

WIS

NOVEMBER 2018

ORDER OF SHEETS

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

TOTAL SHEETS = 58



DESIGN DESIGNATION 1430-02-04

|              |      |   |           |
|--------------|------|---|-----------|
| A.A.D.T.     | 2019 | = | 3,600 VPD |
| A.A.D.T.     | 2039 | = | 4,600 VPD |
| D.H.V.       |      | = | 17.8      |
| D.D.         |      | = | 60/40     |
| T.           |      | = | 21.2%     |
| DESIGN SPEED |      | = | 55 MPH    |
| ESALS        |      | = | 1,003,750 |

CONVENTIONAL SYMBOLS

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

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

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

## MAUSTON - I-39

JUNEAU COUNTY LINE TO STH 13

### STH 82

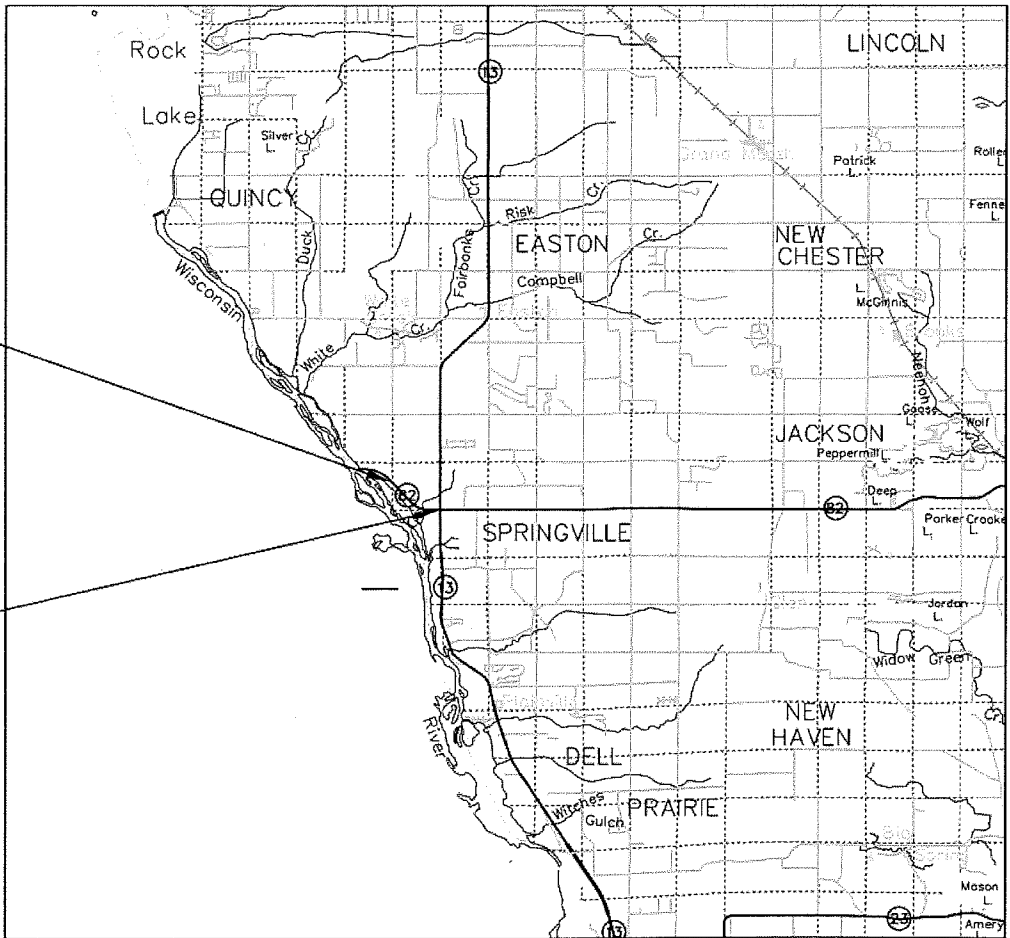
### ADAMS COUNTY

STATE PROJECT NUMBER

1430-02-74

BEGIN PROJECT LIMITS:  
Y: 151,452.1356  
X: 520,867.6139  
STATION 590+00

END PROJECT LIMITS:  
STATION 647+60



LAYOUT  
SCALE 0 4.0 MI

TOTAL NET LENGTH OF CENTERLINE = 1.091 MILES

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

STATE PROJECT

1430-02-74

FEDERAL PROJECT

PROJECT

WISC 2018446

CONTRACT

1

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

|                     |                     |
|---------------------|---------------------|
| Surveyor            | NATHANIEL SCHUMAKER |
| Designer            | JEFFREY STEWART     |
| Project Manager     | REGIONAL EXAMINER   |
| Regional Examiner   | NICHOLE LYSNE       |
| Regional Supervisor |                     |

APPROVED FOR THE DEPARTMENT

DATE: 7/30/18

E

GENERAL NOTES

- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.
- CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

DNR LIAISON

ANDY BARTA  
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST  
WISCONSIN DEPT. OF NATURAL RESOURCES  
SOUTH CENTRAL REGION  
3911 FISH HATCHERY ROAD  
FITCHBURG, WI 53711  
608-275-3308



Dial  or (800) 242-8511  
[www.DiggersHotline.com](http://www.DiggersHotline.com)

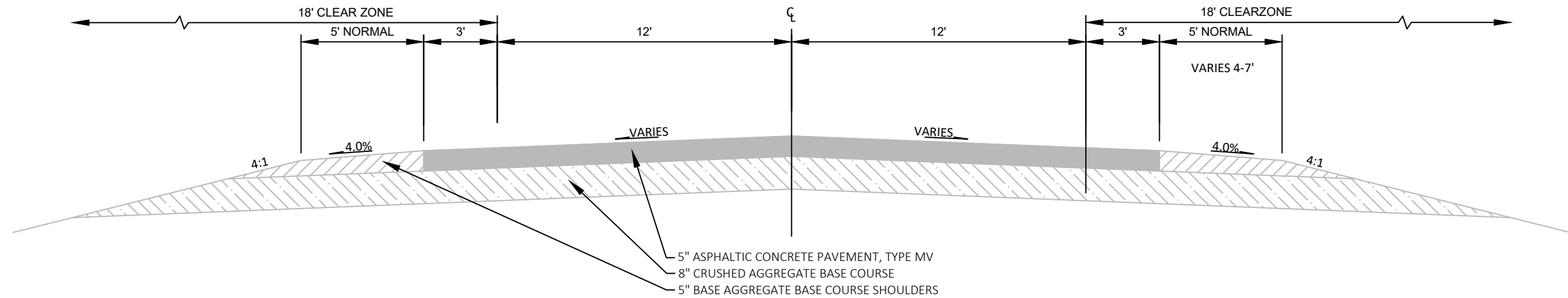
UTILITY CONTACTS

*Contact the region utility coordinator to ensure the most current utility contact list is being included.  
The list should be verified during the Pre-PS&E review process.*

Jim Goodman  
Adams-Columbia Electric  
Cooperative - Electricity  
P.O. Box 70  
Friendship, WI 53934  
(800) 831-8629  
[jgoodman@acecwi.com](mailto:jgoodman@acecwi.com)

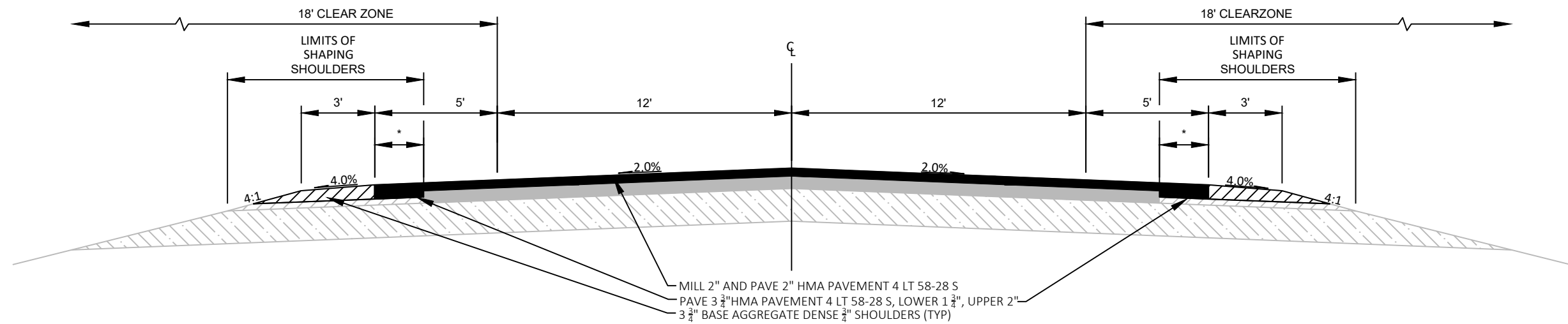
Jerry Schneider  
Marquette Adams Telephone Coop  
113 North Oxford St  
P.O. Box 45  
Oxford, WI 53952  
(608) 586-4111  
[jschneider@maadtelco.com](mailto:jschneider@maadtelco.com)

Russ Ryan  
Frontier Communications of WI LLC -  
107 Pleasantview Dr  
Plymouth, WI 53073  
(920) 893-7212  
[Russell.w.ryan@ftr.com](mailto:Russell.w.ryan@ftr.com)



### STH 82 EXISTING TYPICAL

STA. 590+00 TO STA. 612+57  
STA. 638+72 TO STA. 647+60



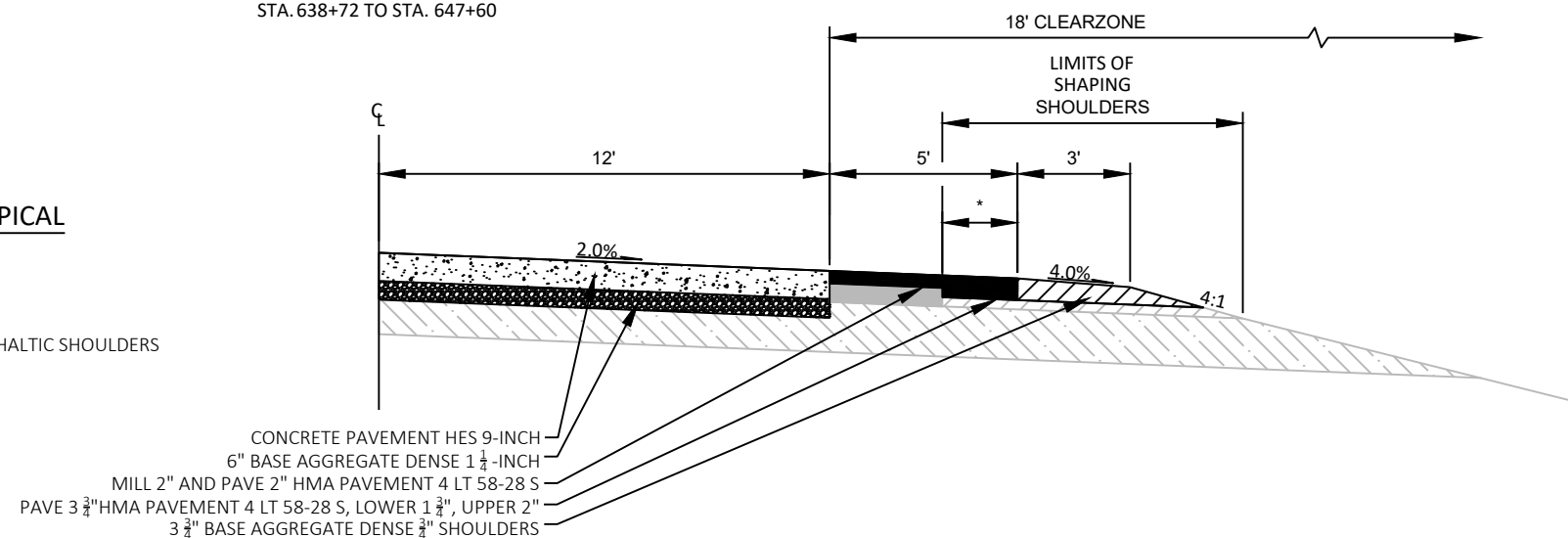
### STH 82 FINISHED TYPICAL

STA. 590+00 TO STA. 612+57  
STA. 638+72 TO STA. 647+60

### STH 82 FINISHED HALF TYPICAL

STA. 640+26 TO STA. 640+51  
STA. 643+76 TO STA. 644+01  
STA. 646+01 TO STA. 646+26

\*LIMITS OF PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS



NOTE: INSTALL CONCRETE INTERSECTION RUMBLE STRIPS AFTER PAVING HMA SURFACE LAYER.

NOTE: MILL DEPTH MAY VARY WHILE CORRECTING CROSS-SLOPE.

PROJECT NO: 1430-02-74

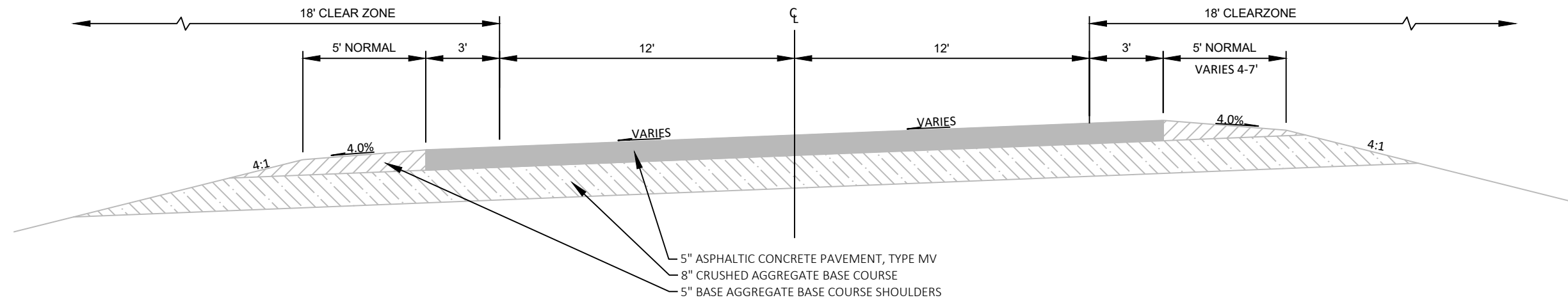
HWY: STH 82

COUNTY: ADAMS

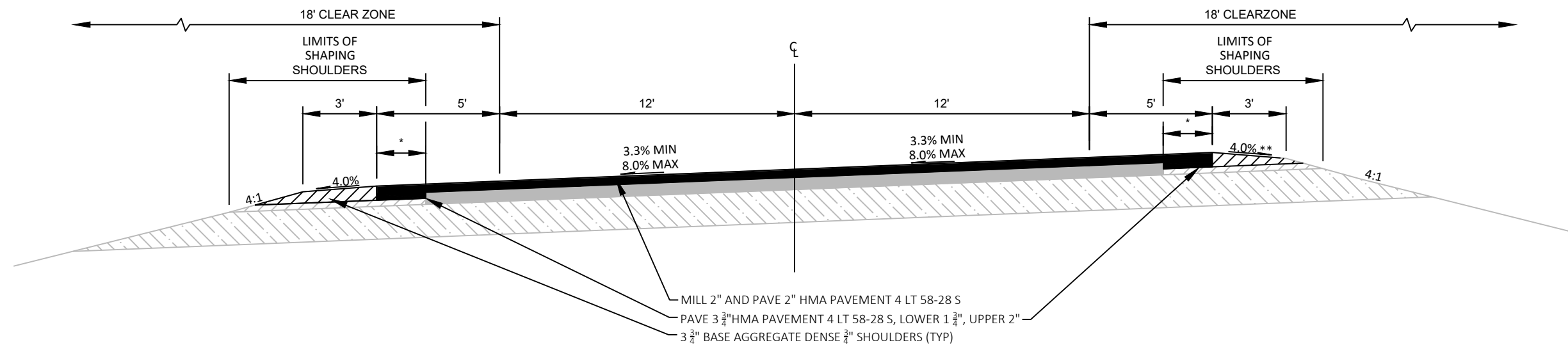
TYPICAL SECTIONS

SHEET

E

**STH 82 EXISTING TYPICAL**

STA. 612+57 TO STA. 630+18  
STA. 633+95 TO STA. 638+72

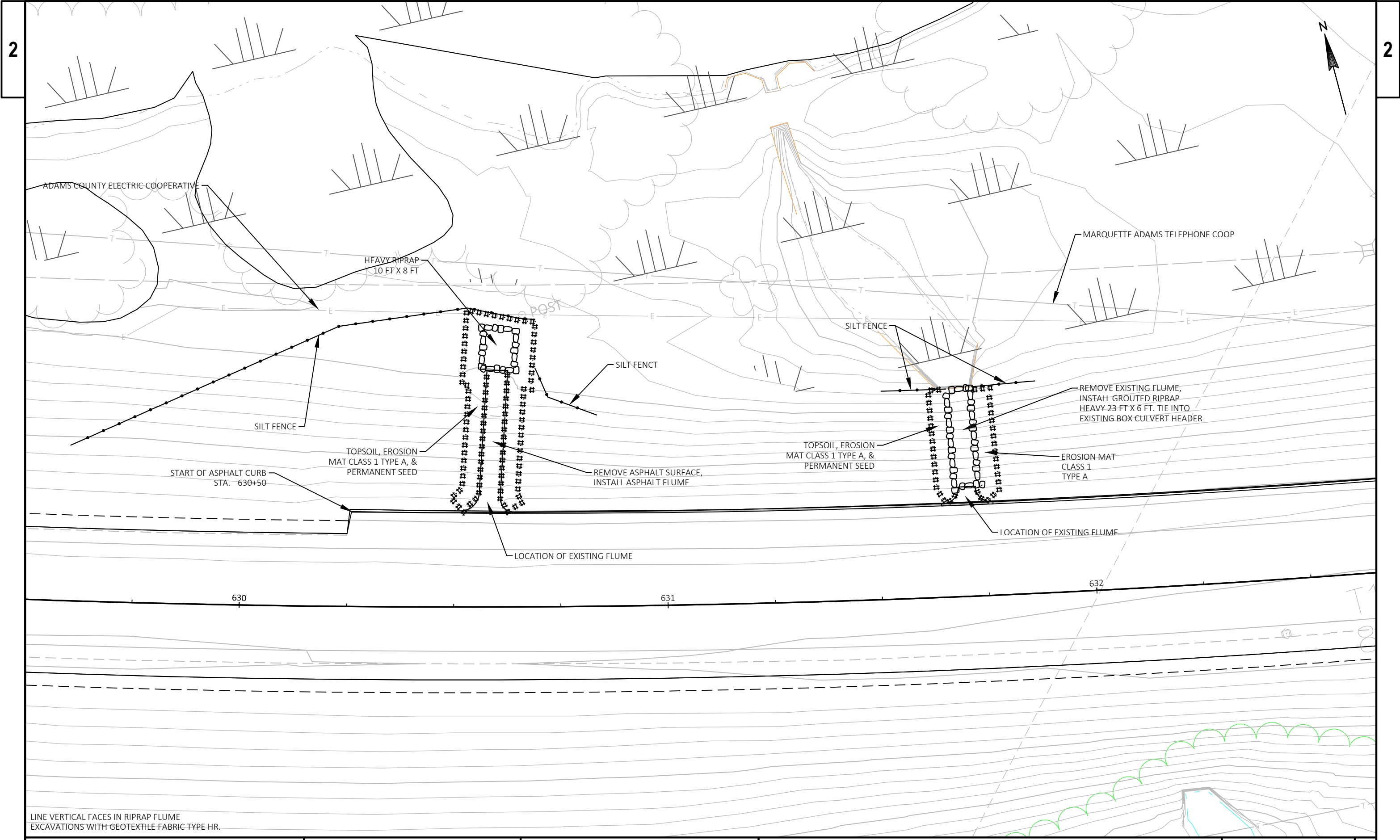
**STH 82 FINISHED TYPICAL**

STA. 612+57 TO STA. 630+18  
STA. 633+95 TO STA. 638+72

\*LIMITS OF PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS  
\*\*MAX ROLL OVER RATE IS 8.0%

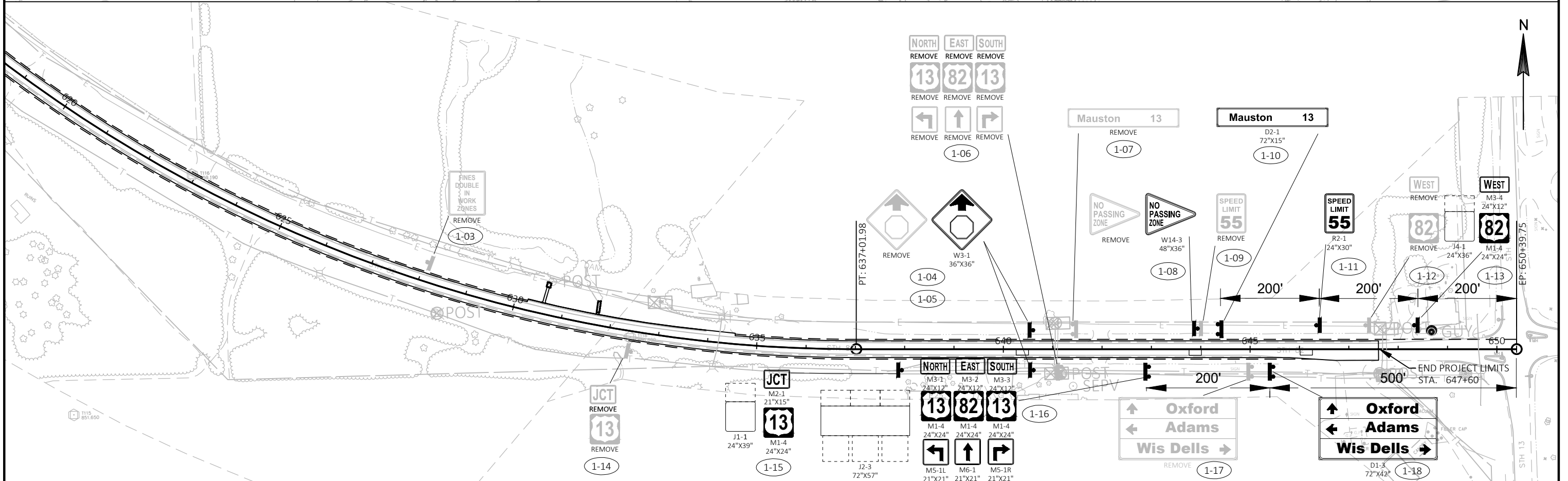
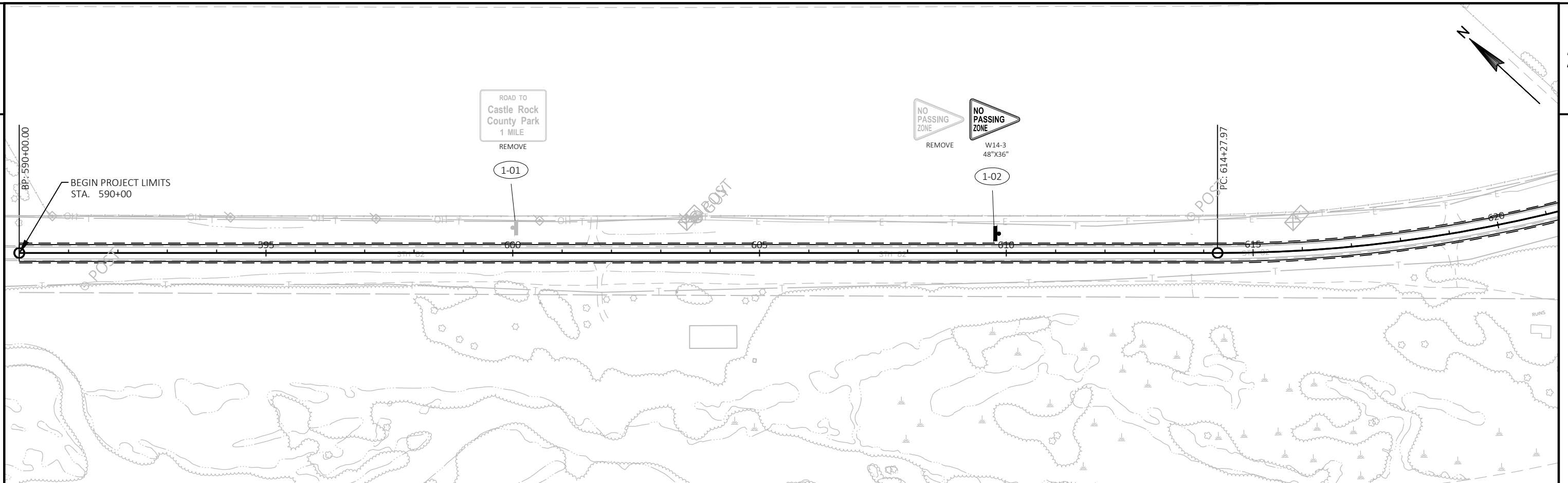
NOTE: MILL DEPTH MAY VARY  
WHILE CORRECTING CROSS-SLOPE.

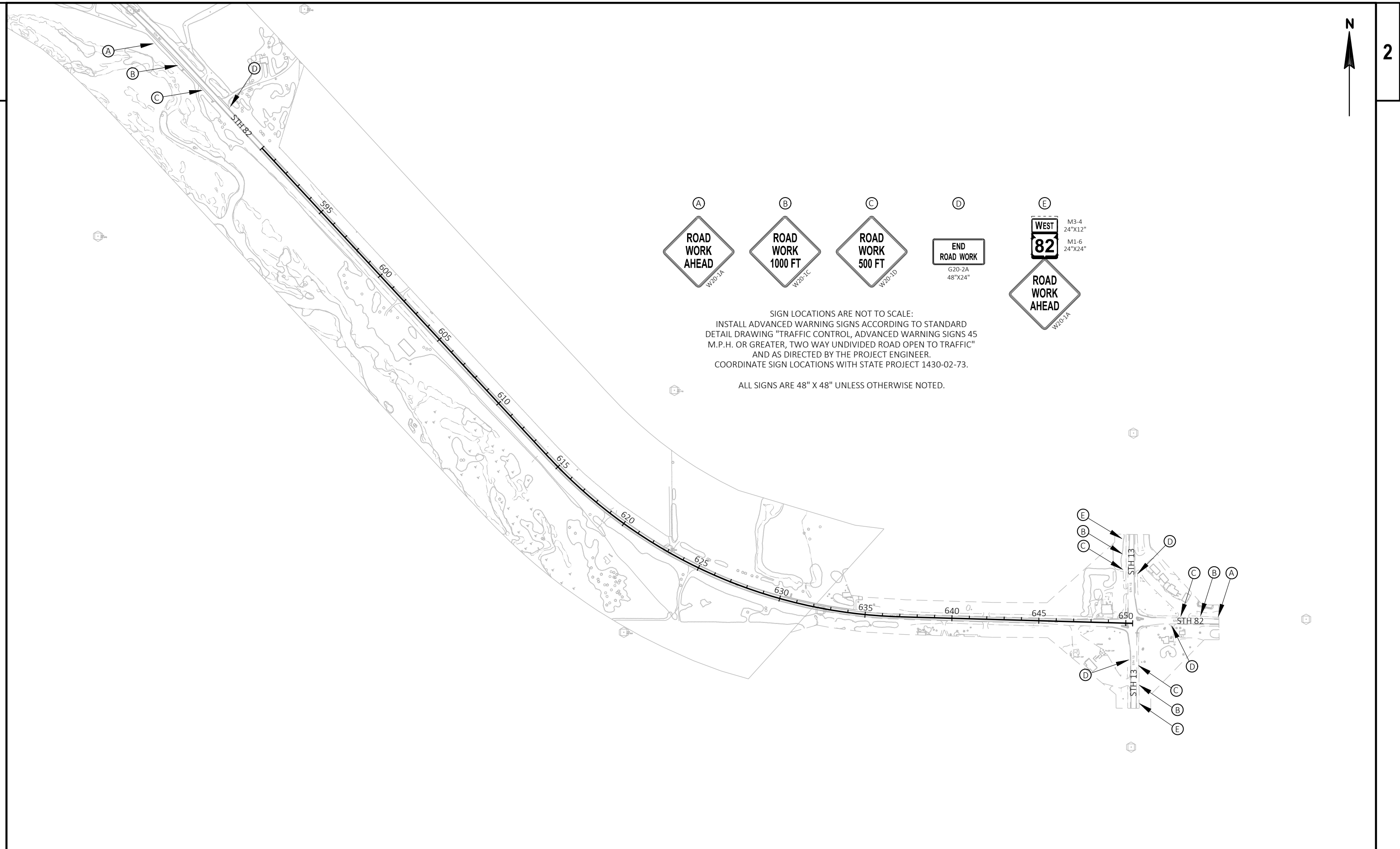




LINE VERTICAL FACES IN RIPRAP FLUME  
EXCAVATIONS WITH GEOTEXTILE FABRIC TYPE HR.

|                        |             |               |                 |       |   |
|------------------------|-------------|---------------|-----------------|-------|---|
| PROJECT NO: 1430-02-74 | HWY: STH 82 | COUNTY: ADAMS | EROSION CONTROL | SHEET | E |
|------------------------|-------------|---------------|-----------------|-------|---|





PROJECT NO: 1430-02-74

HWY: STH 82

COUNTY: ADAMS

TRAFFIC CONTROL: ADVANCED WARNING SIGNS

SHEET

E

Estimate Of Quantities

1430-02-74

| Line | Item       | Item Description                                              | Unit | Total      | Qty        |
|------|------------|---------------------------------------------------------------|------|------------|------------|
| 0002 | 204.0110   | Removing Asphaltic Surface                                    | SY   | 11.000     | 11.000     |
| 0004 | 204.0120   | Removing Asphaltic Surface Milling                            | SY   | 19,580.000 | 19,580.000 |
| 0006 | 204.0130   | Removing Curb                                                 | LF   | 367.000    | 367.000    |
| 0008 | 205.0100   | Excavation Common                                             | CY   | 42.000     | 42.000     |
| 0010 | 211.0400   | Prepare Foundation for Asphaltic Shoulders                    | STA  | 112.000    | 112.000    |
| 0012 | 213.0100   | Finishing Roadway (project) 01. 1430-02-74                    | EACH | 1.000      | 1.000      |
| 0014 | 305.0110   | Base Aggregate Dense 3/4-Inch                                 | TON  | 1,219.000  | 1,219.000  |
| 0016 | 305.0120   | Base Aggregate Dense 1 1/4-Inch                               | TON  | 32.000     | 32.000     |
| 0018 | 305.0500   | Shaping Shoulders                                             | STA  | 112.000    | 112.000    |
| 0020 | 415.1090   | Concrete Pavement HES 9-Inch                                  | SY   | 100.000    | 100.000    |
| 0022 | 416.1180   | Concrete Intersection Rumble Strips                           | SY   | 100.000    | 100.000    |
| 0024 | 440.4410   | Incentive IRI Ride                                            | DOL  | 3,348.000  | 3,348.000  |
| 0026 | 455.0605   | Tack Coat                                                     | GAL  | 1,371.000  | 1,371.000  |
| 0028 | 460.2000   | Incentive Density HMA Pavement                                | DOL  | 3,348.000  | 3,348.000  |
| 0030 | 460.4110.S | Reheating HMA Pavement Longitudinal Joints                    | LF   | 5,760.000  | 5,760.000  |
| 0032 | 460.5224   | HMA Pavement 4 LT 58-28 S                                     | TON  | 3,348.000  | 3,348.000  |
| 0034 | 465.0110   | Asphaltic Surface Patching                                    | TON  | 20.000     | 20.000     |
| 0036 | 465.0310   | Asphaltic Curb                                                | LF   | 367.000    | 367.000    |
| 0038 | 465.0315   | Asphaltic Flumes                                              | SY   | 22.000     | 22.000     |
| 0040 | 465.0425   | Asphaltic Shoulder Rumble Strips 2-Lane Rural                 | LF   | 11,520.000 | 11,520.000 |
| 0042 | 465.0475   | Asphalt Centerline Rumble Strips 2-Lane Rural                 | LF   | 5,760.000  | 5,760.000  |
| 0044 | 606.0300   | Riprap Heavy                                                  | CY   | 5.900      | 5.900      |
| 0046 | 606.0700   | Grouted Riprap Heavy                                          | CY   | 15.400     | 15.400     |
| 0048 | 618.0100   | Maintenance And Repair of Haul Roads (project) 01. 1430-02-74 | EACH | 1.000      | 1.000      |
| 0050 | 619.1000   | Mobilization                                                  | EACH | 1.000      | 1.000      |
| 0052 | 624.0100   | Water                                                         | MGAL | 10.000     | 10.000     |
| 0054 | 625.0100   | Topsoil                                                       | SY   | 102.000    | 102.000    |
| 0056 | 628.1104   | Erosion Bales                                                 | EACH | 5.000      | 5.000      |
| 0058 | 628.1504   | Silt Fence                                                    | LF   | 220.000    | 220.000    |
| 0060 | 628.1520   | Silt Fence Maintenance                                        | LF   | 220.000    | 220.000    |
| 0062 | 628.1905   | Mobilizations Erosion Control                                 | EACH | 1.000      | 1.000      |
| 0064 | 628.1910   | Mobilizations Emergency Erosion Control                       | EACH | 1.000      | 1.000      |
| 0066 | 628.2002   | Erosion Mat Class I Type A                                    | SY   | 83.000     | 83.000     |
| 0068 | 628.7570   | Rock Bags                                                     | EACH | 15.000     | 15.000     |
| 0070 | 629.0210   | Fertilizer Type B                                             | CWT  | 0.050      | 0.050      |
| 0072 | 630.0110   | Seeding Mixture No. 10                                        | LB   | 1.100      | 1.100      |
| 0074 | 634.0614   | Posts Wood 4x6-Inch X 14-FT                                   | EACH | 3.000      | 3.000      |
| 0076 | 634.0616   | Posts Wood 4x6-Inch X 16-FT                                   | EACH | 6.000      | 6.000      |
| 0078 | 634.0618   | Posts Wood 4x6-Inch X 18-FT                                   | EACH | 4.000      | 4.000      |

Estimate Of Quantities

1430-02-74

| Line | Item       | Item Description                                                   | Unit | Total      | Qty        |
|------|------------|--------------------------------------------------------------------|------|------------|------------|
| 0080 | 637.2210   | Signs Type II Reflective H                                         | SF   | 74.500     | 74.500     |
| 0082 | 637.2230   | Signs Type II Reflective F                                         | SF   | 29.120     | 29.120     |
| 0084 | 638.2602   | Removing Signs Type II                                             | EACH | 11.000     | 11.000     |
| 0086 | 638.3000   | Removing Small Sign Supports                                       | EACH | 14.000     | 14.000     |
| 0088 | 642.5001   | Field Office Type B                                                | EACH | 1.000      | 1.000      |
| 0090 | 643.0300   | Traffic Control Drums                                              | DAY  | 100.000    | 100.000    |
| 0092 | 643.0310.S | Temporary Portable Rumble Strips                                   | LS   | 1.000      | 1.000      |
| 0094 | 643.0900   | Traffic Control Signs                                              | DAY  | 160.000    | 160.000    |
| 0096 | 643.5000   | Traffic Control                                                    | EACH | 1.000      | 1.000      |
| 0098 | 645.0120   | Geotextile Type HR                                                 | SY   | 45.600     | 45.600     |
| 0100 | 646.1040   | Marking Line Grooved Wet Ref Epoxy 4-Inch                          | LF   | 11,520.000 | 11,520.000 |
| 0102 | 646.4520   | Marking Line Same Day Epoxy 4-Inch                                 | LF   | 6,720.000  | 6,720.000  |
| 0104 | 648.0100   | Locating No-Passing Zones                                          | MI   | 1.091      | 1.091      |
| 0106 | 649.0105   | Temporary Marking Line Paint 4-Inch                                | LF   | 6,064.000  | 6,064.000  |
| 0108 | 649.0120   | Temporary Marking Line Epoxy 4-Inch                                | LF   | 6,720.000  | 6,720.000  |
| 0110 | 650.5500   | Construction Staking Curb Gutter and Curb & Gutter                 | LF   | 370.000    | 370.000    |
| 0112 | 650.7000   | Construction Staking Concrete Pavement                             | LF   | 75.000     | 75.000     |
| 0114 | 650.8000   | Construction Staking Resurfacing Reference                         | LF   | 5,760.000  | 5,760.000  |
| 0116 | 650.9910   | Construction Staking Supplemental Control (project) 01. 1430-02-74 | LS   | 1.000      | 1.000      |
| 0118 | 690.0150   | Sawing Asphalt                                                     | LF   | 281.000    | 281.000    |
| 0120 | 715.0415   | Incentive Strength Concrete Pavement                               | DOL  | 100.000    | 100.000    |
| 0122 | ASP.1T0A   | On-the-Job Training Apprentice at \$5.00/HR                        | HRS  | 150.000    | 150.000    |
| 0124 | ASP.1T0G   | On-the-Job Training Graduate at \$5.00/HR                          | HRS  | 300.000    | 300.000    |
| 0126 | SPV.0180   | Special 01. Removing Distressed Pavement Milling                   | SY   | 100.000    | 100.000    |

REMOVING CURB

|            |            |          |           | 204.0130 |              |  |
|------------|------------|----------|-----------|----------|--------------|--|
| CATEGORY   | STATION TO | STATION  | LOCATION  | LF       | REMARKS      |  |
| 0010       | 630+25     | - 633+95 | STH 82 LT | 367      | ASPHALT CURB |  |
| TOTAL 0010 |            |          |           | 367      |              |  |

BASE AGGREGATE DENSE 3/4-INCH

|            |               |          |           |              | 305.0110 |  |
|------------|---------------|----------|-----------|--------------|----------|--|
| CATEGORY   | STATION TO    | STATION  | LOCATION  | TON          | REMARKS  |  |
| 0010       | 590+00        | - 630+25 | STH 82 RT | 359          | SHOULDER |  |
| 0010       | 590+00        | - 630+25 | STH 82 LT | 358          | SHOULDER |  |
| 0010       | 630+25        | - 634+55 | STH 82 RT | 39           | SHOULDER |  |
| 0010       | 634+55        | - 646+41 | STH 82 RT | 103          | SHOULDER |  |
| 0010       | 634+55        | - 647+60 | STH 82 LT | 116          | SHOULDER |  |
| 0010       | UNDISTRIBUTED |          |           | 244          |          |  |
| TOTAL 0010 |               |          |           | <u>1,219</u> |          |  |

BASE AGGREGATE DENSE 1 1/4-INCH

|            |            |          |          | 305.0120 |                        |  |
|------------|------------|----------|----------|----------|------------------------|--|
| CATEGORY   | STATION TO | STATION  | LOCATION | TON      | REMARKS                |  |
| 0010       | 640+26     | - 640+51 | RT       | 11       | CONCRETE PAVEMENT BASE |  |
| 0010       | 643+76     | - 644+01 | RT       | 11       | CONCRETE PAVEMENT BASE |  |
| 0010       | 646+01     | - 646+26 | RT       | 11       | CONCRETE PAVEMENT BASE |  |
| TOTAL 0010 |            |          |          | 32       |                        |  |

EXCAVATION COMMON

|            |            |          |           | 205.0100 |                           |  |
|------------|------------|----------|-----------|----------|---------------------------|--|
| CATEGORY   | STATION TO | STATION  | LOCATION  | LF       | REMARKS                   |  |
| 0010       | 640+26     | - 640+51 | STH 82 RT | 14       | CONCRETE PAVEMENT EXTENTS |  |
| 0010       | 643+76     | - 644+01 | STH 82 RT | 14       | CONCRETE PAVEMENT EXTENTS |  |
| 0010       | 646+01     | - 646+26 | STH 82 RT | 14       | CONCRETE PAVEMENT EXTENTS |  |
| TOTAL 0010 |            |          |           | 42       |                           |  |

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

|            |            |          |           | 211.0400 |         |  |
|------------|------------|----------|-----------|----------|---------|--|
| CATEGORY   | STATION TO | STATION  | LOCATION  | STA      | REMARKS |  |
| 0010       | 590+00     | - 646+41 | STH 82 RT | 57       |         |  |
| 0010       | 590+00     | - 630+25 | STH 82 LT | 41       |         |  |
| 0010       | 634+55     | - 647+60 | STH 82 LT | 14       |         |  |
| TOTAL 0010 |            |          |           | 112      |         |  |

SHAPING SHOULDERS

|            |            |          |           | 305.0500 |         |  |
|------------|------------|----------|-----------|----------|---------|--|
| CATEGORY   | STATION TO | STATION  | LOCATION  | STA      | REMARKS |  |
| 0010       | 590+00     | - 646+41 | STH 82 RT | 57       |         |  |
| 0010       | 590+00     | - 630+25 | STH 82 LT | 41       |         |  |
| 0010       | 634+55     | - 647+60 | STH 82 LT | 14       |         |  |
| TOTAL 0010 |            |          |           | 112      |         |  |

3

| CONCRETE PAVEMENT HES 9-INCH |            |         |          |                |                        |
|------------------------------|------------|---------|----------|----------------|------------------------|
| CATEGORY                     | STATION TO | STATION | LOCATION | 415.1090<br>SY | REMARKS                |
| 0010                         | 640+26 -   | 640+51  | RT       | 33             | CONCRETE RUMBLE STRIPS |
| 0010                         | 643+76 -   | 644+01  | RT       | 33             | CONCRETE RUMBLE STRIPS |
| 0010                         | 646+01 -   | 646+26  | RT       | 33             | CONCRETE RUMBLE STRIPS |
| TOTAL 0010                   |            |         |          | 100            |                        |

| CONCRETE INTERSECTION RUMBLE STRIPS |            |         |           |                |         |
|-------------------------------------|------------|---------|-----------|----------------|---------|
| CATEGORY                            | STATION TO | STATION | LOCATION  | 416.1180<br>SY | REMARKS |
| 0010                                | 640+26 -   | 640+51  | STH 82 RT | 33             | STH 13  |
| 0010                                | 643+76 -   | 644+01  | STH 82 RT | 33             | STH 13  |
| 0010                                | 646+01 -   | 646+26  | STH 82 RT | 33             | STH 13  |
| TOTAL 0010                          |            |         |           | 100            |         |

3

| HMA PAVEMENT |               |   |        |        |                                                             |                                 |                                                                |                                                       |         |
|--------------|---------------|---|--------|--------|-------------------------------------------------------------|---------------------------------|----------------------------------------------------------------|-------------------------------------------------------|---------|
|              |               |   |        |        | 204.0120<br>REMOVING<br>ASPHALT<br>SURFACE<br>MILLING<br>SY | 455.0605<br>TACK<br>COAT<br>GAL | 460.4110.S<br>REHEATING<br>HMA<br>LONGITUDINAL<br>JOINTS<br>LF | 460.5224<br>HMA<br>PAVEMENT<br>4 LT<br>58-28 S<br>TON | REMARKS |
| 0010         | 590+00        | - | 630+25 | STH 82 | 10,492                                                      | 734                             | 4,025                                                          | 1,878                                                 |         |
| 0010         | 630+25        | - | 633+95 | STH 82 | 1,254                                                       | 88                              | 370                                                            | 204                                                   |         |
| 0010         | 633+95        | - | 647+60 | STH 82 | 3,918                                                       | 274                             | 1,365                                                          | 650                                                   |         |
| 0010         | UNDISTRIBUTED |   |        |        | 3,916                                                       | 274                             | -                                                              | 615                                                   |         |
| TOTAL 0010   |               |   |        |        | 19,580                                                      | 1,371                           | 5,760                                                          | 3,348                                                 |         |

| ASPHALTIC SURFACE PATCHING |            |         |          |                 |                            |
|----------------------------|------------|---------|----------|-----------------|----------------------------|
| CATEGORY                   | STATION TO | STATION | LOCATION | 465.0110<br>TON | REMARKS                    |
| 0010                       | 590+00 -   | 647+60  | STH 82   | 20              | UNDISTRIBUTED FOR PATCHING |
| TOTAL 0010                 |            |         |          | 20              |                            |

| ASPHALTIC CURB |            |         |           |                |         |
|----------------|------------|---------|-----------|----------------|---------|
| CATEGORY       | STATION TO | STATION | LOCATION  | 465.0310<br>LF | REMARKS |
| 0010           | 630+25 -   | 633+95  | STH 82 LT | 367            |         |
| TOTAL 0010     |            |         |           | 367            |         |

ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL

| 465.0425   |         |    |         |           |        |
|------------|---------|----|---------|-----------|--------|
| CATEGORY   | STATION | TO | STATION | LOCATION  | LF     |
| 0010       | 590+00  | -  | 647+60  | STH 82 RT | 5,760  |
| 0010       | 590+00  | -  | 647+60  | STH 82 LT | 5,760  |
| TOTAL 0010 |         |    |         |           | 11,520 |

ASPHALT FLUMES

|            |         |           | 204.0110  | 465.0315  |         |
|------------|---------|-----------|-----------|-----------|---------|
|            |         |           | REMOVING  | ASPHALTIC |         |
|            |         |           | ASPHALTIC | FLUMES    |         |
|            |         |           | FLUMES    |           |         |
| CATEGORY   | STATION | LOCATION  | SY        | SY        | REMARKS |
| 0010       | 630+59  | STH 82 LT | 11        | 19        |         |
| 0010       | 631+71  | STH 82 LT | -         | 3         |         |
| TOTAL 0010 |         |           | 11        | 22        |         |

643 TRAFFIC CONTROL

| 643.0300              |         |    |         |           | 643.0900              |
|-----------------------|---------|----|---------|-----------|-----------------------|
| TRAFFIC CONTROL DRUMS |         |    |         |           | TRAFFIC CONTROL SIGNS |
| CATEGORY              | STATION | TO | STATION | LOCATION  | DAY                   |
| 0010                  | 590+00  | -  | 647+60  | STH 82    | 100                   |
| 0010                  | -       | -  | -       | STH 13 NB | 40                    |
| 0010                  | -       | -  | -       | STH 13 SB | 40                    |
| TOTAL 0010            |         |    |         |           | 100                   |

ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL

| 465.0475   |         |    |         |          |
|------------|---------|----|---------|----------|
| CATEGORY   | STATION | TO | STATION | LOCATION |
| 0010       | 590+00  | -  | 647+60  | STH 82   |
| TOTAL 0010 |         |    |         | 5,760    |

WATER

| 624.0100   |         |    |         |          |
|------------|---------|----|---------|----------|
| CATEGORY   | STATION | TO | STATION | LOCATION |
| 0010       | 590+00  | -  | 647+60  | STH 82   |
| TOTAL 0010 |         |    |         | 10       |

TEMPORARY PORTABLE RUMBLE STRIPS

| 643.0310.S |         |    |         |          |
|------------|---------|----|---------|----------|
| CATEGORY   | STATION | TO | STATION | LOCATION |
| 0010       | 590+00  | -  | 647+60  | STH 82   |
| TOTAL 0010 |         |    |         | 1        |

| 628 EROSION CONTROL |         |               |                 |                            |         |                  |               |                           |                                     |              |                          |                              |                       |         |
|---------------------|---------|---------------|-----------------|----------------------------|---------|------------------|---------------|---------------------------|-------------------------------------|--------------|--------------------------|------------------------------|-----------------------|---------|
|                     |         |               | 606.0300        | 606.0700                   | 625.01  | 628.1104         | 628.1504      | 628.1520                  | 628.2002                            | 628.7570     | 629.0210                 | 630.0110                     | 645.0120              |         |
|                     |         |               | RIPRAP<br>HEAVY | GROUTED<br>RIPRAP<br>HEAVY | TOPSOIL | EROSION<br>BALES | SILT<br>FENCE | SILT FENCE<br>MAINTENANCE | EROSION<br>MAT<br>CLASS I<br>TYPE A | ROCK<br>BAGS | FERTILIZ<br>ER TYPE<br>B | SEEDING<br>MIXTURE<br>NO. 10 | GEPTEXTILE<br>TYPE HR |         |
| CATEGORY            | STATION | LOCATION      | CY              | CY                         | SY      | EACH             | LF            | LF                        | SY                                  | EACH         | CWT                      | LB                           | SY                    | REMARKS |
| 0010                | 630+59  | STH 82 LT     | 5.9             | 0.0                        | 58      | -                | 146           | 146                       | 44                                  | 0            | 0.03                     | 0.6                          | 20.0                  |         |
| 0010                | 631+71  | STH 82 LT     | 0.0             | 15.4                       | 23      | -                | 30            | 30                        | 23                                  | 0            | 0.01                     | 0.3                          | 25.6                  |         |
| 0010                |         | UNDISTRIBUTED | 0.0             | 0.0                        | 20      | 5                | 44            | 44                        | 17                                  | 15           | 0.01                     | 0.2                          | 0.0                   |         |
|                     |         | TOTAL 0010    | 5.9             | 15.4                       | 102     | 5                | 220           | 220                       | 83                                  | 15           | 0.05                     | 1.1                          | 45.6                  |         |

| MOBILIZATIONS EROSION CONTROL |            |         |            |               |               |         |
|-------------------------------|------------|---------|------------|---------------|---------------|---------|
|                               |            |         |            | 628.1905      | 628.191       |         |
|                               |            |         |            | MOBILIZATIONS | MOBILIZATIONS |         |
|                               |            |         |            | EROSION       | EMERGENCY     |         |
|                               |            |         |            | CONTROL       | EROSION       |         |
| CATEGORY                      | STATION TO | STATION | LOCATION   | EACH          | CONTROL       | REMARKS |
| 0010                          | 590+00 -   | 647+60  | STH 82     | 1             | 1             |         |
|                               |            |         | TOTAL 0010 | 1             | 1             |         |

| PAVEMENT MARKING |         |    |         |          |                                 |                                             |                                    |                                                 |                                                 |                    |
|------------------|---------|----|---------|----------|---------------------------------|---------------------------------------------|------------------------------------|-------------------------------------------------|-------------------------------------------------|--------------------|
|                  |         |    |         |          | 646.1020                        | 646.4520                                    | 648.0100                           | 649.0105                                        | 649.0120                                        |                    |
|                  |         |    |         |          | MARKING<br>LINE EPOXY<br>4-INCH | MARKING<br>LINE SAME<br>DAY EPOXY<br>4-INCH | LOCATING<br>NO<br>PASSING<br>ZONES | TEMPORARY<br>MARKING<br>LINE<br>PAINT<br>4-INCH | TEMPORARY<br>MARKING<br>LINE<br>EPOXY<br>4-INCH |                    |
|                  |         |    |         |          | WHITE<br>LF                     | YELLOW<br>LF                                | MI                                 | YELLOW<br>LF                                    | YELLOW<br>LF                                    |                    |
| CATEGORY         | STATION | TO | STATION | LOCATION | LF                              | LF                                          | MI                                 | LF                                              | LF                                              | REMARKS            |
| 0010             | 590+00  | -  | 609+06  | STH 82   | 3,812                           | 477                                         | 0.361                              | 152                                             | 477                                             | SKIP-DASH CL       |
| 0010             | 609+06  | -  | 618+03  | STH 82   | 1,794                           | 1,121                                       | 0.170                              | 969                                             | 1,121                                           | SOLID/SKIP-DASH CL |
| 0010             | 618+03  | -  | 633+34  | STH 82   | 3,062                           | 3,062                                       | 0.290                              | 3,062                                           | 3,062                                           | DOUBLE SOLID CL    |
| 0010             | 633+34  | -  | 643+90  | STH 82   | 2,112                           | 1,320                                       | 0.200                              | 1,140                                           | 1,320                                           | SOLID/SKIP-DASH CL |
| 0010             | 643+90  | -  | 647+60  | STH 82   | 740                             | 740                                         | 0.070                              | 740                                             | 740                                             | DOUBLE SOLID CL    |
| TOTAL 0010       |         |    |         |          | 11,520                          | 6,720                                       | 1.091                              | 6,064                                           | 6,720                                           |                    |

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

| CATEGORY   | STATION | TO | STATION | LOCATION  | 650.5500<br>LF | REMARKS |
|------------|---------|----|---------|-----------|----------------|---------|
| 0010       | 630+25  | -  | 633+95  | STH 82 LT | 370            |         |
| TOTAL 0010 |         |    |         |           | 370            |         |

CONSTRUCTION STAKING RESURFACING REFERENCE

| CATEGORY   | STATION | TO | STATION | LOCATION | 650.8000<br>LF | REMARKS                   |
|------------|---------|----|---------|----------|----------------|---------------------------|
| 0010       | 590+00  | -  | 647+60  | STH 82   | 5,760          | 300' TANGENTS/100' CURVES |
| TOTAL 0010 |         |    |         |          | 5,760          |                           |

SAWING ASPHALT

| CATEGORY   | STATION | LOCATION | 690.0150<br>LF | REMARKS                   |
|------------|---------|----------|----------------|---------------------------|
| 0010       | 590+00  | STH 82   | 24             | PROJECT LIMITS            |
| 0010       | 640+26  | STH 82   | 74             | CONCRETE PAVEMENT EXTENTS |
| 0010       | 643+76  | STH 82   | 74             | CONCRETE PAVEMENT EXTENTS |
| 0010       | 646+01  | STH 82   | 74             | CONCRETE PAVEMENT EXTENTS |
| 0010       | 647+60  | STH 82   | 35             | PROJECT LIMITS            |
| TOTAL 0010 |         |          | 281            |                           |

CONSTRUCTION STAKING CONCRETE PAVEMENT

| CATEGORY   | STATION | TO | STATION | LOCATION | 650.7000<br>LF | REMARKS |
|------------|---------|----|---------|----------|----------------|---------|
| 0010       | 640+26  | -  | 640+51  | RT       | 25             |         |
| 0010       | 643+76  | -  | 644+01  | RT       | 25             |         |
| 0010       | 646+01  | -  | 646+26  | RT       | 25             |         |
| TOTAL 0010 |         |    |         |          | 75             |         |

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1430-02-74)

| CATEGORY   | STATION | TO | STATION | LOCATION | 650.9910<br>LS | REMARKS |
|------------|---------|----|---------|----------|----------------|---------|
| 0010       | 590+00  | -  | 647+60  | STH 82   | 1              |         |
| TOTAL 0010 |         |    |         |          | 1              |         |

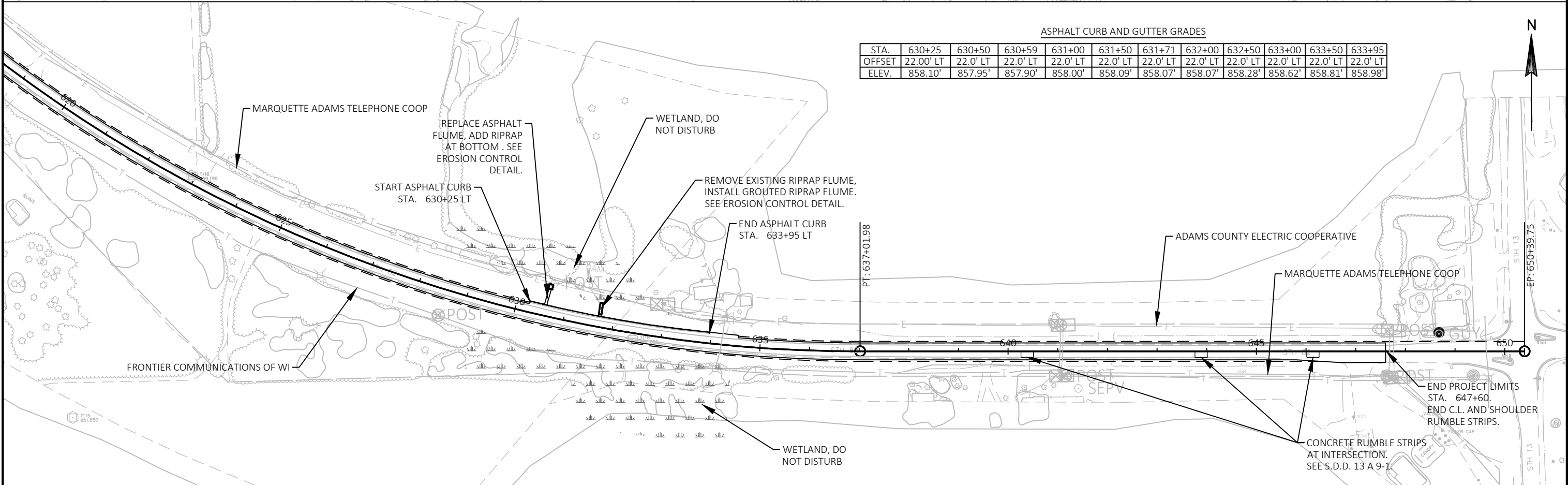
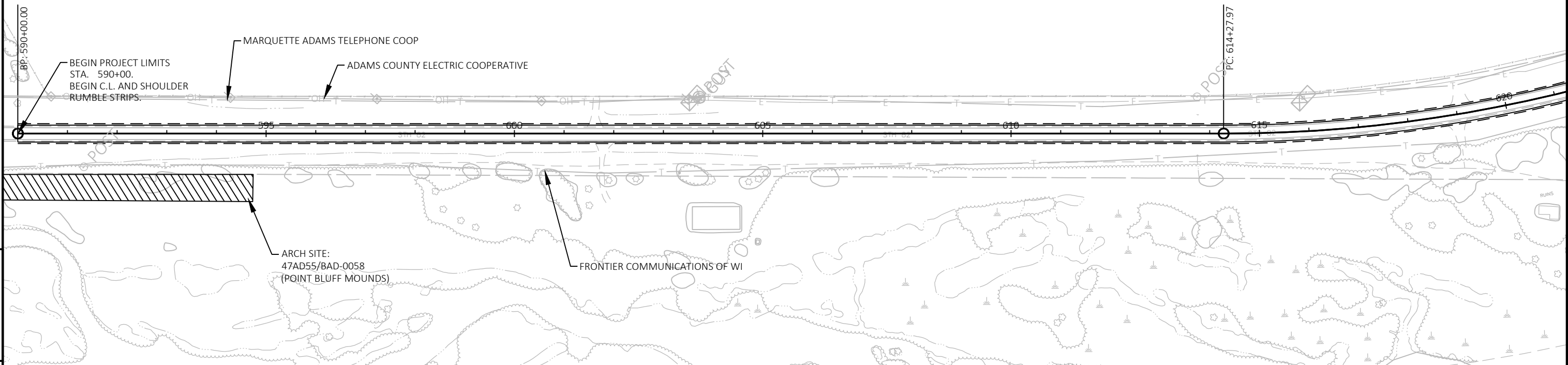
SPECIAL 01. REMOVING DISTRESSED PAVEMENT MILLING

| CATEGORY   | STATION | TO | STATION | LOCATION | SPV.0180<br>SY | REMARKS       |
|------------|---------|----|---------|----------|----------------|---------------|
| 0010       | 590+00  | -  | 647+60  | STH 82   | 100            | UNDISTRIBUTED |
| TOTAL 0010 |         |    |         |          | 100            |               |

PERMANENT SIGNING

|          |         |         |          |           |                                 |             |            |            |            |       | 637.2210     | 637.2230     | 638.2602 | 638.3000                 |  |
|----------|---------|---------|----------|-----------|---------------------------------|-------------|------------|------------|------------|-------|--------------|--------------|----------|--------------------------|--|
|          |         |         |          |           |                                 |             |            |            |            |       | SIGNS        | SIGNS        | REMOVING | REMOVING                 |  |
|          |         |         |          |           |                                 |             |            |            |            |       | TYPE II      | TYPE II      | SIGN     | SMALL                    |  |
|          |         |         |          |           |                                 |             |            |            |            |       | REFLECTIVE H | REFLECTIVE F | TYPE II  | SUPPORTS                 |  |
|          |         |         |          |           |                                 |             |            |            |            |       | SF           | SF           | EA       | EA                       |  |
| CATEGORY | SIGN NO | STATION | LOCATION | SIGN CODE | MESSAGE                         | SIZE INCHES | 14-FT EACH | 16-FT EACH | 18-FT EACH |       |              |              |          | REMARKS                  |  |
| 0010     | 1-01    | 600+00  | LEFT     | D7-52     | RD TO CASTLEROCK CO PARK 1 MILE | --          | --         | --         | --         | --    | --           | 1            | 1        | REMOVE                   |  |
| 0010     | 1-02    | 609+75  | LEFT     | W14-3     | NO PASSING ZONE                 | 48"X36"     | --         | 1          | --         | --    | 5.56         | 1            | 1        |                          |  |
| 0010     | 1-03    | 628+10  | LEFT     | SP--      | FINES DOUBLE IN WORK ZONES      | --          | --         | --         | --         | --    | --           | 1            | 1        | REMOVE                   |  |
| 0010     | 1-04    | 640+25  | LEFT     | W3-1      | STOP AHEAD ARROW                | 36"X36"     | --         | 1          | --         | --    | 9.00         | 1            | 1        |                          |  |
| 0010     | 1-05    | 640+25  | RIGHT    | W3-1      | STOP AHEAD ARROW                | 36"X36"     | --         | 1          | --         | --    | 9.00         | 1            | 1        |                          |  |
| 0010     | 1-06    | 641+10  | RIGHT    | J2-3      | N 13 LT E 82 UA S 13 RT         | --          | --         | --         | --         | --    | --           | 1            | 2        | REMOVE                   |  |
| 0010     | 1-07    | 641+35  | LEFT     | D2-1      | MAUSTON 13                      | --          | --         | --         | --         | --    | ---          | 1            | 2        | REMOVE                   |  |
| 0010     | 1-08    | 643+90  | LEFT     | W14-3     | NO PASSING ZONE                 | 48"X36"     | --         | 1          | --         | --    | 5.56         | 1            | 1        |                          |  |
| 0010     | 1-09    | 643+90  | LEFT     | R2-1      | SPEED LIMIT 55                  | --          | --         | --         | --         | --    | --           | --           | --       | REMOVE SAME POST AS 1-08 |  |
| 0010     | 1-10    | 644+39  | LEFT     | D2-1      | MAUSTON 13                      | 72"X15"     | 2          | --         | --         | 7.50  | --           | --           | --       |                          |  |
| 0010     | 1-11    | 646+39  | LEFT     | R2-1      | SPEED LIMIT 55                  | 24"X30"     | 1          | --         | --         | 5.00  | --           | --           | --       |                          |  |
| 0010     | 1-12    | 647+50  | LEFT     | J4-1      | WEST 82                         | --          | --         | --         | --         | --    | --           | 1            | 1        | REMOVE                   |  |
| 0010     | 1-13    | 648+39  | LEFT     | J4-1      | WEST 82                         | 24"X36"     | --         | 1          | --         | 6.00  | --           | --           | --       |                          |  |
| 0010     | 1-14    | 632+50  | RIGHT    | J1-1      | JCT 13                          | --          | --         | --         | --         | --    | --           | 1            | 1        | REMOVE                   |  |
| 0010     | 1-15    | 637+89  | RIGHT    | J1-1      | JCT 13                          | 24"X39"     | --         | 1          | --         | 6.50  | --           | --           | --       |                          |  |
| 0010     | 1-16    | 643+39  | RIGHT    | J2-3      | N 13 LT E 82 UA S 13 RT         | 72"X57"     | --         | --         | 2          | 28.50 | --           | --           | --       |                          |  |
| 0010     | 1-17    | 645+00  | RIGHT    | D1-3      | UA OXFORD LA ADAMS WIS DELLS RA | --          | --         | --         | --         | --    | --           | 1            | 2        | REMOVE                   |  |
| 0010     | 1-18    | 645+39  | RIGHT    | D1-3      | UA OXFORD LA ADAMS WIS DELLS RA | 72"X42"     | --         | --         | 2          | 21.00 | --           | --           | --       |                          |  |
| TOTALS   |         |         |          |           |                                 |             | 3          | 6          | 4          | 74.50 | 29.12        | 11           | 14       |                          |  |

THERE IS A PATCH OF LUPINE IN THE NORTH QUADRANT OF THE DRIVEWAY SEVERAL HUNDRED FEET WEST OF THE PROJECT LIMITS. NO EQUIPMENT OR MATERIALS WILL BE ALLOWED TO BE STORED AT THE SITE.



PROJECT NO: 1430-02-74

HWY: STH 82

COUNTY: ADAMS

PLAN DETAILS

SHEET

E

Standard Detail Drawing List

|           |                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|
| 08D04-05  | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES                                                         |
| 08E08-03  | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS                                    |
| 08E09-06  | SILT FENCE                                                                                         |
| 13A09-01  | CONCRETE RUMBLE STRIPS AT INTERSECTION                                                             |
| 13A10-01A | 2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING                                                        |
| 13A10-01B | 2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING                                                        |
| 13A10-01C | 2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING                                                        |
| 13A10-01D | 2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING                                                        |
| 13A11-02A | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING                                                     |
| 13A11-02B | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING                                                     |
| 13C01-19  | CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES                                                     |
| 13C11-12A | RURAL DOWELED CONCRETE PAVEMENT                                                                    |
| 13C11-12B | RURAL DOWELED CONCRETE PAVEMENT                                                                    |
| 15C04-04  | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C11-07B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS                                  |
| 15C12-06  | TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION                                           |
| 15D38-02A | TEMPORARY TRAFFIC CONTROL SIGN MOUNTING                                                            |
| 15D38-02B | ATTACHMENT OF SIGNS TO POSTS                                                                       |
| 15D39-02  | TRAFFIC CONTROL, DROP-OFF SIGNING                                                                  |

## 6



PLAN VIEW  
FLUME AT CURB END



## 6

S.D.D. 8 D 4-5

- ① JOINTS SHALL BE  $\frac{1}{8}$  TO  $\frac{1}{4}$  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

8'-0"

4'-0"

EDGE OF PAVEMENT

2" MIN. CURB HEIGHT

4" R

3'-0" MIN.

SURFACE DRAIN IS SYMMETRICAL WHEN CURB AND GUTTER IS CONTINUED

TAPER CURB TO FLOW LINE

JOINTS

SHOULDER OR BERM HINGE POINT

W3 WIRE MESH (SEE SECTION D-D)

RIPRAP

6'-0"

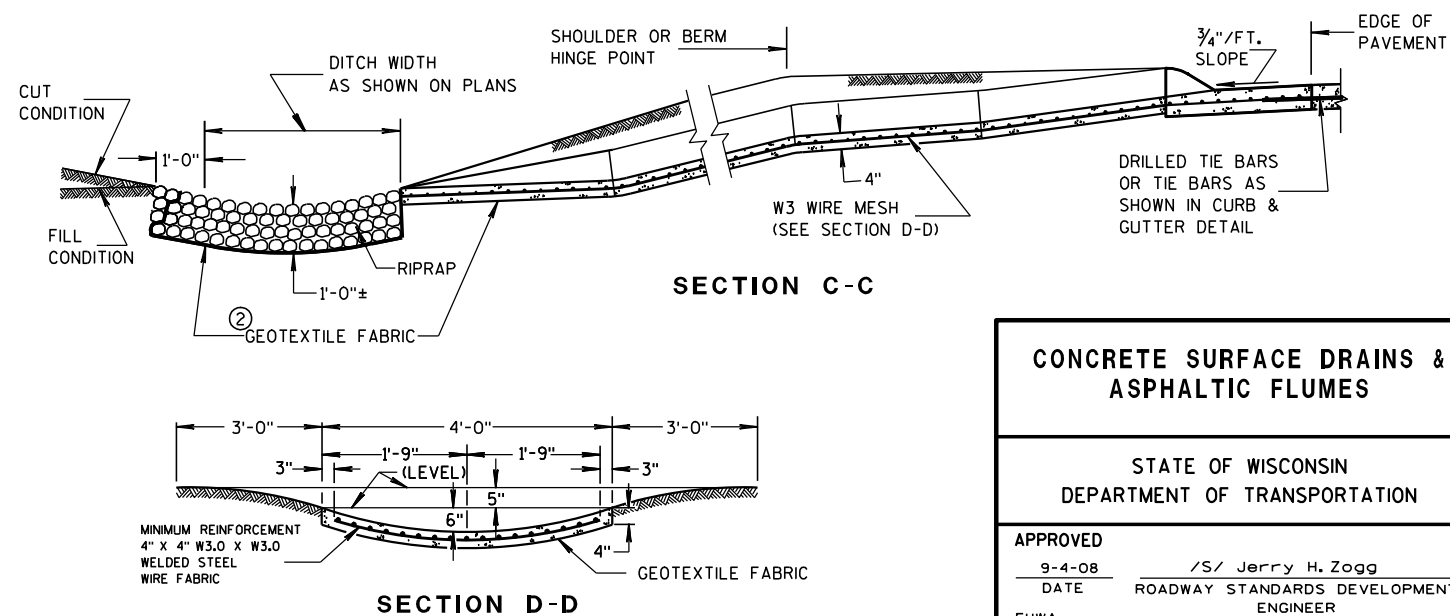
OR AS REQUIRED

1'-0" ON CUT SLOPE

DITCH

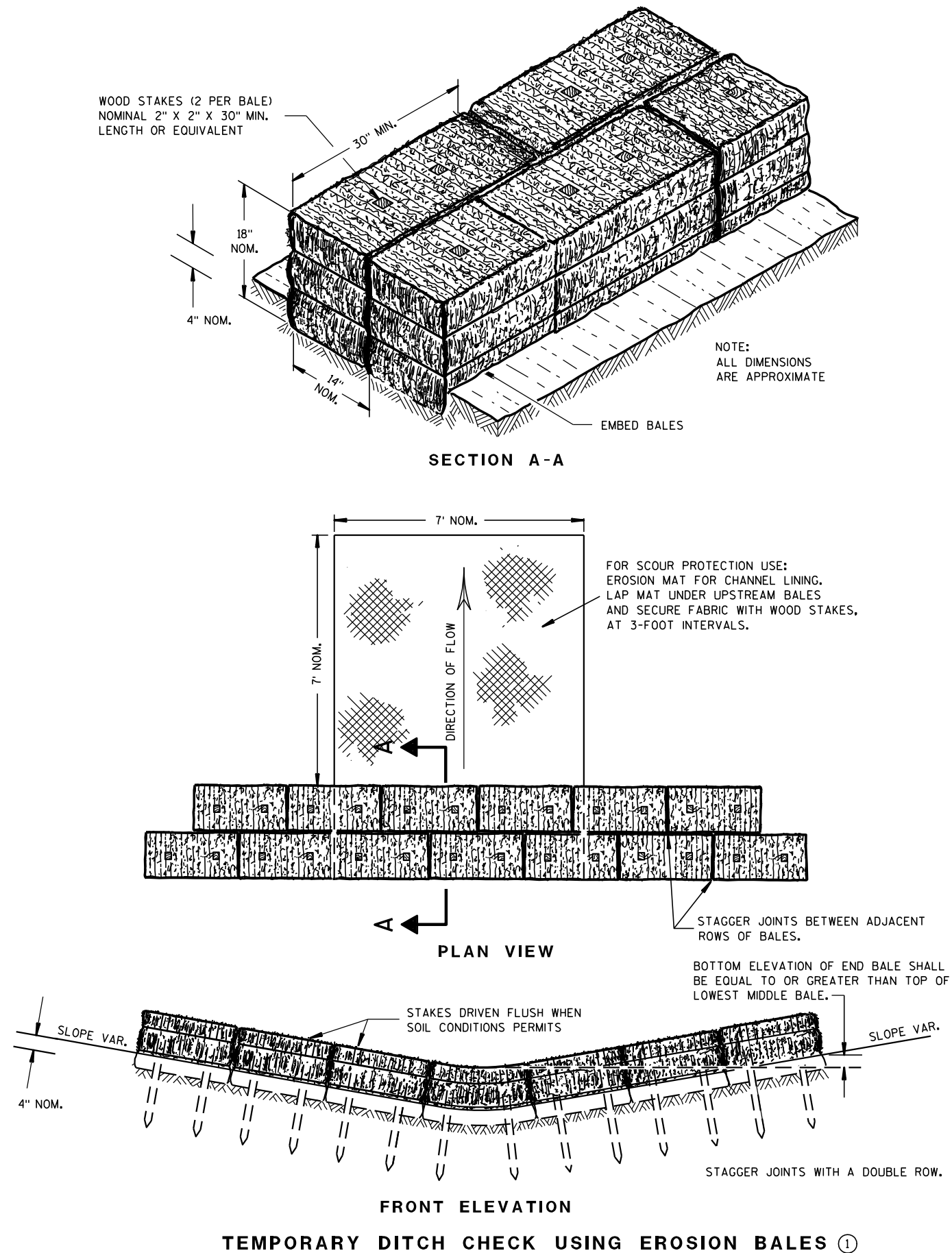
PLAN VIEW

### PLAN VIEW



STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

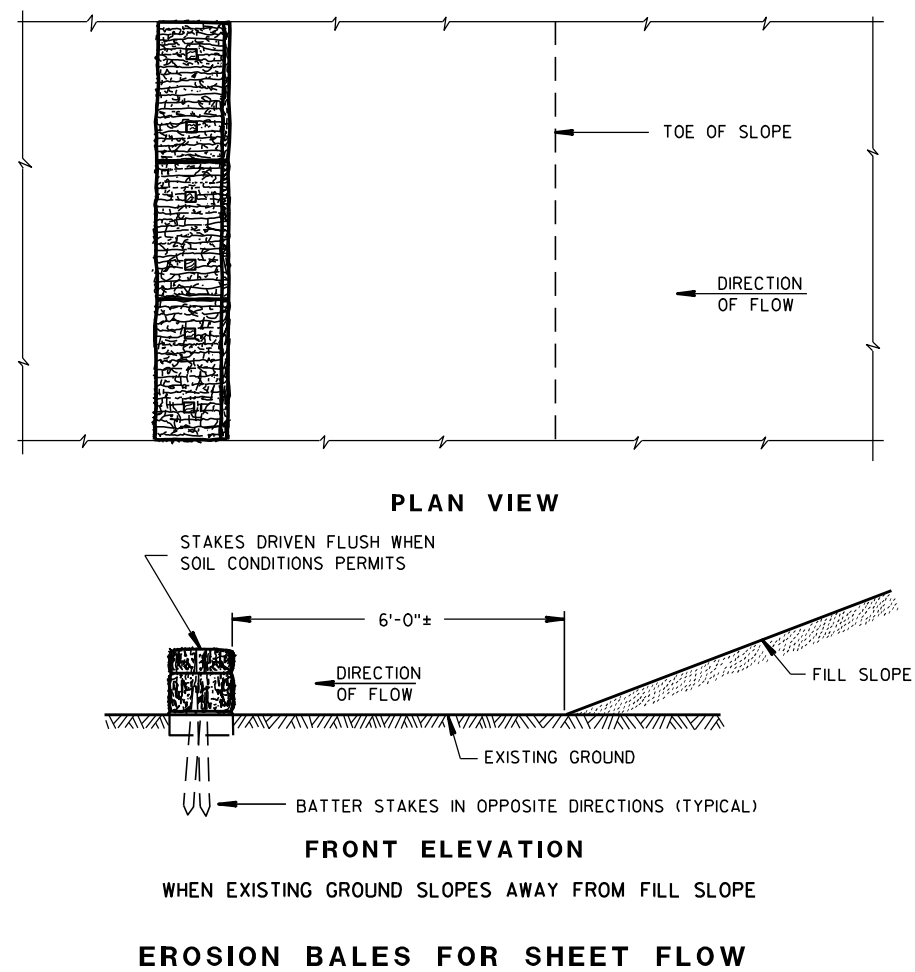
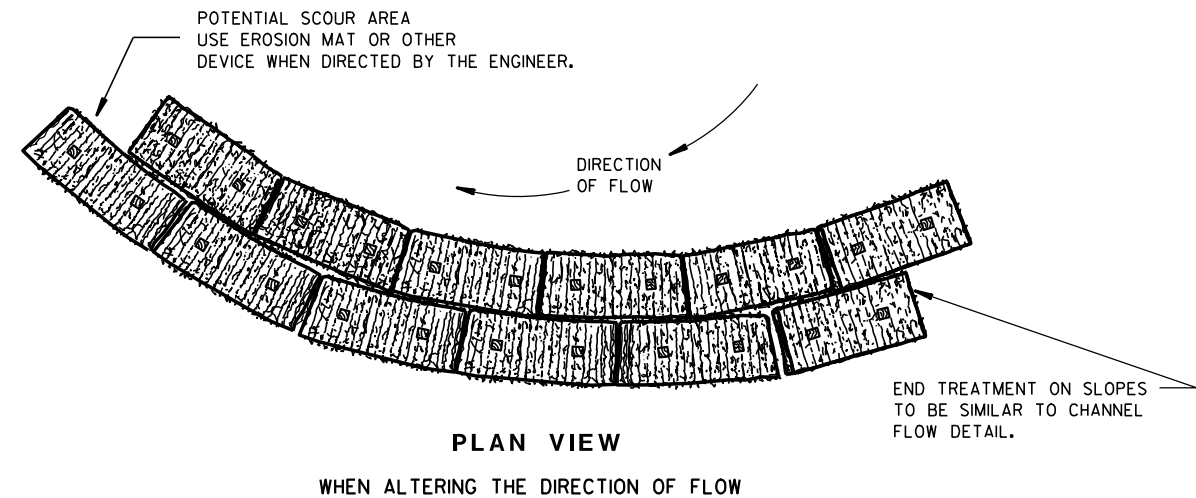
APPROVED  
9-4-08 /S/ Jerry H. Zogg  
DATE ROADWAY STANDARDS DEVELOPMENT  
ENGINEER



## GENERAL NOTES

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

- 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.

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

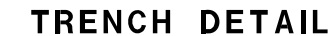
6/04/02  
DATE

/S/ Beth Canestra  
CHIEF ROADWAY DEVELOPMENT ENGINEER

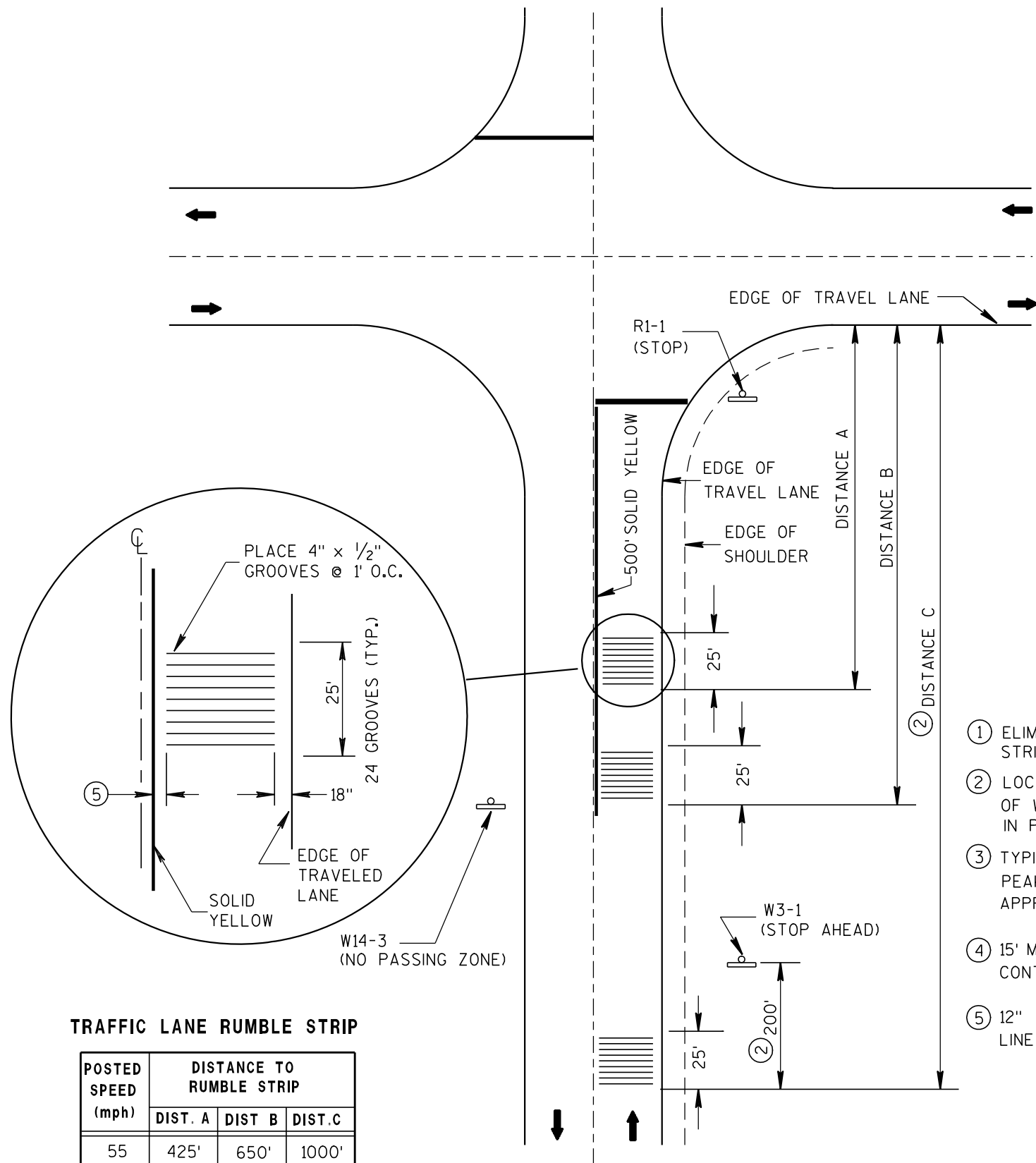
FHWA



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" 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><u>4-29-05</u><br>DATE                  | <u>/S/ Beth Cannestra</u><br>CHIEF ROADWAY DEVELOPMENT ENGINEER |



## TRAFFIC LANE RUMBLE STRIP

| POSTED SPEED<br>(mph) | DISTANCE TO RUMBLE STRIP |         |         |
|-----------------------|--------------------------|---------|---------|
|                       | DIST. A                  | DIST. B | DIST. C |
| 55                    | 425'                     | 650'    | 1000'   |
| 50                    | 325'                     | 450'    | 800'    |
| 45                    | 275'                     | 400'    | 650'    |
| 40                    | 225'                     | ①       | 550'    |
| 35                    | 175'                     | ①       | 475'    |
| ≤ 30                  | 125'                     | ①       | 425'    |

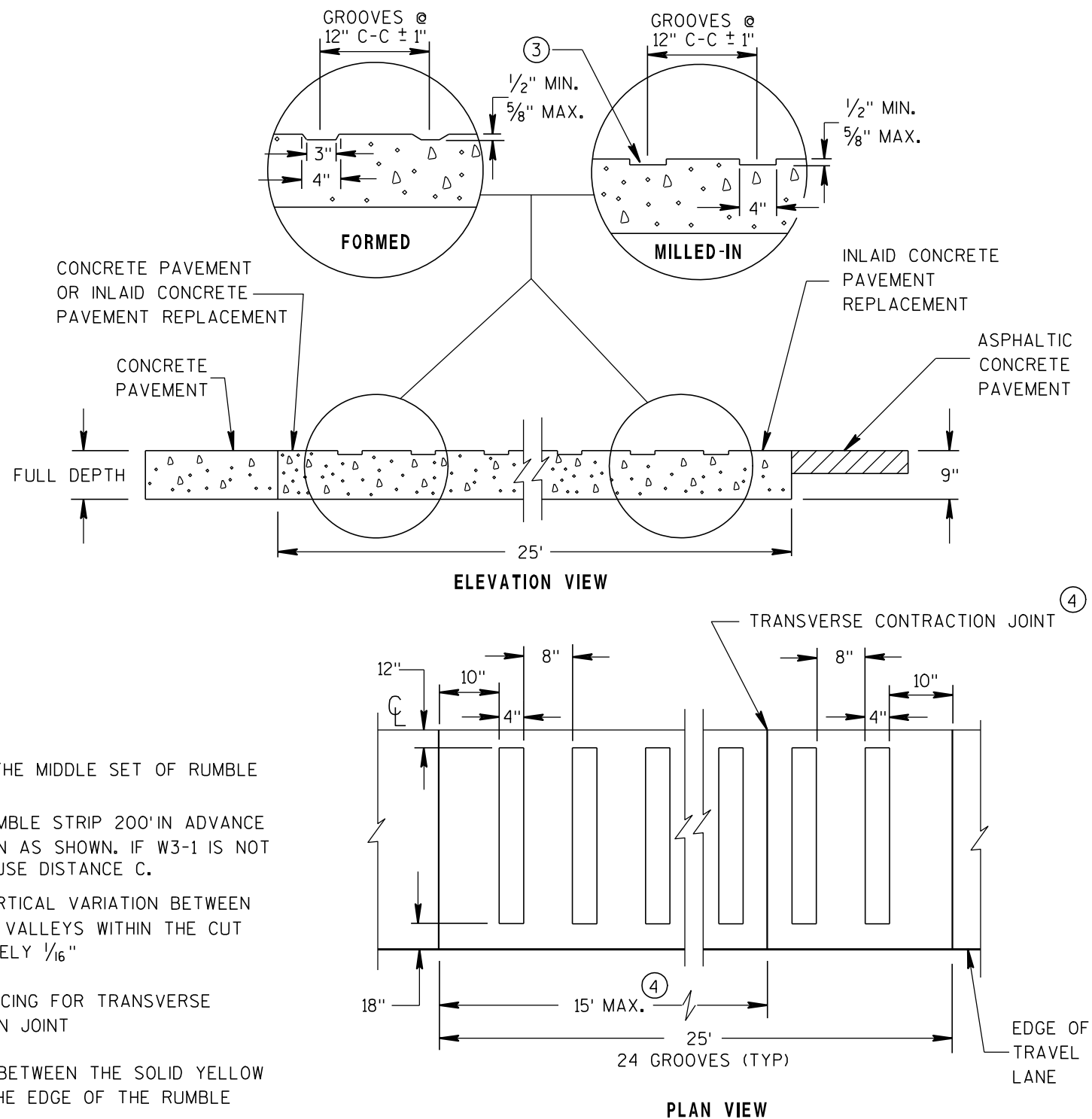
- ① ELIMINATE THE MIDDLE SET OF RUMBLE STRIPS.
- ② LOCATE RUMBLE STRIP 200' IN ADVANCE OF W3-1 SIGN AS SHOWN. IF W3-1 IS NOT IN PLACE, USE DISTANCE C.
- ③ TYPICAL VERTICAL VARIATION BETWEEN PEAKS AND VALLEYS WITHIN THE CUT APPROXIMATELY  $\frac{1}{16}$ "
- ④ 15' MAX. SPACING FOR TRANSVERSE CONTRACTION JOINT
- ⑤ 12" CLEAR BETWEEN THE SOLID YELLOW LINE AND THE EDGE OF THE RUMBLE

## GENERAL NOTES

CONTRACTOR SHALL CONFIRM RUMBLE STRIP LOCATION WITH THE ENGINEER PRIOR TO INSTALLATION. THE ENGINEER MAY MODIFY THE RUMBLE STRIP LOCATION AS FIELD CONDITIONS DICTATE.

EXTEND CONCRETE FROM THE  $\mathcal{C}$  TO THE EDGE OF TRAVEL WAY.

PAVEMENT MARKING AND SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

CONCRETE RUMBLE STRIPS  
AT INTERSECTION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

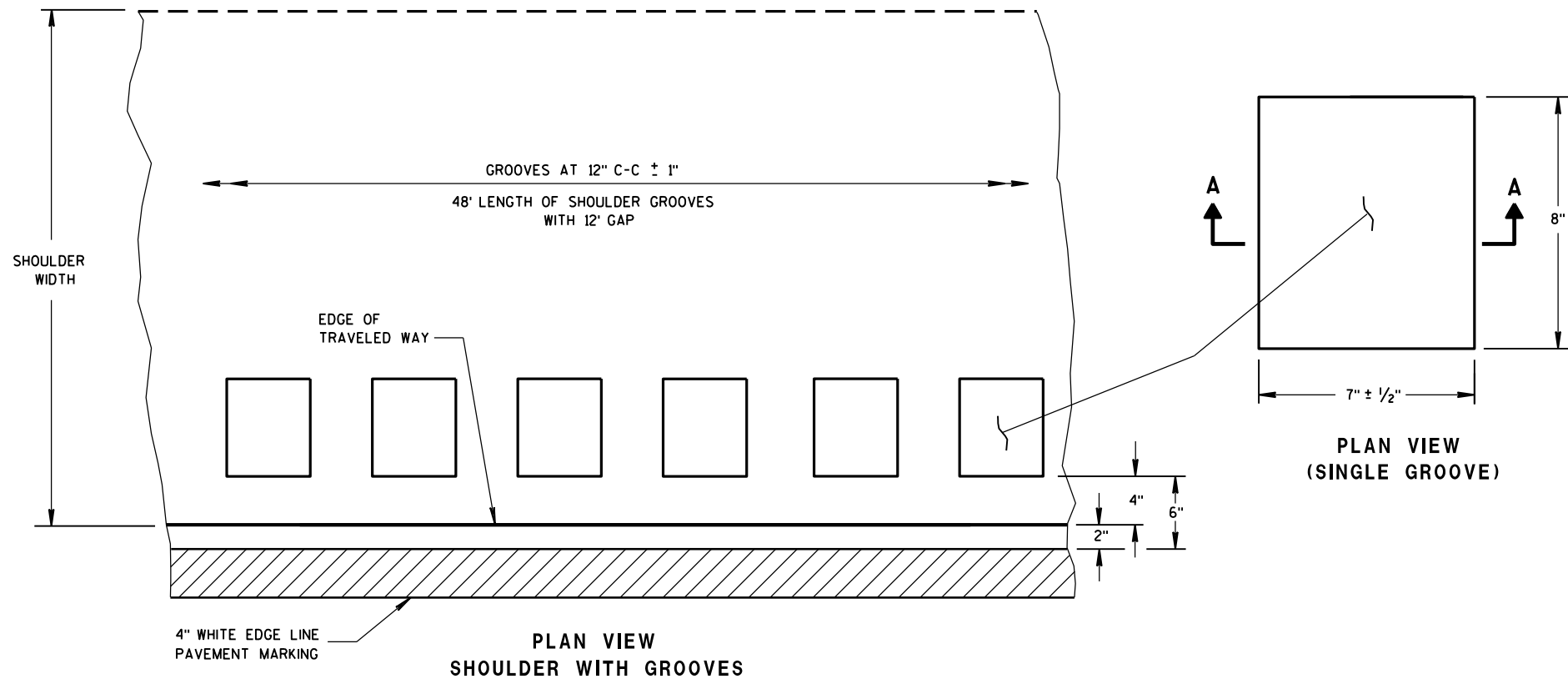
APPROVED

8/17/2011

DATE

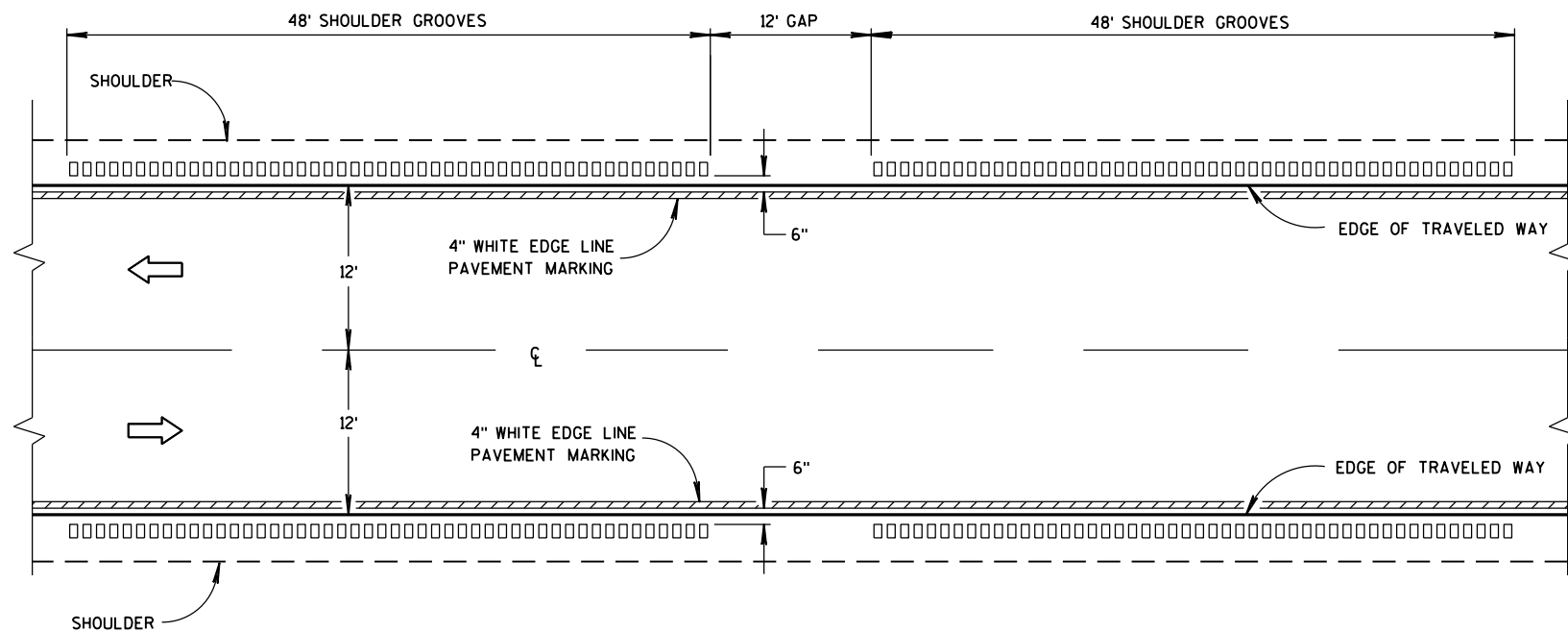
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER



6

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



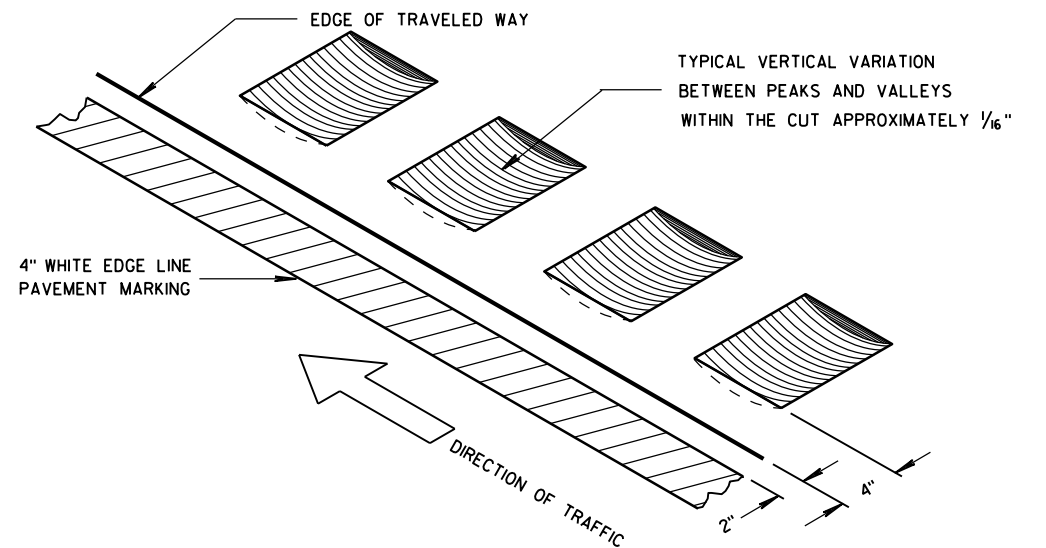
TYPE 1  
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

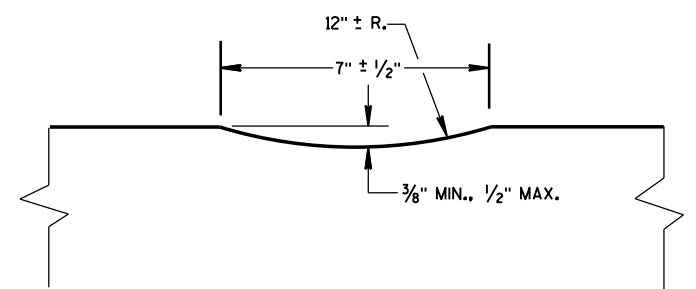
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

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



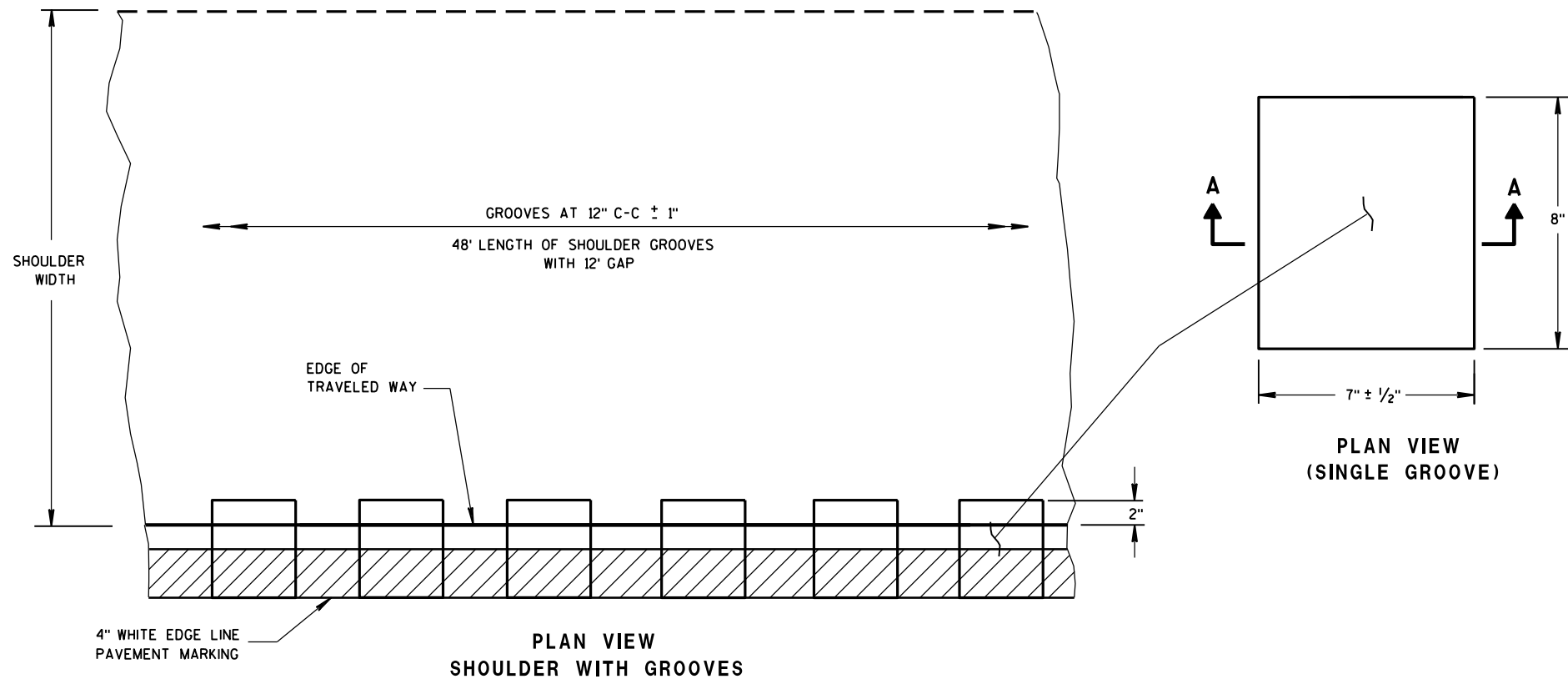
ISOMETRIC



SECTION A-A

2-LANE RURAL  
SHOULDER RUMBLE STRIP, MILLING

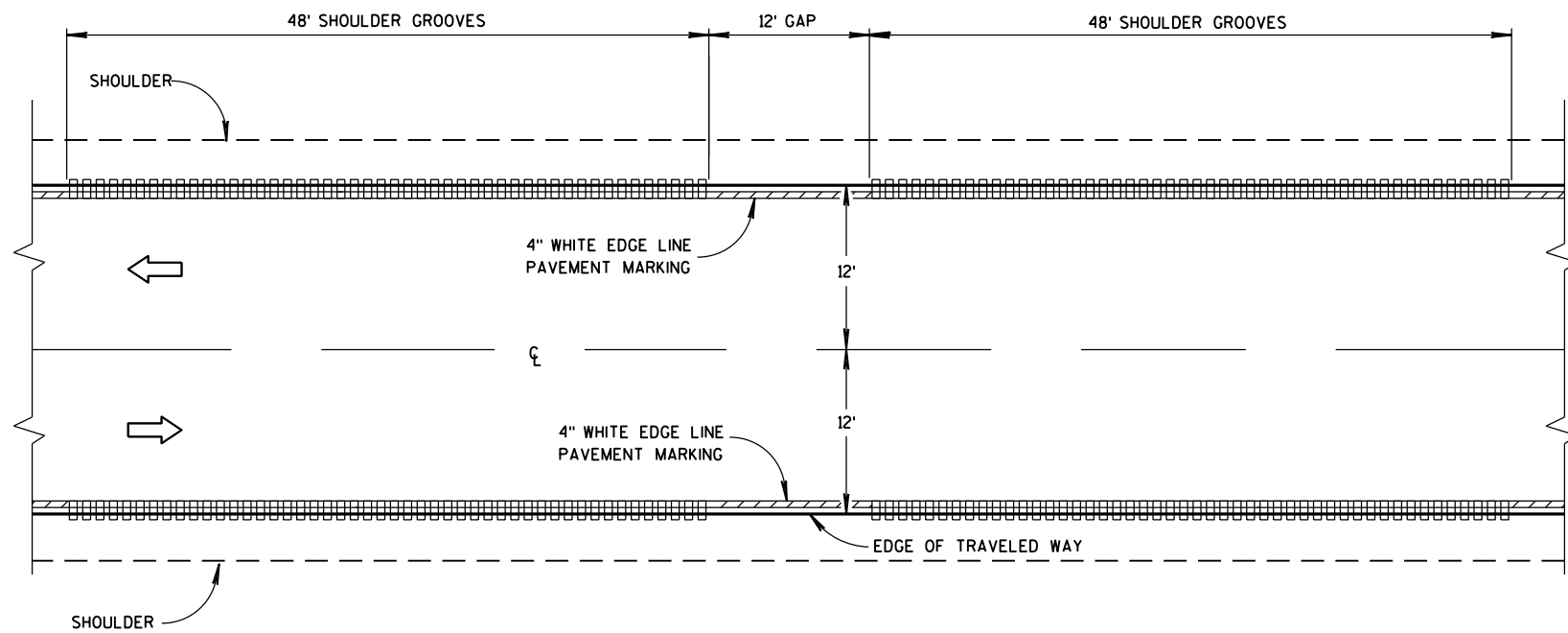
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



PLAN VIEW  
SHOULDER WITH GROOVES

PLAN VIEW  
(SINGLE GROOVE)

6  
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

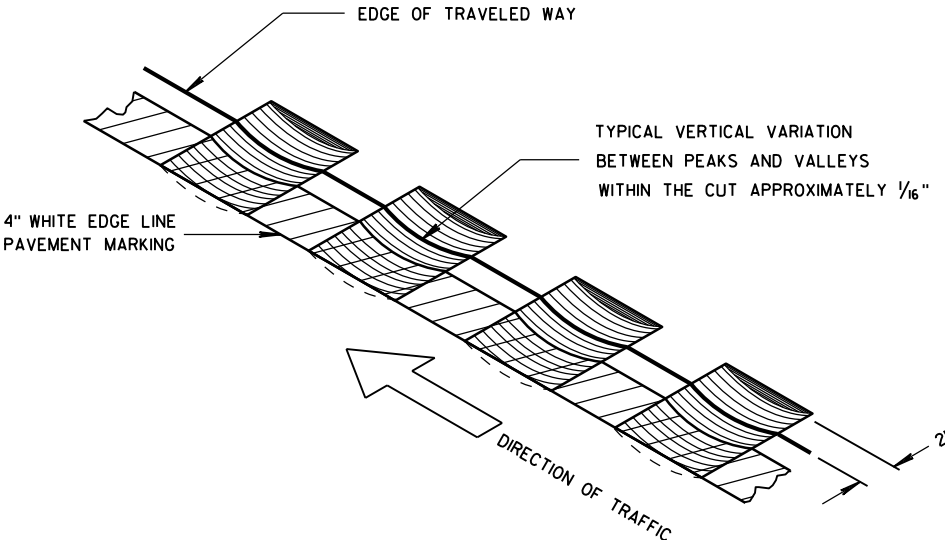


TYPE 2  
2-LANE SHOULDER RUMBLE STRIP

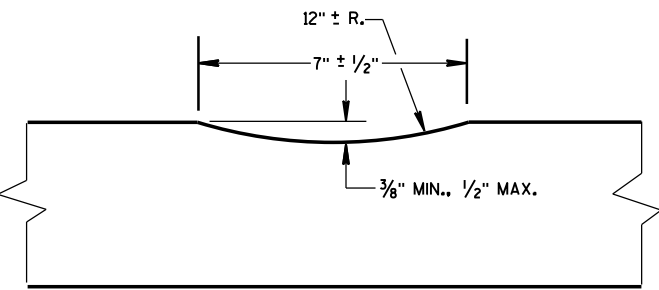
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.  
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

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

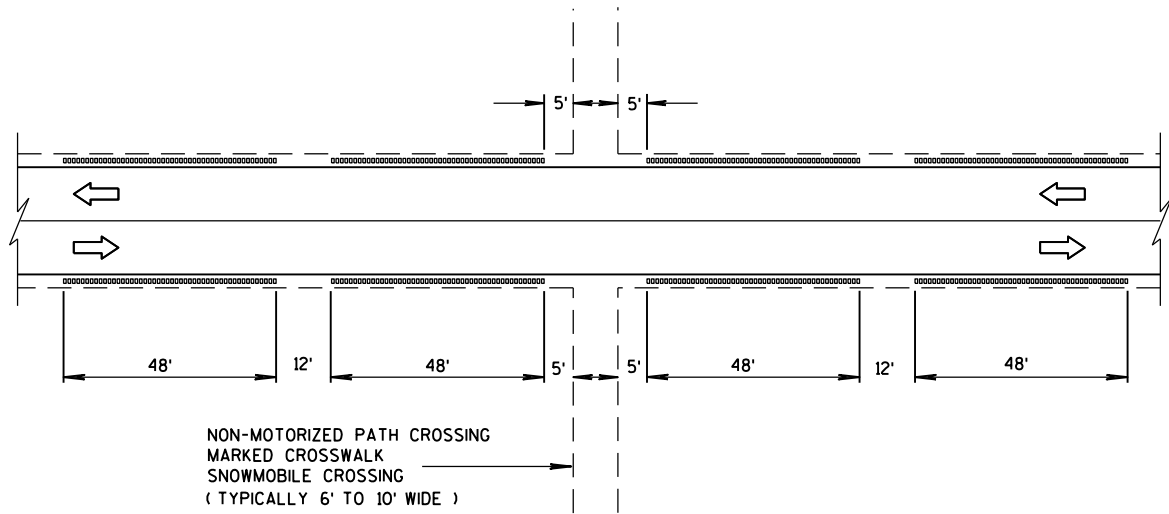


ISOMETRIC

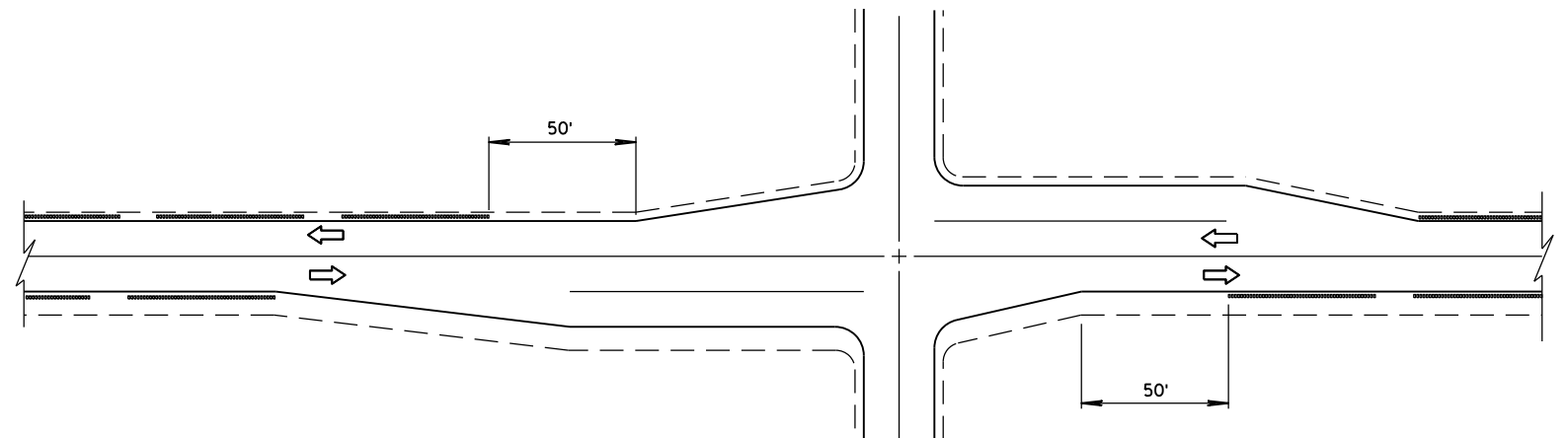


SECTION A-A

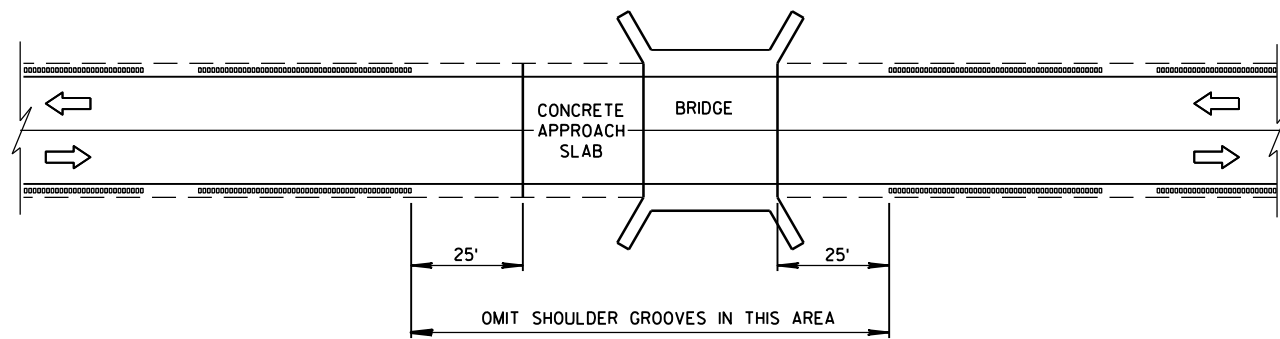
|                                                    |
|----------------------------------------------------|
| 2-LANE RURAL<br>SHOULDER RUMBLE STRIP, MILLING     |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |



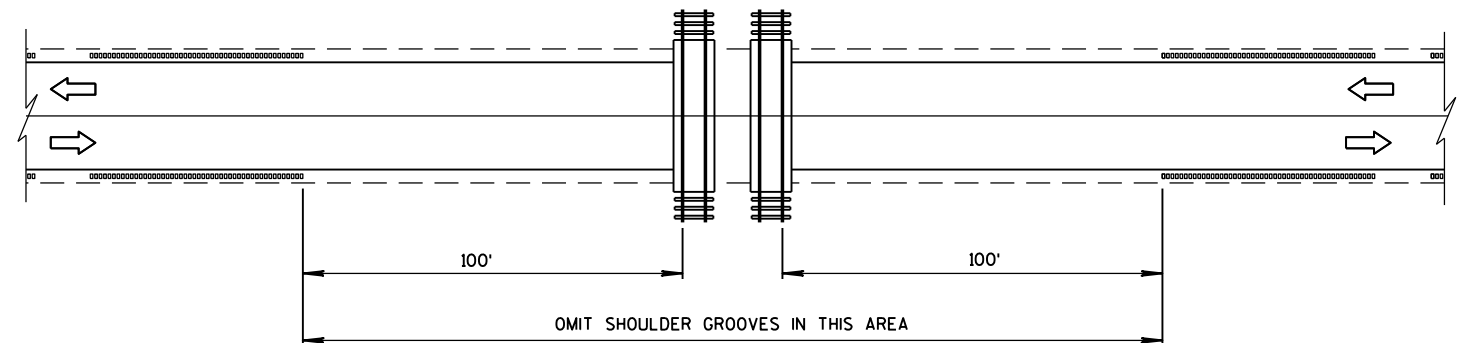
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



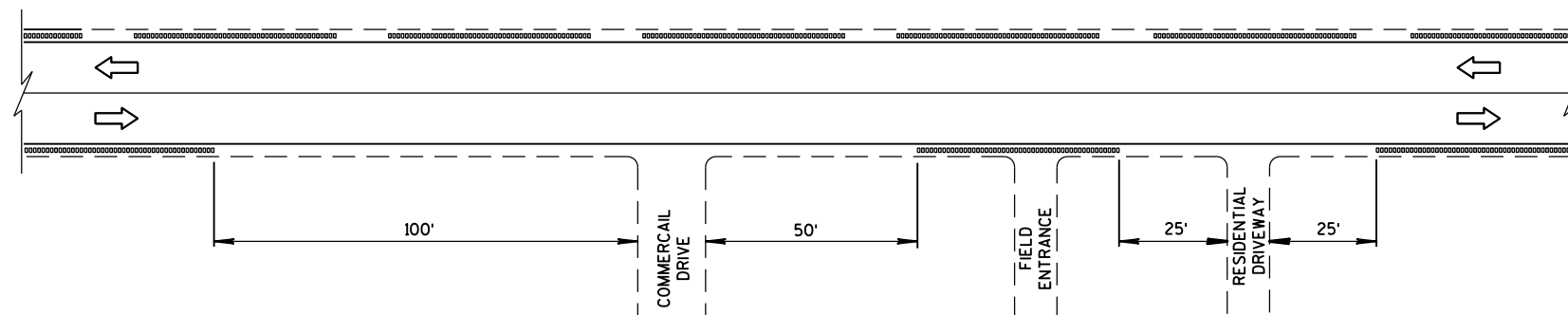
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



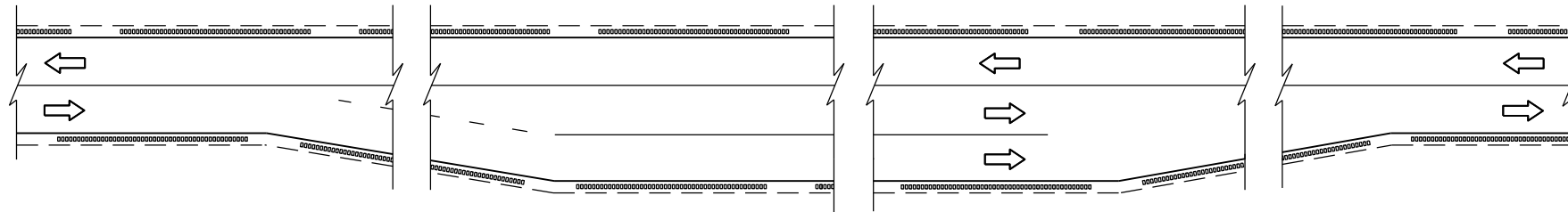
SHOULDER GROOVES AT RAILROADS



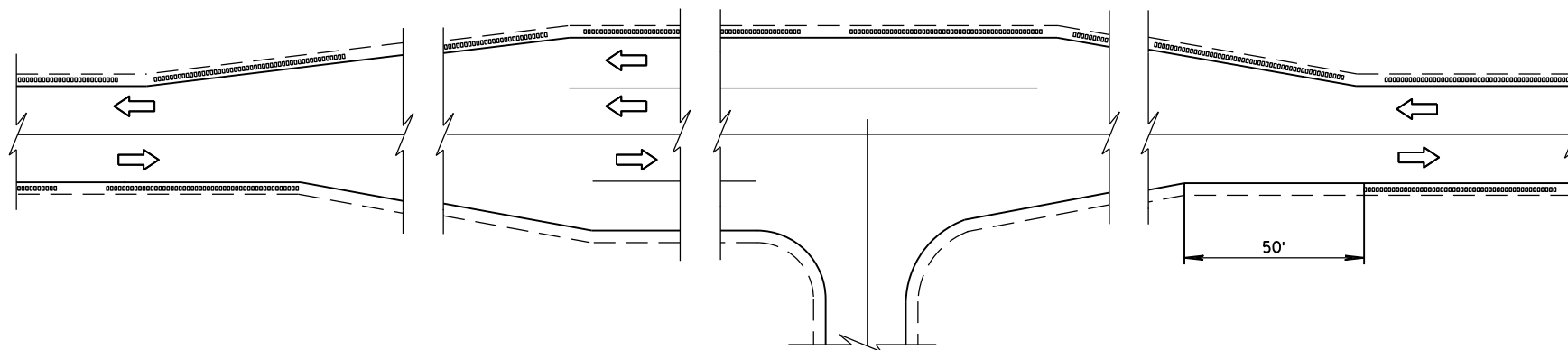
SHOULDER GROOVES AT DRIVEWAYS<sup>①</sup>

2-LANE RURAL  
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

2-LANE RURAL  
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
12/17/2012  
DATE  
FHWA

/S/ Jerry H. Zogg  
ROADWAY STANDARDS DEVELOPMENT  
ENGINEER

GENERAL NOTES

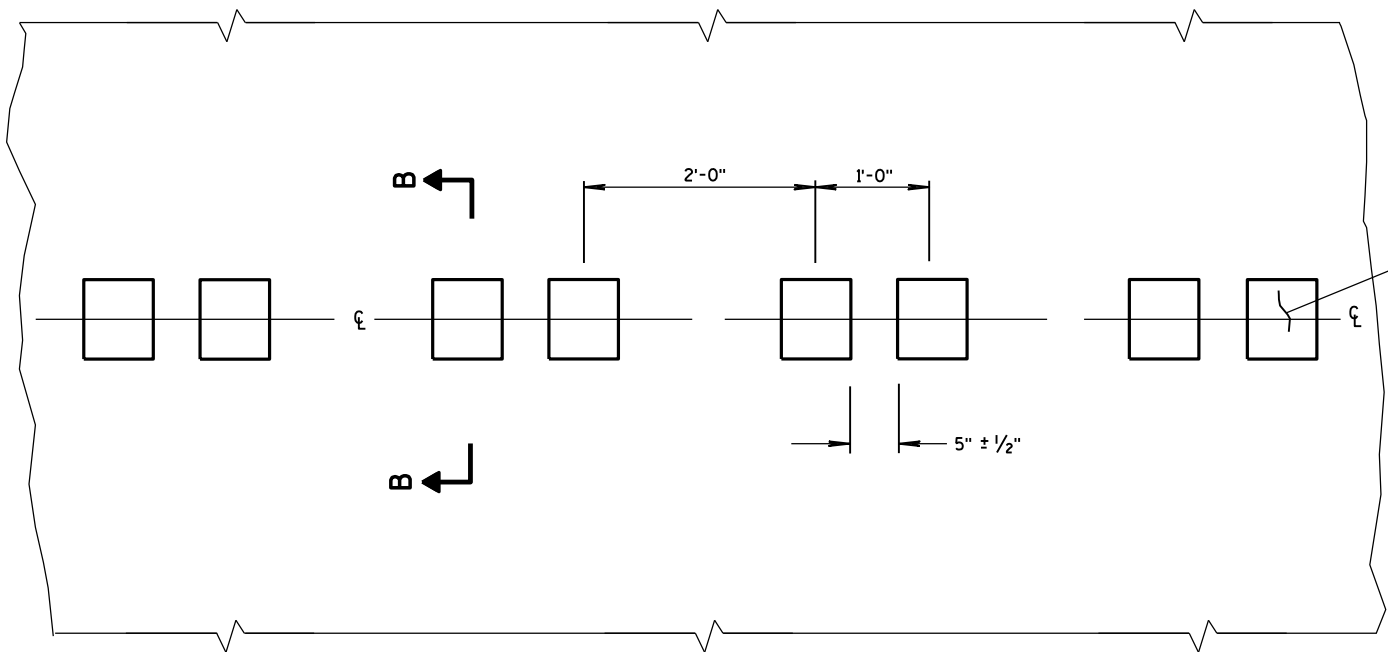
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

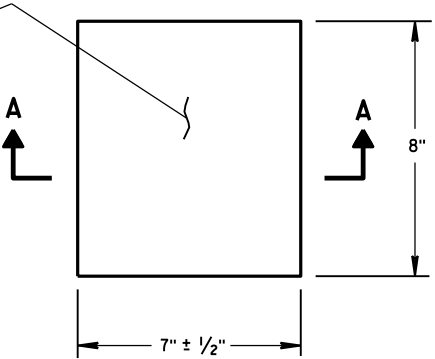
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

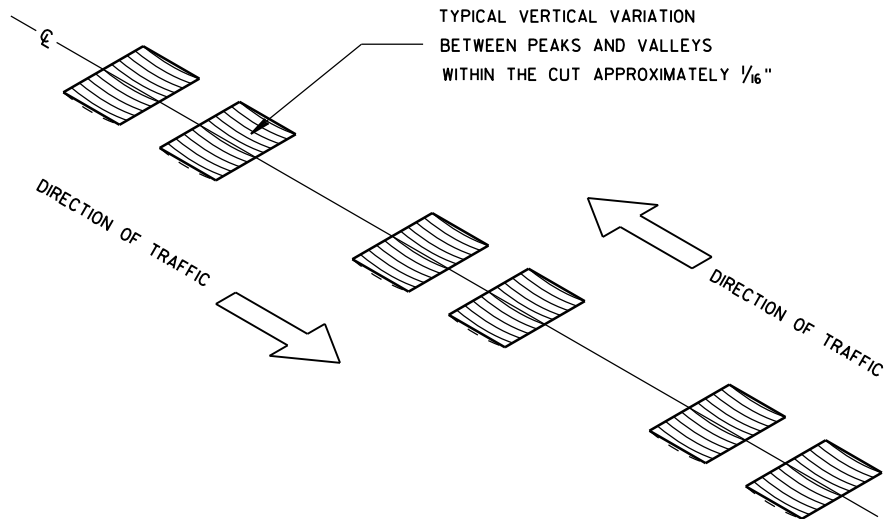
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



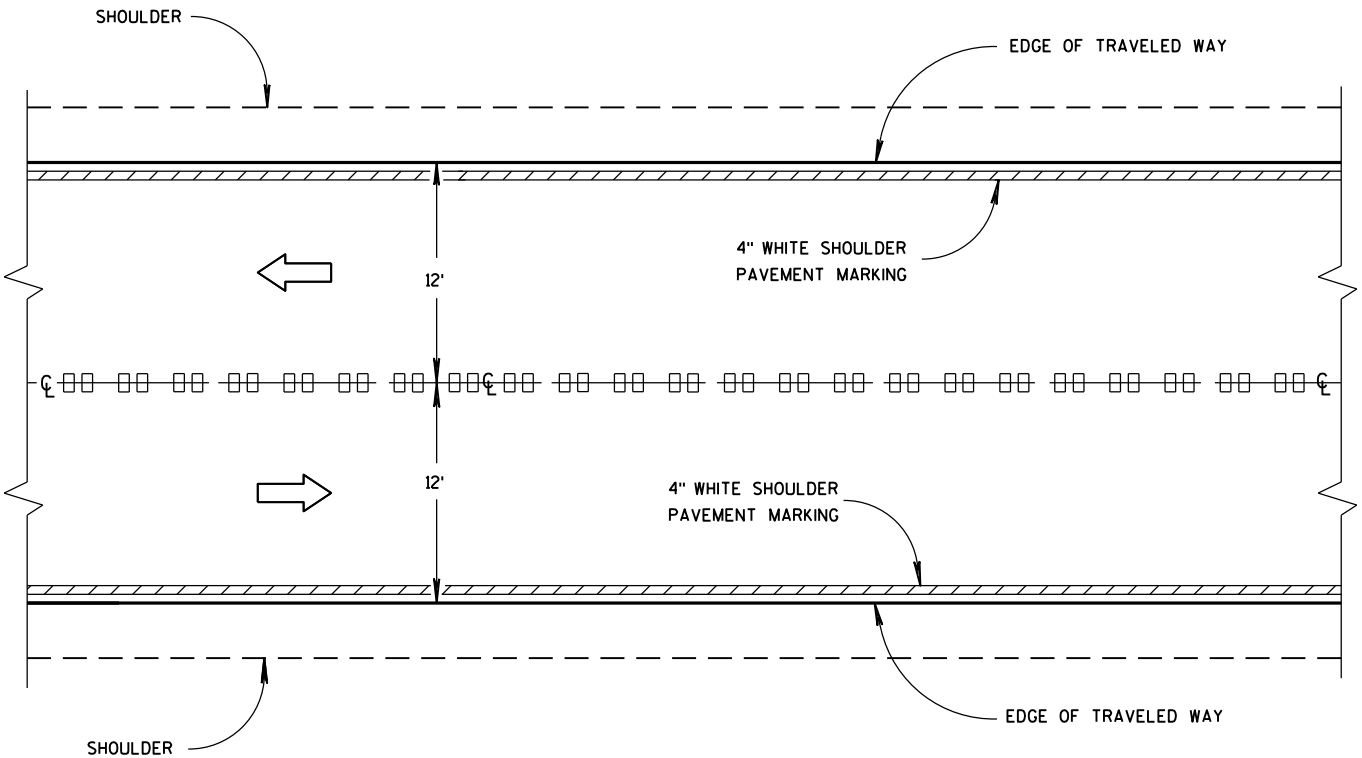
PLAN VIEW  
CENTER LINE WITH GROOVES



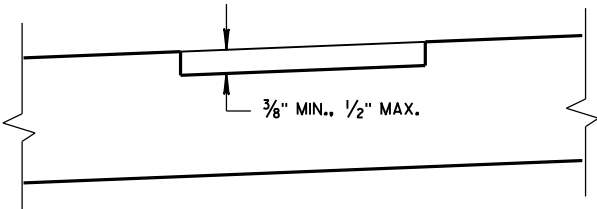
PLAN VIEW  
(SINGLE GROOVE)



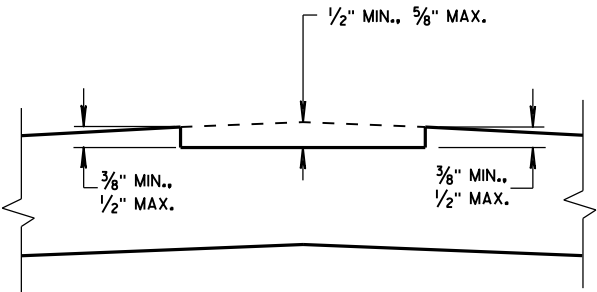
ISOMETRIC



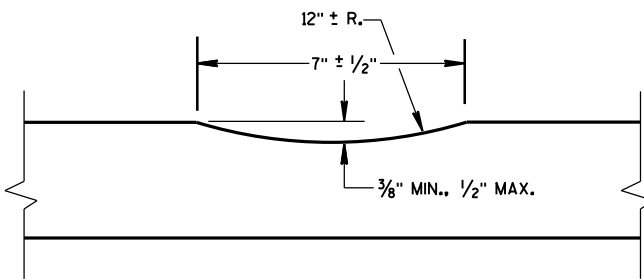
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B  
SUPERELEVATED ROADWAY



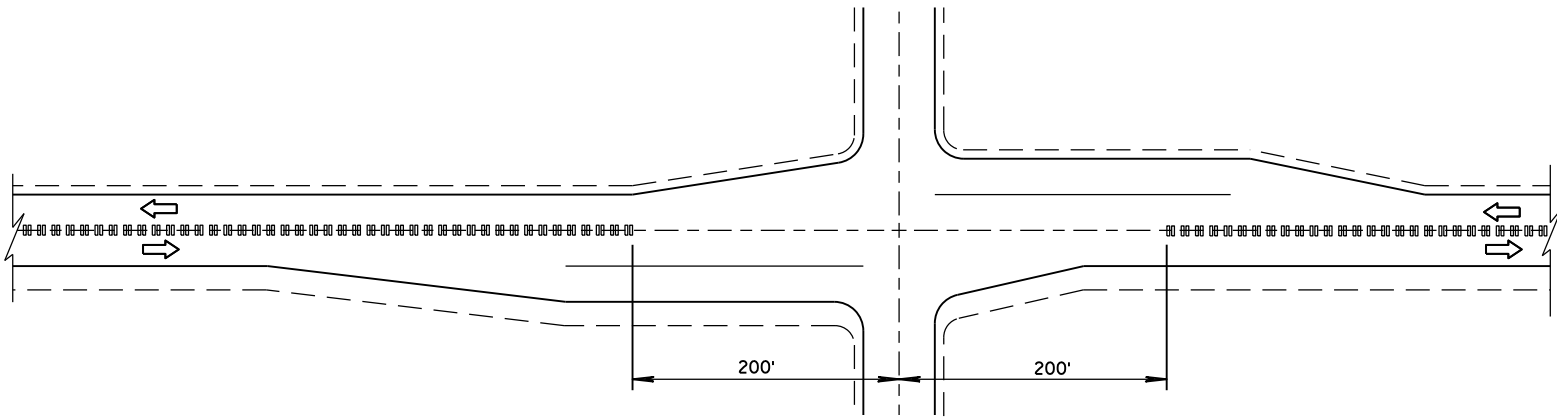
SECTION B-B  
CROWNED ROADWAY



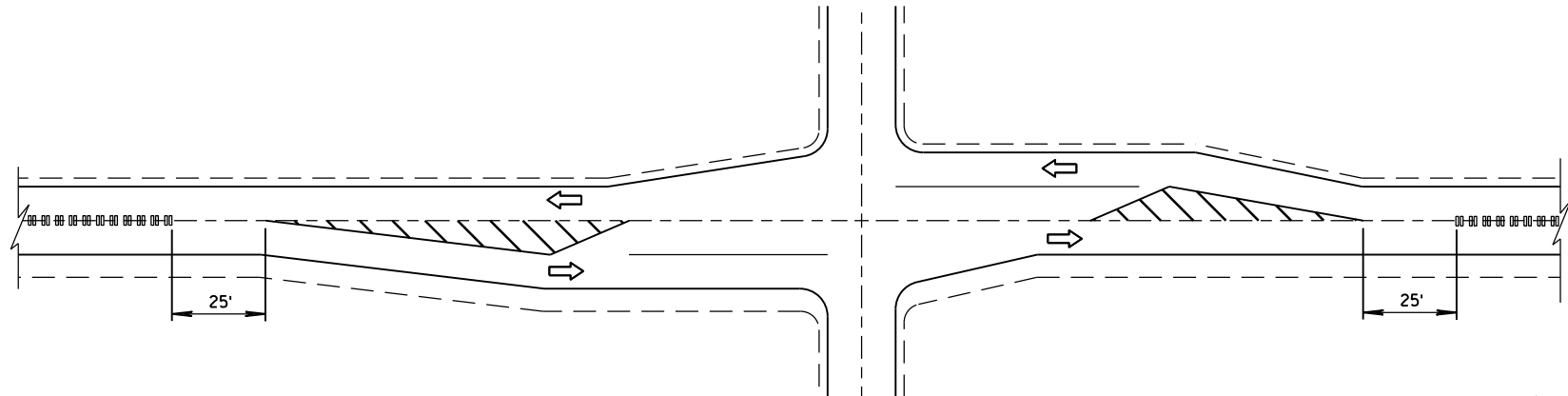
SECTION A-A

2-LANE RURAL  
CENTER LINE RUMBLE STRIP,  
MILLING

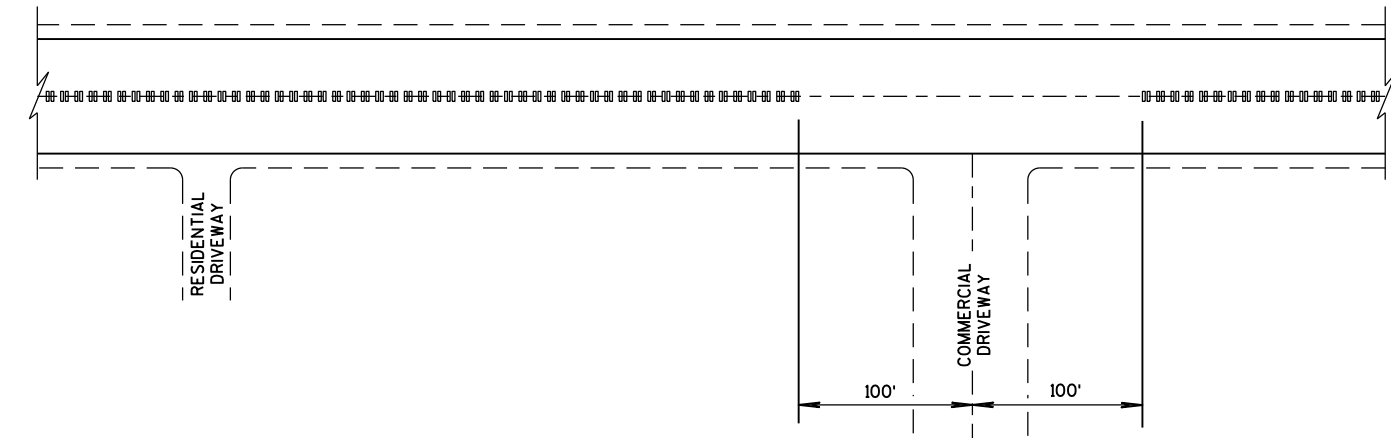
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

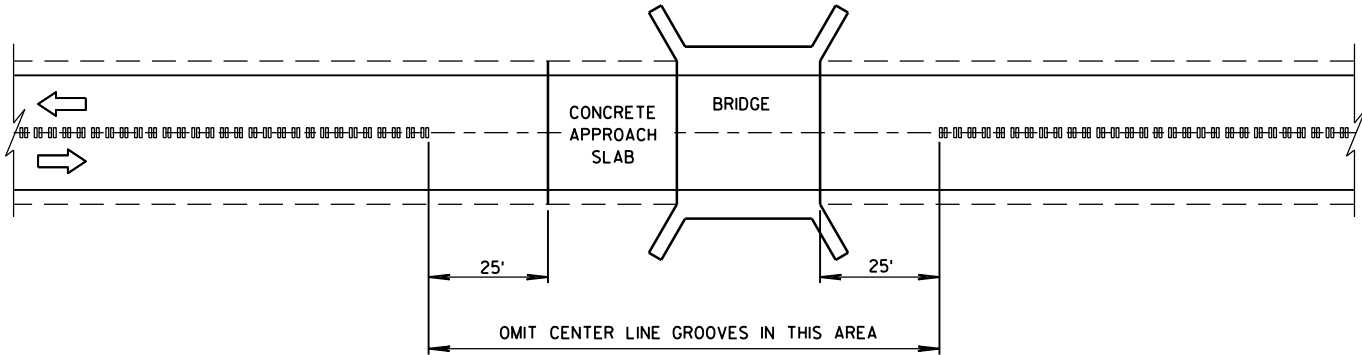


CENTER LINE GROOVES AT INTERSECTIONS  
(WITH LEFT TURN LANES)

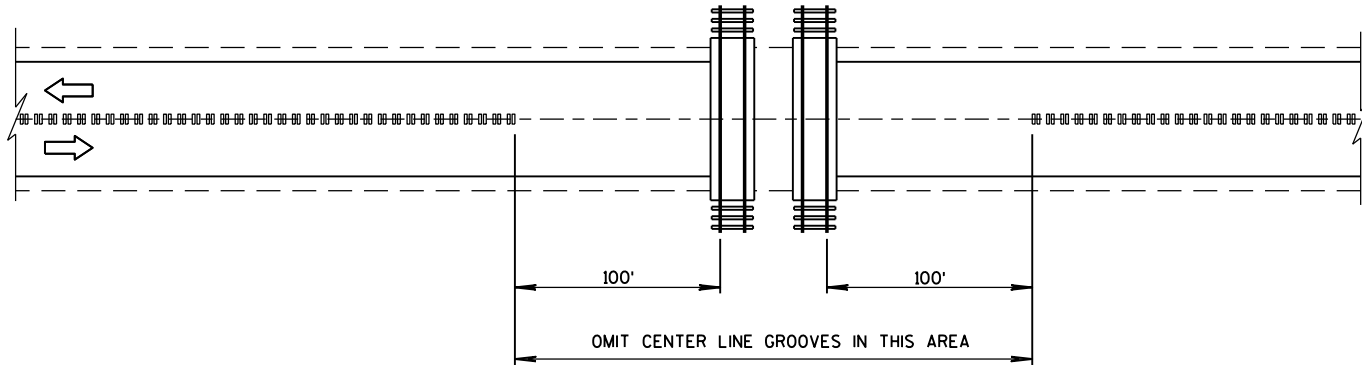


CENTER LINE GROOVES AT DRIVEWAYS<sup>①</sup>

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

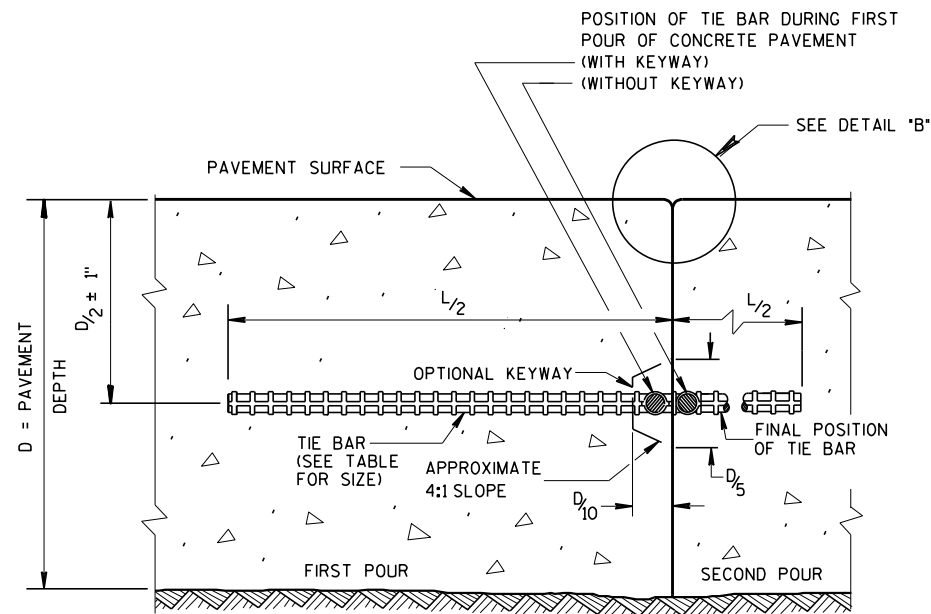


CENTER LINE GROOVES AT BRIDGES

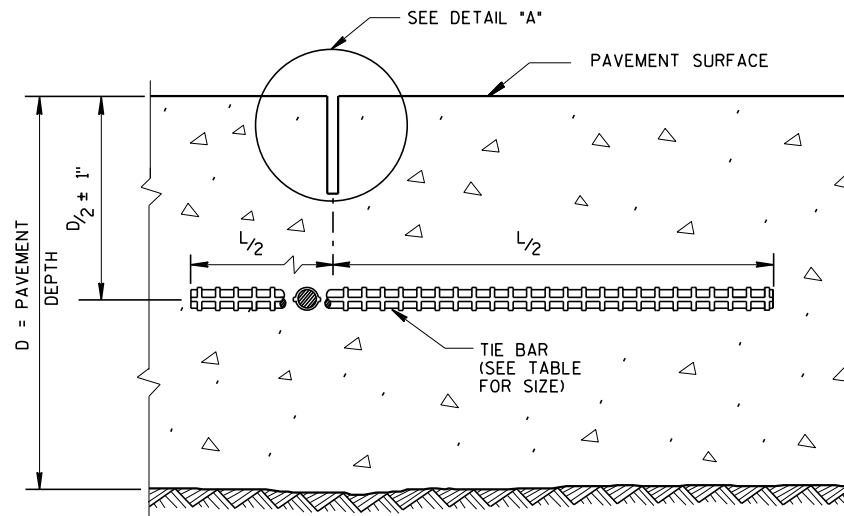


CENTER LINE GROOVES AT RAILROADS

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



CONSTRUCTION JOINT



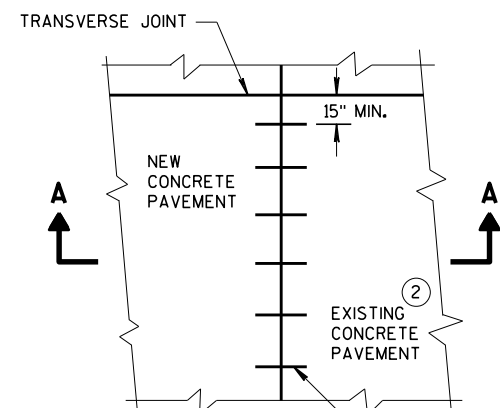
SAWED JOINT

GENERAL NOTES

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

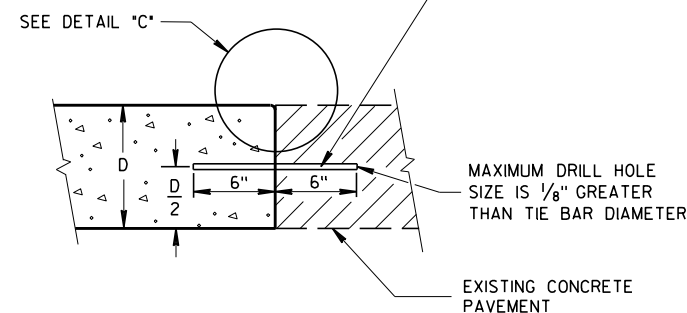
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

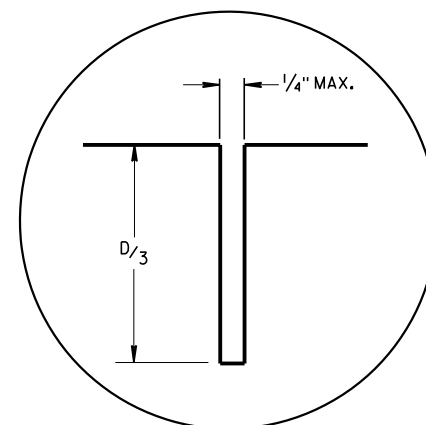


PLAN VIEW

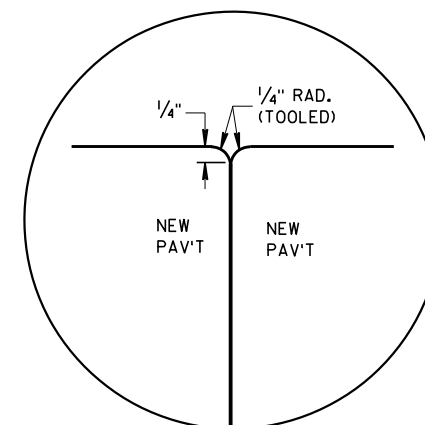
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



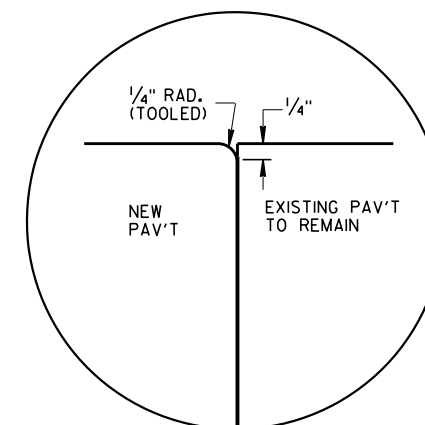
SECTION A-A  
LONGITUDINAL CONSTRUCTION JOINT  
TIE BARS ANCHORED  
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



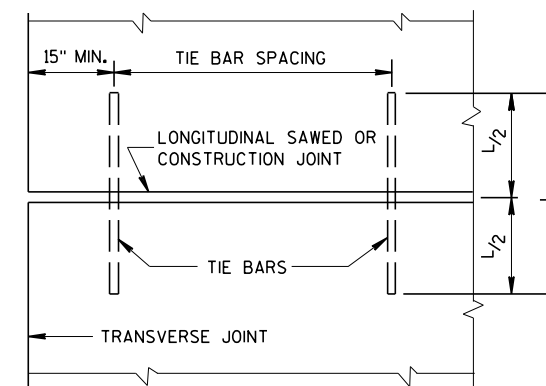
DETAIL "C"

TIE BAR TABLE

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

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

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

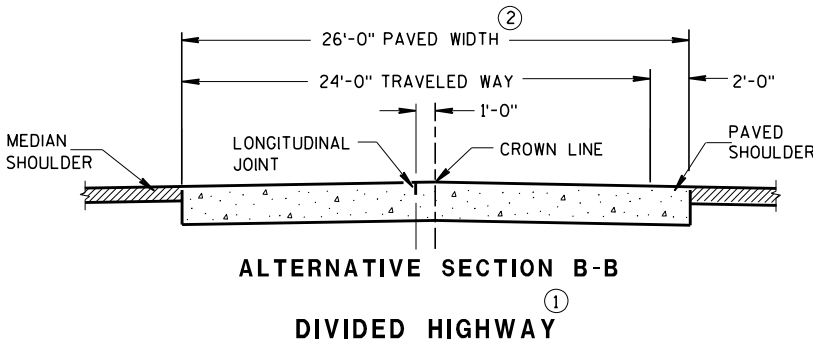
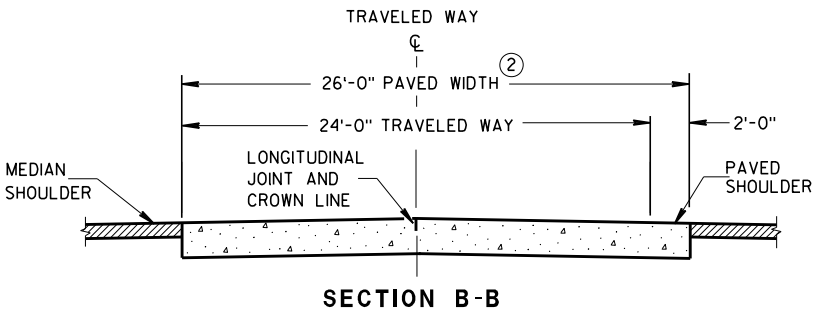
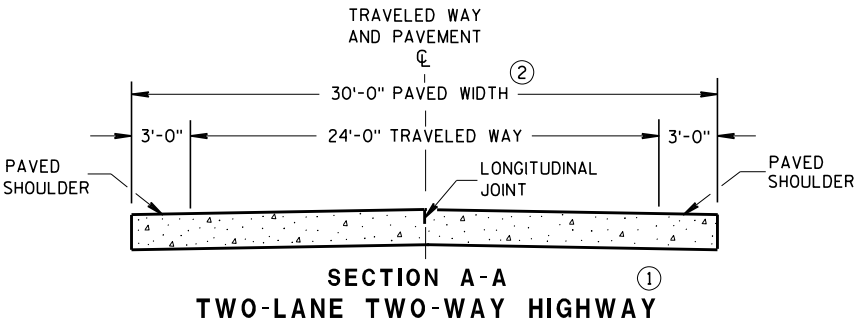


PLAN VIEW  
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT  
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



GENERAL NOTES

CONTRACTION JOINTS

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

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

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

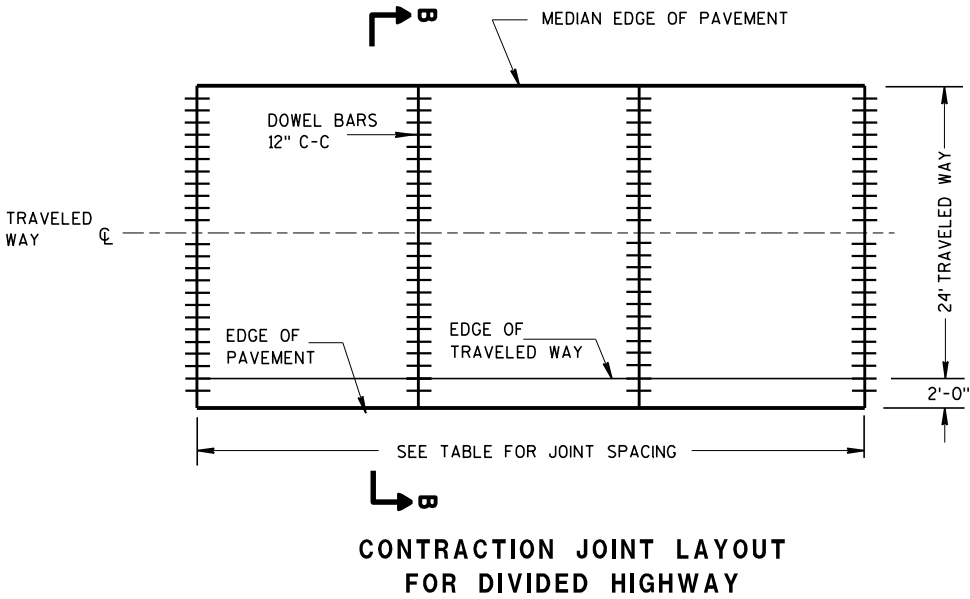
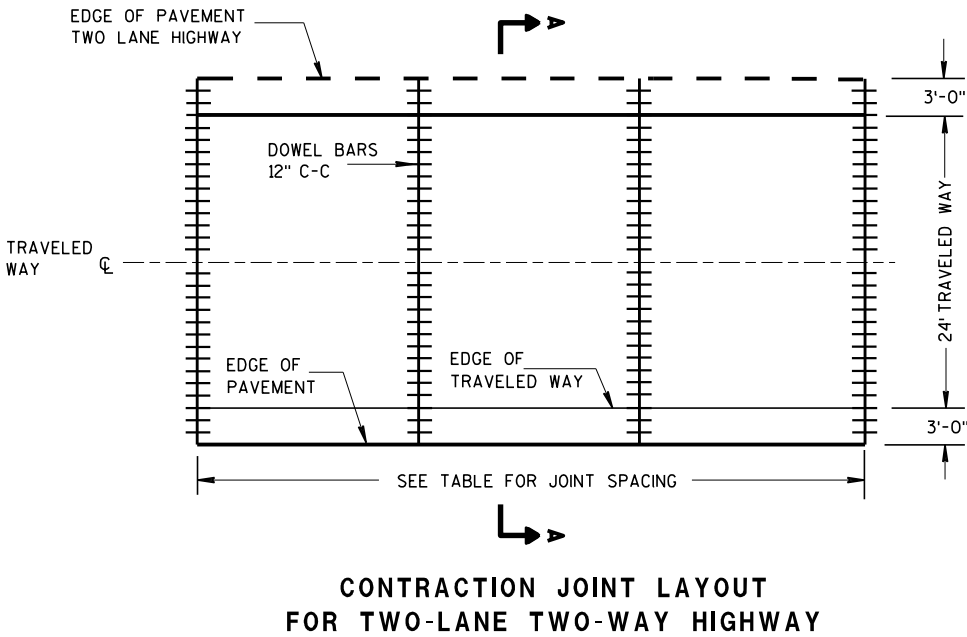
CONSTRUCTION JOINTS

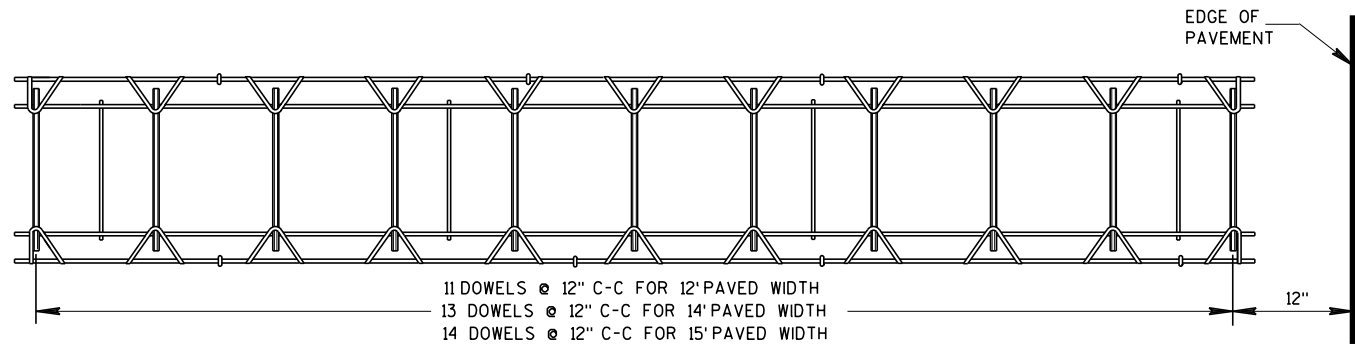
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

- ① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.
- ② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

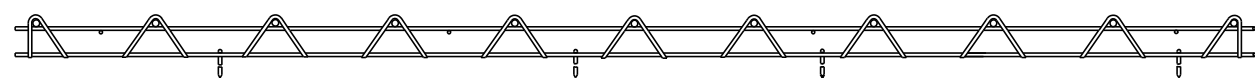
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

| PAVEMENT DEPTH (D) | DOWEL BAR DIAMETER | CONTRACTION JOINT SPACING |
|--------------------|--------------------|---------------------------|
| 5 1/2", 6", 6 1/2" | NONE               | 12'                       |
| 7", 7 1/2"         | 1"                 | 14'                       |
| 8", 8 1/2"         | 1 1/4"             | 15'                       |
| 9", 9 1/2"         | 1 1/4"             | 15'                       |
| 10" & ABOVE        | 1 1/2"             | 15'                       |





PLAN VIEW

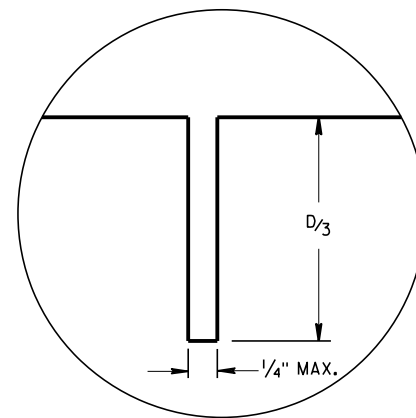


②

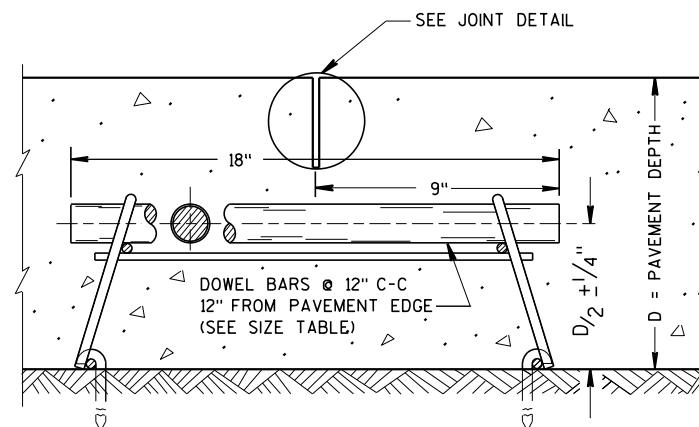
SIDE VIEW

(NORMAL TO CENTERLINE)

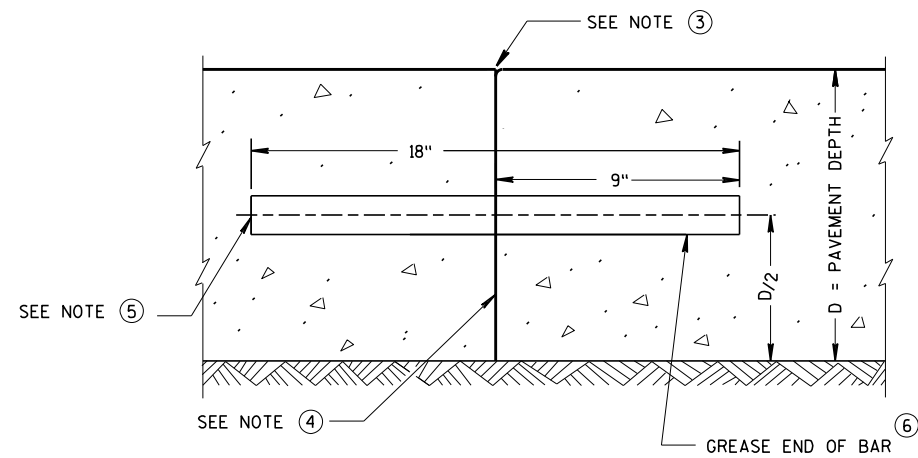
CONTRACTION JOINT DOWEL ASSEMBLY ①



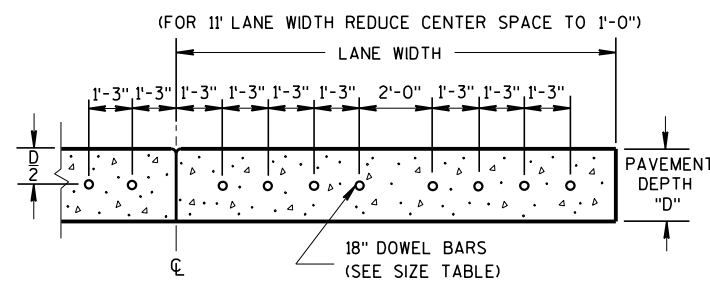
JOINT DETAIL



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

GENERAL NOTES

- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.

RURAL DOWELED  
CONCRETE PAVEMENT

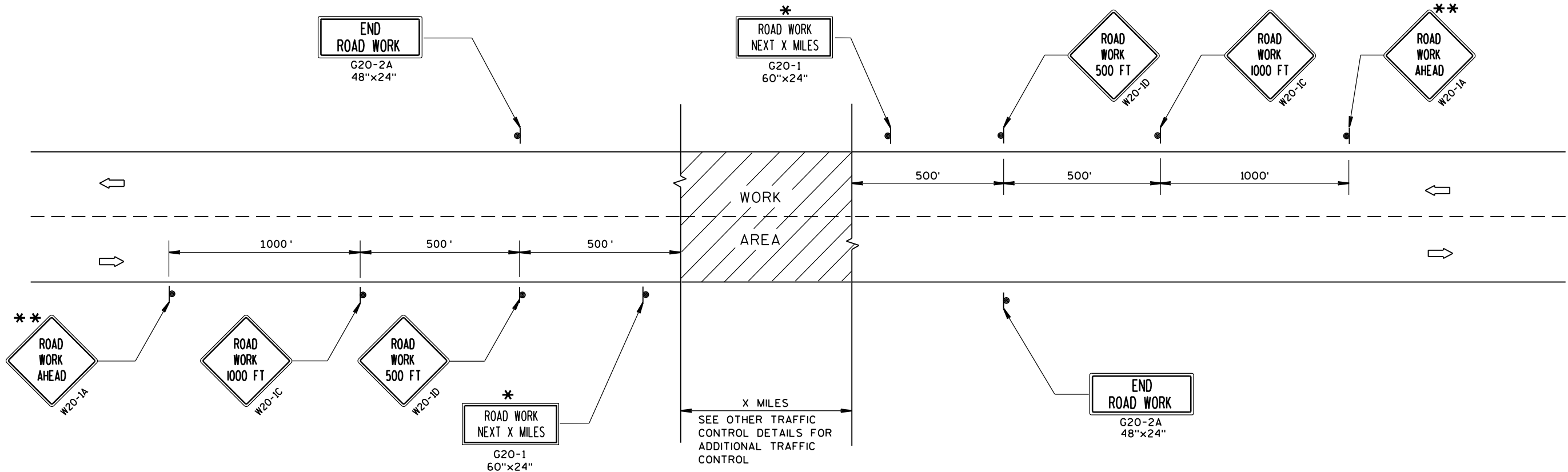
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2018  
DATE

/S/ Peter Kemp, P.E.  
PAVEMENT SUPERVISOR

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.

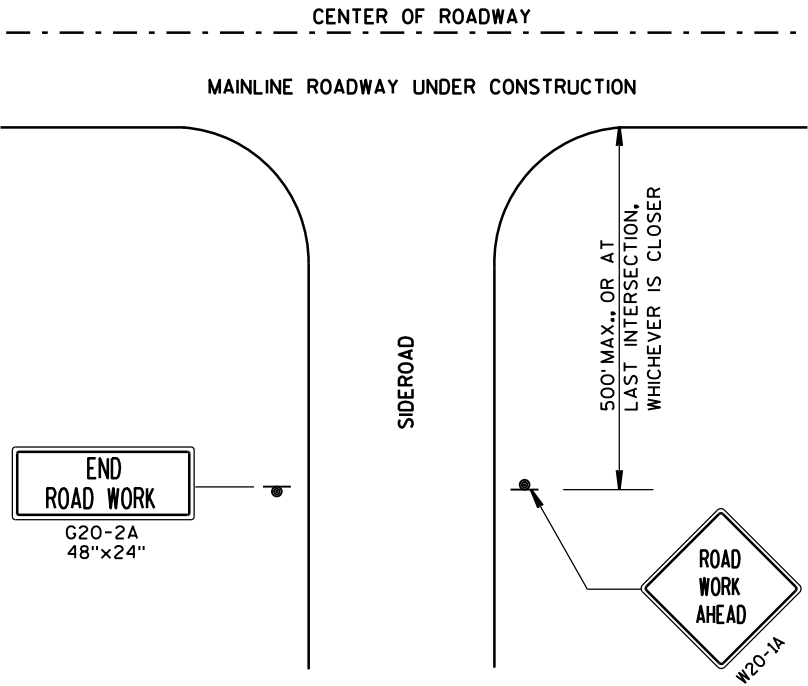
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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



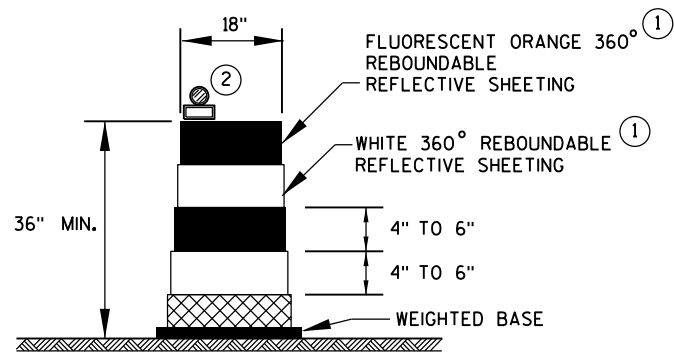
LEGEND

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

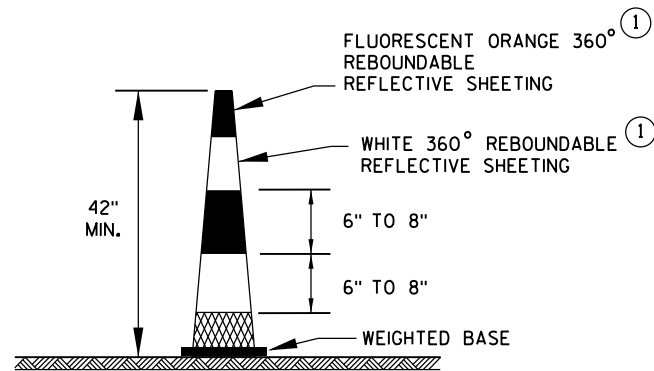
TRAFFIC CONTROL, ADVANCE  
WARNING SIGNS 45 M.P.H.  
OR GREATER TWO-WAY  
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
Sept. 2017 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA



**DRUM**

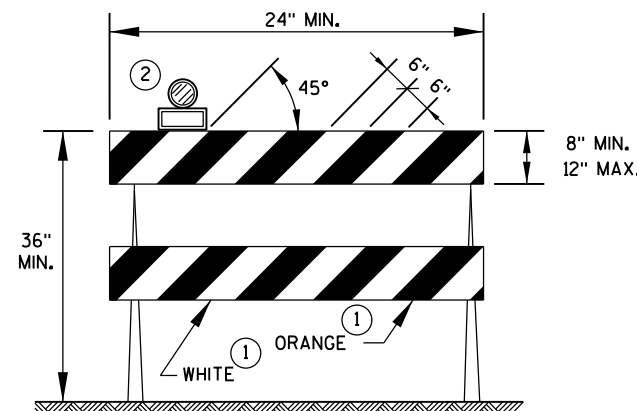


**42" CONE**

DO NOT USE IN TAPERS  
1/2 SPACING OF DRUMS

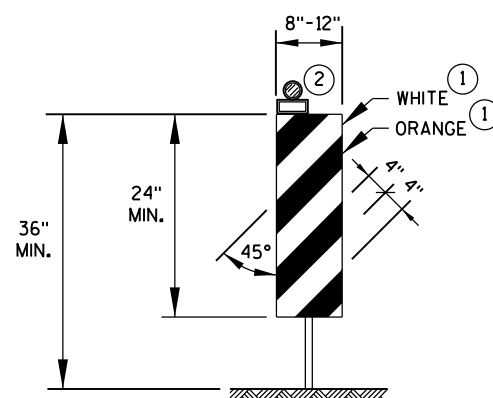
**GENERAL NOTES**

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



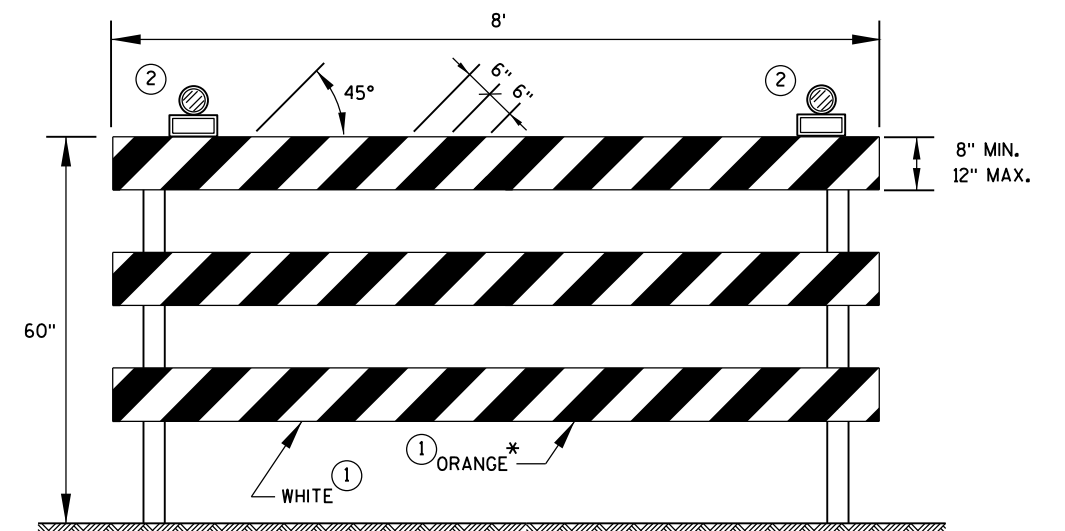
**TYPE 2 BARRICADE**

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



**VERTICAL PANEL**

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



**TYPE 3 BARRICADE**

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

\* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES  
DRUMS, CONES, BARRICADES  
AND VERTICAL PANELS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2017 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER  
FHWA

LEGEND

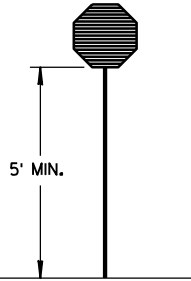
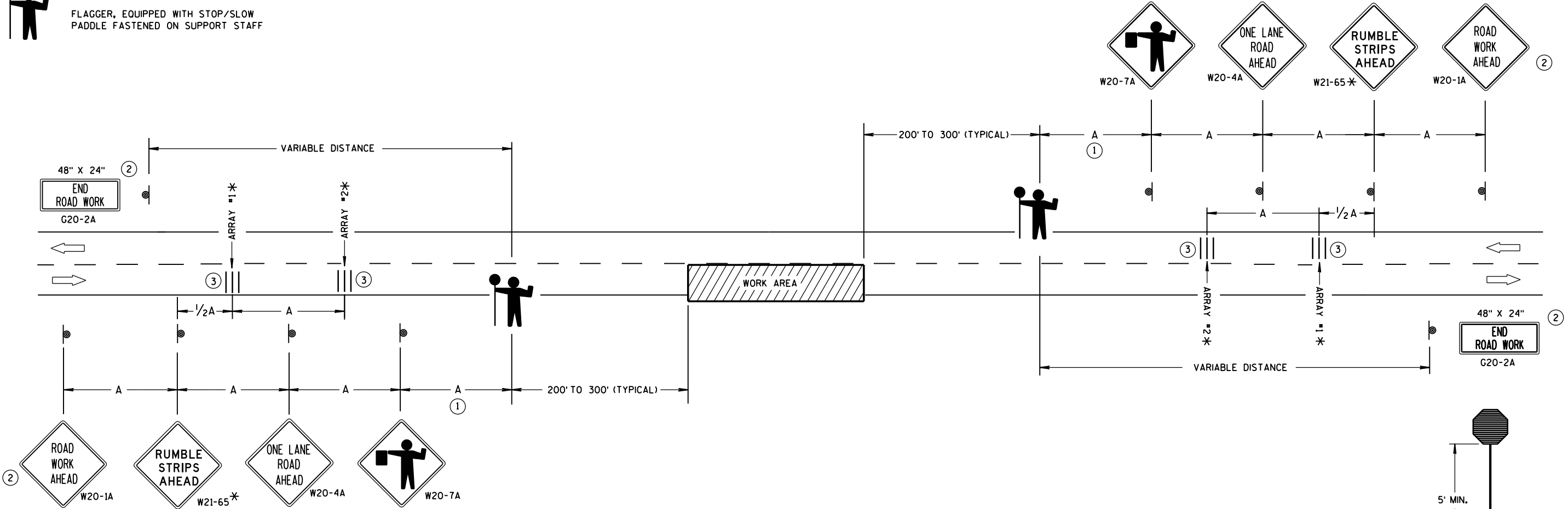
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

| SPEED LIMIT | SPACING A |
|-------------|-----------|
| 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 W20-4A SIGNS, USING SPACING A.



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

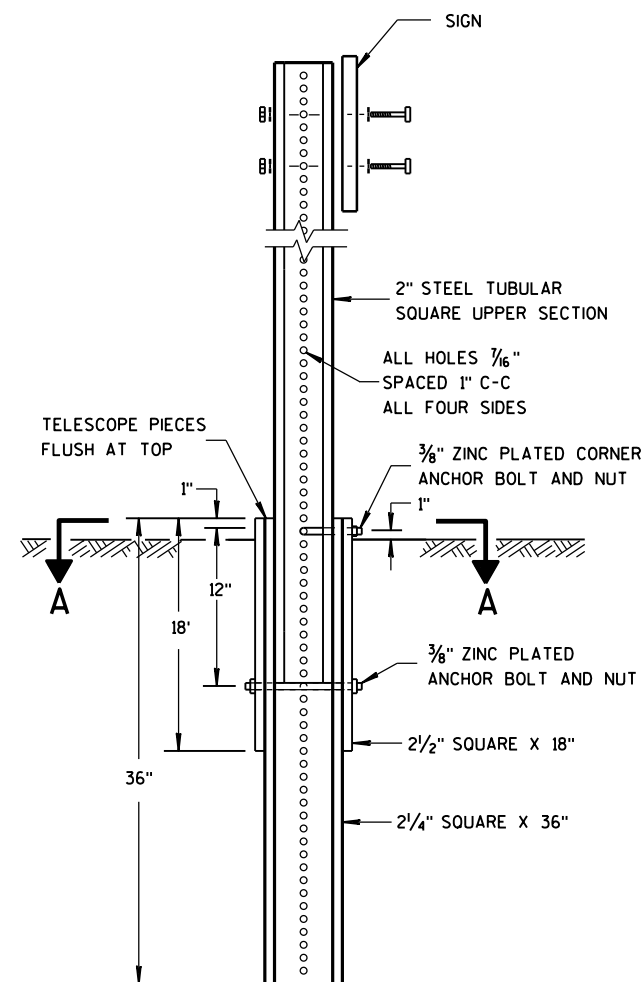
\* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
June 2017 /S/ Andrew Heldtke  
DATE WORK ZONE ENGINEER  
FHWA

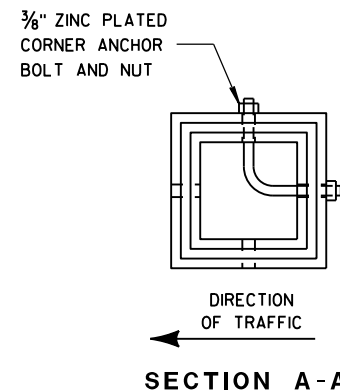


DETAIL OF TUBULAR  
STEEL SIGN POST

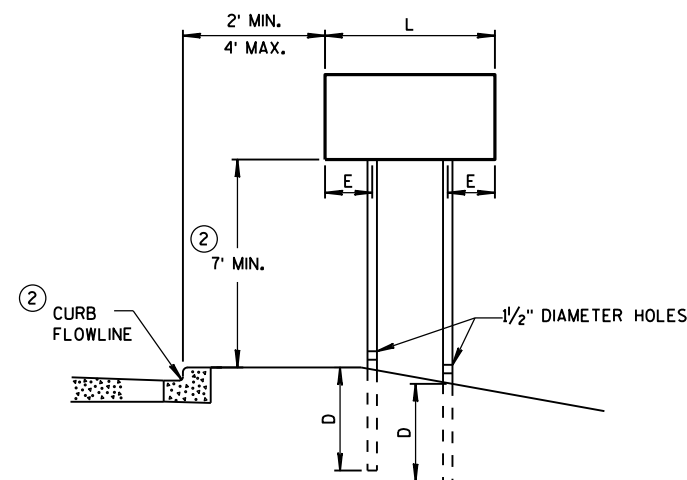
TUBULAR STEEL POSTS

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

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL  
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).  
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED  
ON TUBULAR STEEL POSTS.



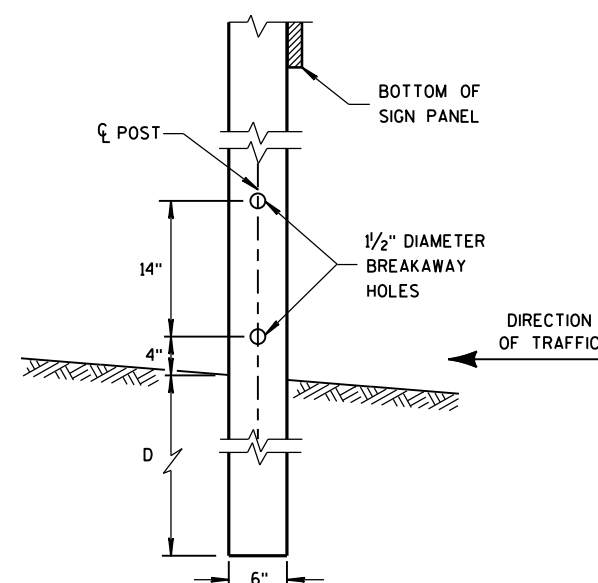
SECTION A-A



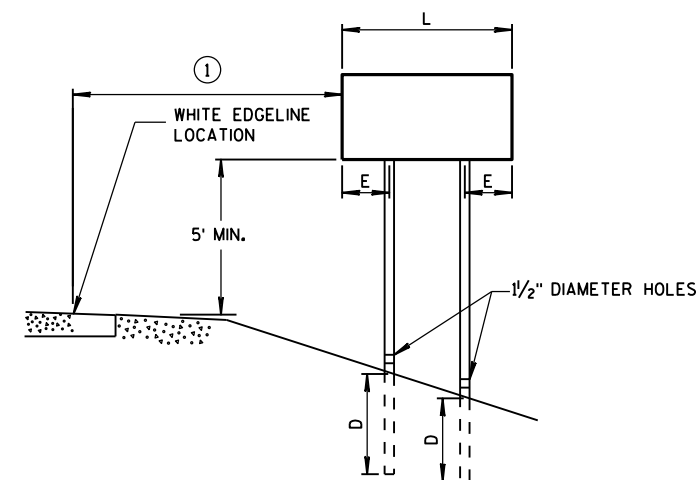
URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

| WOOD POST<br>EMBEDMENT DEPTH              |            |
|-------------------------------------------|------------|
| AREA OF SIGN<br>INSTALLATION<br>(SQ. FT.) | D<br>(MIN) |
| 20 OR LESS                                | 4'         |
| GREATER THAN 20                           | 5'         |



4 "x6 " WOOD POST  
MODIFICATION



RURAL AREA

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

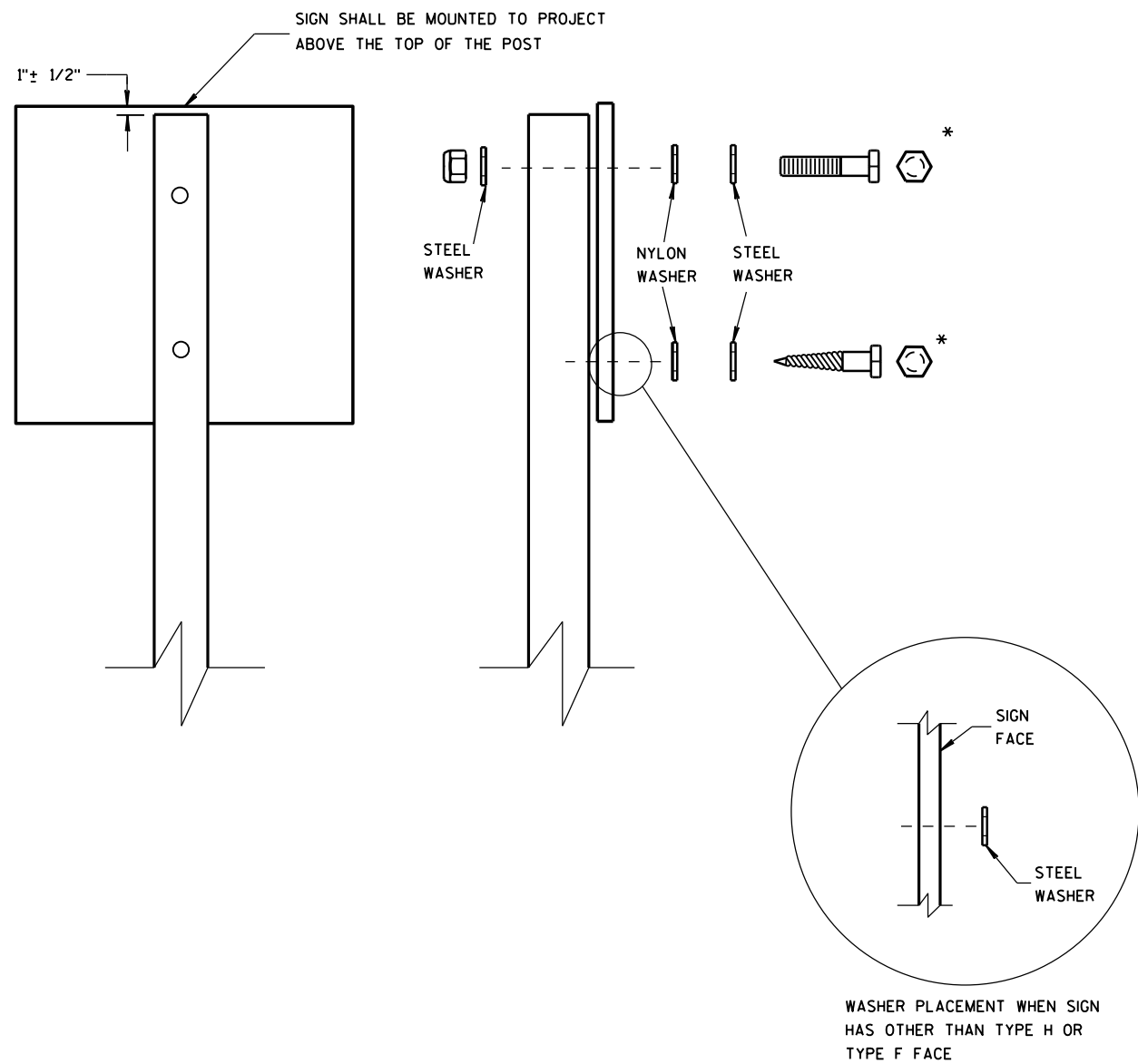
SEE NOTE ③

## GENERAL NOTES

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

TEMPORARY TRAFFIC CONTROL  
SIGN MOUNTING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



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

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

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

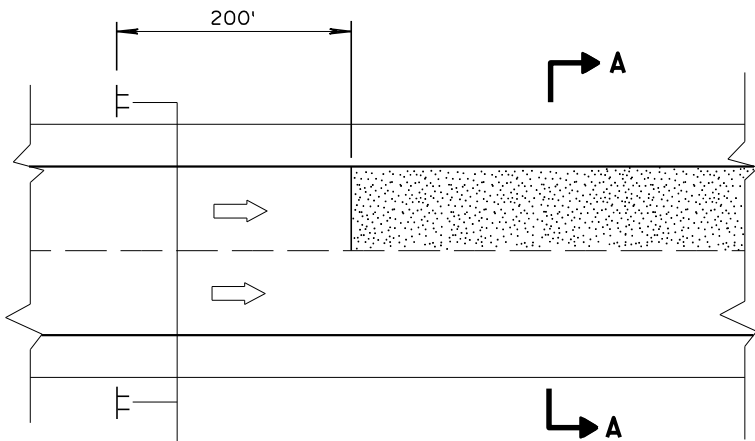
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
  - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

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

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

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

|                                                    |                                          |
|----------------------------------------------------|------------------------------------------|
| ATTACHMENT OF SIGNS<br>TO POSTS                    |                                          |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |                                          |
| APPROVED<br>June 2017<br>DATE                      | /S/ Andrew Heldtke<br>WORK ZONE ENGINEER |
| FHWA                                               |                                          |

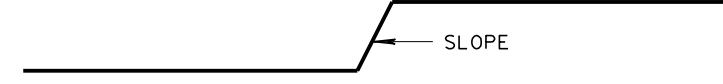


MULTI-LANE

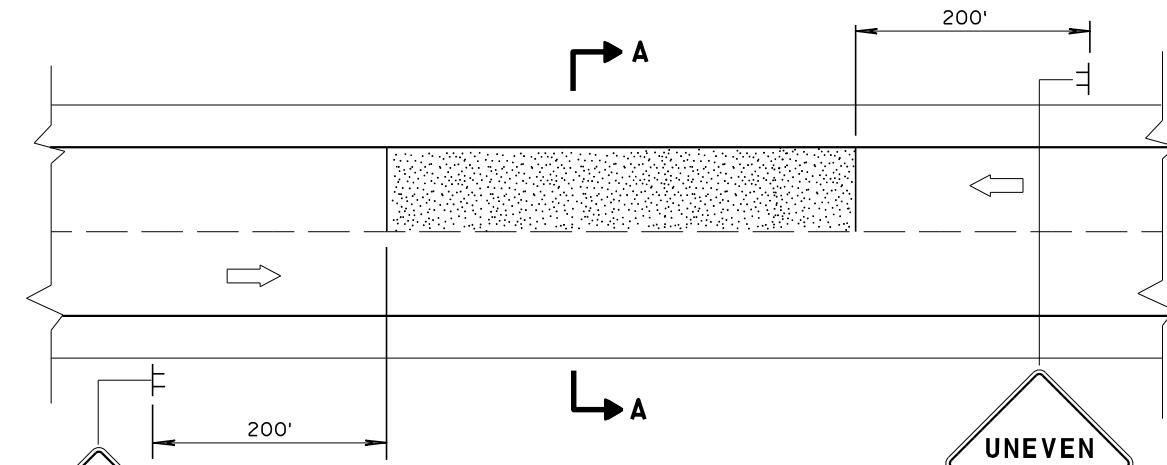


SECTION A-A

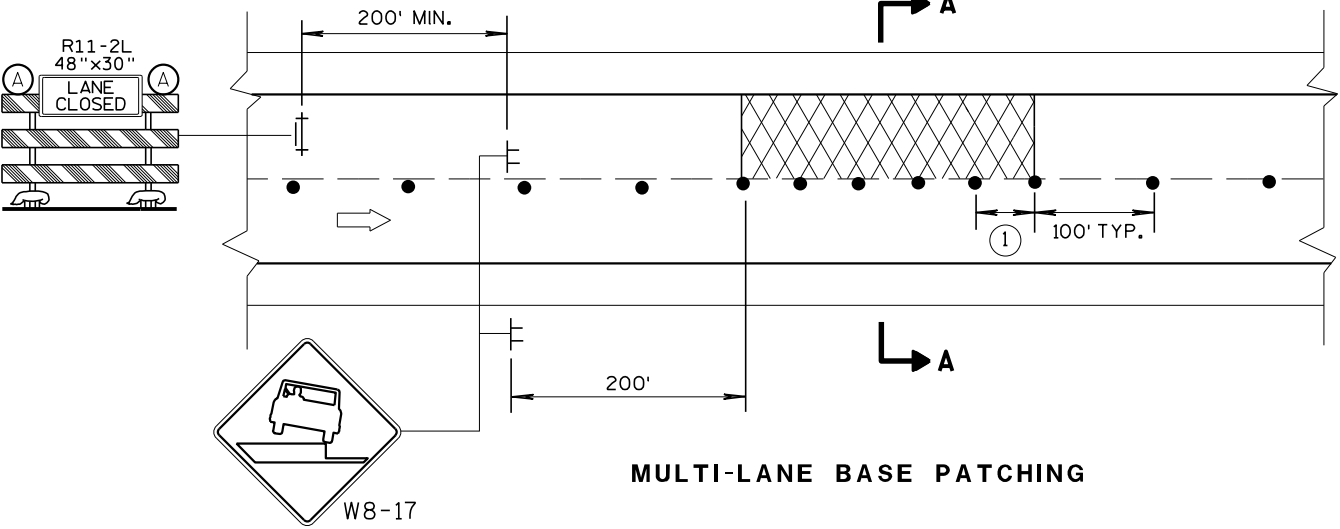
OR



SECTION A-A

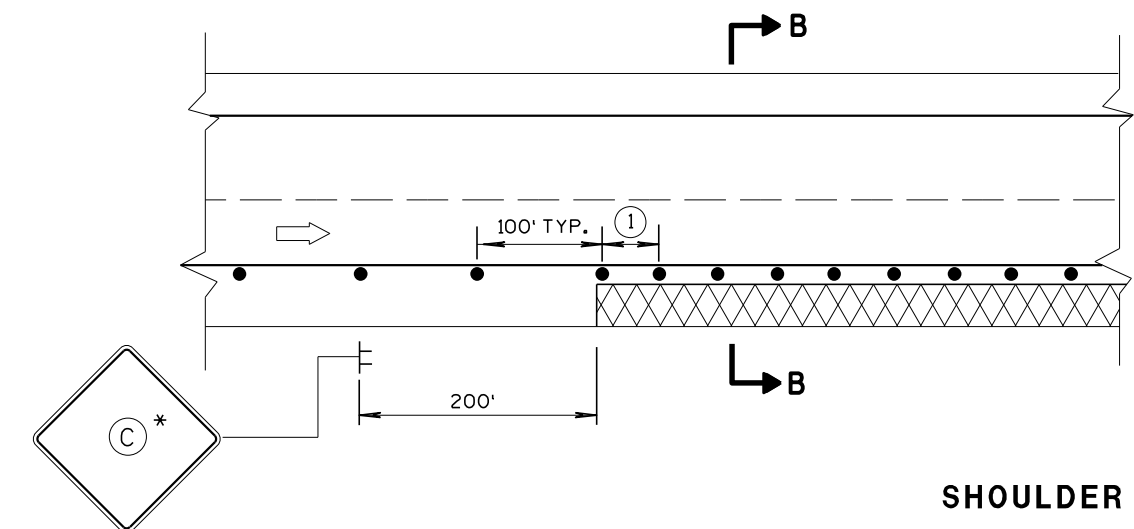


TWO-WAY TWO LANE

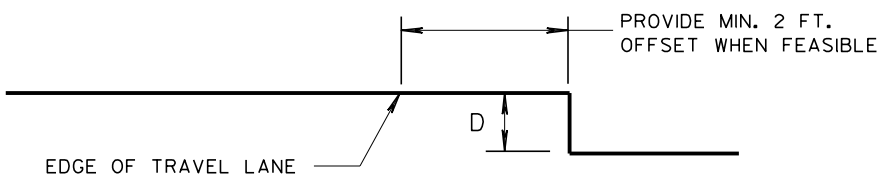


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B-B

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

\* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EACH ENTRANCE RAMP.

① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

| D                                     | SIGN (C)                                                                                                                                                              |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| < 2" WITH A SLOPE STEEPER THAN 3:1    | <br>W08-9                                                                        |
| 2" < 6" WITH A SLOPE STEEPER THAN 3:1 | <br>W8-9A<br>PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT |

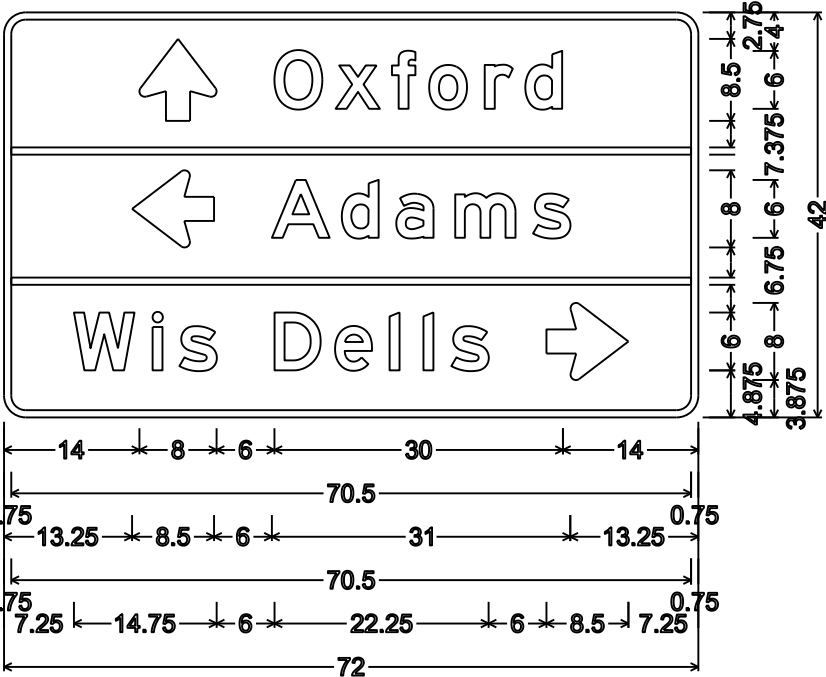
TRAFFIC CONTROL,  
DROP-OFF SIGNING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
March 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER  
FHWA



D2-1; 2.250" Radius, 0.750" Border

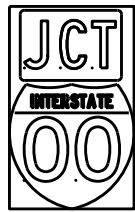


D1-3; 2.250" Radius, 0.750" Border

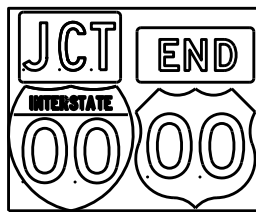
NOTES

- 1. Signs are Type II- Type H Reflective
- 2. Color:
  - Background - Green
  - Message - White
- 3. Message Series - E

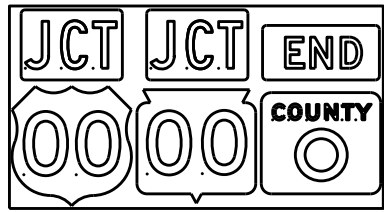
TYPICAL ASSEMBLIES



J1-1



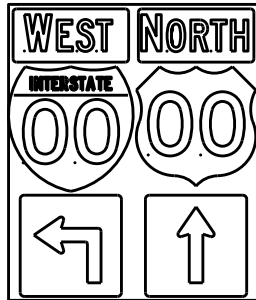
J1-2



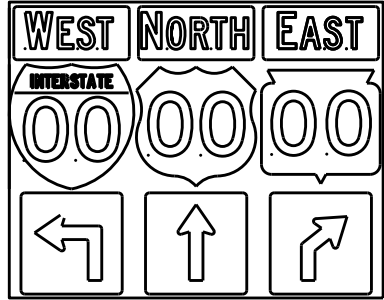
J1-3



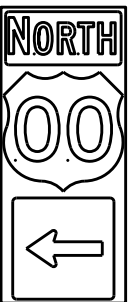
J2-1



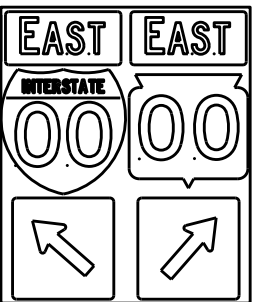
J2-2



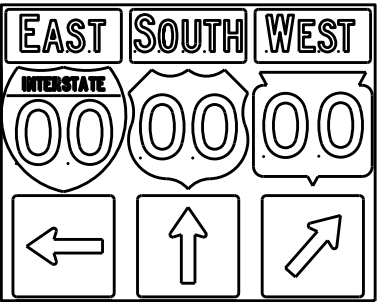
J2-3



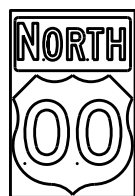
J3-1



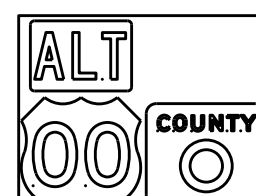
J3-2



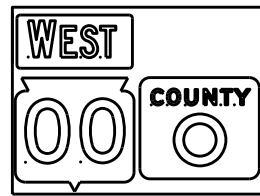
J3-3



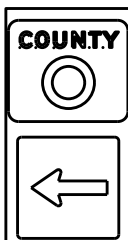
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

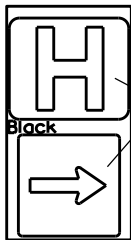


J22-1



JV

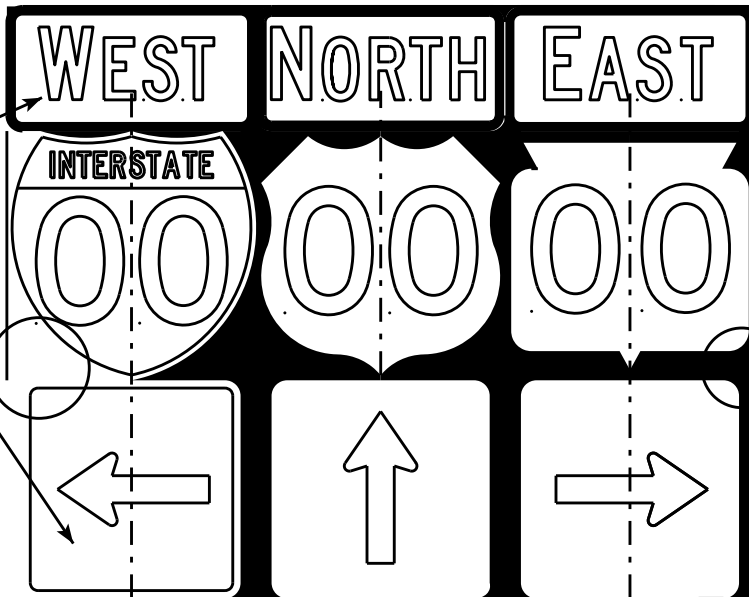
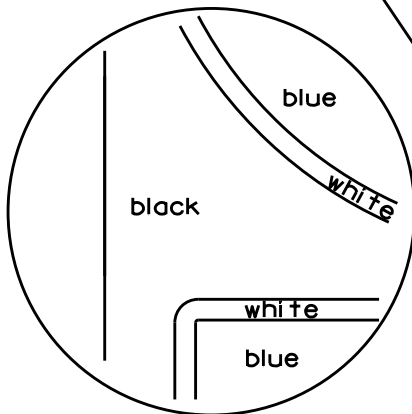
( Typical Vertical J-Assembly  
See Note 10 and 11)



JH-1

Blue Background

[blue background  
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS  
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

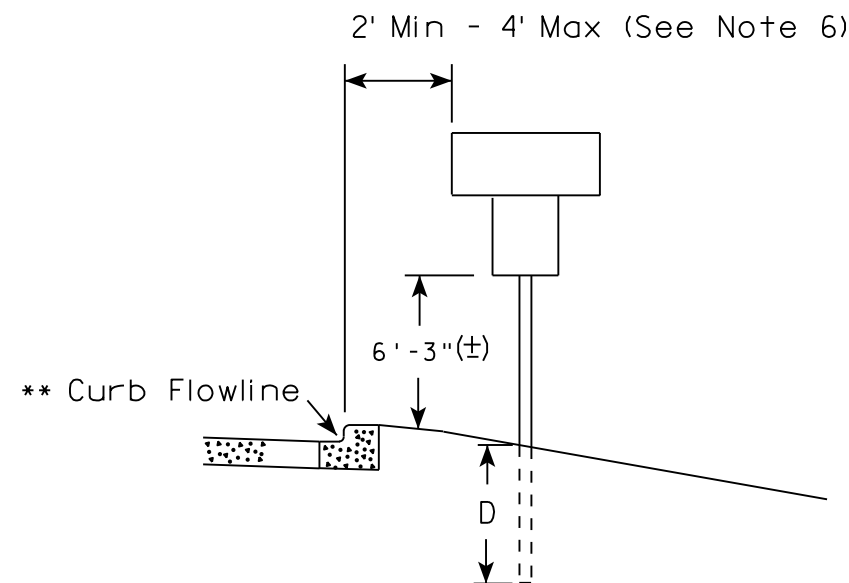
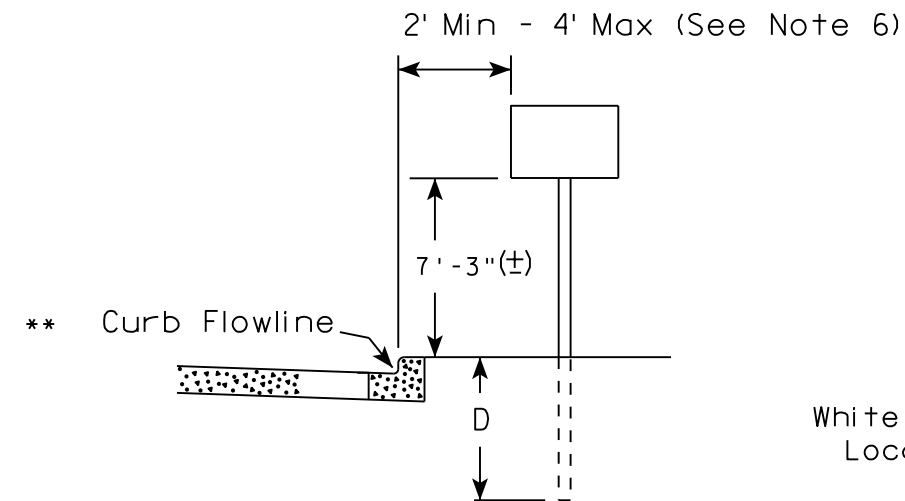
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

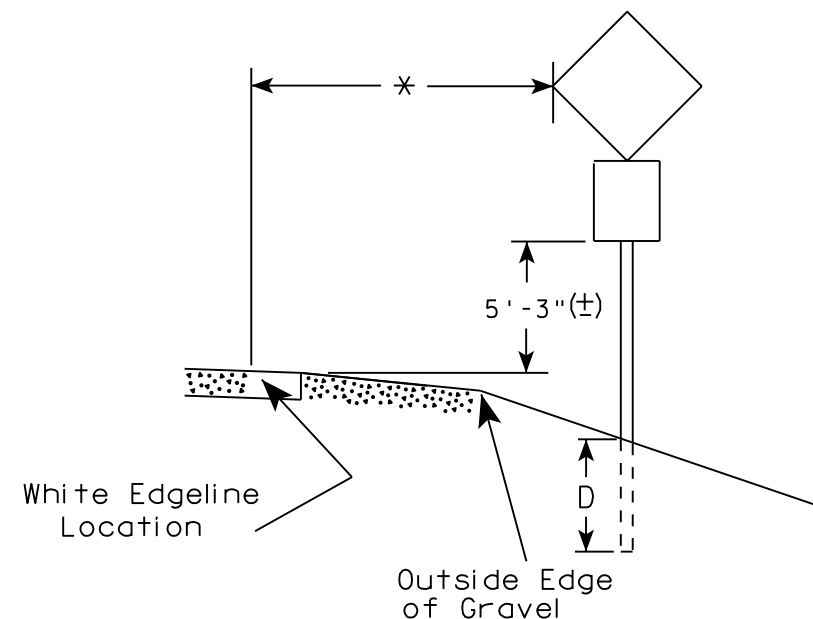
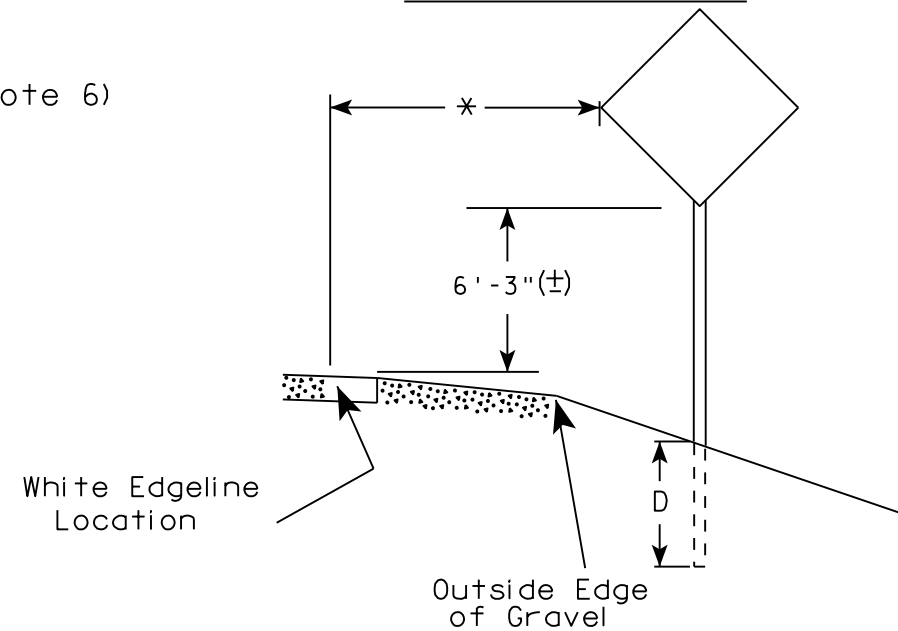
1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Black Non-reflective  
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. 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.

## URBAN AREA



✱✱ 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.

## RURAL AREA (See Note 2)



\* 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.

POST EMBEDMENT DEPTH

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

## GENERAL NOTES

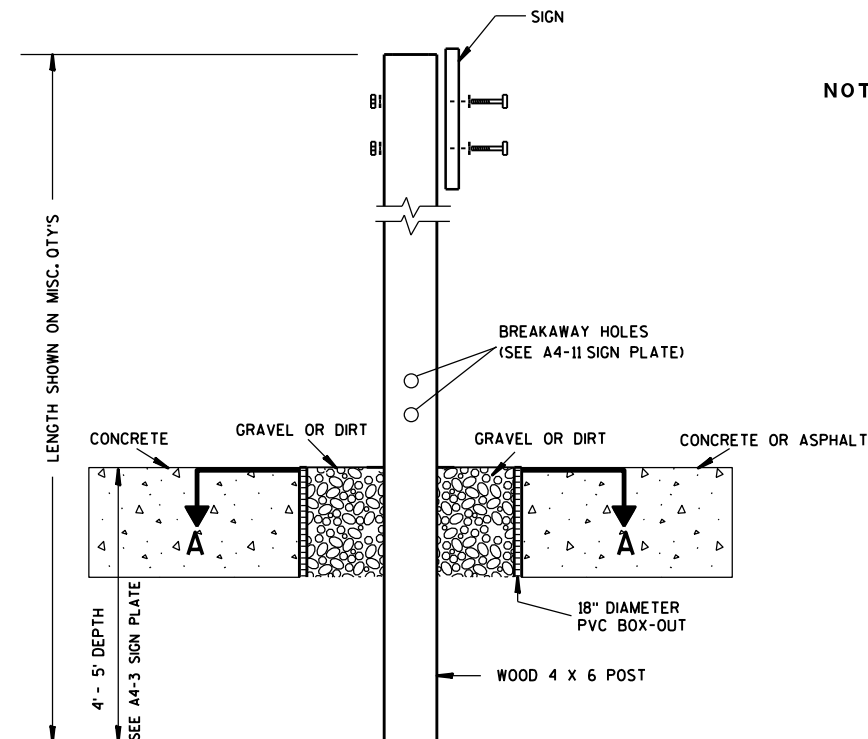
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

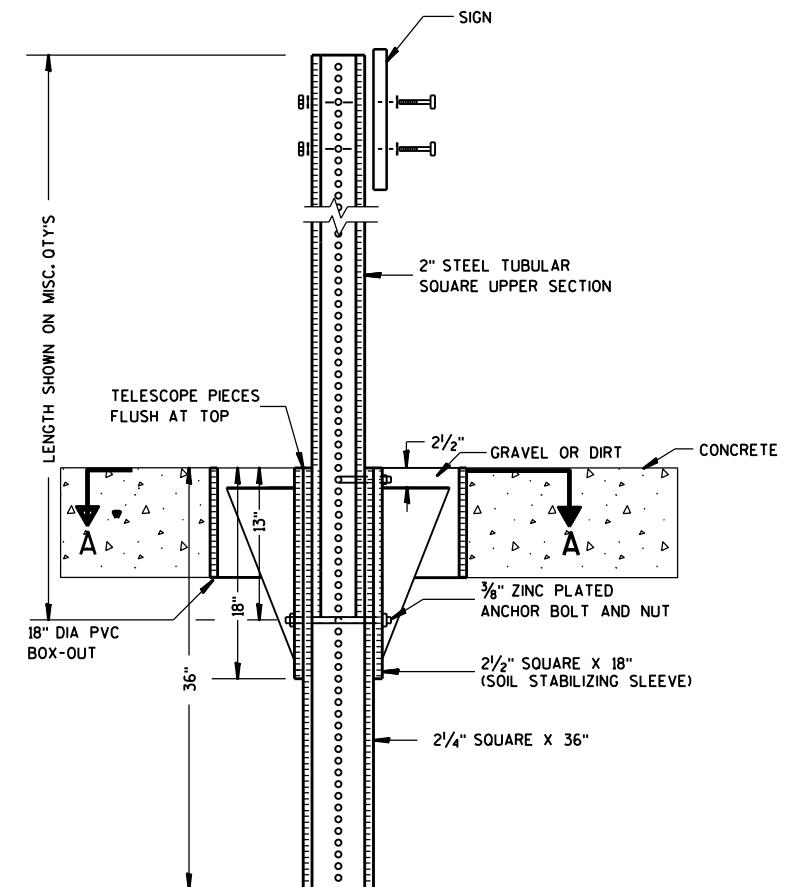
DATE 8/21/17 PLATE NO. A4-3.21



**ELEVATION VIEW**

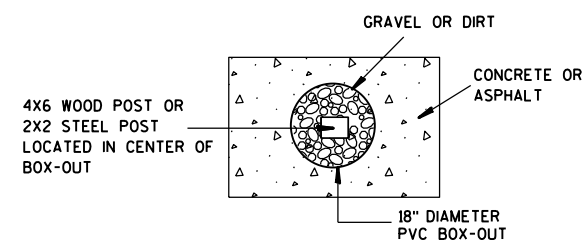
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

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



**ELEVATION VIEW**

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



**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

**SIGN POST  
BOX-OUTS  
A4-3B**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

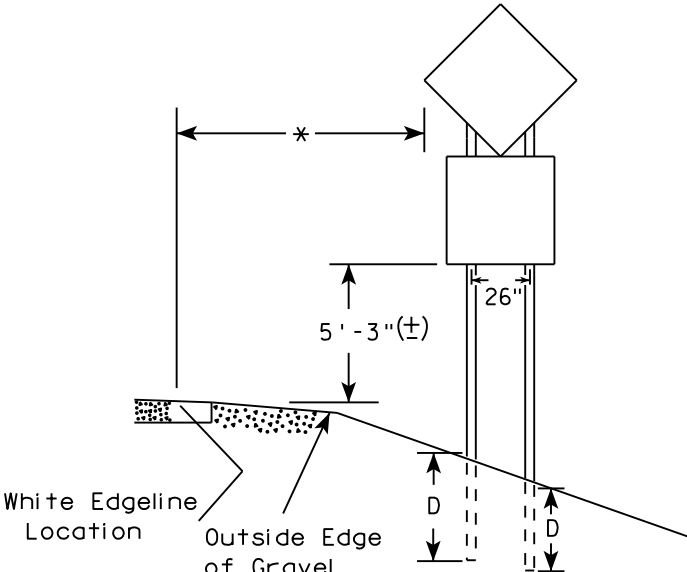
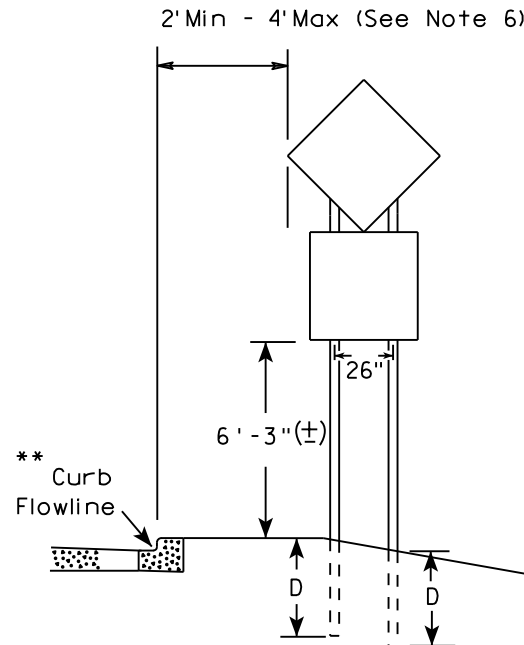
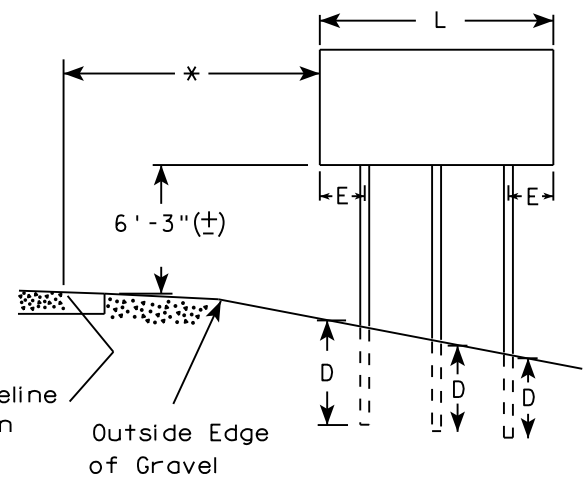
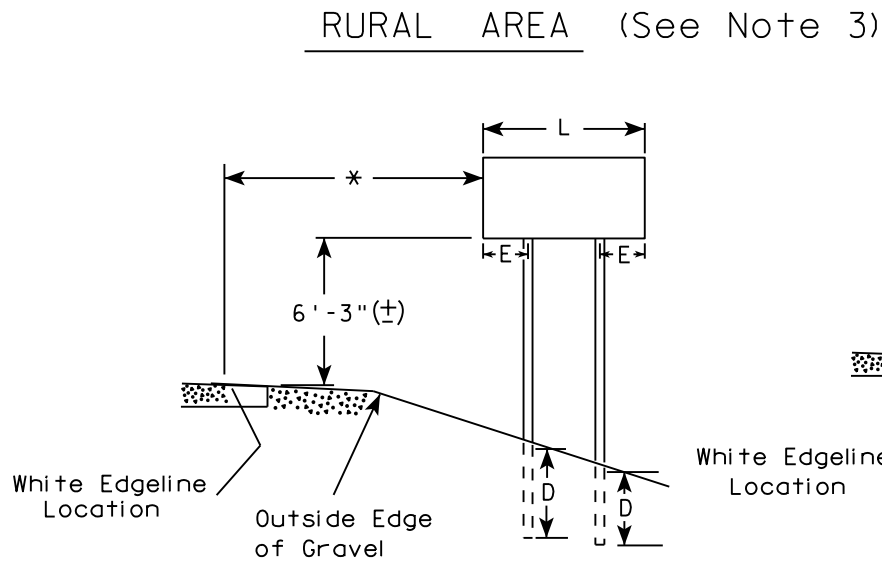
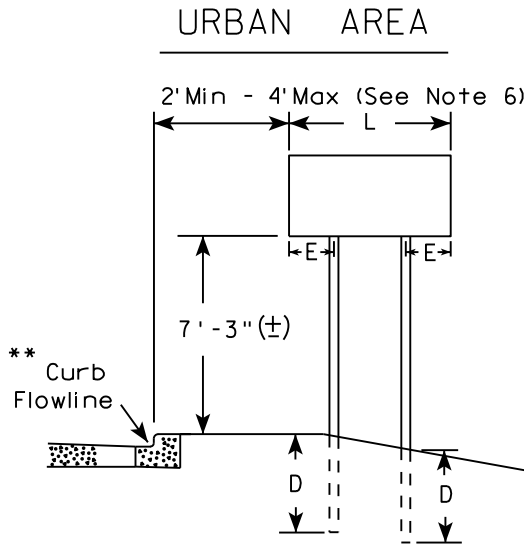
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

**E**



\*\*\*

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

| SIGN SHAPE OTHER THAN DIAMOND<br>(THREE POSTS REQUIRED) |     |
|---------------------------------------------------------|-----|
| L                                                       | E   |
| Greater than 108"<br>to 144"                            | 12" |

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION  
OF TYPE II SIGNS  
ON MULTIPLE POSTS

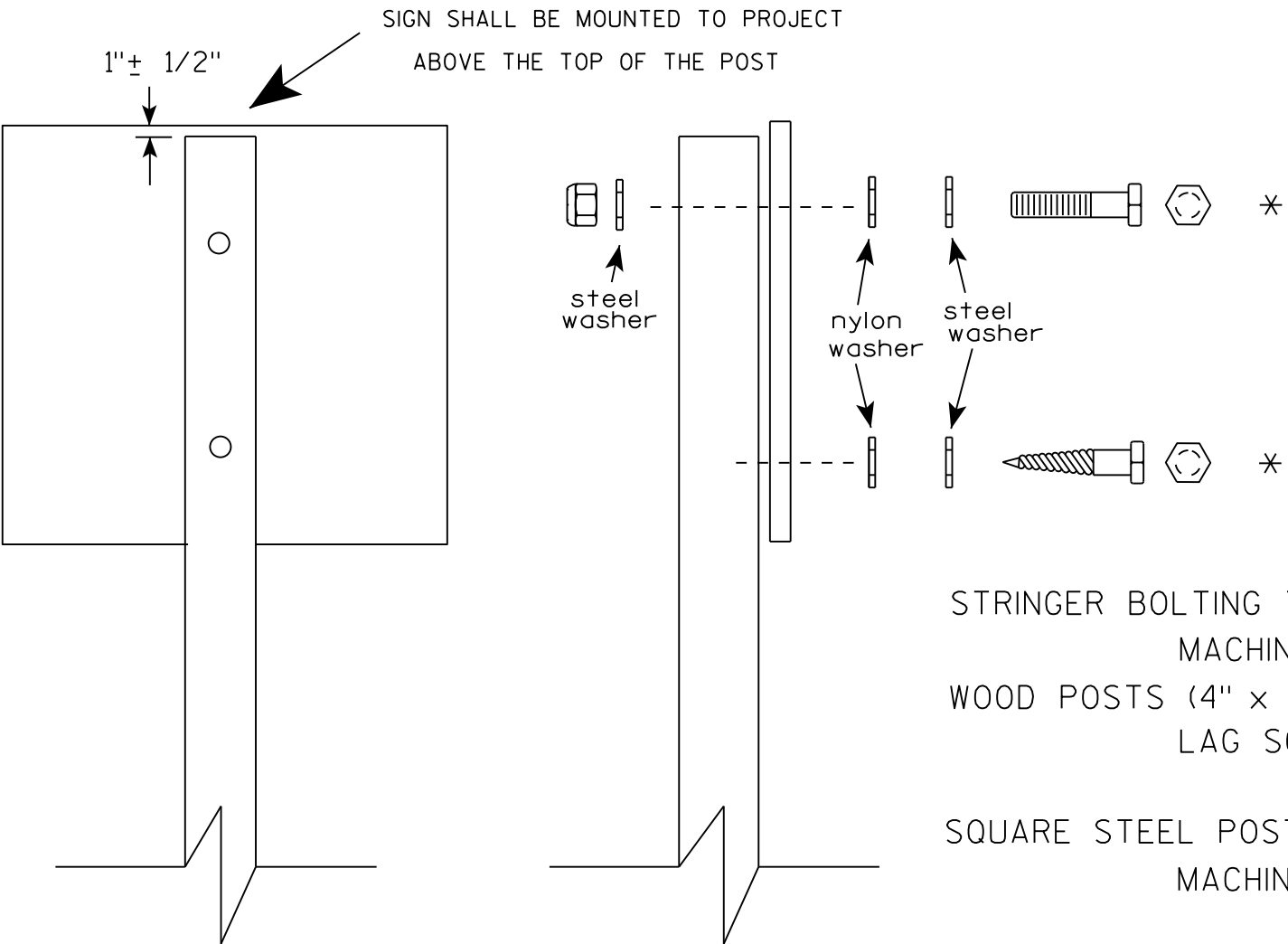
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

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

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



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

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

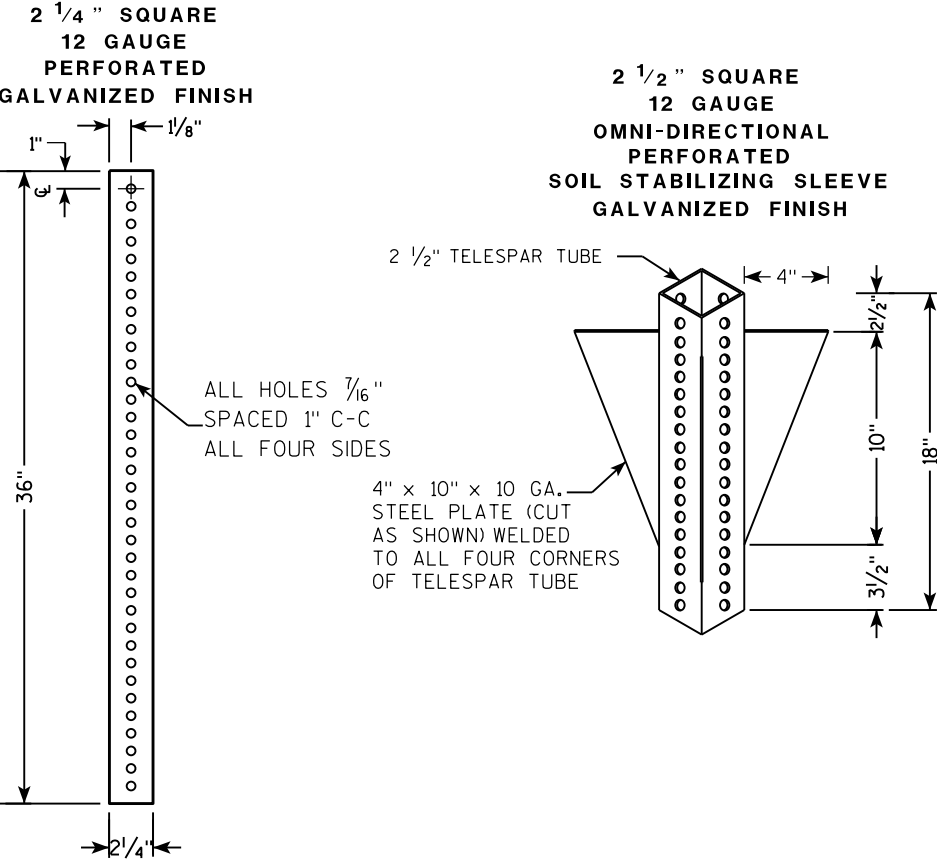
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

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

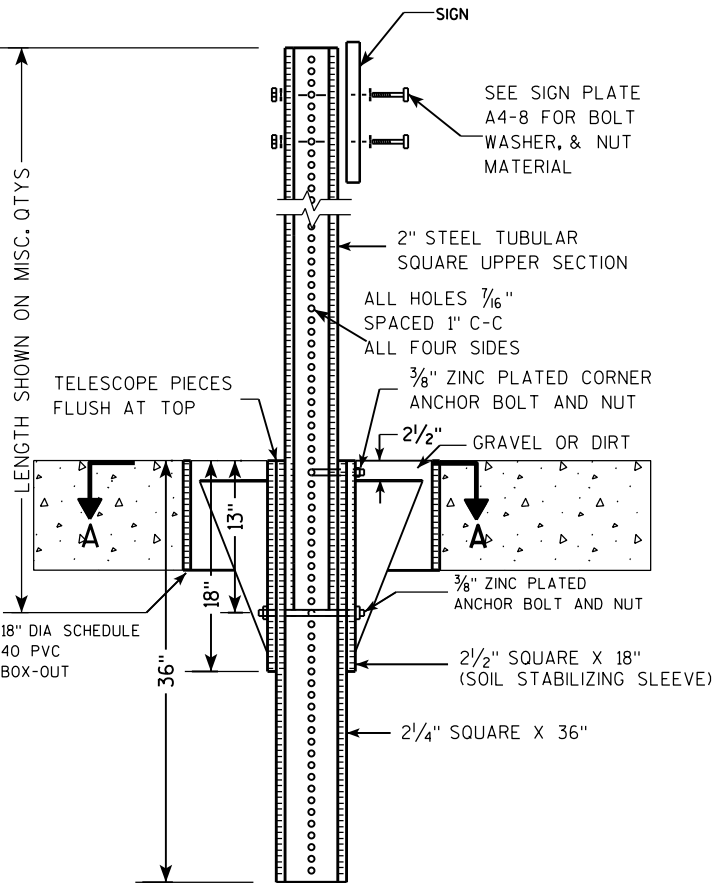
\* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

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

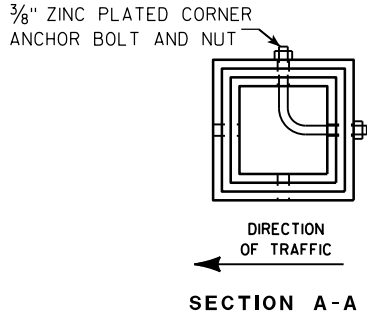
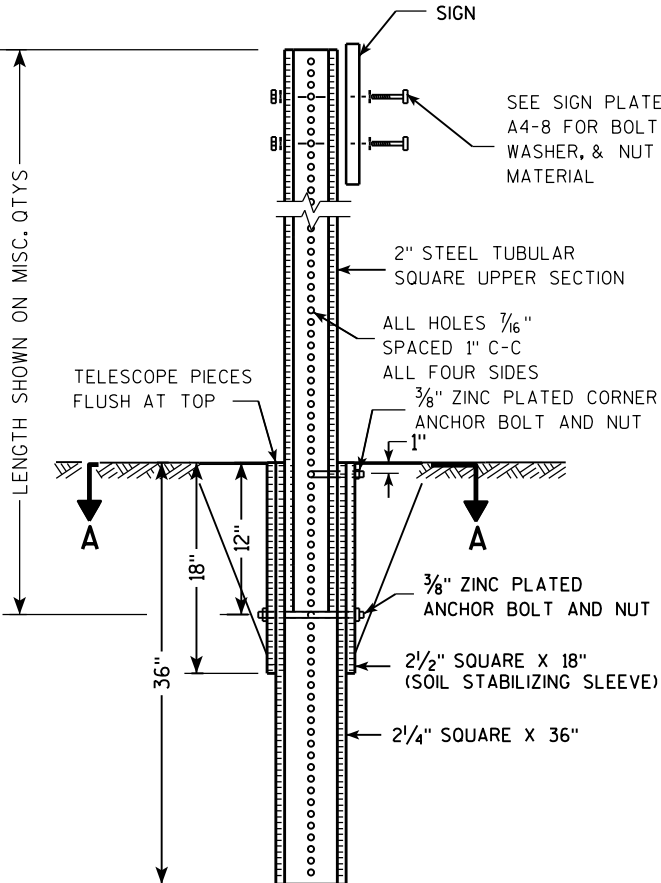
TELESCOPIC TUBING ANCHORS  
TWO PIECE SYSTEM



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



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



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

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

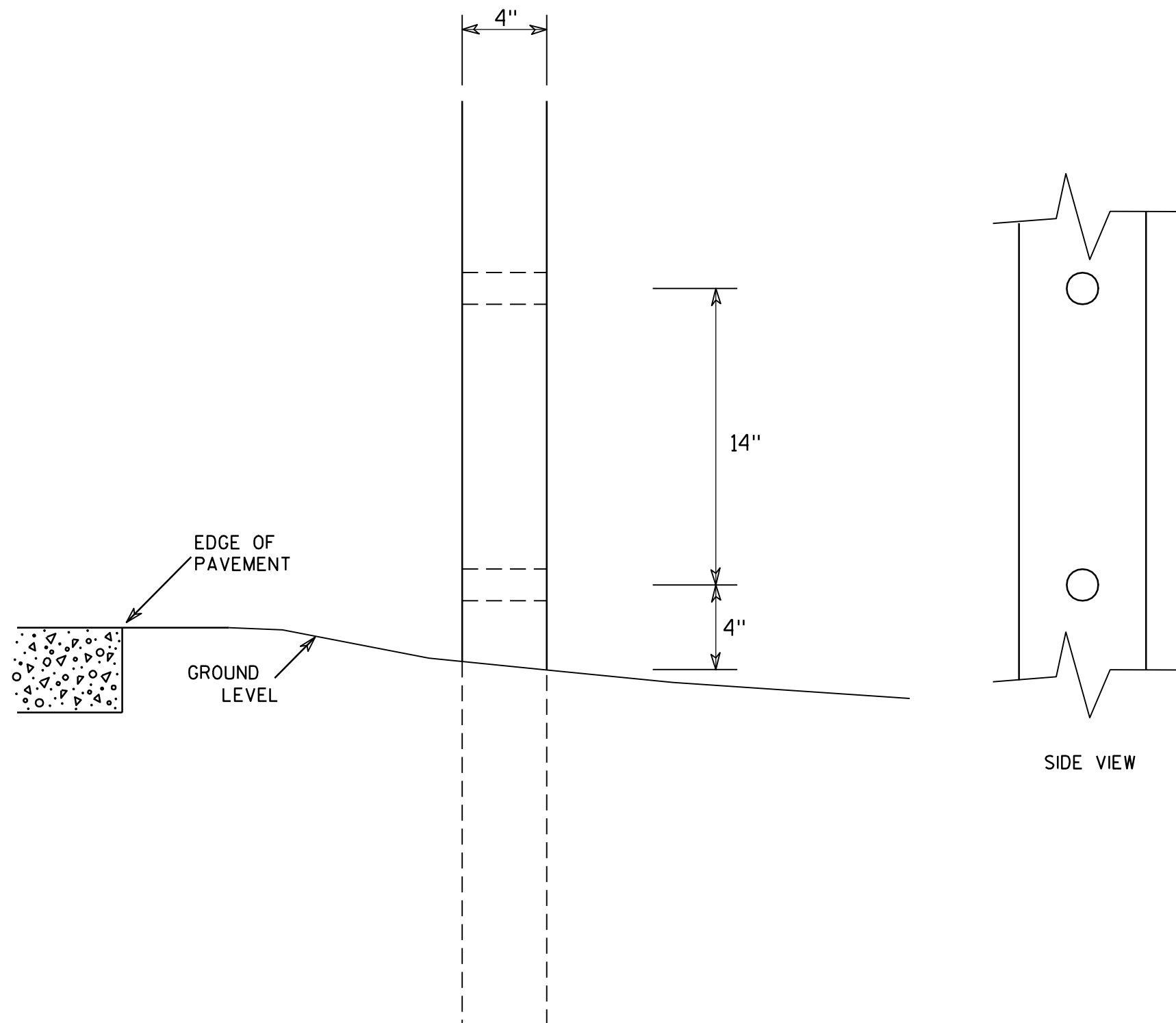
TUBULAR STEEL  
SIGN POST  
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

7



### GENERAL NOTES

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

7

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

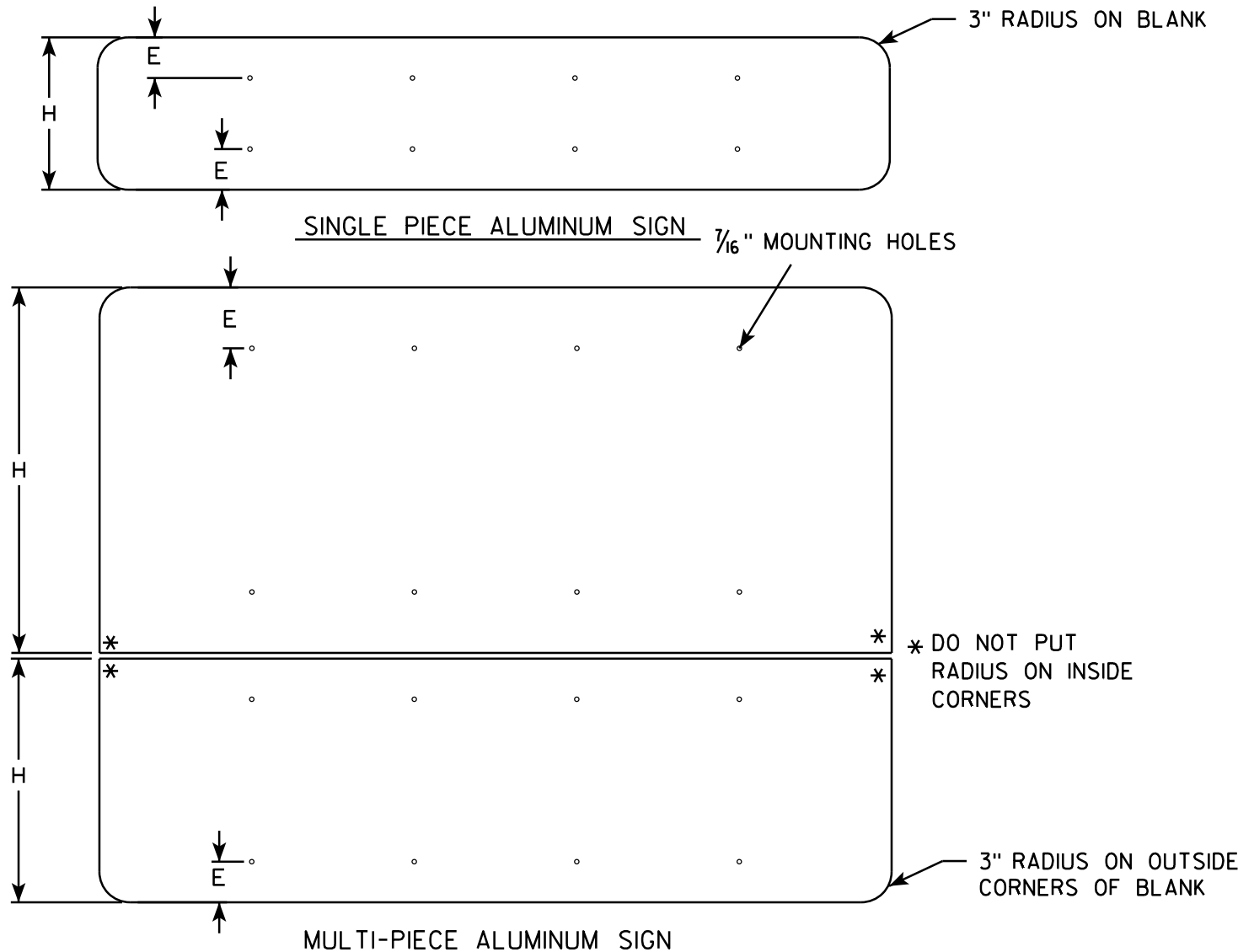
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

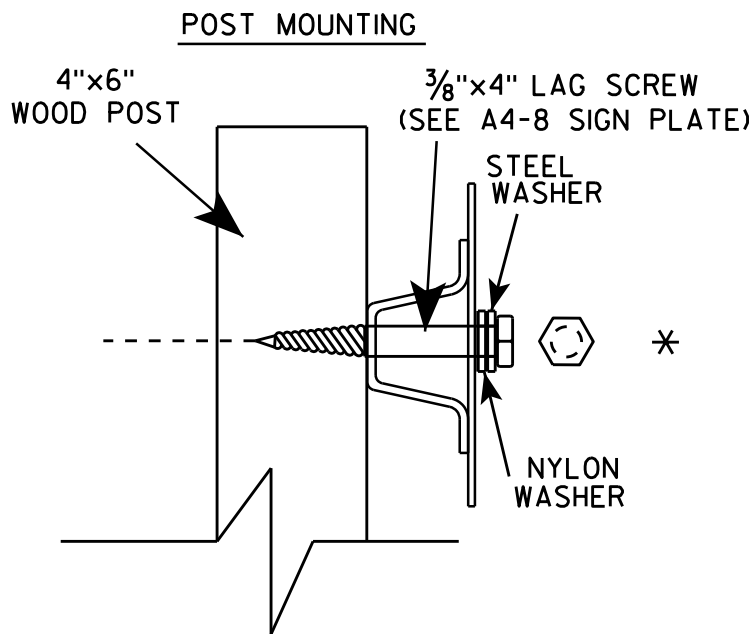
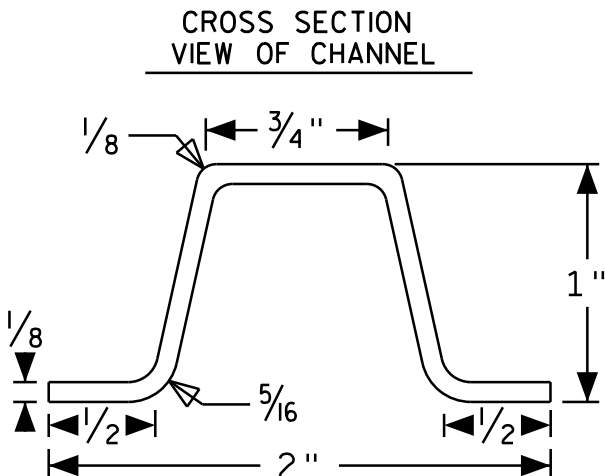
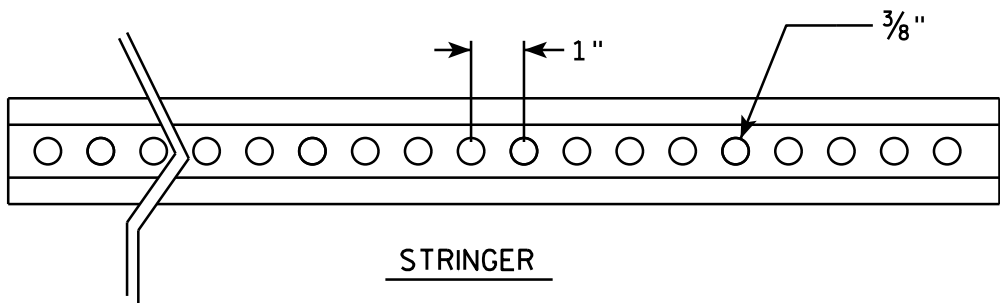
E



# GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

| SIGN WIDTH | STRINGER WIDTH | POSTS | HOLE SPACING | MOUNTING HOLES |         |         |                   |
|------------|----------------|-------|--------------|----------------|---------|---------|-------------------|
| 78"        | 72"            | 2     | 16"          | 15"            | 31"     | 47"     | 63"               |
| 84"        | 72"            | 2     | 17"          | 16 1/2"        | 33 1/2" | 50 1/2" | 67 1/2"           |
| 90"        | 72"            | 2     | 18"          | 18"            | 36"     | 54"     | 72"               |
| 96"        | 90"            | 2     | 19"          | 19 1/2"        | 38 1/2" | 57 1/2" | 76 1/2"           |
| 102"       | 90"            | 2     | 20"          | 21"            | 41"     | 61"     | 81"               |
| 108"       | 90"            | 2     | 21"          | 22 1/2"        | 43 1/2" | 64 1/2" | 85 1/2"           |
| 114"       | 108"           | 3     | 15"          | 12"            | 27"     | 42"     | 57" 72" 87" 102"  |
| 120"       | 108"           | 3     | 16"          | 12"            | 28"     | 44"     | 60" 76" 92" 108"  |
| 126"       | 108"           | 3     | 17"          | 12"            | 29"     | 46"     | 63" 80" 97" 114"  |
| 132"       | 126"           | 3     | 18"          | 12"            | 30"     | 48"     | 66" 84" 102" 120" |
| 138"       | 126"           | 3     | 19"          | 12"            | 31"     | 50"     | 69" 88" 107" 126" |
| 144"       | 126"           | 3     | 20"          | 12"            | 32"     | 52"     | 72" 92" 112" 132" |



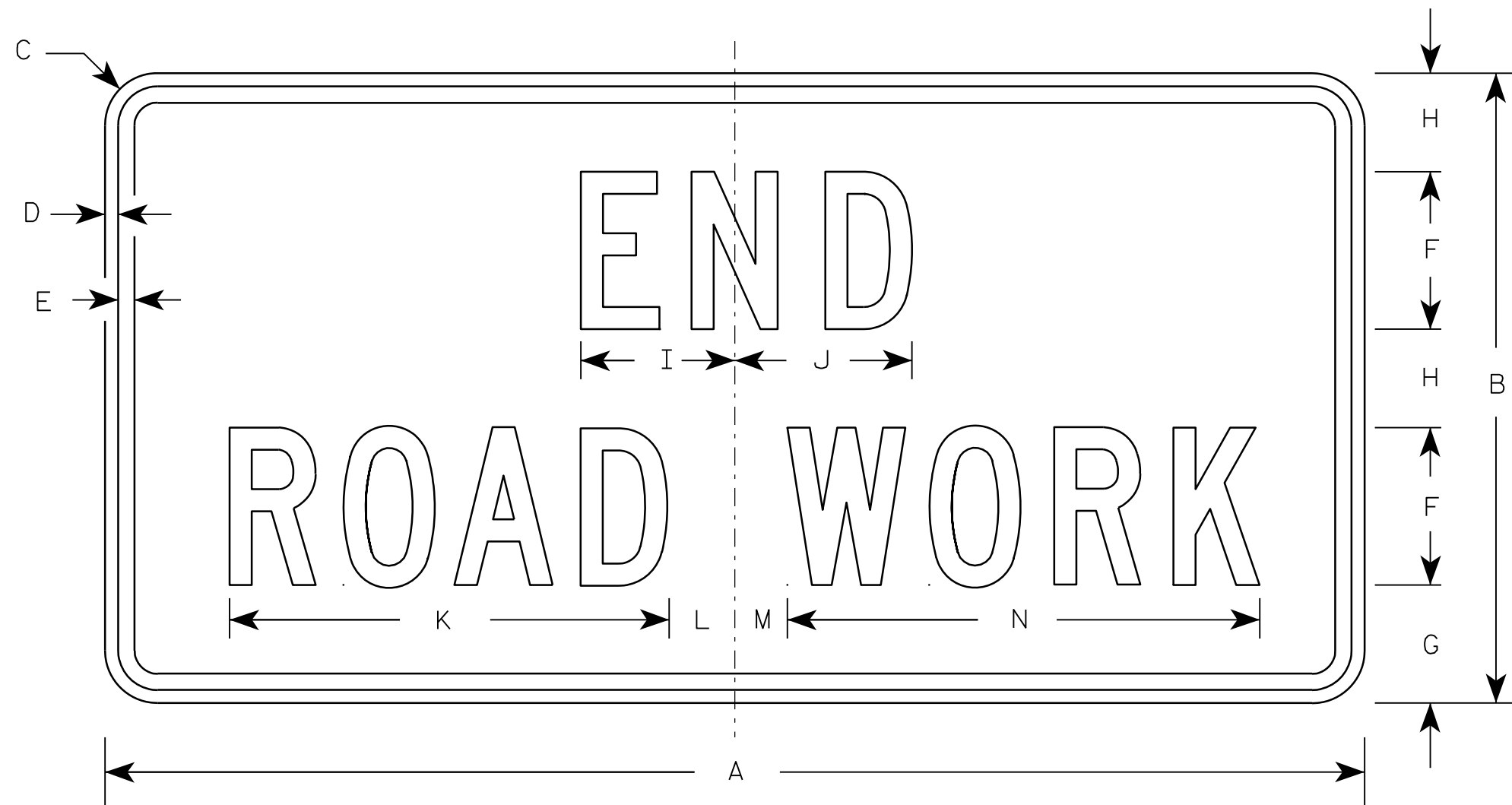
SIGN STRINGER  
MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

7



G20-2A

Metric equivalent  
for this sign is:

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

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

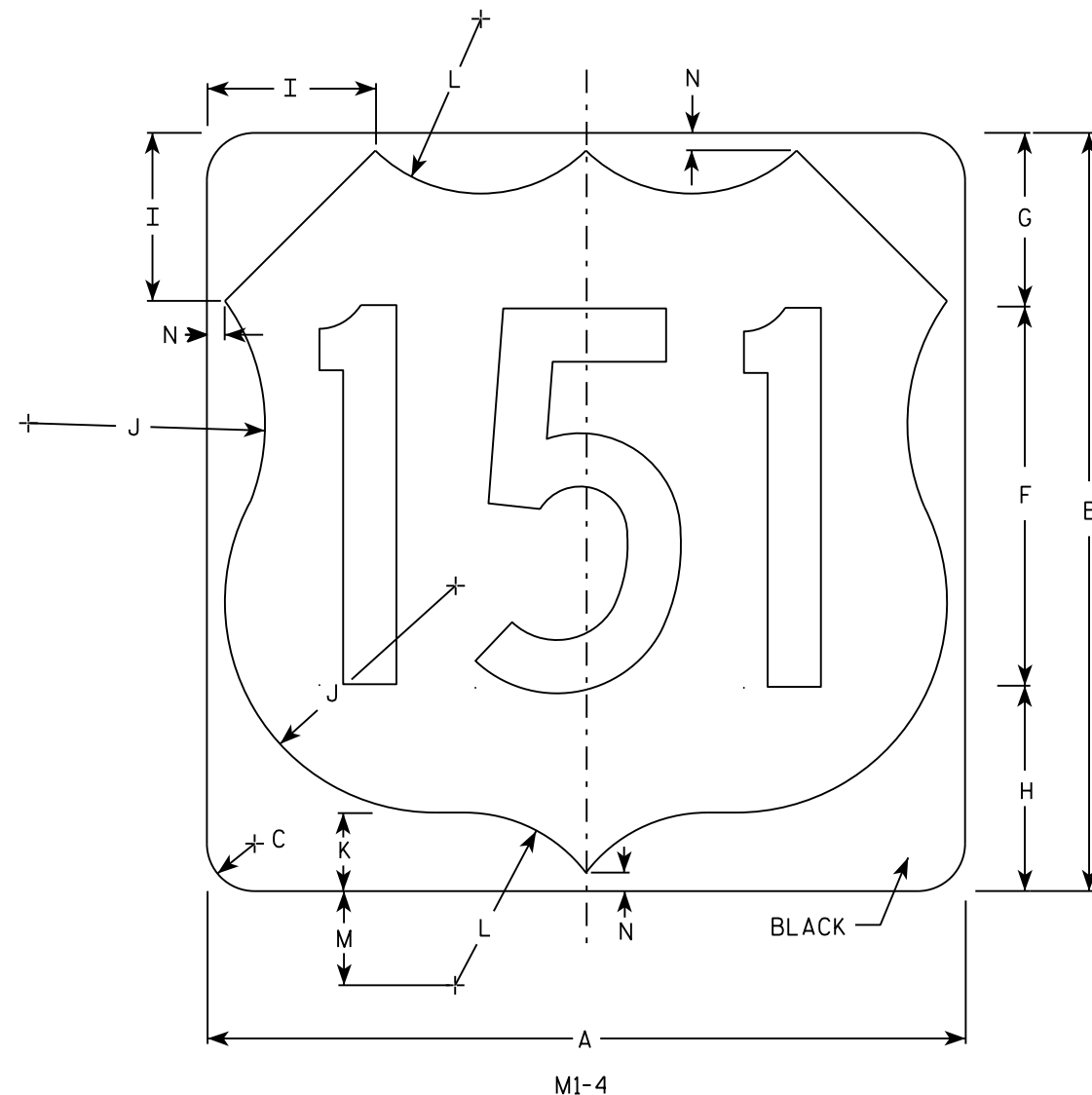
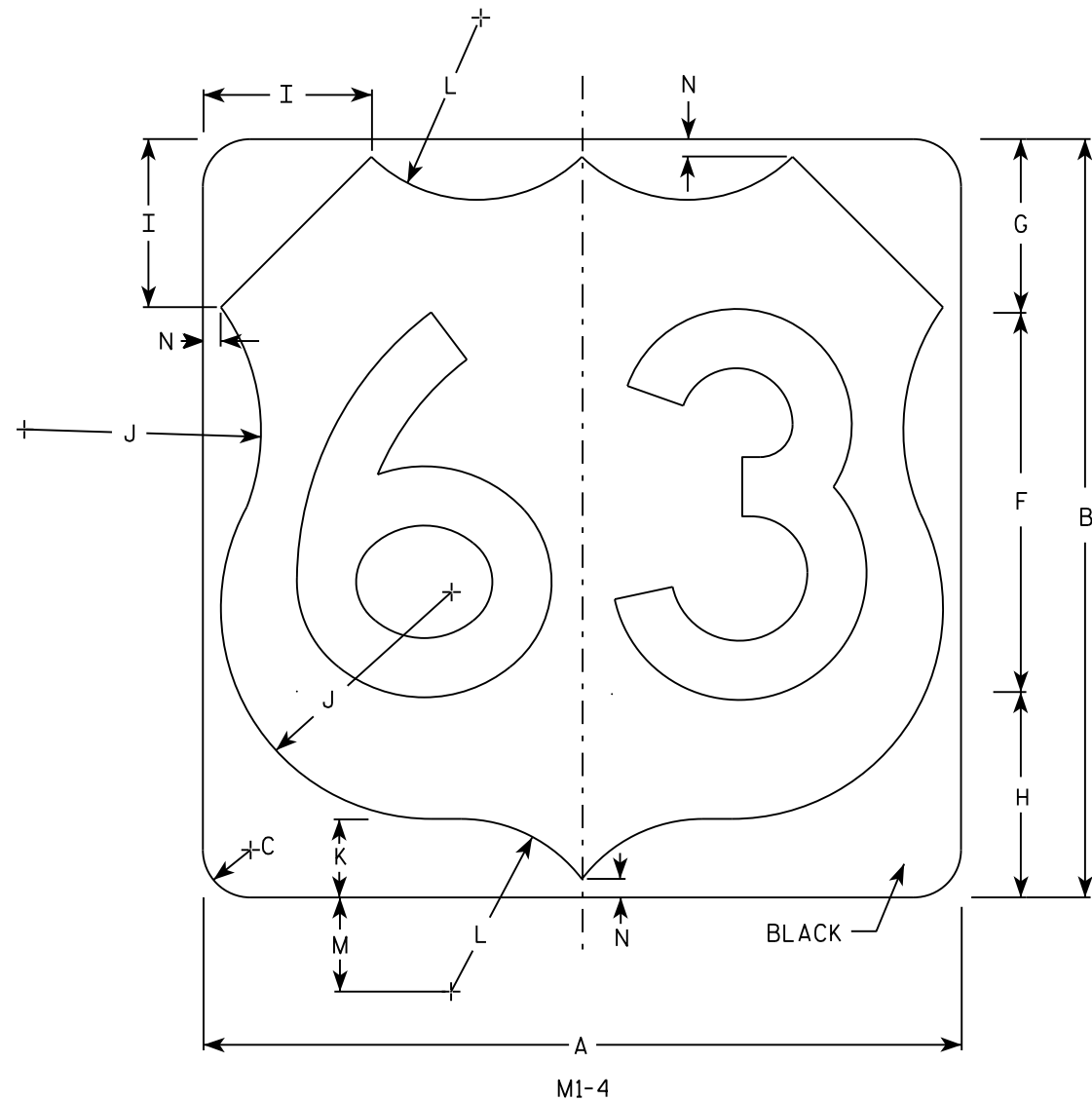
NOTES

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

7

NOTES

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



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

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

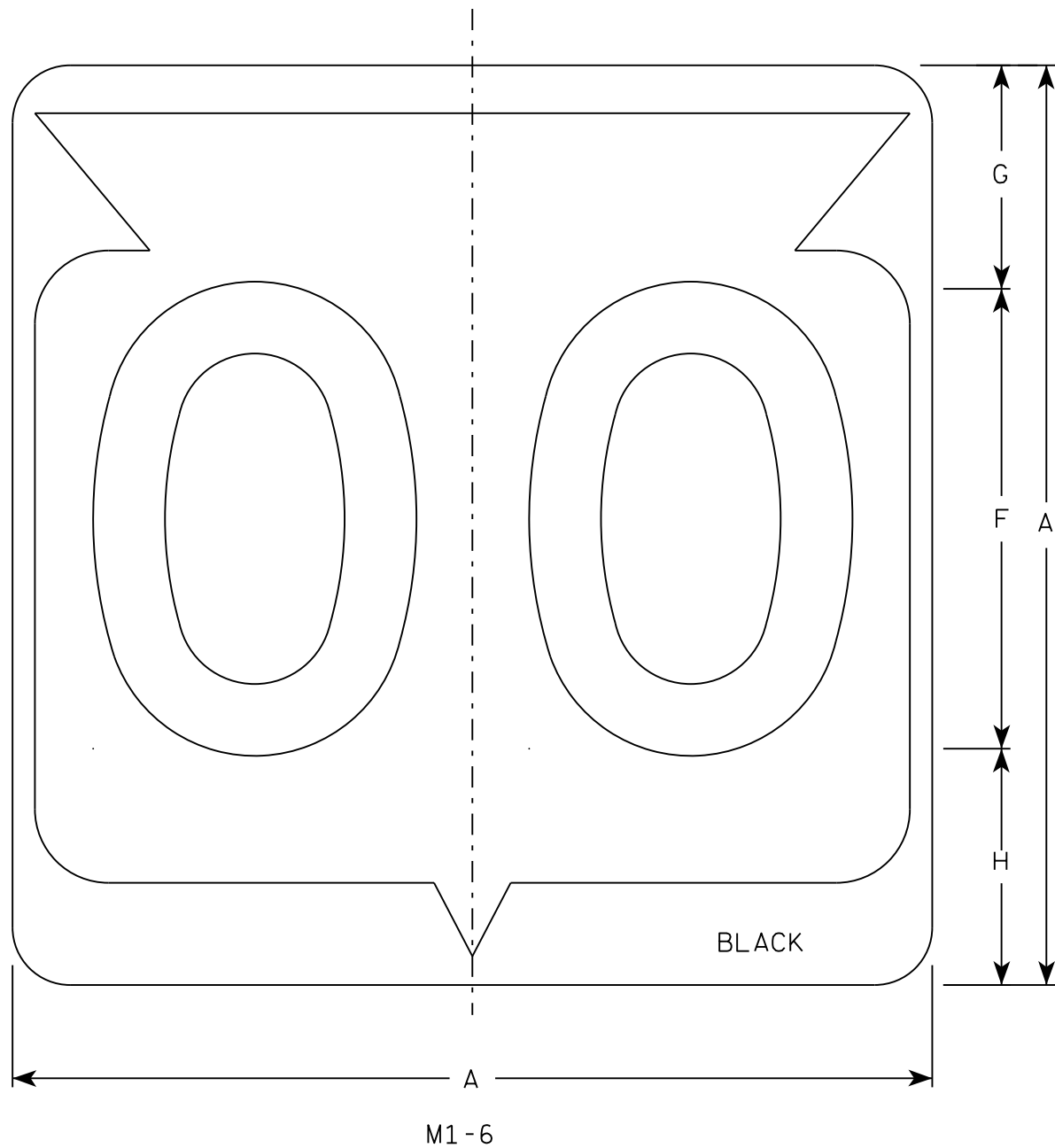
USH MARKER  
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

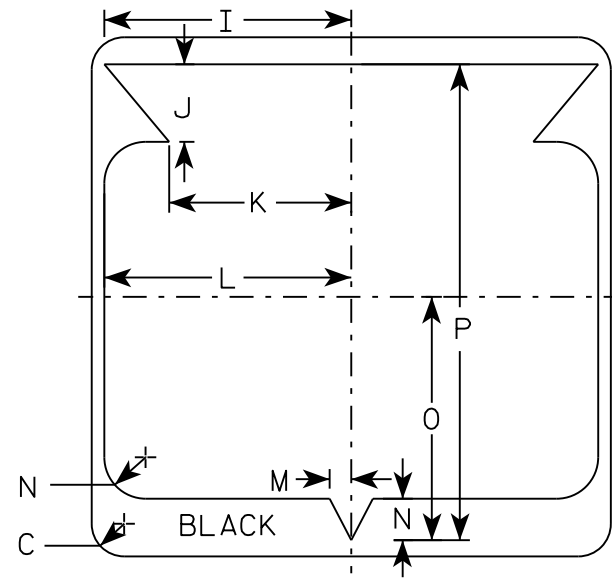
DATE 3/16/18 PLATE NO. M1-4.10

7



NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:  
Background - White  
Message - Black
- 3. Message Series - D except 3 number signs 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    |    |   |       |   |   |    |       |       |        |       |        |        |       |       |        |        |   |   |   |   |   |   |   |   |   |   |                 |
| 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             |
| 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             |
| 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             |
| 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             |

STATE ROUTE MARKER  
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

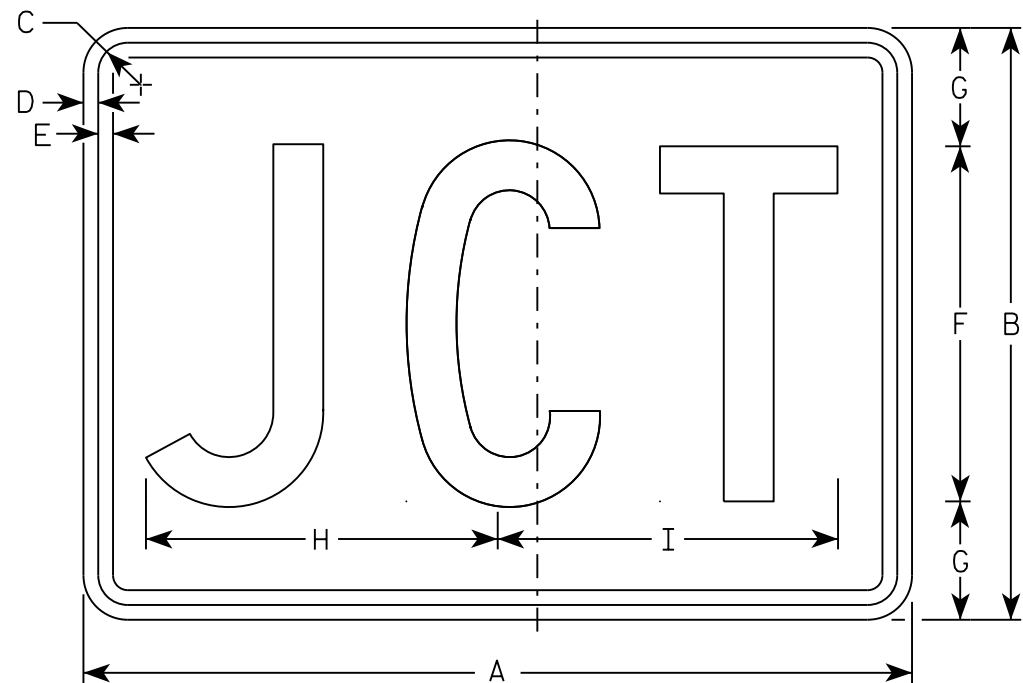
PROJECT NO:

HWY:

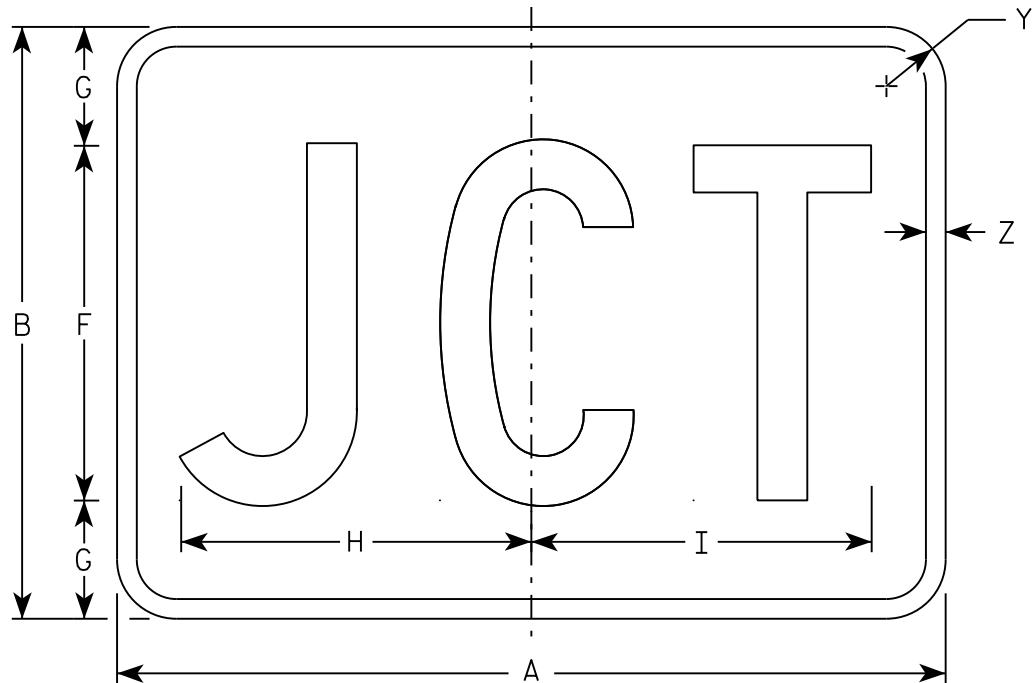
COUNTY:

SHEET NO:

E



M2-1  
MM2-1  
MP2-1



MB2-1  
MK2-1  
MN2-1  
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
  - Background - See note 5
  - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White  
    Message - Black  
    MB2-1 Background - Blue  
    Message - White  
    MK2-1 Background - Green  
    Message - White  
    MM2-1 Background - White  
    Message - Green  
    MN2-1 Background - Brown  
    Message - White  
    MP2-1 Background - White  
    Message - Blue  
    MR2-1 Background - Brown  
    Message - Yellow

| 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 | 15 | 1 1/8 | 3/8 | 3/8 | 9  | 3 | 8 7/8  | 8 5/8  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1 1/2 | 1/2 | 2.20            |
| 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            |
| 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            |
| 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            |

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

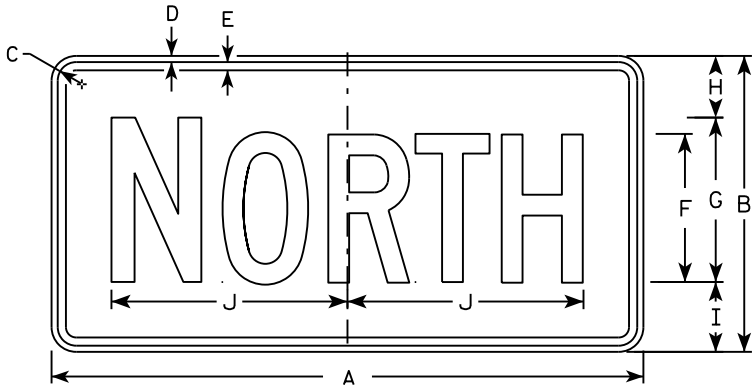
APPROVED

Matthew R. Rauch

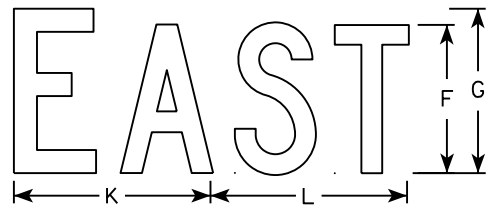
For State Traffic Engineer

DATE 10/15/15

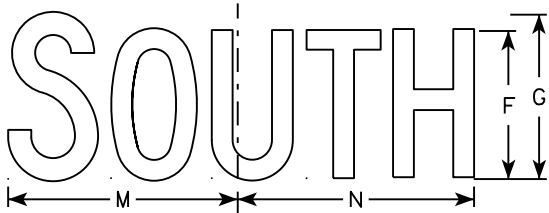
PLATE NO. M2-1.12



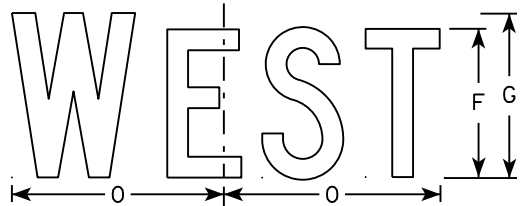
M3-1  
MM3-1  
MP3-1



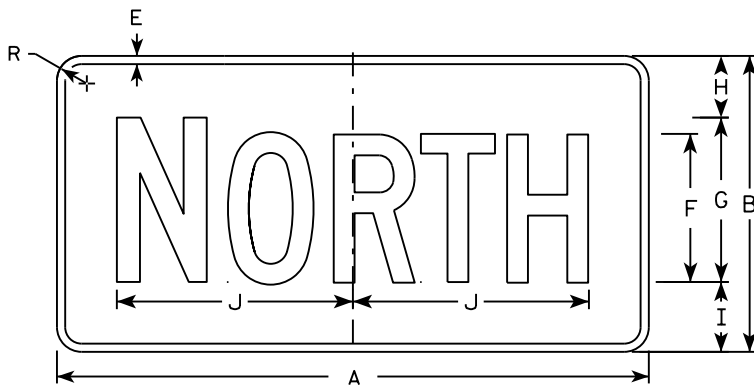
M3-2  
MM3-2  
MP3-2



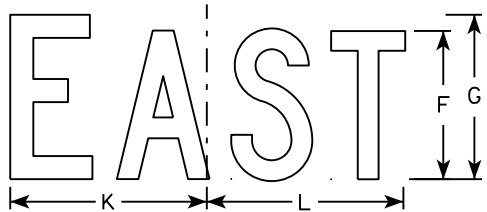
M3-3  
MM3-3  
MP3-3



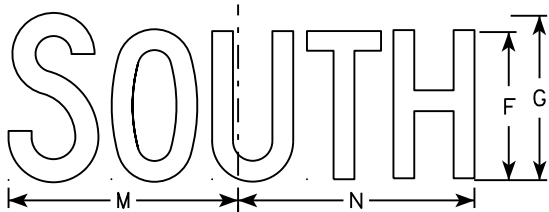
M3-4  
MM3-4  
MP3-4



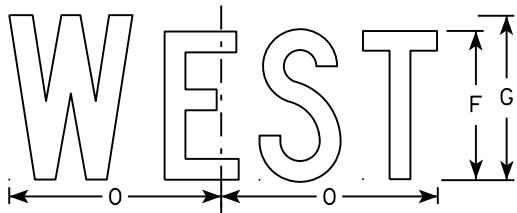
MB3-1  
MK3-1  
MN3-1



MB3-2  
MK3-2  
MN3-2



MB3-3  
MK3-3  
MN3-3



MB3-4  
MK3-4  
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:  
Background - See note 5  
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White  
Message - Black  
MB3-1 thru MB3-4 Background - Blue  
Message - White  
MK3-1 thru MK3-4 Background - Green  
Message - White  
MM3-1 thru MM3-4 Background - White  
Message - Green  
MN3-1 thru MN3-4 Background - Brown  
Message - White  
MP3-1 thru MP3-4 Background - White  
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

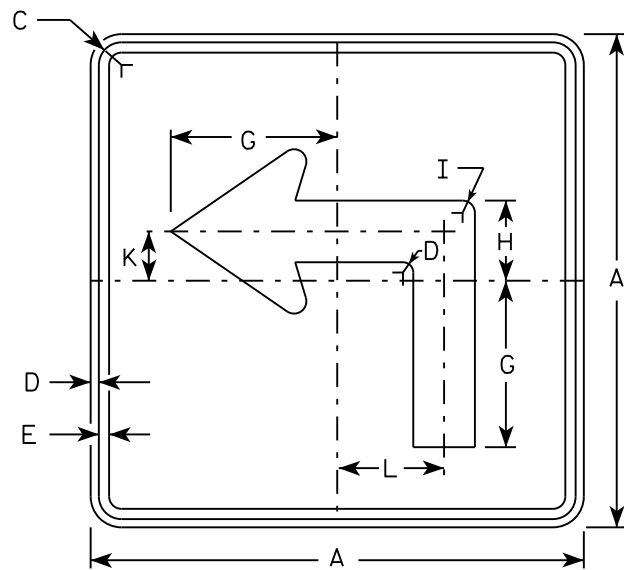
| SIZE | A  | B  | C     | D   | E   | F | G  | H     | I     | J      | K     | L      | M      | N      | O     | P | Q | R     | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|----|-------|-------|--------|-------|--------|--------|--------|-------|---|---|-------|---|---|---|---|---|---|---|---|-----------------|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

STANDARD SIGNS  
M3-1 thru M3-4  
SERIES

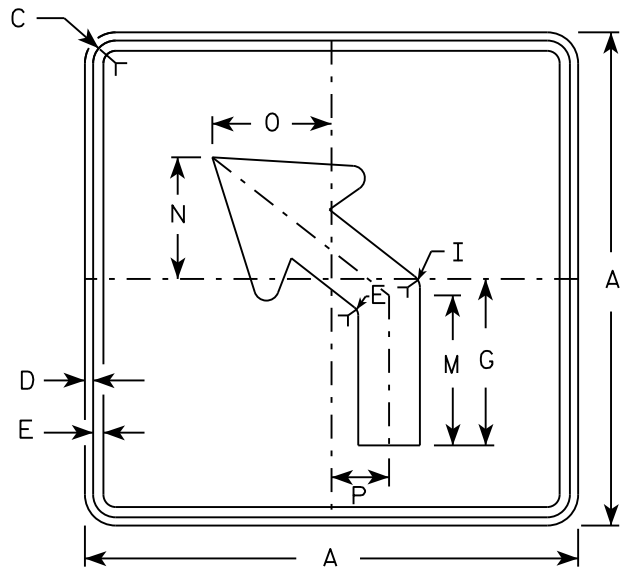
WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

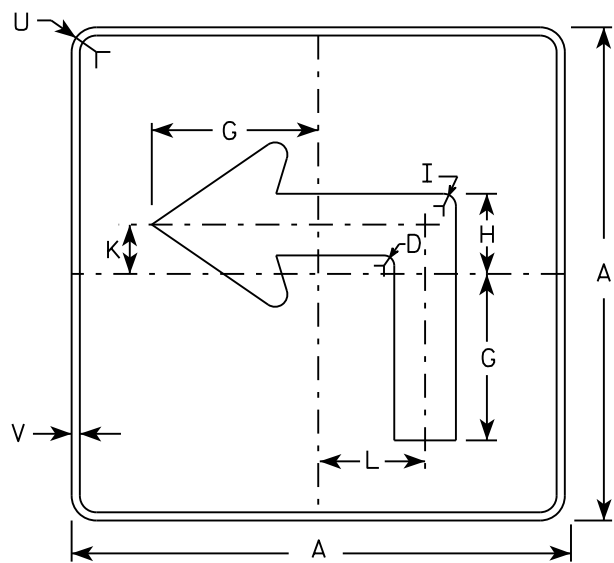
DATE 10/15/15 PLATE NO. M3-1.14



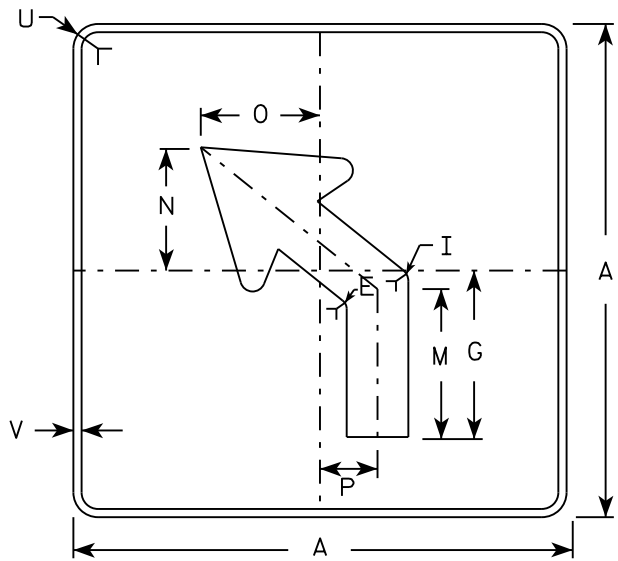
M5-1L  
MM5-1L  
M05-1L  
MP5-1L



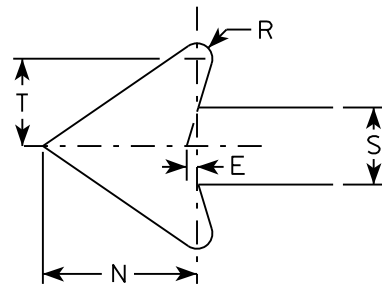
M5-2L  
MM5-2L  
M05-2L  
MP5-2L



MB5-1L  
MK5-1L  
MN5-1L  
MR5-1L



MB5-2L  
MK5-2L  
MN5-2L  
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- 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.
- |                 |                                         |
|-----------------|-----------------------------------------|
| M5-1 and M5-2   | Background - White                      |
|                 | Message - Black                         |
| MB5-1 and MB5-2 | Background - Blue                       |
|                 | Message - White                         |
| MK5-1 and MK5-2 | Background - Green                      |
|                 | Message - White                         |
| MM5-1 and MM5-2 | Background - White                      |
|                 | Message - Green                         |
| MN5-1 and MN5-2 | Background - Brown                      |
|                 | Message - White                         |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
|                 | Message - Black                         |
| MP5-1 and MP5-2 | Background - White - Type H Reflective  |
|                 | Message - Blue                          |
| MR5-1 and MR5-2 | Background - Brown                      |
|                 | Message - Yellow                        |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

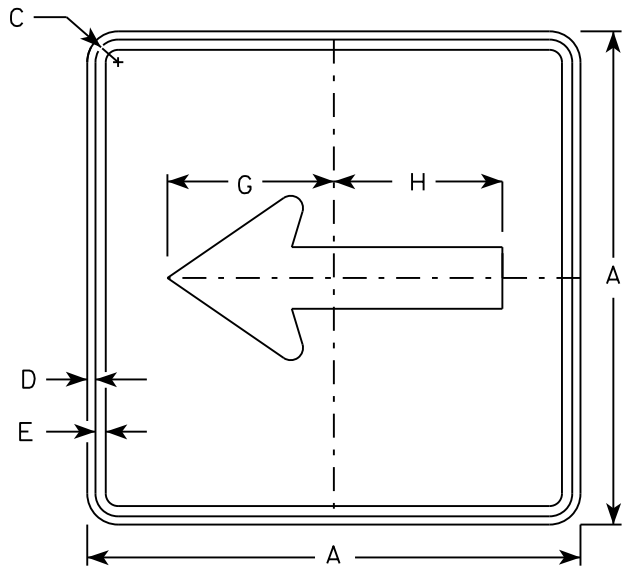
| SIZE | A  | B | C     | D   | E   | F | G      | H     | I   | J | K     | L     | M     | N     | O     | P     | Q | R   | S     | T     | U     | V   | W | X | Y | Z | Area<br>sq. ft. |
|------|----|---|-------|-----|-----|---|--------|-------|-----|---|-------|-------|-------|-------|-------|-------|---|-----|-------|-------|-------|-----|---|---|---|---|-----------------|
| 1    |    |   |       |     |     |   |        |       |     |   |       |       |       |       |       |       |   |     |       |       |       |     |   |   |   |   |                 |
| 2    | 21 |   | 1 1/8 | 3/8 | 3/8 |   | 7      | 3 3/8 | 5/8 |   | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5     | 2 1/2 |   | 1/2 | 2 5/8 | 3     | 1 1/2 | 1/2 |   |   |   |   | 3.06            |
| 3    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 4    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 |   |   |   |   | 6.25            |
| 5    | 30 |   | 1 3/8 | 1/2 | 5/8 |   | 10 1/8 | 4 7/8 | 7/8 |   | 3     | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 |   | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 |   |   |   |   | 6.25            |

STANDARD SIGN  
M5-1 & M5-2

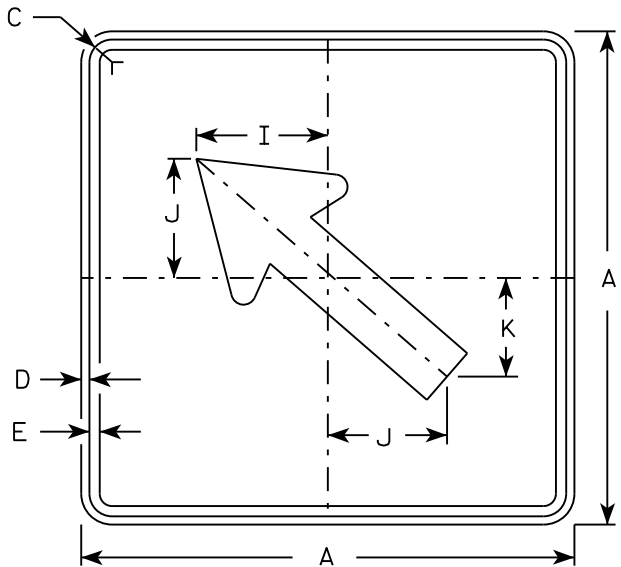
WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

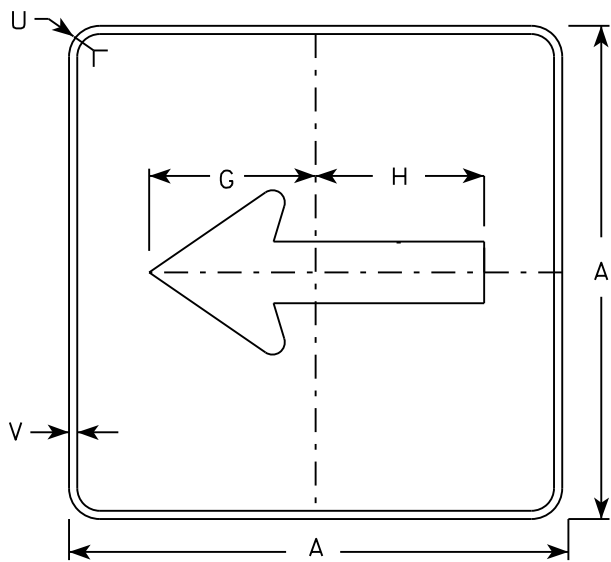
DATE 10/15/15 PLATE NO. M5-1.13



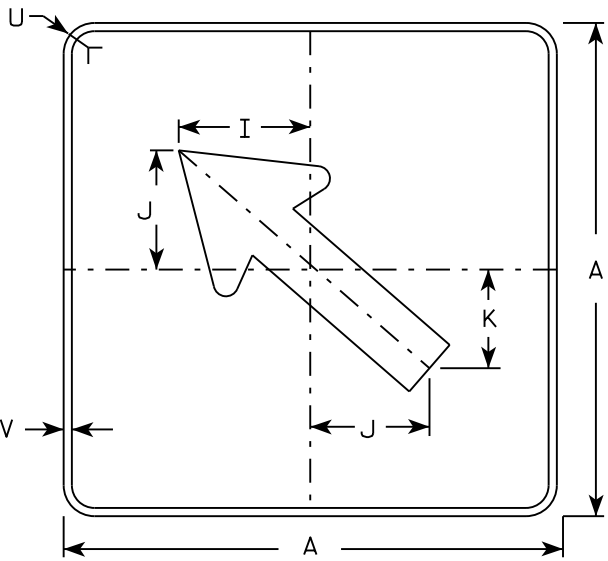
M6 - 1  
MM6 - 1  
M06 - 1  
MP6 - 1



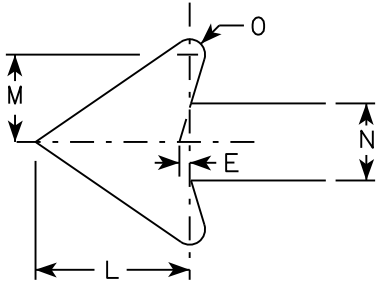
M6 - 2  
MM6 - 2  
M06 - 2  
MP6 - 2



MB6 - 1  
MK6 - 1  
MN6 - 1  
MR6 - 1



MB6 - 2  
MK6 - 2  
MN6 - 2  
MR6 - 2



NOTES

- Signs are Type II - Type H except as Shown
- 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  
Message - Black  
MB6-1 and MB6-2 Background - Blue  
Message - White  
MK6-1 and MK6-2 Background - Green  
Message - White  
MM6-1 and MM6-2 Background - White  
Message - Green  
MN6-1 and MN6-2 Background - Brown  
Message - White  
M06-1 and M06-2 Background - Orange - Type F Reflective  
Message - Black  
MP6-1 and MP6-2 Background - White  
Message - Blue  
MR6-1 and MR6-2 Background - Brown  
Message - Yellow

| 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:

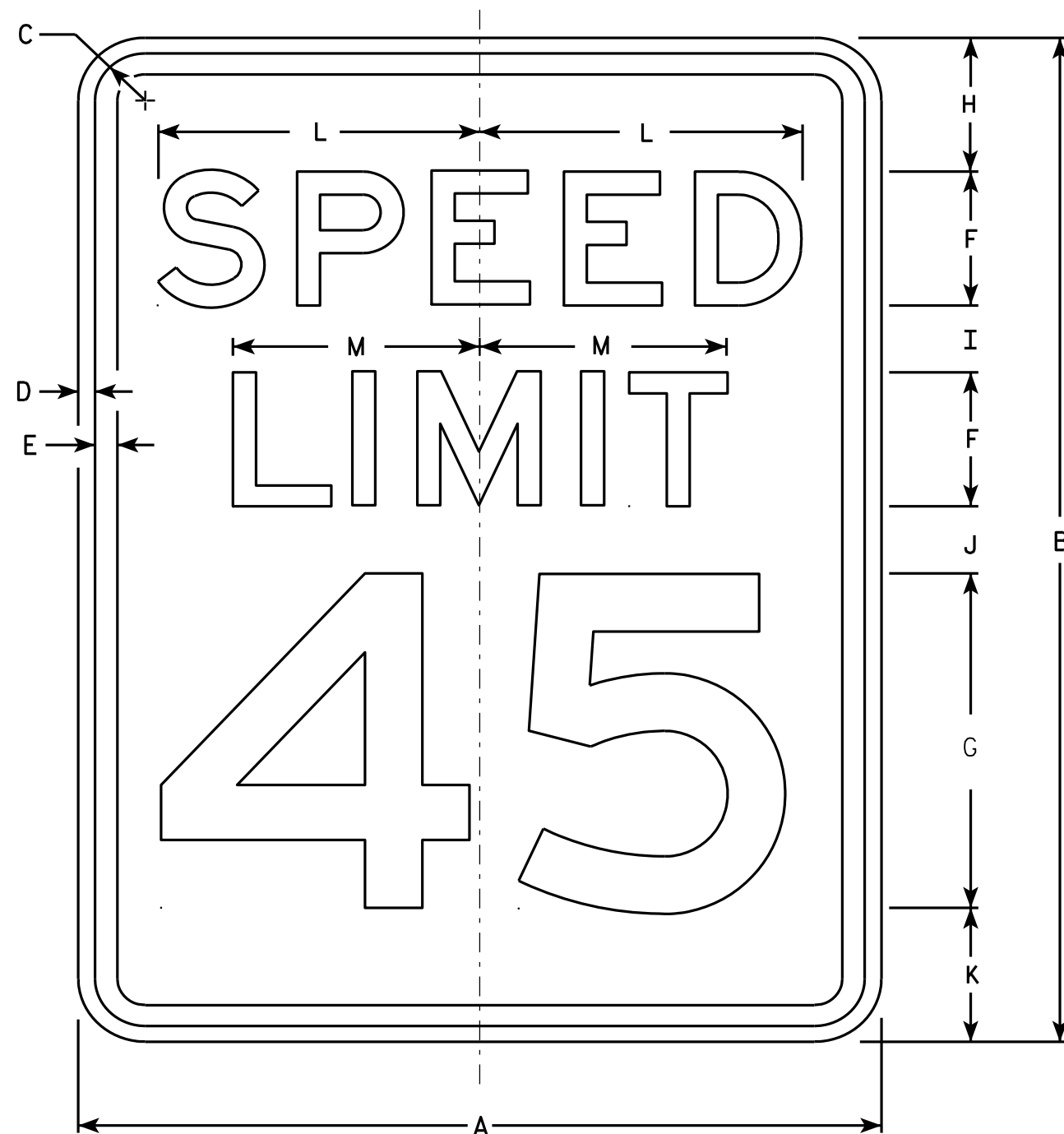
E

STANDARD SIGN  
M6 - 1 & M6 - 2  
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



R2-1

### NOTES

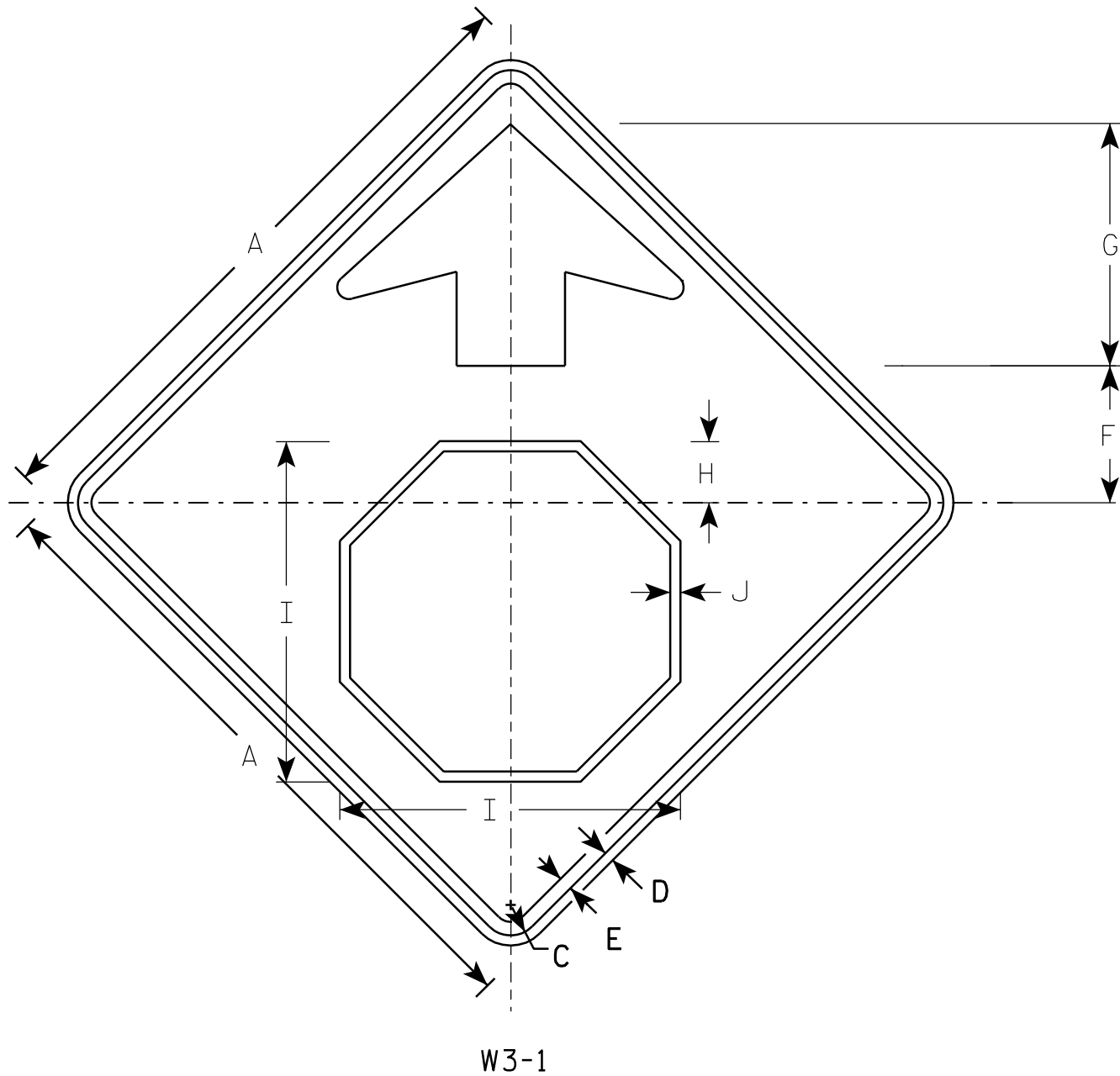
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - White  
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded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

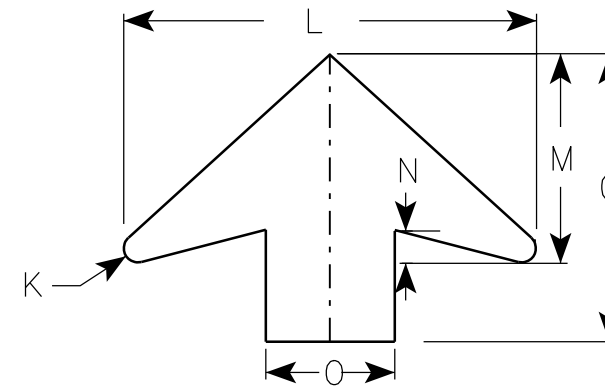
WISCONSIN DEPT OF TRANSPORTATION  
APPROVED *Matthew R. Rauch*  
For State Traffic Engineer  
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: E



### 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  
Arrow & Border - BLACK  
Stop Symbol - WHITE BORDER ON RED 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    | 30 |   | 1 3/8 | 1/2 | 5/8 | 6 1/4 | 11 1/4 | 2 7/8 | 15 3/4 | 1/2 | 1/2 | 16     | 8     | 1 1/4 | 5 |   |   |   |   |   |   |   |   |   |   |   | 6.25            |
| 2S   | 36 |   | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 1/2 | 19     | 5/8 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 2M   | 36 |   | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 1/2 | 19     | 5/8 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 3    | 36 |   | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 1/2 | 19     | 5/8 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 |   |   |   |   |   |   |   |   |   |   |   | 9.0             |
| 4    | 48 |   | 2 1/4 | 3/4 | 1   | 10    | 17 7/8 | 4 1/2 | 25 1/8 | 3/4 | 7/8 | 25 5/8 | 13    | 2     | 8 |   |   |   |   |   |   |   |   |   |   |   | 16.0            |
| 5    | 48 |   | 2 1/4 | 3/4 | 1   | 10    | 17 7/8 | 4 1/2 | 25 1/8 | 3/4 | 7/8 | 25 5/8 | 13    | 2     | 8 |   |   |   |   |   |   |   |   |   |   |   | 16.0            |

PROJECT NO:

STANDARD SIGN  
W3-1

WISCONSIN DEPT OF TRANSPORTATION

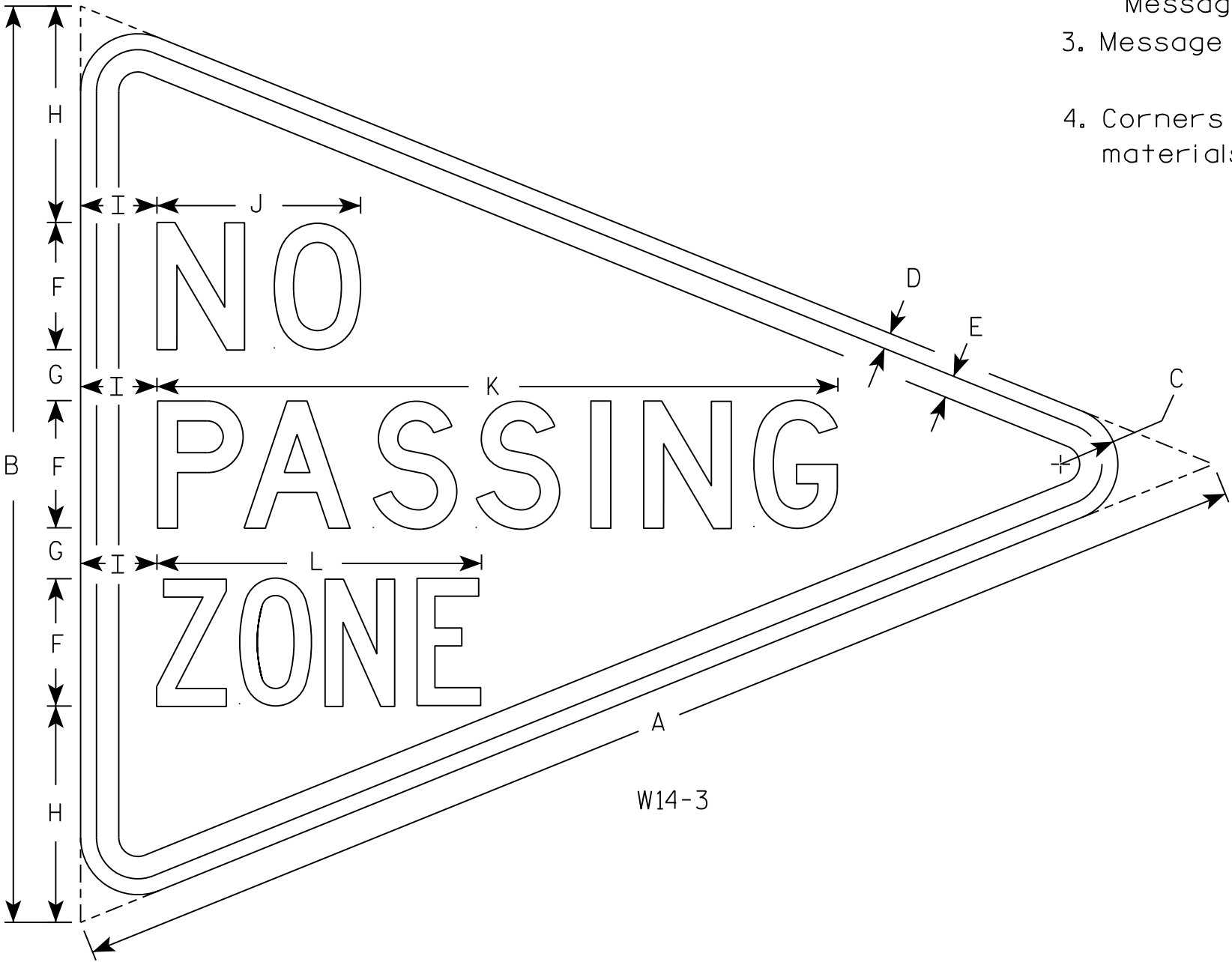
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer  
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:  
Background - Yellow  
Message - Black
- 3. Message Series - Lines 1 and 2 are Series D.  
Line 3 is series C.
- 4. Corners and borders shall be rounded on all base materials for this sign.



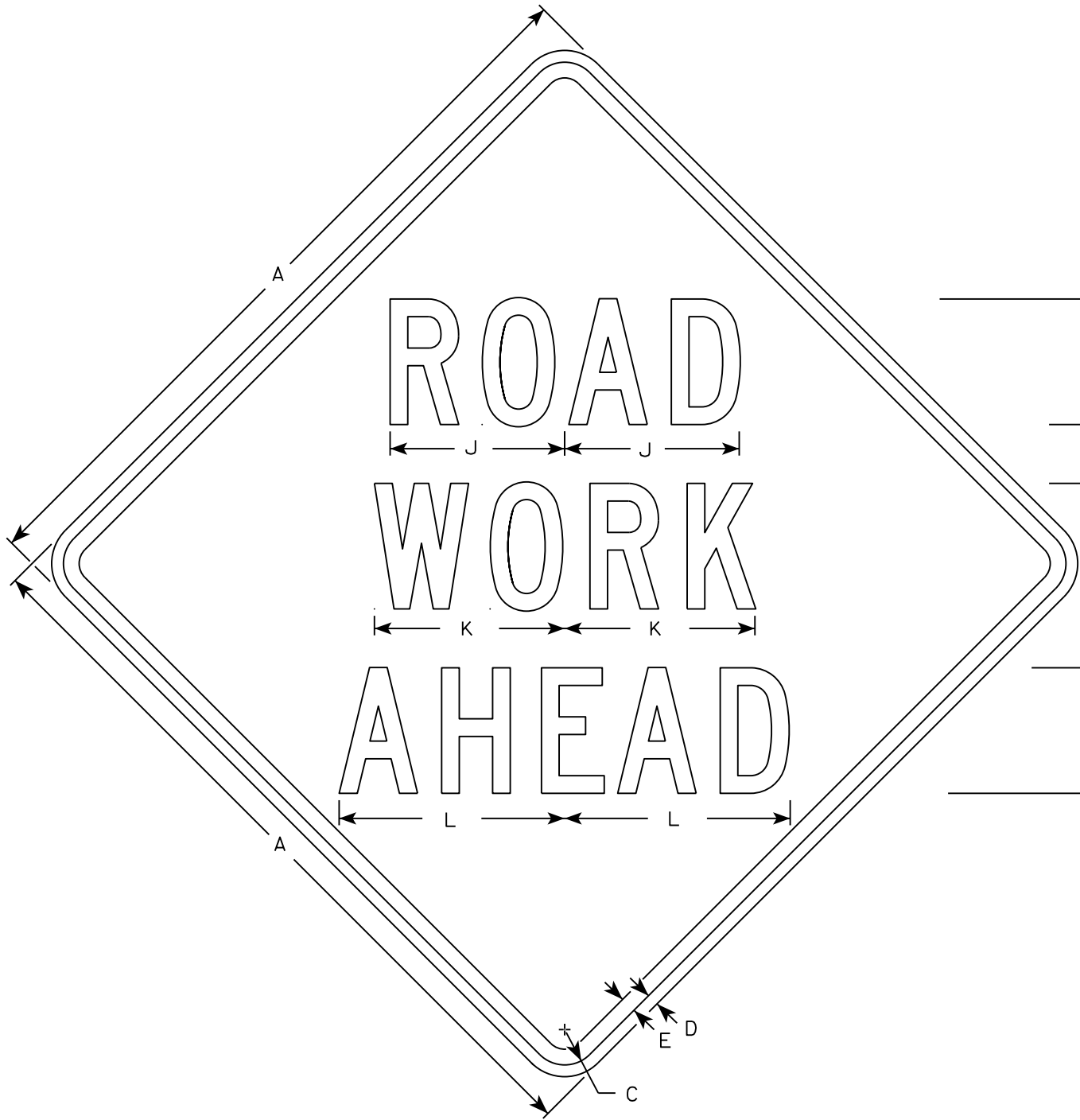
| SIZE | A  | B  | C     | D   | E   | F | G | H     | I | J | K      | L      | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area<br>sq. ft. |
|------|----|----|-------|-----|-----|---|---|-------|---|---|--------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 48 | 36 | 2 1/4 | 5/8 | 7/8 | 5 | 2 | 8 1/2 | 3 | 8 | 26 3/4 | 12 3/4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5.56            |
| 2M   |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 3    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 4    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 5    |    |    |       |     |     |   |   |       |   |   |        |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |

STANDARD SIGN  
W14-3

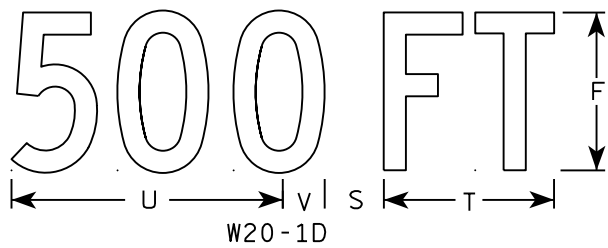
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

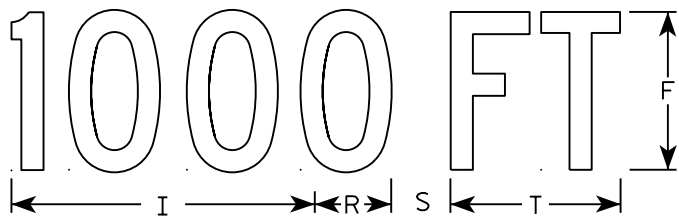
DATE 3/21/17 PLATE NO. W14-3.10



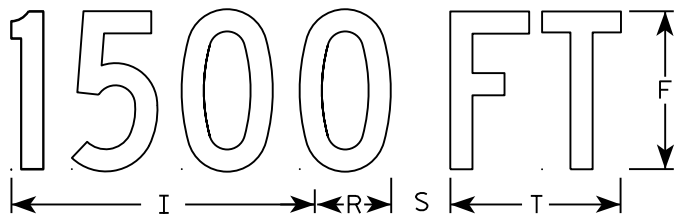
W20-1A



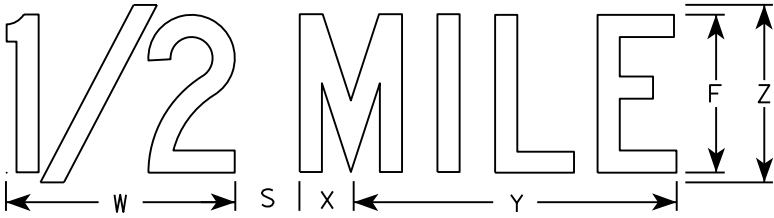
W20-1D



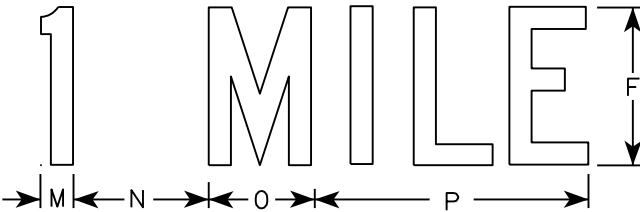
W20-1C



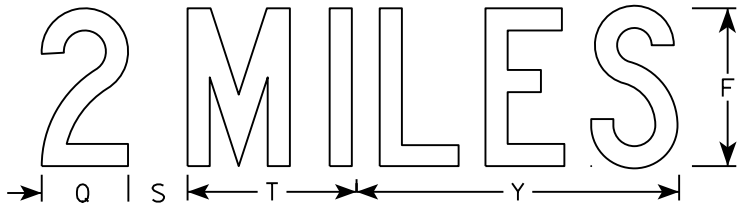
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

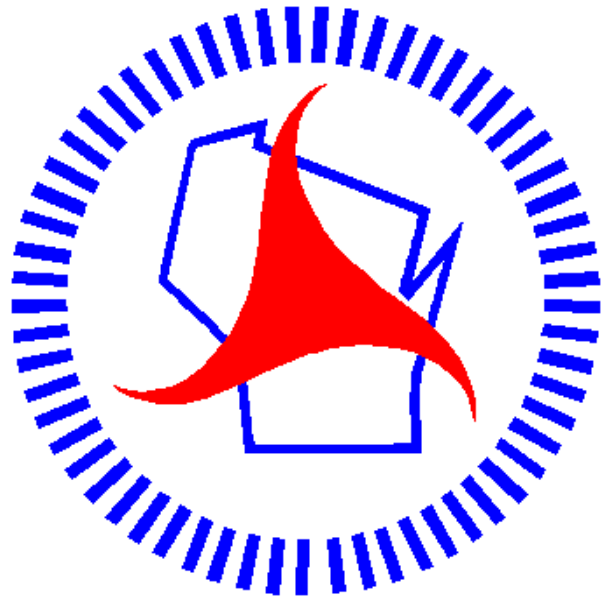
| SIZE | A  | B | C     | D   | E   | F | G     | H     | I      | J      | K      | L      | M     | N     | O     | P      | Q     | R     | S     | T     | U      | V     | W      | X     | Y      | Z | Area sq. ft. |
|------|----|---|-------|-----|-----|---|-------|-------|--------|--------|--------|--------|-------|-------|-------|--------|-------|-------|-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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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



## ***Wisconsin Department of Transportation***

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