

RHI

WITH:

PROJECT ID:

9874-00-70

30

COUNTY:

ONEIDA

JANUARY 2025
ORDER OF SHEETS

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

TOTAL SHEETS = 64

PROJECT LOCATION



DESIGN DESIGNATION

| | | | |
|--------------|------|---|-------|
| A.A.D.T. | 2025 | = | 110 |
| A.A.D.T. | 2045 | = | 130 |
| D.H.V. | | = | --- |
| D.D. | | = | 50/50 |
| T. | | = | 18.3% |
| DESIGN SPEED | | = | 35mph |
| ESALS | | = | " |

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT
(Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE
(To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

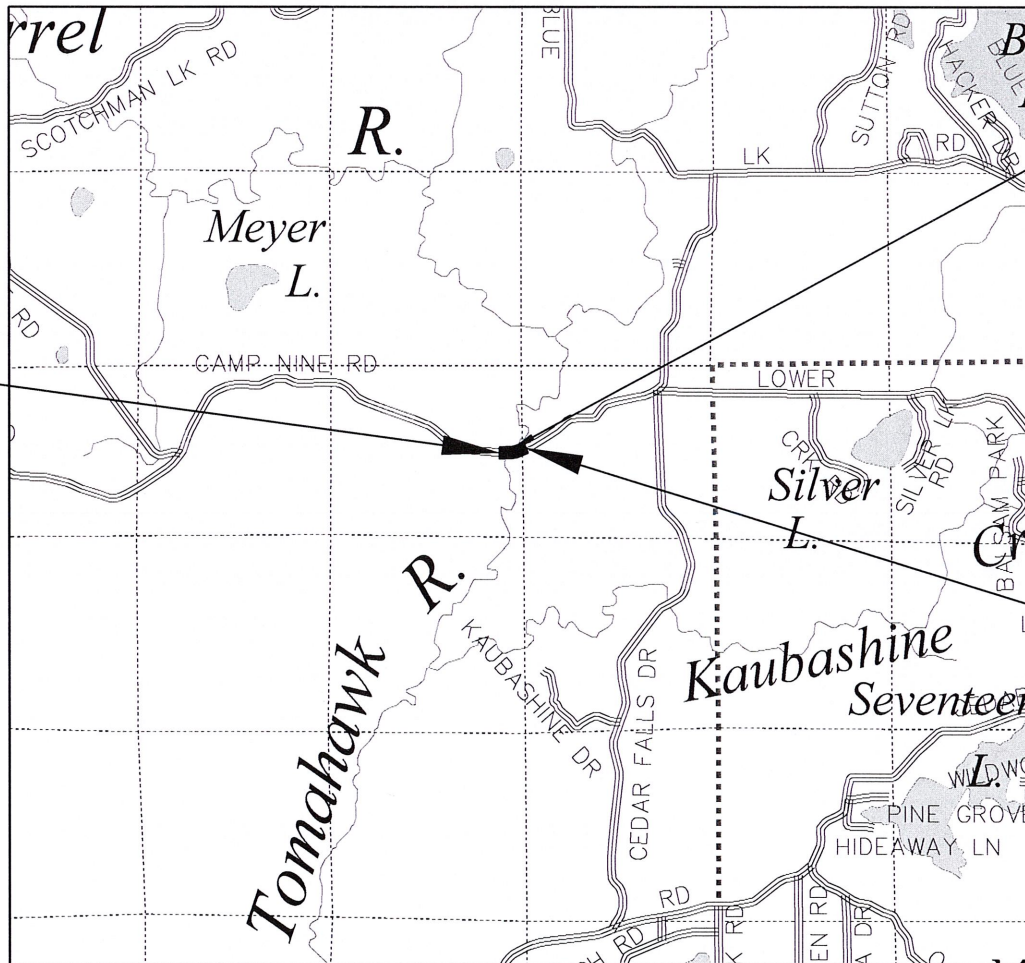
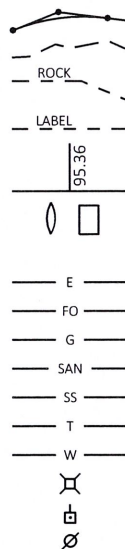
POWER POLE

TELEPHONE POLE

BEGIN PROJECT

STA 8+00

Y=228027.613
X=159981.735



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.076 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), ONEIDA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT

9874-00-70

FEDERAL PROJECT

PROJECT

WISC 2025164

CONTRACT

1

ACCEPTED FOR
TOWN OF MINOCQUA

7/25/2024
DATE
TOWN CHAIRMAN

ORIGINAL PLANS PREPARED BY

AYRES



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

| | |
|---------------------|-----------------|
| Surveyor | AYRES |
| Designer | AYRES |
| Project Manager | NATHANIEL WAITE |
| Regional Examiner | --- |
| Regional Supervisor | DAN ERVA |

APPROVED FOR THE DEPARTMENT

DATE: 8/01/2024
(Signature)

E

GENERAL NOTES

THE LOCATION OF EXISTING UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

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

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

EROSION CONTROL LOCATIONS AS SHOWN ON THE EROSION CONTROL PLAN ARE APPROXIMATE. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SUBGRADE SHOULDER POINTS ARE TO BE SEEDED, FERTILIZED AND EROSION MAT AS DIRECTED BY THE ENGINEER.

WISDOT WILL FURNISH A BENCHMARK MONUMENT TO BE SET BY THE CONTRACTOR.

SAW CUT LOCATIONS SHOWN ON THE PLAN ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD. THE LINE OF SUCH SAW CUTS WILL BE NEATLY DELINEATED THROUGH THE ASPHALT WITHOUT ANY DAMAGE TO THE REMAINING PORTION OF THE EXISTING PAVEMENT.

UTILITIES

- * FRONTIER COMMUNICATIONS

1851 N 14TH AVENUE
WAUSAU, WI 544001
ATTENTION: CHRIS POLLOCK
E-MAIL: christopher.pollock@ftr.com
- TELEPHONE 715-297-4773
- * WISCONSIN PUBLIC SERVICE

PO BOX 1166
WAUSAU, WI 54402
ATTENTION: DON LUTZOW
E-MAIL: donald.lutzow@wisconsinpublicservice.com
- TELEPHONE 715-848-7487

*-MEMBER OF DIGGERS HOTLINE



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

LOCAL CONTACT

- TOWN OF MINOCQUA

415 MENOMINEE STREET, SUITE 300
MINOCQUA, WI 54548
ATTENTION: MARK PERTILE
E-MAIL: publicworks@townofminocqua.org
- TELEPHONE 715-356-5296

DESIGN CONTACT

- AYRES ASSOCIATES

3376 PACKERLAND DRIVE
ASHWAUBENON, WI 54115
ATTENTION: TRACE HUBBARD
E-MAIL: hubbardt@ayresassociates.com
- TELEPHONE 920-498-1200

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA= 0.82 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.60 ACRES
SOIL GROUP A/D

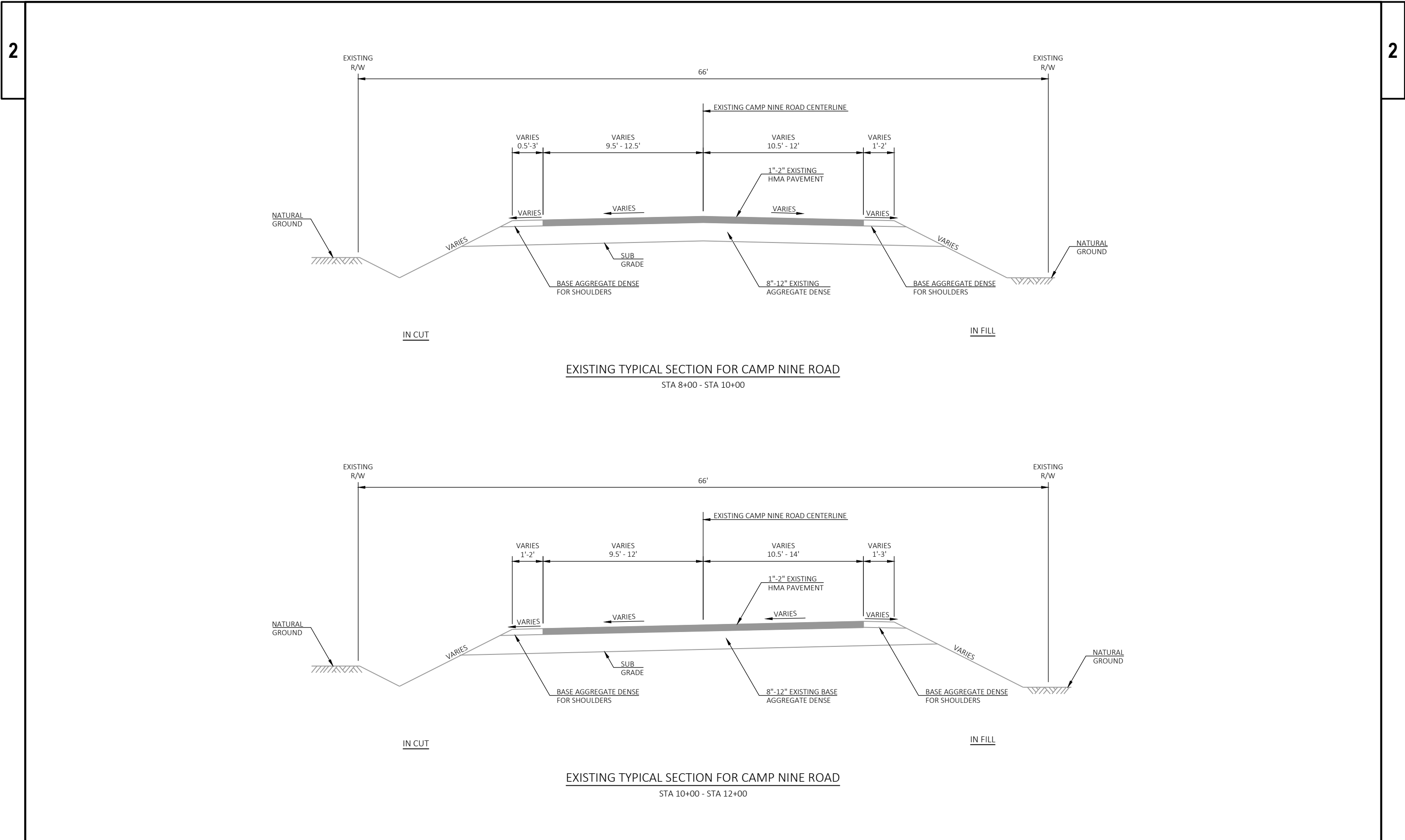
STANDARD ABBREVIATIONS

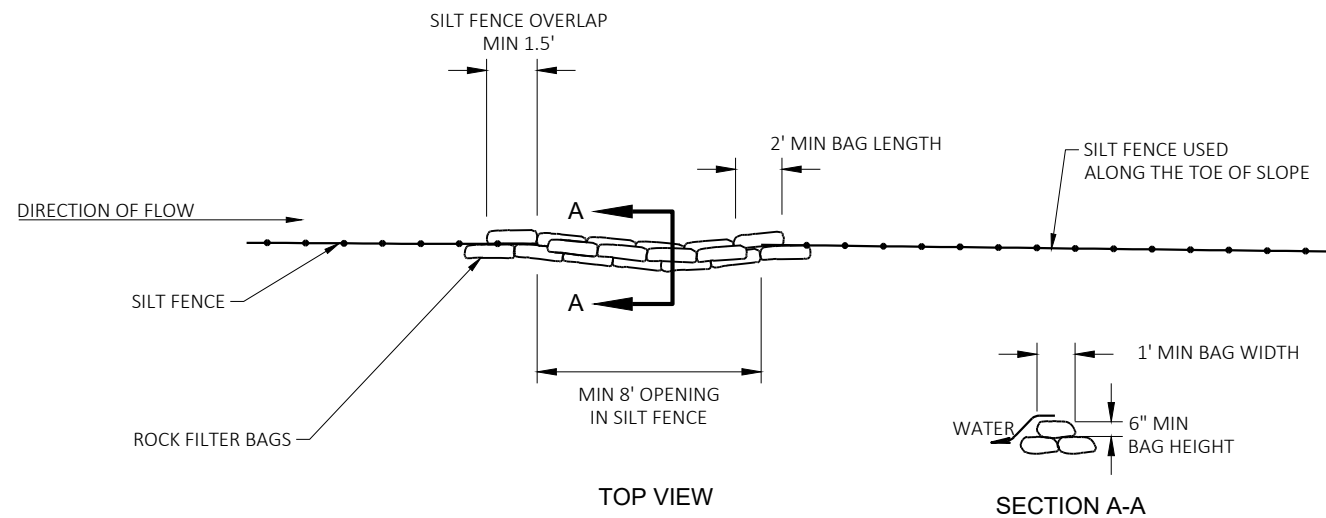
| | | | |
|-------|------------------------------|-----------|--------------------------------------|
| ADT | AVERAGE DAILY TRAFFIC | NC | NORMAL CROWN |
| AC | ASPHALT CEMENT | PT | POINT OF TANGENCY |
| AGG | AGGREGATE | PC | POINT OF CURVATURE |
| ASPH | ASPHALT | PI | POINT OF INTERSECTION |
| BM | BENCH MARK | PE | PRIVATE ENTRANCE |
| C/L | CENTERLINE | R | RADIUS |
| CONC | CONCRETE | REM | REMOVE |
| CMP | CORRUGATED METAL PIPE | R/L OR RL | REFERENCE LINE |
| CR. | CREEK | RCCP | REINFORCED CONCRETE CULVERT PIPE |
| D | DEGREE OF CURVE | RCPSS | REINFORCED CONCRETE PIPE STORM SEWER |
| DHV | DESIGN HOUR VOLUME | R.O. | RUNOUT |
| ESALS | EQUIVALENT SINGLE AXIS LOADS | R/W | RIGHT-OF-WAY |
| EXIST | EXISTING | STA | STATION |
| FE | FIELD ENTRANCE | SE | SUPER ELEVATION |
| HYD | HYDRANT | SS | STORM SEWER |
| IP | IRON PIPE OR PIN | T | TANGENT |
| L | LENGTH OF CURVE | TEL | TELEPHONE |
| LC | LONG CHORD OF CURVE | TLE | TEMPORARY LIMITED EASEMENT |
| LR | LENGTH OF RUNOFF | T | TRUCKS |
| MH | MANHOLE | VC | VERTICAL CURVE |
| | | W | WELL |

DEPARTMENT OF NATURAL RESOURCES

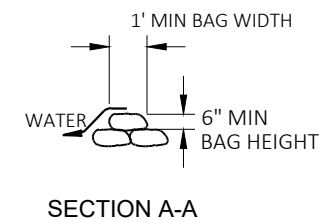
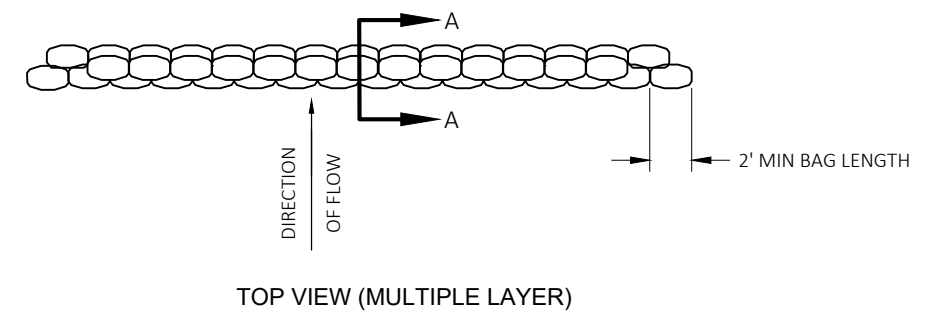
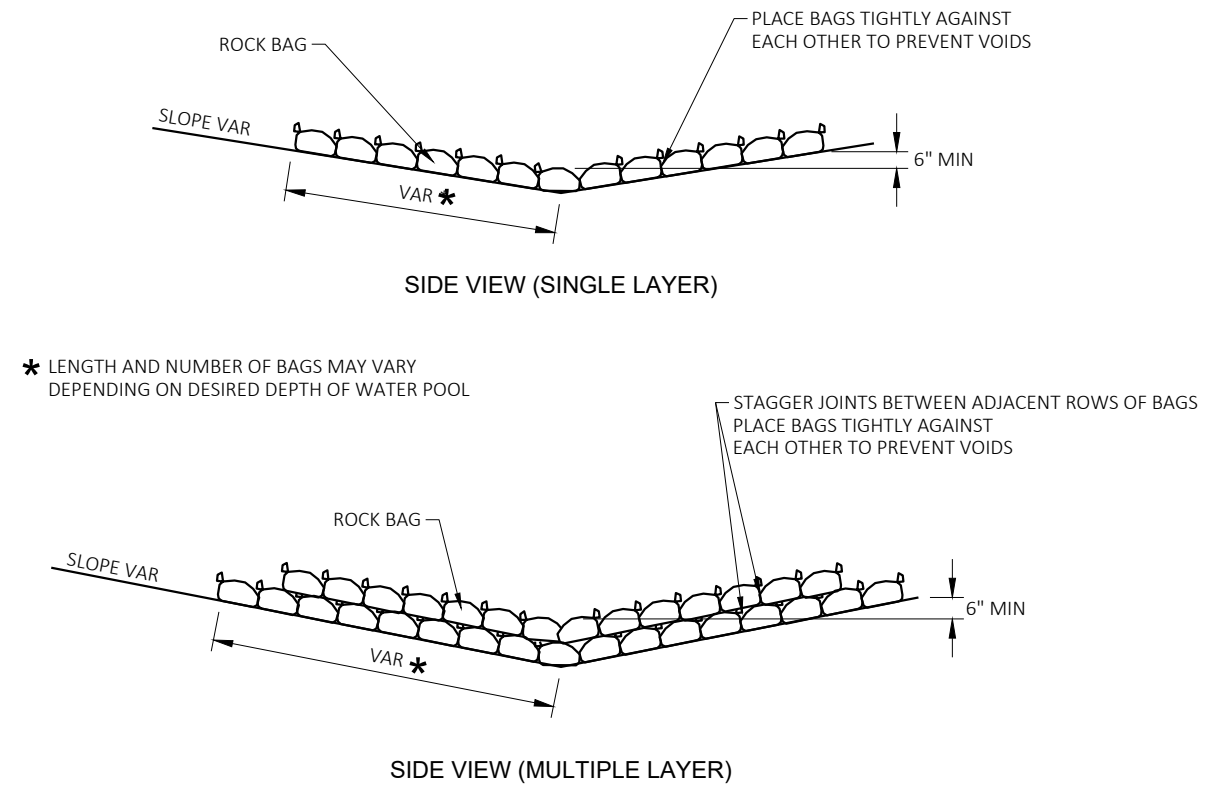
- WDNR

107 SUTLIFF AVE.
RHINELANDER, WI 54501
ATTENTION: WENDY HENNIGES
E-MAIL: WENDY.HENNIGES@WISCONSIN.GOV
- TELEPHONE 715-365-8916

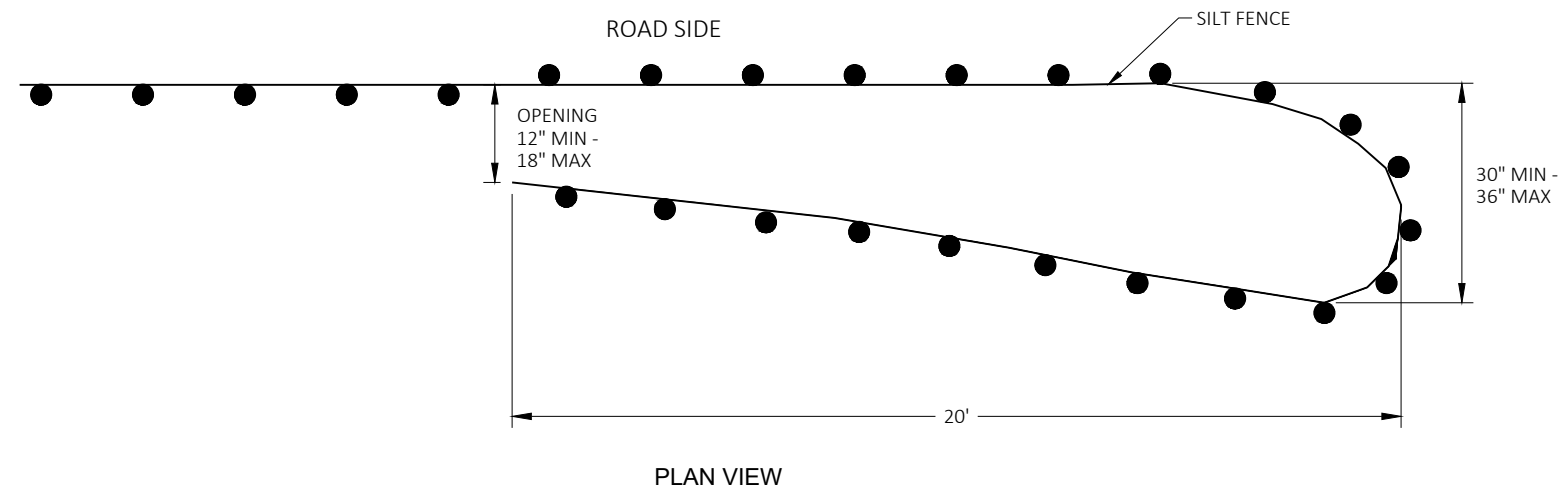




ROCK BAGS USED FOR SILT FENCE RELIEF

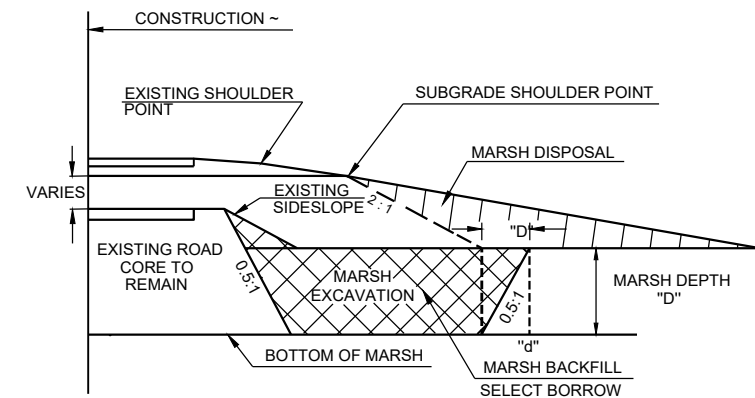


ROCK BAGS USED FOR DITCH CHECKS



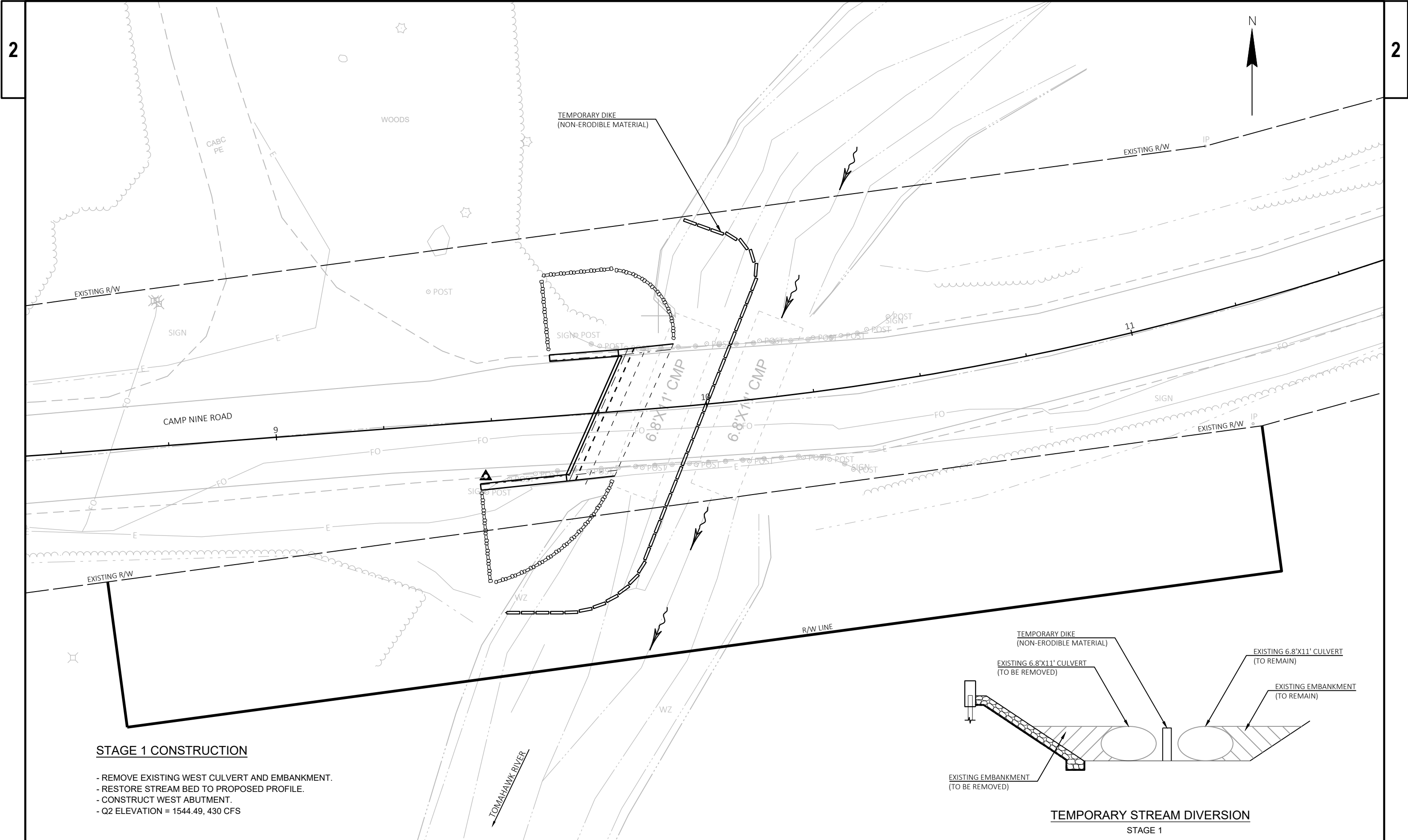
GENERAL NOTES:
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE
TURN-AROUND. AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

TEMPORARY SMALL ANIMAL TURN-AROUND



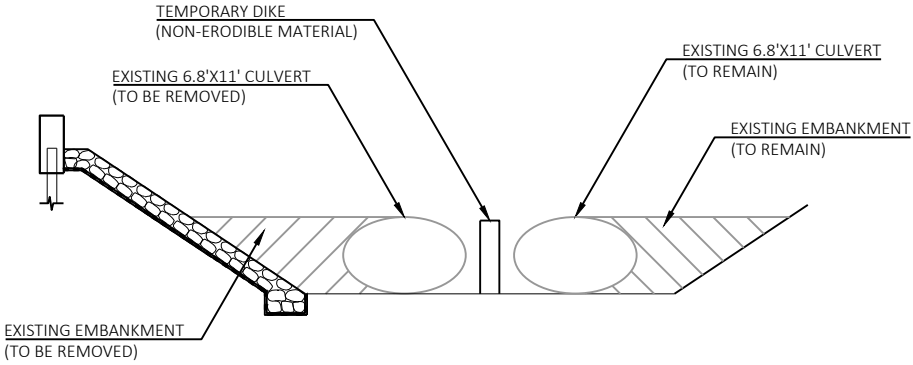
NOTE: BACKFILL QUANTITIES COMPUTED FROM POINT "d" TO
COMPENSATE FOR PROBABLE DISPLACED MARSH AREA.

TYPICAL SECTION-MARSH EXCAVATION



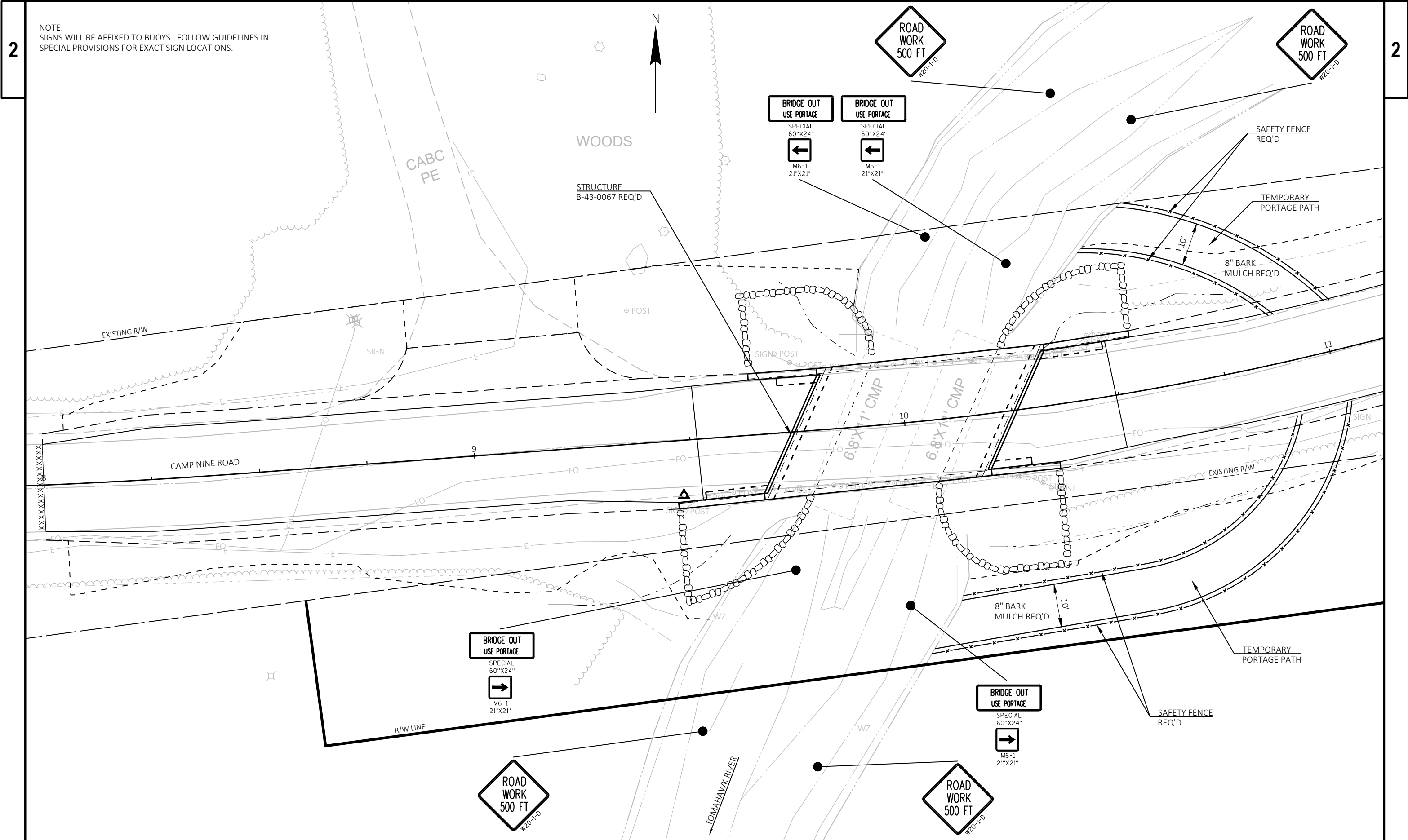
STAGE 1 CONSTRUCTION

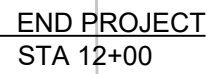
- REMOVE EXISTING WEST CULVERT AND EMBANKMENT.
- RESTORE STREAM BED TO PROPOSED PROFILE.
- CONSTRUCT WEST ABUTMENT.
- Q2 ELEVATION = 1544.49, 430 CFS



TEMPORARY STREAM DIVERSION
STAGE 1

| | | | | | |
|------------------------|---------------------|----------------|----------------------|-------|---|
| PROJECT NO: 9874-00-70 | HWY: CAMP NINE ROAD | COUNTY: ONEIDA | CONSTRUCTION DETAILS | SHEET | E |
|------------------------|---------------------|----------------|----------------------|-------|---|





BEGIN PROJECT
STA 8+00

E

Estimate Of Quantities

9874-00-70

| Line | Item | Item Description | Unit | Total | Qty |
|------|----------|---|------|------------|------------|
| 0002 | 201.0105 | Clearing | STA | 3.000 | 3.000 |
| 0004 | 201.0205 | Grubbing | STA | 3.000 | 3.000 |
| 0006 | 203.0260 | Removing Structure Over Waterway Minimal Debris (structure) 01. STA 10+00 | EACH | 1.000 | 1.000 |
| 0008 | 205.0100 | Excavation Common | CY | 364.000 | 364.000 |
| 0010 | 205.0400 | Excavation Marsh | CY | 108.000 | 108.000 |
| 0012 | 206.1001 | Excavation for Structures Bridges (structure) 01. B-43-0067 | EACH | 1.000 | 1.000 |
| 0014 | 208.1100 | Select Borrow | CY | 162.000 | 162.000 |
| 0016 | 210.1500 | Backfill Structure Type A | TON | 490.000 | 490.000 |
| 0018 | 305.0110 | Base Aggregate Dense 3/4-Inch | TON | 49.000 | 49.000 |
| 0020 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 639.000 | 639.000 |
| 0022 | 415.0410 | Concrete Pavement Approach Slab | SY | 134.000 | 134.000 |
| 0024 | 455.0605 | Tack Coat | GAL | 12.000 | 12.000 |
| 0026 | 465.0105 | Asphaltic Surface | TON | 186.000 | 186.000 |
| 0028 | 502.0100 | Concrete Masonry Bridges | CY | 236.000 | 236.000 |
| 0030 | 502.3200 | Protective Surface Treatment | SY | 250.000 | 250.000 |
| 0032 | 505.0400 | Bar Steel Reinforcement HS Structures | LB | 5,920.000 | 5,920.000 |
| 0034 | 505.0600 | Bar Steel Reinforcement HS Coated Structures | LB | 29,480.000 | 29,480.000 |
| 0036 | 513.4061 | Railing Tubular Type M | LF | 184.000 | 184.000 |
| 0038 | 516.0500 | Rubberized Membrane Waterproofing | SY | 20.000 | 20.000 |
| 0040 | 550.0500 | Pile Points | EACH | 14.000 | 14.000 |
| 0042 | 550.1100 | Piling Steel HP 10-Inch X 42 Lb | LF | 350.000 | 350.000 |
| 0044 | 606.0300 | Riprap Heavy | CY | 270.000 | 270.000 |
| 0046 | 612.0406 | Pipe Underdrain Wrapped 6-Inch | LF | 160.000 | 160.000 |
| 0048 | 618.0100 | Maintenance and Repair of Haul Roads (project) 01. 9874-00-70 | EACH | 1.000 | 1.000 |
| 0050 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 |
| 0052 | 624.0100 | Water | MGAL | 14.000 | 14.000 |
| 0054 | 625.0100 | Topsoil | SY | 1,060.000 | 1,060.000 |
| 0056 | 628.1504 | Silt Fence | LF | 734.000 | 734.000 |
| 0058 | 628.1520 | Silt Fence Maintenance | LF | 1,468.000 | 1,468.000 |
| 0060 | 628.1905 | Mobilizations Erosion Control | EACH | 5.000 | 5.000 |
| 0062 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 3.000 | 3.000 |
| 0064 | 628.2008 | Erosion Mat Urban Class I Type B | SY | 1,060.000 | 1,060.000 |
| 0066 | 628.6005 | Turbidity Barriers | SY | 183.000 | 183.000 |
| 0068 | 628.7570 | Rock Bags | EACH | 40.000 | 40.000 |
| 0070 | 629.0210 | Fertilizer Type B | CWT | 3.000 | 3.000 |
| 0072 | 630.0120 | Seeding Mixture No. 20 | LB | 29.000 | 29.000 |
| 0074 | 630.0500 | Seed Water | MGAL | 31.000 | 31.000 |
| 0076 | 634.0612 | Posts Wood 4x6-Inch X 12-FT | EACH | 6.000 | 6.000 |
| 0078 | 637.2210 | Signs Type II Reflective H | SF | 6.000 | 6.000 |
| 0080 | 637.2230 | Signs Type II Reflective F | SF | 12.000 | 12.000 |
| 0082 | 638.2102 | Moving Signs Type II | EACH | 1.000 | 1.000 |
| 0084 | 638.2602 | Removing Signs Type II | EACH | 7.000 | 7.000 |
| 0086 | 638.3000 | Removing Small Sign Supports | EACH | 6.000 | 6.000 |
| 0088 | 642.5001 | Field Office Type B | EACH | 1.000 | 1.000 |
| 0090 | 643.0420 | Traffic Control Barricades Type III | DAY | 1,296.000 | 1,296.000 |
| 0092 | 643.0705 | Traffic Control Warning Lights Type A | DAY | 2,016.000 | 2,016.000 |
| 0094 | 643.0900 | Traffic Control Signs | DAY | 1,596.000 | 1,596.000 |
| 0096 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 |
| 0098 | 645.0111 | Geotextile Type DF Schedule A | SY | 50.000 | 50.000 |

Estimate Of Quantities

9874-00-70

| Line | Item | Item Description | Unit | Total | Qty |
|------|------------|--|------|-----------|-----------|
| 0100 | 645.0120 | Geotextile Type HR | SY | 485.000 | 485.000 |
| 0102 | 650.4500 | Construction Staking Subgrade | LF | 350.000 | 350.000 |
| 0104 | 650.5000 | Construction Staking Base | LF | 350.000 | 350.000 |
| 0106 | 650.6501 | Construction Staking Structure Layout (structure) 01. B-43-0067 | EACH | 1.000 | 1.000 |
| 0108 | 650.9911 | Construction Staking Supplemental Control (project) 01. 9874-00-70 | EACH | 1.000 | 1.000 |
| 0110 | 650.9920 | Construction Staking Slope Stakes | LF | 350.000 | 350.000 |
| 0112 | 690.0150 | Sawing Asphalt | LF | 42.000 | 42.000 |
| 0114 | 715.0502 | Incentive Strength Concrete Structures | DOL | 1,416.000 | 1,416.000 |
| 0116 | 999.2000.S | Installing and Maintaining Bird Deterrent System (station) 01. 10+00 | EACH | 1.000 | 1.000 |
| 0118 | ASP.1T0A | On-the-Job Training Apprentice at \$5.00/HR | HRS | 300.000 | 300.000 |
| 0120 | ASP.1T0G | On-the-Job Training Graduate at \$5.00/HR | HRS | 600.000 | 600.000 |
| 0122 | SPV.0060 | Special 01. Temporary Water Diversion | EACH | 2.000 | 2.000 |
| 0124 | SPV.0090 | Special 01. Temporary Portage Path | LF | 155.000 | 155.000 |
| 0126 | SPV.0195 | Special 01. Select Crush Fill in Heavy Riprap | TON | 205.000 | 205.000 |

EARTHWORK SUMMARY

| DIVISION | FROM/TO STATION | LOCATION | COMMON EXCAVATION (CY) (ITEM 205.0100) | UNUSABLE PAVEMENT MATERIAL (CY) (4) | AVAILABLE MATERIAL (CY) (5) | 205.0500 MARSH EXCAVATION (CY) (6) | EXPANDED MARSH BACKFILL (CY) (10) (ITEM 208.1100) | UNEXPANDED FILL (CY) | EXPANDED FILL (CY) (13) | MASS ORDINATE +/- (CY) (14) | WASTE (CY) |
|-------------------|-----------------|-------------|--|-------------------------------------|-----------------------------|------------------------------------|---|----------------------|-------------------------|-----------------------------|------------|
| | | | CUT (2) | | | | FACTOR 1.50 | | FACTOR 1.30 | | |
| 1 | 8+00 - 12+00 | CAMP 9 ROAD | 364 | 36 | 328 | 108 | 162 | 94 | 122 | 206 | 206 |
| DIVISION 1 TOTALS | | | 364 | 36 | 328 | 108 | 162 | 94 | 122 | 206 | 206 |

- 1) Unusable Pavement Material is included in Cut
4) Unusable Pavement Material = Existing Asphaltic Pavement.
5) Available Material = Cut - Unusable Pavement Material
6) Marsh Excavation. To be backfilled with Select Borrow.
10) Expanded Marsh Backfill - This is to be filled with Select Borrow. Marsh Backfill Factor = 1.5. Item Number 208.1100
13) Expanded Fill, Factor = 1.3 Expanded Fill = Unexpanded Fill * Fill Factor
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

CLEARING & GRUBBING

| STATION | TO | STATION | LOCATION | 201.0105 CLEARING STA | 201.0205 GRUBBING STA |
|---------|----|---------|----------------|-----------------------------|-----------------------------|
| 9+00 | - | 12+00 | CAMP NINE ROAD | 3 | 3 |
| TOTAL | | | | 3 | 3 |

CONCRETE PAVEMENT

| STATION | TO | STATION | LOCATION | 415.0410 CONCRETE PAVEMENT APPROACH SLAB SY |
|---------|----|---------|----------------|---|
| 9+51 | - | 9+75 | CAMP NINE ROAD | 66 |
| 10+25 | - | 10+50 | CAMP NINE ROAD | 68 |
| TOTAL | | | | 134 |

HMA PAVEMENT

| STATION | TO | STATION | LOCATION | 455.0605 TACK COAT GAL | 465.0105 ASPHALTIC SURFACE TON |
|---------|----|---------|----------------|------------------------------|---|
| 8+00 | - | 9+75 | CAMP NINE ROAD | 6 | 94 |
| 10+26 | - | 12+00 | CAMP NINE ROAD | 6 | 92 |
| TOTAL | | | | 12 | 186 |

BASE AGGREGATE DENSE & WATER

| STATION | TO | STATION | LOCATION | 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON | 305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON | 624.0100 WATER MGAL |
|---------|----|---------|----------------|--|--|---------------------------|
| 8+00 | - | 9+75 | CAMP NINE ROAD | 25 | 322 | 7 |
| 10+26 | - | 12+00 | CAMP NINE ROAD | 24 | 317 | 7 |
| TOTAL | | | | 49 | 639 | 14 |

NOTE:
ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

LANDSCAPING

| | | | | 625.0100 | 629.0210 | 630.0120 | 630.0500 |
|---------|----|---------|-------------------------|----------|-----------------|----------------|------------|
| | | | | TOPSOIL | FERTILIZER TYPE | SEEDING | SEED WATER |
| | | | | SY | B | MIXTURE NO. 20 | MGAL |
| STATION | TO | STATION | LOCATION | | CWT | LB | |
| 8+00 | - | 10+00 | CAMP NINE ROAD, LT & RT | 404 | 1 | 11 | 12 |
| 10+00 | - | 12+00 | CAMP NINE ROAD, LT & RT | 444 | 1 | 12 | 13 |
| | - | | UNDISTRIBUTED | 212 | 1 | 6 | 6 |
| TOTAL | | | | 1,060 | 3 | 29 | 31 |

ROCK BAGS

| STATION | LOCATION | 628.7570 ROCK BAGS EACH |
|---------|--------------------|-------------------------------|
| 9+42 | CAMP NINE ROAD, RT | 8 |
| 9+68 | CAMP NINE ROAD, LT | 8 |
| 10+23 | CAMP NINE ROAD, RT | 8 |
| 10+63 | CAMP NINE ROAD, LT | 8 |
| | UNDISTRIUTED | 8 |
| TOTAL | | 40 |

EROSION MAT

| STATION | TO | STATION | LOCATION | 628.2008 EROSION MAT URBAN CLASS I TYPE B SY |
|---------|----|---------|----------------|--|
| 8+00 | - | 9+65 | CAMP NINE ROAD | 404 |
| 10+12 | - | 12+00 | CAMP NINE ROAD | 444 |
| | - | | UNDISTRIBUTED | 212 |
| TOTAL | | | | 1,060 |

NOTE:
ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

SILT FENCE

| | | | | 628.1504 | 628.1520 |
|---------|----|---------|--------------------|------------|-------------|
| | | | | SILT FENCE | SILT FENCE |
| | | | | LF | MAINTENANCE |
| STATION | TO | STATION | LOCATION | | LF |
| 8+00 | - | 8+86 | CAMP NINE ROAD, LT | 92 | 184 |
| 8+00 | - | 9+38 | CAMP NINE ROAD, RT | 143 | 286 |
| 9+26 | - | 9+64 | CAMP NINE ROAD, LT | 38 | 76 |
| 10+68 | - | 12+00 | CAMP NINE ROAD, LT | 135 | 270 |
| 10+26 | - | 12+00 | CAMP NINE ROAD, RT | 179 | 358 |
| | | | UNDISTRIBUTED | 147 | 294 |
| TOTAL | | | | 734 | 1,468 |

MOBILIZATIONS EROSION CONTROL

| | | | 628.1905 | 628.1910 |
|-------------------------|--|--|---------------|---------------|
| | | | MOBILIZATIONS | MOBILIZATIONS |
| | | | EROSION | EMERGENCY |
| | | | CONTROL | EROSION |
| | | | EACH | CONTROL |
| LOCATION | | | | EACH |
| CAMP NINE ROAD, LT & RT | | | 5 | 3 |
| TOTAL | | | 5 | 3 |

TURBIDITY BARRIER

| STATION | TO | STATION | LOCATION | 628.6005 TURBIDITY BARRIERS SY |
|---------|----|---------|----------------|---|
| 9+50 | - | 10+00 | CAMP NINE ROAD | 100 |
| 10+00 | - | 10+50 | CAMP NINE ROAD | 83 |
| TOTAL | | | | 183 |

3

3

| STATION | LOCATION | 634.0612 | 637.2210 | 637.2230 | | REMARKS |
|-------------|-------------------------|------------------------------------|-------------------------------|--------------------------------------|--------------------------------------|---------|
| | | POSTS WOOD 4X6-INCH X 12- FT | SIGNS TYPE II REFLECTIVE H | SIGNS TYPE II REFLECTIVE F W5-52L | SIGNS TYPE II REFLECTIVE F W5-52R | |
| | | EACH | SF | SF | SF | |
| SW QUADRANT | CAMP NINE ROAD | 1 | - | - | 3 | |
| NW QUADRANT | CAMP NINE ROAD | 1 | - | 3 | - | |
| SE QUADRANT | CAMP NINE ROAD | 1 | - | 3 | - | |
| NE QUADRANT | CAMP NINE ROAD | 1 | - | - | 3 | |
| 11+72 | CAMP NINE ROAD, LT & RT | 2 | 6 | - | - | 35 MPH |
| TOTAL | | 6 | 6 | 12 | | |

| STATION | LOCATION | DESCRIPTION | 638.2102 | 638.2602 | 638.3000 | REMARKS |
|---------|--------------------|---------------------|---------------------------------|-----------------------------------|--|--------------------------------------|
| | | | MOVING SIGNS TYPE II EACH | REMOVING SIGNS TYPE II EACH | REMOVING SMALL SIGN SUPPORTS EACH | |
| 9+50 | CAMP NINE ROAD, RT | OBJECT MARKER | | 1 | 1 | |
| 9+70 | CAMP NINE ROAD, LT | OBJECT MARKER | | 1 | 1 | |
| 10+30 | CAMP NINE ROAD, RT | OBJECT MARKER | | 1 | 1 | |
| 10+45 | CAMP NINE ROAD, LT | OBJECT MARKER | | 1 | 1 | |
| 11+05 | CAMP NINE ROAD, RT | "ATV 25MPH" SIGN | 1 | | | |
| 11+72 | CAMP NINE ROAD, LT | SPEED LIMIT "35MPH" | | 2 | 1 | SALVAGE "SLOW CHILDREN AT PLAY" SIGN |
| 11+72 | CAMP NINE ROAD, RT | SPEED LIMIT "35MPH" | | 1 | 1 | |
| TOTAL | | | 1 | 7 | 6 | |

| LOCATION | APPROX. SERVICE PERIOD | 643.0420 | | 643.0705 | | 643.0900 | | REMARKS |
|---------------------------------|---------------------------|--|-----|--|-----|-----------------------|-----|--|
| | | TRAFFIC CONTROL BARRICADES TYPE III | | TRAFFIC CONTROL WARNING LIGHTS TYPE A | | TRAFFIC CONTROL SIGNS | | |
| | | NO. IN SERVICE | DAY | NO. IN SERVICE | DAY | NO. IN SERVICE | DAY | |
| CAMP NINE ROAD WEST APPROACH | 72 | 7 | 504 | 4 | 288 | 4 | 288 | REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C & D" |
| CAMP NINE ROAD EAST APPROACH | 72 | 7 | 504 | 10 | 720 | 4 | 288 | REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C & D" |
| CAMP NINE ROAD & BLUE LAKE ROAD | 72 | 2 | 144 | 10 | 720 | 3 | 216 | REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C & D" |
| CAMP NINE ROAD & MANHARDT ROAD | 72 | 2 | 144 | 4 | 288 | 3 | 216 | REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C & D" |
| TOTAL | | 1,296 | | 2,016 | | 1,008 | | |

ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

| CONSTRUCTION STAKING | | | | | | | | | |
|----------------------|---------------|----|---------|----------------|--------------|--------------|-----------------|------------------|---------------|
| | | | | | 650.4500 | 650.5000 | 650.6501.01 | 650.9911.01 | 650.9920 |
| | | | | | | | CONSTRUCTION | CONSTRUCTION | |
| | | | | | | | STAKING | STAKING | |
| | | | | | | | STRUCTURE | SUPPLEMENTAL | |
| | | | | | CONSTRUCTION | | LAYOUT | CONTROL | CONSTRUCTION |
| | | | | | STAKING | CONSTRUCTION | (STRUCTURE) (B- | (PROJECT) (9874- | STAKING SLOPE |
| | | | | | SUBGRADE | STAKING BASE | 43-67) | 00-70) | STAKES |
| CATEGORY | STATION | TO | STATION | LOCATION | LF | LF | EACH | EACH | LF |
| 0010 | 8+00 | - | 9+75 | CAMP NINE ROAD | 175 | 175 | - | - | 175 |
| 0010 | 10+25 | - | 12+00 | CAMP NINE ROAD | 175 | 175 | - | - | 175 |
| | PROJECT | | | CAMP NINE ROAD | - | - | - | 1 | - |
| | TOTAL 0010 | | | | 350 | 350 | 0 | 1 | 350 |
| 0020 | B-43-67 | | | CAMP NINE ROAD | - | - | 1 | - | - |
| | TOTAL 0020 | | | | 0 | 0 | 1 | 0 | 0 |
| | PROJECT TOTAL | | | | 350 | 350 | 1 | 1 | 350 |

| BIRD DETERRENT | | |
|----------------|----------------|--|
| | | 999.2000.S.01 |
| | | INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM (10+00) |
| STATION | LOCATION | EACH |
| 10+00 | CAMP NINE ROAD | 1 |
| TOTAL | | 1 |

| SAWING ASPHALT | | |
|----------------|----------------|----------------|
| | | 690.0150 |
| | | SAWING ASPHALT |
| STATION | LOCATION | LF |
| 8+00 | CAMP NINE ROAD | 21 |
| 12+00 | CAMP NINE ROAD | 21 |
| TOTAL | | 42 |

| TEMPORARY PORTAGE PATH | | | | |
|------------------------|----|---------|--------------------|--------------------------------------|
| | | | | SPV.0090.01 |
| | | | | SPECIAL (01. TEMPORARY PORTAGE PATH) |
| STATION | TO | STATION | LOCATION | LF |
| 10+00 | - | 11+00 | CAMP NINE ROAD, RT | 100 |
| 10+45 | - | 11+00 | CAMP NINE ROAD, LT | 55 |
| TOTAL | | | | 155 |

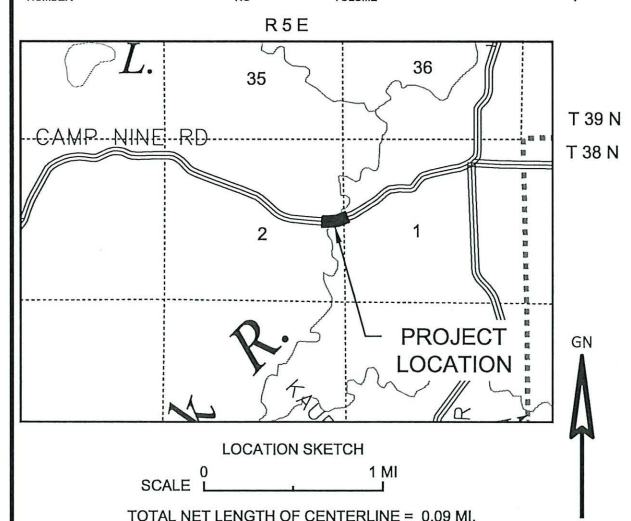
| TEMPORARY WATER DIVERSION | | | | |
|---------------------------|---------|----------------|------|---|
| | | | | SPV.0060.01 |
| | | | | SPECIAL (01. TEMPORARY WATER DIVERSION) |
| CATEGORY | STATION | LOCATION | EACH | REMARKS |
| 0020 | 10+00 | CAMP NINE ROAD | 2 | TOMAHAWK RIVER |
| TOTAL | | | 2 | |

NOTE:
ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE

| | | |
|---|-----------------|-----------------|
| R/W PROJECT NUMBER 9874-00-00 | SHEET NUMBER | TOTAL SHEETS |
| CONSTRUCTION PROJECT NUMBER 9874-00-70 | 4.01 | 1 |
| <p>PLAT OF RIGHT OF WAY REQUIRED FOR</p> <p>T MINOCQUA, CAMP NINE ROAD</p> <p>MANHARDT ROAD TO CEDAR FALLS ROAD</p> | | |
| LOC STR | ONEIDA COUNTY | |

| EXISTING IRON PIPES POINT TABLE | | | |
|---------------------------------|------------|------------|-------------|
| POINT NAME | Y COORDS | X COORDS | DESCRIPTION |
| 1000 | 228072.797 | 160440.950 | 2"IRON PIPE |
| 1001 | 228037.506 | 160307.873 | 2"IRON PIPE |
| 1002 | 227988.844 | 159953.782 | 2"IRON PIPE |
| 1003 | 228055.367 | 159953.075 | 2"IRON PIPE |
| 1004 | 228101.864 | 160296.768 | 2"IRON PIPE |

| CONVENTIONAL ABBREVIATIONS | | | |
|----------------------------|-------|----------------------------------|-------|
| ACCESS RIGHTS | AR | OUTLOT | OL |
| ACRES | AC | PA | P |
| AHEAD | AH | POINT OF TANGENCY | PT |
| ALUMINUM | ALUM | PROPERTY LINE | PL |
| AND OTHERS | ET AL | RECORDED AS | (100) |
| BACK | BK | REEL / IMAGE | R/I |
| BLOCK | BLK | REFERENCE LINE | R/L |
| CENTERLINE | CL | PERMANENT LIMITED EASEMENT | PLE |
| CERTIFIED SURVEY MAP | CSM | POINT OF BEGINNING | POB |
| CONCRETE | CONC | POINT OF CURVATURE | POC |
| COUNTY | CO | POINT OF COMPOUND CURVE | PC |
| COUNTY TRUNK HIGHWAY | CTH | POINT OF INTERSECTION | POI |
| DISTANCE | DIST | REMAINING | REM |
| CORNER | COR | RESTRICTIVE DEVELOPMENT EASEMENT | RDE |
| DOCUMENT NUMBER | DOC | RIGHT | RT |
| EASEMENT | EASE | RIGHT OF WAY | RW |
| EXISTING | EX | SECTION | SEC |
| GAS VALVE | GV | SEPTIC VENT | SEPV |
| GRID NORTH | GN | SQUARE FEET | SF |
| HIGHWAY EASEMENT | HE | STATE TRUNK HIGHWAY | STH |
| IDENTIFICATION | ID | STATION | STA |
| LAND CONTRACT | LC | TELEPHONE PEDESTAL | TP |
| LEFT | L | TEMPORARY LIMITED EASEMENT | TLE |
| MONUMENT | MON | TRANSPORTATION PROJECT PLAT | TYP |
| NATIONAL GEODETIC SURVEY | NGS | UNITED STATES HIGHWAY | USH |
| NUMBER | NQ | VOLUME | V |



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ONEIDA COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSE ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (½"x24" CAPPED IRON REBAR WEIGHING 1.50 LBS./LIN. FT.) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

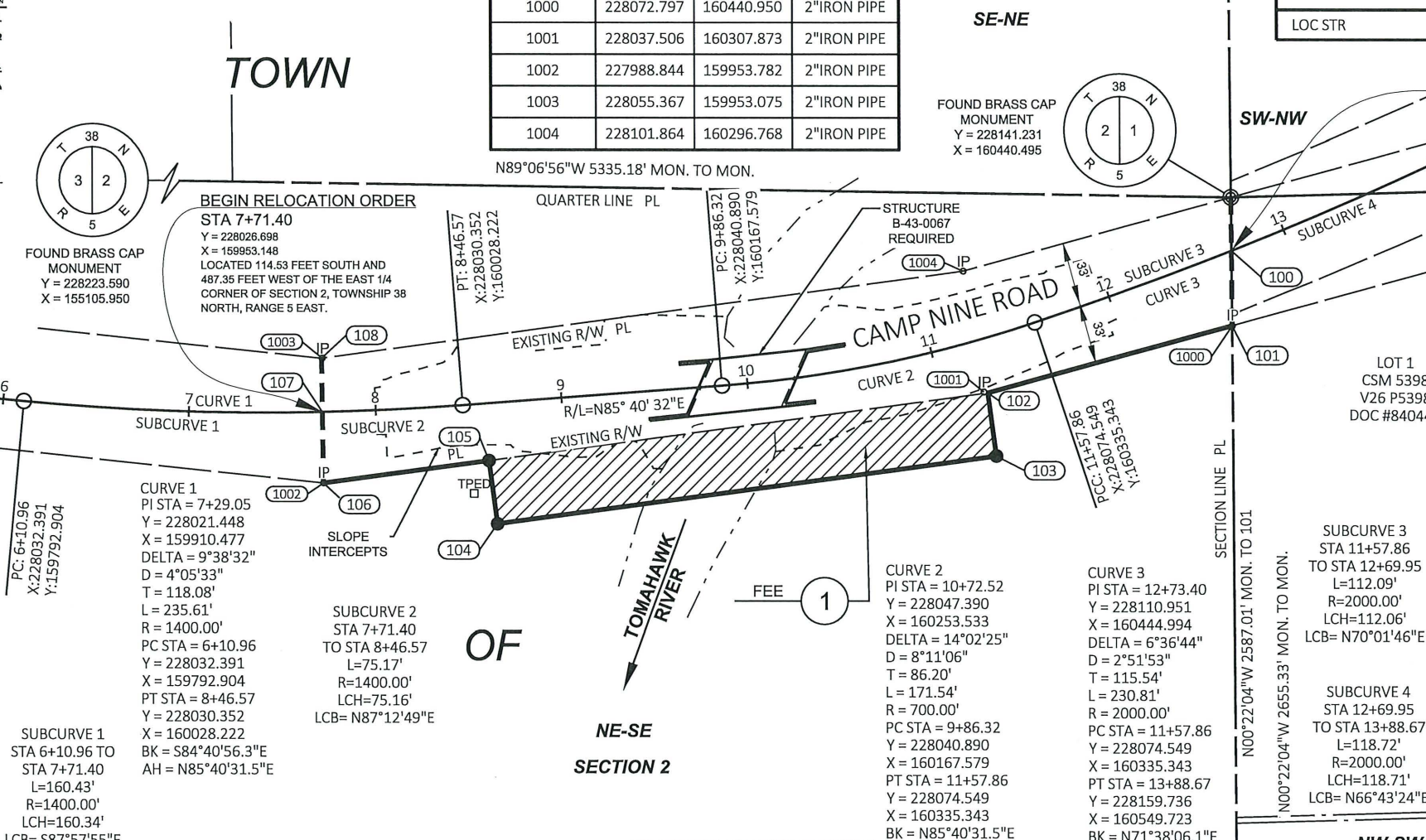
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING ROAD RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING RIGHT OF WAY OF CAMP NINE ROAD WAS DETERMINED FROM CSM 1934, CSM 5398 AND PRESUMED 66' WIDE PER STATE STATUTE 82.31(2).

| STATION & OFFSET TABLE | | |
|------------------------|----------|----------|
| POINT | STATION | OFFSET |
| 100 | 12+69.95 | 0.00' |
| 101 | 12+55.78 | 37.26'RT |
| 102 | 11+23.35 | 28.48'RT |
| 103 | 11+19.09 | 62.18'RT |
| 104 | 8+60.49 | 64.43'RT |
| 105 | 8+58.49 | 30.49'RT |
| 106 | 7+71.14 | 37.85'RT |
| 107 | 7+71.40 | 0.00' |
| 108 | 7+71.60 | 28.62'LT |
| 1004 | 11+28.26 | 37.49'LT |

| R/W COURSE TABLE | | |
|------------------|-------------|----------|
| COURSE | BEARING | DISTANCE |
| MON-100 | S00°22'04"E | 28.41' |
| 100-101 | S00°22'04"E | 39.91' |
| 101-102 | S74°40'56"W | 135.79' |
| 102-103 | S07°42'16"E | 34.00' |
| 103-104 | S82°17'44"W | 270.00' |
| 104-105 | N07°42'16"W | 34.00' |
| 105-106 | S82°17'44"W | 89.50' |
| 106-107 | N00°51'03"W | 37.85' |
| 107-108 | N00°51'03"W | 28.62' |
| 108-1004 | N82°17'44"E | 347.18' |
| 1004-MON | N74°40'56"E | 149.02' |



APPROVED
FOR
TOWN OF MINOCQUA

6/6/24 DATE Mark Hartzheim MARK HARTZHEIM - TOWN CHAIRMAN

PLAT PREPARED BY
AYRES

THE SURVEY IS PREPARED AT THE REQUEST OF TOWN OF MINOCQUA.

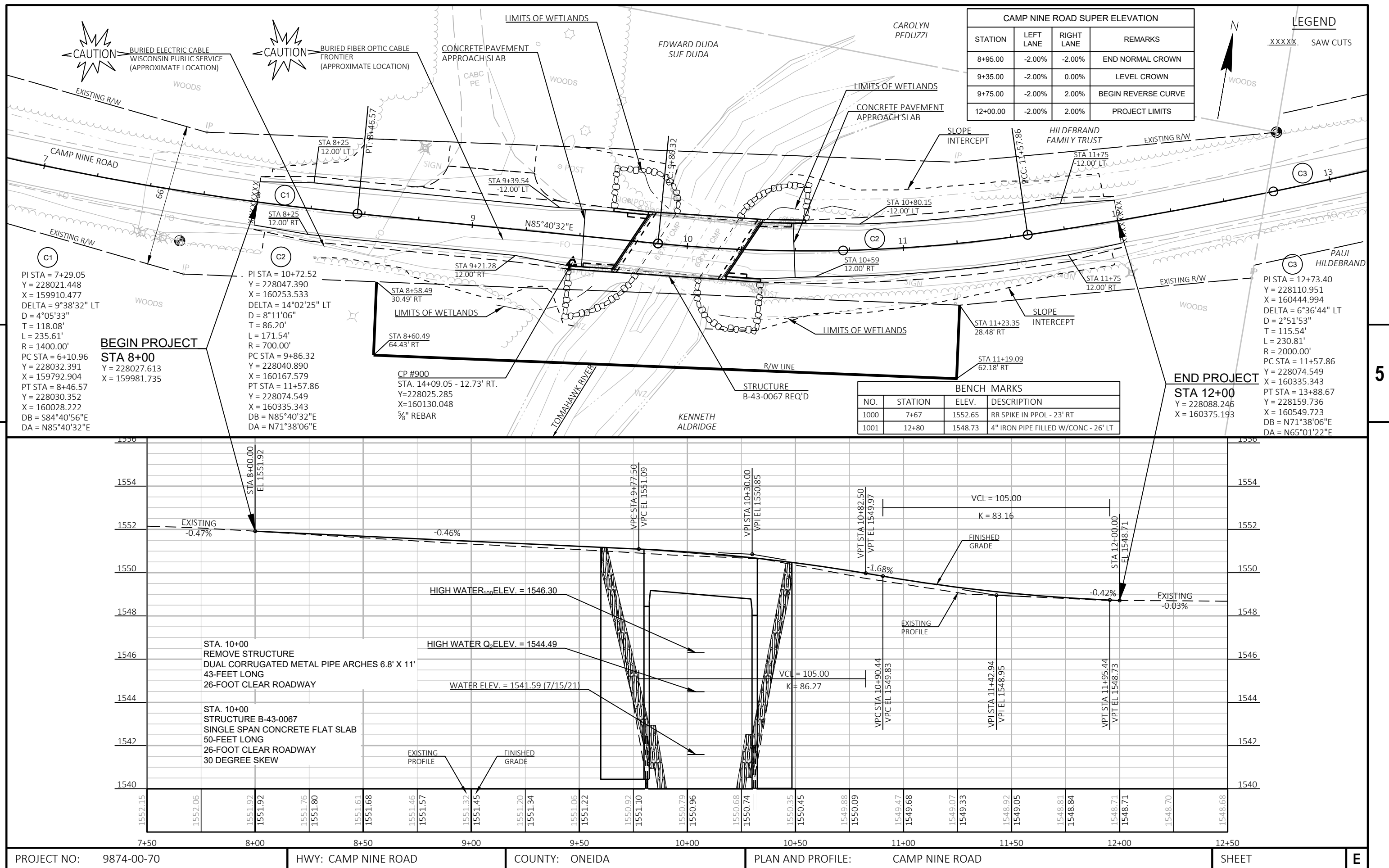
THE FIELD SURVEY WAS PERFORMED IN JUNE 2023.

THIS SURVEY IS ACCURATE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
JACOB S. JENSEN
S-2961
ASHWAUBENON, WI
LAND SURVEYOR

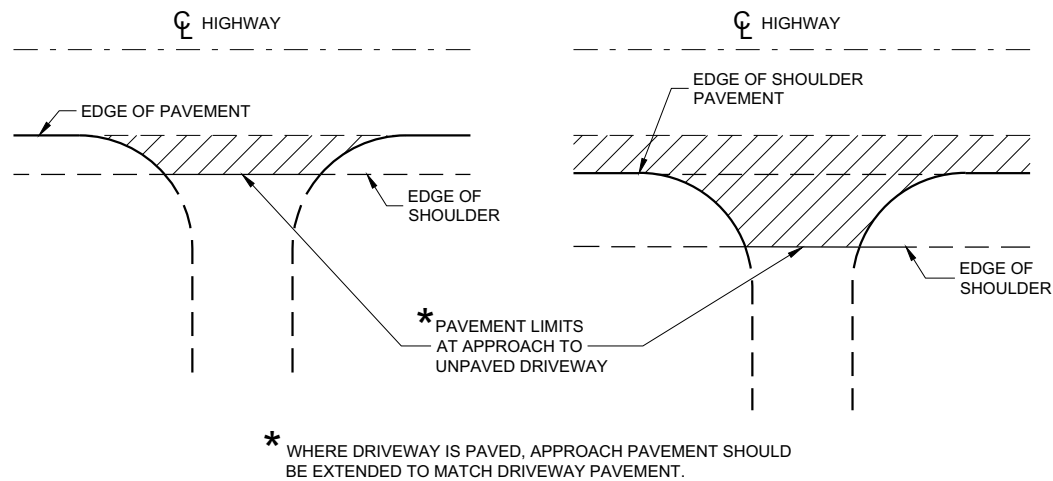
Mark Jensen JUNE 5, 2024

JACOB S. JENSEN, P.L.S. DATE
S-2961



Standard Detail Drawing List

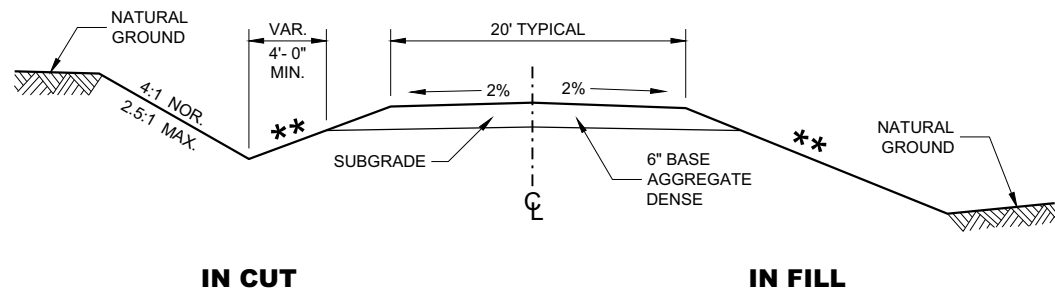
| | |
|-----------|---|
| 08D21-01 | DRIVEWAYS WITHOUT CURB & GUTTER |
| 08E09-06 | SILT FENCE |
| 08E11-02 | TURBIDITY BARRIER |
| 12A03-10 | NAME PLATE (STRUCTURES) |
| 13B02-09A | CONCRETE PAVEMENT APPROACH SLAB |
| 13C19-03 | HMA LONGITUDINAL JOINTS |
| 15C02-09A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES |
| 15C02-09B | BARRICADES AND SIGNS FOR VARIOUS CLOSURES |
| 15C06-12 | SIGNING & MARKING FOR TWO LANE BRIDGES |
| 15C11-10A | CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST |
| 15C11-10B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

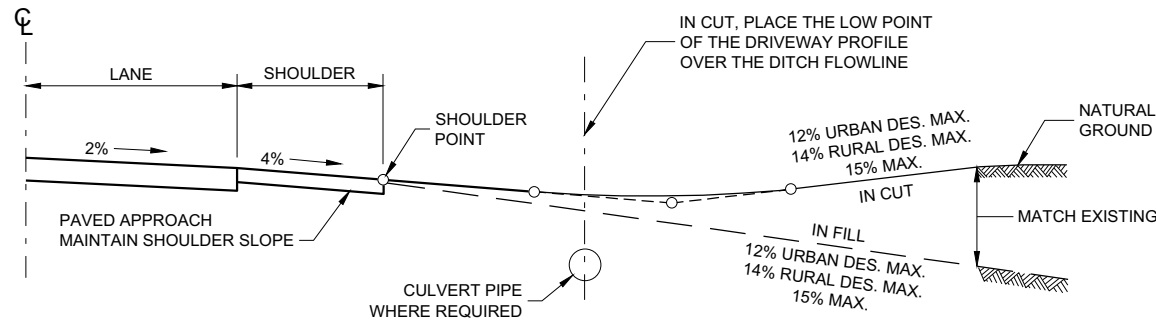
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



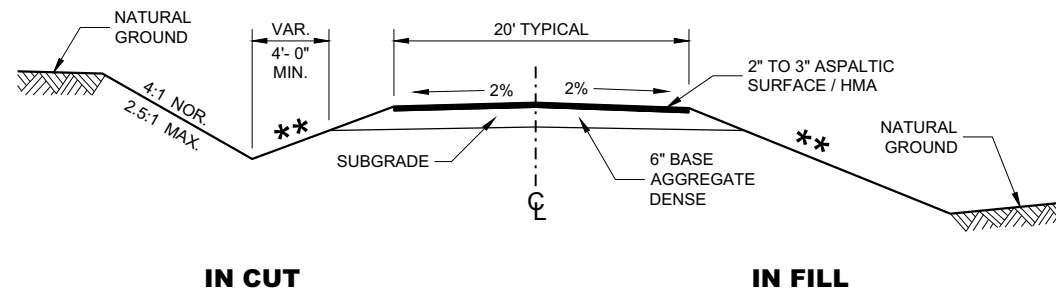
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

****** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

| POSTED SPEED MPH | MAX. SLOPE |
|---------------------|---------------|
| <35 | 4:1 |
| ≥ 35 TO < 60 | 6:1 |
| ≥60 | 10:1 |



TYPICAL DRIVEWAY PROFILES



**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

**DRIVEWAYS WITHOUT
CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

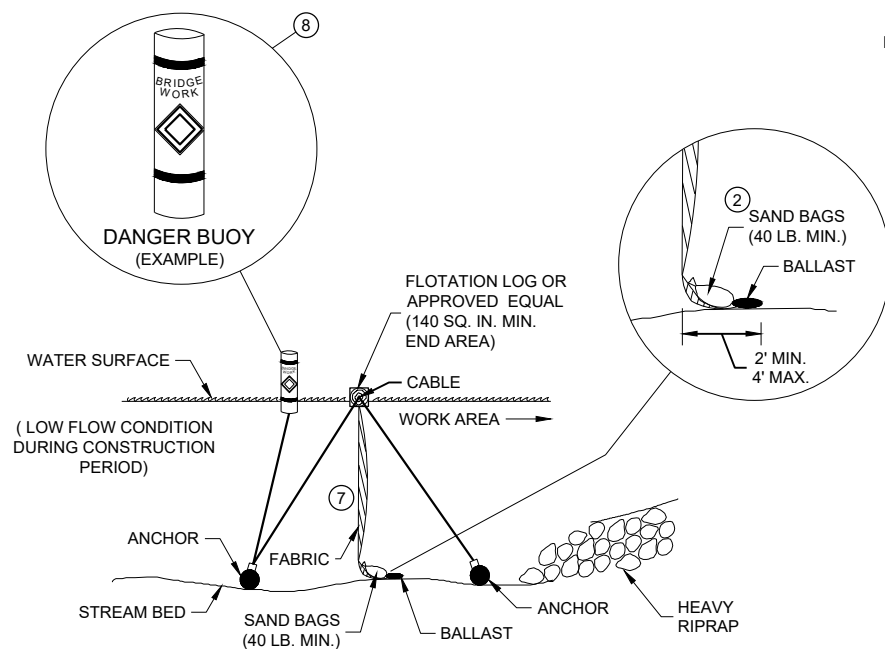
APPROVED
December 2017
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR
FHWA



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

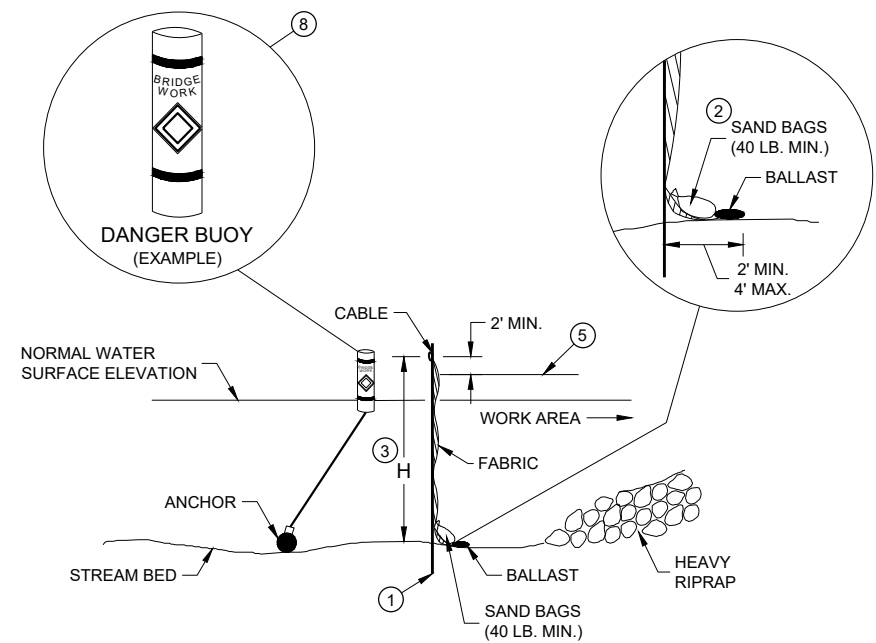


| | |
|---|---|
| <div style="text-align: center;">SILT FENCE</div> | |
| <div style="text-align: center;">STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</div> | |
| <div>APPROVED <u>4-29-05</u> DATE</div> | <div><u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER</div> |



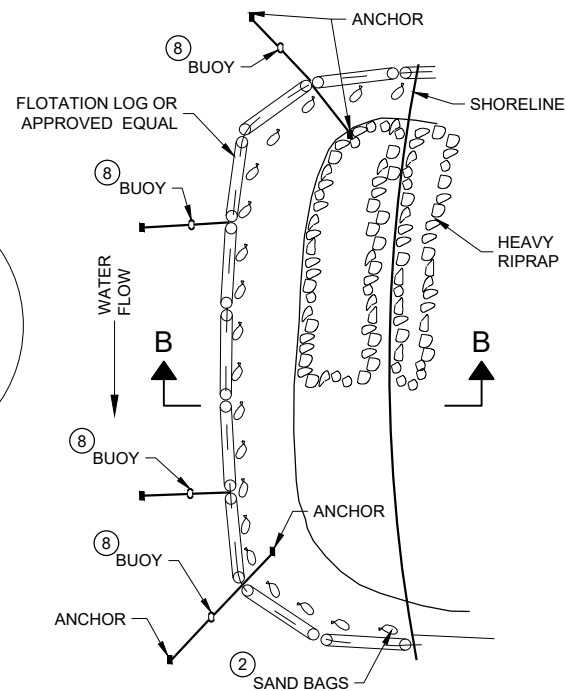
SECTION B - B

TURBIDITY BARRIER - FLOAT ALTERNATIVE CAUTION - SEE NOTE 6

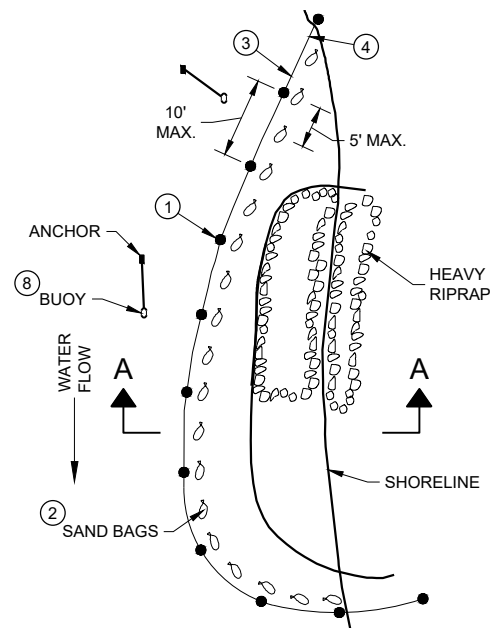


SECTION A - A

TURBIDITY BARRIER - STANDARD POST INSTALLATION



PLAN VIEW



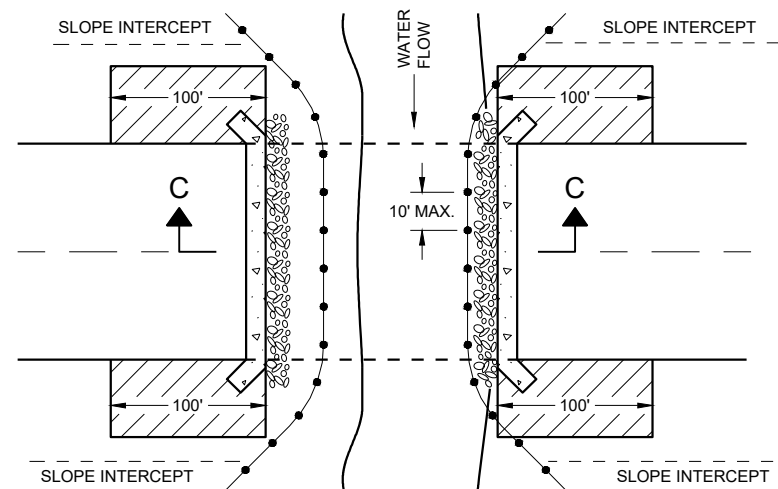
PLAN VIEW

GENERAL NOTES

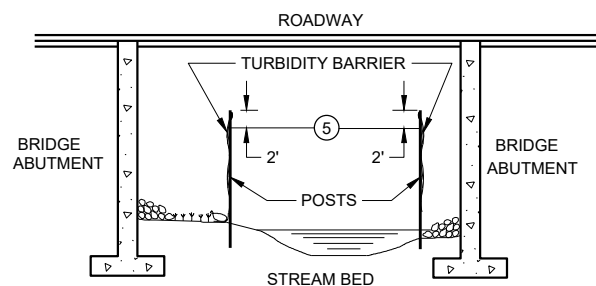
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- 1 DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- 2 SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- 3 WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.
- 4 IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- 5 ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- 6 FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.
- 7 ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- 8 USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/4/02

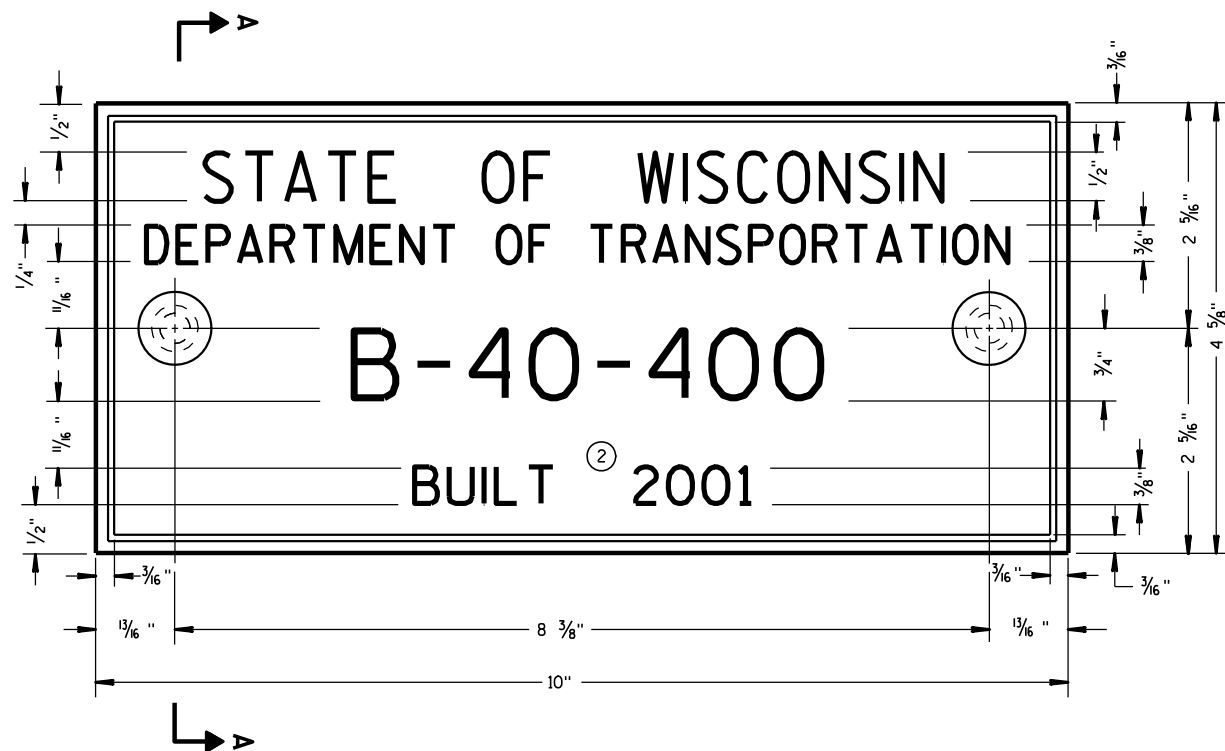
DATE

FHWA

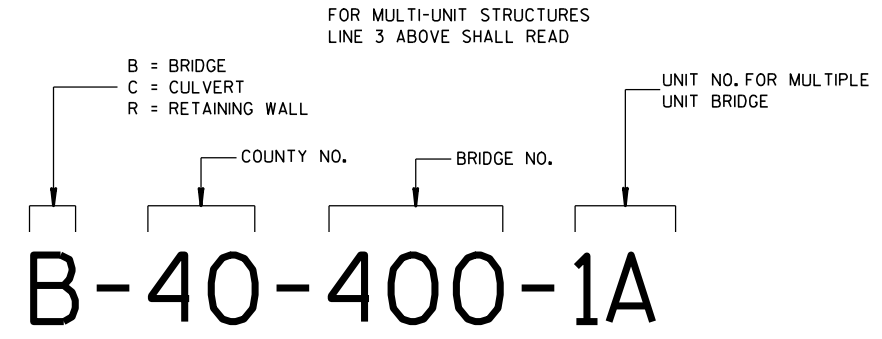
/S/ Beth Cannestra

CHIEF ROADWAY DEVELOPMENT

ENGINEER



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



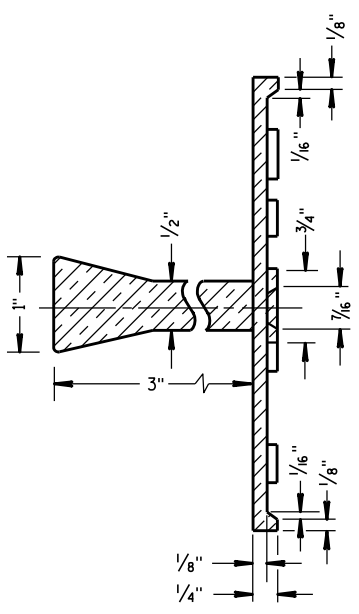
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

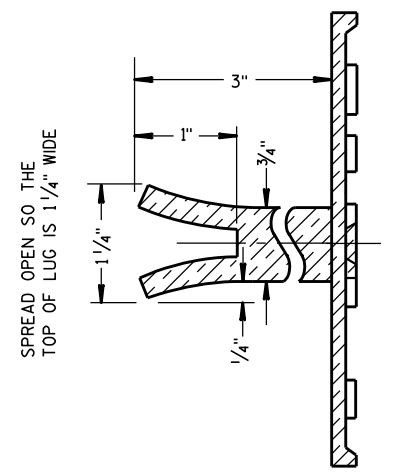
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

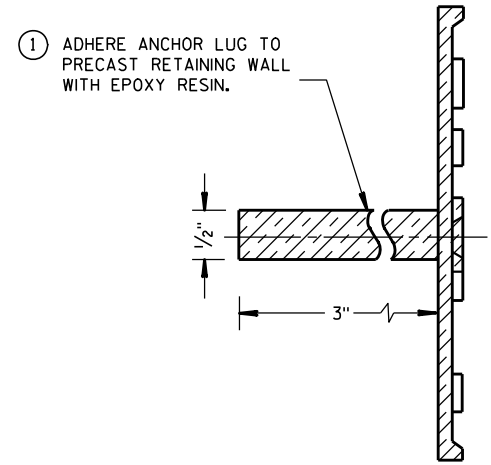
- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A

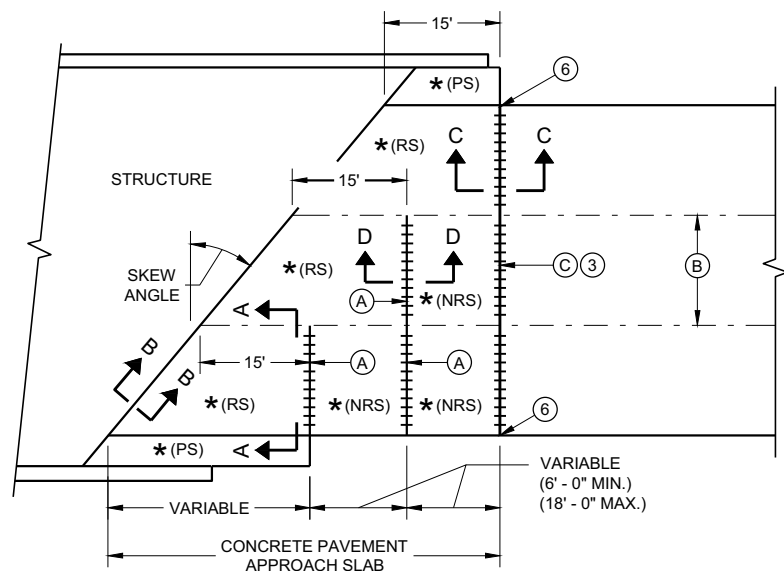


ALTERNATE LUG

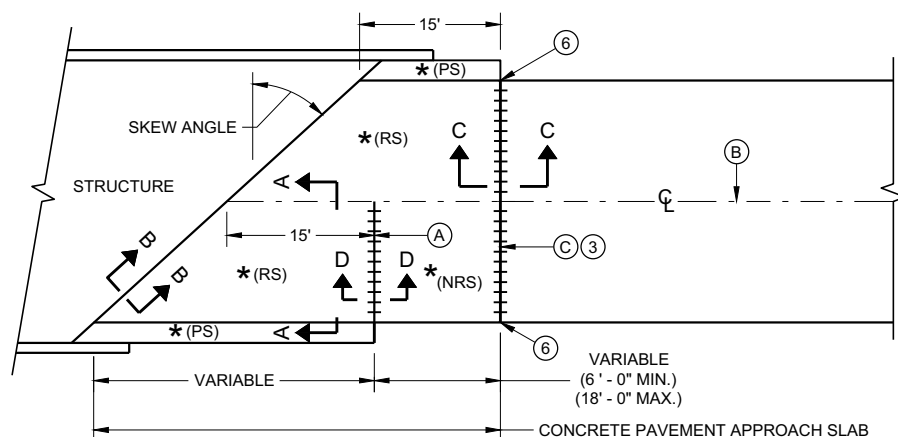


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

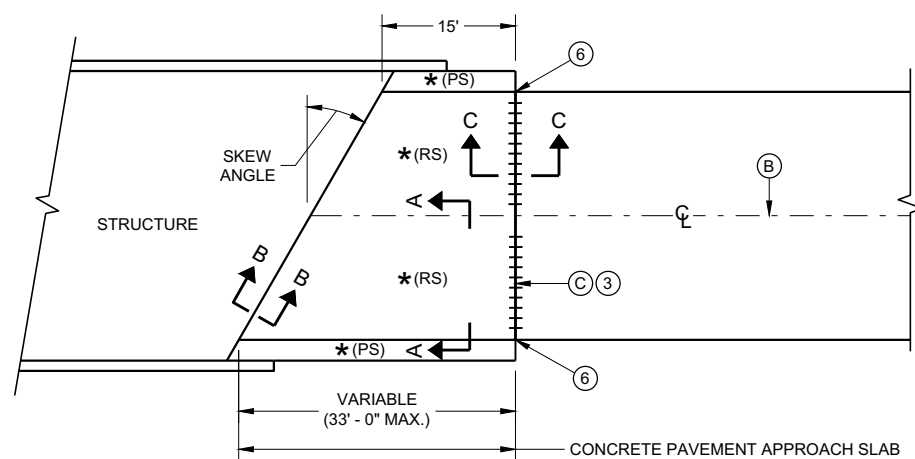
| | |
|--|--|
| NAME PLATE (STRUCTURES) | |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | |
| APPROVED 3/26/10 DATE | /S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER |
| FHWA | |



**SKewed APPROACH
(PAVEMENT MORE THAN TWO LANES)**



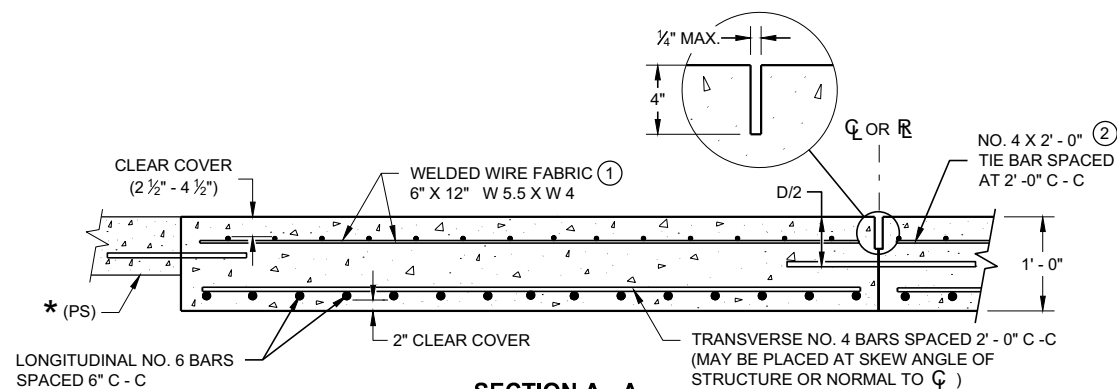
**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**



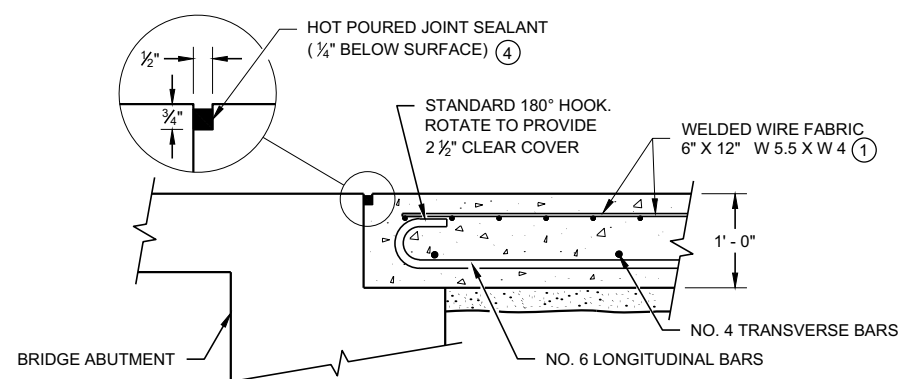
**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')**

APPROACH SLAB AND ADJACENT PAVEMENT

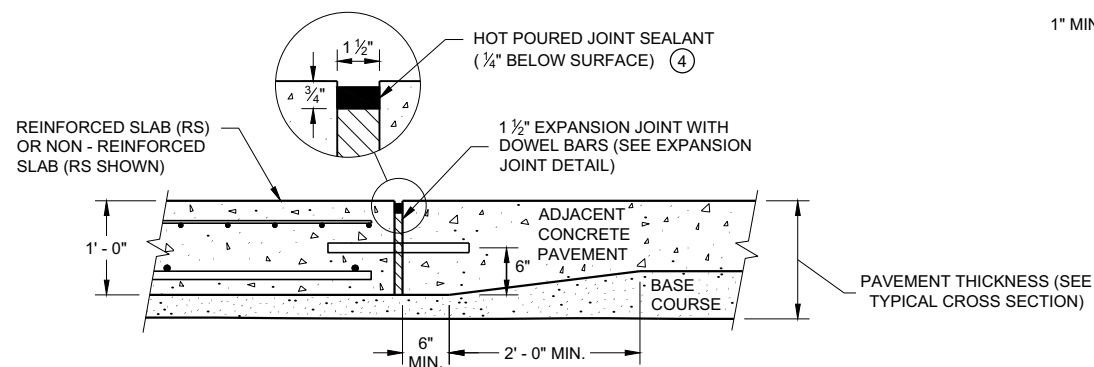
- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) = NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



**SECTION A - A
REINFORCEMENT POSITIONING DETAIL**



**SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT**



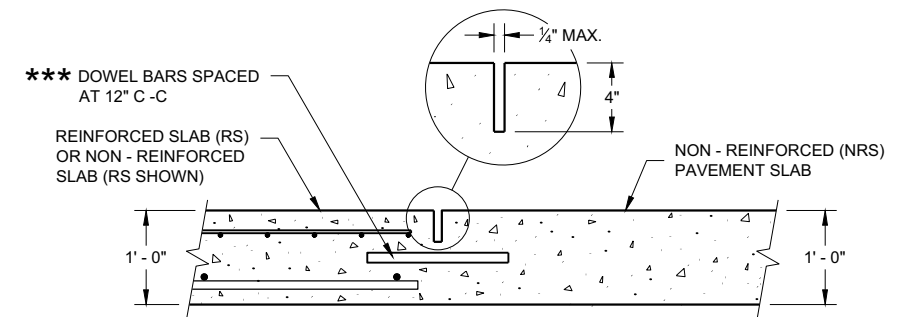
**SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**

GENERAL NOTES

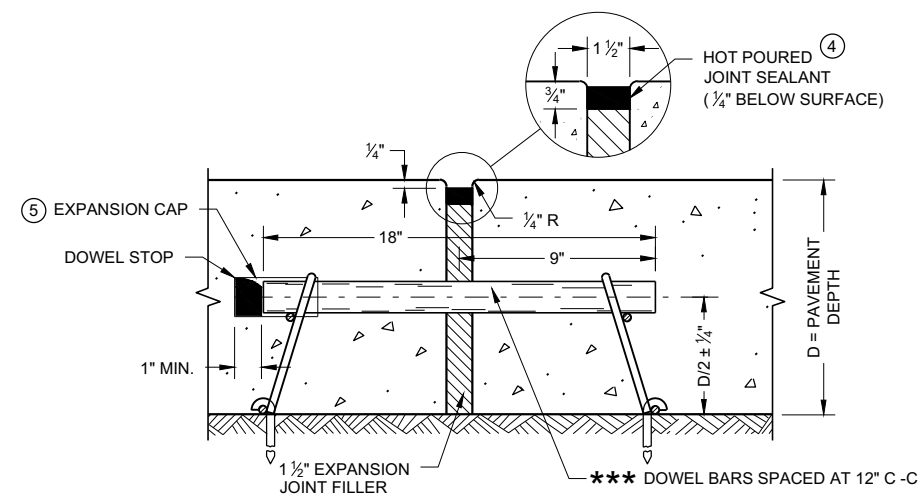
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
- ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- (A) STANDARD CONTRACTION JOINT NORMAL TO \mathcal{C} OR \mathcal{R} .
- (B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
- (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO \mathcal{C} OR \mathcal{R} .



**SECTION D - D
CONTRACTION JOINT**



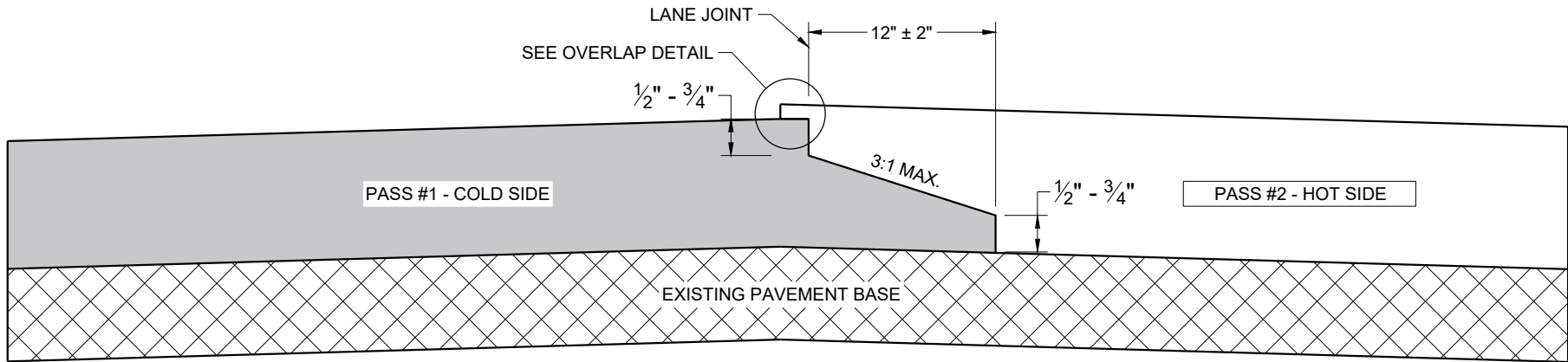
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

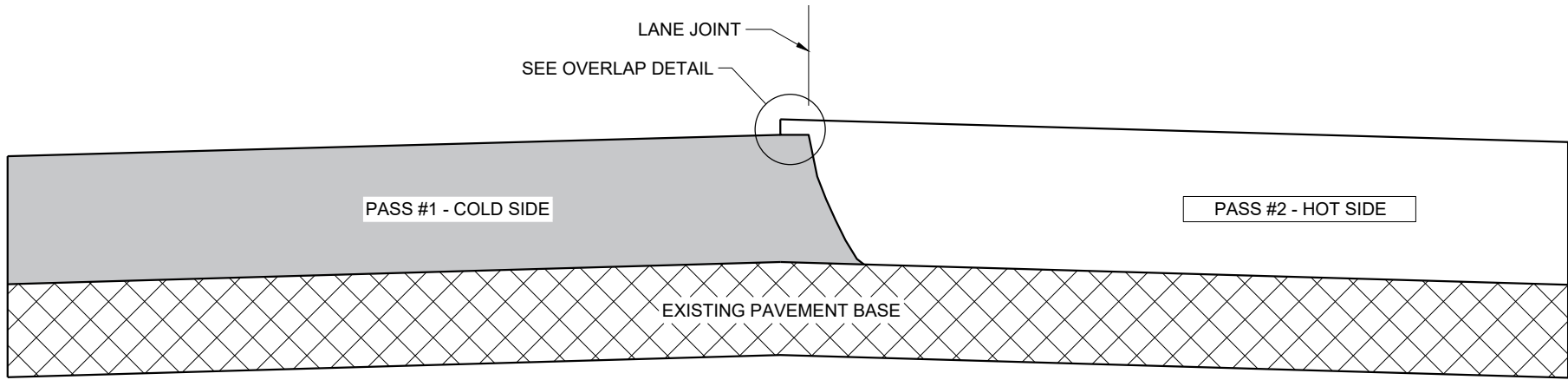
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

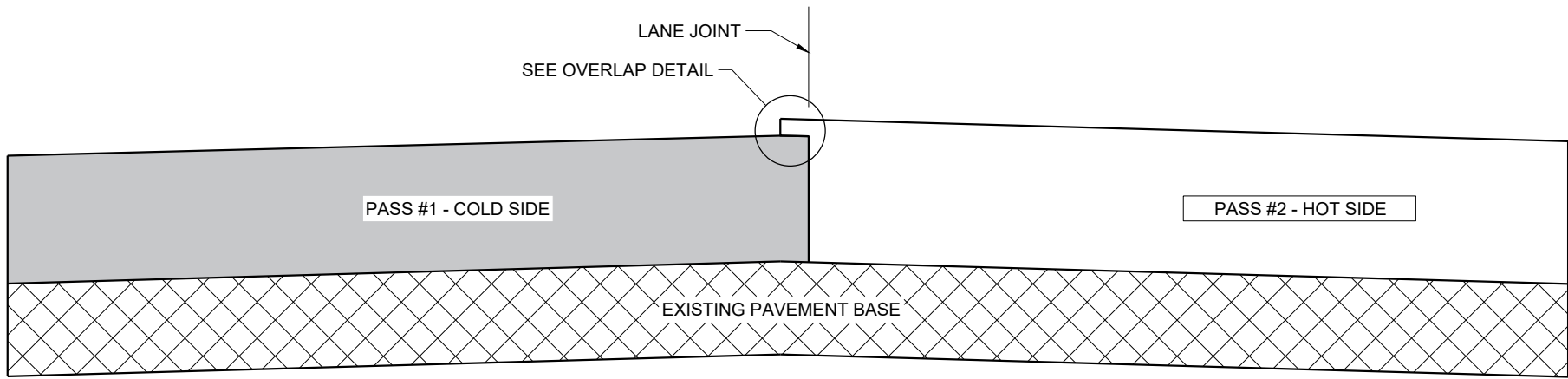
FHWA



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

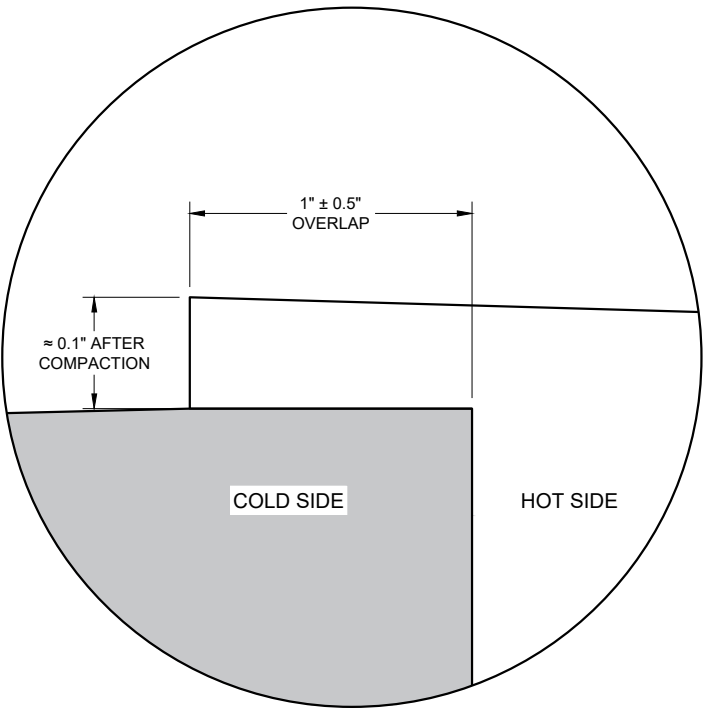
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



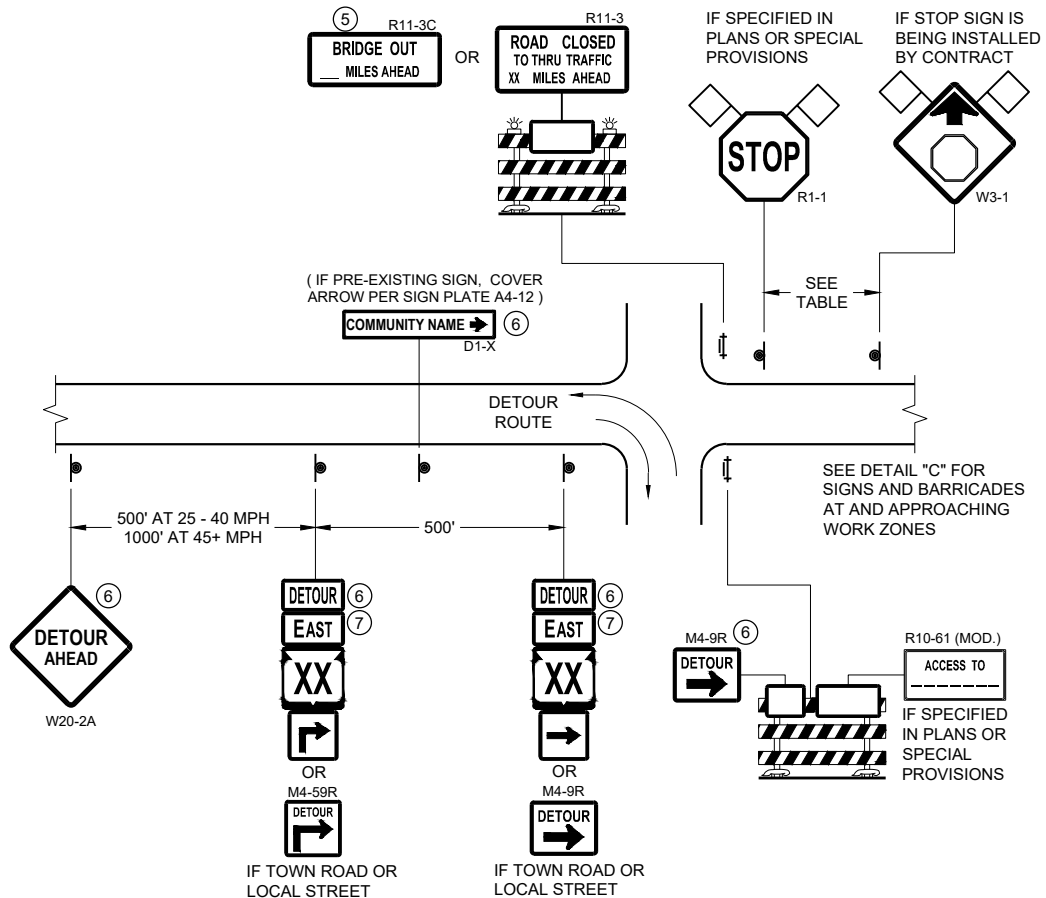
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

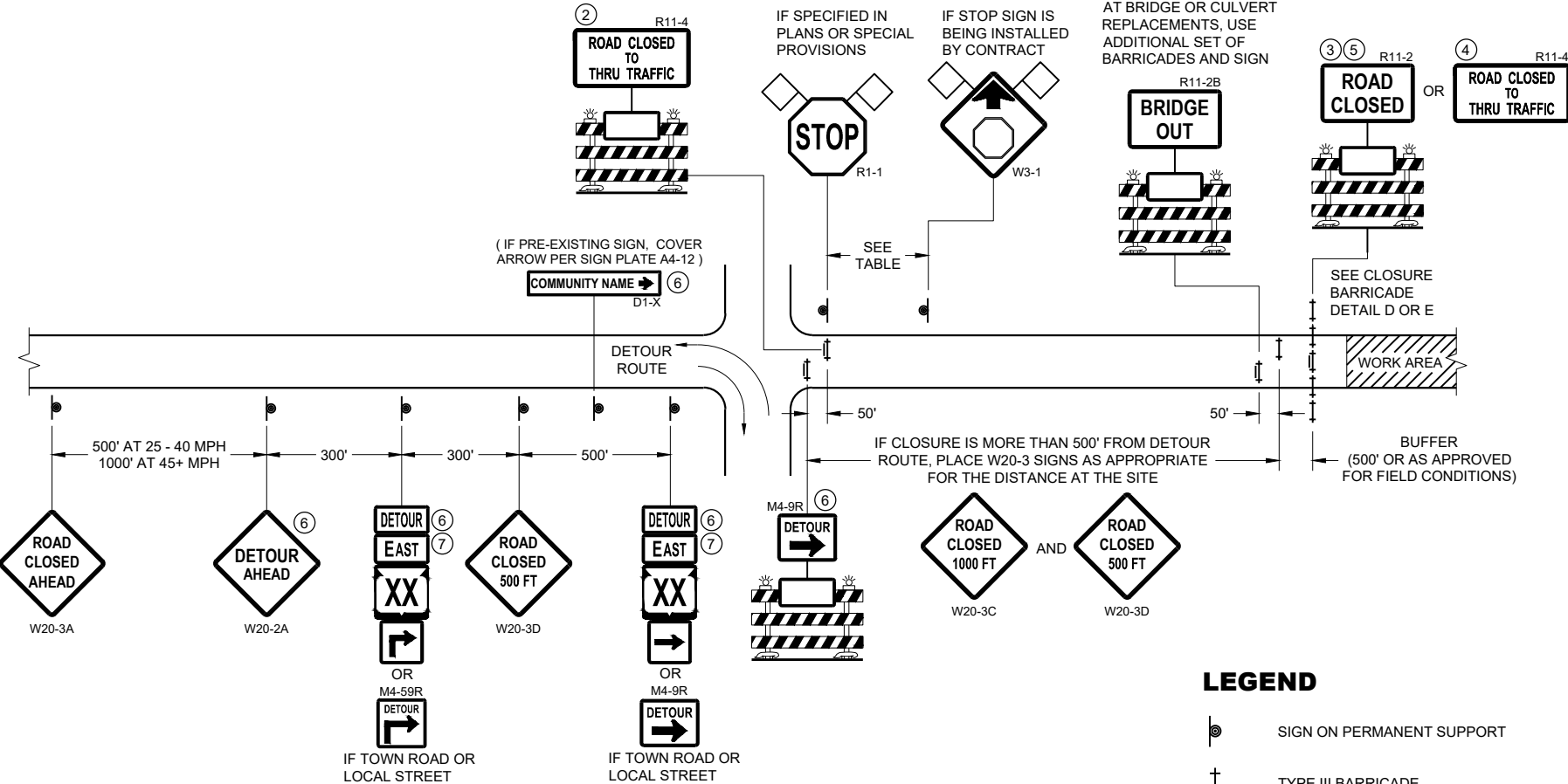
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGINEER

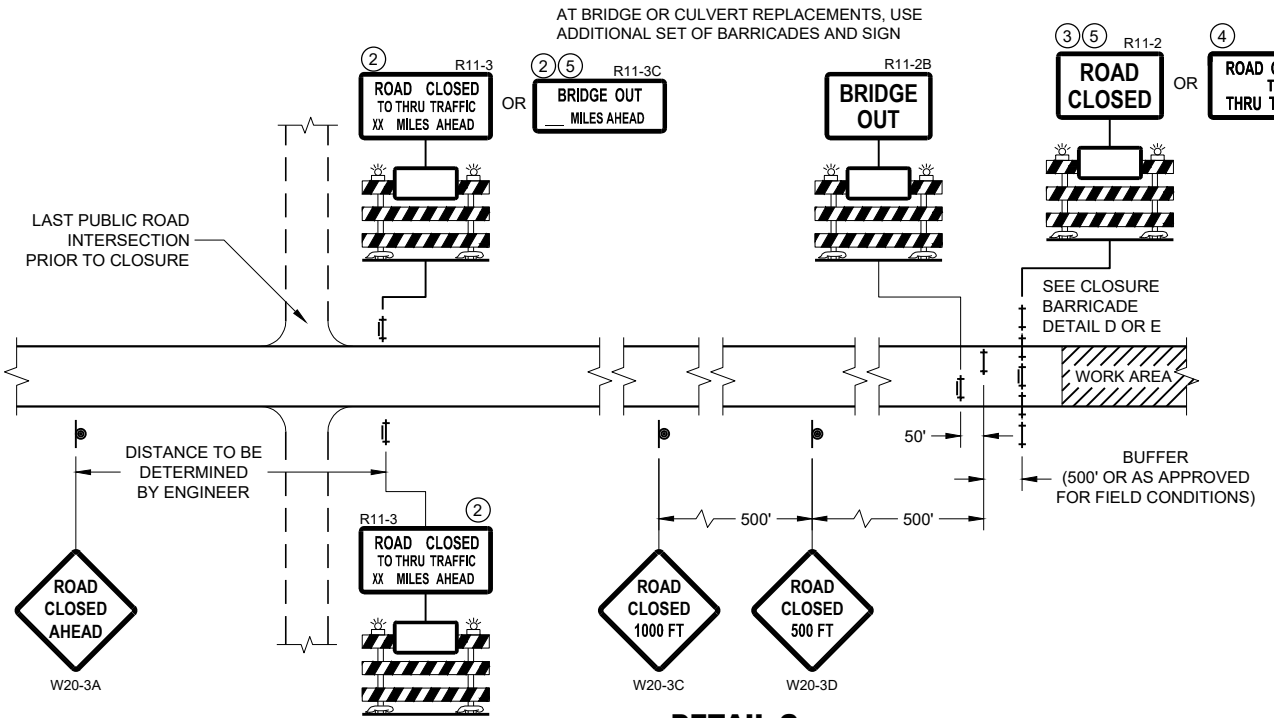
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

| SPEED LIMIT (MPH) | "STOP AHEAD" ADVANCE WARNING DISTANCE (FT) |
|-------------------|--|
| 25 | 200 |
| 30 | 200 |
| 35 | 350 |
| 40 | 350 |
| 45 | 500 |
| 50 | 550 |
| 55 | 750 |

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

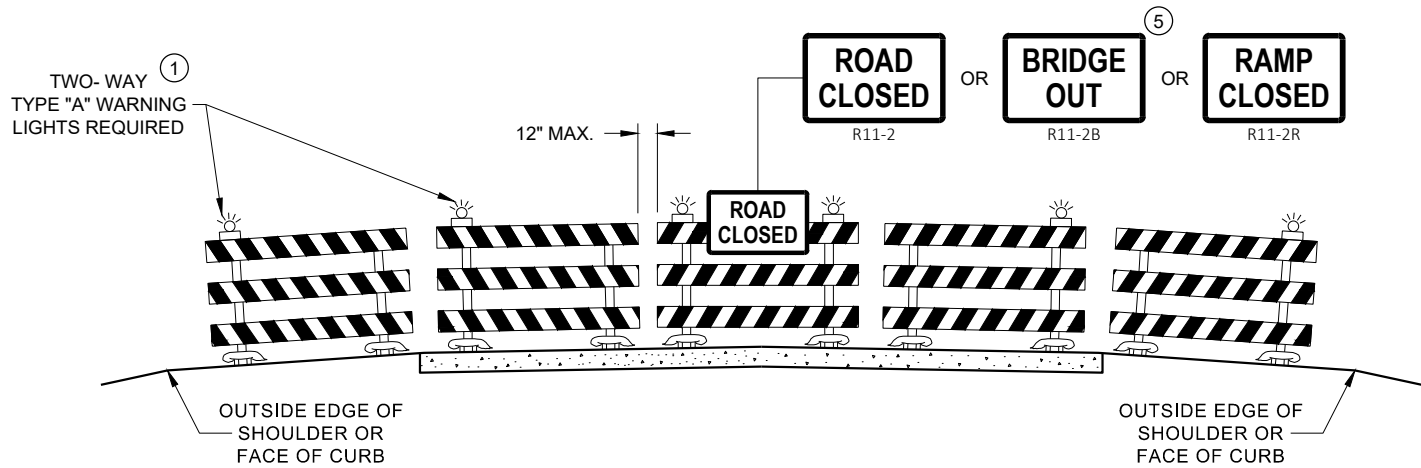
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR M05 - 1 OR M06 - 1

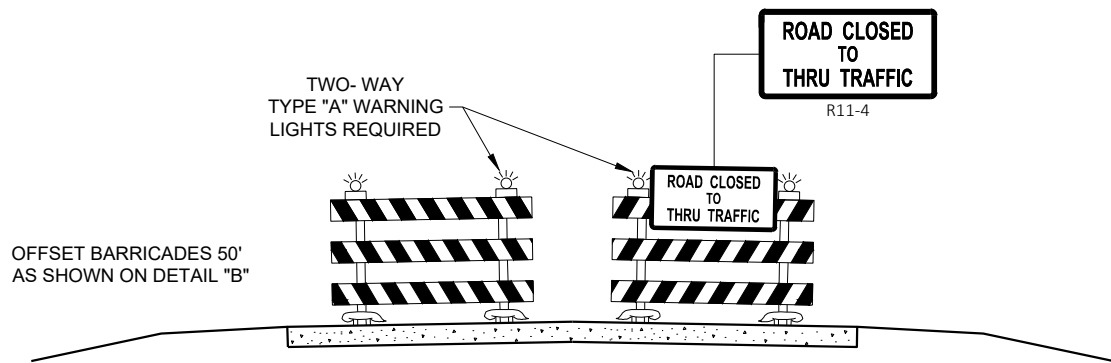
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

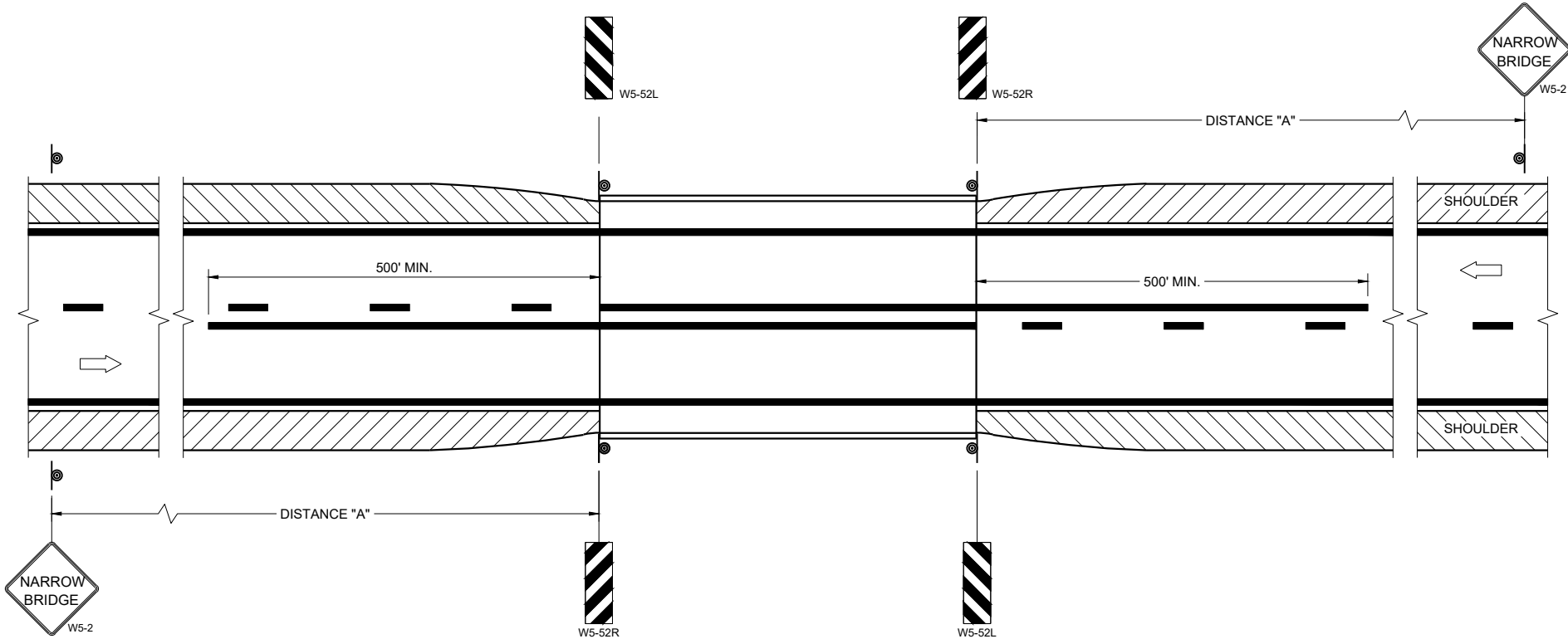
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES

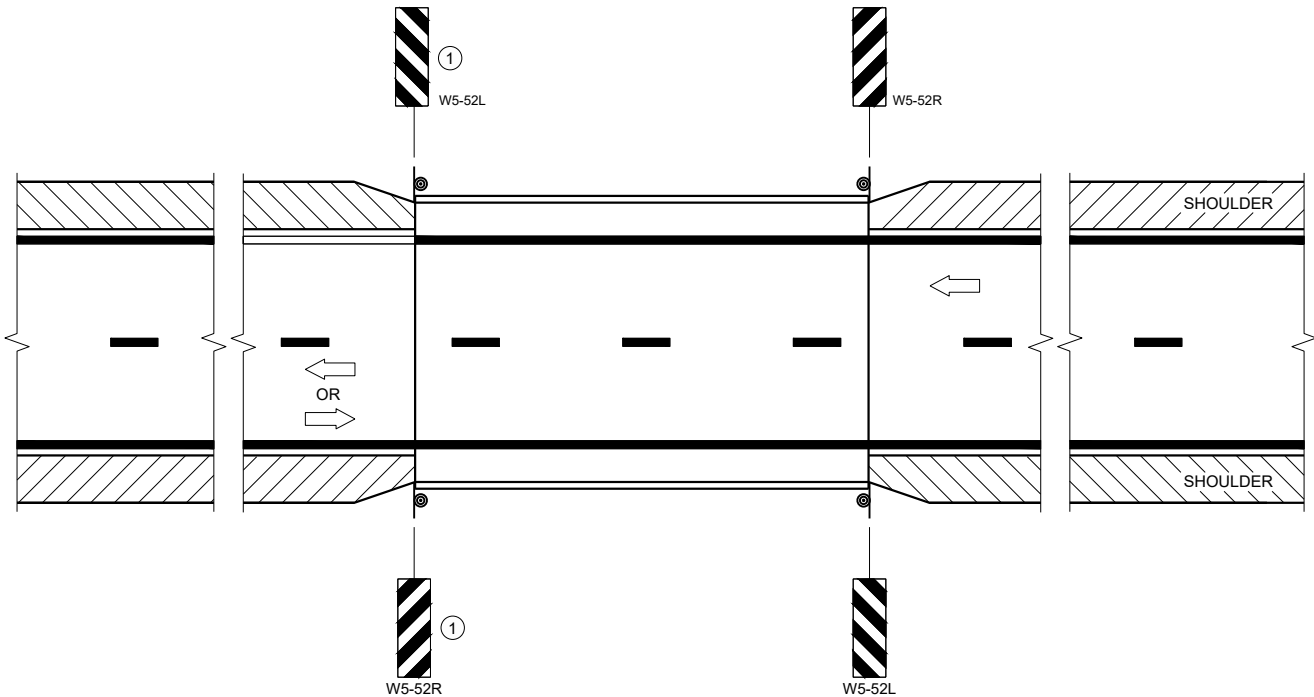
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



SITUATION 1
WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2
WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

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

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

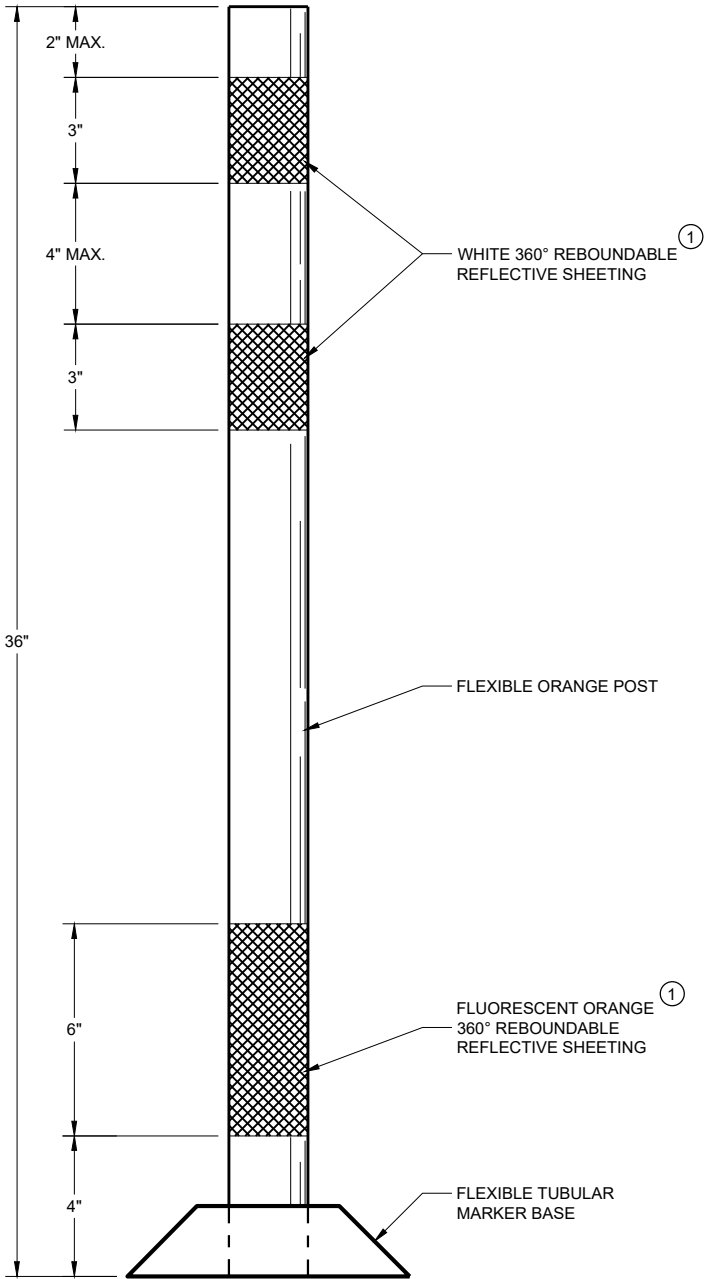
DISTANCE TABLE

| POSTED OR 85TH PERCENTILE SPEED | DISTANCE "A" |
|---------------------------------|--------------|
| 25 | 150' |
| 30 | 200' |
| 35 | 250' |
| 40 | 300' |
| 45 | 400' |
| 50 | 550' |
| 55 | 700' |

**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA



FLEXIBLE TUBULAR
MARKER POST
WORK ZONE

GENERAL NOTES

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

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

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

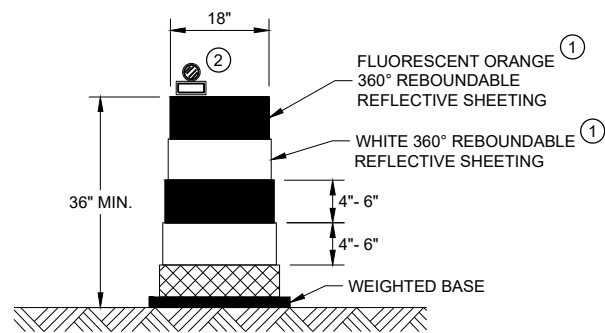
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

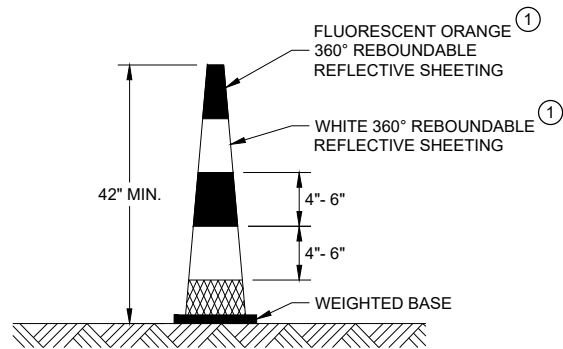
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



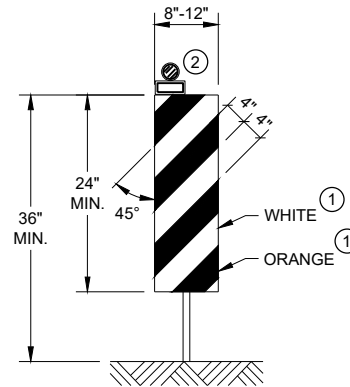
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



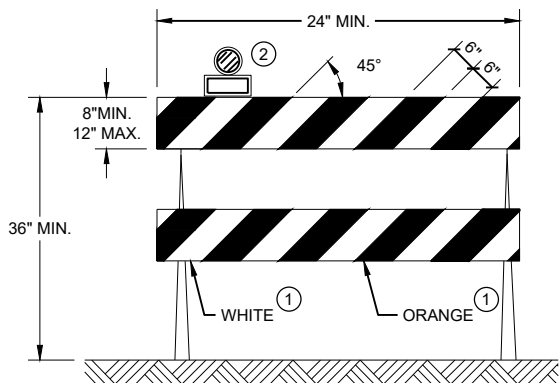
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



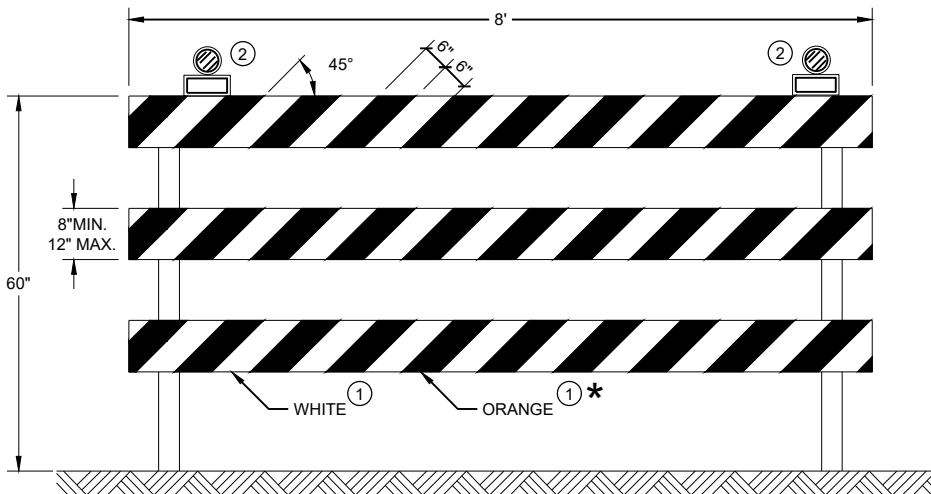
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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.

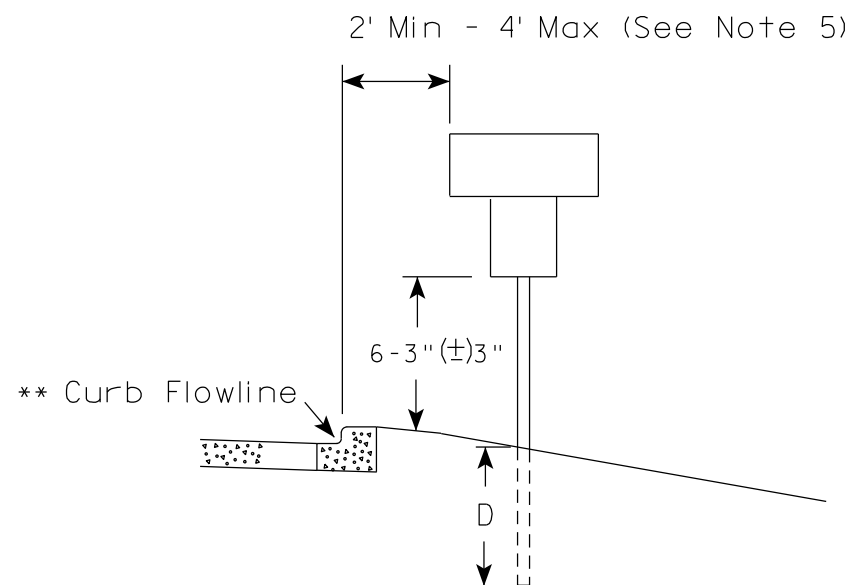
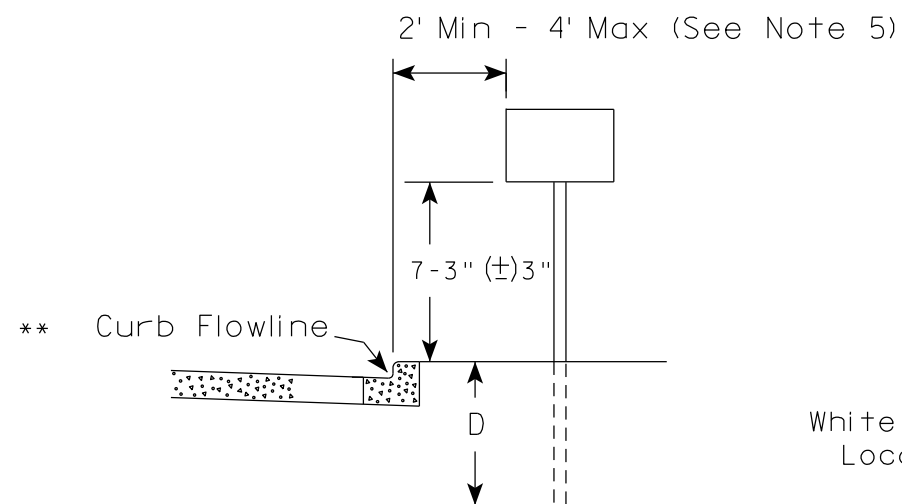
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

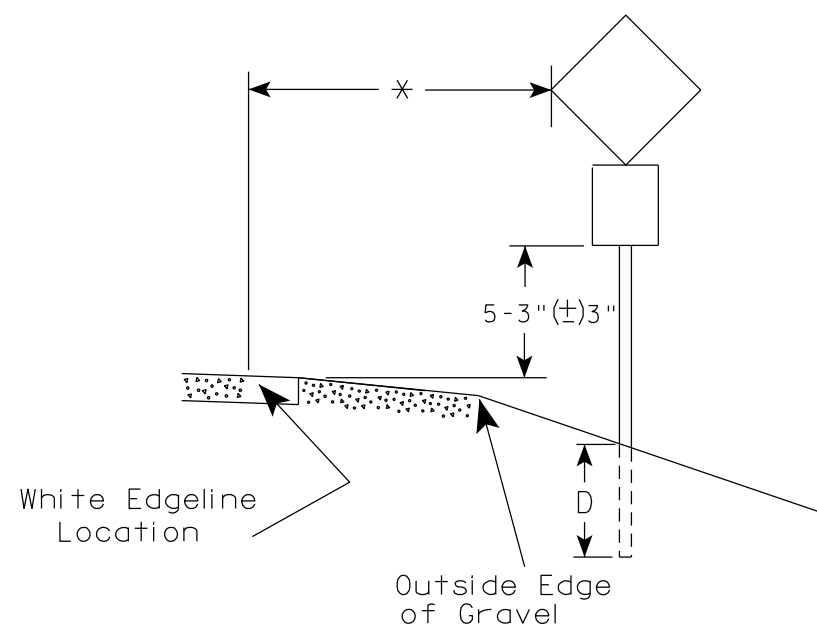
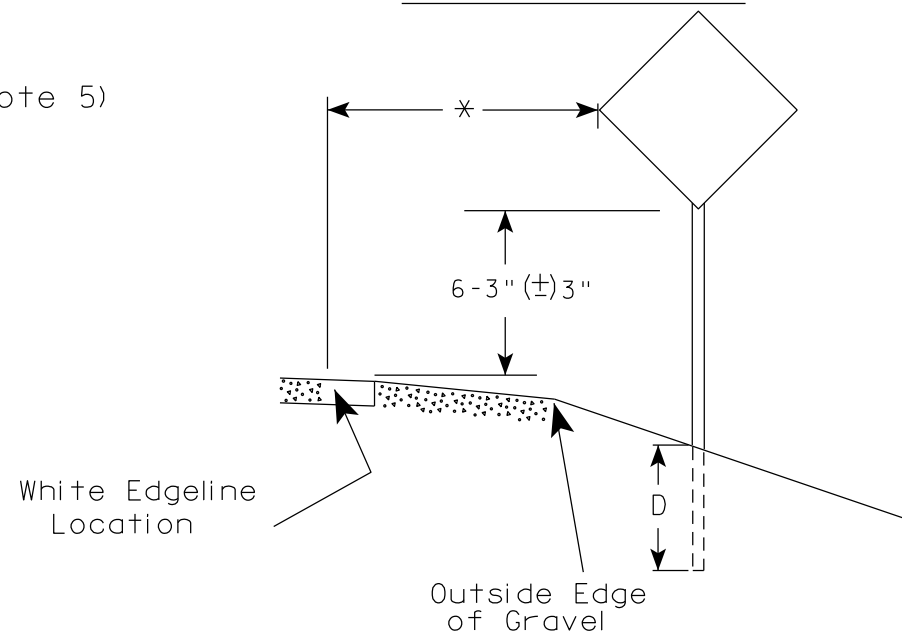
FHWA

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

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

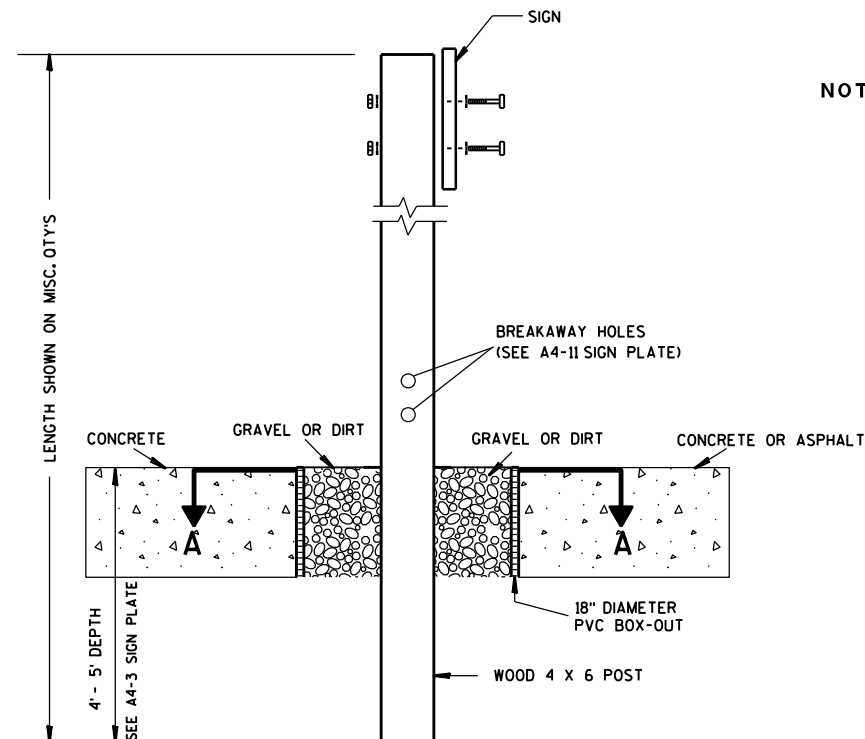
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

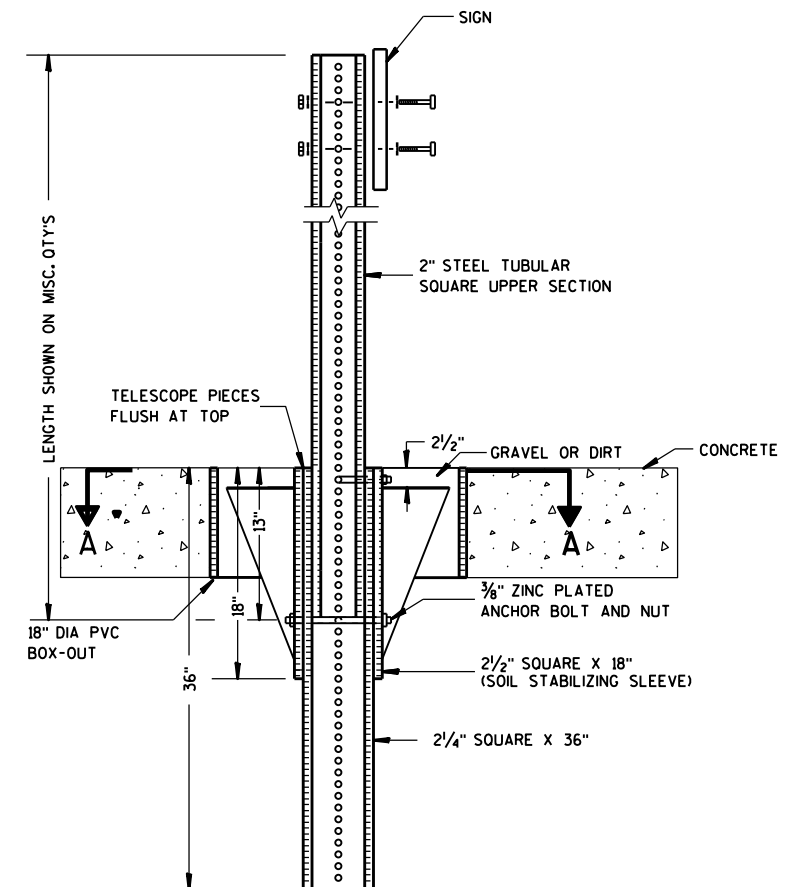
E



ELEVATION VIEW

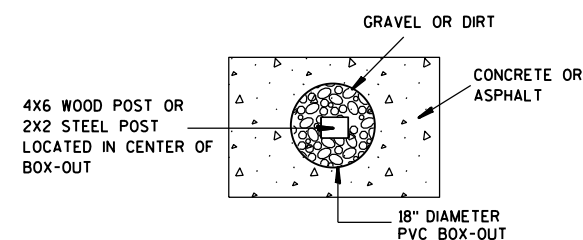
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

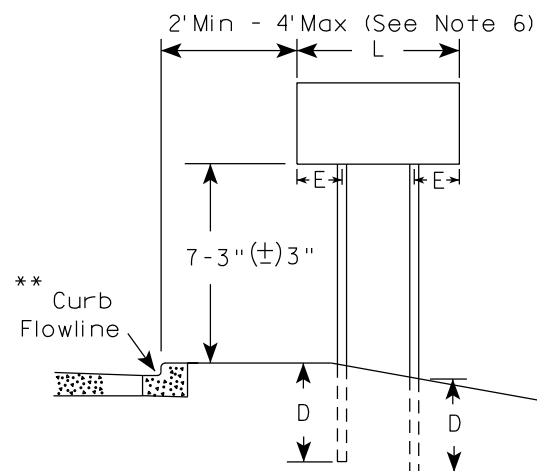
HWY:

COUNTY:

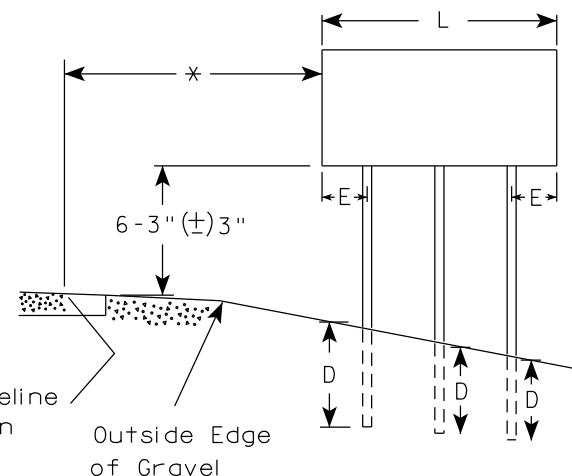
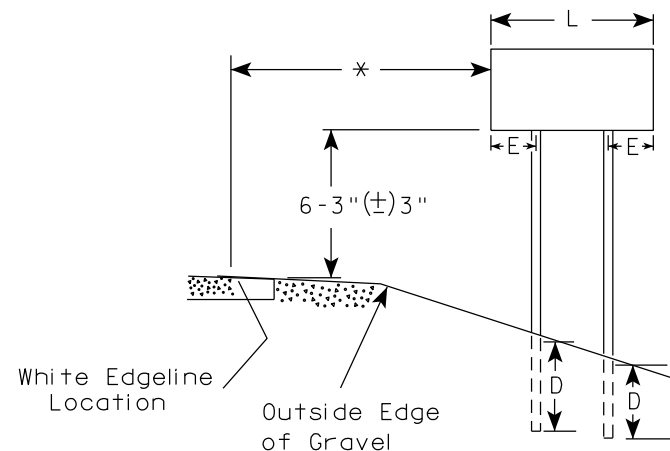
SHEET NO:

E

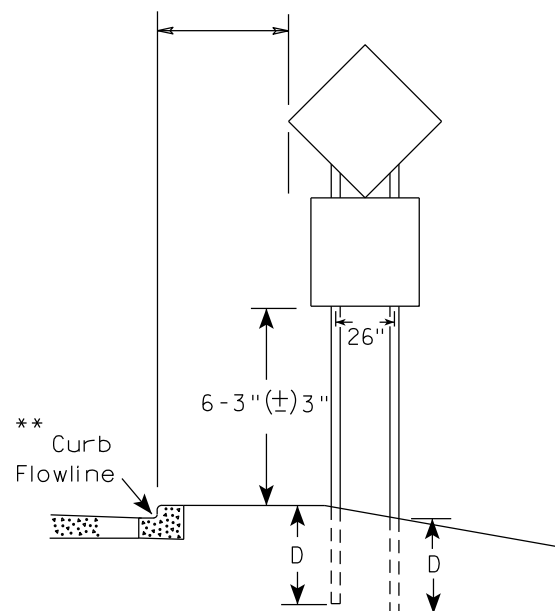
URBAN AREA



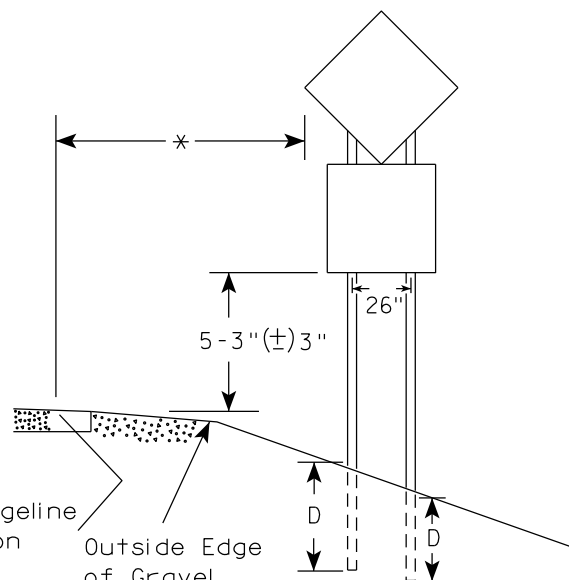
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

POST EMBEDMENT DEPTH

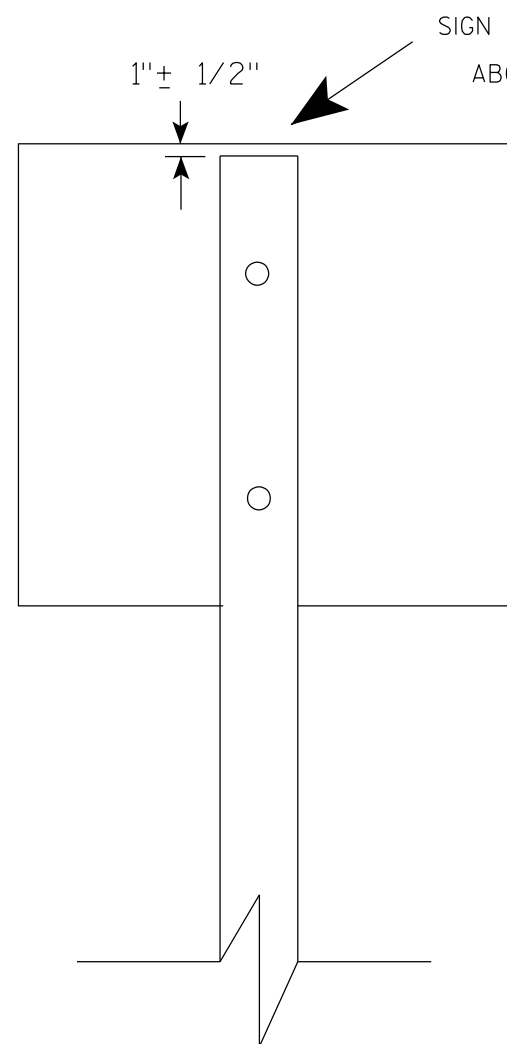
| Area of Sign Installation (Sq.Ft.) | D (Min) |
|--|--------------|
| 20 or Less | 4' |
| Greater than 20 | 5' |

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

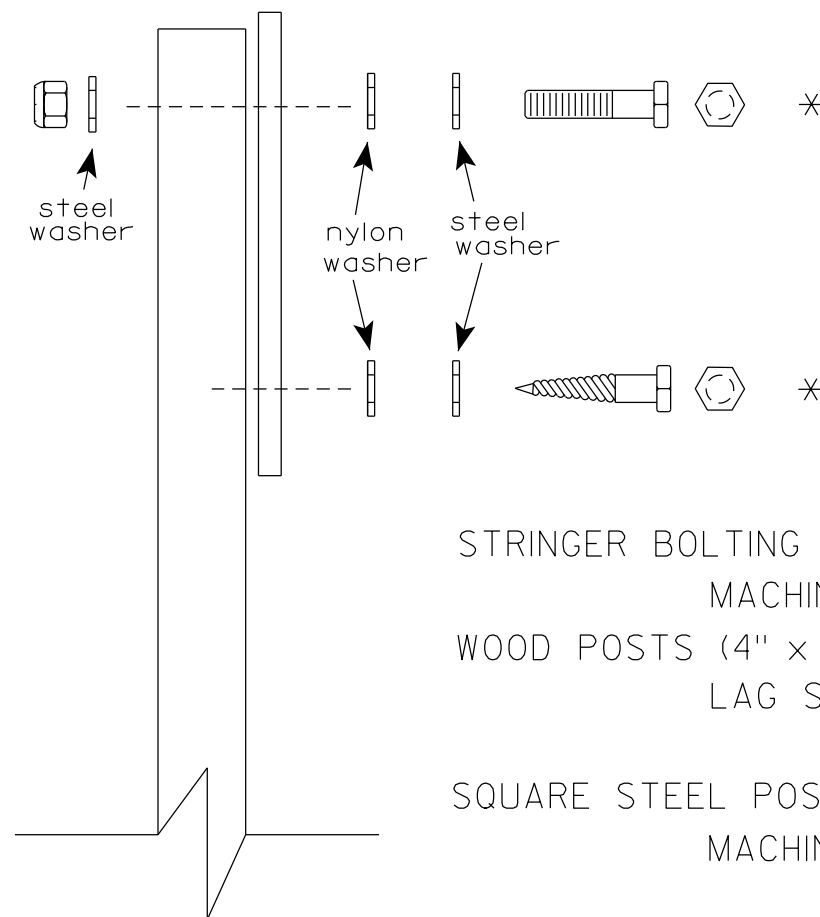
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



SIGN SHALL BE MOUNTED TO PROJECT
ABOVE THE TOP OF THE POST



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

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

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

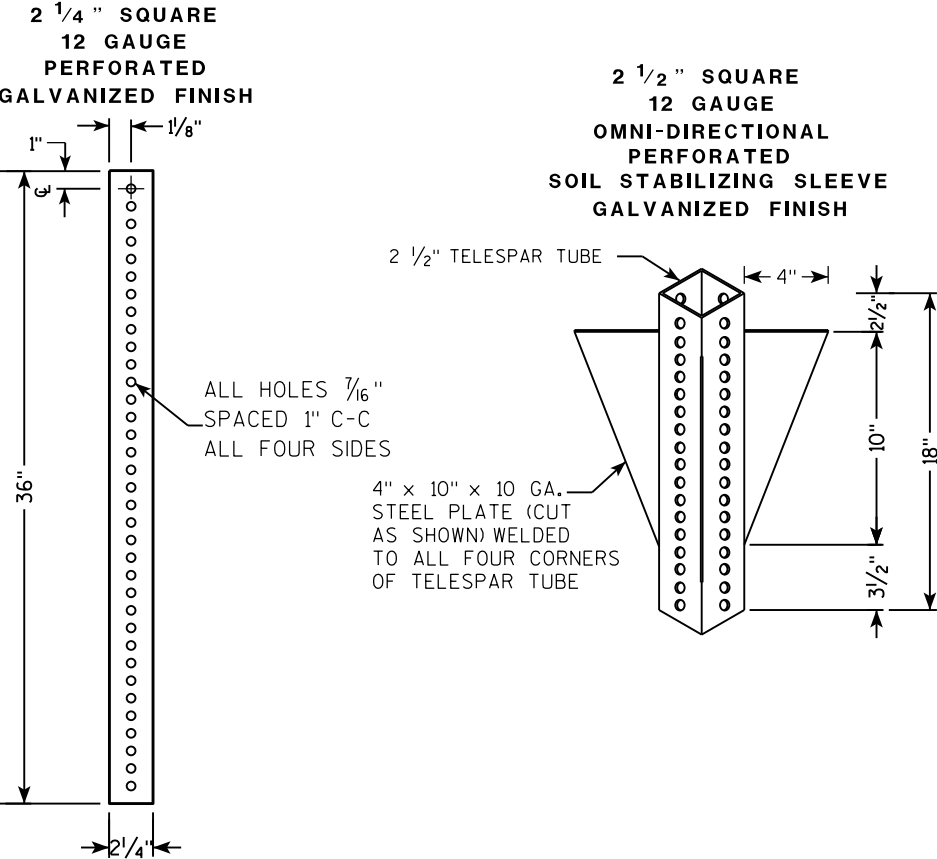
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

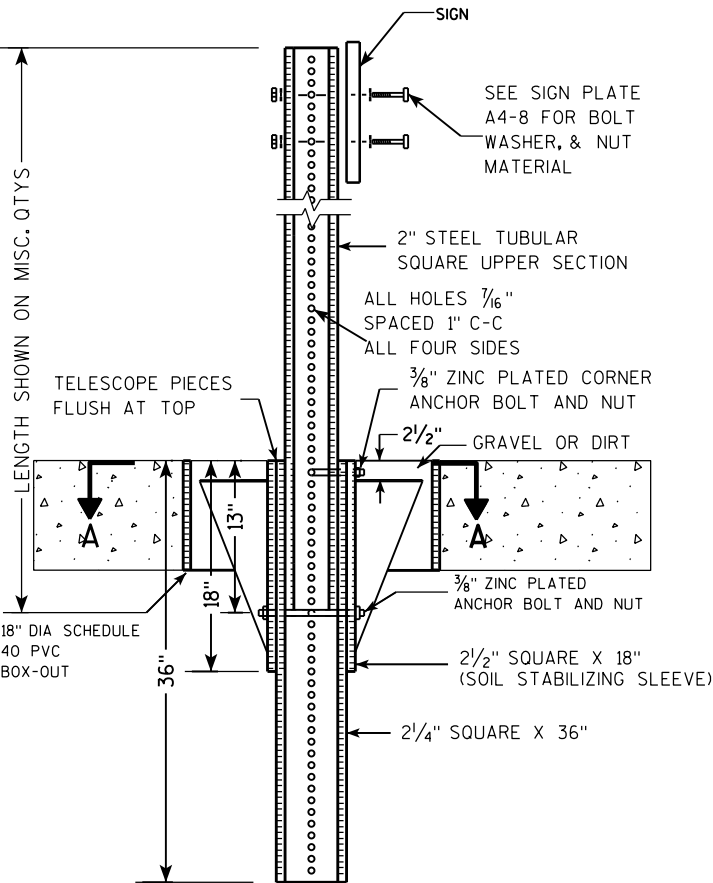
APPROVED Matthew R. Rauch
For State Traffic Engineer

DATE 4/1/2020 PLATE NO. A4-8.9

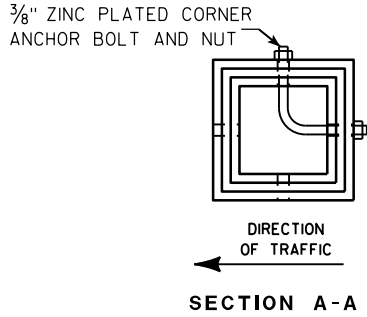
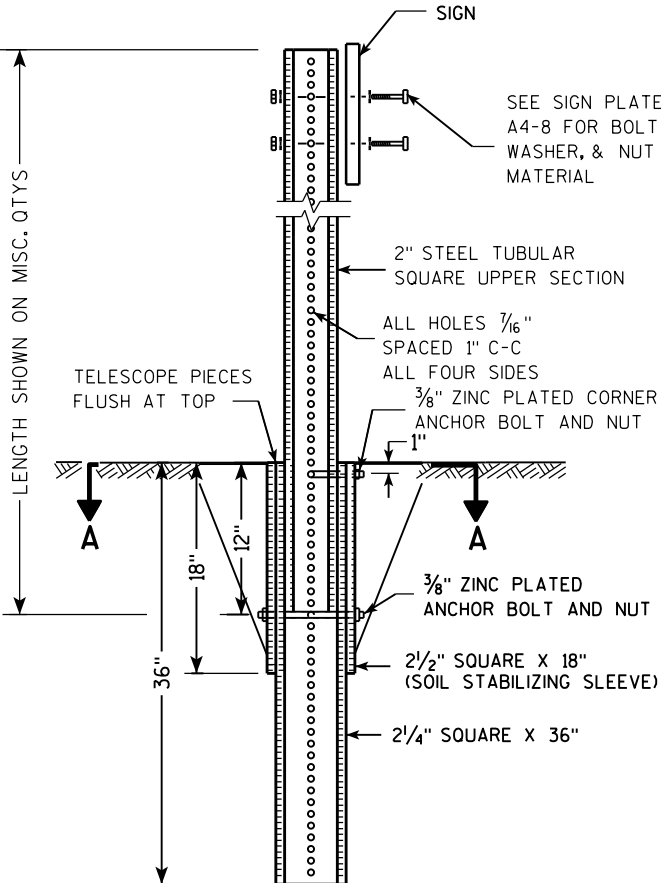
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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).

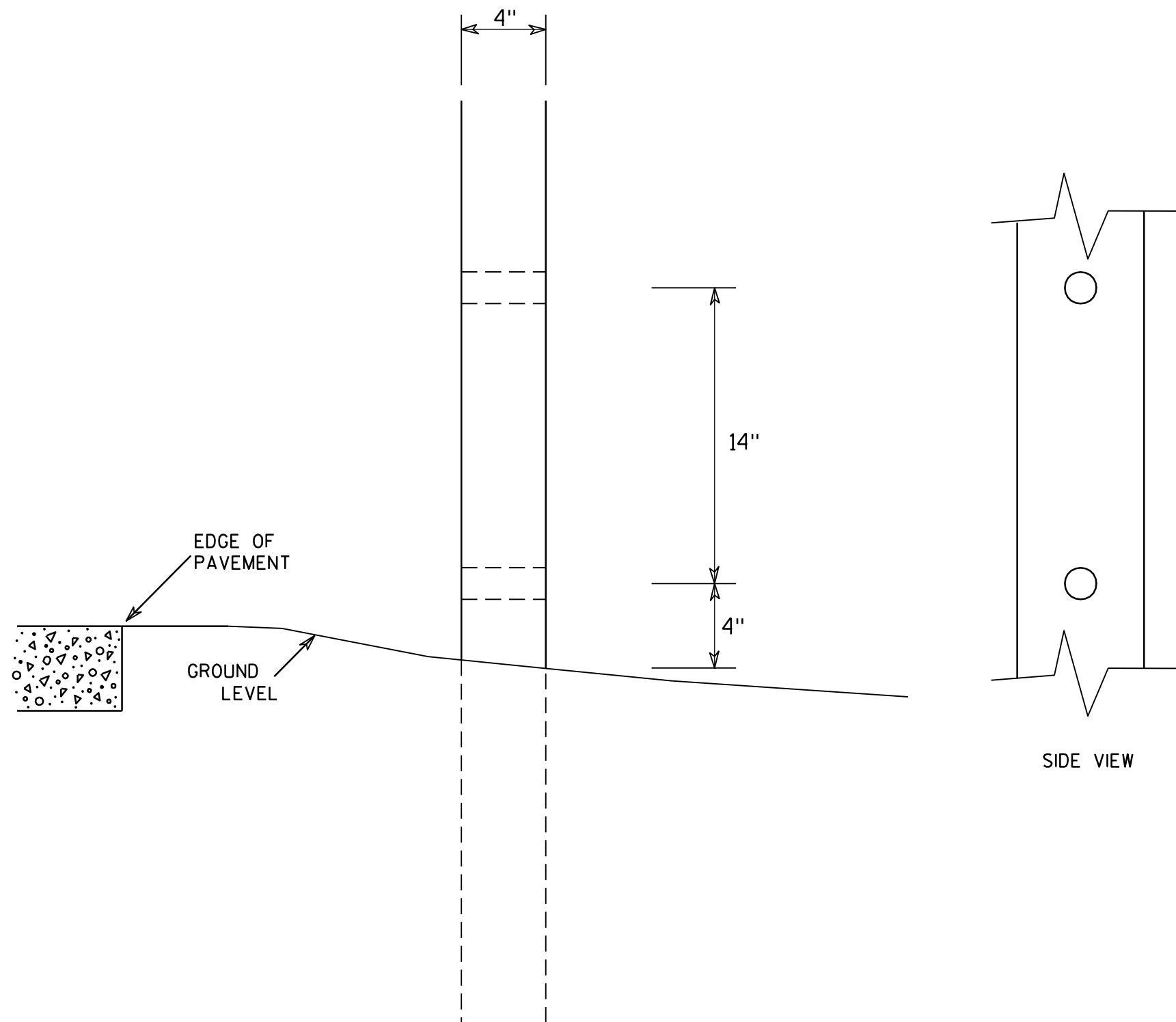
TUBULAR STEEL
SIGN POST
A4-9

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:

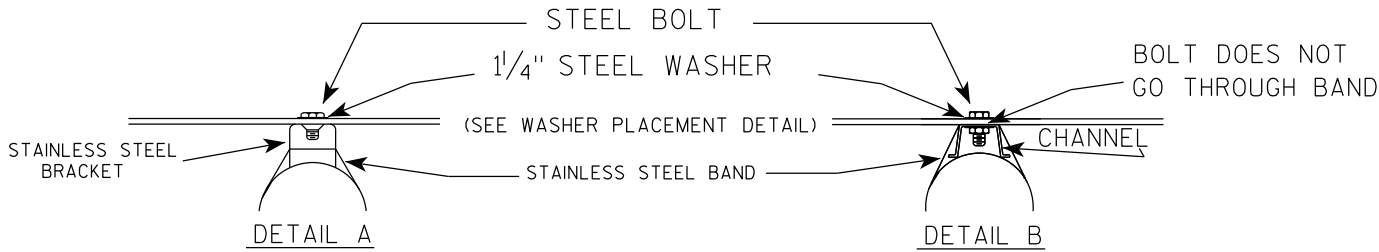
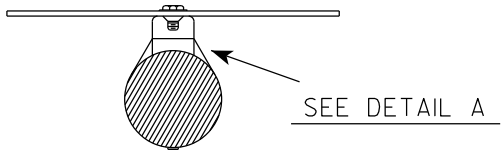
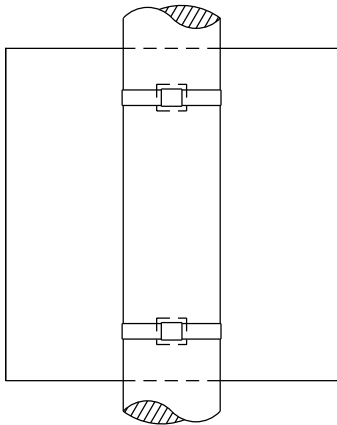
COUNTY:

SHEET NO:

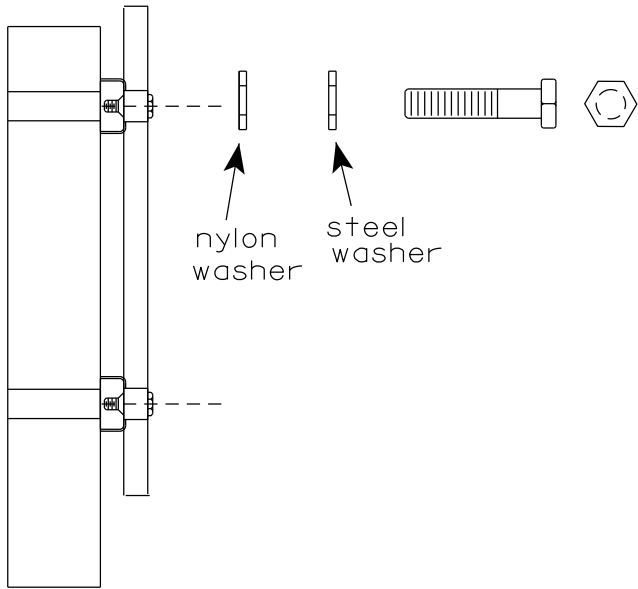
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

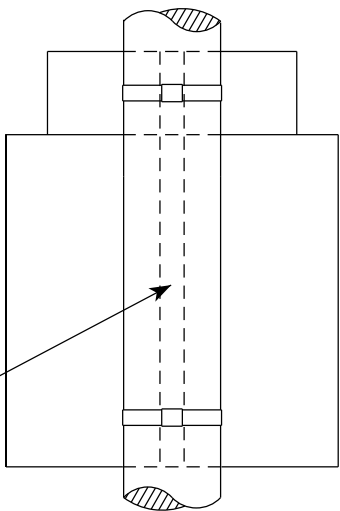


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

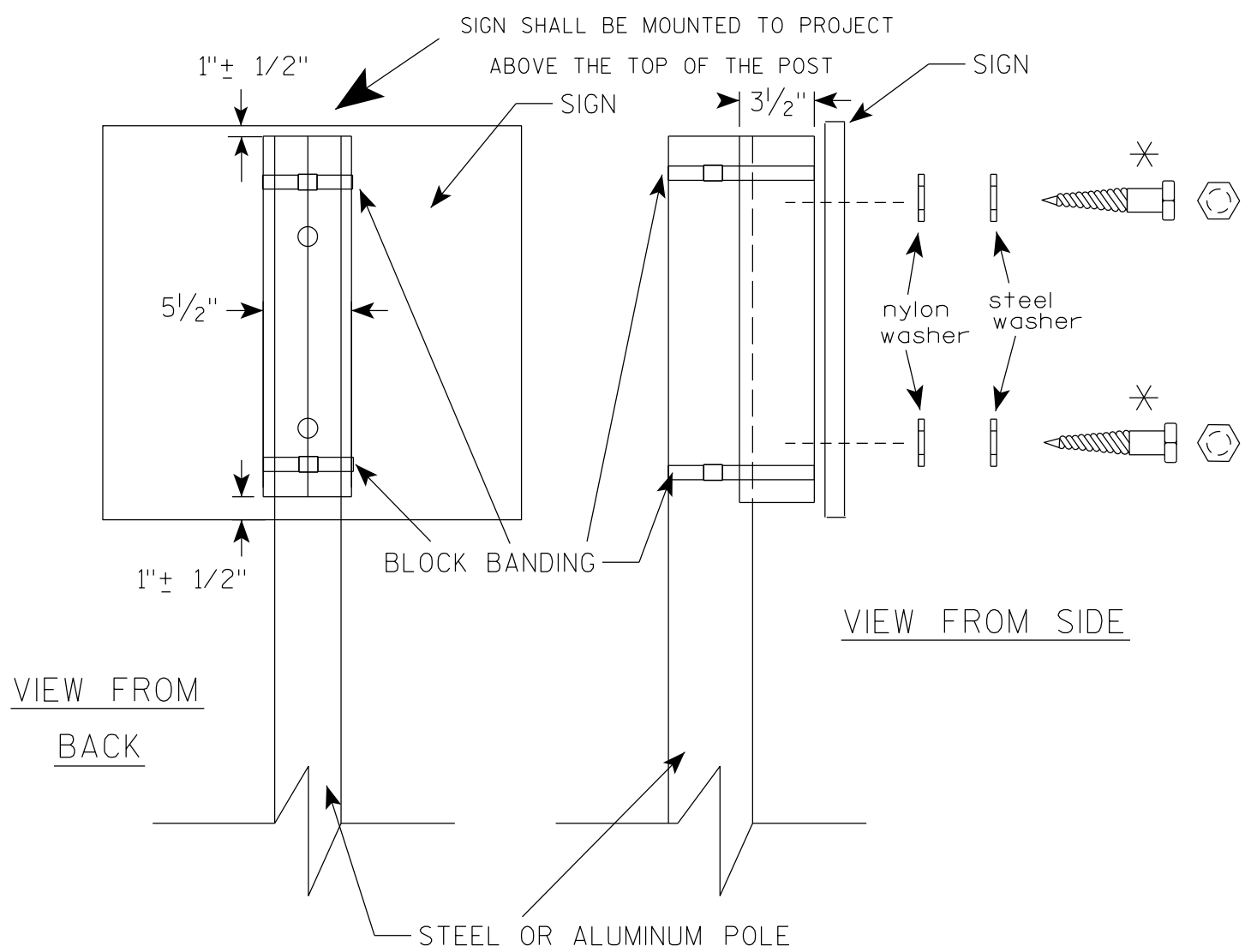
SEE DETAIL B

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

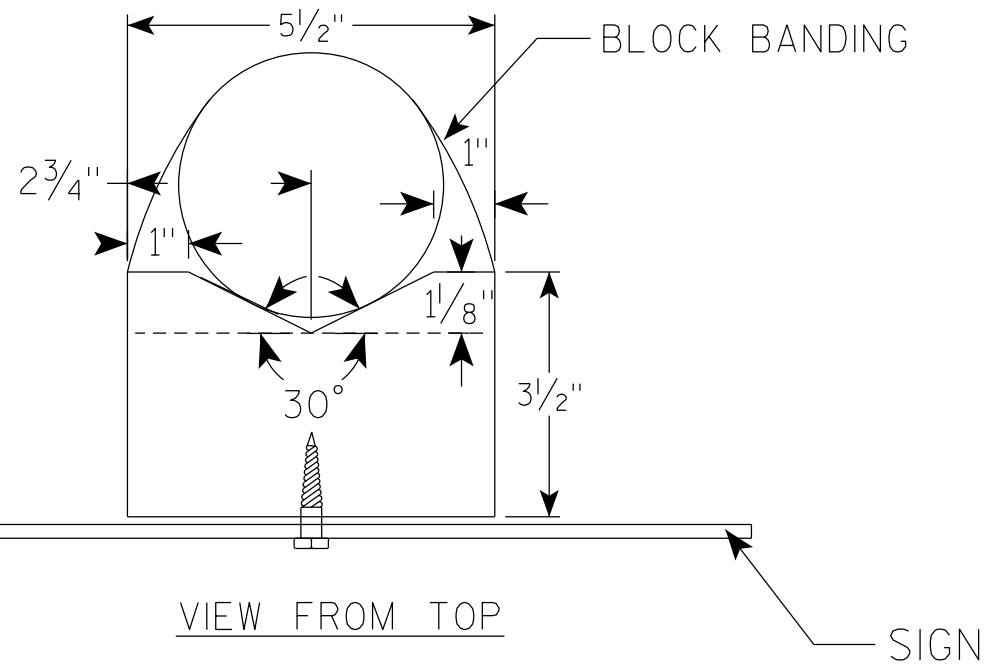
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

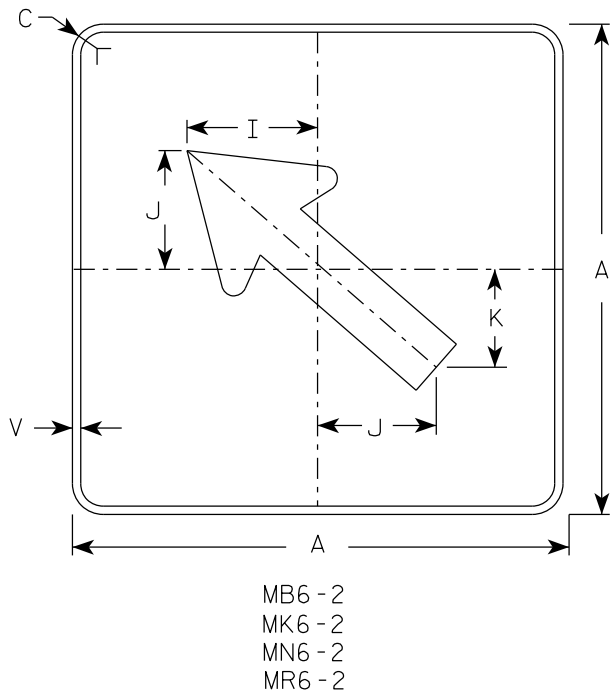
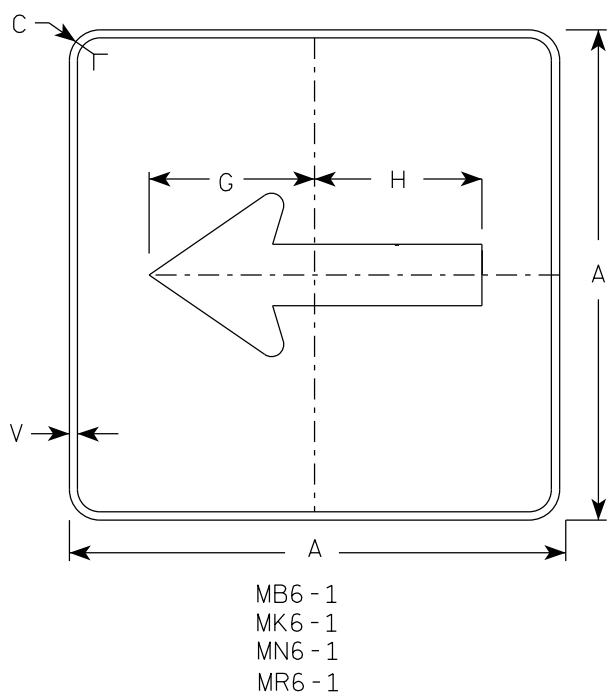
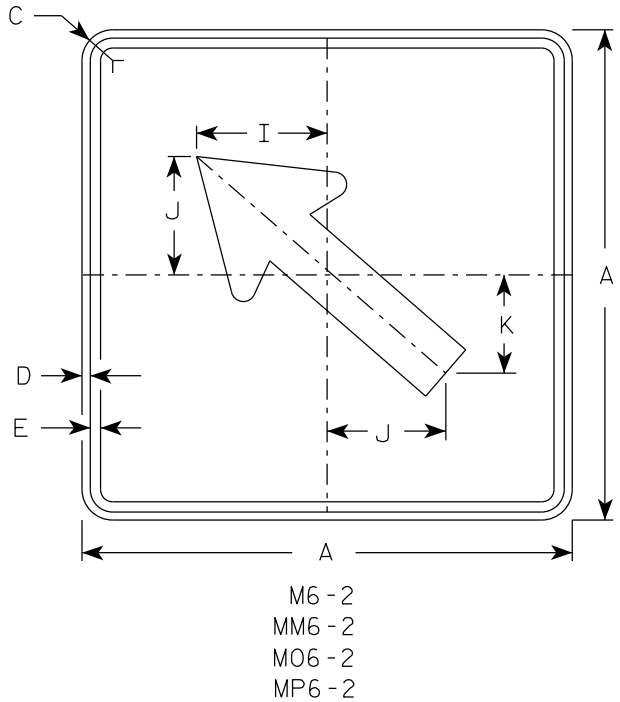
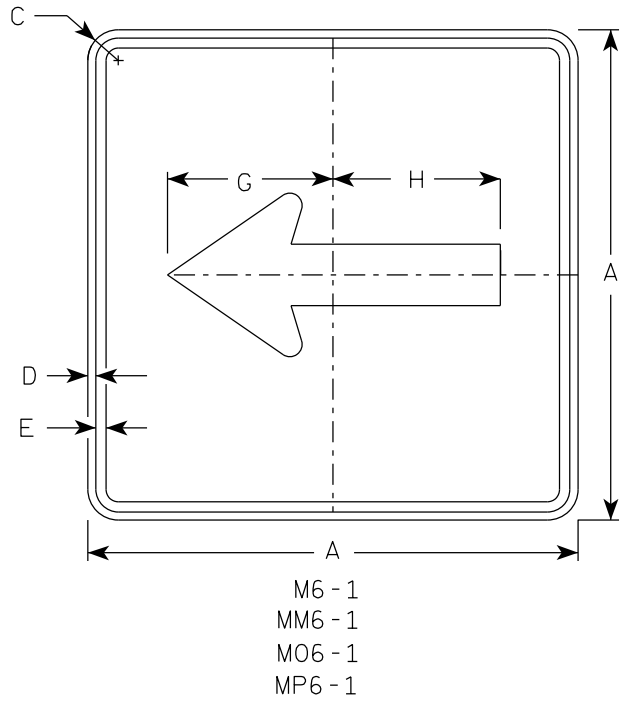
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

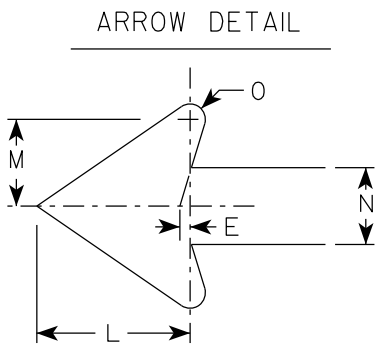
PROJECT NO:

SHEET NO:

E



- 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.
 - 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 sq. ft. | |
|------|----|---|-------|-----|-----|---|--------|--------|-------|-------|-------|-------|-------|-------|-----|---|---|---|---|---|---|-----|---|---|---|---|-----------------|------|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 21 | | 1 1/2 | 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 | | | | | | | 1/2 | | | | | | 3.06 |
| 2M | 21 | | 1 1/2 | 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 | | | | | | | 1/2 | | | | | | 3.06 |
| 3 | 30 | | 1 7/8 | 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 | | | | | | | 1/2 | | | | | | 6.25 |
| 4 | 30 | | 1 7/8 | 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 | | | | | | | 1/2 | | | | | | 6.25 |
| 5 | 30 | | 1 7/8 | 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 | | | | | | | 1/2 | | | | | | 6.25 |

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

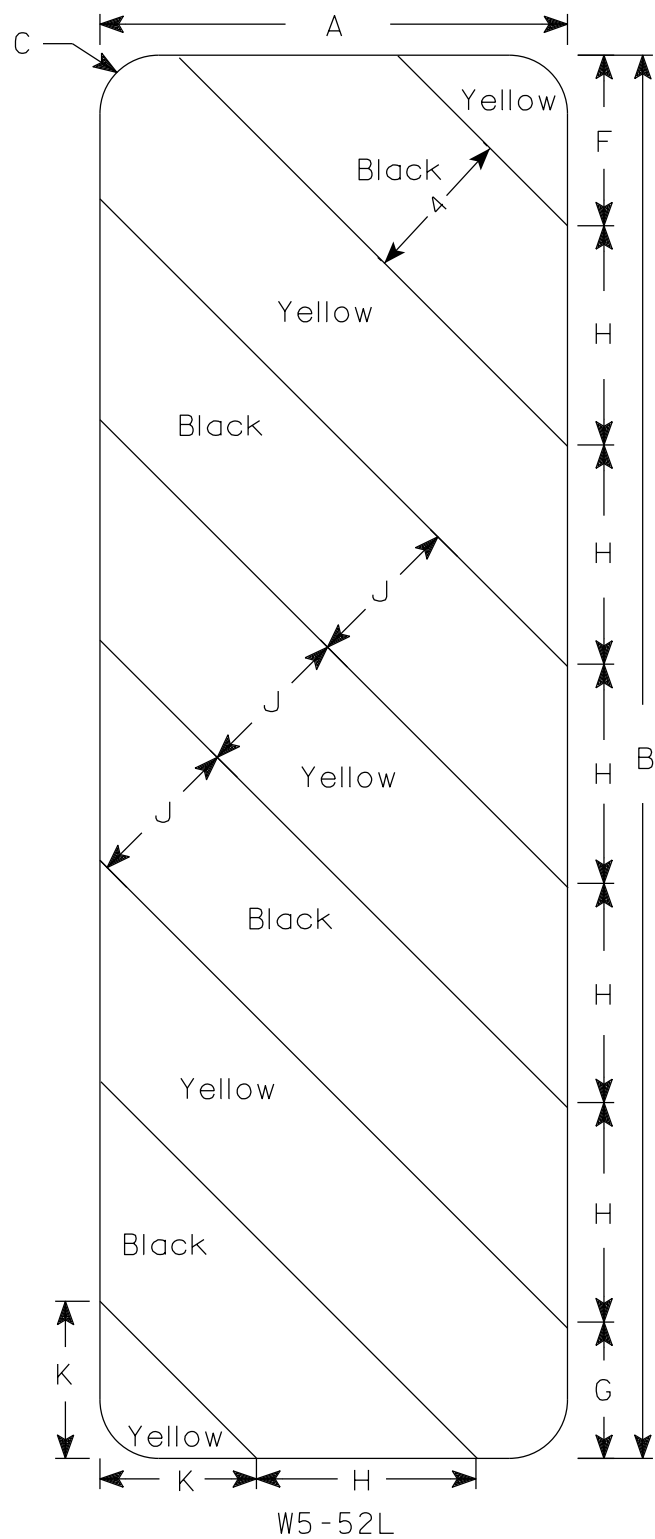
E

STANDARD SIGN
M6-1 & M6-2
SERIES

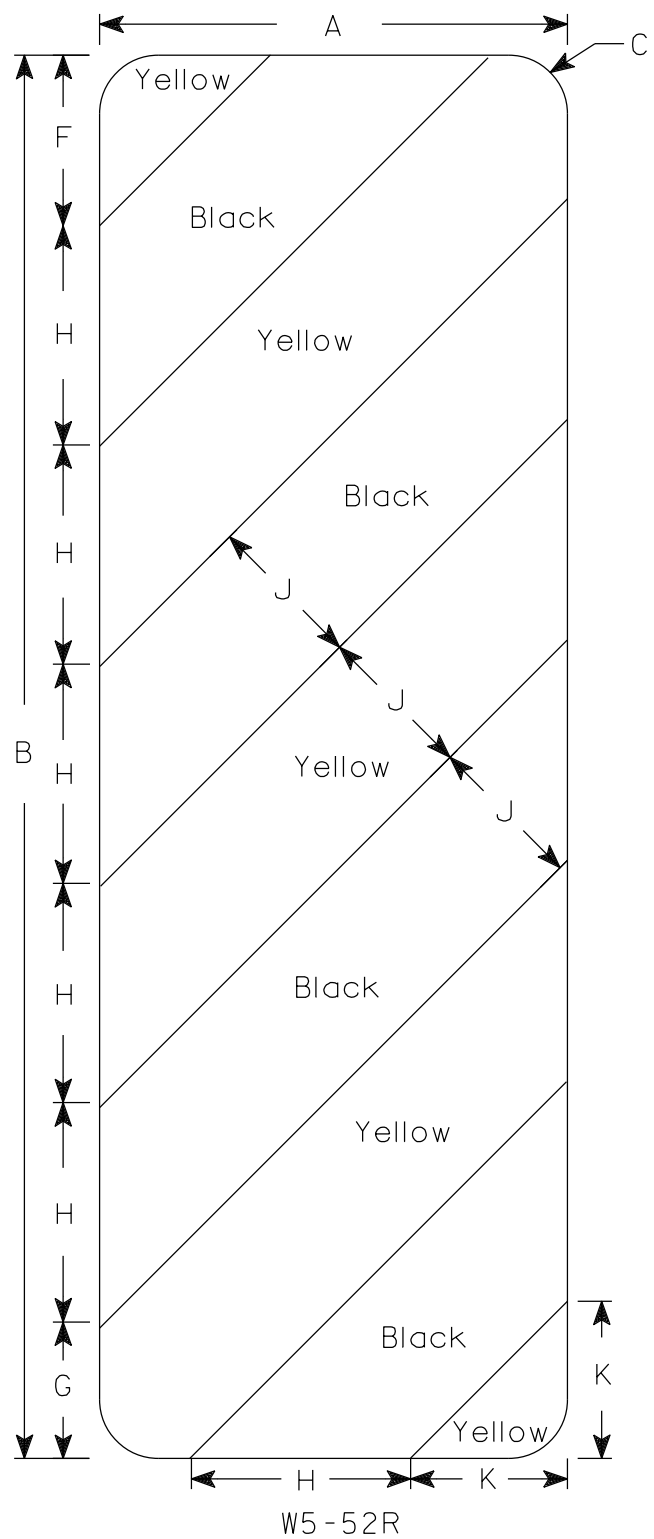
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16



W5-52L



W5-52R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Alternate colors of stripes as shown.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | v | W | X | Y | Z | Area sq. ft. |
|------|----|----|-------|---|---|-------|-------|-------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 12 | 36 | 1 1/2 | | | 4 3/8 | 3 1/2 | 5 5/8 | 45° | 4 | 4 | | | | | | | | | | | | | | | | 3.0 |
| 2M | 12 | 36 | 1 1/2 | | | 4 3/8 | 3 1/2 | 5 5/8 | 45° | 4 | 4 | | | | | | | | | | | | | | | | 3.0 |
| 3 | 18 | 54 | 1 1/2 | | | 6 | 5 1/2 | 8 1/2 | 45° | 6 | 6 9/16 | | | | | | | | | | | | | | | | 6.75 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

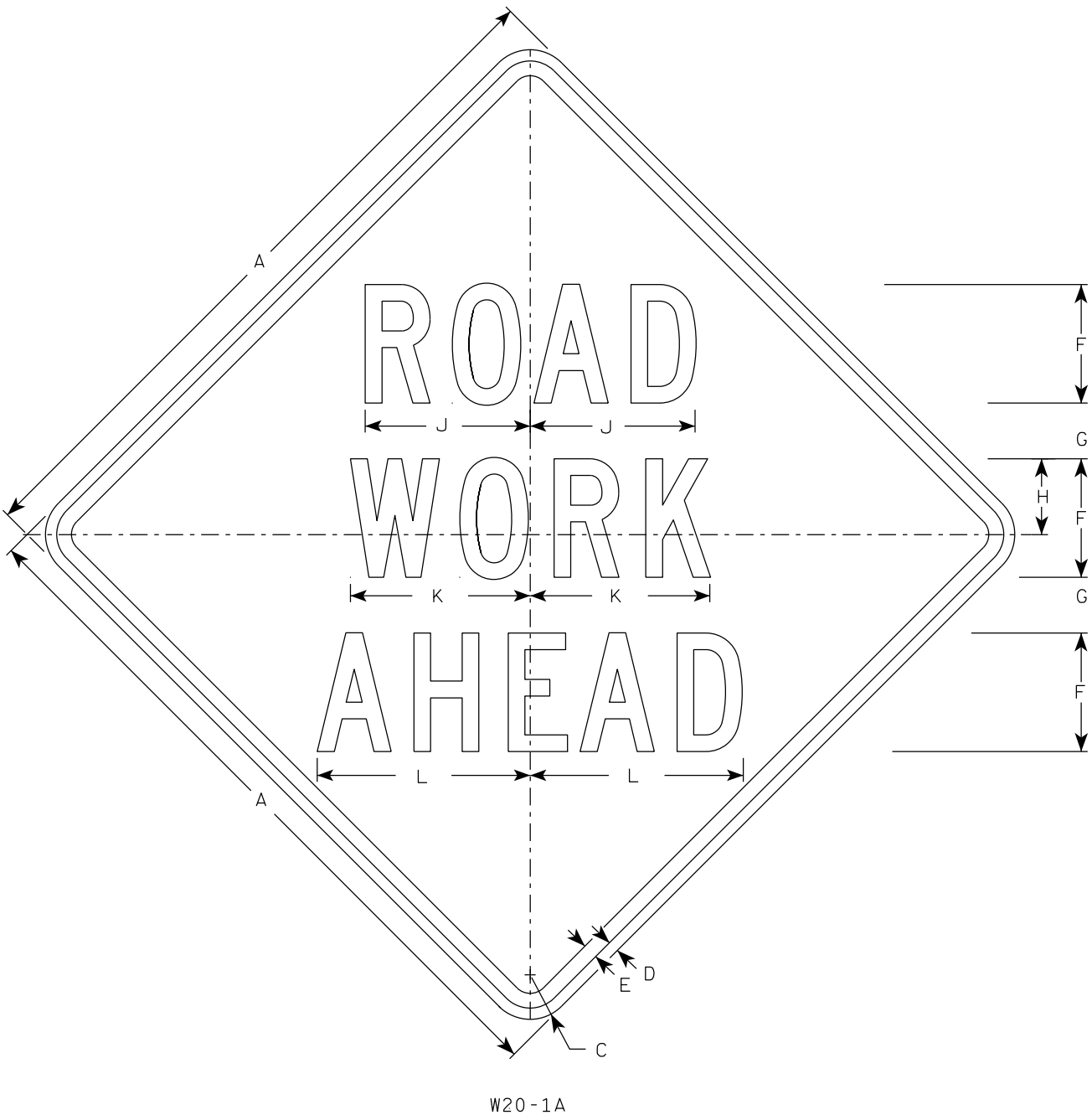
STANDARD SIGN

W5-52L & W5-52R

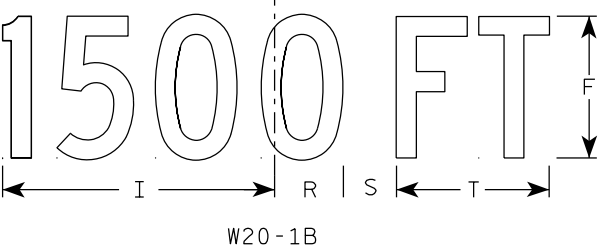
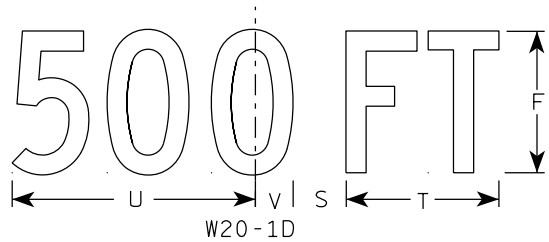
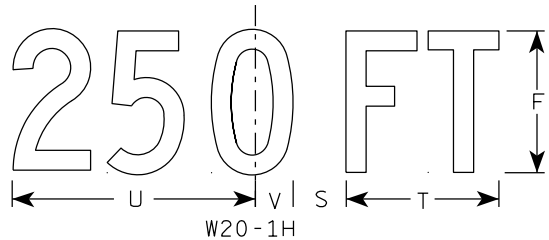
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

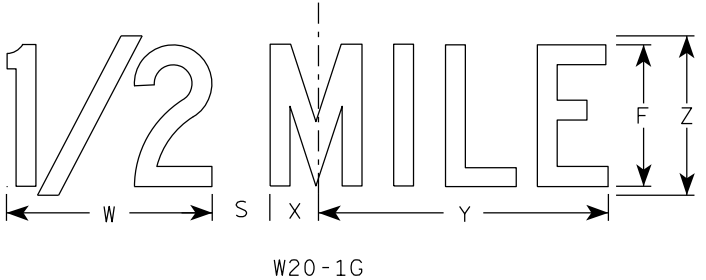


W20-1A

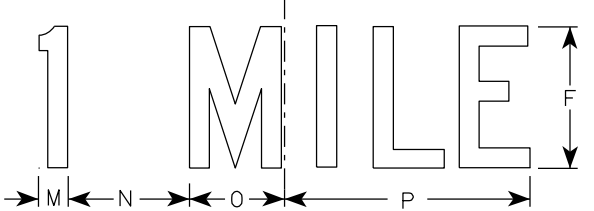


W20-1B

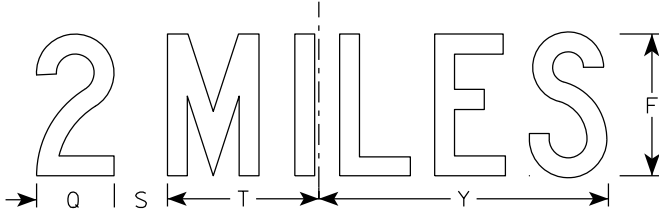
- NOTES
1. Sign is Type II - Type F Reflective
 2. Color:
Background - Orange
Message - Black
 3. Message Series - C
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

| 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 | | 2 1/4 | 5/8 | 3/4 | 5 | 2 5/8 | 3 1/4 | 10 1/8 | 7 | 7 5/8 | 8 7/8 | 1 1/8 | 4 1/2 | 3 1/2 | 9 | 3 1/4 | 2 1/2 | 2 1/4 | 5 5/8 | 9 | 1 3/8 | 8 | 1 3/4 | 10 3/4 | 6 | 9.0 |
| 2S | 48 | | 3 | 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 | | 3 | 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 | | 3 | 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 | | 3 | 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 | | 3 | 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 |

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.13
OPERATING RATING: RF = 1.46
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE $f'_c = 4,000$ PSI
ALL OTHER $f'_c = 3,500$ PSI

BAR STEEL REINFORCEMENT
GRADE 60 $f_y = 60,000$ PSI

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 10X42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

ESTIMATED 25'-0" LONG AT WEST ABUTMENT. PILE POINTS REQUIRED.
ESTIMATED 25'-0" LONG AT EAST ABUTMENT. PILE POINTS REQUIRED.
THE HIGHEST PILE TIP ELEVATION THAT WILL BE PERMITTED IS 1520 FT. CONTACT BOS IF THE REQUIRED DRIVING RESISTANCE IS ACHIEVED PRIOR TO REACHING THE HIGHEST TIP ELEVATION PERMITTED.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

CURVE DATA

FEATURE ON
P.I. = 10+72.52
 $\Delta = 14^\circ 02' 25''$
D = 8" 11' 06"
T = 86.20
L = 171.54'
R = 700.00'
S.E. = 2%
P.C. = 9+86.32
P.T. = 11+57.86

HYDRAULIC DATA

100-YEAR FREQUENCY:

$Q_{100} = 1110$ C.F.S.
 $V_{100} = 5.6$ F.P.S.
 $HW_{100} = \text{EL. } 1546.30$
WATERWAY AREA = 197.20 SQ. FT.
DRAINAGE AREA = 167 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2-YEAR FREQUENCY:

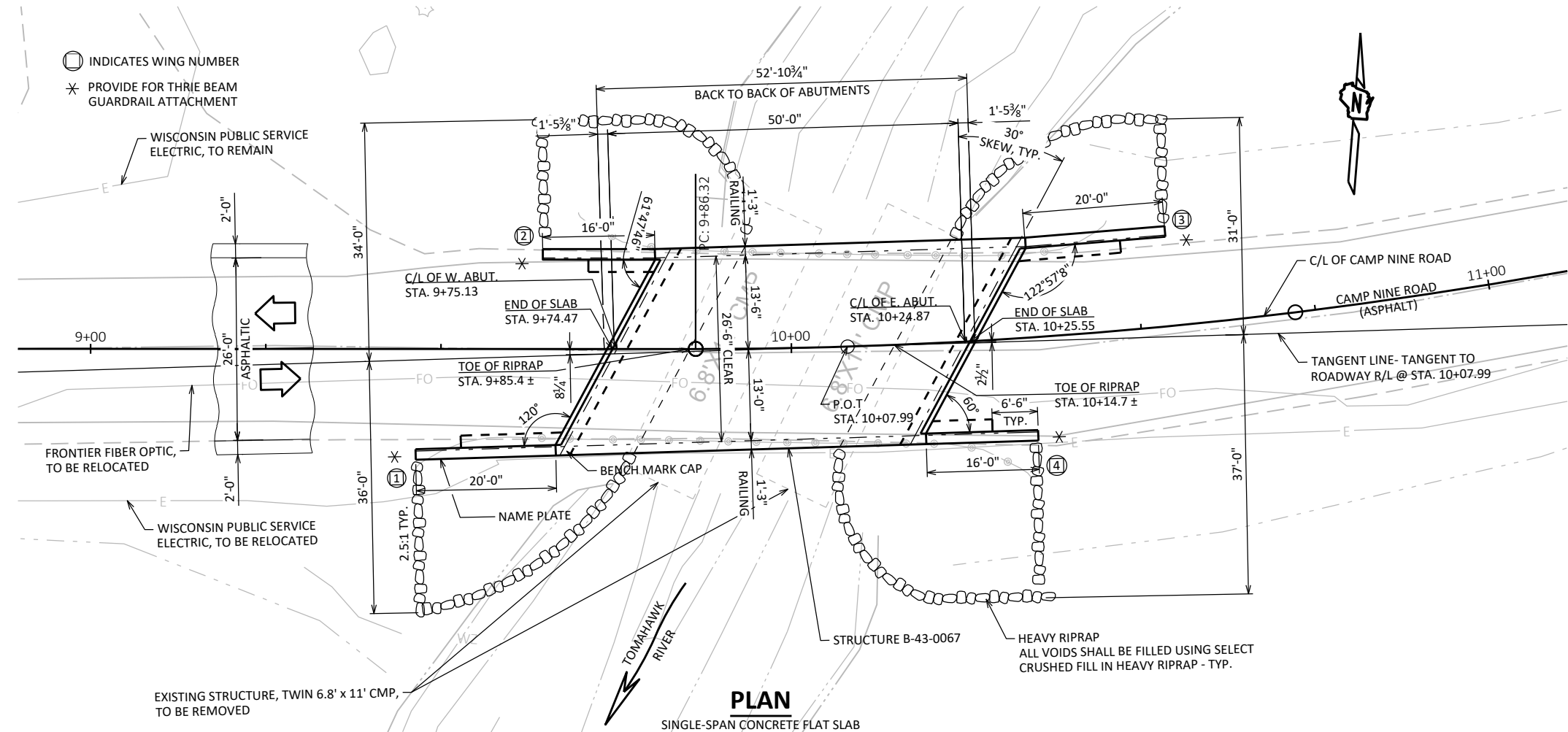
$Q_2 = 430$ C.F.S.
 $V_2 = 3.0$ F.P.S.
 $HW_2 = \text{EL. } 1544.49$

TRAFFIC DATA

FEATURE ON: CAMP NINE ROAD
ADT = 130 (2045)
R.D.S. = 35 MPH

LIST OF DRAWINGS:

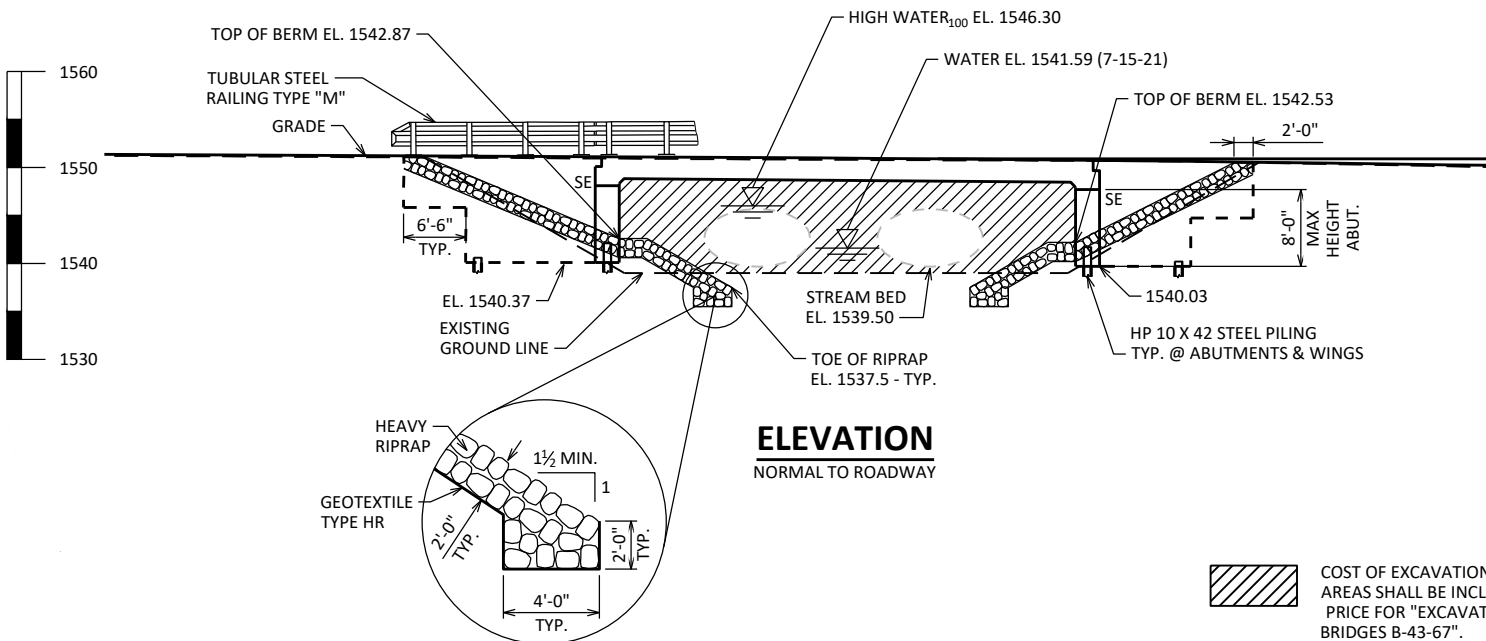
1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. STRUCTURE DETAILS
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT WING 1 DETAIL
7. WEST ABUTMENT WING 2 DETAIL
8. WEST ABUTMENT PILE LAYOUT
9. EAST ABUTMENT
10. EAST ABUTMENT WING 3 DETAIL
11. EAST ABUTMENT WING 4 DETAIL
12. EAST ABUTMENT PILE LAYOUT
13. ABUTMENT BILL OF BARS
14. SUPERSTRUCTURE
15. SUPERSTRUCTURE PLAN
16. TUBULAR STEEL RAILING TYPE "M"



EXISTING STRUCTURE, TWIN 6.8' x 11' CMP, TO BE REMOVED

PLAN

SINGLE-SPAN CONCRETE FLAT SLAB



ELEVATION

NORMAL TO ROADWAY

COST OF EXCAVATION OR FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-43-67".

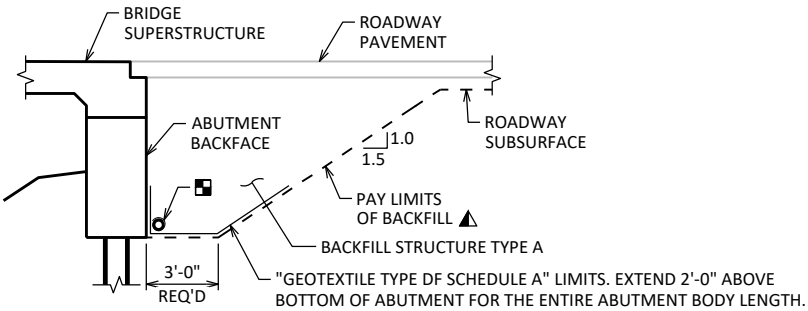
BENCH MARK

| NO. | STATION | DESCRIPTION | ELEV. |
|------|---------|-------------------------------------|---------|
| 1000 | 7+67 | RR SPIKE IN PPOL - 23' RT | 1552.65 |
| 1001 | 12+80 | 4" IRON PIPE FILLED W/CONC - 26' LT | 1548.73 |

STRUCTURE DESIGN CONTACTS:

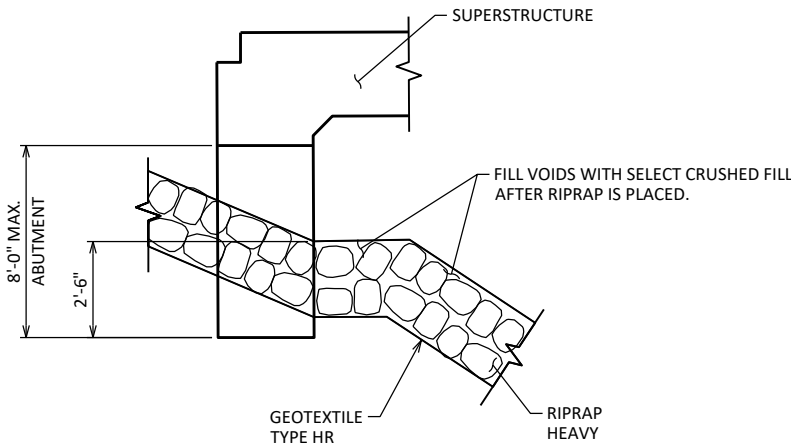
AARON BONK 608-261-0261
KRISTOFER OLSON 920-327-7803

| | | | |
|---|--------------------|---------------|---------------|
| NO. | DATE | REVISION | BY |
| ORIGINAL PLANS PREPARED BY | | | |
| AYRES 700 Pilgrim Way, Suite 180 GREEN BAY, WI 54304 www.AyresAssociates.com | | | |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| ACCEPTED | <i>[Signature]</i> | SDR | 09/11/24 |
| CHIEF STRUCTURES DESIGN ENGINEER DATE | | | |
| STRUCTURE B-43-67 | | | |
| CAMP NINE ROAD OVER TOMAHAWK RIVER | | | |
| COUNTY | ONEIDA | TOWN | MINOCQUA |
| DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION | | | |
| DESIGNED BY | JMC | DESIGNED CK'D | NBE |
| DRAWN BY | JMC | PLANS CK'D | KRO |
| GENERAL PLAN | | | SHEET 1 OF 16 |

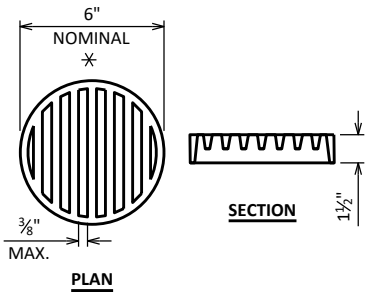


TYPICAL SECTION THRU ABUTMENT

- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

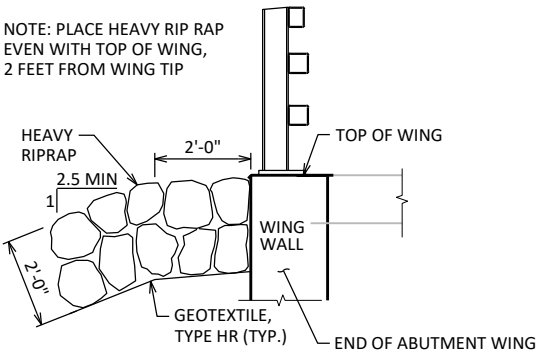


SELECT CRUSHED FILL
IN HEAVY RIPRAP



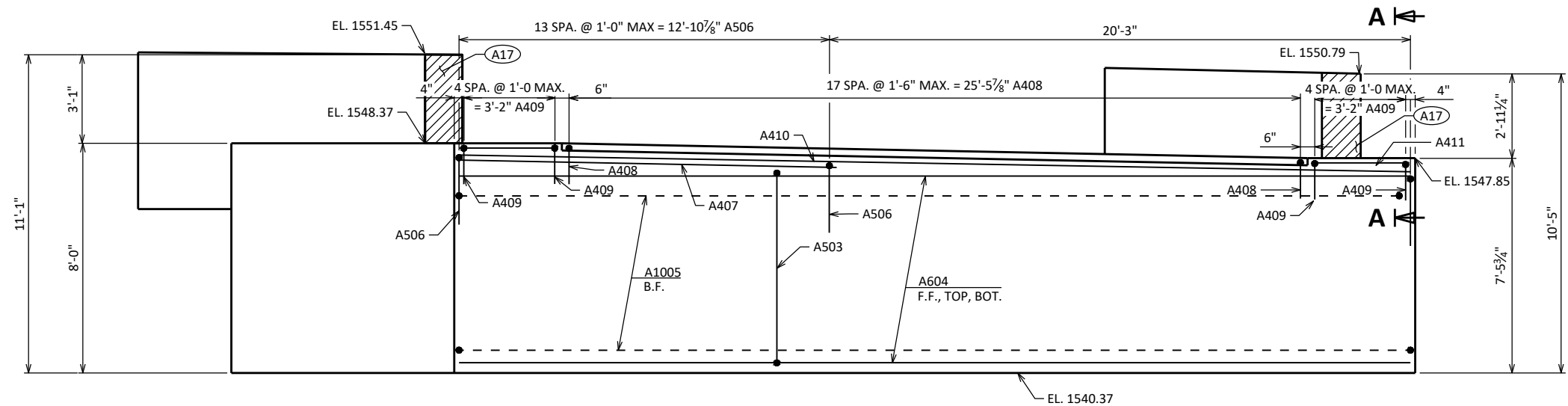
RODENT SHIELD DETAIL

- * DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.
- THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
- THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

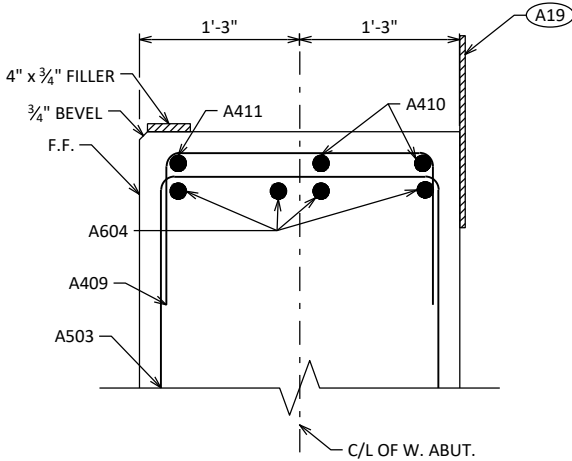


TYPICAL FILL SECTION AT WING TIPS

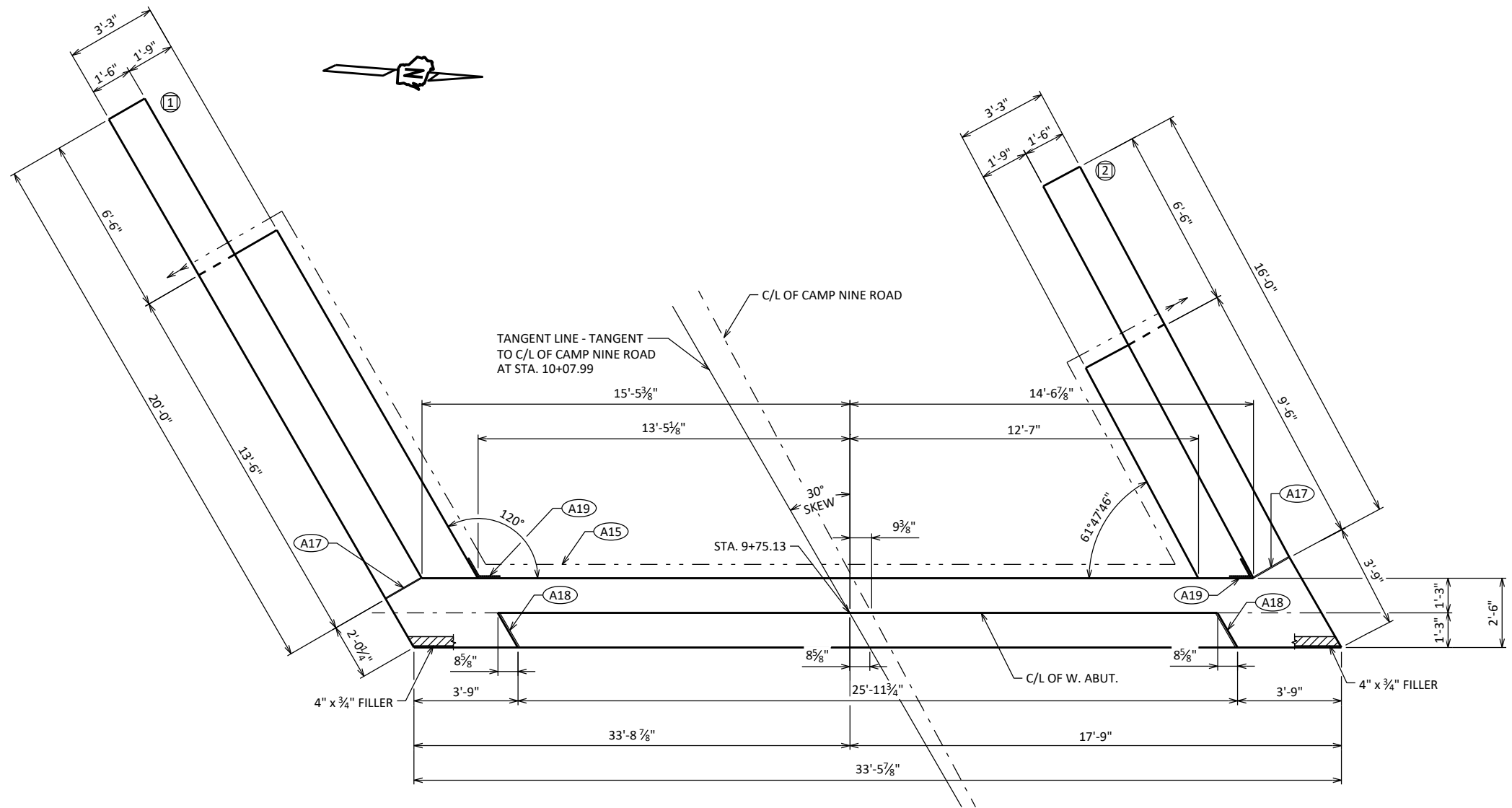
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| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY JMC | | PLANS CK'D NBE | |
| STRUCTURE DETAILS | | SHEET 3 OF 16 | |
| | | | |



ELEVATION
(LOOKING WEST)



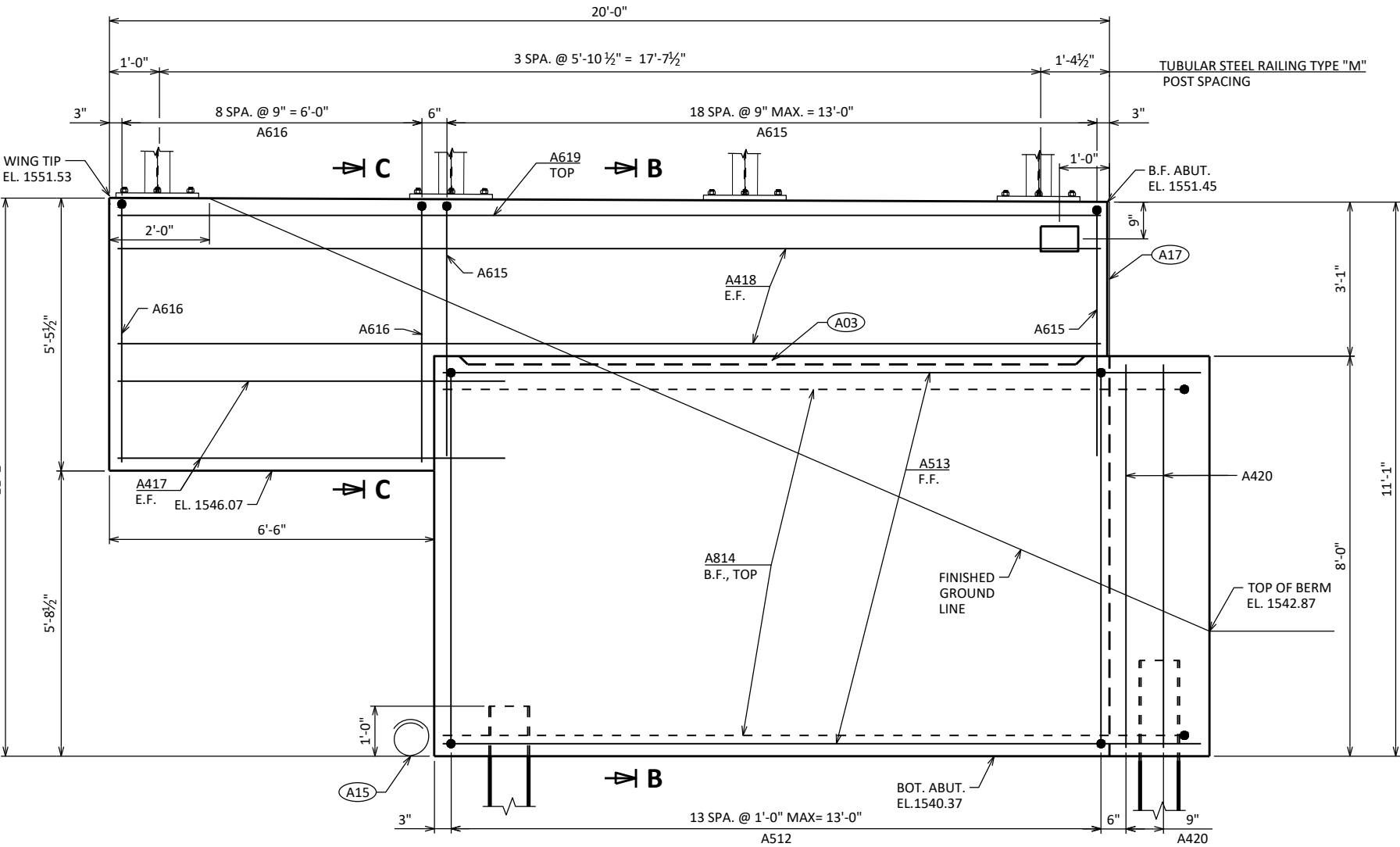
SECTION A



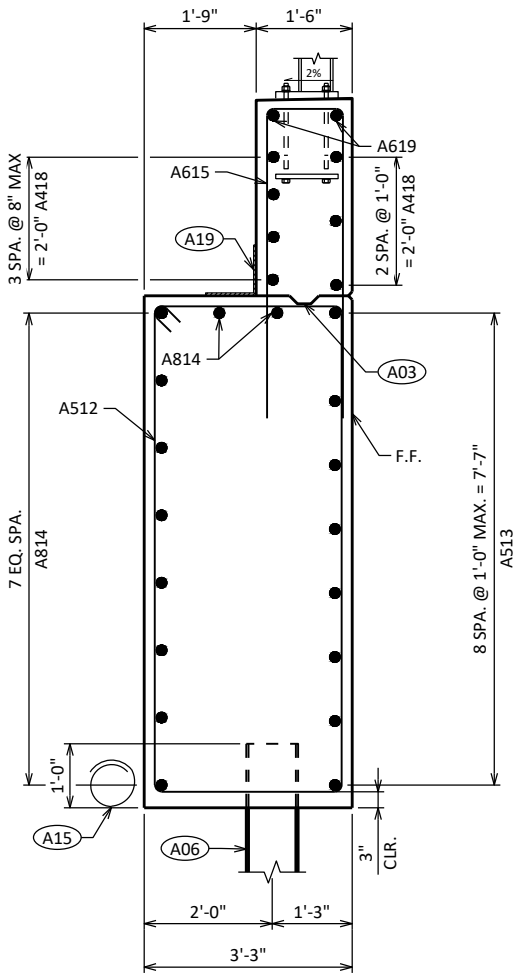
PLAN

- A15** PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17** 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A18** 3/4" CORK FILLER UP VERT. FACE ONLY.
- A19** 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

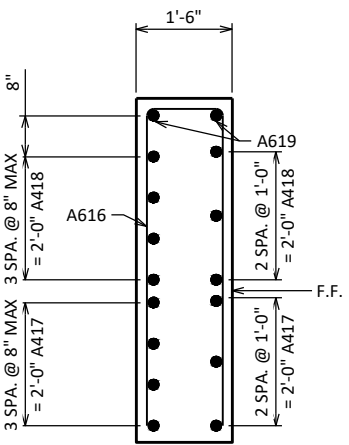
| NO. | DATE | REVISION | BY |
|--|------|----------------|---------------|
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY JMC | | PLANS CK'D NBE | |
| WEST ABUTMENT | | | SHEET 5 OF 16 |



ELEVATION - WING 1



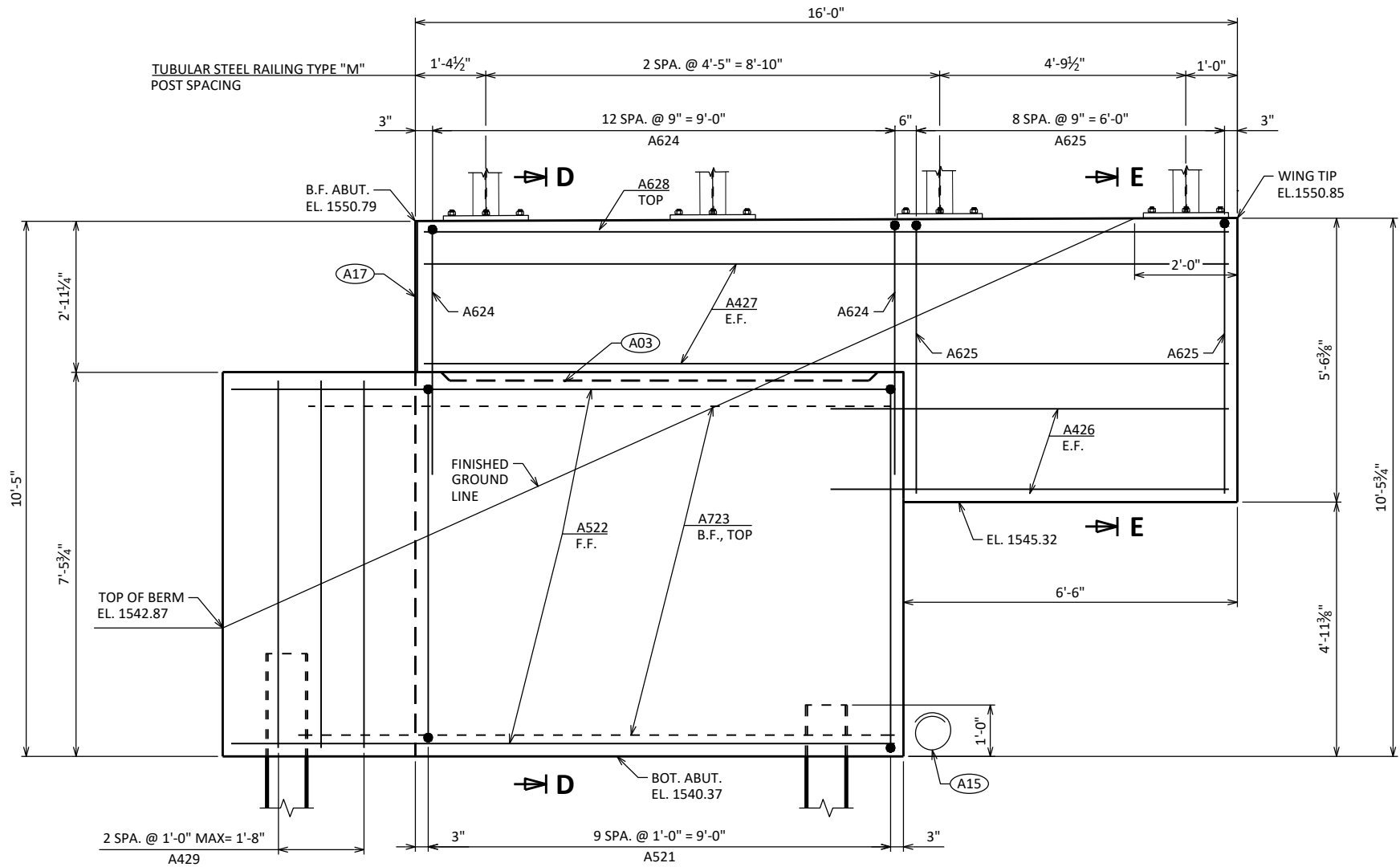
SECTION B



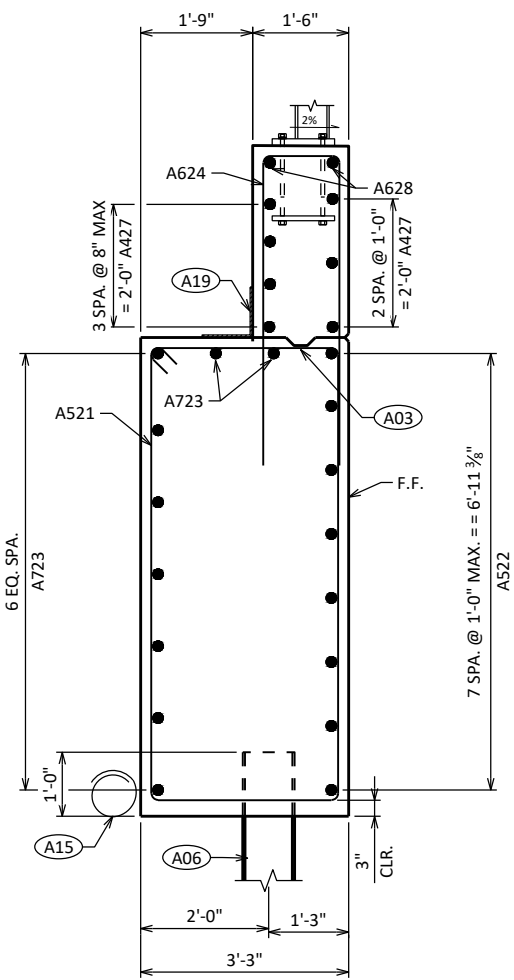
SECTION C

- A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- A06 SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE.
- A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

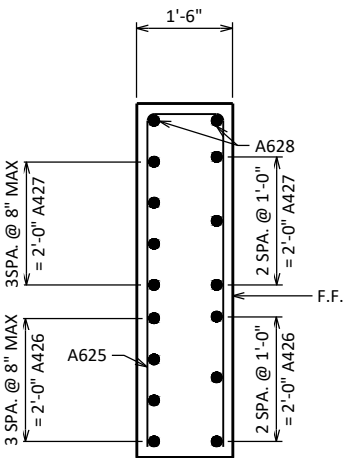
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| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY JMC | | PLANS CK'D NBE | |
| WEST ABUTMENT WING 1 DETAIL | | | SHEET 6 OF 16 |



ELEVATION - WING 2



SECTION D



SECTION E

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 3/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

| | | | |
|--|------|----------------|----|
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY JMC | | PLANS CK'D NBE | |
| WEST ABUTMENT WING 2 DETAIL | | SHEET 7 OF 16 | |



STEEL TROWEL TOP SURFACE OF ABUTMENT.
PLACE MULTIPLE LAYERS OF POLYETHYLENE
SHEETS OVER ENTIRE ABUTMENT TOP BEFORE
PLACING BEARING PADS. TOTAL THICKNESS
OF SHEETS SHALL BE AT LEAST 0.03".

3"

1'-3" 1'-3"

C/L BRG. & PILES

4"x 3/4" FILLER x
ABUTMENT LENGTH

3/4" BEVEL

A407

A604

1'-0" MIN.

F.F. ABUT.

2'-6"

TOP OF BERM
EL. 1542.87

HEAVY
RIPRAP

1.5 MAX.

1

2'-6"

GEOTEXTILE,
TYPE HR

A604

A402

A401

2'-0"

6 EQ. SPA. A1005

8 EQ. SPA.

A506

A503

B.F. ABUT.

3"

C.I.

A15

GEOTEXTILE
TYPE DF,
SCHEDULE A

A06

1'-3" 1'-3"

2'-6"

A19

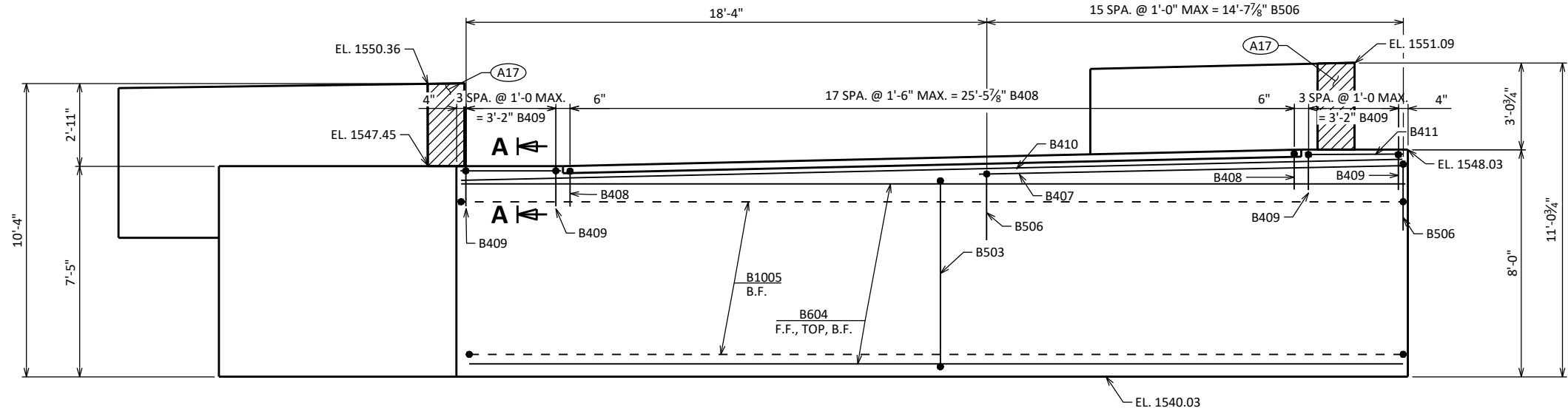
A410

A408

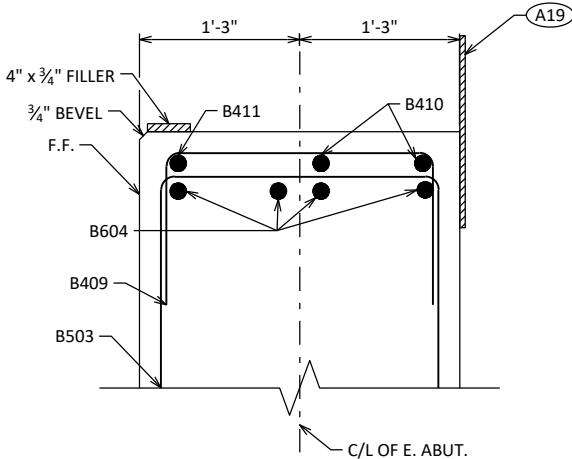
SECTION THRU BODY

- A06** SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE.
- A15** PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A19** 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

| | | | |
|--|------|---------------|----------------|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY | | JMC | PLANS CK'D NBE |
| WEST ABUTMENT PILE LAYOUT | | SHEET 8 OF 16 | |
| | | | |

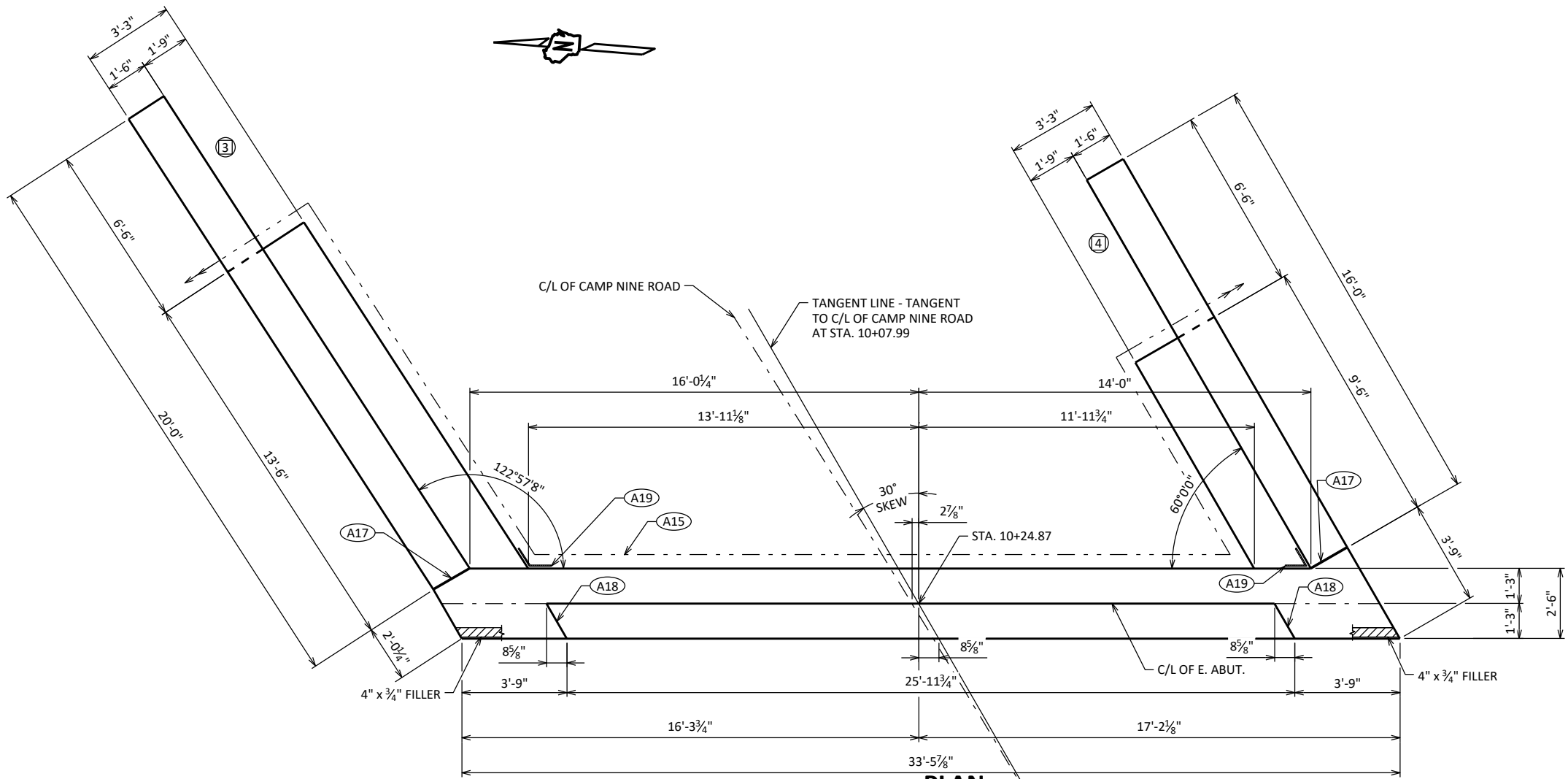


ELEVATION
(LOOKING EAST)



SECTION A

- A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/2" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A18 3/4" CORK FILLER UP VERT. FACE ONLY.
- A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



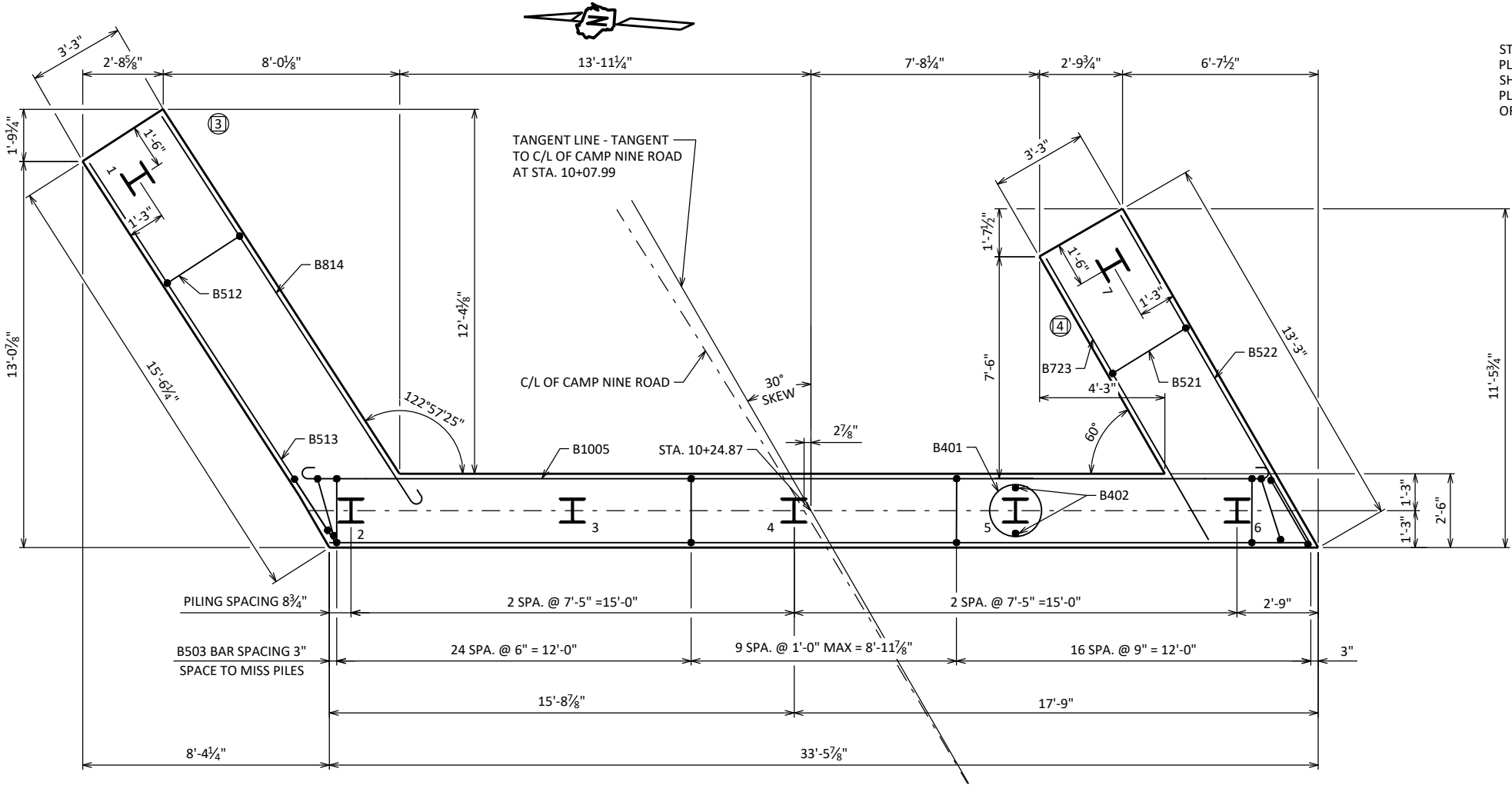
PLAN

| NO. | DATE | REVISION | BY |
|--|------|---------------|----------------|
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY | | JMC | PLANS CK'D NBE |
| EAST ABUTMENT | | SHEET 9 OF 16 | |

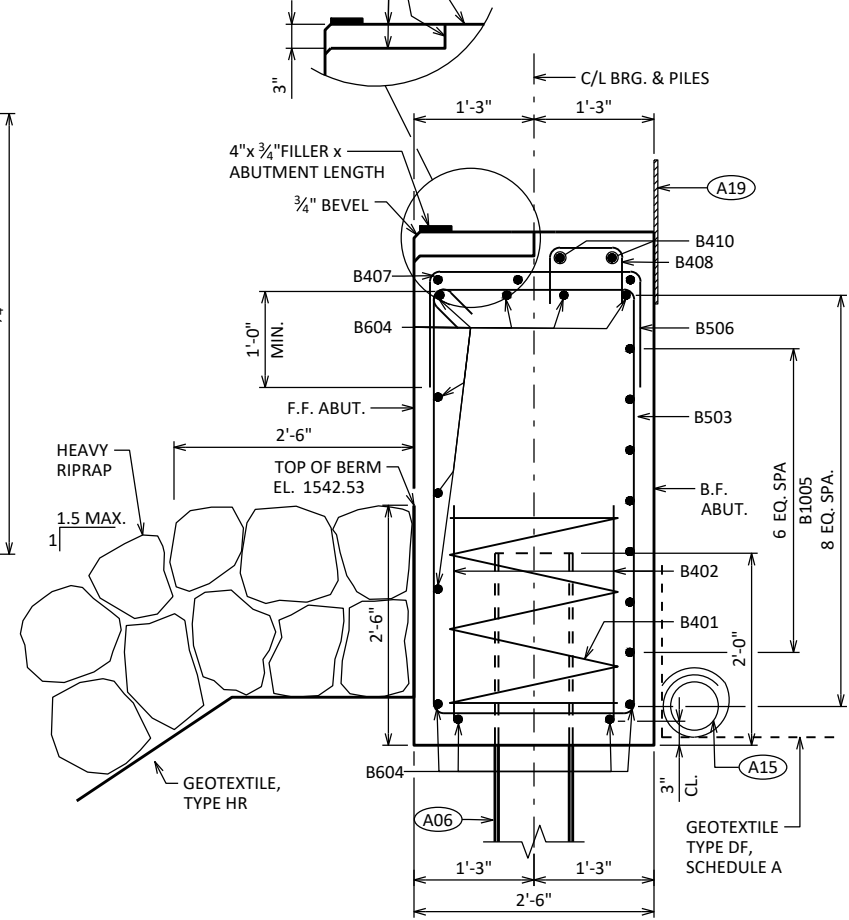


- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18") RMW @ B.F. & ¾" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A06) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ½" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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|--|-------------|----------------|-------------------|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| | DRAWN BY | JMC | PLANS CK'D NBE |
| EAST ABUTMENT WING 4 DETAIL | | SHEET 11 OF 16 | |
| | | | |



STEEL TROWEL TOP SURFACE OF ABUTMENT.
PLACE MULTIPLE LAYERS OF POLYETHYLENE
SHEETS OVER ENTIRE ABUTMENT TOP BEFORE
PLACING BEARING PADS. TOTAL THICKNESS
OF SHEETS SHALL BE AT LEAST 0.03".



- A06** SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 25'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE.
- A15** PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A19** 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

| | | | |
|--|------|----------------|----|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY JMC | | PLANS CK'D NBE | |
| EAST ABUTMENT PILE LAYOUT | | SHEET 12 OF 16 | |

BILL OF BARS

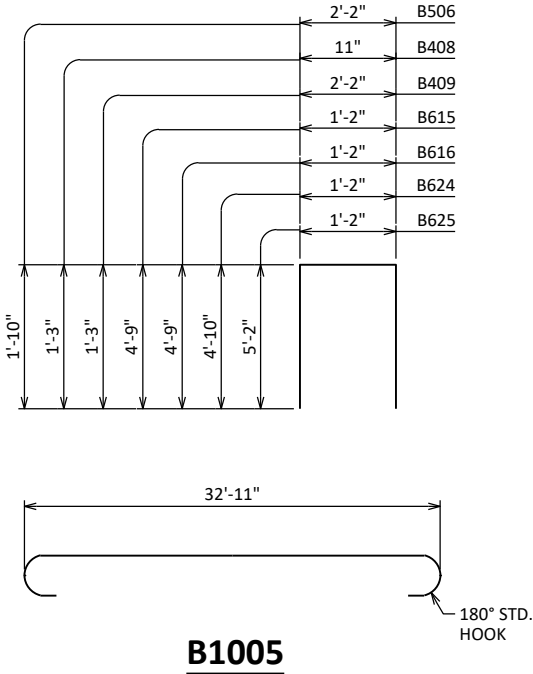
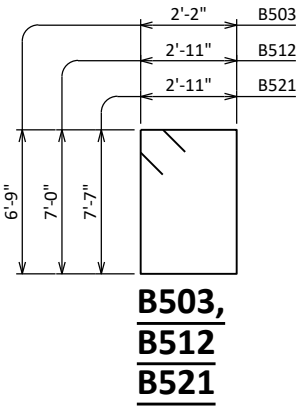
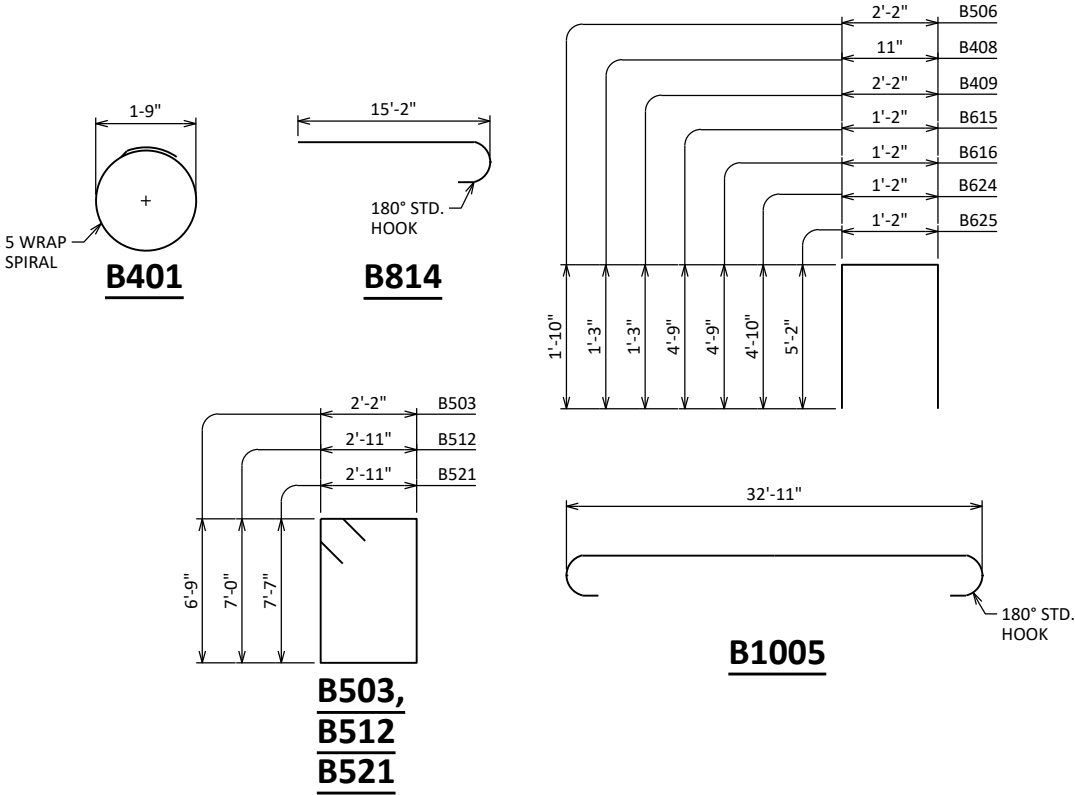
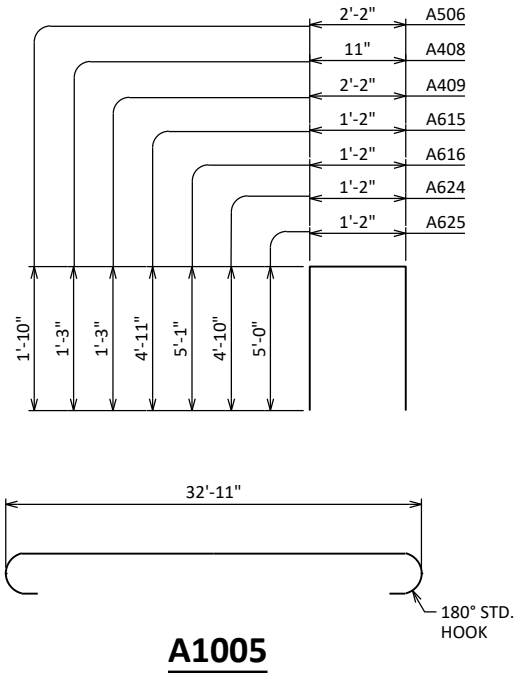
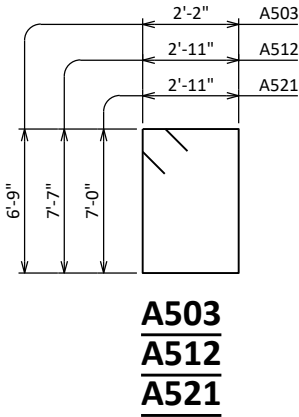
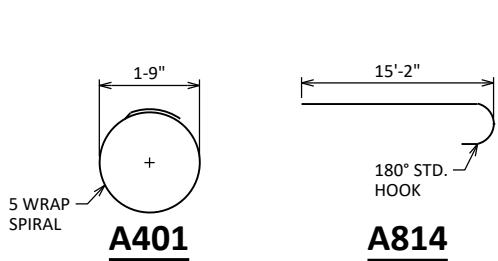
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

| BAR MARK | COAT | NO. REQ'D. | LENGTH | BENT | BAR SERIES | LOCATION |
|----------|------|------------|---------|------|------------|------------------------------|
| A401 | | 5 | 28'-0" | X | | BODY @ PILES |
| A402 | | 10 | 2'-3" | | | BODY @ PILES |
| A503 | | 52 | 18'-6" | X | | BODY VERT. |
| A604 | | 11 | 33'-1" | | | BODY HORIZ. F.F.,TOP,BOT. |
| A1005 | | 7 | 35'-9" | X | | BODY HORIZ. B.F. |
| A506 | | 14 | 5'-7" | X | | BODY VERT. TOP |
| A407 | | 3 | 13'-0" | | | BODY HORIZ. TOP |
| A408 | | 18 | 3'-3" | X | | BODY VERT. TOP |
| A409 | | 8 | 4'-6" | X | | BODY VERT. TOP @ WINGS |
| A410 | | 2 | 33'-0" | | | BODY HORIZ. TOP |
| A411 | | 2 | 3'-4" | | | BODY HORIZ. TOP F.F. @ WINGS |
| A512 | X | 14 | 21'-8" | X | | WING 1 VERT |
| A513 | X | 8 | 15'-2" | | | WING 1 HORIZ. F.F. |
| A814 | X | 10 | 16'-1" | X | | WING 1 HORIZ. B.F. & TOP |
| A615 | X | 19 | 10'-8" | X | | WING 1 VERT. |
| A616 | X | 9 | 11'-1" | X | | WING 1 VERT. |
| A417 | X | 7 | 7'-10" | | | WING 1 HORIZ. E.F. |
| A418 | X | 7 | 19'-7" | | | WING 1 HORIZ. E.F. |
| A619 | X | 2 | 19'-7" | | | WING 1 HORIZ. TOP |
| A420 | X | 2 | 7'-7" | | | BODY VERT. @ END @ WING 1 |
| A521 | X | 10 | 20'-6" | X | | WING 2 VERT. |
| A522 | X | 9 | 12'-9" | | | WING 2 HORIZ. F.F. |
| A723 | X | 9 | 11'-2" | | | WING 2 HORIZ. B.F. & TOP |
| A624 | X | 13 | 10'-6" | X | | WING 2 VERT. |
| A625 | X | 9 | 10'-10" | X | | WING 2 VERT. |
| A426 | X | 7 | 7'-10" | | | WING 2 HORIZ. E.F. |
| A427 | X | 7 | 15'-7" | | | WING 2 HORIZ. E.F. |
| A628 | X | 2 | 15'-7" | | | WING 2 HORIZ. TOP |
| A429 | X | 3 | 7'-0" | | | BODY VERT. @ END @ WING 2 |

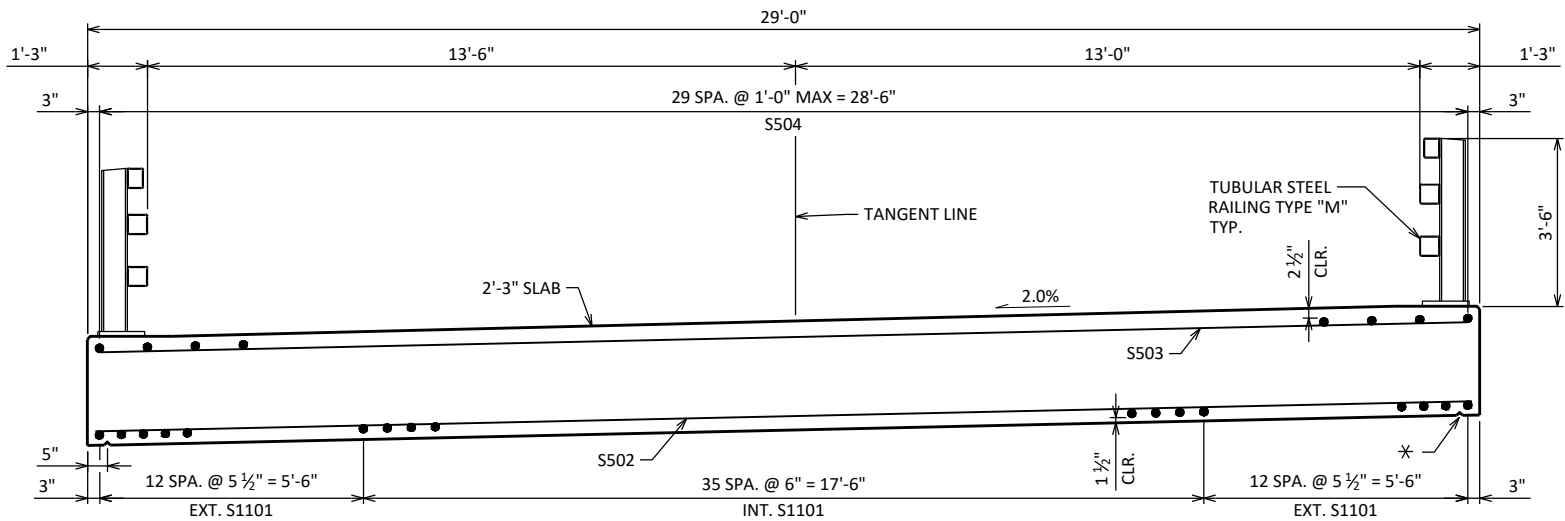
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

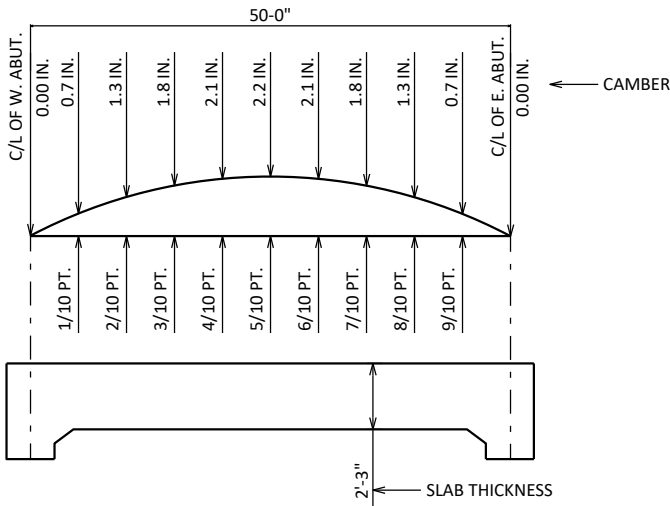
| BAR MARK | COAT | NO. REQ'D. | LENGTH | BENT | BAR SERIES | LOCATION |
|----------|------|------------|--------|------|------------|------------------------------|
| B401 | | 5 | 28'-0" | X | | BODY @ PILES |
| B402 | | 10 | 2'-3" | | | BODY @ PILES |
| B503 | | 52 | 18'-6" | X | | BODY VERT. |
| B604 | | 11 | 33'-1" | | | BODY HORIZ. F.F., TOP, BOT. |
| B1005 | | 7 | 35'-9" | X | | BODY HORIZ. B.F. |
| B506 | | 16 | 5'-7" | X | | BODY VERT. TOP |
| B407 | | 3 | 15'-0" | | | BODY HORIZ. TOP |
| B408 | | 18 | 3'-3" | X | | BODY VERT. TOP |
| B409 | | 8 | 4'-6" | X | | BODY VERT. TOP @ WINGS |
| B410 | | 2 | 33'-0" | | | BODY HORIZ. TOP |
| B411 | | 2 | 3'-4" | | | BODY HORIZ. TOP F.F. @ WINGS |
| B512 | X | 14 | 20'-6" | X | | WING 3 VERT |
| B513 | X | 8 | 15'-2" | | | WING 3 HORIZ. F.F. |
| B814 | X | 10 | 16'-1" | | | WING 3 HORIZ. B.F. & TOP |
| B615 | X | 19 | 10'-4" | X | | WING 3 VERT. |
| B616 | X | 9 | 10'-4" | X | | WING 3 VERT. |
| B417 | X | 7 | 7'-10" | | | WING 3 HORIZ. E.F. |
| B418 | X | 7 | 19'-7" | | | WING 3 HORIZ. E.F. |
| B619 | X | 2 | 19'-7" | | | WING 3 HORIZ. TOP |
| B420 | X | 2 | 7'-0" | | | BODY VERT. @ END @ WING 3 |
| B521 | X | 10 | 21'-8" | X | | WING 4 VERT. |
| B522 | X | 9 | 12'-9" | | | WING 4 HORIZ. F.F. |
| B723 | X | 9 | 11'-0" | | | WING 4 HORIZ. B.F. & TOP |
| B624 | X | 13 | 10'-6" | X | | WING 4 VERT. |
| B625 | X | 9 | 11'-2" | X | | WING 4 VERT. |
| B426 | X | 7 | 7'-10" | | | WING 4 HORIZ. E.F. |
| B427 | X | 7 | 15'-7" | | | WING 4 HORIZ. E.F. |
| B628 | X | 2 | 15'-7" | | | WING 4 HORIZ. TOP |
| B429 | X | 3 | 7'-7" | | | BODY VERT. @ END @ WING 4 |



| NO. | DATE | REVISION | BY |
|--|------|----------------|----------------|
| | | | |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| DRAWN BY JMC | | PLANS CK'D NBE | |
| ABUTMENT BILL OF BARS | | | SHEET 13 OF 16 |



TYPICAL SECTION THRU BRIDGE



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

| | |
|--------|---|
| | TOP OF SLAB ELEVATION AT FINAL GRADE |
| LESS | SLAB THICKNESS |
| PLUS | CAMBER |
| PLUS | FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR) |
| EQUALS | TOP OF SLAB FALSEWORK ELEVATION |

TOP OF SLAB ELEVATIONS

| LOCATION | C/L W. ABUT. | 1/10 PT. | 2/10 PT. | 3/10 PT. | 4/10 PT. | 5/10 PT. | 6/10 PT. | 7/10 PT. | 8/10 PT. | 9/10 PT. | C/L E. ABUT. |
|-----------------|--------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|
| N. EDGE OF SLAB | 1550.78 | 1550.75 | 1550.71 | 1550.68 | 1550.64 | 1550.60 | 1550.56 | 1550.51 | 1550.46 | 1550.41 | 1550.36 |
| C/L CAMP NINE | 1551.10 | 1551.08 | 1551.06 | 1551.02 | 1550.99 | 1550.96 | 1550.92 | 1550.88 | 1550.84 | 1550.79 | 1550.74 |
| TANGENT LINE | 1551.12 | 1551.09 | 1551.06 | 1551.02 | 1550.99 | 1550.96 | 1550.92 | 1550.88 | 1550.84 | 1550.79 | 1550.74 |
| S. EDGE OF SLAB | 1551.44 | 1551.42 | 1551.39 | 1551.36 | 1551.33 | 1551.30 | 1551.27 | 1551.23 | 1551.19 | 1551.15 | 1551.11 |

NOTES

* 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. BODY.

V-GROOVES ARE REQUIRED.

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCE NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

STATE PROJECT NUMBER

9874-00-70

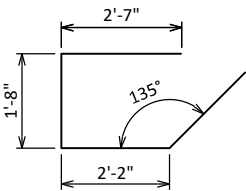
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

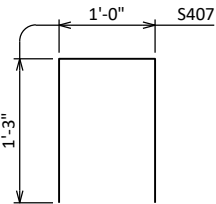
| BAR MARK | COAT | NO. REQ'D. | LENGTH | BENT | BAR SERIES | LOCATION |
|----------|------|------------|---------|------|------------|---------------------------------|
| S1101 | X | 60 | 47'-11" | | | SLAB LONG. BOT. |
| S502 | X | 97 | 33'-1" | | | SLAB TRANS. BOT. |
| S503 | X | 53 | 33'-1" | | | SLAB TRANS. TOP. |
| S504 | X | 30 | 50'-11" | | | SLAB LONG. TOP. |
| S505 | X | 58 | 8'-4" | X | | SLAB @ ABUT. DIAPHRAGM STIRRUPS |
| S506 | X | 60 | 4'-0" | X | | SLAB @ ABUT. |
| S407 | X | 48 | 3'-4" | X | | SLAB @ ABUT. NOTCH |
| S408 | X | 4 | 25'-7" | | | SLAB @ ABUT. NOTCH |
| S609 | X | 16 | 4'-8" | X | | SLAB @ END RAIL POSTS |
| S610 | X | 40 | 11'-3" | X | | SLAB @ RAIL POST |
| S611 | X | 64 | 6'-0" | | | SLAB @ INT. RAIL POST |



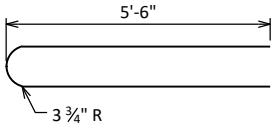
S506



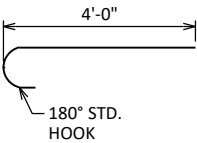
S505



S407



S610



S609

SURVEY TOP OF SLAB ELEVATIONS

| | W. ABUTMENT | 5/10 PT. | E. ABUTMENT |
|-----------------|-------------|----------|-------------|
| N. EDGE OF SLAB | | | |
| TANGENT LINE | | | |
| S. EDGE OF SLAB | | | |

PRIOR TO RELEASING SLAB FORMWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND C/L.. RECORD ELEVATIONS IN THE TABLE ABOVE FOR THE "AS BUILT" PLANS.

| | | | |
|--|------|--------------|----------------|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-43-67 | | | |
| | | DRAWN BY JMC | PLANS CK'D NBE |
| SUPERSTRUCTURE | | | SHEET 14 OF 16 |



| | | | |
|--|-------------|----------------|-------------------|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE | | B-43-67 | |
| | DRAWN BY | JMC | PLANS CK'D NBE |
| SUPERSTRUCTURE PLAN | | SHEET 15 OF 16 | |
| | | | |

LEGEND

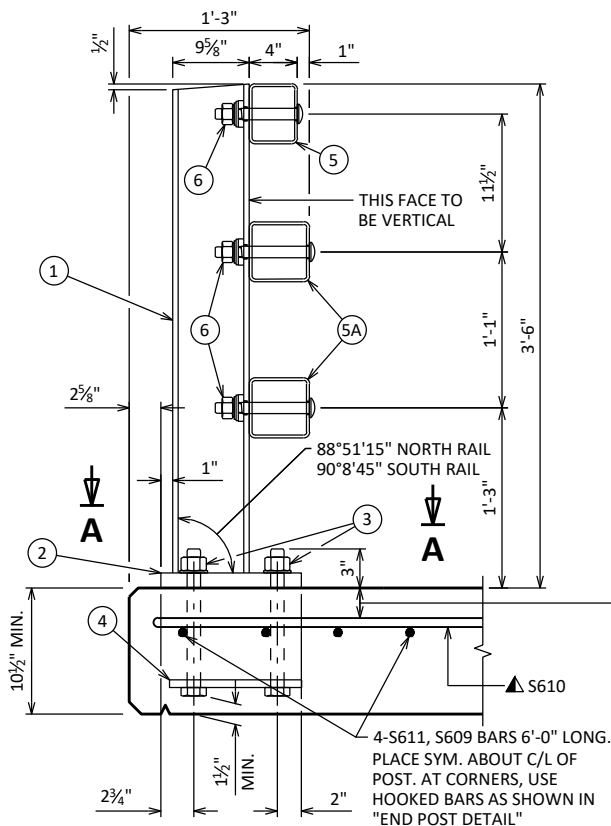
- W6 X 25 WITH $1\frac{1}{8}$ " X $1\frac{1}{2}$ " HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- PLATE $1\frac{1}{4}$ " X $11\frac{3}{4}$ " X 1'-8" WITH $1\frac{1}{16}$ " DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
- ASTM A449 - $1\frac{1}{8}$ " DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE $10\frac{3}{4}$ " LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTABILITY.)
- $\frac{5}{8}$ " X 11" X 1'-8" ANCHOR PLATE (GALVANIZED) WITH $1\frac{3}{16}$ " DIA. HOLES FOR ANCHOR BOLTS NO. 3
- TS 5 X 4 X 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- TS 5 X 5 X 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- $\frac{7}{8}$ " DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, $\frac{3}{16}$ " X $1\frac{5}{8}$ " X $1\frac{5}{8}$ " MIN. WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- $\frac{1}{2}$ " THK. BACK-UP PLATE WITH 2 - $\frac{7}{8}$ " X $1\frac{1}{2}$ " THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR $\frac{7}{8}$ " DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- SPLICE SLEEVE FABRICATED FROM $\frac{1}{4}$ " PLATE. PROVIDE "SLIDING FIT".
- $\frac{3}{8}$ " X $3\frac{5}{8}$ " X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- $\frac{3}{8}$ " X $2\frac{5}{8}$ " X 2'-4" PLATE USED IN NO. 5, $\frac{3}{8}$ " X $3\frac{5}{8}$ " X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- $\frac{7}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE $1\frac{5}{16}$ " X $1\frac{1}{4}$ " LONGIT. SLOTTED HOLES AT FIELD JOINTS AND $1\frac{3}{16}$ " X $2\frac{3}{4}$ " MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
- $\frac{7}{8}$ " DIA. X $1\frac{1}{2}$ " LONG THREADED SHOP WELDED STUDS (2 REQ'D.).
- $\frac{3}{8}$ " X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- $\frac{7}{8}$ " DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- 1" DIA. HOLES IN TUBES NO. 5A FOR $\frac{7}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

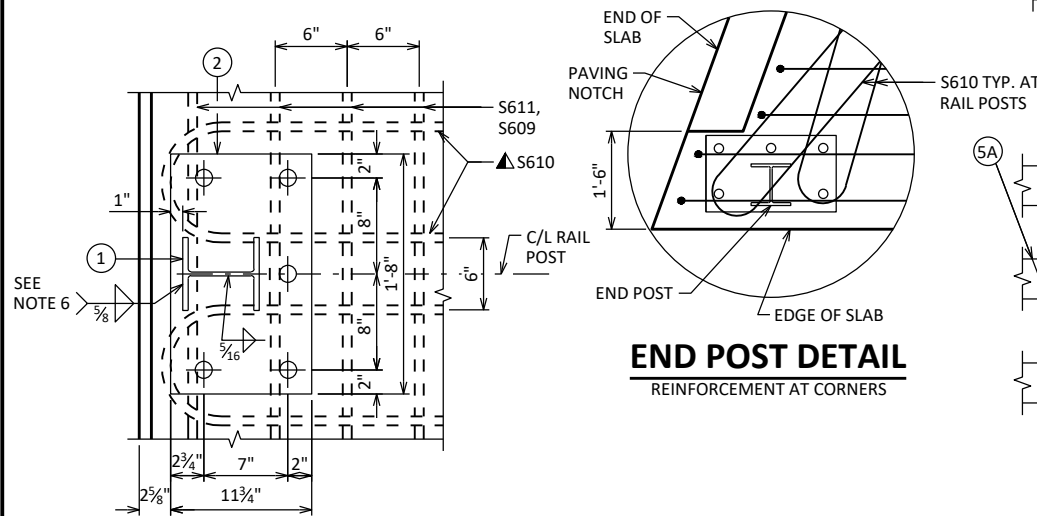
- BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
- RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL $\frac{1}{8}$ TURN.
- RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.
- ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY SSPC SPECIFICATIONS.

▲ TIE TO TOP MAT OF STEEL.

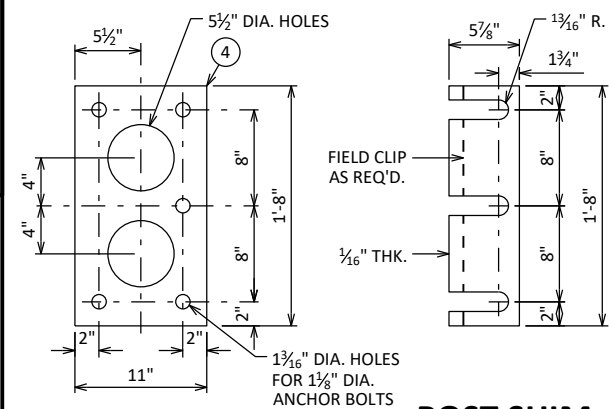
* ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.

■ RDWY. OPENING OR $2\frac{1}{2}$ " MIN. FOR STRIP SEAL EXP. JOINT & ($\frac{1}{4}$ " TO $\frac{3}{4}$ " OPENING FOR A1 ABUTMENT.

SECTION THRU RAILING ON DECK



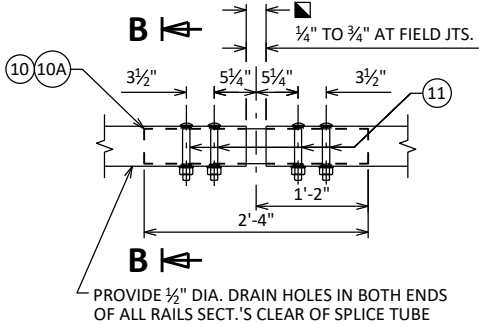
SECTION A-A



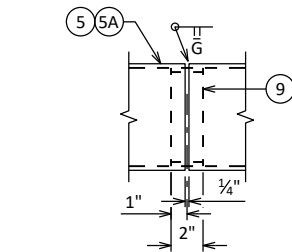
ANCHOR PLATE

AT RAIL TO DECK CONNECTION

POST SHIM DETAIL

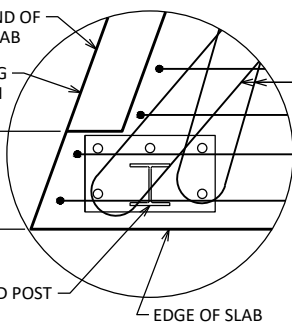


FIELD ERECTION JOINT DETAIL



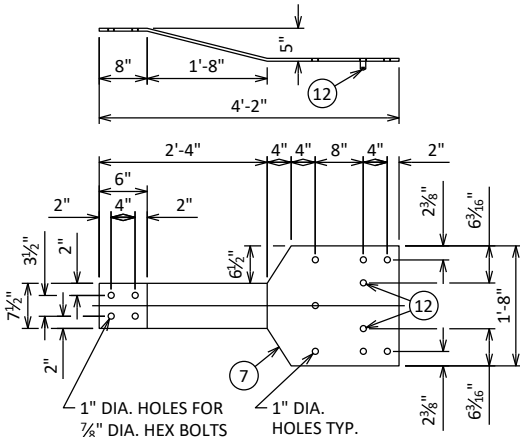
SHOP RAIL SPLICE DETAIL

LOCATION MUST BE SHOWN ON SHOP DRAWINGS



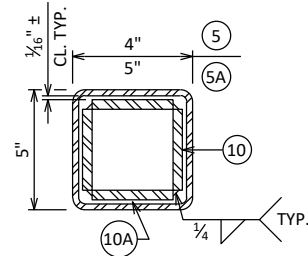
END POST DETAIL

REINFORCEMENT AT CORNERS

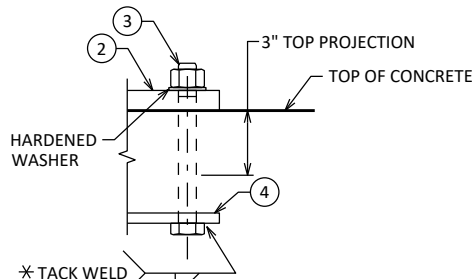


BACK-UP PLATE DETAIL

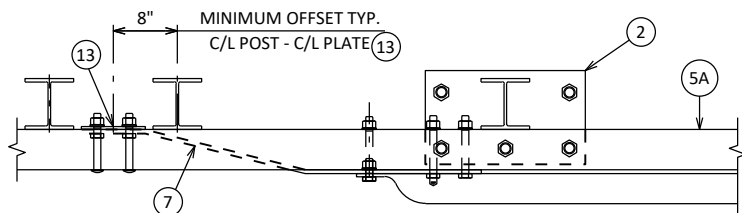
AT BEAM GUARD ATTACHMENT



SECTION B-B

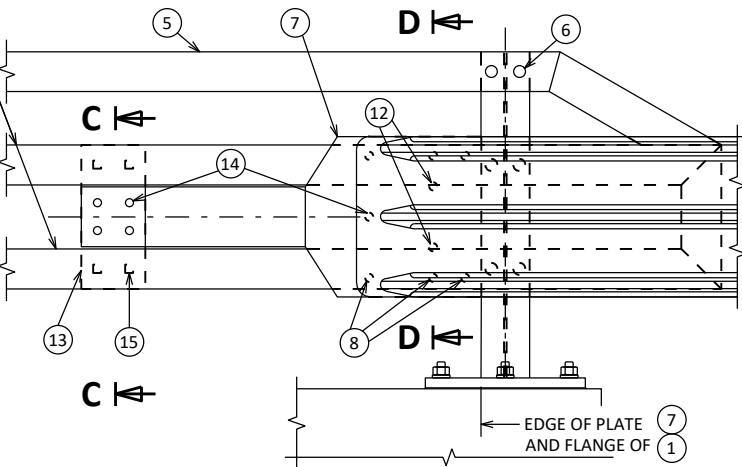


ANCHOR BOLTS



TOP VIEW AT END POST

THRIE BEAM RAIL ATTACHMENT



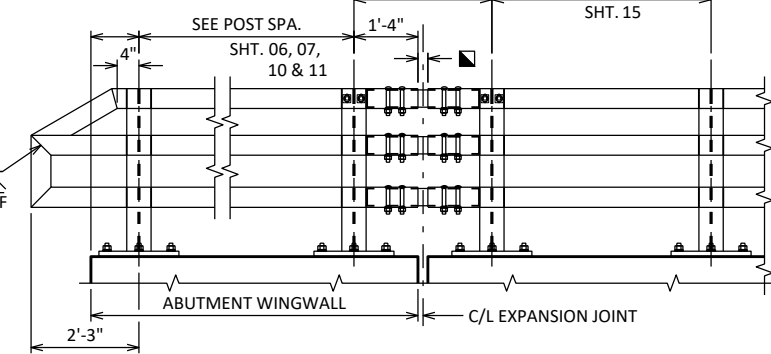
SECTION C-C SECTION D-D

ANCHOR PLATE

AT BEAM GUARD ATTACHMENT

DETAIL AT END POST

THRIE BEAM RAIL ATTACHMENT



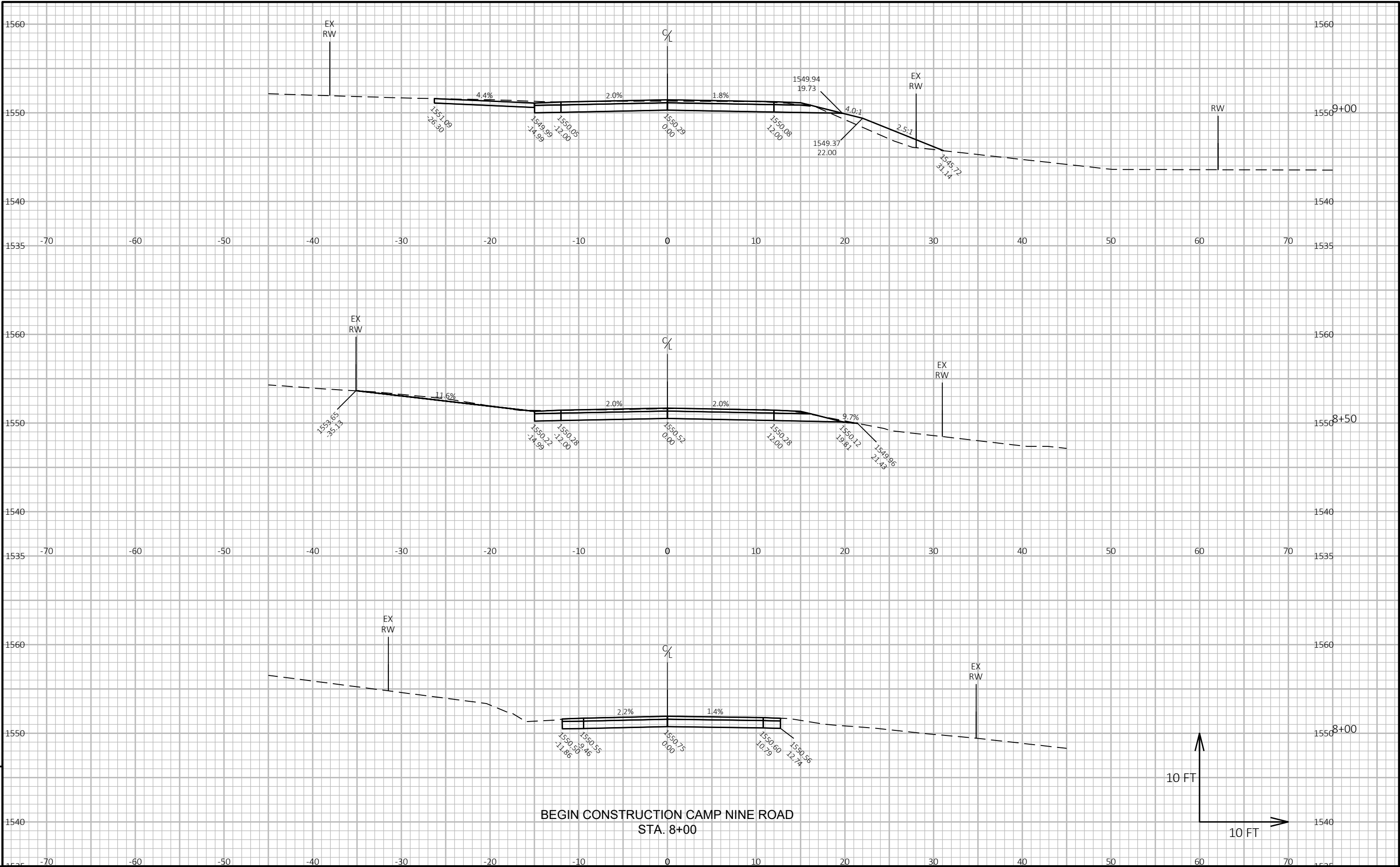
PART ELEVATION OF RAILING

EARTHWORK - CAMP NINE ROAD

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | CUMULATIVE VOL (CY) | | | |
|-----------|----------|-----------|--|-------|-----------|-----------------------------------|--|------|-----------|---------------------|---------------|----------------------------|---------------|
| | | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | MARSH EXC | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | MARSH EXC | CUT | EXPANDED FILL | EXPANDED MARSH BACKFILL | MASS ORDINATE |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| NOTE 1 | NOTE 2 | NOTE 3 | NOTE 1 | 1.30 | 1.50 | NOTE 8 | | | | | | | |
| 8+00.00 | 0.00 | 28.75 | 3.38 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8+50.00 | 50.00 | 38.93 | 3.40 | 0.31 | 0.00 | 63 | 6 | 0 | 0 | 63 | 0 | 0 | 57 |
| 9+00.00 | 50.00 | 41.99 | 3.42 | 10.10 | 0.00 | 75 | 6 | 10 | 0 | 138 | 0 | 0 | 113 |
| 9+46.36 | 46.36 | 38.35 | 3.70 | 17.37 | 0.00 | 69 | 6 | 24 | 0 | 207 | 0 | 0 | 145 |
| B-43-0067 | | | | | | | | | | | | | |
| 10+54.71 | 0.00 | 30.23 | 3.78 | 16.11 | 27.50 | 0 | 0 | 0 | 0 | 207 | 0 | 0 | 145 |
| 11+00.00 | 45.29 | 27.15 | 3.40 | 17.36 | 21.20 | 48 | 6 | 28 | 41 | 255 | 0 | 62 | 150 |
| 11+50.00 | 50.00 | 29.96 | 3.38 | 8.85 | 25.70 | 53 | 6 | 24 | 43 | 308 | 0 | 126 | 166 |
| 12+00.00 | 50.00 | 29.99 | 3.36 | 0.00 | 0.00 | 56 | 6 | 8 | 24 | 364 | 0 | 162 | 206 |

3643694108

| | |
|---|---|
| Notes: | |
| 1 - Cut | Cut includes Salvaged/Unusable Pavement material |
| 2 - Salvaged/Unusable Pavement Material | This does not show up in cross sections |
| 3 - Fill | Does not include Unusable Pavement Exc volume |
| 8 - Mass Ordinate | Cut - Unusable Pavement Material - (Fill * Fill Factor) |



PROJECT NO: 9874-00-70

HWY: CAMP NINE ROAD

COUNTY: ONEIDA

CROSS SECTIONS: CAMP NINE ROAD

SHEET

E

FILE NAME : I:\25\MINOCQUA TOWN OF\25-0341.00 MINOCQUA CAMP 9 RD CULVERT\CADD\SHEETS\PLAN\090201-XS.DWG
LAYOUT NAME - 01

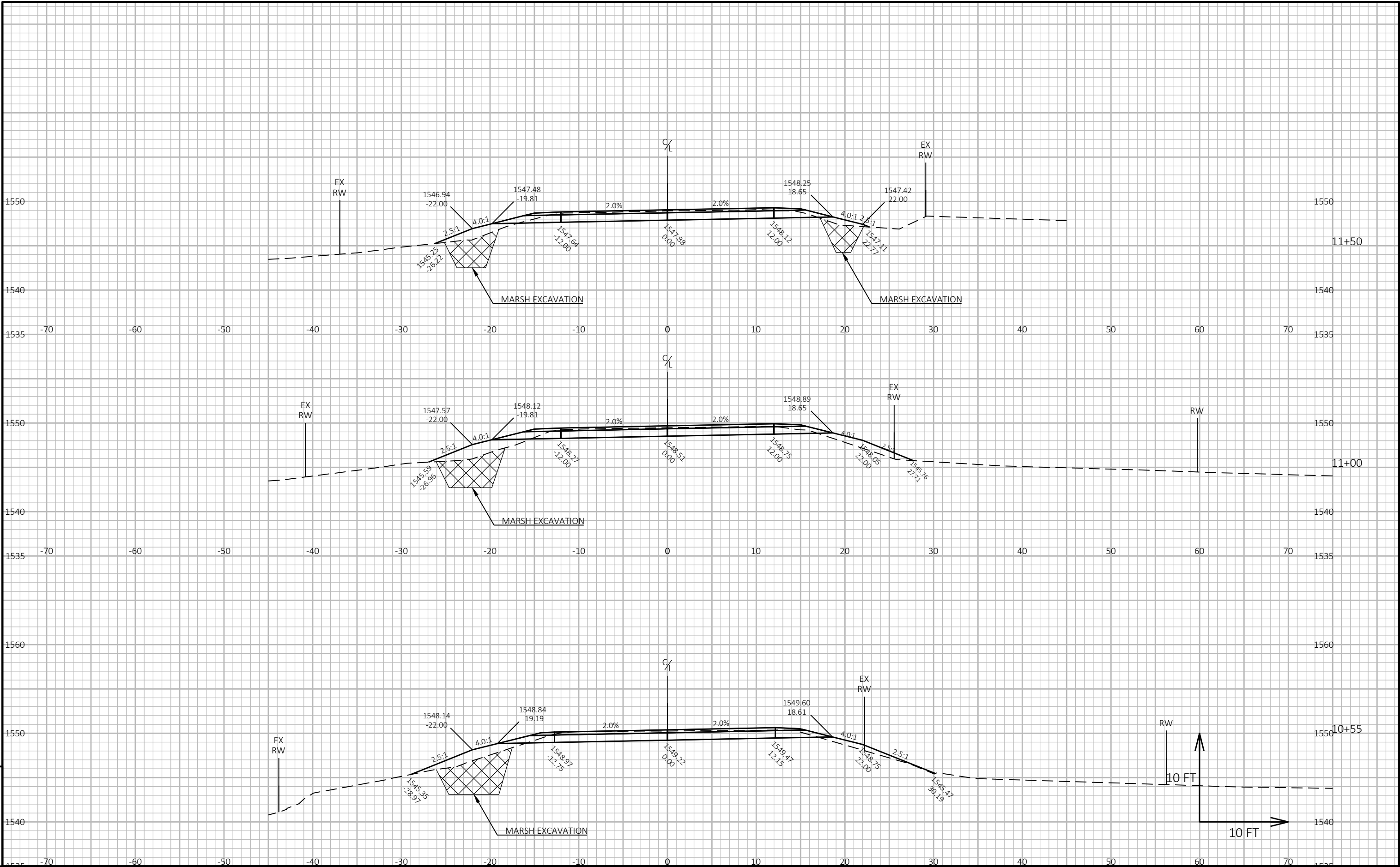
PLOT DATE : 7/23/2024 8:07 AM

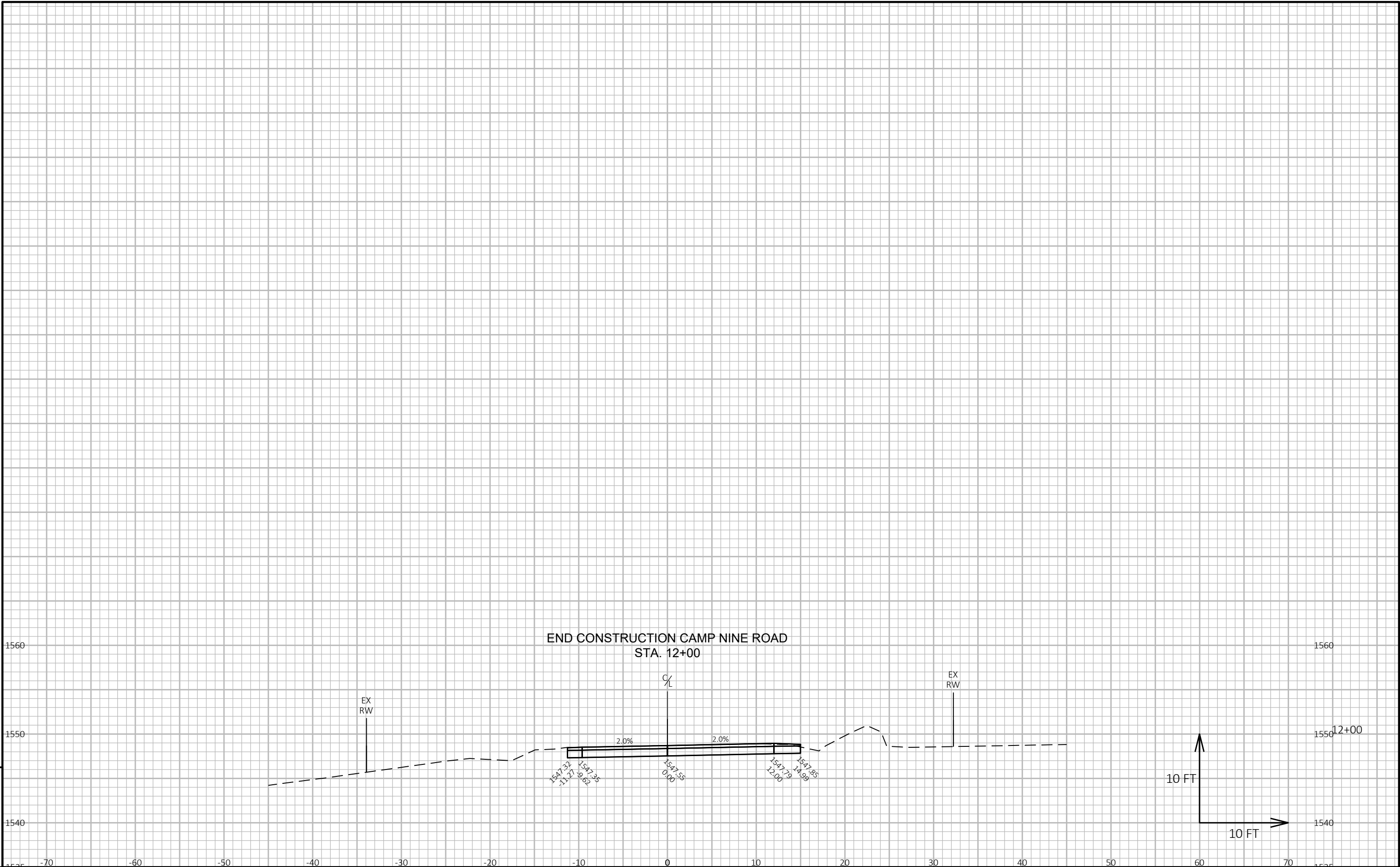
PLOT BY : SHALLOW, JON

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD SHEET 49







Wisconsin Department of Transportation

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through innovation and exceptional service.

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