



GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS BETWEEN THE SUBGRADE SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED.

PLACEMENT OF MULCH AND EROSION MAT SHALL BE DETERMINED BY THE THE ENGINEER IN THE FIELD.

ALL DRIVEWAYS AND FIELD ENTRANCES SHALL BE REPLACED IN KIND. ENSURE POSITIVE DRAINAGE TO ALL INLETS.

UTILITIES

|                                                                                                                                                  |                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DENNIS HAAG<br>CENTURYLINK - COMMUNICATION LINE<br>144 N PEARL ST<br>PO BOX 70<br>BERLIN, WI 54923<br>920-361-0040<br>DENNIS.HAAG@CENTURYTEL.COM | JIM KOSTUCH<br>WINDSTREAM KDL, INC. - COMMUNICATION LINE<br>13935 BISHOPS DRIVE<br>BROOKFIELD, WI 53005<br>262-792-7938<br>JAMES.KOSTUCH@WINDSTREAM.COM                                                       |
| CRAIG DEQUAINE<br>VILLAGE OF LUXEMBURG - SEWER<br>206 MAPLE ST, 307<br>LUXEMBURG, WI 54217<br>920-845-2722<br>CDEQUAINE@LUXEMBURGUSA.COM         | JEFF PELISCHEK<br>WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY<br>800 COLUMBUS ST<br>TWO RIVERS, WI 54241<br>920-657-1815 (OFFICE)<br>920-655-0522 (MOBILE)<br>GJPEOT@WISCONSINPUBLICSERVICE.COM        |
| CRAIG DEQUAINE<br>VILLAGE OF LUXEMBURG - WATER<br>206 MAPLE ST, 307<br>LUXEMBURG, WI 54217<br>920-845-2722<br>CDEQUAINE@LUXEMBURGUSA.COM         | JEFF PELISCHEK<br>WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM<br>800 COLUMBUS ST<br>TWO RIVERS, WI 54241<br>920-657-1816 (OFFICE)<br>920-323-4836 (MOBILE)<br>JSPELISCHEK@WISCONSINPUBLICSERVICE.COM |

WISDOT CONTACT PERSON

JEREMY ASHAUER PE  
DEPARTMENT OF TRANSPORTATION  
NORTHEAST REGION  
944 VANDERPERREN WAY  
GREEN BAY, WI 54304  
920-492-4165  
JEREMY.ASHAUER@DOT.WI.GOV

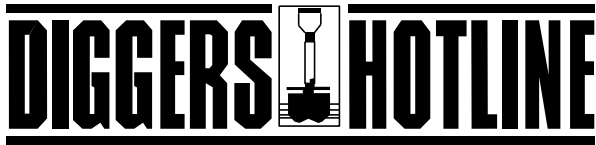
DNR AREA LIAISON

MATTHEW SCHAEVE  
DEPARTMENT OF NATURAL RESOURCES  
NORTHEAST REGION  
2984 SHAWANO AVE  
GREEN BAY, WI 54313  
920-662-5472  
MATTHEW.SCHAEVE@WISCONSIN.GOV

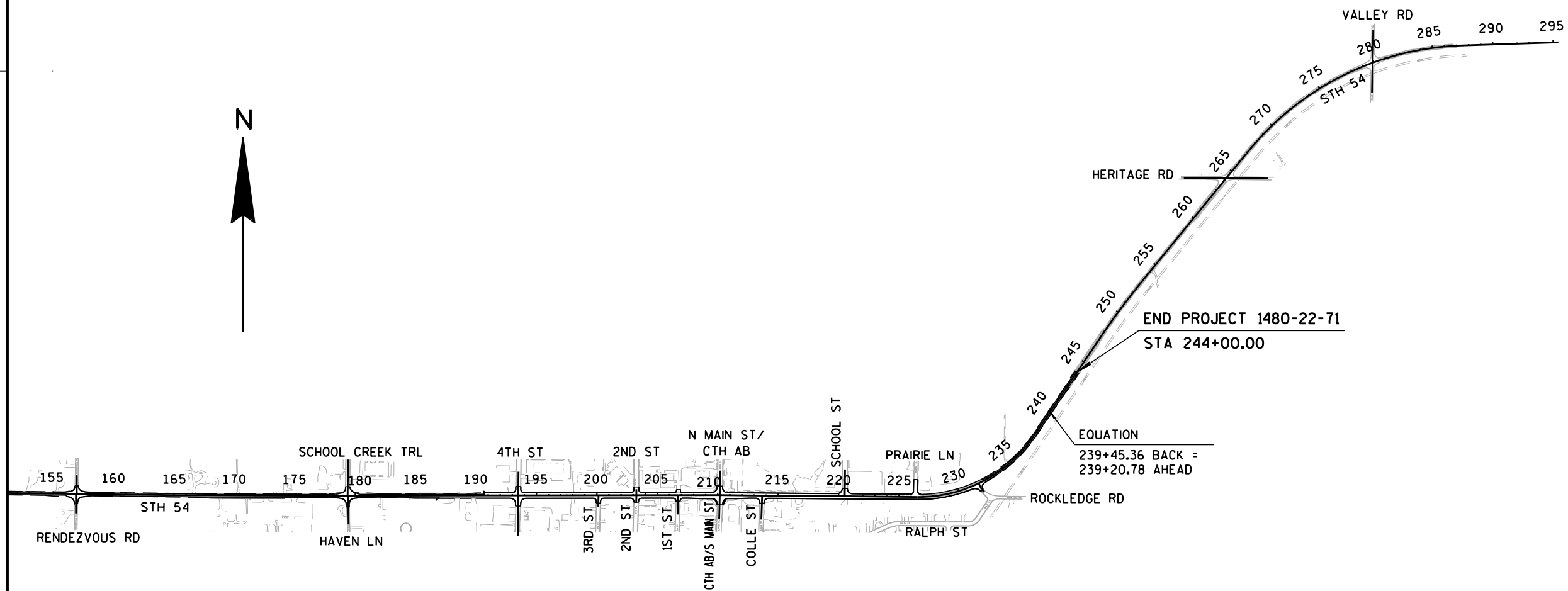
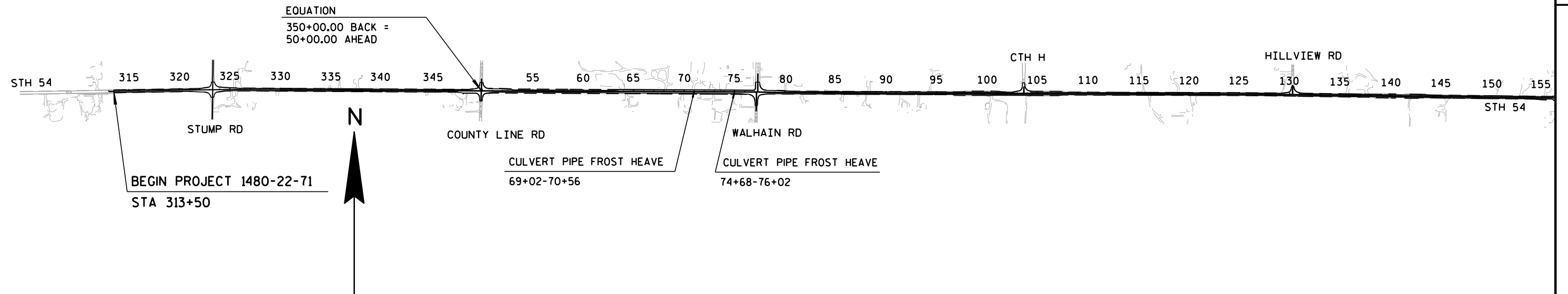
COUNTY SURVEYOR OR SURVEYS CONTACT PERSON

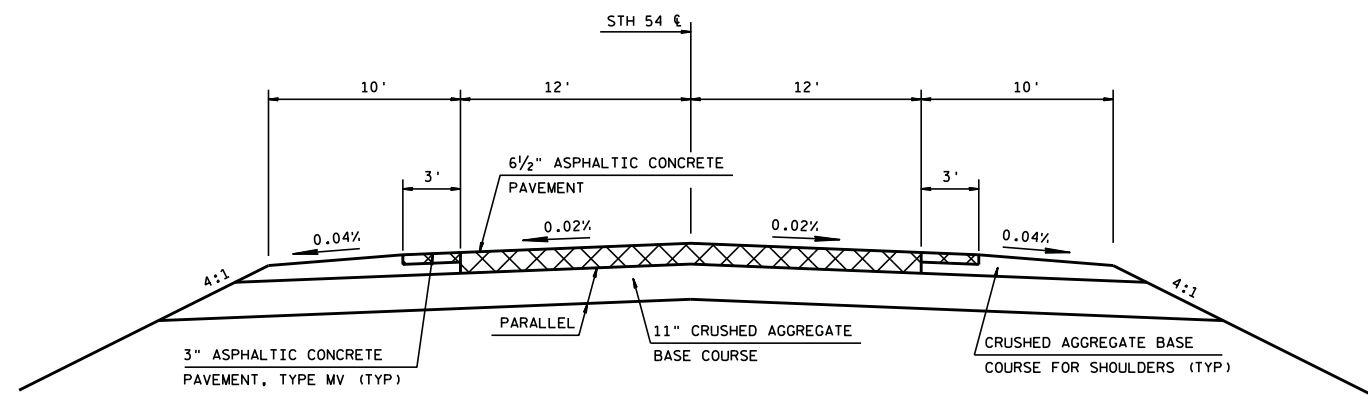
PAT FORD - BROWN COUNTY  
305 EAST WALNUT STREET  
GREEN BAY, WI 54301  
920-448-4493  
FORD.PJ@CO.BROWN.WI.US

KIP INMAN - KEWAUNEE COUNTY  
TITLETOWN SURVEYING LLC  
553 KENNEY ST  
GREEN BAY, WI 54301  
920-336-7387  
KIPINMANTS@ATT.NET

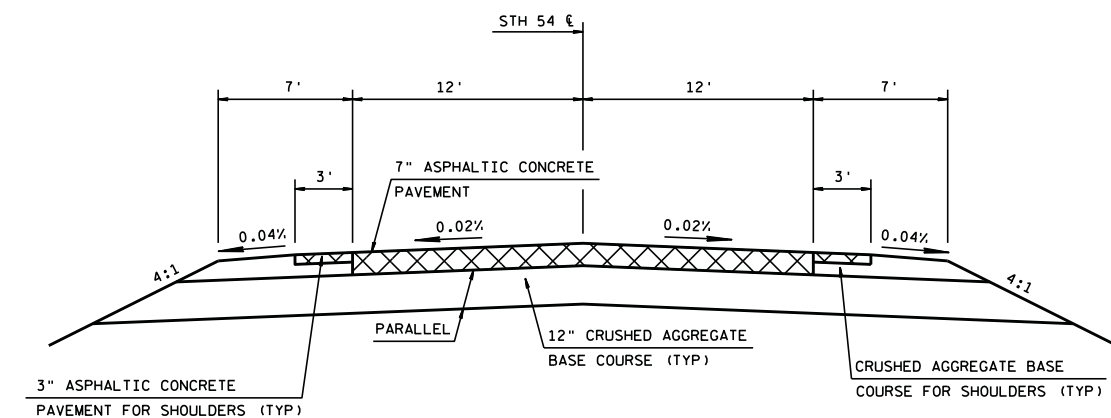


Call 811 3 Work Days Before You Dig  
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Hearing Impaired TDD (800) 542-2289  
www.DiggersHotline.com

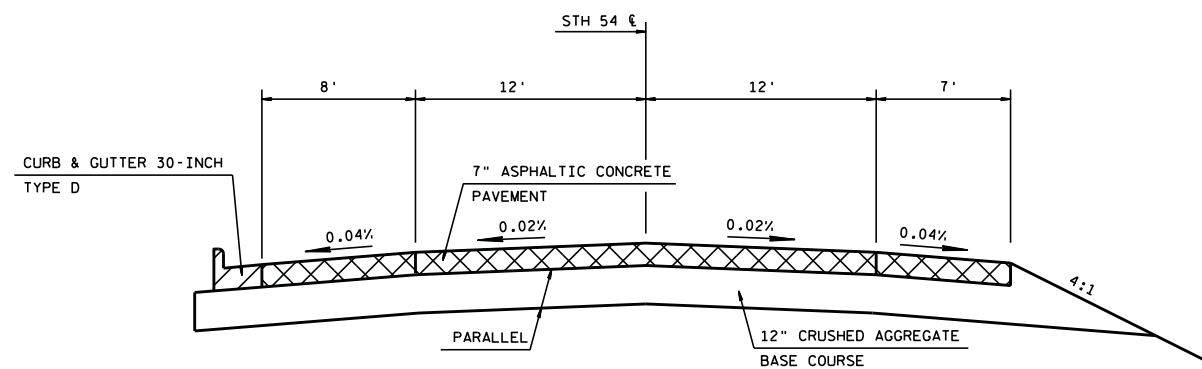




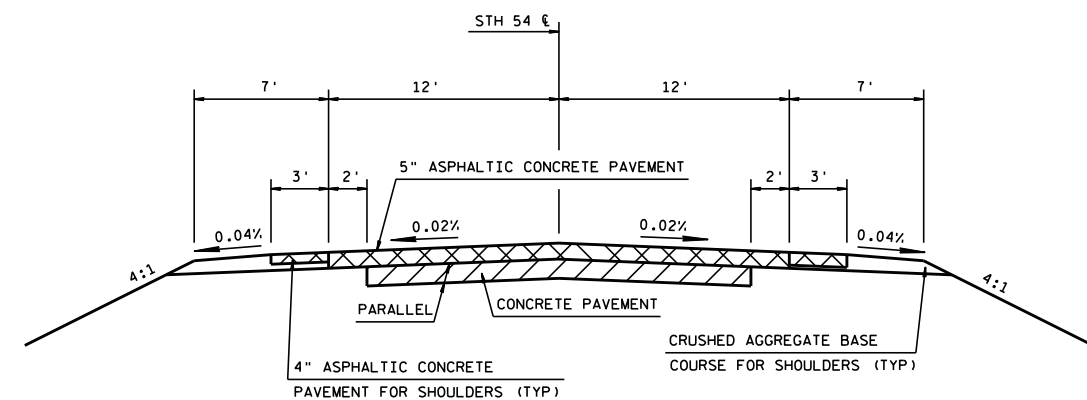
TYPICAL EXISTING CROSS SECTION FOR STH 54  
STA 313+50 - STA 349+00



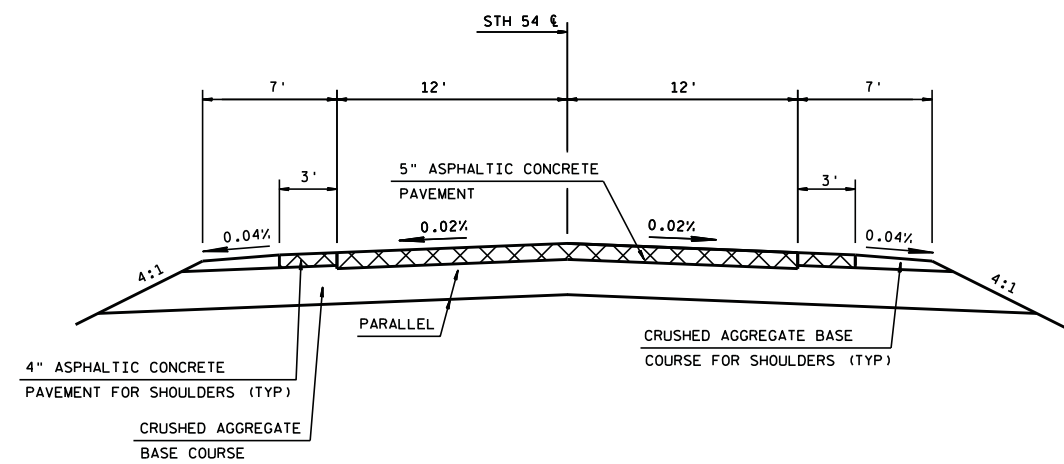
TYPICAL EXISTING CROSS SECTION FOR STH 54  
STA 349+00 - STA 350+00  
STA 50+00 - STA 63+70  
STA 76+90 - STA 79+00  
STA 107+25 - STA 139+85  
STA 142+15 - STA 142+42  
STA 165+00 - STA 168+00  
STA 231+00 - STA 239+45.36  
STA 239+20.78 - STA 244+00



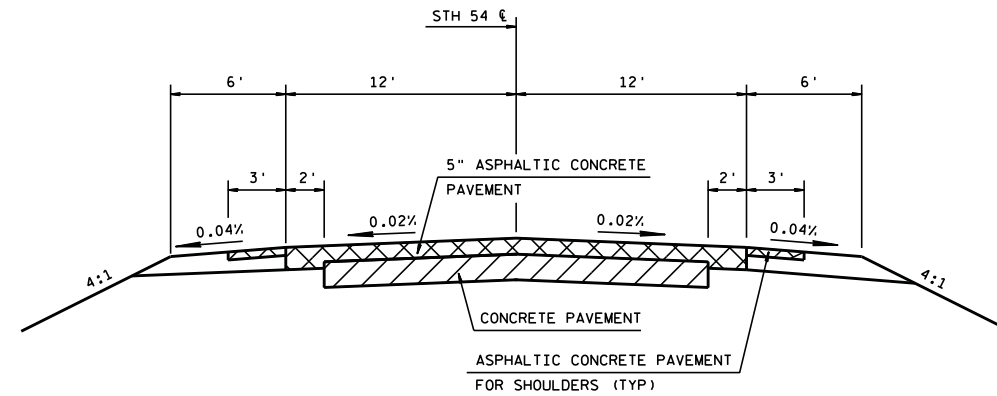
TYPICAL EXISTING CROSS SECTION FOR STH 54  
STA 63+70 - STA 76+90



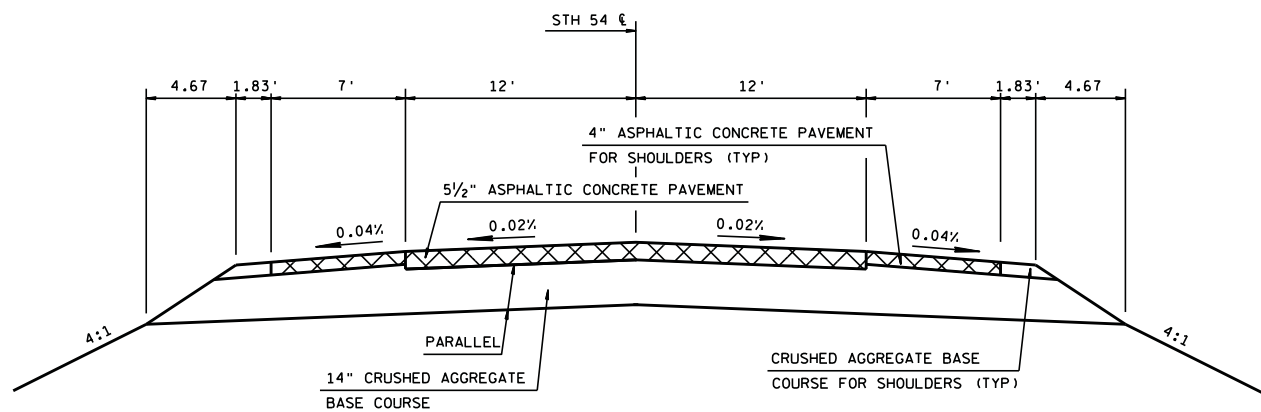
TYPICAL EXISTING CROSS SECTION FOR STH 54  
STA 79+00 - STA 98+15  
STA 100+13 - STA 104+77  
STA 142+42 - STA 165+00



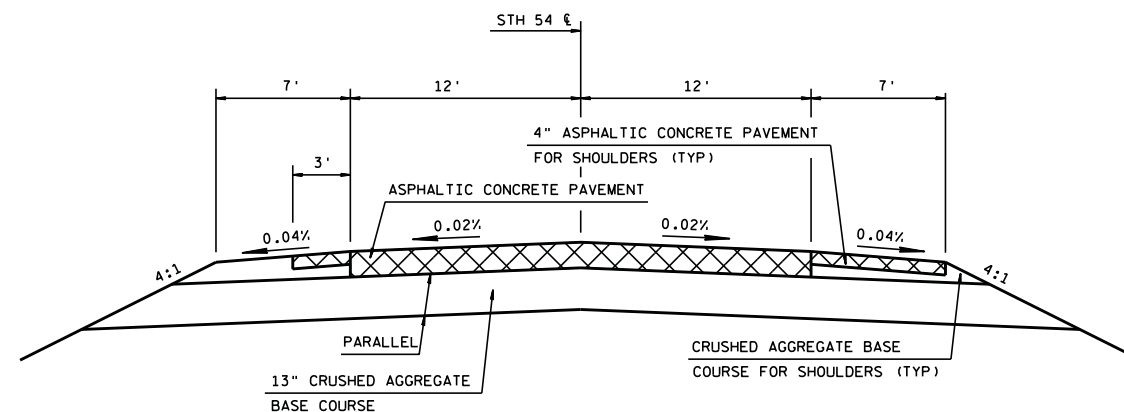
**TYPICAL EXISTING CROSS SECTION FOR STH 54**  
STA 244+00 - STA 263+49



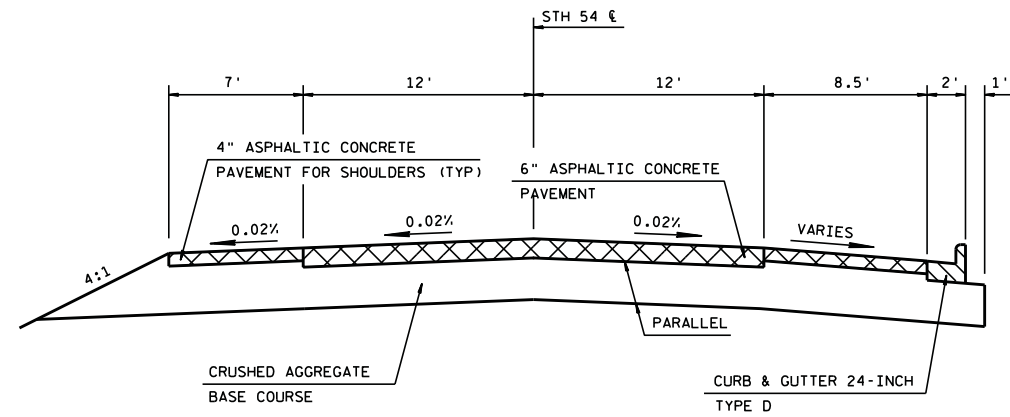
**TYPICAL EXISTING CROSS SECTION FOR STH 54**  
STA 263+49 - STA 280+00



**TYPICAL EXISTING CROSS SECTION FOR STH 54**  
STA 98+15 - STA 100+13  
STA 104+77 - STA 107+25  
STA 139+85 - STA 142+15  
STA 185+00 - STA 186+94

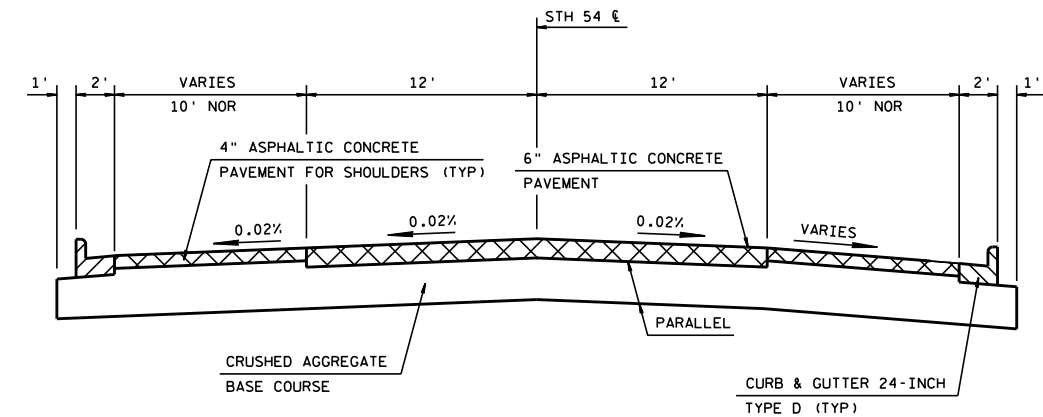


**TYPICAL EXISTING CROSS SECTION FOR STH 54**  
STA 171+30 - STA 185+00



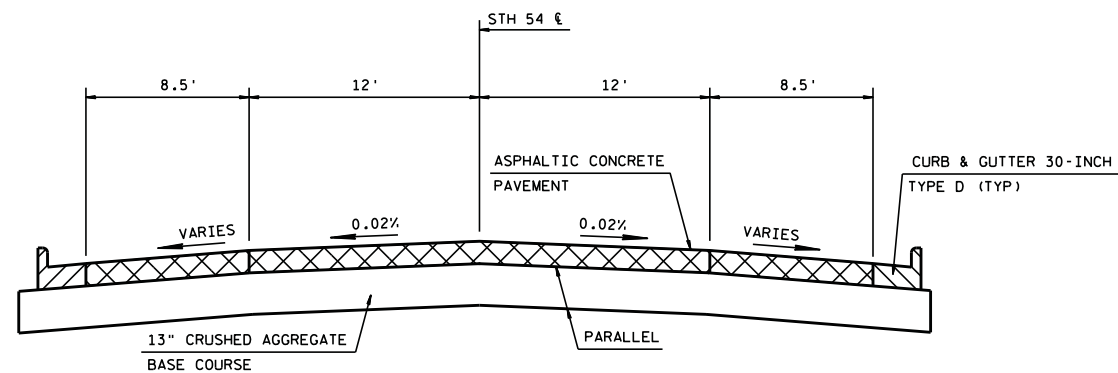
**TYPICAL EXISTING CROSS SECTION FOR STH 54**

STA 168+00 - STA 171+30  
STA 186+94 - STA 190+71  
STA 226+75 - STA 231+00



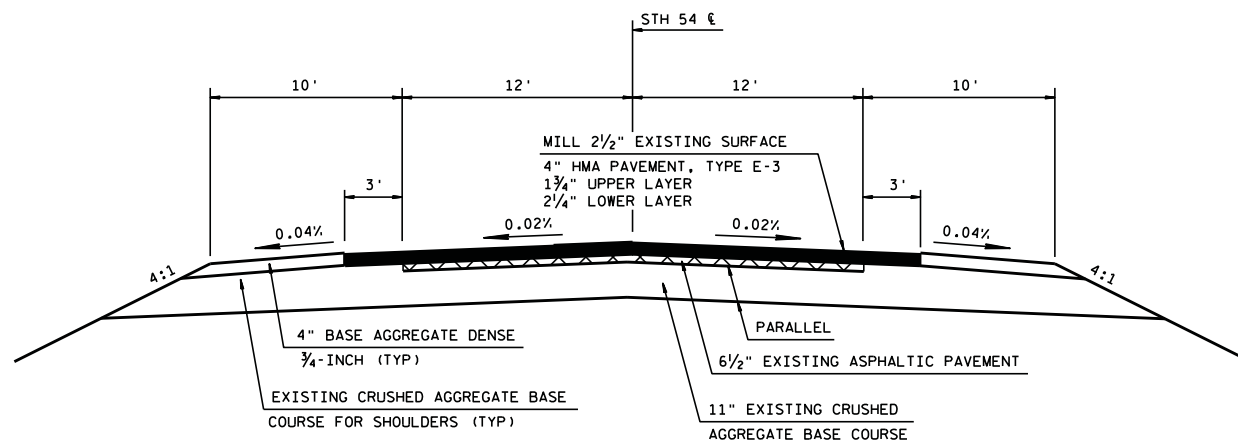
**TYPICAL EXISTING CROSS SECTION FOR STH 54**

STA 190+71 - STA 216+00



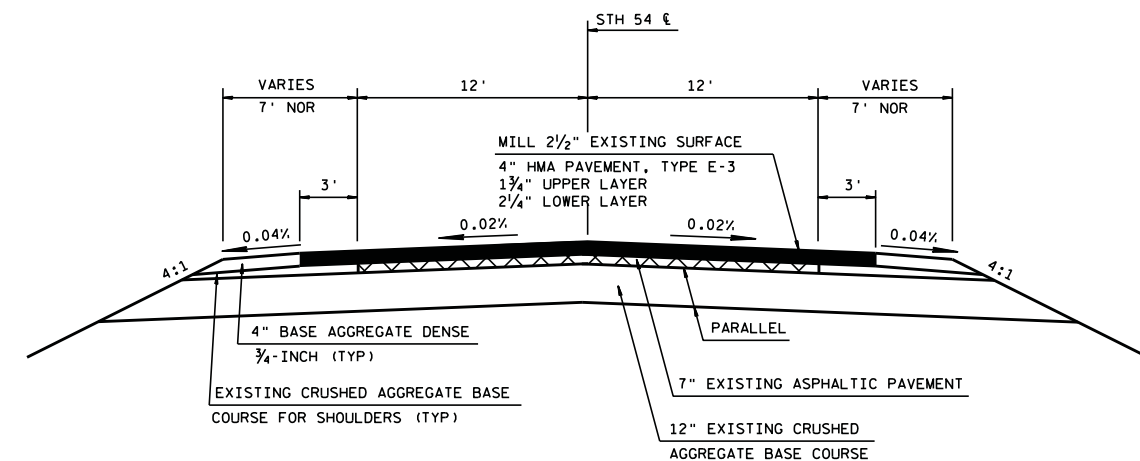
**TYPICAL EXISTING CROSS SECTION FOR STH 54**

STA 216+00 - STA 226+75



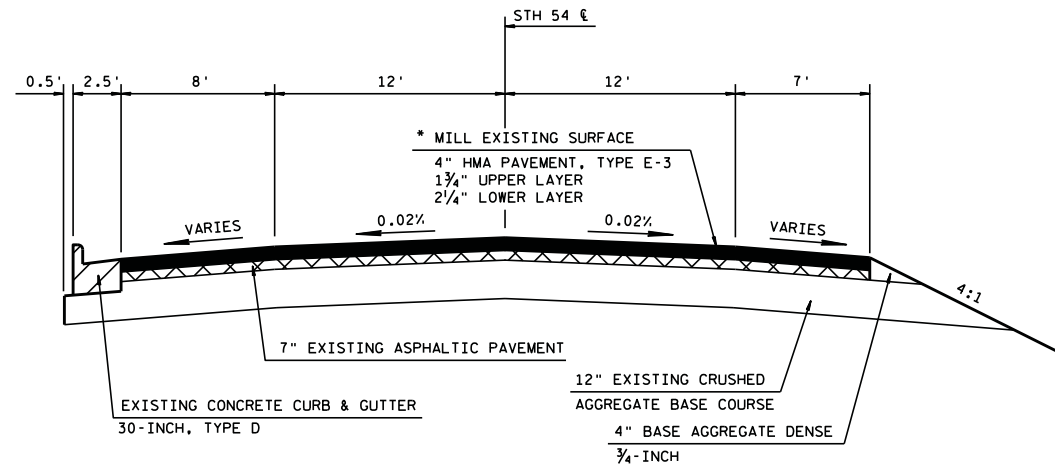
**TYPICAL FINISHED CROSS SECTION FOR STH 54**

STA 313+50 - STA 349+00



**TYPICAL FINISHED CROSS SECTION FOR STH 54**

STA 349+00 - STA 350+00  
STA 50+00 - STA 63+70  
STA 76+90 - STA 79+00  
STA 107+25 - STA 139+85  
STA 142+15 - STA 142+42  
STA 165+00 - STA 168+00  
STA 231+00 - STA 239+45.36  
STA 239+20.78 - STA 244+00

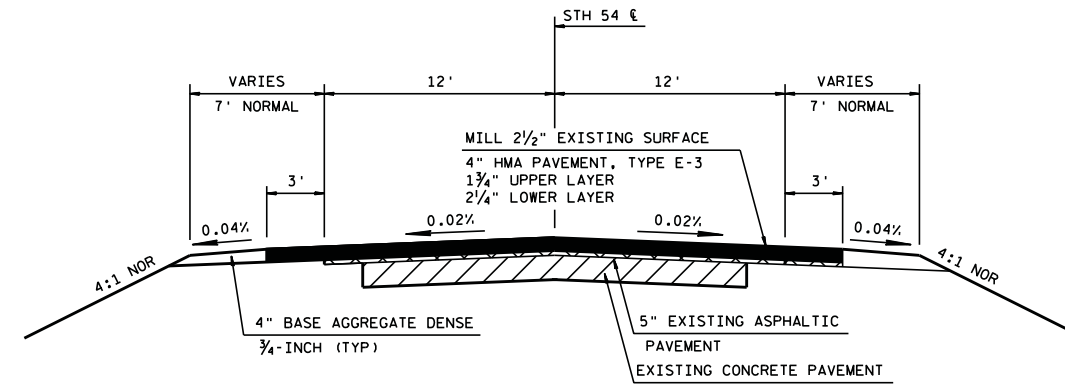


\* MILL PAVEMENT 2 1/2" AT CENTERLINE, 1 3/4" AT CURB FLANGE LINE.  
PAVE HMA PAVEMENT 4" AT CENTERLINE, 1 3/4" AT CURB FLANGE LINE.

#### TYPICAL FINISHED CROSS SECTION FOR STH 54

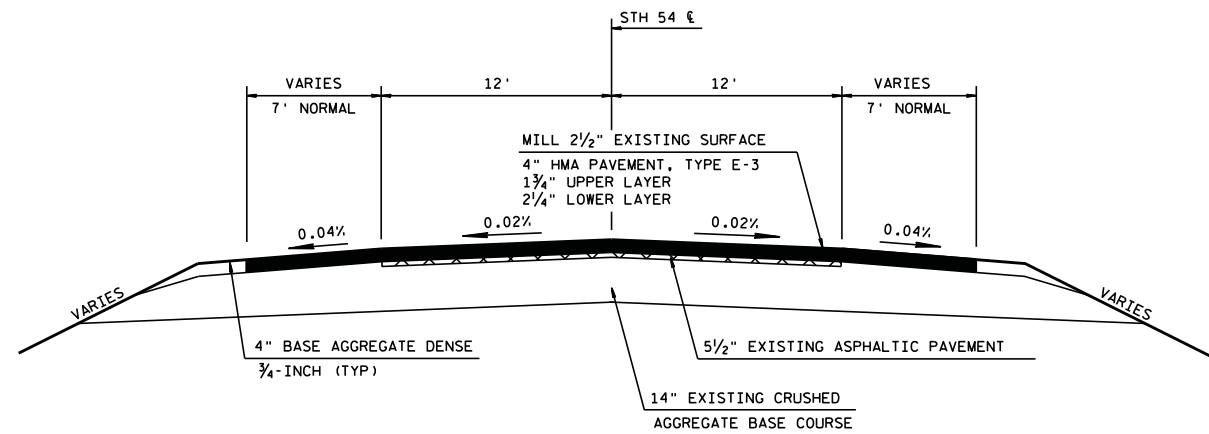
STA 63+70 - STA 76+90

NOTE: STATION LIMITS SHALL EXCLUDE THE FROST  
HEAVE REPAIR AREAS. SEE CONSTRUCTION  
DETAILS FOR THE FROST HEAVE REPAIR AREAS  
FOR FINISHED CROSS SECTION INFORMATION.



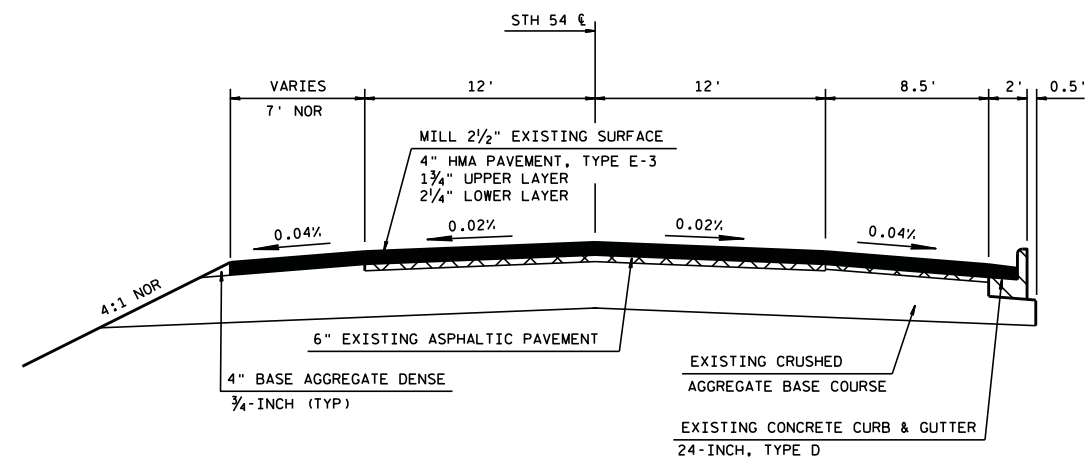
#### TYPICAL FINISHED CROSS SECTION FOR STH 54

STA 79+00 - STA 98+15  
STA 100+13 - STA 104+77  
STA 142+42 - STA 165+00



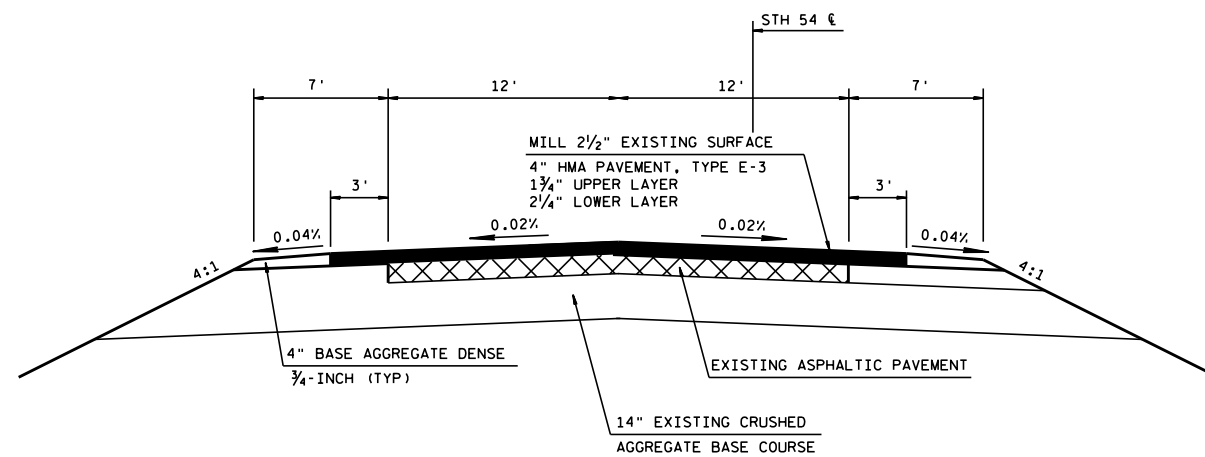
#### TYPICAL FINISHED CROSS SECTION FOR STH 54

STA 98+15 - STA 100+13  
STA 104+77 - STA 107+25  
STA 139+85 - STA 142+15  
STA 185+00 - STA 186+94

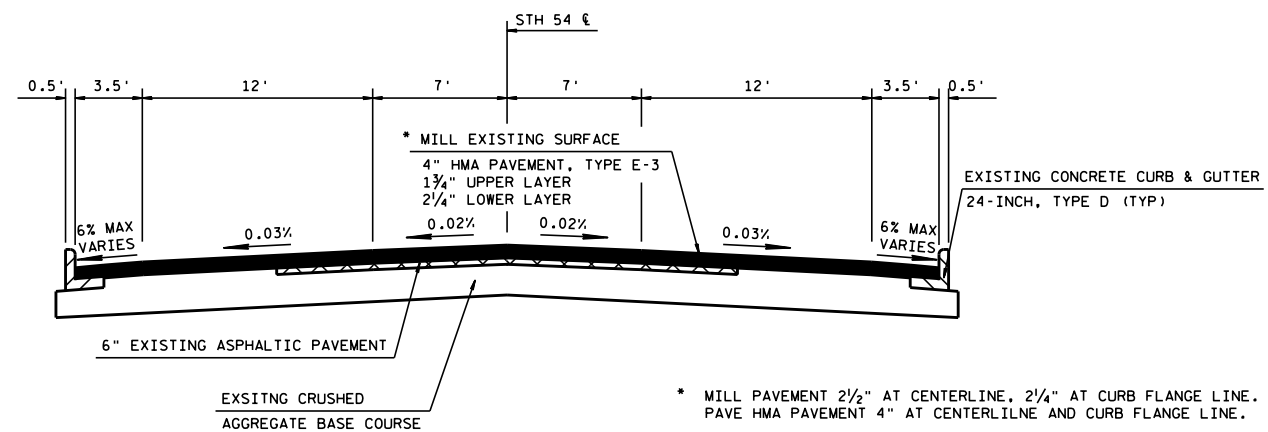


#### TYPICAL FINISHED CROSS SECTION FOR STH 54

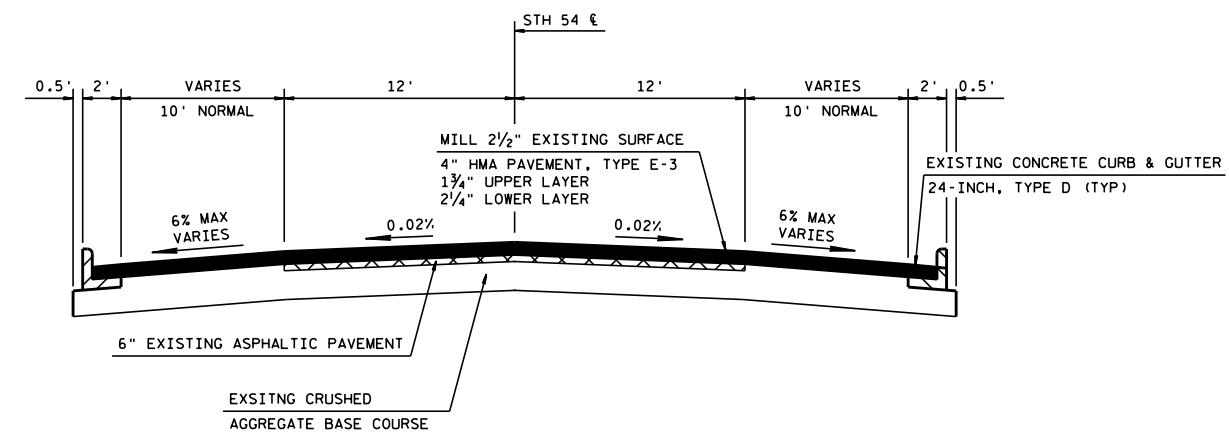
STA 168+00 - STA 171+30  
STA 186+94 - STA 190+71  
STA 226+75 - STA 231+00



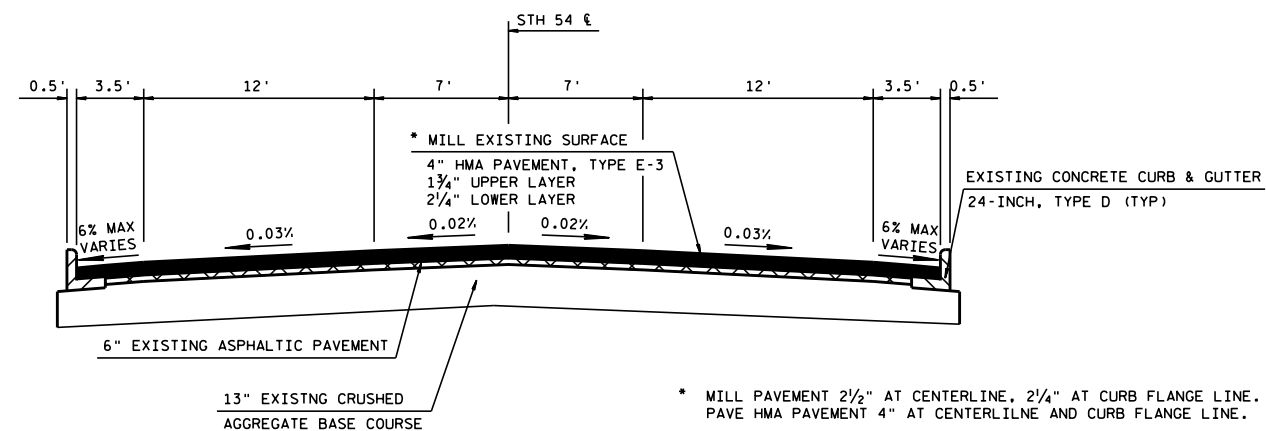
**TYPICAL FINISHED CROSS SECTION FOR STH 54**  
STA 171+30 - STA 185+00



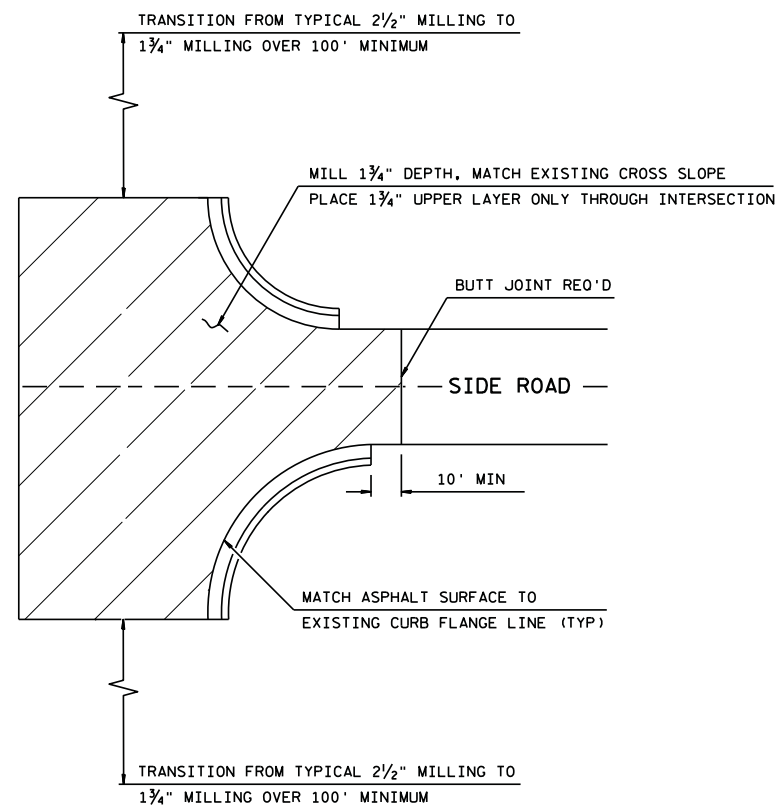
**TYPICAL FINISHED CROSS SECTION FOR STH 54**  
STA 193+50 - STA 216+00



**TYPICAL FINISHED CROSS SECTION FOR STH 54**  
STA 190+71 - STA 193+50



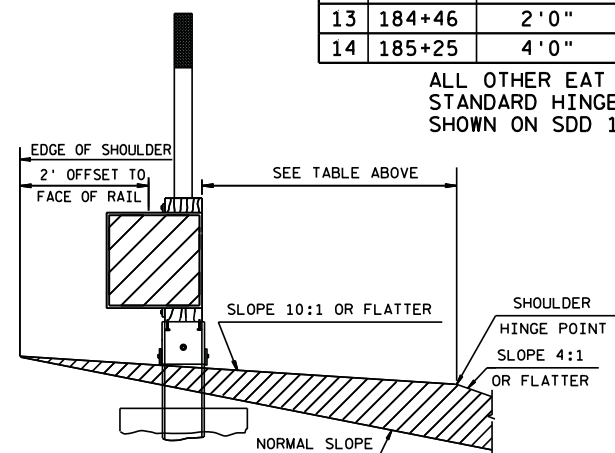
**TYPICAL FINISHED CROSS SECTION FOR STH 54**  
STA 216+00 - STA 226+75



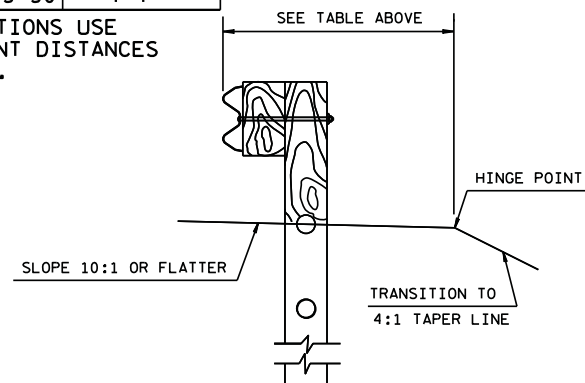
MILL AND OVERLAY DETAIL AT SIDEROAD INTERSECTIONS WITH/WITHOUT CURB AND GUTTER

|     | POST 1  |                    | POST 5  |                    |
|-----|---------|--------------------|---------|--------------------|
| EAT | STATION | DIST. TO HINGE PT. | STATION | DIST. TO HINGE PT. |
| 1   | 96+81   | 2'0"               | 97+06   | 3'6"               |
| 2   | 97+86   | 1'0"               | 98+11   | 2'6"               |
| 4   | 101+24  | 2'6"               | 100+99  | 3'3"               |
| 9   | 138+50  | 2'0"               | 138+75  | 2'4"               |
| 10  | 139+25  | 3'0"               | 139+50  | 3'6"               |
| 13  | 184+46  | 2'0"               | 184+71  | 3'2"               |
| 14  | 185+25  | 4'0"               | 185+50  | 4'4"               |

ALL OTHER EAT LOCATIONS USE STANDARD HINGE POINT DISTANCES SHOWN ON SDD 14B24.



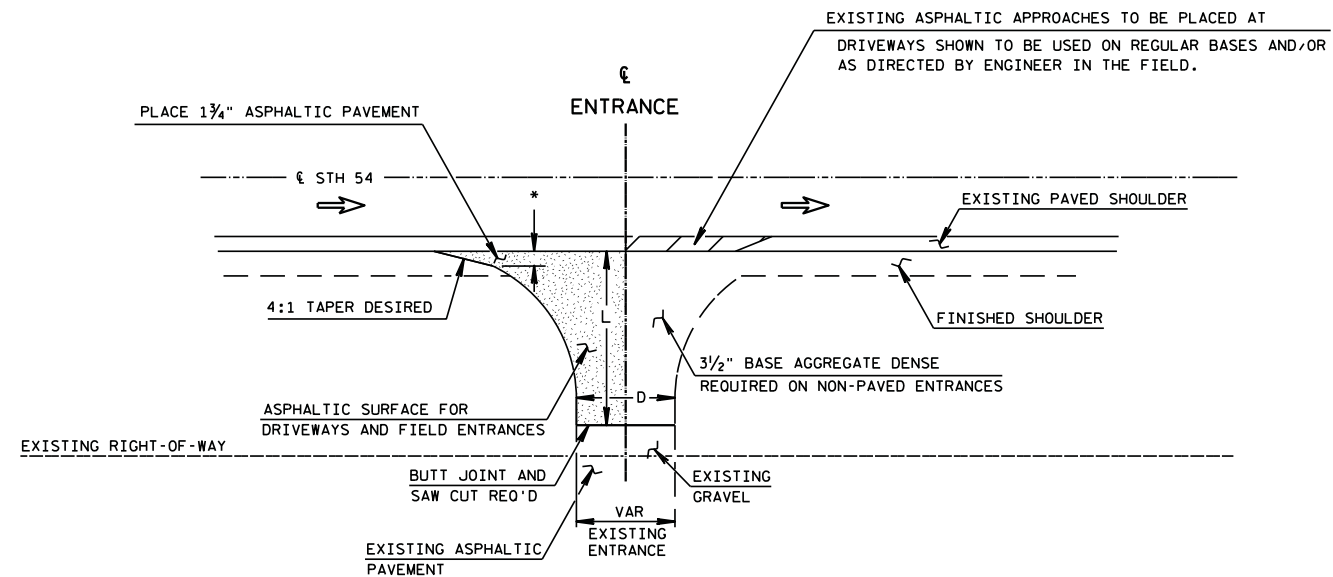
SECTION A-A  
TYPICAL AT POST NO. 1



SECTION C-C  
TYPICAL AT POST NO. 5

NON-TYPICAL DISTANCES TO HINGE POINTS AT STEEL PLATE BEAM GUARD EAT DETAIL

FOR ENERGY ABSORBING TERMINAL LOCATIONS 1,2,4,9,10,13 & 14



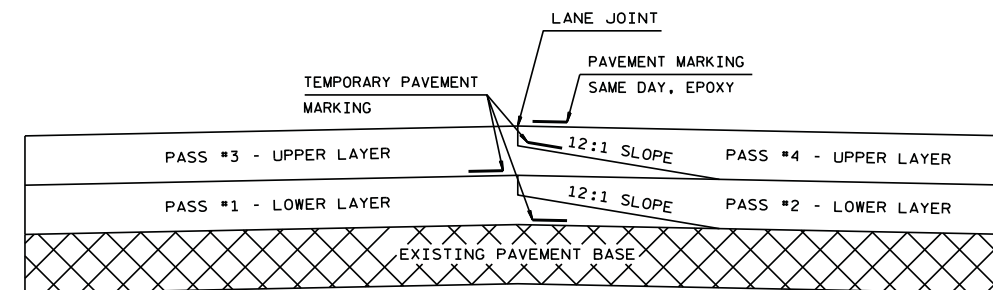
L=VARIABLE, EXACT LENGTH TO BE DETERMINED IN THE FIELD BY THE ENGINEER.  
BLEND BACK ON THE ENTRANCE FAR ENOUGH TO GET A SMOOTH PROFILE.

\* 3' MAX. OR TO EXISTING SHOULDER WHICH EVER IS LESS.

D=DRIVEWAY WIDTH  
D= VARIES, 20' TYP FOR PE'S, FARM ENTRANCES (16' MIN - 24' )MAX)  
D= VARIES, 28' TYP COMMERCIAL ENTRANCES

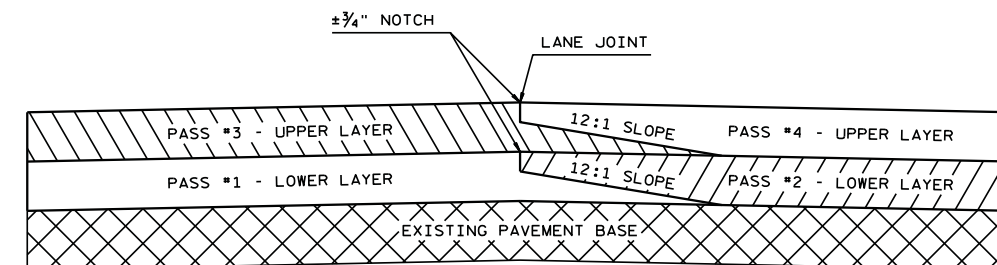
PLAN VIEW

EXISTING RURAL DRIVEWAY DETAIL



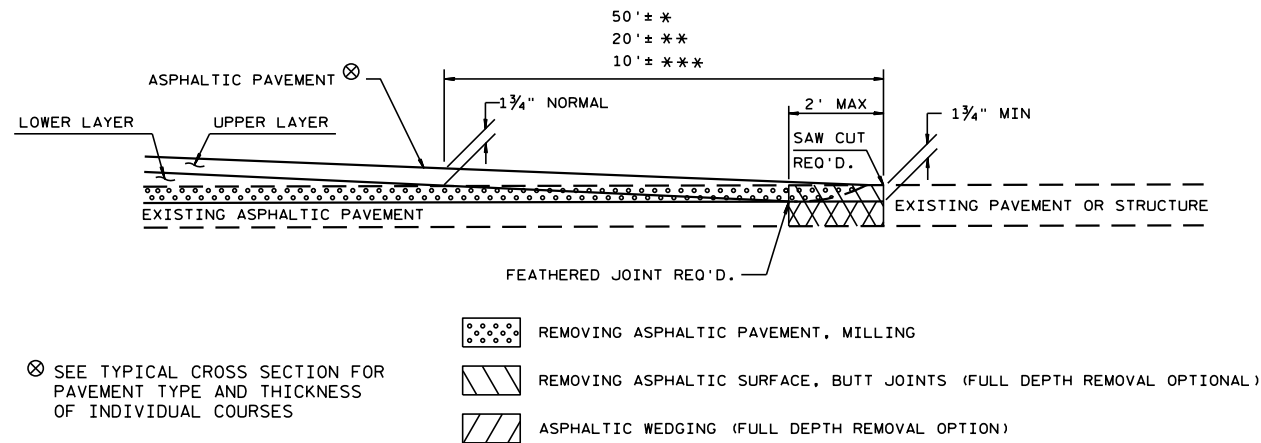
LOWER AND UPPER LAYERS

PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN ASPHALTIC PAVEMENTS



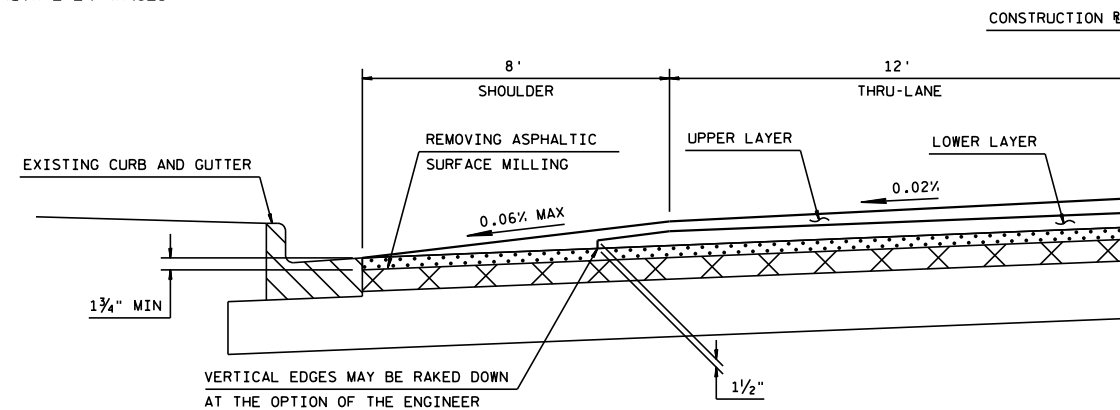
LOWER AND UPPER LAYERS

TYPICAL PAVEMENT CROSS SECTION OF TAPERED AND NOTCHED LONGITUDINAL JOINTS



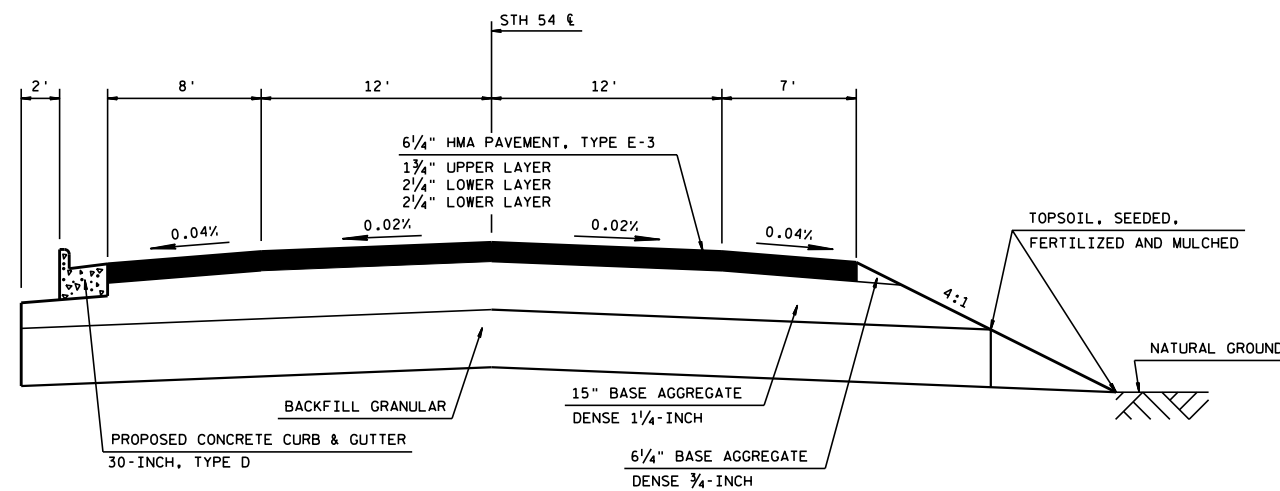
### BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS

\* MAINLINE  
\*\* SIDEROADS  
\*\*\* PRIVATE ENTRANCES



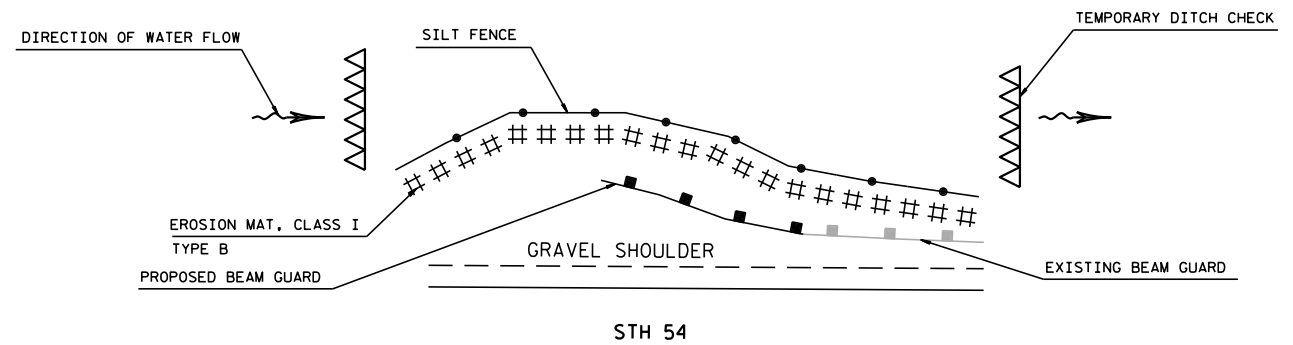
### MILL AND OVERLAY DETAIL AT EXISTING CURB AND GUTTER

STA 63+70 TO STA 76+90

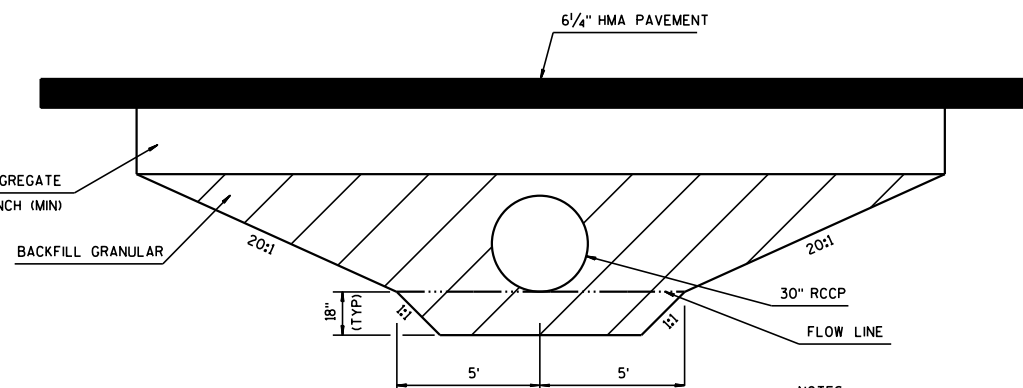


### CROSS SECTIONAL DETAIL FOR FROST HEAVE REPAIR AREAS

STA 69+02 TO STA 70+56  
STA 74+68 TO STA 76+02

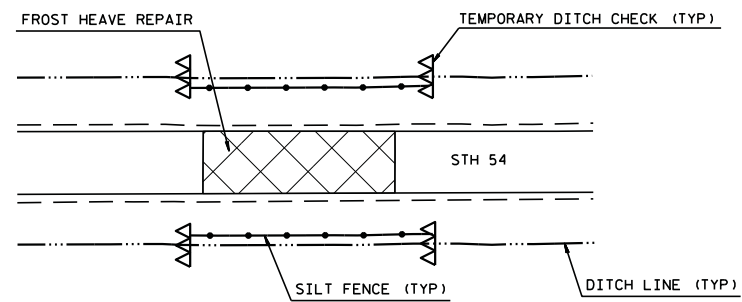


### EROSION CONTROL AT ENERGY ABSORBING TERMINALS

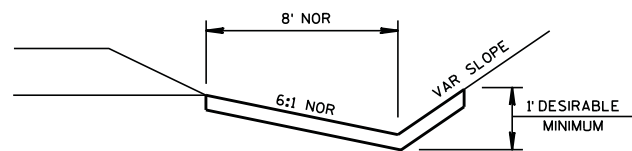


NOTES  
EXCAVATE 20:1 TO THE FLOWLINE OF THE PIPE. EXCAVATE AN ADDITIONAL 18" AT 1:1.  
VERIFY EXISTING CENTERLINE PROFILE PRIOR TO MILLING OPERATIONS.

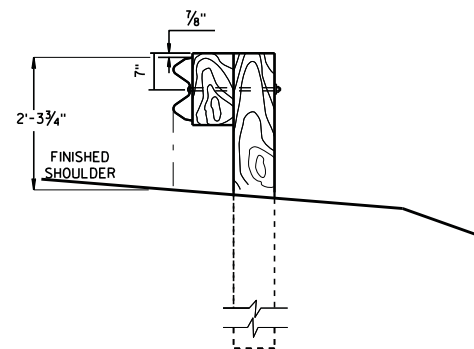
### LONGITUDINAL DETAIL FOR FROST HEAVE REPAIR AREAS



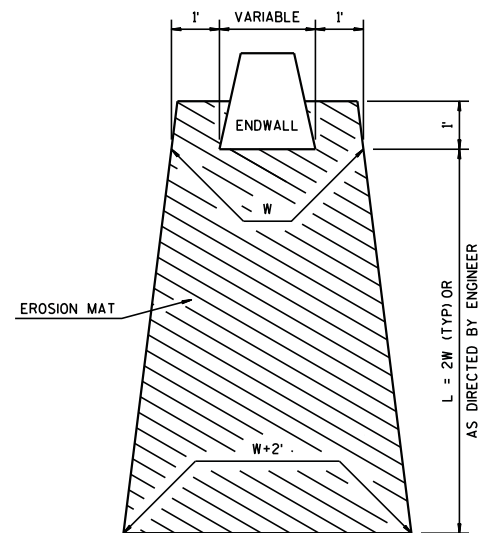
EROSION CONTROL AT FROST HEAVE REPAIRS



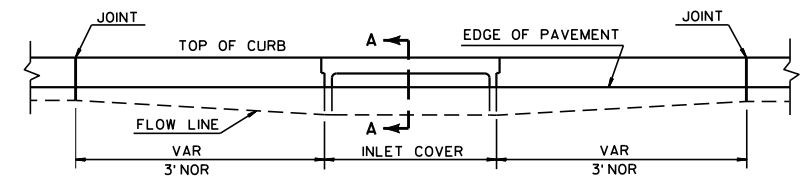
EROSION MAT DETAIL FOR DITCHES



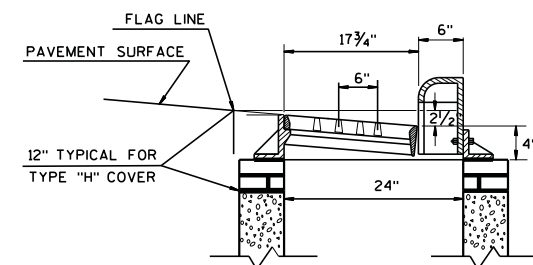
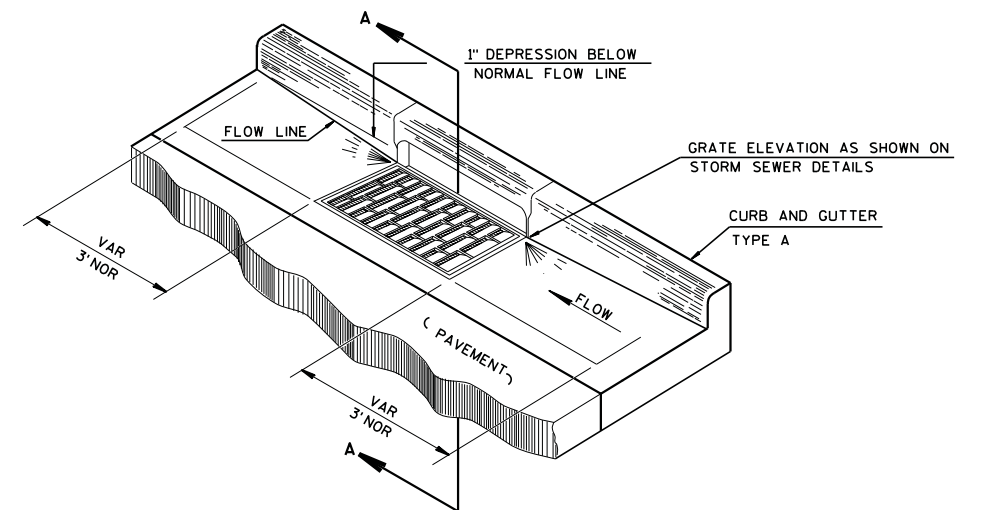
MINIMUM HEIGHT DETAIL FOR ADJUSTING STEEL PLATE BEAM GUARD  
(FOR POSTS BETWEEN EATS)



EROSION MAT TREATMENT AT CULVERTS

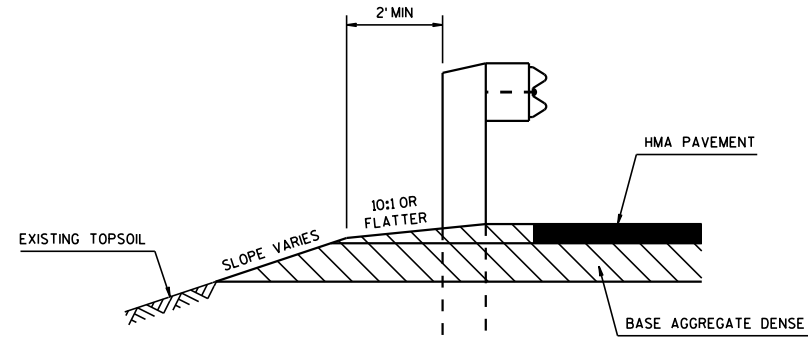


ELEVATION

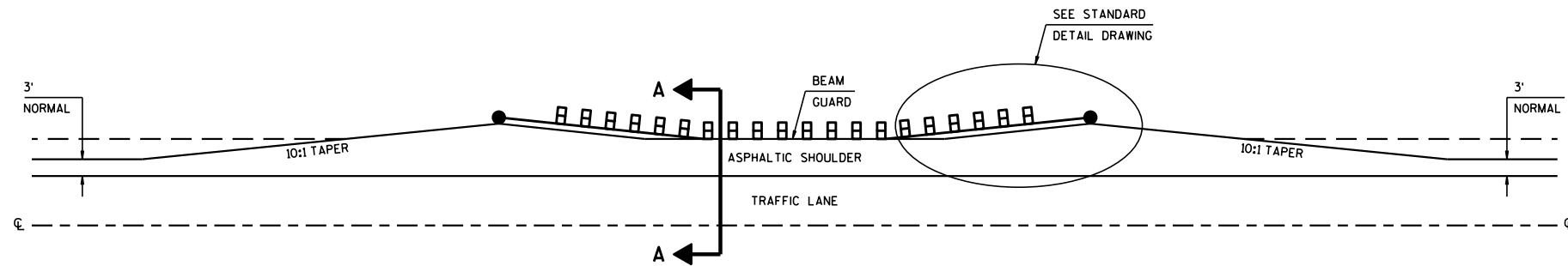


SECTION A-A

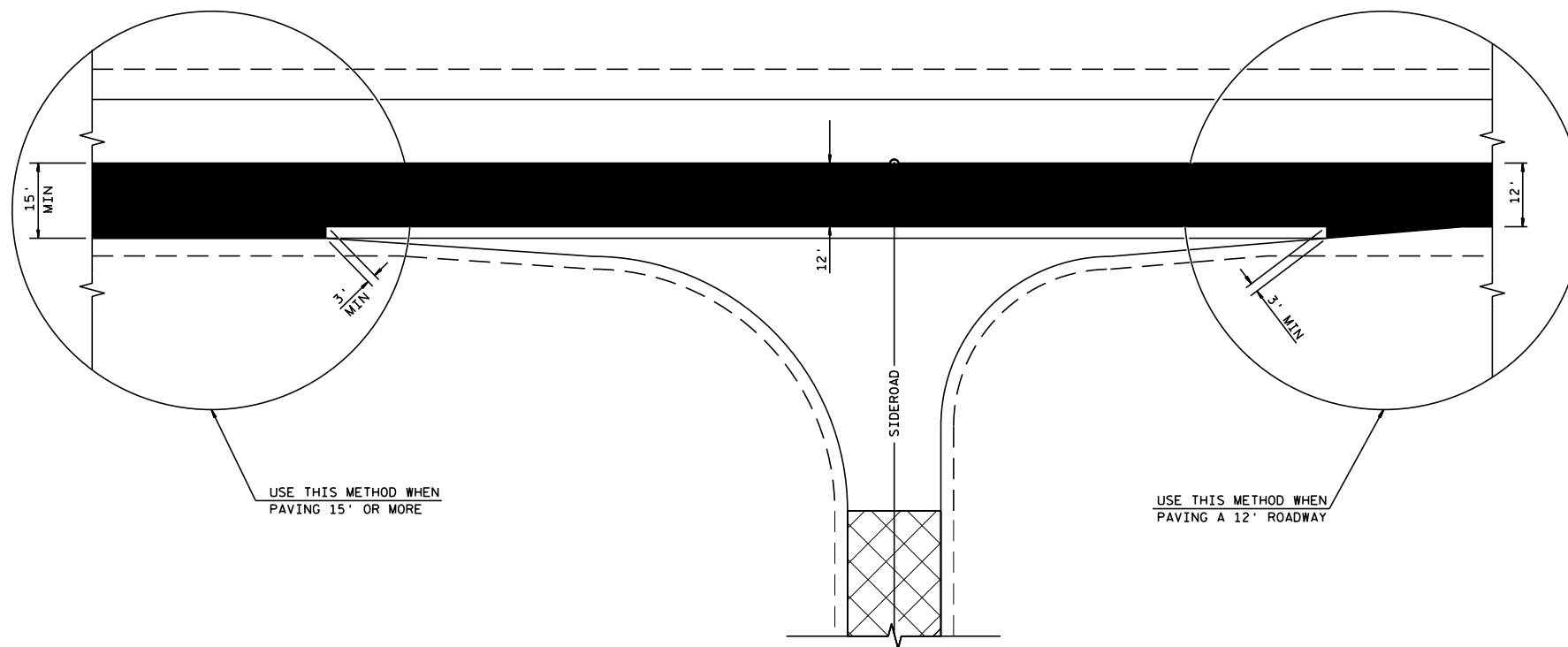
DETAIL OF CURB AND GUTTER AT INLETS  
(TYPE 3-H INLET SHOWN)



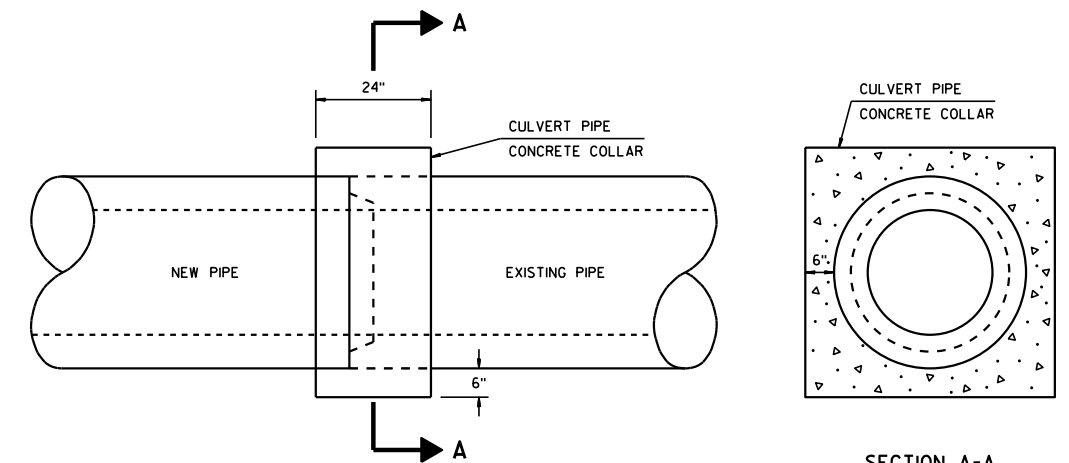
SECTION A-A



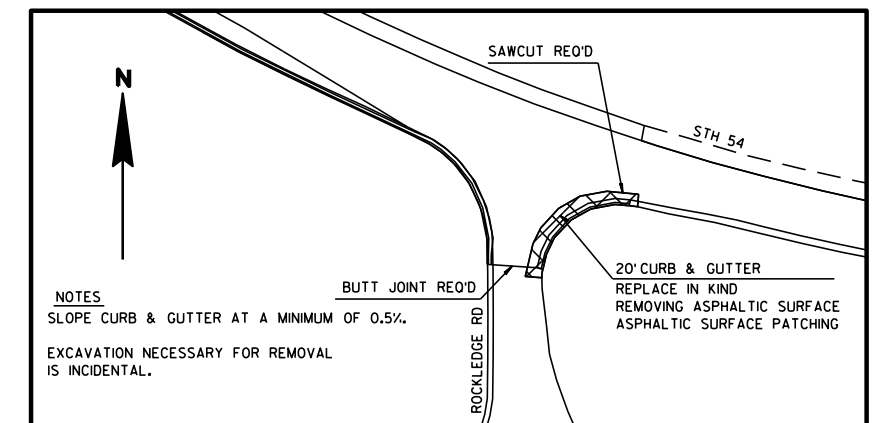
DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL



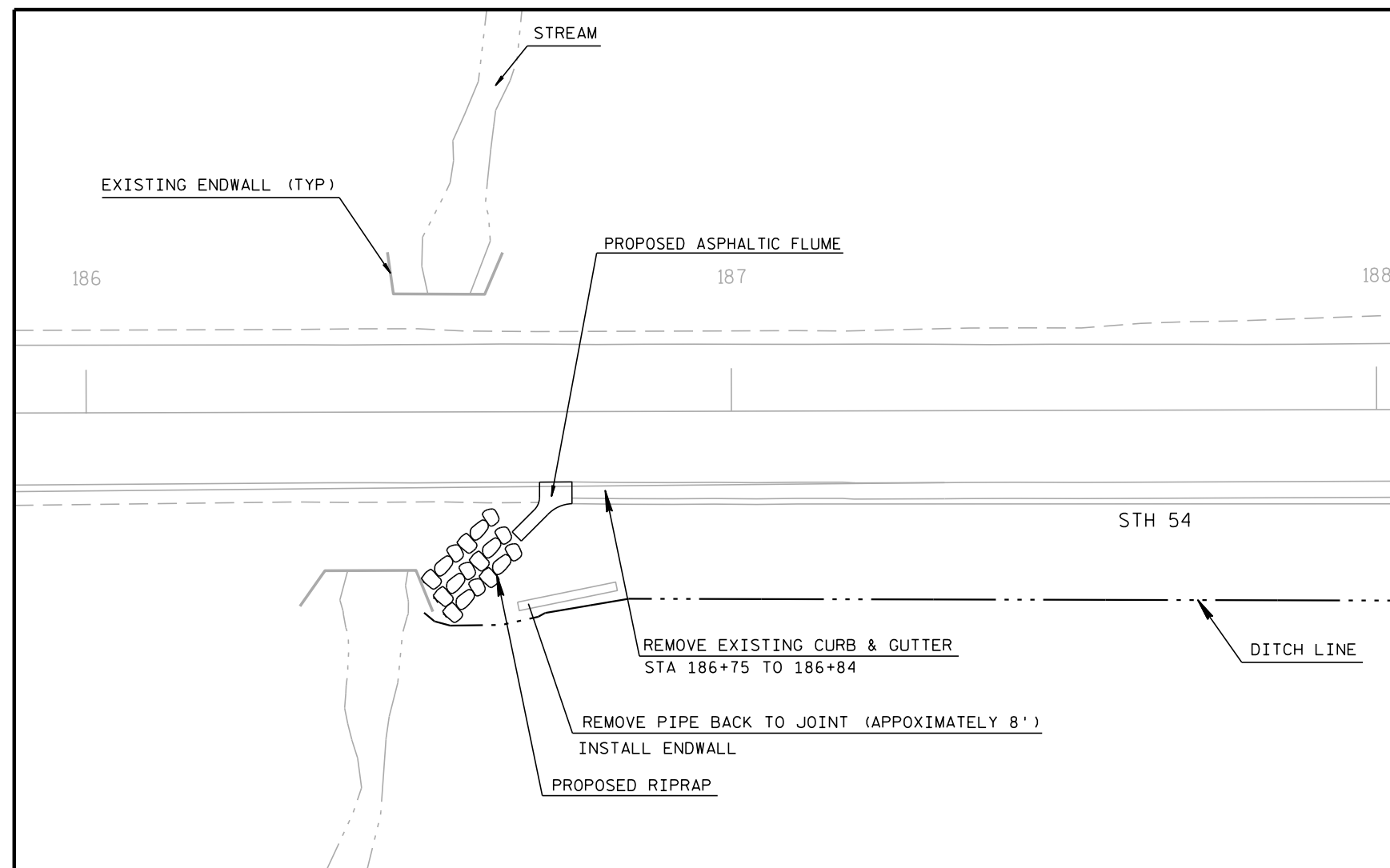
FINAL UPPER LAYER ASPHALTIC CONCRETE PAVING DETAIL AT INTERSECTIONS AND BYPASS LANES



CONCRETE COLLAR DETAIL



CURB &amp; GUTTER REMOVAL DETAIL

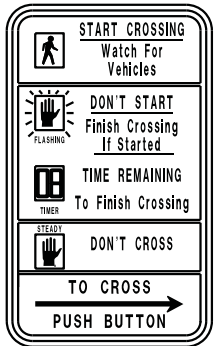


CONCRETE PIPE REMOVAL AND FLUME CONSTRUCTION AT STREAM CROSSING DETAIL

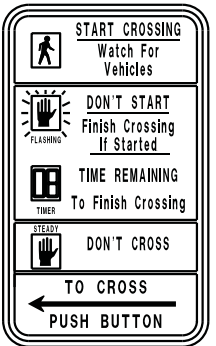
GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

| CONFIGURATION WITH HEAD NUMBERS                 |                                                 |                                  |
|-------------------------------------------------|-------------------------------------------------|----------------------------------|
| 3-V                                             | 3-H                                             | 1-P                              |
| <div><div>R</div><div>Y</div><div>G</div></div> | <div><div>R</div><div>Y</div><div>G</div></div> | <div><div>P</div></div>          |
| 1, 3, 4<br>6, 7, 9<br>10, 12                    | 2, 5, 8, 11                                     | 13, 14, 15, 16<br>17, 18, 19, 20 |



Mount on SB1,  
SB3 & SB8



Mount on SB5

LOOP DETECTOR INSTALLATION

ALL LOOP DETECTORS SHALL BE PLACED IN THE CABC UNDER THE ASPHALT PAVEMENT.

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5654 OR 492-5710.

LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL STANDARD, PEDESTAL MOUNT
- SIGNAL POLE, MAST-ARM MOUNT
- CONTROL CABINET BASE
- 2" CONDUIT (unless otherwise noted)
- LOOP DETECTOR (in 1" conduit)
- SIGNAL HEAD NUMBER MOUNTING CONFIGURATION
- PEDESTRIAN HEAD NUMBER MOUNTING CONFIGURATION
- PEDESTRIAN STANDARD W/PUSH BUTTON

PROJECT NO: 1480-22-71

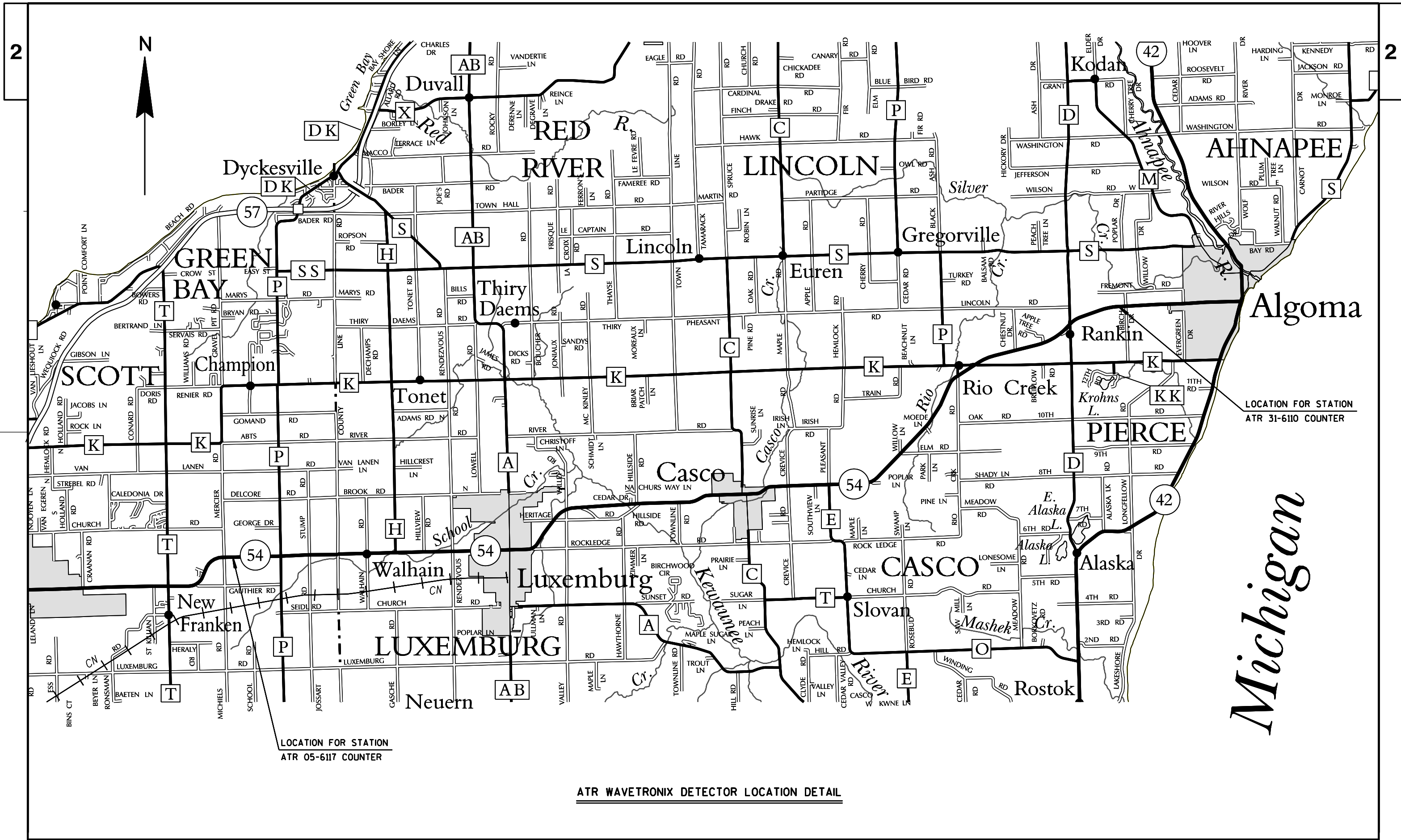
HWY: STH 54

COUNTY: KEWAUNEE

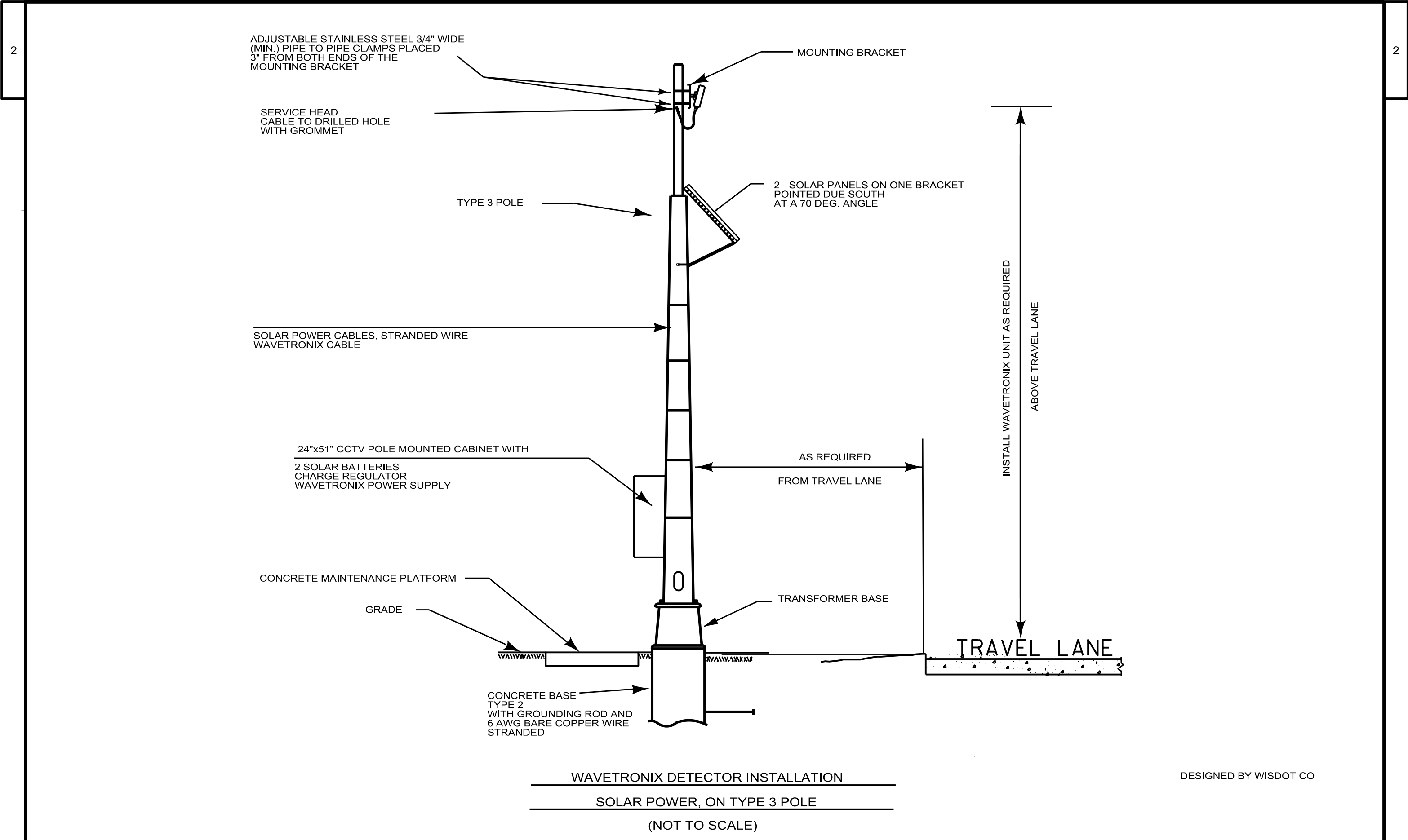
CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION

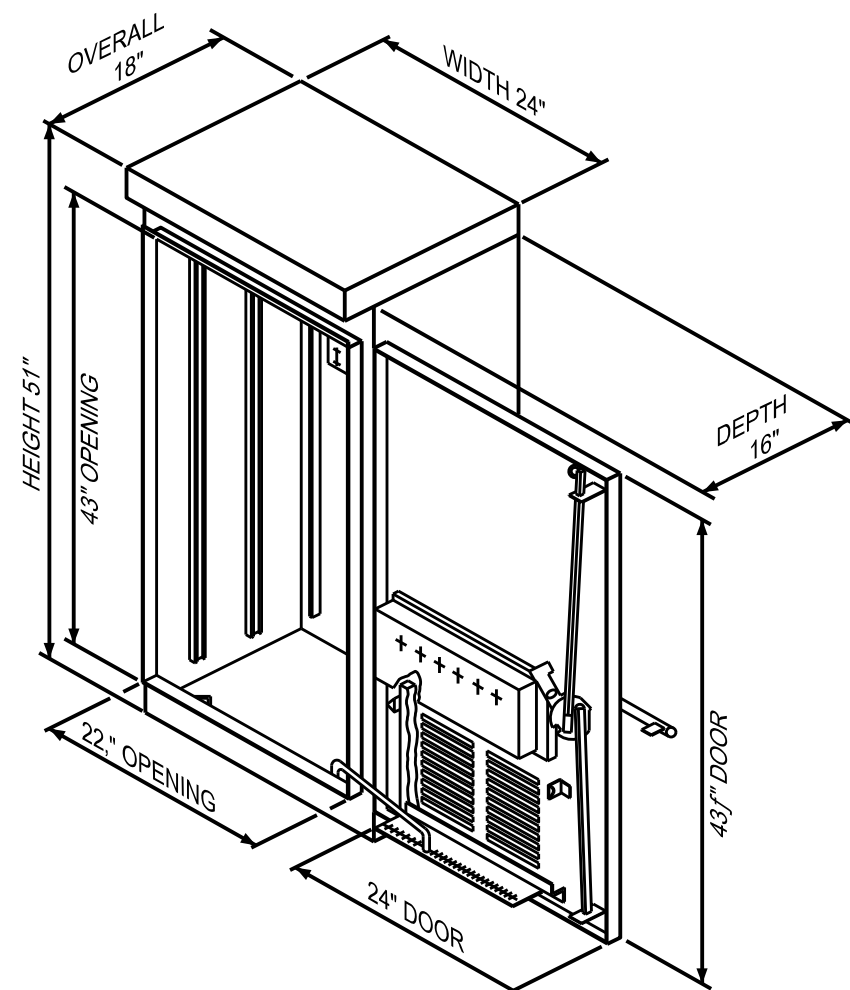
SHEET

E

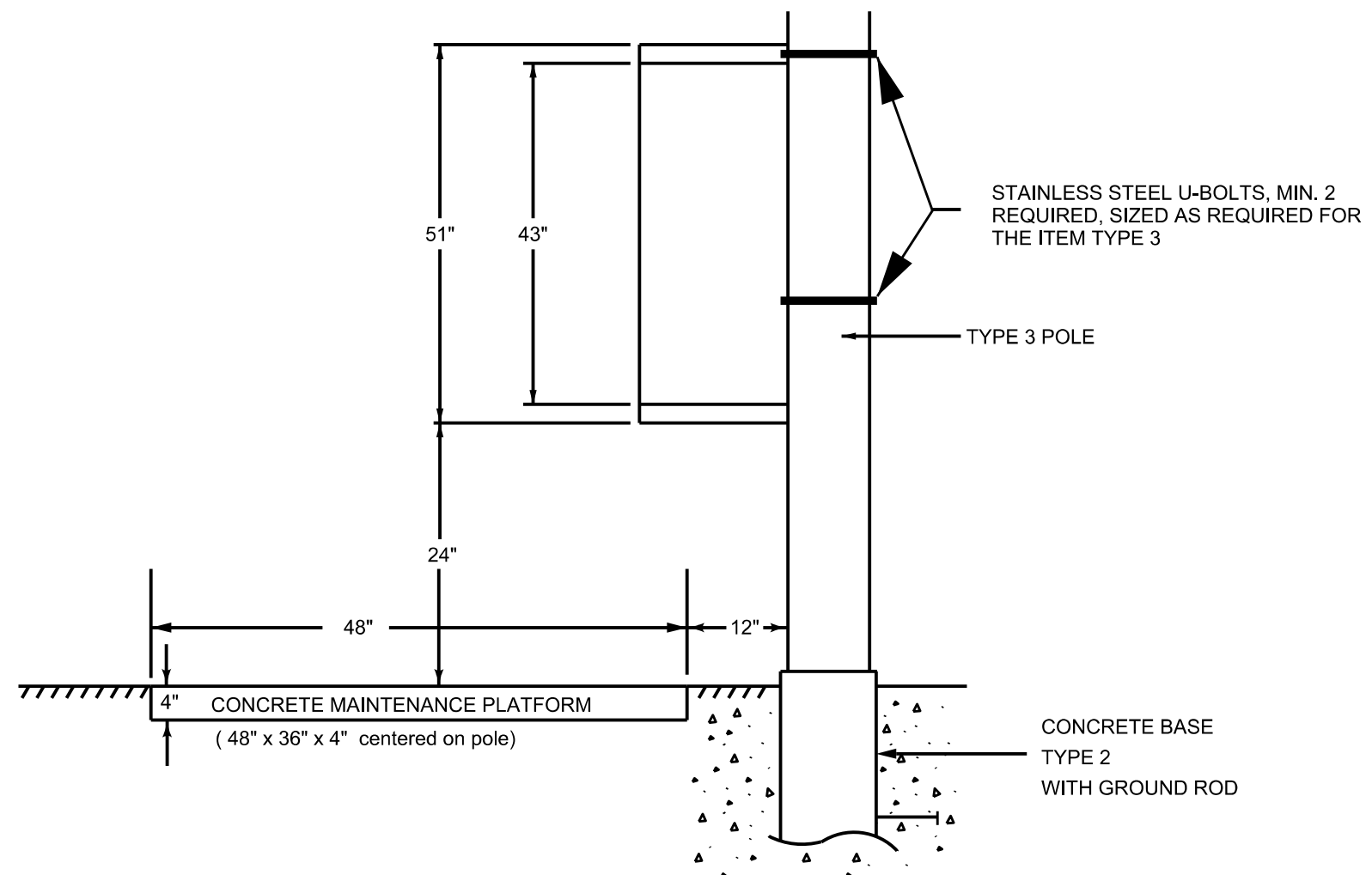


ATR WAVETRONIX DETECTOR LOCATION DETAIL





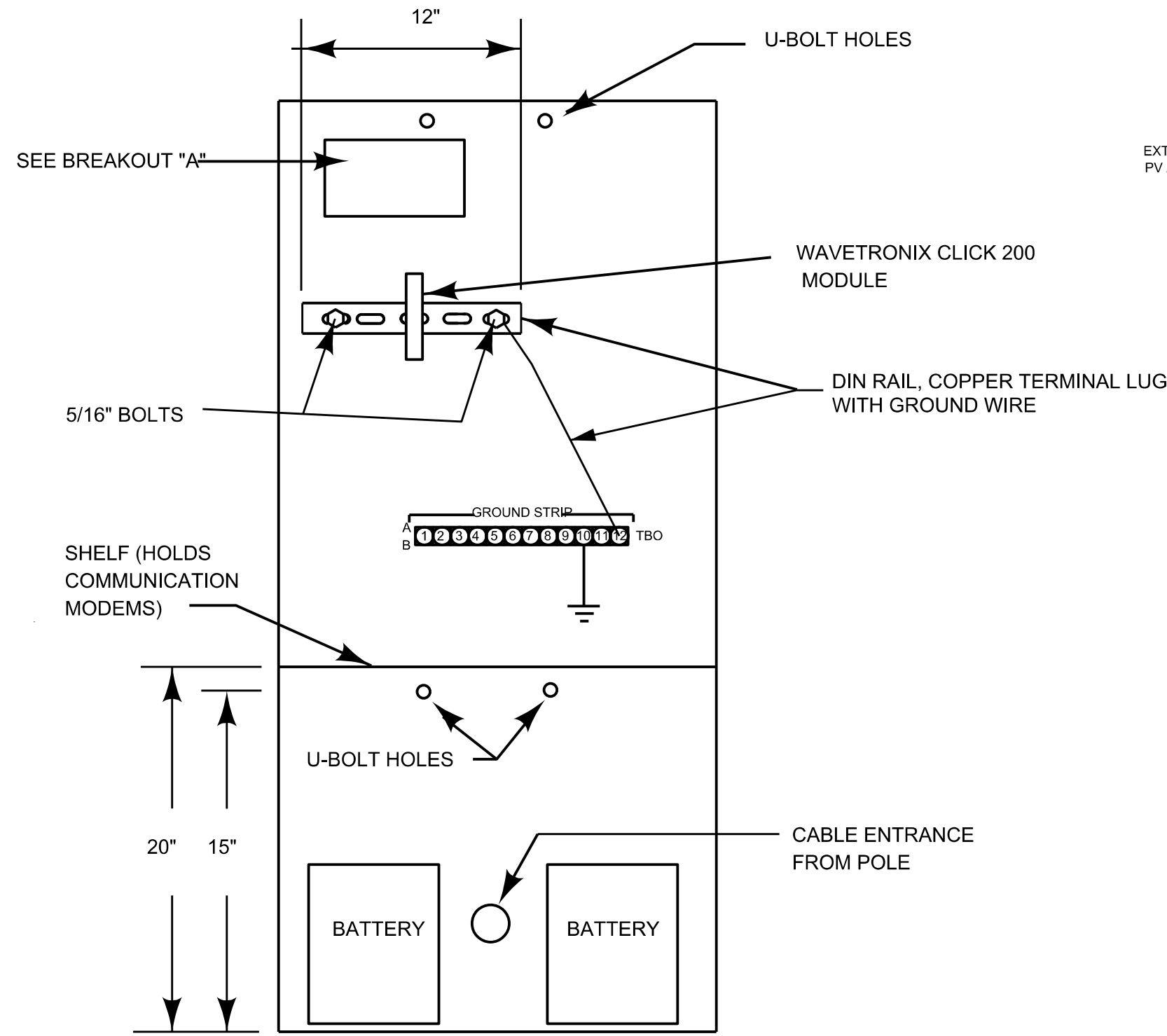
CCTV POLE-MOUNTED CABINET  
USED IN SOLAR INSTALLATION



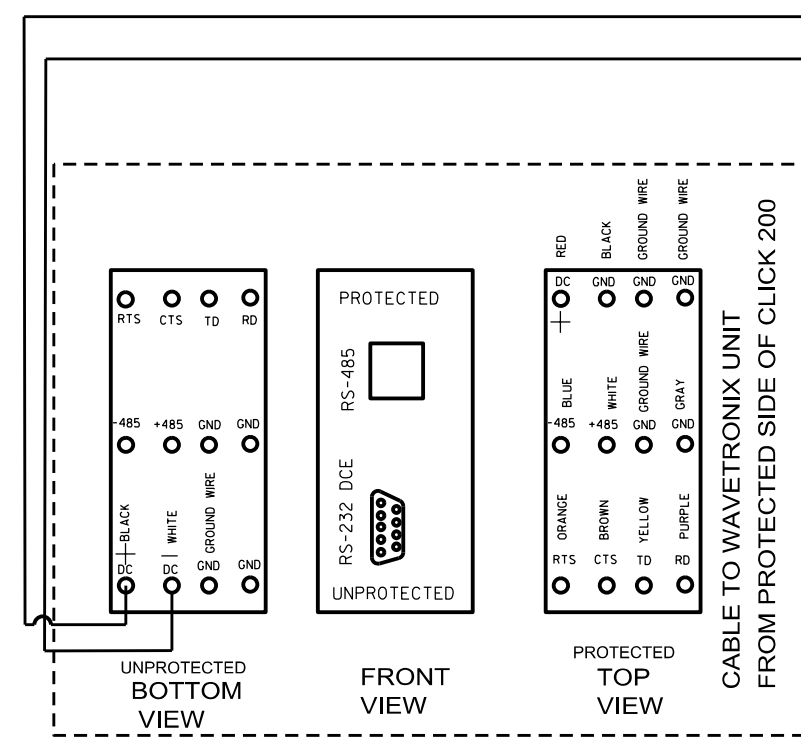
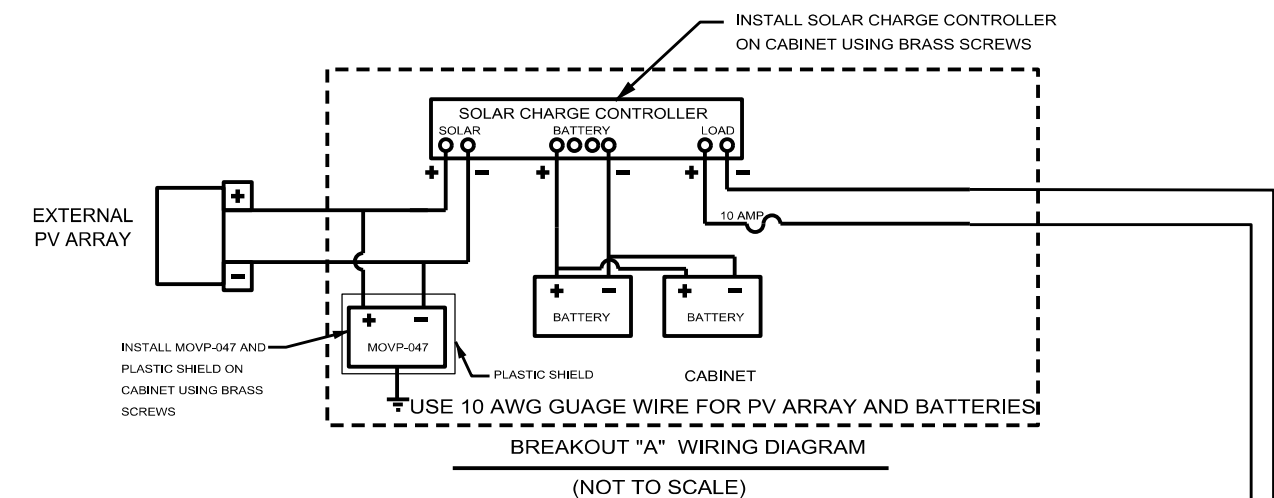
## CCTV POLE-MOUNTED CABINET

### ATR - WAVETRONIX

DESIGNED BY WISDOT CO  
SHEET 1 OF 2



FRONT VIEW/LAYOUT  
(NOT TO SCALE)



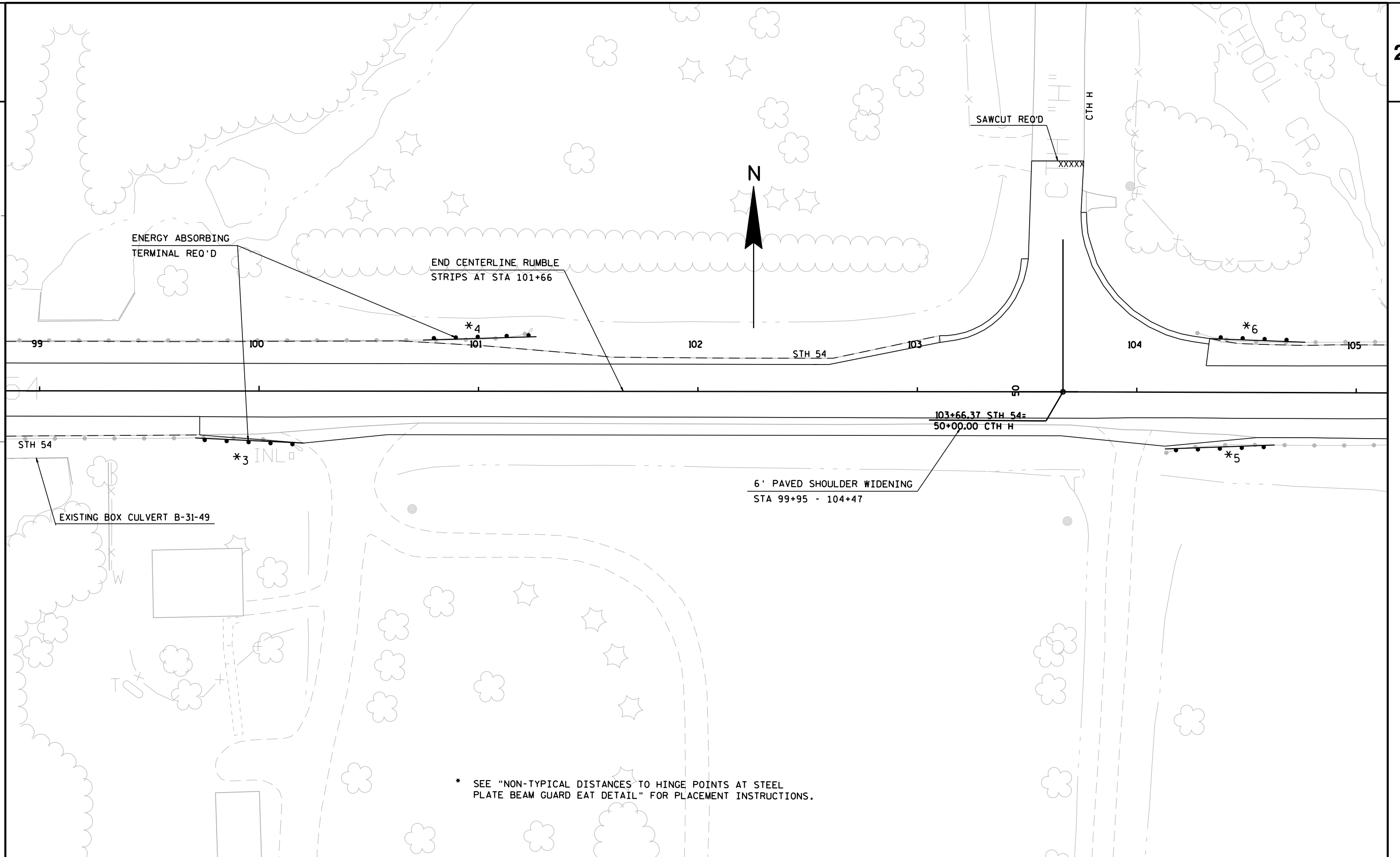
WAVETRONIX CLICK 200 MODULE  
WIRING DIAGRAM  
(NOT TO SCALE)

CCTV POLE-MOUNTED CABINET  
USED IN SOLAR INSTALLATION

# CCTV POLE-MOUNTED CABINET LAYOUT

## CABINET WILL HAVE COMPONENTS INSTALLED

DESIGNED BY WISDOT DOT CO  
SHEET 2 OF 2



## SIGNING NOTES

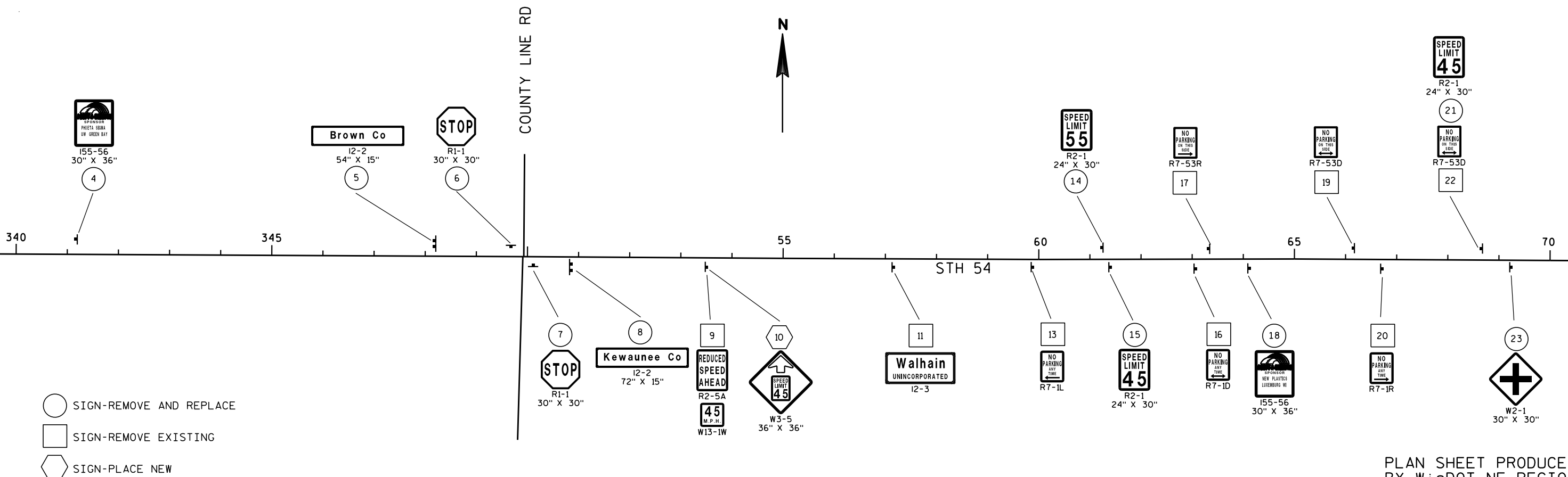
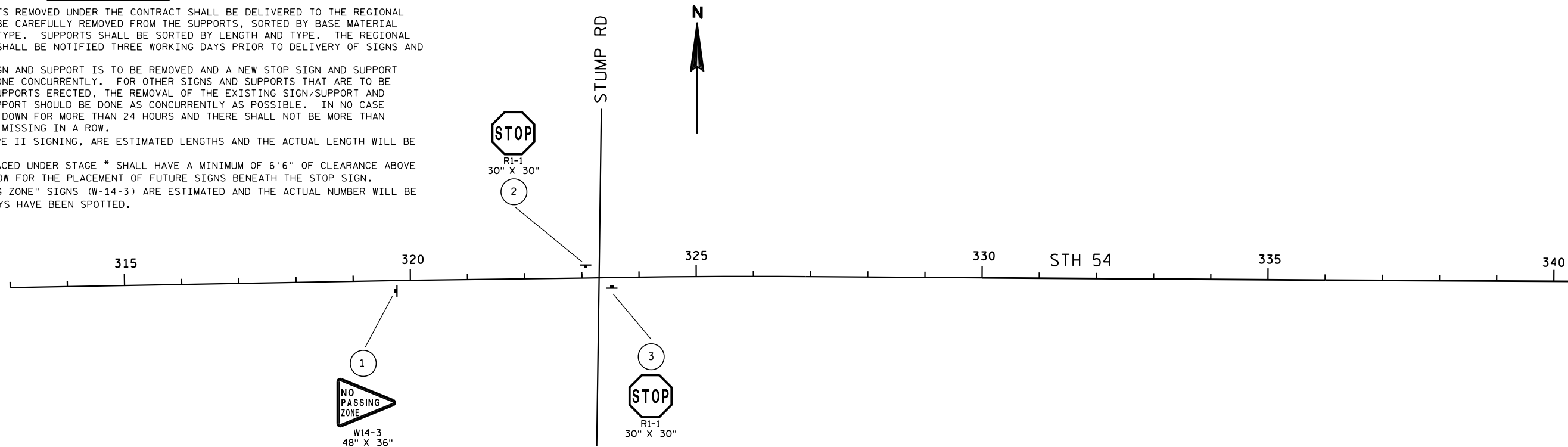
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WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

NEW STOP SIGNS (R1-1) PLACED UNDER STAGE \* SHALL HAVE A MINIMUM OF 6'6" OF CLEARANCE ABOVE THE ROADWAY. THIS WILL ALLOW FOR THE PLACEMENT OF FUTURE SIGNS BENEATH THE STOP SIGN.

THE NUMBER OF "NO PASSING ZONE" SIGNS (W14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED AFTER THE ROADWAYS HAVE BEEN SPOTTED.



PLAN SHEET PRODUCED  
BY WisDOT-NE REGION

PROJECT NO:1480-22-71

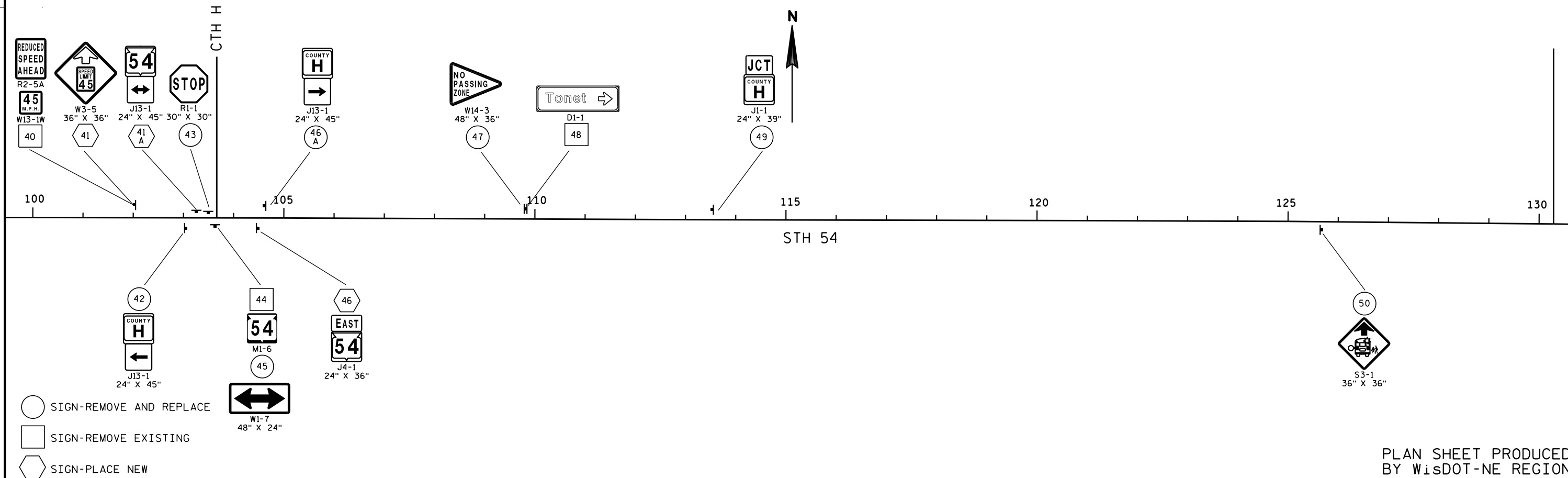
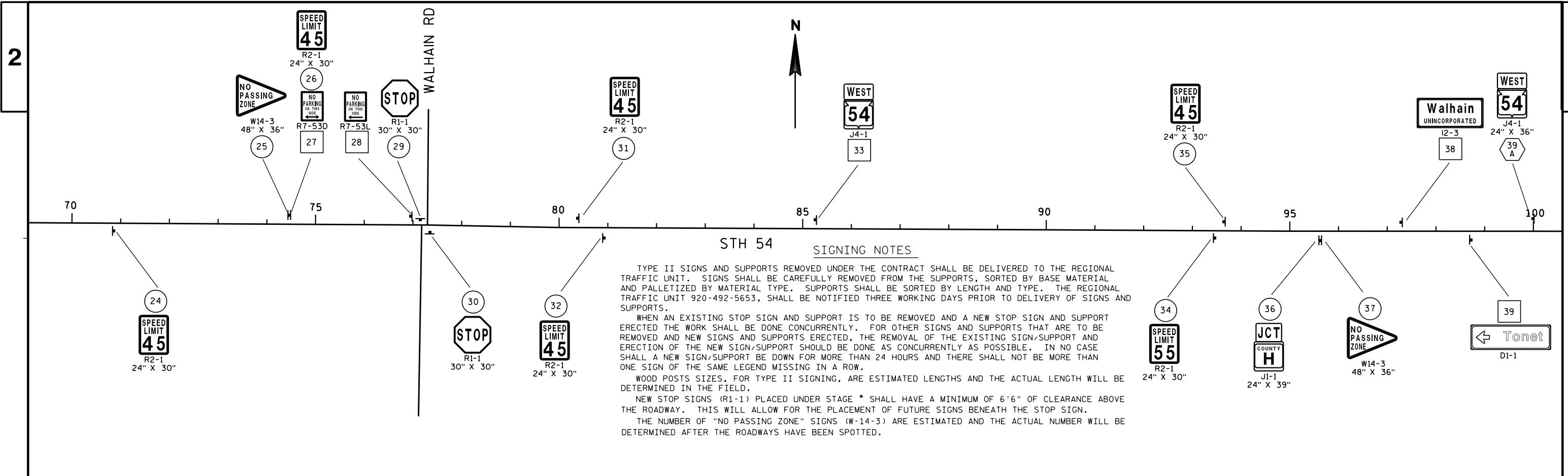
HWY: STH 54

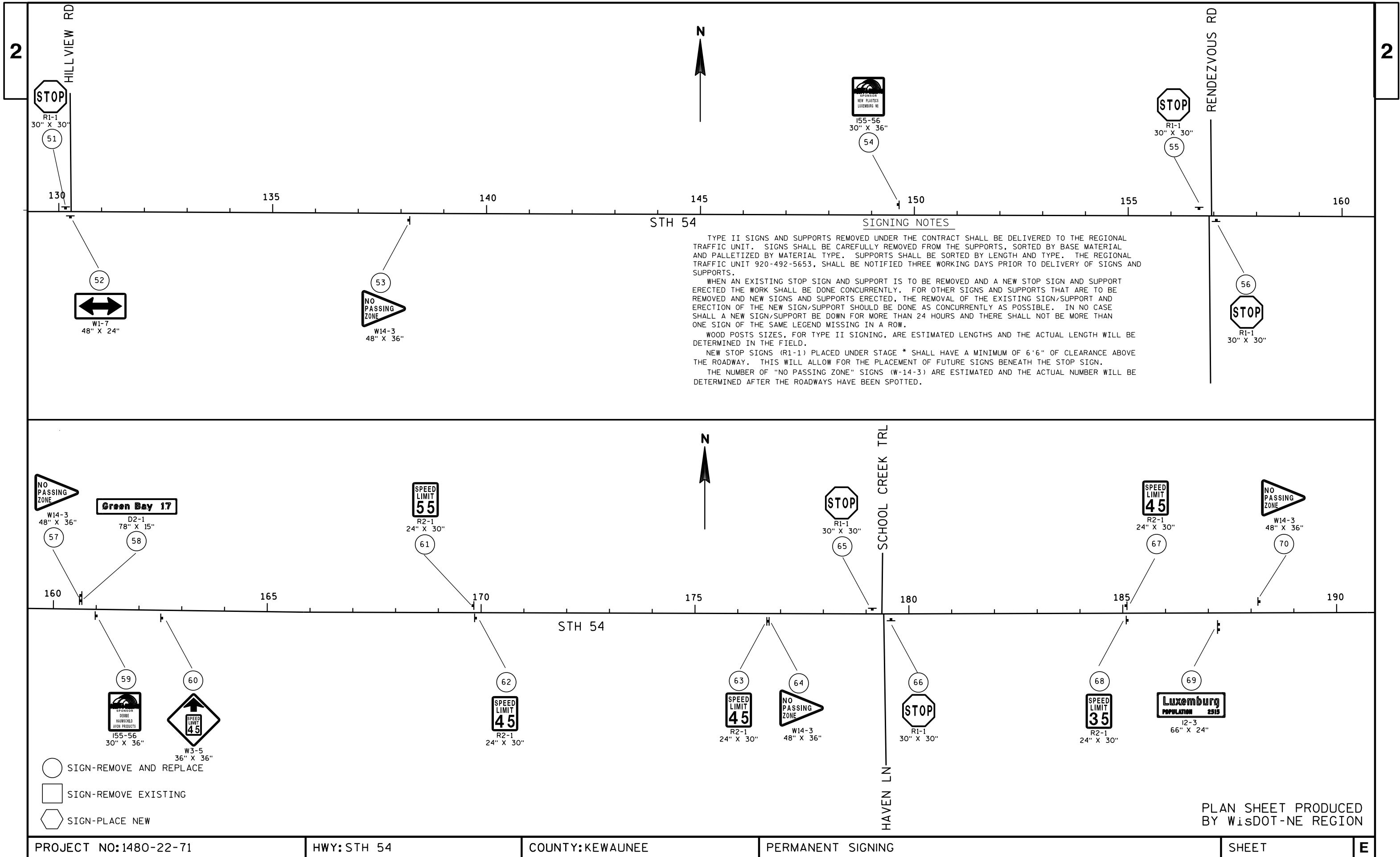
COUNTY: KEWAUNEE

PERMANENT SIGNING

SHEET

E





## SIGNING NOTES

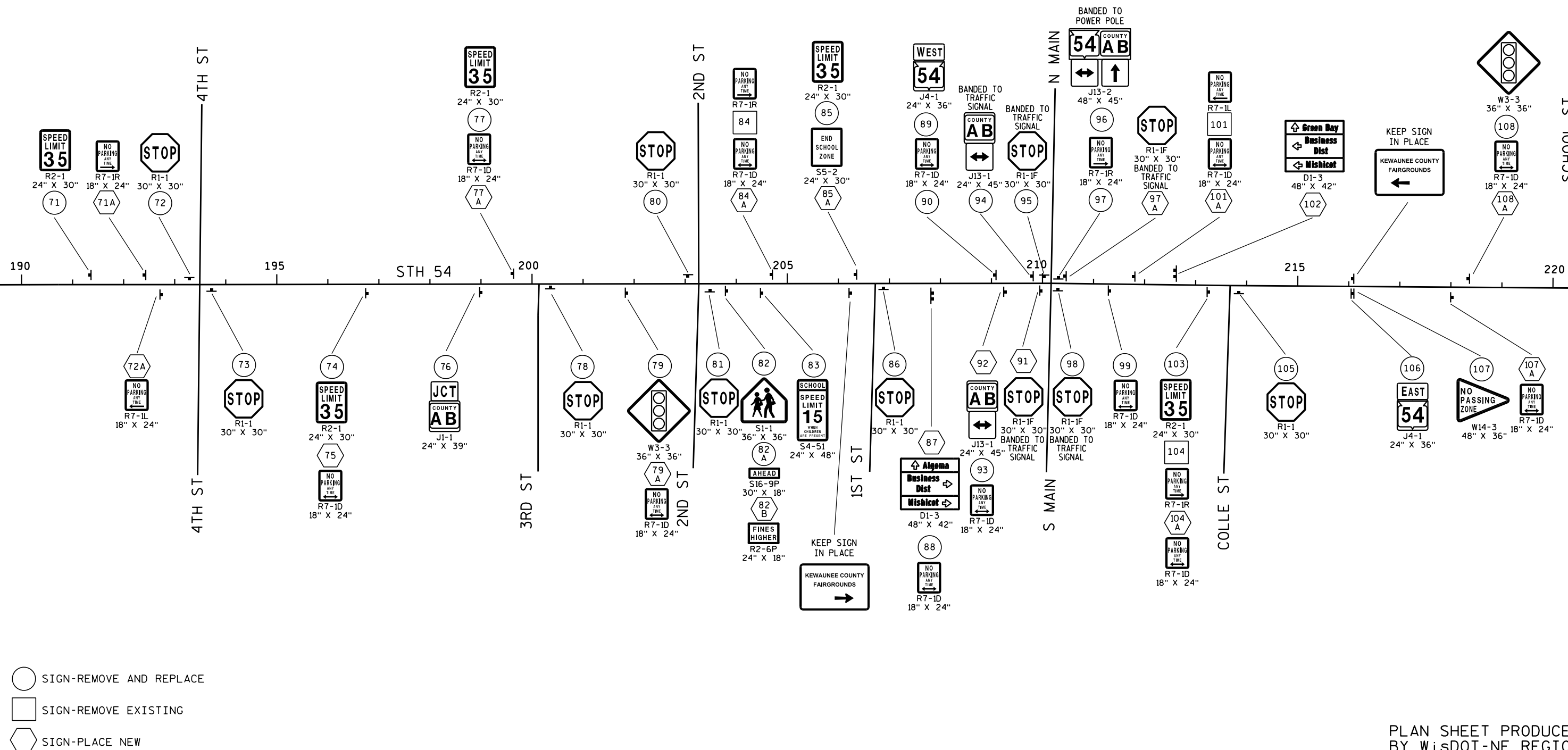
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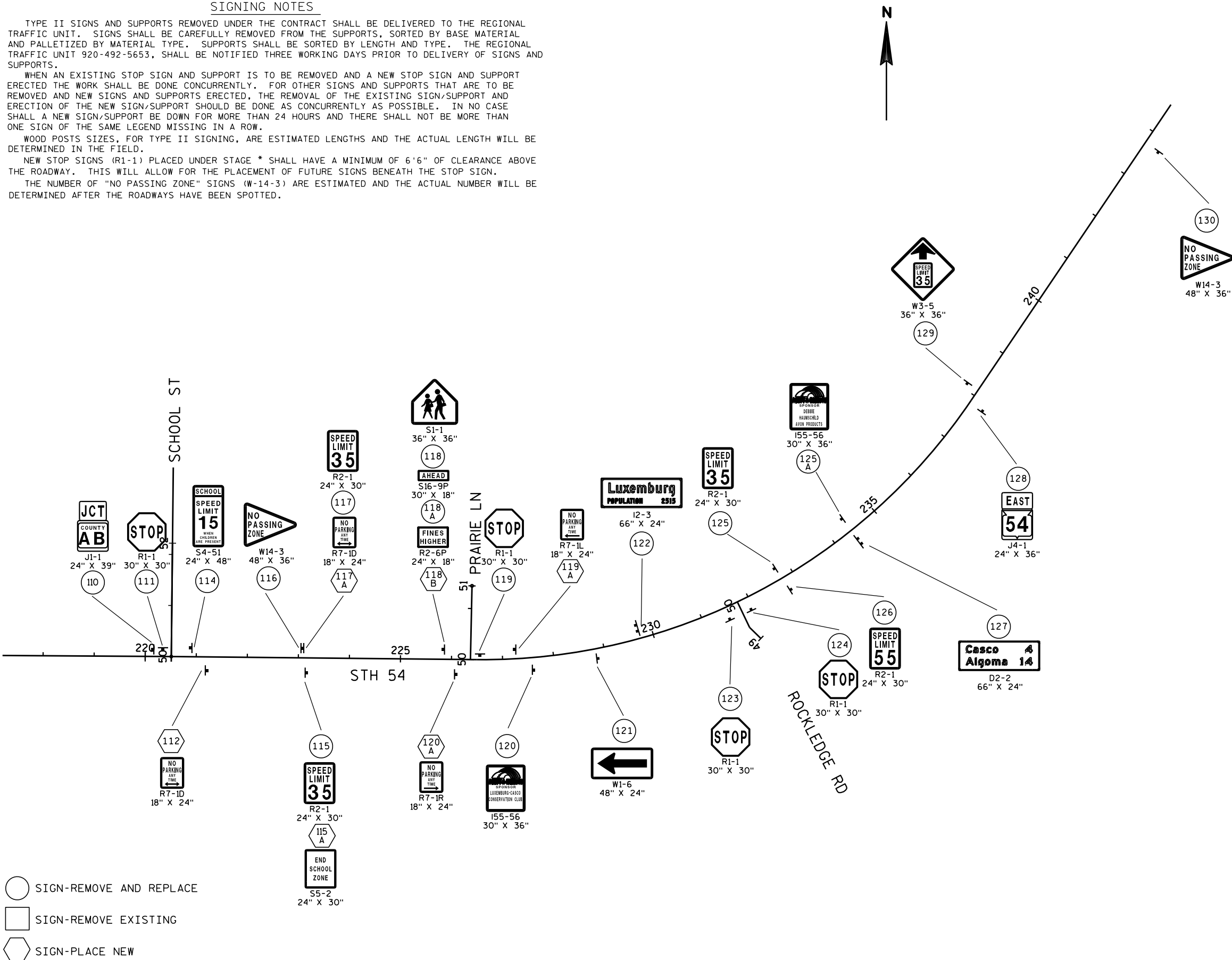
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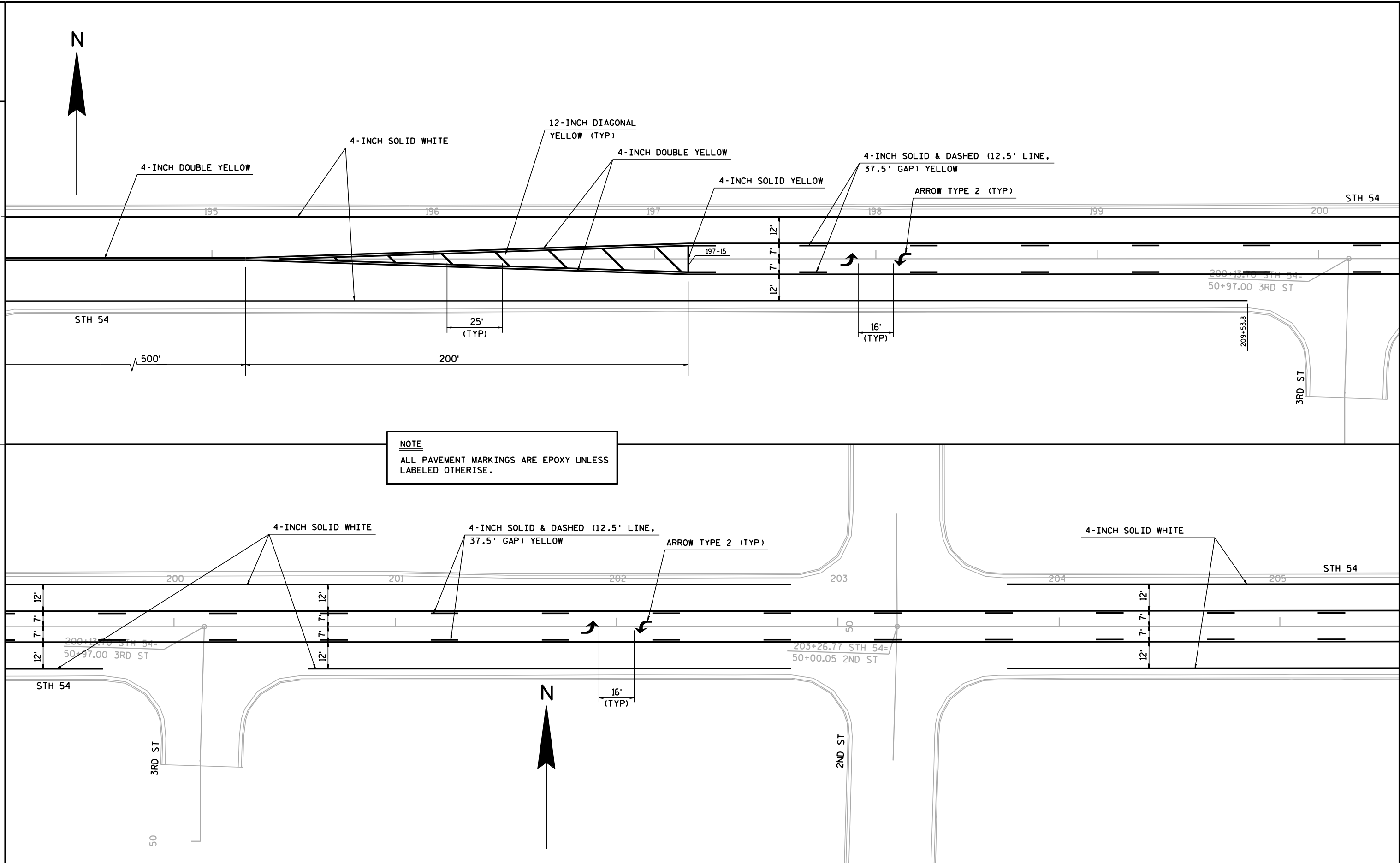
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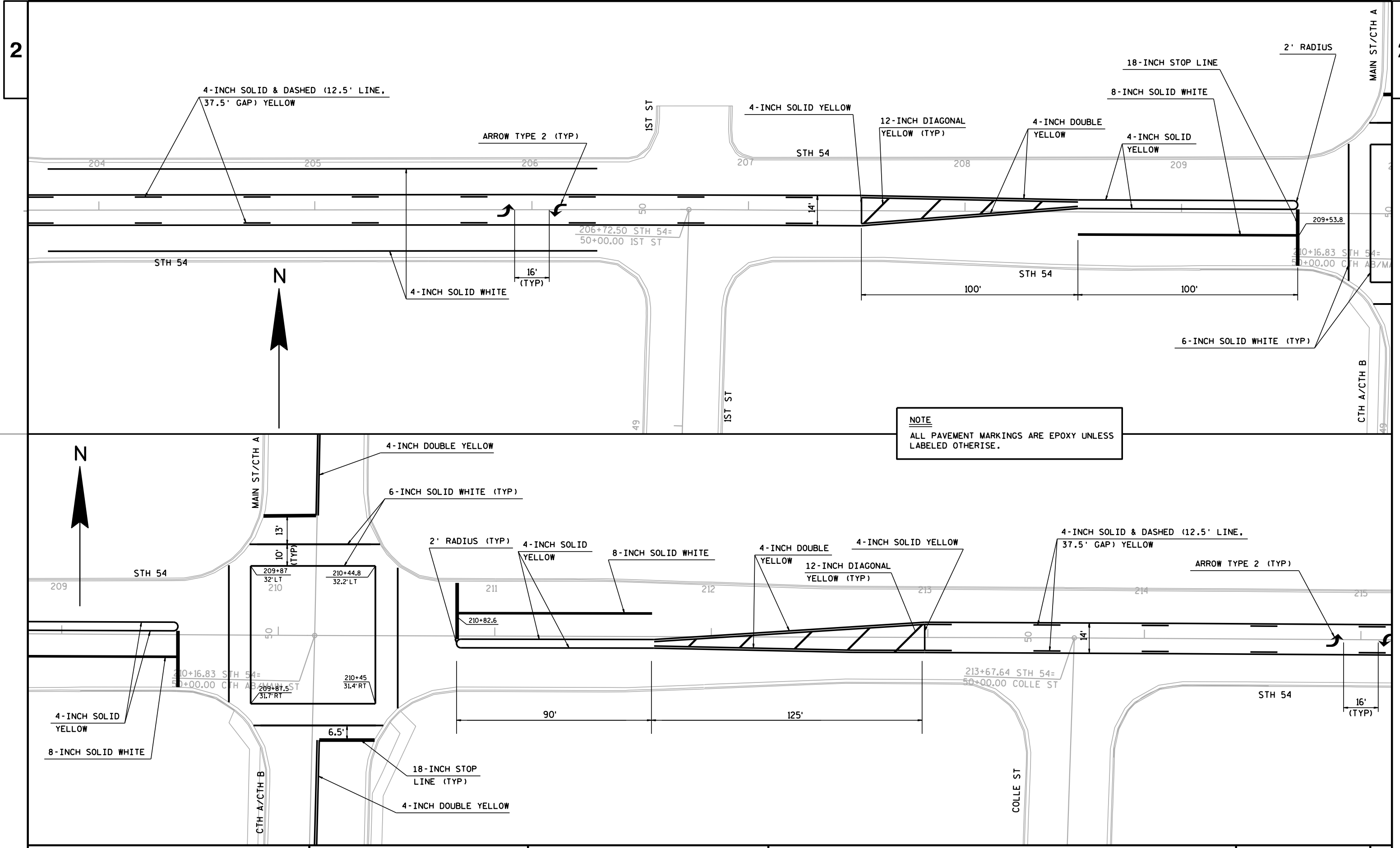
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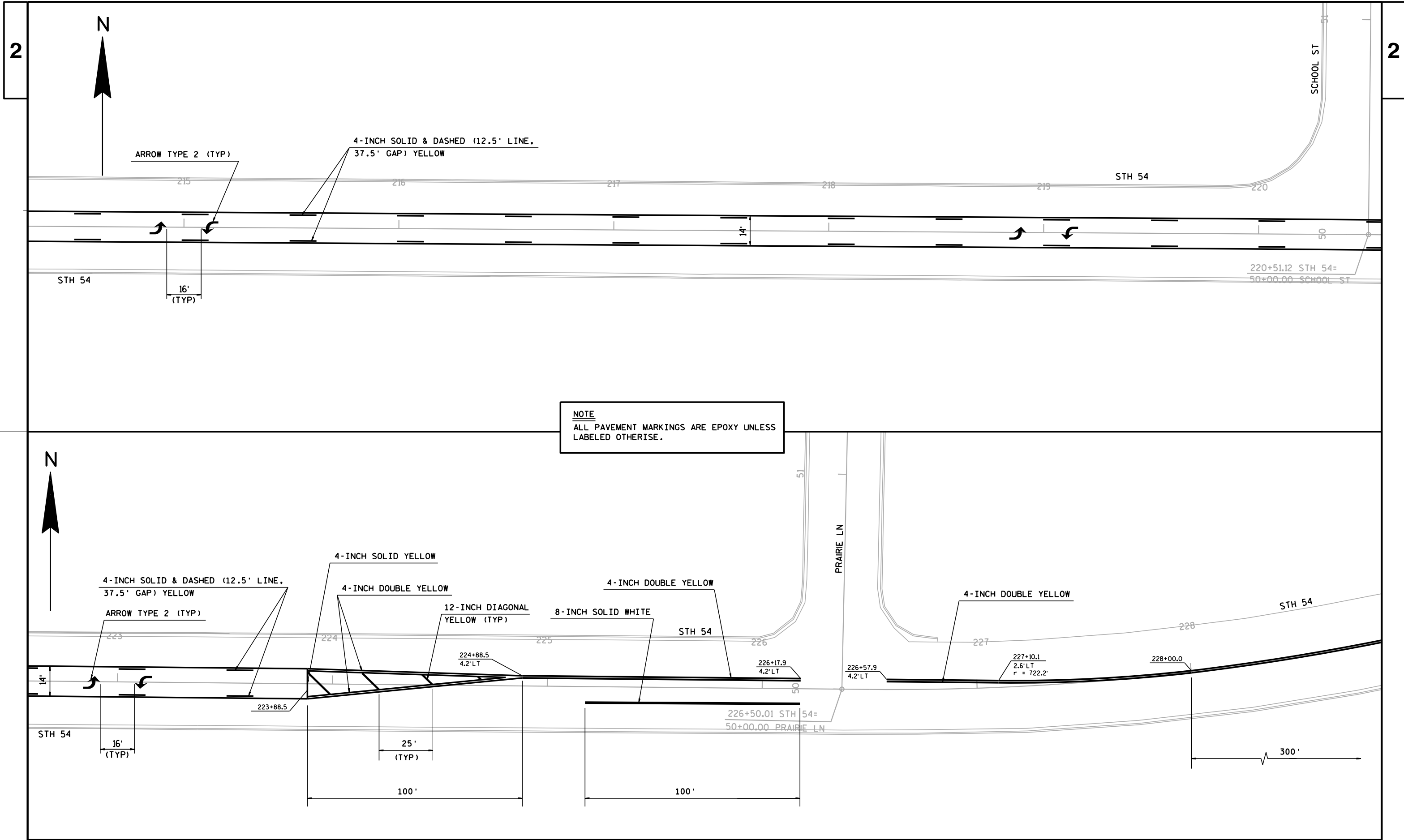
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PLAN SHEET PRODUCED  
BY WisDOT-NE REGION







| DATE 27JAN14 |            | E S T I M A T E O F Q U A N T I T I E S                       |      |            |            |
|--------------|------------|---------------------------------------------------------------|------|------------|------------|
| LINE         |            |                                                               |      | 1480-22-71 |            |
| NUMBER       | ITEM       | ITEM DESCRIPTION                                              | UNIT | TOTAL      | QUANTITY   |
| 0010         | 203.0100   | REMOVING SMALL PIPE CULVERTS                                  | EACH | 3.000      | 3.000      |
| 0020         | 204.0110   | REMOVING ASPHALTIC SURFACE                                    | SY   | 180.000    | 180.000    |
| 0030         | 204.0115   | REMOVING ASPHALTIC SURFACE BUTT JOINTS                        | SY   | 450.000    | 450.000    |
| 0040         | 204.0120   | REMOVING ASPHALTIC SURFACE MILLING                            | SY   | 96,700.000 | 96,700.000 |
| 0050         | 204.0150   | REMOVING CURB & GUTTER                                        | LF   | 340.000    | 340.000    |
| 0060         | 204.0155   | REMOVING CONCRETE SIDEWALK                                    | SY   | 21.000     | 21.000     |
| 0070         | 204.0165   | REMOVING GUARDRAIL                                            | LF   | 800.000    | 800.000    |
| 0080         | 204.0220   | REMOVING INLETS                                               | EACH | 4.000      | 4.000      |
| 0090         | 205.0100   | EXCAVATION COMMON                                             | CY   | 1,800.000  | 1,800.000  |
| 0100         | 209.0100   | BACKFILL GRANULAR                                             | CY   | 1,000.000  | 1,000.000  |
| 0110         | 211.0400   | PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS                    | STA  | 5.000      | 5.000      |
| 0120         | 213.0100   | FINISHING ROADWAY (PROJECT) 01. 1480-22-71                    | EACH | 1.000      | 1.000      |
| 0130         | 305.0110   | BASE AGGREGATE DENSE 3/4-INCH                                 | TON  | 4,780.000  | 4,780.000  |
| 0140         | 305.0120   | BASE AGGREGATE DENSE 1 1/4-INCH                               | TON  | 1,140.000  | 1,140.000  |
| 0150         | 305.0500   | SHAPING SHOULDERS                                             | STA  | 380.000    | 380.000    |
| 0160         | 440.4410.S | INCENTIVE IRI RIDE                                            | DOL  | 17,350.000 | 17,350.000 |
| 0170         | 455.0105   | ASPHALTIC MATERIAL PG58-28                                    | TON  | 1,260.000  | 1,260.000  |
| 0180         | 455.0605   | TACK COAT                                                     | GAL  | 5,055.000  | 5,055.000  |
| 0190         | 460.1103   | HMA PAVEMENT TYPE E-3                                         | TON  | 22,900.000 | 22,900.000 |
| 0200         | 460.2000   | INCENTIVE DENSITY HMA PAVEMENT                                | DOL  | 15,775.000 | 15,775.000 |
| 0210         | 460.4110.S | REHEATING HMA PAVEMENT LONGITUDINAL JOINTS                    | LF   | 58,500.000 | 58,500.000 |
| 0220         | 465.0110   | ASPHALTIC SURFACE PATCHING                                    | TON  | 35.000     | 35.000     |
| 0230         | 465.0120   | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES               | TON  | 170.000    | 170.000    |
| 0240         | 465.0315   | ASPHALTIC FLUMES                                              | SY   | 40.000     | 40.000     |
| 0250         | 465.0475   | ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL                 | LF   | 11,350.000 | 11,350.000 |
| 0260         | 520.8000   | CONCRETE COLLARS FOR PIPE                                     | EACH | 1.000      | 1.000      |
| 0270         | 522.0530   | CULVERT PIPE REINFORCED CONCRETE CLASS V 30-INCH              | LF   | 120.000    | 120.000    |
| 0280         | 522.1018   | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH   | EACH | 1.000      | 1.000      |
| 0290         | 522.1030   | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH   | EACH | 4.000      | 4.000      |
| 0300         | 601.0411   | CONCRETE CURB & GUTTER 30-INCH TYPE D                         | LF   | 310.000    | 310.000    |
| 0310         | 601.0557   | CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D         | LF   | 20.000     | 20.000     |
| 0320         | 602.0415   | CONCRETE SIDEWALK 6-INCH                                      | SF   | 190.000    | 190.000    |
| 0330         | 602.0515   | CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA             | SF   | 32.000     | 32.000     |
| 0340         | 606.0200   | RIPRAP MEDIUM                                                 | CY   | 2.000      | 2.000      |
| 0350         | 611.0624   | INLET COVERS TYPE H                                           | EACH | 4.000      | 4.000      |
| 0360         | 611.3230   | INLETS 2X3-FT                                                 | EACH | 2.000      | 2.000      |
| 0370         | 611.8110   | ADJUSTING MANHOLE COVERS                                      | EACH | 3.000      | 3.000      |
| 0380         | 611.8115   | ADJUSTING INLET COVERS                                        | EACH | 40.000     | 40.000     |
| 0390         | 614.0010   | BARRIER SYSTEM GRADING SHAPING FINISHING                      | EACH | 16.000     | 16.000     |
| 0400         | 614.0370   | STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL              | EACH | 16.000     | 16.000     |
| 0410         | 614.0400   | ADJUSTING STEEL PLATE BEAM GUARD                              | LF   | 1,940.000  | 1,940.000  |
| 0420         | 618.0100   | MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1480-22-71 | EACH | 1.000      | 1.000      |
| 0430         | 619.1000   | MOBILIZATION                                                  | EACH | 1.000      | 1.000      |
| 0440         | 621.0100   | LANDMARK REFERENCE MONUMENTS                                  | EACH | 32.000     | 32.000     |

| DATE 27JAN14 |          | E S T I M A T E O F Q U A N T I T I E S            |      |            |            |
|--------------|----------|----------------------------------------------------|------|------------|------------|
| LINE         |          |                                                    |      | 1480-22-71 |            |
| NUMBER       | ITEM     | ITEM DESCRIPTION                                   | UNIT | TOTAL      | QUANTITY   |
| 0450         | 625.0100 | TOPSOIL                                            | SY   | 560.000    | 560.000    |
| 0460         | 628.1504 | SILT FENCE                                         | LF   | 2,390.000  | 2,390.000  |
| 0470         | 628.1520 | SILT FENCE MAINTENANCE                             | LF   | 240.000    | 240.000    |
| 0480         | 628.1905 | MOBILIZATIONS EROSION CONTROL                      | EACH | 2.000      | 2.000      |
| 0490         | 628.1910 | MOBILIZATIONS EMERGENCY EROSION CONTROL            | EACH | 1.000      | 1.000      |
| 0500         | 628.2004 | EROSION MAT CLASS I TYPE B                         | SY   | 560.000    | 560.000    |
| 0510         | 628.7015 | INLET PROTECTION TYPE C                            | EACH | 45.000     | 45.000     |
| 0520         | 628.7504 | TEMPORARY DITCH CHECKS                             | LF   | 70.000     | 70.000     |
| 0530         | 629.0210 | FERTILIZER TYPE B                                  | CWT  | 0.600      | 0.600      |
| 0540         | 630.0110 | SEEDING MIXTURE NO. 10                             | LB   | 8.000      | 8.000      |
| 0550         | 630.0200 | SEEDING TEMPORARY                                  | LB   | 15.000     | 15.000     |
| 0560         | 633.5200 | MARKERS CULVERT END                                | EACH | 37.000     | 37.000     |
| 0570         | 634.0614 | POSTS WOOD 4X6-INCH X 14-FT                        | EACH | 87.000     | 87.000     |
| 0580         | 634.0616 | POSTS WOOD 4X6-INCH X 16-FT                        | EACH | 16.000     | 16.000     |
| 0590         | 634.0618 | POSTS WOOD 4X6-INCH X 18-FT                        | EACH | 5.000      | 5.000      |
| 0600         | 637.2210 | SIGNS TYPE II REFLECTIVE H                         | SF   | 540.140    | 540.140    |
| 0610         | 637.2215 | SIGNS TYPE II REFLECTIVE H FOLDING                 | SF   | 20.720     | 20.720     |
| 0620         | 637.2230 | SIGNS TYPE II REFLECTIVE F                         | SF   | 196.250    | 196.250    |
| 0630         | 638.2602 | REMOVING SIGNS TYPE II                             | EACH | 133.000    | 133.000    |
| 0640         | 638.3000 | REMOVING SMALL SIGN SUPPORTS                       | EACH | 106.000    | 106.000    |
| 0650         | 642.5201 | FIELD OFFICE TYPE C                                | EACH | 1.000      | 1.000      |
| 0660         | 643.0100 | TRAFFIC CONTROL (PROJECT) 01. 1480-22-71           | EACH | 1.000      | 1.000      |
| 0670         | 643.0300 | TRAFFIC CONTROL DRUMS                              | DAY  | 456.000    | 456.000    |
| 0680         | 643.0900 | TRAFFIC CONTROL SIGNS                              | DAY  | 4,745.000  | 4,745.000  |
| 0690         | 643.1050 | TRAFFIC CONTROL SIGNS PCMS                         | DAY  | 14.000     | 14.000     |
| 0700         | 645.0120 | GEOTEXTILE FABRIC TYPE HR                          | SY   | 7.000      | 7.000      |
| 0710         | 646.0106 | PAVEMENT MARKING EPOXY 4-INCH                      | LF   | 29,700.000 | 29,700.000 |
| 0720         | 646.0126 | PAVEMENT MARKING EPOXY 8-INCH                      | LF   | 290.000    | 290.000    |
| 0730         | 646.0406 | PAVEMENT MARKING SAME DAY EPOXY 4-INCH             | LF   | 13,700.000 | 13,700.000 |
| 0740         | 647.0166 | PAVEMENT MARKING ARROWS EPOXY TYPE 2               | EACH | 12.000     | 12.000     |
| 0750         | 647.0566 | PAVEMENT MARKING STOP LINE EPOXY 18-INCH           | LF   | 100.000    | 100.000    |
| 0760         | 647.0726 | PAVEMENT MARKING DIAGONAL EPOXY 12-INCH            | LF   | 180.000    | 180.000    |
| 0770         | 647.0766 | PAVEMENT MARKING CROSSWALK EPOXY 6-INCH            | LF   | 470.000    | 470.000    |
| 0780         | 648.0100 | LOCATING NO-PASSING ZONES                          | MI   | 3.600      | 3.600      |
| 0790         | 649.0100 | TEMPORARY PAVEMENT MARKING 4-INCH                  | LF   | 44,700.000 | 44,700.000 |
| 0800         | 650.4000 | CONSTRUCTION STAKING STORM SEWER                   | EACH | 2.000      | 2.000      |
| 0810         | 650.4500 | CONSTRUCTION STAKING SUBGRADE                      | LF   | 290.000    | 290.000    |
| 0820         | 650.5000 | CONSTRUCTION STAKING BASE                          | LF   | 290.000    | 290.000    |
| 0830         | 650.5500 | CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER | LF   | 330.000    | 330.000    |
| 0840         | 650.6000 | CONSTRUCTION STAKING PIPE CULVERTS                 | EACH | 2.000      | 2.000      |
| 0850         | 650.8000 | CONSTRUCTION STAKING RESURFACING REFERENCE         | LF   | 23,100.000 | 23,100.000 |
| 0860         | 652.0225 | CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH       | LF   | 20.000     | 20.000     |
| 0870         | 652.0800 | CONDUIT LOOP DETECTOR                              | LF   | 660.000    | 660.000    |
| 0880         | 654.0101 | CONCRETE BASES TYPE 1                              | EACH | 2.000      | 2.000      |
| 0890         | 654.0102 | CONCRETE BASES TYPE 2                              | EACH | 2.000      | 2.000      |
| 0900         | 655.0230 | CABLE TRAFFIC SIGNAL 5-14 AWG                      | LF   | 90.000     | 90.000     |
| 0910         | 655.0515 | ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG             | LF   | 540.000    | 540.000    |
| 0920         | 655.0700 | LOOP DETECTOR LEAD IN CABLE                        | LF   | 1,520.000  | 1,520.000  |
| 0930         | 655.0800 | LOOP DETECTOR WIRE                                 | LF   | 1,480.000  | 1,480.000  |
| 0940         | 657.0100 | PEDESTAL BASES                                     | EACH | 2.000      | 2.000      |

|              |          |                                                                    |                                         |            |            |
|--------------|----------|--------------------------------------------------------------------|-----------------------------------------|------------|------------|
| DATE 27JAN14 |          |                                                                    | E S T I M A T E O F Q U A N T I T I E S |            |            |
| LINE         |          |                                                                    | 1480-22-71                              |            |            |
| NUMBER       | ITEM     | ITEM DESCRIPTION                                                   | UNIT                                    | TOTAL      | QUANTITY   |
| 0950         | 657.0255 | TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE                | EACH                                    | 2.000      | 2.000      |
| 0960         | 657.0310 | POLES TYPE 3                                                       | EACH                                    | 2.000      | 2.000      |
| 0970         | 657.0405 | TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT                           | EACH                                    | 2.000      | 2.000      |
| 0980         | 658.0500 | PEDESTRIAN PUSH BUTTONS                                            | EACH                                    | 2.000      | 2.000      |
| 0990         | 690.0150 | SAWING ASPHALT                                                     | LF                                      | 2,750.000  | 2,750.000  |
| 1000         | 690.0250 | SAWING CONCRETE                                                    | LF                                      | 100.000    | 100.000    |
| 1010         | ASP.1T0A | ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR                        | HRS                                     | 4,000.000  | 4,000.000  |
| 1020         | ASP.1T0G | ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR                          | HRS                                     | 5,280.000  | 5,280.000  |
| 1030         | SPV.0060 | SPECIAL 01. INSTALLING POLE MOUNTED WIRED CABINET                  | EACH                                    | 2.000      | 2.000      |
| 1040         | SPV.0060 | SPECIAL 02. INSTALLING 2 SOLAR PANELS ON ONE BRACKET               | EACH                                    | 2.000      | 2.000      |
| 1050         | SPV.0060 | SPECIAL 03. INSTALLING WAVETRONIX CLICK 200 MODULE                 | EACH                                    | 2.000      | 2.000      |
| 1060         | SPV.0060 | SPECIAL 04. INSTALLING WAVETRONIX DETECTOR MODULE                  | EACH                                    | 2.000      | 2.000      |
| 1070         | SPV.0060 | SPECIAL 05. INSTALLING CONCRETE MAINTENANCE PLATFORM               | EACH                                    | 2.000      | 2.000      |
| 1080         | SPV.0060 | SPECIAL 06. GRADING SHAPING & FINISHING FOR ATR SITE               | EACH                                    | 2.000      | 2.000      |
| 1090         | SPV.0090 | SPECIAL 01. PAVEMENT MARKING GROOVED WET REFLECTIVE 4-INCH EPOXY   | LF                                      | 48,200.000 | 48,200.000 |
| 1100         | SPV.0090 | SPECIAL 02. PAVEMENT MARKING GROOVED WET REFLECTIVE 8 - INCH EPOXY | LF                                      | 690.000    | 690.000    |
| 1110         | SPV.0165 | SPECIAL 01. SPRAYED ASPHALTIC SHOULDER TREATMENT                   | SF                                      | 13,450.000 | 13,450.000 |

REMOVING SMALL PIPE CULVERTS

| STATION | LOCATION        | 203.0100<br>EACH | REMARKS                         |
|---------|-----------------|------------------|---------------------------------|
| 69+78   | STH 54 MAINLINE | 1                | 30" CPCS                        |
| 75+35   | STH 54 MAINLINE | 1                | 30" CPCS                        |
| 186+69  | 45 FT RT        | 1                | 18" CPRC, REMOVE TO FIRST JOINT |

TOTAL 3

REMOVING ASPHALTIC SURFACE

| LOCATION           | 204.0110<br>SY | REMARKS                  |
|--------------------|----------------|--------------------------|
| 194+07 - 194+20 RT | 0.8            | AT INLET COVER           |
| 196+99 - 197+12 RT | 0.8            | AT INLET COVER           |
| 231+86 RT          | 3              | SE ROCKLEDGE CURB RADIUS |
| LOOP DETECTOR 21   | 9              |                          |
| LOOP DETECTOR 22   | 26             |                          |
| LOOP DETECTOR 62   | 26             |                          |
| LOOP DETECTOR 61   | 9              |                          |
| LOOP DETECTOR 81   | 25             |                          |
| LOOP DETECTOR 82   | 26             |                          |
| LOOP DETECTOR 42   | 26             |                          |
| LOOP DETECTOR 41   | 25             |                          |

TOTAL 180

REMOVING ASPHALTIC SURFACE MILLING

| STATION TO STATION | LOCATION             | 204.0120<br>SY |
|--------------------|----------------------|----------------|
| 313+15 - 350+00    | STH 54 MAINLINE      | 12141          |
| 50+00 - 239+45     | STH 54 MAINLINE      | 71925          |
| 239+20 - 244+00    | STH 54 MAINLINE      | 1601           |
| 323+30             | STUMP ROAD, RT       | 558            |
| 323+30             | STUMP ROAD, LT       | 512            |
| 349+92             | COUNTY LINE ROAD, RT | 545            |
| 349+92             | COUNTY LINE ROAD, LT | 671            |
| 77+30              | WALHAIN ROAD, RT     | 408            |
| 77+30              | WALHAIN ROAD, LT     | 515            |
| 103+66             | CTH H, LT            | 445            |
| 130+29             | HILLVIEW ROAD, LT    | 434            |
| 156+95             | RENDEZVOUS ROAD, RT  | 455            |
| 156+95             | RENDEZVOUS ROAD, LT  | 336            |
| 179+36             | SCHOOL CREEK TRL, LT | 745            |
| 179+41             | HAVEN LANE, RT       | 451            |
| 193+49             | FOURTH STREET, RT    | 382            |
| 193+49             | FOURTH STREET, LT    | 265            |
| 200+13             | THIRD STREET, RT     | 182            |
| 203+27             | SECOND STREET, RT    | 199            |
| 203+27             | SECOND STREET, LT    | 217            |
| 206+73             | FIRST STREET, RT     | 157            |
| 210+17             | CTH AB, RT           | 337            |
| 210+17             | CTH A, LT            | 283            |
| 213+68             | COLLIE STREET, RT    | 233            |
| 220+51             | SCHOOL STREET, LT    | 337            |
| 226+39             | PRAIRIE LN, LT       | 179            |
| 231+76             | ROCKLEDGE ROAD, RT   | 253            |

SUB TOTAL 94766

REMOVING ASPHALTIC SURFACE MILLING CONTINUED

| STATION TO STATION | LOCATION      | 204.0120<br>SY |
|--------------------|---------------|----------------|
| 96+47 - 100+50     | BEAMGAURD, RT | 247            |
| 97+50 - 101+62     | BEAMGAURD, LT | 257            |
| 103+62 - 107+50    | BEAMGAURD, RT | 222            |
| 104+45 - 107+96    | BEAMGAURD, LT | 223            |
| 138+06 - 140+61    | BEAMGAURD, RT | 136            |
| 138+80 - 140+61    | BEAMGAURD, LT | 107            |
| 141+30 - 143+06    | BEAMGAURD, RT | 99             |
| 141+30 - 143+96    | BEAMGAURD, LT | 167            |
| 184+28 - 190+71    | BEAMGAURD, LT | 223            |
| 184+13 - 186+94    | BEAMGAURD, RT | 172            |
| 241+93 - 244+00    | BEAMGAURD, RT | 86             |
| 242+90 - 244+00    | BEAMGAURD, LT | 42             |

SUB TOTAL 1981

TOTAL 96700

REMOVING ASPHALTIC SURFACE BUTT JOINT

| STATION                 | TO | STATION | LOCATION | 204.0115<br>SY | REMARKS           |
|-------------------------|----|---------|----------|----------------|-------------------|
| 313+15                  |    |         | MAINLINE | 7              | BEGIN PROJECT     |
| 323+30                  |    |         | LT       | 7              | STUMP ROAD        |
| 323+30                  |    |         | RT       | 7              | STUMP ROAD        |
| 325+12                  |    |         | RT       | 5              | DRVWY AT APRON    |
| 325+64                  |    |         | RT       | 6              | DRVWY AT APRON    |
| 325+48                  |    |         | LT       | 4              | PE                |
| 326+06                  |    |         | LT       | 6              | PE                |
| 329+75                  |    |         | RT       | 7              | FE                |
| 335+89                  |    |         | LT       | 6              | PE                |
| 344+52                  |    |         | RT       | 6              | FE                |
| 347+08                  |    |         | RT       | 8              | PE                |
| 349+91                  |    |         | RT       | 7              | N. COUNTY LINE RD |
| 349+93                  |    |         | LT       | 7              | N. COUNTY LINE RD |
| EQUATION 350+00 = 50+00 |    |         |          |                |                   |
| 63+94                   |    |         | LT       | 9              | CE                |
| 64+34                   |    |         | RT       | 4              | PE                |
| 69+82                   |    |         | RT       | 6              | PE                |
| 71+69                   |    |         | RT       | 4              | PE                |
| 72+16                   |    |         | LT       | 4              | CE                |
| 72+42                   | -  | 73+24   | LT       | 14             | CE                |
| 72+91                   |    |         | RT       | 5              | PE                |
| 74+00                   |    |         | LT       | 11             | CE                |
| 77+30                   |    |         | LT       | 9              | WALHAIN RD        |
| 77+18                   |    |         | RT       | 7              | WALHAIN RD        |
| 85+73                   |    |         | RT       | 5              | PE                |
| 87+41                   |    |         | LT       | 5              | PE                |
| 91+42                   |    |         | RT       | 4              | PE                |
| 93+25                   |    |         | RT       | 5              | PE                |
| 94+33                   |    |         | LT       | 6              | PE                |
| 103+66                  |    |         | LT       | 6              | CTH H             |
| 119+00                  |    |         | LT       | 6              | PE                |
| 129+33                  |    |         | LT       | 4              | PE                |
| 130+29                  |    |         | LT       | 6              | HILLVIEW RD       |
| 140+61                  |    |         | MAINLINE | 7              |                   |
| 141+30                  |    |         | MAINLINE | 7              |                   |
| 150+62                  |    |         | LT       | 4              | PE                |
| 152+94                  |    |         | LT       | 6              | PE                |
| 156+95                  |    |         | LT       | 6              | RENDEZVOUS RD     |
| 156+95                  |    |         | RT       | 6              | RENDEZVOUS RD     |

SUB TOTAL 238

REMOVING ASPHALTIC SURFACE BUTT JOINT CONTINUED

| STATION | TO | STATION | LOCATION | 204.0115<br>SY | REMARKS      |
|---------|----|---------|----------|----------------|--------------|
| 173+65  |    |         | RT       | 9              | CE           |
| 174+10  |    |         | LT       | 6              | PE           |
| 174+98  |    |         | RT       | 9              | CE           |
| 179+42  |    |         | LT       | 7              | HAVEN LN     |
| 179+42  |    |         | RT       | 6              | HAVEN LN     |
| 182+21  |    |         | RT       | 4              | PE           |
| 188+42  |    |         | RT       | 8              | CE           |
| 189+93  |    |         | RT       | 7              | CE           |
| 193+49  |    |         | LT       | 8              | 4th ST       |
| 193+49  |    |         | RT       | 8              | 4th ST       |
| 198+03  |    |         | RT       | 4              | CE           |
| 200+14  |    |         | RT       | 7              | THIRD ST     |
| 203+27  |    |         | LT       | 9              | 2ND ST       |
| 203+27  |    |         | RT       | 9              | 2ND ST       |
| 205+17  |    |         | RT       | 4              | PE           |
| 206+72  |    |         | RT       | 7              | 1st ST       |
| 208+93  |    |         | RT       | 9              | CE           |
| 210+17  |    |         | LT       | 11             | CTH AB       |
| 210+17  |    |         | RT       | 11             | CTH A        |
| 211+53  |    |         | LT       | 6              | CE           |
| 211+93  |    |         | RT       | 13             | CE           |
| 213+67  |    |         | RT       | 8              | COLE ST      |
| 214+61  |    |         | RT       | 8              | CE           |
| 216+34  |    |         | LT       | 4              | CE           |
| 220+51  |    |         | LT       | 9              | SCHOOL ST    |
| 223+72  |    |         | LT       | 5              | CE           |
| 226+39  |    |         | LT       | 7              | PRAIRIE LN   |
| 231+77  |    |         | RT       | 6              | ROCKLEDGE RD |
| 244+00  |    |         | STH 54   | 7              | END PROJECT  |

SUB TOTAL 214

TOTAL 450

REMOVING CURB & GUTTER

| STATION TO | STATION  | LOCATION                  | 204.0150<br>LF |
|------------|----------|---------------------------|----------------|
| 69+02      | - 70+56  | LT                        | 154            |
| 74+68      | - 76+02  | LT                        | 134            |
| 186+75     | - 186+84 | RT                        | 9              |
| 194+07     | - 194+20 | RT                        | 10             |
| 196+99     | - 197+12 | RT                        | 10             |
| 231+86     |          | SE RADIUS OF ROCKLEDGE RD | 20             |

TOTAL 340

CURB RAMP REPAIRS

|           | 204.0155<br>REMOVING<br>CONCRETE<br>SIDEWALK | 602.0415<br>CONCRETE<br>SIDEWALK<br>4-INCH | 602.0515<br>CURB RAMP<br>DETECTABLE<br>WARNING FIELD<br>NATURAL PATINA |              |
|-----------|----------------------------------------------|--------------------------------------------|------------------------------------------------------------------------|--------------|
| LOCATION  | SY                                           | SF                                         | SF                                                                     | REMARKS      |
| 209+80 LT | 5.2                                          | 47                                         | 8                                                                      | NW CURB RAMP |
| 210+50 LT | 5.9                                          | 53                                         | 8                                                                      | NE CURB RAMP |
| 209+83 RT | 3.3                                          | 29                                         | 8                                                                      | SW CURB RAMP |
| 210+53 RT | 6.8                                          | 61                                         | 8                                                                      | SE CURB RAMP |

TOTAL 21 190 32

REMOVING INLETS

| STATION | LOCATION | 204.0220<br>EACH | REMARKS           |
|---------|----------|------------------|-------------------|
| 69+91   | LT       | 1                |                   |
| 75+35   | LT       | 1                |                   |
| 194+13  | RT       | 1                | REMOVE COVER ONLY |
| 197+05  | RT       | 1                | REMOVE COVER ONLY |

TOTAL 4

REMOVING GUARDRAIL

|         |    |         |          | 204.0165              |               |
|---------|----|---------|----------|-----------------------|---------------|
|         |    |         |          | REMOVING<br>GUARDRAIL |               |
| STATION | TO | STATION | LOCATION | LF                    | EAT LOCATION* |
| 96+81   | -  | 97+31   | RT       | 50                    | 1             |
| 99+68   | -  | 100+18  | RT       | 50                    | 3             |
| 97+86   | -  | 98+36   | LT       | 50                    | 2             |
| 100+74  | -  | 101+24  | LT       | 50                    | 4             |
| 104+12  | -  | 104+62  | RT       | 50                    | 5             |
| 106+62  | -  | 107+12  | RT       | 50                    | 7             |
| 104+35  | -  | 104+85  | LT       | 50                    | 6             |
| 107+22  | -  | 107+72  | LT       | 50                    | 8             |
| 138+50  | -  | 139+00  | RT       | 50                    | 9             |
| 142+34  | -  | 142+84  | RT       | 50                    | 11            |
| 139+25  | -  | 139+75  | LT       | 50                    | 10            |
| 142+90  | -  | 143+40  | LT       | 50                    | 12            |
| 184+46  | -  | 184+96  | RT       | 50                    | 13            |
| 187+33  | -  | 187+83  | RT       | 50                    | 15            |
| 185+25  | -  | 185+75  | LT       | 50                    | 14            |
| 188+13  | -  | 188+63  | LT       | 50                    | 16            |

TOTAL 800

\*EAT LOCATIONS CALLED OUT ON PLAN SHEETS

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

| STATION TO | STATION  | 211.0400<br>STA | REMARKS |
|------------|----------|-----------------|---------|
| 99+95      | - 104+47 | 5               |         |

TOTAL 5

BACKFILL GRANULAR

| STATION | TO | STATION | 209.0100<br>BACKFILL<br>GRANULAR<br>CY | REMARKS |
|---------|----|---------|----------------------------------------|---------|
| 69+02   | -  | 70+56   | 593                                    | GRADE 1 |
| 74+68   | -  | 76+02   | 400                                    | GRADE 1 |

TOTALS 1000

| Division            | From / To Station   | Location | Common<br>Excavation<br>(1) |                          | (item #<br>205.0100) | Available<br>Material (5) | Unexpanded<br>Fill | Expanded Fill | Mass<br>Ordinate + / -<br>(14) | Waste    | Com ment: |
|---------------------|---------------------|----------|-----------------------------|--------------------------|----------------------|---------------------------|--------------------|---------------|--------------------------------|----------|-----------|
|                     |                     |          | Cut (2)                     | EBS<br>Excavation<br>(3) |                      |                           |                    | (13)          |                                |          |           |
| Factor<br>1.15      |                     |          |                             |                          |                      |                           |                    |               |                                |          |           |
| Division 1          |                     |          |                             |                          |                      |                           |                    |               |                                |          |           |
| Pipe Replacement 1  | 69+02 - 70+56       |          | 455                         | 593                      |                      | 1,049                     | 0                  | 0             | 1,049                          | 1,049    |           |
| Pipe Replacement 2  | 74+68 - 76+02       |          | 320                         | 400                      |                      | 720                       | 0                  | 0             | 720                            | 720      |           |
| EATs 1-2 (16)       | 95+56.5 - 98+42     |          | 0                           | 0                        |                      | 0                         | 55                 | 63            | -63                            | 0        |           |
| EAT 3 (16)          | 99+62.5 - 100+18    |          | 0                           | 0                        |                      | 0                         | 0                  | 0             | 0                              | 0        |           |
| EAT 4 (16)          | 100+69 - 102+44     |          | 0                           | 0                        |                      | 0                         | 18                 | 21            | -21                            | 0        |           |
| EATs 5-6 (16)       | 104+08.5 - 104+87.5 |          | 0                           | 0                        |                      | 0                         | 9                  | 10            | -10                            | 0        |           |
| EATs 7-8 (16)       | 106+56 - 109+25     |          | 0                           | 0                        |                      | 0                         | 126                | 145           | -145                           | 0        |           |
| EATs 9-10 (16)      | 136+69 - 139+81     |          | 0                           | 0                        |                      | 0                         | 126                | 145           | -145                           | 0        |           |
| EATs 11-12 (16)     | 142+30 - 144+98.5   |          | 0                           | 0                        |                      | 0                         | 2                  | 2             | -2                             | 0        |           |
| EATs 13-14 (16)     | 183+40.5 - 185+81   |          | 0                           | 0                        |                      | 0                         | 0                  | 0             | 0                              | 0        |           |
| EAT 16 (16)         | 188+06 - 189+50     |          | 0                           | 0                        |                      | 0                         | 5                  | 6             | -6                             | 0        |           |
| Division 1 Subtotal |                     |          | 776                         | 993                      |                      | 1,769                     | 341                | 392           | 1,377                          | 1,769    |           |
| Grand Total         |                     |          | 775.76                      | 992.82                   |                      | 1,768.58                  | 340.89             | 392.03        | 1,376.56                       | 1,768.58 |           |
| Total Common Exc    |                     |          | 1,768.58                    |                          |                      |                           |                    |               |                                |          |           |

- 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Backfill Granular.
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 13) Expanded Fill. Factor = 1.15
- 14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
- 16) EAT Locations are called out in Plan Sheets

BASE AGGREGATE DENSE SUMMARY

|         |    |         | 305.0110<br>BASE<br><br>AGGREGATE<br>DENSE<br>3/4" | 305.0120<br>BASE<br><br>AGGREGATE<br>DENSE 1 1/4" | *WATER |                          |
|---------|----|---------|----------------------------------------------------|---------------------------------------------------|--------|--------------------------|
| STATION | TO | STATION | TON                                                | TON                                               | MGAL   | REMARKS                  |
| 313+50  | -  | 349+00  | 596                                                | ---                                               | 8.3    | BEGIN PROJECT            |
| 349+00  | -  | 350+00  | 10                                                 | ---                                               | 0.1    | EQUATION 350+00 = 50+00  |
| 50+00   | -  | 63+70   | 135                                                | ---                                               | 1.9    |                          |
| 63+70   | -  | 69+02   | 2                                                  | ---                                               | 0.0    |                          |
| 69+02   | -  | 70+56   | 8                                                  | 599                                               | 8.5    |                          |
| 70+56   | -  | 74+68   | 1                                                  | ---                                               | 0.0    |                          |
| 74+68   | -  | 76+02   | 7                                                  | 521                                               | 7.4    |                          |
| 76+02   | -  | 76+90   | 1                                                  |                                                   | 0.0    |                          |
| 76+90   | -  | 79+00   | 21                                                 | ---                                               | 0.3    |                          |
| 79+00   | -  | 98+15   | 188                                                | ---                                               | 2.6    |                          |
| 98+15   | -  | 100+13  | 10                                                 | ---                                               | 0.1    |                          |
| 100+13  | -  | 104+77  | 46                                                 | ---                                               | 0.6    |                          |
| 104+77  | -  | 107+25  | 13                                                 | ---                                               | 0.2    |                          |
| 107+25  | -  | 139+85  | 321                                                | ---                                               | 4.5    |                          |
| 139+85  | -  | 142+15  | 12                                                 | ---                                               | 0.2    |                          |
| 142+15  | -  | 142+42  | 3                                                  | ---                                               | 0.0    |                          |
| 142+42  | -  | 165+00  | 222                                                | ---                                               | 3.1    |                          |
| 165+00  | -  | 168+00  | 30                                                 | ---                                               | 0.4    |                          |
| 168+00  | -  | 171+30  | 1                                                  | ---                                               | 0.0    |                          |
| 171+30  | -  | 185+30  | 138                                                | ---                                               | 1.9    |                          |
| 185+30  | -  | 186+84  | 8                                                  | ---                                               | 0.1    |                          |
| 186+84  | -  | 190+71  | 1                                                  | ---                                               | 0.0    |                          |
| 190+71  | -  | 216+00  | 0                                                  | ---                                               | 0.0    |                          |
| 216+00  | -  | 226+75  | 0                                                  | ---                                               | 0.0    |                          |
| 226+75  | -  | 231+00  | 1                                                  | ---                                               | 0.0    |                          |
| 231+00  | -  | 239+21  | 81                                                 | ---                                               | 1.1    | EQUATION 239+21 = 239+46 |
| 239+46  | -  | 244+00  | 45                                                 | ---                                               | 0.6    |                          |
| 313+15  | -  | 244+00  | 149                                                | 15                                                | 2.3    |                          |
| 313+50  | -  | 244+00  | 2733                                               | ---                                               | 38.3   |                          |

TOTAL 4780 1140 84

\*For Informational Purposes Only

SHAPING SHOULDERS

| STATION | TO | STATION | LOCATION | 305.0500<br>STA | REMARKS |
|---------|----|---------|----------|-----------------|---------|
| 313+15  | -  | 350+00  | LT & RT  | 74              |         |
| 50+00   | -  | 186+75  | RT       | 137             |         |
| 50+00   | -  | 190+70  | LT       | 141             |         |
| 226+80  | -  | 244+00  | LT       | 17              |         |
| 232+20  | -  | 244+00  | RT       | 12              |         |

TOTAL 380

HMA SUMMARY

|            |          |                          | 460.1103 | 455.0105  | 455.0605  |               |
|------------|----------|--------------------------|----------|-----------|-----------|---------------|
|            |          |                          | HMA      | ASPHALTIC | TACK COAT |               |
|            |          |                          | PAVEMENT | MATERIAL  |           |               |
|            |          |                          | TYPE E-3 | PG58-28   |           |               |
| STATION TO | STATION  | LOCATION                 | TON      | TON       | GAL       | REMARKS       |
| 313+15     | - 350+00 | STH 54 MAINLINE          | 2804     | 154       | 610       | BEGIN PROJECT |
| 50+00      | - 239+45 | STH 54 MAINLINE          | 16543    | 910       | 3596      |               |
| 239+20     | - 244+00 | STH 54 MAINLINE          | 368      | 20        | 80        | END PROJECT   |
| 69+02      | - 70+56  | FROST HEAVE REPAIR       | 99       | 5         | 19        | LOWER LAYER   |
| 74+68      | - 76+02  | FROST HEAVE REPAIR       | 79       | 4         | 15        | LOWER LAYER   |
| 99+95      | - 104+47 | CTH H Shoulder Widening  | 61       | 3         | 13        |               |
| 167+92     | - 171+31 | PAVED GUTTER PAN - RIGHT | 8        | 0         | 4         |               |
| 186+75     | - 193+27 | PAVED GUTTER PAN - RIGHT | 12       | 1         | 6         |               |
| 190+73     | - 193+30 | PAVED GUTTER PAN - LEFT  | 4        | 0         | 2         |               |
| 193+69     | - 203+07 | PAVED GUTTER PAN - LEFT  | 16       | 1         | 8         |               |
| 193+68     | - 199+96 | PAVED GUTTER PAN - RIGHT | 12       | 1         | 6         |               |
| 200+29     | - 203+06 | PAVED GUTTER PAN - RIGHT | 6        | 0         | 3         |               |
| 203+46     | - 206+59 | PAVED GUTTER PAN - LEFT  | 6        | 0         | 3         |               |
| 203+43     | - 206+55 | PAVED GUTTER PAN - RIGHT | 6        | 0         | 3         |               |
| 206+91     | - 209+94 | PAVED GUTTER PAN - LEFT  | 6        | 0         | 3         |               |
| 206+88     | - 209+96 | PAVED GUTTER PAN - RIGHT | 6        | 0         | 3         |               |
| 210+39     | - 220+31 | PAVED GUTTER PAN - LEFT  | 19       | 1         | 9         |               |
| 210+40     | - 213+47 | PAVED GUTTER PAN - RIGHT | 6        | 0         | 3         |               |
| 213+84     | - 231+69 | PAVED GUTTER PAN - RIGHT | 31       | 2         | 15        |               |
| 220+72     | - 226+21 | PAVED GUTTER PAN - LEFT  | 10       | 1         | 5         |               |
| 323+30     |          | STUMP ROAD, RT           | 128      | 7         | 28        |               |
| 323+30     |          | STUMP ROAD, LT           | 118      | 6         | 26        |               |
| 349+92     |          | COUNTY LINE ROAD, RT     | 125      | 7         | 27        |               |
| 349+92     |          | COUNTY LINE ROAD, LT     | 154      | 8         | 34        |               |
| 77+30      |          | WALHAIN ROAD, RT         | 94       | 5         | 20        |               |
| 77+30      |          | WALHAIN ROAD, LT         | 118      | 7         | 26        |               |
| 103+66     |          | CTH H, LT                | 102      | 6         | 22        |               |
| 130+29     |          | HILLVIEW ROAD, LT        | 100      | 6         | 22        |               |
| 156+95     |          | RENDEZVOUS ROAD, RT      | 105      | 6         | 23        |               |
| 156+95     |          | RENDEZVOUS ROAD, LT      | 77       | 4         | 17        |               |
| 179+36     |          | SCHOOL CREEK TRL, LT     | 171      | 9         | 9         |               |
| 179+41     |          | HAVEN LANE, RT           | 104      | 6         | 23        |               |
| 193+49     |          | FOURTH STREET, RT        | 88       | 5         | 19        |               |

SUB TOTALS 21587 1187 4701

HMA SUMMARY CONTINUED

|         |        |         | 460.1103                    | 455.0105                         | 455.0605  | REMARKS                 |
|---------|--------|---------|-----------------------------|----------------------------------|-----------|-------------------------|
|         |        |         | HMA<br>PAVEMENT<br>TYPE E-3 | ASPHALTIC<br>MATERIAL<br>PG58-28 | TACK COAT |                         |
| STATION | TO     | STATION | TON                         | TON                              | GAL       |                         |
|         | 193+49 |         | 61                          | 3                                | 13        |                         |
|         | 200+13 |         | 42                          | 2                                | 9         |                         |
|         | 203+27 |         | 46                          | 3                                | 10        |                         |
|         | 203+27 |         | 50                          | 3                                | 11        |                         |
|         | 206+73 |         | 36                          | 2                                | 8         |                         |
|         | 210+17 |         | 78                          | 4                                | 17        |                         |
|         | 210+17 |         | 65                          | 4                                | 14        |                         |
|         | 213+68 |         | 54                          | 3                                | 12        |                         |
|         | 220+51 |         | 78                          | 4                                | 17        |                         |
|         | 226+39 |         | 41                          | 2                                | 9         |                         |
|         | 231+76 |         | 58                          | 3                                | 13        |                         |
| 96+47   | -      | 100+50  | 57                          | 3                                | 12        |                         |
| 97+50   | -      | 101+62  | 59                          | 3                                | 13        |                         |
| 103+62  | -      | 107+50  | 51                          | 3                                | 11        |                         |
| 104+45  | -      | 107+96  | 51                          | 3                                | 11        |                         |
| 138+06  | -      | 140+61  | 31                          | 2                                | 7         |                         |
| 138+80  | -      | 140+61  | 25                          | 1                                | 5         |                         |
| 141+30  | -      | 143+06  | 23                          | 1                                | 5         |                         |
| 141+30  | -      | 143+96  | 38                          | 2                                | 8         |                         |
| 184+28  | -      | 190+71  | 51                          | 3                                | 11        |                         |
| 184+13  | -      | 186+94  | 40                          | 2                                | 9         |                         |
| 241+93  | -      | 244+00  | 20                          | 1                                | 4         |                         |
| 242+90  | -      | 244+00  | 10                          | 1                                | 2         |                         |
| 313+50  | -      | 244+00  | 271                         | 15                               | 88        | ADDITIONAL FOR MAINLINE |

|            |  |  |       |      |      |  |
|------------|--|--|-------|------|------|--|
| SUB TOTALS |  |  | 1334  | 73   | 318  |  |
| TOTALS     |  |  | 22900 | 1260 | 5020 |  |

ASPHALTIC FLUMES

| STATION | LOCATION   | 465.0315                  |
|---------|------------|---------------------------|
|         |            | Asphaltic<br>Flumes<br>SY |
| 186+76  | STH 54, LT | 8                         |
| 190+68  | STH 54, LT | 31                        |

|       |    |
|-------|----|
| TOTAL | 40 |
|-------|----|

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS

|         |    |         | 460.4110.S | REMARKS |
|---------|----|---------|------------|---------|
| STATION | TO | STATION | LF         |         |
| 313+15  | -  | 350+00  | 7400       |         |
| 50+00   | -  | 195+25  | 29100      |         |
| 195+25  | -  | 225+75  | 18300      | TWLT    |
| 225+75  | -  | 239+45  | 2700       |         |
| 239+20  | -  | 244+00  | 1000       |         |
| TOTAL   |    |         | 58500      |         |

ASPHALTIC SURFACE PATCHING

| LOCATION           | 465.0110 | REMARKS                  |
|--------------------|----------|--------------------------|
|                    | TON      |                          |
| 194+07 - 194+20 RT | 0.1      | AT INLET COVER           |
| 196+99 - 197+12 RT | 0.1      | AT INLET COVER           |
| 231+86 RT          | 0.4      | SE ROCKLEDGE CURB RADIUS |
| LOOP DETECTOR 21   | 1.8      |                          |
| LOOP DETECTOR 22   | 5.3      |                          |
| LOOP DETECTOR 62   | 5.2      |                          |
| LOOP DETECTOR 61   | 1.8      |                          |
| LOOP DETECTOR 81   | 5        |                          |
| LOOP DETECTOR 82   | 5.2      |                          |
| LOOP DETECTOR 42   | 5.2      |                          |
| LOOP DETECTOR 41   | 5        |                          |

|       |    |
|-------|----|
| TOTAL | 35 |
|-------|----|

CENTERLINE RUMBLESTRIPS

|         |    |         | 465.0475                           | Remarks |
|---------|----|---------|------------------------------------|---------|
| STATION | TO | STATION | CENTERLINE<br>RUMBLER STRIPS<br>LF |         |
| 313+50  | -  | 321+30  | 780                                |         |
| 325+30  | -  | 347+92  | 2262                               |         |
| 52+00   | -  | 61+00   | 900                                |         |
| 93+50   | -  | 101+66  | 816                                |         |
| 105+66  | -  | 128+28  | 2262                               |         |
| 132+28  | -  | 140+35  | 807                                |         |
| 141+55  | -  | 154+89  | 1334                               |         |
| 158+95  | -  | 170+00  | 1105                               |         |
| 233+00  | -  | 244+00  | 1100                               |         |

|       |       |
|-------|-------|
| TOTAL | 11350 |
|-------|-------|

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

| STATION TO STATION |          | LOCATION  | 465.0120<br>ASPHALTIC<br>SURFACE<br>DRIVEWAYS AND<br>FIELD ENTRANCES<br>TON | 455.0605<br>TACK<br>COAT<br>GAL | REMARKS         |
|--------------------|----------|-----------|-----------------------------------------------------------------------------|---------------------------------|-----------------|
| 324+96             | - 325+81 | STH 54 EB | 8                                                                           | 2                               | APRON AT 2 PE'S |
| 325+27             | - 325+70 | STH 54 WB | 4                                                                           | 1                               |                 |
| 325+79             | - 326+33 | STH 54 WB | 5                                                                           | 1                               |                 |
| 329+53             | - 329+91 | STH 54 EB | 5                                                                           | 1                               |                 |
| 335+70             | - 336+09 | STH 54 WB | 4                                                                           | 1                               |                 |
| 344+33             | - 344+73 | STH 54 EB | 4                                                                           | 1                               |                 |
| 346+83             | - 347+34 | STH 54 EB | 4                                                                           | 1                               |                 |
| 63+76              | - 64+12  | STH 54 WB | 5                                                                           | 1                               |                 |
| 64+11              | - 64+45  | STH 54 EB | 3                                                                           | 1                               |                 |
| 69+68              | - 70+02  | STH 54 EB | 4                                                                           | 1                               |                 |
| 71+55              | - 71+84  | STH 54 EB | 3                                                                           | 1                               |                 |
| 71+98              | - 72+21  | STH 54 WB | 3                                                                           | 1                               |                 |
| 72+42              | - 73+24  | STH 54 WB | 10                                                                          | 2                               |                 |
| 73+66              | - 74+08  | STH 54 WB | 6                                                                           | 1                               |                 |
| 72+74              | - 73+09  | STH 54 EB | 3                                                                           | 1                               |                 |
| 85+57              | - 85+89  | STH 54 EB | 3                                                                           | 1                               |                 |
| 87+21              | - 87+46  | STH 54 WB | 3                                                                           | 1                               |                 |
| 91+29              | - 91+63  | STH 54 EB | 4                                                                           | 1                               |                 |
| 93+09              | - 93+43  | STH 54 EB | 4                                                                           | 1                               |                 |
| 94+07              | - 94+57  | STH 54 WB | 5                                                                           | 1                               |                 |
| 118+81             | - 119+21 | STH 54 WB | 9                                                                           | 2                               |                 |
| 129+14             | - 129+66 | STH 54 WB | 3                                                                           | 1                               |                 |
| 150+47             | - 150+82 | STH 54 WB | 4                                                                           | 1                               |                 |
| 152+72             | - 153+13 | STH 54 WB | 8                                                                           | 2                               |                 |
| 172+36             | - 172+95 | STH 54 EB | 6                                                                           | 1                               |                 |
| 173+94             | - 174+35 | STH 54 WB | 4                                                                           | 1                               |                 |
| 174+56             | - 175+33 | STH 54 EB | 7                                                                           | 1                               |                 |
| 182+05             | - 182+36 | STH 54 EB | 3                                                                           | 1                               |                 |
| 188+24             | - 188+68 | STH 54 EB | 6                                                                           | 1                               |                 |
| 189+62             | - 190+00 | STH 54 EB | 5                                                                           | 1                               |                 |
| 197+85             | - 198+23 | STH 54 EB | 3                                                                           | 1                               |                 |
| 205+05             | - 205+29 | STH 54 EB | 3                                                                           | 1                               |                 |
| 208+77             | - 209+09 | STH 54 EB | 5                                                                           | 1                               |                 |
| 211+38             | - 211+63 | STH 54 WB | 2                                                                           | 0                               |                 |
| 211+61             | - 211+98 | STH 54 EB | 3                                                                           | 1                               |                 |
| 214+58             | - 214+95 | STH 54 EB | 3                                                                           | 1                               |                 |
| 216+25             | - 216+43 | STH 54 WB | 3                                                                           | 1                               |                 |
| 223+44             | - 223+98 | STH 54 WB | 4                                                                           | 1                               |                 |
| TOTALS             |          |           | 170                                                                         | 35                              |                 |

CONCRETE CURB & GUTTER

| STATION TO STATION | LOCATION                      | 601.0411<br>CONCRETE<br>CURB AND<br>GUTTER<br>30" TYPE D<br>LF | 650.5500<br>CONSTRUCTION<br>STAKING<br>CURB AND<br>GUTTER<br>LF | 601.0557<br>CONCRETE<br>CURB AND<br>GUTTER 36"<br>TYPE D-SLOPED<br>LF |
|--------------------|-------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------|
| 69+02 - 70+56      | LT                            | 154                                                            | 154                                                             | ---                                                                   |
| 74+68 - 76+02      | LT                            | 134                                                            | 134                                                             | ---                                                                   |
| 194+07 - 194+20    | RT                            | 10                                                             | 10                                                              |                                                                       |
| 196+99 - 197+12    | RT                            | 10                                                             | 10                                                              |                                                                       |
| 231+86             | RT, SE RADIUS OF ROCKLEDGE RD | ---                                                            | 20                                                              | 20                                                                    |
| TOTAL              |                               | 310                                                            | 330                                                             | 20                                                                    |

RIPRAP SUMMARY

| STATION | LOCATION | 606.0200<br>RIPRAP<br>MEDIUM<br>CY | 645.0120<br>GEOTEXTILE<br>FABRIC<br>TYPE HR<br>SY |
|---------|----------|------------------------------------|---------------------------------------------------|
| 186+75  | RT       | 2                                  | 7                                                 |
| TOTAL   |          | 2                                  | 7                                                 |

CULVERT PIPE SUMMARY

|         |                   | *INLET | *DISCH. | 520.8000  | 522.0530 | 522.1018      | 522.1030      | **ENDWALL | 633.5200 | 650.6000     |                     |
|---------|-------------------|--------|---------|-----------|----------|---------------|---------------|-----------|----------|--------------|---------------------|
|         |                   |        |         | CONCRETE  | CPRC     | APRON ENDWALL | APRON ENDWALL | CONNECTOR | CULVERT  | CONSTRUCTION |                     |
|         |                   |        |         | COLLARS   | CLASS V  | FOR CPRC      | FOR CPRC      | STRAP     | MARKER   | STAKING      |                     |
|         |                   |        |         | FOR PIPES | 30-INCH  | 18-INCH       | 30-INCH       |           | ENDS     | PIPE CULVERT |                     |
| STATION | LOCATION          | ELEV.  | ELEV.   | EACH      | LF       | EACH          | EACH          | EACH      | EACH     | EACH         | REMARKS             |
| 69+91   | MAINLINE          | 773.01 | 772.41  | ---       | 65       | ---           | 2             | 2         | 2        | 1            |                     |
| 75+35   | MAINLINE          | 777.69 | 777.44  | ---       | 55       | ---           | 2             | 2         | 2        | 1            |                     |
| 186+80  | 45' RT            | ---    | ---     | 1         | ---      | 1             | ---           | 1         | 1        | ---          |                     |
| Project | Existing Culverts | ---    | ---     | ---       | ---      | ---           | ---           | ---       | 32       | ---          | As Engineer Directs |
| TOTALS  |                   |        |         | 1         | 120      | 1             | 4             | 5         | 37       | 2            |                     |

INLET COVERS SUMMARY

\* All ELEVATIONS SHALL BE FIELD VERIFIED AND ADJUSTED TO MATCH EXISTING CONDITIONS  
\*\* INCIDENTAL

INLET COVERS SUMMARY CONTINUED

|          |          | 611.8115  | 628.7015   |                 |
|----------|----------|-----------|------------|-----------------|
|          |          | ADJUSTING | INLET      |                 |
|          |          | INLET     | PROTECTION |                 |
|          |          | COVERS    | TYPE C     |                 |
| STATION  | LOCATION | EACH      | EACH       | REMARKS         |
| 65+47    | LT       | ---       | 1          | ---             |
| 68+46    | LT       | ---       | 1          | ---             |
| 72+69    | LT       | ---       | 1          | ---             |
| 187+21   | RT       | 1         | 1          | Adjust Lid Only |
| 190+05   | RT       | 1         | 1          | Adjust Lid Only |
| 193+97   | LT       | 1         | 1          | Adjust Lid Only |
| 194+14   | RT       | 1         | 1          | Adjust Lid Only |
| 197+06   | RT       | 1         | 1          | Adjust Lid Only |
| 199+98   | LT       | 1         | 1          | Adjust Lid Only |
| 200+57   | RT       | 1         | 1          | Adjust Lid Only |
| 203+74   | LT       | 1         | 1          | Adjust Lid Only |
| 203+73   | RT       | 1         | 1          | Adjust Lid Only |
| 206+55   | LT       | 1         | 1          | Adjust Lid Only |
| 206+89   | LT       | 1         | 1          | Adjust Lid Only |
| 207+11   | RT       | 1         | 1          | Adjust Lid Only |
| 213+16   | RT       | 1         | 1          | Adjust Lid Only |
| 213+17   | LT       | 1         | 1          | Adjust Lid Only |
| 217+42   | RT       | 1         | 1          | Adjust Lid Only |
| 217+42   | LT       | 1         | 1          | Adjust Lid Only |
| 219+83   | RT       | 1         | 1          | Adjust Lid Only |
| 219+86   | LT       | 1         | 1          | Adjust Lid Only |
| 223+36   | LT       | 1         | 1          | Adjust Lid Only |
| 223+38   | RT       | 1         | 1          | Adjust Lid Only |
| 226+70   | LT       | 1         | 1          | Adjust Lid Only |
| 226+72   | RT       | 1         | 1          | Adjust Lid Only |
| SUBTOTAL |          | 22        | 25         |                 |

|          |               | 611.8115  | 628.7015   |                 |
|----------|---------------|-----------|------------|-----------------|
|          |               | ADJUSTING | INLET      |                 |
|          |               | INLET     | PROTECTION |                 |
|          |               | COVERS    | TYPE C     |                 |
| STATION  | LOCATION      | EACH      | EACH       | REMARKS         |
| 179+20   | LT-HAVEN LN   | ---       | 1          | ---             |
| 179+60   | LT-HAVEN LN   | ---       | 1          | ---             |
| 193+29   | LT-N 4TH ST   | 1         | 1          | Adjust Lid Only |
| 193+70   | LT-N 4TH ST   | 1         | 1          | Adjust Lid Only |
| 199+95   | RT-3RD ST     | 1         | 1          | Adjust Lid Only |
| 200+31   | RT-3RD ST     | 1         | 1          | Adjust Lid Only |
| 203+05   | RT-S 2ND ST   | 1         | 1          | Adjust Lid Only |
| 203+45   | RT- 2ND ST    | 1         | 1          | Adjust Lid Only |
| 203+06   | LT-N 2ND ST   | 1         | 1          | Adjust Lid Only |
| 203+45   | LT-N 2ND ST   | 1         | 1          | Adjust Lid Only |
| 206+55   | RT-1ST ST     | 1         | 1          | Adjust Lid Only |
| 206+89   | RT-1ST ST     | 1         | 1          | Adjust Lid Only |
| 209+95   | RT-S CTH AB   | 1         | 1          | Adjust Lid Only |
| 210+42   | RT-S CTH AB   | 1         | 1          | Adjust Lid Only |
| 209+91   | LT-N CTH AB   | 1         | 1          | Adjust Lid Only |
| 210+42   | LT-N CTH AB   | 1         | 1          | Adjust Lid Only |
| 213+46   | RT-COLLE ST   | 1         | 1          | Adjust Lid Only |
| 220+30   | LT-SCHOOL ST  | 1         | 1          | Adjust Lid Only |
| 220+73   | LT-SCHOOL ST  | 1         | 1          | Adjust Lid Only |
| 226+19   | LT-PRAIRIE LN | 1         | 1          | Adjust Lid Only |
| SUBTOTAL |               | 18        | 20         |                 |
| TOTAL    |               | 40        | 45         |                 |

INLETS

|         |                    | 611.0624 | 611.3230 | 650.4000     |
|---------|--------------------|----------|----------|--------------|
|         |                    | INLET    | INLETS   | CONSTRUCTION |
|         |                    | COVER    | 2X3-FT   | STAKING      |
|         |                    | TYPE H   |          | STORM SEWER  |
| STATION | LOCATION           | EACH     | EACH     | EACH         |
| 69+91   | Frost Heave Repair | 1        | 1        | 1            |
| 75+35   | Frost Heave Repair | 1        | 1        | 1            |
| 194+13  | RT                 | 1        | ---      | ---          |
| 197+05  | RT                 | 1        | ---      | ---          |
| TOTAL   |                    | 4        | 2        | 2            |

ADJUSTING MANHOLE COVERS

|         |                  | 611.8110  |             |
|---------|------------------|-----------|-------------|
|         |                  | ADJUSTING |             |
|         |                  | MANHOLE   |             |
|         |                  | COVERS    |             |
| STATION | LOCATION         | EACH      | REMARKS     |
| 206+68  | FIRST STREET, RT | 1         | STORM SEWER |
| 210+18  | CTH AB, LT       | 1         | STORM SEWER |
| 213+54  | COLLE STREET, RT | 1         | STORM SEWER |
| TOTAL   |                  | 3         |             |

BEAMGUARD ENERGY ABSORBING TERMINALS

| STATION TO STATION |   |        | 614.0010<br>Barrier<br>System<br>Grading<br>Shaping | 614.0370<br>STEEL PLATE<br><br>BEAMGUARD ENERGY<br>ABSORBING TERMINAL | EAT LOCATION* |
|--------------------|---|--------|-----------------------------------------------------|-----------------------------------------------------------------------|---------------|
| LOCATION           |   |        | EACH                                                | EACH                                                                  |               |
| 96+81              | - | 97+31  | RT                                                  | 1                                                                     | 1             |
| 99+68              | - | 100+18 | RT                                                  | 1                                                                     | 3             |
| 97+86              | - | 98+36  | LT                                                  | 1                                                                     | 2             |
| 100+74             | - | 101+24 | LT                                                  | 1                                                                     | 4             |
| 104+12             | - | 104+62 | RT                                                  | 1                                                                     | 5             |
| 106+62             | - | 107+12 | RT                                                  | 1                                                                     | 7             |
| 104+35             | - | 104+85 | LT                                                  | 1                                                                     | 6             |
| 107+22             | - | 107+72 | LT                                                  | 1                                                                     | 8             |
| 138+50             | - | 139+00 | RT                                                  | 1                                                                     | 9             |
| 142+34             | - | 142+84 | RT                                                  | 1                                                                     | 11            |
| 139+25             | - | 139+75 | LT                                                  | 1                                                                     | 10            |
| 142+90             | - | 143+40 | LT                                                  | 1                                                                     | 12            |
| 184+46             | - | 184+96 | RT                                                  | 1                                                                     | 13            |
| 187+33             | - | 187+83 | RT                                                  | 1                                                                     | 15            |
| 185+25             | - | 185+75 | LT                                                  | 1                                                                     | 14            |
| 188+13             | - | 188+63 | LT                                                  | 1                                                                     | 16            |
| TOTALS             |   |        | 16                                                  | 16                                                                    |               |

\*EAT LOCATIONS CALLED OUT ON PLAN SHEETS

SPRAYED ASPHALTIC SHOULDER TREATMENT

| STATION TO STATION |   |        | LOCATION | SPV.0165.01<br>SF |
|--------------------|---|--------|----------|-------------------|
| 96+81              | - | 100+18 | RT       | 1623              |
| 97+86              | - | 101+24 | LT       | 1724              |
| 104+12             | - | 107+12 | RT       | 1702              |
| 104+35             | - | 107+72 | LT       | 1683              |
| 138+50             | - | 142+84 | RT       | 1665              |
| 139+25             | - | 143+40 | LT       | 1636              |
| 184+46             | - | 187+83 | RT       | 1667              |
| 185+25             | - | 188+63 | LT       | 1736              |

TOTAL 13450

ADJUSTING STEEL PLATE BEAMGUARD

| STATION - STATION |   | LOCATION | 614.0400<br>LF | REMARKS |
|-------------------|---|----------|----------------|---------|
| 97+31             | - | 99+68    | RT             | 237.5   |
| 98+39             | - | 100+74   | LT             | 237.5   |
| 104+62            | - | 106+62   | RT             | 200     |
| 104+85            | - | 107+22   | LT             | 237.5   |
| 139+00            | - | 142+34   | RT             | 144     |
| 139+75            | - | 142+90   | LT             | 78      |
| 184+96            | - | 184+33   | RT             | 119     |
| 185+75            | - | 188+13   | LT             | 237.5   |
| 242+44            | - | 246+85   | RT             | 0       |
| 243+41            | - | 247+95   | LT             | 450     |
| Total             |   |          | 1940           |         |

LANDMARK REFERENCE MONUMENTS

| Station                                             |  | 621.0100<br>LANDMARK<br>REFERENCE<br>MONUMENTS<br>EACH | Remarks               |
|-----------------------------------------------------|--|--------------------------------------------------------|-----------------------|
| NORTHEAST CORNER OF NW 1/4 OF SECTION 24, T24N R22E |  | 4                                                      | BROWN COUNTY          |
| NORTHEAST CORNER OF SECTION 24, T24N R22E           |  | 4                                                      | BROWN/KEWAUNEE COUNTY |
| NORTHEAST CORNER OF NW 1/4 OF SECTION 19, T24N R23E |  | 4                                                      | KEWAUNEE COUNTY       |
| NORTHEAST CORNER OF SECTION 19, T24N R23E           |  | 4                                                      | KEWAUNEE COUNTY       |
| NORTHEAST CORNER OF NW 1/4 OF SECTION 20, T24N R23E |  | 4                                                      | KEWAUNEE COUNTY       |
| NORTHEAST CORNER OF SECTION 20, T24N R23E           |  | 4                                                      | KEWAUNEE COUNTY       |
| NORTHEAST CORNER OF NW 1/4 OF SECTION 21, T24N R23E |  | 4                                                      | KEWAUNEE COUNTY       |
| NORTHEAST CORNER OF SECTION 21, T24N R23E           |  | 4                                                      | KEWAUNEE COUNTY       |

TOTAL 32

EROSION CONTROL SUMMARY

| Station to Station | Location | Width  | 625.0100<br>TOPSOIL<br><br>SY | 628.1504<br>SILT FENCE<br><br>LF | 628.1520<br>SILT FENCE<br>MAINTENANCE<br><br>LF | 628.2004<br>EROSION<br>MAT CLASS I<br>TYPE B<br><br>SY | 629.0210<br>FERTILIZER<br>TYPE B<br><br>CWT | 630.0110<br>SEEDING<br>MIX. NO. 10<br><br>LB | 630.0200<br>SEEDING<br>TEMPORARY<br><br>LB | 628.7504<br>TEMP<br>DITCH<br>CHECK<br><br>LF | Remarks          |
|--------------------|----------|--------|-------------------------------|----------------------------------|-------------------------------------------------|--------------------------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------|----------------------------------------------|------------------|
| 69+02 - 70+56      | RT       | 8      | 137                           | 154                              | 15                                              | 137                                                    | 0.086                                       | 1.8                                          | 3.7                                        | 16                                           | FROST HEAVE AREA |
| 69+02 - 70+56      | LT       | 8      | 137                           | 154                              | 15                                              | 137                                                    | 0.086                                       | 1.8                                          | 3.7                                        | 16                                           | FROST HEAVE AREA |
| 74+68 - 76+02      | RT       | 8      | 119                           | 134                              | 13                                              | 119                                                    | 0.075                                       | 1.6                                          | 3.2                                        | 16                                           | FROST HEAVE AREA |
| 74+68 - 76+02      | LT       | 8      | 119                           | 134                              | 13                                              | 119                                                    | 0.075                                       | 1.6                                          | 3.2                                        | 16                                           | FROST HEAVE AREA |
| 313+15 - 244+00    | LT & RT  | VARIES | 51                            | 58                               | 6                                               | 51                                                     | 0.300                                       | 0.7                                          | 1.4                                        | 6                                            | UNDISTRIBUTED    |
| SUBTOTALS          |          |        | 560                           | 635                              | 65                                              | 560                                                    | 0.6                                         | 8                                            | 15                                         | 70                                           |                  |

EROSION CONTROL SUMMARY CONTINUED

| Station to Station | Location | Width  | *625.0100<br>TOPSOIL<br><br>SY | 628.1504<br>SILT FENCE<br><br>LF | 628.1520<br>SILT FENCE<br>MAINTENANCE<br><br>LF | *628.2004<br>EROSION<br>MAT CLASS I<br>TYPE B<br><br>SY | *629.0210<br>FERTILIZER<br>TYPE B<br><br>CWT | *630.0110<br>SEEDING<br>MIX. NO. 10<br><br>LB | *630.0200<br>SEEDING<br>TEMPORARY<br><br>LB | *628.7504<br>TEMP<br>DITCH<br>CHECK<br><br>LF | Remarks      |
|--------------------|----------|--------|--------------------------------|----------------------------------|-------------------------------------------------|---------------------------------------------------------|----------------------------------------------|-----------------------------------------------|---------------------------------------------|-----------------------------------------------|--------------|
| 96+81 - 97+31      | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 99+68 - 100+18     | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 97+87 - 98+37      | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 100+74 - 101+24    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 104+12 - 104+62    | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 106+62 - 107+12    | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 104+35 - 104+85    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 107+22 - 107+72    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 138+50 - 139+00    | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 139+25 - 139+75    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 142+34 - 142+84    | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 142+90 - 143+40    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 184+46 - 184+96    | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 185+25 - 185+75    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 187+33 - 187+83    | RT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 188+13 - 188+63    | LT       | 8      | 44                             | 100                              | 10                                              | 44                                                      | 0.028                                        | 0.6                                           | 1.2                                         | 16                                            | EAT UPGRADES |
| 96+81 - 188+63     | LT & RT  | VARIES | 71                             | 160                              | 16                                              | 71                                                      | 0.045                                        | 1                                             | 2                                           | 26                                            |              |
| SUBTOTALS          |          |        | *780                           | 1760                             | 176                                             | *780                                                    | *0.5                                         | *11                                           | *21                                         | *280                                          |              |
| TOTALS             |          |        | 1350                           | 2390                             | 240                                             | 1350                                                    | 1                                            | 18                                            | 36                                          | 350                                           |              |

\*INCIDENTAL, FOR BIDDING PURPOSES ONLY

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO. | LOCATION                     | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 637.2215<br>SIGNS FOLDING<br>TYPE II<br>REFLECTIVE<br>TYPE II<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 634.0618<br>POSTS<br>WOOD<br>4x6x18<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                                    |
|----------|------------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|
| 1        | STH 54, W. OF STUMP RD       | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 2        | STUMP RD                     | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 3        | "                            | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 4        | STH 54, W. OF COUNTY LINE RD | I55-56    | 30" X 36" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | PHI ETA SIGMA UW GREEN BAY, SEE PLAN SHEET |
| 5        | "                            | I2-2      | 54" X 15" | 5.63                                                         |                                                              |                                                                       | 2                                           |                                             |                                             | 1                                                | 2                                                         | BROWN CO, SEE SIGN DETAIL                  |
| 6        | COUNTY LINE RD               | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 7        | "                            | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 8        | STH 54, E. OF COUNTY LINE RD | I2-2      | 72" X 15" | 7.50                                                         |                                                              |                                                                       | 1                                           | 1                                           |                                             | 1                                                | 2                                                         | KEWAUNEE CO, SEE SIGN DETAIL               |
| 9        | "                            | R2-5A     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 2                                                | 1                                                         | REMOVE W13-1W ALSO                         |
| 10       | "                            | W3-5      | 36" X 36" |                                                              | 9.00                                                         |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | 45 MPH                                     |
| 11       | "                            | I2-3      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 12       | VACANT                       |           |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           |                                            |
| 13       | STH 54, E. OF COUNTY LINE RD | R7-1L     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 14       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 55 MPH                                     |
| 15       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                     |
| 16       | "                            | R7-10     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 17       | "                            | R7-53R    |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 18       | "                            | I55-56    | 30" X 36" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | NEW PLASTICS LUXEMBURG, WI, SEE PLAN SHEET |
| 19       | STH 54, W. OF WALHAIN RD     | R7-53D    |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 20       | "                            | R7-1R     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 21       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                     |
| 22       | "                            | R7-53D    |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           |                                            |
| 23       | "                            | W2-1      | 30" X 30" |                                                              | 6.25                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 24       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                     |
| 25       | "                            | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 26       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | 45 MPH, MOUNT ON BACK OF SIGN #25          |
| 27       | "                            | R7-53D    |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           |                                            |
| 28       | "                            | R7-53L    |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                            |
| 29       | WALHAIN RD                   | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 30       | "                            | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                            |
| 31       | STH 54, E. OF WALHAIN RD     | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                     |
| 32       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                     |
| 33       | "                            | J4-1      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 2                                                | 1                                                         |                                            |
| 34       | STH 54, W. OF CTH H          | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         | 55 MPH                                     |
| 35       | "                            | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         | 45 MPH                                     |
| 36       | "                            | J1-1      | 24" X 39" | 6.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 2                                                | 1                                                         | CTH H, SEE PLAN SHEET                      |
| 37       | "                            | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | MOUNT ON BACK OF SIGN #36                  |

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO. | LOCATION                       | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 637.2215<br>SIGNS FOLDING<br>TYPE II<br>REFLECTIVE<br>TYPE II<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 634.0618<br>POSTS<br>WOOD<br>4x6x18<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                                         |
|----------|--------------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------|
| 38       | STH 54, W. OF CTH H            | I2-3      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 39       | "                              | D1-1      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 39A      | "                              | J4-1      | 24" X 36" | 6.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | STH 54, SEE PLAN SHEET                          |
| 40       | "                              | R2-5A     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 2                                                | 1                                                         | REMOVE W13-1W ALSO                              |
| 41       | "                              | W3-5      | 36" X 36" |                                                              | 9.00                                                         |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | 45 MPH                                          |
| 41A      | "                              | J13-1     | 24" X 45" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | STH 54, SEE PLAN SHEET                          |
| 42       | "                              | J13-1     | 24" X 45" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 2                                                | 1                                                         | CTH H, SEE PLAN SHEET                           |
| 43       | CTH H                          | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 44       | "                              | M1-6      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 45       | "                              | W1-7      | 48" X 24" |                                                              | 8.00                                                         |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                 |
| 46       | STH 54, E. OF CTH H            | J4-1      | 24" X 36" | 6.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | STH 54, SEE PLAN SHEET                          |
| 46A      | "                              | J13-1     | 24" X 45" | 7.50                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 2                                                | 1                                                         | CTH H, SEE PLAN SHEET                           |
| 47       | "                              | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 48       | "                              | D1-1      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           |                                                 |
| 49       | "                              | J1-1      | 24" X 39" | 6.50                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 2                                                | 1                                                         | CTH H, SEE PLAN SHEET                           |
| 50       | STH 54, W. OF HILLVIEW RD      | S3-1      | 36" X 36" |                                                              | 9.00                                                         |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         |                                                 |
| 51       | HILLVIEW RD                    | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 52       | "                              | W1-7      | 48" X 24" |                                                              | 8.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 53       | STH 54, E. OF HILLVIEW RD      | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 54       | STH 54, W. OF RENDEZVOUS RD    | I55-56    | 30" X 36" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | NEW PLASTICS LUXEMBURG, WI, SEE PLAN SHEET      |
| 55       | RENDEZVOUS RD                  | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 56       | "                              | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 57       | STH 54, E. OF RENDEZVOUS RD    | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           | 1                                           |                                             | 1                                                | 2                                                         |                                                 |
| 58       | "                              | D2-1      | 78" X 15" | 8.13                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | GREEN BAY 17, SEE SIGN DETAIL                   |
| 59       | "                              | I55-56    | 30" X 36" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | DEBBIE HAUMSCHILD AVON PRODUCTS, SEE PLAN SHEET |
| 60       | "                              | W3-5      | 36" X 36" |                                                              | 9.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                          |
| 61       | STH 54, W. OF SCHOOL CREEK TRL | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 55 MPH                                          |
| 62       | "                              | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                          |
| 63       | "                              | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         | 45 MPH                                          |
| 64       | "                              | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       |                                             |                                             |                                             | 1                                                |                                                           |                                                 |
| 65       | SCHOOL CREEK TRL               | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 66       | "                              | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 67       | STH 54, E. OF SCHOOL CREEK TRL | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 45 MPH                                          |
| 68       | "                              | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                          |
| 69       | "                              | I2-3      | 66" X 24" | 11.00                                                        |                                                              |                                                                       | 1                                           | 1                                           |                                             | 1                                                | 2                                                         | LUXEMBURG, SEE SIGN DETAIL                      |
| 70       | "                              | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 71       | STH 54, W. OF 4TH ST           | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                          |
| 71A      | "                              | R7-1R     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                 |
| 72       | 4TH ST                         | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |
| 72A      | STH 54, W. OF 4TH ST           | R7-1L     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                 |
| 73       | 4TH ST                         | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                 |

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PAGE SUBTOTALS 152.57 73.00 0.00 30 6 0 38 33

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO.       | LOCATION              | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 637.2215<br>SIGNS FOLDING<br>TYPE II<br>REFLECTIVE<br>TYPE II<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 634.0618<br>POSTS<br>WOOD<br>4x6x18<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                                            |
|----------------|-----------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------|
| 74             | STH 54, E. OF 4TH ST  | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                             |
| 75             | "                     | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #74                               |
| 76             | STH 54, W. OF 3RD ST  | J1-1      | 24" X 39" | 6.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | CTH AB, SEE PLAN SHEET                             |
| 77             | "                     | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                             |
| 78             | 3RD ST                | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 79             | STH 54, W. OF 2ND ST  | W3-3      | 36" X 36" |                                                              | 9.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 79A            | "                     | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #79                               |
| 80             | 2ND ST                | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 81             | "                     | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 82             | STH 54, E. OF 2ND ST  | S1-1      | 36" X 36" |                                                              | 6.75                                                         |                                                                       |                                             |                                             | 1                                           | 1                                                |                                                           |                                                    |
| 82A            | "                     | S16-9P    | 30" X 18" |                                                              | 3.75                                                         |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #82                               |
| 82B            | "                     | R2-6P     | 24" X 18" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #82A                              |
| 83             | "                     | S4-51     | 24" X 48" |                                                              | 8.00                                                         |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         |                                                    |
| 84             | "                     | R7-1R     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 84A            | "                     | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                    |
| 85             | "                     | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             |                                             | 1                                           | 1                                                | 1                                                         | 35 MPH                                             |
| 85A            | "                     | S5-2      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #84                               |
| 86             | 1ST ST                | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 87             | STH 54, E. OF 1ST ST  | D1-3      | 48" X 42" | 14.00                                                        |                                                              |                                                                       | 2                                           |                                             |                                             | 1                                                | 1                                                         | SEE SIGN DETAIL SHEET                              |
| 88             | "                     | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | MOUNT BELOW SIGN #87                               |
| 89             | STH 54, W. OF N. MAIN | J4-1      | 24" X 36" | 6.00                                                         |                                                              |                                                                       |                                             |                                             | 1                                           | 2                                                | 1                                                         | STH 54, SEE PLAN SHEET                             |
| 90             | "                     | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | MOUNT BELOW SIGN #89                               |
| 91             | "                     | R1-1F     | 30" X 30" |                                                              |                                                              | 5.18                                                                  |                                             |                                             |                                             |                                                  |                                                           | BAND TO TRAFFIC SIGNAL                             |
| 92             | STH 54, W. OF S. MAIN | J13-1     | 24" X 45" | 7.50                                                         |                                                              |                                                                       |                                             |                                             | 1                                           |                                                  |                                                           | CTH AB,SEE PLAN SHEET                              |
| 93             | "                     | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | MOUNT BELOW SIGN #92                               |
| 94             | STH 54, W. OF N. MAIN | J13-1     | 24" X 45" | 7.50                                                         |                                                              |                                                                       |                                             |                                             |                                             | 2                                                |                                                           | CTH AB, SEE PLAN SHEET,BAND TO TRAFFIC SIGNAL      |
| 95             | N. MAIN               | R1-1F     | 30" X 30" |                                                              |                                                              | 5.18                                                                  |                                             |                                             |                                             | 1                                                |                                                           | BAND TO TRAFFIC SIGNAL                             |
| 96             | "                     | J13-2     | 48" X 45" | 15.00                                                        |                                                              |                                                                       |                                             |                                             |                                             | 3                                                |                                                           | STH 54, CTH AB, SEE PLAN SHEET, BAND TO POWER POLE |
| 97             | "                     | R7-1R     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | MOUNT BELOW SIGN #96                               |
| 97A            | STH 54, E. OF S. MAIN | R1-1F     | 30" X 30" | 6.25                                                         |                                                              | 5.18                                                                  |                                             |                                             |                                             |                                                  |                                                           | BAND TO TRAFFIC SIGNAL                             |
| 98             | S. MAIN               | R1-1F     | 30" X 30" |                                                              |                                                              | 5.18                                                                  |                                             |                                             |                                             | 1                                                |                                                           | BAND TO TRAFFIC SIGNAL                             |
| 99             | STH 54, E. OF S. MAIN | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                    |
| 100            | VACANT                |           |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           |                                                    |
| 101            | STH 54, E. OF N. MAIN | R7-1L     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                | 1                                                         |                                                    |
| PAGE SUBTOTALS |                       |           |           | 130.47                                                       | 27.50                                                        | 20.72                                                                 | 12                                          | 1                                           | 4                                           | 27                                               | 14                                                        |                                                    |

PLAN SHEET PRODUCED  
BY WisDOT - NE REGION

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

| SIGN NO. | LOCATION                   | SIGN CODE | W X H     | 637.2210<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE H<br>S.F. | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE<br>TYPE F<br>S.F. | 637.2215<br>SIGNS FOLDING<br>TYPE II<br>REFLECTIVE<br>TYPE II<br>S.F. | 634.0614<br>POSTS<br>WOOD<br>4x6x14<br>EACH | 634.0616<br>POSTS<br>WOOD<br>4x6x16<br>EACH | 634.0618<br>POSTS<br>WOOD<br>4x6x18<br>EACH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>EACH | 638.3000<br>REMOVING<br>SMALL<br>SIGN<br>SUPPORTS<br>EACH | REMARKS                                           |
|----------|----------------------------|-----------|-----------|--------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|
| 101A     | STH 54, E. OF N. MAIN      | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                   |
| 102      | "                          | D1-3      | 48" X 42" | 14.00                                                        |                                                              |                                                                       | 2                                           |                                             |                                             | 1                                                | 1                                                         | SEE SIGN DETAIL SHEET                             |
| 103      | STH 54, W. OF COLE ST      | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         | 35 MPH                                            |
| 104      | "                          | R7-1R     |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           |                                                   |
| 104A     | "                          | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #103                             |
| 105      | COLE ST                    | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 106      | STH 54, E. OF COLE ST      | J4-1      | 24" X 36" | 6.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 2                                                | 1                                                         | STH 54, SEE PLAN SHEET                            |
| 107      | "                          | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | MOUNT ON BACK OF SIGN #106                        |
| 107A     | "                          | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                   |
| 108      | STH 54, W. OF SCHOOL ST    | W3-3      | 36" X 36" |                                                              | 9.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 108A     | "                          | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #108                             |
| 109      | "                          | J1-2      |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             | 3                                                | 1                                                         |                                                   |
| 110      | "                          | J1-1      | 24" X 39" | 6.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           | CTH AB, SEE PLAN SHEET                            |
| 111      | SCHOOL ST                  | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 112      | STH 54, E. OF SCHOOL ST    | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                   |
| 113      | VACANT                     |           |           |                                                              |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           |                                                   |
| 114      | STH 54, E. OF SCHOOL ST    | S4-51     | 24" X 48" |                                                              | 8.00                                                         |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         |                                                   |
| 115      | "                          | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                            |
| 115A     | "                          | S5-2      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #115                             |
| 116      | "                          | W14-3     | 48" X 30" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 117      | "                          | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       |                                             |                                             |                                             | 1                                                |                                                           | 35 MPH, MOUNT ON BACK OF SIGN #116                |
| 117A     | "                          | R7-1D     | 18" X 24" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #117                             |
| 118      | STH 54, W. OF PRAIRIE LN   | S1-1      | 36" X 36" |                                                              | 6.75                                                         |                                                                       |                                             |                                             | 1                                           | 1                                                | 1                                                         |                                                   |
| 118A     | "                          | S16-9P    | 30" X 18" |                                                              | 3.75                                                         |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #118                             |
| 118B     | "                          | R2-6P     | 24" X 18" | 3.00                                                         |                                                              |                                                                       |                                             |                                             |                                             |                                                  |                                                           | MOUNT BELOW SIGN #118A                            |
| 119      | PRAIRIE LN                 | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 119A     | STH 54, E. OF PRAIRIE LN   | R7-1L     | 18" X 24" | 3.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             |                                                  |                                                           |                                                   |
| 120      | "                          | I55-56    | 30" X 36" | 7.50                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | LUXEMBURG-CASCO CONSERVATION CLUB, SEE PLAN SHEET |
| 121      | "                          | W1-6      | 48" X 24" |                                                              | 8.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 122      | "                          | I2-3      | 66" X 24" | 11.00                                                        |                                                              |                                                                       |                                             | 2                                           |                                             | 1                                                | 2                                                         | LUXEMBURG, SEE SIGN DETAIL                        |
| 123      | ROCKLEDGE RD               | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 124      | "                          | R1-1      | 30" X 30" | 5.18                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |
| 125      | STH 54, E. OF ROCKLEDGE RD | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                            |
| 125A     | "                          | I55-56    | 30" X 36" | 7.50                                                         |                                                              |                                                                       |                                             | 1                                           |                                             | 1                                                | 1                                                         | DEBBIE HAUMSCHILD AVON PRODUCTS, SEE PLAN SHEET   |
| 126      | "                          | R2-1      | 24" X 30" | 5.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 55 MPH                                            |
| 127      | "                          | D2-2      | 66" X 24" | 11.00                                                        |                                                              |                                                                       | 1                                           | 1                                           |                                             | 1                                                | 2                                                         | CASCO 4, ALGOMA 14, SEE SIGN DETAIL               |
| 128      | "                          | J4-1      | 24" X 36" | 6.00                                                         |                                                              |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | STH 54, SEE PLAN SHEET                            |
| 129      | "                          | W3-5      | 36" X 36" |                                                              | 9.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         | 35 MPH                                            |
| 130      | "                          | W14-3     | 48" X 36" |                                                              | 6.00                                                         |                                                                       | 1                                           |                                             |                                             | 1                                                | 1                                                         |                                                   |

PAGE SUBTOTALS

146.40 62.50 0.00 23 6 1 30 26

PROJECT TOTALS

540.14 196.25 20.72 87 16 5 133 106

PLAN SHEET PRODUCED  
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TRAFFIC CONTROL SUMMARY

| STH 54<br>LOCATION              | APPROX.<br>DAYS<br>IN<br>SERVICE | 643.0900<br>SIGNS |       | 643.0300<br>DRUMS |      | 643.1050<br>PCMS  |      | REMARKS             |
|---------------------------------|----------------------------------|-------------------|-------|-------------------|------|-------------------|------|---------------------|
|                                 | 52<br>DAYS                       | NO. IN<br>SERVICE | DAYS  | NO. IN<br>SERVICE | DAYS | NO. IN<br>SERVICE | DAYS |                     |
| ADVANCE WARNING                 |                                  |                   |       |                   |      |                   |      |                     |
| MAINLINE, EASTBOUND             | 52                               | 5                 | 260   | ---               | ---  | 1                 | 7    | SEE SSD 15C4-1      |
| MAINLINE, WESTBOUND             | 52                               | 5                 | 260   | ---               | ---  | 1                 | 7    | SEE SSD 15C4-1      |
| SIDERoads                       | 52                               | 28                | 1,456 | ---               | ---  | ---               | ---  | SEE SSD 15C4-1      |
| MOVING OPERATION SIGNS, MILLING |                                  |                   |       |                   |      |                   |      |                     |
| MAINLINE, EASTBOUND             | 12                               | 3                 | 36    | ---               | ---  | ---               | ---  | SEE SSD 15C12-3     |
| MAINLINE, WESTBOUND             | 12                               | 3                 | 36    | ---               | ---  | ---               | ---  | SEE SSD 15C12-3     |
| SIDE ROADS                      | 1                                | 28                | 28    | ---               | ---  | ---               | ---  | SEE SSD 15C12-3     |
| MOVING OPERATION SIGNS, PAVING  |                                  |                   |       |                   |      |                   |      |                     |
| MAINLINE, EASTBOUND             | 9                                | 3                 | 27    | ---               | ---  | ---               | ---  | SEE SSD 15C12-3     |
| MAINLINE, WESTBOUND             | 9                                | 3                 | 27    | ---               | ---  | ---               | ---  | SEE SSD 15C12-3     |
| SIDE ROADS                      | 1                                | 28                | 28    | ---               | ---  | ---               | ---  | SEE SSD 15C12-3     |
| FROST HEAVE                     |                                  |                   |       |                   |      |                   |      |                     |
| 69+02 TO 70+56 EASTBOUND        | 2                                | 3                 | 6     | 12                | 24   | ---               | ---  | SEE SSD 15D32-2     |
| 69+02 TO 70+56 WESTBOUND        | 2                                | 3                 | 6     | 12                | 24   | ---               | ---  | SEE SSD 15D32-2     |
| 74+68 TO 76+02 EASTBOUND        | 2                                | 3                 | 6     | 12                | 24   | ---               | ---  | SEE SSD 15D32-2     |
| 74+68 TO 76+02 WESTBOUND        | 2                                | 3                 | 6     | 12                | 24   | ---               | ---  | SEE SSD 15D32-2     |
| PAVEMENT MARKING OPERATIONS     |                                  |                   |       |                   |      |                   |      |                     |
| PROJECT                         | 7                                | 2                 | 14    | ---               | ---  | ---               | ---  | SEE SDD 15C19-01A   |
| UNDISTRIBUTED                   |                                  |                   |       |                   |      |                   |      |                     |
| MANHOLES                        | 30                               | ---               | ---   | 12                | 360  | ---               | ---  |                     |
| EASTBOUND & WESTBOUND           | 27                               | 14                | 378   | ---               | ---  | ---               | ---  | W08-1 SIGNS         |
| EASTBOUND & WESTBOUND           | 5                                | 14                | 70    | ---               | ---  | ---               | ---  | W08-9 SIGNS         |
| EASTBOUND & WESTBOUND           | 21                               | 14                | 294   | ---               | ---  | ---               | ---  | W08-11 SIGNS        |
| EASTBOUND & WESTBOUND           | 21                               | 14                | 294   | ---               | ---  | ---               | ---  | W08-52 SIGNS        |
| SIDE ROADS                      | 27                               | 56                | 1,512 | ---               | ---  | ---               | ---  | W08-1, W08-52 SIGNS |
| PROJECT                         | 61                               | 1                 | 1     | 1                 | 1    | ---               | ---  | OTHER               |
| TOTALS                          |                                  |                   | 4,745 |                   | 456  |                   | 14   |                     |

PAVEMENT MARKING

|          |    |         |                            | 646.0106<br>EPOXY<br>4 - INCH<br>CENTERLINE |                  |              |                | 646.0406<br>PAVEMENT MARKING<br>SAME DAY EPOXY 4- INCH<br>CENTERLINE |               |               | SPV.0090.01<br>PAVEMENT<br>MARKING<br>WET REFLECTIVE GROOVED<br>EPOXY 4 - INCH | 649.0100<br>TEMPORARY<br>4- INCH<br>CENTERLINE |         |              |
|----------|----|---------|----------------------------|---------------------------------------------|------------------|--------------|----------------|----------------------------------------------------------------------|---------------|---------------|--------------------------------------------------------------------------------|------------------------------------------------|---------|--------------|
| Station  | to | Station | Location                   | SOLID SINGLE                                | YELLOW<br>DASHED | SOLID DOUBLE | WHITE<br>SOLID | SOLID YELLOW                                                         | DASHED YELLOW | DOUBLE YELLOW | WHITE                                                                          | SOLID SINGLE                                   | DASHED  | SOLID DOUBLE |
|          |    |         |                            | LF                                          | LF               | LF           | LF             | LF                                                                   | LF            | LF            | LF                                                                             | LF                                             | LF      | LF           |
| 313+15   | -  | 350+00  | STH 54                     | ---                                         | 913              | ---          | ---            | ---                                                                  | 913           | ---           | 6950                                                                           | ---                                            | 584     | ---          |
| 50+00    | -  | 75+00   | STH 54                     | ---                                         | 625              | ---          | ---            | ---                                                                  | 625           | ---           | 3750                                                                           | ---                                            | 400     | ---          |
| 75+00    | -  | 84+00   | STH 54                     | 900                                         | 225              | ---          | ---            | 900                                                                  | 225           | ---           | 1350                                                                           | 1800                                           | 144     | ---          |
| 84+00    | -  | 87+00   | STH 54                     | ---                                         | 75               | ---          | ---            | ---                                                                  | 75            | ---           | 600                                                                            | ---                                            | 48      | ---          |
| 87+00    | -  | 96+00   | STH 54                     | 900                                         | 225              | ---          | ---            | 900                                                                  | 225           | ---           | 1800                                                                           | 1800                                           | 144     | ---          |
| 96+00    | -  | 110+50  | STH 54                     | ---                                         | 363              | ---          | ---            | ---                                                                  | 363           | ---           | 2750                                                                           | ---                                            | 232     | ---          |
| 110+50   | -  | 121+00  | STH 54                     | 1050                                        | 263              | ---          | ---            | 1050                                                                 | 263           | ---           | 2100                                                                           | 2100                                           | 168     | ---          |
| 121+00   | -  | 127+00  | STH 54                     | ---                                         | ---              | 1200         | ---            | ---                                                                  | ---           | 1200          | 1200                                                                           | ---                                            | ---     | 2400         |
| 127+00   | -  | 138+50  | STH 54                     | 1150                                        | 288              | ---          | ---            | 1150                                                                 | 288           | ---           | 2175                                                                           | 2300                                           | 184     | ---          |
| 138+50   | -  | 160+00  | STH 54                     | ---                                         | 538              | ---          | ---            | ---                                                                  | 538           | ---           | 4050                                                                           | ---                                            | 344     | ---          |
| 160+00   | -  | 166+50  | STH 54                     | 650                                         | 163              | ---          | ---            | 650                                                                  | 163           | ---           | 1300                                                                           | 1300                                           | 104     | ---          |
| 166+50   | -  | 171+00  | STH 54                     | ---                                         | 113              | ---          | ---            | ---                                                                  | 113           | ---           | 900                                                                            | ---                                            | 72      | ---          |
| 171+00   | -  | 188+50  | STH 54                     | 1750                                        | 438              | ---          | ---            | 1750                                                                 | 438           | ---           | 19300                                                                          | 3500                                           | 280     | ---          |
| 188+50   | -  | 195+00  | STH 54                     | ---                                         | ---              | 1300         | 650            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 2600         |
| 195+00   | -  | 197+15  | STH 54, Begin TWLTL        | ---                                         | ---              | 430          | 430            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 1290         |
| 197+15   | -  | 207+52  | STH 54                     | 2074                                        | 519              | ---          | 1543           | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 6222         |
| 207+52   | -  | 209+54  | STH 54                     | 206                                         | ---              | 400          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 1200         |
| 209+54   | -  | 210+80  | STH 54/CTH AB INTERSECTION | ---                                         | ---              | 200          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 600          |
| 210+80   | -  | 212+98  | STH 54                     | 186                                         | ---              | 500          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 1500         |
| 212+98   | -  | 223+88  | STH 54                     | 2180                                        | 545              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 6540         |
| 223+88   | -  | 224+88  | STH 54, End TWLTL          | ---                                         | ---              | 400          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 1200         |
| 224+88   | -  | 231+00  | STH 54                     | ---                                         | ---              | 1144         | 825            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | 2288         |
| 231+00   | -  | 234+00  | STH 54                     | ---                                         | ---              | 600          | 500            | ---                                                                  | ---           | 600           | ---                                                                            | ---                                            | ---     | 1200         |
| 234+00   | -  | 244+00  | STH 54                     | 1000                                        | 250              | ---          | 2000           | 1000                                                                 | 250           | ---           | ---                                                                            | 2000                                           | 160     | ---          |
| 50+63    | -  | 51+63   | COUNTYLINE ROAD, STH 54 LT | ---                                         | ---              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | ---          |
| 78+10    | -  | 79+10   | WALHAIN ROAD, STH 54 LT    | ---                                         | ---              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | ---          |
| 152+32   | -  | 153+32  | RENDEZVOUS ROAD, STH 54 RT | ---                                         | ---              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | ---          |
| 176+80   | -  | 178+80  | HAVEN LANE, STH 54 RT      | ---                                         | ---              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | ---          |
| 208+52   | -  | 209+52  | CTH AB, STH 54 RT          | ---                                         | ---              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | ---          |
| 210+82   | -  | 211+82  | CTH A, STH 54 LT           | ---                                         | ---              | ---          | ---            | ---                                                                  | ---           | ---           | ---                                                                            | ---                                            | ---     | ---          |
| SUBTOTAL |    |         |                            | 12046                                       | 5539             | 6174         | 5948           | 7400                                                                 | 4476          | 1800          |                                                                                | 14800                                          | 2864.32 | 27040        |
| TOTAL    |    |         |                            |                                             |                  | 29700        |                |                                                                      | 13700         |               | 48200                                                                          |                                                | 44700   |              |

PAVEMENT MARKING CONTINUED

|         |    |         | SPV.0090.02<br>PAVEMENT<br>WET REFLECTIVE<br>EPOXY 8"<br>WHITE | 647.0166<br>PAVEMENT<br>MARKING<br>ARROWS<br>EPOXY<br>TYPE 2 | 647.0726<br>PAVEMENT<br>MARKING<br>DIAGONAL<br>EPOXY (YELLOW)<br>12-INCH | 646.0126<br>PAVEMENT<br>MARKING<br>EPOXY<br>(WHITE)<br>8-INCH | 647.0566<br>PAVEMENT<br>MARKING<br>STOP LINE<br>EPOXY<br>18-INCH | 647.0766<br>PAVEMENT<br>MARKING<br>CROSSWALK<br>EPOXY<br>6-INCH |
|---------|----|---------|----------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|
| Station | to | Station | Location                                                       | LF                                                           | EACH                                                                     | LF                                                            | LF                                                               | LF                                                              |
| 313+15  | -  | 350+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 50+00   | -  | 75+00   | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 75+00   | -  | 84+00   | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 84+00   | -  | 87+00   | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 87+00   | -  | 96+00   | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 96+00   | -  | 110+50  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 110+50  | -  | 121+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 121+00  | -  | 127+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 127+00  | -  | 138+50  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 138+50  | -  | 160+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 160+00  | -  | 166+50  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 166+50  | -  | 171+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 171+00  | -  | 188+50  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 188+50  | -  | 195+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 195+00  | -  | 197+15  | STH 54, Begin TWLTL                                            | ---                                                          | ---                                                                      | 48                                                            | ---                                                              | ---                                                             |
| 197+15  | -  | 207+52  | STH 54                                                         | ---                                                          | 6                                                                        | ---                                                           | ---                                                              | ---                                                             |
| 207+52  | -  | 209+54  | STH 54                                                         | ---                                                          | ---                                                                      | 45                                                            | 100                                                              | ---                                                             |
| 209+54  | -  | 210+80  | STH 54/CTH AB INTERSECTION                                     | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | 101                                                             |
| 210+80  | -  | 212+98  | STH 54                                                         | ---                                                          | ---                                                                      | 55                                                            | 90                                                               | ---                                                             |
| 212+98  | -  | 223+88  | STH 54                                                         | ---                                                          | 6                                                                        | ---                                                           | ---                                                              | ---                                                             |
| 223+88  | -  | 224+88  | STH 54, End TWLTL                                              | ---                                                          | ---                                                                      | 34                                                            | ---                                                              | ---                                                             |
| 224+88  | -  | 231+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | 100                                                              | ---                                                             |
| 231+00  | -  | 234+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 234+00  | -  | 245+00  | STH 54                                                         | ---                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 50+63   | -  | 51+63   | COUNTYLINE ROAD, STH 54 LT                                     | 100                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 78+10   | -  | 79+10   | WALHAIN ROAD, STH 54 LT                                        | 100                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 152+32  | -  | 153+32  | RENDEZVOUS ROAD, STH 54 RT                                     | 100                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 176+80  | -  | 178+80  | HAVEN LANE, STH 54 RT                                          | 200                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 208+52  | -  | 209+52  | CTH AB, STH 54 RT                                              | 100                                                          | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |
| 210+82  | -  | 211+82  | CTH A, STH 54 LT                                               | 90                                                           | ---                                                                      | ---                                                           | ---                                                              | ---                                                             |

TOTAL 690 12 180 290 100 470

LOCATING NO PASSING ZONES

| STATION | TO | STATION | LOCATION | 648.0100<br>MI |
|---------|----|---------|----------|----------------|
| 313+15  | -  | 350+00  | MAINLINE | 0.70           |
| 50+00   | -  | 190+00  | MAINLINE | 2.65           |
| 231+00  | -  | 244+00  | MAINLINE | 0.25           |

TOTAL 3.60

CONSTRUCTION STAKING

| STATION TO STATION |          | LOCATION | 650.4500<br>CONSTRUCTION<br>STAKING<br>SUBGRADE<br>LF | 650.5000<br>CONSTRUCTION<br>STAKING<br>BASE<br>LF | 650.8000<br>CONSTRUCTION STAKING<br>RESURFACE<br>REFERENCE<br>LF |
|--------------------|----------|----------|-------------------------------------------------------|---------------------------------------------------|------------------------------------------------------------------|
| 313+50             | - 350+00 | STH 54   | ---                                                   | ---                                               | 3650                                                             |
| 50+00              | - 239+45 | STH 54   | 288                                                   | 288                                               | 18945                                                            |
| 239+21             | - 244+00 | STH 54   | ---                                                   | ---                                               | 479                                                              |
| TOTAL              |          |          | 290                                                   | 290                                               | 23100                                                            |

Loop Detectors

| LOCATION                | LOOP<br>NO. | # of<br>Turns | 652.0800<br>Conduit<br>LF | 655.0700<br>Lead In<br>Cable<br>LF | 655.0800<br>Wire<br>LF |
|-------------------------|-------------|---------------|---------------------------|------------------------------------|------------------------|
| STH 54 & CTH AB (S-633) | 21          | 4             | 40                        | 330                                | 160                    |
|                         | 22          | 2             | 100                       | 100                                | 200                    |
|                         | 41          | 2             | 90                        | 200                                | 180                    |
|                         | 42          | 2             | 100                       | 200                                | 200                    |
|                         | 61          | 4             | 40                        | 380                                | 160                    |
|                         | 62          | 2             | 100                       | 170                                | 200                    |
|                         | 81          | 2             | 90                        | 70                                 | 180                    |
|                         | 82          | 2             | 100                       | 70                                 | 200                    |
| TOTALS                  |             |               | 660                       | 1,520                              | 1,480                  |

TRAFFIC SIGNAL CABLE

| STH 54 & CTH AB (S-633) |      |     | 655.0230 | 655.0230            |
|-------------------------|------|-----|----------|---------------------|
|                         |      |     | 5-14     | Base to Push Button |
|                         |      |     | AWG      | 5-14                |
| LOCATION                | FROM | TO  | LF       | LF                  |
| CTH AB<br>(south side)  | SB7  | SB8 | 30       | 5                   |
|                         | SB6  | SB5 | 50       | 5                   |
| Sub Total               |      |     | 80       | 10                  |
| TOTALS                  |      |     |          | 90                  |

PEDS

|            |   |               |
|------------|---|---------------|
| Walk       | = | Green         |
| Don't Walk | = | Red           |
| Button     | = | Black & White |

Conduit Rigid Nonmetallic Schedule 40

| Location                |     | 652.0225 |
|-------------------------|-----|----------|
| STH 54 & CTH AB (S-633) |     | 2-Inch   |
| FROM                    | TO  | LF       |
| PB1                     | SB5 | 10       |
| PB2                     | SB8 | 10       |
| TOTALS                  |     | 20       |

Concrete Bases

|                         |          |
|-------------------------|----------|
|                         | 654.0101 |
|                         | Type 1   |
| LOCATION                | EACH     |
| STH 54 & CTH AB (S-633) | 2        |
| TOTALS                  |          |
|                         | 2        |

Electrical Wire Traffic Signals 10 AWG

|                         |     | 655.0515             | 655.0515                        |
|-------------------------|-----|----------------------|---------------------------------|
| LOCATION                |     | (Grounded Conductor) | (Equipment Grounding Conductor) |
| STH 54 & CTH AB (S-633) |     | (White)              | (Green)                         |
| FROM                    | TO  | LF                   | LF                              |
| SB4                     | SB5 | 60                   | 60                              |
| SB5                     | SB6 | 70                   | 70                              |
| SB7                     | SB8 | 50                   | 50                              |
| SB8                     | SB9 | 90                   | 90                              |
| Subtotals               |     | 270                  | 270                             |
| TOTALS                  |     |                      | 540                             |

TRAFFIC SIGNALS

|                         |          |          |            |
|-------------------------|----------|----------|------------|
|                         | 657.0100 | 657.0405 | 658.0500   |
|                         | Pedestal | Traffic  | Pedestrian |
|                         | Bases    | Signal   | Push       |
|                         |          | Standard | Buttons    |
|                         |          | Aluminum |            |
|                         |          | 3.5-FT   |            |
| LOCATION                | EACH     | EACH     | EACH       |
| STH 54 & CTH AB (S-633) | 2        | 2        | 2          |
| TOTALS                  |          |          |            |
|                         | 2        | 2        | 2          |

ATR WAVETRONIX DETECTOR

|                                                             | 654.0102<br>CONCRETE<br>TYPE 2<br>BASE | 657.0255<br>TRANSFORMER<br>BASE | 657.0310<br>POLE<br>TYPE 3 | SPV.0060.01<br>INSTALLING<br>POLE MOUNTED<br>WIRED CABINET | SPV.0060.02<br>INSTALLING<br>2 SOLAR PANELS<br>ON ONE BRACKET | SPV.0060.03<br>INSTALLING<br>WAVETRONIX<br>CLICK 200<br>MODULE | SPV.0060.04<br>INSTALLING<br>WAVETRONIX<br>DETECTOR<br>MODULE | SPV.0060.05<br>INSTALLING<br>CONCRETE<br>MAINTENANCE<br>PLATFORM | SPV.0060.06<br>GRADING<br>SHAPING &<br>FINISHING FOR<br>ATR SITE |
|-------------------------------------------------------------|----------------------------------------|---------------------------------|----------------------------|------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|
| LOCATION                                                    | EACH                                   | EACH                            | EACH                       | EACH                                                       | EACH                                                          | EACH                                                           | EACH                                                          | EACH                                                             | EACH                                                             |
| STATION ATR 31-6110<br>STH 54, E. OF CTH 'D'                | 1                                      | 1                               | 1                          | 1                                                          | 1                                                             | 1                                                              | 1                                                             | 1                                                                | 1                                                                |
| STATION ATR 05-6117<br>STH 54, W OF CTH 'P'<br>BROWN COUNTY | 1                                      | 1                               | 1                          | 1                                                          | 1                                                             | 1                                                              | 1                                                             | 1                                                                | 1                                                                |
| TOTAL                                                       | 2                                      | 2                               | 2                          | 2                                                          | 2                                                             | 2                                                              | 2                                                             | 2                                                                | 2                                                                |

SPV.0060.06

|                                                             | *<br>FILL | *<br>SALVAGED<br>TOPSOIL | *<br>FERTILIZER<br>TYPE B | *<br>SEEDING<br>MIXTURE<br>NO. 30 |
|-------------------------------------------------------------|-----------|--------------------------|---------------------------|-----------------------------------|
| LOCATION                                                    | CY        | SY                       | CWT                       | LB                                |
| STATION ATR 31-6110<br>STH 54, E. OF CTH 'D'                | 3         | 15                       | 0.01                      | 0.25                              |
| STATION ATR 05-6117<br>STH 54, W OF CTH 'P'<br>BROWN COUNTY | 3         | 15                       | 0.01                      | 0.25                              |
| TOTAL                                                       | 6         | 30                       | 0.02                      | 0.5                               |

STATE WILL PROVIDE THE FOLLOWING ITEMS PER STATION:

2 SOLAR PANELS AND ONE BRACKET  
CCTV MOUNTED WIRED CABINET  
WAVETRONIX HD-125 UNIT & 40' CABLE  
WAVETRONIX CLICK 200 SURGE ARRESTOR MODULE  
WIRE AND HARDWARE NEEDED FOR INSTALLATION

\* ITEMS & QUANTITIES FOR BID INFORMATION ONLY

SAWING ASPHALT

| STATION TO STATION | LOCATION       | 690.0150<br>LF | Remarks                        |
|--------------------|----------------|----------------|--------------------------------|
| 313+50             | STH 54         | 30             | BEGIN PROJECT                  |
| 323+30             | STH 54 LT      | 32             | STUMP ROAD                     |
| 323+30             | STH 54 RT      | 30             | STUMP ROAD                     |
| 349+91             | STH 54 RT      | 30             | N. COUNTY LINE RD              |
| 349+93             | STH 54 LT      | 31             | N. COUNTY LINE RD              |
| 77+30              | STH 54 LT      | 41             | WALHAIN RD                     |
| 77+18              | STH 54 RT      | 30             | WALHAIN RD                     |
| 103+66             | STH 54 LT      | 25             | CTH H                          |
| 130+29             | STH 54 LT      | 25             | HILLVIEW RD                    |
| 156+95             | STH 54 LT      | 30             | RENDEZVOUS RD                  |
| 156+95             | STH 54 RT      | 30             | RENDEZVOUS RD                  |
| 179+42             | STH 54 LT      | 30             | HAVEN LN                       |
| 179+42             | STH 54 RT      | 30             | HAVEN LN                       |
| 193+49             | STH 54 LT      | 38             | FOURTH STREET                  |
| 193+49             | STH 54 RT      | 38             | FOURTH STREET                  |
| 200+14             | STH 54 RT      | 33             | THIRD STREET                   |
| 203+27             | STH 54 LT      | 40             | SECOND STREET                  |
| 203+27             | STH 54 RT      | 40             | SECOND STREET                  |
| 206+72             | STH 54 RT      | 30             | FIRST STREET                   |
| 210+17             | STH 54 LT      | 48             | CTH AB                         |
| 210+17             | STH 54 RT      | 48             | CTH A                          |
| 213+67             | STH 54 RT      | 35             | COLE ST                        |
| 220+51             | STH 54 LT      | 41             | SCHOOL ST                      |
| 226+39             | STH 54 LT      | 32             | PRAIRIE LN                     |
| 231+77             | STH 54 RT      | 30             | ROCKLEDGE RD                   |
| 244+00             | STH 54         | 30             | END PROJECT                    |
| PE's and CE's      | STH 54 LT & RT | 1108           | ---                            |
| 194+07 - 194+20    | STH 54 RT      | 15             | AT INLET COVER                 |
| 196+99 - 197+12    | STH 54 RT      | 15             | AT INLET COVER                 |
| 231+86 RT          | STH 54 RT      | 24             | SE CURB RADIUS AT ROCKLEDGE RD |
| LOOP DETECTOR 21   | STH 54         | 39             | ---                            |
| LOOP DETECTOR 22   | STH 54         | 113            | ---                            |
| LOOP DETECTOR 62   | STH 54         | 107            | ---                            |
| LOOP DETECTOR 61   | STH 54         | 39             | ---                            |
| LOOP DETECTOR 81   | CTH AB         | 88             | ---                            |
| LOOP DETECTOR 82   | CTH AB         | 108            | ---                            |
| LOOP DETECTOR 42   | CTH AB         | 109            | ---                            |
| LOOP DETECTOR 41   | CTH AB         | 88             | ---                            |

TOTAL 2750

SAWING CONCRETE

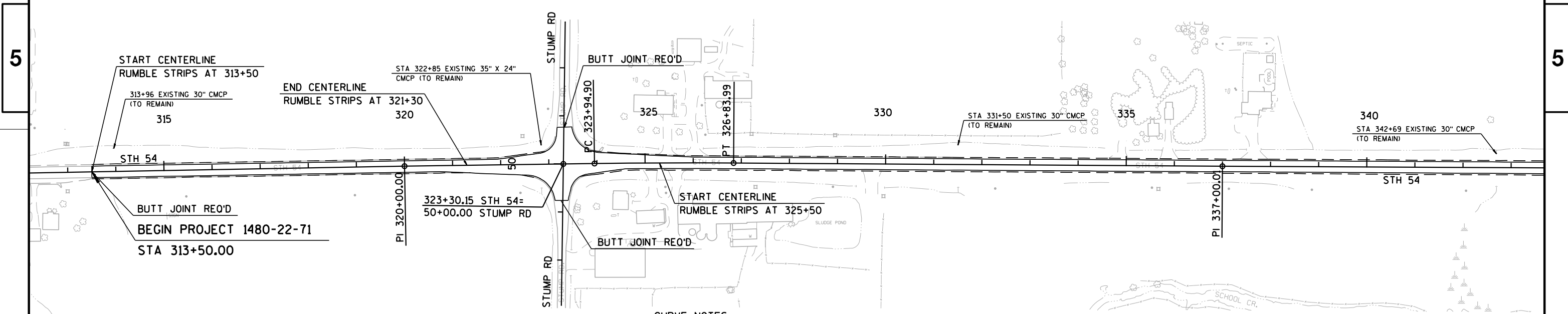
| STATION | LOCATION | 690.0250<br>LF | Remarks                   |
|---------|----------|----------------|---------------------------|
| 69+02   | LT       | 2              | ---                       |
| 70+56   | LT       | 2              | ---                       |
| 74+68   | LT       | 2              | ---                       |
| 76+02   | LT       | 2              | ---                       |
| 186+84  | RT       | 2              | ---                       |
| 194+07  | RT       | 2              | ---                       |
| 194+20  | RT       | 2              | ---                       |
| 196+99  | RT       | 2              | ---                       |
| 197+12  | RT       | 2              | ---                       |
| 209+80  | LT       | 20             | NW CURB RAMP              |
| 210+50  | LT       | 20             | NE CURB RAMP              |
| 209+83  | RT       | 20             | SW CURB RAMP              |
| 210+53  | RT       | 20             | SE CURB RAMP              |
| 231+86  | RT       | 4              | SE RADIUS OF ROCKLEDGE CT |

TOAL 100



BENCH MARKS

| NO. | STATION | DESCRIPTION                   | ELEV.  |
|-----|---------|-------------------------------|--------|
| 603 | 322+40  | 50' BT RR SPIKE IN POWER POLE | 798.37 |
| 604 | 325+42  | 50' BT RR SPIKE IN POWER POLE | 796.13 |



CURVE NOTES

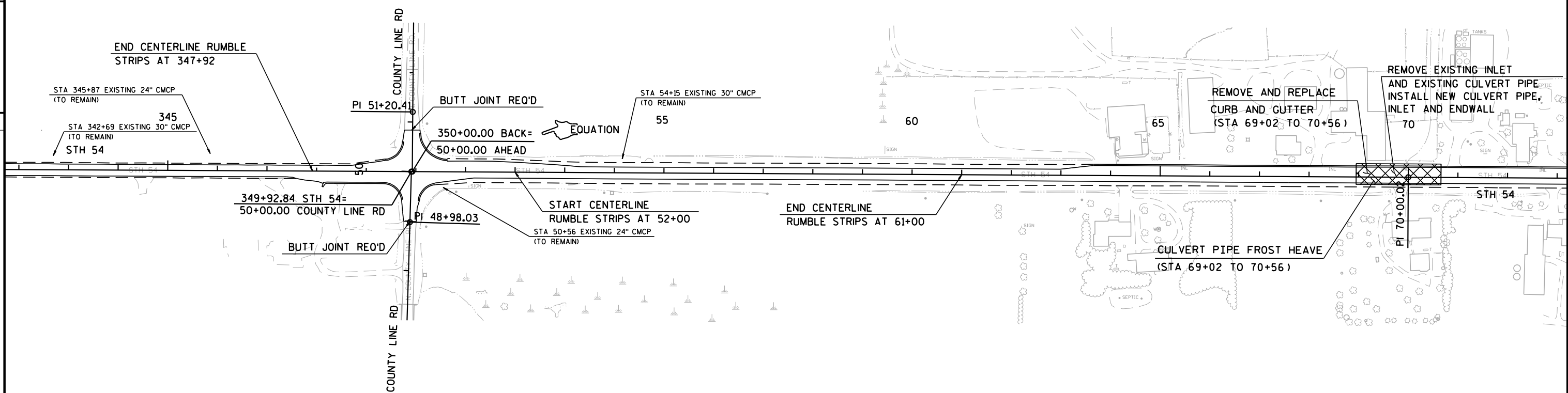
PI = 325+39.45  
Y = 466,236.7468  
X = 203,534.7879  
Z = 181°9'59.21"  
Δ = 1°9'59.21"  
D = 0°24'12.57"  
T = 144.55'  
L = 289.09'  
R = 14200.00'  
S.E. = NORMAL CROWN



BENCH MARKS

| NO. | STATION | DESCRIPTION                                                   | ELEV.  |
|-----|---------|---------------------------------------------------------------|--------|
| 605 | 50+22   | 97' LT RR SPIKE IN POWER POLE                                 | 785.51 |
| 606 | 47+32   | 15' LT COUNTY LINE RD DISK IN SW PARAPET OF STRUCTURE B-31-43 | 777.71 |

5



5



BENCH MARKS

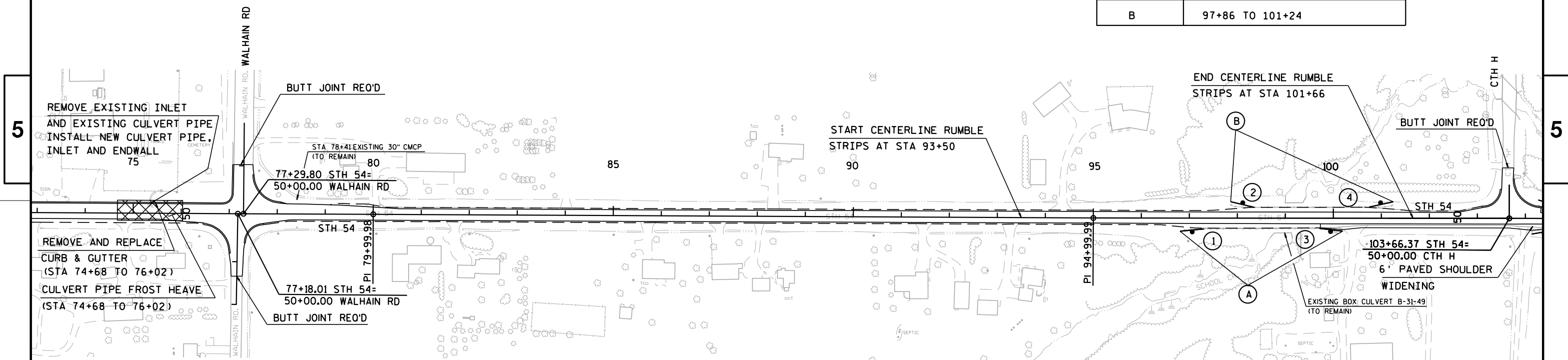
| NO. | STATION | DESCRIPTION                                      | ELEV.  |
|-----|---------|--------------------------------------------------|--------|
| 607 | 76+40   | 47' RT RR SPIKE IN POWER POLE                    | 783.10 |
| 608 | 77+62   | 90' LT RR SPIKE IN POWER POLE                    | 780.90 |
| 609 | 98+76   | 31' RT DISK IN SW WING WALL OF STRUCTURE B-31-49 | 769.51 |

# SEE "NON-TYPICAL DISTANCES TO HINGE POINTS AT STEEL PLATE BEAM GUARD EAT DETAIL" IN CONSTRUCTION DETAILS FOR PLACEMENT INSTRUCTIONS.

REMOVING GUARDRAIL, ENERGY ABSORBING TERMINAL AND BARRIER SHAPING AS SHOWN IN MISCELLANEOUS QUANTITIES.

SPRAYED ASPHALTIC SHOULDER TREATMENT AND ADJUSTING STEEL PLATE BEAM GUARD

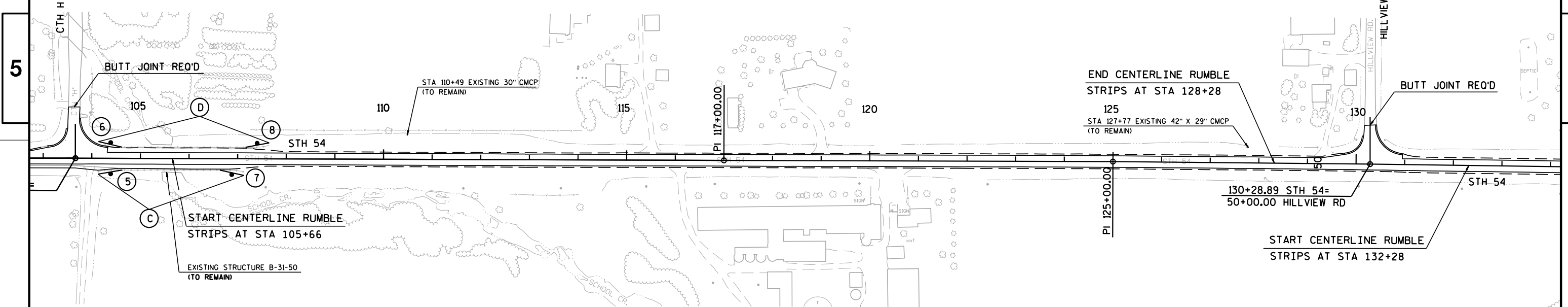
| LOCATION | STATION RANGE   |
|----------|-----------------|
| A        | 96+81 TO 100+18 |
| B        | 97+86 TO 101+24 |



# SEE "NON-TYPICAL DISTANCES TO HINGE POINTS AT STEEL PLATE BEAM GUARD EAT DETAIL" IN CONSTRUCTION DETAILS FOR PLACEMENT INSTRUCTIONS.

REMOVING GUARDRAIL, ENERGY ABSORBING TERMINAL AND BARRIER SHAPING AS SHOWN IN MISCELLANEOUS QUANTITIES.

| SPRAYED ASPHALTIC SHOULDER TREATMENT AND ADJUSTING STEEL PLATE BEAM GUARD |                  |
|---------------------------------------------------------------------------|------------------|
| LOCATION                                                                  | STATION RANGE    |
| C                                                                         | 104+12 TO 107+12 |
| D                                                                         | 104+35 TO 107+72 |



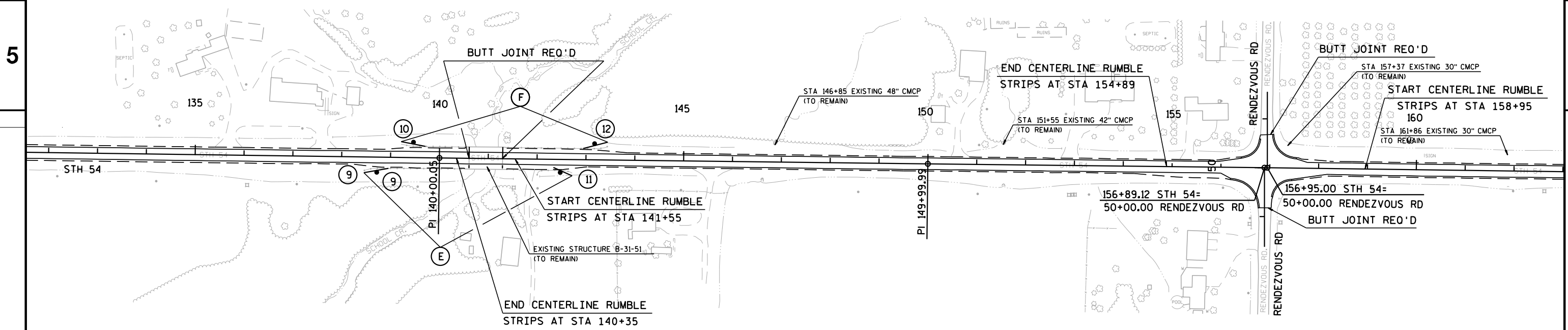
| BENCH MARKS |         |                                                  |        |
|-------------|---------|--------------------------------------------------|--------|
| NO.         | STATION | DESCRIPTION                                      | ELEV.  |
| 610         | 105+44  | 28" RT DISK IN SW WING WALL OF STRUCTURE B-31-50 | 768.75 |
| 611         | 130+06  | 46" RT RR SPIKE IN POWER POLE                    | 786.32 |



# SEE "NON-TYPICAL DISTANCES TO HINGE POINTS AT STEEL PLATE BEAM GUARD EAT DETAIL" IN CONSTRUCTION DETAILS FOR PLACEMENT INSTRUCTIONS.

REMOVING GUARDRAIL, ENERGY ABSORBING TERMINAL AND BARRIER SHAPING AS SHOWN IN MISCELLANEOUS QUANTITIES.

| SPRAYED ASPHALTIC SHOULDER TREATMENT AND ADJUSTING STEEL PLATE BEAM GUARD |                  |
|---------------------------------------------------------------------------|------------------|
| LOCATION                                                                  | STATION RANGE    |
| E                                                                         | 138+50 TO 142+84 |
| F                                                                         | 139+25 TO 143+40 |



BENCH MARKS

| NO. | STATION | DESCRIPTION                              | ELEV.  |
|-----|---------|------------------------------------------|--------|
| 612 | 140+60  | 22' RT SW WING WALL OF STRUCTURE B-31-51 | 766.43 |
| 613 | 156+05  | 42' RT RR SPIKE IN POWER POLE            | 781.50 |
| 614 | 156+61  | 93' LT RR SPIKE IN POWER POLE            | 782.00 |



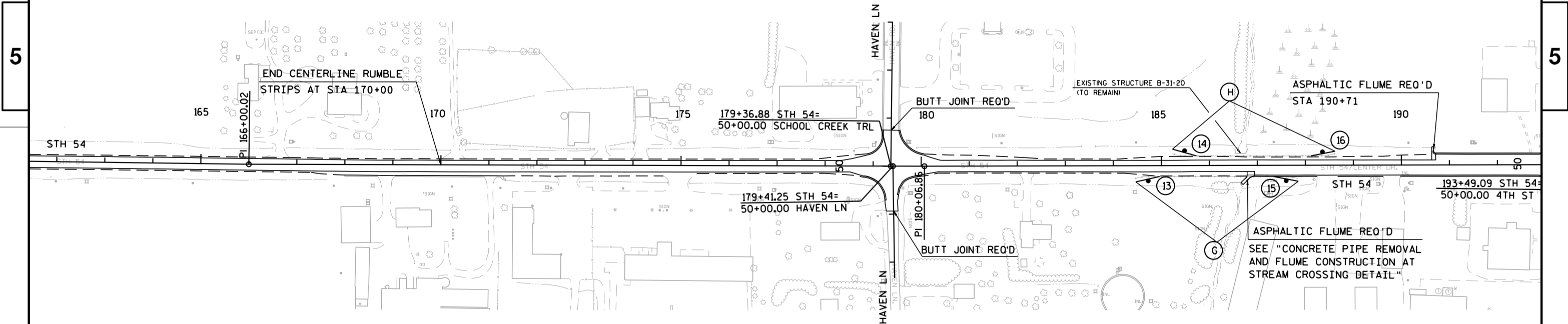
BENCH MARKS

| NO. | STATION | DESCRIPTION                                      | ELEV.  |
|-----|---------|--------------------------------------------------|--------|
| 615 | 179+06  | 50' LT RR SPIKE IN POWER POLE                    | 786.21 |
| 616 | 186+44  | 35' RT DISK IN SW WING WALL OF STRUCTURE B-31-20 | 782.97 |

# SEE "NON-TYPICAL DISTANCES TO HINGE POINTS AT STEEL PLATE BEAM GUARD EAT DETAIL" IN CONSTRUCTION DETAILS FOR PLACEMENT INSTRUCTIONS.

REMOVING GUARDRAIL, ENERGY ABSORBING TERMINAL AND BARRIER SHAPING AS SHOWN IN MISCELLANEOUS QUANTITIES.

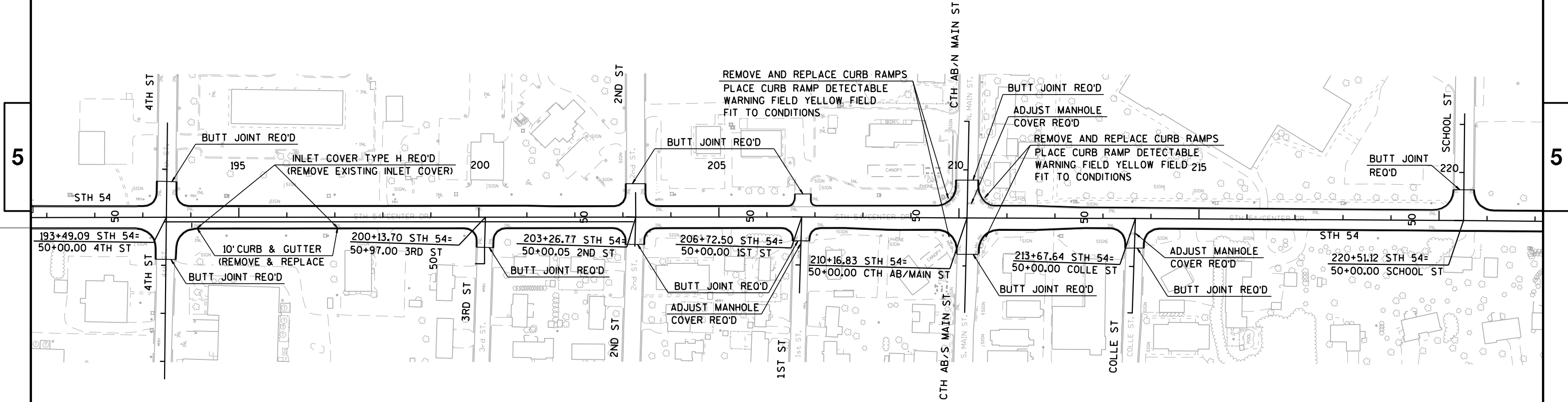
| SPRAYED ASPHALTIC SHOULDER TREATMENT AND ADJUSTING STEEL PLATE BEAM GUARD |                  |
|---------------------------------------------------------------------------|------------------|
| LOCATION                                                                  | STATION RANGE    |
| G                                                                         | 184+46 TO 187+83 |
| H                                                                         | 185+25 TO 188+63 |



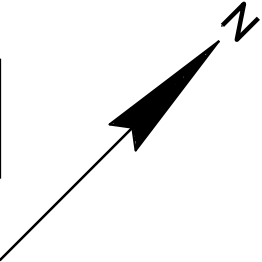


BENCH MARKS

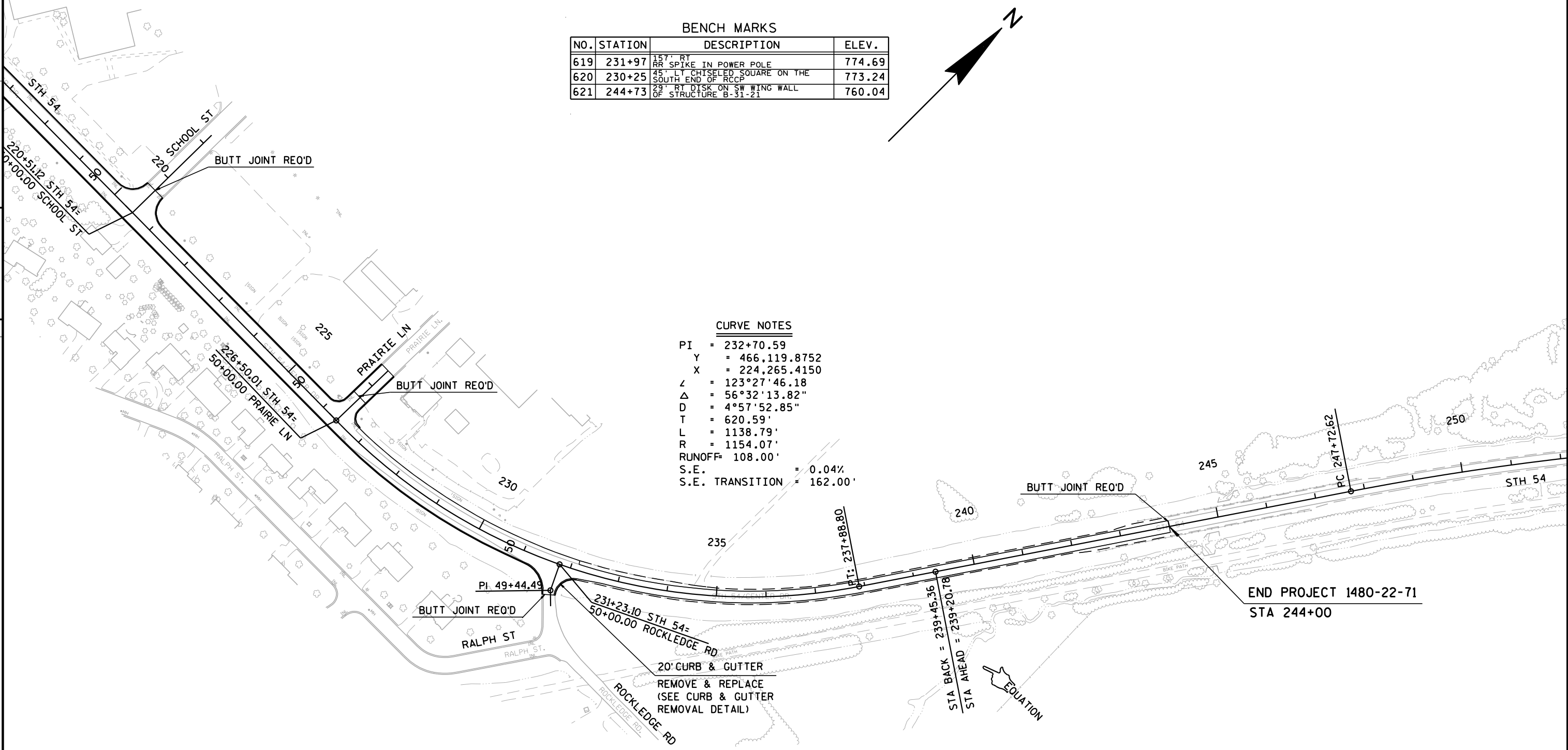
| NO. | STATION | DESCRIPTION                                      | ELEV.  |
|-----|---------|--------------------------------------------------|--------|
| 617 | 209+88  | 50' LT CHISELED SQUARE ON WISDOT SIGNAL PEDESTAL | 806.89 |
| 618 | 212+08  | 31' RT RR SPIKE IN POWER POLE                    | 805.70 |



| BENCH MARKS |         |                                                  |        |
|-------------|---------|--------------------------------------------------|--------|
| NO.         | STATION | DESCRIPTION                                      | ELEV.  |
| 619         | 231+97  | 157' RT RR SPIKE IN POWER POLE                   | 774.69 |
| 620         | 230+25  | 45' LT CHISELED SQUARE ON THE SOUTH END OF RCCP  | 773.24 |
| 621         | 244+73  | 29' RT DISK ON SW WING WALL OF STRUCTURE B-31-21 | 760.04 |

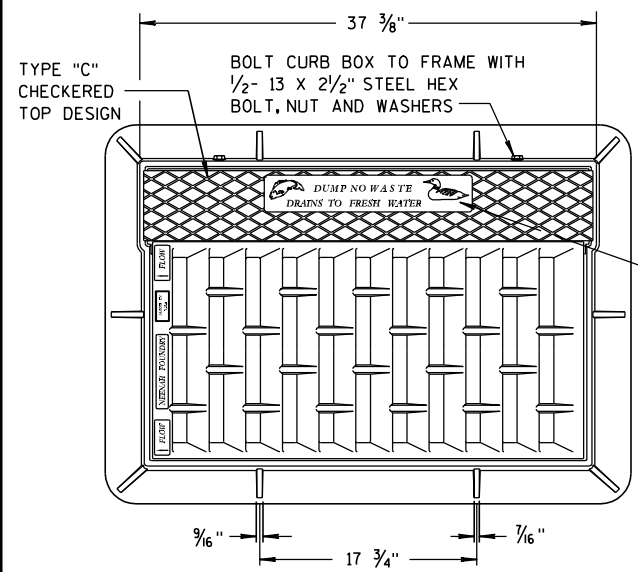


| CURVE NOTES     |                |
|-----------------|----------------|
| PI              | = 232+70.59    |
| Y               | = 466,119.8752 |
| X               | = 224,265.4150 |
| Δ               | = 123°27'46.18 |
| Δ               | = 56°32'13.82" |
| D               | = 4°57'52.85"  |
| T               | = 620.59'      |
| L               | = 1138.79'     |
| R               | = 1154.07'     |
| RUNOFF          | = 108.00'      |
| S.E.            | = 0.04%        |
| S.E. TRANSITION | = 162.00'      |

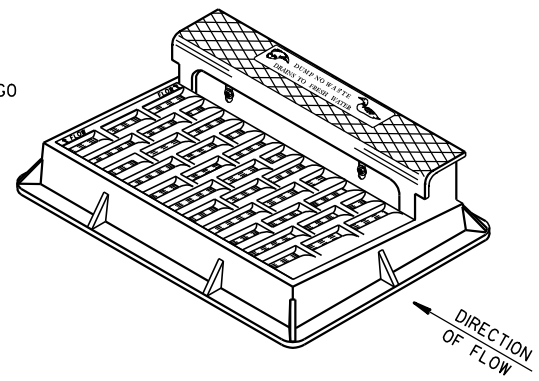


Standard Detail Drawing List

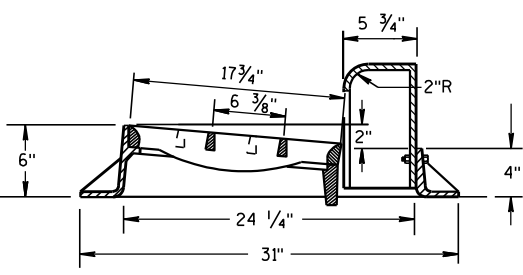
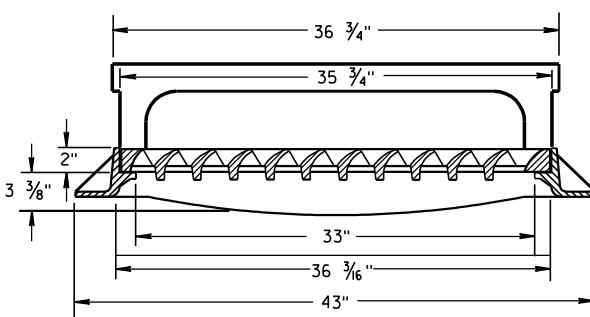
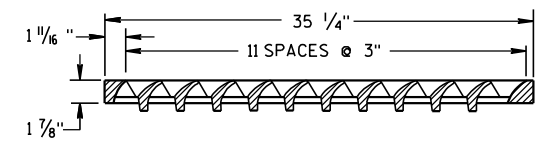
|           |                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|
| 08A05-18A | INLET COVERS TYPE A, H, A-S, & H-S                                                                 |
| 08C07-01  | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT                                                       |
| 08D01-17  | CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES                                                   |
| 08D04-05  | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES                                                         |
| 08D05-15A | CURB RAMPS TYPES 1 AND 1-A                                                                         |
| 08D05-15B | CURB RAMPS TYPES 2 AND 3                                                                           |
| 08D05-15C | CURB RAMPS TYPES 4A AND 4A1                                                                        |
| 08D05-15D | CURB RAMPS TYPE 4B AND 4B1                                                                         |
| 08D05-15E | CURB RAMPS TYPES 5, 6, 7A, 7B & 8                                                                  |
| 08E08-03  | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS                                    |
| 08E09-06  | SILT FENCE                                                                                         |
| 08E10-02  | INLET PROTECTION TYPE A, B, C AND D                                                                |
| 08F01-11  | APRON ENDWALLS FOR CULVERT PIPE                                                                    |
| 08F04-07  | JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL                                            |
| 09B02-07  | CONDUIT                                                                                            |
| 09C02-06  | CONCRETE BASES, TYPES 1, 2 & 5                                                                     |
| 09C03-03  | TRANSFORMER/PEDESTAL BASES                                                                         |
| 09E07-05  | TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS                            |
| 09F08-03  | LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)                            |
| 13A11-02A | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING                                                     |
| 13A11-02B | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING                                                     |
| 14B15-07A | STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS                                          |
| 14B15-07B | STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS                                          |
| 14B15-07C | STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS                                         |
| 14B24-07A | STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL                                                   |
| 14B24-07B | STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL                                                   |
| 14B24-07C | STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL                                                   |
| 14B29-01  | SAFETY EDGE                                                                                        |
| 15A03-02A | FLEXIBLE MARKER POST FOR CULVERT END                                                               |
| 15A03-02B | FLEXIBLE MARKER POST FOR CULVERT END                                                               |
| 15C04-02  | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C05-02  | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS                                           |
| 15C07-12C | PAVEMENT MARKING ARROWS                                                                            |
| 15C08-16A | PAVEMENT MARKING (MAINLINE)                                                                        |
| 15C08-16B | PAVEMENT MARKING (INTERSECTIONS)                                                                   |
| 15C08-16E | PAVEMENT MARKING (LEFT TURN LANE)                                                                  |
| 15C12-04  | TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)                                  |
| 15C19-02A | MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY                                         |
| 15D32-03  | TRAFFIC CONTROL, ONE LANE ROAD STOP CONDITION                                                      |
| 16A01-06  | LANDMARK REFERENCE MONUMENTS AND COVERS                                                            |



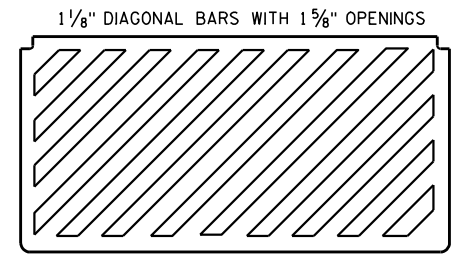
NOTE:  
GRATE IS REVERSIBLE.



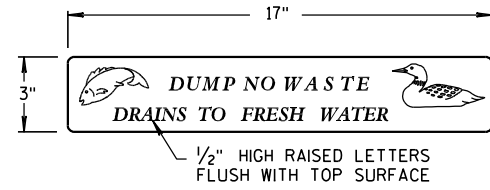
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



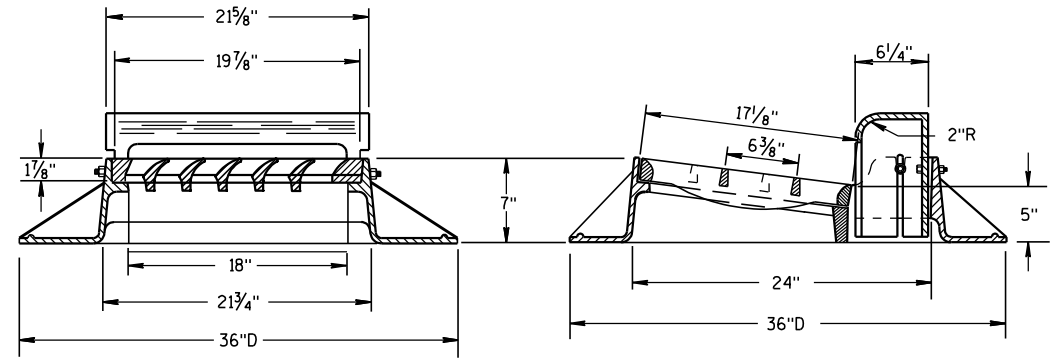
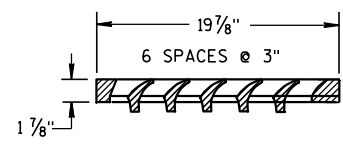
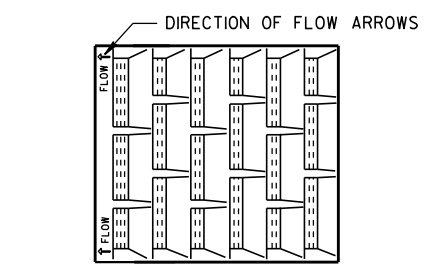
**TYPE "H"**  
(APPROXIMATE WEIGHT 441 LBS.)  
FRAME..... 181 LBS.  
GRATE..... 146 LBS.  
CURB BOX..... 114 LBS.



**SPECIAL GRATE FOR TYPE "H" COVER**  
(MEASURES 35 1/4" X 17 3/4" X 2")  
(APPROXIMATE WEIGHT 159 LBS.)  
GRATE..... 159 LBS.  
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



**TYPE "A"**  
(APPROXIMATE WEIGHT 340 LBS.)  
FRAME..... 185 LBS.  
GRATE..... 71 LBS.  
CURB BOX..... 84 LBS.

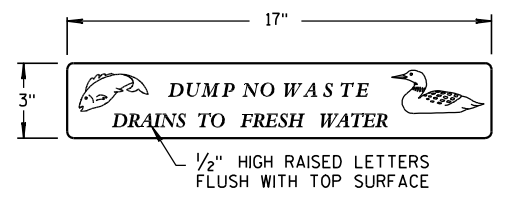
**GENERAL NOTES**

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.

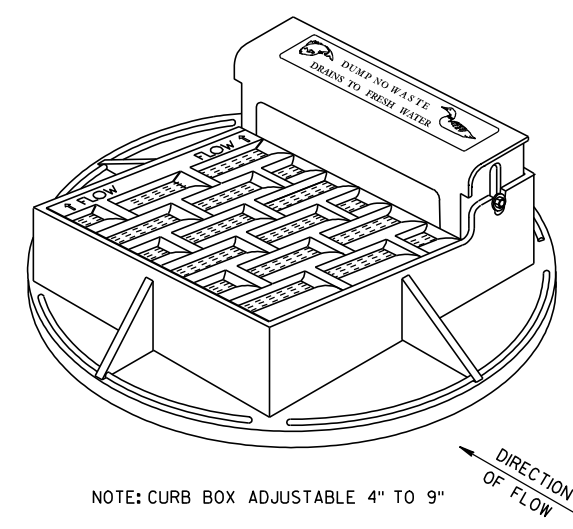
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

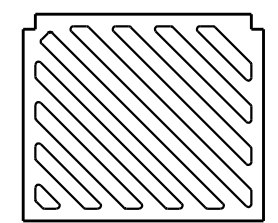


LOGO DETAIL

NOTE:  
GRATE IS REVERSIBLE.



1" DIAGONAL BARS WITH 1 1/2" OPENINGS

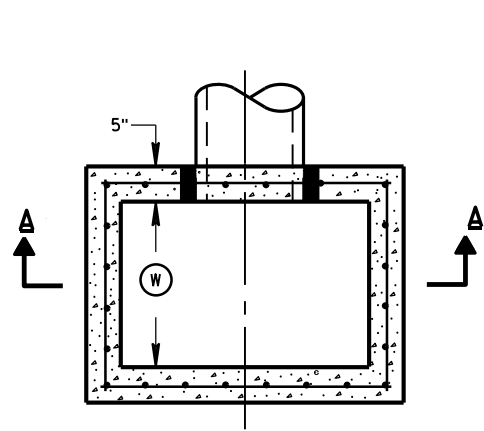


**SPECIAL GRATE FOR TYPE "A" COVER**  
(MEASURES 19 3/4" X 17" X 1 7/8")  
GRATE..... 84 LBS.  
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

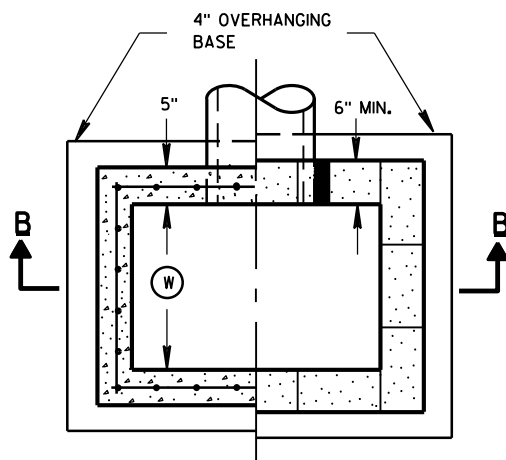
**INLET COVERS  
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

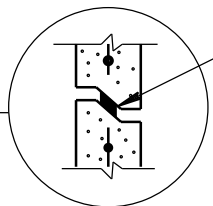
APPROVED  
6/5/2012 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA ENGINEER



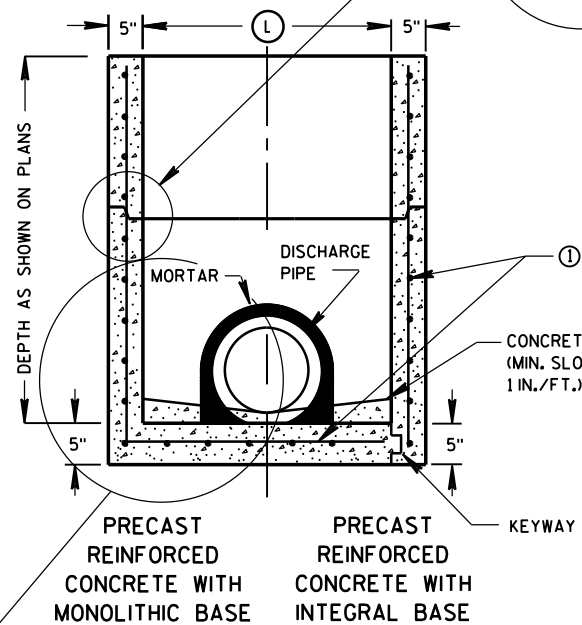
PLAN VIEW



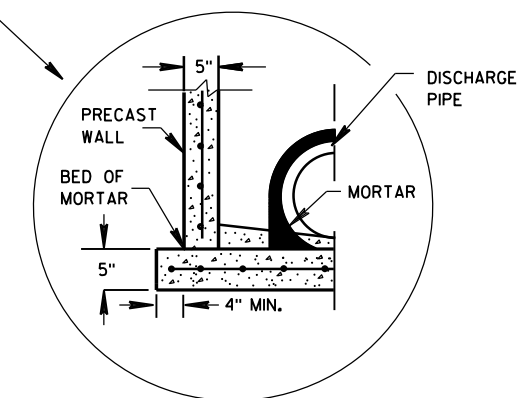
PLAN VIEW



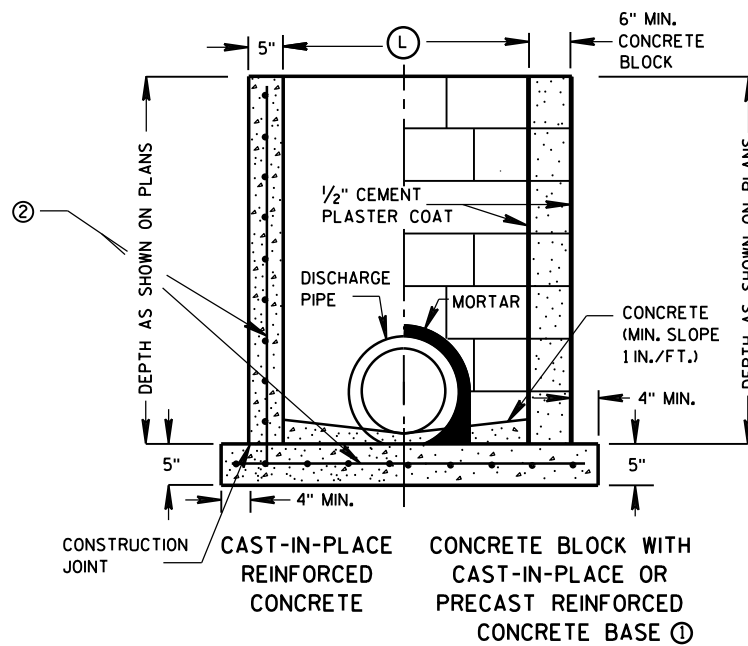
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

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

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 GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN 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.

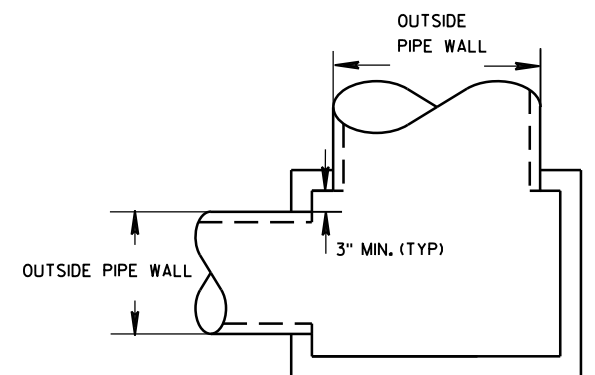
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

| INLET SIZE |              | INLET COVER TYPE | ALL A'S | ALL B'S | BW | F | ALL H'S | S | T | V | WM |
|------------|--------------|------------------|---------|---------|----|---|---------|---|---|---|----|
|            | WIDTH ① (FT) | LENGTH ② (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 |         |   |   |   |    |

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          |

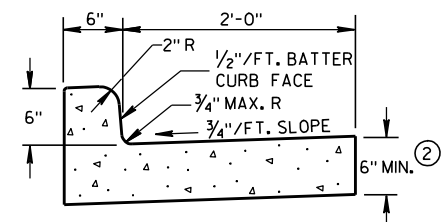


DETAIL "A"

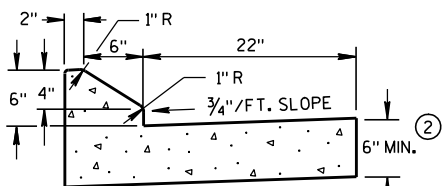
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

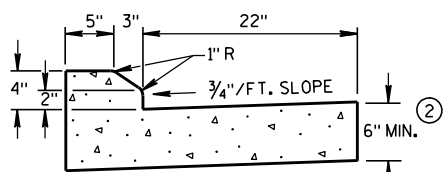
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6/5/2012 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
FHWA ENGINEER



TYPES A &amp; D ①



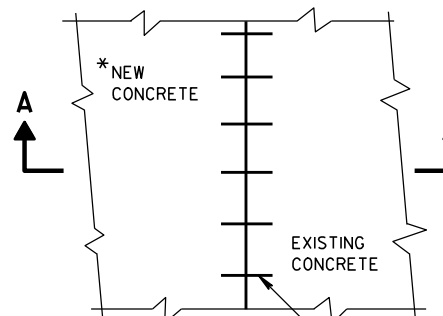
6" SLOPED CURB TYPES G &amp; J ①



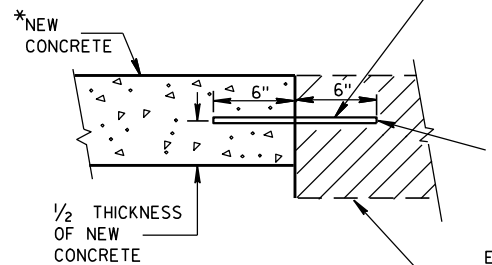
4" SLOPED CURB TYPES G &amp; J ①

CONCRETE CURB &amp; GUTTER 30"

\* NEW CURB & GUTTER,  
SURFACE DRAINS,  
CONCRETE PAVEMENT  
OR OTHER NEW CONCRETE.



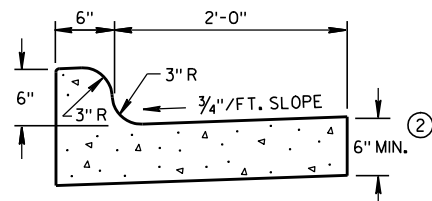
PLAN VIEW

SECTION A-A  
TIE BARS DRILLED  
INTO EXISTING PAVEMENT

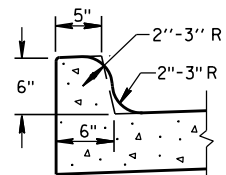
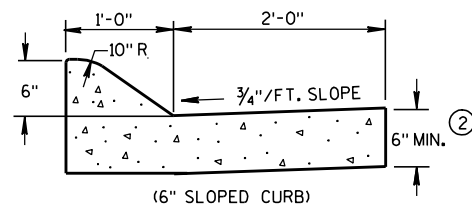
NO. 6 TIE BARS SPACED 2'-6" C-C,  
INSTALLED PERPENDICULAR  
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE  
SIZE IS 1/8" GREATER  
THAN TIE BAR DIAMETER

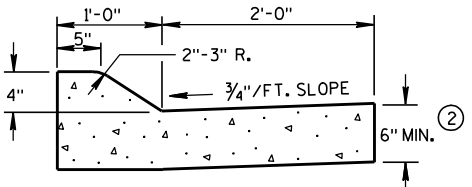
EXISTING  
CONCRETE



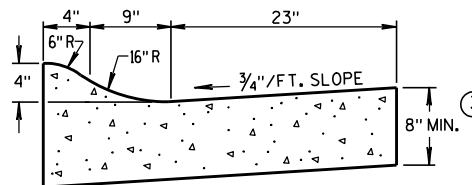
TYPES K &amp; L ①

OPTIONAL CURB SHAPE  
FOR TYPES K & L ①

(6" SLOPED CURB)

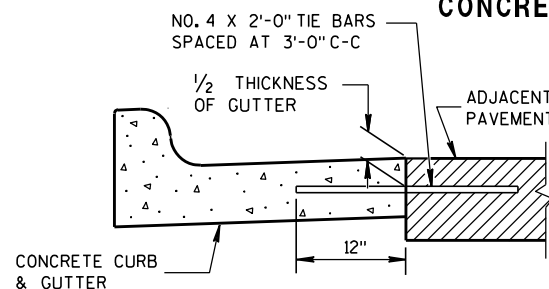


TYPES A &amp; D ①

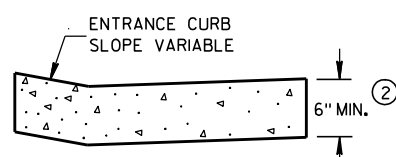


4" SLOPED CURB TYPES R &amp; T ① ④

CONCRETE CURB &amp; GUTTER 36"

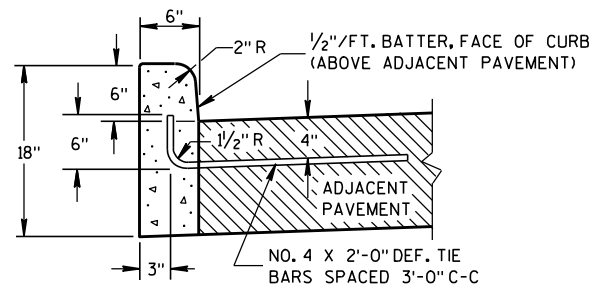


TYPICAL TIE BAR LOCATION ①



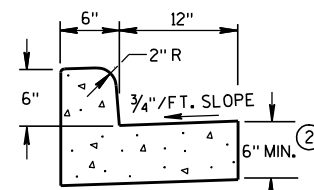
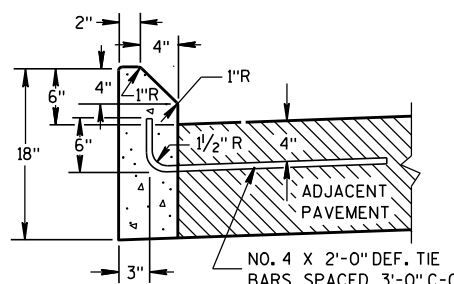
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A &amp; D ①

CONCRETE CURB

TYPES A & D  
CONCRETE CURB & GUTTER 18"

TYPES G &amp; J ①

## GENERAL NOTES

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

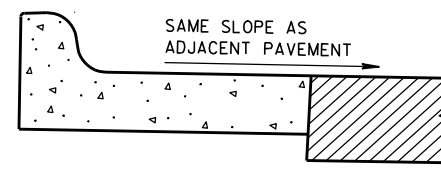
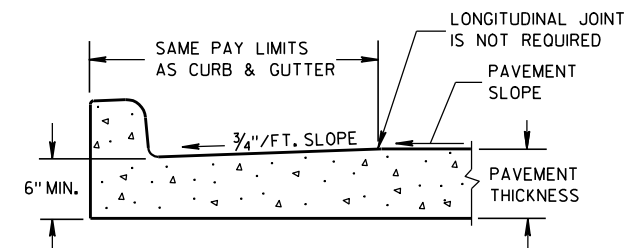
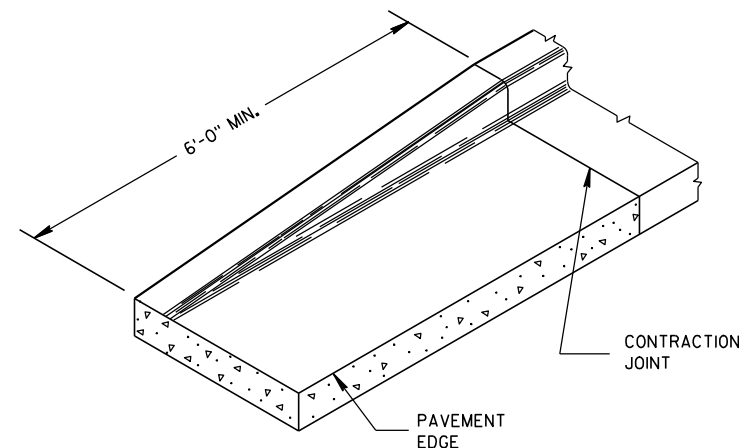
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- 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 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.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

REVERSE SLOPE GUTTER ⑤  
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT  
WITH INTEGRAL CURB & GUTTER

END SECTION CURB &amp; GUTTER

CONCRETE CURB, CONCRETE  
CURB & GUTTER AND TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

## 6



PLAN VIEW  
FLUME AT CURB END



## 6

**S.D.D. 8 D 4-5**

- ① JOINTS SHALL BE  $\frac{1}{8}$  O  $\frac{1}{4}$  INCH WIDE BY  $1\frac{1}{2}$  INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

EXPANSION JOINT

CONCRETE CURB AND GUTTER

2" MIN. CURB HEIGHT

4" R

TAPER CURB TO FLOW LINE

INCREASE  $\phi$  FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS

8'-0"

4'-0"

EDGE OF PAVEMENT

3'-0" MIN.

SURFACE DRAIN IS SYMMETRICAL WHEN CURB AND GUTTER IS CONTINUED

SHOULDER OR BERM HINGE POINT

JOINTS

W3 WIRE MESH (SEE SECTION D-D)

RIPRAP

6'-0"

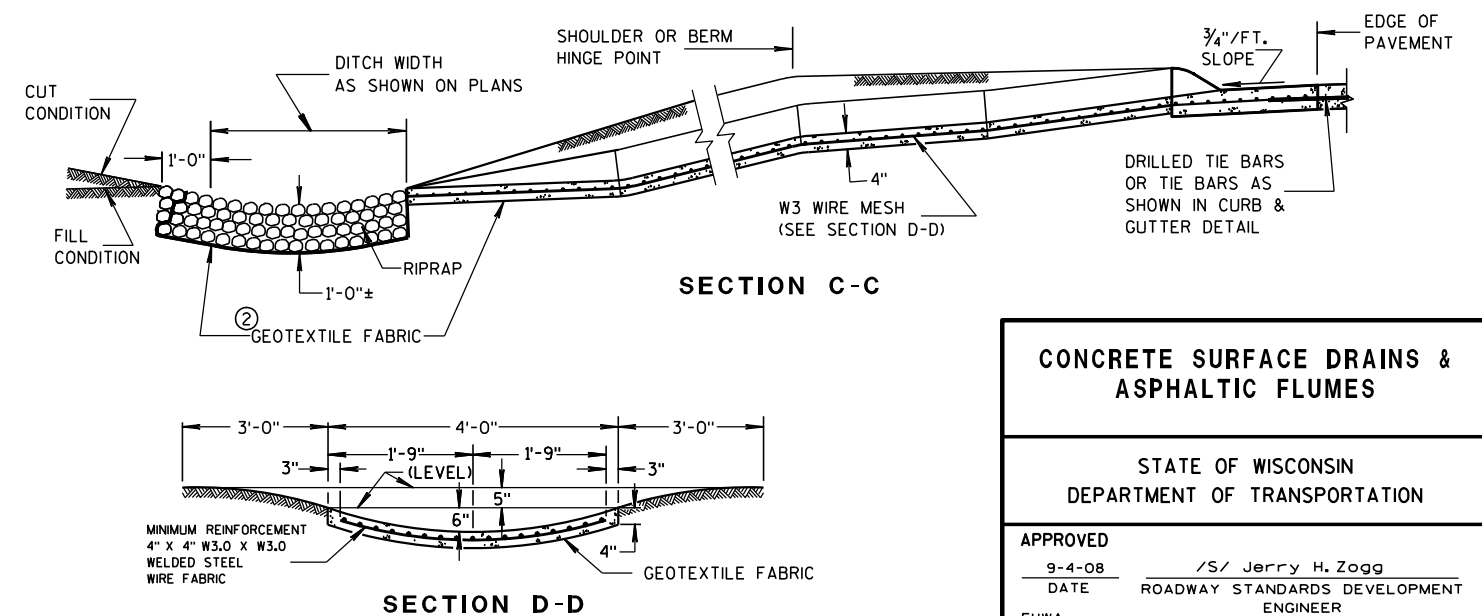
OR AS REQUIRED

1'-0" ON CUT SLOPE

DITCH

PLAN VIEW

### PLAN VIEW



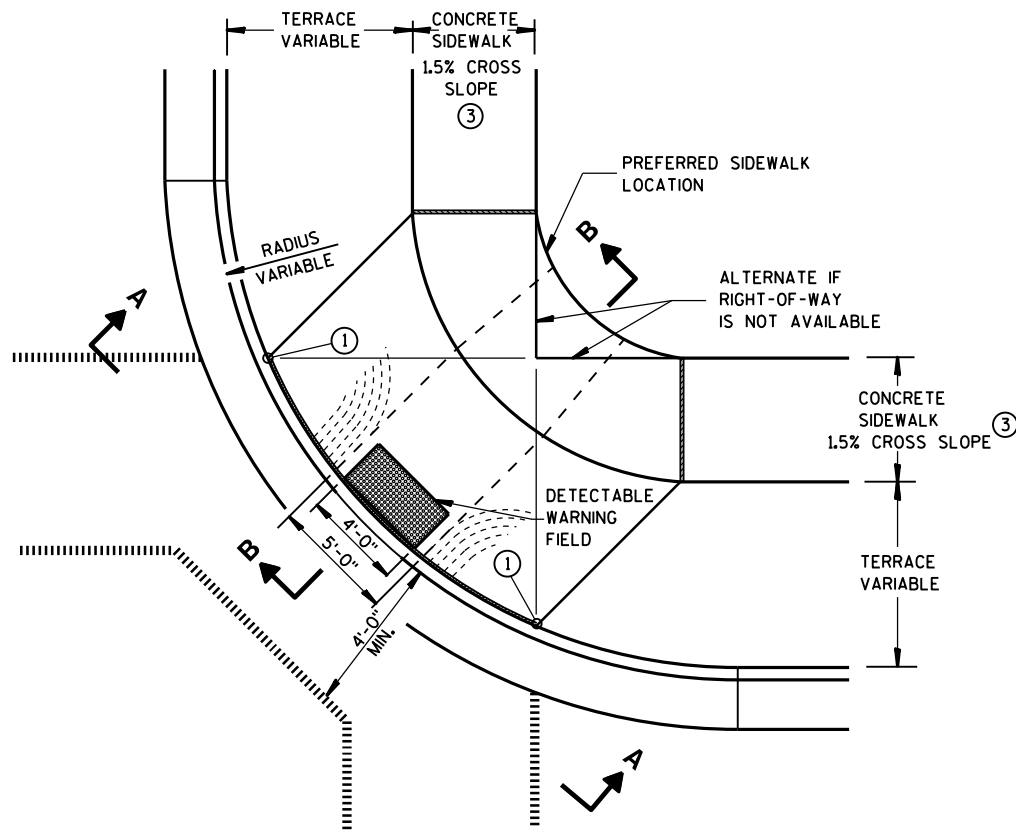
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

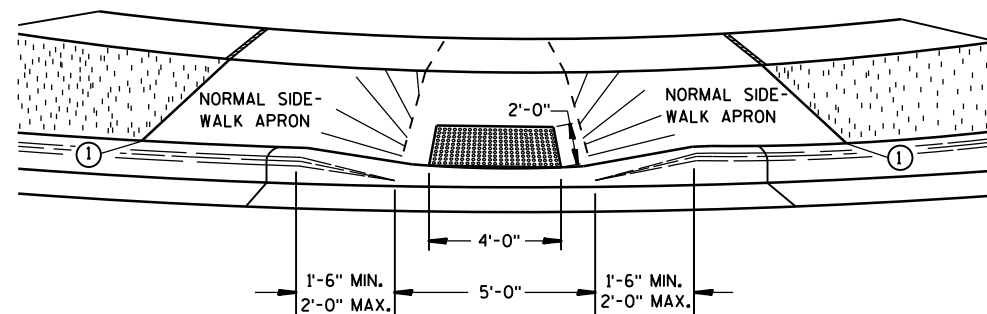
9-4-08 /S/ Jerry H. Zogg

DATE ROADWAY STANDARDS DEVELOPMENT

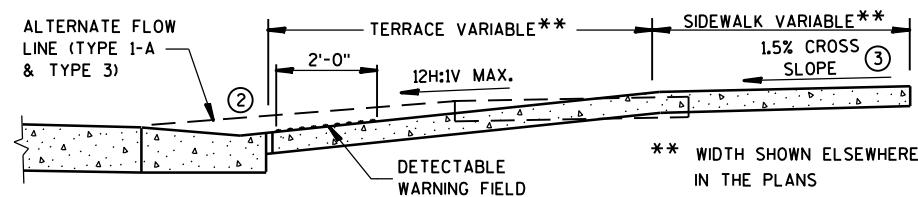
FHWA ENGINEER



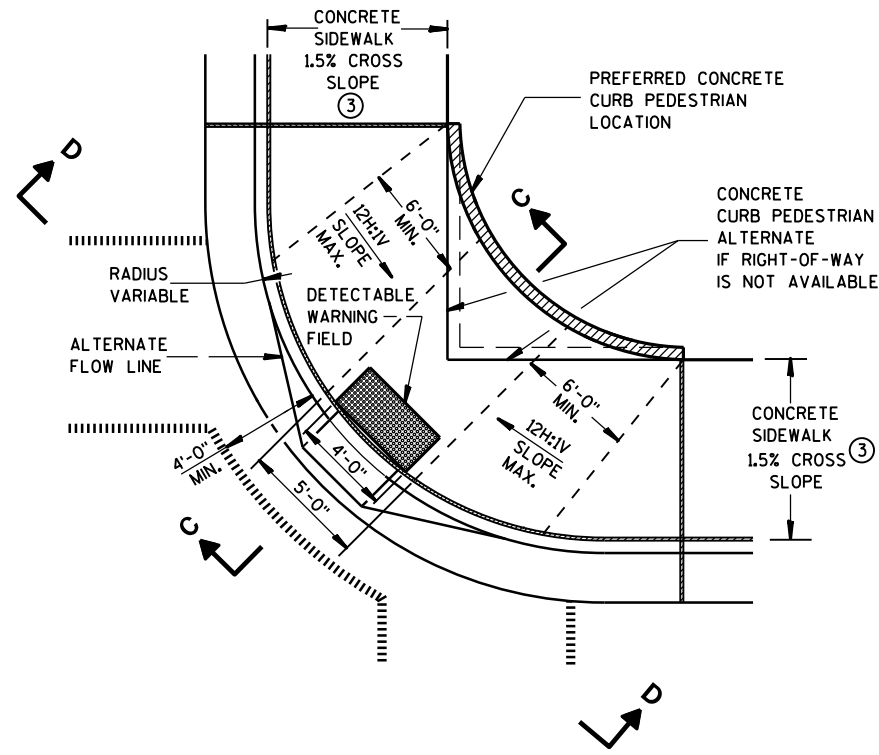
**PLAN VIEW  
TYPE 1 RAMP**  
(CENTER OF CORNER RADIUS)



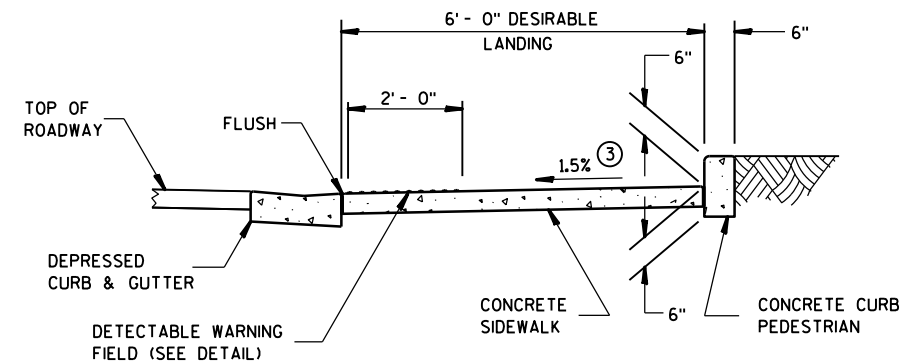
**VIEW A-A**



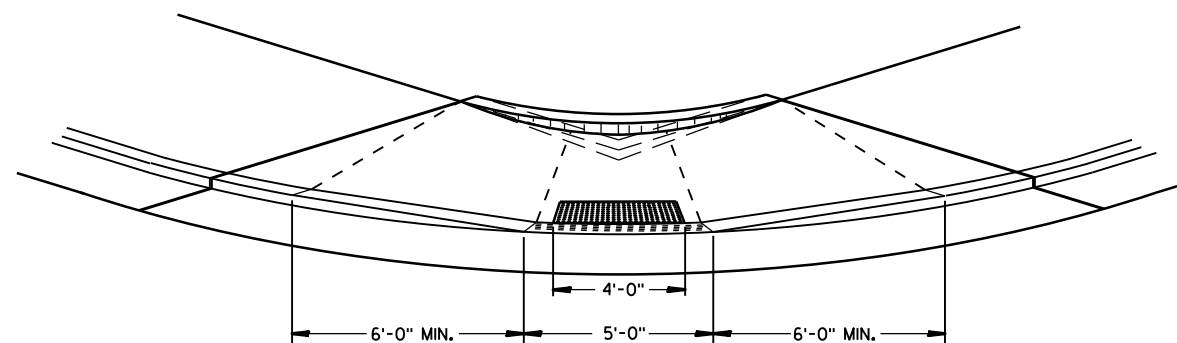
**SECTION B-B**



**PLAN VIEW  
TYPE 1-A RAMP**  
(NO TERRACE)



**SECTION C-C**



**VIEW D-D**

## GENERAL NOTES

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

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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.

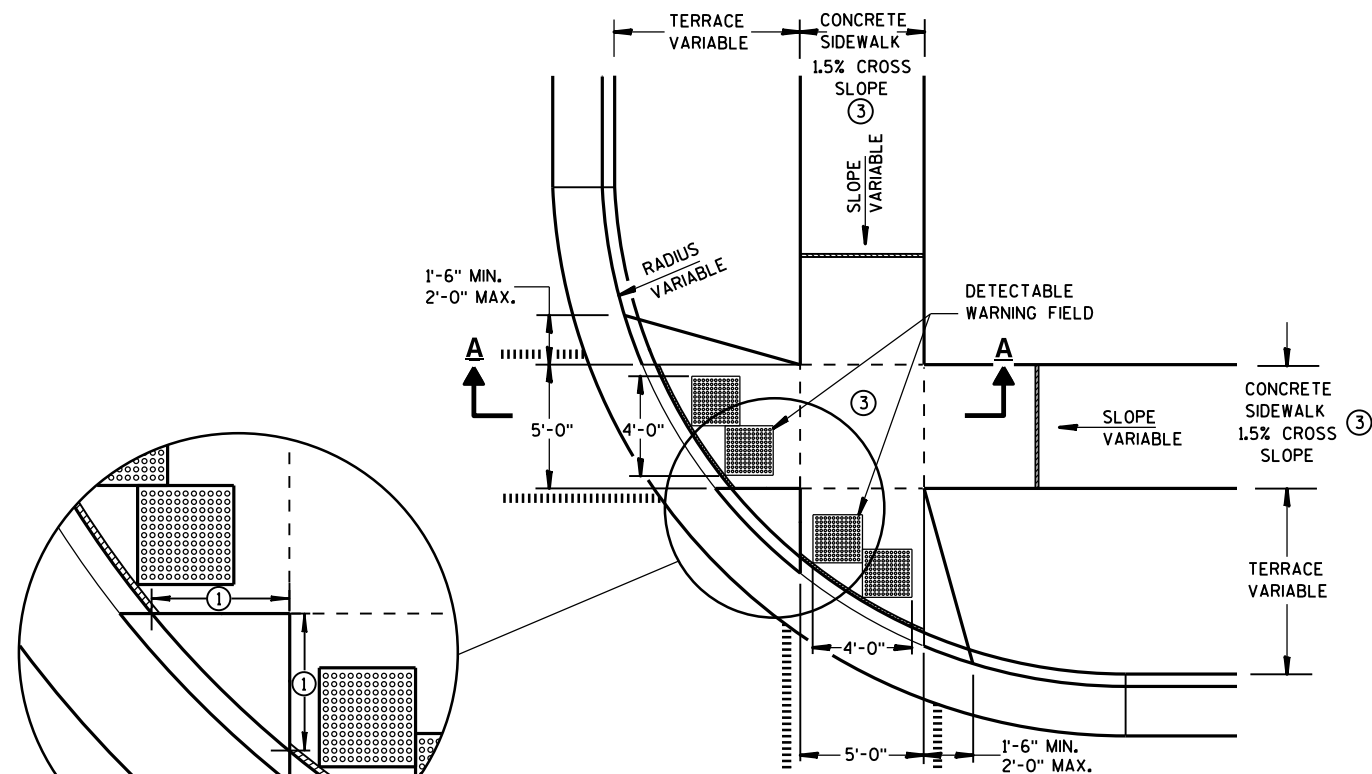
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

## LEGEND

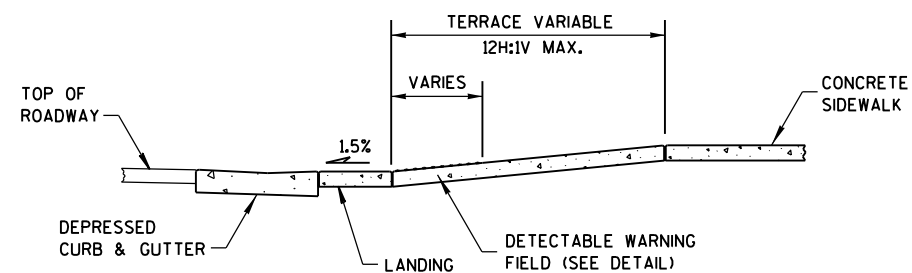
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

**CURB RAMPS  
TYPES 1 AND 1-A**

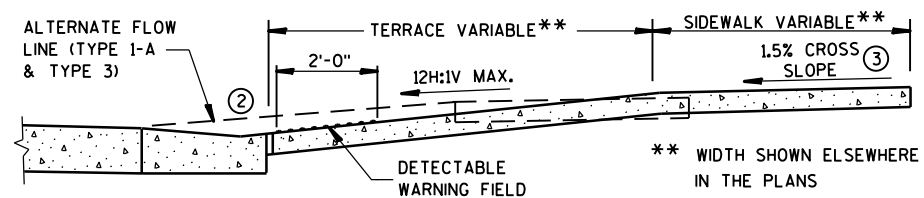
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



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



**SECTION A-A**



**SECTION B-B**

## GENERAL NOTES

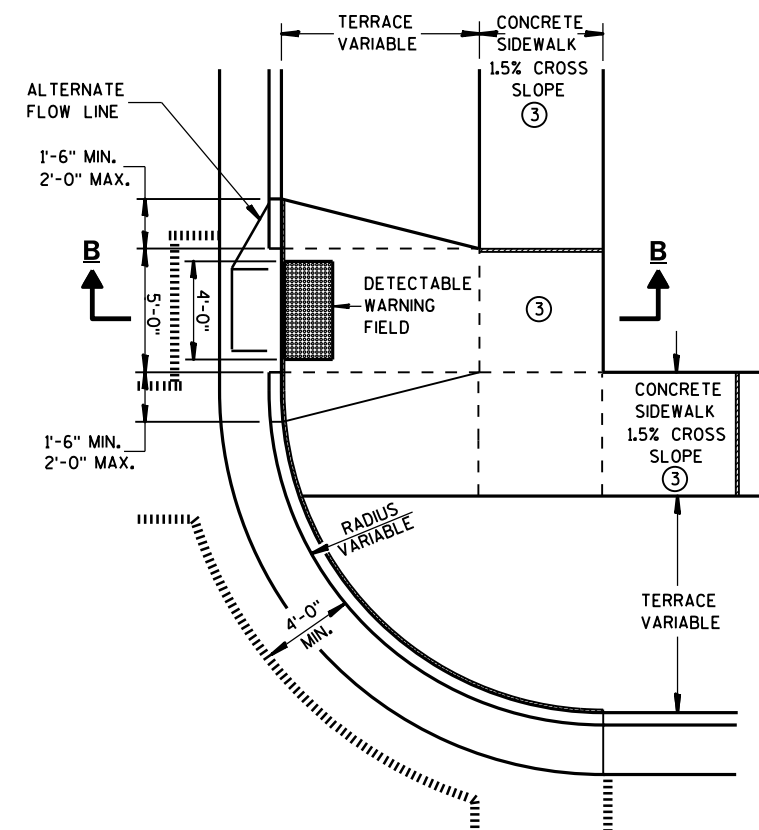
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

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

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

## LEGEND

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



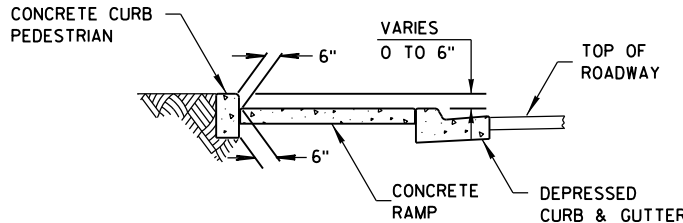
**PLAN VIEW  
TYPE 3 RAMP**  
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS  
TYPES 2 AND 3**

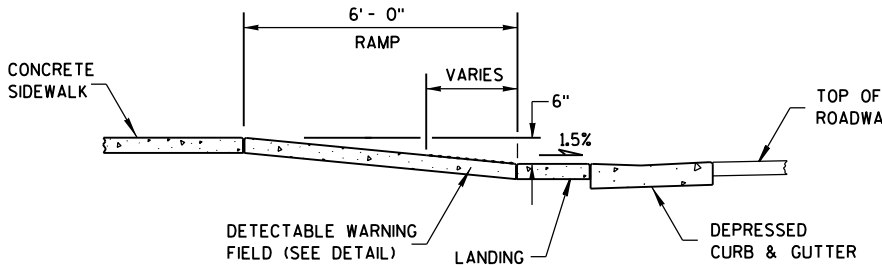
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4A**



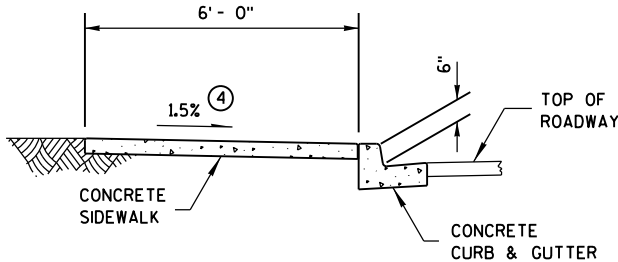
**SECTION C-C FOR TYPE 4A**



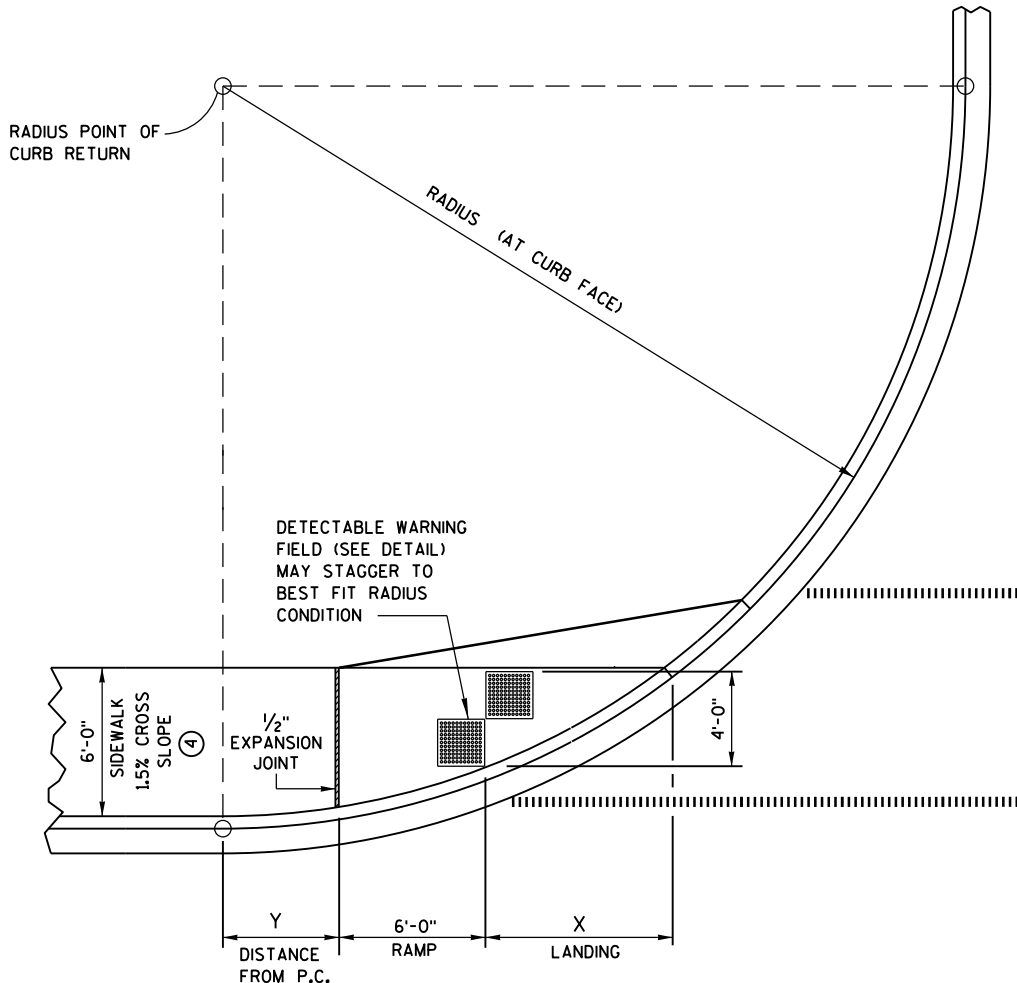
**SECTION B-B FOR TYPE 4A**

| <b>RADIUS<br/>(AT CURB FACE)</b> | <b>X</b>                             | <b>Y</b>                            |
|----------------------------------|--------------------------------------|-------------------------------------|
| <b>20 FEET</b>                   | 6'-1 <sup>3</sup> / <sub>4</sub> "   | 2'-7 <sup>1</sup> / <sub>4</sub> "  |
| <b>30 FEET</b>                   | 7'-11 <sup>3</sup> / <sub>4</sub> "  | 4'-8 <sup>1</sup> / <sub>4</sub> "  |
| <b>40 FEET</b>                   | 9'-5 <sup>1</sup> / <sub>4</sub> "   | 6'-5"                               |
| <b>50 FEET</b>                   | 10'-8 <sup>3</sup> / <sub>4</sub> "  | 7'-11 <sup>1</sup> / <sub>4</sub> " |
| <b>60 FEET</b>                   | 11'-10 <sup>1</sup> / <sub>4</sub> " | 9'-3 <sup>1</sup> / <sub>2</sub> "  |

## INTERMEDIATE RADII CAN BE INTERPOLATED



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



**CURB RAMP TYPE 4A1**  
**PLAN VIEW**

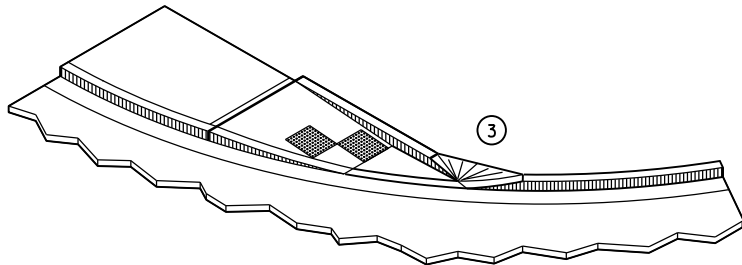
## GENERAL NOTES

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

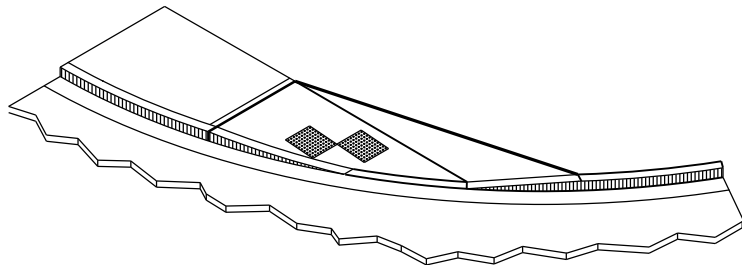
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

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

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)  
DO NOT MARK TRANSITION NOSE.
- ④  $\pm 0.5\%$  CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS  
SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



**ISOMETRIC VIEW FOR TYPE 4A**



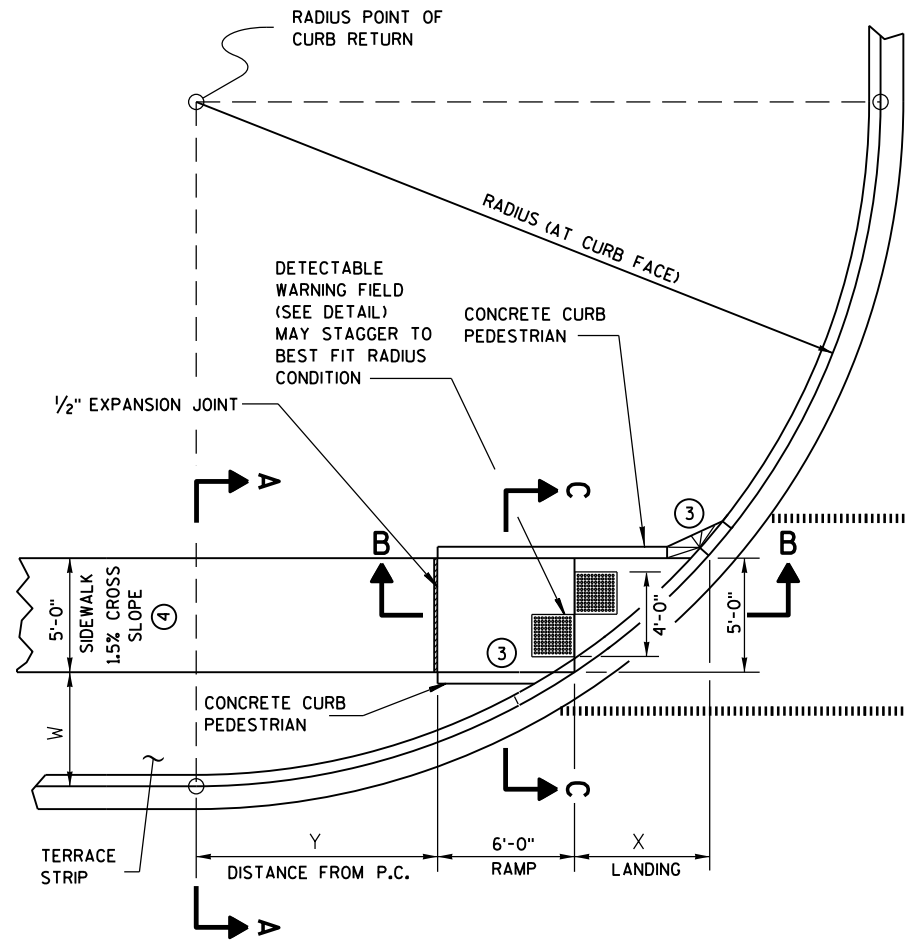
### ISOMETRIC VIEW FOR TYPE 4A1

## LEGEND

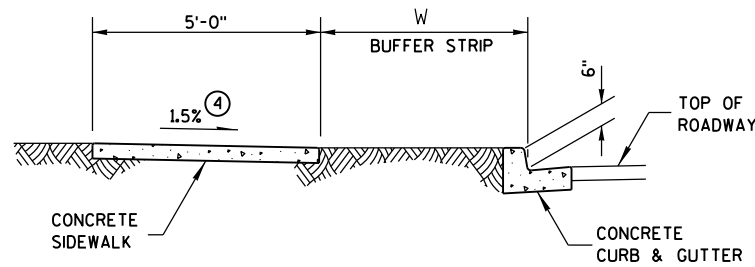
- |         |                                    |
|---------|------------------------------------|
| =====   | 1/2" EXPANSION JOINT-SIDEWALK      |
| - - - - | CONTRACTION JOINT FIELD LOCATED    |
|         | PAVEMENT MARKING CROSSWALK (WHITE) |

**CURB RAMPS  
TYPES 4A AND 4A**

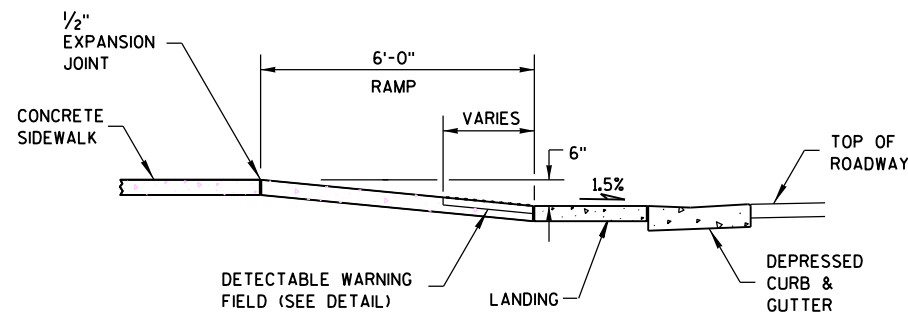
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B  
PLAN VIEW**



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

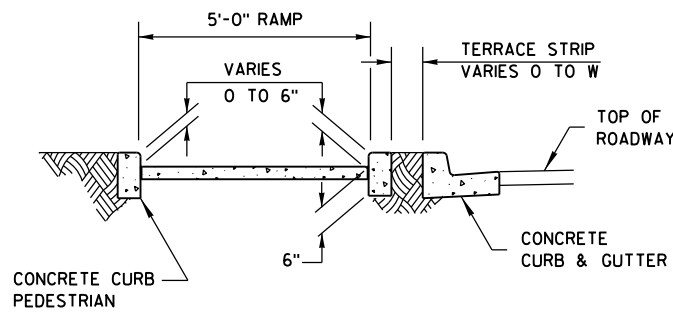


**SECTION B-B FOR TYPE 4B**

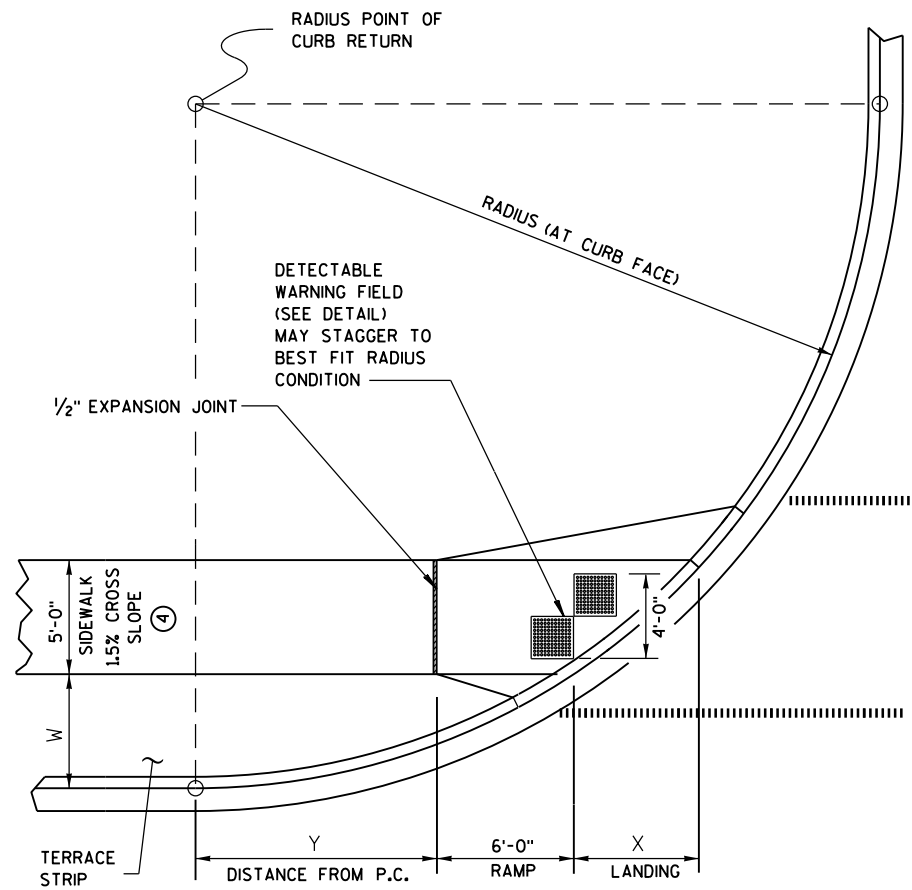
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
  - - - CONTRACTION JOINT FIELD LOCATED
  - ===== PAVEMENT MARKING CROSSWALK (WHITE)

| RADIUS<br>(AT CURB FACE) | W = 3' - 0" |            | W = 4' - 0" |            | W = 5' - 0" |             | W = 6' - 0" |            | W = 7' - 0" |            |
|--------------------------|-------------|------------|-------------|------------|-------------|-------------|-------------|------------|-------------|------------|
|                          | X           | Y          | X           | Y          | X           | Y           | X           | Y          | X           | Y          |
| 20 FEET                  | 5'-5 1/2"   | 4'-6 1/2"  | 4'-8 1/2"   | 6'-0"      | 4'-1"       | 7'-2 3/4"   | 3'-7"       | 8'-3 1/2"  | 3'-1 1/2"   | 9'-2 1/2"  |
| 30 FEET                  | 7'-3 3/4"   | 7'-1"      | 6'-5 1/2"   | 8'-11 1/2" | 5'-9 1/4"   | 10'-7"      | 5'-2 1/2"   | 12'-0"     | 4'-8 3/4"   | 13'-3 1/4" |
| 40 FEET                  | 8'-9 1/2"   | 9'-2 1/2"  | 7'-10"      | 11'-5 1/4" | 7'-1"       | 13'-4 1/2"  | 6'-5 3/4"   | 15'-3/4"   | 5'-11 1/2"  | 16'-7 1/4" |
| 50 FEET                  | 10'-3/4"    | 11'-3/4"   | 9'-1/4"     | 13'-7 1/4" | 8'-2 1/2"   | 15'-9 1/2"  | 7'-6 1/2"   | 17'-9"     | 6'-11 3/4"  | 19'-6 1/4" |
| 60 FEET                  | 11'-2 1/2"  | 12'-8 3/4" | 10'-3/4"    | 15'-6 1/2" | 9'-2 1/4"   | 17'-11 3/4" | 8'-5 3/4"   | 20'-1 3/4" | 7'-10 1/2"  | 22'-1 1/2" |

INTERMEDIATE RADII CAN BE INTERPOLATED



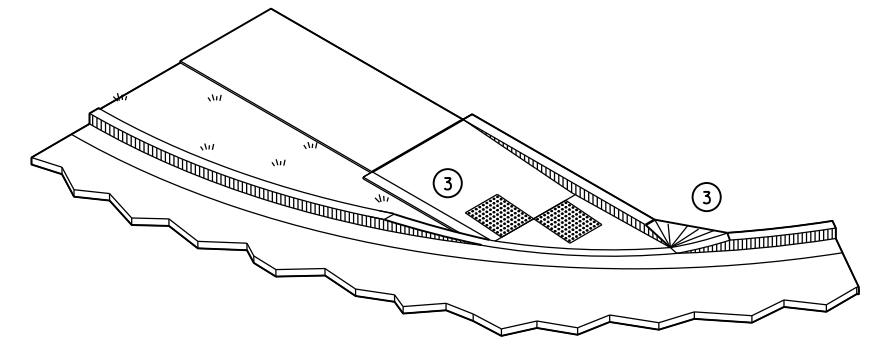
**SECTION C-C FOR TYPE 4B**



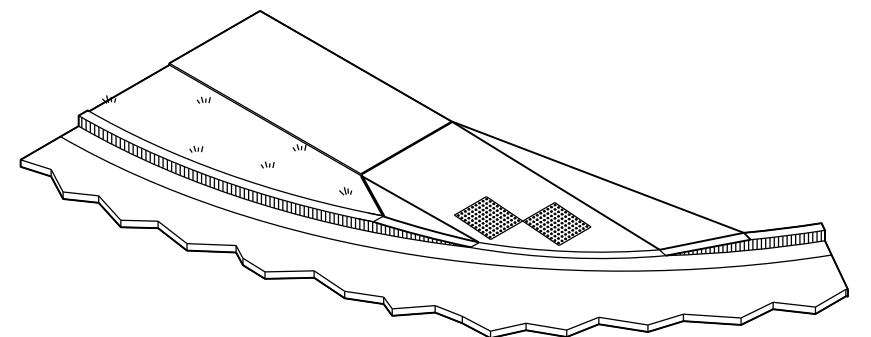
**CURB RAMP TYPE 4B1  
PLAN VIEW**

**GENERAL NOTES**

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



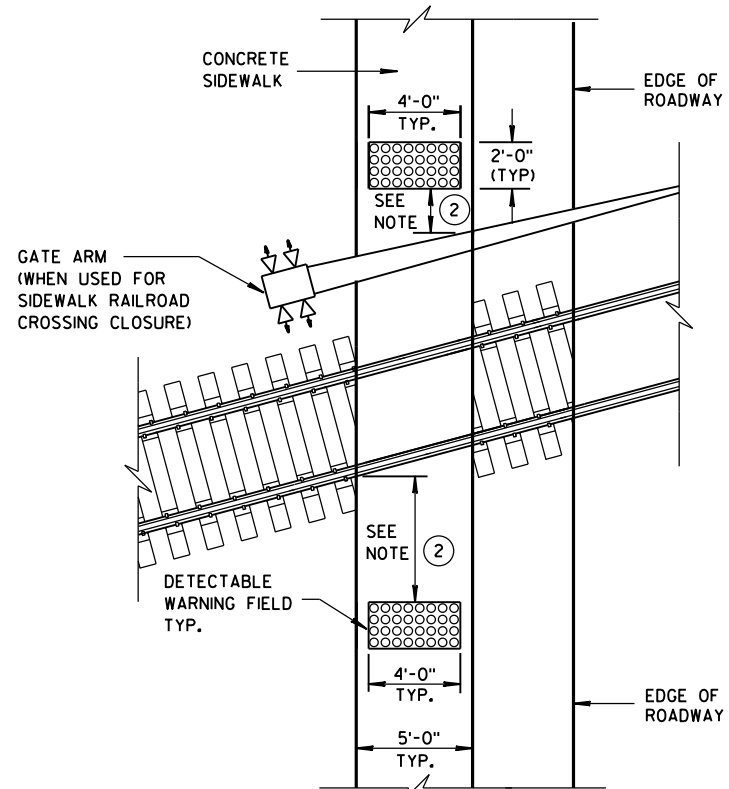
**ISOMETRIC VIEW FOR TYPE 4B**



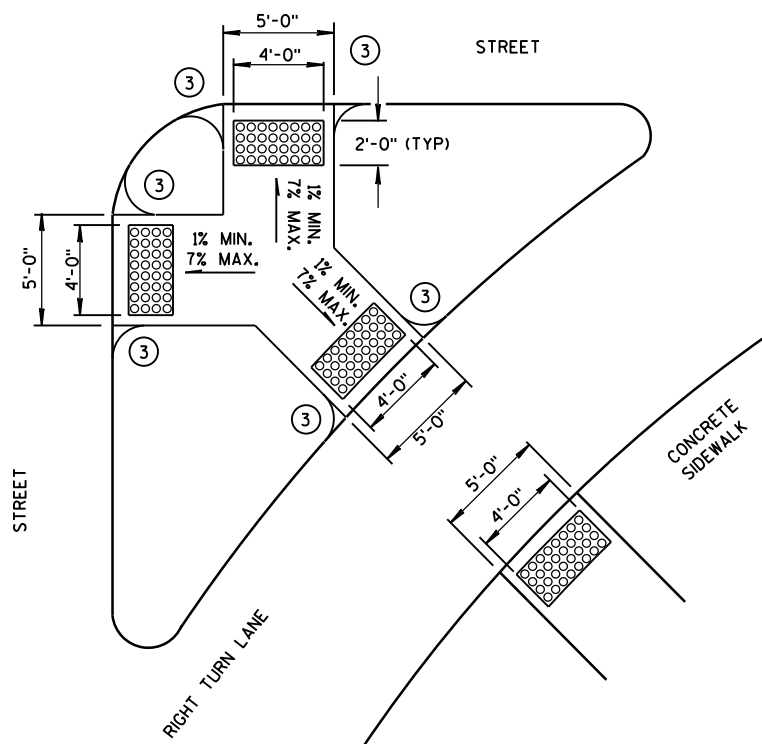
**ISOMETRIC VIEW FOR TYPE 4B1**

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

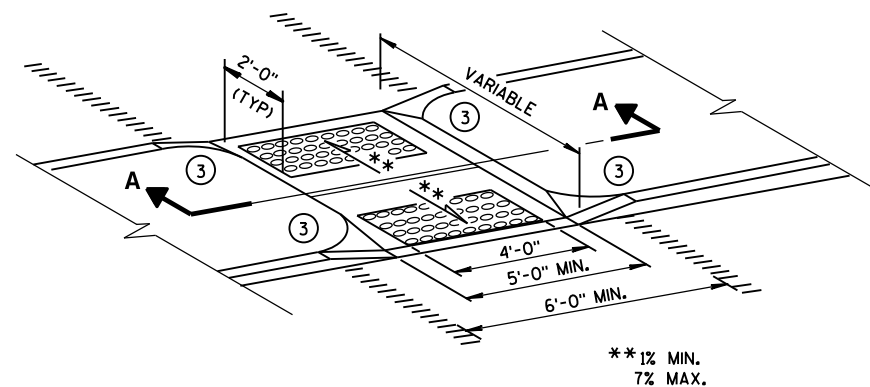
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



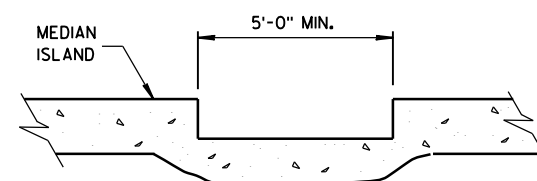
**TYPE 8**  
**DETECTABLE WARNINGS**  
**AT RAILROAD CROSSING**



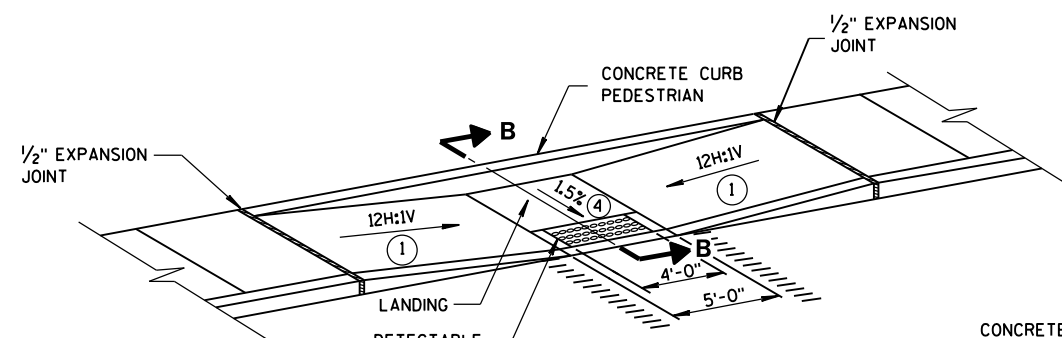
**TYPE 6**  
**DETECTABLE WARNING AT ISLANDS**



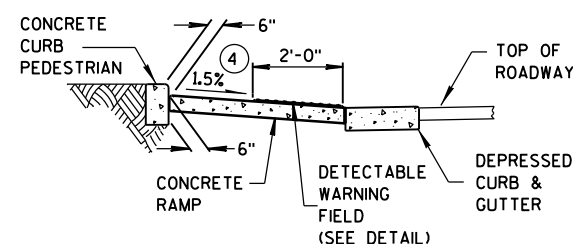
**MEDIAN ISLAND**  
**NON-ELEVATED CROSSING**  
**TYPE 5**



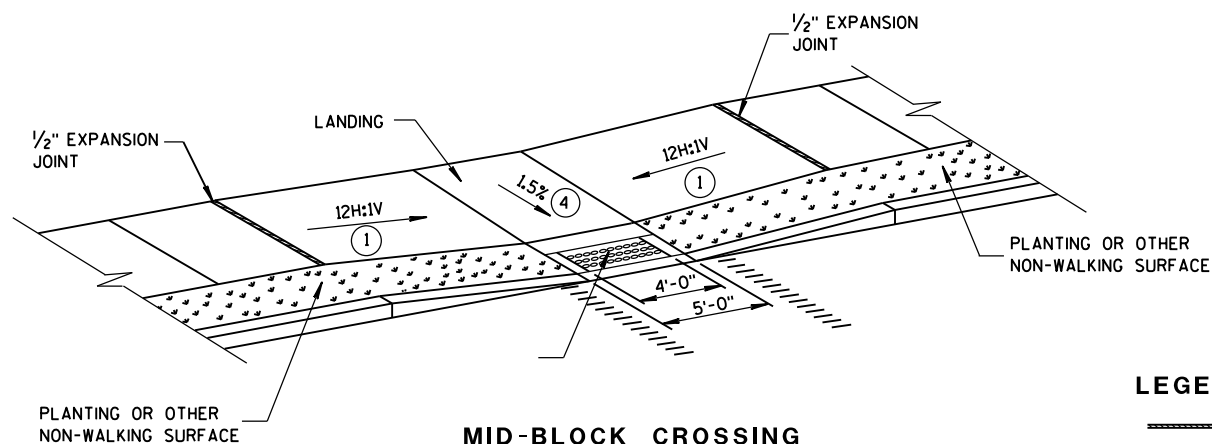
**SECTION A-A**



**MID-BLOCK CROSSING**  
**TYPE 7A**



**SECTION B-B**



**MID-BLOCK CROSSING**  
**TYPE 7B**

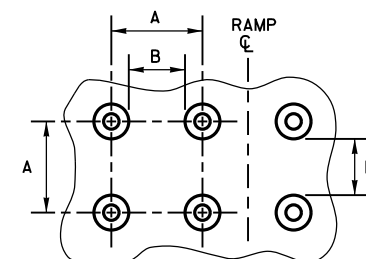
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

## GENERAL NOTES

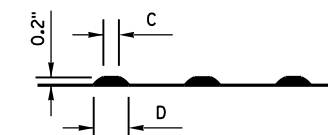
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

- 1 SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- 2 THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET  $\pm$  0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- 3 INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- 4  $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



**PLAN VIEW**



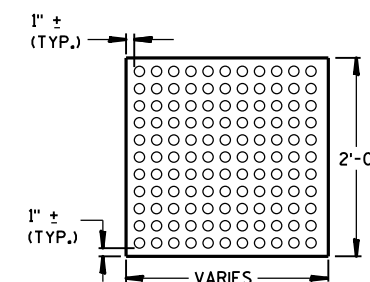
**ELEVATION VIEW**

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

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

## TRUNCATED DOMES

### DETECTABLE WARNING PATTERN DETAIL



**PLAN VIEW**

## DETECTABLE WARNING FIELD (TYPICAL)

## LEGEND

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

## CURB RAMPS

### TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

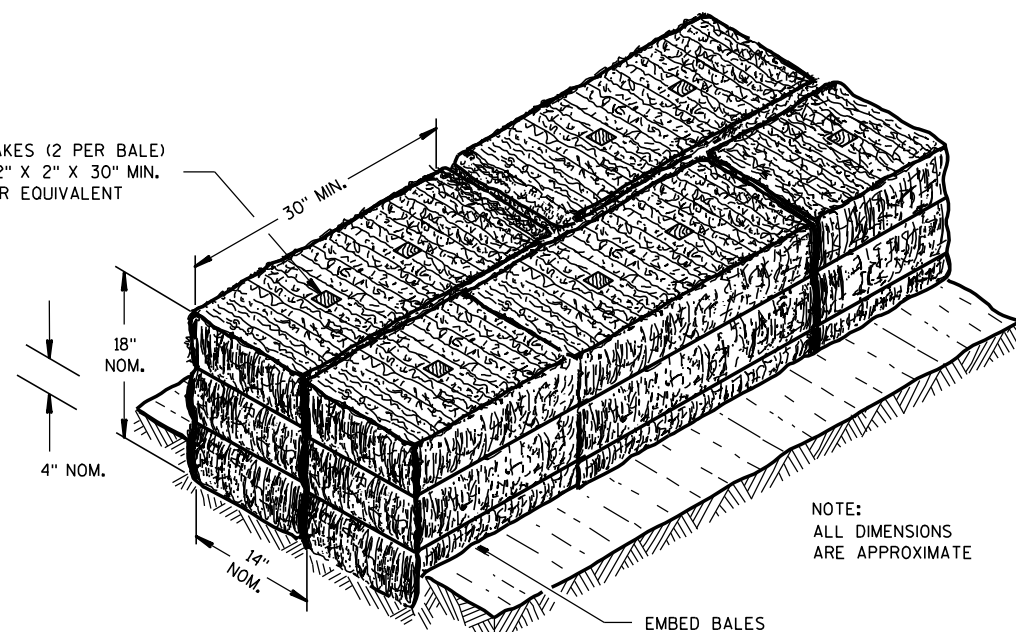
APPROVED

2-6-2013  
DATE

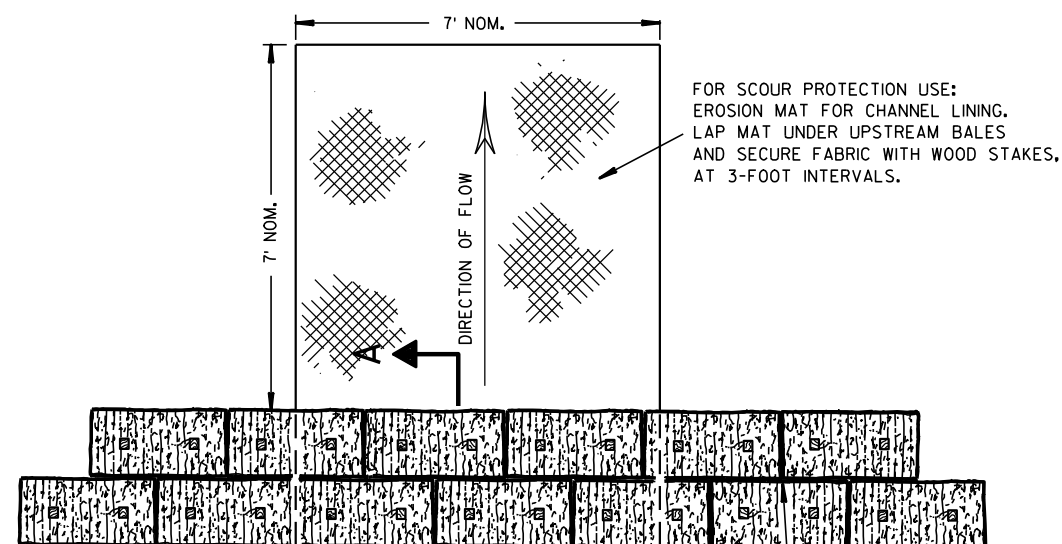
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

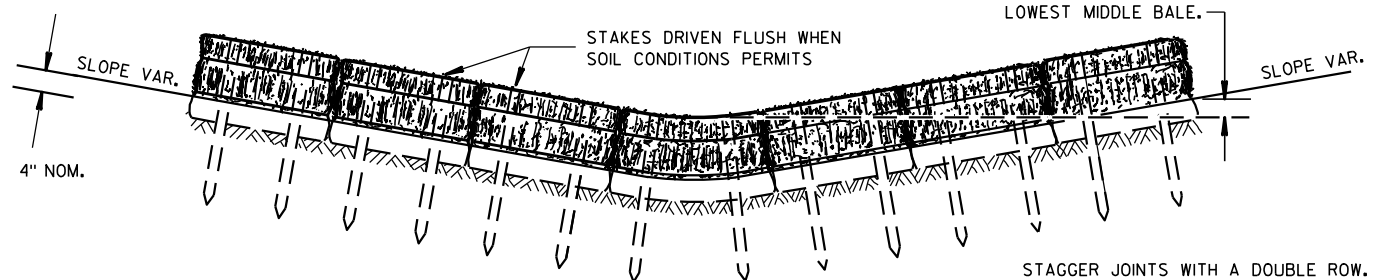
WOOD STAKES (2 PER BALE)  
NOMINAL 2" X 2" X 30" MIN.  
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



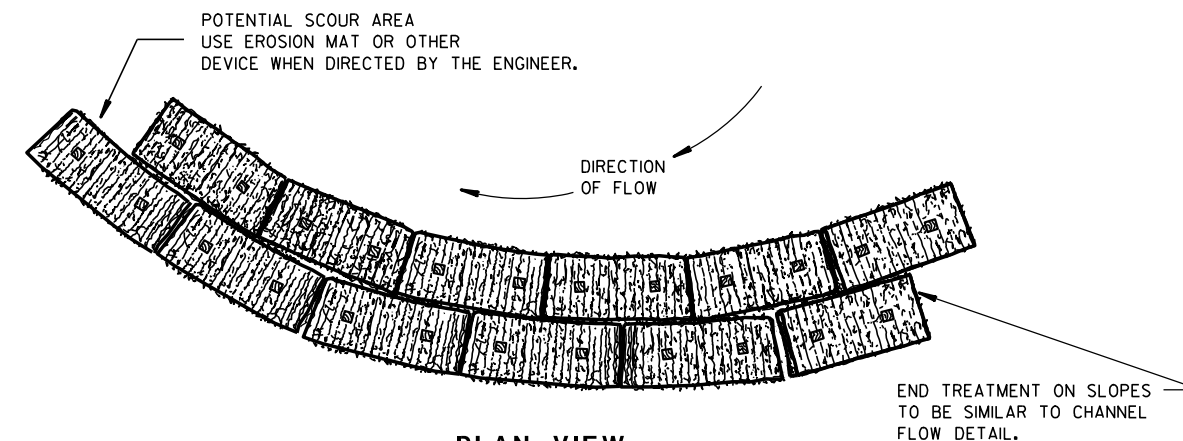
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

## GENERAL NOTES

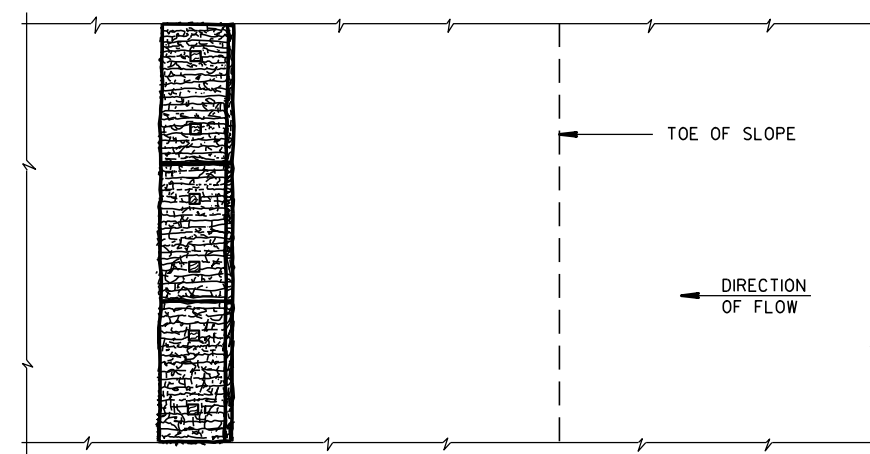
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

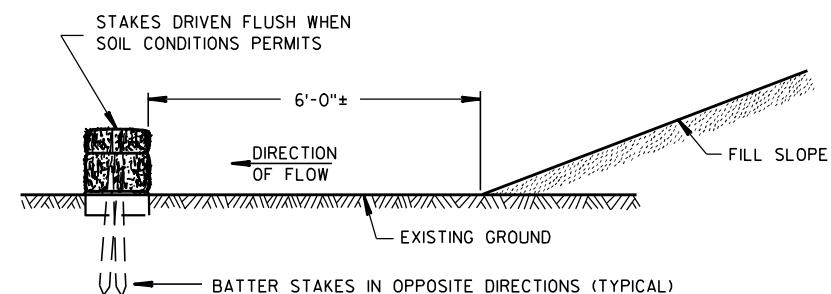


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

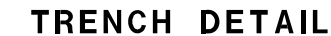
6/04/02  
DATE

FHWA

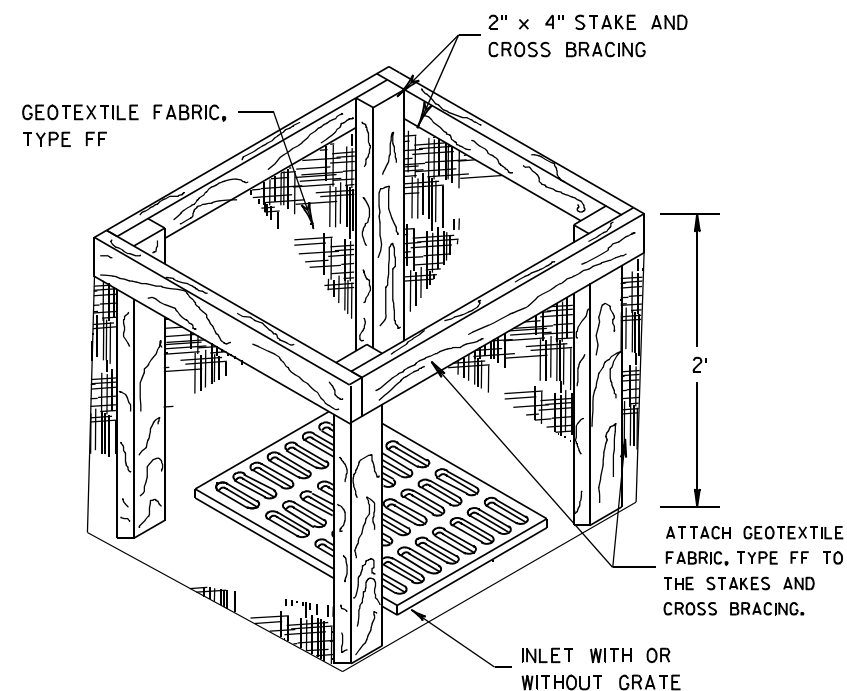
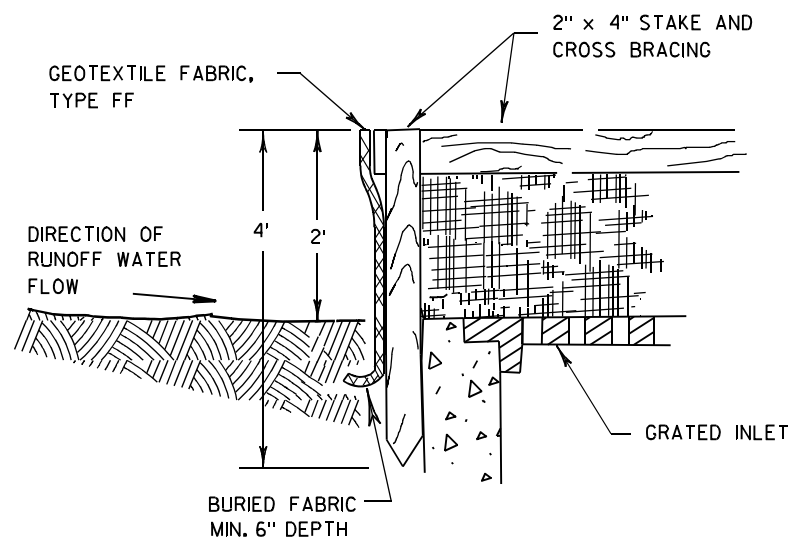
/S/ Beth Canestra  
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



|                                                            |                                                         |
|------------------------------------------------------------|---------------------------------------------------------|
| <b>SILT FENCE</b>                                          |                                                         |
| <b>STATE OF WISCONSIN<br/>DEPARTMENT OF TRANSPORTATION</b> |                                                         |
| <b>APPROVED</b><br>4-29-05<br>DATE                         | /S/ Beth Canestra<br>CHIEF ROADWAY DEVELOPMENT ENGINEER |



**INLET PROTECTION, TYPE A**

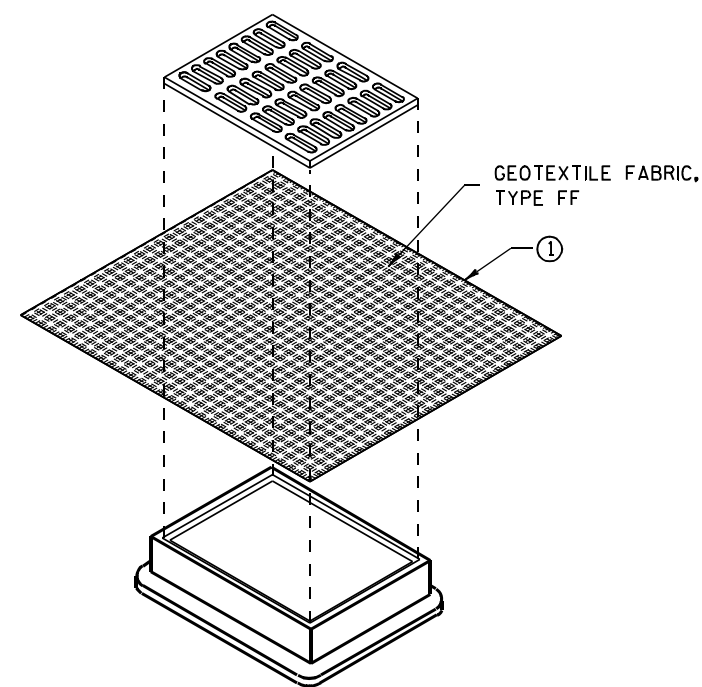
**GENERAL NOTES**

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

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

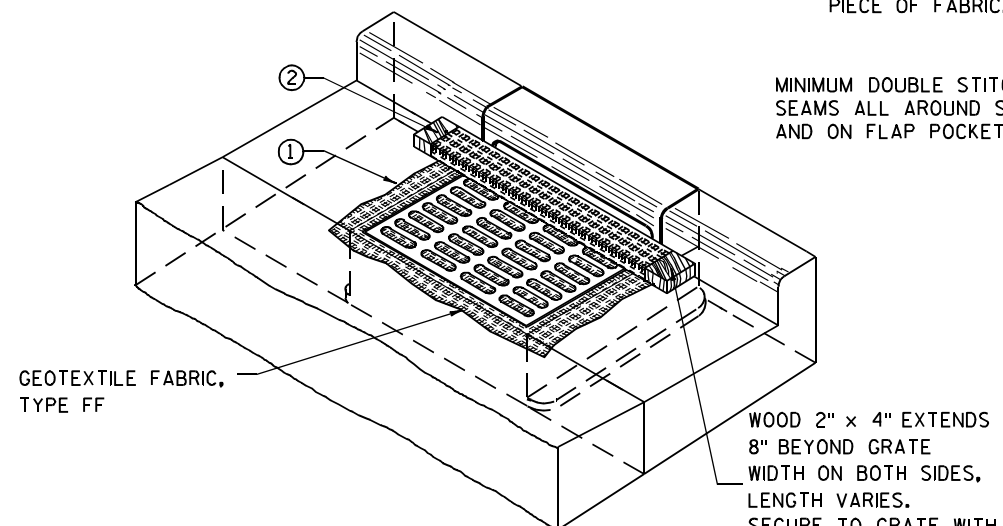
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



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

**INSTALLATION NOTES**

**TYPE B & C**

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

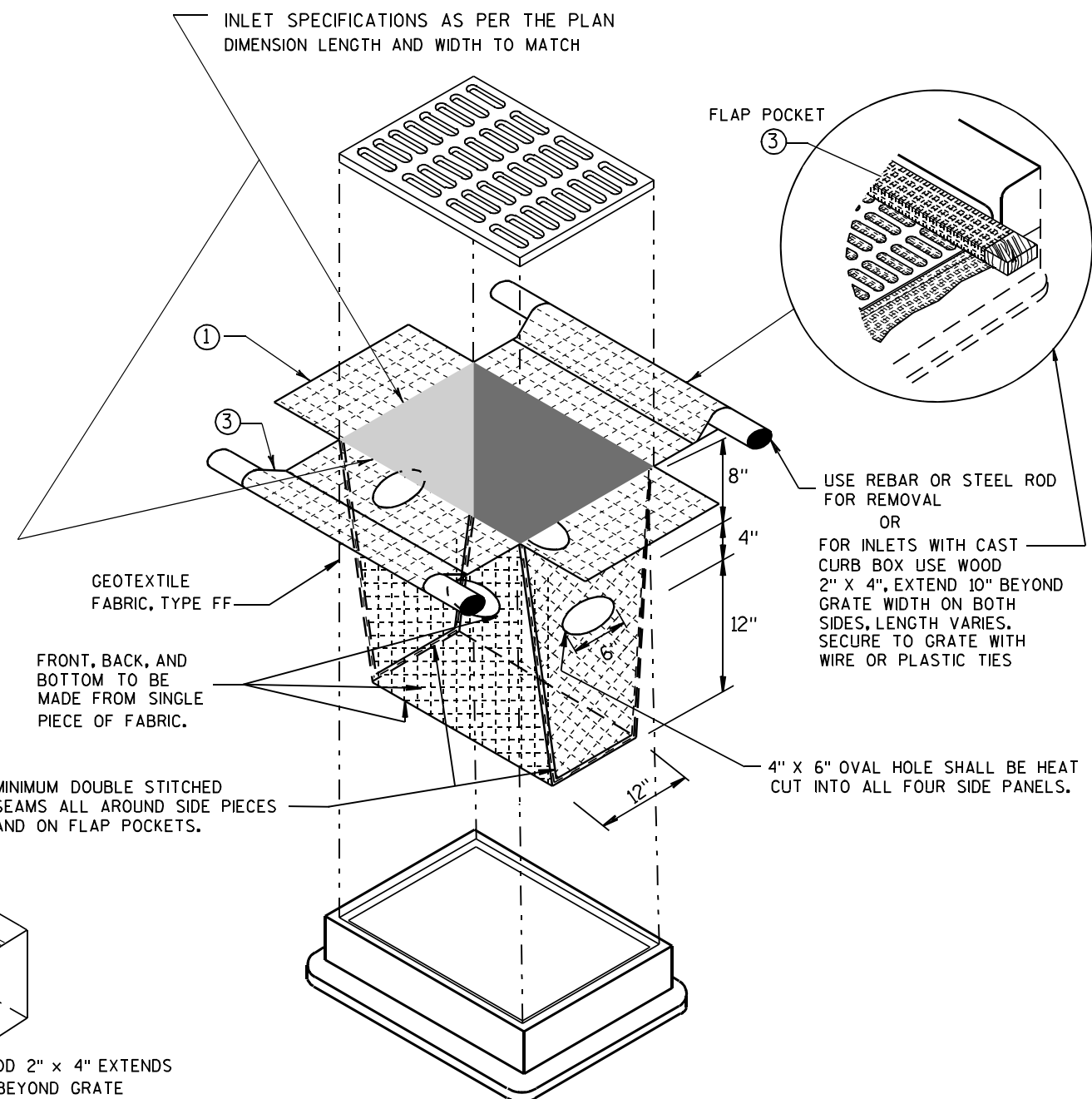
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

**TYPE D**

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

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

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



**INLET PROTECTION, TYPE D**

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

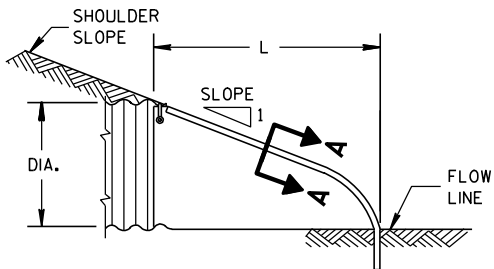
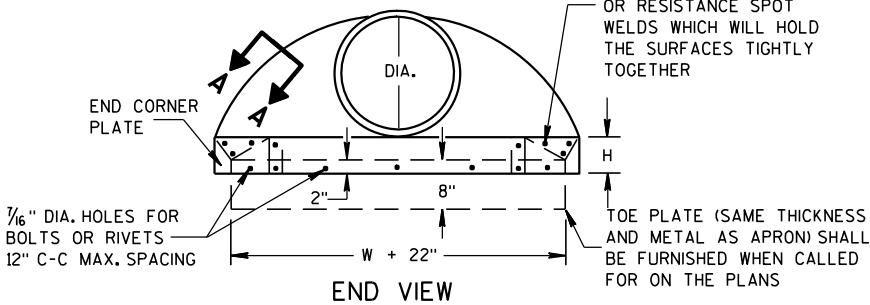
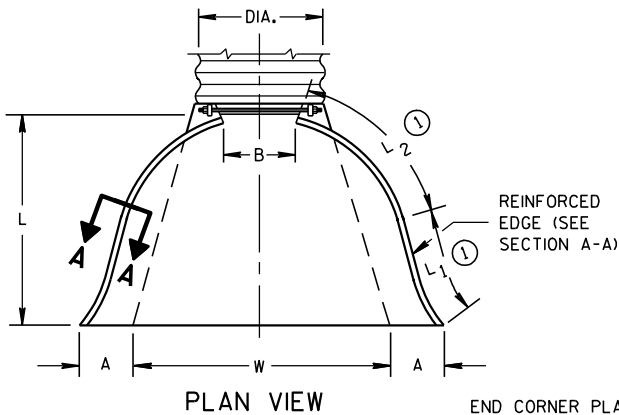
**INLET PROTECTION  
TYPE A, B, C, AND D**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

| METAL APRON ENDWALLS |                         |       |                     |             |            |                |         |         |            |                  |  |       |
|----------------------|-------------------------|-------|---------------------|-------------|------------|----------------|---------|---------|------------|------------------|--|-------|
| PIPE DIA.<br>(IN.)   | MIN. THICK.<br>(Inches) |       | DIMENSIONS (Inches) |             |            |                |         |         |            | APPROX.<br>SLOPE |  | BODY  |
|                      | STEEL                   | ALUM. | A<br>(±1")          | B<br>(MAX.) | H<br>(±1") | L<br>(±1 1/2") | L1<br>① | L2<br>① | W<br>(±2") |                  |  |       |
| 12                   | .064                    | .060  | 6                   | 6           | 6          | 21             | 12      | 17 1/2  | 24         | 2 1/2 to 1       |  | 1 Pc. |
| 15                   | .064                    | .060  | 7                   | 8           | 6          | 26             | 14      | 21 3/4  | 30         | 2 1/2 to 1       |  | 1 Pc. |
| 18                   | .064                    | .060  | 8                   | 10          | 6          | 31             | 15      | 28 1/4  | 36         | 2 1/2 to 1       |  | 1 Pc. |
| 21                   | .064                    | .060  | 9                   | 12          | 6          | 36             | 18      | 29 5/8  | 42         | 2 1/2 to 1       |  | 1 Pc. |
| 24                   | .064                    | .075  | 10                  | 13          | 6          | 41             | 18      | 37 1/4  | 48         | 2 1/2 to 1       |  | 1 Pc. |
| 30                   | .079                    | .075  | 12                  | 16          | 8          | 51             | 18      | 52 1/4  | 60         | 2 1/2 to 1       |  | 1 Pc. |
| 36                   | .079                    | .105  | 14                  | 19          | 9          | 60             | 24      | 59 3/4  | 72         | 2 1/2 to 1       |  | 2 Pc. |
| 42                   | .109                    | .105  | 16                  | 22          | 11         | 69             | 24      | 75 5/8  | 84         | 2 1/2 to 1       |  | 2 Pc. |
| 48                   | .109                    | .105  | 18                  | 27          | 12         | 78             | 24      | 81      | 90         | 2 1/4 to 1       |  | 3 Pc. |
| 54                   | .109                    | .105  | 18                  | 30          | 12         | 84             | 30      | 85 1/2  | 102        | 2 1/4 to 1       |  | 3 Pc. |
| 60                   | .109x                   | .105x | 18                  | 33          | 12         | 87             | —       | —       | 114        | 2 to 1           |  | 3 Pc. |
| 66                   | .109x                   | .105x | 18                  | 36          | 12         | 87             | —       | —       | 120        | 2 to 1           |  | 3 Pc. |
| 72                   | .109x                   | .105x | 18                  | 39          | 12         | 87             | —       | —       | 126        | 2 to 1           |  | 3 Pc. |
| 78                   | .109x                   | .105x | 18                  | 42          | 12         | 87             | —       | —       | 132        | 1 1/2 to 1       |  | 3 Pc. |
| 84                   | .109x                   | .105x | 18                  | 45          | 12         | 87             | —       | —       | 138        | 1 1/2 to 1       |  | 3 Pc. |
| 90                   | .109x                   | .105x | 18                  | 37          | 12         | 87             | —       | —       | 144        | 1 1/2 to 1       |  | 3 Pc. |
| 96                   | .109x                   | .105x | 18                  | 35          | 12         | 87             | —       | —       | 150        | 1 1/2 to 1       |  | 3 Pc. |

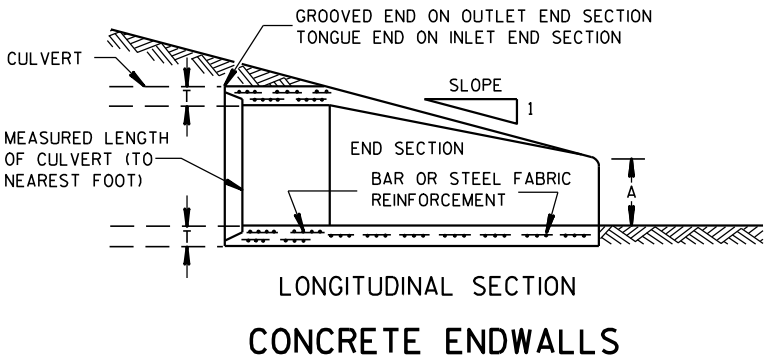
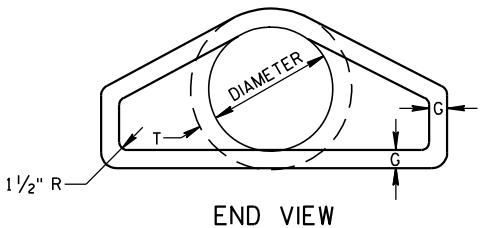
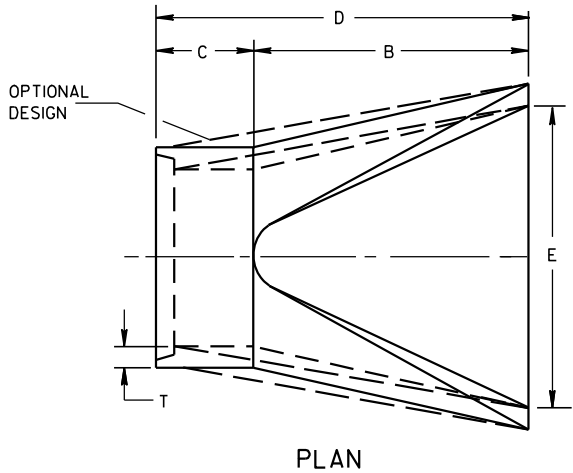
\* EXCEPT CENTER PANEL  
SEE GENERAL NOTES



SIDE ELEVATION  
METAL ENDWALLS

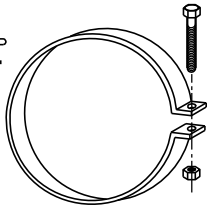
| REINFORCED CONCRETE APRON ENDWALLS |                     |        |        |           |            |     |       |                  |  |  |  |  |
|------------------------------------|---------------------|--------|--------|-----------|------------|-----|-------|------------------|--|--|--|--|
| PIPE DIA.<br>(IN.)                 | DIMENSIONS (Inches) |        |        |           |            |     |       | APPROX.<br>SLOPE |  |  |  |  |
|                                    | T                   | A      | B      | C         | D          | E   | G     |                  |  |  |  |  |
| 12                                 | 2                   | 4      | 24     | 48 7/8    | 72 7/8     | 24  | 2     | 3 to 1           |  |  |  |  |
| 15                                 | 2 1/4               | 6      | 27     | 46        | 73         | 30  | 2 1/4 | 3 to 1           |  |  |  |  |
| 18                                 | 2 1/2               | 9      | 27     | 46        | 73         | 36  | 2 1/2 | 3 to 1           |  |  |  |  |
| 21                                 | 2 3/4               | 9      | 36     | 37 1/2    | 73 1/2     | 42  | 2 3/4 | 3 to 1           |  |  |  |  |
| 24                                 | 3                   | 9 1/2  | 43 1/2 | 30        | 73 1/2     | 48  | 3     | 3 to 1           |  |  |  |  |
| 27                                 | 3 1/4               | 10 1/2 | 49 1/2 | 24        | 73 1/2     | 54  | 3 1/4 | 3 to 1           |  |  |  |  |
| 30                                 | 3 1/2               | 12     | 54     | 19 3/4    | 73 1/2     | 60  | 3 1/2 | 3 to 1           |  |  |  |  |
| 36                                 | 4                   | 15     | 63     | 34 3/4    | 97 3/4     | 72  | 4     | 3 to 1           |  |  |  |  |
| 42                                 | 4 1/2               | 21     | 63     | 35        | 98         | 78  | 4 1/2 | 3 to 1           |  |  |  |  |
| 48                                 | 5                   | 24     | 72     | 26        | 98         | 84  | 5     | 3 to 1           |  |  |  |  |
| 54                                 | 5 1/2               | 27     | 65     | 33 1/4-35 | 98 1/4-100 | 90  | 5 1/2 | 2 2/5 to 1       |  |  |  |  |
| 60                                 | 6                   | 30-35  | 60     | 39        | 99         | 96  | 5     | 2 to 1           |  |  |  |  |
| 66                                 | 6 1/2               | 24-30  | 72-78  | 21-27     | 99         | 102 | 5 1/2 | 2 to 1           |  |  |  |  |
| 72                                 | 7                   | 24-36  | 78     | 21        | 99         | 108 | 6     | 2 to 1           |  |  |  |  |
| 78                                 | 7 1/2               | 24-36  | 78     | 21        | 99         | 114 | 6 1/2 | 2 to 1           |  |  |  |  |
| 84                                 | 8                   | 36     | 90 1/2 | 21        | 111 1/2    | 120 | 6 1/2 | 1 1/2 to 1       |  |  |  |  |
| 90                                 | 8 1/2               | 41     | 87 1/2 | 24        | 111 1/2    | 132 | 6 1/2 | 1 1/2 to 1       |  |  |  |  |

\* MINIMUM  
\*\* MAXIMUM

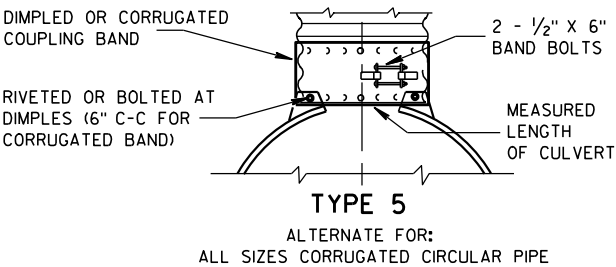
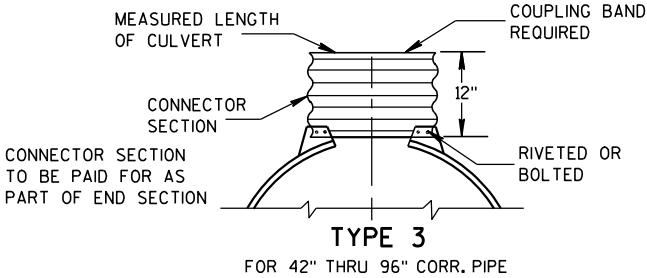
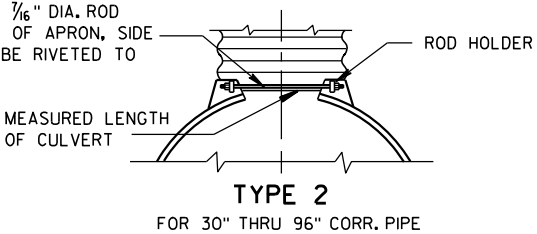
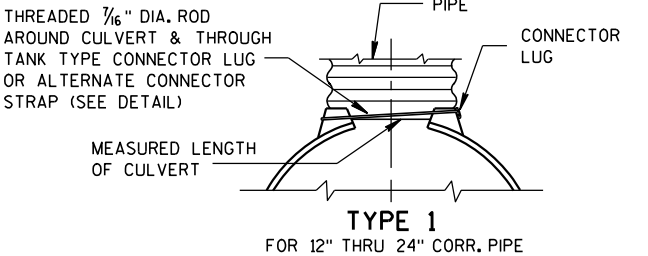


LONGITUDINAL SECTION  
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION  
END SECTION CONNECTOR STRAP



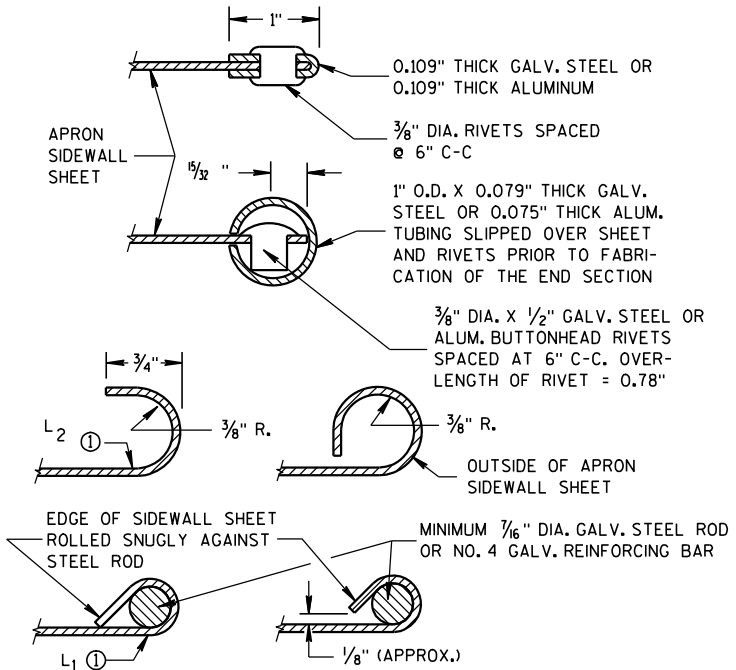
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

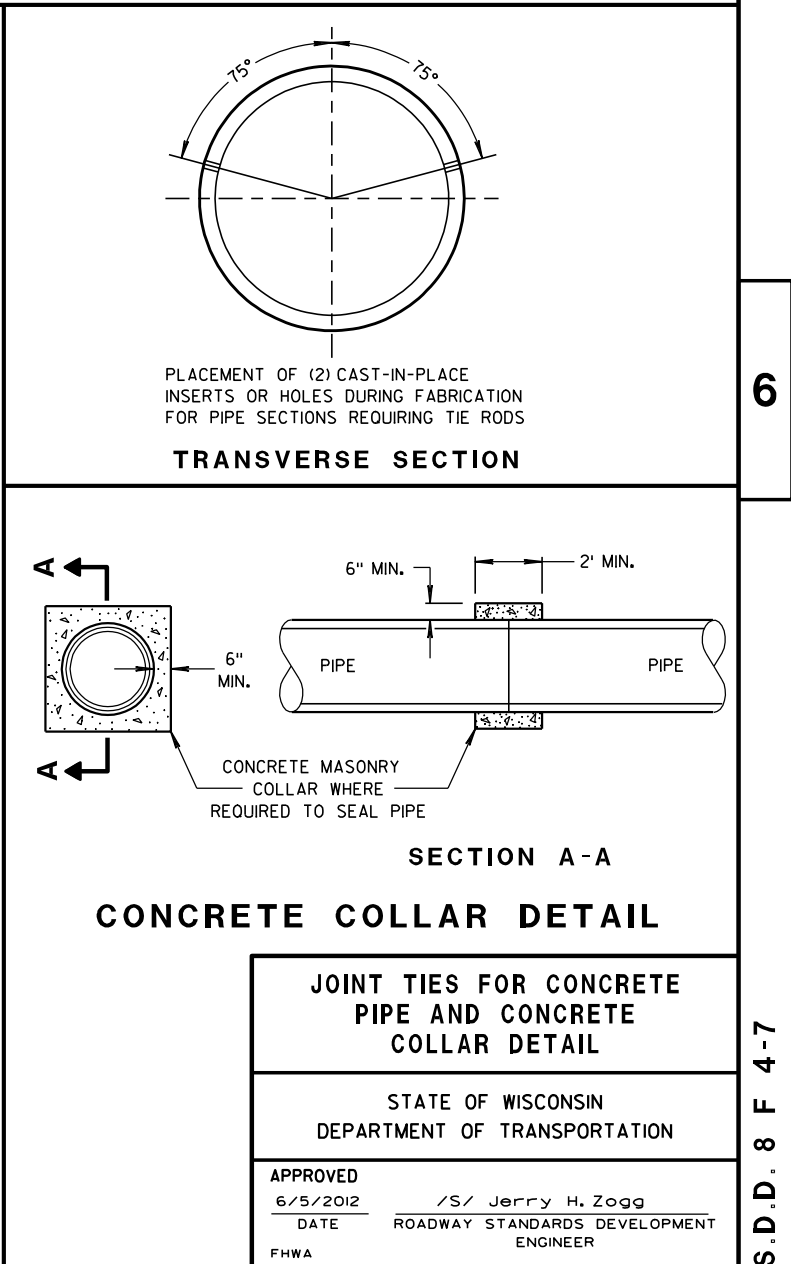
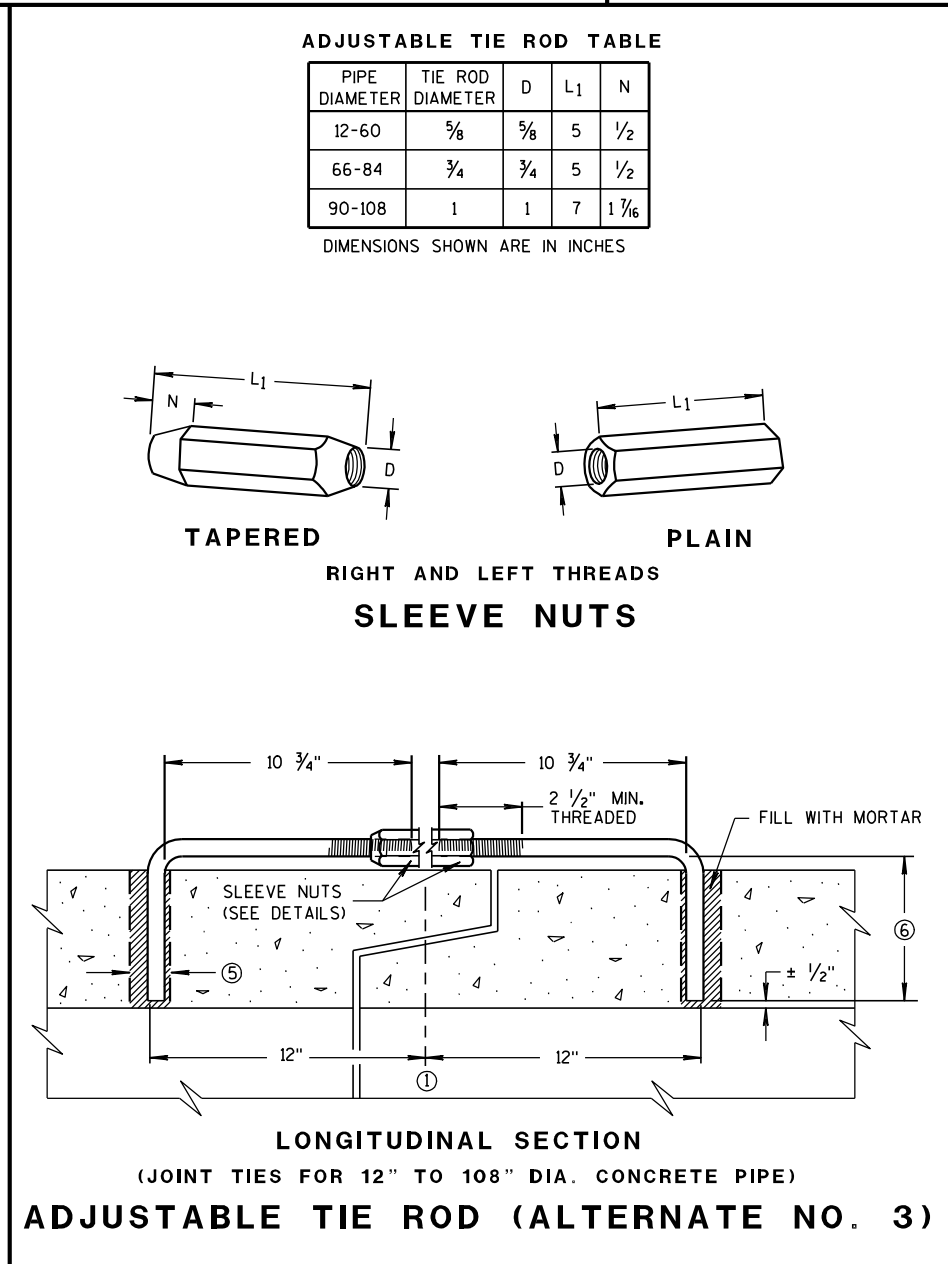
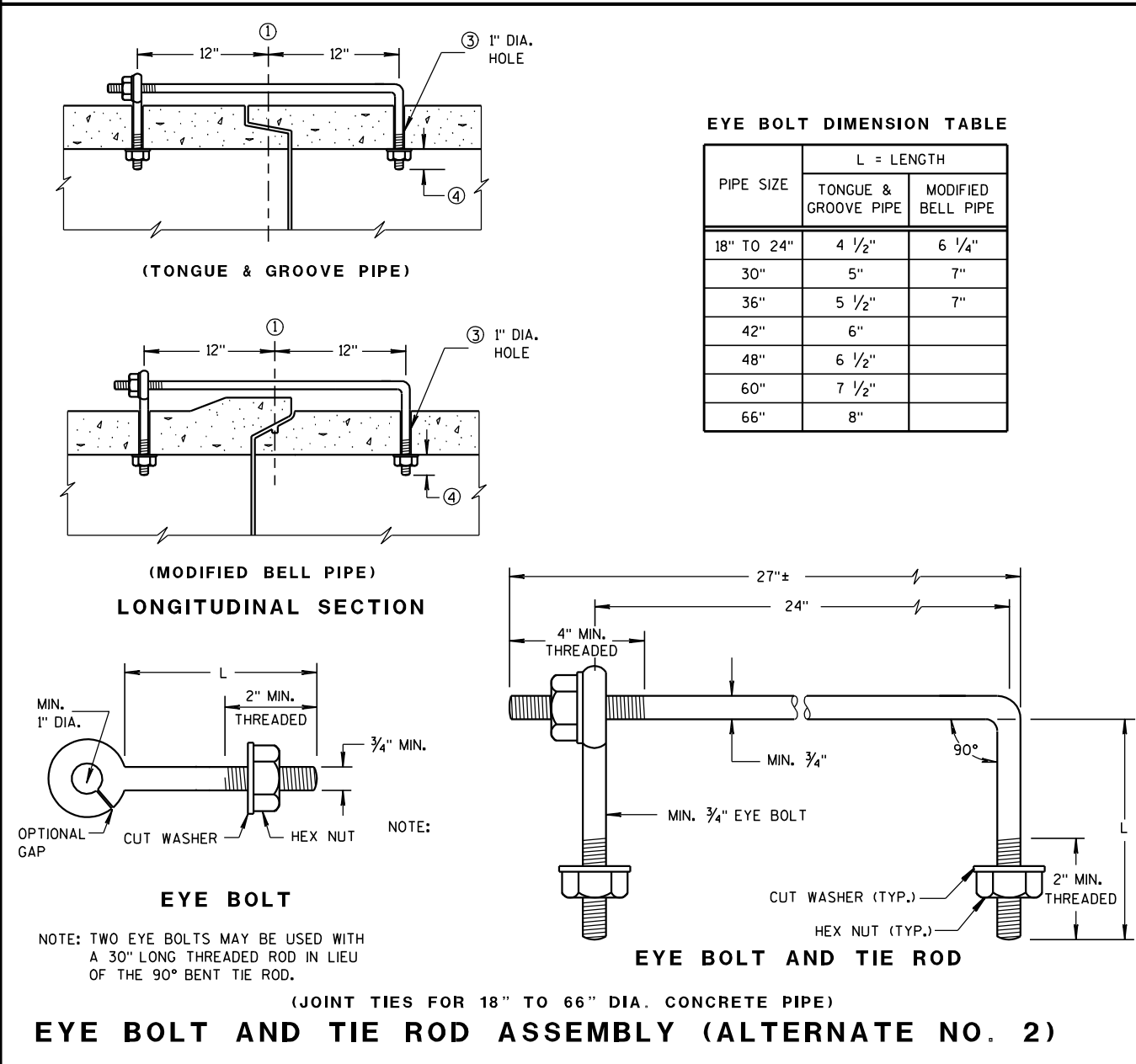
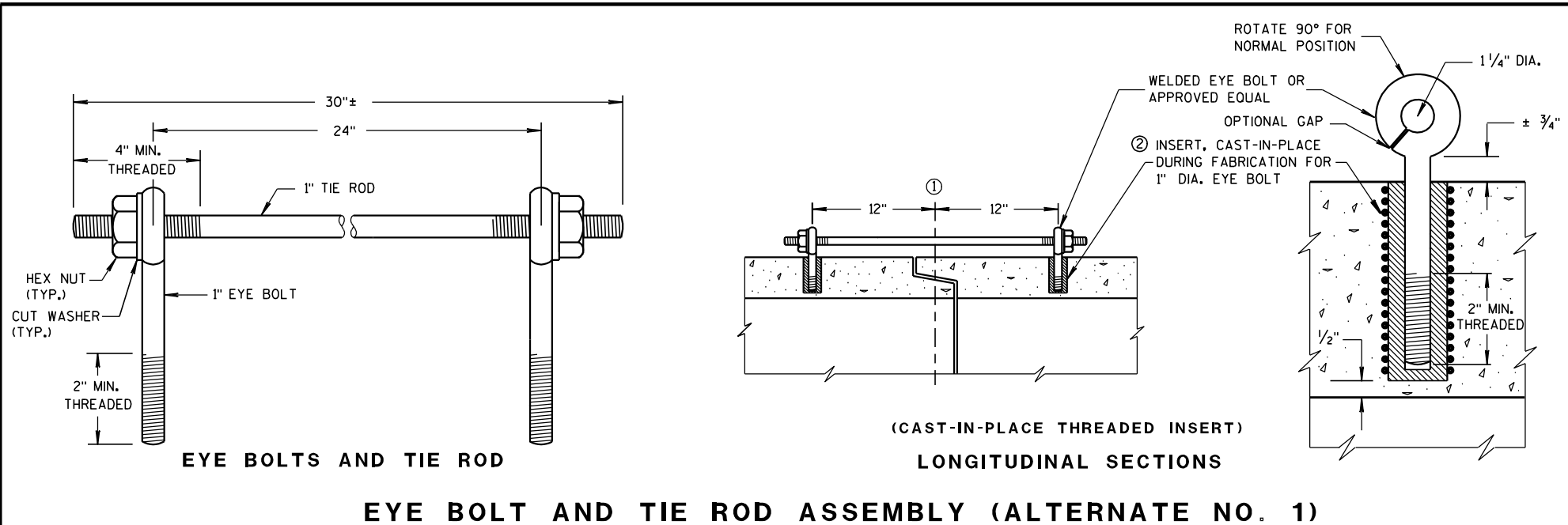
GENERAL NOTES

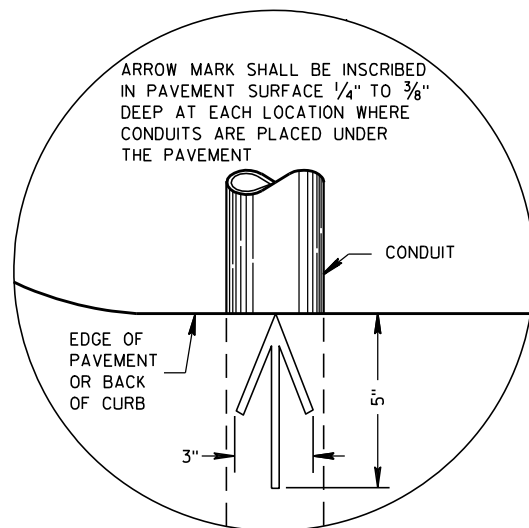
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.
- ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.
- LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.
- WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.
- ① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR  
CULVERT PIPE

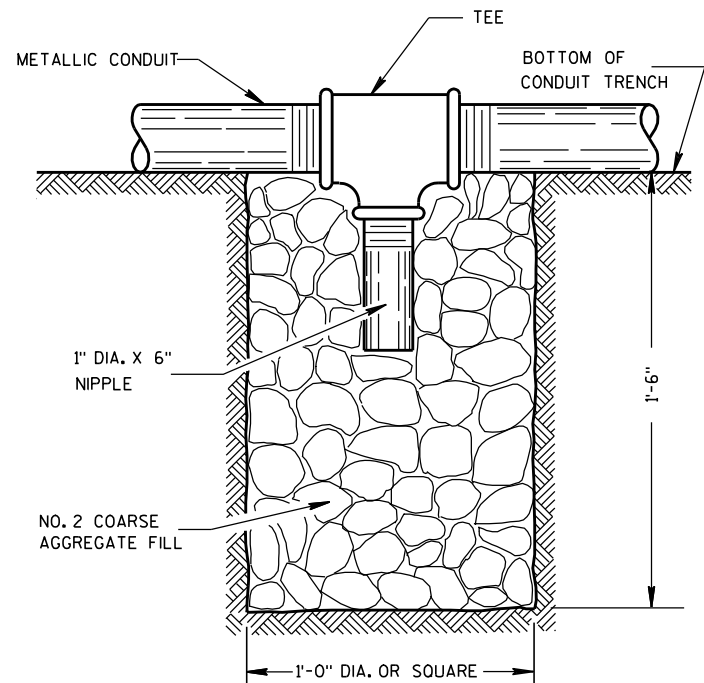
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/30/94  
DATE  
/S/ Rory L. Rhinesmith  
CHIEF ROADWAY DEVELOPMENT ENGINEER  
FHWA



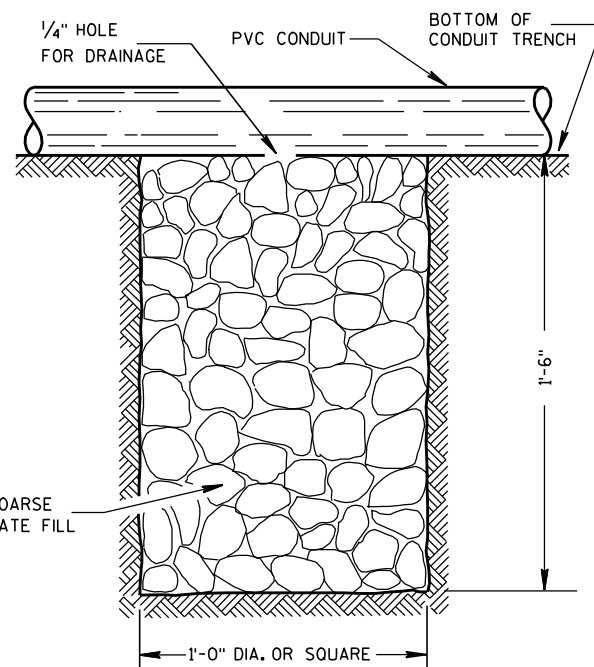


PLAN VIEW  
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

## GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

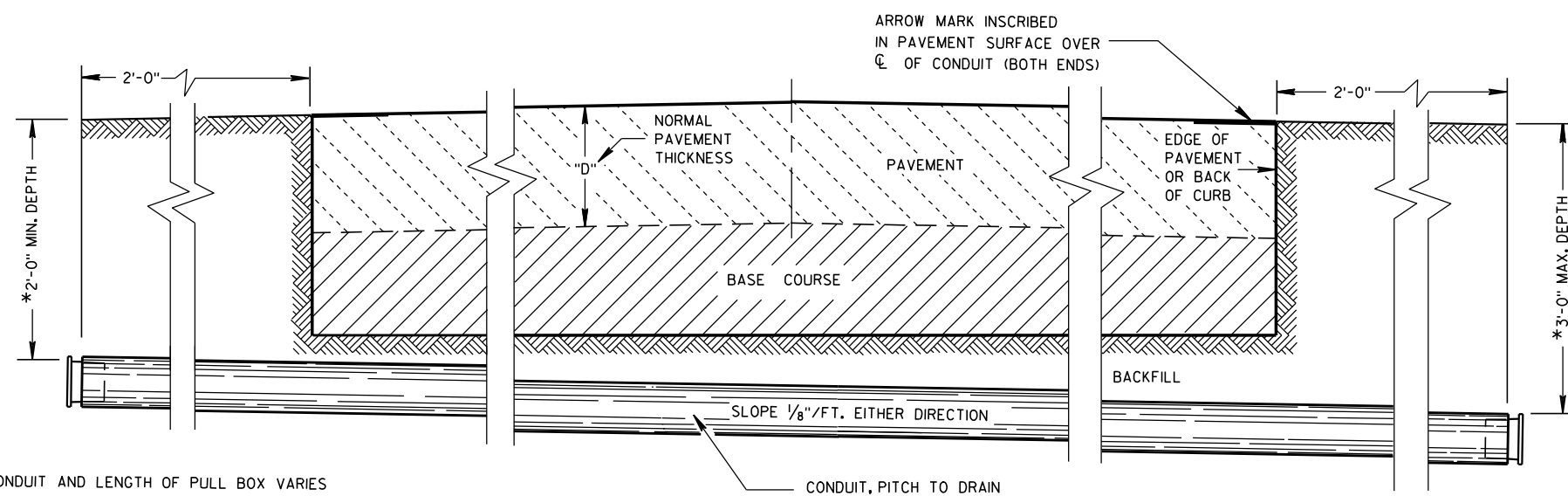
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

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



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

SIDE ELEVATION  
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

## CONDUIT

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

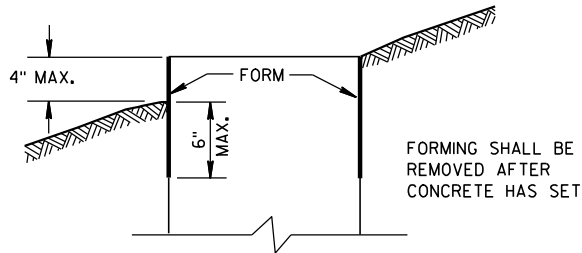
10/23/03

DATE

FHWA

/S/ Balu Ananthanarayanan  
STATE ELECTRICAL ENGINEER FOR HWYS

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



### FORMING DETAIL

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

### GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

### GENERAL NOTES (CONTINUED)

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

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

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

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

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

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD, ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

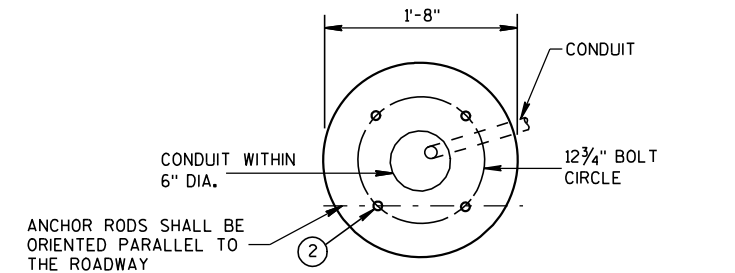
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

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

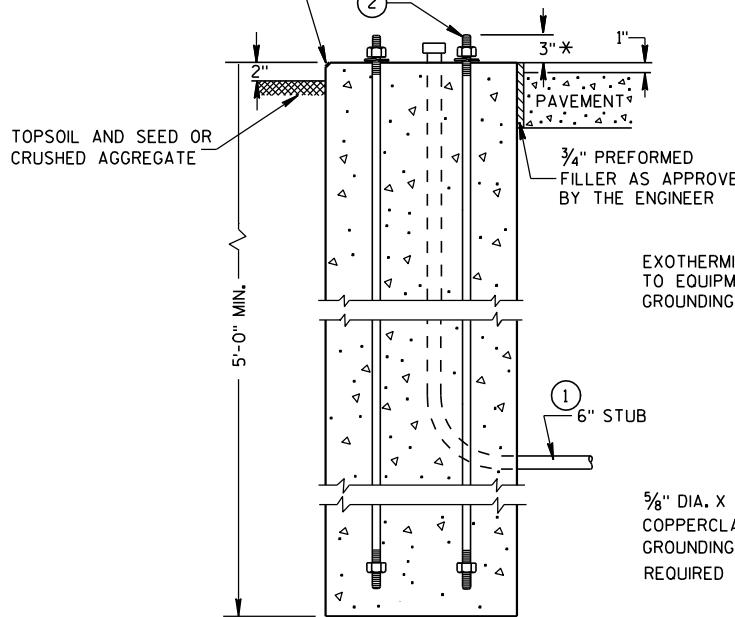
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

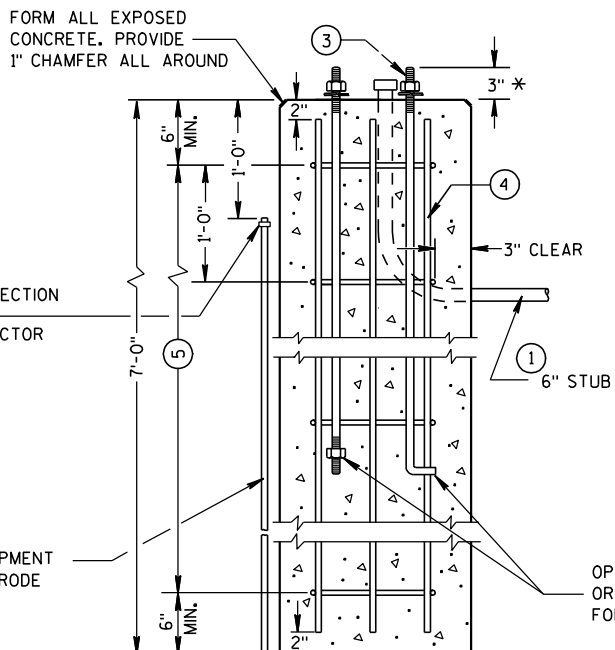
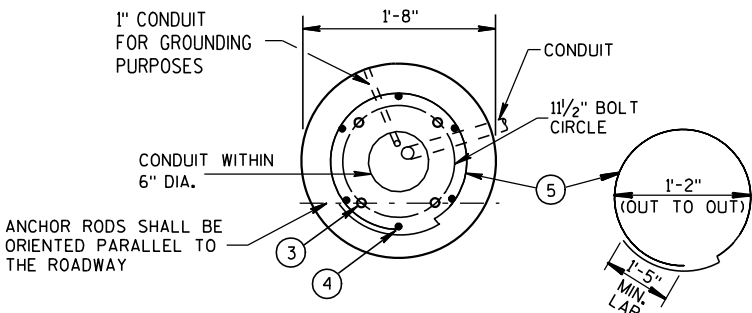
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.
- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
- 4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
- 6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



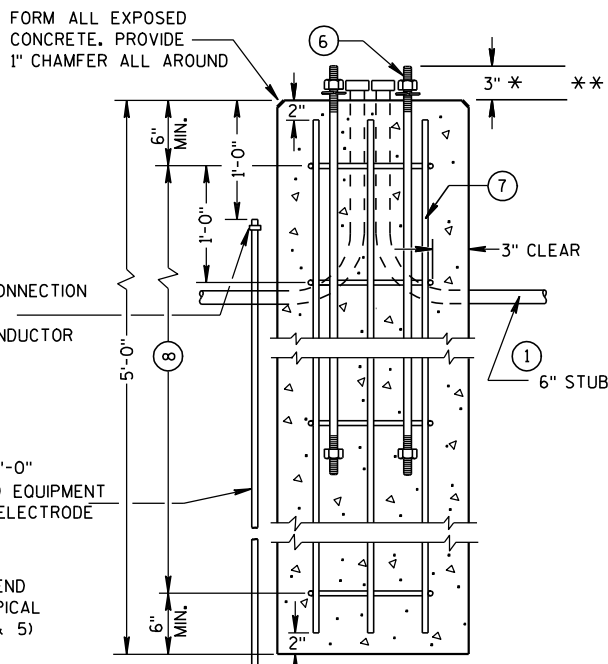
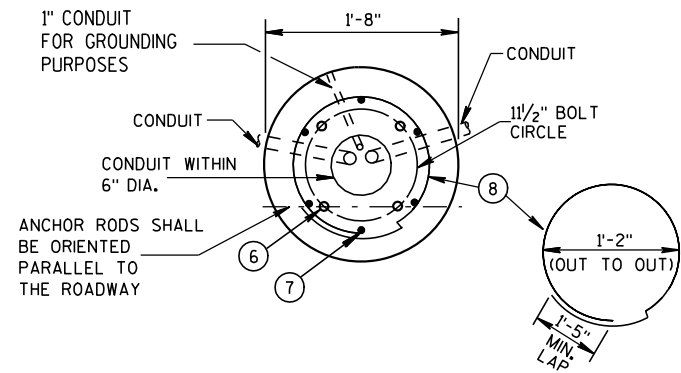
#### HALF SECTION IN UNPAVED AREA (TYPICAL FOR TYPES 1, 2 & 5)



TYPE 1



TYPE 2



TYPE 5

### CONCRETE BASES

\* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

\*\* FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/3/10

DATE

FHWA

/S/ Joanna L. Bush  
STATE ELECTRICAL ENGINEER FOR HWYS

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

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 AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

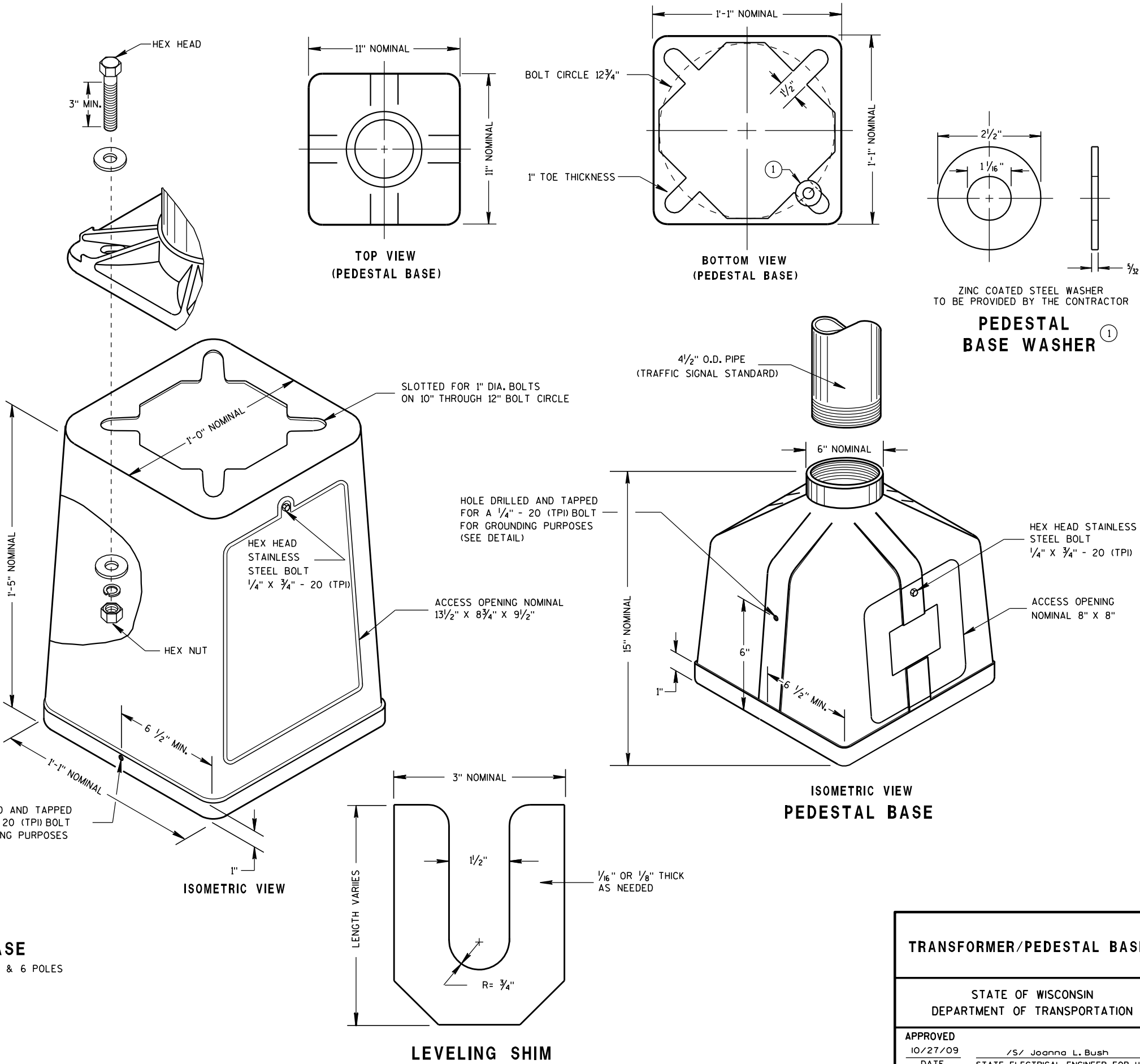
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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.

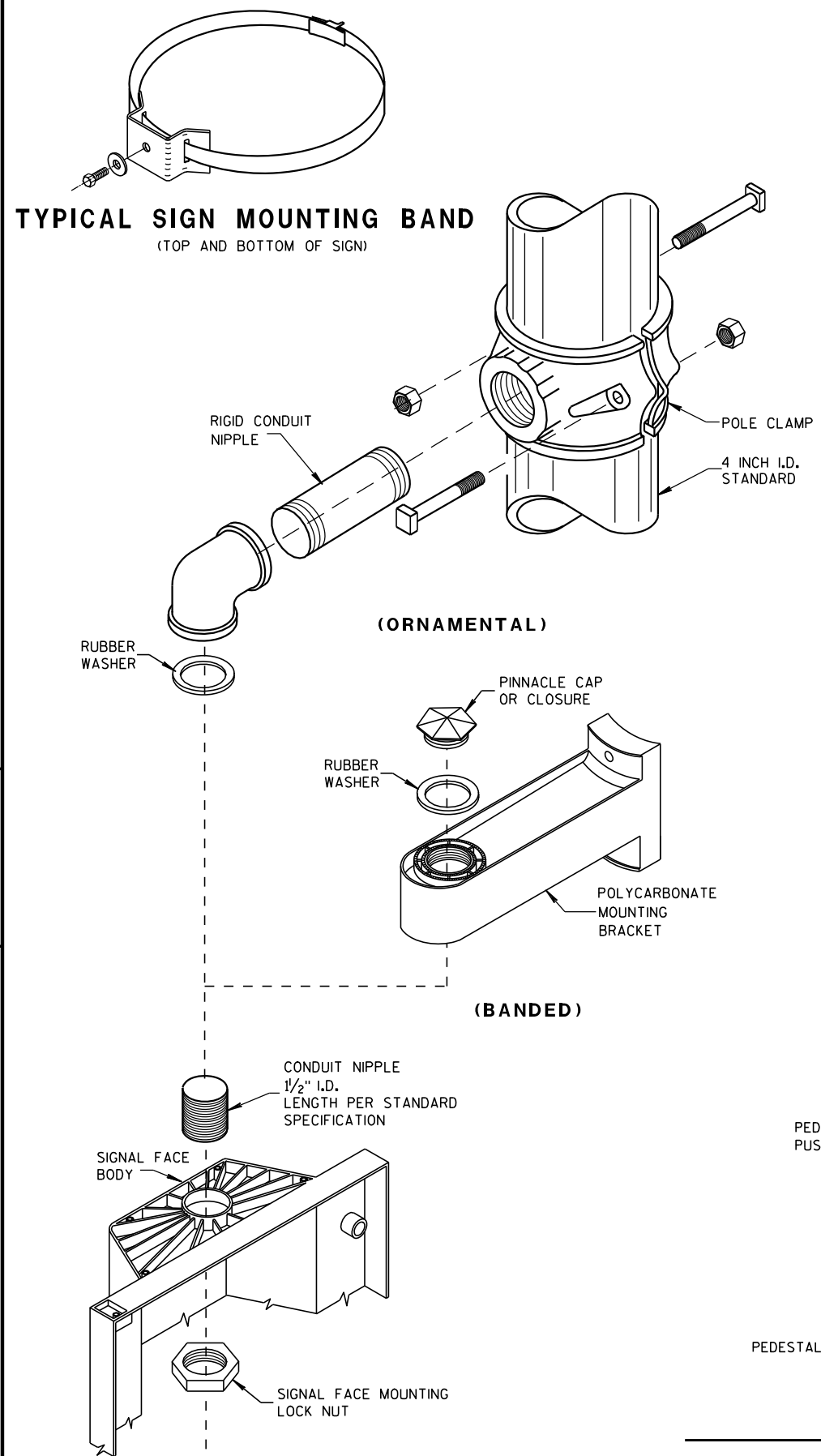
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



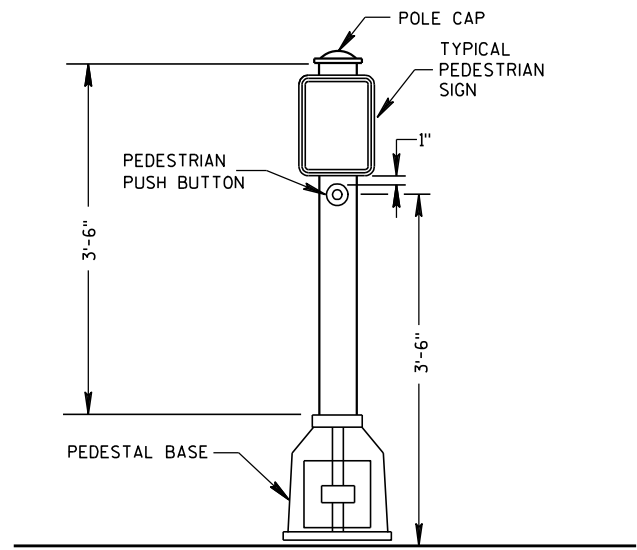
TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

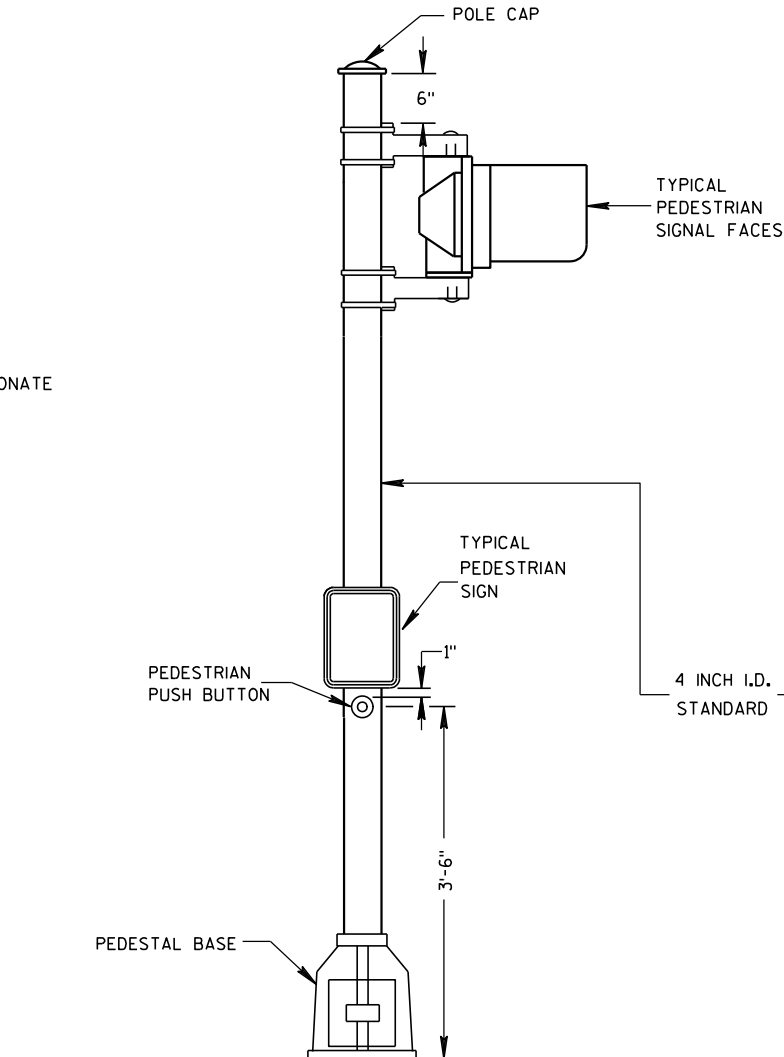
APPROVED  
10/27/09  
DATE /S/ Joanna L. Bush  
STATE ELECTRICAL ENGINEER FOR HWYS  
FHWA



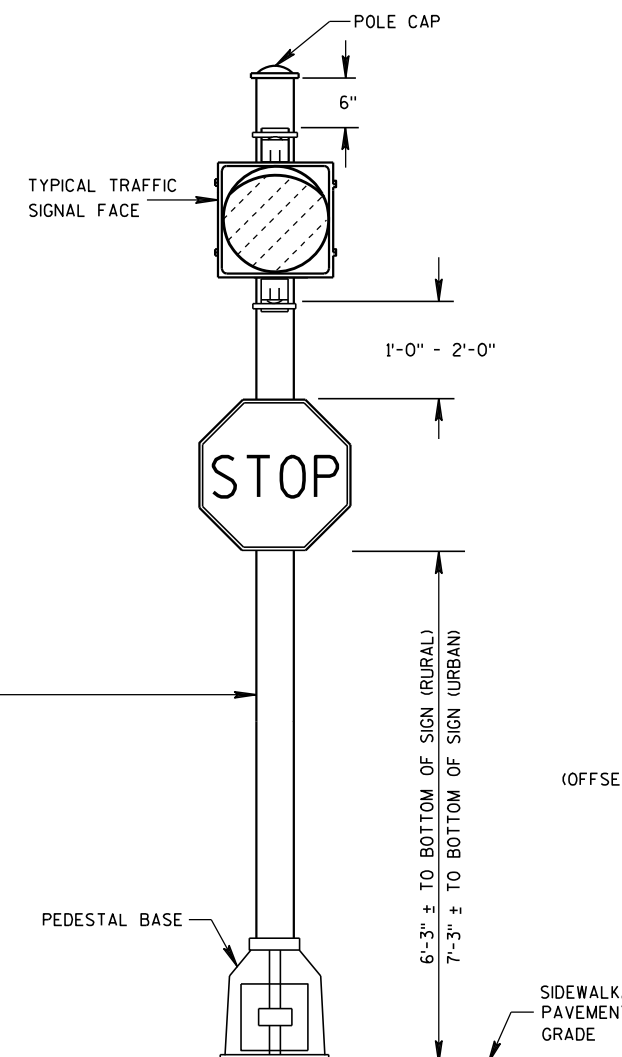
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON  
TYPICAL MOUNTING



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



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

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

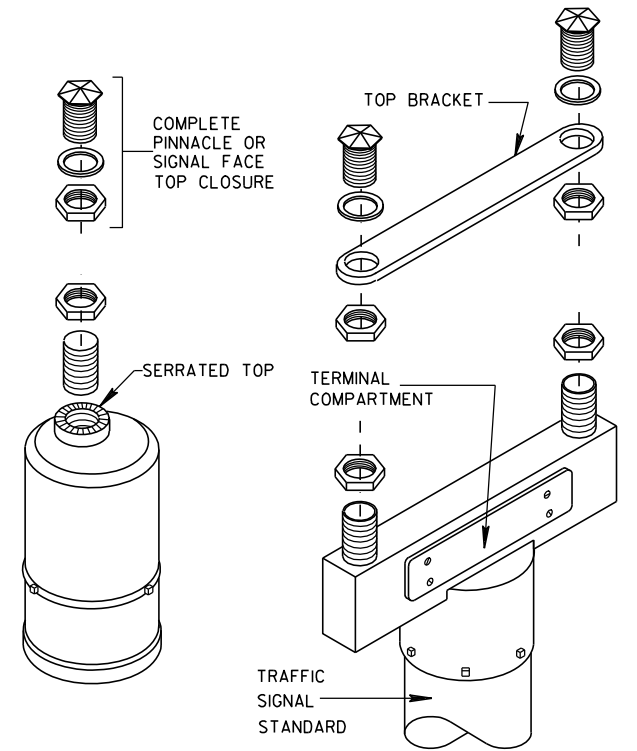
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

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

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

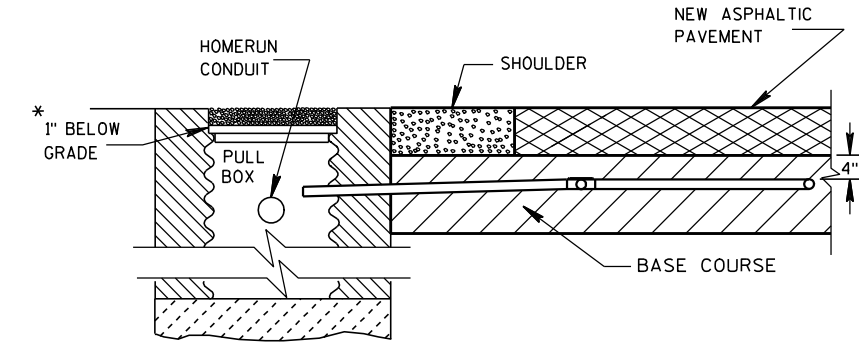
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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



SLIPFITTERS

|                                                                               |                                                       |
|-------------------------------------------------------------------------------|-------------------------------------------------------|
| TRAFFIC SIGNAL STANDARD<br>PEDESTRIAN AND FLASHER<br>TYPICAL MOUNTING DETAILS |                                                       |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION                            |                                                       |
| APPROVED<br>5/11/10<br>DATE                                                   | /S/ John Corbin<br>STATE ELECTRICAL ENGINEER FOR HWYS |
| FHWA                                                                          |                                                       |



SECTION A-A  
NO CURB & GUTTER

### DETECTOR LOOP INSTALLATION DETAIL

\*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

### GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

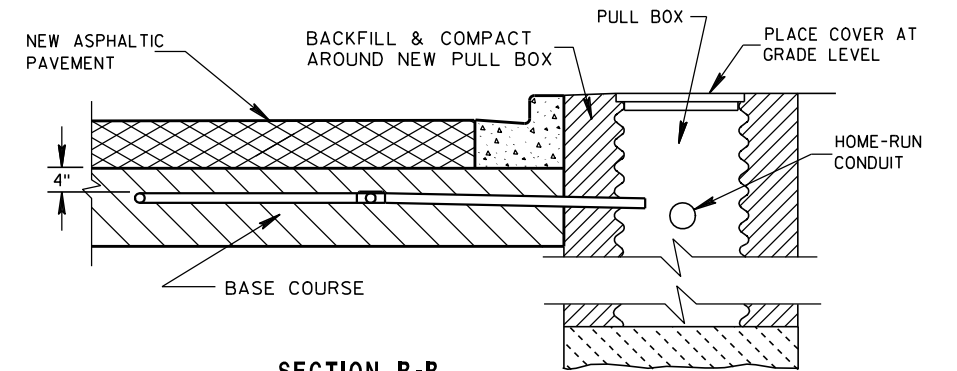
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

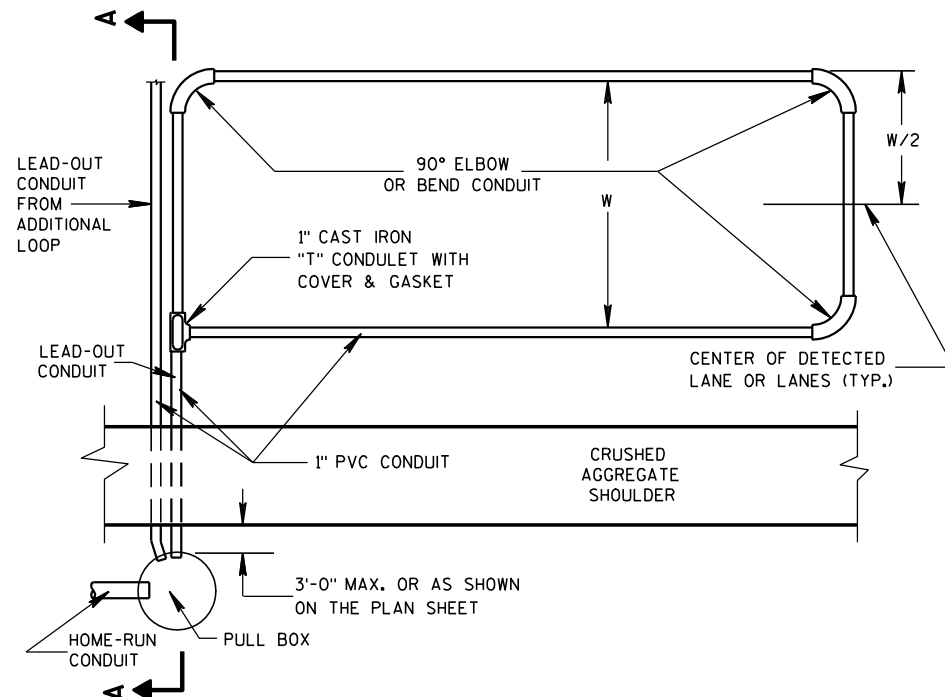
SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

DRIVE A 1 1/2" MAX. PK NAIL INTO THE NEW ASPHALTIC PAVEMENT AND DIRECTLY ABOVE THE CONDULET AFTER THE FINAL LAYER OF NEW ASPHALTIC PAVEMENT IS COMPLETELY INSTALLED, IF REQUIRED BY THE DISTRICT TRAFFIC SECTION.

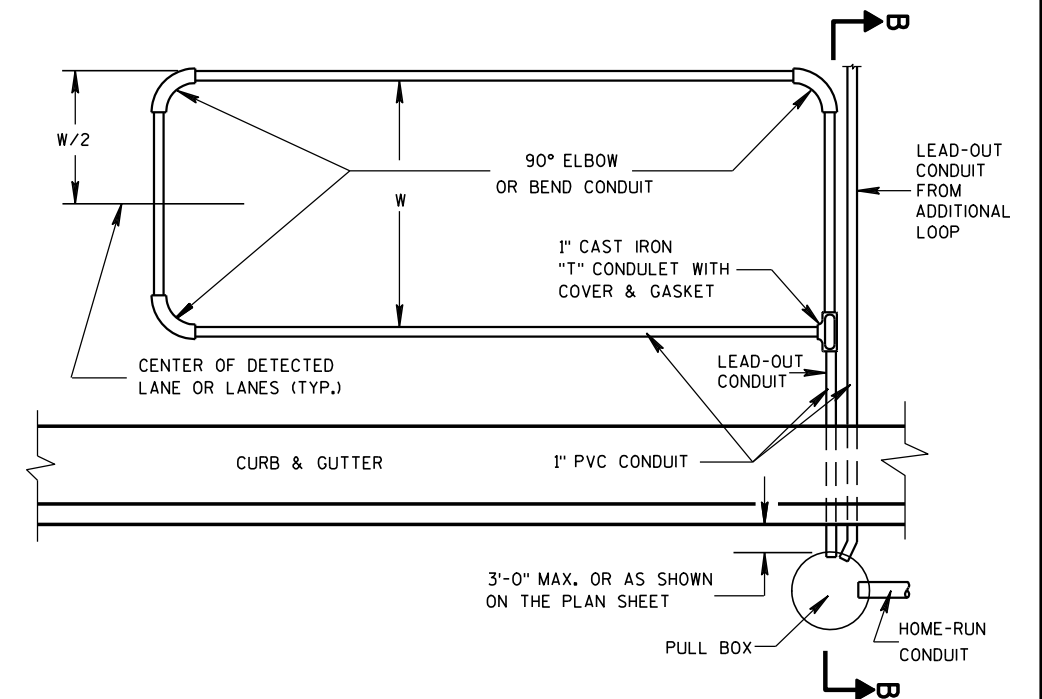


SECTION B-B  
CURB & GUTTER

### LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED  
IN CRUSHED AGGREGATE BASE  
(NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

6/7/06  
DATE

FHWA

/S/ Balu Ananthanarayanan  
STATE ELECTRICAL ENGINEER FOR HWYS

GENERAL NOTES

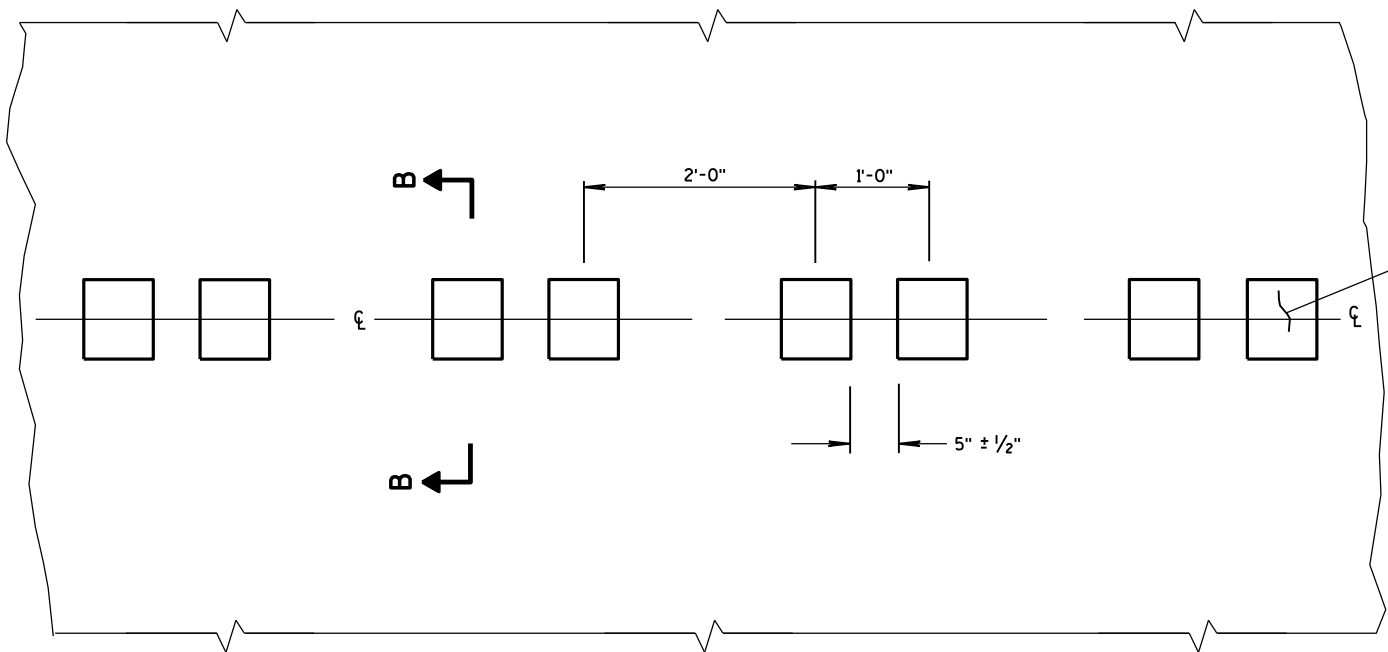
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

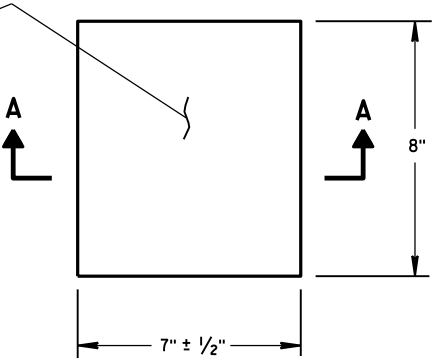
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

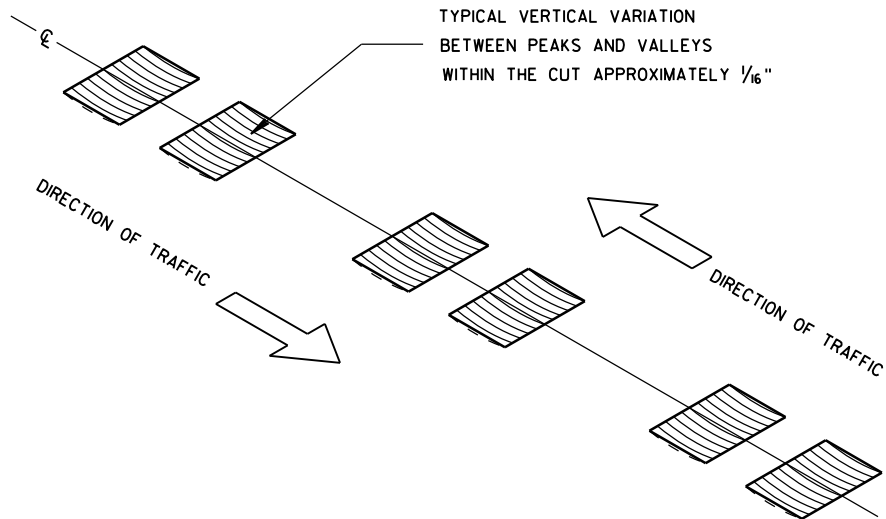
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



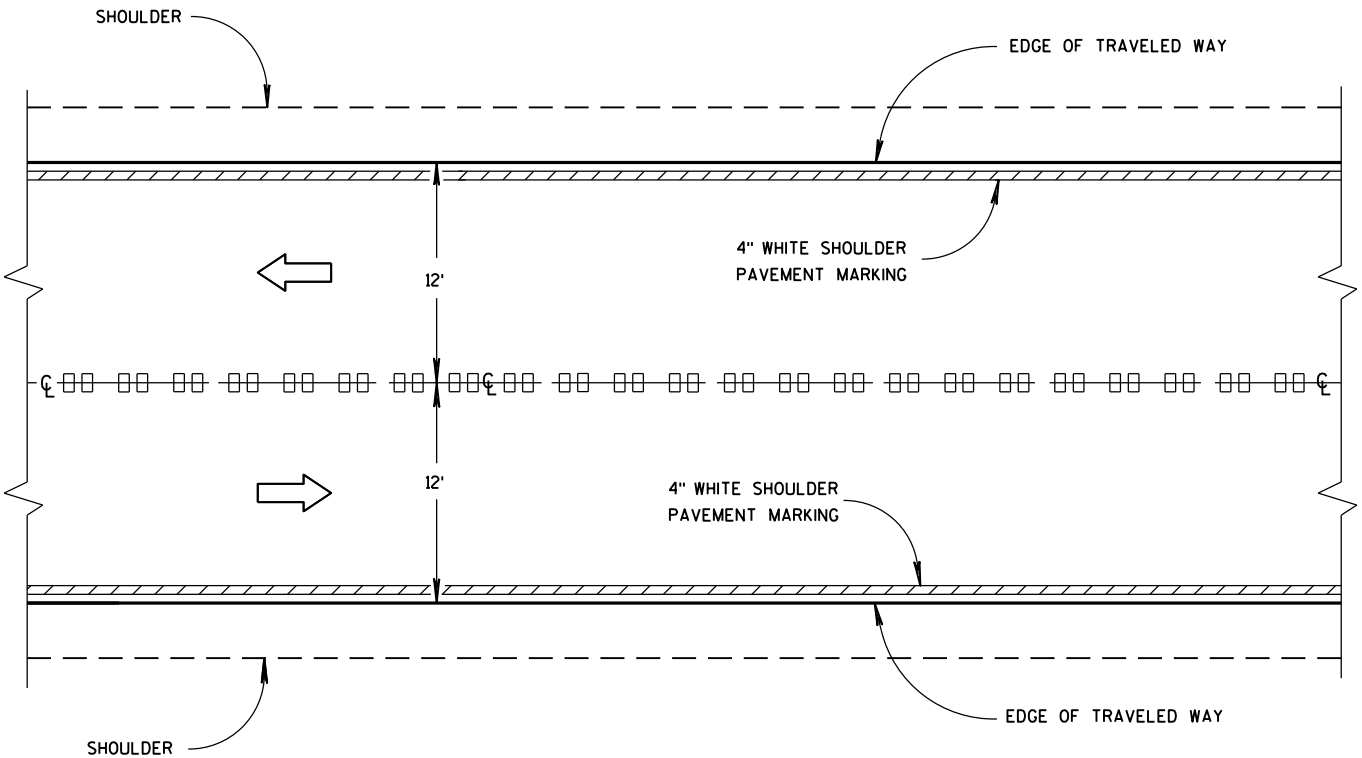
PLAN VIEW  
CENTER LINE WITH GROOVES



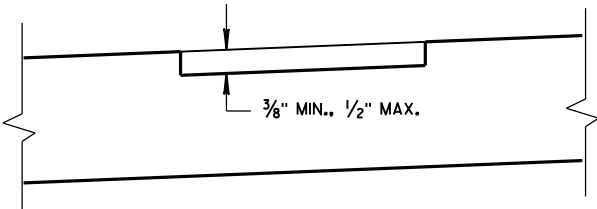
PLAN VIEW  
(SINGLE GROOVE)



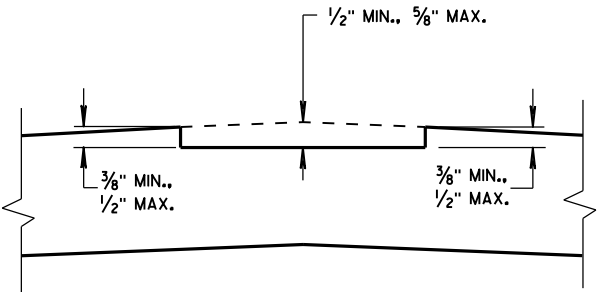
ISOMETRIC



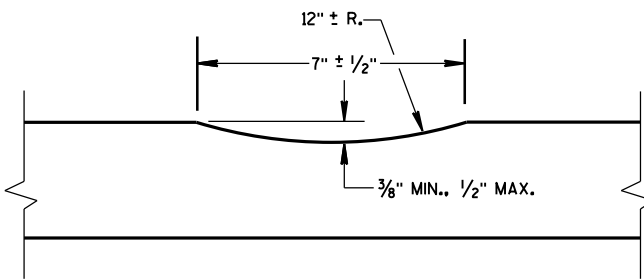
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B  
SUPERELEVATED ROADWAY



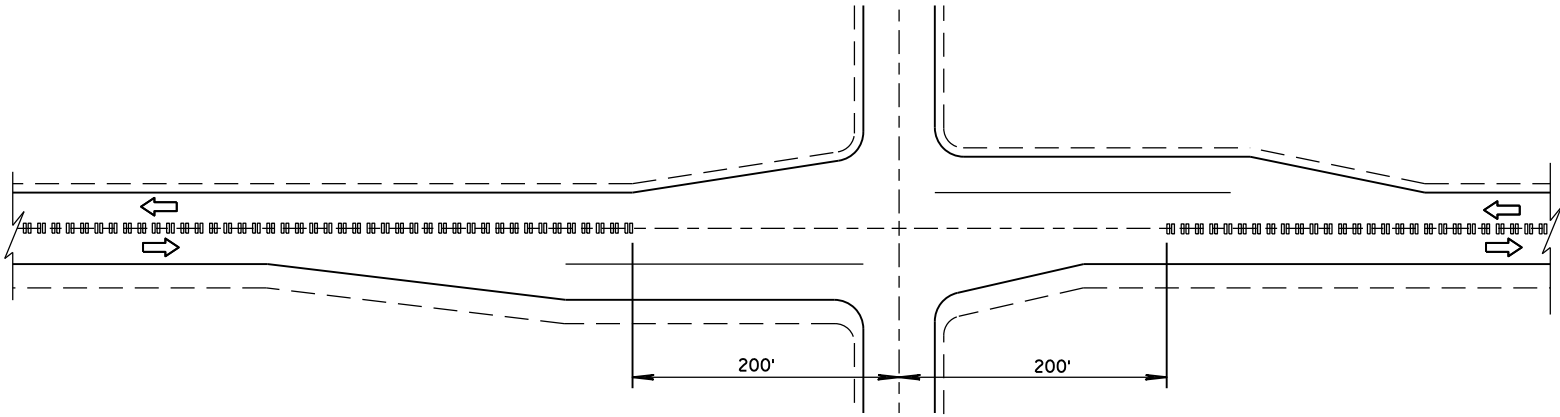
SECTION B-B  
CROWNED ROADWAY



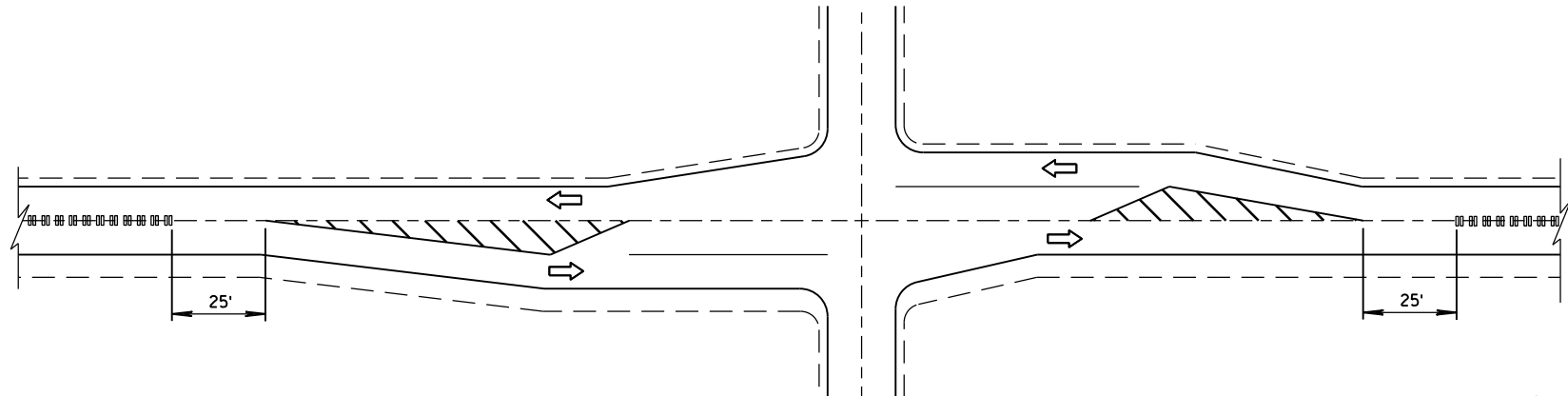
SECTION A-A

2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING

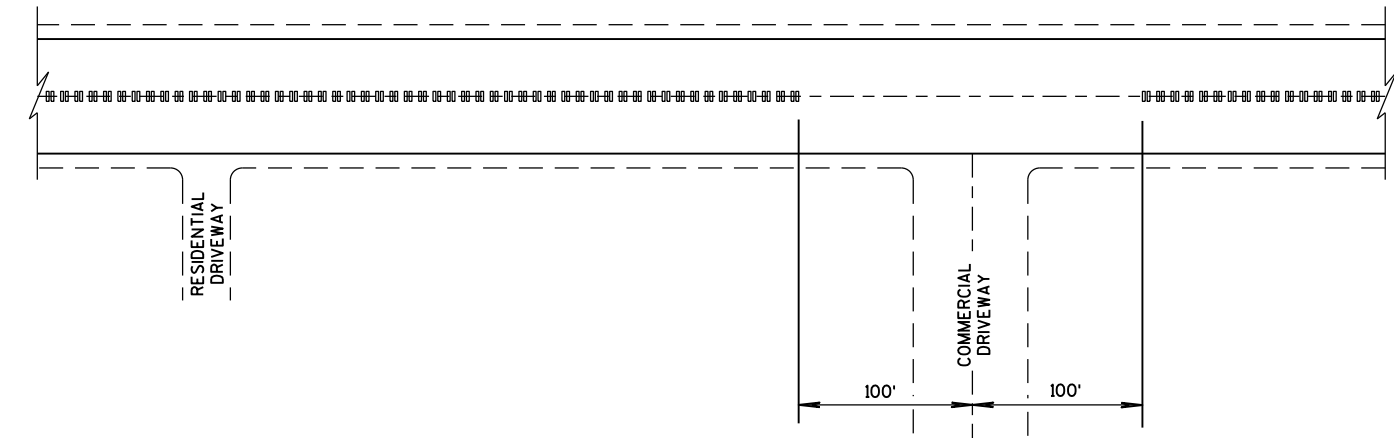
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

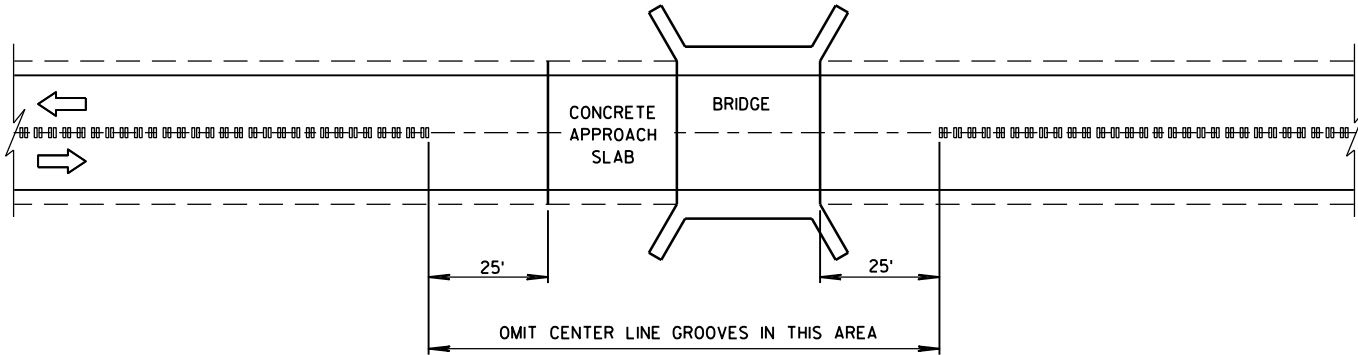


CENTER LINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)

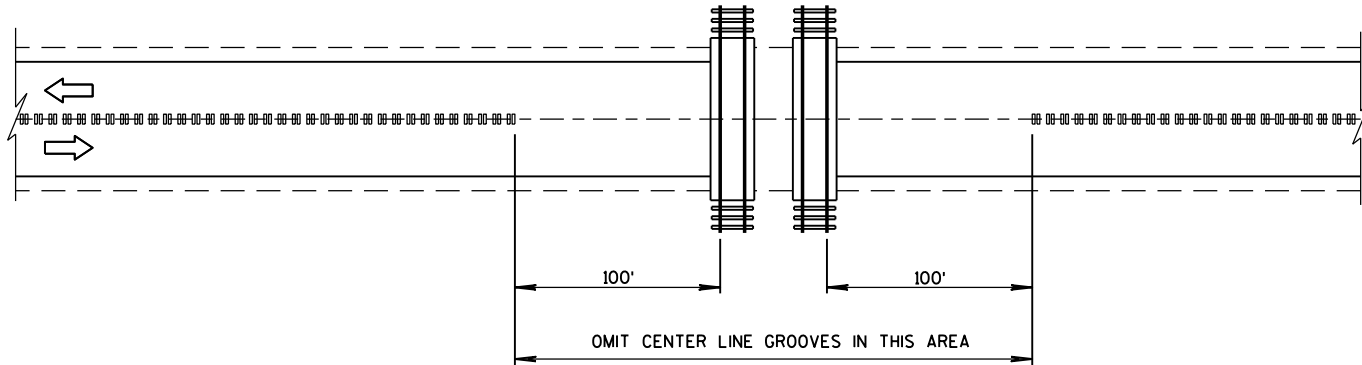


CENTER LINE GROOVES AT DRIVEWAYS<sup>①</sup>

① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

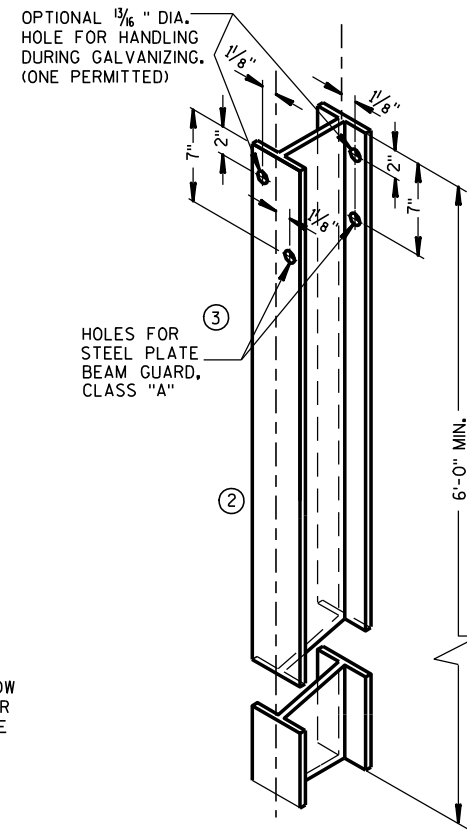
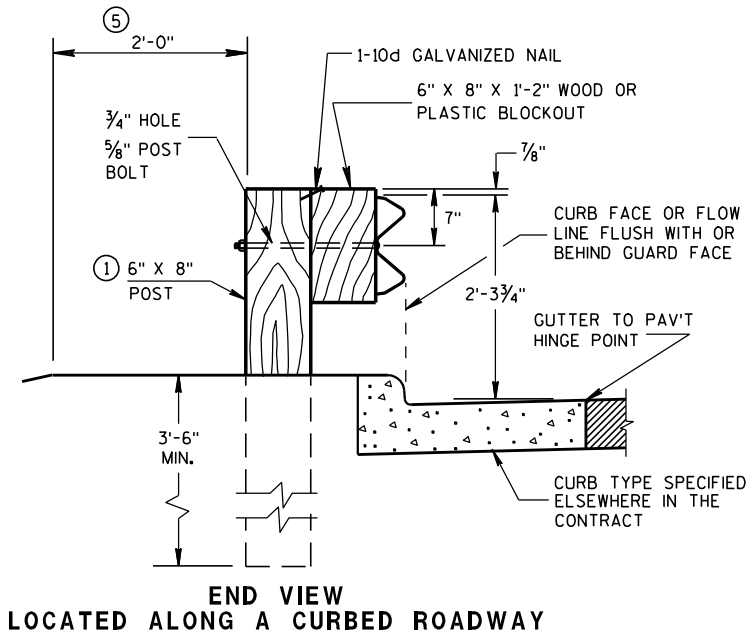
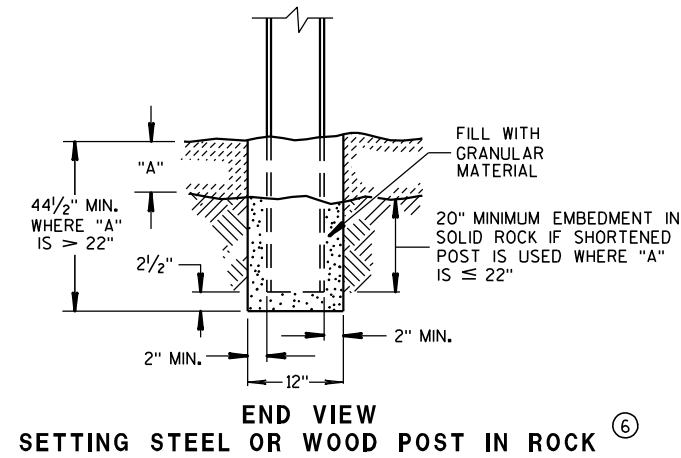
|                                                      |                                                                |
|------------------------------------------------------|----------------------------------------------------------------|
| 2-LANE RURAL<br>CENTER LINE RUMBLE STRIP,<br>MILLING |                                                                |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION   |                                                                |
| APPROVED<br>5/15/2013<br>DATE                        | /S/ Jerry H. Zogg<br>ROADWAY STANDARDS DEVELOPMENT<br>ENGINEER |
| FHWA                                                 |                                                                |

## GENERAL NOTES

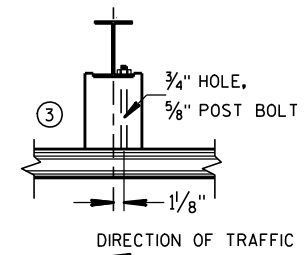
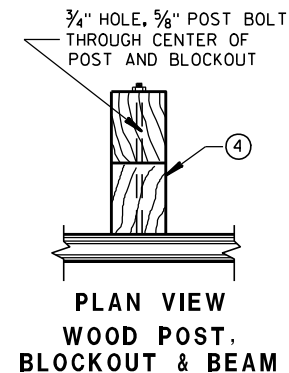
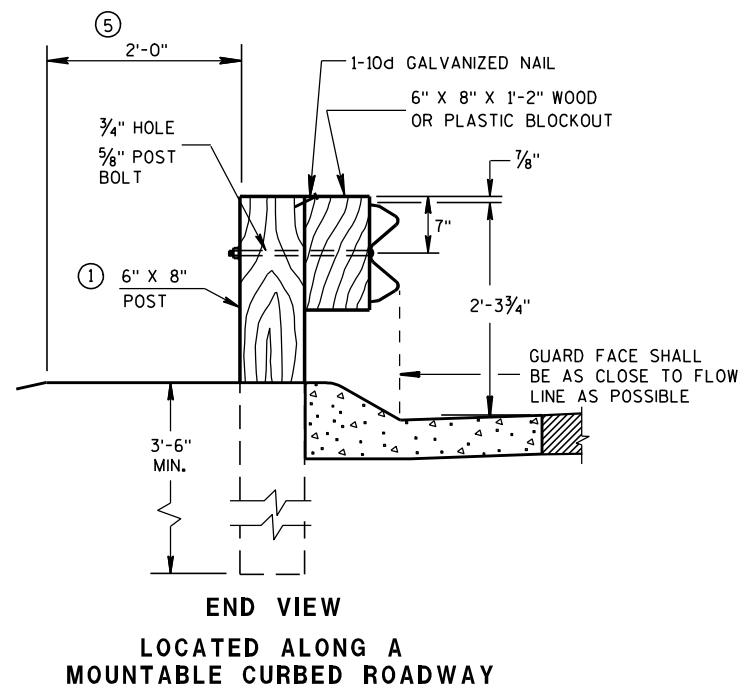
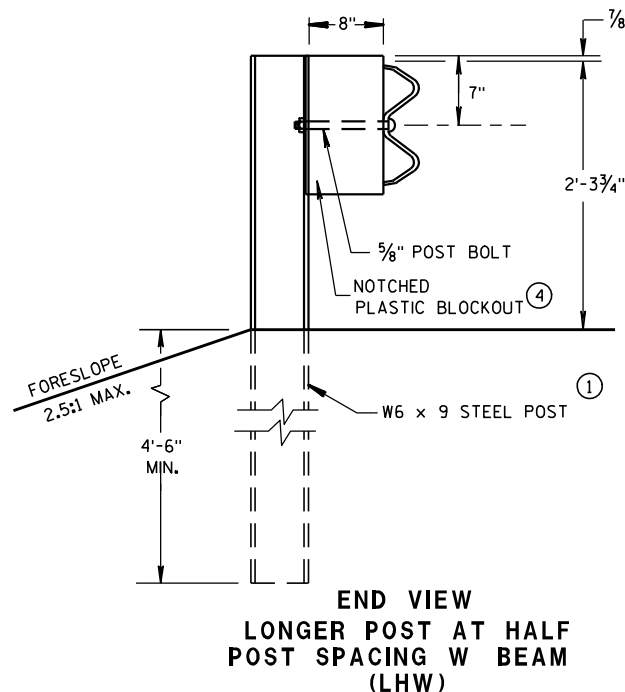
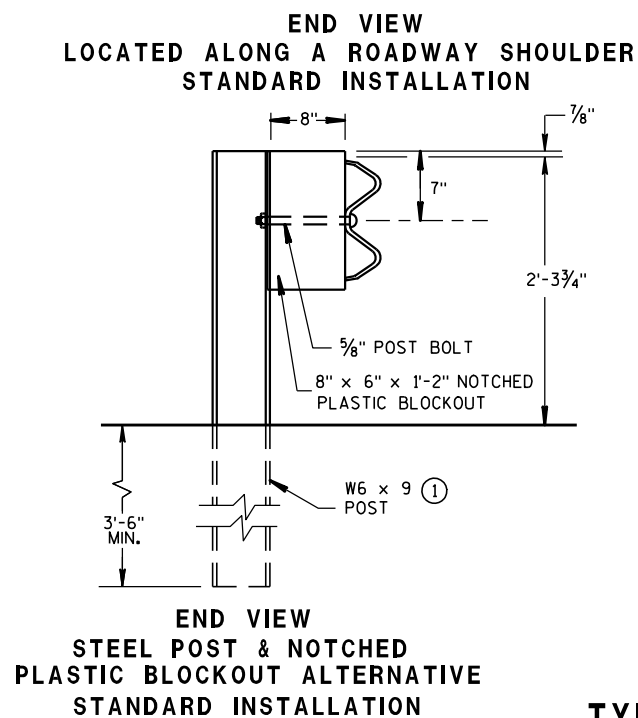
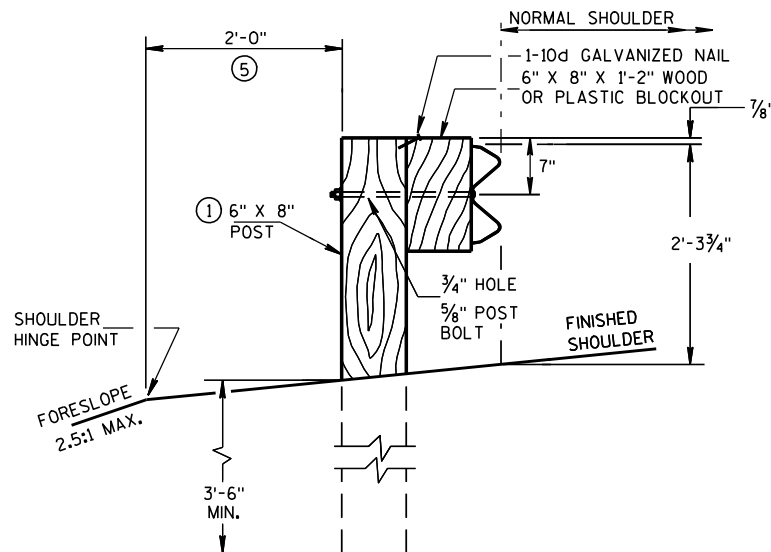
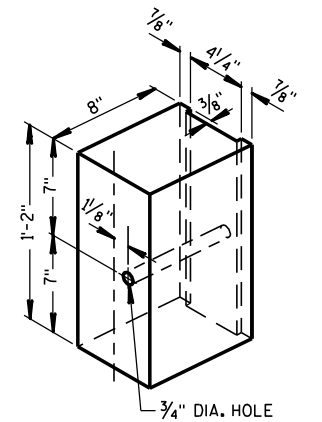
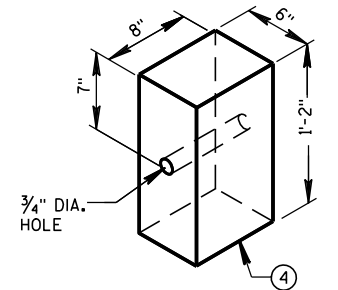
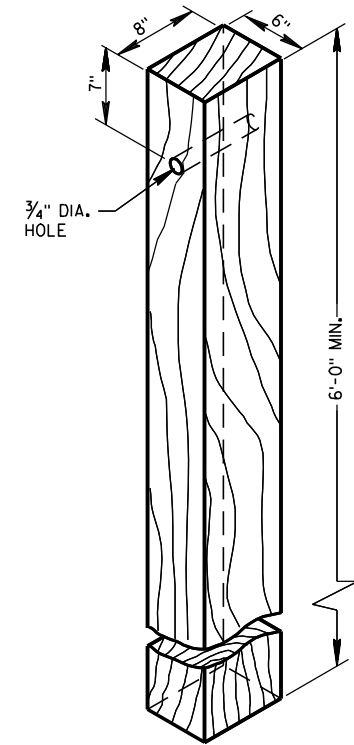
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.
- DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111 EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPALTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.

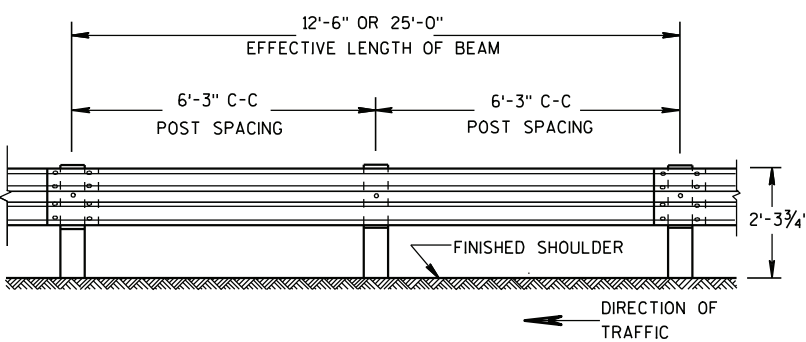


ALL HOLES 1 3/8" DIAMETER EXCEPT AS NOTED



STEEL PLATE BEAM GUARD,  
CLASS "A"  
INSTALLATION & ELEMENTS

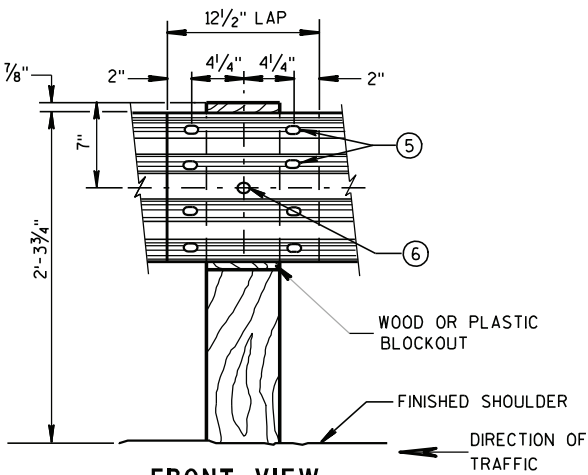
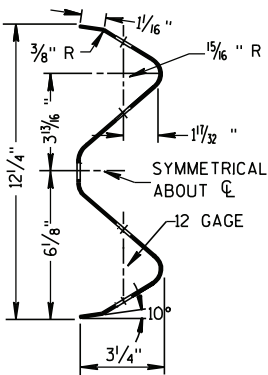
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



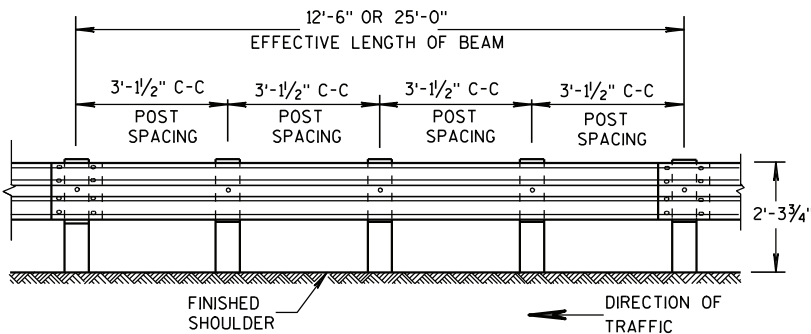
FRONT VIEW

# POST SPACING STANDARD INSTALLATION

## SECTION THRU W BEAM

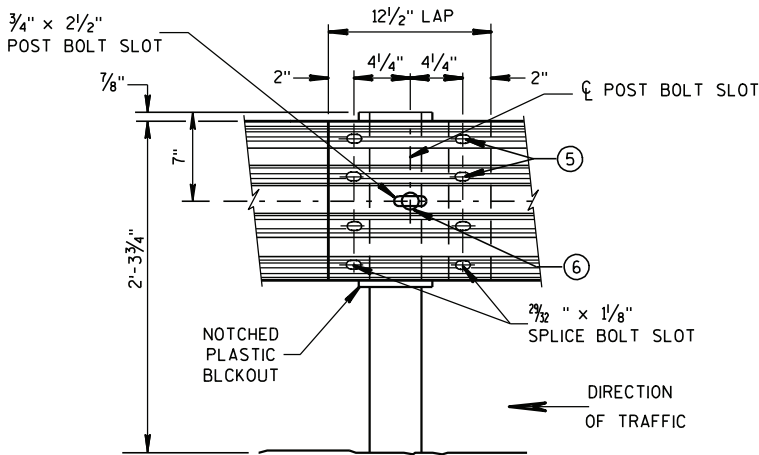


FRONT VIEW  
BEAM SPLICE AT WOOD POST  
AND POST MOUNTING DETAIL



FRONT VIEW

# POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)

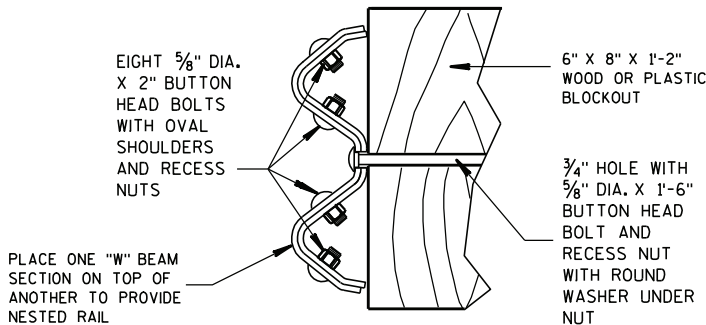


FRONT VIEW  
BEAM SPLICE AT STEEL POST

## TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

## GENERAL NOTES

- 1 PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- 2 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- 3 REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- 4 PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- 5 8 - 5/8" φ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- 6 5/8" φ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.

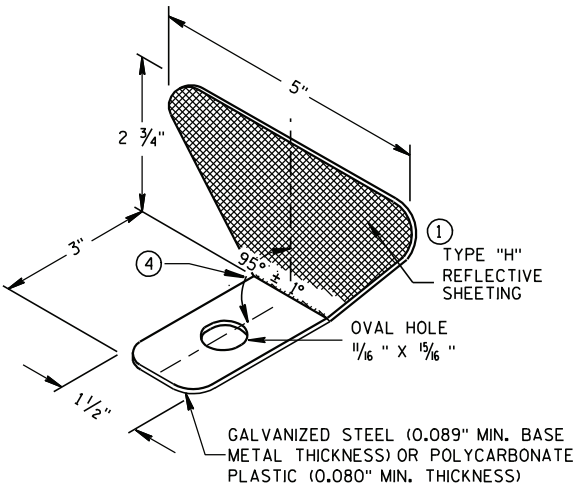
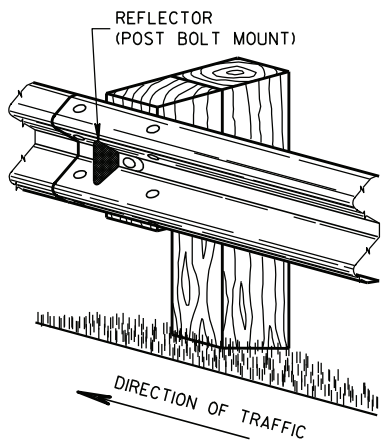


NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

## REFLECTOR SPACING<sup>②</sup>

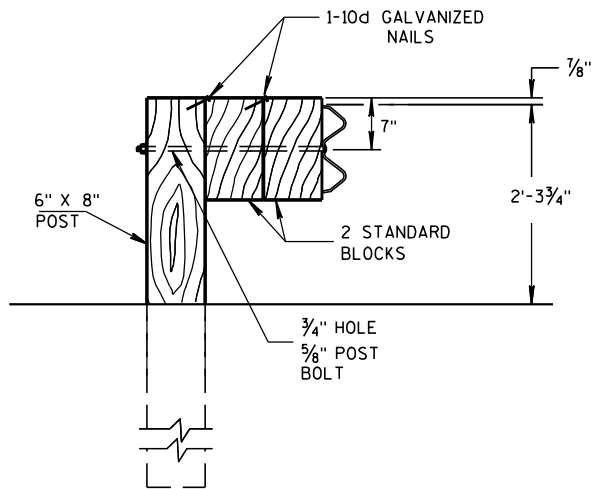
|                 | BEAM GUARD LENGTH | REFLECTOR SPACING | NO. SURFACES REFLECTORIZED | MIN. NO. REFLECTORS |
|-----------------|-------------------|-------------------|----------------------------|---------------------|
| ONE WAY TRAFFIC | < 200'            | 50' C-C           | 1                          | 3                   |
|                 | > 200'            | 100' C-C          | 1                          |                     |
| TWO WAY TRAFFIC | < 200'            | 25' C-C           | 1 ③                        | 6                   |
|                 | > 200'            | 50' C-C           | 1 ③                        |                     |
| TWO WAY TRAFFIC | < 200'            | 50' C-C           | 2 ④                        | 3                   |
|                 | > 200'            | 100' C-C          | 2 ④                        |                     |



## ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

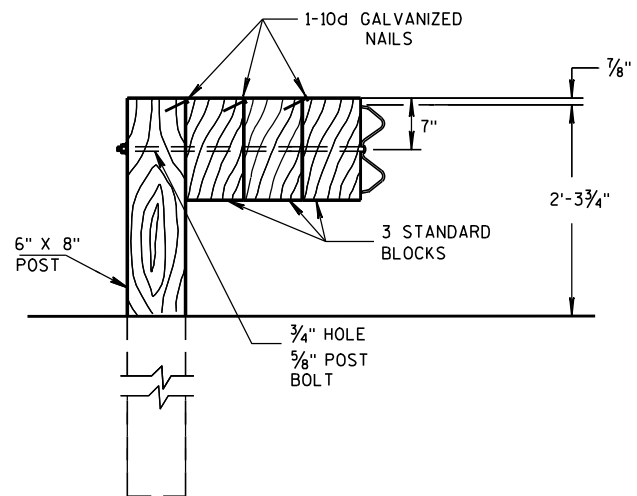
## STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



#### DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS  
WITHIN A BARRIER RUN IS UNLIMITED

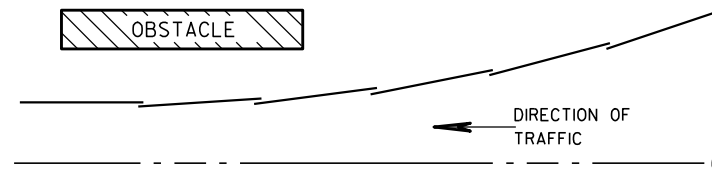


#### DETAIL FOR TRIPLE BLOCKS

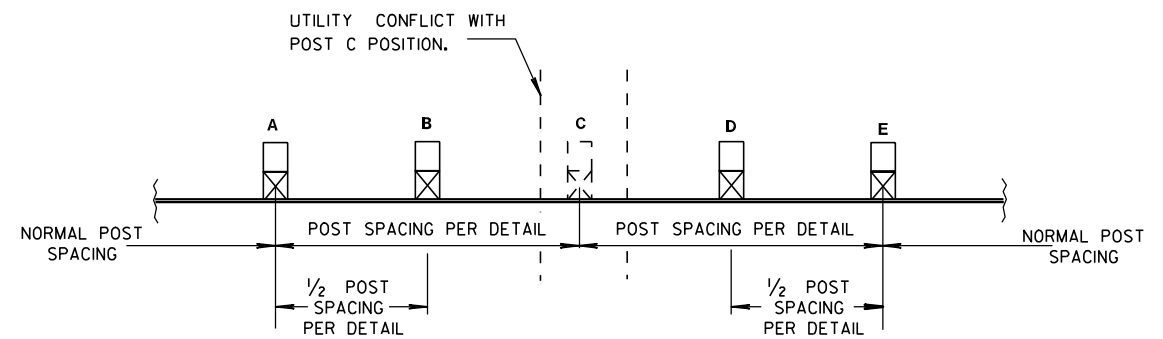
TRIPLE BLOCK DETAIL IS LIMITED TO ONE  
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES  
PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND  
SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION  
DISTANCE OF THE BARRIER.



#### PLAN VIEW BEAM LAPPING DETAIL



#### POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

#### STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/11

DATE

FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

BILL OF MATERIALS

| NOTE NO. | QTY. | DESCRIPTION                                                                                                                                                       |
|----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ①        | 4    | WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"                                                                                                             |
| ②        | **   | STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG |
| ③        | 2    | SOIL PLATE: 2'-0" X 1'-6" X 1/4" **                                                                                                                               |
| ④        | 4    | WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"                                                                                                                          |
| ⑤        | 6    | WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"                                                                                                                               |
| ⑥        | 1    | PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE                                                                                                                            |
| ⑦        | 1    | BEARING PLATE                                                                                                                                                     |
| ⑧        | 1    | BCT CABLE ASSEMBLY                                                                                                                                                |
| ⑨        | 1    | CABLE ANCHOR BOX                                                                                                                                                  |
| ⑩        | 1    | STRUT & YOKE                                                                                                                                                      |
| ⑪        | 1    | STEEL PLATE BEAM, END PANEL 12 GA, 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS                                                                          |
| ⑫        | 3    | STEEL PLATE BEAM: 12 GA, 13'-6 1/2"                                                                                                                               |
| ⑬        | 1    | ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER                                                                      |
| ⑭        | 1    | REFLECTIVE SHEETING TYPE H: 18" X 18"                                                                                                                             |
| ⑮        | 1    | E.A.T. MARKER POST                                                                                                                                                |

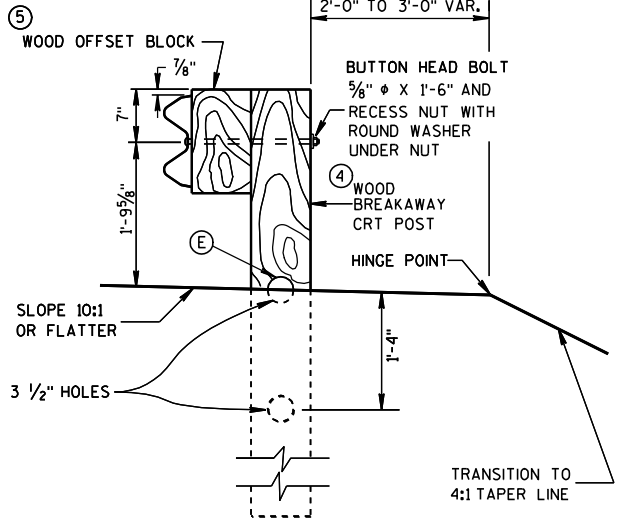
GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL 5/8"  $\phi$  X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

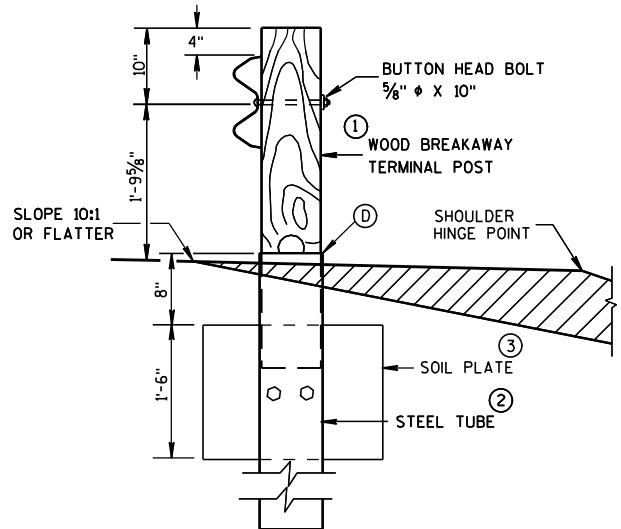
- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER OF E.A.T. STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
- DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

\* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

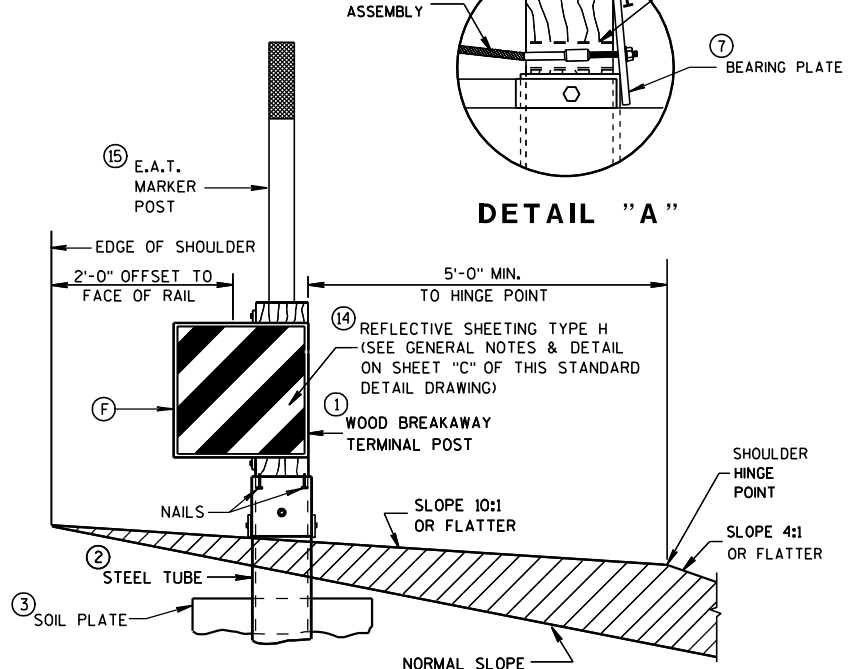
\*\* SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



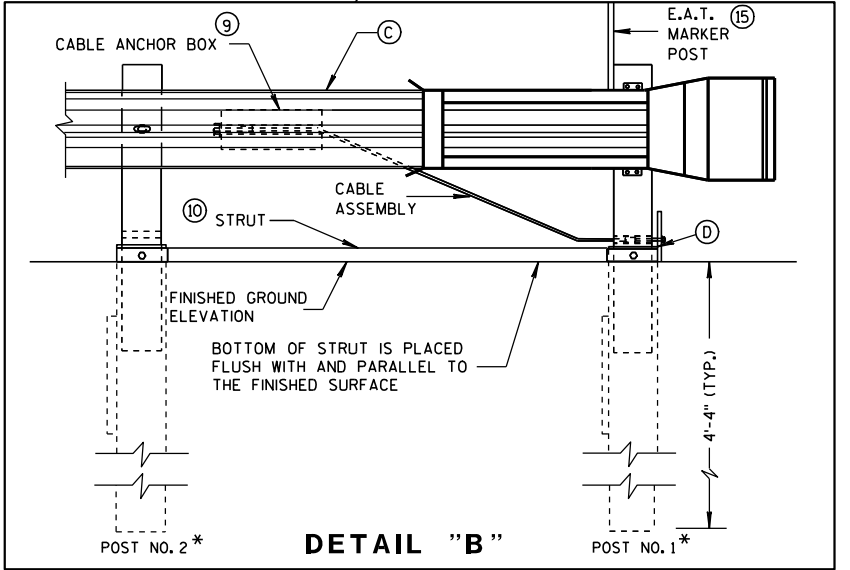
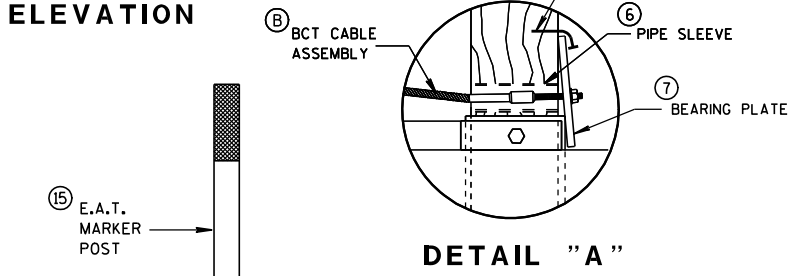
SECTION C-C  
TYPICAL AT POST NOS. 6, 8



SECTION B-B  
TYPICAL AT POST NO. 2\*

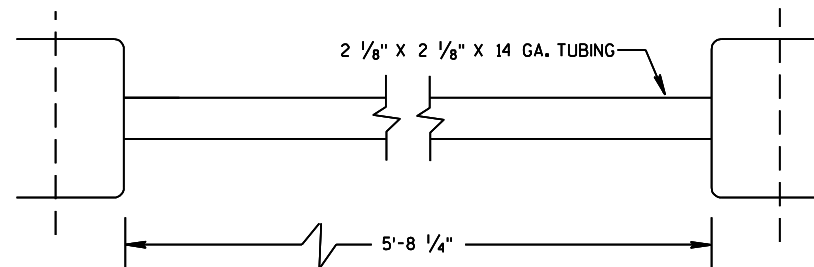


SECTION A-A  
TYPICAL AT POST NO. 1\*

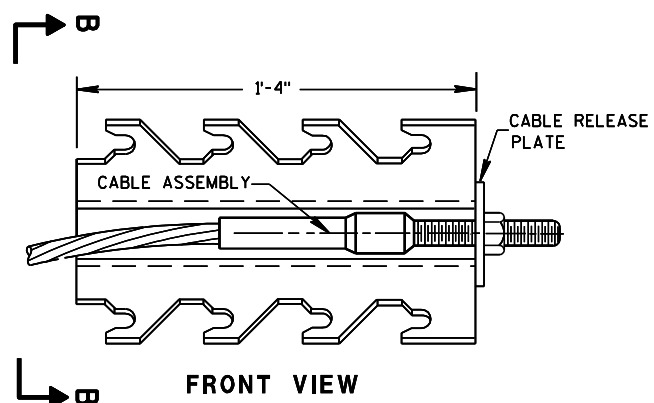


STEEL PLATE BEAM GUARD  
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

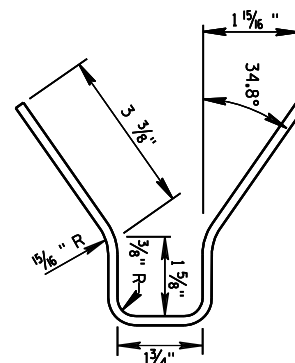


⑩ STRUT DETAIL (SKT-350)

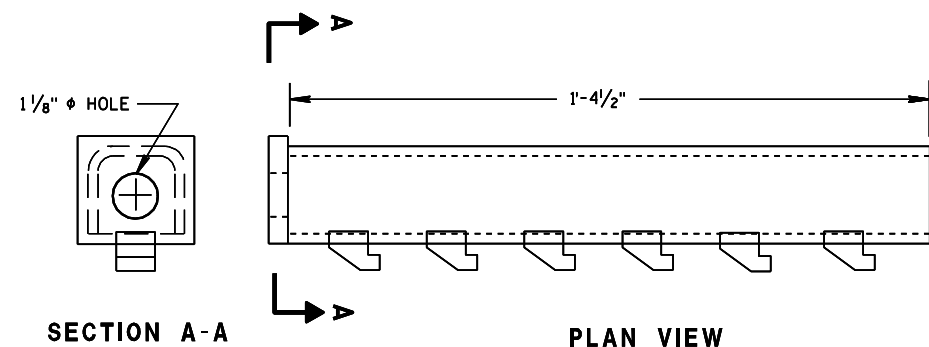


⑨ CABLE ANCHOR BOX (SKT-350)

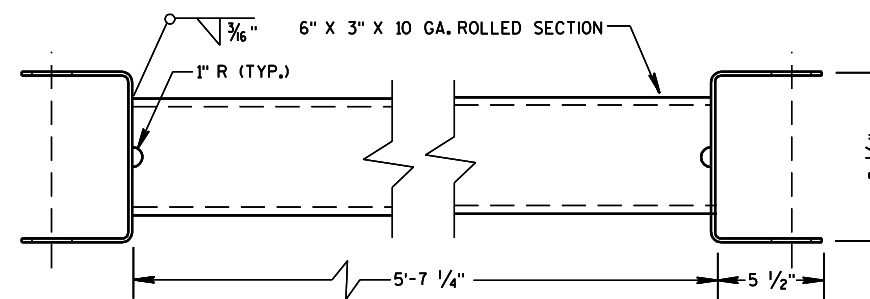
(SKT-350)



SECTION B-B

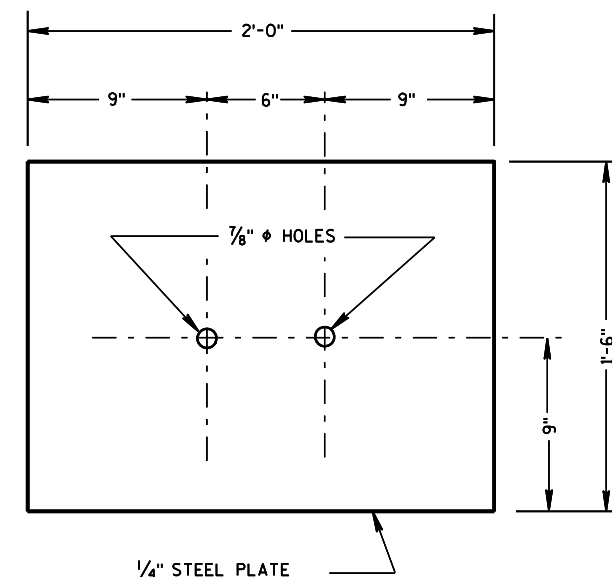


⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)

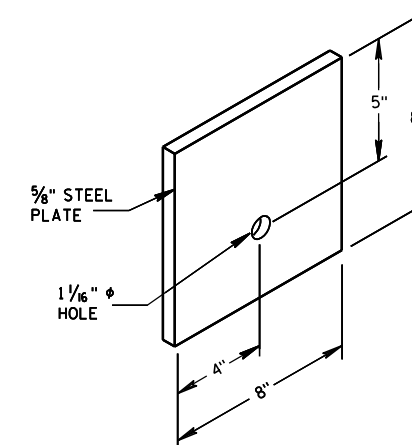


⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



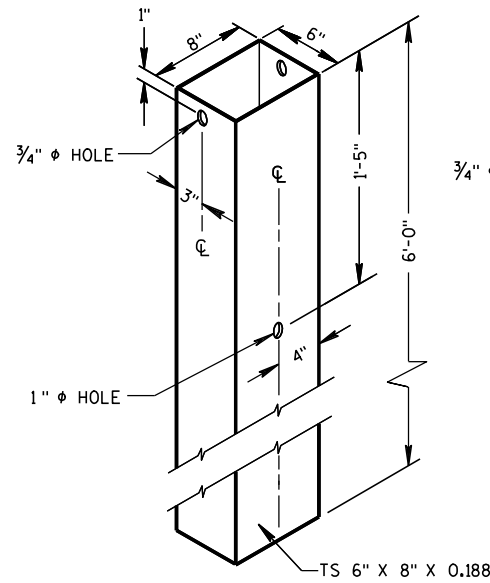
③ SOIL PLATE  
(SKT-350, ET-2000/ET-2000 PLUS)



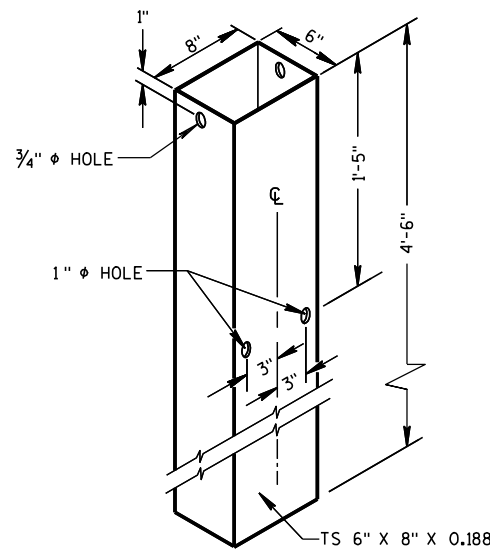
⑦ STEEL BEARING PLATE  
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD  
ENERGY ABSORBING TERMINAL

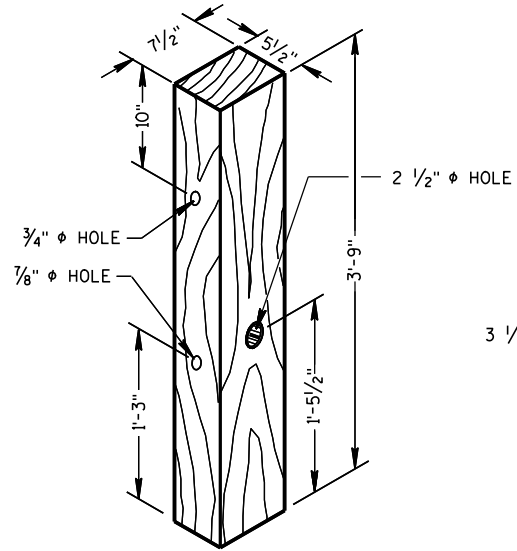
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



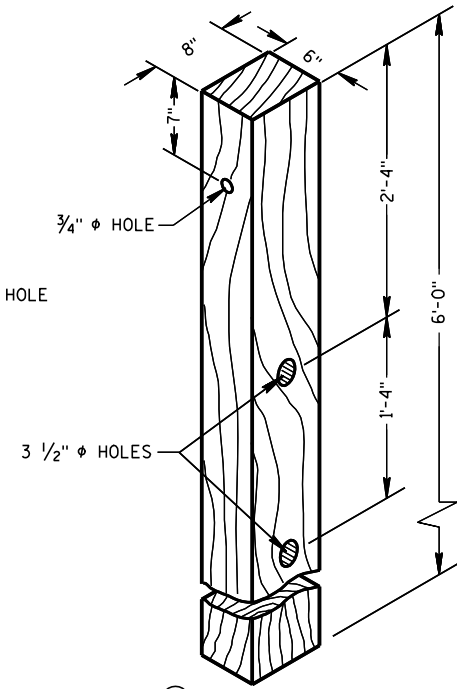
② **72" STEEL TUBE**  
(POSTS NO. 1-4)



② **54" STEEL TUBE**  
(POSTS NO. 1-4)

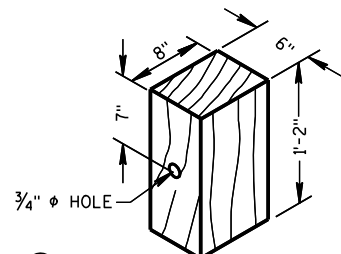


① **TERMINAL POST**  
(POSTS NO. 1-4)

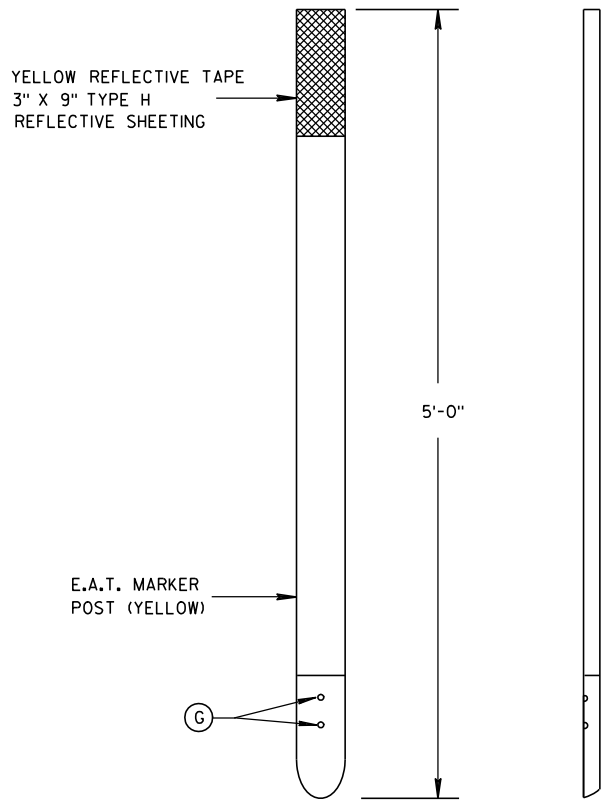


④ **CRT POST**  
(POSTS NO'S 5-8)

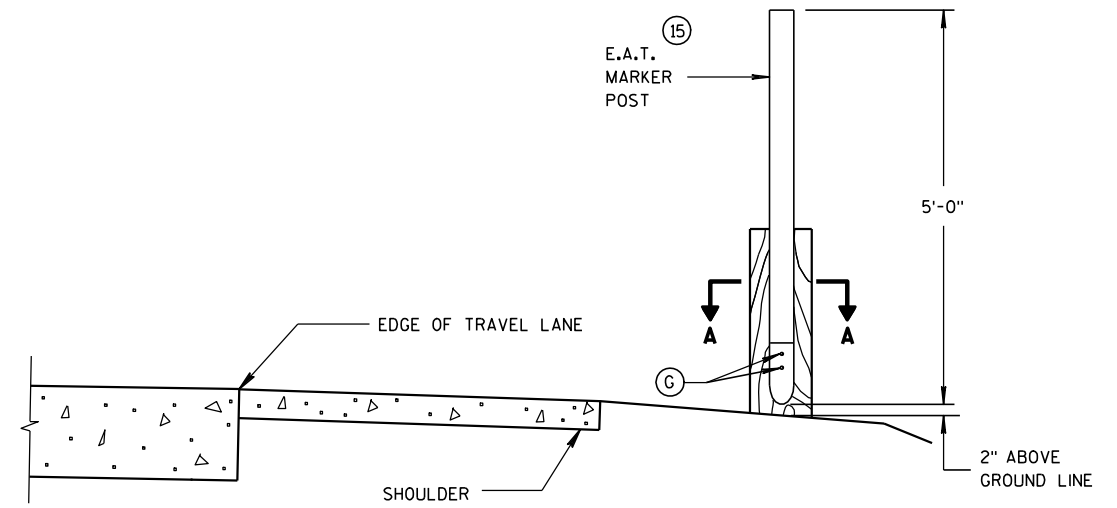
**WOOD BREAKAWAY POSTS**



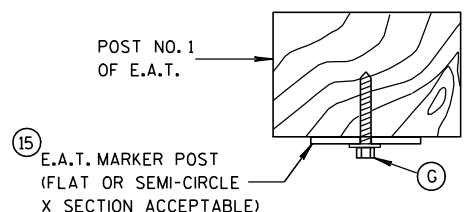
⑤ **WOOD OFFSET BLOCK**  
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



**FRONT VIEW** **SIDE VIEW**  
⑮ **E.A.T. MARKER POST**



**TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1**  
(E.A.T. AND RAIL REMOVED FOR CLARITY)



**SECTION A-A**

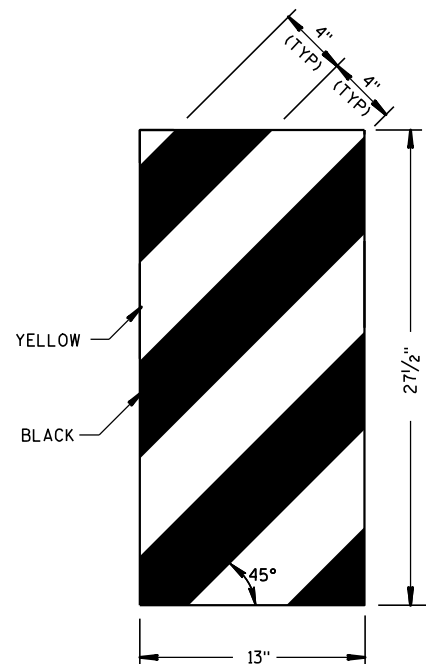
**GENERAL NOTES**

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

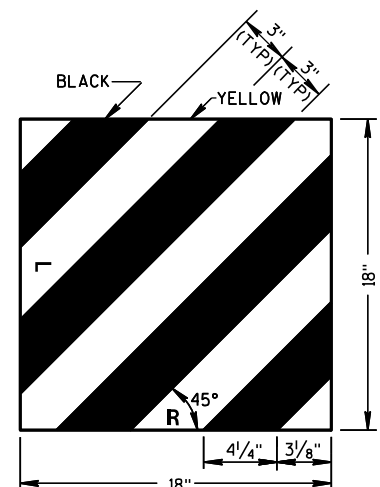
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

⑮ 1/2" DIA. X 3" LAG BOLT WITH WASHER.



**ET-2000 PLUS ONLY**



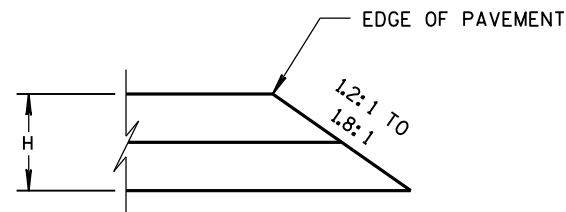
**ET-2000 AND SKT-350**

⑭ **REFLECTIVE SHEETING DETAILS**

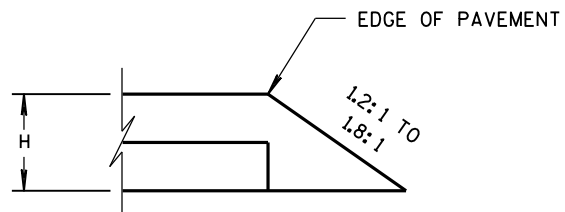
**STEEL PLATE BEAM GUARD  
ENERGY ABSORBING TERMINAL**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

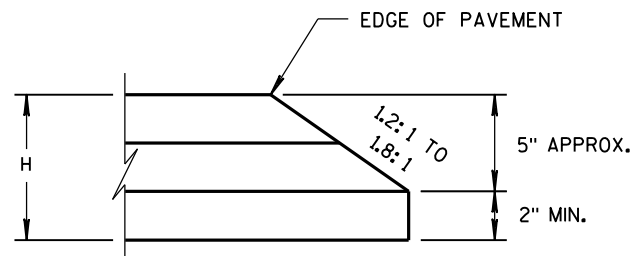
APPROVED  
DATE 4-12-10  
/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER  
FHWA



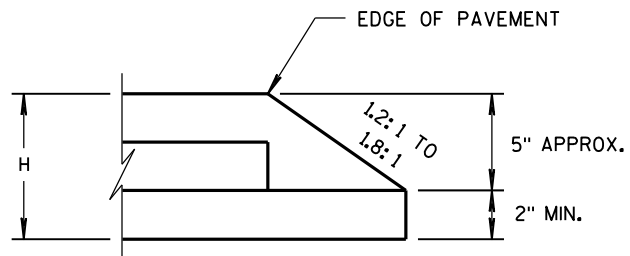
CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER  
FOR H 5" OR LESS

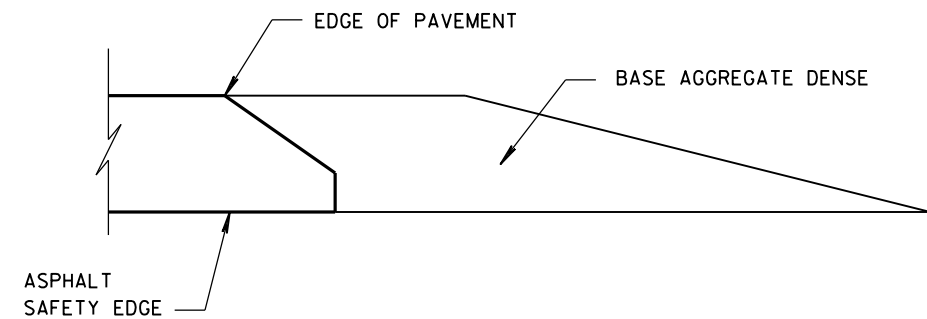


CONSTRUCTED WITH FINAL TWO LAYERS  
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER  
FOR H GREATER THAN 5"

### HMA PAVEMENT AND HMA OVERLAYS



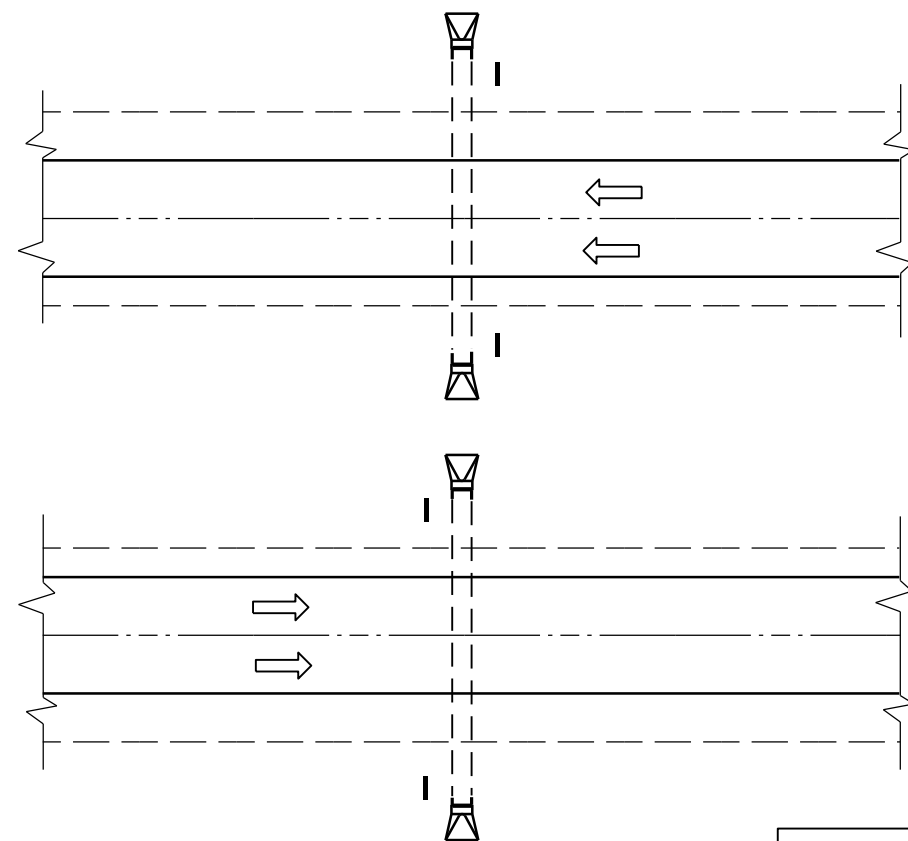
### FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE<sub>SM</sub>

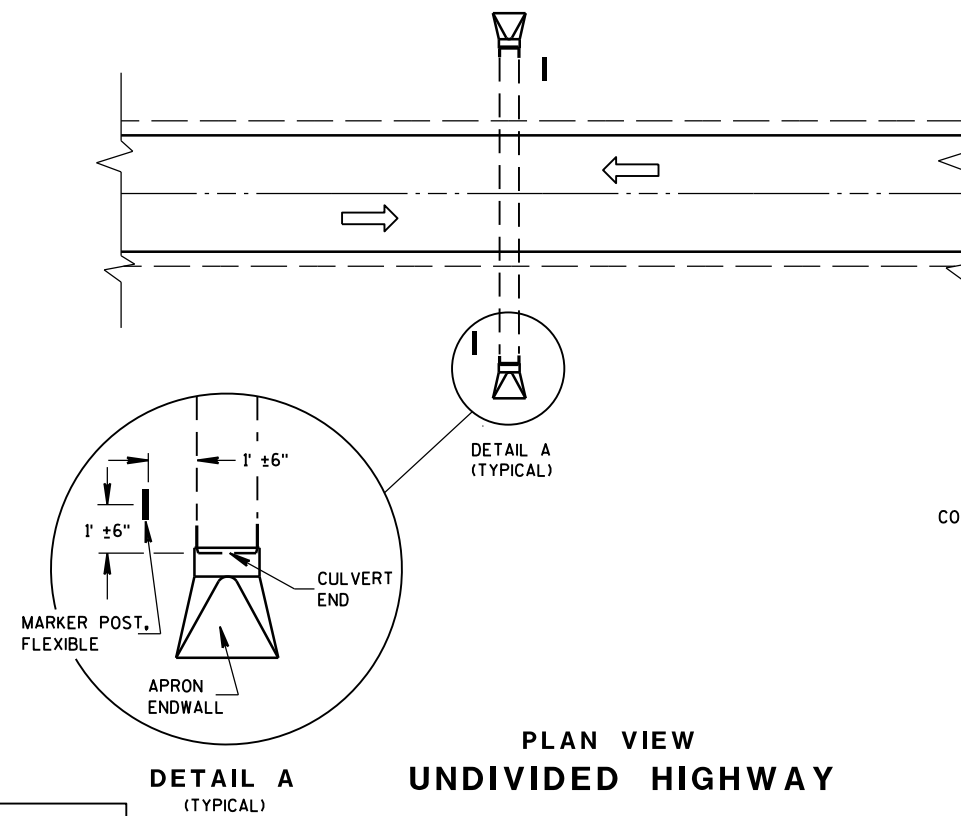
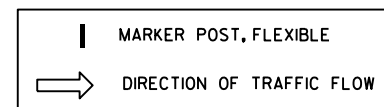
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
11/30/2012  
DATE  
FHWA

/s/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER



PLAN VIEW  
DIVIDED HIGHWAY

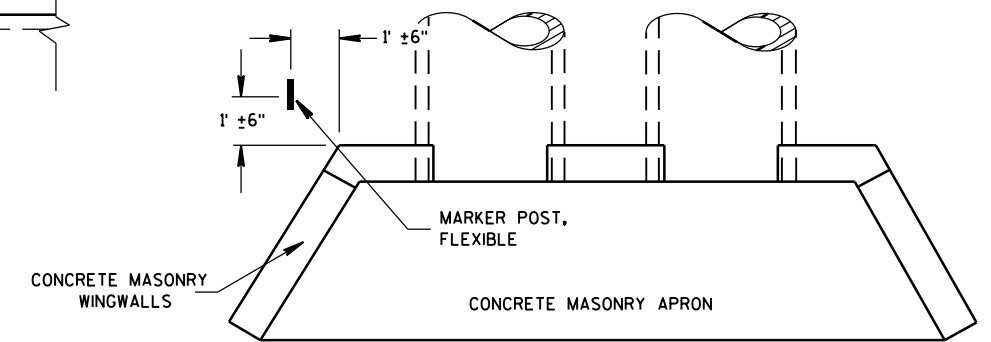


PLAN VIEW  
UNDIVIDED HIGHWAY

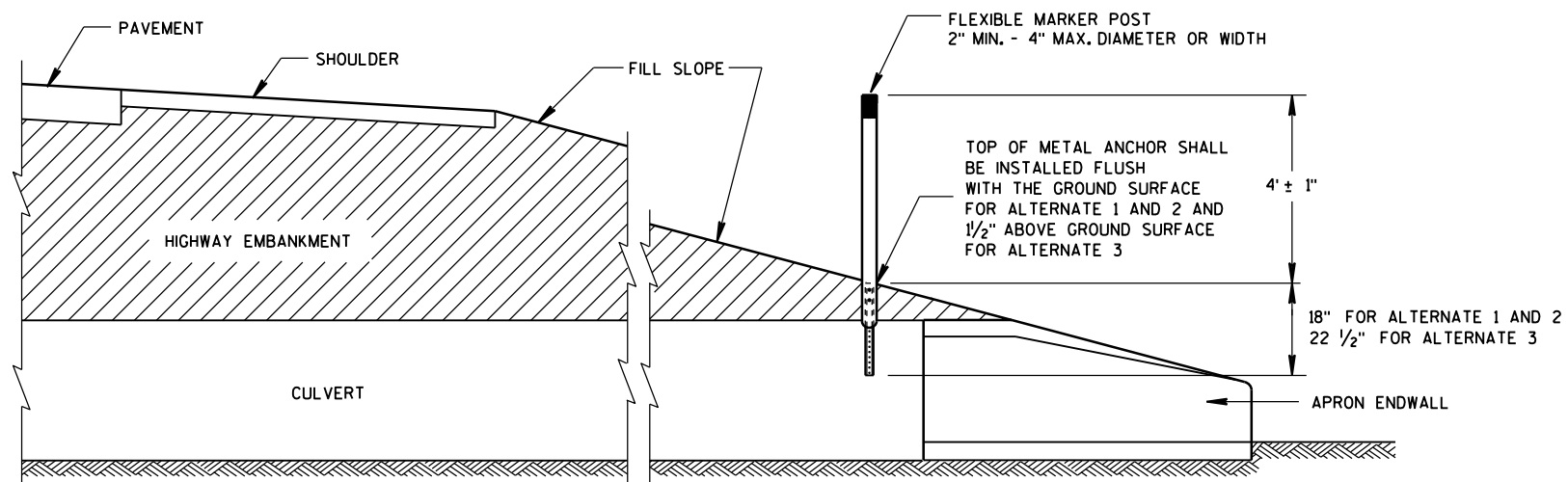
### FLEXIBLE MARKER POST LOCATION

### 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.



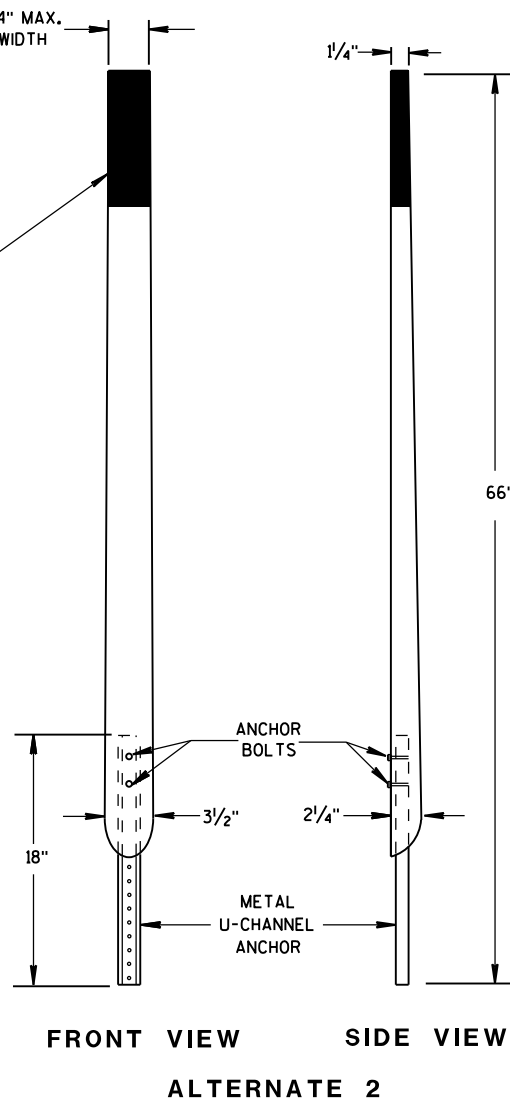
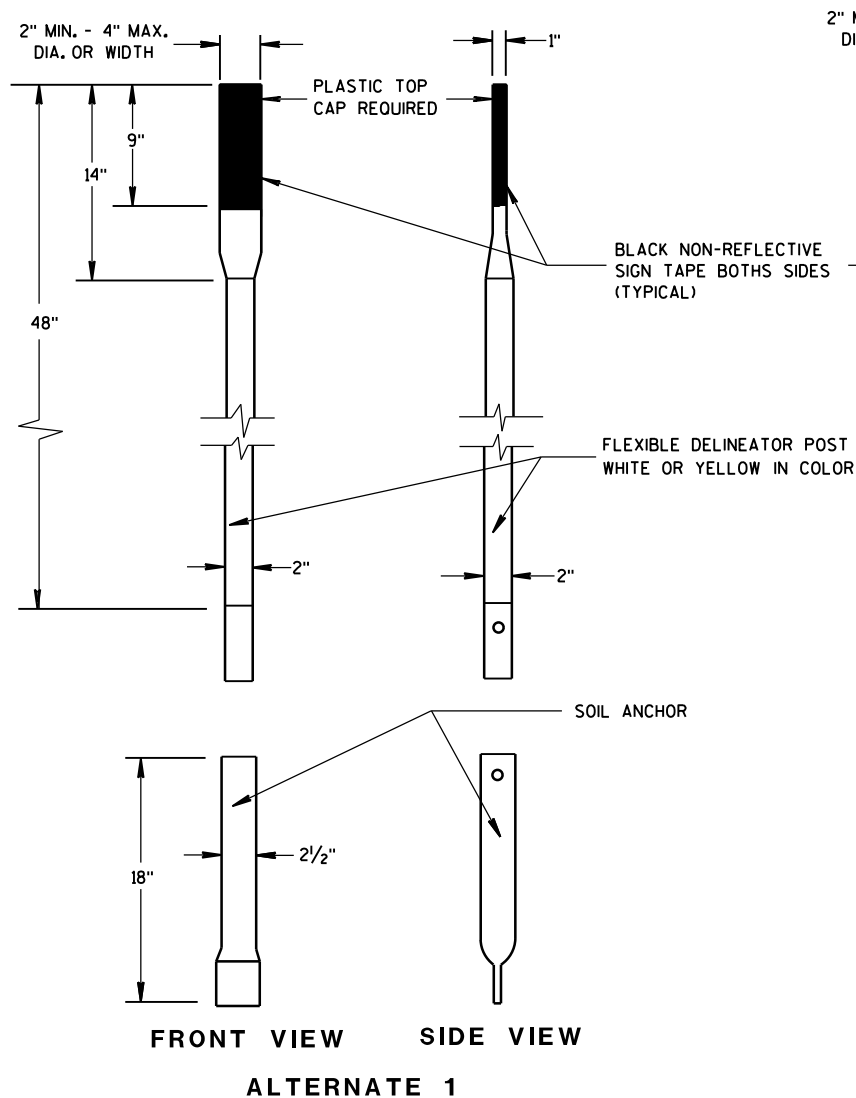
PLAN VIEW  
CONCRETE MASONRY ENDWALLS FOR  
CULVERT PIPE AND PIPE ARCH



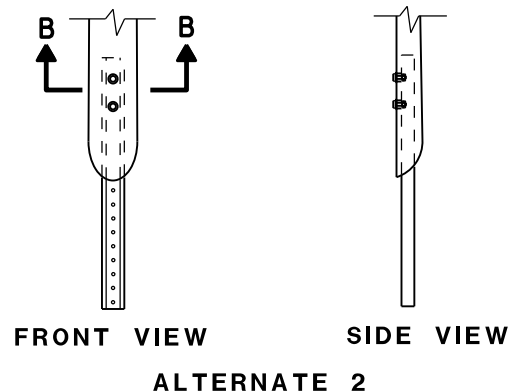
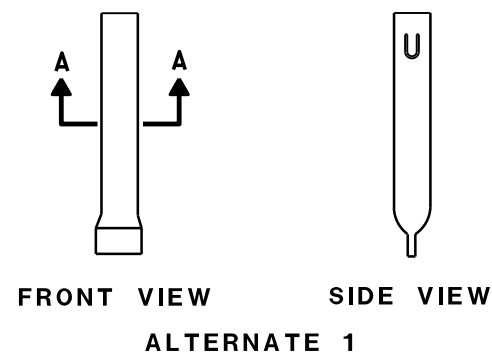
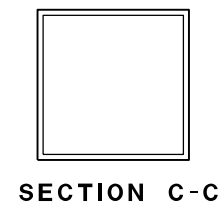
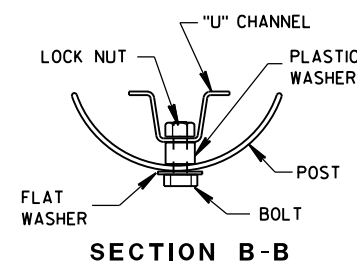
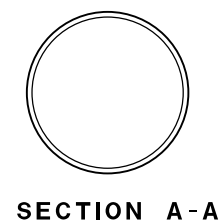
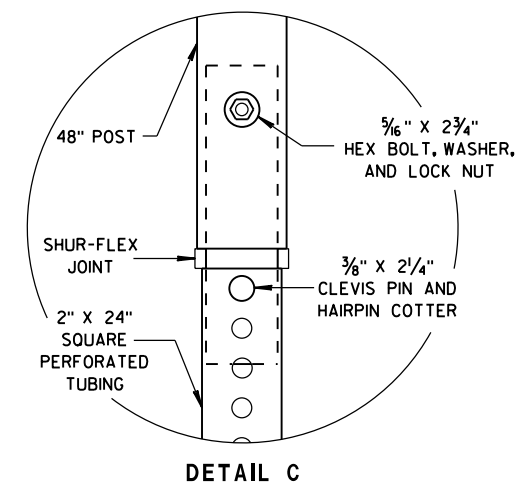
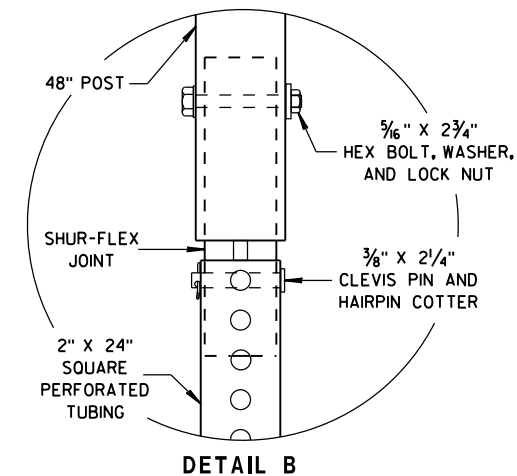
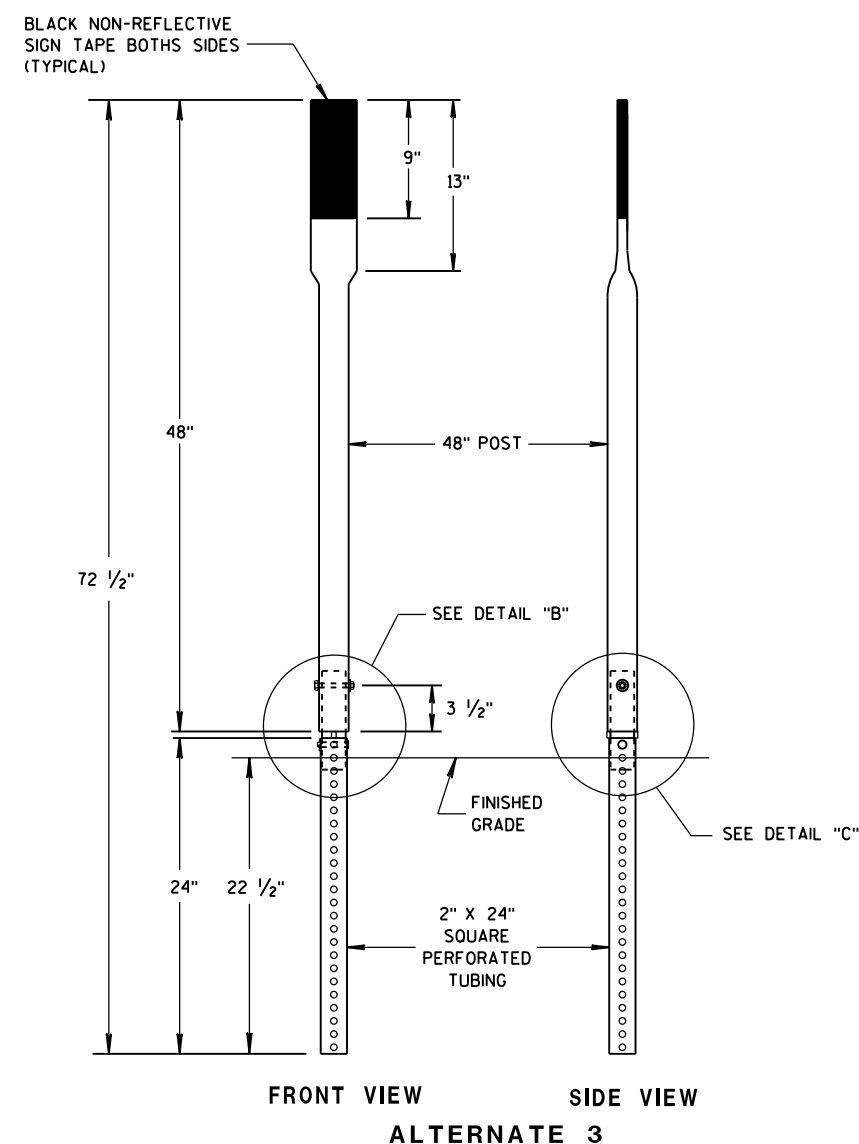
CROSS SECTION  
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST  
FOR CULVERT END

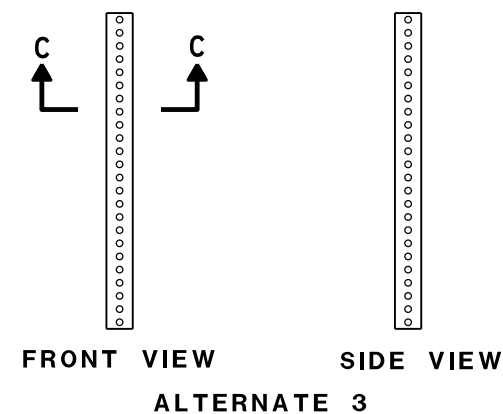
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



FLEXIBLE MARKER POSTS



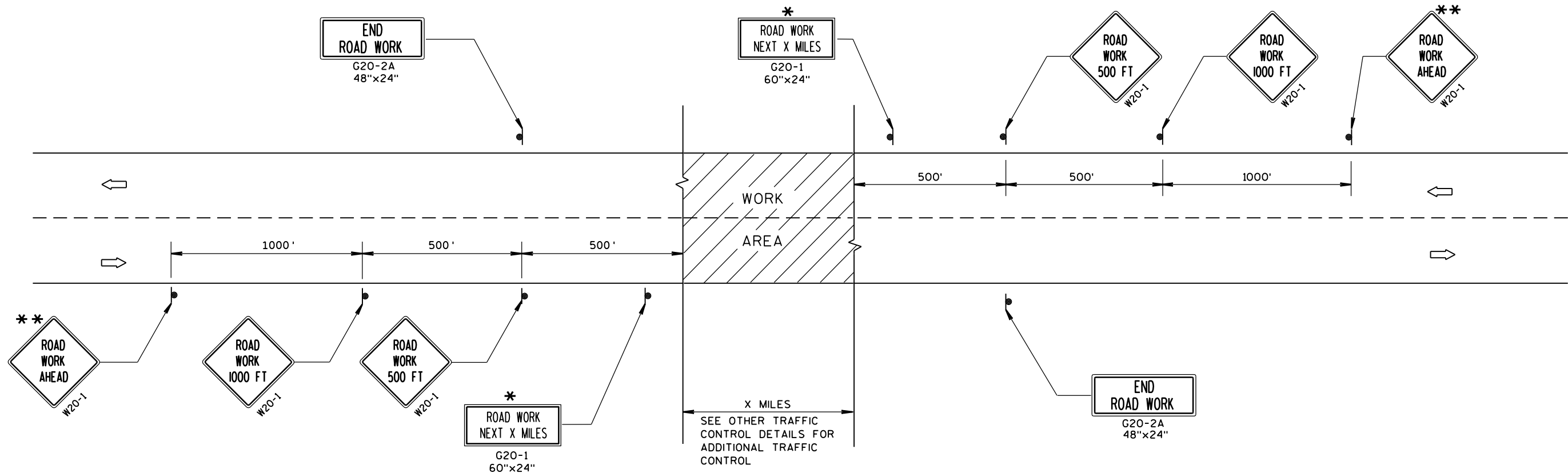
FLEXIBLE MARKER POST ANCHORS



FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
10/1/2012 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

## GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

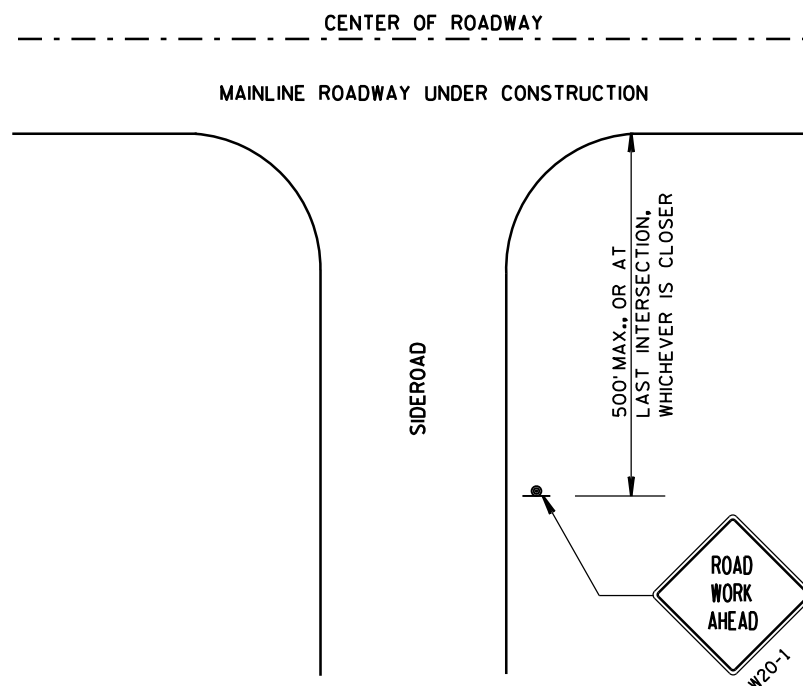
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

\*\* PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



## LEGEND

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

TRAFFIC CONTROL, ADVANCE  
WARNING SIGNS 45 M.P.H.  
OR GREATER TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

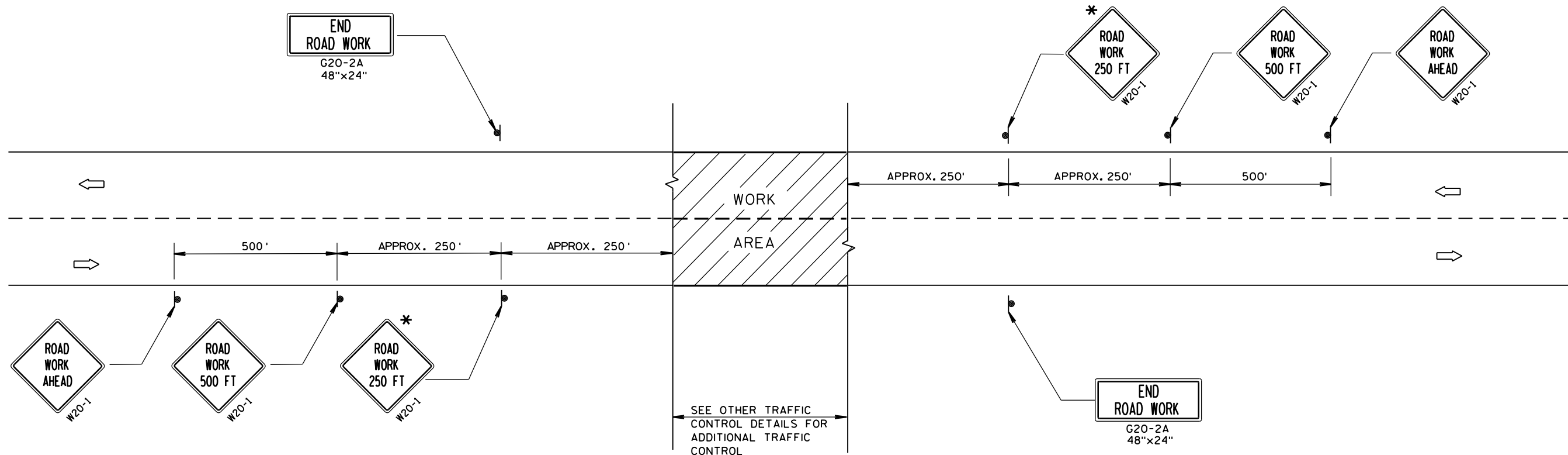
8/2013

DATE

FHWA

/S/ Travis Feltes

STATE TRAFFIC ENGINEER OF DESIGN



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

## GENERAL NOTES

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

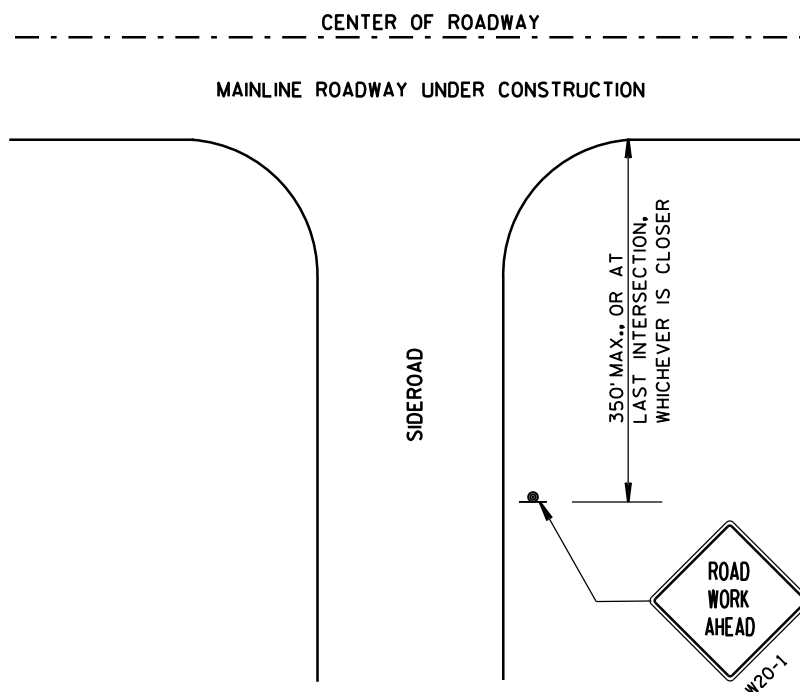
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



## LEGEND

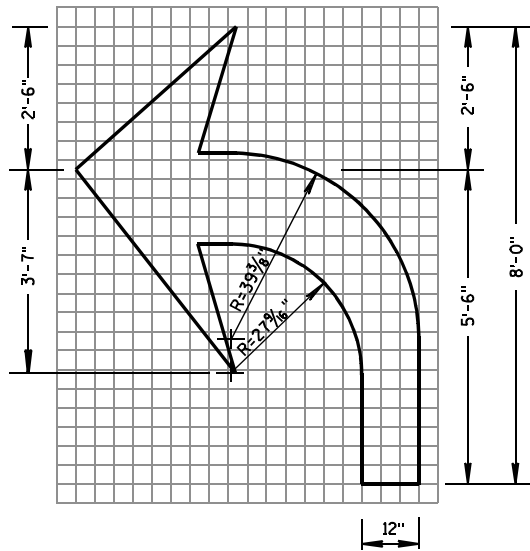
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

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

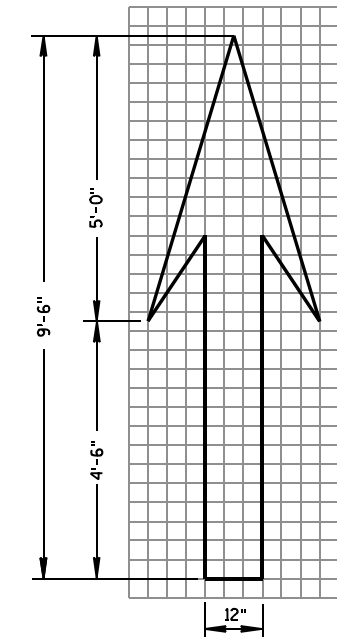
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

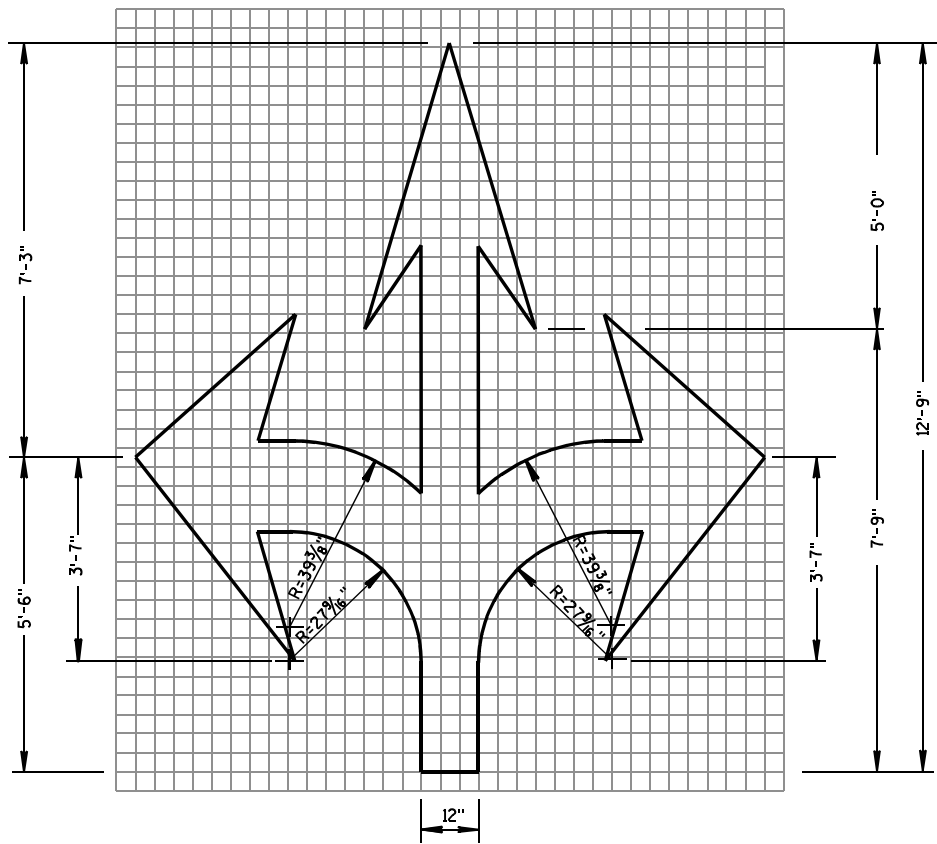
8/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



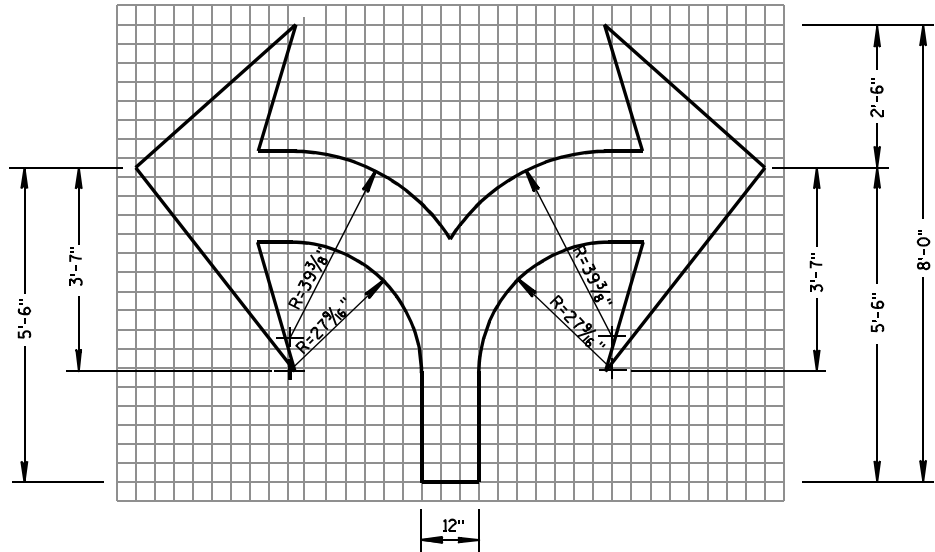
TYPE 2



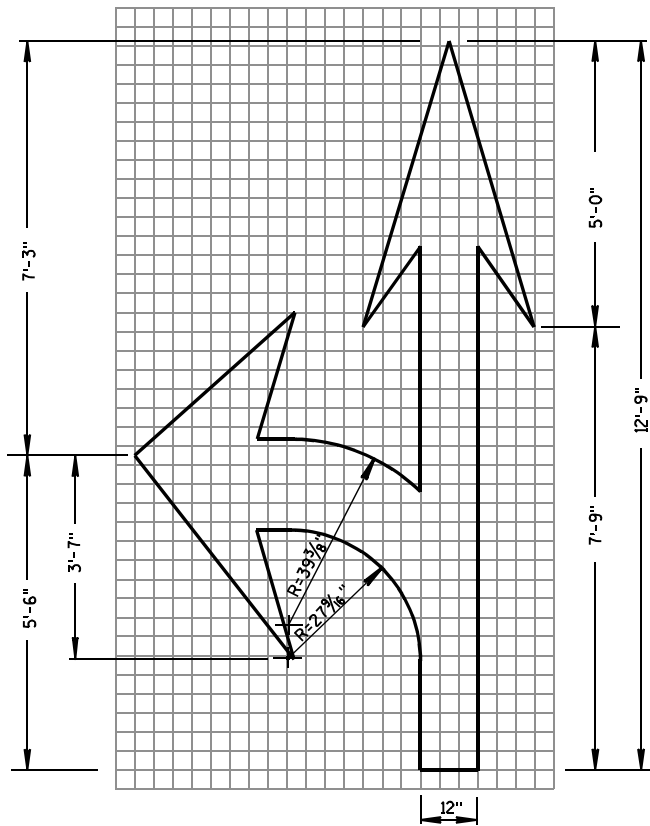
TYPE 1



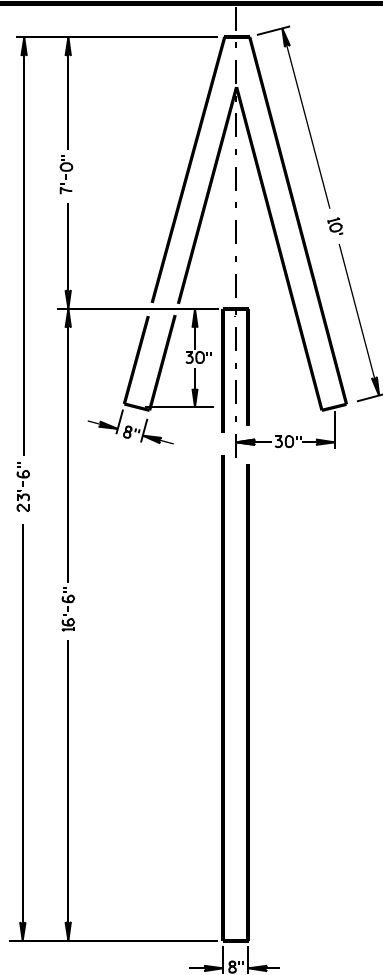
TYPE 6



TYPE 7



TYPE 3

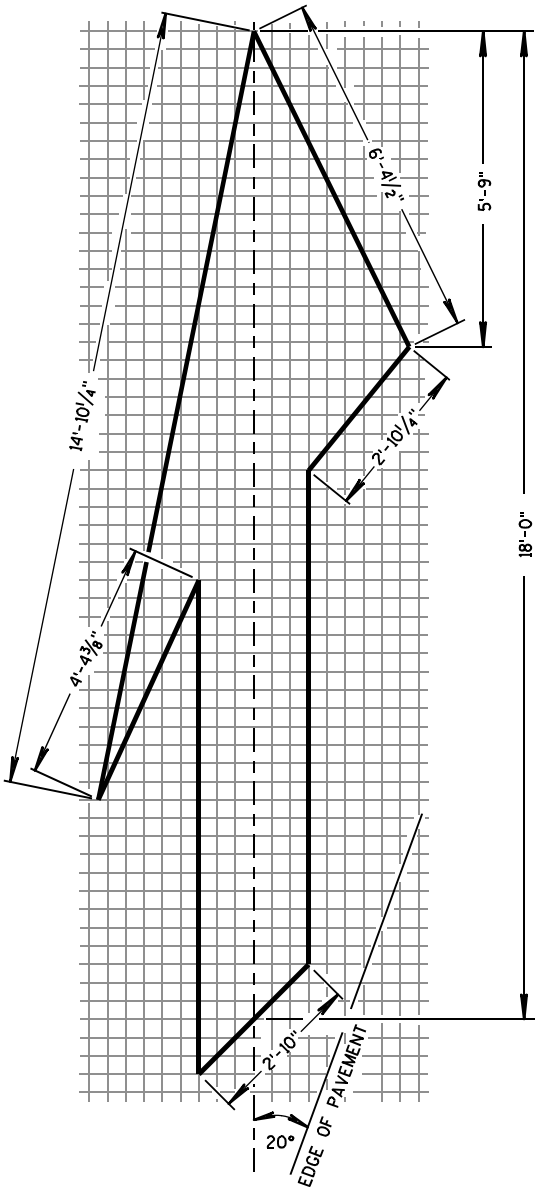


TYPE 4

GENERAL NOTES

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

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

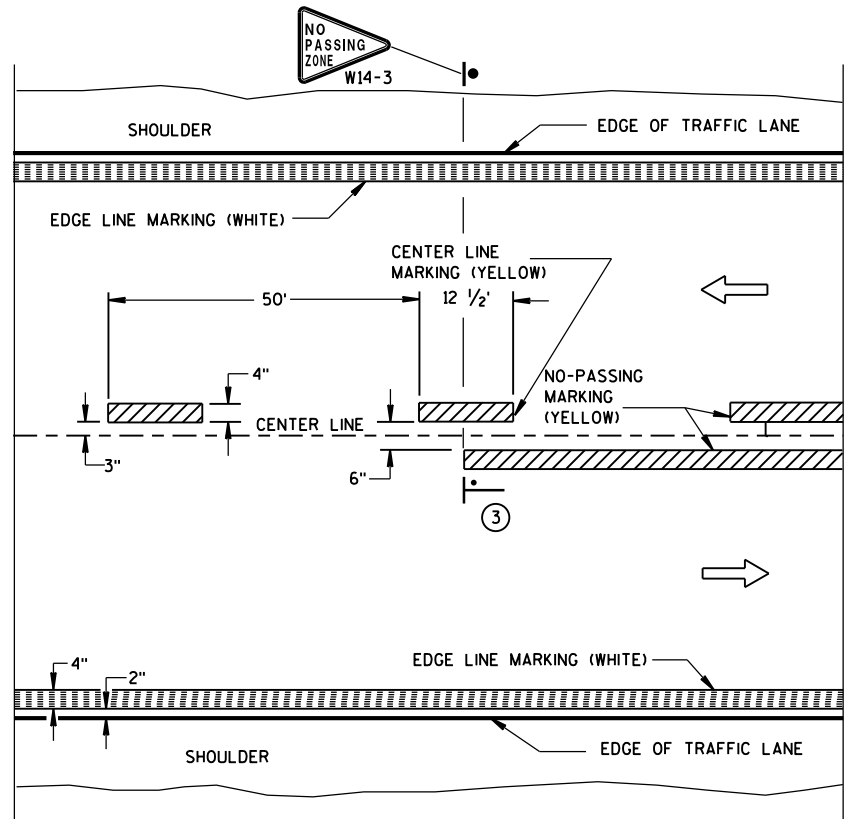
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

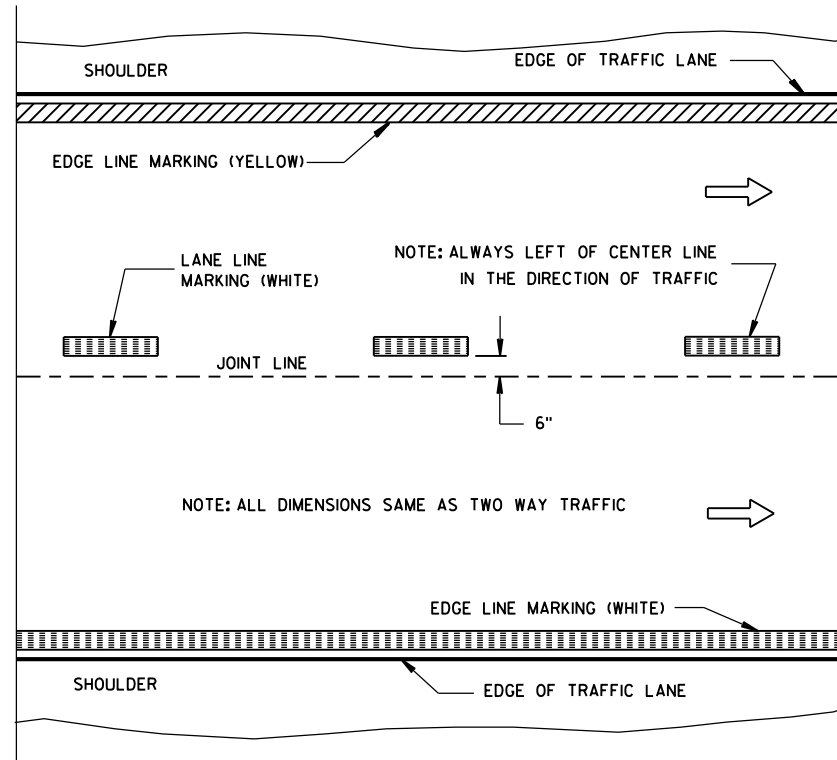
7/1/11  
DATE

/S/ Thomas N. Notbohm  
STATE TRAFFIC ENGINEER OF DESIGN

FHWA

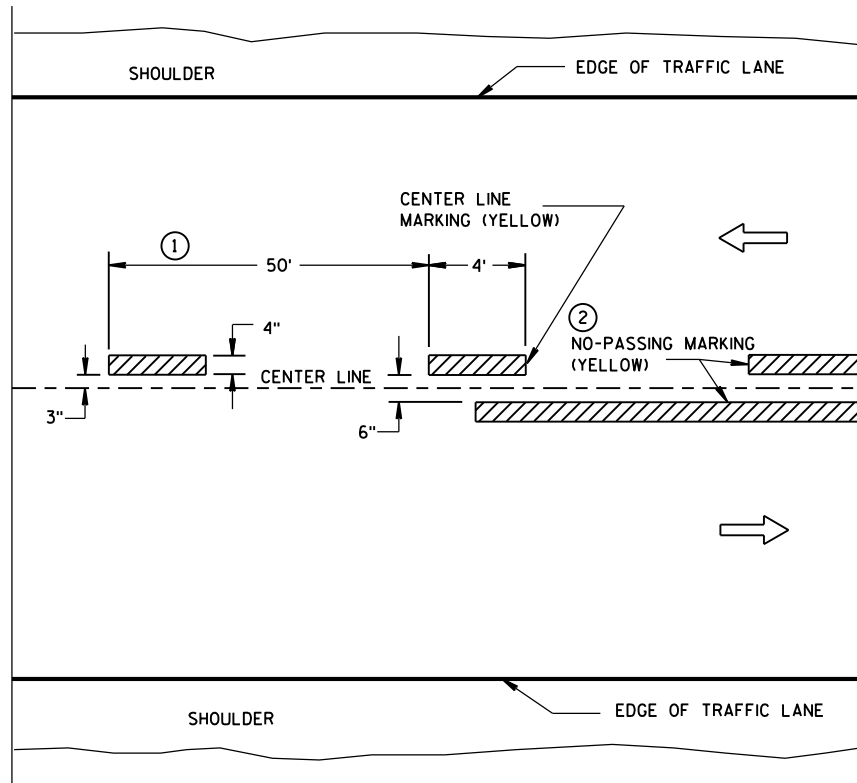


TWO WAY TRAFFIC

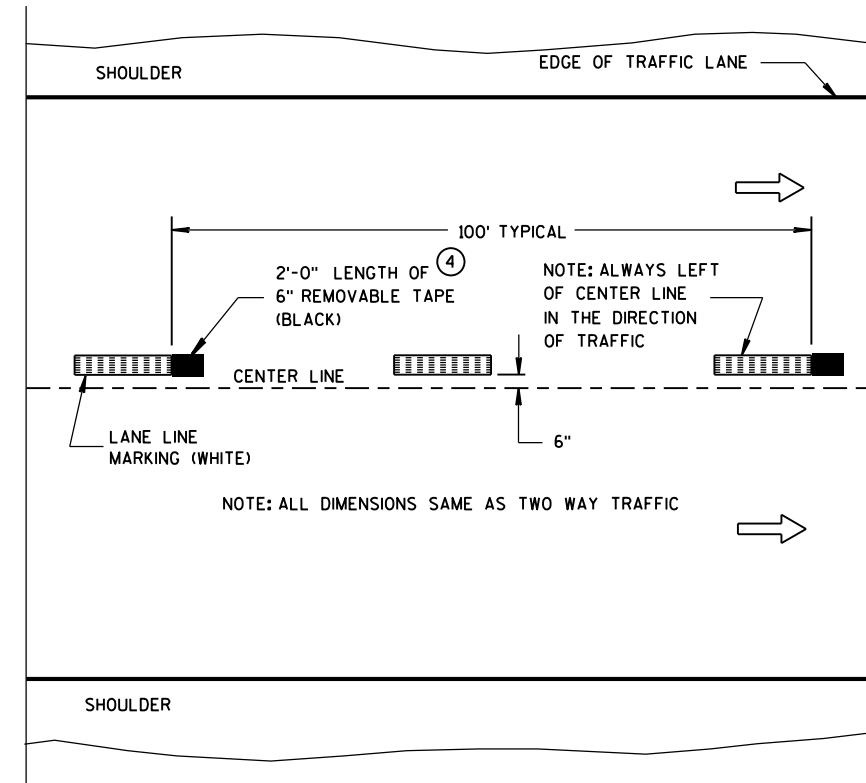


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING  
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

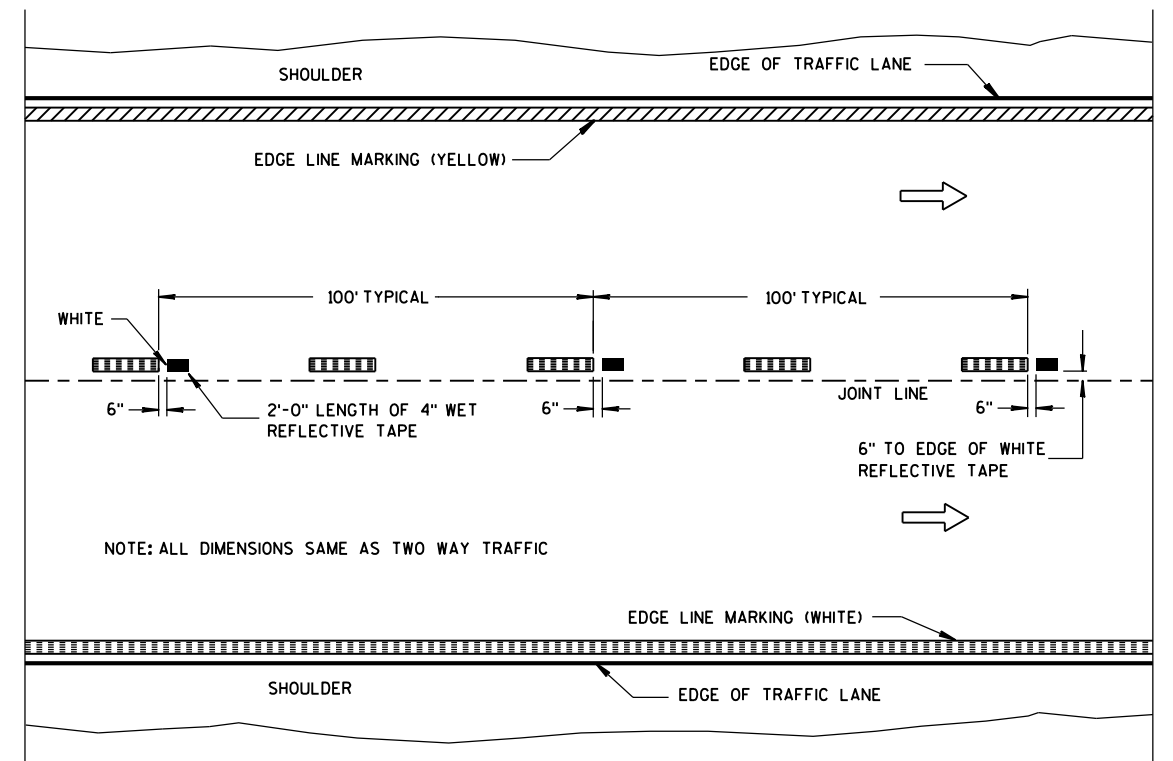
GENERAL NOTES

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

- 1 HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- 2 NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- 3 NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- 4 CONCRETE ONLY.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO  
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

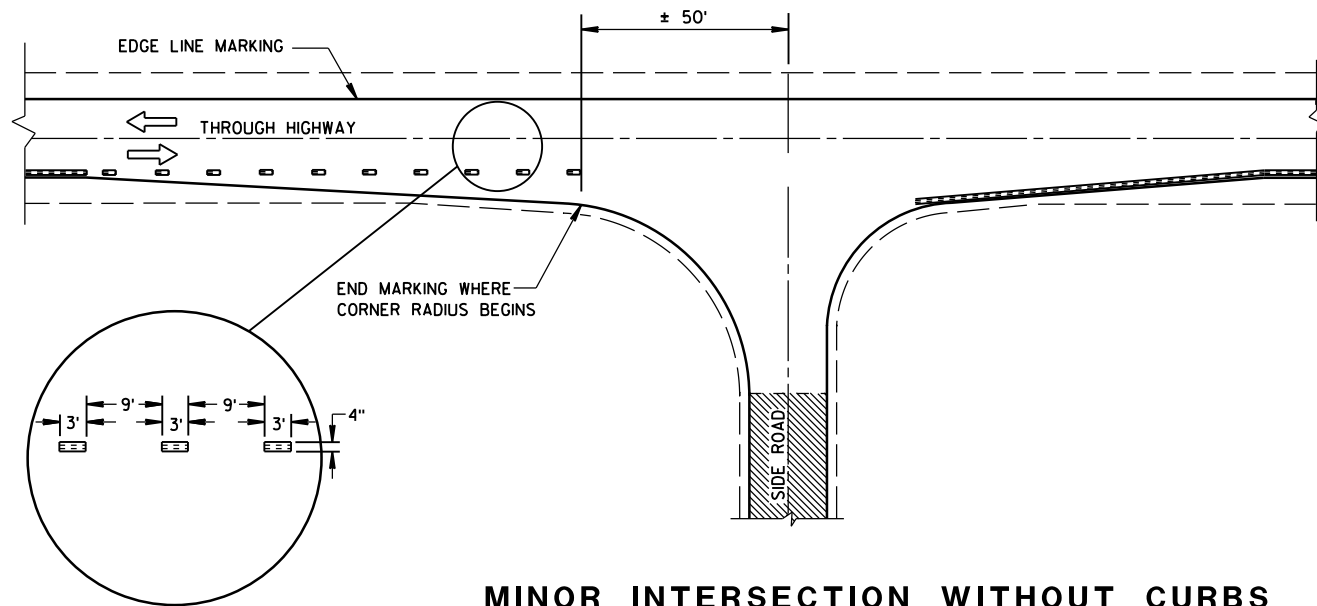
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING  
(MAINLINE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

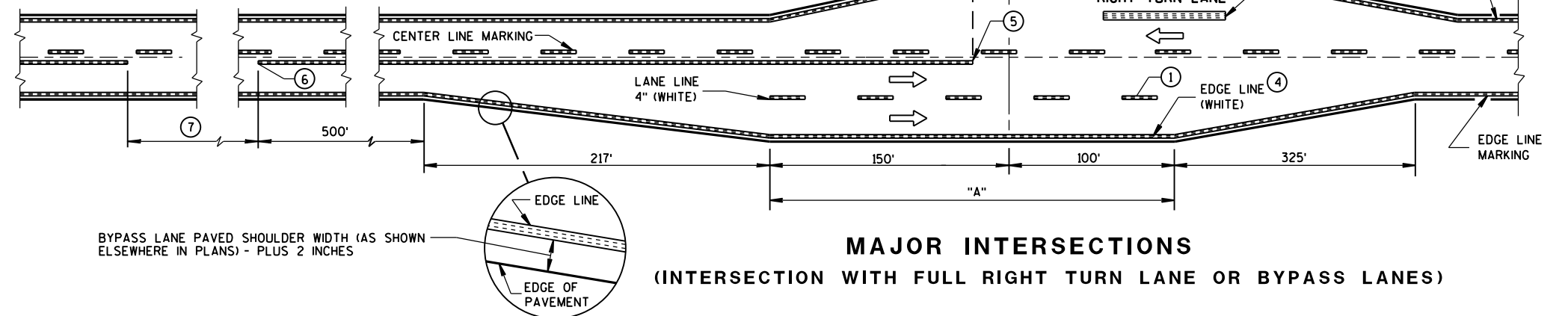
APPROVED  
5-13-2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER  
FHWA



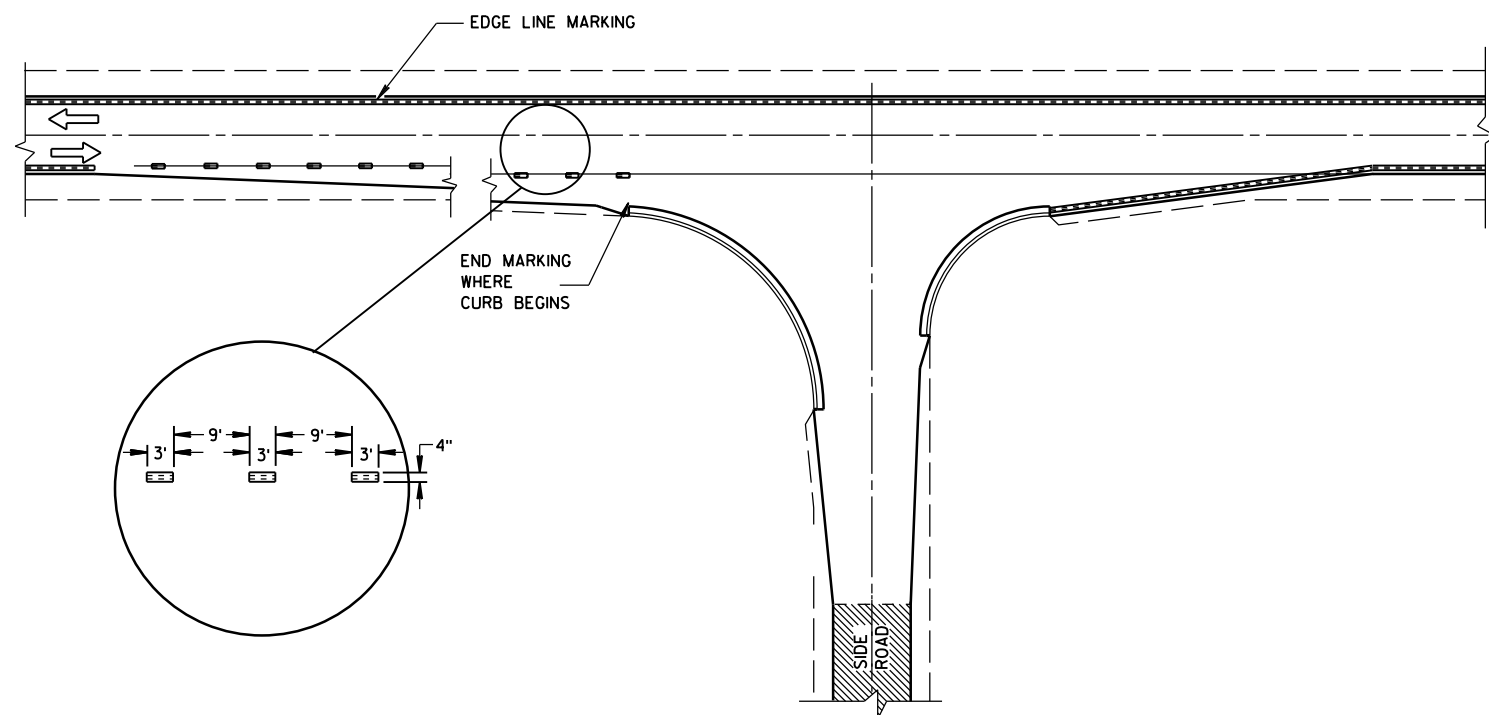
**MINOR INTERSECTION WITHOUT CURBS**

⑦

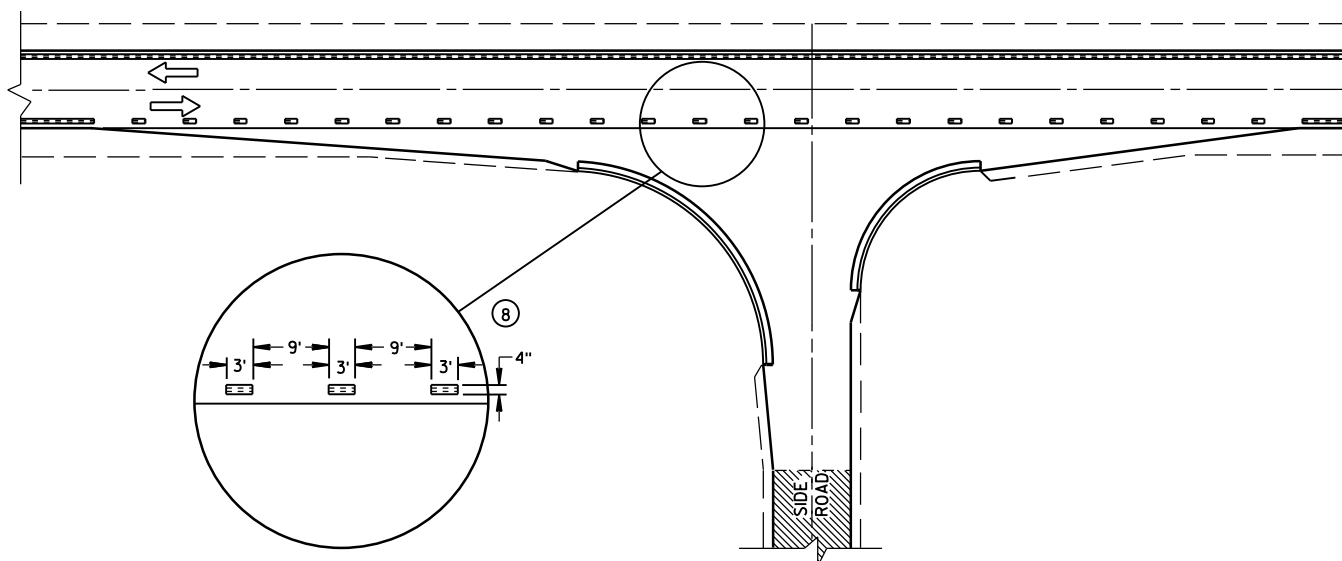
| POSTED SPEED (MPH) | MINIMUM DISTANCE BETWEEN ZONES (FEET) |
|--------------------|---------------------------------------|
| 25 - 30            | 528                                   |
| 35 - 40            | 528                                   |
| 45 - 50            | 686                                   |
| 55                 | 792                                   |



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



**MINOR INTERSECTION WITH CURBS**  
(TYPICAL MARKING)



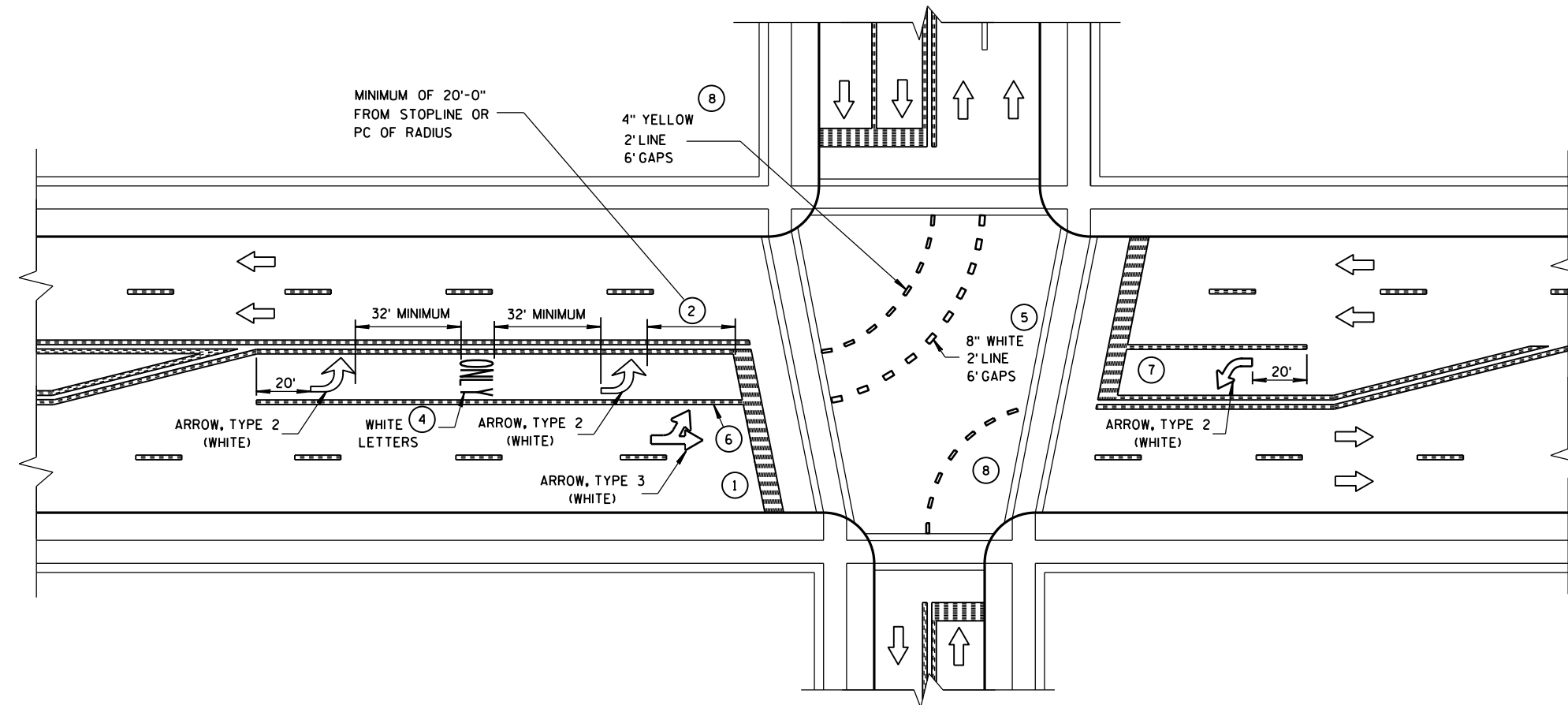
**MINOR INTERSECTION WITH CURBS**  
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

## GENERAL NOTES

- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
  - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
  - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
  - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
  - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
  - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
  - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
  - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL ( → ) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING  
(INTERSECTIONS)

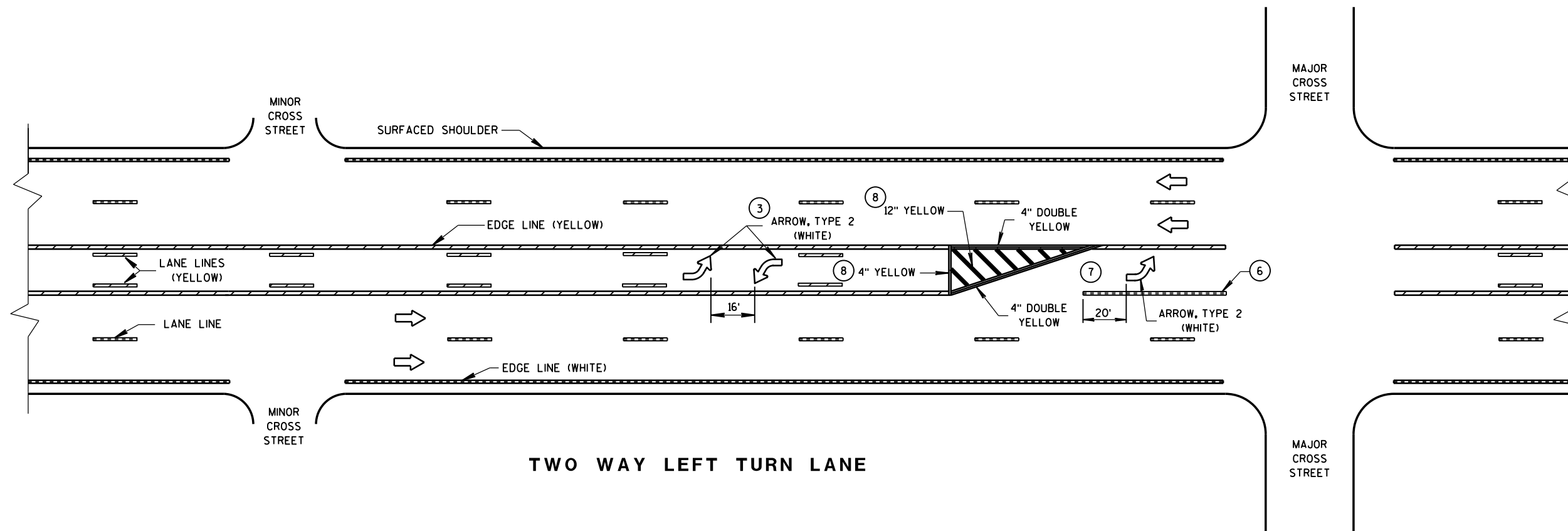
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



### GENERAL NOTES

- ① STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
- ② DISTANCE MAY BE ADJUSTED TO ACCOMMODATE SHORT LEFT TURN LANES, AS APPROVED BY THE ENGINEER.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
- ⑤ 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
- ⑥ 8" WHITE
- ⑦ ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
- ⑧ REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:  
ARROW SYMBOL (➡)  
SHOWS DIRECTION OF TRAVEL



PAVEMENT MARKING  
(LEFT TURN LANE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

LEGEND

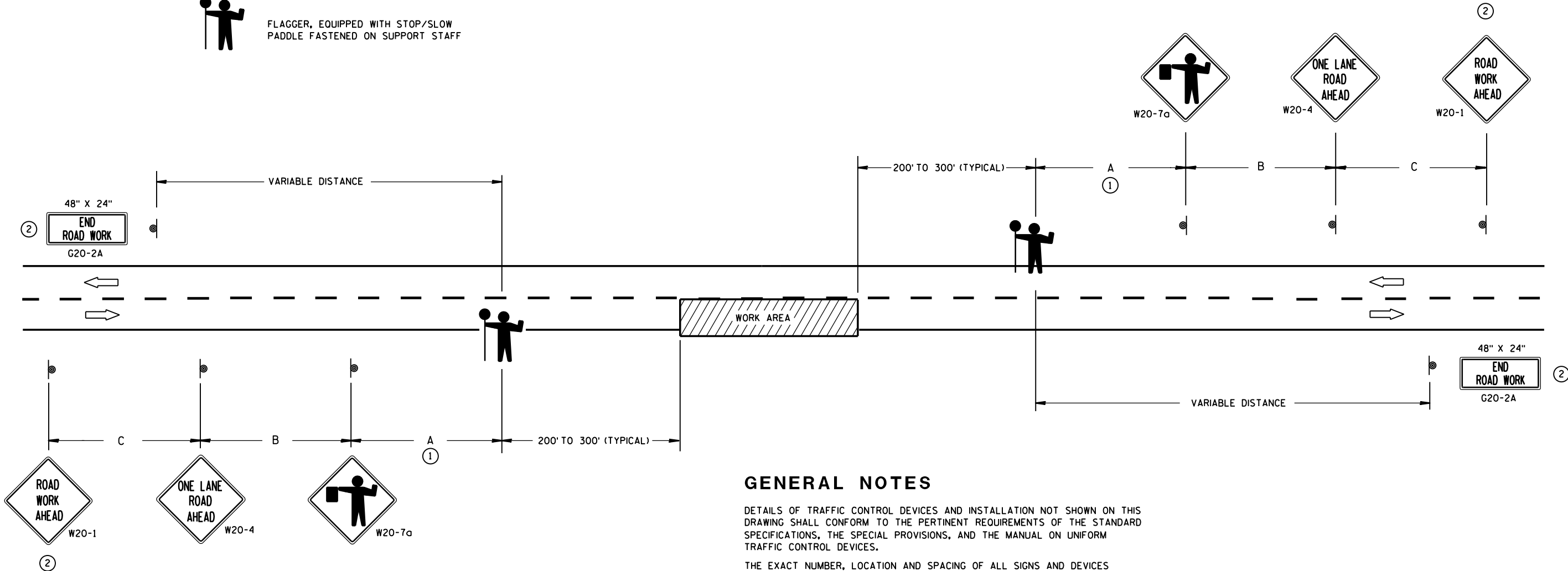
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

| SPEED LIMIT | SIGN SPACING<br>A,B,C |
|-------------|-----------------------|
| 25-35 MPH   | 200'                  |
| 35-40 MPH   | 350'                  |
| 45-55 MPH   | 500'                  |



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR 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.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

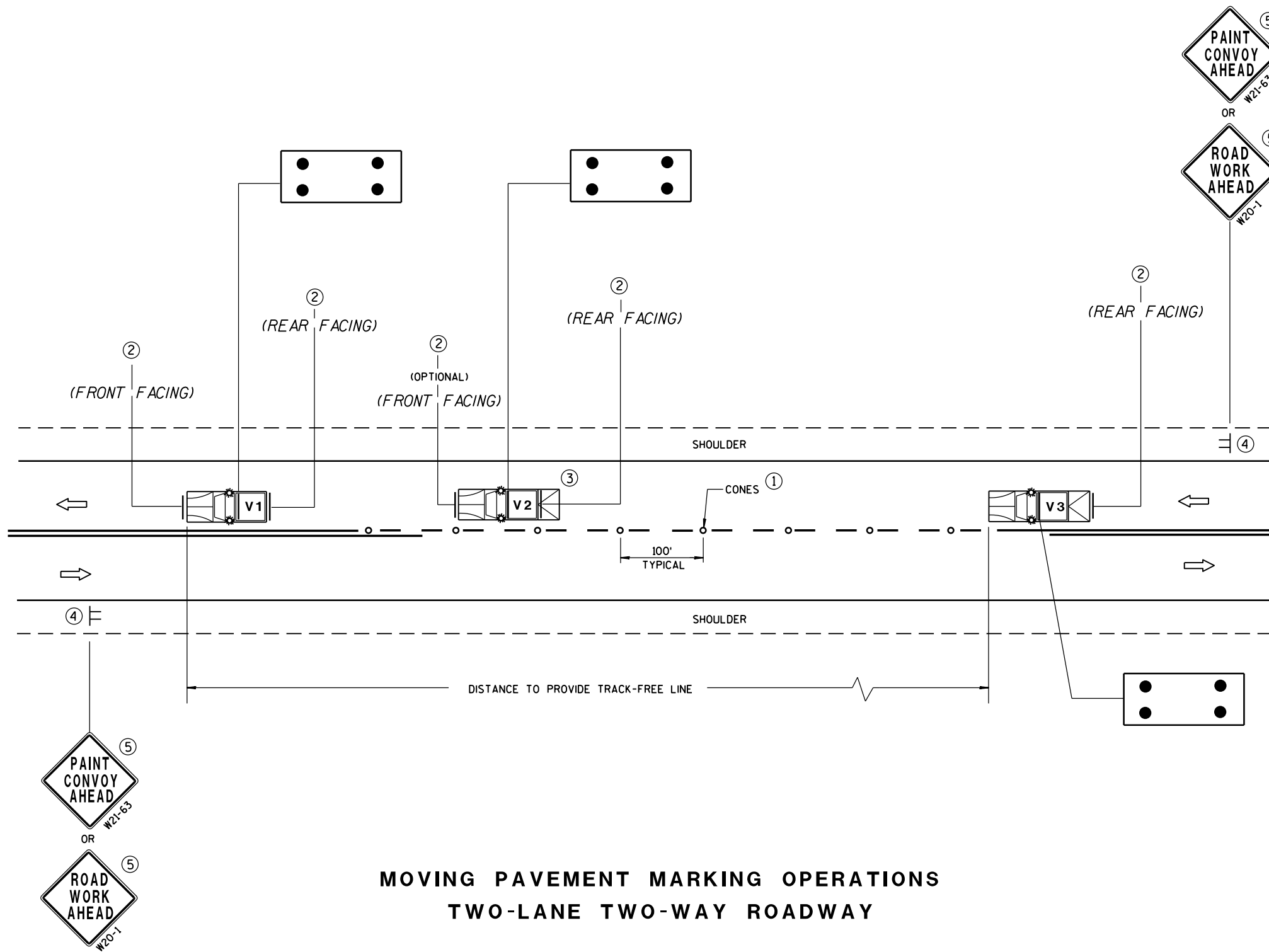
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
8/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



## MOVING PAVEMENT MARKING OPERATIONS TWO-LANE TWO-WAY ROADWAY

### GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

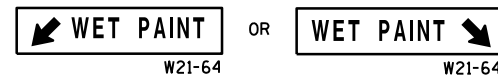
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

### LEGEND

**V1** LEAD VEHICLE

**V2** SHADOW VEHICLE

**V3** TRAIL VEHICLE WITH TMA

**TMA** TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING  
OPERATION  
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013  
DATE

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER

FHWA

LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

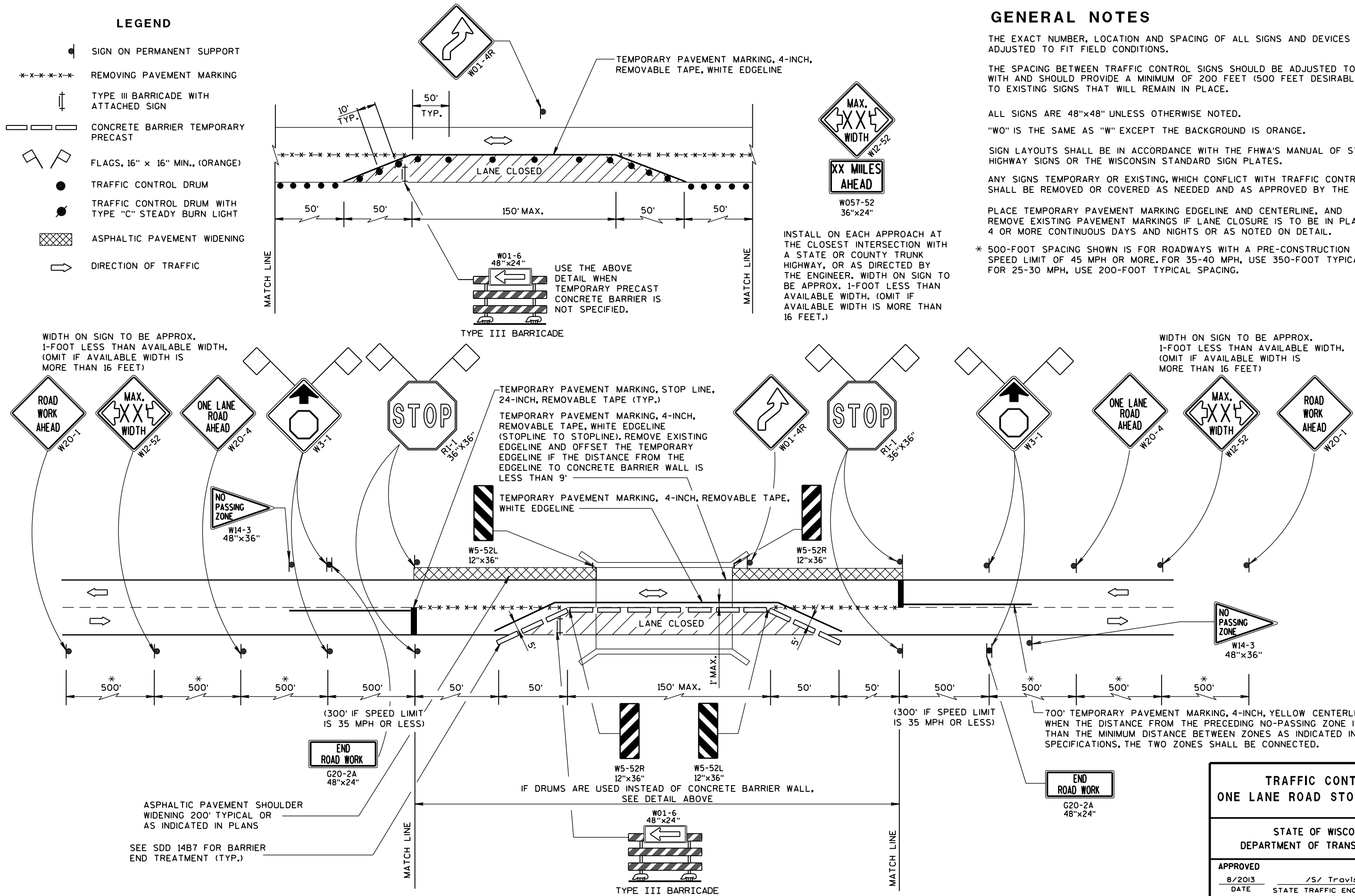
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE, AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.

\* 500-FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350-FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200-FOOT TYPICAL SPACING.

6

S.D.D. 15 D 32-3



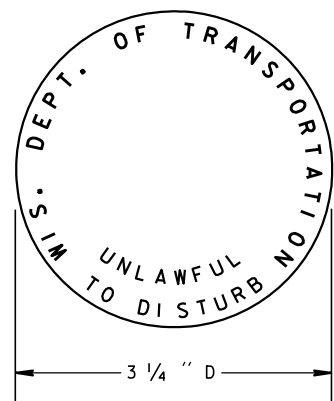
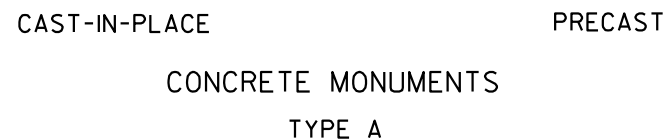
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S.D.D. 15 D 32-3

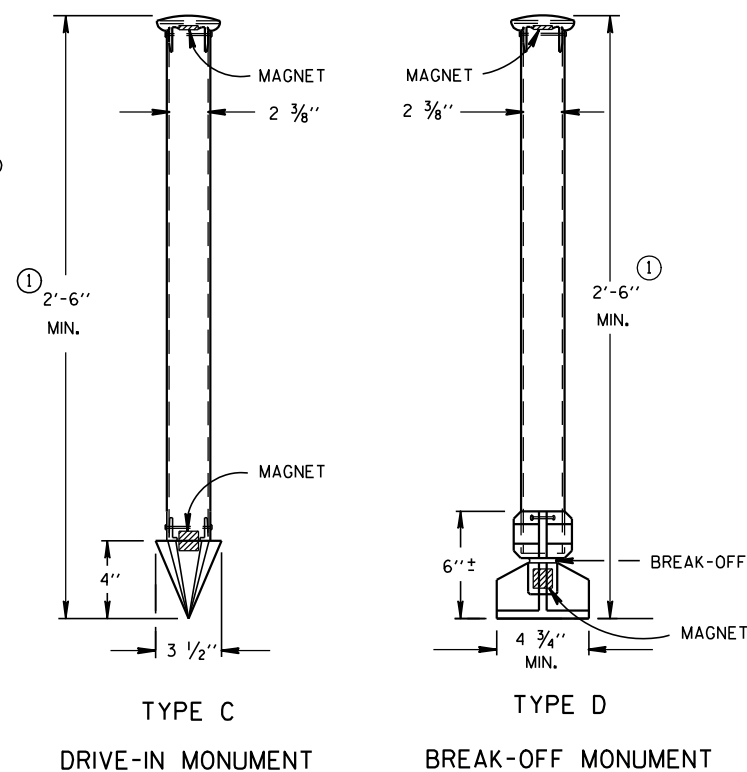
TRAFFIC CONTROL,  
ONE LANE ROAD STOP CONDITION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

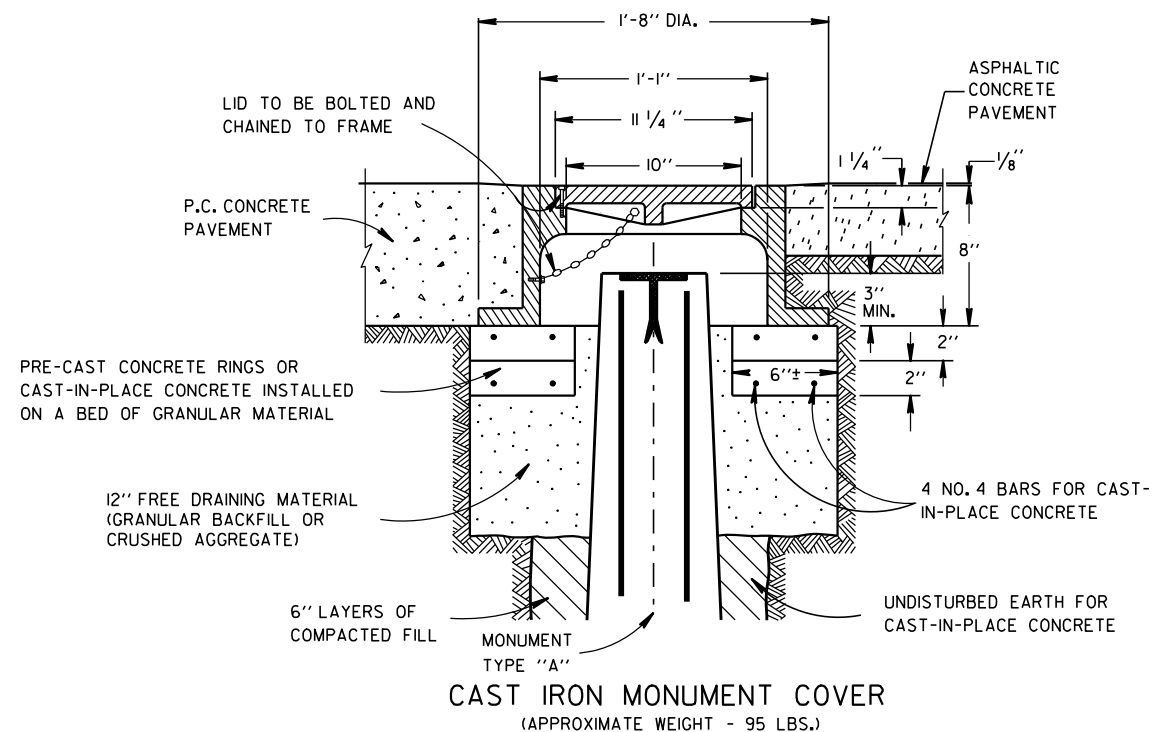
APPROVED  
8/2013 /S/ Travis Feltes  
DATE STATE TRAFFIC ENGINEER OF DESIGN  
FHWA



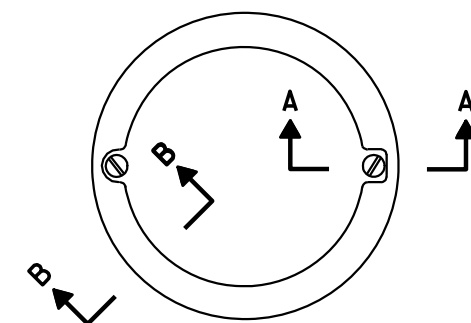
② WIS DOT MONUMENT MARKER LOGO  
FOR TYPES "A", "C" & "D"



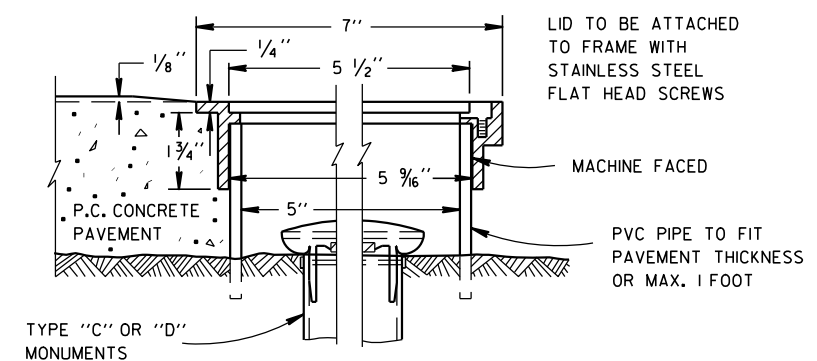
ALUMINUM MONUMENTS  
(INCLUDES MARKER)



- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



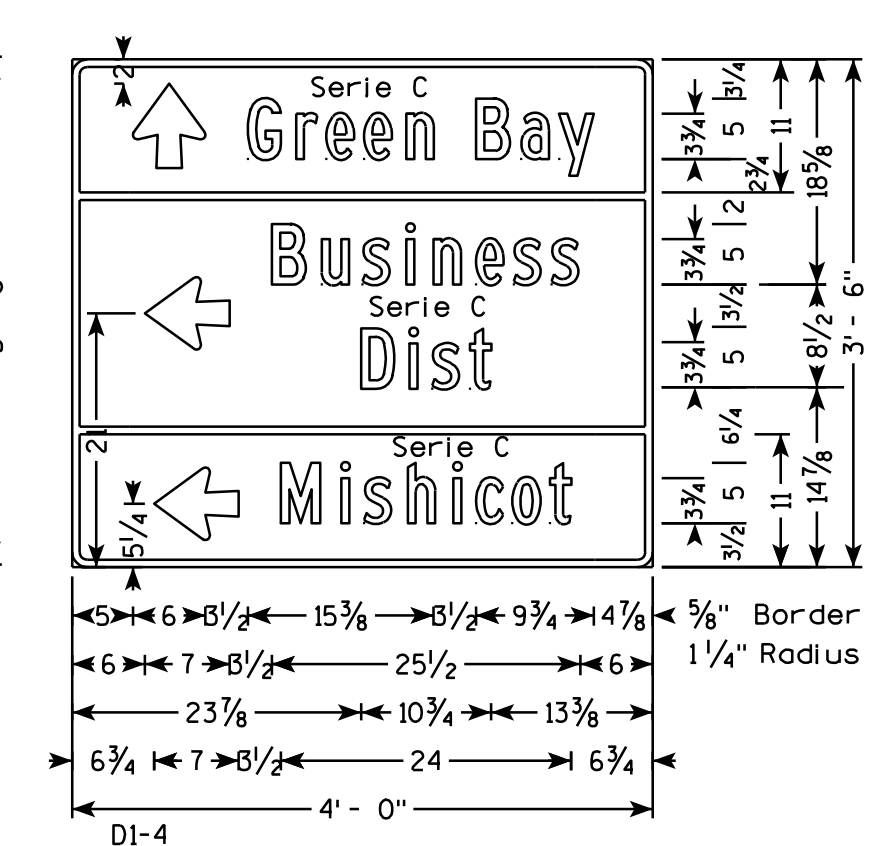
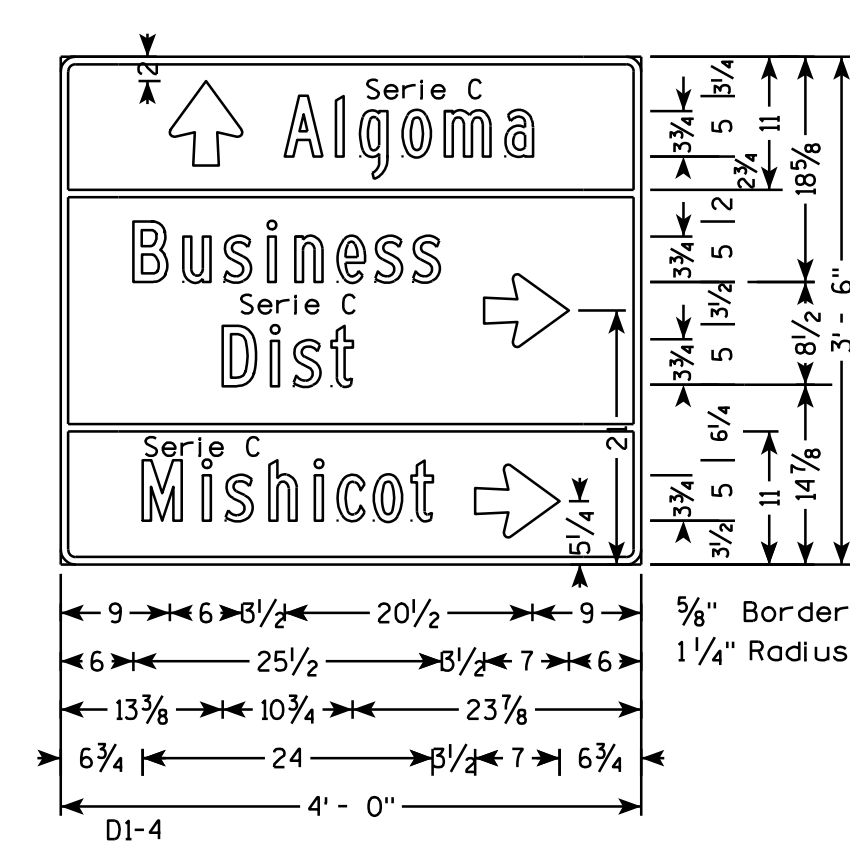
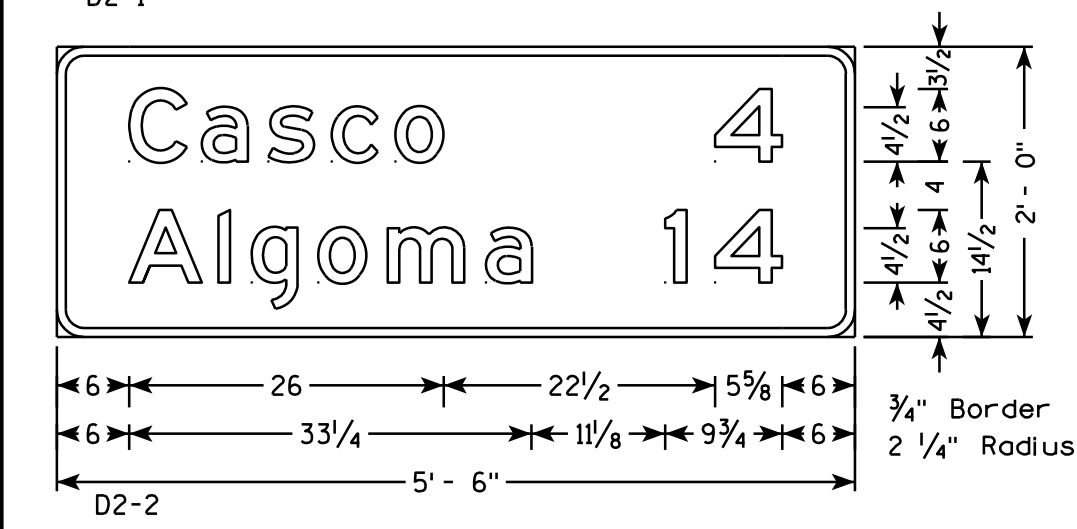
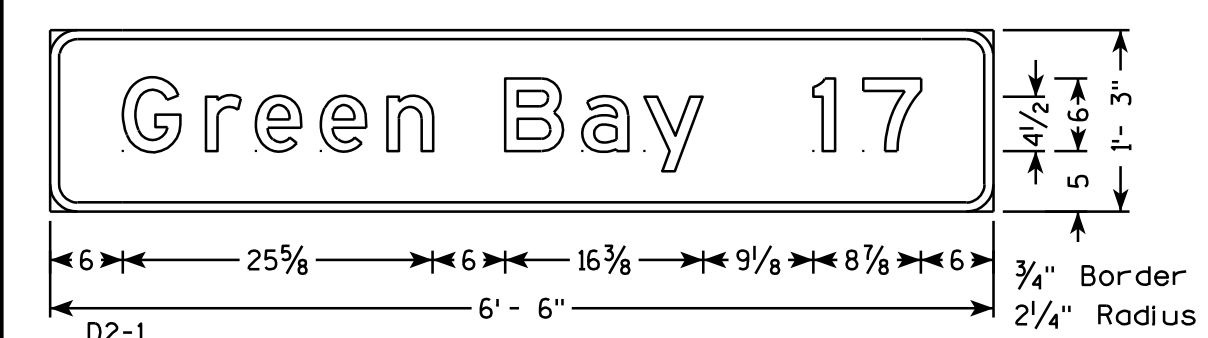
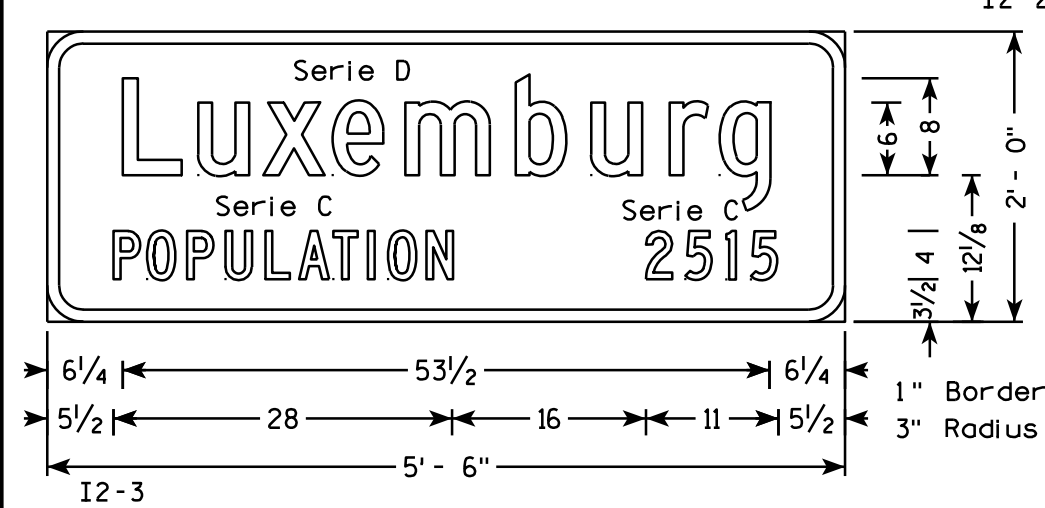
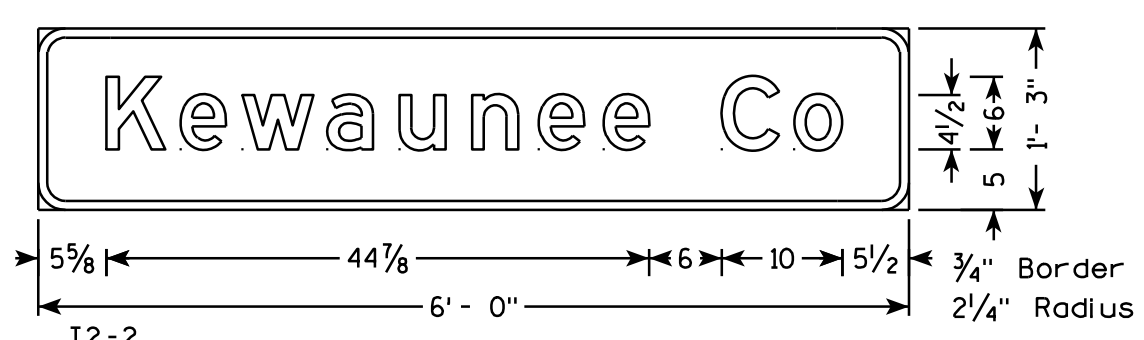
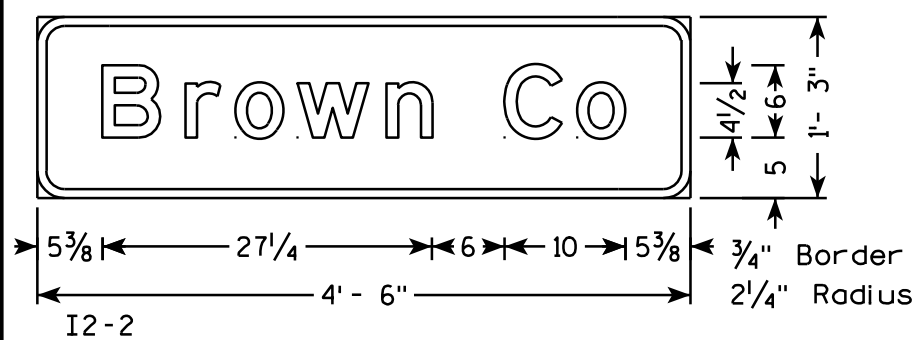
TOP VIEW



(APPROXIMATE WEIGHT 2 LBS)  
(FOR CONCRETE PAVEMENT ONLY)

APPROVED  
9/22/1999      /S/ Rory L. Rhinesmith  
DATE      CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



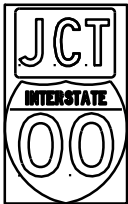
NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Green  
Message - White
3. Message Series - E except as noted

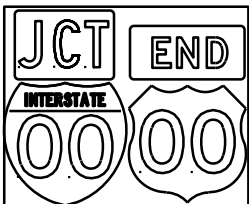
7

7

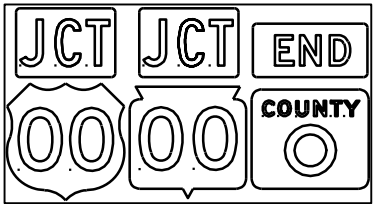
TYPICAL ASSEMBLIES



J1-1



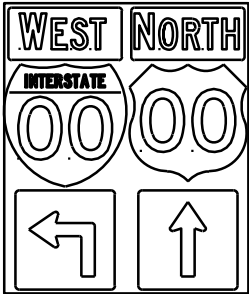
J1-2



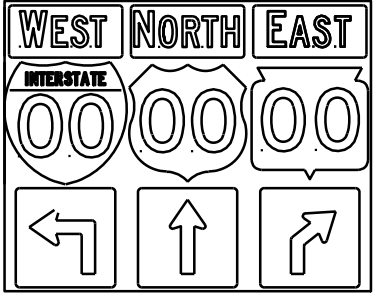
J1-3



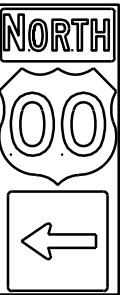
J2-1



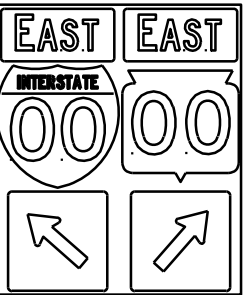
J2-2



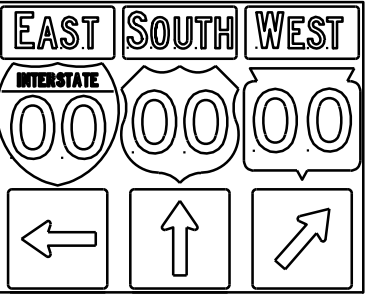
J2-3



J3-1



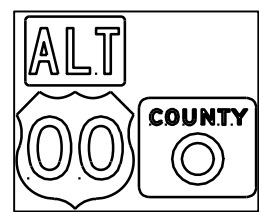
J3-2



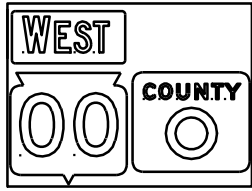
J3-3



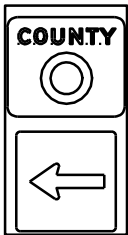
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

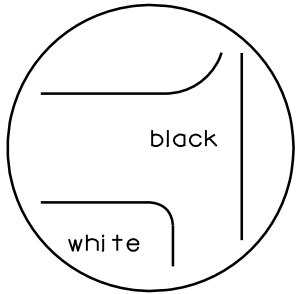
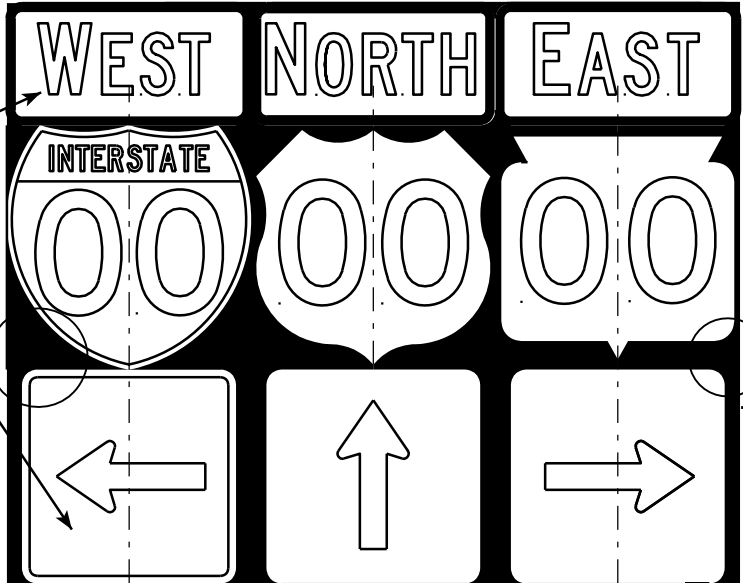
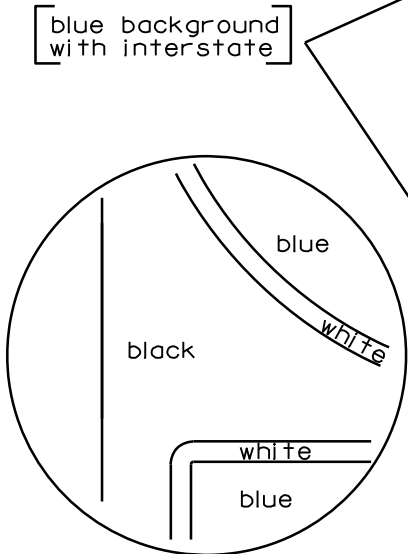


J22-1



JV

(Typical Vertical J-Assembly  
See Note 10 and 11)



[black background]

ROUTE MARKERS & COMPONENTS  
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer  
DATE 3/25/13 PLATE NO. A2-1S.7

PROJECT NO:

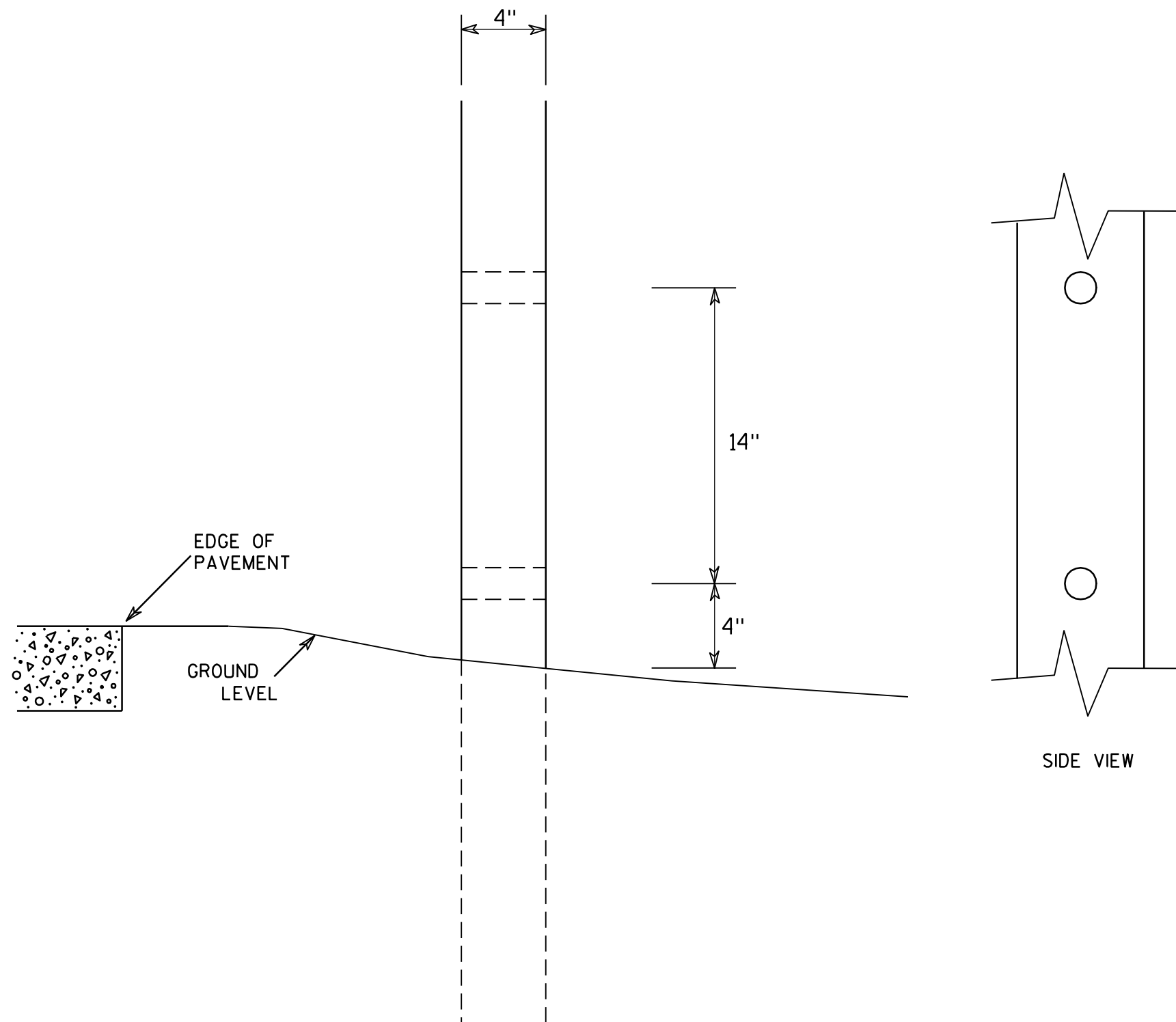
SHEET NO:

E

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Black Non-reflective  
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

7

GENERAL NOTES

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

7

**4 X 6 WOOD POST  
MODIFICATIONS**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

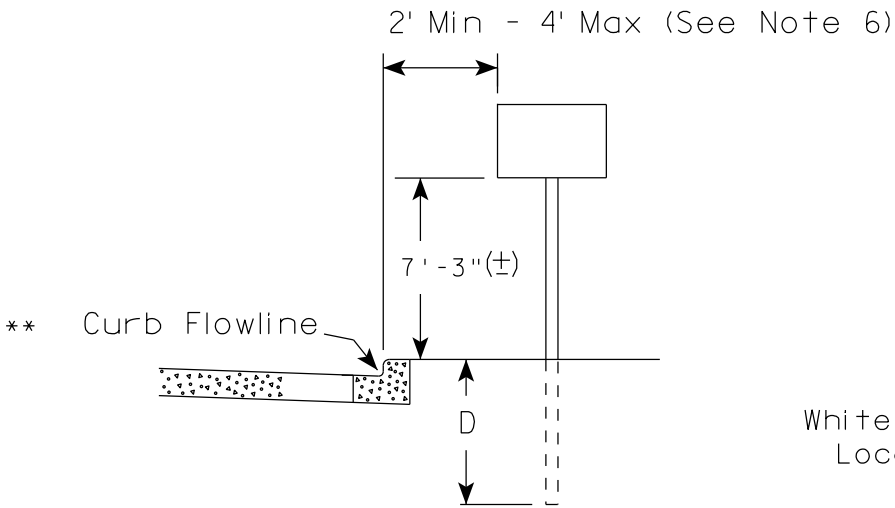
HWY:

COUNTY:

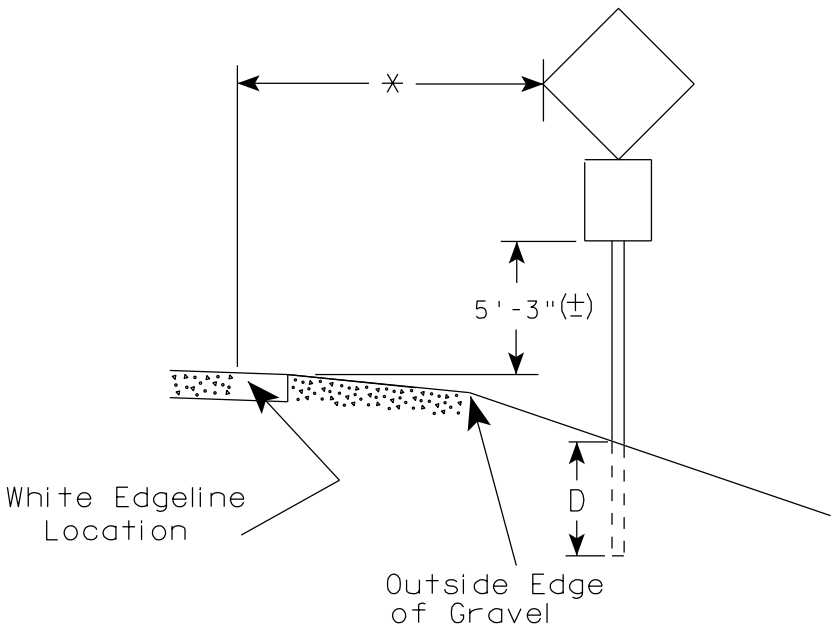
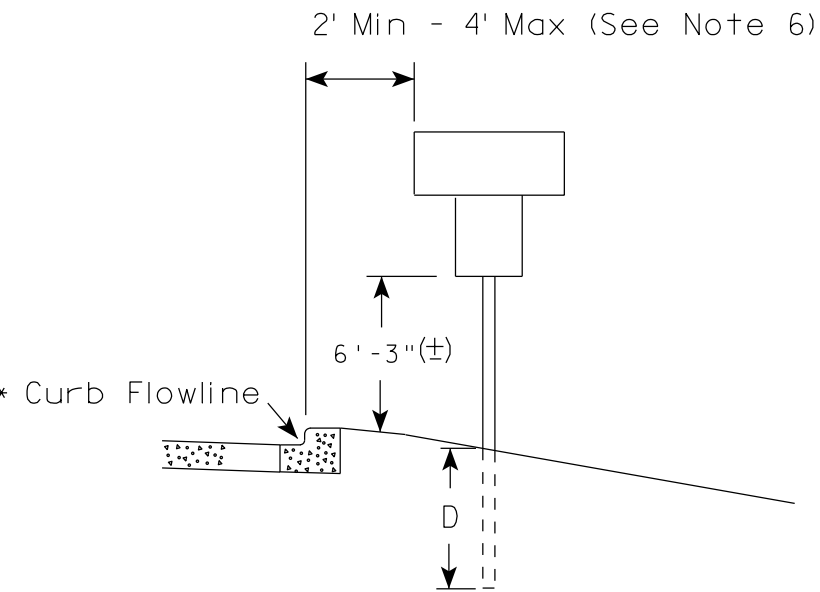
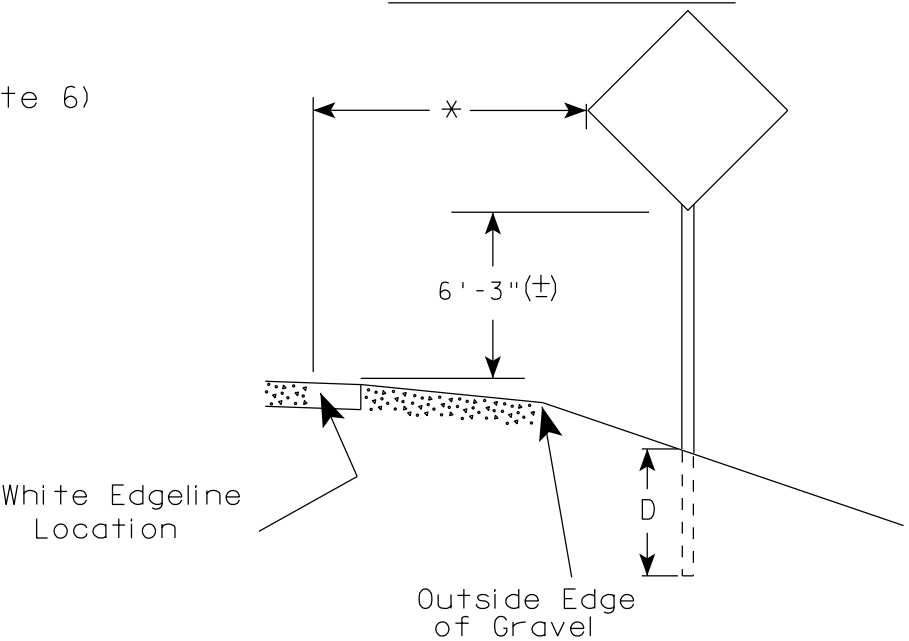
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

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

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

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

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

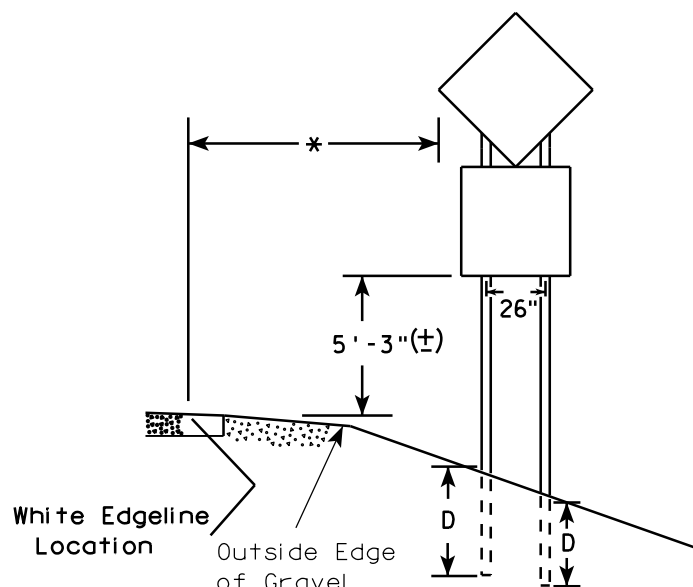
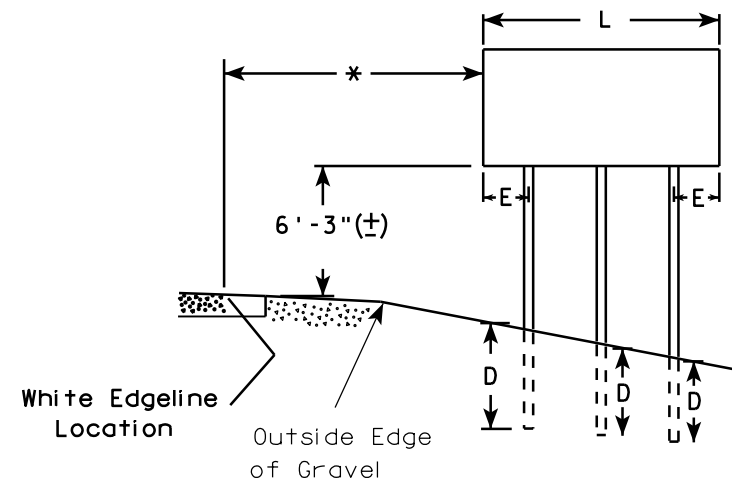
APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-3.18

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" ( $\pm$ ) or 6'-3" ( $\pm$ ) depending upon existence of sub-sign.
4. The ( $\pm$ ) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" ( $\pm$ ) or 6'-3" ( $\pm$ ) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" ( $\pm$ ) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" ( $\pm$ ). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" ( $\pm$ ).

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

\*\*\* See A4-3 sign plate for signs 4' or less in width or 20 S.F.  
or less in area.



48" DIAMOND WARNING SIGN

| SIGN SHAPE OTHER THAN DIAMOND<br>(FOUR POSTS REQUIRED) |     |
|--------------------------------------------------------|-----|
| L                                                      | E   |
| 168" and greater                                       | 12" |

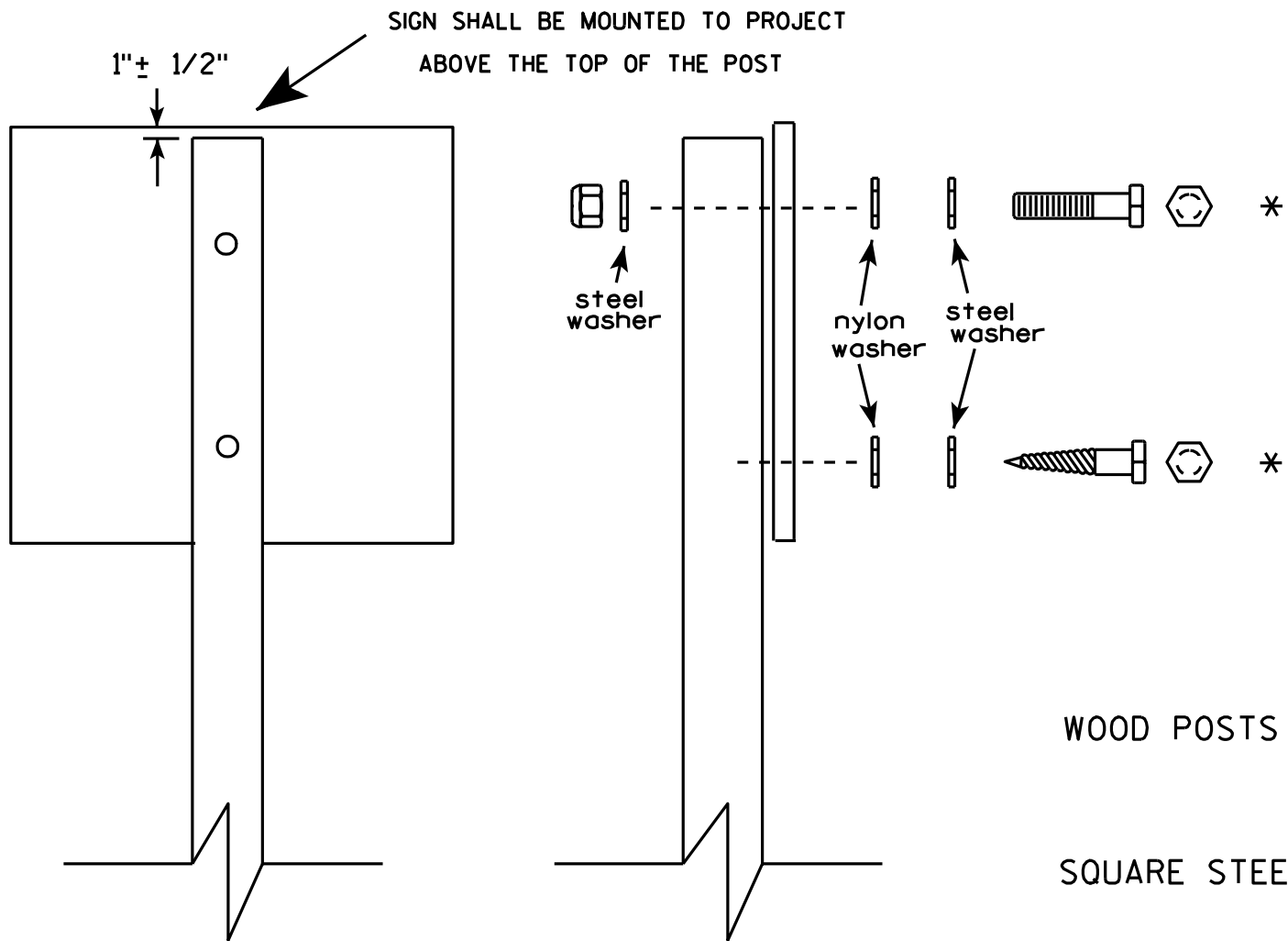
| POST EMBEDMENT DEPTH                     |              |
|------------------------------------------|--------------|
| Area of Sign Installation<br>( Sq. Ft. ) | D<br>( Min ) |
| 20 or Less                               | 4'           |
| Greater than 20                          | 5'           |

TYPICAL INSTALLATION  
OF TYPE II SIGNS  
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch  
For State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4.12

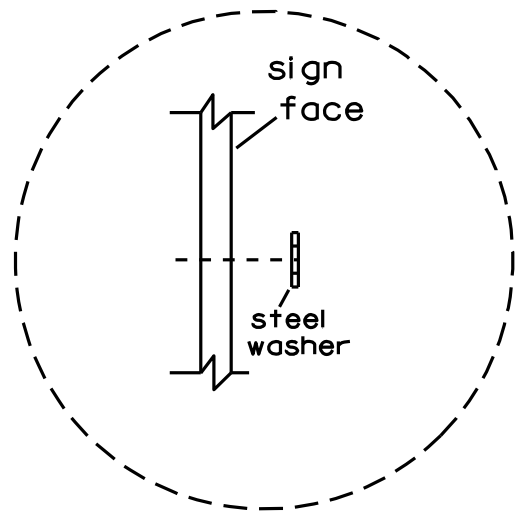


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")  
LAG SCREWS - 3/8" X 3"  
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")  
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts  
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -  
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL  
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



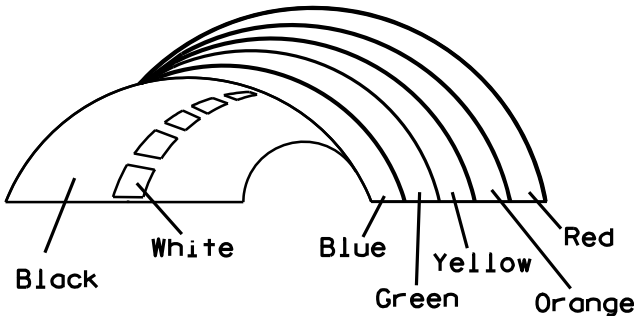
Washer Placement when Sign Has Other Than Type H or Type F Face

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

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| ATTACHMENT OF SIGNS<br>TO POSTS  |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 3/23/10                     | PLATE NO. A4-8.7                                      |



Background Colors of Symbol\*



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 - (See Note 6)
- 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. Border - Blue
  - Line 1- Red
  - Line 2 - Black
  - Line 3-5 - Blue
- 6. Line 1- Dutch 8011L
  - Line 2 - Series E
  - Line 3-5 - Series C
- 7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|-------|-------|---|---|-------|--------|--------|-------|-------|---|-----|--------|-------|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |   |   |   |   |   |                 |
| 2    | 30 | 36 | 1 1/2 | 1/2 | 5/8 | 3 | 2 | 3 1/2 | 2 7/8 | 1 | 8 | 2 1/8 | 11 1/4 | 11 1/8 | 9 3/8 | 1 1/4 |   | 3/4 | 12 5/8 | 7 1/2 |   |   |   |   |   |   | 7.5             |
| 3    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |   |   |   |   |   |                 |
| 4    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |       |       |   |   |       |        |        |       |       |   |     |        |       |   |   |   |   |   |   |                 |

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

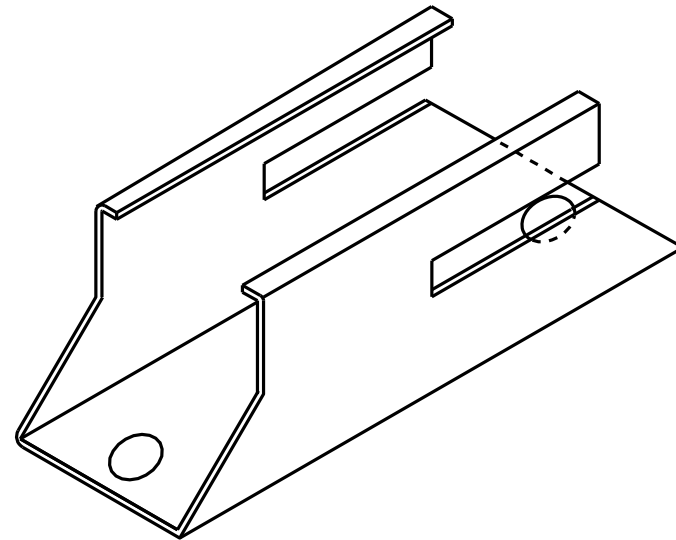
STANDARD SIGN  
I55-56

WISCONSIN DEPT OF TRANSPORTATION

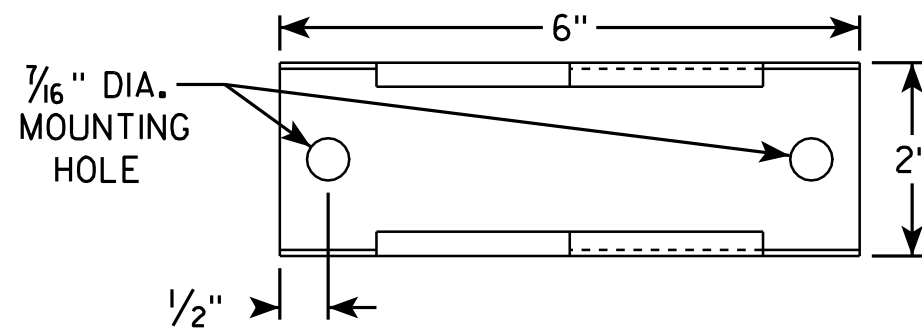
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

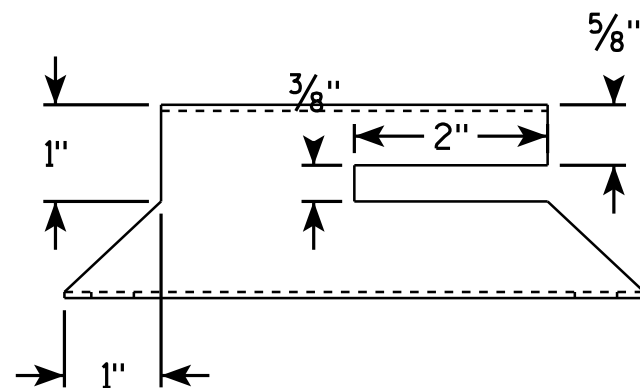
# ISOMETRIC VIEW



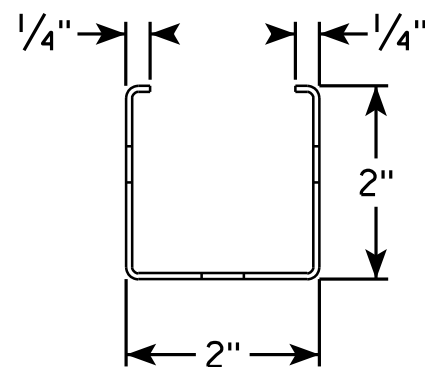
# TOP VIEW



# SIDE VIEW



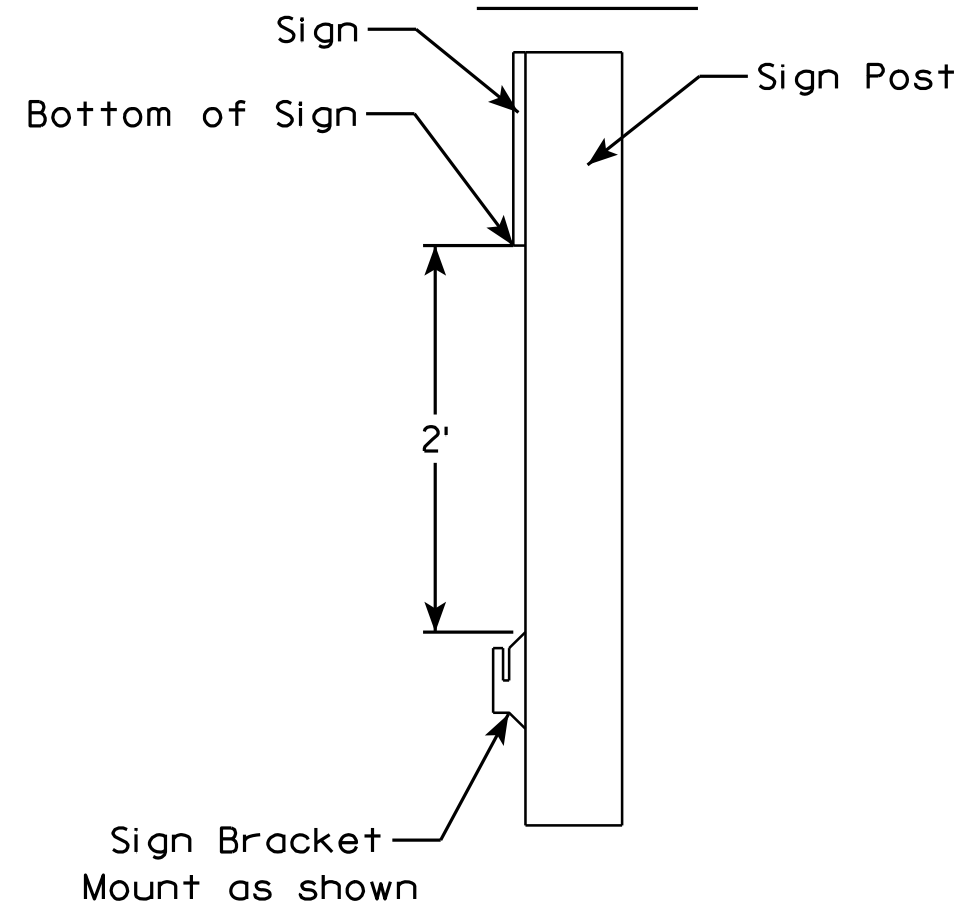
# END VIEW



# NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

# SIDE VIEW



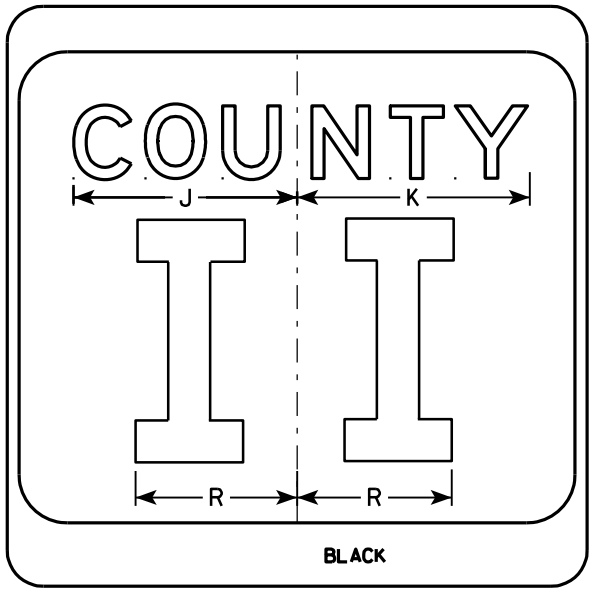
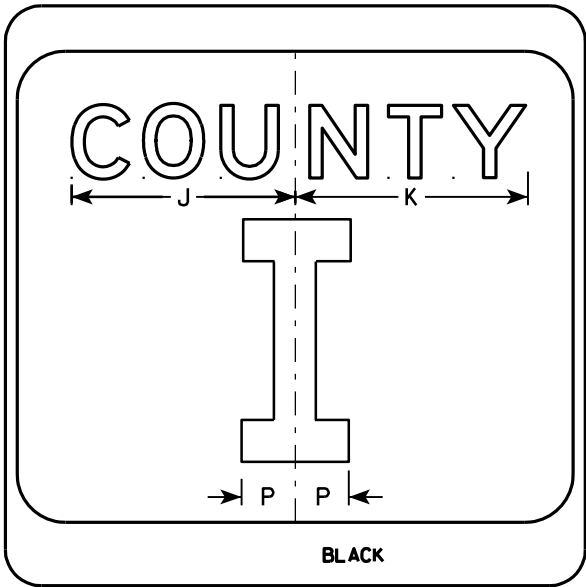
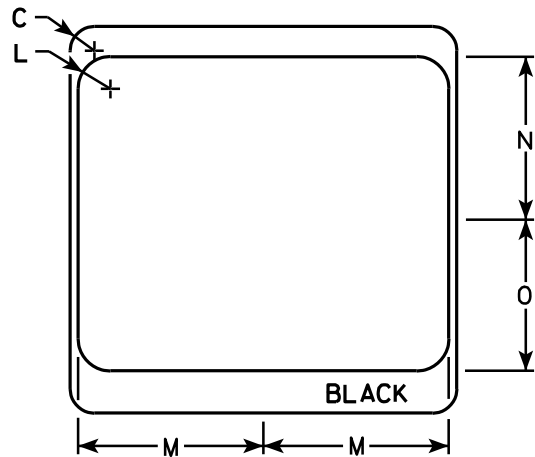
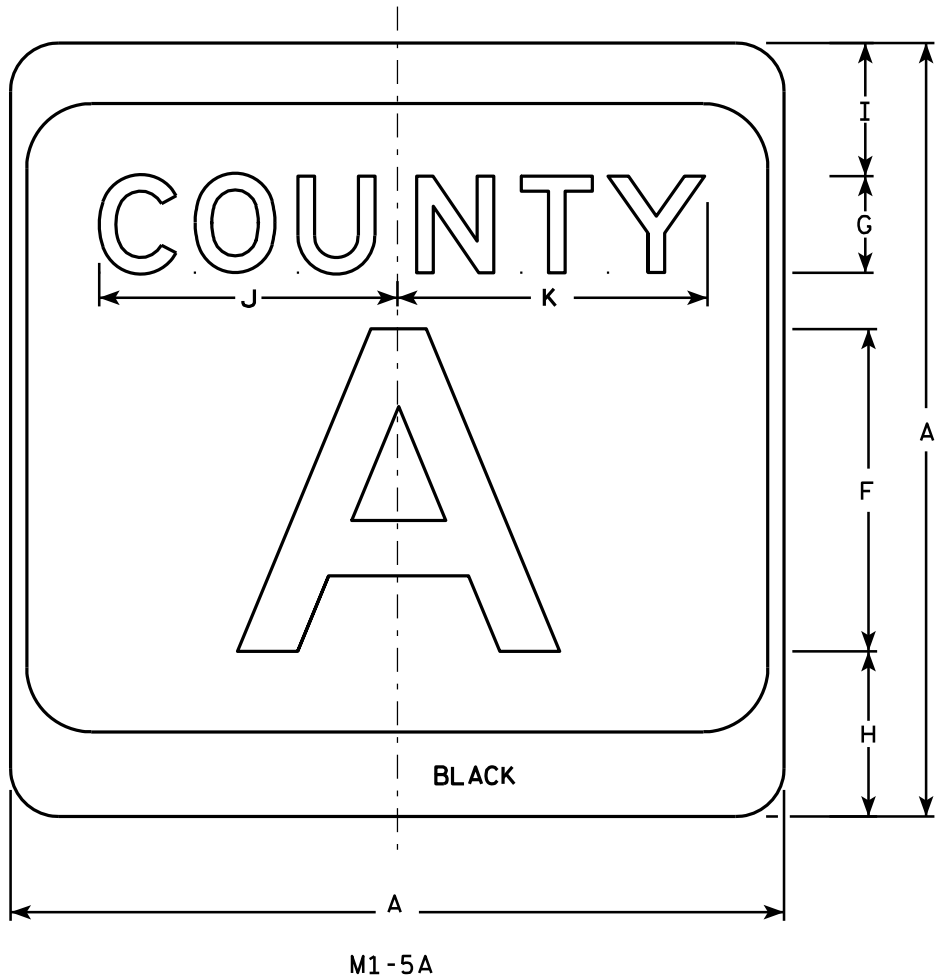
ROLLUP SIGN BRACKET  
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

7



NOTES

- 1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:  
Background - White & Black - See Note 7  
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. Message Series E for 1 letter.  
Message Series D for 2 letters unless message is too big then Series C.  
Message Series C for 3 letters unless message is too big then Series B.
- 6. Substitute appropriate letters & optically center to achieve proper balance.
- 7. Permanent Signs  
Background - Type H Reflective  
Detour or 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<br>sq. ft. |
|------|----|---|-------|---|---|----|---|-------|-------|--------|--------|---|--------|--------|-------|-------|---|-------|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |   |       |   |   |    |   |       |       |        |        |   |        |        |       |       |   |       |   |   |   |   |   |   |   |   |                 |
| 2    | 24 |   | 1 1/2 |   |   | 10 | 3 | 5 1/8 | 4 1/8 | 9 1/4  | 9 5/8  | 2 | 11 1/2 | 10 1/8 | 9 3/8 | 2 1/4 |   | 6 5/8 |   |   |   |   |   |   |   |   | 4.0             |
| 3    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |
| 5    | 36 |   | 2 1/4 |   |   | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14    | 3 3/8 |   | 10    |   |   |   |   |   |   |   |   | 9.0             |

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

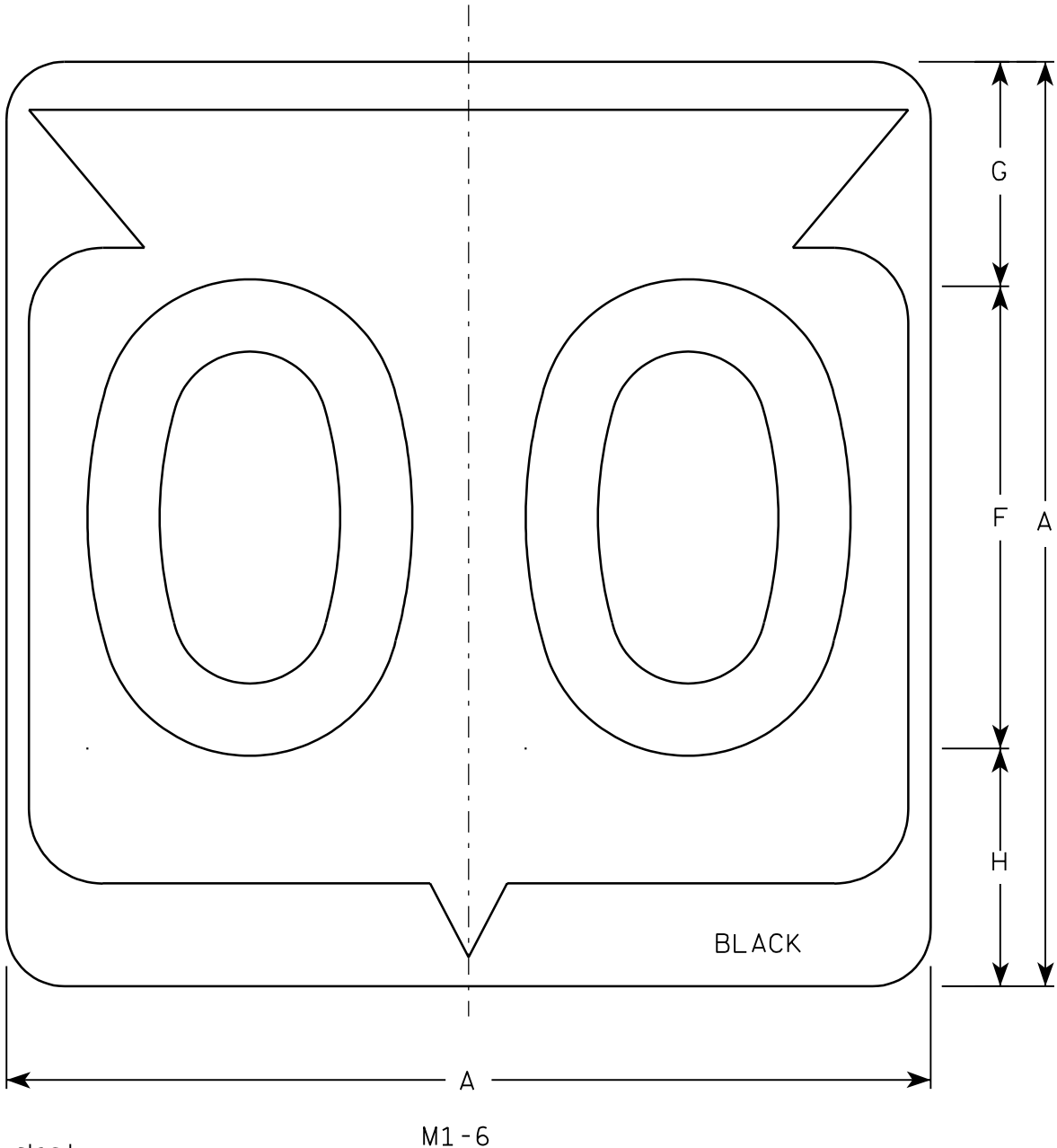
CTH MARKER  
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

7



Metric equivalent  
for this sign is:

| SIZE |                 |
|------|-----------------|
| 1    |                 |
| 2    | 600 mm X 600 mm |
| 3    | 900 mm X 900 mm |
| 4    | 900 mm X 900 mm |
| 5    | 900 mm X 900 mm |

| SIZE | A  | B | C     | D | E | F  | G     | H     | I      | J     | K      | L      | M     | N     | O      | P      | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. | Area<br>m <sup>2</sup> |
|------|----|---|-------|---|---|----|-------|-------|--------|-------|--------|--------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|-----------------|------------------------|
| 1    |    |   |       |   |   |    |       |       |        |       |        |        |       |       |        |        |   |   |   |   |   |   |   |   |   |   |                 |                        |
| 2    | 24 |   | 1 1/2 |   |   | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8  | 11 1/2 | 1     | 1 7/8 | 11 1/4 | 21 7/8 |   |   |   |   |   |   |   |   |   |   | 4.0             | .36                    |
| 3    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |
| 4    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |
| 5    | 36 |   | 2 1/4 |   |   | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33     |   |   |   |   |   |   |   |   |   |   | 9.0             | .81                    |

PROJECT NO:

HWY:

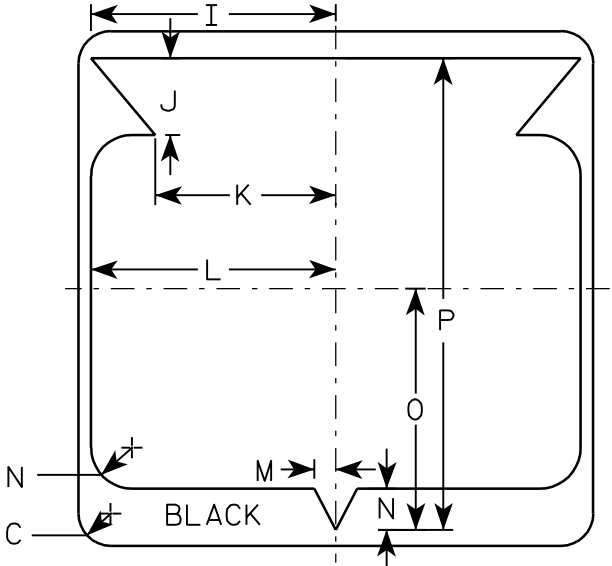
COUNTY:

SHEET NO:

E

NOTES

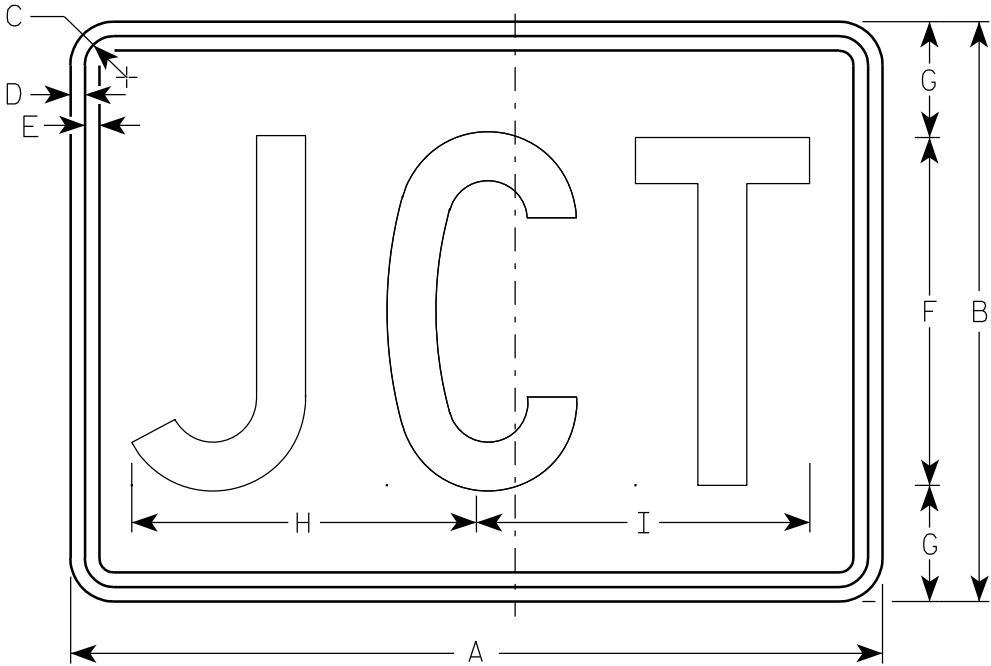
- Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - White & Black - See Note 6  
Message - Black
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
- Permanent Signs  
Background - Type H Reflective  
Detour or temporary Signs  
Background - Reflective



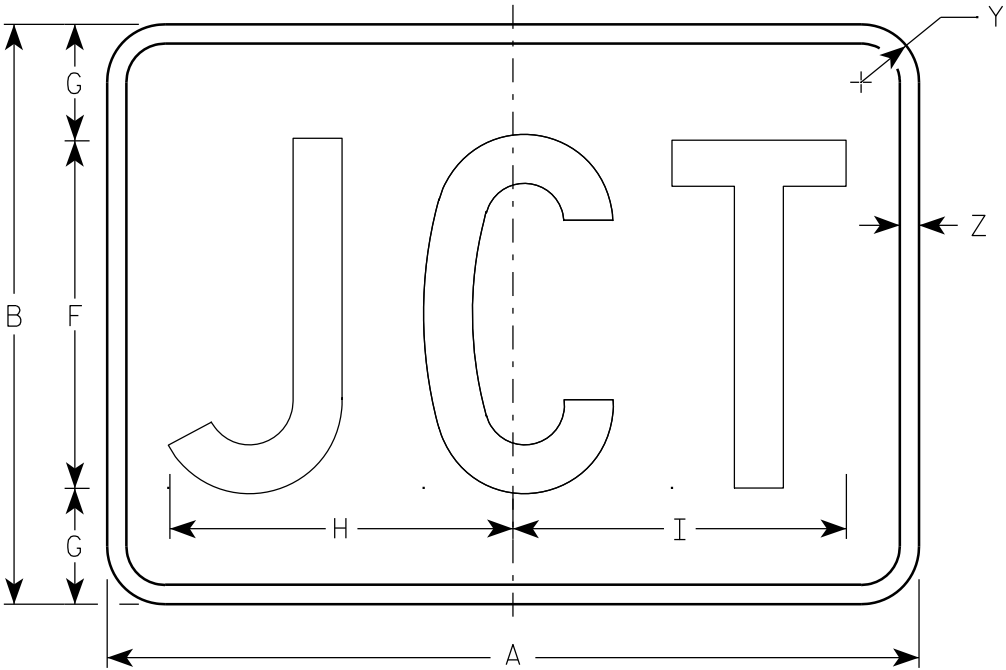
7

NOTES

1. Sign is Type II - See Note 5 - reference  
WIS DOT Standard Specification for HIGHWAY  
and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - See note 5  
Message - See note 5
3. Message Series - 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. M2-1 Background - White - Type H Reflective  
(Detour or temporary Signs - Reflective)  
Message - Black  
MB2-1 Background - Blue  
Message - White - Type H Reflective  
(Detour or temporary Signs - Reflective)  
MG2-1 Background - Green  
Message - White - Type H Reflective  
MK2-1 Background - Green  
Message - White - Type H Reflective  
MM2-1 Background - White - Type H Reflective  
Message - Green  
MN2-1 Background - Brown  
Message - White - Type H Reflective  
MR2-1 Background - Brown  
Message - Yellow - Type H Reflective



M2-1  
MK2-1  
MM2-1  
MR2-1



MB2-1  
MG2-1  
MN2-1

Metric equivalent  
for this sign is:

| SIZE |                 |
|------|-----------------|
| 1    |                 |
| 2    | 525 mm X 375 mm |
| 3    | 750 mm X 525 mm |
| 4    | 750 mm X 525 mm |
| 5    | 750 mm X 525 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<br>sq. ft. | Area<br>m <sup>2</sup> |
|------|----|----|-------|-----|-----|----|---|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-----|-----------------|------------------------|
| 1    |    |    |       |     |     |    |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |       |     |                 |                        |
| 2    | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9  | 3 | 8 7/8  | 8 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 2.20            | 0.20                   |
| 3    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            | 0.20                   |
| 4    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            | 0.20                   |
| 5    | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 4.40            | 0.20                   |

STANDARD SIGN  
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/16/10

PLATE NO. M2-1.10

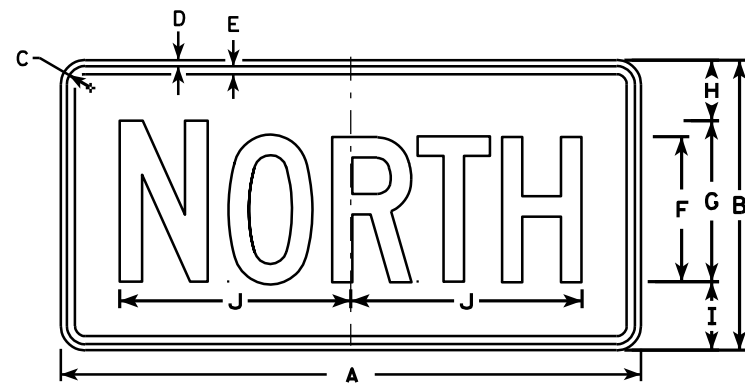
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

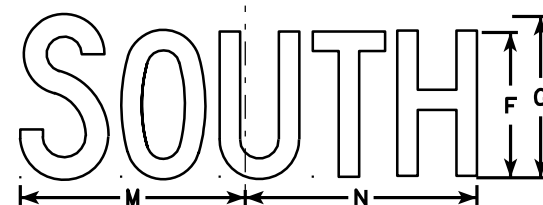
E



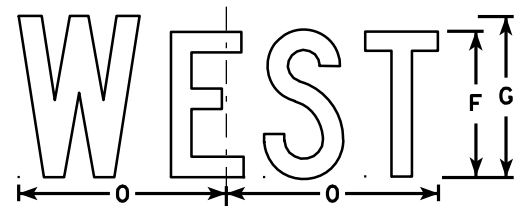
M3-1  
MK3-1  
M03-1



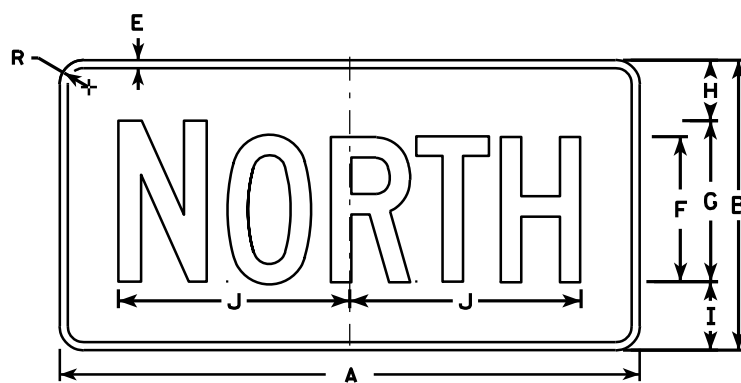
M3-2  
MK3-2  
M03-2



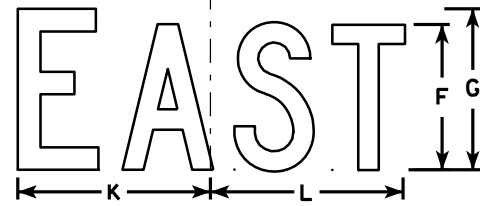
M3-3  
MK3-3  
M03-3



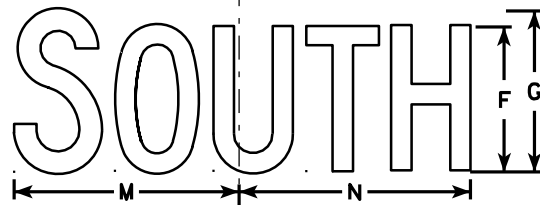
M3-4  
MK3-4  
M03-4



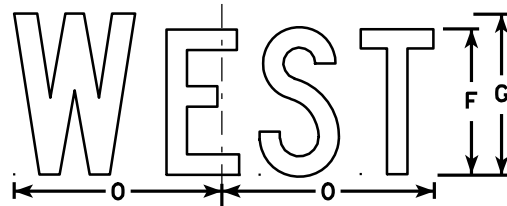
MB3-1  
MG3-1  
MM3-1  
MN3-1



MB3-2  
MG3-2  
MM3-2  
MN3-2



MB3-3  
MG3-3  
MM3-3  
MN3-3



MB3-4  
MG3-4  
MM3-4  
MN3-4

## NOTES

- All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - See note 5  
Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 Background - White - Type H Reflective  
(Detour or temporary signs - Reflective)  
Message - Black  
MB3-1 thru MB3-4 Background - Blue  
Message - White - Type H Reflective  
(Detour or temporary signs - Reflective)  
MG3-1 thru MG3-4 Background - Green  
Message - White - Type H Reflective  
MK3-1 thru MK3-4 Background - Green  
Message - White - Type H Reflective  
MM3-1 thru MM3-4 Background - White - Type H Reflective  
Message - Green  
MN3-1 thru MN3-4 Background - Brown  
Message - White - Type H Reflective  
M03-1 thru M03-4 Background - Orange - Reflective  
Message - Black
- 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<br>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             |

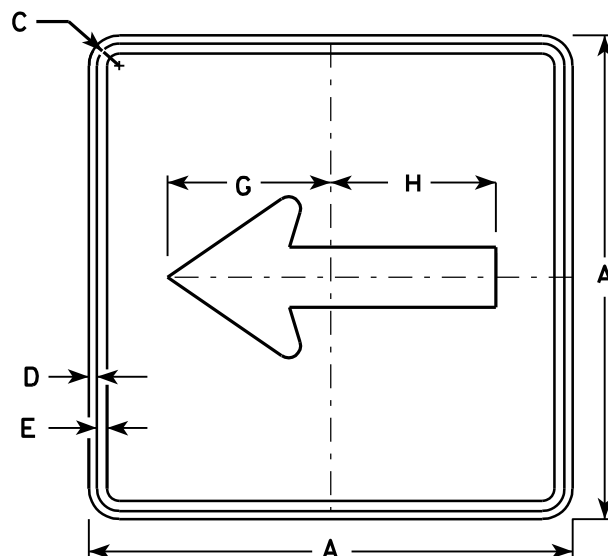
PROJECT NO: HWY: COUNTY: SHEET NO: E

## STANDARD SIGNS M3-1 thru M3-4 SERIES

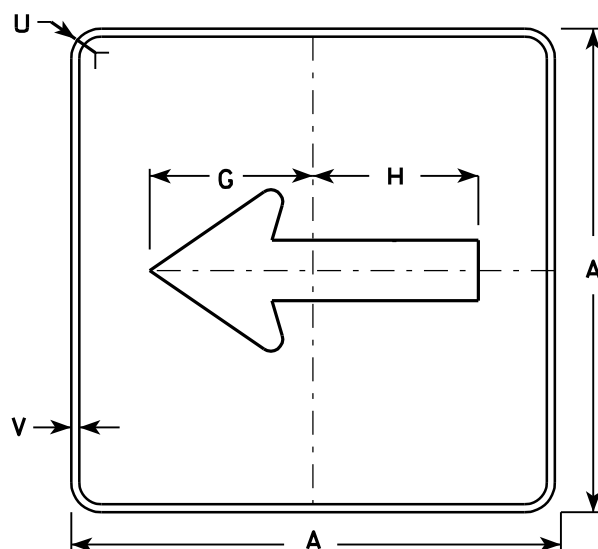
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

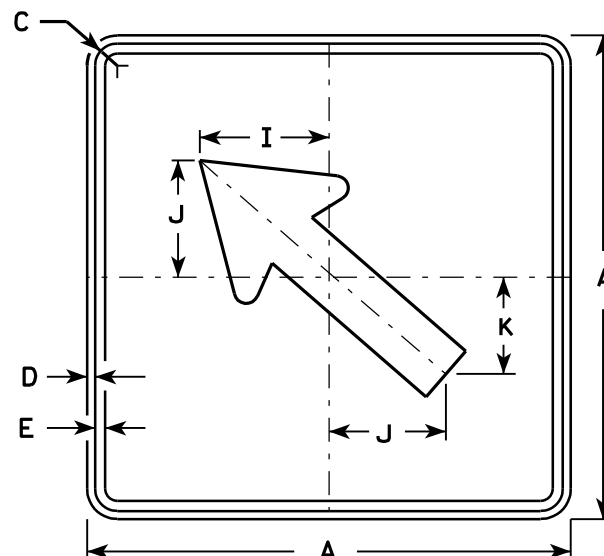
DATE 11/10/10 PLATE NO. M3-1.12



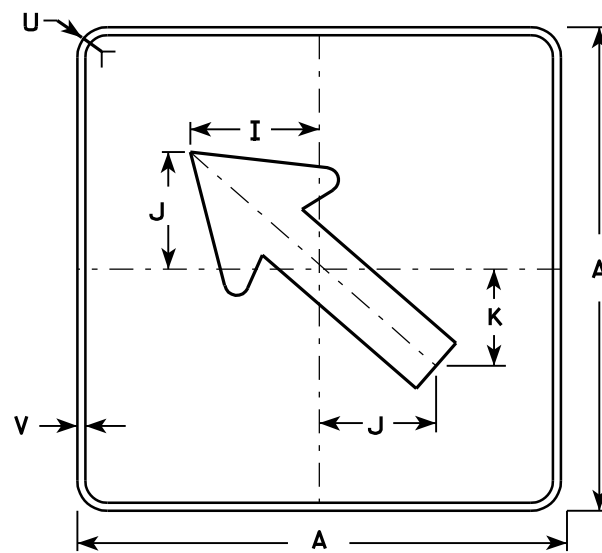
M6-1  
MK6-1  
MM6-1  
MO6-1  
MP6-1  
MR6-1



MB6-1  
MG6-1  
MN6-1



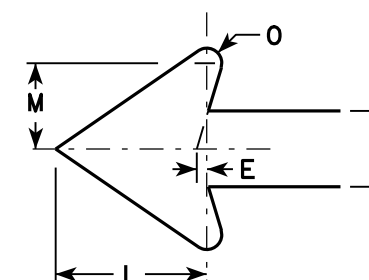
M6-2  
MK6-2  
MM6-2  
MO6-2  
MP6-2  
MR6-2



MB6-2  
MG6-2  
MN6-2

# NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - See note 4  
Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White - Type H Reflective  
MG6-1 and MG6-2 Background - Green  
Message - White - Type H Reflective  
MK6-1 and MK6-2 Background - Green  
Message - White - Type H Reflective  
MM6-1 and MM6-2 Background - White - Type H Reflective  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White - Type H Reflective  
MO6-1 and MO6-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White - Type H Reflective  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow - Type H Reflective



| SIZE | A  | B | C     | D   | E   | F | G      | H      | I     | J     | K     | L     | M     | N     | O   | P | Q | R | S | T | U     | V   | W | X | Y | Z | Area<br>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            |

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN  
M6-1 & M6-2  
SERIES

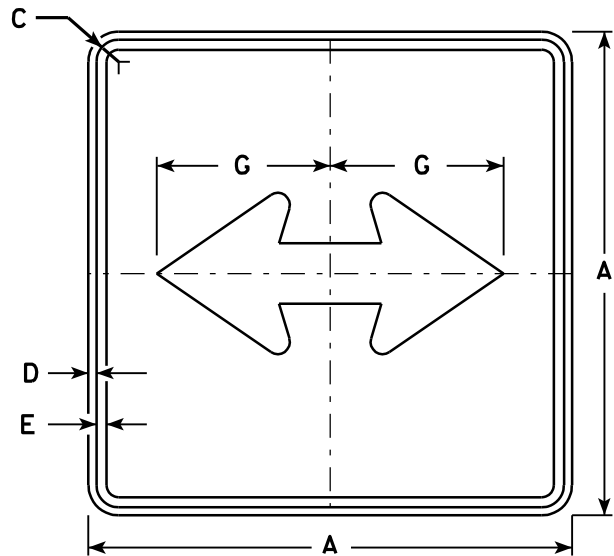
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

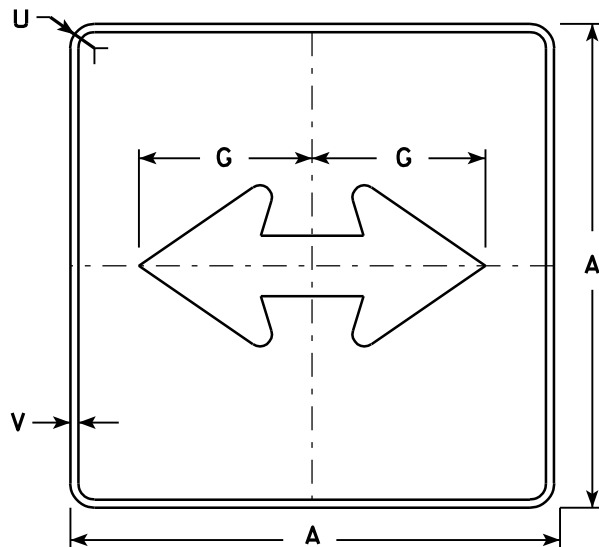
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/29/13

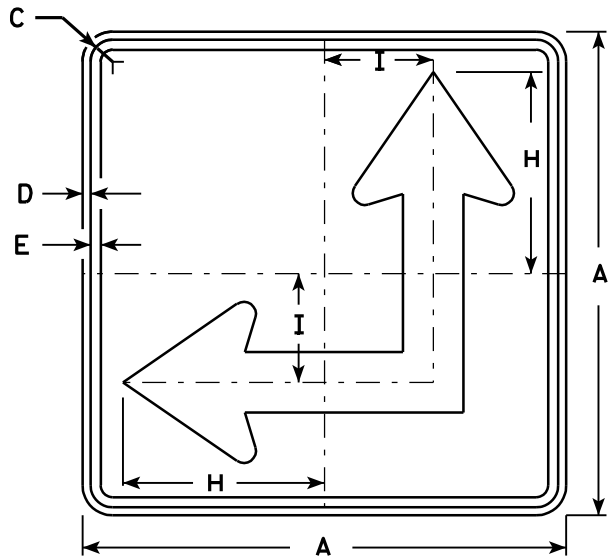
PLATE NO. M6-1.13



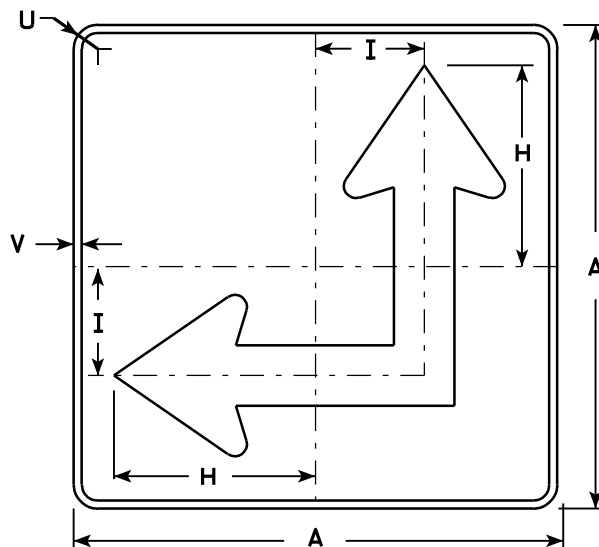
M6 - 4  
MK6 - 4  
MM6 - 4  
MO6 - 4  
MP6 - 4  
MR6 - 4



MB6 - 4  
MG6 - 4  
MN6 - 4



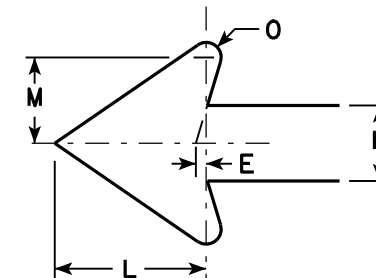
M6 - 6  
MK6 - 6  
MM6 - 6  
MO6 - 6  
MP6 - 6  
MR6 - 6



MB6 - 6  
MG6 - 6  
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - See Note 4  
Message - See Note 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.
- M6-4 and M6-6 Background - White - Type H Reflective  
Message - Black  
MB6-4 and MB6-6 Background - Blue  
Message - White - Type H Reflective  
MG6-4 and MG6-6 Background - Green  
Message - White - Type H Reflective  
MK6-4 and MK6-6 Background - Green  
Message - White - Type H Reflective  
MM6-4 and MM6-6 Background - White - Type H Reflective  
Message - Green  
MN6-4 and MN6-6 Background - Brown  
Message - White - Type H Reflective  
MO6-4 and MO6-6 Background - Orange - Type F Reflective  
Message - Black  
MP6-4 and MP6-6 Background - White - Type H Reflective  
Message - Blue  
MR6-4 and MR6-6 Background - Brown  
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and 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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|--------|-------|---|---|-------|-------|-------|-----|---|---|---|---|---|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |        |       |   |   |       |       |       |     |   |   |   |   |   |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7 1/2  | 8 3/4  | 4 1/4 |   |   | 5 1/4 | 3     | 2 5/8 | 1/2 |   |   |   |   |   | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 3/4 | 12 1/2 | 6 3/4 |   |   | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 |   |   |   |   |   | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

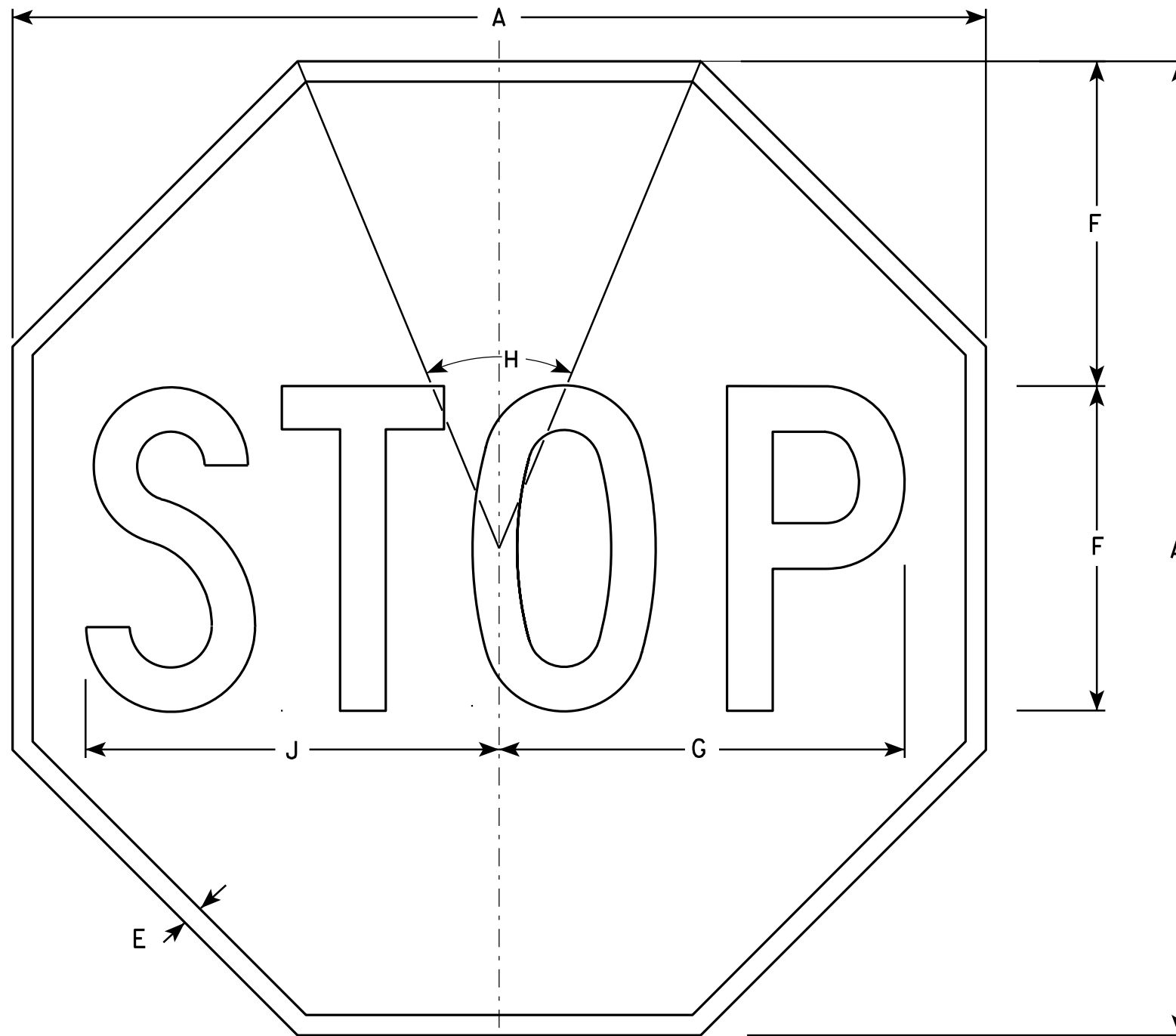
|             |      |         |  |           |   |
|-------------|------|---------|--|-----------|---|
| PROJECT NO: | HWY: | COUNTY: |  | SHEET NO: | E |
|-------------|------|---------|--|-----------|---|

STANDARD SIGN  
M6 - 4 & M6 - 6  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8



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

R1-1

| SIZE | A  | B | C | D | E   | F  | G      | H   | I | J      | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|---|---|-----|----|--------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 24 |   |   |   | 3/8 | 8  | 10     | 45° |   | 10 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.31            |
| 2S   | 30 |   |   |   | 5/8 | 10 | 12 1/2 | 45° |   | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.18            |
| 2M   | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 3    | 36 |   |   |   | 3/4 | 12 | 15     | 45° |   | 15 3/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 7.46            |
| 4    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 5    | 48 |   |   |   | 1   | 16 | 20     | 45° |   | 20 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 13.25           |
| 6    | 18 |   |   |   | 3/8 | 6  | 7 3/4  | 45° |   | 7 3/4  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1.86            |
| 7    | 12 |   |   |   | 1/4 | 4  | 5      | 45° |   | 5 1/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0.78            |

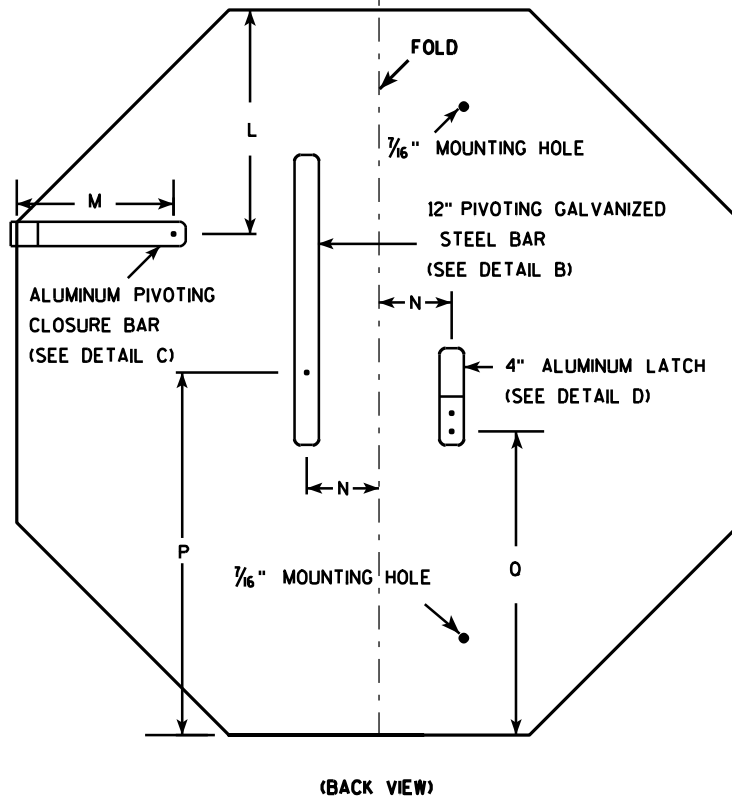
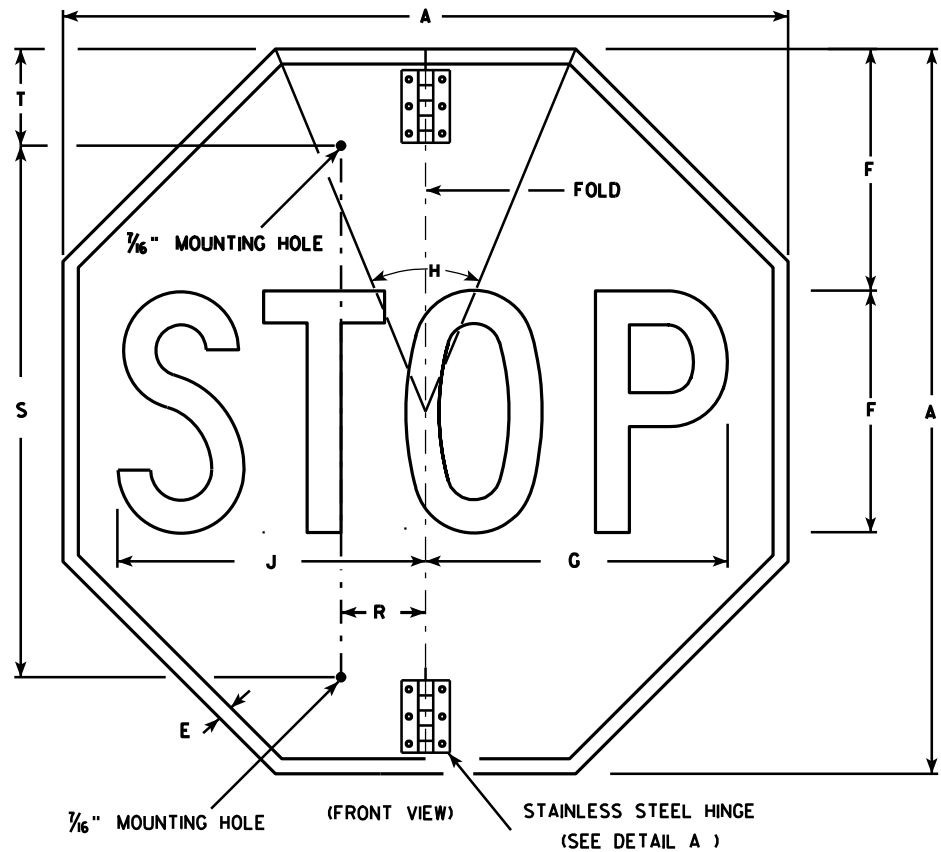
STANDARD SIGN  
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

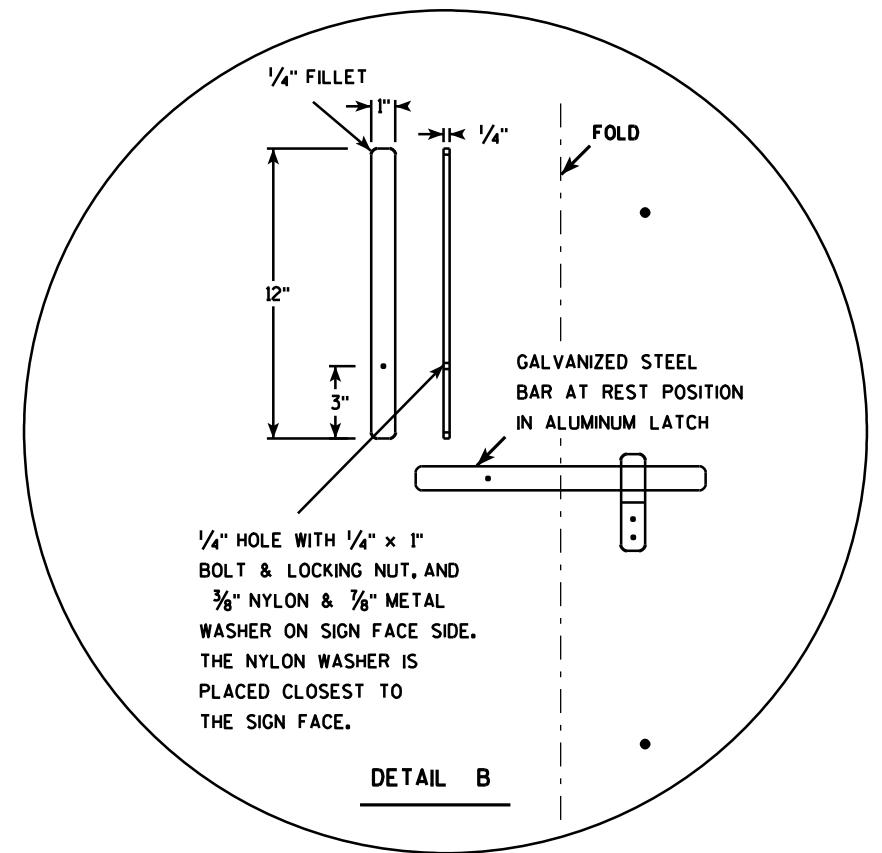
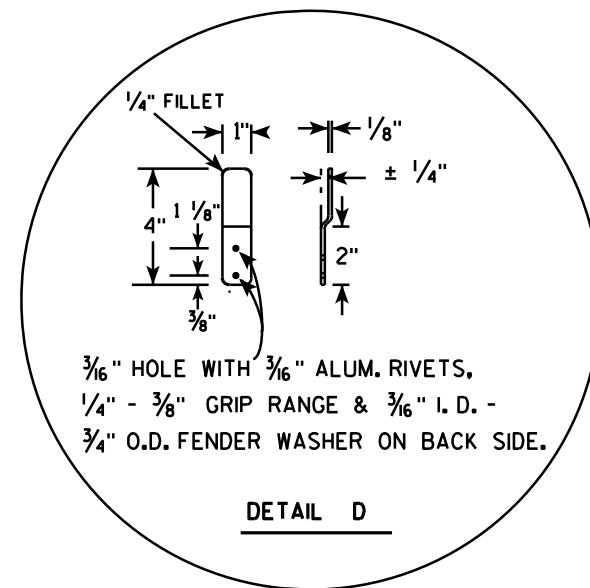
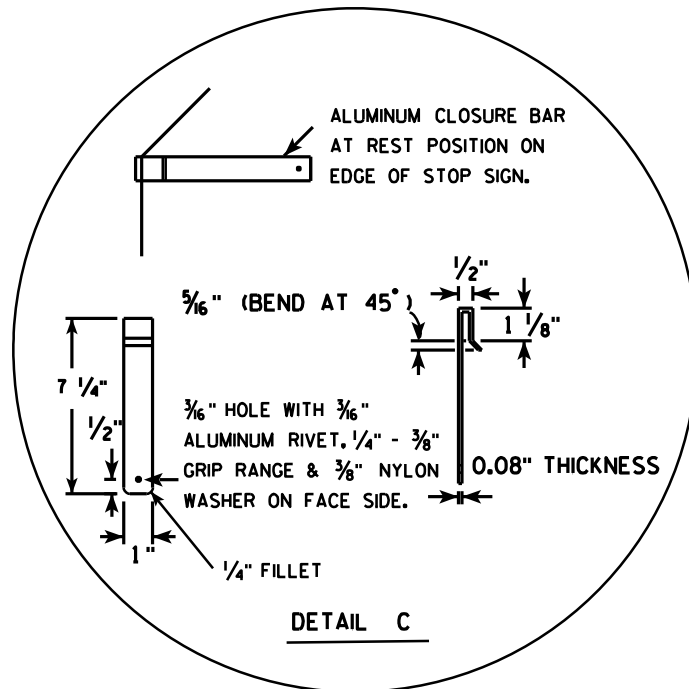
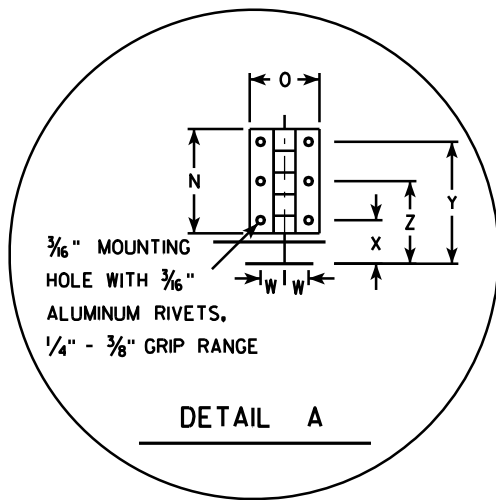
DATE 12/03/10 PLATE NO. R1-1.12

|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E |
|-------------|------|---------|-----------|---|



# NOTES

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



| SIZE | A  | B | C | D | E   | F  | G      | H  | I | J      | K | L     | M     | N | O | P  | Q      | R     | S  | T | U | V | W     | X     | Y     | Z     | Area<br>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 |   |   | 1 1/8 | 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 |   |   | 1 1/8 | 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 |   |   | 1 1/8 | 1 1/4 | 3 1/2 | 2 3/8 | 7.46            |
| 4    |    |   |   |   |     |    |        |    |   |        |   |       |       |   |   |    |        |       |    |   |   |   |       |       |       |       |                 |
| 5    |    |   |   |   |     |    |        |    |   |        |   |       |       |   |   |    |        |       |    |   |   |   |       |       |       |       |                 |

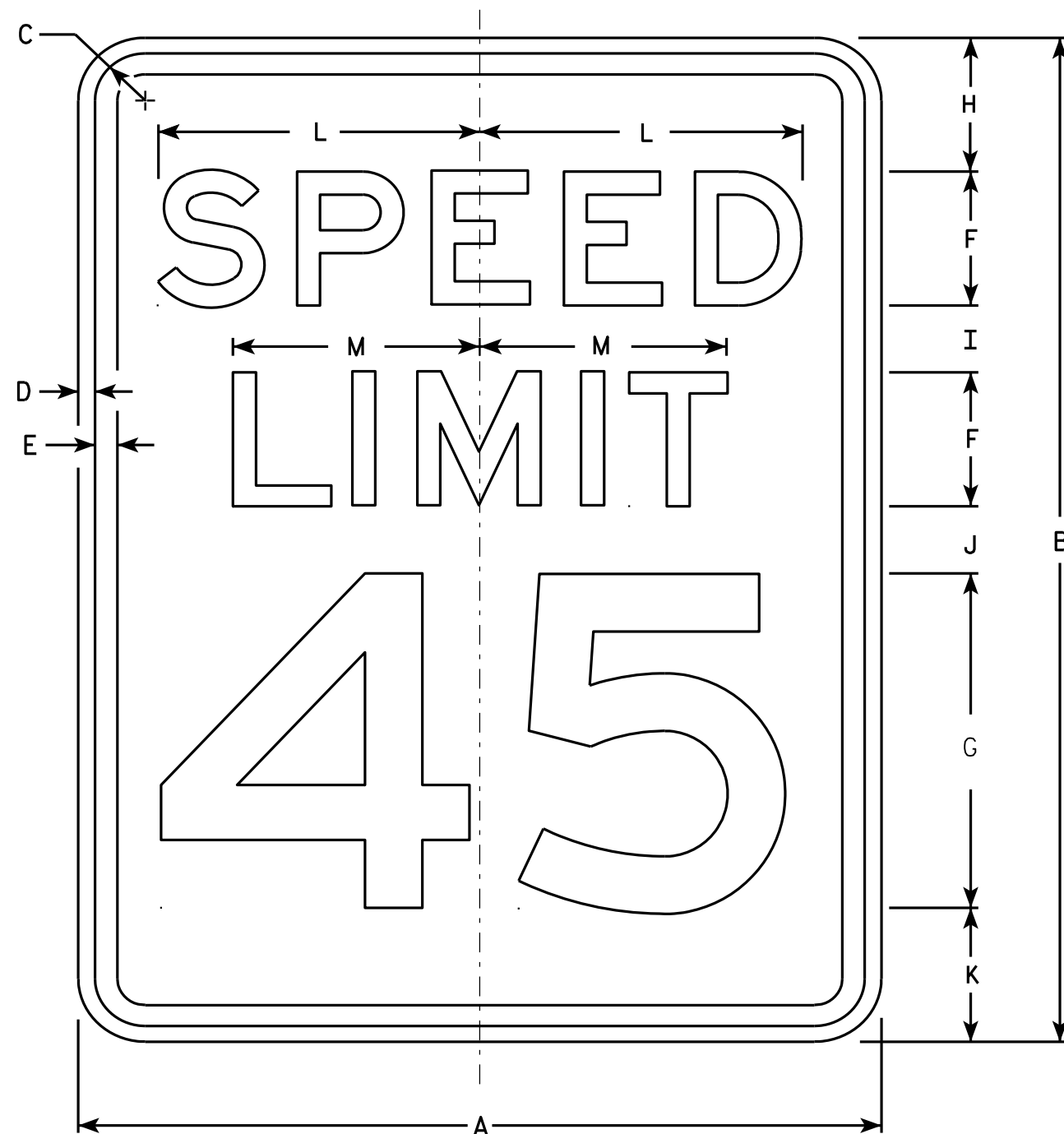
|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | SHEET NO: | E |
|-------------|------|---------|-----------|---|

## 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



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<br>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

PROJECT NO: HWY: COUNTY: SHEET NO: E



R2-6P

NOTES

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

| SIZE | A  | B  | C     | D   | E   | F | G     | H     | I      | J     | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|--------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |       |       |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 24 | 18 | 1 1/8 | 3/8 | 3/8 | 4 | 3 1/2 | 3     | 7 5/8  | 9 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 2M   | 24 | 18 | 1 1/8 | 3/8 | 3/8 | 4 | 3 1/2 | 3     | 7 5/8  | 9 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 3    | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/8 | 3 3/4 | 12     | 14    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.0             |
| 4    | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/8 | 3 3/4 | 12     | 14    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.0             |
| 5    | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7     | 6     | 15 1/8 | 19    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.0            |

STANDARD SIGN  
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 12/20/10      PLATE NO. R2-6P.2

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

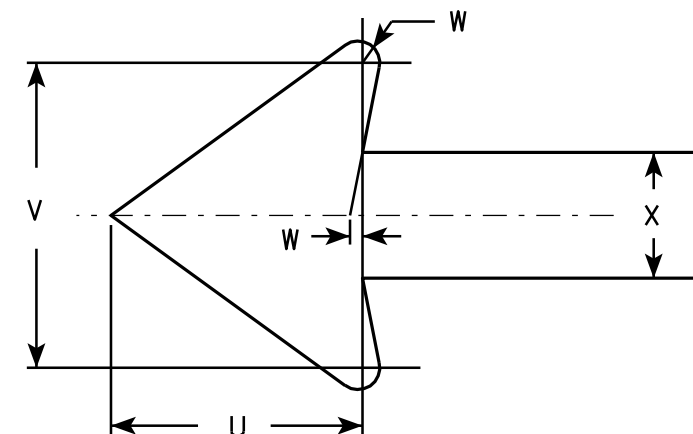
E



R7-1

### NOTES

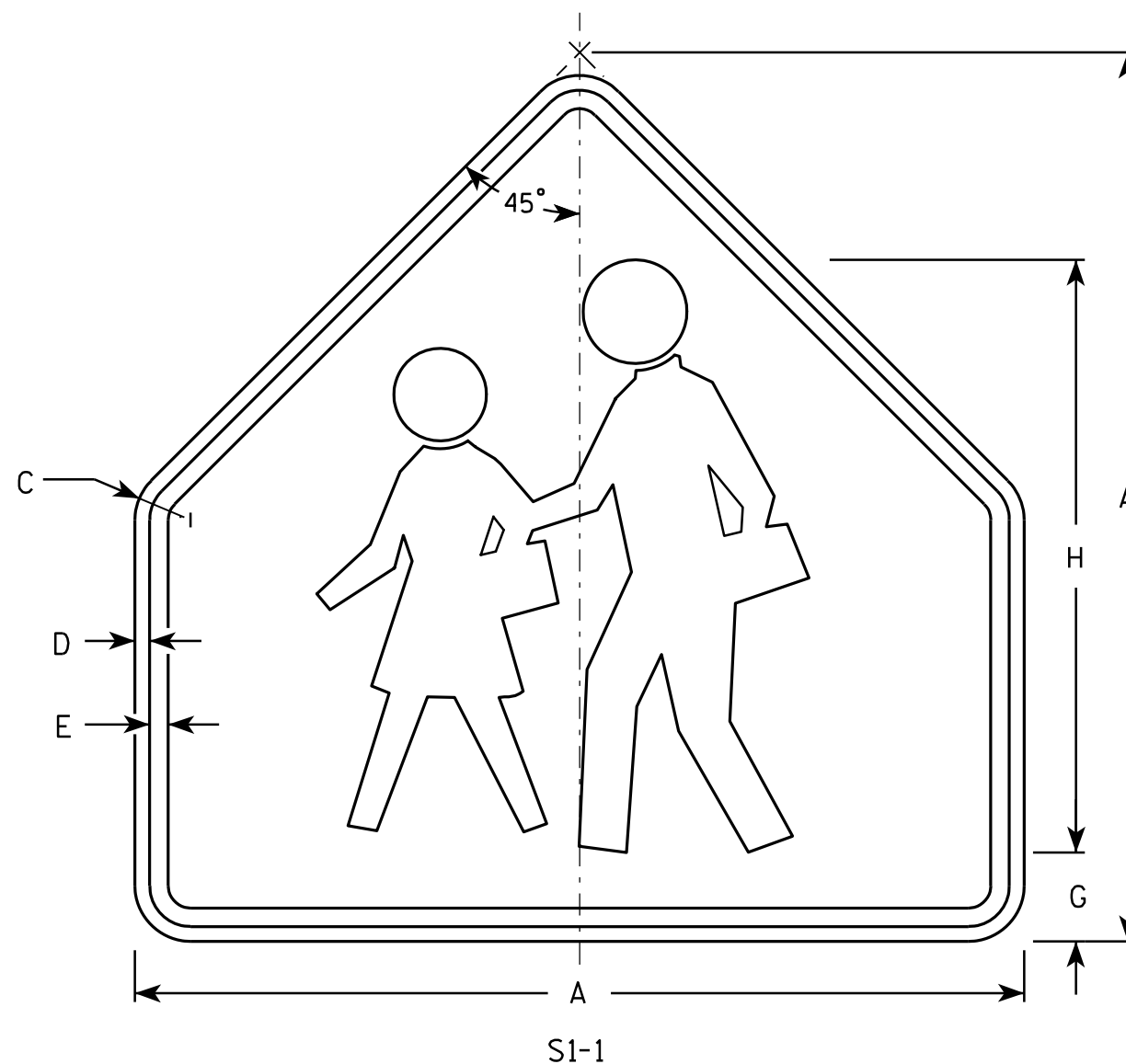
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)  
R7-1L (left arrow)  
R7-1R (right arrow)



| 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<br>sq. ft. |
|------|----|----|-------|-----|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-------|---|---|-----------------|
| 1    | 12 | 18 | 1 1/8 | 3/8 | 3/8 | 3 | 1 7/8 | 2     | 7/8   | 5/8   | 1 1/2 | 2 1/2 | 2     | 2     | 4 7/8 | 4 7/8 | 2 1/4 | 2 1/8 | 2 1/2 | 3 7/8 | 1 1/2 | 1 3/4 | 1/8 | 3/4   |   |   | 1.5             |
| 2S   | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 4 | 2 1/2 | 2 1/2 | 1 1/4 | 1     | 2     | 3 1/4 | 2 3/4 | 2 5/8 | 7 1/8 | 7     | 2 3/4 | 2 5/8 | 3 1/8 | 5 7/8 | 2 1/4 | 2 5/8 | 1/4 | 1 1/8 |   |   | 3.0             |
| 2M   | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3     | 3     | 2     | 1 1/4 | 2 1/2 | 4     | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 3 1/4 | 3 1/4 | 3 3/4 | 7 3/4 | 3     | 3 1/2 | 1/4 | 1 1/2 |   |   | 5.0             |
| 3    | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 5 | 3     | 3     | 2     | 1 1/4 | 2 1/2 | 4     | 3 1/4 | 3 3/8 | 9 1/4 | 9 1/4 | 3 1/4 | 3 1/4 | 3 3/4 | 7 3/4 | 3     | 3 1/2 | 1/4 | 1 1/2 |   |   | 5.0             |
| 4    |    |    |       |     |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |       |   |   |                 |
| 5    |    |    |       |     |     |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |       |   |   |                 |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>R7-1            |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>for State Traffic Engineer |
| DATE 3/31/2011                   | PLATE NO. R7-1.9                                      |

|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | 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 - Yellow-Green  
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<br>sq. ft. |
|------|----|---|-------|-----|-----|---|-------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 3     | 20 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.69            |
| 2    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 3 1/2 | 24 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.75            |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 |   | 3 1/2 | 24 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.75            |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   |   | 4 3/4 | 32 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12              |
| 5    |    |   |       |     |     |   |       |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

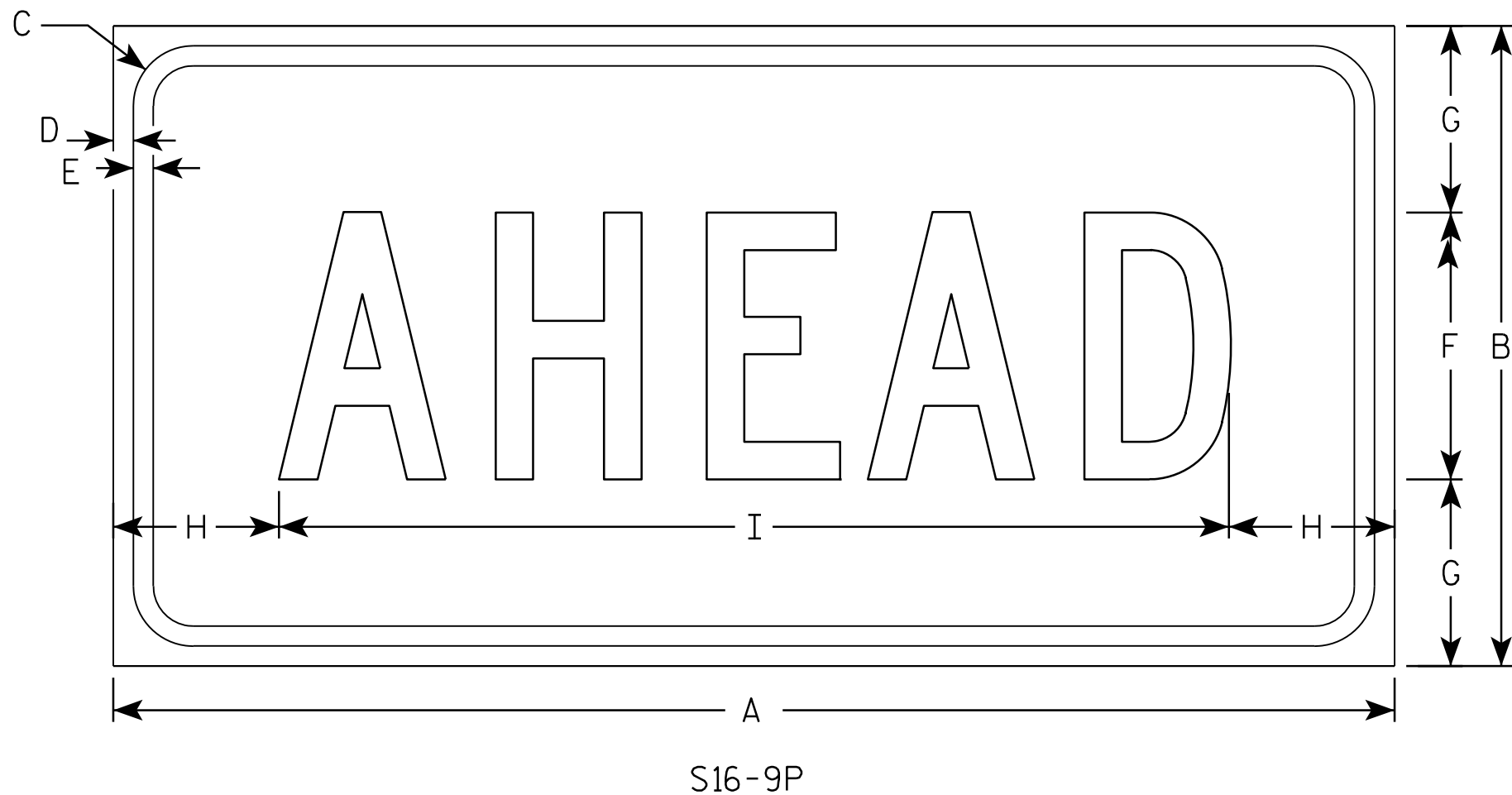
## STANDARD SIGN S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch  
for State Traffic Engineer  
DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: \_\_\_\_\_ HWY: \_\_\_\_\_ COUNTY: \_\_\_\_\_ SHEET NO: \_\_\_\_\_ E

7



NOTES

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

7

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

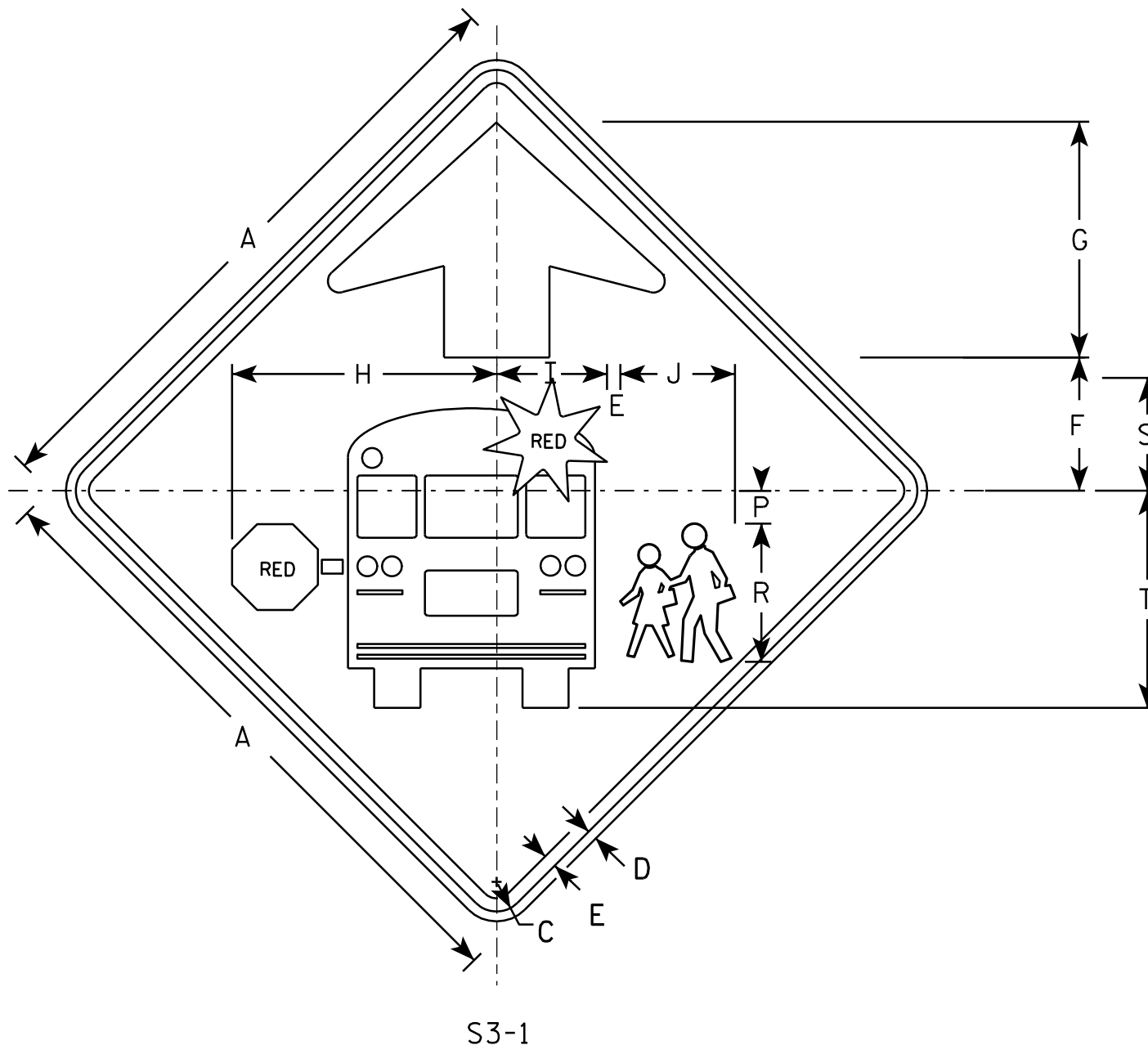
STANDARD SIGN

S16-9P

WISCONSIN DEPT OF TRANSPORTATION

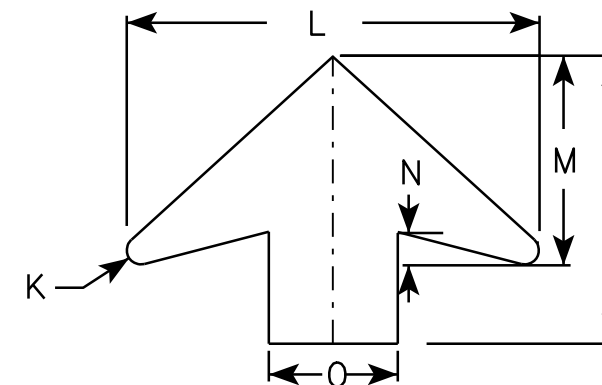
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1



### NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - YELLOW-GREEN  
Message - BLACK except as noted  
Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

| SIZE | A  | B | C                             | D   | E   | F     | G      | H      | I     | J     | K   | L      | M     | N     | O | P     | Q | R      | S     | T      | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------------------------------|-----|-----|-------|--------|--------|-------|-------|-----|--------|-------|-------|---|-------|---|--------|-------|--------|---|---|---|---|---|---|-----------------|
| 1    | 30 |   | 1 <sup>3</sup> / <sub>8</sub> | 1/2 | 5/8 | 6 1/4 | 11 1/4 | 12 1/2 | 5 1/4 | 5 1/2 | 1/2 | 16     | 8     | 1 1/4 | 5 | 1 1/2 |   | 6 5/8  | 5 3/8 | 10 3/8 |   |   |   |   |   |   | 6.25            |
| 2    | 36 |   | 1 5/8                         | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 15 1/8 | 6 1/4 | 6 1/2 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 | 1 7/8 |   | 7 7/8  | 6 3/8 | 12 3/8 |   |   |   |   |   |   | 9.0             |
| 3    | 48 |   | 2 1/4                         | 3/4 | 1   | 10    | 17 7/8 | 20 1/8 | 8 3/8 | 8 3/4 | 7/8 | 25 5/8 | 13    | 2     | 8 | 2 1/2 |   | 10 1/2 | 8 1/2 | 16 1/2 |   |   |   |   |   |   | 16.0            |
| 4    | 48 |   | 2 1/4                         | 3/4 | 1   | 10    | 17 7/8 | 20 1/8 | 8 3/8 | 8 3/4 | 7/8 | 25 5/8 | 13    | 2     | 8 | 2 1/2 |   | 10 1/2 | 8 1/2 | 16 1/2 |   |   |   |   |   |   | 16.0            |
| 5    |    |   |                               |     |     |       |        |        |       |       |     |        |       |       |   |       |   |        |       |        |   |   |   |   |   |   |                 |

PROJECT NO:

### STANDARD SIGN S3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/8/10 PLATE NO. S3-1.6

SHEET NO:

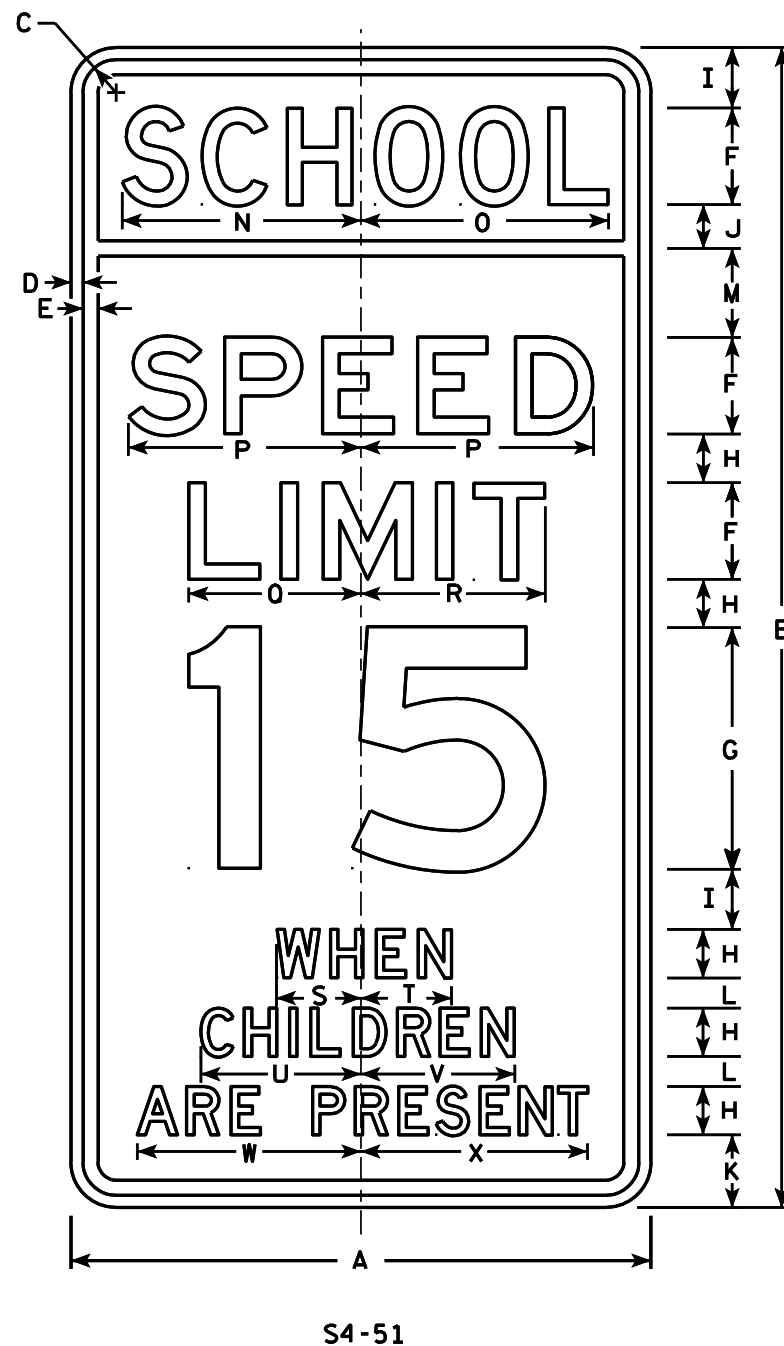
E

Metric equivalent  
for this sign is:

| SIZE |                  |
|------|------------------|
| 1    |                  |
| 2    | 600 mm X 1200 mm |
| 3    | 900 mm X 1800 mm |
| 4    |                  |
| 5    |                  |

| 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<br>sq. ft. | Area<br>m <sup>2</sup> |
|------|----|----|-------------------------------|-----------------------------|-----------------------------|---|----|---|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|---|---|-----------------|------------------------|
| 1    |    |    |                               |                             |                             |   |    |   |                               |                               |                               |                               |                               |                               |                                |                                |                                |                                |                               |                               |                               |                               |                               |                                |   |   |                 |                        |
| 2    | 24 | 48 | 1 <sup>3</sup> / <sub>8</sub> | <sup>1</sup> / <sub>2</sub> | <sup>5</sup> / <sub>8</sub> | 4 | 10 | 2 | 2 <sup>1</sup> / <sub>2</sub> | 1 <sup>3</sup> / <sub>4</sub> | 3                             | 1 <sup>1</sup> / <sub>4</sub> | 3 <sup>3</sup> / <sub>4</sub> | 9 <sup>7</sup> / <sub>8</sub> | 10 <sup>1</sup> / <sub>4</sub> | 9 <sup>5</sup> / <sub>8</sub>  | 7 <sup>1</sup> / <sub>8</sub>  | 7 <sup>5</sup> / <sub>8</sub>  | 3 <sup>1</sup> / <sub>2</sub> | 3 <sup>3</sup> / <sub>8</sub> | 6 <sup>5</sup> / <sub>8</sub> | 6 <sup>3</sup> / <sub>8</sub> | 9 <sup>1</sup> / <sub>4</sub> | 9 <sup>3</sup> / <sub>8</sub>  |   |   | 8.00            | 0.72                   |
| 3    | 36 | 72 | 2 <sup>1</sup> / <sub>4</sub> | <sup>3</sup> / <sub>4</sub> | 1                           | 6 | 15 | 3 | 3 <sup>3</sup> / <sub>4</sub> | 2 <sup>3</sup> / <sub>4</sub> | 4 <sup>1</sup> / <sub>2</sub> | 1 <sup>7</sup> / <sub>8</sub> | 5 <sup>1</sup> / <sub>2</sub> | 15                            | 15 <sup>1</sup> / <sub>4</sub> | 14 <sup>1</sup> / <sub>2</sub> | 11 <sup>1</sup> / <sub>4</sub> | 11 <sup>1</sup> / <sub>2</sub> | 5 <sup>1</sup> / <sub>2</sub> | 5 <sup>3</sup> / <sub>4</sub> | 10                            | 9 <sup>3</sup> / <sub>4</sub> | 14                            | 14 <sup>1</sup> / <sub>8</sub> |   |   | 18.00           | 1.62                   |
| 4    |    |    |                               |                             |                             |   |    |   |                               |                               |                               |                               |                               |                               |                                |                                |                                |                                |                               |                               |                               |                               |                               |                                |   |   |                 |                        |
| 5    |    |    |                               |                             |                             |   |    |   |                               |                               |                               |                               |                               |                               |                                |                                |                                |                                |                               |                               |                               |                               |                               |                                |   |   |                 |                        |

|             |  |  |      |  |  |         |  |  |  |  |  |           |  |  |   |
|-------------|--|--|------|--|--|---------|--|--|--|--|--|-----------|--|--|---|
| PROJECT NO: |  |  | HWY: |  |  | COUNTY: |  |  |  |  |  | SHEET NO: |  |  | E |
|-------------|--|--|------|--|--|---------|--|--|--|--|--|-----------|--|--|---|



### NOTES

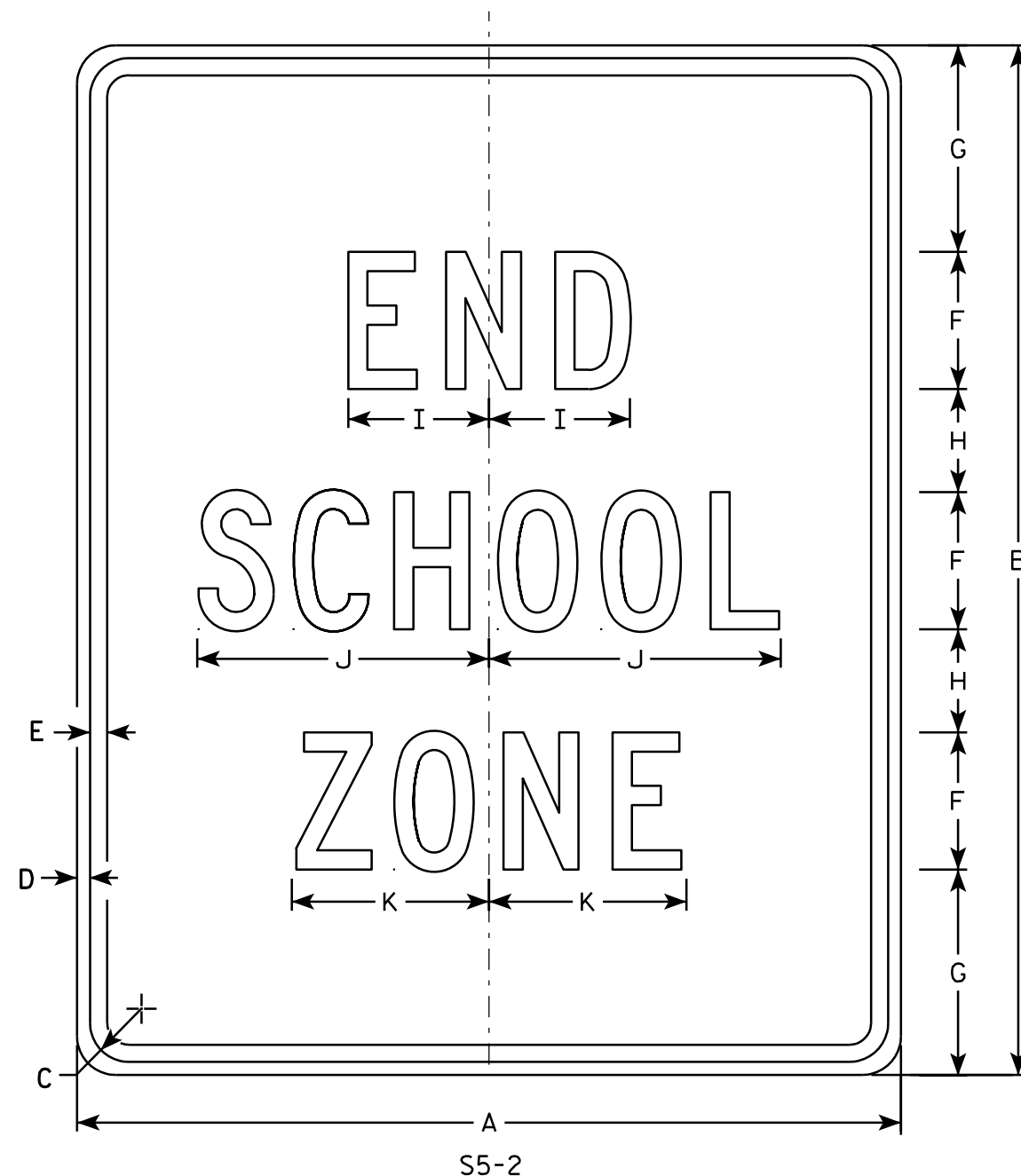
- Sign is Type II - reference  
WIS DOT Standard Specification for HIGHWAY  
and STRUCTURE CONSTRUCTION latest edition. (See note 5).
- Color:  
Background - See note 5  
Message - Black
- Message Series - See note 6
- Corners may be square or rounded when base  
material is plywood but borders shall be rounded  
as shown. When base material is metal, the  
corners and borders shall be rounded.
- Top panel (SCH00L) background - Yellow Green -Type F Reflective.  
Lower panel background - White -Type H Reflective.
- From top to bottom:  
Lines 1, 5, 6 & 7 are series D  
Lines 2, 3 & 4 are series E
- Line 4 substitute appropriate numerals and  
adjust spacing to achieve proper balance.

### STANDARD SIGN S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer  
DATE 4/26/10 PLATE NO. S4-51.9

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.

7

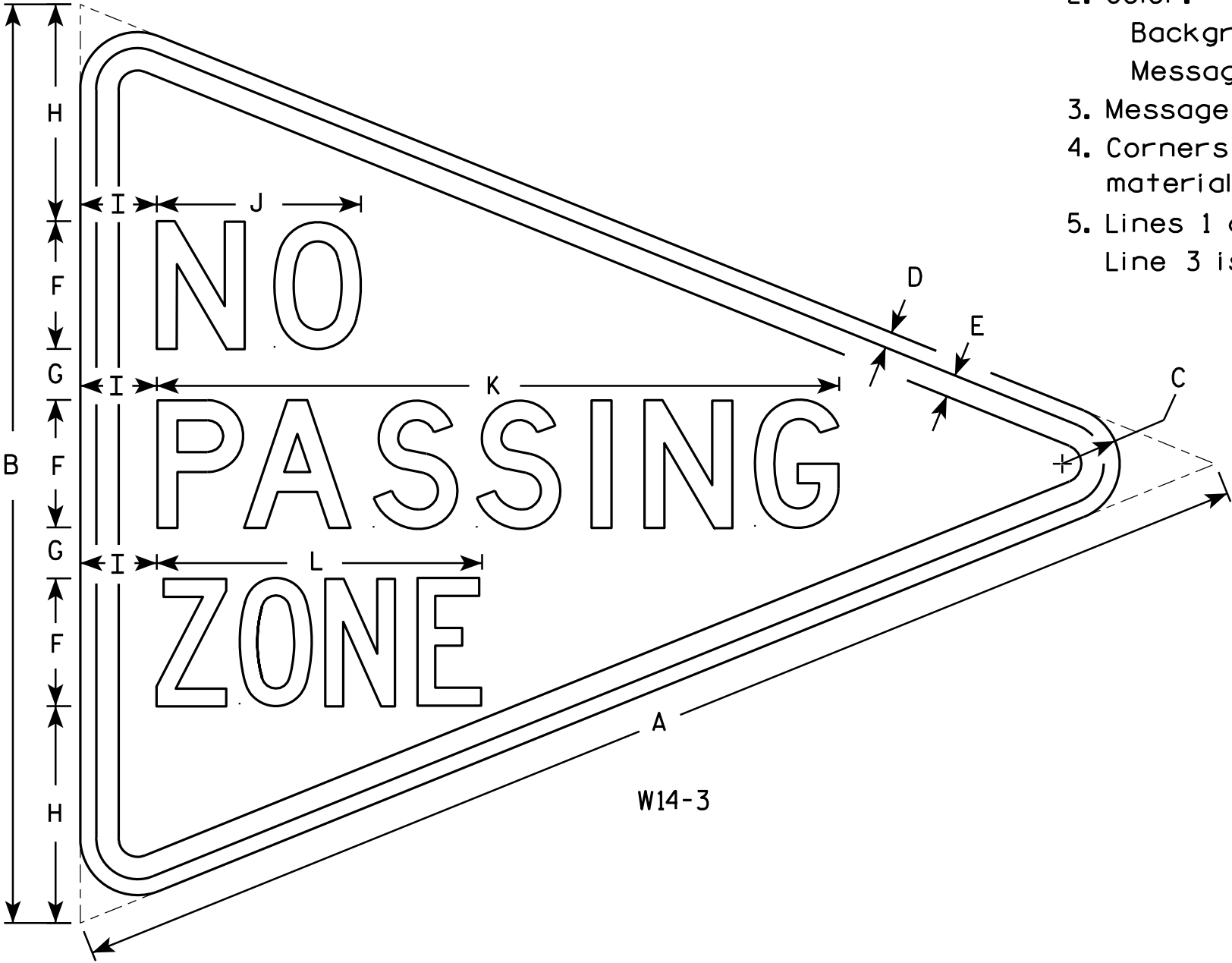
| SIZE | A  | B  | C     | D   | E   | F | G | H | I     | J      | K     | L | M | N | O | P | O | R | S | T | U | v | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|---|-------|--------|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |   |       |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2    | 24 | 30 | 1 1⁄8 | 3⁄8 | 1⁄2 | 4 | 6 | 3 | 4 1⁄8 | 8 1⁄2  | 5 3⁄4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.0             |
| 3    | 36 | 42 | 1 5⁄8 | 5⁄8 | 3⁄4 | 6 | 7 | 5 | 6 1⁄8 | 12 5⁄8 | 8 5⁄8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.5            |
| 4    |    |    |       |     |     |   |   |   |       |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |   |       |        |       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

|                                  |                                                       |
|----------------------------------|-------------------------------------------------------|
| STANDARD SIGN<br>S5-2            |                                                       |
| WISCONSIN DEPT OF TRANSPORTATION |                                                       |
| APPROVED                         | <i>Matthew R. Rauch</i><br>For State Traffic Engineer |
| DATE 3/8/11                      | PLATE NO. S5-2.2                                      |

|             |      |         |           |   |
|-------------|------|---------|-----------|---|
| PROJECT NO: | HWY: | COUNTY: | 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 - Yellow  
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.  
Line 3 is series C.



W14-3

| 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<br>sq. ft. |
|------|----|----|-------|-----|-------|---|---|-------|---|--------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |       |   |   |       |   |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 48 | 36 | 2 1/4 | 5/8 | 7/8   | 5 | 2 | 8 1/2 | 3 | 8      | 26 3/4 | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.0             |
| 2M   | 48 | 36 | 2 1/4 | 5/8 | 7/8   | 5 | 2 | 8 1/2 | 3 | 8      | 26 3/4 | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6.0             |
| 3    | 64 | 48 | 3     | 3/4 | 1 1/4 | 6 | 3 | 12    | 4 | 10 3/4 | 33 5/8 | 16 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 10.7            |
| 4    |    |    |       |     |       |   |   |       |   |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |       |   |   |       |   |        |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

STANDARD SIGN  
W14-3

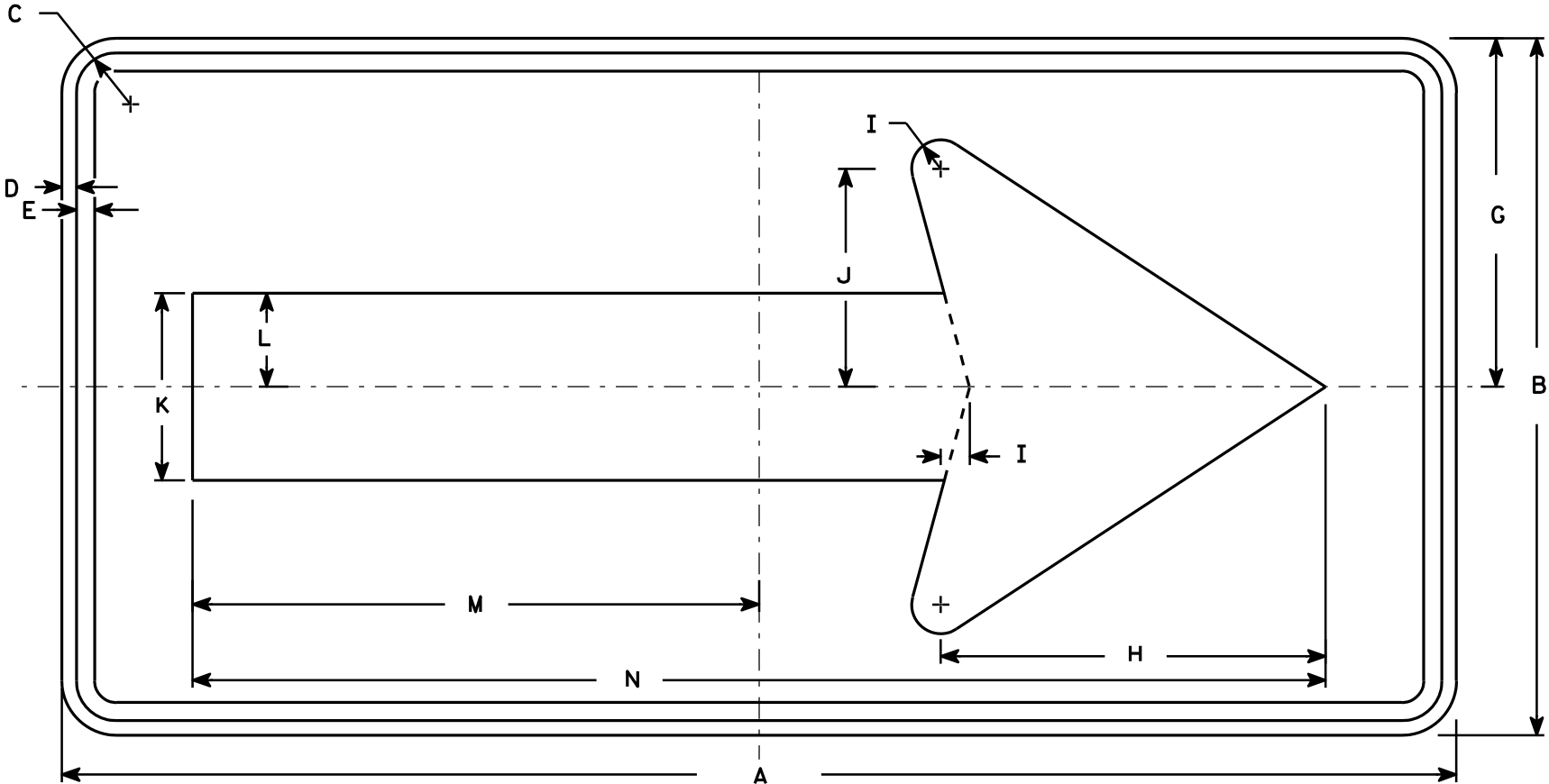
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

NOTES

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



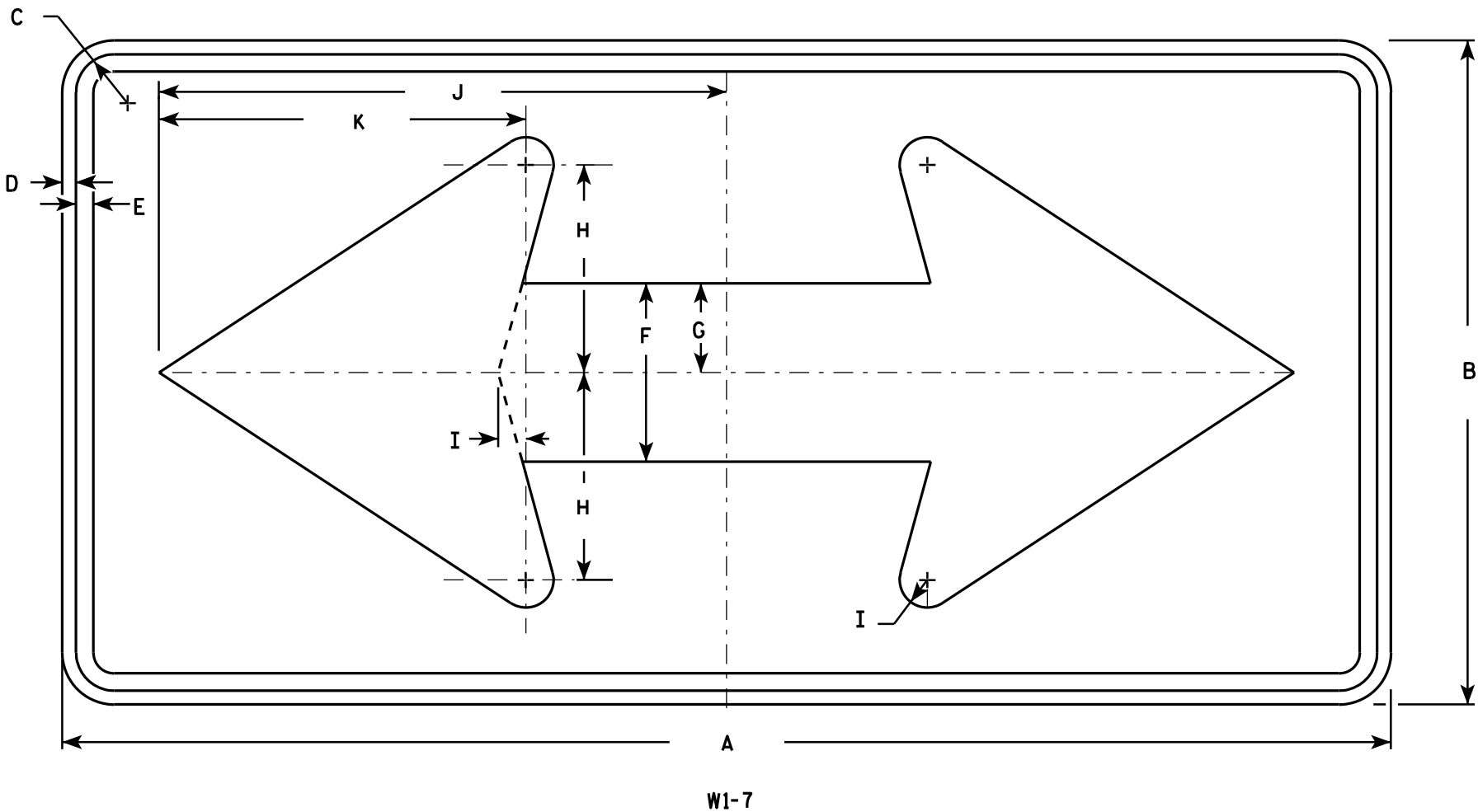
W1-6

| SIZE | A  | B  | C     | D   | E   | F | G  | H      | I     | J     | K     | L     | M      | N      | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|--------|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/8 | 3/8 | 3/8 |   | 9  | 10     | 3/4   | 5 5/8 | 4 3/4 | 2 3/8 | 14 5/8 | 29 1/4 |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 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    | 96 | 48 | 2 1/4 | 3/4 | 1   |   | 24 | 26 1/2 | 2     | 15    | 13    | 6 1/2 | 39     | 78     |   |   |   |   |   |   |   |   |   |   |   |   | 32.0            |

STANDARD SIGN  
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/7/10 PLATE NO. W1-6.8



NOTES

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

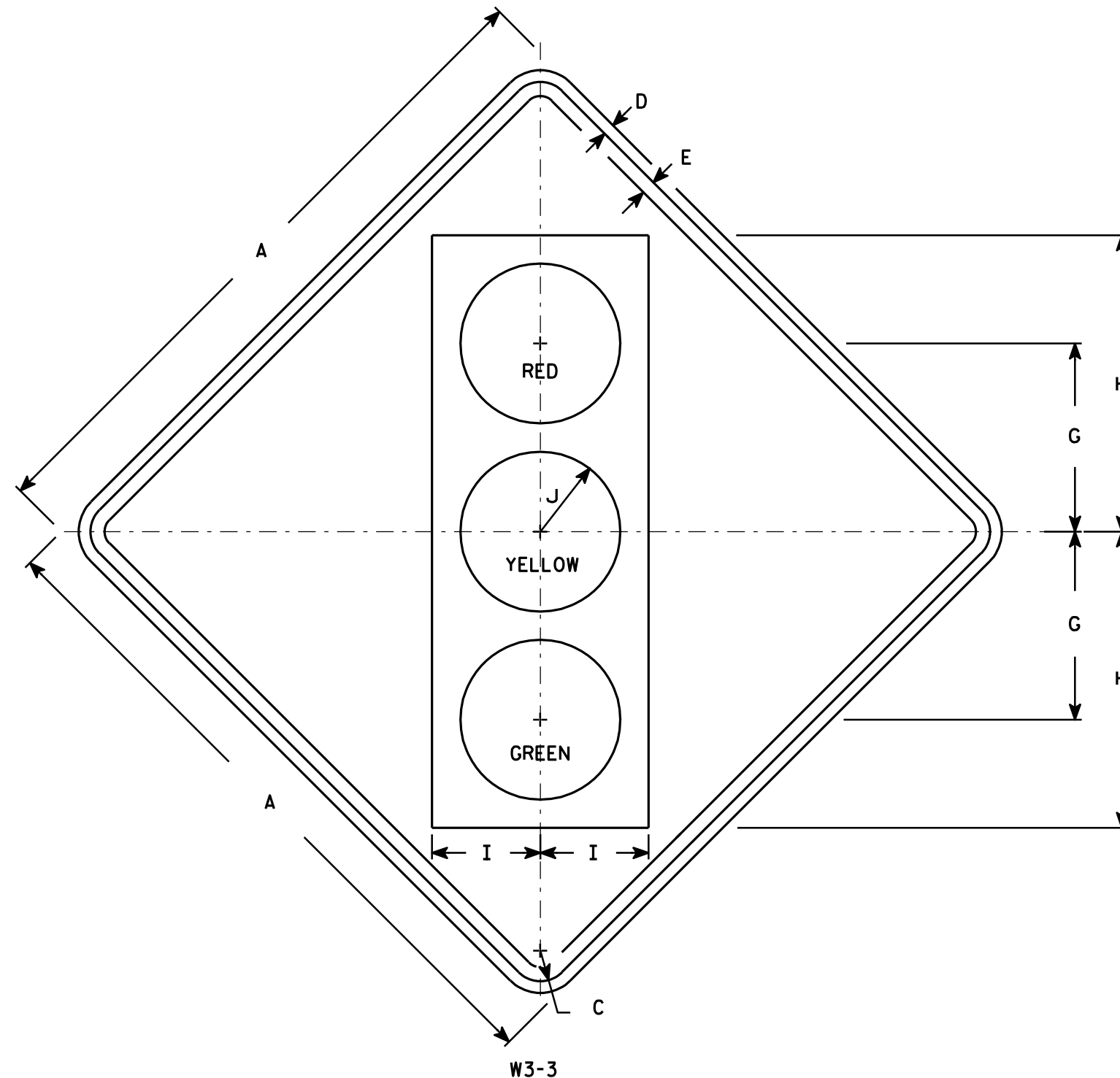
| SIZE | A  | B  | C     | D   | E   | F     | G     | H     | I     | J      | K      | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|-------|-------|-------|-------|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 5     | 2 1/2 | 5 3/4 | 3/4   | 15 5/8 | 10 1/8 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4.5             |
| 2S   | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 1/2 | 3 1/4 | 7 1/2 | 1     | 20 1/2 | 13 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 2M   | 48 | 24 | 1 3/8 | 1/2 | 5/8 | 6 1/2 | 3 1/4 | 7 1/2 | 1     | 20 1/2 | 13 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 8.0             |
| 3    | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8     | 4     | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 4    | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 8     | 4     | 9 1/4 | 1 1/4 | 25 3/8 | 16 1/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 12.5            |
| 5    | 96 | 48 | 2 1/4 | 3/4 | 1   | 13    | 6 1/2 | 15    | 2     | 41     | 26 1/2 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 32.0            |

STANDARD SIGN  
W1 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7



# NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:  
Background - Yellow  
Message - See Note 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.
- 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<br>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

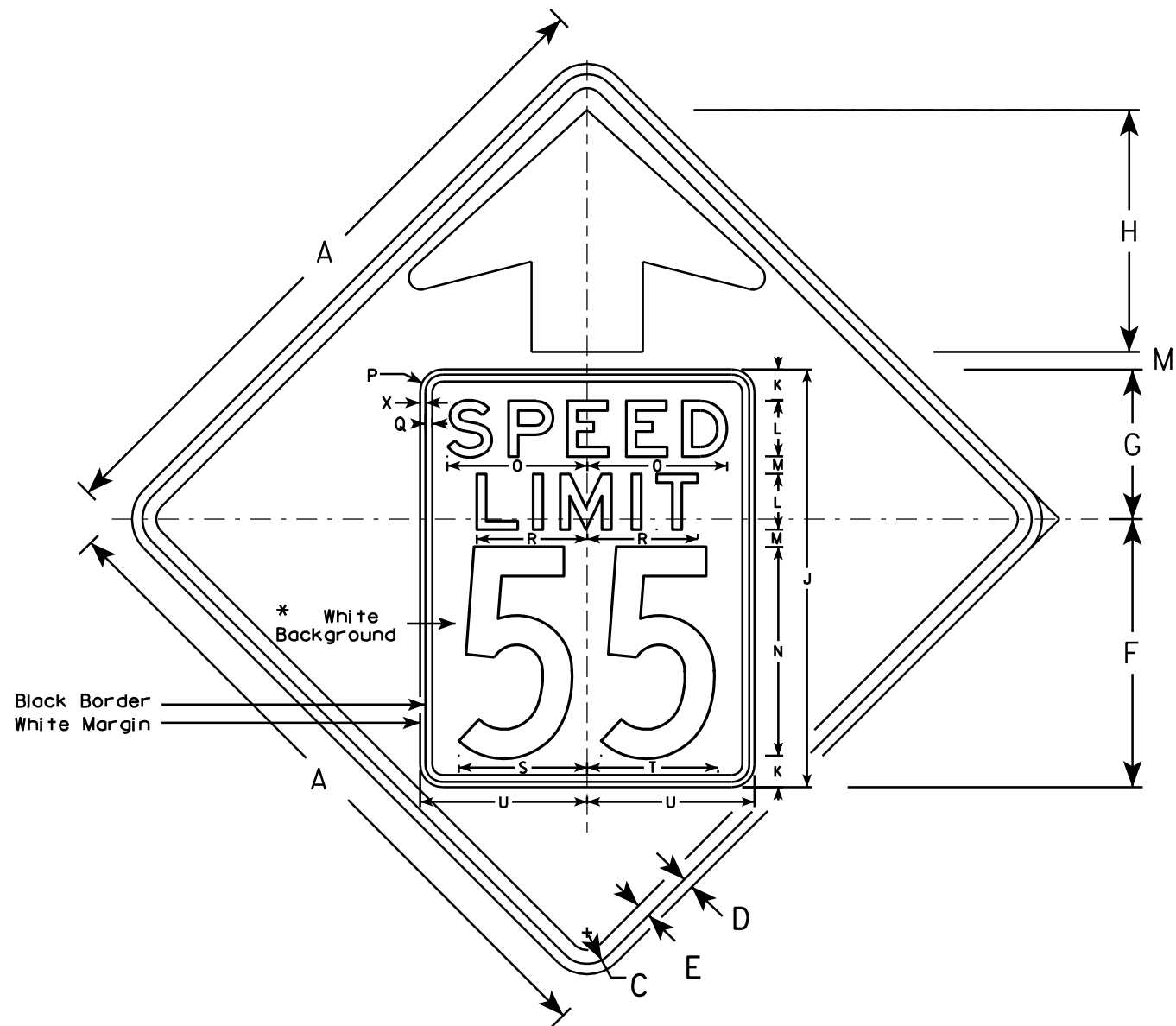
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

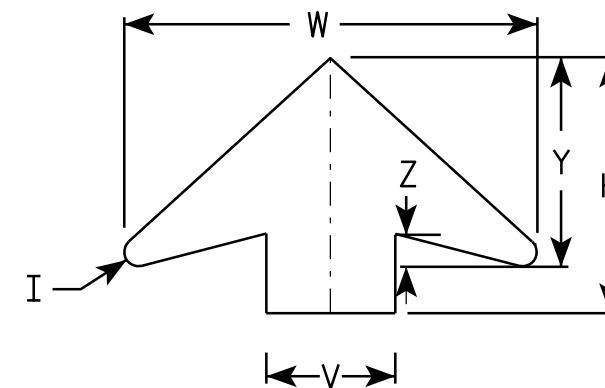


W3-5

### NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: \*  
Background - YELLOW\*  
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

\*Speed Limit Sign shall have a White Background



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<br>sq. ft. |
|------|----|---|-------|-----|-----|--------|--------|--------|-----|----|-------|---|-------|----|-------|-------|-----|-------|-------|-------|----|---|--------|-----|-------|-------|-----------------|
| 1    |    |   |       |     |     |        |        |        |     |    |       |   |       |    |       |       |     |       |       |       |    |   |        |     |       |       |                 |
| 2S   | 36 |   | 1 5/8 | 5/8 | 3/4 | 14 1/2 | 9 1/2  | 11 1/2 | 5/8 | 24 | 2     | 3 | 1     | 12 | 7 1/8 | 1 1/2 | 3/8 | 5 3/4 | 7 1/4 | 7 1/8 | 9  | 6 | 19 1/4 | 3/8 | 9 3/4 | 1 5/8 | 9.0             |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 14 1/2 | 9 1/2  | 11 1/2 | 5/8 | 24 | 2     | 3 | 1     | 12 | 7 1/8 | 1 1/2 | 3/8 | 5 3/4 | 7 1/4 | 7 1/8 | 9  | 6 | 19 1/4 | 3/8 | 9 3/4 | 1 5/8 | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 14 1/2 | 9 1/2  | 11 1/2 | 5/8 | 24 | 2     | 3 | 1     | 12 | 7 1/8 | 1 1/2 | 3/8 | 5 3/4 | 7 1/4 | 7 1/8 | 9  | 6 | 19 1/4 | 3/8 | 9 3/4 | 1 5/8 | 9.0             |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   | 19 1/4 | 10 3/4 | 17 3/8 | 7/8 | 30 | 2 1/4 | 4 | 1 1/4 | 15 | 10    | 1 5/8 | 1/2 | 8     | 9 1/4 | 9 3/8 | 12 | 8 | 25 5/8 | 3/8 | 13    | 2     | 16.0            |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 19 1/4 | 10 3/4 | 17 3/8 | 7/8 | 30 | 2 1/4 | 4 | 1 1/4 | 15 | 10    | 1 5/8 | 1/2 | 8     | 9 1/4 | 9 3/8 | 12 | 8 | 25 5/8 | 3/8 | 13    | 2     | 16.0            |

### STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E

| STATION    | Real Station | Distance | AREA (SF) |      |        | Incremental Vol (CY) (Unadjusted) |        |     | Cumulative Vol (CY)   |                       | Mass Ordinate |
|------------|--------------|----------|-----------|------|--------|-----------------------------------|--------|-----|-----------------------|-----------------------|---------------|
|            |              |          | Cut       | Fill | EBS    | Cut                               | Fill   | EBS | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.15 |               |
|            |              |          |           |      |        |                                   |        |     |                       |                       |               |
|            |              |          |           |      |        | Note 1                            | Note 3 |     |                       |                       | Note 8        |
| 69+01(2)   | 6901.00      | 0.00     | 0.00      | 0.00 | 0.00   | 0                                 | 0      | 0   | 0                     | 0                     | 0.00          |
| 69+02(2)   | 6902.00      | 1.00     | 81.42     | 0.00 | 0.04   | 2                                 | 0      | 0   | 2                     | 0                     | 1.51          |
| 69+25(2)   | 6925.00      | 23.00    | 79.22     | 0.00 | 51.86  | 68                                | 0      | 22  | 70                    | 0                     | 69.93         |
| 69+50(2)   | 6950.00      | 25.00    | 78.50     | 0.00 | 109.77 | 73                                | 0      | 75  | 143                   | 0                     | 142.95        |
| 69+58(2)   | 6958.00      | 8.00     | 78.53     | 0.00 | 127.54 | 23                                | 0      | 35  | 166                   | 0                     | 166.21        |
| 69+59.5(2) | 6959.50      | 1.50     | 79.32     | 0.00 | 221.54 | 4                                 | 0      | 10  | 171                   | 0                     | 170.60        |
| 69+75(2)   | 6975.00      | 15.50    | 78.33     | 0.00 | 211.51 | 45                                | 0      | 124 | 216                   | 0                     | 215.85        |
| 69+98.5(2) | 6998.50      | 23.50    | 75.60     | 0.00 | 211.83 | 67                                | 0      | 184 | 283                   | 0                     | 282.84        |
| 70+00(2)   | 7000.00      | 1.50     | 79.62     | 0.00 | 144.60 | 4                                 | 0      | 10  | 287                   | 0                     | 287.15        |
| 70+03(2)   | 7003.00      | 3.00     | 84.02     | 0.00 | 121.74 | 9                                 | 0      | 15  | 296                   | 0                     | 296.24        |
| 70+25(2)   | 7025.00      | 22.00    | 80.19     | 0.00 | 70.07  | 67                                | 0      | 78  | 363                   | 0                     | 363.14        |
| 70+50(2)   | 7050.00      | 25.00    | 78.30     | 0.00 | 13.32  | 73                                | 0      | 39  | 437                   | 0                     | 436.51        |
| 70+56(2)   | 7056.00      | 6.00     | 78.33     | 0.00 | 0.04   | 17                                | 0      | 1   | 454                   | 0                     | 453.92        |
| 70+57(2)   | 7057.00      | 1.00     | 0.00      | 0.00 | 0.00   | 1                                 | 0      | 0   | 455                   | 0                     | 455.37        |
|            |              |          |           |      |        | 455                               | 0      | 593 |                       |                       |               |

| STATION    | Real Station | Distance | AREA (SF) |      |        | Incremental Vol (CY) (Unadjusted) |      |     | Cumulative Vol (CY)   |                       | Mass Ordinate |
|------------|--------------|----------|-----------|------|--------|-----------------------------------|------|-----|-----------------------|-----------------------|---------------|
|            |              |          | Cut       | Fill | EBS    | Cut                               | Fill | EBS | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.15 |               |
|            |              |          |           |      |        |                                   |      |     |                       |                       |               |
| 74+67(2)   | 7467.00      | 0.00     | 0.00      | 0.00 | 0.00   | 0                                 | 0    | 0   | 0                     | 0                     | 0.00          |
| 74+68(2)   | 7468.00      | 1.00     | 68.79     | 0.00 | 0.04   | 1                                 | 0    | 0   | 1                     | 0                     | 1.27          |
| 74+75(2)   | 7475.00      | 7.00     | 60.22     | 0.00 | 14.83  | 17                                | 0    | 2   | 18                    | 0                     | 18.00         |
| 75+00(2)   | 7500.00      | 25.00    | 68.15     | 0.00 | 72.14  | 59                                | 0    | 40  | 77                    | 0                     | 77.43         |
| 75+25(2)   | 7525.00      | 25.00    | 62.71     | 0.00 | 130.26 | 61                                | 0    | 94  | 138                   | 0                     | 138.01        |
| 75+30(2)   | 7530.00      | 5.00     | 63.01     | 0.00 | 141.03 | 12                                | 0    | 25  | 150                   | 0                     | 149.65        |
| 75+31.5(2) | 7531.50      | 1.50     | 63.08     | 0.00 | 219.47 | 4                                 | 0    | 10  | 153                   | 0                     | 153.16        |
| 75+38.5(2) | 7538.50      | 7.00     | 63.00     | 0.00 | 219.50 | 16                                | 0    | 57  | 169                   | 0                     | 169.50        |
| 75+40(2)   | 7540.00      | 1.50     | 62.89     | 0.00 | 141.07 | 3                                 | 0    | 10  | 173                   | 0                     | 173.00        |
| 75+50(2)   | 7550.00      | 10.00    | 66.78     | 0.00 | 118.69 | 24                                | 0    | 48  | 197                   | 0                     | 197.01        |
| 75+75(2)   | 7575.00      | 25.00    | 64.56     | 0.00 | 60.85  | 61                                | 0    | 83  | 258                   | 0                     | 257.81        |
| 76+00(2)   | 7600.00      | 25.00    | 58.86     | 0.00 | 4.46   | 57                                | 0    | 30  | 315                   | 0                     | 314.95        |
| 76+02(2)   | 7602.00      | 2.00     | 58.62     | 0.00 | 0.04   | 4                                 | 0    | 0   | 319                   | 0                     | 319.31        |
| 76+03(2)   | 7603.00      | 1.00     | 0.00      | 0.00 | 0.00   | 1                                 | 0    | 0   | 320                   | 0                     | 320.39        |
|            |              |          |           |      |        | 320                               | 0    | 400 |                       |                       |               |

|          |                                                  |
|----------|--------------------------------------------------|
| Notes:   |                                                  |
| 1 - Cut  | Cut includes Salvaged/Unusable Pavement material |
| 3 - Fill | Does not include Unusable Pavement Exc volume    |

| STATION     | Real Station | Distance | AREA (SF) |       |      | Incremental Vol (CY) |      |     | Cumulative Vol (CY) |                       | Mass Ordinate |
|-------------|--------------|----------|-----------|-------|------|----------------------|------|-----|---------------------|-----------------------|---------------|
|             |              |          | Cut       | Fill  | EBS  | Cut                  | Fill | EBS | Cut<br>1.00         | Expanded Fill<br>1.15 |               |
|             |              |          |           |       |      |                      |      |     |                     |                       |               |
| 95+56.5(2)  | 9556.50      | 0.00     | 0.00      | 2.74  | 0.00 | 0                    | 0    | 0   | 0                   | 0                     | 0.00          |
| 95+75(2)    | 9575.00      | 18.50    | 0.00      | 3.36  | 0.00 | 0                    | 2    | 0   | 0                   | 2                     | -2.40         |
| 96+00(2)    | 9600.00      | 25.00    | 0.00      | 6.49  | 0.00 | 0                    | 5    | 0   | 0                   | 8                     | -7.65         |
| 96+25(2)    | 9625.00      | 25.00    | 0.00      | 10.07 | 0.00 | 0                    | 8    | 0   | 0                   | 16                    | -16.46        |
| 96+50(2)    | 9650.00      | 25.00    | 0.00      | 3.96  | 0.00 | 0                    | 6    | 0   | 0                   | 24                    | -23.93        |
| 96+75(2)    | 9675.00      | 25.00    | 0.00      | 5.70  | 0.00 | 0                    | 4    | 0   | 0                   | 29                    | -29.08        |
| 97+00(2)    | 9700.00      | 25.00    | 0.00      | 11.69 | 0.00 | 0                    | 8    | 0   | 0                   | 38                    | -38.34        |
| 97+25(2)    | 9725.00      | 25.00    | 0.00      | 1.80  | 0.00 | 0                    | 6    | 0   | 0                   | 46                    | -45.52        |
| 97+50(2)    | 9750.00      | 25.00    | 0.00      | 1.16  | 0.00 | 0                    | 1    | 0   | 0                   | 47                    | -47.10        |
| 97+75(2)    | 9775.00      | 25.00    | 0.00      | 4.79  | 0.00 | 0                    | 3    | 0   | 0                   | 50                    | -50.26        |
| 98+00(2)    | 9800.00      | 25.00    | 0.00      | 8.75  | 0.00 | 0                    | 6    | 0   | 0                   | 57                    | -57.47        |
| 98+25(2)    | 9825.00      | 25.00    | 0.00      | 0.46  | 0.00 | 0                    | 4    | 0   | 0                   | 62                    | -62.38        |
| 98+42.23(2) | 9842.23      | 17.23    | 0.00      | 1.02  | 0.00 | 0                    | 0    | 0   | 0                   | 63                    | -62.92        |

TOTAL 0 55 0

| STATION      | Real Station | Distance | AREA (SF) |      |      | Incremental Vol (CY) |      |     | Cumulative Vol (CY) |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|------|------|----------------------|------|-----|---------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill | EBS  | Cut                  | Fill | EBS | Cut<br>1.00         | Expanded Fill<br>1.15 |               |
|              |              |          |           |      |      |                      |      |     |                     |                       |               |
| 99+62.5(2)   | 9962.50      | 0.00     | 0.00      | 0.00 | 0.00 | 0                    | 0    | 0   | 0                   | 0                     | 0.00          |
| 99+75(2)     | 9975.00      | 12.50    | 0.00      | 0.00 | 0.00 | 0                    | 0    | 0   | 0                   | 0                     | 0.00          |
| 100+00(2)    | 10000.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                    | 0    | 0   | 0                   | 0                     | 0.00          |
| 100+18.34(2) | 10018.34     | 18.34    | 0.00      | 0.00 | 0.00 | 0                    | 0    | 0   | 0                   | 0                     | 0.00          |

TOTAL 0 0 0

|          |                                                  |
|----------|--------------------------------------------------|
| Notes:   |                                                  |
| 1 - Cut  | Cut includes Salvaged/Unusable Pavement material |
| 3 - Fill | Does not include Unusable Pavement Exc volume    |

| STATION      | Real Station | Distance | AREA (SF) |      |      | Incremental Vol (CY) (Unadjusted) |      |     | Cumulative Vol (CY)   |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|------|------|-----------------------------------|------|-----|-----------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill | EBS  | Cut                               | Fill | EBS | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.15 |               |
|              |              |          |           |      |      |                                   |      |     |                       |                       |               |
| 100+68.75(2) | 10068.75     | 0.00     | 0.00      | 0.22 | 0.00 | 0                                 | 0    | 0   | 0                     | 0                     | 0.00          |
| 100+75(2)    | 10075.00     | 6.25     | 0.00      | 0.25 | 0.00 | 0                                 | 0    | 0   | 0                     | 0                     | -0.06         |
| 101+00(2)    | 10100.00     | 25.00    | 0.00      | 2.67 | 0.00 | 0                                 | 1    | 0   | 0                     | 2                     | -1.62         |
| 101+25(2)    | 10125.00     | 25.00    | 0.00      | 3.68 | 0.00 | 0                                 | 3    | 0   | 0                     | 5                     | -5.00         |
| 101+50(2)    | 10150.00     | 25.00    | 0.00      | 3.99 | 0.00 | 0                                 | 4    | 0   | 0                     | 9                     | -9.08         |
| 101+75(2)    | 10175.00     | 25.00    | 0.00      | 4.02 | 0.00 | 0                                 | 4    | 0   | 0                     | 13                    | -13.35        |
| 102+00(2)    | 10200.00     | 25.00    | 0.00      | 2.92 | 0.00 | 0                                 | 3    | 0   | 0                     | 17                    | -17.05        |
| 102+25(2)    | 10225.00     | 25.00    | 0.00      | 2.04 | 0.00 | 0                                 | 2    | 0   | 0                     | 20                    | -19.69        |
| 102+44.26(2) | 10244.26     | 19.26    | 0.00      | 1.40 | 0.00 | 0                                 | 1    | 0   | 0                     | 21                    | -21.10        |

TOTAL

0180

| STATION      | Real Station | Distance | AREA (SF) |      |      | Incremental Vol (CY) (Unadjusted) |      |     | Cumulative Vol (CY) |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|------|------|-----------------------------------|------|-----|---------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill | EBS  | Cut                               | Fill | EBS | Cut<br>1.00         | Expanded Fill<br>1.15 |               |
|              |              |          |           |      |      |                                   |      |     |                     |                       |               |
| 104+08.61(2) | 10408.61     | 0.00     | 0.00      | 0.00 | 0.00 | 0                                 | 0    | 0   | 0                   | 0                     | 0.00          |
| 104+25(2)    | 10425.00     | 16.39    | 0.00      | 1.08 | 0.00 | 0                                 | 0    | 0   | 0                   | 0                     | -0.38         |
| 104+50(2)    | 10450.00     | 25.00    | 0.00      | 1.97 | 0.00 | 0                                 | 1    | 0   | 0                   | 2                     | -2.00         |
| 104+75(2)    | 10475.00     | 25.00    | 0.00      | 7.79 | 0.00 | 0                                 | 5    | 0   | 0                   | 7                     | -7.19         |
| 104+87.5(2)  | 10487.50     | 12.50    | 0.00      | 2.69 | 0.00 | 0                                 | 2    | 0   | 0                   | 10                    | -9.98         |

TOTAL

090

|          |                                                  |
|----------|--------------------------------------------------|
| Notes:   |                                                  |
| 1 - Cut  | Cut includes Salvaged/Unusable Pavement material |
| 3 - Fill | Does not include Unusable Pavement Exc volume    |

| STATION      | Real Station | Distance | AREA (SF) |       |      | Incremental Vol (CY) (Unadjusted) |      |     | Cumulative Vol (CY)   |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|-------|------|-----------------------------------|------|-----|-----------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill  | EBS  | Cut                               | Fill | EBS | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.15 |               |
|              |              |          |           |       |      |                                   |      |     |                       |                       |               |
| 106+56.25(2) | 10656.25     | 0.00     | 0.00      | 1.12  | 0.00 | 0                                 | 0    | 0   | 0                     | 0                     | 0.00          |
| 106+75(2)    | 10675.00     | 18.75    | 0.00      | 3.27  | 0.00 | 0                                 | 2    | 0   | 0                     | 2                     | -1.75         |
| 107+00(2)    | 10700.00     | 25.00    | 0.00      | 2.81  | 0.00 | 0                                 | 3    | 0   | 0                     | 5                     | -4.99         |
| 107+25(2)    | 10725.00     | 25.00    | 0.00      | 1.68  | 0.00 | 0                                 | 2    | 0   | 0                     | 7                     | -7.38         |
| 107+50(2)    | 10750.00     | 25.00    | 0.00      | 10.18 | 0.00 | 0                                 | 5    | 0   | 0                     | 14                    | -13.69        |
| 107+75(2)    | 10775.00     | 25.00    | 0.00      | 17.27 | 0.00 | 0                                 | 13   | 0   | 0                     | 28                    | -28.31        |
| 108+00(2)    | 10800.00     | 25.00    | 0.00      | 33.15 | 0.00 | 0                                 | 23   | 0   | 0                     | 55                    | -55.16        |
| 108+25(2)    | 10825.00     | 25.00    | 0.00      | 28.22 | 0.00 | 0                                 | 28   | 0   | 0                     | 88                    | -87.83        |
| 108+50(2)    | 10850.00     | 25.00    | 0.00      | 26.40 | 0.00 | 0                                 | 25   | 0   | 0                     | 117                   | -116.91       |
| 108+75(2)    | 10875.00     | 25.00    | 0.00      | 9.09  | 0.00 | 0                                 | 16   | 0   | 0                     | 136                   | -135.80       |
| 109+00(2)    | 10900.00     | 25.00    | 0.00      | 2.82  | 0.00 | 0                                 | 6    | 0   | 0                     | 142                   | -142.14       |
| 109+25(2)    | 10925.00     | 25.00    | 0.00      | 2.88  | 0.00 | 0                                 | 3    | 0   | 0                     | 145                   | -145.17       |

TOTAL01260

| STATION      | Real Station | Distance | AREA (SF) |       |      | Incremental Vol (CY) (Unadjusted) |      |     | Cumulative Vol (CY)   |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|-------|------|-----------------------------------|------|-----|-----------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill  | EBS  | Cut                               | Fill | EBS | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.15 |               |
|              |              |          |           |       |      |                                   |      |     |                       |                       |               |
| 136+68.75(2) | 13668.75     | 0.00     | 0.00      | 0.09  | 0.00 | 0                                 | 0    | 0   | 0                     | 0                     | 0.00          |
| 136+75(2)    | 13675.00     | 6.25     | 0.00      | 0.10  | 0.00 | 0                                 | 0    | 0   | 0                     | 0                     | -0.02         |
| 137+00(2)    | 13700.00     | 25.00    | 0.00      | 0.28  | 0.00 | 0                                 | 0    | 0   | 0                     | 0                     | -0.22         |
| 137+25(2)    | 13725.00     | 25.00    | 0.00      | 1.42  | 0.00 | 0                                 | 1    | 0   | 0                     | 1                     | -1.13         |
| 137+50(2)    | 13750.00     | 25.00    | 0.00      | 16.29 | 0.00 | 0                                 | 8    | 0   | 0                     | 11                    | -10.56        |
| 137+75(2)    | 13775.00     | 25.00    | 0.00      | 1.23  | 0.00 | 0                                 | 8    | 0   | 0                     | 20                    | -19.89        |
| 138+00(2)    | 13800.00     | 25.00    | 0.00      | 25.05 | 0.00 | 0                                 | 12   | 0   | 0                     | 34                    | -33.89        |
| 138+25(2)    | 13825.00     | 25.00    | 0.00      | 4.21  | 0.00 | 0                                 | 14   | 0   | 0                     | 49                    | -49.47        |
| 138+50(2)    | 13850.00     | 25.00    | 0.00      | 29.73 | 0.00 | 0                                 | 16   | 0   | 0                     | 68                    | -67.54        |
| 138+75(2)    | 13875.00     | 25.00    | 0.00      | 26.46 | 0.00 | 0                                 | 26   | 0   | 0                     | 97                    | -97.45        |
| 139+00(2)    | 13900.00     | 25.00    | 0.00      | 15.62 | 0.00 | 0                                 | 19   | 0   | 0                     | 120                   | -119.85       |
| 139+25(2)    | 13925.00     | 25.00    | 0.00      | 0.14  | 0.00 | 0                                 | 7    | 0   | 0                     | 128                   | -128.24       |
| 139+50(2)    | 13950.00     | 25.00    | 0.00      | 15.25 | 0.00 | 0                                 | 7    | 0   | 0                     | 136                   | -136.43       |
| 139+75(2)    | 13975.00     | 25.00    | 0.00      | 0.17  | 0.00 | 0                                 | 7    | 0   | 0                     | 145                   | -144.64       |
| 139+81.25(2) | 13981.25     | 6.25     | 0.00      | 1.03  | 0.00 | 0                                 | 0    | 0   | 0                     | 145                   | -144.80       |

TOTAL01260

|          |                                                  |
|----------|--------------------------------------------------|
| Notes:   |                                                  |
| 1 - Cut  | Cut includes Salvaged/Unusable Pavement material |
| 3 - Fill | Does not include Unusable Pavement Exc volume    |

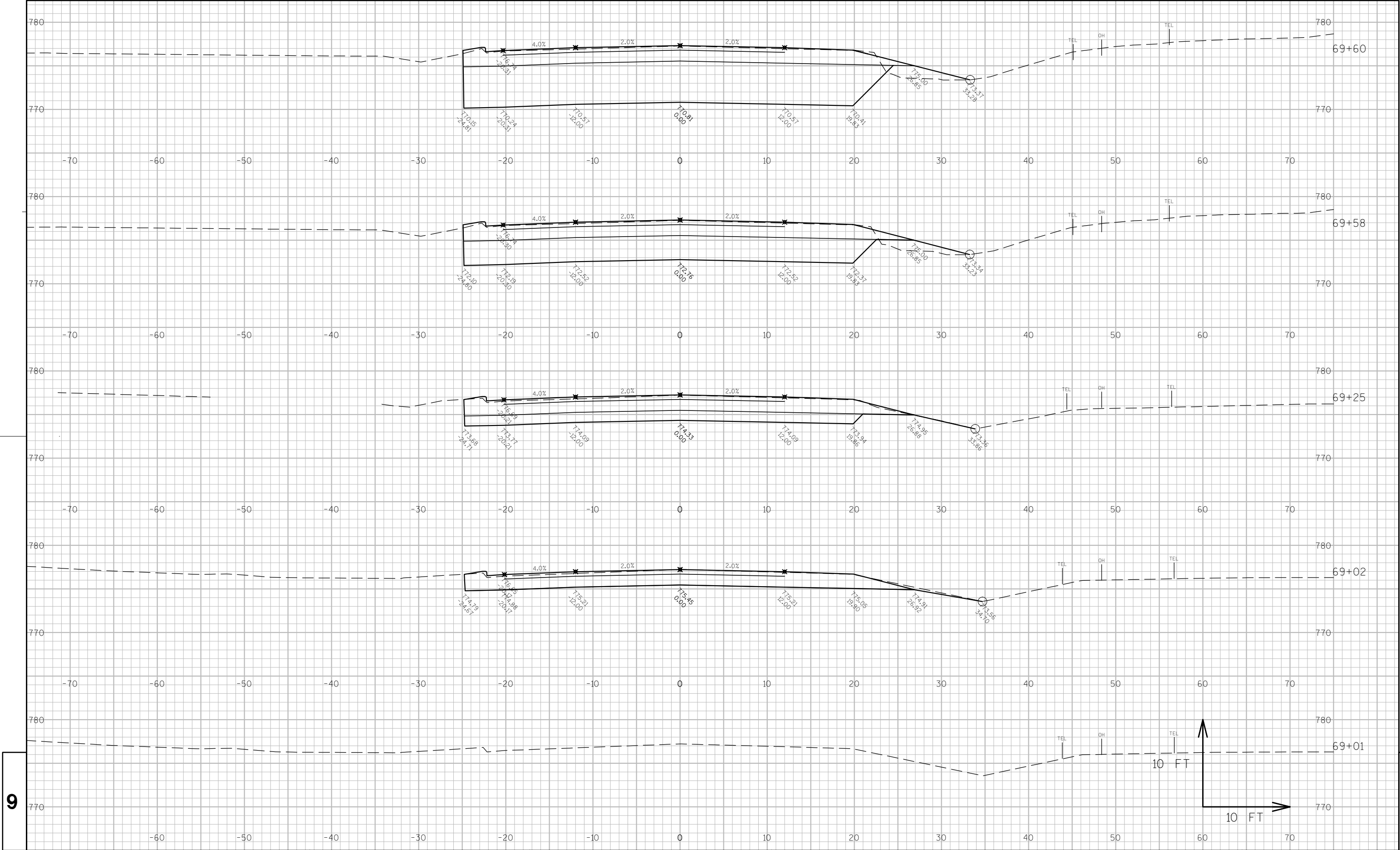
| STATION      | Real Station | Distance | AREA (SF) |      |      | Incremental Vol (CY) (Unadjusted |      |     | Cumulative Vol (CY) |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|------|------|----------------------------------|------|-----|---------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill | EBS  | Cut                              | Fill | EBS | Cut<br>1.00         | Expanded Fill<br>1.15 |               |
|              |              |          |           |      |      |                                  |      |     |                     |                       |               |
| 142+29.86(2) | 14229.86     | 0.00     | 0.00      | 0.73 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 142+50(2)    | 14250.00     | 20.14    | 0.00      | 0.15 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | -0.38         |
| 142+75(2)    | 14275.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | -0.46         |
| 143+00(2)    | 14300.00     | 25.00    | 0.00      | 0.11 | 0.00 | 0                                | 0    | 0   | 0                   | 1                     | -0.51         |
| 143+25(2)    | 14325.00     | 25.00    | 0.00      | 1.36 | 0.00 | 0                                | 1    | 0   | 0                   | 1                     | -1.29         |
| 143+50(2)    | 14350.00     | 25.00    | 0.00      | 0.04 | 0.00 | 0                                | 1    | 0   | 0                   | 2                     | -2.04         |
| 143+75(2)    | 14375.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 2                     | -2.06         |
| 144+00(2)    | 14400.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 2                     | -2.06         |
| 144+25(2)    | 14425.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 2                     | -2.06         |
| 144+50(2)    | 14450.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 2                     | -2.06         |
| 144+75(2)    | 14475.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 2                     | -2.06         |
| 144+98.57(2) | 14498.57     | 23.57    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 2                     | -2.06         |
| TOTAL        |              |          |           |      |      | 0                                | 2    | 0   |                     |                       |               |

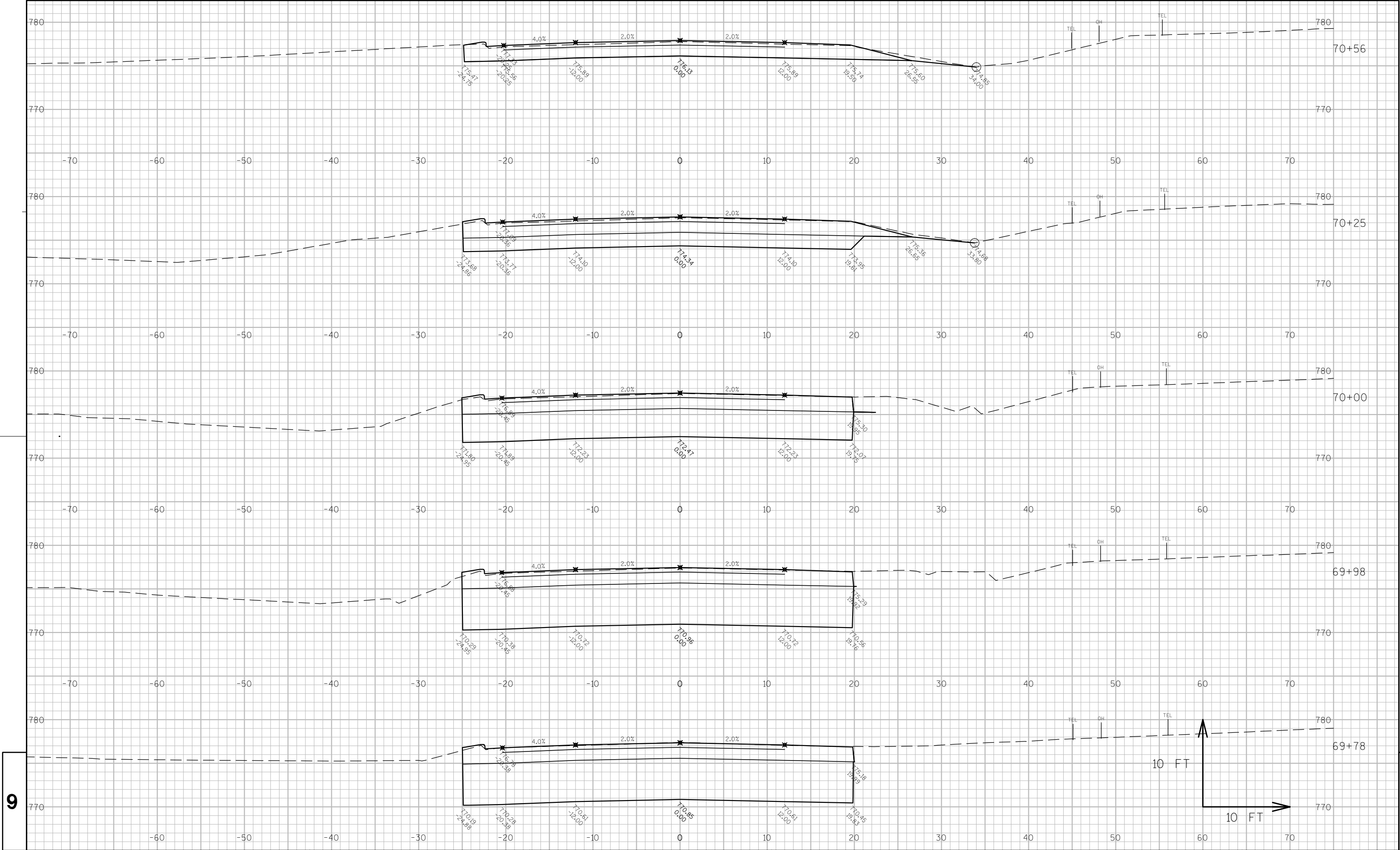
| STATION      | Real Station | Distance | AREA (SF) |      |      | Incremental Vol (CY) (Unadjusted |      |     | Cumulative Vol (CY) |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|------|------|----------------------------------|------|-----|---------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill | EBS  | Cut                              | Fill | EBS | Cut<br>1.00         | Expanded Fill<br>1.15 |               |
|              |              |          |           |      |      |                                  |      |     |                     |                       |               |
| 183+40.59(2) | 18340.59     | 0.00     | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 183+50(2)    | 18350.00     | 9.41     | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 183+75(2)    | 18375.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 184+00(2)    | 18400.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 184+25(2)    | 18425.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 184+50(2)    | 18450.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 184+75(2)    | 18475.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 185+00(2)    | 18500.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 185+25(2)    | 18525.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 185+50(2)    | 18550.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 185+75(2)    | 18575.00     | 25.00    | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| 185+81.25(2) | 18581.25     | 6.25     | 0.00      | 0.00 | 0.00 | 0                                | 0    | 0   | 0                   | 0                     | 0.00          |
| TOTAL        |              |          |           |      |      | 0                                | 0    | 0   |                     |                       |               |

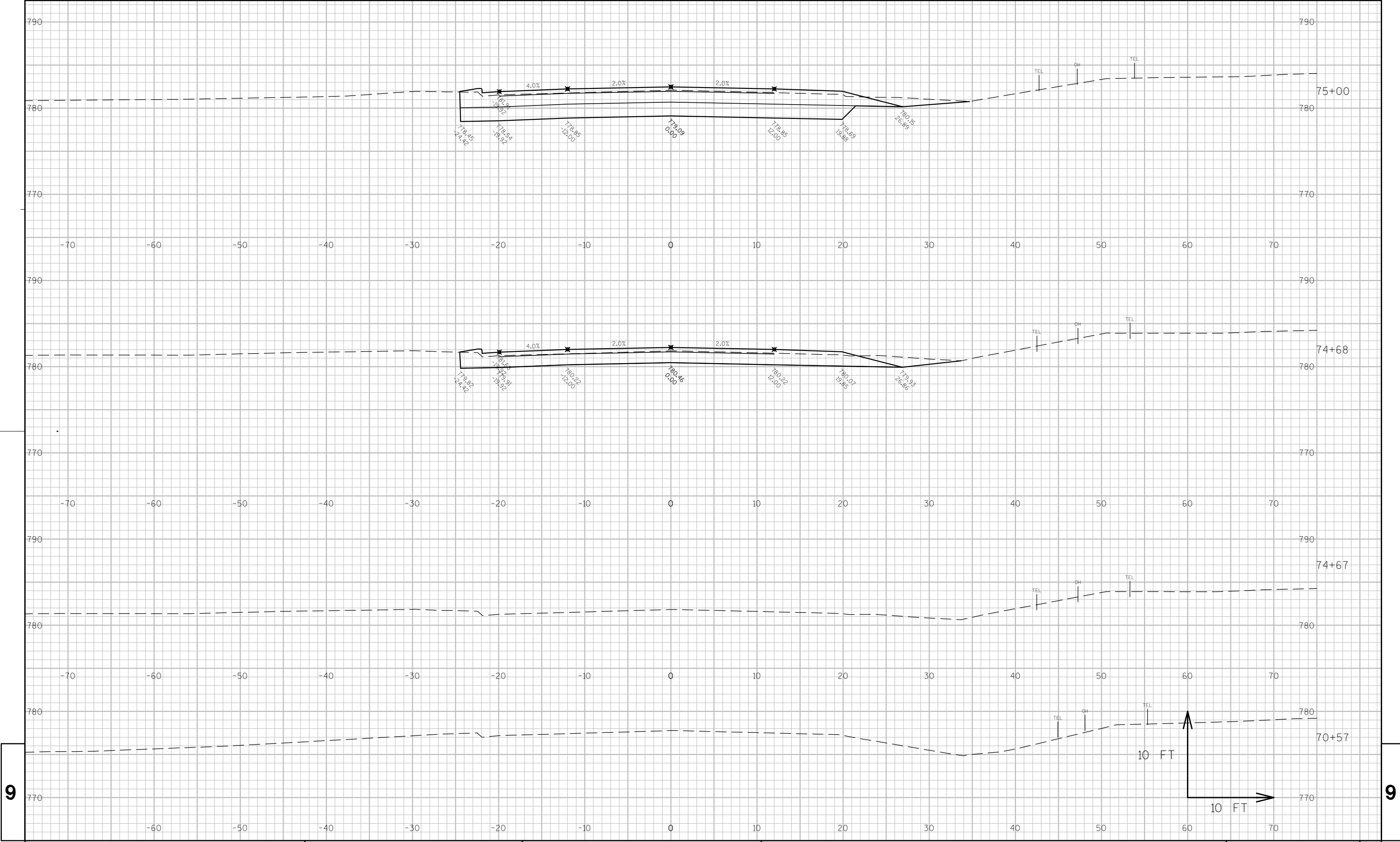
|          |                                                  |
|----------|--------------------------------------------------|
| Notes:   |                                                  |
| 1 - Cut  | Cut includes Salvaged/Unusable Pavement material |
| 3 - Fill | Does not include Unusable Pavement Exc volume    |

| STATION      | Real Station | Distance | AREA (SF) |      |      | Incremental Vol (CY) (Unadjusted |        |     | Cumulative Vol (CY)   |                       | Mass Ordinate |
|--------------|--------------|----------|-----------|------|------|----------------------------------|--------|-----|-----------------------|-----------------------|---------------|
|              |              |          | Cut       | Fill | EBS  | Cut                              | Fill   | EBS | Cut<br>1.00<br>Note 1 | Expanded Fill<br>1.15 |               |
|              |              |          |           |      |      |                                  |        |     |                       |                       |               |
|              |              |          |           |      |      | Note 1                           | Note 3 |     |                       |                       | Note 8        |
| 188+06.25(2) | 48806.25     | 0.00     | 0.00      | 0.00 | 0.00 | 0                                | 0      | 0   | 0                     | 0                     | 0.00          |
| 188+25(2)    | 48825.00     | 18.75    | 0.00      | 0.00 | 0.00 | 0                                | 0      | 0   | 0                     | 0                     | 0.00          |
| 188+50(2)    | 48850.00     | 25.00    | 0.00      | 1.66 | 0.00 | 0                                | 1      | 0   | 0                     | 1                     | -0.88         |
| 188+75(2)    | 48875.00     | 25.00    | 0.00      | 2.06 | 0.00 | 0                                | 2      | 0   | 0                     | 3                     | -2.86         |
| 189+00(2)    | 48900.00     | 25.00    | 0.00      | 0.25 | 0.00 | 0                                | 1      | 0   | 0                     | 4                     | -4.10         |
| 189+25(2)    | 48925.00     | 25.00    | 0.00      | 1.12 | 0.00 | 0                                | 1      | 0   | 0                     | 5                     | -4.82         |
| 189+50(2)    | 48950.00     | 25.00    | 0.00      | 1.07 | 0.00 | 0                                | 1      | 0   | 0                     | 6                     | -5.99         |
| TOTAL        |              |          |           |      |      | 0                                | 5      | 0   |                       |                       |               |

|          |                                                  |
|----------|--------------------------------------------------|
| Notes:   |                                                  |
| 1 - Cut  | Cut includes Salvaged/Unusable Pavement material |
| 3 - Fill | Does not include Unusable Pavement Exc volume    |

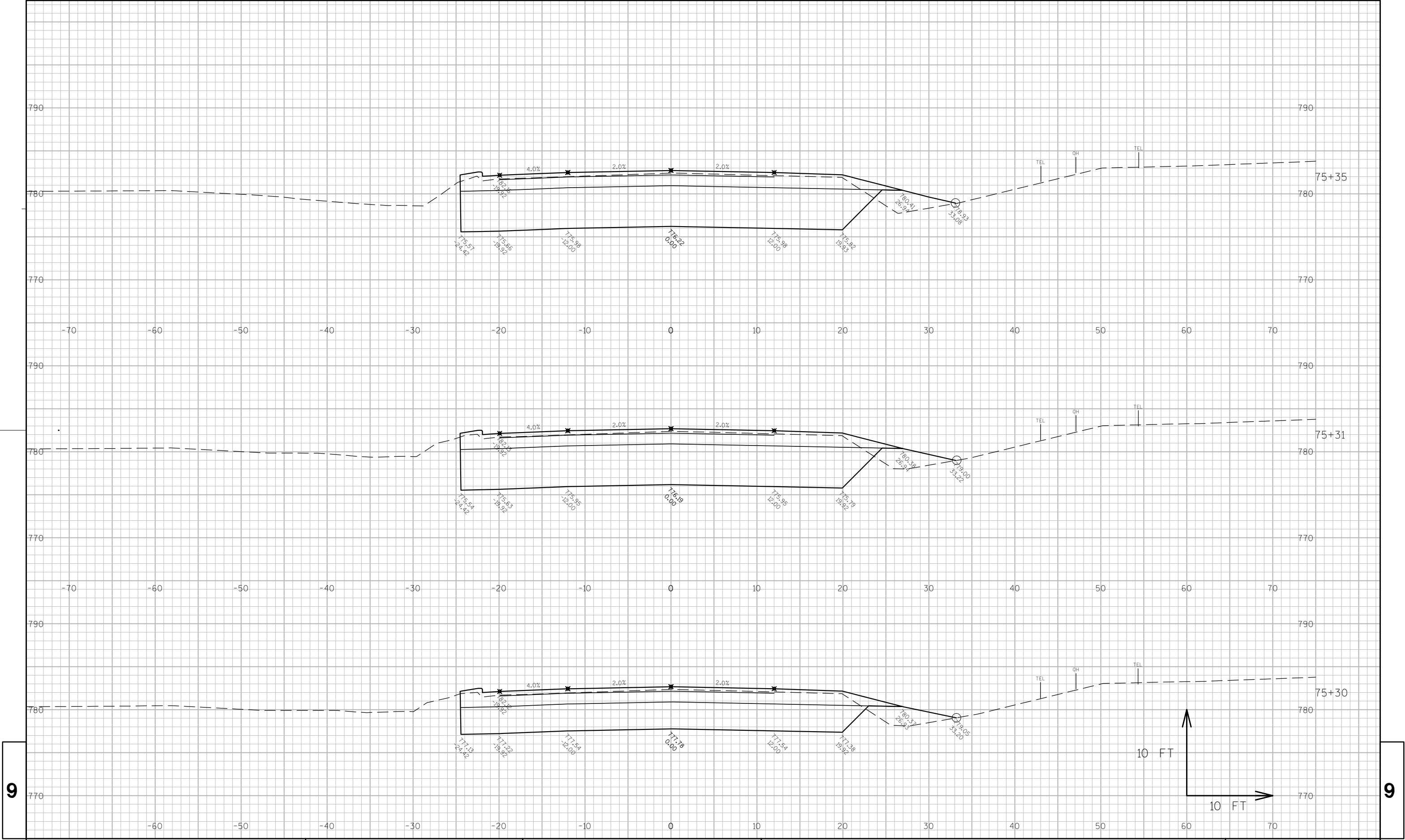


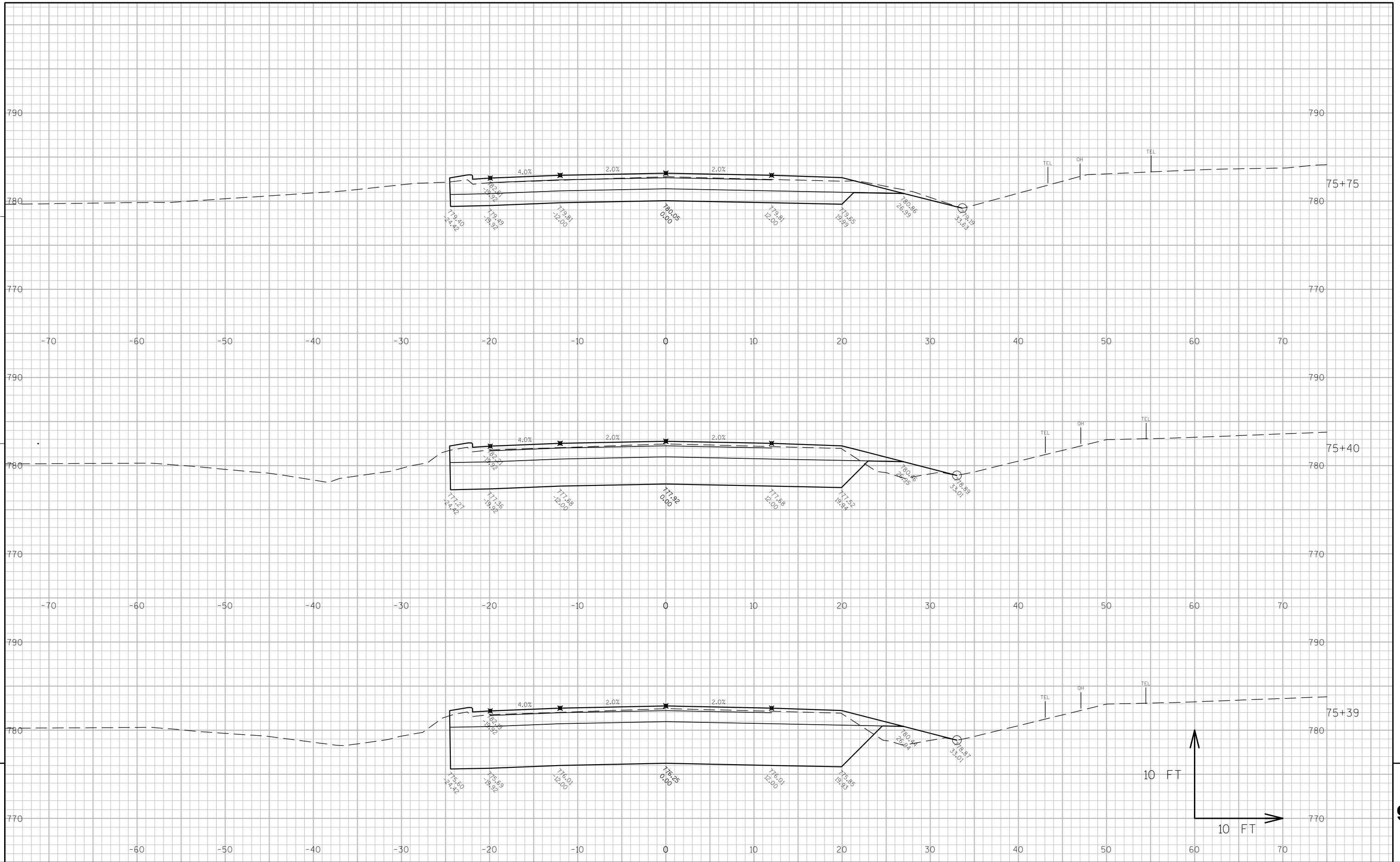


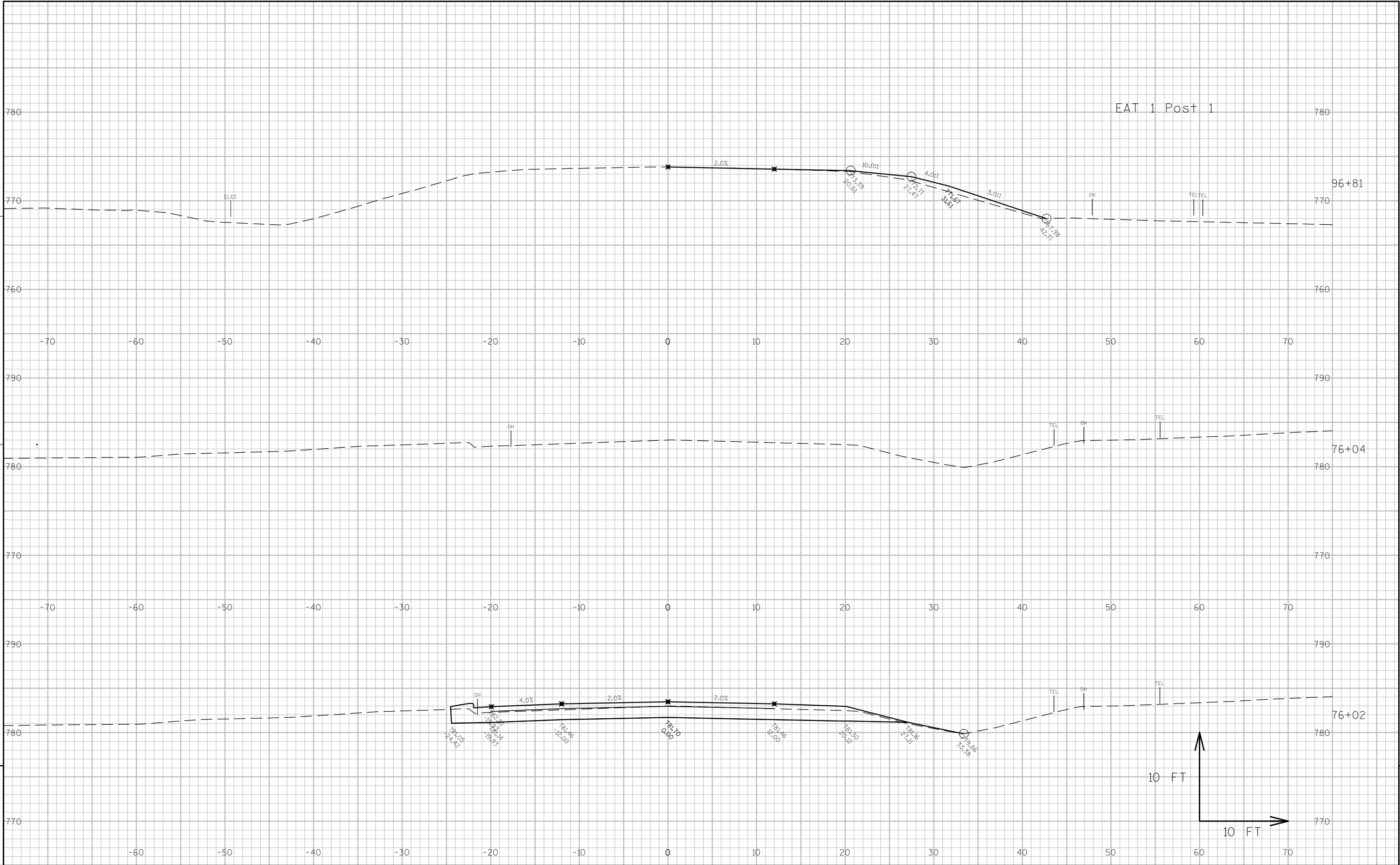


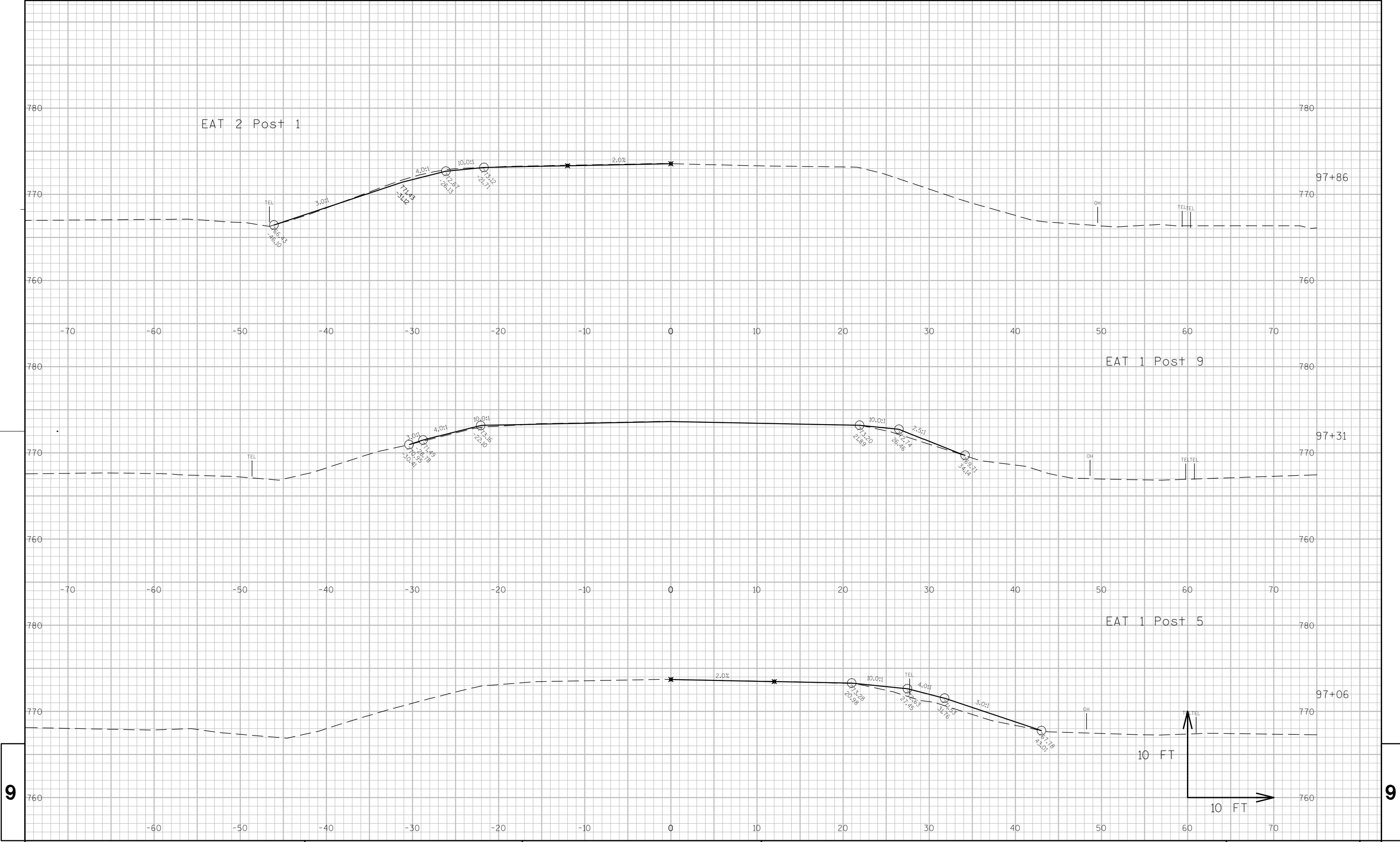
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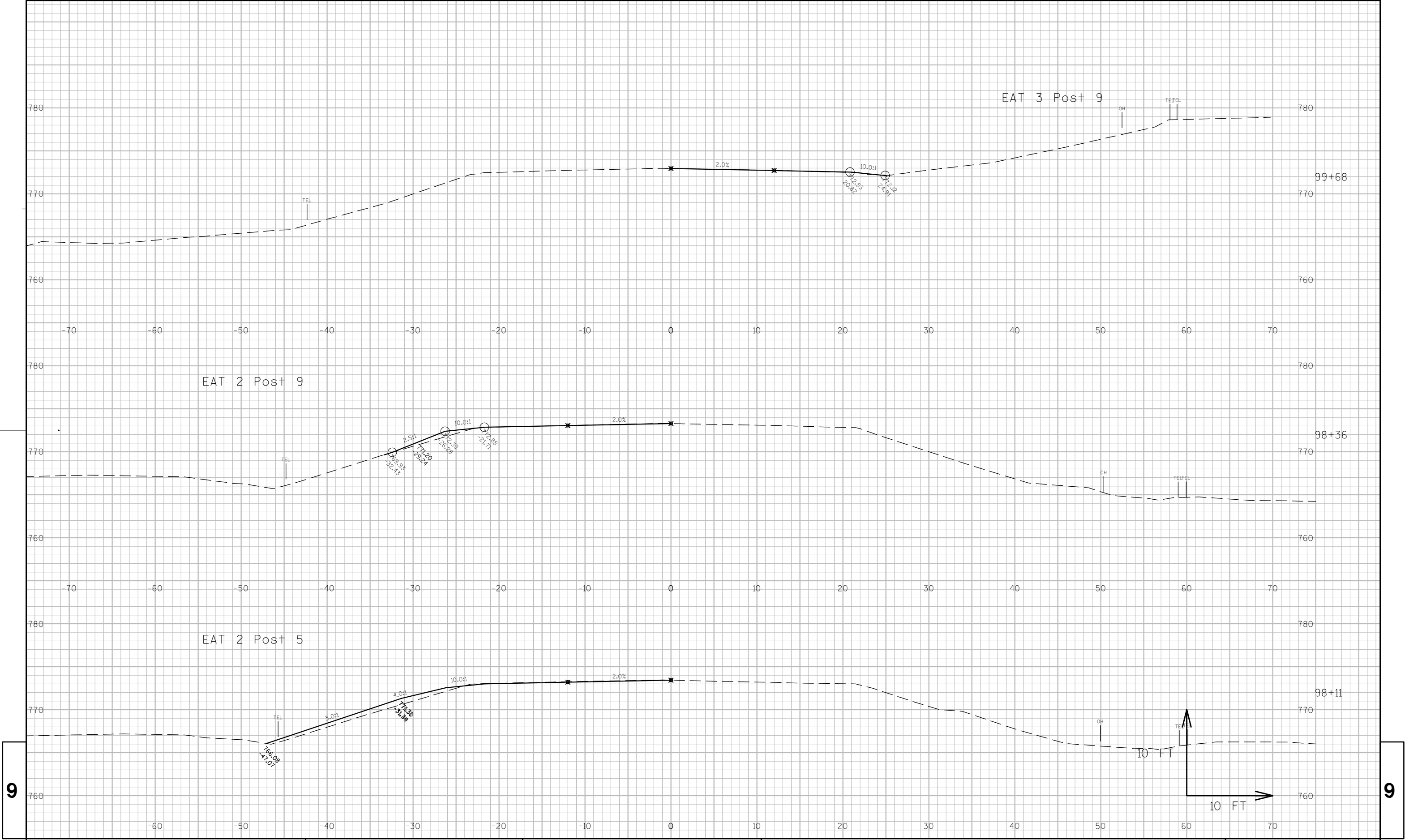
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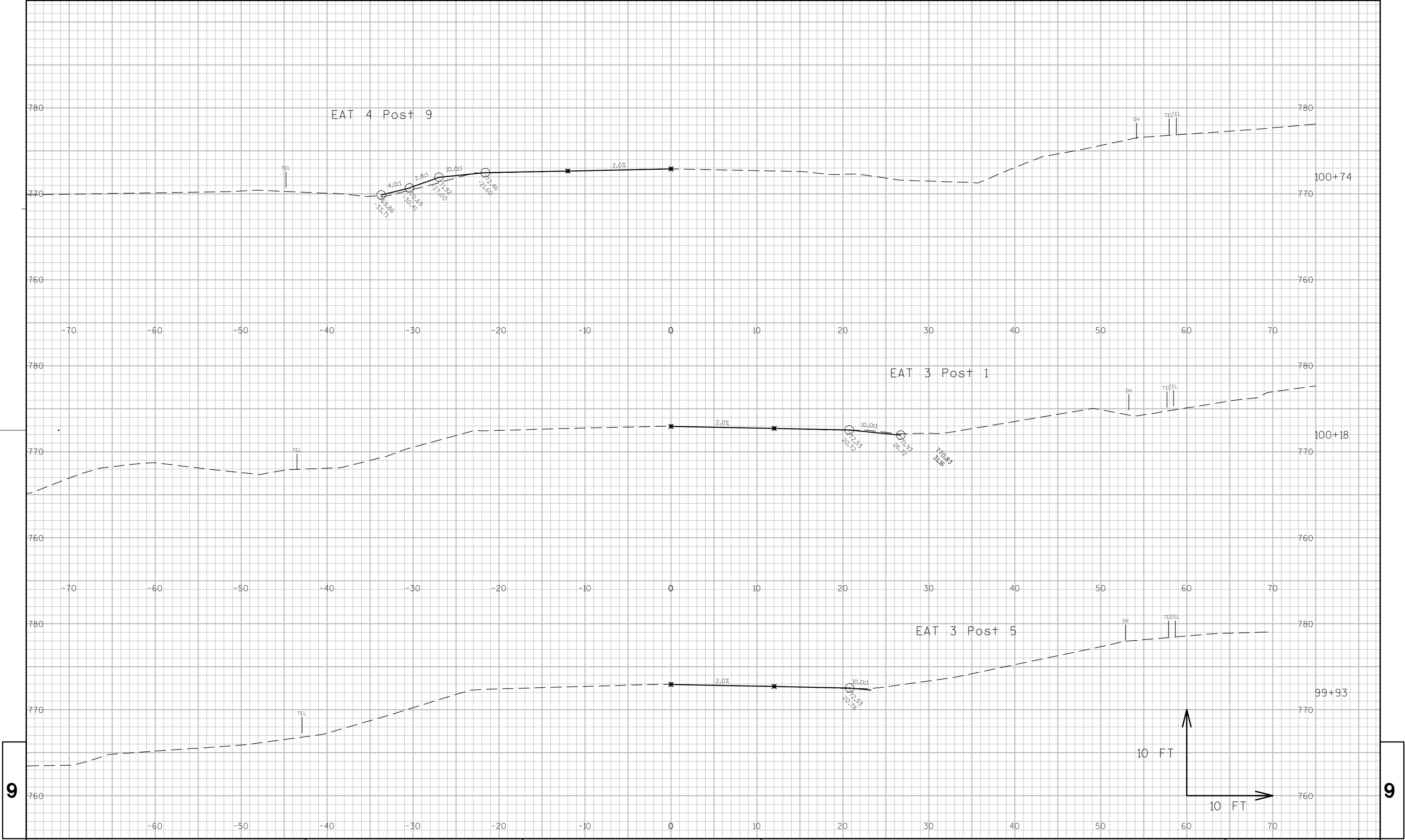






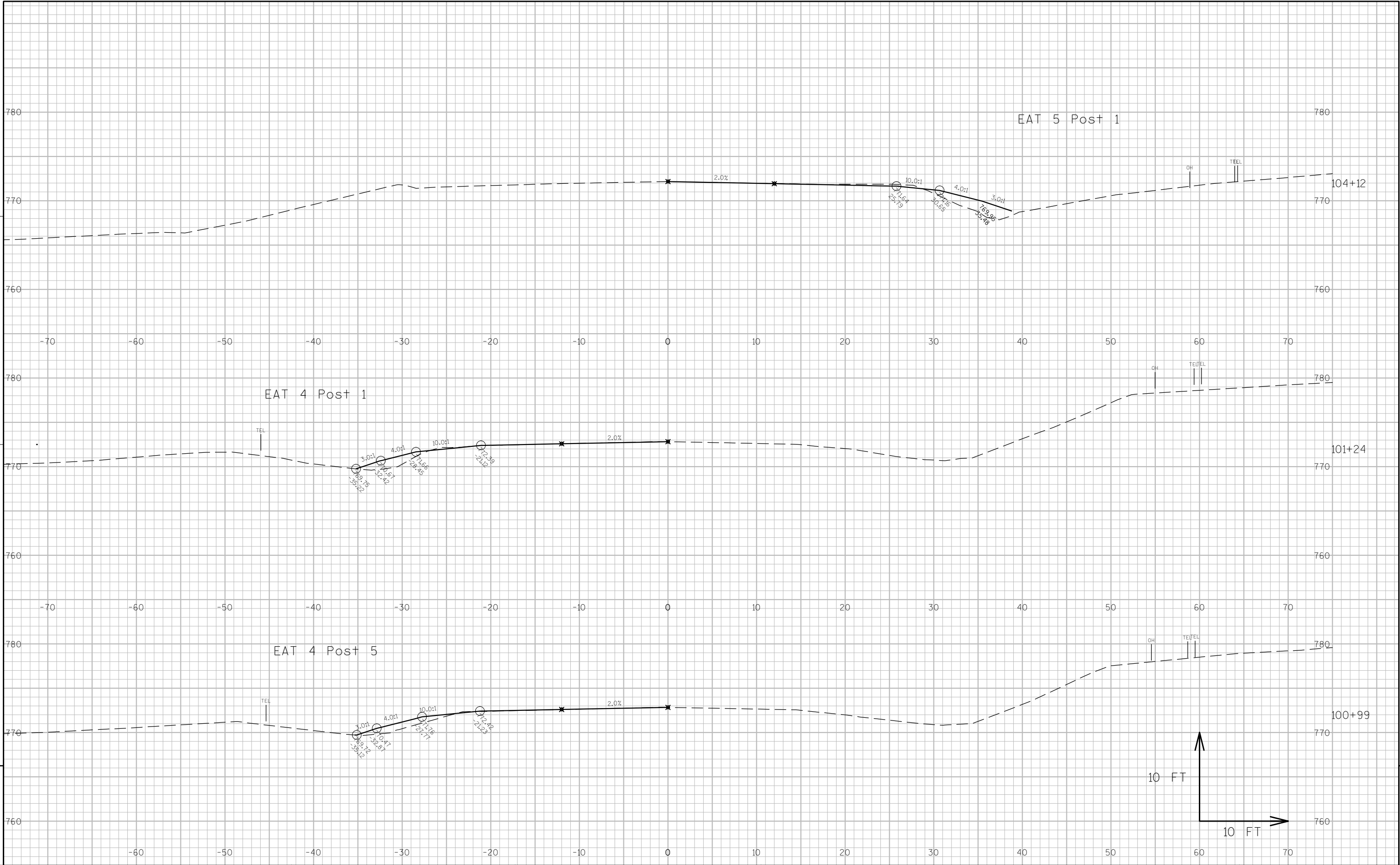
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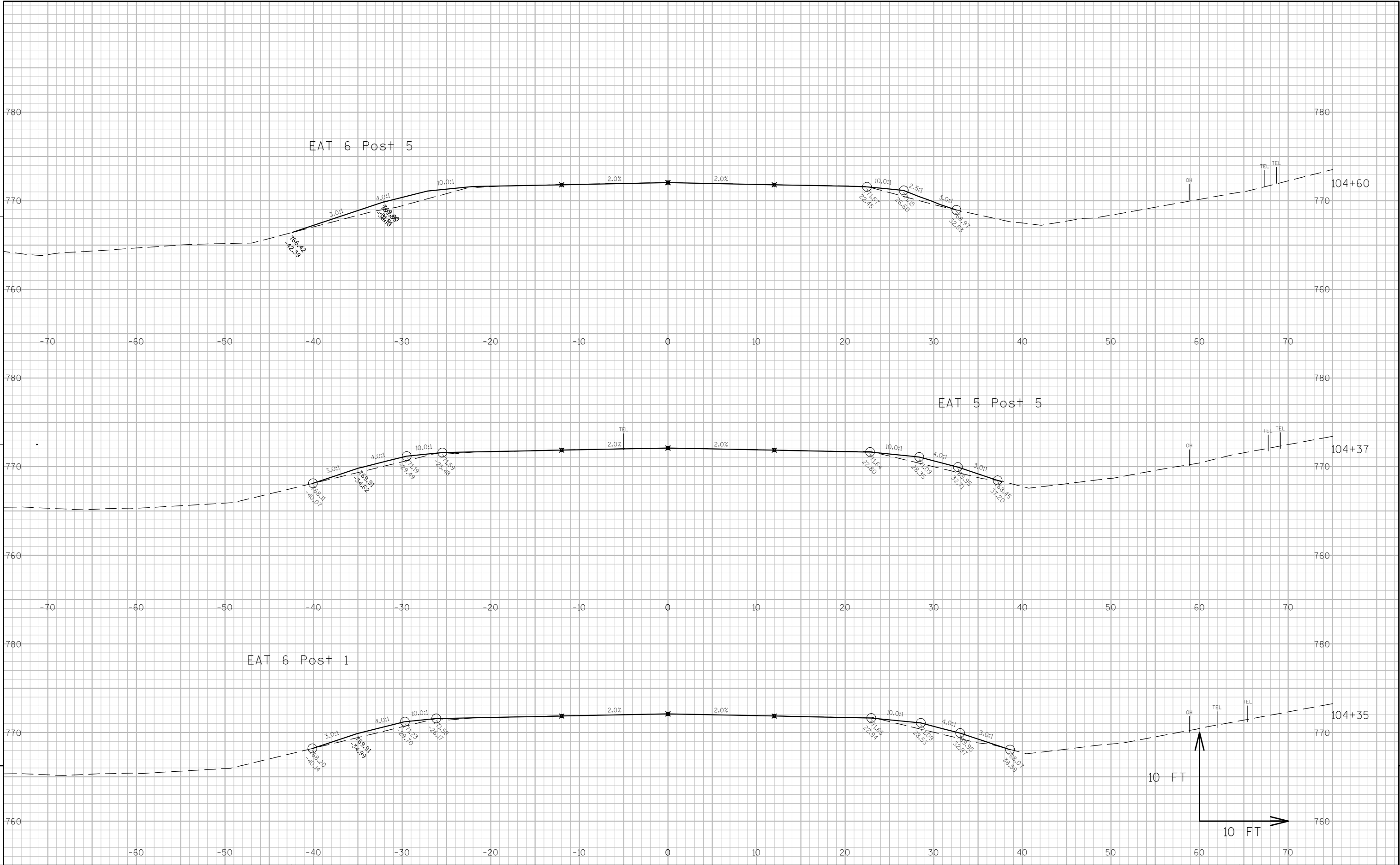
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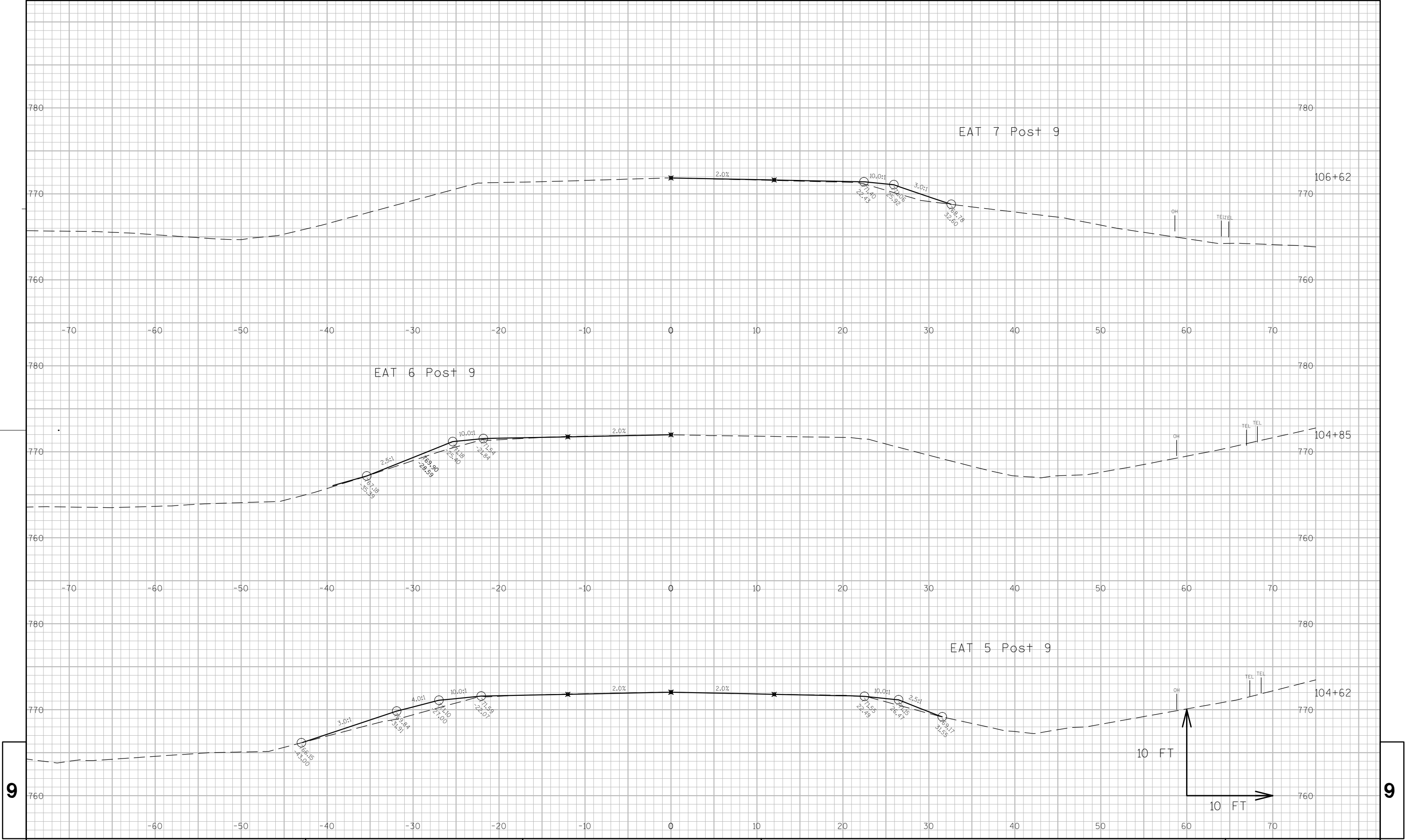
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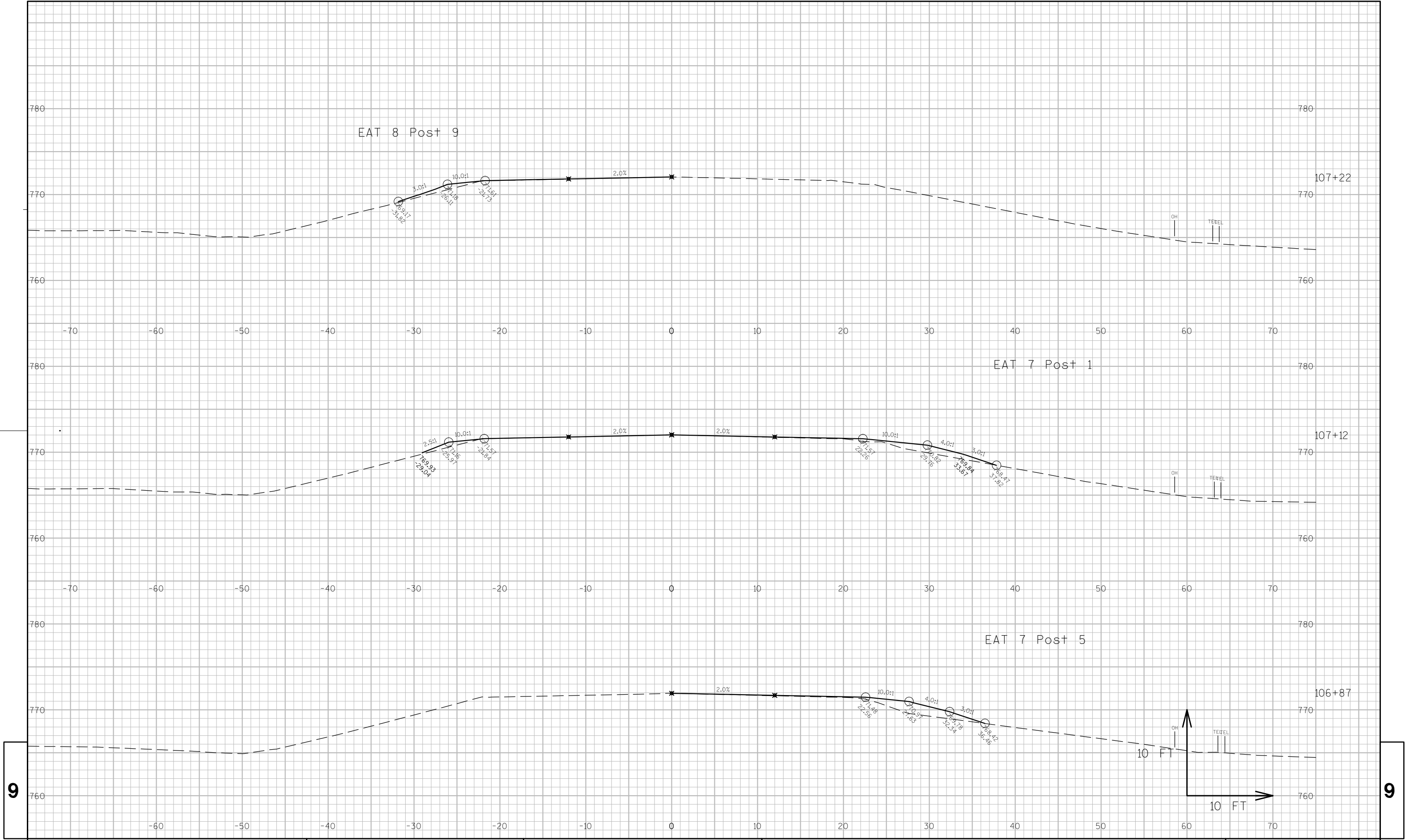
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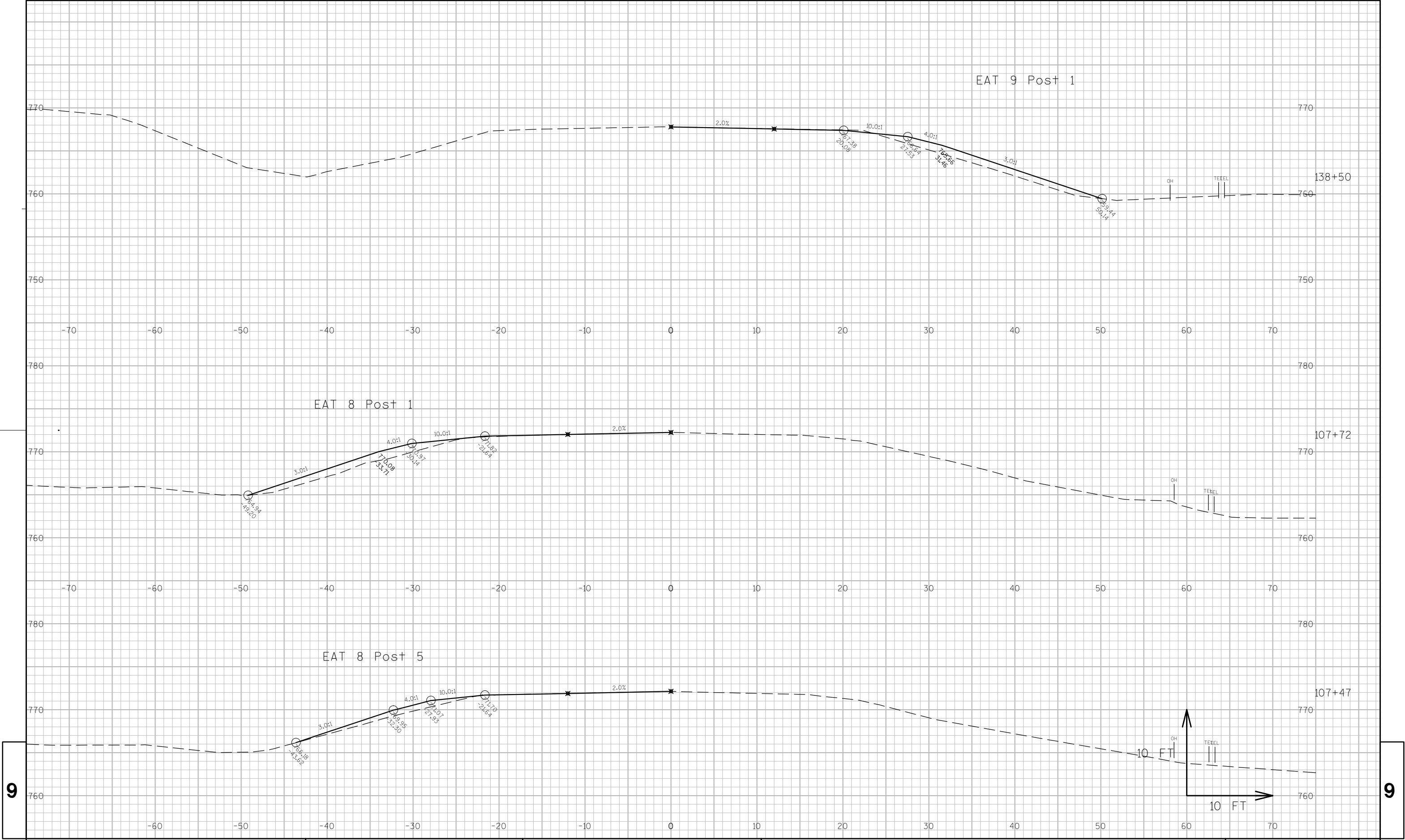


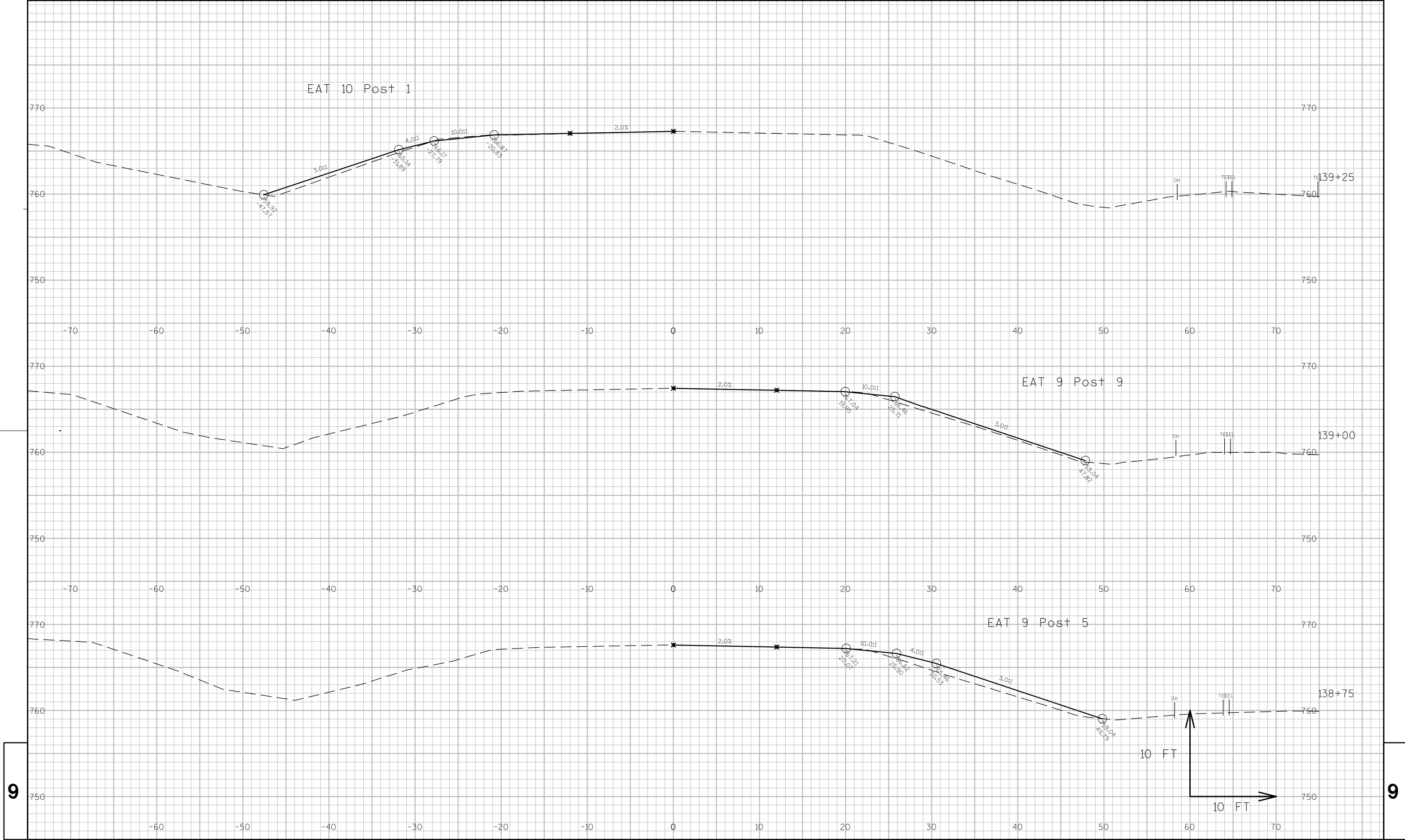
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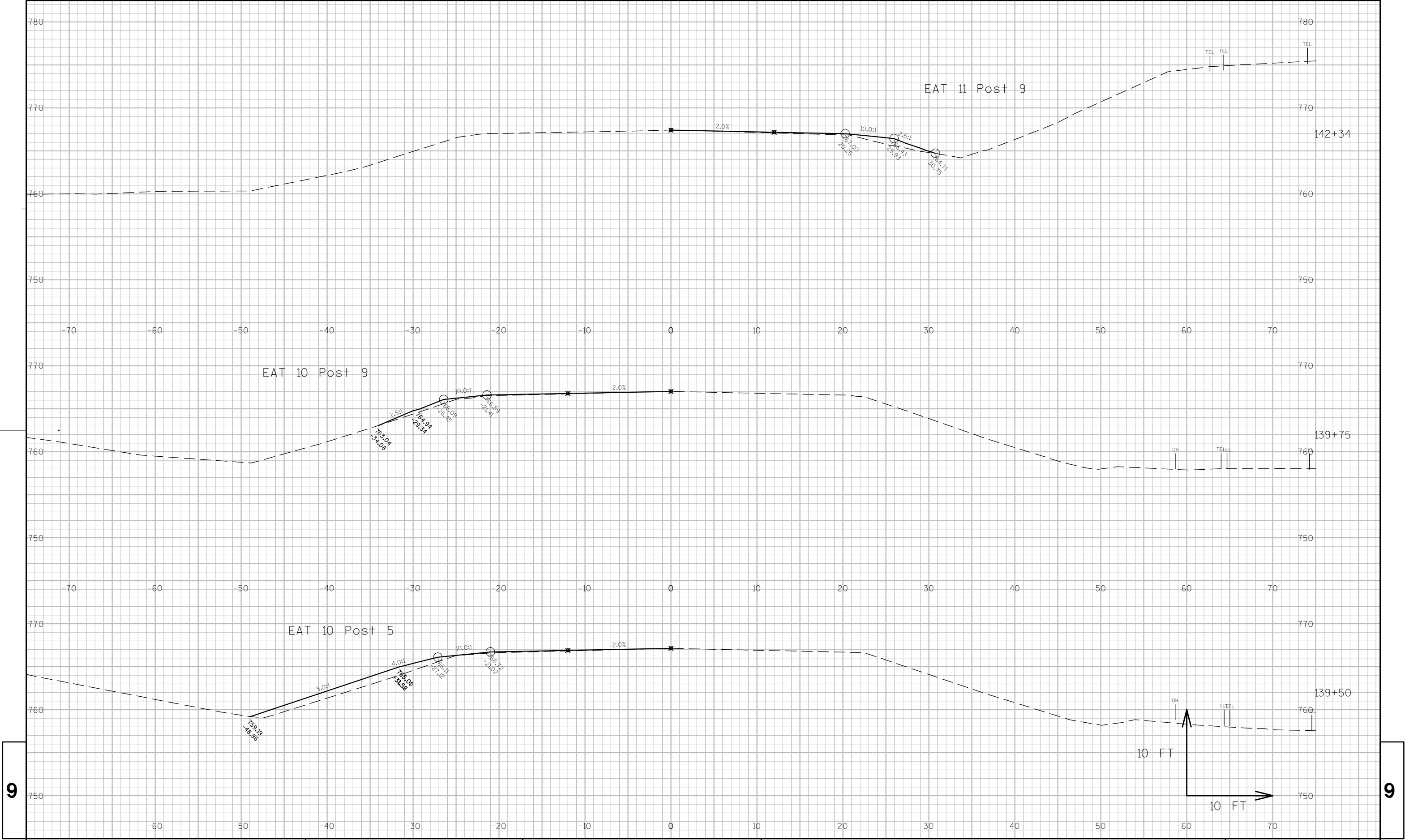
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|   |  |                       |             |                  |                        |       |       |          |
|---|--|-----------------------|-------------|------------------|------------------------|-------|-------|----------|
| 9 |  | PROJECT NO:1480-22-71 | HWY: STH 54 | COUNTY: KEWAUNEE | CROSS SECTIONS: STH 54 | SHEET | ----- | <b>E</b> |
|---|--|-----------------------|-------------|------------------|------------------------|-------|-------|----------|

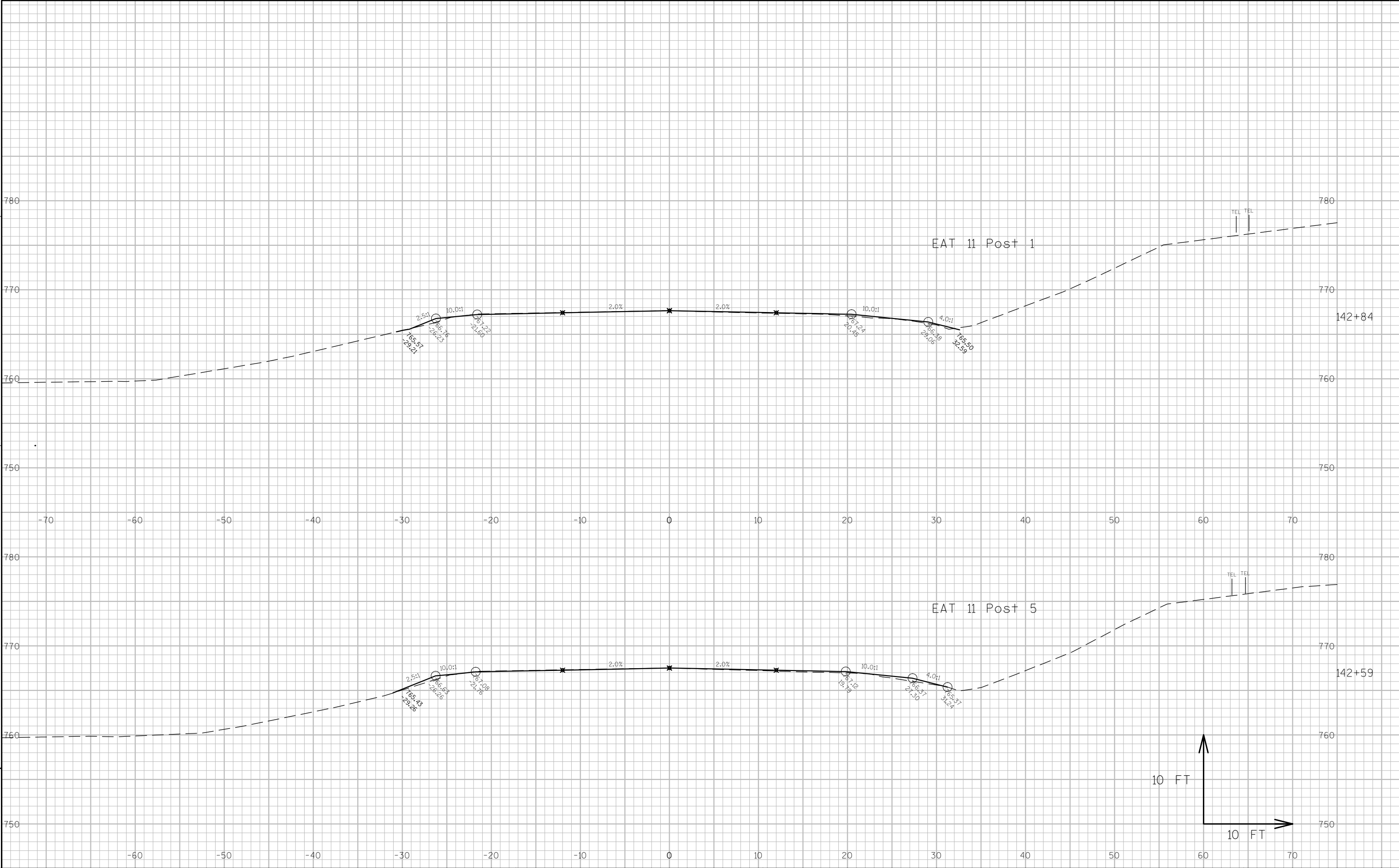


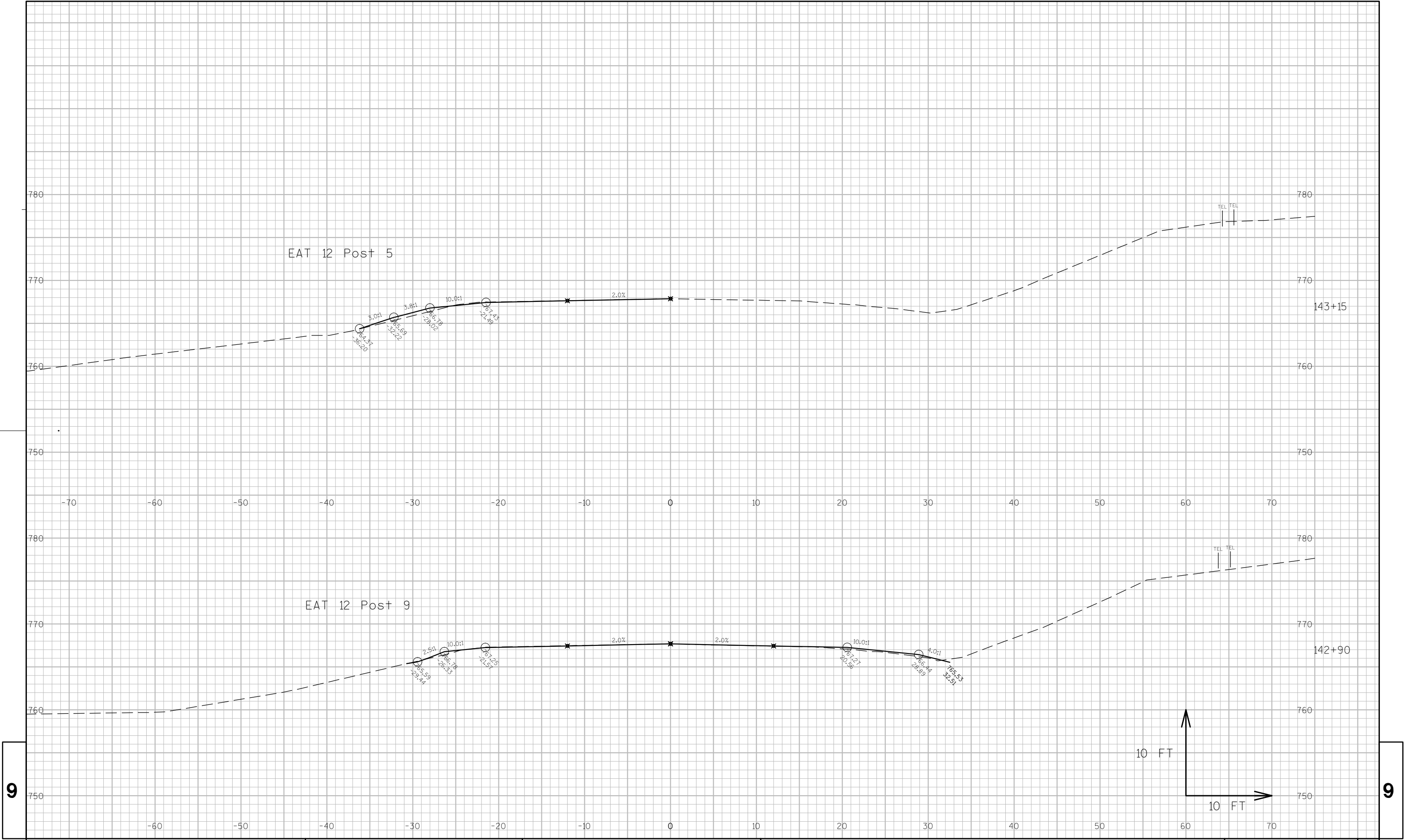


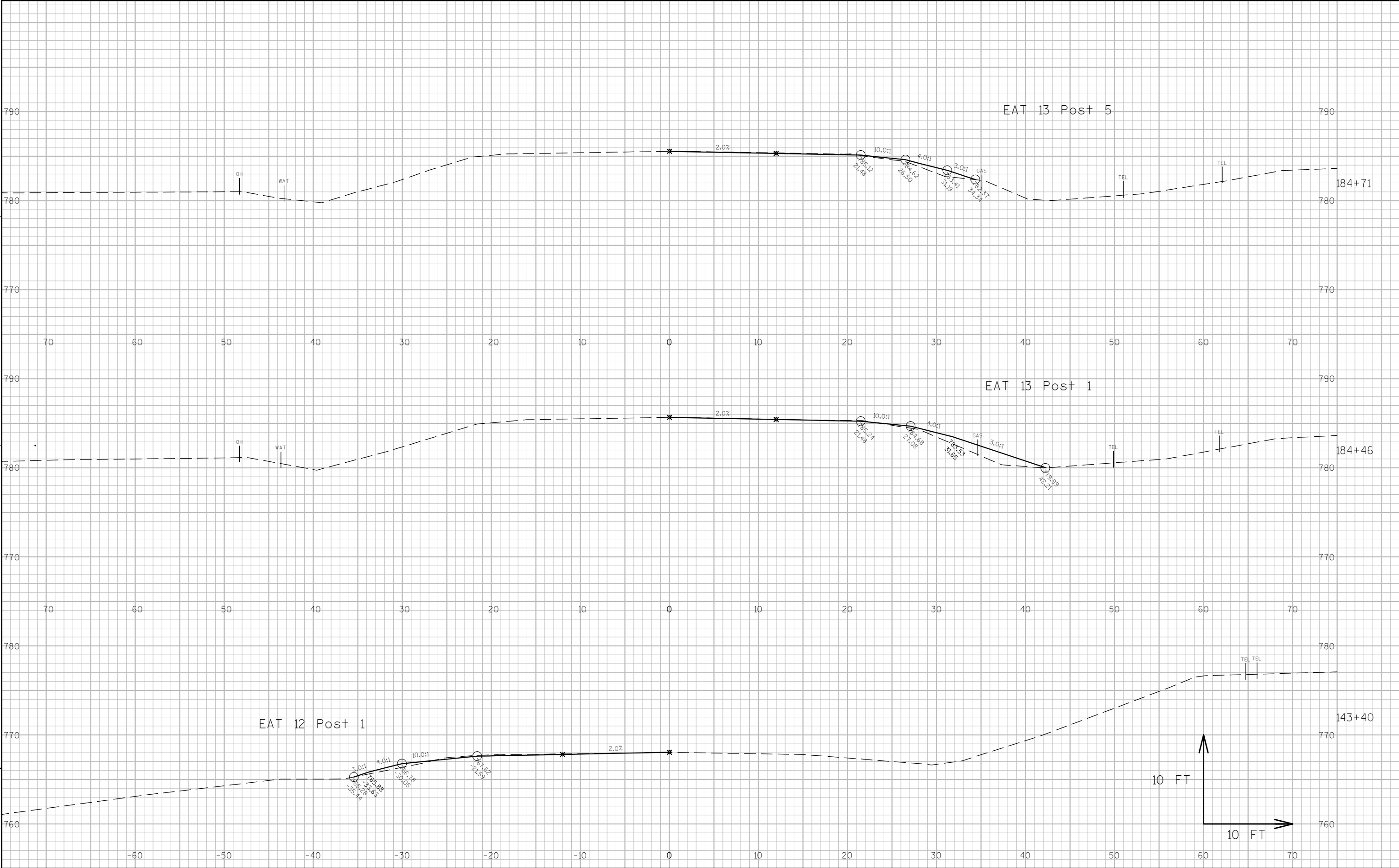


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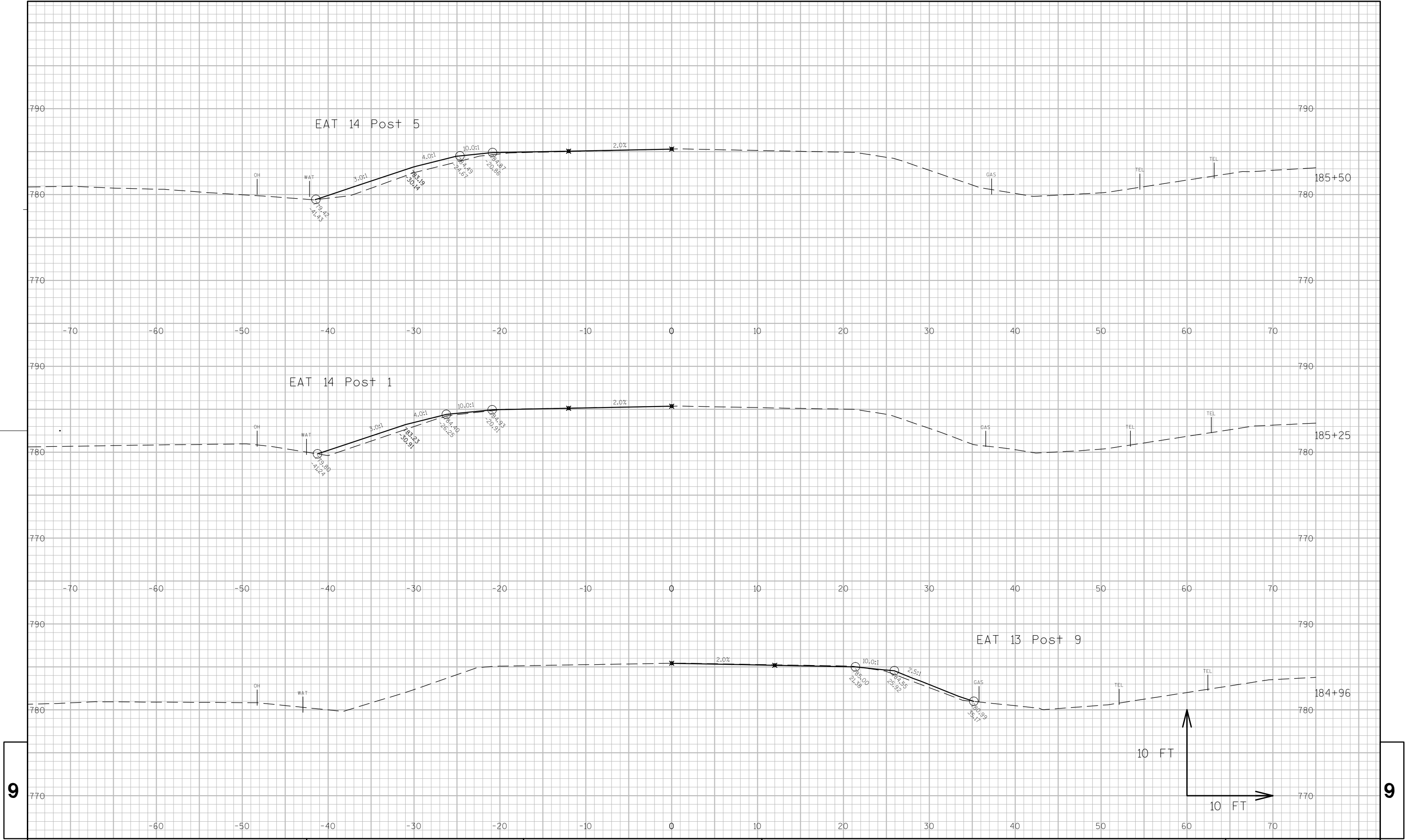






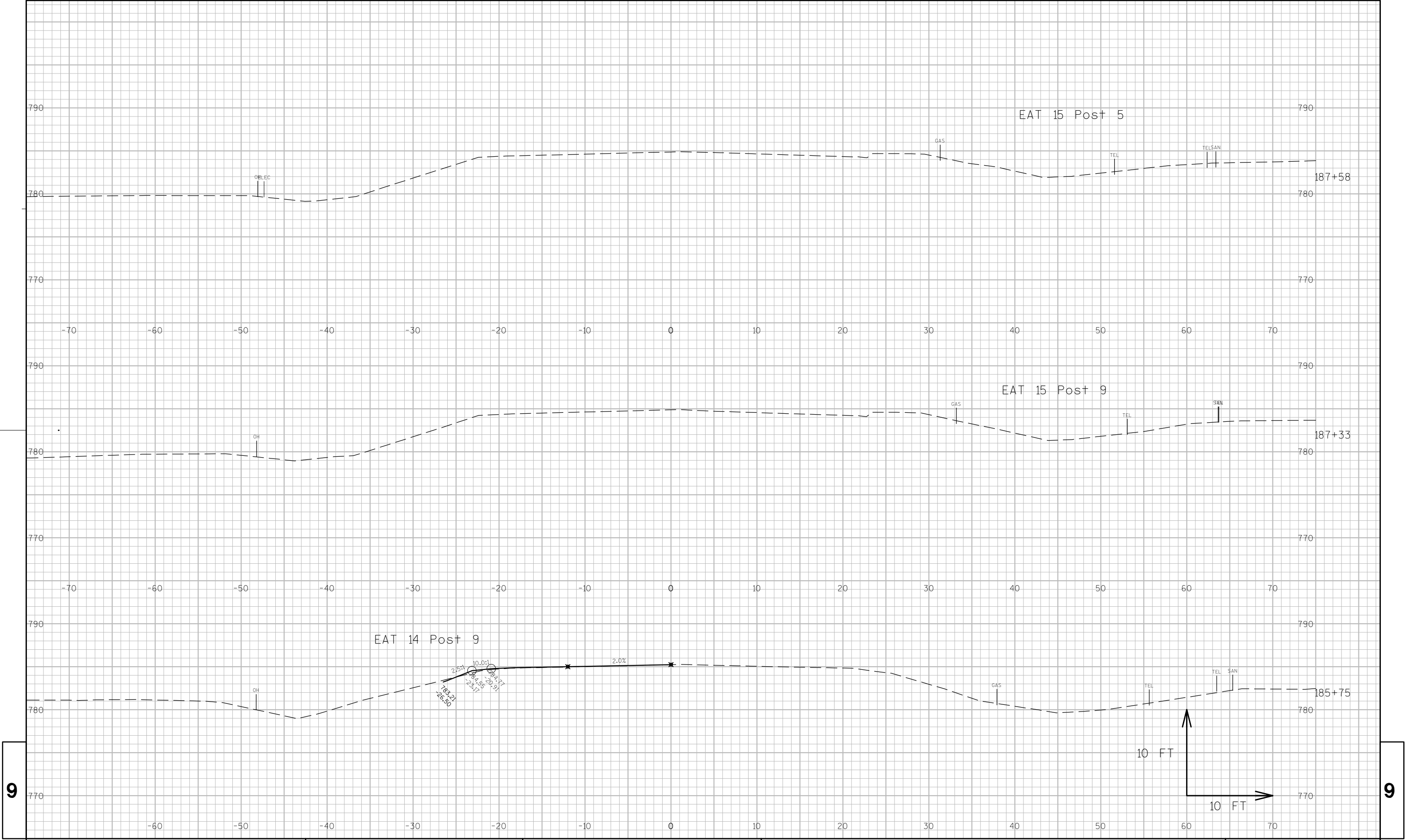
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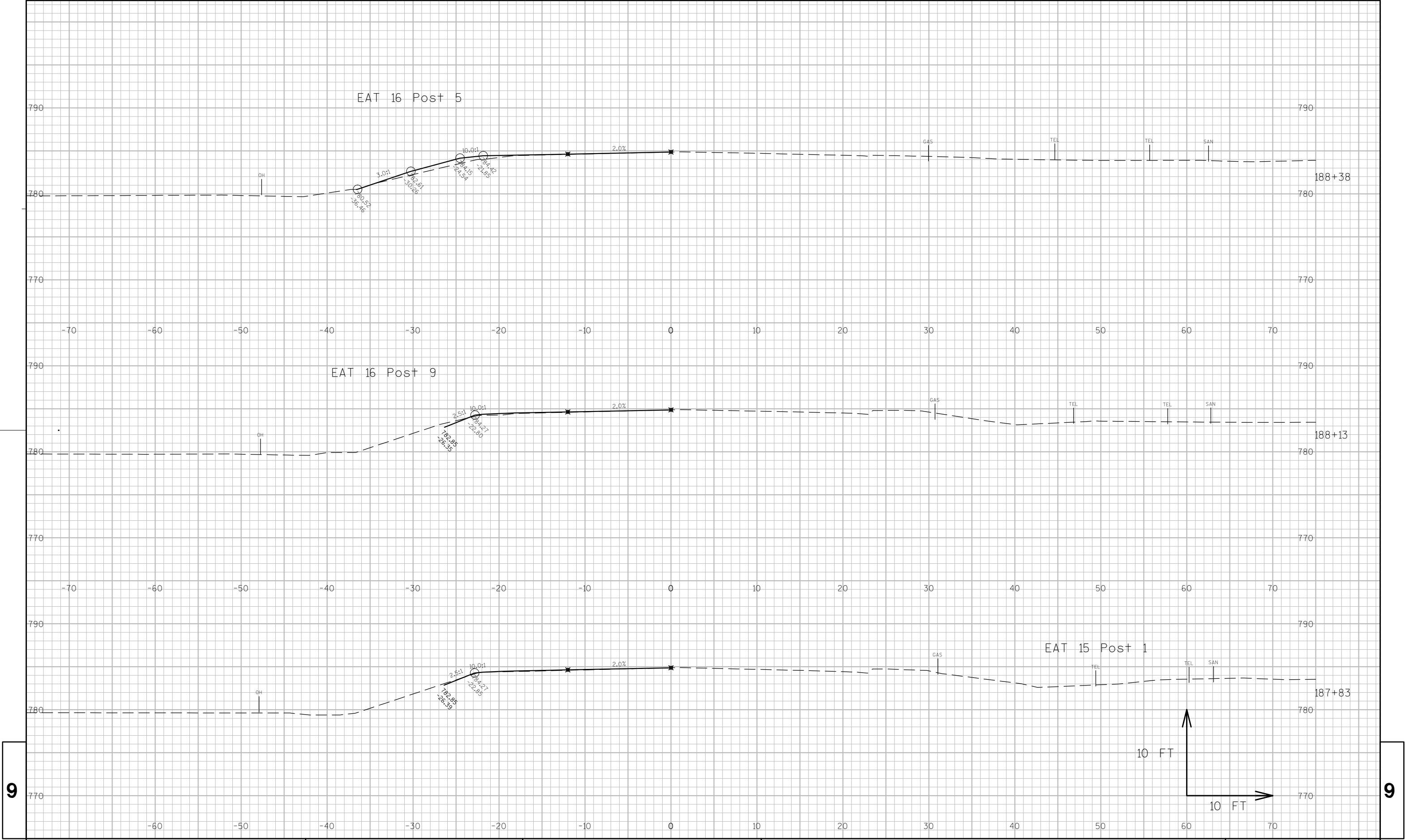
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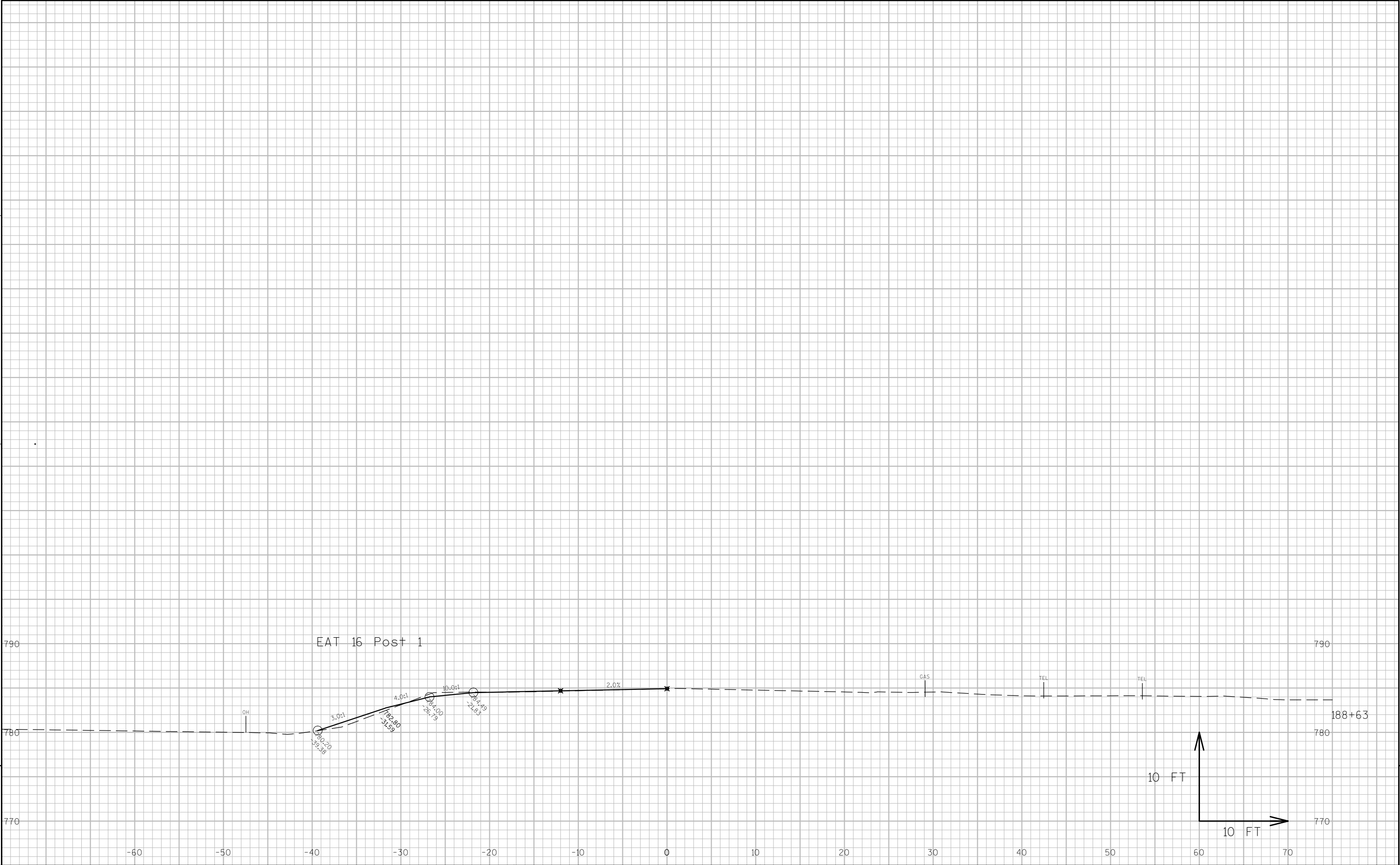
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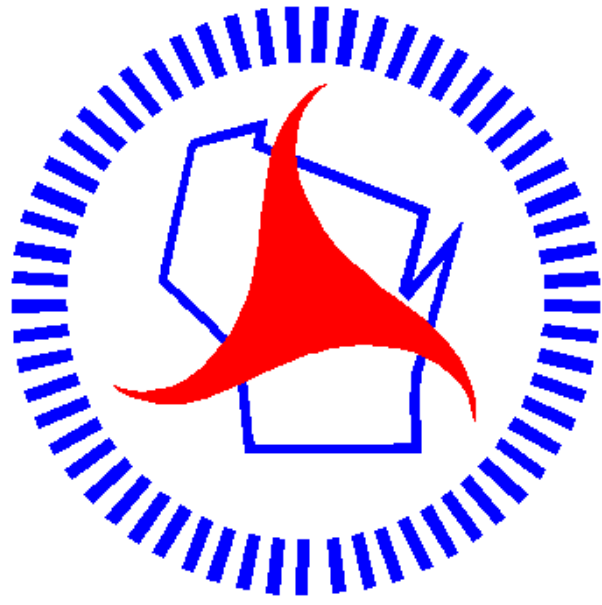
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|                       |             |                  |                        |             |   |
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| PROJECT NO:1480-22-71 | HWY: STH 54 | COUNTY: KEWAUNEE | CROSS SECTIONS: STH 54 | SHEET ----- | E |
|-----------------------|-------------|------------------|------------------------|-------------|---|

## Notes



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