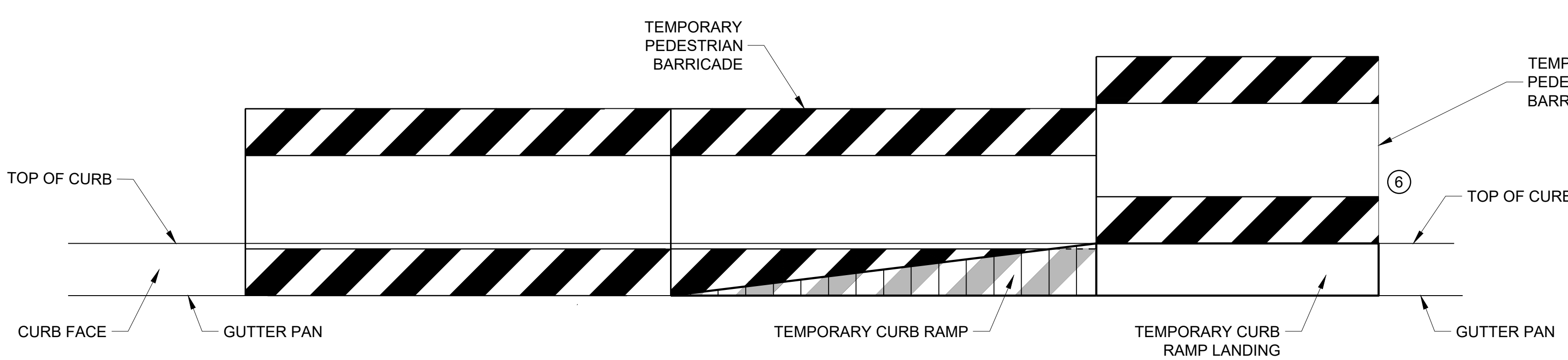
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

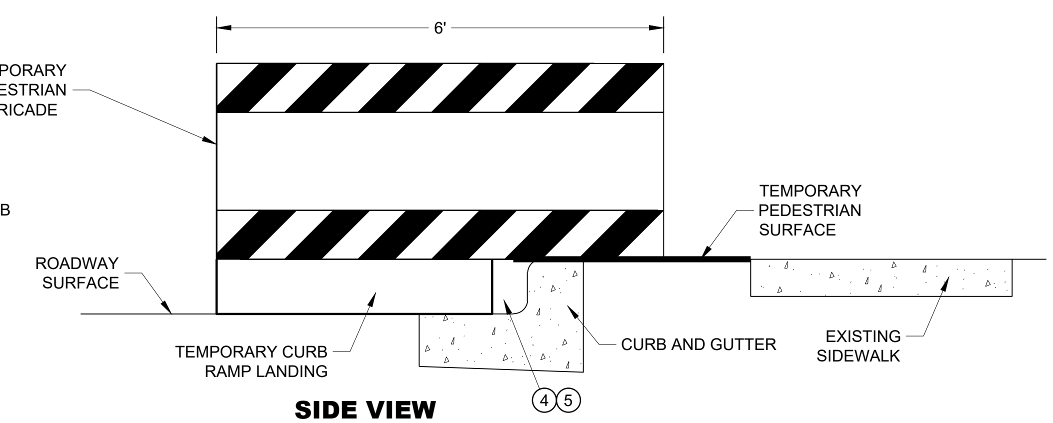
1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. 6" MINIMUM BETWEEN CURB FACE AND EDGE OF RAMP
6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.




**PERSPECTIVE VIEW**




**FRONT VIEW**




**SIDE VIEW**

**TEMPORARY CURB RAMP PARALLEL TO CURB**

6

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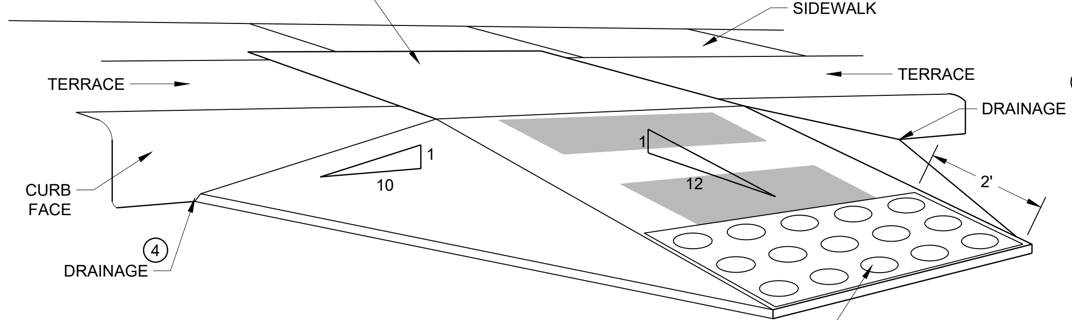
SDD 15D30 - 07b

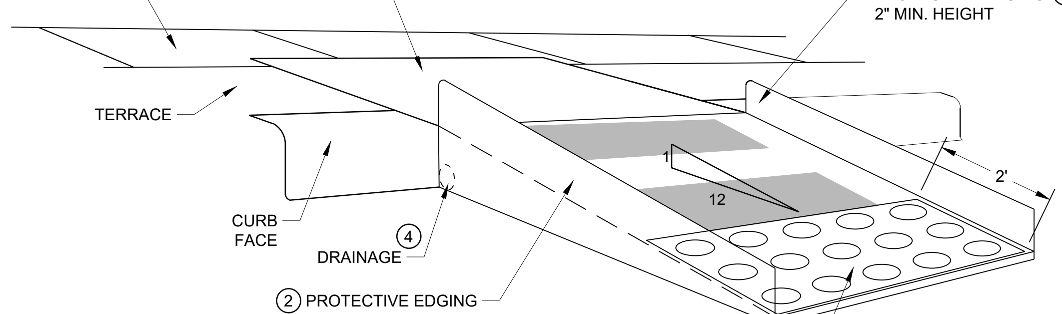
SDD 15D30 - 07b

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION




**WITH SIDE APRON** 5




**WITH PROTECTIVE EDGE**

## TEMPORARY CURB RAMP PERPENDICULAR TO CURB

## GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.


6

SDD 15D30 - 07c

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

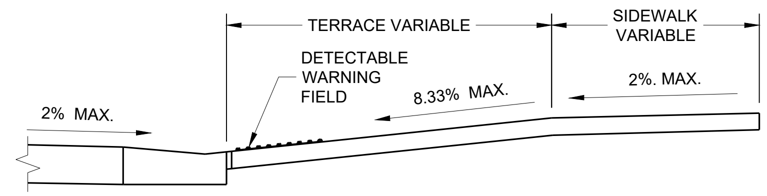
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT

## GENERAL NOTES

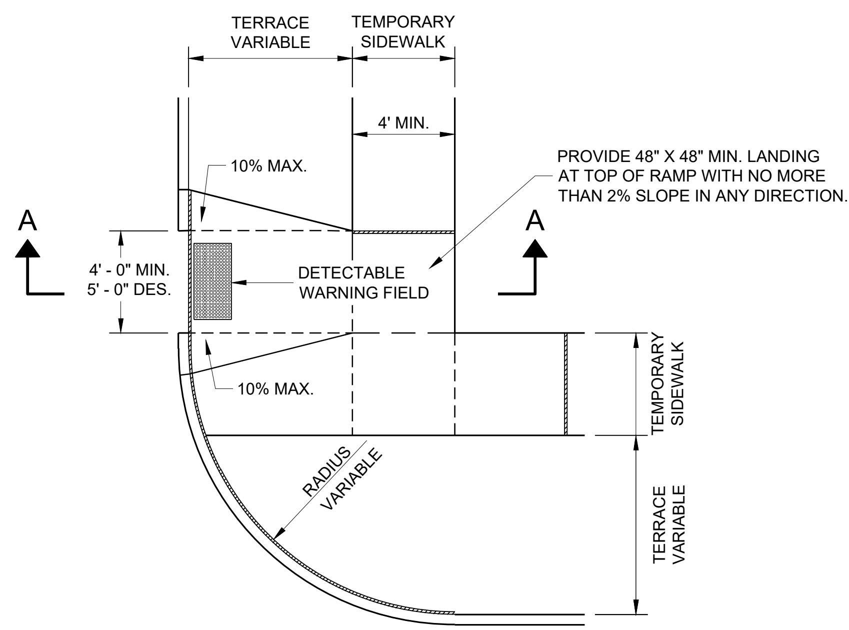
BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
3. PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.




**SECTION A - A**




**PLAN VIEW**

**TEMPORARY TYPE 3 RAMP**

(OUTSIDE OF CROSSWALK AREA)

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

## GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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.

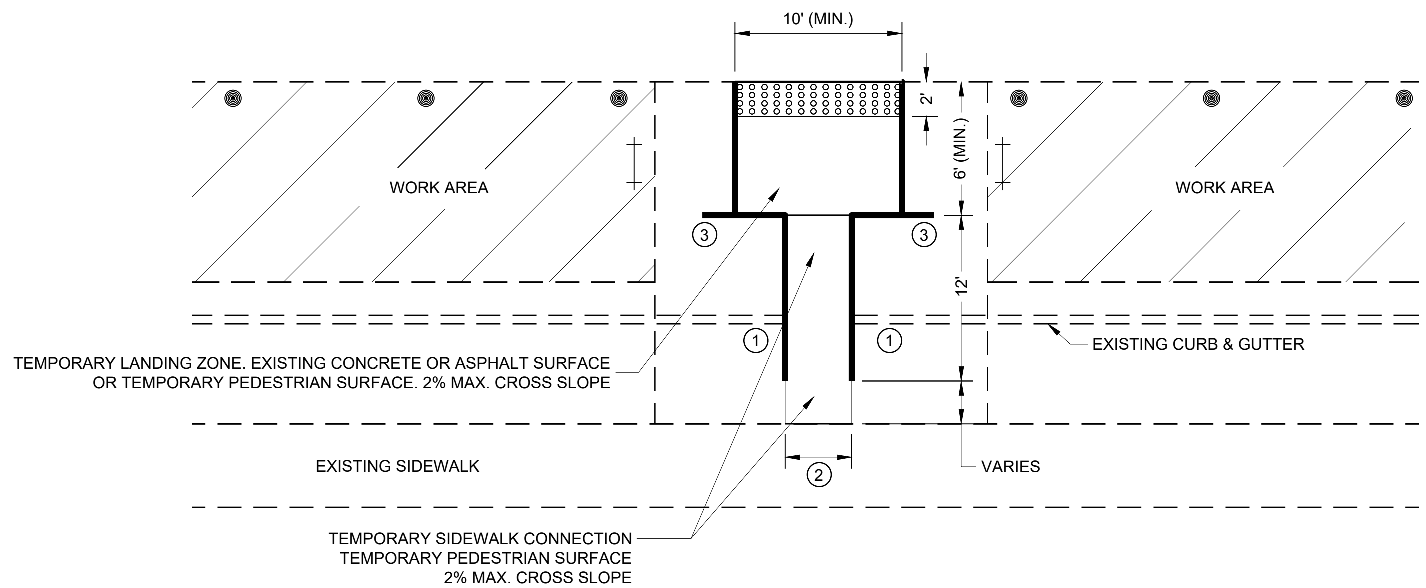
DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

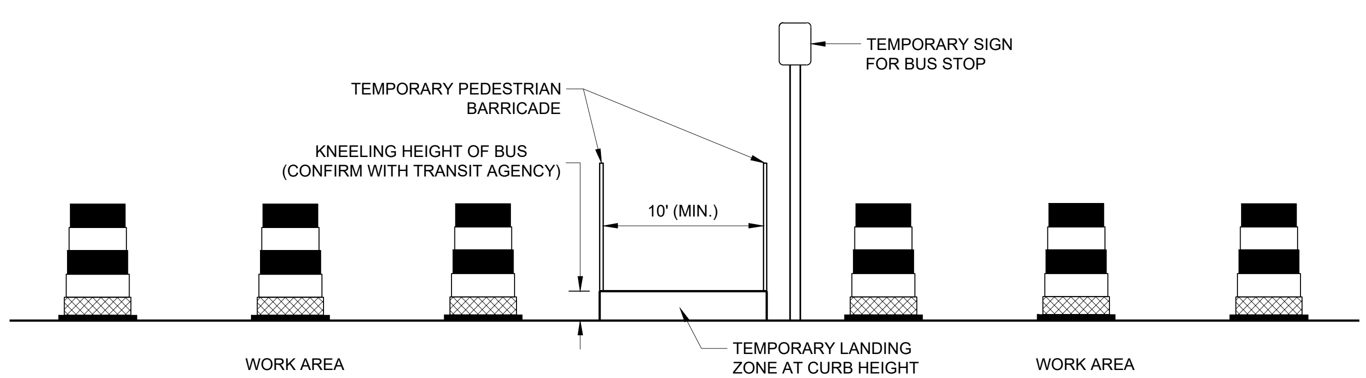
CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

1. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
2. 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
3. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.



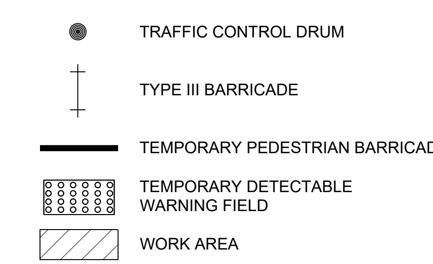

**PLAN VIEW**




**PROFILE VIEW**

## TEMPORARY BUS STOP PAD

## LEGEND




6

6

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SDD 15D30 - 07e

SDD 15D30 - 07e

## GENERAL NOTES

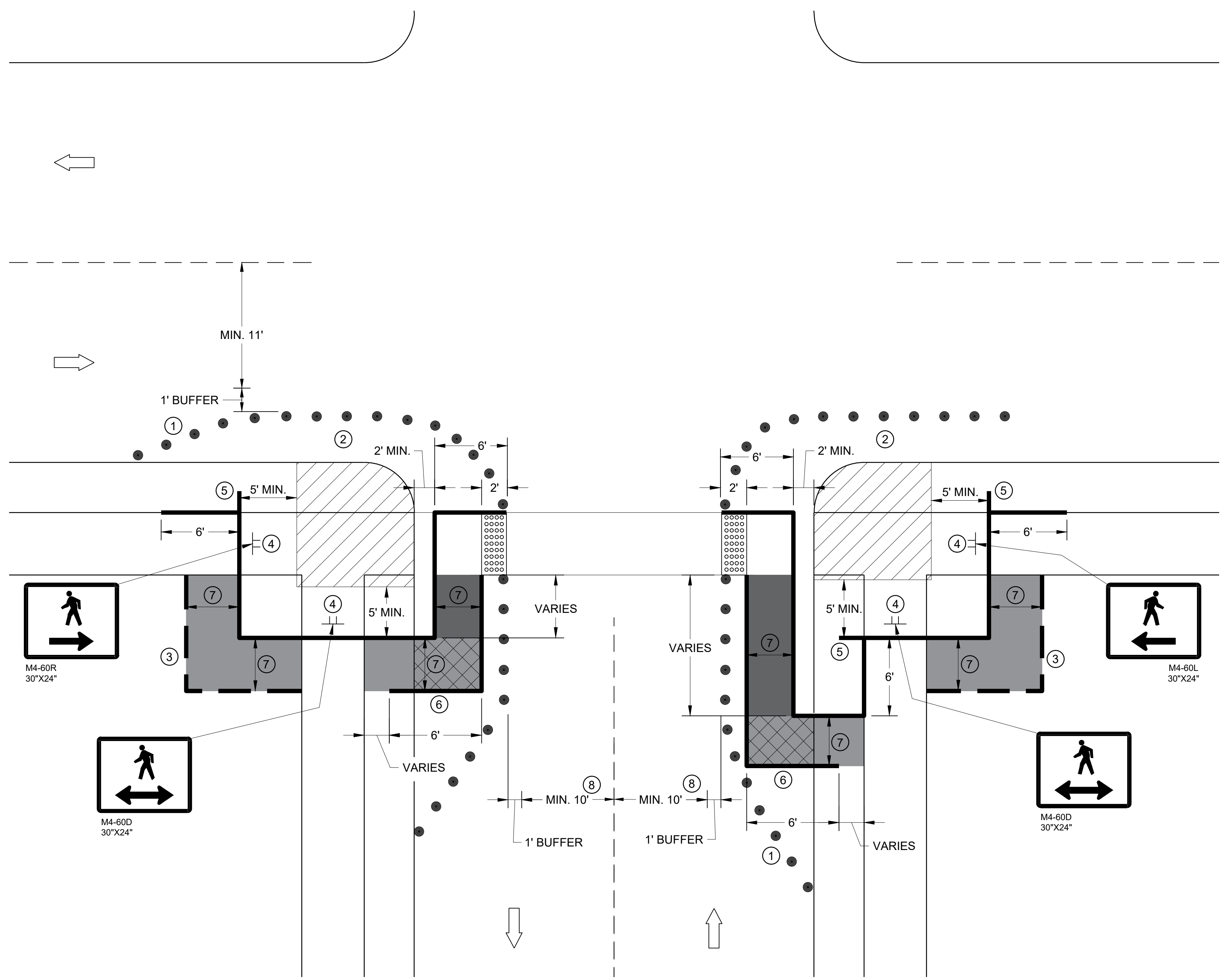
IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.




**CURB RAMP PEDESTRIAN TRAFFIC CONTROL**
**SIDEWALK ON SINGLE SIDE**

## LEGEND

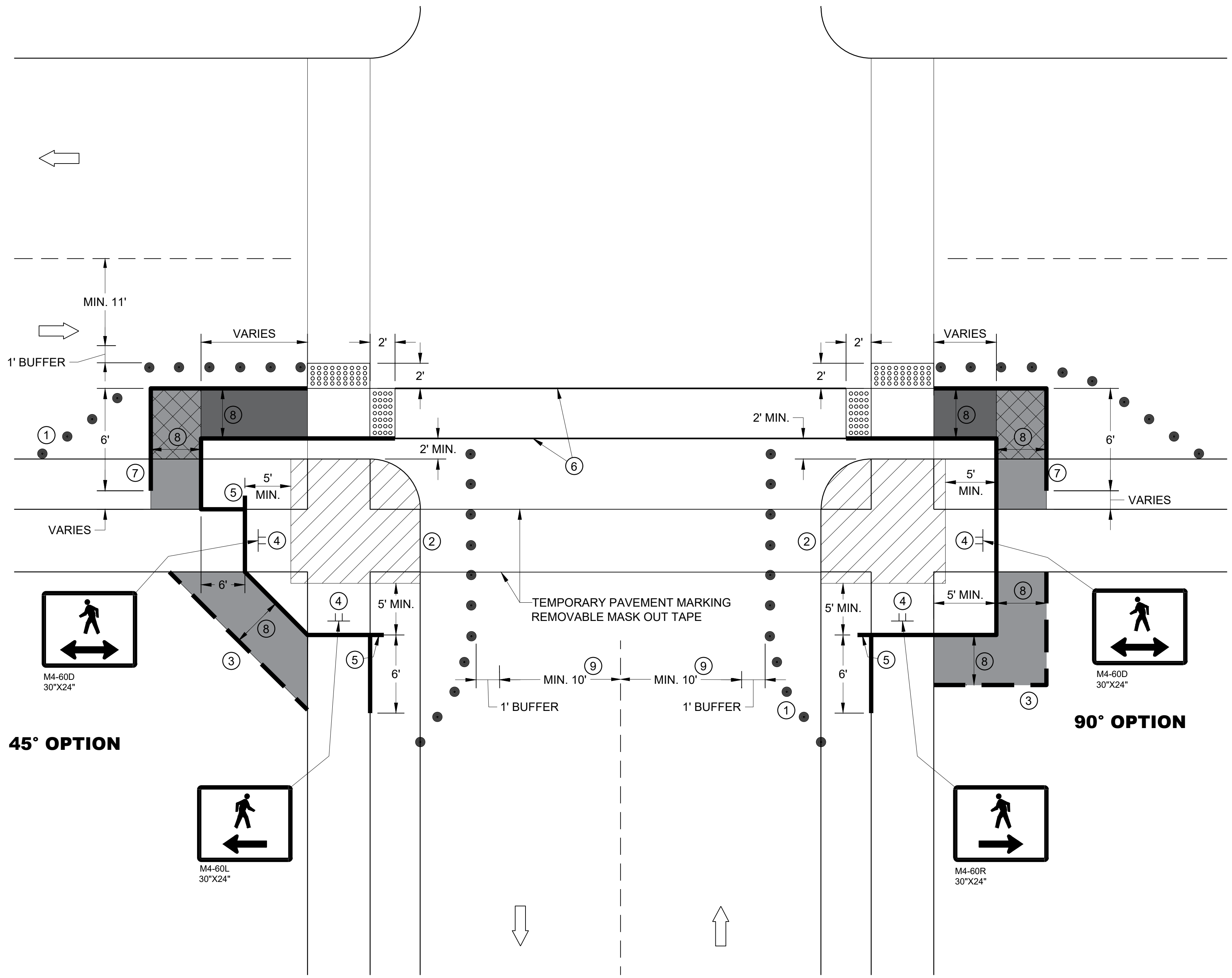
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI

6

SDD 15D30 - 07i




CURB RAMP PEDESTRIAN TRAFFIC CONTROL

## GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

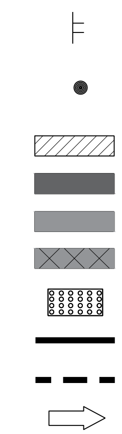
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

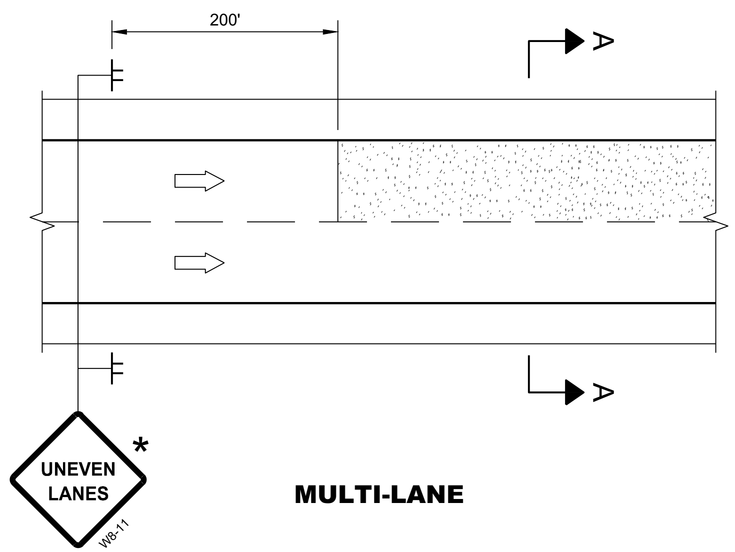
1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. WHITE 6" TEMPORARY PAVEMENT MARKING
7. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
8. 4 FEET MINIMUM, 5 FEET DESIRABLE
9. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

## LEGEND

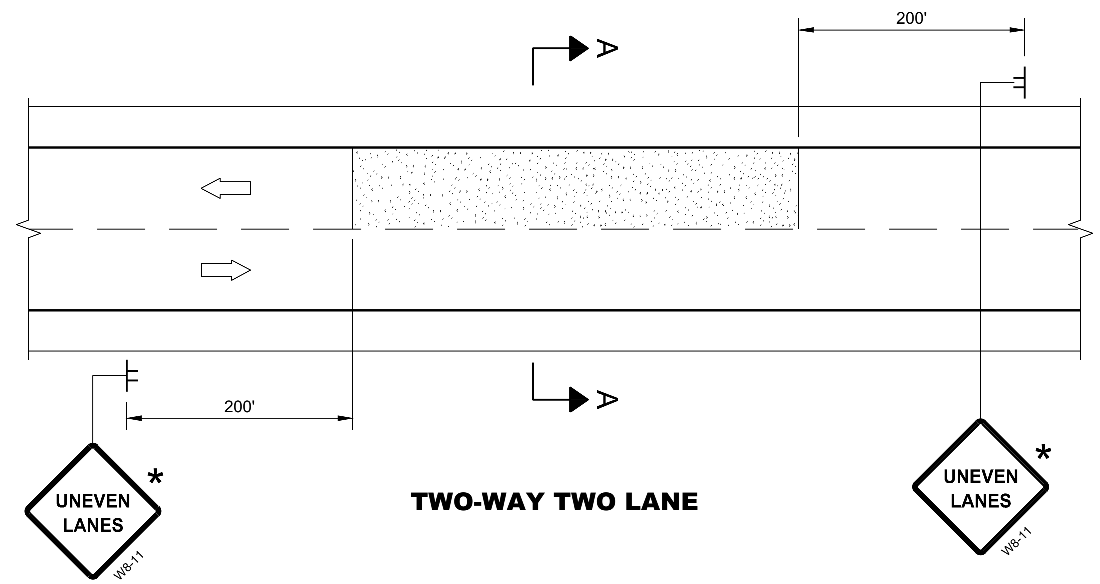



**TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION**

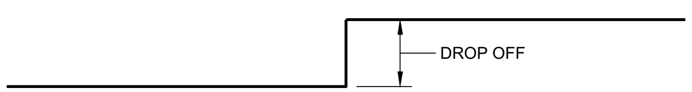
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION




MULTI-LANE

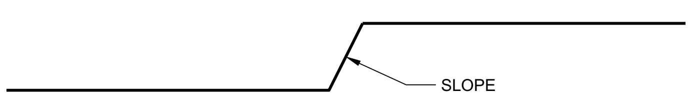



TWO-WAY TWO LANE

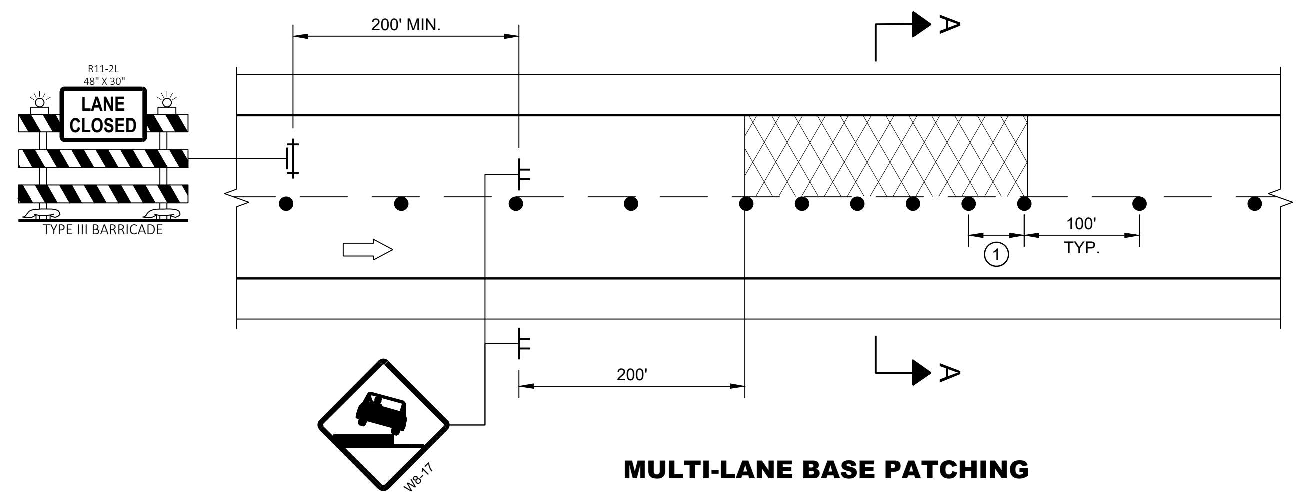



SECTION A - A

OR




SECTION A - A




MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

## GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

1 USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

## LEGEND

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

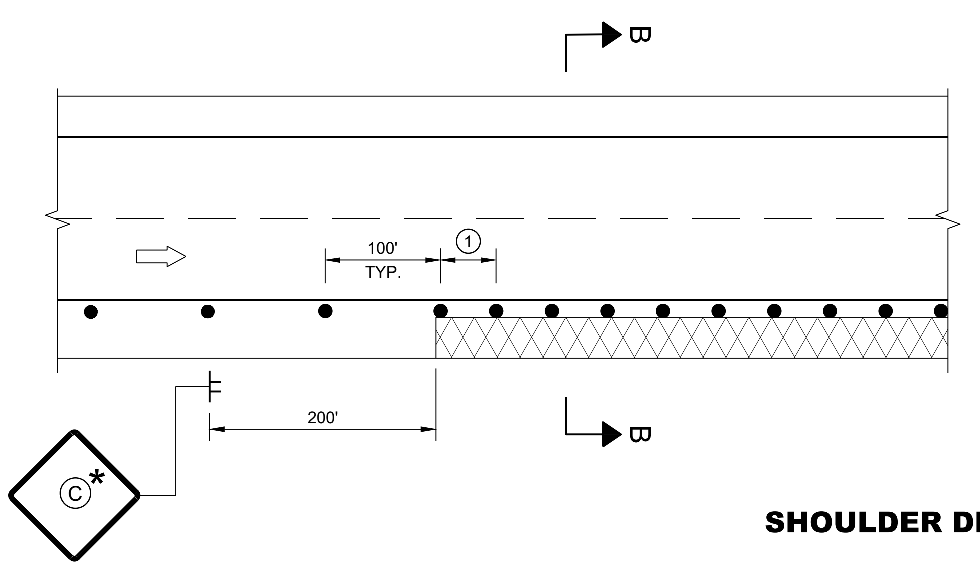
TYPE III BARRICADE WITH ATTACHED SIGN

TYPE "A" WARNING LIGHT (FLASHING)

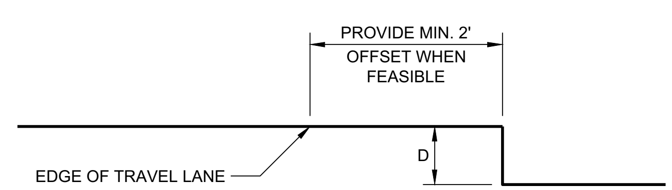
DIRECTION OF TRAFFIC

WORK AREA WITH DROP-OFF

MILLED SURFACE




SHOULDER DROP-OFFS




SECTION B - B

| D | SIGN C |
|---|---|
| < 2" WITH A SLOPE STEEPER THAN 3:1 | LOW SHOULDER<br>WO8-9 |
| 2" < 6" WITH A SLOPE STEEPER THAN 3:1 | SHOULDER DROP - OFF<br>W8-9A<br>PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT |

**TRAFFIC CONTROL, DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

## LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- CONCRETE BARRIER TEMPORARY PRECAST

## 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) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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

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

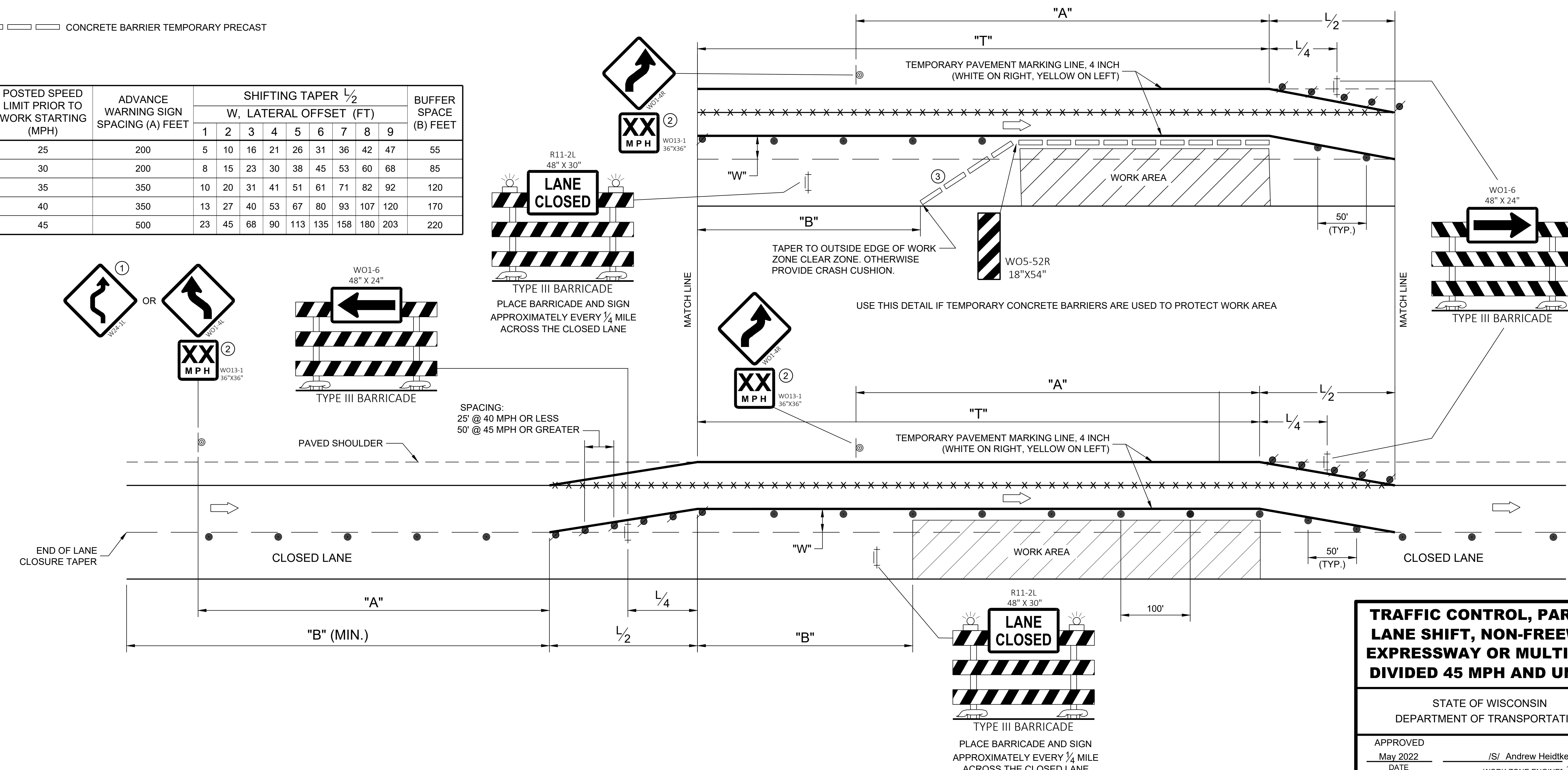
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

1. USE ONLY WHEN T<600', OMIT WO1-4R.
2. IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
3. BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
   8:1 @ 45 MPH OR GREATER

| POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH) | ADVANCE WARNING SIGN SPACING (A) FEET | SHIFTING TAPER L/2 W, LATERAL OFFSET (FT) | | | | | | | | | BUFFER SPACE (B) FEET |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |
| 25 | 200 | 5 | 10 | 16 | 21 | 26 | 31 | 36 | 42 | 47 | 55 |
| 30 | 200 | 8 | 15 | 23 | 30 | 38 | 45 | 53 | 60 | 68 | 85 |
| 35 | 350 | 10 | 20 | 31 | 41 | 51 | 61 | 71 | 82 | 92 | 120 |
| 40 | 350 | 13 | 27 | 40 | 53 | 67 | 80 | 93 | 107 | 120 | 170 |
| 45 | 500 | 23 | 45 | 68 | 90 | 113 | 135 | 158 | 180 | 203 | 220 |



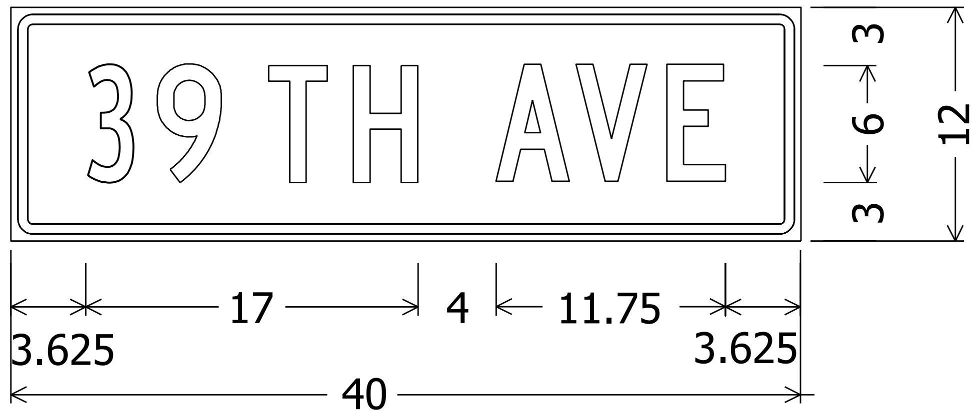

**TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA

SDD 15D40 - 04c

6



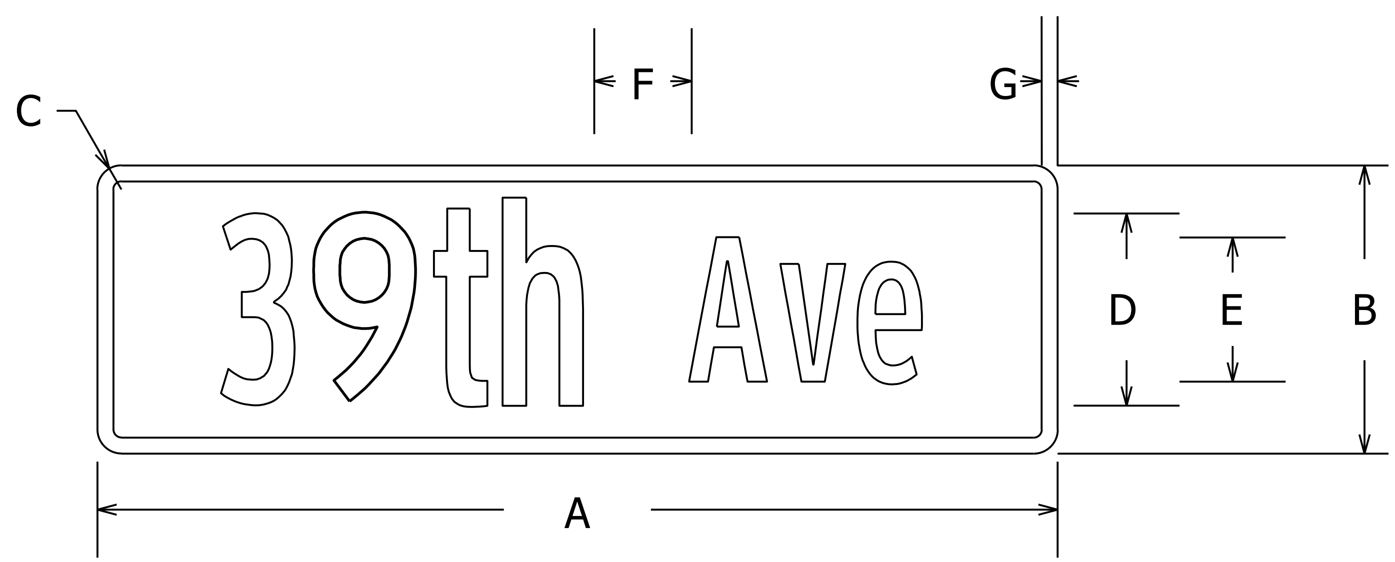

1.125" Radius, 0.500" Border, 0.375" Indent

NOTES

1. Fixed Message Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C

7

7


| SIZE | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|
| 1 | VARIES[1] | 9 | $\frac{3}{4}$ | 6 | $4\frac{1}{2}$ | 3 | $\frac{1}{2}$ |
| 2 | VARIES[2] | 18 | $1\frac{1}{2}$ | 12 | 6 | 6 | $\frac{1}{2}$ |

1- minimum 30-inches
2- minimum 48-inches

NOTES

1. Sign is Type II - Type H Reflective (Prismatic High Intensity)
2. Color
   - Background - Green
   - Border - White
   - Message - White
3. Message Series - B for Size 1
   D for Size 2
4. Base Material Shall be 0.125" Aluminum

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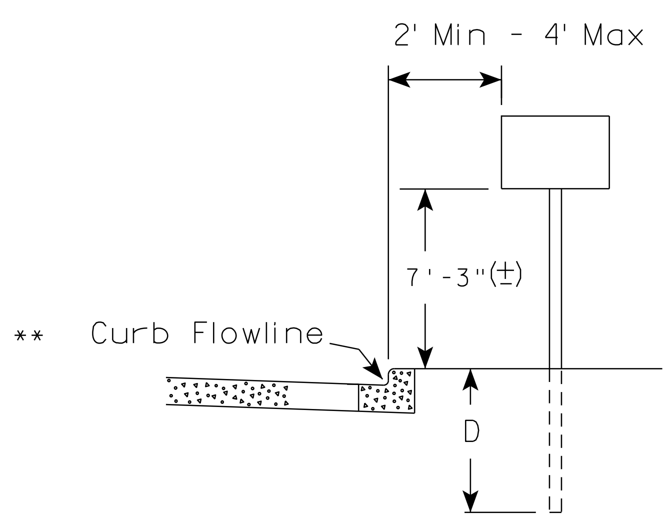
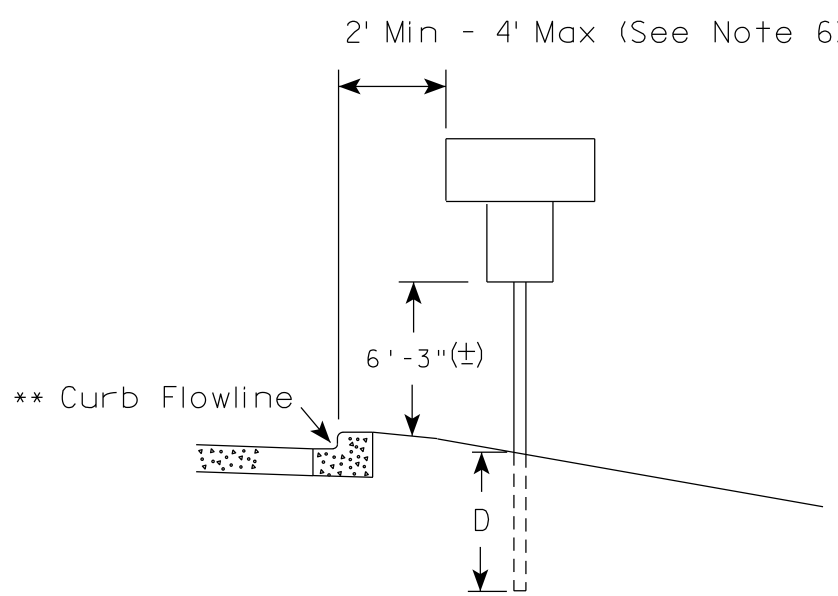
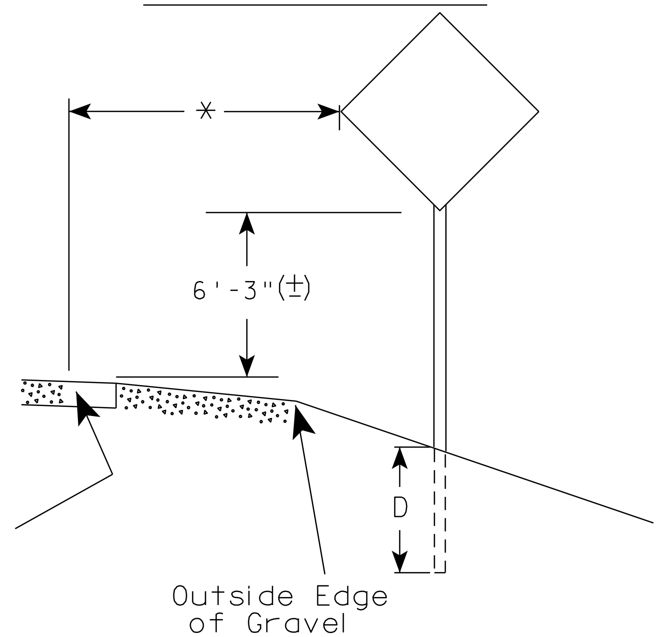
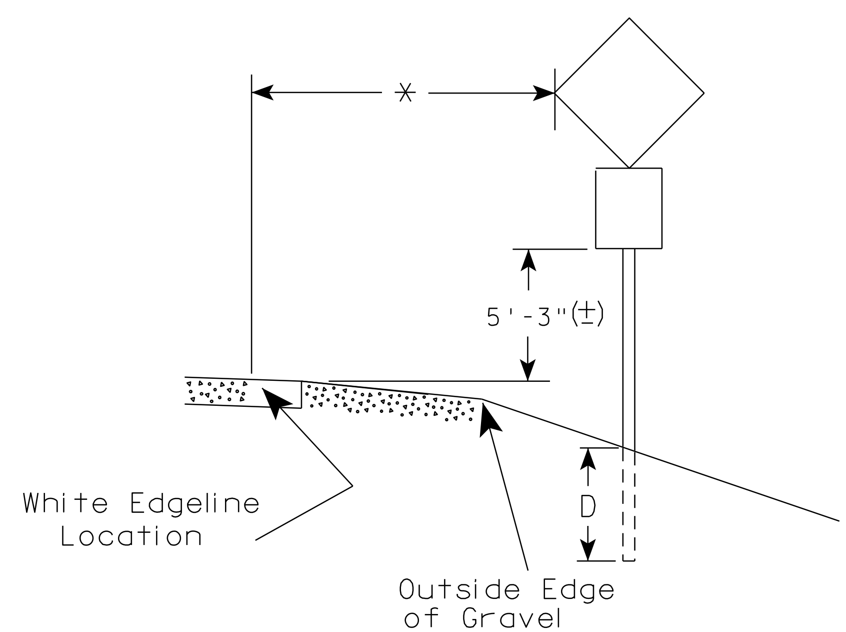
## URBAN AREA




## RURAL AREA (See Note 2)




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

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

## GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.

   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

### POST EMBEDMENT DEPTH

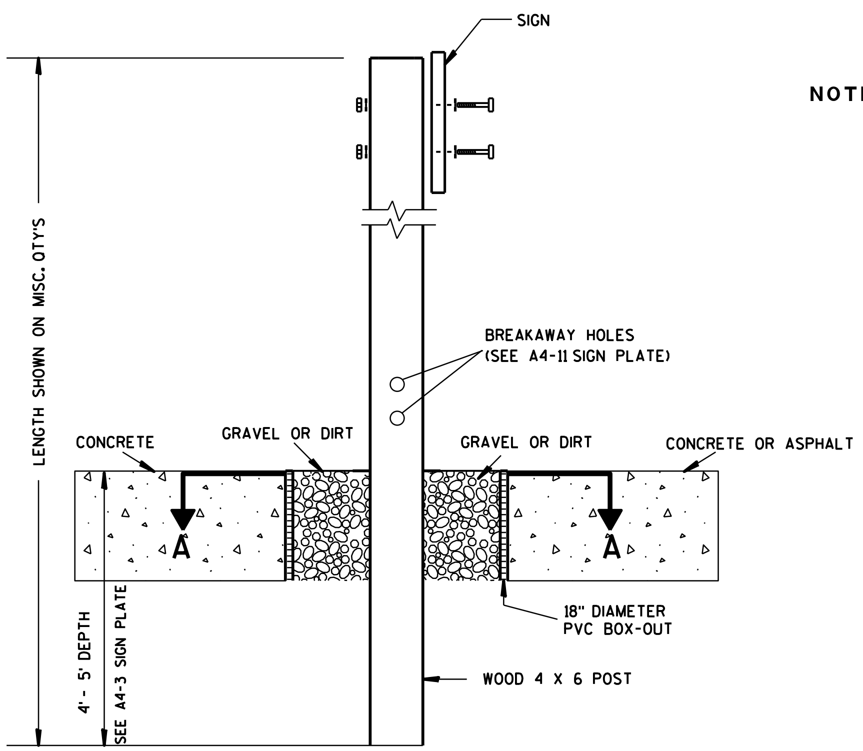
| Area of Sign Installation ( Sq. Ft. ) | D ( Min ) |
|---|---|
| 20 or Less | 4' |
| Greater than 20 | 5' |

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

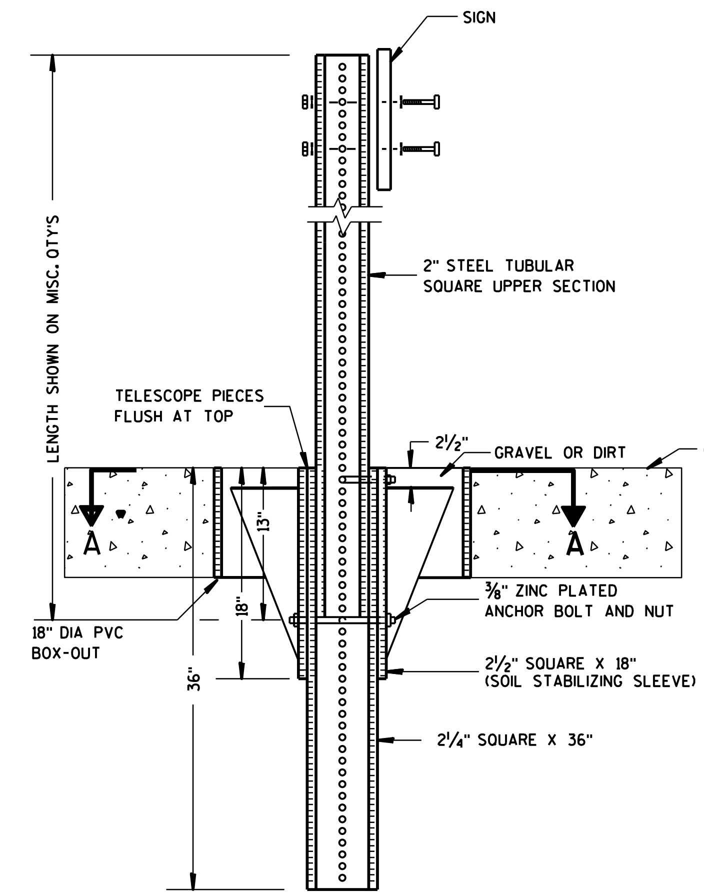
DATE 5/13/2020 PLATE NO. A4-3.22




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

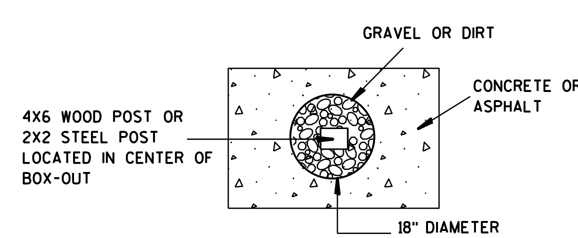
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

ELEVATION VIEW

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

7

7




PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

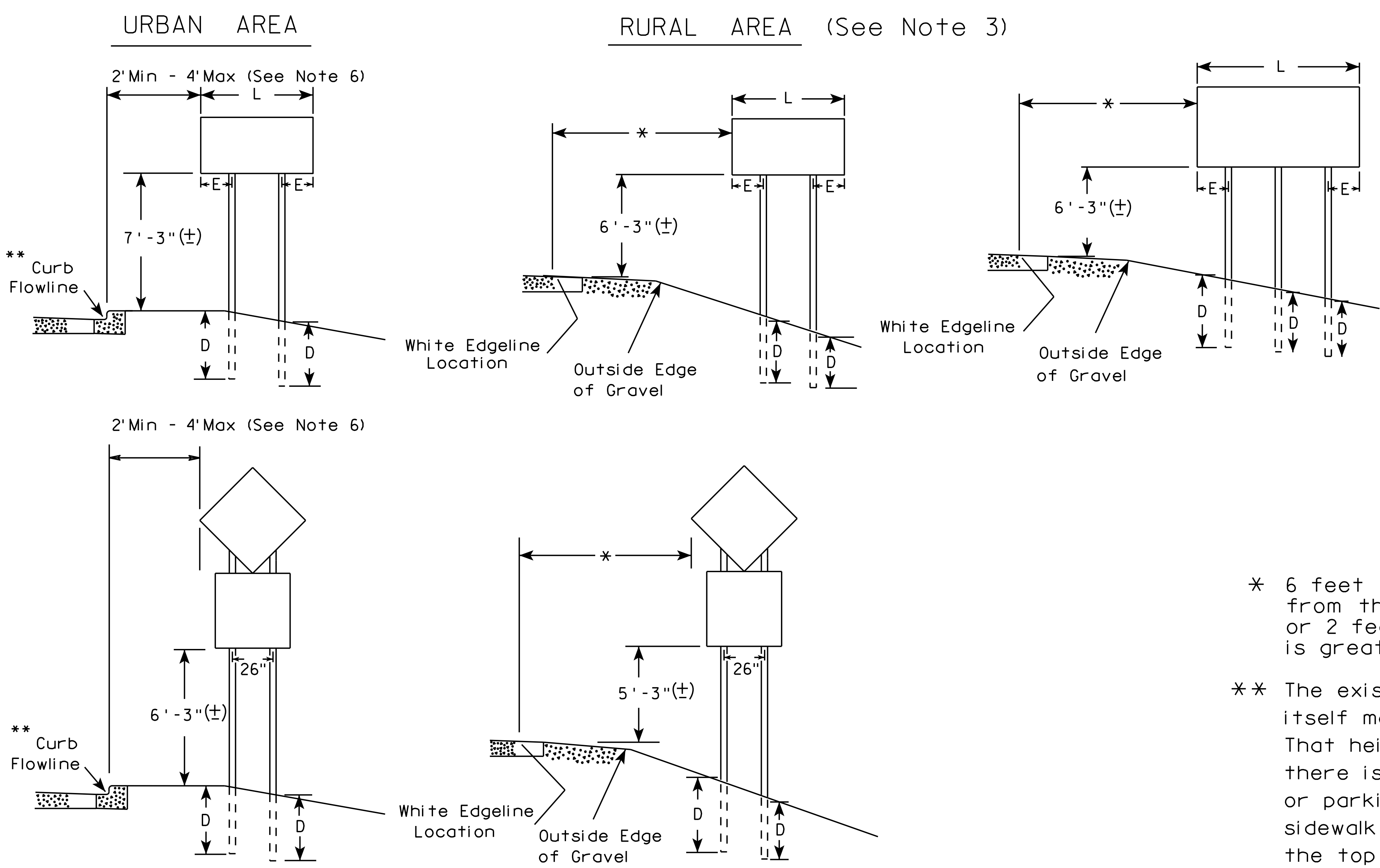
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



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

## 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" (±).




48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

* 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.

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

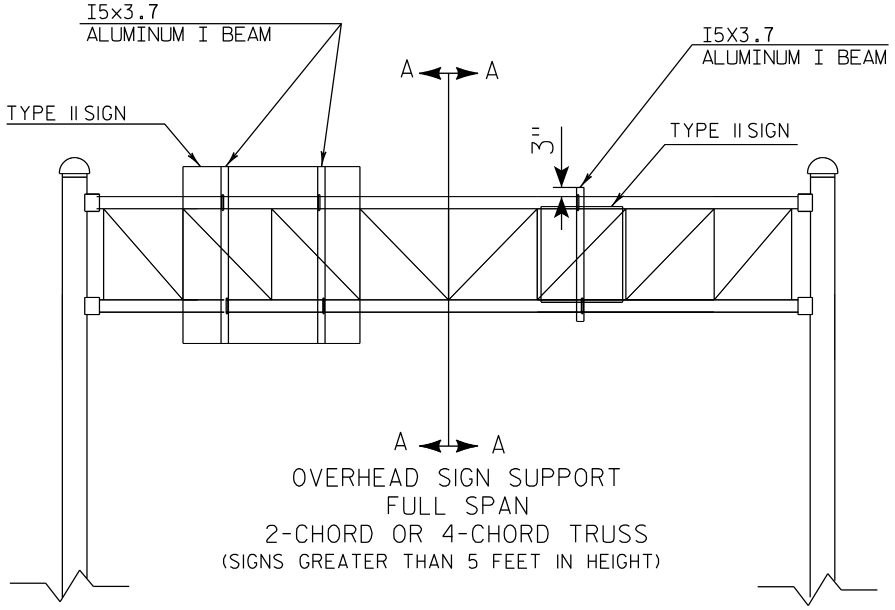
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

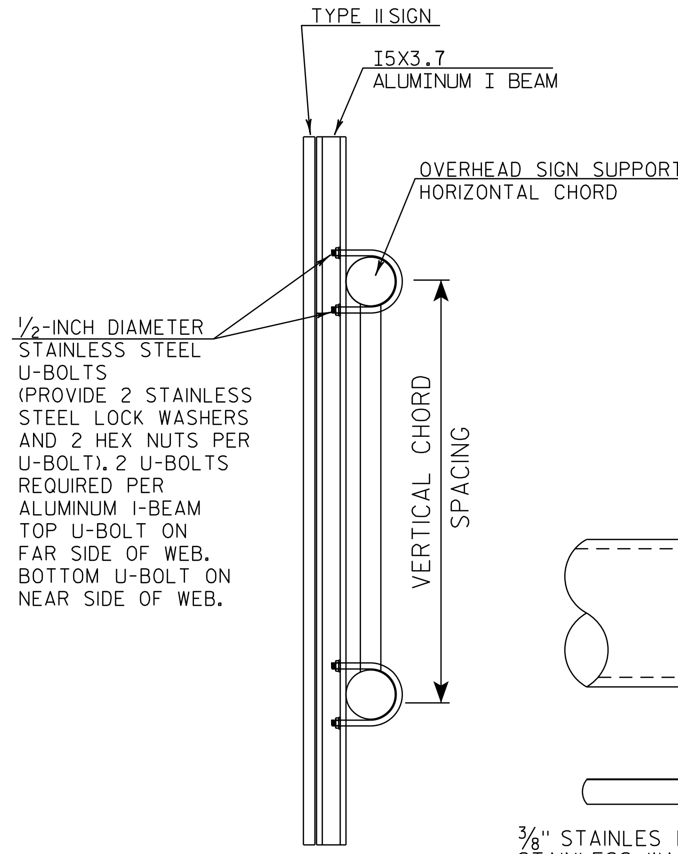
DATE 8/21/17 PLATE NO. A4-4.15

## GENERAL NOTES

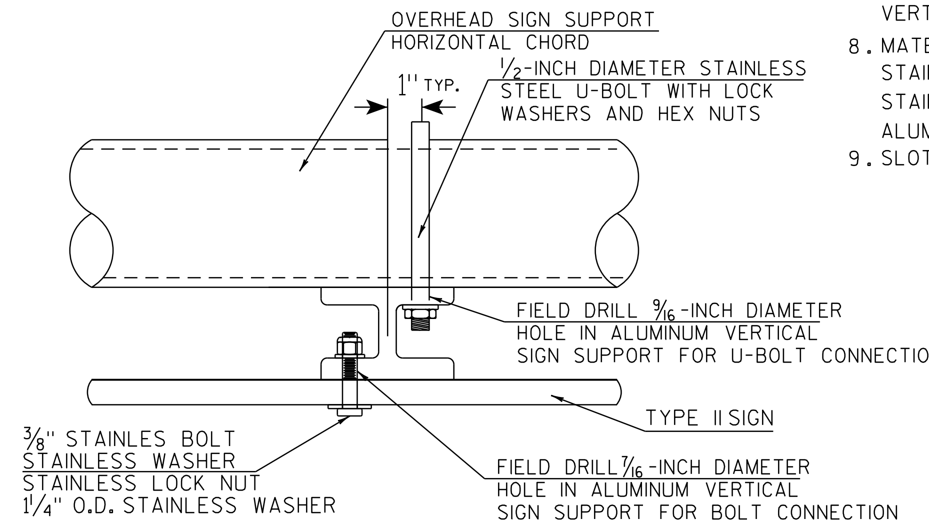
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



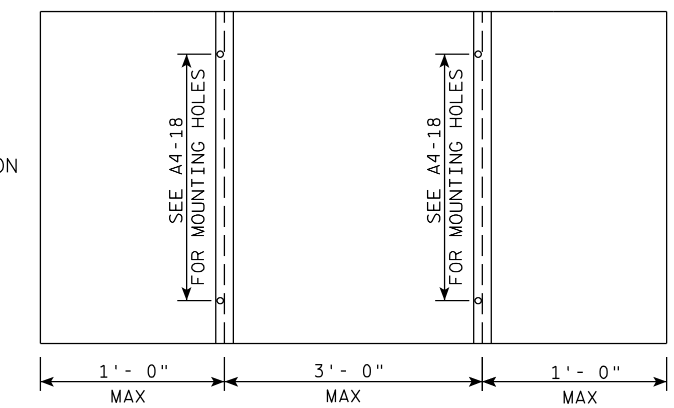

OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



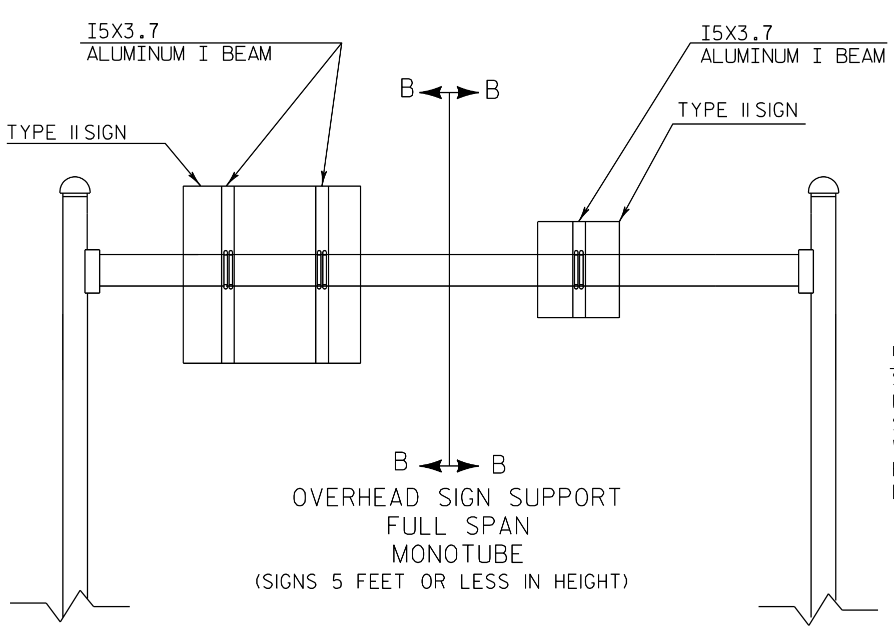

CUT SECTION A-A



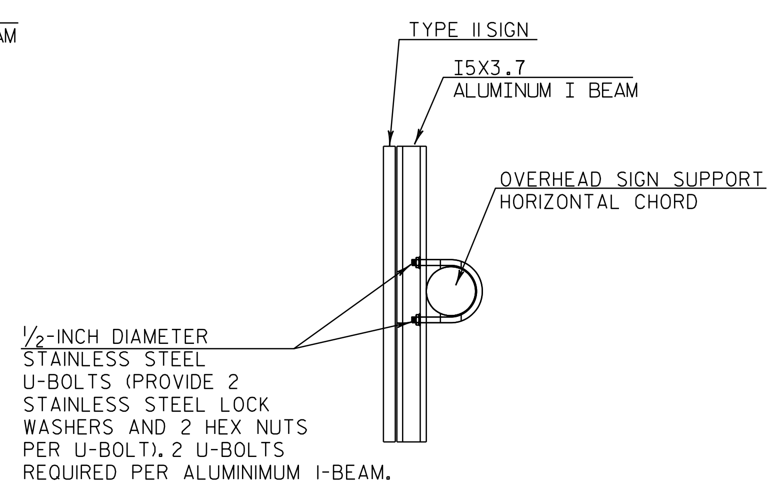

TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW



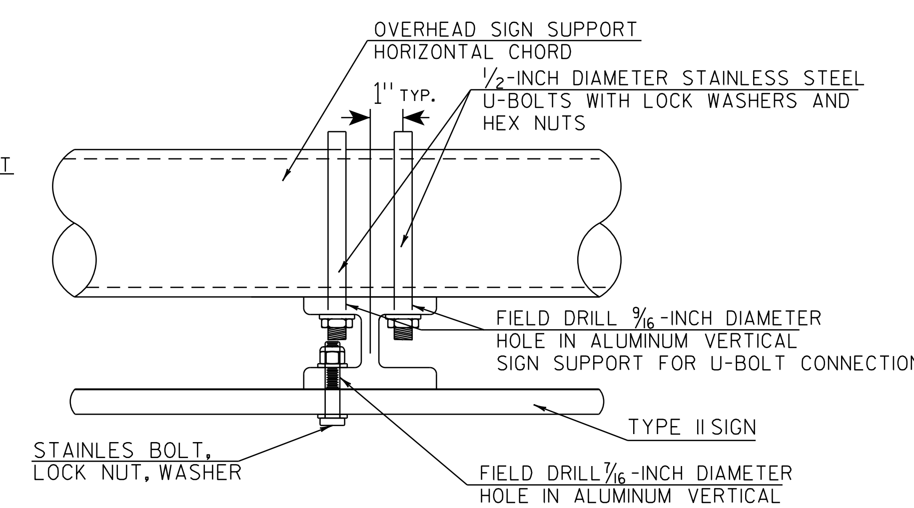

SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



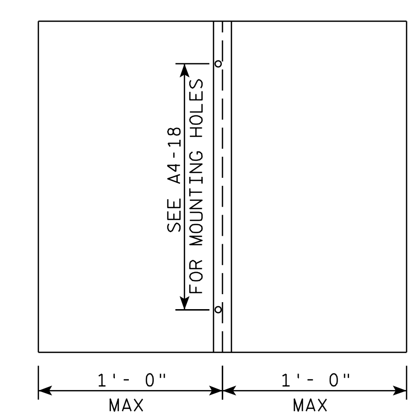

OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)




CUT SECTION B-B




TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW




SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

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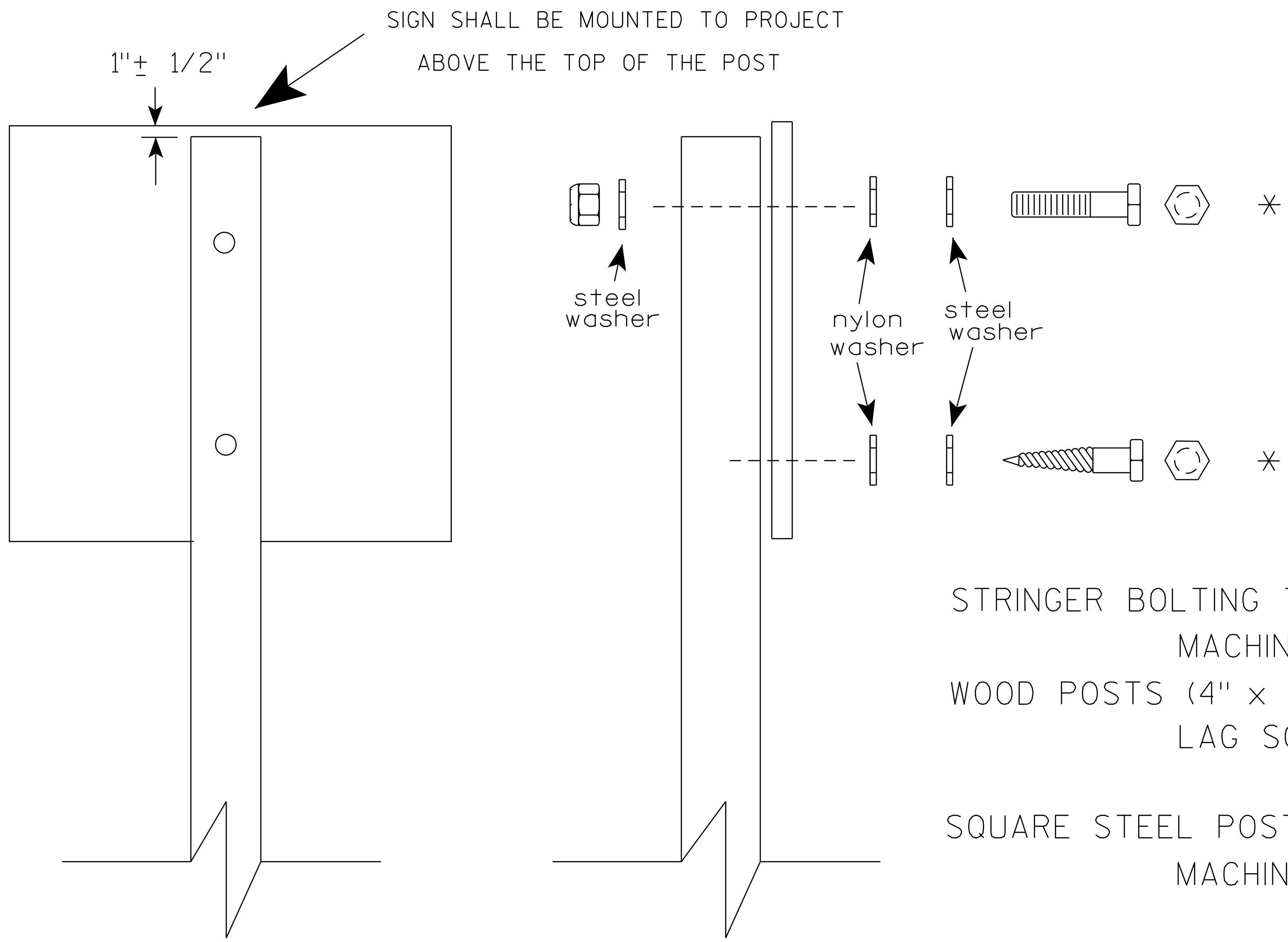
# TYPE II SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 146 | E |
|---|---|---|---|---|---|




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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

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# ATTACHMENT OF SIGNS TO POSTS

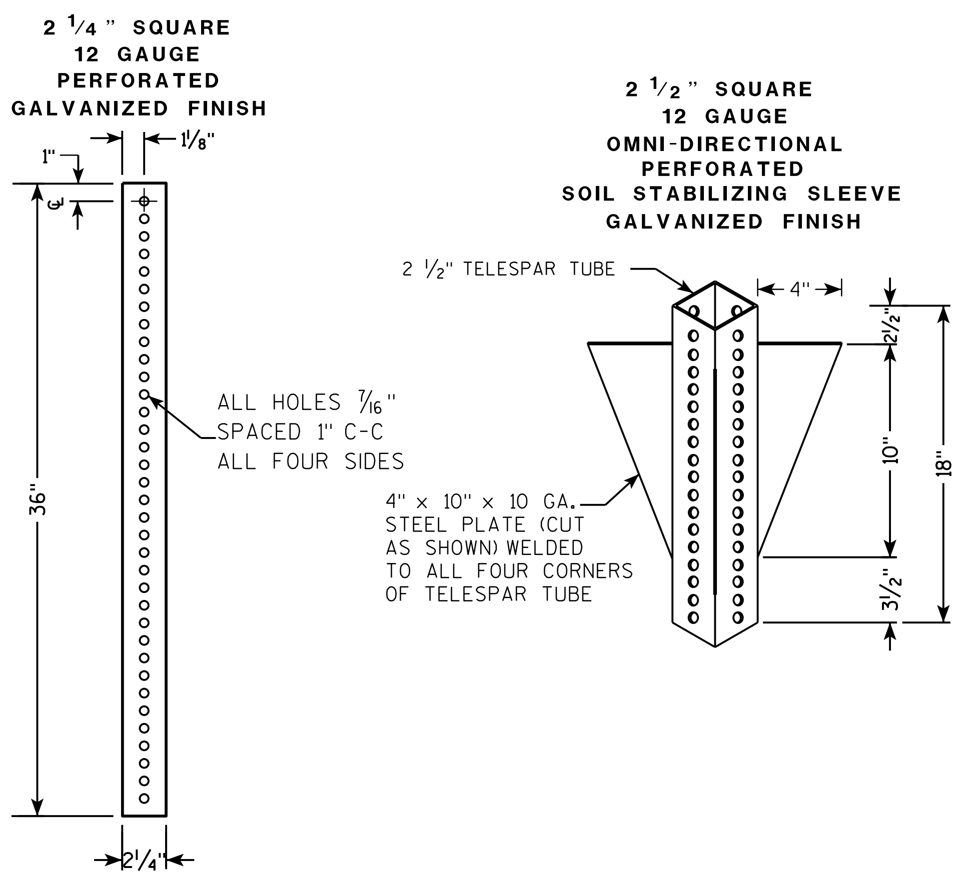
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

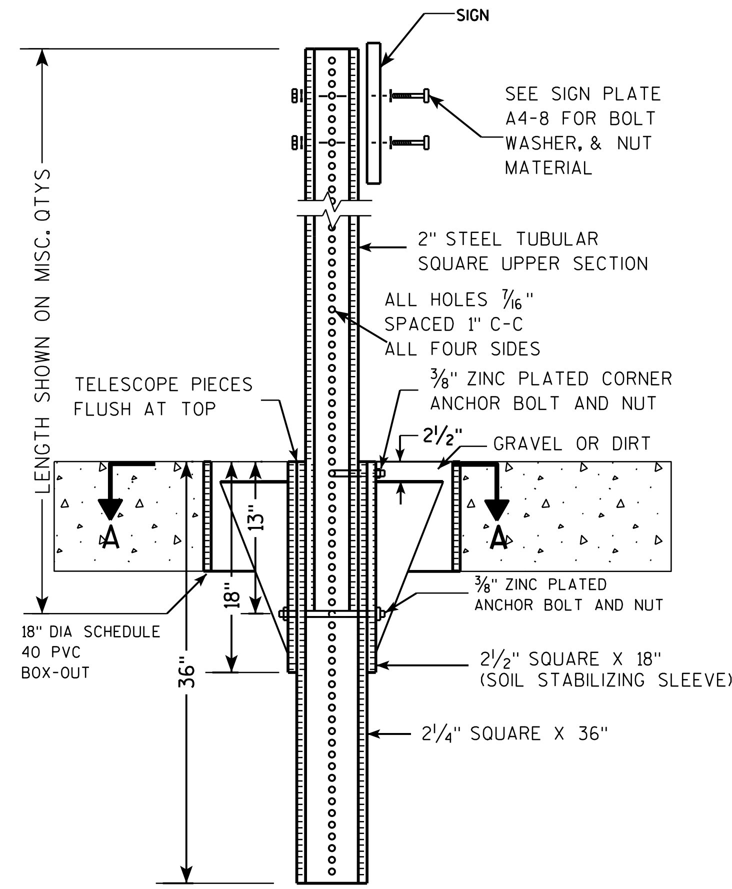
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO: SHEET NO: 147 E

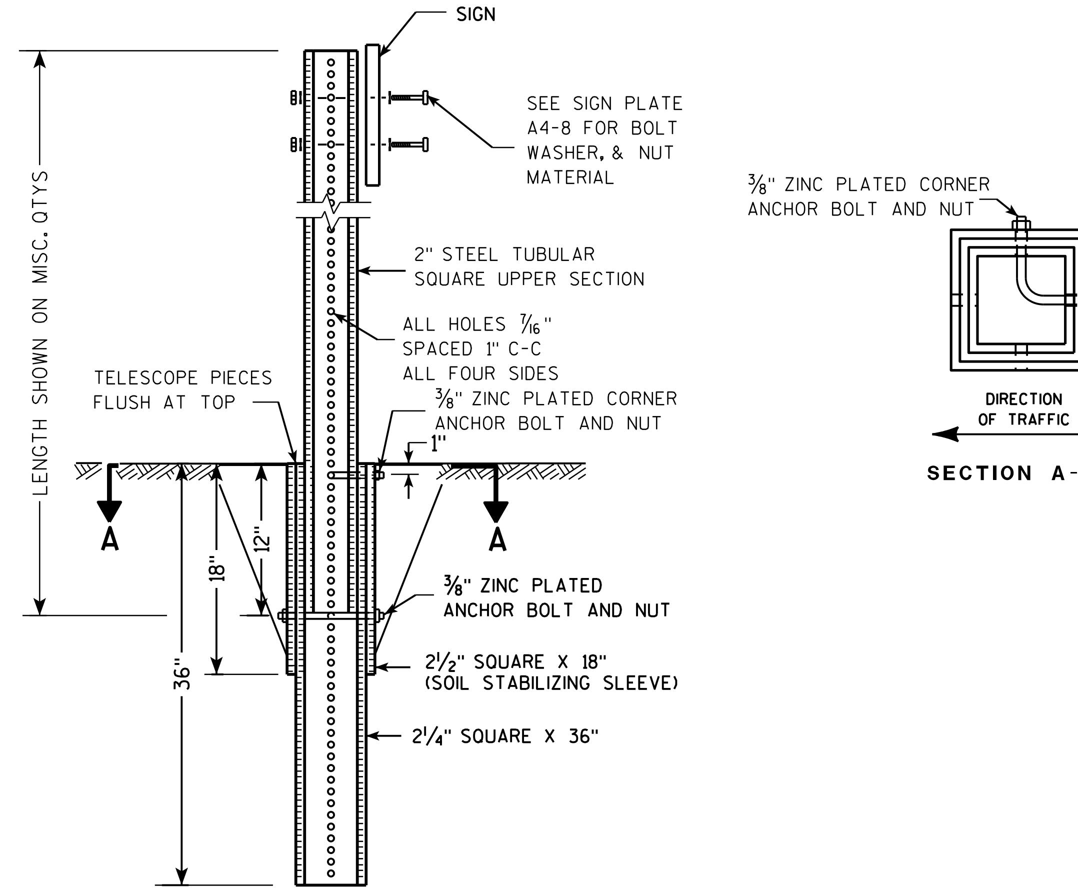
## TELESCOPIC TUBING ANCHORS TWO PIECE SYSTEM




## 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).**

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# TUBULAR STEEL SIGN POST A4-9

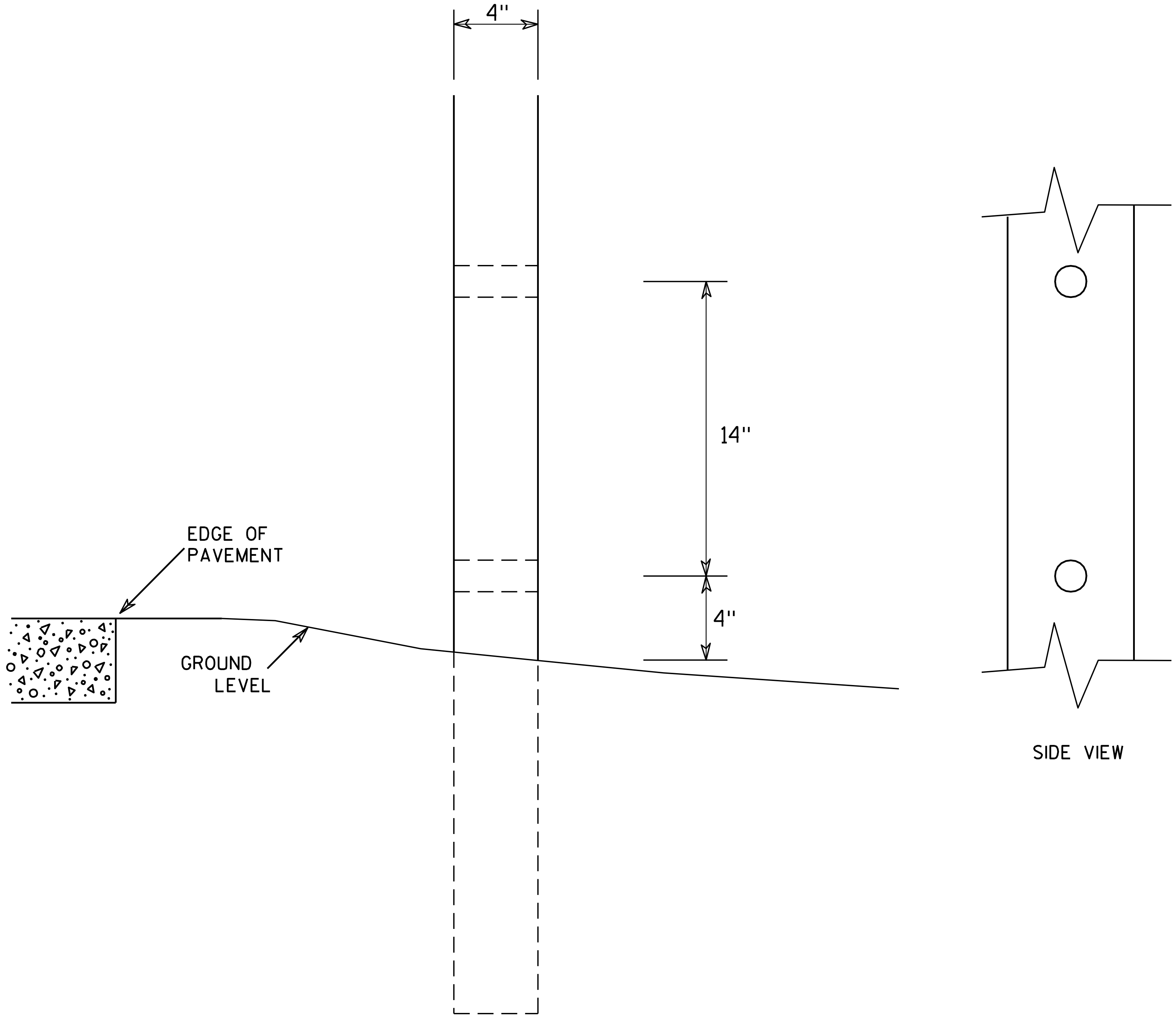
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED *Matthew R Rauch*

*for* State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

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




GENERAL NOTES

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

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4 X 6 WOOD POST
MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

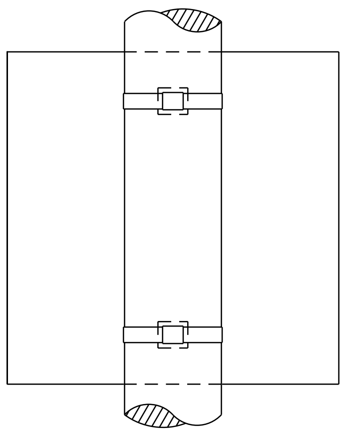
APPROVED Chester J Spang for State Traffic Engineer

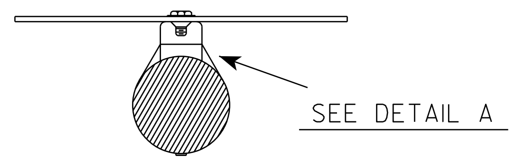
DATE 3/27/97 PLATE NO. A4-11.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 149 | E |
|---|---|---|---|---|---|

# BANDING

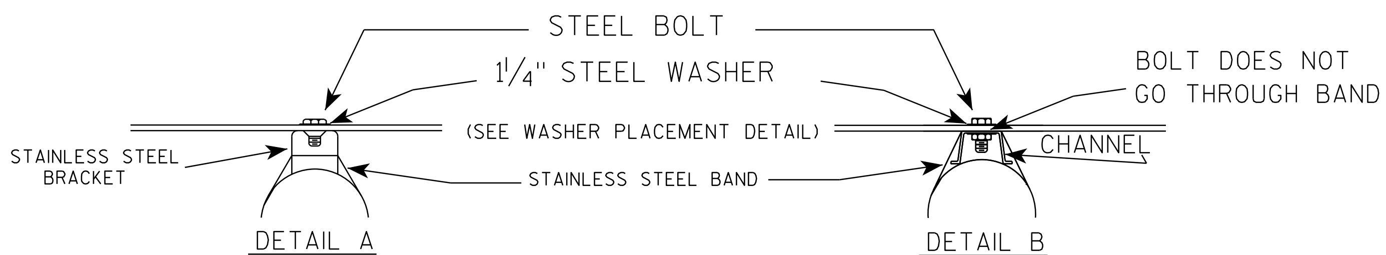
SINGLE SIGN



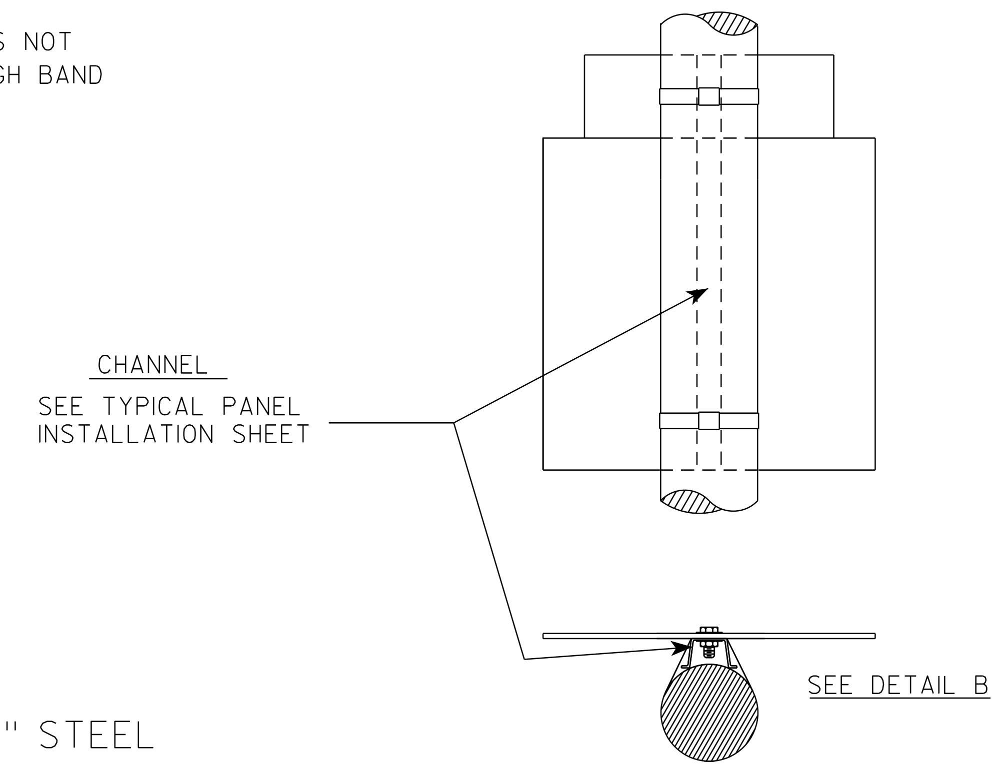



## GENERAL NOTES

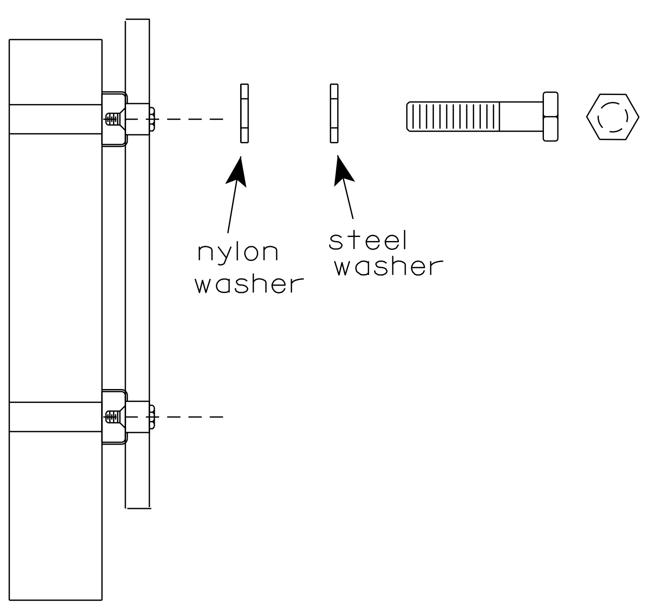
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel.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




"J" ASSEMBLY




WASHER PLACEMENT




WASHERS (ALL POSTS) -
1-1/4" O.D. X$\frac{3}{8}$" 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 6/10/19 PLATE NO. A5-9.4



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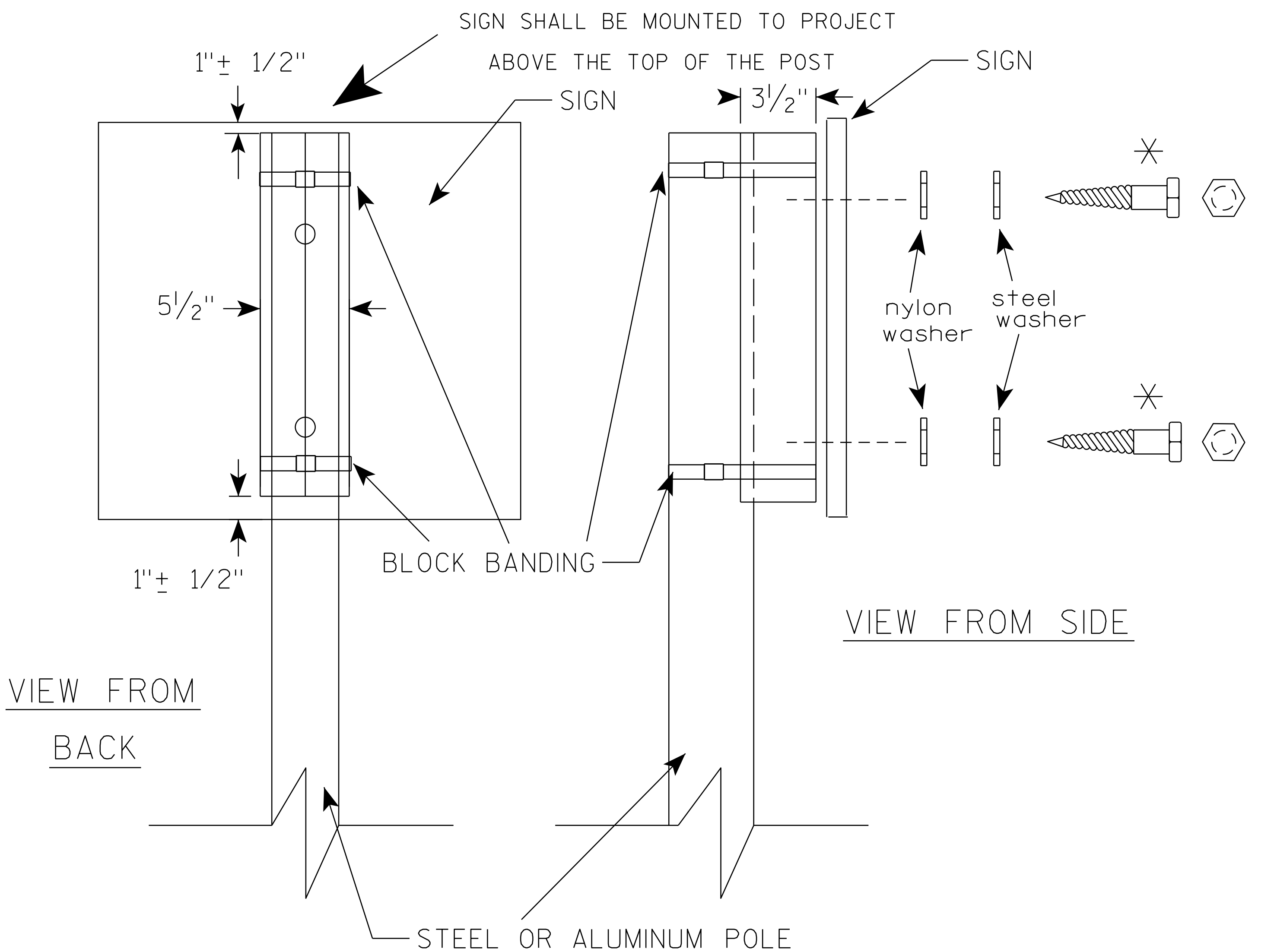


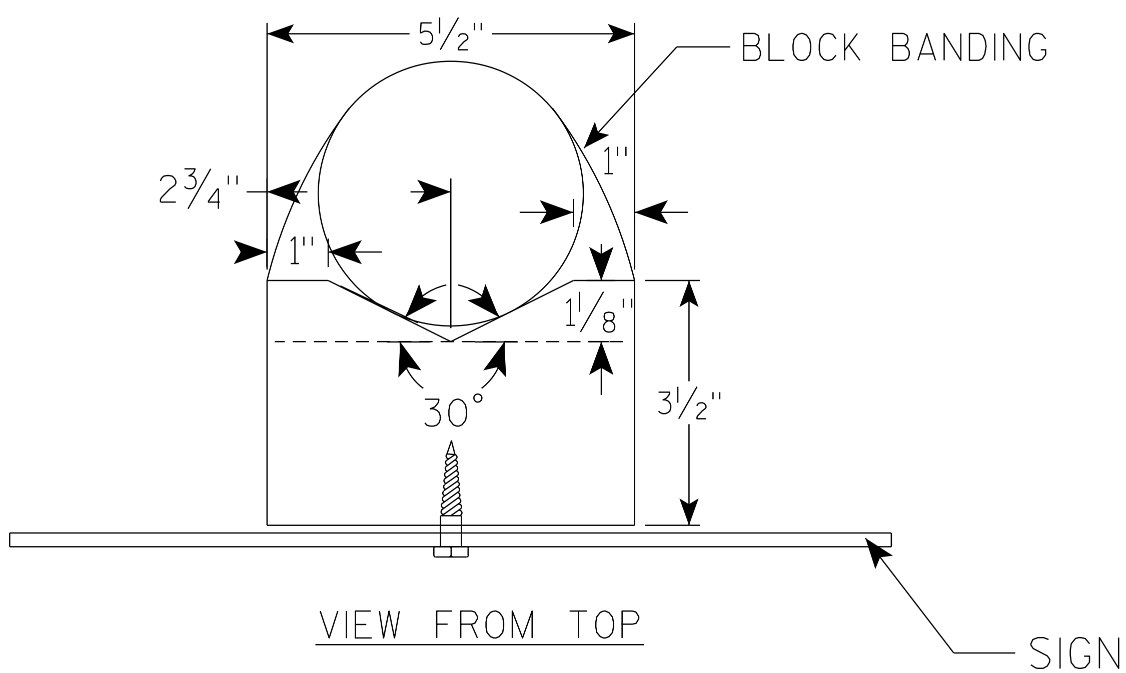


## GENERAL NOTES

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, 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 NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

* LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
( V-BLOCK OPTION )

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | SHEET NO: 151 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgn PLOT DATE : 19-APRIL 2022 11:55 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

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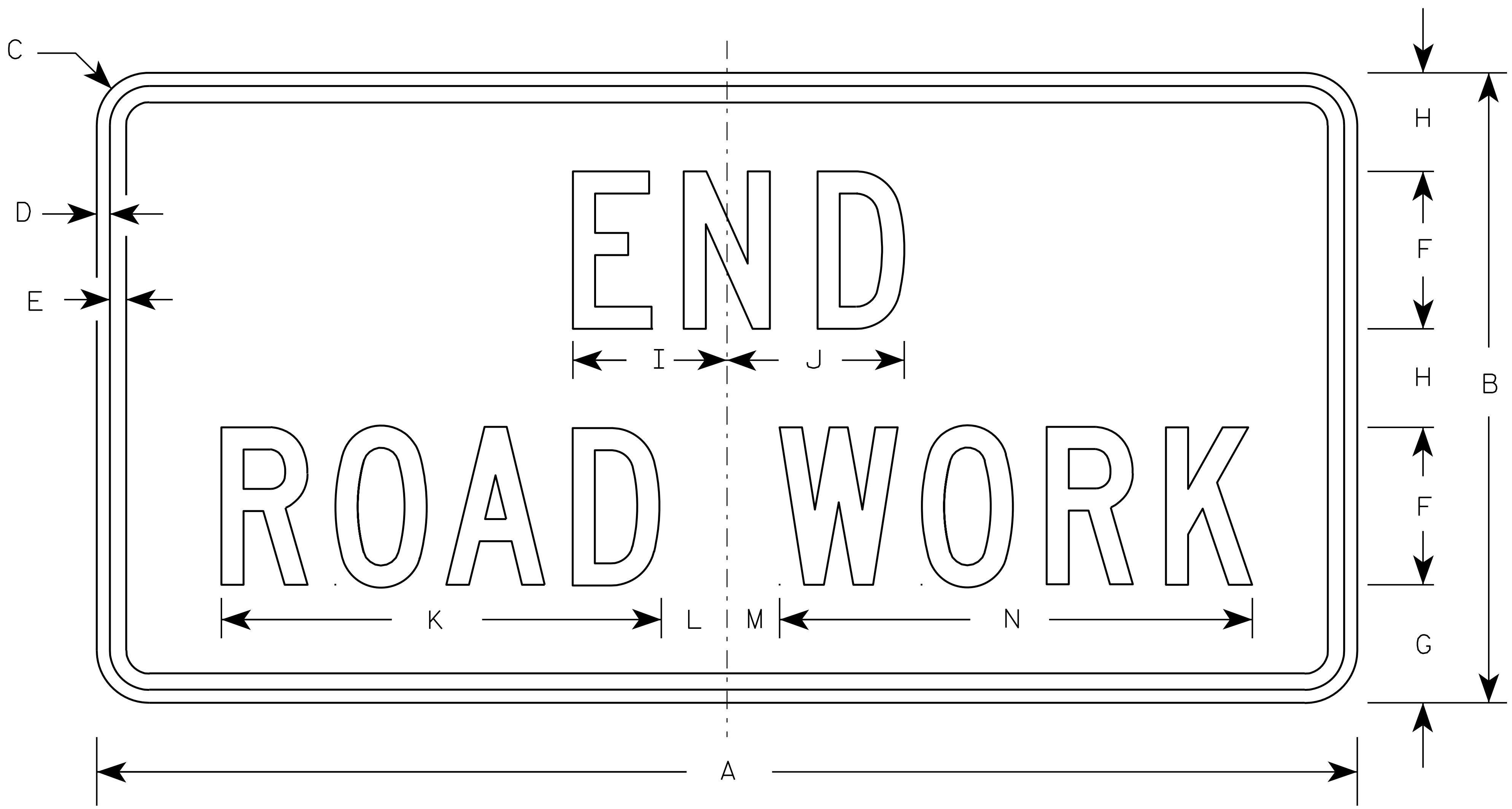



G20-2A

## NOTES

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

Metric equivalent for this sign is:

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. | Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 4 | 3 3/4 | 2 1/2 | 4 1/8 | 4 1/8 | 11 1/8 | 2 | 1 | 12 1/8 | | | | | | | | | | | | | 4.5 | 0.41 |
| 2 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 3 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 4 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |
| 5 | 48 | 24 | 1 1/2 | 1/2 | 5/8 | 6 | 4 1/2 | 3 3/4 | 5 7/8 | 6 3/4 | 16 3/4 | 2 1/2 | 1 3/4 | 18 1/2 | | | | | | | | | | | | | 8.0 | 0.72 |

STANDARD SIGN

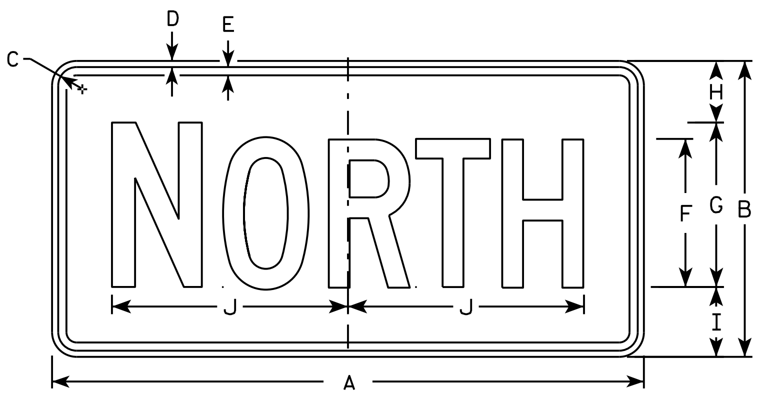
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

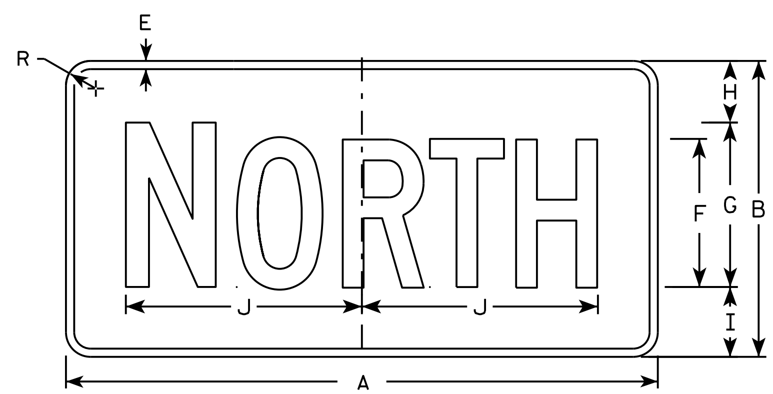
APPROVED Matthew R Rauch

for State Traffic Engineer

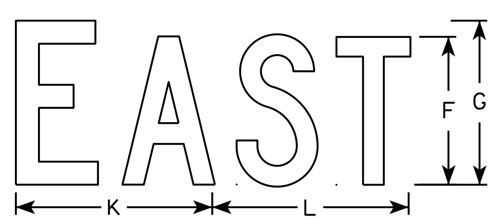
DATE 9/30/09 PLATE NO. G20-2A.8



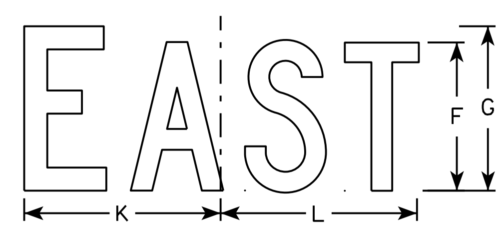

M3-1
MM3-1
MP3-1



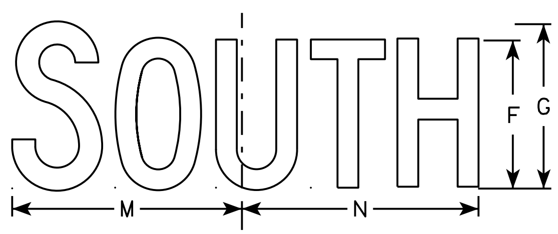

MB3-1
MK3-1
MN3-1



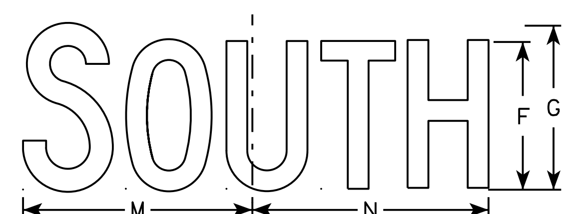

M3-2
MM3-2
MP3-2




MB3-2
MK3-2
MN3-2

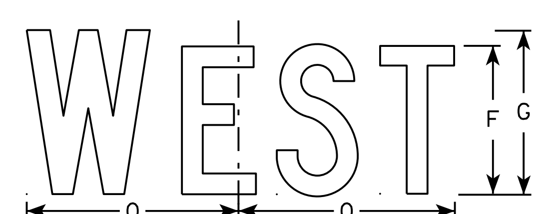



M3-3
MM3-3
MP3-3




MB3-3
MK3-3
MN3-3


M3-4
MM3-4
MP3-4




MB3-4
MK3-4
MN3-4

## NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 7 | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8 | 10 1/4 | 9 3/4 | 8 3/4 | | | 1 1/2 | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |

STANDARD SIGNS
M3-1 thur M3-4
SERIES

*WISCONSIN DEPT OF TRANSPORTATION*

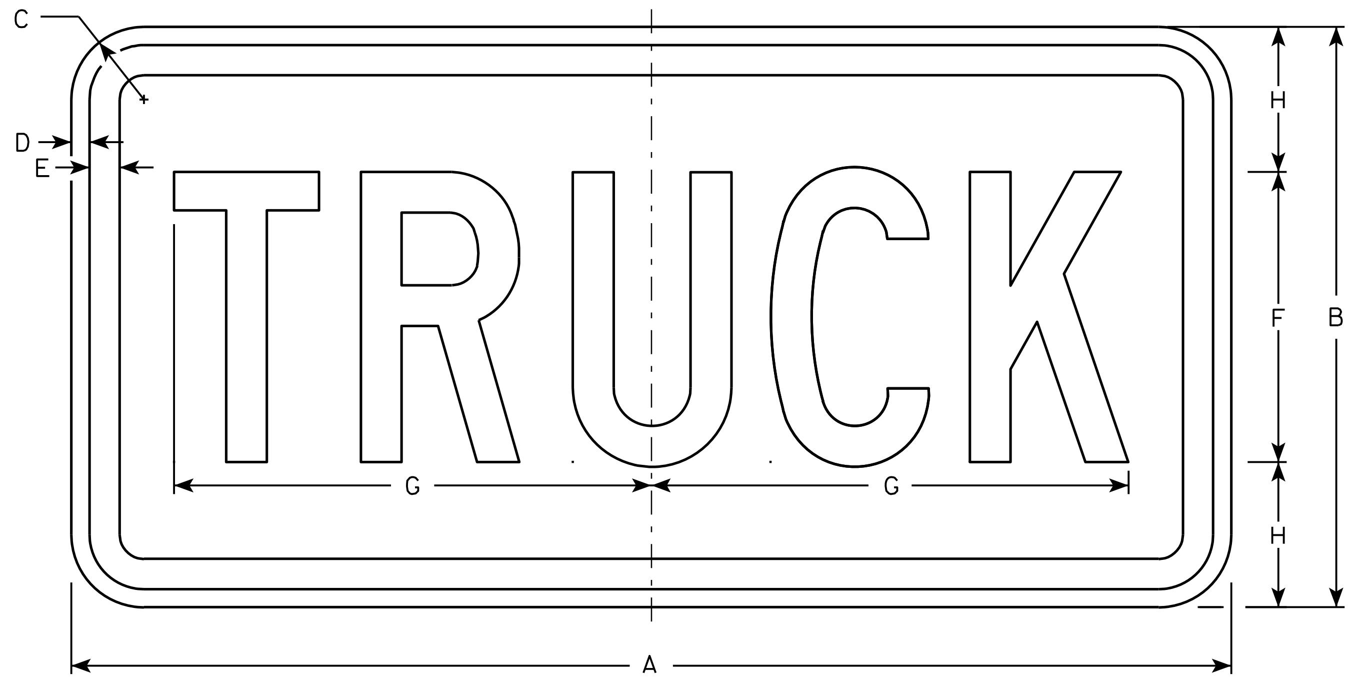
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

PROJECT NO: HWY: COUNTY: SHEET NO: E



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000




M4-4

## NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   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. Permanent Signs
   Background - Type H Reflective
   Temporary or other temporary Signs
   Background - Reflective

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

STANDARD SIGN
M4-4

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 154 | E

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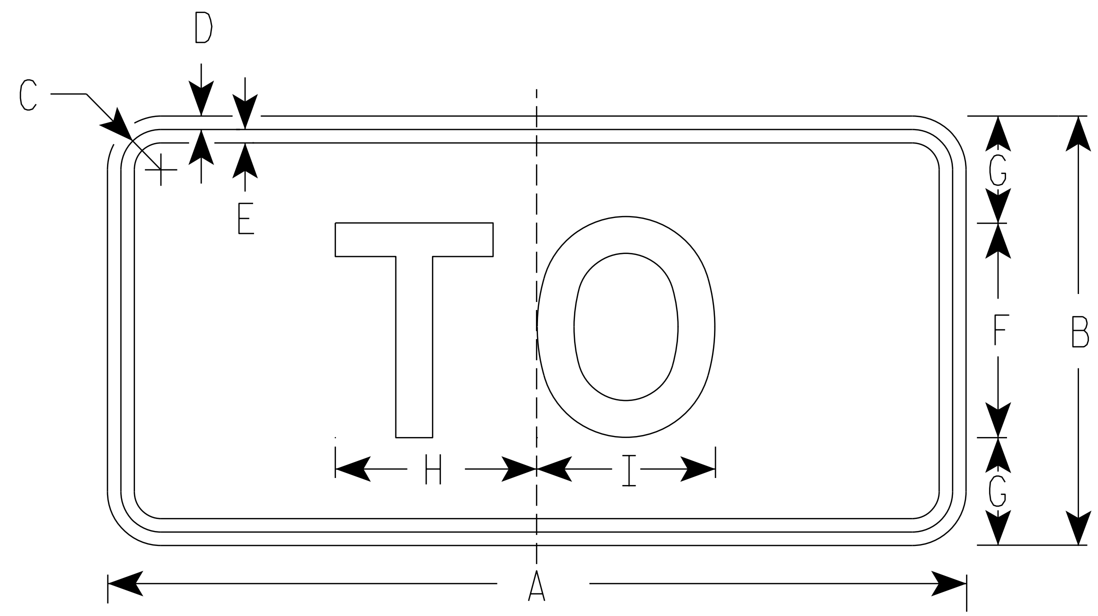
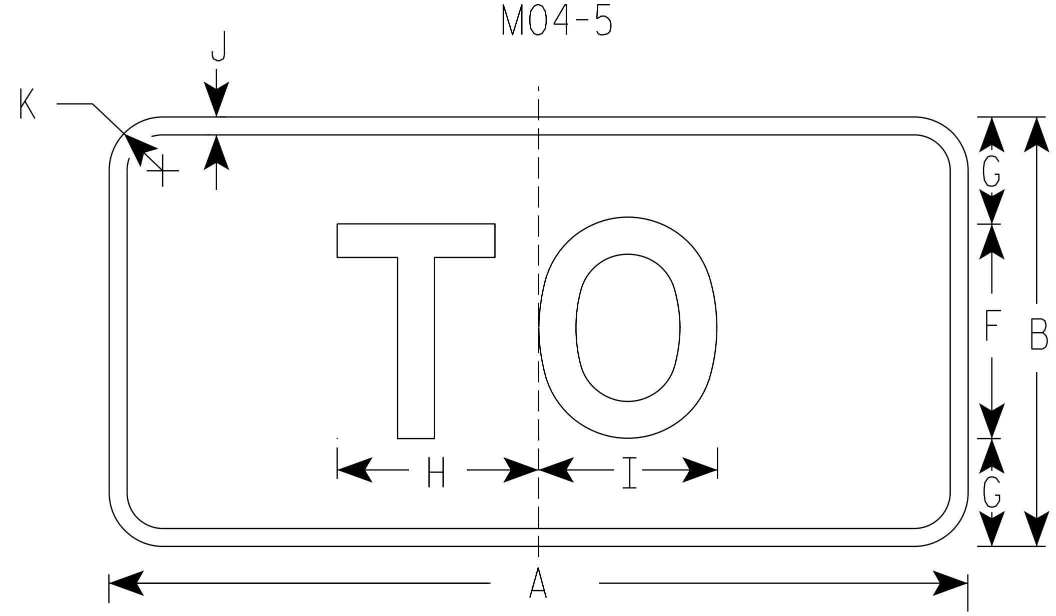



M4-5
MM4-5
MP4-5
MO4-5




MB4-5
MK4-5
MN4-5

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black
   MB4-5 Background - Blue
   Message - White
   MK4-5 Background - Green
   Message - White
   MM4-5 Background - White
   Message - Green
   MN4-5 Background - Brown
   Message - White
   MP4-5 Background - White
   Message - Blue
   MO4-5 Background - Orange Type F Reflective
   Message - Black

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3 | 5 3/8 | 5 1/4 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 3/8 | 3/8 | 1/2 | 9 | 4 1/2 | 8 1/4 | 8 3/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 3/8 | 3/8 | 1/2 | 9 | 4 1/2 | 8 1/4 | 8 3/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 3/8 | 3/8 | 1/2 | 9 | 4 1/2 | 8 1/4 | 8 3/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |

STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

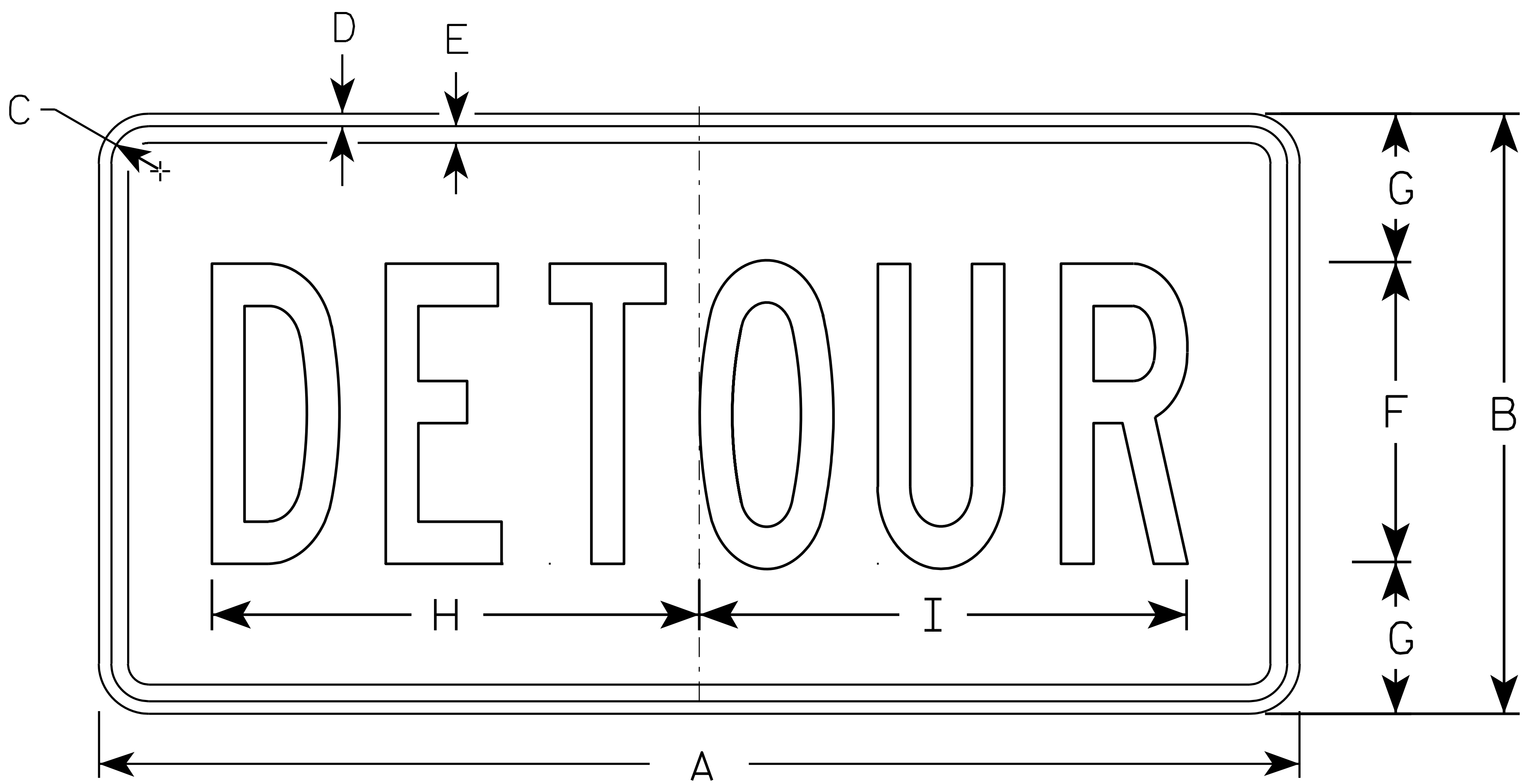
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 155 | E



7 7

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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.




M4-8

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3 | 10 | 10 1/4 | | | | | | | | | | | | | | | | | | 2.0 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 14 5/8 | 14 1/2 | | | | | | | | | | | | | | | | | | 4.5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

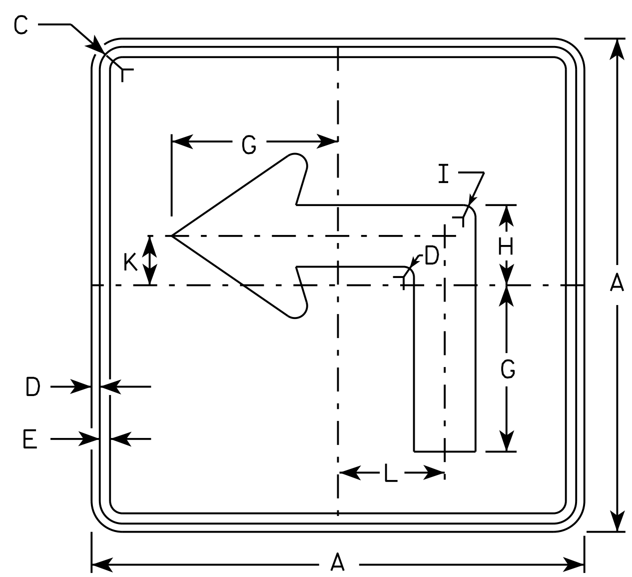
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

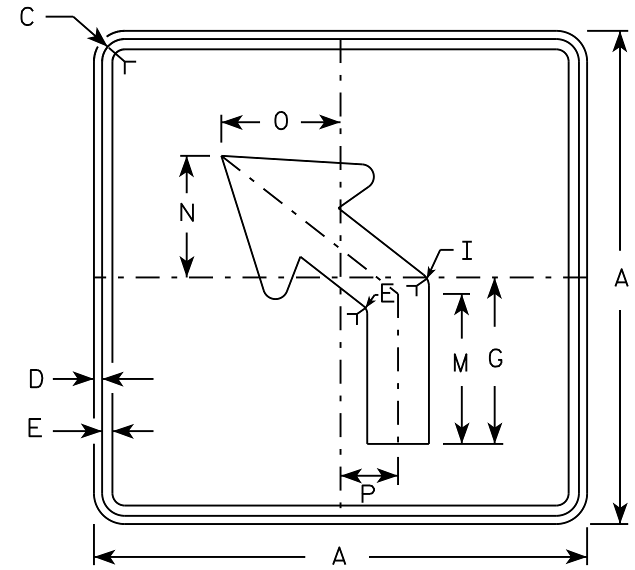
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 156 | E

7

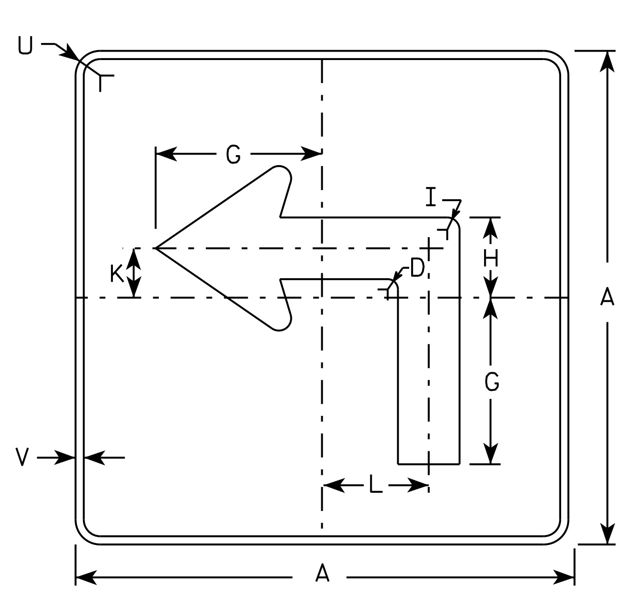
7



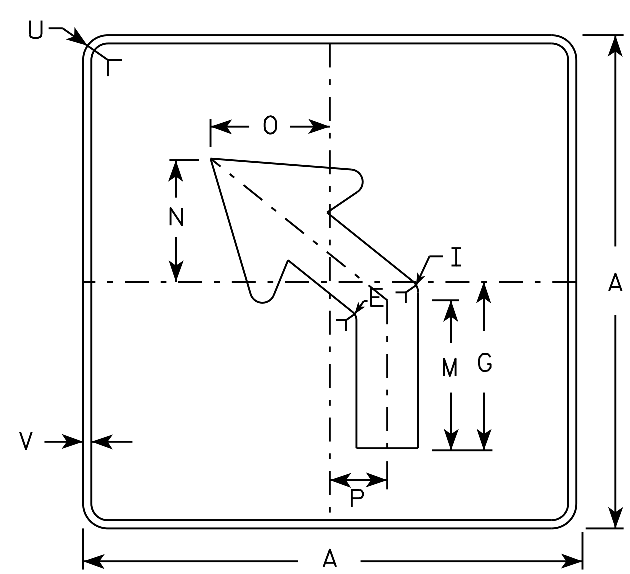

M5-1L
MM5-1L
MO5-1L
MP5-1L



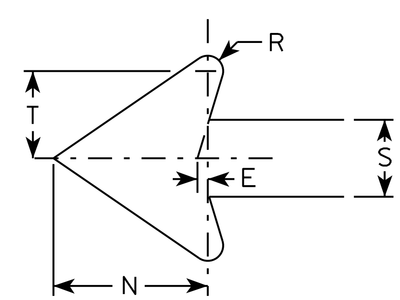

M5-2L
MM5-2L
MO5-2L
MP5-2L




MB5-1L
MK5-1L
MN5-1L
MR5-1L




MB5-2L
MK5-2L
MN5-2L
MR5-2L




## NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 | 3 3/8 | 5/8 | | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5 | 2 1/2 | | 1/2 | 2 5/8 | 3 | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M5-1 & M5-2

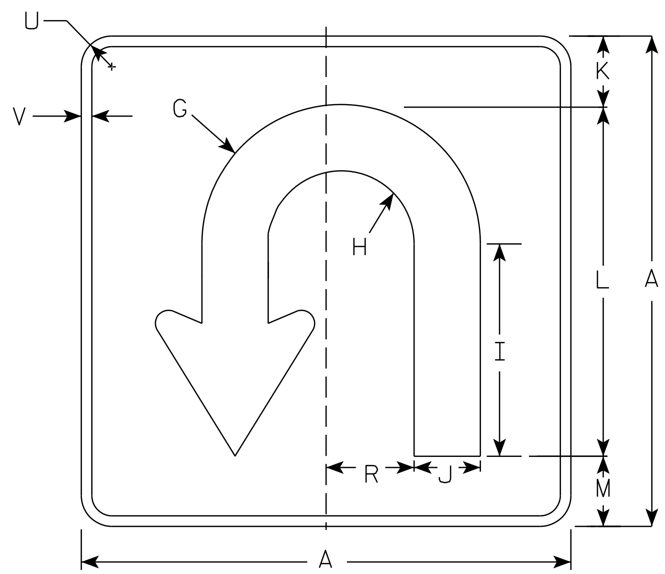
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

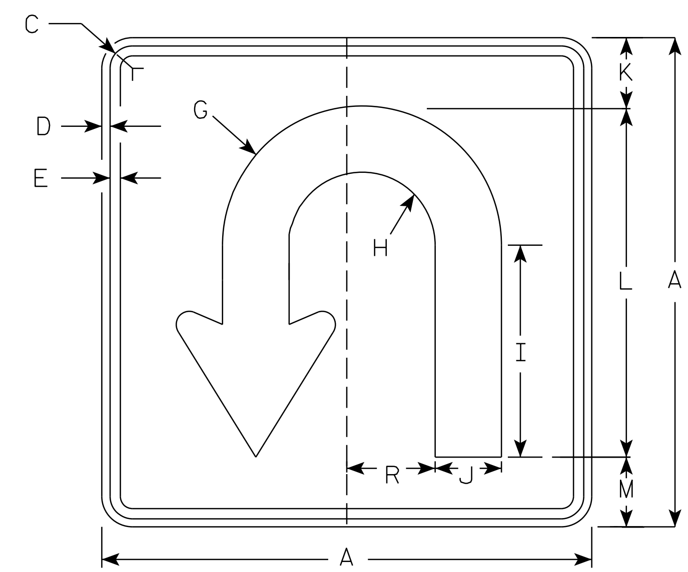
DATE 10/15/15 PLATE NO. M5-1.13

## NOTES

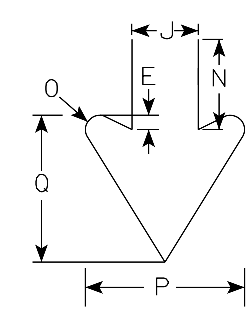
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See note 4
3. M5-52 Background - White
   Message - Black
   MB5-52 Background - Blue
   Message - White
   MK5-52 Background - Green
   Message - White
   MM5-52 Background - White
   Message - Green
   MN5-52 Background - Brown
   Message - White
   MO5-52 Background - Orange - Type F Reflective
   Message - Black
   MP5-52 Background - White
   Message - Blue
   MR5-52 Background - Brown
   Message - Yellow




M5-52




M5-52




Arrow Detail

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 6 | 3 1/8 | 9 1/8 | 2 7/8 | 3 | 15 | 3 | 3 7/8 | 5/8 | 6 7/8 | 6 3/4 | 3 3/4 | | | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 8 1/2 | 4 1/2 | 13 | 4 1/8 | 4 3/8 | 21 3/8 | 4 1/4 | 5 1/2 | 7/8 | 9 3/4 | 8 1/8 | 5 1/4 | | | 2 1/2 | 5/8 | | | | | 6.25 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
M5-52
SERIES

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

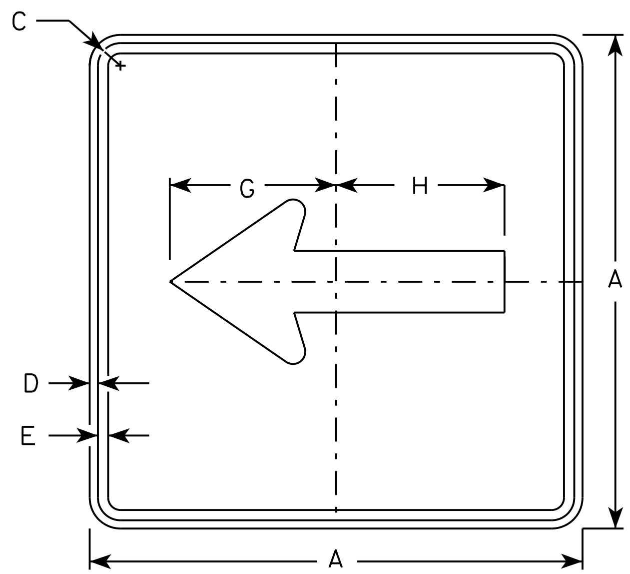
DATE 5/21/19 PLATE NO. M5-52.1

PROJECT NO: HWY: COUNTY: SHEET NO: 158 E

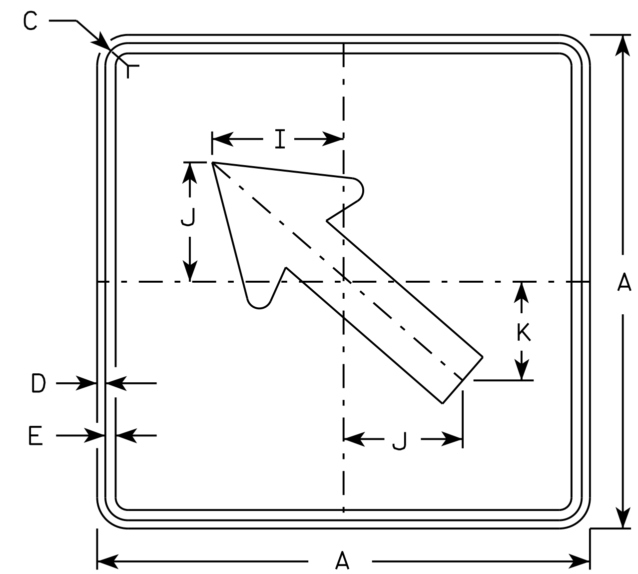


7

7




M6 - 1
MM6 - 1
MO6 - 1
MP6 - 1




M6 - 2
MM6 - 2
MO6 - 2
MP6 - 2

## NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White

   MK6-1 and MK6-2 Background - Green
   Message - White

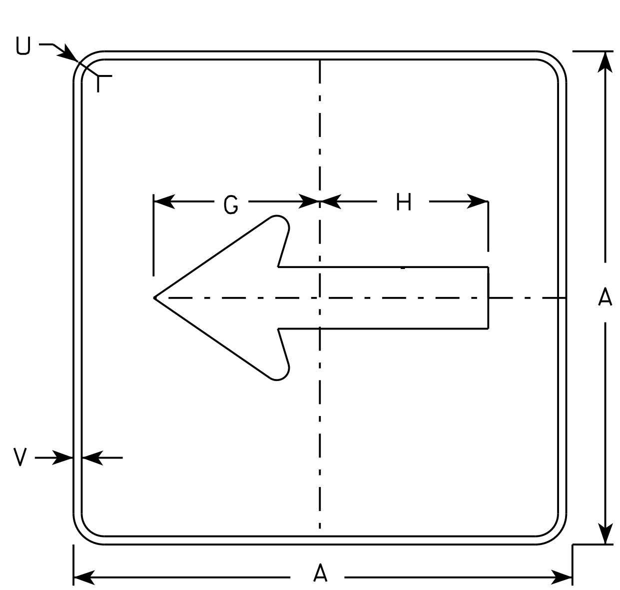
   MM6-1 and MM6-2 Background - White
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White

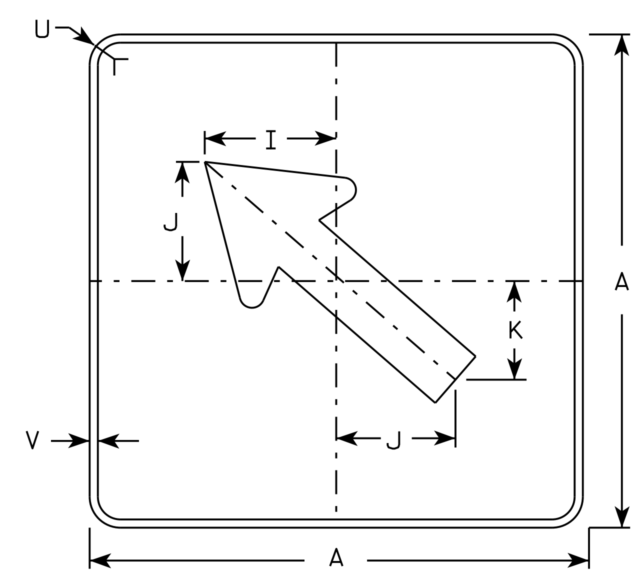
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White
   Message - Blue

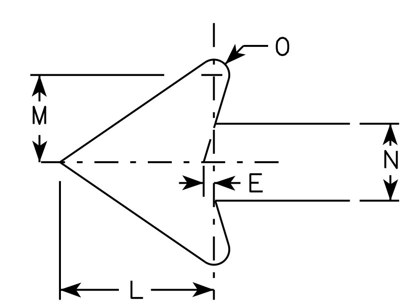
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow




MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1




MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 1/2 | 7 1/8 | 5 5/8 | 5 | 4 1/4 | 5 1/4 | 3 | 2 5/8 | 1/2 | | | | | | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

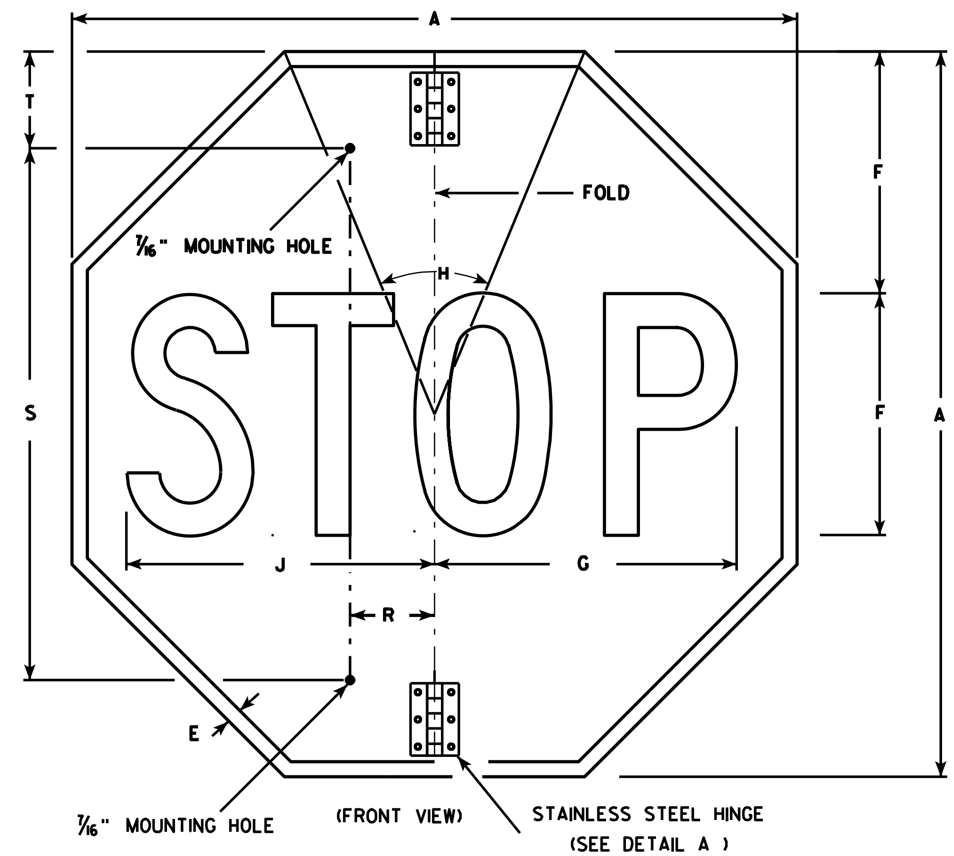
APPROVED Matthew R Rauch
for State Traffic Engineer

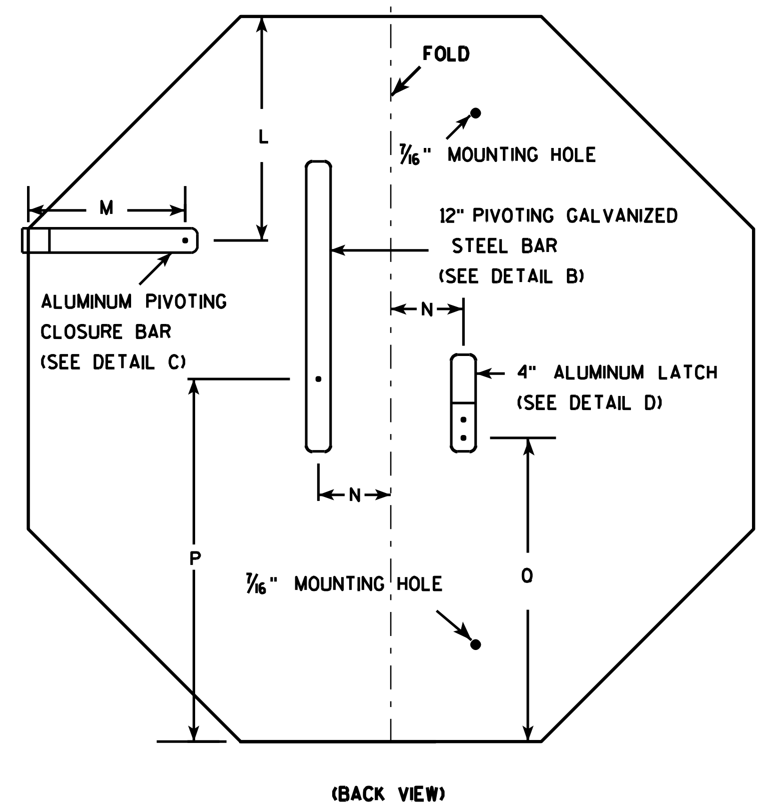
DATE 10/15/15 PLATE M6-1.15

PROJECT NO: HWY: COUNTY: SHEET NO: E



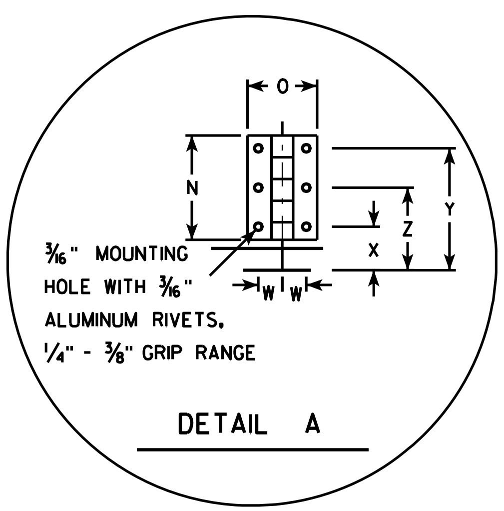
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000

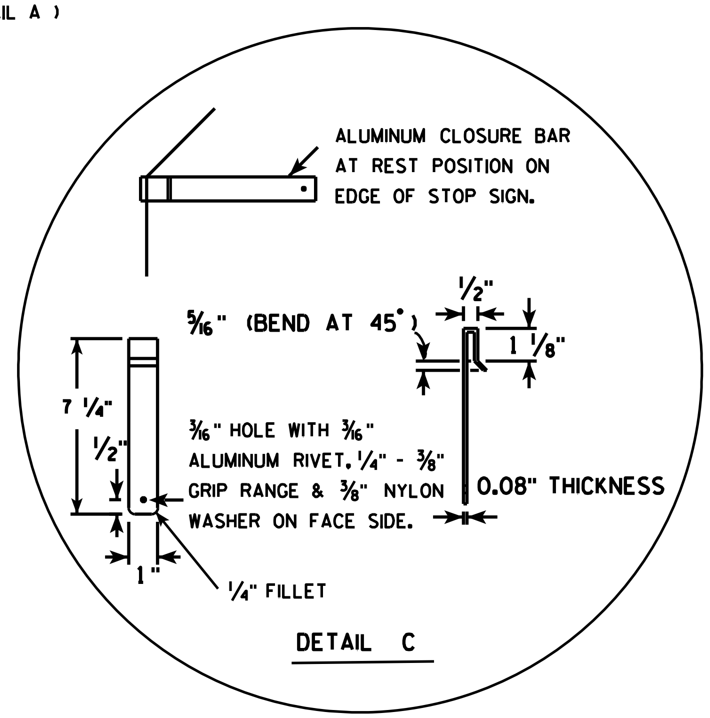


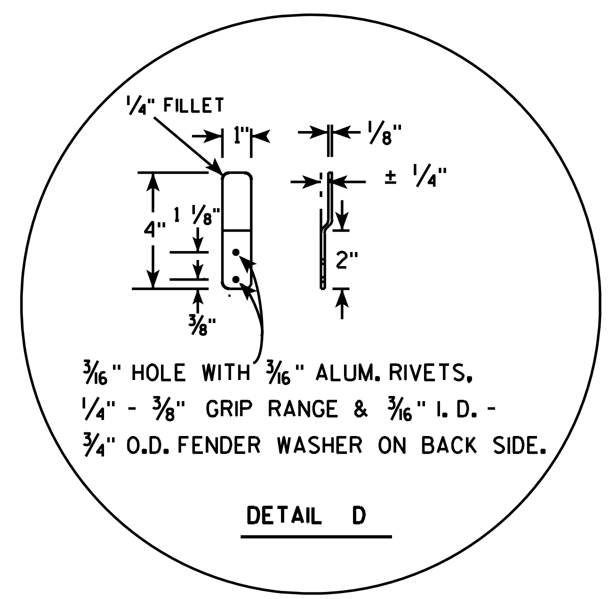



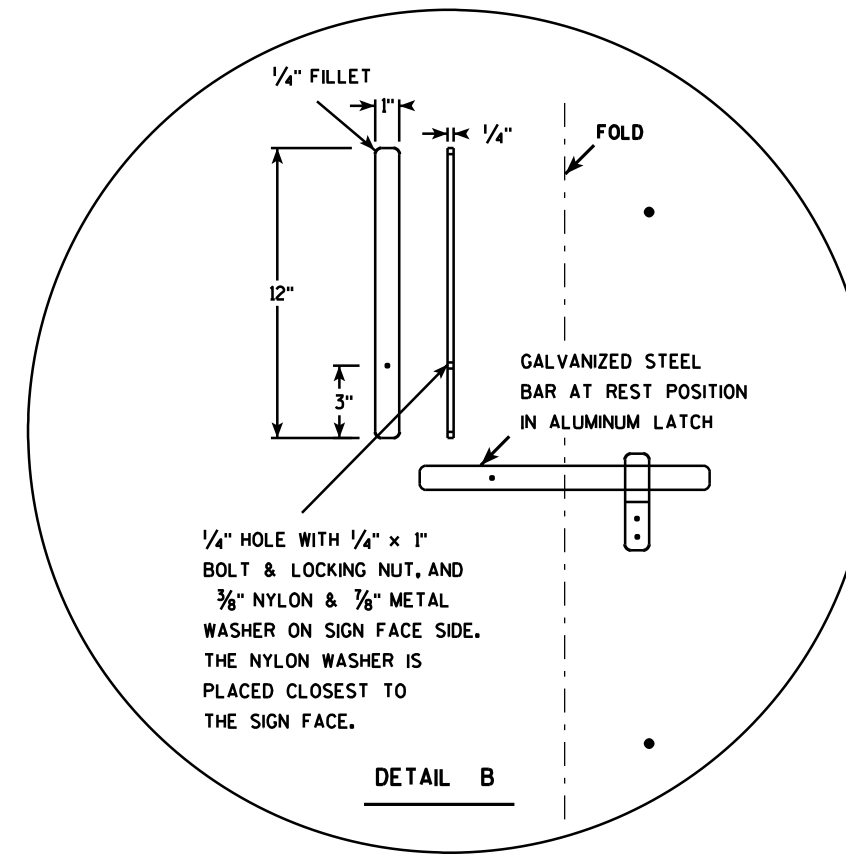

# NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. 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 | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | | | 5/8 | 10 | 12 1/2 | 45 | | 12 3/4 | | 9 1/4 | 6 1/2 | 3 | 2 | 15 | 12 3/8 | 2 1/2 | 22 | 5 | | | 11/16 | 1 1/4 | 3 1/2 | 2 3/8 | 5.18 |
| 2M | 36 | | | | 3/4 | 12 | 15 | 45 | | 15 3/8 | | 11 | 6 1/2 | 3 | 2 | 18 | 15 3/8 | 2 1/2 | 26 | 5 | | | 11/16 | 1 1/4 | 3 1/2 | 2 3/8 | 7.46 |
| 3 | 36 | | | | 3/4 | 12 | 15 | 45 | | 15 3/8 | | 11 | 6 1/2 | 3 | 2 | 18 | 15 3/8 | 2 1/2 | 26 | 5 | | | 11/16 | 1 1/4 | 3 1/2 | 2 3/8 | 7.46 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R1-1F

*WISCONSIN DEPT OF TRANSPORTATION*

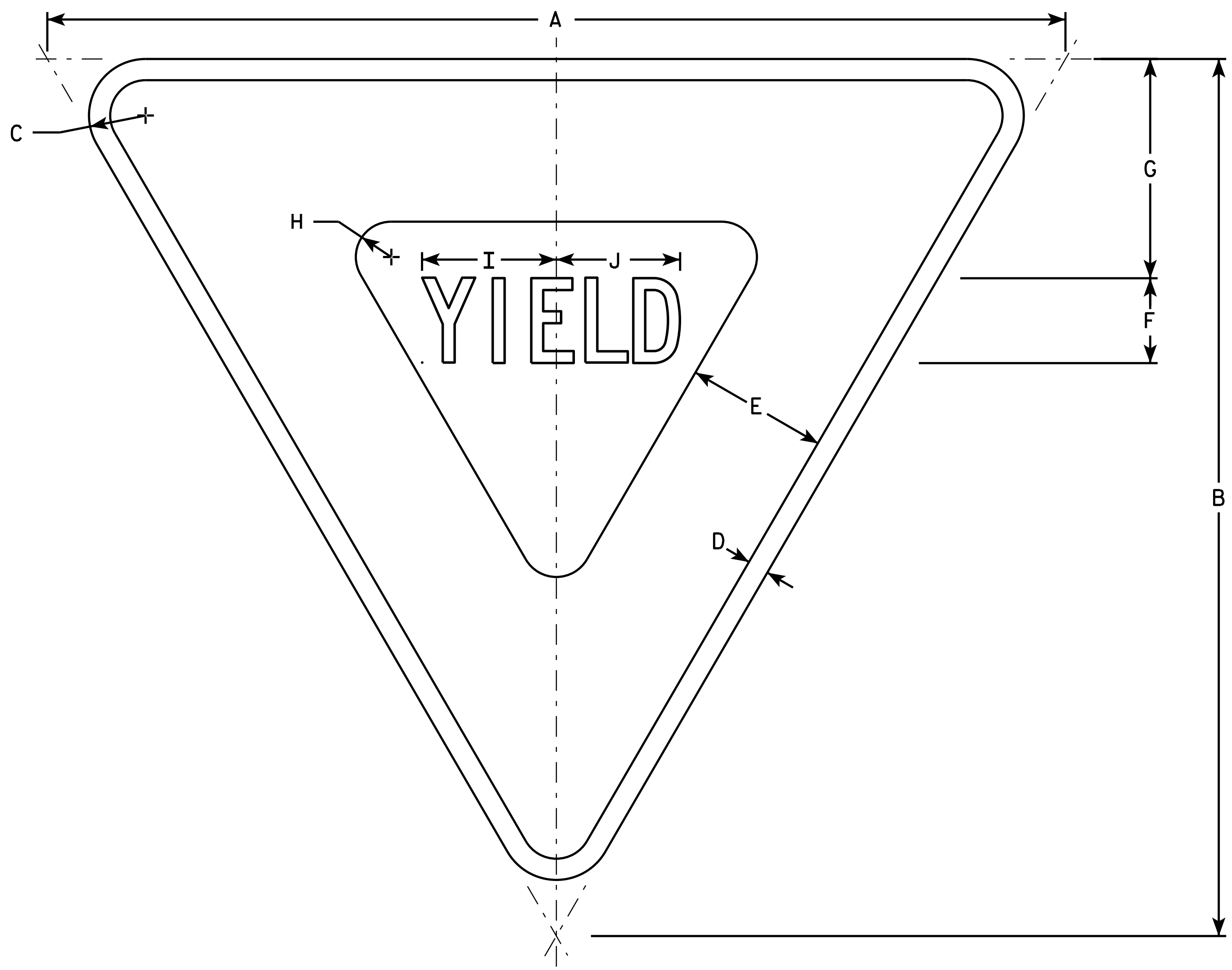
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 160 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11F.DGN PLOT DATE : 02-DEC-2010 15:26 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 7.945391:1.000000 WISDOT/CADDS SHEET 42




R1-2

## NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 26 | 1 1/2 | 5/8 | 4 | 2 1/2 | 6 3/8 | 7/8 | 4 | 3 5/8 | | | | | | | | | | | | | | | | | 2.71 |
| 2S | 36 | 31 | 2 | 3/4 | 5 | 3 | 7 3/4 | 1 1/4 | 4 3/4 | 4 3/8 | | | | | | | | | | | | | | | | | 3.88 |
| 2M | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 3 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 4 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 5 | 60 | 52 | 3 | 1 1/2 | 8 | 5 | 13 | 2 1/2 | 7 7/8 | 7 1/4 | | | | | | | | | | | | | | | | | 10.83 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 18 | 15 1/2 | 1 | 3/8 | 2 1/2 | 1 1/2 | 3 7/8 | 5/8 | 2 3/8 | 2 1/4 | | | | | | | | | | | | | | | | | 0.97 |

# STANDARD SIGN
# R1-2

*WISCONSIN DEPT OF TRANSPORTATION*

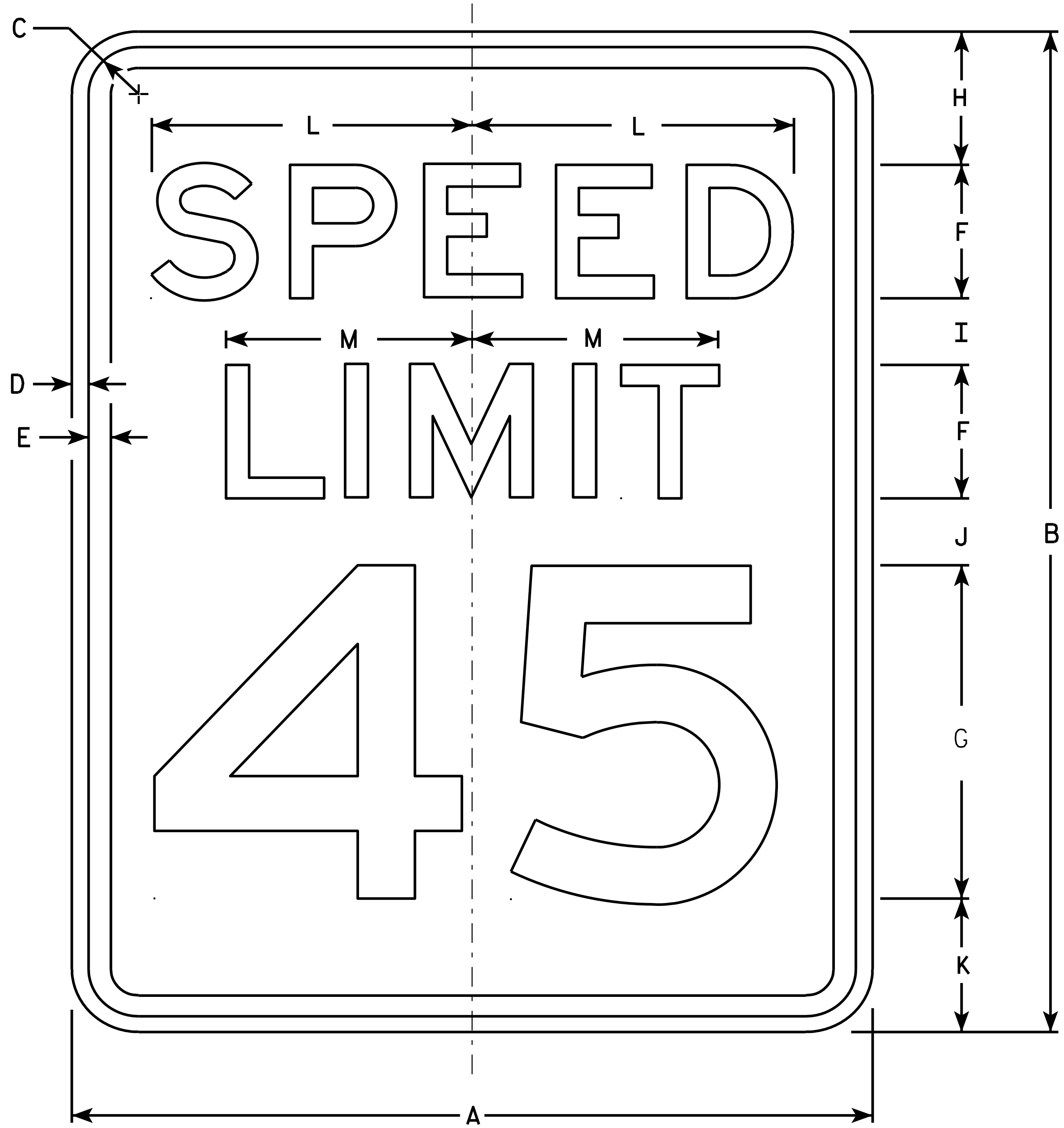
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE NO. R1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42




R2-1

## NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8 | 3 | 2 | 2 | 3 | 7 1/4 | 5 1/2 | | | | | | | | | | | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8 | 7 3/8 | | | | | | | | | | | | | | 5.0 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4 | 12 | 9 1/4 | | | | | | | | | | | | | | 7.5 |
| 3 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 4 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 | | | | | | | | | | | | | | 20.0 |

STANDARD SIGN
R2-1

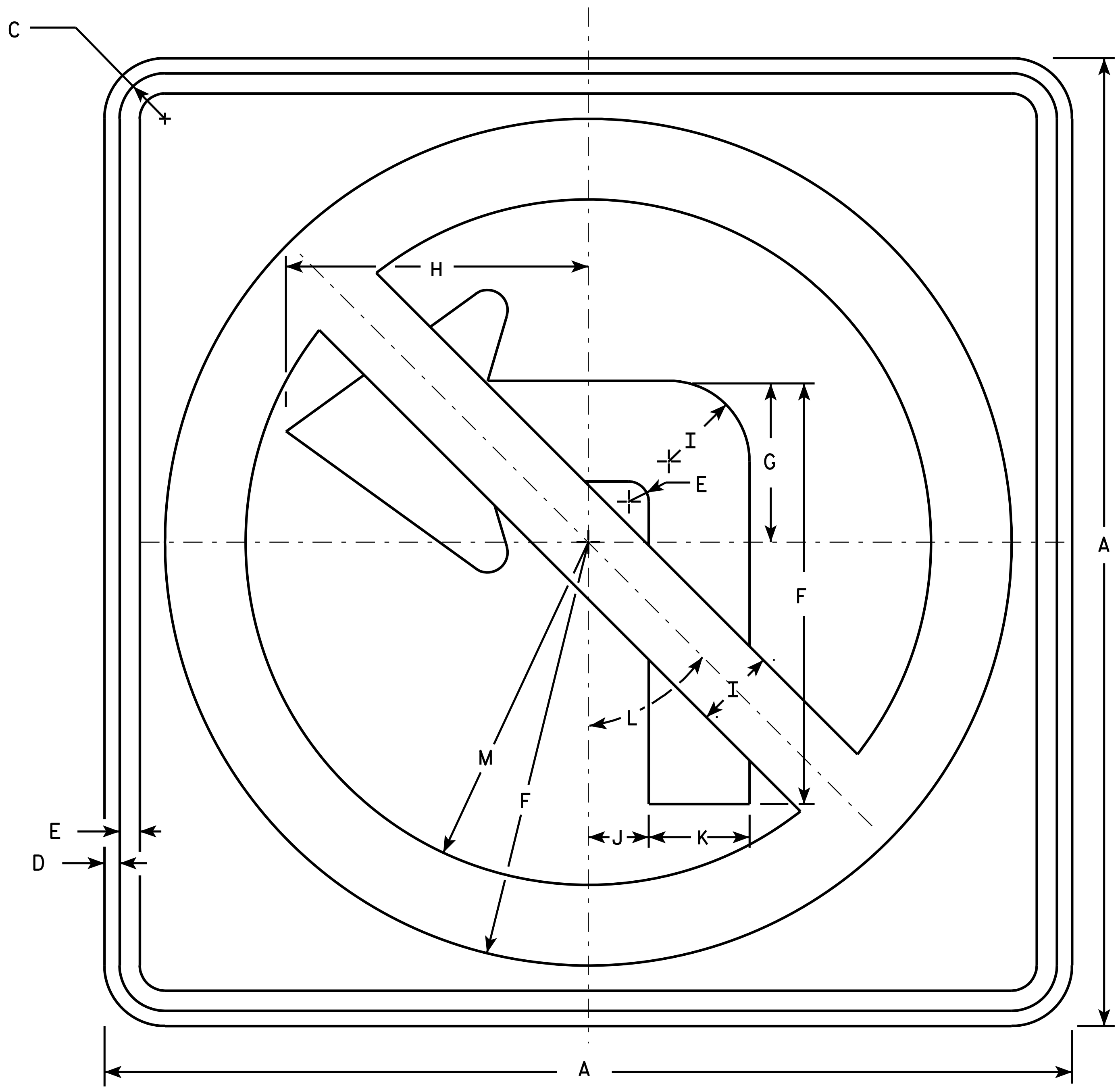
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

7 7

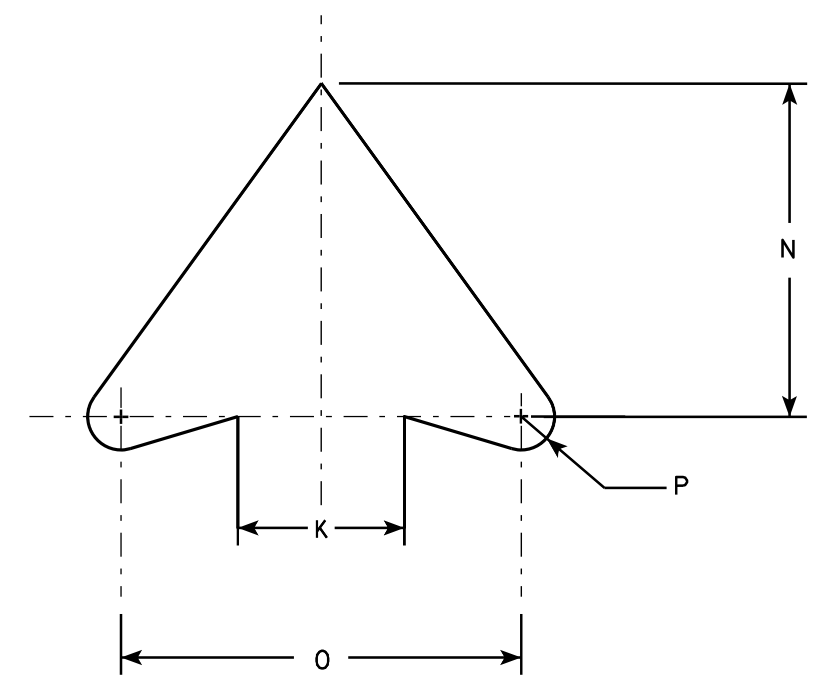
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 162 | E




R3-2

## NOTES

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




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2 | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2 | 5 | 6 | 1/2 | | | | | | | | | | | 4.0 |
| 2S | 24 | | 1 1/8 | 3/8 | 1/2 | 10 1/2 | 4 | 7 1/2 | 2 | 1 1/2 | 2 1/2 | 45° | 8 1/2 | 5 | 6 | 1/2 | | | | | | | | | | | 4.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 15 3/4 | 6 | 11 1/4 | 3 | 2 1/4 | 3 3/4 | 45° | 12 3/4 | 7 1/2 | 9 | 3/4 | | | | | | | | | | | 9.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 21 | 8 | 15 | 4 | 3 | 5 | 45° | 17 | 10 | 12 | 1 | | | | | | | | | | | 16.0 |

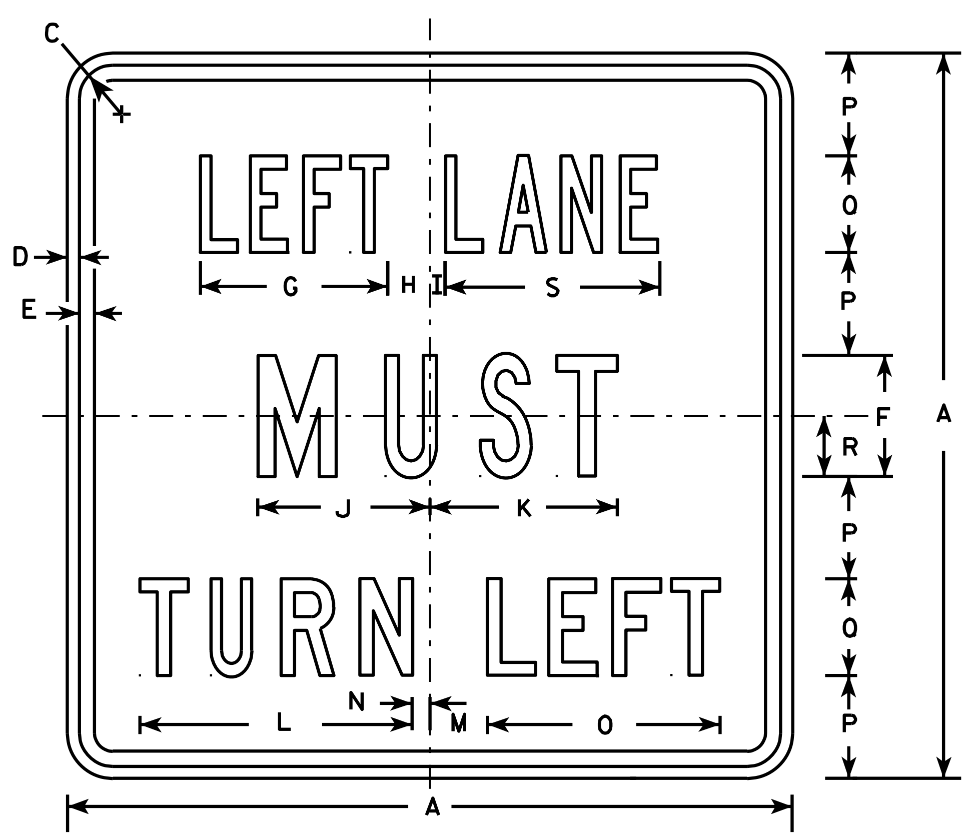
STANDARD SIGN
R3-2

*WISCONSIN DEPT OF TRANSPORTATION*

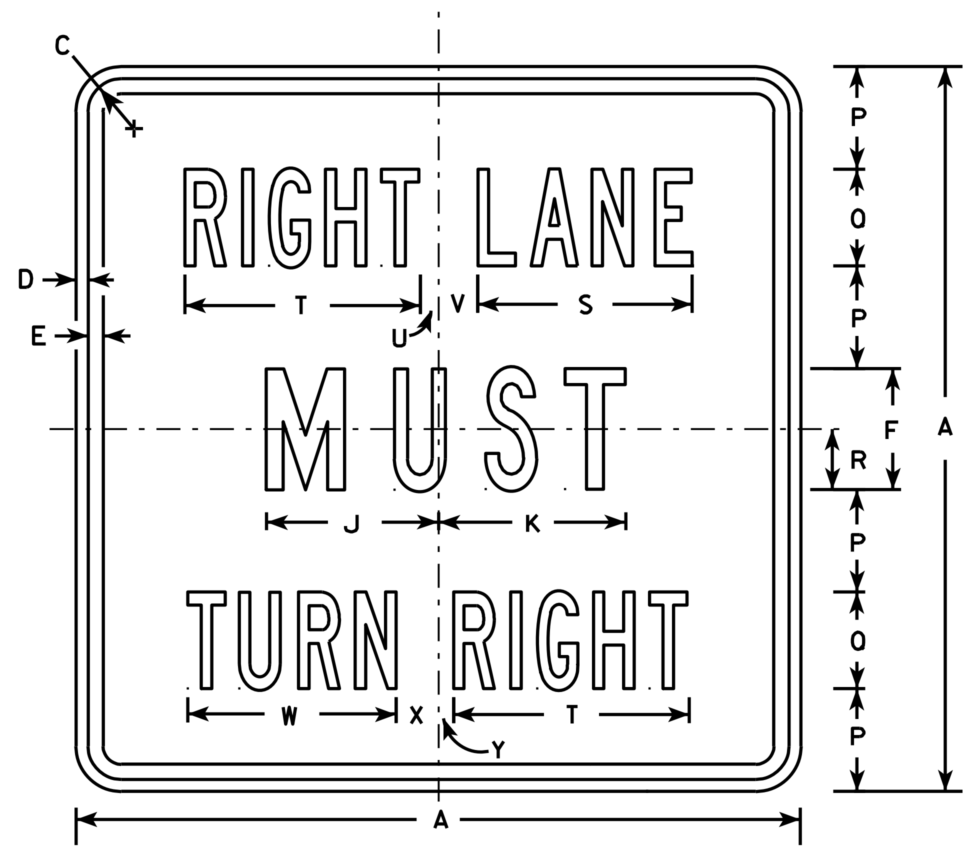
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 163 | E




R3-7L




R3-7R

## NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 7 3/4 | 1 3/4 | 5/8 | 7 1/8 | 7 3/4 | 11 1/4 | 2 3/8 | 3/4 | 9 5/8 | 4 1/4 | 4 | 2 1/2 | 8 7/8 | 9 3/4 | 3/4 | 1 5/8 | 8 5/8 | 1 5/8 | 5/8 | | 6.25 |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 7 3/4 | 1 3/4 | 5/8 | 7 1/8 | 7 3/4 | 11 1/4 | 2 3/8 | 3/4 | 9 5/8 | 4 1/4 | 4 | 2 1/2 | 8 7/8 | 9 3/4 | 3/4 | 1 5/8 | 8 5/8 | 1 5/8 | 5/8 | | 6.25 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 7 3/4 | 1 3/4 | 5/8 | 7 1/8 | 7 3/4 | 11 1/4 | 2 3/8 | 3/4 | 9 5/8 | 4 1/4 | 4 | 2 1/2 | 8 7/8 | 9 3/4 | 3/4 | 1 5/8 | 8 5/8 | 1 5/8 | 5/8 | | 6.25 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 9 5/8 | 2 | 1 1/8 | 8 3/4 | 9 | 13 1/2 | 3 7/8 | 1 1/2 | 12 1/2 | 5 | 5 | 3 | 10 5/8 | 12 | 7/8 | 2 1/4 | 10 5/8 | 2 1/8 | 1 | | 9.00 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 13 1/2 | 2 3/8 | 1 1/2 | 11 1/2 | 11 7/8 | 17 3/4 | 3 5/8 | 2 1/2 | 16 3/8 | 6 1/2 | 7 | 4 | 14 3/8 | 16 7/8 | 5/8 | 3 1/4 | 15 1/8 | 2 3/4 | 1 1/8 | | 16.00 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

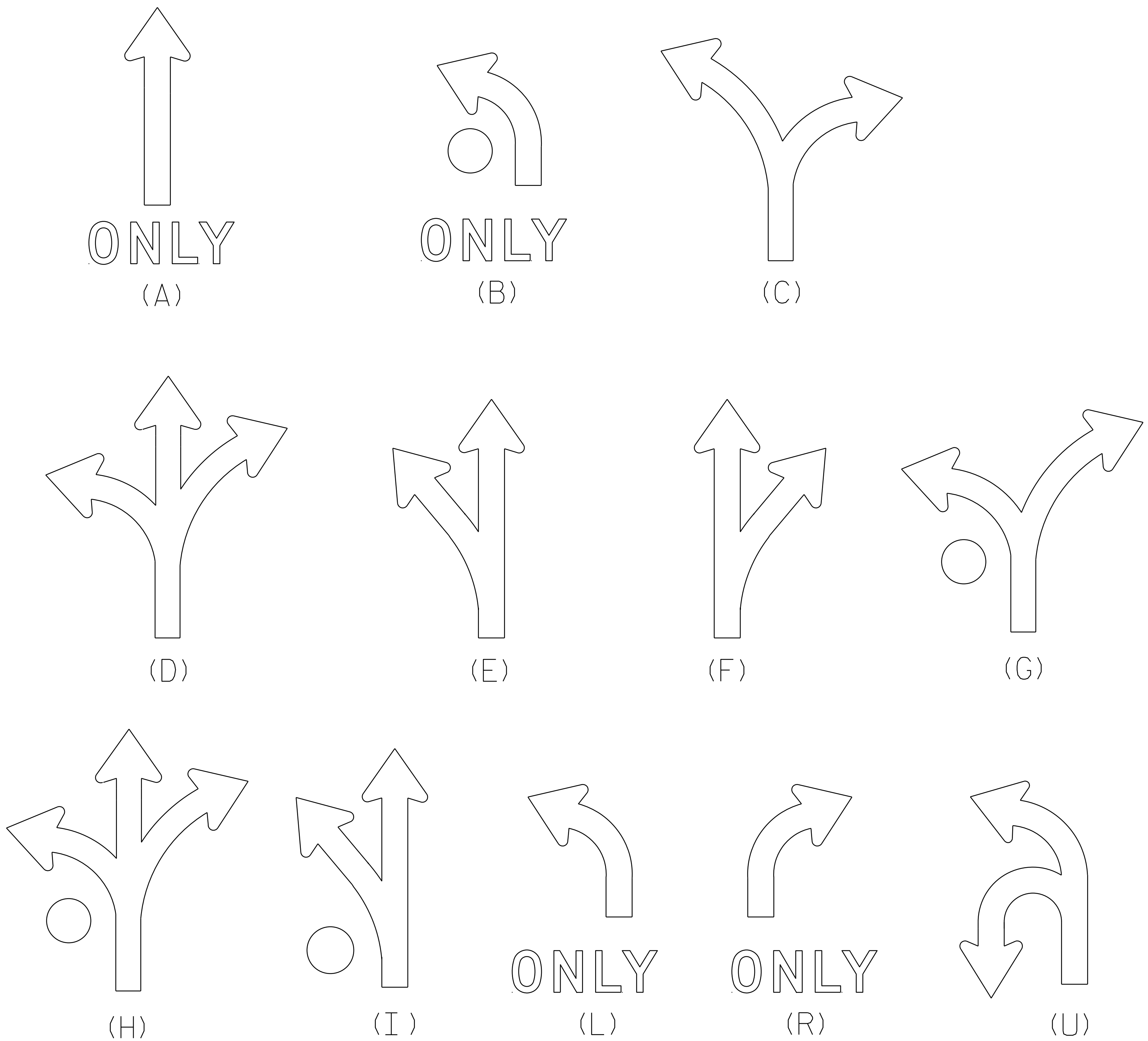
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 | E




NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

| | |
|---|---|
| 1 Letter = | 3.75 sq ft for Size 2 |
| | 6.0 sq ft for Size 3 |
| | 10.0 sq ft for Size 4 or 5 |
| 2 Letters = | 7.5 sq ft for Size 2 |
| | 12.0 sq ft for Size 3 |
| | 20.0 sq ft for Size 4 or 5 |
| 3 Letters = | 11.25 sq ft for Size 2 |
| | 18.0 sq ft for Size 3 |
| | 30.0 sq ft for Size 4 or 5 |
| 4 Letters = | 15.0 sq ft for Size 2 |
| | 24.0 sq ft for Size 3 |
| | 40.0 sq ft for Size 4 or 5 |
| 5 Letters = | 18.75 sq ft for Size 2 |
| | 30.0 sq ft for Size 3 |
| | 50.0 sq ft for Size 4 or 5 |
| 6 Letters = | 22.5 sq ft for Size 2 |
| | 36.0 sq ft for Size 3 |
| | 60.0 sq ft for Size 4 or 5 |

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes. Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

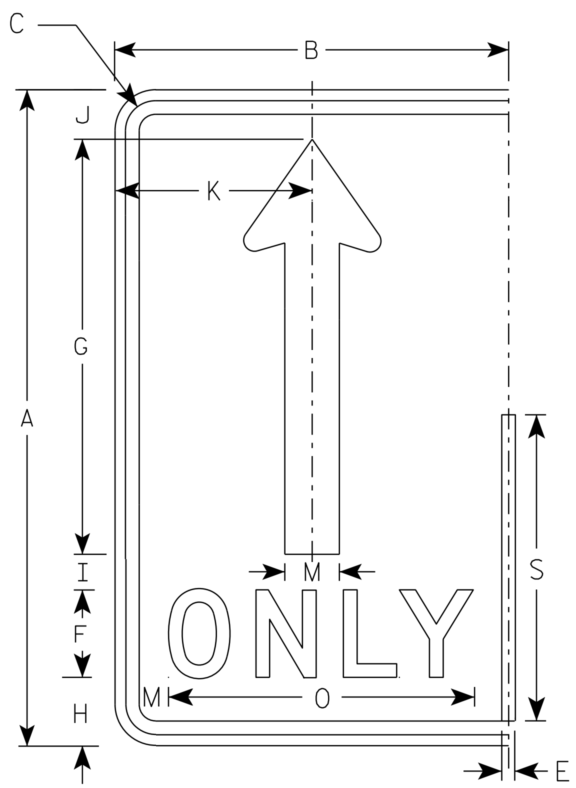
DATE 5/21/19 PLATE NO. R3-8.1

7

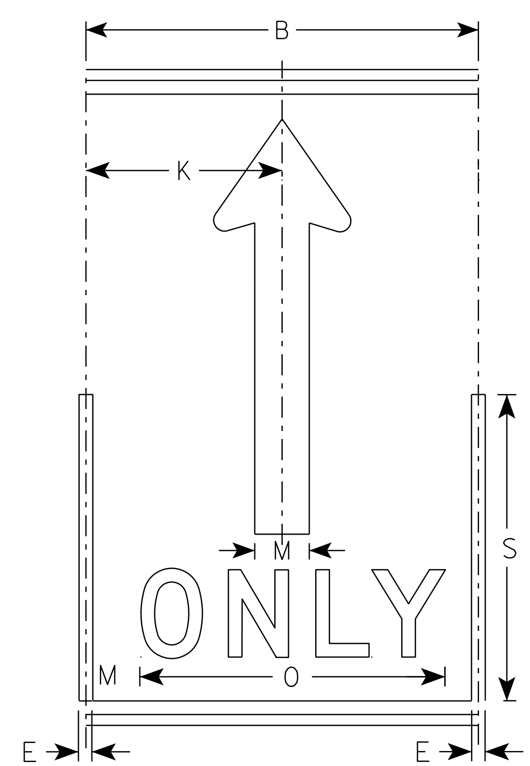
7

## NOTES

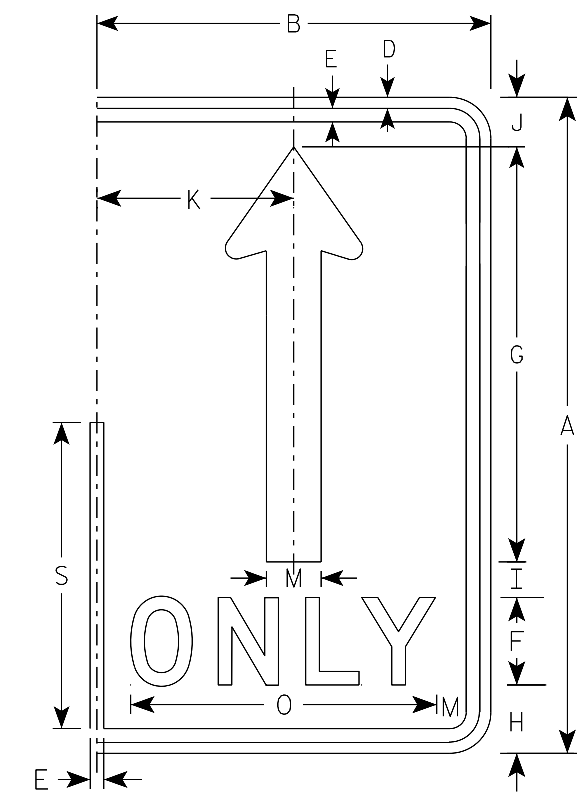
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



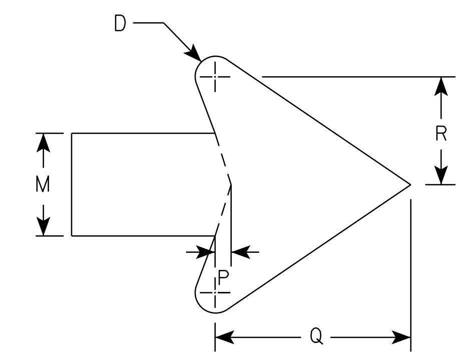

(A)




(A)




(A)



ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 19 | 3 1/8 | 1 5/8 | 2 1/4 | 9 | | 2 1/2 | | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 19 | 3 1/8 | 1 5/8 | 2 1/4 | 9 | | 2 1/2 | | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 22 3/4 | 3 3/4 | 1 3/4 | 2 3/4 | 12 | | 3 | | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 30 3/8 | 5 1/8 | 2 7/8 | 3 5/8 | 15 | | 4 | | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 30 3/8 | 5 1/8 | 2 7/8 | 3 5/8 | 15 | | 4 | | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (A) Arrow

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

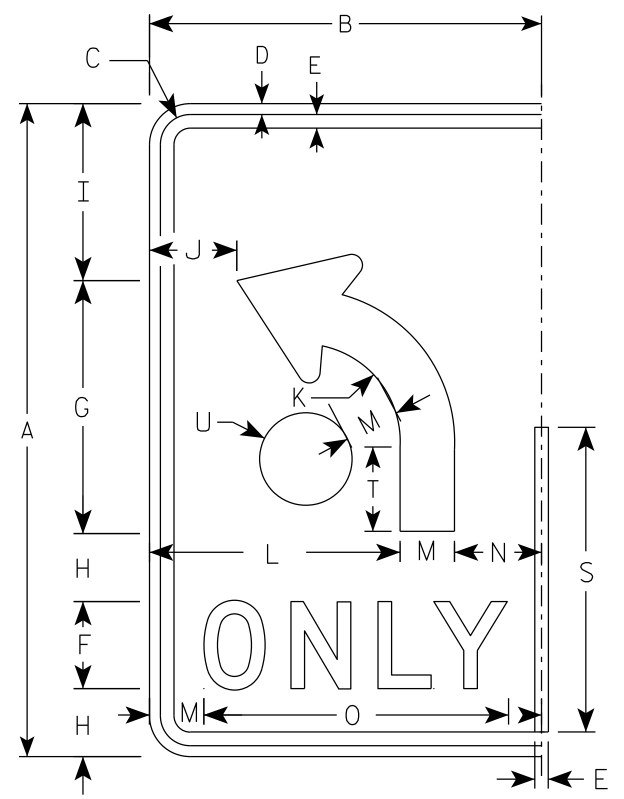
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 166 | E

7

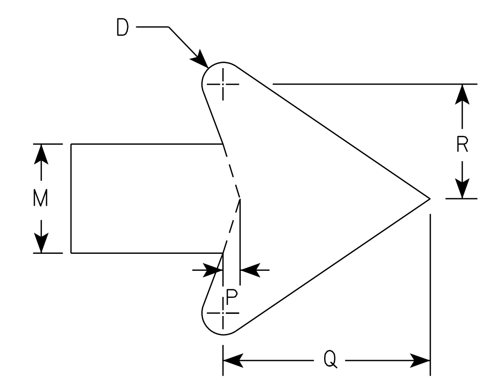
7

## NOTES

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




(B)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | 2 1/8 | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | 2 1/8 | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 14 | 3 1/2 | 9 3/4 | 6 | 5 3/8 | 15 | 3 | 6 | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 4 5/8 | 2 1/2 | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | 3 3/8 | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | 3 3/8 | | | | | | 10.0 |

STANDARD SIGN
R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

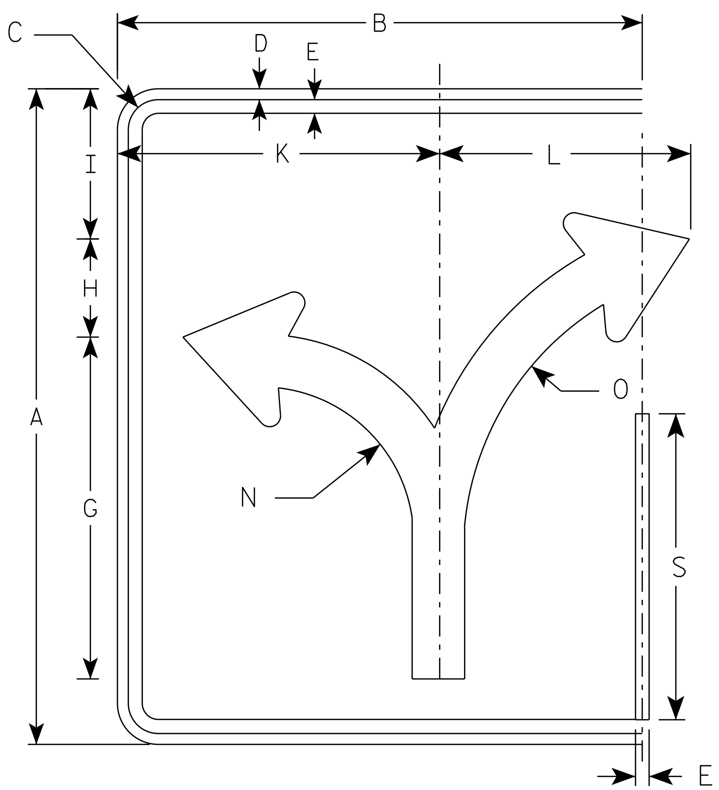
SHEET NO: 167 E

7

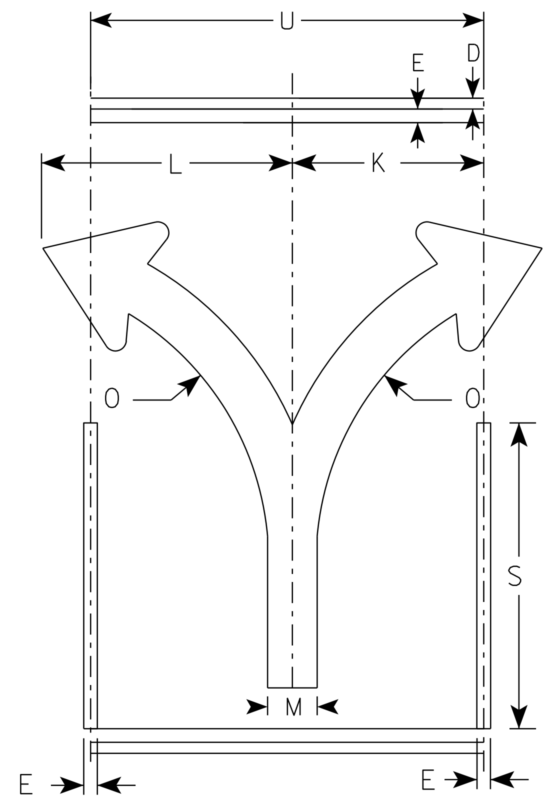
7

## NOTES

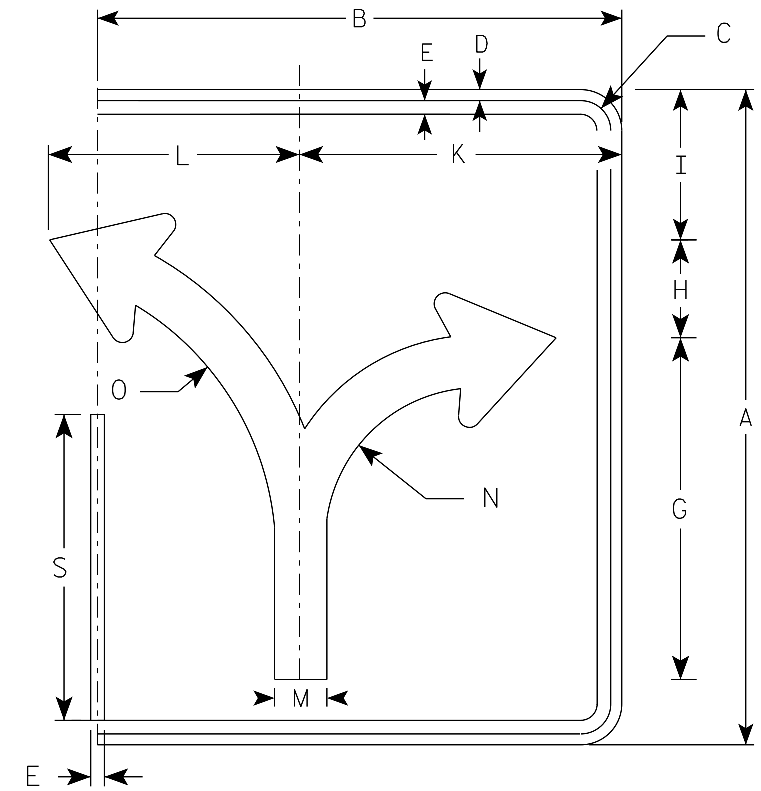
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



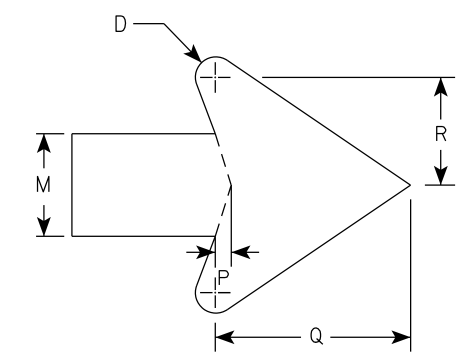

(C)




(C)




(C)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | ENDS Area sq. ft. | MIDDLE Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 8 1/4 | | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 24 | | | | | | 7.5 | 6.0 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |

STANDARD SIGN
R3-8 (C) Arrow

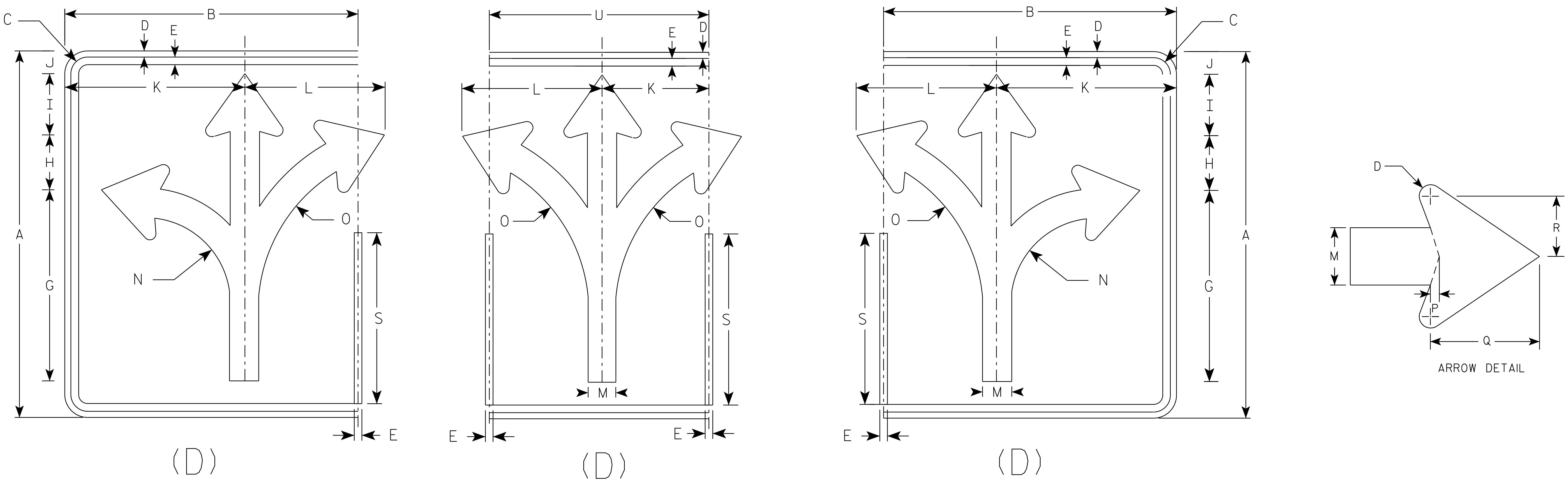
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | ENDS Area sq. ft. | MIDDLE Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 18 | | | | | | 5.0 | 3.75 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 6 | 2 1/4 | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 24 | | | | | | 7.5 | 6.0 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 30 | | | | | | 12.0 | 10.0 |

STANDARD SIGN
R3-8 (D) Arrow

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: HWY: COUNTY:

SHEET NO: 169 E

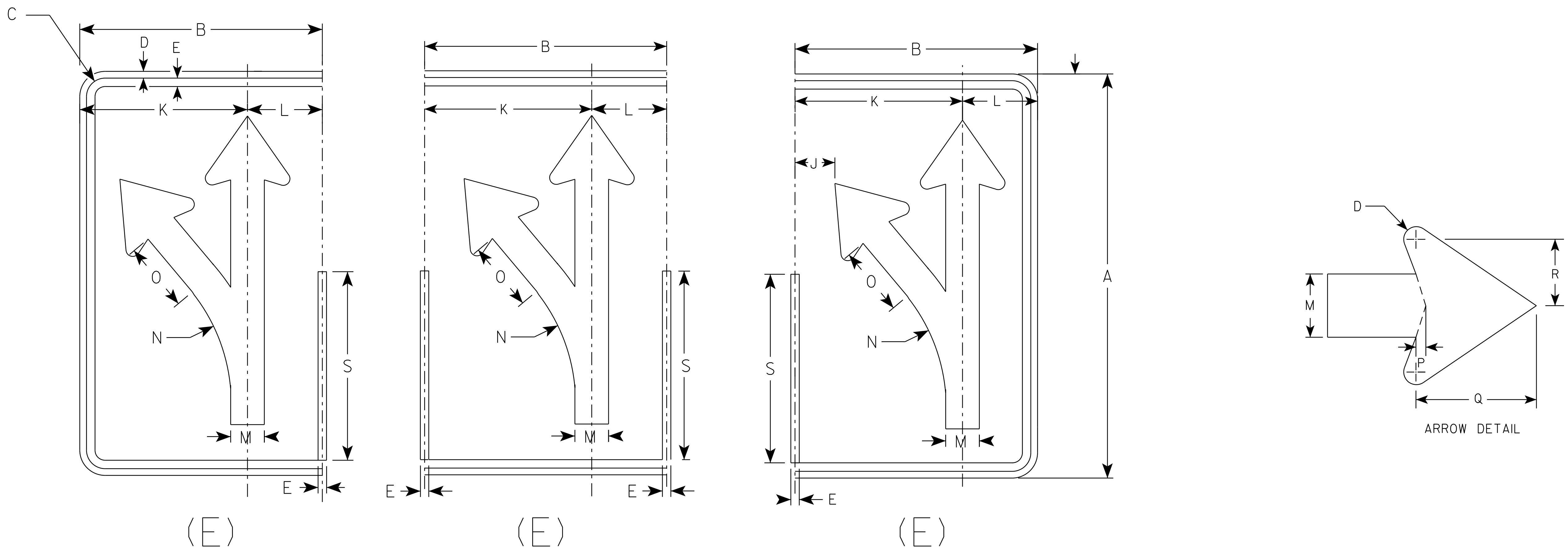
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 5 5/8 | 4 | 4 7/8 | 16 1/8 | 7 3/4 | 3 | 15 7/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (E) Arrow

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 170 | E

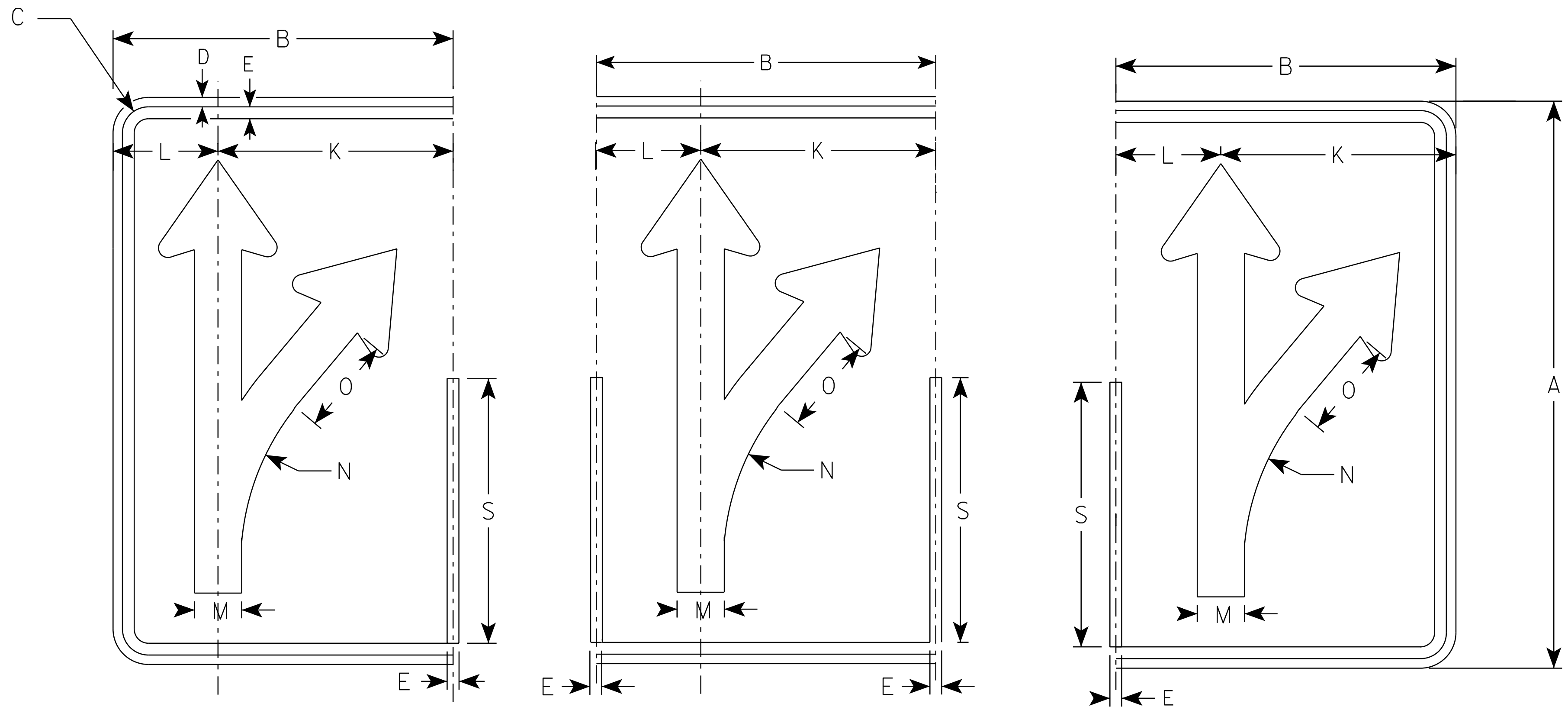
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

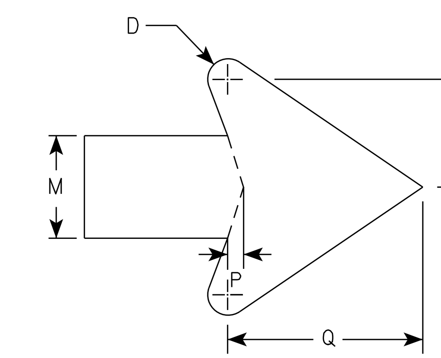
7

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(F) (F) (F)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 5 5/8 | 4 | 4 7/8 | 16 1/8 | 7 3/4 | 3 | 15 7/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

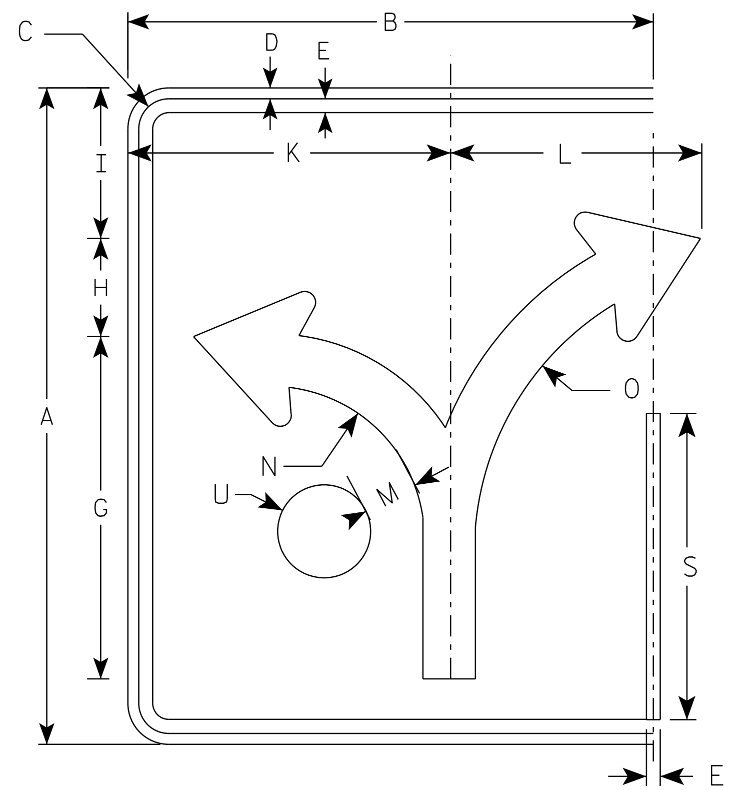
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 171 | E



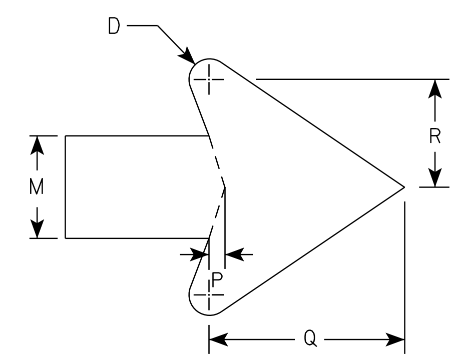
7

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(G)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 6 7/8 | | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 8 1/4 | | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 2 1/2 | | | | | | 7.5 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 11 | | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 172 | E

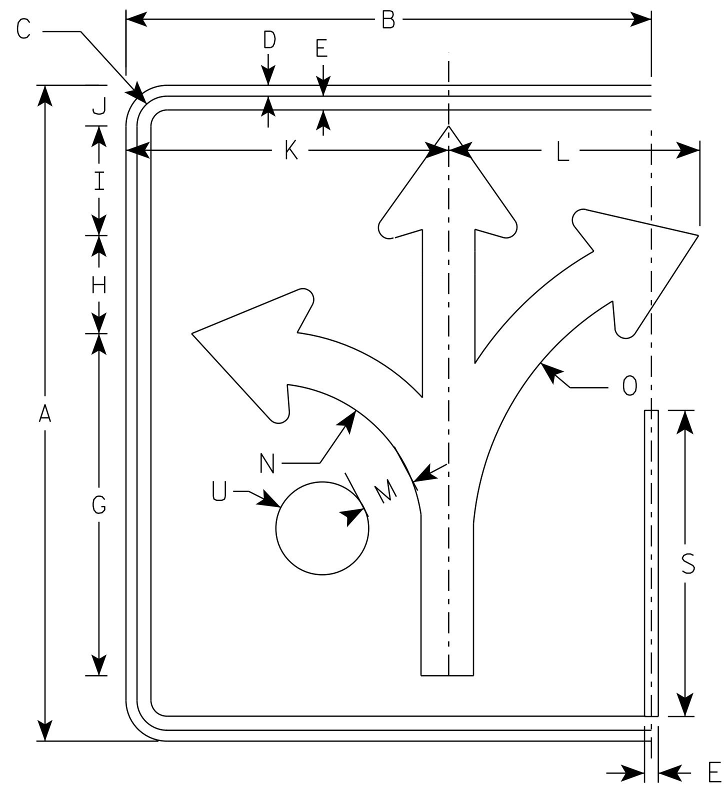


7

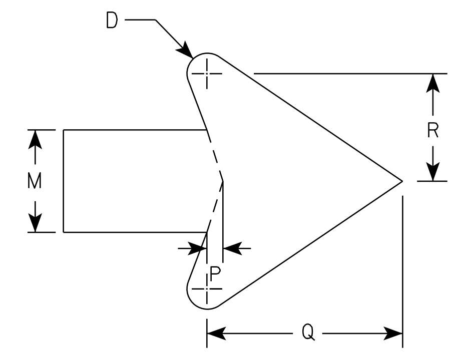
7

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(H)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 2M | 30 | 24 | 1 3/8 | 1/2 | 5/8 | | 15 5/8 | 4 1/2 | 5 | 1 7/8 | 14 3/4 | 11 1/2 | 2 3/8 | 7 | 13 1/4 | 3/8 | 4 1/2 | 2 1/2 | 14 | | 2 1/8 | | | | | | 5.0 |
| 3 | 36 | 30 | 1 3/8 | 1/2 | 5/8 | | 18 3/4 | 5 1/2 | 6 | 3 1/8 | 17 1/4 | 17 1/4 | 2 7/8 | 8 3/8 | 16 | 1/2 | 5 1/2 | 3 | 16 3/4 | | 2 1/2 | | | | | | 7.5 |
| 4 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |
| 5 | 48 | 36 | 2 1/4 | 3/4 | 1 | | 24 7/8 | 7 1/4 | 7 7/8 | 3 1/8 | 23 1/8 | 18 | 3 3/4 | 11 1/8 | 21 1/4 | 5/8 | 7 1/8 | 4 | 22 3/8 | | 3 3/8 | | | | | | 12.0 |

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E

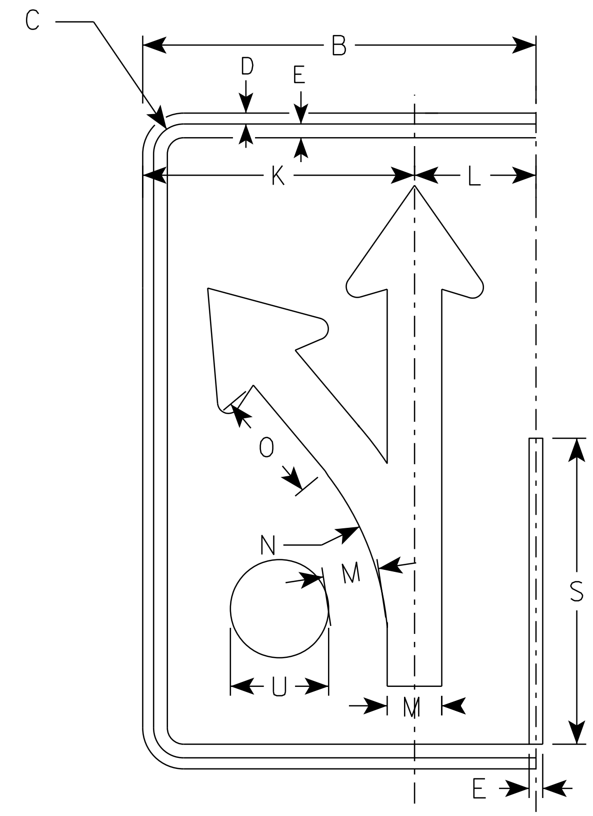


7

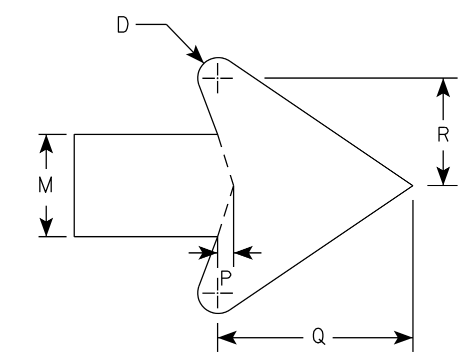
7

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(I)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | 2 1/8 | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 18 1/4 | 4 3/4 | 3 1/4 | 3 | 12 1/2 | 5 1/2 | 2 1/2 | 13 1/4 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | | 2 1/8 | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 5 5/8 | 4 | 4 7/8 | 16 1/8 | 7 3/4 | 3 | 15 7/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | | 2 1/2 | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | 3 3/8 | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 7 1/2 | 5 1/4 | 5 3/8 | 20 1/2 | 9 1/2 | 4 | 21 1/4 | 8 1/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | | 3 3/8 | | | | | | 10.0 |

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 174 | E

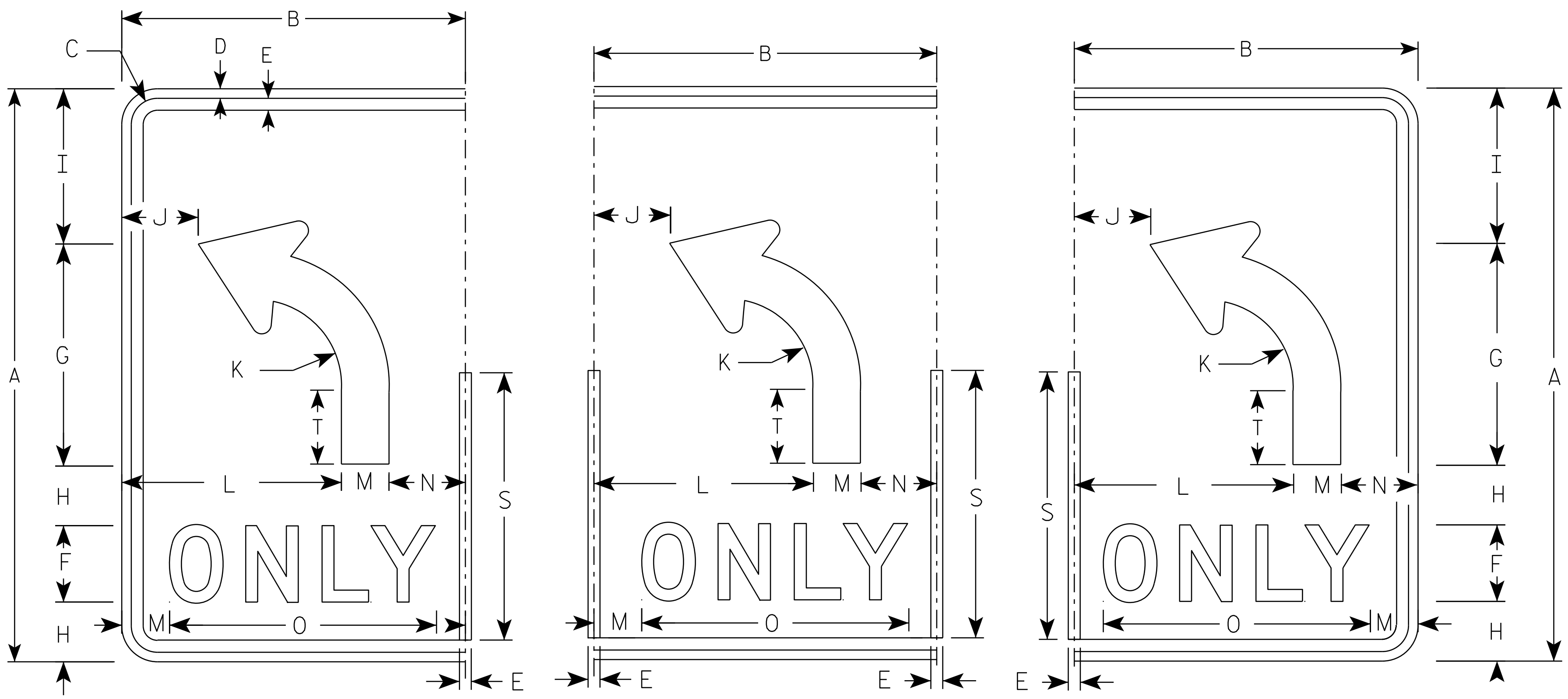
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

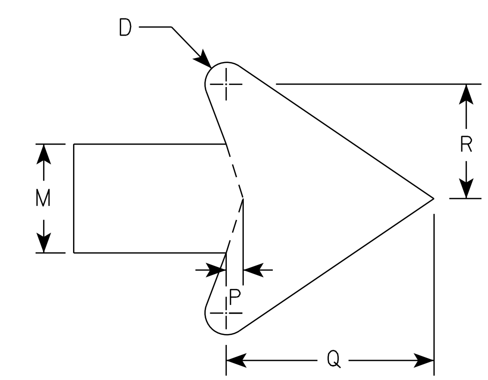
7

## NOTES

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




(L) (L) (L)



ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 14 | 3 1/2 | 9 3/4 | | 5 3/8 | 15 | 3 | 6 | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 4 5/8 | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

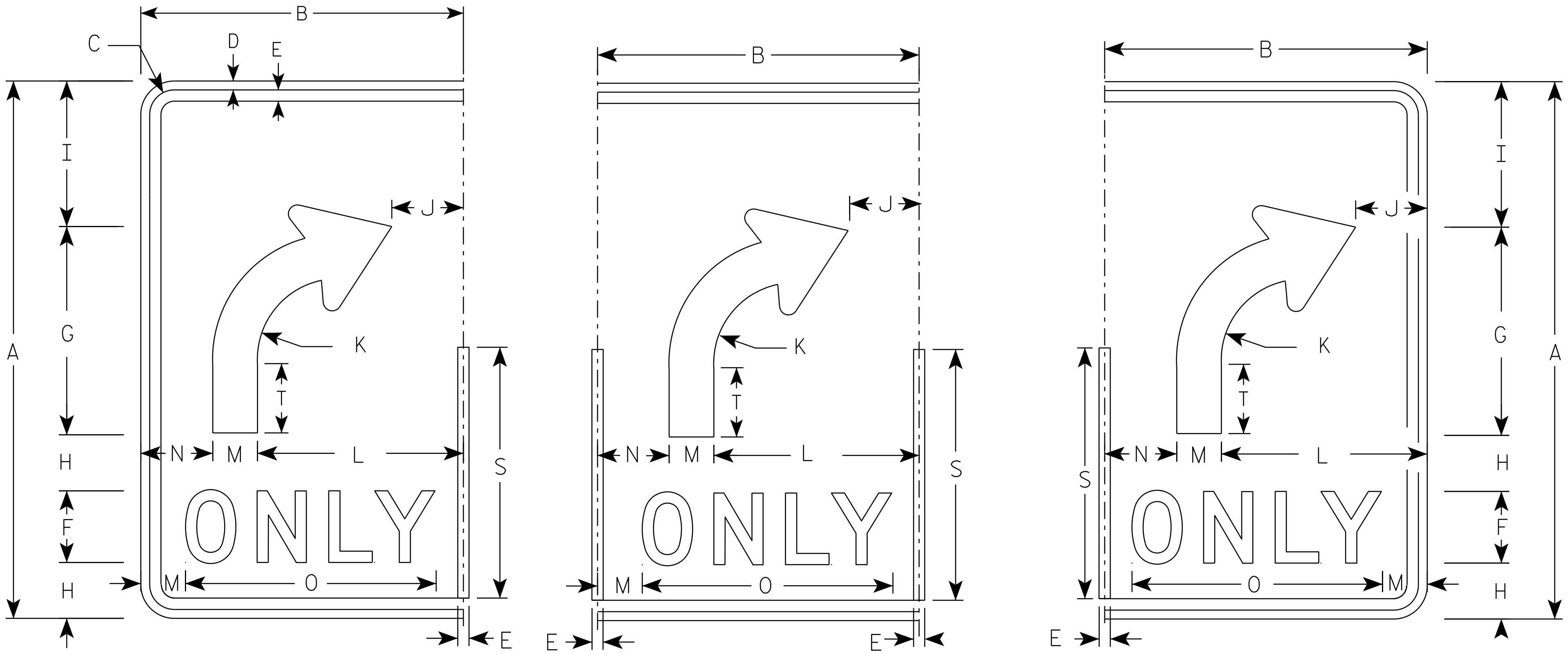


7

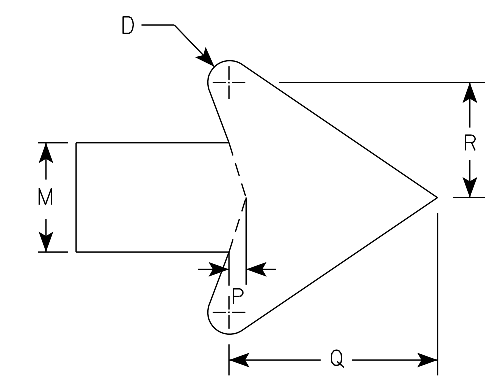
7

## NOTES

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




(R) (R) (R)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | 4 | 11 5/8 | 3 1/8 | 8 1/8 | 4 | 4 1/2 | 11 1/2 | 2 1/2 | 4 | 14 | 3/8 | 4 3/4 | 2 5/8 | 14 | 3 7/8 | | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | 5 | 14 | 3 1/2 | 9 3/4 | 6 | 5 3/8 | 15 | 3 | 6 | 17 5/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 4 5/8 | | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | 6 | 18 5/8 | 5 1/8 | 13 1/8 | 6 1/8 | 7 1/4 | 18 | 4 | 8 | 21 3/4 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 6 1/4 | | | | | | | 10.0 |

STANDARD SIGN
R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

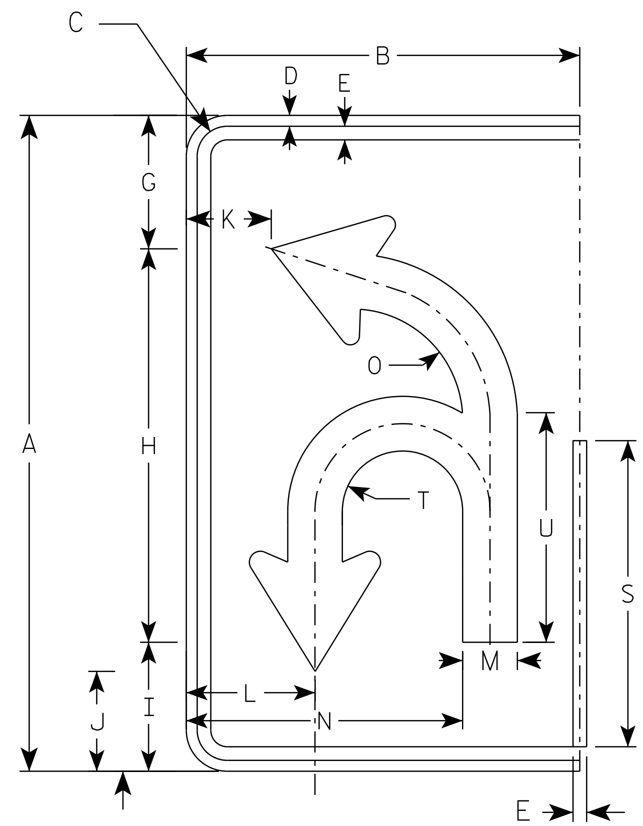
PROJECT NO:

SHEET NO: 176 E

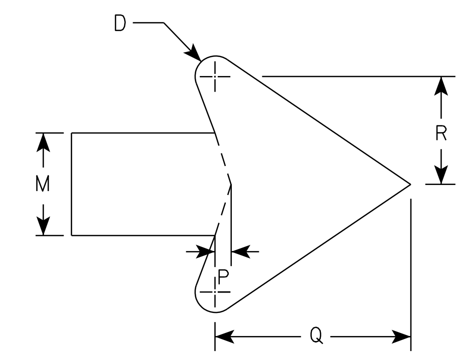
7 7

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None




(U)




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 6 1/8 | 18 | 5 7/8 | 4 5/8 | 3 7/8 | 5 7/8 | 2 1/2 | 12 5/8 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | 2 3/4 | 10 1/2 | | | | | | 3.75 |
| 2M | 30 | 18 | 1 3/8 | 1/2 | 5/8 | | 6 1/8 | 18 | 5 7/8 | 4 5/8 | 3 7/8 | 5 7/8 | 2 1/2 | 12 5/8 | 5 1/8 | 3/8 | 4 3/4 | 2 5/8 | 14 | 2 3/4 | 10 1/2 | | | | | | 3.75 |
| 3 | 36 | 24 | 1 3/8 | 1/2 | 5/8 | | 21 7/8 | 21 5/8 | 7 1/8 | 5 1/2 | 5 7/8 | 8 1/4 | 3 | 16 3/8 | 6 1/8 | 1/2 | 5 3/4 | 3 1/8 | 16 3/4 | 3 1/4 | 12 5/8 | | | | | | 6.0 |
| 4 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 28 3/4 | 9 3/8 | 7 1/4 | 6 7/8 | 10 | 4 | 20 7/8 | 8 1/8 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 4 3/8 | 16 3/4 | | | | | | 10.0 |
| 5 | 48 | 30 | 2 1/4 | 3/4 | 1 | | 29 1/8 | 28 3/4 | 9 3/8 | 7 1/4 | 6 7/8 | 10 | 4 | 20 7/8 | 8 1/8 | 5/8 | 7 5/8 | 4 1/4 | 22 3/8 | 4 3/8 | 16 3/4 | | | | | | 10.0 |

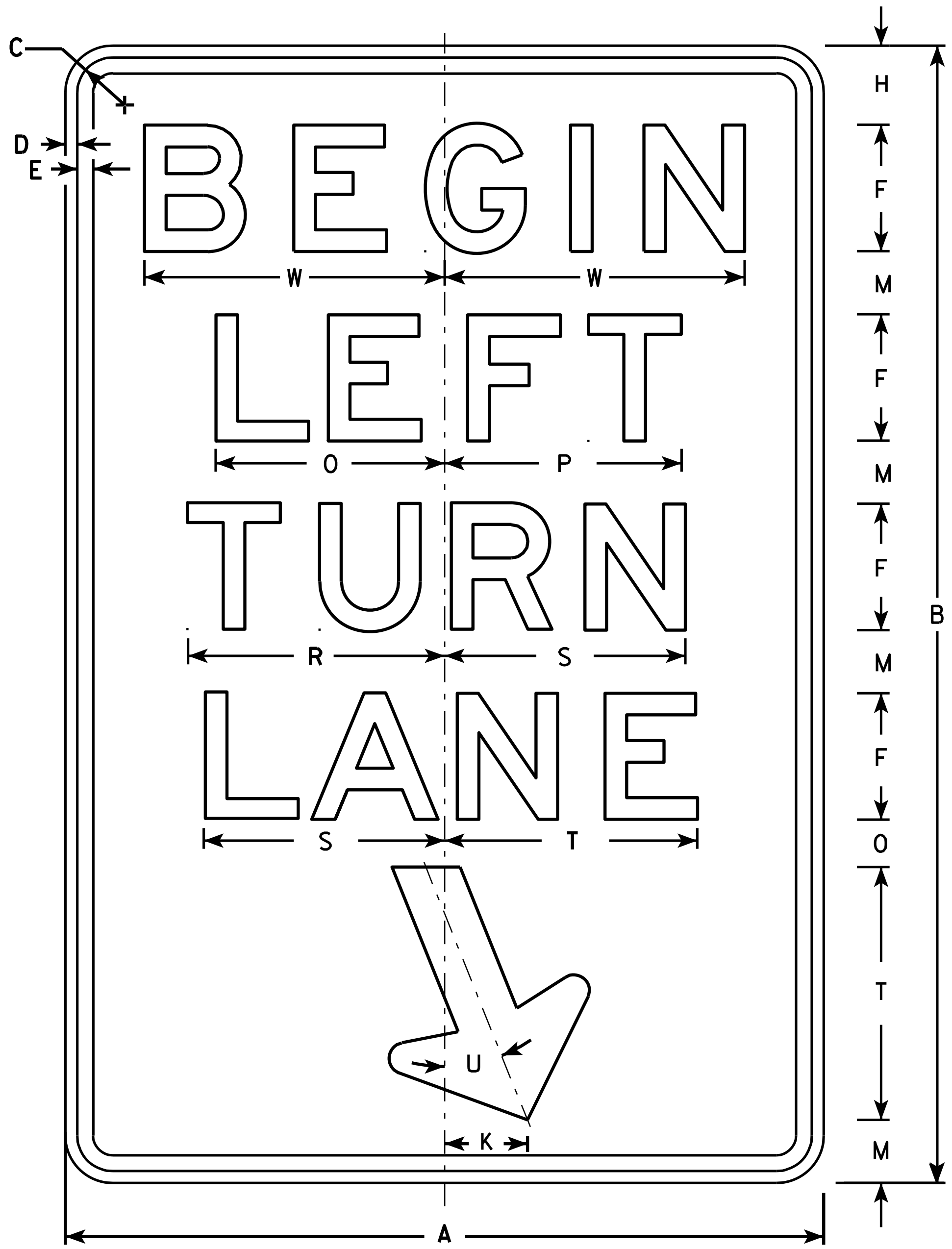
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

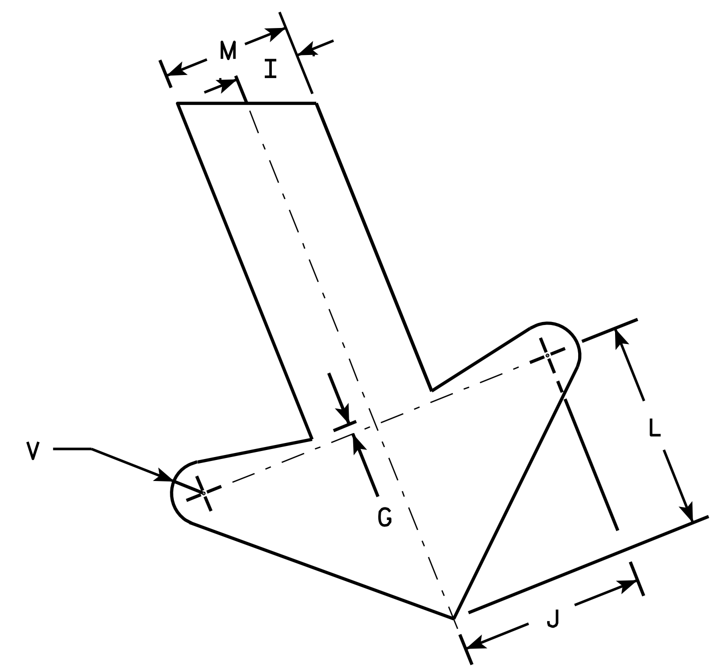
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E




R3-20L

## NOTES

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




ARROW DETAIL

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

STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

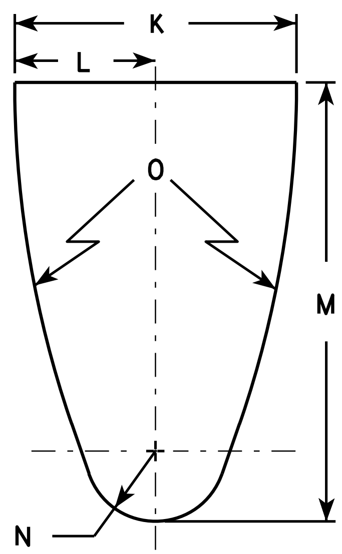
APPROVED Matthew R Rauch
for State Traffic Engineer

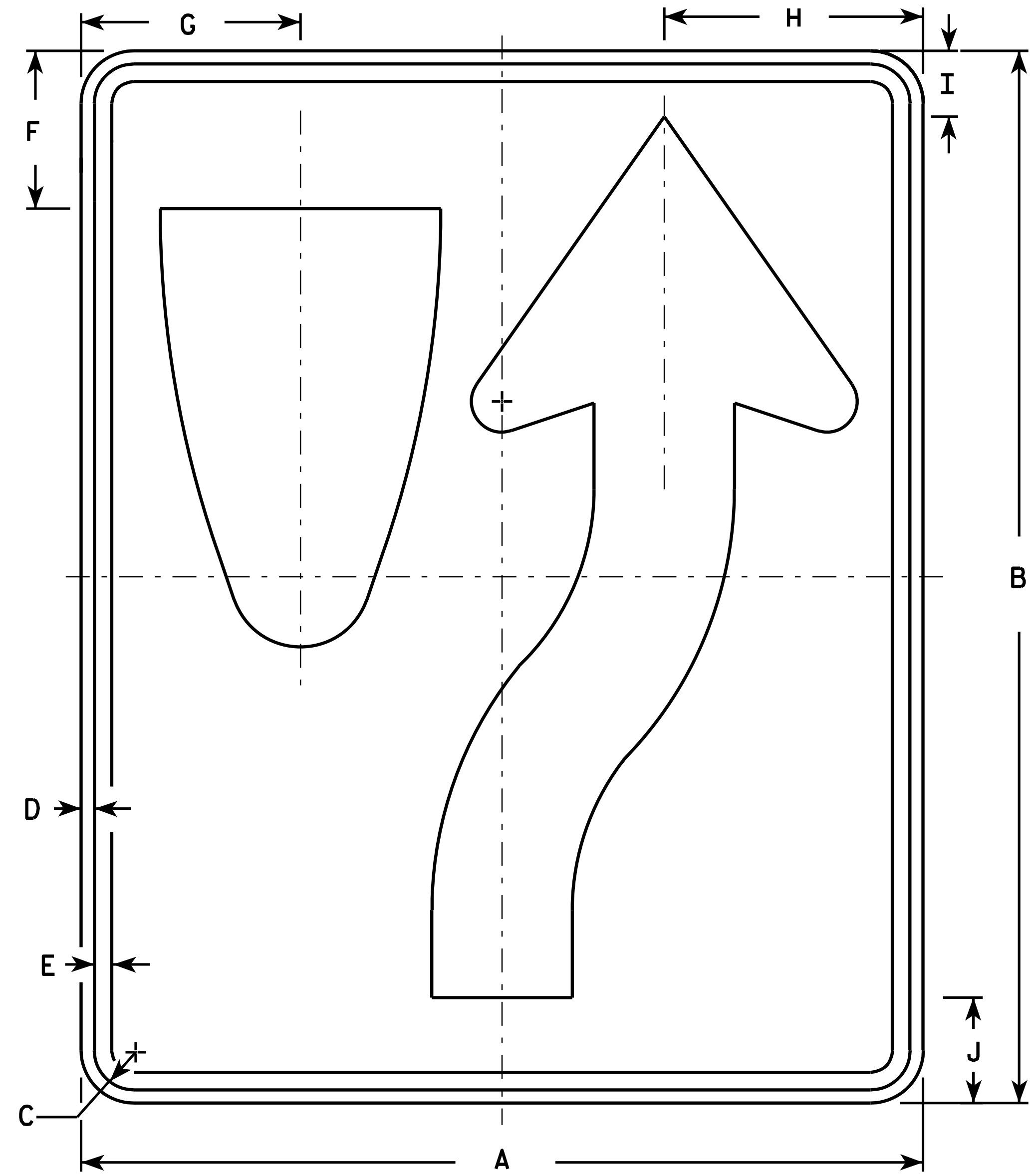
DATE 10/18/10 PLATE NO. R3-20L.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 178 | E

7

7

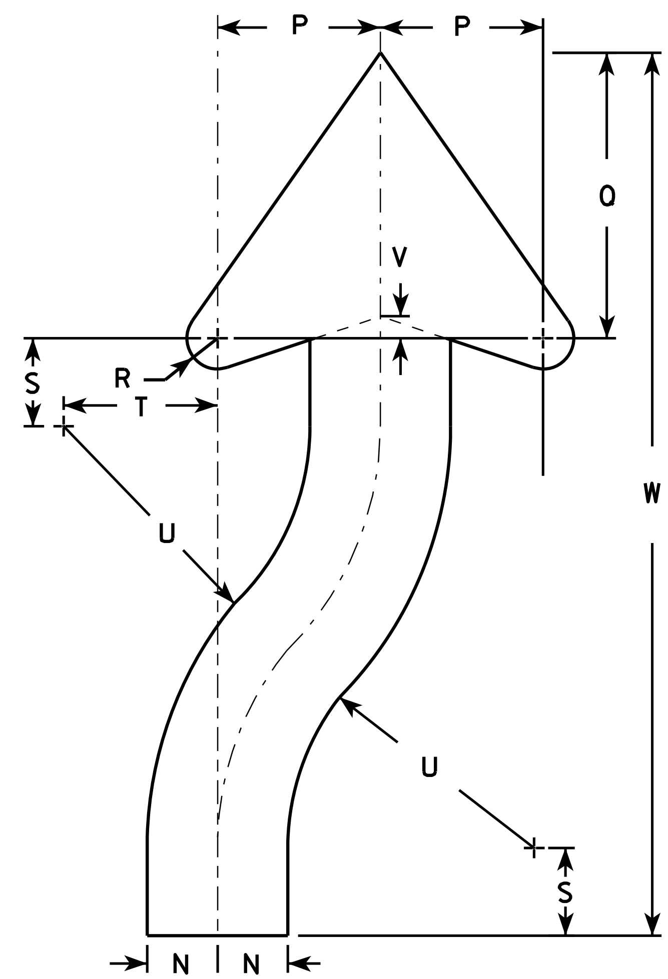



R4-7

## NOTES

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




ARROW DETAIL

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

STANDARD SIGN
R4-7 & R4-8

*WISCONSIN DEPT OF TRANSPORTATION*

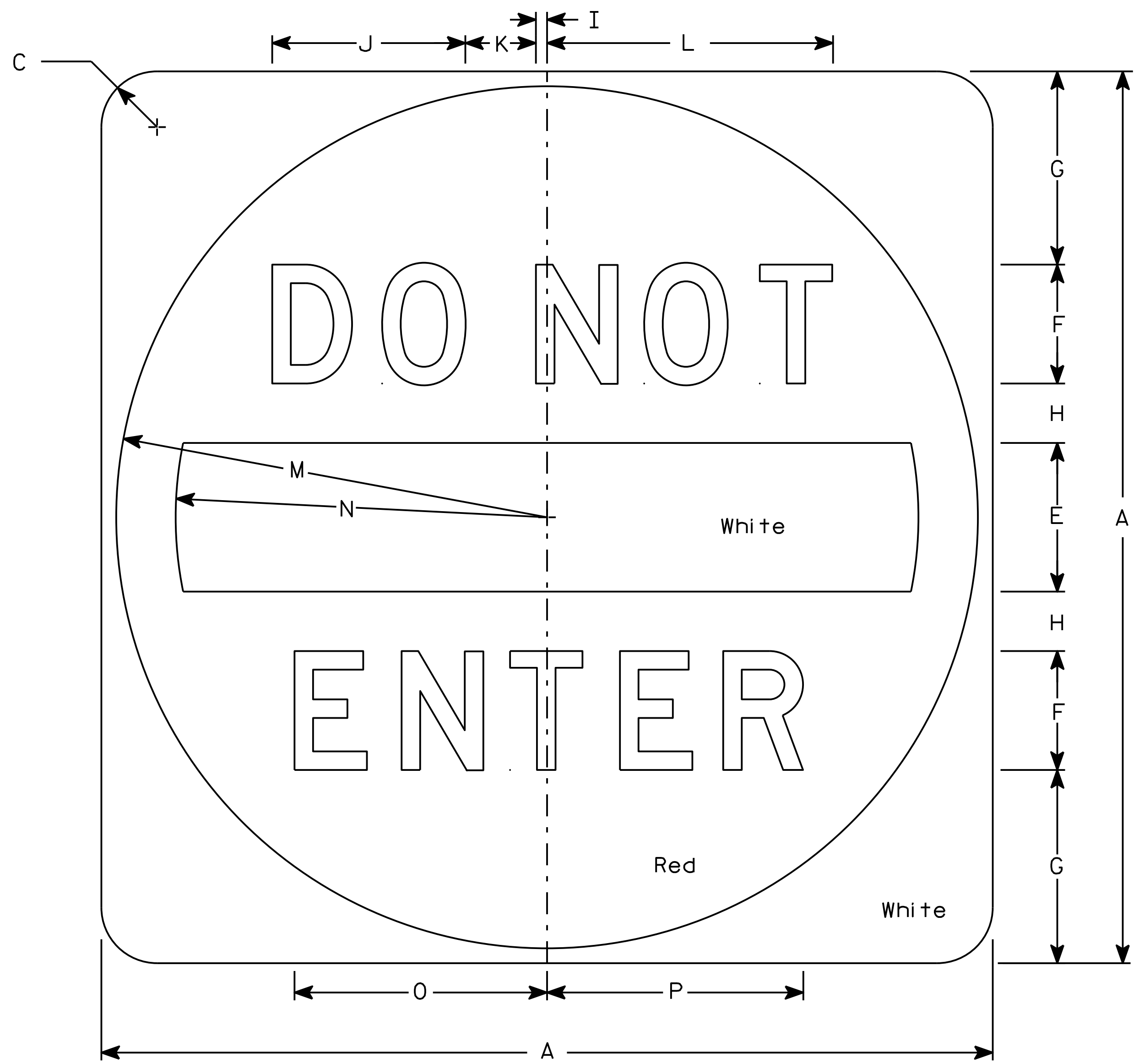
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 179 | E

## NOTES

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




R5-1

| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 ⅞ | | 5 | 4 | 6 ½ | 2 | ⅜ | 6 ½ | 2 ⅜ | 9 ⅝ | 14 ½ | 12 ½ | 8 ½ | 8 ⅝ | | | | | | | | | | | 6.25 |
| 2M | 36 | | 2 ¼ | | 6 | 5 | 7 ½ | 2 ½ | ½ | 8 ⅛ | 3 | 12 ⅛ | 17 ½ | 15 | 10 ⅝ | 10 ¾ | | | | | | | | | | | 9.0 |
| 3 | 36 | | 2 ¼ | | 6 | 5 | 7 ½ | 2 ½ | ½ | 8 ⅛ | 3 | 12 ⅛ | 17 ½ | 15 | 10 ⅝ | 10 ¾ | | | | | | | | | | | 9.0 |
| 4 | 36 | | 2 ¼ | | 6 | 5 | 7 ½ | 2 ½ | ½ | 8 ⅛ | 3 | 12 ⅛ | 17 ½ | 15 | 10 ⅝ | 10 ¾ | | | | | | | | | | | 9.0 |
| 5 | 48 | | 3 | | 8 | 6 | 11 | 3 | ⅝ | 9 ¾ | 3 ⅝ | 14 ½ | 23 ½ | 20 | 12 ¾ | 12 ⅞ | | | | | | | | | | | 16.0 |

STANDARD SIGN
R5-1

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

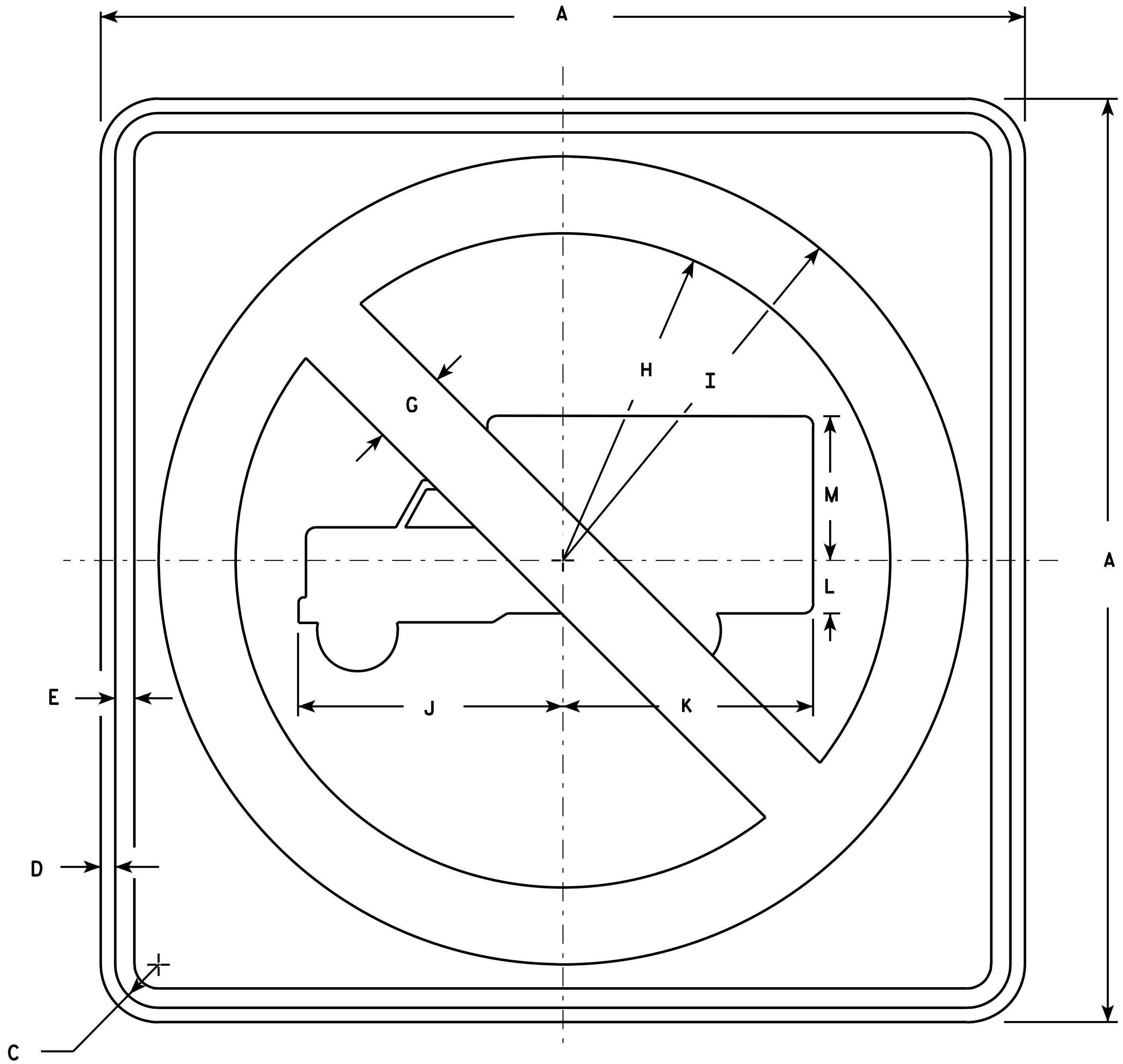
DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: HWY: COUNTY: SHEET NO: 180 E



7

7




R5-2

## NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

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

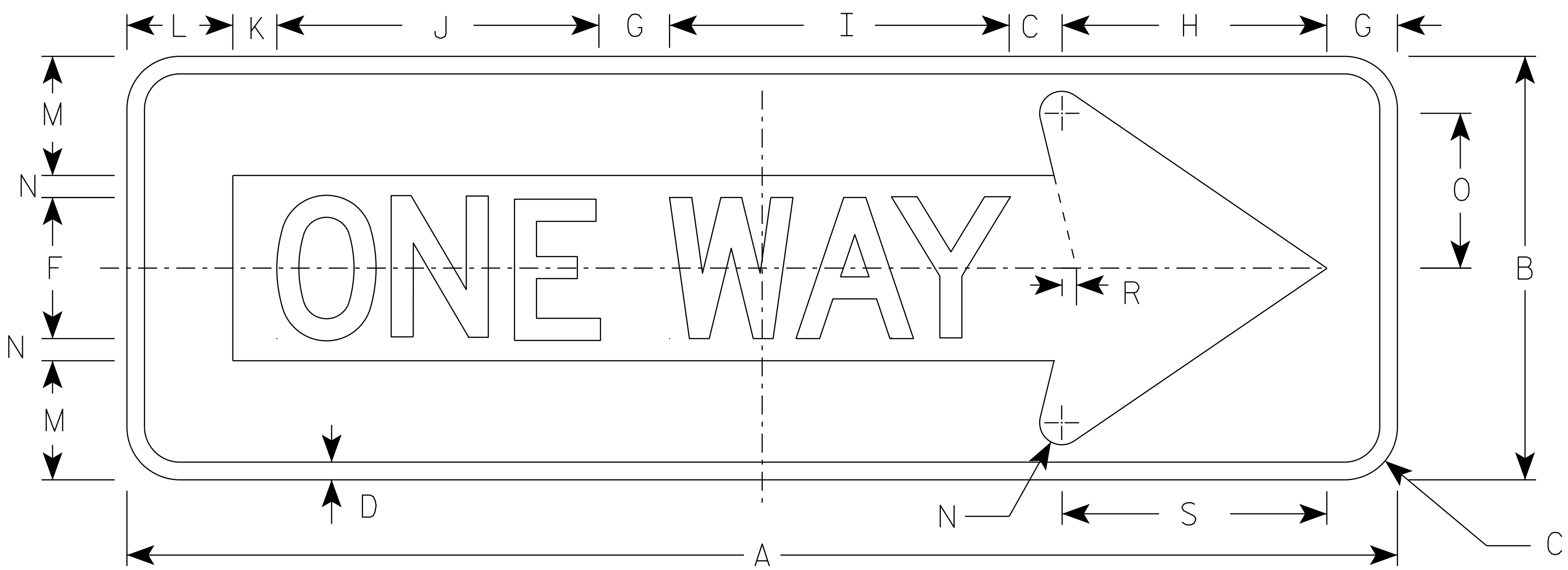
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

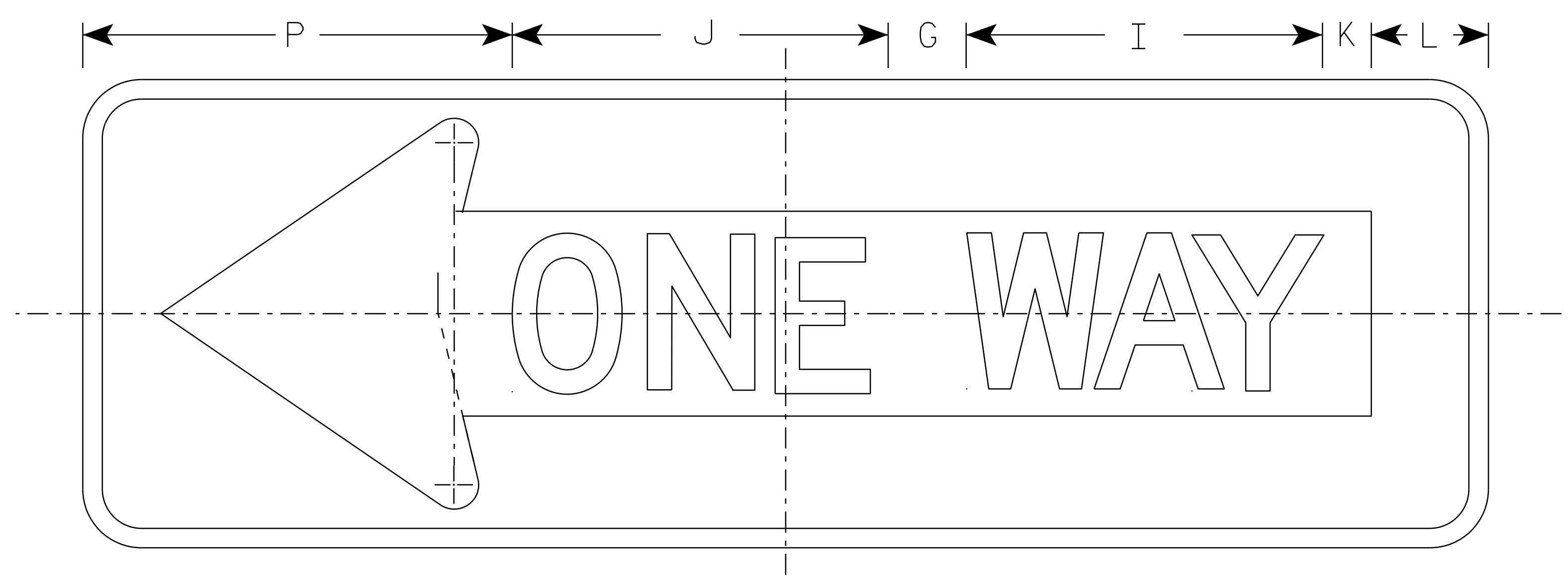
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: 181 E




R6-1 R




R6-1 L

## NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 36 | 12 | 1 1/2 | 1/2 | | 4 | 2 | 7 1/2 | 9 5/8 | 9 1/8 | 1 1/4 | 3 | 3 3/8 | 5/8 | 4 3/8 | 11 | | 3/8 | 7 1/2 | | | | | | | | 3.0 |
| 2M | 54 | 18 | 2 1/4 | 3/4 | | 6 | 3 | 11 1/4 | 13 5/8 | 14 1/2 | 1 7/8 | 4 1/2 | 5 | 1 | 6 1/2 | 16 1/2 | | 5/8 | 11 1/4 | | | | | | | | 6.75 |
| 3 | 54 | 18 | 2 1/4 | 3/4 | | 6 | 3 | 11 1/4 | 13 5/8 | 14 1/2 | 1 7/8 | 4 1/2 | 5 | 1 | 6 1/2 | 16 1/2 | | 5/8 | 11 1/4 | | | | | | | | 6.75 |
| 4 | 54 | 18 | 2 1/4 | 3/4 | | 6 | 3 | 11 1/4 | 13 5/8 | 14 1/2 | 1 7/8 | 4 1/2 | 5 | 1 | 6 1/2 | 16 1/2 | | 5/8 | 11 1/4 | | | | | | | | 6.75 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

SHEET NO: 182 E

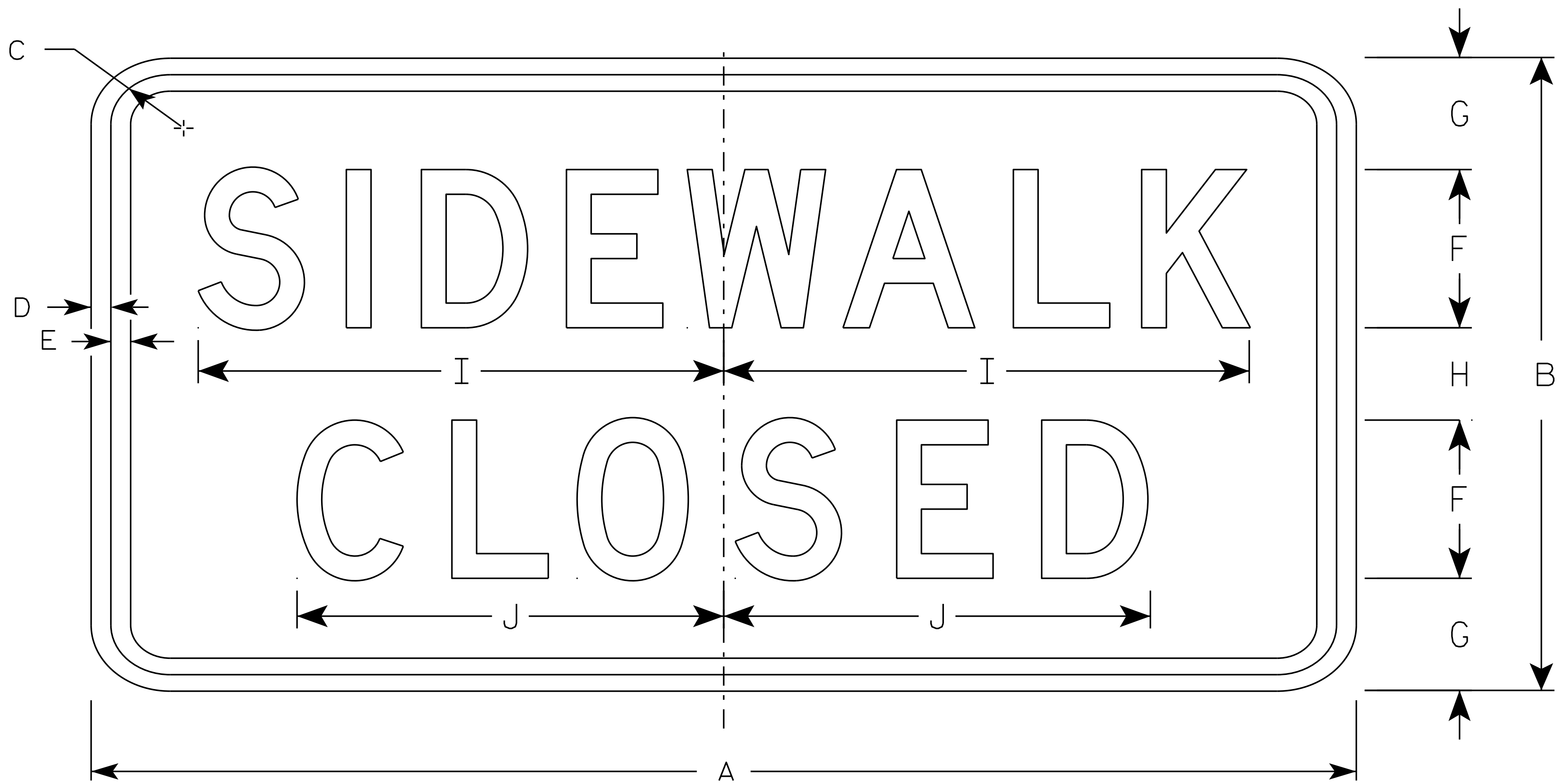


7

7

## NOTES

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




R9-9

| 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 ¾ | ½ | ½ | 3 | 2 ⅛ | 1 ¾ | 10 | 8 ⅛ | | | | | | | | | | | | | | | | | 2.0 |
| 2M | 24 | 12 | 1 ¾ | ½ | ½ | 3 | 2 ⅛ | 1 ¾ | 10 | 8 ⅛ | | | | | | | | | | | | | | | | | 2.0 |
| 3 | 30 | 18 | 1 ¾ | ½ | ½ | 4 | 3 ½ | 3 | 12 ½ | 10 ¼ | | | | | | | | | | | | | | | | | 3.75 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R9-9

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

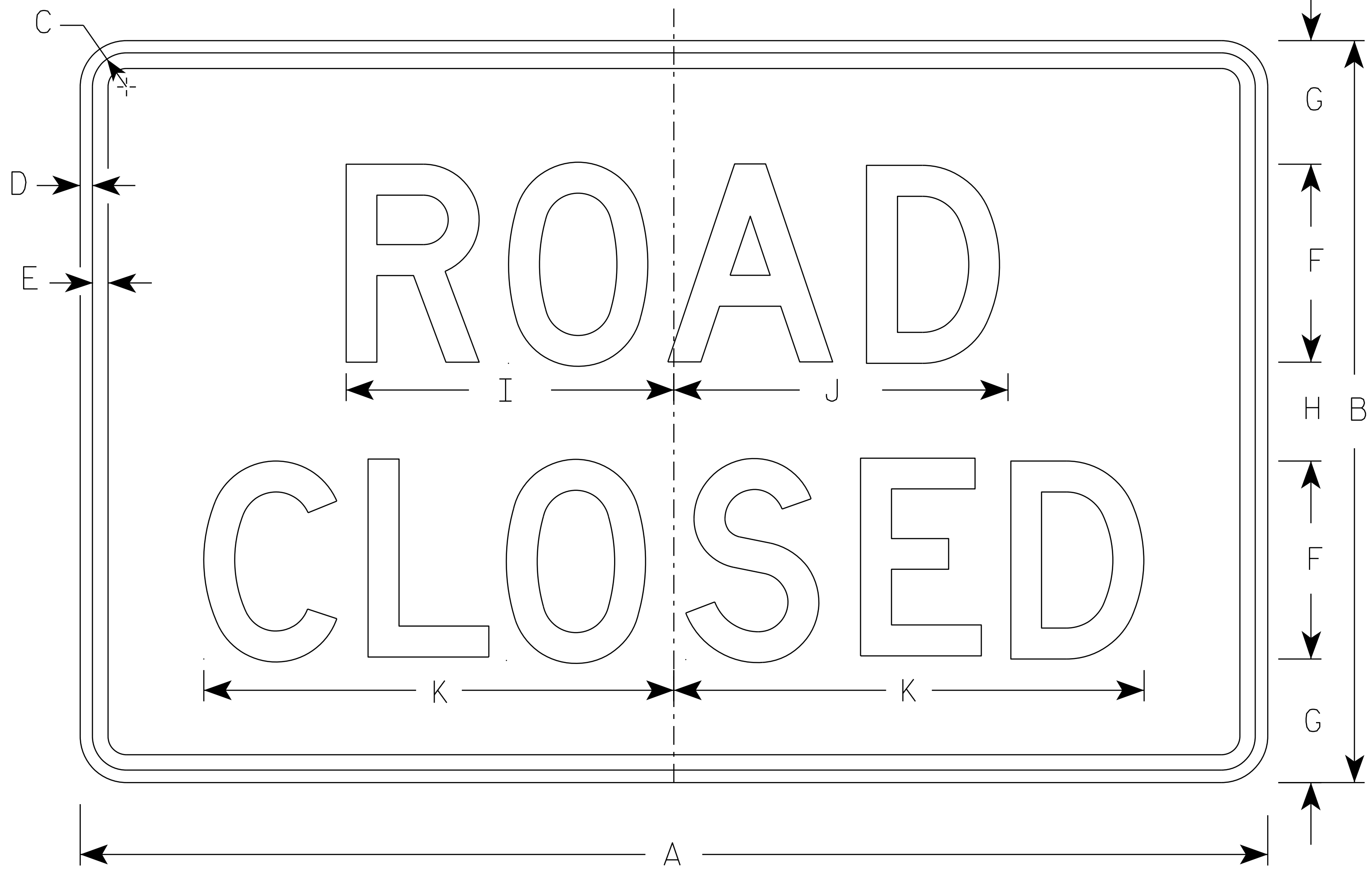
DATE 8/11/16 PLATE R9-9.6

183

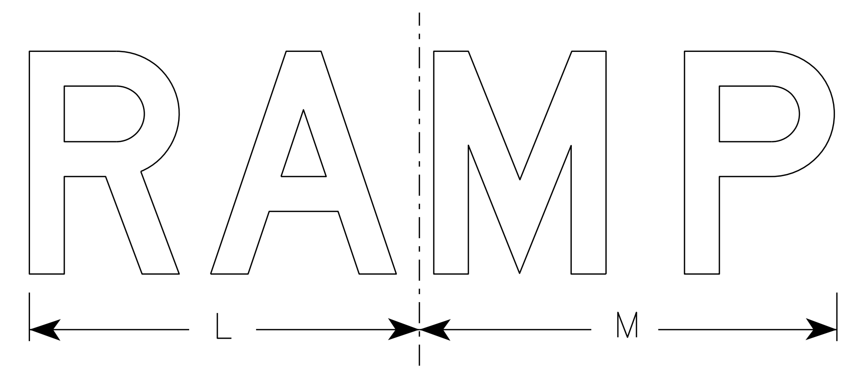
PROJECT NO: HWY: COUNTY: SHEET NO: E

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

7



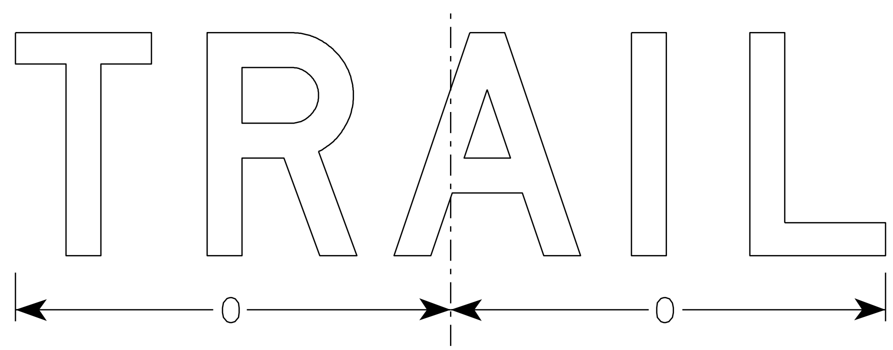

R11-2



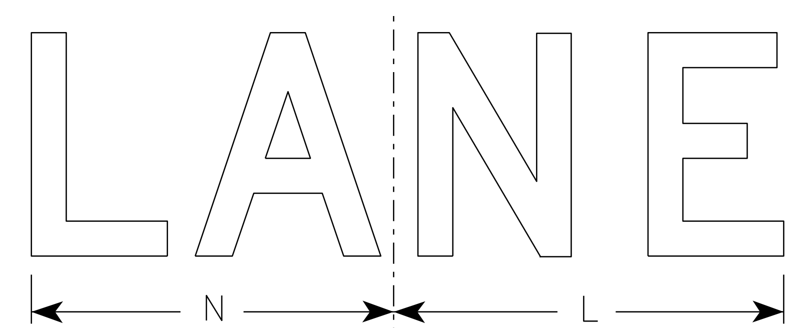

R11-2R

NOTES

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




R11-2T




R11-2L

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 2M | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 3 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 4 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 5 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |

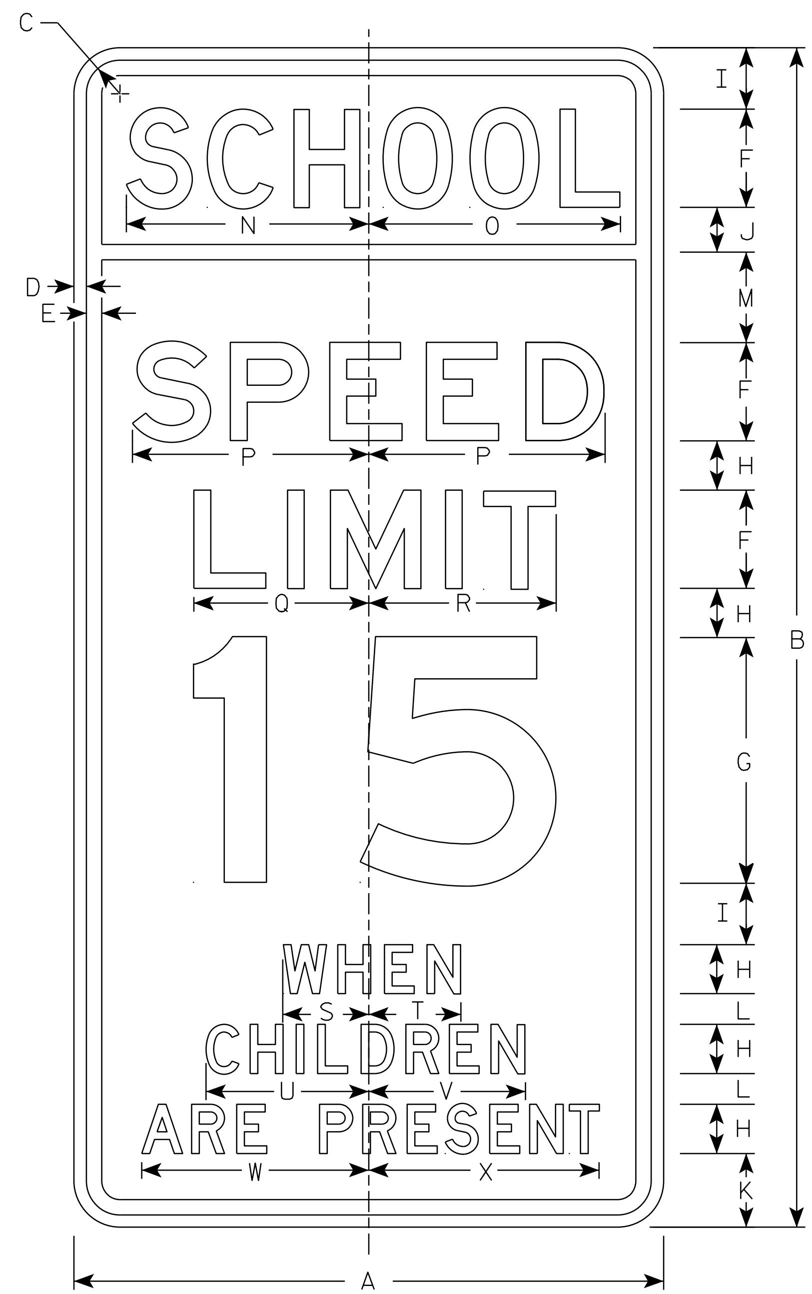
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

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




S4-51

## NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color:
   Background - See Note 4
   Message - Black
3. Message Series - See Note 5
4. Top panel (SCHOOL) background - Yellow Green - Type F Reflective
   Lower panel background - White - Type SH Reflective
5. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
6. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 48 | 1 3/8 | 1/2 | 5/8 | 4 | 10 | 2 | 2 1/2 | 1 3/4 | 3 | 1 1/4 | 3 3/4 | 9 7/8 | 10 1/4 | 9 5/8 | 7 1/8 | 7 5/8 | 3 1/2 | 3 3/8 | 6 5/8 | 6 3/8 | 9 1/4 | 9 3/8 | | | 8.00 |
| 3 | 36 | 72 | 2 1/4 | 3/4 | 1 | 6 | 15 | 3 | 3 3/4 | 2 3/4 | 4 1/2 | 1 7/8 | 5 1/2 | 15 | 15 1/4 | 14 1/2 | 11 1/4 | 11 1/2 | 5 1/2 | 5 3/4 | 10 | 9 3/4 | 14 | 14 1/8 | | | 18.00 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
S4-51

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

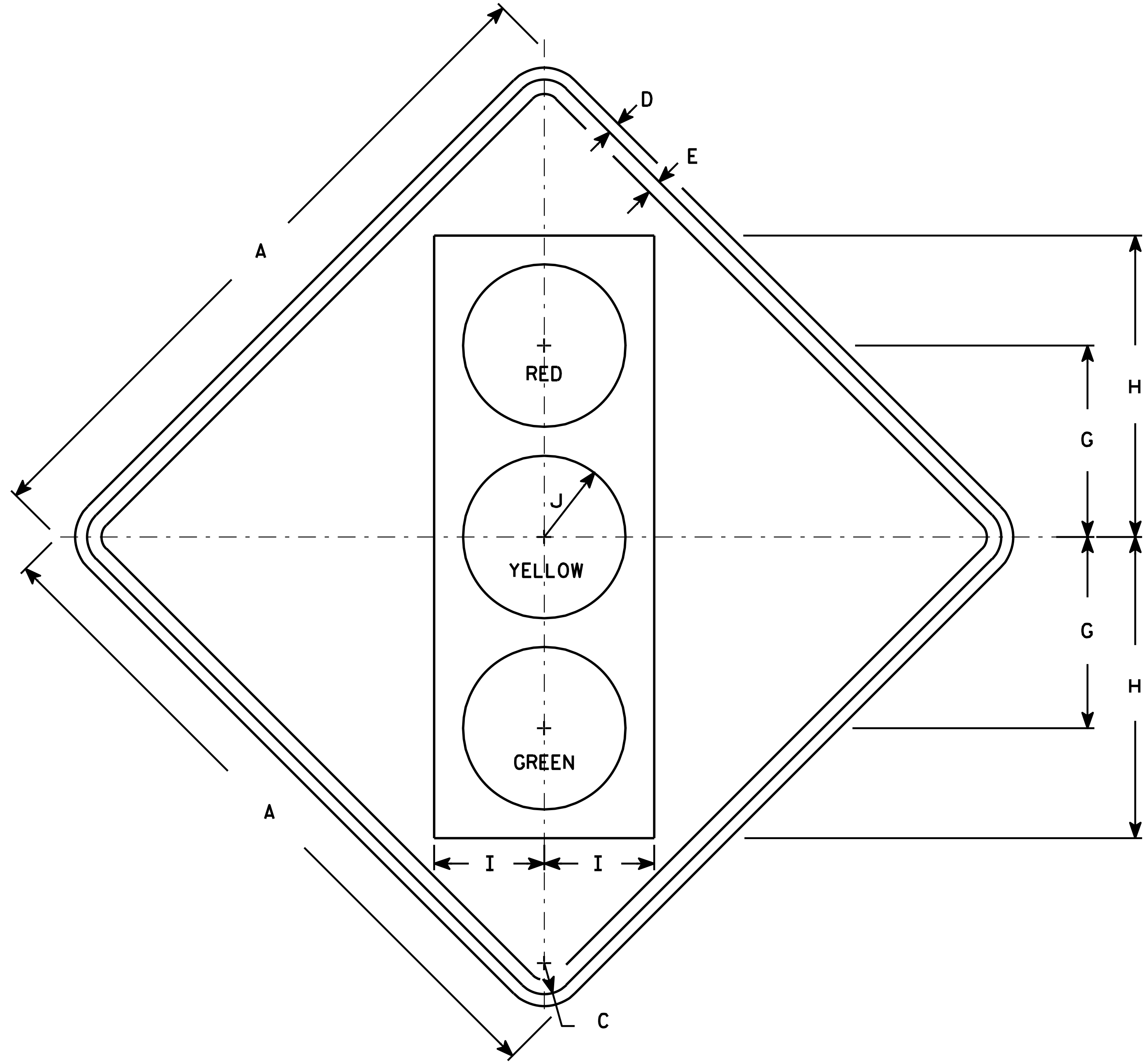
DATE 7/27/2020 PLATE NO. S4-51.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 185 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S451.DGN PLOT DATE : 27-JULY-2020 3:28 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7




W3-3

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | | 8 3/4 | 13 3/4 | 5 | 3 3/4 | | | | | | | | | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | | 10 | 15 3/4 | 5 3/4 | 4 1/4 | | | | | | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | | 10 | 15 3/4 | 5 3/4 | 4 1/4 | | | | | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | | 10 | 15 3/4 | 5 3/4 | 4 1/4 | | | | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 12 1/2 | 20 | 7 1/2 | 5 | | | | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | | 12 1/2 | 20 | 7 1/2 | 5 | | | | | | | | | | | | | | | | | 16.0 |

STANDARD SIGN
W3-3

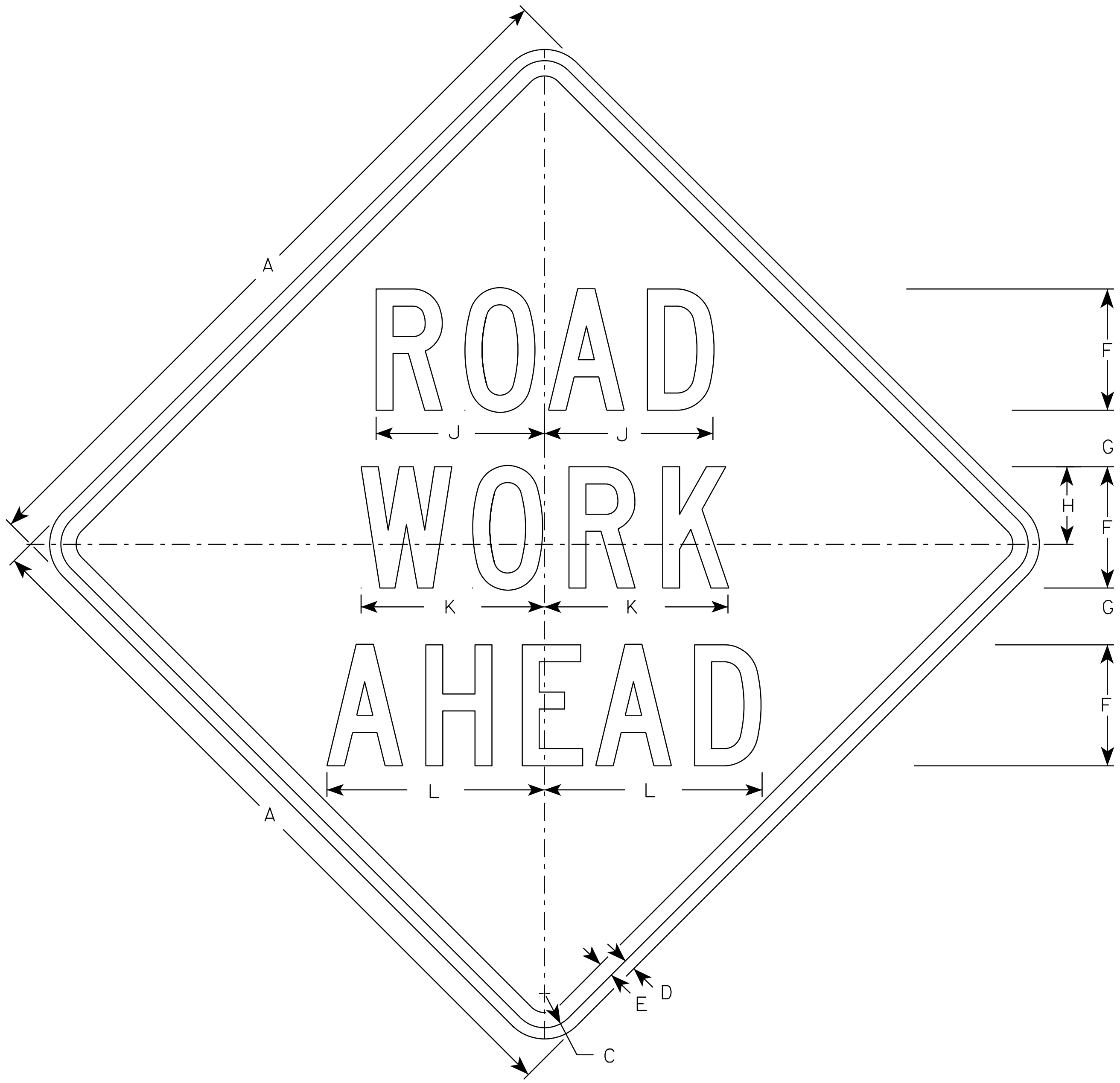
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

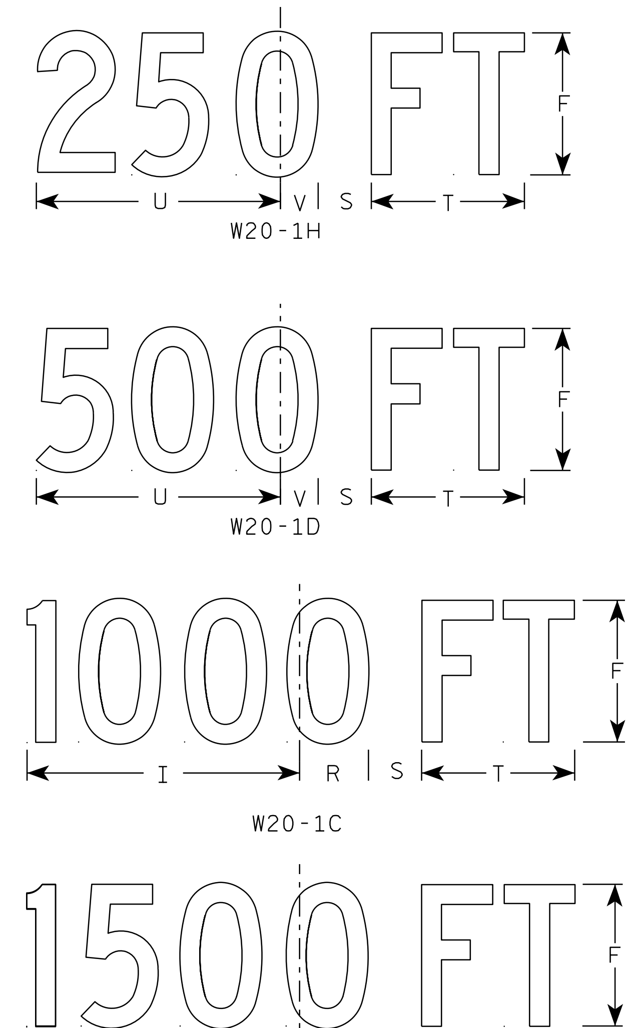
DATE 6/7/10 PLATE NO. W3-3.11

7 7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 186 | E




W20-1A

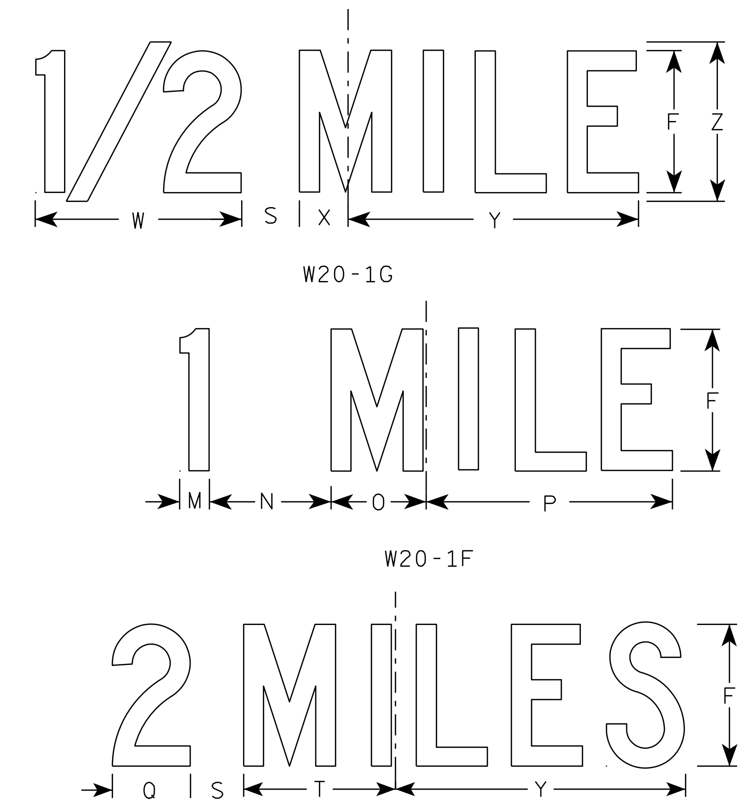



W20-1H

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 5/8 | 5/8 | 3/4 | 5 | 2 5/8 | 3 1/4 | 10 1/8 | 7 | 7 5/8 | 8 7/8 | 1 1/8 | 4 1/2 | 3 1/2 | 9 | 3 1/4 | 2 1/2 | 2 1/4 | 5 5/8 | 9 | 1 3/8 | 8 | 1 3/4 | 10 3/4 | 6 | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 3 3/4 | 5 1/8 | 15 3/8 | 11 1/8 | 12 1/8 | 14 3/8 | 1 5/8 | 6 7/8 | 5 3/8 | 13 7/8 | 4 3/8 | 3 7/8 | 3 | 8 5/8 | 13 3/4 | 2 1/8 | 11 7/8 | 2 3/4 | 16 3/8 | 9 | 16.0 |

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

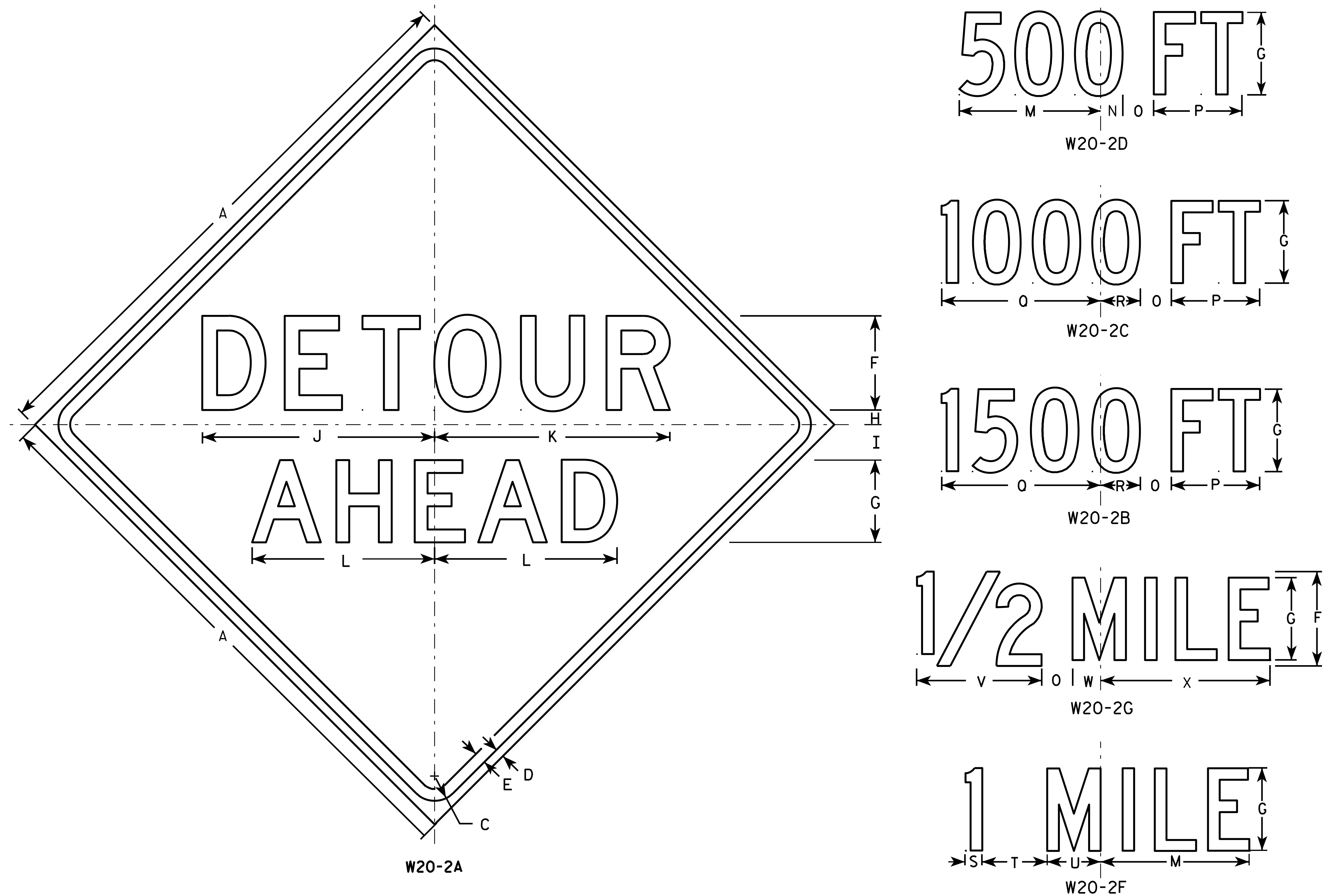
DATE 3/25/2020 PLATE NO. W20-1.11

7

7

PROJECT NO:

SHEET NO: E




## NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 5 | 1 | 2 1/4 | 14 3/4 | 15 | 11 5/8 | 9 | 1 3/8 | 1 7/8 | 5 5/8 | 10 1/8 | 2 1/2 | 1 1/8 | 4 1/2 | 3 1/2 | 8 | 1 3/4 | 10 3/4 | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |

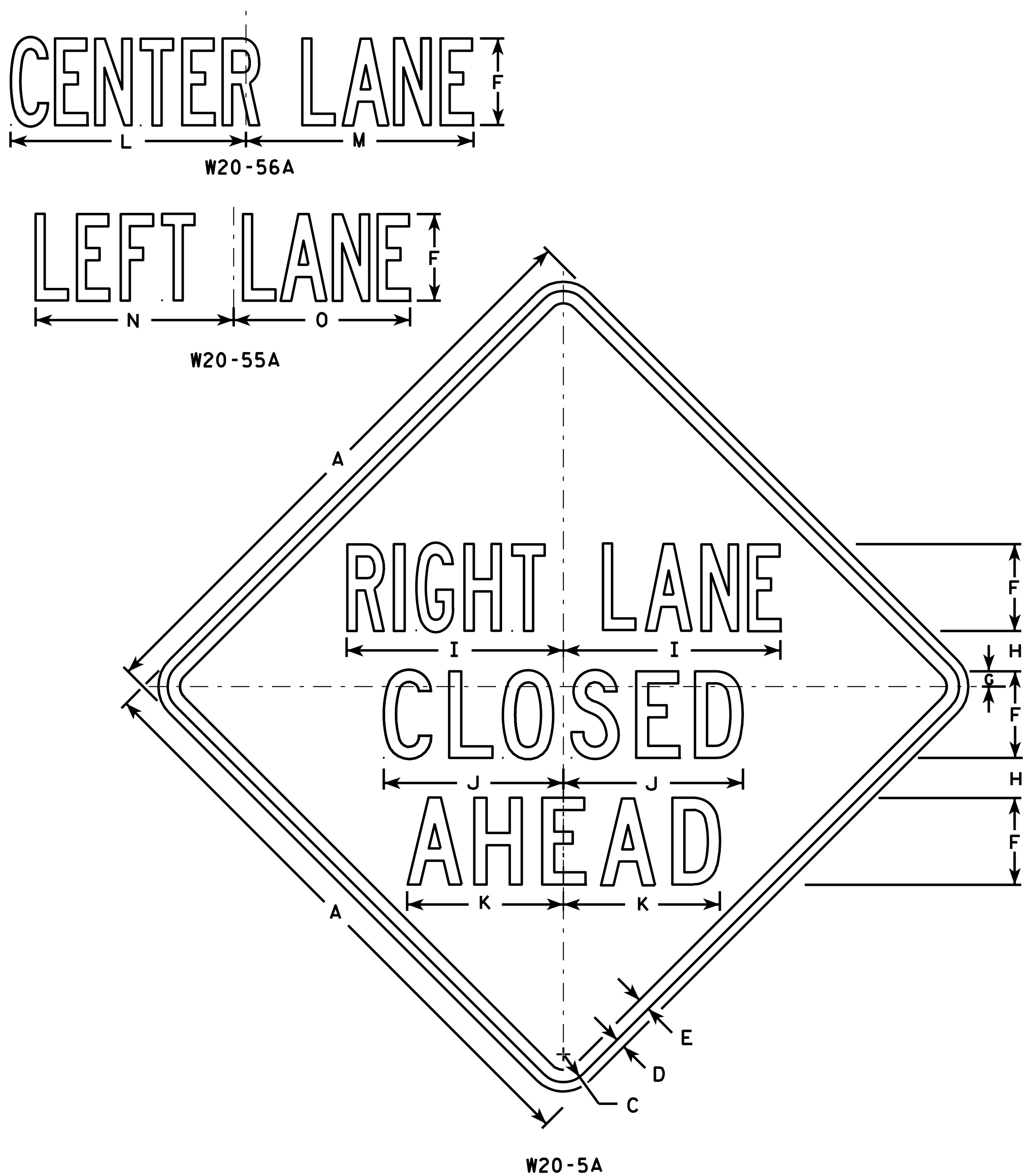
STANDARD SIGN
W20-2A,B,C,D,F & G

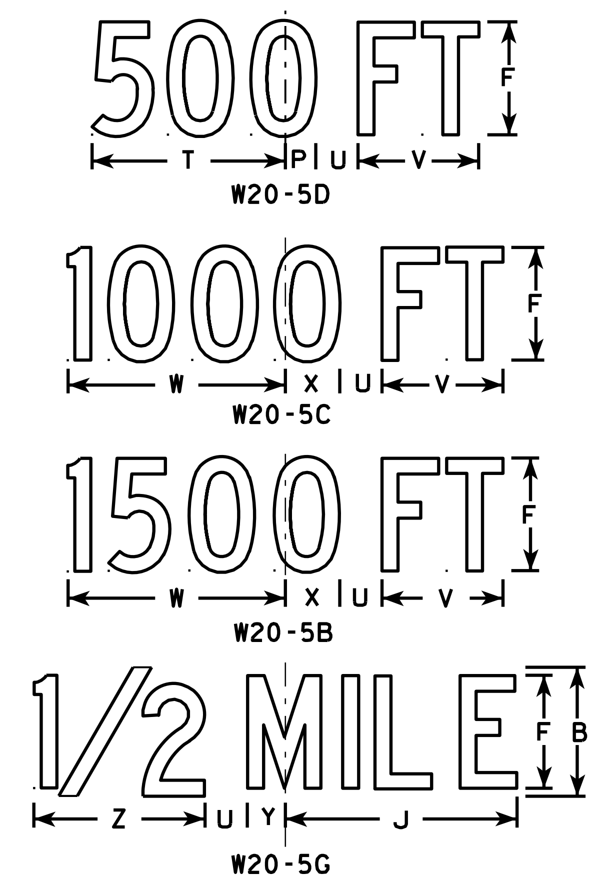
WISCONSIN DEPT OF TRANSPORTATION

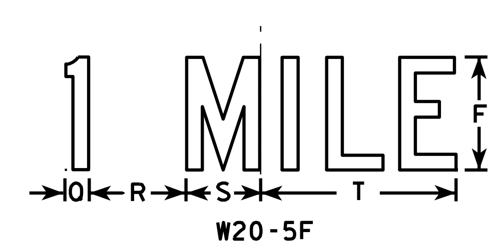
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: HWY: COUNTY: SHEET NO: 188 E




## NOTES

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

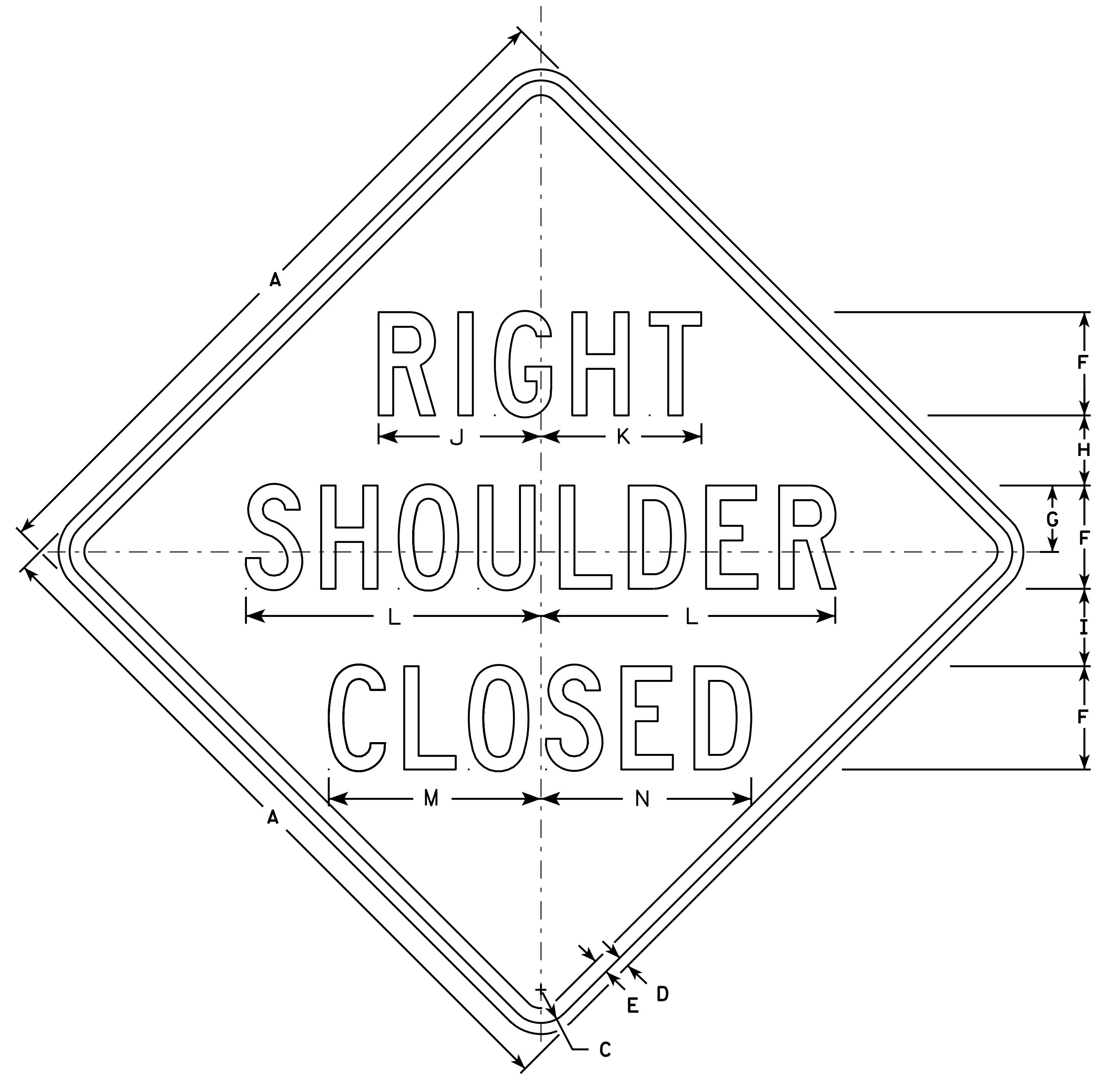
| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 6 | 1 5/8 | 5/8 | 3/4 | 5 | 7/8 | 2 1/2 | 13 1/8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

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

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
For State Traffic Engineer

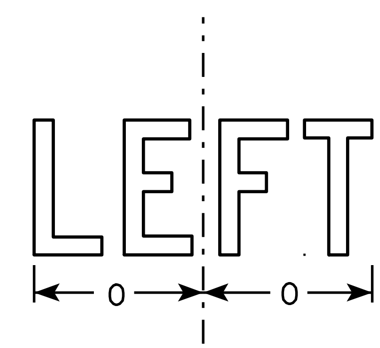
DATE 3/18/11 PLATE NO. W20-5.11




W21-5A

## NOTES

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




W21-5AL

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

STANDARD SIGN
W21-5A

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

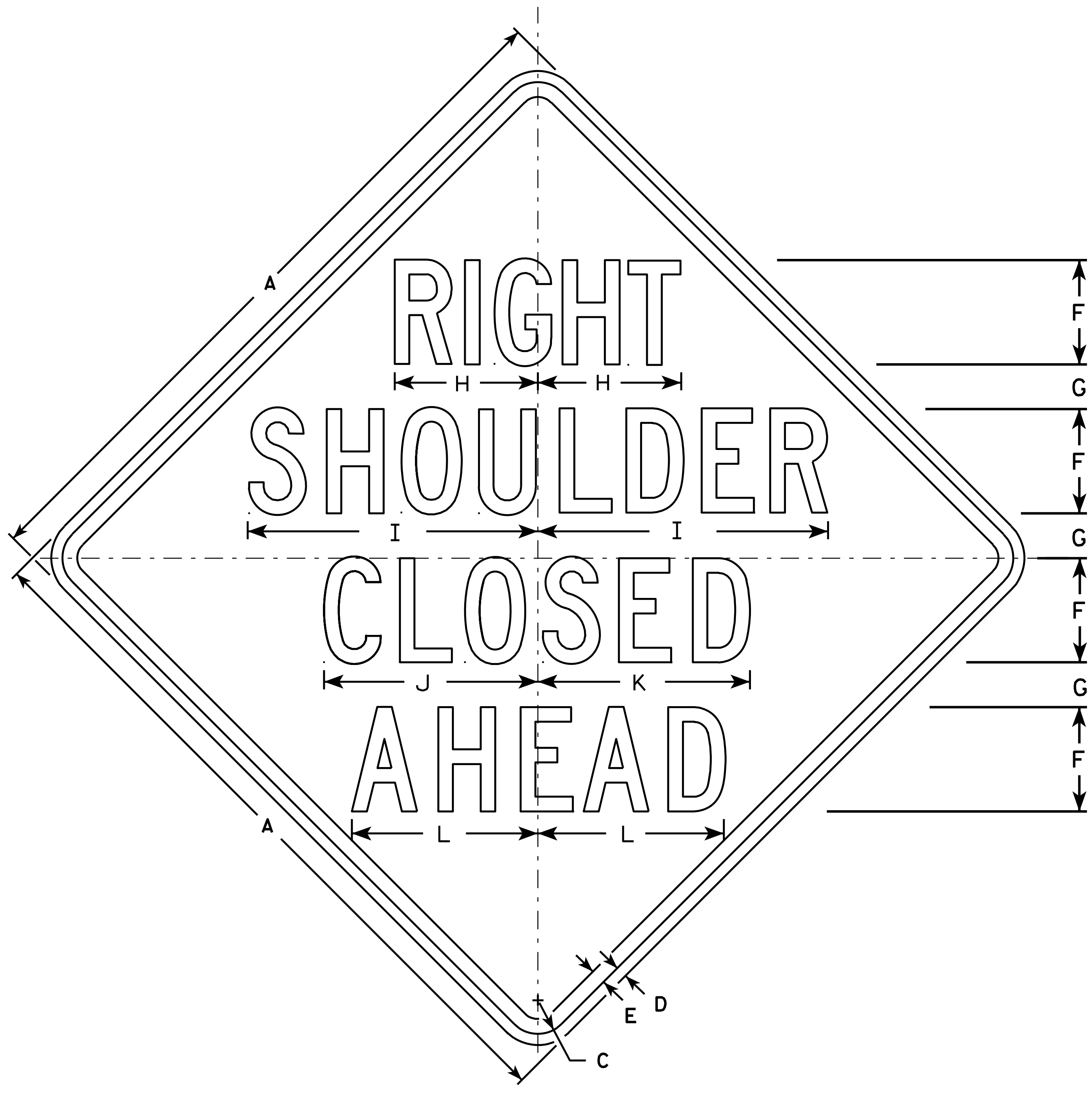
DATE 3/21/11 PLATE NO. W21-5A.3

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 190 | E

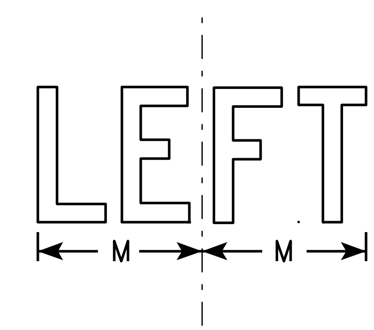
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W215A.DGN PLOT DATE : 21-MAR-2011 09:02 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000 WISDOT/CADDS SHEET 42




W21-5B

## 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.




W21-5BL

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

STANDARD SIGN
W21-5B

*WISCONSIN DEPT OF TRANSPORTATION*

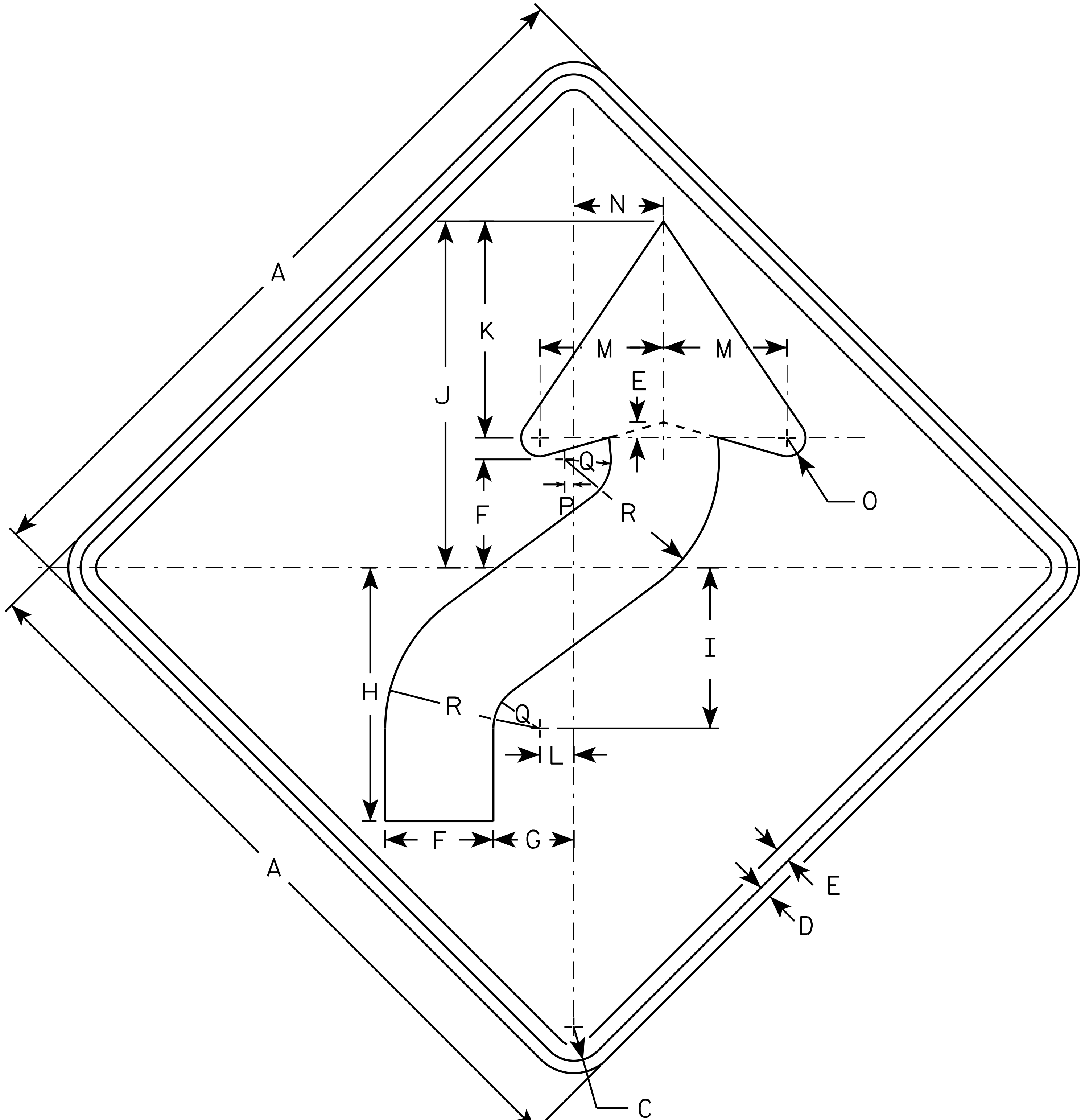
APPROVED Matthew R Rauch
for State Traffic Engineer

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

7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 191 | E




W01-4R

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4 | 12 3/8 | 7 7/8 | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1 | 1/2 | 2 1/4 | 7 1/2 | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |

STANDARD SIGN
W01-4

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

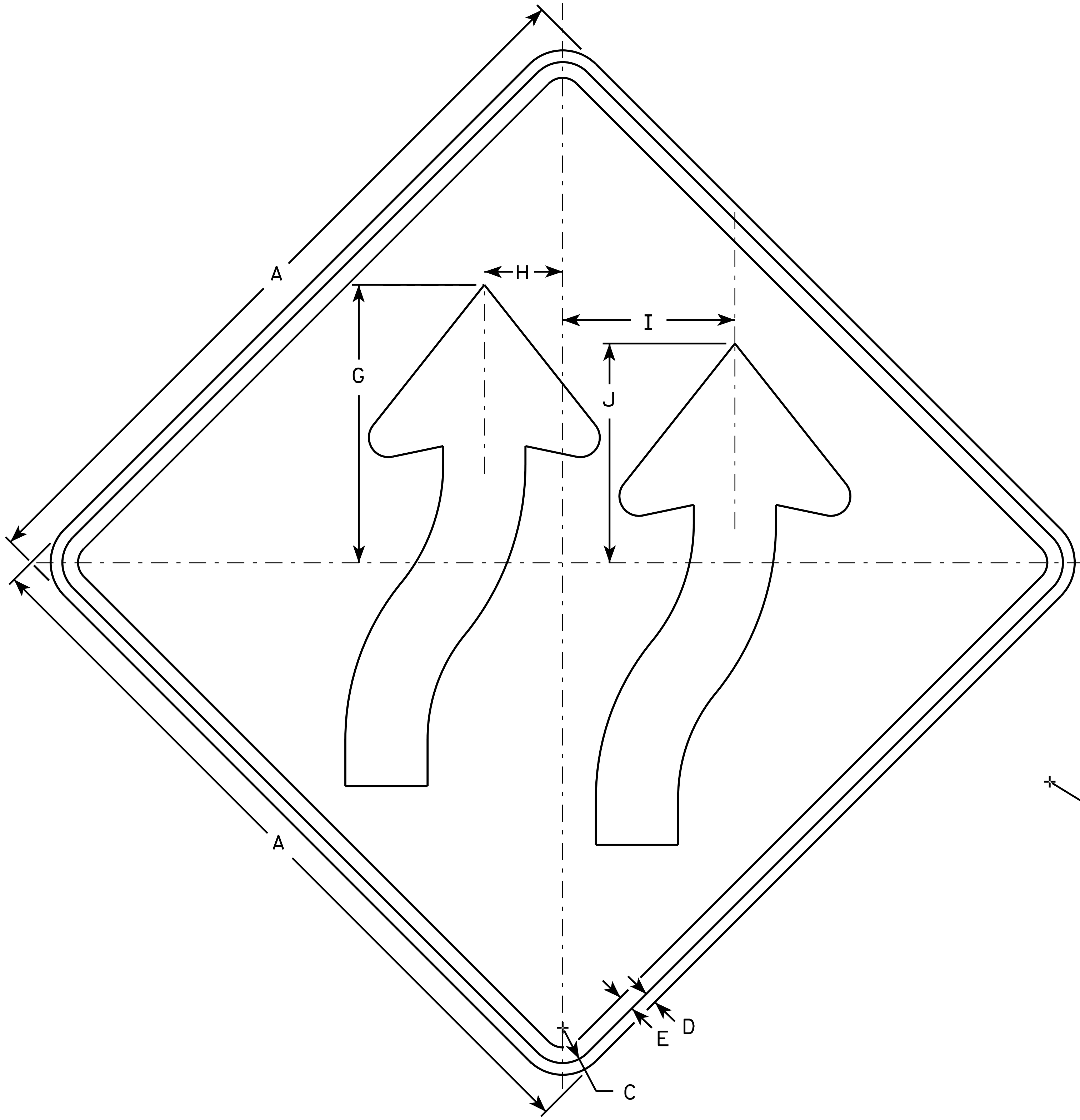


PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E



7

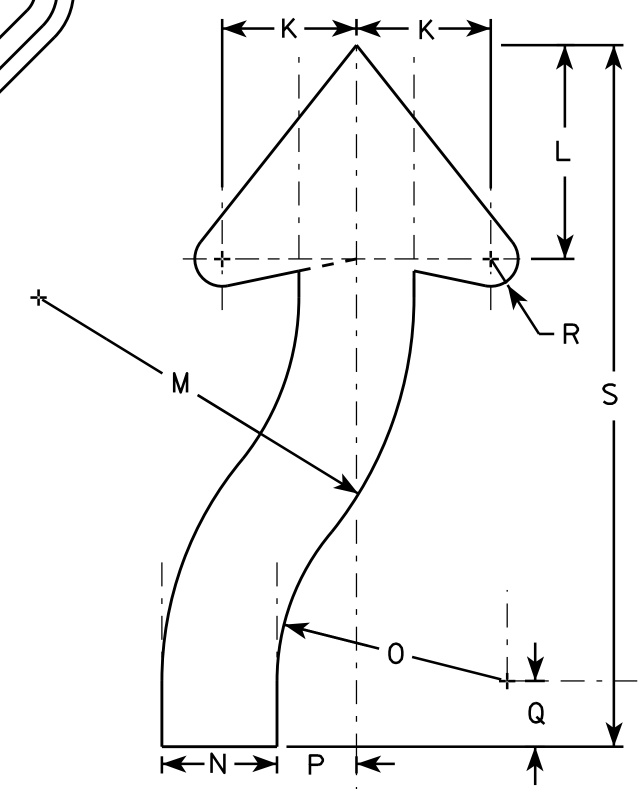
7




W01-4bR

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4bL is the same as W014-bR exept arrows are reversed along the vertical centerline




| 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 | | 13 3/8 | 3 3/4 | 8 1/4 | 10 1/2 | 4 5/8 | 7 3/8 | 12 7/8 | 3 7/8 | 7 7/8 | 2 3/4 | 2 1/4 | 7/8 | 24 | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | | 17 3/4 | 5 | 11 | 14 | 6 1/8 | 9 3/4 | 17 1/8 | 5 1/4 | 10 1/2 | 3 5/8 | 3 | 1 1/4 | 32 | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | | 17 3/4 | 5 | 11 | 14 | 6 1/8 | 9 3/4 | 17 1/8 | 5 1/4 | 10 1/2 | 3 5/8 | 3 | 1 1/4 | 32 | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | | 17 3/4 | 5 | 11 | 14 | 6 1/8 | 9 3/4 | 17 1/8 | 5 1/4 | 10 1/2 | 3 5/8 | 3 | 1 1/4 | 32 | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 17 3/4 | 5 | 11 | 14 | 6 1/8 | 9 3/4 | 17 1/8 | 5 1/4 | 10 1/2 | 3 5/8 | 3 | 1 1/4 | 32 | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | | 17 3/4 | 5 | 11 | 14 | 6 1/8 | 9 3/4 | 17 1/8 | 5 1/4 | 10 1/2 | 3 5/8 | 3 | 1 1/4 | 32 | | | | | | | | 16.0 |

STANDARD SIGN
W01-4b

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

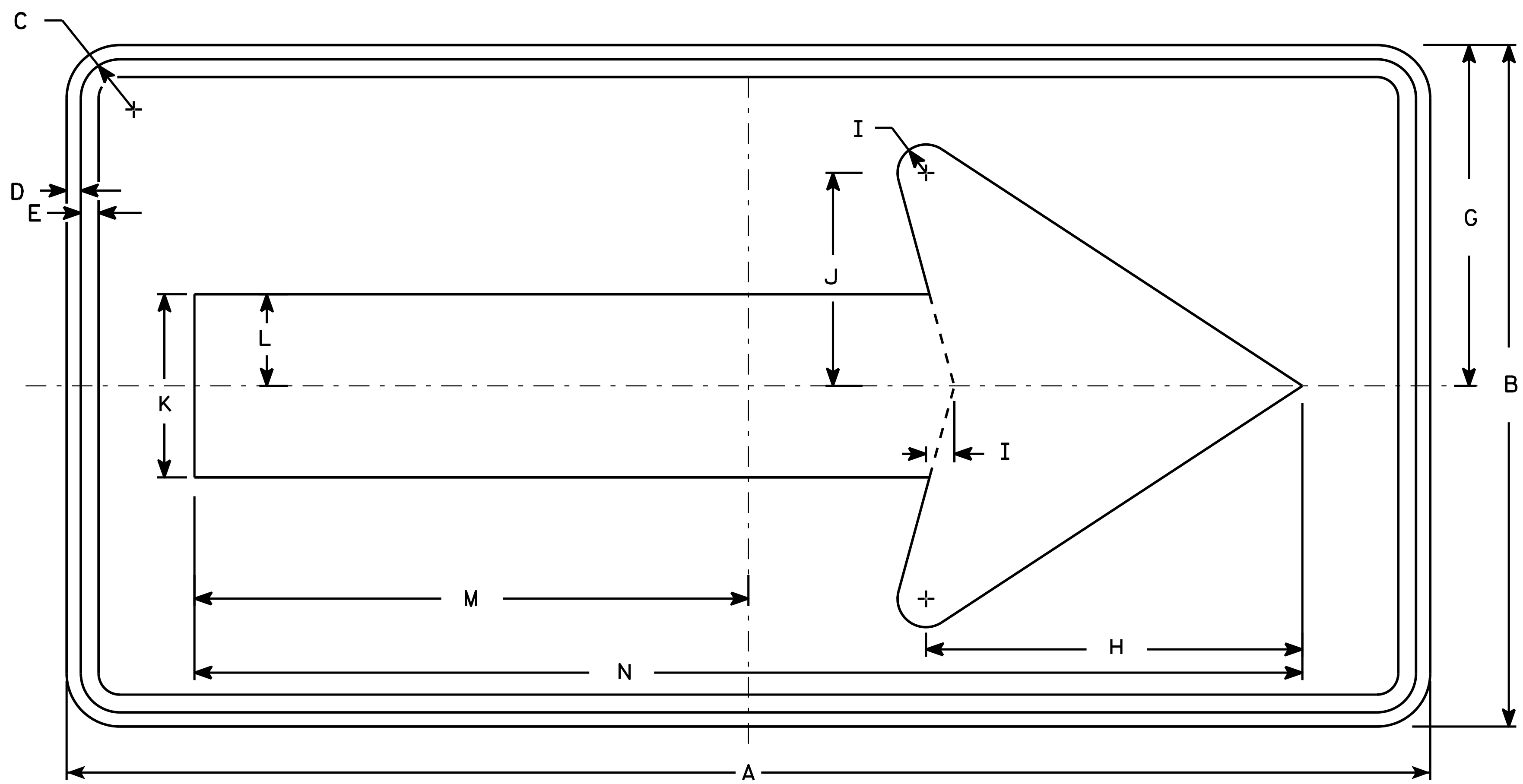
DATE 11/18/13 PLATE NO. W01-4b.1

7 7

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



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014B.DGN PLOT DATE : 28-FEB-2014 11:36 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 8.756290:1.000000 WISDOT/CADDS SHEET 42




W01-6

## NOTES

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

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

STANDARD SIGN
W01-6

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
*for* State Traffic Engineer

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

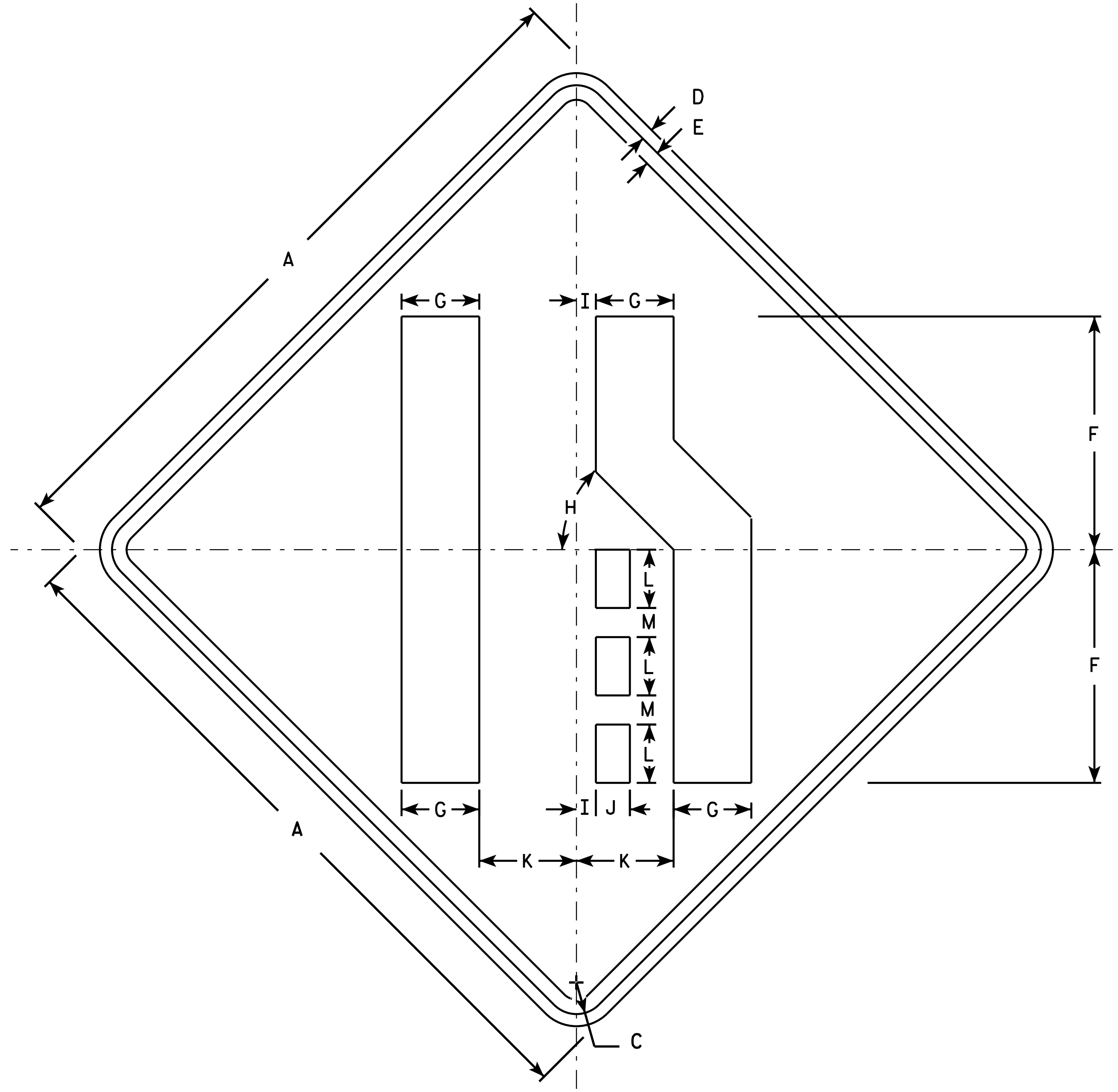


PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E



7

7




W04-2R

## NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbolis reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 12 | 4 | 45° | 1 | 1 3/4 | 5 | 3 | 1 1/2 | | | | | | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 16 | 5 3/8 | 45° | 1 1/4 | 2 3/8 | 6 3/4 | 4 | 2 | | | | | | | | | | | | | | 16.0 |

STANDARD SIGN
W04-2

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W04-2.1

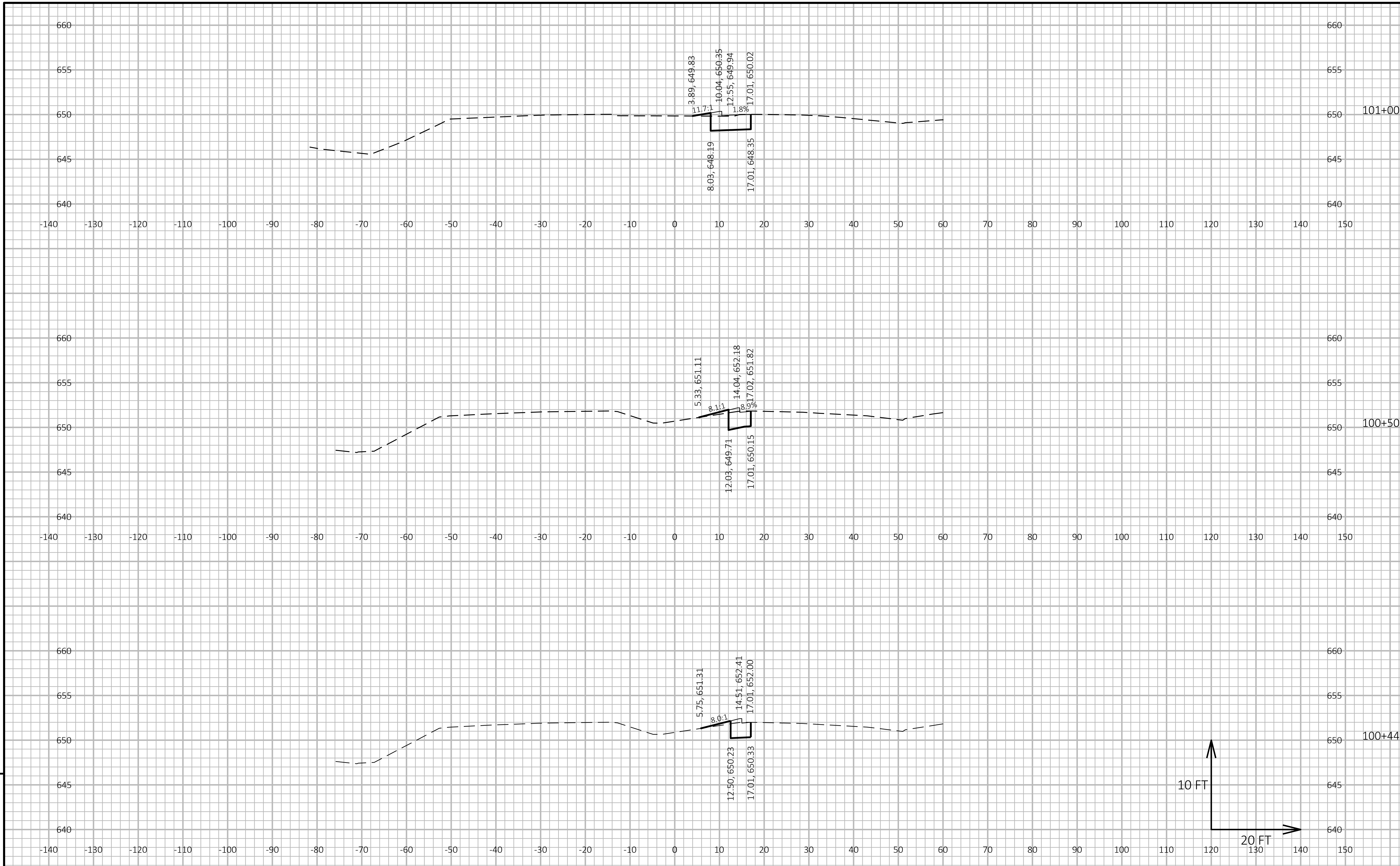


PROJECT NO: SHEET NO: E

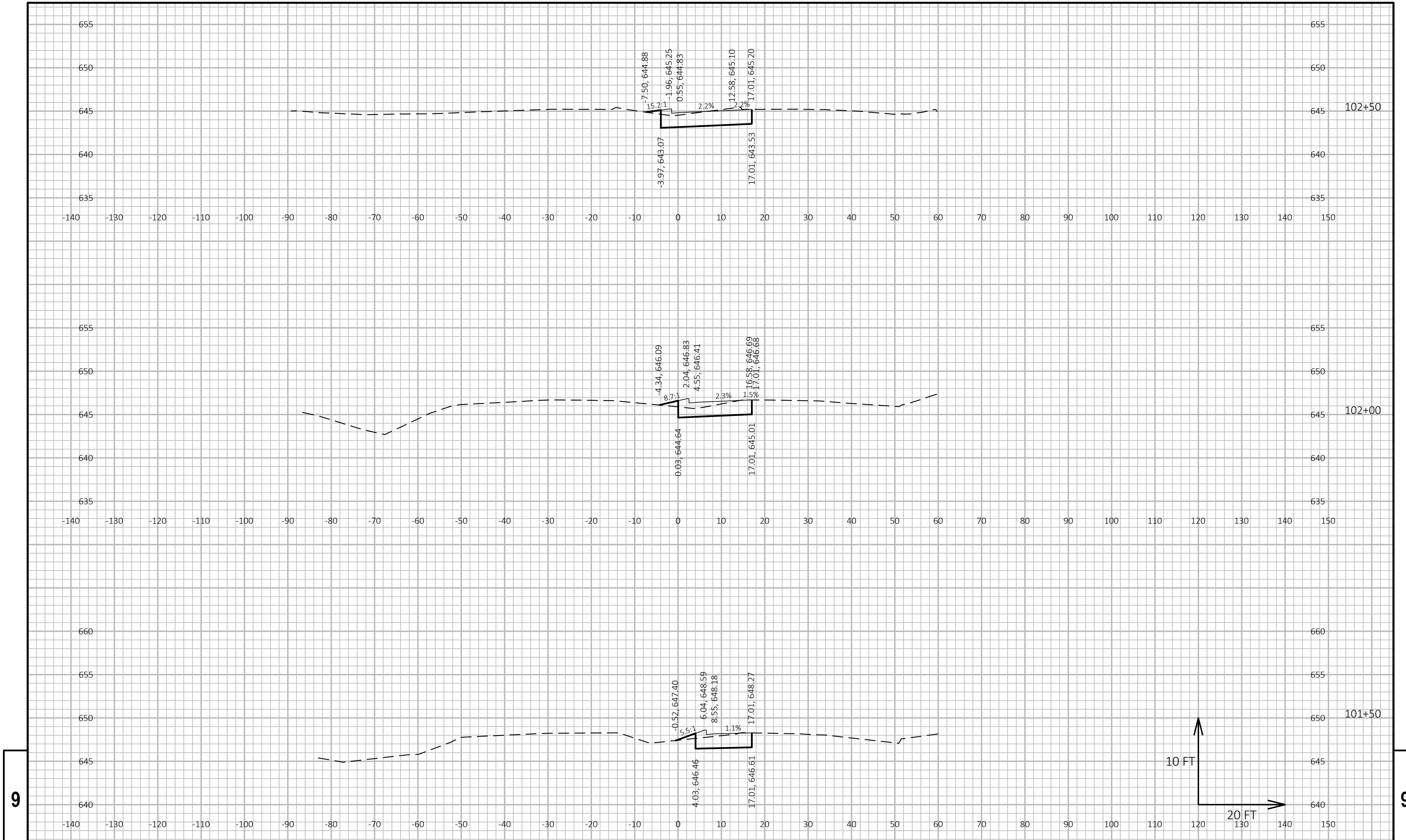
7 7

## WASHINGTON ROAD

| CATEGORY | REFERENCE LINE STATION | EXCAVATION DISTANCE (FT) | EXCAVATION END AREA CUT (SF) | EXCAVATION VOLUME CUT (CY) | EXCAVATION CUMM VOLUME CUT (CY) | EMBANKMENT END AREA FILL (SF) | EMBANKMENT VOLUME FILL (CY) | EMBANKMENT FILL FACTOR | EMBANKMENT EXPANDED VOLUME FILL (CY) | EMBANKMENT CUMM VOLUME FILL (CY) | EXCESS/ (SHORTAGE) CUMM VOLUME (CY) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0010 | 100+44 BA, AH | | 8 | | | 1 | | | | | |
| | | 6 | | 2 | 2 | | 0 | 1.3 | 0 | 0 | 1 |
| | 100+50 | | 9 | | | 1 | | | | | |
| | | 50 | | 21 | 23 | | 2 | 1.3 | 2 | 3 | 20 |
| | 101+00 | | 14 | | | 1 | | | | | |
| | | 50 | | 31 | 54 | | 2 | 1.3 | 3 | 5 | 48 |
| | 101+50 | | 19 | | | 1 | | | | | |
| | | 50 | | 38 | 92 | | 3 | 1.3 | 3 | 9 | 83 |
| | 102+00 | | 22 | | | 2 | | | | | |
| | | 50 | | 52 | 144 | | 2 | 1.3 | 3 | 12 | 132 |
| | 102+50 | | 34 | | | 1 | | | | | |
| | | 50 | | 76 | 220 | | 1 | 1.3 | 1 | 13 | 207 |
| | 103+00 | | 47 | | | 0 | | | | | |
| | | 50 | | 91 | 310 | | 2 | 1.3 | 2 | 15 | 295 |
| | 103+50 | | 51 | | | 1 | | | | | |
| | | 50 | | 98 | 408 | | 3 | 1.3 | 4 | 19 | 389 |
| | 104+00 | | 55 | | | 2 | | | | | |
| | | 50 | | 100 | 508 | | 3 | 1.3 | 4 | 23 | 485 |
| | 104+50 | | 53 | | | 2 | | | | | |
| | | 12 | | 24 | 532 | | 0 | 1.3 | 1 | 24 | 509 |
| | 104+62 | | 57 | | | 0 | | | | | |
| | 105+40 | | 57 | | | 0 | | | | | |
| | | 10 | | 21 | 553 | | 0 | 1.3 | 1 | 24 | 529 |
| | 105+50 | | 51 | | | 3 | | | | | |
| | | 50 | | 92 | 645 | | 5 | 1.3 | 7 | 31 | 614 |
| | 106+00 | | 48 | | | 3 | | | | | |
| | | 50 | | 88 | 733 | | 6 | 1.3 | 7 | 38 | 695 |
| | 106+50 | | 47 | | | 3 | | | | | |
| | | 50 | | 90 | 823 | | 5 | 1.3 | 7 | 45 | 778 |
| | 107+00 | | 50 | | | 3 | | | | | |
| | | 50 | | 89 | 911 | | 3 | 1.3 | 3 | 48 | 863 |
| | 107+50 | | 45 | | | 0 | | | | | |
| | | 50 | | 84 | 996 | | 0 | 1.3 | 0 | 49 | 947 |
| | 108+00 | | 46 | | | 0 | | | | | |
| | | 50 | | 69 | 1,065 | | 0 | 1.3 | 0 | 49 | 1,016 |
| | 108+50 | | 29 | | | 0 | | | | | |
| | | 50 | | 48 | 1,113 | | 0 | 1.3 | 0 | 49 | 1,065 |
| | 109+00 | | 23 | | | 0 | | | | | |
| | | 25 | | 29 | 1,142 | | 0 | 1.3 | 0 | 49 | 1,093 |
| | 109+25 | | 38 | | | 0 | | | | | |
| | TOTAL | | | | 1,142 | | 37 | | | 49 | 1,093 |




| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | CROSS SECTIONS: WASHINGTON ROAD | SHEET 197 | E |
|---|---|---|---|---|---|

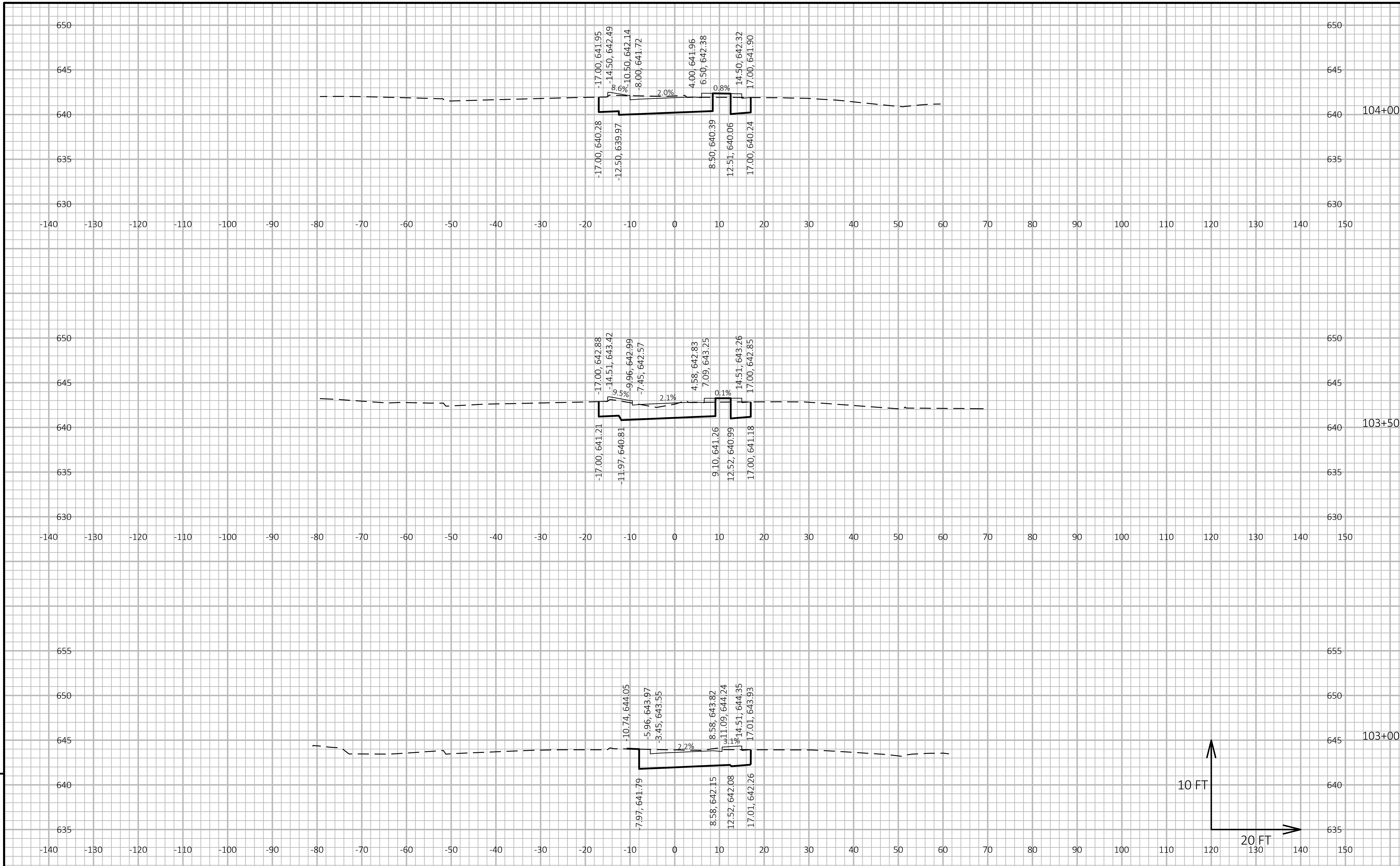



| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | CROSS SECTIONS: WASHINGTON ROAD | SHEET 198 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090202_xs

PLOT DATE : 8/30/2022 3:10 PM PLOT BY : ANDERSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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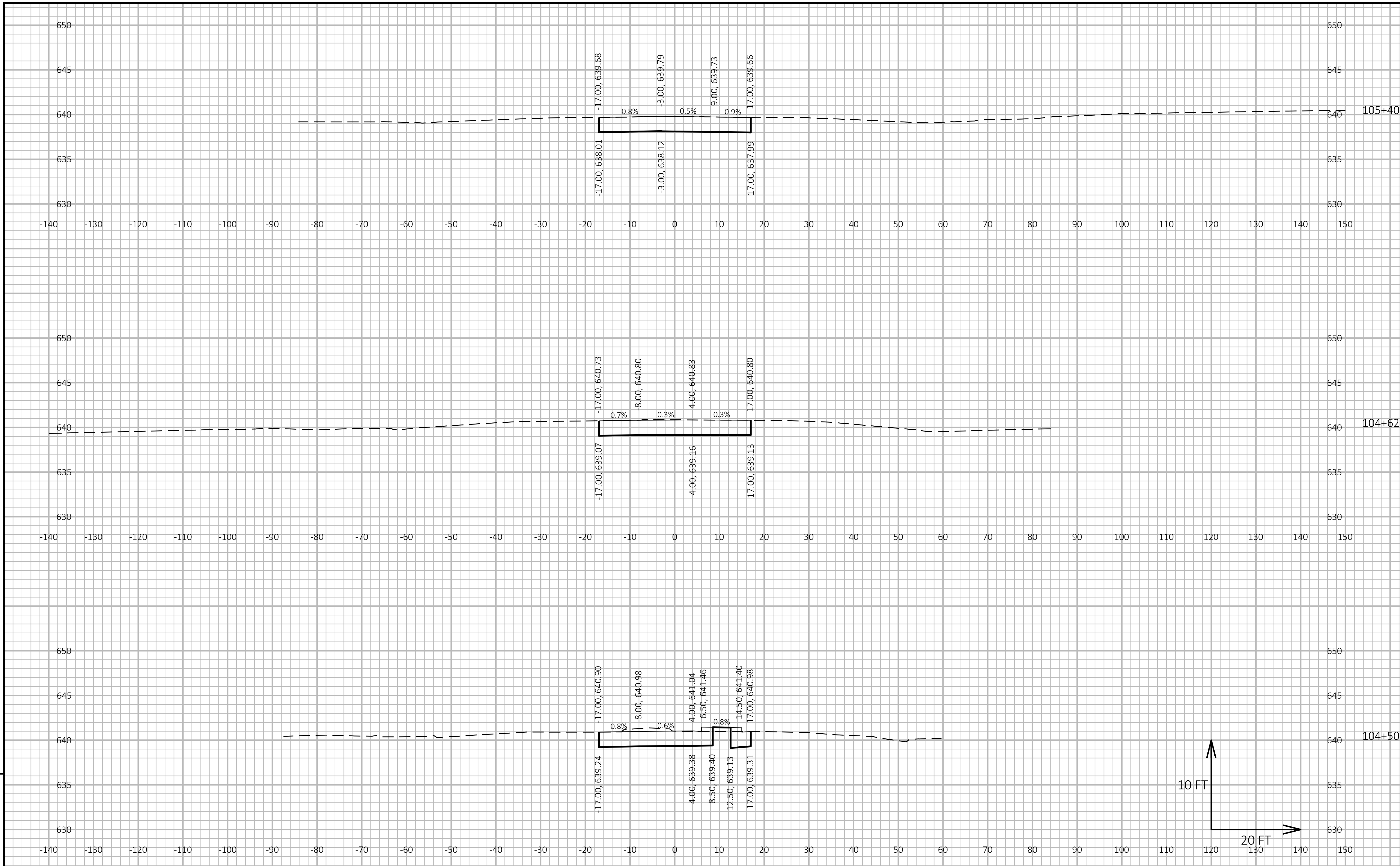
| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | CROSS SECTIONS: WASHINGTON ROAD | SHEET 199 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090203_xs

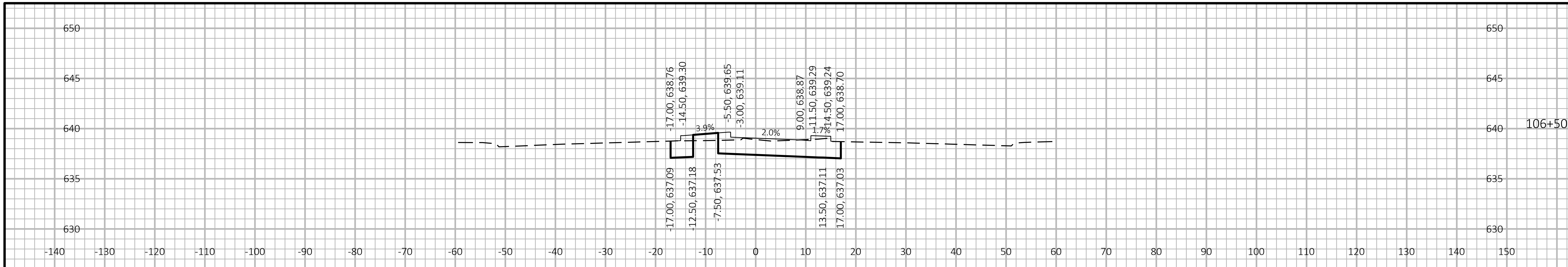
PLOT DATE : 8/30/2022 3:10 PM PLOT BY : ANDERSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

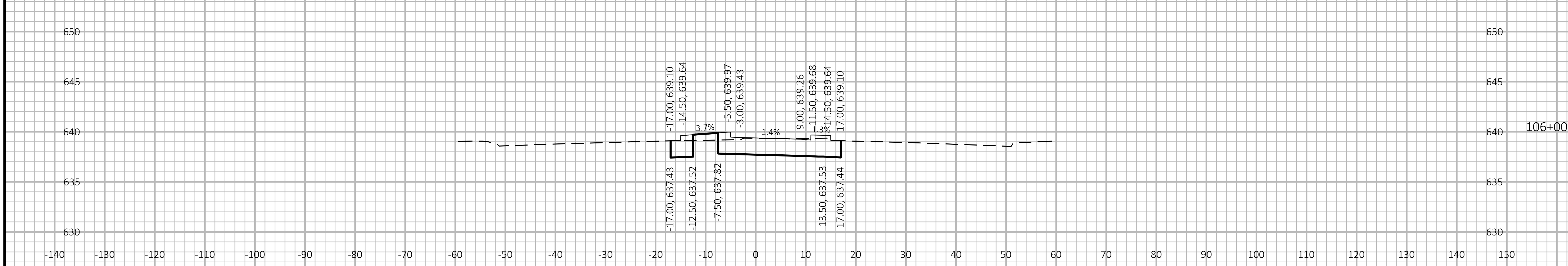
WISDOT/CADDS SHEET 49

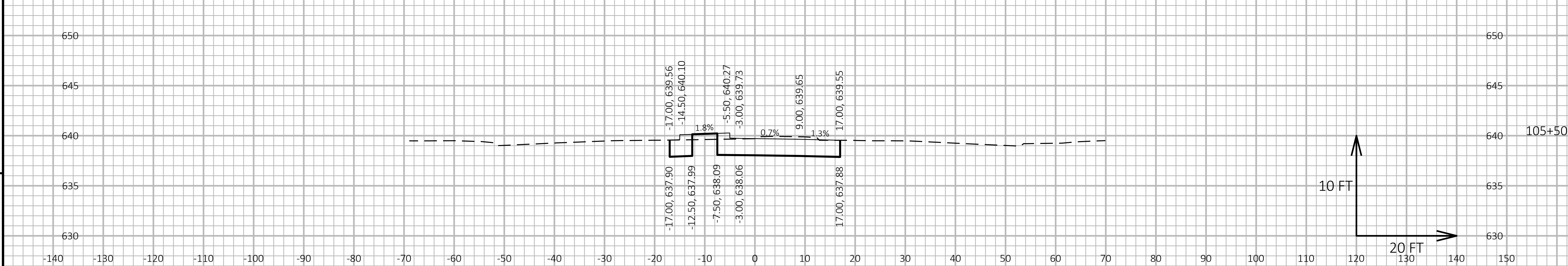



9 9

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | CROSS SECTIONS: WASHINGTON ROAD | SHEET 200 | E |
|---|---|---|---|---|---|




9 | 9

| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | CROSS SECTIONS: WASHINGTON ROAD | SHEET 201 | E |
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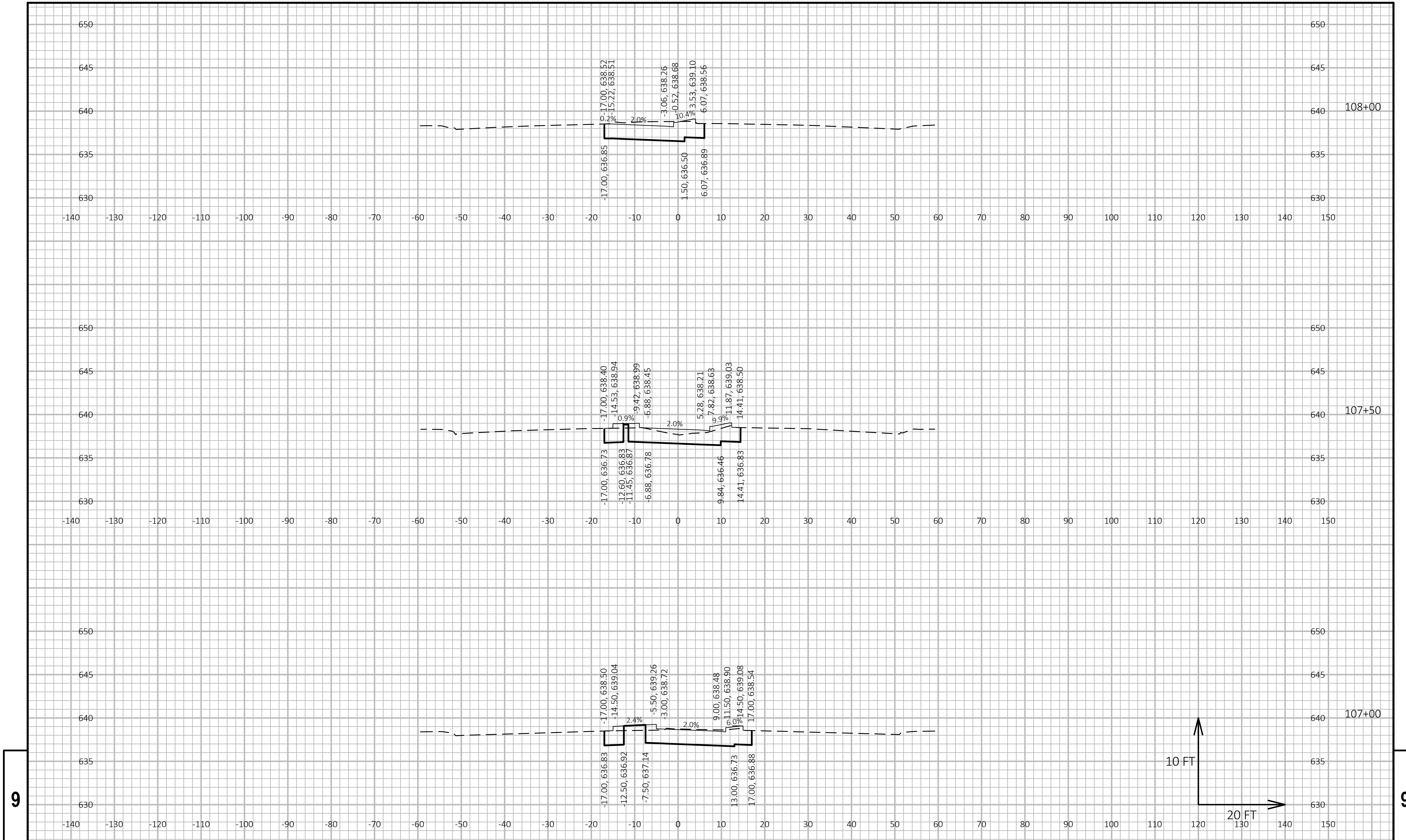
FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090205_xs
PLOT DATE : 8/30/2022 3:10 PM PLOT BY : ANDERSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49


108+00
-17.00, 638.52
-15.22, 638.51
-3.06, 638.26
-0.52, 638.68
3.53, 639.10
6.07, 638.56
0.2%
2.0%
10.4%
-17.00, 636.85
1.50, 636.50
6.07, 636.89
107+50
-17.00, 638.40
-14.53, 638.94
-9.42, 638.99
-6.88, 638.45
5.28, 638.21
7.82, 638.63
11.87, 639.03
14.41, 638.50
0.9%
2.0%
9.9%
-17.00, 636.73
-12.60, 636.83
-11.45, 636.87
-6.88, 636.78
9.84, 636.46
14.41, 636.83
107+00
-17.00, 638.50
-14.50, 639.04
-5.50, 639.26
-3.00, 638.72
9.00, 638.48
11.50, 638.90
14.50, 639.08
17.00, 638.54
2.4%
2.0%
6.0%
-17.00, 636.83
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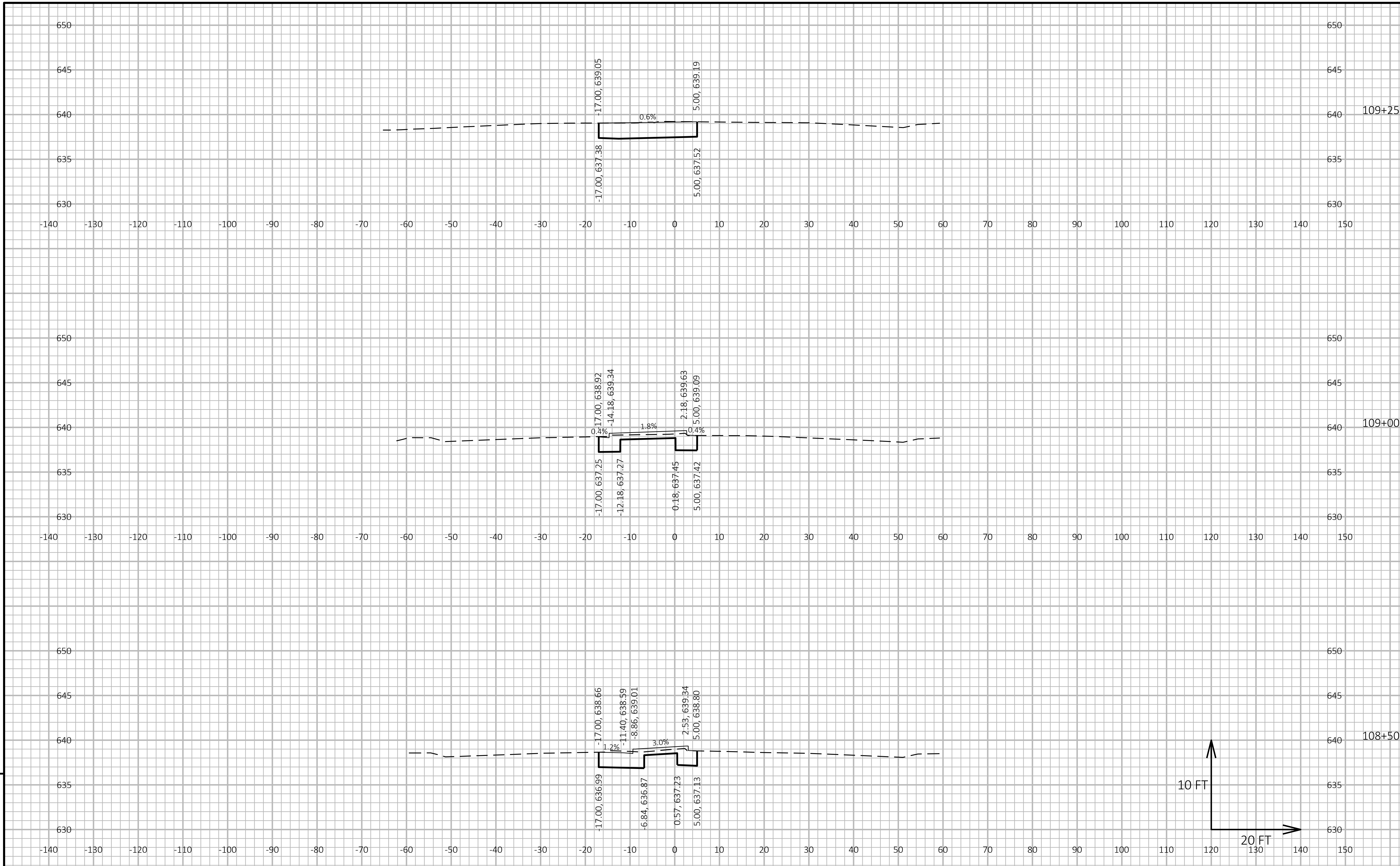
10 FT
20 FT
9
9

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| PROJECT NO: 3831-07-72 | HWY: LOCAL STREET | COUNTY: KENOSHA | CROSS SECTIONS: WASHINGTON ROAD | SHEET 203 | E |
|---|---|---|---|---|---|

FILE NAME : S:\MIL\1500--1599\1540\026\DRAWINGS\CAD\AUTOCAD\CIVIL 3D\38310702\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090207_xs

PLOT DATE : 8/30/2022 3:11 PM PLOT BY : ANDERSON, ERIC PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

# Wisconsin Department of Transportation

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