RHI FEB 2015

PROJECT ID: 9080-14-60
WITH: N/A

COUNTY: VILAS

ORDER OF SHEETS


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


TOTAL SHEETS = 204

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

**PLAN OF PROPOSED IMPROVEMENT**

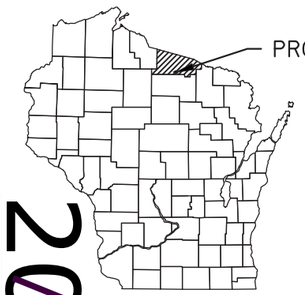
# WOODRUFF-EAGLE RIVER

**STH 155 TO CTH O**

## STH 70

## VILAS COUNTY

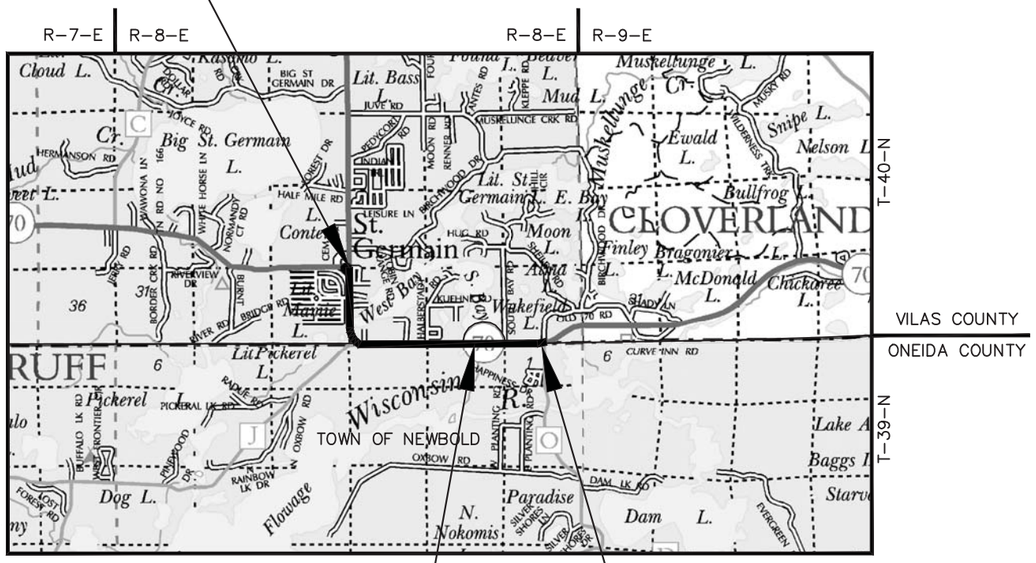
| STATE PROJECT | FEDERAL PROJECT | |
|---|---|---|
| | PROJECT | CONTRACT |
| 9080-14-60 | WISC 2015095 | 1 |
| | | |
| | | |
| | | |




20

**BEGIN PROJECT 9080-14-60**
**STA 57+54**
Y=105,013.236
X=441,347.402

STATE PROJECT NUMBER
**9080-14-60**




**STRUCTURE C-63-9**

**END PROJECT**
**STA 240+36**
Y=99,787.527
X=454,732.467

DESIGN DESIGNATION

| | | | |
|---|---|---|---|
| A.A.D.T. | 2015 | = | 5200-6400 |
| A.A.D.T. | 2035 | = | 7300-9000 |
| D.H.V. | | = | 861-1062 |
| D.D. | | = | 61/39 |
| T. | | = | 8.9 |
| DESIGN SPEED | | = | 40-55 |
| ESALS | | = | 1,102,300 |

CONVENTIONAL SYMBOLS

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

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

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

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 3.442 MI.

-"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), 'VILAS' COUNTY, NAD 1983 (2007)."

-"ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (91)."

ORIGINAL PLAN PREPARED BY


BECHER HOPPE
330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com


WISCONSIN SEAN M. SPROMBERG E-37771-005 SCHOFIELD, WI PROFESSIONAL ENGINEER

7/8/2014
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

| | |
|---|---|
| Surveyor | BECHER-HOPPE ASSOCIATES, INC. |
| Designer | BECHER-HOPPE ASSOCIATES, INC. |
| Project Manager | DAN ERVA, PE |
| Regional Examiner | CHERYL SIMON, PE |
| Regional Supervisor | ANNA WISNER, PE |

APPROVED FOR THE DEPARTMENT
DATE: 7/18/14
(Signature)

E

## GENERAL NOTES

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES. THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

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

RADII DIMENSIONS FOR THE CURB & GUTTER ARE TO THE FLAG LINE.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE FERTILIZED, SEEDED OR TEMPORARY SEEDED AS DIRECTED BY THE ENGINEER.

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

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

WHEN THE QUANTITY OF THE ITEM OF BASE OR HMA PAVEMENT IS MEASURED FOR THE PAYMENT BY THE TON. THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

WHERE 5-INCH HMA PAVEMENT TYPE E-3 RECONSTRUCTION WILL OCCUR, CONSTRUCT IN TWO LIFTS SUCH THAT THE FINAL LIFT IS 2-INCHES THICK.

## UTILITIES

ELECTRIC
KIM HACKELBERG
ATC MANAGEMENT, INC.
801 O'KEEFE ROAD
PO BOX 6113
DE PERE, WI 54115-6113
PHONE: (920) 338-6556
khackelberg@atcllc.com

COMMUNICATION
CALVIN KLADE
FRONTIER COMMUNICATIONS OF WI LLC
1851 NORTH 14TH STREET
WAUSAU, WI 54401
PHONE: (715) 847-1525
calvin.klade@ftr.com

COMMUNICATION
BRIAN REVAK
LAKELAND CABLEVISION
8948 THEIS DRIVE
WOODRUFF, WI 54568
PHONE: (715) 356-5417
MOBILE: (715) 853-5657
blrevak@hotmail.com

ELECTRIC
ZANE HAGSTROM
WISCONSIN PUBLIC SERVICE CORPORATION
2027 NAVAJO STREET
PO BOX 160
RHINELANDER, WI 54501
PHONE: (715) 369-7117
MOBILE: (715) 209-0085
zrhagstrom@wisconsinpublicservice.com

GAS/PETROLEUM
EVELYN WEYKER
WISCONSIN PUBLIC SERVICE CORPORATION
2027 NAVAJO STREET
PO BOX 160
RHINELANDER, WI 54501
PHONE: (715) 369-7169
MOBILE: (715) 703-4059
esweyker@wisconsinpublicservice.com

## DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
107 SUTLIFF AVENUE
RHINELANDER, WI 54501
JON SIMONSEN
PHONE: (715) 365-8916
jonathan.simonsen@wisconsin.gov

## SECTION 2 ORDER

GENERAL NOTES
PROJECT OVERVIEW
EXISTING TYPICAL SECTIONS
FINISHED TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL PLAN
STORM SEWER PLAN
PERMANENT SIGNING
TRAFFIC CONTROL

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

2

# TEMPORARY TRAFFIC SIGNAL TIMING

LITTLE SAINT GERMAIN CREEK
VILAS COUNTY
STOP BAR SPACING = 470 FT

SEQUENCE 1 (6:00 AM TO 8:00 PM)

| EAST BOUND | WEST BOUND | | YELLOW (SEC) | ALL RED (SEC) | GREEN (SEC) | | |
|---|---|---|---|---|---|---|---|
| RED | RED | | --- | 19 | --- | | |
| GREEN | RED | | --- | --- | 26 | | |
| YELLOW | RED | | 5 | --- | --- | | |
| RED | RED | | --- | 19 | --- | | |
| RED | GREEN | | --- | --- | 26 | | |
| RED | YELLOW | | 5 | --- | --- | | |
| | | **TOTAL** | **10** | **38** | **52** | **=** | **100 (SEC)** |

SEQUENCE 2 (8:00 PM TO 6:00 AM)

| EAST BOUND | WEST BOUND | | YELLOW (SEC) | ALL RED (SEC) | GREEN (SEC) | | |
|---|---|---|---|---|---|---|---|
| RED | RED | | --- | 19 | --- | | |
| GREEN | RED | | --- | --- | 21 | | |
| YELLOW | RED | | 5 | --- | --- | | |
| RED | RED | | --- | 19 | --- | | |
| RED | GREEN | | --- | --- | 21 | | |
| RED | YELLOW | | 5 | --- | --- | | |
| | | **TOTAL** | **10** | **38** | **42** | **=** | **90 (SEC)** |

2

2

**BEGIN PROJECT**
**STA 57+54**

STH 155

STH 70

ST. GERMAIN BOULEVARD

TOWN OF ST. GERMAIN

SUNSET BOULEVARD

WINKLE ROAD

E HOLIDAY DR

DRAINAGE IMPROVEMENTS

MILL & OVERLAY

PARKWAY RD

CTH J

STRAIGHT-A-WAY

JACKSON LANE

HALBERSTADT ROAD

VILAS COUNTY

ONEIDA COUNTY

STH 70

CEDAROMA DR

SOUTH BAY ROAD

OLD HIGHWAY 70

VILAS COUNTY

ONEIDA COUNTY

CTH O

LITTLE ST. GERMAIN LAKE

HIAWATHA LAKE

SOUTH BAY

MOON LAKE

ALMA LAKE

WAKEFIELD LAKE

LITTLE ST. GERMAIN CREEK

TOWN OF NEWBOLD

STRUCTURE C-63-9

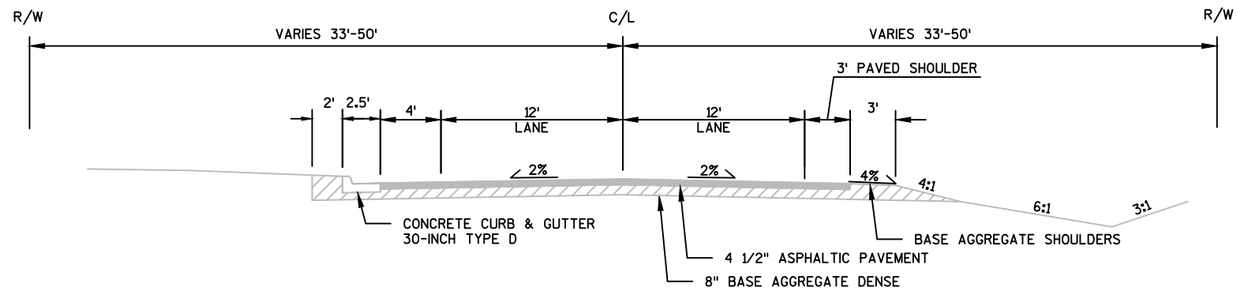
INTERSECTION IMPROVEMENTS

**END PROJECT**
**STA 240+36**

STA BACK = 116+09.59
STA AHEAD = 116+09.46

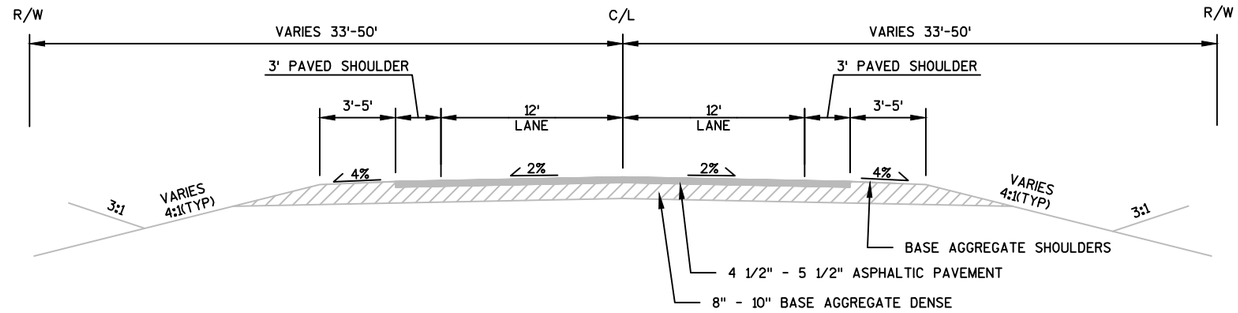
N

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PROJECT OVERVIEW | SHEET 4 | E |
|---|---|---|---|---|---|



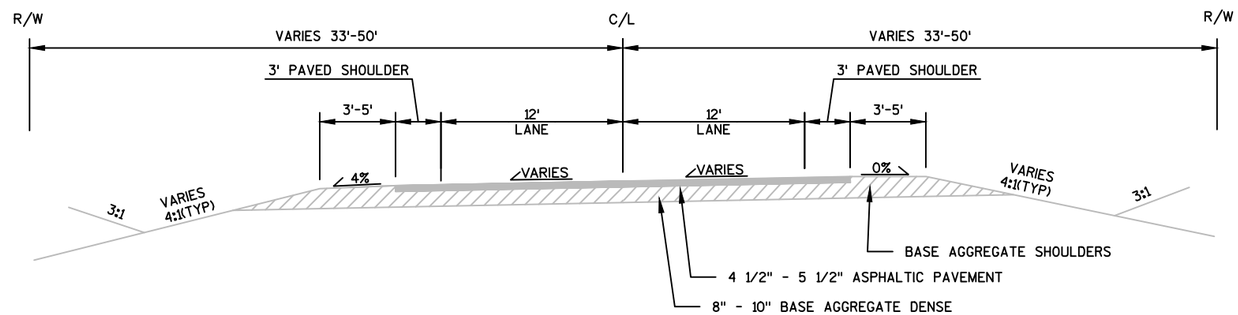

## EXISTING TYPICAL SECTION – STH 70

STATION 57+54 – STATION 93+74



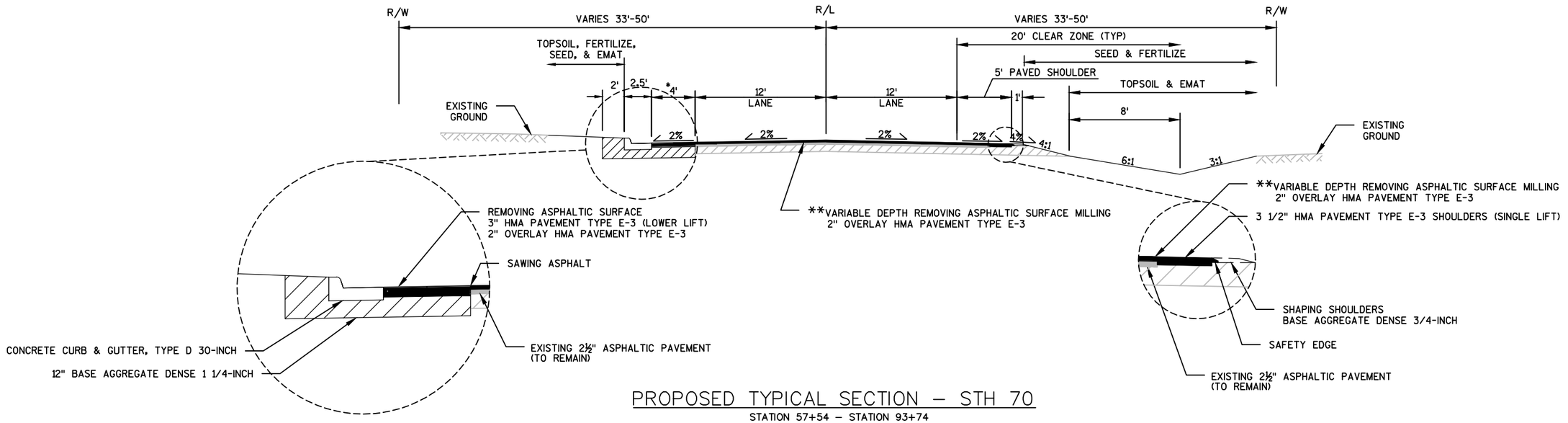

## EXISTING TYPICAL SECTION – STH 70

STATION 93+74 – STATION 101+10
STATION 116+10 – STATION 233+56



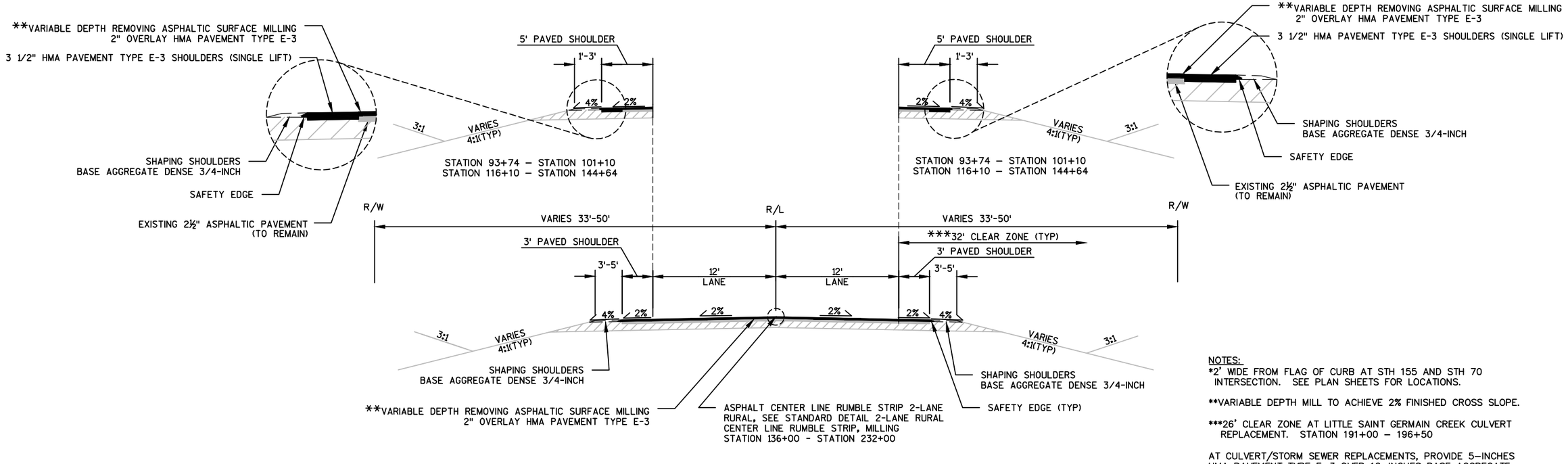

## EXISTING TYPICAL SECTION – STH 70

STATION 101+10 – STATION 116+10
STATION 233+56 – STATION 240+36




## PROPOSED TYPICAL SECTION – STH 70

STATION 57+54 – STATION 93+74




## PROPOSED TYPICAL SECTION – STH 70

STATION 93+74 – STATION 101+10
STATION 116+10 – STATION 233+56

NOTES:

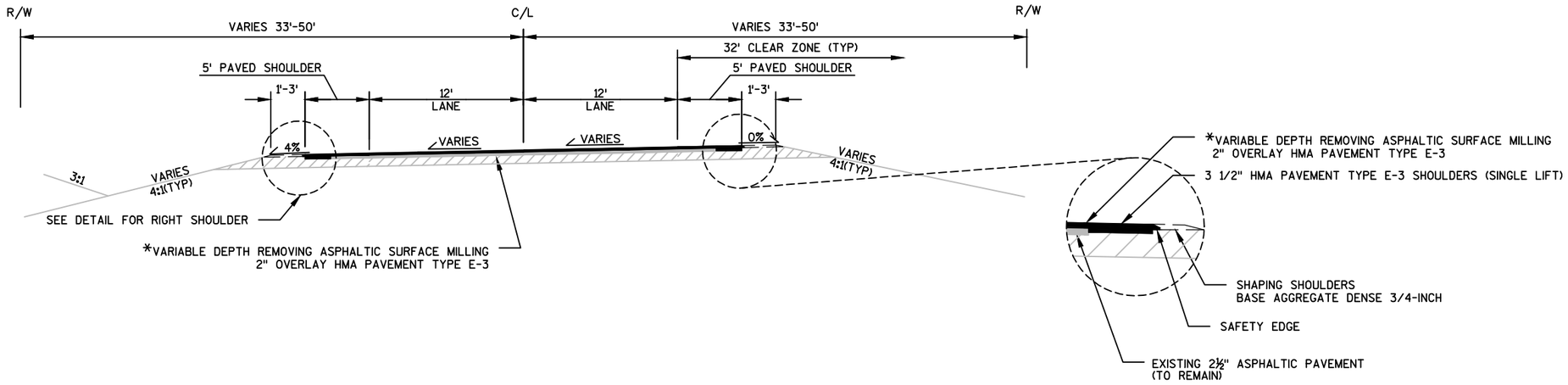
*2' WIDE FROM FLAG OF CURB AT STH 155 AND STH 70 INTERSECTION. SEE PLAN SHEETS FOR LOCATIONS.

**VARIABLE DEPTH MILL TO ACHIEVE 2% FINISHED CROSS SLOPE.

***26' CLEAR ZONE AT LITTLE SAINT GERMAIN CREEK CULVERT REPLACEMENT. STATION 191+00 – 196+50

AT CULVERT/STORM SEWER REPLACEMENTS, PROVIDE 5–INCHES HMA PAVEMENT TYPE E–3 OVER 12–INCHES BASE AGGREGATE DENSE 1 1/4–INCH. RECONSTRUCT TO MATCH TYPICAL SECTION OF ADJACENT ROADWAY.

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | FINISHED TYPICAL SECTIONS | SHEET 6 | E |
|---|---|---|---|---|---|



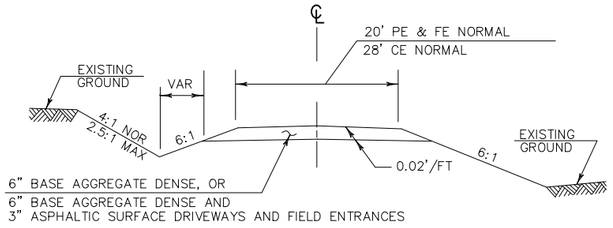

## PROPOSED TYPICAL SECTION – STH 70

STATION 101+10 – STATION 116+10
STATION 233+56 – STATION 240+36

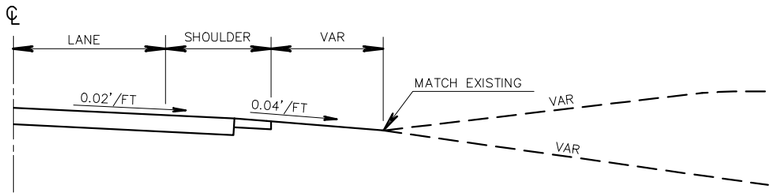
| PROPOSED SUPERELEVATION TABLE | | | | | |
|---|---|---|---|---|---|
| CURVE NO. | CURVE DIRECTION | APPROX. EXIST. SUPERELEVATION | | PROPOSED SUPERELEVATION | |
| | | LT | RT | LT | RT |
| 1 | LT | 6.0% | 6.0% | MATCH EXISTING | |
| 2 | LT | 4.4% | 4.4% | MATCH EXISTING | |

NOTES:
*VARIABLE DEPTH MILL TO ACHIEVE FINISHED CROSS SLOPE.

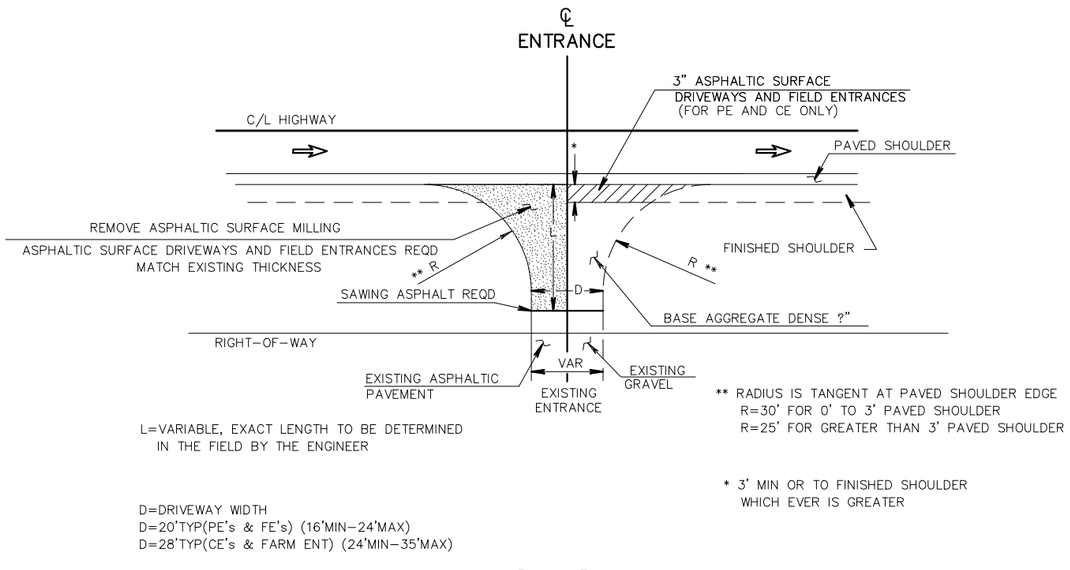
SEE CONSTRUCTION DETAIL FOR TYPICAL SECTION
AT CULVERT REPLACEMENT AREAS.




TYPICAL CROSS SECTION



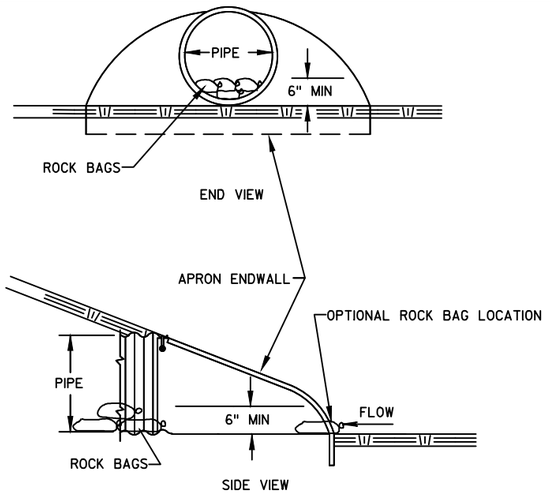

TYPICAL PROFILE VIEW




PLAN VIEW

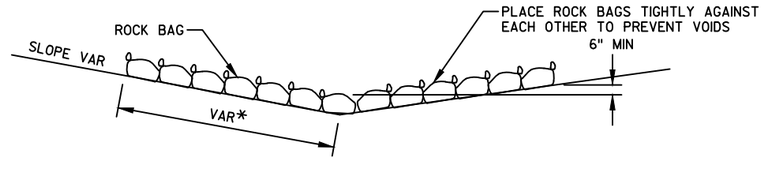
## RURAL DRIVEWAY INTERSECTION DETAIL (PE, FE & CE)

(FOR RESURFACING PROJECTS)

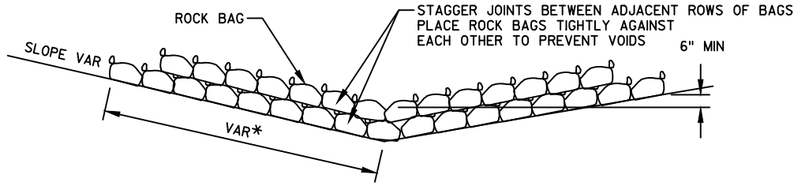



| ESTIMATED BAG SIZE= 24" X 12" X 6" | |
|---|---|
| PIPE SIZE | ESTIMATED NO OF BAGS |
| 18" | 2 |
| 24" | 3 |
| 30" | 5 |
| 48" | 10 |
| 54" | 10 |
| 60" | 13 |
| 72" | 16 |

## CULVERT PIPE CHECKS



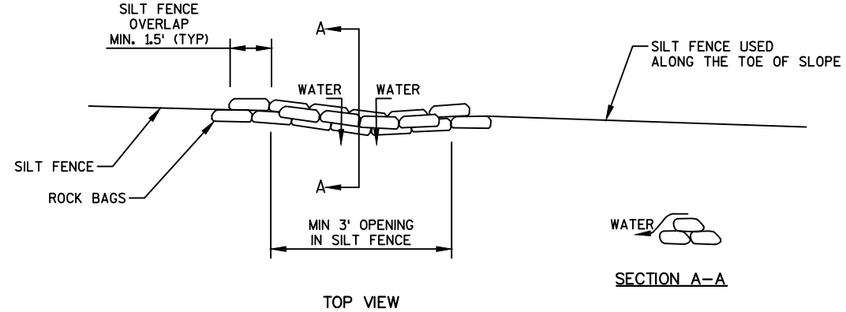

SIDE VIEW (SINGLE LAYER)




*LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL

SIDE VIEW (MULTIPLE LAYER)

## DITCH CHECKS



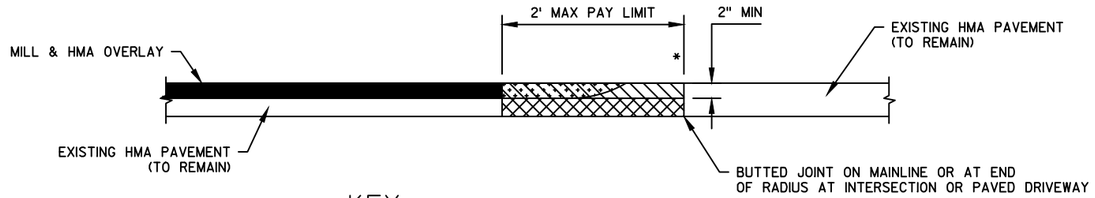

TOP VIEW

SECTION A-A

## ROCK BAGS USED FOR SILT FENCE RELIEF

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CONSTRUCTION DETAILS | SHEET 8 | E |
|---|---|---|---|---|---|

2




KEY

ASPHALT WEDGING
(FULL DEPTH REMOVAL OPTION)

REMOVING ASPHALTIC SURFACE, BUTT JOINTS (FULL DEPTH REMOVAL OPTIONAL)
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

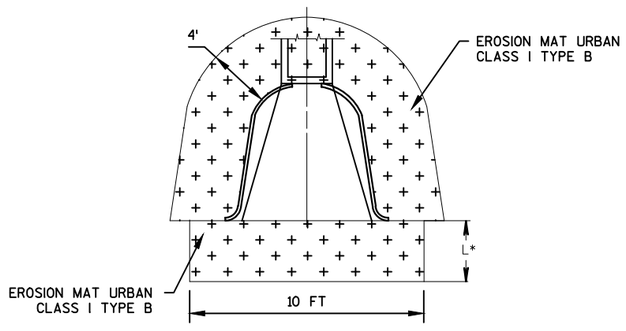
REMOVING ASPHALTIC SURFACE MILLING

* SAWCUT REQD

## BUTT JOINT DETAIL ON MAINLINE, AT INTERSECTIONS, & PAVED DRIVEWAYS

NOTES
FOR MAINLINE AND SIDE ROADS USE 2-INCH HMA PAVEMENT TYPE E-3
FOR PAVED DRIVEWAYS USE 2-INCH ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

AT DRIVEWAYS WITH CURB & GUTTER RETURNS, REMOVE ASPHALTIC SURFACE AND REPLACE IN KIND WITH ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES.

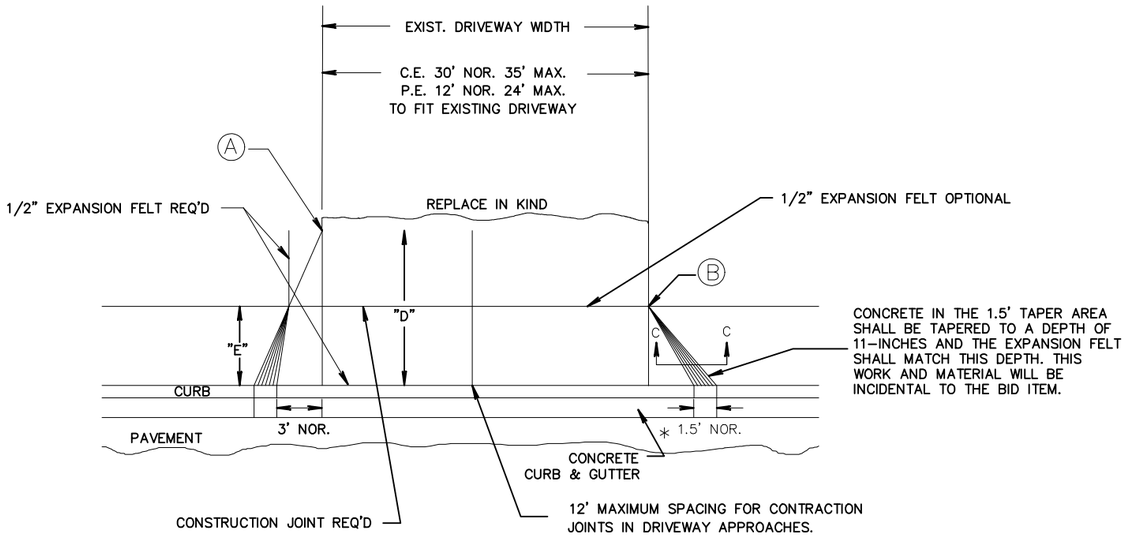



L = 3 TIMES DIAMETER OR 10' MIN.
INCREASE IF WARRANTED

* TO BE DETERMINED BY
ENGINEER IN THE FIELD

## EROSION CONTROL AT PIPE ENDS

2



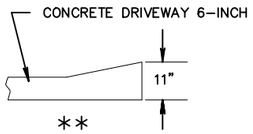

CONCRETE IN THE 1.5' TAPER AREA SHALL BE TAPERED TO A DEPTH OF 11–INCHES AND THE EXPANSION FELT SHALL MATCH THIS DEPTH. THIS WORK AND MATERIAL WILL BE INCIDENTAL TO THE BID ITEM.

PLAN VIEW

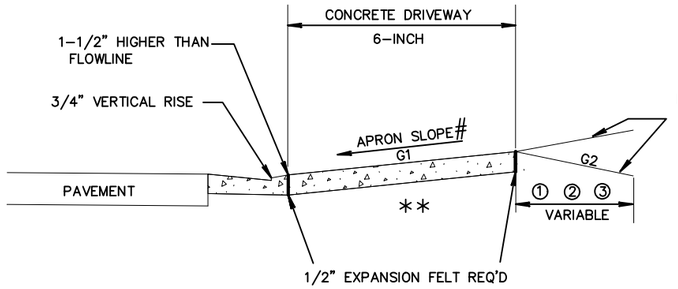
Ⓐ WHEN "D" IS 13' OR LESS

Ⓑ WHEN "D" IS GREATER THAN 13'

* WHEN "E" =0
MAKE CURB TAPER 5'




SECTION C–C




① – 6" CONCRETE DRIVEWAY OR H.E.S. CONCRETE DRIVEWAY

② – 6" BASE AGGREGATE DENSE 1–1/4"

③ – 4" BASE AGGREGATE DENSE 1–1/4" WITH 2" ASPHALTIC SURFACE

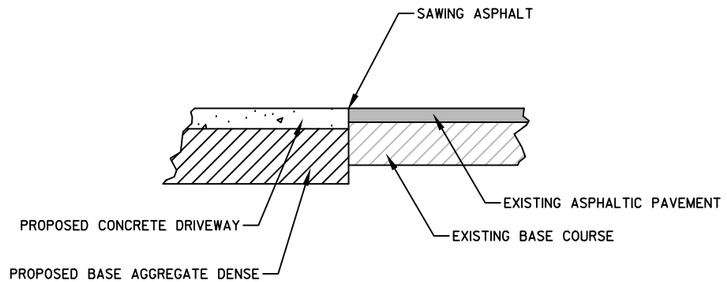
** = 6" BASE AGGREGATE DENSE 1–1/4" REQ'D UNDER CONCRETE DRWY

\# 

| TERRACE WIDTH | APRON SLOPE (G1) MIN % | DESIRABLE % | MAX % |
|---|---|---|---|
| 3 FT | 7.0 | 8.5 | 9.0 |
| 4 FT | 5.0 | 7.0 | 9.0 |
| 5 FT | 4.0 | 7.0 | 9.0 |
| 6 FT | 4.0 | 7.0 | 9.0 |
| 7 FT | 3.5 | 7.0 | 9.0 |
| 8 FT | 3.0 | 7.0 | 9.0 |

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

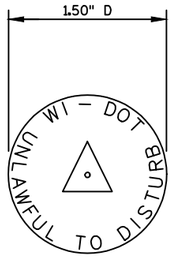
TYPICAL SECTION




BUTT JOINT DETAIL

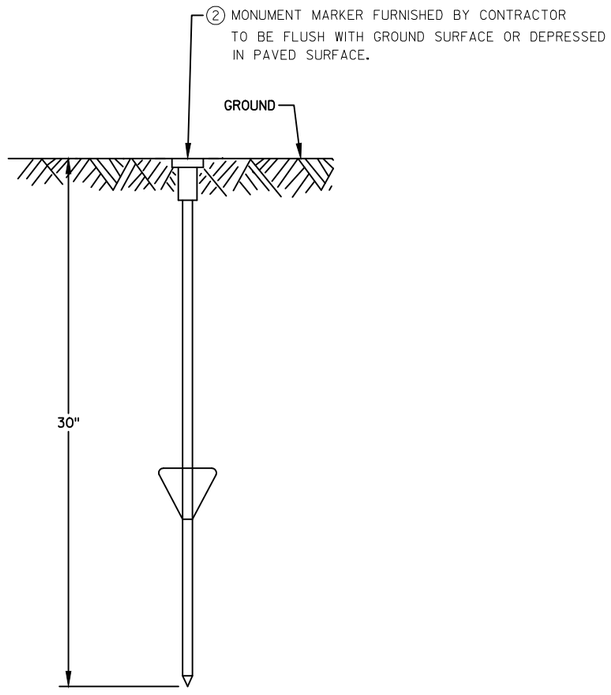
## DRIVEWAY ENTRANCE DETAIL WITH CURB & GUTTER

STATION 72+50 LT & 74+50 LT



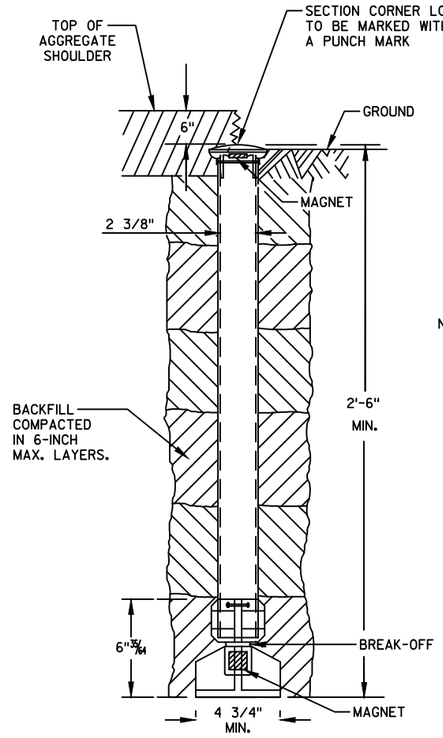

② WIS DOT MONUMENT CAP MARKER LOGO (SSDR130)

CONTRACTOR TO ORDER LANDMARK REFERENCE MONUMENTS WITH THE ABOVE STAMPING




(FRONT VIEW)

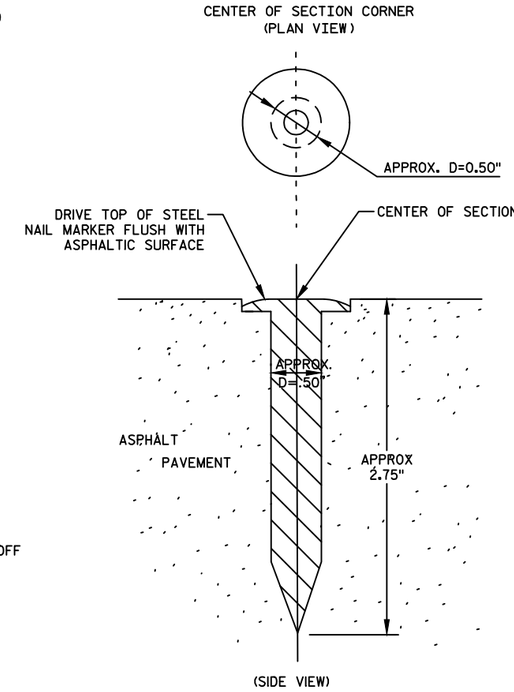
BERNSTEN DRIVABLE MONUMENT SSDR130




(SIDE VIEW)

OUTSIDE OF PAVEMENT

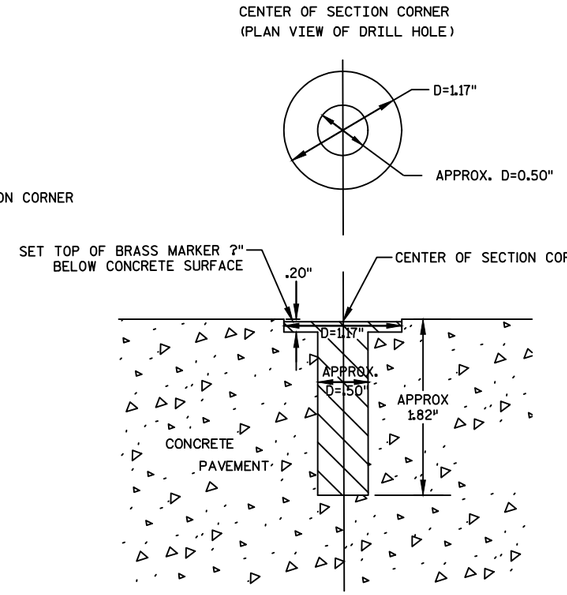
① BERNSTEN A1BR30 ALUMINUM BREAK-OFF MONUMENT




(SIDE VIEW)

IN ASPHALTIC PAVEMENT

① BERNSTEN SNM1 STEEL NAIL MARKER




NOTE: TO DRILL HOLE, USE A "SURVEY MARKER COUNTERSINK DRILL BIT" ITEM #BPMDRL, AVAILABLE FROM BERNTSEN INTERNATIONAL INC.
(SIDE VIEW OF DRILL HOLE)

IN CONCRETE PAVEMENT

① BERNSTEN BP -1 BRASS MARKER WITH ANCHOR PLUG

## SECTION CORNER MONUMENTS

### 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.

LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

① = THE REGION SURVEY COORDINATOR WILL SUPPLY.

② = CONTRACTOR WILL SUPPLY.

SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL

2

N

R/W

CREATIVE FURNITURE GROUP

ST. GERMAIN PARTNERS

JOHN J SUTTER

ROBERT KOC

RESTORE BASE AGGREGATE PE

END CONSTRUCTION 95' LT
BUTT JOINT REQD

WISCONSIN PUBLIC SERVICE
(GAS)

EXISTING SNOWMOBILE CROSSING

RESTORE BASE AGGREGATE PE

ABANDON

PROPOSED BASE AGGREGATE SHOULDER

SNOWMOBILE TRAIL CROSSING
PAVE SHOULDER FULL WIDTH
MOVE TRAIL STOP SIGNS (INCIDENTAL)
STA 237+60 - STA 237+75

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

OLD STH 70

LAKELAND CABLEVISION
(COMMUNICATION)

FRONTIER
(COMMUNICATION)

BASE AGGREGATE DENSE 3/4-INCH

BASE AGG (CE)

(ASPHALT)

18" CPCM

100'

15'

STH 70

236+00

237+00

238+00

239+00

240+00

241+00

SAWING ASPHALT

STA 236+88, 28.8' RT
RESTORE ASPH CE
BUTT JOINT REQD

PROPOSED HMA SHOULDER

EXISTING BASE AGGREGATE SHOULDER

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

R20'

R10'

R55'

R50'

PROPOSED HMA SHOULDER

PROPOSED BASE AGGREGATE SHOULDER

SEE CROSS SECTIONS FOR GRADING LIMITS IN THIS AREA

STA 237+71, RT
REMOVE ASPH CE
SAWING ASPHALT REQD

STA 237+81, 20.0' RT

Y: 99,662.80
X: 454,493.94

SLOPE INTERCEPT

BASE AGGREGATE SHOULDER

STA 238+34, 83.0' RT

CTH O

11+60

99.5°

+36

+81

+15

SLOPE INTERCEPT

STA 239+15, 20.0' RT

CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D (TYP)

PAVEMENT MARKING STOP
LINE EPOXY 18-INCH

Y: 99,692.12
X: 454,628.43

STA 238+67, 61.3' RT

STA 10+99
REMOVING SMALL PIPE CULVERT 24" CPCP
1-CPRC CLASS III 24-INCH REQ'D
2-AEW REQ'D

BM #12

LANDMARK REFERENCE MONUMENT
(REESTABLISH EXISTING MONUMENT)
STA 11+00.98, 4.29' LT

END CONSTRUCTION
STA 240+36
BUTT JOINT REQD

+12

10+00

END CONSTRUCTION
STA 10+12
BUTT JOINT REQD

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL

BENCH MARK TABLE

| NO. | STATION | DESCRIPTION | ELEVATION |
|---|---|---|---|
| 12 | 238+64.27, 95'RT | PPOL #3908-IE4-650A 60D NAIL | 1632.15 |

- WIDENING/PAVEMENT RECONSTRUCTION WITH 5" HMA PAVEMENT OVER 12" BASE AGGREGATE DENSE 1 1/4-INCH. (SEE TYPICAL SECTIONS FOR ADDITIONAL INFORMATION)
- REMOVE DRIVEWAY, REGRADE DITCH TO MATCH EXISTING TOPSOIL, SEEDING, FERTILIZER, AND MULCH
- THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS.

NOTE: SEE SDD AT-GRADE SIDE ROAD INTERSECTION, TYPES 'B1', 'B2', 'C' AND 'D' AND TEE INTERSECTION BYPASS LANE

# CTH O INTERSECTION DETAIL

STA 238+52

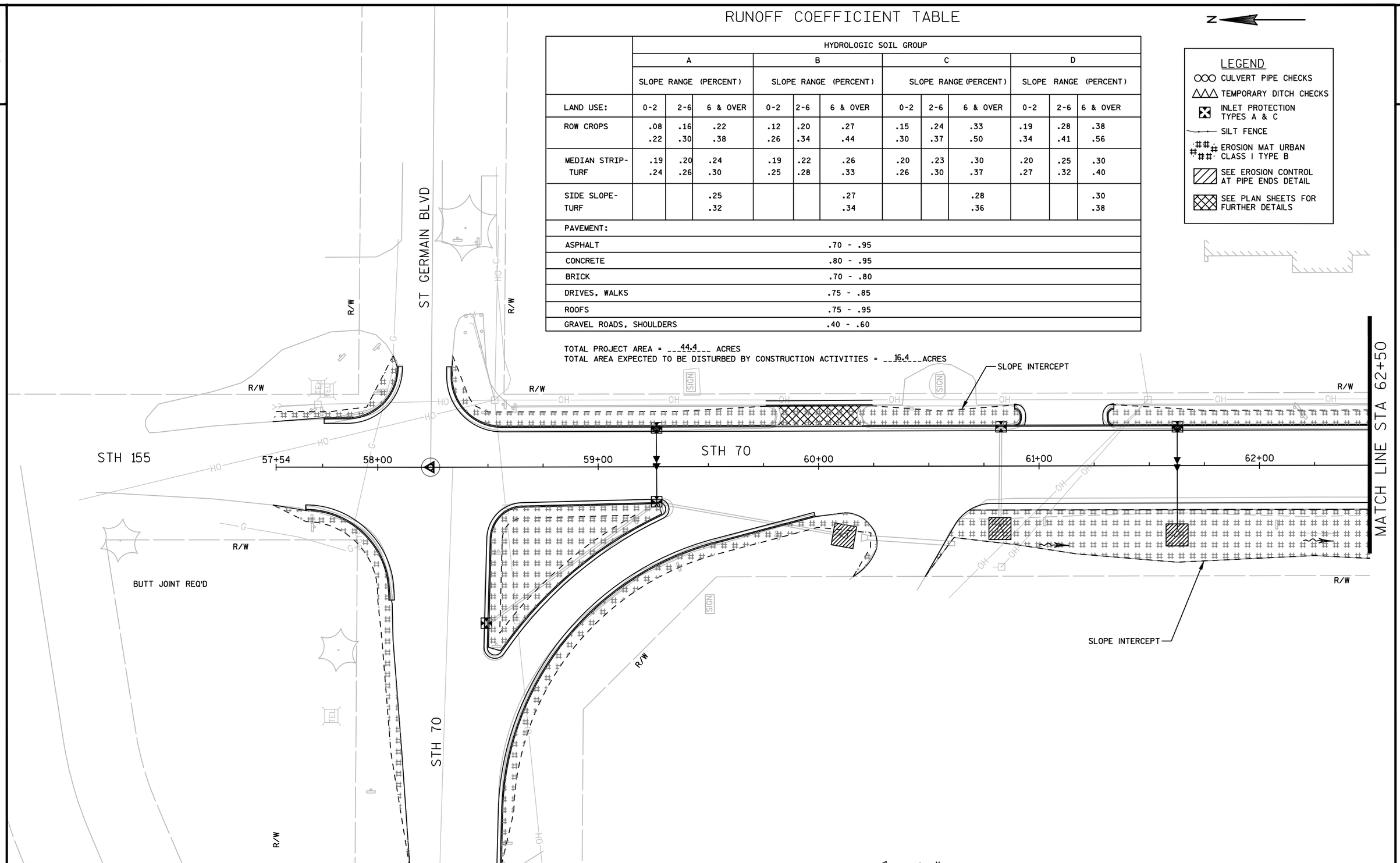
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | INTERSECTION DETAIL (CTH O) | SHEET 12 | E |
|---|---|---|---|---|---|

# RUNOFF COEFFICIENT TABLE

| | HYDROLOGIC SOIL GROUP | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | | | B | | | C | | | D | | |
| | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | | SLOPE RANGE (PERCENT) | | |
| LAND USE: | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER | 0-2 | 2-6 | 6 & OVER |
| ROW CROPS | .08<br>.22 | .16<br>.30 | .22<br>.38 | .12<br>.26 | .20<br>.34 | .27<br>.44 | .15<br>.30 | .24<br>.37 | .33<br>.50 | .19<br>.34 | .28<br>.41 | .38<br>.56 |
| MEDIAN STRIP-TURF | .19<br>.24 | .20<br>.26 | .24<br>.30 | .19<br>.25 | .22<br>.28 | .26<br>.33 | .20<br>.26 | .23<br>.30 | .30<br>.37 | .20<br>.27 | .25<br>.32 | .30<br>.40 |
| SIDE SLOPE-TURF | | | .25<br>.32 | | | .27<br>.34 | | | .28<br>.36 | | | .30<br>.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 = 44.4 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 16.4 ACRES

LEGEND
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET 13 | E |
|---|---|---|---|---|---|

2

LEGEND

PREREMEDIAL SOIL CONTAMINATION

GROUNDWATER CONTAMINANT DISTRIBUTION (JULY 12, 2007)

N

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS

MATCH LINE STA 62+50

SLOPE INTERCEPT

R/W

SIGN

MWEL

OH

STH 70

63+00 64+00 65+00 66+00 67+00 68+00

SLOPE INTERCEPT

R/W

MATCH LINE STA 68+50

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET 14 | E |
|---|---|---|---|---|---|

2

N

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS

MATCH LINE STA 68+50

MATCH LINE STA 74+50

SUNSET BLVD

SUNSET BLVD

STH 70

69+00 70+00 71+00 72+00 73+00 74+00

SLOPE INTERCEPT

SLOPE INTERCEPT

R/W

R/W

R/W

R/W

R/W

R/W

R/W

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET | E |
|---|---|---|---|---|---|



FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_022001_EC.DWG PLOT DATE : 5/21/2014 2:26 PM PLOT BY : DANIEL J. GERLING PLOT NAME : ----------

2

N

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS

MATCH LINE STA 74+50

MATCH LINE STA 80+50

WINKLE ROAD

STH 70

75+00 76+00 77+00 78+00 79+00 80+00

R/W

SLOPE INTERCEPT

E HOLIDAY DR

OH

G

C

E

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET 16 | E |
|---|---|---|---|---|---|

2

N

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS

MATCH LINE STA 80+50

MATCH LINE STA 86+50

STH 70

PATON RD

81+00 82+00 83+00 84+00 85+00 86+00

SLOPE INTERCEPT

SLOPE INTERCEPT

R/W

R/W

R/W

R/W

R/W

R/W

OH G C

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET | E |
|---|---|---|---|---|---|



FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_022001_EC.DWG PLOT DATE : 5/21/2014 2:26 PM PLOT BY : DANIEL J. GERLING PLOT NAME : ----------

2

N

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS

MATCH LINE STA 86+50

MATCH LINE STA 92+50

STH 70

87+00 88+00 89+00 90+00 91+00 92+00

SLOPE INTERCEPT

SLOPE INTERCEPT

R/W

R/W

R/W

R/W

C OH G

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET | E |
|---|---|---|---|---|---|



FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_022001_EC.DWG PLOT DATE : 5/21/2014 2:26 PM PLOT BY : DANIEL J. GERLING PLOT NAME : ----------

2

N

LEGEND

- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- INLET PROTECTION TYPES A & C
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- SEE PLAN SHEETS FOR FURTHER DETAILS

MATCH LINE STA 92+50

SLOPE INTERCEPT

R/W

GUY POLE

STH 70

93+00 94+00 95+00 96+00 97+00 98+00

OH OH OH

R/W

SLOPE INTERCEPT

R/W

R/W

MATCH LINE STA 98+50

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN | SHEET 19 | E |
|---|---|---|---|---|---|

2

N

LEGEND
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE

SOUTH BAY LITTLE SAINT GERMAIN LAKE

SENSITIVE AREA

SILT FENCE RELIEF

TLE

TLE

P/L

P/L

P/L

R/W

R/W

R/W

R/W

TEMPORARY AGGREGATE PE

(BASE AGG)

(ASPH)

TEMPORARY BYPASS STRUCTURE C-63-9

191+00

192+00

193+00

194+00

STH 70

195+00

196+00

EXISTING 72-INCH CULVERT PIPE

TEMPORARY AGGREGATE PE

TEMPORARY AGGREGATE PE

SLOPE INTERCEPT (TYP.)

TLE

TLE

PERMITTED WETLANDS

SILT FENCE RELIEF

LITTLE SAINT GERMAIN CREEK

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN-LITTLE SAINT GERMAIN CREEK (INITIAL) | SHEET 20 | E |
|---|---|---|---|---|---|

2

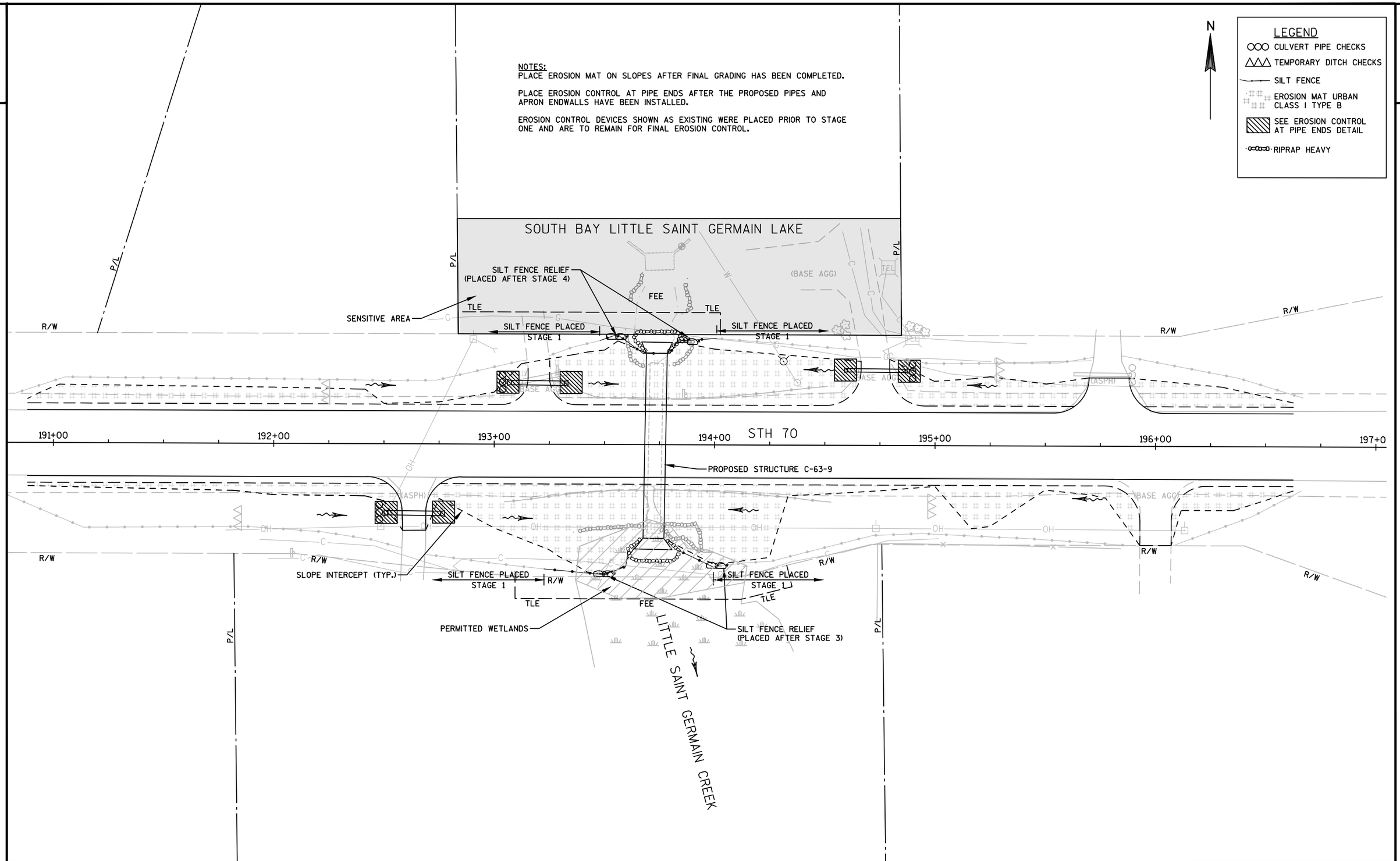
NOTES:
PLACE EROSION MAT ON SLOPES AFTER FINAL GRADING HAS BEEN COMPLETED.

PLACE EROSION CONTROL AT PIPE ENDS AFTER THE PROPOSED PIPES AND APRON ENDWALLS HAVE BEEN INSTALLED.

EROSION CONTROL DEVICES SHOWN AS EXISTING WERE PLACED PRIOR TO STAGE ONE AND ARE TO REMAIN FOR FINAL EROSION CONTROL.

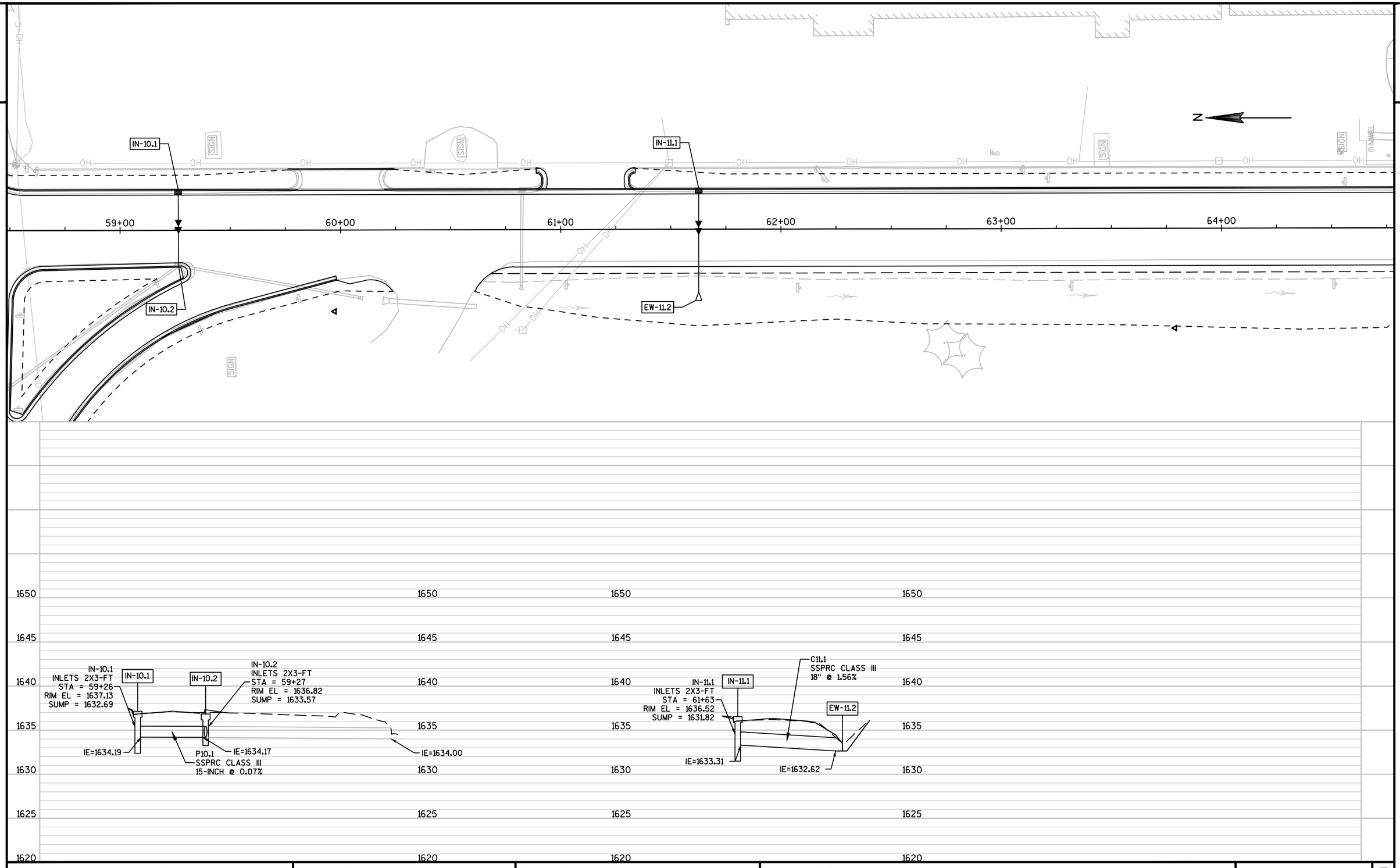
N

LEGEND
- CULVERT PIPE CHECKS
- TEMPORARY DITCH CHECKS
- SILT FENCE
- EROSION MAT URBAN CLASS I TYPE B
- SEE EROSION CONTROL AT PIPE ENDS DETAIL
- RIPRAP HEAVY




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | EROSION CONTROL PLAN-LITTLE SAINT GERMAIN CREEK (FINAL) | SHEET 21 | E |
|---|---|---|---|---|---|

2










| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | STORM SEWER PLAN | SHEET 22 | E |
|---|---|---|---|---|---|

2

2

SUNSET BLVD

SUNSET BLVD

N

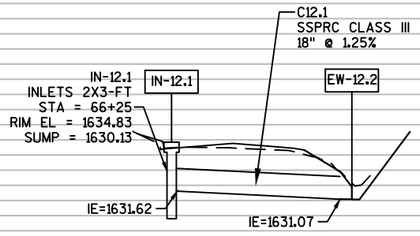
IN-12.1

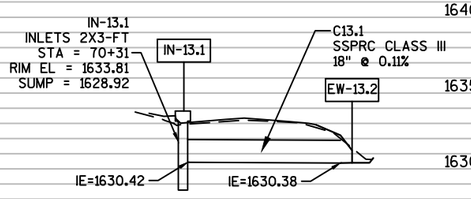
EW-12.2

IN-13.1

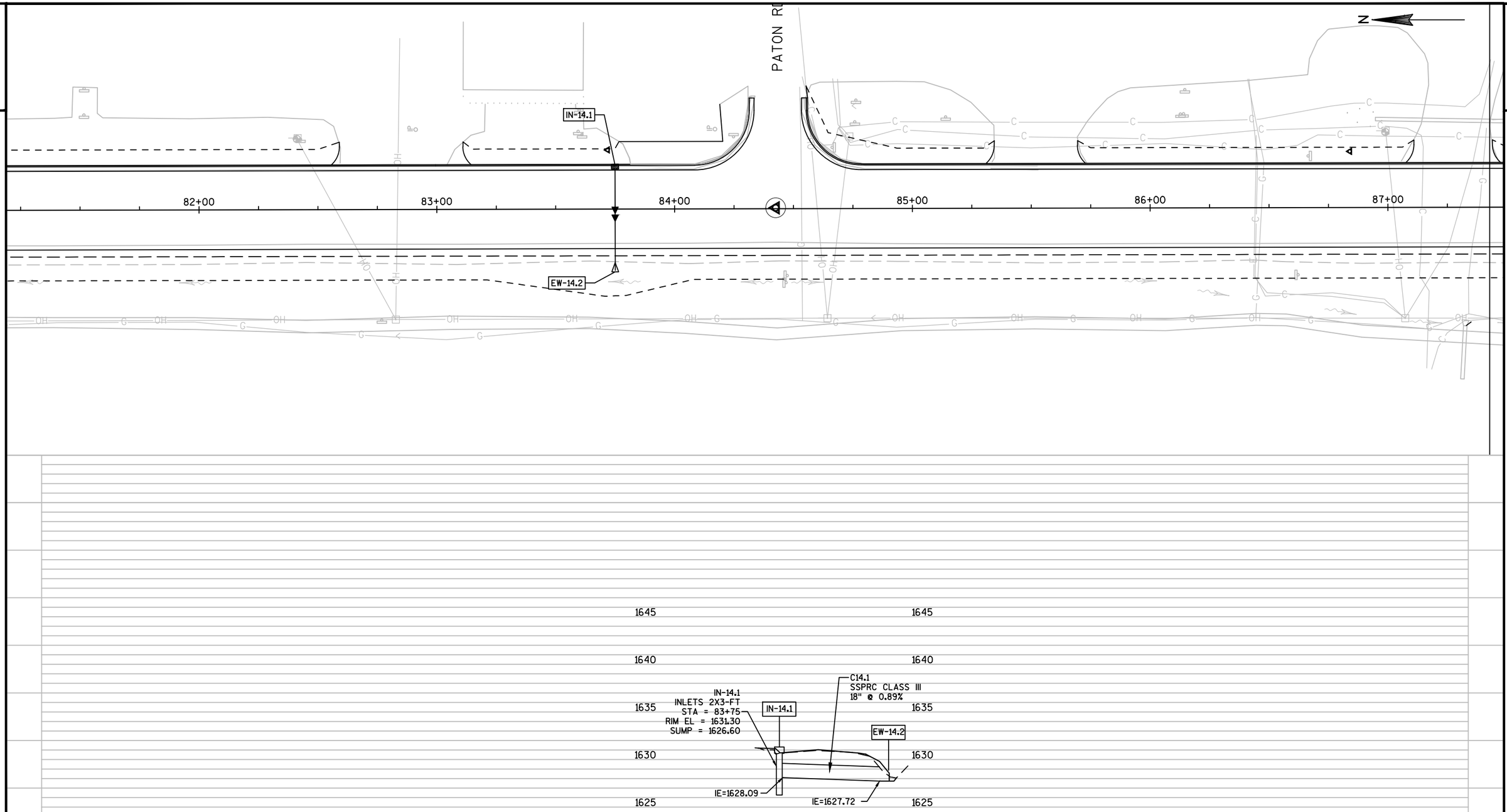
EW-13.2

66+00 67+00 68+00 69+00 70+00 71+00



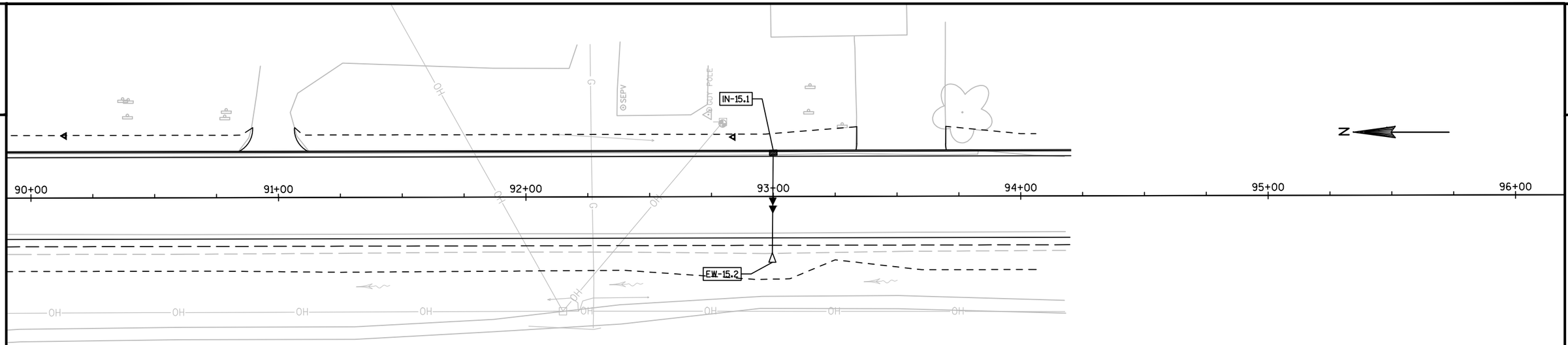

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | STORM SEWER PLAN | SHEET 23 | E |
|---|---|---|---|---|---|

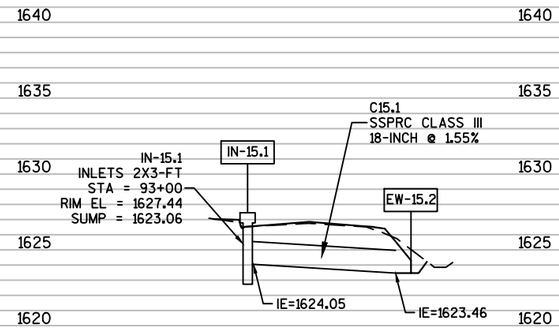



2

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | STORM SEWER PLAN | SHEET 24 | E |
|---|---|---|---|---|---|

2




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | STORM SEWER PLAN | SHEET 25 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_022501_SS.DWG PLOT DATE : 4/28/2014 3:11 PM PLOT BY : DANIEL J. GERLING PLOT NAME : _____ PLOT SCALE : 1" = 40'_XREF

NOTES:
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

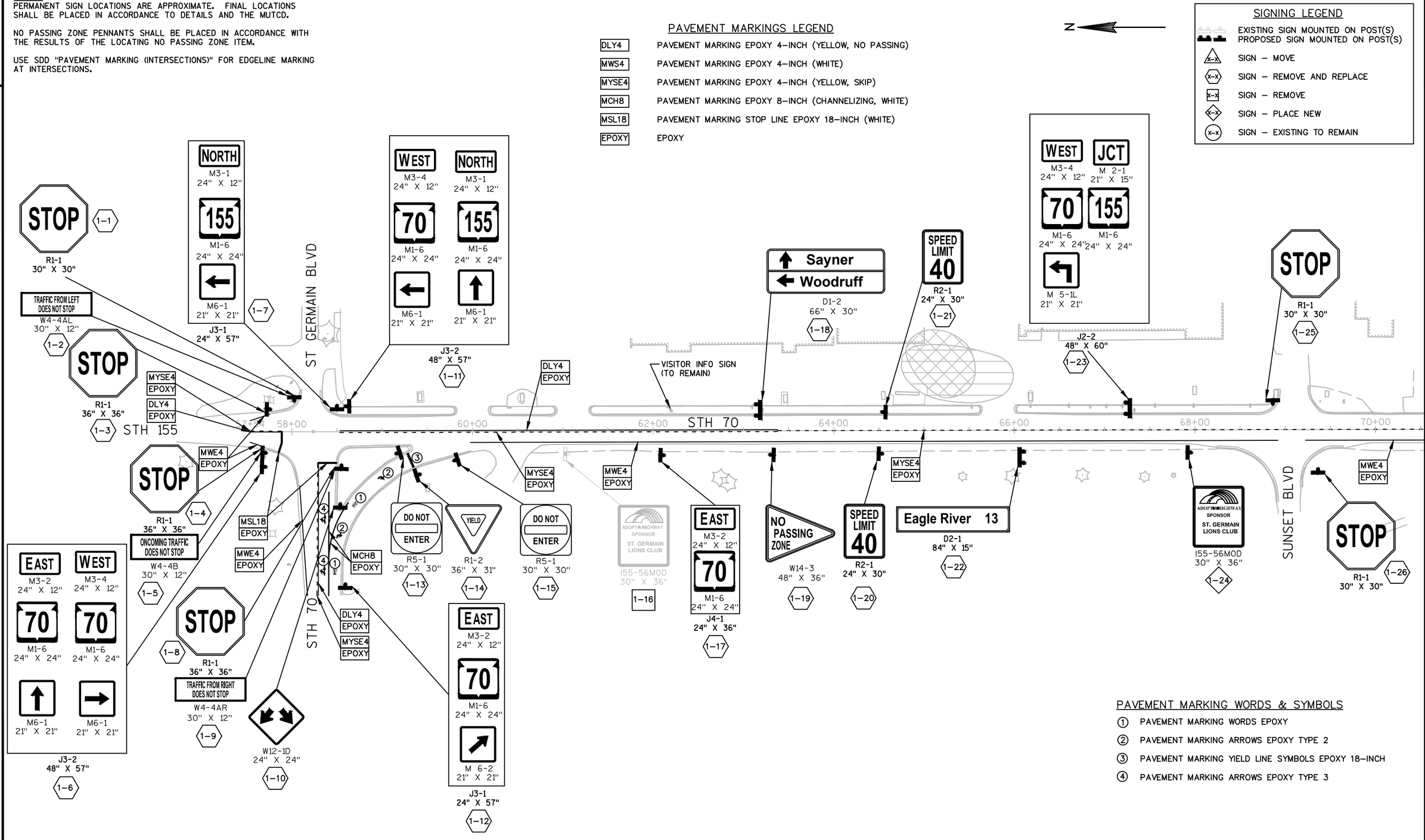
USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.

## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4–INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8–INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18–INCH (WHITE) |
| EPOXY | EPOXY |

## SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- SIGN – MOVE
- SIGN – REMOVE AND REPLACE
- SIGN – REMOVE
- SIGN – PLACE NEW
- SIGN – EXISTING TO REMAIN




## PAVEMENT MARKING WORDS & SYMBOLS

1. PAVEMENT MARKING WORDS EPOXY
2. PAVEMENT MARKING ARROWS EPOXY TYPE 2
3. PAVEMENT MARKING YIELD LINE SYMBOLS EPOXY 18–INCH
4. PAVEMENT MARKING ARROWS EPOXY TYPE 3

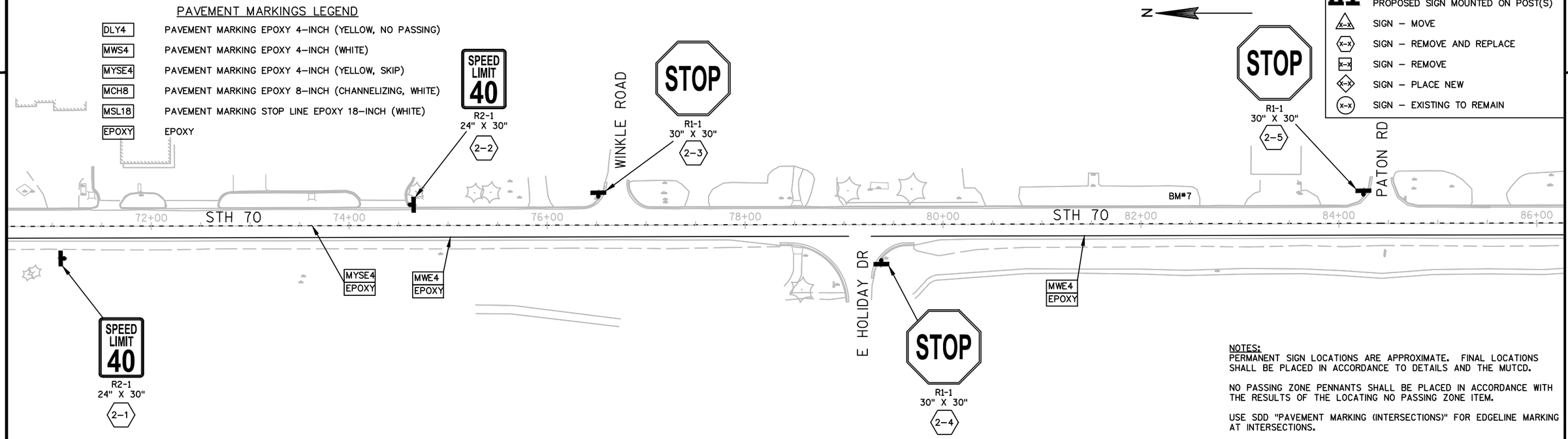
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 26 | E |
|---|---|---|---|---|---|

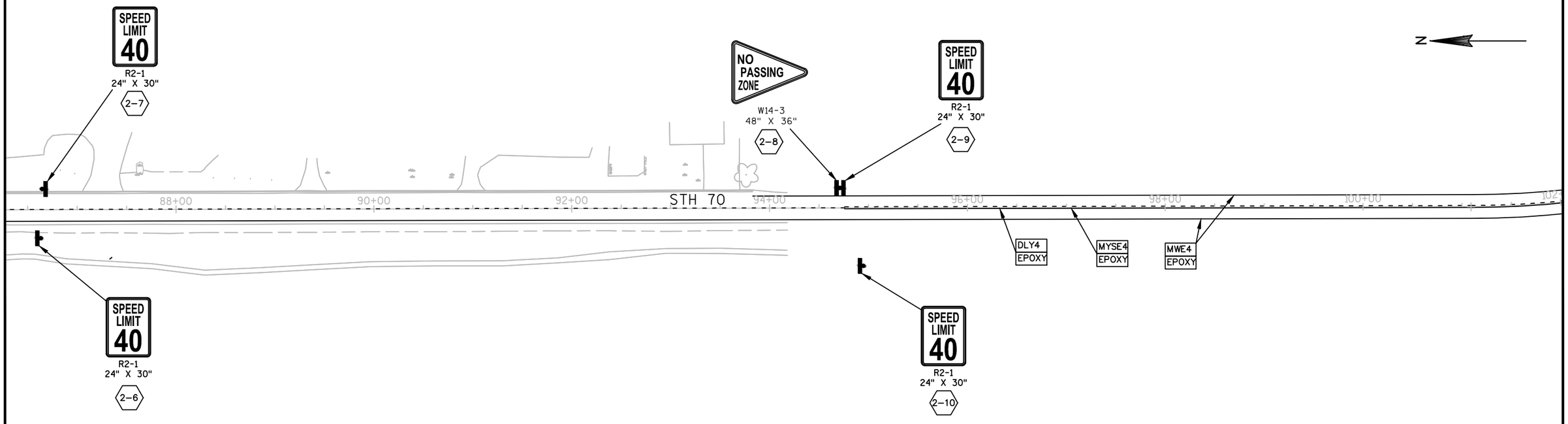
## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4-INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4-INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4-INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE) |
| EPOXY | EPOXY |

## SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- SIGN – MOVE
- SIGN – REMOVE AND REPLACE
- SIGN – REMOVE
- SIGN – PLACE NEW
- SIGN – EXISTING TO REMAIN




NOTES:
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.

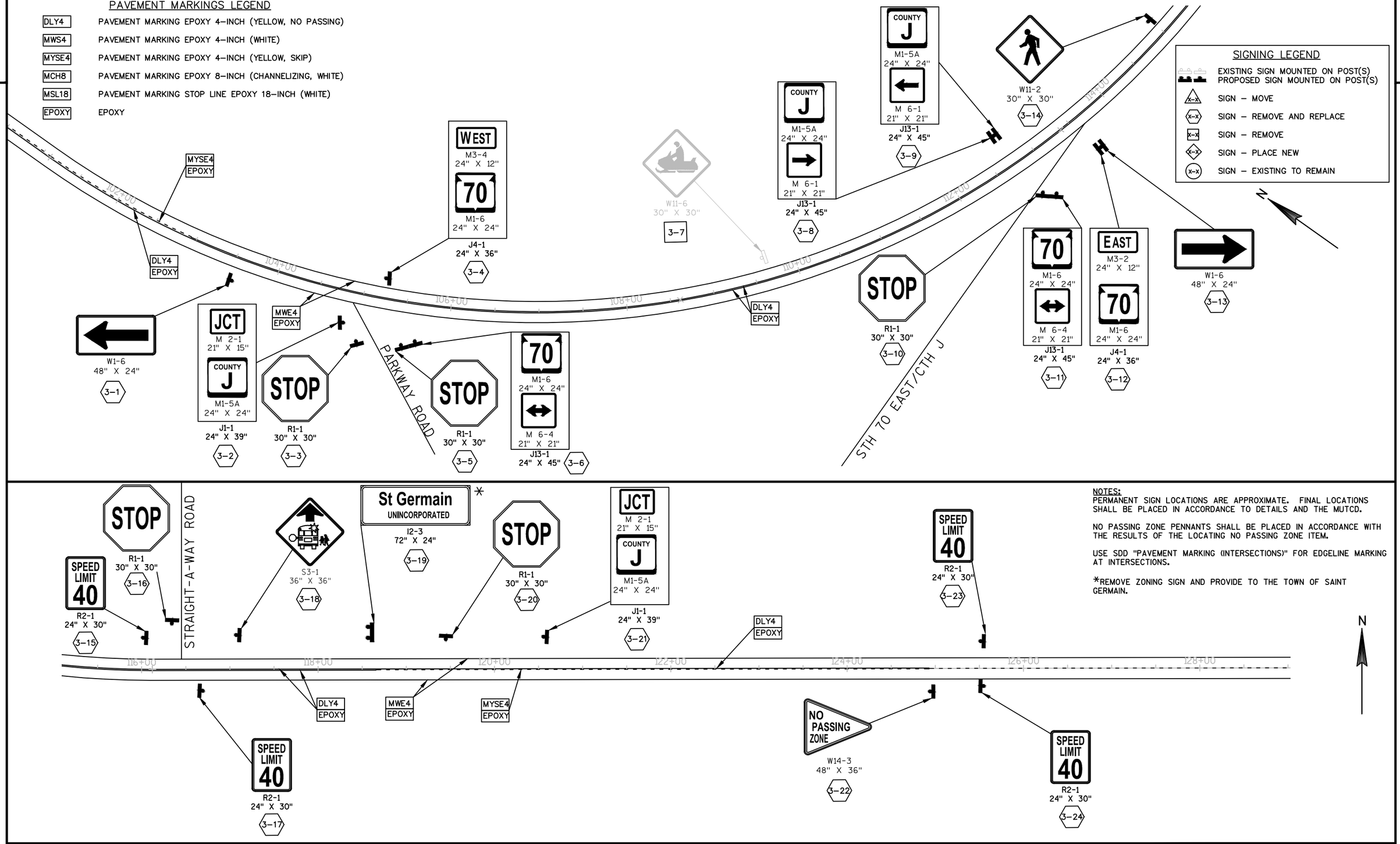
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 27 | E |
|---|---|---|---|---|---|

## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4–INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8–INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18–INCH (WHITE) |
| EPOXY | EPOXY |

## SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- X–X SIGN – MOVE
- X–X SIGN – REMOVE AND REPLACE
- X–X SIGN – REMOVE
- X–X SIGN – PLACE NEW
- X–X SIGN – EXISTING TO REMAIN







**NOTES:**
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.

*REMOVE ZONING SIGN AND PROVIDE TO THE TOWN OF SAINT GERMAIN.

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 28 | E |
|---|---|---|---|---|---|

2

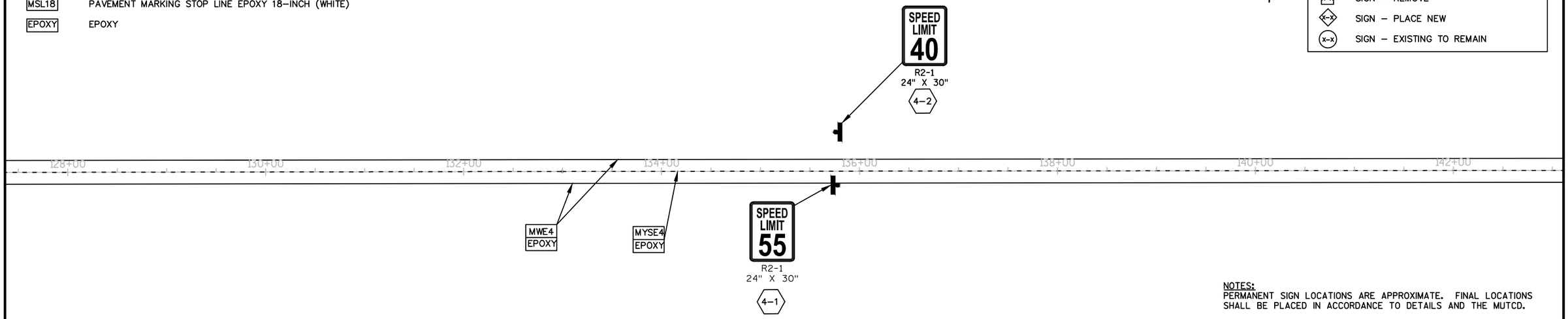
## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4–INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8–INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18–INCH (WHITE) |
| EPOXY | EPOXY |

N

## SIGNING LEGEND

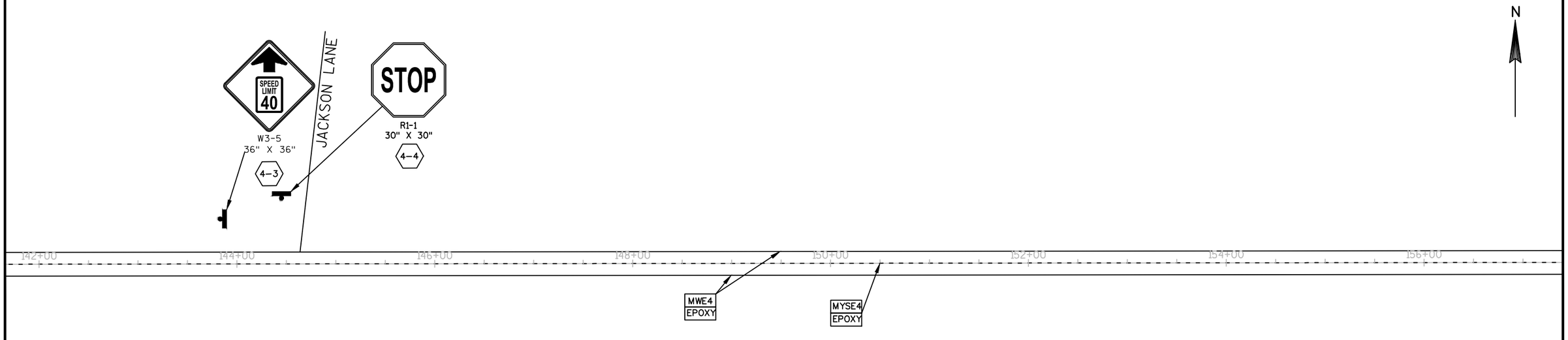
- EXISTING SIGN MOUNTED ON POST(S)
  PROPOSED SIGN MOUNTED ON POST(S)
- X–X SIGN – MOVE
- X–X SIGN – REMOVE AND REPLACE
- X–X SIGN – REMOVE
- X–X SIGN – PLACE NEW
- X–X SIGN – EXISTING TO REMAIN



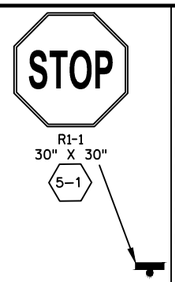

NOTES:
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.




| | | | | |
|---|---|---|---|---|
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 29 E |




HALBERSTADT ROAD

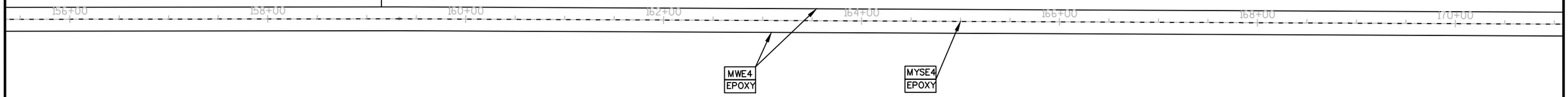
## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4-INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4-INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4-INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE) |
| EPOXY | EPOXY |

N

## SIGNING LEGEND

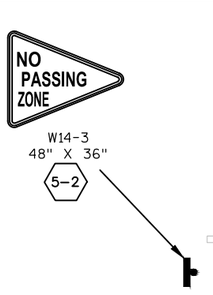
- EXISTING SIGN MOUNTED ON POST(S)
  PROPOSED SIGN MOUNTED ON POST(S)
- SIGN – MOVE
- SIGN – REMOVE AND REPLACE
- SIGN – REMOVE
- SIGN – PLACE NEW
- SIGN – EXISTING TO REMAIN



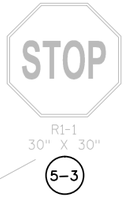

NOTES:
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

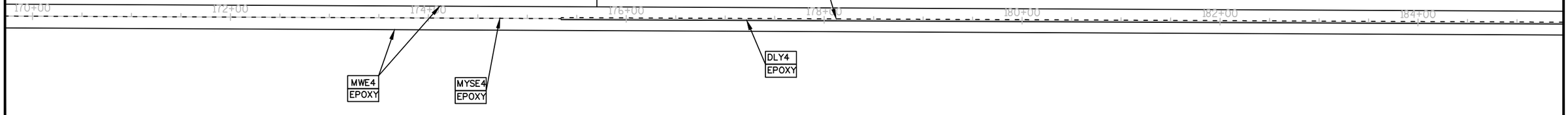
USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.




LINDSTROM LANE




N




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 30 | E |
|---|---|---|---|---|---|

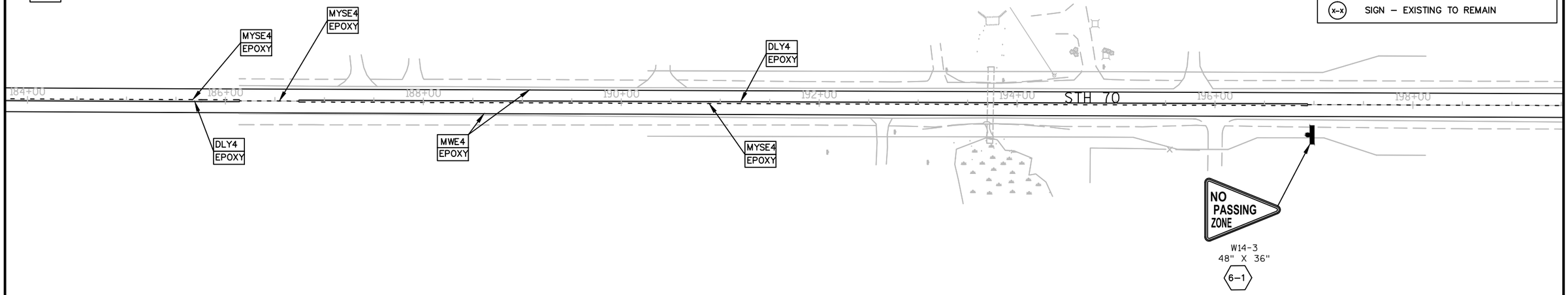
## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4–INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8–INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18–INCH (WHITE) |
| EPOXY | EPOXY |

N

## SIGNING LEGEND

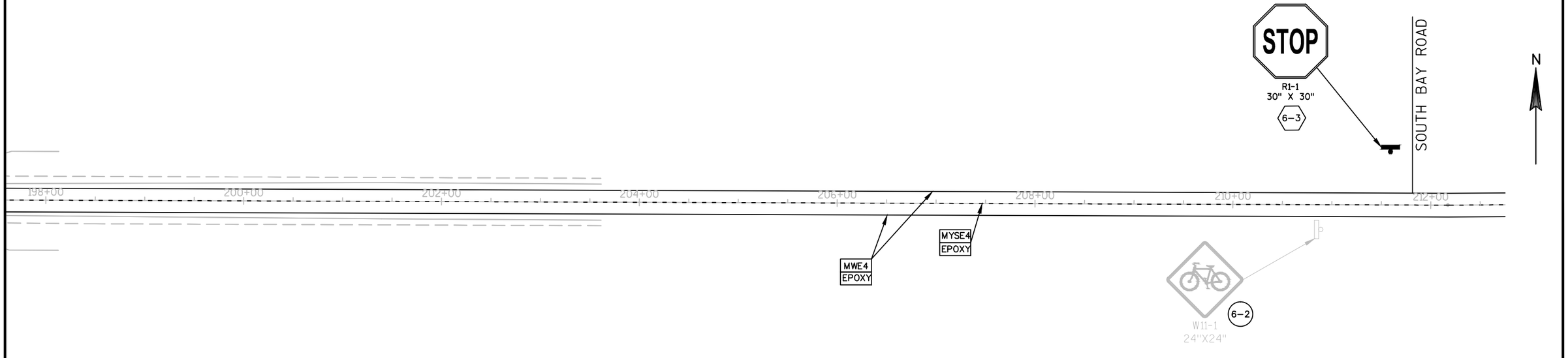
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- X–X SIGN – MOVE
- X–X SIGN – REMOVE AND REPLACE
- X–X SIGN – REMOVE
- X–X SIGN – PLACE NEW
- X–X SIGN – EXISTING TO REMAIN




NOTES:
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 31 | E |
|---|---|---|---|---|---|

2

## PAVEMENT MARKINGS LEGEND

| | |
|---|---|
| DLY4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, NO PASSING) |
| MWS4 | PAVEMENT MARKING EPOXY 4–INCH (WHITE) |
| MYSE4 | PAVEMENT MARKING EPOXY 4–INCH (YELLOW, SKIP) |
| MCH8 | PAVEMENT MARKING EPOXY 8–INCH (CHANNELIZING, WHITE) |
| MSL18 | PAVEMENT MARKING STOP LINE EPOXY 18–INCH (WHITE) |
| EPOXY | EPOXY |

## SIGNING LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- SIGN – MOVE
- SIGN – REMOVE AND REPLACE
- SIGN – REMOVE
- SIGN – PLACE NEW
- SIGN – EXISTING TO REMAIN

N

W11-1 24"X24" 7–1

214+00 216+00 218+00 220+00 222+00 224+00 226+00

MWE4 EPOXY

MYSE4 EPOXY

W11-1 24"X24" 7–2

NOTES:
PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD.

NO PASSING ZONE PENNANTS SHALL BE PLACED IN ACCORDANCE WITH THE RESULTS OF THE LOCATING NO PASSING ZONE ITEM.

USE SDD "PAVEMENT MARKING (INTERSECTIONS)" FOR EDGELINE MARKING AT INTERSECTIONS.

N

NO PASSING ZONE W14-3 48" X 36" 7–3

W11-1 24"X24" 7–4

MYSE4 EPOXY

DLY4 EPOXY

JCT M 2-1 21" X 15"
COUNTY O M1-5A 24" X 24"
J1-1 24" X 39" 7–5

226+00 228+00 230+00 232+00 234+00 236+00 238+00 240+00

STH 70

W2-1 30" X 30" 7–6

45 M.P.H. W13-1 18" X 18" 7–7

ADOPT-A-HIGHWAY SPONSOR OUR SAVIOR LUTHERAN YOUTH EAGLE RIVER
I55-56MOD 30" X 36" 7–8

ADOPT-A-HIGHWAY SPONSOR OUR SAVIOR LUTHERAN YOUTH EAGLE RIVER
I55-56MOD 30" X 36" 7–9

MWE4 EPOXY

MYSE4 EPOXY

DLY4 EPOXY

WEST M3-4 24" X 12"
70 M1-6 24" X 24"
J4-1 24" X 36" 7–12

WEST M3-4 24" X 12" 7–13
70 M1-6 24" X 24" 7–14

COUNTY O M1-5A 24" X 24"
COUNTY O M1-5A 24" X 24" 7–10

M 6-1 21" X 21" 7–11

COUNTY O M1-5A 24" X 24"
M 6-1 21" X 21"
J13-1 24" X 45" 7–17

COUNTY O M1-5A 24" X 24"
M6-1 21" X 21"
J13-1 24" X 45" 7–18

STOP R1-1 30" X 30" 7–19

OLD STH 70

DLY4 EPOXY

CTH O

STOP R1-1 36" X 36" 7–15

500'

W3-1 36" X 36" 7–16

500'

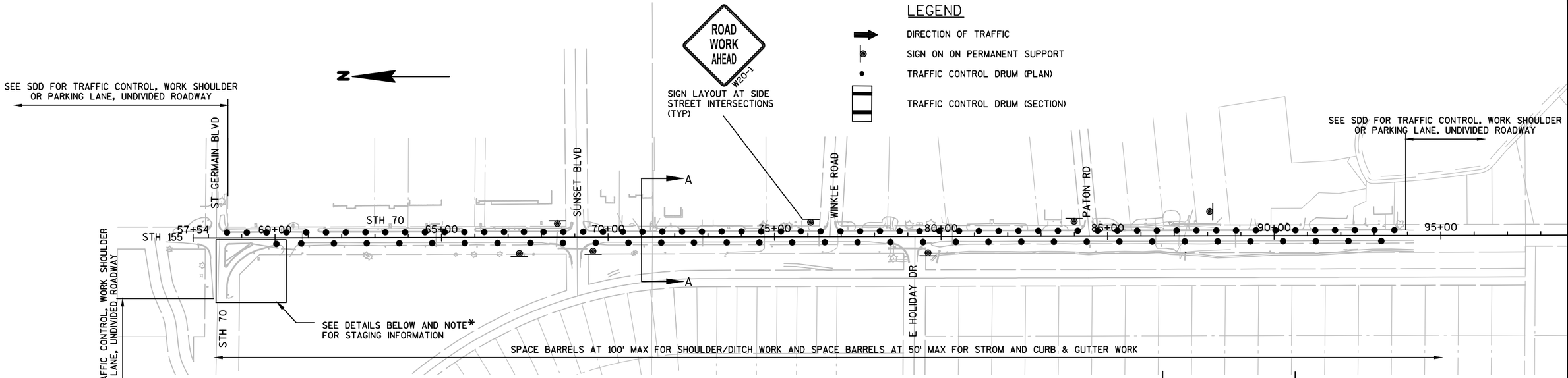
STOP R1-1 36" X 36" 7–21

STOP R1-1 30" X 30" 7–22

70 M1-6 24" X 24"
M 6-4 21" X 21"
J13-1 24" X 45" 7–23

W3-1 36" X 36" 7–20

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET 32 | E |
|---|---|---|---|---|---|




NOTES:

GENERAL

MAINTAIN ALL EXISTING STOP SIGNS AT ALL TIMES

*MAINTAIN 11' LANES WITH 1' CLEARANCE EACH SIDE OF LANE AT STH 155/STH 70 INTERSECTION.

POST NO PARKING SIGNS AS REQUIRED TO PROHIBIT PARKING IN EXISTING PARKING ZONES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED

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

CONSTRUCTION ACTIVITIES TO BE COMPLETED ALONG STH 70

SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" AND SUPPLEMENT WITH INFORMATION SHOWN ON THIS SHEET FOR STORM, CURB & GUTTER, DITCHING, AND SHOULDER CONSTRUCTION AREAS.

ROAD SHALL BE OPEN TO TWO-WAY TRAFFIC AT THE END OF THE CONSTRUCTION DAY.

A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER.

SEE SDD FOR TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) FOR MILLING, UPPER LAYER PAVING, AND STORM SEWER WORK.

SHOULDER CLOSURES MAY BE USED FOR COMPLETION OF MISCELLANEOUS WORK OUTSIDE CURB & GUTTER. SEE SDD FOR TRAFFIC CONTROL, WORK SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY.

LOCAL ROADS

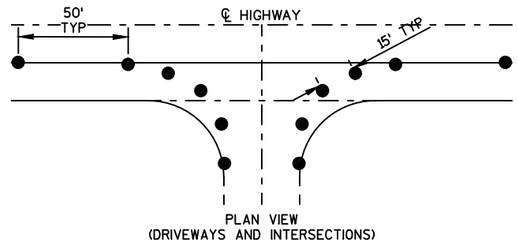
NO TWO SIDE ROADS SHALL BE CLOSED AT THE SAME TIME.

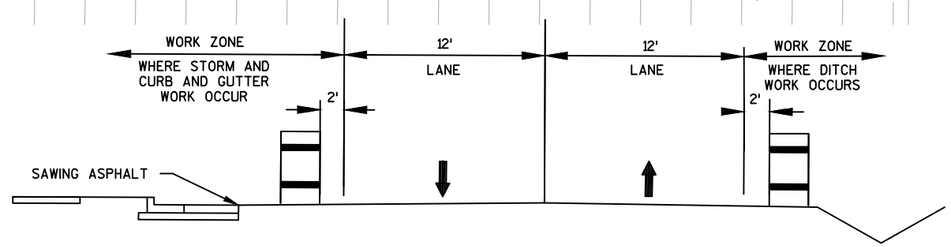
DRIVEWAYS

MAINTAIN ACCESS TO AT LEAST ONE SUPERMARKET DRIVEWAY AT STA 60+00 LT OR 61+10 LT AT ALL TIMES.

## DRUM OPENING DETAIL AT DRIVEWAYS & SIDE ROADS

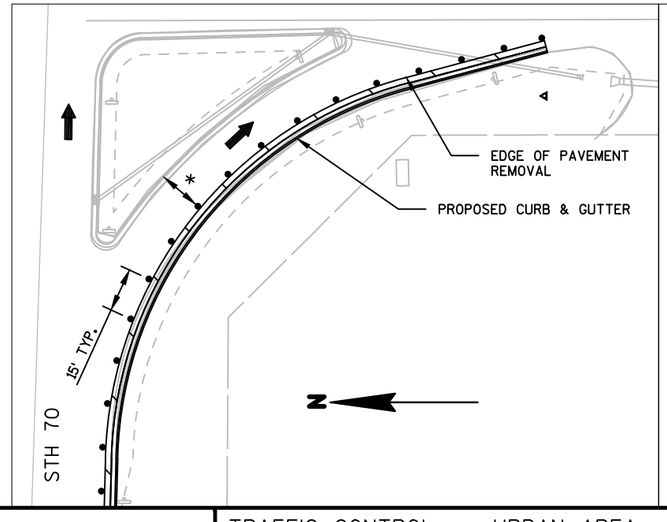
DRUM OPENINGS ARE NOT SHOWN ON PLANS AT ALL DRIVEWAYS. MAINTAIN OPENING UNLESS OTHERWISE APPROVED PER DETAIL.



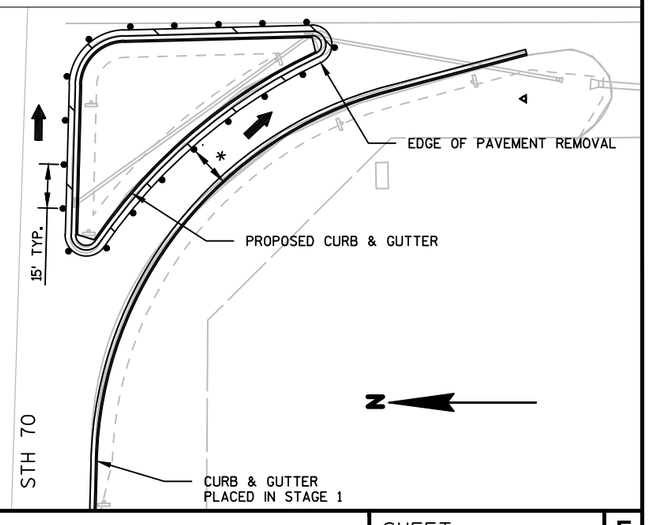




SECTION A-A

## TRAFFIC CONTROL LAYOUT - STAGE 1

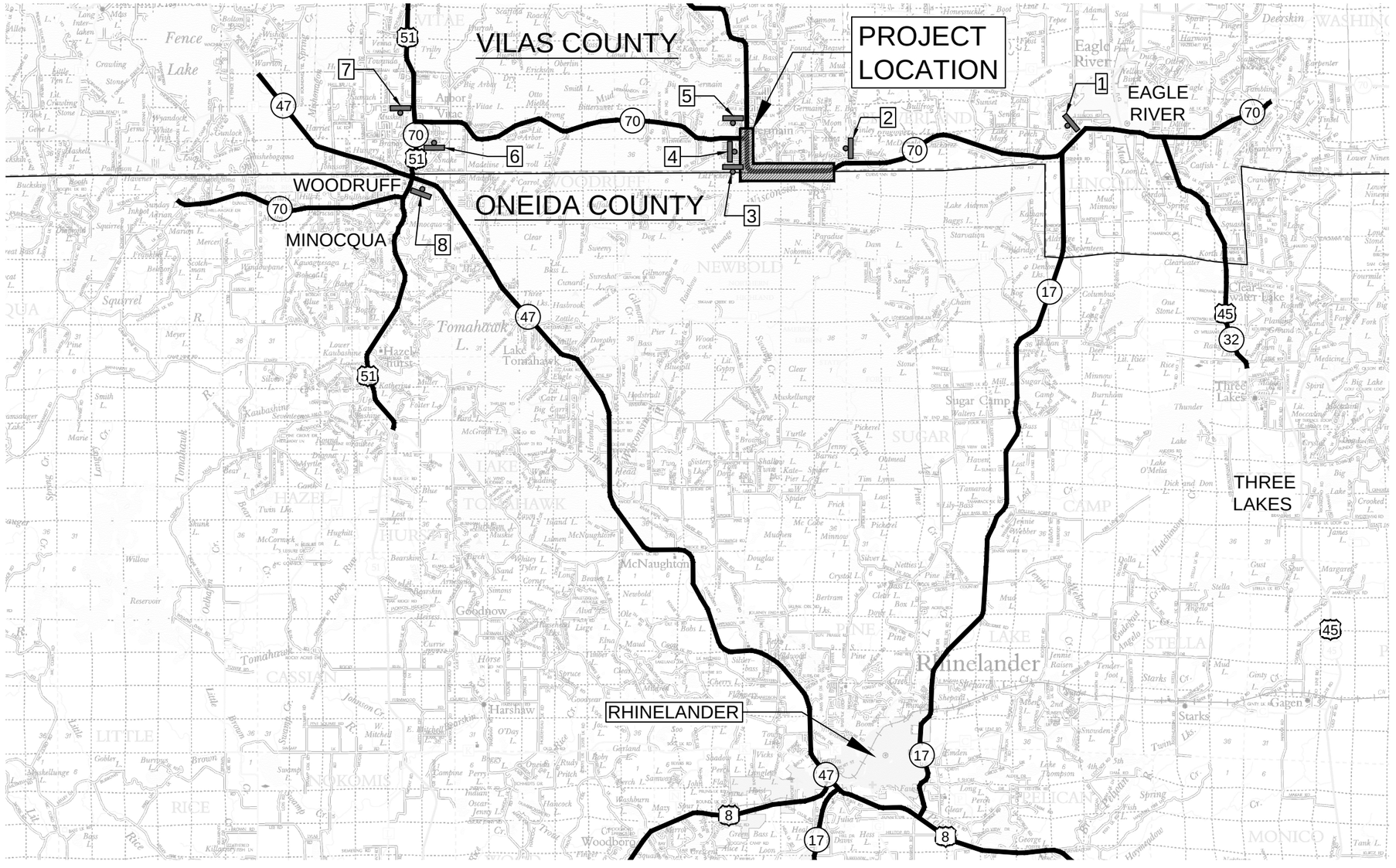



## TRAFFIC CONTROL LAYOUT - STAGE 2




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL - URBAN AREA | SHEET 33 | E |
|---|---|---|---|---|---|

2




ADVANCED WARNING FOR LANE WIDTH RESTRICTIONS

PLACE THE FOLLOWING ADVANCED WARNING SIGNS AT THE FOLLOWING LOCATIONS DURING STAGES 1A/1B, 2, 3, AND 4.

* 70
M1-6
24" X 24"

MAX. 11' WIDTH
W12-52
48" X 48"

XX MILES AHEAD
W57-52
36" X 24"

1. STH 70 / STH 17 (8 MILES AHEAD)
2. STH 70 / CTH O (1 MILE AHEAD)
3. STH 70 / CTH J (1 MILE AHEAD)
4. STH 70 / STH 155 (1 MILE AHEAD)
5. STH 70 / STH 155 (1 MILE AHEAD)
6. STH 70 / USH 51 NB (10 MILES AHEAD)
7. STH 70 / USH 51 SB (10 MILES AHEAD)
8. STH 70 / STH 47 (12 MILES AHEAD)

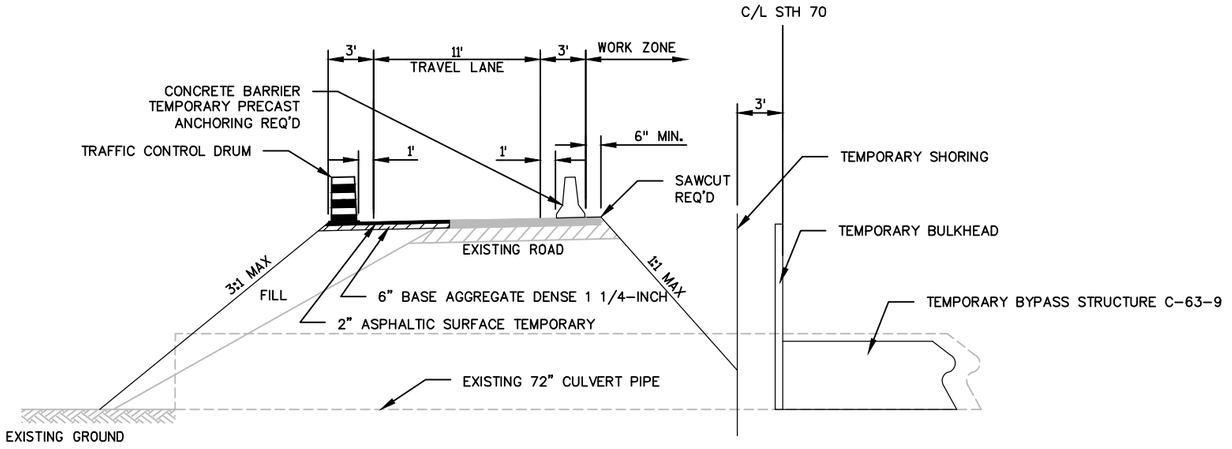
SIGN ON POST (ALL SIGNS TO BE PLACED ON NEW POSTS).

NOTES:

* PLACE SIGN M1-6 WHEN ASSEMBLY IS MOUNTED ON ALL ROADWAYS OTHER THAN STH 70.

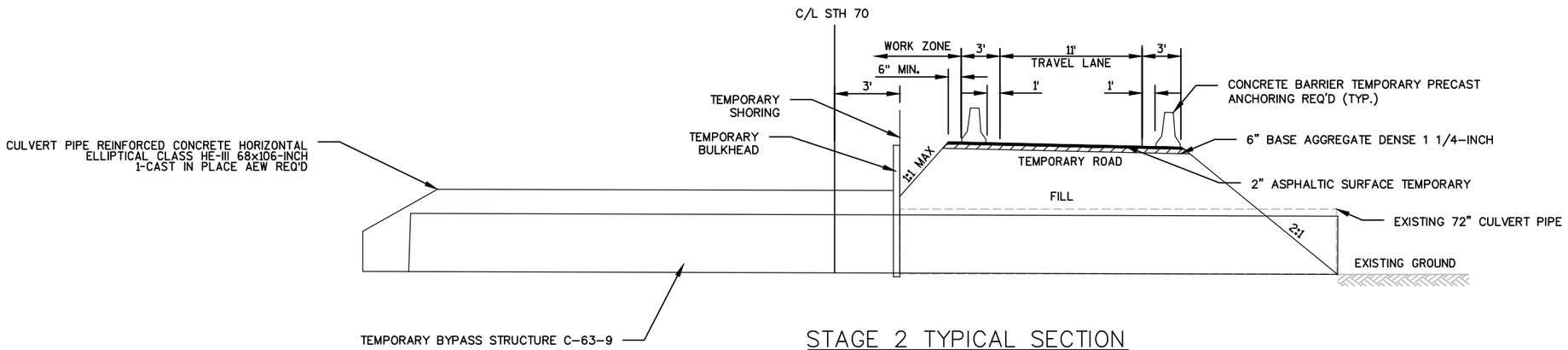
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL - LANE WIDTH RESTRICTIONS | SHEET 34 | E |
|---|---|---|---|---|---|

2




## STAGE 1A/1B TYPICAL SECTION

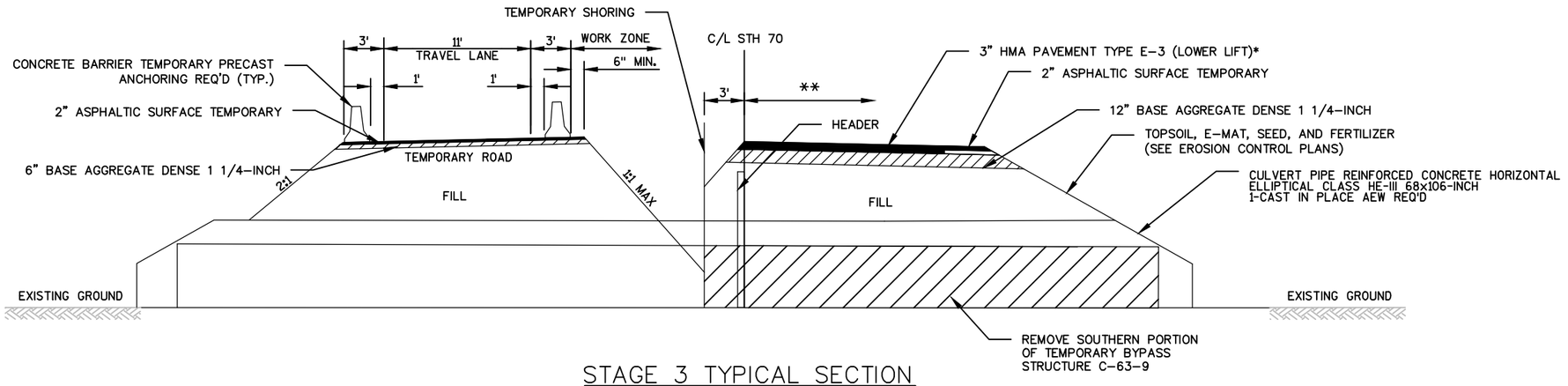
(TEMPORARY SIGNALS AT LITTLE SAINT GERMAIN CREEK
CULVERT ONE LANE TWO-WAY TRAFFIC)
STATION 193+00 – STATION 194+25




## STAGE 2 TYPICAL SECTION

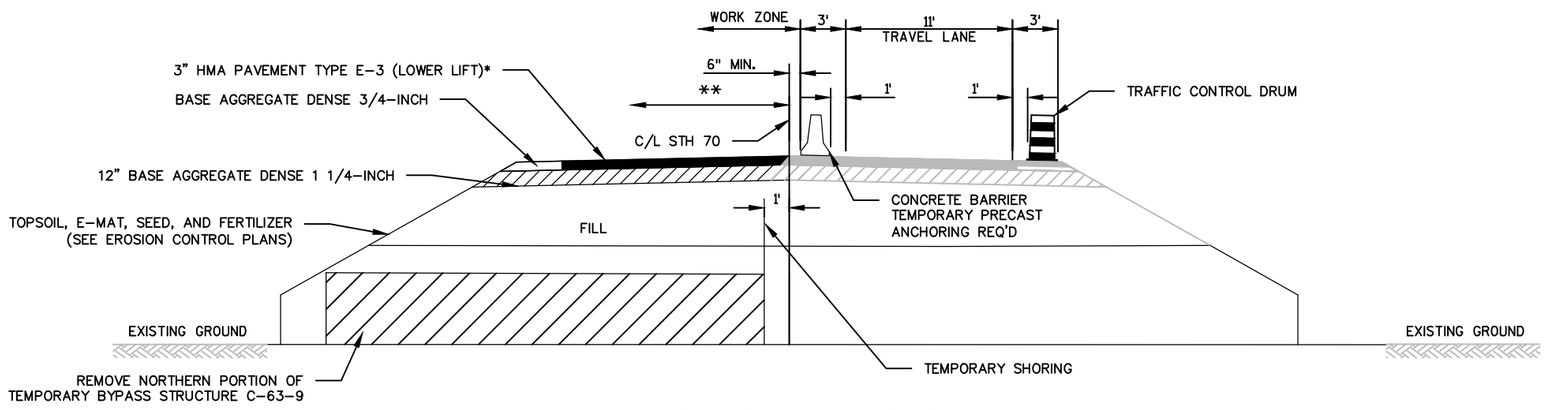
(TEMPORARY SIGNALS AT LITTLE SAINT GERMAIN CREEK
CULVERT ONE LANE TWO-WAY TRAFFIC)
STATION 193+00 – STATION 194+25

2




## STAGE 3 TYPICAL SECTION

(TEMPORARY SIGNALS AT LITTLE SAINT GERMAIN CREEK
CULVERT ONE LANE TWO-WAY TRAFFIC)
STATION 193+00 – STATION 194+25




## STAGE 4 TYPICAL SECTION

(TEMPORARY SIGNALS AT LITTLE SAINT GERMAIN CREEK
CULVERT ONE LANE TWO-WAY TRAFFIC)
STATION 193+00 – STATION 194+25

NOTES:
*2" OVERLAY HMA PAVEMENT TYPE E-3 TO BE PLACED WITH MAINLINE PAVING.

**SEE PROPOSED TYPICAL SECTIONS FOR FINISHED DIMENSIONS.

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL-TYPICAL SECTIONS | SHEET 36 | E |
|---|---|---|---|---|---|

## LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- XXXX XXXX — REMOVING PAVEMENT MARKINGS
- WORK ZONE
- ASPHALTIC SURFACE TEMPORARY WIDENING
- SAND BAGS
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES. TRAILER OR BREAKAWAY POLE MOUNTED SIGNALS MAY BE USED.

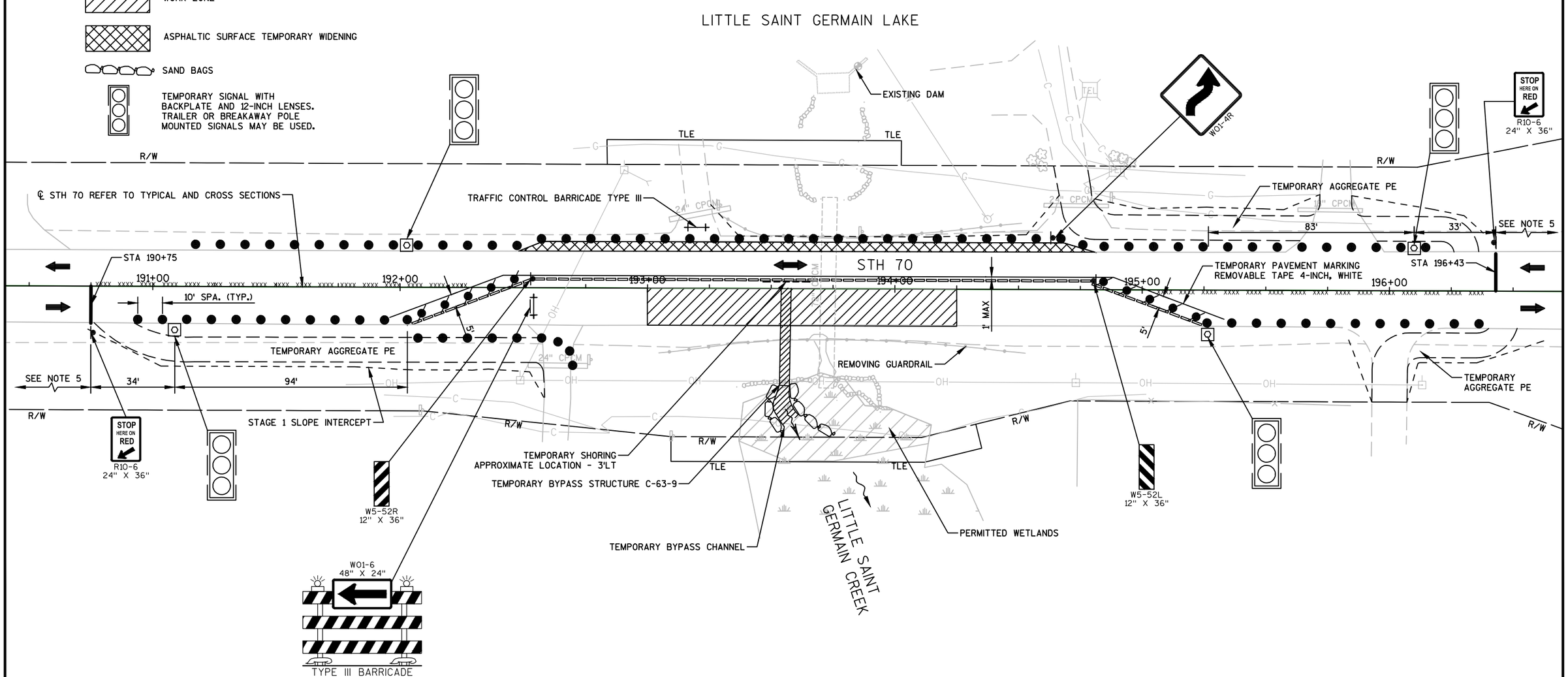
## STAGE I NOTES

STAGE 1A
- CONSTRUCT NORTHERN TEMPORARY BYPASS LANE (LANE SHIFT).
- INSTALL TEMPORARY SIGNALS.

STAGE 1B
- SHIFT TRAFFIC TO NORTHERN TEMPORARY BYPASS LANE.
- REMOVING GUARDRAIL. INSTALL SOUTHERN PORTION OF BYPASS STRUCTURE C-63-9.
- EXISTING CULVERT TO REMAIN.
- CONSTRUCT SOUTHERN TEMPORARY BYPASS CHANNEL.

## GENERAL NOTES

1. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS. EXCLUSIVE OF CONCRETE BARRIER.
4. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
5. SEE SDD FOR "TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR ADDITIONAL TRAFFIC CONTROL ITEMS.
6. 6-INCH (TYP.) LAYER 1 ¼-INCH BASE AGGREGATE DENSE OVER BORROW MATERIAL FOR TEMPORARY AGGREGATE PE. MINIMUM 10-FT (TYP.) WIDTH.




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL-STAGE 1 | SHEET 37 | E |
|---|---|---|---|---|---|

2

## LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- ASPHALTIC SURFACE TEMPORARY WIDENING
- SAND BAGS
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES. TRAILER OR BREAKAWAY POLE MOUNTED SIGNALS MAY BE USED.

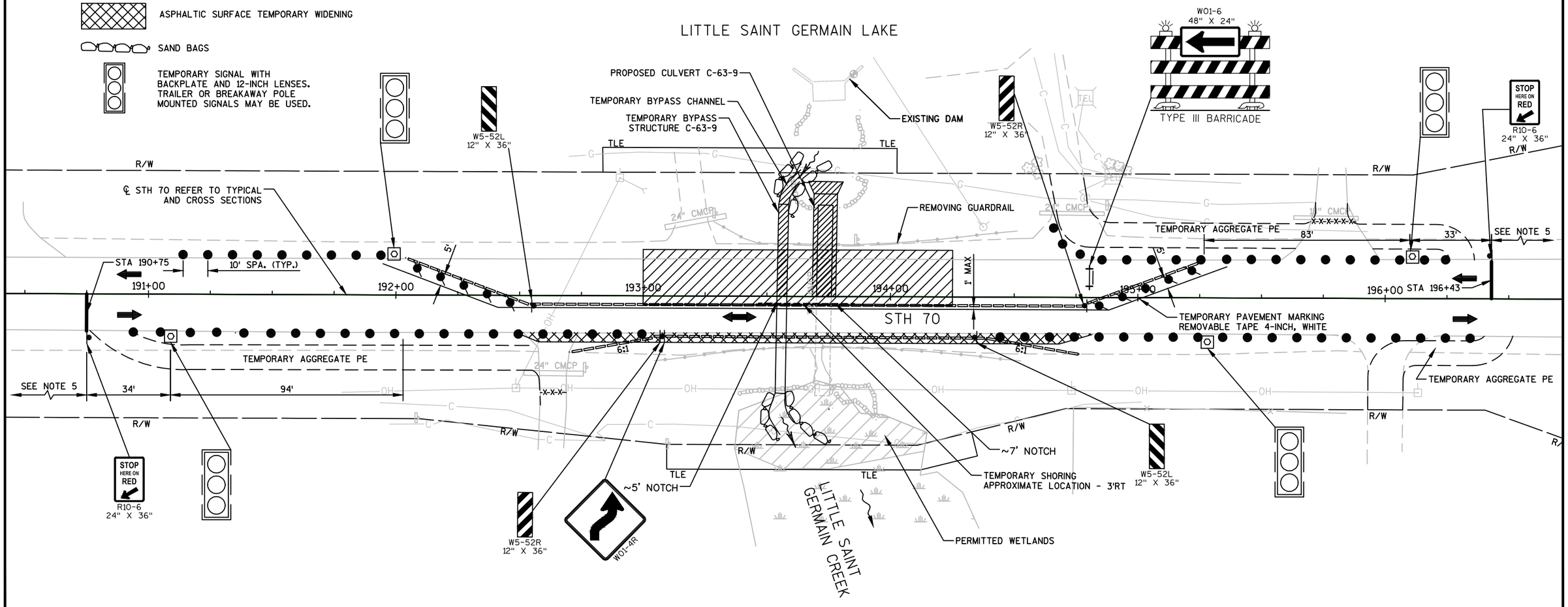
## STAGE 2 NOTES

- TEMPORARY SIGNALS TO REMAIN IN OPERATION WITH TRAFFIC ON NORTHERN BYPASS LANE.
- CONSTRUCT SOUTHERN TEMPORARY BYPASS LANE (LANE SHIFT).
- SHIFT TRAFFIC TO SOUTHERN BYPASS LANE.
- REMOVE PORTION OF NORTHERN BYPASS LANE.
- INSTALL NORTHERN PORTION OF TEMPORARY BYPASS STRUCTURE C-63-9.
- CONSTRUCT NORTHERN TEMPORARY BYPASS CHANNEL.
- REMOVE NORTHERN PORTION OF EXISTING CULVERT PIPE.
- INSTALL NORTHERN PORTION OF PROPOSED CULVERT REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III. APRON ENDWALL REQ'D.

## GENERAL NOTES

1. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS. EXCLUSIVE OF CONCRETE BARRIER.
4. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
5. SEE SDD FOR TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR ADDITIONAL TRAFFIC CONTROL ITEMS.

N




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL-STAGE 2 | SHEET 38 | E |
|---|---|---|---|---|---|

2

## LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- ASPHALTIC SURFACE TEMPORARY WIDENING
- SAND BAGS
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES. TRAILER OR BREAKAWAY POLE MOUNTED SIGNALS MAY BE USED.

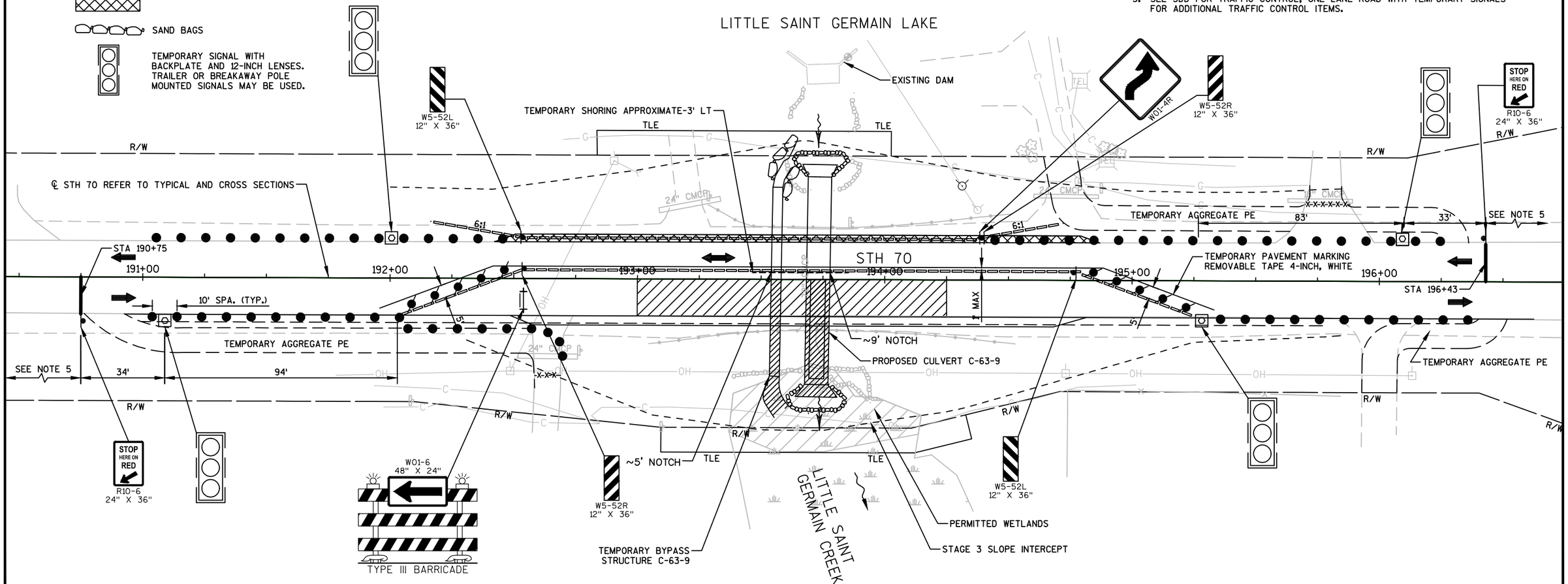
## STAGE 3 NOTES

- TEMPORARY SIGNALS TO REMAIN IN OPERATION WITH TRAFFIC ON NORTHERN BYPASS LANE.
- RECONSTRUCT PORTION OF NORTHERN TEMPORARY BYPASS LANE (LANE SHIFT).
- REMOVE PORTION OF SOUTHERN BYPASS LANE.
- REMOVE SOUTHERN PORTION OF EXISTING CULVERT.
- INSTALL SOUTHERN PORTION OF PROPOSED CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 68X106-INCH, APRON ENDWALL REQUIRED.
- REMOVE SOUTHERN PORTION OF CULVERT PIPE TEMPORARY 48-INCH.
- CONSTRUCT FINAL SLOPES ON SOUTH SIDE.

## GENERAL NOTES

1. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS. EXCLUSIVE OF CONCRETE BARRIER.
4. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
5. SEE SDD FOR TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR ADDITIONAL TRAFFIC CONTROL ITEMS.

N




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL-STAGE 3 | SHEET 39 | E |
|---|---|---|---|---|---|

2

## LEGEND

- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK ZONE
- ASPHALTIC SURFACE TEMPORARY WIDENING
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES. TRAILER OR BREAKAWAY POLE MOUNTED SIGNALS MAY BE USED.

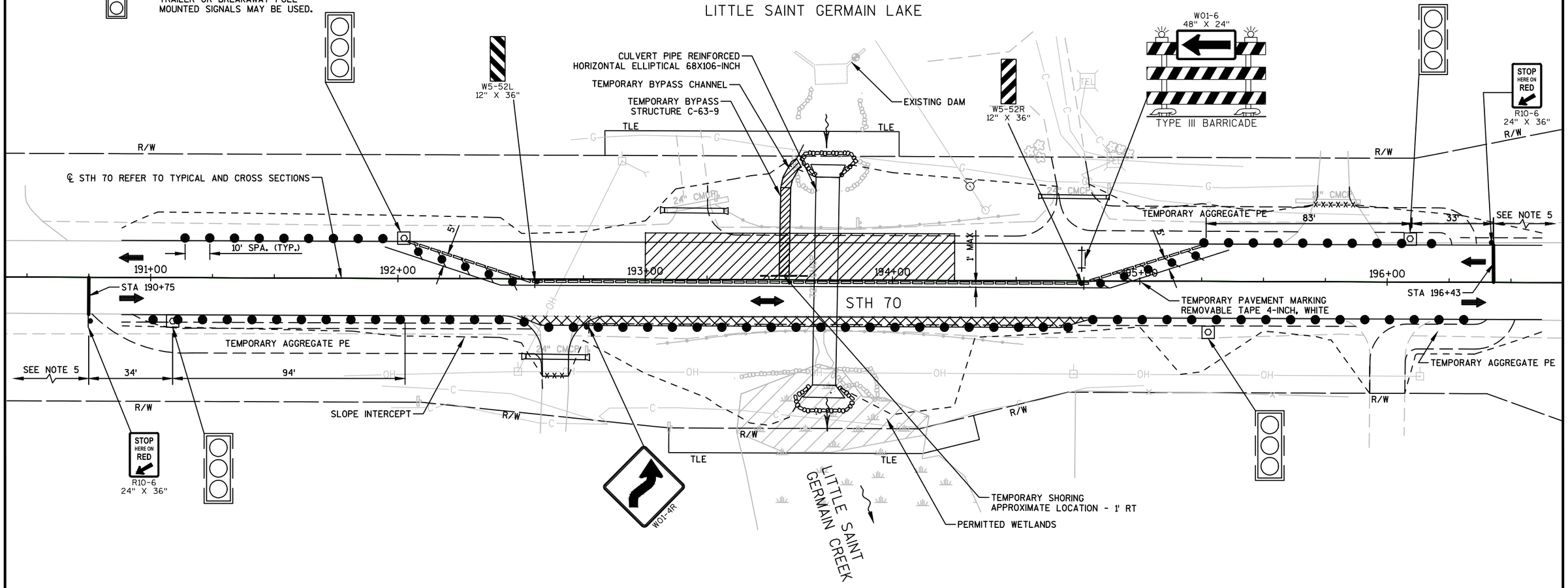
## STAGE 4 NOTES

- TEMPORARY SIGNALS TO REMAIN IN OPERATION WITH TRAFFIC ON SOUTHERN BYPASS LANE.
- RECONSTRUCT PORTION OF SOUTHERN TEMPORARY BYPASS LANE (LANE SHIFT).
- SHIFT TRAFFIC TO SOUTHERN BYPASS LANE.
- REMOVE NORTHERN TEMPORARY BYPASS LANE EXCEPT PORTION OF TEMPORARY ASPHALTIC SURFACE UNDER CONCRETE BARRIERS.
- REMOVE NORTHERN PORTION OF CULVERT PIPE TEMPORARY 48-INCH.
- INSTALL SUBBASE UNDER NORMAL TRAVEL LANES.
- INSTALL BASE AGGREGATE DENSE 1-1/4-INCH AND HMA PAVEMENT TYPE E-3 FOR NORMAL TRAVEL LANES.
- SHIFT TRAFFIC TO NORMAL TRAVEL LANES.
- REMOVE SOUTHERN TEMPORARY BYPASS LANE AND REMAINING PORTION OF NORTHERN TEMPORARY BYPASS LANE.
- REMOVE TEMPORARY SIGNALS.
- REMOVE TEMPORARY AGGREGATE PES.
- CONSTRUCT FINAL SLOPES ON NORTH SIDE.

## GENERAL NOTES

1. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
2. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
3. CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS. EXCLUSIVE OF CONCRETE BARRIER.
4. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
5. SEE SDD FOR TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR ADDITIONAL TRAFFIC CONTROL ITEMS.
6. REMOVE TEMPORARY AGGREGATE PES TO FINAL GRADE. SEE PLAN FOR FINAL CONDITIONS.

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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | TRAFFIC CONTROL-STAGE 4 | SHEET 40 | E |
|---|---|---|---|---|---|

DATE 10DEC14 E S T I M A T E O F Q U A N T I T I E S

| LINE NUMBER | ITEM | ITEM DESCRIPTION | UNIT | TOTAL | 9080-14-60 QUANTITY |
|---|---|---|---|---|---|
| 0010 | 203.0100 | REMOVING SMALL PIPE CULVERTS | EACH | 7.000 | 7.000 |
| 0020 | 203.0500.S | REMOVING OLD STRUCTURE OVER WATERWAY (STATION) 01. 193+73 | LS | 1.000 | 1.000 |
| 0030 | 204.0100 | REMOVING PAVEMENT | SY | 105.000 | 105.000 |
| 0040 | 204.0105 | REMOVING PAVEMENT BUTT JOINTS | SY | 27.000 | 27.000 |
| 0050 | 204.0110 | REMOVING ASPHALTIC SURFACE | SY | 2,523.000 | 2,523.000 |
| 0060 | 204.0115 | REMOVING ASPHALTIC SURFACE BUTT JOINTS | SY | 478.000 | 478.000 |
| 0070 | 204.0120 | REMOVING ASPHALTIC SURFACE MILLING | SY | 65,220.000 | 65,220.000 |
| 0080 | 204.0150 | REMOVING CURB & GUTTER | LF | 4,607.000 | 4,607.000 |
| 0090 | 204.0155 | REMOVING CONCRETE SIDEWALK | SY | 15.000 | 15.000 |
| 0100 | 204.0165 | REMOVING GUARDRAIL | LF | 280.000 | 280.000 |
| 0110 | 205.0100 | EXCAVATION COMMON | CY | 3,412.000 | 3,412.000 |
| 0120 | 206.2000 | EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-63-9 | LS | 1.000 | 1.000 |
| 0130 | 208.0100 | BORROW | CY | 663.000 | 663.000 |
| 0140 | 210.0100 | BACKFILL STRUCTURE | CY | 70.000 | 70.000 |
| 0150 | 213.0100 | FINISHING ROADWAY (PROJECT) 01. 9080-14-60 | EACH | 1.000 | 1.000 |
| 0160 | 305.0110 | BASE AGGREGATE DENSE 3/4-INCH | TON | 1,365.000 | 1,365.000 |
| 0170 | 305.0120 | BASE AGGREGATE DENSE 1 1/4-INCH | TON | 5,655.000 | 5,655.000 |
| 0180 | 305.0125 | BASE AGGREGATE DENSE 1 1/4-INCH | CY | 42.000 | 42.000 |
| 0190 | 305.0500 | SHAPING SHOULDERS | STA | 329.000 | 329.000 |
| 0200 | 416.0160 | CONCRETE DRIVEWAY 6-INCH | SY | 173.000 | 173.000 |
| 0210 | 440.4410.S | INCENTIVE IRI RIDE | DOL | 13,800.000 | 13,800.000 |
| 0220 | 455.0105 | ASPHALTIC MATERIAL PG58-28 | TON | 492.100 | 492.100 |
| 0230 | 455.0605 | TACK COAT | GAL | 3,550.000 | 3,550.000 |
| 0240 | 460.1103 | HMA PAVEMENT TYPE E-3 | TON | 8,970.000 | 8,970.000 |
| 0250 | 460.2000 | INCENTIVE DENSITY HMA PAVEMENT | DOL | 5,750.000 | 5,750.000 |
| 0260 | 465.0110 | ASPHALTIC SURFACE PATCHING | TON | 50.000 | 50.000 |
| 0270 | 465.0120 | ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES | TON | 235.000 | 235.000 |
| 0280 | 465.0125 | ASPHALTIC SURFACE TEMPORARY | TON | 200.000 | 200.000 |
| 0290 | 465.0315 | ASPHALTIC FLUMES | SY | 7.000 | 7.000 |
| 0300 | 465.0475 | ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL | LF | 9,600.000 | 9,600.000 |
| 0310 | 504.0900 | CONCRETE MASONRY ENDWALLS | CY | 17.500 | 17.500 |
| 0320 | 505.0410 | BAR STEEL REINFORCEMENT HS CULVERTS | LB | 400.000 | 400.000 |
| 0330 | 505.0610 | BAR STEEL REINFORCEMENT HS COATED CULVERTS | LB | 970.000 | 970.000 |
| 0340 | 511.1100 | TEMPORARY SHORING | SF | 1,920.000 | 1,920.000 |
| 0350 | 516.0500 | RUBBERIZED MEMBRANE WATERPROOFING | SY | 10.000 | 10.000 |
| 0360 | 520.0124 | CULVERT PIPE CLASS III 24-INCH | LF | 72.000 | 72.000 |
| 0370 | 520.1015 | APRON ENDWALLS FOR CULVERT PIPE 15-INCH | EACH | 1.000 | 1.000 |
| 0380 | 520.1018 | APRON ENDWALLS FOR CULVERT PIPE 18-INCH | EACH | 12.000 | 12.000 |
| 0390 | 520.1024 | APRON ENDWALLS FOR CULVERT PIPE 24-INCH | EACH | 8.000 | 8.000 |
| 0400 | 520.1030 | APRON ENDWALLS FOR CULVERT PIPE 30-INCH | EACH | 2.000 | 2.000 |
| 0410 | 520.7000 | CLEANING CULVERT PIPES | EACH | 11.000 | 11.000 |
| 0420 | 522.0124 | CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH | LF | 56.000 | 56.000 |
| 0430 | 522.0130 | CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH | LF | 112.000 | 112.000 |
| 0440 | 522.1024 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH | EACH | 2.000 | 2.000 |
| 0450 | 522.1030 | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH | EACH | 4.000 | 4.000 |

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DATE 10DEC14 E S T I M A T E O F Q U A N T I T I E S

| LINE NUMBER | ITEM | ITEM DESCRIPTION | UNIT | TOTAL | 9080-14-60 QUANTITY |
|---|---|---|---|---|---|
| 0460 | 523.0168 | CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 68X106-INCH | LF | 84.000 | 84.000 |
| 0470 | 601.0411 | CONCRETE CURB & GUTTER 30-INCH TYPE D | LF | 4,542.000 | 4,542.000 |
| 0480 | 601.0557 | CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D | LF | 158.000 | 158.000 |
| 0490 | 602.0405 | CONCRETE SIDEWALK 4-INCH | SF | 140.000 | 140.000 |
| 0500 | 602.0505 | CURB RAMP DETECTABLE WARNING FIELD YELLOW | SF | 16.000 | 16.000 |
| 0510 | 603.8000 | CONCRETE BARRIER TEMPORARY PRECAST DELIVERED | LF | 540.000 | 540.000 |
| 0520 | 603.8125 | CONCRETE BARRIER TEMPORARY PRECAST INSTALLED | LF | 1,752.000 | 1,752.000 |
| 0530 | 606.0100 | RIPRAP LIGHT | CY | 3.000 | 3.000 |
| 0540 | 606.0300 | RIPRAP HEAVY | CY | 24.000 | 24.000 |
| 0550 | 608.0315 | STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH | LF | 32.000 | 32.000 |
| 0560 | 608.0318 | STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH | LF | 193.000 | 193.000 |
| 0570 | 611.0430 | RECONSTRUCTING INLETS | EACH | 1.000 | 1.000 |
| 0580 | 611.0624 | INLET COVERS TYPE H | EACH | 6.000 | 6.000 |
| 0590 | 611.3230 | INLETS 2X3-FT | EACH | 6.000 | 6.000 |
| 0600 | 611.8115 | ADJUSTING INLET COVERS | EACH | 9.000 | 9.000 |
| 0610 | 618.0100 | MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 9080-14-60 | EACH | 1.000 | 1.000 |
| 0620 | 619.1000 | MOBILIZATION | EACH | 1.000 | 1.000 |
| 0630 | 621.0100 | LANDMARK REFERENCE MONUMENTS | EACH | 7.000 | 7.000 |
| 0640 | 625.0500 | SALVAGED TOPSOIL | SY | 12,290.000 | 12,290.000 |
| 0650 | 627.0200 | MULCHING | SY | 1,500.000 | 1,500.000 |
| 0660 | 628.1504 | SILT FENCE | LF | 1,800.000 | 1,800.000 |
| 0670 | 628.1520 | SILT FENCE MAINTENANCE | LF | 2,300.000 | 2,300.000 |
| 0680 | 628.1905 | MOBILIZATIONS EROSION CONTROL | EACH | 6.000 | 6.000 |
| 0690 | 628.1910 | MOBILIZATIONS EMERGENCY EROSION CONTROL | EACH | 2.000 | 2.000 |
| 0700 | 628.2008 | EROSION MAT URBAN CLASS I TYPE B | SY | 12,290.000 | 12,290.000 |
| 0710 | 628.7005 | INLET PROTECTION TYPE A | EACH | 15.000 | 15.000 |
| 0720 | 628.7015 | INLET PROTECTION TYPE C | EACH | 15.000 | 15.000 |
| 0730 | 628.7504 | TEMPORARY DITCH CHECKS | LF | 225.000 | 225.000 |
| 0740 | 628.7555 | CULVERT PIPE CHECKS | EACH | 36.000 | 36.000 |
| 0750 | 628.7570 | ROCK BAGS | EACH | 60.000 | 60.000 |
| 0760 | 629.0210 | FERTILIZER TYPE B | CWT | 9.000 | 9.000 |
| 0770 | 630.0140 | SEEDING MIXTURE NO. 40 | LB | 260.000 | 260.000 |
| 0780 | 633.5200 | MARKERS CULVERT END | EACH | 4.000 | 4.000 |
| 0790 | 634.0614 | POSTS WOOD 4X6-INCH X 14-FT | EACH | 76.000 | 76.000 |
| 0800 | 637.2210 | SIGNS TYPE II REFLECTIVE H | SF | 417.040 | 417.040 |
| 0810 | 637.2230 | SIGNS TYPE II REFLECTIVE F | SF | 114.250 | 114.250 |
| 0820 | 638.2602 | REMOVING SIGNS TYPE II | EACH | 109.000 | 109.000 |
| 0830 | 638.3000 | REMOVING SMALL SIGN SUPPORTS | EACH | 74.000 | 74.000 |
| 0840 | 642.5001 | FIELD OFFICE TYPE B | EACH | 1.000 | 1.000 |
| 0850 | 643.0100 | TRAFFIC CONTROL (PROJECT) 01. 9080-14-60 | EACH | 1.000 | 1.000 |
| 0860 | 643.0300 | TRAFFIC CONTROL DRUMS | DAY | 3,937.000 | 3,937.000 |
| 0870 | 643.0420 | TRAFFIC CONTROL BARRICADES TYPE III | DAY | 469.000 | 469.000 |
| 0880 | 643.0705 | TRAFFIC CONTROL WARNING LIGHTS TYPE A | DAY | 938.000 | 938.000 |
| 0890 | 643.0715 | TRAFFIC CONTROL WARNING LIGHTS TYPE C | DAY | 2,850.000 | 2,850.000 |
| 0900 | 643.0900 | TRAFFIC CONTROL SIGNS | DAY | 2,385.000 | 2,385.000 |
| 0910 | 643.0910 | TRAFFIC CONTROL COVERING SIGNS TYPE I | EACH | 5.000 | 5.000 |

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DATE 10DEC14 E S T I M A T E O F Q U A N T I T I E S

| LINE NUMBER | ITEM | ITEM DESCRIPTION | UNIT | TOTAL | 9080-14-60 QUANTITY |
|---|---|---|---|---|---|
| 0920 | 643.0920 | TRAFFIC CONTROL COVERING SIGNS TYPE II | EACH | 5.000 | 5.000 |
| 0930 | 645.0105 | GEOTEXTILE FABRIC TYPE C | SY | 130.000 | 130.000 |
| 0940 | 645.0120 | GEOTEXTILE FABRIC TYPE HR | SY | 55.000 | 55.000 |
| 0950 | 645.0130 | GEOTEXTILE FABRIC TYPE R | SY | 11.000 | 11.000 |
| 0960 | 646.0106 | PAVEMENT MARKING EPOXY 4-INCH | LF | 38,645.000 | 38,645.000 |
| 0970 | 646.0126 | PAVEMENT MARKING EPOXY 8-INCH | LF | 180.000 | 180.000 |
| 0980 | 646.0406 | PAVEMENT MARKING SAME DAY EPOXY 4-INCH | LF | 8,036.000 | 8,036.000 |
| 0990 | 646.0600 | REMOVING PAVEMENT MARKINGS | LF | 570.000 | 570.000 |
| 1000 | 647.0166 | PAVEMENT MARKING ARROWS EPOXY TYPE 2 | EACH | 2.000 | 2.000 |
| 1010 | 647.0176 | PAVEMENT MARKING ARROWS EPOXY TYPE 3 | EACH | 2.000 | 2.000 |
| 1020 | 647.0356 | PAVEMENT MARKING WORDS EPOXY | EACH | 2.000 | 2.000 |
| 1030 | 647.0526 | PAVEMENT MARKING YIELD LINE SYMBOLS EPOXY 18-INCH | EACH | 8.000 | 8.000 |
| 1040 | 647.0566 | PAVEMENT MARKING STOP LINE EPOXY 18-INCH | LF | 86.000 | 86.000 |
| 1050 | 648.0100 | LOCATING NO-PASSING ZONES | MI | 3.440 | 3.440 |
| 1060 | 649.0100 | TEMPORARY PAVEMENT MARKING 4-INCH | LF | 5,035.000 | 5,035.000 |
| 1070 | 649.0400 | TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH | LF | 1,400.000 | 1,400.000 |
| 1080 | 649.1400 | TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH | LF | 30.000 | 30.000 |
| 1090 | 650.4000 | CONSTRUCTION STAKING STORM SEWER | EACH | 11.000 | 11.000 |
| 1100 | 650.4500 | CONSTRUCTION STAKING SUBGRADE | LF | 405.000 | 405.000 |
| 1110 | 650.5000 | CONSTRUCTION STAKING BASE | LF | 405.000 | 405.000 |
| 1120 | 650.5500 | CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER | LF | 4,700.000 | 4,700.000 |
| 1130 | 650.6000 | CONSTRUCTION STAKING PIPE CULVERTS | EACH | 7.000 | 7.000 |
| 1140 | 650.6500 | CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. C-63-9 | LS | 1.000 | 1.000 |
| 1150 | 650.8000 | CONSTRUCTION STAKING RESURFACING REFERENCE | LF | 18,285.000 | 18,285.000 |
| 1160 | 650.9910 | CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 9080-14-60 | LS | 1.000 | 1.000 |
| 1170 | 650.9920 | CONSTRUCTION STAKING SLOPE STAKES | LF | 3,745.000 | 3,745.000 |
| 1180 | 661.0100 | TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (STRUCTURE) 01. C-63-9 | LS | 1.000 | 1.000 |
| 1190 | 690.0150 | SAWING ASPHALT | LF | 7,021.000 | 7,021.000 |
| 1200 | 690.0250 | SAWING CONCRETE | LF | 63.000 | 63.000 |
| 1210 | ASP.1T0A | ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR | HRS | 1,200.000 | 1,200.000 |
| 1220 | ASP.1T0G | ON-THE-JOB TRAINING GRADUATE AT $5.00/HR | HRS | 1,200.000 | 1,200.000 |
| 1230 | SPV.0060 | SPECIAL 01. TEMPORARY PAVEMENT MARKING REFLECTIVE TABS | EACH | 195.000 | 195.000 |
| 1240 | SPV.0090 | SPECIAL 01. FOG SEAL RUMBLE STRIPS | LF | 9,600.000 | 9,600.000 |
| 1250 | SPV.0105 | SPECIAL 01. EXCAVATION FOR DRY HYDRANT | LS | 1.000 | 1.000 |
| 1260 | SPV.0105 | SPECIAL 02. TEMPORARY BYPASS STRUCTURE C-63-9 | LS | 1.000 | 1.000 |
| 1270 | SPV.0125 | SPECIAL 01. SEALING ASPHALTIC PAVEMENT CRACKS | MI | 3.400 | 3.400 |
| 1280 | SPV.0170 | SPECIAL 01. REHEATING HMA PAVEMENT LONGITUDINAL JOINTS | STA | 183.000 | 183.000 |
| 1290 | SPV.0180 | SPECIAL 01. THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSING **P** | SY | 67.000 | 67.000 |

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## EARTHWORK SUMMARY

| | | | | 205.0100 EXCAVATION COMMON (1) | | UNUSABLE PAVEMENT MATERIAL | AVAILABLE MATERIAL | | | MASS ORDINATE | 208.0100 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | CUT (2) | EBS (3) | (4) | (5) | UNEXPANDED FILL | EXPANDED FILL (6) | ± (7) | WASTE | BORROW | |
| DIVISION | STATION | TO | STATION | CY | CY | CY | CY | CY | CY | CY | CY | CY | COMMENTS: |
| 1 | 57+67 | - | 94+20 | 2,232 | 0 | 574 | 1,658 | 0 | 0 | 1,658 | 1,658 | 0 | C&G 30-INCH |
| | 60+82 | - | 94+00 | 895 | 0 | 0 | 895 | 18 | 23 | 872 | 872 | 0 | ST GERMAIN WEST DITCH |
| | 192+00 | - | 196+25 | 101 | 0 | 0 | 101 | 3 | 4 | 97 | 97 | 0 | CULVERT REPLACEMENT |
| | 237+25 | - | 238+22 | 101 | 0 | 0 | 101 | 9 | 11 | 90 | 90 | 0 | CTH O DITCHES |
| | 237+81 | - | 239+15 | 83 | 0 | 24 | 59 | 0 | 0 | 59 | 59 | 0 | C&G 36-INCH |
| SUBTOTALS | | | | 3,412 | 0 | 598 | 2,814 | 30 | 38 | 2,776 | 2,776 | 0 | |
| 2* | 193+36 | - | 193+76 | 0 | 0 | 0 | 0 | 200 | 250 | -250 | 0 | 250 | TEMPORARY ROAD (STAGE 2) |
| | 193+36 | - | 193+96 | 0 | 0 | 0 | 0 | 330 | 413 | -413 | 0 | 413 | TEMPORARY ROAD (STAGE 3) |
| SUBTOTALS | | | | 0 | 0 | 0 | 0 | 530 | 663 | -663 | 0 | 663 | |
| | | | **TOTAL** | **3,412** | **0** | **598** | **2,814** | **560** | **701** | **2,113** | **2,776** | **663** | |

1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NO. 205.0100.

2) UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

3) EBS EXCAVATION TO BE BACKFILLED WITH CUT MATERIAL.

4) UNUSABLE PAVEMENT MATERIAL.

5) AVAILABLE MATERIAL = CUT - UNUSABLE PAVEMENT MATERIAL.

6) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25.

7) MASS ORDINATE = (AVAILABLE MATERIAL) - (EXPANDED FILL). PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

*NOTE: DIVISION 2 INCLUDES BORROW FOR TEMPORARY ROADS FOR C-63-9 CULVERT REPLACEMENT STAGING. FINAL ROADWAY VOLUMES ARE INCLUDED IN DIVISION 1.

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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### 203.0100 REMOVING SMALL PIPE CULVERTS

| STATION | LOCATION | EACH | COMMENT |
|---|---|---|---|
| 192+36 | 31' RT | 1 | 24" CPCM |
| 193+22 | 30' LT | 1 | 24" CPCM |
| 194+73 | 34' LT | 1 | 24" CPCM |
| 203+11 | CL | 1 | 30" CPCM |
| 203+61 | CL | 1 | 30"CPCM |
| 231+61 | RT | 1 | DRIVEWAY |
| 238+50 | 61' RT | 1 | 12" CPCP |
| | **TOTAL** | **7** | |

### 204.0105 REMOVING PAVEMENT BUTT JOINTS

| STATION | LOCATION | SY | COMMENT |
|---|---|---|---|
| 72+40 | LT | 15 | CONCRETE PE |
| 74+33 | LT | 12 | CONCRETE PE |
| | **TOTAL** | **27** | |

### 204.0110 REMOVING ASPHALTIC SURFACE

| STATION | TO | STATION | LOCATION | SY | COMMENT |
|---|---|---|---|---|---|
| 57+67 | - | 58+08 | RT | 35 | C&G INSTALLATION |
| 57+76 | - | 58+11 | LT | 25 | C&G INSTALLATION |
| 58+31 | - | 68+95 | LT | 500 | C&G INSTALLATION |
| 58+48 | - | 59+34 | RT | 60 | C&G INSTALLATION |
| 58+54 | - | 59+98 | RT | 55 | C&G INSTALLATION |
| 60+00 | - | 60+00 | LT | 65 | ENTRANCE REMOVAL |
| 68+24 | - | 68+53 | RT | 15 | C&G INSTALLATION |
| 68+75 | - | 68+87 | RT | 10 | C&G INSTALLATION |
| 68+91 | - | 68+91 | RT | 3 | C&G INSTALLATION |
| 69+16 | - | 69+16 | RT | 3 | C&G INSTALLATION |
| 69+22 | - | 69+27 | RT | 4 | C&G INSTALLATION |
| 69+26 | - | 76+61 | LT | 350 | C&G INSTALLATION |
| 69+51 | - | 69+64 | RT | 6 | C&G INSTALLATION |
| 71+46 | - | 71+74 | LT | 22 | ENTRANCE REMOVAL |
| 72+05 | - | 72+74 | LT | 47 | CE |
| 74+06 | - | 74+58 | LT | 39 | CE |
| 76+81 | - | 84+34 | LT | 355 | C&G INSTALLATION |
| 78+36 | - | 78+60 | RT | 11 | C&G INSTALLATION |
| 78+87 | - | 78+96 | RT | 7 | C&G INSTALLATION |
| 79+04 | - | 79+04 | RT | 2 | C&G INSTALLATION |
| 79+28 | - | 79+30 | RT | 6 | C&G INSTALLATION |
| 79+53 | - | 79+71 | RT | 8 | C&G INSTALLATION |
| 83+78 | - | 84+31 | LT | 95 | ENTRANCE REMOVAL |
| 84+54 | - | 94+20 | LT | 440 | C&G INSTALLATION |
| 237+71 | - | 237+71 | RT | 160 | ENTRANCE REMOVAL |
| 237+81 | - | 238+34 | RT | 105 | C&G INSTALLATION |
| 238+67 | - | 239+15 | RT | 95 | C&G INSTALLATION |
| | | | **TOTAL** | **2,523** | |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

### 204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS

| STATION | LOCATION | SY | COMMENT |
|---|---|---|---|
| 57+54 | CL | 16 | STH 155 |
| 58+20 | LT | 13 | ST GERMAIN BLVD |
| 58+30 | RT | 9 | STH 70 TERMINI |
| 60+42 | RT | 8 | PRIVATE ENTRANCE |
| 61+11 | LT | 10 | COMMERCIAL ENTRANCE |
| 65+82 | LT | 10 | COMMERCIAL ENTRANCE |
| 69+04 | RT | 6 | SUNSET BLVD |
| 69+10 | LT | 11 | SUNSET BLVD |
| 75+92 | LT | 4 | COMMERCIAL ENTRANCE |
| 76+62 | LT | 5 | WINKLE ROAD |
| 77+54 | LT | 5 | COMMERCIAL ENTRANCE |
| 78+80 | LT | 6 | COMMERCIAL ENTRANCE |
| 79+14 | RT | 6 | E HOLIDAY DR |
| 80+58 | LT | 9 | COMMERCIAL ENTRANCE |
| 82+85 | LT | 12 | COMMERCIAL ENTRANCE |
| 84+42 | LT | 6 | PATON RD |
| 85+52 | LT | 8 | COMMERCIAL ENTRANCE |
| 87+27 | LT | 7 | COMMERCIAL ENTRANCE |
| 89+37 | LT | 4 | COMMERCIAL ENTRANCE |
| 90+98 | LT | 4 | LOON LANE |
| 93+52 | LT | 8 | PRIVATE ENTRANCE |
| 95+73 | LT | 5 | PRIVATE ENTRANCE |
| 96+75 | LT | 5 | PRIVATE ENTRANCE |
| 97+85 | LT | 7 | PERK ROAD |
| 101+25 | LT | 7 | COMMERCIAL ENTRANCE |
| 102+13 | LT | 7 | COMMERCIAL ENTRANCE |
| 103+79 | LT | 7 | COMMERCIAL ENTRANCE |
| 105+30 | RT | 7 | PARKWAY ROAD |
| 107+09 | LT | 7 | COMMERCIAL ENTRANCE |
| 107+09 | RT | 7 | COMMERCIAL ENTRANCE |
| 109+22 | RT | 7 | COMMERCIAL ENTRANCE |
| 111+41 | RT | 7 | COMMERCIAL ENTRANCE |
| 111+69 | RT | 7 | CTH J |
| 112+90 | LT | 7 | PHILLIPS PL |
| 113+92 | RT | 7 | COMMERCIAL ENTRANCE |

### 204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS

| STATION | LOCATION | SY | COMMENT |
|---|---|---|---|
| 114+30 | RT | 7 | COMMERCIAL ENTRANCE |
| 114+86 | RT | 7 | COMMERCIAL ENTRANCE |
| 116+60 | LT | 7 | STRAIGHT-A-WAY ROAD |
| 119+74 | LT | 7 | ELBERT ROAD |
| 121+32 | RT | 7 | COMMERCIAL ENTRANCE |
| 123+88 | RT | 7 | COMMERCIAL ENTRANCE |
| 123+94 | LT | 7 | COMMERCIAL ENTRANCE |
| 125+00 | LT | 7 | COMMERCIAL ENTRANCE |
| 125+13 | RT | 7 | COMMERCIAL ENTRANCE |
| 126+48 | LT | 7 | ROCKY ROAD |
| 128+11 | RT | 7 | COMMERCIAL ENTRANCE |
| 128+86 | LT | 7 | COMMERCIAL ENTRANCE |
| 129+72 | RT | 7 | COMMERCIAL ENTRANCE |
| 144+64 | LT | 7 | JACKSON LANE |
| 155+97 | RT | 5 | PRIVATE ENTRANCE |
| 159+33 | LT | 7 | HALBERSTADT ROAD |
| 168+88 | RT | 7 | COMMERCIAL ENTRANCE |
| 170+93 | RT | 7 | COMMERCIAL ENTRANCE |
| 175+90 | LT | 7 | LINDSTROM LANE |
| 187+34 | LT | 5 | PRIVATE ENTRANCE |
| 187+91 | LT | 5 | PRIVATE ENTRANCE |
| 190+42 | LT | 5 | PRIVATE ENTRANCE |
| 192+63 | RT | 5 | PRIVATE ENTRANCE |
| 195+78 | LT | 5 | PRIVATE ENTRANCE |
| 202+13 | LT | 5 | FALLEN TIMBER LANE |
| 206+49 | LT | 5 | CEDAROMA DR |
| 207+21 | LT | 5 | PRIVATE ENTRANCE |
| 208+00 | LT | 5 | PRIVATE ENTRANCE |
| 212+17 | LT | 7 | SOUTH BAY ROAD |
| 232+18 | LT | 5 | PRIVATE ENTRANCE |
| 236+88 | RT | 10 | COMMERCIAL ENTRANCE |
| 238+37 | RT | 6 | CTH O |
| 238+73 | LT | 6 | OLD STH 70 |
| 240+36 | CL | 7 | STH 70 TERMINI |
| | **TOTAL** | **478** | |

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## 204.0100 REMOVING PAVEMENT

| STATION | LOCATION | SY | COMMENT |
|---|---|---|---|
| 71+46 | LT | 18 | REMOVE CONCRETE PE |
| 72+40 | LT | 48 | CONCRETE PE |
| 74+33 | LT | 39 | CONCRETE PE |
| | **TOTAL** | **105** | |

## 204.0165 REMOVING GUARDRAIL

| STATION | - | STATION | LOCATION | LF |
|---|---|---|---|---|
| 193+05 | - | 194+53 | RT | 150 |
| 193+28 | - | 194+51 | LT | 130 |
| | | | **TOTAL** | **280** |

## 204.0120 REMOVING ASPHALTIC SURFACE MILLING

| STATION | TO | STATION | LOCATION | SY | COMMENT |
|---|---|---|---|---|---|
| 57+54 | - | 60+00 | CL | 1,800 | STH 155 INTERSECTION |
| 60+00 | - | 94+20 | CL | 11,100 | MAINLINE STH 70 |
| 94+20 | - | 191+69 | CL | 32,500 | MAINLINE STH 70 |
| 195+71 | - | 202+56 | CL | 2,300 | MAINLINE STH 70 |
| 204+61 | - | 240+36 | CL | 12,000 | MAINLINE STH 70 |
| 69+04 | - | --- | RT | 370 | SUNSET BLVD |
| 69+10 | - | --- | LT | 160 | SUNSET BLVD |
| 76+72 | - | --- | LT | 110 | WINKLE RD |
| 79+14 | - | --- | RT | 340 | E HOLIDAY DR |
| 84+42 | - | --- | LT | 110 | PATON RD |
| 105+27 | - | --- | RT | 240 | PARKWAY RD |
| 112+37 | - | --- | RT | 520 | CTH J |
| 116+60 | - | --- | LT | 300 | STRAIGHT-A-WAY RD |
| 144+60 | - | --- | LT | 360 | JACKSON LN |
| 159+32 | - | --- | LT | 140 | HALBERSTADT RD |
| 175+90 | - | --- | LT | 230 | LINDSTROM LN |
| 212+00 | - | --- | LT | 150 | SOUTH BAY RD |
| 238+60 | - | --- | RT | 610 | CTH O |
| 238+65 | - | --- | LT | 380 | OLD HIGHWAY 70 |
| DRIVEWAYS: PE & CE | | | LT,RT | 1,500 | DRIVEWAYS |
| | | | **TOTAL** | **65,220** | |

## BASE AGGREGATE

| STATION | TO | STATION | LOCATION | 305.0110 3/4-INCH TON | 305.0120 1 1/4-INCH TON | COMMENT |
|---|---|---|---|---|---|---|
| 58+24 | - | 93+74 | RT | 125 | --- | SHOULDERS |
| 78+53 | - | - | LT, RT | 2 | --- | SIDEWALK |
| 93+74 | - | 240+36 | LT, RT | 1,030 | --- | SHOULDERS |
| DRIVEWAYS: PE, FE, CE | | | LT, RT | 180 | --- | DRIVEWAY RESTORATION |
| 57+67 | - | 94+20 | LT, RT | --- | 3,350 | C&G 30-INCH |
| 61+08 | - | 62+18 | CL | --- | 230 | STORM SEWER |
| 65+70 | - | 66+80 | CL | --- | 230 | STORM SEWER |
| 70+10 | - | 71+20 | CL | --- | 230 | STORM SEWER |
| 83+20 | - | 84+30 | CL | --- | 240 | STORM SEWER |
| 92+45 | - | 93+55 | CL | --- | 240 | STORM SEWER |
| 192+00 | - | 194+75 | LT | --- | 80 | LANE SHIFT STAGE 1 |
| 194+75 | - | 196+50 | LT | --- | 65 | TEMPORARY AGG PE |
| 191+00 | - | 192+50 | RT | --- | 60 | TEMPORARY AGG PE |
| 196+00 | - | 196+50 | RT | --- | 20 | TEMPORARY AGG PE |
| 192+00 | - | 194+50 | RT | --- | 160 | LANE SHIFT STAGE 2 |
| 192+00 | - | 194+50 | LT | --- | 160 | LANE SHIFT STAGE 3 |
| 202+56 | - | 204+61 | CL | --- | 530 | CULVERT REPLACEMENT |
| UNDISTRIBUTED | | | --- | 28 | 60 | SIDE ROADS |
| | | | **TOTAL** | **1,365** | **5,655** | |

## ASPHALTIC ITEMS

| STATION | TO | STATION | LOCATION | 455.0105 ASPHALTIC MATERIAL PG58-28 TON | 455.0605 TACK COAT* GAL | 460.1103 HMA PAVEMENT TYPE E-3 TON | 465.0110 ASPHALTIC SURFACE PATCHING TON | 465.0120 ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES TON | 465.0125 ASPHALTIC SURFACE TEMPORARY TON | 465.0315 ASPHALTIC FLUMES SY | SPV.0125.01 SEALING ASPHALTIC PAVEMENT CRACKS MI | SPV.0170.01 REHEATING HMA PAVEMENT LONGITUDINAL JOINTS STA | COMMENT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 57+54 | - | 60+00 | --- | 17 | 110 | 300 | --- | --- | --- | --- | --- | --- | STH 155 INTERSECTION |
| 60+00 | - | 94+20 | CL | 105 | 630 | 1,940 | --- | --- | --- | --- | --- | --- | MAINLINE STH 70 |
| 94+20 | - | 144+64 | CL | 130 | 950 | 2,330 | --- | --- | --- | --- | --- | --- | MAINLINE STH 70 |
| 144+64 | - | 240+36 | CL | 210 | 1,600 | 3,850 | --- | --- | --- | --- | --- | --- | MAINLINE STH 70 |
| OLD 70 / CTH O | | | --- | 6.1 | 60 | 110 | --- | --- | --- | --- | --- | --- | INTERSECTIONS |
| 191+69 | - | 195+71 | CL | --- | --- | --- | --- | --- | 200 | --- | -- | --- | CULVERT REPLACEMENT |
| UNDISTRIBUTED | | | --- | 24 | 200 | 440 | --- | --- | --- | --- | --- | --- | SIDE ROADS |
| UNDISTRIBUTED | | | --- | --- | --- | --- | 50 | --- | --- | --- | --- | --- | MILLED SURFACE REPAIRS |
| UNDISTRIBUTED | | | --- | --- | --- | --- | --- | 235 | --- | --- | --- | --- | DRIVEWAYS |
| PROJECT 9080-14-60 | | | --- | --- | --- | --- | --- | --- | --- | --- | 3.4 | 183 | |
| 79+71 | | | 19' RT | --- | --- | --- | --- | --- | --- | 7 | --- | --- | E HOLIDAY DR |
| | | | **TOTAL** | **492.1** | **3,550** | **8,970** | **50** | **235** | **200** | **7** | **3.4** | **183** | |

* TACK COAT TO BE USED BETWEEN THE MILLED SURFACE AND OVERLAY PAVEMENT AND BETWEEN UPPER AND LOWER LAYERS OF NEW PAVEMENT

## 305.0500 SHAPING SHOULDERS

| STATION | TO | STATION | LOCATION | STA |
|---|---|---|---|---|
| 57+54 | - | 94+20 | RT | 37 |
| 94+20 | - | 240+36 | LT | 146 |
| 94+20 | - | 240+36 | RT | 146 |
| | | | **TOTAL** | **329** |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## 416.0160 CONCRETE DRIVEWAY 6-INCH

| STATION | LOCATION | SY | COMMENT |
|---|---|---|---|
| 72+40 | LT | 95 | CONCRETE PE |
| 74+33 | LT | 78 | CONCRETE PE |
| | **TOTAL** | **173** | |

## ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL

| STATION | TO | STATION | LOCATION | 465.0475 ASPHALT CENTER LINE RUMBLE STRIPS 2-LANE RURAL LF | SPV.0090.01 FOG SEAL RUMBLE STRIPS LF | COMMENT |
|---|---|---|---|---|---|---|
| 136+00 | - | 232+00 | CL | 9,600 | 9,600 | MAINLINE STH 70 |
| | | | **TOTAL** | **9,600** | **9,600** | |

## STORM SEWER

| | | | 520.1015 | 520.1018 | 608.0315 | 608.0318 | 611.0430 | 611.0624 | 611.3230 |
|---|---|---|---|---|---|---|---|---|---|
| | | | APRON ENDWALLS FOR CULVERT PIPE 15-INCH | APRON ENDWALLS FOR CULVERT PIPE 18-INCH | STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH | STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH | RECONSTRUCTING INLETS | INLET COVERS TYPE H | INLETS 2X3-FT |
| STRUCT. NO. | STATION | LOCATION | EACH | EACH | LF | LF | EACH | EACH | EACH |
| --- | --- | IN-10.1 - IN-10.2 | --- | --- | 32 | --- | --- | --- | --- |
| IN-10.1 | 59+26 | --- | --- | --- | --- | --- | --- | 1 | 1 |
| IN-10.2 | 59+27 | --- | --- | --- | --- | --- | 1 | --- | --- |
| --- | 60+08 | 30' RT | 1 | --- | --- | --- | --- | --- | --- |
| --- | 60+82 | 25' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | --- | IN-11.1 - EW-11.2 | --- | --- | --- | 39 | --- | --- | --- |
| IN-11.1 | 61+63 | --- | --- | --- | --- | --- | --- | 1 | 1 |
| EW-11.2 | 61+63 | --- | --- | 1 | --- | --- | --- | --- | --- |
| --- | 64+84 | 25' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | --- | IN-12.1 - EW-12.2 | --- | --- | --- | 39 | --- | --- | --- |
| IN-12.1 | 66+25 | --- | --- | --- | --- | --- | --- | 1 | 1 |
| EW-12.2 | 66+25 | --- | --- | 1 | --- | --- | --- | --- | --- |
| --- | 68+45 | 26' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | --- | IN-13.1 - EW-13.2 | --- | --- | --- | 37 | --- | --- | --- |
| IN-13.1 | 70+25 | --- | --- | --- | --- | --- | --- | 1 | 1 |
| EW-13.2 | 70+25 | --- | --- | 1 | --- | --- | --- | --- | --- |
| --- | 72+84 | 26' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | 76+33 | 26' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | 80+33 | 26' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | --- | IN-14.1 - EW-14.2 | --- | --- | --- | 39 | --- | --- | --- |
| IN-14.1 | 83+75 | --- | --- | --- | --- | --- | --- | 1 | 1 |
| EW-14.2 | 83+75 | --- | --- | 1 | --- | --- | --- | --- | --- |
| --- | 88+85 | 32' RT | --- | 1 | --- | --- | --- | --- | --- |
| --- | --- | IN-15.1 - EW-15.2 | --- | --- | --- | 39 | --- | --- | --- |
| IN-15.1 | 93+00 | --- | --- | --- | --- | --- | --- | 1 | 1 |
| EW-15.2 | 93+00 | --- | --- | 1 | --- | --- | --- | --- | --- |
| | | **TOTAL** | **1** | **12** | **32** | **193** | **1** | **6** | **6** |

## CULVERTS

| | | | 520.0124 | 520.1024 | 520.1030 | 522.0124 | 522.0130 | 522.1024 | 522.1030 | 633.5200 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MINIMUM CULVERT PIPE THICKNESS | CULVERT PIPE CLASS III 24-INCH | APRON ENDWALLS FOR CULVERT PIPE 24-INCH | APRON ENDWALLS FOR CULVERT PIPE 30-INCH | CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH | CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH | APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH | MARKERS CULVERT END | |
| STATION | LOCATION | IN | LF | EACH | | LF | LF | EACH | EACH | EACH | COMMENTS |
| 68+52 | 33' RT | --- | --- | 1 | --- | --- | --- | --- | --- | --- | SUNSET BLVD |
| 69+36 | 35' RT | --- | --- | 1 | --- | --- | --- | --- | --- | --- | SUNSET BLVD |
| 78+45 | 35' RT | --- | --- | --- | 1 | --- | --- | --- | --- | --- | E HOLIDAY DR |
| 79+50 | 35' RT | --- | --- | --- | 1 | --- | --- | --- | --- | --- | E HOLIDAY DR |
| 192+63 | RT | 0.064 | 24 | 2 | --- | --- | --- | --- | --- | --- | DRIVEWAY |
| 193+20 | LT | 0.064 | 24 | 2 | --- | --- | --- | --- | --- | --- | DRIVEWAY |
| 194+73 | LT | 0.064 | 24 | 2 | --- | --- | --- | --- | --- | --- | DRIVEWAY |
| 203+11 | LT, RT | 3.5 | --- | --- | --- | --- | 56 | --- | 2 | 2 | MAINLINE STH 70 |
| 203+61 | LT, RT | 3.5 | --- | --- | --- | --- | 56 | --- | 2 | 2 | MAINLINE STH 70 |
| 238+52 | RT | 3.0 | --- | --- | --- | 56 | --- | 2 | --- | --- | CTH O |
| | | **TOTAL** | **72** | **8** | **2** | **56** | **112** | **2** | **4** | **4** | |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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## CONCRETE CURB AND GUTTER ITEMS

| | | | | 204.0150 | 601.0411 | 601.0557 | 650.5500 |
|---|---|---|---|---|---|---|---|
| | | | | REMOVING CURB & GUTTER | CONCRETE CURB & GUTTER 30-INCH TYPE D | CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D | CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER |
| STATION | TO | STATION | LOCATION | LF | LF | LF | LF |
| 57+67 | - | 58+08 | RT | 65 | 63 | --- | 63 |
| 57+76 | - | 58+11 | LT | 50 | 48 | --- | 48 |
| 58+31 | - | 59+81 | LT | 180 | --- | --- | --- |
| 58+31 | - | 68+95 | LT | --- | 1,100 | --- | 1,100 |
| 58+48 | - | 59+34 | RT | 260 | 250 | --- | 250 |
| 58+54 | - | 59+98 | RT | 240 | 240 | --- | 240 |
| 59+76 | - | 60+24 | LT | --- | 49 | --- | 49 |
| 60+20 | - | 60+92 | LT | 95 | --- | --- | --- |
| 60+89 | - | 60+89 | LT | --- | 12 | --- | 12 |
| 61+31 | - | 65+63 | LT | 450 | --- | --- | --- |
| 61+34 | - | 61+34 | LT | --- | 12 | --- | 12 |
| 65+60 | - | 65+60 | LT | --- | 12 | --- | 12 |
| 66+02 | - | 68+95 | LT | 320 | --- | --- | --- |
| 66+05 | - | 66+05 | LT | --- | 12 | --- | 12 |
| 68+24 | - | 68+53 | RT | 30 | 29 | --- | 29 |
| 68+75 | - | 68+87 | RT | 25 | 21 | --- | 21 |
| 68+91 | - | 68+91 | RT | 6 | 6 | --- | 6 |
| 69+16 | - | 69+16 | RT | 5 | 5 | --- | 5 |
| 69+22 | - | 69+27 | RT | 8 | 8 | --- | 8 |
| 69+26 | - | 76+61 | LT | 780 | 770 | --- | 770 |
| 69+51 | - | 69+64 | RT | 15 | 13 | --- | 13 |
| 71+39 | - | 71+47 | LT | 25 | --- | --- | --- |
| 71+71 | - | 71+72 | LT | 25 | --- | --- | --- |
| 72+12 | - | 72+13 | LT | 25 | 12 | --- | 12 |
| 72+69 | - | 72+70 | LT | 15 | 11 | --- | 11 |
| 74+09 | - | 74+10 | LT | 15 | 12 | --- | 12 |
| 74+58 | - | 74+68 | LT | 20 | 16 | --- | 16 |
| 76+81 | - | 84+34 | LT | 790 | 785 | --- | 785 |
| 78+36 | - | 78+60 | RT | 24 | 24 | --- | 24 |
| 78+87 | - | 78+96 | RT | 15 | 14 | --- | 14 |
| 79+04 | - | 79+04 | RT | 4 | 4 | --- | 4 |
| 79+28 | - | 79+30 | RT | 15 | 12 | --- | 12 |
| 79+53 | - | 79+71 | RT | 20 | 17 | --- | 17 |
| 84+54 | - | 93+83 | LT | 990 | --- | --- | --- |
| 84+54 | - | 94+20 | LT | --- | 985 | --- | 985 |
| 237+81 | - | 238+34 | RT | --- | --- | 91 | 91 |
| 237+93 | - | 238+29 | RT | 50 | --- | --- | --- |
| 238+73 | - | 239+00 | RT | 45 | --- | --- | --- |
| 238+67 | - | 239+15 | RT | --- | --- | 67 | 67 |
| | | | **TOTAL** | **4,607** | **4,542** | **158** | **4,700** |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## 520.7000 CLEANING CULVERT PIPES

| STATION | LOCATION | EACH | COMMENT |
|---|---|---|---|
| 58+48 | RT | 1 | 15-INCH SSPRC |
| 59+27 | RT | 1 | 15-INCH SSPRC |
| 60+83 | C/L | 1 | 18-INCH SSPRC |
| 64+84 | C/L | 1 | 18-INCH SSPRC |
| 68+47 | C/L | 1 | 18-INCH SSPRC |
| 68+69 | RT | 1 | 24-INCH CPRC |
| 72+84 | C/L | 1 | 18-INCH SSPRC |
| 76+33 | C/L | 1 | 18-INCH SSPRC |
| 79+04 | RT | 1 | 30-INCH CPCM |
| 80+34 | C/L | 1 | 18-INCH SSPRC |
| 88+84 | C/L | 1 | 18-INCH SSPRC |
| | **TOTAL** | **11** | |

## SIDEWALK ITEMS

| | | 204.0155 | 602.0405 | 602.0505 | |
|---|---|---|---|---|---|
| | | REMOVING CONCRETE SIDEWALK | CONCRETE SIDEWALK 4-INCH | CURB RAMP DETECTABLE WARNING FIELD YELLOW | |
| STATION | LOCATION | SY | SF | SF | COMMENT |
| 78+53 | LT | 7 | 65 | 8 | 2' X 4' WARNING FIELD |
| 78+53 | RT | 8 | 75 | 8 | 2' X 4' WARNING FIELD |
| | **TOTAL** | **15** | **140** | **16** | |

## CONCRETE BARRIER TEMPORARY PRECAST

| | | | | | 603.8000 | 603.8125 | |
|---|---|---|---|---|---|---|---|
| | | | | | DELIVERED | INSTALLED | |
| STATION | TO | STATION | LOCATION | STAGE | LF | LF | COMMENT |
| 192+00 | - | 195+25 | RT | 1 | 336 | 336 | CULVERT REPLACEMENT |
| 192+00 | - | 195+25 | LT, RT | 2 | 204 | 540 | CULVERT REPLACEMENT |
| 192+00 | - | 195+25 | LT, RT | 3 | --- | 540 | CULVERT REPLACEMENT |
| 192+00 | - | 195+25 | LT | 4 | --- | 336 | CULVERT REPLACEMENT |
| | | | **TOTAL** | | **540** | **1,752** | |

## 611.8115 ADJUSTING INLET COVERS

| STATION | LOCATION | EACH |
|---|---|---|
| 58+48 | 71' RT | 1 |
| 59+27 | 16' RT | 1 |
| 60+83 | 17' LT | 1 |
| 64+84 | 17' LT | 1 |
| 68+47 | 17' LT | 1 |
| 72+84 | 16' LT | 1 |
| 76+33 | 16' LT | 1 |
| 80+34 | 16' LT | 1 |
| 88+83 | 16' LT | 1 |
| | **TOTAL** | **9** |

## TRAFFIC CONTROL

| | | 643.0100 | 643.0300 | | 643.0420 | | 643.0705 | | 643.0715 | | 661.0100 | 646.0600 | 649.0400 | 649.1400 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TRAFFIC CONTROL (PROJECT) 01. 9080-14-60 | DRUMS | | BARRICADES TYPE III | | WARNING LIGHTS TYPE A | | WARNING LIGHTS TYPE C | | TEMPORARY TRAFFIC SIGNAL FOR BRIDGES (STRUCTURE) 01. C-63-9 | REMOVING PAVEMENT MARKINGS | TEMP PAVEMENT MARKING REMOVABLE TAPE 4-INCH | TEMP PAVEMENT MARKING STOP LINE REMOVABLE TAPE 24-INCH |
| OPERATIONS | DURATION (DAYS) | EACH | EACH | DAYS | EACH | DAYS | EACH | DAY | EACH | DAYS | LS | LF | LF | LF |
| STAGE 1 - CULVERT REPLACEMENT | 4 | --- | 94 | 376 | 2 | 8 | 4 | 16 | 10 | 40 | 1 | 570 | 350 | 30 |
| STAGE 2 - CULVERT REPLACEMENT | 4 | --- | 78 | 312 | 1 | 4 | 2 | 8 | 10 | 40 | --- | --- | 350 | --- |
| STAGE 3 - CULVERT REPLACEMENT | 4 | --- | 75 | 300 | 1 | 4 | 2 | 8 | 10 | 40 | --- | --- | 350 | --- |
| STAGE 4 - CULVERT REPLACEMENT | 3 | --- | 83 | 249 | 1 | 3 | 2 | 6 | 10 | 30 | --- | --- | 350 | --- |
| MAINLINE PAVING | 45 | --- | 60 | 2,700 | 10 | 450 | 20 | 900 | 60 | 2,700 | --- | --- | --- | --- |
| PROJECT 9080-14-60 | --- | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | **TOTAL** | **1** | | **3,937** | | **469** | | **938** | | **2,850** | **1** | **570** | **1,400** | **30** |

## 621.0100 LANDMARK REFERENCE MONUMENT

| STATION | LOCATION | EACH |
|---|---|---|
| 11+00.98 | 4.29' LT | 1 |
| 58+24.00 | 0.00' | 1 |
| 84+42.53 | 0.34' LT | 1 |
| 132+99.62 | 0.00' | 1 |
| 159+33.04 | 0.00' | 1 |
| 185+75.49 | 0.00' | 1 |
| 212+17.45 | 0.00' | 1 |
| | **TOTAL** | **7** |

## TRAFFIC CONTROL COVERING SIGNS

| | 643.0910 TYPE I | 643.0920 TYPE II | | |
|---|---|---|---|---|
| STAGE | EACH | EACH | CYCLES | SIGNS |
| UNDISTRIBUTED | 5 | --- | 1 | 5 |
| UNDISTRIBUTED | --- | 5 | 1 | 5 |
| **TOTAL** | **5** | **5** | | |

## 643.0900 TRAFFIC CONTROL SIGNS

| MESSAGE | SIGN NO. | NUMBER OF SIGNS | DURATION (DAYS) | DAYS | REMARKS |
|---|---|---|---|---|---|
| ROAD WORK AHEAD | W20-1 | 18 | 45 | 810 | MAINLINE |
| ROAD WORK 1000 FT | W20-1 | 2 | 45 | 90 | MAINLINE |
| ROAD WORK 500 FT | W20-1 | 2 | 45 | 90 | MAINLINE |
| ROAD WORK NEXT X MILES | G20-1 | 2 | 45 | 90 | MAINLINE |
| END ROAD WORK | G20-2A | 3 | 45 | 135 | MAINLINE |
| STH 70 | M1-6 | 4 | 45 | 180 | LANE WIDTH ADVANCED WARNING |
| MAX 11' WIDTH | W12-52 | 8 | 45 | 360 | LANE WIDTH ADVANCED WARNING |
| XX MILES AHEAD | W57-52 | 8 | 45 | 360 | LANE WIDTH ADVANCED WARNING |
| STOP HERE ON RED | R10-6 | 2 | 15 | 30 | C-63-9 CULVERT REPLACEMENT |
| NIGHT ARROW SINGLE | W01-6 | 1 | 15 | 15 | C-63-9 CULVERT REPLACEMENT |
| CLEARANCE STRIPER DOWN RIGHT | W5-52R | 2 | 15 | 30 | C-63-9 CULVERT REPLACEMENT |
| CLEARANCE STRIPER DOWN LEFT | W5-52L | 2 | 15 | 30 | C-63-9 CULVERT REPLACEMENT |
| RIGHT REVERSE CURVE | W01-4R | 1 | 15 | 15 | C-63-9 CULVERT REPLACEMENT |
| MAX. 11' WIDTH | W12-52 | 2 | 15 | 30 | C-63-9 CULVERT REPLACEMENT |
| ONE LANE ROAD AHEAD | W20-4 | 2 | 15 | 30 | C-63-9 CULVERT REPLACEMENT |
| NO PASSING ZONE | W14-3 | 2 | 15 | 30 | C-63-9 CULVERT REPLACEMENT |
| SIGNAL AHEAD SYMBOL | W03-3 | 4 | 15 | 60 | C-63-9 CULVERT REPLACEMENT |
| | **TOTAL** | | | **2,385** | |

## ASPHALTIC FLUME OUTFALL ITEMS

| | | 606.0100 RIPRAP LIGHT | 645.0130 GEOTEXTILE FABRIC TYPE R | |
|---|---|---|---|---|
| STATION | LOCATION | CY | SY | COMMENT |
| 79+71 | 19' RT | 3 | 11 | ASPHALTIC FLUME |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED



FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_030201_MQ.PPT PLOT DATE : 12/1/2014 3:04 PM PLOT BY : DANIEL J. GERLING PLOT NAME : _____

3

## EROSION CONTROL ITEMS

| | | | | 625.0500 | 627.0200 | 628.1504 | 628.1520 | 628.1905 | 628.1910 | 628.2008 | 628.7005 | 628.7015 | 628.7504 | 628.7555 | 628.7570 | 629.0210 | 630.0140 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | SALVAGED TOPSOIL | MULCHING | SILT FENCE | SILT FENCE MAINTENANCE | MOBILIZATIONS | MOBILIZATIONS EMERGENCY | EROSION MAT URBAN CLASS I TYPE B | INLET PROTECTION TYPE A | INLET PROTECTION TYPE C | TEMPORARY DITCH CHECKS | CULVERT PIPE CHECKS | ROCK BAGS | FERTILIZER TYPE B | SEEDING MIXTURE NO. 40 | |
| STATION | TO | STATION | LOCATION | SY | SY | LF | LF | EACH | EACH | SY | EACH | EACH | LF | EACH | EACH | CWT | LB | REMARKS |
| 57+54 | - | 94+20 | LT, RT | 8,600 | --- | --- | --- | --- | --- | 8,600 | --- | --- | --- | --- | --- | 6.0 | 160 | |
| 68+48 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3 | --- | --- | --- | SUNSET BLVD: 24-INCH |
| 78+40 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3 | --- | --- | --- | E HOLIDAY DR: 24-INCH |
| 87+32 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2 | --- | --- | --- | 18-INCH CULVERT |
| 190+88 | - | 196+63 | LT, RT | 1,550 | --- | 1,300 | 1,800 | --- | --- | 1,550 | --- | --- | --- | --- | --- | 1.0 | 30 | |
| 191+84 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | 10 | --- | --- | --- | --- | |
| 192+48 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3 | --- | --- | --- | DRIVEWAY CULVERT: 24-INCH |
| 193+04 | - | --- | LT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3 | --- | --- | --- | DRIVEWAY CULVERT: 24-INCH |
| 193+55 | - | --- | LT, RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 20 | --- | --- | SILT FENCE RELIEF |
| 193+95 | - | --- | LT, RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 20 | --- | --- | SILT FENCE RELIEF |
| 194+90 | - | --- | LT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3 | --- | --- | --- | DRIVEWAY CULVERT: 24-INCH |
| 195+00 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | 15 | --- | --- | --- | --- | |
| 203+11 | - | --- | LT, RT | 20 | --- | --- | --- | --- | --- | 20 | --- | --- | --- | 3 | --- | 0.1 | 5 | 30-INCH CULVERT REPLACEMENT |
| 203+61 | - | --- | LT, RT | 20 | --- | --- | --- | --- | --- | 20 | --- | --- | --- | 3 | --- | 0.1 | 5 | 30-INCH CULVERT REPLACEMENT |
| 237+08 | - | 238+28 | RT | 600 | --- | --- | --- | --- | --- | 600 | --- | --- | --- | --- | --- | 0.5 | 15 | |
| 238+17 | - | --- | RT | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 3 | --- | --- | --- | CTH O: 24-INCH |
| PROJECT 9080-14-60 | | | | --- | --- | --- | --- | 6 | 2 | --- | 15 | 15 | --- | --- | --- | --- | --- | |
| UNDISTRIBUTED | | | | 1,500 | 1,500 | 500 | 500 | --- | --- | 1,500 | --- | --- | 200 | 10 | 20 | 1.3 | 45 | |
| | | | **TOTAL** | **12,290** | **1,500** | **1,800** | **2,300** | **6** | **2** | **12,290** | **15** | **15** | **225** | **36** | **60** | **9** | **260** | |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## PERMANENT SIGNING SCHEDULE

| STATION | OFFSET | SIGN NO. | CODE NO. | DESCRIPTION | SIZE IN X IN | 634.0614 POSTS WOOD 4X6-INCH 14-FT EACH | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 58+03 | LT | 1-1 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 58+03 | LT | 1-2 | W4-4AL | Traffic From Left Does Not Stop | 30 x 12 | - | - | 2.50 | 1 | - |
| 57+76 | LT | 1-3 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 57+71 | RT | 1-4 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 57+71 | RT | 1-5 | W4-4B | Oncoming Traffic Does Not Stop | 30 x 12 | - | - | 2.50 | 1 | - |
| 57+71 | RT | 1-6 | J3-2 | East 70, [UA], West 70, [RA] | 48 x 57 | 1 | 19.00 | - | 6 | 1 |
| 58+50 | LT | 1-7 | J3-1 | North 155, [LA] | 24 x 57 | 1 | 9.50 | - | 3 | 1 |
| 58+55 | RT | 1-8 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 58+55 | RT | 1-9 | W4-4AR | Traffic From Right Does Not Stop | 30 x 12 | - | - | 2.50 | 1 | - |
| 58+54 | RT | 1-10 | W12-1D | Double Down Arrows | 24 x 24 | 1 | - | 4.00 | 1 | 1 |
| 58+60 | LT | 1-11 | J3-2 | West 70, [LA], North 155, [UA] | 48 x 57 | 1 | 19.00 | - | 6 | 1 |
| 58+60 | RT | 1-12 | J3-1 | East 70, [TR] | 24 x 57 | 1 | 9.50 | - | 3 | 1 |
| 59+16 | RT | 1-13 | R5-1 | Do Not Enter | 30 x 30 | 1 | 6.25 | - | 1 | 1 |
| 59+42 | RT | 1-14 | R1-2 | Yield | 36 x 31 | 1 | 3.88 | - | 1 | 1 |
| 59+80 | RT | 1-15 | R5-1 | Do Not Enter | 30 x 30 | 1 | 6.25 | - | 1 | 1 |
| 61+06 | RT | 1-16 | I55-56MOD | Adopt-A-Highway | 30 x 36 | - | - | - | 1 | 1 |
| 62+12 | RT | 1-17 | J4-1 | East 70 | 24 x 36 | 1 | 6.00 | - | 2 | 1 |
| 63+15 | LT | 1-18 | D1-2 | UP Arrow - Sayner, LEFT Arrow - Woodruff | 66 x 30 | 2 | 13.75 | - | 1 | 2 |
| 63+31 | RT | 1-19 | W14-3 | No Passing Zone | 48 x 36 | 1 | - | 6.00 | 1 | 1 |
| 64+54 | RT | 1-20 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 64+54 | LT | 1-21 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 66+10 | RT | 1-22 | D2-1 | Eagle River 13 | 84 x 15 | 2 | 8.75 | - | 1 | 1 |
| 67+24 | LT | 1-23 | J2-2 | West 70, [LT], JCT 155 | 48 x 60 | 2 | 20.00 | - | 5 | 2 |
| 67+95 | 25' RT | 1-24 | I55-56MOD | Adopt-A-Highway | 30 x 36 | 1 | 7.50 | - | - | - |
| 68+86 | LT | 1-25 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 69+37 | RT | 1-26 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 71+12 | RT | 2-1 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 74+62 | LT | 2-2 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 76+52 | LT | 2-3 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 79+38 | RT | 2-4 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 84+25 | LT | 2-5 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 86+63 | RT | 2-6 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 86+64 | LT | 2-7 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 94+71 | LT | 2-8 | W14-3 | No Passing Zone | 48 x 36 | 1 | - | 6.00 | 1 | 1 |
| 94+71 | LT | 2-9 | R2-1 | Speed Limit 40 | 24 x 30 | - | 5.00 | - | 1 | - |
| 94+95 | RT | 2-10 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 103+53 | RT | 3-1 | W1-6 | Night Arrow (Single) | 48 x 24 | 1 | - | 8.00 | 1 | 1 |
| 104+84 | RT | 3-2 | J1-1 | JCT, County J | 24 x 39 | 1 | 6.50 | - | 2 | 1 |
| 105+02 | RT | 3-3 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 105+22 | LT | 3-4 | J4-1 | West 70 | 24 x 36 | 1 | 6.00 | - | 2 | 1 |
| 105+50 | RT | 3-5 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 105+55 | RT | 3-6 | J13-1 | 70, [DBA] | 24 x 45 | 1 | 7.50 | - | 2 | 1 |
| 109+64 | LT | 3-7 | W11-6 | Snowmobile Crossing Symbol | 30 x 30 | - | - | - | 1 | 1 |
| 112+72 | LT | 3-8 | J13-1 | County J, [RA] | 24 x 45 | 1 | 7.50 | - | 2 | 1 |
| 112+72 | LT | 3-9 | J13-1 | County J, [LA] | 24 x 45 | - | 7.50 | - | 2 | - |
| 112+80 | RT | 3-10 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| | | | | SUBTOTALS | | 42 | 266.54 | 31.50 | 69 | 42 |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## PERMANENT SIGNING SCHEDULE (CONTINUED)

| STATION | OFFSET | SIGN NO. | CODE NO. | DESCRIPTION | SIZE | 634.0614 POSTS WOOD 4X6-INCH 14-FT EACH | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH |
|---|---|---|---|---|---|---|---|---|---|---|
| 112+85 | RT | 3-11 | J13-1 | 70, [DBA] | 24 x 45 | 1 | 7.50 | - | 2 | 1 |
| 113+61 | RT | 3-12 | J4-1 | East 70 | 24 x 36 | 1 | 6.00 | - | 2 | 1 |
| 113+61 | RT | 3-13 | W1-6 | Night Arrow (Single) | 48 x 24 | - | - | 8.00 | 1 | - |
| 114+97 | LT | 3-14 | W11-2 | Pedestrian Crossing Symbol | 30 x 30 | 1 | - | 6.25 | 1 | 1 |
| 116+02 | LT | 3-15 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 116+35 | LT | 3-16 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 116+70 | RT | 3-17 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 117+08 | LT | 3-18 | S3-1 | School Bus Stop Ahead | 36 x 36 | 1 | - | 9.00 | 1 | 1 |
| 118+57 | LT | 3-19 | I2-3 | St Germain - Unincorporated | 72 x 24 | 2 | 12.00 | - | 1 | 2 |
| 119+45 | LT | 3-20 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 120+56 | LT | 3-21 | J1-1 | JCT, County J | 24 x 39 | 1 | 6.50 | - | 1 | 1 |
| 124+95 | RT | 3-22 | W14-3 | No Passing Zone | 48 x 36 | 1 | - | 6.00 | 1 | 1 |
| 125+51 | LT | 3-23 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 125+51 | RT | 3-24 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 135+77 | RT | 4-1 | R2-1 | Speed Limit 55 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 135+77 | LT | 4-2 | R2-1 | Speed Limit 40 | 24 x 30 | 1 | 5.00 | - | 1 | 1 |
| 143+83 | LT | 4-3 | W3-5 | Speed Limit 40 Ahead [Arrow] | 36 x 36 | 1 | - | 9.00 | 1 | 1 |
| 144+45 | LT | 4-4 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 159+00 | LT | 5-1 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 175+37 | LT | 5-2 | W14-3 | No Passing Zone | 48 x 36 | 1 | - | 6.00 | 1 | 1 |
| 175+56 | LT | 5-3 | R1-1 | Stop | 30 x 30 | - | - | - | - | - |
| 196+94 | RT | 6-1 | W14-3 | No Passing Zone | 48 x 36 | 1 | - | 6.00 | 1 | 1 |
| 210+85 | RT | 6-2 | W11-1 | Bicycle Crossing Symbol | 24 x 24 | - | - | - | - | - |
| 211+59 | LT | 6-3 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 212+89 | LT | 7-1 | W11-1 | Bicycle Crossing Symbol | 24 x 24 | - | - | - | - | - |
| 223+52 | RT | 7-2 | W11-1 | Bicycle Crossing Symbol | 24 x 24 | - | - | - | - | - |
| 226+81 | LT | 7-3 | W14-3 | No Passing Zone | 48 x 36 | 1 | - | 6.00 | 1 | 1 |
| 226+96 | LT | 7-4 | W11-1 | Bicycle Crossing Symbol | 24 x 24 | - | - | - | - | - |
| 227+90 | RT | 7-5 | J1-1 | JCT, County O | 24 x 39 | 1 | 6.50 | - | 2 | 1 |
| 230+13 | RT | 7-6 | W2-1 | Cross Road | 30 x 30 | 1 | - | 6.25 | 1 | 1 |
| 230+13 | RT | 7-7 | W13-1 | Advisory Speed Plate 45 M.P.H. (Yellow Back) | 18 x 18 | - | - | 2.25 | 1 | - |
| 231+40 | RT | 7-8 | I55-56MOD | Adopt-A-Highway | 30 x 36 | - | - | - | 1 | 1 |
| 232+32 | 25' RT | 7-9 | I55-56MOD | Adopt-A-Highway | 30 x 36 | 1 | 7.50 | - | - | - |
| 235+88 | RT | 7-10 | M1-5A | County O | 24 x 24 | - | - | - | 1 | 1 |
| 235+88 | RT | 7-11 | M6-1 | [RA] | 21 x 21 | - | - | - | 1 | - |
| 236+00 | 25' LT | 7-12 | J4-1 | West 70 | 24 x 36 | 1 | 6.00 | - | - | - |
| 237+27 | LT | 7-13 | M3-4 | West | 24 x 12 | - | - | - | 1 | 1 |
| 237+27 | LT | 7-14 | M1-6 | 70 | 24 x 24 | - | - | - | 1 | - |
| 238+04 | 43' RT | 7-15 | R1-1 | Stop | 36 x 36 | 1 | 7.46 | - | - | - |
| 238+09 | 271' RT | 7-16 | W3-1 | Stop Ahead | 36 x 36 | 1 | - | 9.00 | - | - |
| 238+37 | 25' LT | 7-17 | J13-1 | County O, [RA] | 24 x 45 | 1 | 7.50 | - | - | - |
| 238+37 | LT | 7-18 | J13-1 | County O, [LA] | 24 x 45 | - | 7.50 | - | 2 | 1 |
| 238+57 | LT | 7-19 | R1-1 | Stop | 30 x 30 | 1 | 5.18 | - | 1 | 1 |
| 238+74 | 284' RT | 7-20 | W3-1 | Stop Ahead | 36 x 36 | 1 | - | 9.00 | - | - |
| 238+80 | 41' RT | 7-21 | R1-1 | Stop | 36 x 36 | 1 | 7.46 | - | - | - |
| 238+84 | RT | 7-22 | R1-1 | Stop | 30 x 30 | - | - | - | 1 | 1 |
| 238+89 | RT | 7-23 | J13-1 | 70, [DBA] | 24 x 45 | 1 | 7.50 | - | 2 | 1 |
| | | | | SUBTOTALS | | 34 | 150.50 | 82.75 | 40 | 32 |
| | | | | **TOTALS** | | **76** | **417.04** | **114.25** | **109** | **74** |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## PAVEMENT MARKING

| | | | | 646.0106 | | 646.0126 | 646.0406 | 647.0166 | 647.0176 | 647.0356 | 647.0526 | 647.0566 | 649.0100 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | EPOXY 4-INCH | | EPOXY 8-INCH | SAME DAY EPOXY 4-INCH | ARROWS EPOXY | ARROWS EPOXY | WORDS | YIELD LINE SYMBOLS | STOP LINE | TEMPORARY PAVEMENT | |
| | | | | (YELLOW CENTER LINE) | (WHITE EDGE LINE) | (WHITE CHANNELIZING) | (YELLOW CENTER LINE) | TYPE 2 | TYPE 3 | EPOXY | EPOXY 18-INCH | EPOXY 18-INCH | MARKING 4-INCH | |
| STATION | TO | STATION | LOCATION | LF | LF | LF | LF | EACH | EACH | EACH | EACH | LF | LF | COMMENT |
| 57+54 | - | 57+89 | SB | - | - | - | 35 | - | - | - | - | - | - | STH 155 SOLID SB |
| 57+54 | - | 57+89 | NB | - | - | - | 13 | - | - | - | - | - | - | STH 155 DASHED NB |
| 57+54 | - | 57+69 | RT | - | 15 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 57+54 | - | 57+76 | LT | - | 20 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 57+88 | - | - | RT | - | - | - | - | - | - | - | - | 24 | - | STH 155 SB |
| 58+08 | - | - | RT | - | 125 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 58+29 | - | - | WB | - | - | - | 38 | - | - | - | - | - | - | DASHED WB |
| 58+29 | - | - | EB | - | - | - | 150 | - | - | - | - | - | - | SOLID EB |
| 58+35 | - | - | RT | - | - | - | - | - | 2 | - | - | - | - | STH 70 EB |
| 58+40 | - | - | RT | - | - | - | - | - | - | - | - | 20 | - | STH 70 EB |
| 58+41 | - | - | RT | - | - | 115 | - | - | - | - | - | - | - | STH 70 / STH 155 INTERSECTION |
| 58+46 | - | - | RT | - | - | 65 | - | - | - | - | - | - | - | STH 70 / STH 155 INTERSECTION |
| 58+53 | - | 63+38 | EB | - | - | - | 120 | - | - | - | - | - | - | DASHED EB |
| 58+53 | - | 63+38 | WB | - | - | - | 485 | - | - | - | - | - | - | SOLID WB |
| 58+80 | - | - | RT | - | - | - | - | 2 | - | - | - | - | - | STH 70 EB RIGHT TURN LANE |
| 58+80 | - | - | RT | - | - | - | - | - | - | 2 | - | - | - | WORD: ONLY |
| 58+97 | - | 68+62 | RT | - | 965 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 59+34 | - | - | RT | - | - | - | - | - | - | - | 8 | - | - | STH 70 EB RIGHT TURN LANE |
| 63+38 | - | 94+76 | CL | - | - | - | 785 | - | - | - | - | - | - | DASHED C/L (EB & WB) |
| 69+51 | - | 78+45 | RT | - | 895 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 79+70 | - | 104+84 | RT | - | 2,515 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 93+83 | - | 116+22 | LT | - | 2,240 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 94+76 | - | 102+93 | EB | - | - | - | 815 | - | - | - | - | - | - | SOLID EB |
| 94+76 | - | 102+93 | WB | - | - | - | 205 | - | - | - | - | - | - | DASHED WB |
| 102+93 | - | 118+66 | CL | - | - | - | 3,145 | - | - | - | - | - | - | SOLID C/L (EB & WB) |
| 105+30 | - | 113+00 | RT | - | 770 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 112+64 | - | - | RT | - | 50 | - | - | - | - | - | - | 24 | - | CTH J |
| 113+75 | - | 238+02 | RT | - | 12,425 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 116+65 | - | 119+45 | LT | - | 280 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 118+66 | - | 124+94 | EB | - | - | - | 155 | - | - | - | - | - | - | DASHED EB |
| 118+66 | - | 124+94 | WB | - | - | - | 630 | - | - | - | - | - | - | SOLID WB |
| 119+75 | - | 144+40 | LT | - | 2,465 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 124+94 | - | 136+00 | CL | - | - | - | 275 | - | - | - | - | - | - | DASHED C/L (EB & WB) |
| 136+00 | - | 175+34 | CL | 985 | - | - | - | - | - | - | - | - | - | DASHED C/L (EB & WB) |
| 144+90 | - | 158+82 | LT | - | 1,390 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 145+35 | - | 175+38 | LT | - | 3,005 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 175+34 | - | 186+15 | EB | 1,080 | - | - | - | - | - | - | - | - | - | SOLID EB |
| 175+34 | - | 186+15 | WB | 270 | - | - | - | - | - | - | - | - | - | DASHED WB |
| 175+83 | - | 211+55 | LT | - | 3,570 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 186+15 | - | 186+75 | CL | 15 | - | - | - | - | - | - | - | - | - | DASHED C/L (EB & WB) |
| 186+75 | - | 196+94 | EB | 255 | - | - | - | - | - | - | - | - | - | DASHED EB |
| 186+75 | - | 196+94 | WB | 1,020 | - | - | - | - | - | - | - | - | - | SOLID WB |
| 196+94 | - | 226+76 | CL | 745 | - | - | - | - | - | - | - | - | - | DASHED C/L (EB & WB) |
| 212+00 | - | 238+39 | LT | - | 2,640 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 226+76 | - | 232+00 | EB | 525 | - | - | - | - | - | - | - | - | - | SOLID EB |
| 232+00 | - | 238+46 | EB | - | - | - | 645 | - | - | - | - | - | - | SOLID EB |
| 226+76 | - | 232+00 | WB | 130 | - | - | - | - | - | - | - | - | - | DASHED WB |
| 232+00 | - | 238+46 | WB | - | - | - | 160 | | | | | - | | DASHED WB |
| 238+46 | - | 240+36 | CL | - | - | - | 380 | - | - | - | - | - | - | SOLID C/L (EB & WB) |
| 238+65 | - | - | RT | - | - | - | - | - | - | - | - | 18 | - | CTH O |
| 238+99 | - | 240+36 | RT | - | 135 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 239+23 | - | 240+36 | LT | - | 115 | - | - | - | - | - | - | - | - | WHITE EDGE LINE |
| 183+75 | - | 190+75 | CL | - | - | - | - | - | - | - | - | - | 1,400 | CULVERT REPLACEMENT |
| 196+43 | - | 203+43 | CL | - | - | - | - | - | - | - | - | - | 1,400 | CULVERT REPLACEMENT |
| PROJECT | - | - | CL | - | - | - | - | - | - | - | - | - | 2,235 | PAINT (CENTERLINE) MILLED SURFACE |
| | | | **SUBTOTAL** | **5,025** | **33,620** | **180** | **8,036** | **2** | **2** | **2** | **8** | **86** | **5,035** | |
| | | | **TOTAL** | **38,645** | | **180** | **8,036** | **2** | **2** | **2** | **8** | **86** | **5,035** | |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## CONSTRUCTION STAKING

| | | | | 650.4000 | 650.4500 | 650.5000 | 650.6000 | 650.6500 | 650.8000 | 650.9910 | 650.9920 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | STORM SEWER | SUBGRADE | BASE | PIPE CULVERT | STRUCTURE LAYOUT (STRUCTURE) 01. C-63-9 | RESURFACING REFERENCE | SUPPLEMENTAL CONTROL (PROJECT) 01. 9080-14-60 | SLOPE STAKES |
| STATION | TO | STATION | LOCATION | EACH | LF | LF | EACH | LS | LF | LS | LF |
| 57+54 | - | 240+36 | LT, RT | --- | --- | --- | --- | --- | 18,285 | 1 | --- |
| 59+26 | - | --- | LT, RT | 1 | --- | --- | --- | --- | --- | --- | --- |
| 60+82 | - | 94+20 | LT, RT | --- | --- | --- | --- | --- | --- | --- | 3,340 |
| 61+63 | - | --- | LT, RT | 2 | --- | --- | --- | --- | --- | --- | --- |
| 66+25 | - | --- | LT, RT | 2 | --- | --- | --- | --- | --- | --- | --- |
| 70+65 | - | --- | LT, RT | 2 | --- | --- | --- | --- | --- | --- | --- |
| 83+75 | - | --- | LT, RT | 2 | --- | --- | --- | --- | --- | --- | --- |
| 93+00 | - | --- | LT, RT | 2 | --- | --- | --- | --- | --- | --- | --- |
| 191+69 | - | 195+71 | LT, RT | --- | 405 | 405 | --- | --- | --- | --- | 405 |
| 192+63 | - | --- | RT | --- | --- | --- | 1 | --- | --- | --- | --- |
| 193+22 | - | --- | LT | --- | --- | --- | 1 | --- | --- | --- | --- |
| 194+73 | - | --- | LT | --- | --- | --- | 1 | --- | --- | --- | --- |
| 203+11 | - | --- | C/L | --- | --- | --- | 1 | --- | --- | --- | --- |
| 203+61 | - | --- | C/L | --- | --- | --- | 1 | --- | --- | --- | --- |
| 238+52 | - | --- | RT | --- | --- | --- | 1 | --- | --- | --- | --- |
| | C-63-9 | | C/L | --- | --- | --- | 1 | 1 | --- | --- | --- |
| | | **TOTAL** | | **11** | **405** | **405** | **7** | **1** | **18,285** | **1** | **3,745** |

### SPV.0060.01 TEMPORARY PAVEMENT MARKING REFLECTIVE TABS

| STATION | TO | STATION | LOCATION | EACH | COMMENT |
|---|---|---|---|---|---|
| 136+00 | - | 232+00 | CL | 195 | MAINLINE STH 70 |
| | | | **TOTAL** | **195** | |

### SPV.0105.01 EXCAVATION FOR DRY HYDRANT

| STATION | LOCATION | LS | COMMENT |
|---|---|---|---|
| 194+31 | 38.0' LT | 1 | 8-FT DEPTH* |

*NOTE: DEPTH TO EXISTING PIPE IS APPROXIMATE AND IS PROVIDED FOR INFORMATION ONLY

### SPV.0105.02 TEMPORARY BYPASS STRUCTURE C-63-9

| STATION | LOCATION | LS |
|---|---|---|
| 193+57 | CL | 1 |

### SPV.0180.01 THERMOSPLASTIC COATING AT SNOWMOBILE TRAIL CROSSING

| STATION | TO | STATION | LOCATION | SY |
|---|---|---|---|---|
| 237+60 | - | 237+75 | CL | 67 |
| | | | **TOTAL** | **67** |

### 648.0100 LOCATING NO-PASSING ZONES

| LOCATION | MI |
|---|---|
| PROJECT | 3.44 |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

## SAWING

| STATION | | STATION | LOCATION | 690.0150 SAWING ASPHALT LF | 690.0250 SAWING CONCRETE LF | COMMENT |
|---|---|---|---|---|---|---|
| 57+67 | - | 58+08 | RT | 71 | --- | FOR C&G INSTALLATION |
| 57+76 | - | 58+11 | LT | 55 | --- | FOR C&G INSTALLATION |
| 58+07 | - | 58+34 | LT | 27 | --- | ST GERMAIN BLVD |
| 58+14 | - | 58+56 | RT | 42 | --- | STH 155 |
| 58+31 | - | 68+95 | LT | 1,105 | --- | FOR C&G INSTALLATION |
| 58+48 | - | 59+32 | RT | 258 | --- | FOR C&G INSTALLATION |
| 57+54 | - | 57+54 | CL | 38 | --- | STH 70 |
| 58+54 | - | 59+98 | RT | 243 | --- | FOR C&G INSTALLATION |
| 59+76 | - | 60+24 | LT | 60 | --- | ASPH PE REMOVAL |
| 60+24 | - | 60+61 | RT | 33 | --- | ASPH PE |
| 60+89 | - | 61+34 | LT | 55 | --- | ASPH CE |
| 65+60 | - | 66+05 | LT | 55 | --- | ASPH CE |
| 68+24 | - | 68+53 | RT | 29 | 5 | FOR C&G INSTALLATION |
| 68+73 | - | 68+87 | RT | 22 | 5 | FOR C&G INSTALLATION |
| 68+90 | - | 69+27 | LT | 47 | --- | SUNSET BLVD |
| 68+91 | - | 68+91 | RT | 6 | 5 | FOR C&G INSTALLATION |
| 68+92 | - | 69+16 | RT | 24 | --- | SUNSET BLVD |
| 69+22 | - | 69+27 | RT | 8 | 5 | FOR C&G INSTALLATION |
| 69+16 | - | 69+18 | RT | 5 | 5 | FOR C&G INSTALLATION |
| 69+51 | - | 69+64 | RT | 13 | 5 | FOR C&G INSTALLATION |
| 69+26 | - | 76+61 | LT | 778 | --- | FOR C&G INSTALLATION |
| 71+45 | - | 71+79 | LT | 35 | 5 | CONC CE REMOVAL |
| 72+05 | - | 72+74 | LT | 69 | 5 | CONC CE |
| 74+06 | - | 74+58 | LT | 52 | 5 | CONC CE |
| 75+82 | - | 76+00 | LT | 18 | --- | ASPH CE |
| 76+61 | - | 76+83 | LT | 22 | --- | WINKLE RD |
| 76+81 | - | 84+34 | LT | 796 | --- | FOR C&G INSTALLATION |
| 77+44 | - | 77+64 | LT | 22 | --- | ASPH CE |
| 78+35 | - | 78+46 | RT | 11 | 5 | FOR C&G INSTALLATION |
| 78+66 | - | 78+95 | LT | 26 | --- | ASPH CE |
| 78+86 | - | 78+96 | RT | 14 | 5 | FOR C&G INSTALLATION |
| 79+01 | - | 79+28 | RT | 27 | --- | E HOLIDAY DR |
| 79+04 | - | 79+04 | RT | 4 | 3 | FOR C&G INSTALLATION |
| 79+28 | - | 79+32 | RT | 13 | 5 | FOR C&G INSTALLATION |
| 80+39 | - | 80+76 | LT | 41 | --- | ASPH CE |
| 82+59 | - | 83+11 | LT | 54 | --- | ASPH CE |
| 83+69 | - | 84+55 | LT | 98 | --- | PATON RD |
| 84+54 | - | 94+20 | LT | 992 | --- | FOR C&G INSTALLATION |
| 85+34 | - | 85+69 | LT | 37 | --- | ASPH CE |
| 87+11 | - | 87+44 | LT | 30 | --- | ASPH CE |
| 89+27 | - | 89+47 | LT | 17 | --- | ASPH CE |
| 90+90 | - | 91+07 | LT | 15 | --- | ASPH PE |
| 93+34 | - | 93+70 | LT | 36 | --- | ASPH PE |
| 95+63 | - | 95+83 | LT | 20 | --- | ASPH PE |
| 96+65 | - | 96+85 | LT | 20 | --- | ASPH PE |
| 97+76 | - | 98+04 | LT | 28 | --- | PERK RD |
| 101+11 | - | 101+39 | LT | 28 | --- | ASPH CE |
| 101+99 | - | 102+27 | LT | 28 | --- | ASPH CE |
| 103+65 | - | 103+93 | LT | 28 | --- | ASPH CE |
| 105+16 | - | 105+44 | RT | 28 | --- | PARKWAY RD |

## SAWING (CONTINUED)

| STATION | | STATION | LOCATION | 690.0150 SAWING ASPHALT LF | 690.0250 SAWING CONCRETE LF | COMMENT |
|---|---|---|---|---|---|---|
| 106+95 | - | 107+23 | LT | 28 | --- | ASPH CE |
| 106+95 | - | 107+23 | RT | 28 | --- | ASPH CE |
| 109+08 | - | 109+36 | RT | 28 | --- | ASPH CE |
| 111+27 | - | 111+55 | RT | 28 | --- | ASPH CE |
| 111+69 | - | 111+69 | RT | 28 | --- | STH 70 EAST/CTH J |
| 112+76 | - | 113+04 | LT | 28 | --- | ASPH CE |
| 112+78 | - | 114+06 | RT | 28 | --- | ASPH CE |
| 114+16 | - | 114+44 | RT | 28 | --- | ASPH CE |
| 114+72 | - | 115+00 | RT | 28 | --- | ASPH CE |
| 116+46 | - | 116+74 | LT | 28 | --- | STRAIGHT-A-WAY RD |
| 119+60 | - | 119+88 | LT | 28 | --- | ELBERT RD |
| 121+18 | - | 121+46 | RT | 28 | --- | ASPH CE |
| 123+80 | - | 124+08 | LT | 28 | --- | ASPH CE |
| 123+74 | - | 124+02 | RT | 28 | --- | ASPH CE |
| 124+86 | - | 125+14 | LT | 28 | --- | ASPH CE |
| 124+99 | - | 125+27 | RT | 28 | --- | ASPH CE |
| 126+38 | - | 126+58 | LT | 20 | --- | ROCKY RD |
| 127+97 | - | 128+25 | RT | 28 | --- | ASPH CE |
| 128+72 | - | 129+00 | LT | 28 | --- | ASPH CE |
| 129+58 | - | 129+86 | RT | 28 | --- | ASPH CE |
| 144+50 | - | 144+78 | LT | 28 | --- | JACKSON LN |
| 155+87 | - | 156+07 | RT | 20 | --- | ASPH PE |
| 159+19 | - | 159+47 | LT | 28 | --- | HALBERSTADT RD |
| 168+74 | - | 169+02 | RT | 28 | --- | ASPH CE |
| 170+79 | - | 171+07 | RT | 28 | --- | ASPH CE |
| 175+76 | - | 176+04 | LT | 28 | --- | LINDSTROM LN |
| 185+76 | - | 186+04 | LT | 28 | --- | LAKESIDE CT |
| 187+24 | - | 187+44 | LT | 20 | --- | ASPH PE |
| 187+81 | - | 188+01 | LT | 20 | --- | ASPH PE |
| 190+32 | - | 190+52 | LT | 20 | --- | ASPH PE |
| 192+00 | - | 192+00 | CL | 30 | --- | C-63-9 REPLACEMENT |
| 192+58 | - | 192+69 | RT | 11 | --- | ASPH PE |
| 193+00 | - | 195+72 | CL | 125 | --- | C-63-9 REPLACEMENT |
| 195+70 | - | 195+88 | LT | 19 | --- | ASPH PE |
| 195+72 | - | 195+72 | CL | 30 | --- | C-63-9 REPLACEMENT |
| 202+03 | - | 202+23 | LT | 20 | --- | ASPH PE |
| 206+39 | - | 206+59 | LT | 20 | --- | CEDAROMA DR |
| 207+11 | - | 207+31 | LT | 20 | --- | ASPH PE |
| 207+90 | - | 208+10 | LT | 20 | --- | ASPH PE |
| 212+03 | - | 212+31 | LT | 28 | --- | SOUTH BAY RD |
| 232+08 | - | 232+28 | LT | 20 | --- | ASPH PE |
| 236+68 | - | 237+08 | RT | 41 | --- | ASPH CE |
| 237+81 | - | 238+34 | RT | 99 | --- | FOR C&G INSTALLATION |
| 238+25 | - | 238+46 | RT | 23 | --- | CTH O |
| 238+60 | - | 239+02 | LT | 27 | --- | OLD STH 70 |
| 238+66 | - | 239+13 | RT | 75 | --- | FOR C&G INSTALLATION |
| 240+34 | - | 240+35 | CL | 30 | --- | STH 70 |
| | | | **TOTAL** | **7,021** | **63** | |

ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

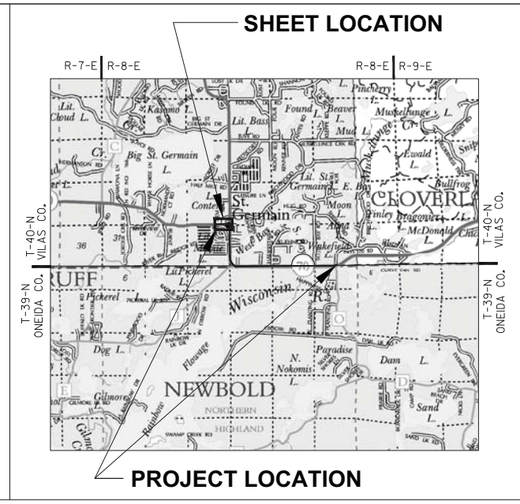
## CONVENTIONAL ABBREVIATIONS AND SYMBOLS

| | |
|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP |
| ACRES | AC. |
| AND OTHERS | ET.AL. |
| CENTERLINE | C/L |
| CERTIFIED SURVEY MAP | CSM |
| CORNER | COR. |
| DOCUMENT | DOC. |
| EASEMENT | EASE. |
| HIGHWAY EASEMENT | H.E. |
| MONUMENT | MON. |
| PAGE | P. |
| PERMANENT LIMITED EASEMENT | PLE |
| PROPERTY LINE | PL |
| RECORDED AS | (100') |
| REFERENCE LINE | R/L |
| RIGHT OF WAY | R/W |
| SECTION | SEC. |
| STATION | STA. |
| TEMPORARY LIMITED EASEMENT | TLE |
| VOLUME | V. |

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
EXISTING R/W LINE
PROPERTY LINE
LOT & TIE LINES
CORPORATE LIMITS
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
NO ACCESS (BY ACQUISITION)
NO ACCESS (BY STATUTORY AUTHORITY)
PARALLEL OFFSET
FOUND IRON PIPE/PIN (SEE TABLE FOR TYPE)
R/W MONUMENT (SET)
SECTION CORNER SYMBOL
R/W BOUNDARY POINT NUMBER (XXX)
EXISTING MONUMENT NUMBER (PXXX)

## CURVE DATA

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE OR DELTA | DELTA |
| LENGTH OF CURVE | L |
| TANGENT | TAN |




# TRANSPORTATION PROJECT PLAT NO: 9080-14-21-4.01

## S.T.H. 70 (N. CHRISTMAS TREE LN-SOUTH BAY RD) VILAS COUNTY, WI

PART OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33 AND THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 28, ALL LOCATED IN TOWNSHIP 40 NORTH, RANGE 8 EAST, TOWN OF ST. GERMAIN, VILAS COUNTY, WISCONSIN.

The State of Wisconsin has deemed it necessary to monument right of way interest previously acquired under sections 82.01, 82.31(1), 82.31(2), and 84.09 of the Wisconsin State Statutes and does hereby certify the Department of Transportation has surveyed the highway, that this plat is a true and correct representation of the exterior boundaries of the land surveyed and shows accurate measurements thereof.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9080-14-21-4.01
AMENDMENT NO:___

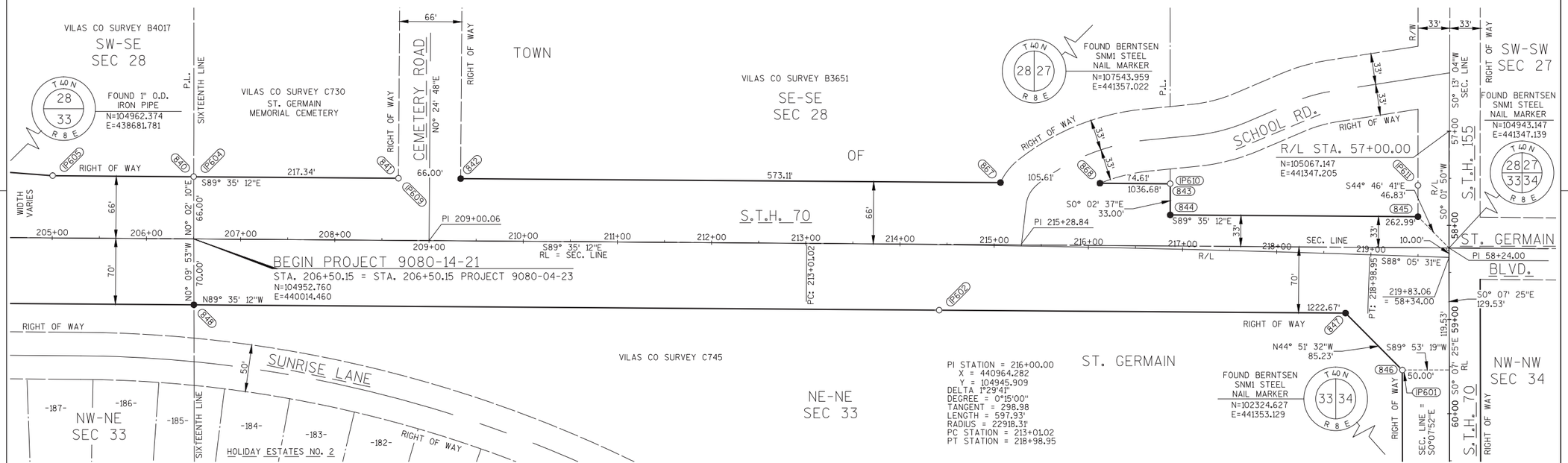
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT __:__ .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

| BASIS OF EXISTING RIGHT OF WAY | | | |
|---|---|---|---|
| ROAD NAME | PROJECT / SURVEY | VOLUME / PAGE | YEAR |
| S.T.H. 70 | 9080-04-23 | 574/420 & 527/648 | 1997 |
| CEMETERY RD. | VILAS COUNTY SURVEYS C730, B3651 | | 1988 & 1991 |
| S.T.H. 155 | VILAS COUNTY SURVEY B3651 | | 1991 |
| SCHOOL RD. | EXISTING CENTERLINE | | |
| | | | |

GN

SCALE, FEET
0 60' 120'




| R/W COORDINATE TABLE | | |
|---|---|---|
| Point # | Northing | Easting |
| * 840 | 105018.762 | 440014.502 |
| * 841 | 105017.194 | 440231.838 |
| 842 | 105016.718 | 440297.837 |
| * 843 | 105011.284 | 441051.151 |
| 844 | 104978.283 | 441051.176 |
| 845 | 104976.386 | 441314.157 |
| * 846 | 104813.522 | 441297.418 |
| 847 | 104873.938 | 441237.300 |
| 848 | 104882.757 | 440014.661 |
| 867 | 105012.584 | 440870.936 |
| 868 | 105011.822 | 440976.545 |

* NO TYPE 2 MONUMENT SET DUE TO CLOSE PROXIMITY OF EXISTING MONUMENT. USE COORDINATES IN TABLE FOR R/W

| STATION & OFFSET POINT TABLE | | |
|---|---|---|
| Point # | Station | Offset |
| 840 | 206+49.72 | −66.00' |
| 841 | 208+67.06 | −66.00' |
| 842 | 209+33.06 | −66.00' |
| 843 | 216+85.25 | −69.23' |
| 844 | 216+86.07 | −36.24' |
| 845 | 219+48.63 | −42.11' |
| 846 | 219+37.33 | 121.22' |
| 847 | 218+75.16 | 62.83' |
| 848 | 206+50.86 | 70.00' |
| 867 | 215+05.58 | −66.92' |
| 868 | 216+10.88 | −68.10' |

| EXISTING MONUMENTATION | | | |
|---|---|---|---|
| Point # | Northing | Easting | Description |
| IP601 | 104813.464 | 441297.653 | 5/8" BAR |
| IP602 | 104877.027 | 440805.838 | 3/4" BAR W/ CAP |
| IP604 | 105018.838 | 440014.522 | 1 1/2" O.D. IRON PIPE |
| IP605 | 105019.947 | 439864.782 | 3/4" BAR |
| IP609 | 105017.153 | 440231.838 | 1" O.D. IRON PIPE |
| IP610 | 105011.376 | 441051.151 | 1" O.D. IRON PIPE |
| IP611 | 105009.571 | 441314.166 | 3/4" BAR |

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VILAS COUNTY, NAD 83 (2011) IN U.S. 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 AND WILL BE PLACED PRIOR TO PLAT RECORDING.

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".

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

R/W REFERENCE LINES ARE NOT NECESSARILY THE SAME AS CONSTRUCTION REFERENCE LINES.

DIMENSIONING FOR THE RIGHT OF WAY IS MEASURED ALONG AND PERPENDICULAR TO THE REFERENCE LINE AND SECTION LINE.

FOR ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN RHINELANDER.

UTILITIES ARE NOT SHOWN ON THIS SHEET.


BECHER HOPPE
330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com


I, NATHAN J. WINCENTSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 9080-14-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.




DATE 8-21-2013
(SIGNATURE) Nathan J Wincentsen
(REGISTRATION NUMBER) S-2539

THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

DATE _____
(PRINTED NAME) _____
(SIGNATURE) _____

# TRANSPORTATION PROJECT PLAT NO: 9080-14-21-4.02

## S.T.H. 70 (N. CHRISTMAS TREE LN-SOUTH BAY RD) VILAS COUNTY, WI

PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 27, THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 28, THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33 AND THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 34, ALL LOCATED IN TOWNSHIP 40 NORTH, RANGE 8 EAST, TOWN OF ST. GERMAIN, VILAS COUNTY, WISCONSIN.

The State of Wisconsin has deemed it necessary to monument right of way interest previously acquired under sections 82.01, 82.31(1), 82.31(2), and 84.09 of the Wisconsin State Statutes and does hereby certify the Department of Transportation has surveyed the highway, that this plat is a true and correct representation of the exterior boundaries of the land surveyed and shows accurate measurements thereof.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VILAS COUNTY, NAD 83 (2011) IN U.S. 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 AND WILL BE PLACED PRIOR TO PLAT RECORDING.

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".

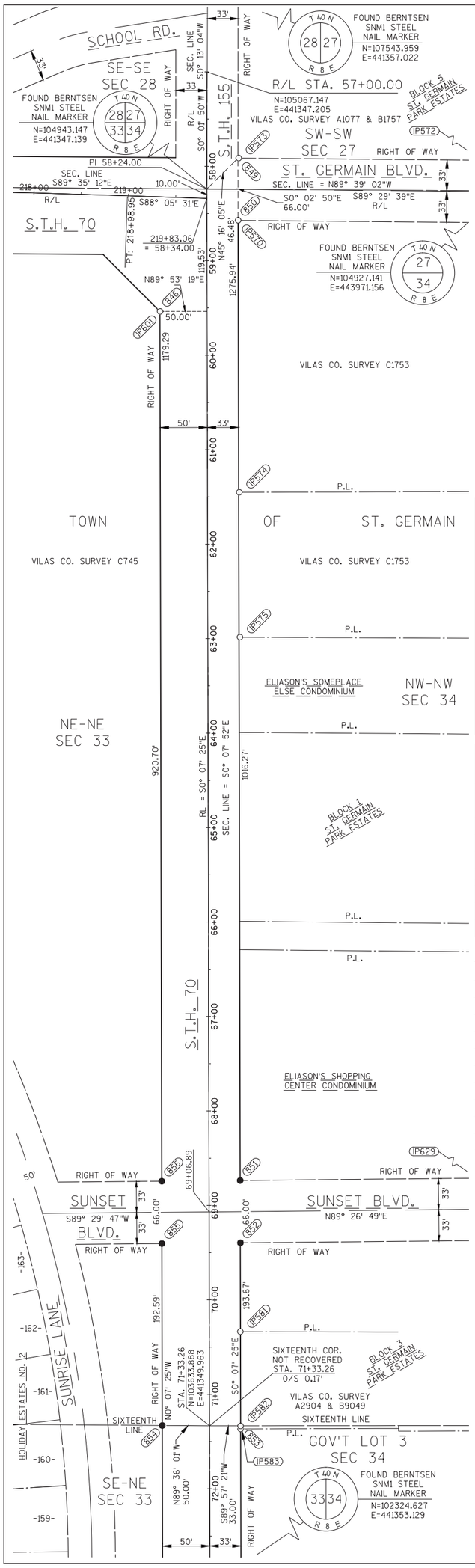
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT OF WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD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

R/W REFERENCE LINES ARE NOT NECESSARILY THE SAME AS CONSTRUCTION REFERENCE LINES.

DIMENSIONING FOR THE RIGHT OF WAY IS MEASURED ALONG AND PERPENDICULAR TO THE REFERENCE LINE AND SECTION LINE.

FOR ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN RHINELANDER.

UTILITIES ARE NOT SHOWN ON THIS SHEET.




| R/W COORDINATE TABLE | | |
|---|---|---|
| Point # | Northing | Easting |
| * 846 | 104813.522 | 441297.418 |
| * 849 | 104975.857 | 441380.156 |
| * 850 | 104909.854 | 441380.211 |
| 851 | 103893.584 | 441382.403 |
| 852 | 103827.582 | 441382.545 |
| * 853 | 103633.914 | 441382.963 |
| 854 | 103634.237 | 441299.962 |
| 855 | 103826.824 | 441299.546 |
| 856 | 103892.826 | 441299.404 |

* NO TYPE 2 MONUMENT SET DUE TO CLOSE PROXIMITY OF EXISTING MONUMENT. USE COORDINATES IN TABLE FOR R/W

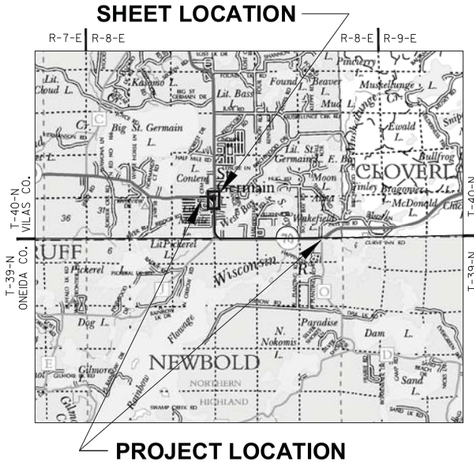
| STATION & OFFSET POINT TABLE | | |
|---|---|---|
| Point # | STATION | OFFSET |
| 846 | 59+53.52 | 50.00' |
| 849 | 57+91.27 | -33.00' |
| 850 | 58+57.36 | -33.00' |
| 851 | 68+73.64 | -33.00' |
| 852 | 69+39.64 | -33.00' |
| 853 | 71+33.31 | -33.00' |
| 854 | 71+32.81 | 50.00' |
| 855 | 69+40.22 | 50.00' |
| 856 | 68+74.22 | 50.00' |

| EXISTING MONUMENTATION | | | |
|---|---|---|---|
| Point # | Northing | Easting | Description |
| IP570 | 104909.944 | 441380.178 | P.K. NAIL |
| IP572 | 104973.497 | 441647.462 | 1 1/2" O.D. IRON PIPE |
| IP573 | 104975.851 | 441380.833 | CONC. MON. |
| IP574 | 104622.090 | 441381.466 | P.K. NAIL |
| IP575 | 104468.811 | 441382.118 | 1 1/4" O.D. IRON PIPE |
| IP581 | 103733.547 | 441382.483 | 2 1/2" O.D. IRON PIPE |
| IP582 | 103633.717 | 441382.845 | 1" O.D. IRON PIPE |
| IP601 | 104813.464 | 441297.653 | 5/8" IRON ROD |
| IP613 | 105167.740 | 441380.823 | 1" O.D. IRON PIPE |
| IP629 | 103896.111 | 441649.081 | 1" O.D. IRON PIPE |

SCALE, FEET
0 60' 120'

GN

## SHEET LOCATION




## PROJECT LOCATION

| BASIS OF EXISTING RIGHT OF WAY | | | |
|---|---|---|---|
| ROAD NAME | PROJECT / SURVEY | VOL./ Pg. | YEAR |
| S.T.H. 70 | 9080-04-23 | 574/420 | 1997 |
| Sunset Rd. East | ST. GERMAIN PARK ESTATES | | 1962 |
| Sunset Rd. West | VILAS CO. SURVEY C745 | | 1988 |
| St. Germain Blvd. | ST. GERMAIN PARK ESTATES | | 1962 |
| S.T.H. 155 | VILAS CO. SURVEY B3651 | | 1991 |

### CONVENTIONAL ABBREVIATIONS AND SYMBOLS

| | | | |
|---|---|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP | SECTION LINE | |
| ACRES | AC. | QUARTER LINE | |
| AND OTHERS | ET.AL. | SIXTEENTH LINE | |
| CENTERLINE | C/L | EXISTING CENTERLINE | |
| CERTIFIED SURVEY MAP | CSM | EXISTING R/W LINE | |
| CORNER | COR. | PROPERTY LINE | |
| DOCUMENT | DOC. | LOT & TIE LINES | |
| EASEMENT | EASE. | CORPORATE LIMITS | |
| HIGHWAY EASEMENT | H.E. | NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL) | |
| MONUMENT | MON. | NO ACCESS (BY ACQUISITION) | |
| PAGE | P. | NO ACCESS (BY STATUTORY AUTHORITY) | |
| PERMANENT LIMITED EASEMENT | PLE | PARALLEL OFFSET | |
| PROPERTY LINE | PL | FOUND IRON PIPE/PIN (SEE TABLE FOR TYPE) | |
| RECORDED AS | (100') | R/W MONUMENT (SET) | |
| REFERENCE LINE | R/L | SECTION CORNER SYMBOL | |
| RIGHT OF WAY | R/W | R/W BOUNDARY POINT NUMBER | XXX |
| SECTION | SEC. | EXISTING MONUMENT NUMBER | IPXXX |
| STATION | STA. | | |
| TEMPORARY LIMITED EASEMENT | TLE | | |
| VOLUME | V. | | |

### CURVE DATA

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE OR DELTA | DELTA |
| LENGTH OF CURVE | L |
| TANGENT | TAN |

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Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com

I, NATHAN J. WINCENTSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 9080-14-21-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8-21-2013

(SIGNATURE) Nathan J Wincentsen

(REGISTRATION NUMBER) S-2539

THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

DATE _____

(PRINTED NAME) _____

(SIGNATURE) _____

NATHAN J. WINCENTSEN S-2539 WAUSAU, WISCONSIN LAND SURVEYOR Aug 21st 2013

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9080-14-21-4.02
AMENDMENT NO:___

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT ___:___ M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_040201_RP_4.02-4.04.DWG PLOT DATE : 8/21/2013 7:59 AM PLOT BY : WINCENTSEN, NATHAN PLOT NAME : ---------- PLOT SCALE : ========== 4
APPRAISAL PLAT DATE : ----------

# TRANSPORTATION PROJECT PLAT NO: 9080-14-21-4.03

## S.T.H. 70 (N. CHRISTMAS TREE LN-SOUTH BAY RD) VILAS COUNTY, WI

PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33 AND GOVERNMENT LOT 3 OF SECTION 34, ALL LOCATED IN TOWNSHIP 40 NORTH, RANGE 8 EAST, TOWN OF ST. GERMAIN, VILAS COUNTY, WISCONSIN.

The State of Wisconsin has deemed it necessary to monument right of way interest previously acquired under sections 82.01, 82.31(2), 82.31(2), and 84.09 of the Wisconsin State Statutes and does hereby certify the Department of Transportation has surveyed the highway, that this plat is a true and correct representation of the exterior boundaries of the land surveyed and shows accurate measurements thereof.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VILAS COUNTY, NAD 83 (2011) IN U.S. 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 AND WILL BE PLACED PRIOR TO PLAT RECORDING.

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".

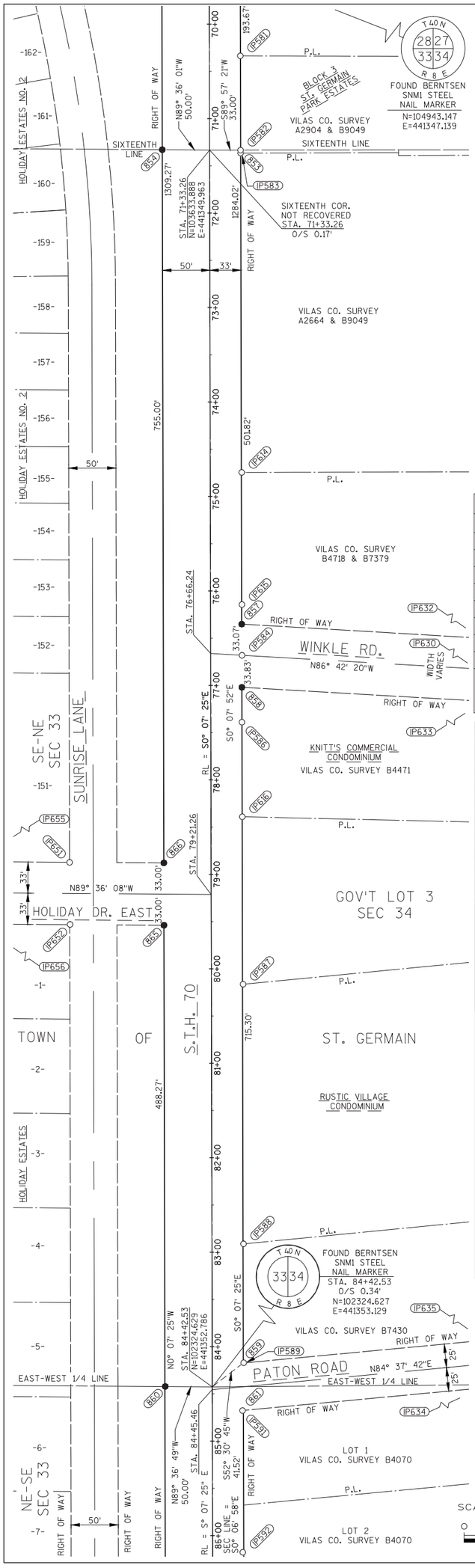
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT OF WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD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

R/W REFERENCE LINES ARE NOT NECESSARILY THE SAME AS CONSTRUCTION REFERENCE LINES.

DIMENSIONING FOR THE RIGHT OF WAY IS MEASURED ALONG AND PERPENDICULAR TO THE REFERENCE LINE AND SECTION LINE.

FOR ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN RHINELANDER.

UTILITIES ARE NOT SHOWN ON THIS SHEET.



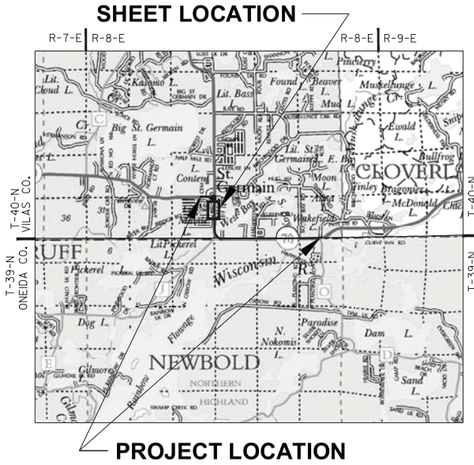

| R/W COORDINATE TABLE | | |
|---|---|---|
| Point # | Northing | Easting |
| * 853 | 103633.914 | 441382.963 |
| 854 | 103634.237 | 441299.962 |
| 857 | 103132.095 | 441384.045 |
| 858 | 103065.192 | 441384.189 |
| * 859 | 102349.898 | 441385.732 |
| 860 | 102324.966 | 441302.785 |
| 865 | 102813.237 | 441301.732 |
| 866 | 102879.239 | 441301.590 |

* NO TYPE 2 MONUMENT SET DUE TO CLOSE PROXIMITY OF EXISTING MONUMENT. USE COORDINATES IN TABLE FOR R/W

| STATION & OFFSET POINT TABLE | | |
|---|---|---|
| Point # | STATION | OFFSET |
| 853 | 71+33.31 | -33.00' |
| 854 | 71+32.81 | 50.00' |
| 857 | 76+35.13 | -33.00' |
| 858 | 77+02.03 | -33.00' |
| 859 | 84+17.33 | -33.00' |
| 860 | 84+42.08 | 50.00' |
| 865 | 79+53.81 | 50.00' |
| 866 | 78+87.80 | 50.00' |

| EXISTING MONUMENTATION | | | |
|---|---|---|---|
| Point # | Northing | Easting | Description |
| IP582 | 103633.717 | 441382.845 | 1" O.D. IRON PIPE |
| IP583 | 103630.633 | 441382.823 | 1" O.D. IRON PIPE |
| IP584 | 103099.012 | 441384.345 | S.M.P. |
| IP586 | 103028.150 | 441384.232 | 1 1/2" O.D. IRON PIPE |
| IP587 | 102750.814 | 441385.427 | 1" O.D. IRON PIPE |
| IP588 | 102475.955 | 441385.880 | 1" O.D. IRON PIPE |
| IP589 | 102350.065 | 441386.098 | 1" O.D. IRON PIPE |
| IP591 | 102299.459 | 441384.800 | 1" O.D. IRON PIPE |
| IP614 | 103292.616 | 441384.073 | 3/4" IRON ROD |
| IP615 | 103152.674 | 441384.232 | 2 1/2" O.D. IRON PIPE |
| IP616 | 102928.110 | 441384.635 | 1" O.D. IRON PIPE |
| IP630 | 103083.637 | 441651.440 | S.M.P. |
| IP632 | 103116.371 | 441651.408 | 1" O.D. IRON PIPE |
| IP633 | 103049.612 | 441652.271 | 1" O.D. IRON PIPE |
| IP634 | 102322.847 | 441634.338 | 2" O.D. IRON PIPE |
| IP635 | 102376.782 | 441669.614 | 1" O.D. IRON PIPE |
| IP651 | 102879.749 | 441201.826 | 2 1/2" O.D. IRON PIPE |
| IP652 | 102814.086 | 441202.326 | 2 1/2" O.D. IRON PIPE |
| IP655 | 102881.297 | 441001.872 | 2 1/2" O.D. IRON PIPE |
| IP656 | 102816.178 | 440901.976 | 2 1/2" O.D. IRON PIPE |

## SHEET LOCATION




## PROJECT LOCATION

| BASIS OF EXISTING RIGHT OF WAY | | | |
|---|---|---|---|
| ROAD NAME | PROJECT / SURVEY | VOL./ Pg. | YEAR |
| S.T.H. 70 | 9080-04-23 | 574/420 | 1997 |
| Winkle Rd. | VILAS CO. SURVEY B4718 & B4471 | | 1994/1993 |
| Paton Rd. | VILAS CO. SURVEY B4070 & B7430 | | 2004/1992 |
| East Holiday Dr. | HOLIDAY ESTATES & NO. 2 | 7/30 & 9/13 | 1971/1963 |

### CONVENTIONAL ABBREVIATIONS AND SYMBOLS

| | | | |
|---|---|---|---|
| ACCESS POINT, DRIVEWAY CONNECTION | AP | SECTION LINE | |
| ACRES | AC. | QUARTER LINE | |
| AND OTHERS | ET.AL. | SIXTEENTH LINE | |
| CENTERLINE | C/L | EXISTING CENTERLINE | |
| CERTIFIED SURVEY MAP | CSM | EXISTING R/W LINE | |
| CORNER | COR. | PROPERTY LINE | |
| DOCUMENT | DOC. | LOT & TIE LINES | |
| EASEMENT | EASE. | CORPORATE LIMITS | |
| HIGHWAY EASEMENT | H.E. | NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL) | |
| MONUMENT | MON. | NO ACCESS (BY ACQUISITION) | |
| PAGE | P. | NO ACCESS (BY STATUTORY AUTHORITY) | |
| PERMANENT LIMITED EASEMENT | PLE | PARALLEL OFFSET | |
| PROPERTY LINE | PL | FOUND IRON PIPE/PIN (SEE TABLE FOR TYPE) | |
| RECORDED AS | (100') | R/W MONUMENT (SET) | |
| REFERENCE LINE | R/L | SECTION CORNER SYMBOL | |
| RIGHT OF WAY | R/W | R/W BOUNDARY POINT NUMBER | XXX |
| SECTION | SEC. | EXISTING MONUMENT NUMBER | PXXX |
| STATION | STA. | | |
| TEMPORARY LIMITED EASEMENT | TLE | | |
| VOLUME | V. | | |

### CURVE DATA

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE OR DELTA | DELTA |
| LENGTH OF CURVE | L |
| TANGENT | TAN |

BECHER HOPPE
330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com

I, NATHAN J. WINCENTSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 9080-14-21-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

NATHAN J. WINCENTSEN S-2539 WAUSAU, WI Aug 21st 2013

DATE 8-21-2013

(SIGNATURE) Nathan J Wincentsen

(REGISTRATION NUMBER) S-2539

THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

DATE _____

(PRINTED NAME) _____

(SIGNATURE) _____

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9080-14-21-4.03
AMENDMENT NO:...

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT ..:.. _M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_040201_RP_4.02-4.04.DWG PLOT DATE : 8/21/2013 8:00 AM PLOT BY : WINCENTSEN, NATHAN PLOT NAME : _____ PLOT SCALE : ========== 4
APPRAISAL PLAT DATE : _____

# TRANSPORTATION PROJECT PLAT NO: 9080-14-21-4.04

## S.T.H. 70 (N. CHRISTMAS TREE LN-SOUTH BAY RD) VILAS COUNTY, WI

PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 33 AND GOVERNMENT LOT 4 OF SECTION 34, ALL LOCATED IN TOWNSHIP 40 NORTH, RANGE 8 EAST, TOWN OF ST. GERMAIN, VILAS COUNTY, WISCONSIN.

The State of Wisconsin has deemed it necessary to monument right of way interest previously acquired under sections 82.01, 82.31(1), 82.31(2), and 84.09 of the Wisconsin State Statutes and does hereby certify the Department of Transportation has surveyed the highway, that this plat is a true and correct representation of the exterior boundaries of the land surveyed and shows accurate measurements thereof.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VILAS COUNTY, NAD 83 (2011) IN U.S. 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 AND WILL BE PLACED PRIOR TO PLAT RECORDING.

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".

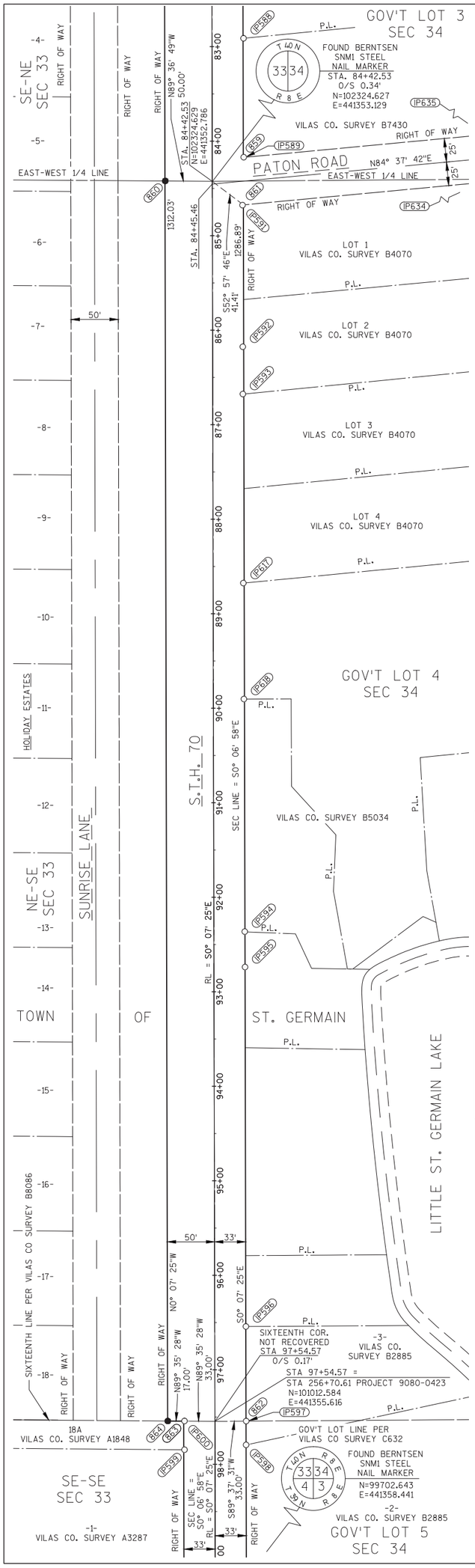
PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT OF WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD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

R/W REFERENCE LINES ARE NOT NECESSARILY THE SAME AS CONSTRUCTION REFERENCE LINES.

DIMENSIONING FOR THE RIGHT OF WAY IS MEASURED ALONG AND PERPENDICULAR TO THE REFERENCE LINE AND SECTION LINE.

FOR ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICE IN RHINELANDER.

UTILITIES ARE NOT SHOWN ON THIS SHEET.




| R/W COORDINATE TABLE | | |
|---|---|---|
| Point # | Northing | Easting |
| 860 | 102324.966 | 441302.785 |
| * 861 | 102299.688 | 441385.840 |
| * 862 | 101012.800 | 441388.616 |
| 863 | 101012.820 | 441322.615 |
| 864 | 101012.941 | 441305.615 |
| * NO TYPE 2 MONUMENT SET DUE TO CLOSE PROXIMITY OF EXISTING MONUMENT. USE COORDINATES IN TABLE FOR R/W | | |

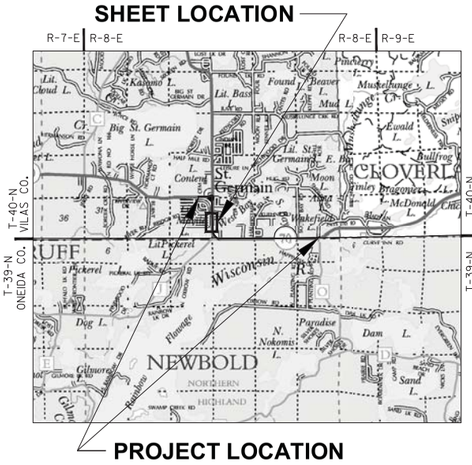
| STATION & OFFSET POINT TABLE | | |
|---|---|---|
| Point # | STATION | OFFSET |
| 860 | 84+42.08 | 50.00' |
| 861 | 84+67.54 | -33.00' |
| 862 | 97+54.43 | -33.00' |
| 863 | 97+54.27 | 33.00' |
| 864 | 97+54.11 | 50.00' |

| EXISTING MONUMENTATION | | | |
|---|---|---|---|
| Point # | Northing | Easting | Description |
| IP588 | 102475.955 | 441385.880 | 1" O.D. IRON PIPE |
| IP589 | 102350.065 | 441386.098 | 1" O.D. IRON PIPE |
| IP591 | 102299.459 | 441384.800 | 1" O.D. IRON PIPE |
| IP592 | 102149.513 | 441385.151 | 2 1/2" O.D. IRON PIPE |
| IP593 | 102099.494 | 441385.190 | 1" O.D. IRON PIPE |
| IP594 | 101530.714 | 441387.269 | 1" O.D. IRON PIPE |
| IP595 | 101492.850 | 441387.439 | 1 1/2" O.D. WELL PT. |
| IP596 | 101112.883 | 441388.398 | 1 1/4" O.D. IRON PIPE |
| IP597 | 101012.801 | 441388.733 | 1" O.D. IRON PIPE |
| IP598 | 100987.666 | 441388.628 | 1" O.D. IRON PIPE |
| IP599 | 100982.532 | 441323.426 | 1" O.D. IRON PIPE |
| IP600 | 101012.973 | 441323.386 | 1" O.D. IRON PIPE |
| IP617 | 101899.497 | 441385.727 | 1" O.D. IRON PIPE |
| IP618 | 101776.792 | 441386.302 | 3/4" IRON ROD |
| IP634 | 102322.847 | 441634.338 | 2" O.D. IRON PIPE |
| IP635 | 102376.782 | 441669.614 | 1" O.D. IRON PIPE |

SCALE, FEET
0 60' 120'

GN

## SHEET LOCATION




## PROJECT LOCATION

| BASIS OF EXISTING RIGHT OF WAY | | | |
|---|---|---|---|
| ROAD NAME | PROJECT / SURVEY | VOL./ Pg. | YEAR |
| S.T.H. 70 | 9080-04-23 | 574/420 | 1997 |
| Paton Rd. | VILAS CO. SURVEY B4070 & B7430 | | 2004/1992 |
| | | | |
| | | | |

### CONVENTIONAL ABBREVIATIONS AND SYMBOLS

| | | | |
|---|---|---|---|
| ACCESS POINT, DRIVEWAY CONNECTION | AP | SECTION LINE | ——— |
| ACRES | AC. | QUARTER LINE | ——— |
| AND OTHERS | ET.AL. | SIXTEENTH LINE | ——— |
| CENTERLINE | C/L | EXISTING CENTERLINE | —·—·— |
| CERTIFIED SURVEY MAP | CSM | EXISTING R/W LINE | ——— |
| CORNER | COR. | PROPERTY LINE | ——·——— |
| DOCUMENT | DOC. | LOT & TIE LINES | - - - - - |
| EASEMENT | EASE. | CORPORATE LIMITS | ////////// |
| HIGHWAY EASEMENT | H.E. | NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL) | ◆◆◆◆◆ |
| MONUMENT | MON. | NO ACCESS (BY ACQUISITION) | \|\|\|\|\|\|\|\|\|\| |
| PAGE | P. | NO ACCESS (BY STATUTORY AUTHORITY) | ●●●●●●●●●● |
| PERMANENT LIMITED EASEMENT | PLE | PARALLEL OFFSET | |
| PROPERTY LINE | PL | FOUND IRON PIPE/PIN (SEE TABLE FOR TYPE) | ○ |
| RECORDED AS | (100') | R/W MONUMENT (SET) | ● |
| REFERENCE LINE | R/L | SECTION CORNER SYMBOL | |
| RIGHT OF WAY | R/W | R/W BOUNDARY POINT NUMBER | XXX |
| SECTION | SEC. | EXISTING MONUMENT NUMBER | PXXX |
| STATION | STA. | | |
| TEMPORARY LIMITED EASEMENT | TLE | | |
| VOLUME | V. | | |

### CURVE DATA

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE OR DELTA | DELTA |
| LENGTH OF CURVE | L |
| TANGENT | TAN |

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330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com

I, NATHAN J. WINCENTSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 9080-14-21-4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

NATHAN J. WINCENTSEN S-2539 WAUSAU WISCONSIN LAND SURVEYOR

DATE 8-21-2013

(SIGNATURE) Nathan J Wincentsen

(REGISTRATION NUMBER) S-2539

THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

DATE _____

(PRINTED NAME) _____

(SIGNATURE) _____

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9080-14-21-4.04
AMENDMENT NO:___

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT ____:____ M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_040201_RP_4.02-4.04.DWG PLOT DATE : 8/21/2013 8:01 AM PLOT BY : WINCENTSEN, NATHAN PLOT NAME : _____ PLOT SCALE : ********** 4
APPRAISAL PLAT DATE : _____

| SCHEDULE OF LANDS & INTEREST REQUIRED | | | OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT. | | | |
|---|---|---|---|---|---|---|
| PARCEL NUMBER | OWNER(S) | INTEREST REQUIRED | R/W ACRES OR SF REQUIRED | | | PLE, TLE ACRES OR SF |
| | | | NEW | EXISTING | TOTAL | |
| VILAS COUNTY | | | | | | |
| 2 | WISCONSIN VALLEY IMPROVEMENT CO. | TLE | - | - | - | 1,189 SF |

| UTILITY INTERESTS REQUIRED | | |
|---|---|---|
| UTILITY NUMBER | OWNER(S) | INTEREST REQUIRED |
| 100 | WISCONSIN PUBLIC SERVICE CORP. (GAS) | RELEASE OF RIGHTS |

## CONVENTIONAL ABBREVIATIONS

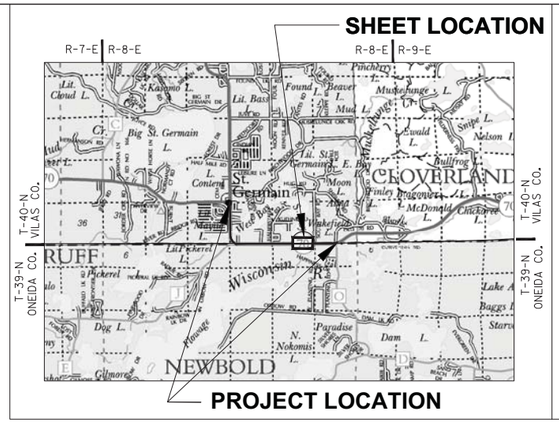
| | |
|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP |
| ACRES | AC. |
| AND OTHERS | ET.AL. |
| CENTERLINE | C/L |
| CERTIFIED SURVEY MAP | CSM |
| CORNER | COR. |
| DOCUMENT | DOC. |
| EASEMENT | EASE. |
| HIGHWAY EASEMENT | H.E. |
| MONUMENT | MON. |
| PAGE | P. |
| PERMANENT LIMITED EASEMENT | PLE |
| PROPERTY LINE | PL |
| RECORDED AS | (100') |
| REFERENCE LINE | R/L |
| RIGHT OF WAY | R/W |
| SECTION | SEC. |
| STATION | STA. |
| TEMPORARY LIMITED EASEMENT | TLE |
| VOLUME | V. |

## CONVENTIONAL UTILITY SYMBOLS

GAS ——G——
COMMUNICATION ——C——
OVERHEAD TRANSMISSION LINES ——OH——

## CONVENTIONAL SYMBOLS

HYDRANT
WETLANDS
POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL
SIGN
SECTION CORNER SYMBOL
TEMPORARY LIMITED EASEMENT
FEE (HATCH VARIES)
EXISTING R/W POINT (IPXXX)
TLE / R/W POINT (XXX)
FOUND IRON PIPE/PIN (SEE TABLE FOR TYPE)
R/W MONUMENT (SET)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
EXISTING R/W LINE
PROPERTY LINE
LOT & TIE LINES
CORPORATE LIMITS
PARALLEL OFFSET
PARCEL NUMBER (1)
UTILITY NUMBER (100)




# TRANSPORTATION PROJECT PLAT
# NO: 9080-14-21-4.05

S.T.H. 70 VILAS COUNTY, WI
(N. CHRISTMAS TREE LN. - SOUTH BAY RD.)

A PART OF GOVERNMENT LOT 5 OF SECTION 35, TOWNSHIP 40 NORTH, RANGE 8 EAST, TOWN OF ST. GERMAIN, VILAS COUNTY, WISCONSIN

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9080-14-21-4.05
AMENDMENT NO:

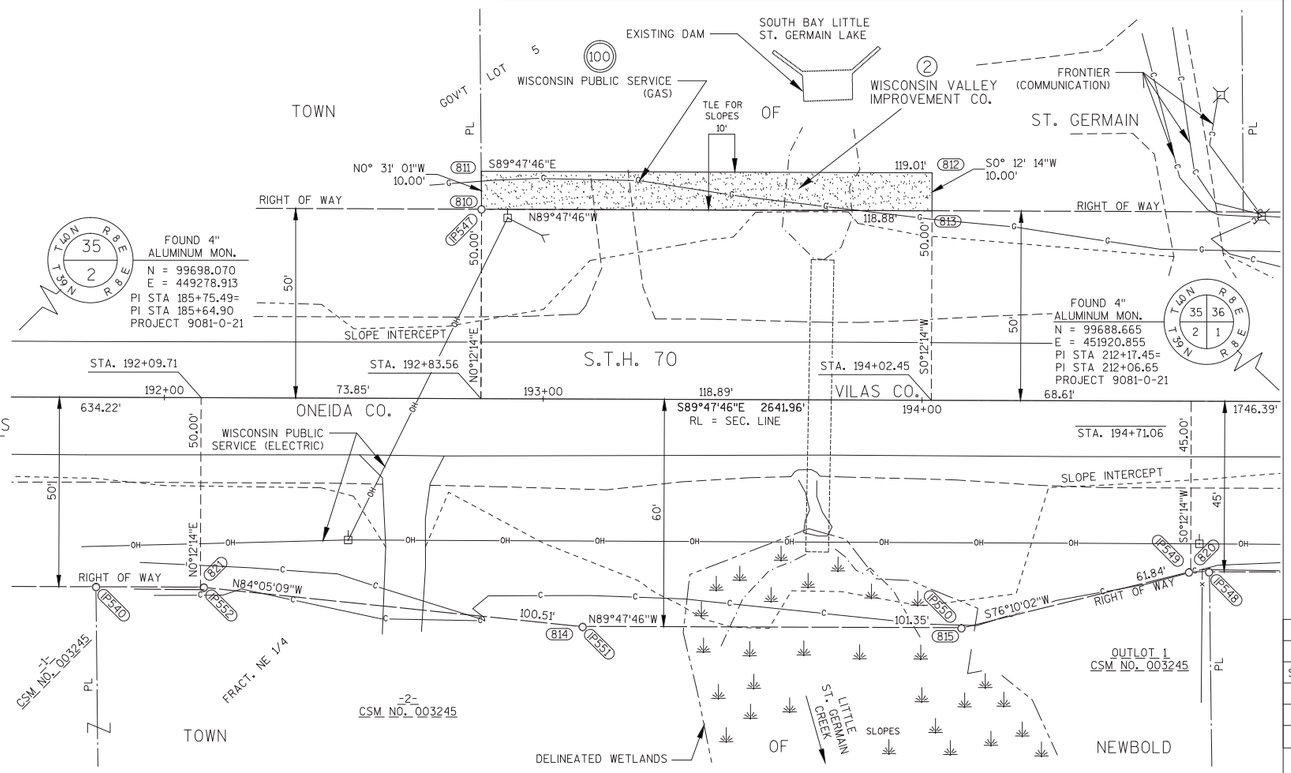
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT _:__ _M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

## RELOCATION ORDER STH 70 VILAS COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.




## NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VILAS COUNTY, NAD 83 (2011) IN U.S. 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 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT (TYPICALLY 3/4"X24" RE-BAR).

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".

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLEs EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN RHINELANDER.

| BASIS OF EXISTING RIGHT OF WAY | | | |
|---|---|---|---|
| ROAD NAME | PROJECT / SURVEY | VOL./ Pg. | YEAR |
| S.T.H. 70 | R/W PROJECT 9081-0-21 | | 1979 |
| | | | |
| | | | |
| | | | |

| R/W / TLE COORDINATE TABLE | | |
|---|---|---|
| Point # | Northing | Easting |
| 810 | 99745.548 | 449987.160 |
| 811 | 99755.549 | 449987.070 |
| 812 | 99755.126 | 450106.077 |
| 813 | 99745.126 | 450106.042 |
| 814 | 99635.457 | 450012.917 |
| 815 | 99635.096 | 450114.268 |
| 820 | 99649.882 | 450174.318 |
| 821 | 99645.813 | 449912.946 |

| STATION & OFFSET POINT TABLE | | |
|---|---|---|
| Point # | STATION | OFFSET |
| 810 | 192+83.57 | -50.00' |
| 811 | 192+83.44 | -60.00' |
| 812 | 194+02.45 | -60.00' |
| 813 | 194+02.45 | -50.00' |
| 814 | 193+09.71 | 60.00' |
| 815 | 194+11.07 | 60.00' |
| 820 | 194+71.06 | 45.00' |
| 821 | 192+09.71 | 50.00' |

| EXISTING MONUMENTATION | | | |
|---|---|---|---|
| Point # | Northing | Easting | Description |
| IP540 | 99645.791 | 449885.436 | 1" O.D. IRON PIPE |
| IP547 | 99745.501 | 449987.150 | 1" O.D. IRON PIPE |
| IP548 | 99649.696 | 450179.184 | 1" O.D. IRON PIPE |
| IP549 | 99649.666 | 450173.903 | 1" O.D. IRON PIPE |
| IP550 | 99634.896 | 450113.834 | 1" O.D. IRON PIPE |
| IP551 | 99635.263 | 450013.849 | 1" O.D. IRON PIPE |
| IP552 | 99645.653 | 449913.905 | 1" O.D. IRON PIPE |

BECHER HOPPE
330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com

I, NATHAN J. WINCENTSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 9080-14-21-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8-21-2013
(SIGNATURE) Nathan J Wincentsen
(REGISTRATION NUMBER) S-2539

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
DATE _____
(PRINTED NAME) _____
(SIGNATURE) _____

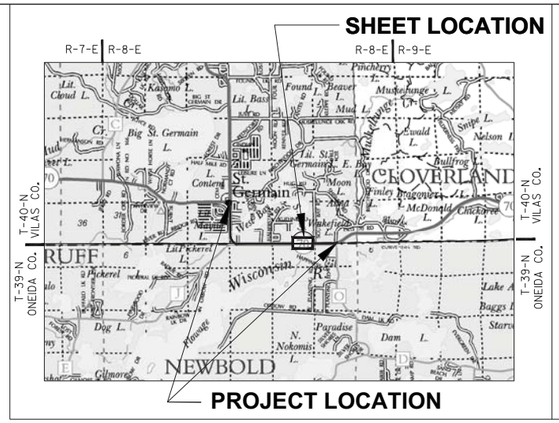
## SCHEDULE OF LANDS & INTEREST REQUIRED

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

| PARCEL NUMBER | OWNER(S) | INTEREST REQUIRED | R/W ACRES OR SF REQUIRED | | | PLE, TLE ACRES OR SF |
|---|---|---|---|---|---|---|
| | | | NEW | EXISTING | TOTAL | |
| ONEIDA COUNTY | | | | | | |
| 1 | RUTH A. CAMP-LONG REVOCABLE TRUST | TLE | - | - | - | 1,251 SF |

## UTILITY INTEREST REQUIRED

| UTILITY NUMBER | OWNER(S) | INTEREST REQUIRED |
|---|---|---|
| 101 | FRONTIER COMMUNICATIONS OF WI, LLC | RELEASE OF RIGHTS |




# TRANSPORTATION PROJECT PLAT
# NO: 9080-14-21-4.06

S.T.H. 70 ONEIDA COUNTY, WI
(N. CHRISTMAS TREE LN. - SOUTH BAY RD.)

A PART OF LOT 1 AND OUTLOT 1 OF ONEIDA COUNTY CERTIFIED SURVEY MAP # 003245, RECORDED IN VOLUME 14 OF CERTIFIED SURVEY MAPS ON PAGE 3245 LOCATED IN THE WEST 1/2 OF THE FRACTIONAL NORTHEAST 1/4, SECTION 2, TOWNSHIP 39 NORTH, RANGE 8 EAST, TOWN OF NEWBOLD, ONEIDA COUNTY, WISCONSIN

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 9080-14-21-4.06
AMENDMENT NO:

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN _____ COUNTY, WISCONSIN AT _:__ _M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RELOCATION ORDER STH 70 ONEIDA COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

## CONVENTIONAL ABBREVIATIONS

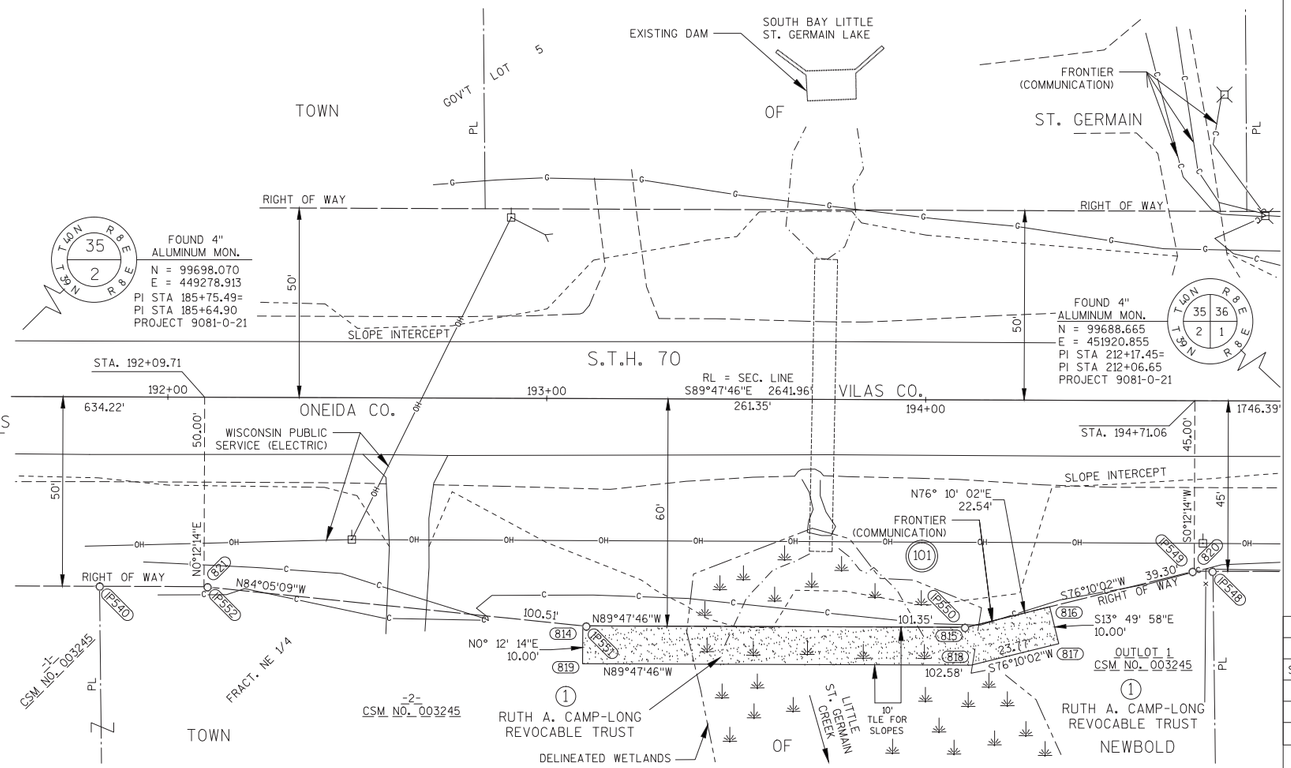
| | |
|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP |
| ACRES | AC. |
| AND OTHERS | ET.AL. |
| CENTERLINE | C/L |
| CERTIFIED SURVEY MAP | CSM |
| CORNER | COR. |
| DOCUMENT | DOC. |
| EASEMENT | EASE. |
| HIGHWAY EASEMENT | H.E. |
| MONUMENT | MON. |
| PAGE | P. |
| PERMANENT LIMITED EASEMENT | PLE |
| PROPERTY LINE | PL |
| RECORDED AS | (100') |
| REFERENCE LINE | R/L |
| RIGHT OF WAY | R/W |
| SECTION | SEC. |
| STATION | STA. |
| TEMPORARY LIMITED EASEMENT | TLE |
| VOLUME | V. |

## CONVENTIONAL UTILITY SYMBOLS

GAS —G—
COMMUNICATION —C—
OVERHEAD TRANSMISSION LINES —OH—

## CONVENTIONAL SYMBOLS

HYDRANT
WETLANDS
POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL
SIGN
SECTION CORNER SYMBOL
TEMPORARY LIMITED EASEMENT
FEE (HATCH VARIES)
EXISTING R/W POINT (IPXXX)
TLE / R/W POINT (XXX)
FOUND IRON PIPE/PIN (SEE TABLE FOR TYPE)
R/W MONUMENT (SET)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
EXISTING R/W LINE
PROPERTY LINE
LOT & TIE LINES
CORPORATE LIMITS
PARALLEL OFFSET
PARCEL NUMBER (1)
UTILITY NUMBER (100)




GN

SCALE, FEET
0 20 40

## NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, VILAS COUNTY, NAD 83 (2011) IN U.S. 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 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT (TYPICALLY 3/4"X24" RE-BAR).

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".

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

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A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN RHINELANDER.

### BASIS OF EXISTING RIGHT OF WAY

| ROAD NAME | PROJECT / SURVEY | VOL./ Pg. | YEAR |
|---|---|---|---|
| S.T.H. 70 | R/W PROJECT 9081-0-21 | | 1979 |
| | | | |
| | | | |
| | | | |

### R/W / TLE COORDINATE TABLE

| Point # | Northing | Easting |
|---|---|---|
| 814 | 99635.457 | 450012.917 |
| 815 | 99635.096 | 450114.268 |
| 816 | 99640.485 | 450136.155 |
| 817 | 99630.775 | 450138.545 |
| 818 | 99625.092 | 450115.463 |
| 819 | 99625.457 | 450012.881 |
| 820 | 99649.882 | 450174.318 |
| 821 | 99645.813 | 449912.946 |

### STATION & OFFSET POINT TABLE

| Point # | STATION | OFFSET |
|---|---|---|
| 814 | 193+09.71 | 60.00' |
| 815 | 194+11.07 | 60.00' |
| 816 | 194+32.93 | 54.53' |
| 817 | 194+35.36 | 64.23' |
| 818 | 194+12.30 | 70.00' |
| 819 | 193+09.71 | 70.00' |
| 820 | 194+71.06 | 45.00' |
| 821 | 192+09.71 | 50.00' |

### EXISTING MONUMENTATION

| Point # | Northing | Easting | Description |
|---|---|---|---|
| IP540 | 99645.791 | 449885.436 | 1" O.D. IRON PIPE |
| IP548 | 99649.696 | 450179.184 | 1" O.D. IRON PIPE |
| IP549 | 99649.666 | 450173.903 | 1" O.D. IRON PIPE |
| IP550 | 99634.896 | 450113.834 | 1" O.D. IRON PIPE |
| IP551 | 99635.263 | 450013.849 | 1" O.D. IRON PIPE |
| IP552 | 99645.653 | 449913.905 | 1" O.D. IRON PIPE |


BECHER HOPPE
330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com


I, NATHAN J. WINCENTSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 9080-14-21-4.06 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE 8-21-2013
(SIGNATURE) Nathan J Wincentsen
(REGISTRATION NUMBER) S-2539

NATHAN J. WINCENTSEN S-2539 WAUSAU, WI LAND SURVEYOR Aug 21st 2013

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
DATE _____
(PRINTED NAME) _____
(SIGNATURE) _____

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_040201_RP_4.05-4.06.DWG PLOT DATE : 8/21/2013 7:18 AM PLOT BY : WINCENTSEN, NATHAN PLOT NAME : _____ PLOT SCALE : **********
APPRAISAL PLAT DATE : _____

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

OBLITERATE DRIVEWAY (PAID FOR AS REMOVING PAVEMENT, REMOVING CURB & GUTTER, TOPSOIL, SEED, FERTILIZER, AND E-MAT.

RAC

N

5

5

**BEGIN PROJECT**
**STA 57+54**
BUTT JOINT REQ'D

STA 57+76, 19.9' LT

STA 58+11, 45.6' LT
Y: 104,980.86
X: 441,392.08

END CONSTRUCTION 50' LT
BUTT JOINT REQ'D

FRONTIER
(COMMUNICATION)

ST GERMAIN BLVD

STA 58+31, 45.6' LT
Y: 104,910.85
X: 441,388.21

PI: 58+24.00

SEE CONSTRUCTION DETAILS FOR
STORM SEWER INFORMATION

UNDERGROUND ELECTRIC

CONCRETE CURB & GUTTER
30-INCH TYPE D REQD

STA 60+00, 33.0' LT
REMOVE ASPH CE
SAWING ASPHALT REQ'D

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

STA 61+11, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

LAKELAND CABLEVISION

SEE CONSTRUCTION DETAILS
FOR STORM SEWER INFORMATION

ASPH PARKING LOT

STH 155

STH 70

MATCH LINE STA 62+50

57+54 58+00 59+00 60+00 61+00 62+00

R/W 33' 33'

R25' R25' R5' TYP. R16.5' R40' R5' R13.5' R5'

35' 33' 50' 16' 17'

18" SSPRC 15" SSPRC 24" CMCP ASPH (PE) 70' (PE)

LANDMARK REFERENCE MONUMENT
(REESTABLISH EXISTING MONUMENT)
STA 58+24.00, 0.00'

STA 57+67, 17.2' RT

WISCONSIN PUBLIC SERVICE
(GAS)
Y: 104,999.71
X: 441,290.01

STA 58+08, 60.2' RT

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES

END CONSTRUCTION 181' RT
BUTT JOINT REQ'D

BM #1

Y: 104,839.49
X: 441,328.15

STA 59+98, 20.9' RT

1-AEW REQ'D

Y: 104,901.15
X: 441,314.53

STA 60+32, 50.0 RT
RESTORE ASPH PE
BUTT JOINT REQ'D

REMOVING CURB & GUTTER
CONCRETE CURB & GUTTER 30 INCH TYPE D REQD (TYP)

Y: 104,913.97
X: 441,265.47

Y: 104,781.01
X: 441,187.47

END SECTION CURB & GUTTER
SEE STANDARD DETAIL CONCRETE CURB,
CONCRETE CURB & GUTTER AND TIES (TYP)

STA 58+54, 180.8' RT

EXISTING BASE
AGGREGATE SHOULDER

SLOPE INTERCEPT (TYP)

PROPOSED BASE
AGGREGATE SHOULDER

EXISTING HMA SHOULDER

PROPOSED HMA SHOULDER

TOWN OF ST. GERMAIN

BENCH MARK TABLE

| NO. | STATION | DESCRIPTION | ELEVATION |
|---|---|---|---|
| 1 | 58+43.18, 29' LT | PPOL #4008 34W93 60D NAIL | 1638.80 |

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 62 | E |
|---|---|---|---|---|---|

LEGEND

PREREMEDIAL SOIL CONTAMINATION

GROUNDWATER CONTAMINANT DISTRIBUTION (JULY 12, 2007)

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

N

RAC

JERRY M ELIASON

KTC ENTERPRISES

JOSEPH LASS

420 STH 70

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

REMOVING CONCRETE CURB & GUTTER
CONCRETE CURB & GUTTER 30-INCH TYPE D (TYP)

SLOPE INTERCEPT

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

STA 65+82, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

5

MATCH LINE STA 62+50

MATCH LINE STA 68+50

5

R/W

OH

GRASS

SIGN

BM#2

BM#3

B1

B2

B3

35'

R5'
TYP.

33'

50'

16'

17'

SS

18" SSPRC

18" SSPRC

63+00

64+00

65+00

66+00

67+00

68+00

STH 70

PROPOSED HMA SHOULDER

EXISTING HMA SHOULDER

EXISTING BASE
AGGREGATE SHOULDER

SLOPE INTERCEPT (TYP)

PROPOSED BASE AGGREGATE
SHOULDER

SEE CONSTRUCTION DETAILS FOR
STORM SEWER INFORMATION

REMOVING CURB & GUTTER
CONCRETE CURB & GUTTER 30-INCH TYPE D
(SPOT LOCATIONS)

TOWN OF ST. GERMAIN

BENCH MARK TABLE

| NO. | STATION | DESCRIPTION | ELEVATION |
|---|---|---|---|
| 2 | 64+44.62, 34' LT | NUT WEST LEG OF SIGN | 1637.74 |
| 3 | 66+49.90, 29' LT | PPOL #4008 34W100 60D NAIL | 1635.78 |

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 63 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_050101_PP.DWG PLOT DATE : 7/10/2014 2:39 PM PLOT BY : DANIEL J. GERLING PLOT NAME : _____ PLOT SCALE : 1" = 40'_XREF

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

OBLITERATE DRIVEWAY (PAID FOR AS REMOVING PAVEMENT, REMOVING CURB & GUTTER, TOPSOIL, SEED, FERTILIZER, AND E-MAT.

N

5

MATCH LINE STA 68+50

MATCH LINE STA 74+50

5

STH 70

SUNSET BLVD

69+00 70+00 71+00 72+00 73+00 74+00

DARREN J KUSKE

FIRST NATIONAL BANK OF

KRIST OIL CO INC

TOWN OF ST. GERMAIN

ASPH PARKING LOT

ASPH MULTI-USE PATH

24" CPRC

18" SSCRC

STA 68+95, 44.4' LT

END CONSTRUCTION 54' LT
BUTT JOINT REQ'D

STA 69+26, 48.6' LT

STA 70+10, 33.0' LT
RESTORE BASE AGG PE

STA 71+09, 33.0' LT
RESTORE BASE AGG PE

FRONTIER
(COMMUNICATION)

CONCRETE CURB & GUTTER 30-INCH TYPE D REQD

STA 71+62, LT
REMOVE CONC CE
SAWING CONCRETE REQ'D

STA 72+40, 33.0' LT
RESTORE CONC CE
BUTT JOINT REQD

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

SLOPE INTERCEPT

REMOVING CURB & GUTTER
CONCRETE CURB & GUTTER 30-INCH TYPE D REQD

STA 74+31, 33.0' LT
RESTORE CONC CE
BUTT JOINT REQD

R/W

R25'

BM*4

BM*5

47'

36'

69'

52'

16'

17'

35'

50'

SEE CONSTRUCTION DETAILS FOR
STORM SEWER INFORMATION

SLOPE INTERCEPT

WISCONSIN PUBLIC SERVICE
(GAS)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

REMOVING CURB & GUTTER
CONCRETE CURB & GUTTER 30-INCH TYPE D (SPOT LOCATIONS)

CLEANING CULVERT PIPES
2-AEW REQD

END CONSTRUCTION 93' RT
BUTT JOINT REQ'D

EXISTING HMA SHOULDER

PROPOSED HMA SHOULDER

PROPOSED BASE AGGREGATE
SHOULDER

EXISTING BASE AGGREGATE SHOULDER

FRONTIER
(COMMUNICATION)

BENCH MARK TABLE

| NO. | STATION | DESCRIPTION | ELEVATION |
|---|---|---|---|
| 4 | 69+31.21, 30'LT | PPOL #4008 34W98 60D NAIL | 1635.28 |
| 5 | 73+64.42, 31'LT | PPOL #4008 34W106 60D NAIL | 1632.26 |

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 64 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_050101_PP.DWG PLOT DATE : 7/10/2014 2:39 PM PLOT BY : DANIEL J. GERLING PLOT NAME : ---------- PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 44

| BENCH MARK TABLE | | | |
|---|---|---|---|
| NO. | STATION | DESCRIPTION | ELEVATION |
| 6 | 78+04.97, 45'RT | PPOL *4008 33E99 60D NAIL | 1631.85 |

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

N

DONALD B DIXON

SHIRLEY M KNITT

FIRST NATIONAL BANK OF

67'

WINKLE ROAD

REMOVING CONCRETE CURB & GUTTER
CONCRETE CURB & GUTTER 30-INCH TYPE D REQD

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

STA 75+92, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

END CONSTRUCTION 53' LT
BUTT JOINT REQ'D

STA 77+54, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

CURB RAMP TYPE 2

FRONTIER
(COMMUNICATION)

STA 78+80, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

SLOPE INTERCEPT

FRONTIER
(COMMUNICATION)

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

R/W

ASPH (CE)

18'

R10' (TYP.)

R25'

20'

26'

AGG. TRAIL

33'

16'

17'

50'

STH 70

75+00

76+00

77+00

78+00

79+00

80+00

MATCH LINE STA 74+50

MATCH LINE STA 80+50

5

5

8" SSPC

OH

G

E

C

FRONTIER
(COMMUNICATION)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

WISCONSIN PUBLIC SERVICE
(GAS)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

WISCONSIN PUBLIC SERVICE
(GAS)

SLOPE INTERCEPT

TOWN OF ST. GERMAIN

ASPH MULTI-USE PATH

BASE AGGREGATE
SHOULDER

EXISTING HMA SHOULDER

EXISTING BASE
AGGREGATE SHOULDER

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

BM*6

CURB RAMP TYPE 2

30" CPCM

CLEANING CULVERT PIPES
2-AEW REQD

REMOVING CONCRETE CURB & GUTTER
CONCRETE CURB & GUTTER 30-INCH TYPE D (SPOT LOCATIONS)

END CONSTRUCTION 78' RT
BUTT JOINT REQ'D

E HOLIDAY DR

45°

SEE SDD "CONCRETE SURFACE
DRAINS & ASPHALTIC FLUMES"

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 65 | E |
|---|---|---|---|---|---|

| BENCH MARK TABLE | | | |
|---|---|---|---|
| NO. | STATION | DESCRIPTION | ELEVATION |
| 7 | 82+31.72, 29'LT | PPOL #4008 34W109 60D NAIL | 1631.53 |

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

OBLITERATE DRIVEWAY (PAID FOR AS REMOVING PAVEMENT, REMOVING CURB & GUTTER, TOPSOIL, SEED, FERTILIZER, AND E-MAT.

N

MATCH LINE STA 80+50

MATCH LINE STA 86+50

STH 70

81+00 82+00 83+00 84+00 85+00 86+00

PATON RD

50'

R/W

SHARON B INGRAM

DAVID S TIKALSKY

MICHAEL G BRENNAN

STEPHEN J BORAK

STA 80+57, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

STA 82+84, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

STA 84+31, 51.6' LT

STA 84+16, 42.2' LT

STA 84+17, 33.0' LT

REMOVE ASPH CE
SAWING ASPHALT REQ'D

STA 83+69, 33.0' LT

END CONSTRUCTION 52' LT
BUTT JOINT REQD

STA 85+53, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

FRONTIER
(COMMUNICATION)

LANDMARK REFERENCE MONUMENT
(REESTABLISH EXISTING MONUMENT)
STA 84+42.53, 0.34' LT

SLOPE INTERCEPT

BM#7

ASPH (CE)

ASPH PARKING LOT

ASPH PARKING

41' 54' 37'

R25' R10' (TYP.)

16' 17' 33' 50'

SEE CONSTRUCTION DETAILS FOR
STORM SEWER INFORMATION

ASPH MULTI-USE PATH

TOWN OF ST. GERMAIN

BASE AGGREGATE
SHOULDER

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

WISCONSIN PUBLIC SERVICE
(GAS)

SLOPE INTERCEPT

EXISTING HMA SHOULDER

EXISTING BASE
AGGREGATE SHOULDER

WISCONSIN PUBLIC SERVICE
(GAS)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

FRONTIER
(COMMUNICATION)

WISCONSIN PUBLIC SERVICE
(GAS)

5

5

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 66 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_050101_PP.DWG PLOT DATE : 7/10/2014 2:39 PM PLOT BY : DANIEL J. GERLING PLOT NAME : ---------- PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 44

| BENCH MARK TABLE | | | |
|---|---|---|---|
| NO. | STATION | DESCRIPTION | ELEVATION |
| 8 | 86+89.46, 31'LT | PPOL #4008 34L78 60D NAIL | 1629.46 |

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

N

5

5

MATCH LINE STA 86+50

MATCH LINE STA 92+50

STA 87+28, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

FRONTIER
(COMMUNICATION)

WISCONSIN PUBLIC SERVICE
(GAS)

STA 89+37, 33.0' LT
RESTORE ASPH CE
BUTT JOINT REQD

ADJUSTING INLET COVERS
CLEANING CULVERT PIPES
1-AEW REQD

SLOPE INTERCEPT

STA 90+98, 33.0' LT
RESTORE ASPH PE
BUTT JOINT REQ'D

WISCONSIN PUBLIC SERVICE
(GAS)

PAUL D BOHNEN

ROBERT M BALDWIN

BRENT J SCHNEIDER

BRENT J SCHNEIDER

ASPH PARKING LOT

ASPH MULTI-USE PATH

TOWN OF ST. GERMAIN

R/W

BM#8

30'

17'

R10
(TYP.)

15'

33'

50'

16'

17'

87+00

88+00

89+00

STH 70

90+00

91+00

92+00

PROPOSED HMA SHOULDER

EXISTING HMA SHOULDER

EXISTING BASE
AGGREGATE SHOULDER

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

SLOPE INTERCEPT

BASE AGGREGATE
SHOULDER

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 67 | E |
|---|---|---|---|---|---|

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE
SEE TYPICAL SECTIONS FOR DETAILS

N

| BENCH MARK TABLE | | | |
|---|---|---|---|
| NO. | STATION | DESCRIPTION | ELEVATION |
| 9 | 92+70.08, 29'LT | PPOL #4008 34L33 60D NAIL | 1627.38 |

WILLIAM R DOERR
SHIRLEY KNITT
CAROLINE V SONDELSKI
MIKE A KUZNIEWICZ
DAVID R PETE

5

MATCH LINE STA 92+50

STA 93+52, 33.0' LT
RESTORE ASPH PE
BUTT JOINT REQ'D

SLOPE INTERCEPT

END CURB & GUTTER
STA 94+20

SEE LINE DIAGRAM SHEETS

R/W

BM#9

ASPH (PE)

36'

33'

STH 70

93+00 94+00 95+00 96+00 97+00 98+00

SS

16'

17'

50'

SEE CONSTRUCTION DETAILS FOR
STORM SEWER INFORMATION

ASPH MULTI-USE PATH

OH

R/W

SLOPE INTERCEPT

WISCONSIN PUBLIC SERVICE
(ELECTRIC)

BASE AGGREGATE
SHOULDER

EXISTING HMA SHOULDER

EXISTING BASE
AGGREGATE SHOULDER

R/W

MATCH LINE STA 98+50

5

TOWN OF ST. GERMAIN

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN SHEETS (ST. GERMAIN) | SHEET 68 | E |
|---|---|---|---|---|---|

LEGEND
HISTORIC BOUNDRY
PERMITTED WETLAND IMPACTS

LITTLE SAINT GERMAIN LAKE
WISCONSIN VALLEY IMPROVEMENT
JAMES GRECO
JANE POWELL
RUTH A CAMP-LONG REV TR
STEVEN K CODA
BM*11
EXISTING DAM
WISCONSIN PUBLIC SERVICE (GAS)
CULVERT PIPE REINFORCED HORIZONTAL ELLIPTICAL 68X106-INCH
TLE
10'
EXCAVATION FOR DRY HYDRANT MOVE TO STA 194+31, 38.0' LT
FRONTIER (COMMUNICATION)
TO
FROM
STA 194+73 LT
RESTORE AGG PE
REMOVING SMALL PIPE CULVERTS 24" CPCM
1-CULVERT PIPE CLASS III 24-INCH REQD
2-AEW REQD
STA 195+77 LT
RESTORE ASPH PE
BUTT JOINT REQ'D
SLOPE INTERCEPT
R/W
P/L
STA 193+22 LT
RESTORE AGG PE
REMOVING SMALL PIPE CULVERTS 24" CPCM
1-CULVERT PIPE CLASS III 24-INCH REQD
2-AEW REQD
BM*10
50'
13'
18"
18'
3'
15'
191+00
192+00
193+00
194+00
STH 70
195+00
196+00
197+00
60'
45'
14'
PROPOSED RIPRAP (TYP.)
EXISTING RIPRAP
PROPOSED HMA SHOULDER
PROPOSED BASE AGGREGATE SHOULDER
EXISTING BASE AGGREGATE SHOULDER
WISCONSIN PUBLIC SERVICE (ELECTRIC)
STA 192+63 RT
RESTORE ASPH PE
BUTT JOINT REQ'D
REMOVING SMALL PIPE CULVERTS 24" CPCM
1-CULVERT PIPE CLASS III 24-INCH REQD
2-AEW REQD
SLOPE INTERCEPT
FRONTIER (COMMUNICATION)
REMOVING GUARDRAIL
DELINEATED WETLANDS
LITTLE SAINT GERMAIN CREEK
STA 195+98 RT
RESTORE AGG PE
SLOPE INTERCEPT
BASE AGG (PE)
ASPH (PE)
24" CPCM
OH
C
G
TEL

5

| BENCH MARK TABLE | | | |
|---|---|---|---|
| NO. | STATION | DESCRIPTION | ELEVATION |
| 10 | 193+32.14, 50'LT | WI VALLEY IMPR CO ALUMINUM DISC | 1615.23 |
| 11 | 193+75.19, 90'LT | WI DNR ALUMINUM DISC | 1615.47 |

VCL = 180.02
K = 99.03
VPC STA 192+63.99
VPC EL 1622.47
VPI STA 193+60.00
VPI EL 1620.96
LP STA 194+36.37
LP EL 1621.07
VPT STA 194+50.01
VPT EL 1621.08
STA = 191+69.86
ELEV = 1624.154
-1.68%
EXISTING PROFILE
0.14%
STA = 195+70.92
ELEV = 1621.290
CULVERT PIPE REINFORCED HORIZONTAL ELLIPTICAL 68X106-INCH

1626
1624
1622
1620
1618
1616
1614
1612
1610
1608
1606

1623.79 1623.79
1622.90 1622.90
1622.25 1622.25
1621.59 1621.59
1621.25 1621.25
1621.21 1621.21
1621.23 1621.23
1621.25 1621.25

191+00 191+50 192+00 192+50 193+00 193+50 194+00 194+50 195+00 195+50 196+00 196+50 197+00

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PLAN AND PROFILE (CULVERT REPLACEMENT) | SHEET 69 | E |
|---|---|---|---|---|---|



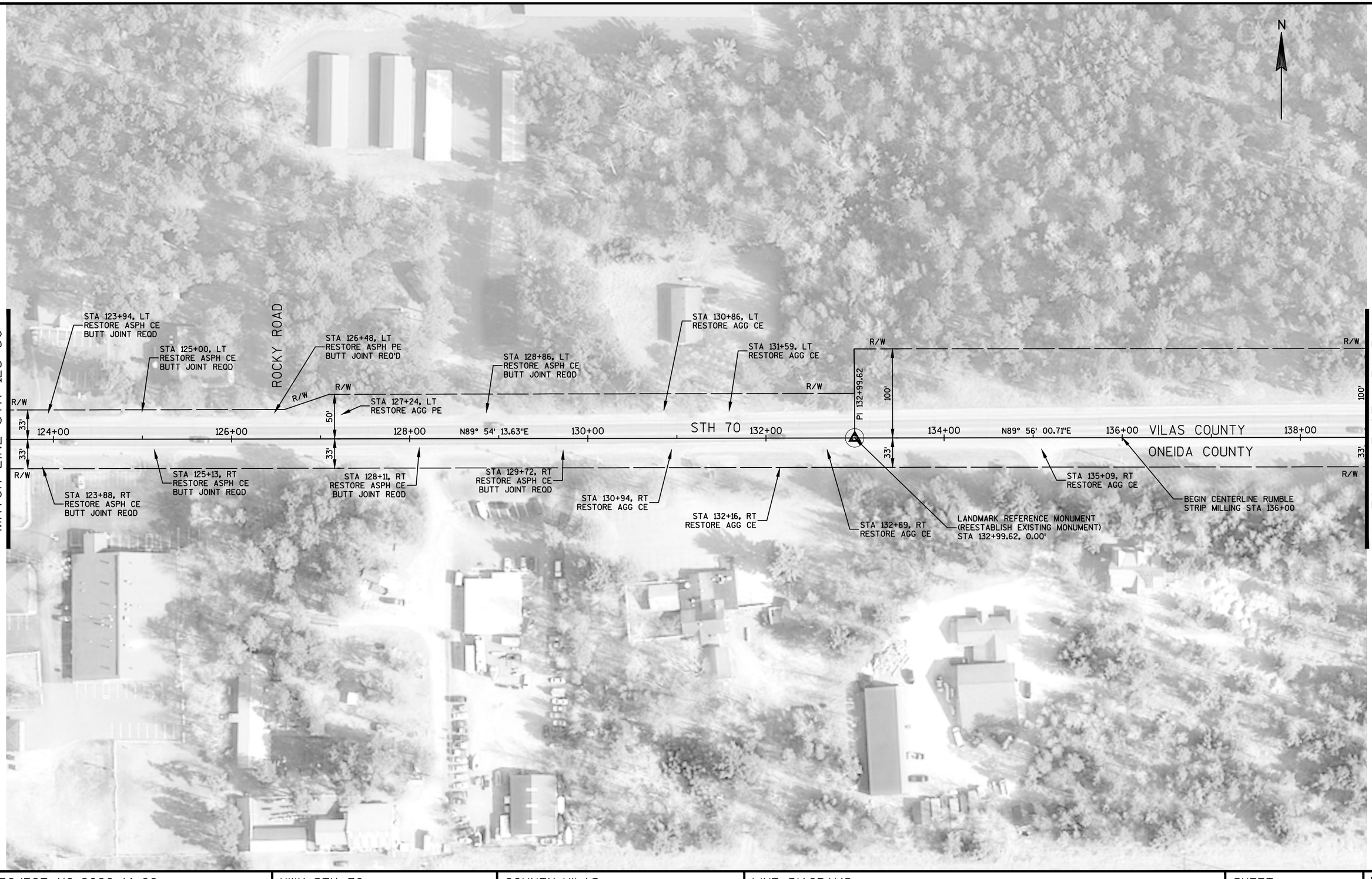

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 70 | E |
|---|---|---|---|---|---|



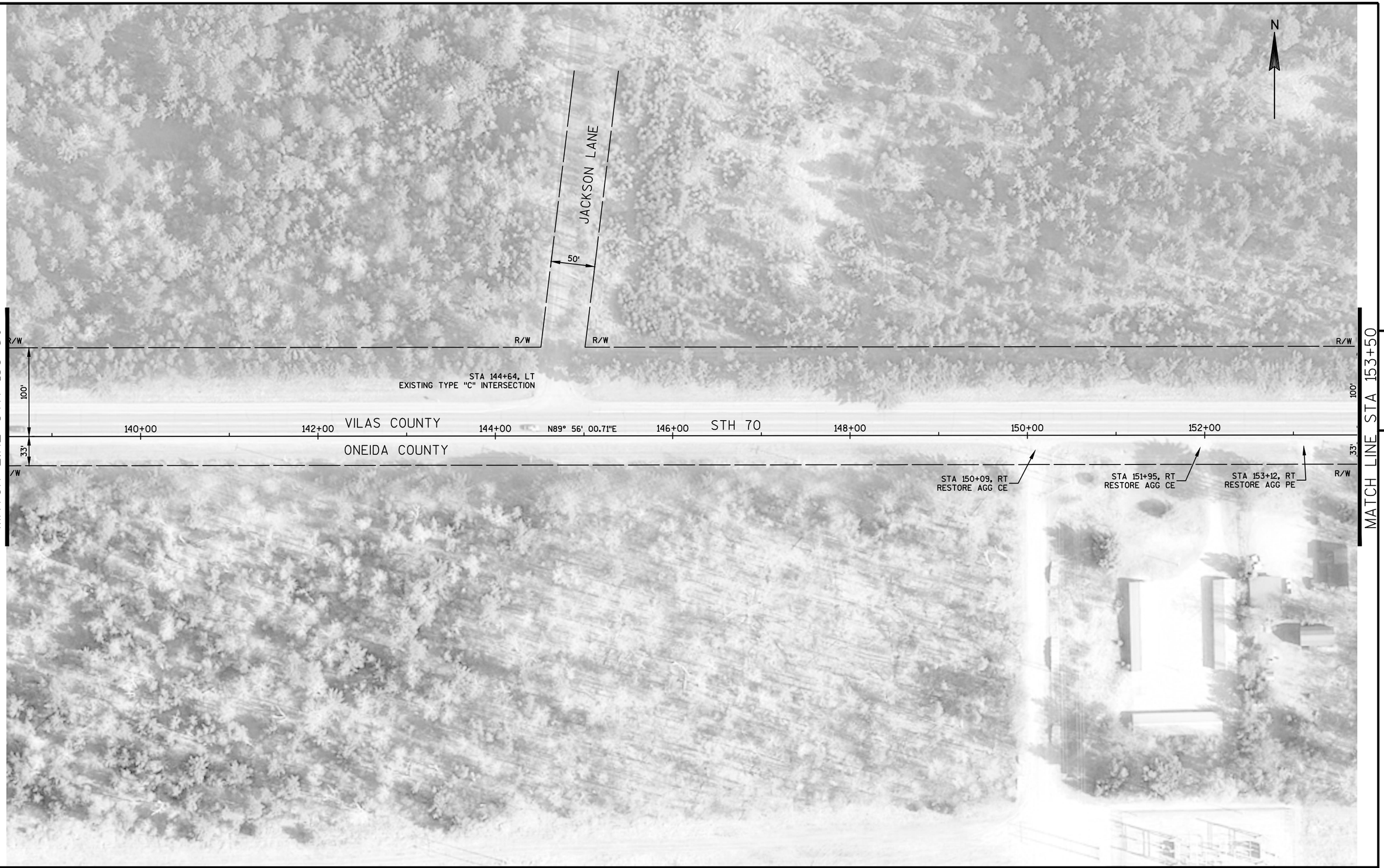

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 71 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 72 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 73 | E |
|---|---|---|---|---|---|



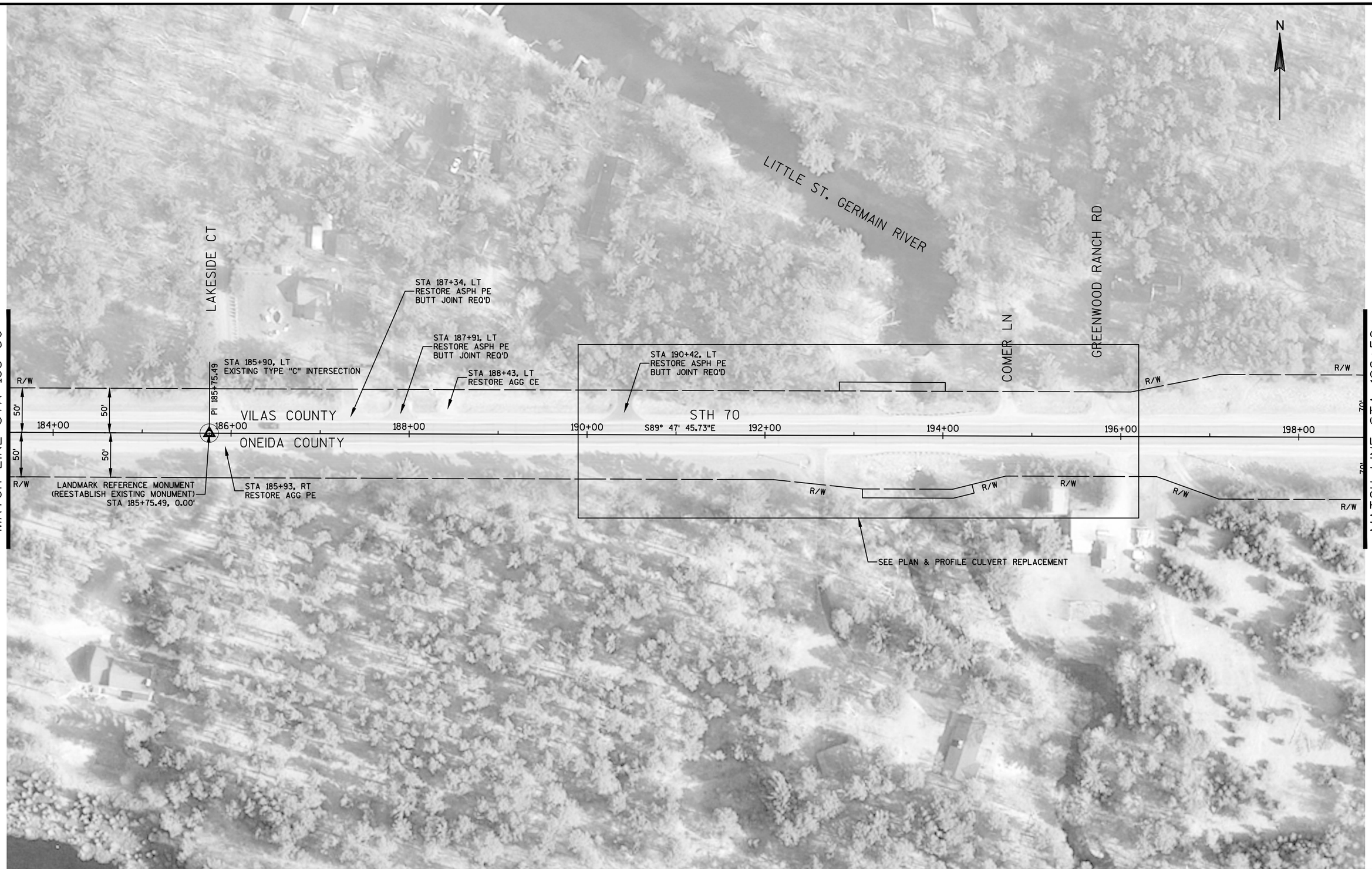

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 74 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 75 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 76 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 77 | E |
|---|---|---|---|---|---|

MATCH LINE STA 198+50

N

66'

FALLEN TIMBER LN

CEDAROMA DR

SOUTH BAY ROAD

STA 202+13, LT
RESTORE ASPH PE
BUTT JOINT REQ'D

STA 203+61
REMOVE 1-30" CPCM
1-CPRC CLASS III 30-INCH
2-AEW REQD
2-MARKERS FOR CULVERT END REQD

STA 206+49, LT
RESTORE ASPH PE
BUTT JOINT REQ'D

STA 207+21, LT
RESTORE ASPH PE
BUTT JOINT REQ'D

STA 208+00, LT
RESTORE ASPH PE
BUTT JOINT REQ'D

STA 210+34, LT
RESTORE AGG PE

STA 212+17, LT
EXISTING TYPE "C" INTERSECTION

PI 212+17.45

VILAS COUNTY
ONEIDA COUNTY

200+00 202+00 204+00 206+00 208+00 210+00 212+00

S89° 47' 45.73"E

STH 70

R/W

70'

50'

33'

STA 206+02, RT
RESTORE AGG PE

STA 203+11
REMOVE 1-30" CPCM
1-CPRC CLASS III 30-INCH
2-AEW REQD
2-MARKERS FOR CULVERT END REQD

LANDMARK REFERENCE MONUMENT
(REESTABLISH EXISTING MONUMENT)
STA 212+17.45, 0.00'

MATCH LINE STA 213+50

5

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 78 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_050401_LD.DWG PLOT DATE : 4/28/2014 3:58 PM PLOT BY : DANIEL J. GERLING PLOT NAME : ---------- PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 79 | E |
|---|---|---|---|---|---|

CURVE 2
PI: 242+86.15
Δ: 35°59'00"
D: 2°00'
T: 930.37'
L: 1799.18'
R: 2864.79'
SE: MATCH EXISTING

OBLITERATE DRIVEWAY (PAID FOR AS EXCAVATION COMMON, TOPSOIL, SEED, FERTILIZER, AND E-MAT.

THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS

N

OLD HIGHWAY 70

THERMOPLASTIC COATING. SEE INTERSECTION DETAILS FOR MORE INFORMATION.

STA 228+50
MATCH LINE

100'

STA 232+18, LT
RESTORE ASPH PE
BUTT JOINT REQ'D

PC 233+55.78

STA 236+51, LT
RESTORE AGG PE

230+00 N89° 37' 29.92"E 232+00 VILAS COUNTY 234+00 236+00 STH 70 238+00 240+00 242+00 244+00

11+50 11+60 11+00 10+50 10+00 CTH O

100'

100'

END PROJECT
STA 240+36
BUTT JOINT REQ'D

ONEIDA COUNTY

STA 231+59, RT
REMOVING SMALL PIPE CULVERTS
REMOVE AND REGRADE ABANDON
DRIVEWAY TO MAINTAIN DRAINAGE

STA 233+95, RT
RESTORE AGG CE

STA 234+54, RT
RESTORE AGG CE

STA 235+50, RT
RESTORE AGG CE

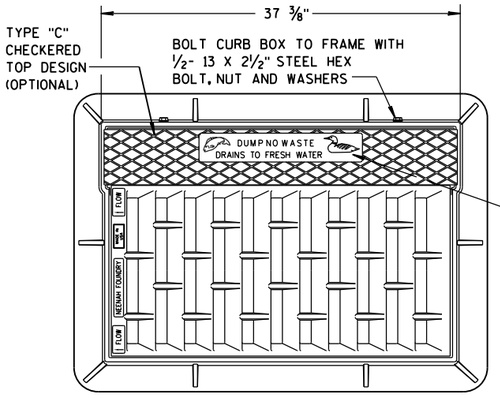
END CENTERLINE RUMBLE
STRIP MILLING STA 232+00

SEE INTERSECTION
DETAIL CTH O

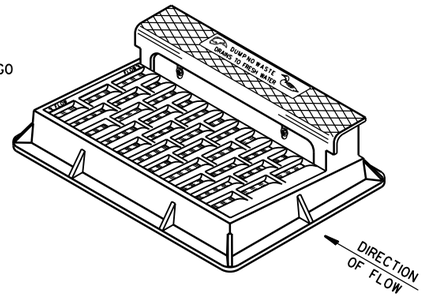
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | LINE DIAGRAMS | SHEET 80 | E |
|---|---|---|---|---|---|

# Standard Detail Drawing List

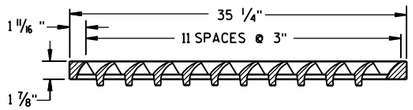
| | |
|---|---|
| 08A05-19A | INLET COVERS TYPE A, H, A-S, H-S & Z |
| 08C07-01 | INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT |
| 08D01-17 | CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES |
| 08D04-05 | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES |
| 08D05-15A | CURB RAMPS TYPES 1 AND 1-A |
| 08D05-15B | CURB RAMPS TYPES 2 AND 3 |
| 08D05-15C | CURB RAMPS TYPES 4A AND 4A1 |
| 08D05-15D | CURB RAMPS TYPE 4B AND 4B1 |
| 08D05-15E | CURB RAMPS TYPES 5, 6, 7A, 7B & 8 |
| 08E08-03 | TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS |
| 08E09-06 | SILT FENCE |
| 08E10-02 | INLET PROTECTION TYPE A, B, C AND D |
| 08F01-11 | APRON ENDWALLS FOR CULVERT PIPE |
| 08F04-07 | JOINT TIES FOR CONCRETE PIPE  AND CONCRETE COLLAR DETAIL |
| 09A01-13A | AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND  D AND TEE INTERSECTION BYPASS LANE |
| 09A01-13B | AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2" |
| 09G02-03A | BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION |
| 09G02-03B | BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION |
| 09G02-03C | BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION |
| 12A03-10 | NAME PLATE (STRUCTURES) |
| 13A11-02A | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING |
| 13A11-02B | 2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING |
| 14B07-14A | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14B | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14C | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14D | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14E | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14F | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14G | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 14B07-14H | CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" |
| 15A03-02A | FLEXIBLE MARKER POST FOR CULVERT END |
| 15A03-02B | FLEXIBLE MARKER POST FOR CULVERT END |
| 15C04-02 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C05-02 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS |
| 15C07-12B | PAVEMENT MARKING WORDS |
| 15C07-12C | PAVEMENT MARKING ARROWS |
| 15C08-16A | PAVEMENT MARKING (MAINLINE) |
| 15C08-16B | PAVEMENT MARKING (INTERSECTIONS) |
| 15C08-16F | PAVEMENT MARKING (ISLANDS) |
| 15C12-04 | TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING  OPERATIONS) |
| 15C19-02A | MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY |
| 15C20-01 | YIELD MARKING |
| 15C33-01 | STOP LINE AND CROSSWALK PAVEMENT MARKING |
| 15D28-02 | TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED  ROADWAY |
| 15D33-03 | TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS |

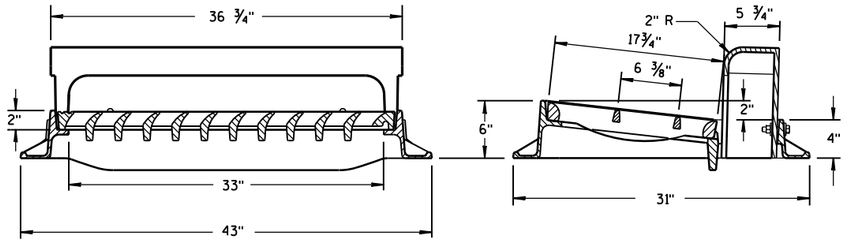


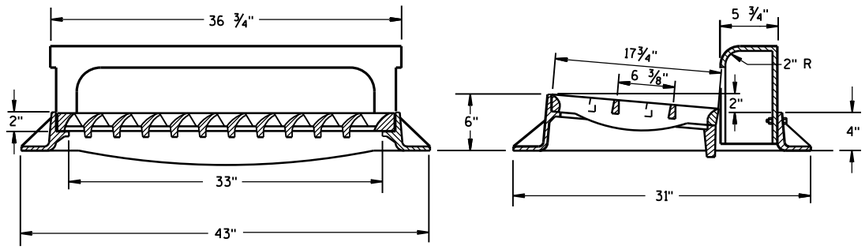

**NOTE:**
**GRATE IS REVERSIBLE.**




NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

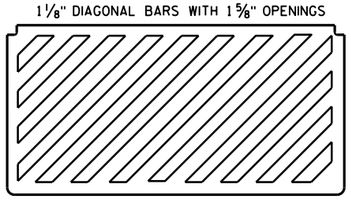



## TYPE "H"

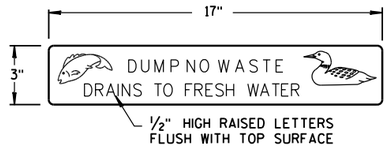
**NOTE: EITHER CASTING IS ACCEPTABLE**



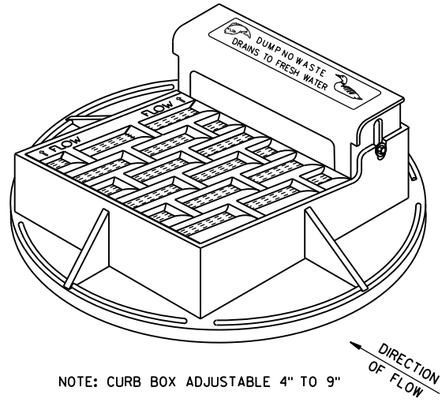

## SPECIAL GRATE FOR TYPE "H" COVER

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

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

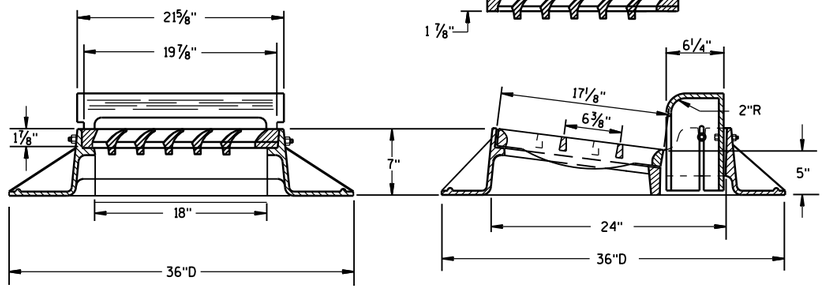



## LOGO DETAIL

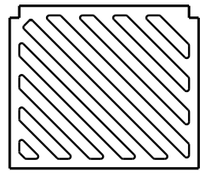



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

**NOTE:**
**GRATE IS REVERSIBLE.**



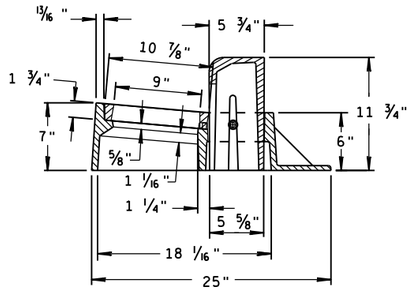

## TYPE "A"

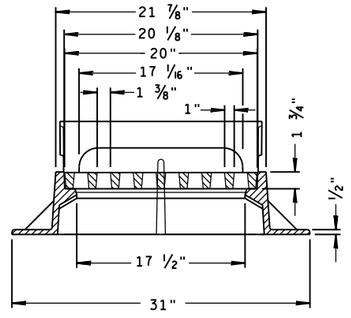



## SPECIAL GRATE FOR TYPE "A" COVER

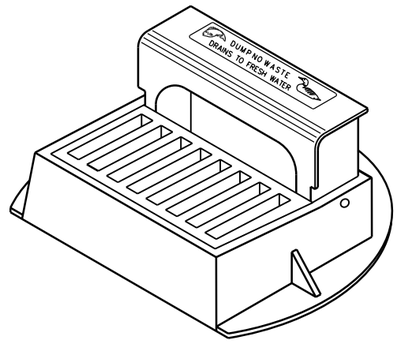
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)




## TYPE "Z"




## GENERAL NOTES

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

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

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

## INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11-27-13 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

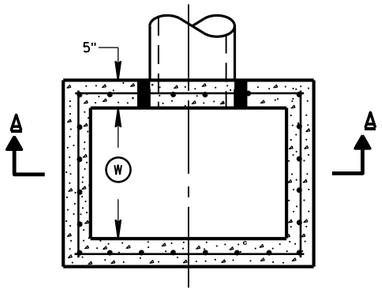
FHWA



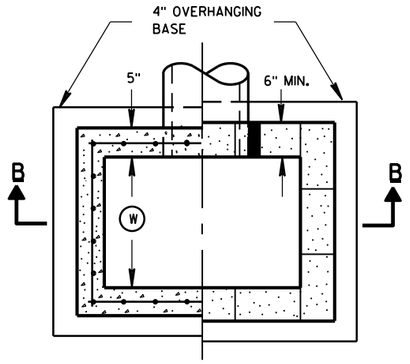


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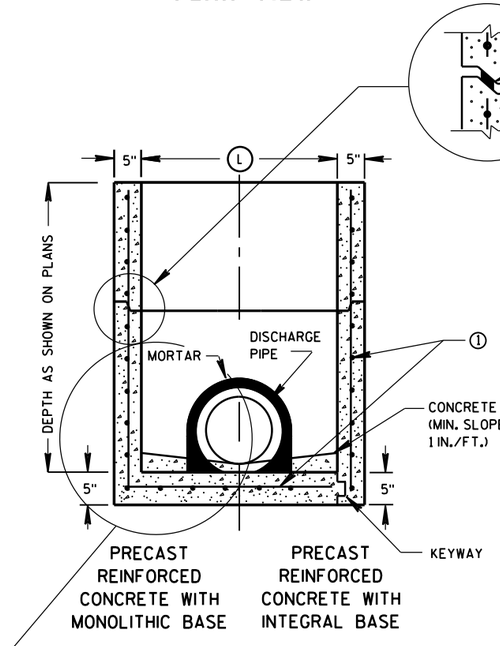
S.D.D. 8 A 5-19a



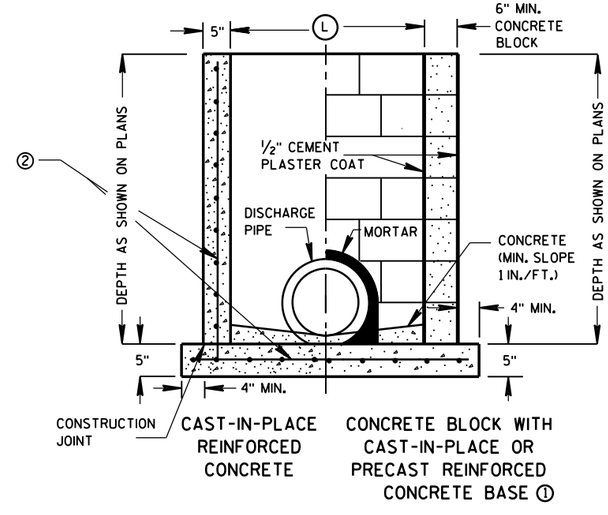

PLAN VIEW



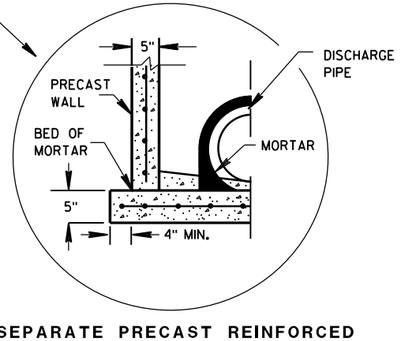

PLAN VIEW




SECTION A-A




SECTION B-B




SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

## GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

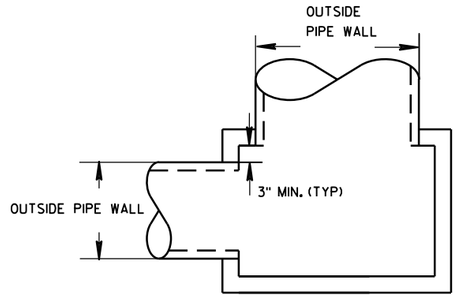
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

## INLET COVER MATRIX

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

## PIPE MATRIX

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




DETAIL "A"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

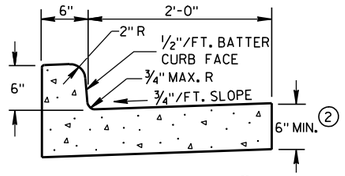
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

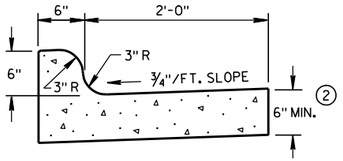



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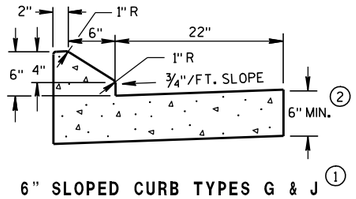
S.D.D. 8 C 7-1



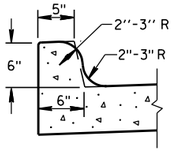

TYPES A & D (1)



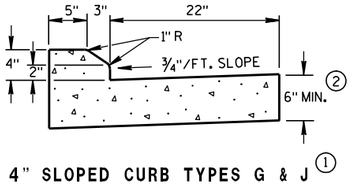

TYPES K & L (1)




6" SLOPED CURB TYPES G & J (1)

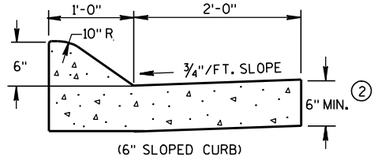



OPTIONAL CURB SHAPE FOR TYPES K & L (1)

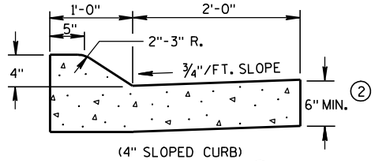



4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

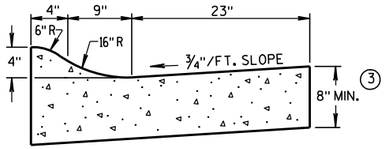



(6" SLOPED CURB)



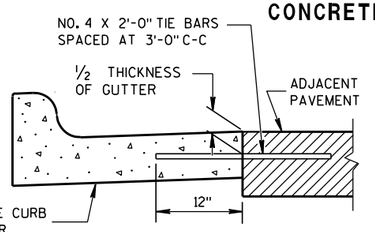

(4" SLOPED CURB)

TYPES A & D (1)

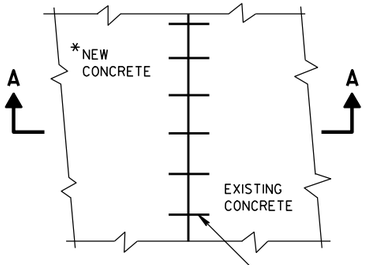



4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

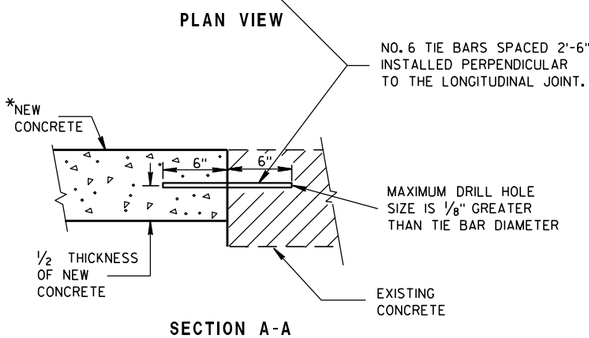



TYPICAL TIE BAR LOCATION (1)



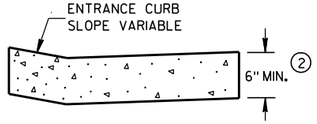

PLAN VIEW

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



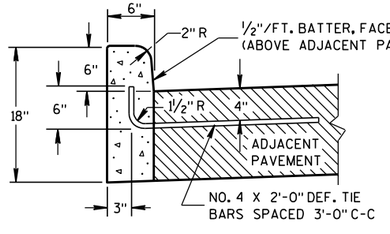

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



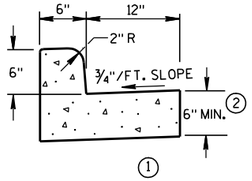

DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)




(1)

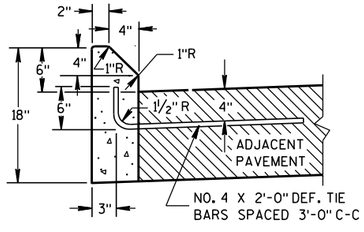
TYPES A & D




(1)

TYPES A & D

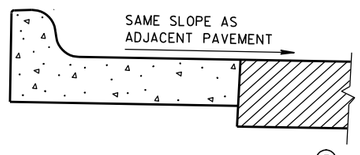
CONCRETE CURB & GUTTER 18"




(1)

TYPES G & J

CONCRETE CURB




REVERSE SLOPE GUTTER (5)

(TYPICAL FOR ALL CURB & GUTTER TYPES)

## GENERAL NOTES

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

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

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

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

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

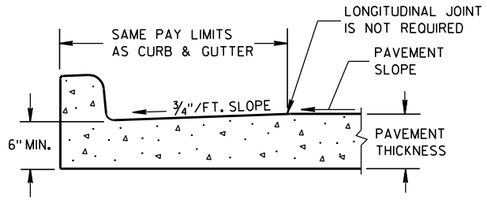
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

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

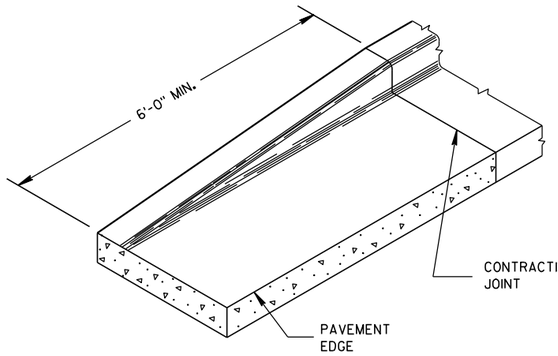
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.




PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER




END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

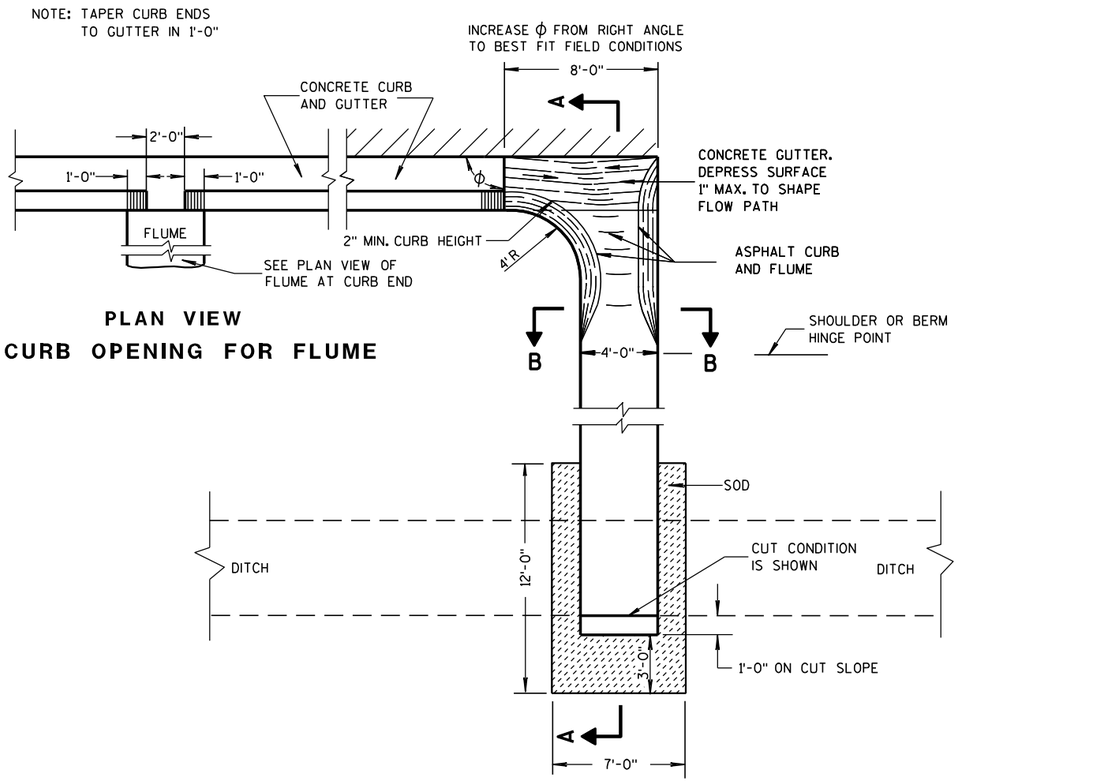
APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA




6

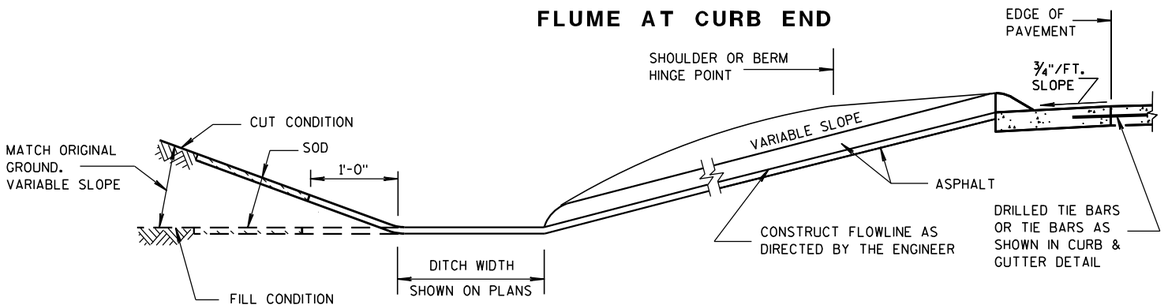
S.D.D. 8 D 1-17

## ASPHALTIC FLUME

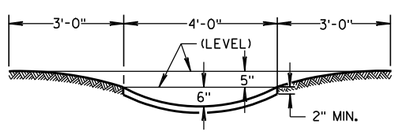



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END




SECTION A-A




SECTION B-B

## GENERAL NOTES

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

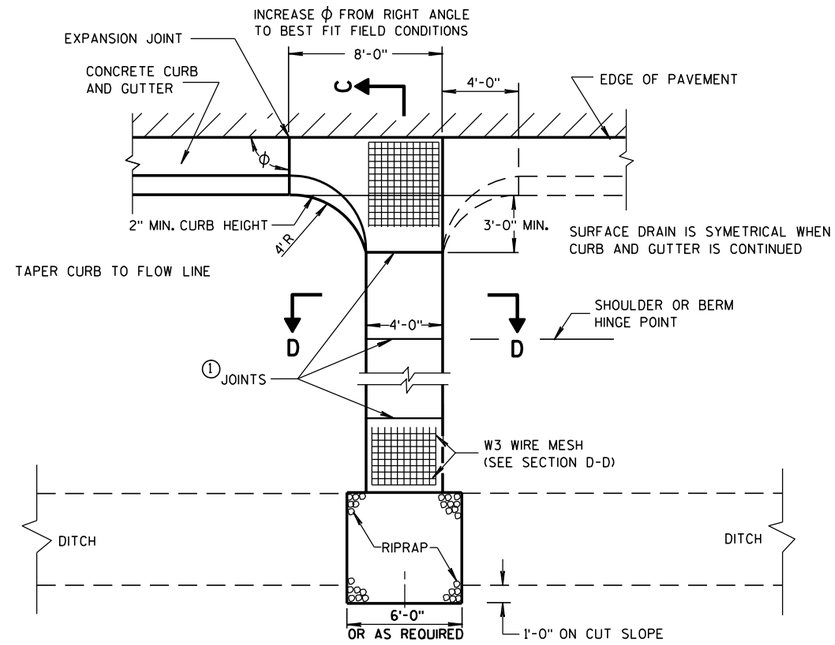
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

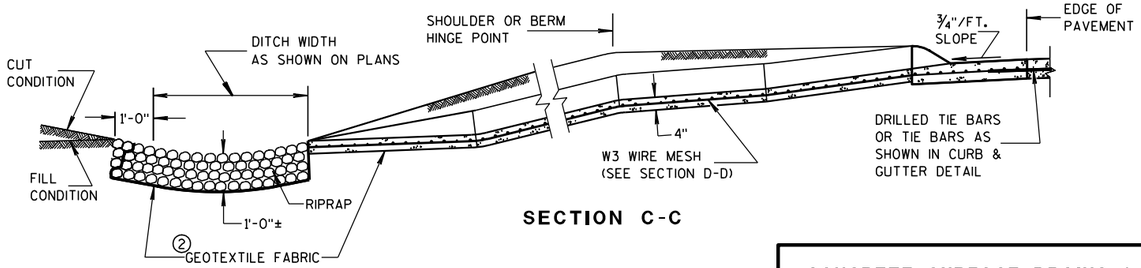
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

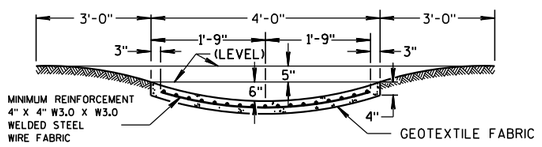
## ③ CONCRETE SURFACE DRAIN




PLAN VIEW




SECTION C-C




SECTION D-D

## CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

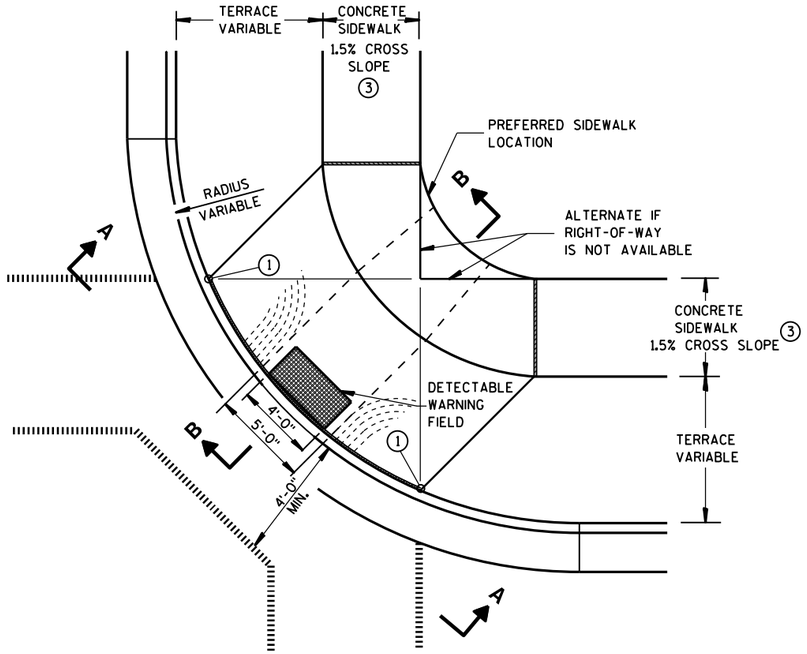
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
85
MENT
FHWA

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S.D.D. 8 D 4-5

6

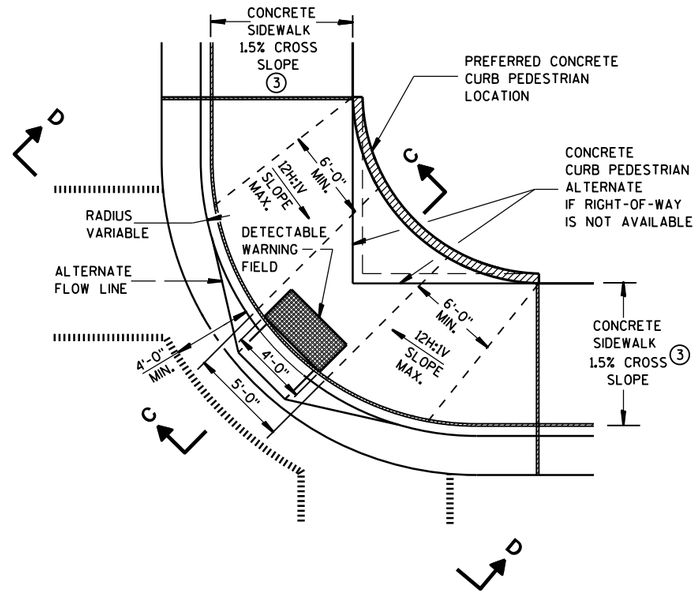
S.D.D. 8 D 4-5




PLAN VIEW

## TYPE 1 RAMP

(CENTER OF CORNER RADIUS)




PLAN VIEW

## TYPE 1-A RAMP

(NO TERRACE)

## GENERAL NOTES

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

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

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

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

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

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

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

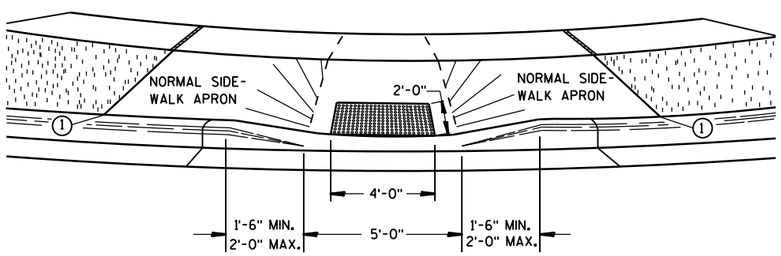
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

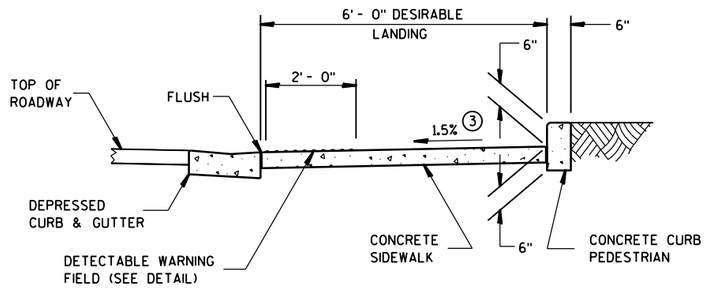
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

### LEGEND

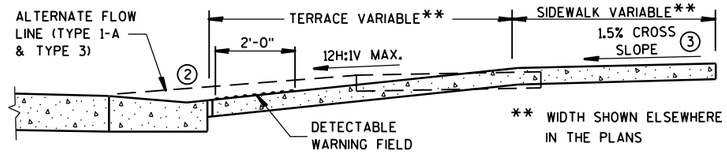
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



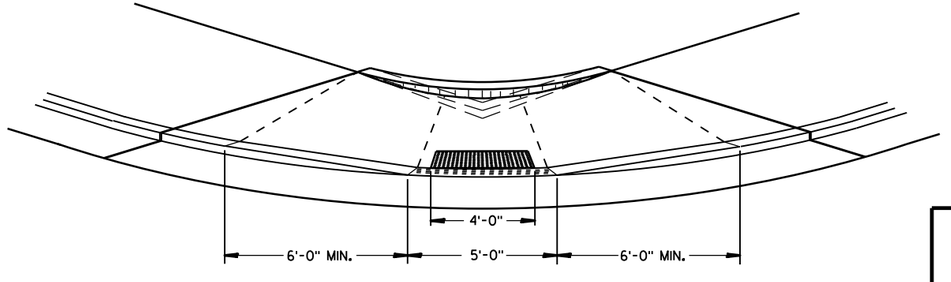

VIEW A-A




SECTION C-C




SECTION B-B




VIEW D-D

## CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

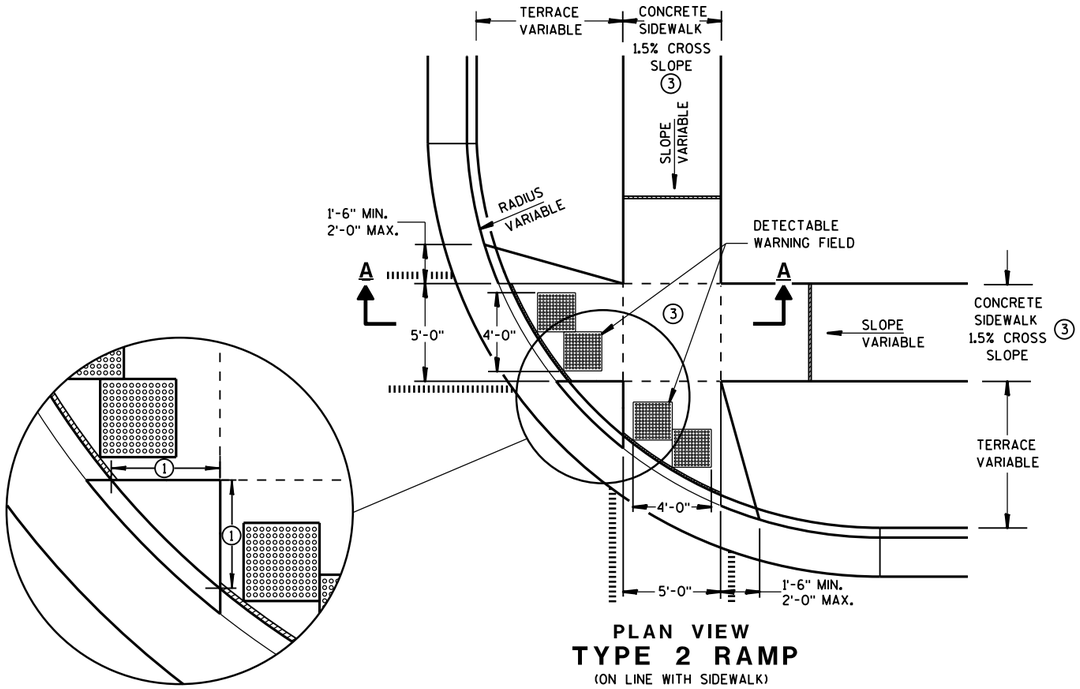


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S.D.D. 8 D 5-15a

6

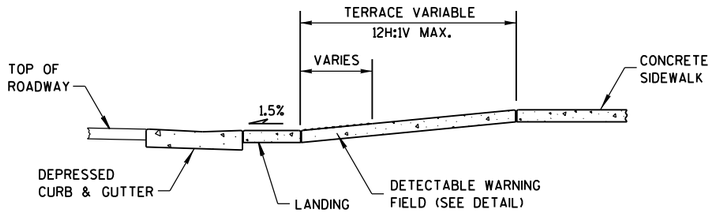
S.D.D. 8 D 5-15a



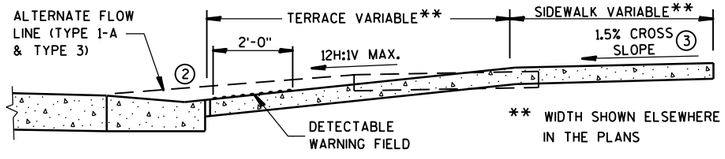

**PLAN VIEW**

## TYPE 2 RAMP

(ON LINE WITH SIDEWALK)




**SECTION A-A**




**SECTION B-B**

## GENERAL NOTES

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

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

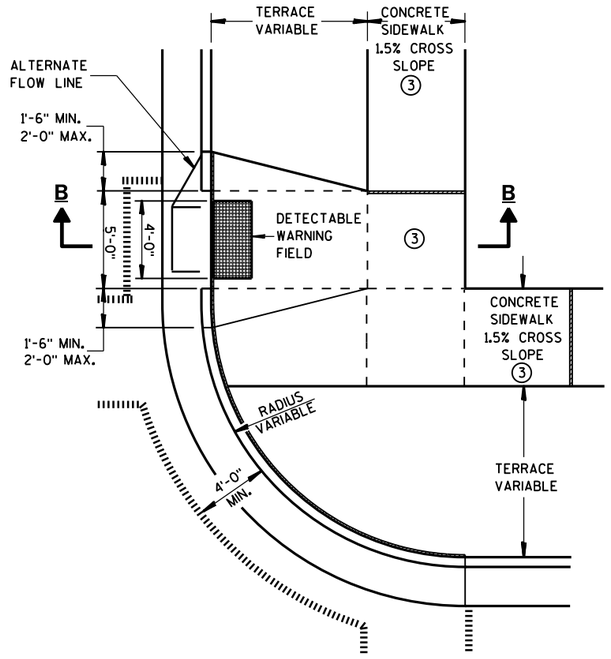
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

### LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT




**PLAN VIEW**

## TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

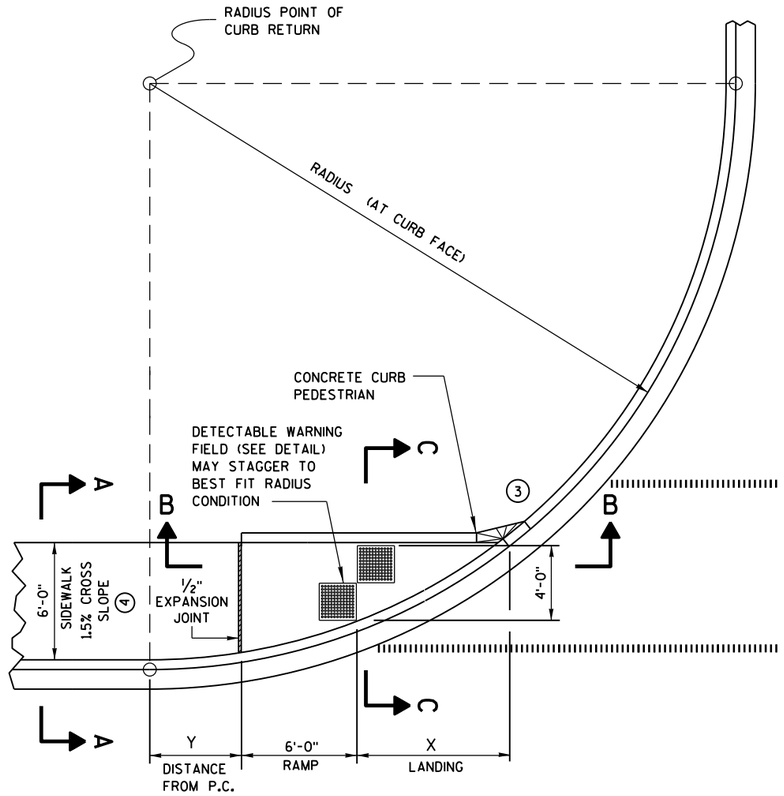
**CURB RAMPS**
**TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

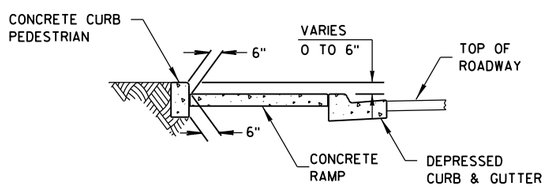



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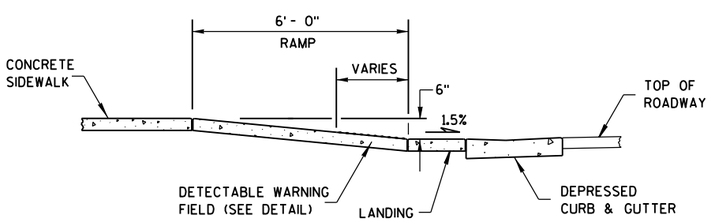

S.D.D. 8 D 5-15b




## CURB RAMP TYPE 4A
### PLAN VIEW



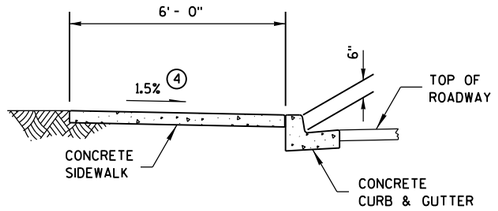

### SECTION C-C FOR TYPE 4A




### SECTION B-B FOR TYPE 4A

| RADIUS (AT CURB FACE) | X | Y |
|---|---|---|
| 20 FEET | 6'-1¾" | 2'-7¼" |
| 30 FEET | 7'-11¾" | 4'-8¼" |
| 40 FEET | 9'-5¼" | 6'-5" |
| 50 FEET | 10'-8¾" | 7'-11¼" |
| 60 FEET | 11'-10¼" | 9'-3½" |

INTERMEDIATE RADII CAN BE INTERPOLATED




### SECTION A-A FOR TYPE 4A

## GENERAL NOTES

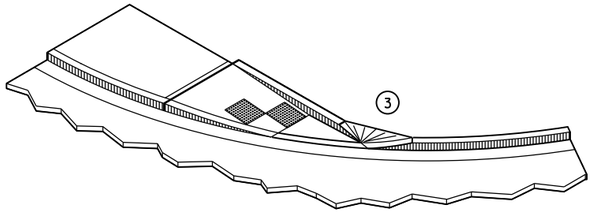
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

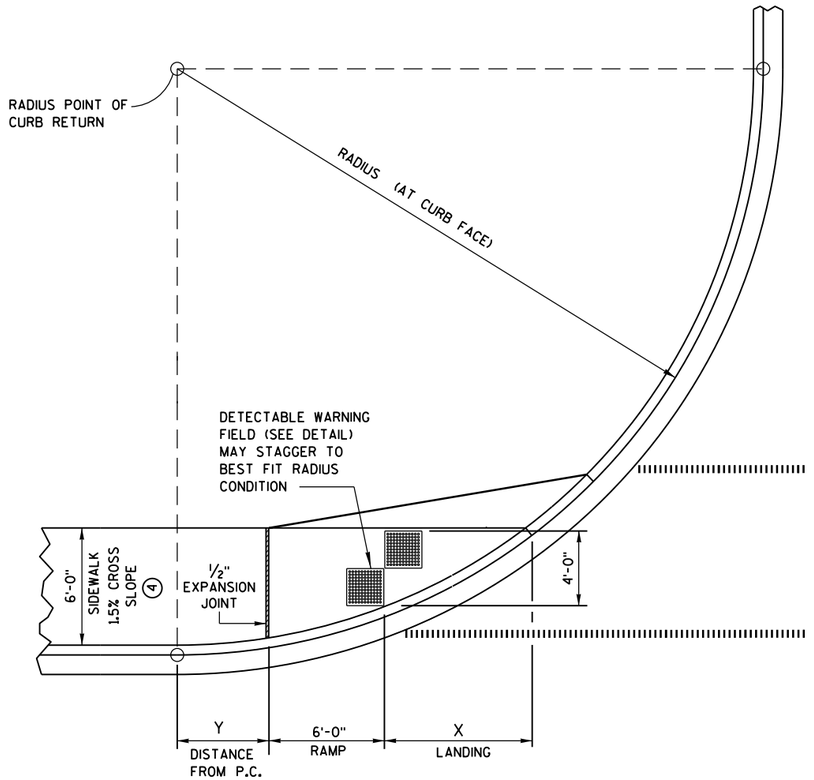
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

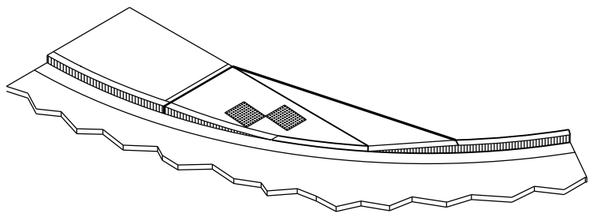
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.




### ISOMETRIC VIEW FOR TYPE 4A




## CURB RAMP TYPE 4A1
### PLAN VIEW



### ISOMETRIC VIEW FOR TYPE 4A1

### LEGEND

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

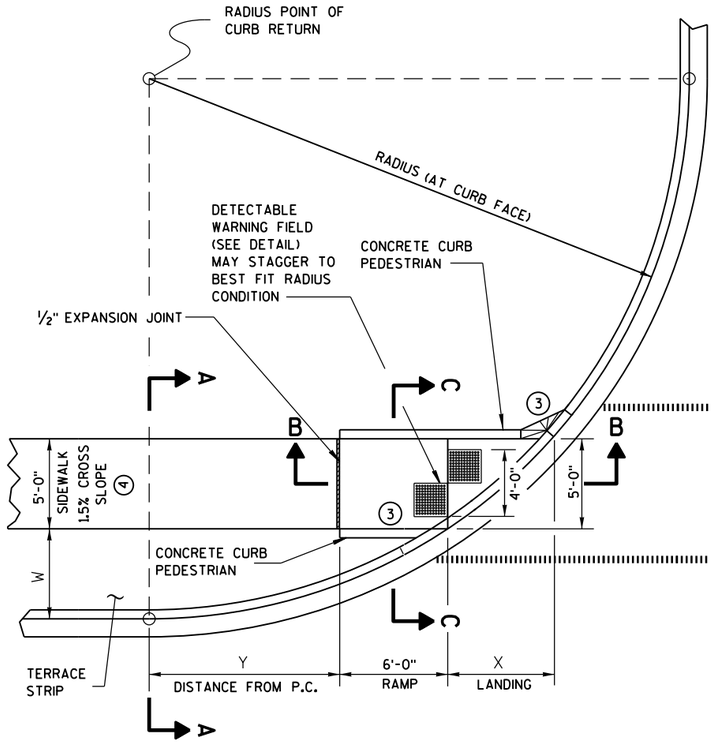
CURB RAMPS
TYPES 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

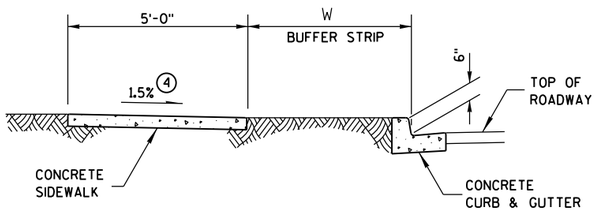



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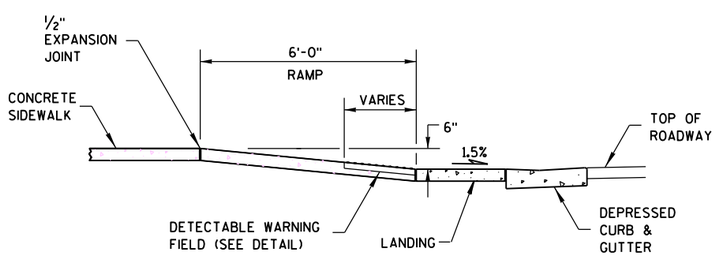
S.D.D. 8 D 5-15c



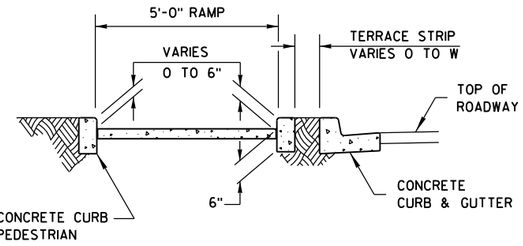

## CURB RAMP TYPE 4B
### PLAN VIEW




SECTION A-A FOR TYPE 4B




SECTION B-B FOR TYPE 4B




SECTION C-C FOR TYPE 4B

## LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

| RADIUS (AT CURB FACE) | W = 3'-0" | | W = 4'-0" | | W = 5'-0" | | W = 6'-0" | | W = 7'-0" | |
|---|---|---|---|---|---|---|---|---|---|---|
| | X | Y | X | Y | X | Y | X | Y | X | Y |
| 20 FEET | 5'-5½" | 4'-6½" | 4'-8½" | 6'-0" | 4'-1" | 7'-2¾" | 3'-7" | 8'-3½" | 3'-1½" | 9'-2½" |
| 30 FEET | 7'-3¾" | 7'-1" | 6'-5½" | 8'-11½" | 5'-9¼" | 10'-7" | 5'-2½" | 12'-0" | 4'-8¾" | 13'-3¼" |
| 40 FEET | 8'-9½" | 9'-2½" | 7'-10" | 11'-5¼" | 7'-1" | 13'-4½" | 6'-5¾" | 15'-¾" | 5'-11½" | 16'-7¼" |
| 50 FEET | 10'-¾" | 11'-¾" | 9'-¼" | 13'-7¼" | 8'-2½" | 15'-9½" | 7'-6½" | 17'-9" | 6'-11¾" | 19'-6¼" |
| 60 FEET | 11'-2½" | 12'-8¾" | 10'-¾" | 15'-6½" | 9'-2¼" | 17'-11¾" | 8'-5¾" | 20'-1¾" | 7'-10½" | 22'-1½" |

INTERMEDIATE RADII CAN BE INTERPOLATED

## GENERAL NOTES

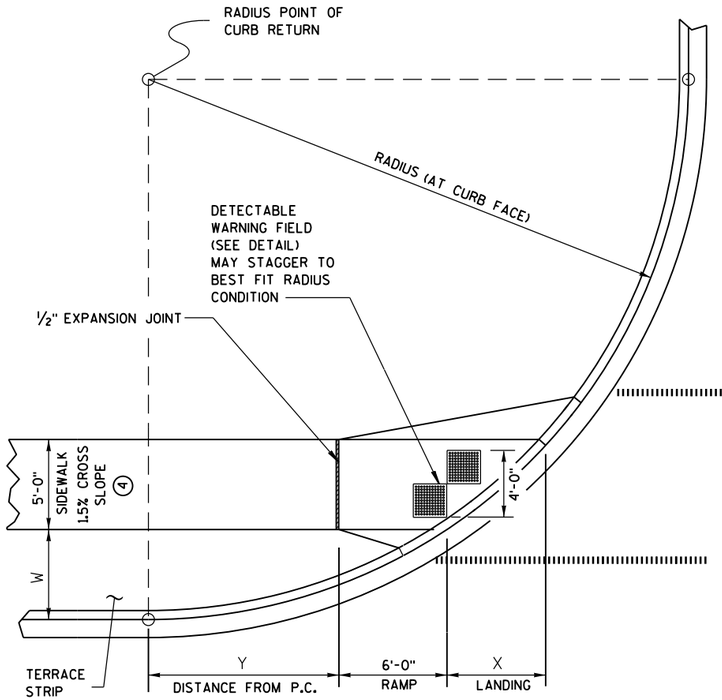
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

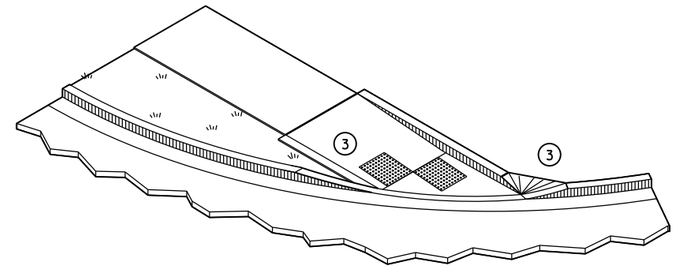
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

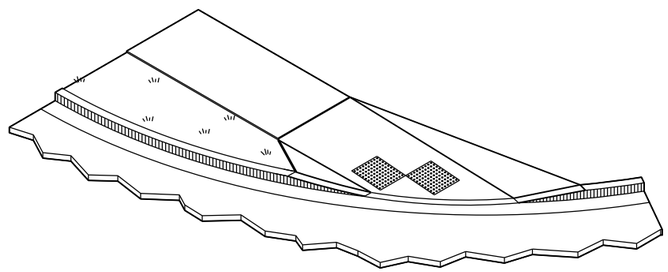
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.




## CURB RAMP TYPE 4B1
### PLAN VIEW




ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

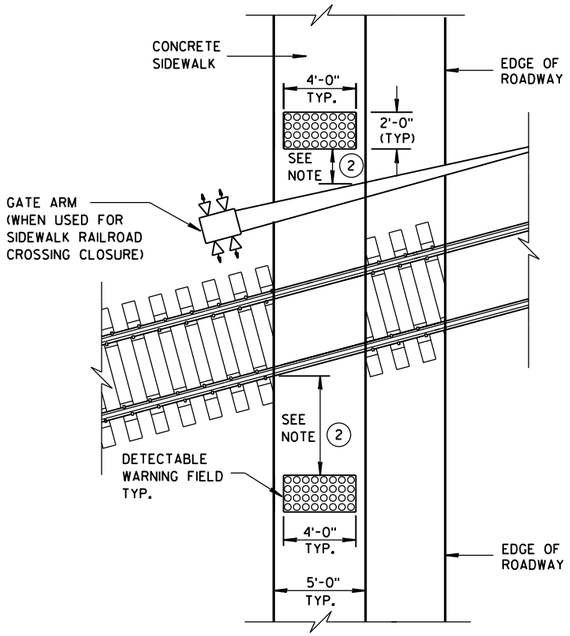
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

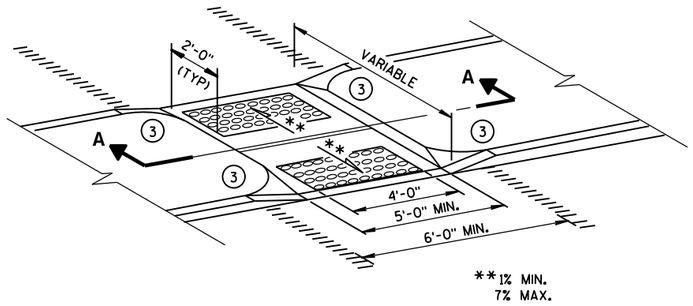



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S.D.D. 8 D 5-15d




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




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

## GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

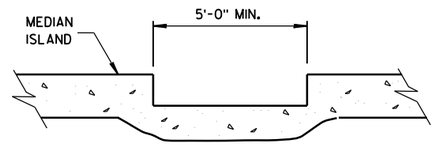
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

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

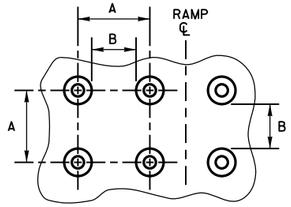
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET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

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

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



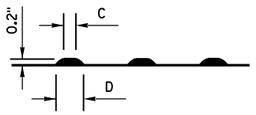

**SECTION A-A**



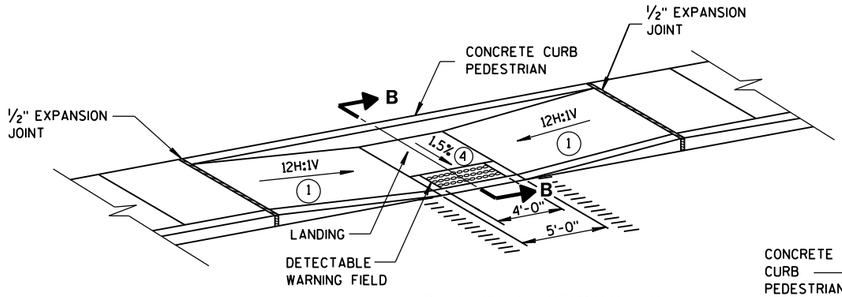

**PLAN VIEW**

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

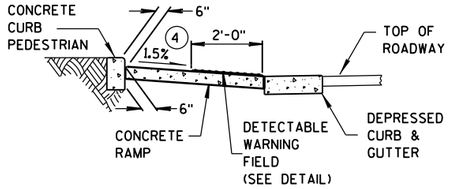
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.




**ELEVATION VIEW**

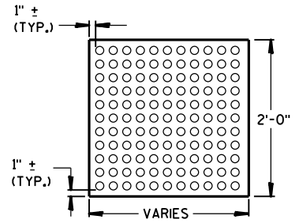



**MID-BLOCK CROSSING**
**TYPE 7A**



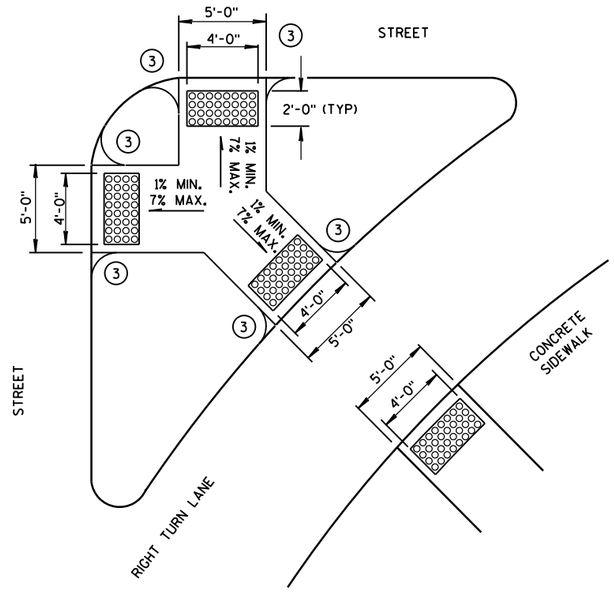

**SECTION B-B**

## TRUNCATED DOMES
### DETECTABLE WARNING PATTERN DETAIL

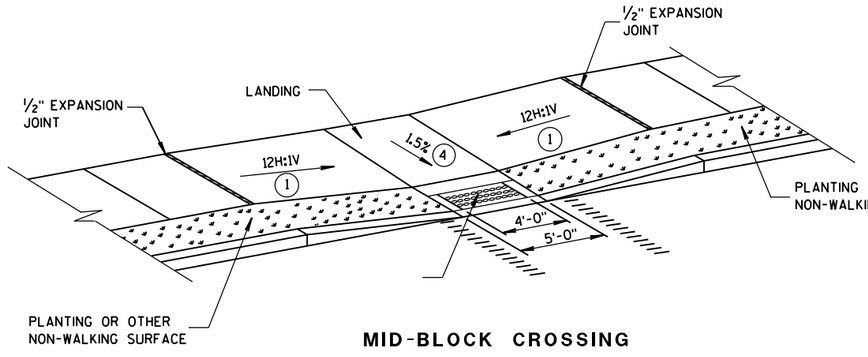



**PLAN VIEW**

## DETECTABLE WARNING FIELD (TYPICAL)




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




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

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

**LEGEND**

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

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

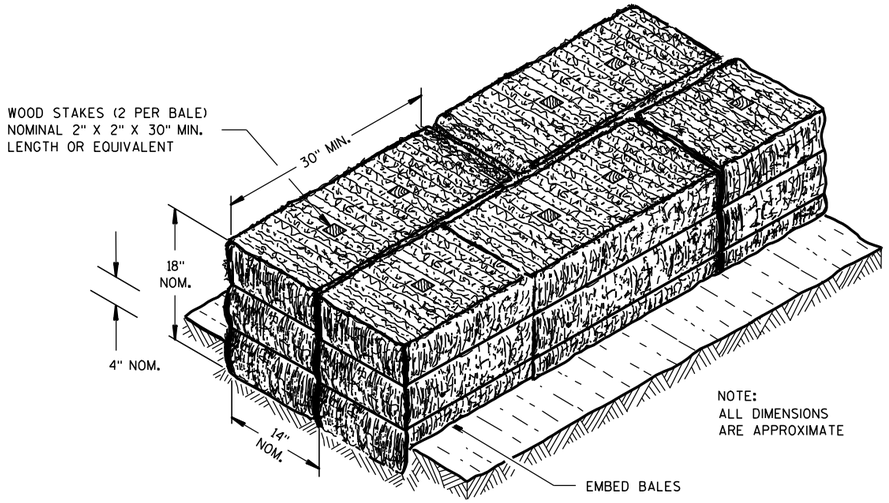
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

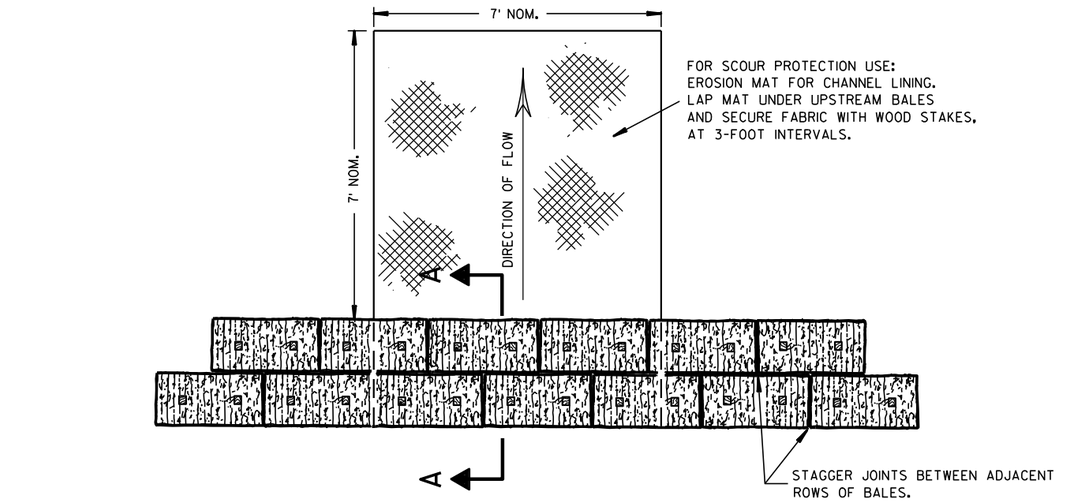



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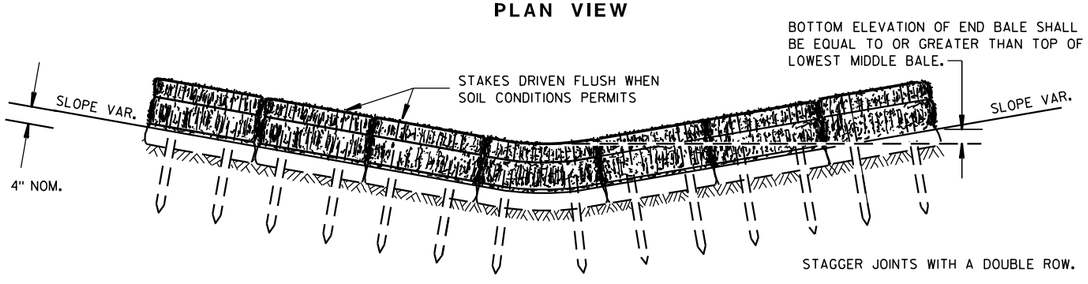
S.D.D. 8 D 5-15e




**SECTION A-A**




**PLAN VIEW**



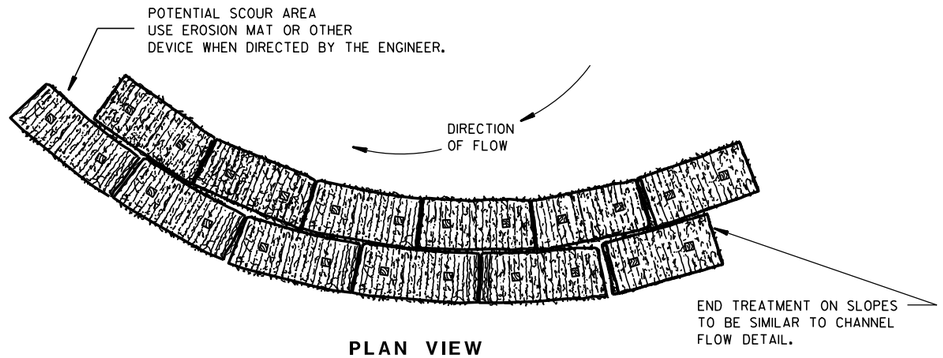

**FRONT ELEVATION**

## TEMPORARY DITCH CHECK USING EROSION BALES (1)

## GENERAL NOTES

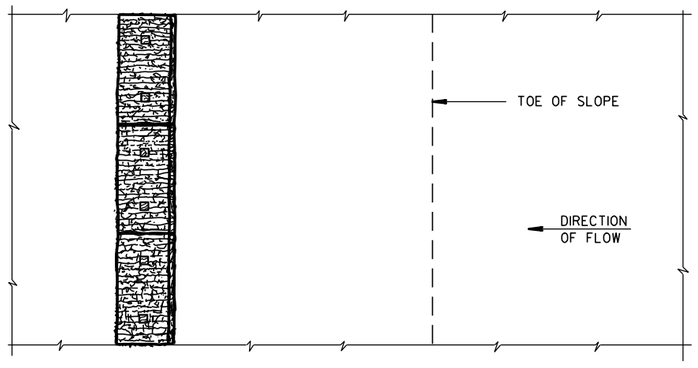
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

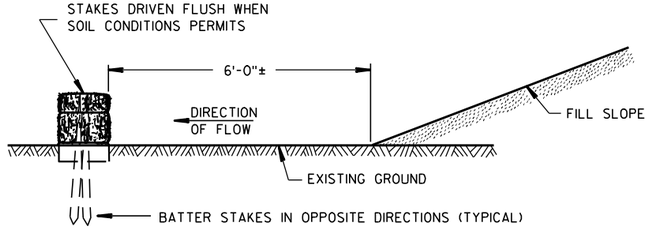



**PLAN VIEW**

WHEN ALTERING THE DIRECTION OF FLOW




**PLAN VIEW**




**FRONT ELEVATION**

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

## EROSION BALES FOR SHEET FLOW

**TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

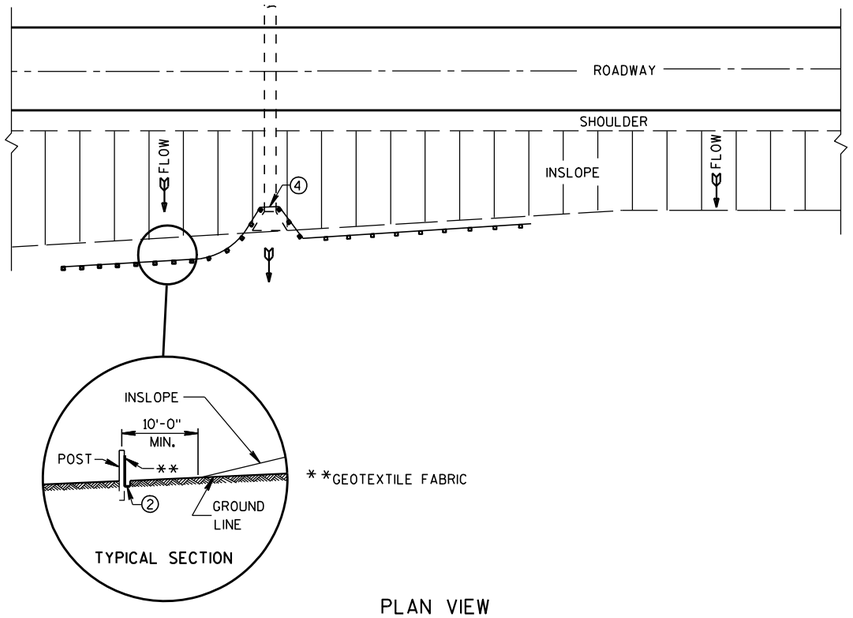


6

S.D.D. 8 E 8-3

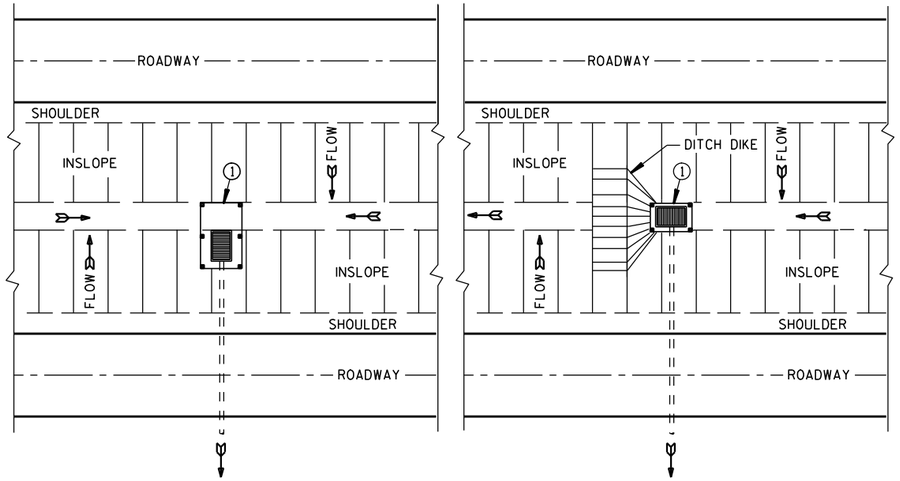
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S.D.D. 8 E 8-3



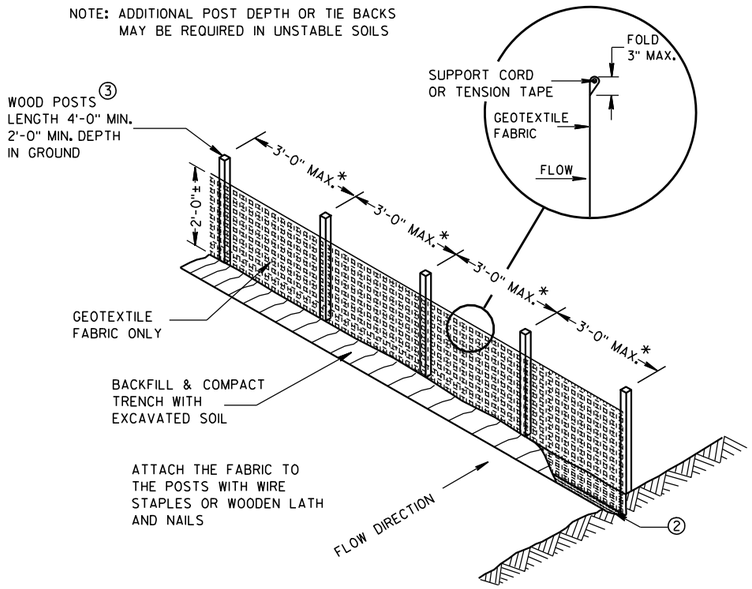

PLAN VIEW

## TYPICAL APPLICATION OF SILT FENCE



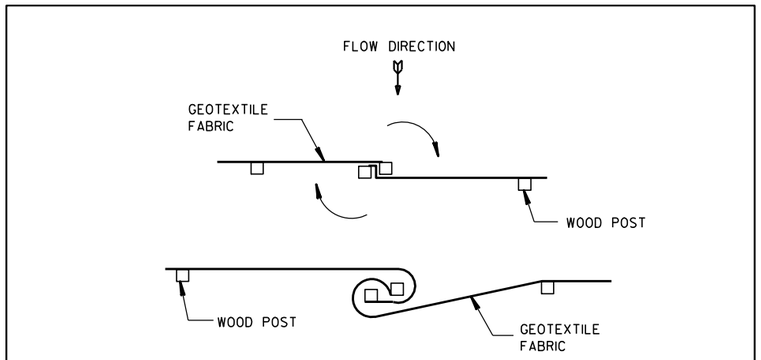

PLAN VIEW

## SILT FENCE AT MEDIAN SURFACE DRAINS




*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

## SILT FENCE

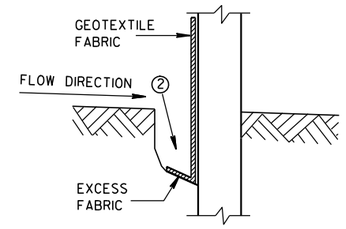



## JOINING TWO LENGTHS OF SILT FENCE 5

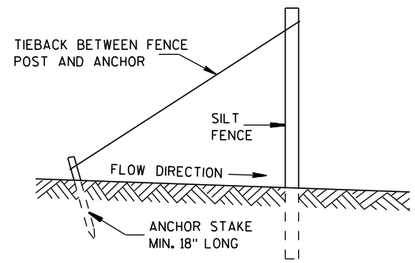
## GENERAL NOTES

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

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 1⅛" X 1⅛" 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.




## TRENCH DETAIL




## SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

**SILT FENCE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

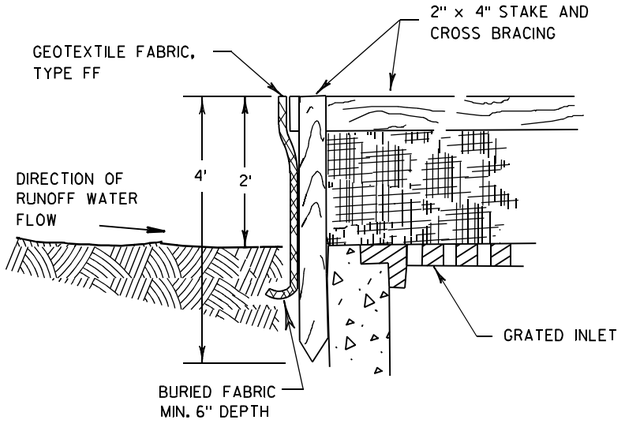


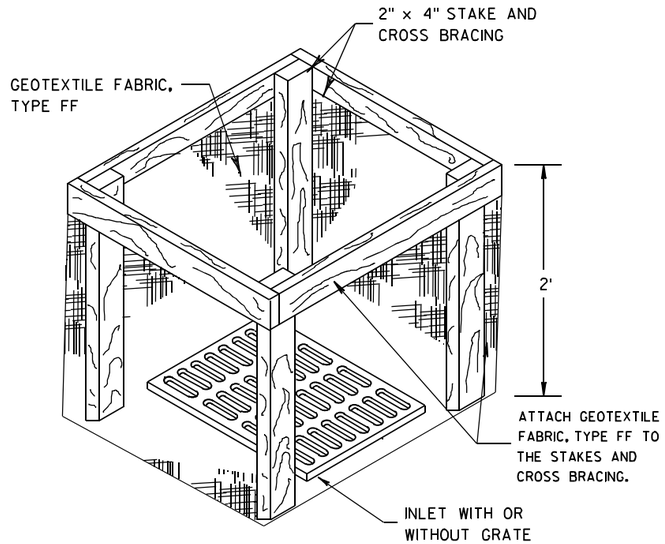
6

S.D.D. 8 E 9-6

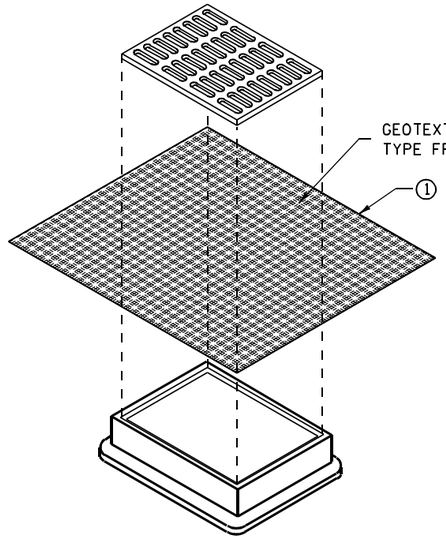
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S.D.D. 8 E 9-6



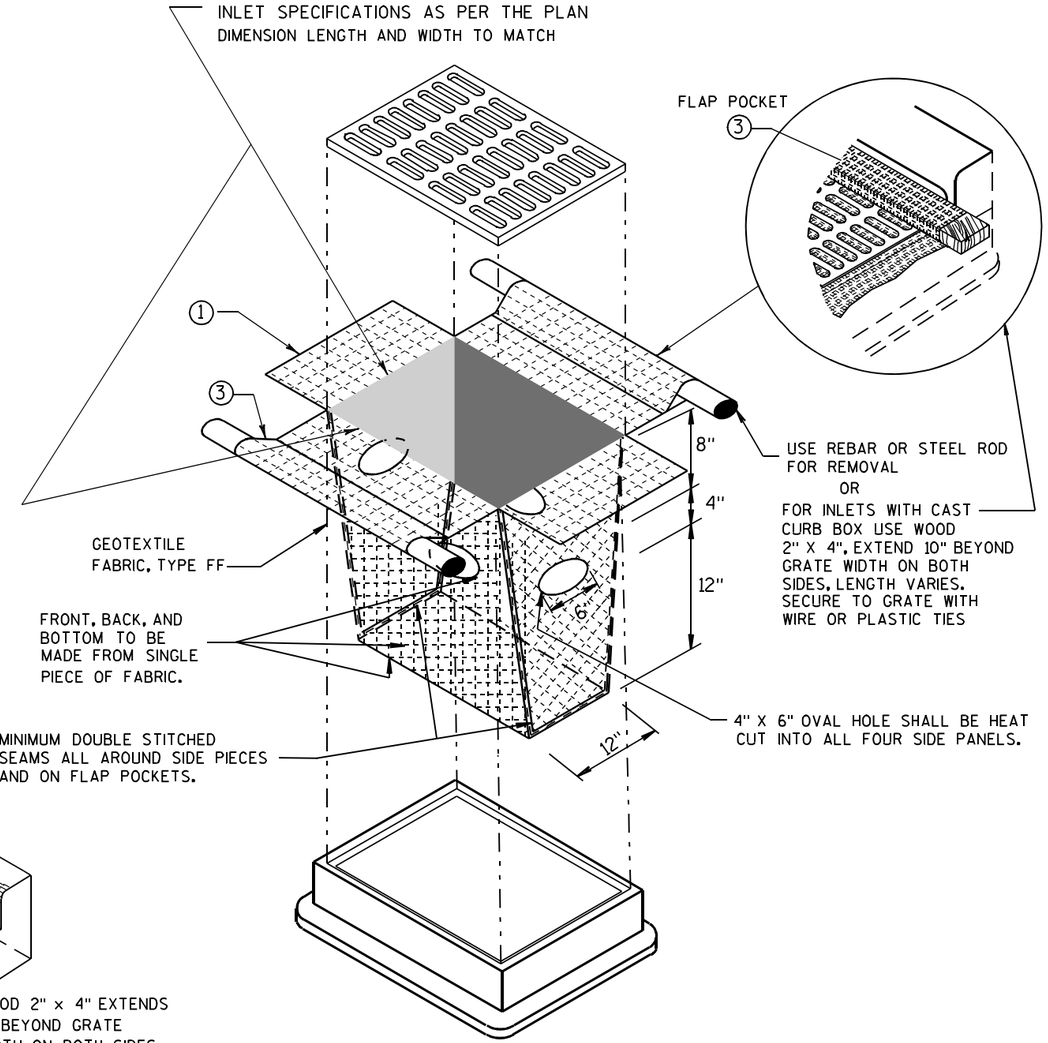




## INLET PROTECTION, TYPE A



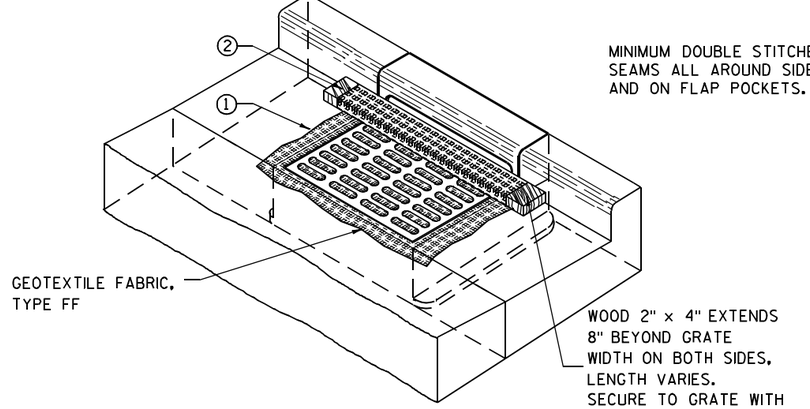

## INLET PROTECTION, TYPE B
## (WITHOUT CURB BOX)

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




## INLET PROTECTION, TYPE D

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




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

## GENERAL NOTES

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

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

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

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

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

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

## INSTALLATION NOTES

### TYPE B & C

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

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

### TYPE D

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA




6
S.D.D. 8 E 10-2

## METAL APRON ENDWALLS

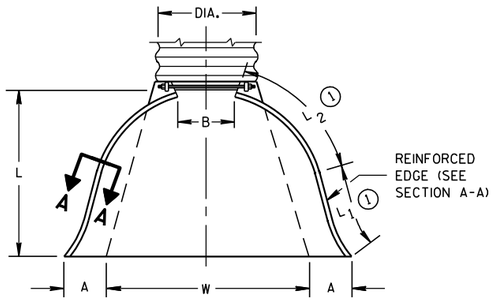
| PIPE DIA. (IN.) | MIN. THICK. (Inches) STEEL | MIN. THICK. (Inches) ALUM. | DIMENSIONS (Inches) A (±1") | B (MAX.) | H (±1") | L (±1 1/2") | L1 ① | L2 ① | W (±2") | APPROX. SLOPE | BODY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | .064 | .060 | 6 | 6 | 6 | 21 | 12 | 17 1/2 | 24 | 2 1/2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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

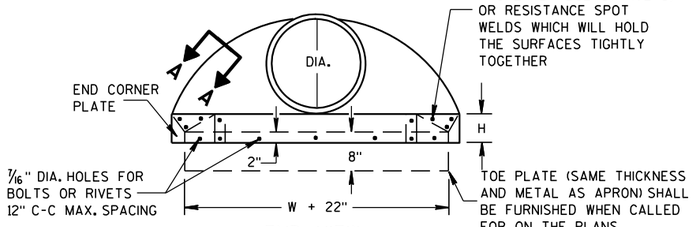
## REINFORCED CONCRETE APRON ENDWALLS

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

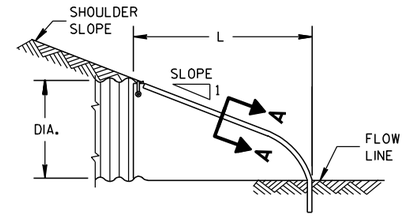
*MINIMUM
**MAXIMUM




PLAN VIEW

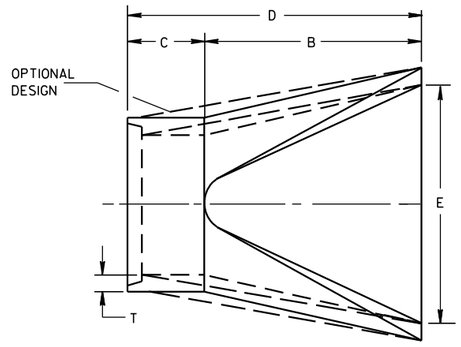



END VIEW

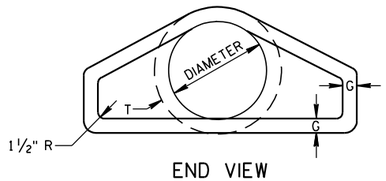



SIDE ELEVATION

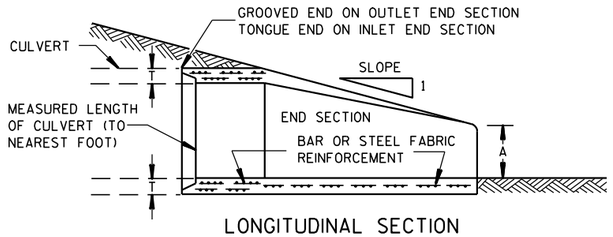
## METAL ENDWALLS




PLAN

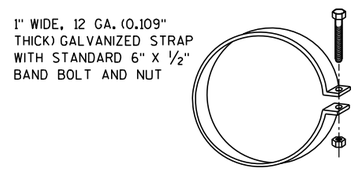



END VIEW



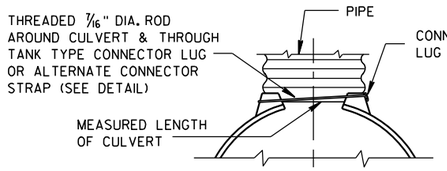

LONGITUDINAL SECTION

## CONCRETE ENDWALLS

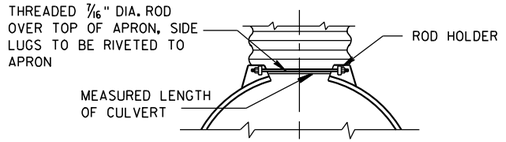



ALTERNATE FOR TYPE 1 CONNECTION

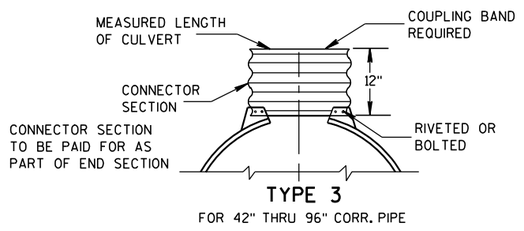
## END SECTION CONNECTOR STRAP



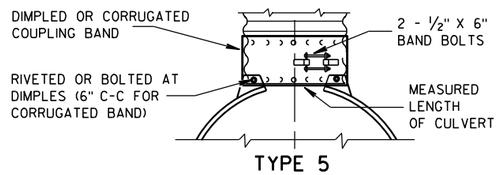

TYPE 1
FOR 12" THRU 24" CORR. PIPE




TYPE 2
FOR 30" THRU 96" CORR. PIPE




TYPE 3
FOR 42" THRU 96" CORR. PIPE




TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

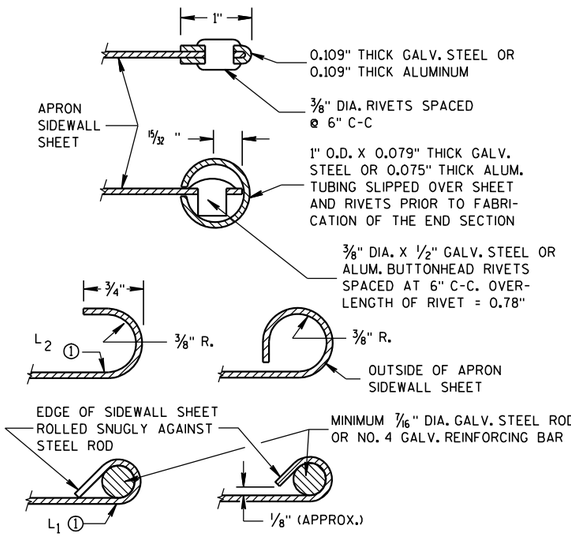
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

## CONNECTION DETAILS




## SECTION A-A

## GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

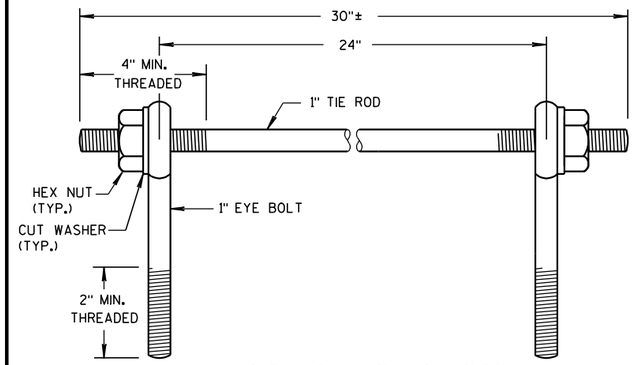
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

# APRON ENDWALLS FOR CULVERT PIPE

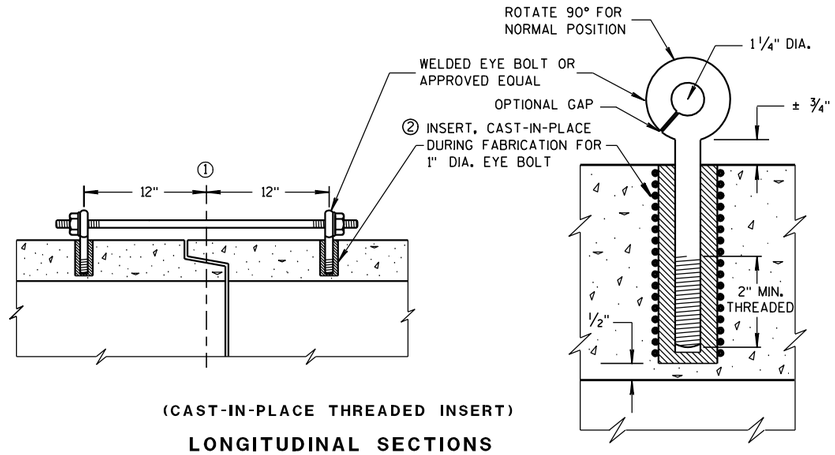
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOP 94 NEER
FHWA


6
S.D.D. 8 F 1-11




EYE BOLTS AND TIE ROD




(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

## GENERAL NOTES

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

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

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

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

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

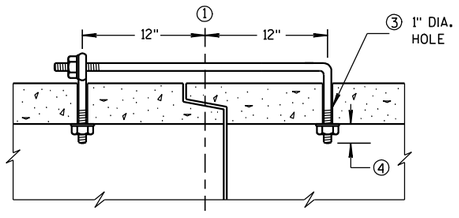
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

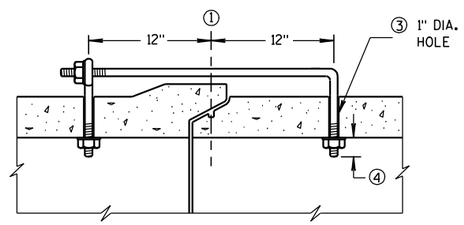
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.




(TONGUE & GROOVE PIPE)

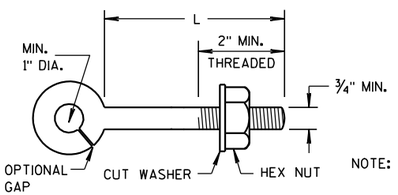



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

**EYE BOLT DIMENSION TABLE**

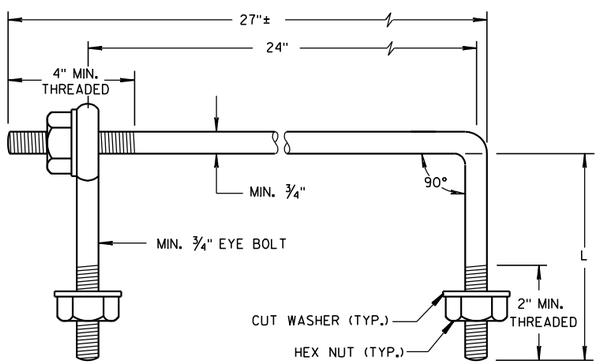
| PIPE SIZE | L = LENGTH | |
|---|---|---|
| | TONGUE & GROOVE PIPE | MODIFIED BELL PIPE |
| 18" TO 24" | 4 1/2" | 6 1/4" |
| 30" | 5" | 7" |
| 36" | 5 1/2" | 7" |
| 42" | 6" | |
| 48" | 6 1/2" | |
| 60" | 7 1/2" | |
| 66" | 8" | |




NOTE:

EYE BOLT

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




EYE BOLT AND TIE ROD

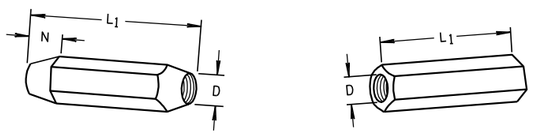
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

**ADJUSTABLE TIE ROD TABLE**

| PIPE DIAMETER | TIE ROD DIAMETER | D | $L_1$ | N |
|---|---|---|---|---|
| 12-60 | 5/8 | 5/8 | 5 | 1/2 |
| 66-84 | 3/4 | 3/4 | 5 | 1/2 |
| 90-108 | 1 | 1 | 7 | 1 1/16 |

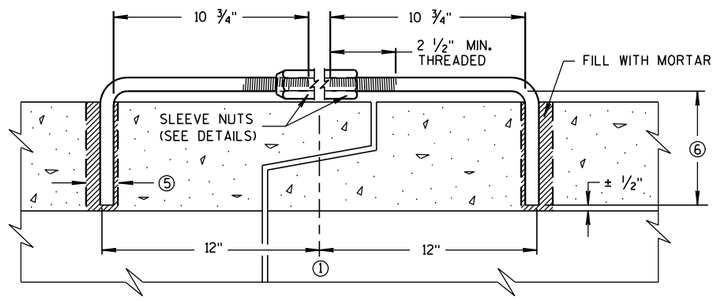
DIMENSIONS SHOWN ARE IN INCHES




TAPERED PLAIN

RIGHT AND LEFT THREADS

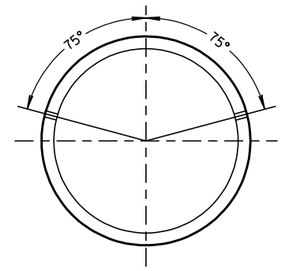
SLEEVE NUTS




LONGITUDINAL SECTION

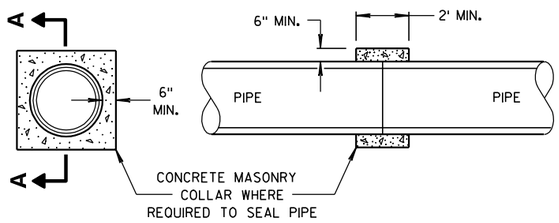
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

# ADJUSTABLE TIE ROD (ALTERNATE NO. 3)




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

TRANSVERSE SECTION




SECTION A-A

# CONCRETE COLLAR DETAIL

**JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
95 — 'MENT

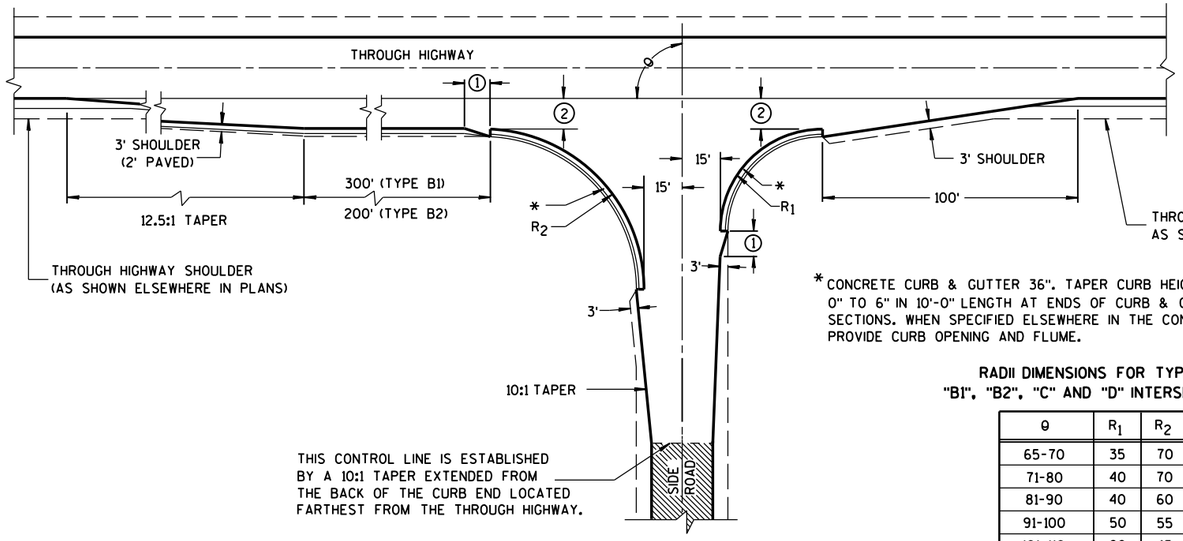
FHWA

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S.D.D. 8 F 4-7

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S.D.D. 8 F 4-7

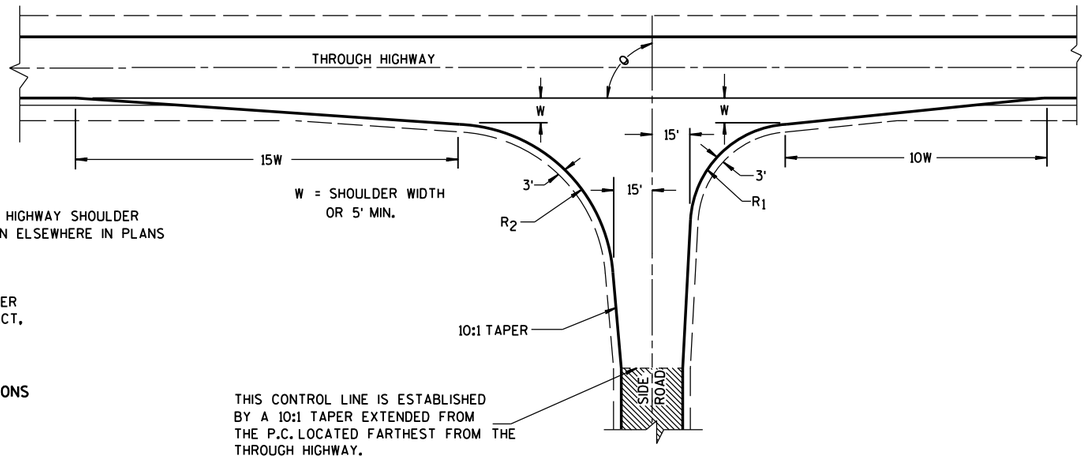



TYPE "B1" AND "B2"

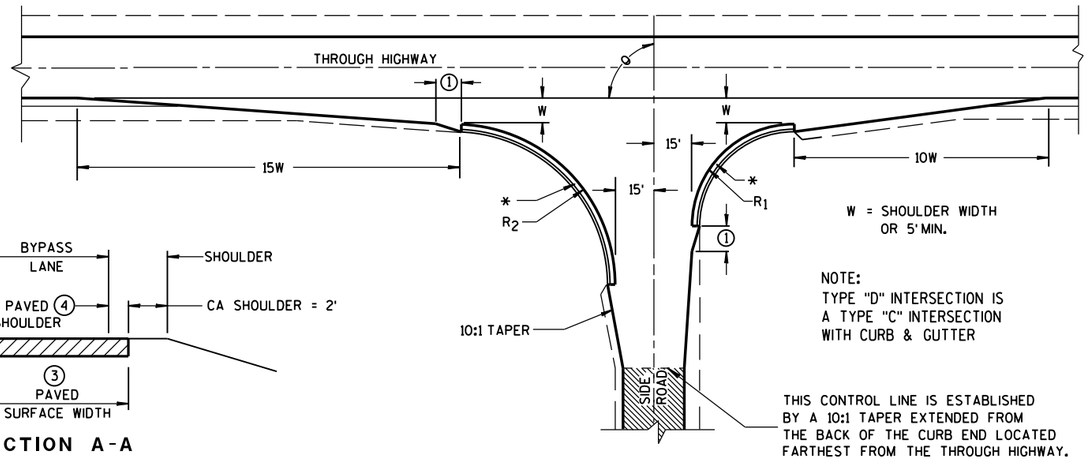
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

**RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS**

| θ | $R_1$ | $R_2$ |
|---|---|---|
| 65-70 | 35 | 70 |
| 71-80 | 40 | 70 |
| 81-90 | 40 | 60 |
| 91-100 | 50 | 55 |
| 101-110 | 60 | 45 |




TYPE "C"




TYPE "D"

## GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

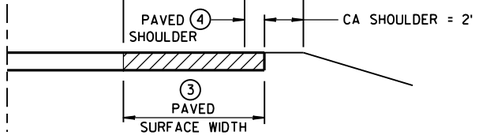
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

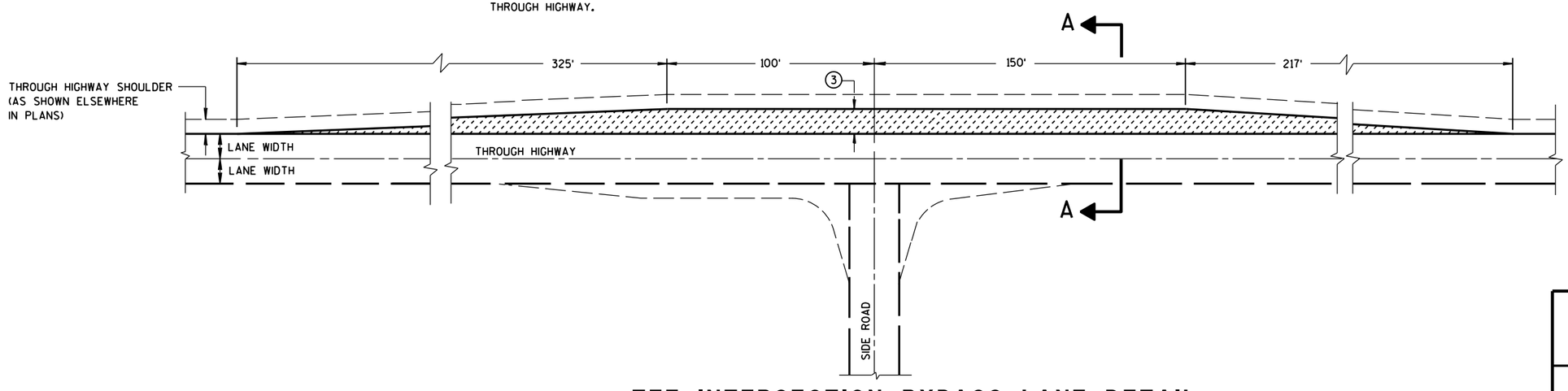
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.




SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)




TEE INTERSECTION BYPASS LANE DETAIL

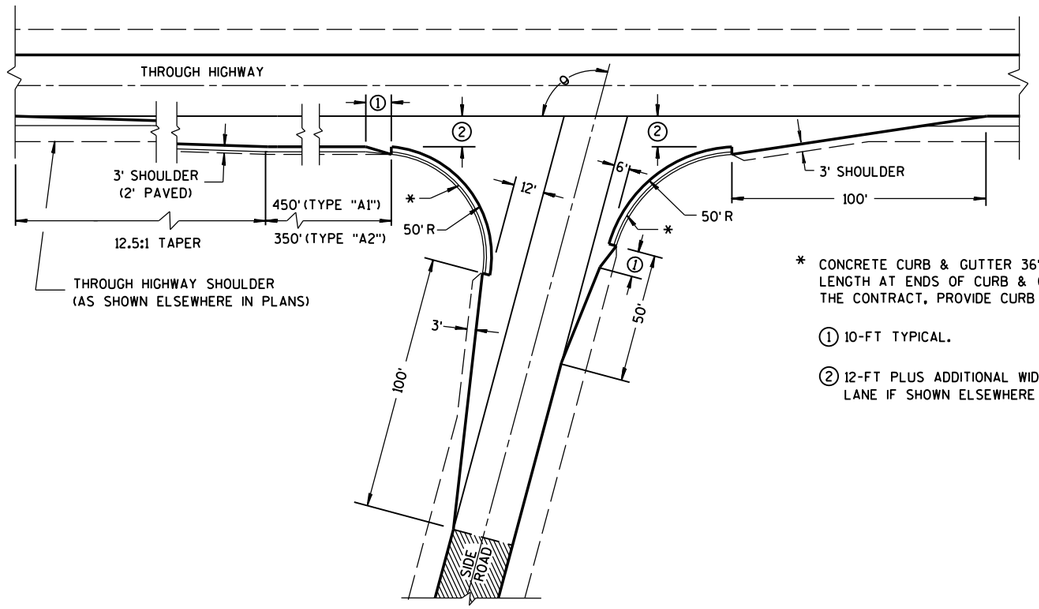
AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO




6


S.D.D. 9 A 1-13a



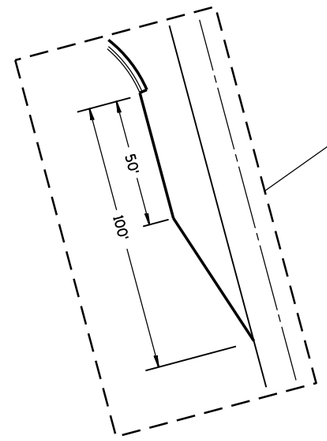

θ = MORE THAN 80°

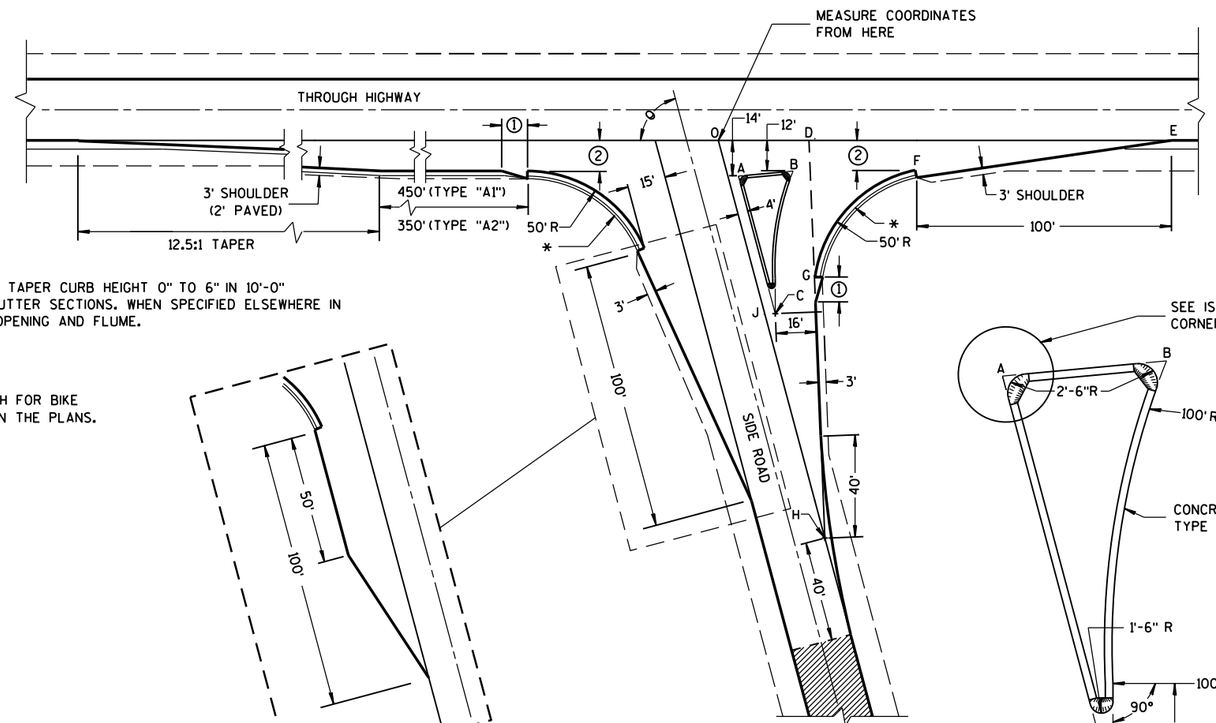
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

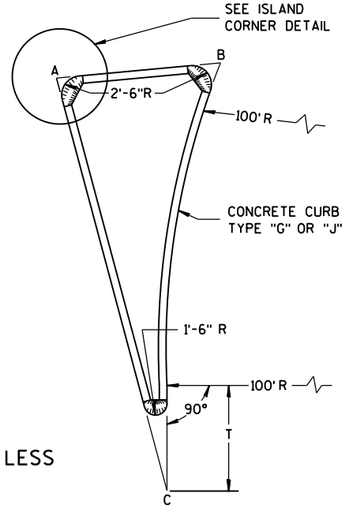
② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

EXISTING PAVED SURFACE

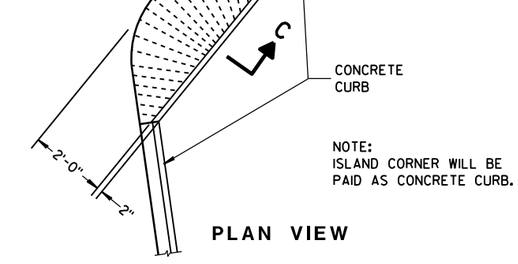



θ = ACUTE ANGLES 80° OR LESS

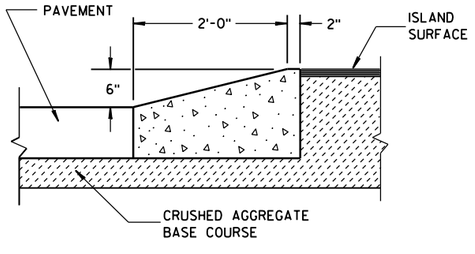



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS




NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

**PLAN VIEW**




**SECTION C-C**

## ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

| ANGLE θ DEGREES | COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y | | | | | | | | LENGTH IN FEET | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | AB | AC | T | OJ | OH |
| 60 | 12.7 / -14.0 | 44.9 / -12.0 | 46.4 / -72.4 | 41.9 / 0.0 | 205.0 / 0.0 | 104.6 / -12.0 | 64.0 / -75.5 | 85.0 / -147.1 | 32.3 | 67.4 | 4.9 | 85.9 | 169.9 |
| 65 | 10.9 / -14.0 | 39.0 / -12.0 | 37.8 / -71.6 | 39.4 / 0.0 | 196.1 / 0.0 | 95.7 / -12.0 | 54.1 / -71.5 | 70.5 / -151.3 | 28.2 | 63.6 | 8.5 | 80.9 | 166.9 |
| 70 | 9.4 / -14.0 | 33.9 / -12.0 | 29.8 / -70.1 | 37.4 / 0.0 | 188.3 / 0.0 | 87.8 / -12.0 | 45.6 / -67.5 | 56.1 / -154.2 | 24.6 | 59.7 | 11.5 | 76.1 | 164.1 |
| 75 | 7.9 / -14.0 | 29.3 / -12.0 | 22.3 / -67.9 | 35.7 / 0.0 | 181.2 / 0.0 | 80.7 / -12.0 | 38.2 / -63.4 | 41.8 / -155.9 | 21.5 | 55.8 | 13.8 | 71.4 | 161.4 |
| 80 | 6.5 / -14.0 | 25.4 / -12.0 | 15.6 / -65.2 | 34.4 / 0.0 | 174.8 / 0.0 | 74.4 / -12.0 | 31.8 / -59.3 | 27.6 / -156.5 | 18.9 | 52.0 | 15.6 | 66.9 | 158.9 |

## TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

**AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"**

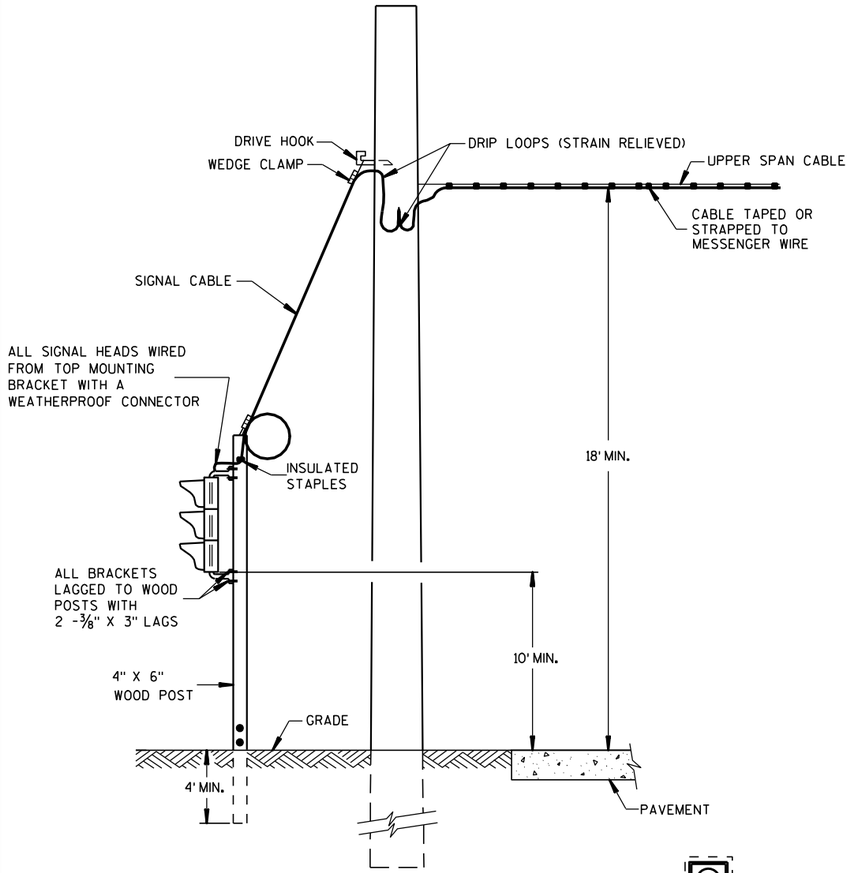
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

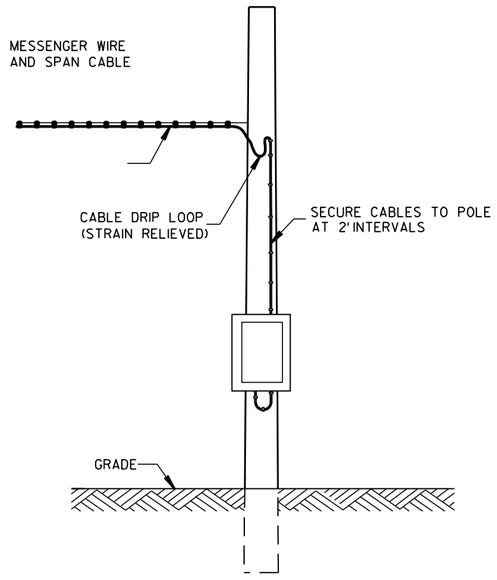


S.D.D. 9 A 1-13b

S.D.D. 9 A 1-13b




## TYPICAL DROP TO TRAFFIC SIGNAL FACE




## POLE MOUNT CABINET INSTALLATION

## GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAYBE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY PLOLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

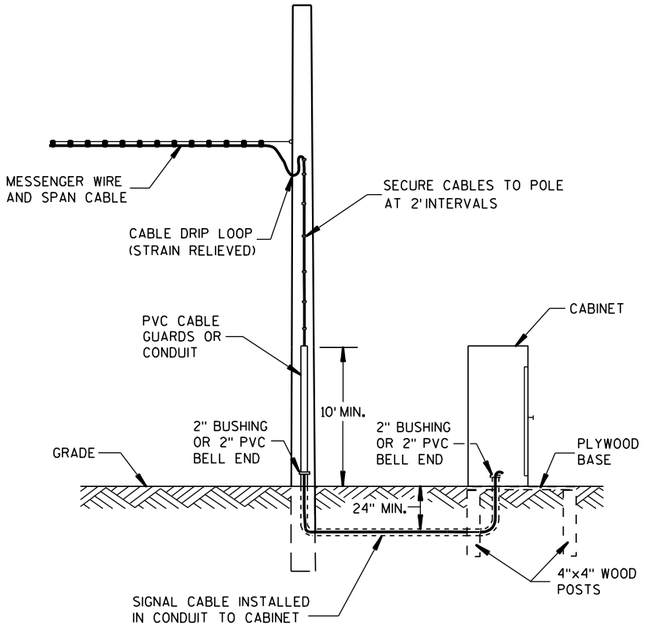
WOOD POLES (NONBREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAMGUARD, ETC.).

WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

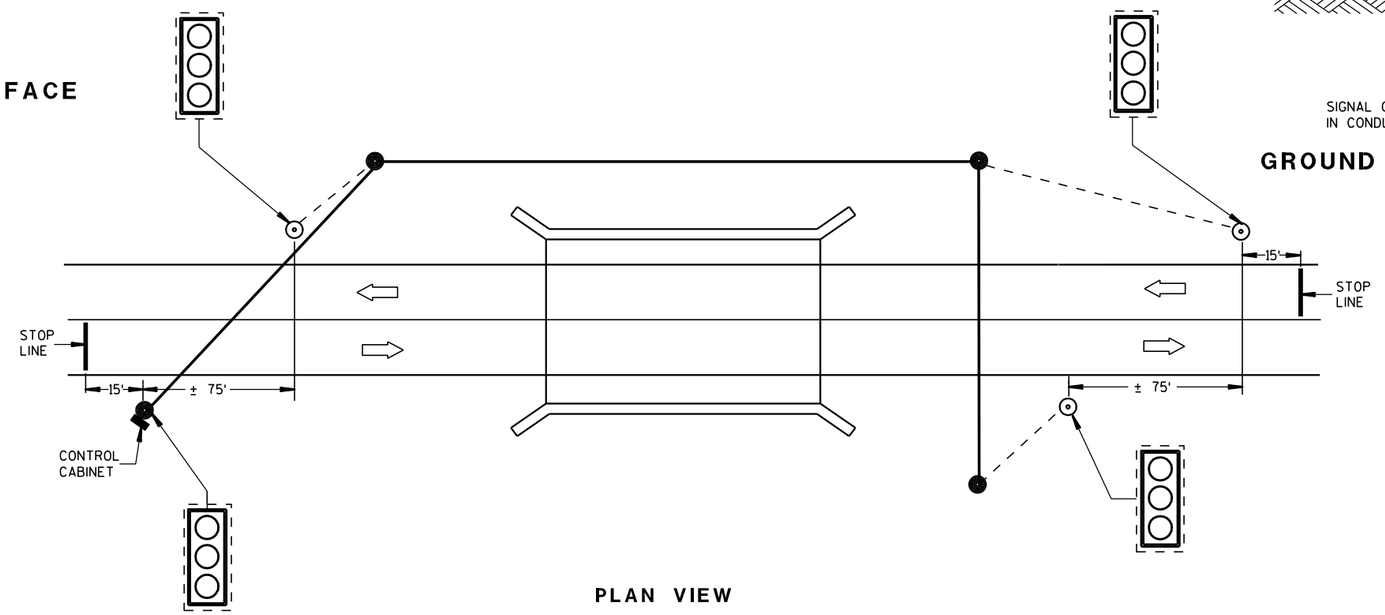
EACH TRAFFIC SIGNAL FACE SHALL HAVE A BACKPLATE.




## GROUND MOUNT CABINET INSTALLATION

| OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES | |
|---|---|
| SPEED LIMIT | OFFSET DISTANCE** |
| GREATER THAN 45 MPH | 18 FT |
| 45 MPH OR LESS | 12 FT |
| 45 MPH OR LESS W/ CURBS | 2 FT |

**NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.




PLAN VIEW

## TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

## LEGEND

- WOOD POLE (NONBREAKAWAY)
- WOOD POST (BREAKAWAY)
- SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- LED TRAFFIC SIGNAL FACE WITH BACKPLATE (3-12")
- DIRECTION OF TRAFFIC

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

**BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Gosling STATE ELECTRICAL ENGI

98

HWYS

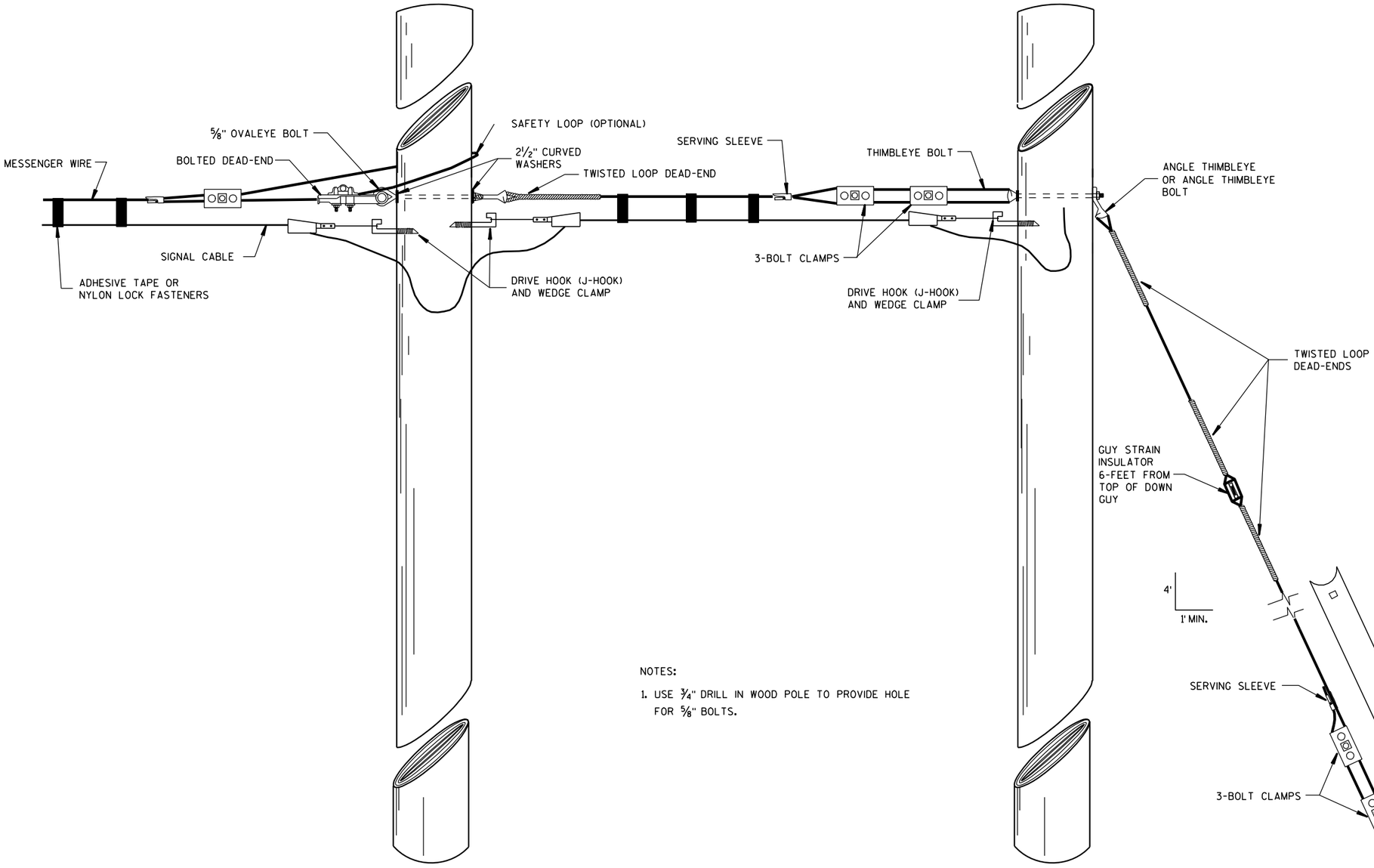
FHWA

6

S.D.D. 9 G 2-3a

6

S.D.D. 9 G 2-3a




SPAN WIRE POLE

GUY POLE

NOTES:

1. USE 3/4" DRILL IN WOOD POLE TO PROVIDE HOLE FOR 5/8" BOLTS.

## TYPICAL DEAD-ENDINGS OR GUYING

**BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. G... STATE ELECTRICAL ENGI

99

HWYS

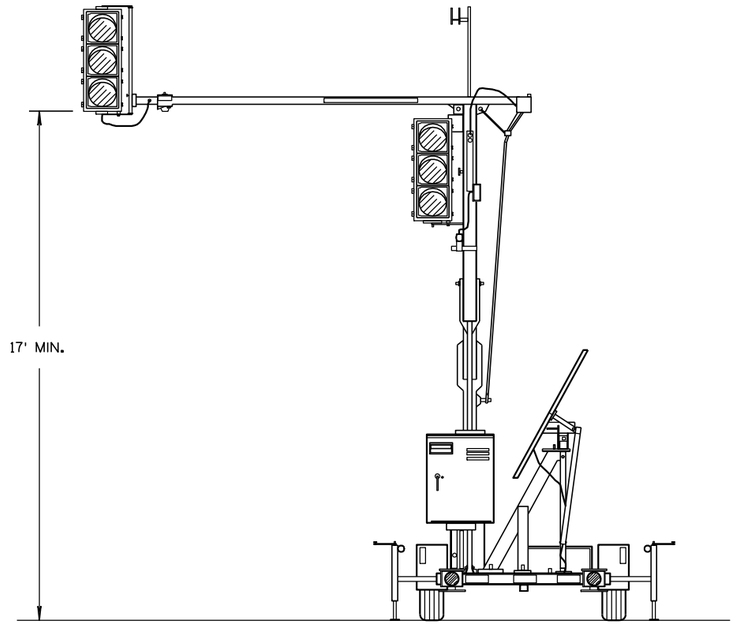
FHWA



6



S.D.D. 9 G 2-3b

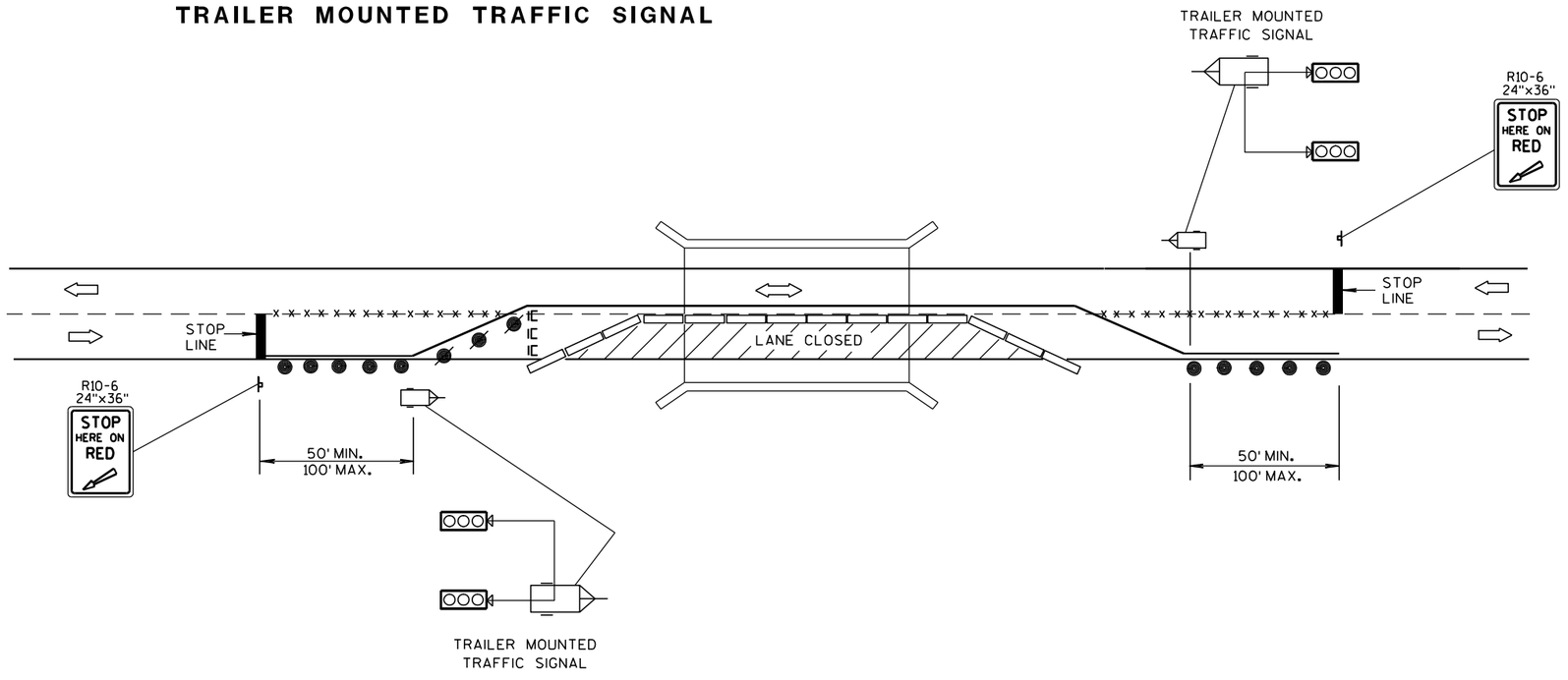



## TRAILER MOUNTED TRAFFIC SIGNAL

## GENERAL NOTES

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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15 D 33.




## TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

### LEGEND

- POST MOUNTED SIGN
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH SIGN
- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- TEMPORARY PRECAST CONCRETE BARRIER
- TRAILER MOUNTED TRAFFIC SIGNAL
- DIRECTION OF TRAFFIC FLOW

**BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 — DATE

/S/ Thomas J. Gosling — STATE ELECTRICAL ENGI

FHWA

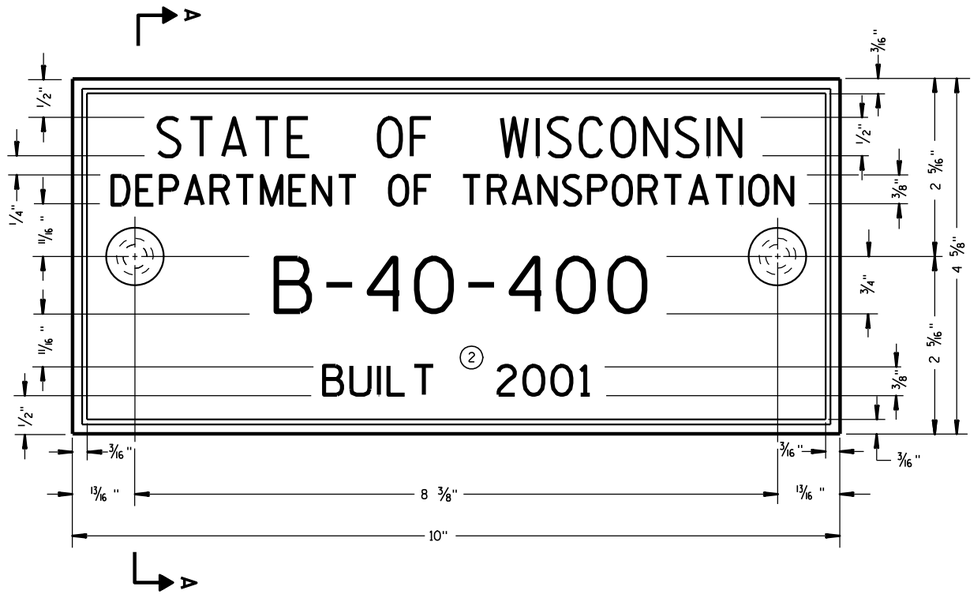
100 HWYS

6

S.D.D. 9 G 2-3c

6

S.D.D. 9 G 2-3c




## TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

## NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

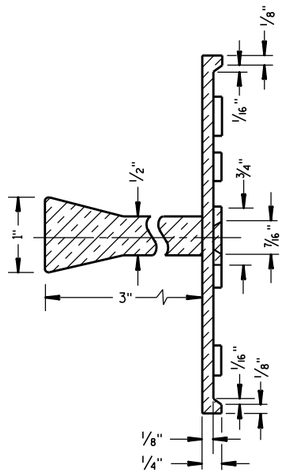
## GENERAL NOTES

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

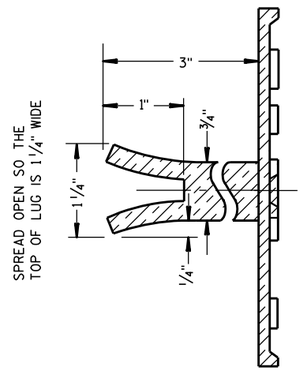
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

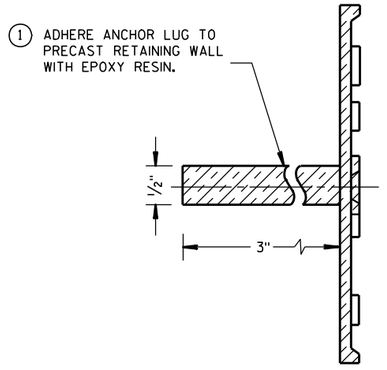
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.




SECTION A-A




ALTERNATE LUG




## ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

# NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA



6

S.D.D. 12 A 3-10

## GENERAL NOTES

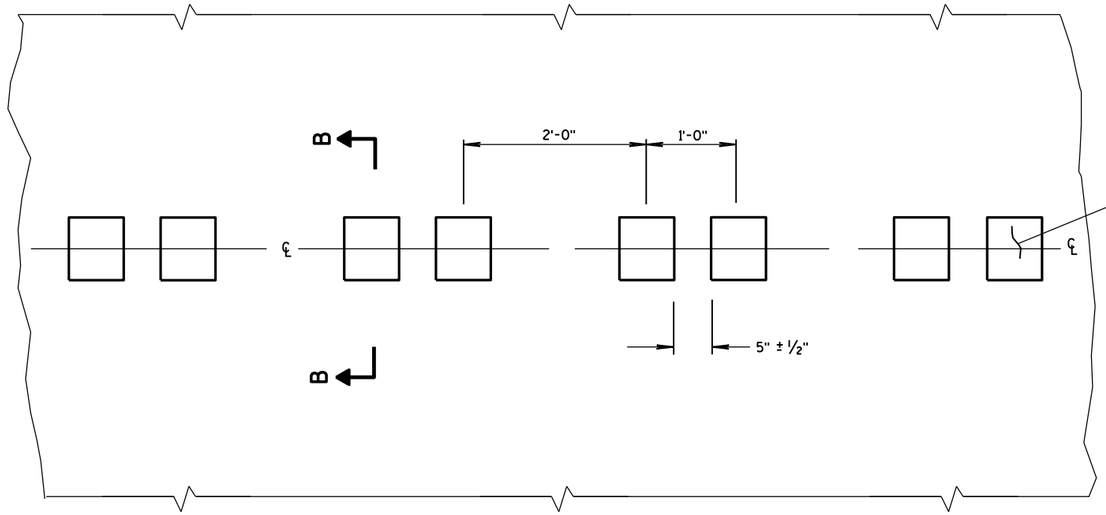
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

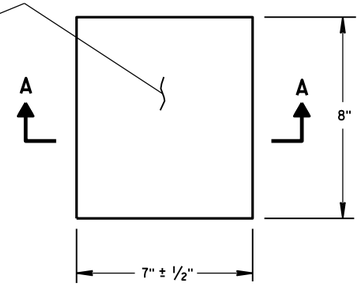
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

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

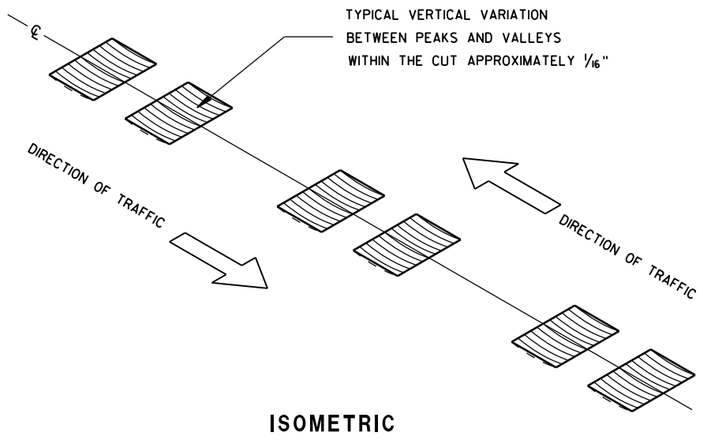



PLAN VIEW
CENTER LINE WITH GROOVES

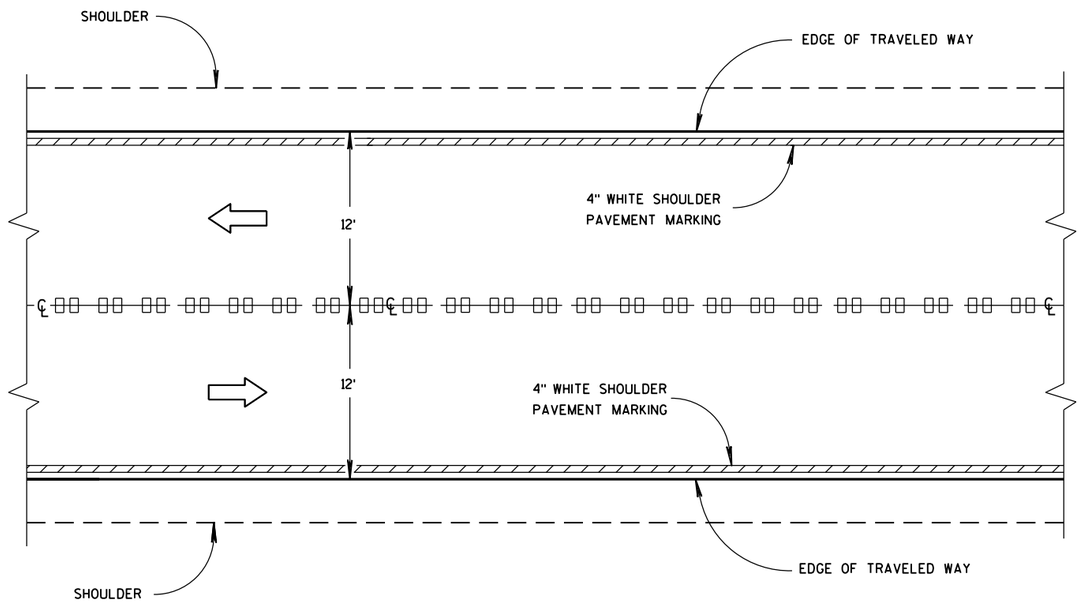



PLAN VIEW
(SINGLE GROOVE)

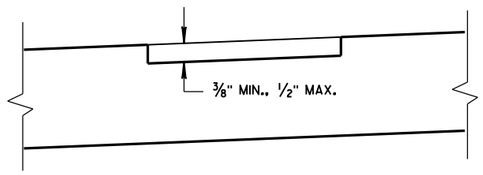
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



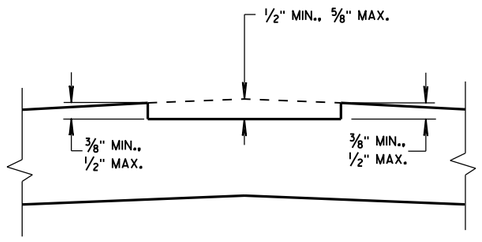

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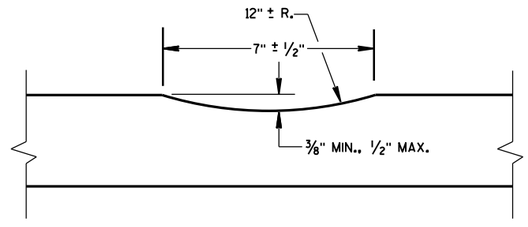

CENTER LINE GROOVES ON TWO-WAY ROADWAYS




SECTION B-B
SUPERELEVATED ROADWAY




SECTION B-B
CROWNED ROADWAY




SECTION A-A

6

S.D.D. 13 A 11-2a

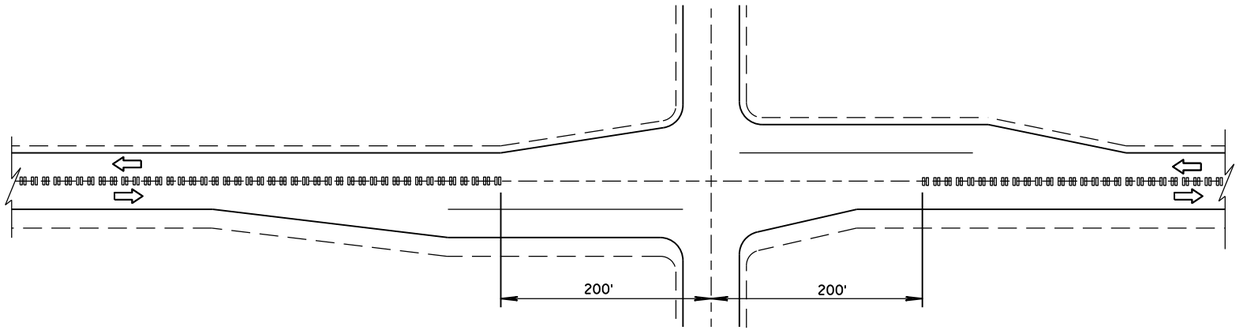
2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

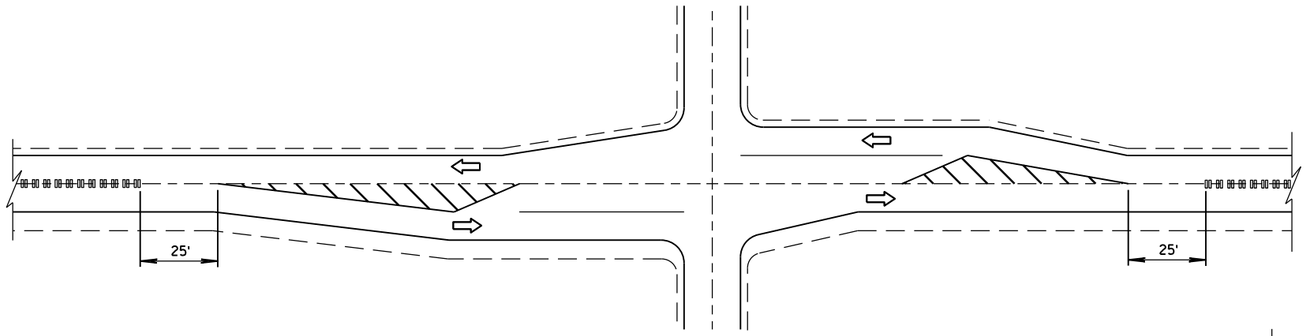


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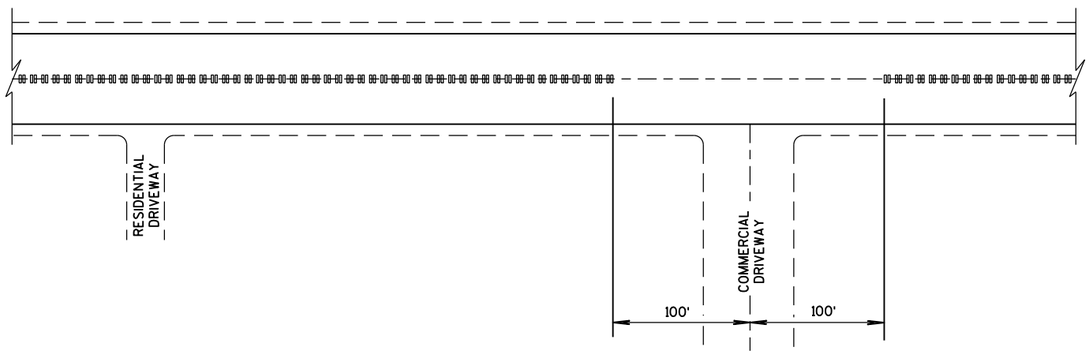
S.D.D. 13 A 11-2a




## CENTER LINE GROOVES AT INTERSECTIONS

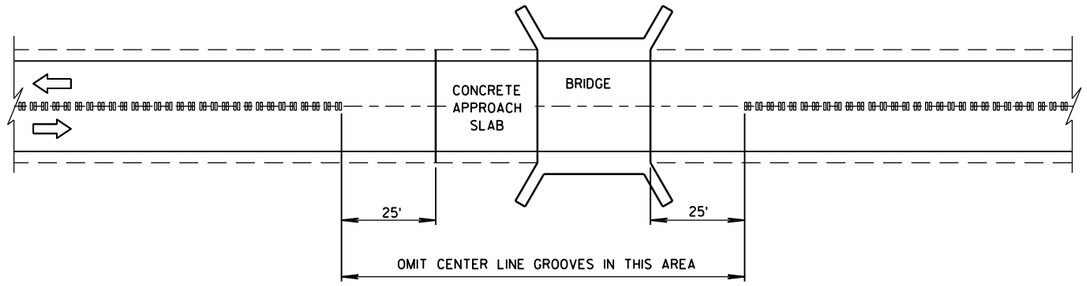



## CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

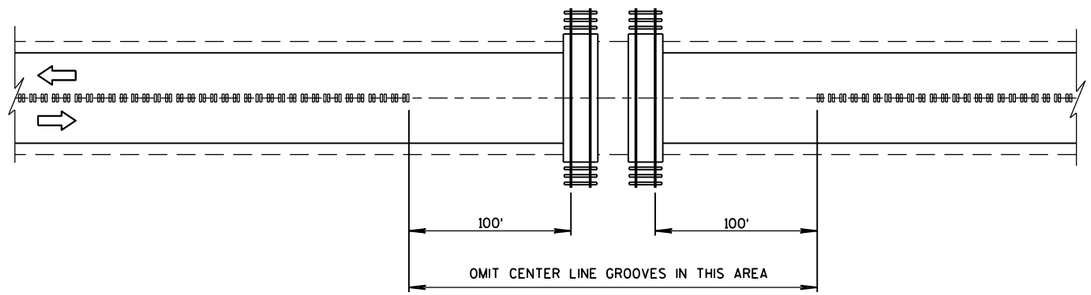



## CENTER LINE GROOVES AT DRIVEWAYS (1)

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




## CENTER LINE GROOVES AT BRIDGES




## CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

6

S.D.D. 13 A 11-2b

**2-LANE RURAL**
**CENTER LINE RUMBLE STRIP, MILLING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

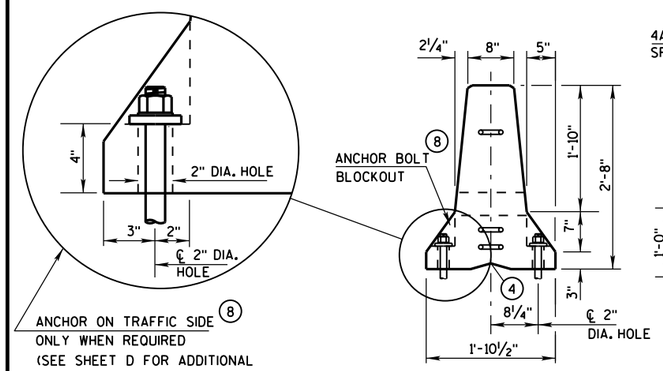
APPROVED

5/15/2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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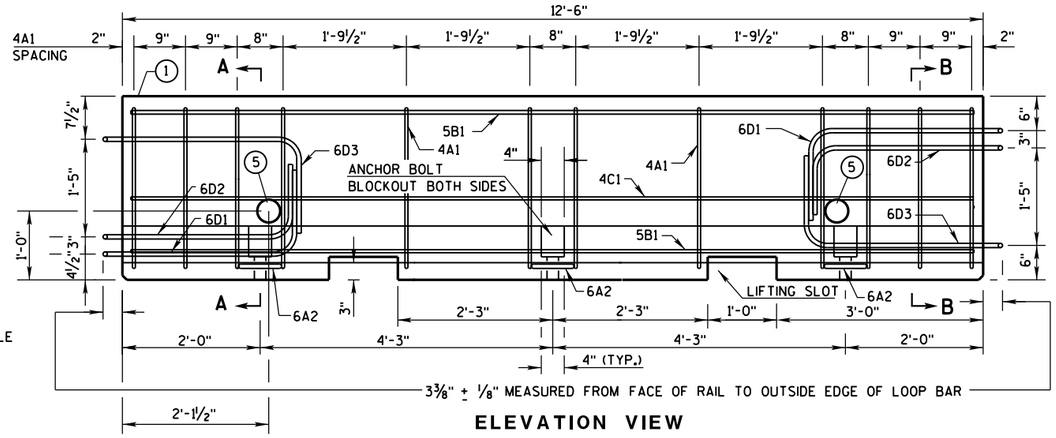
FHWA



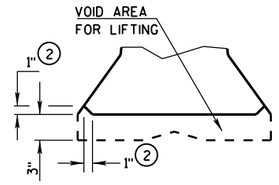




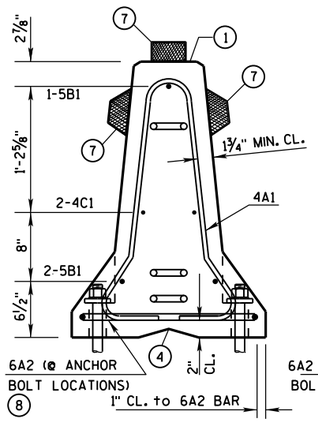
END VIEW



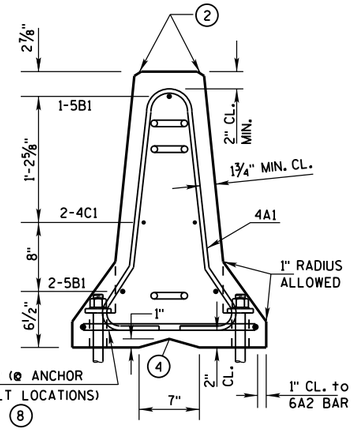

ELEVATION VIEW



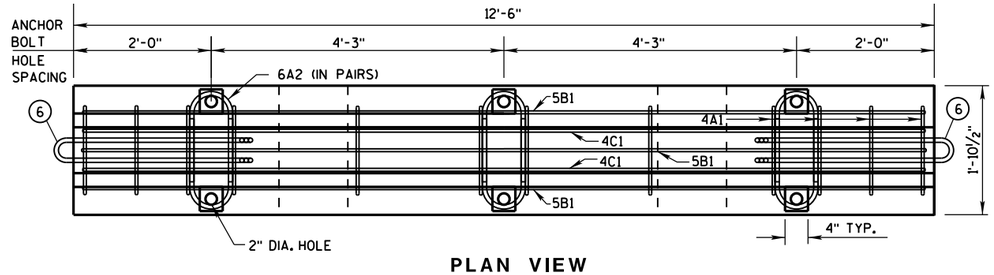

DETAIL "B"
LIFTING SLOT DETAIL




SECTION A-A
(STIRRUP PLACEMENT)

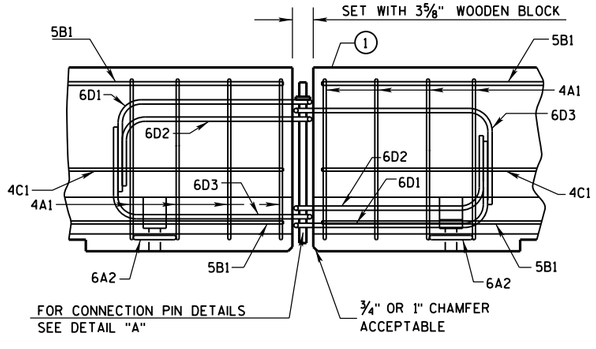



SECTION B-B
(STIRRUP PLACEMENT)

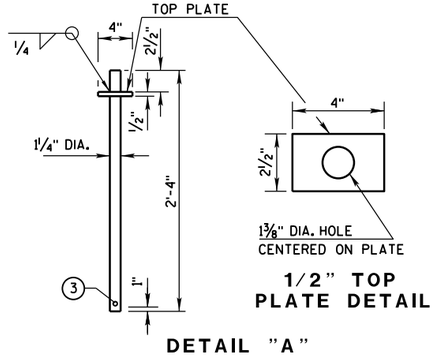



PLAN VIEW

DETAILS OF BARRIER SECTION

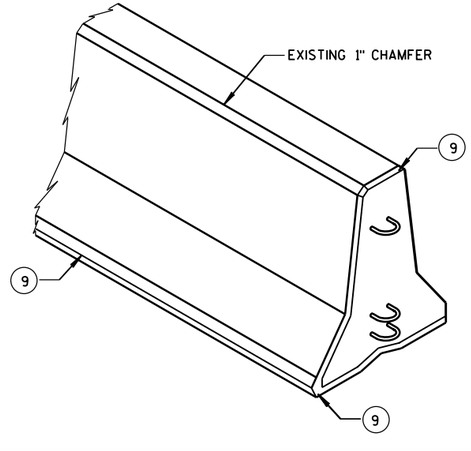



DETAILS OF BARRIER CONNECTION




1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL ( 10.9 LB EACH))




## GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

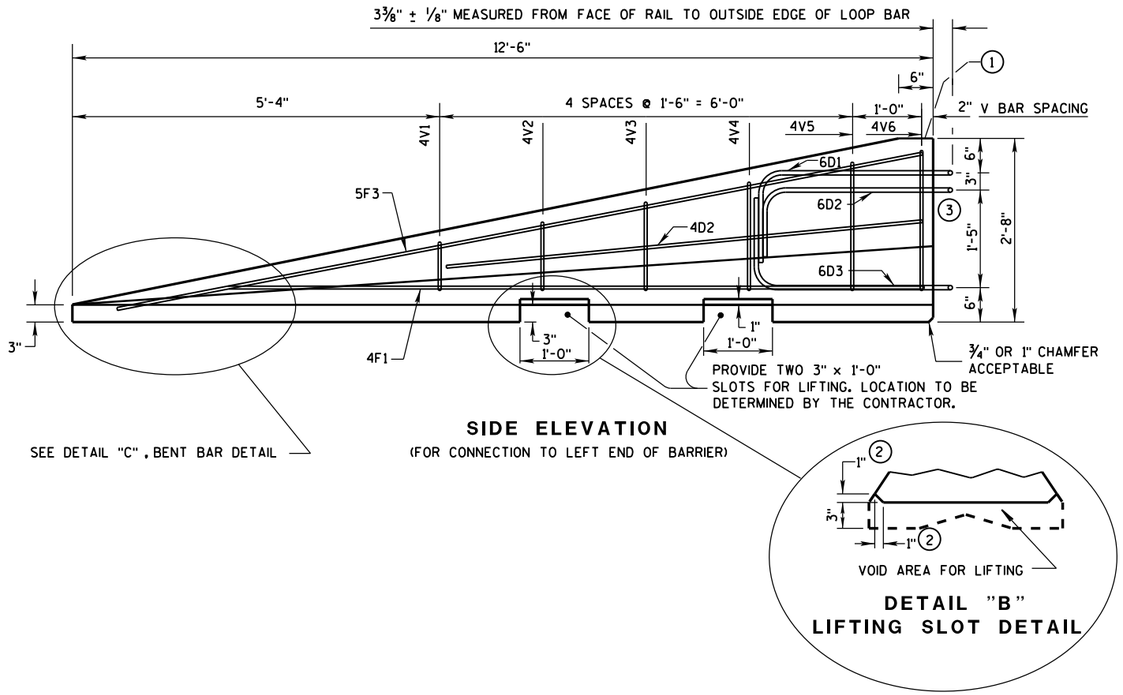
**CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"**

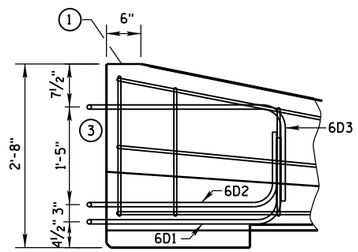
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI




6

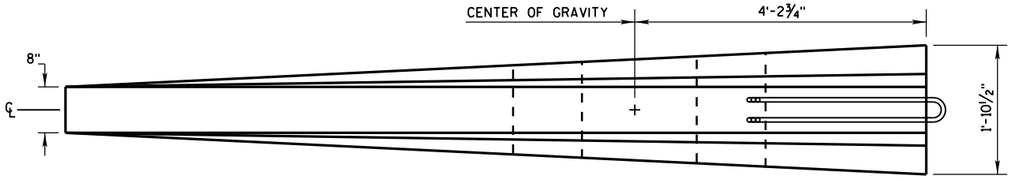
S.D.D. 14 B 7-14a

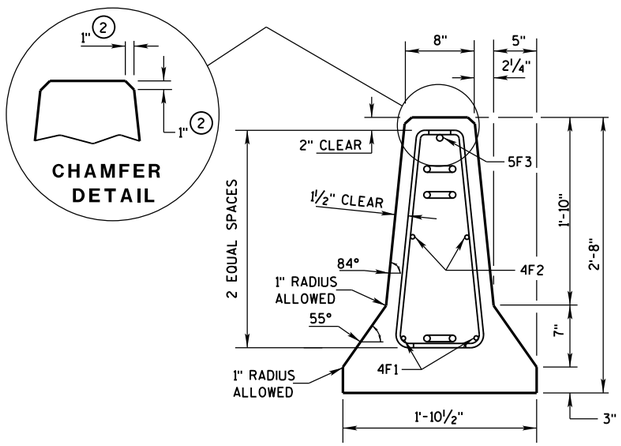


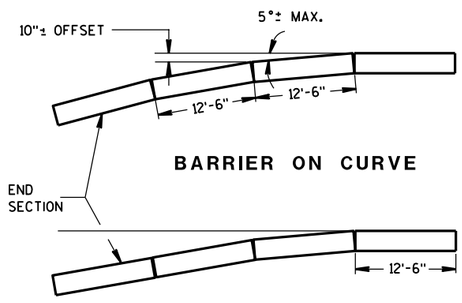




## GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.




| POSTED SPEED, (MPH) | FLARE RATE |
|---|---|
| 40 OR LESS | 6:1 |
| 45 OR GREATER | 8:1 |

# DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

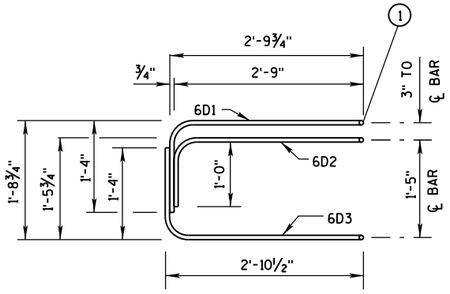



6
S.D.D. 14 B 7-14b

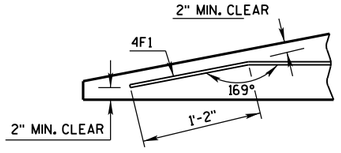
## BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

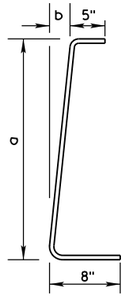
| BAR | BAR SIZE | NO. OF BARS | LENGTH FT. |
|---|---|---|---|
| 4V1 | 4 | 2 | 1'-11" |
| 4V2 | 4 | 2 | 2'-2" |
| 4V3 | 4 | 2 | 2'-6" |
| 4V4 | 4 | 2 | 2'-9" |
| 4V5 | 4 | 2 | 3'-2" |
| 4V6 | 4 | 2 | 3'-4" |
| 4F1 | 4 | 2 | 12'-0" |
| 4F2 | 4 | 2 | 7'-6" |
| 5F3 | 5 | 1 | 11'-9" |
| **LOOP ASSEMBLY** | | | |
| 6D1 | 6 | 1 | 8'-5" |
| 6D2 | 6 | 1 | 7'-7" |
| 6D3 | 6 | 1 | 8'-6" |




ELEVATION
LOOP BAR ASSEMBLY




DETAIL "C"
BENT BAR DETAIL




| BAR | a | b |
|---|---|---|
| V1 | 10" | 1" |
| V2 | 1'-1" | 1¼" |
| V3 | 1'-5" | 1⅝" |
| V4 | 1'-8" | 1⅞" |
| V5 | 2'-0½" | 2⅜" |
| V6 | 2'-3" | 2¾" |

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

## GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

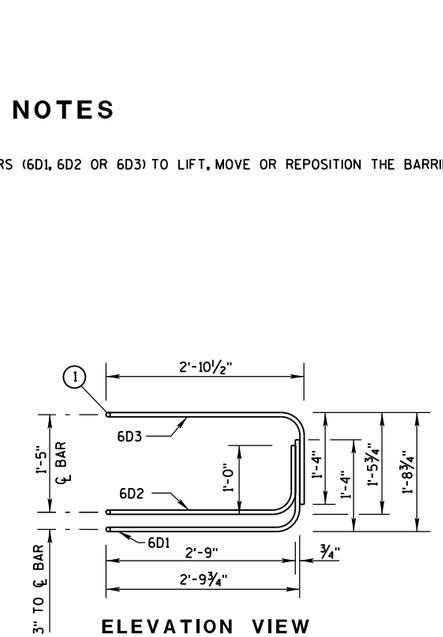
## BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

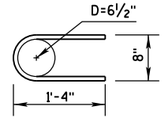
| BAR | BAR SIZE | NO. OF BARS | LENGTH FT. |
|---|---|---|---|
| 4A1 | 4 | 12 | 6'-0" |
| 6A2 | 6 | 6 | 2'-11" |
| 5B1 | 5 | 3 | 12'-2" |
| 4C1 | 4 | 2 | 12'-2" |
| **LOOP ASSEMBLY** | | | |
| 6D1 | 6 | 2 | 8'-5" |
| 6D2 | 6 | 2 | 7'-7" |
| 6D3 | 6 | 2 | 8'-6" |



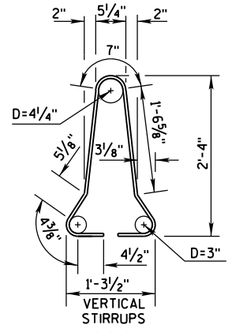

PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)




ELEVATION VIEW




6A2




4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

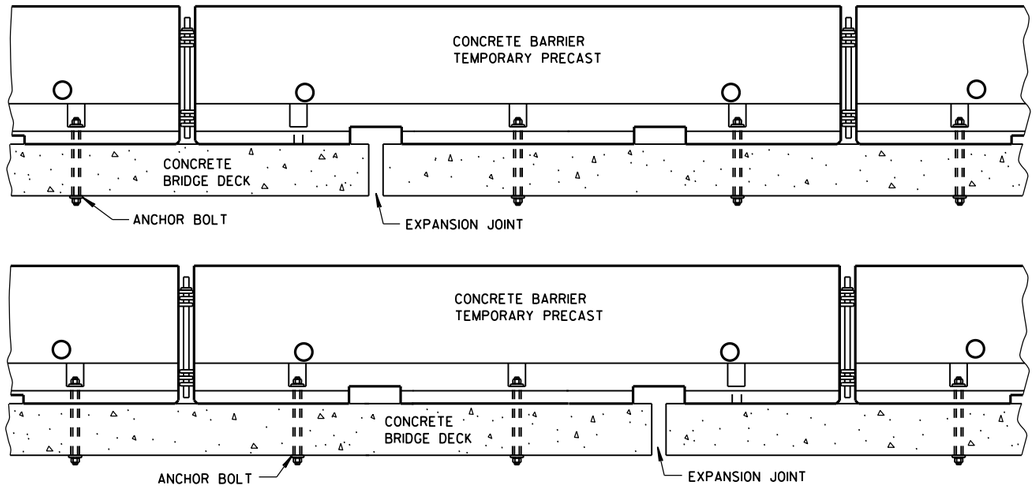






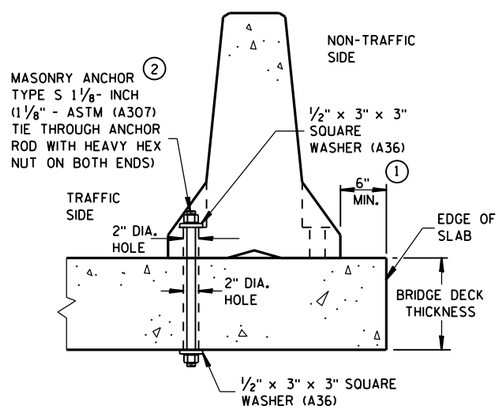
6

S.D.D. 14 B 7-14c



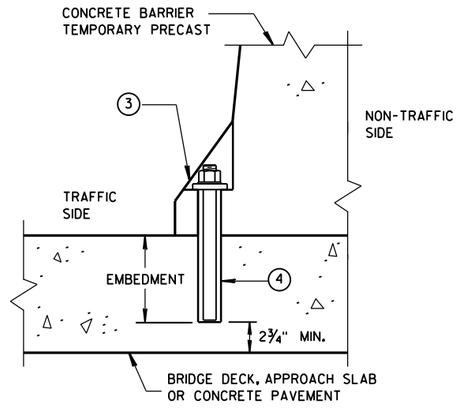

## TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)




## THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)




## REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

## GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

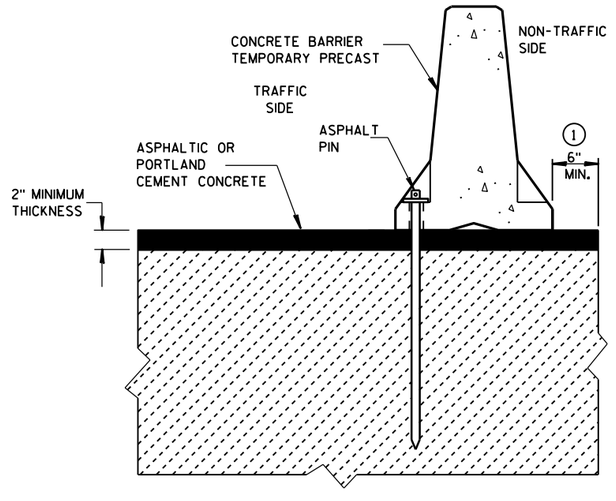
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

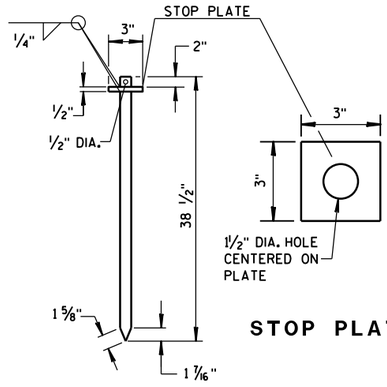
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.




## STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

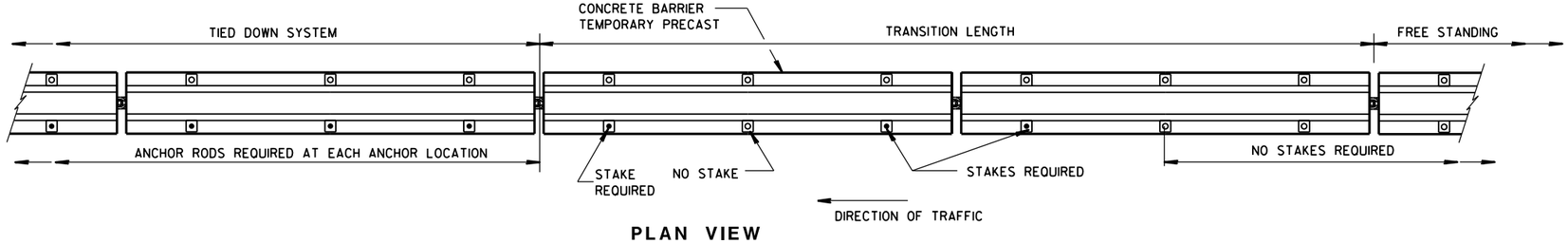
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)




STOP PLATE



ASPHALT PIN
(ASTM A36 STEEL)




PLAN VIEW

## FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

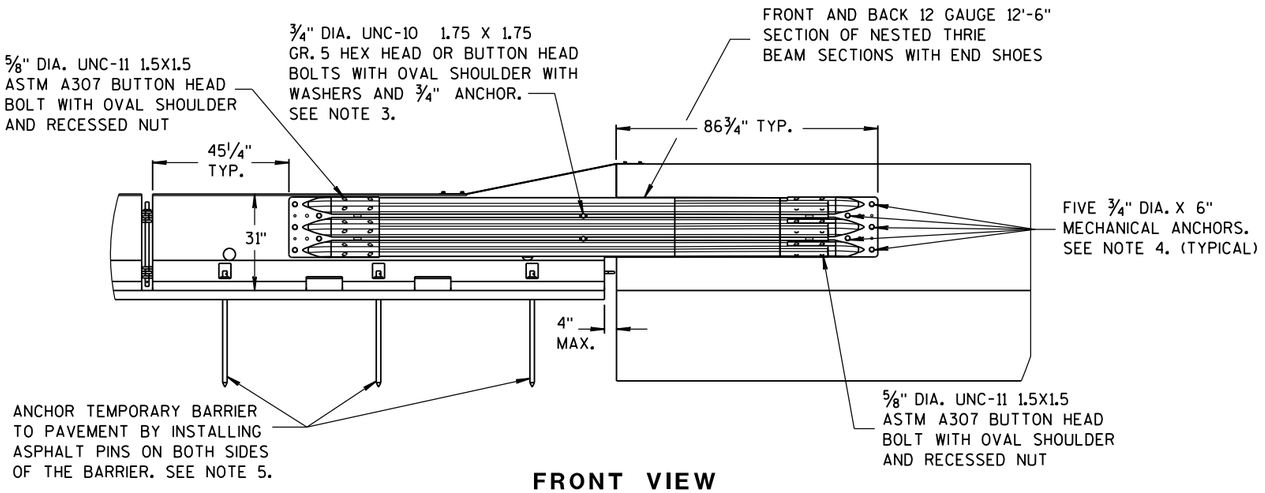
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

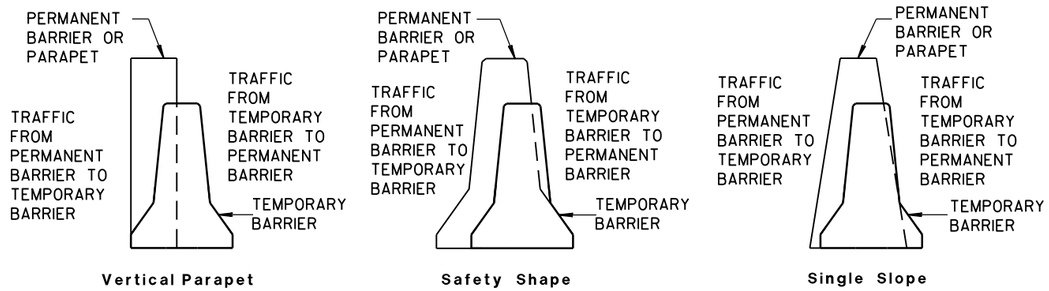



6

S.D.D. 14 B 7-14d




**FRONT VIEW**

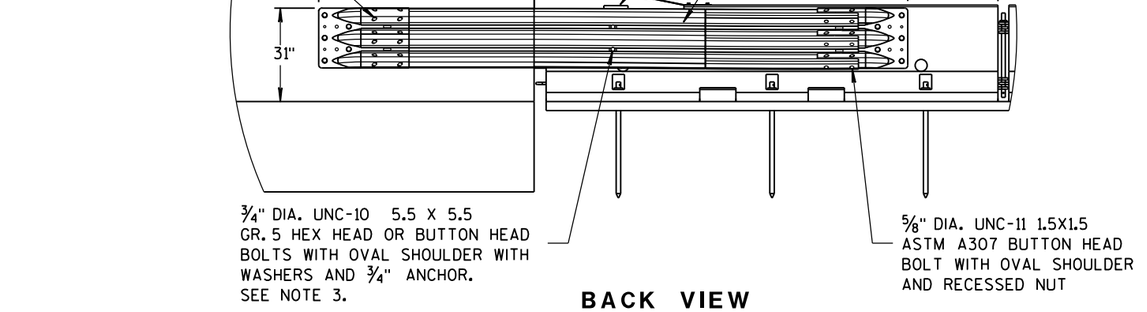



**TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM**

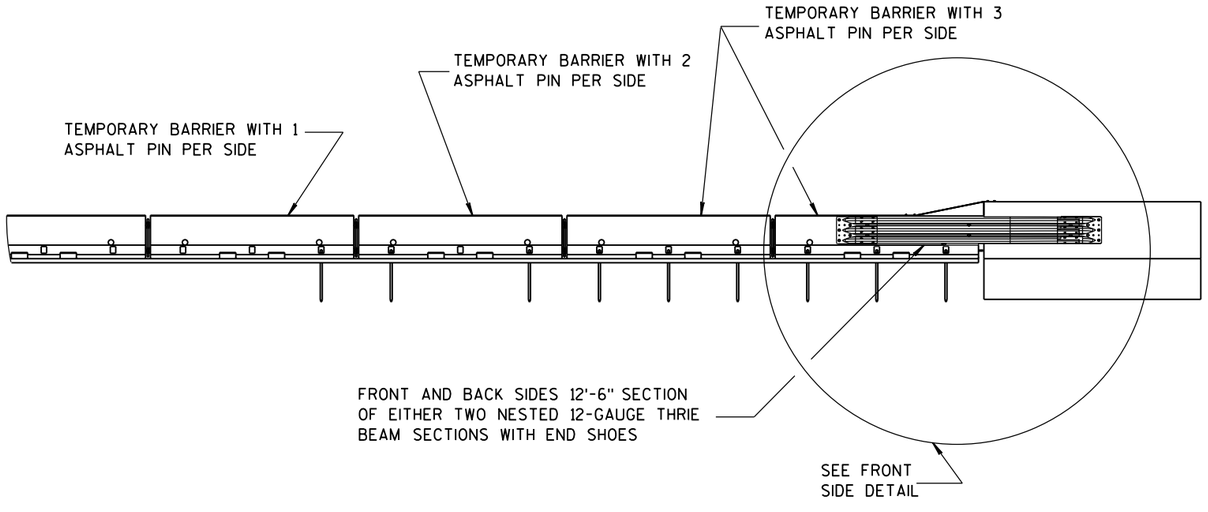
## NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

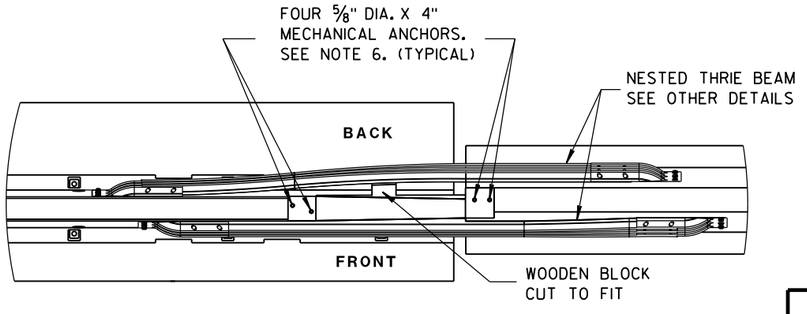
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.




**BACK VIEW**




**FRONT VIEW**




**PLAN VIEW**

**BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM**

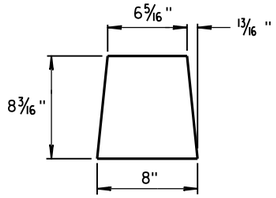
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

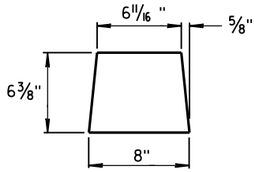




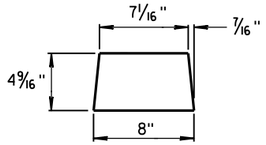
6
S.D.D. 14 B 7-14e



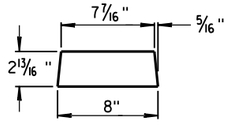

GUSSET 1




GUSSET 2

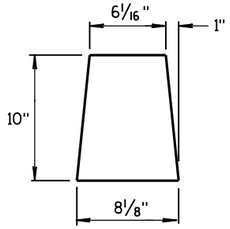



GUSSET 3

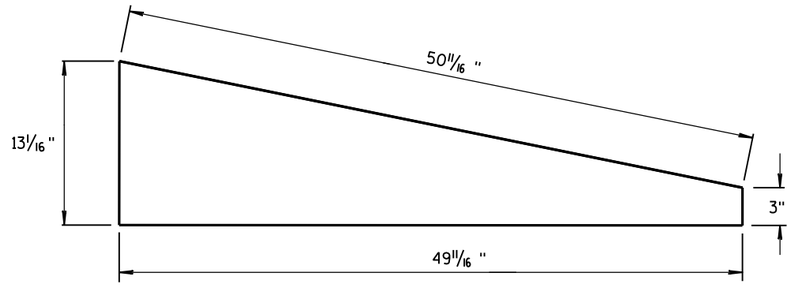



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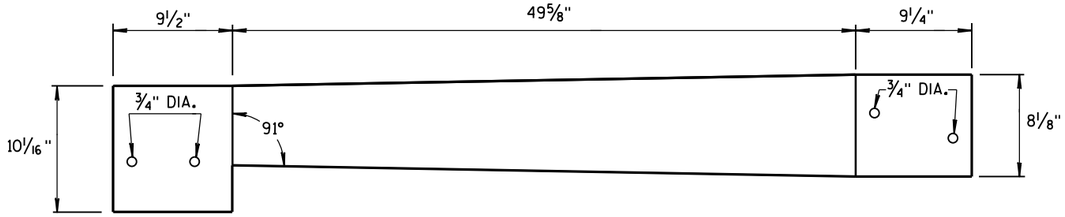
GUSSETS

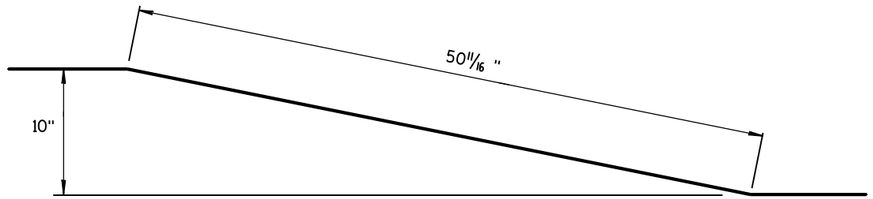



END PLATE




SIDE PLATE

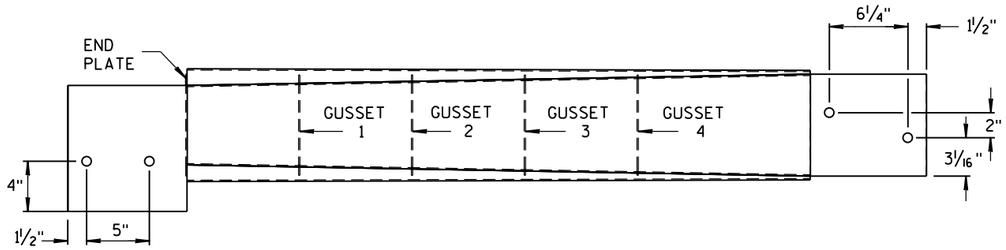


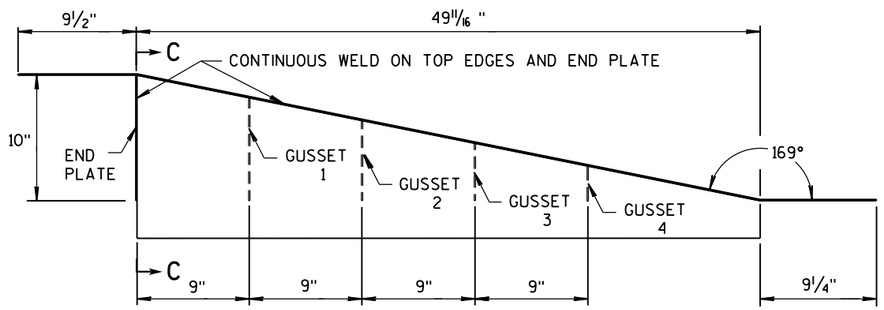



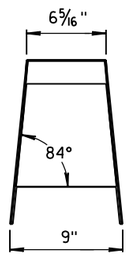

TOP PLATE

## SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.




SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

## CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

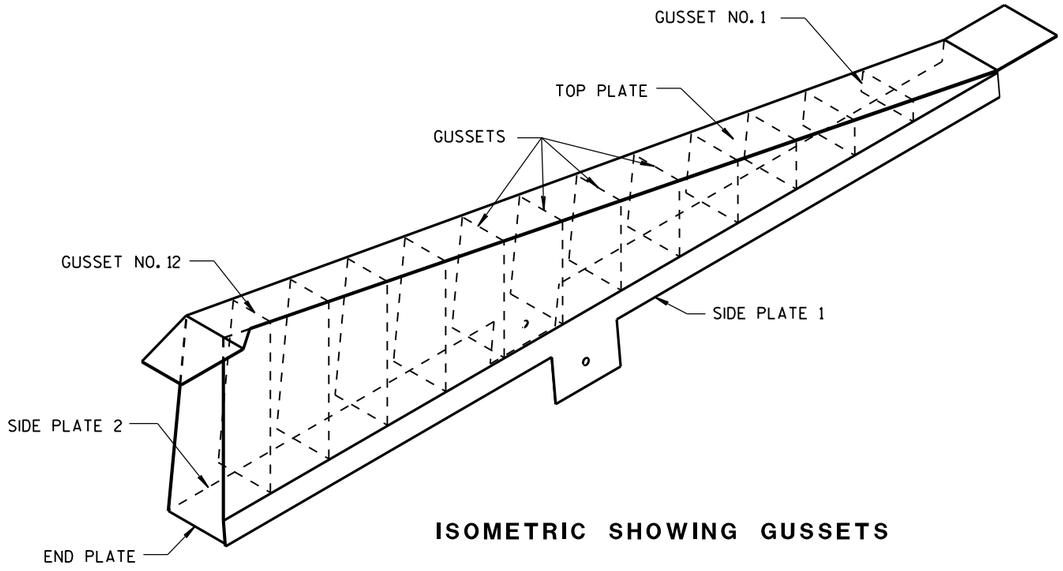
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

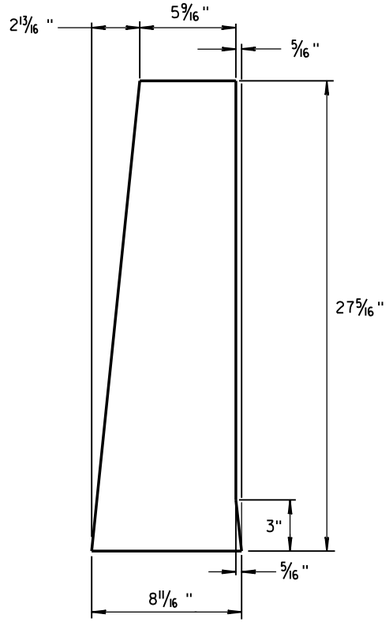




6
S.D.D. 14 B 7-14f

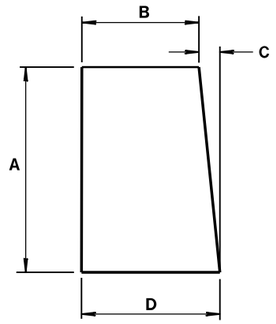



**ISOMETRIC SHOWING GUSSETS**




**END PLATE**

1/8" STEEL PLATE



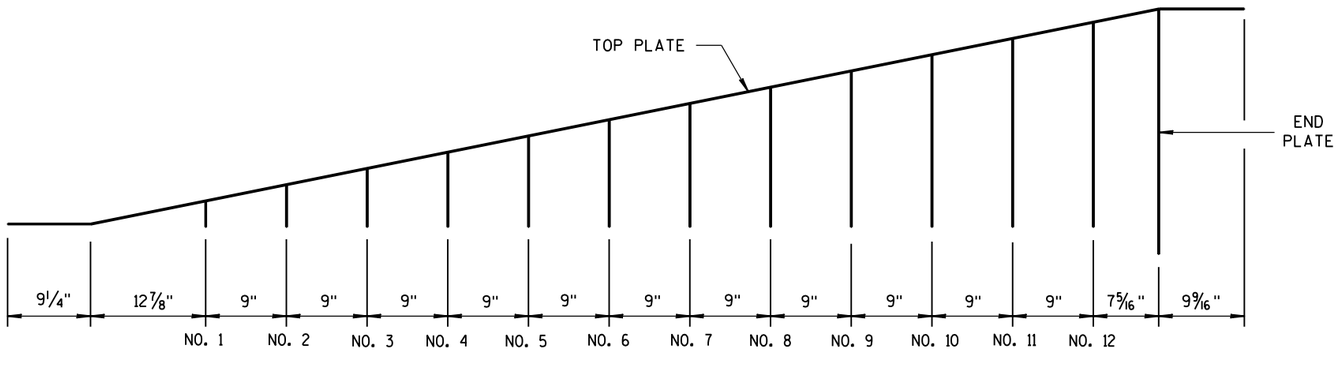

**GUSSETS 1 - 12**

ALL GUSSETS 1/8" STEEL PLATE

| GUSSET DIMENSIONS | | | | |
|---|---|---|---|---|
| GUSSET NO. | A | B | C | D |
| 1 | 2 7/8" | 7 3/4" | 1/4" | 8 |
| 2 | 4 11/16 " | 7 9/16 " | 1/2" | 8 |
| 3 | 6 1/2" | 7 3/8" | 11/16 " | 8 1/16 " |
| 4 | 8 5/16 " | 7 3/16 " | 7/8" | 8 1/16 " |
| 5 | 10 1/8" | 7" | 1 1/16 " | 8 1/16 " |
| 6 | 11 15/16 " | 6 13/16 " | 1 1/4" | 8 1/16 " |
| 7 | 13 3/4" | 6 5/8" | 1 7/16 " | 8 1/16 " |
| 8 | 15 9/16 " | 6 7/16 " | 1 9/16 " | 8 1/16 " |
| 9 | 17 3/8" | 6 1/4" | 1 13/16 " | 8 1/16 " |
| 10 | 19 3/16 " | 6 1/16 " | 1 15/16 " | 8 1/16 " |
| 11 | 21" | 5 7/8" | 2 3/16 " | 8 1/16 " |
| 12 | 22 13/16 " | 5 11/16 " | 2 5/16 " | 8 1/16 " |

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.




**GUSSET LOCATION**

# CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

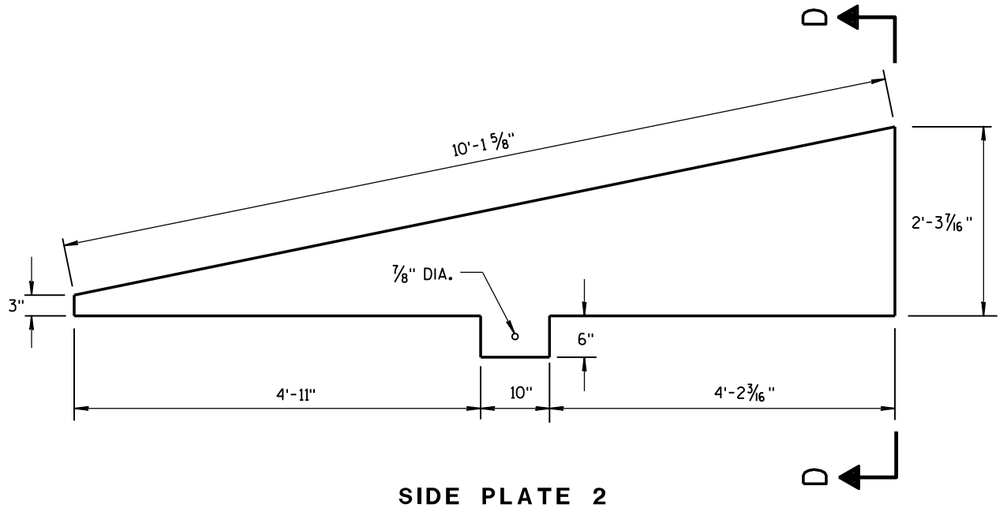
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

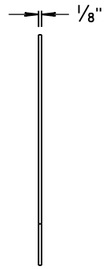



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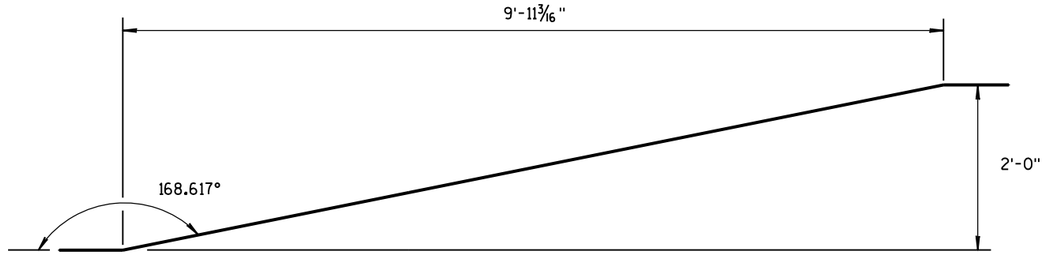
S.D.D. 14 B 7-14g




SIDE PLATE 2

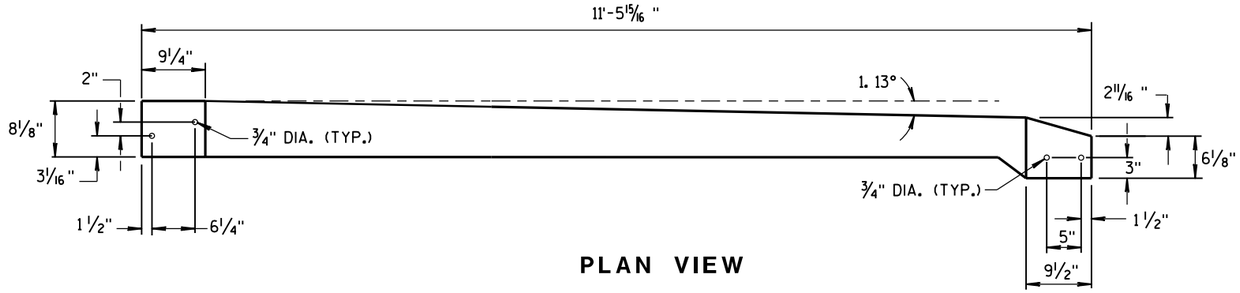



END VIEW



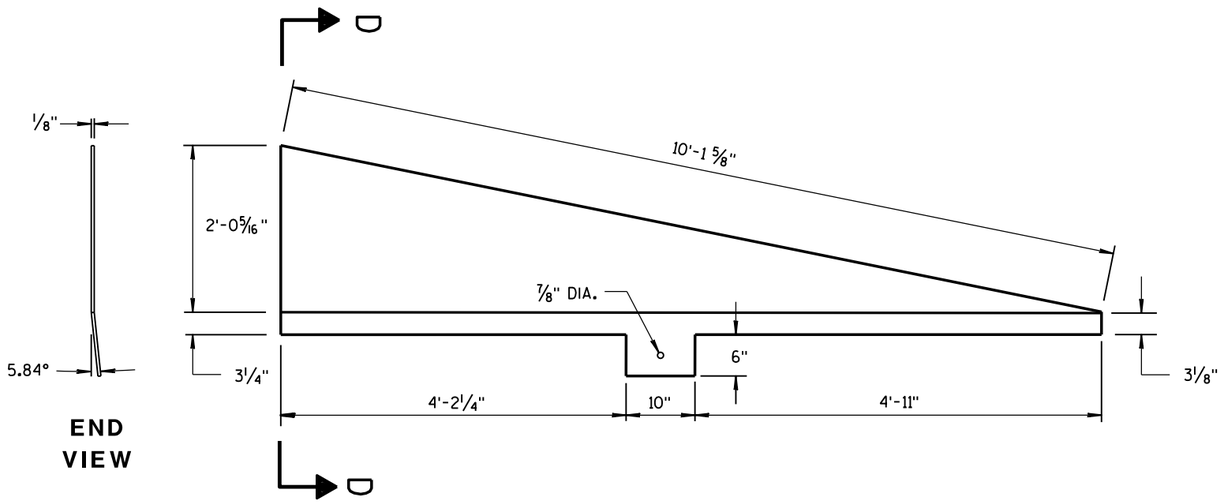

SIDE VIEW

TOP PLATE



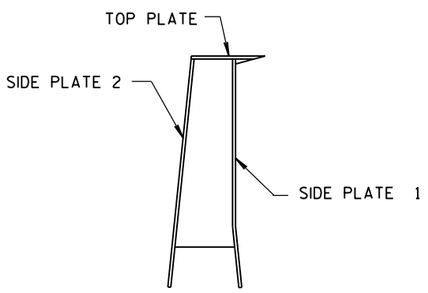

PLAN VIEW

TOP PLATE




END VIEW

SIDE PLATE 1




SECTION D-D

## CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

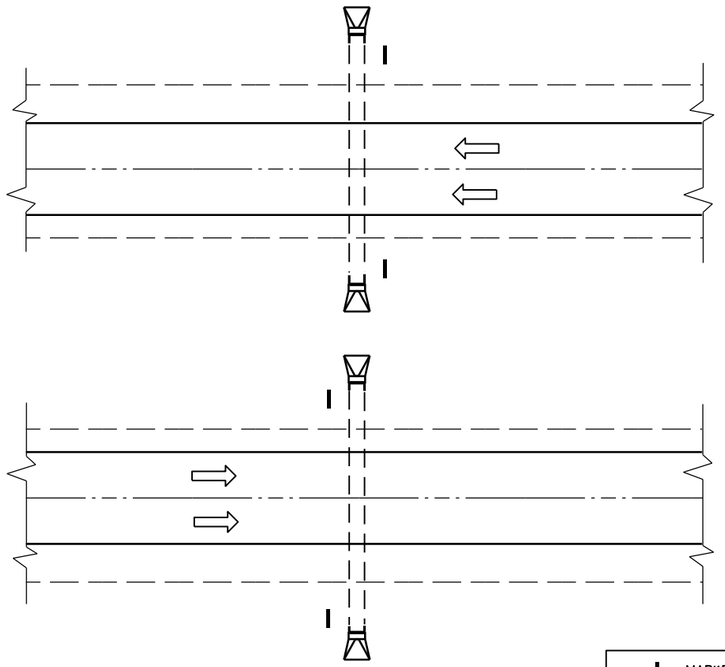


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S.D.D. 14 B 7-14h

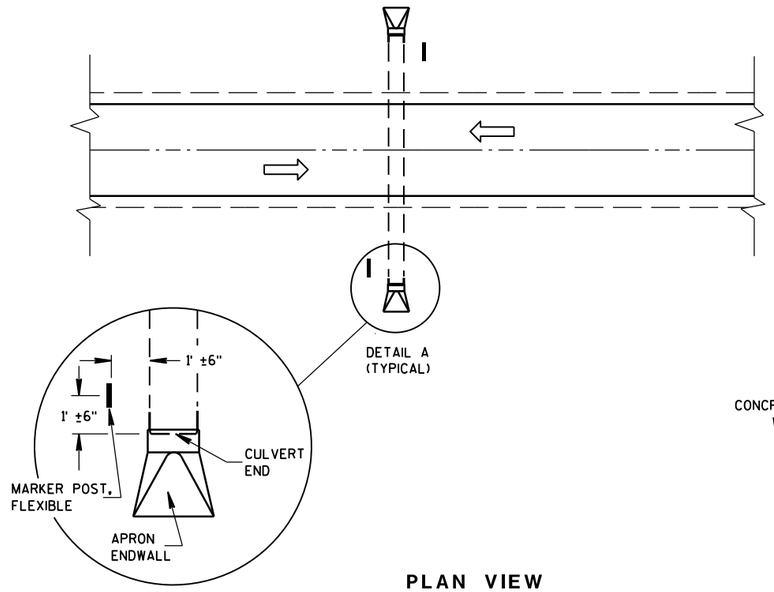
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S.D.D. 14 B 7-14h



PLAN VIEW

**DIVIDED HIGHWAY**




DETAIL A
(TYPICAL)

PLAN VIEW

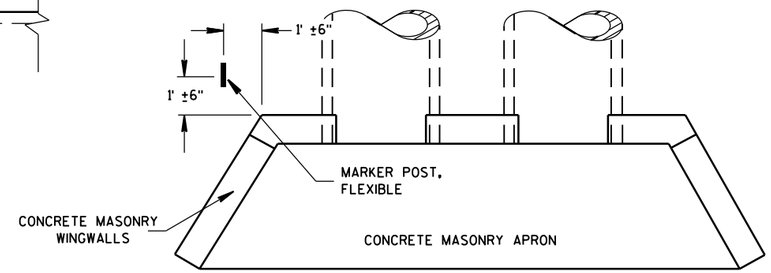
**UNDIVIDED HIGHWAY**

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

## GENERAL NOTES

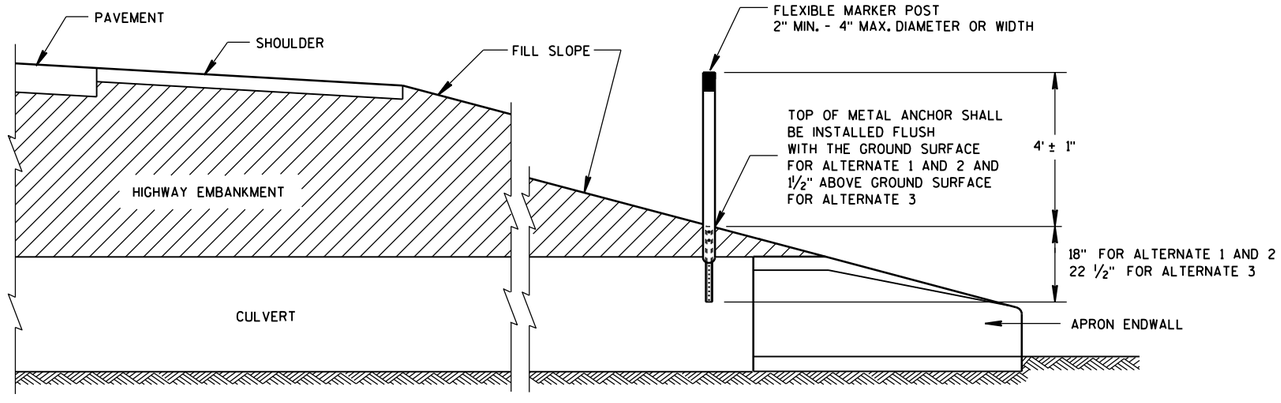
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.




PLAN VIEW

**CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH**

## FLEXIBLE MARKER POST LOCATION




CROSS SECTION

**FLEXIBLE MARKER POST**

**FLEXIBLE MARKER POST FOR CULVERT END**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

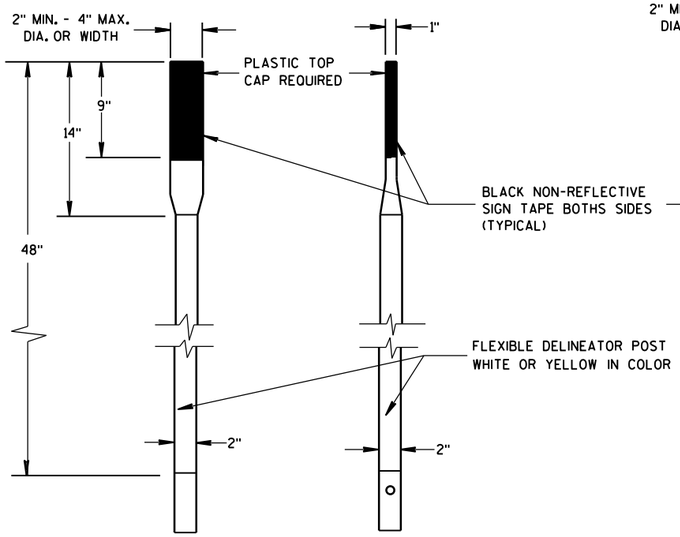


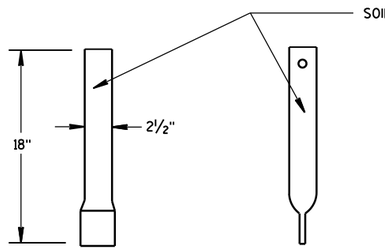


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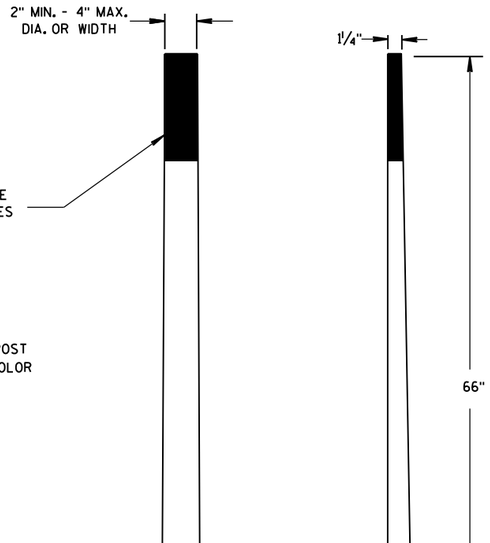
S.D.D. 15 A 3-2a



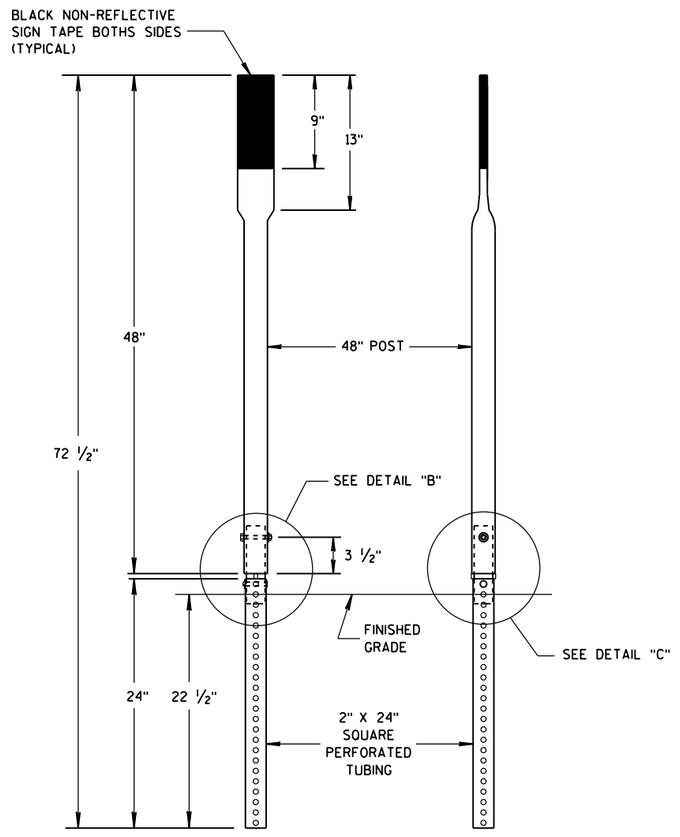

FRONT VIEW SIDE VIEW

ALTERNATE 1




FRONT VIEW SIDE VIEW

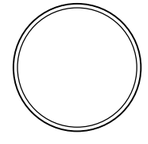
ALTERNATE 2



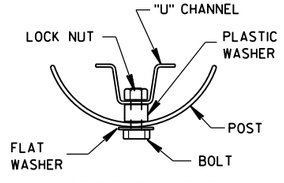

FRONT VIEW SIDE VIEW

ALTERNATE 3

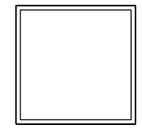
## FLEXIBLE MARKER POSTS



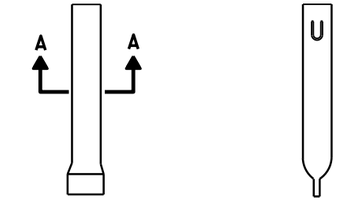
SECTION A-A




SECTION B-B

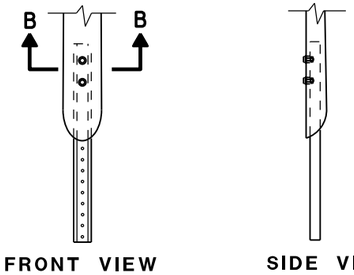


SECTION C-C



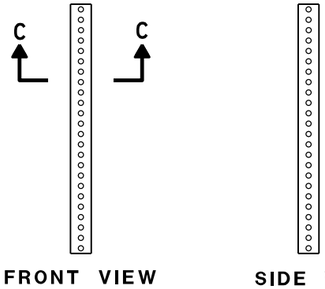

FRONT VIEW SIDE VIEW

ALTERNATE 1




FRONT VIEW SIDE VIEW

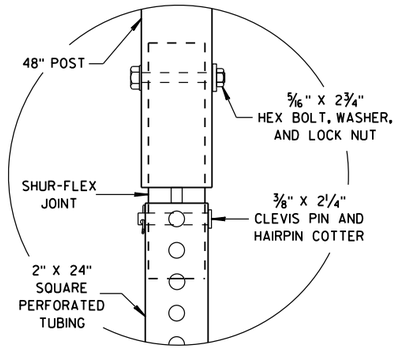
ALTERNATE 2



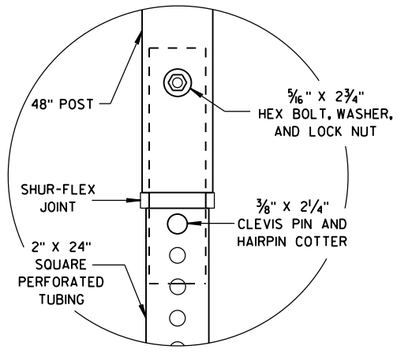

FRONT VIEW SIDE VIEW

ALTERNATE 3

## FLEXIBLE MARKER POST ANCHORS




DETAIL B




DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

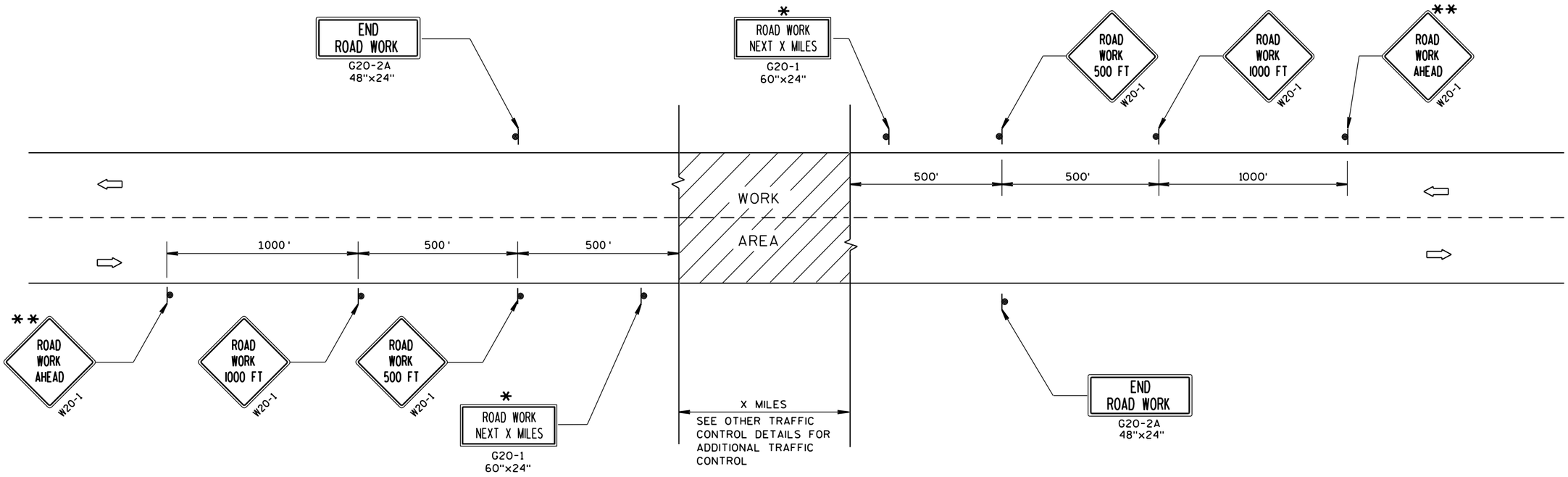


6

S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b




6

# TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

## GENERAL NOTES

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

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

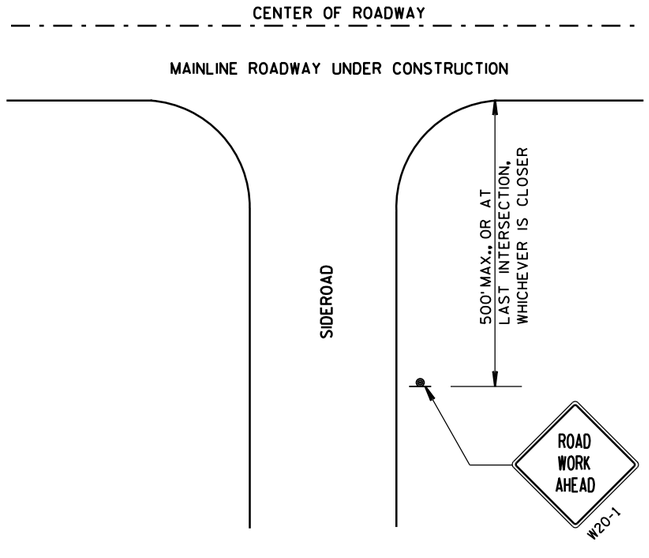
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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




### LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

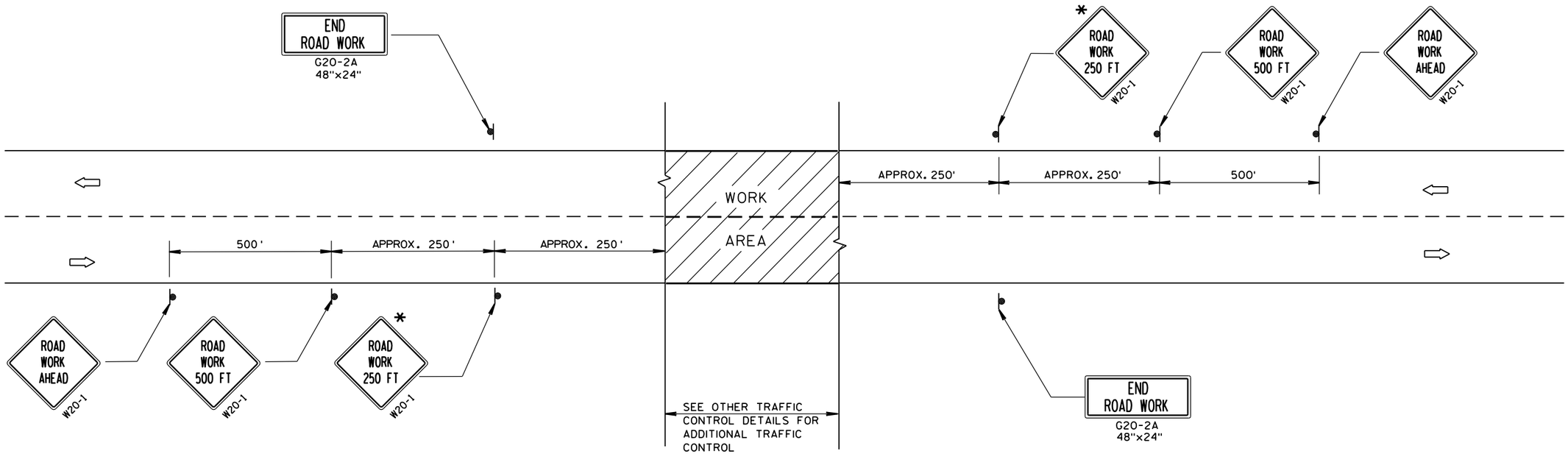
SIGN

FHWA

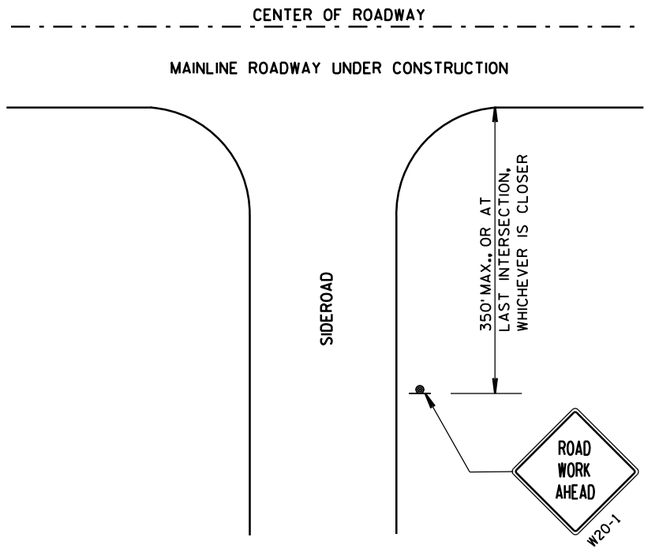


S.D.D. 15 C 4-2

6
S.D.D. 15 C 4-2




# TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL




## GENERAL NOTES

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

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

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

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

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

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

## LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA



SIGN



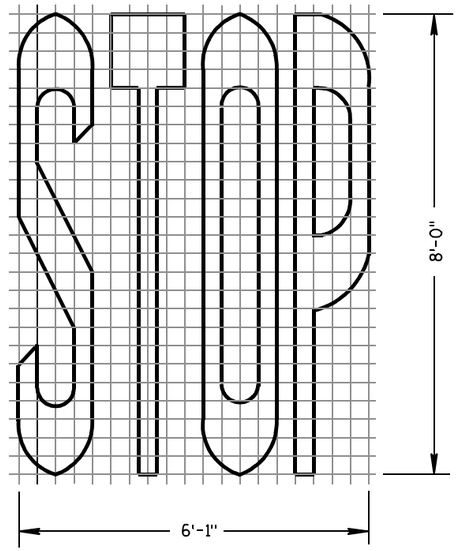
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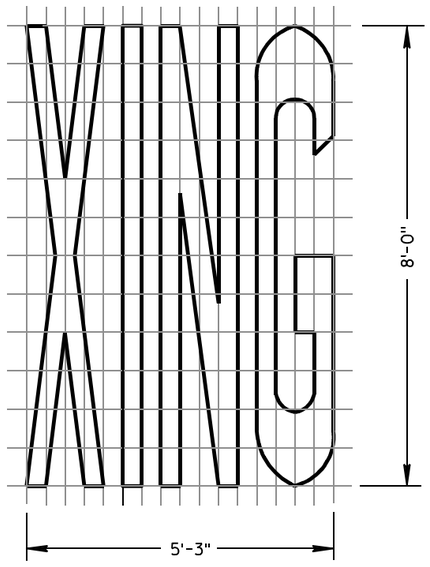
S.D.D. 15 C 5-2

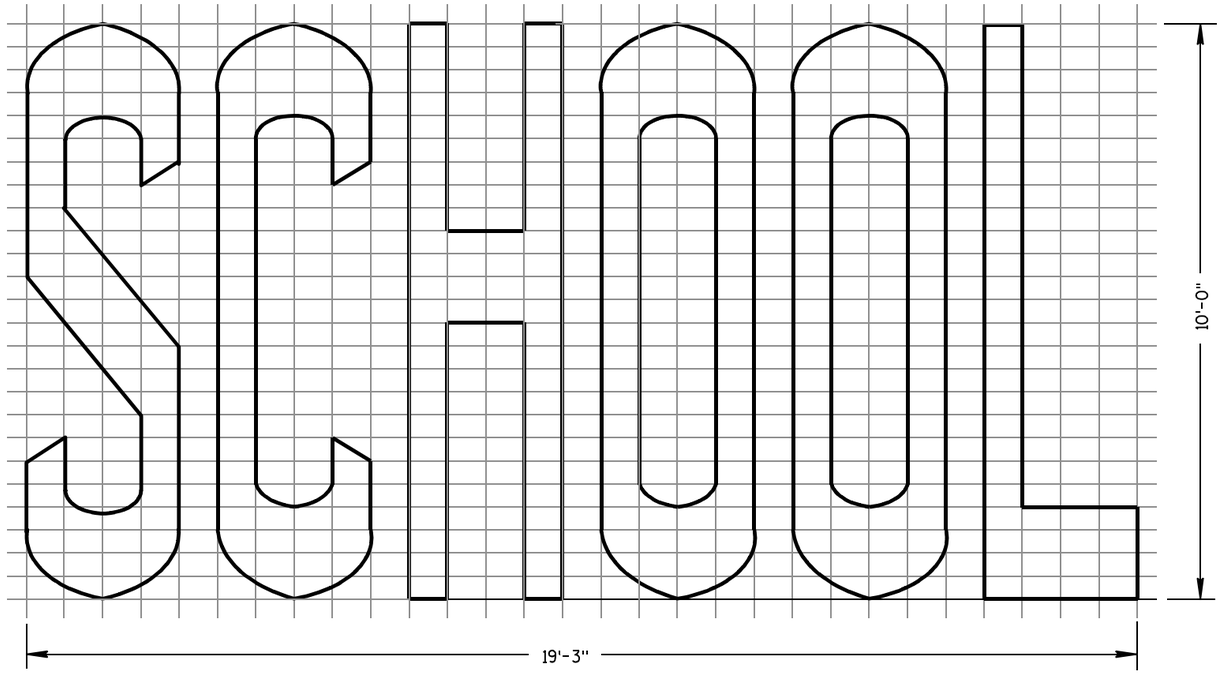
## GENERAL NOTES

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

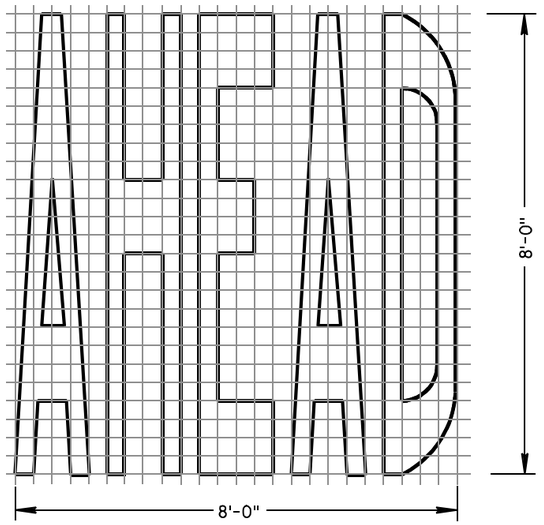
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

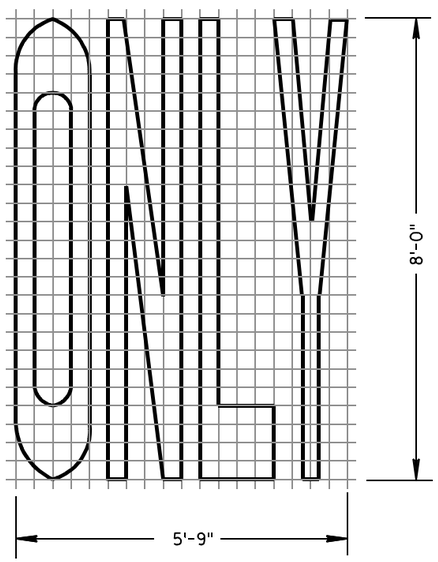


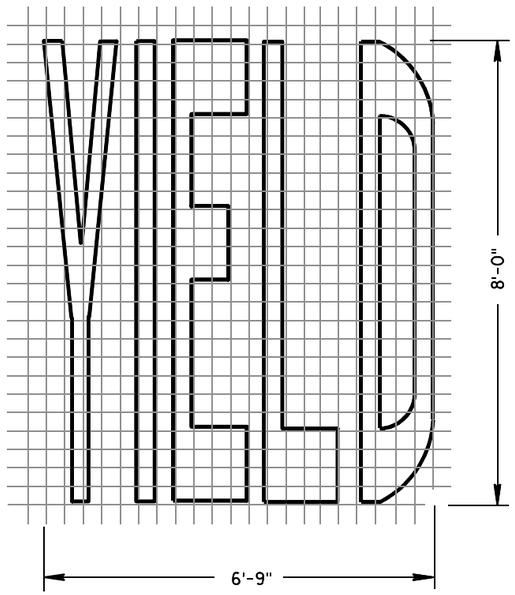



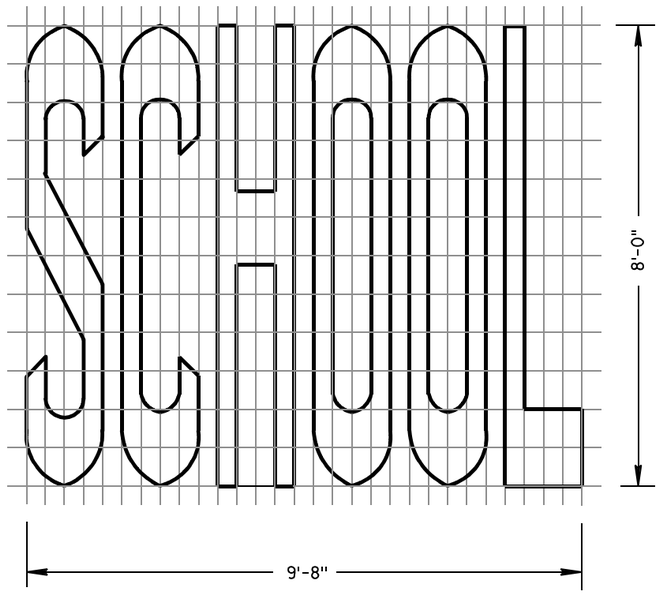




**TWO-LANE**




**SINGLE-LANE**

**PAVEMENT MARKING WORDS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER — IGN

FHWA

6

S.D.D. 15 C 7-12b

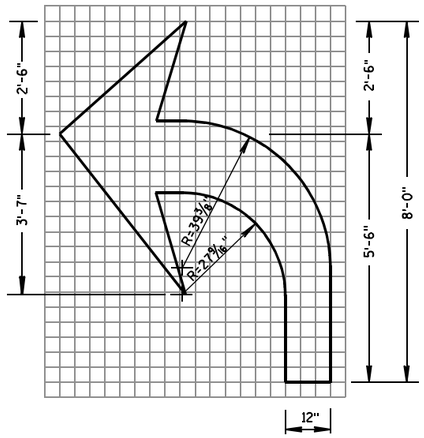
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S.D.D. 15 C 7-12b

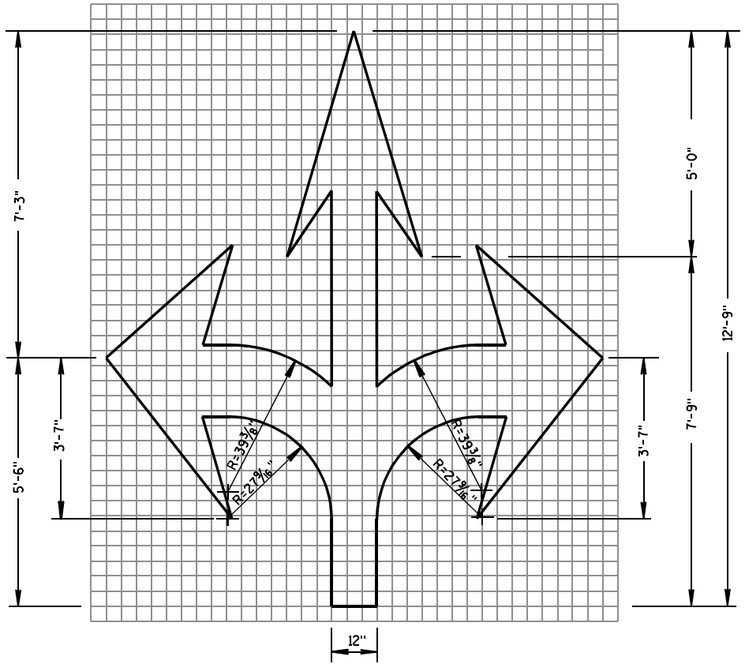
## GENERAL NOTES

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

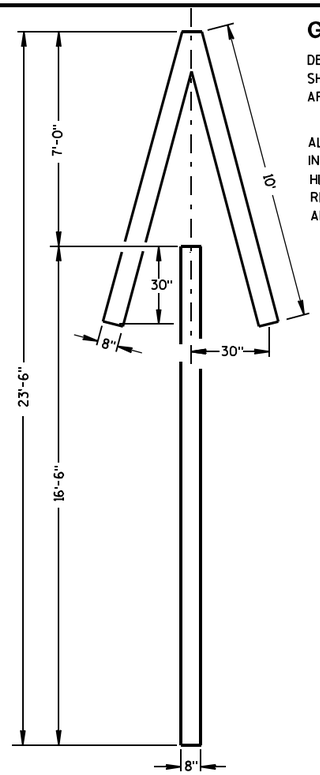
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



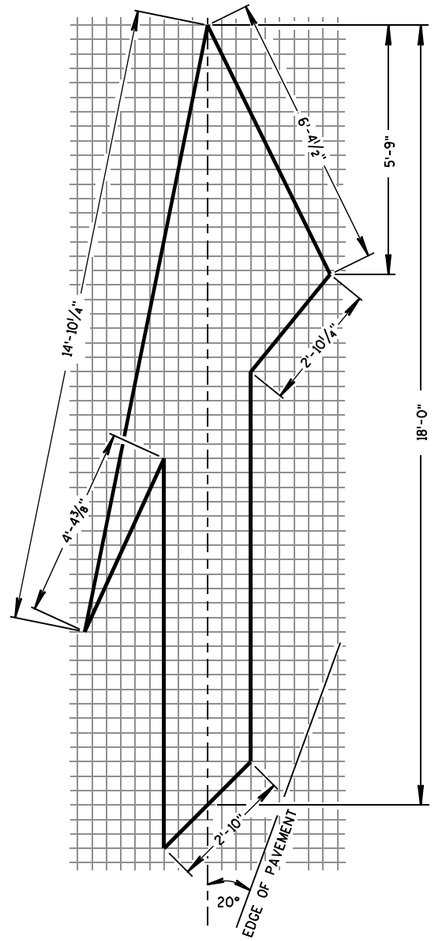

TYPE 2



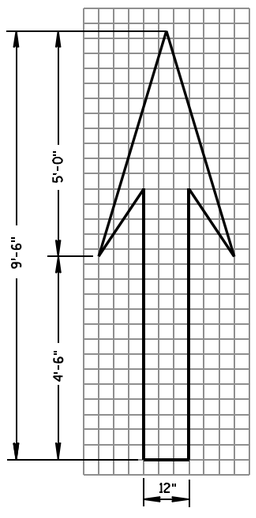

TYPE 6



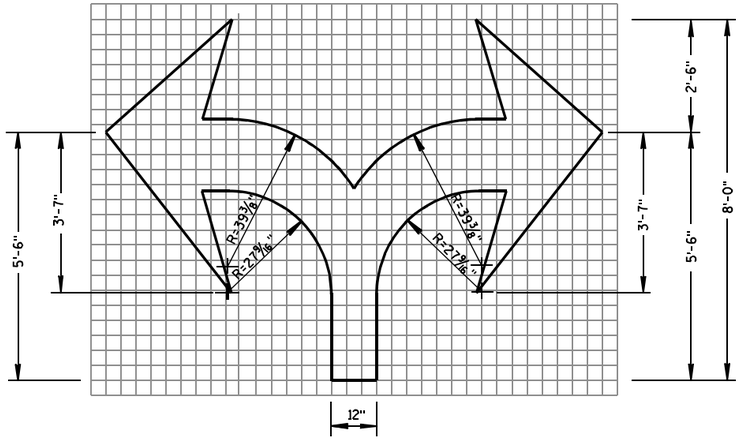

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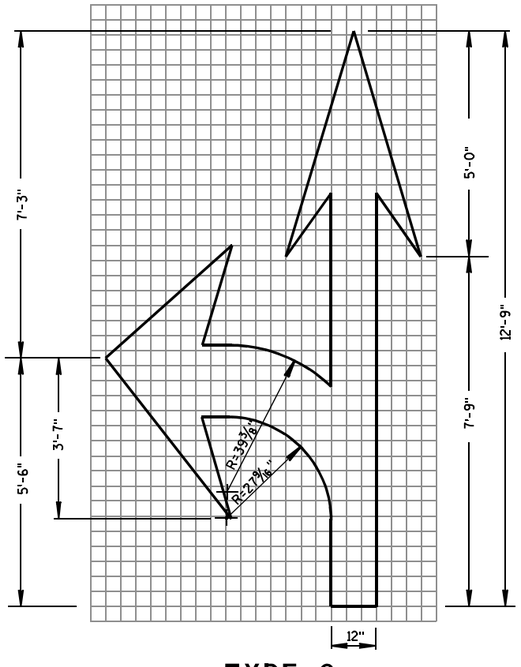

TYPE 5 LANE DROP ARROW




TYPE 1




TYPE 7




TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

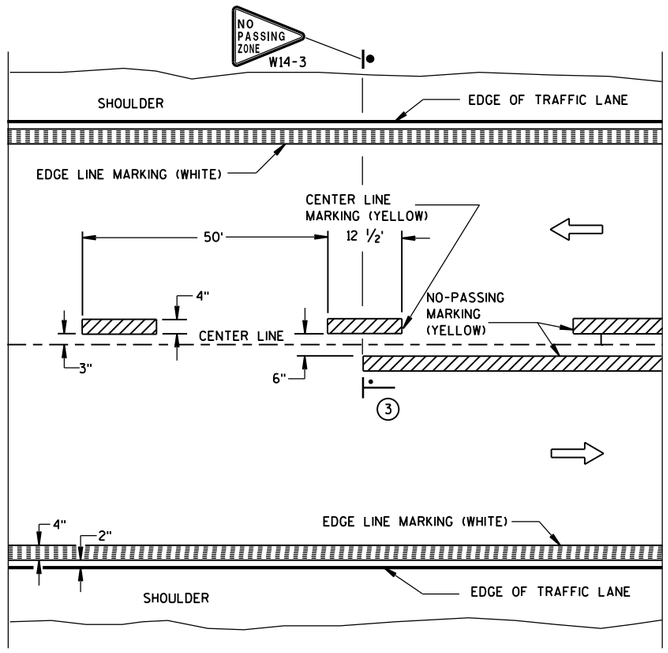
FHWA



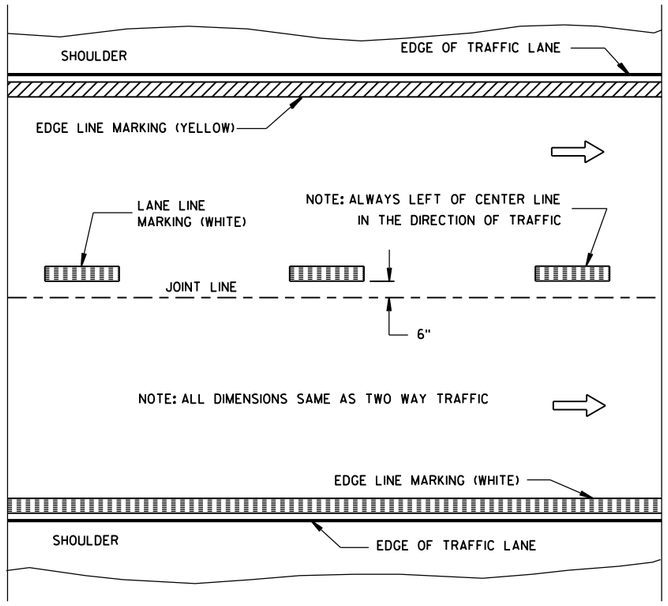


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S.D.D. 15 C 7-12c

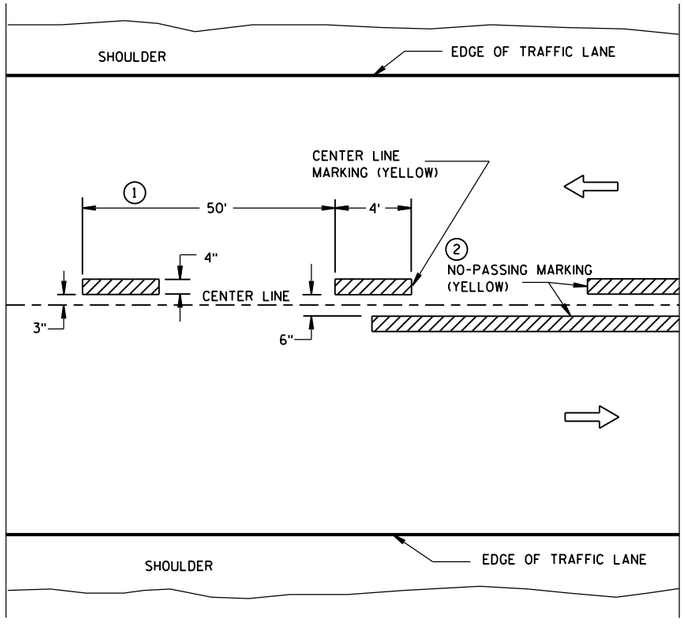



TWO WAY TRAFFIC

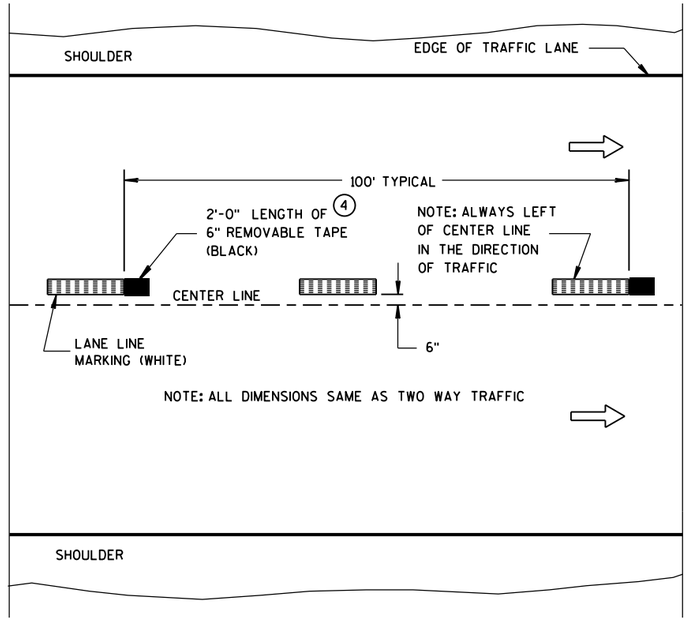



ONE WAY TRAFFIC

## PERMANENT PAVEMENT MARKING




TWO WAY TRAFFIC




ONE WAY TRAFFIC

## TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

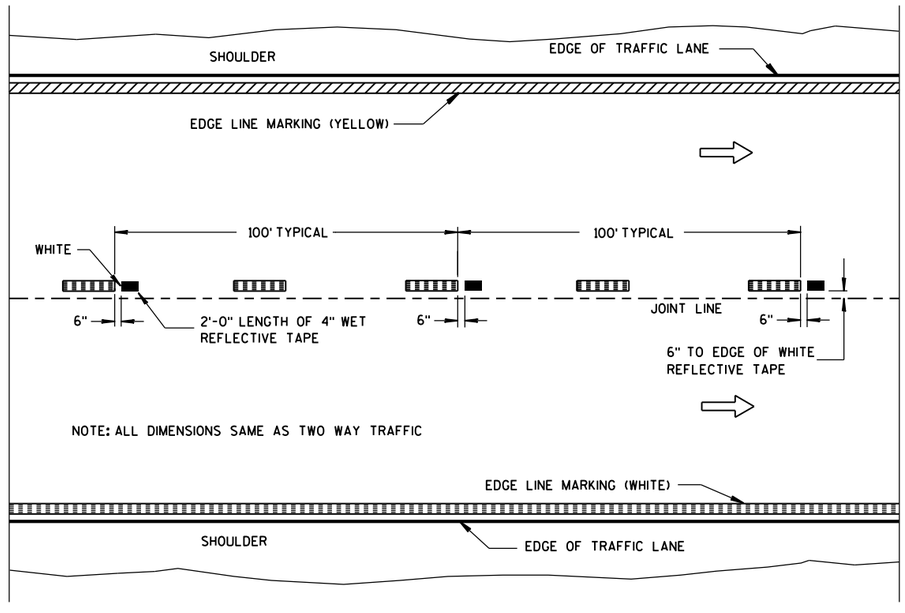
## GENERAL NOTES

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

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

## NOTE

ARROW SYMBOL ( ⇨ ) SHOWS DIRECTION OF TRAVEL




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

**LEGEND**

"T" MARKING

POST MOUNTED SIGN

**PAVEMENT MARKING (MAINLINE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

FHWA

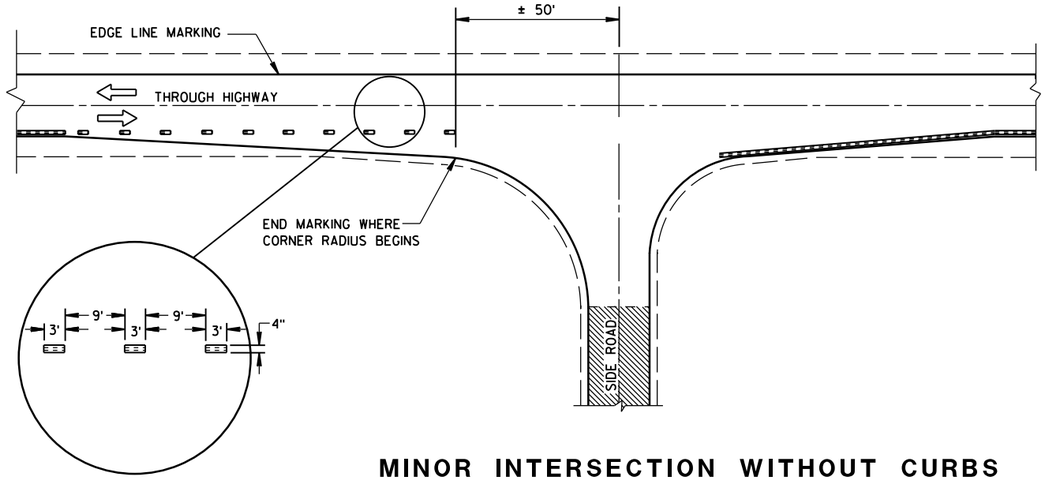


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S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a




## MINOR INTERSECTION WITHOUT CURBS

## GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

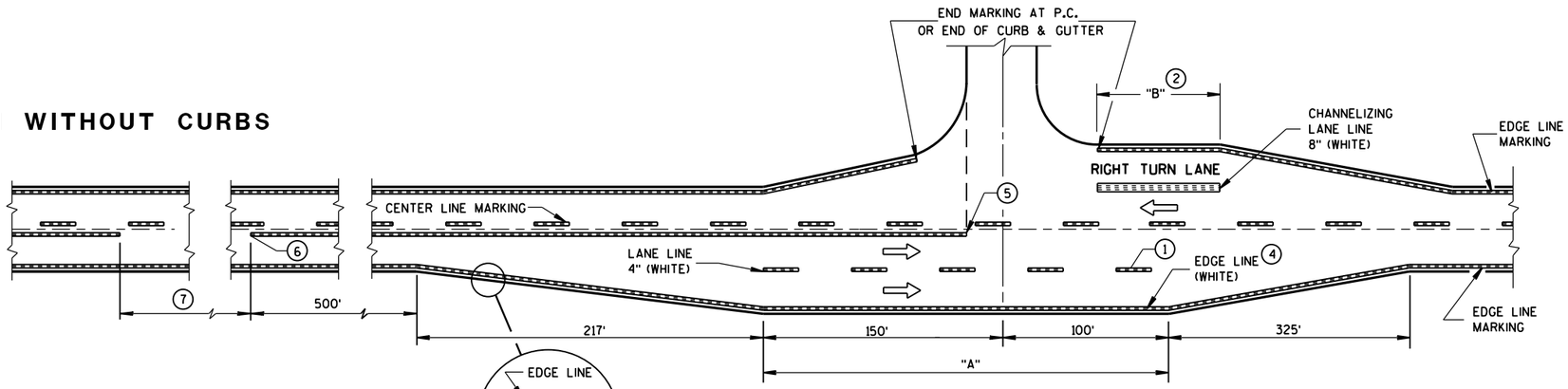
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL ( ⇨ ) SHOWS DIRECTION OF TRAVEL

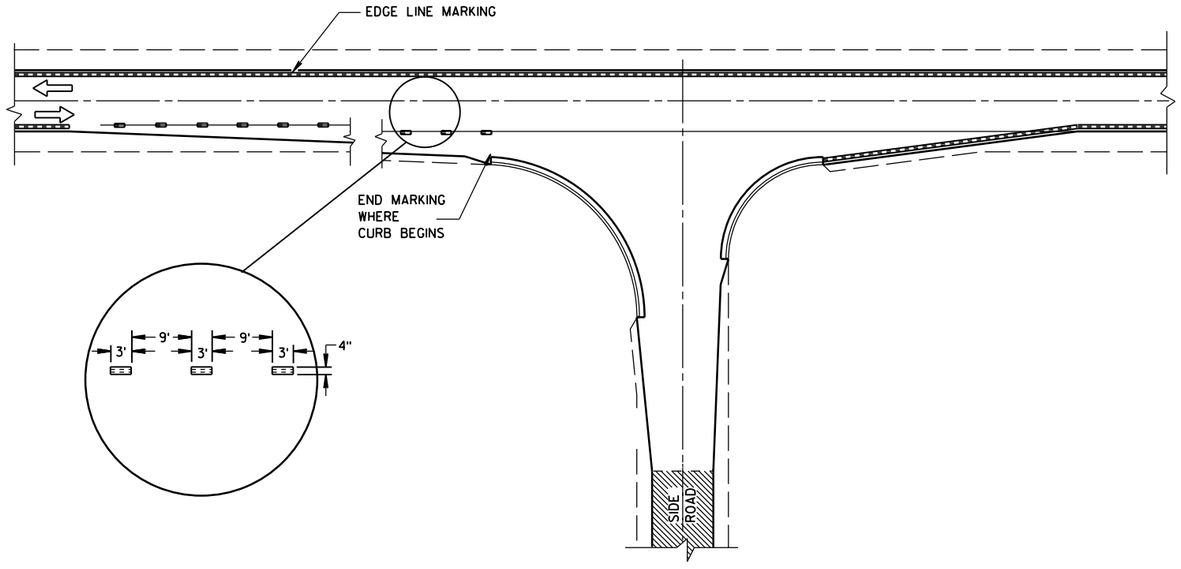
(7)

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



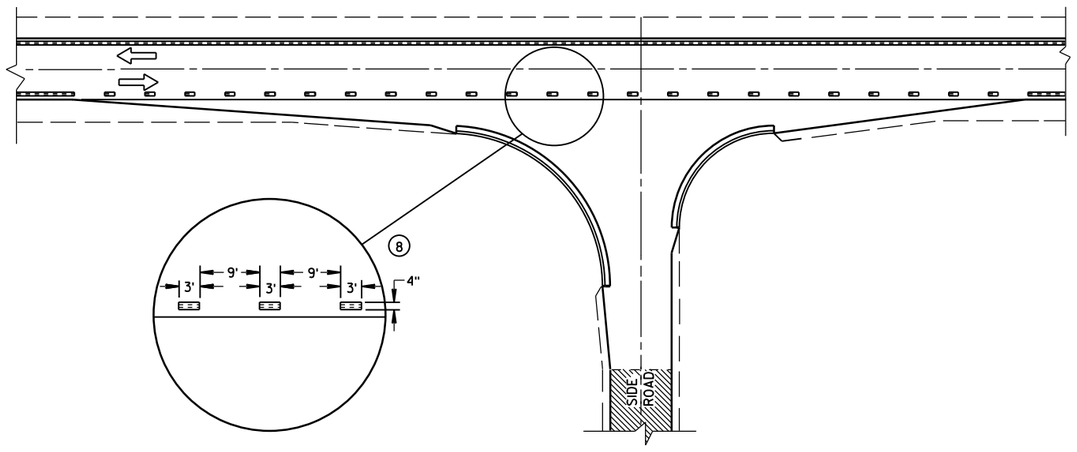

## MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)




## MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)




## MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

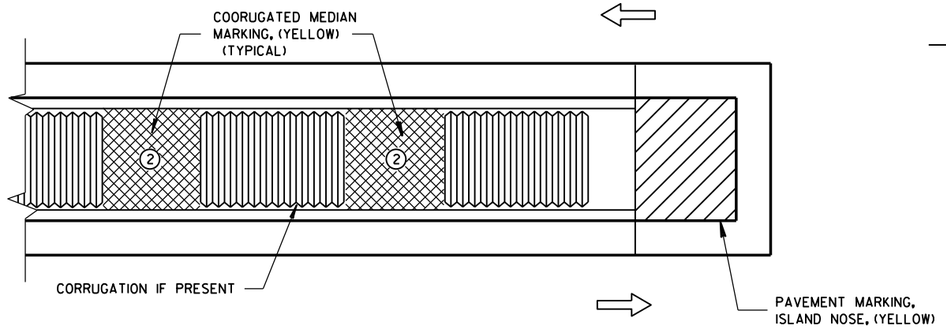


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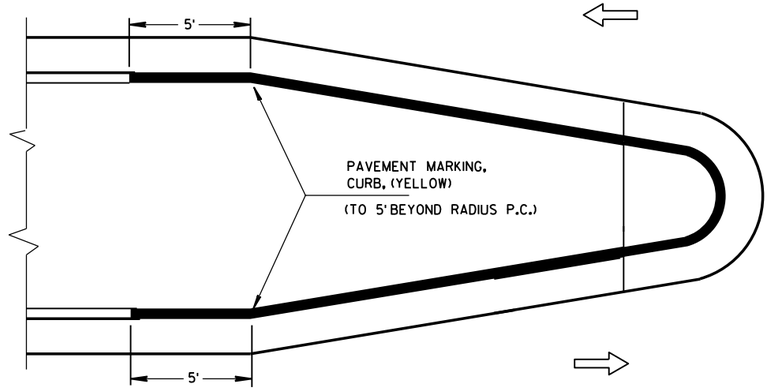
S.D.D. 15 C 8-16b

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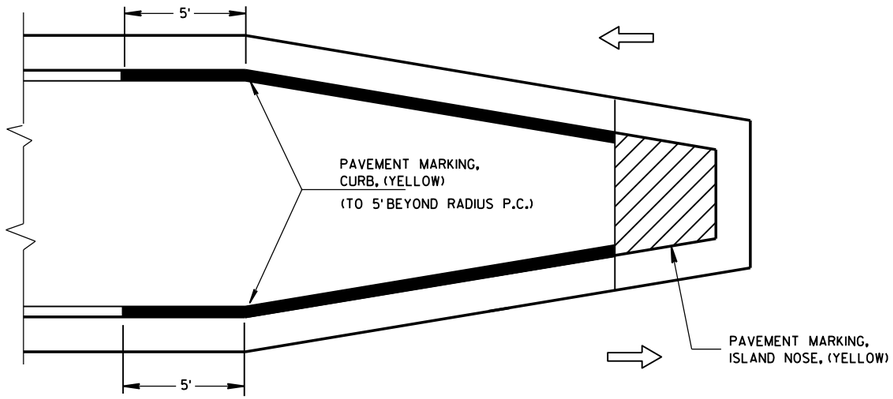
S.D.D. 15 C 8-16b




MEDIAN ISLAND WITH SQUARE BLUNT NOSE

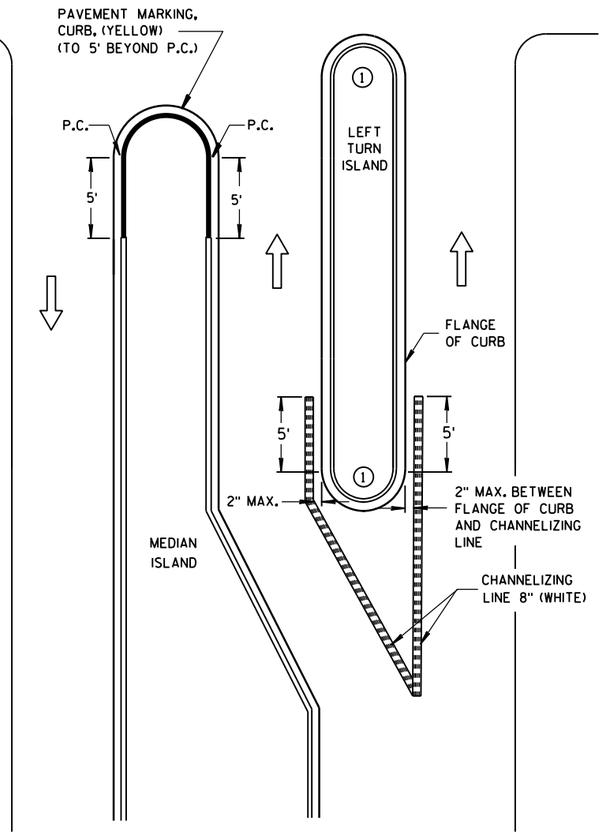



MEDIAN ISLAND WITH ROUND BLUNT NOSE




MEDIAN ISLAND WITH SLOPED NOSE

## TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

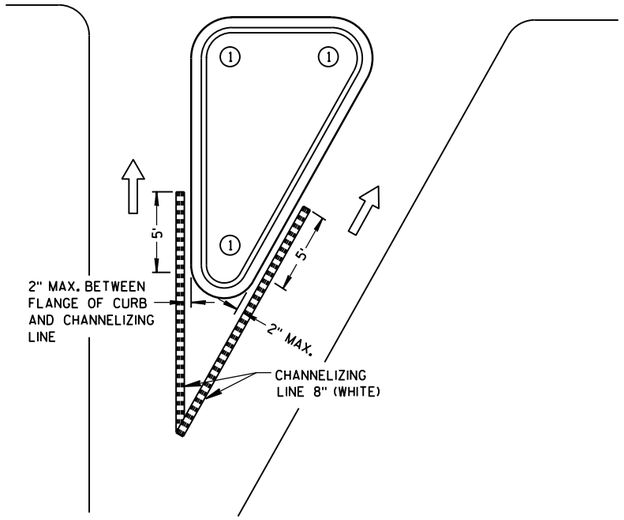



LEFT TURN & MEDIAN ISLAND

## GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

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




RIGHT TURN ISLAND

### LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI







6

S.D.D. 15 C 8-16f

## LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

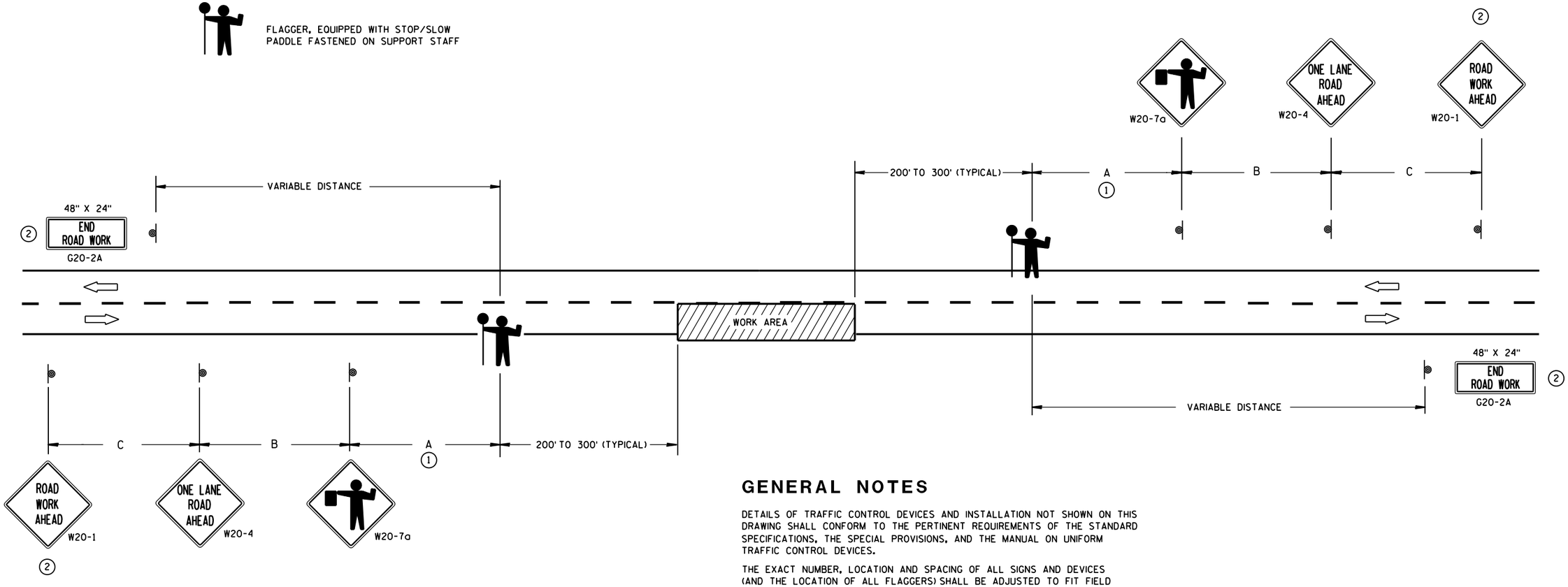
## SIGN SPACING TABLE

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




W3-4

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.




(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.

## 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.

# TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

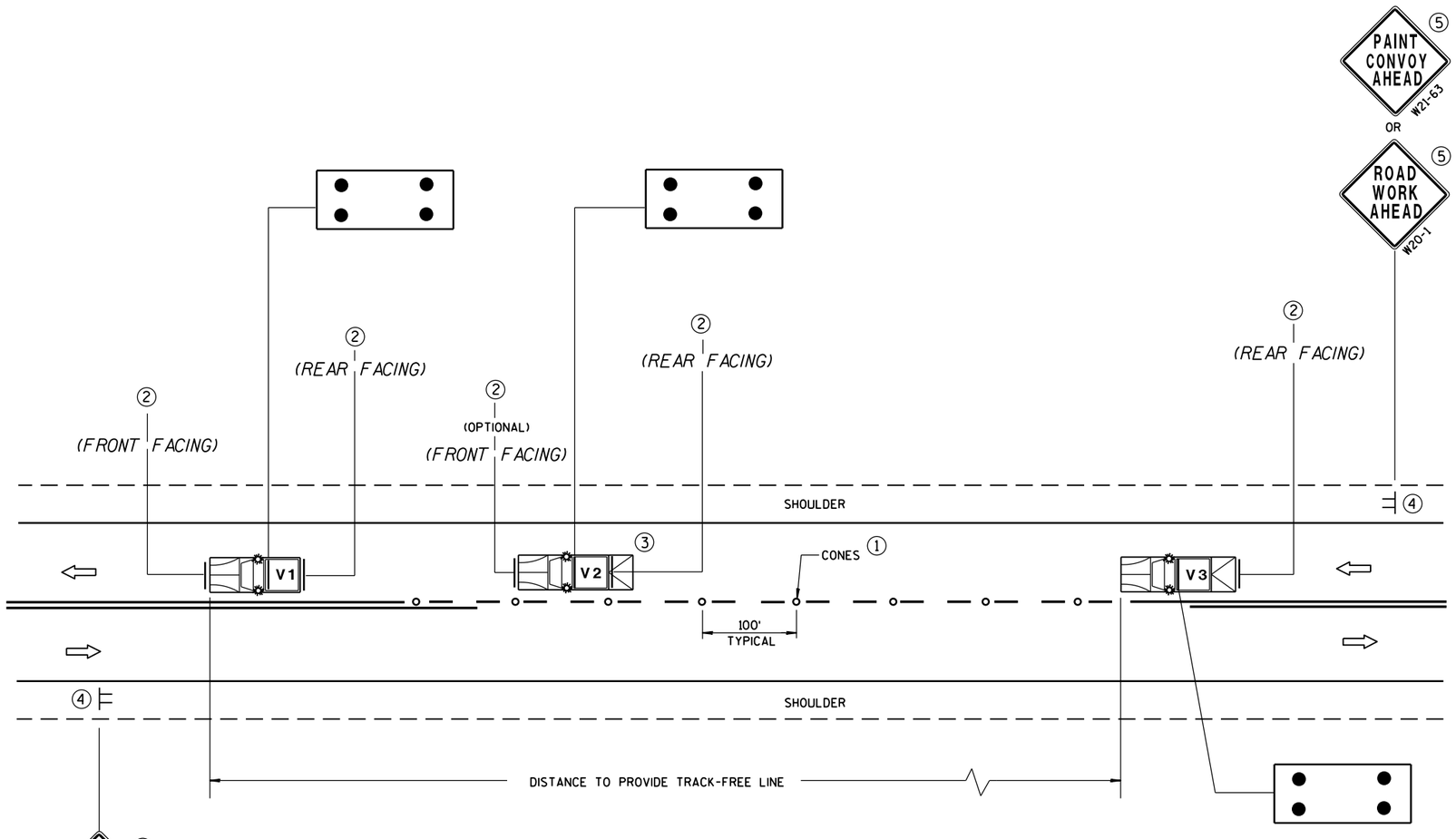
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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




6


S.D.D. 15 C 12-4




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

## GENERAL NOTES

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

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

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

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

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

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

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

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

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

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

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

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

### LEGEND

| | |
|---|---|
| V1 | LEAD VEHICLE |
| V2 | SHADOW VEHICLE |
| V3 | TRAIL VEHICLE WITH TMA |
| TMA | TRUCK-MOUNTED ATTENUATOR |
| | SIGN ON TEMPORARY SUPPORT |
| | DIRECTION OF TRAFFIC |
| | CONES |
| | FLASHING ARROW PANEL (CAUTION) |

| | |
|---|---|
| MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY | |
| STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION | |
| APPROVED | |
| 5/3/2013 DATE | /S/ Travis Feltes STATE TRAFFIC E |
| FHWA | |

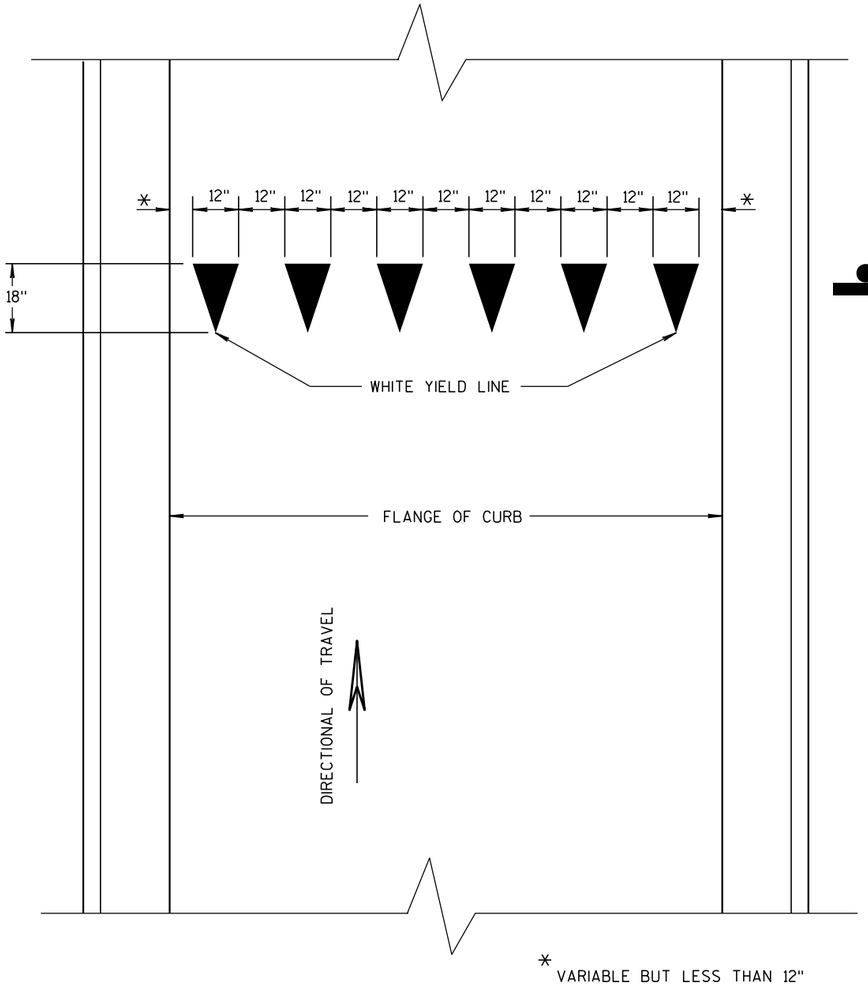


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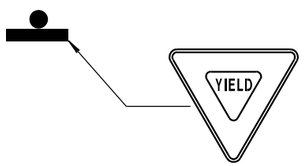
S.D.D. 15 C 19-2a

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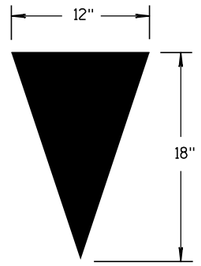
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**YIELD LINE**




R1-2
36" X 31"




**YIELD TRIANGLE**

**YIELD MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/28/05
DATE

/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER

FHWA

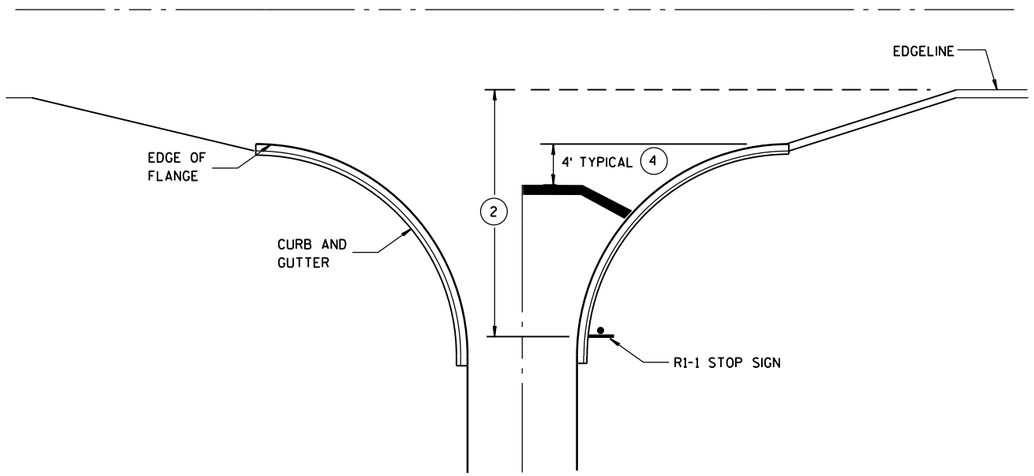


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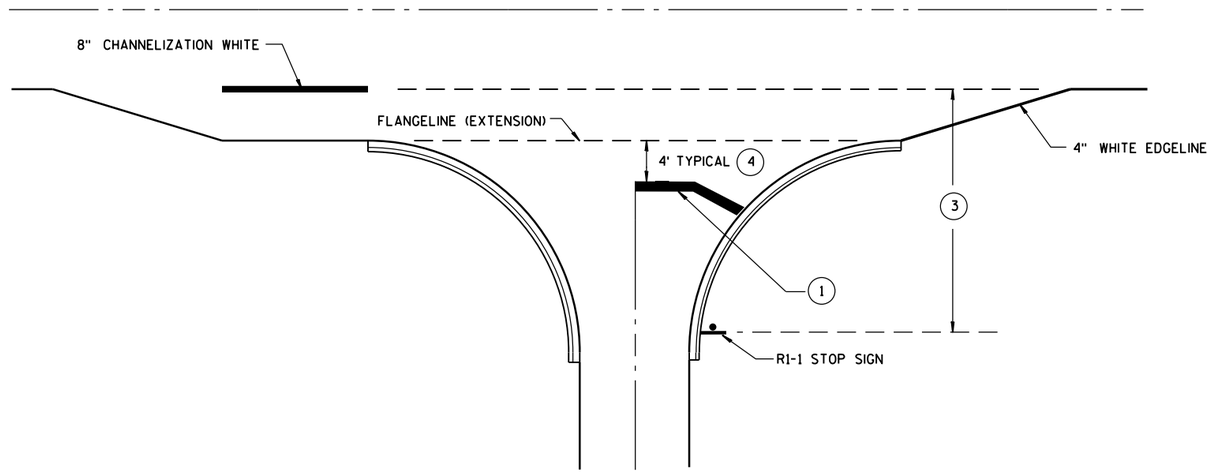
S.D.D. 15 C 20-1

6

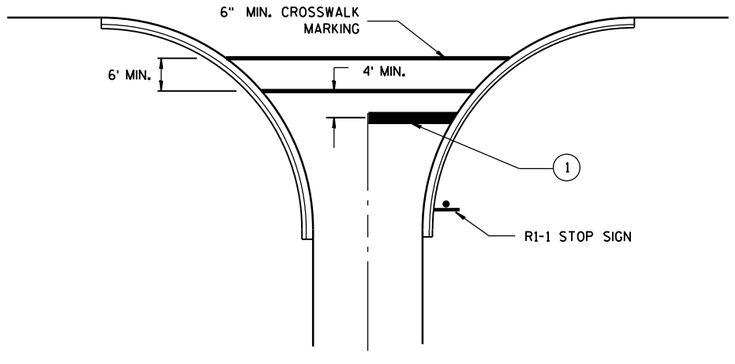
S.D.D. 15 C 20-1



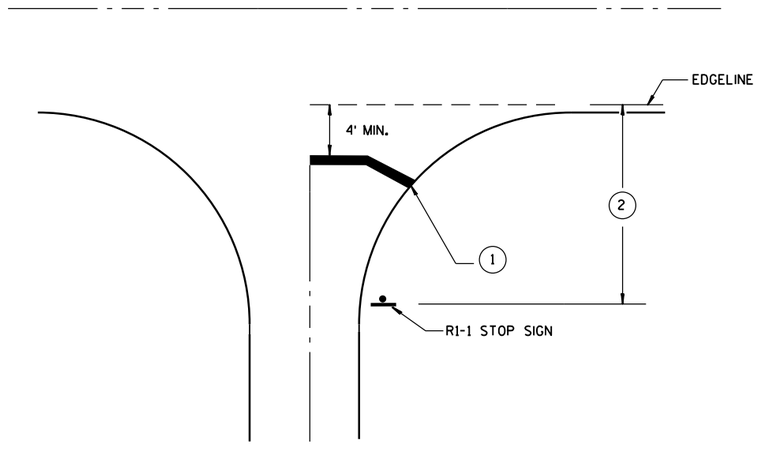

**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**




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




**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**




**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

## GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA



6



S.D.D. 15 C 33-1

## GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

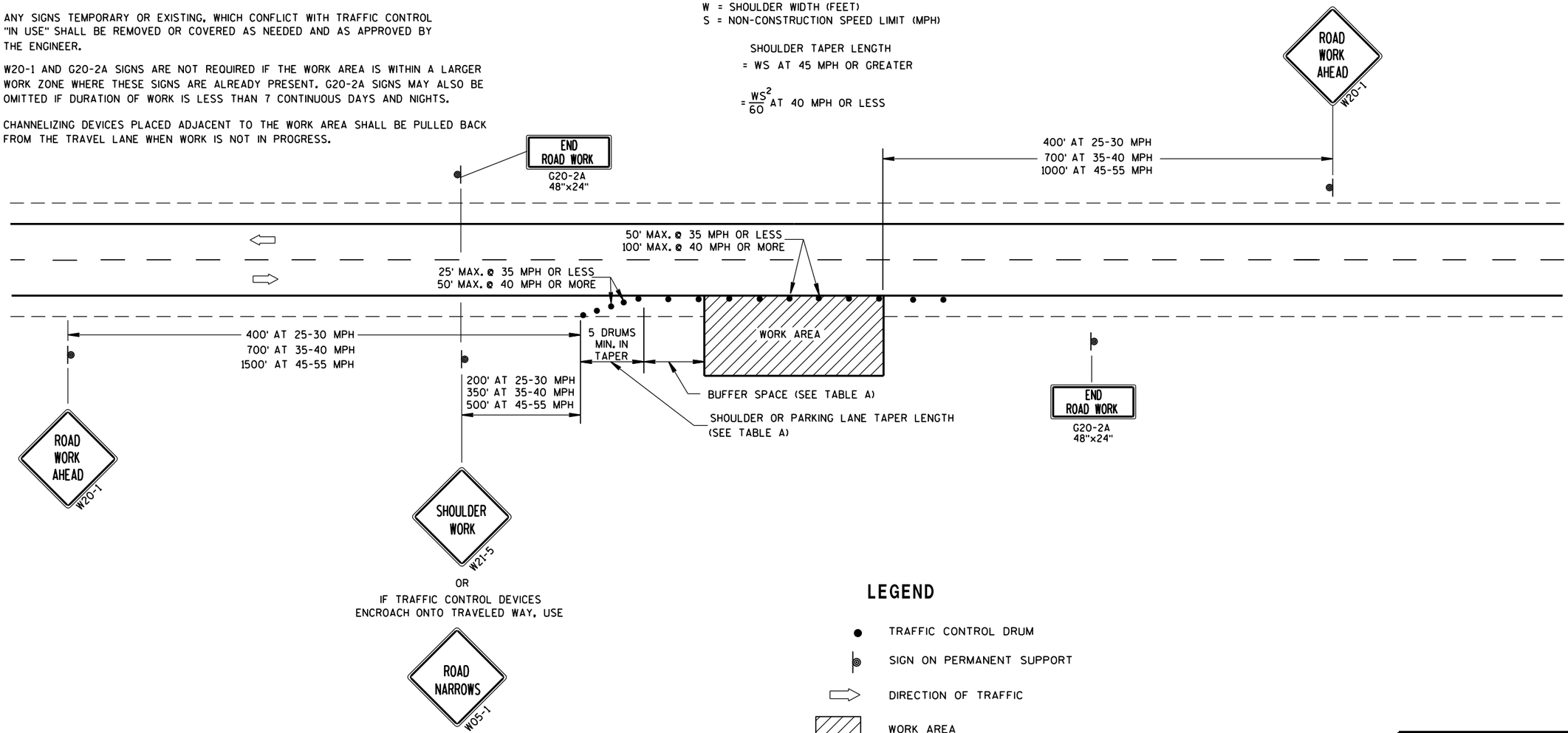
## TABLE A

| S \ W | SHOULDER TAPER LENGTH (FEET) 4 | 6 | 8 | 10 | BUFFER SPACE (FEET) |
|---|---|---|---|---|---|
| 30 | 20 | 30 | 40 | 50 | 85 |
| 35 | 30 | 45 | 55 | 70 | 120 |
| 40 | 40 | 55 | 75 | 90 | 170 |
| 45 | 60 | 90 | 120 | 150 | 220 |
| 50 | 70 | 100 | 135 | 170 | 280 |
| 55 | 75 | 110 | 150 | 185 | 335 |

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

$= \frac{WS^2}{60}$ AT 40 MPH OR LESS




## LEGEND

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

**TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA




6


S.D.D. 15 D 28-2

## LEGEND

- SIGN ON PERMANENT SUPPORT
- REMOVING PAVEMENT MARKING
- TYPE III BARRICADE WITH ATTACHED SIGN
- CONCRETE BARRIER TEMPORARY PRECAST
- FLAGS, 16" x 16" MIN., (ORANGE)
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- ASPHALTIC PAVEMENT WIDENING
- DIRECTION OF TRAFFIC
- 4" X 6" WOOD POST
- TEMPORARY SIGNAL WITH BACKPLATE AND 12-INCH LENSES ON BREAKAWAY POLE




W057-52
36"x24"

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET.)

## GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

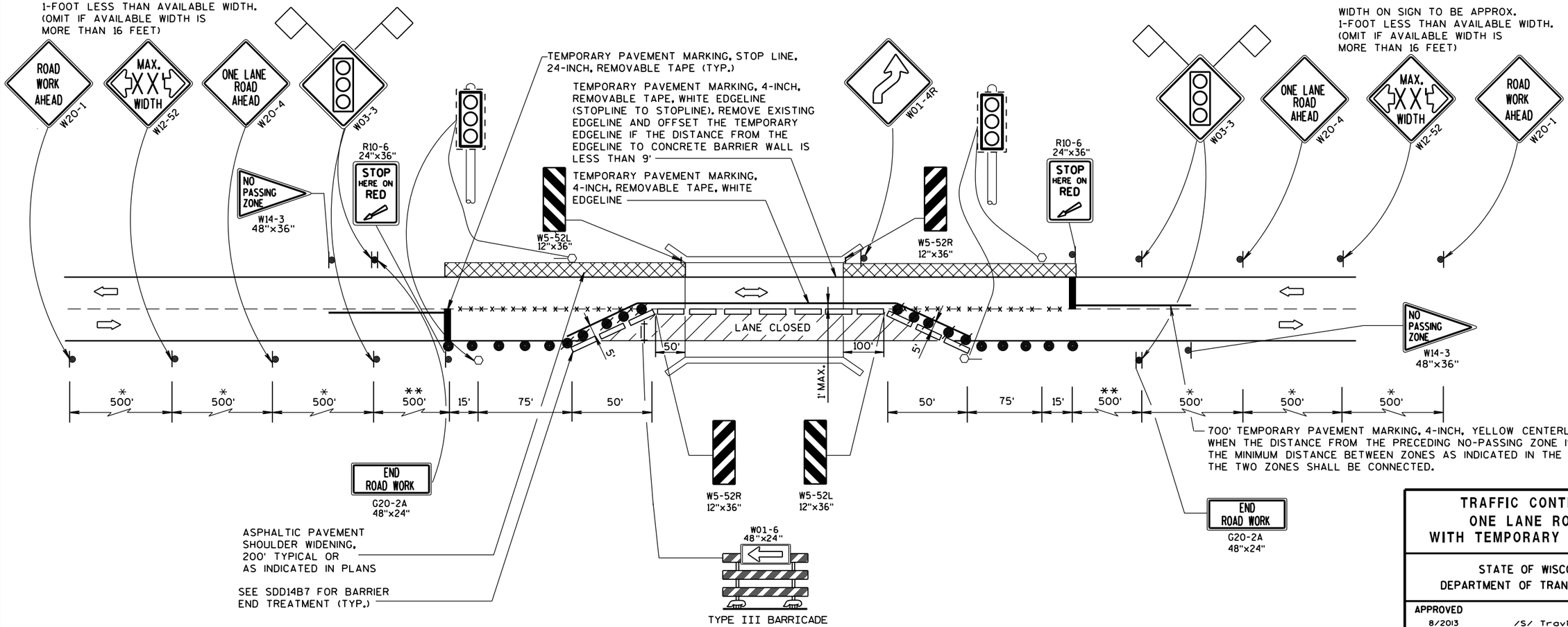
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

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

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

** USE 300' SPACING IF PRE-CONSTRUCTION REGULATORY SPEED LIMIT IS 35 MPH OR LESS.



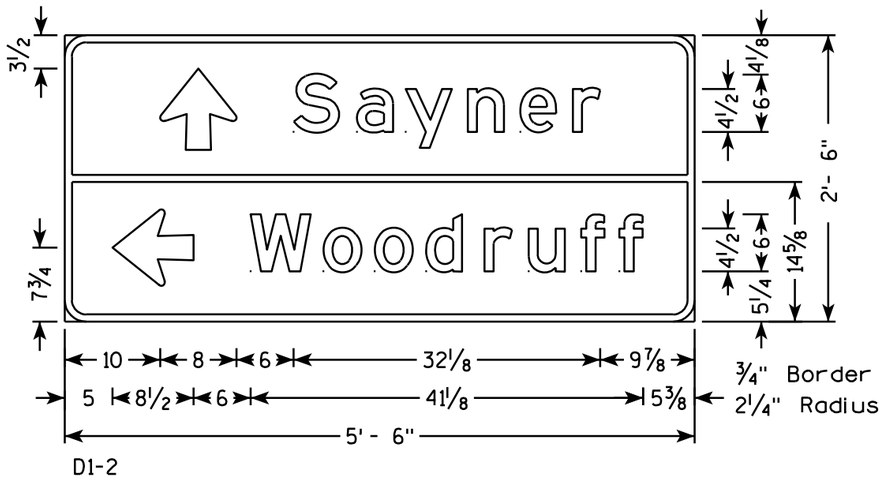

# TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



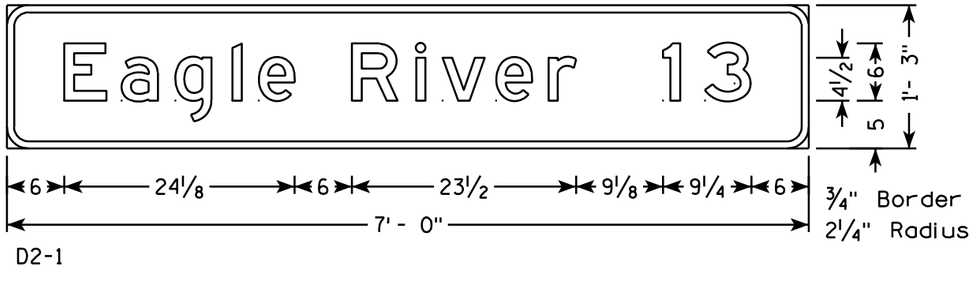

6
S.D.D. 15 D 33-3



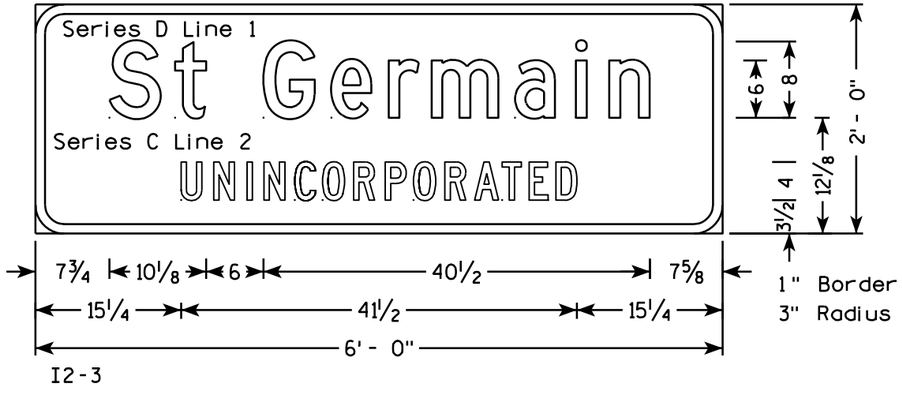

D1-2

NOTES

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




D2-1




I2-3

7

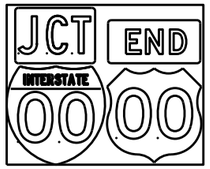
7

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | PERMANENT SIGNING | SHEET NO: 127 | E |
|---|---|---|---|---|---|

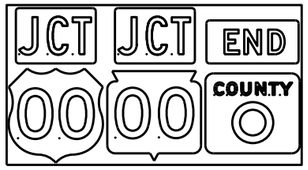
## TYPICAL ASSEMBLIES



J1-1



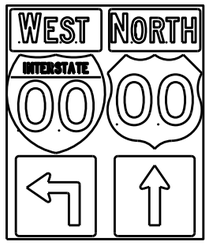
J1-2



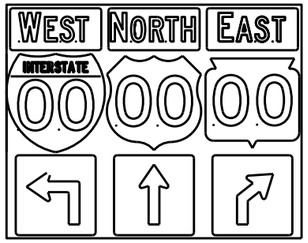
J1-3



J2-1



J2-2

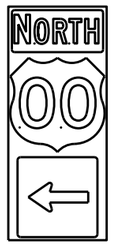


J2-3

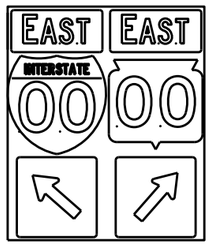


JV

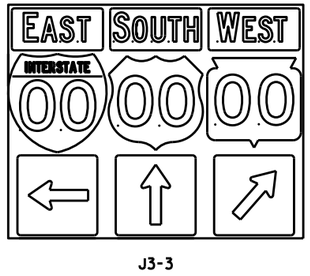
( Typical Vertical J-Assembly
See Note 10 and 11 )



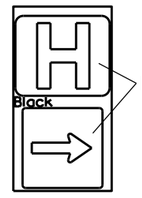
J3-1



J3-2



J3-3

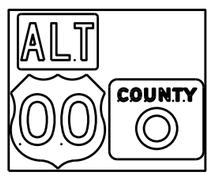


Blue Background

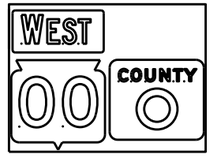
JH-1



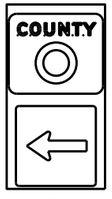
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

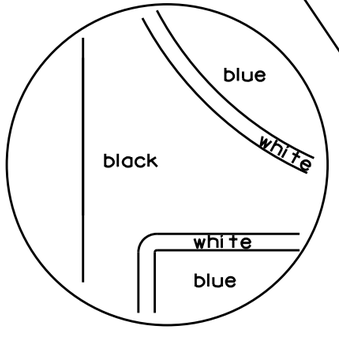


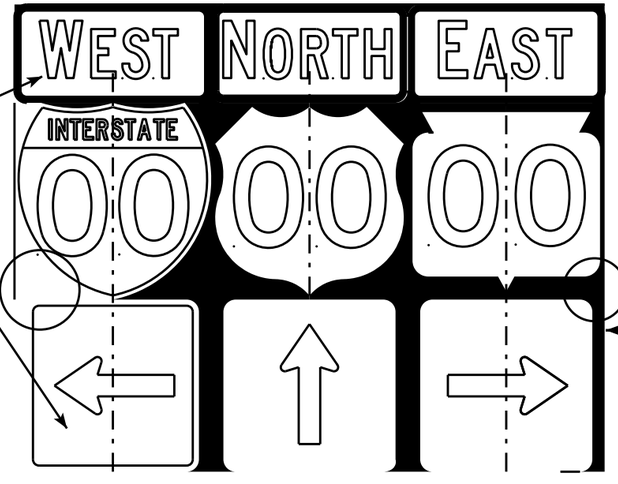
J23-1

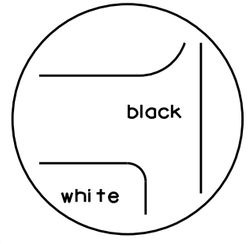


J22-1

[blue background with interstate]




[black background]

### NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

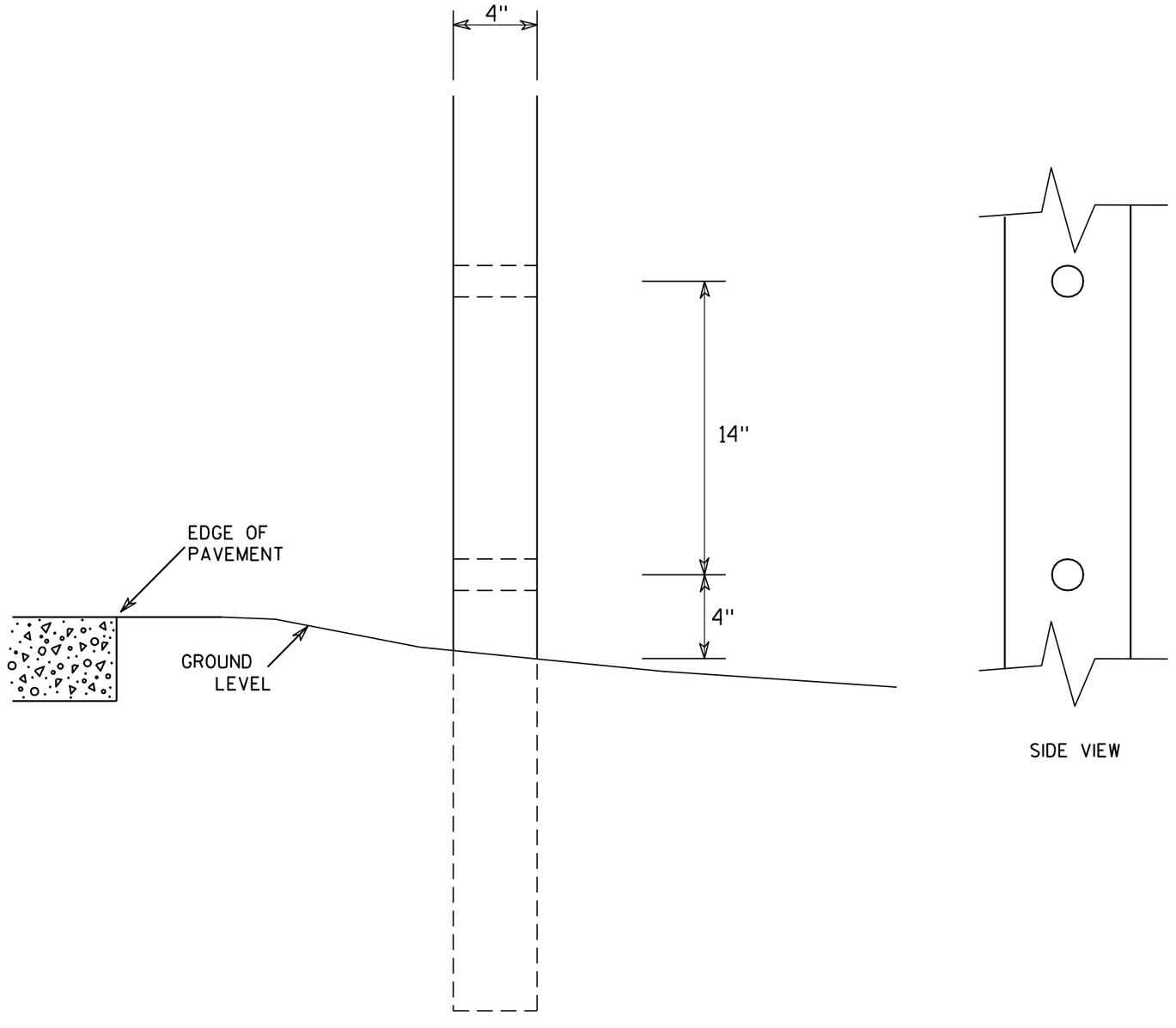
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8



PROJECT NO: SHEET NO: E






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.

7

7

# 4 X 6 WOOD POST MODIFICATIONS

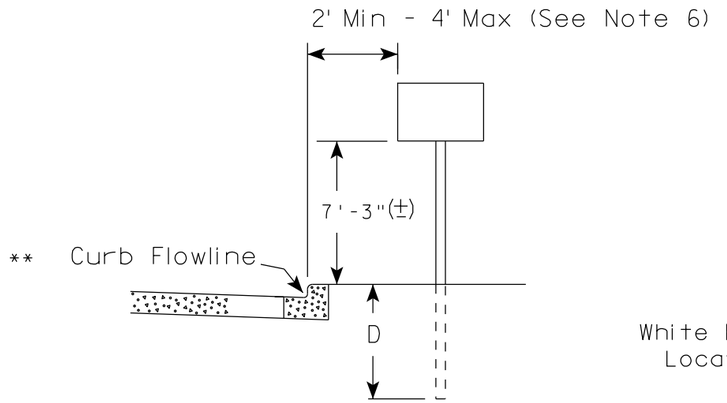
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

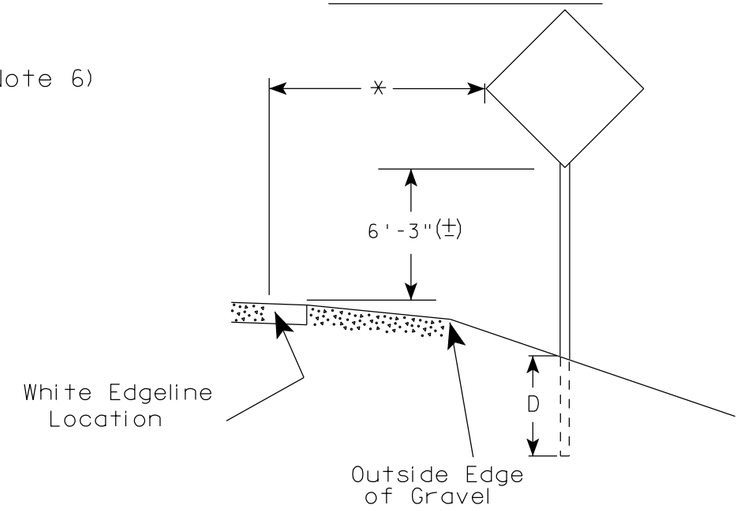
DATE 3/27/97 PLATE NO. A4-11.2

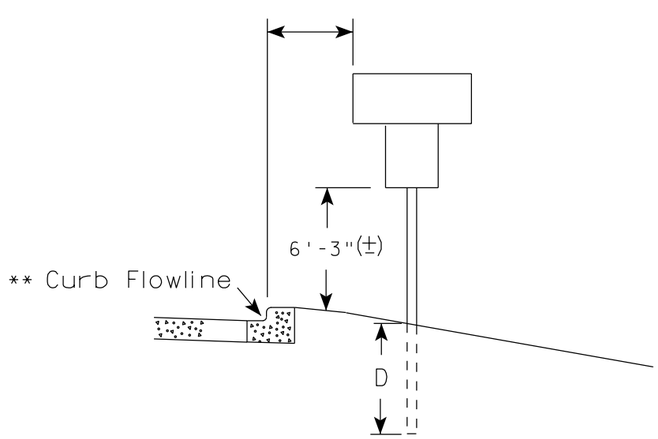
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 129 | E |
|---|---|---|---|---|---|

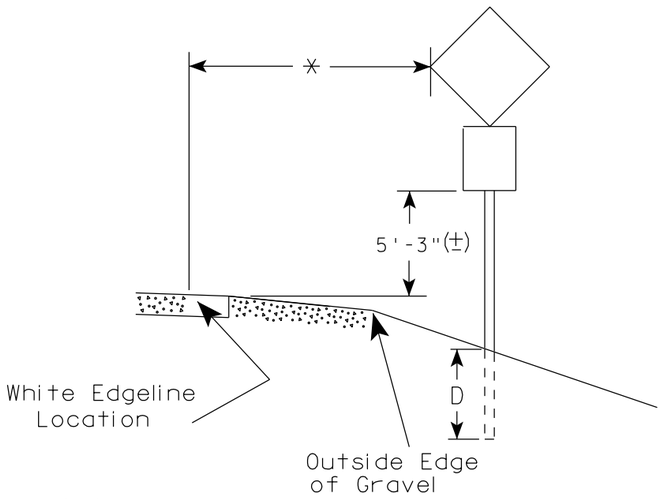
## URBAN AREA




## RURAL AREA (See Note 2)




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

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

### POST EMBEDMENT DEPTH

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

## GENERAL NOTES

1. Signs wider than 4 feet, 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 (A2-1S) 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 signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

# TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

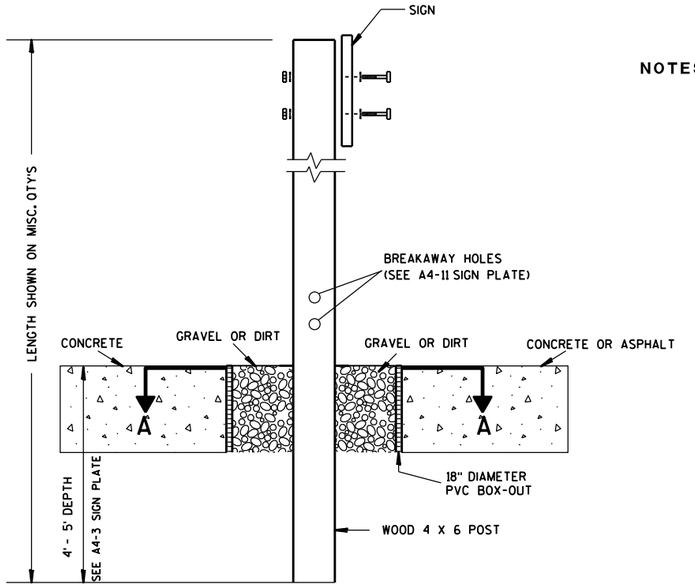
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19



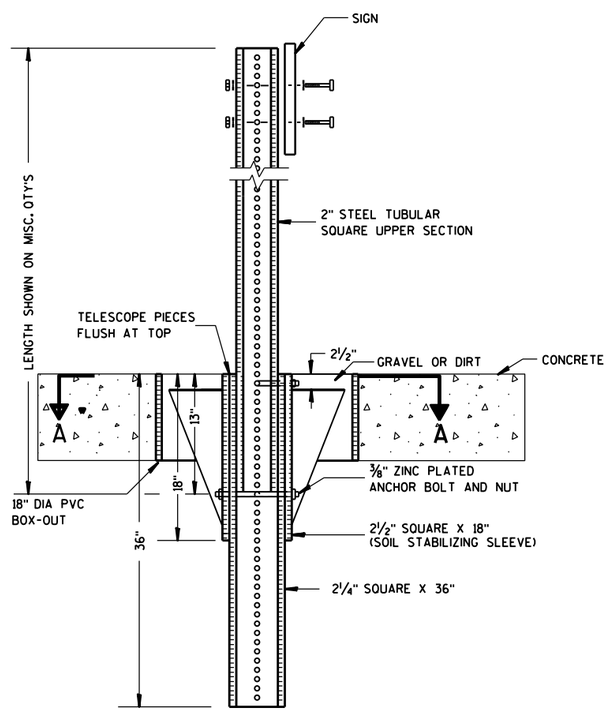
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|




**ELEVATION VIEW**

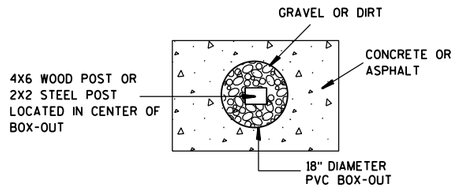
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

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




**ELEVATION VIEW**

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




**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

# SIGN POST BOX-OUTS A4-3B

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

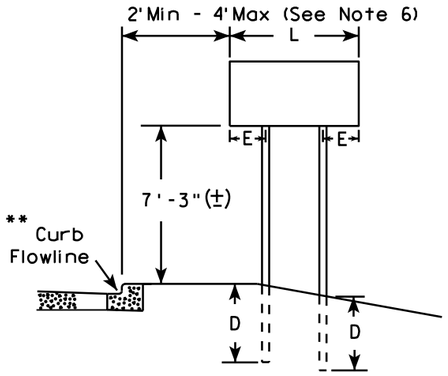
DATE 1/27/14 PLATE NO. A4-3B.1

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

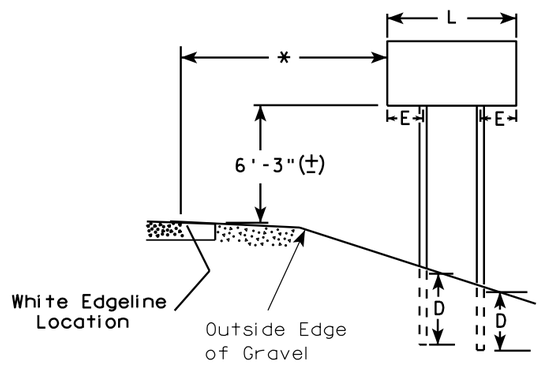


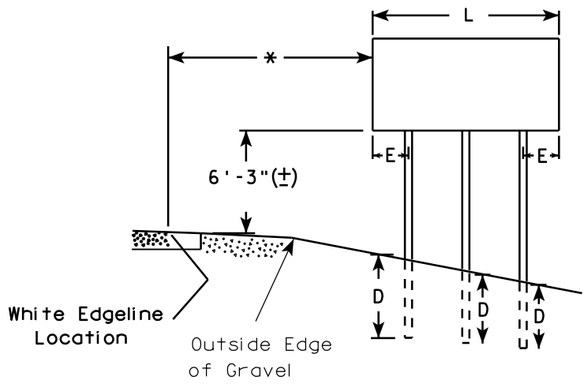
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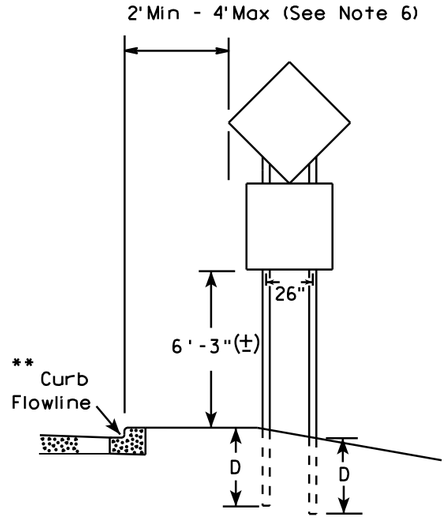
## URBAN AREA



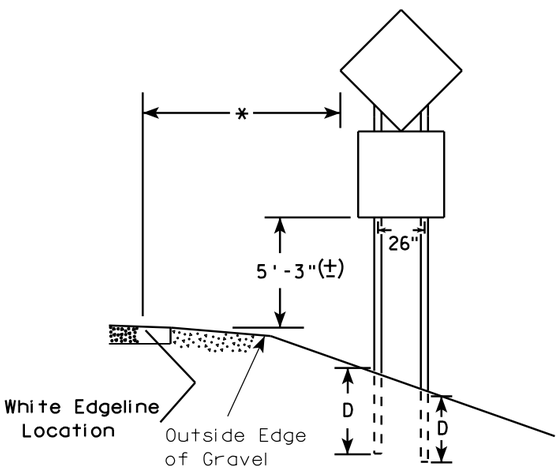

## RURAL AREA (See Note 3)




48" DIAMOND WARNING SIGN




48" DIAMOND WARNING SIGN

### GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

| SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED) | |
|---|---|
| L | E |
| Greater than 48" Less than 60" | 12" |
| 60" to 120" | L/5 |

***

| SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED) | |
|---|---|
| L | E |
| Greater than 120" less than 168" | 12" |

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

### POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

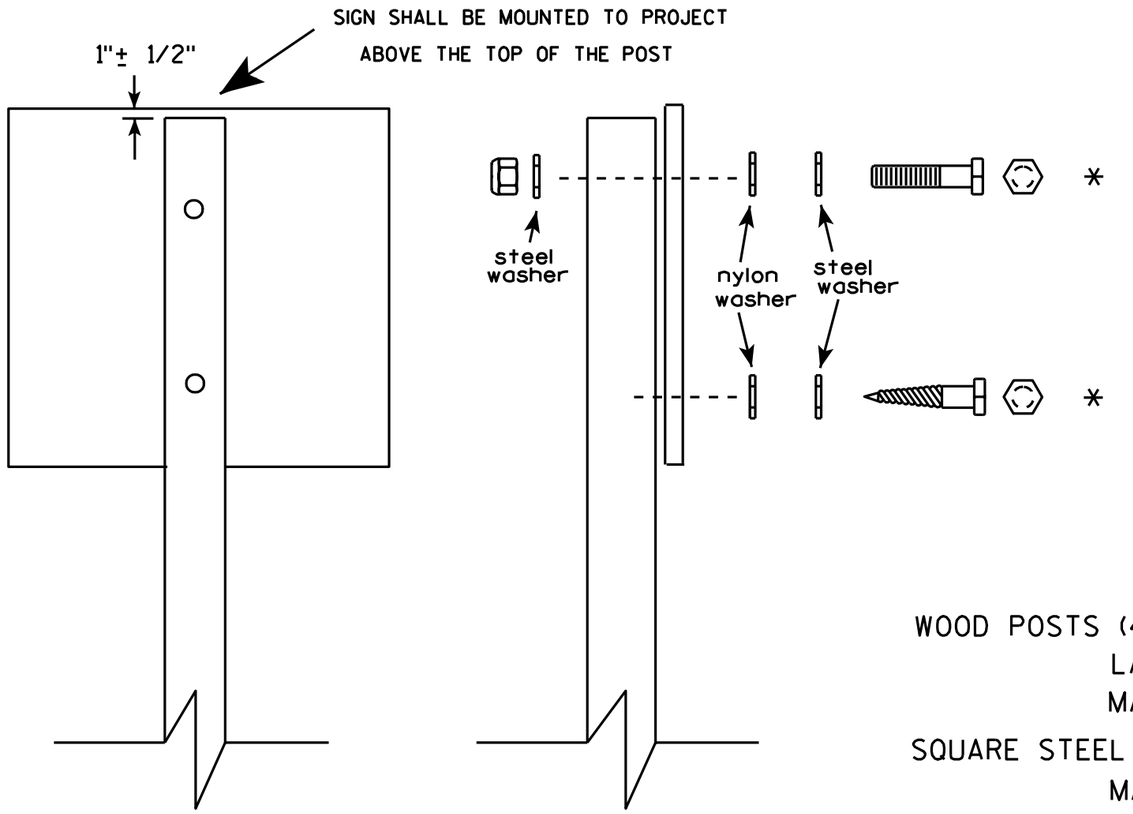
DATE 11/12/14 PLATE NO. A4-4 13

132

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 12-NOV-2014 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42




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

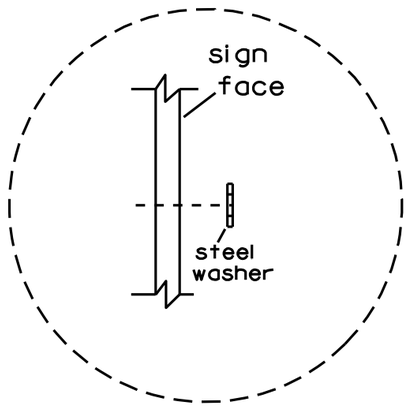
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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 TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

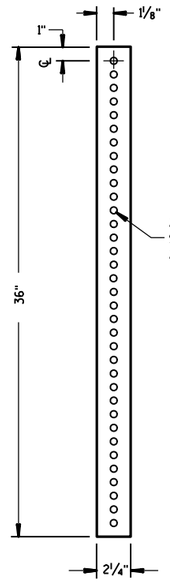
7

PROJECT NO:

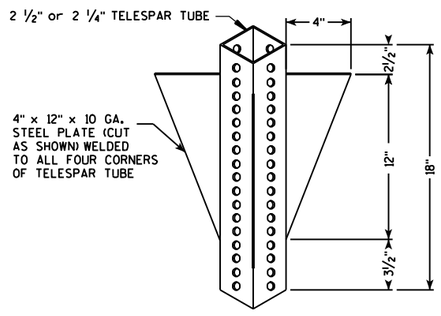
SHEET NO: 133 E

## TELESCOPIC TUBING ANCHORS
## TWO PIECE SYSTEM

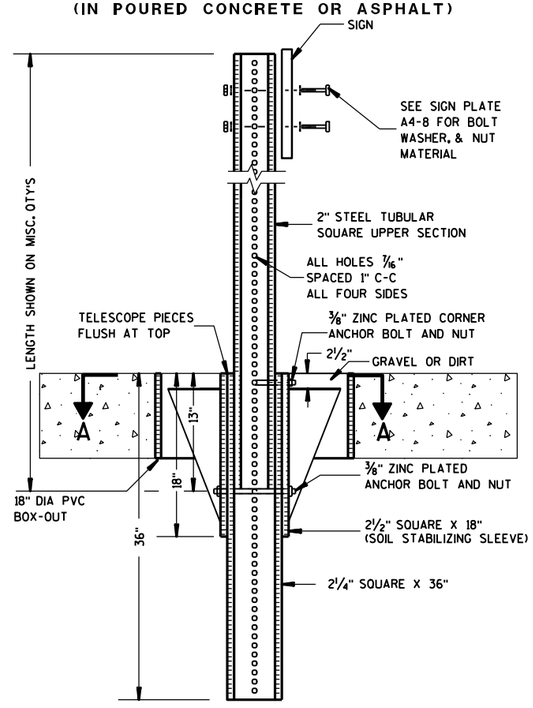
**2 1/4 " SQUARE**
**12 GAUGE**
**PERFORATED**
**GALVANIZED FINISH**



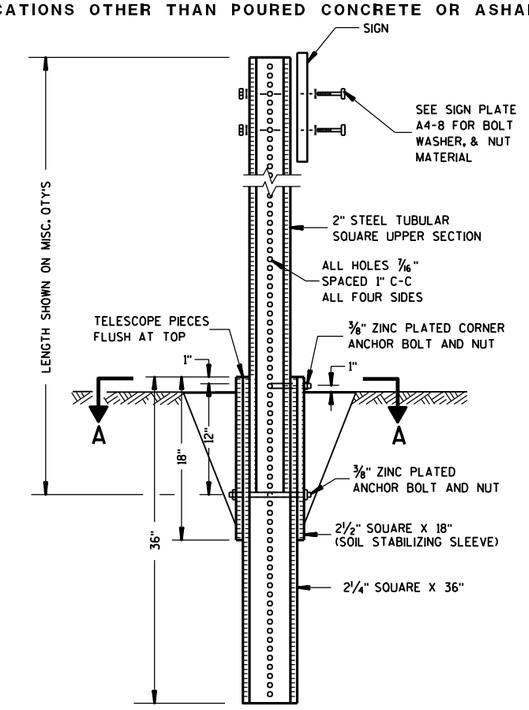

**2 1/2 " SQUARE**
**12 GAUGE**
**OMNI-DIRECTIONAL**
**PERFORATED**
**SOIL STABILIZING SLEEVE**
**GALVANIZED FINISH**

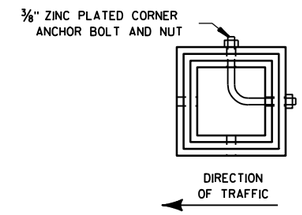



## DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)




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




SECTION A-A

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

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

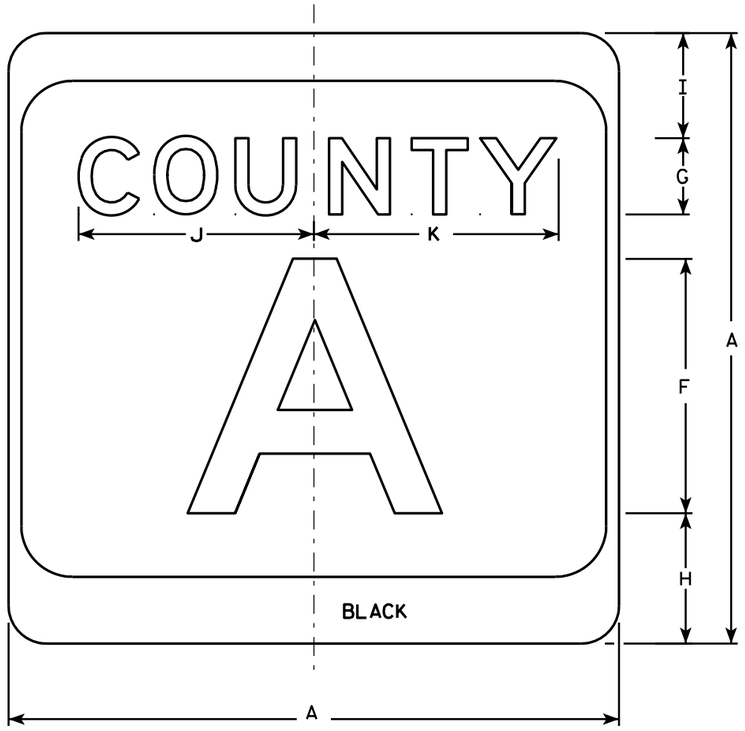
# TUBULAR STEEL SIGN POST A4-9

WISCONSIN DEPT OF TRANSPORTATION

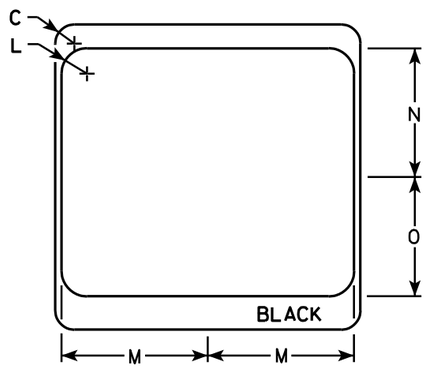
APPROVED Matthew R Rauch
for State Traffic Engineer

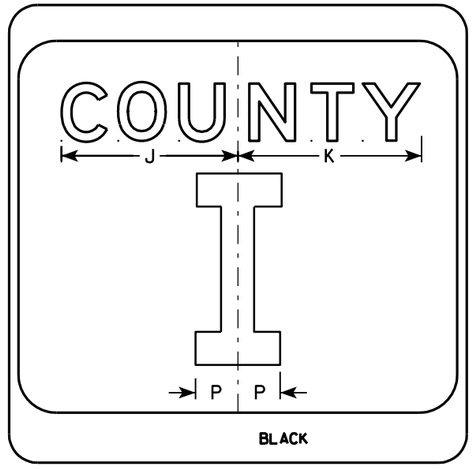
DATE 5/30/12 PLATE NO. A4-9.7

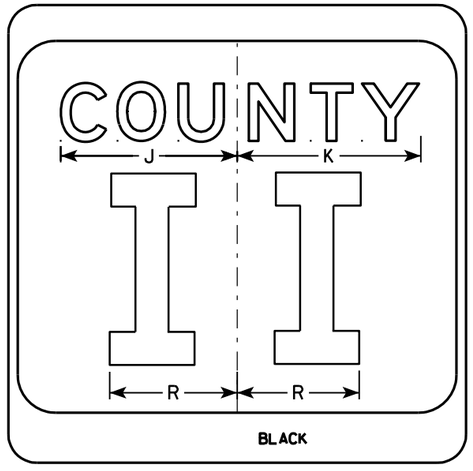
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 134 | E |
|---|---|---|---|---|---|




M1-5A




NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | 1 1/2 | | | 10 | 3 | 5 1/8 | 4 1/8 | 9 1/4 | 9 5/8 | 2 | 11 1/2 | 10 1/8 | 9 3/8 | 2 1/4 | | 6 5/8 | | | | | | | | | 4.0 |
| 3 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |
| 4 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |
| 5 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |

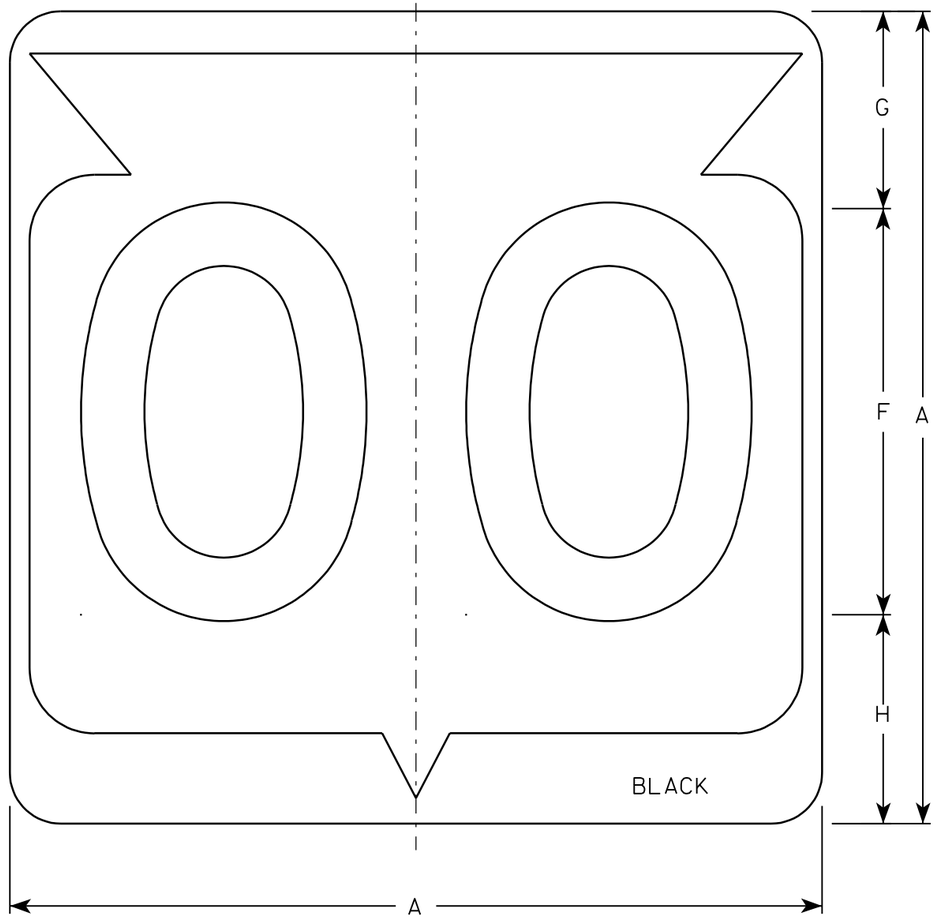
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

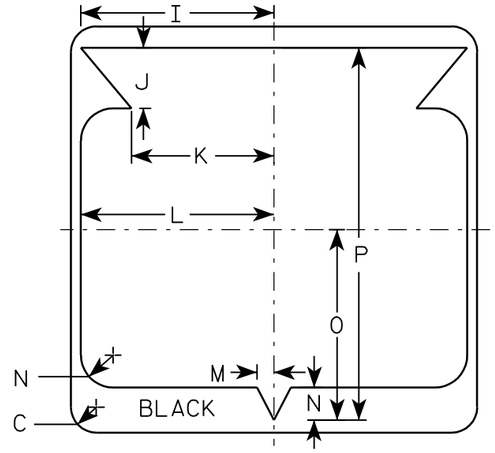
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 135 | E |
|---|---|---|---|---|---|




M1-6

## NOTES

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




Metric equivalent for this sign is:

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. | Area m2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | | 1 1/2 | | | 12 | 5 1/2 | 6 1/2 | 10 1/4 | 2 1/2 | 8 7/8 | 11 1/2 | 1 | 1 7/8 | 11 1/4 | 21 7/8 | | | | | | | | | | | 4.0 | .36 |
| 3 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 | .81 |
| 4 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 | .81 |
| 5 | 36 | | 2 1/4 | | | 18 | 8 3/4 | 9 1/4 | 15 3/8 | 5 3/8 | 12 5/8 | 17 1/8 | 1 1/2 | 2 7/8 | 16 7/8 | 33 | | | | | | | | | | | 9.0 | .81 |

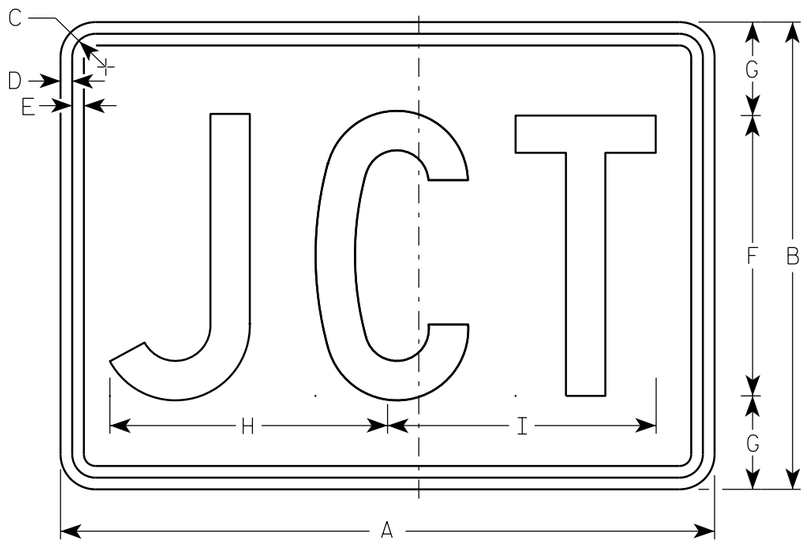
# STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

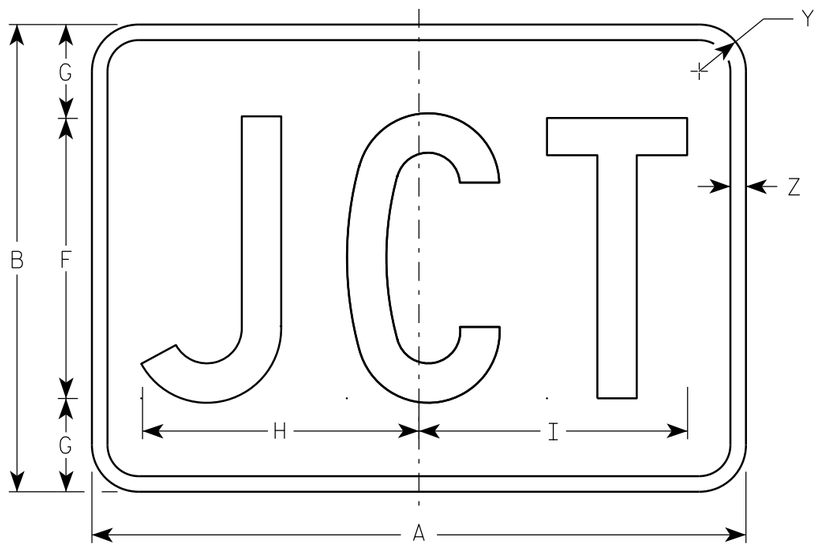
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 136 | E |
|---|---|---|---|---|---|




M2-1
MK2-1
MM2-1
MN2-1
MR2-1




MB2-1

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9 | 3 | 8 7/8 | 8 5/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 2.20 |
| 3 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 4 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 5 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |

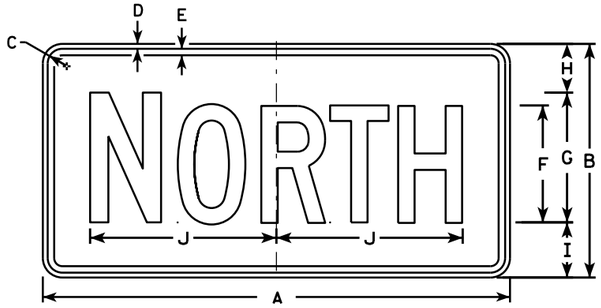
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

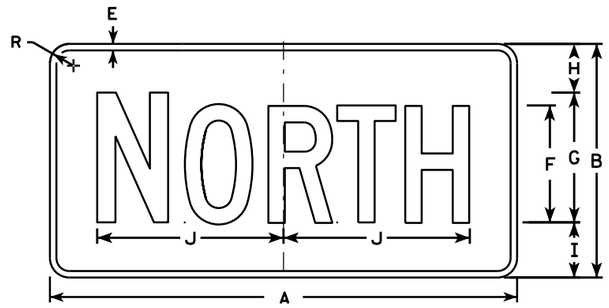
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 137 12-1.11

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



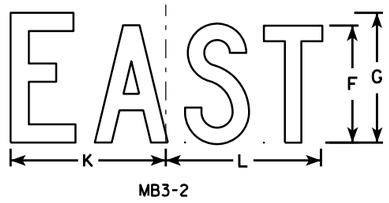

M3-1
MK3-1
MM3-1
MN3-1



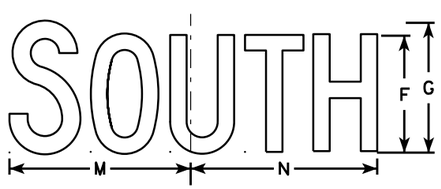

MB3-1



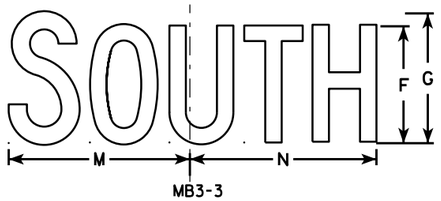

M3-2
MK3-2
MM3-2
MN3-2



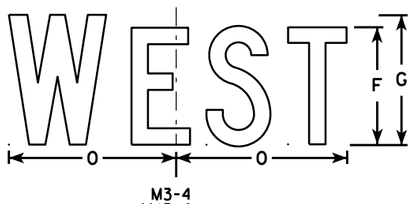

MB3-2



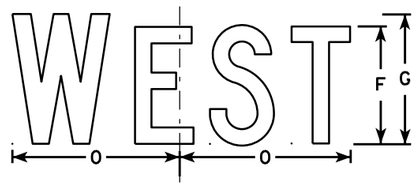

M3-3
MK3-3
MM3-3
MN3-3




MB3-3




M3-4
MK3-4
MM3-4
MN3-4




MB3-4

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 24 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 7 | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8 | 10 1/4 | 9 3/4 | 8 3/4 | | | 1 1/2 | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |

STANDARD SIGNS
M3-1 thur M3-4
SERIES

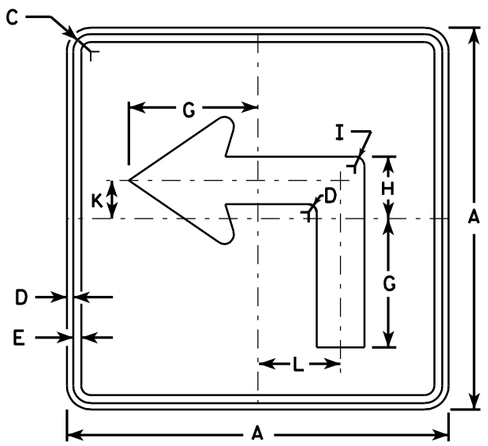
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

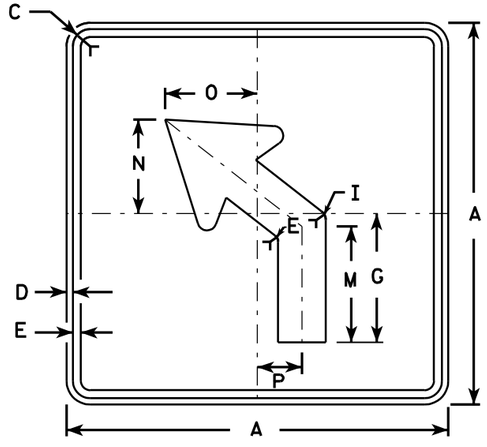
DATE 6/30/14 PLATE NO M3-1.13



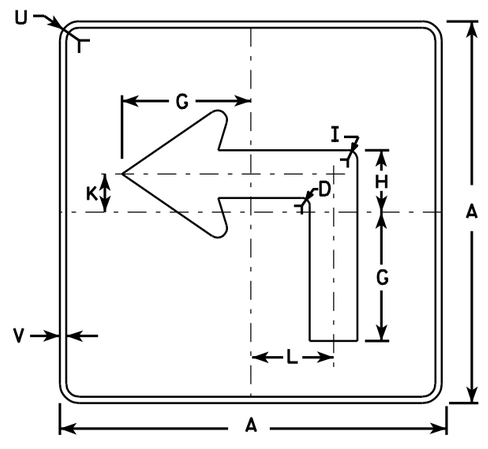
PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



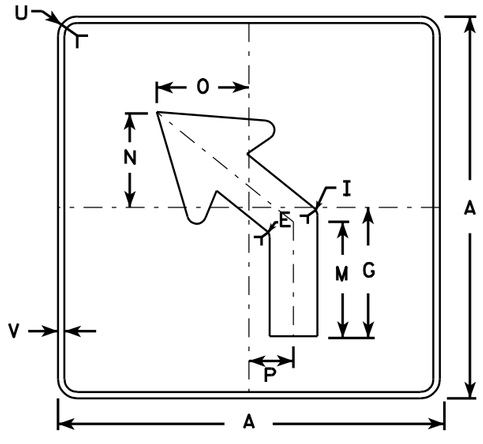

M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



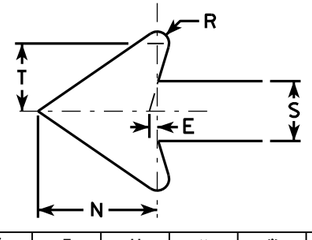

M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L




MB5-1L
MG5-1L
MN5-1L




MB5-2L
MG5-2L
MN5-2L




## NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

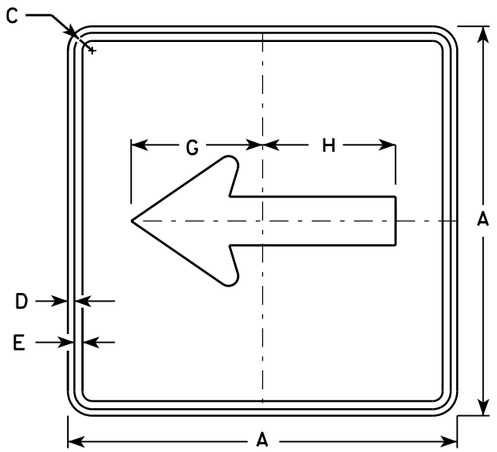
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

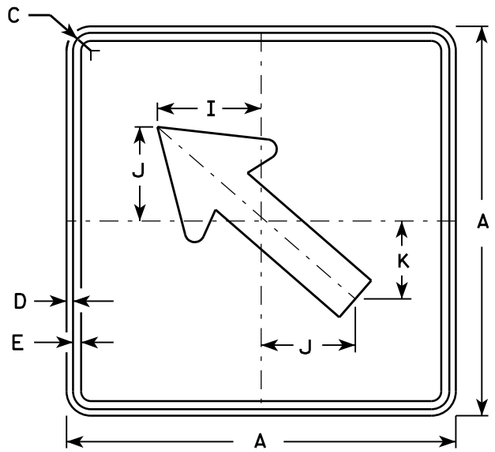
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 139 | E



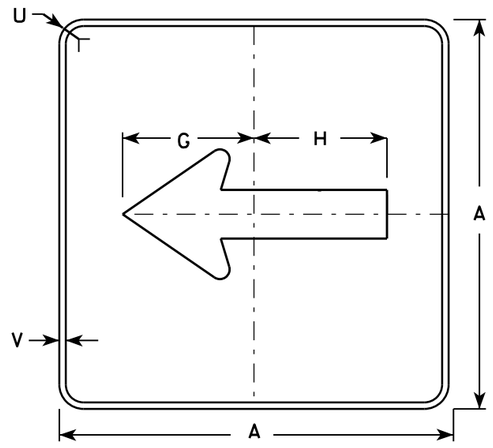

M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



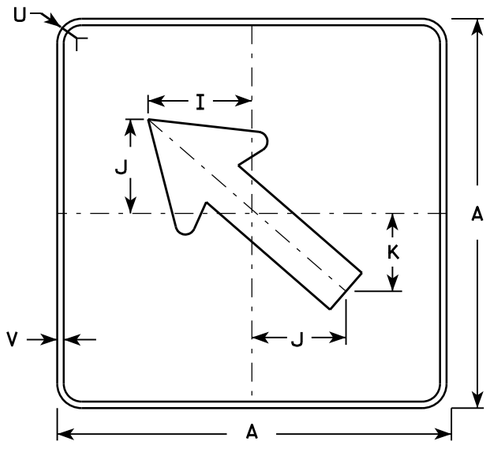

M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

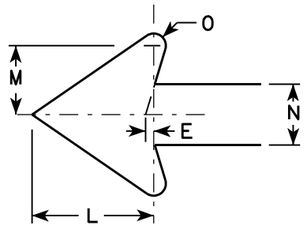
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow




MB6-1




MB6-2




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

# STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

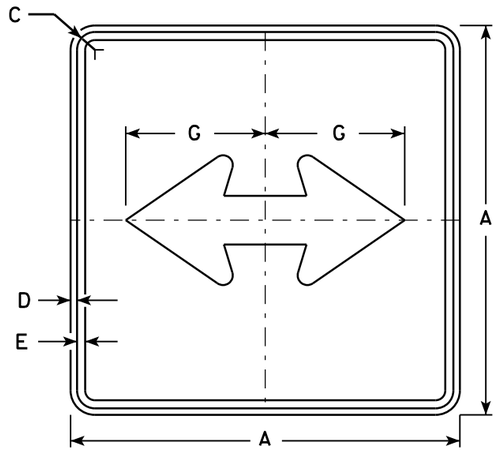
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/03/14 PLATE 140 M6-1.14

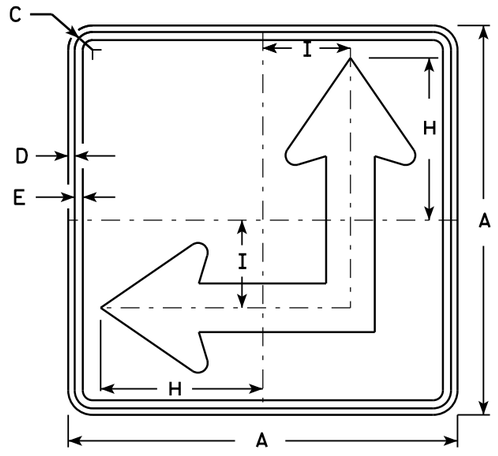
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



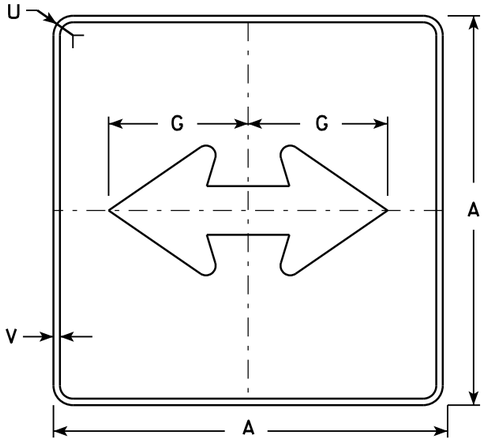

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000



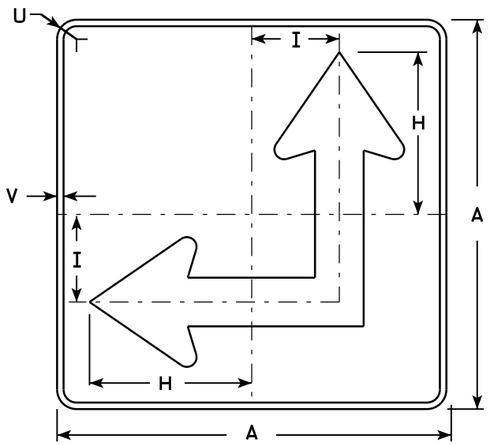

M6-4
MK6-4
MM6-4
MN6-4
MO6-4
MP6-4
MR6-4




M6-6
MK6-6
MM6-6
MN6-6
MO6-6
MP6-6
MR6-6



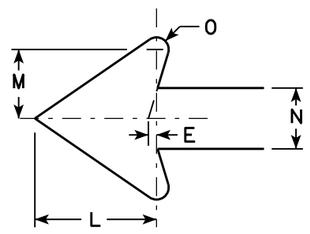

MB6-4




MB6-6

## NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.




| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 1/2 | 8 3/4 | 4 1/4 | | | 5 1/4 | 3 | 2 5/8 | 1/2 | | | | | | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 12 1/2 | 6 3/4 | | | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | 6.25 |

# STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

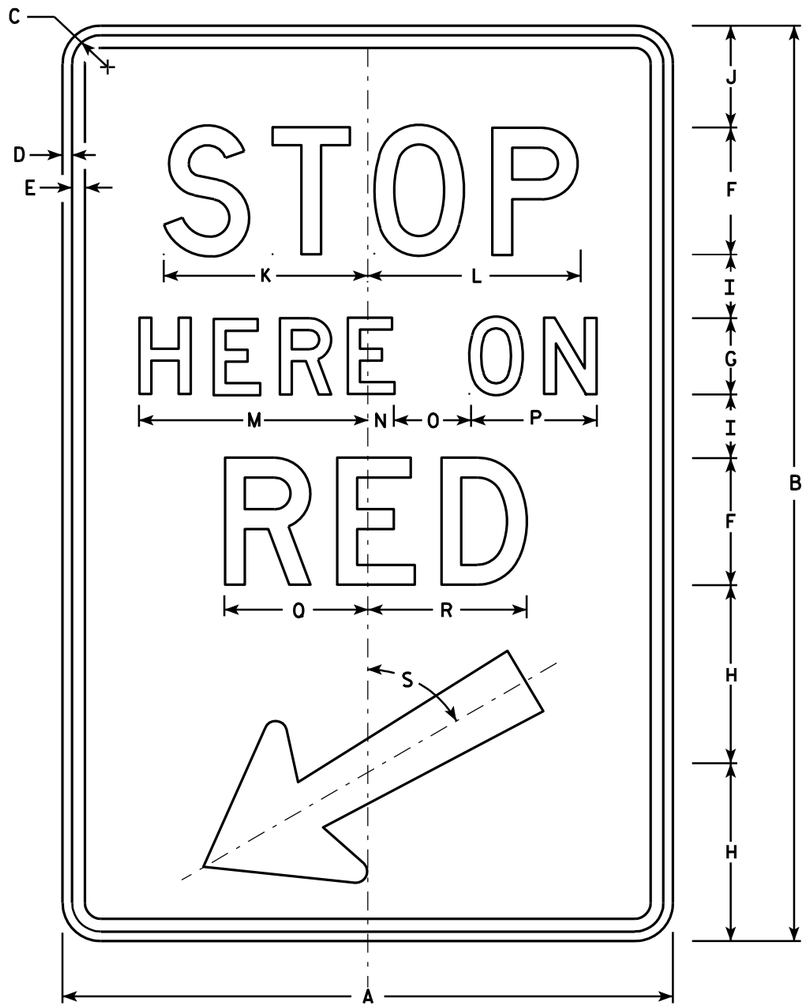
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/03/14 PLATE M6-4.9



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

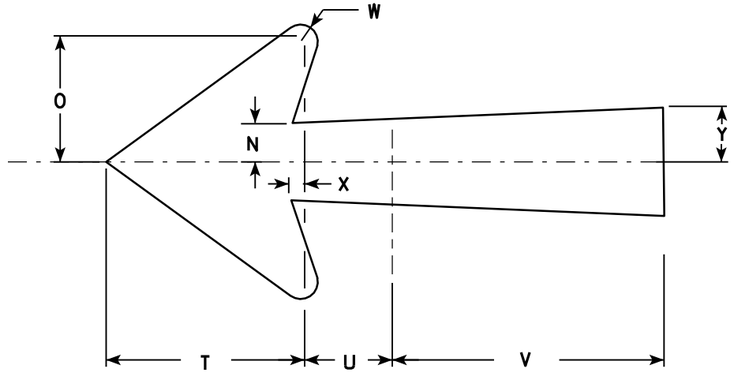
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 03-JUL-2014 14:56 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000




R10-6

## NOTES

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




Arrow Detail

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | 36 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 7 | 2 1/2 | 4 | 8 | 8 3/8 | 9 | 1 | 3 | 5 | 5 5/8 | 6 1/4 | 60° | 5 1/4 | 2 1/4 | 7 1/8 | 1/2 | 3/8 | 1 3/8 | | 6.0 |
| 2M | 24 | 36 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 7 | 2 1/2 | 4 | 8 | 8 3/8 | 9 | 1 | 3 | 5 | 5 5/8 | 6 1/4 | 60° | 5 1/4 | 2 1/4 | 7 1/8 | 1/2 | 3/8 | 1 3/8 | | 6.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

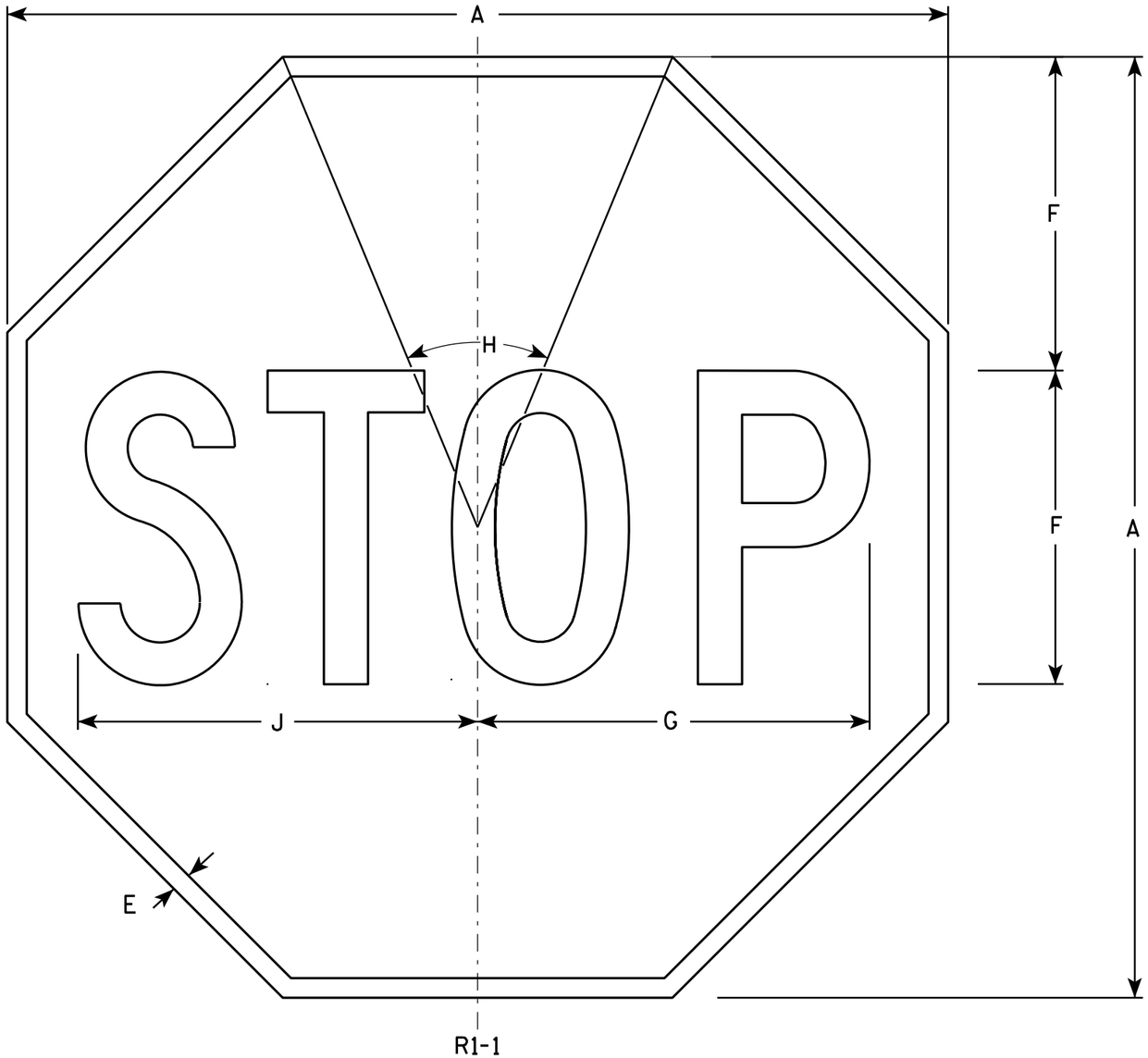
STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 142 | E |
|---|---|---|---|---|---|




NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

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

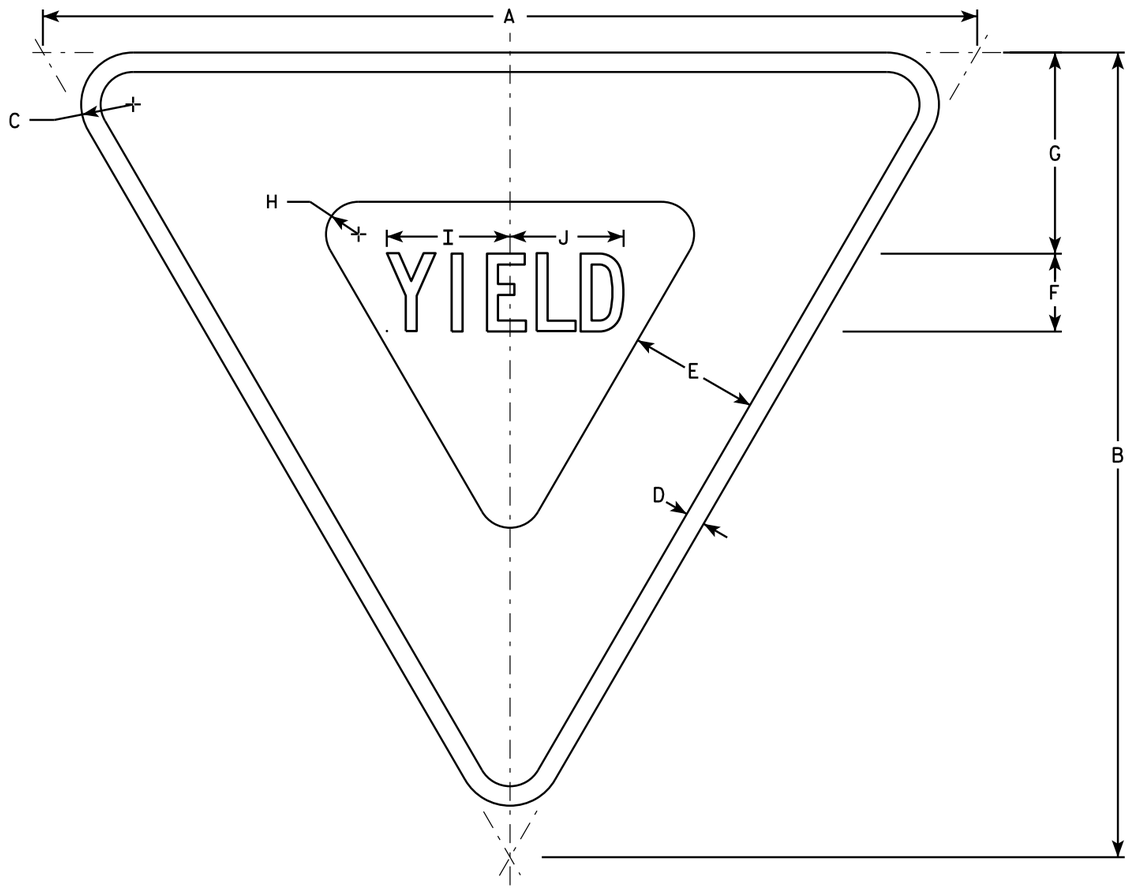
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 143 | E |
|---|---|---|---|---|---|




R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | 26 | 1 1/2 | 5/8 | 4 | 2 1/2 | 6 3/8 | 7/8 | 4 | 3 5/8 | | | | | | | | | | | | | | | | | 2.71 |
| 2S | 36 | 31 | 2 | 3/4 | 5 | 3 | 7 3/4 | 1 1/4 | 4 3/4 | 4 3/8 | | | | | | | | | | | | | | | | | 3.88 |
| 2M | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 3 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 4 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 5 | 60 | 52 | 3 | 1 1/2 | 8 | 5 | 13 | 2 1/2 | 7 7/8 | 7 1/4 | | | | | | | | | | | | | | | | | 10.83 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 18 | 15 1/2 | 1 | 3/8 | 2 1/2 | 1 1/2 | 3 7/8 | 5/8 | 2 3/8 | 2 1/4 | | | | | | | | | | | | | | | | | 0.97 |

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

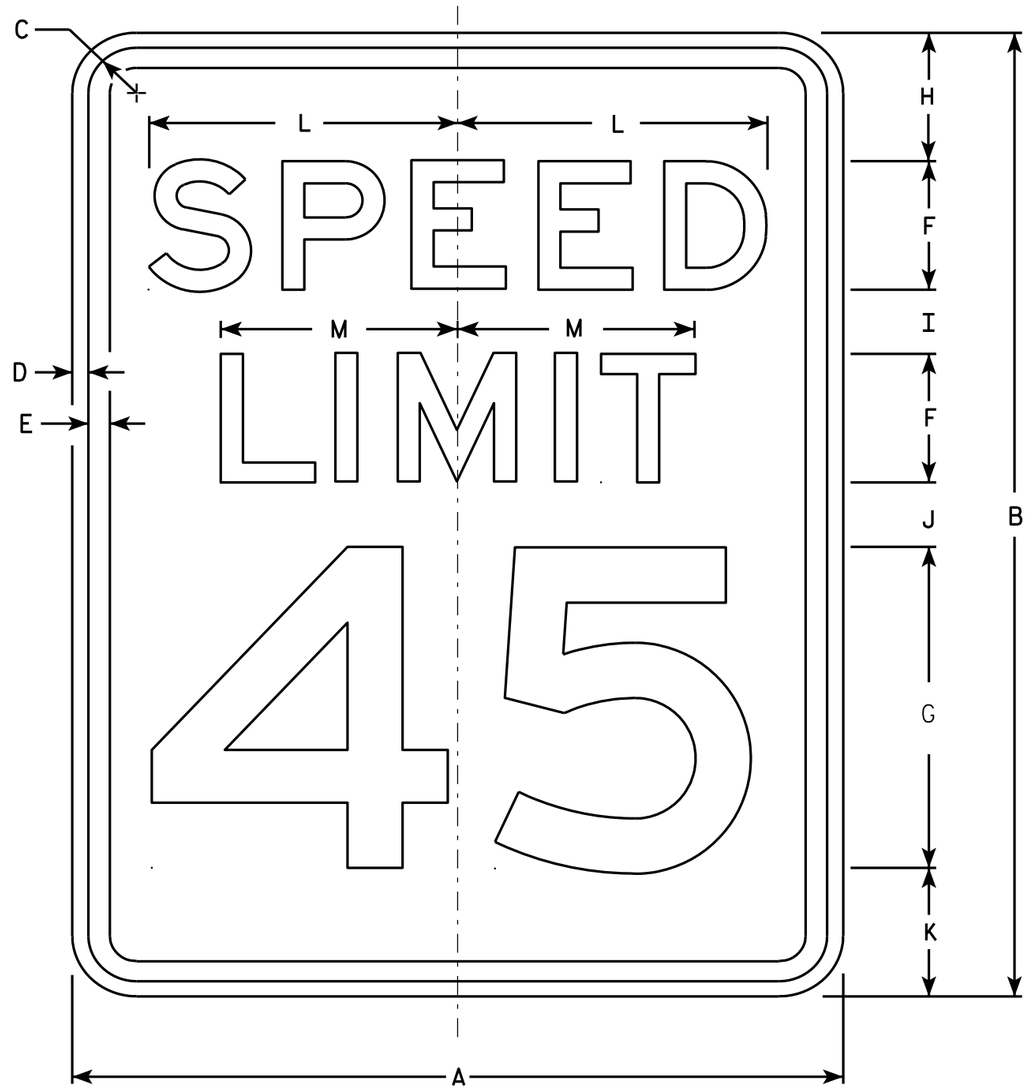
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

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



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42




R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8 | 3 | 2 | 2 | 3 | 7 1/4 | 5 1/2 | | | | | | | | | | | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8 | 7 3/8 | | | | | | | | | | | | | | 5.0 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4 | 12 | 9 1/4 | | | | | | | | | | | | | | 7.5 |
| 3 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 4 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 | | | | | | | | | | | | | | 20.0 |

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

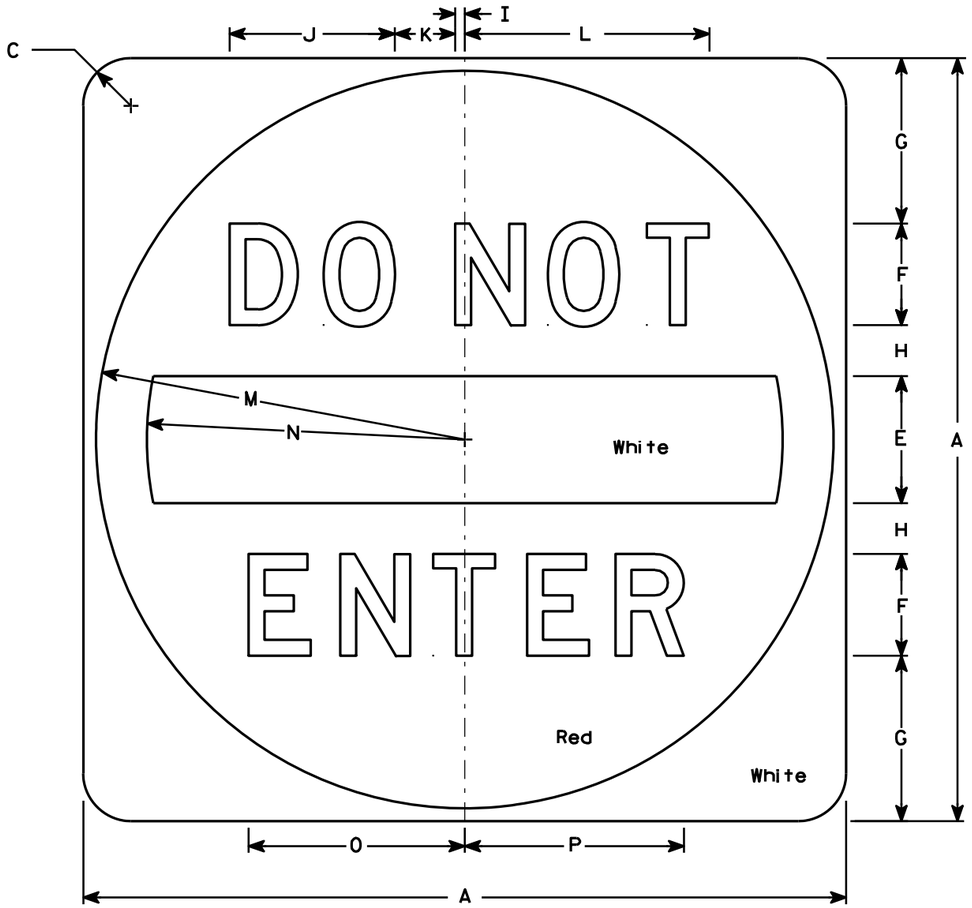
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 145 | E




FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

WISDOT/CADDS SHEET 42




R5-1

## NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 7/8 | | 5 | 4 | 6 1/2 | 2 | 3/8 | 6 1/2 | 2 3/8 | 9 5/8 | 14 1/2 | 12 1/2 | 8 1/2 | 8 5/8 | | | | | | | | | | | 6.26 |
| 2M | 36 | | 2 1/4 | | 6 | 5 | 7 1/2 | 2 1/2 | 1/2 | 8 1/8 | 3 | 12 1/8 | 17 1/2 | 15 | 10 5/8 | 10 3/4 | | | | | | | | | | | 9.0 |
| 3 | 36 | | 2 1/4 | | 6 | 5 | 7 1/2 | 2 1/2 | 1/2 | 8 1/8 | 3 | 12 1/8 | 17 1/2 | 15 | 10 5/8 | 10 3/4 | | | | | | | | | | | 9.0 |
| 4 | 36 | | 2 1/4 | | 6 | 5 | 7 1/2 | 2 1/2 | 1/2 | 8 1/8 | 3 | 12 1/8 | 17 1/2 | 15 | 10 5/8 | 10 3/4 | | | | | | | | | | | 9.0 |
| 5 | 48 | | 3 | | 8 | 6 | 11 | 3 | 5/8 | 9 3/4 | 3 5/8 | 14 1/2 | 23 1/2 | 20 | 12 3/4 | 12 7/8 | | | | | | | | | | | 16.0 |

STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

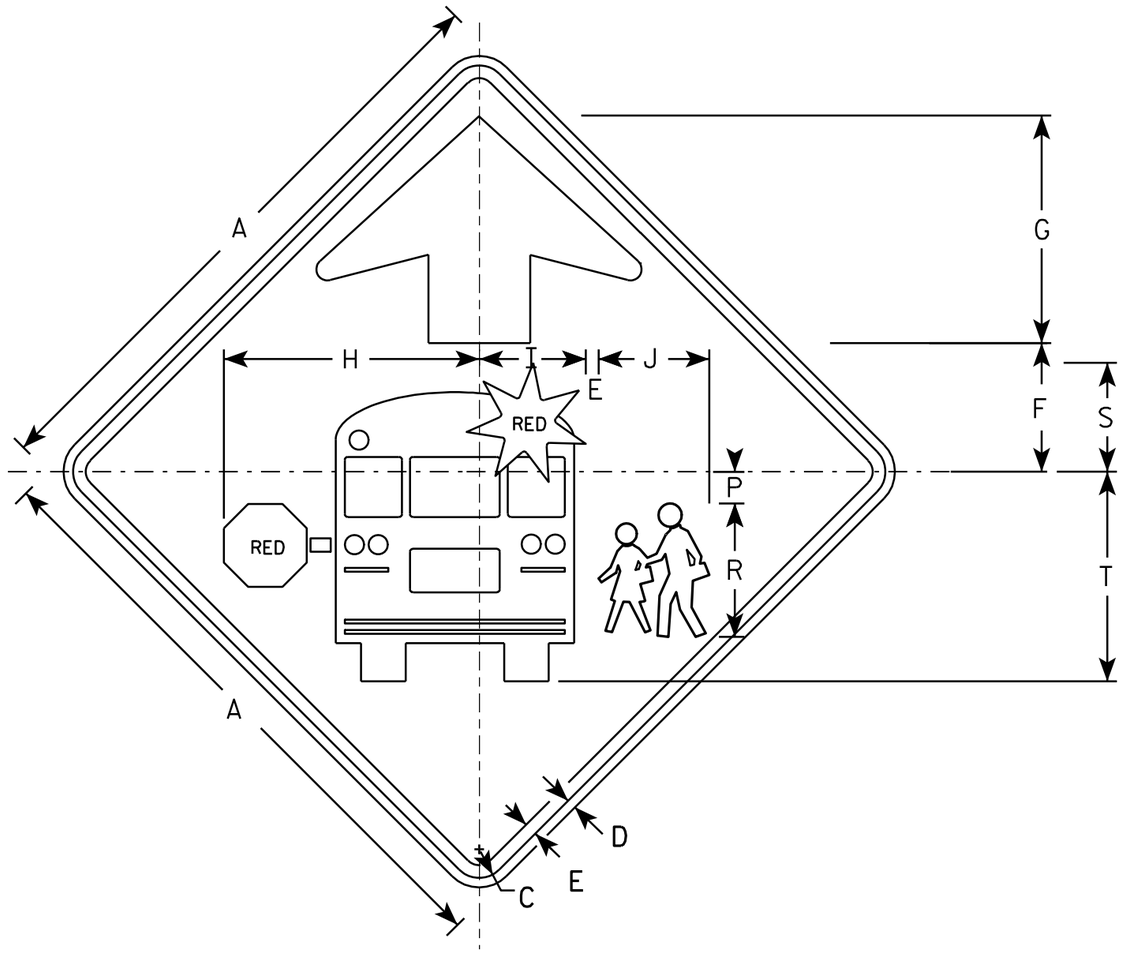
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 146 | E



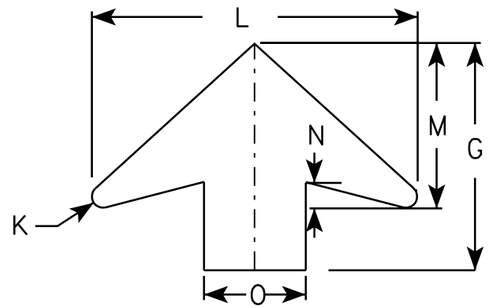

7




S3-1

NOTES

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




ARROW DETAIL

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

STANDARD SIGN
S3-1

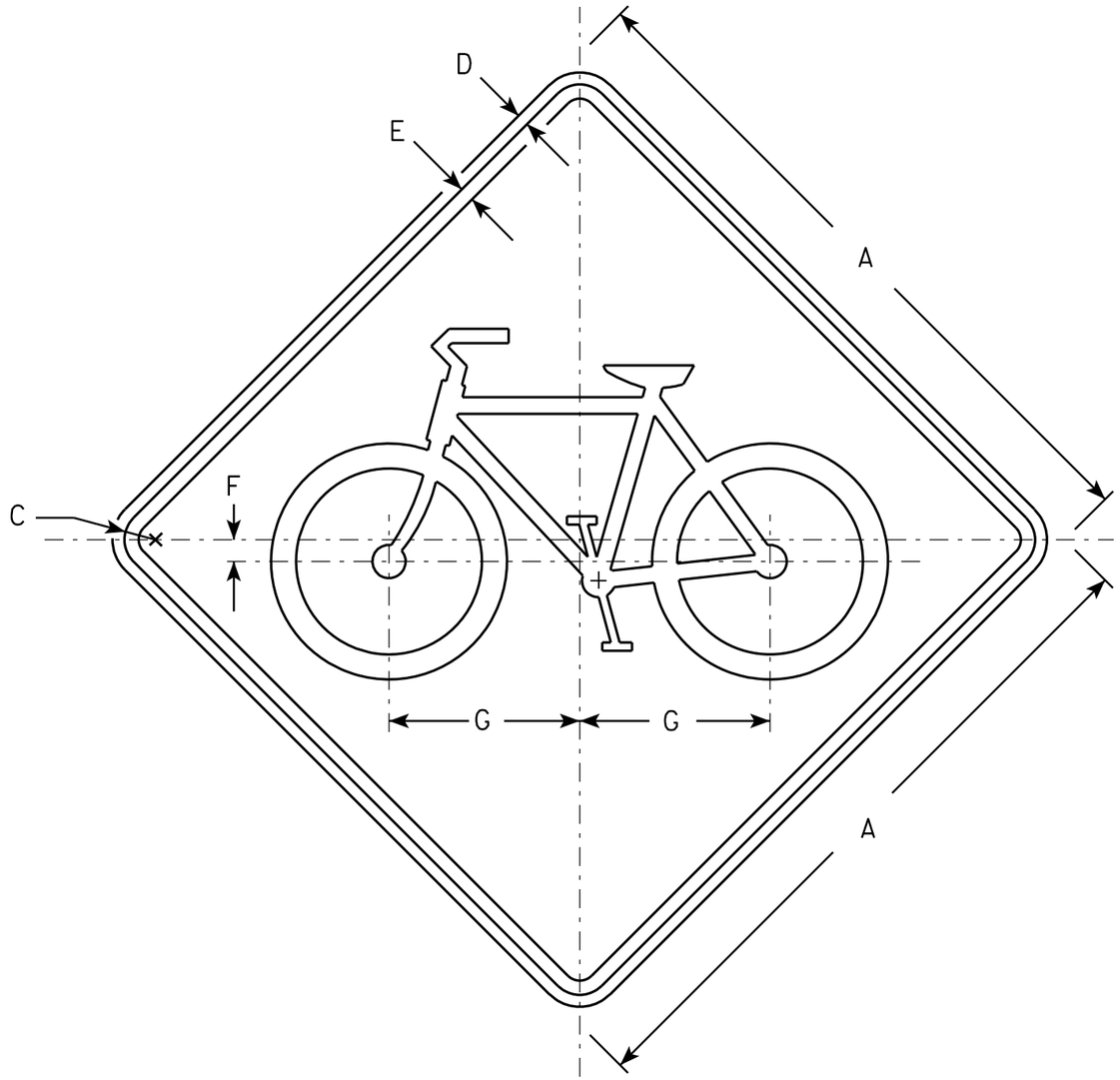
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 147 E




W11-1

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/4 | 1/2 | 3/4 | 6 5/8 | | | | | | | | | | | | | | | | | | | | 4.0 |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 1 | 8 1/2 | | | | | | | | | | | | | | | | | | | | 6.25 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 1 1/4 | 10 | | | | | | | | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 1 1/4 | 10 | | | | | | | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 1 5/8 | 13 3/8 | | | | | | | | | | | | | | | | | | | | 16.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | 16.0 |

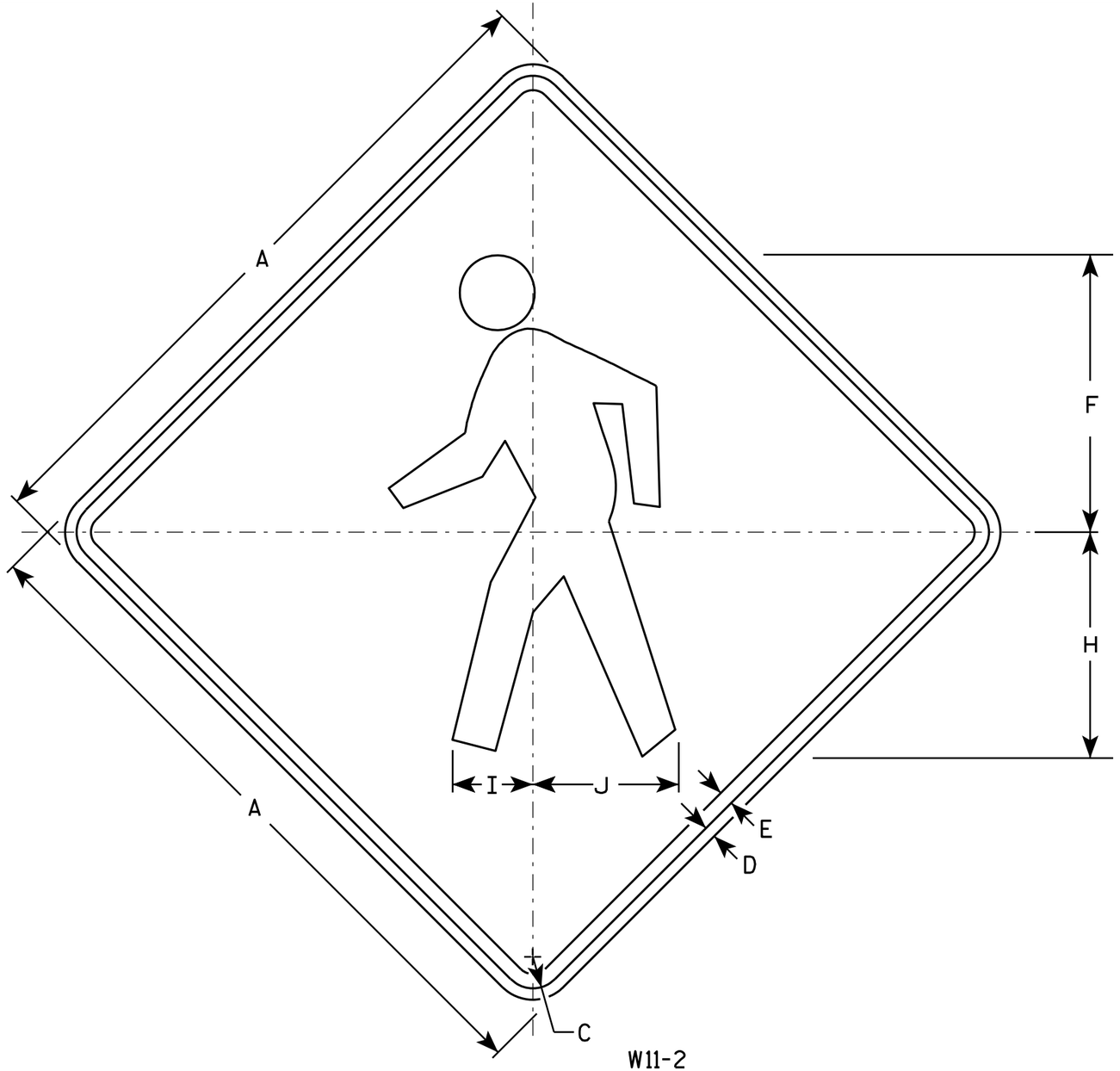
STANDARD SIGN
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W11-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 148 | E




W11-2

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | 9 3/4 | | 7 7/8 | 2 7/8 | 5 1/8 | | | | | | | | | | | | | | | | | 4.0 |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 12 1/8 | | 9 7/8 | 3 1/2 | 6 3/8 | | | | | | | | | | | | | | | | | 6.25 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | | 11 7/8 | 4 1/4 | 7 5/8 | | | | | | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | | 11 7/8 | 4 1/4 | 7 5/8 | | | | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 19 3/8 | | 15 3/4 | 5 5/8 | 10 1/4 | | | | | | | | | | | | | | | | | 16.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

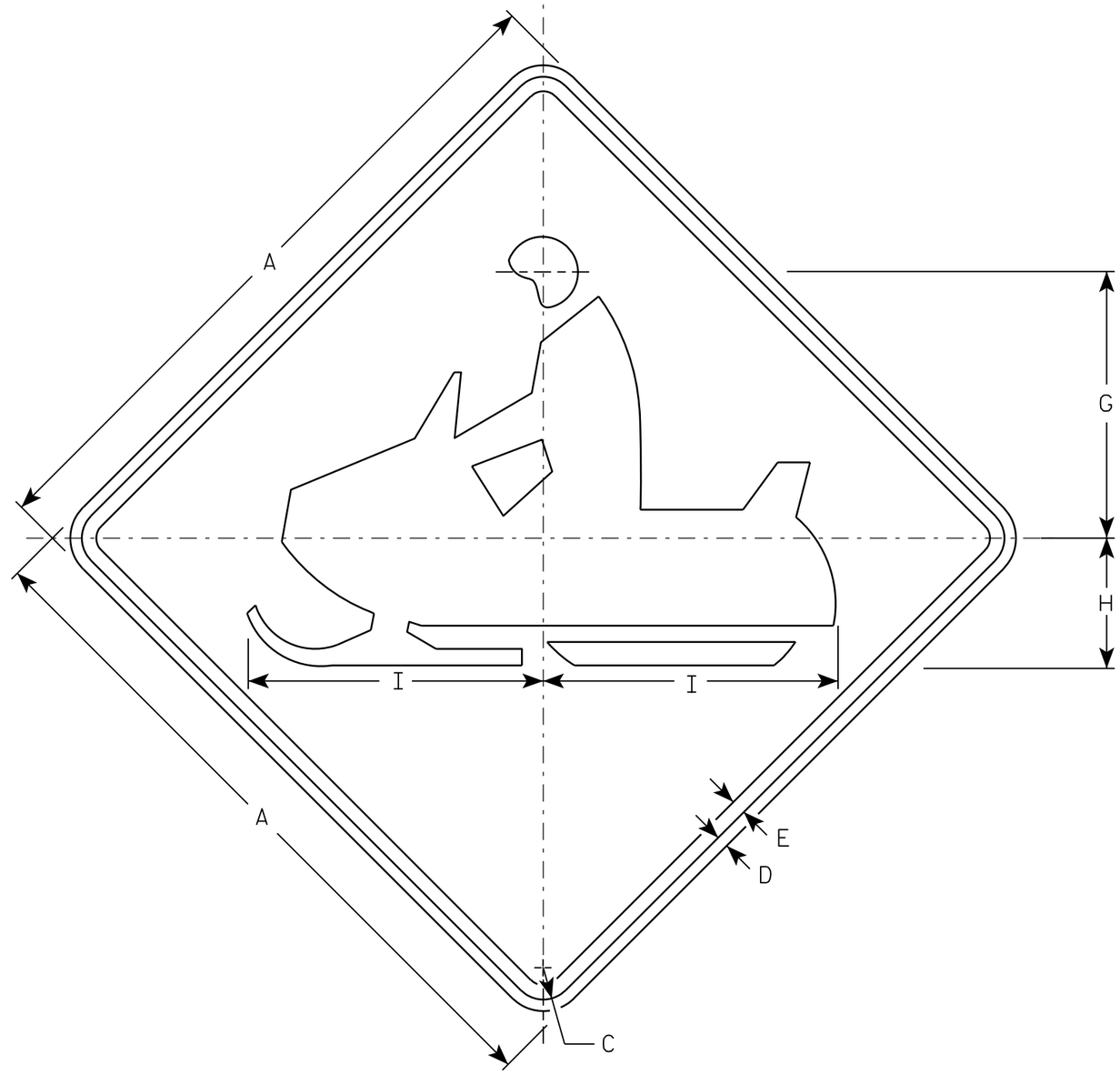
# STANDARD SIGN
# W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 149 | E |
|---|---|---|---|---|---|




W11-6

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | | 1 1/8 | 3/8 | 1/2 | | 9 1/2 | 4 1/2 | 10 1/4 | | | | | | | | | | | | | | | | | | 4.0 |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | | 11 1/2 | 5 5/8 | 12 3/4 | | | | | | | | | | | | | | | | | | 6.25 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | | 11 1/2 | 5 5/8 | 12 3/4 | | | | | | | | | | | | | | | | | | 6.25 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | | 14 1/8 | 6 3/4 | 15 1/4 | | | | | | | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 19 | 9 | 20 1/2 | | | | | | | | | | | | | | | | | | 16.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
W11-6

WISCONSIN DEPT OF TRANSPORTATION

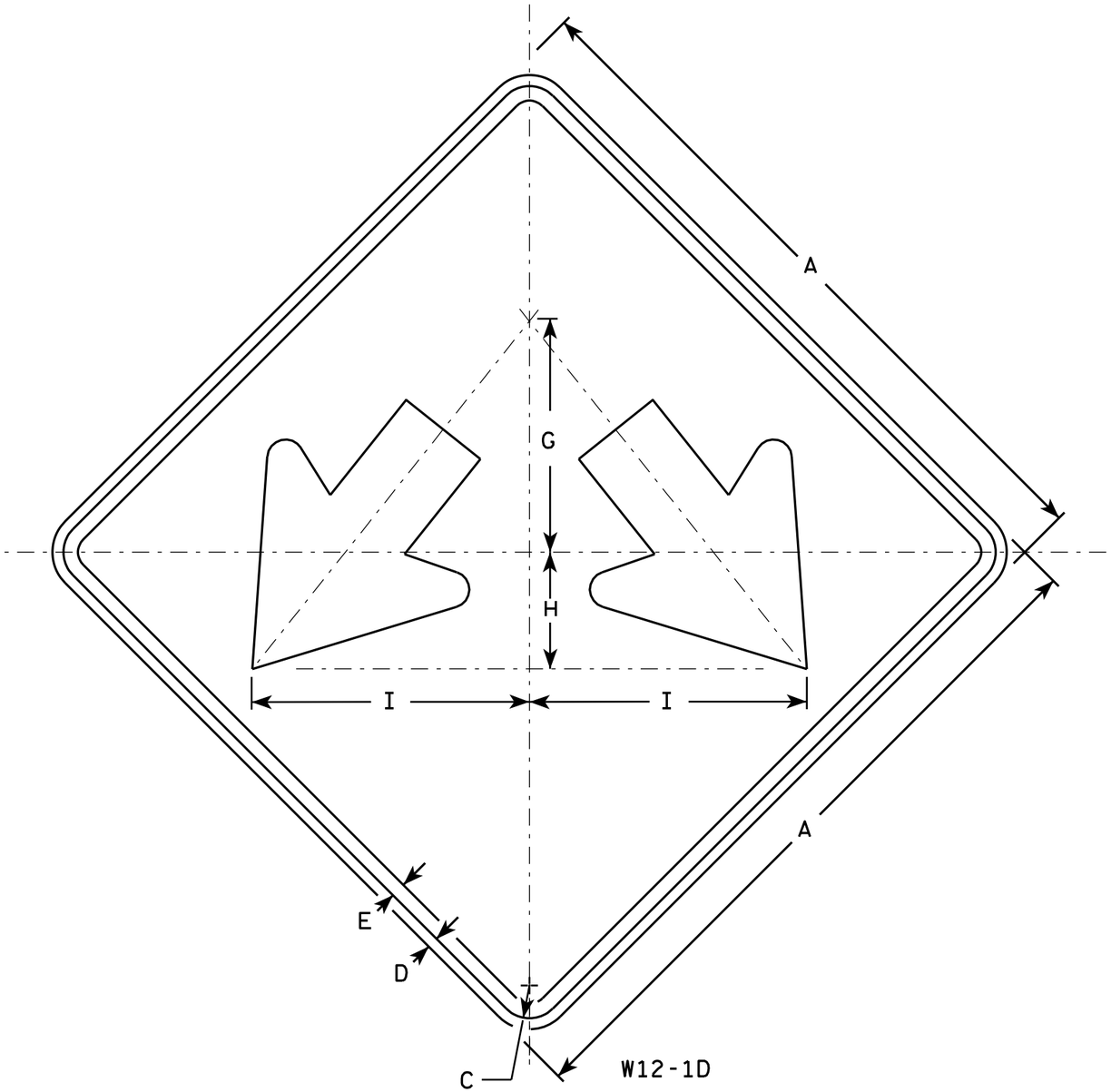
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-6.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 150 | E |
|---|---|---|---|---|---|

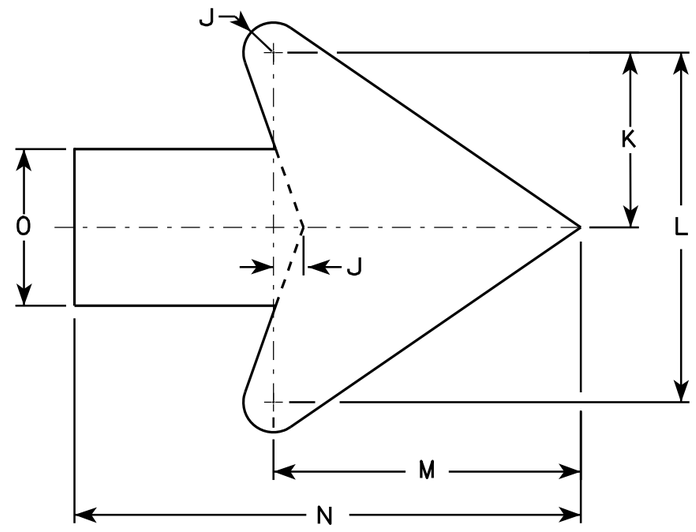


FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W116.DGN PLOT DATE : 13-MAR-2013 12:57 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.954276:1.000000
WISDOT/CADDS SHEET 42




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.




Arrow Detail

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 24 | | 1 1/8 | 1/2 | 3/8 | | 8 | 4 | 9 1/2 | 3/8 | 3 3/8 | 7 1/4 | 6 3/8 | 10 3/8 | 3 1/4 | | | | | | | | | | | | 4.0 |
| 2M | 24 | | 1 1/8 | 1/2 | 3/8 | | 8 | 4 | 9 1/2 | 3/8 | 3 3/8 | 7 1/4 | 6 3/8 | 10 3/8 | 3 1/4 | | | | | | | | | | | | 4.0 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 | 5 | 11 7/8 | 3/4 | 4 1/2 | 9 | 7 7/8 | 13 | 4 | | | | | | | | | | | | 6.25 |
| 4 | 36 | | 1 3/8 | 1/2 | 5/8 | | 12 | 6 | 14 1/4 | 1 | 5 1/2 | 10 7/8 | 9 5/8 | 15 3/4 | 4 3/4 | | | | | | | | | | | | 9.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | | 16 | 8 | 19 | 1 1/4 | 7 1/4 | 14 1/2 | 12 3/4 | 21 | 6 1/4 | | | | | | | | | | | | 16.0 |

STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

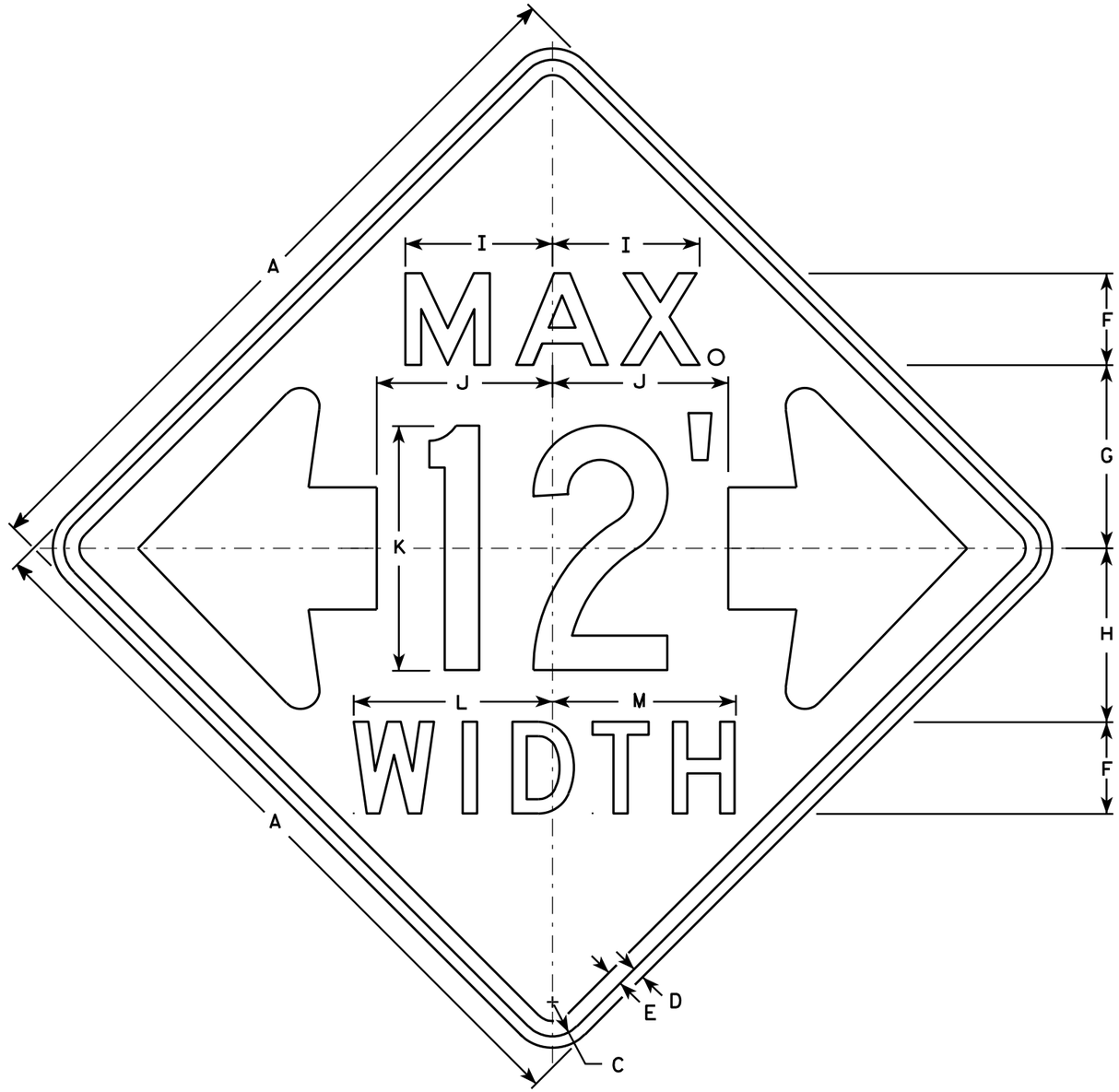
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 151 | E |
|---|---|---|---|---|---|

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

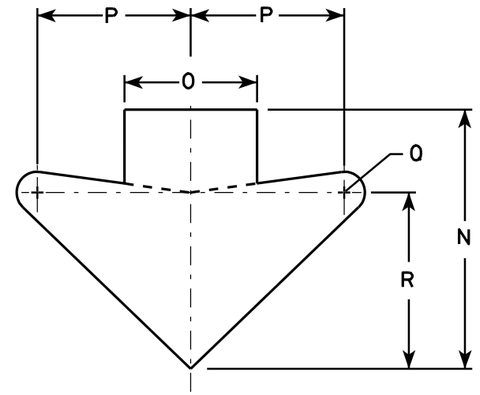
7




W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.




ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

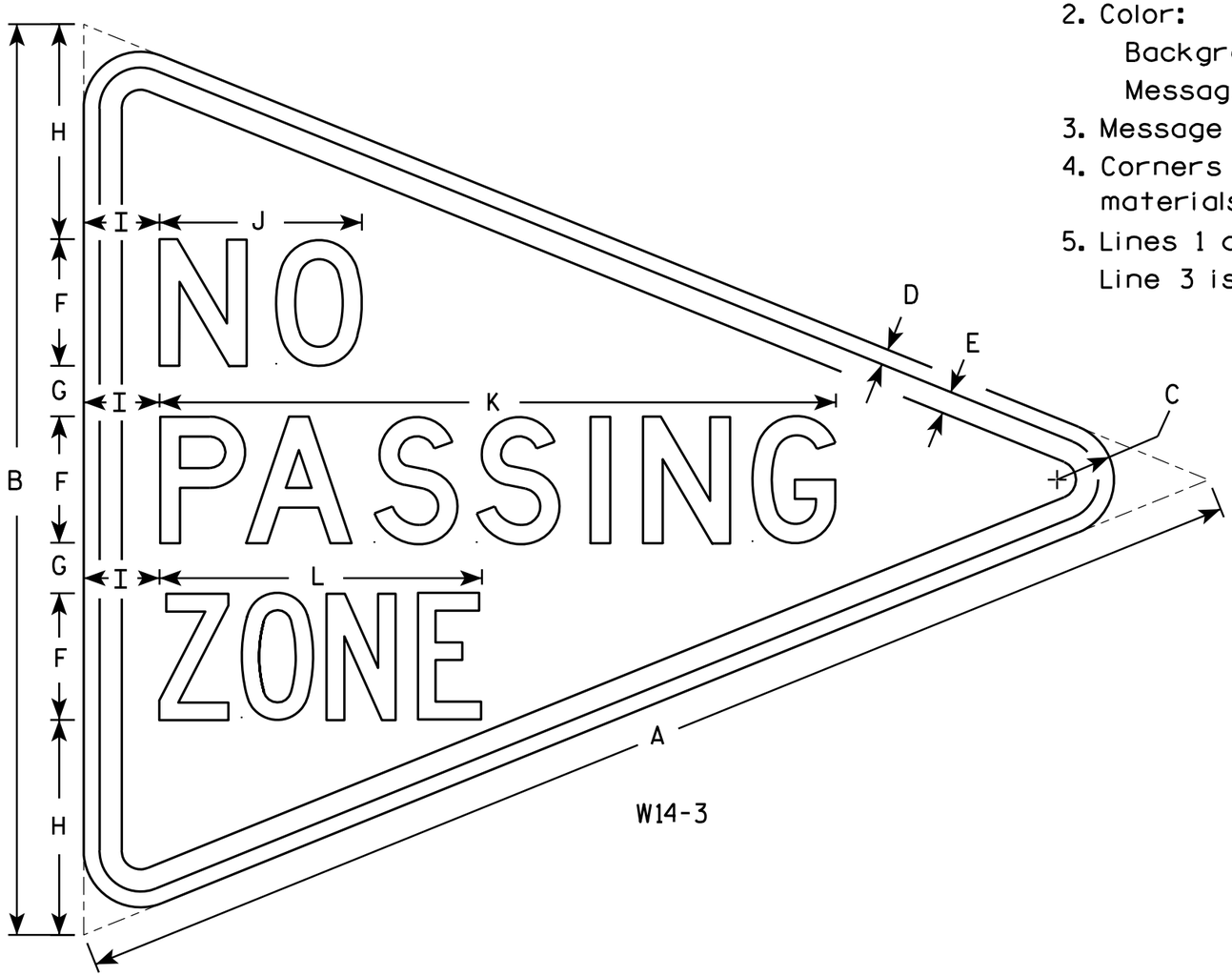
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 152 | E |
|---|---|---|---|---|---|

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.




W14-3

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 36 | 2 1/4 | 5/8 | 7/8 | 5 | 2 | 8 1/2 | 3 | 8 | 26 3/4 | 12 3/4 | | | | | | | | | | | | | | | 6.0 |
| 2M | 48 | 36 | 2 1/4 | 5/8 | 7/8 | 5 | 2 | 8 1/2 | 3 | 8 | 26 3/4 | 12 3/4 | | | | | | | | | | | | | | | 6.0 |
| 3 | 64 | 48 | 3 | 3/4 | 1 1/4 | 6 | 3 | 12 | 4 | 10 3/4 | 33 5/8 | 16 1/2 | | | | | | | | | | | | | | | 10.7 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

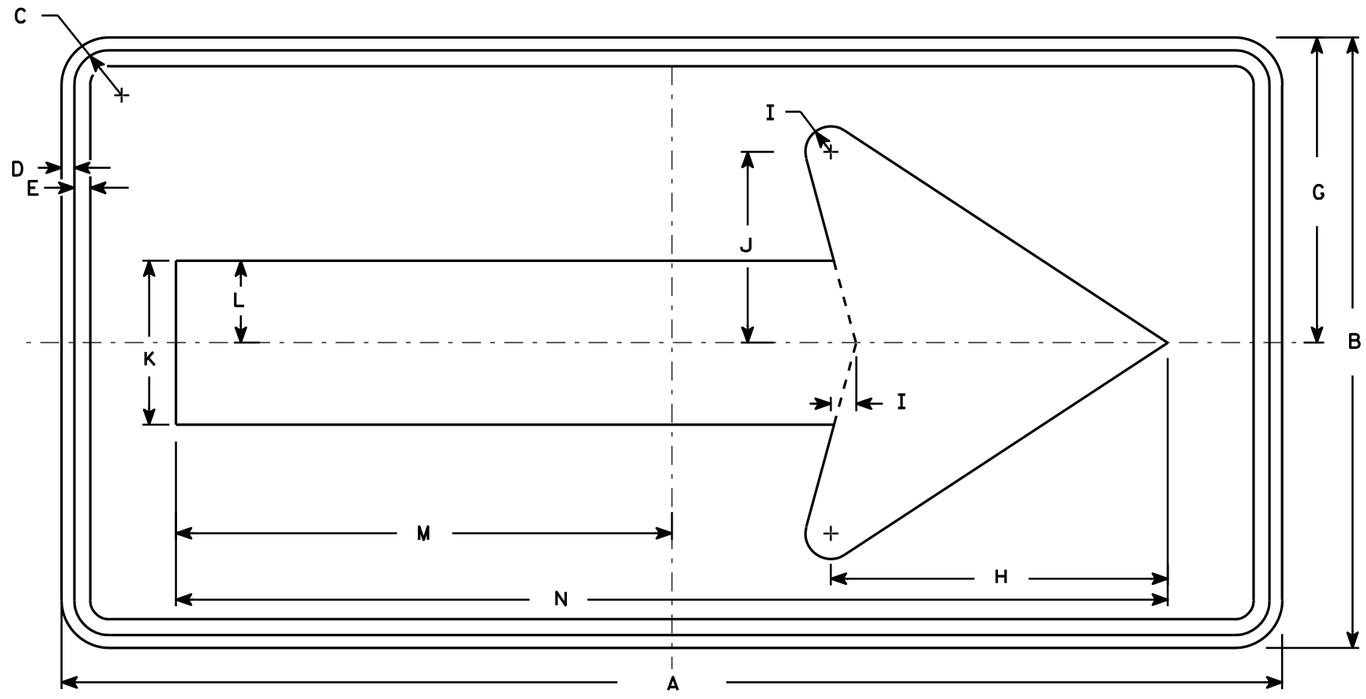
APPROVED Matthew R Rauch
for State Traffic Engineer

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

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 153 | 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.




W1-6

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 18 | 1 1/8 | 3/8 | 3/8 | | 9 | 10 | 3/4 | 5 5/8 | 4 3/4 | 2 3/8 | 14 5/8 | 29 1/4 | | | | | | | | | | | | | 4.5 |
| 2S | 48 | 24 | 1 3/8 | 1/2 | 5/8 | | 12 | 13 1/4 | 1 | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39 | | | | | | | | | | | | | 8.0 |
| 2M | 48 | 24 | 1 3/8 | 1/2 | 5/8 | | 12 | 13 1/4 | 1 | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39 | | | | | | | | | | | | | 8.0 |
| 3 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |
| 4 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |
| 5 | 96 | 48 | 2 1/4 | 3/4 | 1 | | 24 | 26 1/2 | 2 | 15 | 13 | 6 1/2 | 39 | 78 | | | | | | | | | | | | | 32.0 |

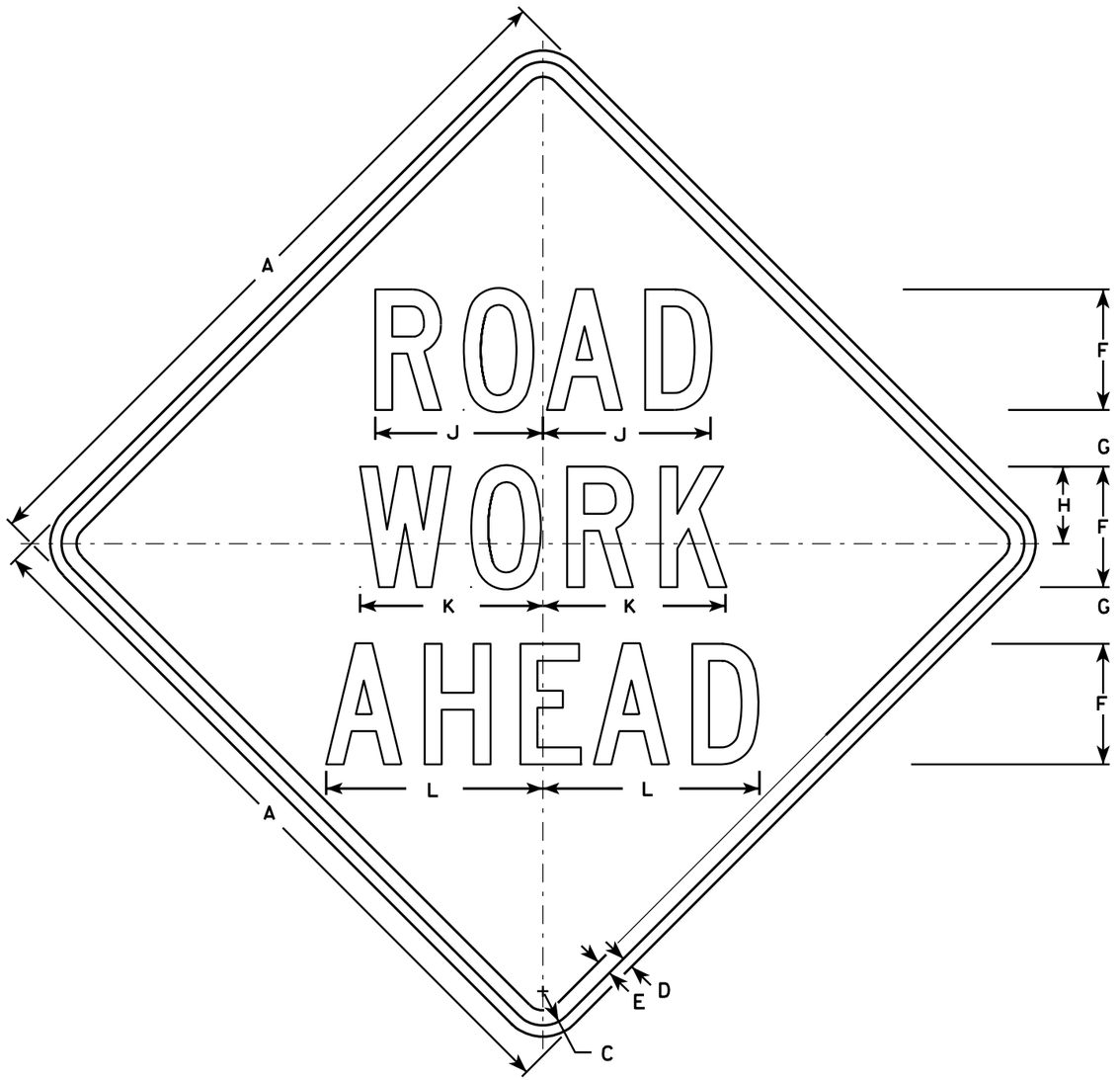
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

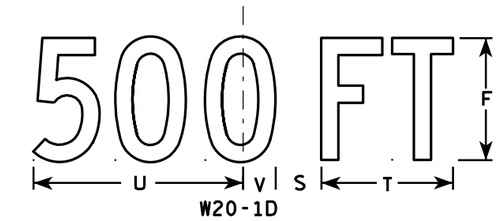
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

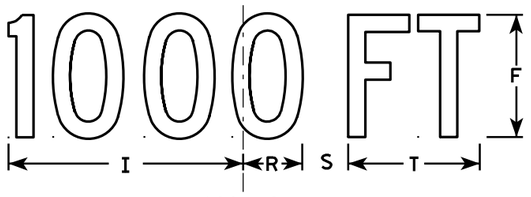
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 154 |
|---|---|---|---|---|



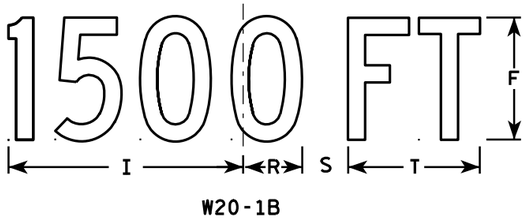

W20-1A




W20-1D



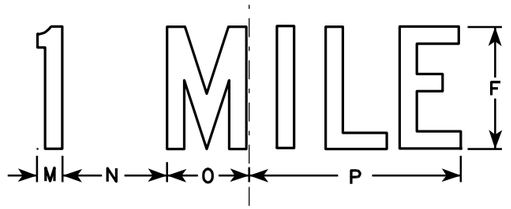

W20-1C




W20-1B




W20-1G




W20-1F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-1.9

PROJECT NO:

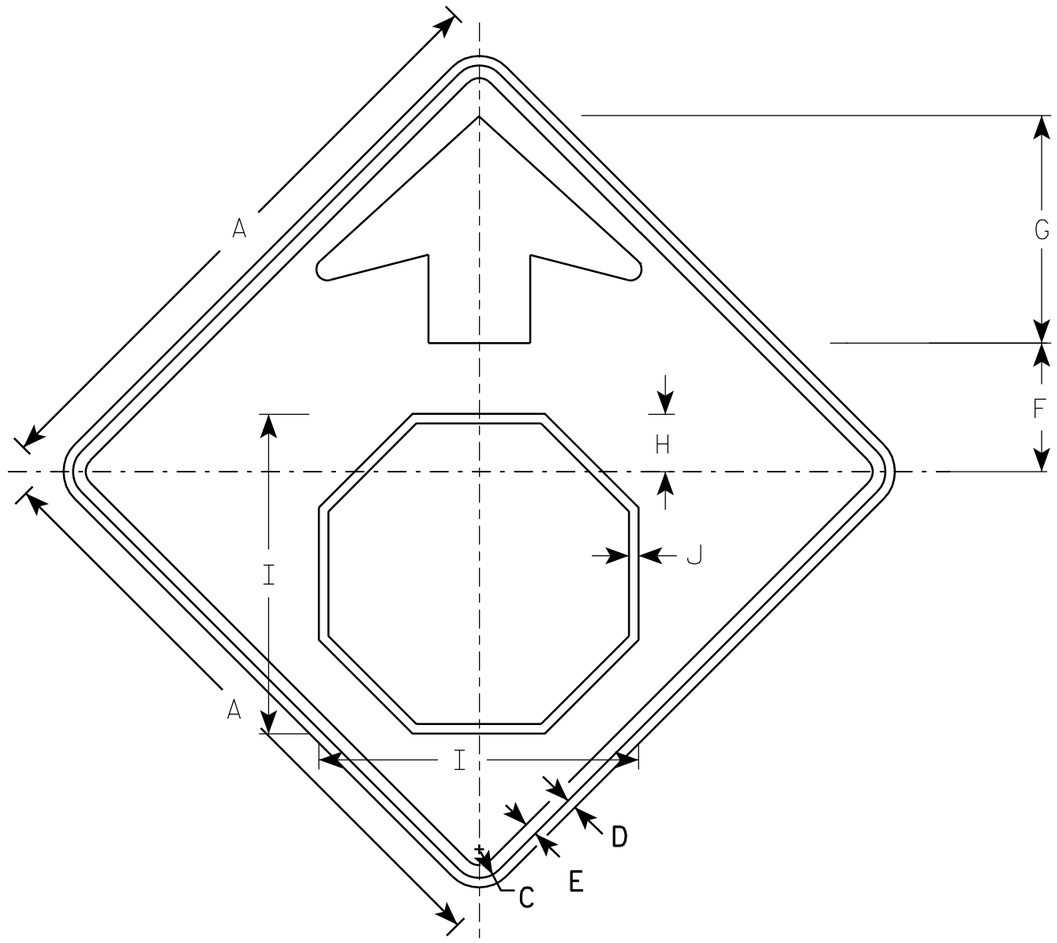
SHEET NO: 155 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W201.DGN PLOT DATE : 18-MAR-2011 09:56 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

7

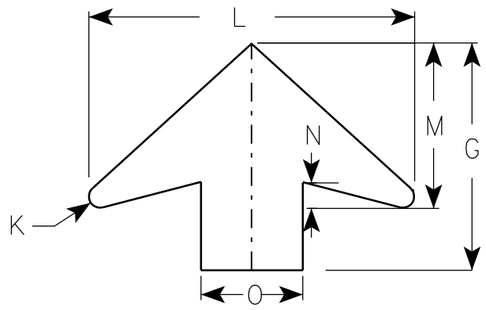
7




W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   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 sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 30 | | 1 3/8 | 1/2 | 5/8 | 6 1/4 | 11 1/4 | 2 7/8 | 15 3/4 | 1/2 | 1/2 | 16 | 8 | 1 1/4 | 5 | | | | | | | | | | | | 6.25 |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 1/2 | 19 | 5/8 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 1/2 | 19 | 5/8 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 | | | | | | | | | | | | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 7 1/2 | 13 1/2 | 3 1/2 | 19 | 5/8 | 5/8 | 19 1/4 | 9 3/4 | 1 5/8 | 6 | | | | | | | | | | | | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 10 | 17 7/8 | 4 1/2 | 25 1/8 | 3/4 | 7/8 | 25 5/8 | 13 | 2 | 8 | | | | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 10 | 17 7/8 | 4 1/2 | 25 1/8 | 3/4 | 7/8 | 25 5/8 | 13 | 2 | 8 | | | | | | | | | | | | 16.0 |

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

PROJECT NO:

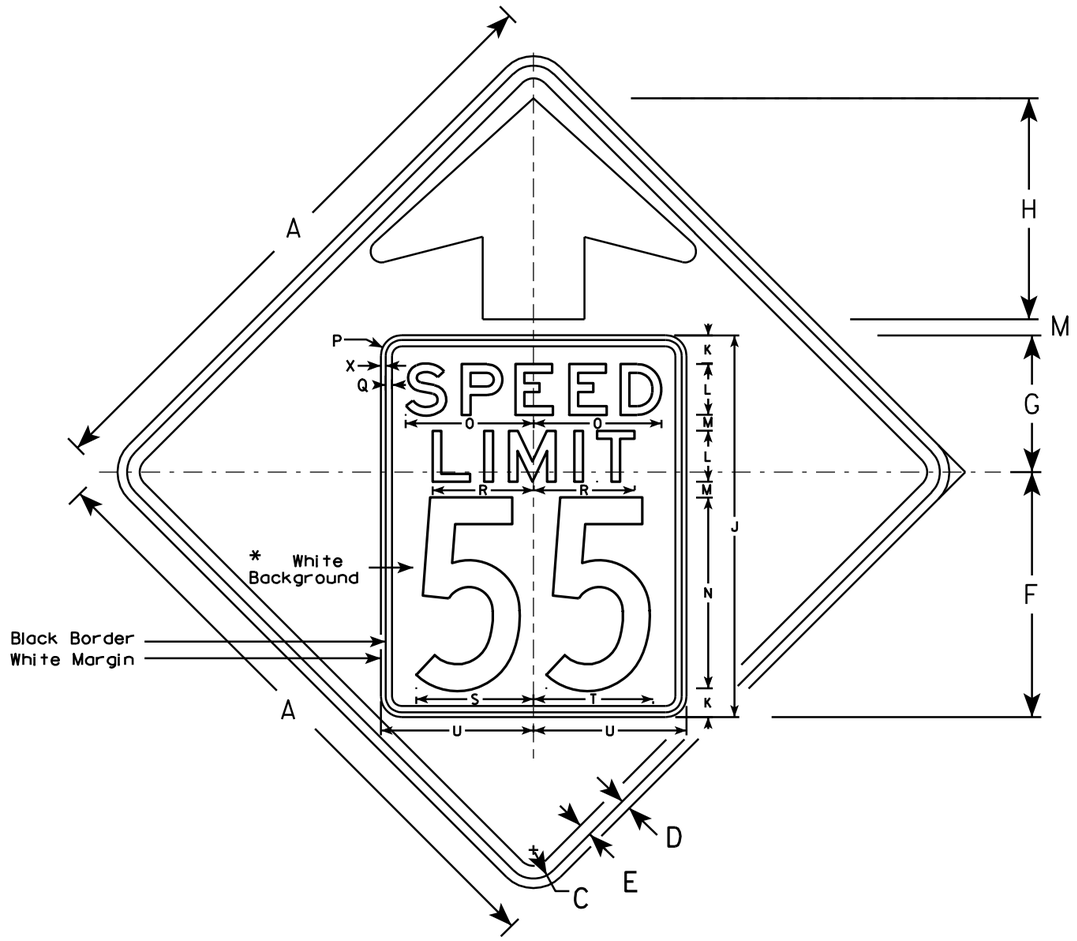
SHEET NO: 156 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W31.DGN PLOT DATE : 07-JUN-2010 12:59 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

7

7

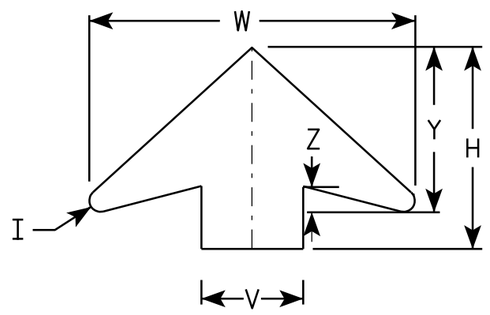



W3-5

NOTES

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

*Speed Limit Sign shall have a White Background




ARROW DETAIL

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | 9 1/2 | 11 1/2 | 5/8 | 24 | 2 | 3 | 1 | 12 | 7 1/8 | 1 1/2 | 3/8 | 5 3/4 | 7 1/4 | 7 1/8 | 9 | 6 | 19 1/4 | 3/8 | 9 3/4 | 1 5/8 | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | 9 1/2 | 11 1/2 | 5/8 | 24 | 2 | 3 | 1 | 12 | 7 1/8 | 1 1/2 | 3/8 | 5 3/4 | 7 1/4 | 7 1/8 | 9 | 6 | 19 1/4 | 3/8 | 9 3/4 | 1 5/8 | 9.0 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 14 1/2 | 9 1/2 | 11 1/2 | 5/8 | 24 | 2 | 3 | 1 | 12 | 7 1/8 | 1 1/2 | 3/8 | 5 3/4 | 7 1/4 | 7 1/8 | 9 | 6 | 19 1/4 | 3/8 | 9 3/4 | 1 5/8 | 9.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 19 1/4 | 10 3/4 | 17 3/8 | 7/8 | 30 | 2 1/4 | 4 | 1 1/4 | 15 | 10 | 1 5/8 | 1/2 | 8 | 9 1/4 | 9 3/8 | 12 | 8 | 25 5/8 | 3/8 | 13 | 2 | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 19 1/4 | 10 3/4 | 17 3/8 | 7/8 | 30 | 2 1/4 | 4 | 1 1/4 | 15 | 10 | 1 5/8 | 1/2 | 8 | 9 1/4 | 9 3/8 | 12 | 8 | 25 5/8 | 3/8 | 13 | 2 | 16.0 |

STANDARD SIGN
W3-5

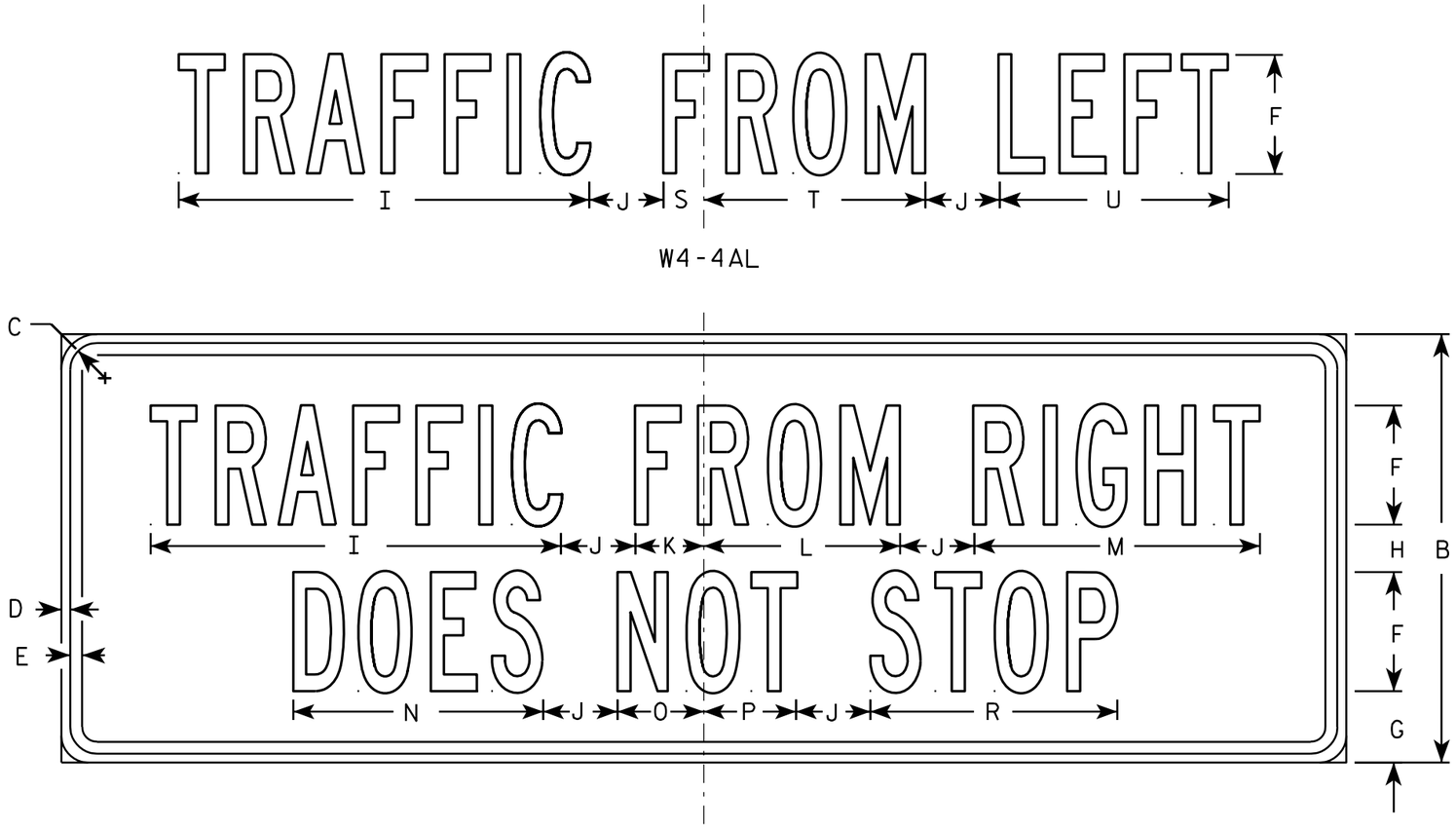
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 157 E




W4-4AL




W4-4AR

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 12 | 1 1/8 | 3/8 | 3/8 | 3 | 2 1/4 | 1 1/2 | 10 3/8 | 1 1/2 | 1 3/4 | 4 7/8 | 7 1/4 | 6 1/4 | 2 1/4 | 2 1/4 | | 6 1/4 | 1 | 5 5/8 | 5 3/4 | | | | | | 2.5 |
| 2M | 30 | 12 | 1 1/8 | 3/8 | 3/8 | 3 | 2 1/4 | 1 1/2 | 10 3/8 | 1 1/2 | 1 3/4 | 4 7/8 | 7 1/4 | 6 1/4 | 2 1/4 | 2 1/4 | | 6 1/4 | 1 | 5 5/8 | 5 3/4 | | | | | | 2.5 |
| 3 | 42 | 15 | 1 1/8 | 3/8 | 1/2 | 4 | 2 5/8 | 1 3/4 | 13 7/8 | 2 3/8 | 2 1/8 | 6 3/4 | 9 3/4 | 8 3/8 | 2 3/4 | 3 3/8 | | 8 3/8 | 1 1/8 | 7 3/4 | 7 3/4 | | | | | | 4.4 |
| 4 | 54 | 18 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 2 | 17 1/4 | 3 1/8 | 2 7/8 | 8 1/4 | 12 | 10 1/2 | 3 5/8 | 3 7/8 | | 10 3/8 | 1 3/4 | 9 3/8 | 9 5/8 | | | | | | 6.8 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
W4-4AL & W4-4AR

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 158 | E




W4-4B

NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | 12 | 1 1/8 | 3/8 | 1/2 | 3 | 2 1/4 | 1 1/2 | 12 3/8 | 5/8 | 1 1/2 | 10 3/8 | 6 1/4 | 2 1/4 | 2 1/4 | 6 1/4 | | | | | | | | | | | 2.5 |
| 2M | 30 | 12 | 1 1/8 | 3/8 | 1/2 | 3 | 2 1/4 | 1 1/2 | 12 3/8 | 5/8 | 1 1/2 | 10 3/8 | 6 1/4 | 2 1/4 | 2 1/4 | 6 1/4 | | | | | | | | | | | 2.5 |
| 3 | 42 | 15 | 1 1/8 | 3/8 | 1/2 | 4 | 2 5/8 | 1 3/4 | 16 7/8 | 5/8 | 2 3/8 | 13 7/8 | 8 3/8 | 3 | 3 1/8 | 8 3/8 | | | | | | | | | | | 4.17 |
| 4 | 48 | 18 | 1 1/8 | 3/8 | 1/2 | 5 | 3 | 2 | 21 | 5/8 | 3 1/8 | 17 1/4 | 10 1/2 | 3 5/8 | 3 7/8 | 10 3/8 | | | | | | | | | | | 6.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

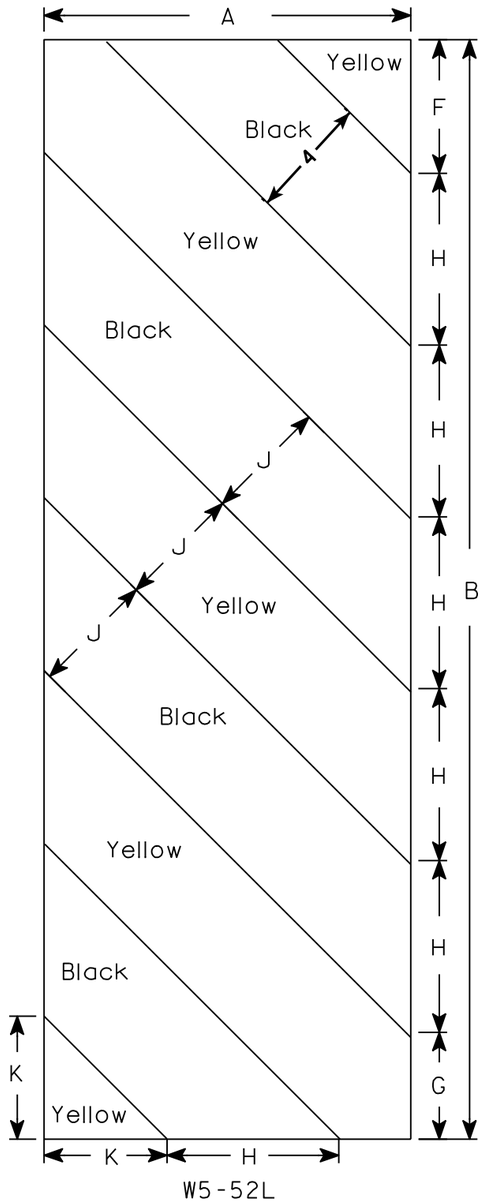
STANDARD SIGN
W4-4B

WISCONSIN DEPT OF TRANSPORTATION

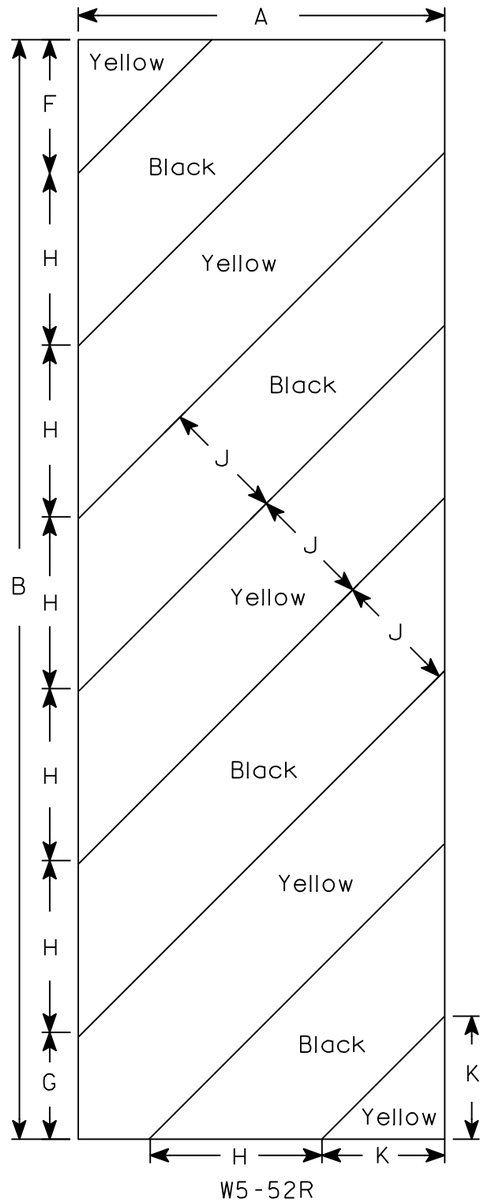
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4B.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 159 | E |
|---|---|---|---|---|---|




W5-52L




W5-52R

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 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

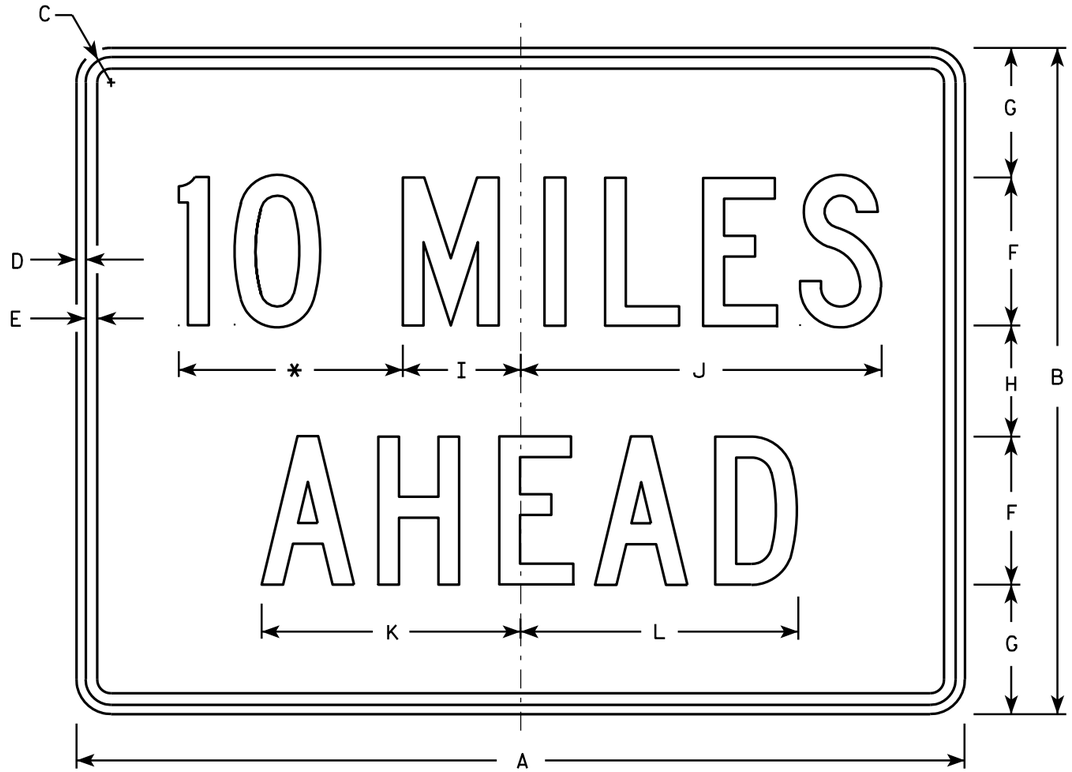
W5-52L & W5-52R

*WISCONSIN DEPT OF TRANSPORTATION*

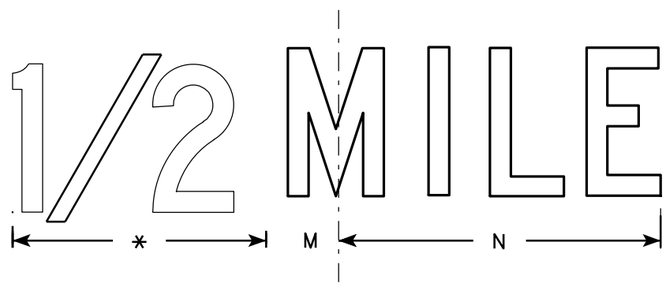
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 160 | E




W57-52




NOTES

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

* See note 5

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 24 | 18 | 1 1/8 | 3/8 | 1/2 | 4 | 3 1/2 | 3 | 3 1/8 | 9 3/4 | 7 | 7 1/2 | 1 3/8 | 8 3/4 | | | | | | | | | | | | | 3.0 |
| 2S | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/2 | 3 | 4 3/4 | 14 5/8 | 10 5/8 | 11 3/8 | 2 | 13 | | | | | | | | | | | | | 6.0 |
| 2M | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/2 | 3 | 4 3/4 | 14 5/8 | 10 5/8 | 11 3/8 | 2 | 13 | | | | | | | | | | | | | 6.0 |
| 3 | 36 | 24 | 1 1/8 | 3/8 | 1/2 | 6 | 4 1/2 | 3 | 4 3/4 | 14 5/8 | 10 5/8 | 11 3/8 | 2 | 13 | | | | | | | | | | | | | 6.0 |
| 4 | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 17 3/8 | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 36 | 1 3/8 | 1/2 | 5/8 | 8 | 7 | 6 | 6 3/8 | 19 1/2 | 14 | 15 | 2 3/4 | 17 3/8 | | | | | | | | | | | | | 12.0 |

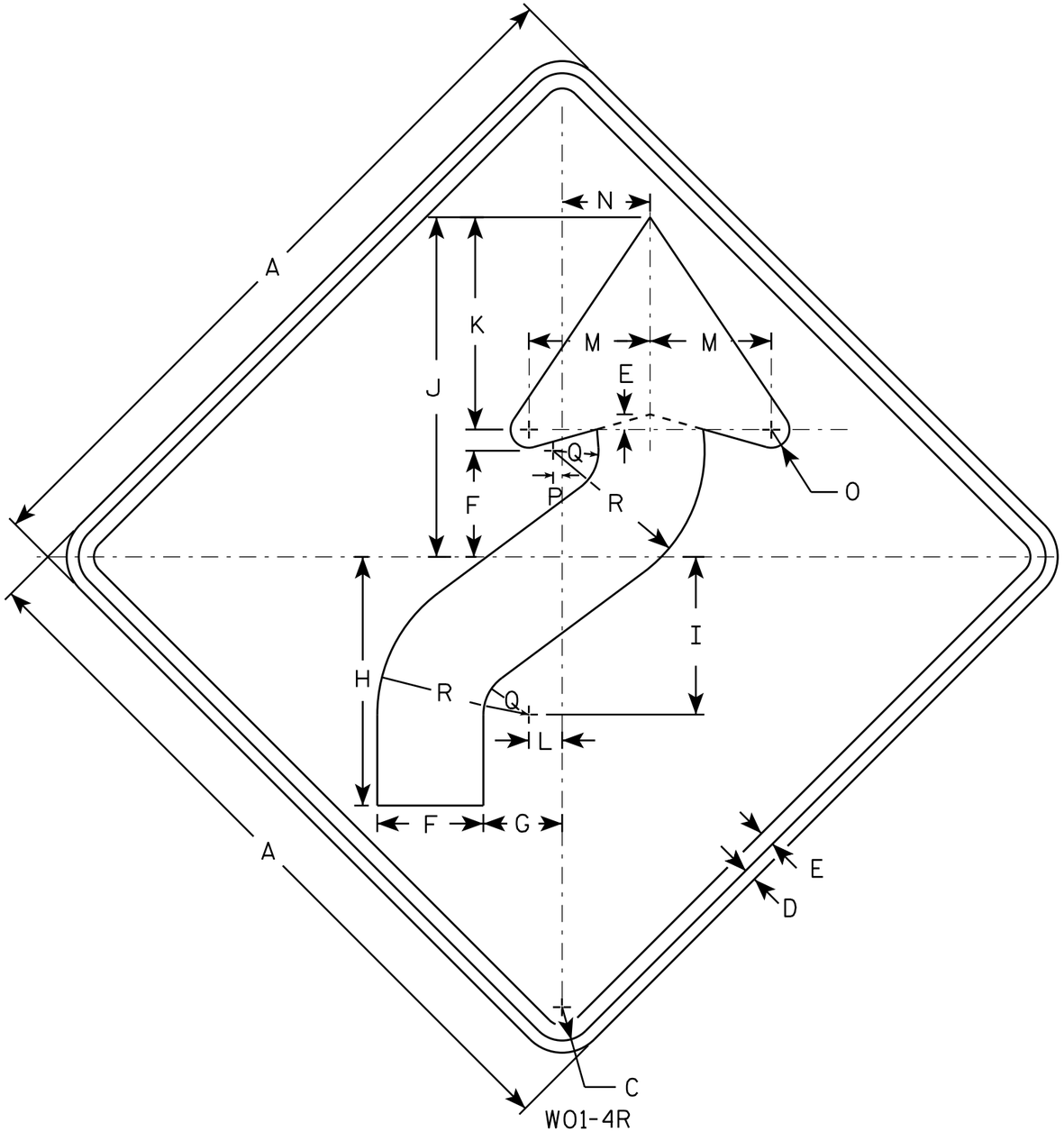
STANDARD SIGN
W57-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W57-52.7

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 161 | E |
|---|---|---|---|---|---|




W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 1/4 | 4 | 12 3/8 | 7 7/8 | 16 7/8 | 10 1/2 | 1 5/8 | 6 | 4 1/2 | 1 | 1/2 | 2 1/4 | 7 1/2 | | | | | | | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 5 1/4 | 16 1/2 | 10 1/2 | 22 1/2 | 14 | 2 1/4 | 8 | 6 | 1 1/4 | 5/8 | 3 | 10 | | | | | | | | | 16.0 |

# STANDARD SIGN
# W01-4

WISCONSIN DEPT OF TRANSPORTATION

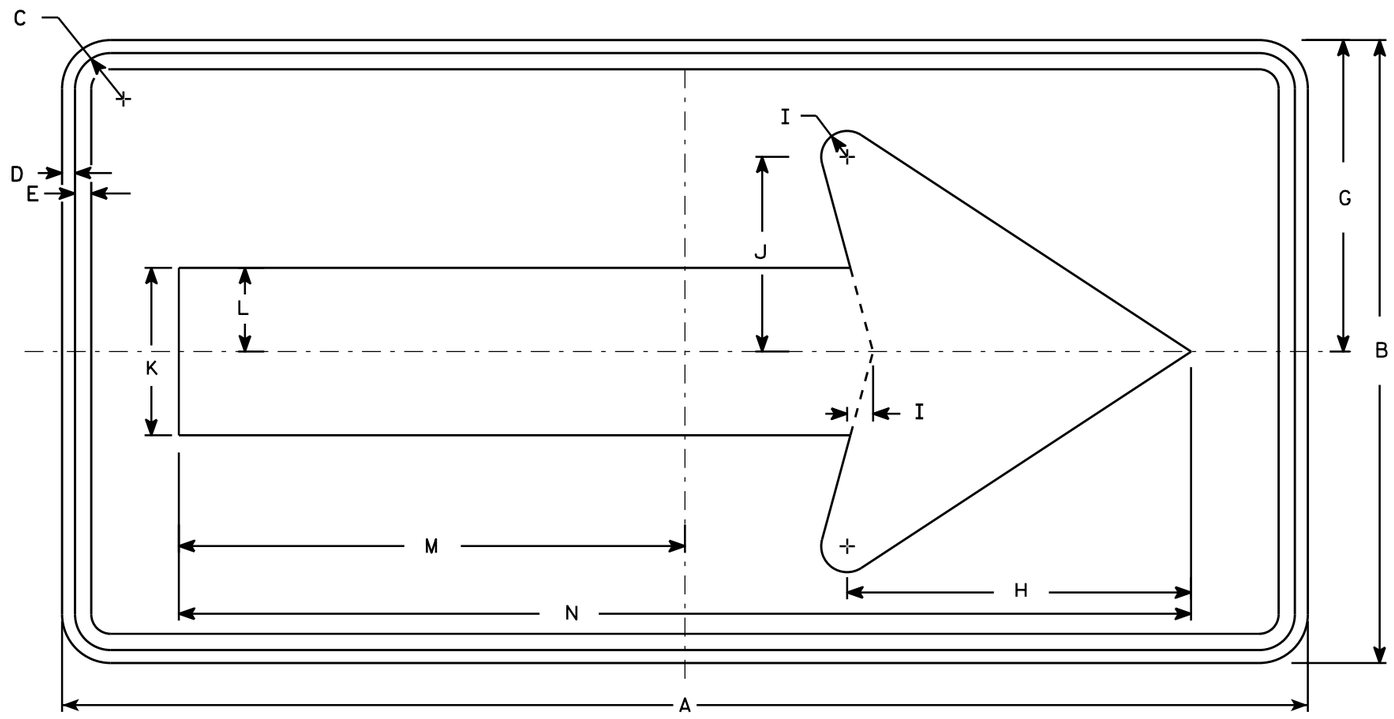
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

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



FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42




W01-6

## NOTES

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

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 24 | 1 3/8 | 1/2 | 5/8 | | 12 | 13 1/4 | 1 | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39 | | | | | | | | | | | | | 8.0 |
| 2M | 48 | 24 | 1 3/8 | 1/2 | 5/8 | | 12 | 13 1/4 | 1 | 7 1/2 | 6 1/2 | 3 1/4 | 19 1/2 | 39 | | | | | | | | | | | | | 8.0 |
| 3 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |
| 4 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |
| 5 | 60 | 30 | 1 3/8 | 1/2 | 5/8 | | 15 | 16 1/4 | 1 1/4 | 9 1/4 | 8 | 4 | 24 3/8 | 48 3/4 | | | | | | | | | | | | | 12.5 |

# STANDARD SIGN
# W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

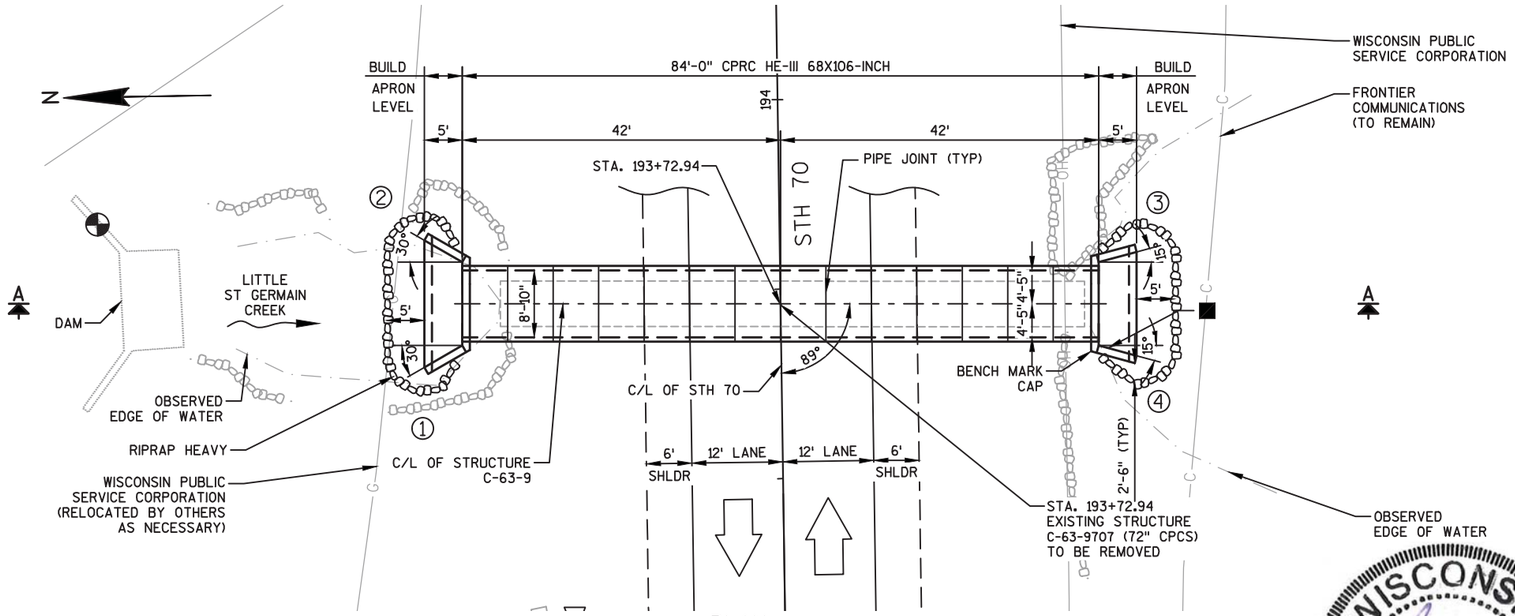


PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42

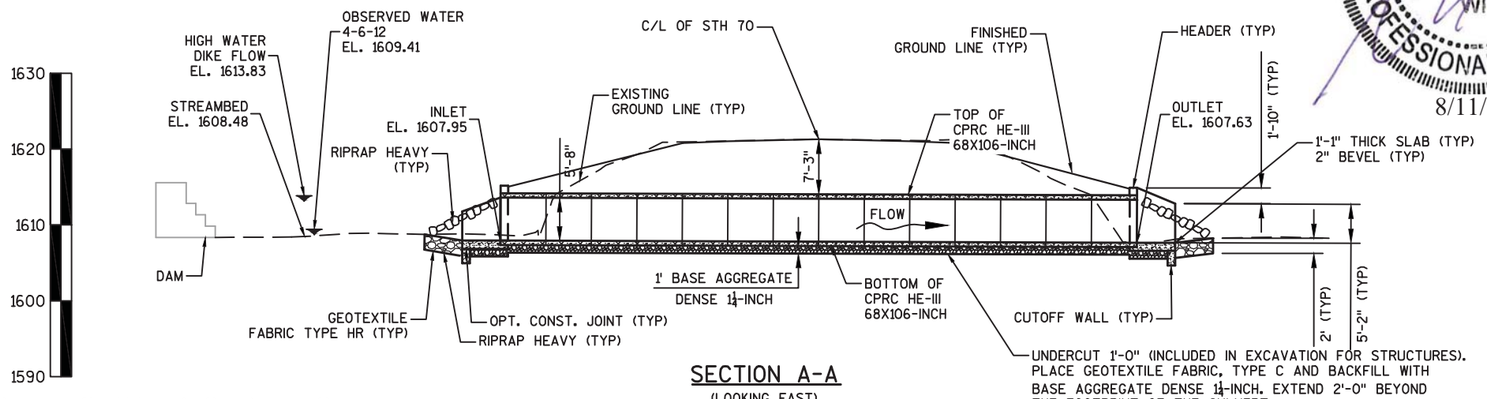
STATE PROJECT NUMBER

9080-14-60




PLAN

(CULVERT PIPE REINFORCED CONCRETE HE-III 68X106-INCH WITH CAST IN PLACE CONCRETE MASONRY ENDWALLS)




SECTION A-A

(LOOKING EAST)

## TOTAL ESTIMATED QUANTITIES

| BID ITEM # | BID ITEMS | UNIT | INLET | OUTLET | PIPE | TOTAL |
|---|---|---|---|---|---|---|
| 203.0500.S | REMOVING OLD STRUCTURE OVER WATERWAY STATION 193+73 | LS | - | - | - | 1 |
| 206.2000 | EXCAVATION FOR STRUCTURES CULVERTS C-63-9 | LS | - | - | - | 1 |
| 210.0100 | BACKFILL STRUCTURE | CY | 35 | 35 | - | 70 |
| 305.0125 | BASE AGGREGATE DENSE 1 ¼-INCH | CY | 5 | 5 | 32 | 42 |
| 504.0900 | CONCRETE MASONRY ENDWALLS | CY | 8.9 | 8.6 | - | 17.5 |
| 505.0410 | BAR STEEL REINFORCEMENT HS CULVERTS | LB | 210 | 190 | - | 400 |
| 505.0610 | BAR STEEL REINFORCEMENT HS COATED CULVERTS | LB | 490 | 480 | - | 970 |
| *511.1100 | TEMPORARY SHORING | SF | - | - | - | 1920 |
| 516.0500 | RUBBERIZED MEMBRANE WATERPROOFING | SY | 5 | 5 | - | 10 |
| 523.0168 | CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 68X106-INCH | LF | - | - | 84 | 84 |
| 606.0300 | RIPRAP HEAVY | CY | 13 | 11 | - | 24 |
| 645.0105 | GEOTEXTILE FABRIC TYPE C | SY | - | - | 130 | 130 |
| 645.0120 | GEOTEXTILE FABRIC TYPE HR | SY | 30 | 25 | - | 55 |

◯ DENOTES WING NUMBER

■ NAME PLATE LOCATION (INSIDE FACE)

* 330 SF FOR STAGE 1
630 SF FOR STAGE 2
630 SF FOR STAGE 3
330 SF FOR STAGE 4

## SUBSURFACE INFORMATION

TWO SOIL BORINGS WERE COMPLETED BY NUMMELIN TESTING SERVICES, INC. ON JUNE 7, 2012. SUBSURFACE SOIL INVESTIGATION REPORT IS AVAILABLE FROM THE REGIONAL DOT OFFICE.

SUMMARY:

BORING #1
TOP ELEVATION 1620.90
BROWN FINE SAND, LITTLE SILT 14.5' (COBBLES AT 14')
BROWN FINE SAND 37'-0"
WATER AT 11'-0"

BORING #2
TOP ELEVATION 1621.00
BROWN FINE SAND, LITTLE SILT 14.5'
BROWN FINE SAND 37'
WATER AT 11.5'

BENCH MARKS

| NO. | STATION | DESCRIPTION | ELEV. |
|---|---|---|---|
| 10 | 193+32.14, 50'LT | WI VALLEY IMPR CP ALUMINUM DISC | 1615.23 |

## DESIGN DATA

ULTIMATE DESIGN STRESSES
CONCRETE MASONRY = 3,500 PSI
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) = 60,000 PSI

HYDRAULIC DATA
$Q_{SPILLWAY - DAM CONTROL}$ = 173 CFS
CHANNEL VELOCITY AT CULVERT INLET = 5.61 FPS
HIGH WATER ELEVATION AT CULVERT INLET = 1612.06

$Q_{DIKE - DAM CONTROL}$ = 278 CFS
CHANNEL VELOCITY AT CULVERT INLET = 4.04 FPS
HIGH WATER ELEVATION AT CULVERT INLET = 1613.83

EARTH LOAD
FILL HEIGHT 7'-3"

SOIL DATA
BEARING PRESSURE 4000 PSF

TRAFFIC DATA
A.A.D.T. = 6400 (2015)
A.A.D.T. = 9000 (2035)
DESIGN SPEED = 55 MPH

## GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION OF THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION, LATEST EDITION.

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

THE FIRST DIGIT OF THE THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES SHALL BE THE EXISTING GROUNDLINE. ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE CULVERT.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

## CONTACTS

BRIDGE OFFICE CONTACT
WILLIAM DREHER: 608-266-8489

CONSULTANT DESIGN CONTACT
SEAN SPROMBERG: 715-845-8000

## LIST OF DRAWINGS


1. GENERAL PLAN & ELEVATION
2. APRON DETAILS
3. WING 1 & 2 DETAILS
4. WING 3 & 4 DETAILS
5. BILL OF BARS


WISCONSIN PROFESSIONAL ENGINEER SEAN M. SPROMBERG E-37771-006 SCHOFIELD, WI

8/11/14

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

ORIGINAL PLANS PREPARED BY

BECHER HOPPE
330 Fourth Street • PO Box 8000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 08/18/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

# STRUCTURE C-63-09

STH 70 OVER LITTLE ST GERMAIN CREEK

| COUNTY | TOWN ~~CITY / VILLAGE~~ |
|---|---|
| VILAS & ONEIDA | ST GERMAIN & NEWBOLD |

DESIGN SPEC.
AASHTO LRFD DESIGN SPEC 5TH EDITION

| DESIGNED BY | DESIGN CK'D. | DRAWN BY | PLANS CK'D. |
|---|---|---|---|
| DJG | SMS | CDG | SMS |

GENERAL PLAN & ELEVATION

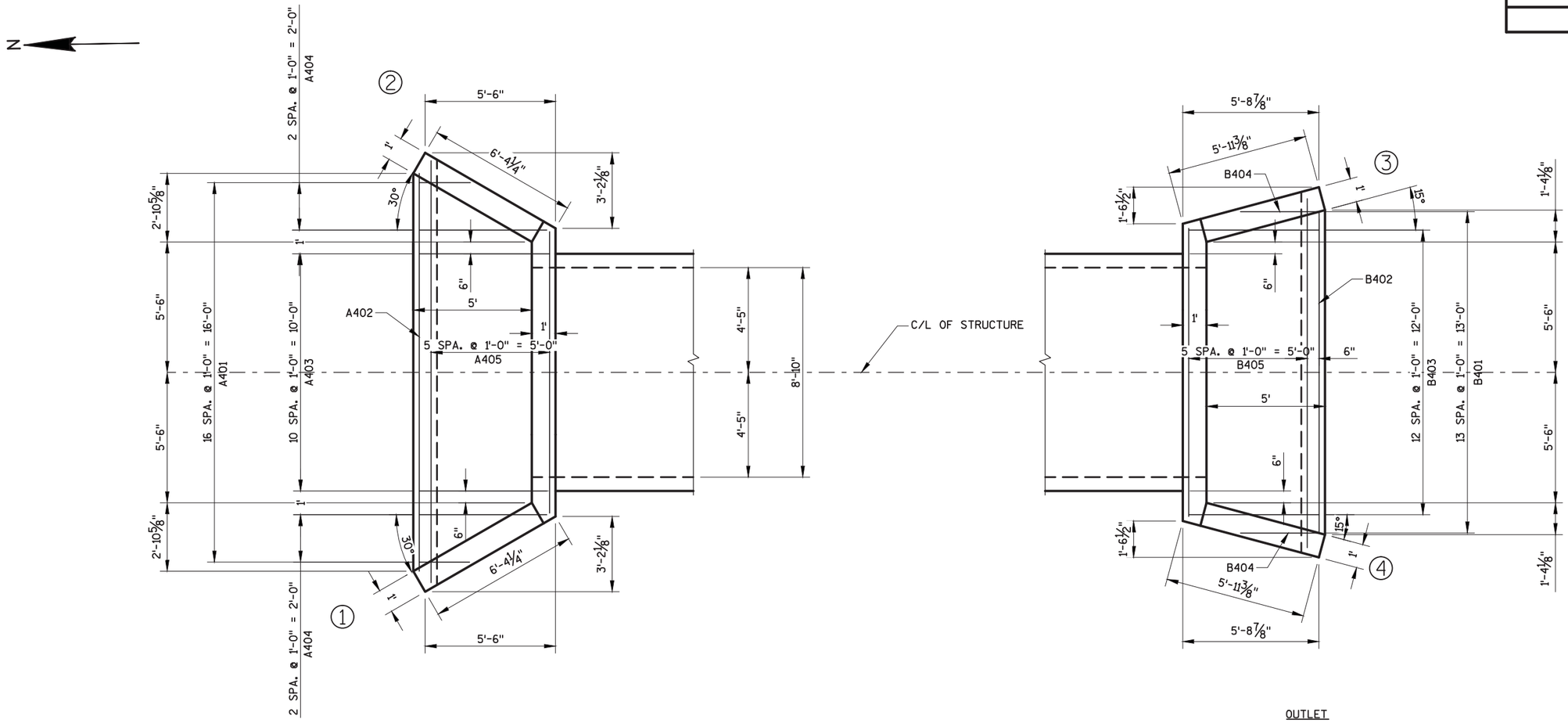
SHEET 1 OF 5

164

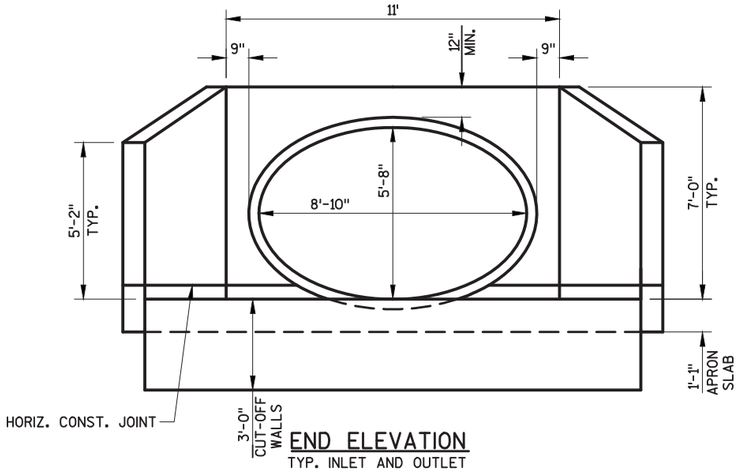
I.D. 9080-14-60

DATE: AUG. 2014

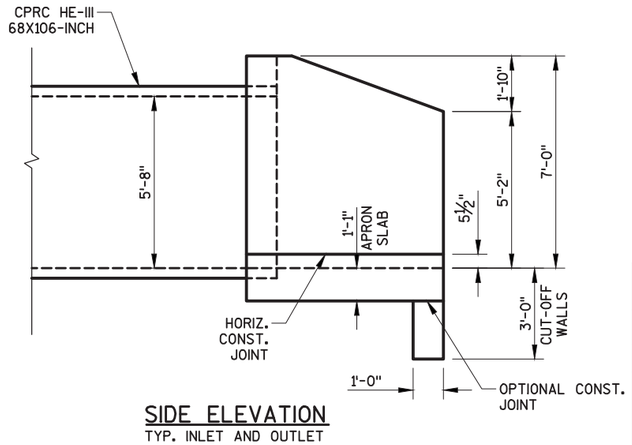
| STATE PROJECT NUMBER |
| --- |
| 9080–14–60 |




## PLAN OF APRONS




END ELEVATION
TYP. INLET AND OUTLET




SIDE ELEVATION
TYP. INLET AND OUTLET

| NO. | DATE | REVISION | BY |
| --- | --- | --- | --- |
| | | | |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C–63–09

DRAWN BY CDG | PLANS CK'D. SMS

APRON DETAILS

SHEET 2 OF 5



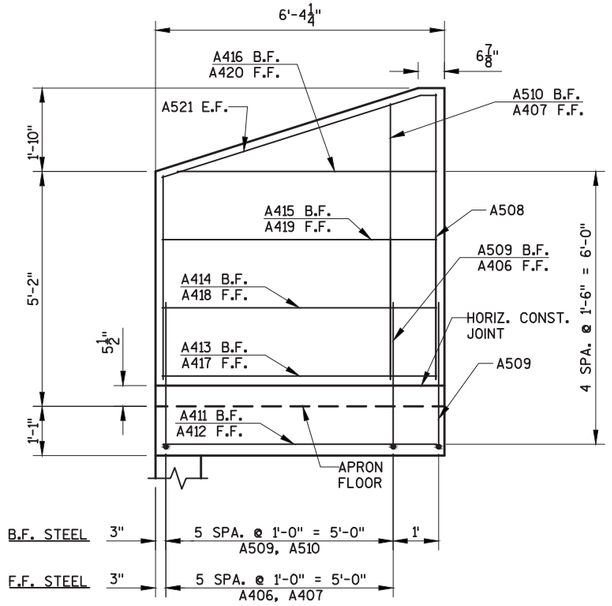
8

8

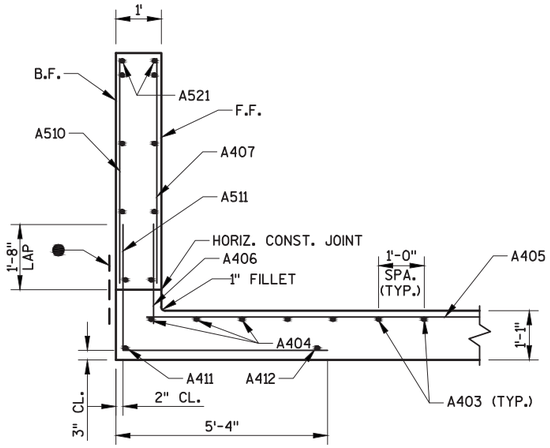
STATE PROJECT NUMBER
9080–14–60

WINGWALLS SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

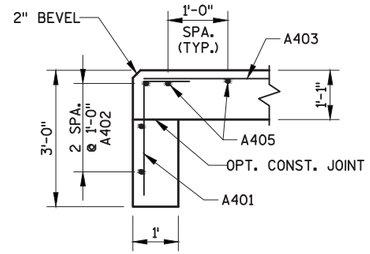
● 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JOINT IN WING



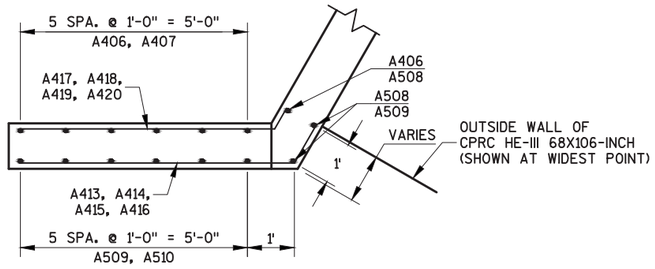

ELEVATION - WING 1



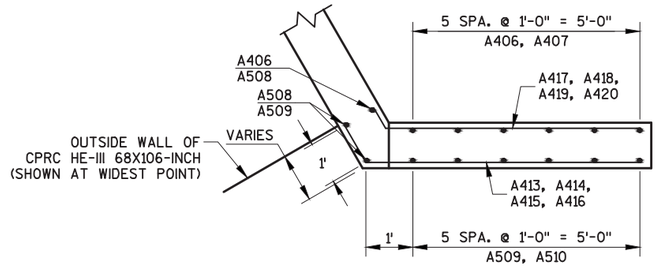

TYP. SECTION THRU WINGS 1 & 2



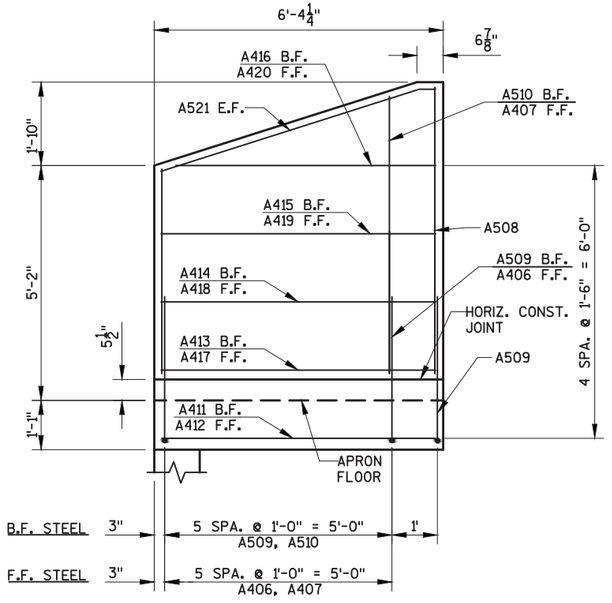

SECTION THRU CUTOFF WALL



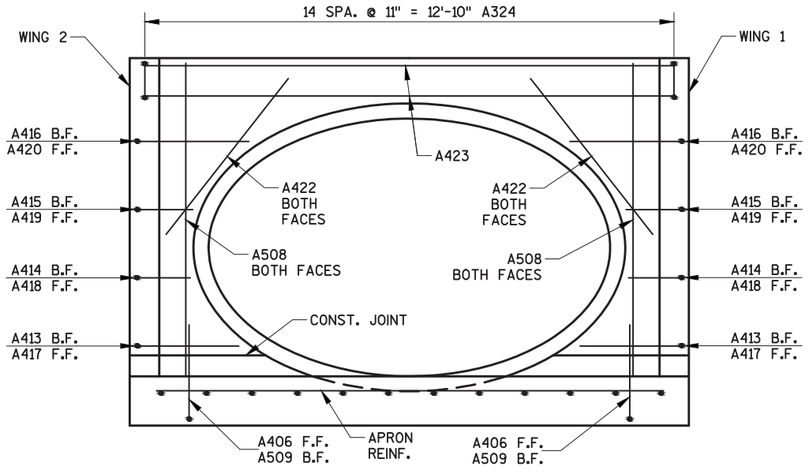

PLAN - WING 1



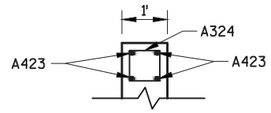

PLAN - WING 1




ELEVATION - WING 2




HEADER WALL ELEVATION




SECTION THRU HEADER WALL

| NO. | DATE | REVISION | BY |
|---|---|---|---|

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C–63–09

DRAWN BY CDG | PLANS CK'D. SMS

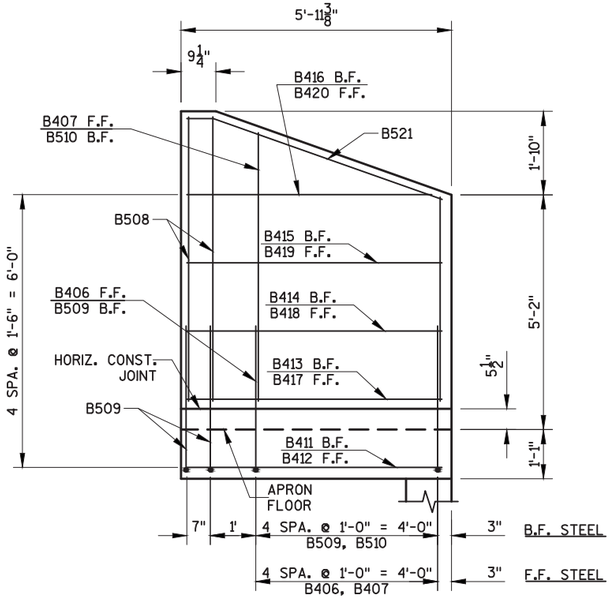
WINGS 1 & 2 DETAILS

SHEET 3 OF 5

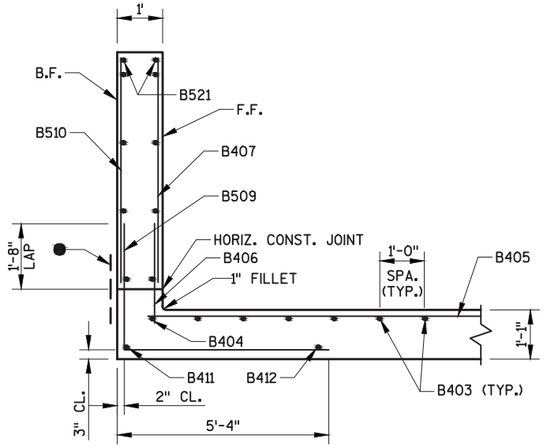
| STATE PROJECT NUMBER |
|---|
| 9080–14–60 |

WINGWALLS SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.

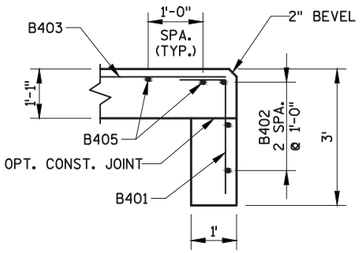
● 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JOINT IN WING



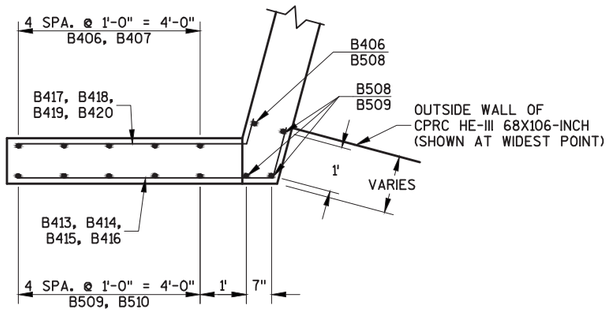

ELEVATION - WING 3



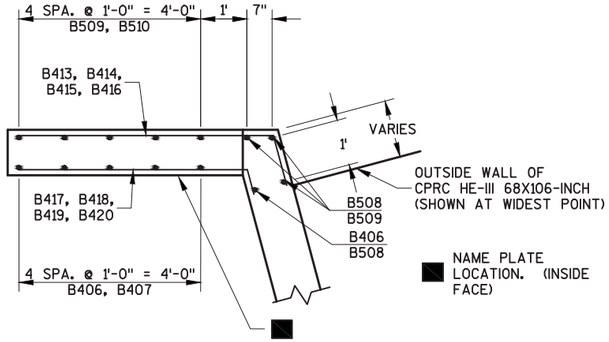

TYP. SECTION THRU WINGS 3 & 4



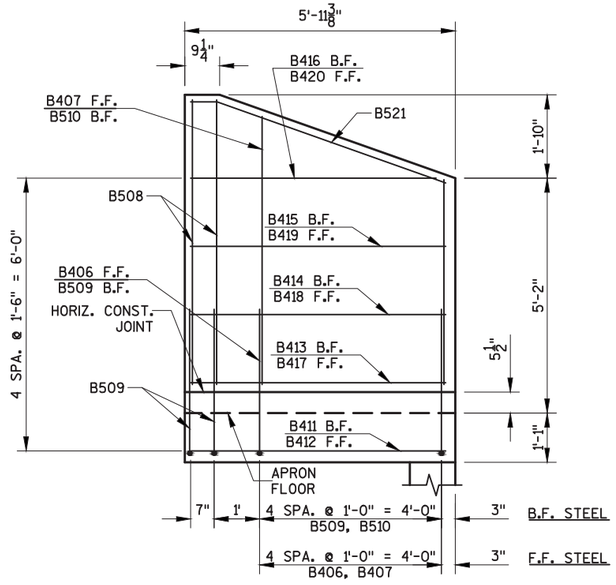

SECTION THRU CUTOFF WALL



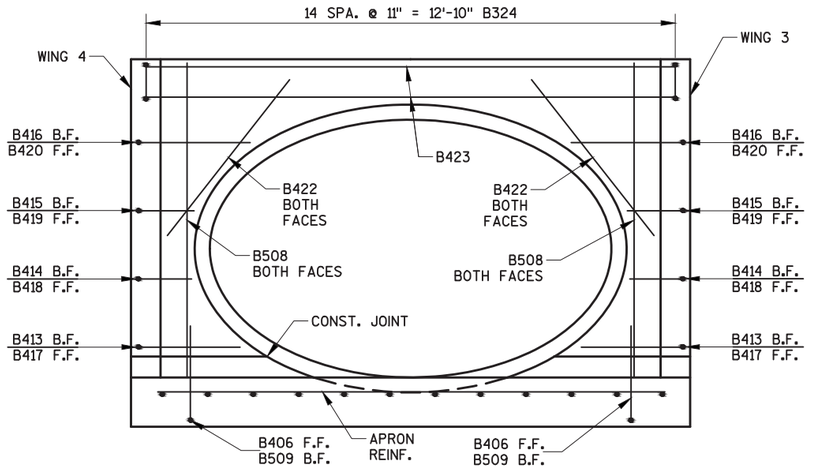

PLAN - WING 3



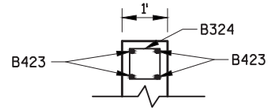

PLAN - WING 4




ELEVATION - WING 4




HEADER WALL ELEVATION




SECTION THRU HEADER WALL

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C–63–09

DRAWN BY CDG | PLANS CK'D. SMS

WINGS 3 & 4 DETAILS

SHEET 4 OF 5

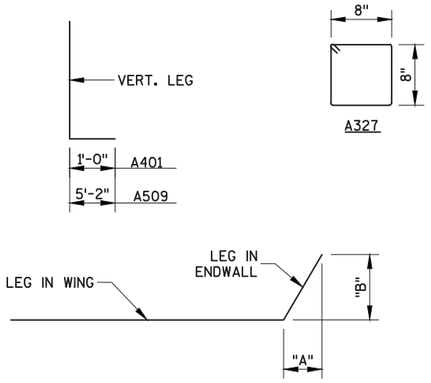
STATE PROJECT NUMBER
9080-14-60

INLET

| BAR NO. | COATED BAR | NO. REQ'D. | LENGTH | BENT BAR | BUNDLED BAR | SERIES | 210# UNCOATED 490# COATED LOCATION |
|---|---|---|---|---|---|---|---|
| A401 | | 17 | 3-7 | X | | | CUTOFF WALL INLET |
| A402 | | 3 | 16-0 | | | | CUTOFF WALL INLET |
| A403 | | 11 | 5-8 | | | | APRON INLET |
| A404 | | 6 | 3-11 | | | ⊗ | APRON INLET WINGS 1 & 2 |
| A405 | | 6 | 14-9 | | | ⊗ | APRON INLET |
| A406 | X | 14 | 3-0 | | | | WINGS VERT. F.F. |
| A407 | X | 12 | 5-4 | | | ⊗ | WINGS 1 & 2 VERT. F.F. |
| A508 | X | 6 | 6-8 | | | | BACKWALL VERT. E.F. |
| A509 | X | 16 | 8-8 | X | | | WINGS VERT. B.F. |
| A510 | X | 12 | 5-4 | | | ⊗ | WINGS 1 & 2 VERT. B.F. |
| A411 | | 2 | 7-8 | X | | | WINGS HORIZ. APRON |
| A412 | | 2 | 6-0 | | | | WINGS HORIZ. APRON |
| A413 | X | 2 | 7-10 | X | | | WINGS HORIZ. B.F. |
| A414 | X | 2 | 6-11 | X | | | WINGS HORIZ. B.F. |
| A415 | X | 2 | 7-0 | X | | | WINGS HORIZ. B.F. |
| A416 | X | 2 | 8-3 | X | | | WINGS HORIZ. B.F. |
| A417 | X | 2 | 7-1 | X | | | WINGS HORIZ. F.F. |
| A418 | X | 2 | 6-2 | X | | | WINGS HORIZ. F.F. |
| A419 | X | 2 | 6-3 | X | | | WINGS HORIZ. F.F. |
| A420 | X | 2 | 7-6 | X | | | WINGS HORIZ. F.F. |
| A521 | X | 4 | 6-3 | X | | | WINGS DIAG. E.F. |
| A422 | X | 4 | 4-6 | | | | BACKWALL VERT. E.F. |
| A423 | X | 4 | 12-10 | | | | HEADER HORIZ. E.F. |
| A324 | X | 15 | 3-1 | X | | | HEADER STIRRUPS |

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

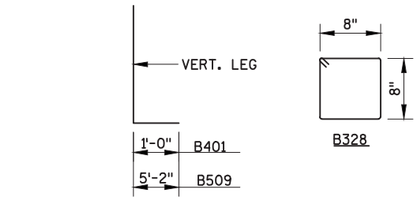
⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

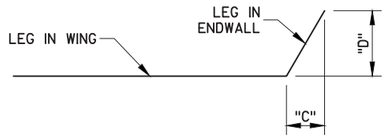



| BAR NO. | DIM. "A" | DIM. "B" |
|---|---|---|
| A411 | 0'-10⅛" | 1'-5¼" |
| A413 | 0'-11⅛" | 1'-7" |
| A414 | 0'-5½" | 0'-9½" |
| A415 | 0'-6" | 0'-10⅜" |
| A416 | 1'-1½" | 1'-11⅜" |
| A417 | 0'-8" | 1'-1⅞" |
| A418 | 0'-2½" | 0'-4⅜" |
| A419 | 0'-3" | 0'-5⅛" |
| A420 | 0'-10⅜" | 1'-6¼" |
| A521 | 0'-3⅜" | 0'-1⅛" |

OUTLET

| BAR NO. | COATED BAR | NO. REQ'D. | LENGTH | BENT BAR | BUNDLED BAR | SERIES | 190# UNCOATED 480# COATED LOCATION |
|---|---|---|---|---|---|---|---|
| B401 | | 14 | 3-7 | X | | | CUTOFF WALL OUTLET |
| B402 | | 3 | 13-0 | | | | CUTOFF WALL OUTLET |
| B403 | | 13 | 5-8 | | | | APRON OUTLET |
| B404 | | 2 | 1-7 | | | | APRON OUTLET WINGS 3 & 4 |
| B405 | | 6 | 13-7 | | | ⊗ | APRON OUTLET |
| B406 | X | 14 | 3-0 | | | | WINGS VERT. F.F. |
| B407 | X | 10 | 5-2 | | | ⊗ | WINGS 3 & 4 VERT. F.F. |
| B508 | X | 8 | 6-8 | | | | WINGS & BACKWALL VERT. E.F. |
| B509 | X | 16 | 8-8 | X | | | WINGS VERT. B.F. |
| B510 | X | 10 | 5-2 | | | ⊗ | WINGS 3 & 4 VERT. B.F. |
| B411 | | 2 | 7-2 | X | | | WINGS HORIZ. APRON |
| B412 | | 2 | 5-7 | | | | WINGS HORIZ. APRON |
| B413 | X | 2 | 7-5 | X | | | WINGS HORIZ. B.F. |
| B414 | X | 2 | 6-6 | X | | | WINGS HORIZ. B.F. |
| B415 | X | 2 | 6-7 | X | | | WINGS HORIZ. B.F. |
| B416 | X | 2 | 7-10 | X | | | WINGS HORIZ. B.F. |
| B417 | X | 2 | 6-6 | X | | | WINGS HORIZ. F.F. |
| B418 | X | 2 | 5-7 | X | | | WINGS HORIZ. F.F. |
| B419 | X | 2 | 5-8 | X | | | WINGS HORIZ. F.F. |
| B420 | X | 2 | 7-1 | X | | | WINGS HORIZ. F.F. |
| B521 | X | 4 | 5-11 | X | | | WINGS DIAG. E.F. |
| B422 | X | 4 | 4-6 | | | | BACKWALL VERT. E.F. |
| B423 | X | 4 | 12-10 | | | | HEADER HORIZ. E.F. |
| B324 | X | 15 | 3-1 | X | | | HEADER STIRRUPS |




| BAR NO. | DIM. "C" | DIM. "D" |
|---|---|---|
| B411 | 0'-5⅜" | 1'-7¼" |
| B413 | 0'-5¾" | 1'-9¼" |
| B414 | 0'-3" | 0'-10⅝" |
| B415 | 0'-3⅛" | 0'-11⅝" |
| B416 | 0'-7" | 2'-2⅛" |
| B417 | 0'-4⅛" | 1'-3½" |
| B418 | 0'-1¼" | 0'-4⅞" |
| B419 | 0'-1⅝" | 0'-5¾" |
| B420 | 0'-5½" | 1'-8¼" |
| B521 | 0'-5⅝" | 0'-2" |

| BAR MARK | NO REQ'D. | LENGTH |
|---|---|---|
| A404 | 2 SERIES OF 3 | 2'-2" TO 5'-8" |
| A405 | 1 SERIES OF 6 | 11'-10" TO 17'-8" |
| A407 | 2 SERIES OF 6 | 4'-6" TO 6'-2" |
| A510 | 2 SERIES OF 6 | 4'-6" TO 6'-2" |
| B405 | 1 SERIES OF 6 | 12'-4" TO 14'-10" |
| B407 | 2 SERIES OF 5 | 4'-6" TO 6'-0" |
| B510 | 2 SERIES OF 5 | 4'-6" TO 6'-0" |

BUNDLE AND TAG EACH SERIES SEPARATELY.

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

B.F. DENOTES BACK FACE

8

8

| NO. | DATE | REVISION | BY |
|---|---|---|---|
| | | | |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE C-63-09

DRAWN BY CDG | PLANS CK'D. SMS

BILL OF BARS

SHEET 5 OF 5

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | CUMULATIVE VOL (CY) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | UNUSABLE PAVEMENT MATERIAL | FILL | EBS | CUT NOTE 1 | UNUSABLE PAVEMENT MATERIAL NOTE 2 | FILL NOTE 3 | EBS | CUT 1.00 NOTE 1 | EXPANDED FILL 1.25 NOTE 4 | MASS ORDINATE NOTE 5 |
| 58+24 RT | --- | 0 | 0 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- |
| 58+59 RT | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 59+00 RT | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | -1 |
| 59+27 RT | 27 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -2 |
| 59+50 RT | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | -2 |
| 60+00 RT | 50 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | -3 |
| 60+35 RT | 35 | 8 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 6 | 5 | 1 |
| 60+72 RT | 37 | 11 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 19 | 5 | 14 |
| 60+82 RT | 10 | 10 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 23 | 5 | 18 |
| 61+10 RT | 28 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 33 | 5 | 28 |
| 61+50 RT | 40 | 8 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 46 | 5 | 41 |
| 61+63 RT | 13 | 9 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 50 | 5 | 45 |
| 62+00 RT | 37 | 10 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 63 | 6 | 58 |
| 62+50 RT | 50 | 9 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 81 | 6 | 76 |
| 63+00 RT | 50 | 10 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 99 | 6 | 94 |
| 63+50 RT | 50 | 9 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 117 | 6 | 111 |
| 64+00 RT | 50 | 11 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 136 | 6 | 130 |
| 64+50 RT | 50 | 13 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 157 | 6 | 151 |
| 64+84 RT | 34 | 7 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 170 | 6 | 164 |
| 65+50 RT | 66 | 7 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 188 | 6 | 182 |
| 65+83 RT | 33 | 7 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 197 | 6 | 191 |
| 66+25 RT | 42 | 7 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 208 | 7 | 201 |
| 67+00 RT | 75 | 6 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 224 | 7 | 217 |
| 67+50 RT | 50 | 7 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 236 | 7 | 229 |
| 68+00 RT | 50 | 7 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 249 | 7 | 242 |
| 68+46 RT | 46 | 10 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 263 | 7 | 256 |
| 69+00 RT | 54 | 30 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 303 | 7 | 295 |
| 69+50 RT | 50 | 14 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 344 | 7 | 337 |
| 70+00 RT | 50 | 5 | 0 | 0 | 0 | 18 | 0 | 0 | 0 | 362 | 7 | 354 |
| 70+31 RT | 31 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 367 | 7 | 359 |
| 71+00 RT | 69 | 7 | 0 | 0 | 0 | 14 | 0 | 0 | 0 | 381 | 8 | 374 |
| 71+58 RT | 58 | 6 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 394 | 8 | 387 |
| 72+00 RT | 42 | 6 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 403 | 8 | 395 |
| 72+41 RT | 41 | 6 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 412 | 8 | 404 |
| 72+84 RT | 44 | 15 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 428 | 8 | 420 |
| 73+50 RT | 66 | 10 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 458 | 8 | 450 |
| 74+00 RT | 50 | 9 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 476 | 8 | 468 |
| 74+32 RT | 32 | 7 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 485 | 8 | 477 |

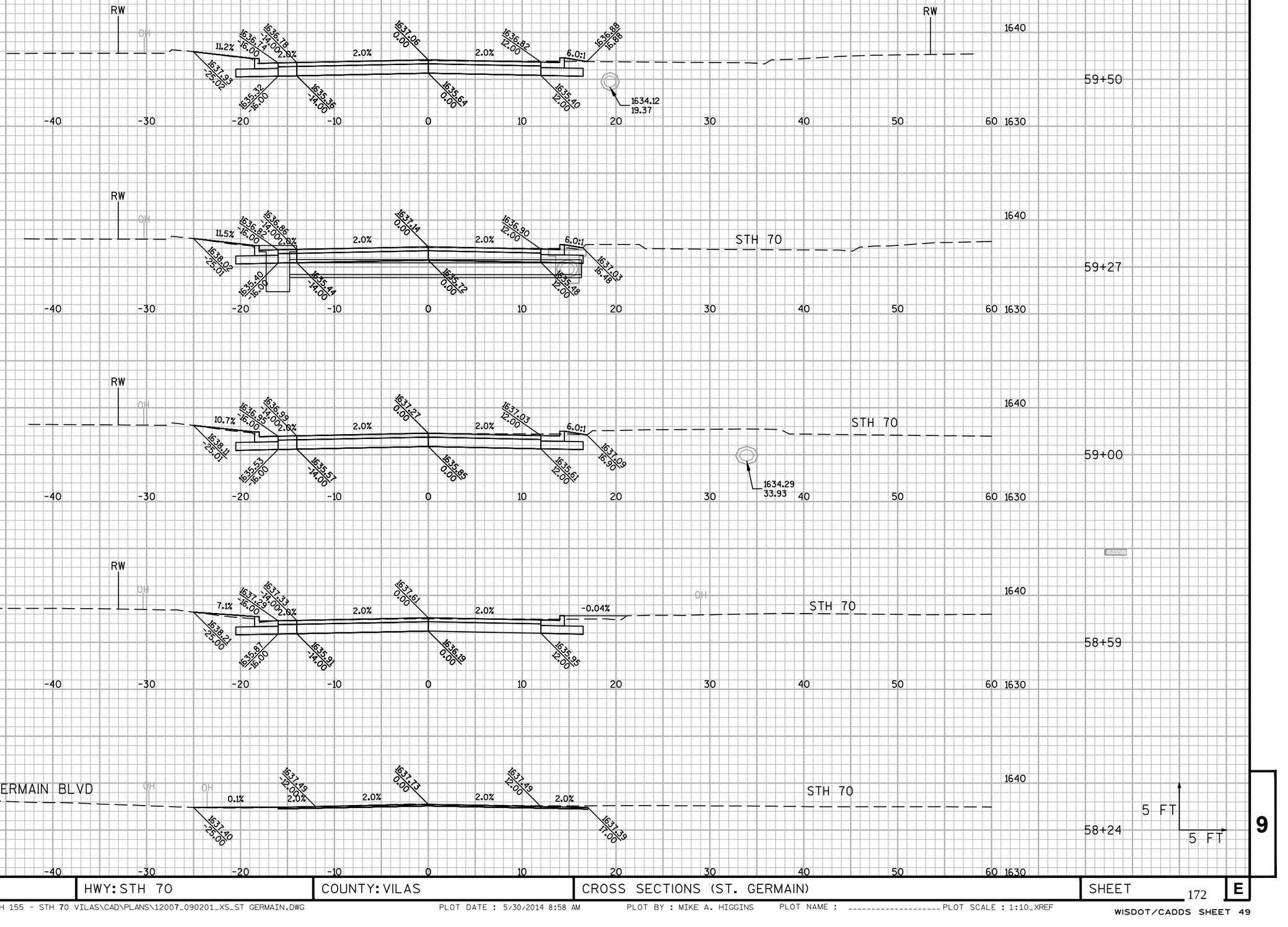
| STATION | DISTANCE | AREA (SF) CUT | AREA (SF) UNUSABLE PAVEMENT MATERIAL | AREA (SF) FILL | AREA (SF) EBS | INCREMENTAL VOL (CY) (UNADJUSTED) CUT NOTE 1 | INCREMENTAL VOL (CY) (UNADJUSTED) UNUSABLE PAVEMENT MATERIAL NOTE 2 | INCREMENTAL VOL (CY) (UNADJUSTED) FILL NOTE 3 | INCREMENTAL VOL (CY) (UNADJUSTED) EBS | CUMULATIVE VOL (CY) CUT 1.00 NOTE 1 | CUMULATIVE VOL (CY) EXPANDED FILL 1.25 NOTE 4 | MASS ORDINATE NOTE 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 75+00 RT | 68 | 5 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 501 | 8 | 493 |
| 75+50 RT | 50 | 5 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 511 | 9 | 502 |
| 75+90 RT | 40 | 8 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 521 | 9 | 512 |
| 76+33 RT | 43 | 13 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 538 | 9 | 529 |
| 76+70 RT | 36 | 13 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 555 | 9 | 546 |
| 77+50 RT | 80 | 15 | 0 | 0 | 0 | 41 | 0 | 0 | 0 | 596 | 9 | 588 |
| 78+00 RT | 50 | 14 | 0 | 0 | 0 | 26 | 0 | 0 | 0 | 623 | 9 | 614 |
| 78+50 RT | 50 | 49 | 0 | 0 | 0 | 58 | 0 | 0 | 0 | 681 | 9 | 672 |
| 78+79 RT | 29 | 41 | 0 | 0 | 0 | 48 | 0 | 0 | 0 | 729 | 9 | 720 |
| 79+14 RT | 35 | 34 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 777 | 9 | 769 |
| 79+50 RT | 36 | 18 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 812 | 9 | 803 |
| 80+00 RT | 50 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 829 | 9 | 820 |
| 80+34 RT | 34 | 0 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 829 | 11 | 818 |
| 80+57 RT | 23 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 829 | 12 | 816 |
| 81+00 RT | 43 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 831 | 13 | 818 |
| 81+50 RT | 50 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 835 | 13 | 822 |
| 82+00 RT | 50 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 838 | 13 | 825 |
| 82+50 RT | 50 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 840 | 14 | 827 |
| 82+84 RT | 34 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 841 | 14 | 827 |
| 83+75 RT | 91 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 847 | 15 | 832 |
| 84+00 RT | 25 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 848 | 15 | 833 |
| 84+43 RT | 43 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 849 | 15 | 834 |
| 85+00 RT | 57 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 850 | 16 | 835 |
| 85+50 RT | 50 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 852 | 16 | 836 |
| 86+00 RT | 50 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 853 | 16 | 837 |
| 86+50 RT | 50 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 855 | 16 | 838 |
| 87+00 RT | 50 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 858 | 16 | 842 |
| 87+27 RT | 27 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 861 | 16 | 844 |
| 88+00 RT | 73 | 2 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 867 | 16 | 850 |
| 88+50 RT | 50 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 871 | 16 | 855 |
| 88+84 RT | 34 | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 874 | 16 | 857 |
| 89+37 RT | 54 | 2 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 878 | 17 | 861 |
| 90+00 RT | 63 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 881 | 17 | 865 |
| 90+50 RT | 50 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 883 | 17 | 866 |
| 91+00 RT | 50 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 883 | 18 | 865 |
| 91+50 RT | 50 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 884 | 19 | 865 |
| 92+00 RT | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 884 | 20 | 864 |
| 92+50 RT | 50 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 885 | 21 | 864 |
| 93+00 RT | 50 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 887 | 21 | 866 |
| 93+50 RT | 50 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 890 | 21 | 868 |
| 94+00 RT | 50 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 891 | 22 | 869 |
| | | | | COLUMN TOTALS | | 891 | 0 | 18 | 0 | | | |

NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)

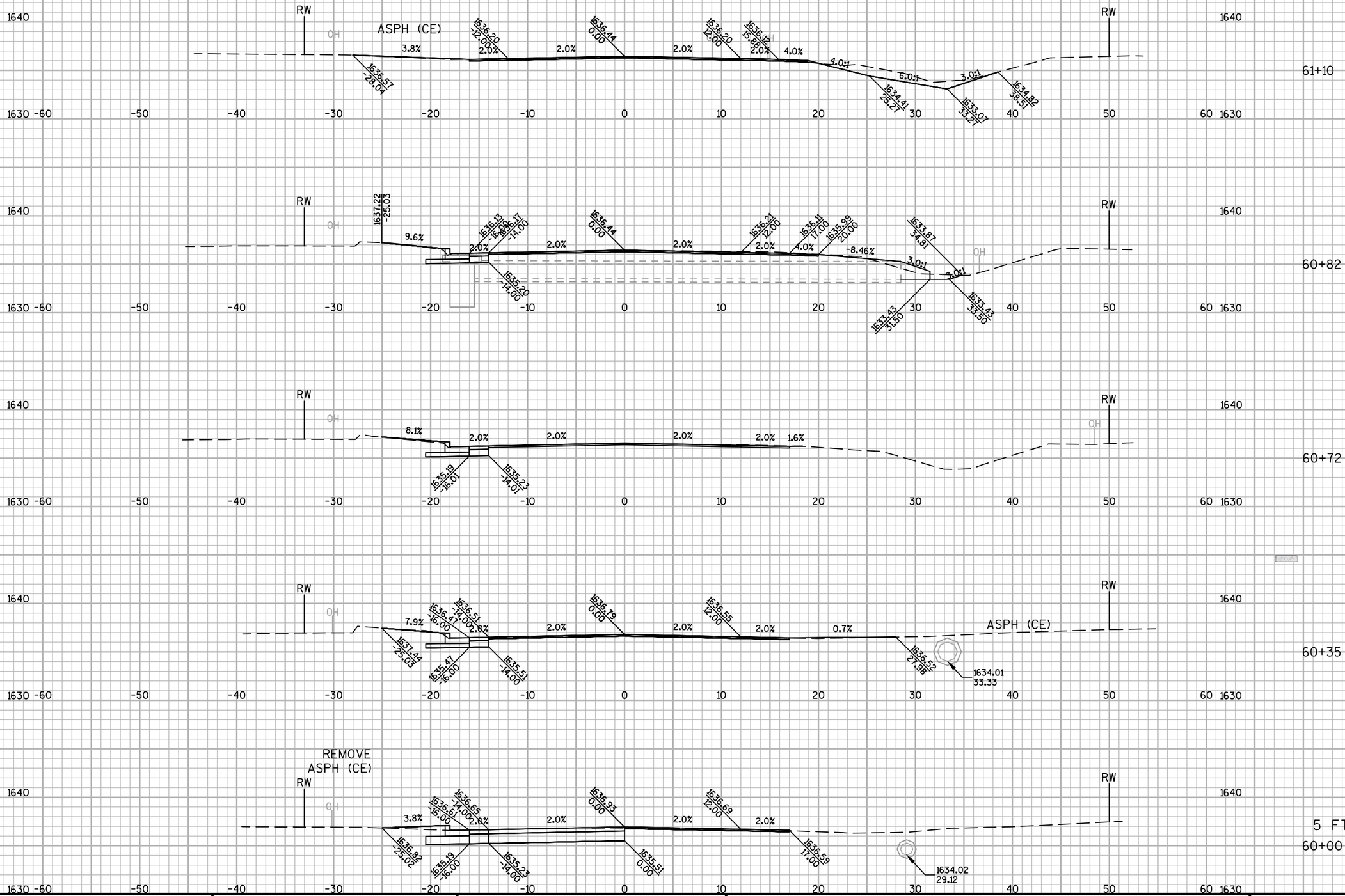
| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | CUMULATIVE VOL (CY) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | UNUSABLE PAVEMENT MATERIAL | FILL | EBS | CUT NOTE 1 | UNUSABLE PAVEMENT MATERIAL NOTE 2 | FILL NOTE 3 | EBS | CUT 1.00 NOTE 1 | EXPANDED FILL 1.25 NOTE 4 | MASS ORDINATE NOTE 5 |
| 192+00 | --- | 6 | 0 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- |
| 192+25 | 25 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 6 |
| 192+50 | 25 | 7 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 12 | 1 | 12 |
| 192+75 | 25 | 4 | 0 | 1 | 0 | 5 | 0 | 1 | 0 | 17 | 1 | 16 |
| 193+00 | 25 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 21 | 2 | 19 |
| 193+25 | 25 | 9 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 27 | 2 | 25 |
| 193+56 | 31 | 5 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 35 | 2 | 33 |
| 193+73 | 17 | 7 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 39 | 2 | 37 |
| 194+00 | 27 | 9 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 47 | 2 | 44 |
| 194+25 | 25 | 9 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 55 | 2 | 52 |
| 194+50 | 25 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 62 | 2 | 60 |
| 194+75 | 25 | 9 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 70 | 2 | 68 |
| 195+00 | 25 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 77 | 2 | 75 |
| 195+25 | 25 | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 83 | 3 | 80 |
| 195+50 | 25 | 7 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 88 | 3 | 85 |
| 195+72 | 22 | 11 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 95 | 3 | 92 |
| 196+00 | 28 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 101 | 3 | 98 |
| 196+25 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 101 | 3 | 98 |
| | | | | COLUMN TOTALS | | 101 | 0 | 3 | 0 | | | |

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | CUMULATIVE VOL (CY) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | UNUSABLE PAVEMENT MATERIAL | FILL | EBS | CUT NOTE 1 | UNUSABLE PAVEMENT MATERIAL NOTE 2 | FILL NOTE 3 | EBS | CUT 1.00 NOTE 1 | EXPANDED FILL 1.25 NOTE 4 | MASS ORDINATE NOTE 5 |
| 237+25 RT | --- | 15 | 0 | 1 | 0 | --- | --- | --- | --- | --- | --- | --- |
| 237+50 RT | 25 | 19 | 0 | 1 | 0 | 16 | 0 | 1 | 0 | 16 | 1 | 15 |
| 237+75 RT | 25 | 32 | 0 | 3 | 0 | 24 | 0 | 2 | 0 | 39 | 3 | 36 |
| 238+00 RT | 25 | 47 | 0 | 2 | 0 | 37 | 0 | 2 | 0 | 76 | 6 | 70 |
| 238+22 RT | 22 | 14 | 0 | 7 | 0 | 25 | 0 | 4 | 0 | 101 | 10 | 91 |
| | | | | COLUMN TOTALS | | 101 | 0 | 8 | 0 | | | |

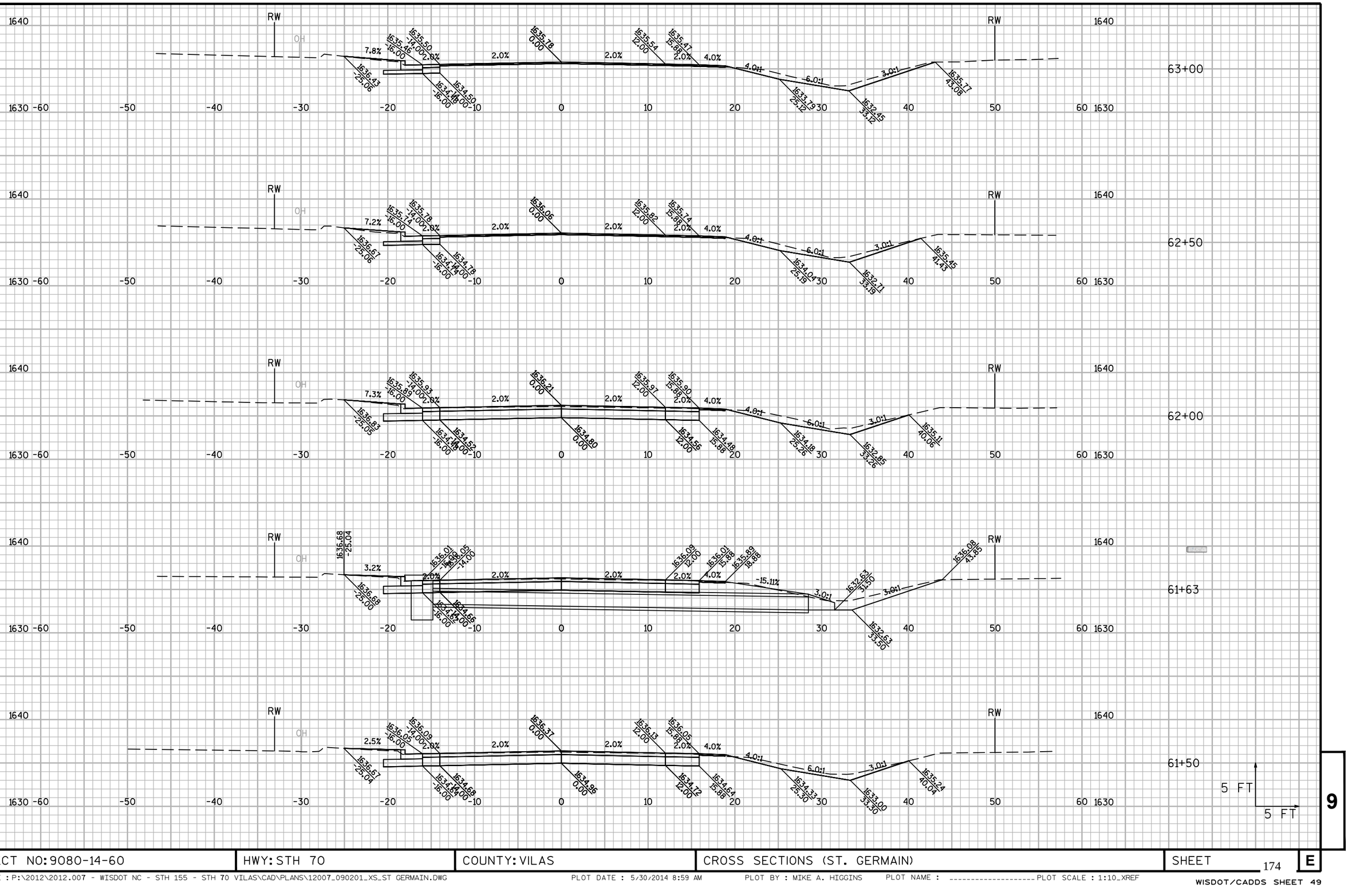
NOTES:
1) CUT INCLUDES UNUSABLE PAVEMENT MATERIAL
2) UNUSABLE PAVEMENT MATERIAL DOES NOT APPEAR IN THE CROSS SECTIONS
3) FILL DOES NOT INCLUDE UNUSABLE PAVEMENT MATERIAL EXCAVATION VOLUME
4) EXPANDED FILL = UNEXPANDED FILL * EXPANDED FILL FACTOR. EXPANDED FILL FACTOR = 1.25
5) MASS ORDINATE = (CUT - UNUSABLE PAVEMENT MATERIAL) - (FILL * FILL FACTOR)




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 172 | E |
|---|---|---|---|---|---|



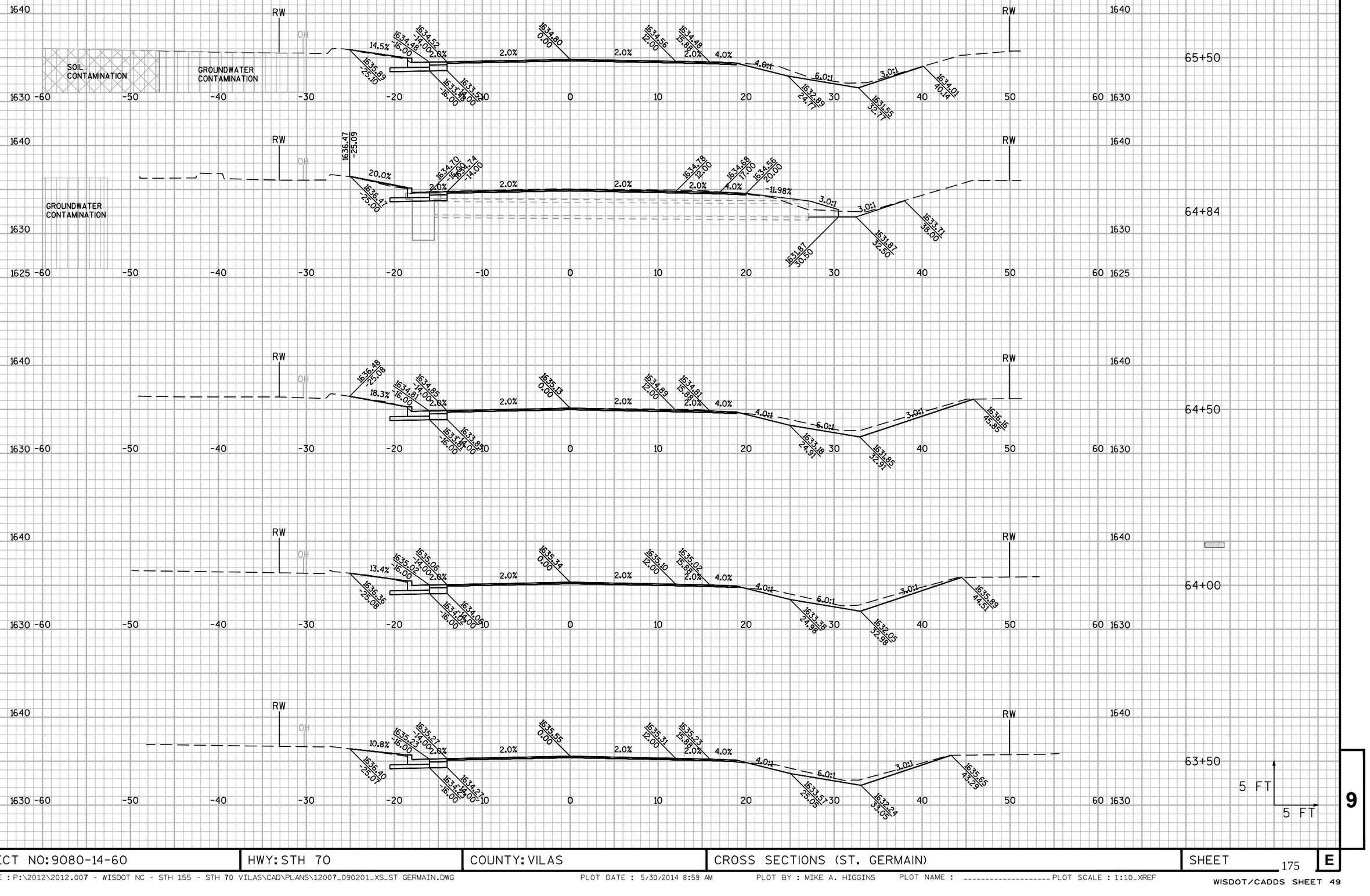

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 173 | E |
|---|---|---|---|---|---|



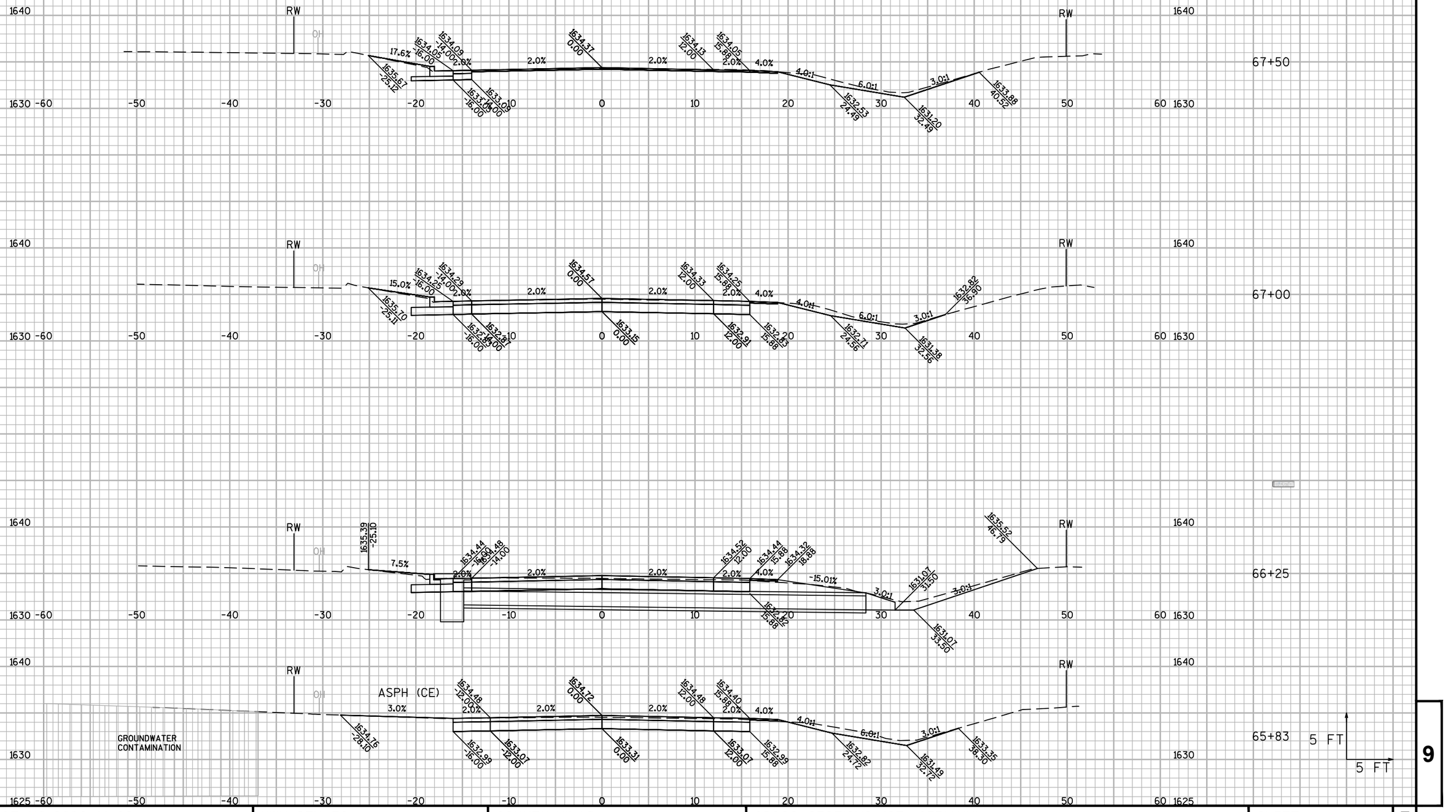

9

9

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 174 | E |
|---|---|---|---|---|---|



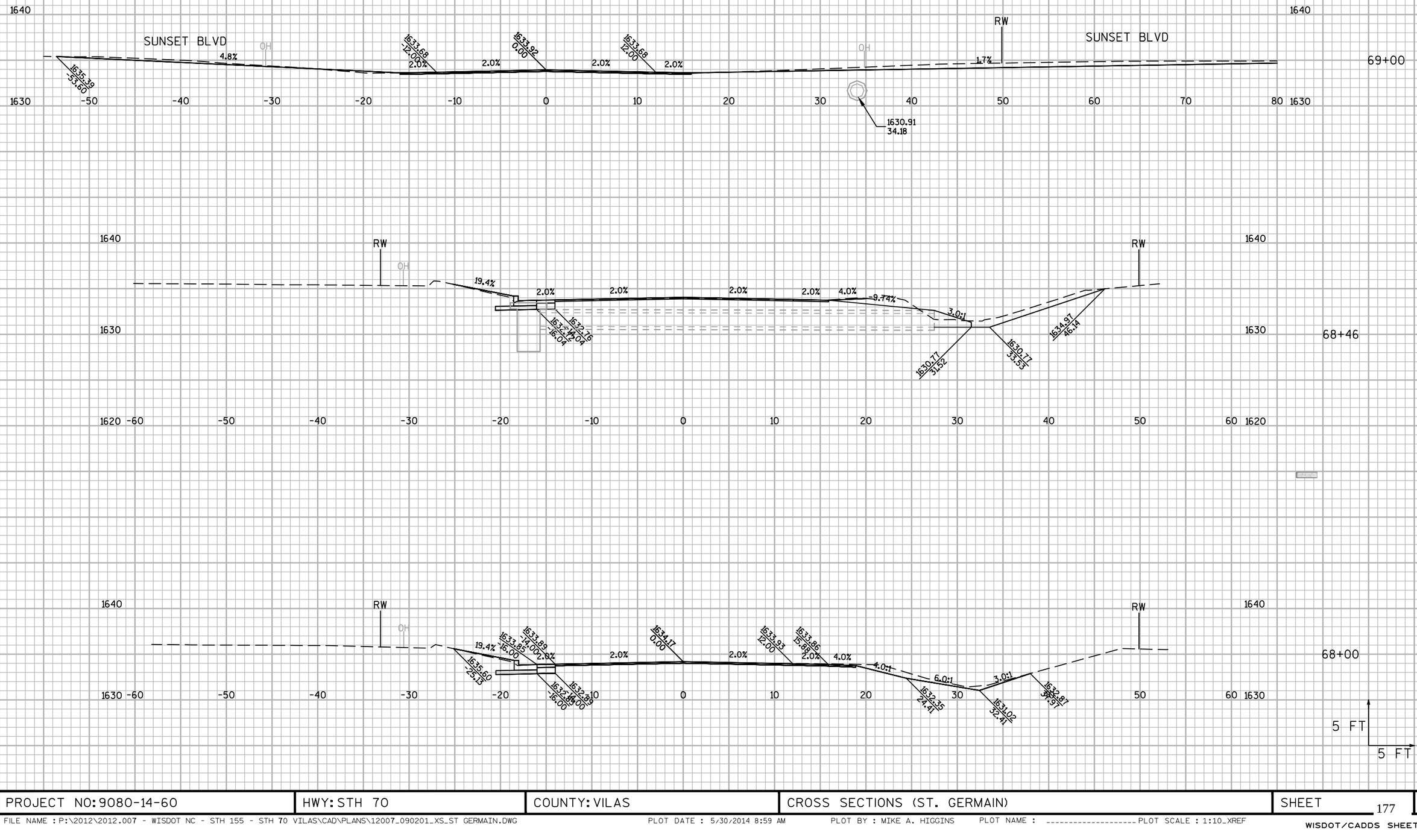

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 175 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 176 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 8:59 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

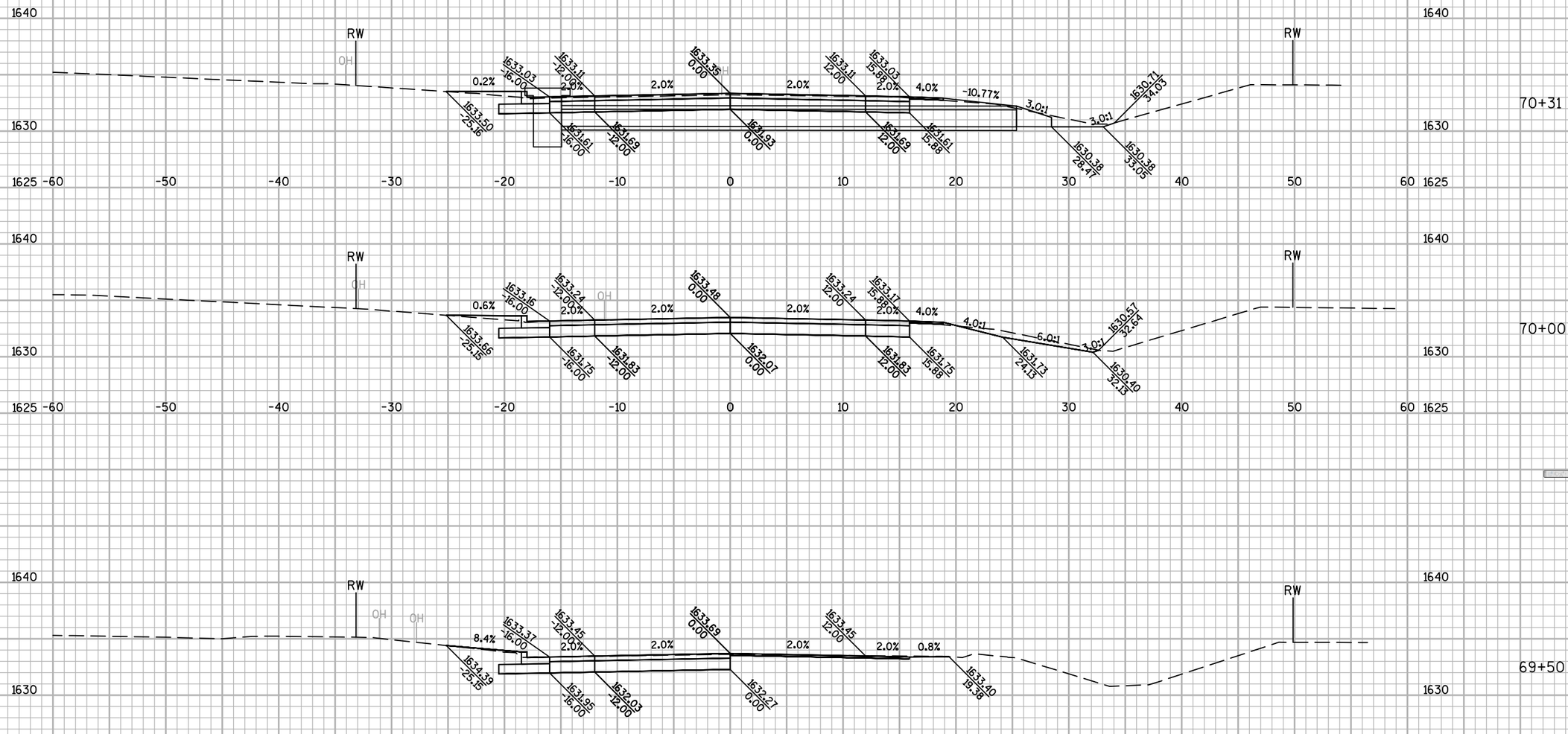
WISDOT/CADDS SHEET 49




9

9

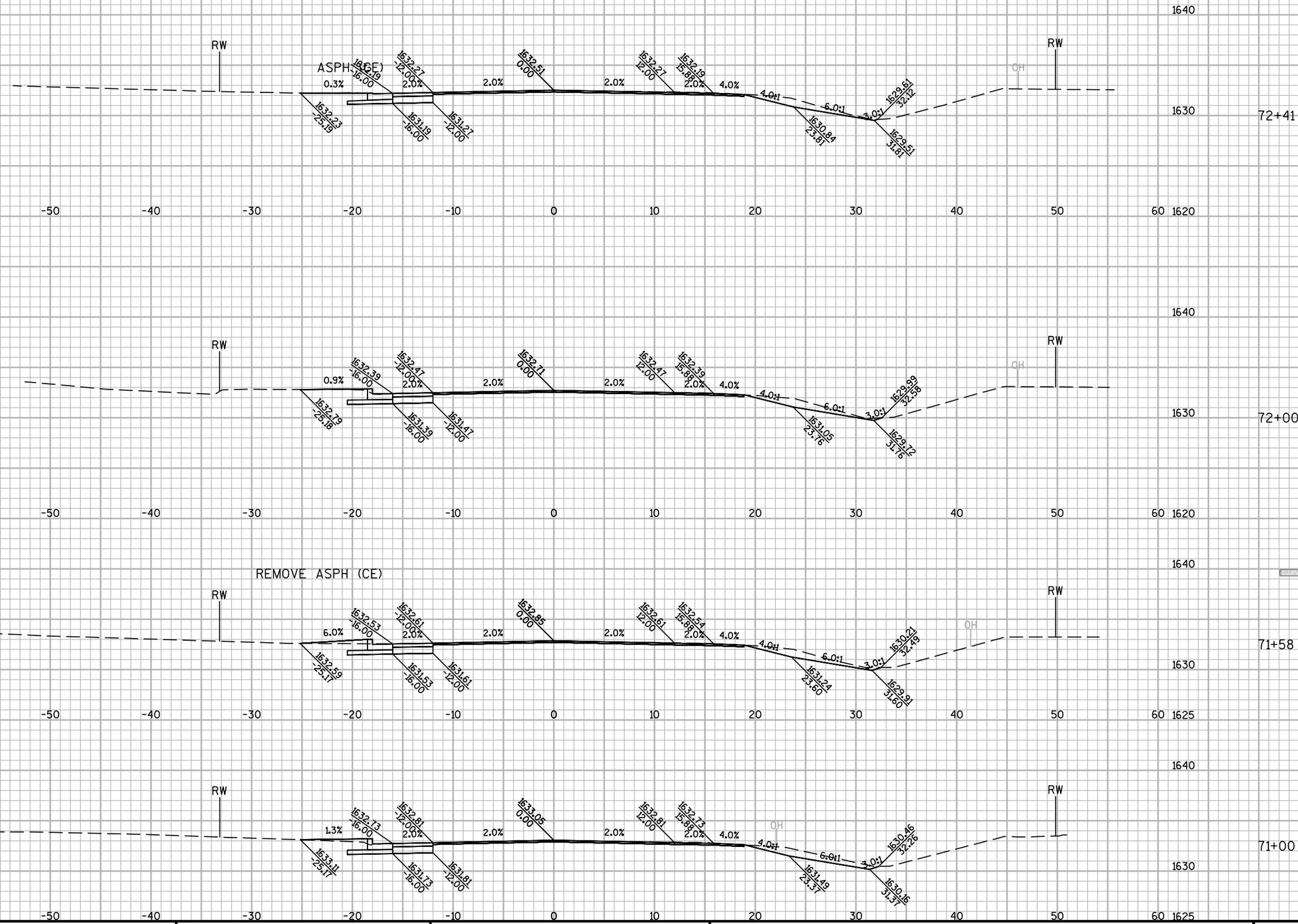
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 177 | E |
|---|---|---|---|---|---|




9

9

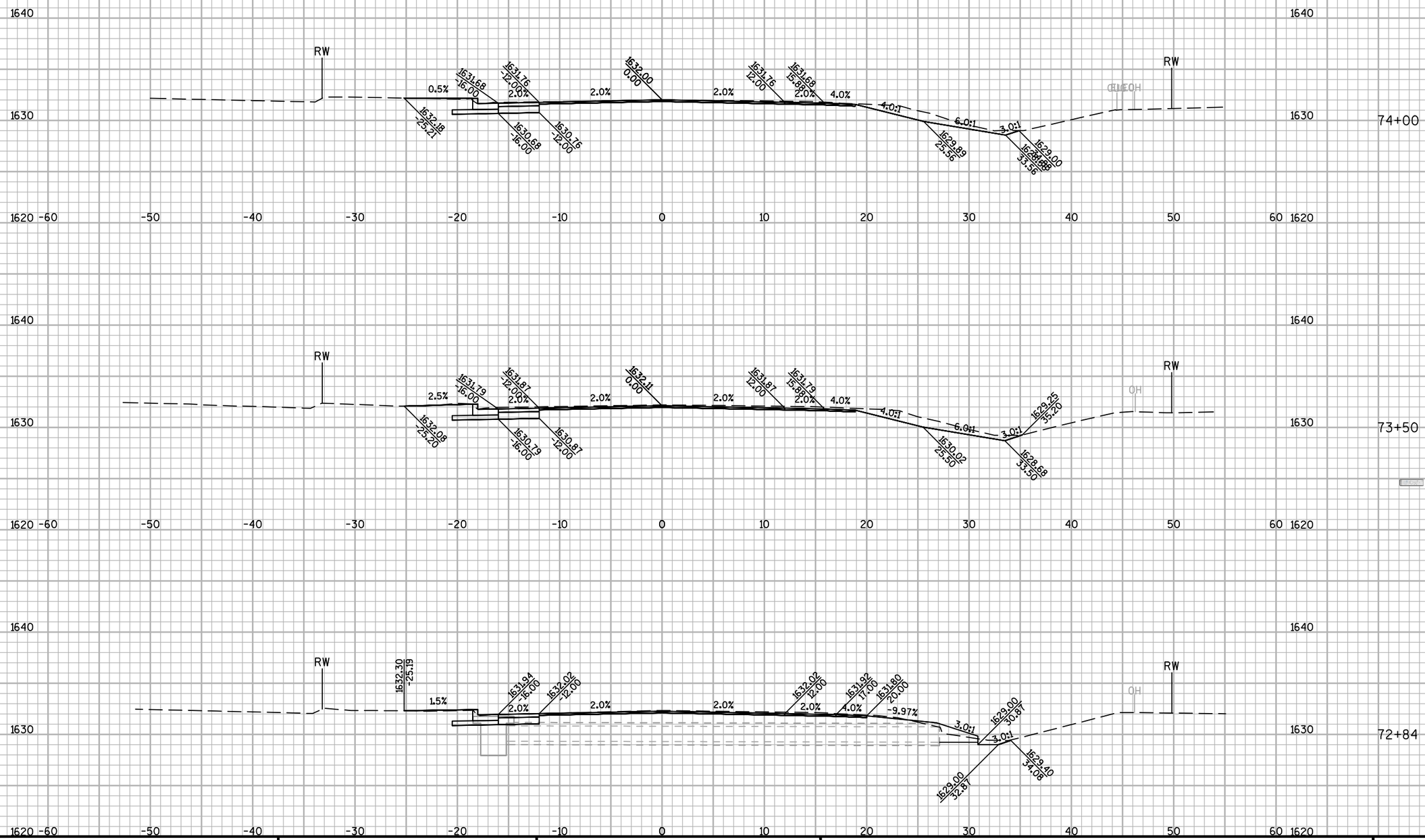
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 178 | E |
|---|---|---|---|---|---|




9

9

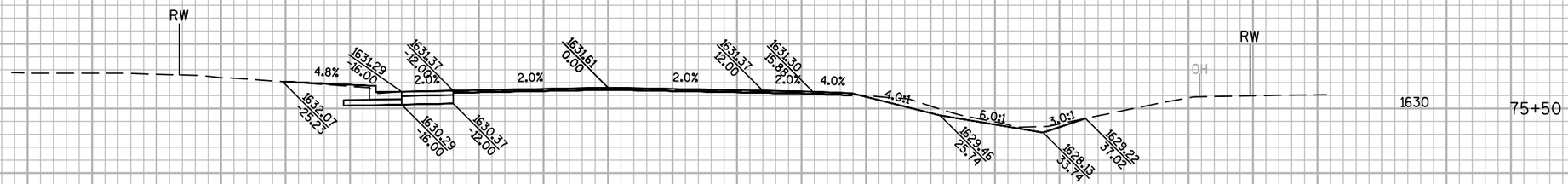
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 179 | E |
|---|---|---|---|---|---|




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 180 | E |
|---|---|---|---|---|---|

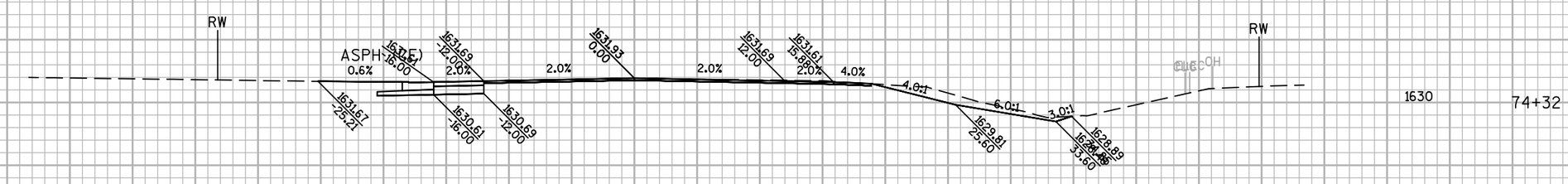
FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:00 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49







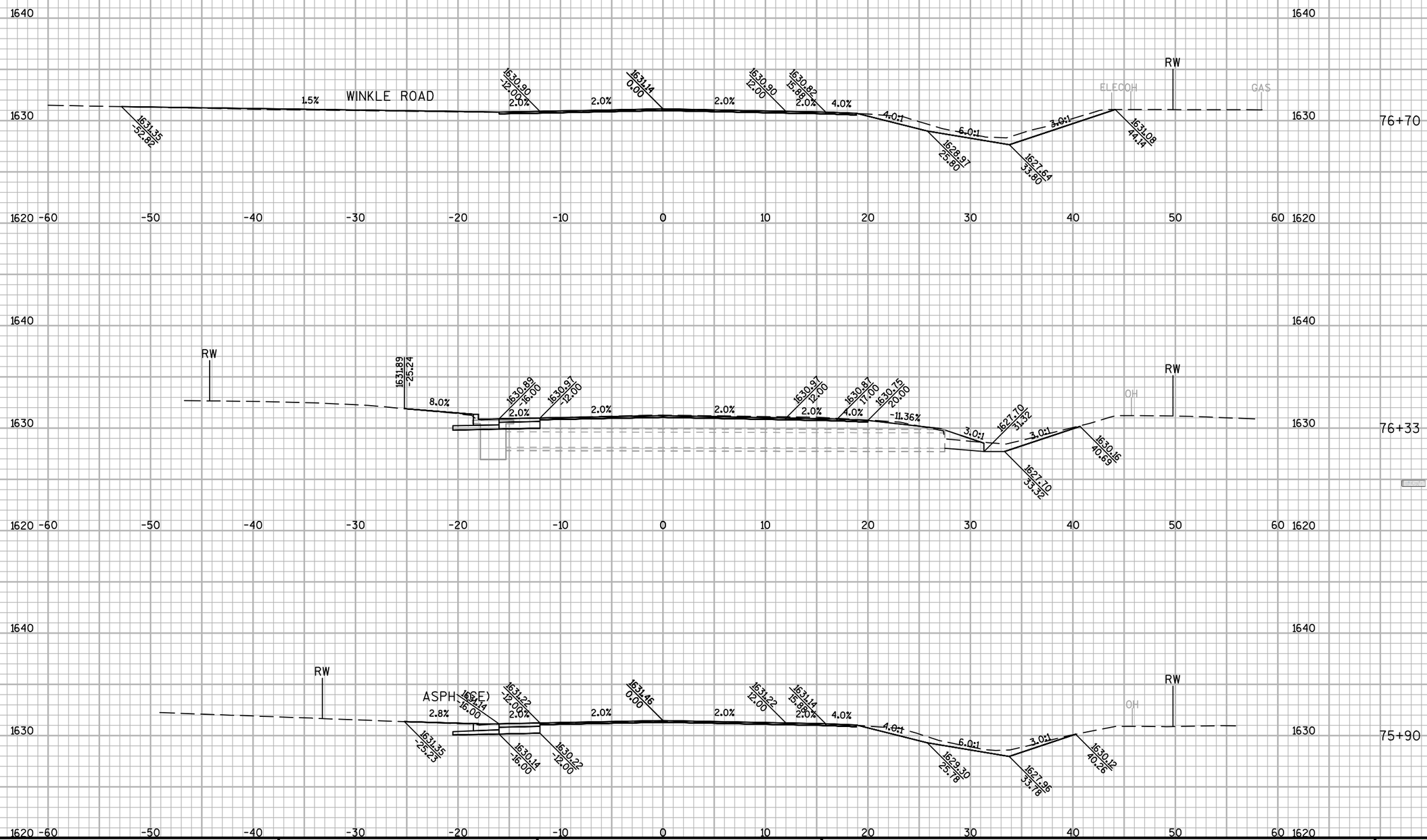



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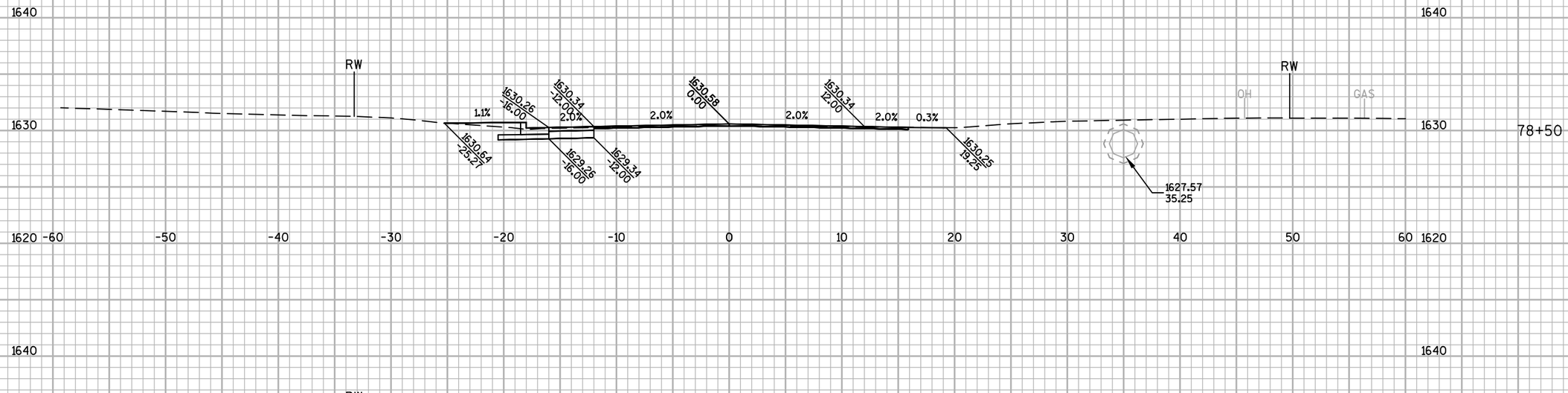
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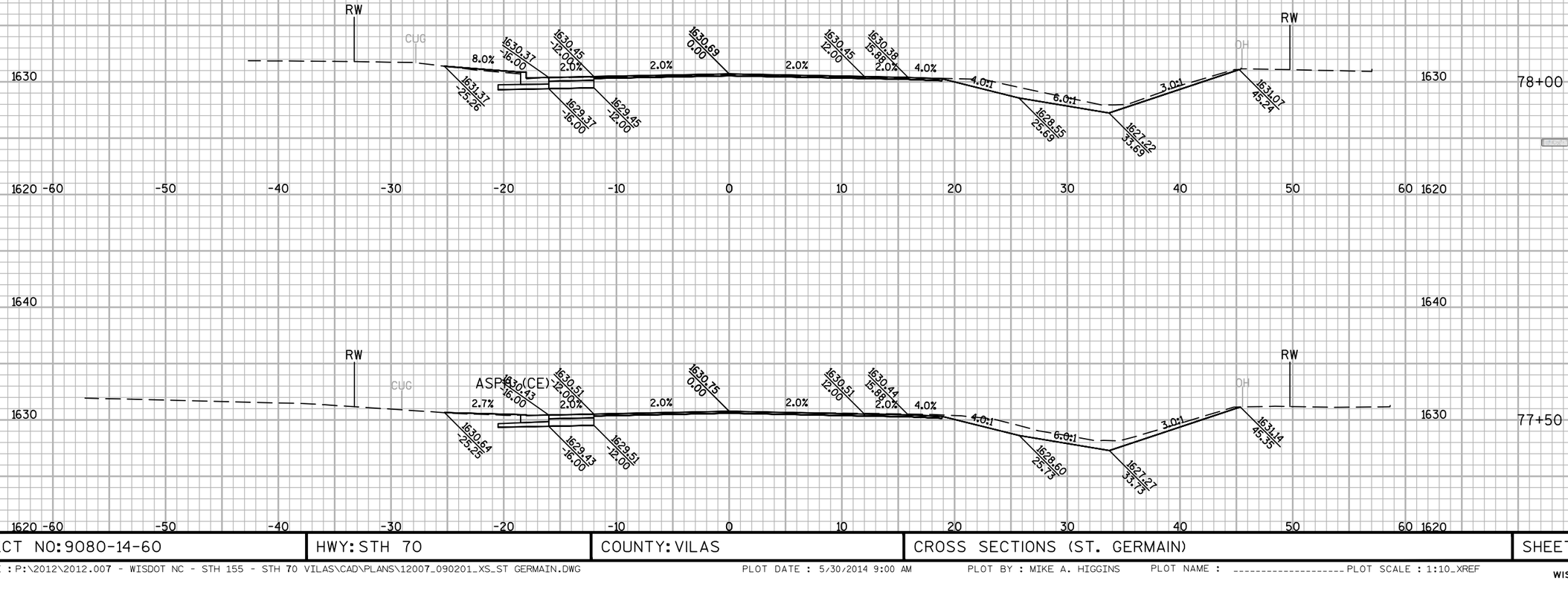
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 181 | E |
|---|---|---|---|---|---|

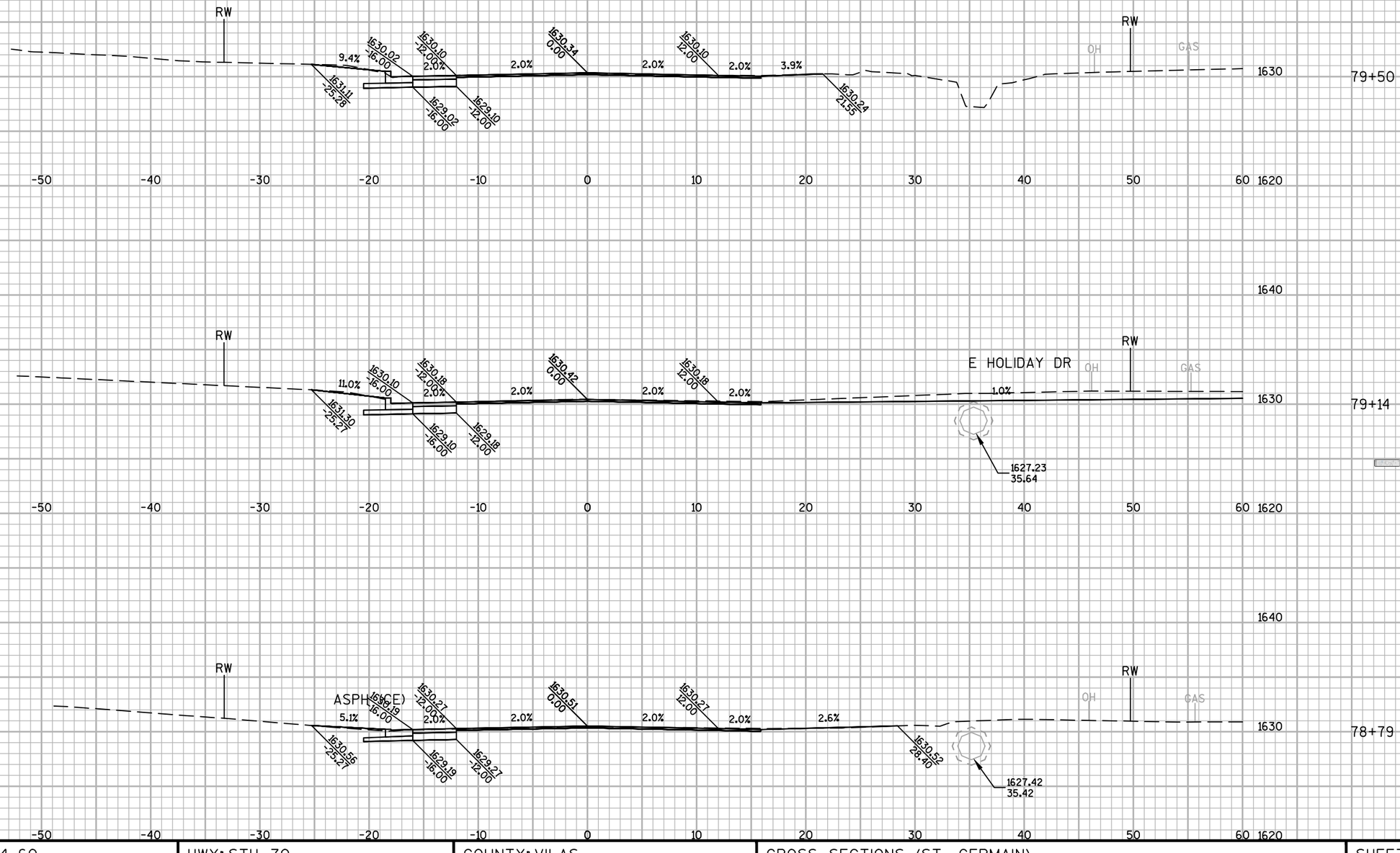
FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:00 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : _____ PLOT SCALE : 1:10_XREF



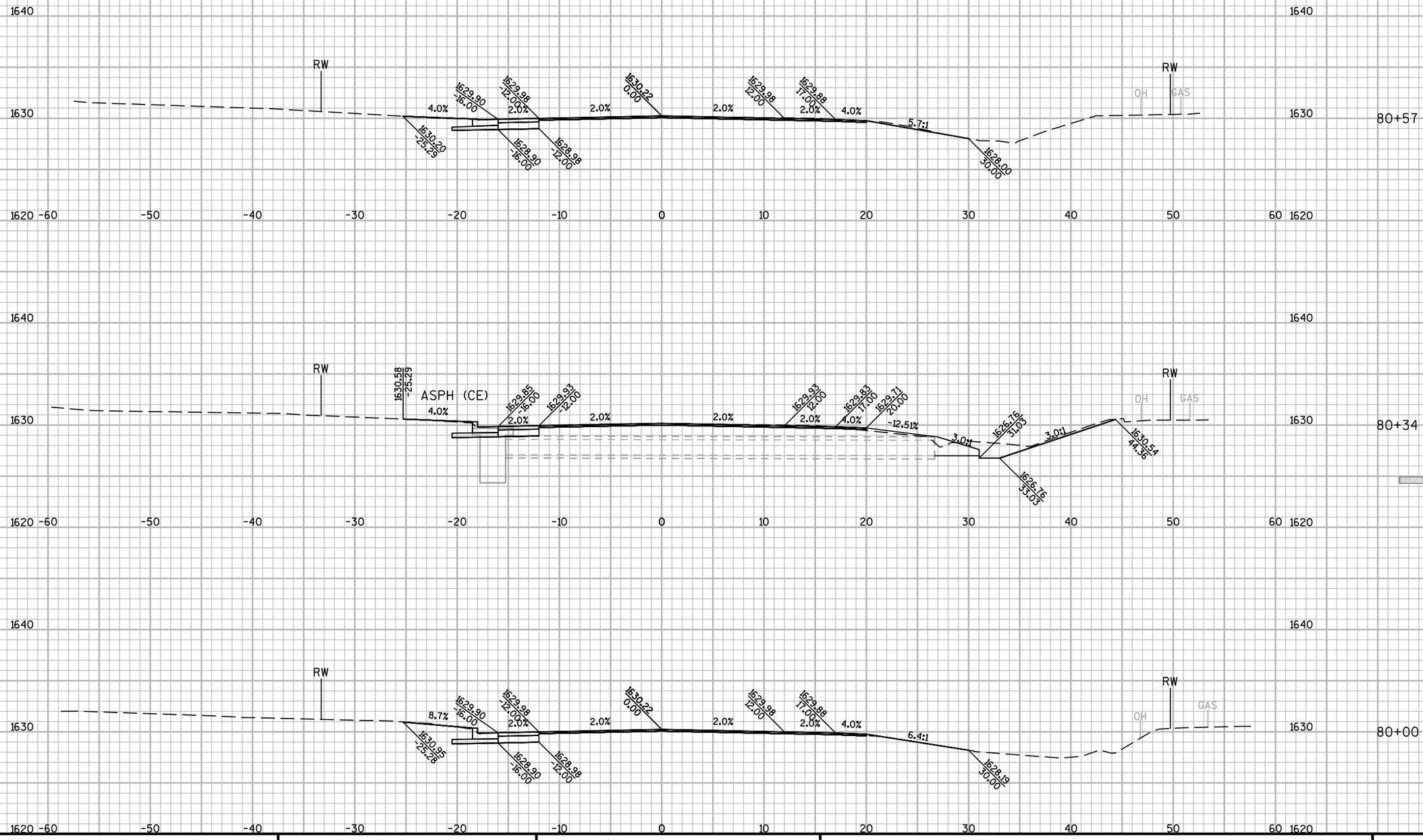

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 182 | E |
|---|---|---|---|---|---|


1640
1630
1620
RW
1.1%
1630.26
-16.00
1630.34
-12.00
2.0%
2.0%
1630.58
0.00
2.0%
1630.34
12.00
2.0%
0.3%
1630.25
19.25
1627.57
35.25
1630.64
-25.27
1629.26
-16.00
1629.34
-12.00
OH
GAS
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60
78+50


1640
1630
1620
RW
CUG
8.0%
1630.37
-16.00
1630.45
-12.00
2.0%
2.0%
1630.69
0.00
2.0%
1630.45
12.00
1630.38
15.68
2.0%
4.0%
4.0:1
6.0:1
3.0:1
OH
1631.37
-25.26
1629.37
-16.00
1629.45
-12.00
1628.55
25.69
1627.22
33.69
1631.07
45.24
78+00
2.7%
1630.43
-16.00
1630.51
-12.00
2.0%
2.0%
1630.75
0.00
2.0%
1630.51
12.00
1630.44
15.68
2.0%
4.0%
4.0:1
6.0:1
3.0:1
1630.64
-25.25
1629.43
-16.00
1629.51
-12.00
1628.60
25.73
1627.27
35.73
1631.14
45.35
77+50
ASPHALT (CE)
5 FT
5 FT
-60
-50
-40
-30
-20
-10
0
10
20
30
40
50
60



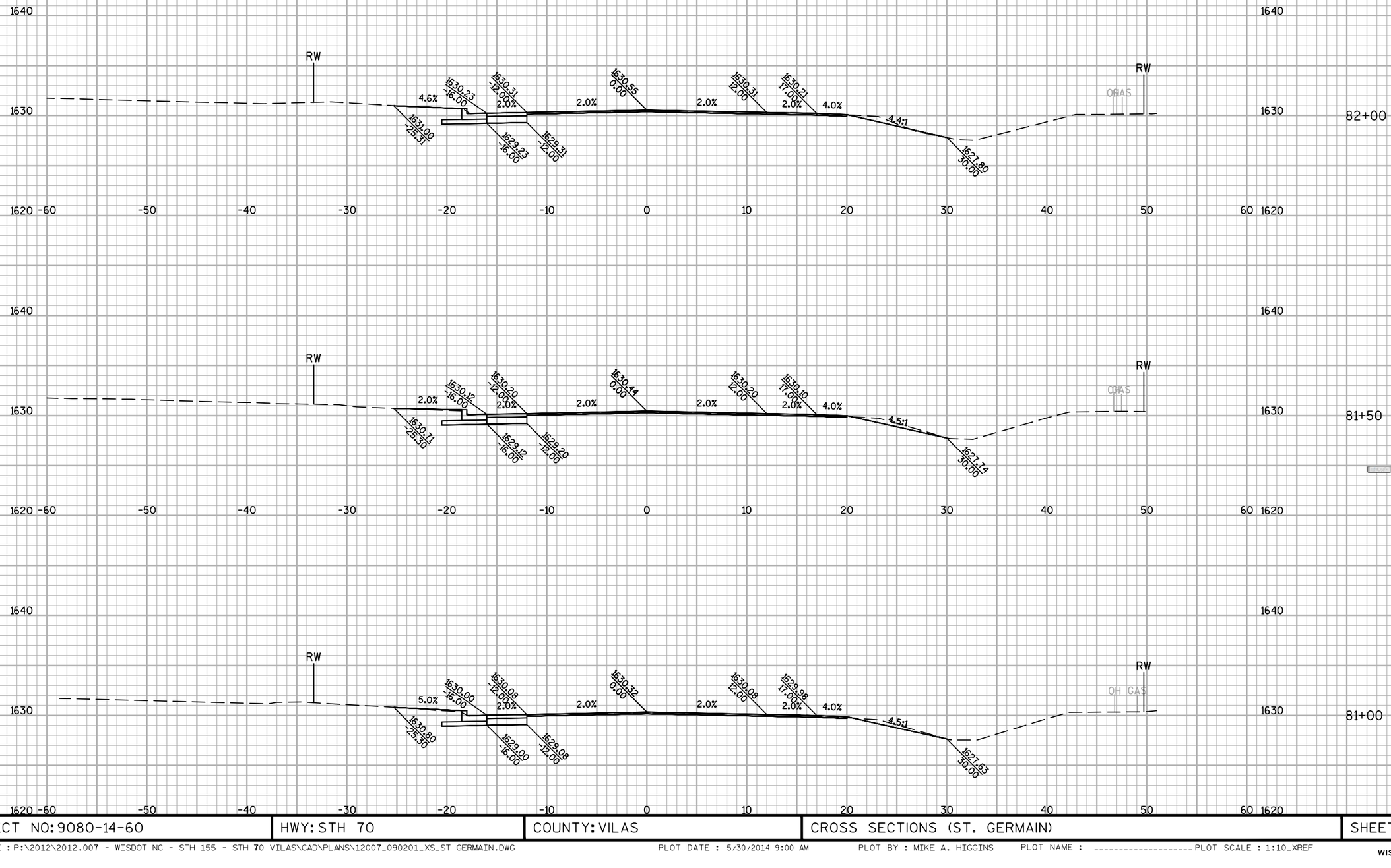

| | | | | |
|---|---|---|---|---|
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 184 E |




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 185 | E |
|---|---|---|---|---|---|

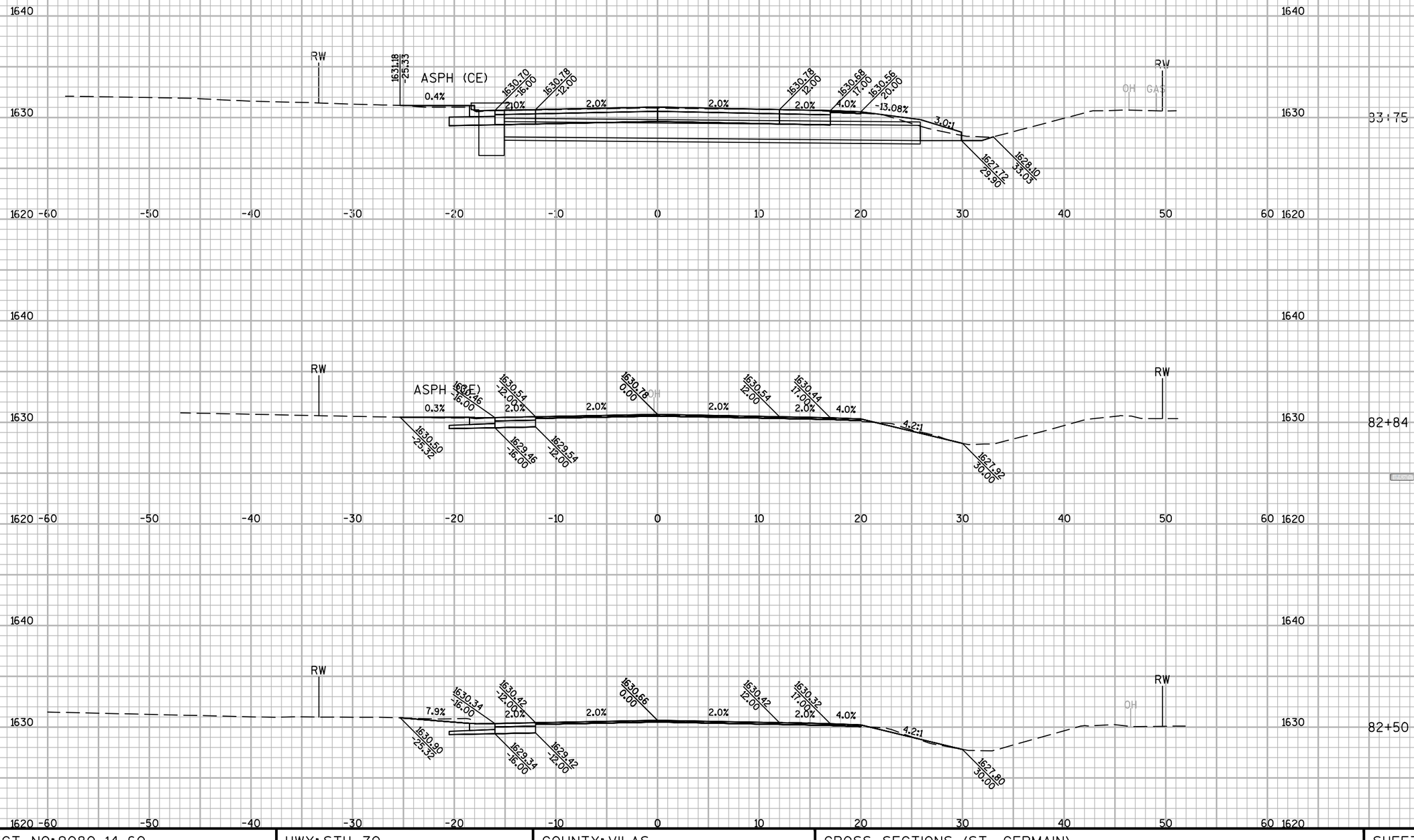
FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:00 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 186 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:00 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



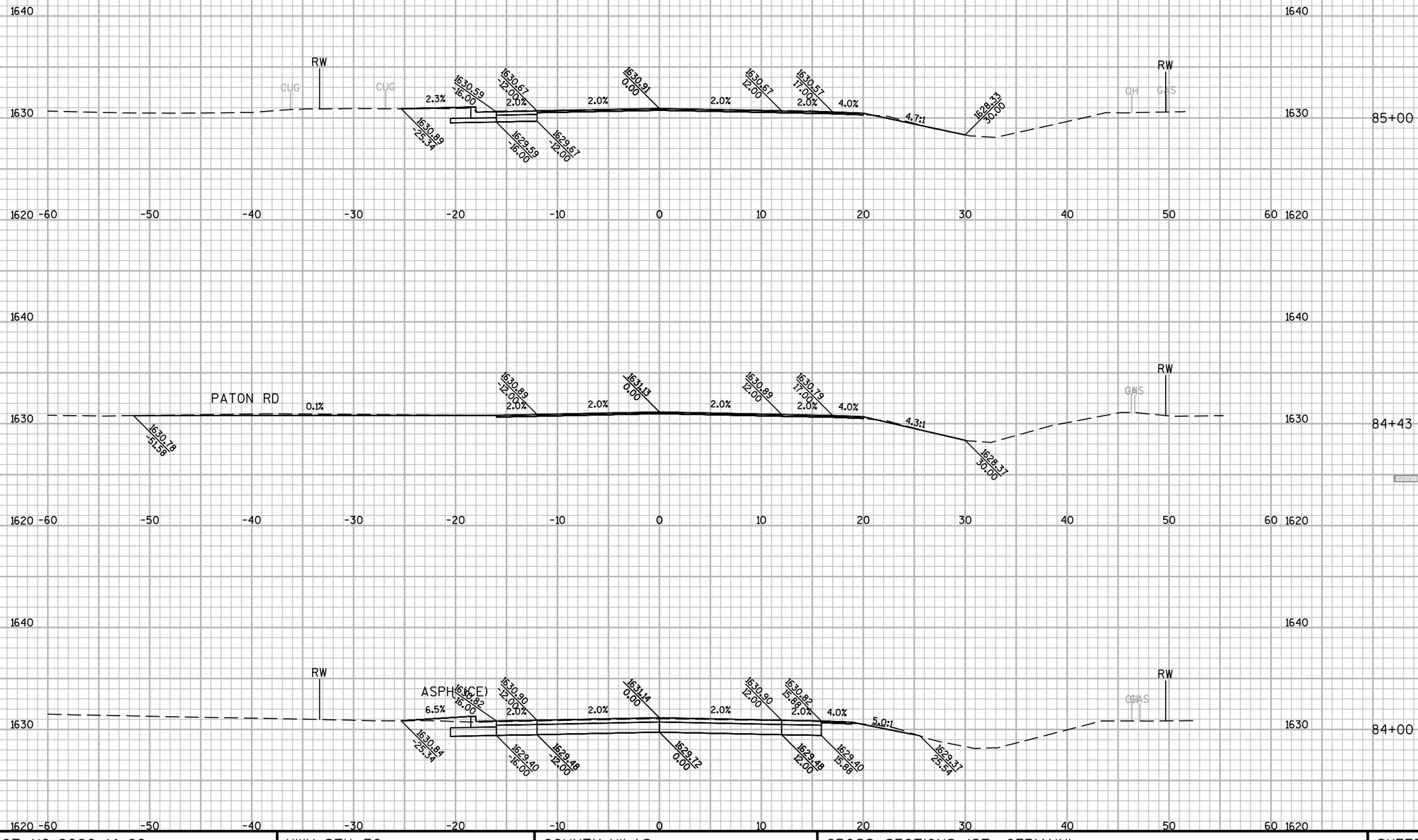

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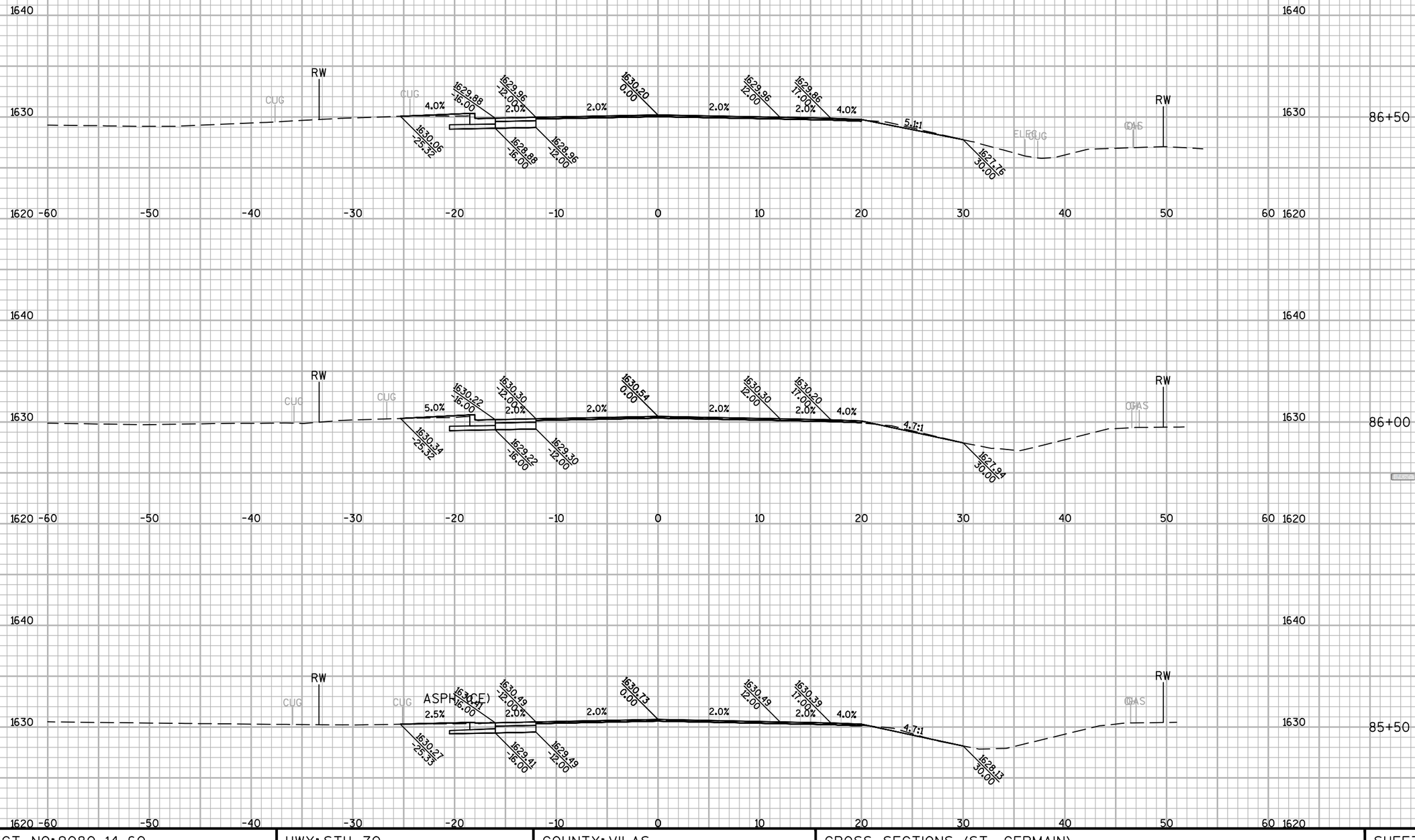
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 187 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:00 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



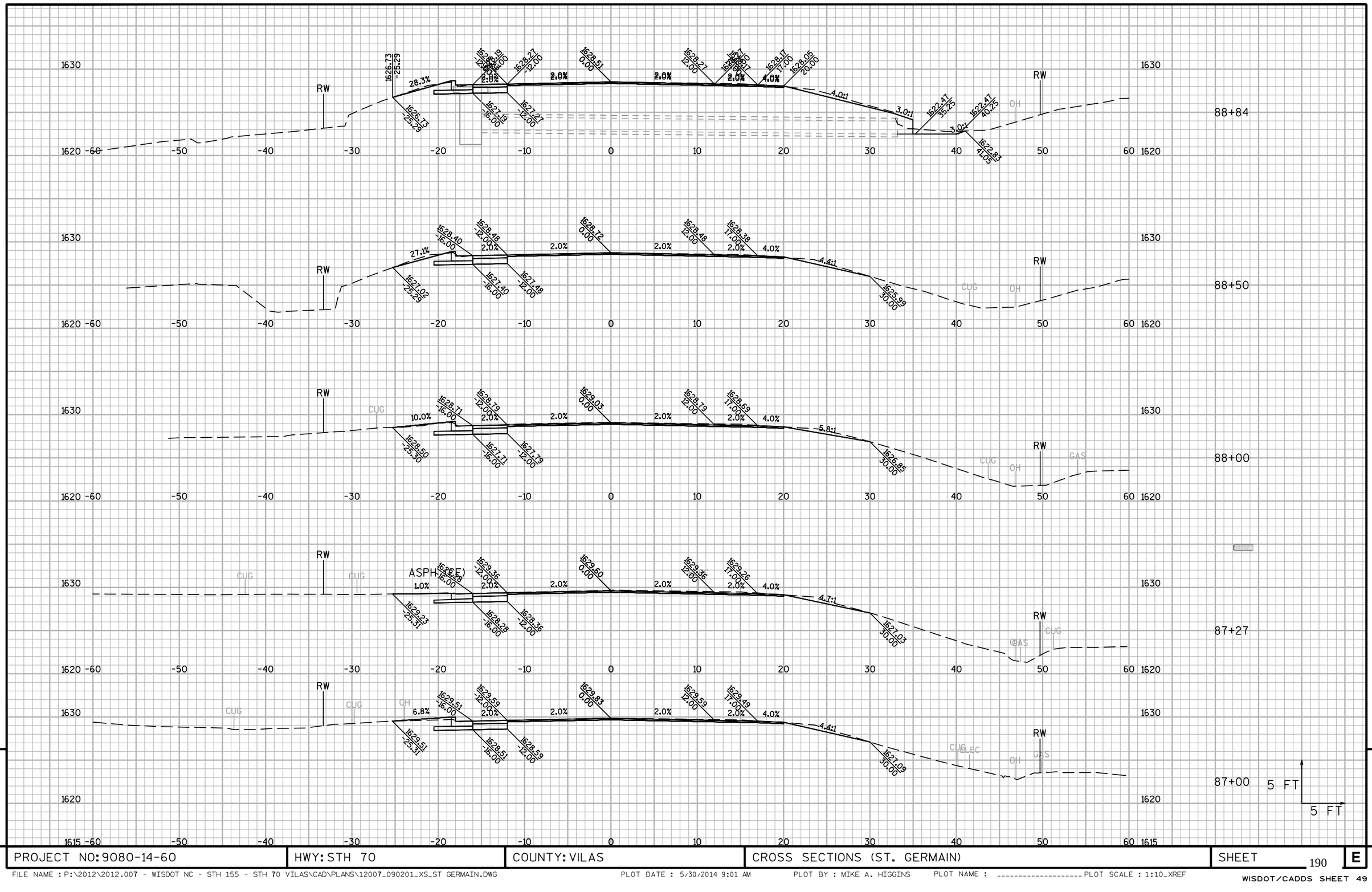

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 188 | E |
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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 189 | E |
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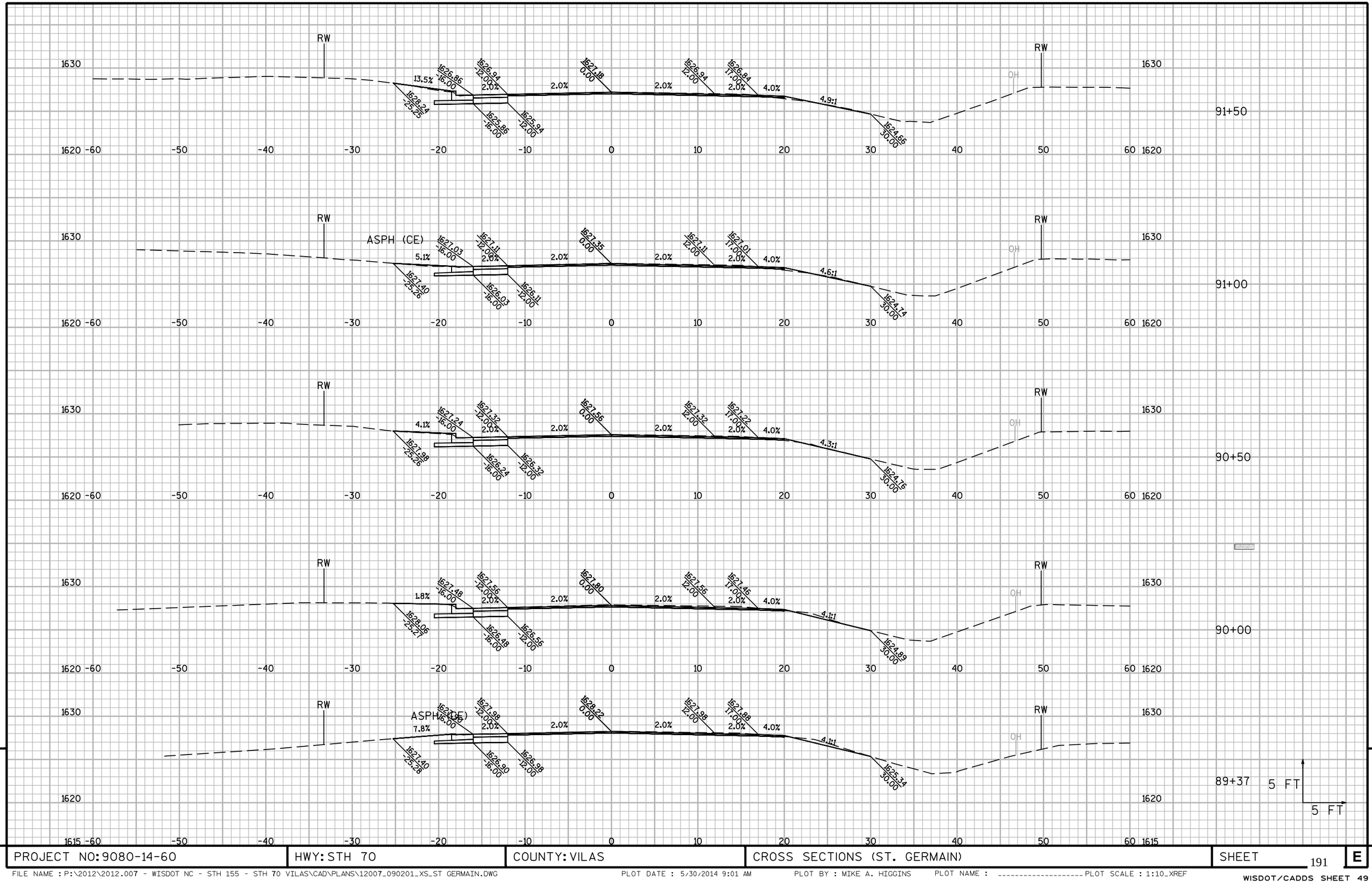

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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 190 | E |
|---|---|---|---|---|---|

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FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:01 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



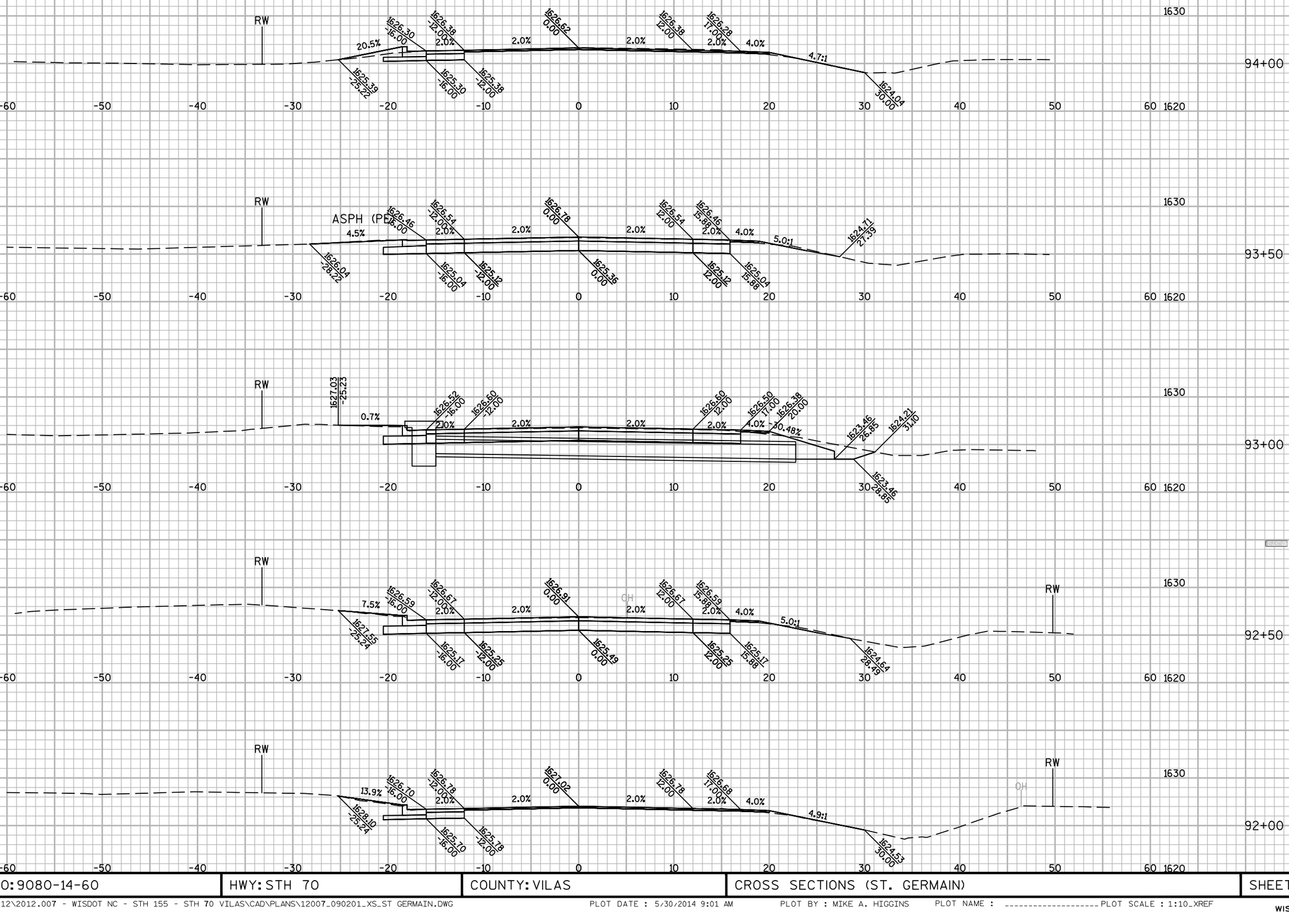

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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 191 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:01 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



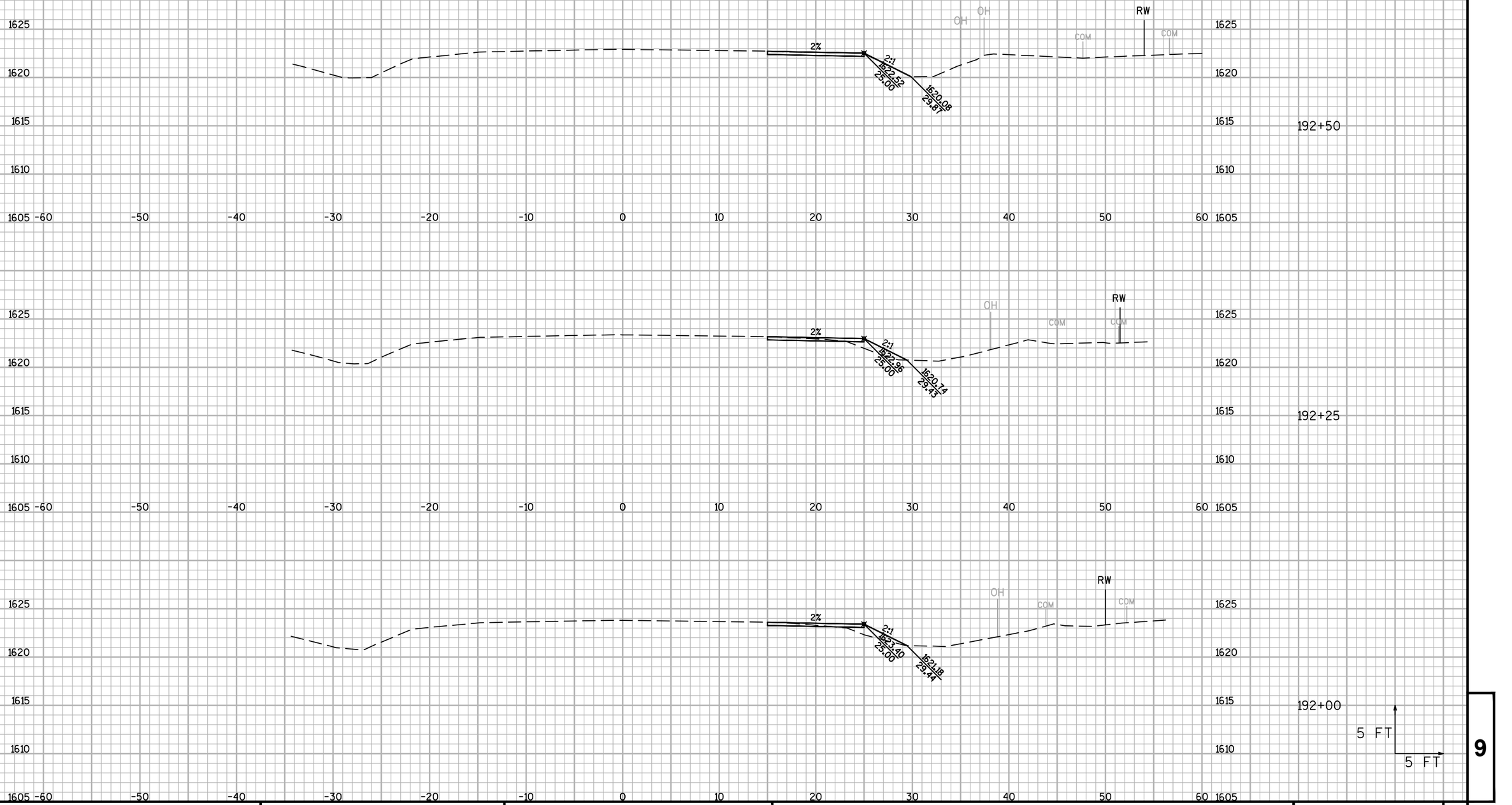

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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (ST. GERMAIN) | SHEET 192 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090201_XS_ST GERMAIN.DWG PLOT DATE : 5/30/2014 9:01 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

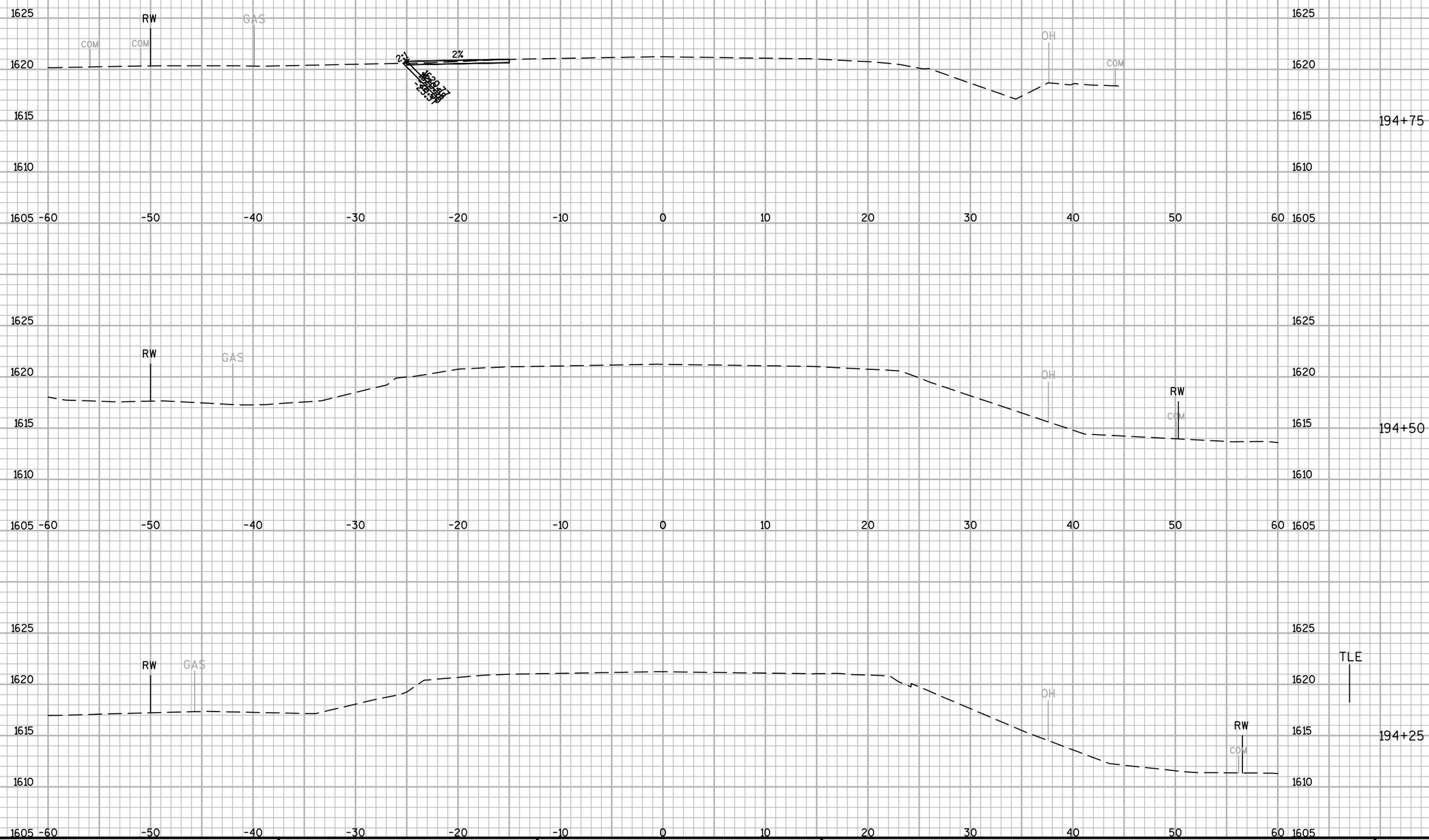
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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (PHASE 1) | SHEET 193 | E |
|---|---|---|---|---|---|

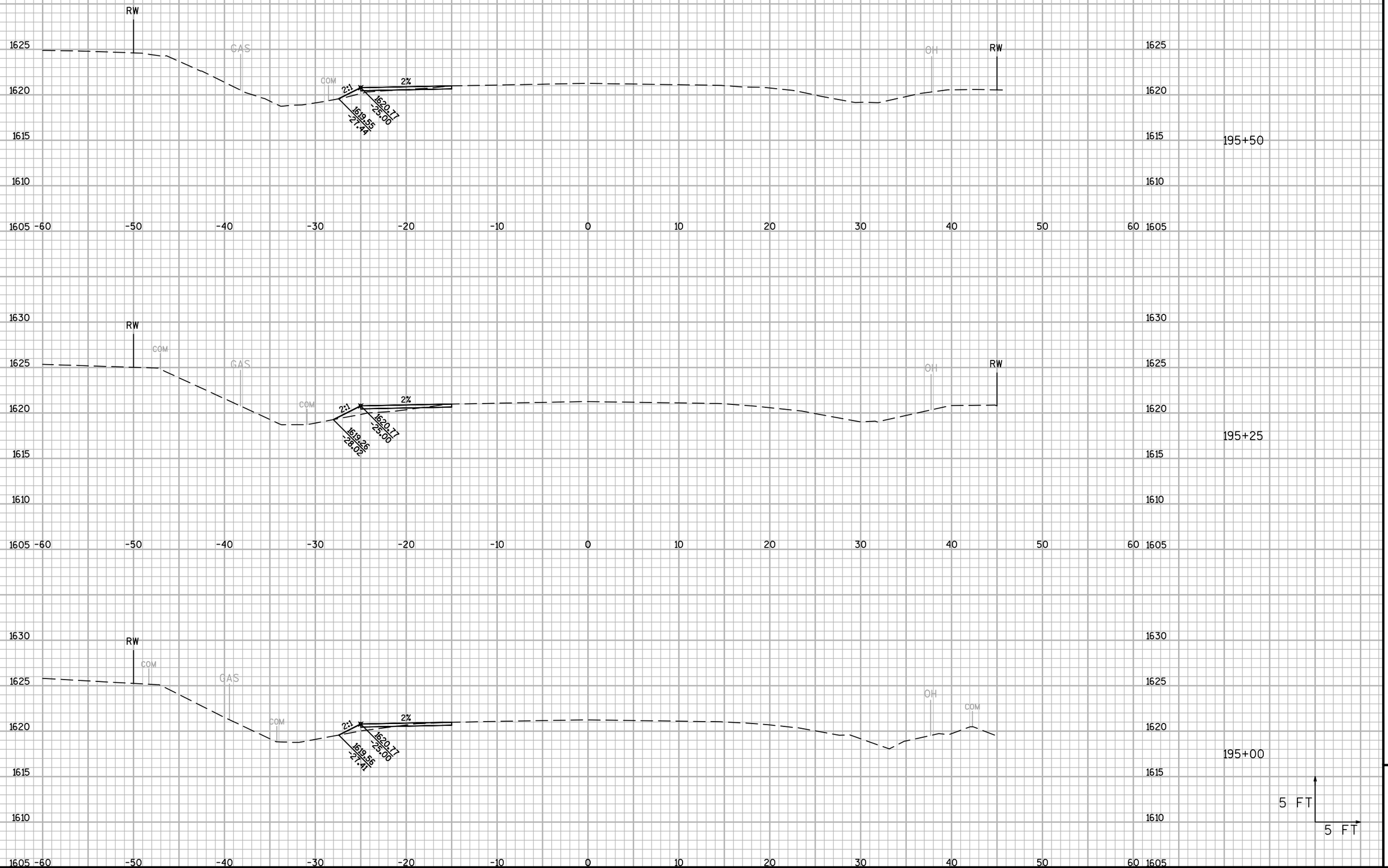



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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (PHASE 1) | SHEET 194 | E |
|---|---|---|---|---|---|

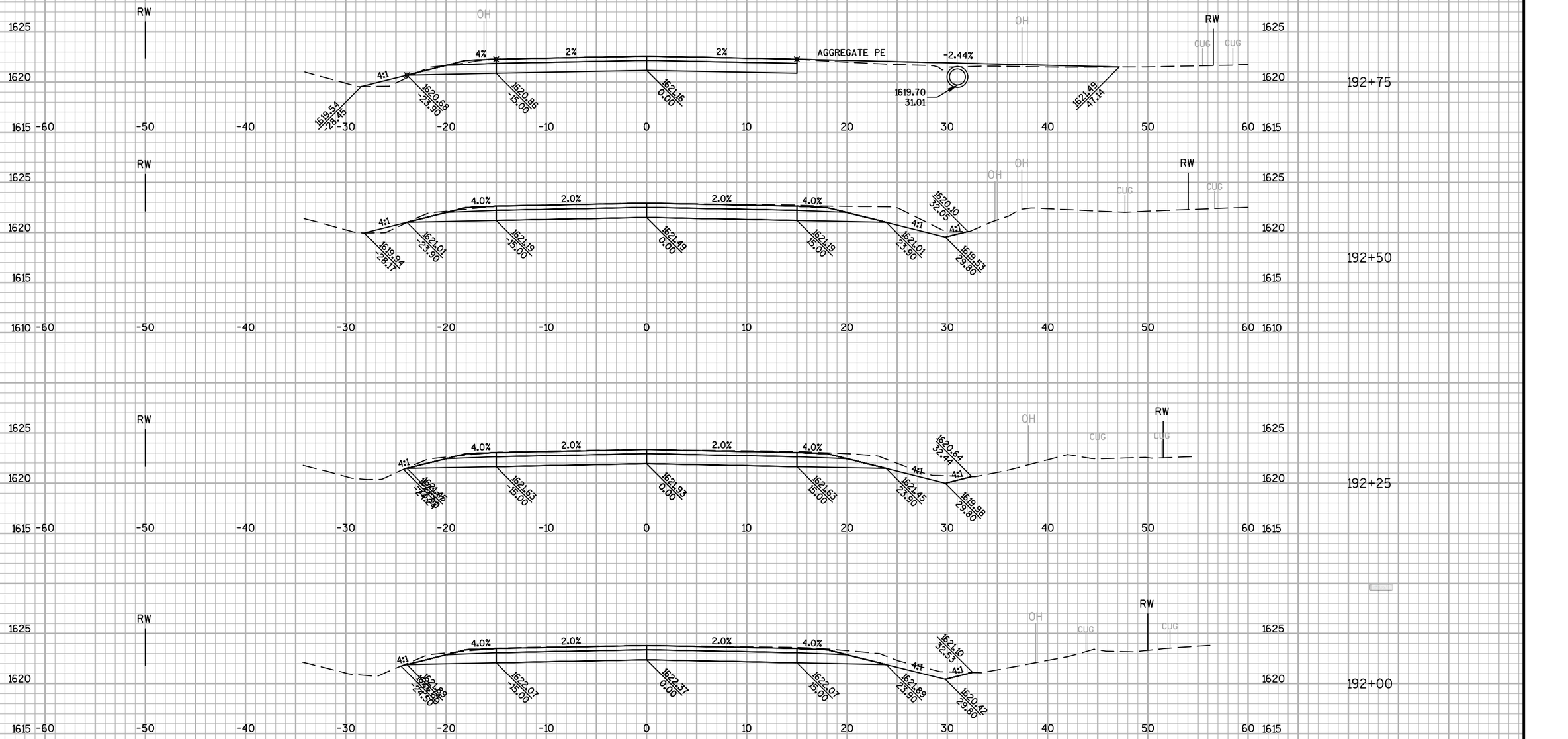
FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090202_XS_CULVERT_PH.DWG PLOT DATE : 5/29/2014 11:56 AM PLOT BY : DANIEL J. GERLING PLOT NAME : ---------- PLOT SCALE : 1:10_XREF




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|---|---|---|---|---|---|
| 9 | PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (PHASE 1) | SHEET 195 E |

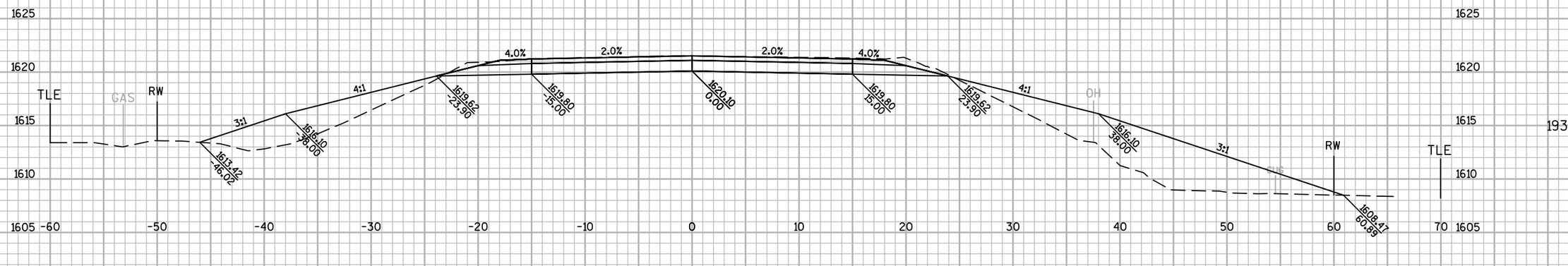


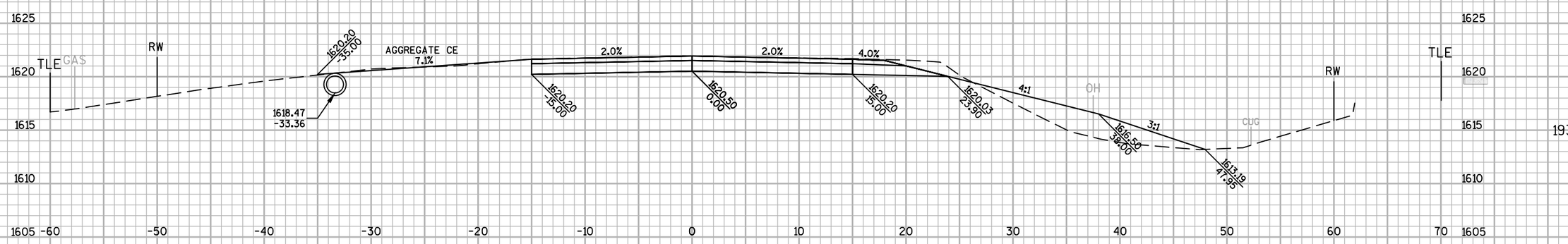
FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090202_XS_CULVERT_PH.DWG PLOT DATE : 5/29/2014 11:56 AM PLOT BY : DANIEL J. GERLING PLOT NAME : _____ PLOT SCALE : 1:10_XREF

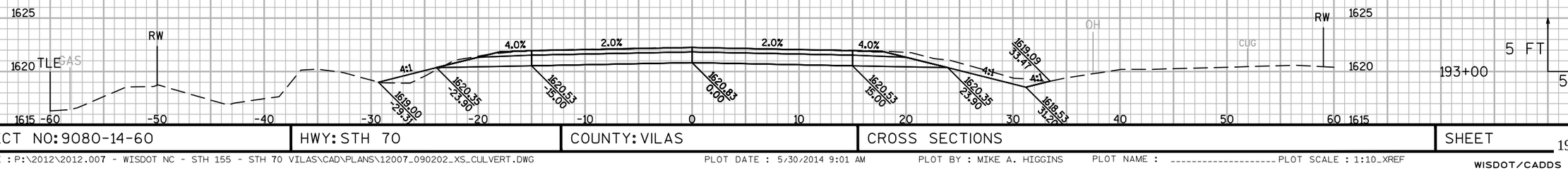



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5 FT

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS | SHEET 196 | E |
|---|---|---|---|---|---|



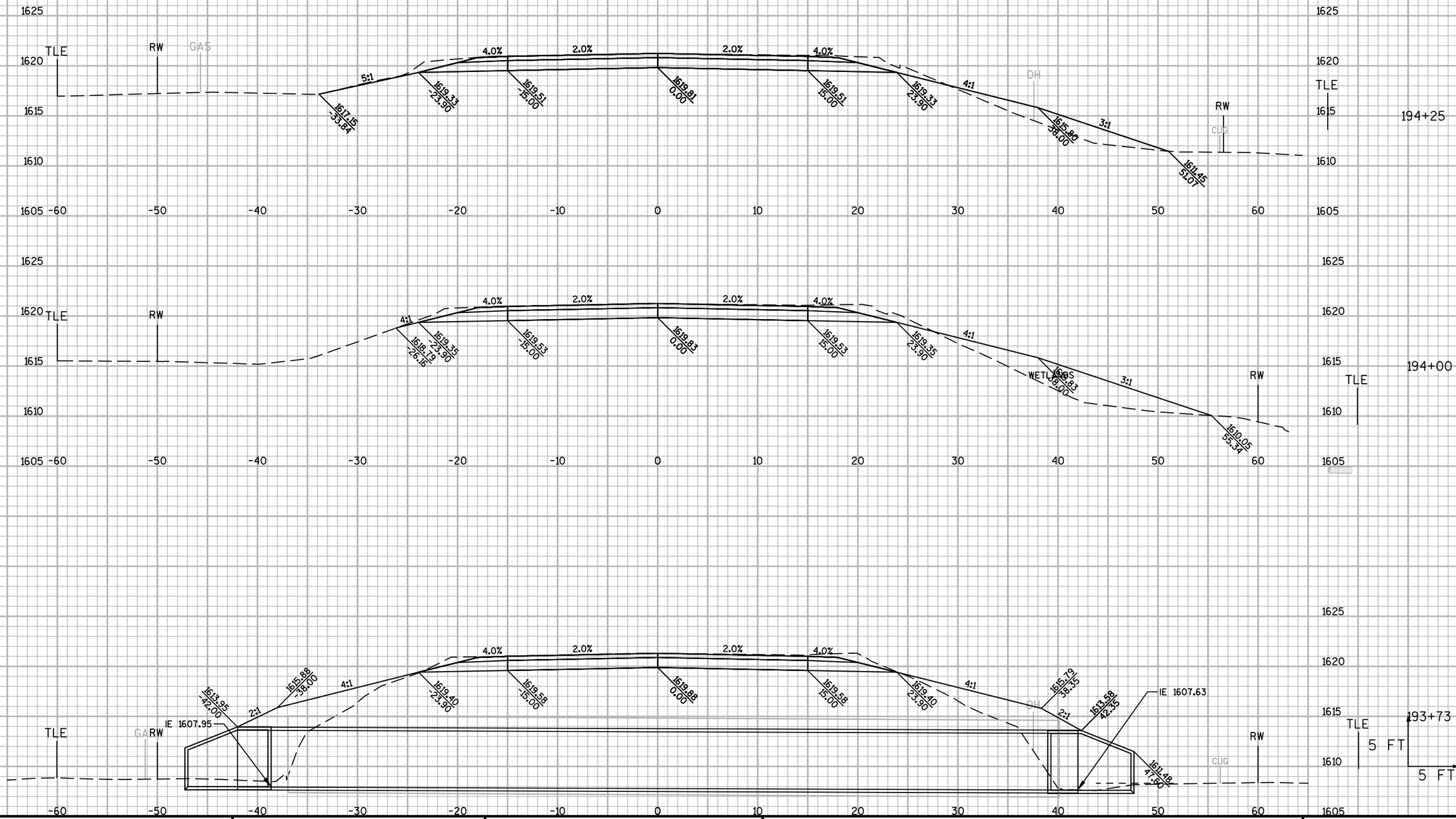

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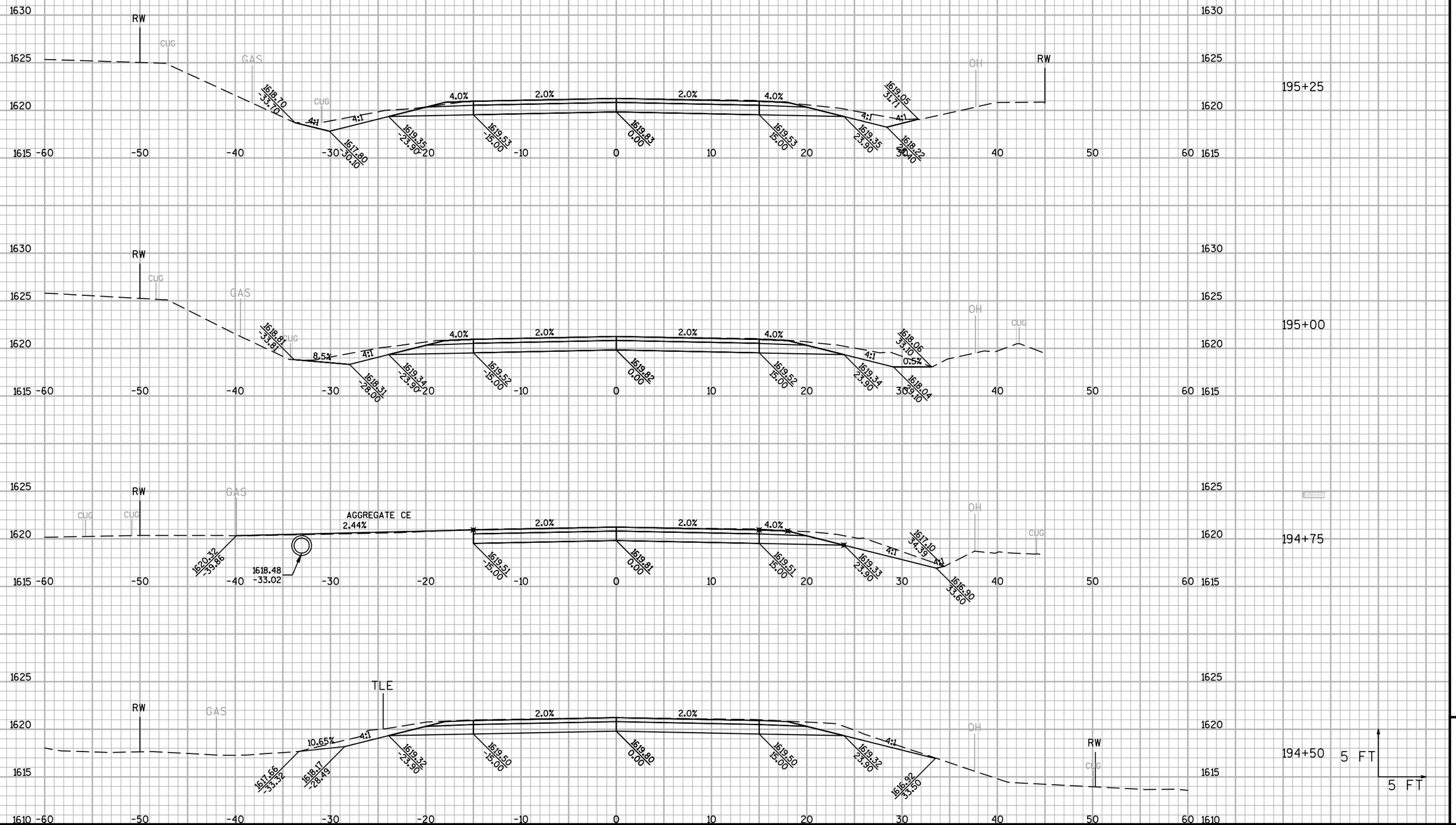
| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS | SHEET 197 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090202_XS_CULVERT.DWG PLOT DATE : 5/30/2014 9:01 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF

NOTE: SEE PLANS FOR SENSITIVE AREAS.




| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS | SHEET 198 | E |
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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS | SHEET 199 | E |
|---|---|---|---|---|---|

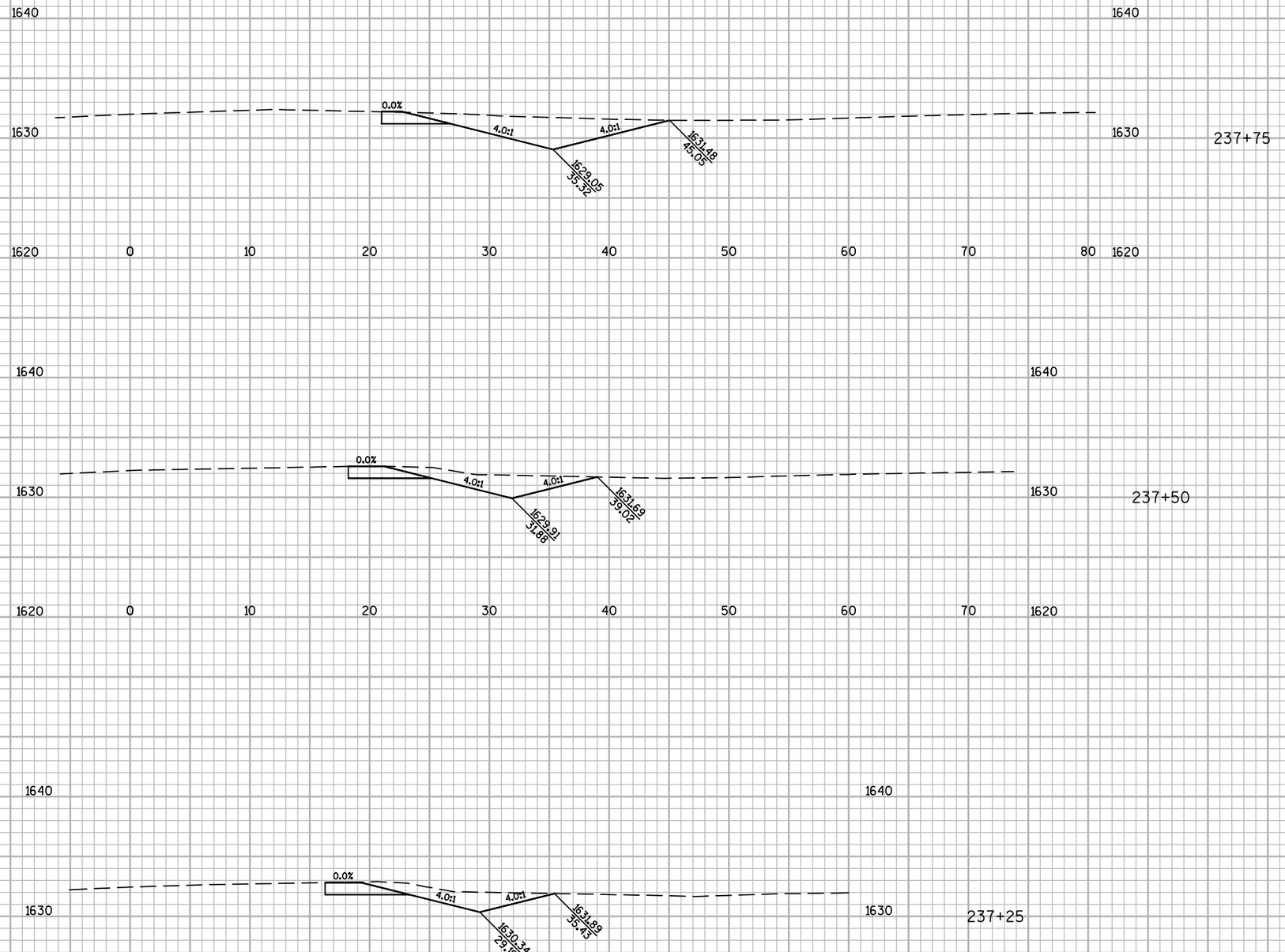



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5 FT

| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS | SHEET 200 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090202_XS_CULVERT.DWG PLOT DATE : 5/30/2014 9:01 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : ---------- PLOT SCALE : 1:10_XREF



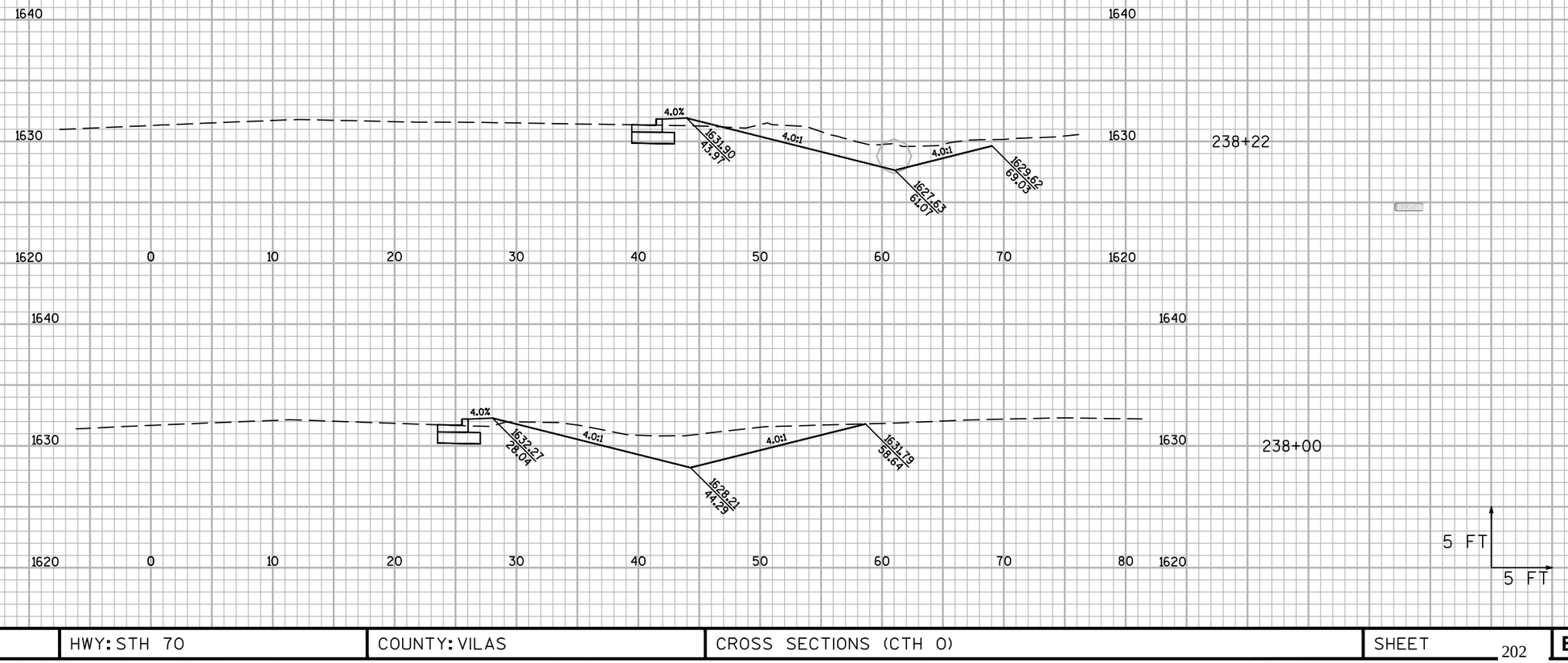

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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (CTH O) | SHEET 201 | E |
|---|---|---|---|---|---|

FILE NAME : P:\2012\2012.007 - WISDOT NC - STH 155 - STH 70 VILAS\CAD\PLANS\12007_090203_XS_CTH O.DWG PLOT DATE : 5/30/2014 9:02 AM PLOT BY : MIKE A. HIGGINS PLOT NAME : _____ PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49




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| PROJECT NO: 9080-14-60 | HWY: STH 70 | COUNTY: VILAS | CROSS SECTIONS (CTH O) | SHEET 202 | E |
|---|---|---|---|---|---|

Notes

**Wisconsin Department of Transportation**

Dedicated people creating transportation solutions
through innovation and exceptional service.

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