

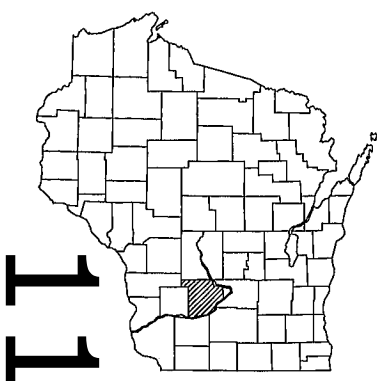
SWL  
PROJECT ID: 5916-00-73  
WITH: N/A  
COUNTY: SAUK

FEBRUARY 2015

ORDER OF SHEETS

- Section No. 1 Title
- Section No. 2 Typical Sections and Details (Includes Erosion Control Plan)
- 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 = 48



DESIGN DESIGNATION

- A.A.D.T. 2015 = 150
- A.A.D.T. 2035 = 225
- D.H.V. 2035 = 20
- D.D. = 60/40
- T. = 10%
- DESIGN SPEED = 30 MPH
- ESALS = N/A

CONVENTIONAL SYMBOLS

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

PROFILE

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

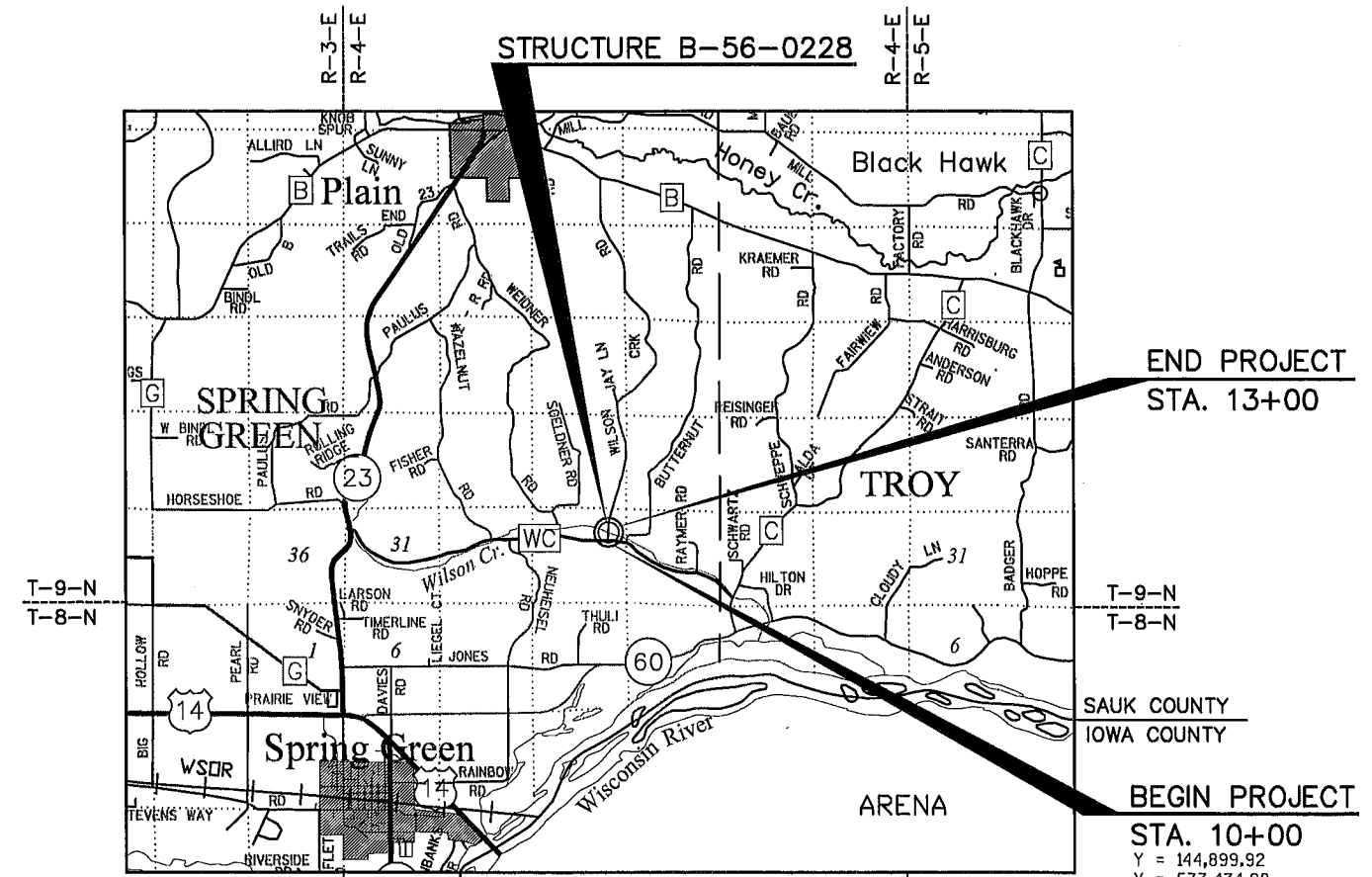
PLAN OF PROPOSED IMPROVEMENT

TOWN OF SPRING GREEN, WILSON CREEK ROAD

(WILSON CREEK BRIDGE B-56-0228)

TOWN ROAD  
SAUK COUNTY

STATE PROJECT NUMBER  
5916-00-73



LAYOUT  
SCALE 0 2 MI.  
TOTAL NET LENGTH OF CENTERLINE = 0.057 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SAUK COUNTY.

| STATE PROJECT | FEDERAL PROJECT |          |
|---------------|-----------------|----------|
|               | PROJECT         | CONTRACT |
| 5916-00-73    | WISC 2015089    | 1        |
|               |                 |          |
|               |                 |          |

ACCEPTED FOR  
TOWN of SPRING GREEN  
9-25-14 (Date) [Signature] (Town Chairperson)

ACCEPTED FOR  
COUNTY of SAUK  
9/25/14 (Date) [Signature] (Highway Commissioner)

ORIGINAL PLANS PREPARED BY  
**JEWELL**  
associates engineers, inc.  
Engineers - Surveyors - Architects

**WISCONSIN**  
ELLERY A. SCHAFER  
E-41742-6  
SPRING GREEN, WI  
**PROFESSIONAL ENGINEER**  
9/25/2014 (Date) [Signature] (Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY  
Surveyor JEWELL ASSOCIATES ENGINEERS, INC.  
Designer JEWELL ASSOCIATES ENGINEERS, INC.  
Management Consultant KJOHNSON ENGINEERS, INC.

APPROVED FOR THE DEPARTMENT  
DATE: 9/30/14 [Signature]  
Management Consultant Signature

LIST OF STANDARD ABBREVIATIONS

|             |                              |              |                            |             |                            |
|-------------|------------------------------|--------------|----------------------------|-------------|----------------------------|
| ABUT        | Abutment                     | INV          | Invert                     | SALV        | Salvaged                   |
| AC          | Acre                         | IP           | Iron Pipe or Pin           | SAN S       | Sanitary Sewer             |
| AGG         | Aggregate                    | IRS          | Iron Rod Set               | SEC         | Section                    |
| AH          | Ahead                        | JT           | Joint                      | SHLDR       | Shoulder                   |
| <           | Angle                        | JCT          | Junction                   | SHR         | Shrinkage                  |
| ASPH        | Asphaltic                    | LHF          | Left-Hand Forward          | SW          | Sidewalk                   |
| AVG         | Average                      | L            | Length of Curve            | S           | South                      |
| ADT         | Average Daily Traffic        | LIN FT or LF | Linear Foot                | SQ          | Square                     |
| BAD         | Base Aggregate Dense         | LC           | Long Chord of Curve        | SF or SQ FT | Square Feet                |
| BK          | Back                         | MH           | Manhole                    | SY or SQ YD | Square Yard                |
| BF          | Back Face                    | MB           | Mailbox                    | STD         | Standard                   |
| BM          | Bench Mark                   | ML or M/L    | Match Line                 | SDD         | Standard Detail Drawings   |
| BR          | Bridge                       | N            | North                      | STH         | State Trunk Highways       |
| C or C/L    | Center Line                  | Y            | North Grid Coordinate      | STA         | Station                    |
| CC          | Center to Center             | OD           | Outside Diameter           | SS          | Storm Sewer                |
| CTH         | County Trunk Highway         | PLE          | Permanent Limited Easement | SG          | Subgrade                   |
| CR          | Creek                        |              | Point                      | SE          | Superelevation             |
| CR          | Crushed                      | PT           | Point                      | SL or S/L   | Survey Line                |
| CY or CU YD | Cubic Yard                   | PC           | Point of Curvature         | SV          | Septic Vent                |
| CP          | Culvert Pipe                 | PI           | Point of Intersection      | T           | Tangent                    |
| C & G       | Curb and Gutter              | PRC          | Point of Reverse Curvature | TEL         | Telephone                  |
| D           | Degree of Curve              | PT           | Point of Tangency          | TEMP        | Temporary                  |
| DHV         | Design Hour Volume           | POC          | Point On Curve             | TI          | Temporary Interest         |
| DIA         | Diameter                     | POT          | Point on Tangent           | TLE         | Temporary Limited Easement |
| E           | East                         | PVC          | Polyvinyl Chloride         | t           | Ton                        |
| X           | East Grid Coordinate         | PCC          | Portland Cement Concrete   | T or TN     | Town                       |
| ELEC        | Electric (al)                | LB           | Pound                      | TRANS       | Transition                 |
| EL or ELEV  | Elevation                    | PSI          | Pounds Per Square Inch     | TL or T/L   | Transit Line               |
| ESALS       | Equivalent Single Axle Loads | PE           | Private Entrance           | T           | Trucks (percent of)        |
|             |                              | R            | Radius                     | TYP         | Typical                    |
| EBS         | Excavation Below Subgrade    | RR           | Railroad                   | UNCL        | Unclassified               |
| FF          | Face to Face                 | R            | Range                      | UG          | Underground Cable          |
| FE          | Field Entrance               | RL or R/L    | Reference Line             | USH         | United States Highway      |
| F           | Fill                         | RP           | Reference Point            | VAR         | Variable                   |
| FG          | Finished Grade               | RCCP         | Reinforced Concrete        | V           | Velocity or Design Speed   |
| FL or F/L   | Flow Line                    |              | Culvert Pipe               | VERT        | Vertical                   |
| FT          | Foot                         | REQ'D        | Required                   | VC          | Vertical Curve             |
| FTG         | Footing                      | RES          | Residence or Residential   | VOL         | Volume                     |
| GN          | Grid North                   | RW           | Retaining Wall             | WM          | Water Main                 |
| HT          | Height                       | RT           | Right                      | WV          | Water Valve                |
| CWT         | Hundredweight                | RHF          | Right-Hand Forward         | W           | West                       |
| HYD         | Hydrant                      | R/W          | Right-of-Way               | WB          | Westbound                  |
| INL         | Inlet                        | R            | River                      | YD          | Yard                       |
| ID          | Inside Diameter              | RD           | Road                       |             |                            |
|             |                              | RDWY         | Roadway                    |             |                            |

CONTACTS

DESIGN CONSULTANT:

JEWELL ASSOCIATES ENGINEERS, INC.  
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SPRING GREEN, WI 53588  
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FAX: (608) 588-9322  
E-MAIL: fred.gruber@jewellassoc.com

DNR LIAISON:

STATE OF WISCONSIN  
DNR SERVICE CENTER  
3911 FISH HATCHERY ROAD  
FITCHBURG, WI 53711  
ATTN: ANDY BARTA  
PH: (608) 275-3308  
CELL: (608) 235-2955  
E-MAIL: Andrew.Barta@wisconsin.gov

TOWN OF SPRING GREEN:

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TOWN CHAIRPERSON  
E3681 COUNTY ROAD JJ  
SPRING GREEN, WI 53588  
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CELL: (608) 335-3291  
E-MAIL: thepolivkas@yahoo.com

SAUK COUNTY HIGHWAY:

STEVE MUCHOW  
COUNTY HIGHWAY COMMISSIONER  
620 HWY 136, PO BOX 26  
WEST BARABOO, WI 53913  
PH: (608) 355-4855  
E-MAIL: smuchow@co.sauk.wi.us

UTILITIES

ELECTRIC:

ALLIANT ENERGY  
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142 SOUTH CINCINNATI STREET  
SPRING GREEN, WI 53588  
PH: (608) 588-9702  
CELL: (608) 214-4441  
E-MAIL: chriswilhelm@alliantenergy.com

TELEPHONE:

FRONTIER COMMUNICATIONS  
ATTN: DANA GILLETT  
100 COMMUNICATIONS DRIVE  
SUN PRAIRIE, WI 53590  
PH: (608) 837-1605  
E-MAIL: dana.gillett@ftr.com



\*DENOTES UTILITY IS NOT A MEMBER OF DIGGERS HOTLINE

GENERAL NOTES

COORDINATES AND BEARINGS ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SAUK COUNTY.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 20) AND MULCHED AS DIRECTED BY THE ENGINEER. ALL POST CONSTRUCTION WET AREAS SHALL BE SEEDED WITH SEEDING MIXTURE NO. 60.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

SILT FENCE AND TEMPORARY DITCH CHECKS SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE SHALL BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO STRUCTURE REMOVAL.

MULCH/EROSION MAT URBAN CLASS I TYPE B ALL SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

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

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

ADJUST DITCH GRADING AS NECESSARY TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

3½ INCHES OF ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH A 1¾-INCH UPPER LAYER AND 1¾-INCH LOWER LAYER. THE NOMINAL SIZE OF AGGREGATE USED FOR THE LOWER LAYER SHALL BE 12.5 MM.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

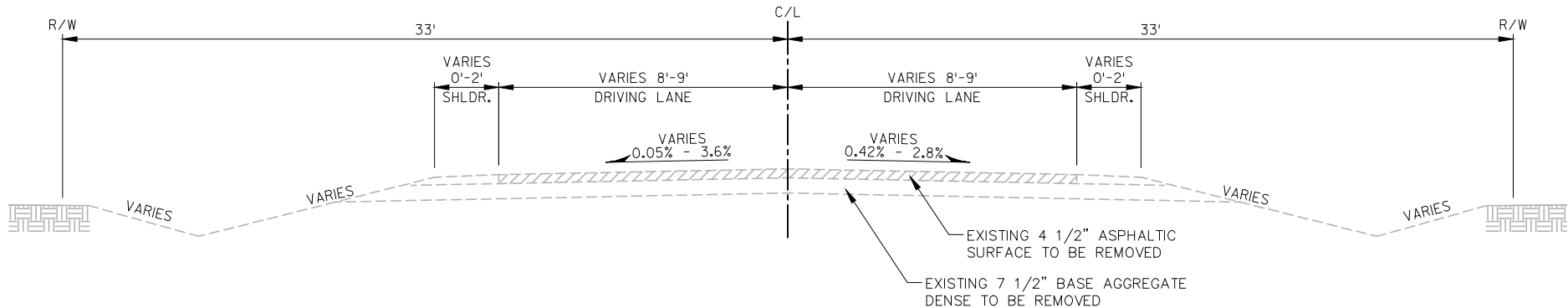
ELEVATIONS ON THE PLAN ARE REFERENCED TO TROY WEST GPS (PID DH5100). THE STATION IS A BRONZE W.D.O.T. GEODETIC SURVEY CONTROL STATION DISK SET IN THE TOP OF A 41-CM DIAMETER CONCRETE POST. THE STATION IS LOCATED IN THE SOUTHEAST QUARTER OF SECTION 18, TOWN 9 NORTH, RANGE 5 EAST AND IS 9.7 METERS WEST OF THE CENTERLINE OF C.T.H. "C".

CURVE DATA IS BASED ON THE ARC DEFINITION.

WETLANDS ARE PRESENT WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT BEYOND THE SLOPE INTERCEPTS IN ALL QUADRANTS OF THE PROJECT.

THE LOW SIDE SHOULDER SLOPE ON THE TEMPORARY BYPASS SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION WHEN THE SUPERELEVATION IS GREATER THAN 0.04 FT./FT. IF THE SUPERELEVATION IS LESS THAN OR EQUALS 0.04 FT./FT., THEN THE LOW SIDE SHOULDER SLOPE IS 0.04 FT./FT. THE HIGH SIDE SHOULDER SLOPE ON THE SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION.

UPON REMOVAL OF TEMPORARY BYPASS RESTORE ORIGINAL GROUNDLINE BY REMOVING EARTHWORK AND GEOTEXTILE FABRIC. DO NOT DISTURB EXISTING GROUND. DO NOT CULTIVATE OR LOOSEN WETLANDS DUE TO COMPACTION OF BYPASS FILL. EXISTING VEGETATION TO REMAIN.



TYPICAL EXISTING SECTION

PROJECT NO: 5916-00-73

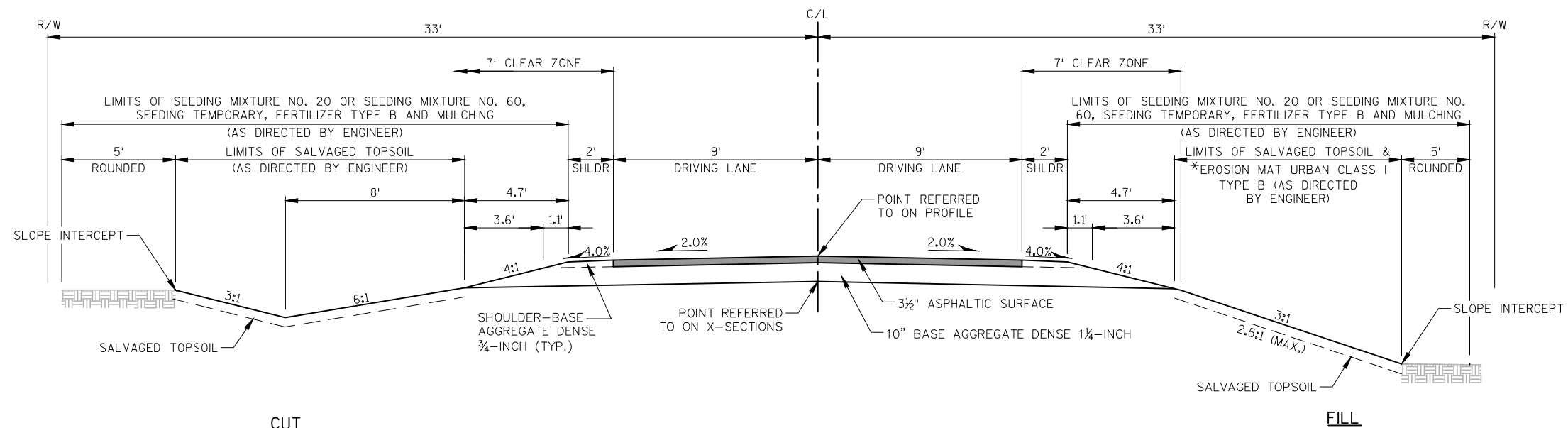
HWY: WILSON CREEK ROAD

COUNTY: SAUK

TYPICAL EXISTING SECTION, GENERAL NOTES, CONTACTS & UTILITIES

SHEET

E

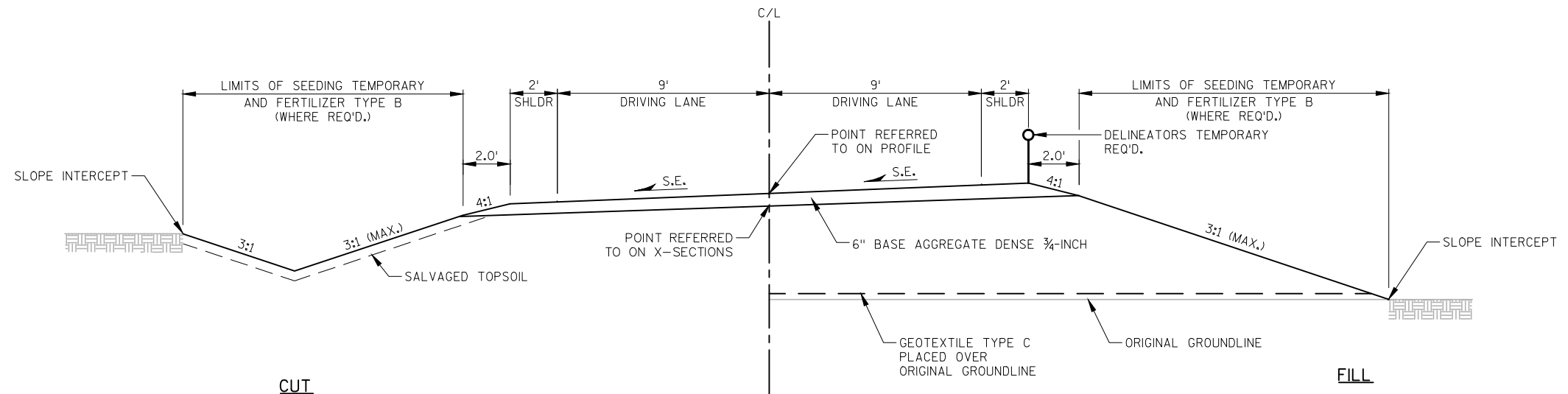


**TYPICAL FINISHED SECTION**  
STA. 10+00 - STA. 13+00

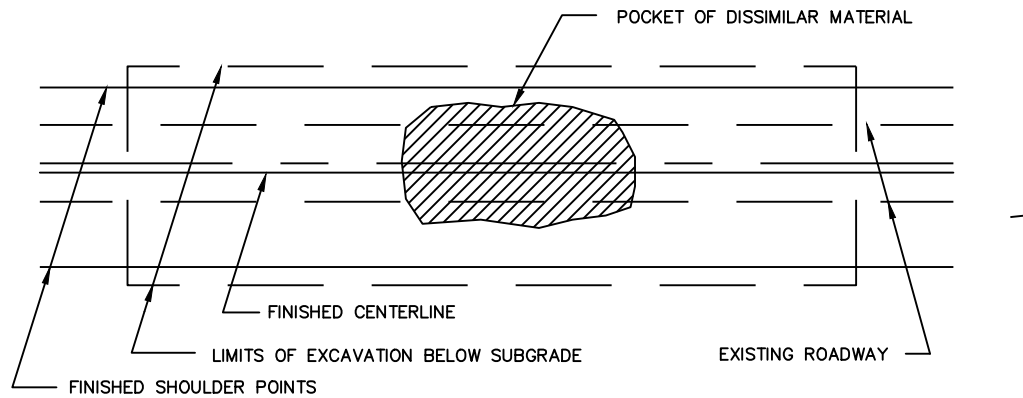
\* LIMITS OF EROSION MAT URBAN CLASS I TYPE B IN AREAS OF 2.5:1 SIDESLOPES (MULCHING NOT APPLIED IN AREAS OF EROSION MAT URBAN CLASS I TYPE B PLACEMENT). SEE EROSION CONTROL PLAN AND MISCELLANEOUS QUANTITIES FOR FURTHER INFORMATION.

**TEMPORARY BYPASS  
SUPERELEVATION TABLE**

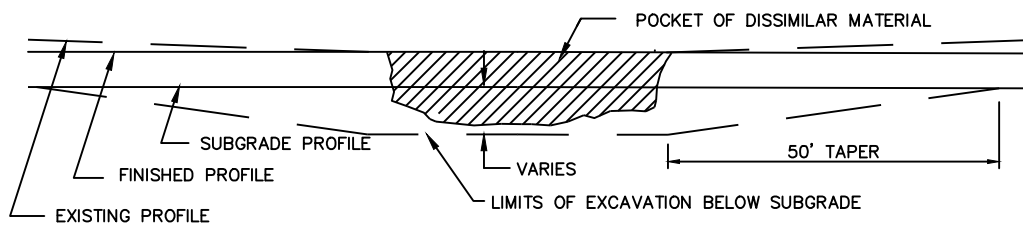
| STATION | LEFT           | RIGHT          |
|---------|----------------|----------------|
| 20+00   | MATCH EXISTING | MATCH EXISTING |
| 20+25   | MATCH EXISTING | 2.0            |
| 20+50   | MATCH EXISTING | 2.0            |
| 20+75   | 2.0            | 2.0            |
| 21+00   | 2.0            | 2.0            |
| 21+25   | 2.0            | 1.0            |
| 21+50   | 2.0            | 0.0            |
| 21+75   | 2.0            | 1.0            |
| 22+00   | 2.0            | 2.0            |
| 22+25   | 2.0            | 1.0            |
| 22+50   | 2.0            | 0.0            |
| 22+75   | 2.0            | 1.0            |
| 23+00   | 2.0            | 2.0            |
| 23+25   | 2.0            | 2.0            |
| 23+50   | MATCH EXISTING | 2.0            |
| 23+75   | MATCH EXISTING | 2.0            |
| 24+00   | MATCH EXISTING | 2.0            |
| 24+10   | MATCH EXISTING | MATCH EXISTING |



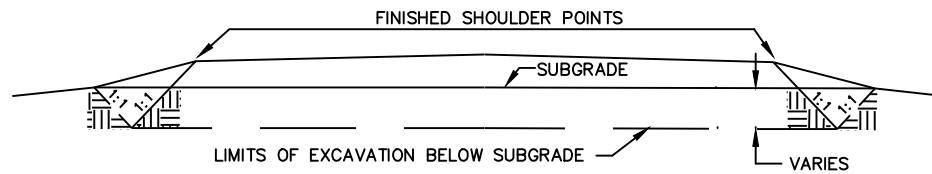
**TYPICAL FINISHED SECTION FOR TEMPORARY BYPASS**  
STA. 20+00 - STA. 24+10



PLAN VIEW



PROFILE VIEW



CROSS SECTION VIEW

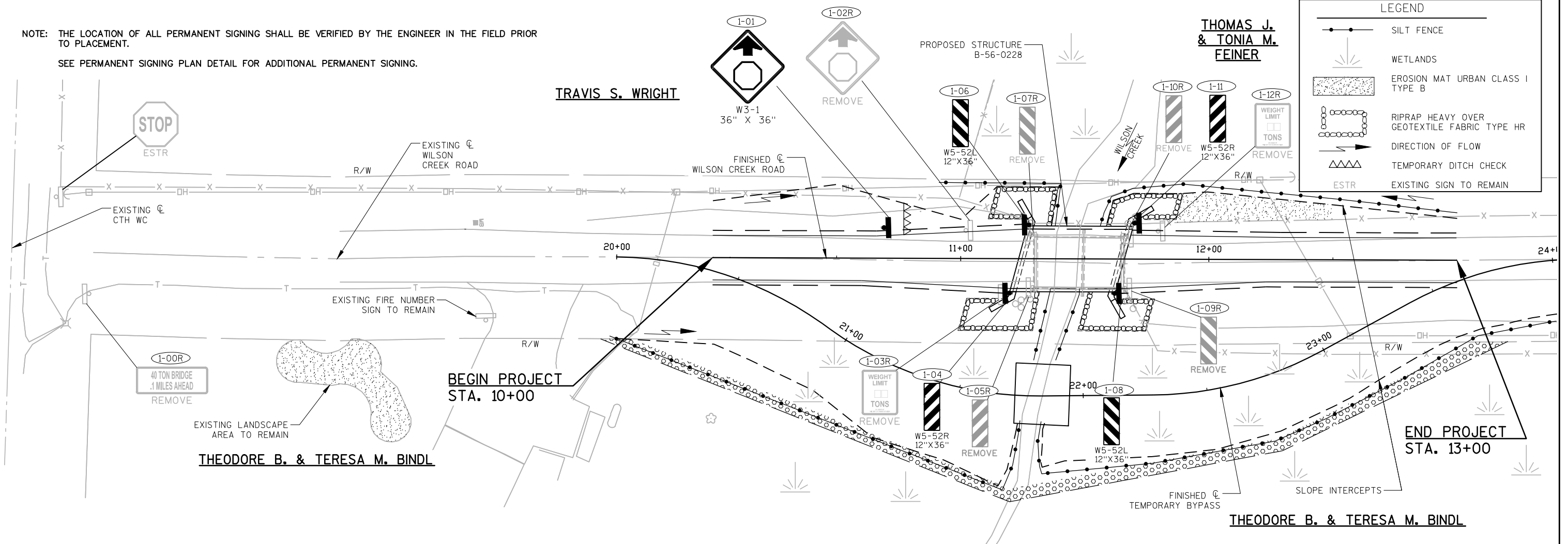
1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

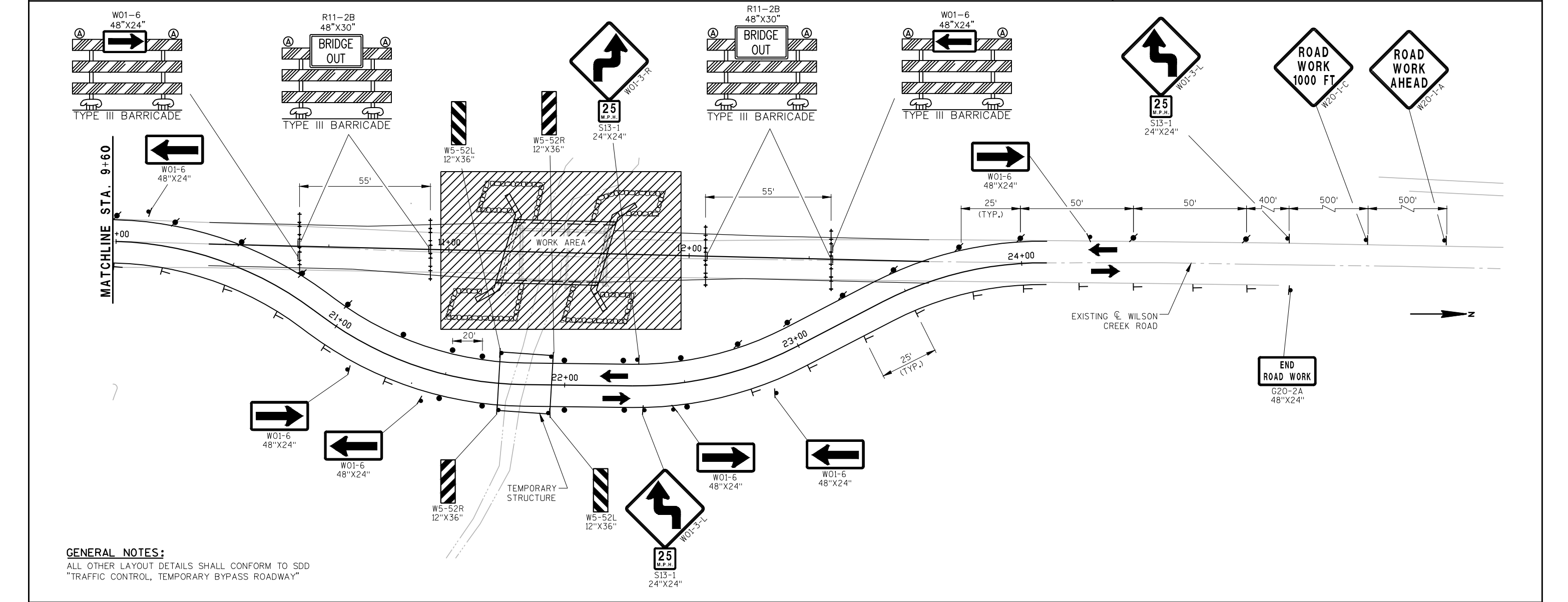
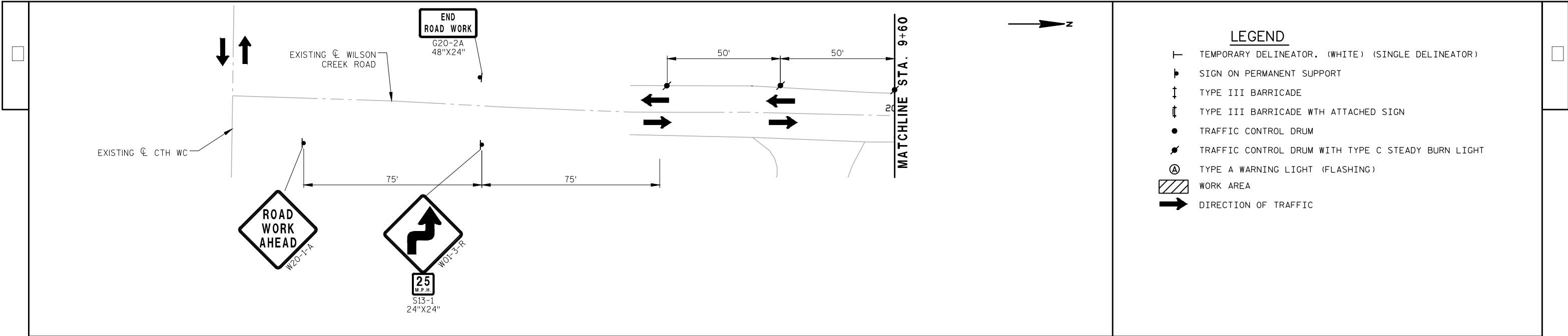
EXCAVATION BELOW SUBGRADE (E.B.S.)

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

TOTAL PROJECT AREA= 0.90 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.70 ACRES

NOTE: THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.  
SEE PERMANENT SIGNING PLAN DETAIL FOR ADDITIONAL PERMANENT SIGNING.





**GENERAL NOTES:**  
ALL OTHER LAYOUT DETAILS SHALL CONFORM TO SDD  
"TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY"

PROJECT NO: 5916-00-73

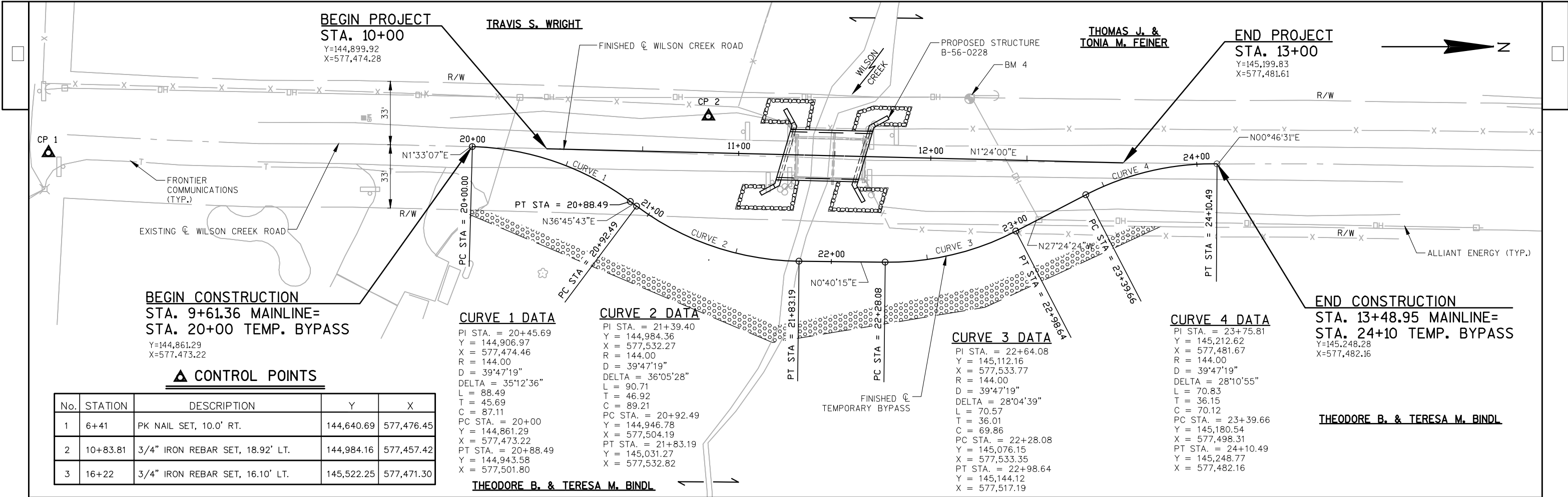
HWY: WILSON CREEK RD

COUNTY: SAUK

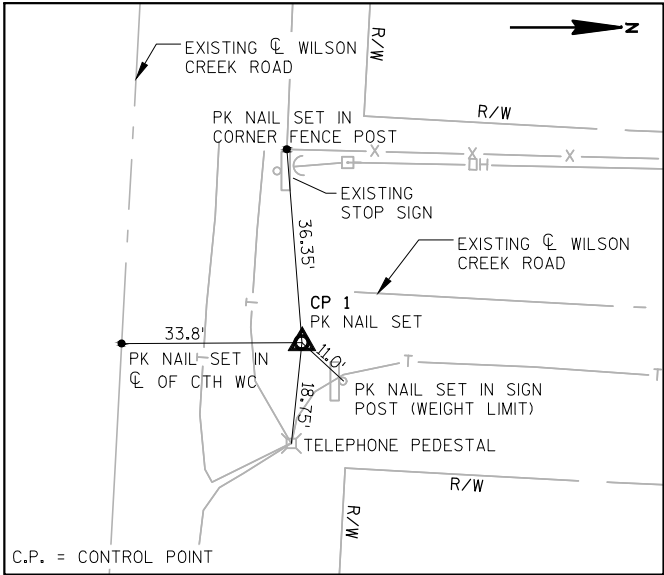
TRAFFIC DETAIL

SHEET

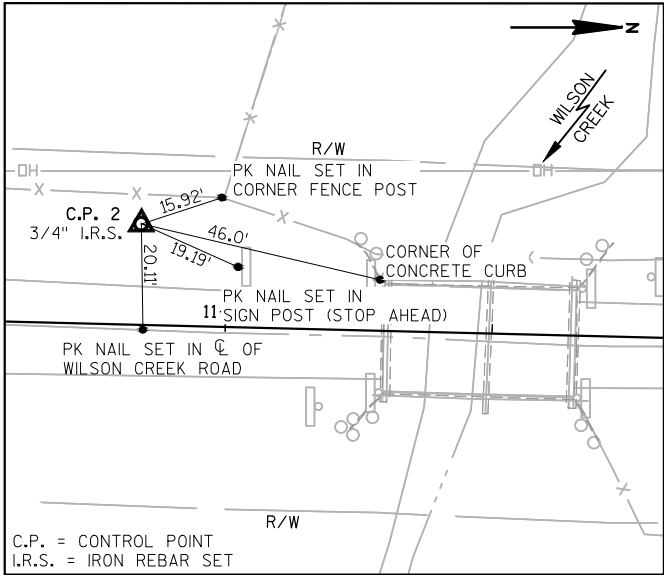
E



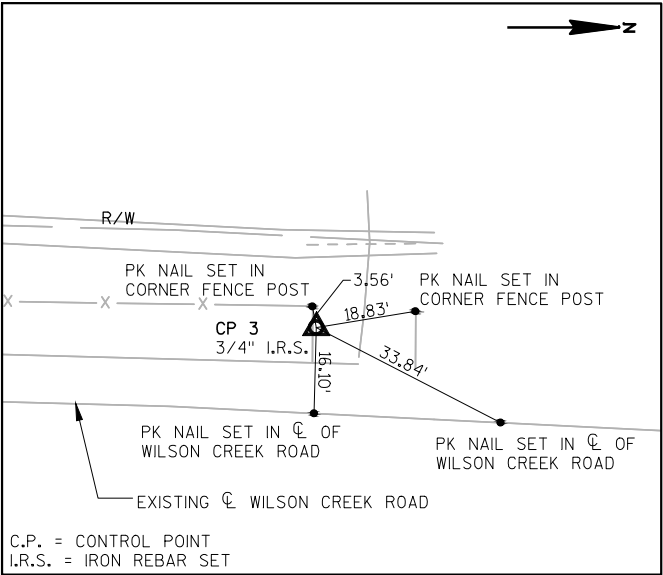
| CONTROL POINTS |          |                                 |            |            |
|----------------|----------|---------------------------------|------------|------------|
| No.            | STATION  | DESCRIPTION                     | Y          | X          |
| 1              | 6+41     | PK NAIL SET, 10.0' RT.          | 144,640.69 | 577,476.45 |
| 2              | 10+83.81 | 3/4" IRON REBAR SET, 18.92' LT. | 144,984.16 | 577,457.42 |
| 3              | 16+22    | 3/4" IRON REBAR SET, 16.10' LT. | 145,522.25 | 577,471.30 |



**TIES TO C.P.#1**  
STA. 6+41; 10.0' RT.  
Y = 144,640.69  
X = 577,476.45



**TIES TO C.P.#2**  
STA. 10+83.81; 18.92' LT.  
Y = 144,984.16  
X = 577,457.42



**TIES TO C.P.#3**  
STA. 16+22, 16.10' LT.  
Y = 145,522.25  
X = 577,471.30

**WILSON CREEK ROAD STATION LAYOUT**

| STATION  | Y          | X          | COMMENTS       |
|----------|------------|------------|----------------|
| 10+00    | 144,899.92 | 577,474.28 | BEGIN PROJECT  |
| 10+50    | 144,949.90 | 577,475.50 | -              |
| 11+00    | 144,999.89 | 577,476.73 | -              |
| 11+23.31 | 145,023.19 | 577,477.30 | END OF DECK    |
| 11+50    | 145,049.87 | 577,477.95 | -              |
| 11+65.89 | 145,065.76 | 577,478.34 | END OF DECK    |
| 12+00    | 145,099.86 | 577,479.17 | -              |
| 12+50    | 145,149.84 | 577,480.39 | -              |
| 13+00    | 145,199.83 | 577,481.61 | END OF PROJECT |

**TEMPORARY BYPASS STATION LAYOUT**

| STATION | Y          | X          | COMMENTS           |
|---------|------------|------------|--------------------|
| 20+00   | 144,861.29 | 577,473.22 | BEGIN TEMP. BYPASS |
| 20+50   | 144,910.04 | 577,483.14 | -                  |
| 21+00   | 144,952.91 | 577,508.53 | -                  |
| 21+50   | 144,998.42 | 577,528.63 | -                  |
| 22+00   | 145,048.08 | 577,533.02 | -                  |
| 22+50   | 145,098.01 | 577,531.94 | -                  |
| 23+00   | 145,145.33 | 577,516.57 | -                  |
| 23+50   | 145,189.88 | 577,493.89 | -                  |
| 24+00   | 145,238.28 | 577,482.40 | -                  |
| 24+10   | 145,248.28 | 577,482.16 | END TEMP. BYPASS   |

| DATE 24NOV14 |            | E S T I M A T E O F Q U A N T I T I E S  |      |            |            |
|--------------|------------|--|------|------------|------------|
| LINE         |            |  |      | 5916-00-73 |            |
| NUMBER       | ITEM       | ITEM DESCRIPTION   | UNIT | TOTAL      | QUANTITY   |
| 0010         | 203.0600.S | REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. STATION 11+48 | LS   | 1.000      | 1.000      |
| 0020         | 205.0100   | EXCAVATION COMMON  | CY   | 1,600.000  | 1,600.000  |
| 0030         | 206.1000   | EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-56-0228                          | LS   | 1.000      | 1.000      |
| 0040         | 208.0100   | BORROW   | CY   | 1,500.000  | 1,500.000  |
| 0050         | 210.0100   | BACKFILL STRUCTURE   | CY   | 180.000    | 180.000    |
| 0060         | 213.0100   | FINISHING ROADWAY (PROJECT) 01. 5916-00-73   | EACH | 1.000      | 1.000      |
| 0070         | 305.0110   | BASE AGGREGATE DENSE 3/4-INCH  | TON  | 350.000    | 350.000    |
| 0080         | 305.0120   | BASE AGGREGATE DENSE 1 1/4-INCH  | TON  | 490.000    | 490.000    |
| 0090         | 455.0605   | TACK COAT  | GAL  | 30.000     | 30.000     |
| 0100         | 465.0105   | ASPHALTIC SURFACE  | TON  | 120.000    | 120.000    |
| 0110         | 502.0100   | CONCRETE MASONRY BRIDGES   | CY   | 134.000    | 134.000    |
| 0120         | 502.3200   | PROTECTIVE SURFACE TREATMENT   | SY   | 150.000    | 150.000    |
| 0130         | 505.0405   | BAR STEEL REINFORCEMENT HS BRIDGES   | LB   | 4,160.000  | 4,160.000  |
| 0140         | 505.0605   | BAR STEEL REINFORCEMENT HS COATED BRIDGES  | LB   | 16,630.000 | 16,630.000 |
| 0150         | 513.4060   | RAILING TUBULAR TYPE M (STRUCTURE) 01. B-56-0228                                     | LS   | 1.000      | 1.000      |
| 0160         | 516.0500   | RUBBERIZED MEMBRANE WATERPROOFING  | SY   | 12.000     | 12.000     |
| 0170         | 526.0100   | TEMPORARY STRUCTURE (STATION) 01. STATION 21+84                                      | LS   | 1.000      | 1.000      |
| 0180         | 550.1100   | PILING STEEL HP 10-INCH X 42 LB  | LF   | 600.000    | 600.000    |
| 0190         | 606.0300   | RIPRAP HEAVY   | CY   | 180.000    | 180.000    |
| 0200         | 612.0406   | PIPE UNDERDRAIN WRAPPED 6-INCH   | LF   | 150.000    | 150.000    |
| 0210         | 619.1000   | MOBILIZATION   | EACH | 1.000      | 1.000      |
| 0220         | 625.0500   | SALVAGED TOPSOIL **P**   | SY   | 680.000    | 680.000    |
| 0230         | 627.0200   | MULCHING **P**   | SY   | 2,100.000  | 2,100.000  |
| 0240         | 628.1504   | SILT FENCE   | LF   | 1,050.000  | 1,050.000  |
| 0250         | 628.1520   | SILT FENCE MAINTENANCE   | LF   | 2,100.000  | 2,100.000  |
| 0260         | 628.1905   | MOBILIZATIONS EROSION CONTROL  | EACH | 5.000      | 5.000      |
| 0270         | 628.1910   | MOBILIZATIONS EMERGENCY EROSION CONTROL  | EACH | 3.000      | 3.000      |
| 0280         | 628.2008   | EROSION MAT URBAN CLASS I TYPE B   | SY   | 70.000     | 70.000     |
| 0290         | 628.7504   | TEMPORARY DITCH CHECKS   | LF   | 20.000     | 20.000     |
| 0300         | 629.0210   | FERTILIZER TYPE B **P**  | CWT  | 2.000      | 2.000      |
| 0310         | 630.0120   | SEEDING MIXTURE NO. 20 **P**   | LB   | 20.000     | 20.000     |
| 0320         | 630.0160   | SEEDING MIXTURE NO. 60 **P**   | LB   | 25.000     | 25.000     |
| 0330         | 630.0200   | SEEDING TEMPORARY **P**  | LB   | 40.000     | 40.000     |
| 0340         | 630.0300   | SEEDING BORROW PIT **P**   | LB   | 15.000     | 15.000     |
| 0350         | 633.1100   | DELINEATORS TEMPORARY  | EACH | 16.000     | 16.000     |
| 0360         | 633.5100   | MARKERS ROW  | EACH | 6.000      | 6.000      |
| 0370         | 634.0612   | POSTS WOOD 4X6-INCH X 12-FT  | EACH | 4.000      | 4.000      |
| 0380         | 634.0616   | POSTS WOOD 4X6-INCH X 16-FT  | EACH | 1.000      | 1.000      |
| 0390         | 637.2230   | SIGNS TYPE II REFLECTIVE F   | SF   | 18.250     | 18.250     |
| 0400         | 638.2602   | REMOVING SIGNS TYPE II   | EACH | 8.000      | 8.000      |
| 0410         | 638.3000   | REMOVING SMALL SIGN SUPPORTS   | EACH | 8.000      | 8.000      |
| 0420         | 642.5001   | FIELD OFFICE TYPE B  | EACH | 1.000      | 1.000      |
| 0430         | 643.0100   | TRAFFIC CONTROL (PROJECT) 01. 5916-00-73   | EACH | 1.000      | 1.000      |
| 0440         | 643.0300   | TRAFFIC CONTROL DRUMS  | DAY  | 910.000    | 910.000    |
| 0450         | 643.0420   | TRAFFIC CONTROL BARRICADES TYPE III  | DAY  | 540.000    | 540.000    |
| 0460         | 643.0705   | TRAFFIC CONTROL WARNING LIGHTS TYPE A  | DAY  | 840.000    | 840.000    |
| 0470         | 643.0715   | TRAFFIC CONTROL WARNING LIGHTS TYPE C  | DAY  | 525.000    | 525.000    |
| 0480         | 643.0900   | TRAFFIC CONTROL SIGNS  | DAY  | 1,065.000  | 1,065.000  |

|              |          |   |      |           |           |            |
|--------------|----------|---|------|-----------|-----------|------------|
| DATE 24NOV14 |          | E S T I M A T E O F Q U A N T I T I E S                               |      |           |           |            |
| LINE         |          |   |      |           |           | 5916-00-73 |
| NUMBER       | ITEM     | ITEM DESCRIPTION  | UNIT | TOTAL     | QUANTITY  |            |
| 0490         | 645.0105 | GEOTEXTILE FABRIC TYPE C  | SY   | 1,580.000 | 1,580.000 |            |
| 0500         | 645.0120 | GEOTEXTILE FABRIC TYPE HR   | SY   | 320.000   | 320.000   |            |
| 0510         | 650.4500 | CONSTRUCTION STAKING SUBGRADE   | LF   | 565.000   | 565.000   |            |
| 0520         | 650.5000 | CONSTRUCTION STAKING BASE   | LF   | 565.000   | 565.000   |            |
| 0530         | 650.6500 | CONSTRUCTION STAKING STRUCTURE LAYOUT<br>(STRUCTURE) 01. B-56-0228    | LS   | 1.000     | 1.000     |            |
| 0540         | 650.9910 | CONSTRUCTION STAKING SUPPLEMENTAL<br>CONTROL (PROJECT) 01. 5916-00-73 | LS   | 1.000     | 1.000     |            |
| 0550         | 650.9920 | CONSTRUCTION STAKING SLOPE STAKES                                     | LF   | 565.000   | 565.000   |            |
| 0560         | 690.0150 | SAWING ASPHALT  | LF   | 36.000    | 36.000    |            |
| 0570         | 715.0502 | INCENTIVE STRENGTH CONCRETE STRUCTURES                                | DOL  | 804.000   | 804.000   |            |



ALL BID ITEMS ARE CATEGORY 010 UNLESS OTHERWISE NOTED

EARTHWORK SUMMARY

| CATEGORY | FROM/TO STA   | LOCATION            | (1)<br>205.0100<br>COMMON EXCAVATION |                 | SALVAGED/<br>UNUSABLE<br>PAVEMENT<br>MATERIAL<br>(CY) (4) | AVAILABLE<br>MATERIAL<br>(CY) (5) | 205.0400<br>MARSH<br>EXCAVATION<br>(CY) (6) | 205.0200<br>ROCK<br>EXCAVATION<br>(CY) (7) | REDUCED<br>MARSH<br>IN FILL<br>(CY) | REDUCED<br>EBS<br>IN FILL<br>(CY) | EXPANDED<br>MARSH<br>BACKFILL<br>(CY) | EXPANDED<br>EBS<br>BACKFILL<br>(CY) | EXPANDED<br>ROCK<br>(CY) | UNEXPANDED<br>FILL<br>(CY) | EXPANDED<br>FILL<br>(CY) | MASS<br>ORDINATE<br>+/-<br>(CY) (14) | WASTE<br>(CY) | 208.0100<br>BORROW<br>(CY) | COMMENT: |
|----------|---------------|---------------------|--------------------------------------|-----------------|---|-----------------------------------|---|--|-------------------------------------|-----------------------------------|---------------------------------------|-------------------------------------|--------------------------|----------------------------|--------------------------|--------------------------------------|---------------|----------------------------|----------|
|          |               |                     | CUT (2)<br>(CY)                      | EBS (3)<br>(CY) |   |                                   |   |  | FACTOR<br>0.6 (8)                   | FACTOR<br>0.8 (9)                 | FACTOR<br>1.5 (10)                    | FACTOR<br>1.5 (11)                  | FACTOR<br>1.1 (12)       | FACTOR<br>1.25 (13)        |                          |                                      |               |                            |          |
| 010      | 20+00 - 24+10 | BYPASS CONSTRUCTION | 30                                   | -               | -   | 30                                | -   | -  | -                                   | -                                 | -                                     | -                                   | -                        | 1216                       | 1530                     | -1500                                | -             | 1500                       |          |
| 010      | 10+00 - 13+00 | MAINLINE            | 235                                  | -               | -   | 235                               | -   | -  | -                                   | -                                 | -                                     | -                                   | -                        | 60                         | 75                       | 160                                  | 160           | -                          |          |
| 010      | 20+00 - 24+10 | BYPASS REMOVAL      | 1335                                 | -               | -   | 1335                              | -   | -  | -                                   | -                                 | -                                     | -                                   | -                        | 0                          | 0                        | 1335                                 | 1335          | -                          |          |
| TOTALS = |               |                     | 1600                                 |                 |   | 1600                              |   |  |                                     |                                   |                                       |                                     |                          | 1276                       | 1605                     | -5                                   | 1495          | 1500                       |          |

NOTES:  
1.) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100  
2.) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT  
3.) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL.  
4.) SALVAGED/UNUSABLE PAVEMENT MATERIAL  
5.) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL  
6.) MARSH EXCAVATION - TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL. ITEM 205.0400  
7.) ROCK EXCAVATION. ITEM NUMBER 205.0200  
8.) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USABLE IN FILLS OUTISDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = 0.6  
9.) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USEABLE IN FILLS OUTISDE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.8  
10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. MARSH BACKFILL FACTOR = 1.5. ITEM NUMBER 312.0115  
11.)EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH SELECT CRUSHED MATERIAL. EBS BACKFILL FACTOR = 1.3. ITEM NUMBER 312.0115  
12.) EXPANDED ROCK FACTOR = 1.1  
13.) EXPANDED FILL FACTOR 1.25: EXPANDED FILL = (UNEXPANDED FILL - REDUCED MARSH IN FILL)\*1.25  
14.) THE MASS ORDINATE+ OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY.

NOTE: COMMON EXCAVATION QUANTITY FOR BYPASS REMOVAL INCLUDES BASE AGGREGATE DENSE AND ASPHALTIC SURFACE REMOVAL OF TEMPORARY BYPASS.

BASE AGGREGATE DENSE

| STATION - STATION | LOCATION      | 305.0110<br>BASE AGGREGATE<br>DENSE 3/4-INCH<br>(TON) | 305.0120<br>BASE AGGREGATE<br>DENSE 1 1/4-INCH<br>(TON) |
|-------------------|---------------|---|---|
|                   |               |   |   |
| 10+00 - 13+00     | MAINLINE      | 30  | 463   |
| 20+00 - 24+10     | BYPASS        | 285   | -   |
| -                 | UNDISTRIBUTED | 35  | 27  |
| TOTALS =          |               | 350   | 490   |

ASPHALTIC SURFACE

| STATION - STATION | LOCATION      | 455.0605<br>TACK COAT<br>(GAL) | 465.0105<br>ASPHALTIC SURFACE<br>(TON) |
|-------------------|---------------|--------------------------------|--|
|                   |               |                                |  |
| 10+00 - 13+00     | MAINLINE      | 28                             | 110                                    |
| -                 | UNDISTRIBUTED | 2                              | 10                                     |
| TOTAL S =         |               | 30                             | 120                                    |

TEMPORARY STRUCTURE (STA. 21+84)

| LOCATION         | 526.0100<br>(LS) |
|------------------|------------------|
| TEMPORARY BYPASS | 1                |
| TOTAL S =        | 1                |

SILT FENCE

| STATION - STATION | LOCATION      | 628.1504<br>SILT FENCE<br>(LF) | 628.1520<br>SILT FENCE<br>MAINTENANCE<br>(LF) |
|-------------------|---------------|--------------------------------|---|
|                   |               |                                |   |
| 11+50 - 13+00     | MAINLINE, LT  | 167                            | 334   |
| 10+81 - 11+36     | MAINLINE, LT  | 92                             | 184   |
| 11+50 - 13+00     | MAINLINE, RT  | 327                            | 654   |
| 9+61 - 11+36      | MAINLINE, RT  | 268                            | 536   |
| -                 | UNDISTRIBUTED | 196                            | 392   |
| TOTALS =          |               | 1,050                          | 2,100   |

MOBILIZATION EROSION CONTROL

| PROJECT    | 628.1905<br>MOBILIZATION<br>EROSION CONTROL<br>(EACH) | 628.1910<br>MOBILIZATION EMERGENCY<br>EROSION CONTROL<br>(EACH) |
|------------|---|---|
|            |   |   |
| 5916-00-73 | 5   | 3   |
| TOTALS =   | 5   | 3   |

\*\*P\*\* PAY PLAN QUANTITY

PROJECT NO: 5916-00-73

HWY: WILSON CREEK RD

COUNTY: SAUK

MISCELLANEOUS QUANTITIES

SHEET

E

EROSION MAT URBAN CLASS I TYPE B

|                          |                 |                   |
|--------------------------|-----------------|-------------------|
|                          |                 | 628.2008          |
|                          |                 | EROSION MAT URBAN |
|                          |                 | CLASS I TYPE B    |
| <u>STATION - STATION</u> | <u>LOCATION</u> | <u>(SY)</u>       |
| 11+87 - 12+50            | MAINLINE, LT    | 63                |
|                          | UNDISTRIBUTED   | 7                 |
| TOTALS =                 |                 | 70                |

## TEMPORARY DITCH CHECKS

|                |                 |             |
|----------------|-----------------|-------------|
|                |                 | 628.7504    |
| <u>STATION</u> | <u>LOCATION</u> | <u>(LF)</u> |
| 10+75          | MAINLINE, LT    | 10          |
|                | UNDISTRIBUTED   | 10          |
|                | TOTALS =        | 20          |

## DELINEATORS TEMPORARY

|                          |                      |          |
|--------------------------|----------------------|----------|
| <u>STATION - STATION</u> | <u>LOCATION</u>      | 633.1100 |
| 8+35 - 14+70             | TEMPORARY BYPASS, RT | (EACH)   |
|                          |                      | 16       |
|                          | TOTALS =             | 16       |

MARKERS ROW

|          |                      | 633.5100 |
|----------|----------------------|----------|
| STATION  | LOCATION             | (EACH)   |
| 9+55.00  | MAINLINE, 32.56' LT. | 1        |
| 11+27.69 | MAINLINE, 31.86' LT. | 1        |
| 13+20.00 | MAINLINE, 33.51' LT. | 1        |
| 9+55.00  | MAINLINE, 33.45' RT. | 1        |
| 11+27.89 | MAINLINE, 34.15' RT. | 1        |
| 13+20.00 | MAINLINE, 32.50' RT. | 1        |
| TOTALS = |                      | 6        |

## PERMANENT SIGNING

|                |         |          |          |              |                               |             | 637.2230<br>SIGNS<br>TYPE II<br>REFLECTIVE | 634.0612<br>POSTS | 634.0616<br>WOOD 4X6 INCH | 638.2602<br>REMOVING<br>SIGNS<br>TYPE II<br>(EACH) | 638.3000<br>REMOVING<br>SMALL SIGN<br>SUPPORTS<br>(EACH) |   |
|----------------|---------|----------|----------|--------------|-------------------------------|-------------|--|-------------------|---------------------------|--|--|---|
| APPROX         |         |          |          |              |                               |             | SIGN<br>SIZE<br>(IN X IN)                  | F<br>(SF)         | 12 FT<br>(EACH)           | 16 FT<br>(EACH)                                    |  |   |
| SIGN<br>NUMBER | STATION | POSITION | SITE ID  | SIGN<br>CODE | SIGN DESCRIPTION              | ORDER LINES |  |                   |                           |  |  |   |
| 1-00R          | 7+47    | Right    | Mainline | R12-55       | ___Ton Bridge ___ miles Ahead | 40          | 48X18                                      | —                 | —                         | —  | 1  | 1 |
|                |         |          |          |              |                               | 0.1         |  |                   |                           |  |  |   |
| 1-01           | 10+70   | Left     | Mainline | W3-1         | Stop Ahead                    |             | 30X30                                      | 6.25              | —                         | 1  | —  | — |
| 1-02R          | 11+02   | Left     | Mainline | W3-1         | Stop Ahead                    |             | 30X30                                      | —                 | —                         | —  | 1  | 1 |
| 1-03R          | 11+17   | Right    | Mainline | R12-1        | Weight Limit ___ Tons         | 40          | 24X30                                      | —                 | —                         | —  | 1  | 1 |
| 1-04           | 11+18   | Right    | Mainline | W5-52R       | Bridge Hash Marks             |             | 12X36                                      | 3.00              | 1                         | —  | —  | — |
| 1-05R          | 11+28   | Right    | Mainline | W5-52R       | Bridge Hash Marks             |             | —  | —                 | —                         | —  | 1  | 1 |
| 1-06           | 11+28   | Left     | Mainline | W5-52L       | Bridge Hash Marks             |             | 12X36                                      | 3.00              | 1                         | —  | —  | — |
| 1-07R          | 11+28   | Left     | Mainline | W5-52L       | Bridge Hash Marks             |             | —  | —                 | —                         | —  | 1  | 1 |
| 1-08           | 11+61   | Right    | Mainline | W5-52L       | Bridge Hash Marks             |             | 12X36                                      | 3.00              | 1                         | —  | —  | — |
| 1-09R          | 11+65   | Right    | Mainline | W5-52L       | Bridge Hash Marks             |             | 12X36                                      | —                 | —                         | —  | 1  | 1 |
| 1-10R          | 11+68   | Left     | Mainline | W5-52R       | Bridge Hash Marks             |             | 12X36                                      | —                 | —                         | —  | 1  | 1 |
| 1-11           | 11+68   | Left     | Mainline | W5-52R       | Bridge Hash Marks             |             | 12X36                                      | 3.00              | 1                         | —  | —  | — |
| 1-12R          | 11+81   | Left     | Mainline | R12-1        | Weight Limit ___ Tons         | 40          | 24X30                                      | —                 | —                         | —  | 1  | 1 |
| TOTALS =       |         |          |          |              |                               |             | 18.25                                      | 4                 | 1                         | 8  | 8  |   |

## TRAFFIC CONTROL DRUMS

|                          |                  |               |                      |
|--------------------------|------------------|---------------|----------------------|
|                          |                  | 643.0300      | 643.0715             |
|                          |                  | DRUMS         | WARNING              |
| <u>STATION - STATION</u> | <u>LOCATION</u>  | <u>(DAYS)</u> | <u>LIGHTS TYPE C</u> |
| 8+60 - 14+45             | TEMPORARY BYPASS | 910           | (DAYS)               |
|                          |                  |               | 525                  |
|                          | TOTALS =         | 910           | 525                  |

## TRAFFIC CONTROL BARRICADES TYPE III

|         |          |            |             |
|---------|----------|------------|-------------|
|         |          | 643.0420   | 643.0705    |
|         |          | BARRICADES | WARNING     |
|         |          | TYPE III   | LIGHTS TYPE |
| STATION | LOCATION | (DAYS)     | (DAYS)      |
| 10+37   | MAINLINE | 135        | 210         |
| 10+92   | MAINLINE | 135        | 210         |
| 12+05   | MAINLINE | 135        | 210         |
| 12+60   | MAINLINE | 135        | 210         |
|         | TOTALS = | 540        | 840         |

## TRAFFIC CONTROL SIGNS

|        |                     |               |
|--------|---------------------|---------------|
|        |                     | 643.0900      |
|        |                     | TRAFFIC       |
|        |                     | CONTROL SIGNS |
| SIGN   | DESCRIPTION         | (DAYS)        |
| W20-1  | ROAD WORK AHEAD     | 90            |
| G20-2A | END ROAD WORK       | 90            |
| W01-3R | REVERSE CURVE RIGHT | 70            |
| W013-1 | 25 MPH              | 140           |
| W01-3L | REVERSE CURVE LEFT  | 70            |
| W01-6  | ARROW LEFT          | 140           |
| W01-6  | ARROW RIGHT         | 140           |
| R11-2B | BRIDGE OUT          | 140           |
| W5-52R | TIGER BOARD RIGHT   | 70            |
| W5-52L | TIGER BOARD LEFT    | 70            |
| W20-1  | ROAD WORK 1000 FT   | 45            |
|        | TOTALS =            | 1065          |

### GEOTEXTILE FABRIC TYPE C

|                          |                  |             |
|--------------------------|------------------|-------------|
|                          |                  | 645.0105    |
| <u>STATION - STATION</u> | <u>LOCATION</u>  | <u>(SY)</u> |
| 20+00 - 21+75            | TEMPORARY BYPASS | 641         |
| 21+88 - 24+10            | TEMPORARY BYPASS | 847         |
|                          | UNDISTRIBUTED    | 92          |
|                          | TOTALS =         | 1580        |

## CONSTRUCTION STAKING

|                 |                  | CONSTRUCTION STAKING |              |                                 |                                      |               |
|-----------------|------------------|----------------------|--------------|---------------------------------|--------------------------------------|---------------|
|                 |                  |                      |              | *650.6500                       | 650.9910                             | 650.9920      |
|                 |                  | 650.4500             | 650.5000     | STRUCTURE LAYOUT<br>(B-56-0228) | SUPPLEMENTAL CONTROL<br>(5916-00-73) | SLOPES STAKES |
| STATION-STATION | LOCATION         | SUBGRADE<br>(LF)     | BASE<br>(LF) | (LS)                            | (LS)                                 | (LF)          |
| 10+00 - 13+00   | MAINLINE         | 257                  | 257          | 1                               | 1                                    | 257           |
| 20+52 - 23+60   | TEMPORARY BYPASS | 308                  | 308          | -                               | -                                    | 308           |
| TOTALS =        |                  | 565                  | 565          | 1                               | 1                                    | 565           |

\*CATEGORY 020

## SAWING ASPHALT

|                |                 |             |
|----------------|-----------------|-------------|
|                |                 | 690.015     |
|                |                 | SAWING      |
|                |                 | ASPHALT     |
| <u>STATION</u> | <u>LOCATION</u> | <u>(LF)</u> |
| 10+00          | BEGIN PROJECT   | 18          |
| 13+00          | END PROJECT     | 18          |
|                | <u>TOTALS =</u> | <u>36</u>   |

CONVENTIONAL ABBREVIATIONS

|                                      |        |                            |        |
|--------------------------------------|--------|----------------------------|--------|
| ACCESS POINT/<br>DRIVEWAY CONNECTION | AP     | PROPERTY LINE              | PL     |
| ACCESS RIGHTS                        | AR     | RECORDED AS                | (100') |
| ACRES                                | AC.    | REFERENCE LINE             | R/L    |
| AND OTHERS                           | ET.AL. | RELEASE OF RIGHTS          | ROR    |
| BARN                                 | B.     | REMAINING                  | REM.   |
| CENTERLINE                           | C/L    | RIGHT-OF-WAY               | R/W    |
| CERTIFIED SURVEY MAP                 | CSM    | SECTION                    | SEC.   |
| CORNER                               | COR.   | SHED                       | S.     |
| CONVEYANCE OF RIGHTS                 | CR     | STATION                    | STA.   |
| DOCUMENT                             | DOC.   | TEMPORARY LIMITED EASEMENT | TLE    |
| EASEMENT                             | EASE.  | VOLUME                     | V.     |
| GARAGE                               | G.     |                            |        |
| HIGHWAY EASEMENT                     | H.E.   | CURVE DATA                 |        |
| HOUSE                                | H.     | LONG CHORD                 | LCH    |
| HOUSE TRAILER                        | H.T.   | LONG CHORD BEARING         | LCB    |
| LAND CONTRACT                        | LC     | RADIUS                     | R      |
| MONUMENT                             | MON.   | DEGREE OF CURVE            | D      |
| PAGE                                 | P.     | CENTRAL ANGLE OR DELTA     | DELTA  |
| PERMANENT LIMITED EASEMENT           | PLE    | LENGTH OF CURVE            | L      |
|                                      |        | TANGENT                    | TAN    |

CONVENTIONAL SYMBOLS

|  |         |  |  |
|--|---------|--|--|
| FOUND SURVEY MONUMENT<br>(WITH POINT NUMBER) | 1040    | PROPOSED R/W LINE                              |  |
| R/W MONUMENT                                 | • (SET) | EXISTING H.E. LINE                             |  |
| R/W STANDARD                                 | Δ (SET) | PROPERTY LINE                                  |  |
| SIGN   | ISIGN   | LOT & TIE LINES                                |  |
| SECTION CORNER MONUMENT                      | ⊕       | SLOPE INTERCEPTS                               |  |
| SECTION CORNER SYMBOL                        | ⊕       | CORPORATE LIMITS                               |  |
| FEE (HATCH VARIES)                           |         | NO ACCESS<br>(BY PREVIOUS ACQUISITION/CONTROL) |  |
| TEMPORARY LIMITED<br>EASEMENT                |         | NO ACCESS<br>(BY ACQUISITION)                  |  |
| PERMANENT LIMITED<br>EASEMENT                |         | NO ACCESS<br>(BY STATUTORY AUTHORITY)          |  |
| R/W BOUNDARY POINT                           | RWB20   | SECTION LINE                                   |  |
| PARCEL NUMBER                                | 8       | QUARTER LINE                                   |  |
| UTILITY PARCEL NUMBER                        | 92      | SIXTEENTH LINE                                 |  |
| SIGN NUMBER<br>(OFF PREMISE)                 | 21-1    | EXISTING CENTERLINE                            |  |
| BUILDING                                     |         | PROPOSED REFERENCE LINE                        |  |
|  |         | PARALLEL OFFSET                                |  |
|  |         | ENCROACHMENT                                   |  |

CONVENTIONAL UTILITY SYMBOLS

|                                |    |                    |             |
|--------------------------------|----|--------------------|-------------|
| WATER                          | W  | SANITARY SEWER     | SAN         |
| GAS                            | G  | STORM SEWER        | SS          |
| TELEPHONE                      | T  |                    |             |
| OVERHEAD<br>TRANSMISSION LINES | OH | NON<br>COMPENSABLE | COMPENSABLE |
| ELECTRIC                       | E  | POWER POLE         |             |
| CABLE TELEVISION               | TV | TELEPHONE POLE     |             |
| FIBER OPTIC                    | FO | TELEPHONE PEDESTAL |             |
|                                |    | ELECTRIC TOWER     |             |

NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, SAUK COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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."

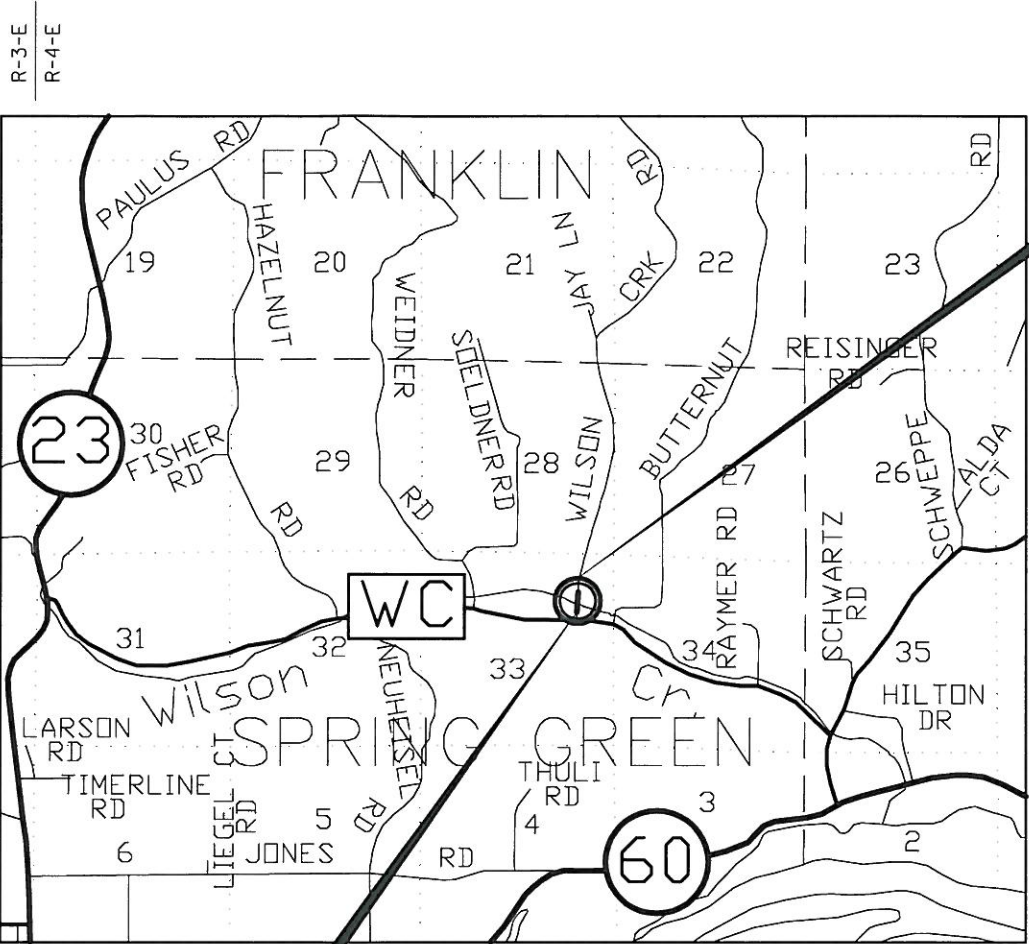
|   |             |        |
|---|-------------|--------|
| R/W PROJECT NUMBER  | SHEET       | TOTAL  |
| 5916-00-03  | NUMBER      | SHEETS |
| FEDERAL PROJECT NUMBER  | 4.01        | 2      |
| PLAT OF RIGHT-OF-WAY REQUIRED FOR<br>TOWN OF SPRING GREEN, WILSON CREEK ROAD<br>(WILSON CREEK BRIDGE B-56-0228) |             |        |
| TOWN ROAD   | SAUK COUNTY |        |
| CONSTRUCTION PROJECT NUMBER   | 5916-00-73  |        |

END RELOCATION ORDER  
STA. 13+20.00

1065.10' SOUTH AND 1004.24' WEST OF THE  
N.E. CORNER OF SECTION 33, T.9N., R.4E.,  
TOWN OF SPRING GREEN, SAUK COUNTY, WI  
Y = 145219.82  
X = 577481.73

BEGIN RELOCATION ORDER  
STA. 9+55.00

1429.99' SOUTH AND 1012.84' WEST OF THE  
N.E. CORNER OF SECTION 33, T.9N., R.4E.,  
TOWN OF SPRING GREEN, SAUK COUNTY, WI  
Y = 144854.93  
X = 577473.13



LAYOUT  
SCALE 0 0.5 MI. 1 MI.  
TOTAL NET LENGTH OF CENTERLINE = 0.069 MI.

**JEWELL**  
associates engineers, inc.  
Engineers - Surveyors - Architects

560 SUNRISE DRIVE  
SPRING GREEN, WI 53588  
PHONE : 608.588.7484  
FAX : 608.588.9322

I HEREBY CERTIFY THAT THIS PLAT WAS  
MADE FOR THE TOWN OF SPRING GREEN,  
SAUK COUNTY, WISCONSIN AND IS CORRECT  
TO THE BEST OF MY KNOWLEDGE AND BELIEF.



APPROVED FOR THE TOWN OF SPRING GREEN  
DATE: 8-7-14  
(NAME/TITLE)



→ **z**

N¼ CORNER SEC. 33  
FOUND HARRISON MONUMENT

---

Y = 146,274.77  
X = 575,869.31

THOMAS J. &  
TONIA M. FEINER  
QUIT CLAIM DEED  
DOC. #919069, DATED 10/5/2006

TOWN OF SPRING GREEN  
SAUK COUNTY

END RELOCATION ORDER

**STA. 13+20.00**  
1065.10' SOUTH AND 1004.24' WEST OF THE  
N.E. CORNER OF SECTION 33, T.9N., R.4E.,  
TOWN OF SPRING GREEN, SAUK COUNTY, WI  
Y = 145219.82  
X = 577481.73

**NE 1/4 - NE 1/4  
SEC. 33, T9N, R4E**



N.E. CORNER SEC. 33  
FOUND HARRISON MONUMENT

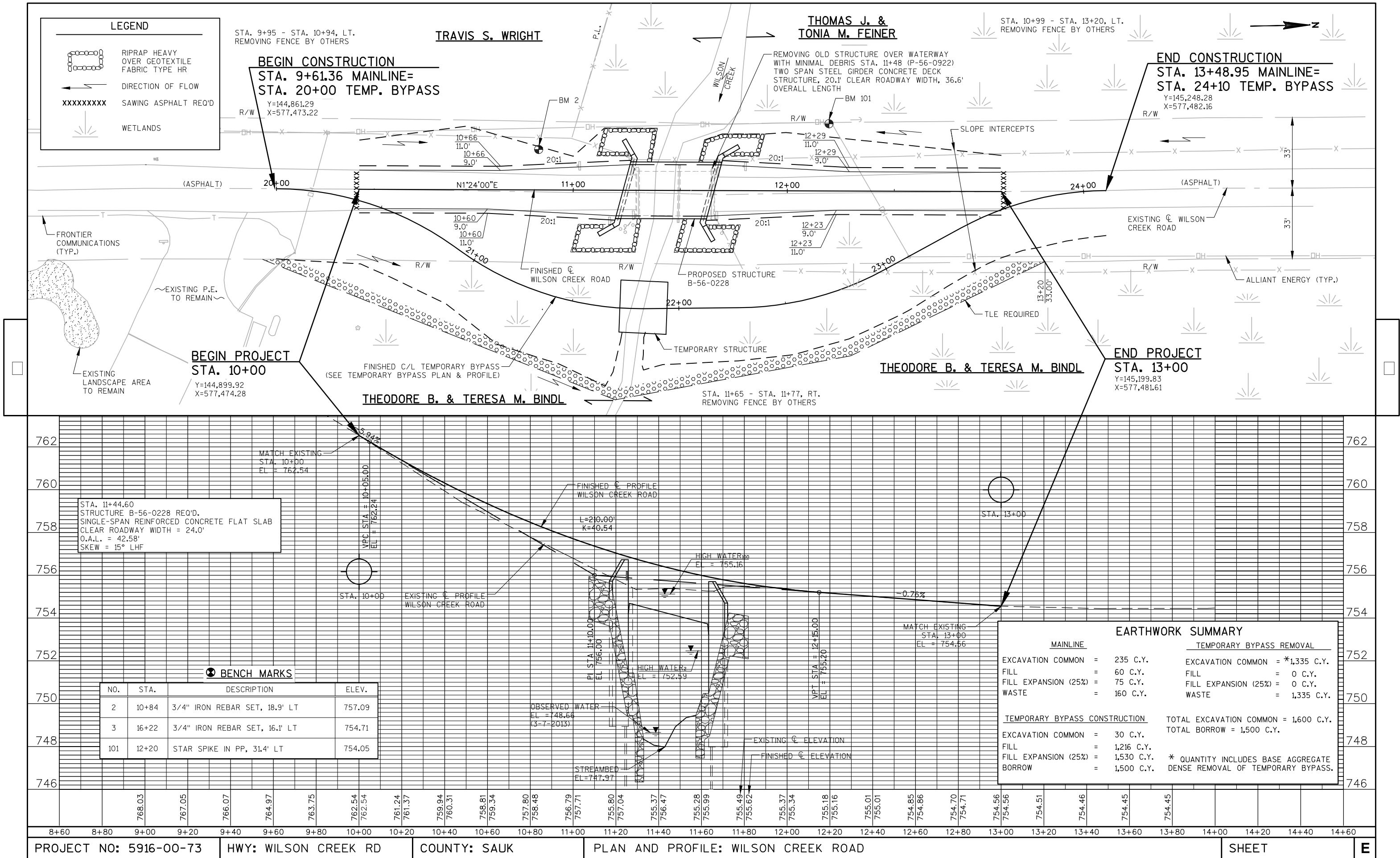
---

Y = 146,284.92  
X = 578,485.97

| NUMBER | OWNER                           | LOCATION                        | ENCROACHMENT TYPE |
|--------|---------------------------------|---------------------------------|-------------------|
| E-1    | TRAVIS S. WRIGHT                | STA. 9+55 -<br>STA. 10+94, LT.  | FENCE             |
| E-2    | THOMAS J. AND TONIA M. FEINER   | STA. 10+99 -<br>STA. 13+20, LT. | FENCE             |
| E-3    | THEODORE B. AND TERESA M. BINDL | STA. 11+65 -<br>STA. 11+77, RT. | FENCE             |

NOTES:  
EXISTING  $\odot$  OF WILSON CREEK ROAD BASED ON CENTERLINE OF EXISTING PAVEMENT  
BASIS OF EXISTING RIGHT OF WAY FOR WILSON CREEK ROAD BASED ON CENTERLINE  
OF EXISTING PAVEMENT, COUNTY RECORDS, AND WIS. STATUE 82.31 (2).

PS&amp;E SHEET



**LEGEND**

RIPRAP HEAVY  
OVER GEOTEXTILE  
FABRIC TYPE HR

DIRECTION OF FLOW

SAWING ASPHALT REQ'D

WETLANDS

TRAVIS S. WRIGHT

THOMAS J. & TONIA M. FEINER

**CURVE 1 DATA**

PI STA. = 20+45.69  
Y = 144,906.97  
X = 577,474.46  
R = 144.00  
D = 39°47'19"  
DELTA = 35°12'36"  
L = 88.49  
T = 45.69  
C = 87.11  
PC STA. = 20+00  
Y = 144,861.29  
X = 577,473.22  
PT STA. = 20+88.49  
Y = 144,943.58  
X = 577,501.80  
S.E. = SEE TYPICAL  
FINISHED SECTION

**CURVE 2 DATA**

PI STA. = 21+39.40  
Y = 144,984.36  
X = 577,532.27  
R = 144.00  
D = 39°47'19"  
DELTA = 36°05'28"  
L = 90.71  
T = 46.92  
C = 89.21  
PC STA. = 20+92.49  
Y = 144,946.78  
X = 577,504.19  
PT STA. = 21+83.19  
Y = 145,031.27  
X = 577,532.82  
S.E. = SEE TYPICAL  
FINISHED SECTION

**END CONSTRUCTION**

STA. 24+10 TEMP. BYPASS=  
STA. 13+48.95 MAINLINE  
Y=145,248.28  
X=577,482.16

**CURVE 3 DATA**

PI STA. = 22+64.08  
Y = 145,112.16  
X = 577,533.77  
R = 144.00  
D = 39°47'19"  
DELTA = 28°04'39"  
L = 70.57  
T = 36.01  
C = 69.86  
PC STA. = 22+28.08  
Y = 145,076.15  
X = 577,533.35  
PT STA. = 22+98.64  
Y = 145,144.12  
X = 577,517.19  
S.E. = SEE TYPICAL  
FINISHED SECTION

**CURVE 4 DATA**

PI STA. = 23+75.81  
Y = 145,212.62  
X = 577,481.67  
R = 144.00  
D = 39°47'19"  
DELTA = 28°10'55"  
L = 70.83  
T = 36.15  
C = 70.12  
PC STA. = 23+39.66  
Y = 145,180.54  
X = 577,498.31  
PT STA. = 24+10.49  
Y = 145,248.77  
X = 577,482.16  
S.E. = SEE TYPICAL  
FINISHED SECTION

**BEGIN CONSTRUCTION**  
STA. 20+00 TEMP. BYPASS=  
STA. 9+61.36 MAINLINE  
Y=144,861.29  
X=577,473.22

THEODORE B. & TERESA M. BINDL

THEODORE B. & TERESA M. BINDL

**BENCH MARKS**

| NO. | STA.  | DESCRIPTION                   | ELEV.  |
|-----|-------|-------------------------------|--------|
| 2   | 10+84 | 3/4" IRON REBAR SET, 18.9' LT | 757.09 |
| 3   | 16+22 | 3/4" IRON REBAR SET, 16.1' LT | 754.71 |
| 101 | 12+20 | STAR SPIKE IN PP, 31.4' LT    | 754.05 |

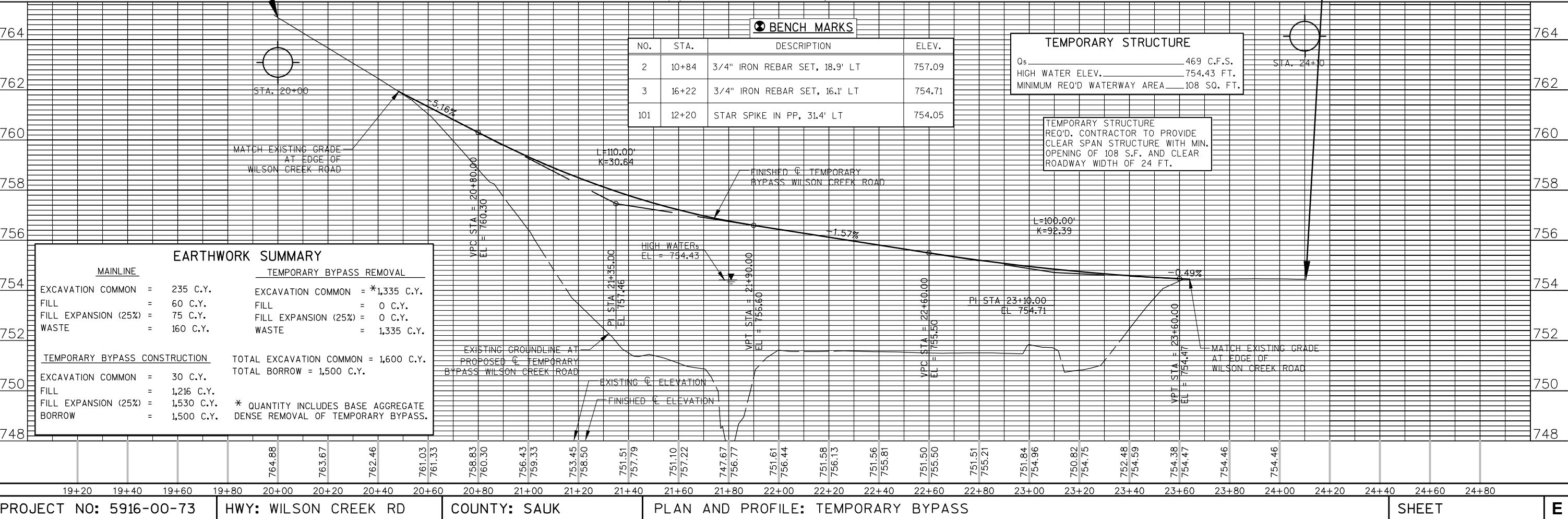
**TEMPORARY STRUCTURE**

Qs \_\_\_\_\_ 469 C.F.S.  
HIGH WATER ELEV. \_\_\_\_\_ 754.43 FT.  
MINIMUM REQ'D WATERWAY AREA \_\_\_\_\_ 108 SQ. FT.

TEMPORARY STRUCTURE  
REQ'D. CONTRACTOR TO PROVIDE  
CLEAR SPAN STRUCTURE WITH MIN.  
OPENING OF 108 S.F. AND CLEAR  
ROADWAY WIDTH OF 24 FT.

**EARTHWORK SUMMARY**

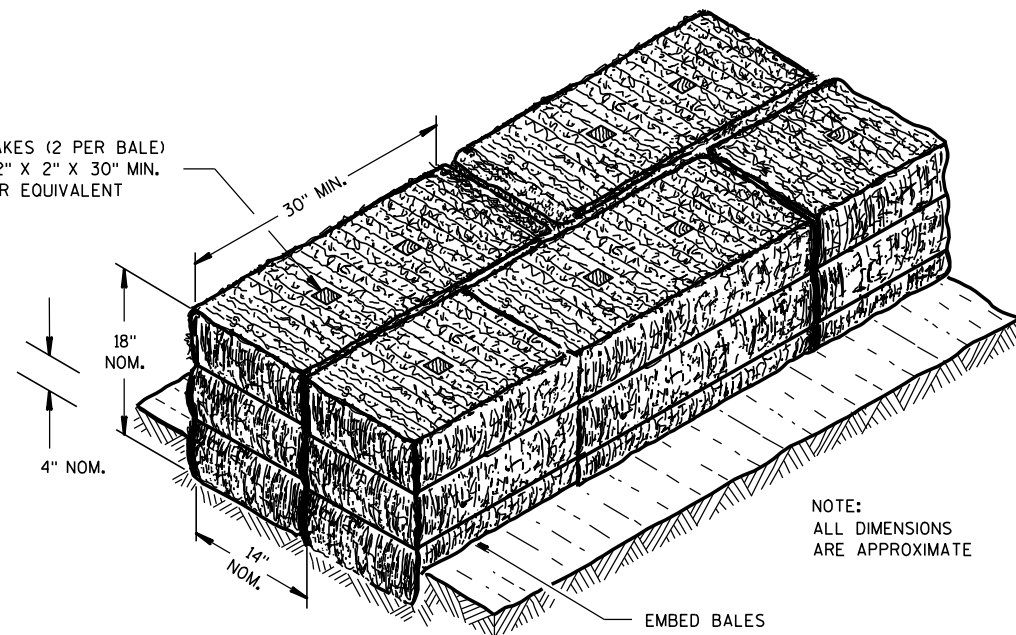
| MAINLINE                      |              | TEMPORARY BYPASS REMOVAL   |               |
|-------------------------------|--------------|--|---------------|
| EXCAVATION COMMON             | = 235 C.Y.   | EXCAVATION COMMON  | = *1,335 C.Y. |
| FILL                          | = 60 C.Y.    | FILL   | = 0 C.Y.      |
| FILL EXPANSION (25%)          | = 75 C.Y.    | FILL EXPANSION (25%)   | = 0 C.Y.      |
| WASTE                         | = 160 C.Y.   | WASTE  | = 1,335 C.Y.  |
| TEMPORARY BYPASS CONSTRUCTION |              | TOTAL EXCAVATION COMMON = 1,600 C.Y.<br>TOTAL BORROW = 1,500 C.Y.        |               |
| EXCAVATION COMMON             | = 30 C.Y.    | * QUANTITY INCLUDES BASE AGGREGATE<br>DENSE REMOVAL OF TEMPORARY BYPASS. |               |
| FILL                          | = 1,216 C.Y. |  |               |
| FILL EXPANSION (25%)          | = 1,530 C.Y. |  |               |
| BORROW                        | = 1,500 C.Y. |  |               |



Standard Detail Drawing List

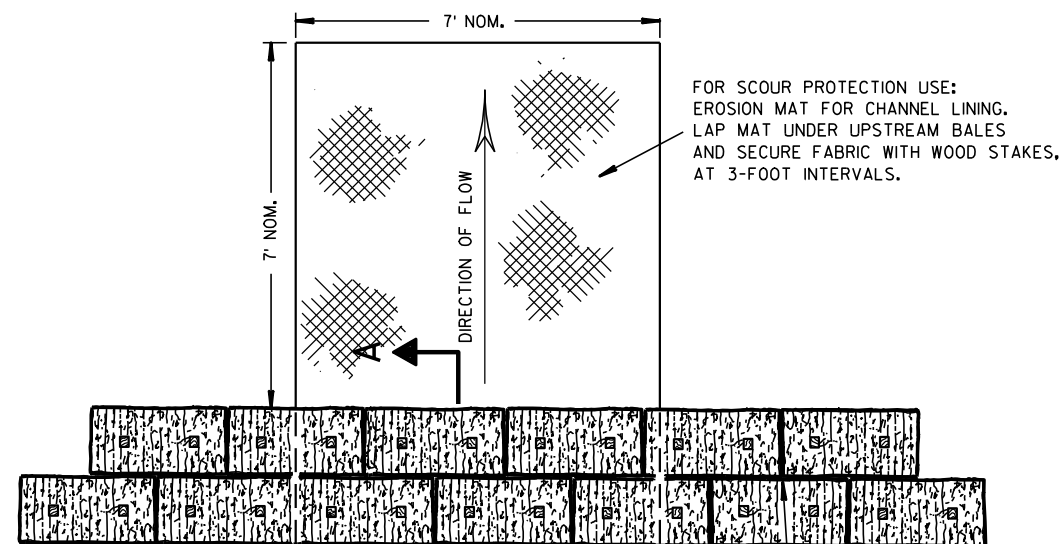
|           |  |
|-----------|--|
| 08E08-03  | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS              |
| 08E09-06  | SILT FENCE   |
| 12A03-10  | NAME PLATE (STRUCTURES)  |
| 15A01-11  | MARKER POST FOR RIGHT-OF-WAY   |
| 15A02-08  | DELINEATOR POST, DELINEATOR, AND DELINEATOR BRACKET WITH REFLECTIVE SHEETING |
| 15C02-05A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES                                   |
| 15C02-05B | BARRICADES AND SIGNS FOR MAINLINE CLOSURES                                   |
| 15C06-07  | SIGNING & MARKING FOR TWO LANE BRIDGES                                       |
| 15C12-04  | TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)            |
| 15D31-02  | TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY                                    |

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



NOTE:  
ALL DIMENSIONS  
ARE APPROXIMATE

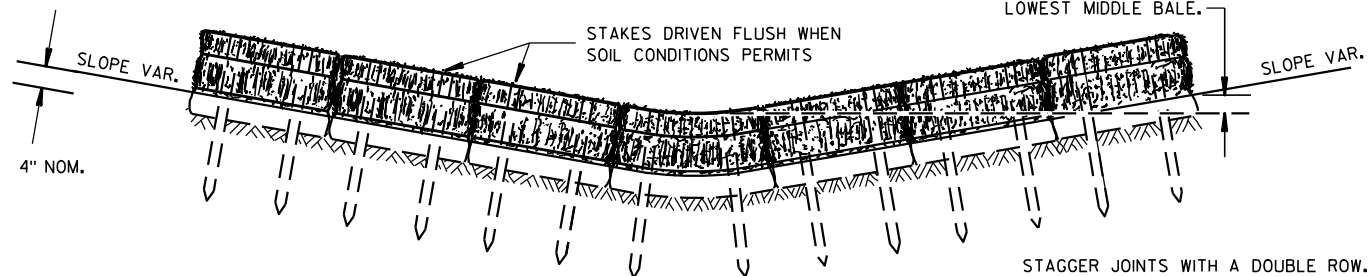
SECTION A-A



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT  
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL  
BE EQUAL TO OR GREATER THAN TOP OF  
LOWEST MIDDLE BALE.



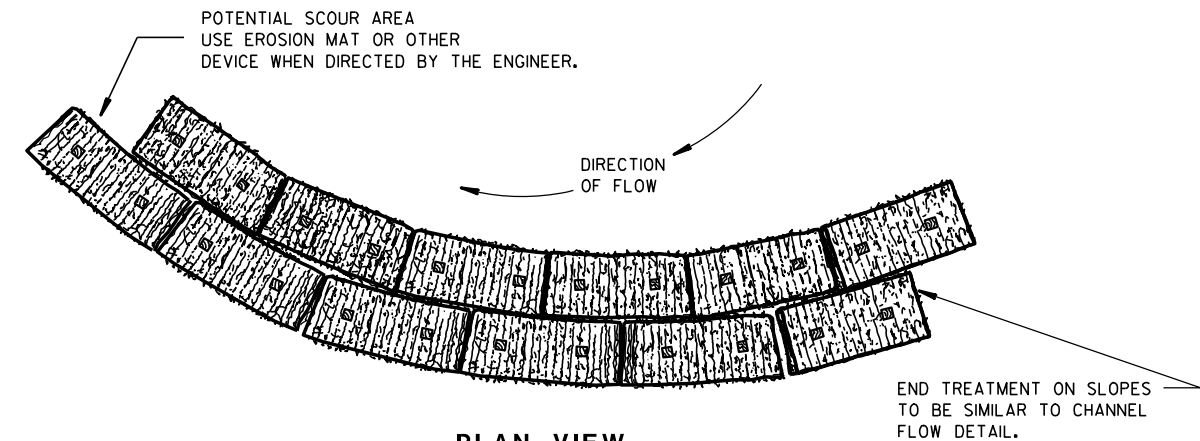
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

## GENERAL NOTES

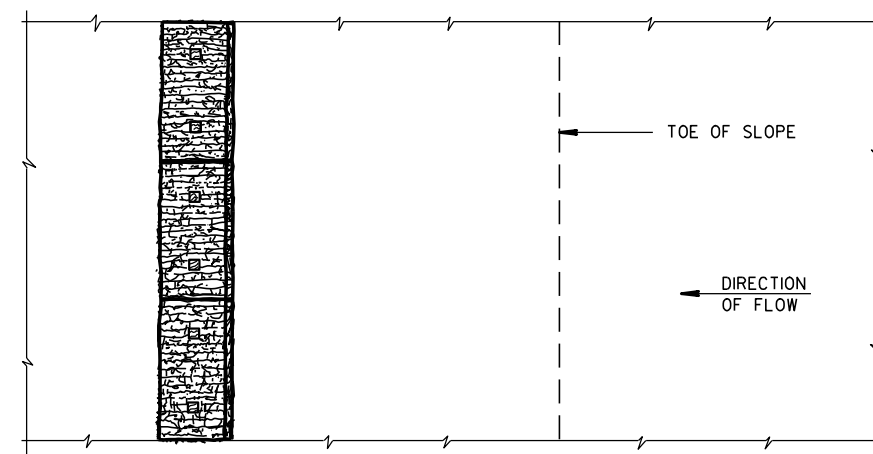
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

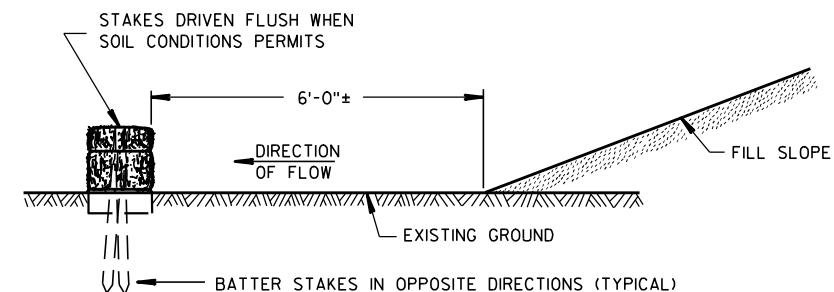


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF  
EROSION BALES / TEMPORARY  
DITCH CHECKS

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02  
DATE

FHWA

/S/ Beth Canestra  
CHIEF ROADWAY DEVELOPMENT ENGINEER

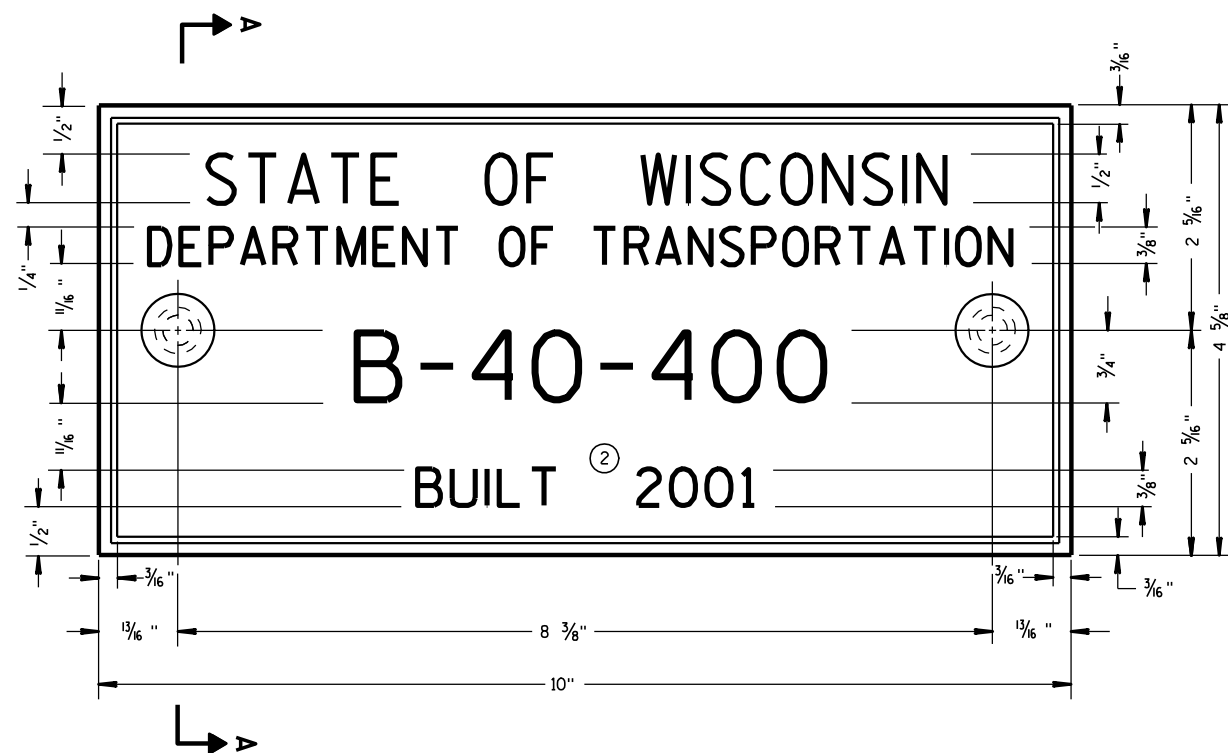




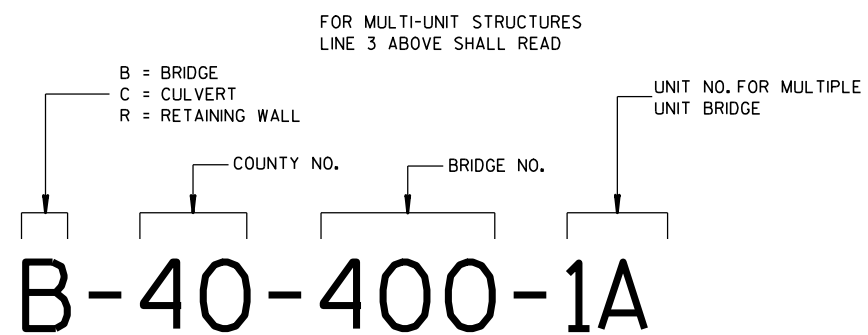
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



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



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



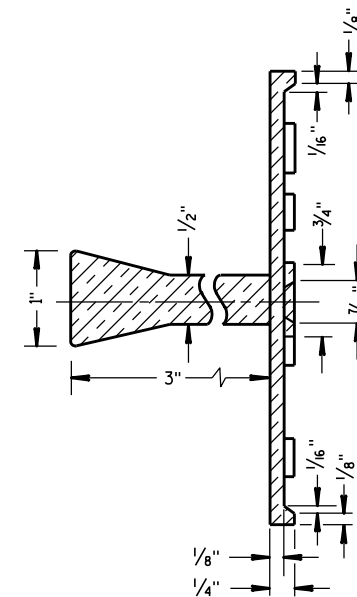
**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

## GENERAL NOTES

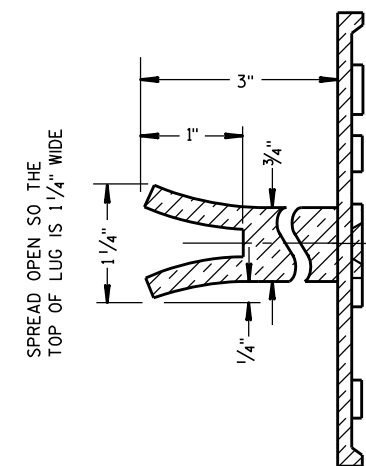
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

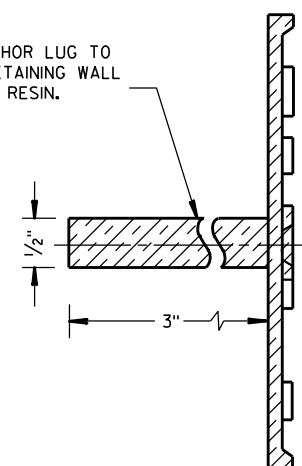


**SECTION A-A**



**ALTERNATE LUG**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



**ALTERNATE LUG**  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE  
(STRUCTURES)**

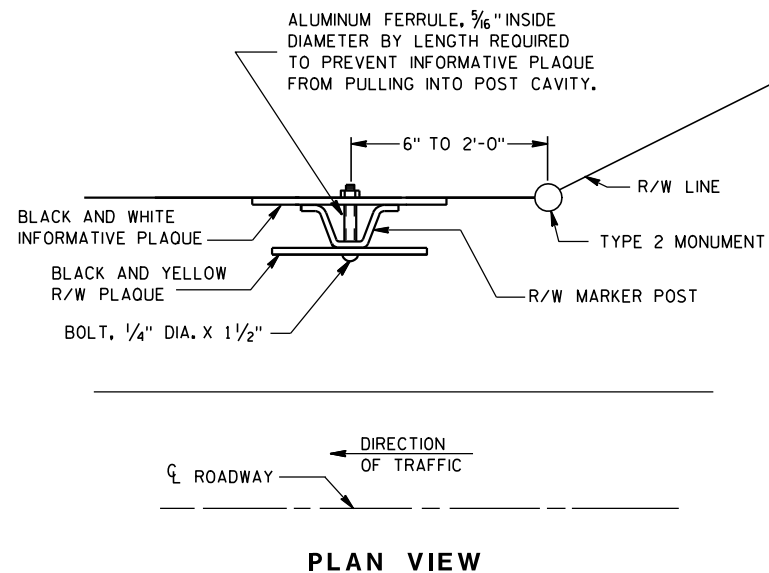
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

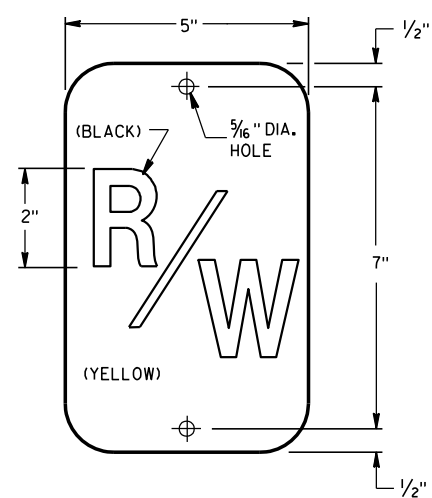
3/26/10  
DATE

FHWA

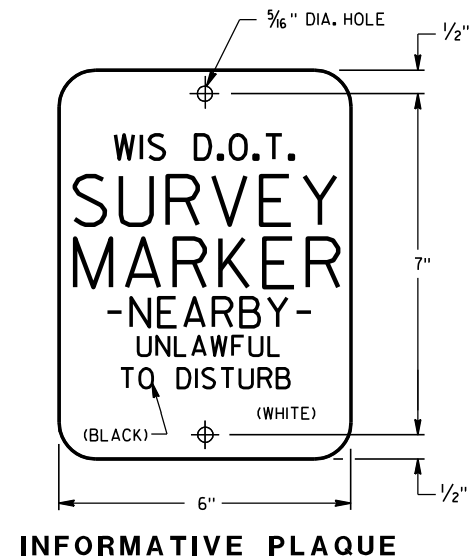
/S/ Scot Becker  
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



FRONT VIEW  
STEEL MARKER POST



**R/W PLAQUE**  
THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



## GENERAL NOTES

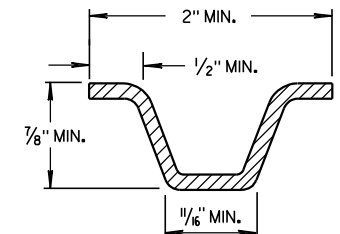
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

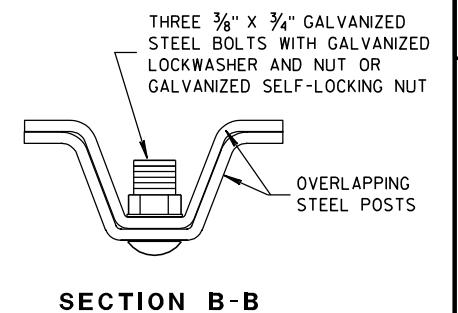
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

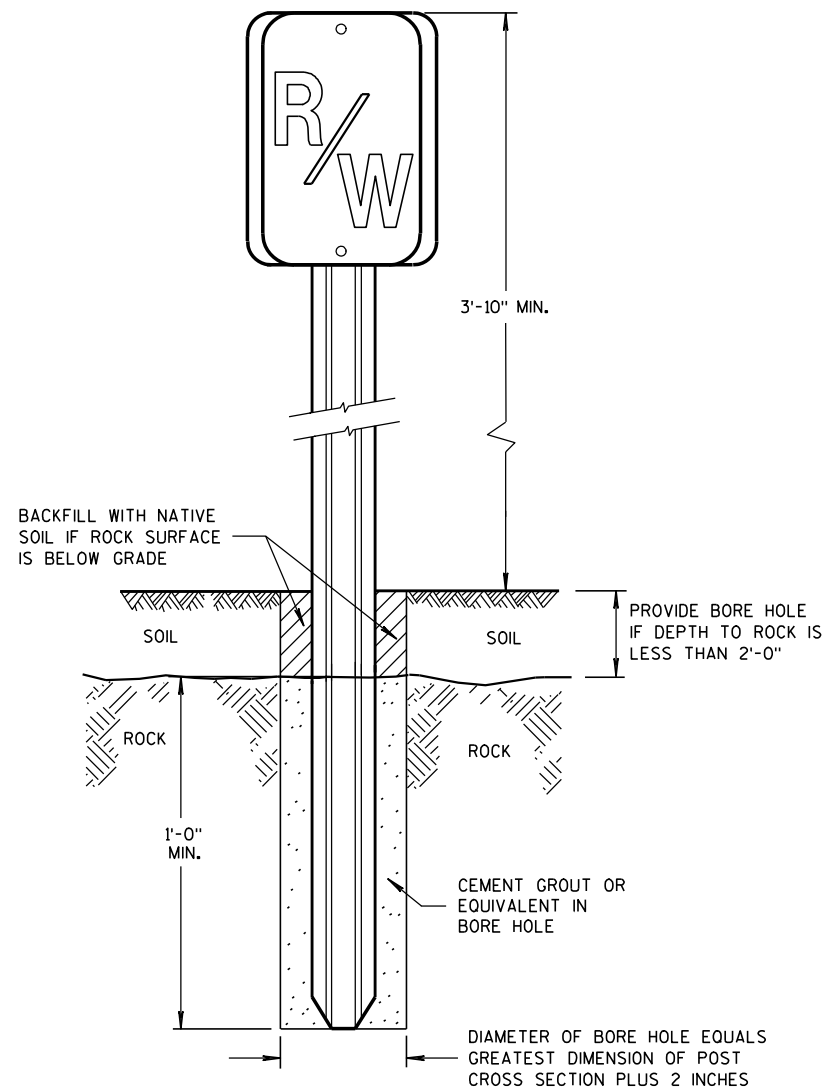
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3'10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



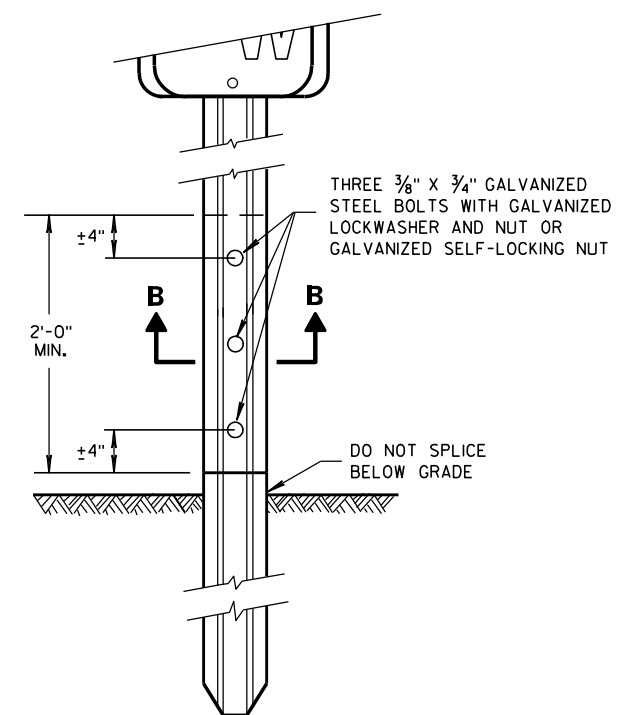
MIN. WEIGHT 1.12 LB./FT.  
**SECTION A-A**



**SECTION B-B**



FRONT VIEW  
ROCK INSTALLATION ①



FRONT VIEW  
SPLICE DETAIL

## MARKER POST FOR RIGHT-OF-WAY

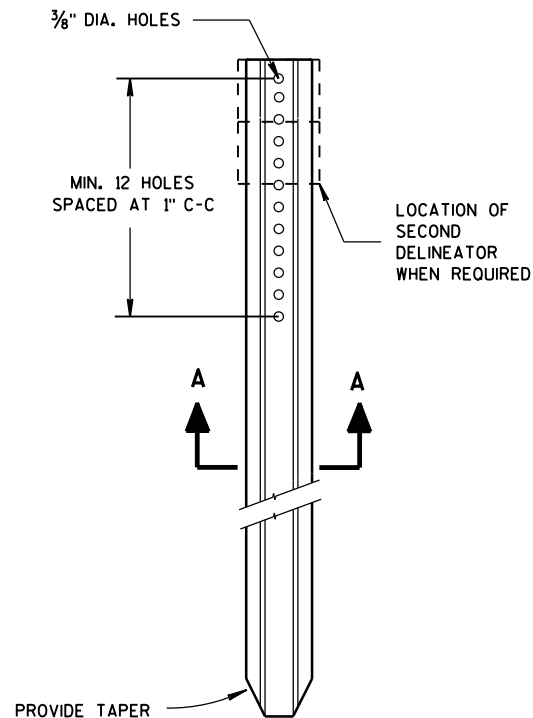
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

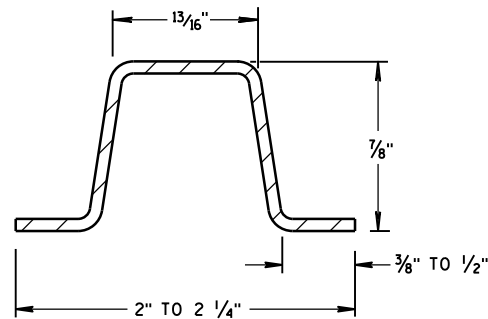
4/27/09  
DATE

/S/ Ray Kumapayi  
CHIEF SURVEYING AND MAPPING ENGINEER

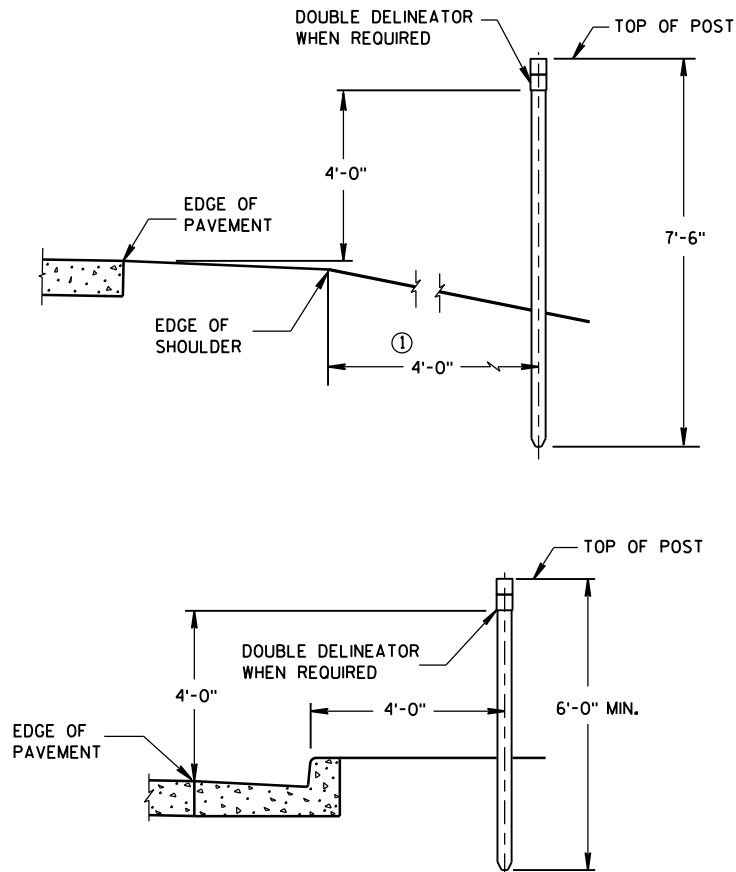
FHWA



**DELINEATOR POST**



**SECTION A-A**  
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

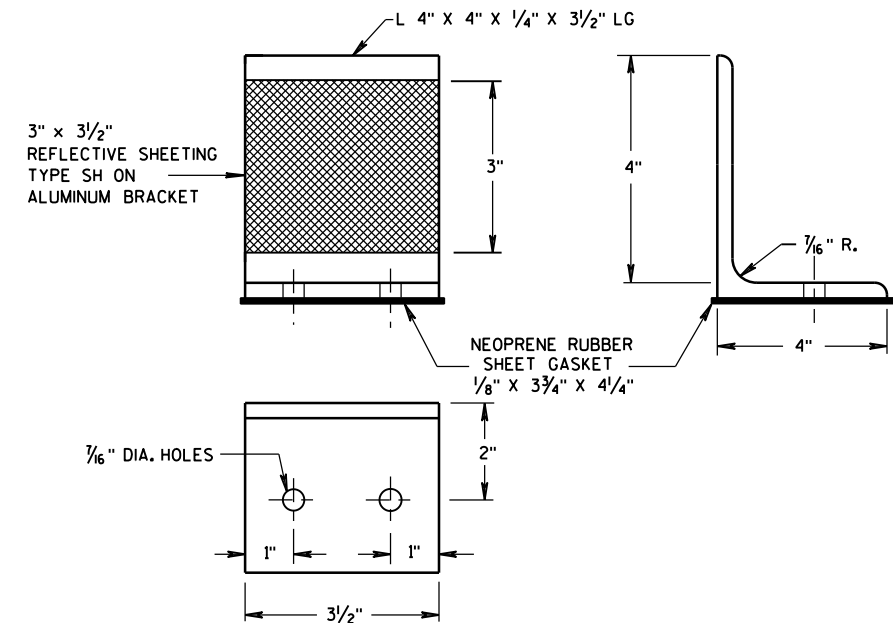


**TYPICAL INSTALLATIONS OF DELINEATOR POSTS**

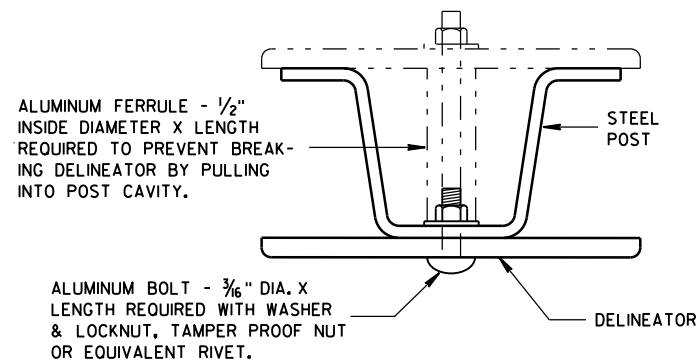
**GENERAL NOTES**

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

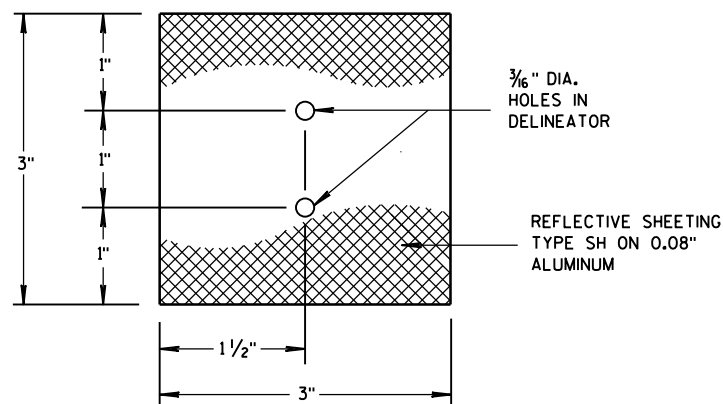
- ① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



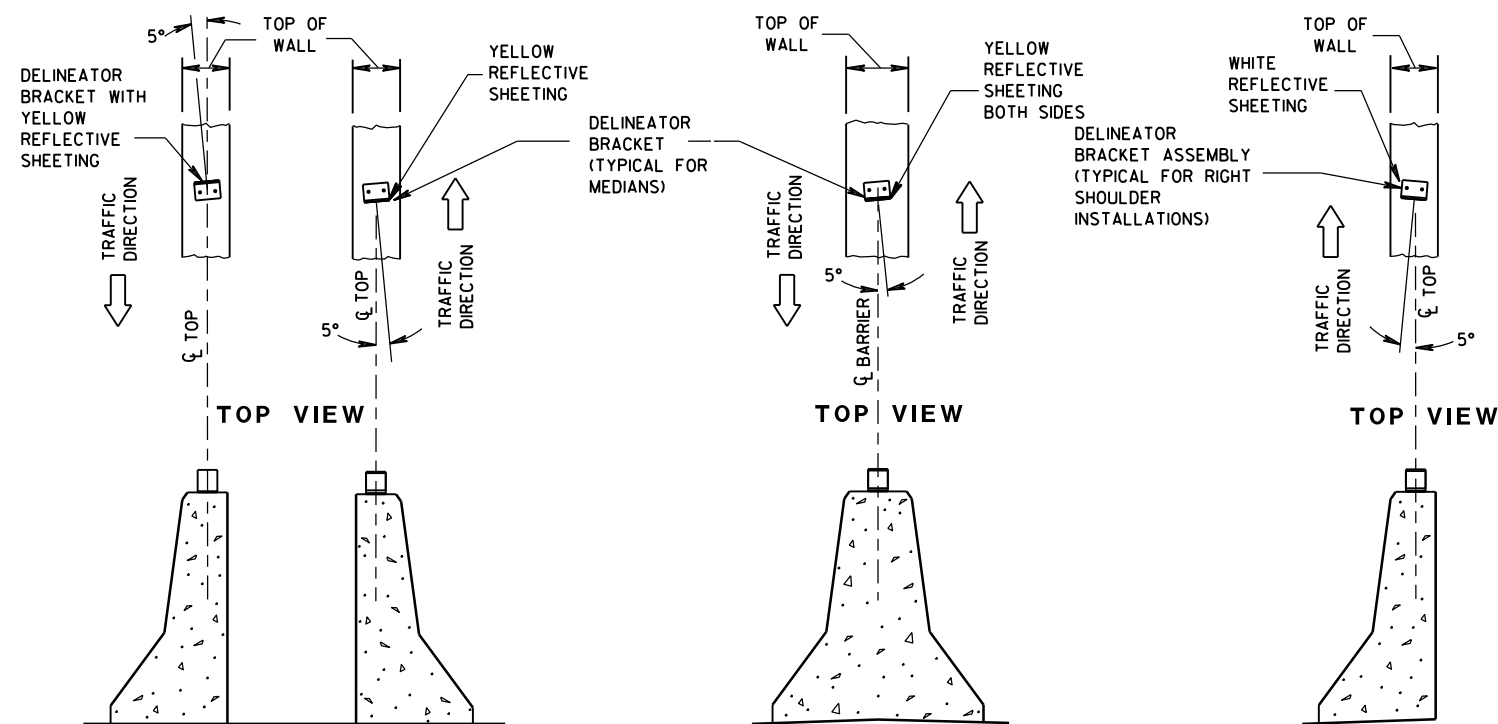
**DELINEATOR BRACKET**



**MOUNTING DETAIL FOR DELINEATOR**



**3" x 3" DELINEATOR**

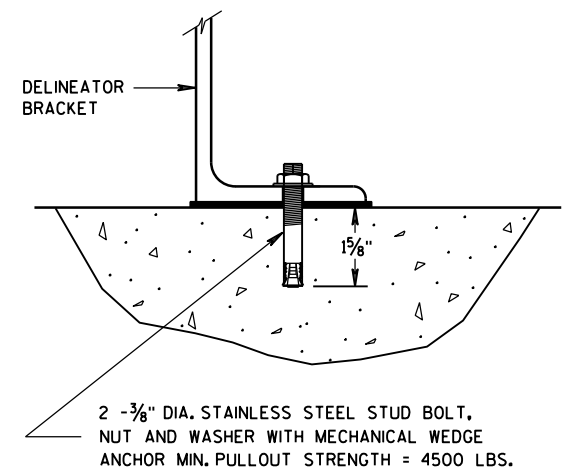


**DOUBLE BARRIERS IN MEDIAN**

**MEDIAN BARRIER**

**BARRIER LOCATED  
TO RT. OF TRAFFIC FLOW**

**LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS**

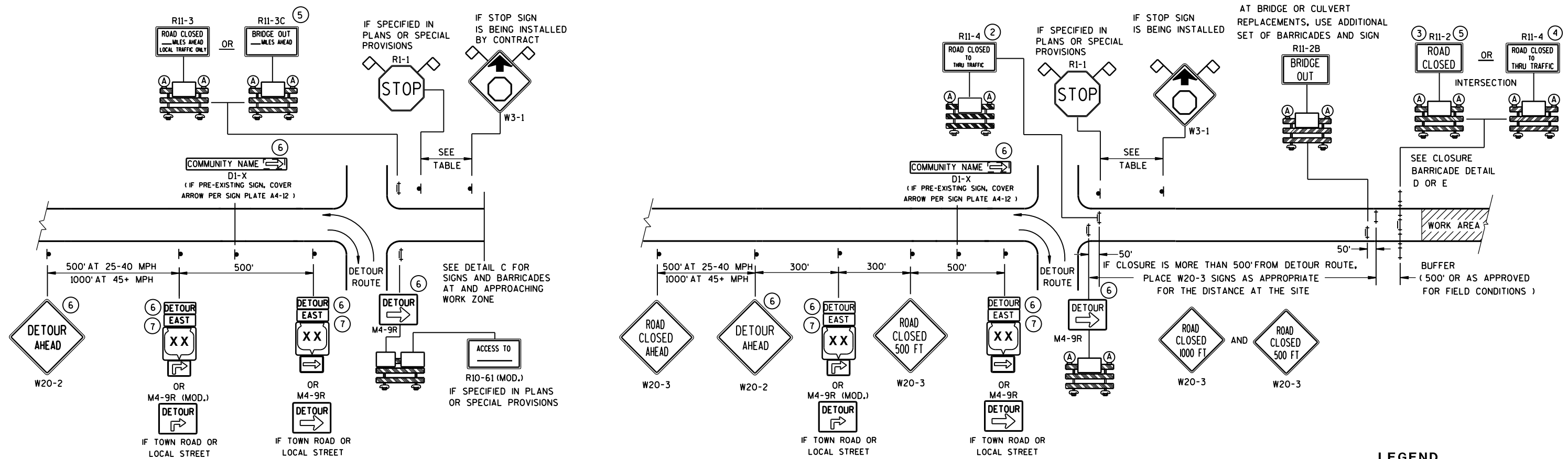


**DELINEATOR BRACKET  
MOUNTING DETAIL**

**DELINEATOR POST, DELINEATOR,  
AND DELINEATOR BRACKET  
WITH REFLECTIVE SHEETING**

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

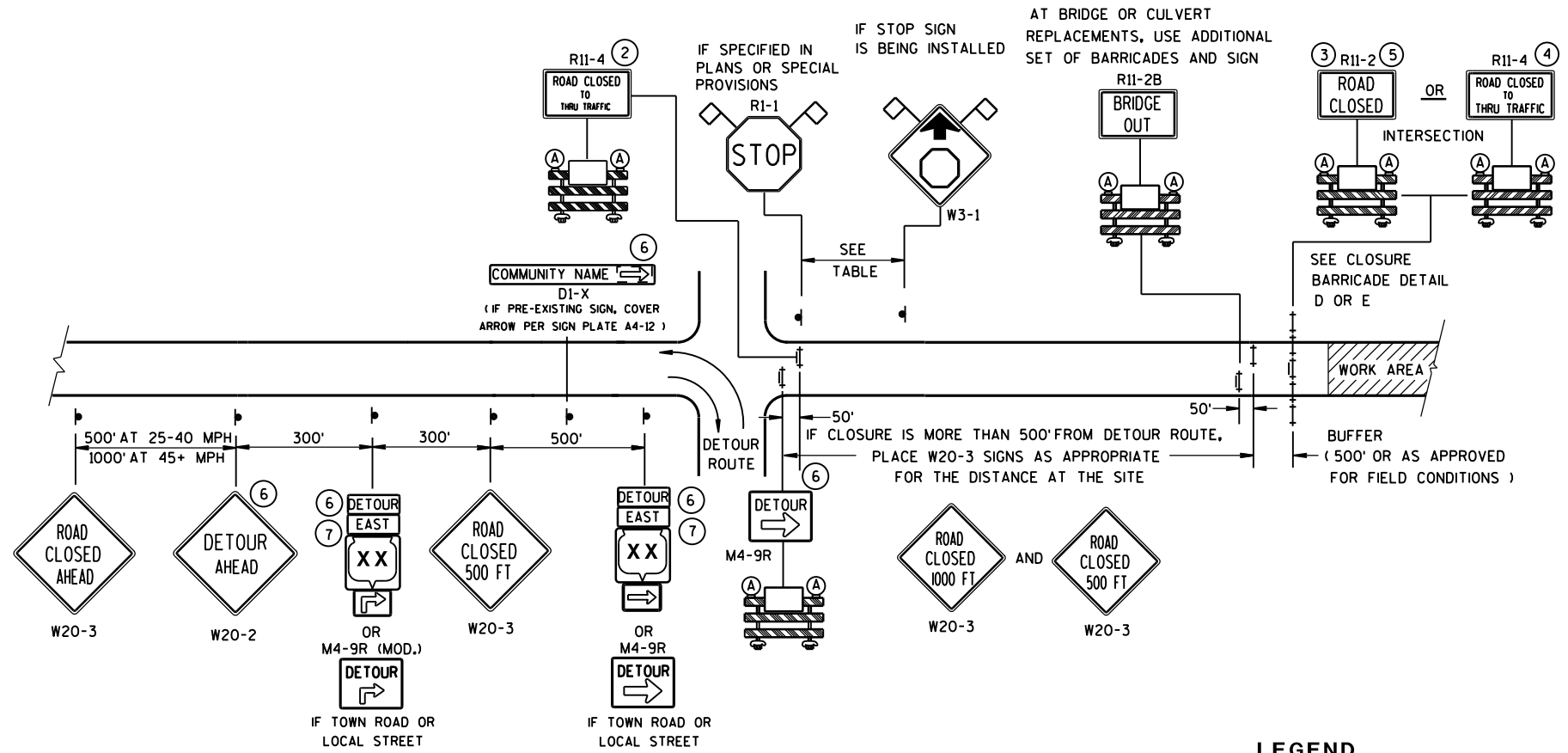
APPROVED  
7/2013 DATE /S/ Travis Feltes  
STATE TRAFFIC ENGINEER  
FHWA



DETAIL A

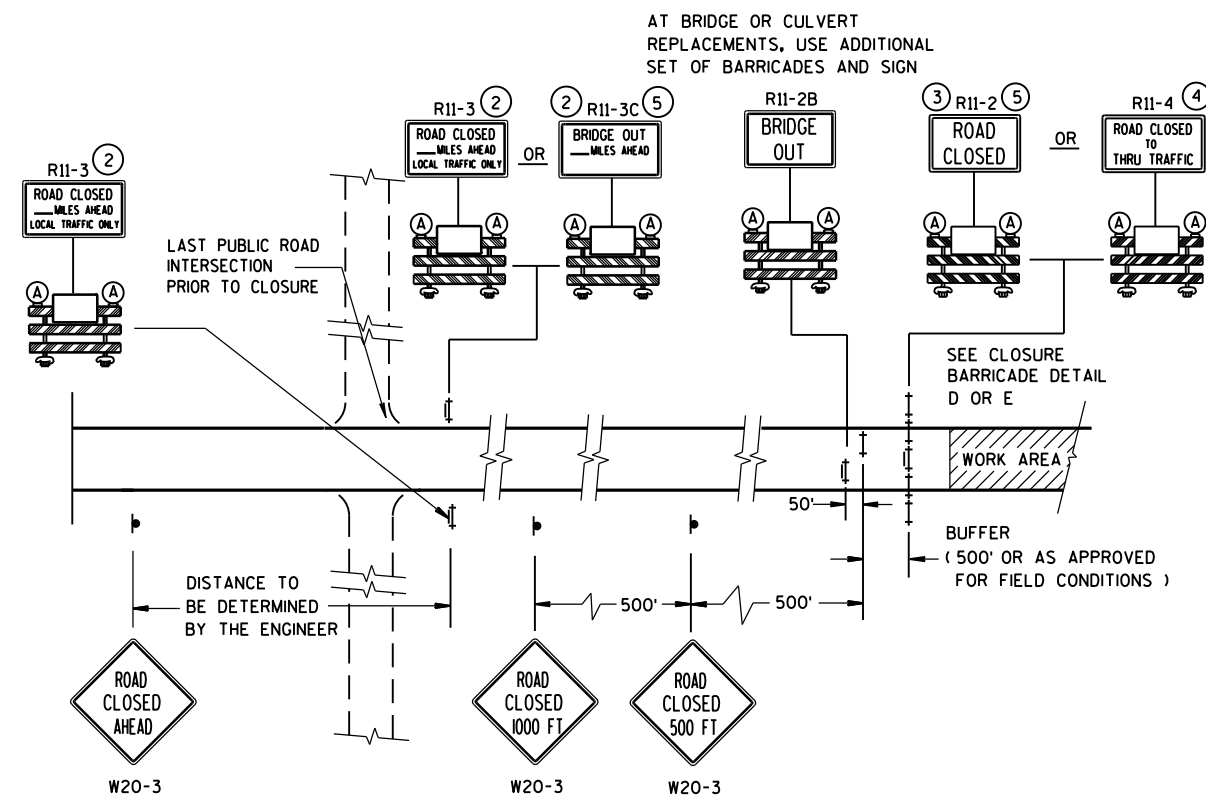
**MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE ( 1000 FEET IF URBAN )















**DETAIL B**  
**MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE ( 1000 FEET IF URBAN )



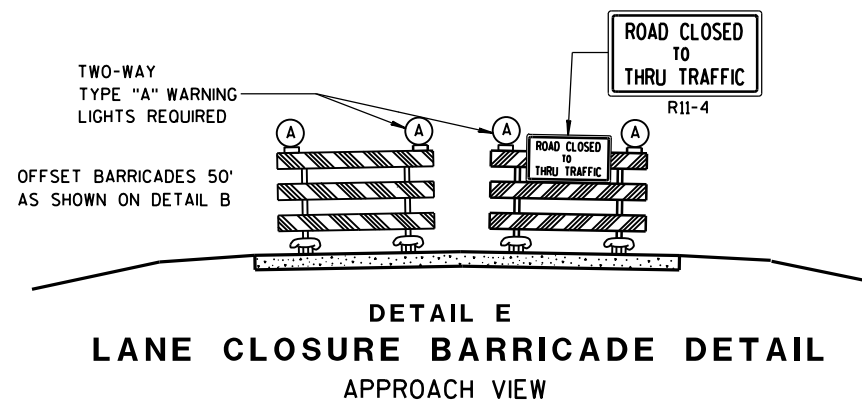
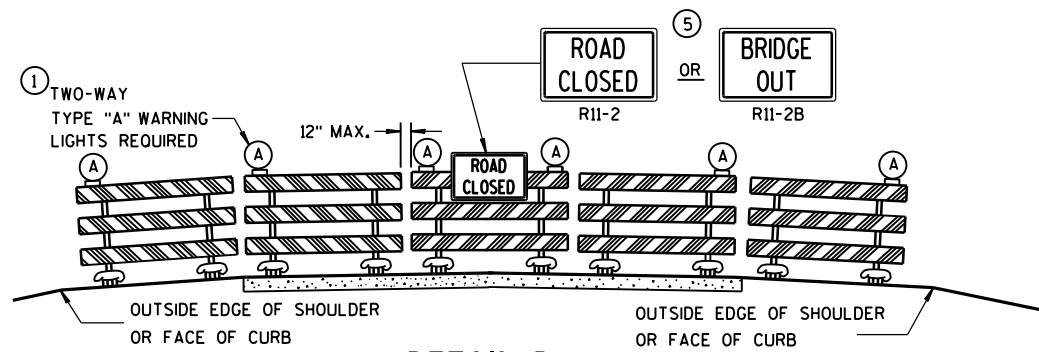
**DETAIL C**  
**MAINLINE CLOSURE, NO POSTED DETOUR**

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

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

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

|  |  |
|--|--|
| <b>BARRICADES AND SIGNS<br/>FOR<br/>MAINLINE CLOSURES</b>  |  |
| <b>STATE OF WISCONSIN<br/>DEPARTMENT OF TRANSPORTATION</b> |  |
| <u>8/2013</u><br>DATE                                      | <u>/S/ Travis Feltes</u><br>STATE TRAFFIC ENGINEER OF DESIGN |



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" X 15" 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.)

M05-1 AND M06-1 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.

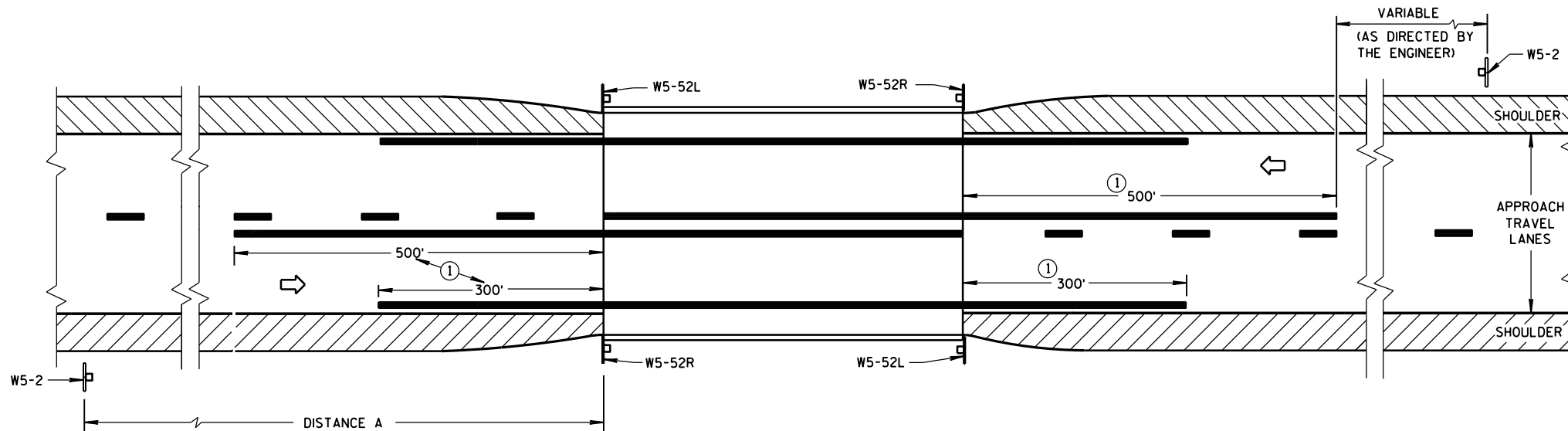
R1-1 SHALL BE 36" X 36".

- 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 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 LANE 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  
MAINLINE CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



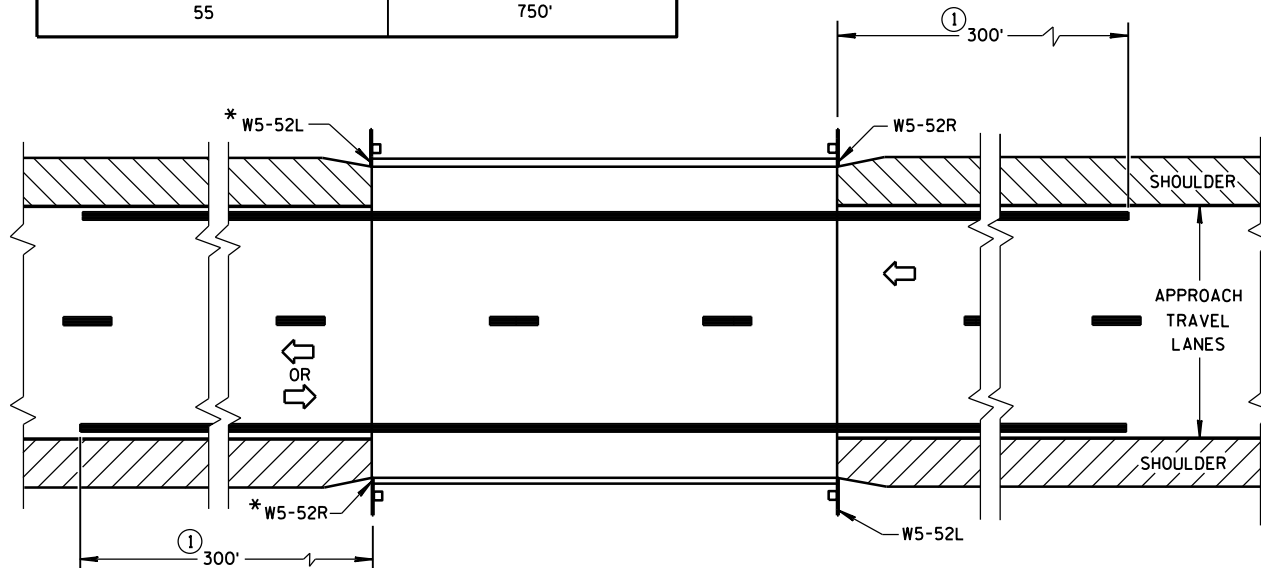
### SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

#### DISTANCE TABLE

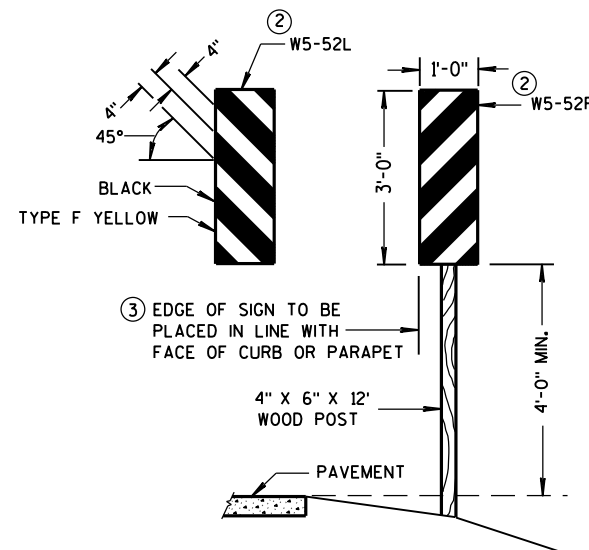
| POSTED OR 85th PERCENTILE SPEED | DISTANCE "A" |
|---------------------------------|--------------|
| 25                              | 150'         |
| 30                              | 200'         |
| 35                              | 250'         |
| 40                              | 300'         |
| 45                              | 400'         |
| 50                              | 550'         |
| 55                              | 750'         |



### SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



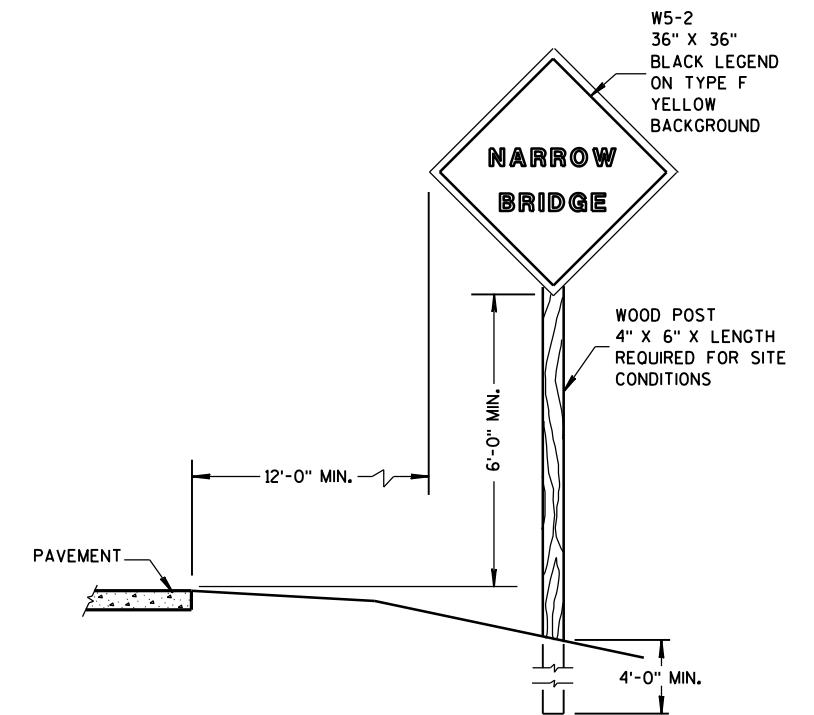
### OBJECT MARKER PLACEMENT

### GENERAL NOTES

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

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.







### SIGN PLACEMENT

#### SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
3-2014 DATE /S/ Travis Fettes  
STATE TRAFFIC ENGINEER OF DESIGN  
FHWA

LEGEND

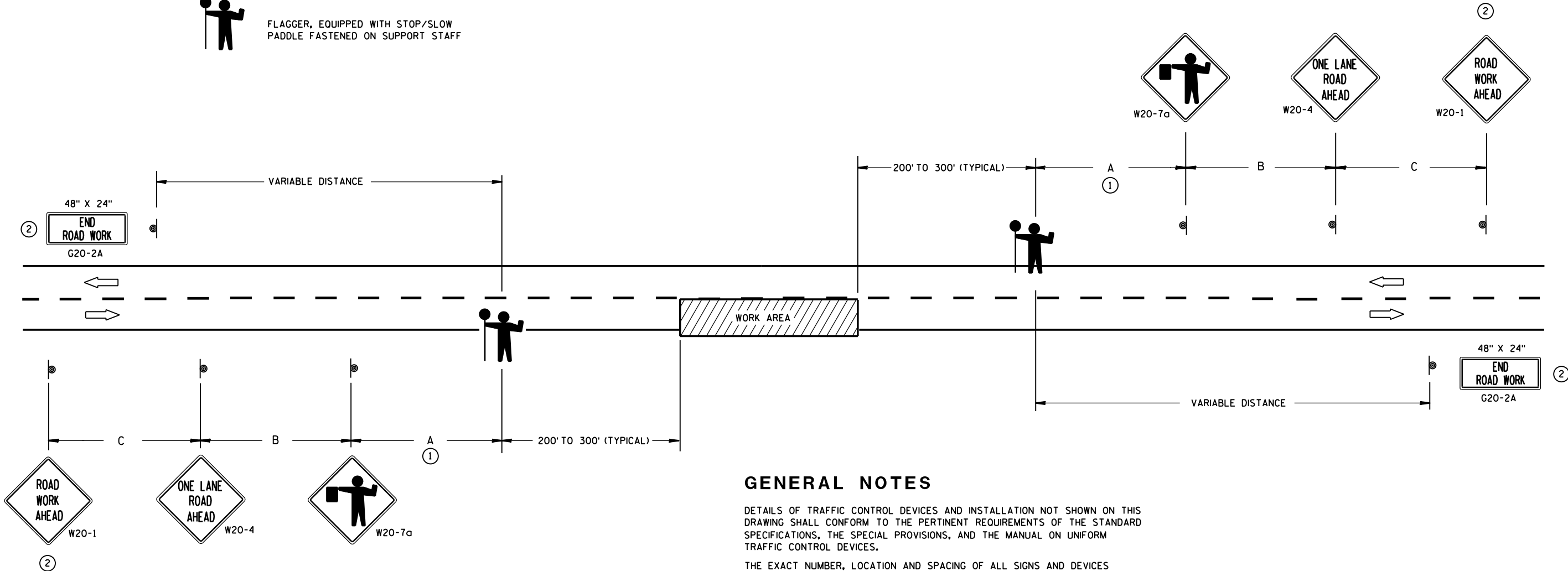
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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



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



GENERAL NOTES

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

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

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

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

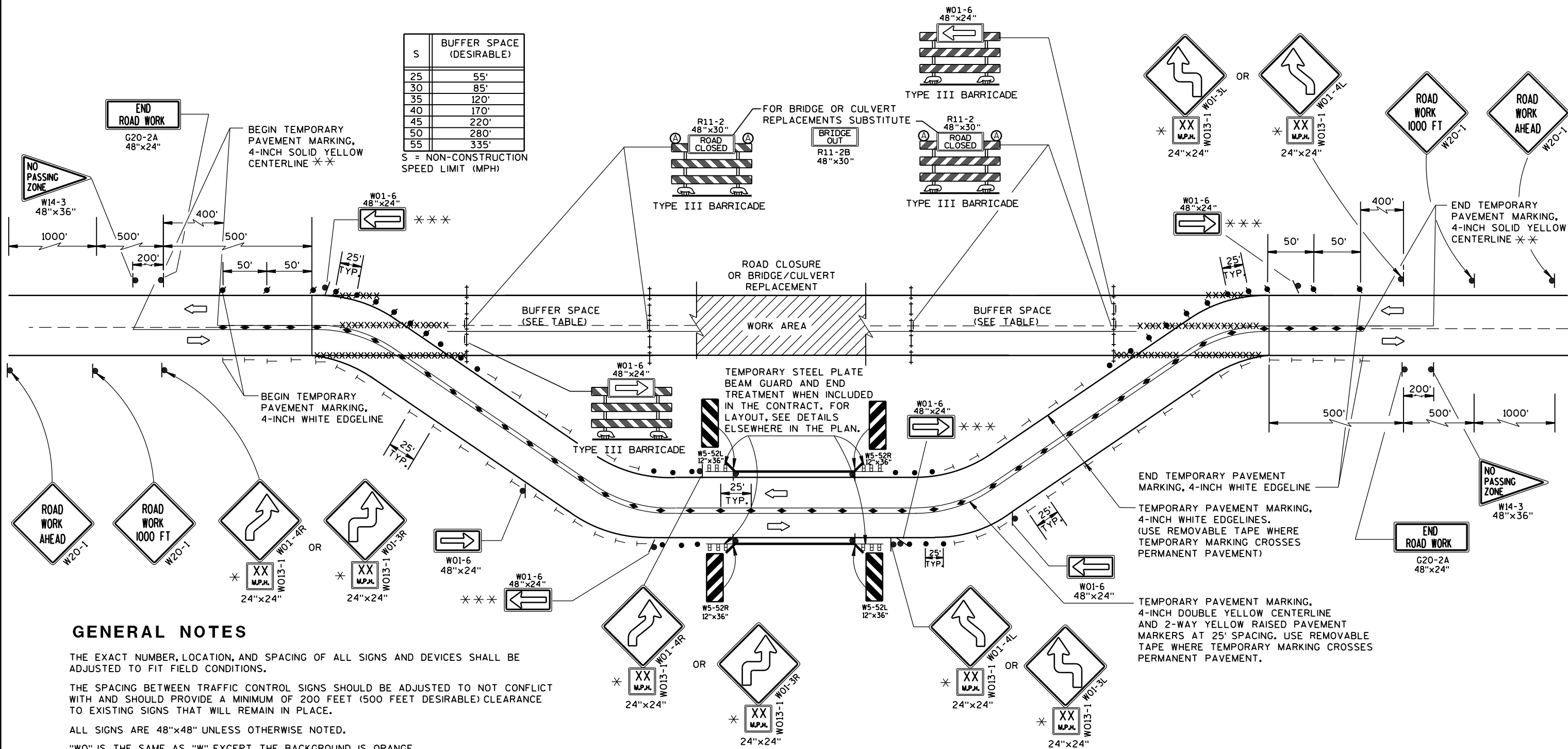
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



| S  | BUFFER SPACE<br>(DESIRABLE) |
|----|-----------------------------|
| 25 | 55'                         |
| 30 | 85'                         |
| 35 | 120'                        |
| 40 | 170'                        |
| 45 | 220'                        |
| 50 | 280'                        |
| 55 | 335'                        |

S = NON-CONSTRUCTION  
SPEED LIMIT (MPH)



## GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

\* IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

\*\* WHEN THE DISTANCE TO/FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

\*\*\* OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

## LEGEND

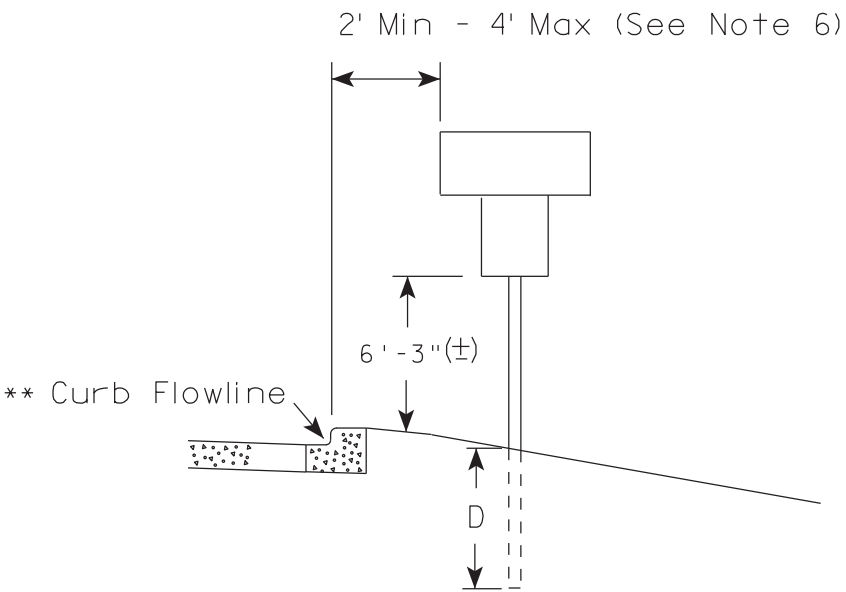
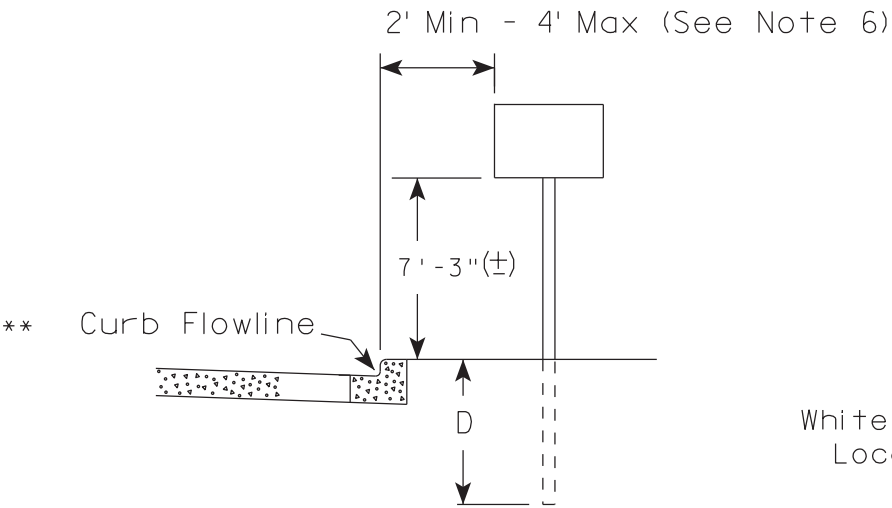
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY-BURN LIGHT
- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR, (WHITE) (SINGLE DELINEATOR)
- ◆ TEMPORARY RAISED PAVEMENT MARKERS (TWO-WAY YELLOW)
- XXX REMOVE PAVEMENT MARKING
- ➡ DIRECTION OF TRAFFIC
- ▤ TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- ▨ WORK AREA

## TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

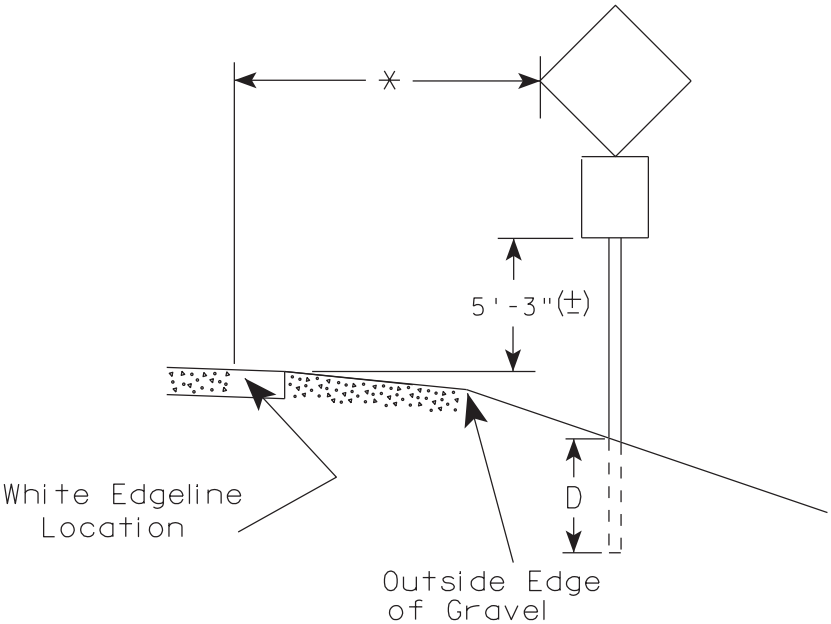
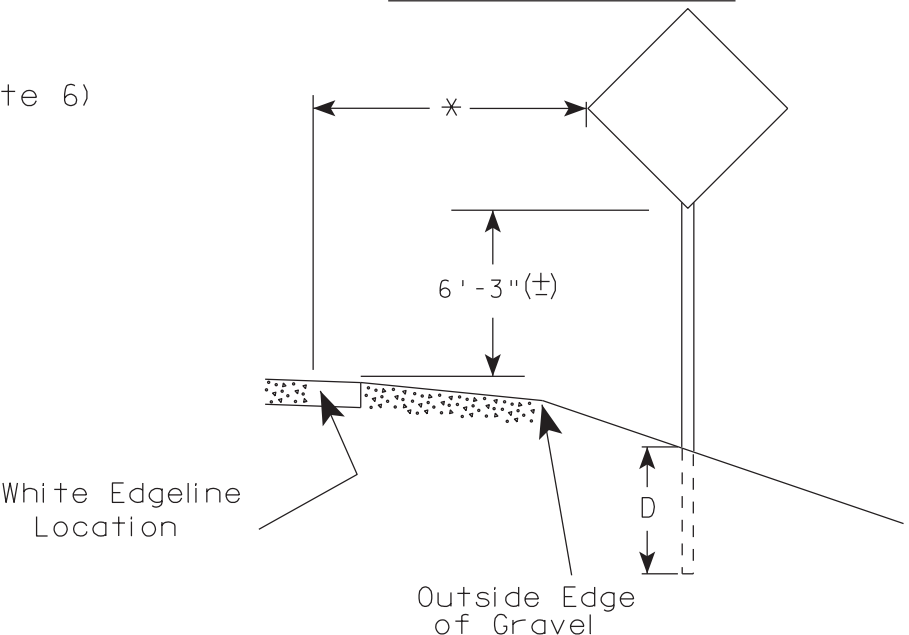
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

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

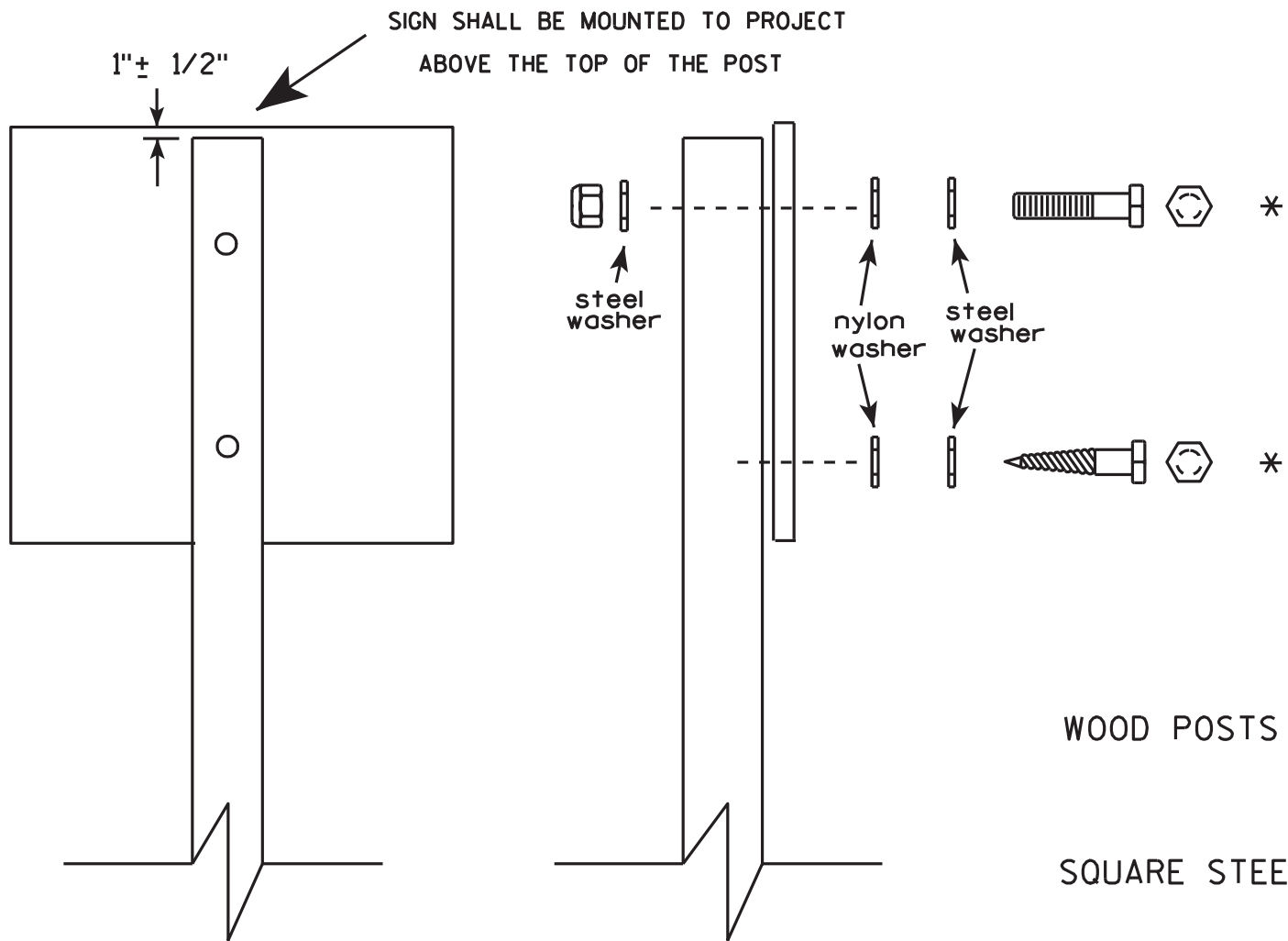
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*  
For State Traffic Engineer

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

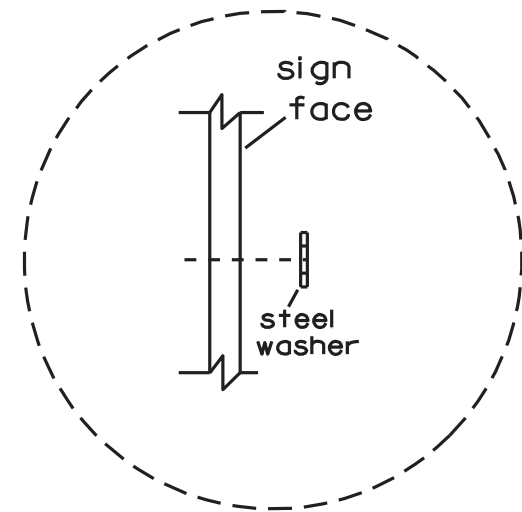


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

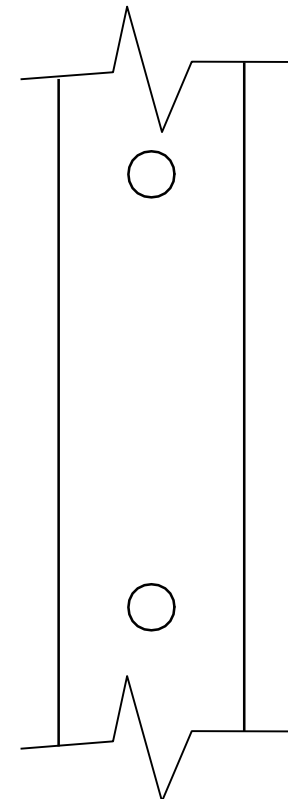
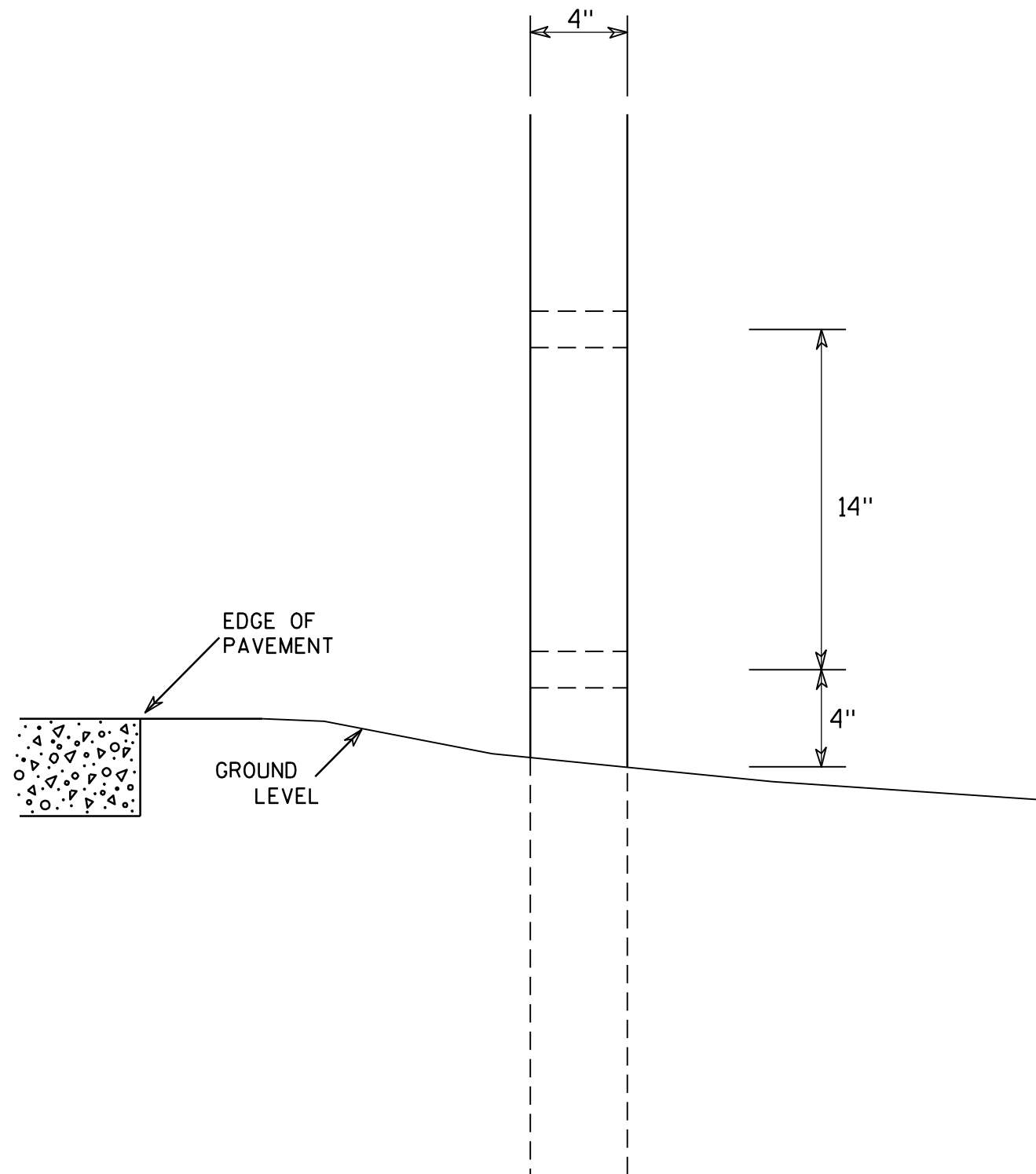
- WOOD POSTS (4" x 4" or 4" x 6")  
LAG SCREWS - 3/8" X 3"  
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")  
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts  
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL  
O.D. FLANGE .720-.765 INCH, GRIP RANGE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



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

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

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



SIDE VIEW

# GENERAL NOTES

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

## 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

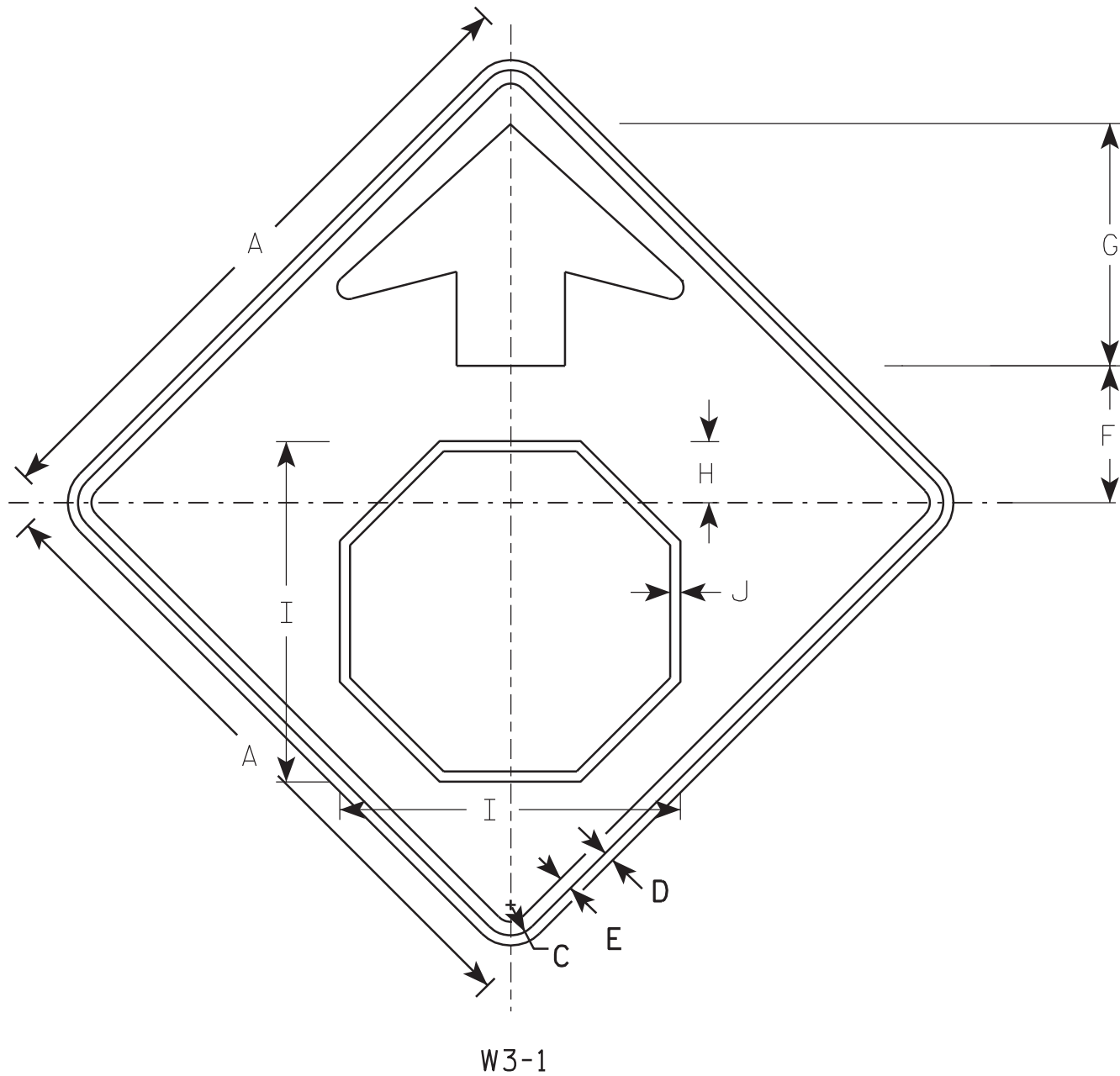
PROJECT NO:

HWY:

COUNTY:

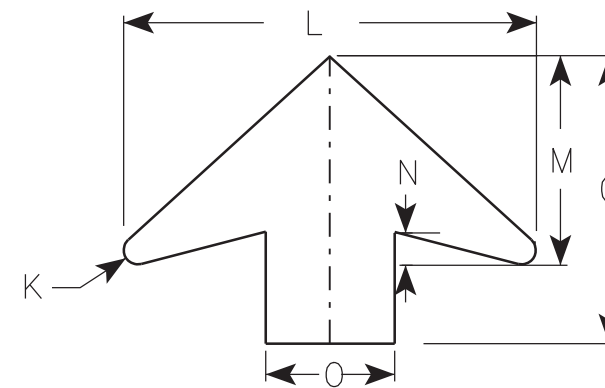
SHEET NO:

E



### NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - YELLOW  
Arrow & Border - BLACK  
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

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

PROJECT NO:

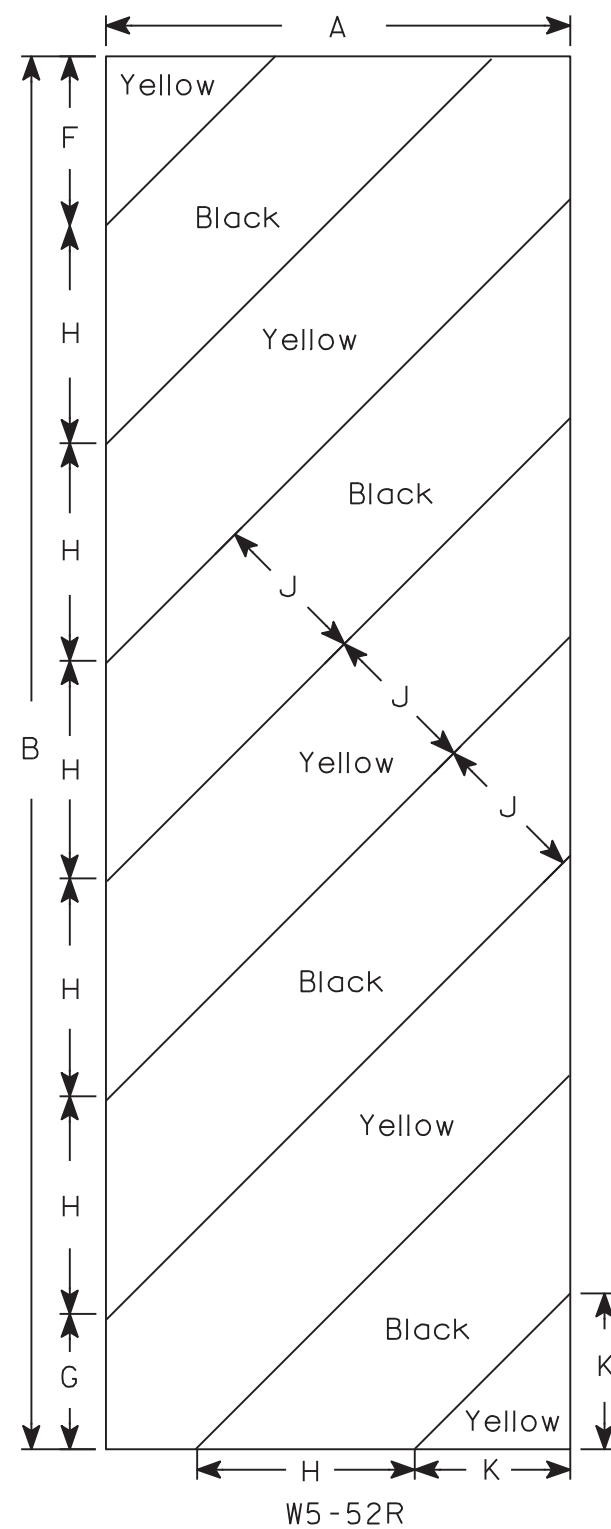
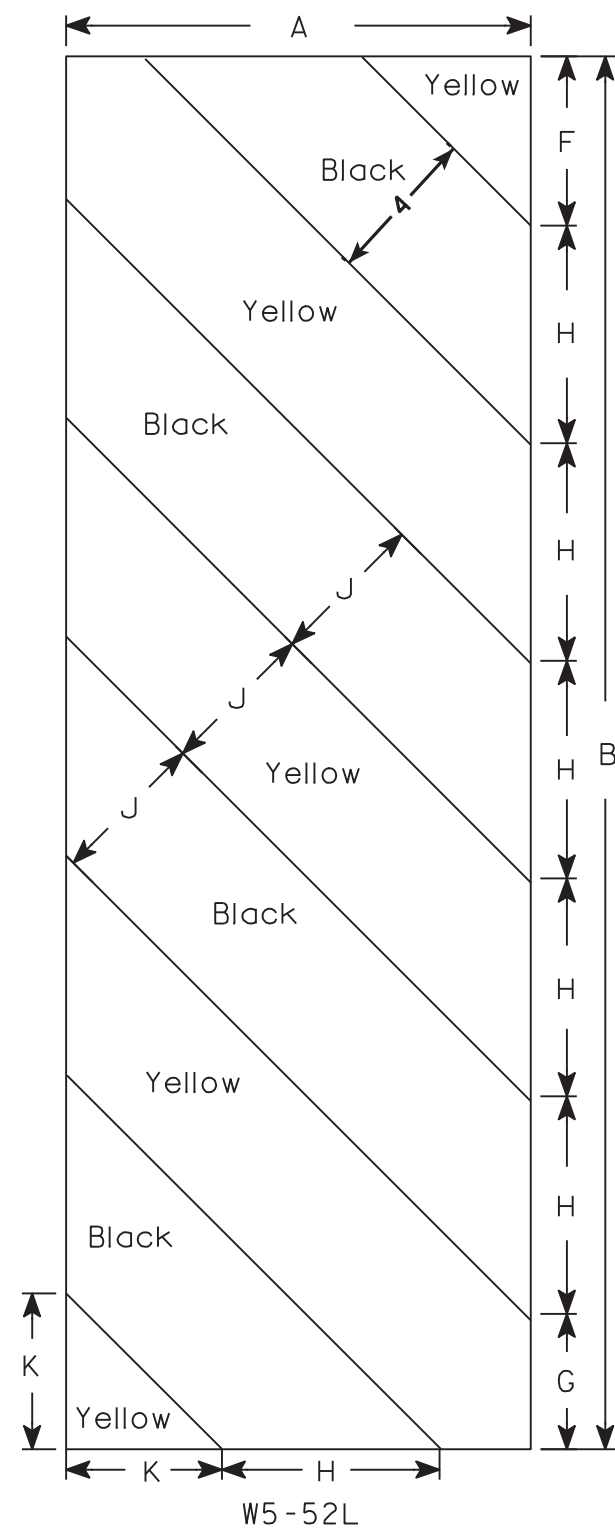
STANDARD SIGN  
W3-1

WISCONSIN DEPT OF TRANSPORTATION

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

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:  
Background - Yellow  
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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<br>sq. ft. |
|------|----|----|---|---|---|-------|-------|-------|-----|---|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| 1    |    |    |   |   |   |       |       |       |     |   |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                 |
| 2S   | 12 | 36 |   |   |   | 4 3⁄8 | 3 1⁄2 | 5 5⁄8 | 45° | 4 | 4      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 2M   | 12 | 36 |   |   |   | 4 3⁄8 | 3 1⁄2 | 5 5⁄8 | 45° | 4 | 4      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3.0             |
| 3    | 18 | 54 |   |   |   | 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 5/29/12 PLATE NO. W5-52.9



## DESIGN DATA

## LIVE LOAD:

DESIGN LOADING \_\_\_\_\_ HL-93  
 INVENTORY RATING FACTOR \_\_\_\_\_ RF=1.11  
 OPERATING RATING FACTOR \_\_\_\_\_ RF=1.44  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) \_\_\_\_\_ 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

## ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY, SLAB \_\_\_\_\_  $f'_c = 4,000$  P.S.I.  
 ALL OTHER \_\_\_\_\_  $f'_c = 3,500$  P.S.I.  
 HIGH-STRENGTH BAR STEEL \_\_\_\_\_  $f_y = 60,000$  P.S.I.  
 REINFORCEMENT, GRADE 60 \_\_\_\_\_

## FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS\*\* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. BECAUSE OF SUSPECTED ARTESIAN CONDITIONS, DRIVE ALL PILING AT THE SITE TO BEDROCK REGARDLESS OF THE DESIGN CAPACITY. ESTIMATE 43 FT PILE LENGTHS AT BOTH ABUTMENTS.

\*\*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 DRIVEN PILE CAPACITY.

## TRAFFIC DATA

A.D.T. (2015) \_\_\_\_\_ 150  
 A.D.T. (2035) \_\_\_\_\_ 225  
 DESIGN SPEED \_\_\_\_\_ 30 M.P.H.

## HYDRAULIC DATA

100 YEAR FREQUENCY  
 DRAINAGE AREA \_\_\_\_\_ 7.1 SQ. MI.  
 $Q_{100}$  TOTAL \_\_\_\_\_ 1,200 C.F.S.  
 THROUGH STRUCTURE \_\_\_\_\_ 912 C.F.S.  
 OVERTOPPING ROADWAY \_\_\_\_\_ 288 C.F.S.  
 VELOCITY - THROUGH STRUCTURE \_\_\_\_\_ 5.0 F.P.S.  
 WATERWAY AREA - THROUGH STRUCTURE \_\_\_\_\_ 181.1 SQ. FT.  
 HIGH WATER<sub>100</sub> ELEVATION \_\_\_\_\_ 755.16  
 SCOUR CRITICAL CODE \_\_\_\_\_ 5

DESIGN ROADWAY OVERFLOW FREQUENCY \_\_\_\_\_  
 ROADWAY OVERTOPPING FREQUENCY \_\_\_\_\_ 35 YRS  
 OVERTOPPING \_\_\_\_\_ 900 C.F.S.

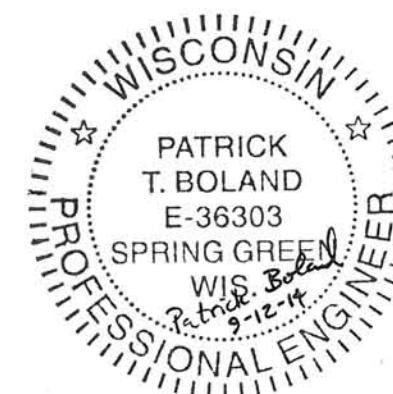
EROSION CONTROL  
 $Q_2$  \_\_\_\_\_ 241 C.F.S.  
 HIGH WATER<sub>2</sub> ELEVATION \_\_\_\_\_ 752.59

TEMPORARY STRUCTURE  
 $Q_5$  \_\_\_\_\_ 469 C.F.S.  
 HIGH WATER<sub>5</sub> ELEVATION \_\_\_\_\_ 754.43  
 REQUIRED FLOW AREA \_\_\_\_\_ 108 SQ. FT.

⬡ INDICATES WING NUMBER

## RIPRAP HEAVY LAYOUT

| POINT | STATION | OFFSET  |
|-------|---------|---------|
| A     | 11+11   | 16' LT. |
| B     | 11+14   | 29' LT. |
| C     | 11+39   | 29' LT. |
| D     | 11+61   | 24' LT. |
| E     | 11+70   | 26' LT. |
| F     | 11+90   | 26' LT. |
| G     | 11+87   | 16' LT. |
| H     | 11+78   | 16' RT. |
| I     | 11+75   | 29' RT. |
| J     | 11+47   | 29' RT. |
| K     | 11+29   | 29' RT. |
| L     | 10+99   | 29' RT. |
| M     | 11+02   | 16' RT. |

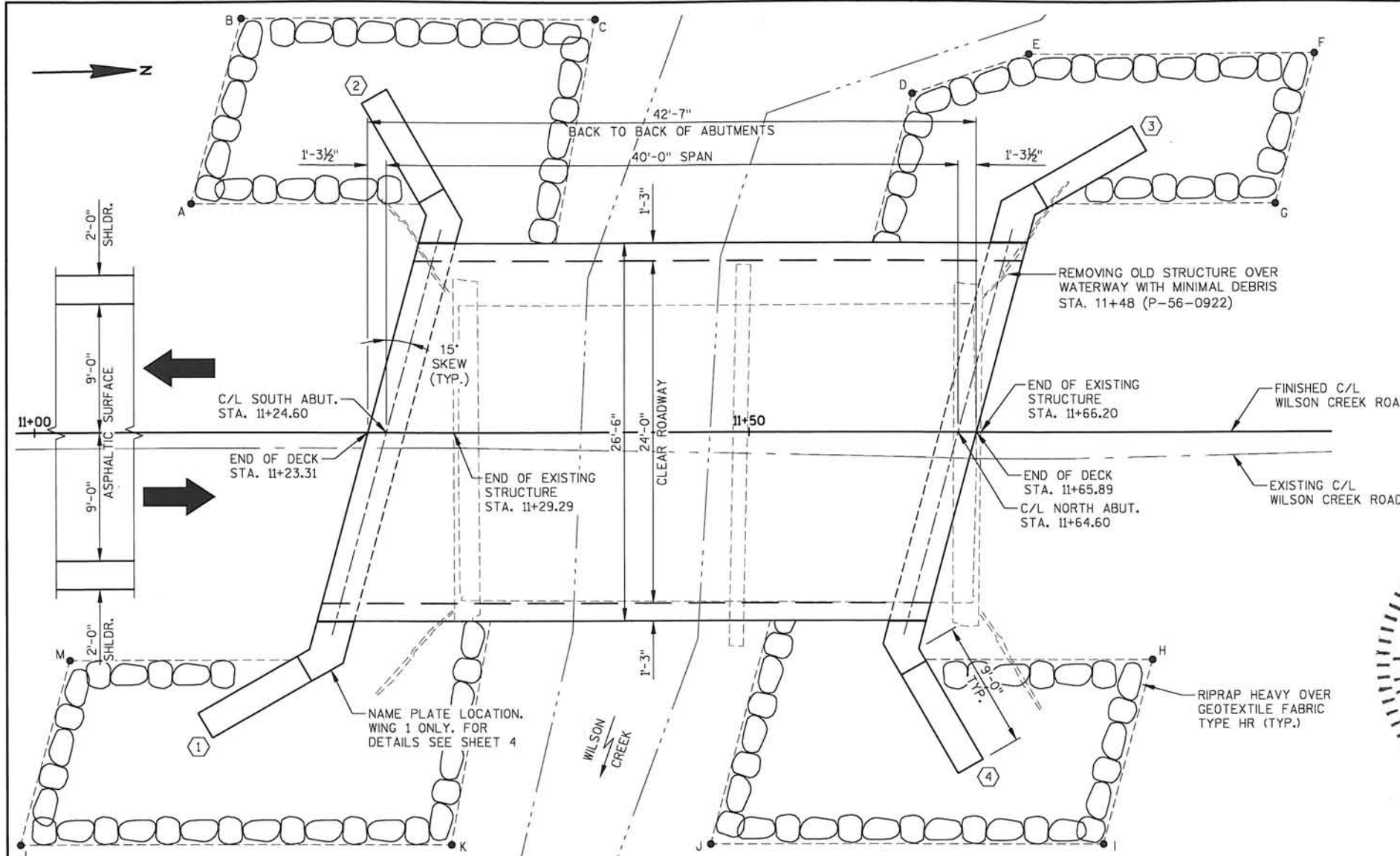


## BENCH MARKS

| NO. | STA.  | DESCRIPTION                         | ELEV.  |
|-----|-------|-------------------------------------|--------|
| 2   | 10+84 | 3/4" IRON REBAR SET, 18.9' LT.      | 757.09 |
| 3   | 16+22 | 3/4" IRON REBAR SET, 16.1' LT.      | 754.71 |
| 101 | 12+20 | STAR SPIKE IN POWER POLE, 31.4' LT. | 754.05 |

## PLAN B-56-0228

(SINGLE-SPAN REINFORCED CONCRETE FLAT SLAB)



WILSON CREEK

RIPRAP HEAVY OVER GEOTEXTILE FABRIC TYPE HR (TYP.)

FINISHED C/L PROFILE WILSON CREEK ROAD

EXISTING GROUND LINE AT FINISHED C/L WILSON CREEK ROAD

TUBULAR RAILING TYPE M (SEE SHEET 7 FOR DETAILS)

EL. 750.48

EL. 751.44

HIGH WATER<sub>100</sub> EL = 755.16

HIGH WATER<sub>2</sub> EL = 752.59

OBSERVED WATER EL. 748.66 (3-7-2013)

EXCAVATE AS INDICATED, TO BE INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES BRIDGES B-56-0228" (TYP.)

## ELEVATION

(NORMAL TO WILSON CREEK)

## LIST OF DRAWINGS

- GENERAL PLAN
- CROSS SECTION AND QUANTITIES
- SUBSURFACE EXPLORATION
- ABUTMENTS
- ABUTMENT DETAILS
- SUPERSTRUCTURE
- TUBULAR RAILING TYPE M

## DESIGN CONSULTANT

PATRICK BOLAND, PE  
 (608) 588-7484

## BRIDGE OFFICE CONTACT

WILLIAM DREHER, PE  
 (608) 266-8489

|   |  |              |              |
|---|--|--------------|--------------|
| NO.   | DATE                                     | REVISION     | BY           |
| <b>JEWELL</b><br>associates engineers, inc.<br>Engineers - Surveyors - Architects           |  |              |              |
| 560 SUNRISE DRIVE<br>SPRING GREEN, WI 53588<br>PHONE: (608) 588-7484<br>FAX: (608) 588-9322 |  |              |              |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION  |  |              |              |
| ACCEPTED <i>William C. Dreher</i> <b>09/16/14</b><br>CHIEF STRUCTURES DESIGN ENGINEER DATE  |  |              |              |
| <b>STRUCTURE B-56-0228</b>  |  |              |              |
| WILSON CREEK ROAD OVER WILSON CREEK   |  |              |              |
| COUNTY  | SAUK                                     | TOWN/VILLAGE | SPRING GREEN |
| DESIGN SPEC.  | AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS |              |              |
| DESIGNED BY   | PTB                                      | DESIGN CK'D  | RBH          |
| DRAWN BY  | PTB                                      | PLANS CK'D   | RBH          |
| GENERAL PLAN  |  |              | SHEET 1 OF 7 |

GENERAL NOTES

BECAUSE OF SUSPECTED ARTESIAN CONDITIONS, DRIVE ALL PILING AT THE SITE TO BEDROCK REGARDLESS OF THE DESIGN CAPACITY.

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE FABRIC TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE. SEE THIS SHEET FOR DETAIL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK AND EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).

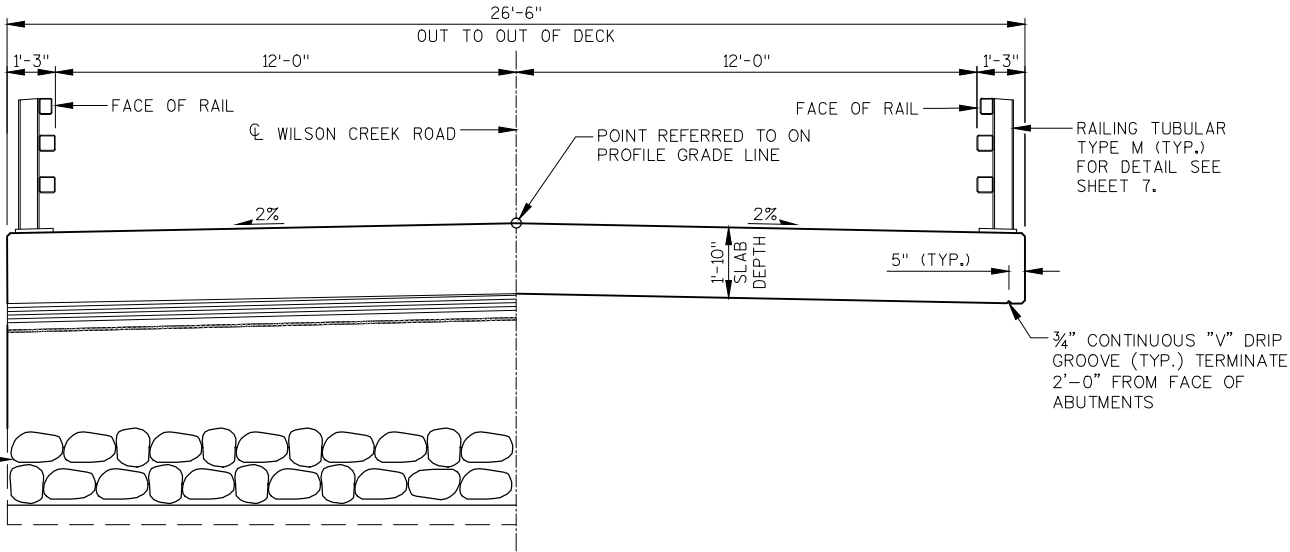
THE EXISTING STRUCTURE (P-56-0922) IS A TWO SPAN STEEL GIRDER, CONCRETE DECK STRUCTURE SUPPORTED ON TIMBER PILING WITH TIMBER BACKING. THE STRUCTURE HAS A 20.1' CLEAR ROADWAY WIDTH AND A 36.6' OVERALL LENGTH AND SHALL BE REMOVED.

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

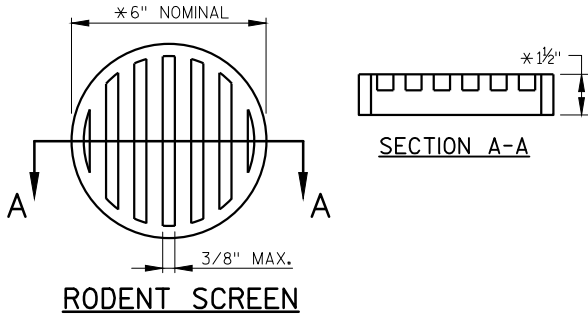
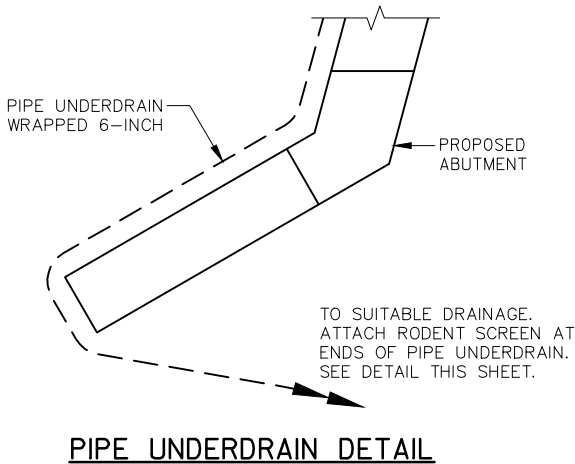


AT ABUTMENT

IN SPAN

PROPOSED CROSS-SECTION THROUGH ROADWAY

(LOOKING NORTH)



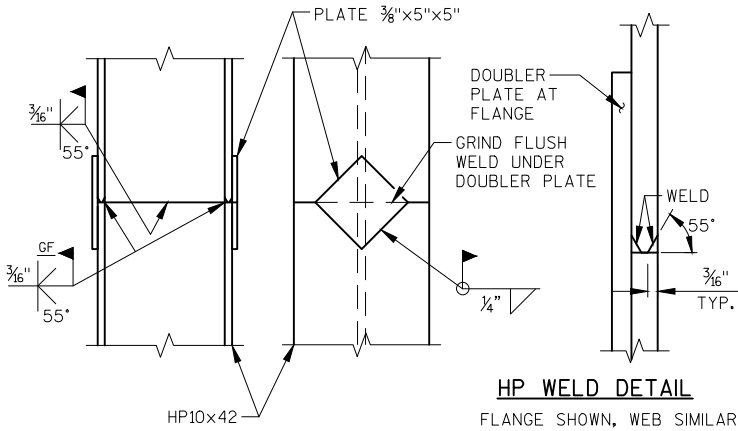
NOTES:

\*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

ORIENT SCREEN SO SLOTS ARE VERTICAL.

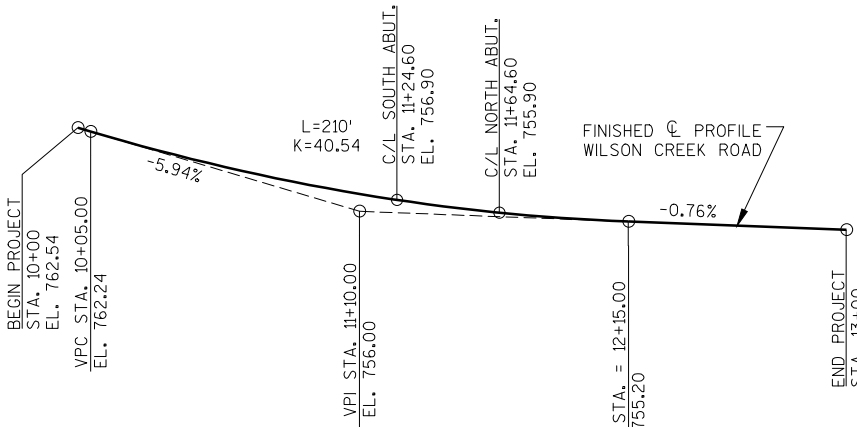
THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.

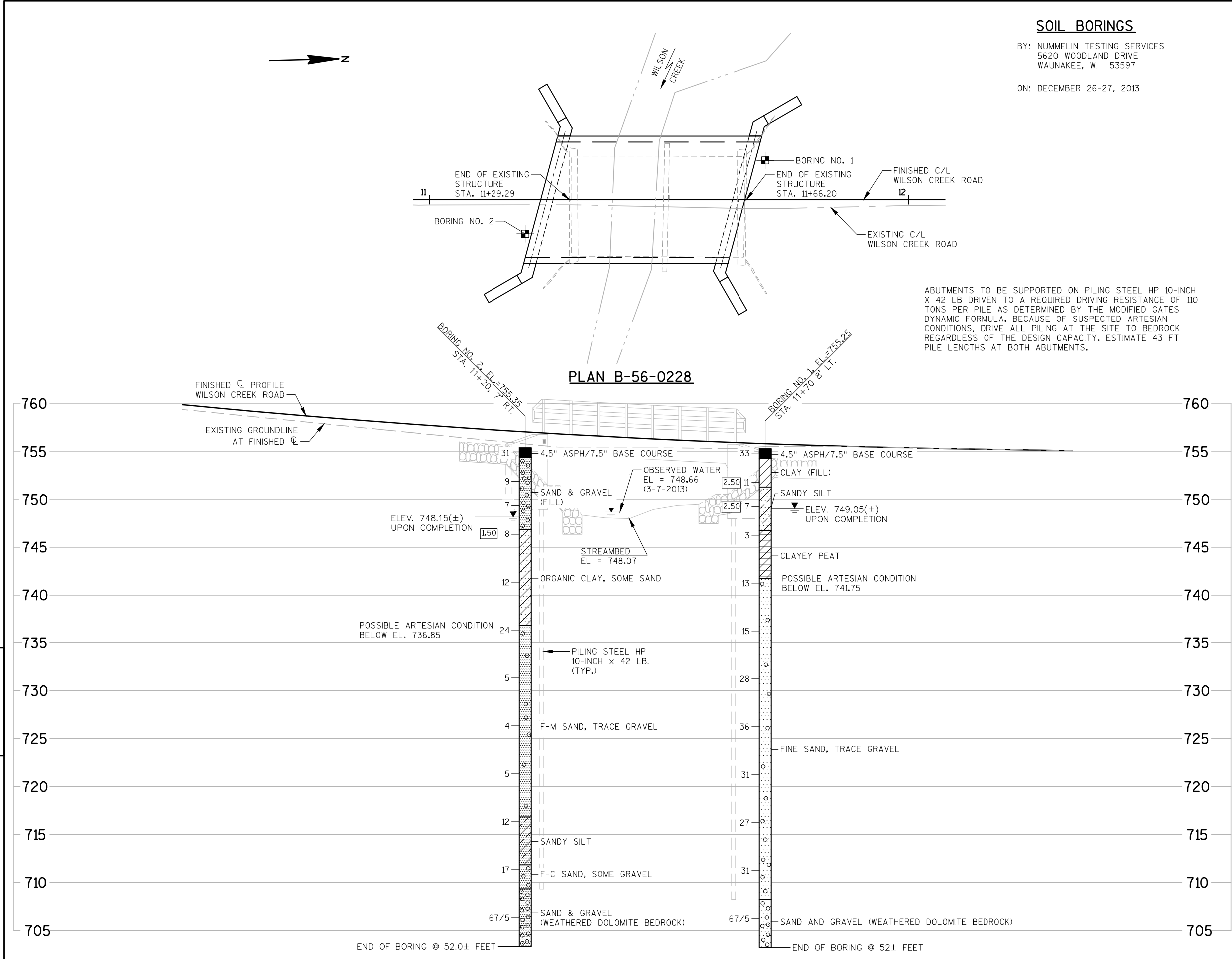


TOTAL ESTIMATED QUANTITIES

| ITEM NUMBER | ITEM DESCRIPTION  | UNIT | S. ABUT. | SUPER  | N. ABUT. | TOTALS      |
|-------------|---|------|----------|--------|----------|-------------|
| 203.0600.S  | REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 11+48 | LS   | --       | --     | --       | 1           |
| 206.1000    | EXCAVATION FOR STRUCTURES BRIDGES B-56-0228                         | LS   | --       | --     | --       | 1           |
| 210.0100    | BACKFILL STRUCTURE  | CY   | 90       | --     | 90       | 180         |
| 502.0100    | CONCRETE MASONRY BRIDGES  | CY   | 26.6     | 80.8   | 26.6     | 134         |
| 502.3200    | PROTECTIVE SURFACE TREATMENT  | SY   | --       | 150    | --       | 150         |
| 505.0405    | BAR STEEL REINFORCEMENT HS BRIDGES                                  | LB   | 2,080    | --     | 2,080    | 4,160       |
| 505.0605    | BAR STEEL REINFORCEMENT HS COATED BRIDGES                           | LB   | 1,355    | 13,920 | 1,355    | 16,630      |
| 513.4060    | RAILING TUBULAR TYPE M B-56-0228                                    | LS   | --       | --     | --       | 1           |
| 516.0500    | RUBBERIZED MEMBRANE WATERPROOFING                                   | SY   | 6        | --     | 6        | 12          |
| 550.1100    | PILING STEEL HP 10-INCH X 42 LB                                     | LF   | 300      | --     | 300      | 600         |
| 606.0300    | RIPRAP HEAVY  | CY   | 90       | --     | 90       | 180         |
| 612.0406    | PIPE UNDERDRAIN WRAPPED 6-INCH                                      | LF   | 75       | --     | 75       | 150         |
| 645.0120    | GEOTEXTILE FABRIC TYPE HR   | SY   | 165      | --     | 155      | 320         |
|             |   |      |          |        |          |             |
|             |   |      |          |        |          |             |
|             | NON-BID ITEMS   |      |          |        |          |             |
|             |   |      |          |        |          |             |
|             | FILLER  | SIZE | --       | --     | --       | 1/2" & 3/4" |
|             |   |      |          |        |          |             |
|             |   |      |          |        |          |             |

| NO.  | DATE | REVISION | BY             |
|--|------|----------|----------------|
|  |      |          |                |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |          |                |
| STRUCTURE B-56-0228                                |      |          |                |
| DRAWN BY   |      | PTB      | PLANS CKD. RBH |
| CROSS SECTION AND QUANTITIES                       |      |          | SHEET 2 OF 7   |





|  |  |              |  |
|--|--|--------------|--|
| STATE PROJECT NUMBER   |  |              |  |
| 5916-00-73   |  |              |  |
| ABBREVIATIONS  |  |              |  |
| F—Fine M—Medium C—Course<br>Ws—Weathered So—Sound  |  |              |  |
| MATERIAL SYMBOLS   |  |              |  |
| Asphalt Silt Sandstone<br>Sand Peat Limestone<br>Gravel Clay Igneous Rock  |  |              |  |
| LEGEND OF PROBING  |  |              |  |
| PROBING No.; Elevation<br>Station<br>95/6 = 96 Blows for<br>6" Penetration.<br>Probing Taken with<br>a 350* Weight<br>Falling 18" on a 2"<br>O.D. Point.<br>7 Average Blows Per Foot<br>Refusal 95/6   |  |              |  |
| LEGEND OF BORING   |  |              |  |
| Boring No.; Elevation<br>Station<br>Unconfined Strength → 7.7 8 *<br>Blows Per Ft. Using 140# Wt. Falling 30"<br>Wash Sample<br>Shelby Tube — S.T.<br>No Ground Water Observed Above This Elevation<br>Ground Water Elevation<br>Sandy Gravel<br>Boulders or Cobbles<br>F. Sand<br>Silty Clay<br>So. Limestone   |  |              |  |
| UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.   |  |              |  |
| SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION   |  |              |  |
| TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE. |  |              |  |
| NO. DATE REVISION BY   |  |              |  |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION   |  |              |  |
| STRUCTURE B-56-0228  |  |              |  |
| DRAWN BY RBH PLANS CK'D. PTB   |  |              |  |
| SUBSURFACE EXPLORATION   |  | SHEET 3 OF 7 |  |

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

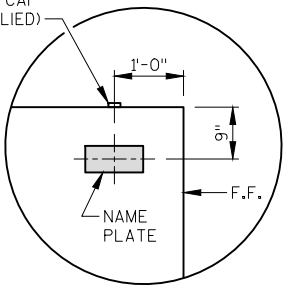
DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

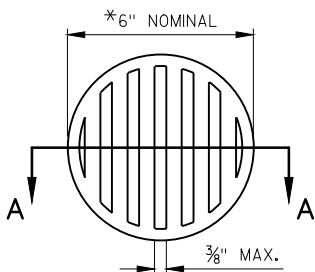
F.F. — FRONT FACE

B.F. — BACK FACE

BENCHMARK CAP  
(WHEN SUPPLIED)



NAME PLATE AND  
BENCHMARK CAP DETAIL



RODENT SCREEN

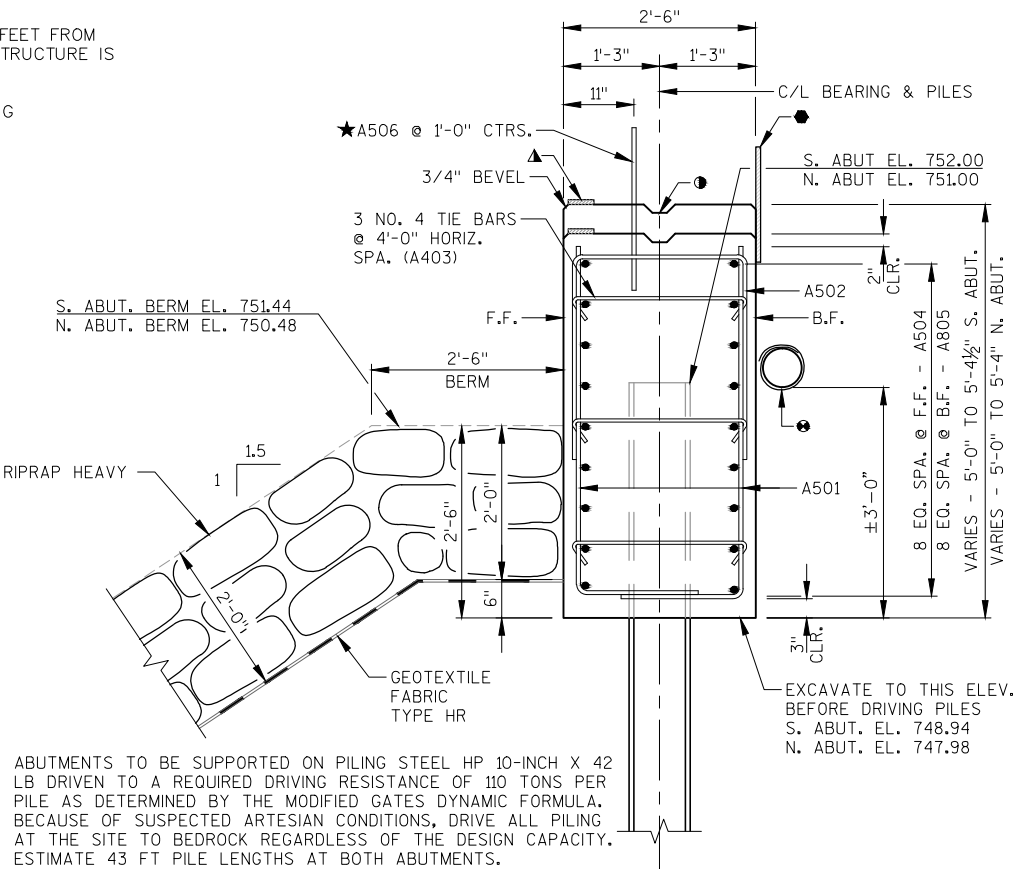
NOTES:

\*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

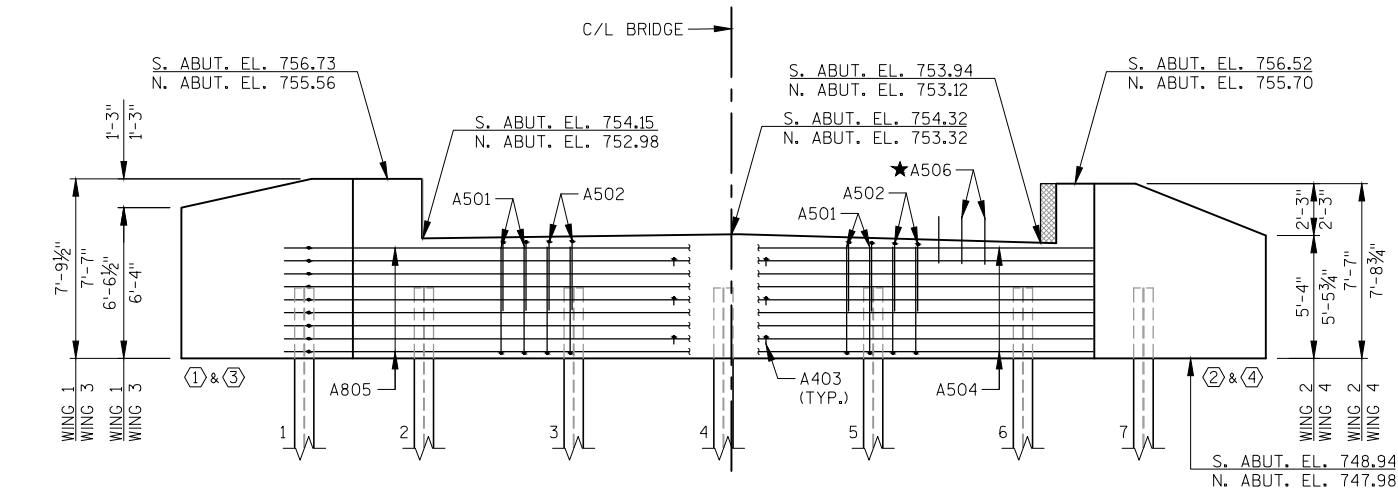


TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

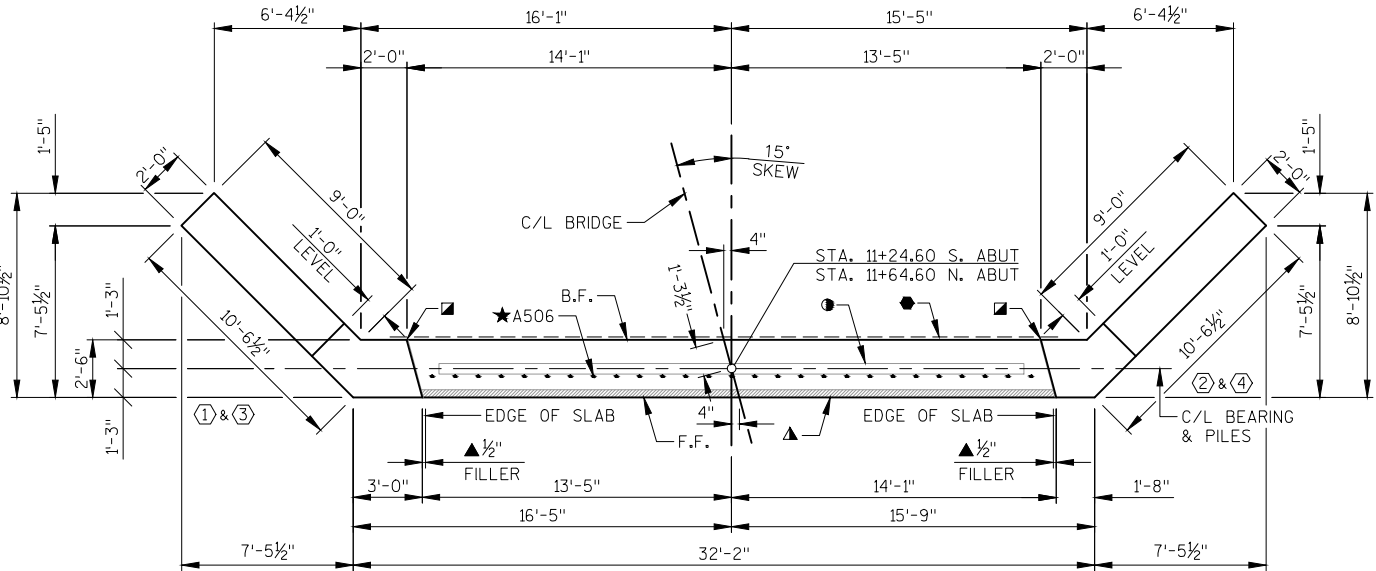
- KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)
- 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- A506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF SHAFT.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

| NO.  | DATE | REVISION     | BY              |
|--|------|--------------|-----------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |              |                 |
| STRUCTURE B-56-0228                                |      |              |                 |
| DRAWN BY   |      | PTB          | PLANS CK'D. RBH |
| ABUTMENTS  |      | SHEET 4 OF 7 |                 |

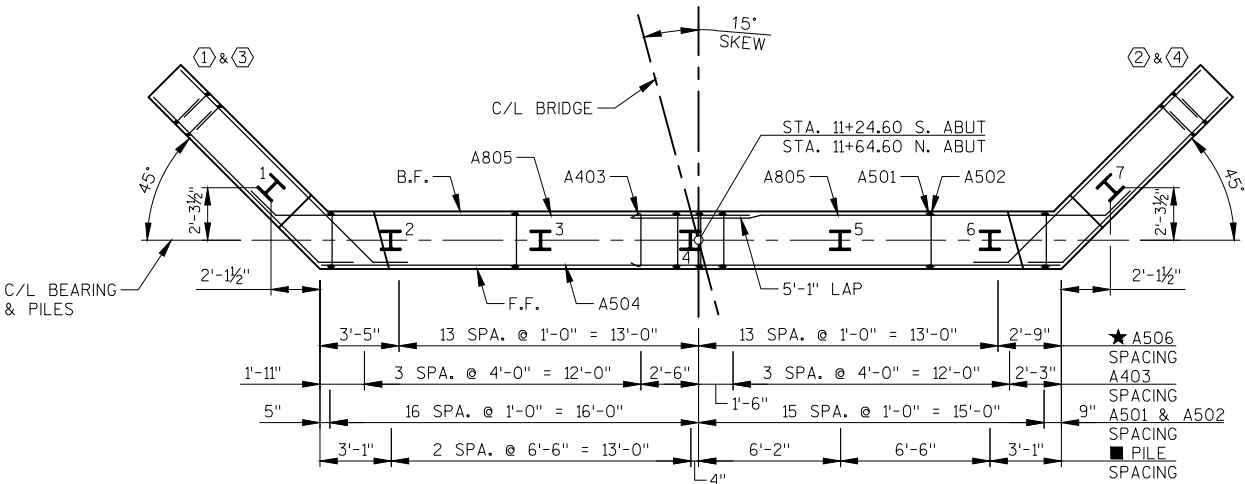


ELEVATION

(SOUTH ABUTMENT LOOKING SOUTH)  
(NORTH ABUTMENT LOOKING NORTH)



PLAN



LAYOUT

## NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY.  
SEE THIS SHEET FOR BILL OF BARS.

**BILL OF BARS**  
**TWO ABUTMENTS SHOWN**

**2,710 LB (COATED)**  
**4,160 LB (UNCOATED)**

| BAR MARK | NO. REQ'D. | LENGTH | BENT | COAT | BAR SERIES | LOCATION                          |
|----------|------------|--------|------|------|------------|-----------------------------------|
| A501     | 128        | 6-0    | X    |      |            | BODY - VERT. - F.F. & B.F.        |
| A502     | 64         | 8-3    | X    |      |            | BODY - VERT. - TOP                |
| A403     | 48         | 2-8    | X    |      |            | TIE BARS                          |
| A504     | 18         | 32-2   |      |      |            | BODY - HORIZ. - F.F.              |
| A805     | 36         | 22-1   | X    |      |            | BODY - HORIZ. - B.F.              |
| A506     | 54         | 2-0    |      | X    |            | BODY - VERT. - DOWELS             |
| A407     | 44         | 9-0    | X    | X    | *          | WING 1 & 3 - VERT. - F.F. & B.F.  |
| A408     | 22         | 7-2    |      | X    |            | WINGS - VERT.                     |
| A409     | 4          | 3-6    |      | X    |            | WINGS - VERT. - TOP               |
| A510     | 36         | 11-9   | X    | X    |            | WINGS - HORIZ. - F.F.             |
| A811     | 36         | 13-3   | X    | X    |            | WINGS - HORIZ. - B.F.             |
| A412     | 8          | 8-10   |      | X    |            | WING 1 & 3 - HORIZ. - F.F. & B.F. |
| A413     | 4          | 4-9    |      | X    |            | WING 1 & 3 - HORIZ. - F.F. & B.F. |
| A414     | 4          | 8-11   | X    | X    |            | WING 1 & 3 - HORIZ. - F.F. & B.F. |
| A415     | 8          | 10-2   | X    | X    |            | WING 1 & 3 - HORIZ. - TOP         |
| A416     | 44         | 8-6    | X    | X    | *          | WING 2 & 4 - VERT. - F.F. & B.F.  |
| A417     | 4          | 7-8    |      | X    |            | WING 2 & 4 - HORIZ. - F.F. & B.F. |
| A418     | 4          | 5-0    |      | X    |            | WING 2 & 4 - HORIZ. - F.F. & B.F. |
| A419     | 4          | 2-4    |      | X    |            | WING 2 & 4 - HORIZ. - F.F. & B.F. |
| A420     | 4          | 9-2    | X    | X    |            | WING 2 & 4 - HORIZ. - F.F. & B.F. |
| A421     | 8          | 8-10   | X    | X    |            | WING 2 & 4 - HORIZ. - TOP         |

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

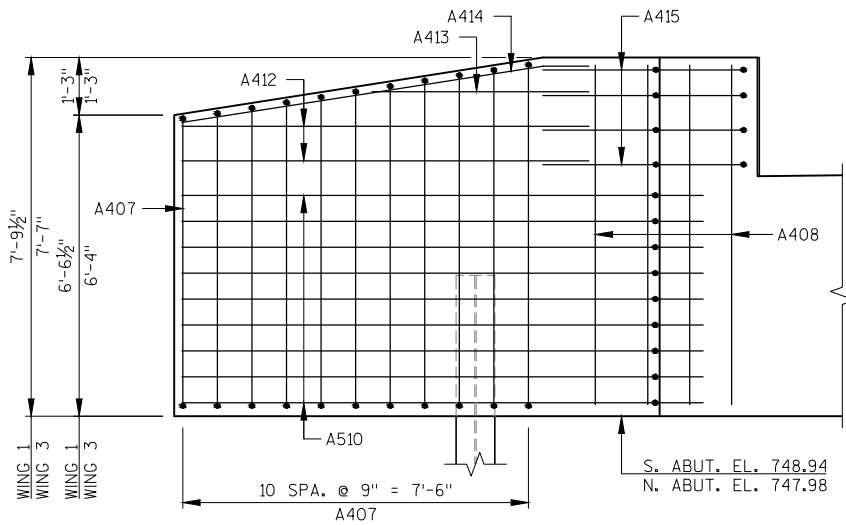
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

\* LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

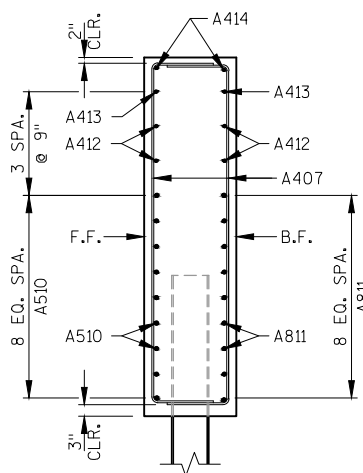
## BAR SERIES TABLE

| BAR MARK | NO. REQ'D.     | LENGTH     |
|----------|----------------|------------|
| A407     | 4 SERIES OF 11 | 9-7 TO 8-5 |
| A416     | 4 SERIES OF 11 | 9-7 TO 7-5 |

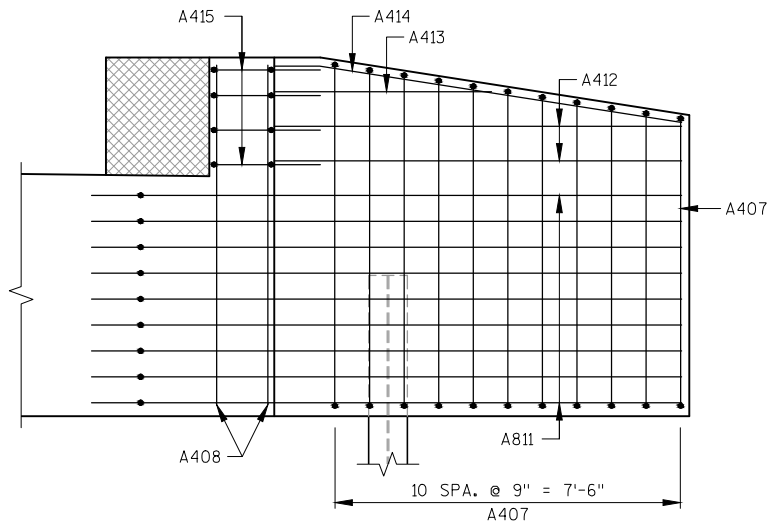
BUNDLE AND TAG EACH SERIES SEPARATELY.



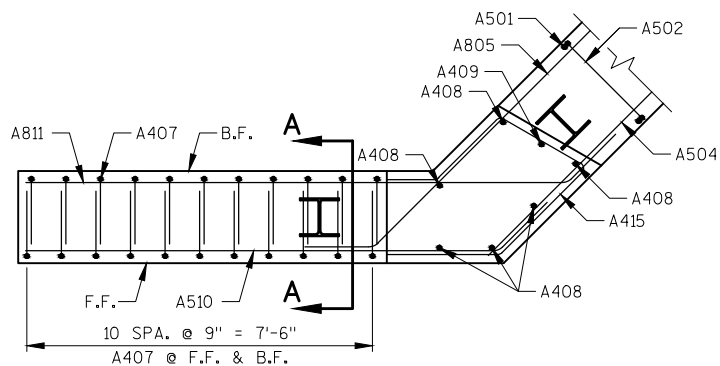
F.F. ELEVATION - WING 1 &amp; 3



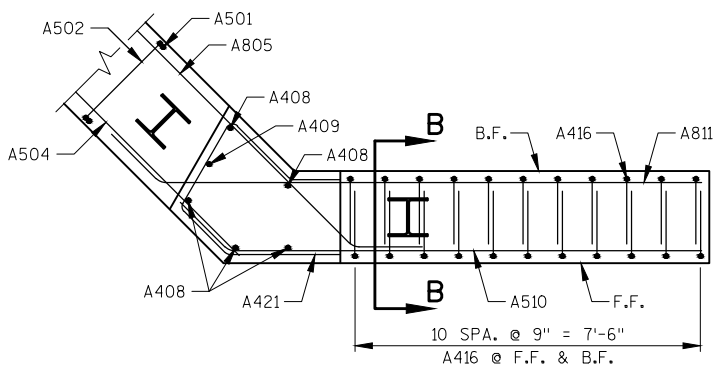
SECTION A-A



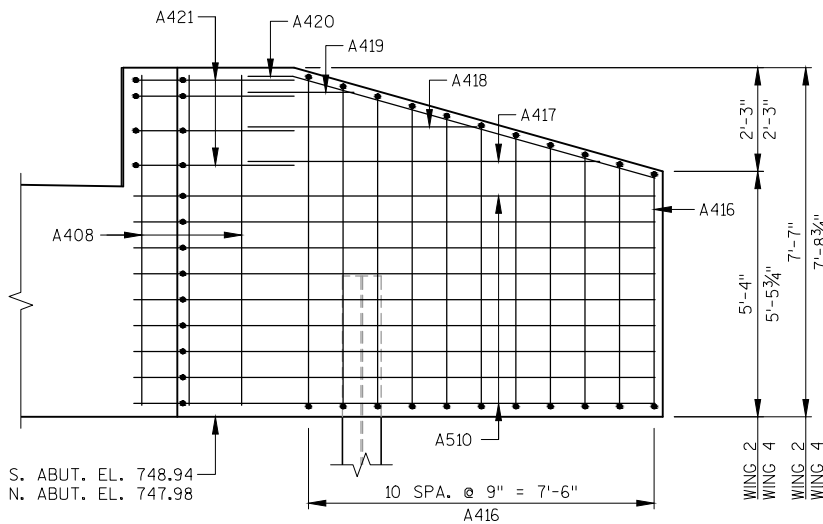
B.F. ELEVATION - WING 1 &amp; 3



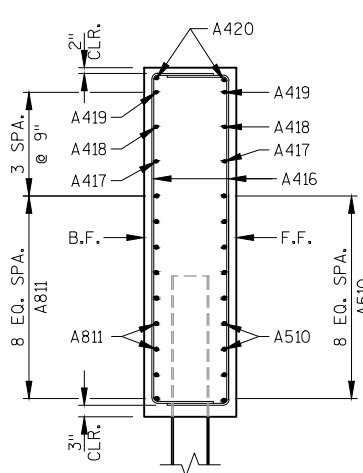
PLAN VIEW - WING 1 &amp; 3



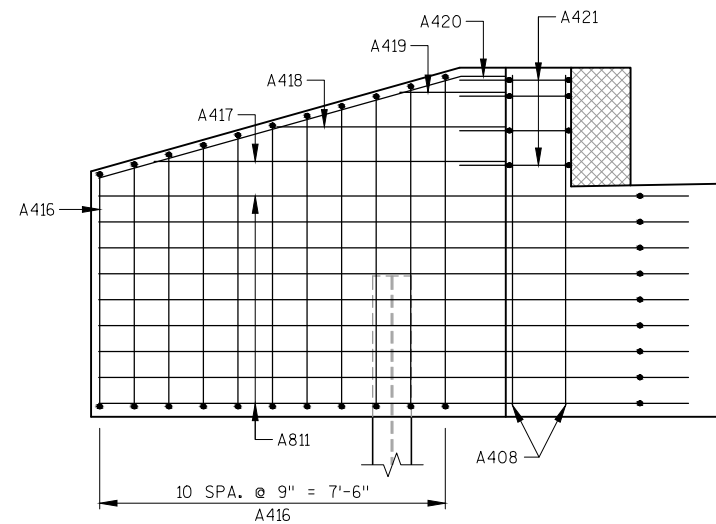
PLAN VIEW - WING 2 &amp; 4



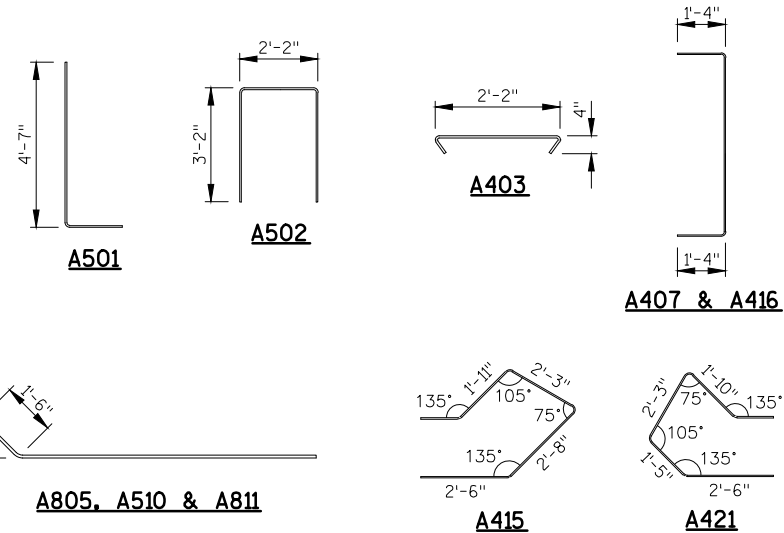
F.F. ELEVATION - WING 2 &amp; 4



SECTION B-B



B.F. ELEVATION - WING 2 &amp; 4



| MARK | 'A'     |
|------|---------|
| A414 | 171'07' |
| A420 | 164'17' |

A414 &amp; A420

| NO.  | DATE | REVISION | BY             |
|--|------|----------|----------------|
|  |      |          |                |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |          |                |
| STRUCTURE B-56-0228                                |      |          |                |
| DRAWN BY   |      | PTB      | PLANS CKD. RBH |
| ABUTMENT DETAILS                                   |      |          | SHEET 5 OF 7   |

NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

LEGEND

- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- \* DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- \*\* SEE SHEET 4 FOR PLACEMENT OF A506 BARS.

BILL OF BARS  
SUPERSTRUCTURE

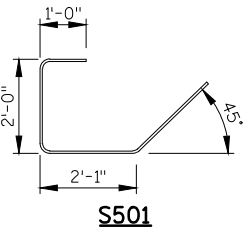
13,920 LB (COATED)

| BAR MARK | NO. REQ'D. | LENGTH | BENT | COAT | LOCATION                        |
|----------|------------|--------|------|------|---------------------------------|
| S501     | 54         | 7'-0"  | X    | X    | END OF DECK                     |
| S502     | 21         | 42'-3" |      | X    | SLAB - TOP - LONGIT.            |
| S503     | 49         | 27'-1" |      | X    | SLAB - TOP - TRANS.             |
| S504     | 49         | 27'-1" |      | X    | SLAB - BOTTOM - TRANS.          |
| S1005    | 52         | 37'-2" |      | X    | SLAB - BOTTOM - LONGIT.         |
| S1006    | 2          | 42'-3" |      | X    | SLAB - BOTTOM - LONGIT. - EDGES |
| S607     | 48         | 6'-0"  |      | X    | RAIL POSTS - INTERIOR           |
| S608     | 16         | 6'-0"  | X    | X    | RAIL POSTS - ENDS               |
| S609     | 28         | 12'-0" | X    | X    | RAIL POSTS - INTERIOR           |
| S610     | 4          | 12'-0" | X    | X    | RAIL POSTS - CORNERS            |

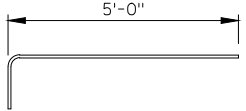
NOTES: THE FIRST DIGIT OF A THREE DIGIT BAR MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

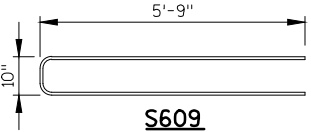
SOME BARS HAVE BEEN OMITTED FOR CLARITY.



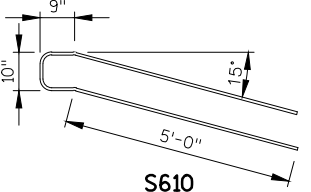
S501



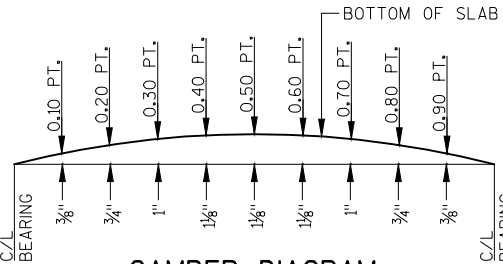
S608



S609

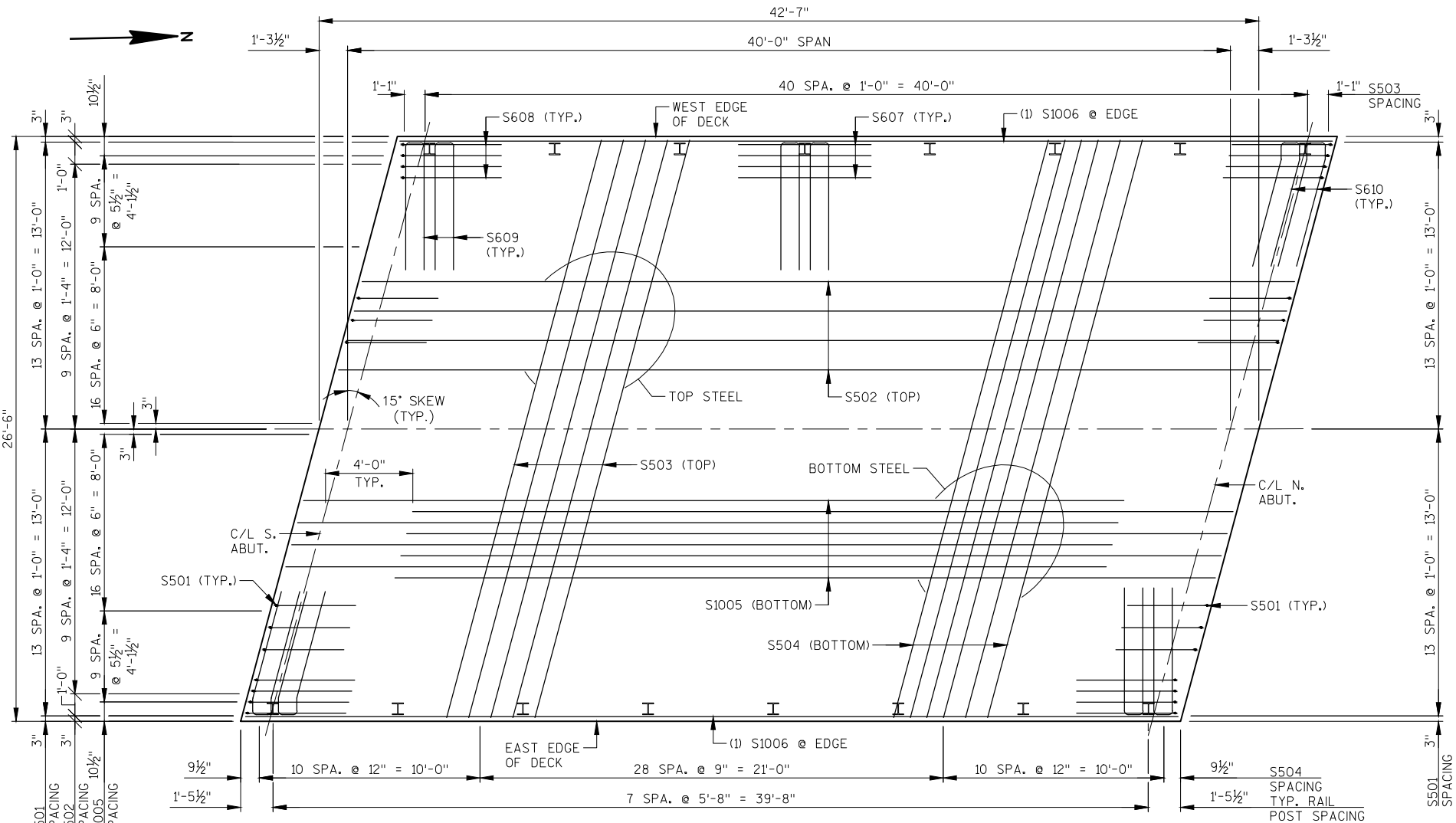


S610



CAMBER DIAGRAM

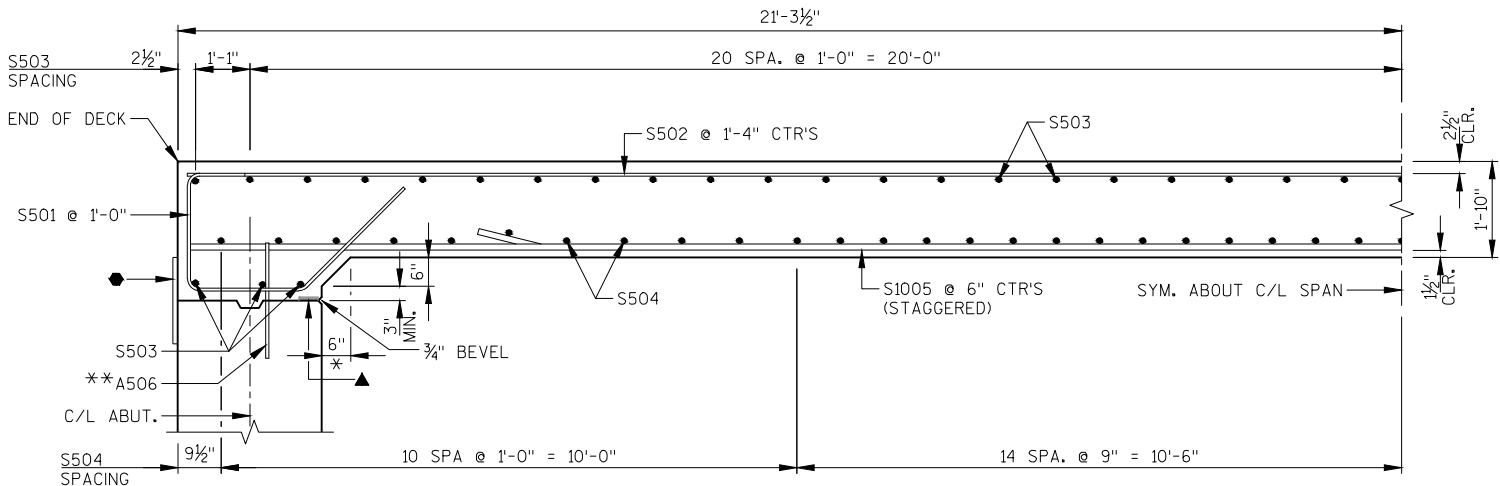
CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.



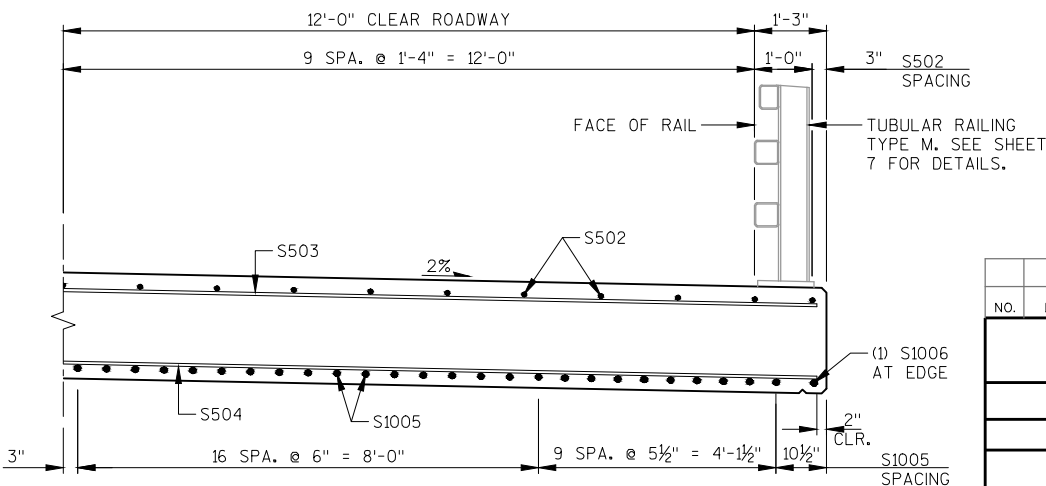
PLAN

TOP OF DECK ELEVATIONS

|         | C/L S. ABUT. | 0.10 PNT. | 0.20 PNT. | 0.30 PNT. | 0.40 PNT. | 0.50 PNT. | 0.60 PNT. | 0.70 PNT. | 0.80 PNT. | 0.90 PNT. | C/L N. ABUT. |
|---------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|
| W. EDGE | 756.52       | 756.41    | 756.30    | 756.19    | 756.09    | 755.99    | 755.90    | 755.81    | 755.72    | 755.64    | 755.56       |
| C/L     | 756.90       | 756.78    | 756.66    | 756.55    | 756.45    | 756.35    | 756.25    | 756.16    | 756.07    | 755.98    | 755.90       |
| E. EDGE | 756.73       | 756.61    | 756.50    | 756.38    | 756.27    | 756.17    | 756.07    | 755.97    | 755.88    | 755.79    | 755.70       |



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY



PARTIAL CROSS SECTION THROUGH ROADWAY

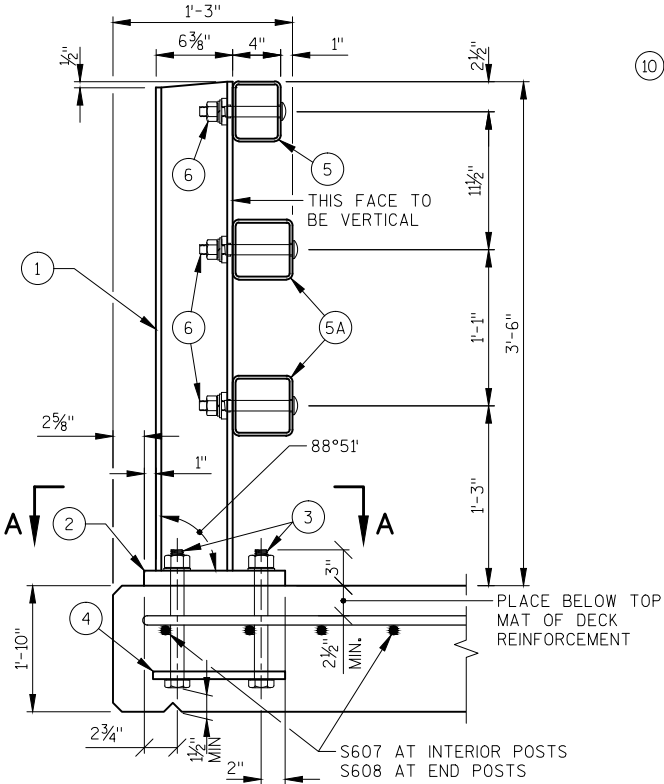
| NO.  | DATE | REVISION | BY           |
|--|------|----------|--------------|
|  |      |          |              |
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |          |              |
| STRUCTURE B-56-0228                                |      |          |              |
| DRAWN BY   |      | PTB      | RBH          |
| PLANS CKD.   |      |          |              |
| SUPERSTRUCTURE                                     |      |          | SHEET 6 OF 7 |

LEGEND

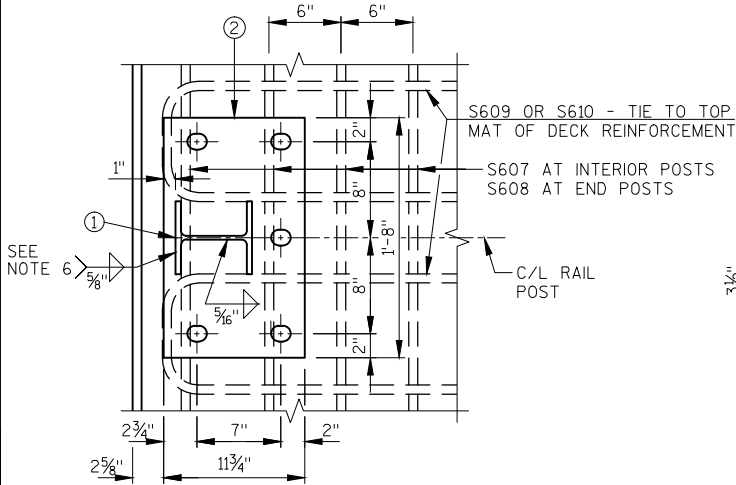
- ① W6x25 WITH 1½" x 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1¼"x11¾"x1'-8" WITH 1½"x1½" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - 1½" 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. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS.
- ④ ¾"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1½" DIA. HOLES FOR ANCHOR BOLTS NO. 3
- ⑤ TSS 5x4x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TSS 5x5x¼ STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ ¾" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, ¾"x1½"x1½" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
- ⑦ ½" THK. BACK-UP PLATE WITH 2 - 7/8"x1½" 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.
- ⑧ 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ¾" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- ⑨ SPLICE SLEEVE FABRICATED FROM ¾" PLATE. PROVIDE "SLIDING FIT".
- ⑩ ¾"x3¾"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A ¾"x2¾"x2'-4" PLATE USED IN NO. 5, ¾"x3¾"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ ¾" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1½"x1½" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 1½"x2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.
- ⑫ ¾" DIA. BY 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
- ⑬ ¾"x8"x1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- ⑭ ¾" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- ⑮ 1" DIA. HOLES IN TUBES NO. 5A FOR ¾" A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

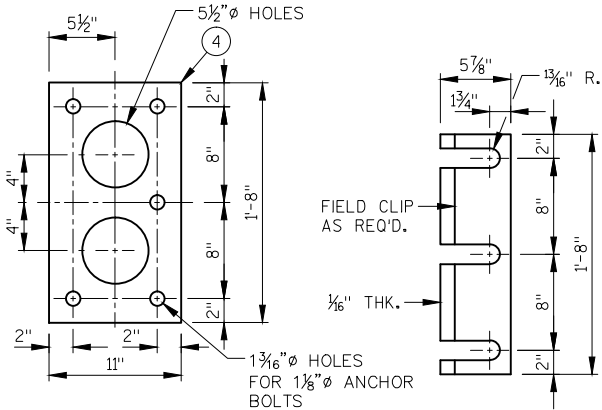
1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-56-0228" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ¼ TURN.
4. 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.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. 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.
8. 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.
9. 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 S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).



SECTION THROUGH RAILING ON DECK

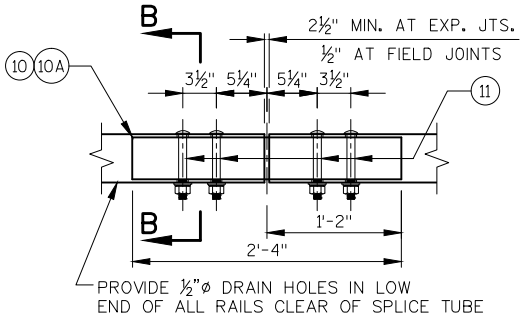


SECTION A-A

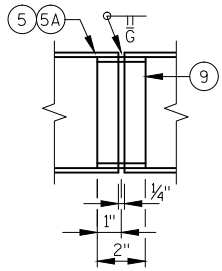


ANCHOR PLATE  
AT RAIL TO DECK CONNECTION

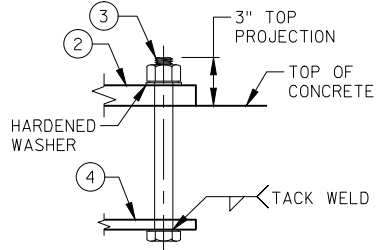
POST SHIM  
DETAIL



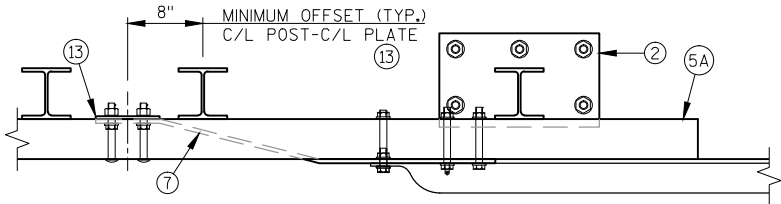
FIELD ERECTION JOINT DETAIL



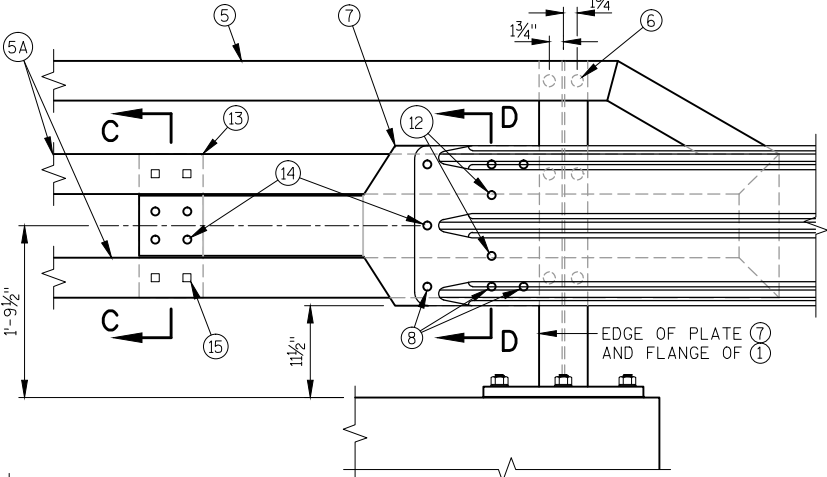
SHOP RAIL  
SPLICE DETAIL  
(LOCATION MUST BE  
SHOWN ON SHOP DRAWINGS)



ANCHOR BOLTS

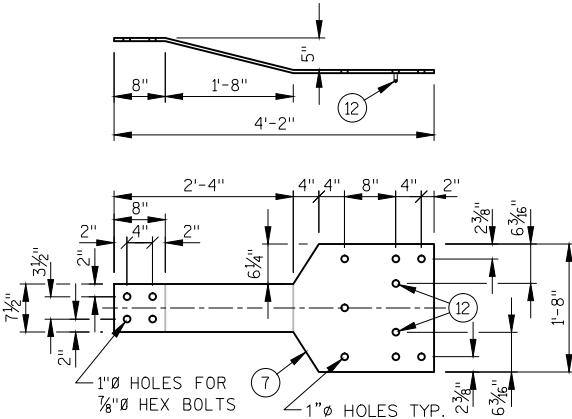


TOP VIEW AT END POST  
(THRIE BEAM RAIL ATTACHMENT)

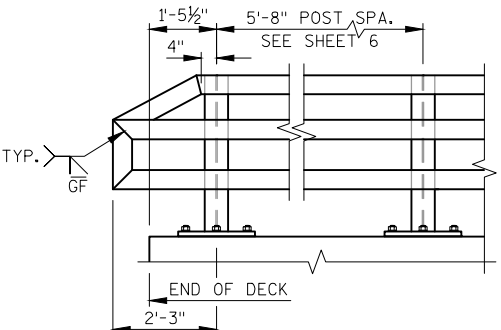


DETAIL AT END POST  
(THRIE BEAM RAIL ATTACHMENT)

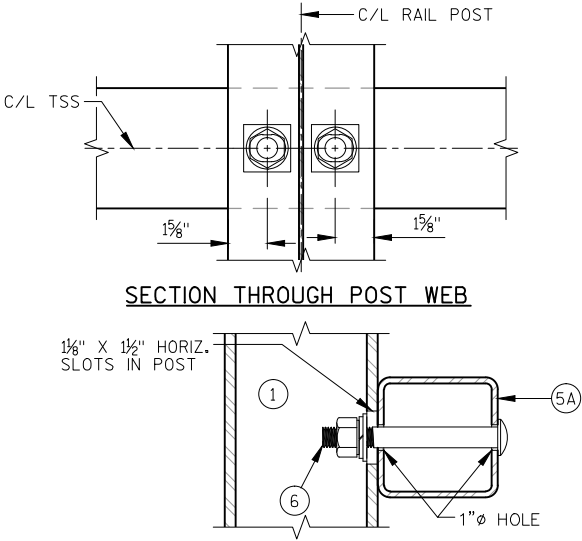
ANCHOR PLATE  
AT BEAM GUARD ATTACHMENT



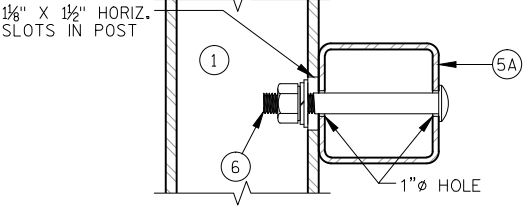
BACK-UP PLATE DETAIL  
AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING



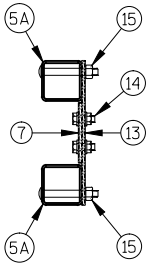
SECTION THROUGH POST WEB



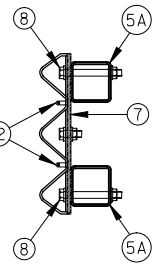
SECTION THROUGH RAIL

NOTE: CONNECTIONS AT LOWER RAILS SHOWN.  
CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



SECTION C-C



SECTION D-D

| NO.  | DATE | REVISION | BY              |
|--|------|----------|-----------------|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION |      |          |                 |
| STRUCTURE B-56-0228                                |      |          |                 |
| DRAWN BY   |      | PTB      | PLANS CK'D. RBH |
| TUBULAR RAILING<br>TYPE M                          |      |          | SHEET 7 OF 7    |

EARTHWORK-BYPASS CONSTRUCTION

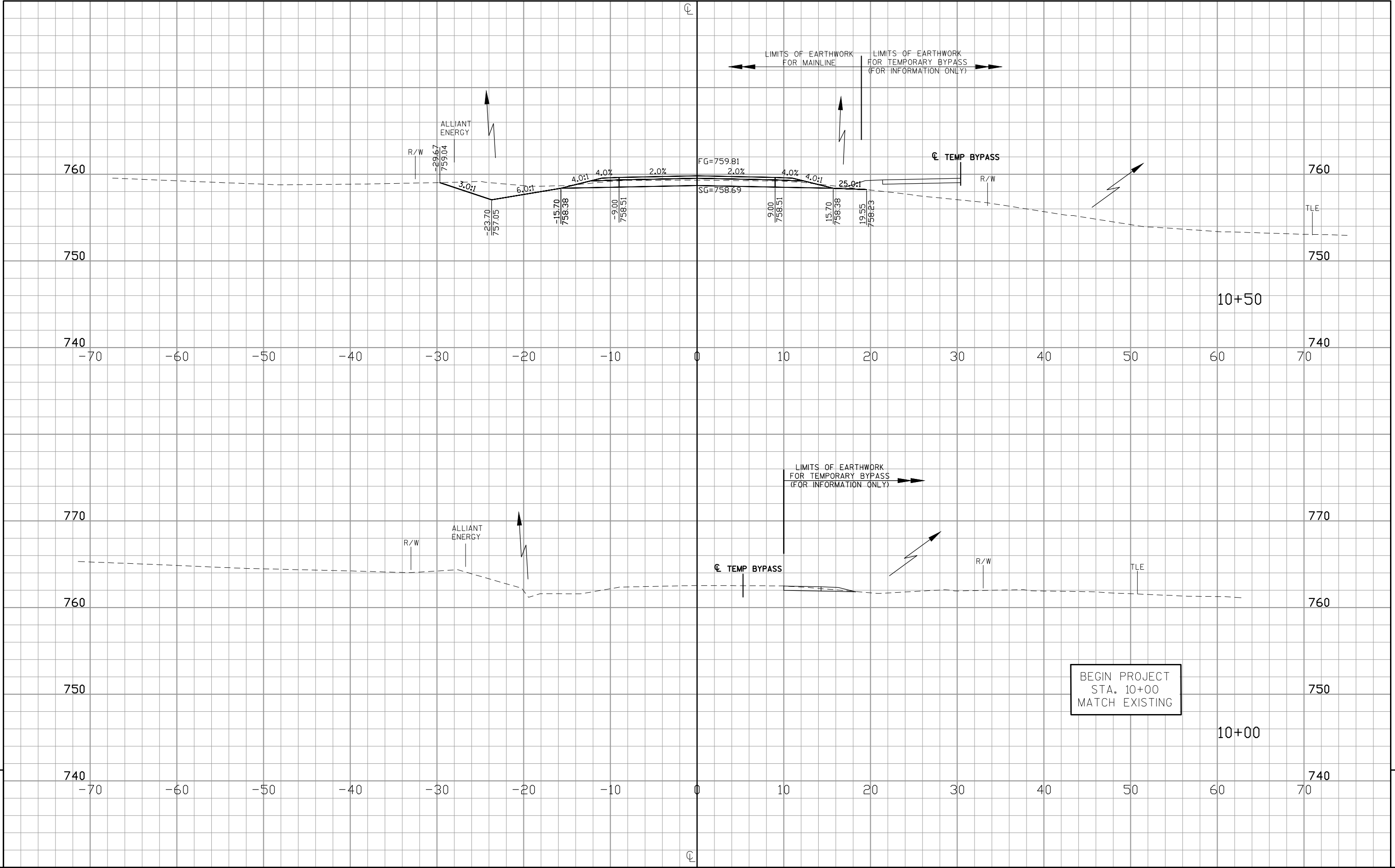
| STATION         | AREA (SF)             |                |       |          |     | INCREMENTAL VOL (CY)  |                |      |          |                          |       |                            |     | CUMMULATIVE VOLUME (CY)  |      |             |               |                            |       |      |          |
|-----------------|-----------------------|----------------|-------|----------|-----|-----------------------|----------------|------|----------|--------------------------|-------|----------------------------|-----|--------------------------|------|-------------|---------------|----------------------------|-------|------|----------|
|                 | SALVAGED/<br>UNUSABLE |                |       |          |     | SALVAGED/<br>UNUSABLE |                |      |          | REDUCED<br>MARSH IN FILL | FILL  | SELECT CRUSHED<br>MATERIAL |     | REDUCED<br>MARSH IN FILL |      |             | FILL<br>(25%) | SELECT CRUSHED<br>MATERIAL |       | MASS |          |
|                 | CUT                   | PAV'T MATERIAL | FILL  | MARSH EX | EBS | CUT                   | PAV'T MATERIAL | FILL | MARSH EX | (0.6)                    | (25%) | (1.5)                      | EBS | CUT<br>1.00              | FILL | MARSH<br>EX | (0.6)         | (25%)                      | (1.5) | EBS  | ORDINATE |
| 20+00           | 0                     | 0              | 0.0   | 0        | 0   | 0                     | 0              | 0    | 0        | 0                        | 0     | 0                          | 0   | 0                        | 0    | 0           | 0             | 0                          | 0     | 0    | 0        |
| 20+50           | 17.8                  | 0              | 0.0   | 0        | 0   | 15                    | 0              | 0    | 0        | 0                        | 0     | 0                          | 0   | 15                       | 0    | 0           | 0             | 0                          | 0     | 0    | 15       |
| 21+00           | 0                     | 0              | 84.5  | 0        | 0   | 15                    | 0              | 78   | 0        | 0                        | 98    | 0                          | 0   | 30                       | 78   | 0           | 0             | 98                         | 0     | 0    | -68      |
| 21+50           | 0                     | 0              | 220.0 | 0        | 0   | 0                     | 0              | 274  | 0        | 0                        | 342   | 0                          | 0   | 30                       | 352  | 0           | 0             | 440                        | 0     | 0    | -410     |
| 21+75           | 0                     | 0              | 220.0 | 0        | 0   | 0                     | 0              | 187  | 0        | 0                        | 232   | 0                          | 0   | 30                       | 539  | 0           | 0             | 672                        | 0     | 0    | -642     |
| 21+75           | 0                     | 0              | 0.0   | 0        | 0   | 0                     | 0              | 0    | 0        | 0                        | 0     | 0                          | 0   | 30                       | 539  | 0           | 0             | 672                        | 0     | 0    | -642     |
| 21+95           | 0                     | 0              | 0.0   | 0        | 0   | 0                     | 0              | 0    | 0        | 0                        | 0     | 0                          | 0   | 30                       | 539  | 0           | 0             | 672                        | 0     | 0    | -642     |
| 21+95           | 0                     | 0              | 184.0 | 0        | 0   | 0                     | 0              | 0    | 0        | 0                        | 0     | 0                          | 0   | 30                       | 539  | 0           | 0             | 672                        | 0     | 0    | -642     |
| 22+00           | 0                     | 0              | 184.0 | 0        | 0   | 0                     | 0              | 34   | 0        | 0                        | 42    | 0                          | 0   | 30                       | 573  | 0           | 0             | 714                        | 0     | 0    | -684     |
| 22+50           | 0                     | 0              | 128.0 | 0        | 0   | 0                     | 0              | 280  | 0        | 0                        | 351   | 0                          | 0   | 30                       | 853  | 0           | 0             | 1065                       | 0     | 0    | -1035    |
| 23+00           | 0                     | 0              | 100.0 | 0        | 0   | 0                     | 0              | 211  | 0        | 0                        | 264   | 0                          | 0   | 30                       | 1064 | 0           | 0             | 1329                       | 0     | 0    | -1299    |
| 23+50           | 0                     | 0              | 36.0  | 0        | 0   | 0                     | 0              | 126  | 0        | 0                        | 157   | 0                          | 0   | 30                       | 1190 | 0           | 0             | 1486                       | 0     | 0    | -1456    |
| 24+00           | 0                     | 0              | 2.2   | 0        | 0   | 0                     | 0              | 35   | 0        | 0                        | 44    | 0                          | 0   | 30                       | 1225 | 0           | 0             | 1530                       | 0     | 0    | -1500    |
| 24+10           | 0                     | 0              | 0.0   | 0        | 0   | 0                     | 0              | 0    | 0        | 0                        | 0     | 0                          | 0   | 30                       | 1225 | 0           | 0             | 1530                       | 0     | 0    | -1500    |
| COLUMN TOTALS = |                       |                |       |          |     | 30                    | 0              | 1225 | 0        | 0                        | 1530  | 0                          | 0   |                          |      |             |               |                            |       |      |          |

EARTHWORK-MAINLINE

| STATION         | AREA (SF)             |                |      |          |     | INCREMENTAL VOL (CY)  |                |                          |          |      |                            |       |     | CUMMULATIVE VOLUME (CY)  |     |      |                            |       |                  |       |     |
|-----------------|-----------------------|----------------|------|----------|-----|-----------------------|----------------|--------------------------|----------|------|----------------------------|-------|-----|--------------------------|-----|------|----------------------------|-------|------------------|-------|-----|
|                 | SALVAGED/<br>UNUSABLE |                |      |          |     | SALVAGED/<br>UNUSABLE |                | REDUCED<br>MARSH IN FILL |          | FILL | SELECT CRUSHED<br>MATERIAL |       | CUT | REDUCED<br>MARSH IN FILL |     | FILL | SELECT CRUSHED<br>MATERIAL |       | MASS<br>ORDINATE |       |     |
|                 | CUT                   | PAV'T MATERIAL | FILL | MARSH EX | EBS | CUT                   | PAV'T MATERIAL | FILL                     | MARSH EX |      | (0.6)                      | (25%) |     | (1.5)                    | EBS |      | (0.6)                      | (25%) |                  | (1.5) | EBS |
| 10+00           | 30.2                  | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0    | 0                          | 0     | 0   | 0                        | 0   | 0    | 0                          | 0     | 0                |       |     |
| 10+50           | 34.0                  | 0              | 0.0  | 0        | 0   | 59                    | 0              | 4                        | 0        | 0    | 5                          | 0     | 0   | 59                       | 4   | 0    | 5                          | 0     | 54               |       |     |
| 11+00           | 7.9                   | 0              | 4.0  | 0        | 0   | 39                    | 0              | 3                        | 0        | 0    | 4                          | 0     | 0   | 98                       | 7   | 0    | 9                          | 0     | 89               |       |     |
| 11+23           | 7.9                   | 0              | 4.0  | 0        | 0   | 7                     | 0              | 0                        | 0        | 0    | 0                          | 0     | 0   | 105                      | 7   | 0    | 9                          | 0     | 96               |       |     |
| 11+23           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0    | 0                          | 0     | 0   | 105                      | 7   | 0    | 9                          | 0     | 96               |       |     |
| 11+66           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0    | 0                          | 0     | 0   | 105                      | 7   | 0    | 9                          | 0     | 96               |       |     |
| 11+66           | 25.4                  | 0              | 19.3 | 0        | 0   | 0                     | 0              | 0                        | 0        | 0    | 0                          | 0     | 0   | 105                      | 7   | 0    | 9                          | 0     | 96               |       |     |
| 12+00           | 25.4                  | 0              | 19.3 | 0        | 0   | 32                    | 0              | 24                       | 0        | 0    | 30                         | 0     | 0   | 137                      | 31  | 0    | 39                         | 0     | 98               |       |     |
| 12+50           | 25.0                  | 0              | 6.0  | 0        | 0   | 47                    | 0              | 23                       | 0        | 0    | 29                         | 0     | 0   | 184                      | 54  | 0    | 68                         | 0     | 116              |       |     |
| 13+00           | 30.2                  | 0              | 0.0  | 0        | 0   | 51                    | 0              | 6                        | 0        | 0    | 7                          | 0     | 0   | 235                      | 60  | 0    | 75                         | 0     | 160              |       |     |
| COLUMN TOTALS = |                       |                |      |          |     | 235                   | 0              | 60                       | 0        | 0    | 75                         | 0     | 0   |                          |     |      |                            |       |                  |       |     |

EARTHWORK-BYPASS REMOVAL

| STATION         | AREA (SF)             |                |      |          |     | INCREMENTAL VOL (CY)  |                |                          |          |                            |       |             |      | CUMMULATIVE VOLUME (CY) |                                   |               |                                     |     |                  |       |
|-----------------|-----------------------|----------------|------|----------|-----|-----------------------|----------------|--------------------------|----------|----------------------------|-------|-------------|------|-------------------------|-----------------------------------|---------------|-------------------------------------|-----|------------------|-------|
|                 | SALVAGED/<br>UNUSABLE |                |      |          |     | SALVAGED/<br>UNUSABLE |                | REDUCED<br>MARSH IN FILL |          | SELECT CRUSHED<br>MATERIAL |       | CUT<br>1.00 | FILL | MARSH<br>EX             | REDUCED<br>MARSH IN FILL<br>(0.6) | FILL<br>(25%) | SELECT CRUSHED<br>MATERIAL<br>(1.5) | EBS | MASS<br>ORDINATE |       |
|                 | CUT                   | PAV'T MATERIAL | FILL | MARSH EX | EBS | CUT                   | PAV'T MATERIAL | FILL                     | MARSH EX | (0.6)                      | (25%) |             |      |                         |                                   |               |                                     |     |                  | (1.5) |
| 20+00           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 0                       | 0                                 | 0             | 0                                   | 0   | 0                |       |
| 20+50           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 0                       | 0                                 | 0             | 0                                   | 0   | 0                |       |
| 21+00           | 95.1                  | 0              | 0.0  | 0        | 0   | 88                    | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 88                      | 0                                 | 0             | 0                                   | 0   | 88               |       |
| 21+50           | 231.1                 | 0              | 0.0  | 0        | 0   | 301                   | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 389                     | 0                                 | 0             | 0                                   | 0   | 389              |       |
| 21+75           | 195.0                 | 0              | 0.0  | 0        | 0   | 197                   | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 586                     | 0                                 | 0             | 0                                   | 0   | 586              |       |
| 21+75           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 586                     | 0                                 | 0             | 0                                   | 0   | 586              |       |
| 21+95           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 586                     | 0                                 | 0             | 0                                   | 0   | 586              |       |
| 21+95           | 195.0                 | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 586                     | 0                                 | 0             | 0                                   | 0   | 586              |       |
| 22+00           | 195.0                 | 0              | 0.0  | 0        | 0   | 36                    | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 622                     | 0                                 | 0             | 0                                   | 0   | 622              |       |
| 22+50           | 139.0                 | 0              | 0.0  | 0        | 0   | 307                   | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 929                     | 0                                 | 0             | 0                                   | 0   | 929              |       |
| 23+00           | 109.0                 | 0              | 0.0  | 0        | 0   | 230                   | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 1159                    | 0                                 | 0             | 0                                   | 0   | 1159             |       |
| 23+50           | 39.0                  | 0              | 0.0  | 0        | 0   | 137                   | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 1296                    | 0                                 | 0             | 0                                   | 0   | 1296             |       |
| 24+00           | 3.0                   | 0              | 0.0  | 0        | 0   | 39                    | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 1335                    | 0                                 | 0             | 0                                   | 0   | 1335             |       |
| 24+10           | 0.0                   | 0              | 0.0  | 0        | 0   | 0                     | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    | 1335                    | 0                                 | 0             | 0                                   | 0   | 1335             |       |
| COLUMN TOTALS = |                       |                |      |          |     | 1335                  | 0              | 0                        | 0        | 0                          | 0     | 0           | 0    |                         |                                   |               |                                     |     |                  |       |



PROJECT NO: 5916-00-73

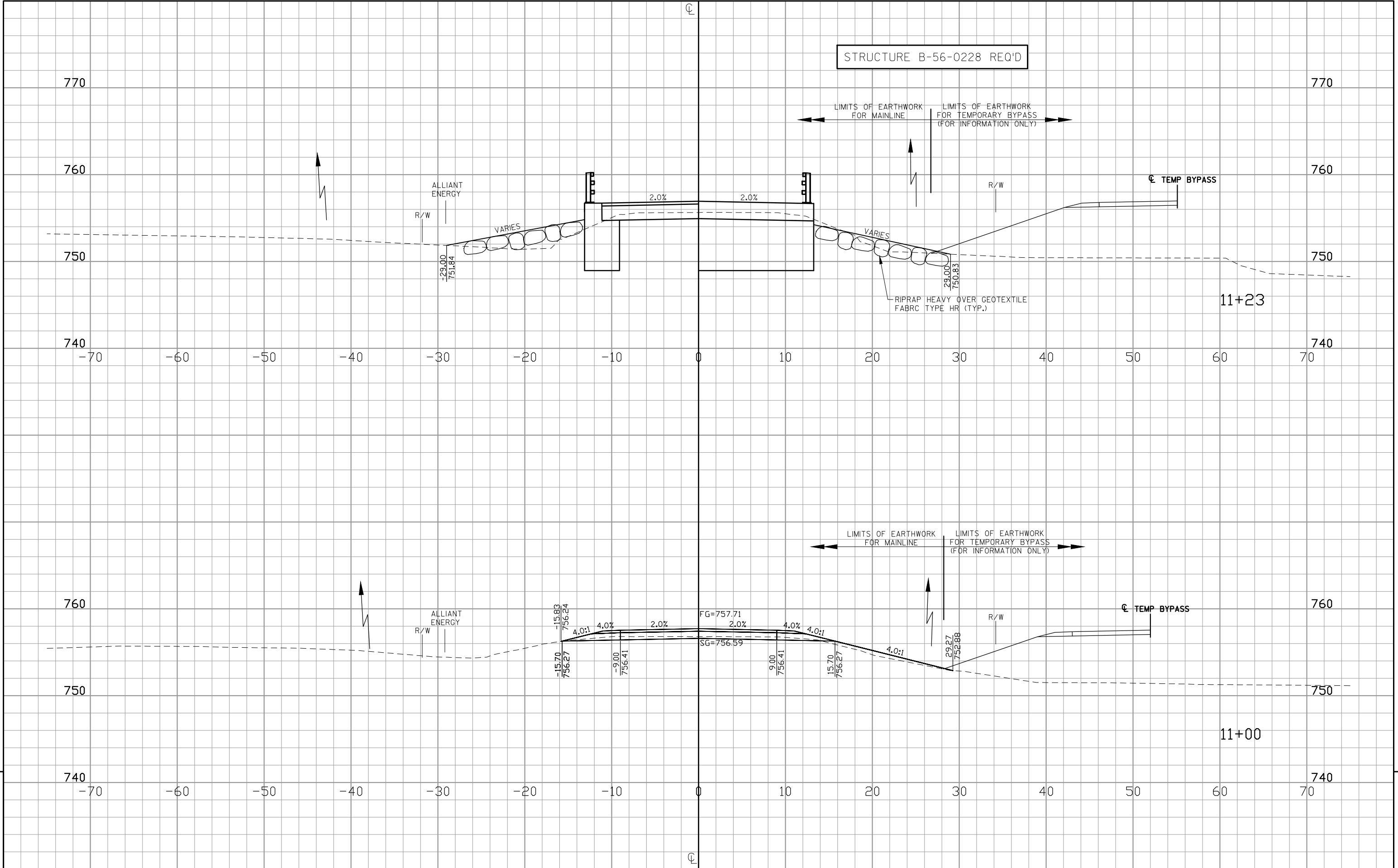
HWY: WILSON CREEK ROAD

COUNTY: SAUK

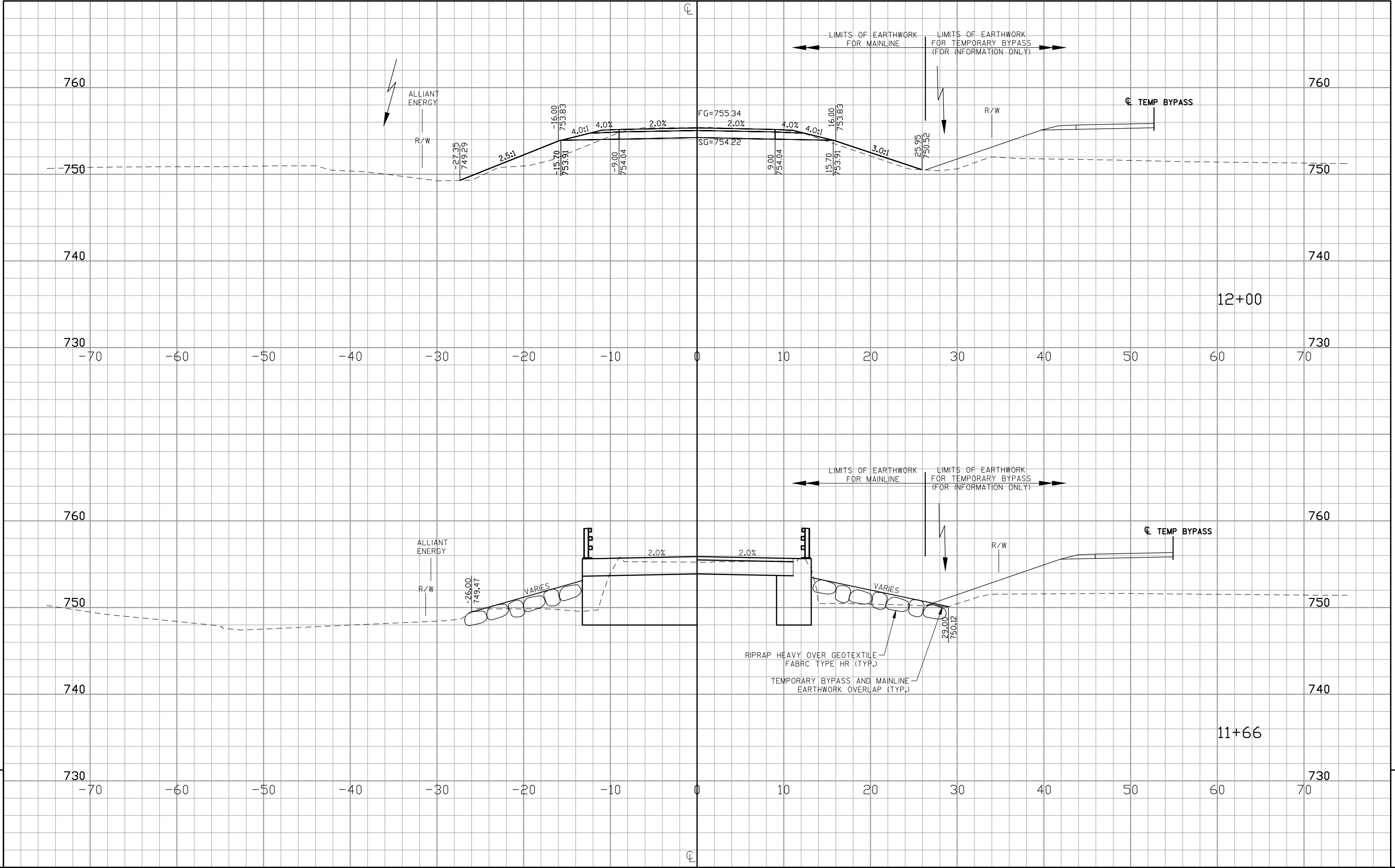
CROSS SECTIONS: MAINLINE

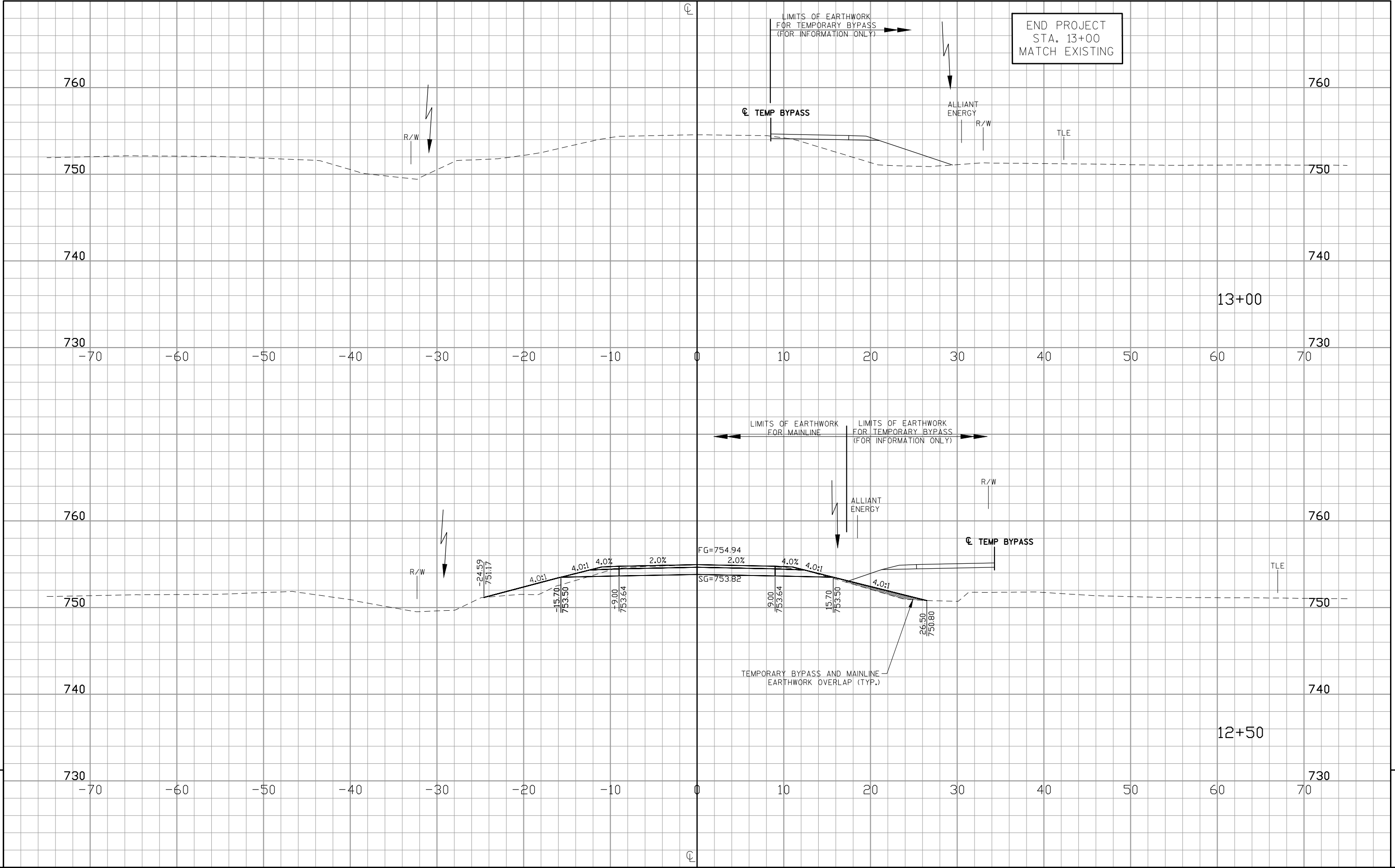
SHEET

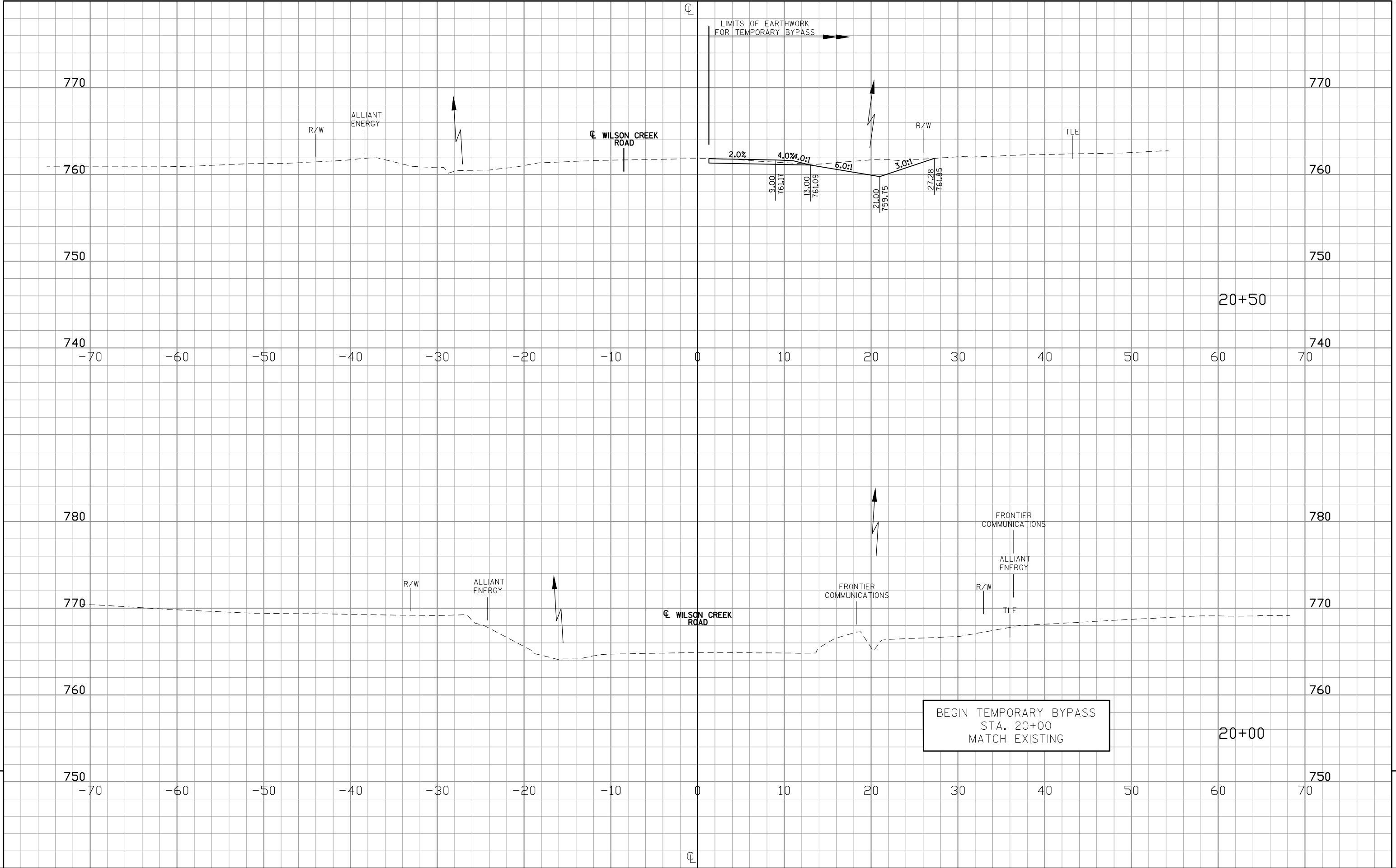
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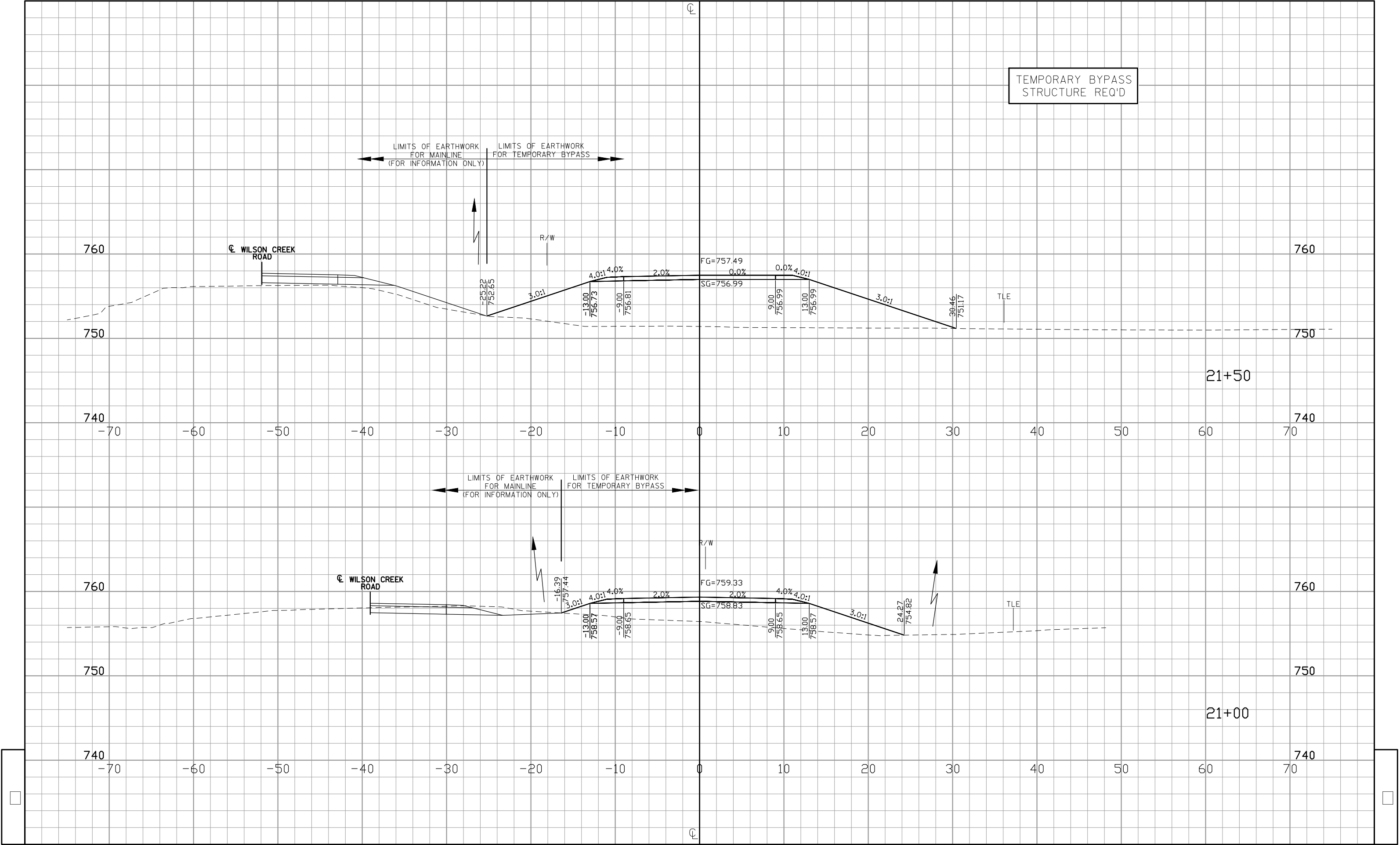


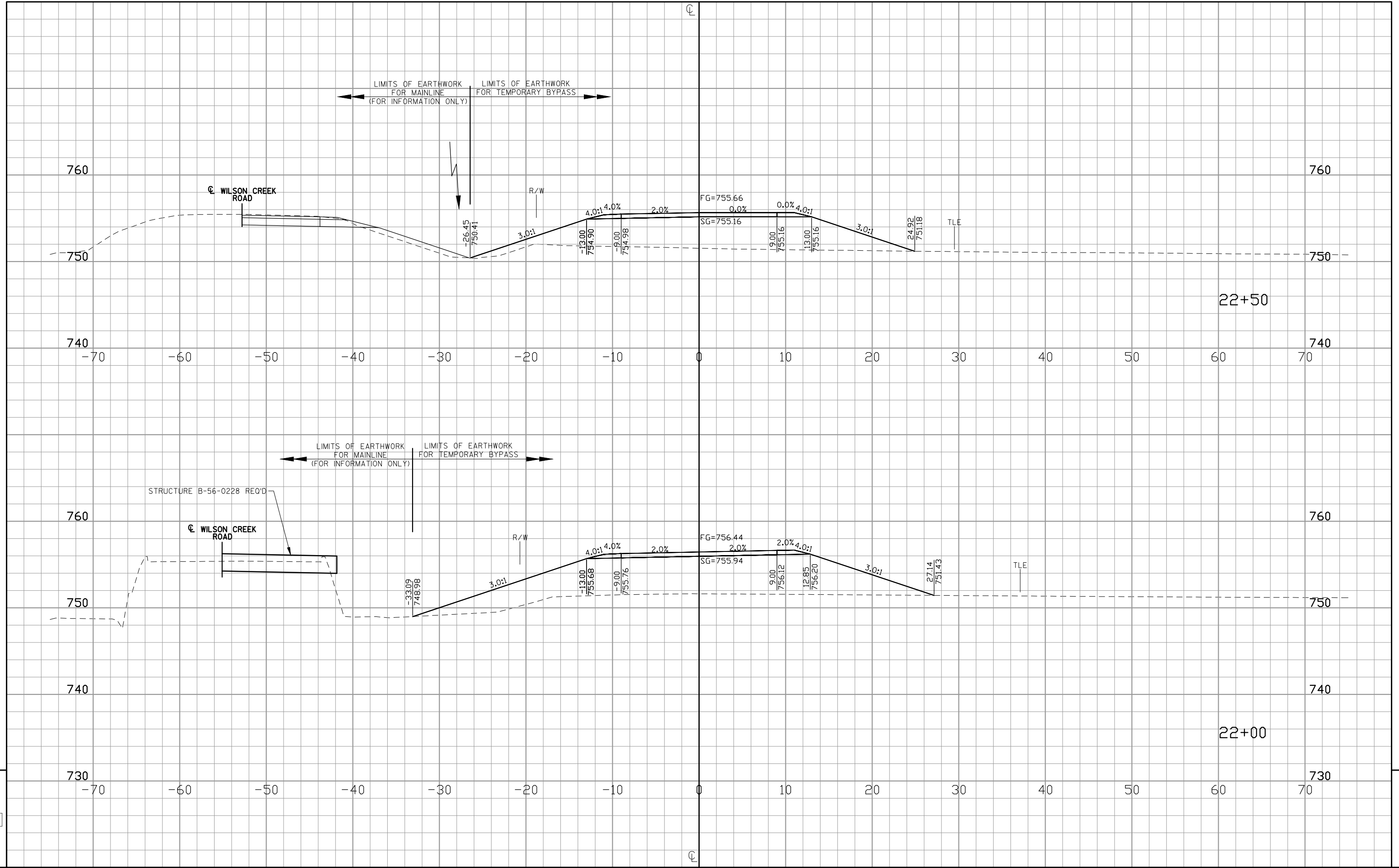


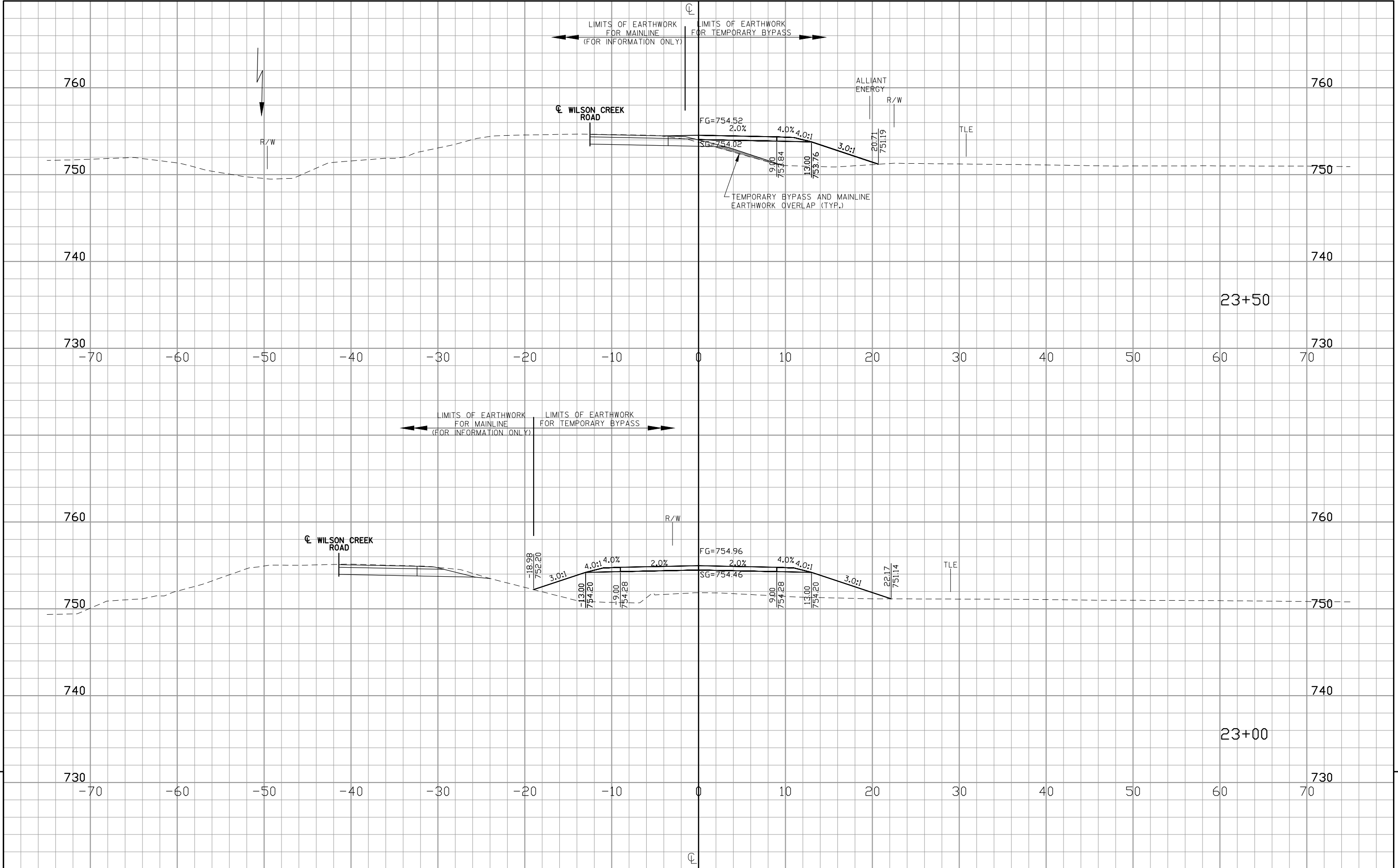


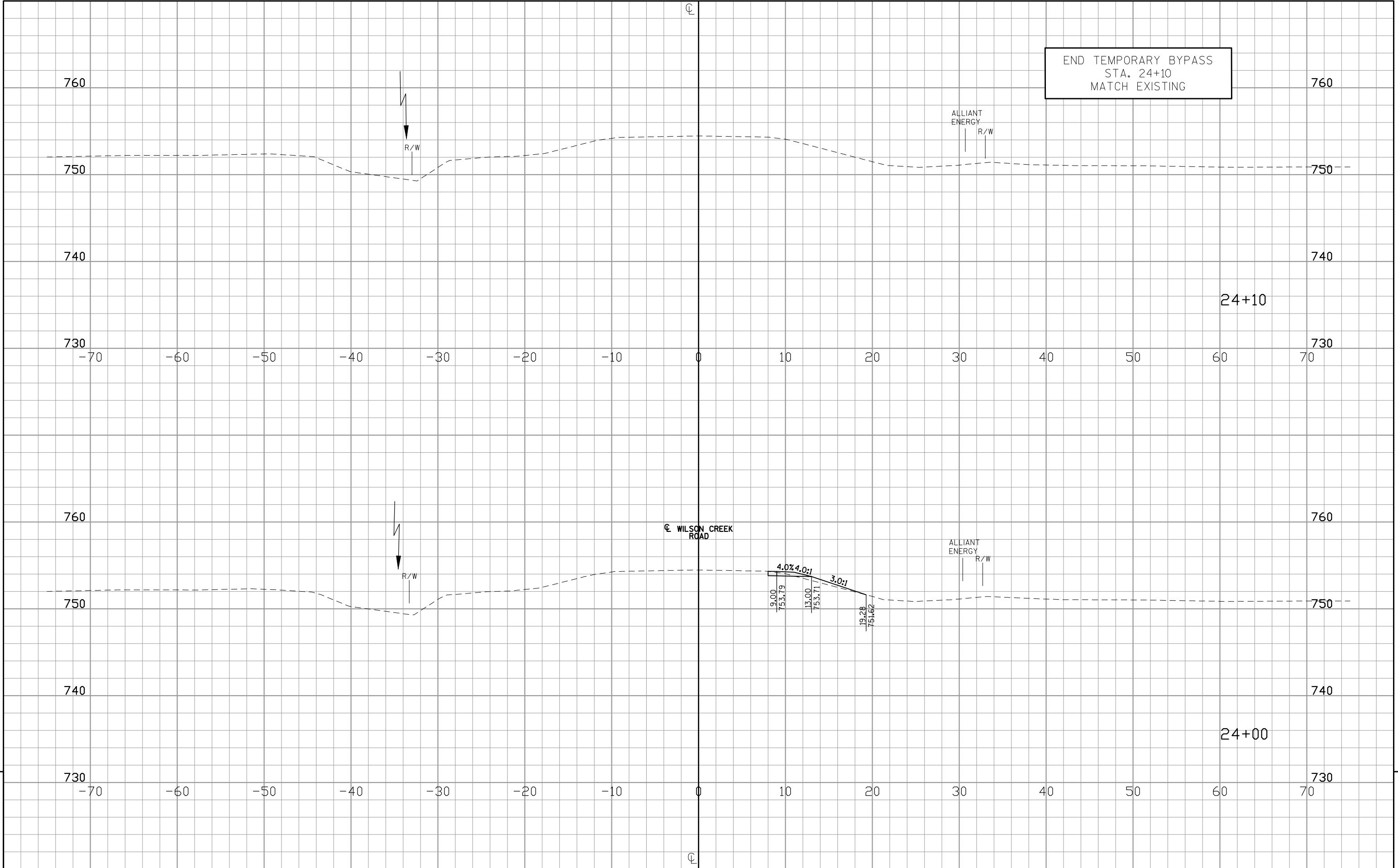














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