LAX FEB 13

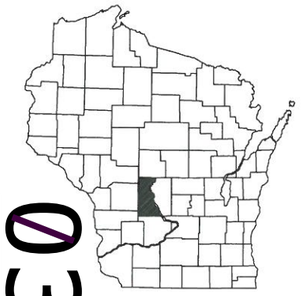
PROJECT ID: 5530-02-60

COUNTY: JUNEAU

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 = 136



03

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HILLSBORO - NEW LISBON

STH 33 - LIBERTY STREET

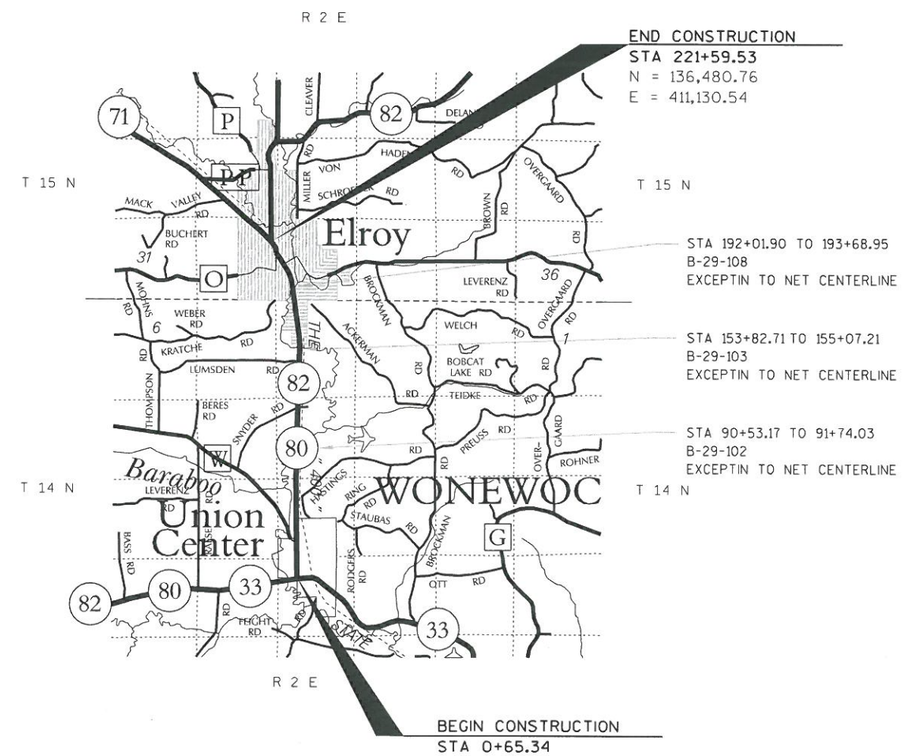
STH 80

JUNEAU COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5530-02-60	———	———

STATE PROJECT NUMBER

5530-02-60



TOTAL NET LENGTH OF CENTERLINE = 4.106 MI.

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

DESIGN DESIGNATION

A.A.D.T. 2013	=	3,600
A.A.D.T. 2033	=	4,350
D.H.V. 11.8%	=	513
D.D.	=	60/40
T.	=	14%
DESIGN SPEED	=	55 MPH
ESALS	=	1,963,000

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

ORIGINAL PLAN PREPARED BY:

Foth

Foth Infrastructure & Environment, LLC
1402 Pankratz Street, Suite 300
Madison, WI 53704
Phone: 608-242-5900 Fax: 608-242-5999

WISCONSIN
CHRIS A. SAXBY
E-32744
MADISON
WI
PROFESSIONAL ENGINEER

7/30/12 DATE

Foth CONSULTANT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	FOTH INFRASTRUCTURE & ENVIRONMENT, LLC
Project Manager	ROBERT WINTERTON
Regional Examiner	
Regional Supervisor	OSCAR WINGER
C.O. Examiner	Cyle Haag

APPROVED FOR THE DEPARTMENT

DATE: 7-30-2012 Oscar S. Winger (Signature)

E

UTILITIES

JASON HOGAN
ALLIANT ENERGY
4902 N BALTIMORE LANE
SUITE 1000
MADISON, WI 53718
608-458-4871

MIKE OLSEN
ATC MANAGEMENT, INC.
801 O'KEEFE ROAD
P.O. BOX 6113
DE PERE, WI 54115-6113
920-338-6582

STEVE BLADO
CENTURYLINK
333 N FRONT ST
LA CROSSE, WI 54601
608-796-5543

KURT CHILDS
DAIRYLAND POWER COOPERATIVE
3200 EAST AVE S
P.O. BOX 817
LACROSSE, WI 54602
608-788-4000

TIM STATZ
MADISON GAS AND ELECTRICITY COMPANY
P.O. BOX 1231
MADISON, WI 53701-1231
608-252-4727

UNION CENTER VILLAGE OF WTR UTY
P.O. BOX 5
UNION CENTER, WI 53962-0005

DIGGERS HOTLINE
DIAL 811 OR
Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

OTHER CONTACTS

DNR CONTACT: CATHY BLESER
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DNR, SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
(608) 275-3308

DESIGNER CONTACT: FOTH INFRASTRUCTURE & ENVIRONMENT, LLC
CHRIS SAXBY, P.E.
1402 PANKRATZ STREET, STE 300
MADISON, WI 53704
OFFICE: 608-242-5942
EMAIL: CHRIS.SAXBY@FOTH.COM

WisDOT CONTACT: ROB WINTERTON
3550 MORMON COULEE RD.
LA CROSSE, WI 54601
(608) 789-7879
ROBERT.WINTERTON@DOT.WI.GOV

JUNEAU COUNTY: HIGHWAY AND PUBLIC WORKS
DENNIS WEISS, DEPARTMENT HEAD
930 EAST STATE STREET
MAUSTON, WI 53948
608-847-5874

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS AND PAVEMENT MARKING
SIGNING PLAN
TRAFFIC CONTROL
ALIGNMENT DATA

GENERAL NOTES

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

THE CONTROL SURVEY CONDUCTED FOR THIS PROJECT WAS DONE BY WISDOT AND IS NOT SHOWN IN THE PLANS. CONTACT WISDOT FOR SURVEY CONTROL INFORMATION.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTORS SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

EROSION CONTROL FEATURES ARE LISTED IN MISCELLANEOUS QUANTITIES BUT NOT SHOWN ON THE PLANS. LOCATIONS LISTED ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

BUTT JOINTS AND AREAS OF PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

EXACT PAVING LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

A 25% EXPANSION FACTOR WAS USED TO CALCULATE FILL QUANTITIES.

PRIVATE, FIELD, AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. ASPHALT APRONS SHALL BE INSTALLED AT ALL BASE COURSE ENTRANCES. ENTRANCES SHALL REMAIN OPEN DURING CONSTRUCTION.

DISTURBED RURAL AREAS WITHIN THE RIGHT-OF-WAY SHALL BE TOPSOILED, FERTILIZED, SEEDED, AND EROSION MATTED.

DISTUREBED URBAN AREAS WITHIN THE RIGHT-OF-WAY SHALL BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED.

AREAS OF EBS AND FULL PAVEMENT REPLACEMENT TO BE DEFINED IN FIELD BY THE ENGINEER.

2.5" HMA PAVEMENT TYPE E-3 SHALL BE PLACED IN ONE UPPER LAYER (PG64-28P, 12.5 mm). HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/IN/SY.

IN AREAS OF EBS AND FULL DEPTH PAVEMENT REPLACEMENT, 5.5" HMA PAVEMENT TYPE E-3 SHALL BE PLACED IN ONE 3 INCH LOWER LAYER (PG68-28P, 12.5 mm) AND ONE 2.5" UPPER LAYER (PG68-28P, 12.5 mm).

WHEN THE QUANTITY OF BASE AGGREGATE DENSE 3/4 INCH, BASE AGGREGATE DENSE 1 1/4 INCH OR HMA PAVEMENT TYPE E-3 IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL DEPTH MAY VARY DEPENDING ON THE ACTUAL DISTRIBUTION OF THE MATERIAL AS APPROVED BY THE ENGINEER IN THE FIELD.

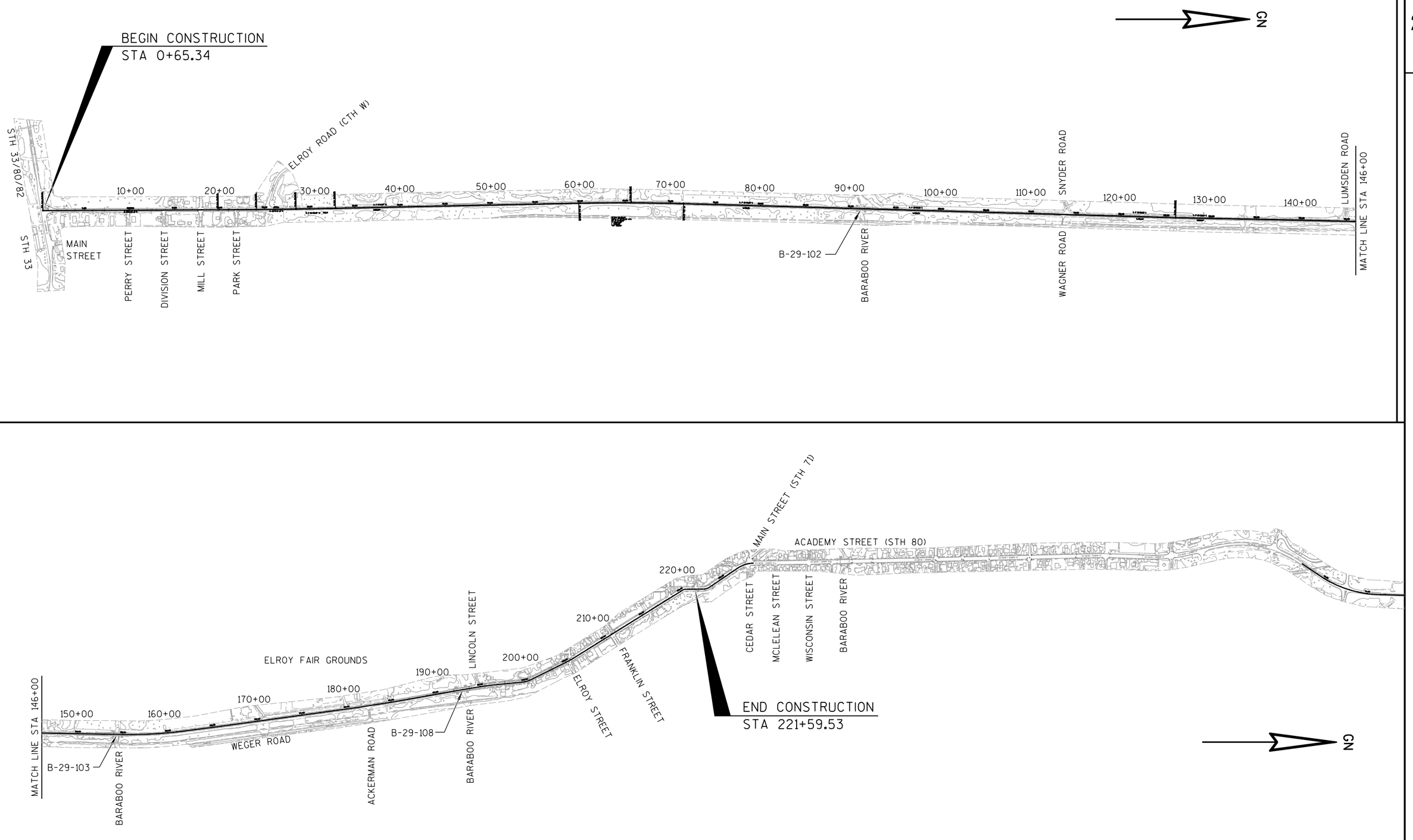
WASTE MATERIAL RESULTING FROM THE VARIOUS OPERATIONS UNDER THIS CONTRACT SHALL BE ENTIRELY REMOVED AND DISPOSED OF AT THE TIME OF OCCURRENCE AS DIRECTED BY THE ENGINEER.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS MAY EXIST.

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

2

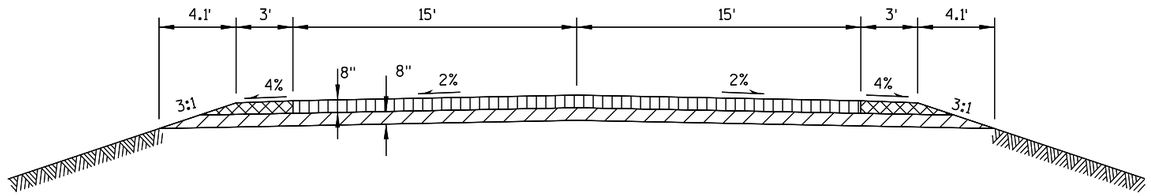


PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PROJECT OVERVIEW	SHEET 3	E

2

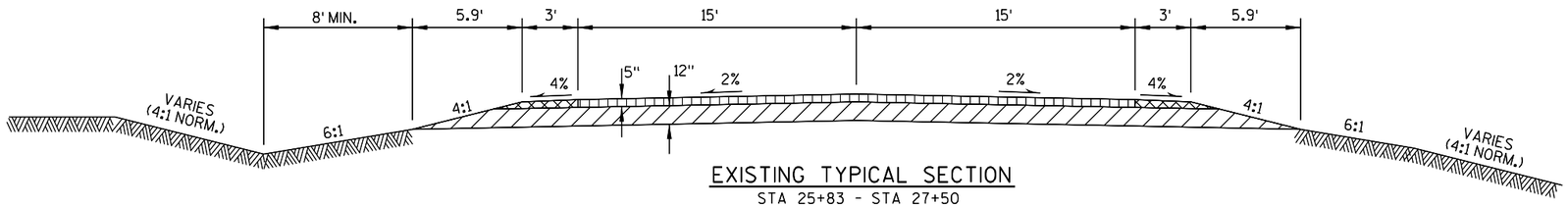
LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID



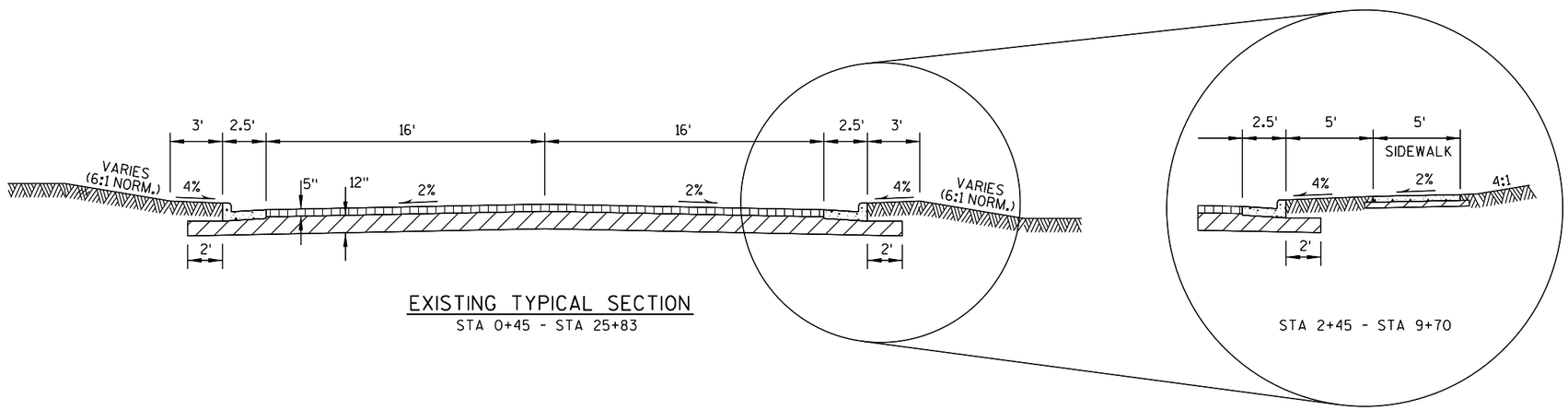
EXISTING TYPICAL SECTION

STA 27+50 - STA 36+40
STA 40+46 - STA 71+22
STA 72+50 - STA 89+80
STA 93+80 - STA 149+47
STA 157+47 - STA 180+85



EXISTING TYPICAL SECTION

STA 25+83 - STA 27+50

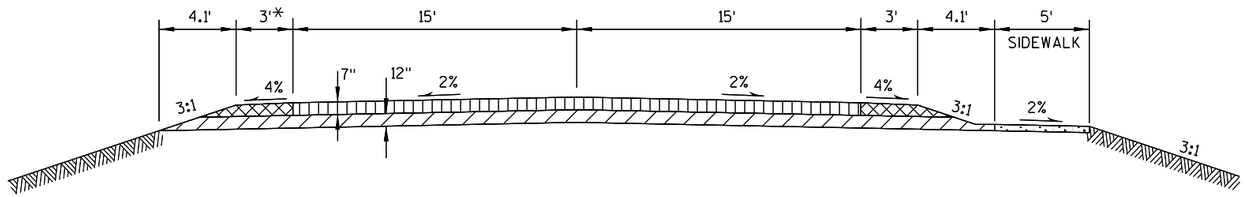


EXISTING TYPICAL SECTION

STA 0+45 - STA 25+83

STA 2+45 - STA 9+70

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	EXISTING TYPICAL SECTIONS	SHEET 4	E

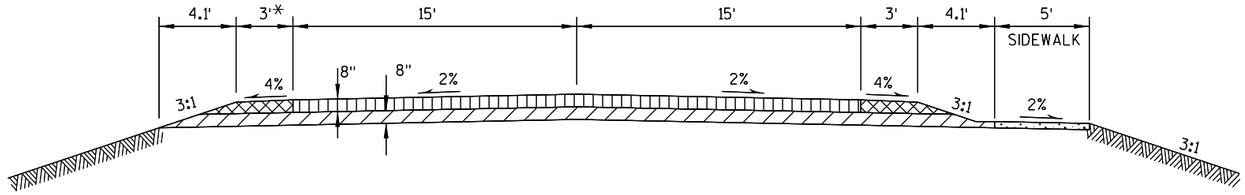


EXISTING TYPICAL SECTION

STA 187+15 - STA 192+34

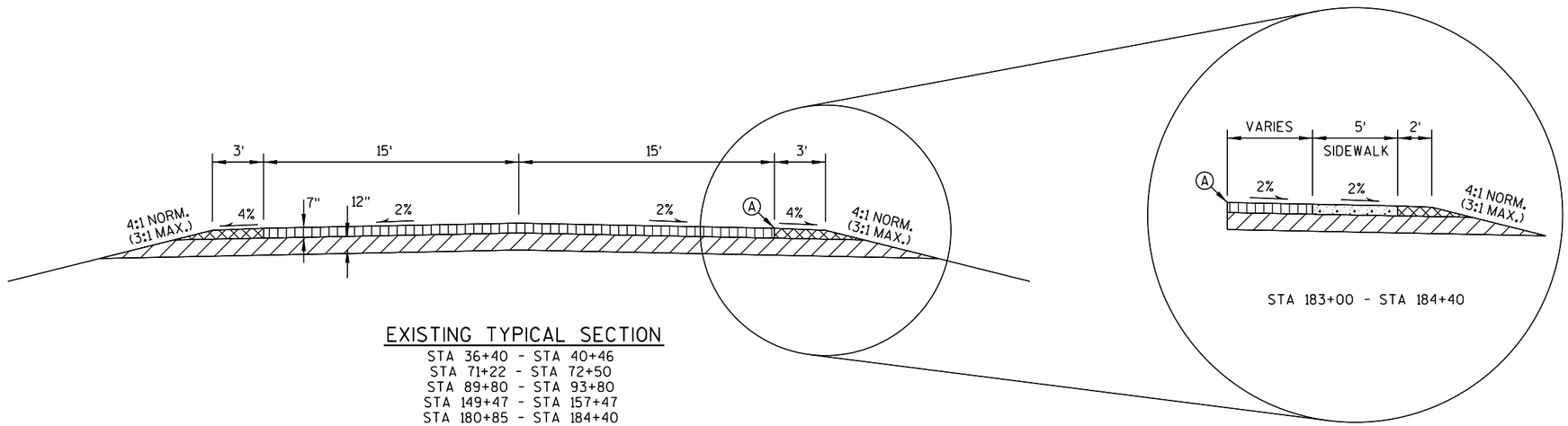
LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID



EXISTING TYPICAL SECTION

STA 184+80 - STA 187+15



EXISTING TYPICAL SECTION

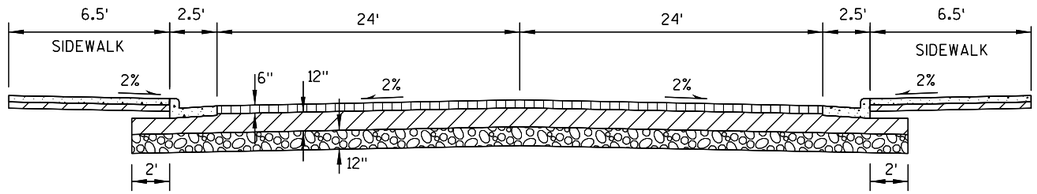
STA 36+40 - STA 40+46
STA 71+22 - STA 72+50
STA 89+80 - STA 93+80
STA 149+47 - STA 157+47
STA 180+85 - STA 184+40

STA 183+00 - STA 184+40

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	EXISTING TYPICAL SECTIONS	SHEET 5	E

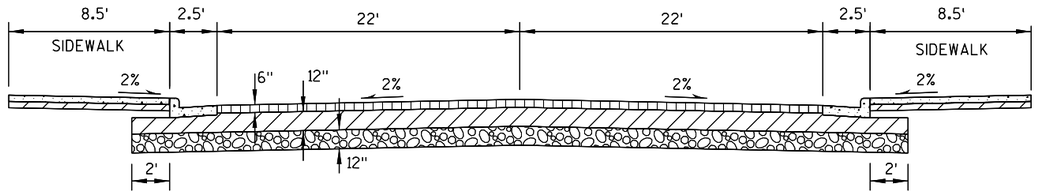
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2



EXISTING TYPICAL SECTION

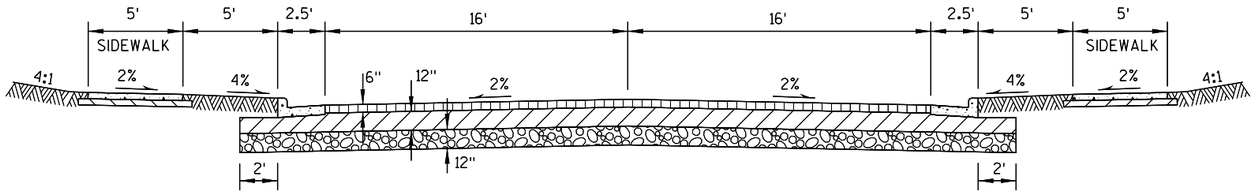
STA 211+00 - STA 221+75



EXISTING TYPICAL SECTION

STA 205+50 - STA 211+00

STA 221+75 - STA 228+95



EXISTING TYPICAL SECTION

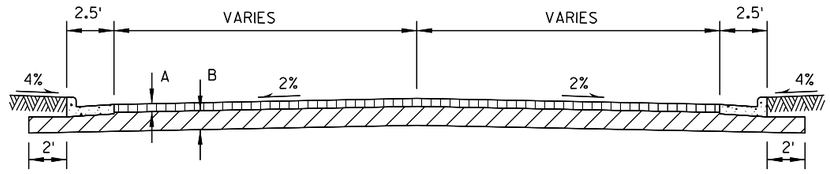
STA 192+34 - STA 205+50

LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID

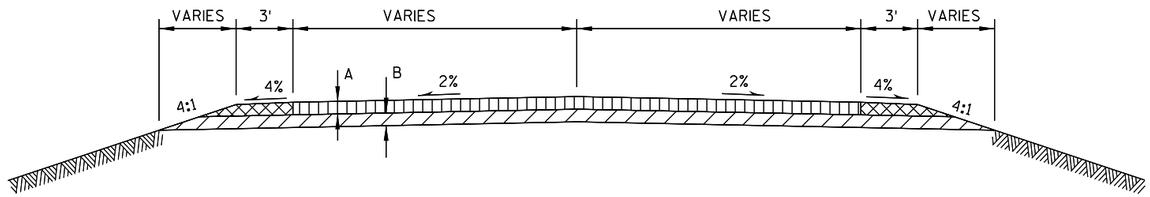
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	EXISTING TYPICAL SECTIONS	SHEET 6	E

2



EXISTING TYPICAL SECTION

SIDE ROAD	A	B
ELROY STREET	4"	8"
FRANKLIN STREET	5"	12"
PROSPECT STREET	4"	8"



EXISTING TYPICAL SECTION

SIDE ROAD	A	B
PERRY STREET	5"	12"
DIVISION STREET	4"	8"
MILL STREET	4"	8"
PARK STREET	5"	12"
CTH W (ELROY RD)	5"	12"
SNYDER ROAD	4"	8"
LUMSDEN ROAD	4"	8"
LINCOLN STREET	4"	8"

LEGEND

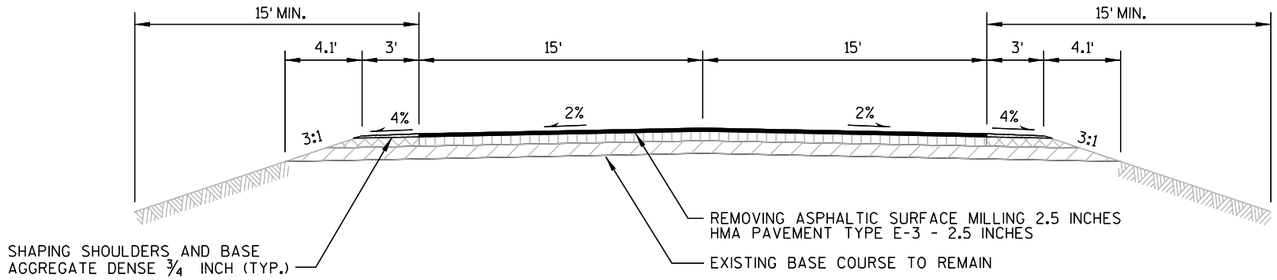
- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	EXISTING TYPICAL SECTIONS	SHEET 7	E

2

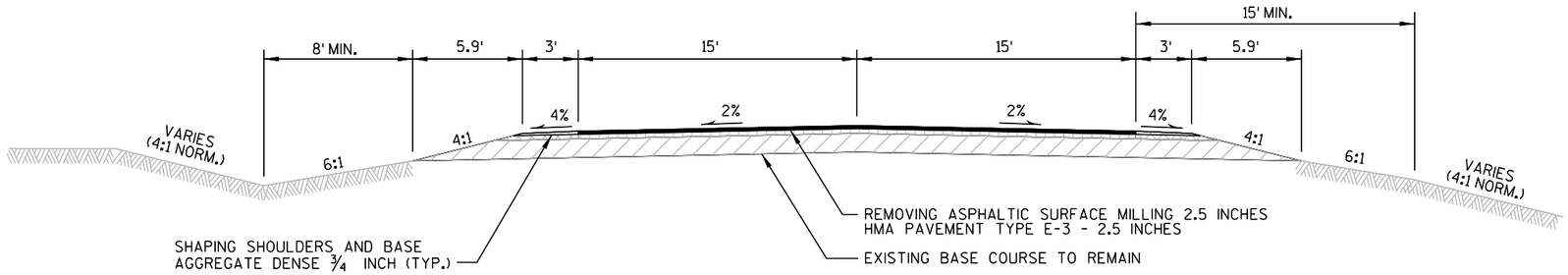
LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID



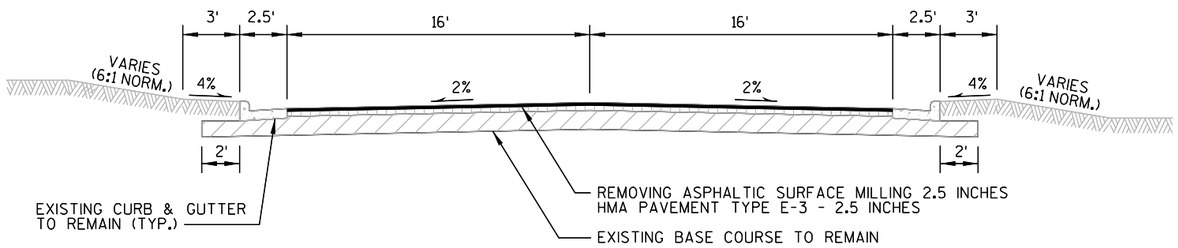
PROPOSED TYPICAL SECTION

STA 27+50 - STA 36+40
STA 40+46 - STA 71+22
STA 72+50 - STA 89+80
STA 93+80 - STA 149+47
STA 157+47 - STA 180+85



PROPOSED TYPICAL SECTION

STA 25+83 - STA 27+50



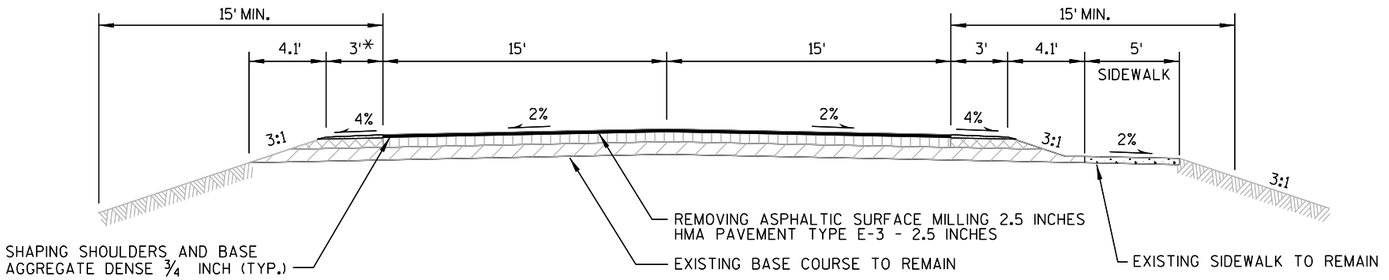
PROPOSED TYPICAL SECTION

STA 0+45 - STA 25+83

NOTES: FINISH DISTURBED SLOPES NEAR GRADED AREAS FOR MGS GUARDRAIL TERMINAL EATS AND STEEL PLATE BEAM GUARD SHORT RADIUS TERMINALS WITH SALVAGED TOPSOIL, MULCHING, EROSION MAT CLASS II TYPE B, FERTILIZER TYPE B, AND SEEDING MIXTURE NO. 20. ALL EXCAVATION COMMON, BORROW, AND FINISH ITEMS EXCEPT EROSION MAT CLASS II TYPE B TO BE PAID FOR UNDER ITEM BARRIER SYSTEM GRADING SHAPING FINISHING. QUANTITIES LISTED IN MISCELLANEOUS QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY.

IN AREAS OF FULL PAVEMENT REPLACEMENT OVER EBS THE PAVEMENT STRUCTURE SHALL BE 5.5 INCHES OF HMA PAVEMENT TYPE E-3 OVER 6 INCHES OF BASE AGGREGATE DENSE 1 1/4 INCH OVER 24 INCHES OF SELECT CRUSHED MATERIAL.

IN AREAS OF CULVERT REPLACEMENTS THE PAVEMENT STRUCTURE SHALL BE 5.5 INCHES OF HMA PAVEMENT TYPE E-3 OVER 12 INCHES OF BASE AGGREGATE DENSE 1 1/4 INCH.



PROPOSED TYPICAL SECTION

STA 187+15 - STA 192+34

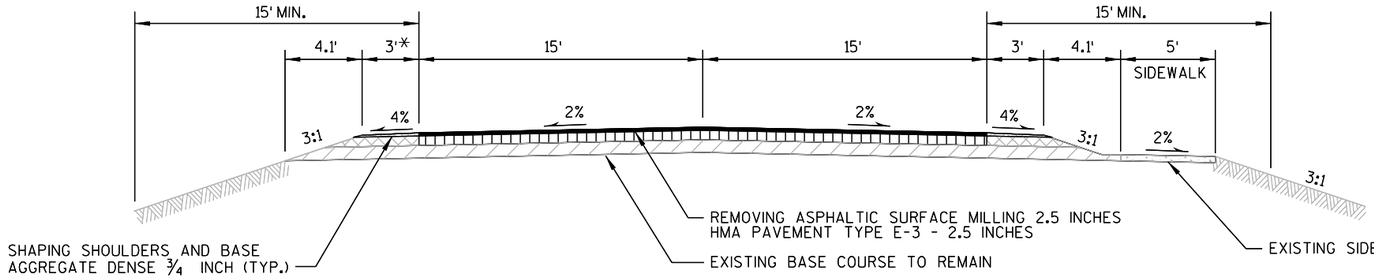
LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID

NOTES: FINISH DISTURBED SLOPES NEAR GRADED AREAS FOR MGS GUARDRAIL TERMINAL EATS AND STEEL PLATE BEAM GUARD SHORT RADIUS TERMINALS WITH SALVAGED TOPSOIL, MULCHING, EROSION MAT CLASS II TYPE B, FERTILIZER TYPE B, AND SEEDING MIXTURE NO. 20. ALL EXCAVATION COMMON, BORROW, AND FINISH ITEMS EXCEPT EROSION MAT CLASS II TYPE B TO BE PAID FOR UNDER ITEM BARRIER SYSTEM GRADING SHAPING FINISHING. QUANTITIES LISTED IN MISCELLANEOUS QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY.

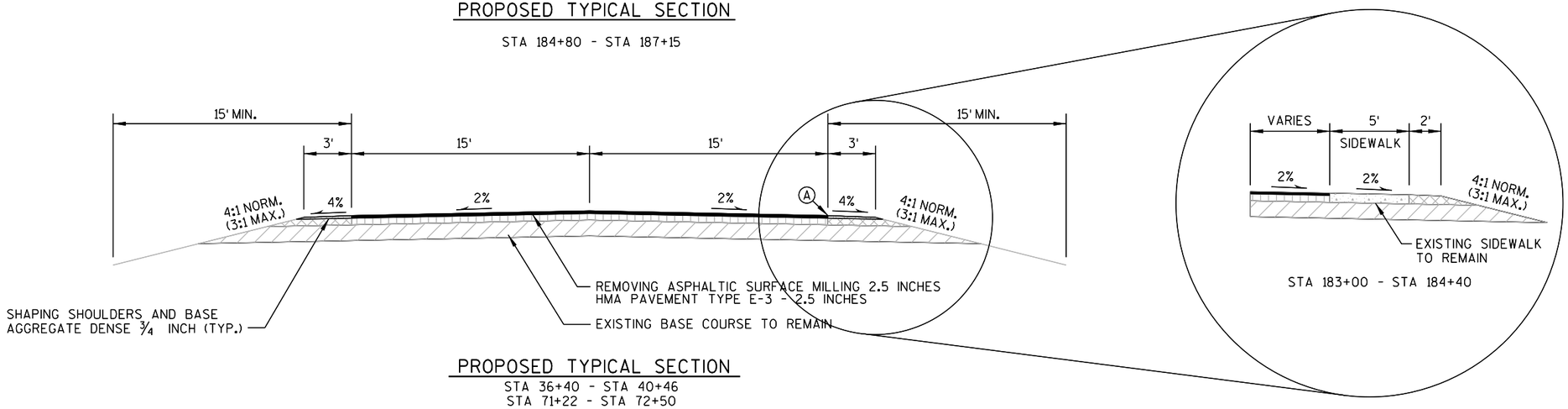
IN AREAS OF FULL PAVEMENT REPLACEMENT OVER EBS THE PAVEMENT STRUCTURE SHALL BE 5.5 INCHES OF HMA PAVEMENT TYPE E-3 OVER 6 INCHES OF BASE AGGREGATE DENSE 1 1/4 INCH OVER 24 INCHES OF SELECT CRUSHED MATERIAL.

IN AREAS OF CULVERT REPLACEMENTS THE PAVEMENT STRUCTURE SHALL BE 5.5 INCHES OF HMA PAVEMENT TYPE E-3 OVER 12 INCHES OF BASE AGGREGATE DENSE 1 1/4 INCH.



PROPOSED TYPICAL SECTION

STA 184+80 - STA 187+15

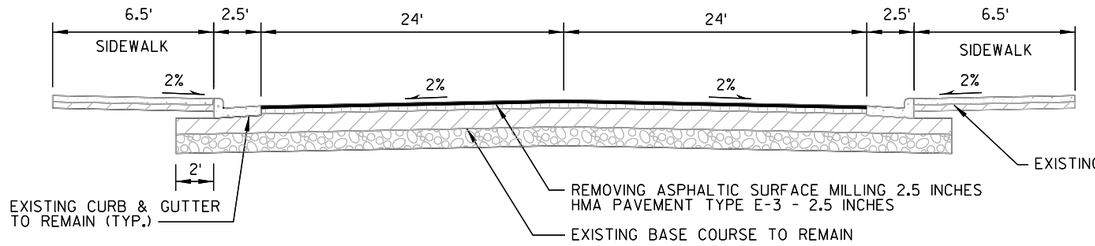


PROPOSED TYPICAL SECTION

STA 36+40 - STA 40+46
STA 71+22 - STA 72+50
STA 89+80 - STA 93+80
STA 149+47 - STA 157+47
STA 180+85 - STA 184+40

STA 183+00 - STA 184+40

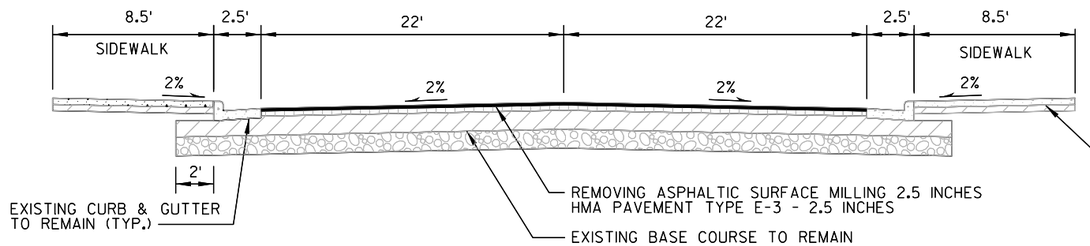
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PROPOSED TYPICAL SECTIONS	SHEET 9	E



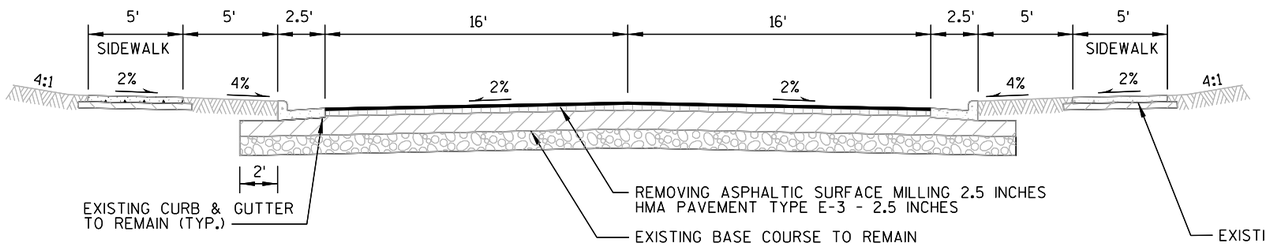
PROPOSED TYPICAL SECTION
STA 211+00 - STA 221+75

LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID



PROPOSED TYPICAL SECTION
STA 205+50 - STA 211+00
STA 221+75 - STA 228+95



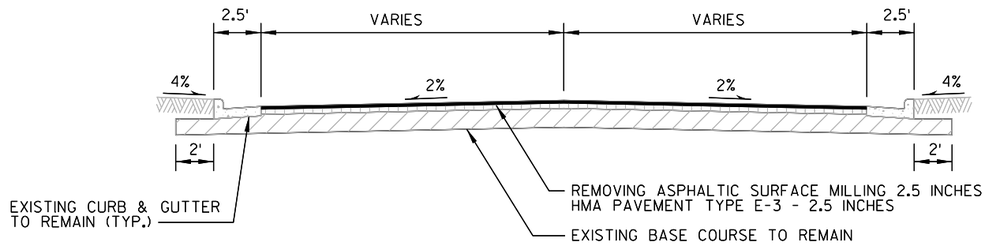
PROPOSED TYPICAL SECTION
STA 192+34 - STA 205+50

NOTES: FINISH DISTURBED SLOPES NEAR GRADED AREAS FOR MGS GUARDRAIL TERMINAL EATS AND STEEL PLATE BEAM GUARD SHORT RADIUS TERMINALS WITH SALVAGED TOPSOIL, MULCHING, EROSION MAT CLASS II TYPE B, FERTILIZER TYPE B, AND SEEDING MIXTURE NO. 20. ALL EXCAVATION COMMON, BORROW, AND FINISH ITEMS EXCEPT EROSION MAT CLASS II TYPE B TO BE PAID FOR UNDER ITEM BARRIER SYSTEM GRADING SHAPING FINISHING. QUANTITIES LISTED IN MISCELLANEOUS QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY.

DISTURBED AREAS IN THE URBAN SECTION TO BE FINISHED WITH TOPSOIL, FERTLIZER TYPE B, MULCHING, AND SEEDING MIXTURE NO. 40.

IN AREAS OF FULL PAVEMENT REPLACEMENT OVER EBS THE PAVEMENT STRUCTURE SHALL BE 5.5 INCES OF HMA PAVEMENT TYPE E-3 OVER 6 INCHES OF BASE AGGREGATE DENSE 1 1/4 INCH OVER 24 INCHES OF SELECT CRUSHED MATERIAL.

IN AREAS OF CULVERT REPLACEMENTS THE PAVEMENT STRUCTURE SHALL BE 5.5 INCHES OF HMA PAVEMENT TYPE E-3 OVER 12 INCHES OF BASE AGGREGATE DENSE 1 1/4 INCH.

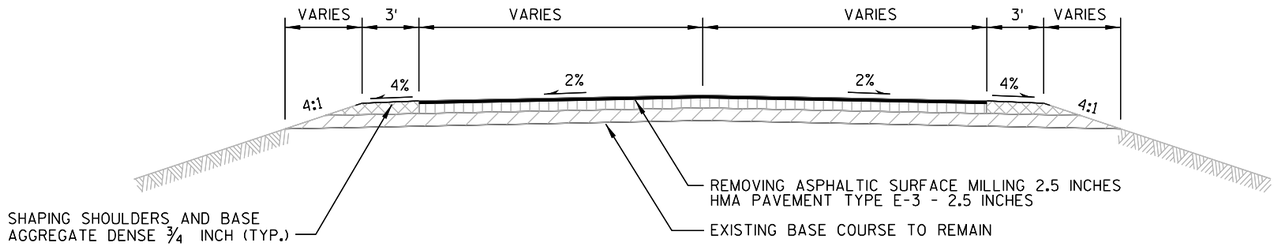


PROPOSED TYPICAL SECTION

ELROY STREET
FRANKLIN STREET
PROSPECT STREET

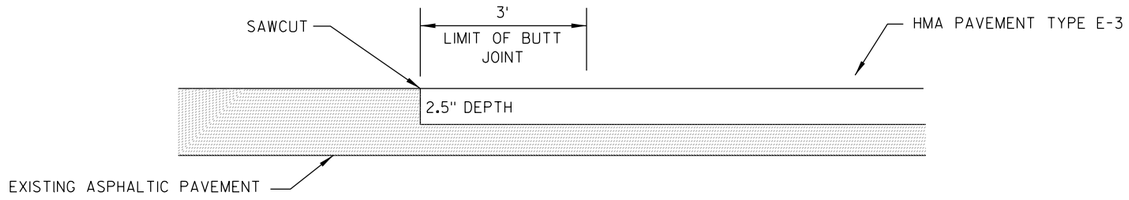
LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)
- EXISTING P.C.C. CURB & GUTTER OR SIDEWALK
- EXISTING BREAKER RUN STONE & MIRAFI 2T GEOGRID

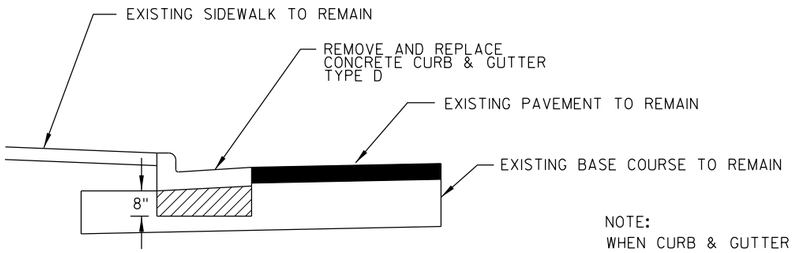


PROPOSED TYPICAL SECTION

PERRY STREET
DIVISION STREET
MILL STREET
PARK STREET
CTH W (ELROY RD)
SNYDER ROAD
LUMSDEN ROAD
LINCOLN STREET



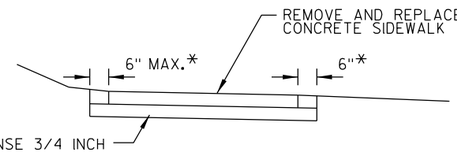
REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL



NOTE:
WHEN CURB & GUTTER REPLACEMENT IS ADJACENT TO LAWN TURF THE EXCAVATION LIMITS SHALL EXTEND 1' BACK OF CURB AND DISTURBED AREA FINISHED WITH TOPSOIL, FERTILIZER TYPE B, MULCHING AND SEEDING MIXTURE NO. 40.

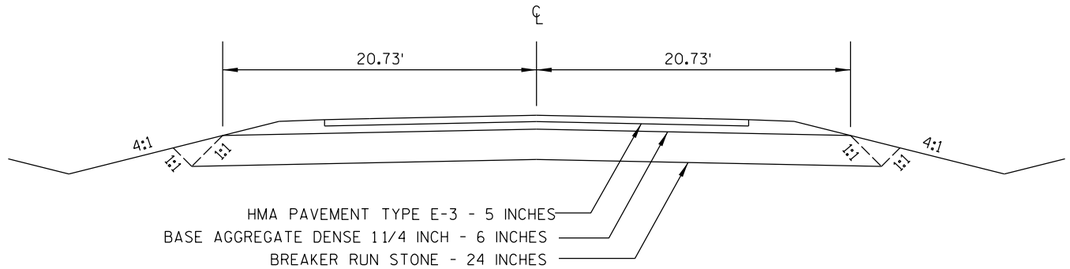
CONCRETE CURB & GUTTER REMOVAL DETAIL

ADJACENT TO SIDEWALK

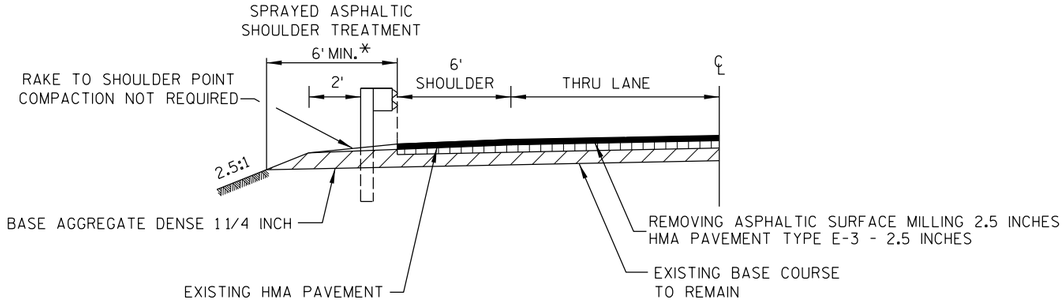


* DISTURBED AREAS TO BE FINISHED WITH TOPSOIL, FERTLIZER TYPE B, MULCHING AND SEEDING MIXTURE NO. 40

CONCRETE SIDEWALK REMOVAL DETAIL

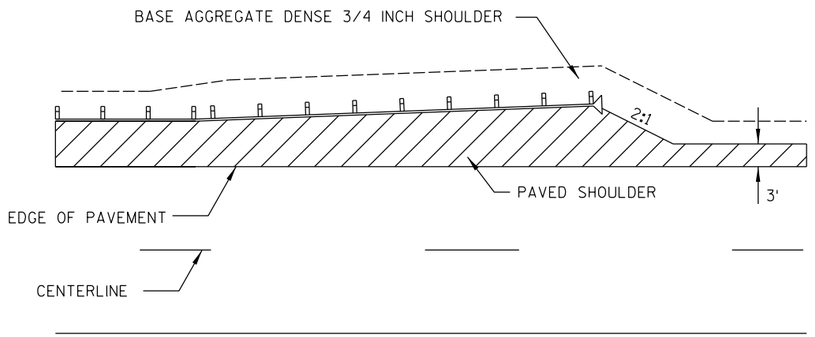


TYPICAL SECTION FOR AREAS OF EBS

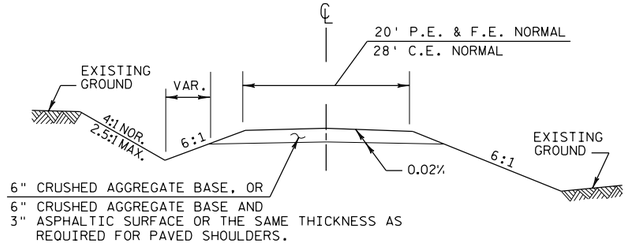


* 4' MIN. FOR MGS GUARDRAIL TYPE 3K INSTALLATION

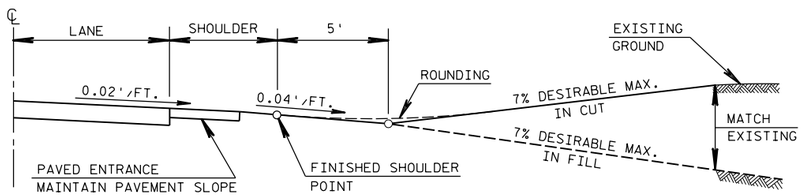
TYPICAL SECTION AT GUARDRAIL DETAIL



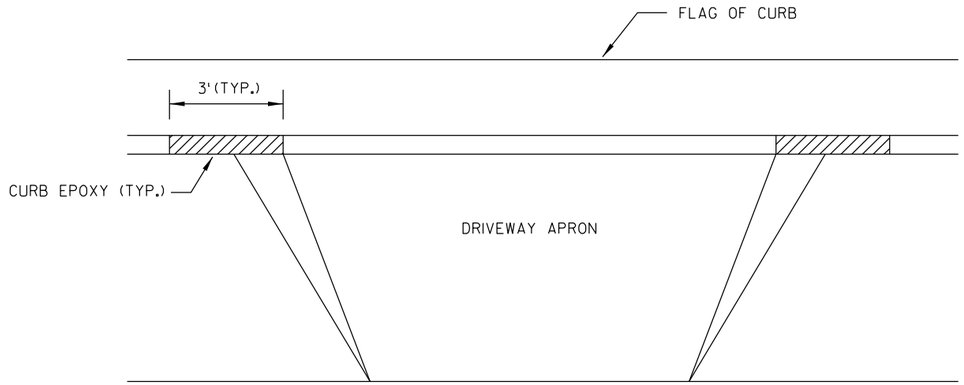
HMA PAVING ALONG GUARDRAIL DETAIL



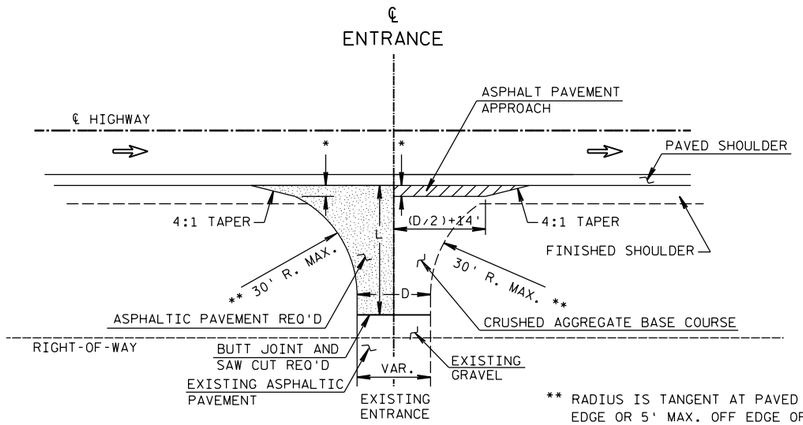
TYPICAL CROSS SECTION



PROFILE VIEW



PAVEMENT MARKING CURB DETAIL AT URBAN DRIVEWAYS



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

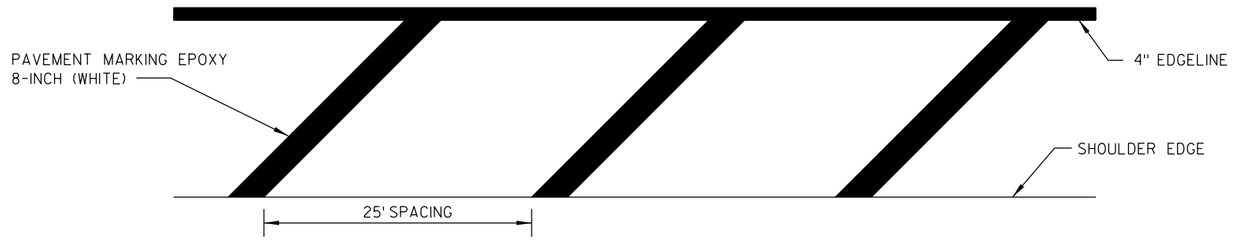
D=DRIVEWAY WIDTH
D=20'TYP.(PE's & FE's) (16'MIN.-24'MAX.)
D=28'TYP.(CE's & FARM ENT.) (24'MIN.-35'MAX.)

** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX. OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

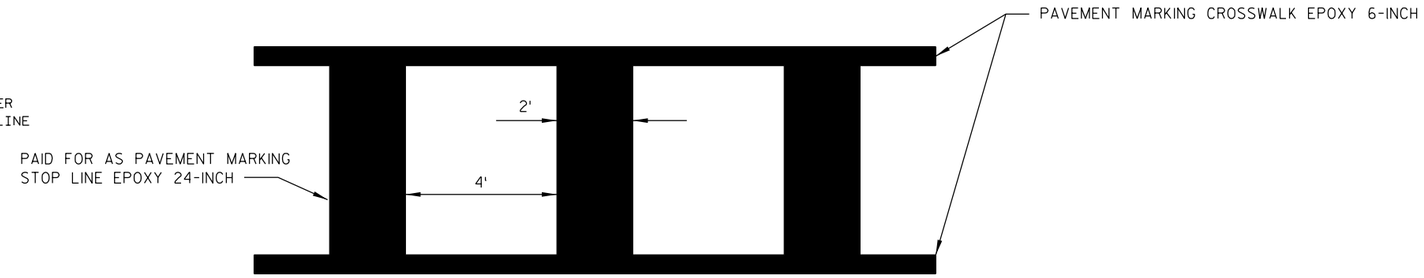
* 3' MAX. OR TO FINISHED SHOULDER WHICH EVER IS LESS.

PLAN VIEW

RURAL DRIVEWAY INTERSECTION DETAIL
(PE's, FE's & CE'S)
(FOR NEW CONSTRUCTION)

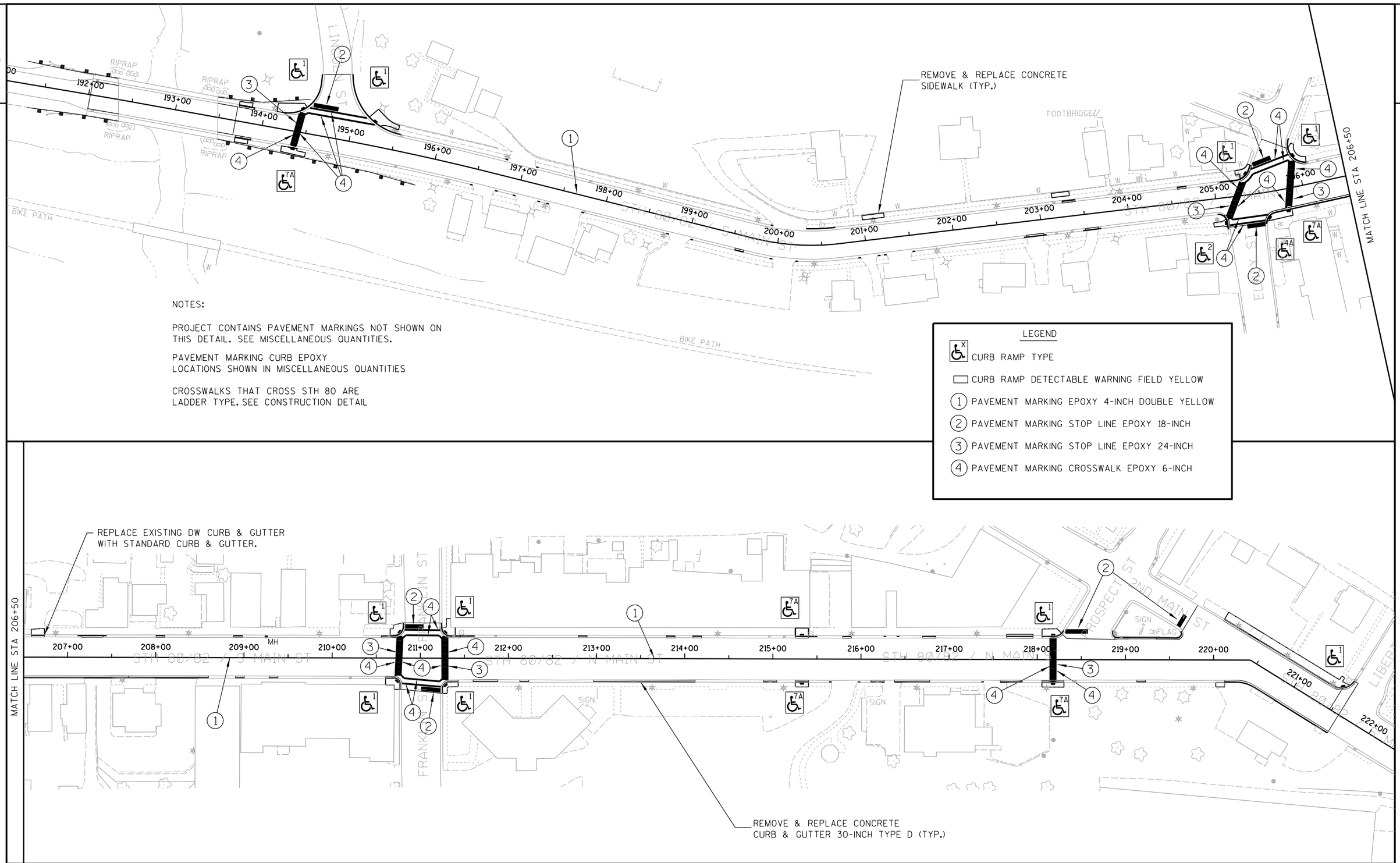


DIAGONAL PAVEMENT MARKING DETAIL
STA 184+50 TO 192+00 RT SHOULDER



LADDER CROSSWALK DETAIL

PROJECT NO:5530-02-60	HWY:STH 80	COUNTY:JUNEAU	CONSTRUCTION DETAILS	SHEET 13	E



NOTES:

PROJECT CONTAINS PAVEMENT MARKINGS NOT SHOWN ON THIS DETAIL. SEE MISCELLANEOUS QUANTITIES.

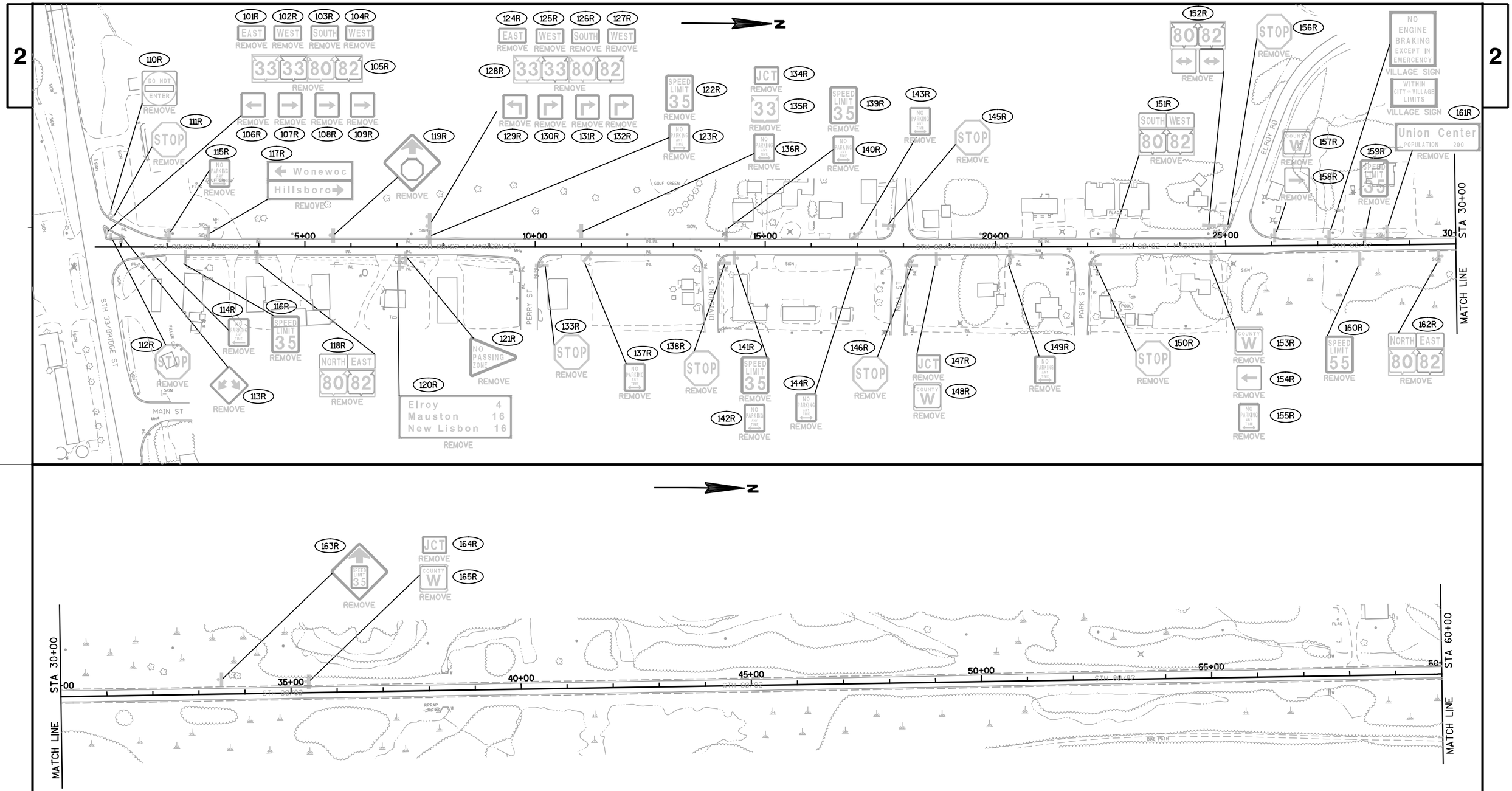
PAVEMENT MARKING CURB EPOXY LOCATIONS SHOWN IN MISCELLANEOUS QUANTITIES

CROSSWALKS THAT CROSS STH 80 ARE LADDER TYPE. SEE CONSTRUCTION DETAIL

LEGEND

- X CURB RAMP TYPE
- CURB RAMP DETECTABLE WARNING FIELD YELLOW
- (1) PAVEMENT MARKING EPOXY 4-INCH DOUBLE YELLOW
- (2) PAVEMENT MARKING STOP LINE EPOXY 18-INCH
- (3) PAVEMENT MARKING STOP LINE EPOXY 24-INCH
- (4) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN DETAIL	SHEET 14	E



PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-02-60\cad\023201_ps.dgn PLOT DATE : 7/31/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.

2

N

✳ FINAL LOCATIONS OF W14-3 "NO PASSING ZONE" SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.

202 R5-1 DO NOT ENTER 36" X 36"
201 J3-4 EAST WEST SOUTH WEST 33 33 80 82 96" X 57"
214 J2-4 EAST WEST SOUTH WEST 33 33 80 82 96" X 57"
204 R1-1 STOP 36" X 36"
207 R7-1R NO PARKING ANY TIME 18" X 24"
209 D1-2 ← Wonewoc / Hillsboro → 66" X 30"
211 W3-1 36" X 36"
216 R7-1D NO PARKING ANY TIME 18" X 24"
217 R2-1 SPEED LIMIT 35 24" X 30"
219 J1-1 JCT 33 24" X 39"
221 R7-1D NO PARKING ANY TIME 18" X 24"
222 R2-1 SPEED LIMIT 35 24" X 30"
226 R7-1D NO PARKING ANY TIME 18" X 24"
228 R1-1 STOP 30" X 30"
232 R7-1D NO PARKING ANY TIME 18" X 24"
233 R2-1 SPEED LIMIT 35 24" X 30"
235 R7-1L NO PARKING ANY TIME 18" X 24"
236 J4-2 SOUTH WEST 80 82 48" X 36"
237 J13-2 80 82 48" X 45"
239 R1-1 STOP 36" X 36"
241 J13-1 COUNTY W 24" X 45"
242 R2-1 SPEED LIMIT 35 24" X 30"
244 I2-3 Union Center POPULATION 200 78" X 24"

203 R1-1 STOP 36" X 36"
206 R7-1L NO PARKING ANY TIME 18" X 24"
205 W12-1D 24" X 24"
208 J4-2 NORTH EAST 80 82 48" X 36"
210 R2-1 SPEED LIMIT 35 24" X 30"
212 R7-1D NO PARKING ANY TIME 18" X 24"
213 W14-3 NO PASSING ZONE 48" X 36"
215 R2-1 SPEED LIMIT 35 24" X 30"
218 R1-1 STOP 30" X 30"
220 R7-1D NO PARKING ANY TIME 18" X 24"
223 R1-1 STOP 30" X 30"
224 R7-1D NO PARKING ANY TIME 18" X 24"
225 R2-1 SPEED LIMIT 35 24" X 30"
227 R7-1D NO PARKING ANY TIME 18" X 24"
229 R1-1 STOP 30" X 30"
230 J1-1 JCT COUNTY W 24" X 39"
231 R7-1D NO PARKING ANY TIME 18" X 24"
234 R1-1 STOP 30" X 30"
238 J13-1 COUNTY W 24" X 45"
240 R7-1R NO PARKING ANY TIME 18" X 24"
243 R2-1 SPEED LIMIT 55 24" X 30"
245 J4-2 NORTH EAST 80 82 48" X 36"

STA 30+00
MATCH LINE
5+00
10+00
15+00
20+00
25+00
30+00
STH 80/82 / MADISON ST
STH 80/82
ST33/BRIDGE ST
MAIN ST
PERRY ST
DIVISION ST
PARK ST
ELROY RD
GOLF GREEN
POOL
FLAGS

N

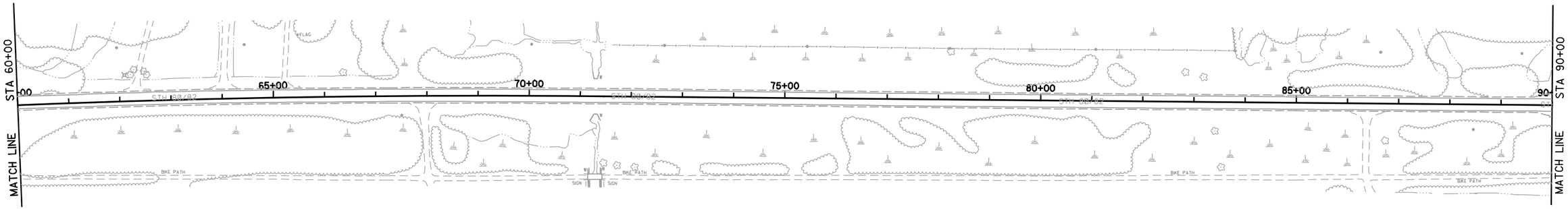
246 W3-5 SPEED LIMIT 35 36" X 36"
248 J1-1 JCT COUNTY W 24" X 39"

STA 30+00
MATCH LINE
35+00
40+00
45+00
50+00
55+00
60+00
STA 60+00
STH 80/82
RIPRAP
BIKE PATH
FLAG

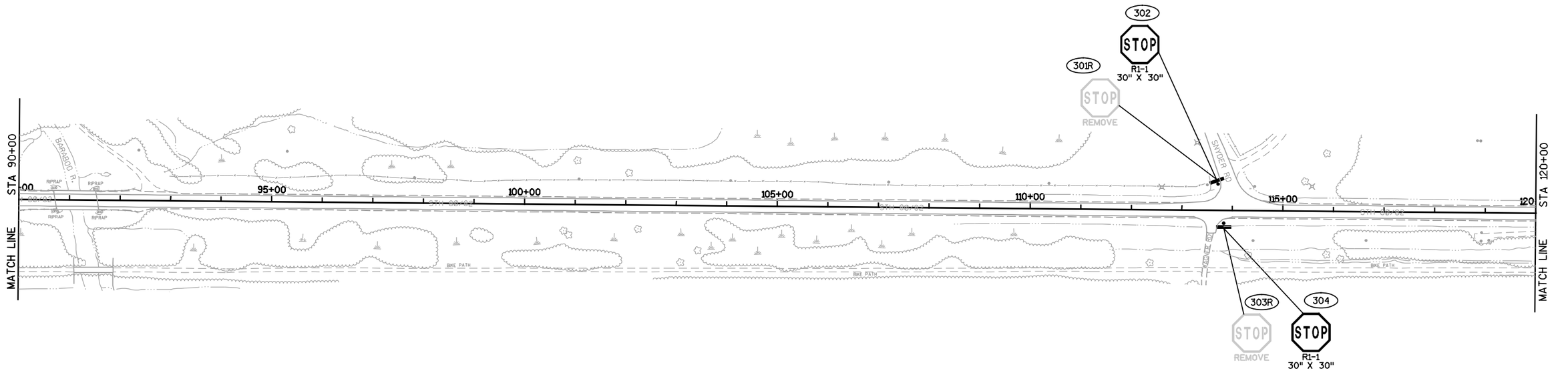
247 D2-3
Elroy	4
Mauston	16
New Lisbon	16

84" X 36"

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 16 E



2



PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-02-60\cad\023203_ps.dgn PLOT DATE : 7/31/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

FINAL LOCATIONS OF W14-3 "NO PASSING ZONE" SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.

STA 120+00

MATCH LINE

+00

125+00

130+00

135+00

140+00

145+00

150

STA 150+00

MATCH LINE

402 — NO PASSING ZONE — W14-3 48" X 36"

401R — NO PASSING ZONE — REMOVE

406 — STOP — R1-1 30" X 30"

405R — STOP — REMOVE

LUMSDEN RD

SEPTIC

404 — SPONSOR SCENIC HILLS ROTARY CLUB — 155-56 30" X 36"

403R — SPONSOR SCENIC HILLS ROTARY CLUB — REMOVE

BIKE PATH

SIGN

N

STA 150+00

MATCH LINE

155+00

160+00

165+00

170+00

175+00

180

STA 180+00

MATCH LINE

411R — STOP — REMOVE

412 — STOP — R1-1 30" X 30"

420 — Union Center 4 — D2-1 90" X 15"

419R — Union Center 4 — REMOVE

421R — STOP — REMOVE

422 — STOP — R1-1 30" X 30"

418 — SPEED LIMIT 55 — R2-1 24" X 30"

417R — SPEED LIMIT 55 — REMOVE

RIPRAP

BARRABOO

WEGER RD

408 — Elroy POPULATION 1442 — I2-3 60" X 24"

407R — Elroy POPULATION 1442 — REMOVE

409R — NO PASSING ZONE — REMOVE

410 — NO PASSING ZONE — W14-3 48" X 36"

413R — SPEED LIMIT 40 — REMOVE

414 — SPEED LIMIT 40 — W3-5 36" X 36"

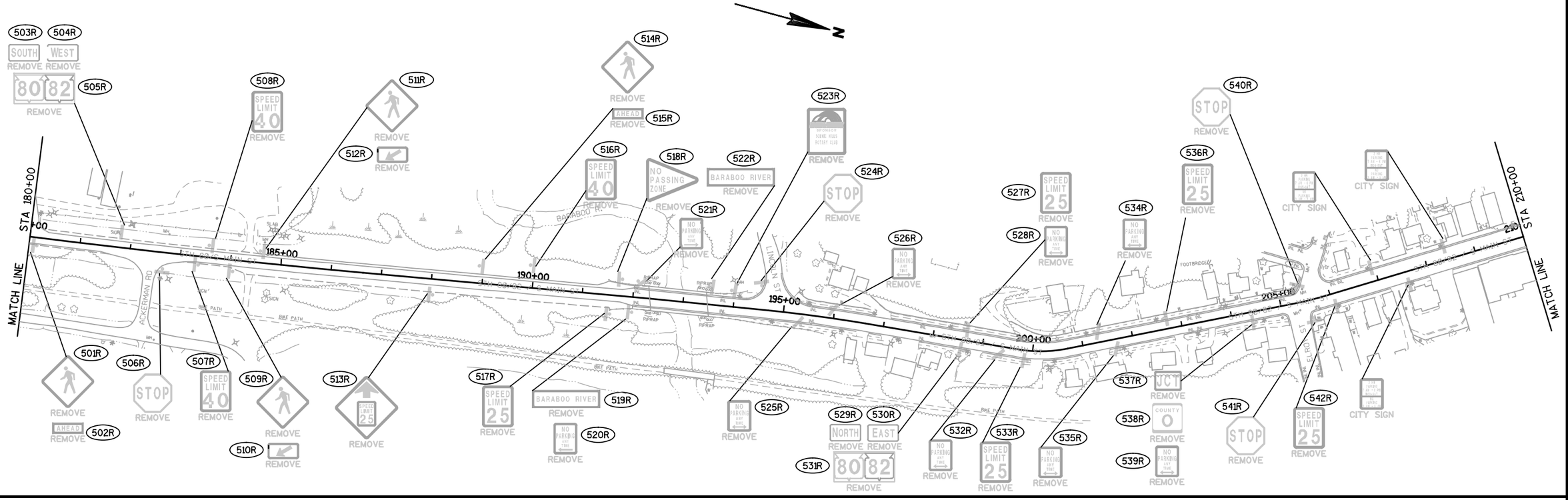
NO ENGINE BRAKING EXCEPT IN EMERGENCY — VILLAGE SIGN

416 — SPEED LIMIT 40 — R2-1 24" X 30"

415R — SPEED LIMIT 40 — REMOVE

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-02-60\cad\023204_ps.dgn PLOT DATE : 7/31/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.



PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 19	E

2

FINAL LOCATIONS OF W14-3 "NO PASSING ZONE" SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.

703 SOUTH WEST 80 82 J4-2 48" X 36"
706 SPEED LIMIT 40 R2-1 24" X 30"
709 W11-2 30" X 30"
710 W16-7L 24" X 12"
712 W11-2 30" X 30"
713 AHEAD W16-9P 24" X 12"
714 NO PASSING ZONE W14-3 48" X 36"
715 SPEED LIMIT 40 R2-1 24" X 30"
718 NO PARKING ANY TIME R7-1R 18" X 24"
720 Baraboo River I3-1 48" X 24"
721 SPONSOR SCENIC HILLS ROTARY CLUB I55-56 30" X 36"
722 STOP R1-1 30" X 30"
724 NO PARKING ANY TIME R7-1D 18" X 24"
725 SPEED LIMIT 25 R2-1 24" X 30"
727 NO PARKING ANY TIME R7-1D 18" X 24"
730 NO PARKING ANY TIME R7-1D 18" X 24"
732 SPEED LIMIT 25 R2-1 24" X 30"
735 STOP R1-1 30" X 30"

701 W11-2 30" X 30"
702 AHEAD W16-9P 24" X 12"
704 STOP R1-1 30" X 30"
705 SPEED LIMIT 40 R2-1 24" X 30"
707 W11-2 30" X 30"
708 W16-7L 24" X 12"
711 SPEED LIMIT 25 W3-5 36" X 36"
716 SPEED LIMIT 25 R2-1 24" X 30"
717 Baraboo River I3-1 48" X 24"
719 NO PARKING ANY TIME R7-1L 18" X 24"
723 NO PARKING ANY TIME R7-1D 18" X 24"
726 NORTH EAST 80 82 J4-2 48" X 36"
728 NO PARKING ANY TIME R7-1D 18" X 24"
729 SPEED LIMIT 25 R2-1 24" X 30"
731 NO PARKING ANY TIME R7-1D 18" X 24"
733 JCT COUNTY O J1-1 24" X 39"
734 NO PARKING ANY TIME R7-1D 18" X 24"
736 STOP R1-1 30" X 30"
737 SPEED LIMIT 25 R2-1 24" X 30"

+00 185+00 190+00 195+00 200+00 205+00 210+00 STA 210+00

MATCH LINE

739 SPEED LIMIT 25 R2-1 24" X 30"
741 COUNTY O J12-1 24" X 45"
742 STOP R1-1 30" X 30"
745 SPEED LIMIT 25 R2-1 24" X 30"
746 STOP R1-1 30" X 30"
747 W1-6 48" X 24"
748 COUNTY O J12-1 24" X 45"
751 STOP R1-1 30" X 30"
752 JCT COUNTY O J1-1 24" X 39"

738 SPEED LIMIT 25 R2-1 24" X 30"
740 COUNTY O J12-1 24" X 45"
743 COUNTY O J13-1 24" X 45"
744 SPEED LIMIT 25 R2-1 24" X 30"
749 W1-1L 36" X 36"
750 15 M.P.H. W13-1 24" X 24"

215+00 220+00 225+00

STA 210+00

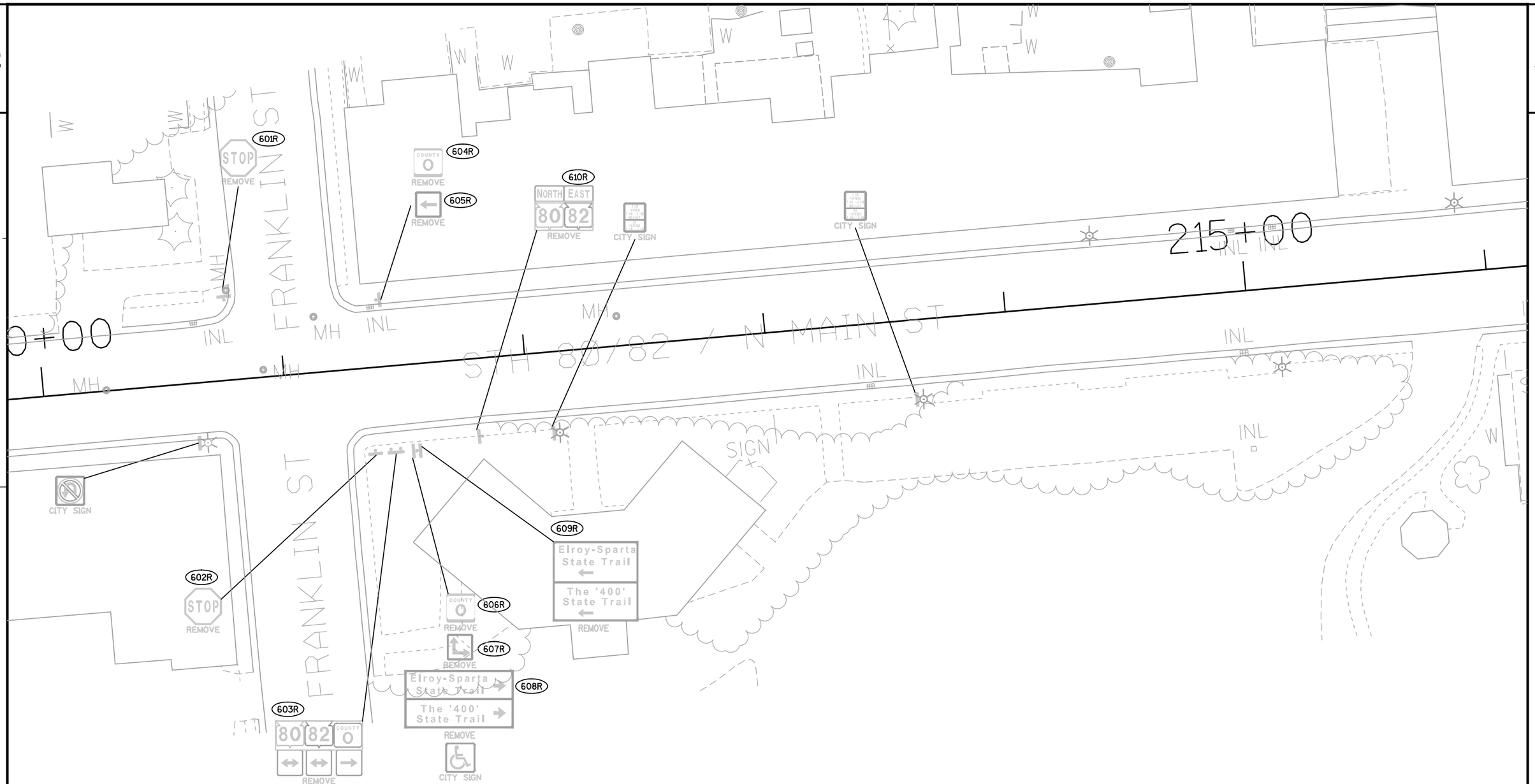
MATCH LINE

SEE FOLLOWING SHEET FOR INTERSECTION DETAIL

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 20 E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-02-60\cad\023206_ps.dgn PLOT DATE : 8/2/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.

2



PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 21	E

2

802
STOP
R1-1
30" X 30"

805
COUNTY O
J13-1
24" X 45"

808
NORTH EAST
80 82 COUNTY O
J4-3
72" X 36"

215+00

0+00

STH 80/82 / N MAIN ST

FRANKLIN ST

801
COUNTY O
J12-1
24" X 45"

803
STOP
R1-1
30" X 30"

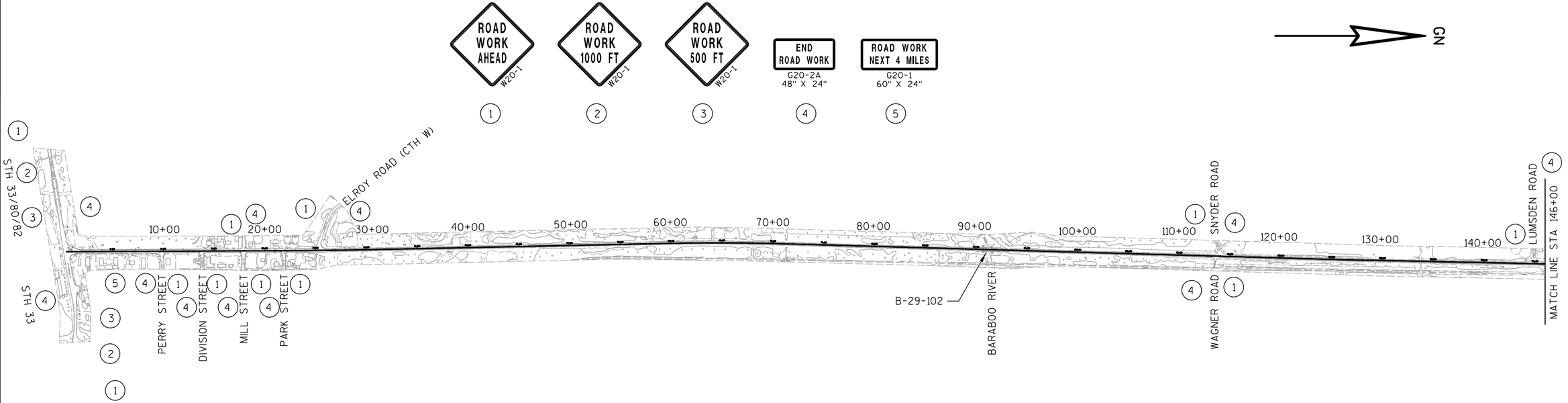
804
80 82 COUNTY O
J13-3
72" X 45"

806
Elroy-Sparta
The '400'
State Trails
D1-3
48" x 36"

807
Elroy-Sparta
The '400'
State Trails
D1-3
48" x 36"

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 22	E

2

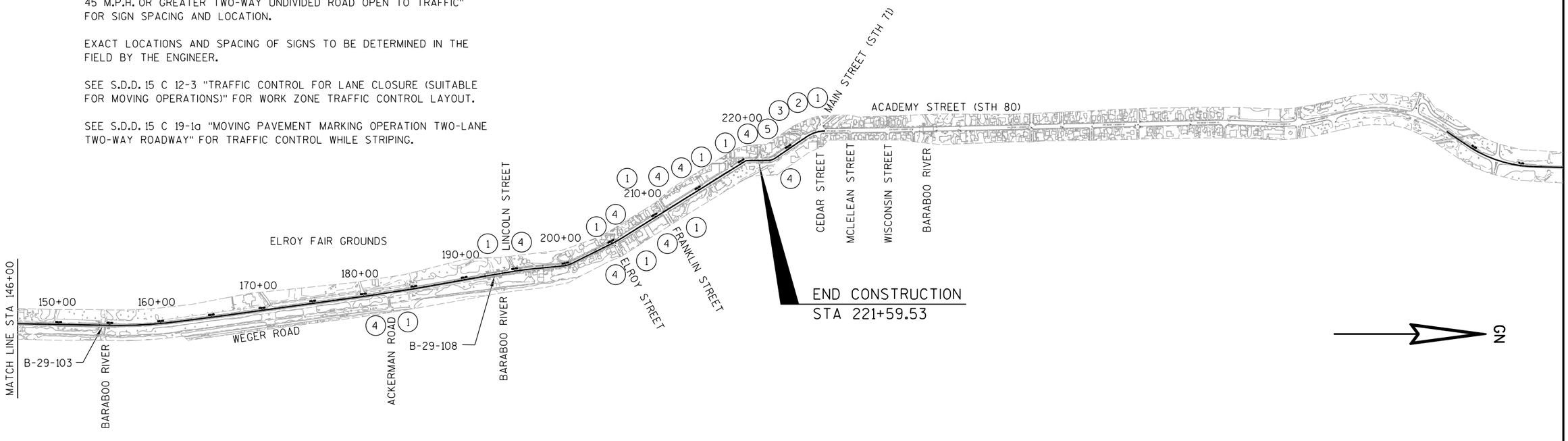


NOTES: SEE S.D.D. 15 C 4-1 "TRAFFIC CONTROL ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR SIGN SPACING AND LOCATION.

EXACT LOCATIONS AND SPACING OF SIGNS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

SEE S.D.D. 15 C 12-3 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" FOR WORK ZONE TRAFFIC CONTROL LAYOUT.

SEE S.D.D. 15 C 19-1a "MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY" FOR TRAFFIC CONTROL WHILE STRIPING.



PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	TRAFFIC CONTROL PLAN	SHEET 23	E

PI 1 STA 0+45.00
N = 114,691.42
E = 412,604.92

PI 2 STA 19+87.26
N = 116,633.66
E = 412,596.31

PI 3 STA 24+11.51
N = 117,057.90
E = 412,593.35

PI 4 STA 28+49.79
N = 117,496.15
E = 412,588.10

PI 5 STA 32+85.90
N = 117,932.18
E = 412,579.71

GN

BEGIN CONSTRUCTION
STA 0+65.34

ELROY ROAD (CTH W)

PI 6 STA 65+65.34
N = 121,210.90
E = 412,511.13

STH 33/80/82

PI 1 Sta 0+45.00

PI 2 Sta 19+87.26

PI 3 Sta 24+11.51

PI 4 Sta 28+49.79

PI 5 Sta 32+85.90

PI 6 Sta 65+65.34

PI 7 Sta 126+03.94

10+00 20+00 30+00 40+00 50+00 60+00 70+00 80+00 90+00 100+00 110+00 120+00 130+00 140+00

SNYDER ROAD

LUMSDEN ROAD

MATCH LINE STA 146+00

N 0° 15' 14.43" W
1,942.26'

N 1° 11' 54.07" W
2,698.82'

N 1° 38' 29.28" E
5,458.23

N 1° 09' 39.83" E
2,288.57'

STH 33

MAIN STREET

N 0° 23' 57.64" W
424.25'

N 0° 41' 11.22" W
438.28'

N 1° 06' 05.02" W
436.11'

PERRY STREET

DIVISION STREET

MILL STREET

PARK STREET

PC1 Sta 59+84.72

PI 1 Sta 71+45.71

C1
PI 6 Sta 65+65.34
Delta 2° 52' 25.32" (RT)
Dc 0° 14' 51.08"
R 23,147.80'
L 1,160.99'
Tan 580.62'

B-29-102

BARABOO RIVER

WAGNER ROAD

PI 7 STA 126+03.94
N = 127,247.26
E = 412,684.46

C2
PI Sta 158+32.69
Delta 8° 15' 10.13" (LT)
Dc 1° 22' 07.86"
R 4,185.69'
L 602.90'
Tan 301.97'

PI 16 STA 220+41.78
N = 136,363.01
E = 411,130.99

PI 16 Sta 220+41.78

PC7 Sta 222+54.49

PT7 Sta 223+28.56

MAIN STREET (STH 71)

ACADEMY STREET (STH 80)

220+00

C7

PI 12 STA 195+67.70
N = 133,841.76
E = 412,254.71

PI 13 STA 195+67.70
N = 134,170.66
E = 412,199.85

N 10° 03' 38.79" W
571.25

PC3 Sta 179+38.69

PT3 Sta 186+63.01

PI 12 Sta 192+34.26

LINCOLN STREET

PI 13 Sta 195+25.23

PC5 Sta 199+72.11

PT5 Sta 200+70.29

PC4 Sta 205+32.62

PC6 Sta 205+94.50

PT6 Sta 205+95.58

210+00

200+00

C6

C5

C4

C3

N 31° 55' 41.03" W
1,447.28'

FRANKLIN STREET

ELROY STREET

PI 5 Sta 205+63.58

N 26° 30' 49.52" W
462.33'

PI 17 Sta 222+92.65

CEDAR STREET

MCLELLEAN STREET

WISCONSIN STREET

BARABOO RIVER

PI 17 STA 222+92.65
N = 136,613.87
E = 411,130.03

END CONSTRUCTION
STA 221+59.53

PI 8 STA 148+92.51
N = 129,535.35
E = 412,730.83

PI 9 STA 158+32.69
N = 130,475.41
E = 412,746.50

PI 10 STA 165+61.19
N = 131,199.04
E = 412,653.83

PI 8 Sta 148+92.51

PC2 Sta 155+30.72

PT2 Sta 161+33.62

PI 10 Sta 165+61.19

ELROY FAIR GROUNDS

150+00 160+00 170+00 180+00 190+00

MATCH LINE STA 146+00

N 7° 48' 00.65" W 1,377.51'

WEGER ROAD

B-29-103

BARABOO RIVER

PI 9 Sta 158+32.69

N 0° 57' 17.88" E
638.21'

N 7° 17' 52.26" W
427.57'

B-29-108

N 9° 28' 13.25" W
235.99'

PI 11 Sta 183+00.90

ACKERMAN ROAD

PI 11 STA 183+00.90
N = 132,922.65
E = 412,417.72

PT4 Sta 184+70.25

PI 4 Sta 186+65.01

PI 14 Sta 200+21.75

N 5° 39' 01.68" W
307.03'

PI 14 STA 200+21.75
N = 134,622.69
E = 412,155.08

PI 15 STA 205+63.58
N = 135,108.40
E = 411,912.76

C3
PI Sta 183+00.90
Delta 2° 15' 02.69" (LT)
Dc 0° 18' 38.67"
R 18,438.41'
L 724.32'
Tan 362.20'

C4
PI Sta 195+67.70
Delta 3° 49' 11.57" (RT)
Dc 1° 57' 38.28"
R 2,922.31'
L 194.83'
Tan 97.45'

C5
PI Sta 200+21.75
Delta 20° 51' 48.00" (LT)
Dc 21° 14' 59.20"
R 269.63'
L 98.18'
Tan 49.64'

C6
PI Sta 205+63.58
Delta 5° 24' 51.51" (LT)
Dc 8° 44' 59.95"
R 654.81'
L 61.88'
Tan 30.96'

C7
PI Sta 222+92.65
Delta 33° 57' 06.29" (LT)
Dc 45° 50' 11.84"
R 125.00'
L 74.07'
Tan 38.16'

GN

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	ALIGNMENT DETAIL	SHEET 24	E

DATE 26DEC12 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	5530-02-60 QUANTITY
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	359.000	359.000
0050	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	81,354.000	81,354.000
0060	204.0150	REMOVING CURB & GUTTER	LF	1,455.000	1,455.000
0070	204.0155	REMOVING CONCRETE SIDEWALK	SY	478.000	478.000
0080	204.0165	REMOVING GUARDRAIL	LF	1,424.000	1,424.000
0090	205.0100	EXCAVATION COMMON	CY	400.000	400.000
0100	213.0100	FINISHING ROADWAY (PROJECT) 01. 5530-02-60	EACH	1.000	1.000
0120	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	3,031.000	3,031.000
0130	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	150.000	150.000
0140	305.0500	SHAPING SHOULDERS	STA	317.000	317.000
0160	312.0110	SELECT CRUSHED MATERIAL	TON	500.000	500.000
0170	440.4410.S	INCENTIVE IRI RIDE	DOL	16,424.000	16,424.000
0190	455.0140	ASPHALTIC MATERIAL PG64-28P	TON	626.000	626.000
0200	455.0605	TACK COAT	GAL	2,359.000	2,359.000
0220	460.1103	HMA PAVEMENT TYPE E-3	TON	11,390.000	11,390.000
0230	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	7,320.000	7,320.000
0240	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	44.000	44.000
0370	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	1,455.000	1,455.000
0380	601.0600	CONCRETE CURB PEDESTRIAN	LF	66.000	66.000
0390	602.0405	CONCRETE SIDEWALK 4-INCH	SF	4,258.000	4,258.000
0400	602.0415	CONCRETE SIDEWALK 6-INCH	SF	44.000	44.000
0410	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	136.000	136.000
0430	611.0430	RECONSTRUCTING INLETS	EACH	11.000	11.000
0440	611.0530	MANHOLE COVERS TYPE J	EACH	22.000	22.000
0450	611.0624	INLET COVERS TYPE H	EACH	11.000	11.000
0480	611.8110	ADJUSTING MANHOLE COVERS	EACH	22.000	22.000
0490	611.8120.S	COVER PLATES TEMPORARY	EACH	22.000	22.000
0500	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	6.000	6.000
0510	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	21.000	21.000
0520	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	38.000	38.000
0530	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	25.000	25.000
0550	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	1.000	1.000
0560	614.2300	MGS GUARDRAIL 3	LF	650.000	650.000
0580	614.2500	MGS THRIE BEAM TRANSITION	LF	429.000	429.000
0590	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	11.000	11.000
0600	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 5530-02-60	EACH	1.000	1.000
0620	619.1000	MOBILIZATION	EACH	0.500	0.500
0630	625.0100	TOPSOIL	SY	75.000	75.000
0650	627.0200	MULCHING	SY	48.000	48.000
0660	628.1504	SILT FENCE	LF	1,255.000	1,255.000
0670	628.1520	SILT FENCE MAINTENANCE	LF	1,255.000	1,255.000
0680	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0690	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0700	628.2023	EROSION MAT CLASS II TYPE B	SY	2,194.000	2,194.000
0720	629.0210	FERTILIZER TYPE B	CWT	1.000	1.000
0740	630.0140	SEEDING MIXTURE NO. 40	LB	2.000	2.000
0770	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	57.000	57.000
0780	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	53.000	53.000
0790	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	8.000	8.000
0800	637.0202	SIGNS REFLECTIVE TYPE II	SF	827.180	827.180

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DATE 26DEC12 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	5530-02-60 QUANTITY
0810	638.2602	REMOVING SIGNS TYPE II	EACH	150.000	150.000
0820	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	103.000	103.000
0830	642.5201	FIELD OFFICE TYPE C	EACH	0.500	0.500
0840	642.6001	FIELD LABORATORY	EACH	0.500	0.500
0850	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5530-02-60	EACH	1.000	1.000
0870	643.0300	TRAFFIC CONTROL DRUMS	DAY	900.000	900.000
0880	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	360.000	360.000
0890	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	360.000	360.000
0900	643.0900	TRAFFIC CONTROL SIGNS	DAY	2,610.000	2,610.000
0920	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	32,875.000	32,875.000
0930	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	42.000	42.000
0940	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	12,221.000	12,221.000
0950	647.0456	PAVEMENT MARKING CURB EPOXY	LF	856.000	856.000
0960	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	348.000	348.000
0970	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24-INCH	LF	258.000	258.000
0980	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	3.000	3.000
0990	647.0716	PAVEMENT MARKING DIAGONAL EPOXY 8-INCH	LF	360.000	360.000
1000	647.0766	PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	LF	1,119.000	1,119.000
1010	648.0100	LOCATING NO-PASSING ZONES	MI	4.200	4.200
1020	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	1,455.000	1,455.000
1040	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5530-02-60	LS	1.000	1.000
1050	690.0150	SAWING ASPHALT	LF	871.000	871.000
1060	690.0250	SAWING CONCRETE	LF	497.000	497.000
1070	SPV.0060	SPECIAL 01. ADJUSTING WATER VALVES	EACH	18.000	18.000
1080	SPV.0060	SPECIAL 02. ADJUSTING MONITORING WELLS	EACH	4.000	4.000
1100	SPV.0070	SPECIAL 01. SPRAYED ASPHALTIC SHOULDER TREATMENT	GAL	347.000	347.000

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REMOVE ASPHALTIC SURFACE BUTT JONTS

CATEGORY	STATION	LOCATION	204.0115 SY
0010	0+65.34	MAINLINE	57
		PERRY STREET	13
		DIVISION STREET	11
		MILL ST LT	11
		MILL ST RT	11
		PARK STREET	11
		CTH W (ELROY ROAD)	10
	90+53.17	B-29-102	12
	91+74.03	B-29-102	12
		SNYDER ROAD	11
		LUMSDEN ROAD	13
	153+82.71	B-29-103	12
	155+07.21	B-29-103	12
	170+83	DW LT	8
	180+00	DW LT	12
		ACKERMAN ROAD	8
	192+01.90	B-29-108	11
	193+68.95	B-29-108	11
		LINCOLN STREET	10
		ELROY STREET LT	10
		ELROY STREET RT	13
		FRANKLIN STREET LT	14
		FRANKLIN STREET RT	15
		PROSPECT STREET	18
		MAIN STREET	11
	221+59.53	MAINLINE	22
		TOTAL	359

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION - STATION	201.0120 SY
0010	0+65 - 26+00	10541
	26+00 - 90+53.17	21566
	91+74.03 - 153+82.71	21687
	155+07.21 - 192+01.90	13629
	193+68.95 - 221+59.53	13931
	TOTAL	81354

REMOVING CURB & GUTTER

CATEGORY	STATION - STATION	LOCATION	204.0150 LF	COMMENT
0010	193+70 - 193+88	LT	18	
	193+72 - 193+90	RT	18	
	199+55 - 199+65	RT	10	
	202+82 - 203+02	RT	20	
	203+26 - 203+41	LT	15	
	203+50 - 203+65	RT	15	
	204+58 - 204+68	LT	10	
	205+07 - 205+10	RT	14	SE RADIUS AT ELROY STREET
	205+30 - 205+44	LT	20	SW RADIUS AT ELROY STREET
	205+53 - 205+65	RT	17	NE RADIUS AT ELROY STREET
	205+92 - 206+09	LT	30	NW RADIUS AT ELROY STREET
	205+65 - 208+60	RT	295	
	206+59 - 206+74	LT	15	REPLACE DW CURB HEAD WITH REGULAR HEAD
	207+15 - 207+40	LT	25	
	208+00 - 208+10	LT	10	
	208+88 - 208+98	LT	10	
	208+90 - 209+00	RT	10	
	209+28 - 209+38	RT	10	
	210+56 - 210+81	LT	35	SW RADIUS AT FRANKLIN STREET
	210+61 - 210+77	RT	26	SE RADIUS AT FRANKLIN STREET
	211+24 - 211+46	LT	32	NW RADIUS AT FRANKLIN STREET
	211+25 - 211+43	RT	27	NE RADIUS AT FRANKLIN STREET
	211+60 - 211+88	RT	28	
	212+13 - 212+23	RT	10	
	212+79 - 212+89	LT	10	
	212+97 - 214+12	RT	115	
	213+79 - 213+89	LT	10	
	214+09 - 214+19	LT	10	
	214+90 - 215+05	RT	15	
	215+25 - 215+40	LT	15	
	215+25 - 215+40	RT	15	
	215+79 - 215+89	LT	10	
	216+11 - 216+26	RT	15	
	216+38 - 216+40	RT	40	
	216+70 - 216+85	LT	15	
	217+58 - 217+83	RT	25	
	217+65 - 217+95	LT	30	
	218+05 - 218+30	RT	25	
	218+05 - 218+28	LT	23	
	218+88 - 219+03	LT	15	
	219+13 - 219+23	RT	10	
	219+35 - 219+63	LT	33	
	220+12 - 221+55	LT	172	
	220+13 - 221+59.53	RT	132	
		TOTAL	1455	

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REMOVING CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	204.0155 SY
0010	193+70 - 193+85	LT	7
	193+72 - 193+87	RT	8
	194+14 - 194+47	LT	35
	194+26 - 194+54	RT	19
	195+17 - 195+52	LT	34
	200+99 - 201+24	LT	14
	203+15 - 203+35	LT	11
	204+95 - 205+10	RT	9
	205+25 - 205+44	LT	12
	205+54 - 205+68	RT	20
	205+93 - 206+10	LT	17
	206+09 - 206+24	LT	5
	210+61 - 210+77	RT	15
	210+66 - 210+80	LT	16
	211+25 - 211+40	LT	19
	211+26 - 211+43	RT	12
	215+26 - 215+41	LT	15
	215+26 - 215+41	RT	8
	217+65 - 217+95	LT	7
	218+05 - 218+30	RT	14
	218+05 - 218+27	LT	17
	220+03 - 220+13	RT	6
	220+13 - 221+52	LT	158
		TOTAL	478

REMOVING GUARDRAIL

CATEGORY	STATION - STATION	LOCATION	204.0165 LF	COMMENT
0010	89+88 - 90+58	LT	70	B-29-102
	89+95 - 90+65	RT	70	B-29-102
	91+62 - 92+30	LT	68	B-29-102
	91+69 - 92+37	RT	68	B-29-102
	149+96 - 153+87	RT	391	B-29-103
	151+95 - 153+87	LT	192	B-29-103
	155+02 - 155+70	RT	68	B-29-103
	155+02 - 155+70	LT	68	B-29-103
	191+49 - 192+18	LT	69	B-29-108
	191+56 - 192+26	RT	70	B-29-108
	193+57 - 194+26	LT	69	B-29-108
	193+65 - 195+86	RT	221	B-29-108
		TOTAL	1424	

EARTHWORK SUMMARY FOR BARRIER SYSTEM GRADING SHAPING FINISHING*

CATEGORY	STATION - STATION	LOCATION	205.0100 EXCAVATION COMMON CY	FILL CY	208.0100 EXPANDED FILL CY	BORROW CY	WASTE CY	MASS ORDINATE CY
0010	88+26 - 90+26	LT	59	129	162	103	0	-103
	88+33 - 90+23	RT	91	21	26	0	70	-33
	92+36 - 94+01	RT	58	150	187	129	0	-162
	147+80 - 149+70	RT	78	4	5	0	74	-88
	150+25 - 151+70	LT	47	47	59	12	0	-100
	155+45 - 157+10	LT	50	103	128	78	0	-178
			383	454	567	322	144	

* FOR INFORMATIONAL PURPOSES ONLY. EXCAVATION COMMON AND BORROW ARE PAID FOR BY THE BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.

EARTHWORK SUMMARY

CATEGORY	STATION - STATION	LOCATION	205.0100 EXCAVATION COMMON CY	WASTE CY
0010	UNDISTRIBUTED FOR AREAS OF EBS	MAINLINE	400	400
		TOTAL	400	400

NOTE: QUANTITY FOR REMOVING BASE UNDER REMOVALS AND FOR ANY AREAS OF EBS IDENTIFIED IN THE FIELD.

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BASE AGGREGATE DENSE

CATEGORY	STATION - STATION	305.0110 3/4 INCH TON	305.0120 1 1/4 INCH TON
0010	26+00 - 90+53.17	1008	---
	91+74.03 - 153+82.71	985	---
	155+07.21 - 192+01.90	752	---
	CONCRETE CURB & GUTTER LOCATIONS	180	---
	CONCRETE SIDEWALK LOCATIONS	106	---
	UNDISTRIBUTED FOR EBS AREAS	---	150
	TOTAL	3031	150

SHAPING SHOULDERS

CATEGORY	STATION - STATION	LOCATION	305.0500 STA
0010	26+00 - 89+66	LT	64
	26+00 - 89+73	RT	64
	92+34 - 151+45	LT	60
	92+61 - 149+20	RT	57
	155+94 - 191+26	LT	36
	155+94 - 191+34	RT	36
	TOTAL		317

ASPHALT PAVEMENT

CATEGORY	STATION - STATION	455.0240 ASPHALTIC MATERIAL PG 64-28P TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON
0010	0+65 - 26+00	81	306	1476
	26+00 - 90+53.17	166	625	3019
	91+74.03 - 153+82.71	167	629	3036
	155+07.21 - 192+01.90	105	395	1908
	193+68.95 - 221+59.53	107	404	1950
	TOTAL	626	2359	11390

SELECT CRUSHED MATERIAL

CATEGORY	STATION - STATION	LOCATION	312.0110 TON
0010	UNDISTRIBUTED	MAINLINE	500
		TOTAL	500

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 TON
0010	27+63	LT	3
	29+12	LT	3
	58+11	LT	2
	62+30	LT	2
	63+05	LT	2
	65+22	LT	2
	67+94	RT	2
	86+38	RT	2
	92+65	LT	2
	120+50	RT	2
	133+76	LT	2
	133+76	RT	2
	146+42	RT	2
	149+64	LT	2
	168+10	LT	3
	170+19	LT	4
	184+37	LT	2
	184+37	RT	2
	TOTAL		44

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3

CONCRETE CURB & GUTTER

CATEGORY	STATION - STATION	LOCATION	601.0411 30 INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CONCRETE CURB & GUTTER LF	COMMENT
0010	193+70 - 193+88	LT	18	18	
	193+72 - 193+90	RT	18	18	
	199+55 - 199+65	RT	10	10	
	202+82 - 203+02	RT	20	20	
	203+26 - 203+41	LT	15	15	
	203+50 - 203+65	RT	15	15	
	204+58 - 204+68	LT	10	10	
	205+07 - 205+10	RT	14	14	SE RADIUS AT ELROY STREET
	205+30 - 205+44	LT	20	20	SW RADIUS AT ELROY STREET
	205+53 - 205+65	RT	17	17	NE RADIUS AT ELROY STREET
	205+92 - 206+09	LT	30	30	NW RADIUS AT ELROY STREET
	205+65 - 208+60	RT	295	295	
	206+59 - 206+74	LT	15	15	REPLACE DW CURB HEAD WITH REGULAR HEAD
	207+15 - 207+40	LT	25	25	
	208+00 - 208+10	LT	10	10	
	208+88 - 208+98	LT	10	10	
	208+90 - 209+00	RT	10	10	
	209+28 - 209+38	RT	10	10	
	210+56 - 210+81	LT	35	35	SW RADIUS AT FRANKLIN STREET
	210+61 - 210+77	RT	26	26	SE RADIUS AT FRANKLIN STREET
	211+24 - 211+46	LT	32	32	NW RADIUS AT FRANKLIN STREET
	211+25 - 211+43	RT	27	27	NE RADIUS AT FRANKLIN STREET
	211+60 - 211+88	RT	28	28	
	212+13 - 212+23	RT	10	10	
	212+79 - 212+89	LT	10	10	
		SUBTOTAL	730	730	

CONCRETE CURB & GUTTER

CATEGORY	STATION - STATION	LOCATION	601.0411 30 INCH TYPE D LF	650.5500 CONSTRUCTION STAKING CONCRETE CURB & GUTTER LF	COMMENT
	212+97 - 214+12	RT	115	115	
	213+79 - 213+89	LT	10	10	
	214+09 - 214+19	LT	10	10	
	214+90 - 215+05	RT	15	15	
	215+25 - 215+40	LT	15	15	
	215+25 - 215+40	RT	15	15	
	215+79 - 215+89	LT	10	10	
	216+11 - 216+26	RT	15	15	
	216+38 - 216+40	RT	40	40	
	216+70 - 216+85	LT	15	15	
	217+58 - 217+83	RT	25	25	
	217+65 - 217+95	LT	30	30	
	218+05 - 218+30	RT	25	25	
	218+05 - 218+28	LT	23	23	
	218+88 - 219+03	LT	15	15	
	219+13 - 219+23	RT	10	10	
	219+35 - 219+63	LT	33	33	
	220+12 - 221+55	LT	172	172	
	220+13 - 221+59.53	RT	132	132	
		SUBTOTAL	725	725	
		TOTAL	1455	1455	

CONCRETE CURB PEDESTRIAN

CATEGORY	STATION - STATION	LOCATION	601.0600 LF
0010	194+34 - 194+52	RT	18
	205+54 - 205+66	RT	12
	215+24 - 215+42	RT	18
	218+19 - 218+27	RT	18
		TOTAL	66

CONCRETE SIDEWALK

CATEGORY	STATION - STATION	LOCATION	602.0405 4-INCH SF	602.0415 6-INCH SF
0010	193+70 - 193+85	LT	62	---
	193+72 - 193+87	RT	72	---
	194+14 - 194+47	LT	312	---
	194+26 - 194+54	RT	172	---
	195+17 - 195+52	LT	310	---
	200+99 - 201+24	LT	125	---
	203+15 - 203+35	LT	100	---
	204+95 - 205+10	RT	85	---
	205+25 - 205+44	LT	108	---
	205+54 - 205+68	RT	184	---
	205+93 - 206+10	LT	151	---
	206+09 - 206+24	LT	---	44
	210+61 - 210+77	RT	134	---
	210+66 - 210+80	LT	144	---
	211+25 - 211+40	LT	167	---
	211+26 - 211+43	RT	112	---
	215+26 - 215+41	LT	136	---
	215+26 - 215+41	RT	75	---
	217+65 - 217+95	LT	60	---
	218+05 - 218+30	RT	124	---
	218+05 - 218+27	LT	155	---
	220+03 - 220+13	RT	50	---
	220+13 - 221+52	LT	1420	---
		TOTAL	4258	44

CURB RAMP DETECTABLE WARNING FIELDS YELLLOW

CATEGORY	STATION	LOCATION	602.0505 SF	COMMENT
0010	194+39	RT	8	LINCOLN STREET
	194+43	LT	8	LINCOLN STREET
	195+25	LT	8	LINCOLN STREET
	205+10	RT	8	ELROY STREET
	205+37	LT	8	ELROY STREET
	205+57	RT	8	ELROY STREET
	205+79	RT	8	ELROY STREET
	205+95	LT	8	ELROY STREET
	210+75	RT	8	FRANKLIN STREET
	210+77	LT	8	FRANKLIN STREET
	211+28	LT	8	FRANKLIN STREET
	211+28	RT	8	FRANKLIN STREET
	215+33	RT	8	MID-BLOCK CROSSING
	215+33	LT	8	MID-BLOCK CROSSING
	218+18	LT	8	PROSPECT STREET
	218+18	RT	8	PROSPECT STREET
	221+48	LT	8	LIBERTY STREET
		TOTAL	136	

INLETS

CATEGORY	STATION	LOCATION	611.0430 RECONSTRUCTING INLETS EACH	611.0624 INLET COVERS TYPE H EACH
0010	193+78	16 LT	1	1
	193+79	16 RT	1	1
	203+34	16 LT	1	1
	205+73	22 RT	1	1
	210+65	23 LT	1	1
	211+38	23 LT	1	1
	213+42	21 RT	1	1
	214+97	21 RT	1	1
	216+19	23 RT	1	1
	218+95	23 LT	1	1
	221+39	23 LT	1	1
	TOTAL		11	11

MANHOLES

CATEGORY	STATION	LOCATION	611.0530 MANHOLE COVERS TYPE J EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8120.S COVER PLATES TEMPORARY EACH
0010	9+69	11 RT	1	1	1
	12+46	14 RT	1	1	1
	13+61	10 RT	1	1	1
	17+62	13 RT	1	1	1
	21+01	14 RT	1	1	1
	21+61	11 RT	1	1	1
	205+21	36 RT	1	1	1
	205+48	24 LT	1	1	1
	205+86	20 LT	1	1	1
	211+14	23 LT	1	1	1
	216+78	23 LT	1	1	1
	218+41	24 LT	1	1	1
		TOTAL 0010	12	12	12
0020	194+97	0 RT	1	1	1
	198+08	0 RT	1	1	1
	198+29	0 RT	1	1	1
	200+21	3 RT	1	1	1
	202+19	0 RT	1	1	1
	205+25	0 RT	1	1	1
	205+34	0 RT	1	1	1
	205+36	16 RT	1	1	1
	210+91	3 LT	1	1	1
	218+49	2 LT	1	1	1
		TOTAL 0020	10	10	10
		TOTAL	22	22	22

3

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION	LOCATION	614.0010 EACH
0010	89+66	LT	1
	89+73	RT	1
	92+61	RT	1
	149+20	RT	1
	151+45	LT	1
	155+70	LT	1
		TOTAL	6

STEEL THRIE BEAM STRUCTURE APPROACH

CATEGORY	STATION - STATION	LOCATION	614.0200 LF	COMMENT
0010	91+62 - 91+83	LT	21	B-29-102
		TOTAL	21	

STEEL PLATE BEAM GUARD

CATEGORY	STATION - STATION	LOCATION	614.0305 CLASS A LF
0010	91+83 - 92+21	LT	38
		TOTAL	38

3

STEEL PLATE BEAM GUARD SHORT RADIUS

CATEGORY	STATION - STATION	LOCATION	614.0345 LF	NO. OF CRT POSTS*	COMMENT
0010	92+21 - 92+29	LT	25	7	DRIVEWAY - 8' RADIUS
		TOTAL	25	7	

* FOR INFORMATION PURPOSES ONLY

MGS THRIE BEAM TRANSITION

CATEGORY	STATION - STATION	LOCATION	614.2500 LF	COMMENT
0010	90+19 - 90+58	LT	39	B-29-102
	90+26 - 90+65	RT	39	B-29-102
	91+69 - 92+08	RT	39	B-29-102
	153+48 - 153+87	RT	39	B-29-103
	153+48 - 153+87	LT	39	B-29-103
	155+02 - 155+41	RT	39	B-29-103
	155+02 - 155+41	LT	39	B-29-103
	191+79 - 192+18	LT	39	B-29-108
	191+87 - 192+26	RT	39	B-29-108
	193+57 - 193+96	LT	39	B-29-108
	193+65 - 194+04	RT	39	B-29-108
		TOTAL	429	

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

CATEGORY	STATION	LOCATION	614.0390 EACH	COMMENTS
0010	92+29	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	TOTAL		1	

MGS GUARDRAIL

CATEGORY	STATION - STATION	LOCATION	614.2300 TYPE 3 LF
	149+73 - 153+48	RT	375
	151+98 - 153+48	LT	150
	195+04 - 195+29	RT	125
		TOTAL	650

MGS GUARDRAIL TERMINAL EAT

CATEGORY	STATION - STATION	LOCATION	614.2610 LF	LF*	COMMENT
0010	89+66 - 90+19	LT	1	53	B-29-102
	89+73 - 90+26	RT	1	53	B-29-102
	92+08 - 92+61	RT	1	53	B-29-102
	149+20 - 149+73	RT	1	53	B-29-103
	151+45 - 151+98	LT	1	53	B-29-103
	155+41 - 155+94	LT	1	53	B-29-103
	155+41 - 155+94	RT	1	53	B-29-103
	191+26 - 191+79	LT	1	53	B-29-108
	191+34 - 191+87	RT	1	53	B-29-108
	193+96 - 194+49	LT	1	53	B-29-108
	195+29 - 195+82	RT	1	53	B-29-108
		TOTAL	11	583	

* FOR INFORMATIONAL PURPOSES ONLY

FINISHING ITEMS FOR BARRIER SYSTEM GRADING SHAPING FINISHING*

CATEGORY	STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LBS	630.0200 SEEDING TEMPORARY LBS
0010	88+26 - 90+26	LT	444	444	0.28	7	7
	88+33 - 90+23	RT	264	264	0.17	13	13
	92+36 - 94+01	RT	479	479	0.30	4	4
	147+80 - 149+70	RT	147	147	0.09	7	7
	150+25 - 151+70	LT	253	253	0.16	11	11
	155+45 - 157+10	LT	407	407	0.26	0	0
	TOTAL		1994	1994	1	42	42

* FOR INFORMATIONAL PURPOSES ONLY. SALVAGED TOPSOIL, MULCHING, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND SEEDING TEMPORARY ARE PAID FOR BY THE BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LBS
0010	CONCRETE CURB & GUTTER REPLACEMENT	VARIOUS	30	3	0.02	1
	CONCRETE SIDEWALK REPLACEMENT	VARIOUS	45	45	0.03	1
	TOTAL		75	48	1	2

MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
0010	PROJECT	1	2

EROSION CONTROL

CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2023 EROSION MAT CLASS II TYPE B SY
0010	88+26 - 90+26	LT	200	200	444
	88+33 - 90+23	RT	190	190	264
	92+36 - 94+01	RT	165	165	479
	147+80 - 149+70	RT	190	190	147
	150+25 - 151+70	LT	145	145	253
	155+45 - 157+10	LT	165	165	407
	UNDISTRIBUTED		200	200	200
	TOTAL		1255	1255	2194

PAVEMENT MARKING EPOXY

CATEGORY	STATION - STATION	LOCATION	646.0106 4-INCH WHITE SOLID LF	646.0406 SAME DAY 4-INCH YELLOW SOLID LF	646.0406 SAME DAY 4-INCH YELLOW SKIP DASH LF	646.0126 8-INCH WHITE LF	647.0176 DIAGONAL 8-INCH WHITE LF	COMMENT
0010	0+68 - 1+00	ISLAND	---	---	---	42	---	
	0+71 - 7+20	CENTERLINE	---	649	163	---	---	SOLID LT - SKIP DASH RT
	7+20 - 139+85	CENTERLINE	---	---	3313	---	---	
	25+80 - 182+00	RT EDGE	15620	---	---	---	---	
	26+00 - 113+50	LT EDGE	8750	---	---	---	---	
	114+80 - 144+50	LT EDGE	2970	---	---	---	---	
	139+85 - 147+35	CENTERLINE	---	750	188	---	---	SKIP DASH LT - SOLID RT
	145+75 - 192+00	LT EDGE	4625	---	---	---	---	
	147+35 - 149+70	CENTERLINE	---	---	63	---	---	
	149+70 - 158+75	CENTERLINE	---	905	225	---	---	SOLID LT - SKIP DASH RT
	158+75 - 192+30	CENTERLINE	---	---	838	---	---	
	182+90 - 192+00	RT EDGE	910	---	---	---	---	
	184+50 - 192+00	RT SHOULDER	---	---	---	---	360	DIAGONAL CROSS HATCH 25' SPACING
	192+30 - 198+60	CENTERLINE	---	630	163	---	---	SKIP DASH LT - SOLID RT
	198+60 - 205+21	CENTERLINE	---	1322	---	---	---	DOUBLE YELLOW
	205+89 - 210+73	CENTERLINE	---	968	---	---	---	DOUBLE YELLOW
	211+31 - 218+15	CENTERLINE	---	1368	---	---	---	DOUBLE YELLOW
	218+21 - 221+59	CENTERLINE	---	676	---	---	---	DOUBLE YELLOW
	TOTAL		32875	7268	4953	42	360	
	TOTAL			12221				

PAVEMENT MARKING CURB EPOXY

647.0456

CATEGORY	STATION - STATION	LOCATION	LF	COMMENT
0010	0+68 - 1+00	LT	30	ISLAND CURB
	194+20 - 194+57	LT	72	SW RADIUS LINCOLN STREET
	194+33 - 194+44	RT	11	
	194+90 - 195+56	LT	95	NW RADIUS LINCOLN STREET
	196+45 - 196+48	RT	3	
	196+74 - 196+77	RT	3	
	196+77 - 196+80	LT	3	
	196+95 - 196+98	RT	3	
	197+13 - 197+16	LT	3	
	197+24 - 197+27	RT	3	
	197+34 - 197+37	RT	3	
	197+75 - 197+78	RT	3	
	198+75 - 198+78	RT	3	
	199+03 - 199+06	RT	3	
	199+88 - 199+91	LT	3	
	199+94 - 199+97	RT	3	
	200+21 - 200+24	RT	3	
	200+32 - 200+68	LT	33	
	200+90 - 200+93	RT	3	
	200+12 - 200+15	RT	3	
	200+19 - 200+22	RT	3	
	200+52 - 200+55	RT	3	
	202+79 - 202+82	RT	3	
	203+02 - 203+05	RT	3	
	203+46 - 203+49	RT	3	
	203+64 - 203+67	RT	3	
	205+00 - 205+10	RT	24	SE RADIUS ELROY STREET
	205+07 - 205+44	LT	44	SW RADIUS ELROY STREET
	205+53 - 205+72	RT	26	NE RADIUS ELROY STREET
	205+96 - 206+10	LT	40	NW RADIUS ELROY STREET
		SUBTOTAL	438	

PAVEMENT MARKING CURB EPOXY

647.0456

CATEGORY	STATION - STATION	LOCATION	LF	COMMENT
	206+27 - 206+30	RT	3	
	206+57 - 206+60	RT	3	
	207+11 - 207+14	LT	3	
	207+16 - 207+19	RT	3	
	207+40 - 207+43	LT	3	
	207+51 - 207+54	RT	3	
	207+97 - 208+00	RT	3	
	208+47 - 208+50	RT	3	
	210+66 - 210+81	LT	21	SW RADIUS FRANKLIN STREET
	210+68 - 210+67	RT	16	SE RADIUS FRANKLIN STREET
	211+24 - 211+62	LT	43	NW RADIUS FRANKLIN STREET
	211+25 - 211+36	RT	18	NE RADIUS FRANKLIN STREET
	215+28 - 215+38	RT	10	
	215+28 - 215+51	LT	23	
	215+64 - 215+67	RT	3	
	215+96 - 215+99	RT	3	
	216+21 - 216+24	RT	3	
	216+26 - 216+29	LT	3	
	216+40 - 216+43	LT	3	
	216+47 - 216+50	RT	3	
	217+37 - 217+40	RT	3	
	217+65 - 217+68	RT	3	
	218+12 - 218+22	RT	10	
	218+12 - 218+30	LT	20	
	218+85 - 219+63	LT	89	ISLAND
	220+13 - 220+26	RT	13	
	220+27 - 220+40	LT	15	
	220+39 - 220+54	LT	15	
	220+60 - 220+90	RT	30	
	221+18 - 221+55	LT	47	LIBERTY STREET
		SUBTOTAL	418	
		TOTAL	856	

PAVEMENT MARKING

CATEGORY	STATION - STATION	LOCATION	647.0566 STOP LINE EPOXY 18-INCH LF	647.0576 STOP LINE EPOXY 24-INCH LF	647.0766 CROSSWALK EPOXY 6-INCH LF	COMMENT
0010	0+71	LT	12	---	---	
	0+74	LT	16	---	---	
		PERRY STREET	20	---	---	
		DIVISION STREET	20	---	---	
		MILL STREET LT	20	---	---	
		MILL SREET RT	20	---	---	
		PARK STREET	20	---	---	
		CTH W (ELROY ROAD)	20	---	---	
		SNYDER ROAD	15	---	---	
		LUMSDEN ROAD	15	---	---	
		ACKERMAN ROAD	15	---	---	
	184+35 - 184+41	MAINLINE	---	30	60	MID-BLOCK CROSSING
	193+37 - 193+43	MAINLINE	---	36	74	LINCOLN STREET INTERSECTION
	193+34 - 194+24	LINCOLN STREET	---	---	146	LINCOLN STREET INTERSECTION
		LINCOLN STREET	28	---	---	
		ELROY STREET LT	22	---	---	
		ELROY STREET RT	20	---	---	
	205+21 - 205+27	MAINLINE	---	36	86	ELROY STREET INTERSECTION
	205+82 - 205+88	MAINLINE	---	36	106	ELROY STREET INTERSECTION
	205+27 - 205+82	ELROY STREET LT	---	---	103	ELROY STREET INTERSECTION
	205+27 - 205+82	ELROY STREET RT	---	---	82	ELROY STREET INTERSECTION
	210+73 - 210+79	MAINLINE	---	36	87	FRANKLIN STREET INTERSECTION
	211+25 - 211+31	MAINLINE	---	42	95	FRANKLIN STREET INTERSECTION
	210+79 - 211+25	FRANKLIN STREET LT	---	---	89	FRANKLIN STREET INTERSECTION
	210+79 - 211+25	FRANKLIN STREET RT	---	---	95	FRANKLIN STREET INTERSECTION
		FRANKLIN STREET LT	22	---	---	
		FRANKLIN STREET RT	22	---	---	
	218+15 - 218+21	MAINLINE	---	42	96	MID-BLOCK CROSSING
		PROSPECT STREET	26	---	---	
		MAIN STREET	15	---	---	
		TOTAL	348	258	1119	

PAVEMENT MARKING ISLAND NOSE EPOXY

CATEGORY	STATION - STATION	LOCATION	647.0606 EACH
0010	0+68 - 1+00	ISLAND	3
		TOTAL	3

LOCATING NO-PASSING ZONES

CATEGORY	STATION - STATION	LOCATION	648.0100 MI
0010	0+64 - 221+59	MAINLINE	4.2
		TOTAL	4.2

SAWING ASPHALT

CATEGORY	STATION	LOCATION	690.0150 LF
0010	0+65.34	MAINLINE	176
		PERRY STREET	37
		DIVISION STREET	33
		MILL ST LT	33
		MILL ST RT	33
		PARK STREET	33
		CTH W (ELROY ROAD)	30
		SNYDER ROAD	31
		LUMSDEN ROAD	39
	170+83	DW LT	22
	180+00	DW LT	35
		ACKERMAN ROAD	22
		LINCOLN STREET	29
		ELROY STREET LT	29
		ELROY STREET RT	40
		FRANKLIN STREET LT	42
		FRANKLIN STREET RT	45
		PROSPECT STREET	58
		MAIN STREET	34
	221+59.53	MAINLINE	70
		TOTAL	871

3

SAWING CONCRETE

690.0250

CATEGORY	STATION - STATION	LOCATION	LF	COMMENT
0010	193+70 - 193+88	LT	15	CURB & GUTTER AND SIDEWALK
	193+72 - 193+90	RT	15	CURB & GUTTER AND SIDEWALK
	194+14 - 194+47	LT	10	SIDEWALK
	194+26 - 194+54	RT	11	SIDEWALK
	195+17 - 195+52	LT	5	SIDEWALK
	199+55 - 199+65	RT	5	CURB & GUTTER
	200+99 - 201+24	LT	10	SIDEWALK
	202+82 - 203+02	RT	5	CURB & GUTTER
	203+15 - 203+35	LT	10	SIDEWALK
	203+26 - 203+41	LT	5	CURB & GUTTER
	203+50 - 203+65	RT	5	CURB & GUTTER
	204+58 - 204+68	LT	5	CURB & GUTTER
	204+95 - 205+10	RT	10	CURB & GUTTER AND SIDEWALK
	205+25 - 205+44	LT	15	CURB & GUTTER AND SIDEWALK
	205+54 - 205+68	RT	8	CURB & GUTTER AND SIDEWALK
	205+92 - 206+09	LT	18	CURB & GUTTER AND SIDEWALK
	206+59 - 206+74	LT	21	CURB & GUTTER AND SIDEWALK
	207+15 - 207+40	LT	5	CURB & GUTTER
	208+00 - 208+10	LT	5	CURB & GUTTER
	208+60	RT	3	CURB & GUTTER
	208+88 - 208+98	LT	5	CURB & GUTTER
	208+90 - 209+00	RT	5	CURB & GUTTER
	209+28 - 209+38	RT	5	CURB & GUTTER
	210+56 - 210+81	LT	23	CURB & GUTTER AND SIDEWALK
	210+61 - 210+77	RT	18	CURB & GUTTER AND SIDEWALK
		SUBTOTAL	242	

SAWING CONCRETE

690.0250

CATEGORY	STATION - STATION	LOCATION	LF	COMMENT
	211+24 - 211+46	LT	18	CURB & GUTTER AND SIDEWALK
	211+25 - 211+43	RT	16	CURB & GUTTER AND SIDEWALK
	211+60 - 211+88	RT	5	CURB & GUTTER
	212+13 - 212+23	RT	5	CURB & GUTTER
	212+79 - 212+89	LT	5	CURB & GUTTER
	212+97 - 214+12	RT	5	CURB & GUTTER
	213+79 - 213+89	LT	5	CURB & GUTTER
	214+09 - 214+19	LT	5	CURB & GUTTER
	214+90 - 215+05	RT	5	CURB & GUTTER
	215+25 - 215+40	LT	21	CURB & GUTTER AND SIDEWALK
	215+25 - 215+40	RT	15	CURB & GUTTER AND SIDEWALK
	215+79 - 215+89	LT	5	CURB & GUTTER
	216+11 - 216+26	RT	5	CURB & GUTTER
	216+38 - 216+40	RT	5	CURB & GUTTER
	216+70 - 216+85	LT	5	CURB & GUTTER
	217+58 - 217+83	RT	5	CURB & GUTTER
	217+65 - 217+95	LT	39	CURB & GUTTER AND SIDEWALK
	218+05 - 218+30	RT	15	CURB & GUTTER AND SIDEWALK
	218+05 - 218+28	LT	21	CURB & GUTTER AND SIDEWALK
	218+88 - 219+03	LT	5	CURB & GUTTER
	219+13 - 219+23	RT	5	CURB & GUTTER
	219+35 - 219+63	LT	5	CURB & GUTTER
	220+03 - 220+13	RT	10	SIDEWALK
	220+12 - 221+55	LT	20	CURB & GUTTER AND SIDEWALK
	220+13 - 221+59.53	RT	5	CURB & GUTTER
		SUBTOTAL	255	
		TOTAL	497	

ADJUSTING WATER VALVES

CATEGORY	STATION	LOCATION	SPV.0060.01 EACH
0020	194+87	47 LT	1
	194+91	31 LT	1
	194+97	39 LT	1
	195+44	11 LT	1
	200+44	8 LT	1
	200+49	13 LT	1
	205+49	13 LT	1
	205+54	19 LT	1
	205+58	16 LT	1
	210+89	9 LT	1
	211+11	5 LT	1
	211+40	8 LT	1
	211+47	22 LT	1
	215+44	19 LT	1
		TOTAL 0020	14
0030	10+03	16 RT	1
	18+02	29 LT	1
	21+85	19 RT	1
	21+97	29 RT	1
		TOTAL 0030	4

ADJUSTING MONITORING WELLS

CATEGORY	STATION	LOCATION	SPV.0060.02 EACH
0010	209+82	19.0 RT	1
	210+43	19.0 RT	1
	210+51	18.0 RT	1
	211+40	19.0 RT	1
		TOTAL	4

SPRAYED ASPHALTIC SHOULDER TREATMENT

CATEGORY	STATION - STATION	LOCATION	SPV.0070.01 GAL
0010	89+66 - 90+58	LT	18
	89+73 - 90+65	RT	18
	91+69 - 92+34	RT	13
	91+62 - 92+61	LT	20
	149+20 - 153+87	RT	93
	151+45 - 153+87	LT	48
	155+02 - 155+94	RT	18
	155+02 - 155+94	LT	18
	191+26 - 192+18	LT	18
	191+34 - 192+26	RT	18
	193+57 - 194+49	LT	18
	193+65 - 195+82	RT	43
		TOTAL	347

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
101R	0+70	STH 80, Left	M3-2	24" x 12"	East Cardinal Route Marker						1		Mounted with 105R
102R	0+70	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 105R
103R	0+70	STH 80, Left	M3-3	24" x 12"	South Cardinal Route Marker						1		Mounted with 105R
104R	0+70	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 105R
105R	0+70	STH 80, Left	M50-4	96" x 24"	Route Marker Panel (4 Faces)	33, 33, 80, 82					1	2	
106R	0+70	STH 80, Left	M6-1	21" x 21"	Arrow (Left)						1		Mounted with 105R
107R	0+70	STH 80, Left	M6-1	21" x 21"	Arrow (Right)						1		Mounted with 105R
108R	0+70	STH 80, Left	M6-1	21" x 21"	Arrow (Right)						1		Mounted with 105R
109R	0+70	STH 80, Left	M6-1	21" x 21"	Arrow (Right)						1		Mounted with 105R
110R	0+75	STH 80, Left	R5-1	36" X 36"	Do Not Enter						1	1	
111R	0+75	STH 80, Left	R1-1	36" X 36"	Stop						1		Mounted on back of 110R
112R	0+75	STH 80, Left	R1-1	36" X 36"	Stop						1	1	
113R	1+00	STH 80, Left	W12-1D	24" x 24"	Double Arrow Down						1	1	
114R	1+70	STH 80, Right	R7-1L	18" x 24"	No Parking Any Time Left Arrow						1	1	
115R	2+00	STH 80, Left	R7-1R	18" x 24"	No Parking Any Time Right Arrow						1	1	
116R	2+40	STH 80, Right	R2-1	24" x 30"	Speed Limit (35)						1	1	
117R	2+90	STH 80, Left	D1-2	66" x 30"	Two Destinations (Arrows)	Arrow Left, Wonewoc					1	2	
						Hillsboro, Arrow Right							
118R	4+00	STH 80, Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	North, East					1	1	
						STH 80, STH 82							
119R	5+60	STH 80, Left	W3-1	36" X 36"	Stop Ahead						1	1	
120R	7+05	STH 80, Right	D2-3	84" x 36"	Destination / Distance (Three)	Elroy 4					1	2	
						Mauston 16							
						New Lisbon 16							
121R	7+05	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1		Mounted on back of 120R
122R	7+65	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)						1	1	
123R	7+65	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted with 122R
124R	7+65	STH 80, Left	M3-2	24" x 12"	East Cardinal Route Marker						1		Mounted with 128R
125R	7+65	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 128R
126R	7+65	STH 80, Left	M3-3	24" x 12"	South Cardinal Route Marker						1		Mounted with 128R
127R	7+65	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 128R
128R	7+65	STH 80, Left	M50-4	96" x 24"	Route Marker Panel (4 Faces)	33, 33, 80, 82					1	2	
129R	7+65	STH 80, Left	M5-1L	21" x 21"	Advance Arrow Left Turn						1		Mounted with 128R
130R	7+65	STH 80, Left	M5-1R	21" x 21"	Advance Arrow Right Turn						1		Mounted with 128R
131R	7+65	STH 80, Left	M5-1R	21" x 21"	Advance Arrow Right Turn						1		Mounted with 128R
132R	7+65	STH 80, Left	M5-1R	21" x 21"	Advance Arrow Right Turn						1		Mounted with 128R
133R	10+15	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
134R	11+00	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
135R	11+00	STH 80, Left	M1-6	24" x 24"	State Route Marker	33					1		Mounted with 134R
136R	11+00	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted with 134R
137R	11+20	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
138R	14+10	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
139R	14+10	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)						1		Mounted on Power Pole
140R	14+10	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted on Power Pole
141R	14+35	STH 80, Right	R2-1	24" x 30"	Speed Limit (35)						1	1	
142R	14+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted with 140R
143R	16+95	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted on Power Pole
144R	17+00	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
145R	17+65	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
146R	18+20	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
147R	18+75	STH 80, Right	M2-1	21" x 15"	Junction Marker	Jct					1	1	
148R	18+75	STH 80, Right	M1-5A	24" x 24"	County Marker	W					1		Mounted with 147R
149R	20+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
150R	22+15	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
151R	22+55	STH 80, Left	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	South, West					1	1	
						STH 80, STH 82							
152R	24+60	STH 80, Left	J13-2	48" x 45"	Directional without Cardinal	STH 80, STH 82					1	1	
						Double Arrow, Double Arrow							
153R	24+70	STH 80, Right	M1-5A	24" x 24"	County Marker	W					1	1	
154R	24+70	STH 80, Right	M6-1	21" x 21"	Arrow (Left)						1		Mounted with 153R
155R	24+70	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted with 153R
156R	24+95	STH 80, Left	R1-1	36" x 36"	Stop						1	1	
157R	26+00	STH 80, Left	M1-5A	24" x 24"	County Marker	W					1	1	
158R	26+00	STH 80, Left	M6-1	21" x 21"	Arrow (Right)						1		Mounted with 157R
159R	28+00	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)						1	1	
						Sheet Totals	0	0	0	0	59	34	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
160R	28+00	STH 80, Right	R2-1	24" x 30"	Speed Limit (55)						1	1	
161R	28+50	STH 80, Left	I2-3	78" x 24"	Community Population Name Sign	Union Center					1	2	
						Population 200							
162R	29+65	STH 80, Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	North, East					1	1	
						STH 80, STH 82							
163R	33+45	STH 80, Left	W3-5	36" x 36"	Speed Limit 35 Ahead (Arrow)						1	1	
164R	35+35	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
165R	35+35	STH 80, Left	M1-5A	24" x 24"	County Marker	W					1		Mounted with 164R
201	0+70	STH 80, Left	J3-4	96" X 57"	Directional Assembly (4 Headed Route Panel)	East, West, South, West			2	38.00			
						STH 33, STH 33, STH 80, STH 82							
						Arrow Left, Arrow Right, Arrow Right, Arrow Right							
202	0+75	STH 80, Left	R5-1	36" X 36"	Do Not Enter			1		9.00			
203	0+75	STH 80, Left	R1-1	36" X 36"	Stop		1			7.46			
204	0+75	STH 80, Left	R1-1	36" X 36"	Stop		1			7.46			
205	1+00	STH 80, Left	W12-1D	24" x 24"	Double Arrow Down		1			4.00			2' Mounting Height
206	1+70	STH 80, Right	R7-1L	18" x 24"	No Parking Any Time Left Arrow		1			3.00			
207	2+00	STH 80, Left	R7-1R	18" x 24"	No Parking Any Time Right Arrow		1			3.00			
208	2+40	STH 80, Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	North, East		1		12.00			
						STH 80, STH 82							
209	2+90	STH 80, Left	D1-2	66" x 30"	Two Destinations (Arrows)	Arrow Left, Wonewoc		2		13.75			
						Hillsboro, Arrow Right							
210	4+00	STH 80, Right	R2-1	24" x 30"	Speed Limit (35)		1			5.00			
211	5+60	STH 80, Left	W3-1	36" X 36"	Stop Ahead			1		9.00			
212	6+05	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow					3.00			
213	7+15	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
214	7+70	STH 80, Left	J2-4	96" X 57"	Route Turn Assembly (4 Headed Route Panel)	East, West, South, West			2	38.00			
						STH 33, STH 33, STH 80, STH 82							
						Adv. Arrow Lt, Adv. Arrow Rt, Adv Arrow Rt, Adv Arrow Rt							
215	8+60	STH 80, Right	R2-1	24" x 30"	Speed Limit (35)		1			5.00			
216	9+00	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
217	9+45	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)		1			5.00			
218	10+15	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
219	11+00	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct			1	6.50			
						STH 33							
220	11+15	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
221	13+05	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
222	13+50	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)		1			5.00			
223	14+10	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
224	14+40	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
225	16+00	STH 80, Right	R2-1	24" x 30"	Speed Limit (35)		1			5.00			
226	17+00	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
227	17+05	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
228	17+65	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
229	18+20	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
230	18+75	STH 80, Right	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH W							
231	20+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
232	20+40	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
233	21+60	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)		1			5.00			
234	22+15	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
235	23+20	STH 80, Left	R7-1L	18" x 24"	No Parking Any Time Left Arrow		1			3.00			
236	24+25	STH 80, Left	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	South, West		1		12.00			
						STH 80, STH 82							
237	24+60	STH 80, Left	J13-2	48" x 45"	Directional Without Cardinal	STH 80, STH 81		1		15.00			
						Direct. Arrows Lt-Rt, Direct. Arrows Lt-Rt							
238	24+70	STH 80, Right	J13-1	24" x 45"	Directional Without Cardinal	CTH W			1	7.50			
						Arrow Left							
239	24+95	STH 80, Left	R1-1	36" x 36"	Stop			1		7.46			
240	25+35	STH 80, Right	R7-1R	18" x 24"	No Parking Any Time Right Arrow		1			3.00			
						Sheet Totals	26	10	6	294.53	6	6	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
241	26+00	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	CTH W Arrow Right		1		7.50			
242	28+00	STH 80, Left	R2-1	24" x 30"	Speed Limit (35)			1		5.00			
243	28+00	STH 80, Right	R2-1	24" x 30"	Speed Limit (55)			1		5.00			
244	28+50	STH 80, Left	I2-3	78" x 24"	Community Population Name Sign	Union Center Population 200	2			13.00			
245	29+65	STH 80, Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	North, East STH 80, STH 82		1		12.00			
246	33+45	STH 80, Left	W3-5	36" x 36"	Speed Limit 35 Ahead (Arrow)			1		9.00			
247	34+00	STH 80, Right	D2-3	84" x 36"	Destination / Distance (Three)	Elroy 4 Mauston 16 New Lisbon 16		2		21.00			
248	36+00	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct CTH W		1		6.50			
301R	113+70	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
302	113+70	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
303R	113+80	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
304	113+80	STH 80, Right	R1-1	30" x 30"	Stop			1		5.18			
401R	137+15	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
402	137+15	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
403R	144+50	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	SCENIC HILLS ROTARY CLUB					1	1	
404	144+50	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	SCENIC HILLS ROTARY CLUB		1		7.50			
405R	144+50	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
406	144+50	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
407R	158+85	STH 80, Right	I2-3	60" x 24"	Community Population Name Sign	Elroy Population 1442					1	2	
408	158+85	STH 80, Right	I2-3	60" x 24"	Community Population Name Sign	Elroy Population 1442	2			10.00			
409R	159+30	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
410	159+30	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
411R	170+70	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
412	170+70	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
413R	171+20	STH 80, Right	W3-5	36" x 36"	Speed Limit 40 Ahead (Arrow)						1	1	
414	171+20	STH 80, Right	W3-5	36" x 36"	Speed Limit 40 Ahead (Arrow)			1		9.00			
415R	177+65	STH 80, Right	R2-1	24" x 30"	Speed Limit (40)						1	1	
416	177+65	STH 80, Right	R2-1	24" x 30"	Speed Limit (40)			1		5.00			
417R	177+65	STH 80, Left	R2-1	24" x 30"	Speed Limit (55)						1	1	
418	177+65	STH 80, Left	R2-1	24" x 30"	Speed Limit (55)			1		5.00			
419R	179+25	STH 80, Left	D2-1	90" x 15"	Destination / Distance (One)	Union Center 4					1	2	
420	179+25	STH 80, Left	D2-1	90" x 15"	Destination / Distance (One)	Union Center 4	2			9.38			
421R	179+75	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
422	179+75	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
501R	180+10	STH 80, Right	W11-2	30" x 30"	Pedestrian Crossing Symbol						1	1	
502R	180+10	STH 80, Right	W16-9P	24" x 8"	AHEAD Plaque (Yellow)						1		Mounted with 501R
503R	181+75	STH 80, Left	M3-3	24" x 12"	South Cardinal Route Marker						1	1	
504R	181+75	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 503R
505R	181+75	STH 80, Left	M50-2	48" x 24"	Route Marker Panel (2 Faces)	80, 82					1		Mounted with 503R
506R	182+70	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
507R	183+30	STH 80, Right	R2-1	24" x 30"	Speed Limit (40)						1	1	
508R	183+55	STH 80, Left	R2-1	24" x 30"	Speed Limit (40)						1	1	
509R	184+00	STH 80, Right	W11-2	30" x 30"	Pedestrian Crossing Symbol						1	1	
510R	184+00	STH 80, Right	W16-7L	24" x 12"	Left Diagonal Downward Pointing Arrow (Yellow)						1		Mounted with 509R
511R	184+60	STH 80, Left	W11-2	30" x 30"	Pedestrian Crossing Symbol						1	1	
512R	184+60	STH 80, Left	W16-7L	24" x 12"	Left Diagonal Downward Pointing Arrow (Yellow)						1		Mounted with 511R
513R	188+00	STH 80, Right	W3-5	36" x 36"	Speed Limit 25 Ahead (Arrow)						1	1	
514R	189+00	STH 80, Left	W11-2	30" x 30"	Pedestrian Crossing Symbol						1	1	
515R	189+00	STH 80, Left	W16-9P	24" x 8"	AHEAD Plaque (Yellow)						1		Mounted with 514R
516R	190+00	STH 80, Left	R2-1	24" x 30"	Speed Limit (40)						1	1	
517R	191+50	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)						1	1	
518R	191+70	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
519R	191+95	STH 80, Right	I3-1	108" x 30"	River Name	BARABOO RIVER					1	1	
520R	191+95	STH 80, Right	R7-1L	18" x 24"	No Parking Any Time Left Arrow						1		Mounted with 519R
521R	192+10	STH 80, Left	R7-1R	18" x 24"	No Parking Any Time Right Arrow						1	1	
						Sheet Totals	6	19	0	162.78	34	29	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
522R	193+50	STH 80, Left	I3-1	108" x 30"	River Name	BARABOO RIVER					1	1	
523R	194+00	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	SCENIC HILLS ROTARY CLUB					1	1	
524R	194+50	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
525R	195+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
526R	195+90	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
527R	198+65	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)						1	1	
528R	198+65	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted with 527R
529R	198+65	STH 80, Right	M3-1	24" x 12"	North Cardinal Route Marker						1	1	
530R	198+65	STH 80, Right	M3-2	24" x 12"	East Cardinal Route Marker						1		Mounted with 529R
531R	198+65	STH 80, Right	M50-2	48" x 24"	Route Marker Panel (2 Faces)	80, 82					1		Mounted with 529R
532R	199+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
533R	199+90	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)						1	1	
534R	201+30	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
535R	201+65	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1	1	
536R	202+70	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)						1	1	
537R	204+45	STH 80, Right	M2-1	21" x 15"	Junction Marker	Jct					1	1	
538R	204+45	STH 80, Right	M1-5A	24" x 24"	County Marker	O					1		Mounted with 537R
539R	204+45	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow						1		Mounted with 537R
540R	205+40	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
541R	205+65	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
542R	206+10	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)						1	1	
543R	214+40	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)						1		Mounted on Light Pole
544R	215+05	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)						1		Mounted on Light Pole
545R	215+50	STH 80, Right	M5-1L	21" x 21"	Advance Arrow Left Turn						1	1	
546R	215+50	STH 80, Right	M1-5A	24" x 24"	County Marker	O					1		Mounted with 545R
547R	215+90	STH 80, Left	M1-5A	24" x 24"	County Marker	O					1		Mounted on Light Pole
548R	215+90	STH 80, Left	M5-1L	21" x 21"	Advance Arrow Left Turn						1	1	Mounted on Light Pole
549R	218+25	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
550R	218+35	STH 80, Right	M1-5A	24" x 24"	County Marker	O					1	1	
551R	218+35	STH 80, Right	M6-1	21" x 21"	Arrow Left						1		Mounted with 550R
552R	218+75	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)						1	1	
553R	219+45	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
554R	219+55	STH 80, Left	W1-6	48" x 24"	Night Arrow (Single)						1	1	
555R	219+55	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)						1		Mounted with 554R
556R	220+00	STH 80, Right	W1-1L	36" x 36"	Left Turn						1	1	
557R	220+00	STH 80, Right	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	15					1		Mounted with 556R
558R	220+50	STH 80, Left	M1-5A	24" x 24"	County Marker	O					1	1	
559R	220+50	STH 80, Left	M6-6	21" x 21"	Directional Arrows LA/UA						1		Mounted with 558R
560R	221+50	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
561R	222+20	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
562R	222+20	STH 80, Left	M1-5A	24" x 24"	County Marker	O					1		Mounted with 561R
601R	210+80	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
602R	211+35	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
603R	211+45	STH 80, Right	J13-3	72" x 45"	Directional Without Cardinal	STH 80, STH 82, CTH O Arrows Lt-Rt, Arrows Lt-Rt, Arrow Right					1	2	
604R	211+40	STH 80, Left	M1-5A	24" x 24"	County Marker	O					1	1	
605R	211+40	STH 80, Left	M6-1	21" x 21"	Arrow Left						1		Mounted with 604R
606R	211+50	STH 80, Right	M1-5A	24" x 24"	County Marker	O					1	1	
607R	211+50	STH 80, Right	M6-6	21" x 21"	Directional Arrows UA/RA						1		Mounted with 606R
608R	211+50	STH 80, Right	D1-2	54" x 42"	Two Destinations (Arrows)	Elroy-Sparta State Trail, Arrow Right The '400' State Trail, Arrow Right					1		Mounted with 606R
609R	211+50	STH 80, Right	D1-2	48" x 54"	Two Destinations (Arrows)	Elroy-Sparta State Trail, Arrow Left The '400' State Trail, Arrow Left					1		Mounted on back of 606R
610R	211+80	STH 80, Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	North, East STH 80, STH 82					1	1	
701	180+10	STH 80, Right	W11-2	30" x 30"	Pedestrian Crossing Symbol			1		6.25			
702	180+10	STH 80, Right	W16-9P	24" x 12"	AHEAD Plaque (Yellow)					2.00			Mount with 701
703	181+75	STH 80, Left	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	South, West STH 80, STH 82		1		12.00			
704	182+70	STH 80, Right	R1-1	30" x 30"	Stop			1		5.18			
705	183+30	STH 80, Right	R2-1	24" x 30"	Speed Limit (40)			1		5.00			
706	183+60	STH 80, Left	R2-1	24" x 30"	Speed Limit (40)			1		5.00			
707	184+00	STH 80, Right	W11-2	30" x 30"	Pedestrian Crossing Symbol			1		6.25			
708	184+00	STH 80, Right	W16-7L	24" x 12"	Left Diagonal Downward Pointing Arrow (Yellow)					2.00			Mount with 707
						Sheet Totals	0	6	0	43.68	51	34	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
709	184+60	STH 80, Left	W11-2	30" x 30"	Pedestrian Crossing Symbol			1		6.25			
710	184+60	STH 80, Left	W16-7L	24" x 12"	Left Diagonal Downward Pointing Arrow (Yellow)					2.00			Mount with 709
711	187+00	STH 80, Right	W3-5	36" x 36"	Speed Limit 25 Ahead (Arrow)			1		9.00			
712	189+00	STH 80, Left	W11-2	30" x 30"	Pedestrian Crossing Symbol			1		6.25			
713	189+00	STH 80, Left	W16-9P	24" x 12"	AHEAD Plaque (Yellow)					2.00			Mount with 712
714	191+00	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
715	191+00	STH 80, Left	R2-1	24" x 30"	Speed Limit (40)					5.00			Mount on back of 714
716	191+00	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)			1		5.00			
717	191+95	STH 80, Right	I3-1	48" x 24"	River Name	Baraboo		1		8.00			
						River							
718	192+10	STH 80, Left	R7-1R	18" x 24"	No Parking Any Time Right Arrow		1			3.00			
719	192+20	STH 80, Right	R7-1L	18" x 24"	No Parking Any Time Left Arrow		1			3.00			
720	193+50	STH 80, Left	I3-1	48" x 24"	River Name	Baraboo	1			8.00			
						River							
721	193+95	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	SCENIC HILLS		1		7.50			
						ROTARY CLUB							
722	194+55	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
723	195+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
724	196+00	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
725	197+70	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)		1			5.00			
726	198+60	STH 80, Right	J4-2	48" x 36"	Reassurance Assembly (2 Headed Route Panel)	North, East		1		12.00			
						STH 80, STH 82							
727	198+65	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
728	199+35	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
729	199+85	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)		1			5.00			
730	201+30	STH 80, Left	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
731	201+65	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
732	202+70	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)		1			5.00			
733	204+40	STH 80, Right	J1-1	24" x 39"	Junction Assembly	Jct			1	6.50			
						CTH O							
734	204+80	STH 80, Right	R7-1D	18" x 24"	No Parking Any Time Double Arrow		1			3.00			
735	205+35	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
736	205+60	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
737	206+10	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)					5.00			Mount on Light Pole
738	214+20	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)		1			5.00			
739	214+40	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)					5.00			Mount on Light Pole
740	215+50	STH 80, Right	J12-1	24" x 45"	Route Turn Without Cardinal (1 Headed Panel)	CTH O		1		7.50			
						Advance Arrow Left							
741	215+95	STH 80, Left	J12-1	24" x 45"	Route Turn Without Cardinal (1 Headed Panel)	CTH O				7.50			Mount on Light Pole
						Advance Arrow Left							
742	218+25	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
743	218+35	STH 80, Right	J13-1	24" x 45"	Directional Without Cardinal	CTH O		1		7.50			
						Arrow Left							
744	218+80	STH 80, Right	R2-1	24" x 30"	Speed Limit (25)		1			5.00			
745	219+05	STH 80, Left	R2-1	24" x 30"	Speed Limit (25)		1			5.00			
746	219+45	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
747	219+50	STH 80, Left	W1-6	48" x 24"	Night Arrow (Single)		1			8.00			
748	220+50	STH 80, Left	J12-1	24" x 45"	Route Turn Without Cardinal (1 Headed Panel)	CTH O		1		7.50			
						Directional Arrows LA/UA							
749	220+75	STH 80, Right	W1-1L	30" x 30"	Left Turn				1	6.25			
750	220+75	STH 80, Right	W13-1	24" x 24"	Advisory Speed Plate (Yellow Black)	15				4.00			Mount with 749
751	221+45	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
752	222+15	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH O							
801	210+65	STH 80, Right	J12-1	24" x 45"	Route Turn Without Cardinal (1 Headed Panel)	CTH O		1		7.50			
						Directional Arrows UA/RA							
802	210+75	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
803	211+35	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
804	211+45	STH 80, Right	J13-3	72." x 45"	Directional Without Cardinal	STH 80, STH 82, CTH O		2		22.50			
						Arrows Lt-Rt, Arrows Lt-Rt, Arrow Right							
805	211+40	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	CTH O		1		7.50			
						Arrow Left							
						Sheet Totals	25	16	2	284.19	0	0	

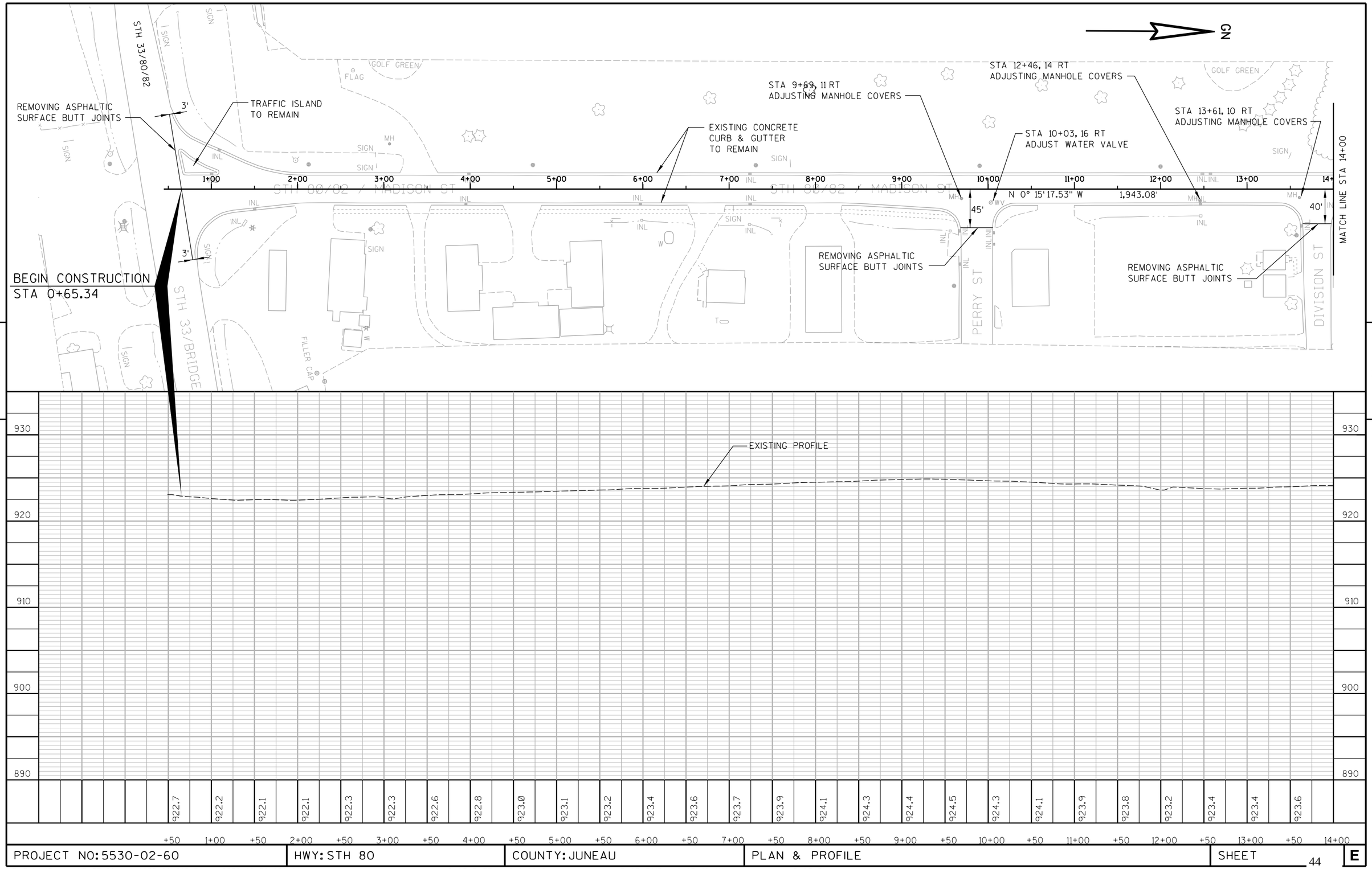
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
806	211+50	STH 80, Right	D1-3	48" x 36"	Triple Destination (Arrow)	Elroy-Sparta		1		12.00			
						The '400'							
						State Trails							
						Arrow Right							
807	211+50	STH 80, Right	D1-3	48" x 36"	Triple Destination (Arrow)	Elroy-Sparta				12.00			Mount on back of 806
						The '400'							
						State Trails							
						Arrow Left							
808	211+80	STH 80, Right	J4-3	72" x 36"	Reassurance Assembly (3 Headed Route Panel)	North, East		1		18.00			
						STH 80, STH 82, CTH O							
						Sheet Totals	0	2	0	42	0	0	
						Signing Totals	57	53	8	827.18	150	103	

3

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STATE PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	MISCELLANEOUS QUANTITIES	SHEET NO: 43	E

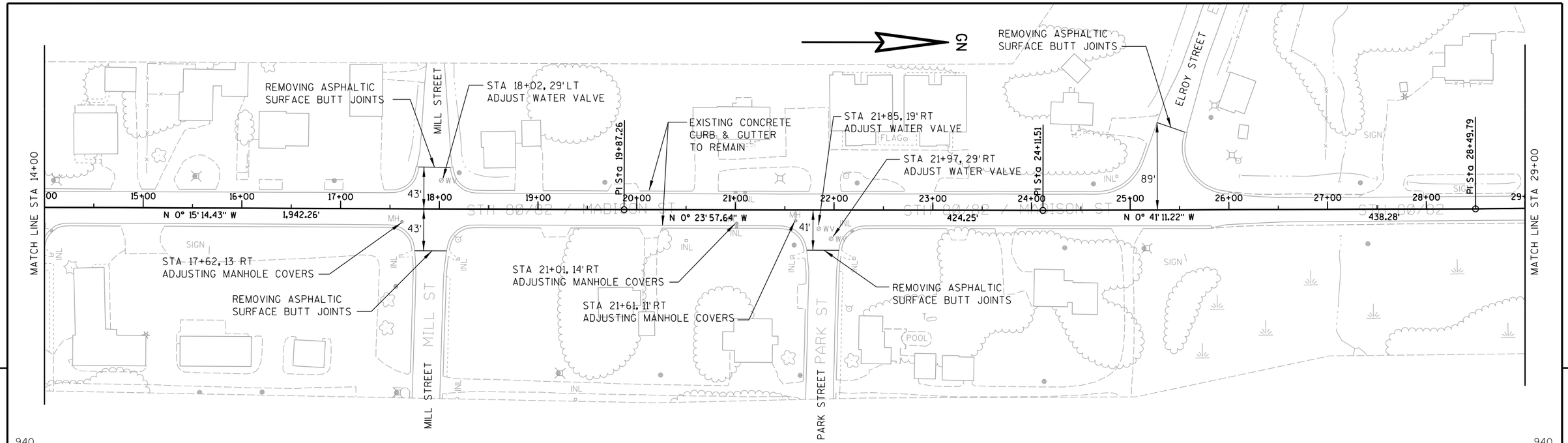
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5

5

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 44	E

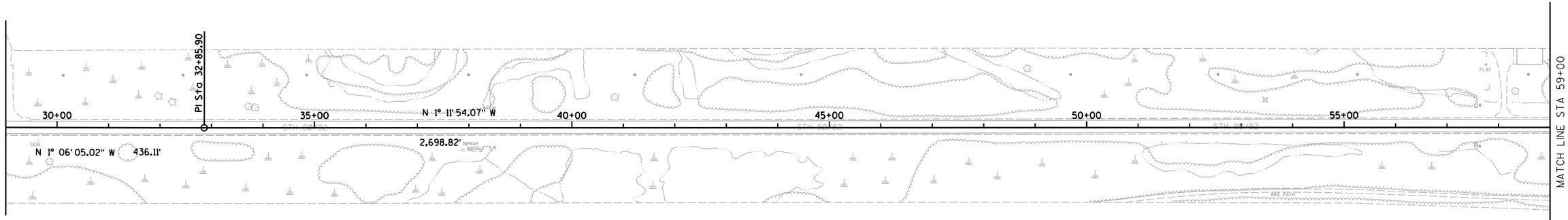


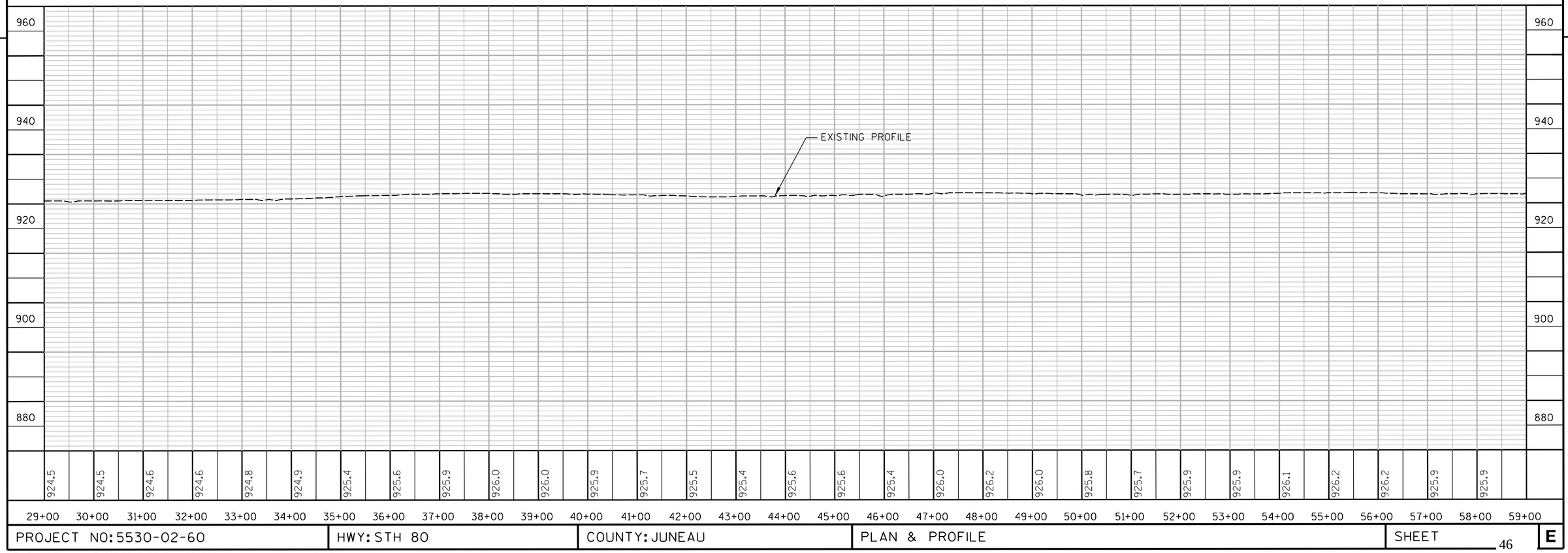
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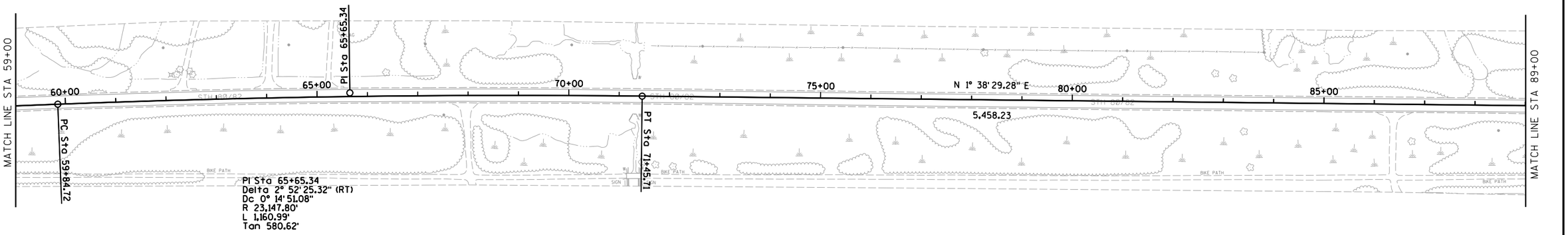
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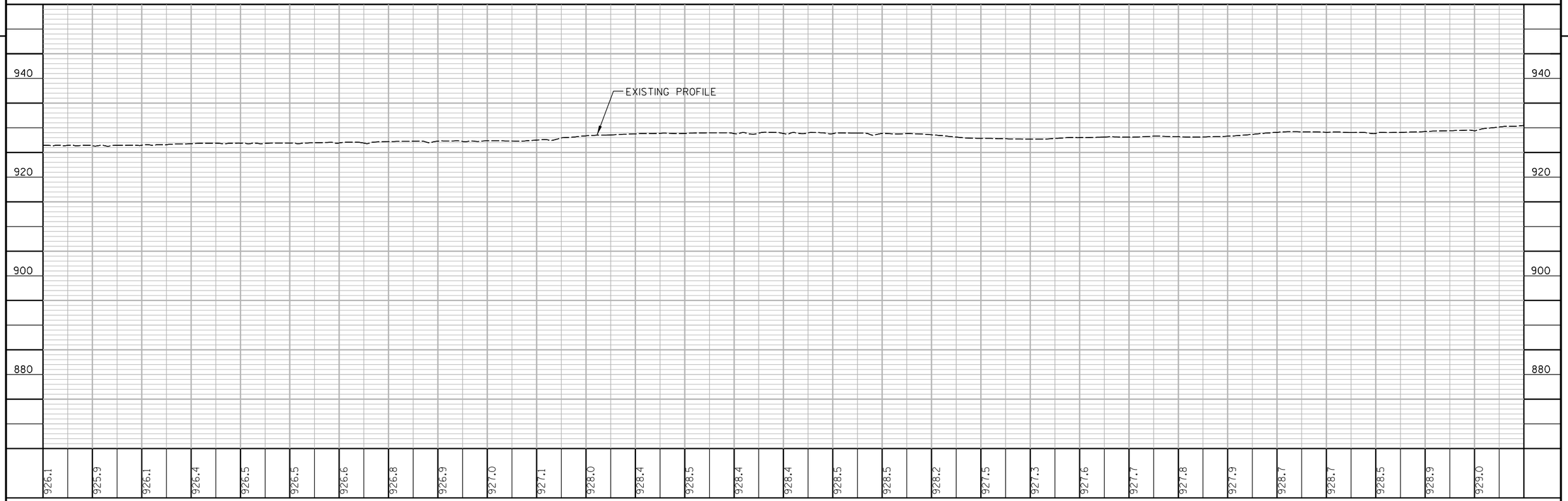
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PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 46	E





PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 47	E

STA 89+66 TO 92+34 LT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
STEEL PLATE BEAM GUARD SHORT RADIUS
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL (DO NOT INSTALL HEIGHT TRANSITION PIECE)
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION (CONNECT TO EXISTING STEEL RAILING TYPE W)
MGS GUARDRAIL 3

GN

STA 90+53.17
REMOVE ASPHALTIC SURFACE BUTT JOINT

STA 91+74.03
REMOVE ASPHALTIC SURFACE BUTT JOINT

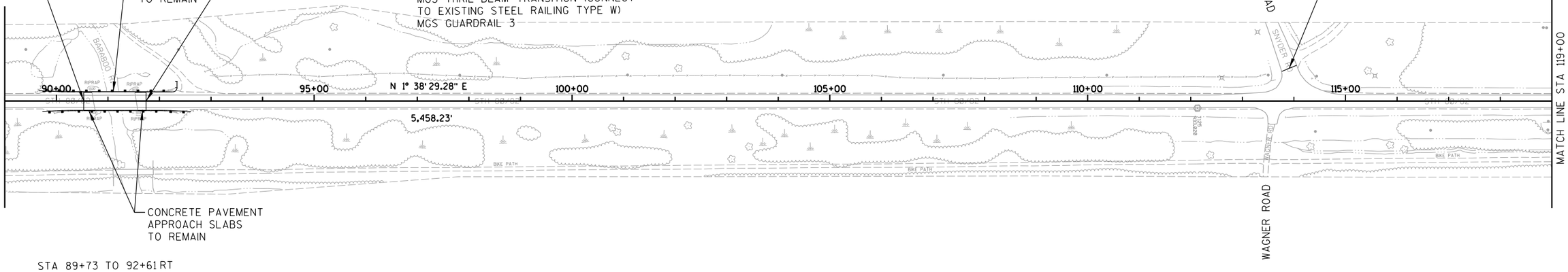
B-29-102
TO REMAIN

REMOVE ASPHALTIC SURFACE BUTT JOINT

SNYDER ROAD

MATCH LINE STA 89+00

MATCH LINE STA 119+00



CONCRETE PAVEMENT APPROACH SLABS TO REMAIN

WAGNER ROAD

STA 89+73 TO 92+61 RT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION (CONNECT TO EXISTING STEEL RAILING TYPE W)
MGS GUARDRAIL 3

5

5

STA 90+53.17 TO 91+74.03
B-29-102 TO REMAIN
EXCEPTION TO NET CENTERLINE

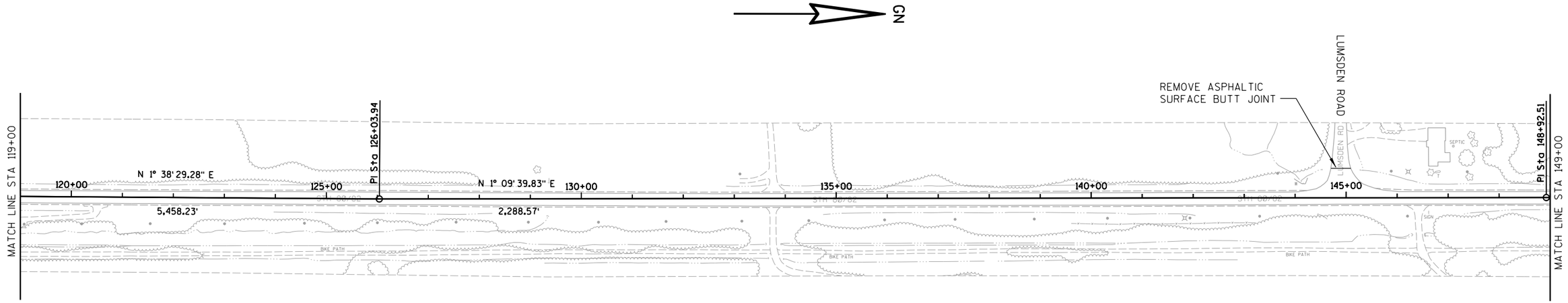
EXISTING PROFILE

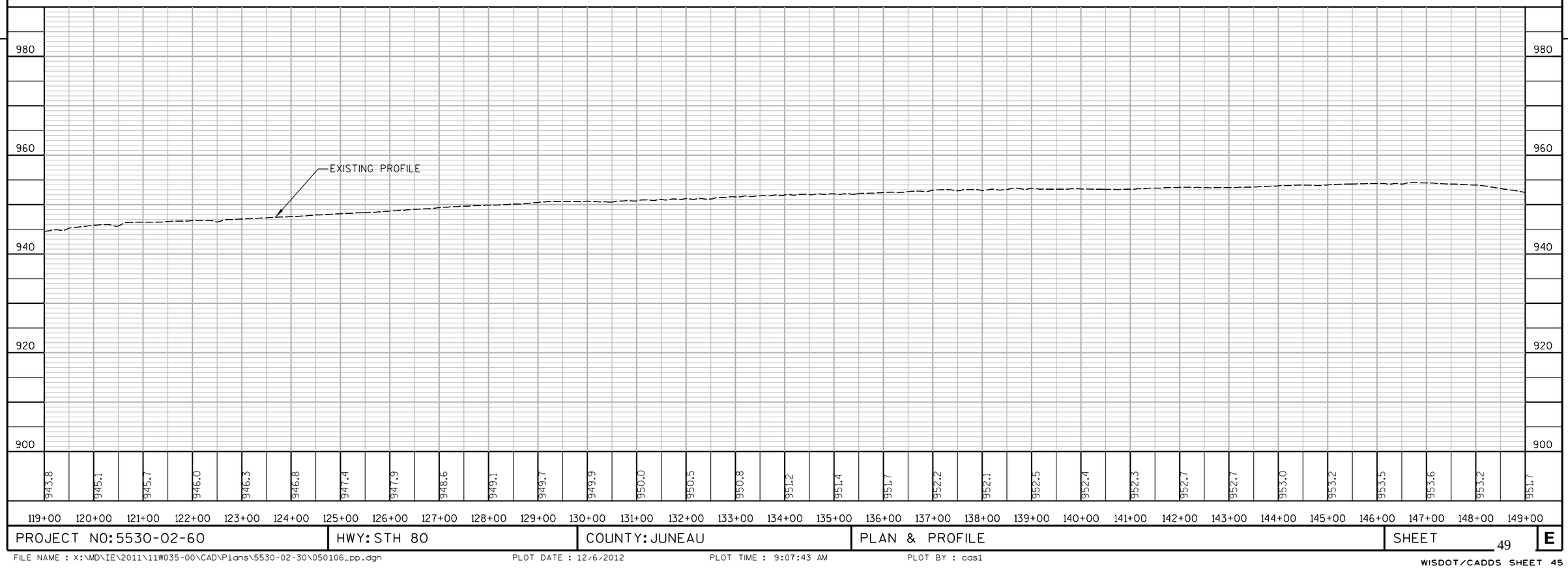
960
940
920
900
880

930.1 931.0 916.6 931.3 931.0 930.5 930.0 929.6 929.5 929.6 929.8 929.8 930.0 929.8 929.8 930.0 930.2 930.0 929.9 930.0 930.1 930.4 931.2 932.8 934.2 935.7 937.3 939.0 940.6 942.5 943.8

89+00 90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00

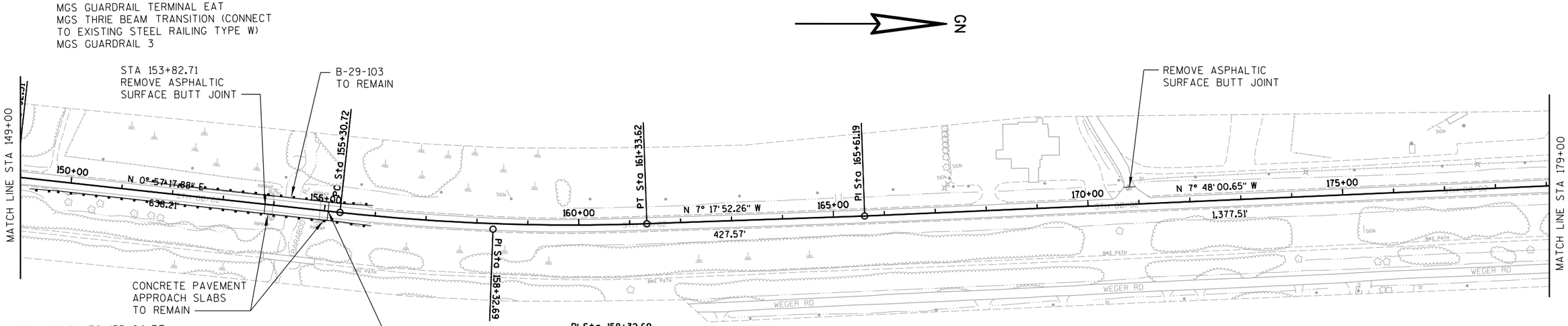
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 48	E





PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 49	E

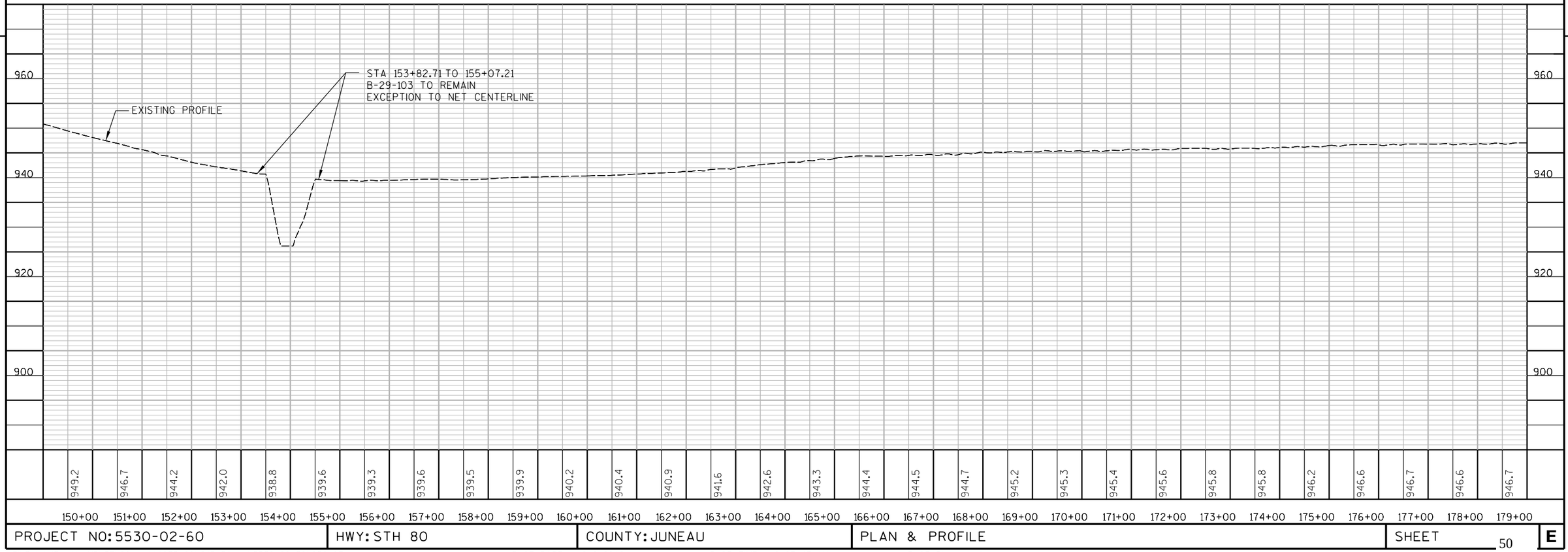
STA 151+45 TO 155+94 LT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION (CONNECT
TO EXISTING STEEL RAILING TYPE W)
MGS GUARDRAIL 3



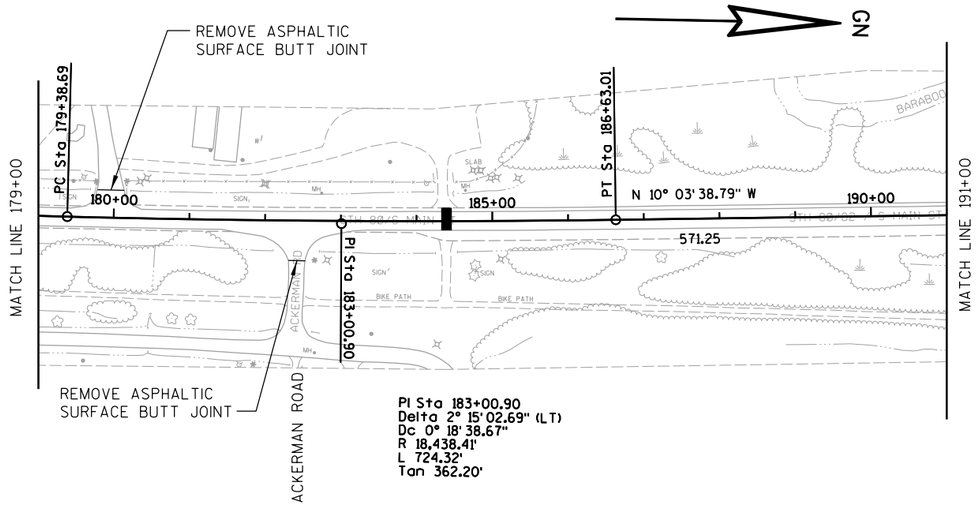
STA 149+20 TO 155+94 RT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION (CONNECT
TO EXISTING STEEL RAILING TYPE W)
MGS GUARDRAIL 3

PI Sta 158+32.69
Delta 8° 15' 10.13" (LT)
Dc 1° 22' 07.86"
R 4,185.69'
L 602.90'
Tan 301.97'

5



PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 50	E



PI Sta 183+00.90
Delta 2° 15' 02.69" (LT)
Dc 0° 18' 38.67"
R 18,438.41'
L 724.32'
Tan 362.20'

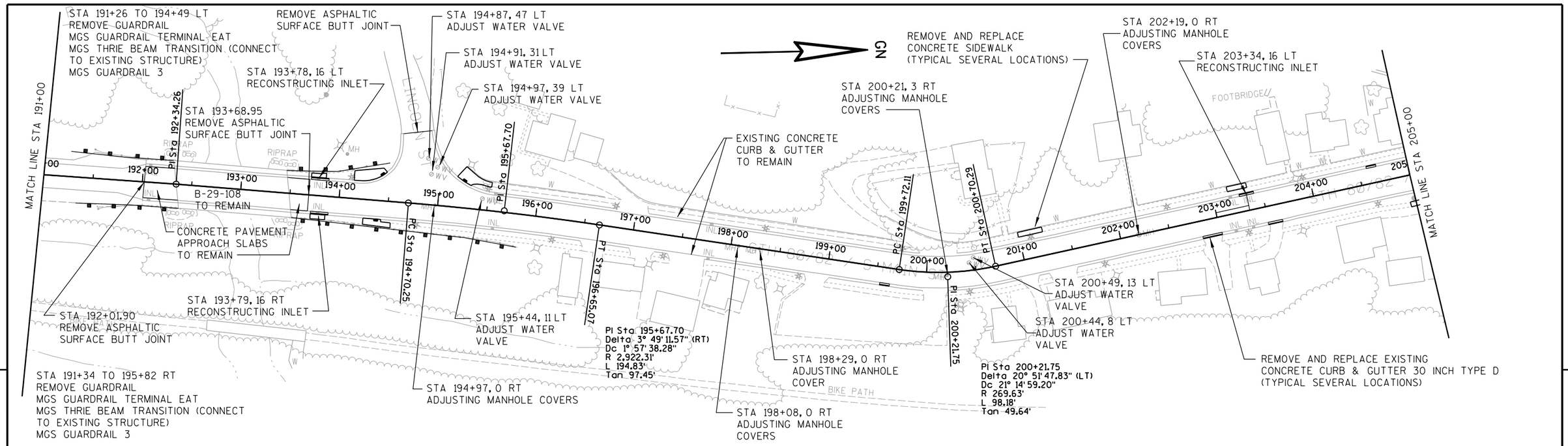
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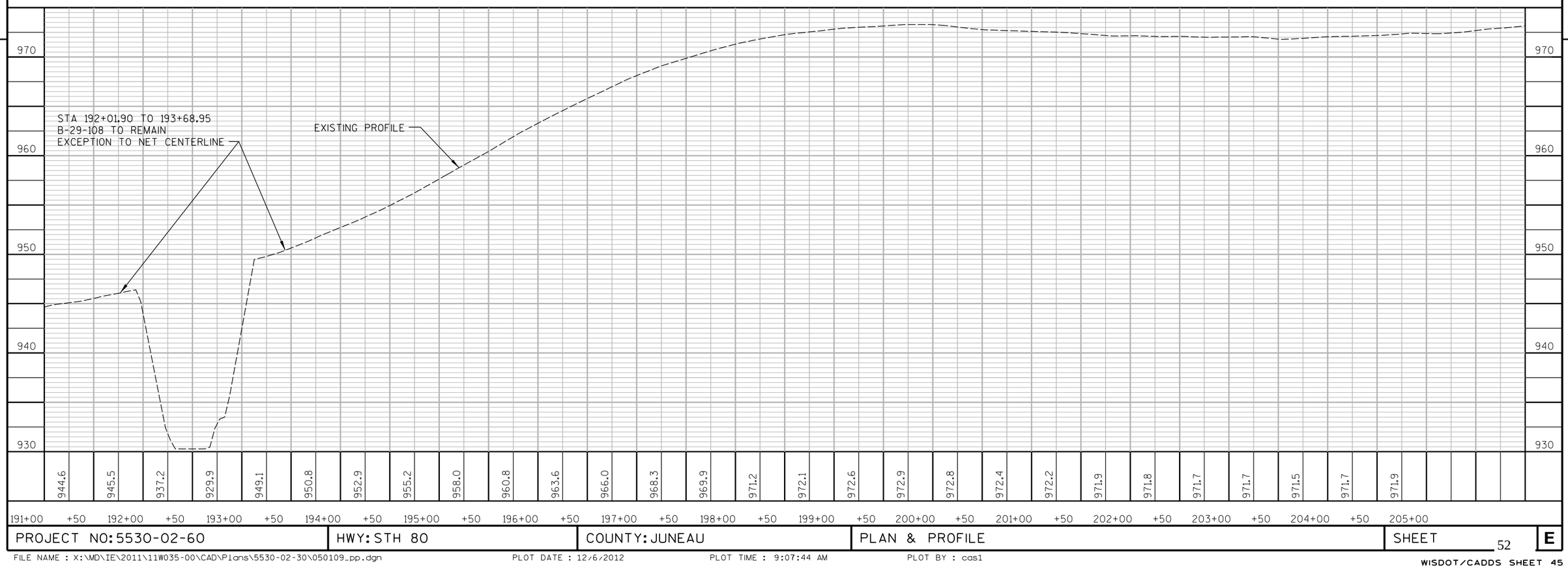
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940
920
900

946.7 946.6 946.3 946.7 946.1 945.7 945.5 945.6 945.5 944.6 944.4 944.1 944.0

179+00 180+00 181+00 182+00 183+00 184+00 185+00 186+00 187+00 188+00 189+00 190+00 191+00

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 51	E





PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 52	E

MATCH LINE STA 205+00

STA 205+25, 0 RT
ADJUSTING MANHOLE COVERS

STA 205+48, 24 LT
ADJUSTING MANHOLE COVERS

REMOVE ASPHALTIC
SURFACE BUTT JOINT

STA 205+54 19 LT, STA 205+58 16 LT
ADJUST WATER VALVE

STA 205+86, 20 LT
ADJUSTING MANHOLE COVERS

STA 205+49, 13 LT
ADJUST WATER VALVE

STA 205+73, 22 RT
RECONSTRUCTING INLET

STA 205+34, 0 RT
ADJUSTING MANHOLE COVERS

STA 205+36, 16 RT
ADJUSTING MANHOLE COVERS

REMOVE ASPHALTIC
SURFACE BUTT JOINT

STA 205+21, 36 RT
ADJUSTING MANHOLE COVERS

STA 209+82 19 RT
ADJUST MONITORING WELL

STA 210+43 19 RT
ADJUST MONITORING WELL

STA 210+51 19 RT
ADJUST MONITORING WELL

REMOVE ASPHALTIC
SURFACE BUTT JOINT

STA 210+65, 23 LT
RECONSTRUCTING INLET

REMOVE ASPHALTIC
SURFACE BUTT JOINT

STA 210+89, 9 LT
ADJUST WATER VALVE

STA 211+14, 23 LT
ADJUSTING MANHOLE COVER

STA 211+11, 5 LT
ADJUST WATER VALVE

STA 211+47, 22 LT
ADJUST WATER VALVE

STA 211+38, 23 LT
RECONSTRUCTING INLET

STA 211+40, 8 LT
ADJUST WATER VALVE

STA 211+40 19 RT
ADJUST MONITORING WELL

STA 210+91, 3 LT
ADJUSTING MANHOLE COVERS

REMOVE AND REPLACE
CONCRETE CURB & GUTTER
30 INCH TYPE D
(TYPICAL SEVERAL LOCATIONS)

STA 213+42, 21 RT
RECONSTRUCTING INLET

STA 214+97, 21 RT
RECONSTRUCTING INLET

STA 215+44, 19 LT
ADJUST WATER VALVE

EXISTING CONCRETE
CURB & GUTTER
TO REMAIN

REMOVE AND REPLACE
CONCRETE SIDEWALK
(TYPICAL SEVERAL LOCATIONS)

STA 216+19, 23 RT
RECONSTRUCTING INLET

REMOVE ASPHALTIC
SURFACE BUTT JOINT

STA 216+78, 23 LT
ADJUSTING MANHOLE
COVERS

STA 218+95, 23 LT
RECONSTRUCTING INLET

STA 218+49, 2 LT
ADJUSTING MANHOLE
COVERS

STA 218+41, 24 LT
ADJUSTING MANHOLE
COVERS

MATCH LINE STA 220+00

STH 80/82 / S MAIN ST

STH 80/82 / N MAIN ST

FRANKLIN ST

PI STA 205+63.58

EXISTING PROFILE

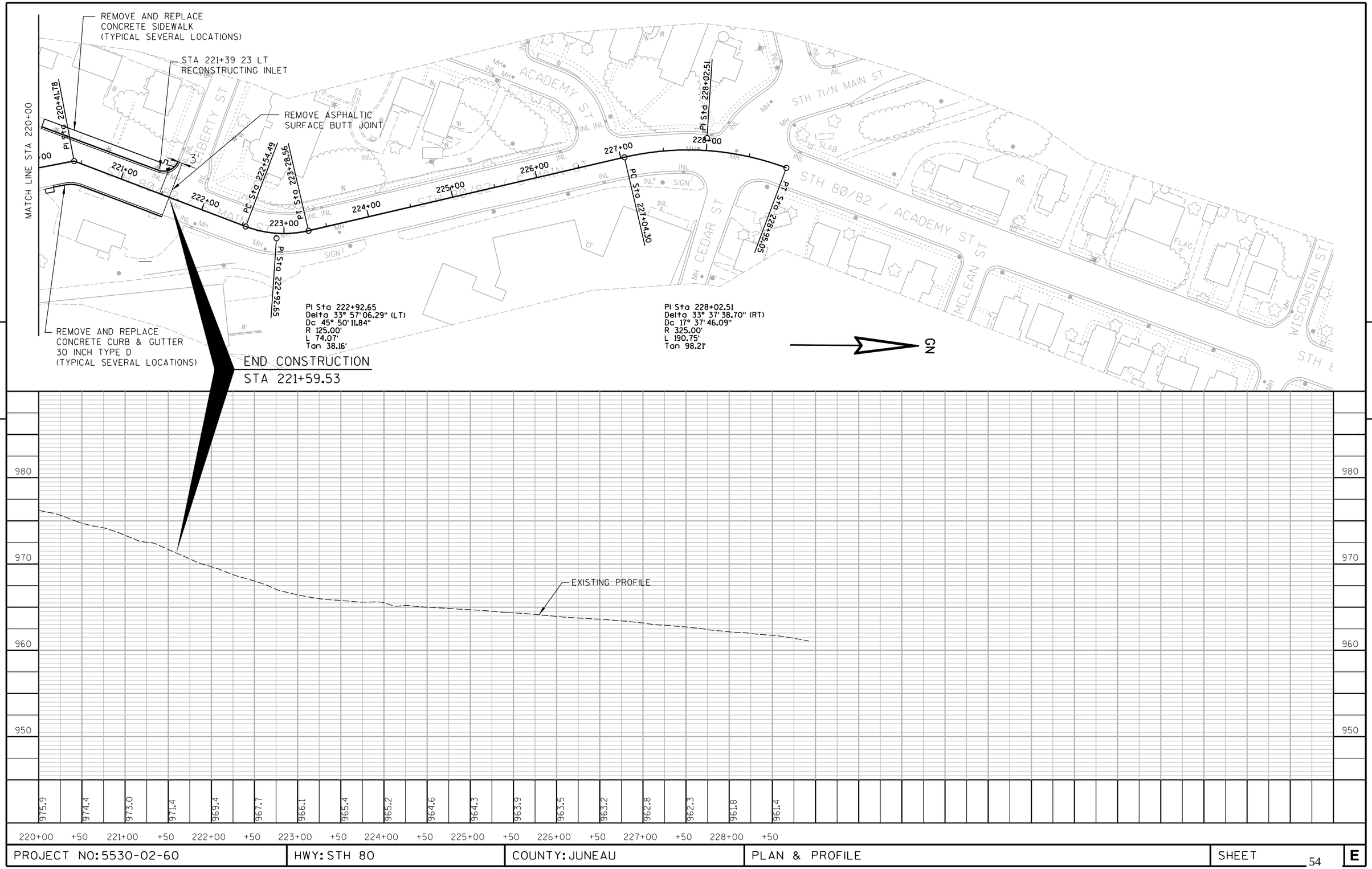
205+00	+50	206+00	+50	207+00	+50	208+00	+50	209+00	+50	210+00	+50	211+00	+50	212+00	+50	213+00	+50	214+00	+50	215+00	+50	216+00	+50	217+00	+50	218+00	+50	219+00	+50	220+00
971.9		972.0		972.5		972.9		973.4		973.9		974.3		974.5		974.8		975.1		975.0		974.9		975.0		974.7		974.4		974.3		974.0		973.6		973.3		973.2		973.3		973.4		973.8		974.3		974.5		974.9		975.4		976.1		976.7		976.5		975.9

980 970 960 950

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 53	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-02-30\050110_pp.dgn PLOT DATE : 12/6/2012 PLOT TIME : 9:07:44 AM PLOT BY : cas1

WISDOT/CADDS SHEET 45



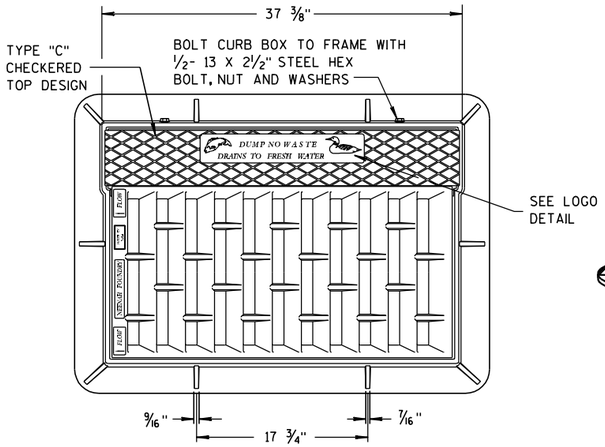
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FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-02-30\050111_pp.dgn PLOT DATE : 12/6/2012 PLOT TIME : 9:07:45 AM PLOT BY : cas1

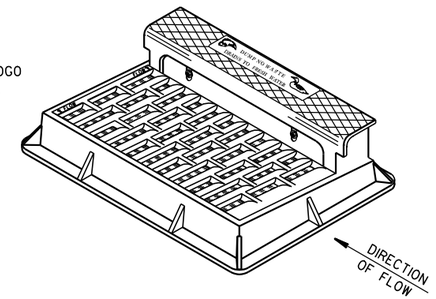
Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-02A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-14A	PAVEMENT MARKING (MAINLINE)
15C08-14B	PAVEMENT MARKING (INTERSECTIONS)
15C08-14F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-01A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

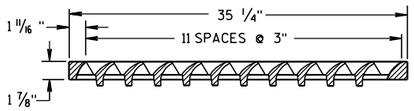
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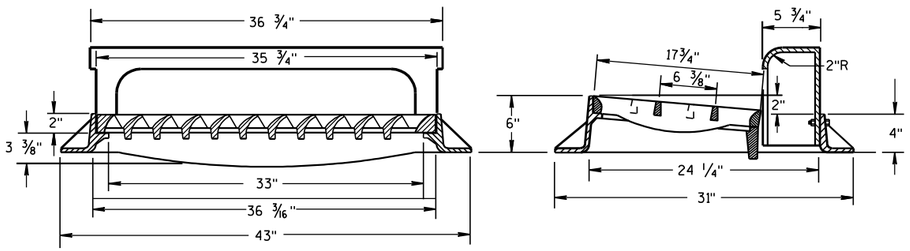


NOTE:
GRATE IS REVERSIBLE.



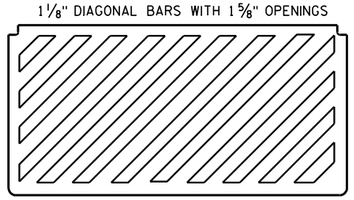
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

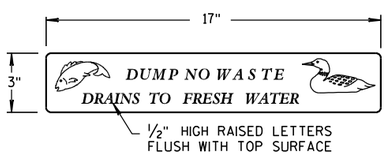
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

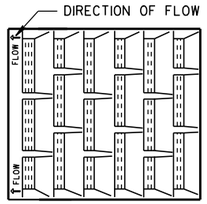
GENERAL NOTES

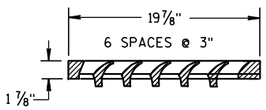
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

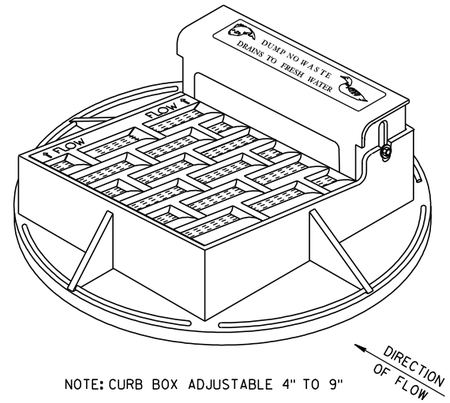
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

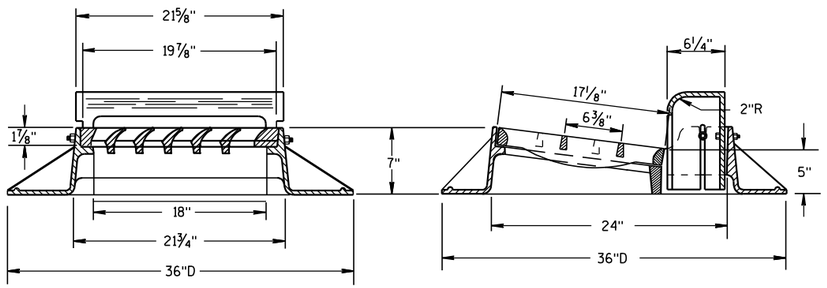
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





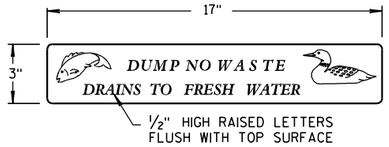


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



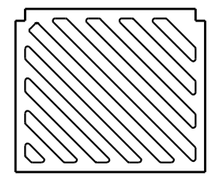
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

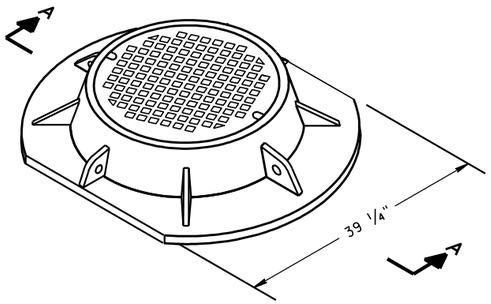
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

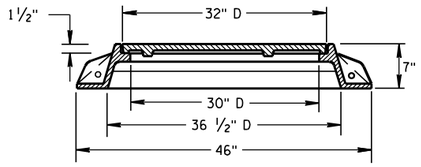
INLET COVERS
TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 8 A 5-18a



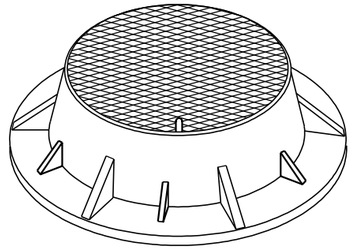


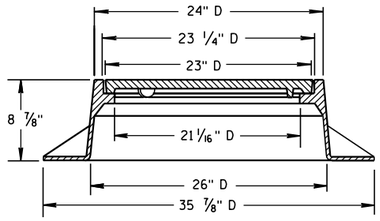
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

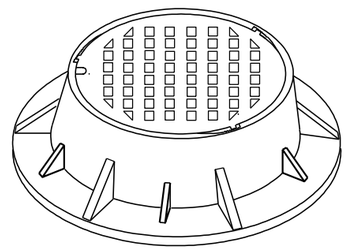


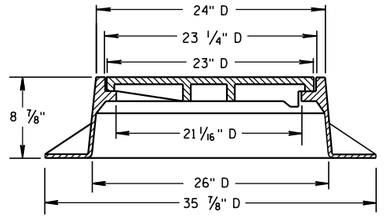


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

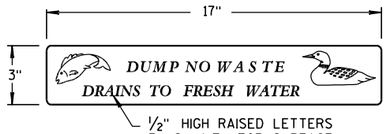
GENERAL NOTES

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.

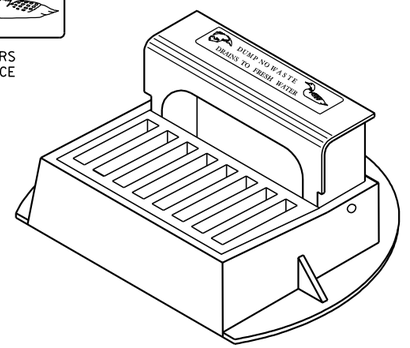
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

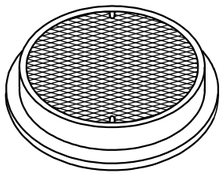
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

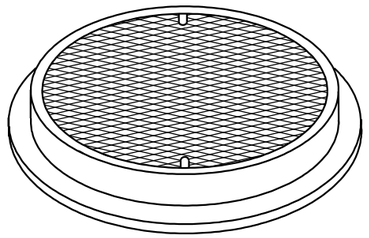
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

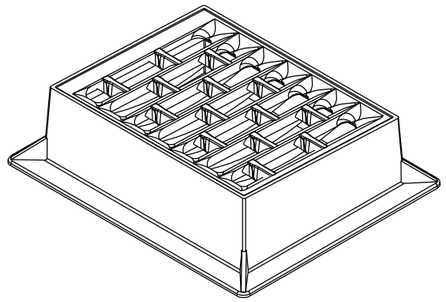


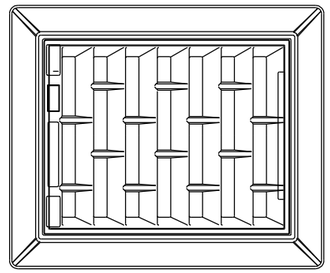
LOGO DETAIL

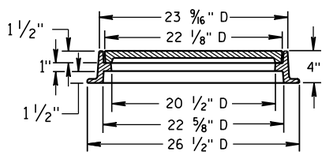








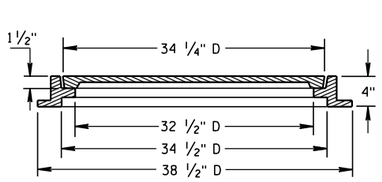




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

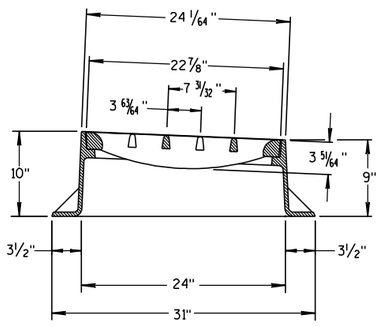
FRAME.....81 LBS.
LID.....77 LBS.

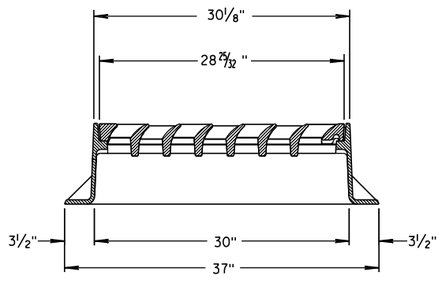


TYPE "M"

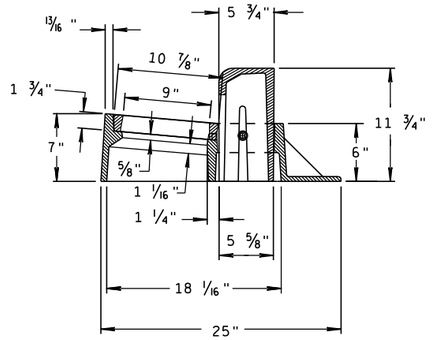
(APPROXIMATE WEIGHT 377 LBS.)

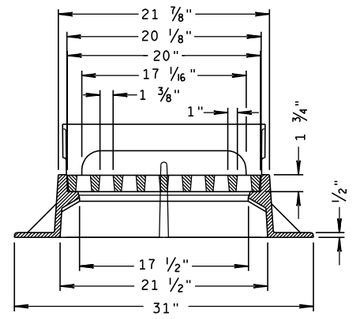
FRAME..... 125 LBS.
LID..... 252 LBS.





INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

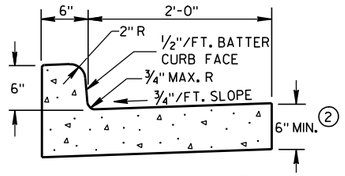
APPROVED

6/5/2012
DATE

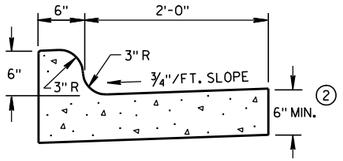
/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

FHWA

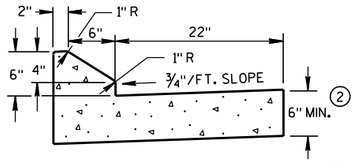
6
S.D.D. 8 A 5-18d



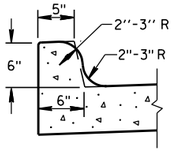
TYPES A & D (1)



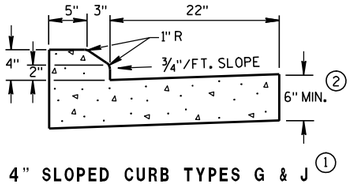
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

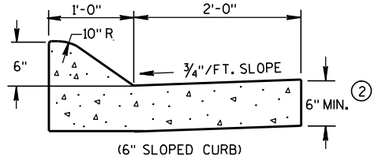


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

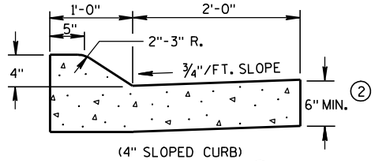


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

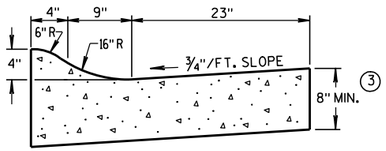


(6" SLOPED CURB)



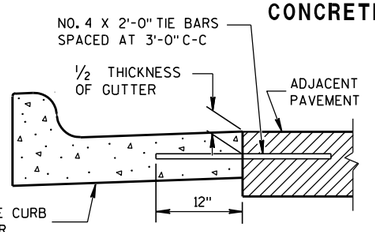
(4" SLOPED CURB)

TYPES A & D (1)

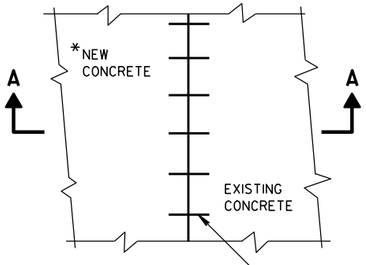


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

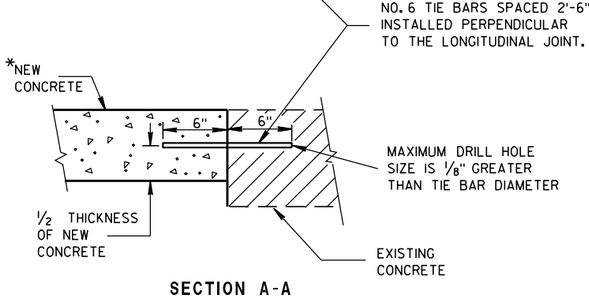


TYPICAL TIE BAR LOCATION (1)



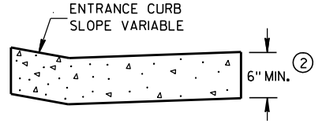
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW



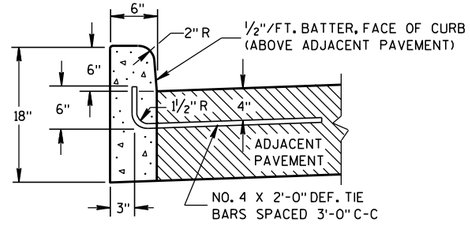
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



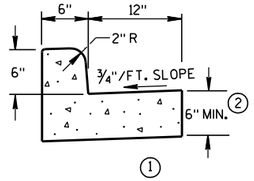
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

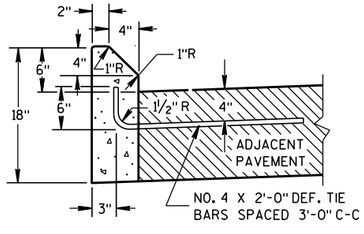
TYPES A & D



(1)

TYPES A & D

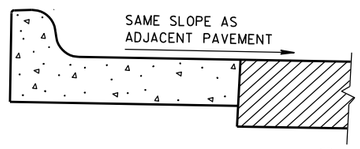
CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB



(5)

REVERSE SLOPE GUTTER

(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.

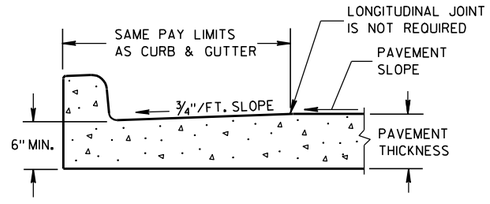
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

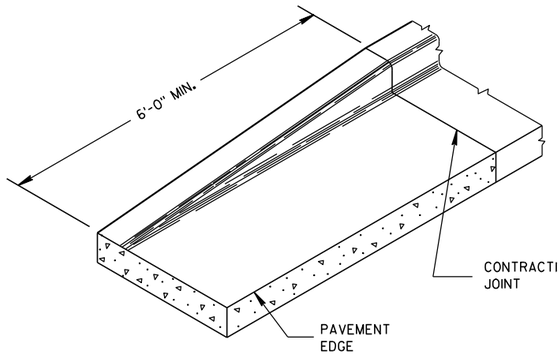
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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

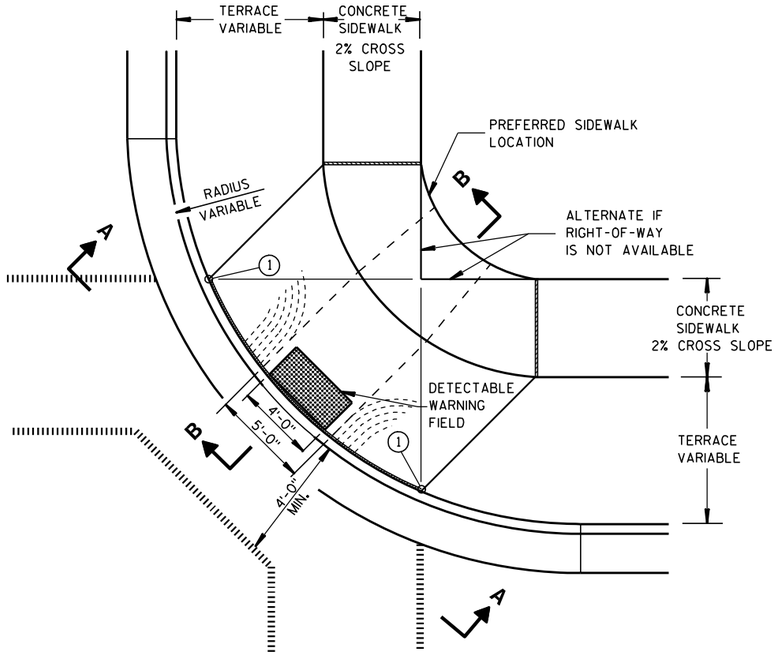
FHWA

6

S.D.D. 8 D 1-17

6

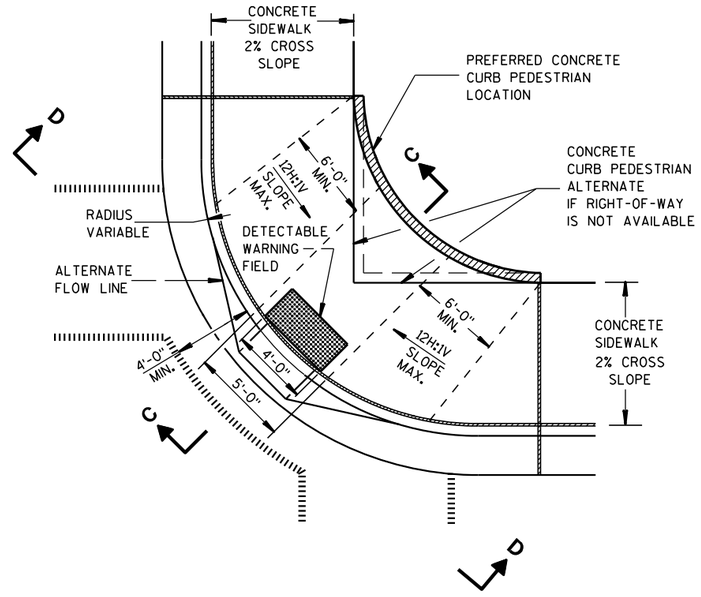
S.D.D. 8 D 1-17



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".

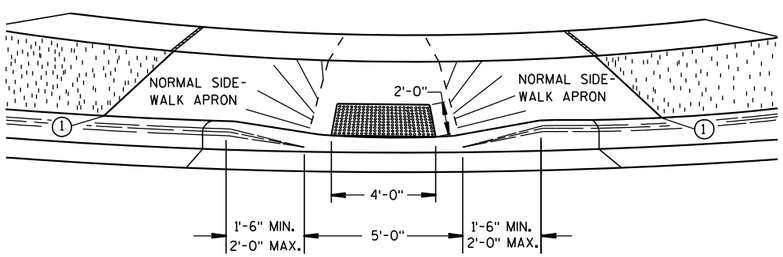
SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

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

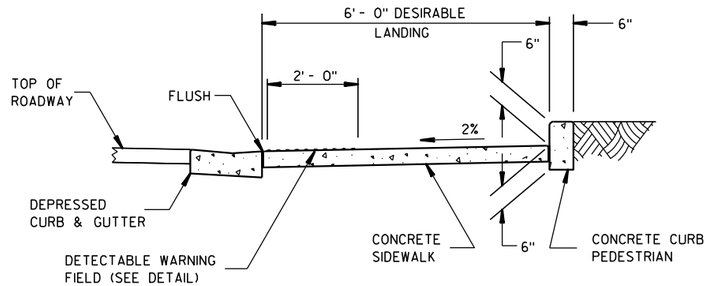
(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

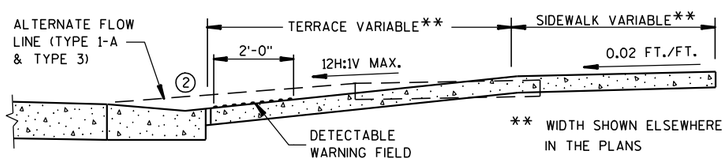
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



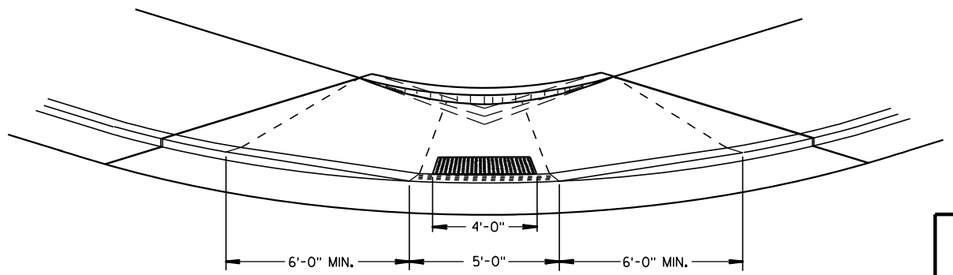
VIEW A-A



SECTION C-C



SECTION B-B



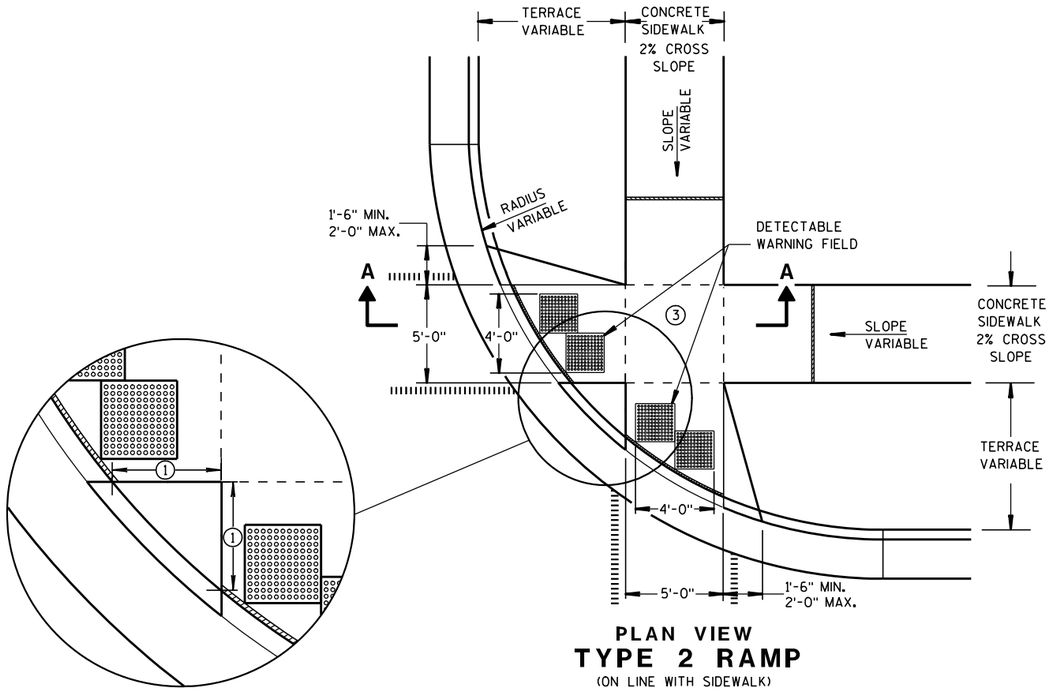
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

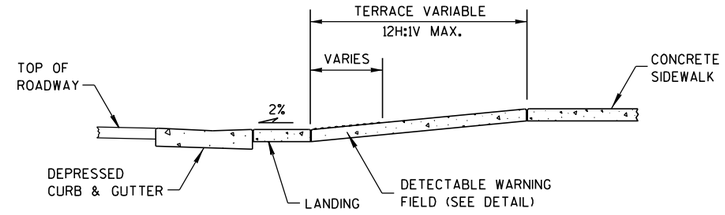
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

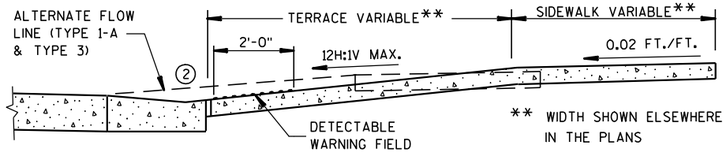
S.D.D. 8 D 5-14a



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.

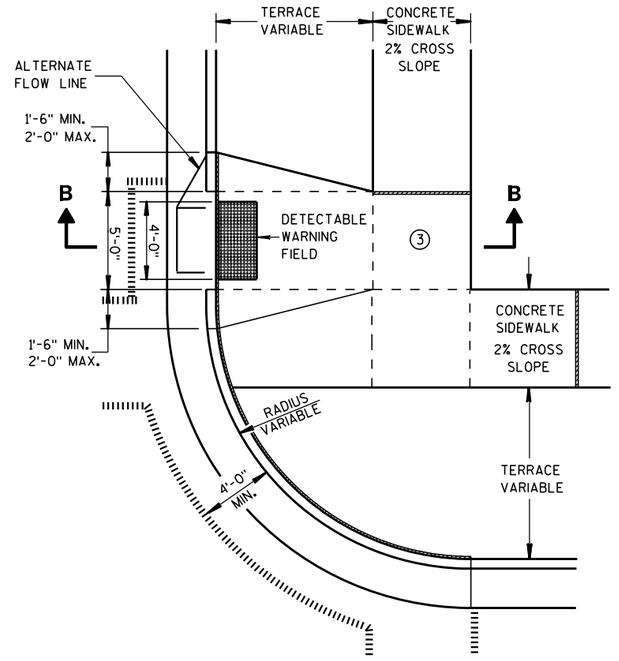
(1) WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

(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) PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

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

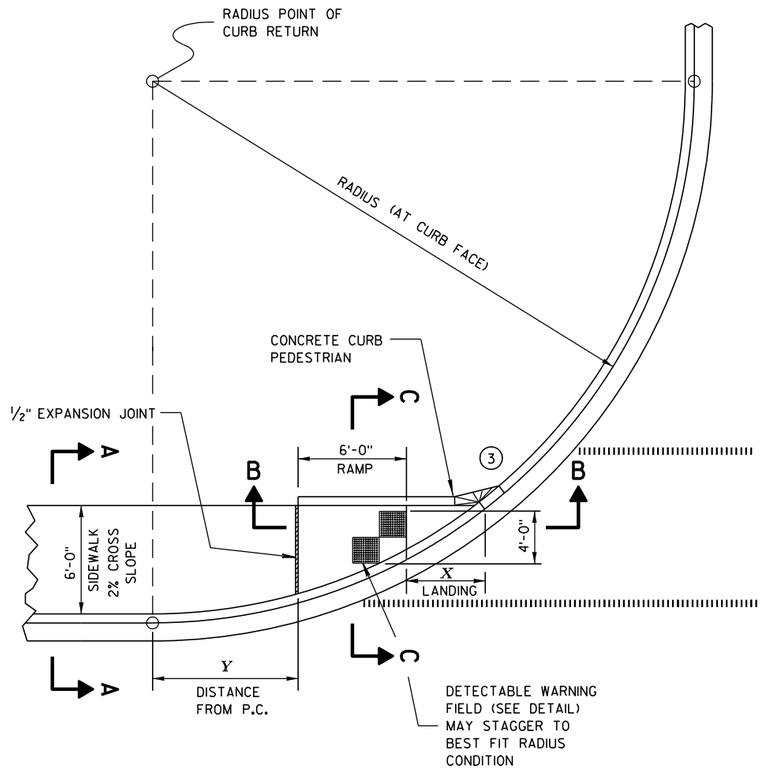


PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

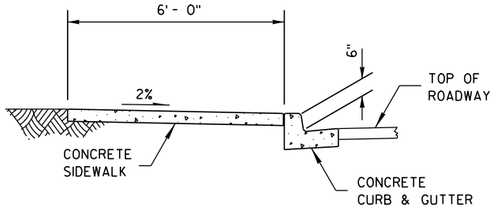
6
S.D.D. 8 D 5-14b



CURB RAMP TYPE 4A
PLAN VIEW

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

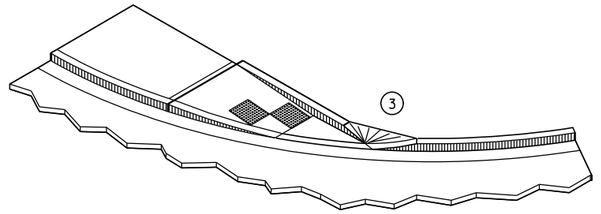
GENERAL NOTES

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

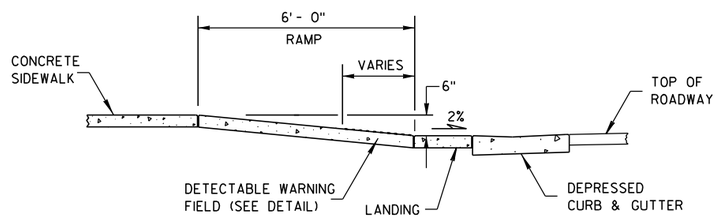
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

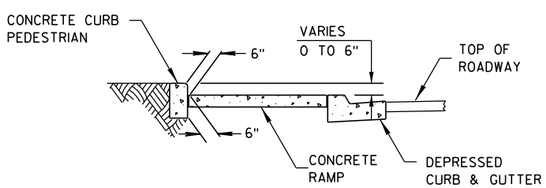
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW



SECTION B-B



SECTION C-C

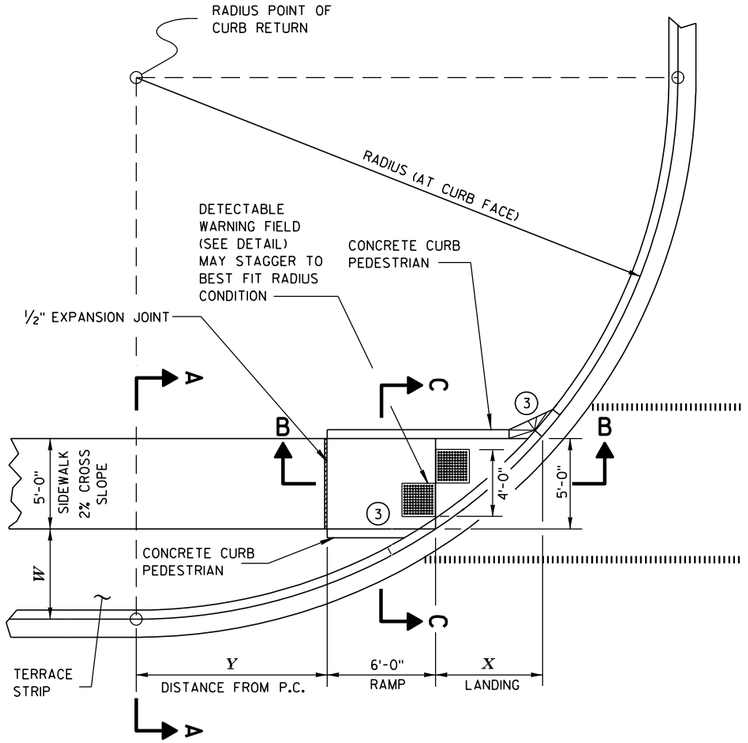
LEGEND

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

CURB RAMPS TYPE 4A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 8 D 5-14c



CURB RAMP TYPE 4B
PLAN VIEW

GENERAL NOTES

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

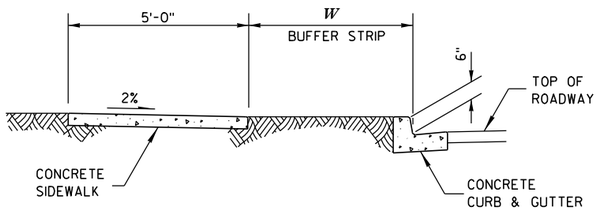
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

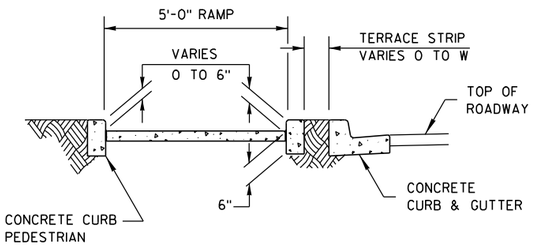
(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

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"
70 FEET	12'-2¾"	14'-3¼"	11'-¼"	17'-4"	10'-1"	19'-11¾"	9'-3¾"	22'-4¼"	8'-8¼"	24'-6¼"
80 FEET	13'-2"	15'-8½"	11'-10½"	18'-11¾"	10'-10¾"	21'-10"	10'-1"	24'-4¾"	9'-5"	26'-8¾"
90 FEET	14'- ½"	17'-½"	12'-8¼"	20'-6½"	11'-7¾"	23'-7"	10'-9¾"	26'-3¾"	10'-1¼"	28'-9½"
100 FEET	14'-10½"	18'-3¾"	13'-5½"	22'-0"	12'-4¼"	25'-2¾"	11'-5¾"	28'-1½"	10'-9"	30'-9"

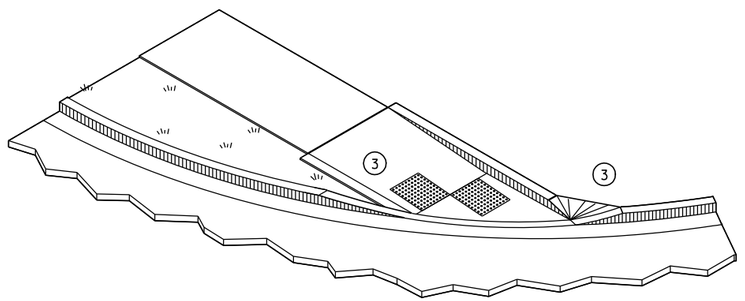
INTERMEDIATE RADII CAN BE INTERPOLATED



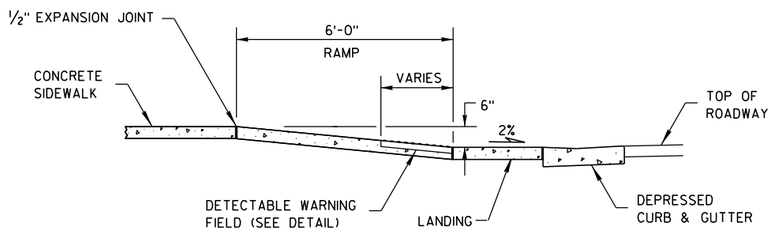
SECTION A-A



SECTION C-C



ISOMETRIC VIEW



SECTION B-B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

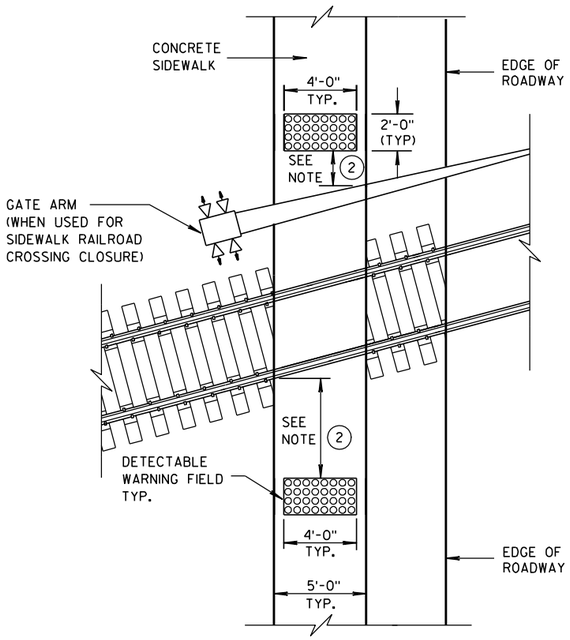
PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B

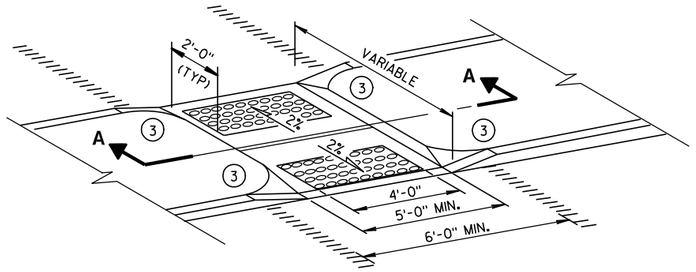
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

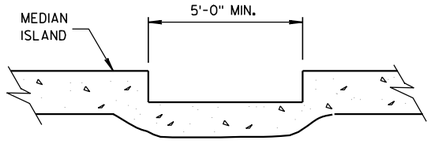
S.D.D. 8 D 5-14d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

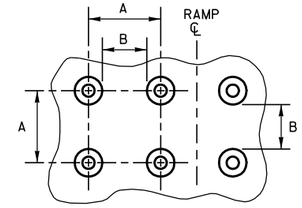
(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.

LEGEND

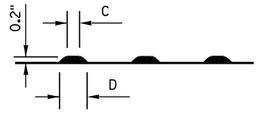
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



PLAN VIEW

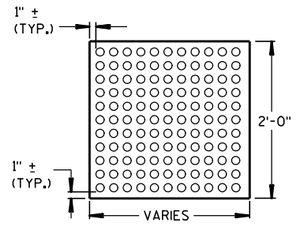
	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

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



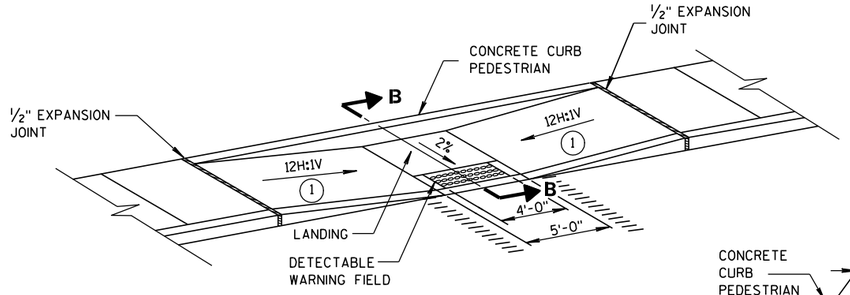
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

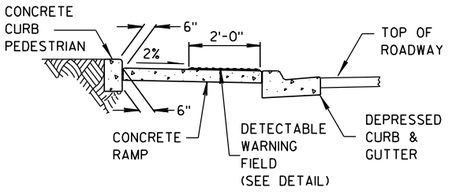


PLAN VIEW

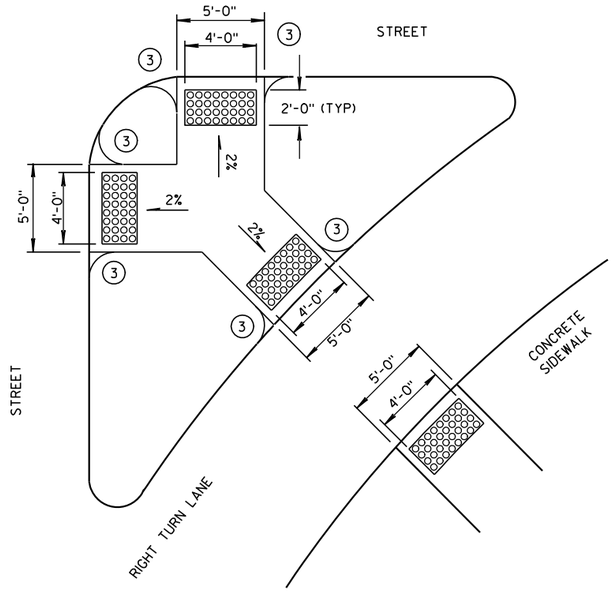
DETECTABLE WARNING FIELD (TYPICAL)



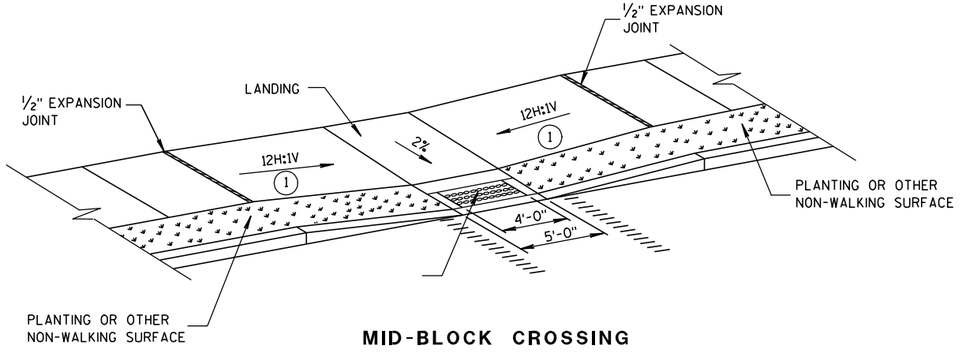
MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



TYPE 6
DETECTABLE WARNING AT ISLANDS



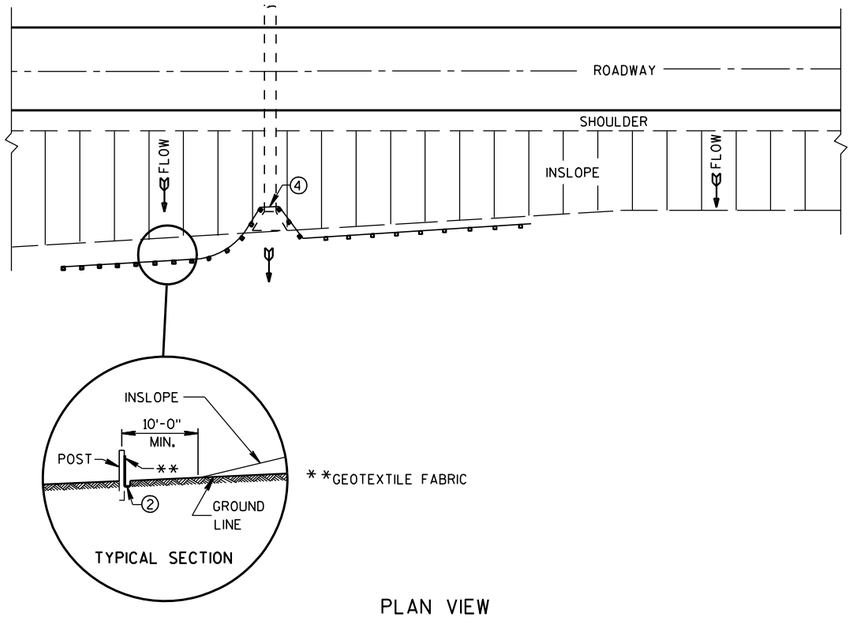
MID-BLOCK CROSSING
TYPE 7B

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

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

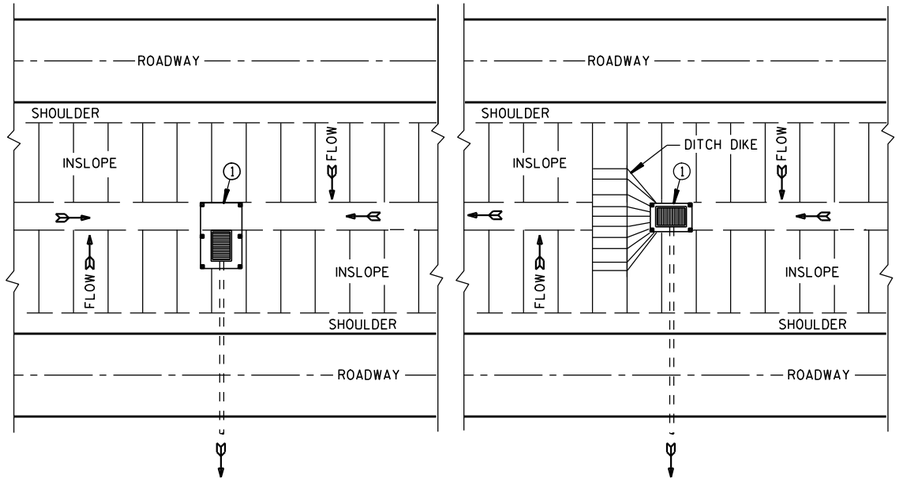
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-9-10 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
63
FHWA
ENT



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



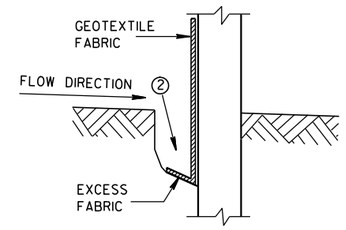
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

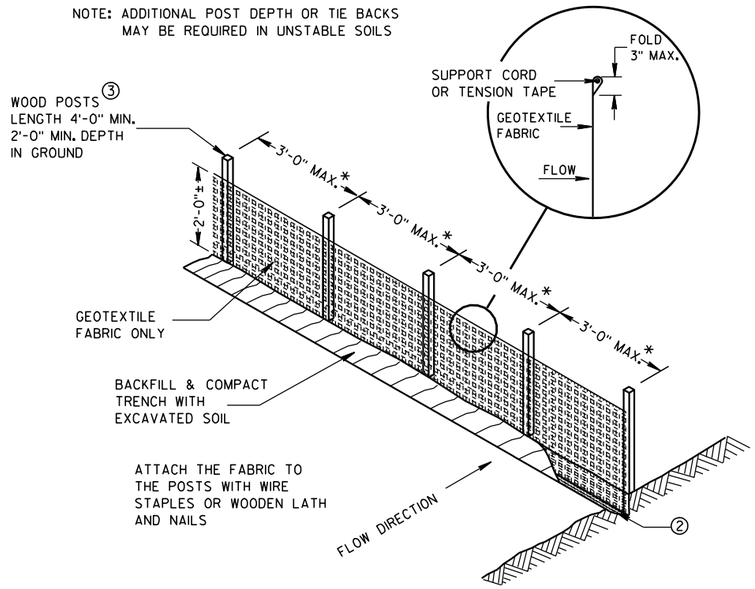
GENERAL NOTES

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

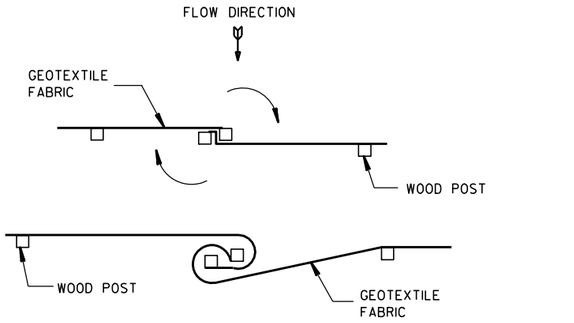
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



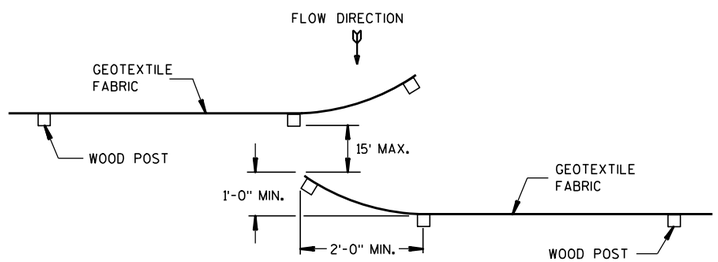
TRENCH DETAIL



SILT FENCE

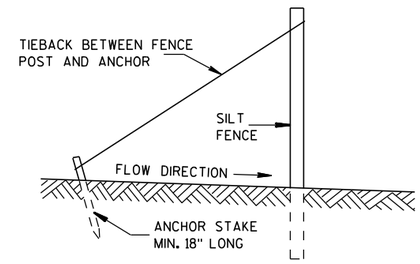


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



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

6

S.D.D. 8 E 9-6

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

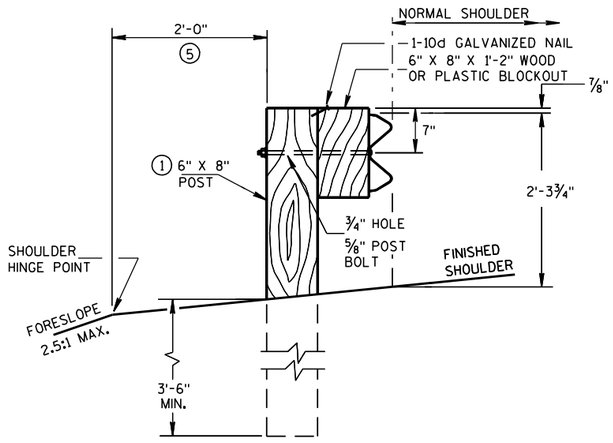
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

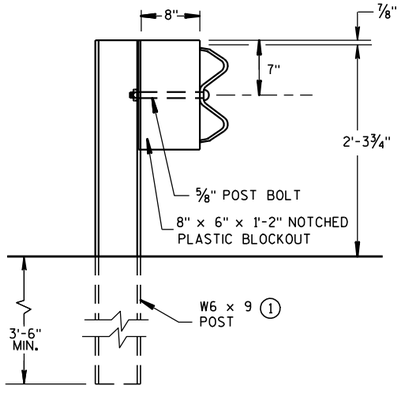
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

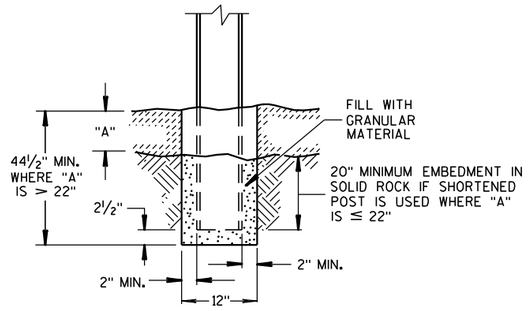
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



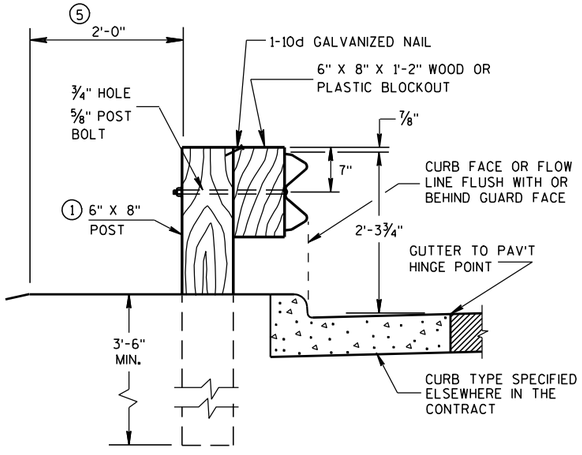
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



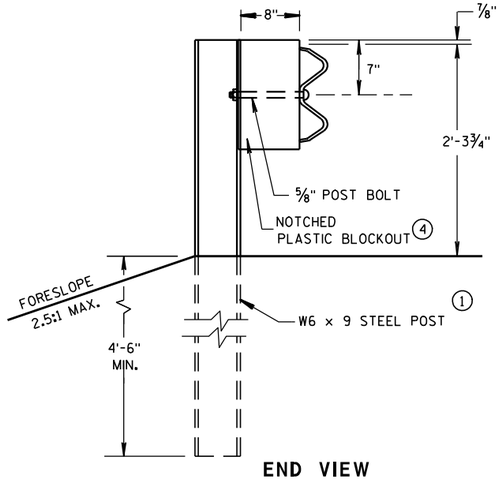
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



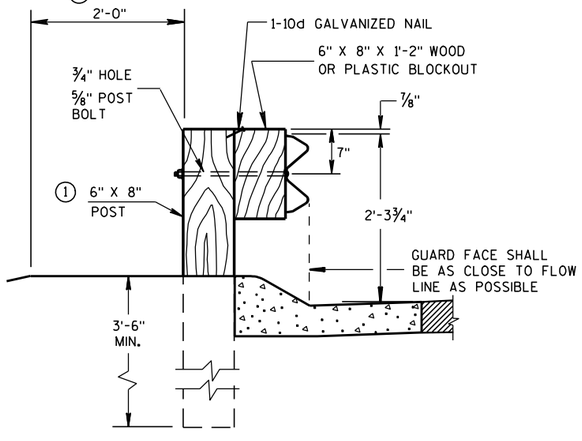
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



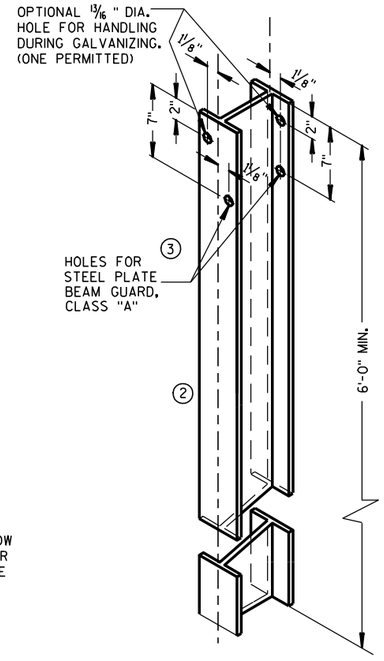
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

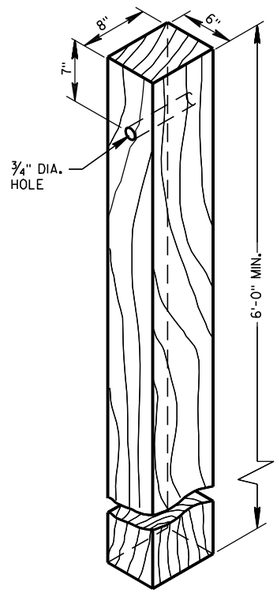


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

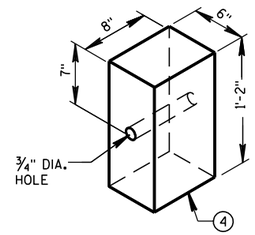


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

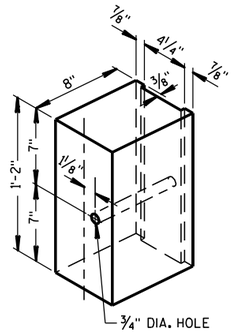
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



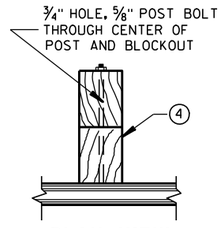
WOOD POST
(6"X8") NOMINAL



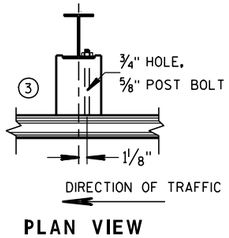
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



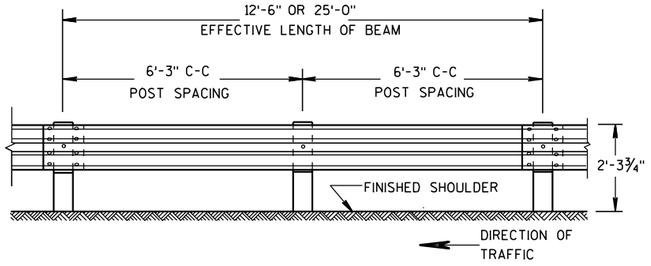
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

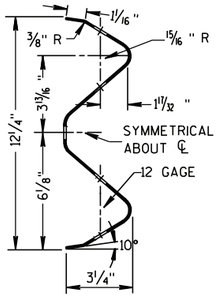
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

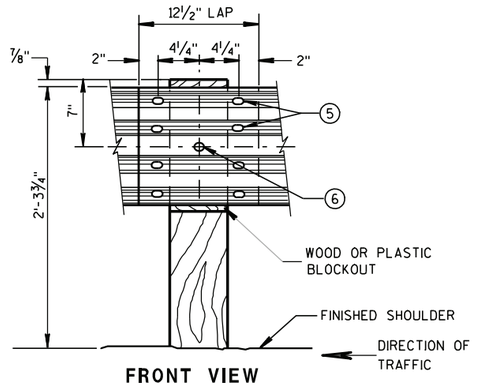


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

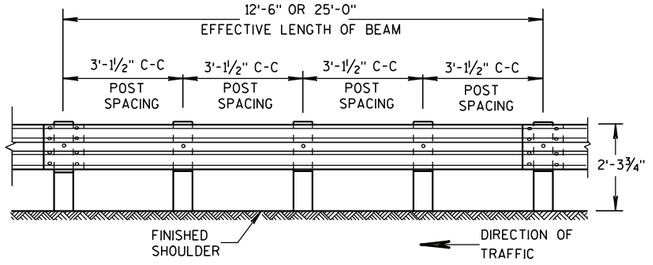


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

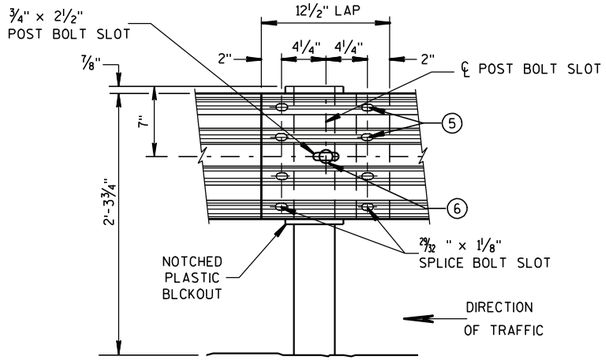
GENERAL NOTES

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



FRONT VIEW

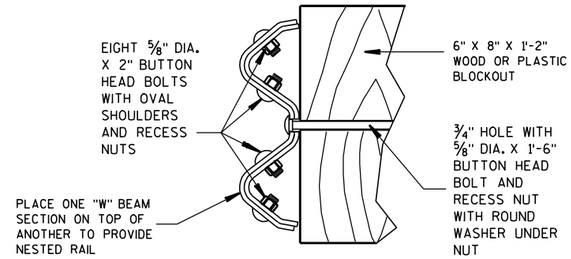
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

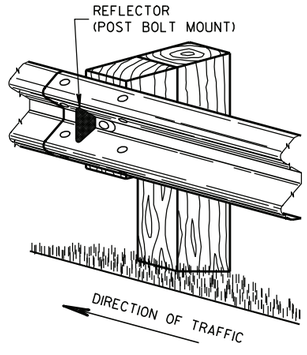


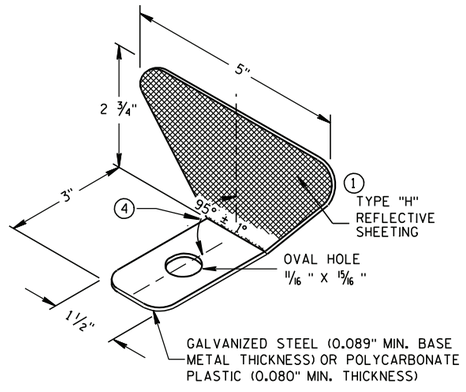
NESTED W BEAM (NW)

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

REFLECTOR SPACING (2)

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



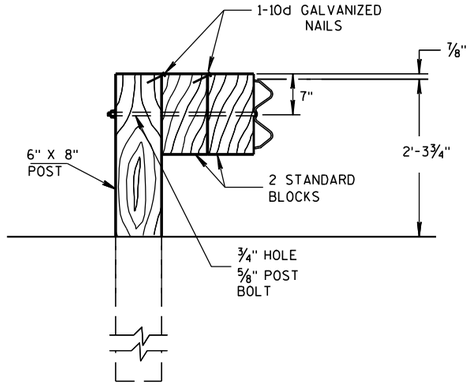


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

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

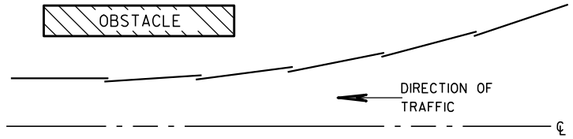
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 15-7b

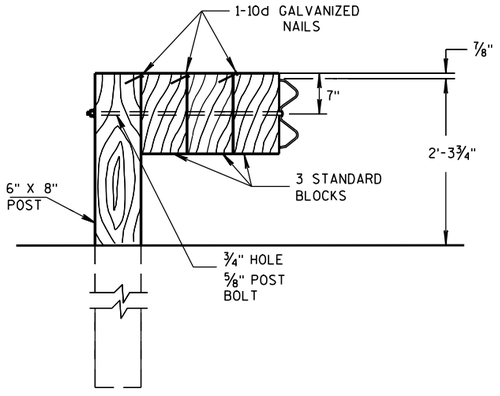


DETAIL FOR DOUBLE BLOCKS

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

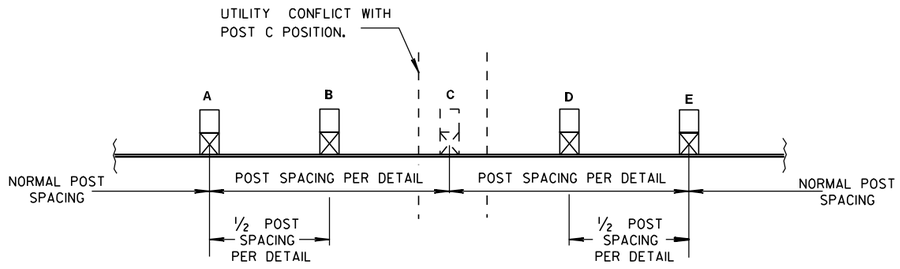


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

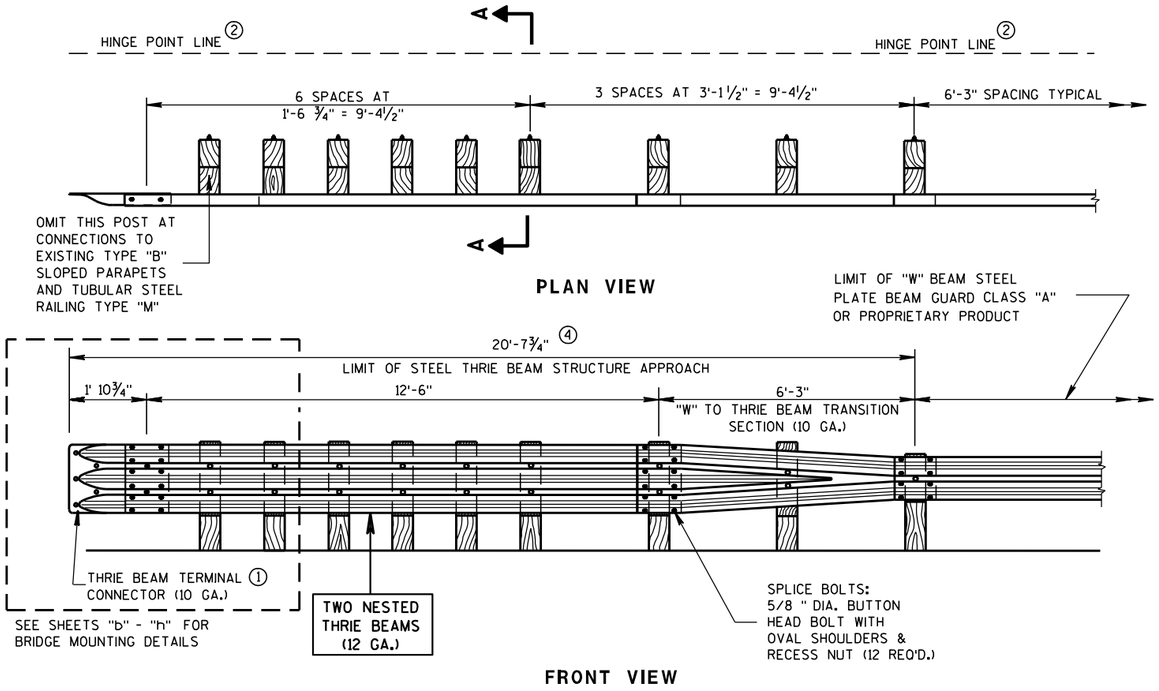
APPROVED

5/23/11	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6

S.D.D. 14 B 15-7c



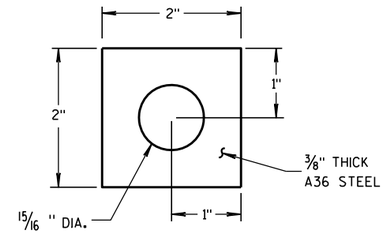


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

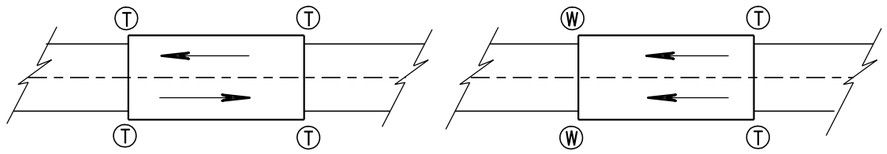
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



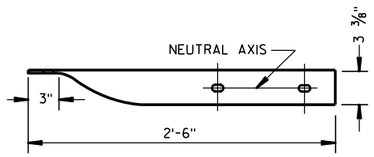
TWO WAY TRAFFIC

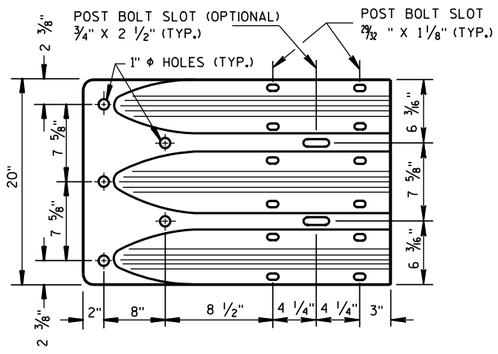
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

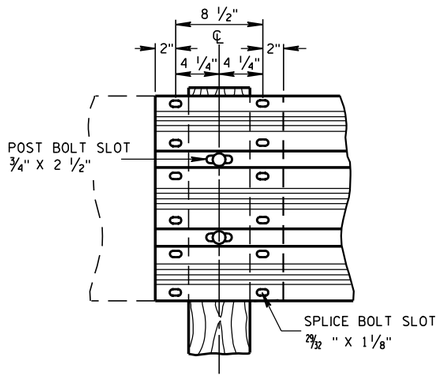
(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

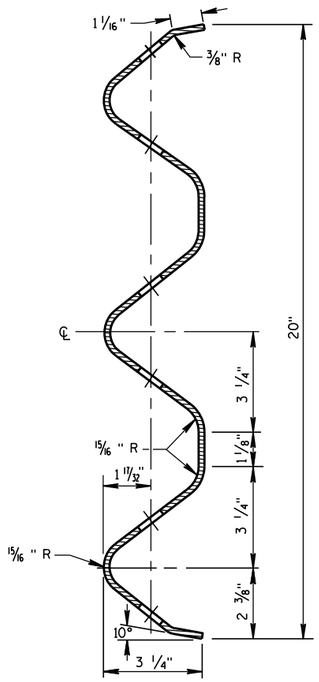




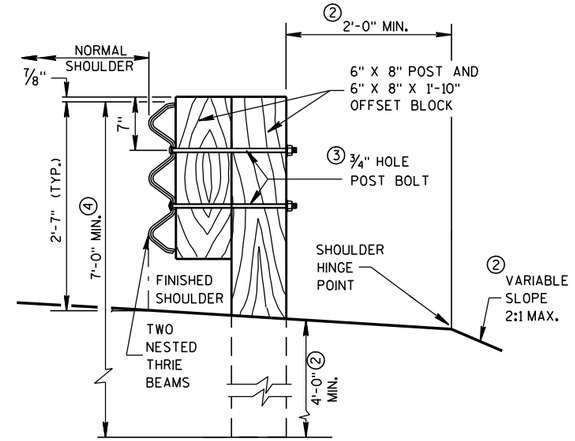
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

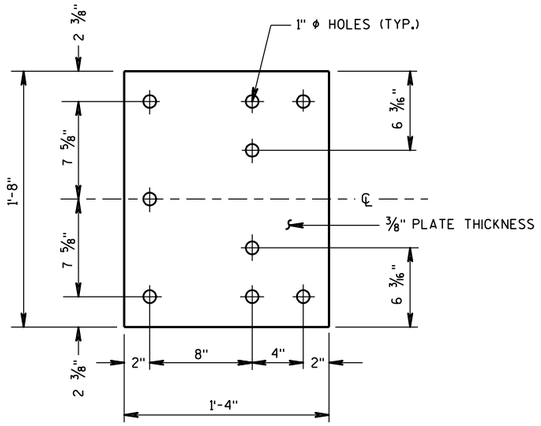
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

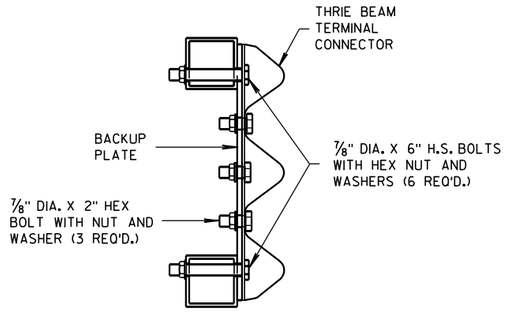
8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA



BACK-UP PLATE DETAIL



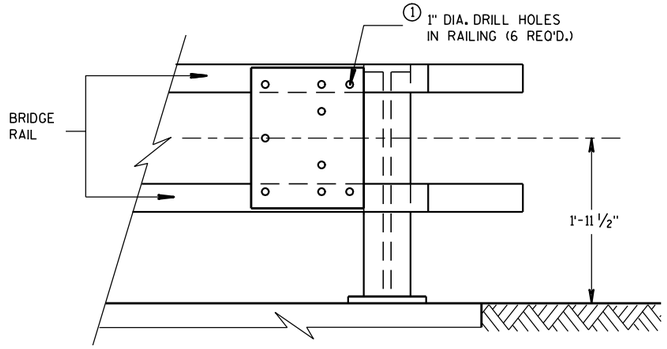
SECTION G-G

GENERAL NOTES

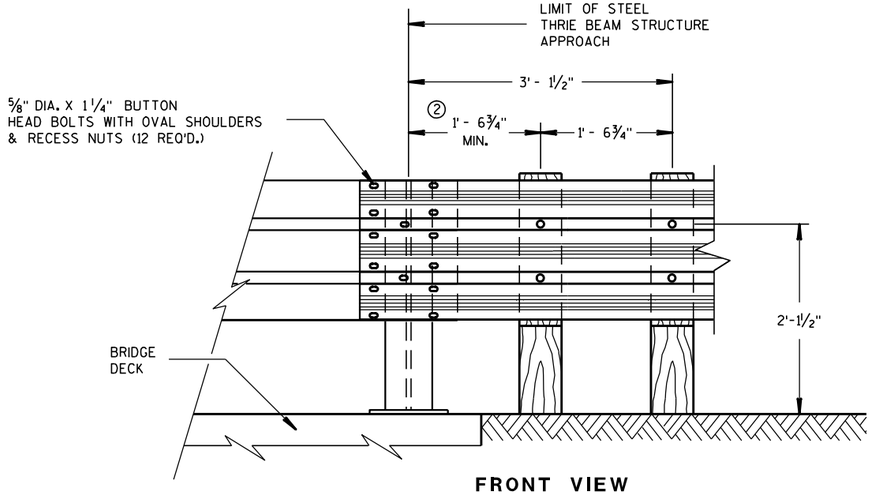
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

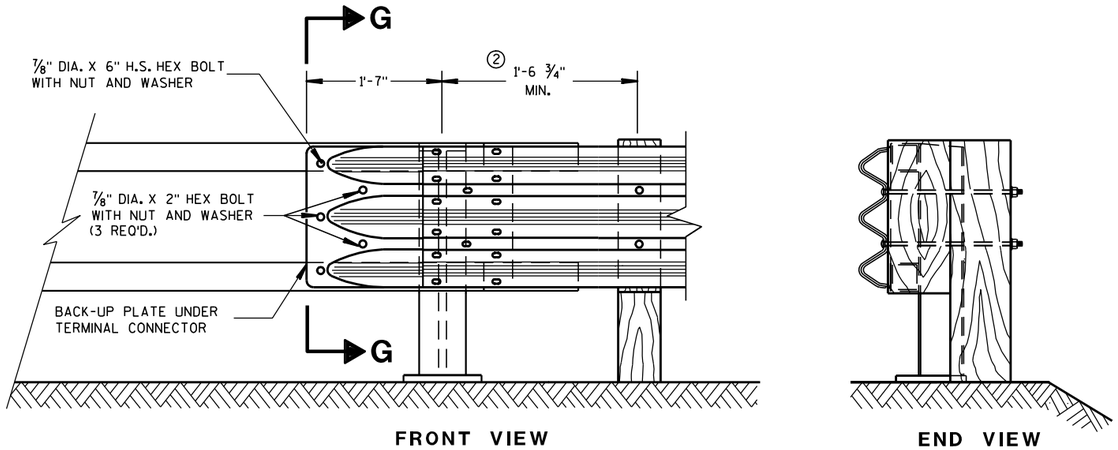


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

STATE OF WISCONSIN
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APPROVED

8/31/2012 DATE — /S/ Jerry H ... ROADWAY STANDARDS ENGINEER — ENT

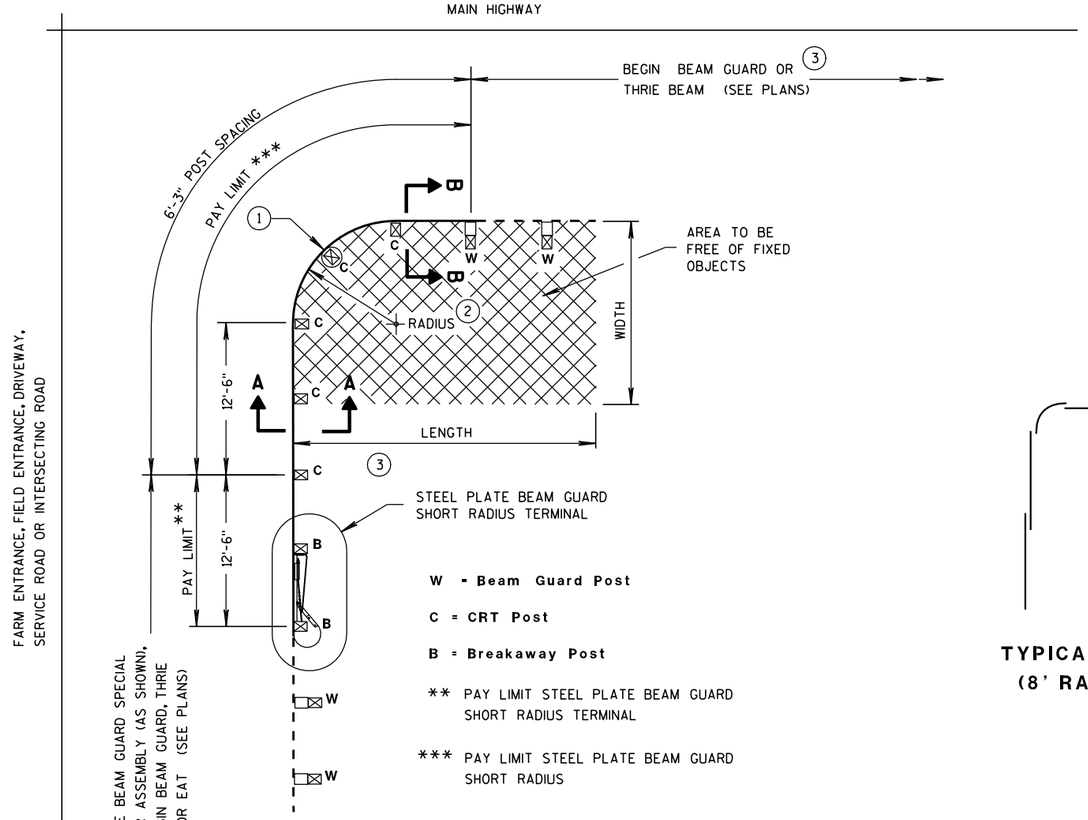
FHWA

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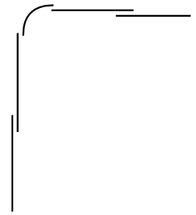
S.D.D. 14 B 20-11e

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S.D.D. 14 B 20-11e



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

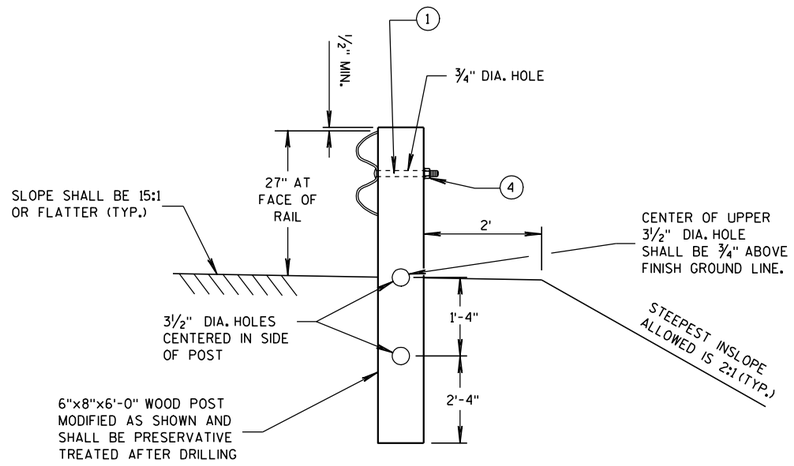
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

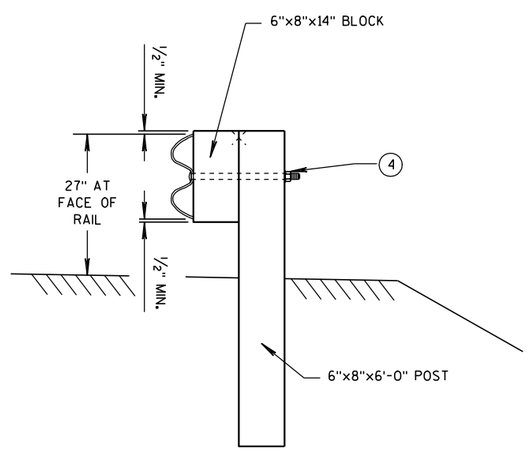
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

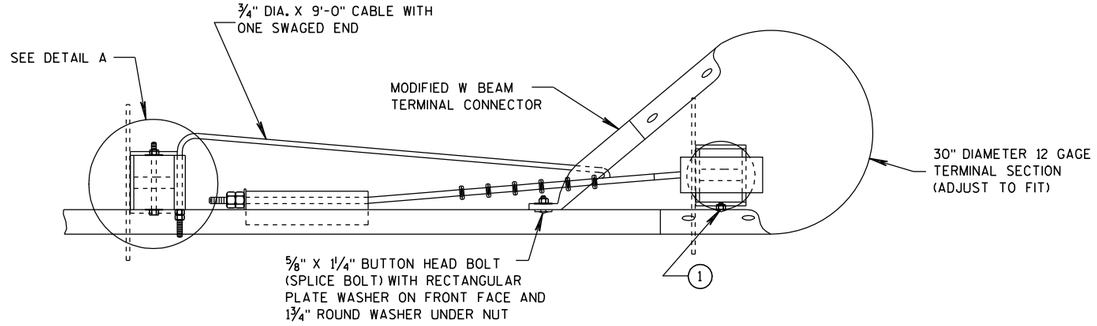
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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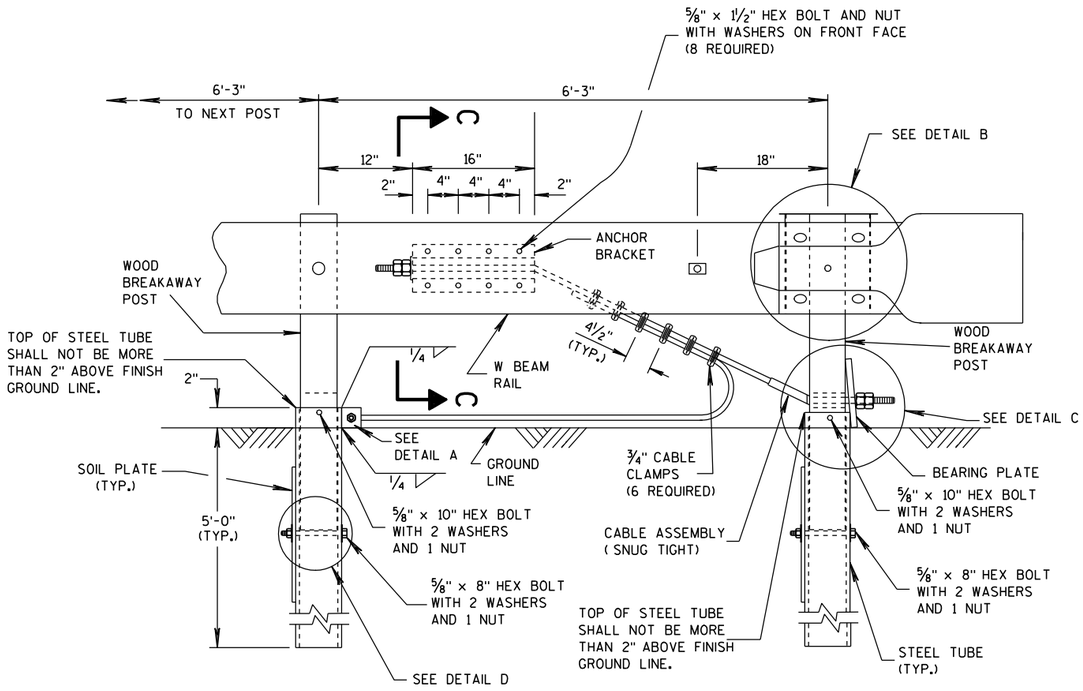
S.D.D. 14 B 27-1a

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S.D.D. 14 B 27-1a



PLAN VIEW



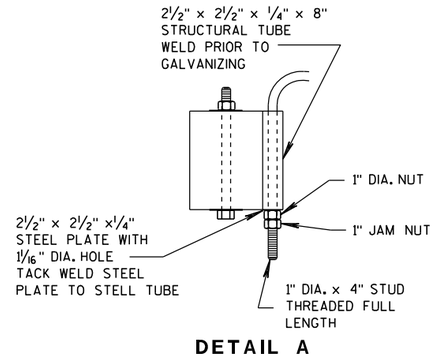
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

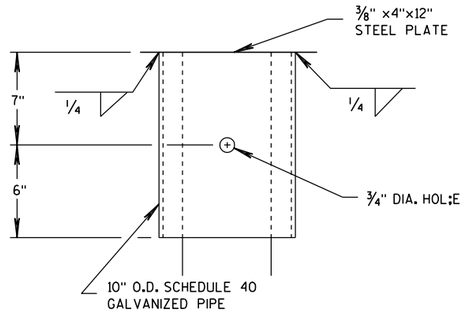
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

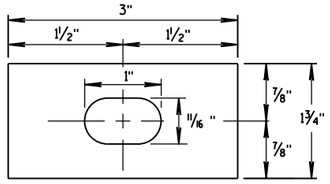
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

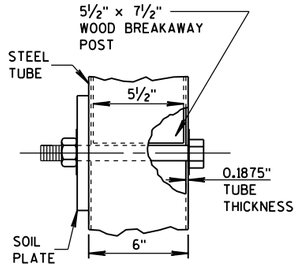
S.D.D. 14 B 27-1b

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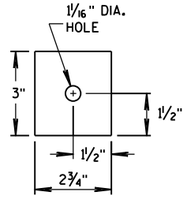
S.D.D. 14 B 27-1b



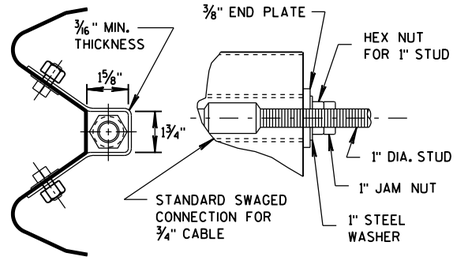
RECTANGULAR PLATE WASHER



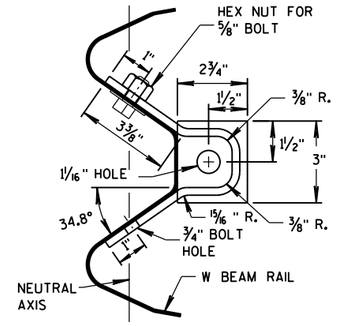
DETAIL D



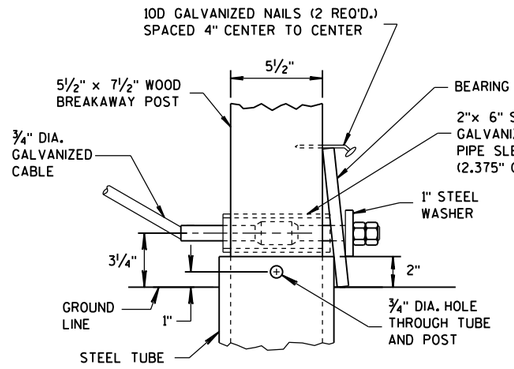
END PLATE



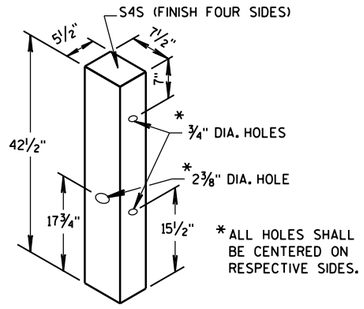
SECTION C-C
(END PLATE REMOVED)



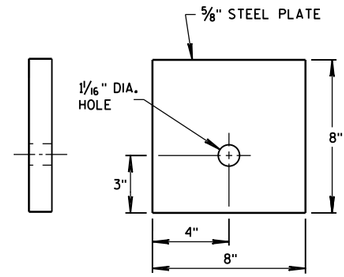
ANCHOR BRACKET



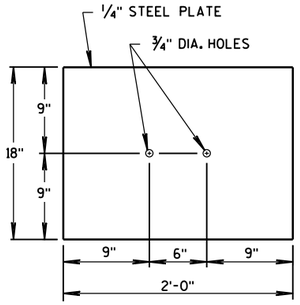
DETAIL C



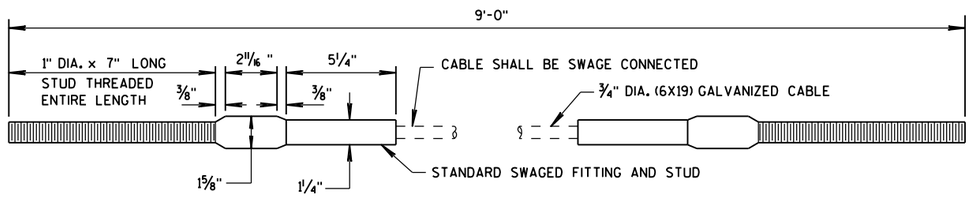
WOOD BREAKAWAY POST



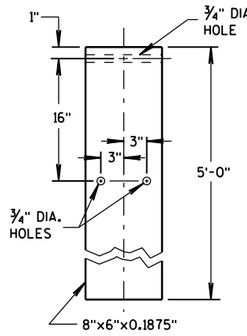
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY



STEEL TUBE

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c

GENERAL NOTES

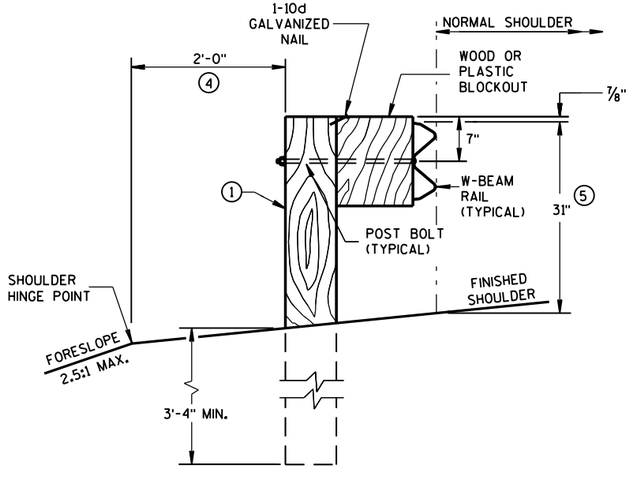
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

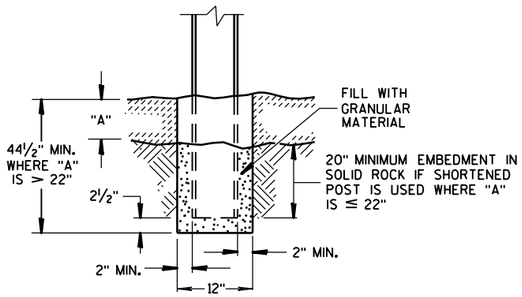
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



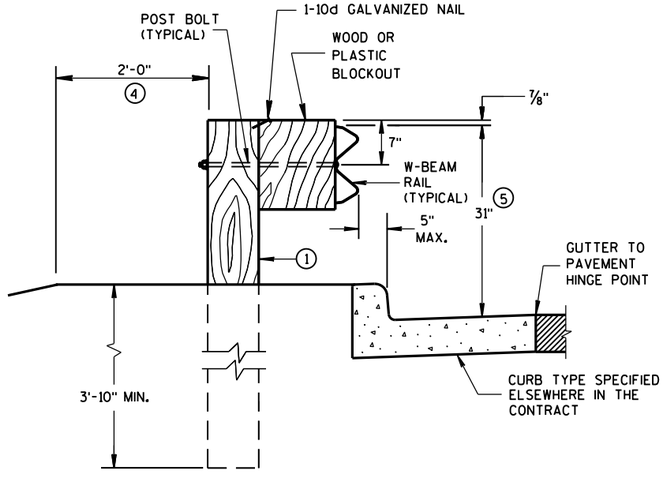
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



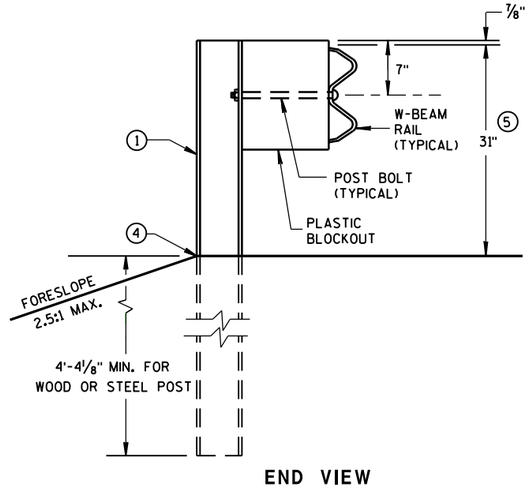
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



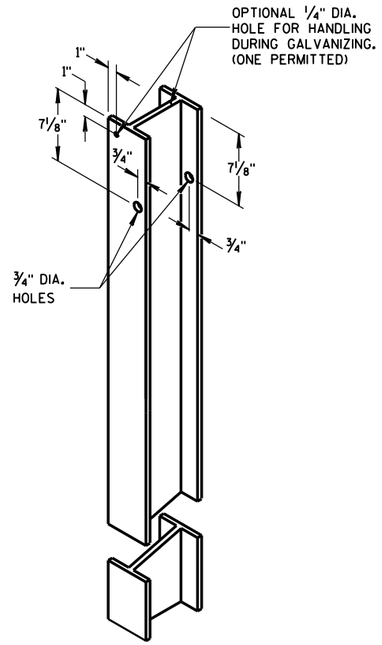
END VIEW

LOCATED ALONG A CURBED ROADWAY

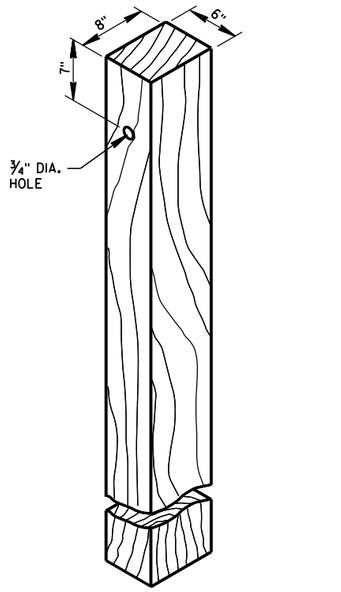


END VIEW

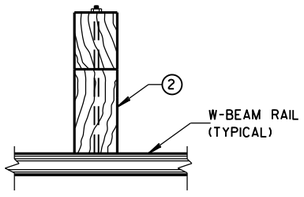
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



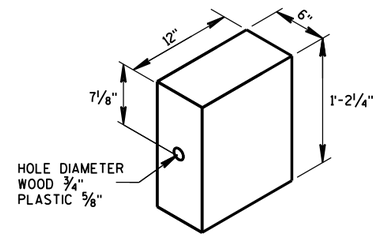
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



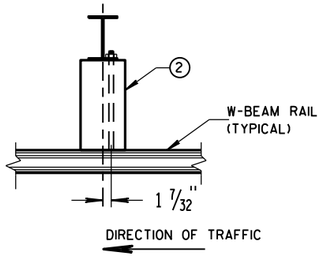
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

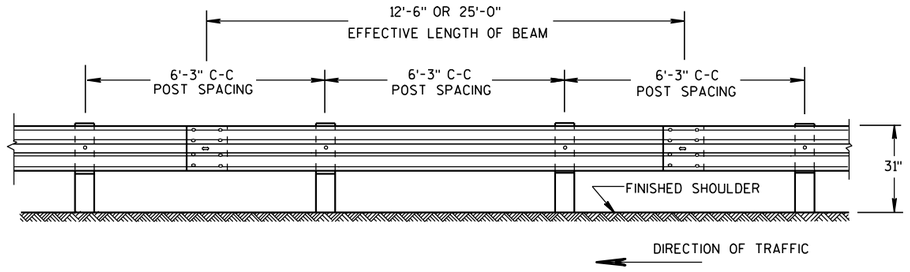


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

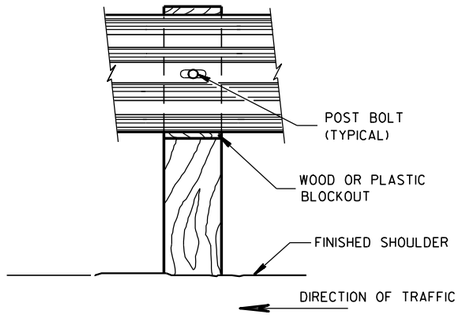
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



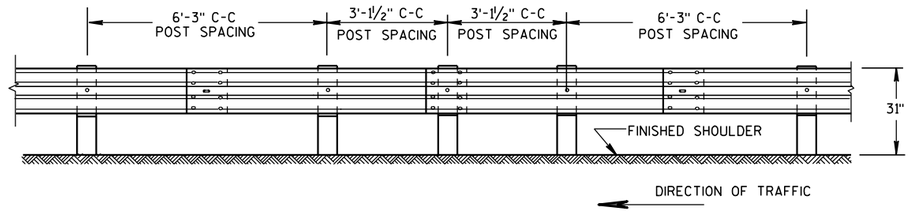
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

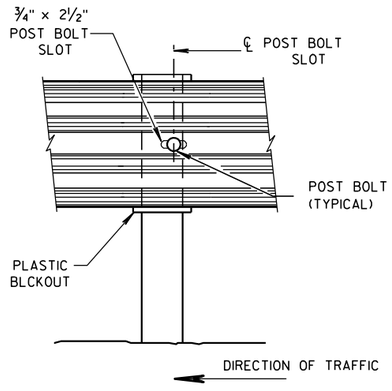
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

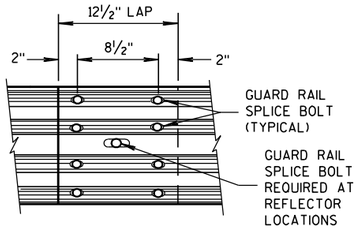


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

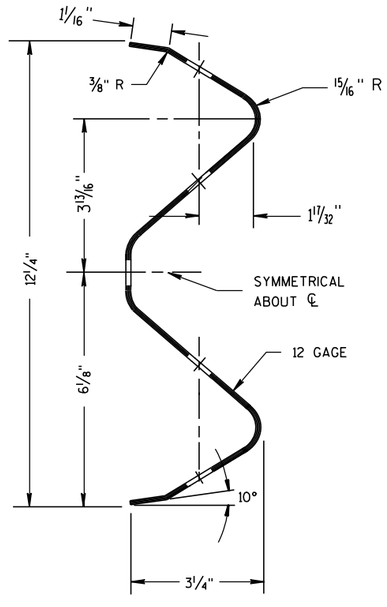


FRONT VIEW AT STEEL POST

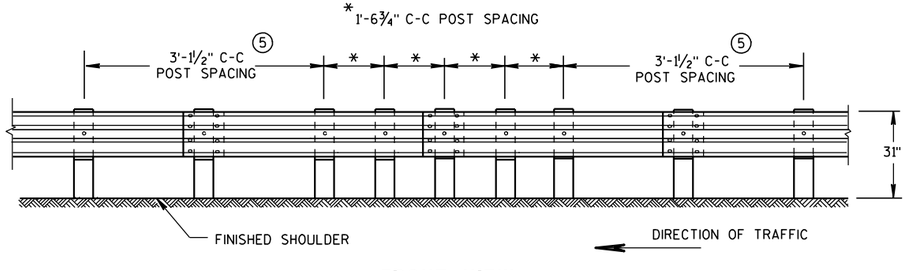


FRONT VIEW

MID-SPAN BEAM SPLICE

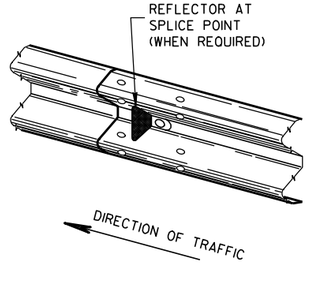


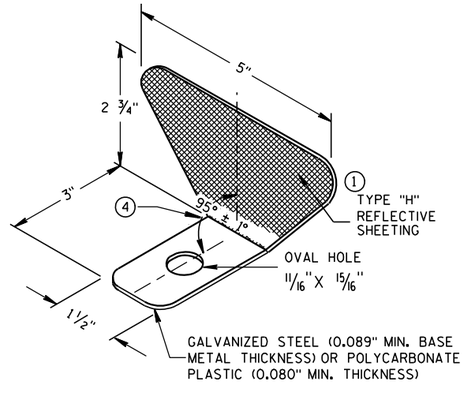
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

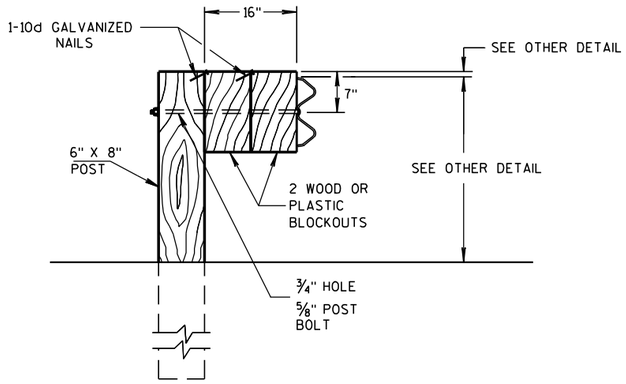
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

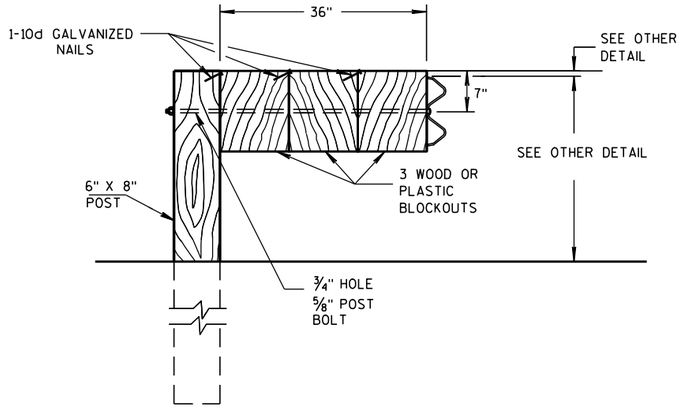
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

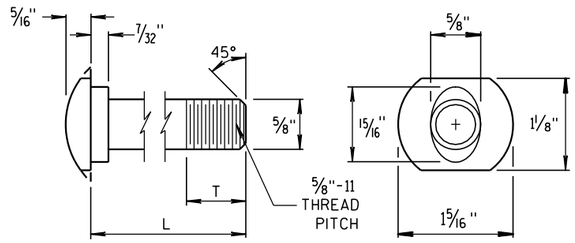


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

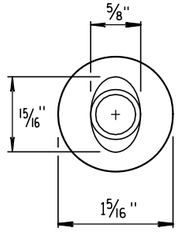
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

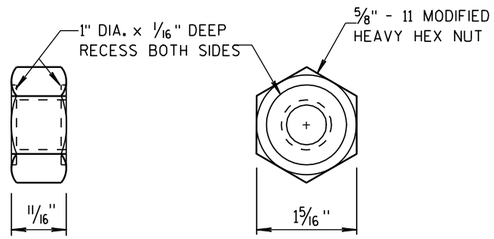


POST BOLT TABLE

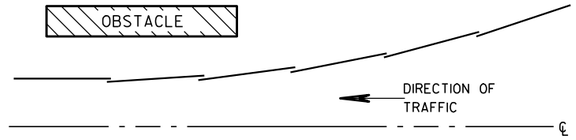
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

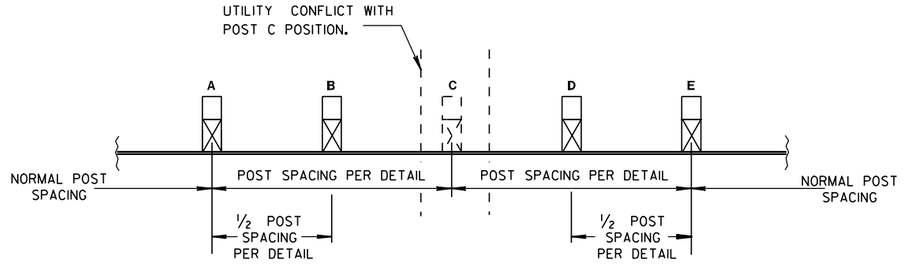


POST BOLT AND RECESS NUT

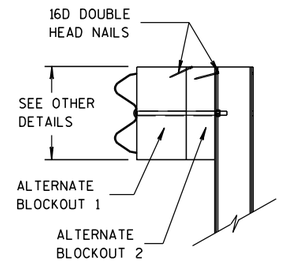


PLAN VIEW

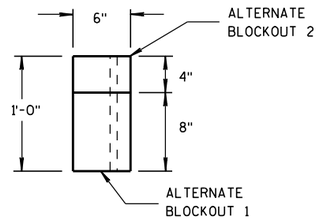
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

75

ENT

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

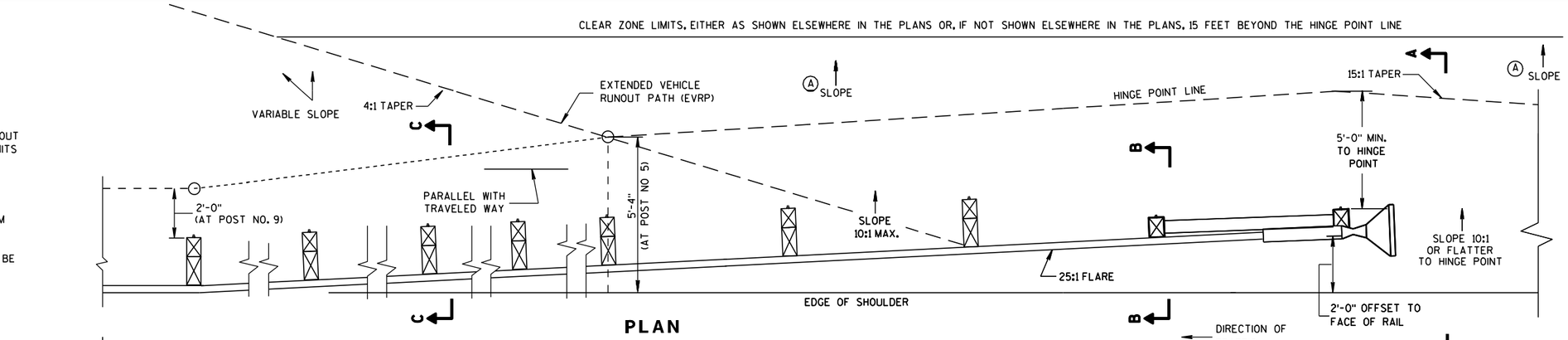
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

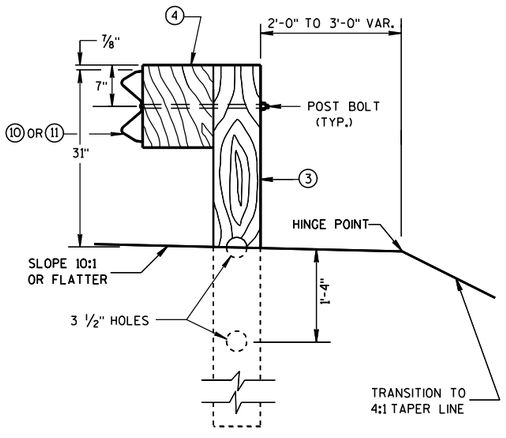
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

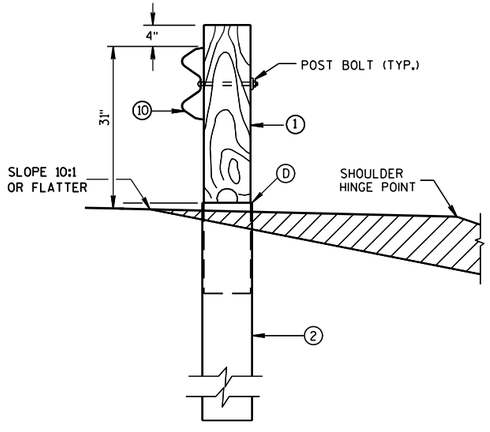
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

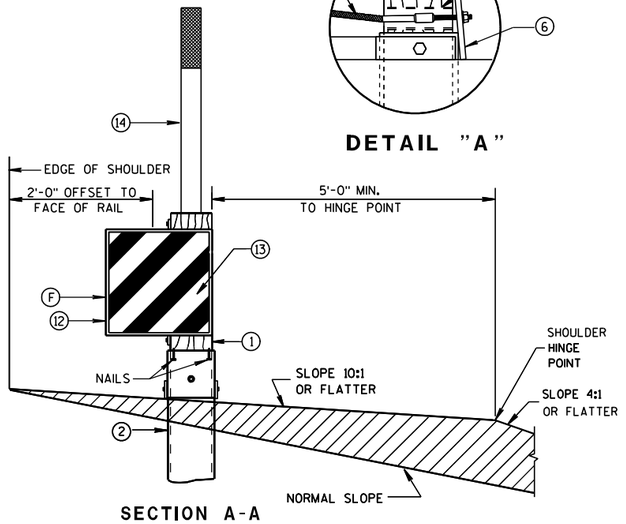




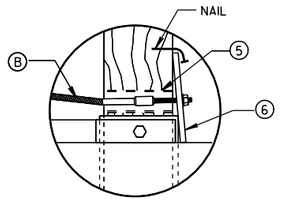
SECTION C-C
TYPICAL AT POST NOS. 3-9



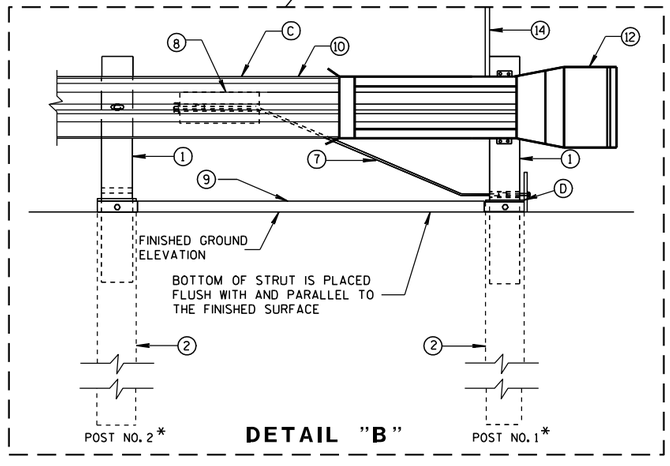
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

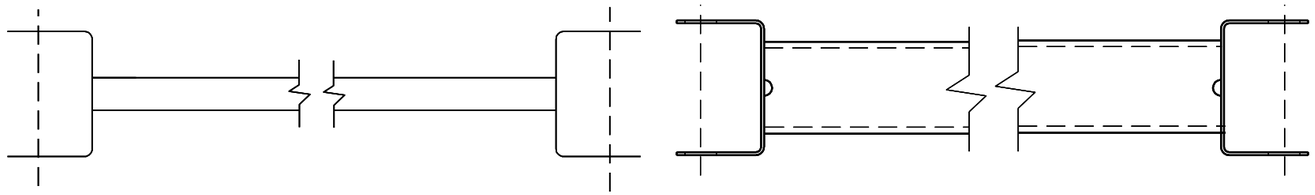


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

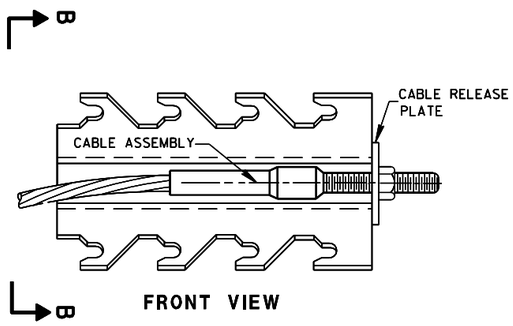
6
S.D.D. 14 B 44-1a



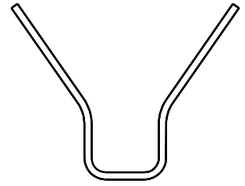
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

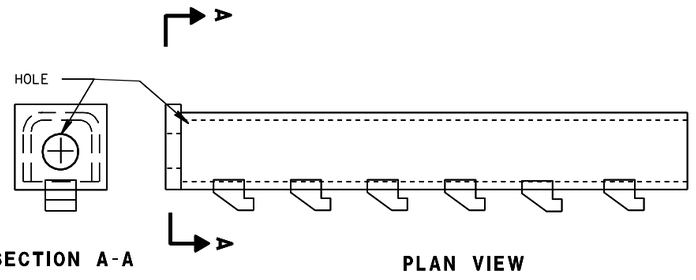
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



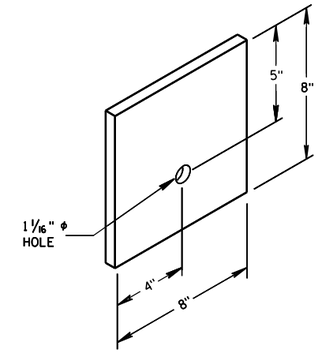
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



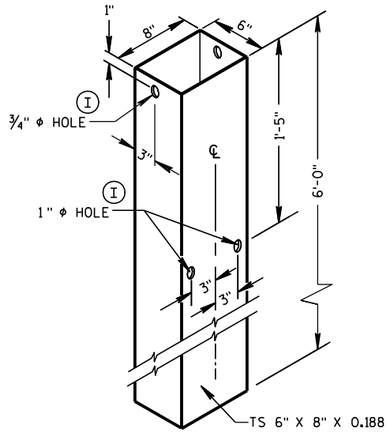
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

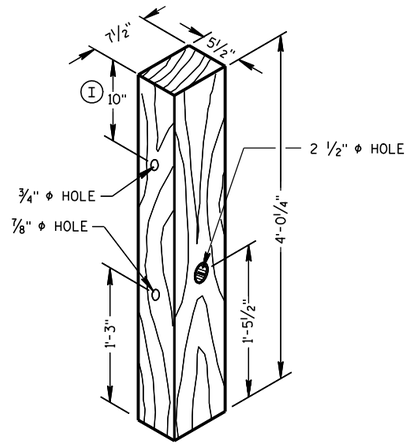
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

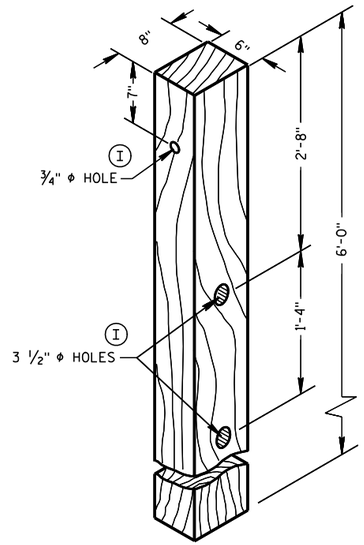


FOUNDATION TUBE (2)



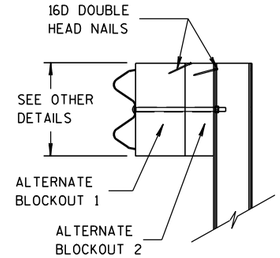
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

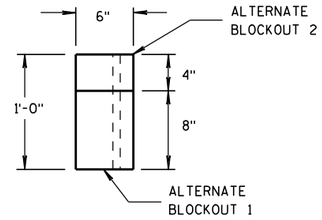


POSTS NUMBER 3-9

WOOD CRT POST (3)

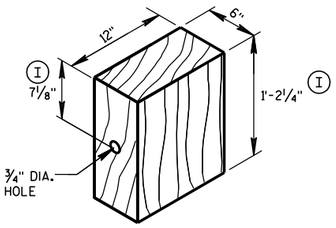


SIDE VIEW



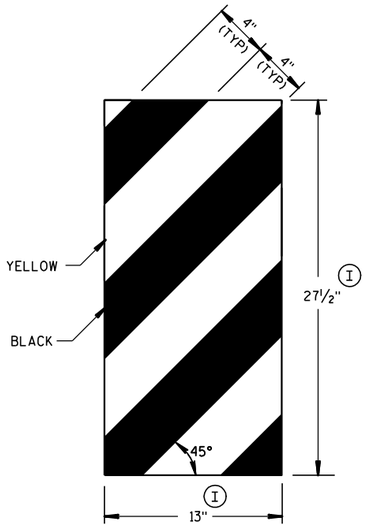
TOP VIEW

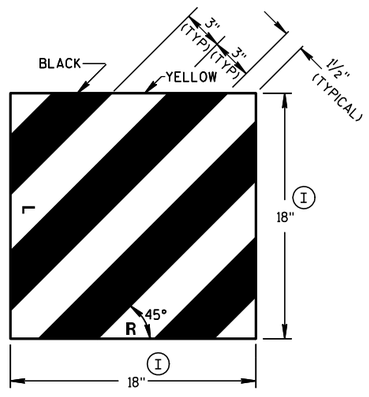
ALTERNATE WOOD BLOCKOUT DETAIL



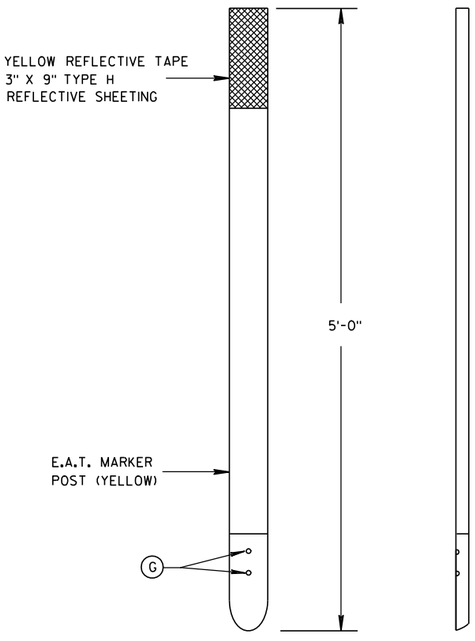
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





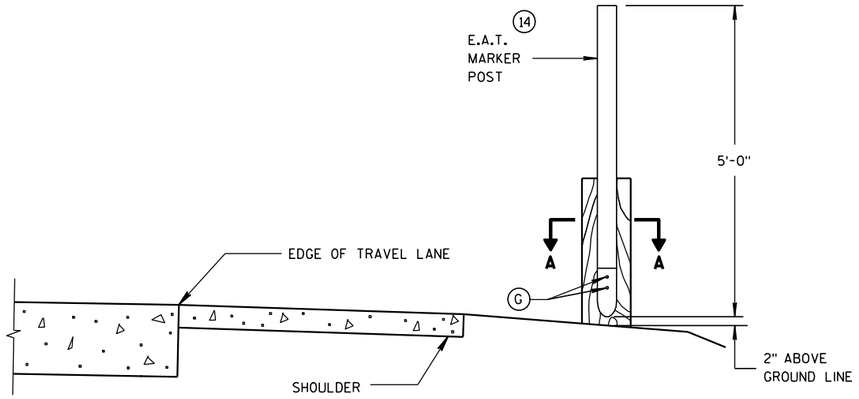
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

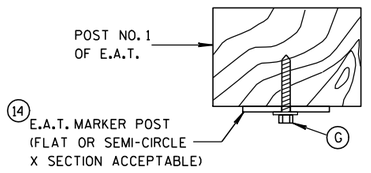
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



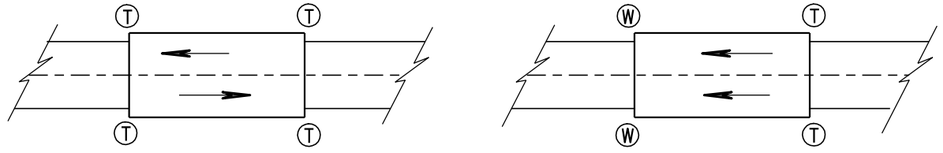
SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
78
[illegible]ENT
FHWA

6
S.D.D. 14 B 44-1c



TWO WAY TRAFFIC **ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

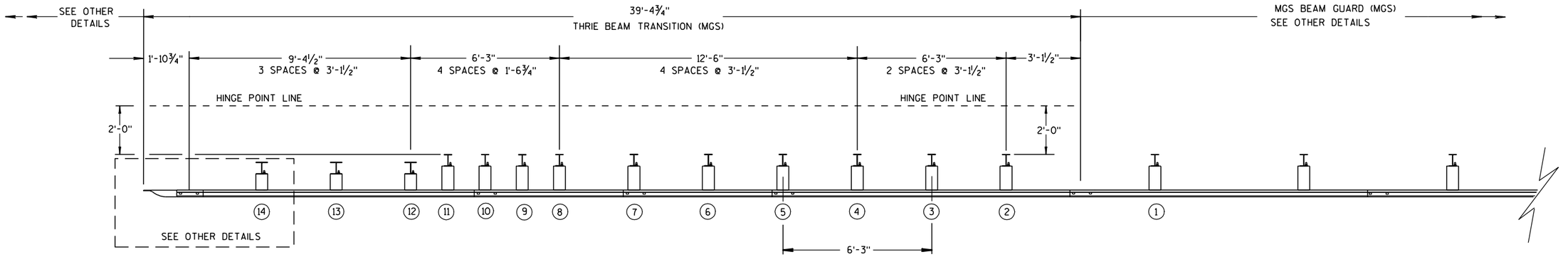
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED DURING EXCAVATION, SEE STANDARD DETAIL DRAWING 14 B 42.

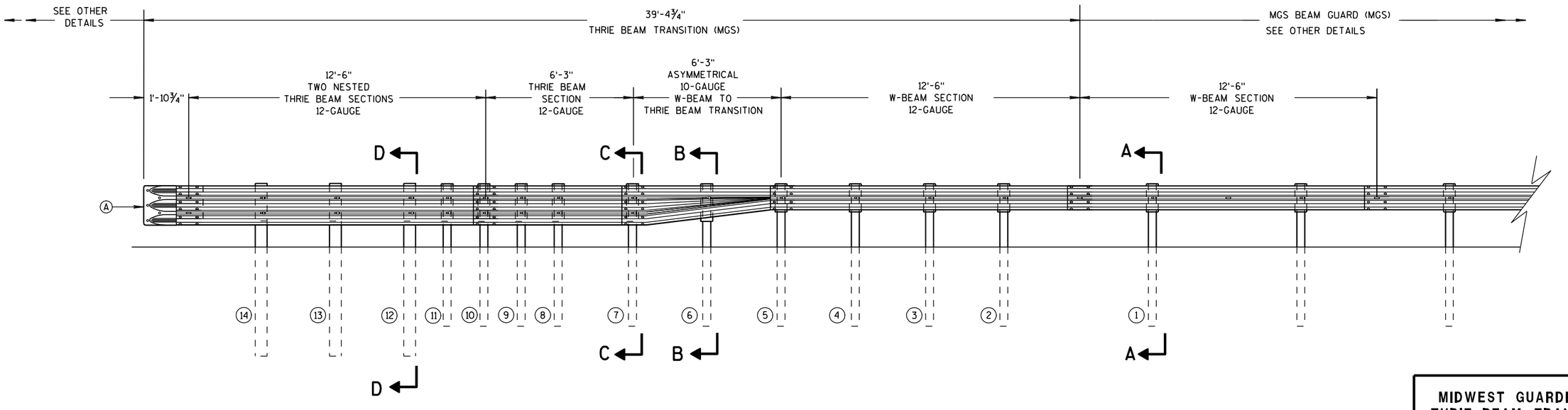
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

(A) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

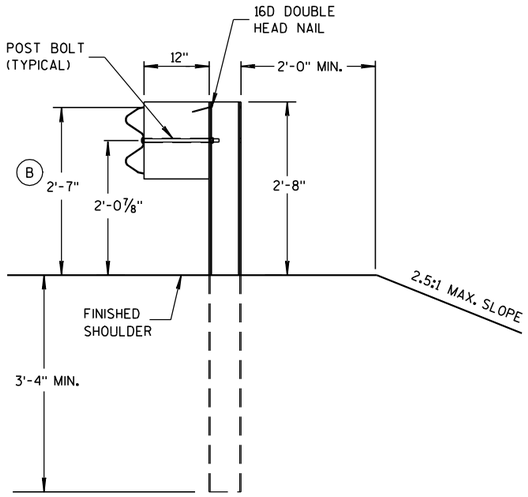
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-2a

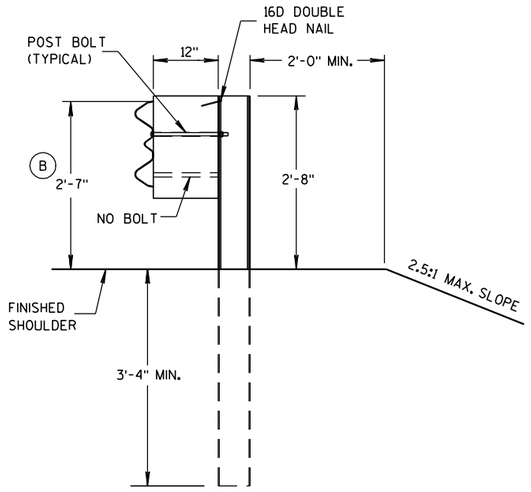
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



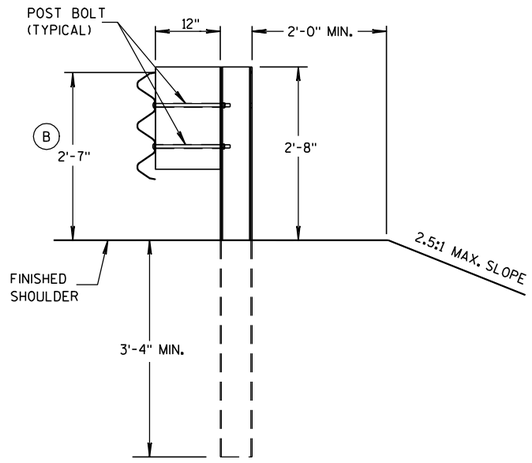
SECTION A-A

POSTS 1-5



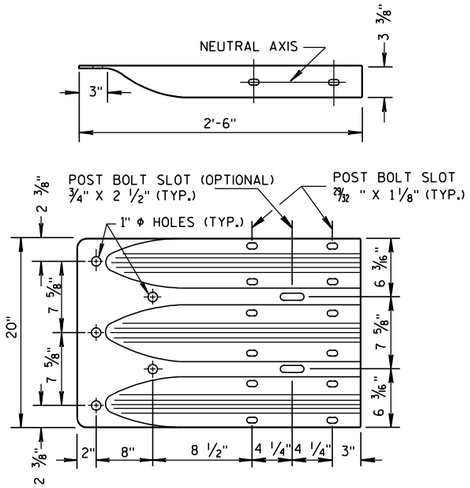
SECTION B-B

POST 6

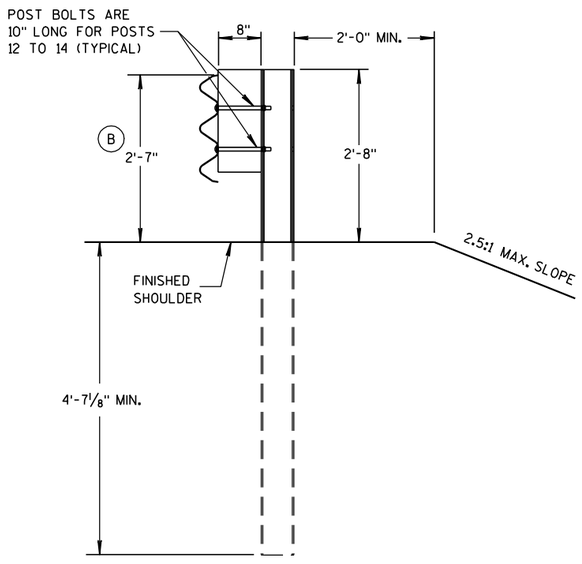


SECTION C-C

POSTS 7-11

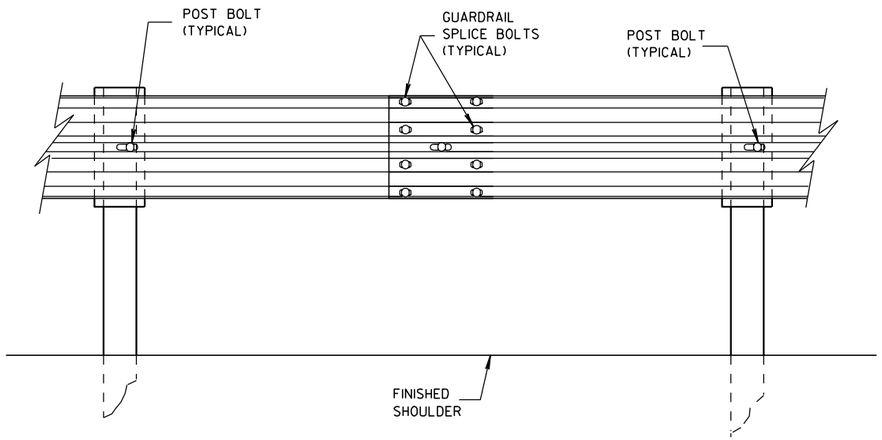


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

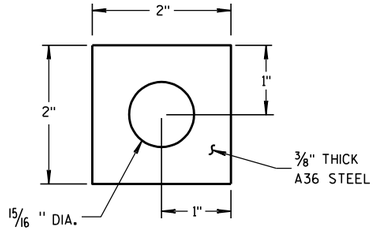
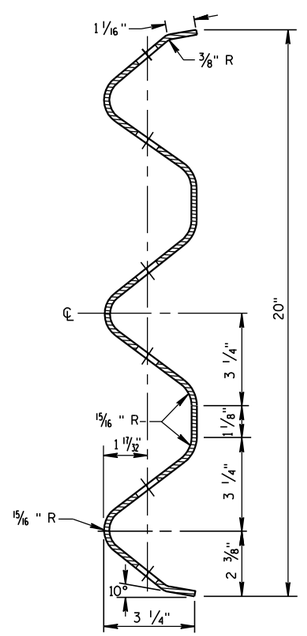


PLATE WASHER DETAIL



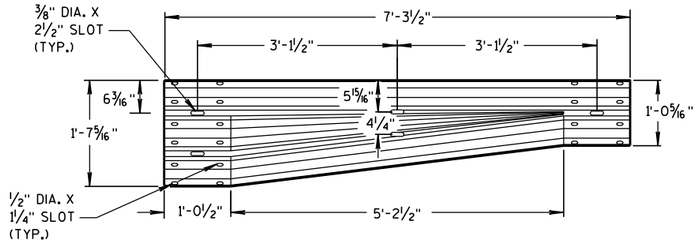
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

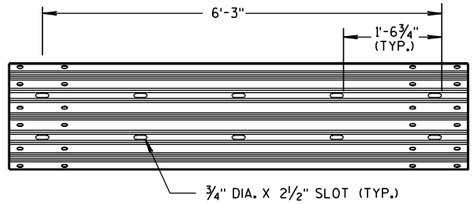
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

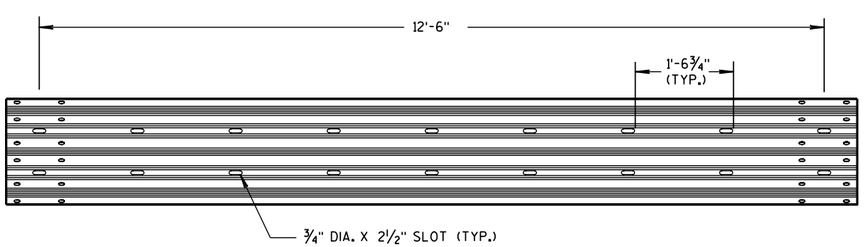
S.D.D. 14 B 45-2b



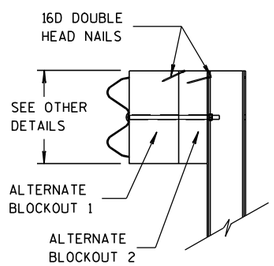
W-BEAM TO THRIE BEAM TRANSITION SECTION



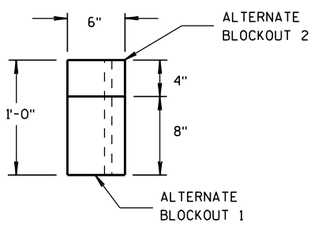
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

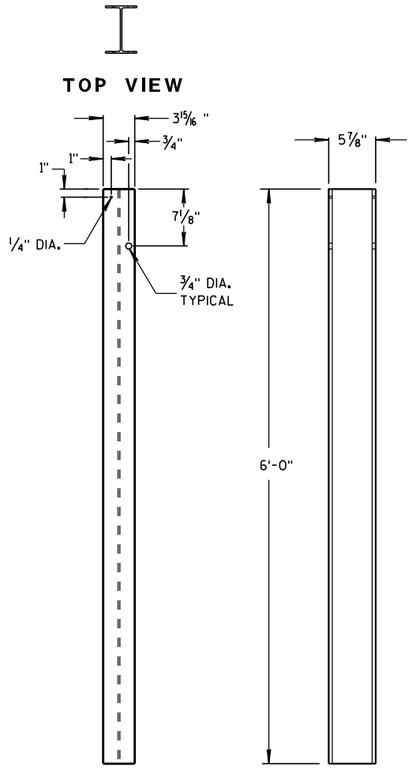


SIDE VIEW

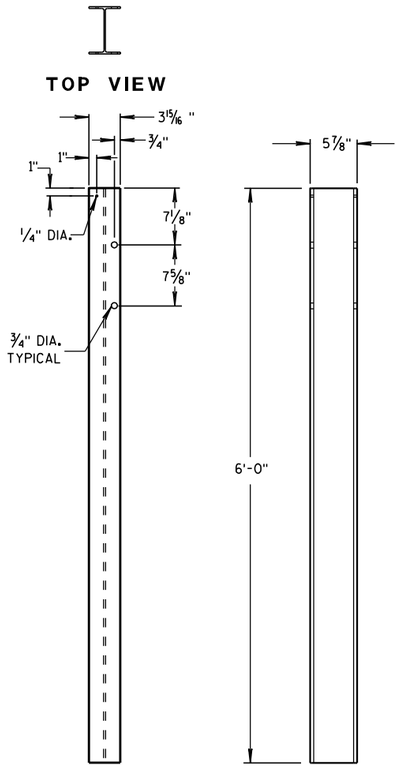


TOP VIEW

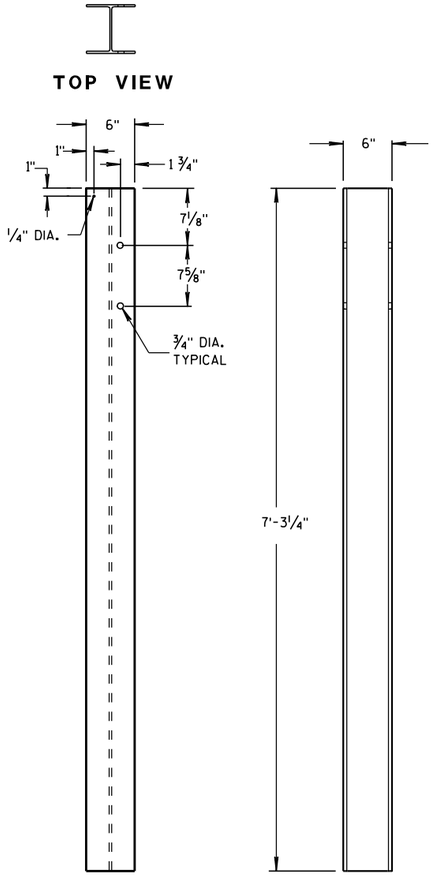
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

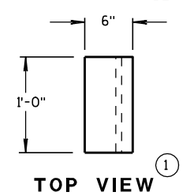


STEEL POSTS 6-11

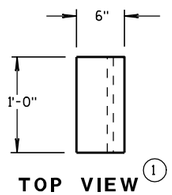


STEEL POSTS 12-14

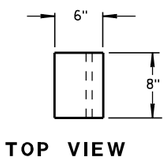
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



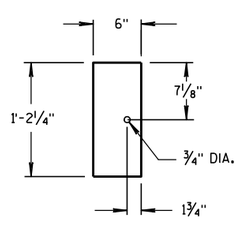
TOP VIEW (1)



TOP VIEW (1)

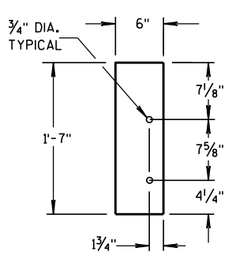


TOP VIEW



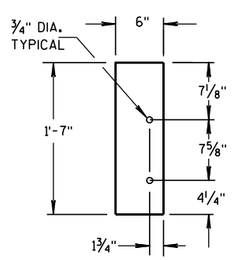
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

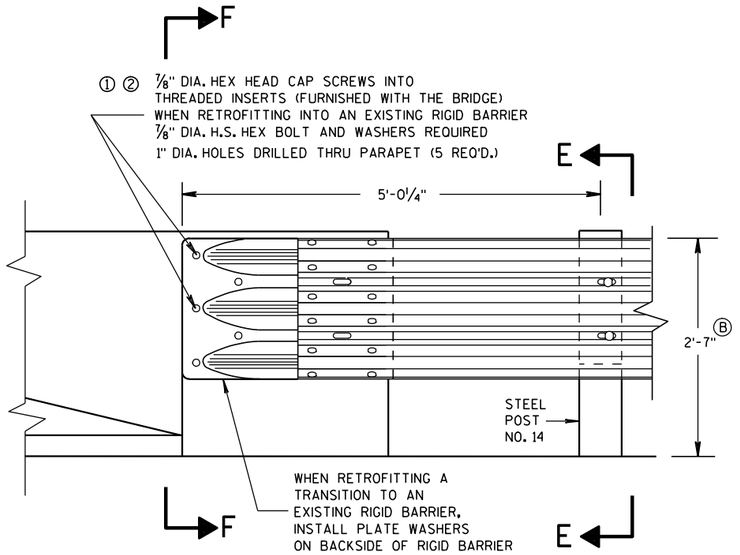
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

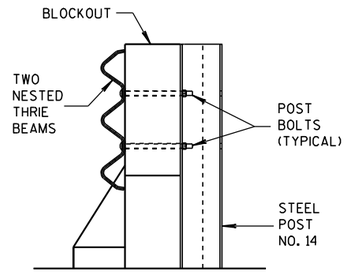
S.D.D. 14 B 45-2c

6

S.D.D. 14 B 45-2c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

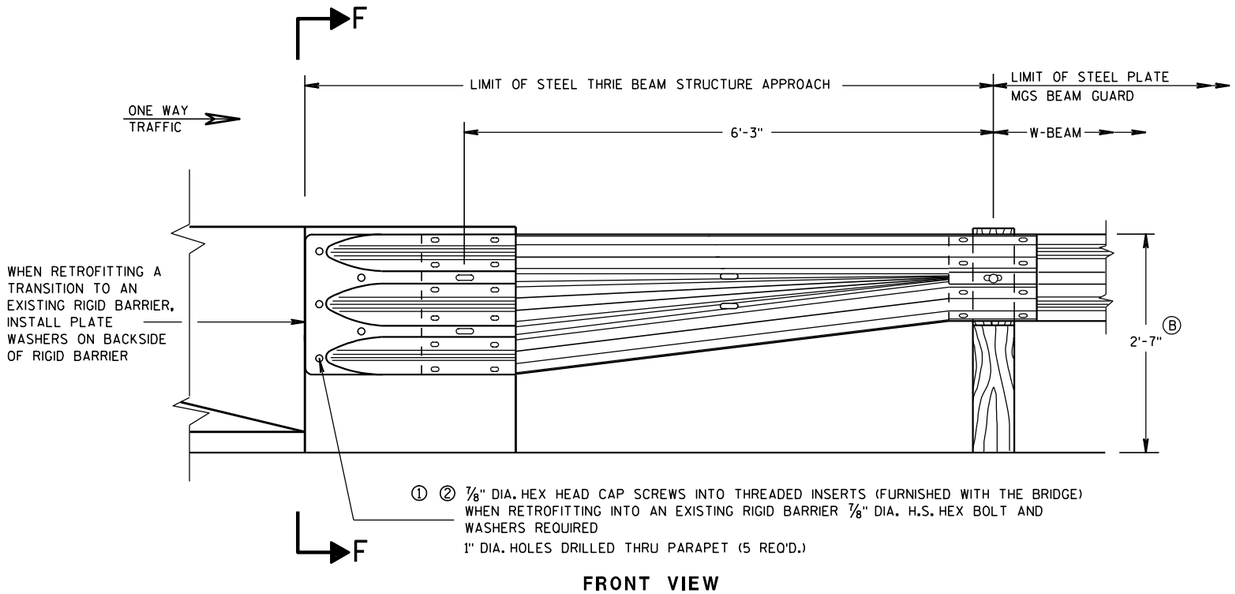
① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAMSTRUCTURAL APPROACH".

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

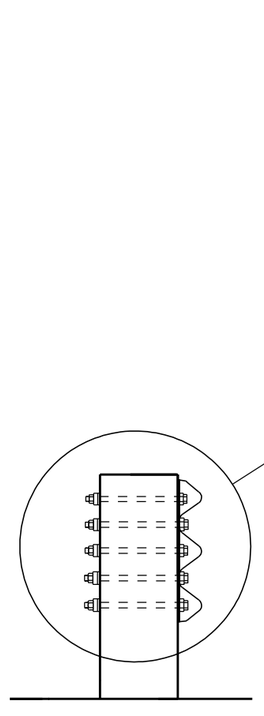
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

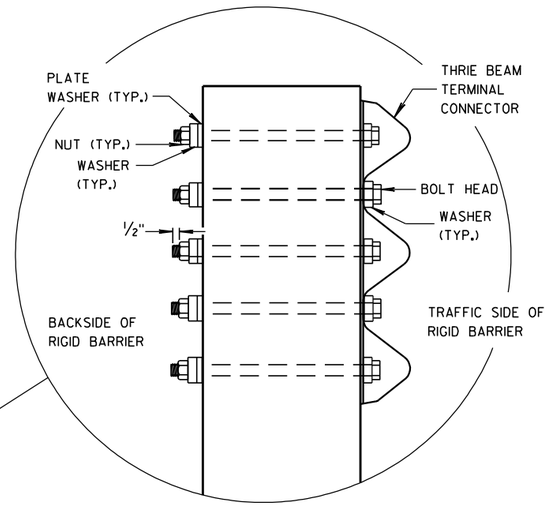
THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F



W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/8/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 45-2d

6

S.D.D. 14 B 45-2d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

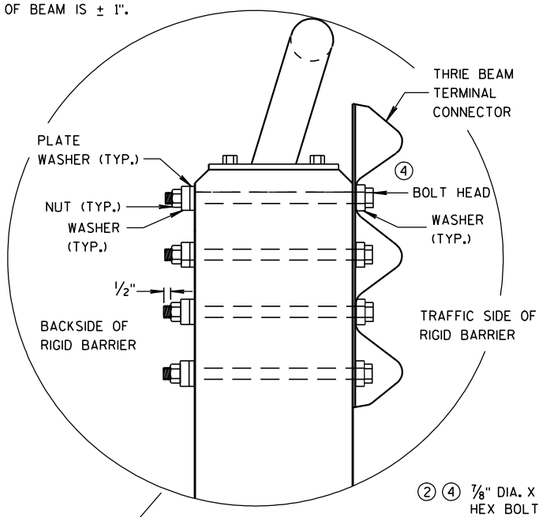
① INCLUDE THE PAYMENT FOR DRILLING BOLT HOLES THROUGH THE PARAPET, AND ALL BOLTS, NUTS AND WASHERS IN THE ITEM "STEEL THRIE BEAMSTRUCTURAL APPROACH".

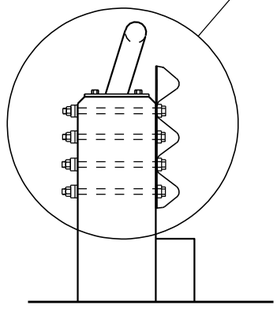
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

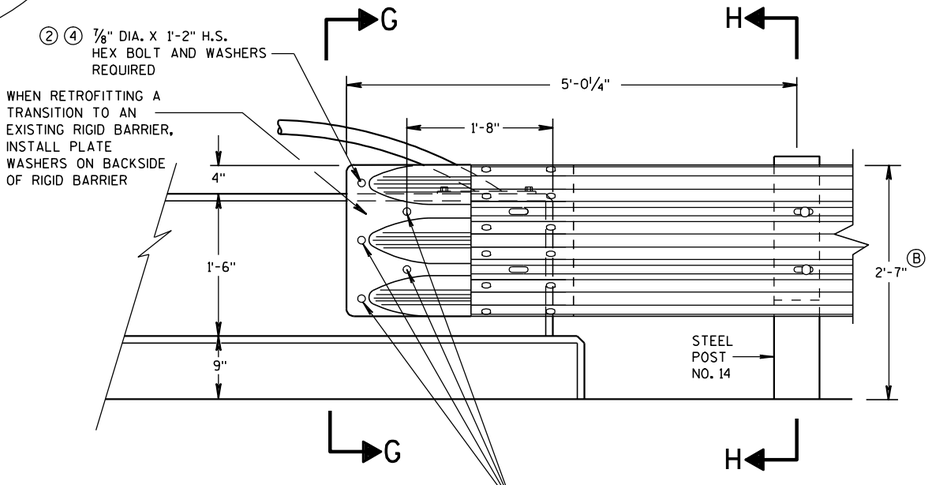
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

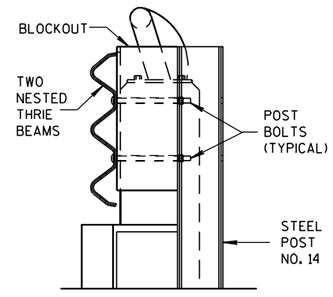




SECTION G-G

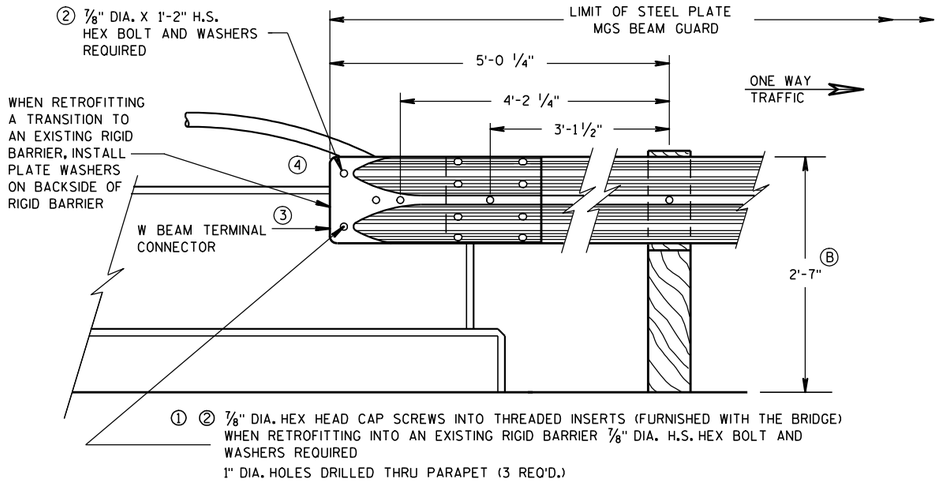


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-8-2012 DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

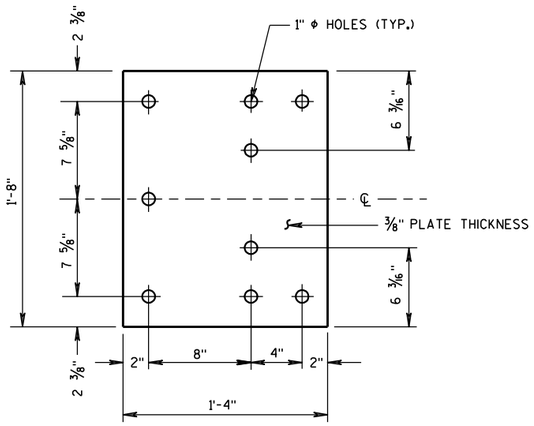
FHWA

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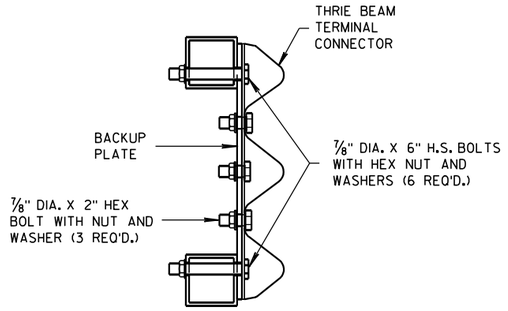
S.D.D. 14 B 45-2e

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S.D.D. 14 B 45-2e



BACK-UP PLATE DETAIL

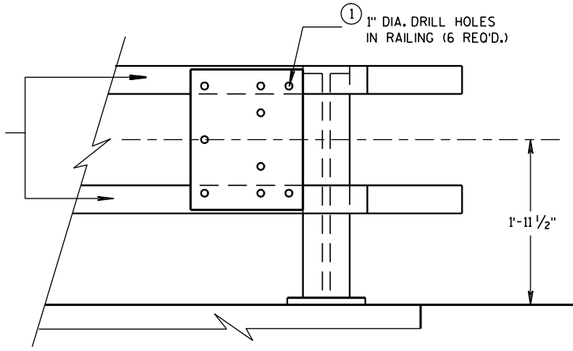


SECTION J-J

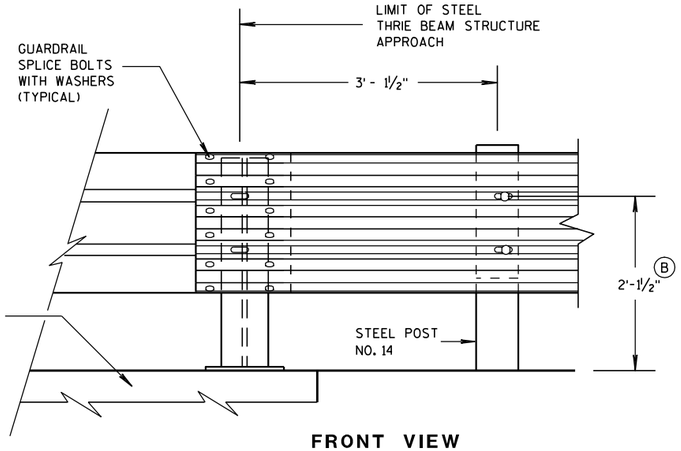
GENERAL NOTES

(1) INCLUDE THE PAYMENT FOR DRILLING HOLES IN RAILING IN THE ITEM "STEEL THRIE BEAM STRUCTURE APPROACH".

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

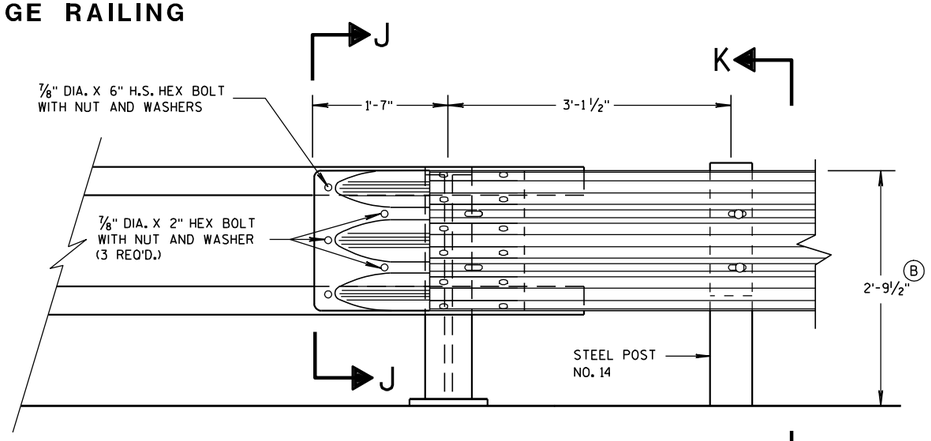


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

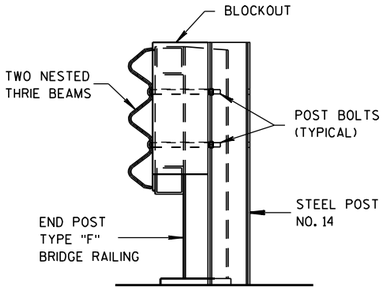


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

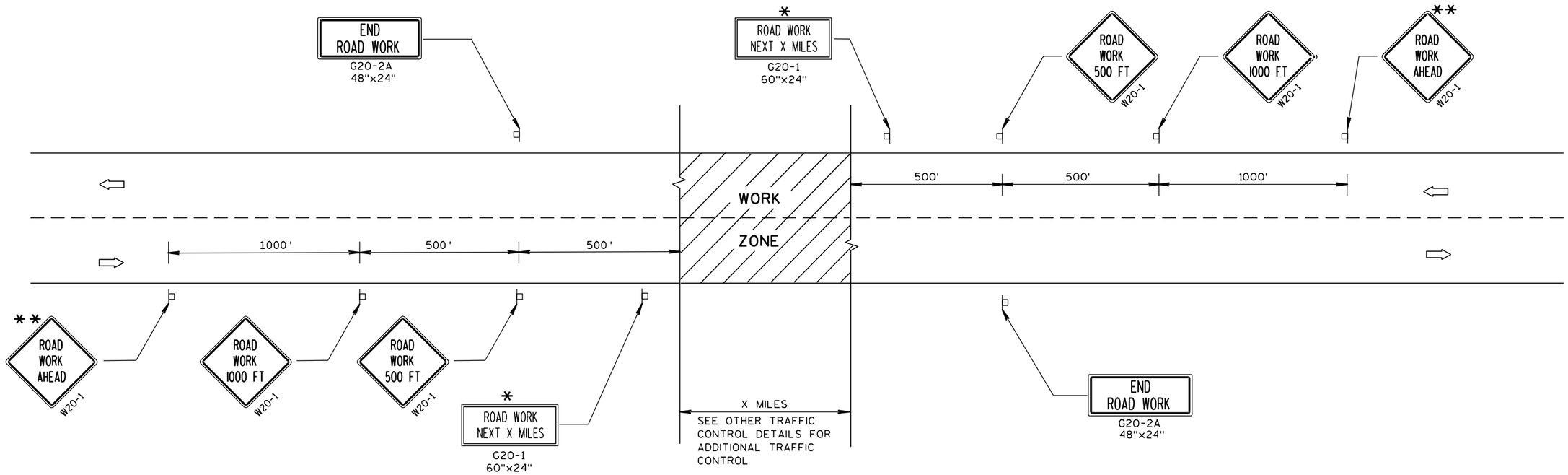
APPROVED
2-8-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-2g

6

S.D.D. 14 B 45-2g



6

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.

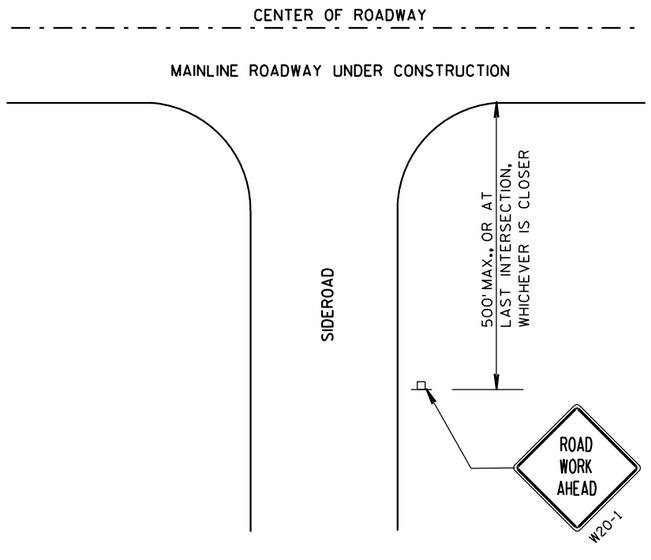
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 OR SIGNING.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

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

5/23/00 DATE

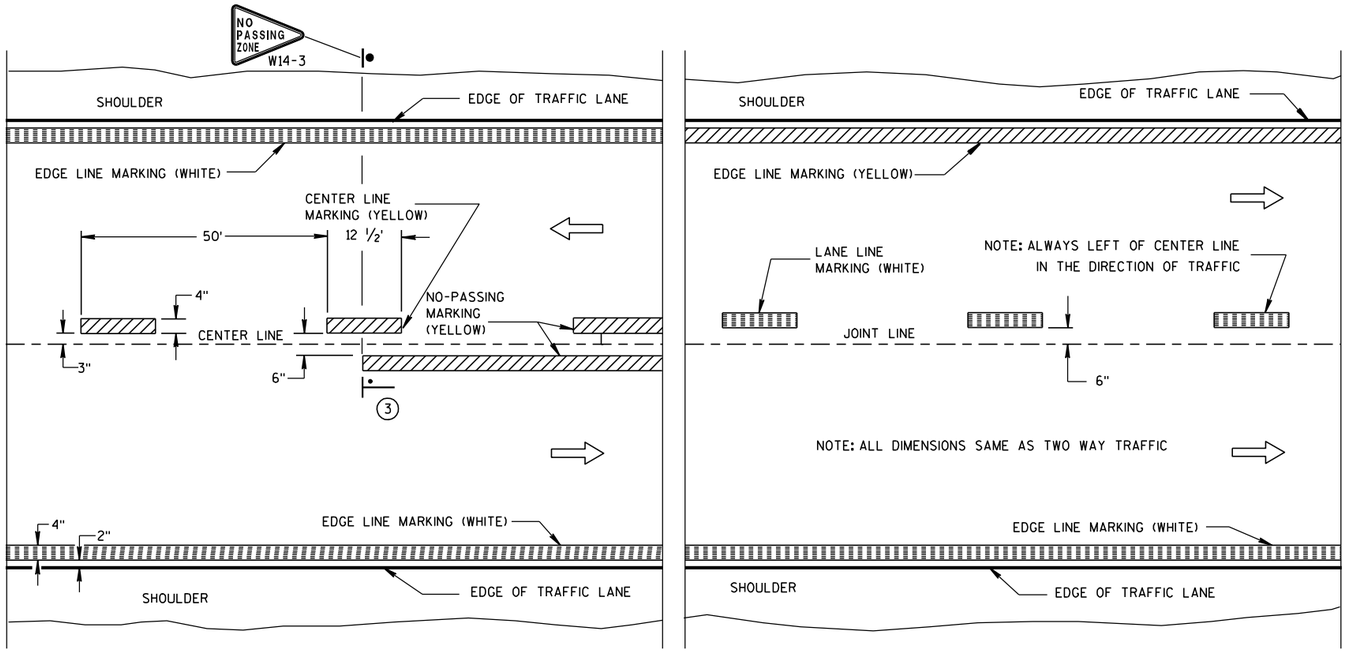
/S/ Chester J. [illegible] 85 NEER
CHIEF SIGNS AND MARK

FHWA

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S.D.D. 15 C 4-1

S.D.D. 15 C 4-1



TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

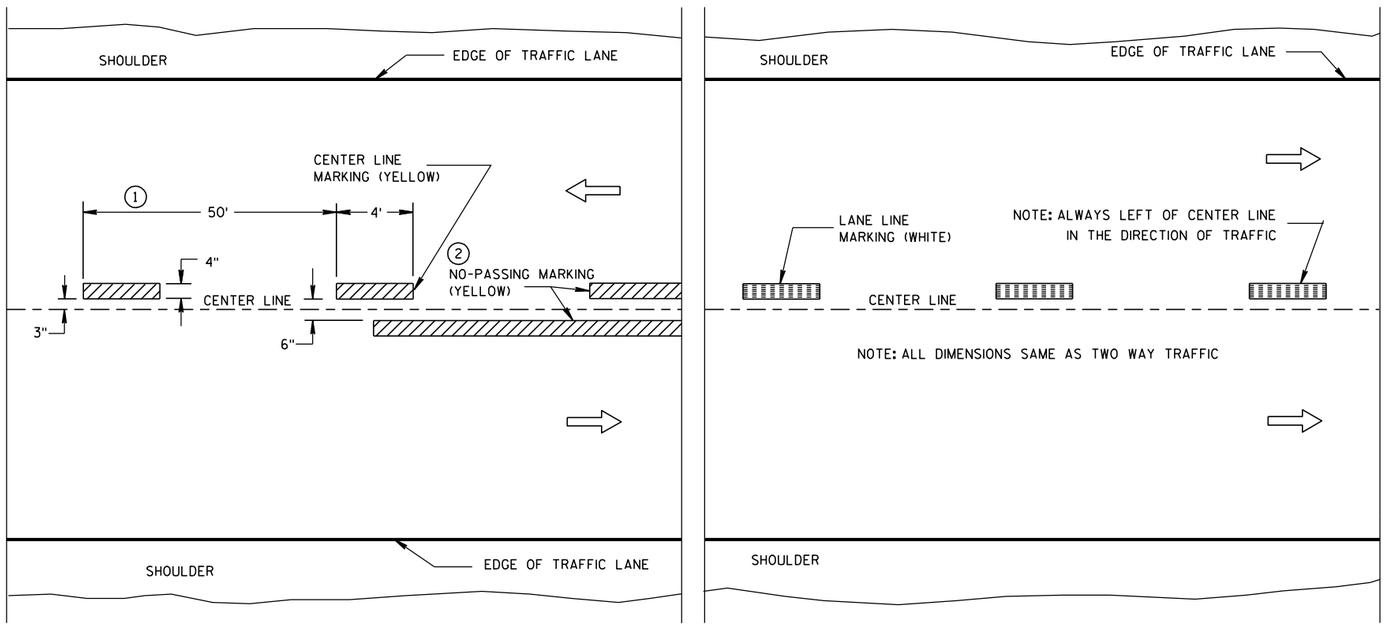
GENERAL NOTES

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.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

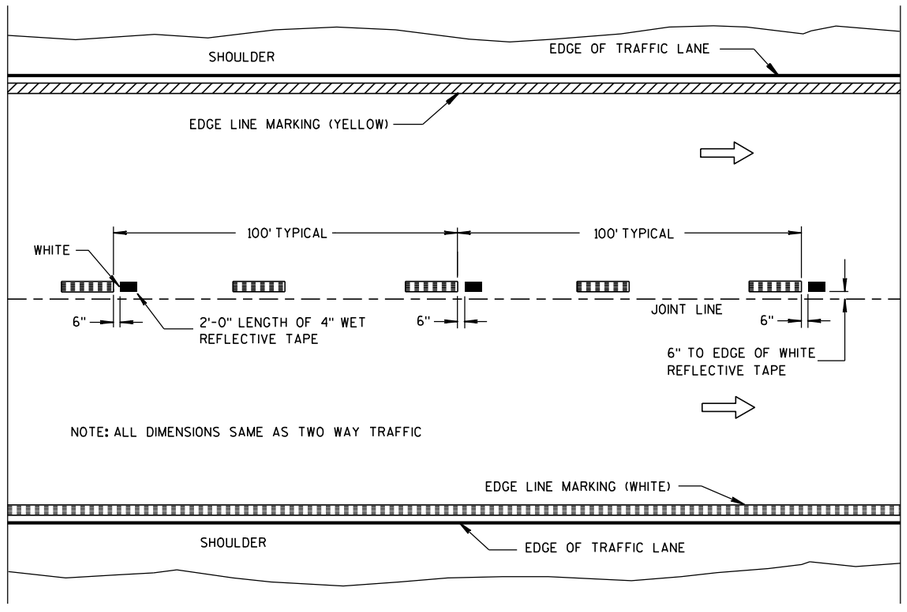


TWO WAY TRAFFIC

ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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



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

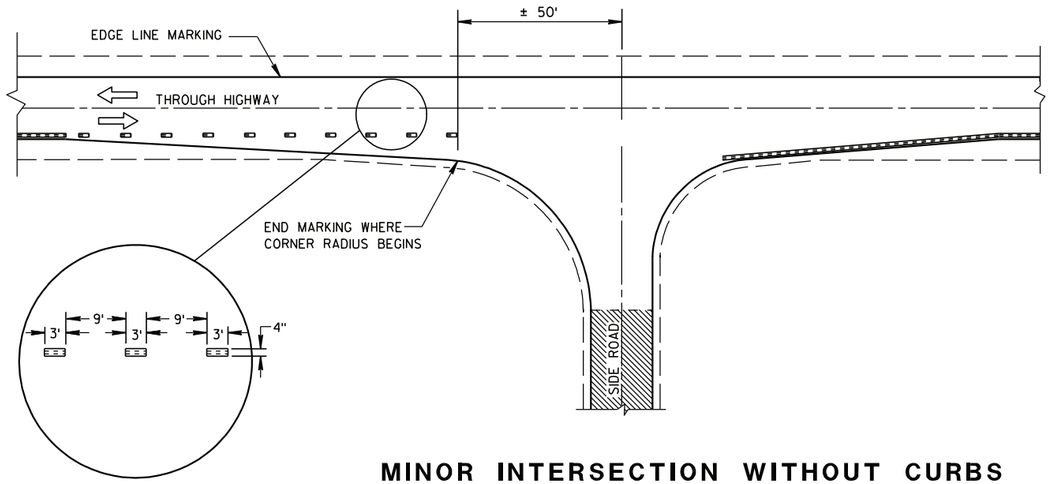
APPROVED
6-23-11 DATE
/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 8-14a

6

S.D.D. 15 C 8-14a



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.

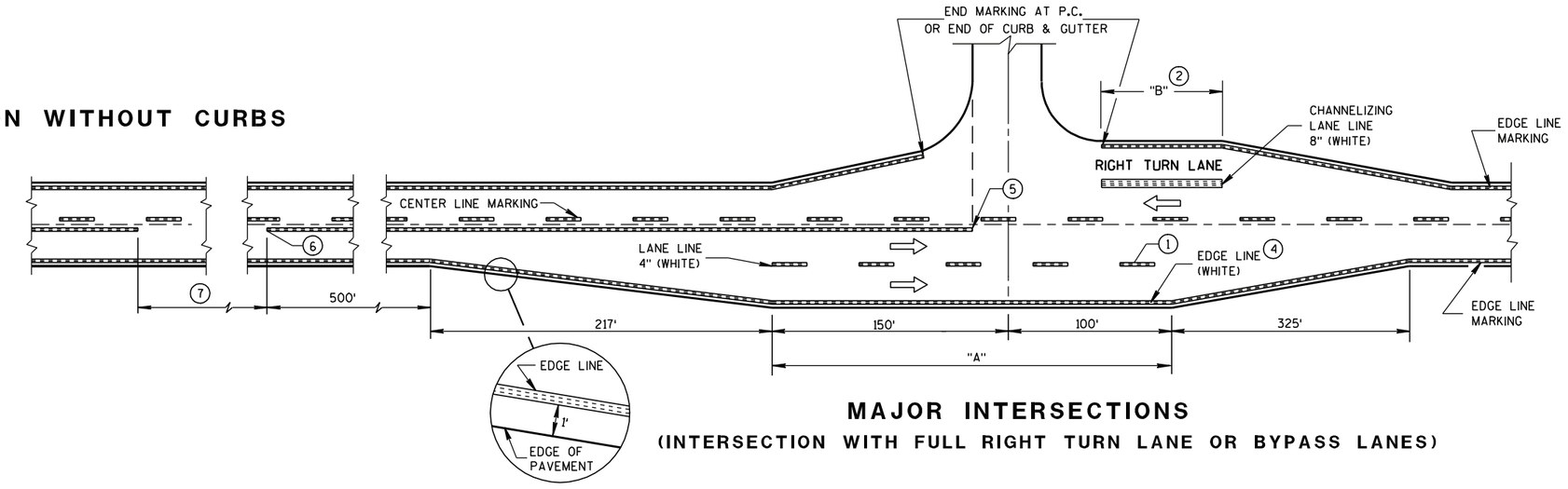
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

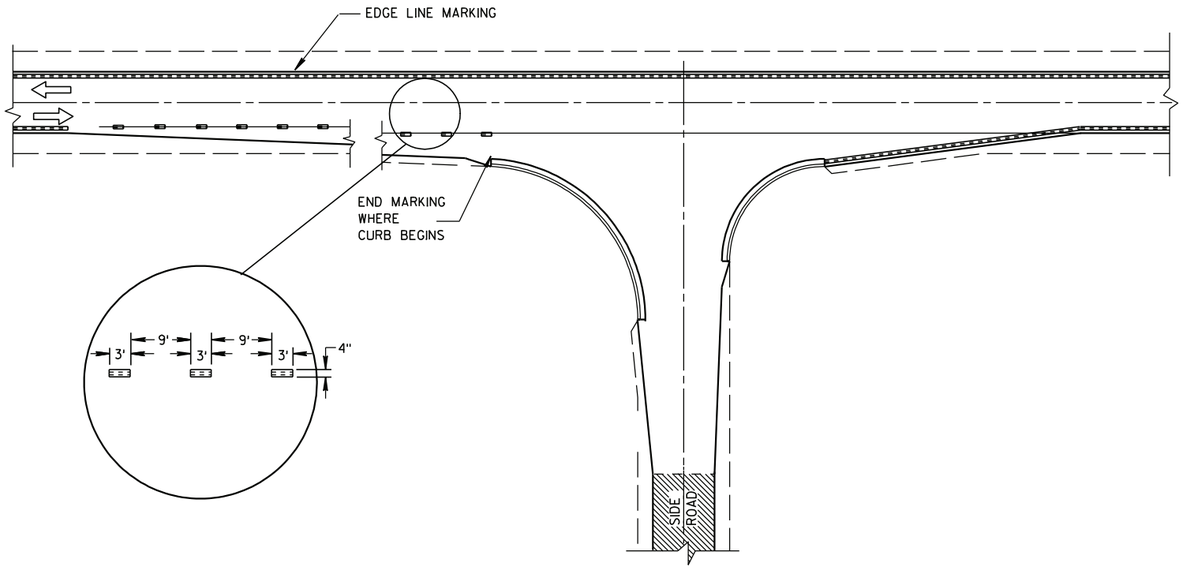
ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

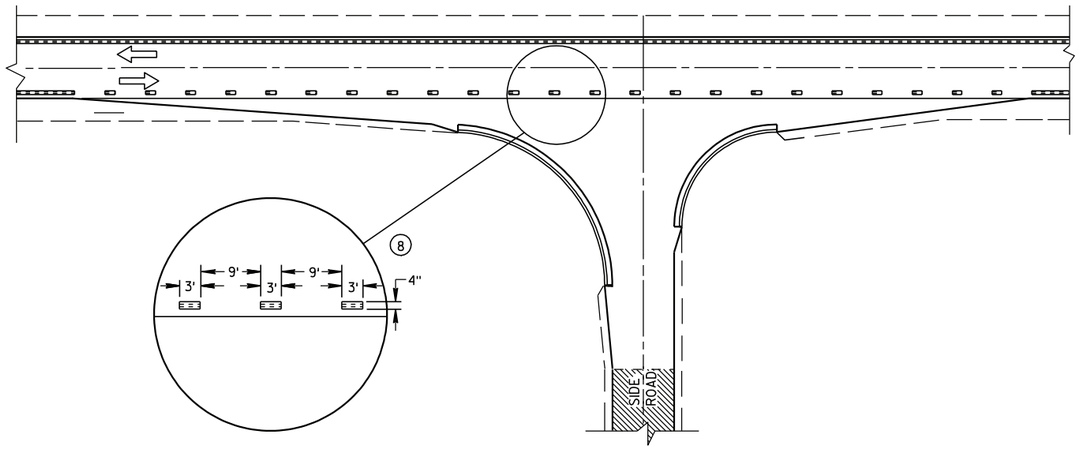
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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)

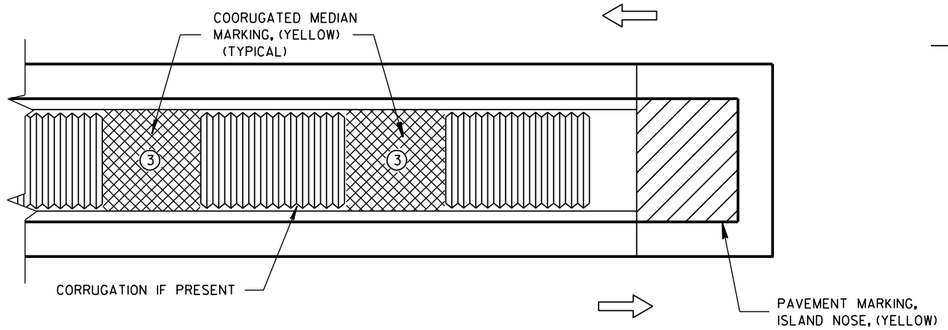
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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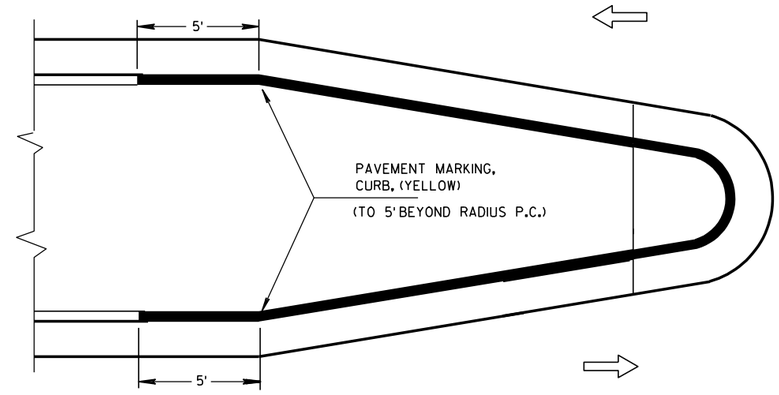
S.D.D. 15 C 8-14b

6

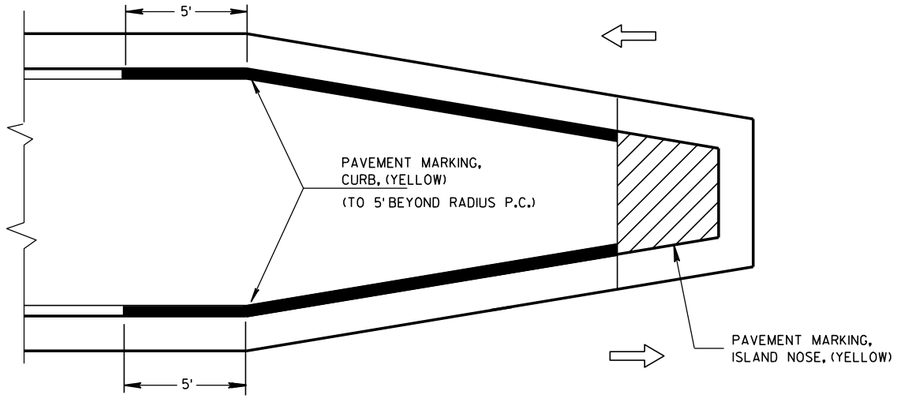
S.D.D. 15 C 8-14b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

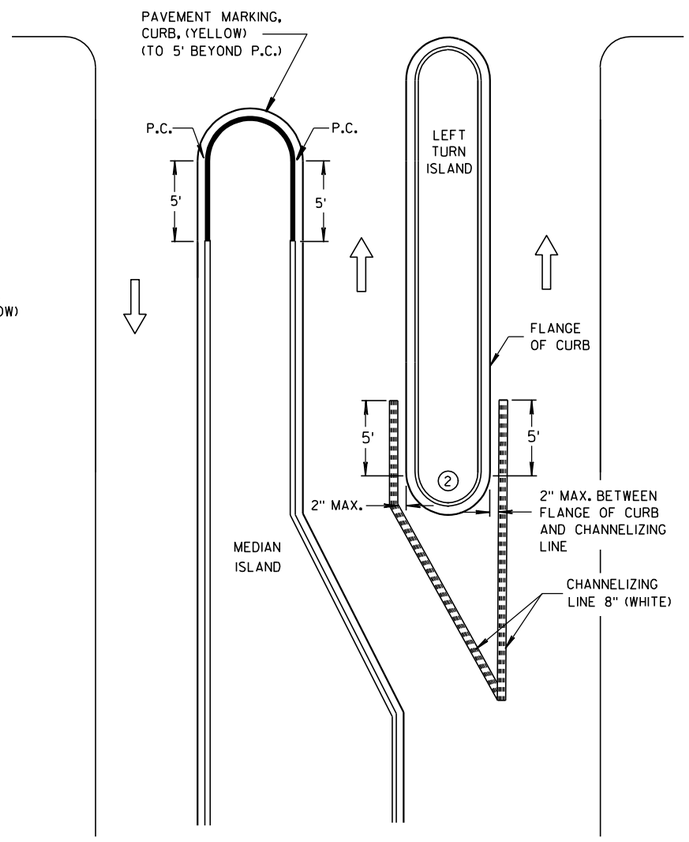


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

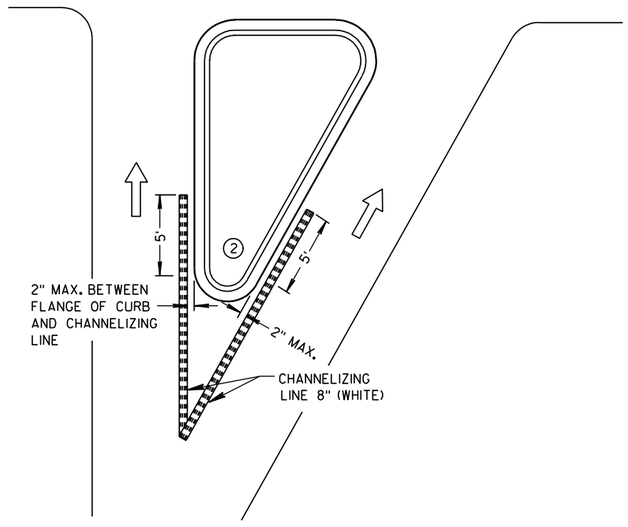
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



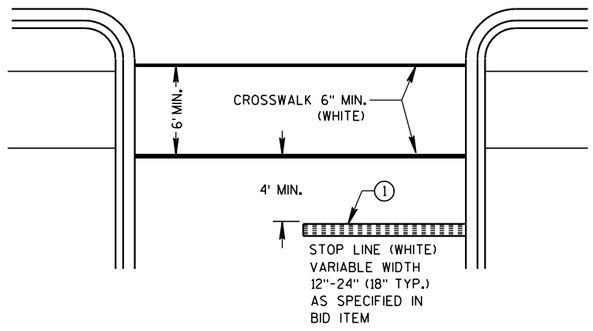
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. 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



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MAKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-14f

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S.D.D. 15 C 8-14f

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

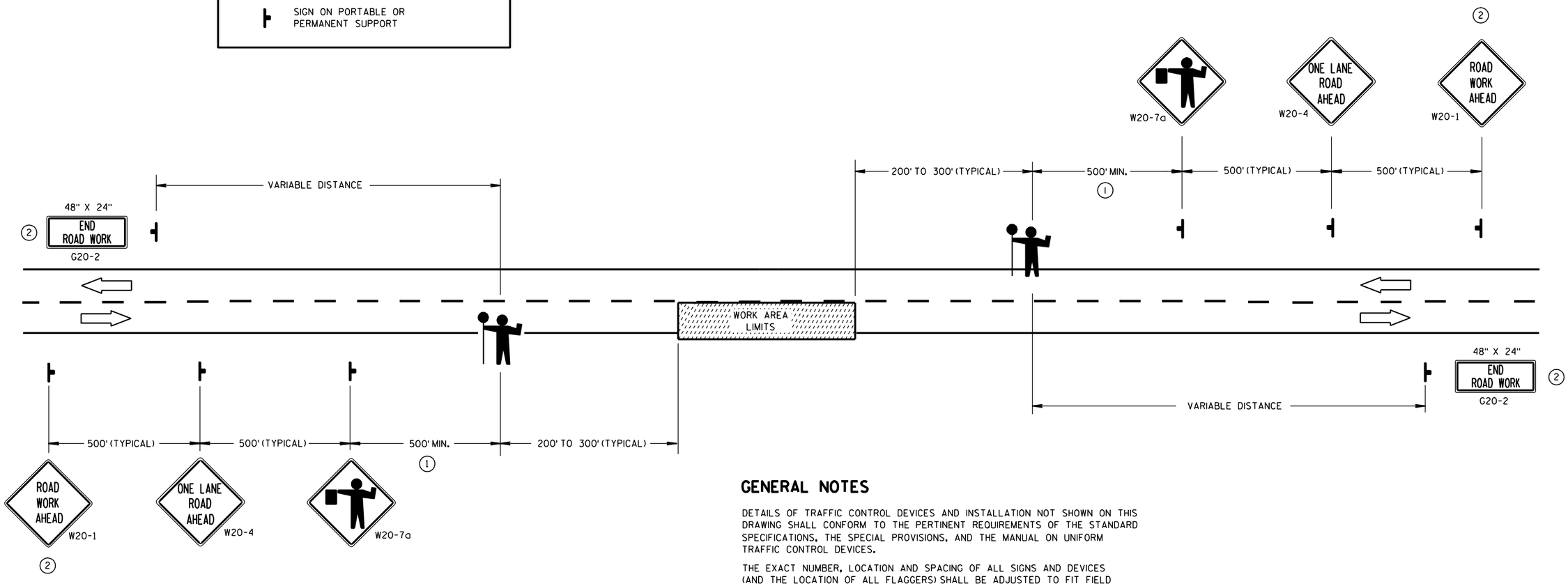
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



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, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

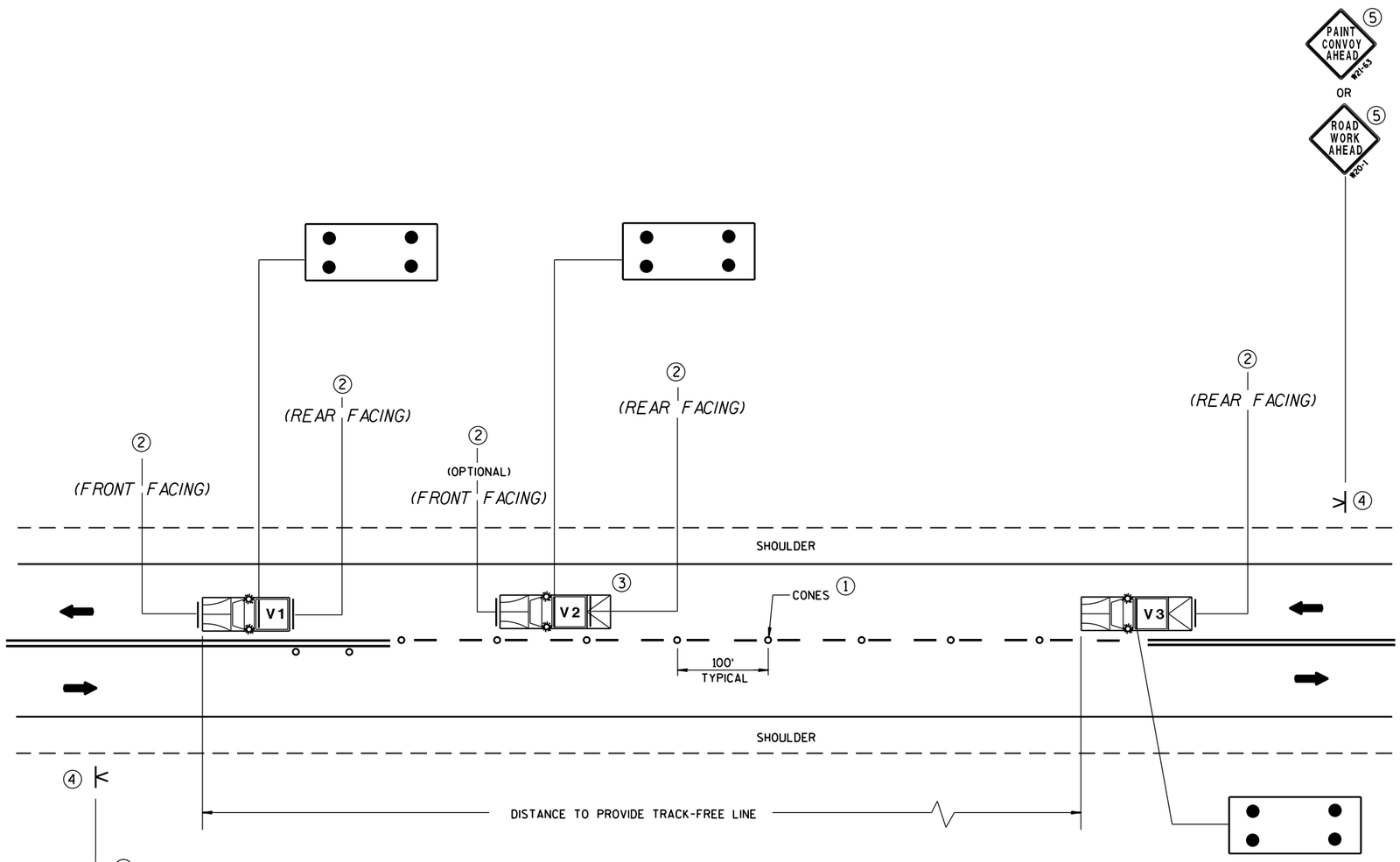
9/5/06 — DATE

/S/ Thomas N. Nathaam — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 12-3



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 PORTABLE SUPPORT
- DIRECTION OF TRAVEL
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/6/2011 DATE
/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 19-1a

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.

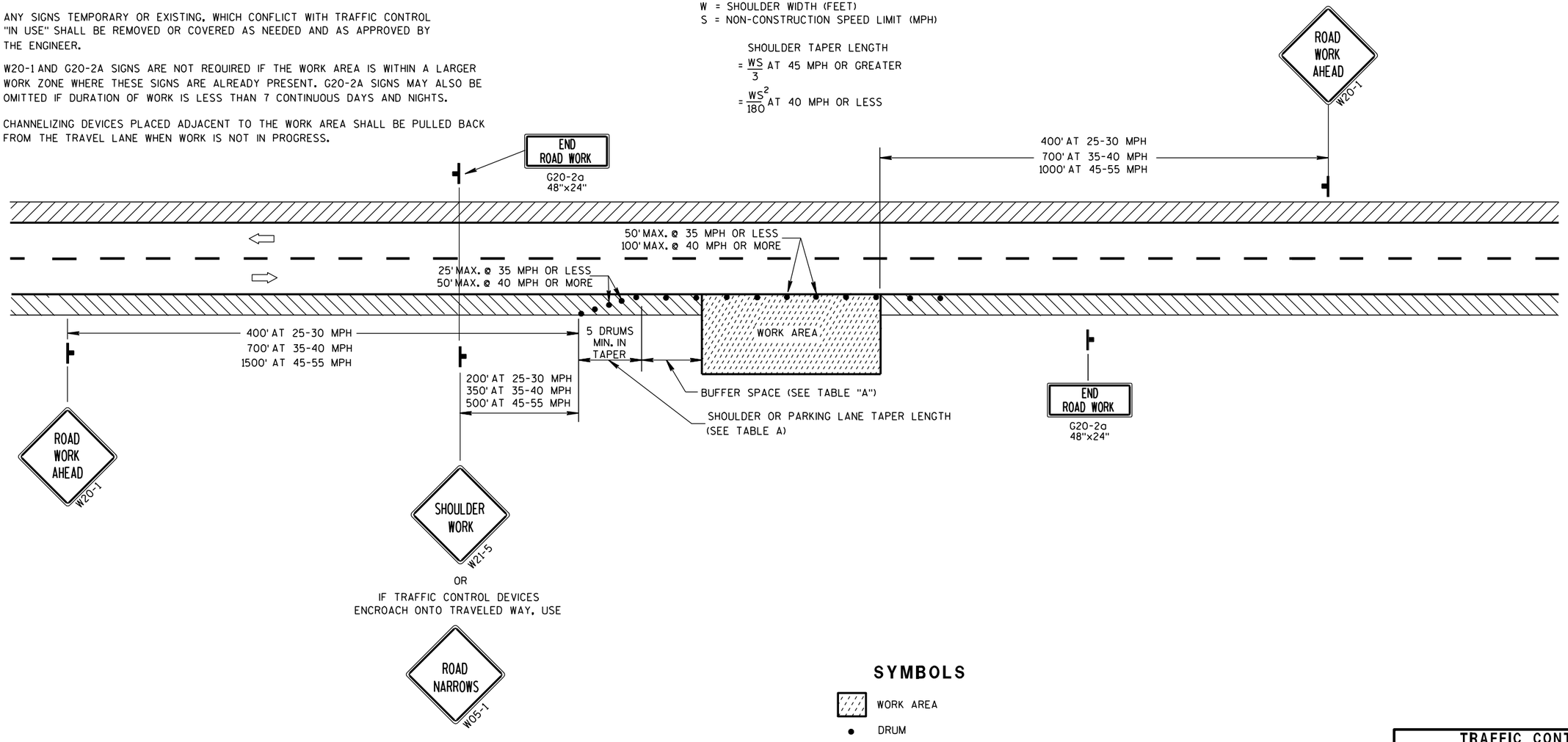
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

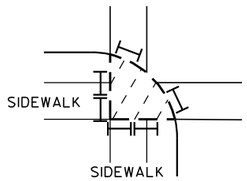
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

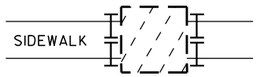
APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

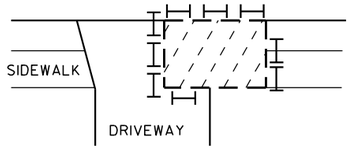
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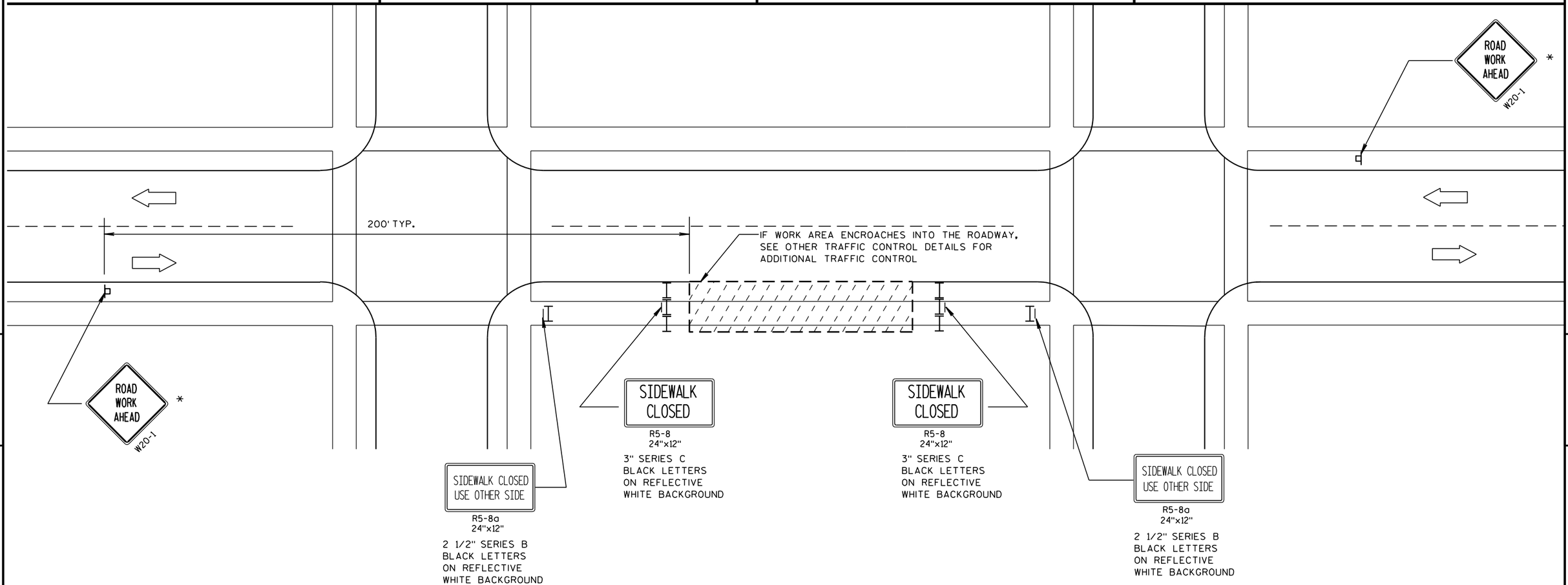
S.D.D. 15 D 28-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

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, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

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

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

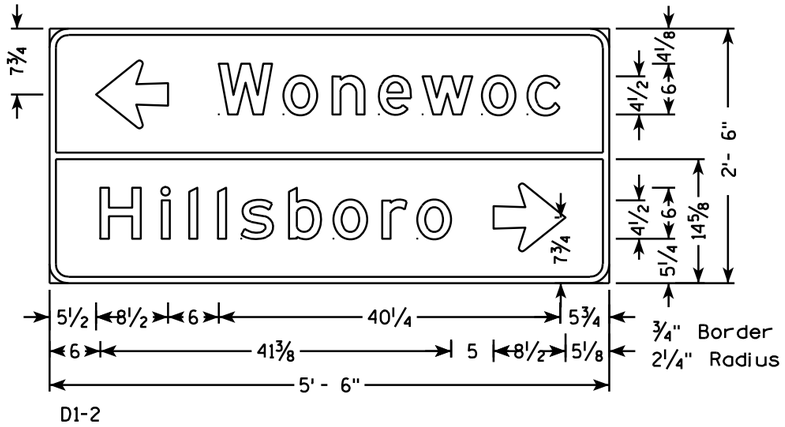
5/23/2000 DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] [illegible]NEER

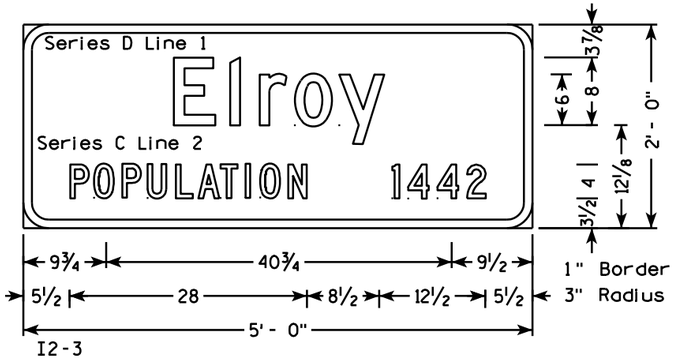
FHWA

6

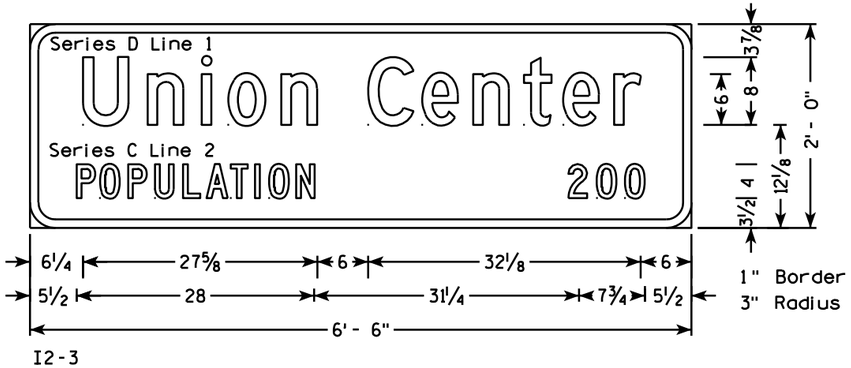
S.D.D. 15 D 30-1



D1-2



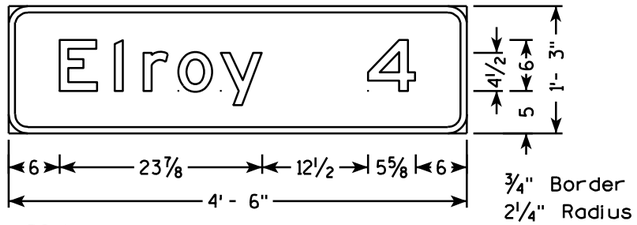
I2-3



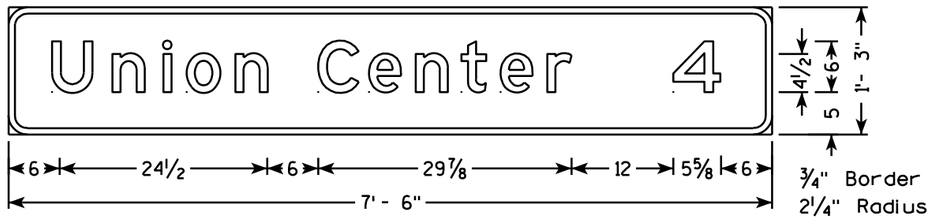
I2-3

NOTES

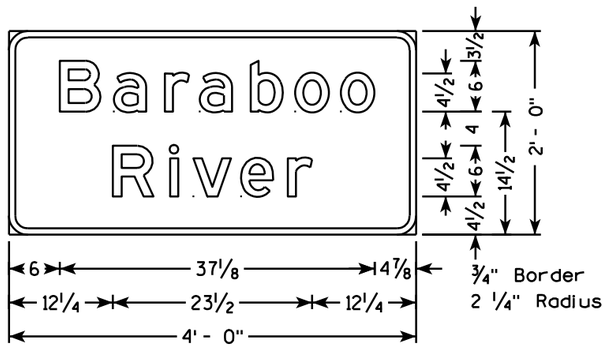
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E except as Shown



D2-1



D2-1



I3-1

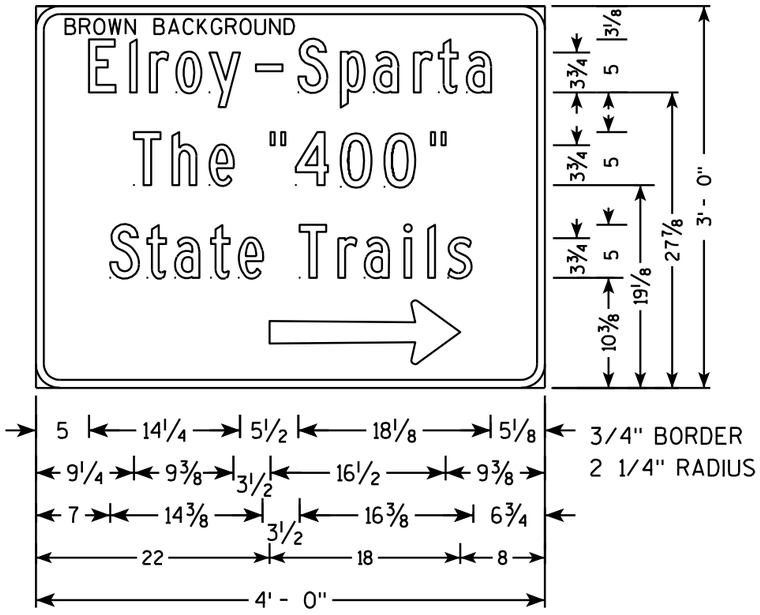
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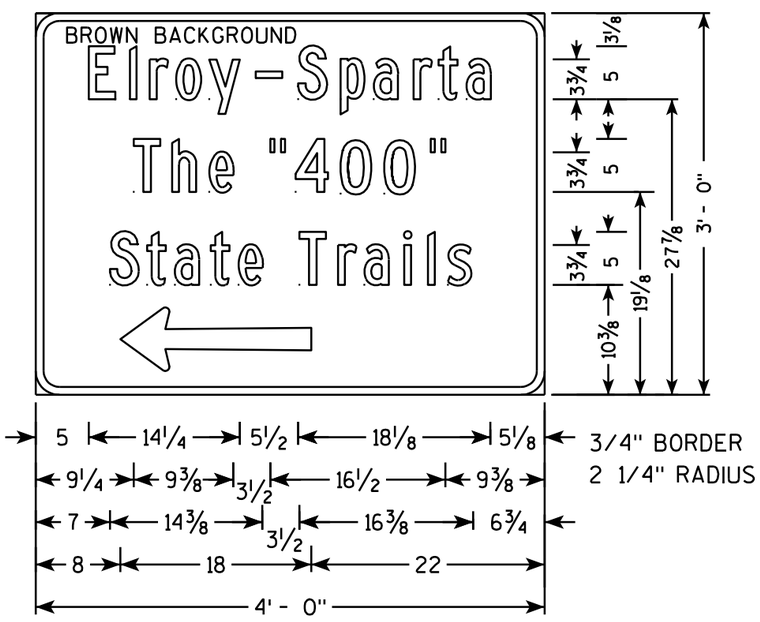
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET NO: 93	E

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - BROWN
   Message - WHITE
3. Message Series - C



D1-3



7

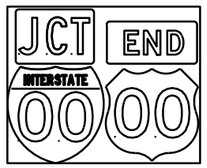
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PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET NO: 94	E

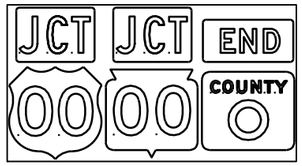
TYPICAL ASSEMBLIES



J1-1



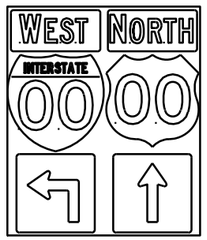
J1-2



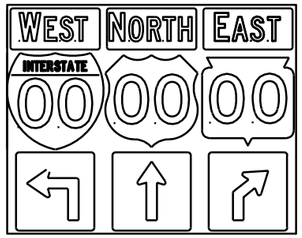
J1-3



J2-1



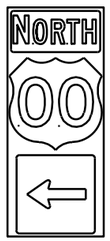
J2-2



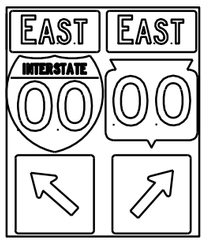
J2-3



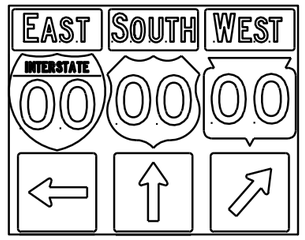
JV



J3-1



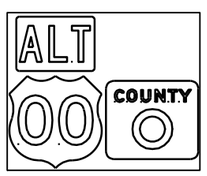
J3-2



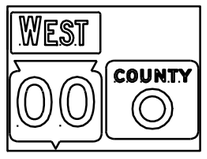
J3-3



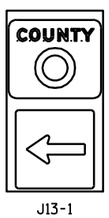
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



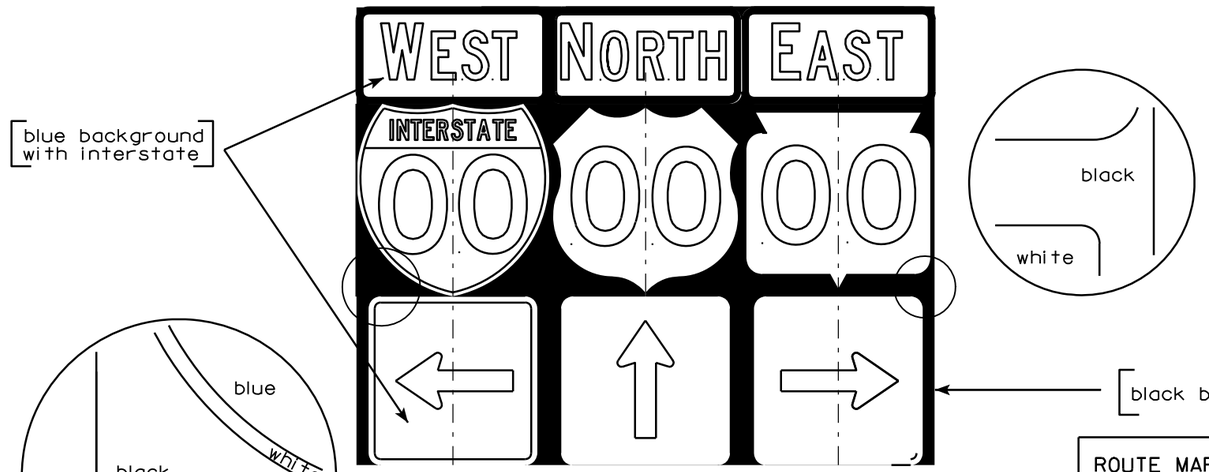
J23-1



J22-1

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 since base material is plywood.
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.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

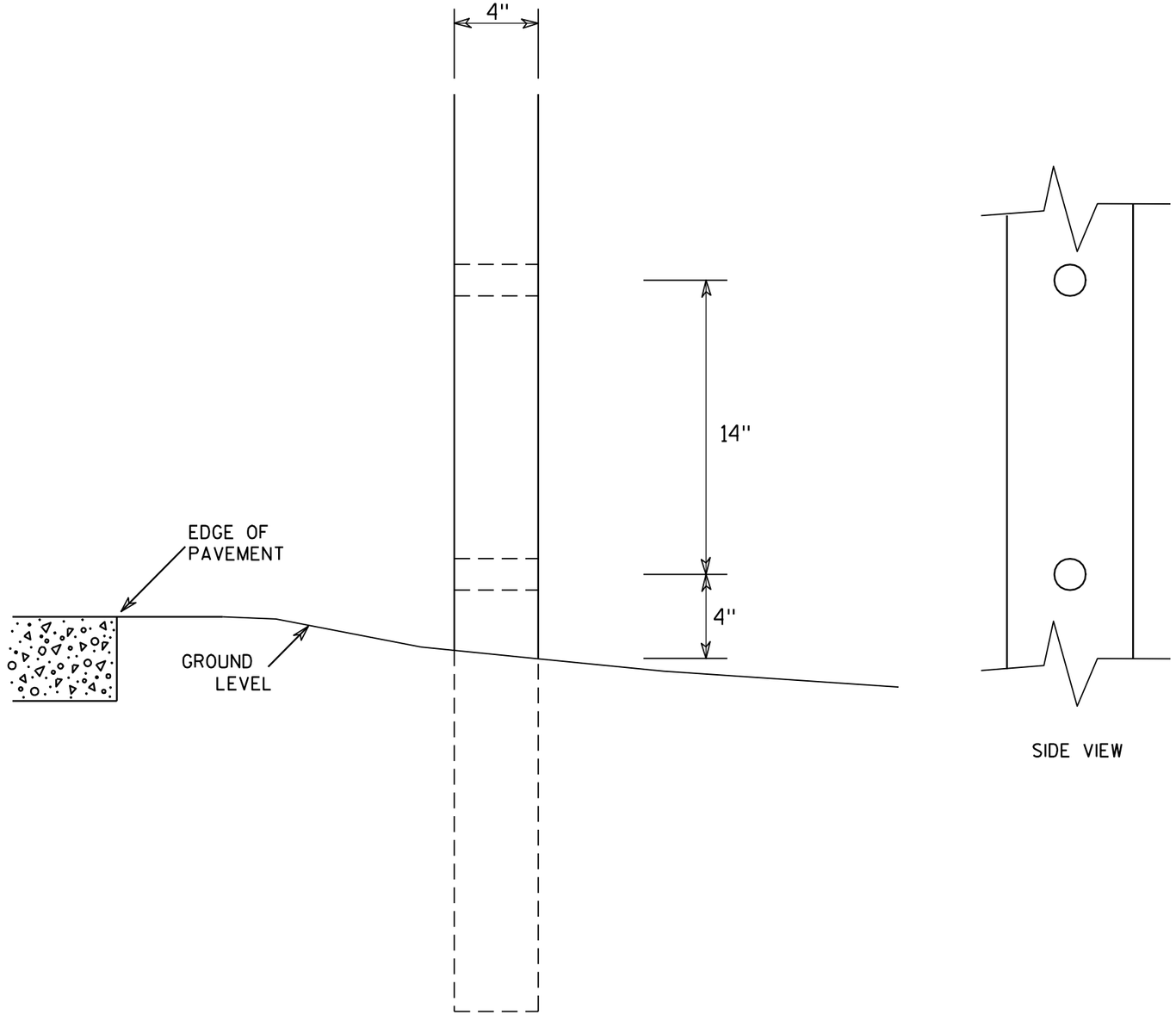
DATE 10/21/09 PLATE NO. A2-1S.6

7

7

PROJECT NO:

SHEET NO: 95 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

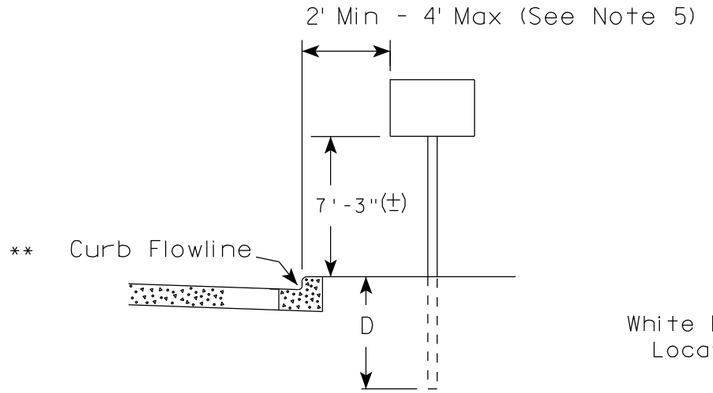
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

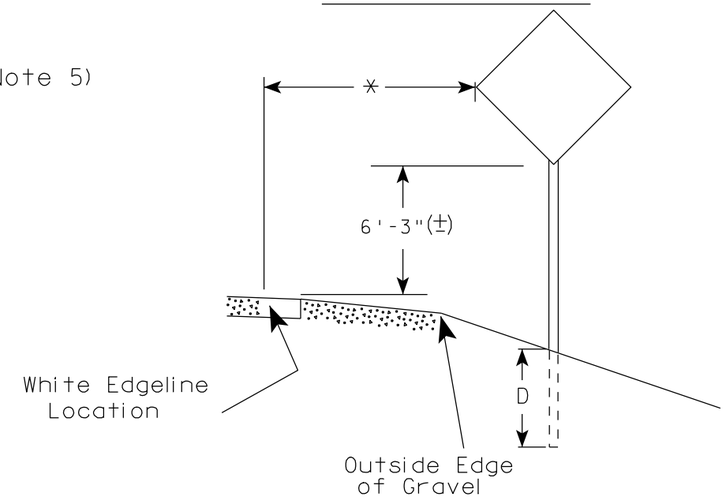
DATE 3/27/97 PLATE NO. A4-11.2

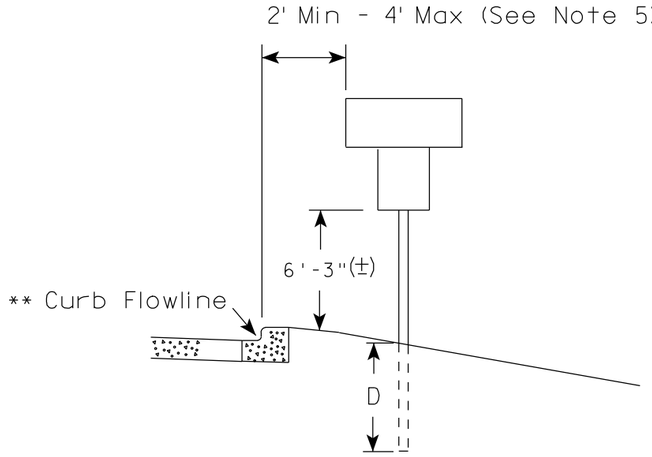
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E

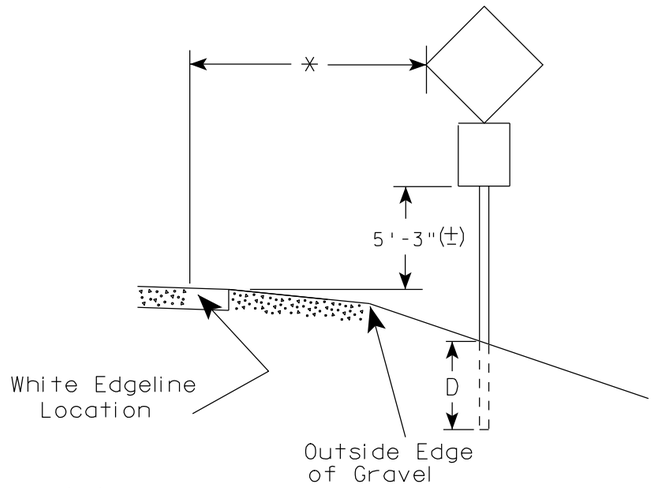
URBAN AREA



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.

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

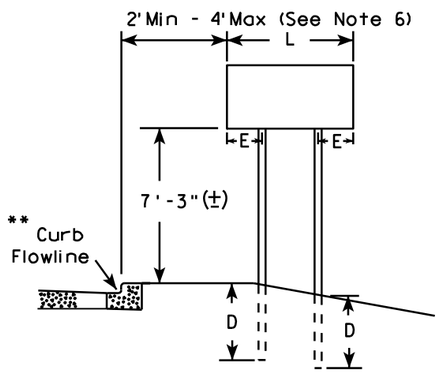
DATE 9/21/2011 PLATE NO. A4-3.16

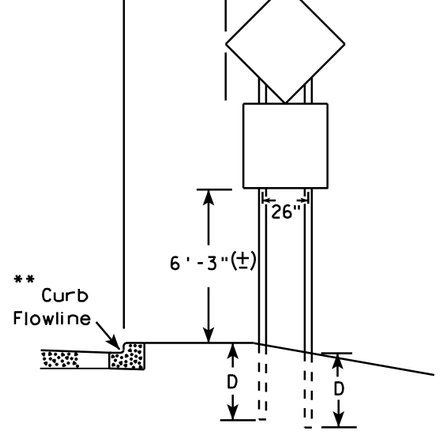
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PROJECT NO: | HWY: | COUNTY: | SHEET NO: 97 | E

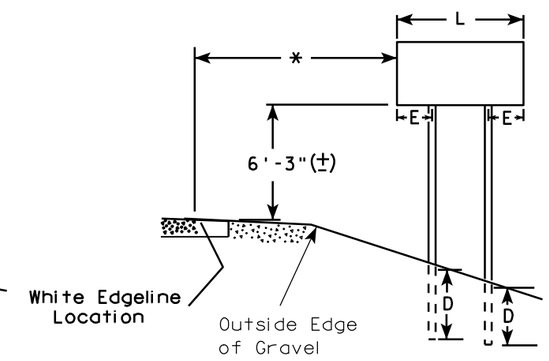
URBAN AREA

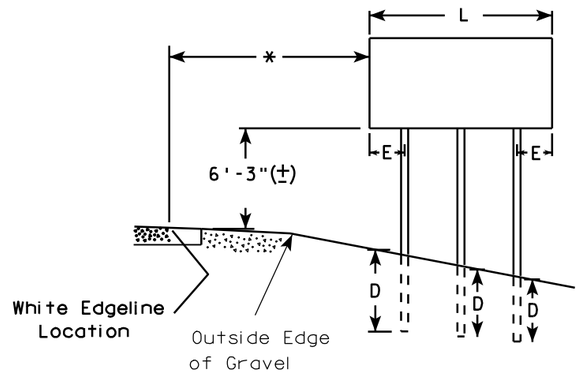


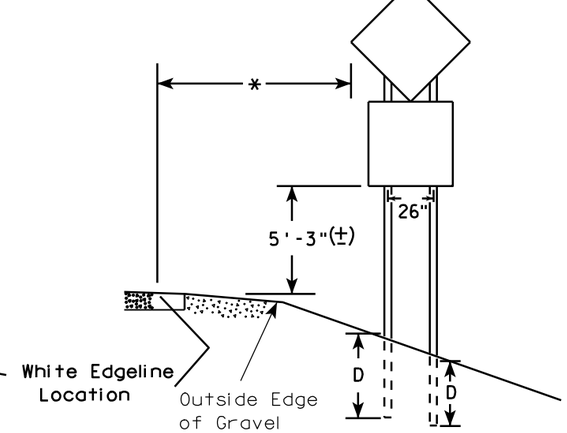


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For multiple 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) 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 20 S.F. or less 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'

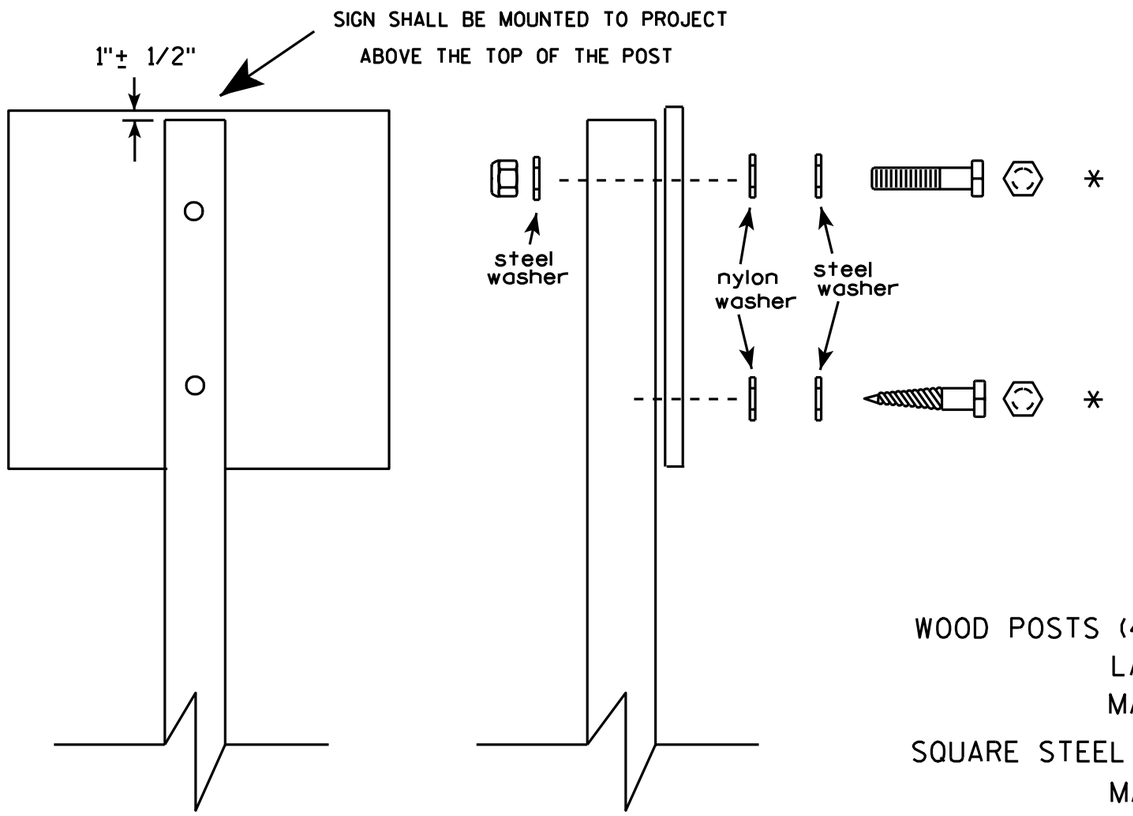
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



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

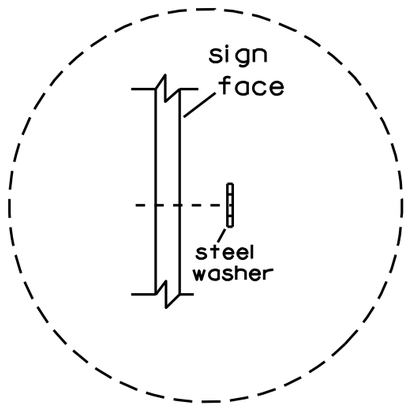
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

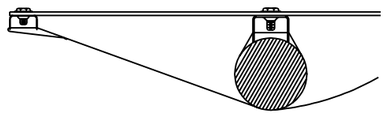
7

7

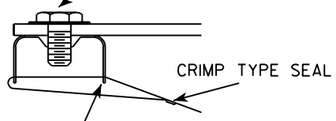
PROJECT NO:

SHEET NO: 99 E

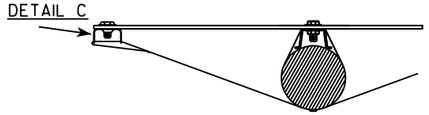
BRACE BANDING

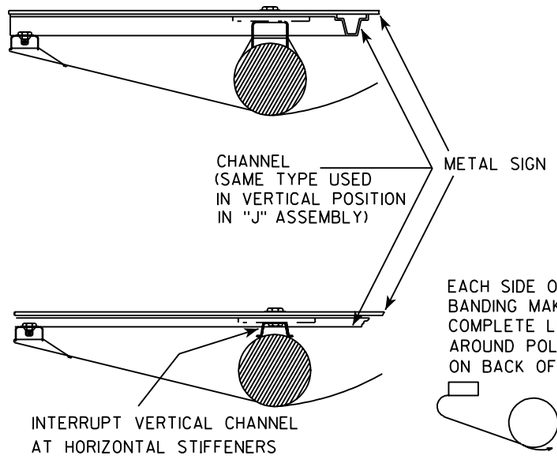


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

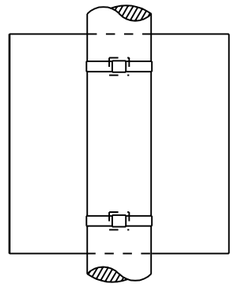


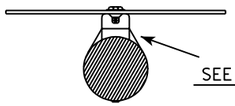


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

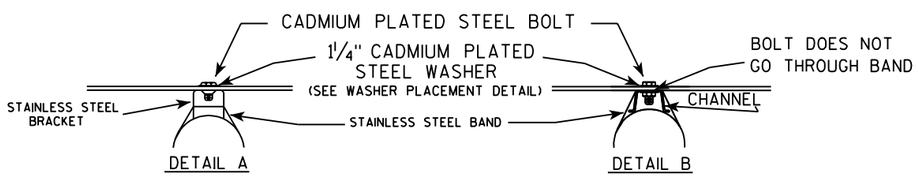
BRACKET BANDING

SINGLE SIGN





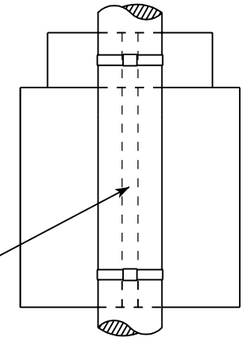
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

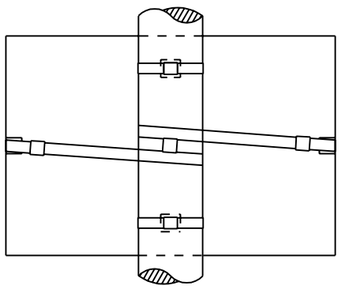


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

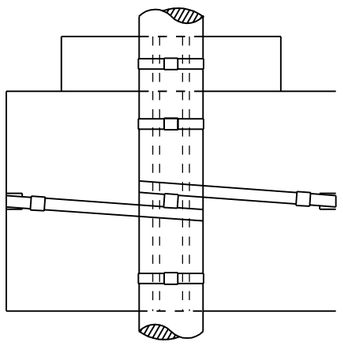
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

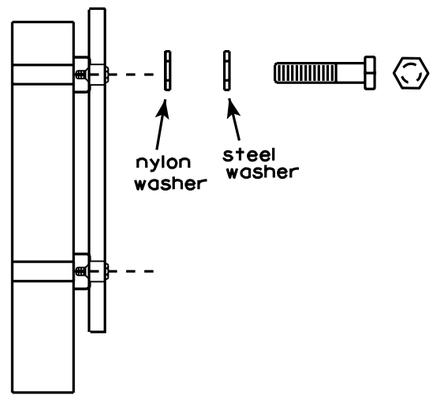


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

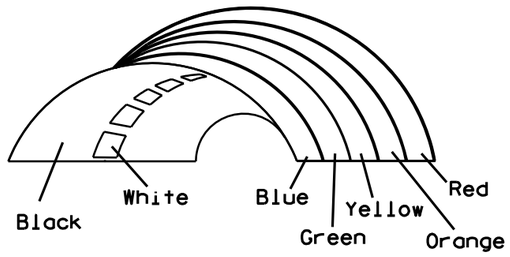
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 100	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

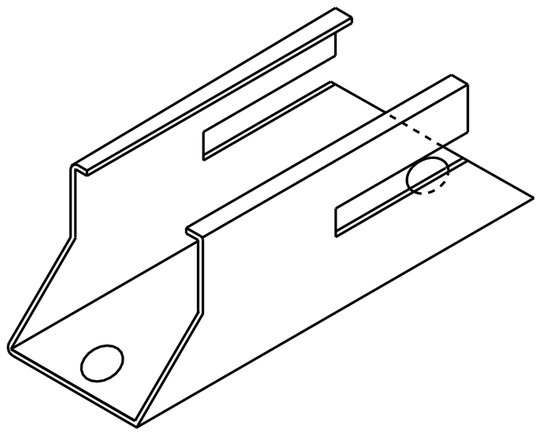
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101

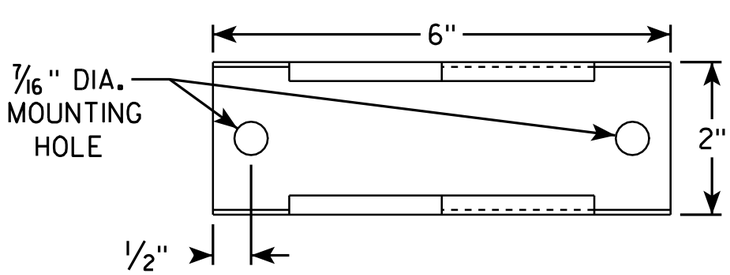
ISOMETRIC VIEW



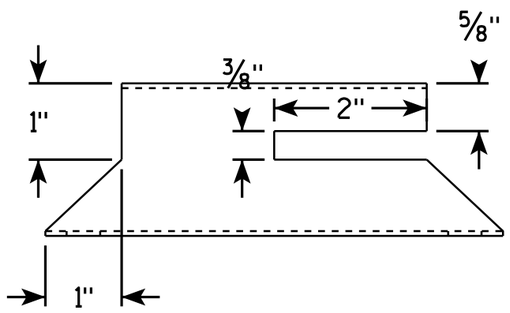
NOTES

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

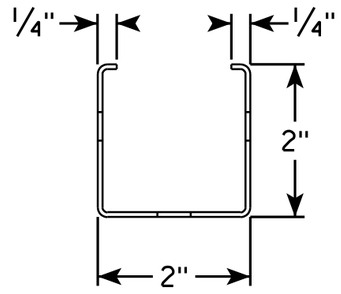
TOP VIEW



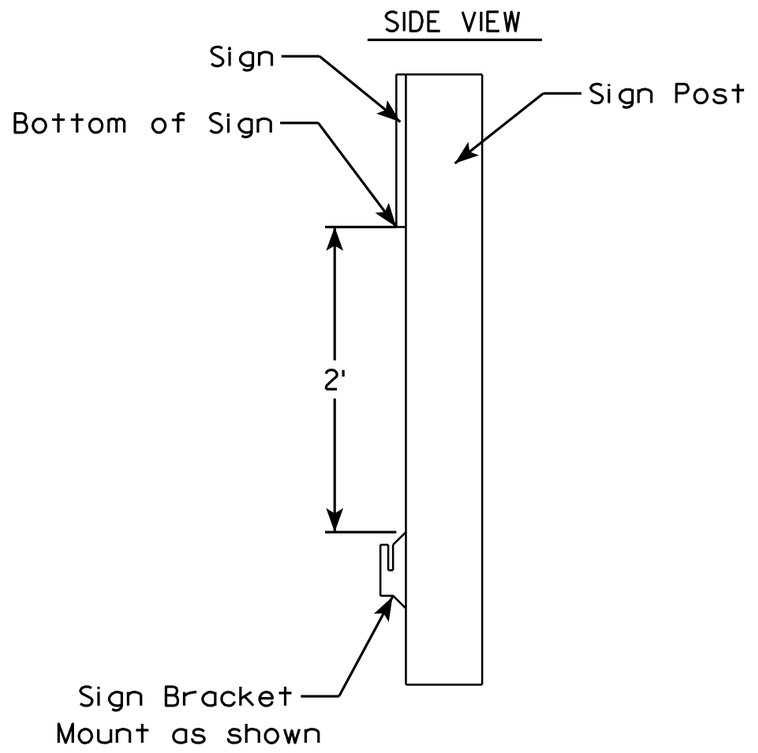
SIDE VIEW



END VIEW



SIDE VIEW



7

7

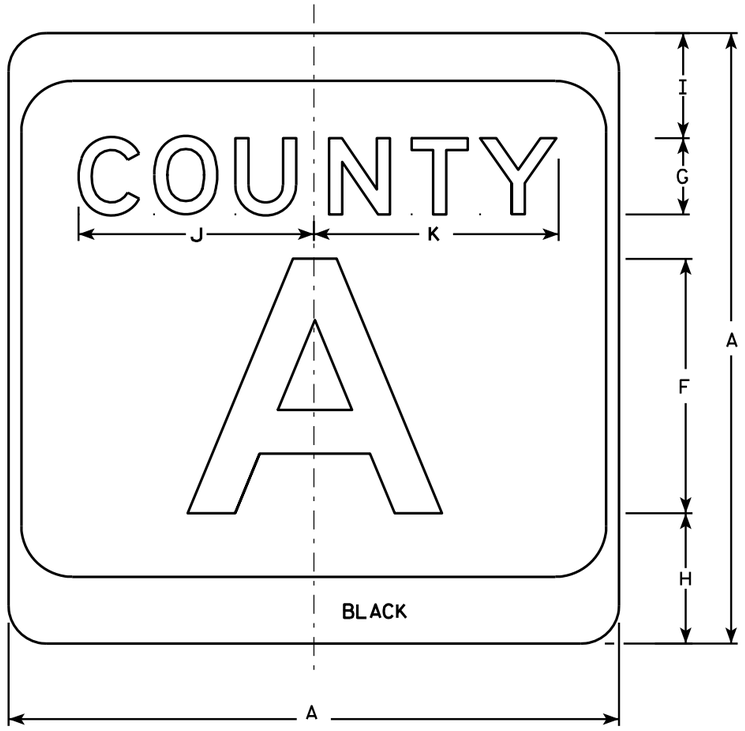
ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

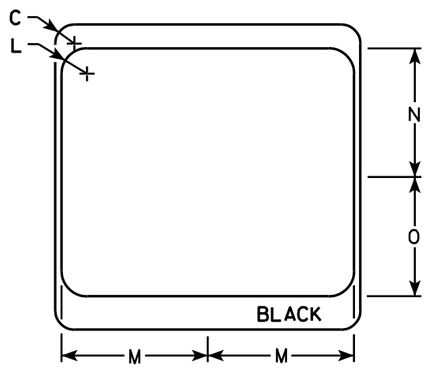
APPROVED Matthew R Rauch
for State Traffic Engineer

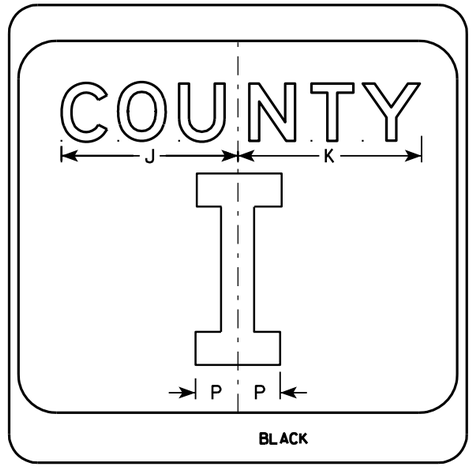
DATE 2/5/10 PLATE NO. I55-56B.1

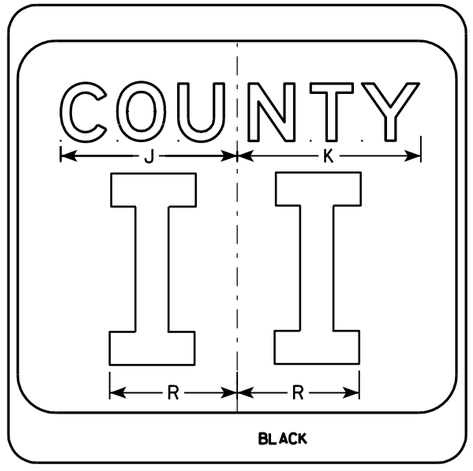
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E



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

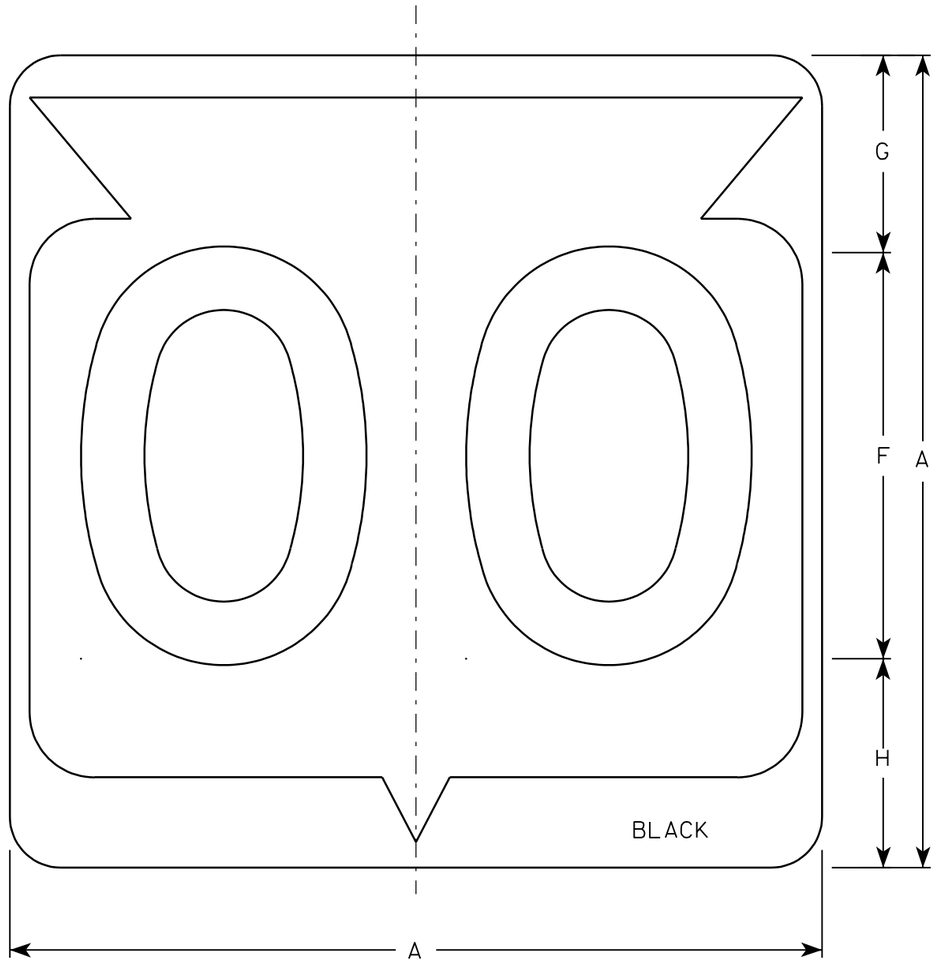
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

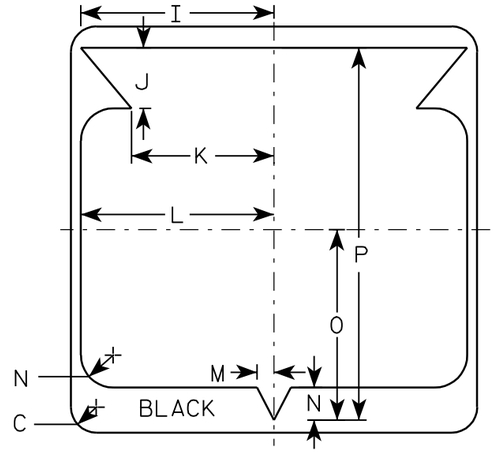
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	E



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

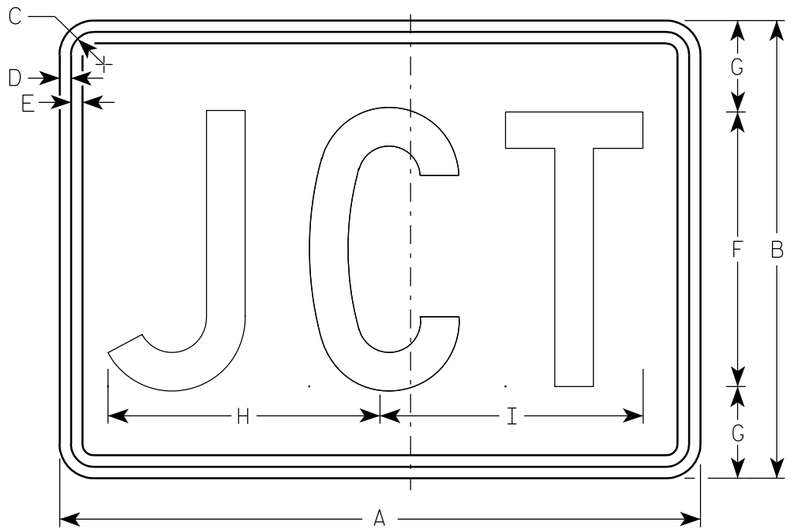
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

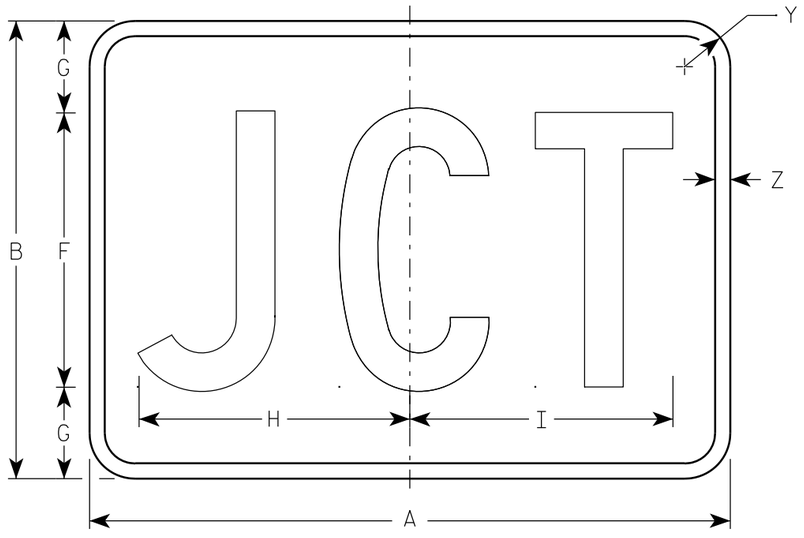
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



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



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

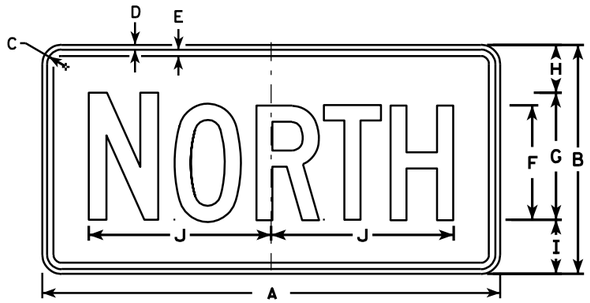
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

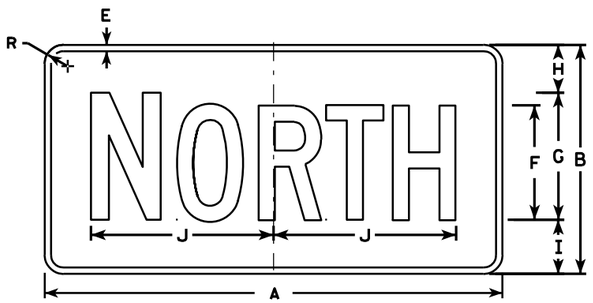
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	E



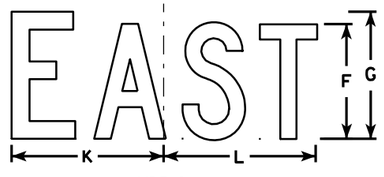
M3-1
MK3-1
MO3-1



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



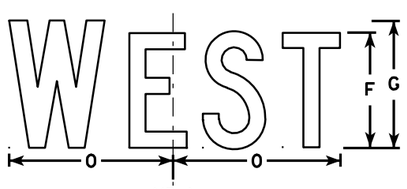
M3-2
MK3-2
MO3-2



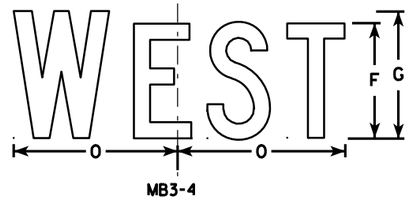
MB3-2
MG3-2
MM3-2
MN3-2

M3-3
MK3-3
MO3-3

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



M3-4
MK3-4
MO3-4



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

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective) Message - Black
   MB3-1 thru MB3-4 Background - Blue Message - White - Type H Reflective (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective Message - Green
   MN3-1 thru MN3-4 Background - Brown Message - White - Type H Reflective
   MO3-1 thru MO3-4 Background - Orange - Reflective Message - Black
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

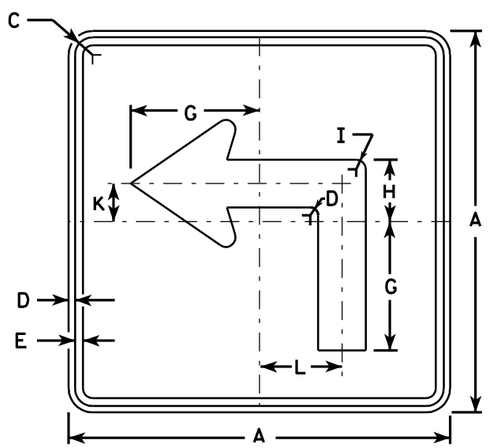
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

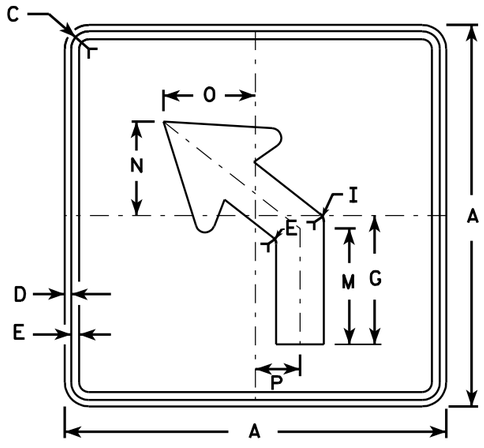
APPROVED Matthew R Rauch for State Traffic Engineer

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

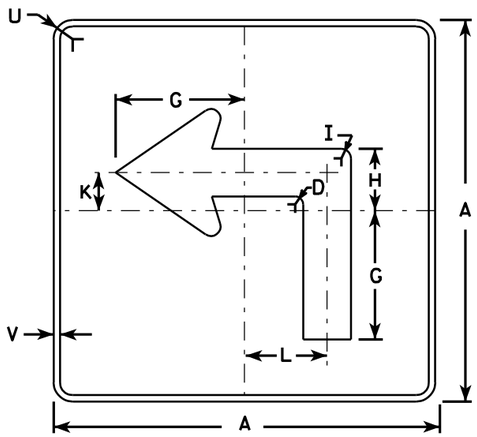
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E



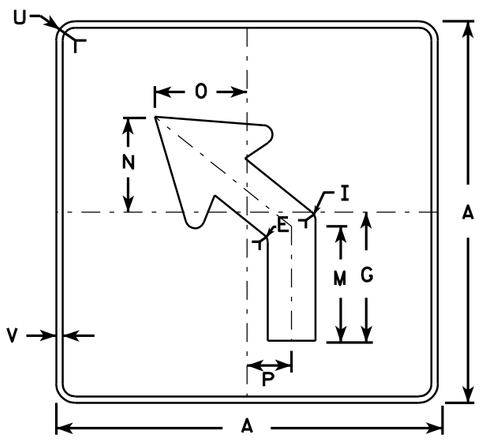
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



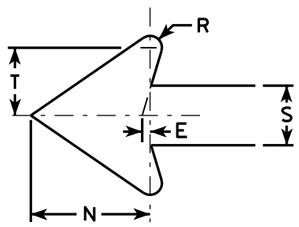
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



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 (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - 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 - Reflective Message - Black
   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.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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	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	0.28
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	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

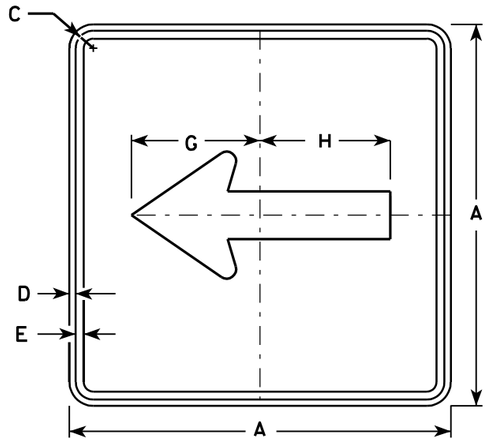
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

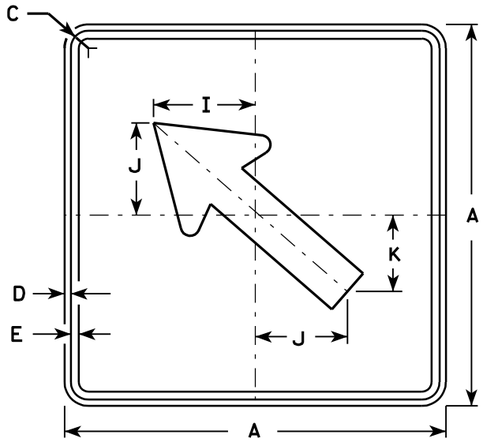
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

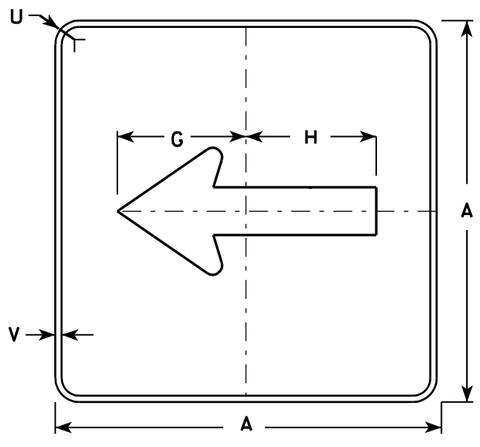
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E



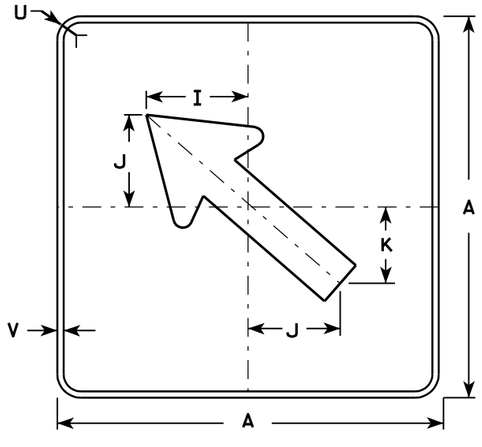
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



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



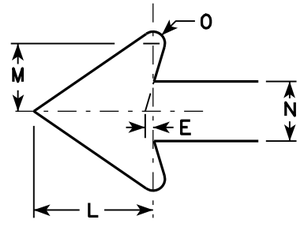
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

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. M6-1 and M6-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective) Message - Black
   MB6-1 and MB6-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG6-1 and MG6-2 Background - Green Message - White - Type H Reflective
   MK6-1 and MK6-2 Background - Green Message - White - Type H Reflective
   MM6-1 and MM6-2 Background - White - Type H Reflective Message - Green
   MN6-1 and MN6-2 Background - Brown Message - White - Type H Reflective
   MO6-1 and MO6-2 Background - Orange - Reflective Message - Black
   MR6-1 and MR6-2 Background - Brown Message - Yellow - Type H Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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	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	0.28
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	0.56
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	0.56
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	0.56

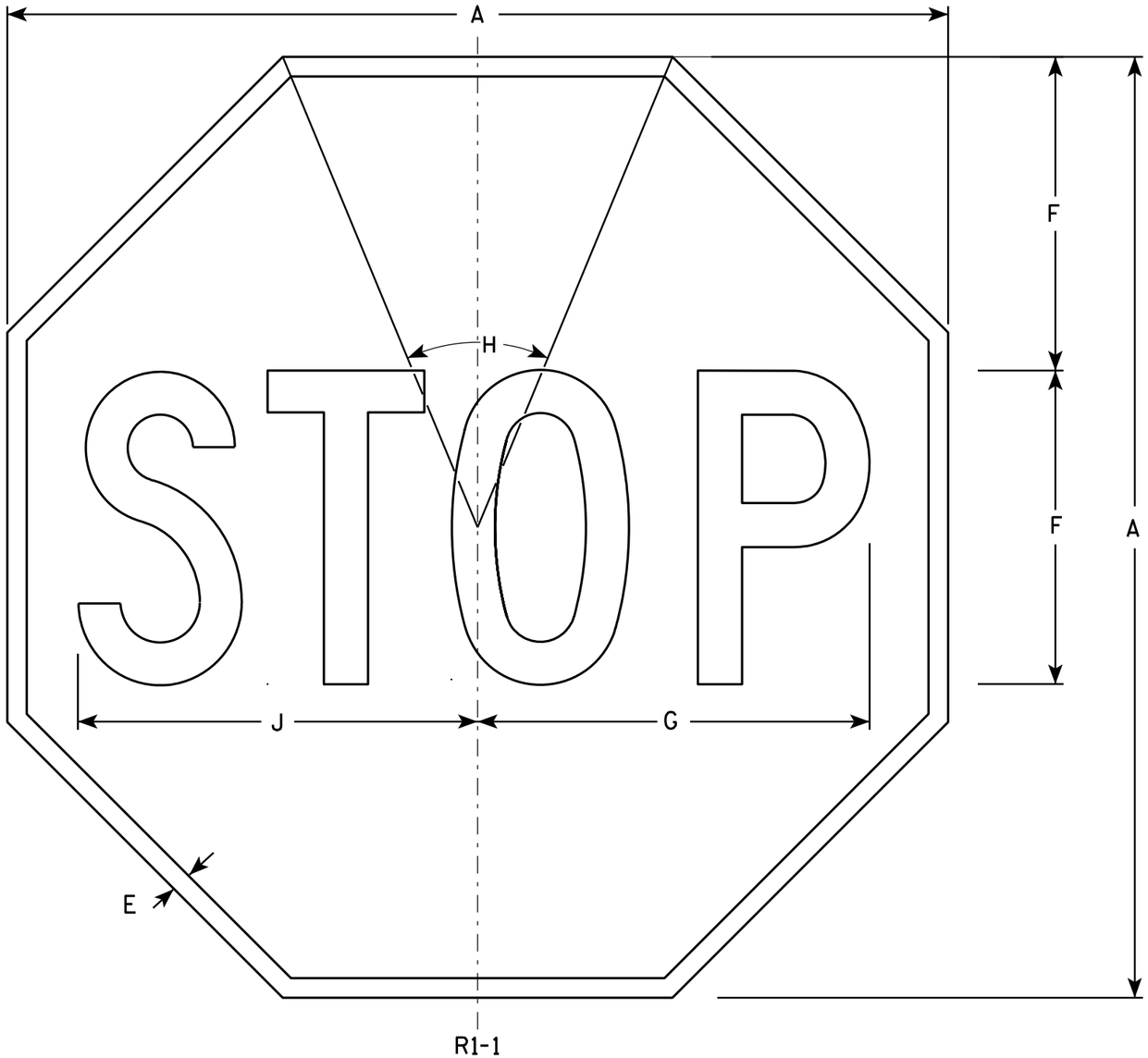
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	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

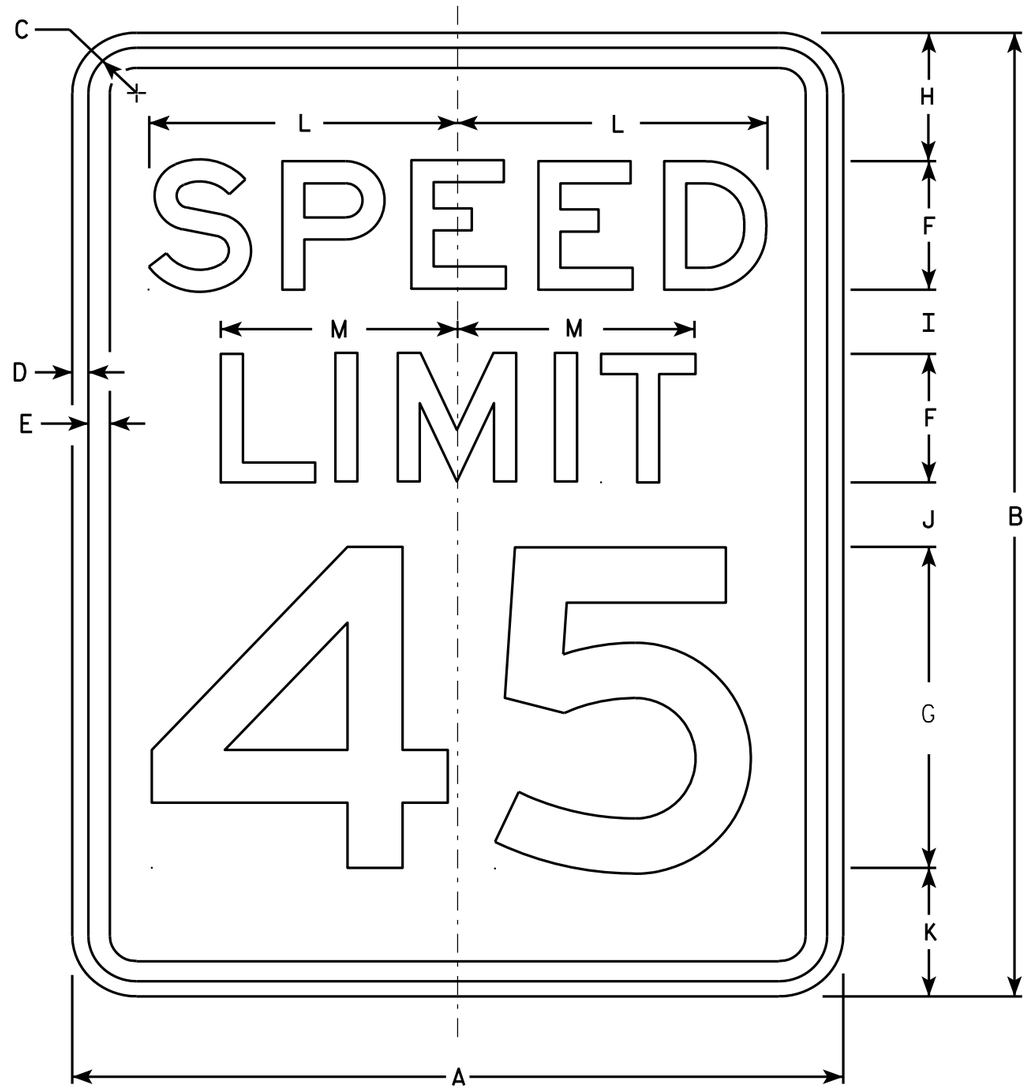
STANDARD SIGN
R1-1

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: 109	E



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

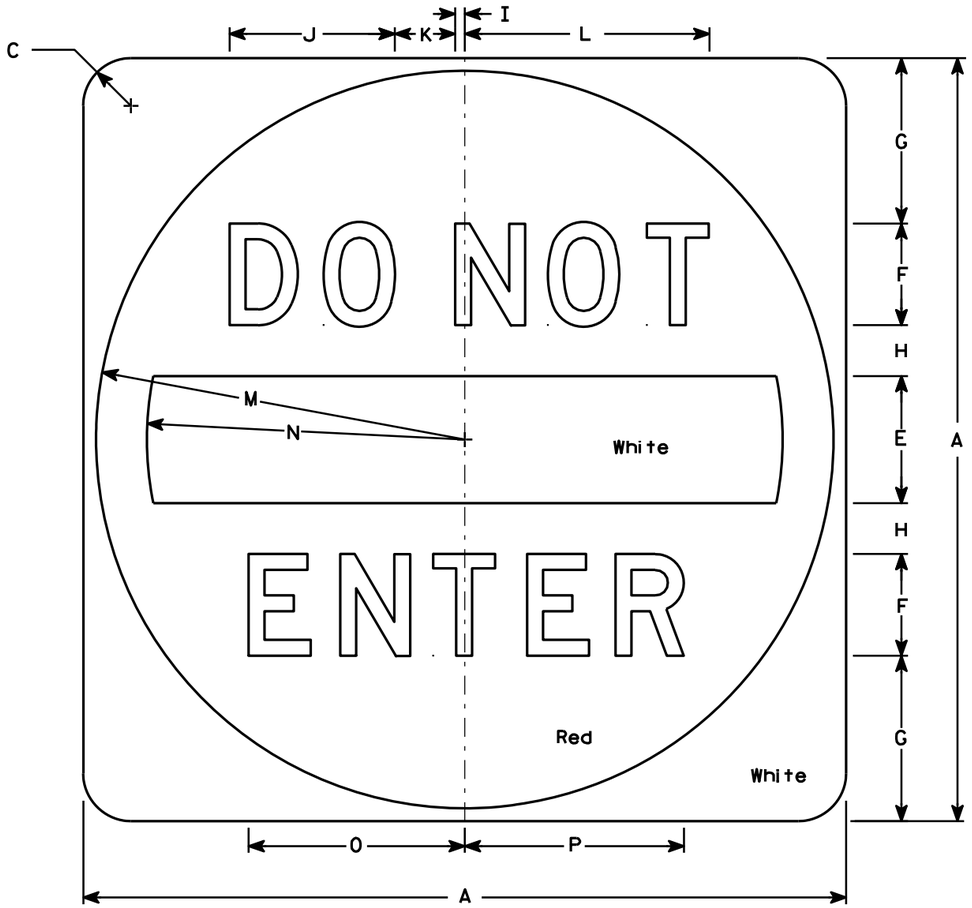
STANDARD SIGN
R2-1

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: 110 | E



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

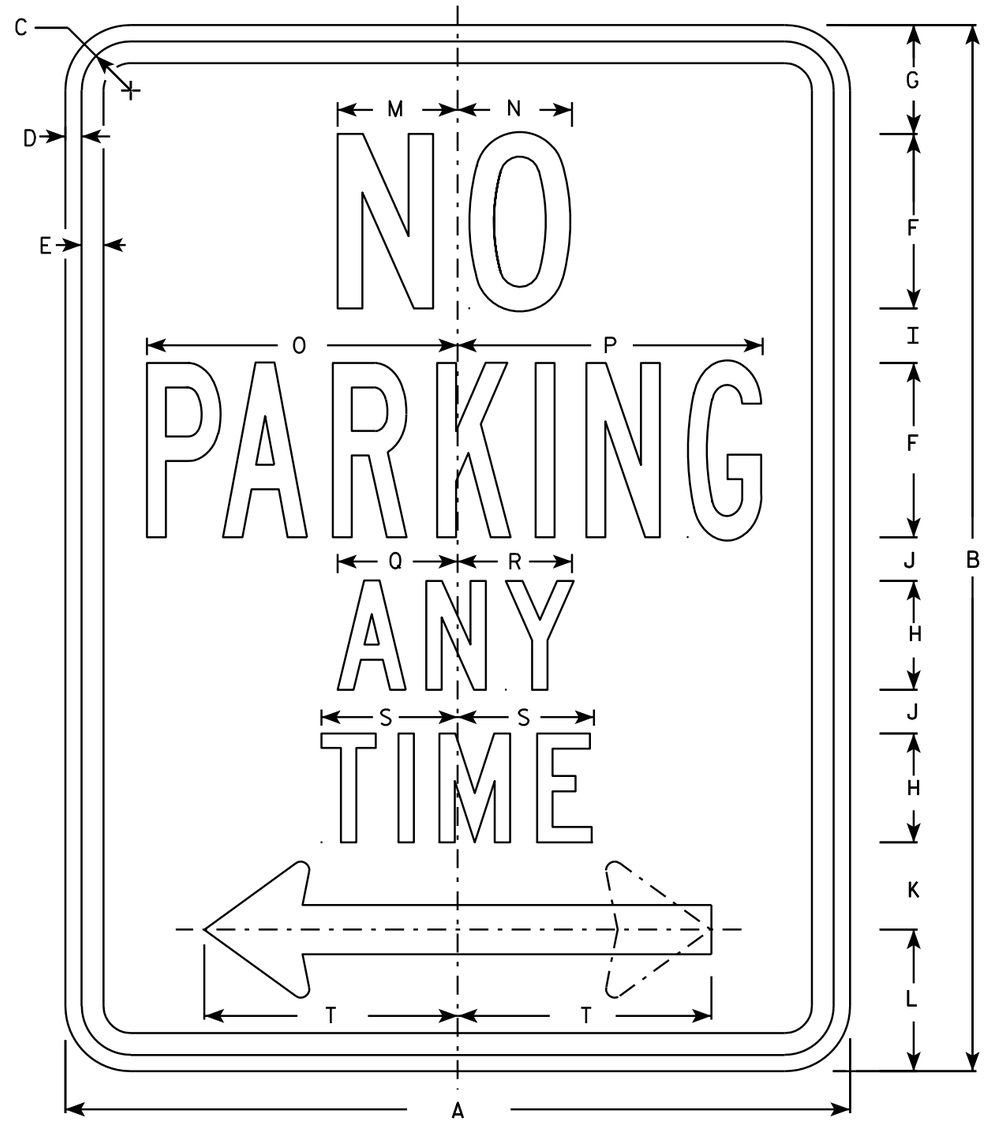
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

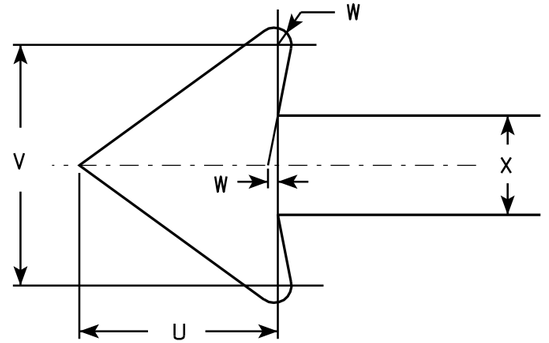
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E



R7-1

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

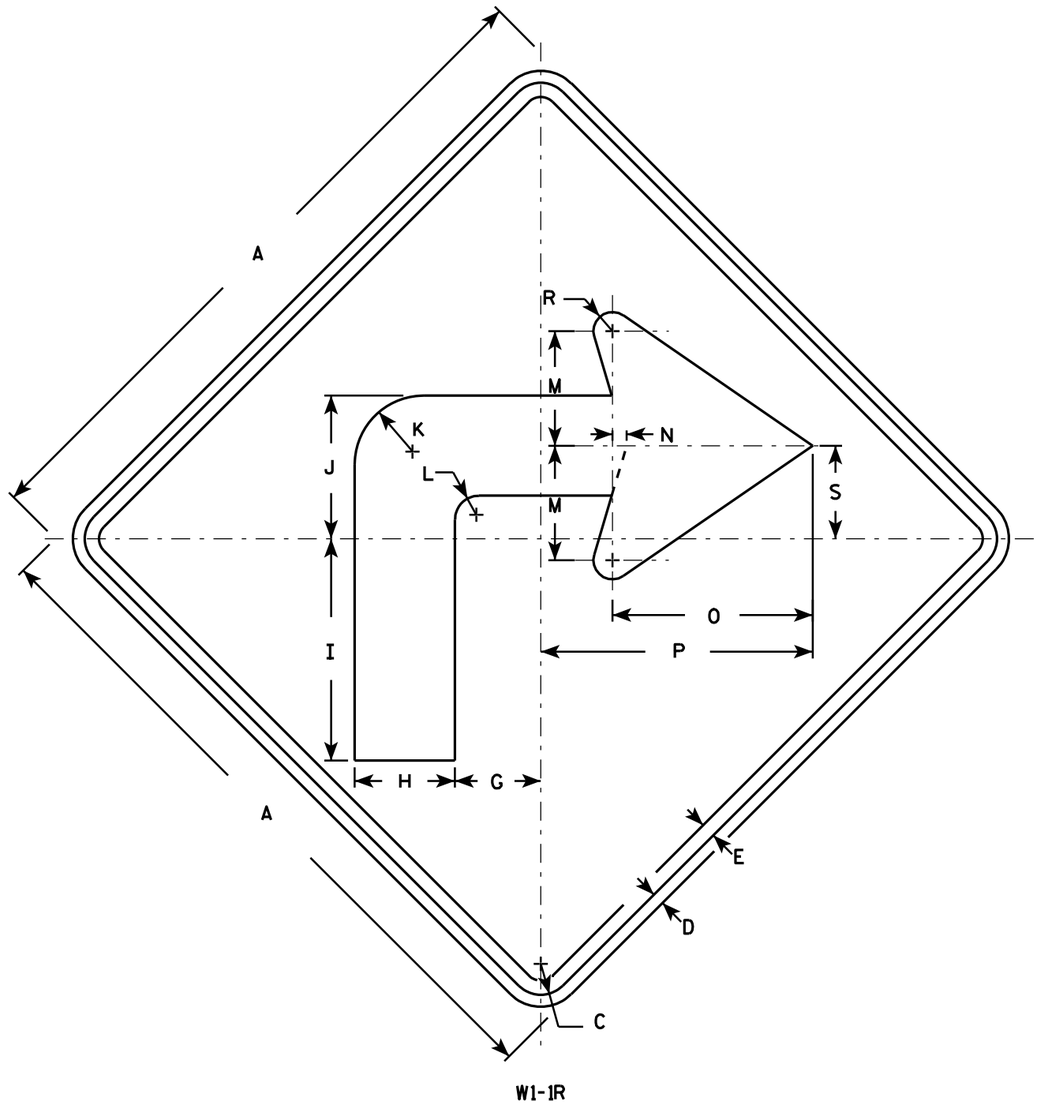
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 112 | E



W1-1R

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. W1-1L is the same as W1-1R 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	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

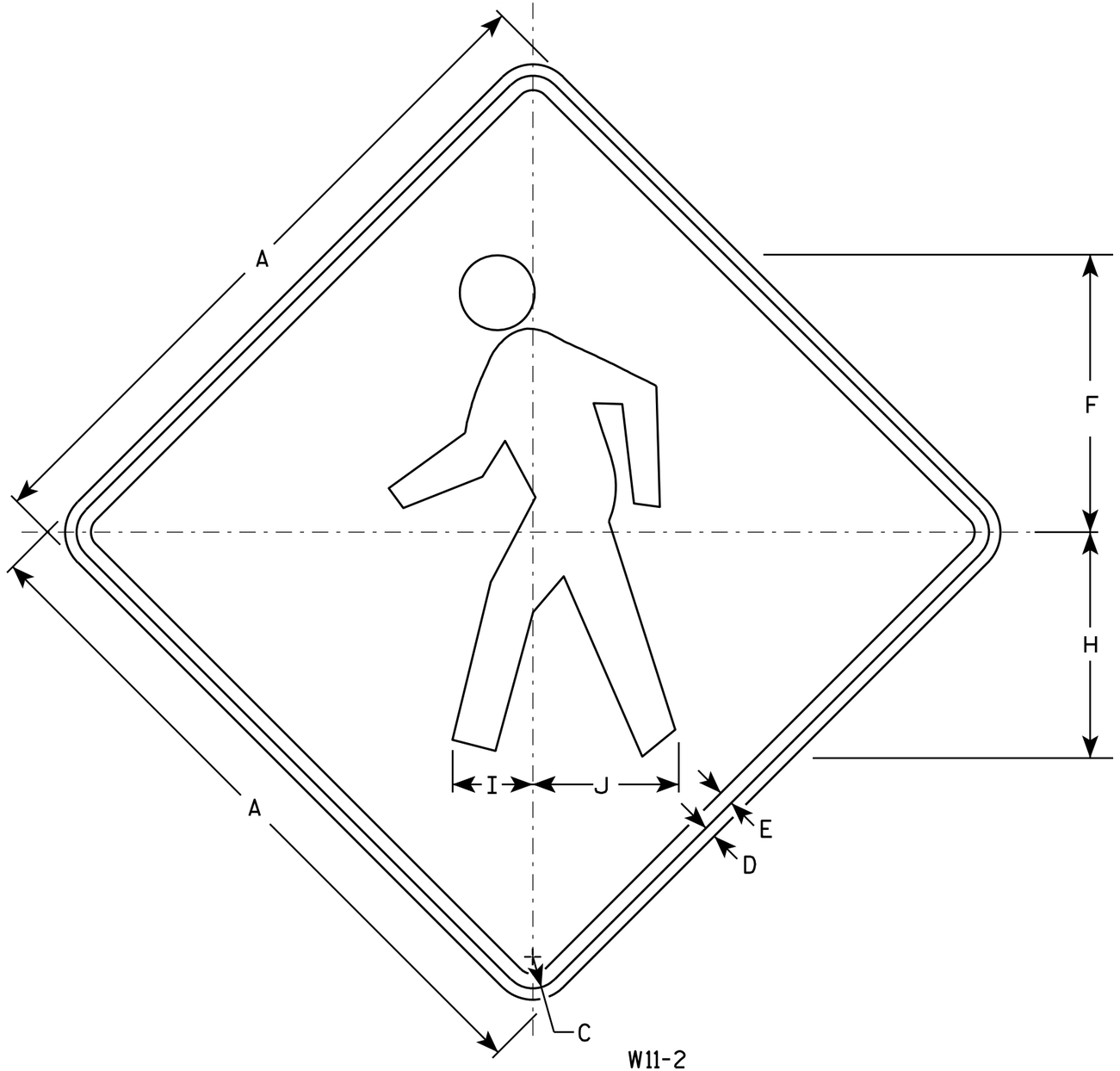
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 113 | 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																											

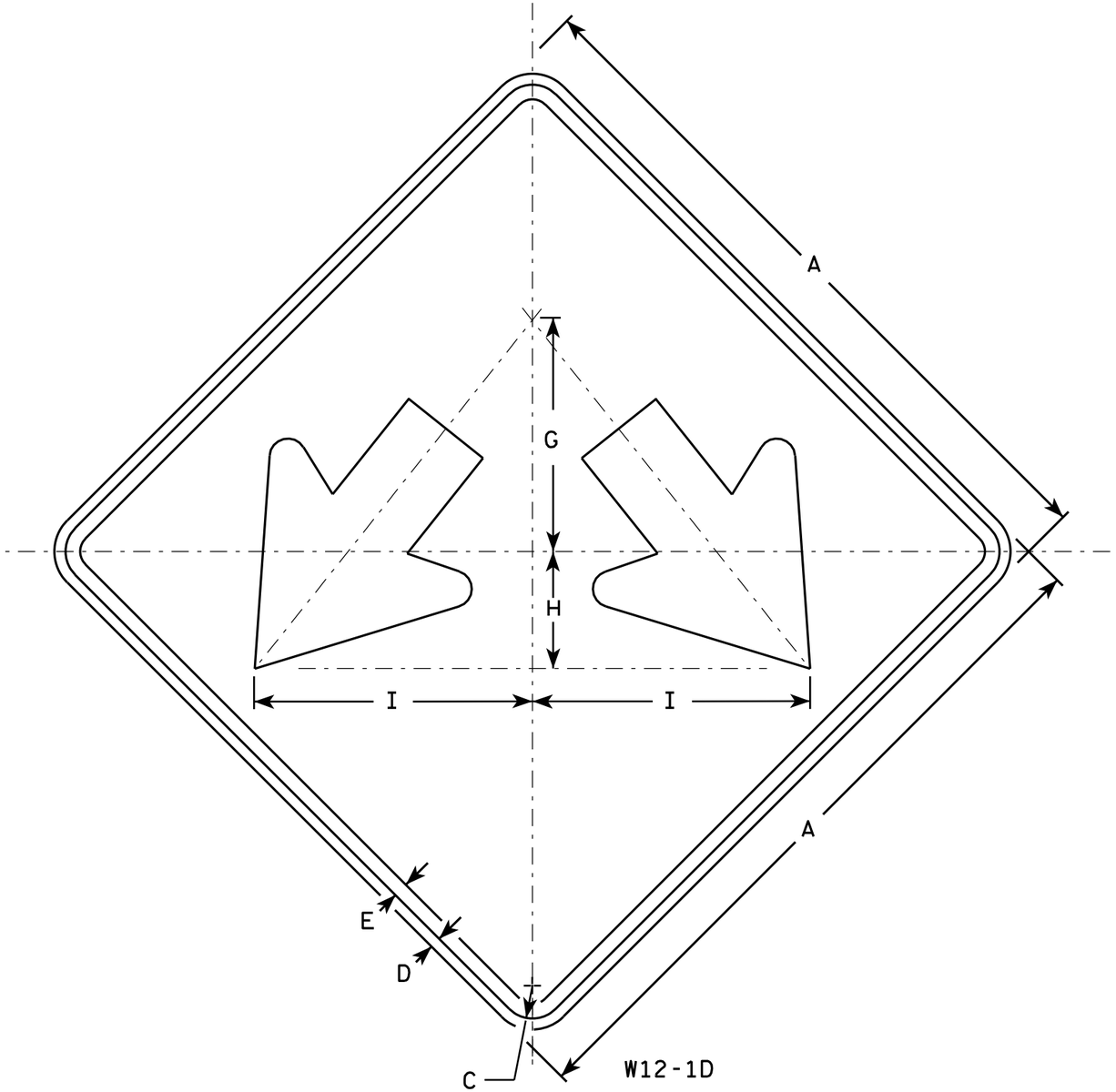
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

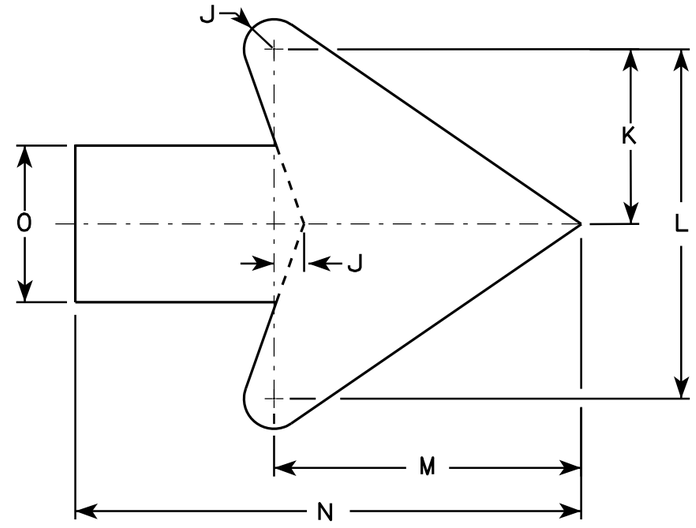
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	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 - 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 3/15/11 PLATE NO. W12-1D.14

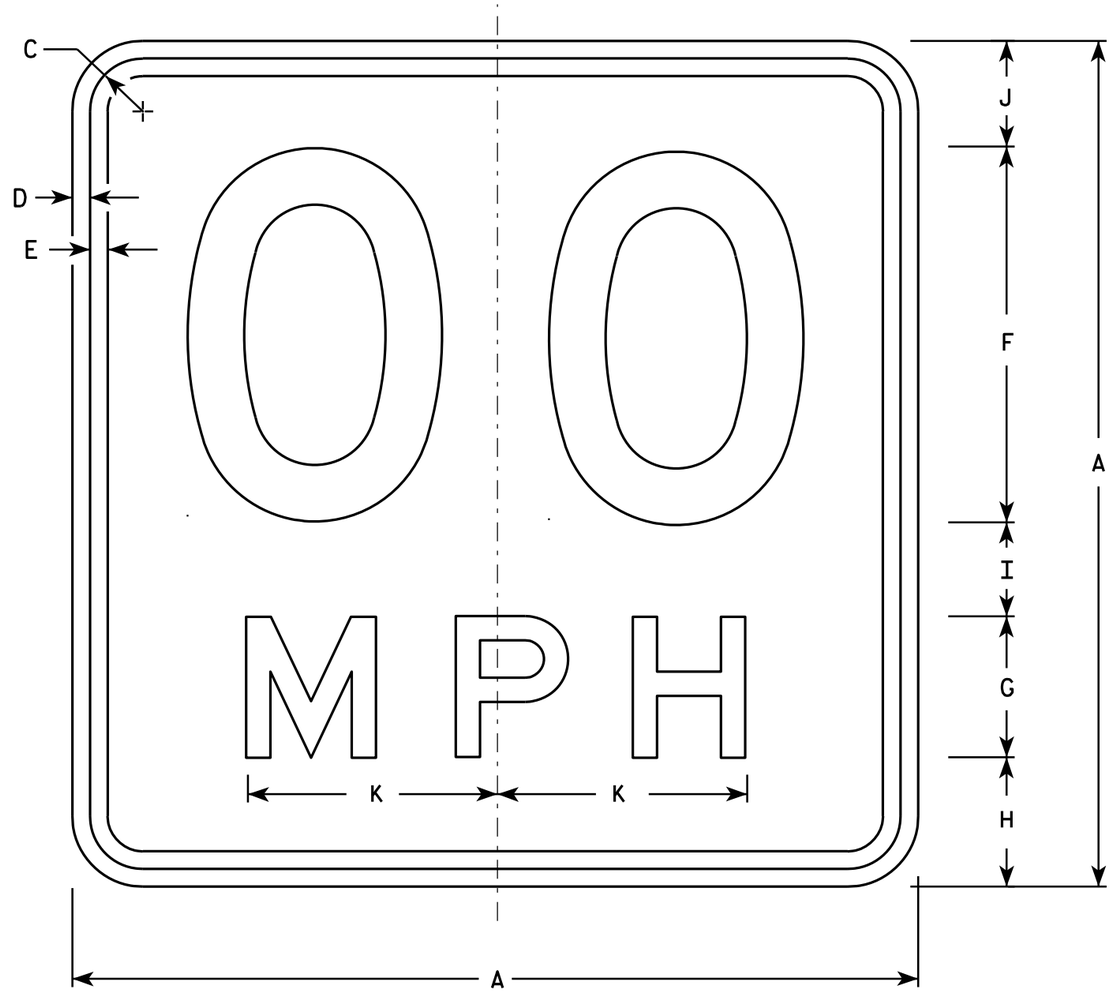
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W121D.DGN PLOT DATE : 16-MAR-2011 14:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.717577:1.000000

WISDOT/CADDS SHEET 42

7

7



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

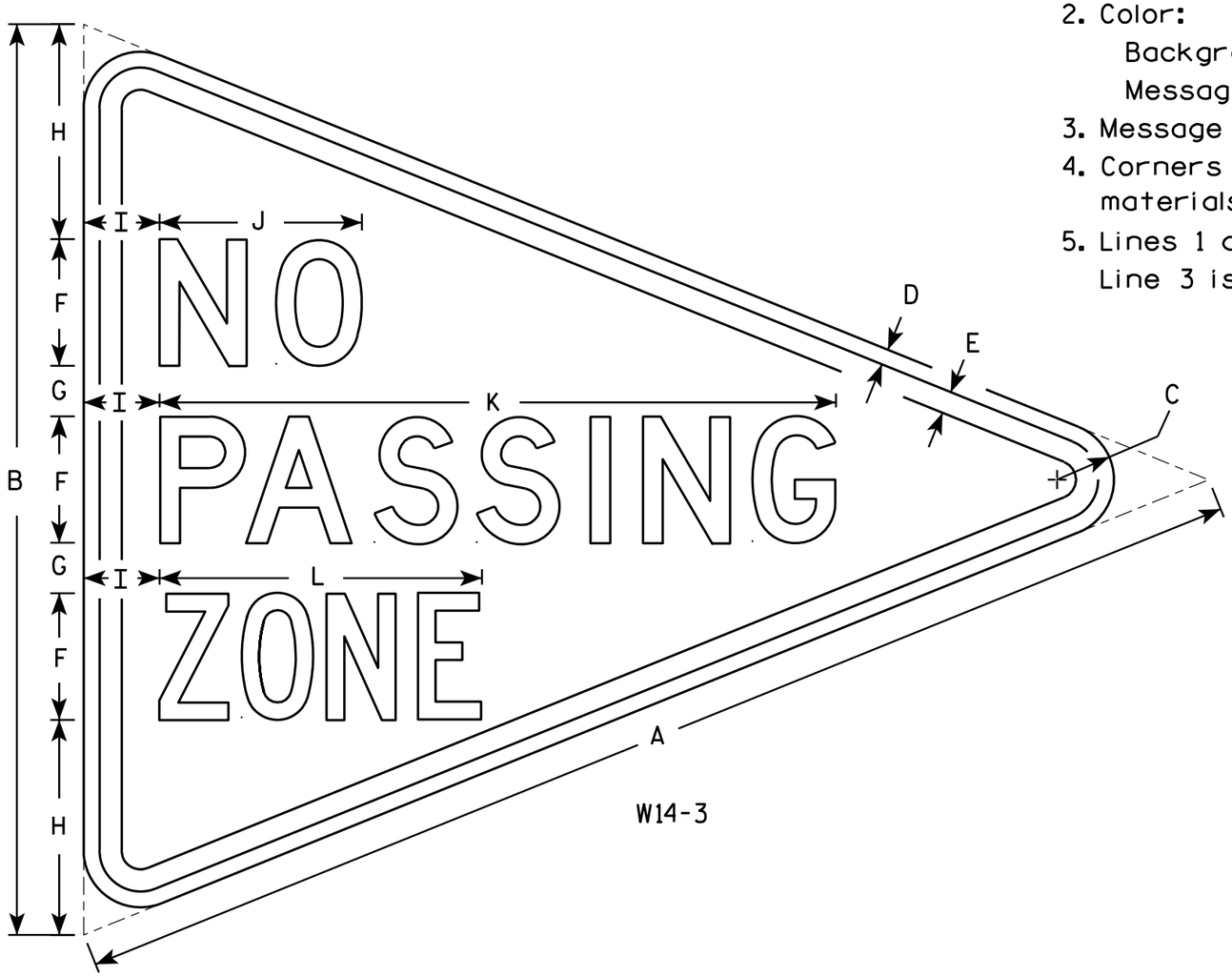
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 116 | 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

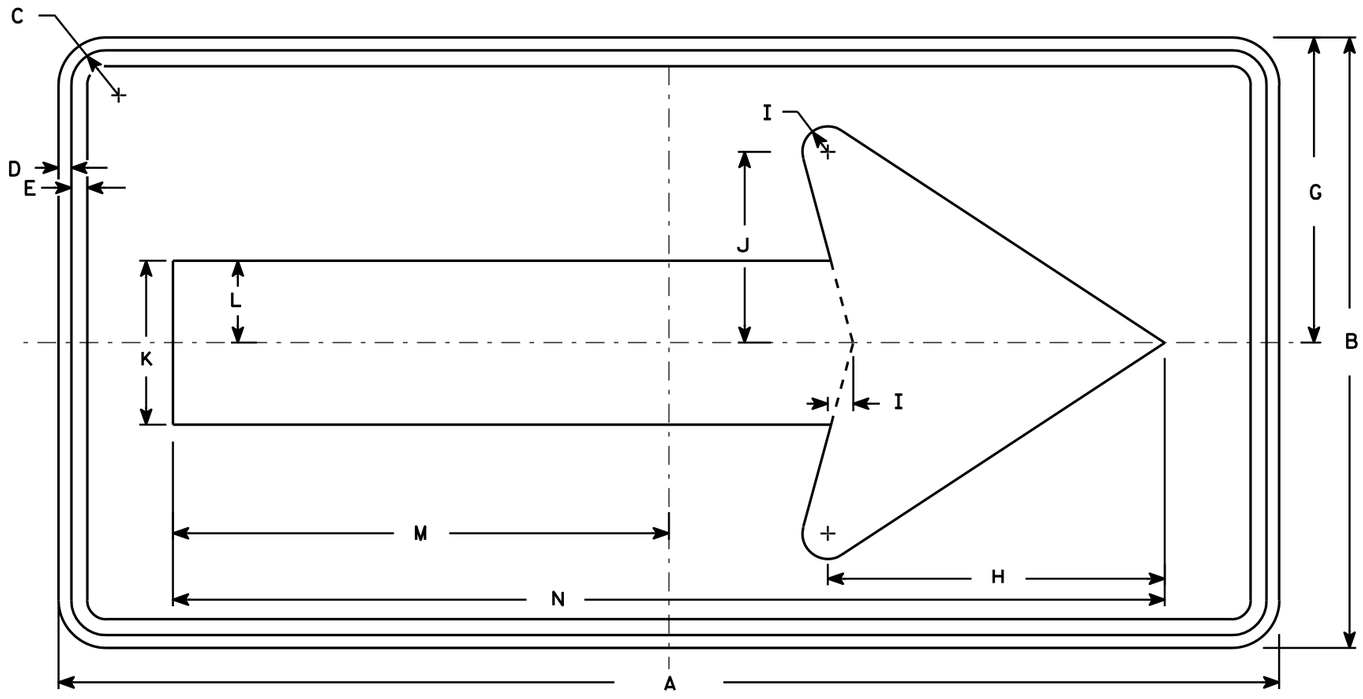
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 117	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

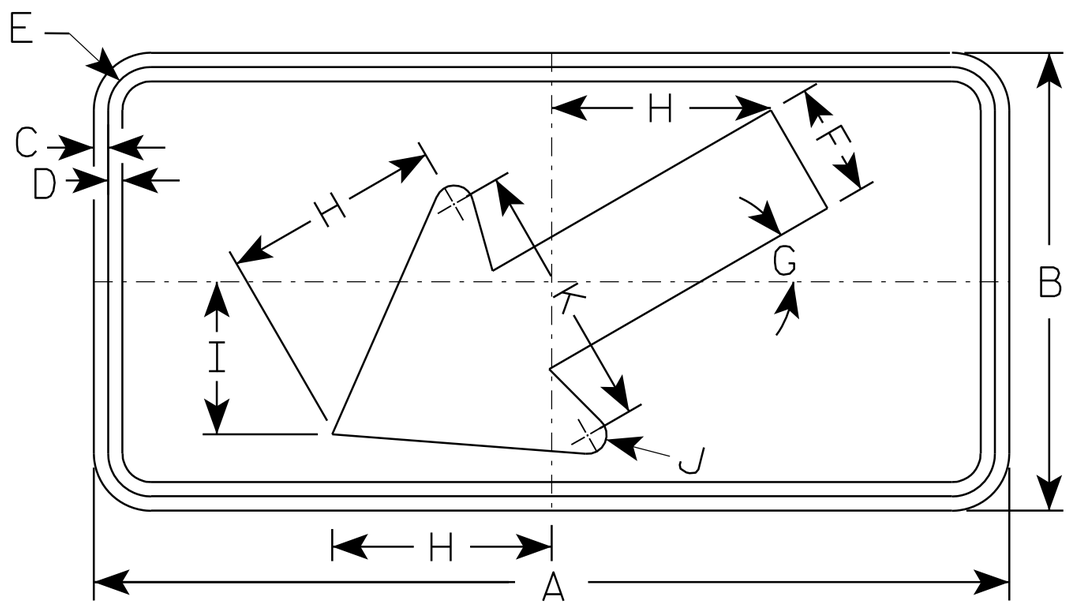
STANDARD SIGN
W1-6

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: 118



W16-7L

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. W16-7R is the same as W16-L 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																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

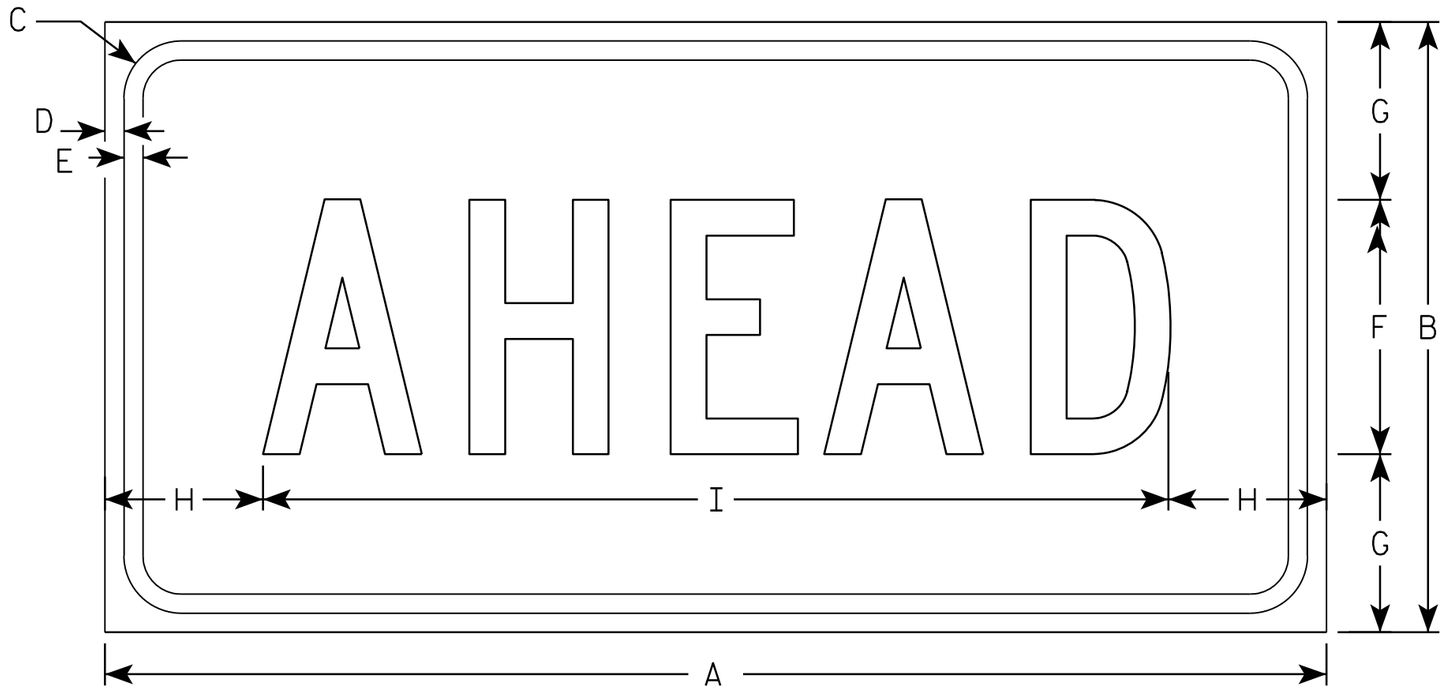
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E



W16-9P

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.

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	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

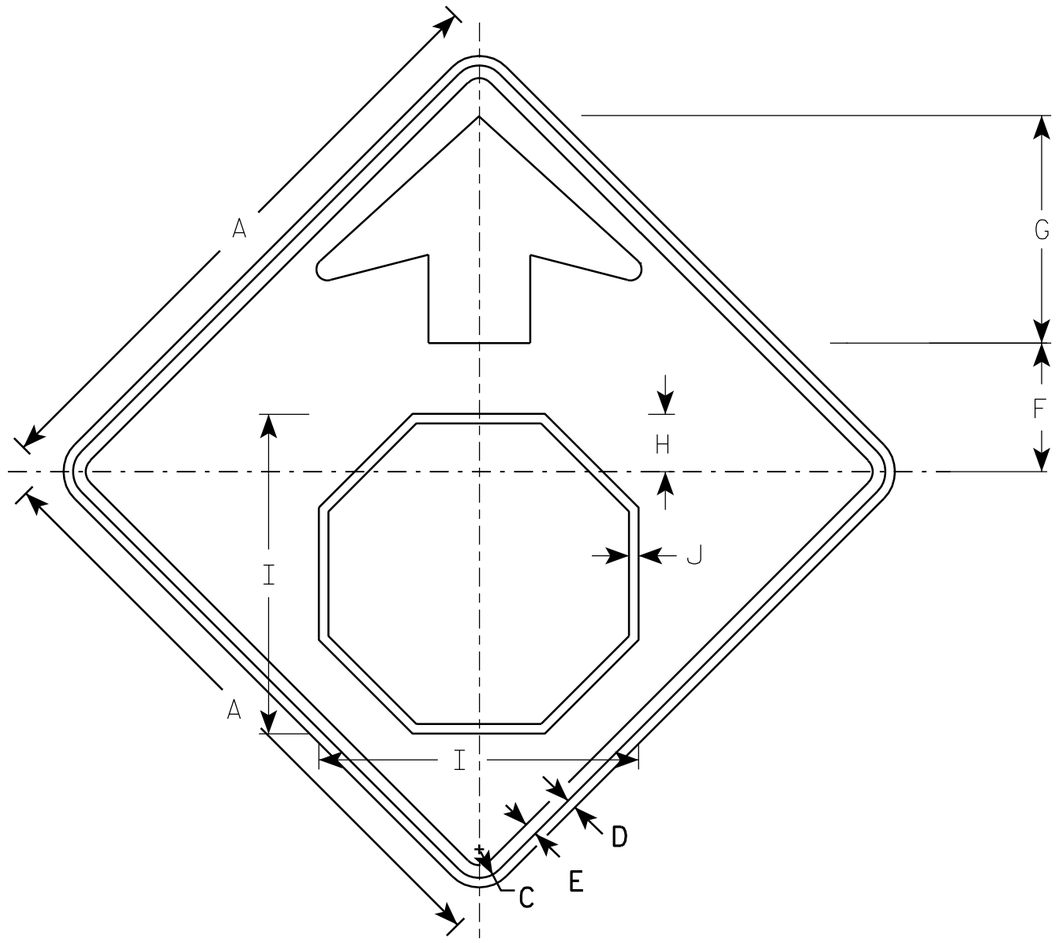
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 120 | E

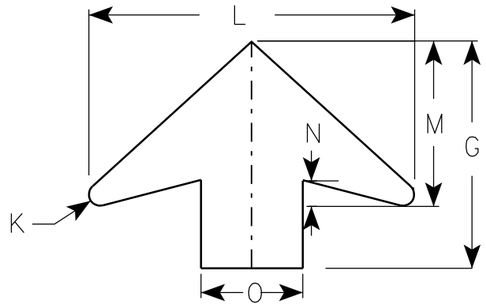
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42



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

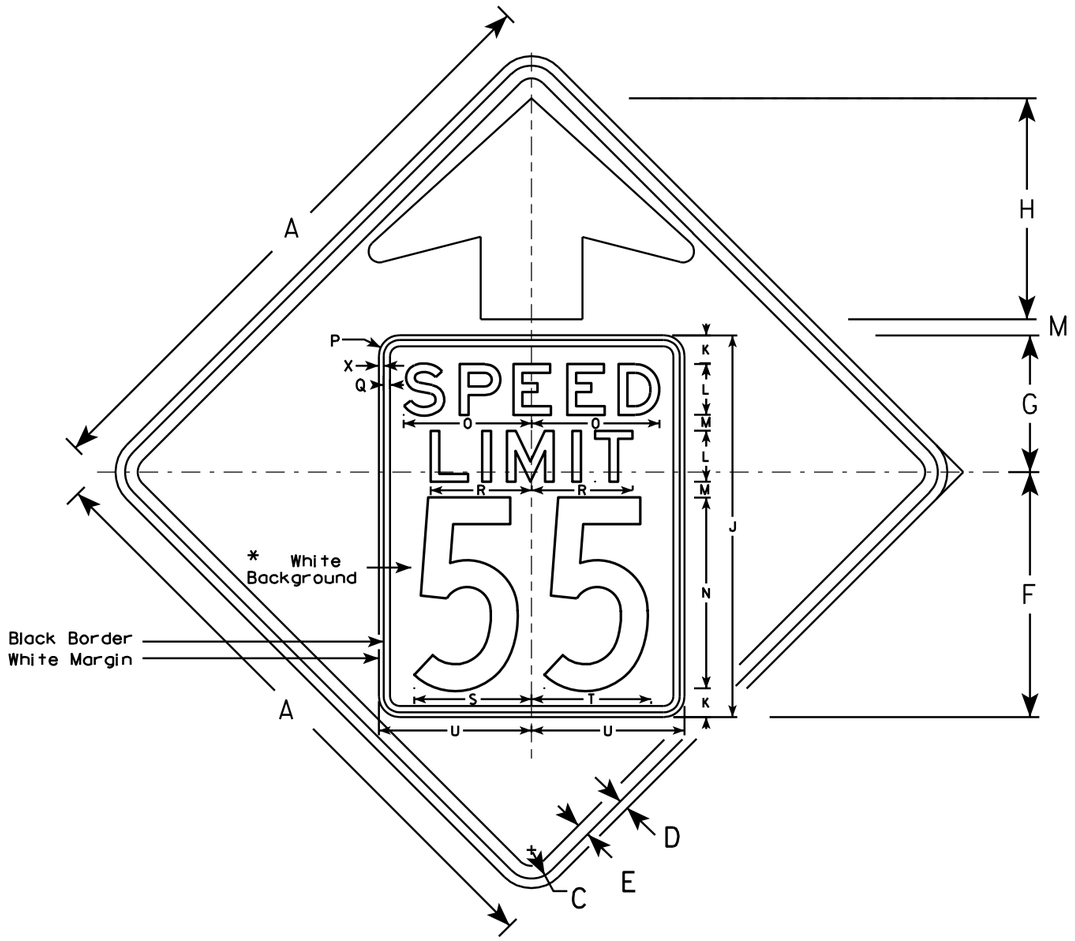
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 121 E

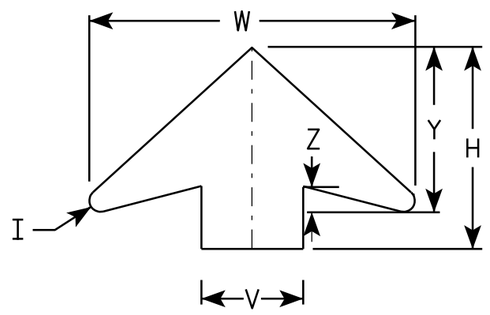


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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

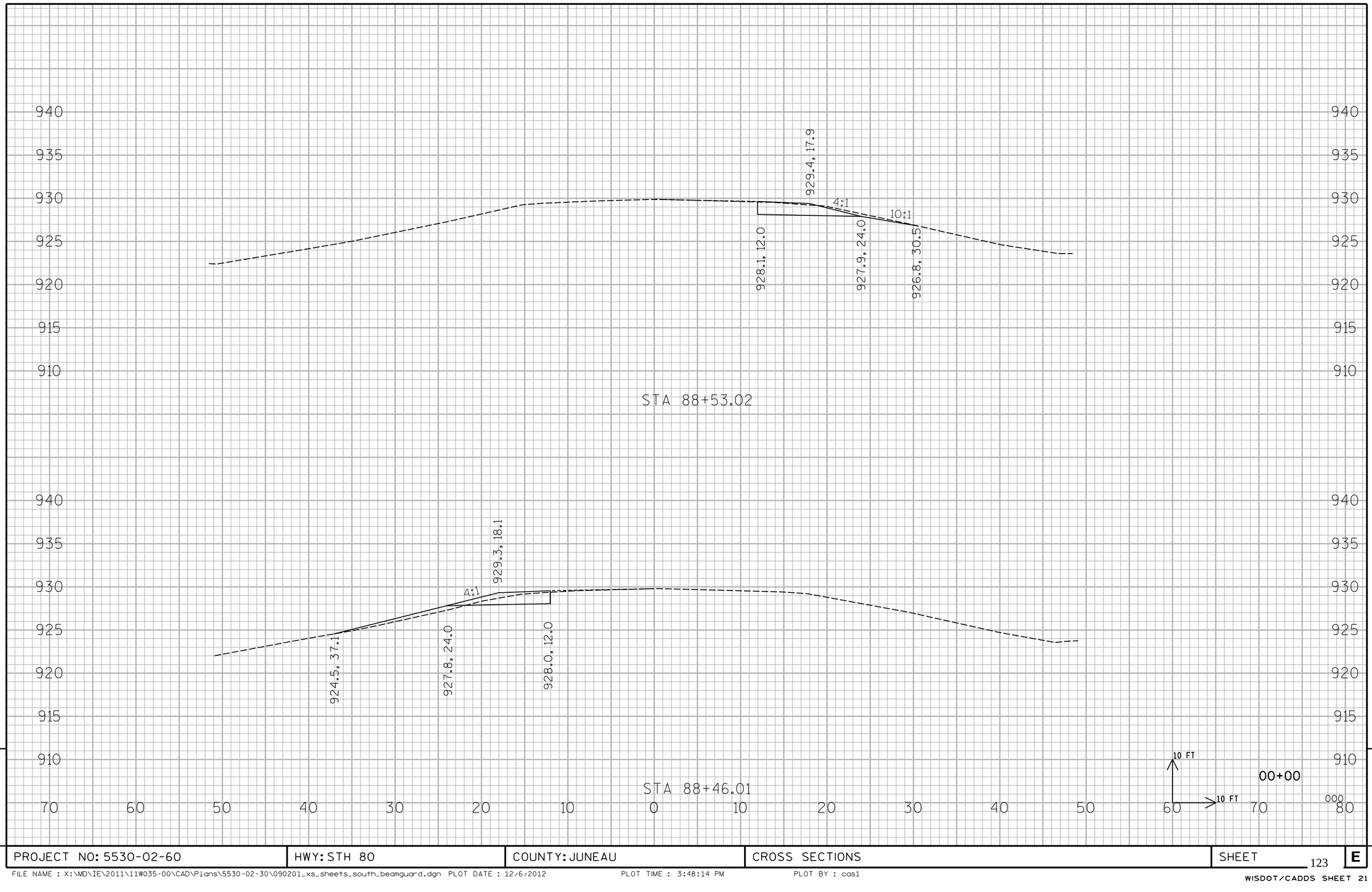
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

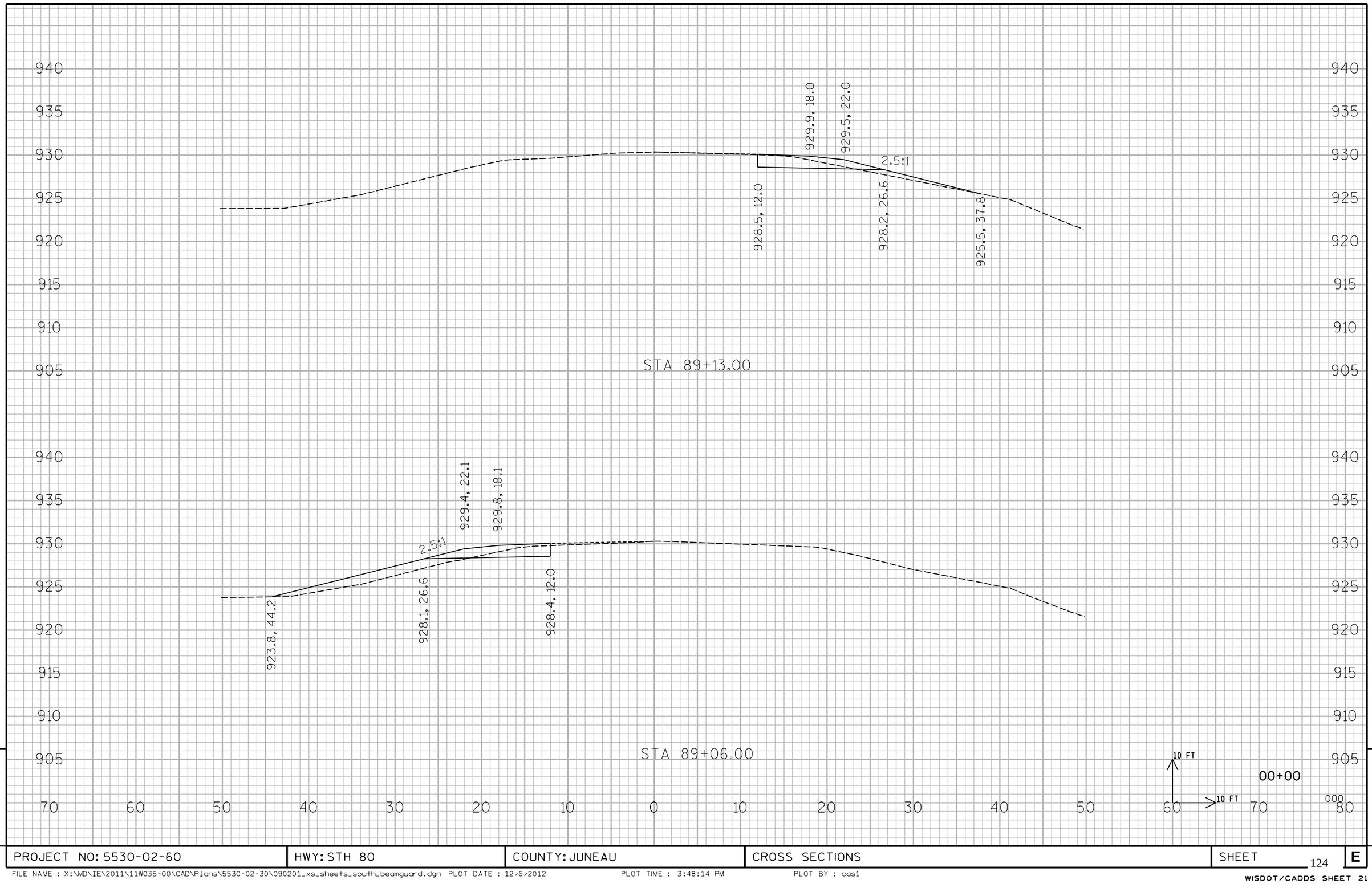
SHEET NO: 122 E



9

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 123	E

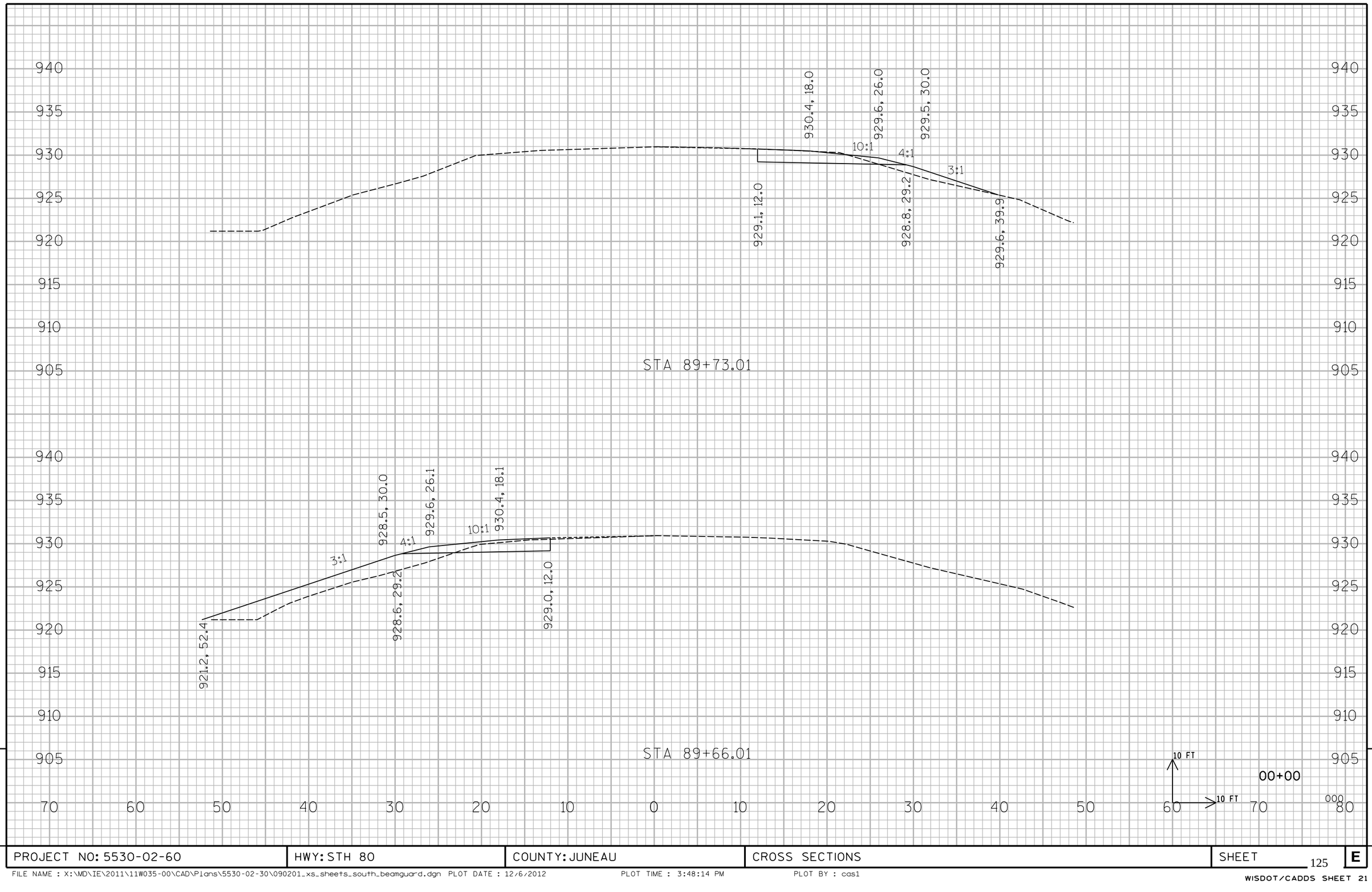
9



9

9

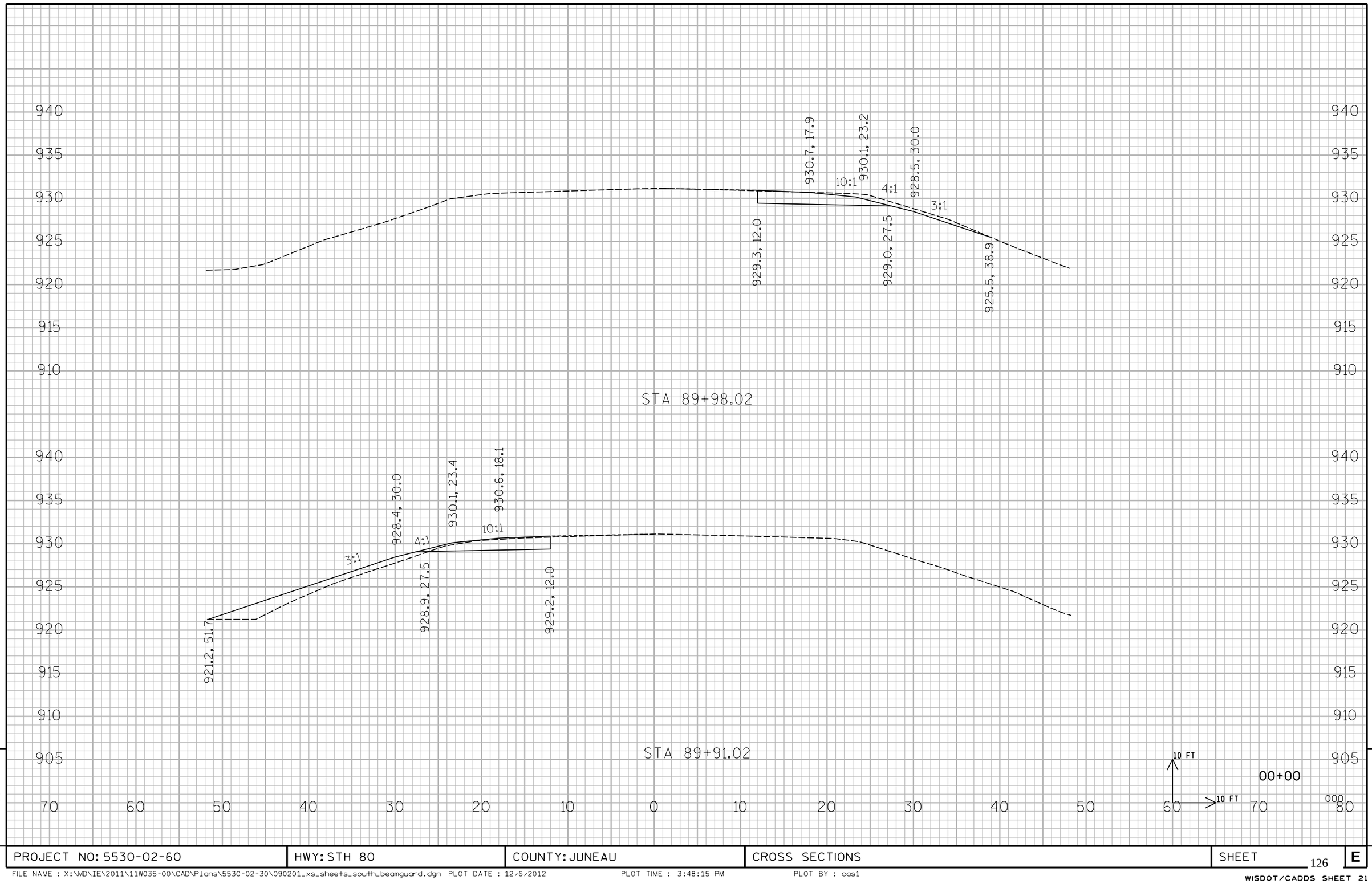
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 124	E



9

9

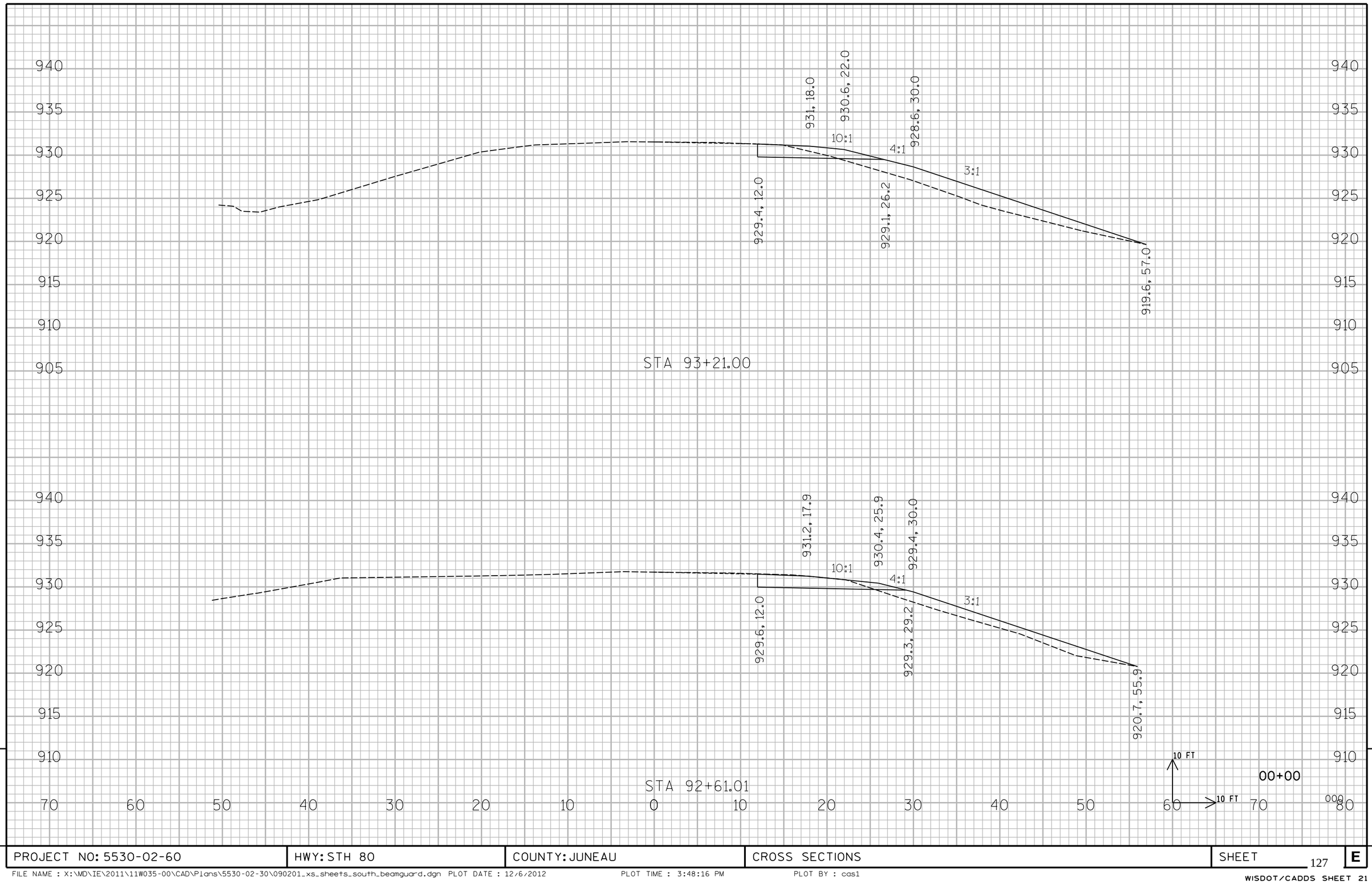
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 125	E



9

9

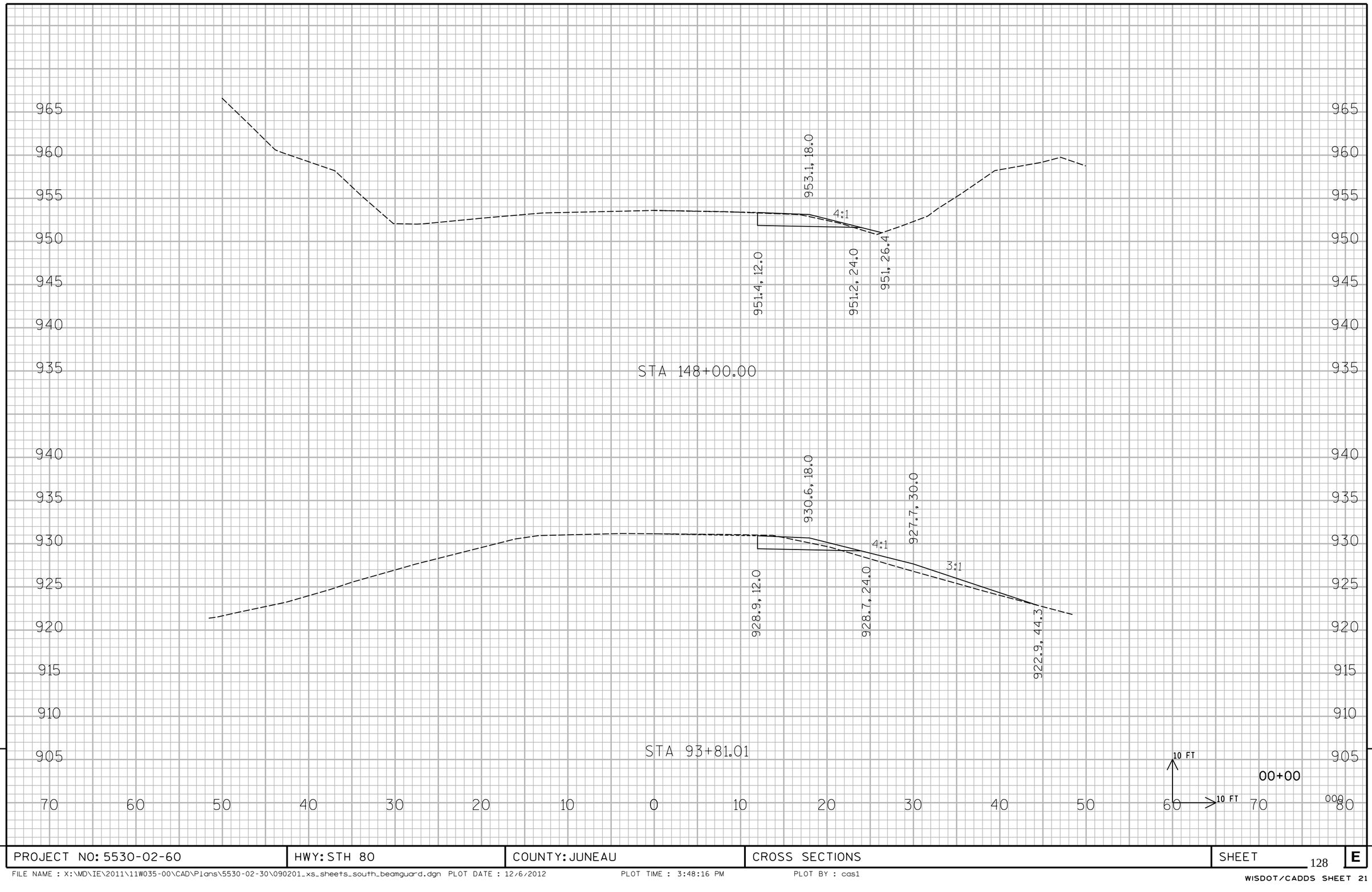
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 126	E



9

9

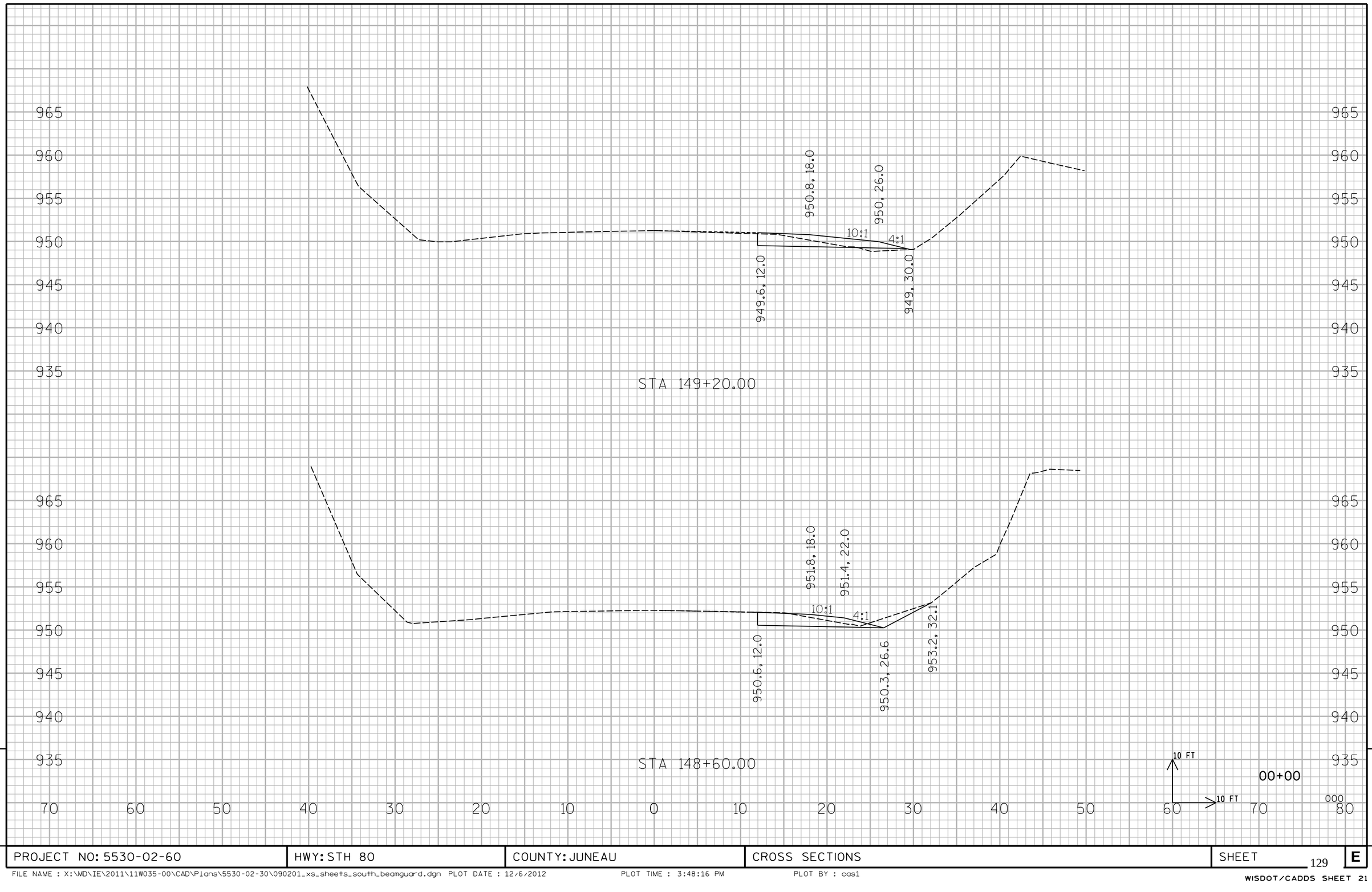
PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 127	E



9

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 128	E

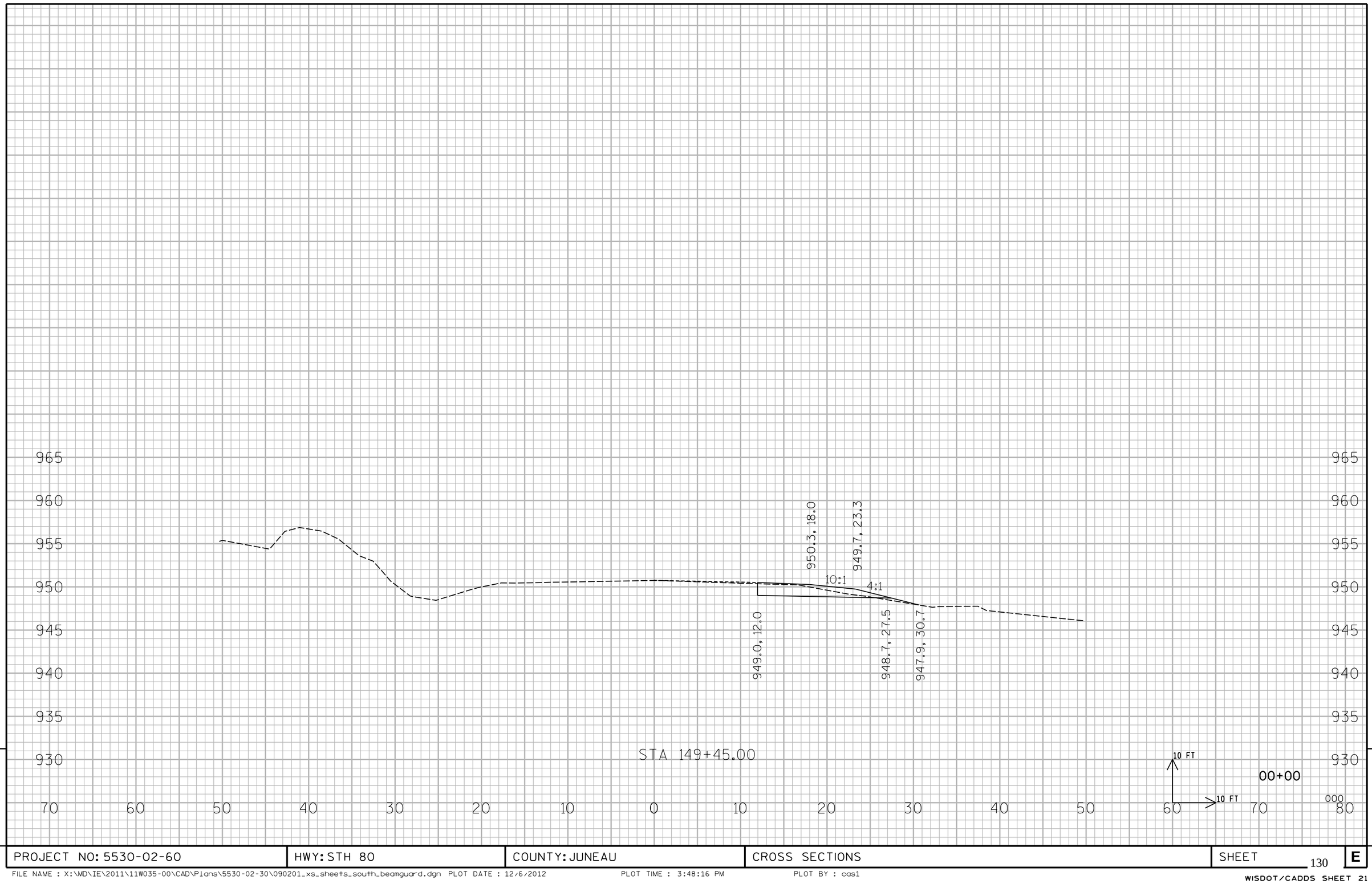
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9

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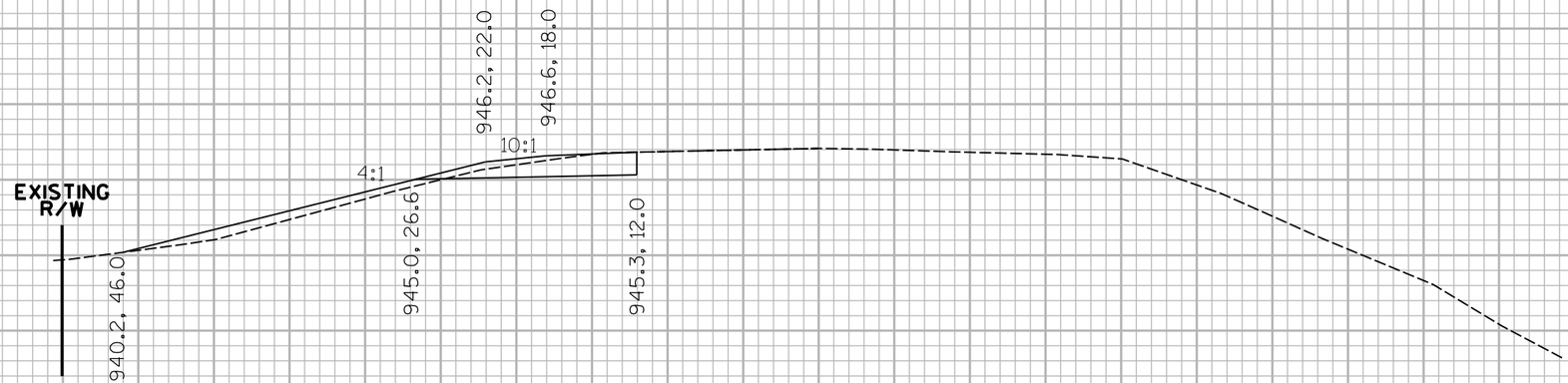
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9

9

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 130	E



950
945
940
935
930
925
920

STA 150+85.00

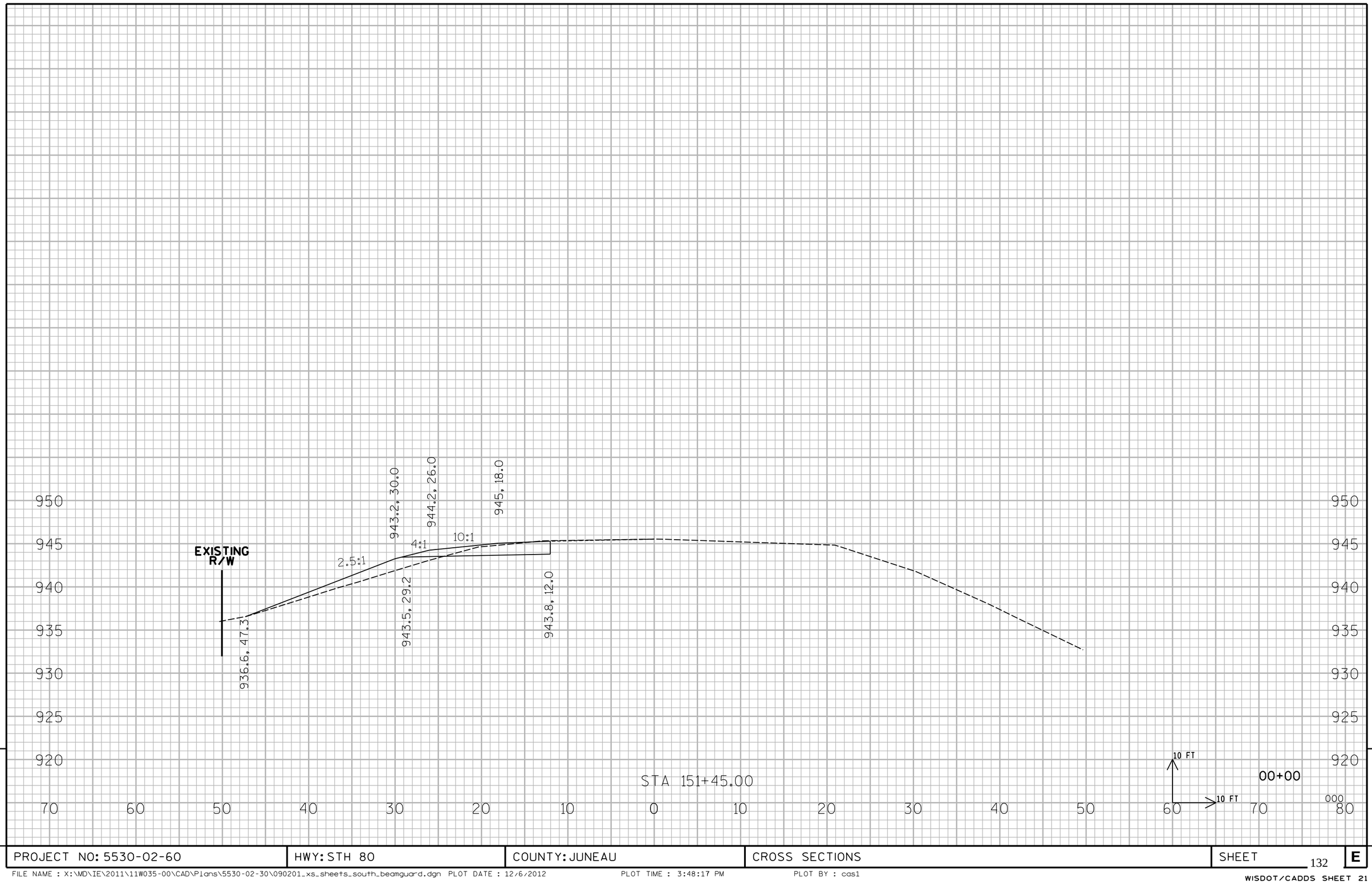
10 FT
10 FT
00+00
000

9

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 131	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-02-30\090201_xs_sheets_south_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:48:16 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 132	E

950
945
940
935
930
925
920
915

EXISTING R/W

930.8, 52.1

937.2, 30.5

937, 31.3

938, 27.3

938.9, 19.3

937.6, 12.0

3:1

4:1

10:1

STA 155+70.00

10 FT

10 FT

00+00

000

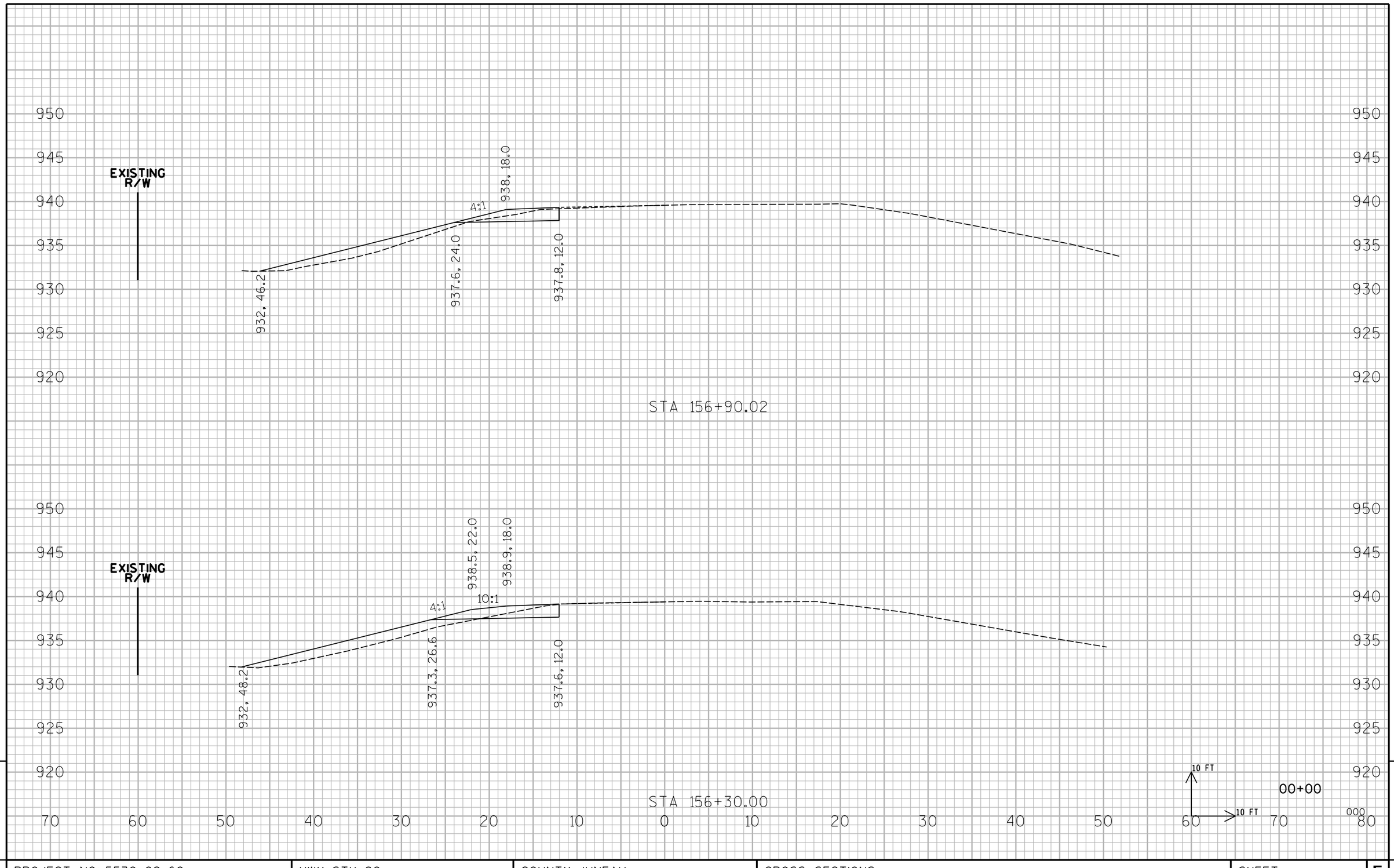
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PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 133	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-02-30\090201_xs_sheets_south_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:48:17 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-02-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 134	E

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

LAX FEB 13

PROJECT ID: 5530-03-60

WITH:

COUNTY: JUNEAU

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 = 200



N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HILLSBORO - NEW LISBON

STH 82 TO SOUTH CITY LIMITS

STH 80

JUNEAU COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5530-03-60	—	—

STATE PROJECT NUMBER

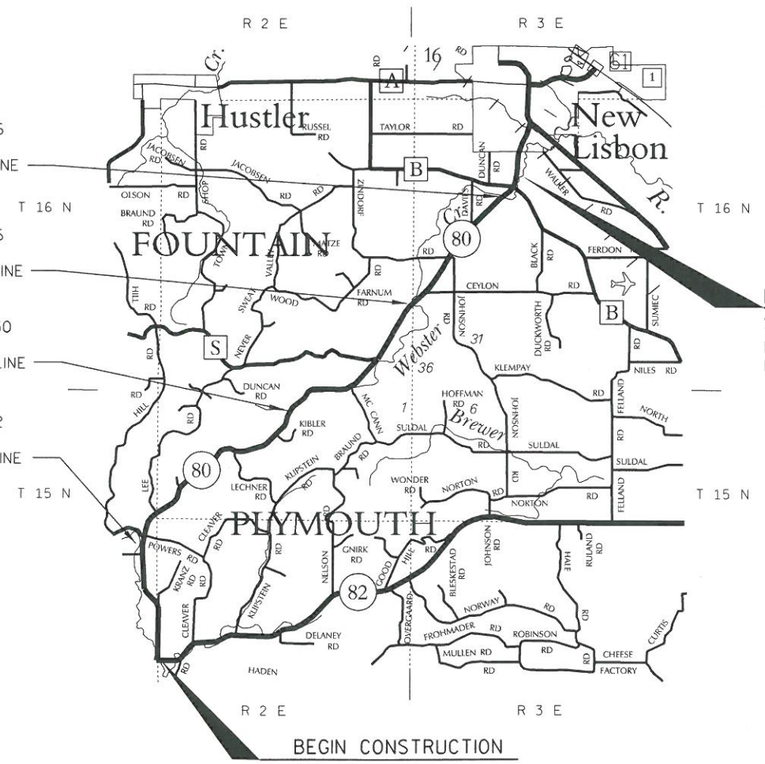
5530-03-60

STA 561+47.69 TO 562+27.36
B-29-131
EXCEPTION TO NET CENTERLINE

STA 456+61.94 TO 457+51.26
B-29-130
EXCEPTION TO NET CENTERLINE

STA 344+27.18 TO 344+97.30
B-29-129
EXCEPTION TO NET CENTERLINE

STA 163+83.05 TO 164+43.62
B-29-128
EXCEPTION TO NET CENTERLINE



END CONSTRUCTION
STA 600+00
N = 182,001.47
E = 438,478.171

BEGIN CONSTRUCTION
STA 75+00
N = 143,936.391
E = 411,179.847
LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 9.886 MI.

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

DESIGN DESIGNATION

A.A.D.T. 2013	=	1,900
A.A.D.T. 2033	=	2,300
D.H.V. 11.8%	=	271
D.D.	=	60/40
T.	=	13.9%
DESIGN SPEED	=	55 MPH
ESALS	=	868,700

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

ORIGINAL PLAN PREPARED BY:

Foth
Foth Infrastructure & Environment, LLC
1402 Pankratz Street. Suite 300
Madison, WI 53704
Phone: 608-242-5900 Fax: 608-242-5999

WISCONSIN
CHRIS A. SAXBY
E-32744
MADISON
WI
PROFESSIONAL ENGINEER

7/30/12 DATE

Foth CONSULTANT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	FOTH INFRASTRUCTURE & ENVIRONMENT, LLC
Project Manager	ROBERT WINTERTON
Regional Examiner	
Regional Supervisor	OSCAR WINGER
C.O. Examiner	WISDOT PROJECT SERVICES

APPROVED FOR THE DEPARTMENT

DATE: 7-30-2012 Oscar A. Winger (Signature)

E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\010101_ti.dgn PLOT DATE : 12/4/2012 PLOT TIME : 3:21:14 PM PLOT BY : cas1

WISDOT/CADDS SHEET 10

UTILITIES

JASON HOGAN
ALLIANT ENERGY
4902 N BALTIMORE LANE
SUITE 1000
MADISON, WI 53718
608-458-4871

MIKE OLSEN
ATC MANAGEMENT, INC.
801 O'KEEFE ROAD
P.O. BOX 6113
DE PERE, WI 54115-6113
920-338-6582

STEVE BLADO
CENTURYLINK
333 N FRONT ST
LA CROSSE, WI 54601
608-796-5543

BEN GRILLEY
LEMONWEIR VALLEY TELEPHONE COMPANY
127 US HWY 12
P.O. BOX 267
CAMP DOUGLAS, WI 54618
608-427-6515

SCOTT BROOKMAN
OAKDALE ELECTRIC COOPERATIVE
489 N OAKWOOD ST
P.O. BOX 128
OAKDALE, WI 54649
608-372-4131

DIGGERS HOTLINE

DIAL 811 OR
Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

OTHER CONTACTS

DNR CONTACT: CATHY BLESER
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DNR, SOUTH CENTRAL REGION
3911 FISH HATCHERY ROAD
MADISON, WI 53711
(608) 275-3308

DESIGNER CONTACT: FOTH INFRASTRUCTURE & ENVIRONMENT, LLC
CHRIS SAXBY, P.E.
1402 PANKRATZ STREET, STE 300
MADISON, WI 53704
OFFICE: 608-242-5942
EMAIL: CHRIS.SAXBY@FOTH.COM

WisDOT CONTACT: ROB WINTERTON
MORMON COULEE RD.
LA CROSSE, WI 54601
(608) 789-7879
ROBERT.WINTERTON@DOT.WI.GOV

JUNEAU COUNTY: HIGHWAY AND PUBLIC WORKS
DENNIS WEISS, DEPARTMENT HEAD
930 EAST STATE STREET
MAUSTON, WI 53948
608-847-5874

SECTION 2 ORDER OF SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
SIGNING PLANS
TRAFFIC CONTROL
ALIGNMENT DATA

GENERAL NOTES

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

THE CONTROL SURVEY CONDUCTED FOR THIS PROJECT WAS DONE BY WISDOT AND IS NOT SHOWN IN THE PLANS. CONTACT WISDOT FOR SURVEY CONTROL INFORMATION.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTORS SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

EROSION CONTROL FEATURES ARE LISTED IN MISCELLANEOUS QUANTITIES BUT NOT SHOWN ON THE PLANS. LOCATIONS LISTED ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES.

BUTT JOINTS AND AREAS OF PAVEMENT, CURB & GUTTER, AND SIDEWALK REMOVAL SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

EXACT PAVING LIMITS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

A 25% EXPANSION FACTOR WAS USED TO CALCULATE FILL QUANTITIES.

PRIVATE, FIELD, AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. ASPHALT APRONS SHALL BE INSTALLED AT ALL BASE COURSE ENTRANCES. ENTRANCES SHALL REMAIN OPEN DURING CONSTRUCTION.

DISTURBED RURAL AREAS WITHIN THE RIGHT-OF-WAY SHALL BE TOPSOILED, FERTILIZED, SEEDED, AND EROSION MATTED.

AREAS OF EBS AND FULL PAVEMENT REPLACEMENT TO BE DEFINED IN THE FIELD BY THE ENGINEER. APPROXIMATE LOCATIONS DEFINED IN THE PAVEMENT DESIGN REPORT ARE SHOWN ON THE PLANS.

3.5" HMA PAVEMENT TYPE E-1 SHALL BE PLACED IN ONE 1.75 INCH LOWER LAYER (PG 58-28, 12.5 mm) AND ONE 1.75" UPPER LAYER (PG58-28, 12.5 mm). HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/IN/SY.

IN AREAS OF EBS AND FULL DEPTH PAVEMENT REPLACEMENT, 5" HMA PAVEMENT TYPE E-1 SHALL BE PLACED IN ONE 2.75 INCH LOWER LAYER (PG 58-28, 12.5 mm) AND ONE 2.25" UPPER LAYER (PG58-28, 12.5 mm).

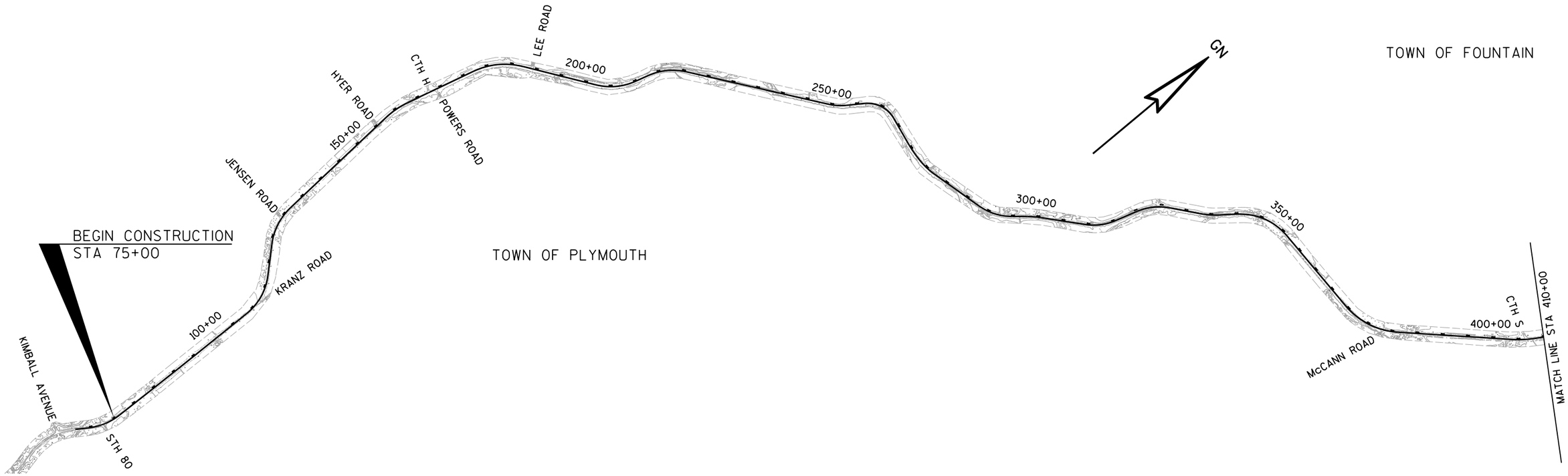
WHEN THE QUANTITY OF BASE AGGREGATE DENSE 3/4 INCH, BASE AGGREGATE DENSE 1 1/4 INCH OR HMA PAVEMENT TYPE E-1 IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL DEPTH MAY VARY DEPENDING ON THE ACTUAL DISTRIBUTION OF THE MATERIAL AS APPROVED BY THE ENGINEER IN THE FIELD.

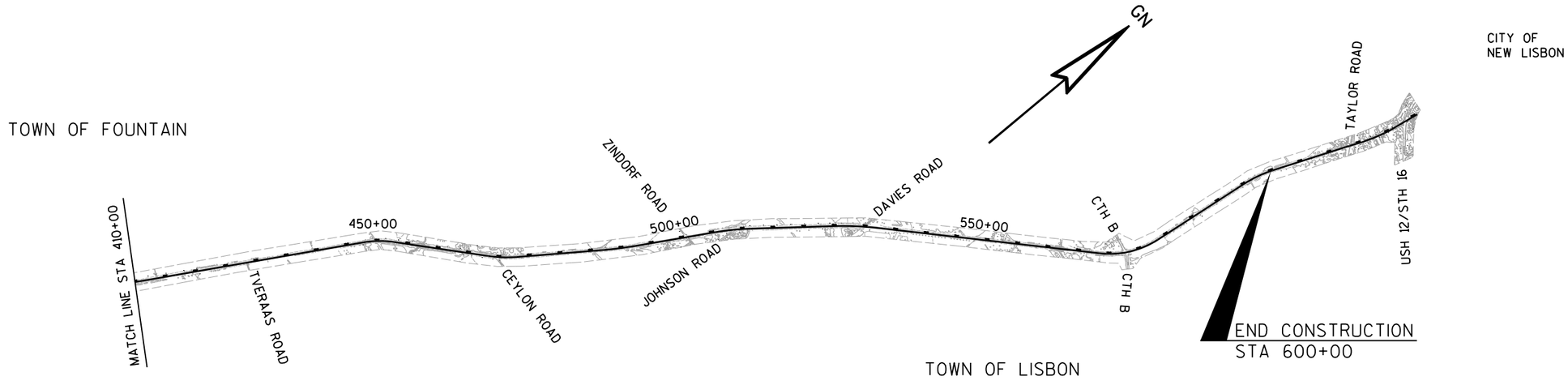
WASTE MATERIAL RESULTING FROM THE VARIOUS OPERATIONS UNDER THIS CONTRACT SHALL BE ENTIRELY REMOVED AND DISPOSED OF AT THE TIME OF OCCURRENCE AS DIRECTED BY THE ENGINEER.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS MAY EXIST.

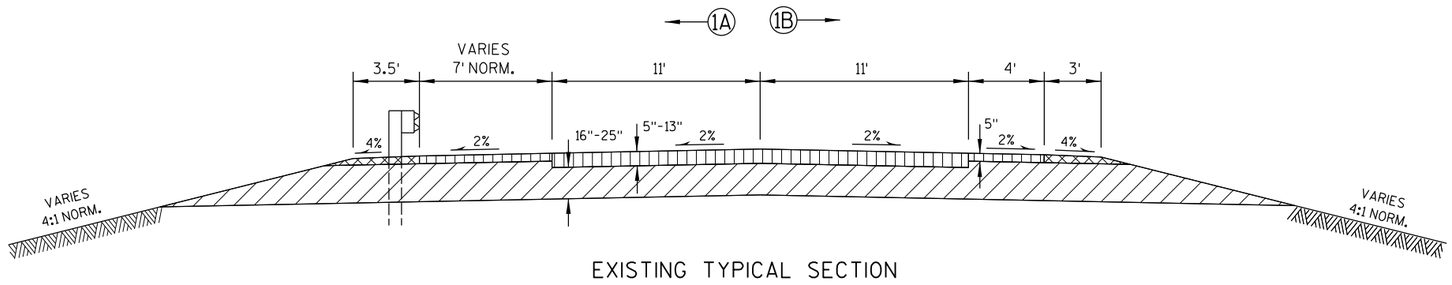
THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.



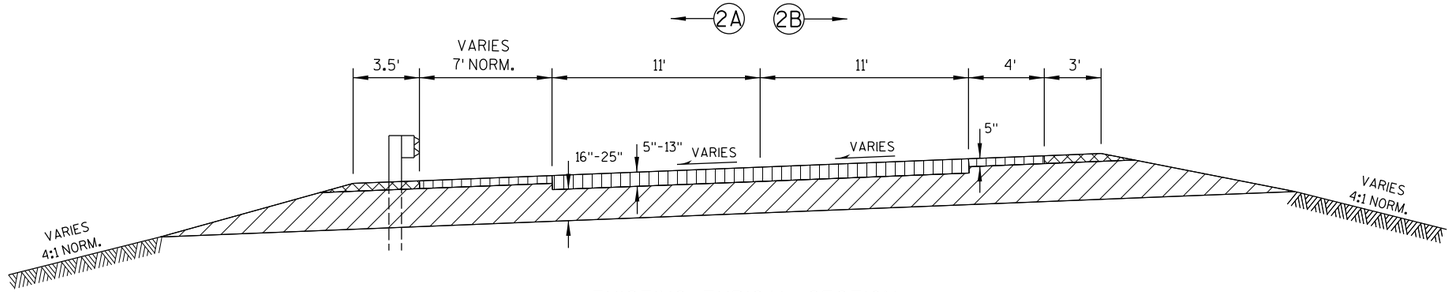


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PROJECT OVERVIEW	SHEET 3	E

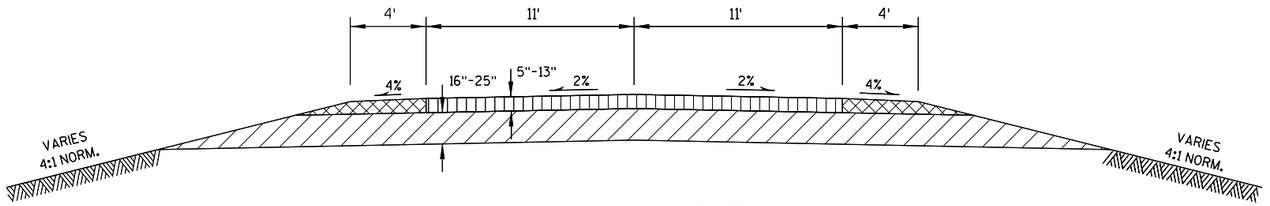
TYPICAL SECTION INDEX				
LT OF CL	STATION	-	STATION	RT OF CL
1A	162+64	-	163+64	1B
4A	163+64	-	163+98	4B
4A	164+28	-	164+64	4B
1A	164+64	-	165+64	1B
1A	194+39	-	194+59	1B
3A	194+59	-	195+24	3B
1A	195+24	-	195+39	1B
4A	237+38	-	238+63	4B
5A	258+50	-	259+50	6B
6A	259+50	-	261+08	6B
6A	261+08	-	262+00	5B
2A	322+99	-	323+49	2B
6A	323+49	-	324+69	6B
2A	324+69	-	324+99	2B
6A	335+02	-	336+52	6B
2A	343+54	-	344+24	2B
6A	344+24	-	344+51	6B
6A	344+77	-	345+54	6B
2A	345+54	-	346+54	2B
2A	374+67	-	374+92	2B
5A	374+92	-	375+42	6B
2A	375+42	-	375+67	2B
1A	390+11	-	390+21	1B
4A	390+21	-	390+86	4B
1A	390+86	-	391+11	1B
1A	455+67	-	456+42	1B
4A	456+42	-	456+84	4B
4A	457+30	-	457+67	4B
1A	457+67	-	458+67	1B
1A	531+64	-	531+94	1B
3A	531+94	-	532+34	3B
1A	532+34	-	532+64	1B
1A	560+38	-	561+38	1B
4A	561+38	-	561+64	4B
4A	562+14	-	562+38	4B
1A	562+38	-	563+38	1B
1A	584+80	-	585+05	1B
3A	585+05	-	585+55	3B
1A	585+55	-	585+80	1B



EXISTING TYPICAL SECTION



EXISTING TYPICAL SECTION



EXISTING TYPICAL SECTION

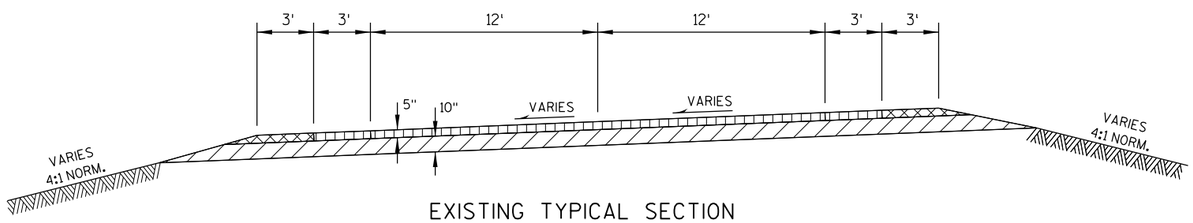
STA 75+00-162+64
STA 165+64-194+39
STA 195+39-237+38
STA 238+63-258+50
STA 262+00-322+99
STA 324+99-335+02
STA 336+52-343+54
STA 346+54-374+67
STA 375+67-390+11
STA 391+11-455+67
STA 458+67-531+64
STA 532+64-560+38
STA 563+38-584+86
STA 585+80-600+00

LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)

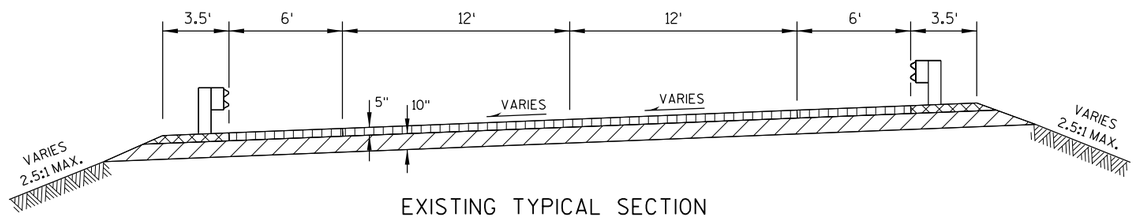
TYPICAL SECTION INDEX				
LT OF CL	STATION	-	STATION	RT OF CL
1A	162+64	-	163+64	1B
4A	163+64	-	163+98	4B
4A	164+28	-	164+64	4B
1A	164+64	-	165+64	1B
1A	194+39	-	194+59	1B
3A	194+59	-	195+24	3B
1A	195+24	-	195+39	1B
4A	237+38	-	238+63	4B
5A	258+50	-	259+50	6B
6A	259+50	-	261+08	6B
6A	261+08	-	262+00	5B
2A	322+99	-	323+49	2B
6A	323+49	-	324+69	6B
2A	324+69	-	324+99	2B
6A	335+02	-	336+52	6B
2A	343+54	-	344+24	2B
6A	344+24	-	344+51	6B
6A	344+77	-	345+54	6B
2A	345+54	-	346+54	2B
2A	374+67	-	374+92	2B
5A	374+92	-	375+42	6B
2A	375+42	-	375+67	2B
1A	390+11	-	390+21	1B
4A	390+21	-	390+86	4B
1A	390+86	-	391+11	1B
1A	455+67	-	456+42	1B
4A	456+42	-	456+84	4B
4A	457+30	-	457+67	4B
1A	457+67	-	458+67	1B
1A	531+64	-	531+94	1B
3A	531+94	-	532+34	3B
1A	532+34	-	532+64	1B
1A	560+38	-	561+38	1B
4A	561+38	-	561+64	4B
4A	562+14	-	562+38	4B
1A	562+38	-	563+38	1B
1A	584+80	-	585+05	1B
3A	585+05	-	585+55	3B
1A	585+55	-	585+80	1B

5A 5B



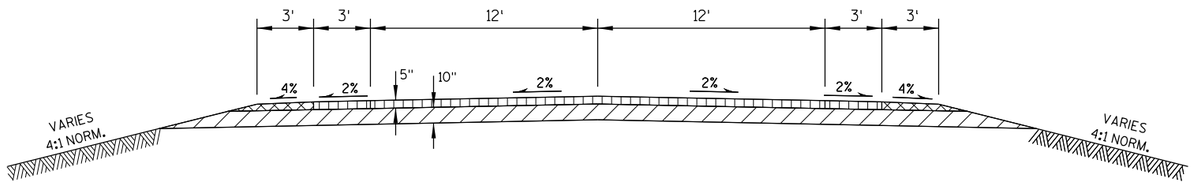
EXISTING TYPICAL SECTION

6A 6B



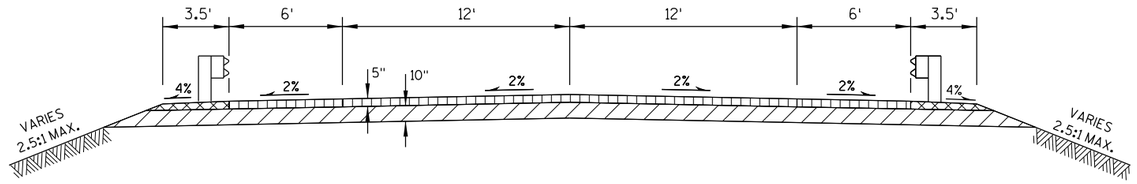
EXISTING TYPICAL SECTION

3A 3B



EXISTING TYPICAL SECTION

4A 4B



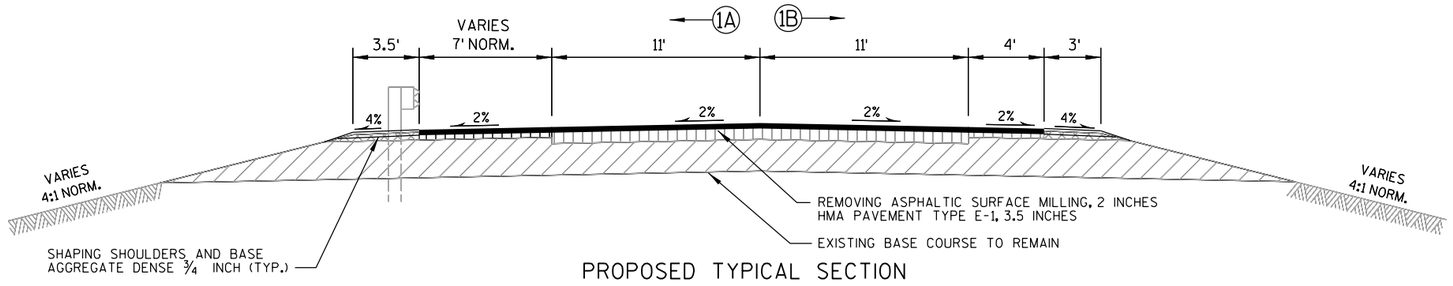
EXISTING TYPICAL SECTION

LEGEND

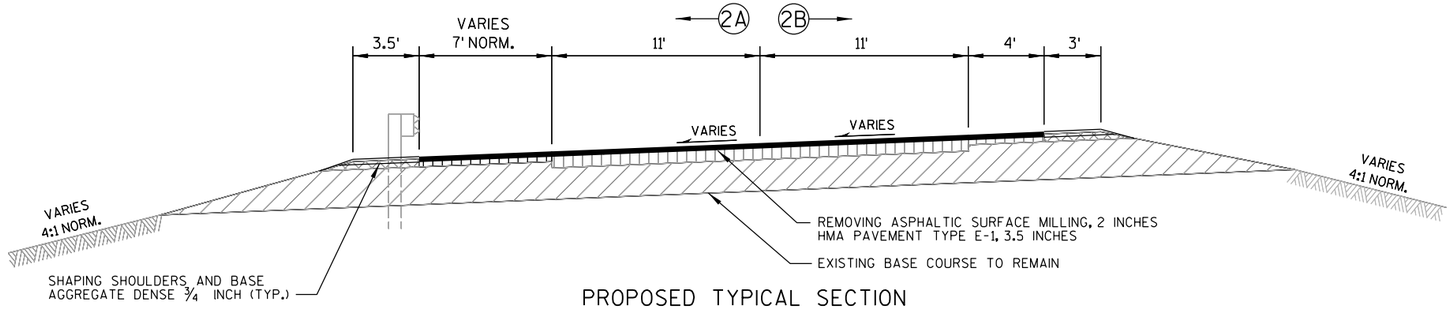
- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	EXISTING TYPICAL SECTIONS	SHEET 5	E

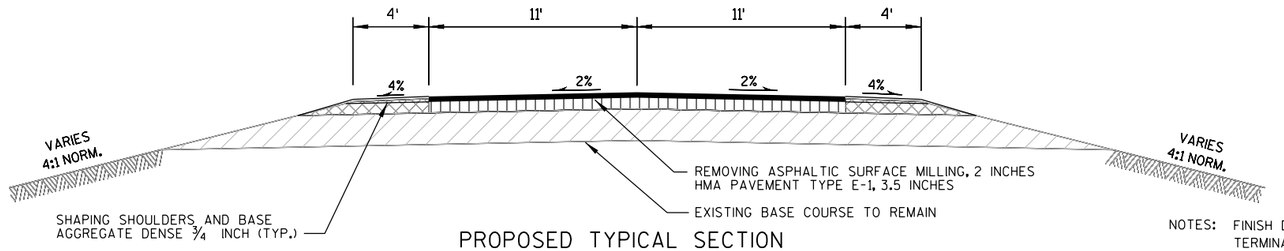
TYPICAL SECTION INDEX				
LT OF CL	STATION	-	STATION	RT OF CL
1A	162+64	-	163+64	1B
4A	163+64	-	163+98	4B
4A	164+28	-	164+64	4B
1A	164+64	-	165+64	1B
1A	194+39	-	194+59	1B
3A	194+59	-	195+24	3B
1A	195+24	-	195+39	1B
4A	237+38	-	238+63	4B
5A	258+50	-	259+50	6B
6A	259+50	-	261+08	6B
6A	261+08	-	262+00	5B
2A	322+99	-	323+49	2B
6A	323+49	-	324+69	6B
2A	324+69	-	324+99	2B
6A	335+02	-	336+52	6B
2A	343+54	-	344+24	2B
6A	344+24	-	344+51	6B
6A	344+77	-	345+54	6B
2A	345+54	-	346+54	2B
2A	374+67	-	374+92	2B
5A	374+92	-	375+42	6B
2A	375+42	-	375+67	2B
1A	390+11	-	390+21	1B
4A	390+21	-	390+86	4B
1A	390+86	-	391+11	1B
1A	455+67	-	456+42	1B
4A	456+42	-	456+84	4B
4A	457+30	-	457+67	4B
1A	457+67	-	458+67	1B
1A	531+64	-	531+94	1B
3A	531+94	-	532+34	3B
1A	532+34	-	532+64	1B
1A	560+38	-	561+38	1B
4A	561+38	-	561+64	4B
4A	562+14	-	562+38	4B
1A	562+38	-	563+38	1B
1A	584+80	-	585+05	1B
3A	585+05	-	585+55	3B
1A	585+55	-	585+80	1B



PROPOSED TYPICAL SECTION



PROPOSED TYPICAL SECTION



PROPOSED TYPICAL SECTION

STA 75+00-162+64
STA 165+64-194+39
STA 195+39-237+38
STA 238+63-258+50
STA 262+00-322+99
STA 324+99-335+02
STA 336+52-343+54
STA 346+54-374+67
STA 375+67-390+11
STA 391+11-455+67
STA 458+67-531+64
STA 532+64-560+38
STA 563+38-584+86
STA 585+80-600+00

LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)

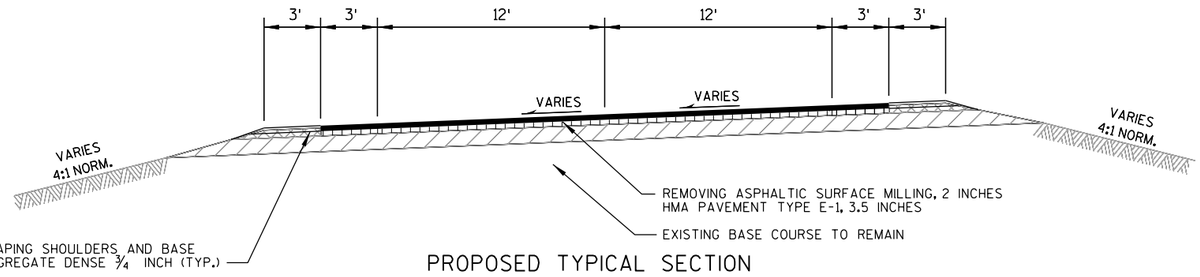
NOTES: FINISH DISTURBED SLOPES NEAR GRADED AREAS FOR MGS GUARDRAIL TERMINAL EATS AND STEEL PLATE BEAM GUARD SHORT RADIUS TERMINALS WITH SALVAGED TOPSOIL, MULCHING, EROSION MAT CLASS II TYPE B, FERTILIZER TYPE B, AND SEEDING MIXTURE NO. 20. ALL EXCAVATION COMMON, BORROW, AND FINISH ITEMS EXCEPT EROSION MAT CLASS II TYPE B TO BE PAID FOR UNDER ITEM BARRIER SYSTEM GRADING SHAPING FINISHING. QUANTITIES LISTED IN MISCELLANEOUS QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY.

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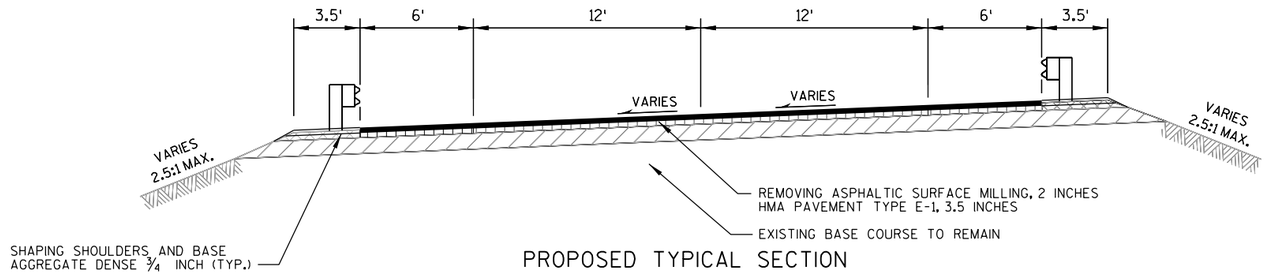
TYPICAL SECTION INDEX				
LT OF CL	STATION	-	STATION	RT OF CL
1A	162+64	-	163+64	1B
4A	163+64	-	163+98	4B
4A	164+28	-	164+64	4B
1A	164+64	-	165+64	1B
1A	194+39	-	194+59	1B
3A	194+59	-	195+24	3B
1A	195+24	-	195+39	1B
4A	237+38	-	238+63	4B
5A	258+50	-	259+50	6B
6A	259+50	-	261+08	6B
6A	261+08	-	262+00	5B
2A	322+99	-	323+49	2B
6A	323+49	-	324+69	6B
2A	324+69	-	324+99	2B
6A	335+02	-	336+52	6B
2A	343+54	-	344+24	2B
6A	344+24	-	344+51	6B
6A	344+77	-	345+54	6B
2A	345+54	-	346+54	2B
2A	374+67	-	374+92	2B
5A	374+92	-	375+42	6B
2A	375+42	-	375+67	2B
1A	390+11	-	390+21	1B
4A	390+21	-	390+86	4B
1A	390+86	-	391+11	1B
1A	455+67	-	456+42	1B
4A	456+42	-	456+84	4B
4A	457+30	-	457+67	4B
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1A	560+38	-	561+38	1B
4A	561+38	-	561+64	4B
4A	562+14	-	562+38	4B
1A	562+38	-	563+38	1B
1A	584+80	-	585+05	1B
3A	585+05	-	585+55	3B
1A	585+55	-	585+80	1B

5A 5B



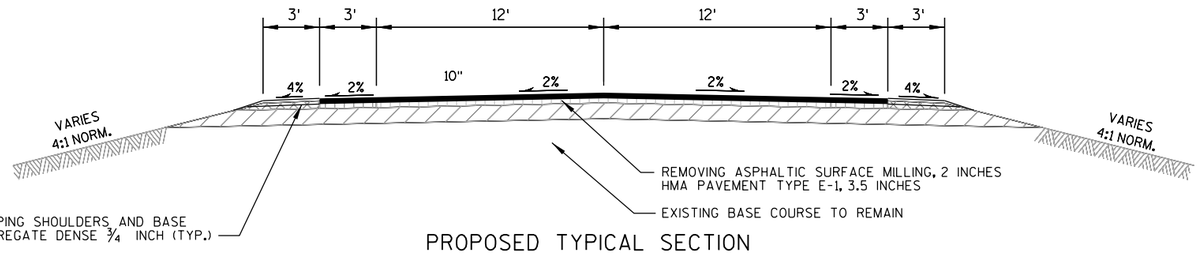
PROPOSED TYPICAL SECTION

6A 6B



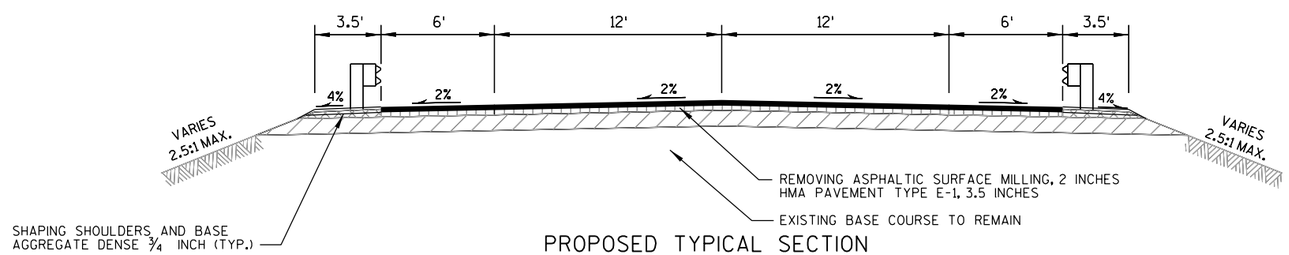
PROPOSED TYPICAL SECTION

3A 3B



PROPOSED TYPICAL SECTION

4A 4B



PROPOSED TYPICAL SECTION

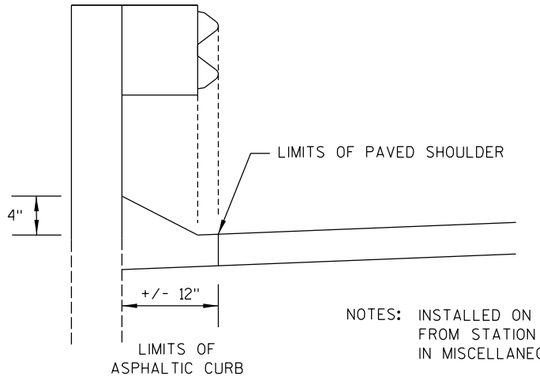
LEGEND

- EXISTING GROUND
- EXISTING ASPHALTIC PAVEMENT
- EXISTING BASE COURSE
- EXISTING BASE COURSE (SHOULDER)

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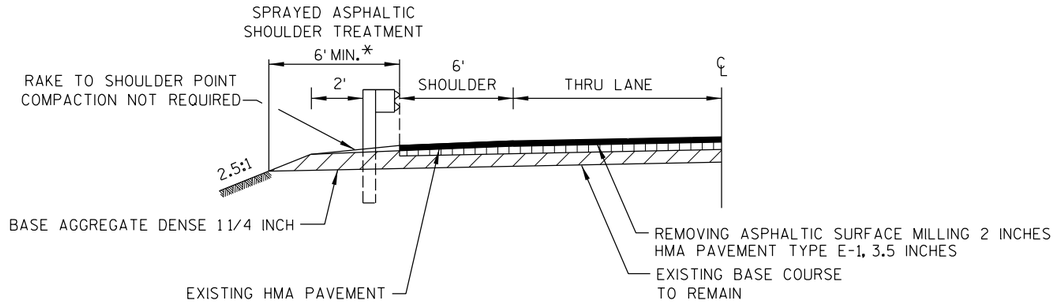


NOTES: INSTALLED ON LOW SIDE OF SUPER ELEVATION FROM STATION 265+00 TO 330+00 AS DESCRIBED IN MISCELLANEOUS QUANTITIES

PAVE INTEGRAL WITH PAVED SHOULDER USING SAME MATERIAL

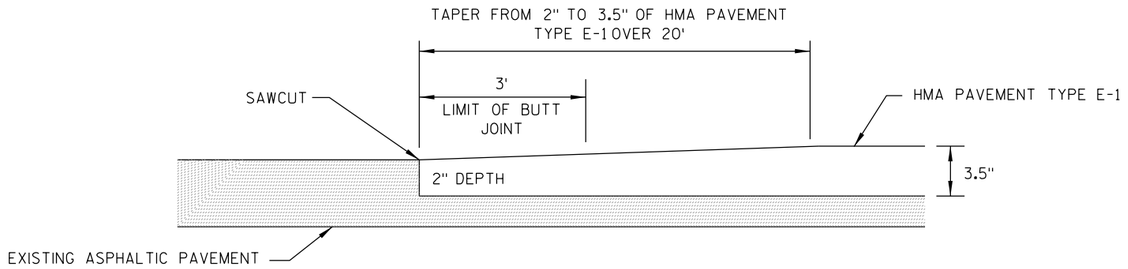
EDGE THICKNESS EQUALS SHOULDER THICKNESS

ASPHALTIC CURB DETAIL

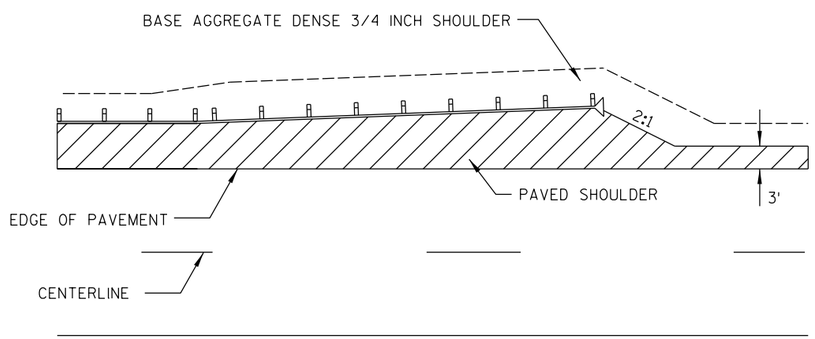


* 4' MIN. FOR MGS GUARDRAIL TYPE 3K INSTALLATION

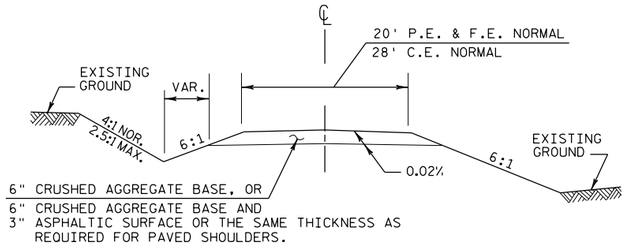
TYPICAL SECTION AT GUARDRAIL DETAIL



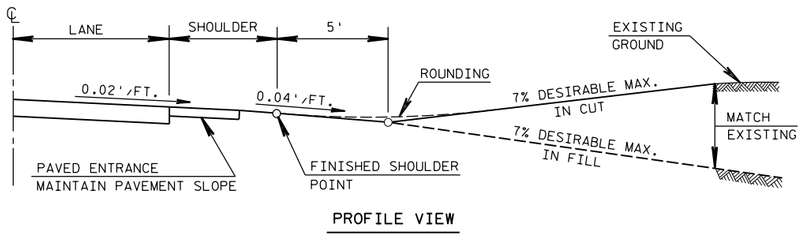
REMOVING ASPHALTIC SURFACE BUTT JOINT DETAIL



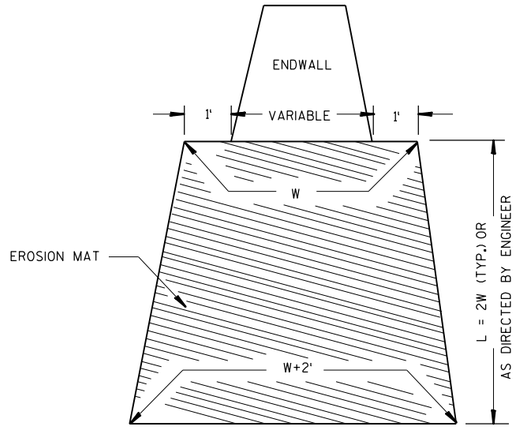
HMA PAVING ALONG GUARDRAIL DETAIL



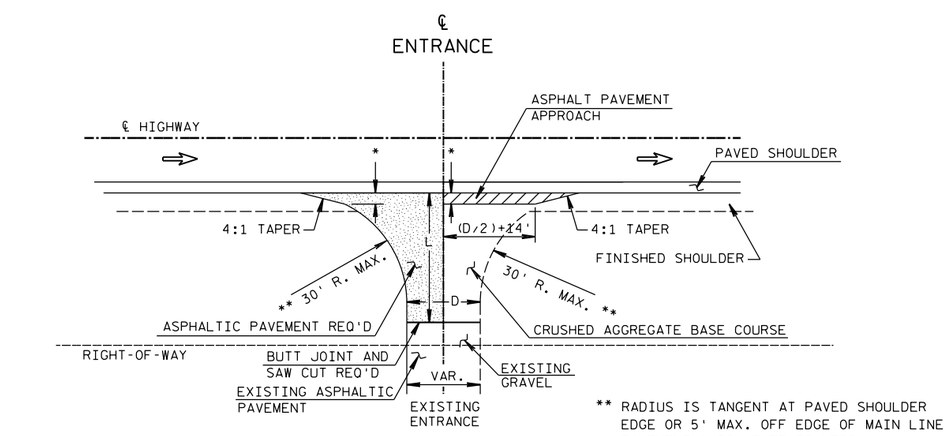
TYPICAL CROSS SECTION



PROFILE VIEW



EROSION MAT TREATMENT AT CULVERTS



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

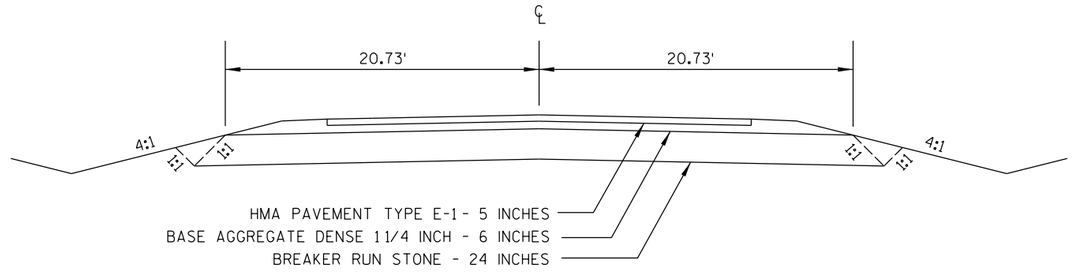
D=DRIVEWAY WIDTH
D=20'TYP.(PE's & FE's) (16'MIN.-24'MAX.)
D=28'TYP.(CE's & FARM ENT.) (24'MIN.-35'MAX.)

** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX. OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

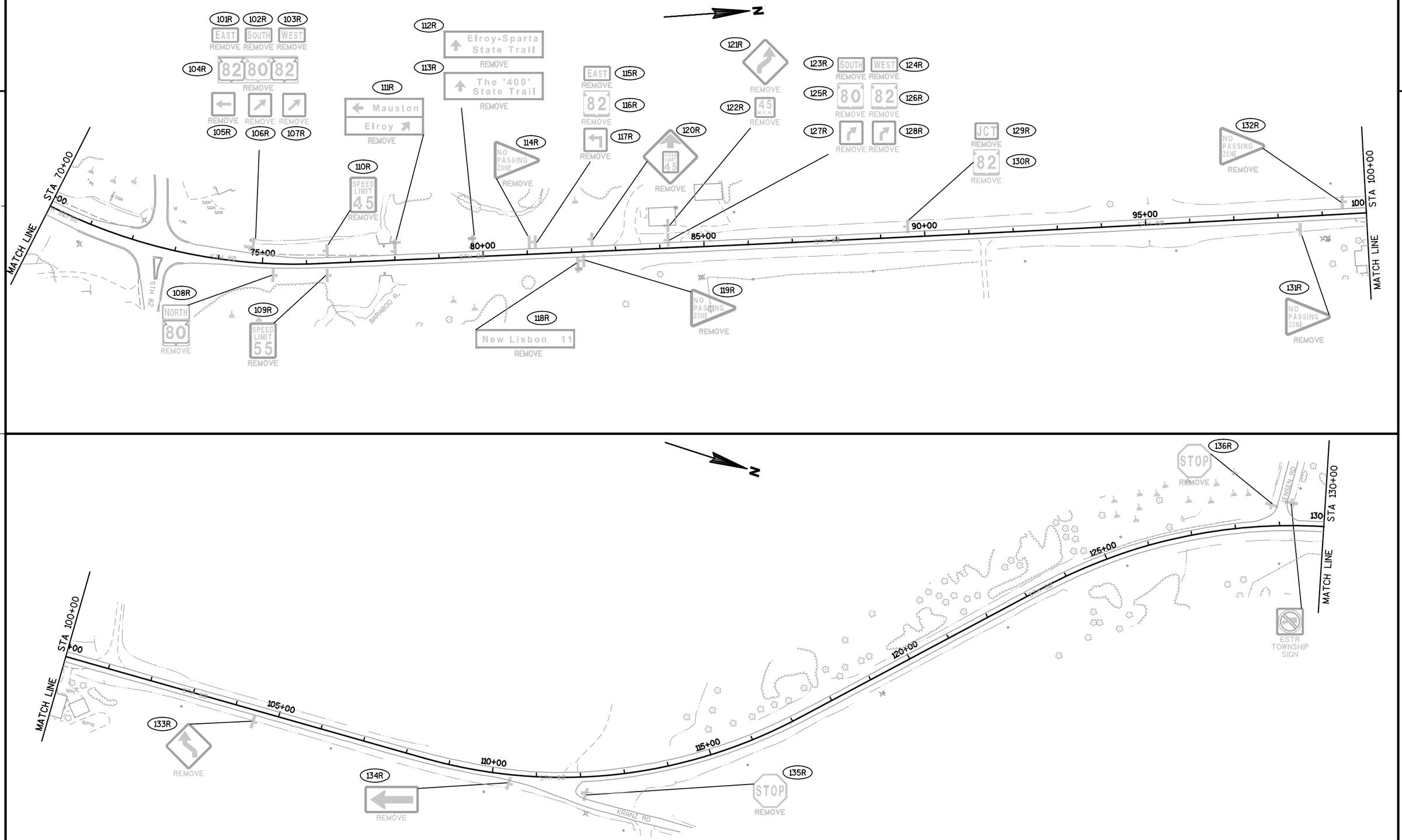
* 3' MAX. OR TO FINISHED SHOULDER WHICH EVER IS LESS.

PLAN VIEW

RURAL DRIVEWAY INTERSECTION DETAIL
(PE's, FE's & CE'S)
(FOR NEW CONSTRUCTION)



TYPICAL SECTION FOR AREAS OF EBS

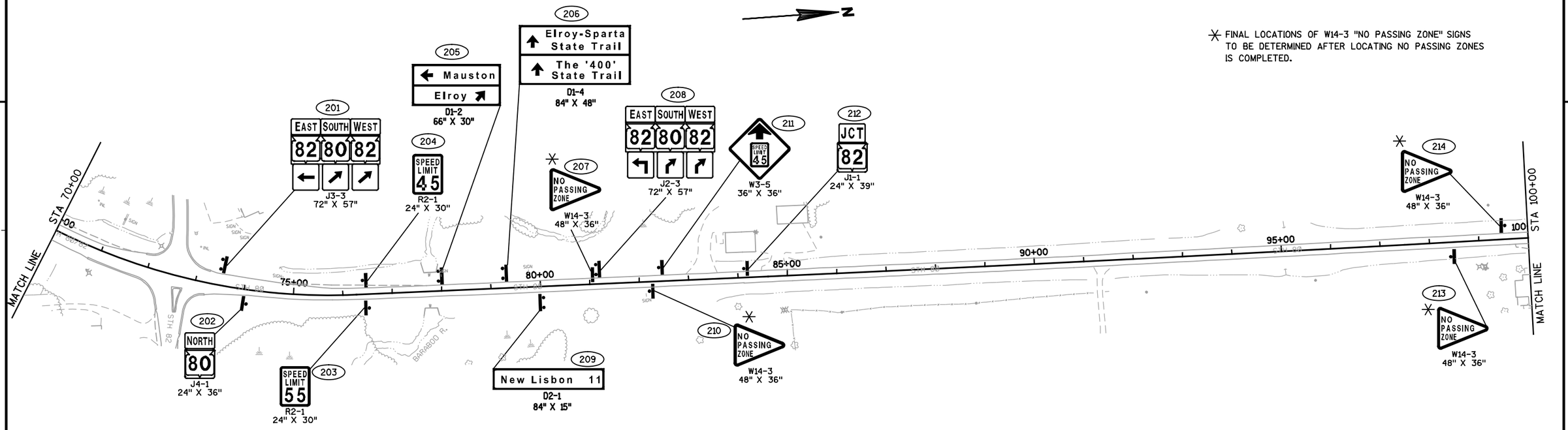


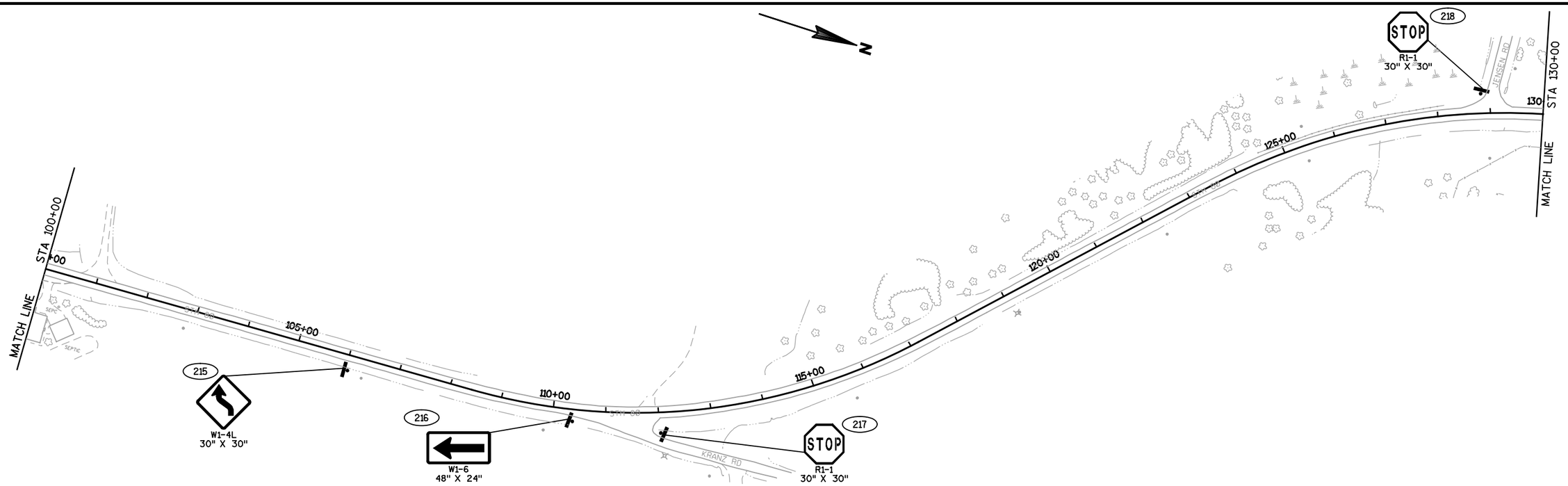
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET 10	E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-03-60\cad\023201_ps.dgn PLOT DATE : 8/7/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.

2

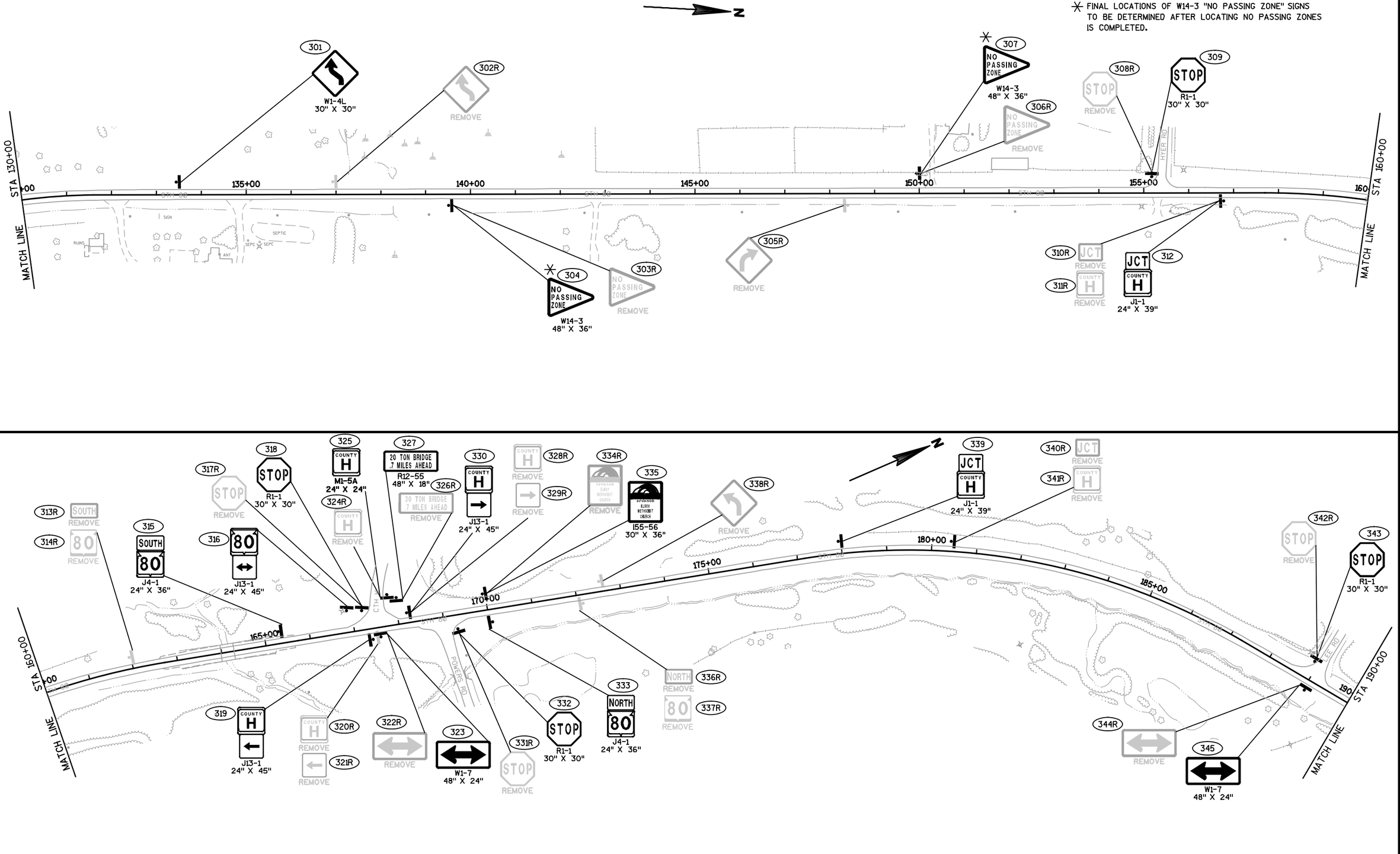
FINAL LOCATIONS OF W14-3 "NO PASSING ZONE" SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.





PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

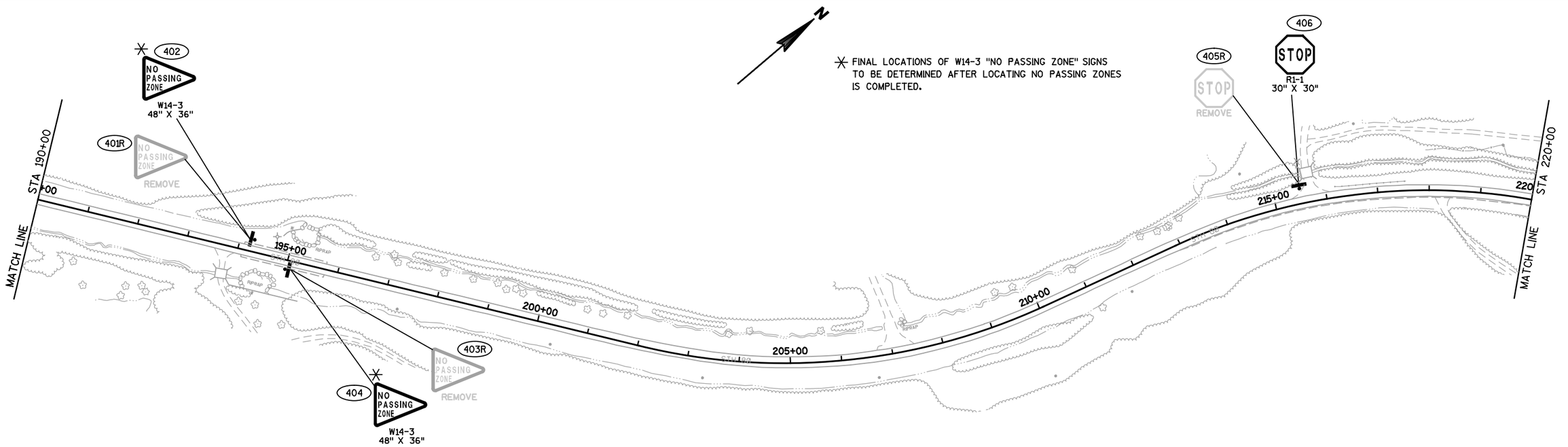
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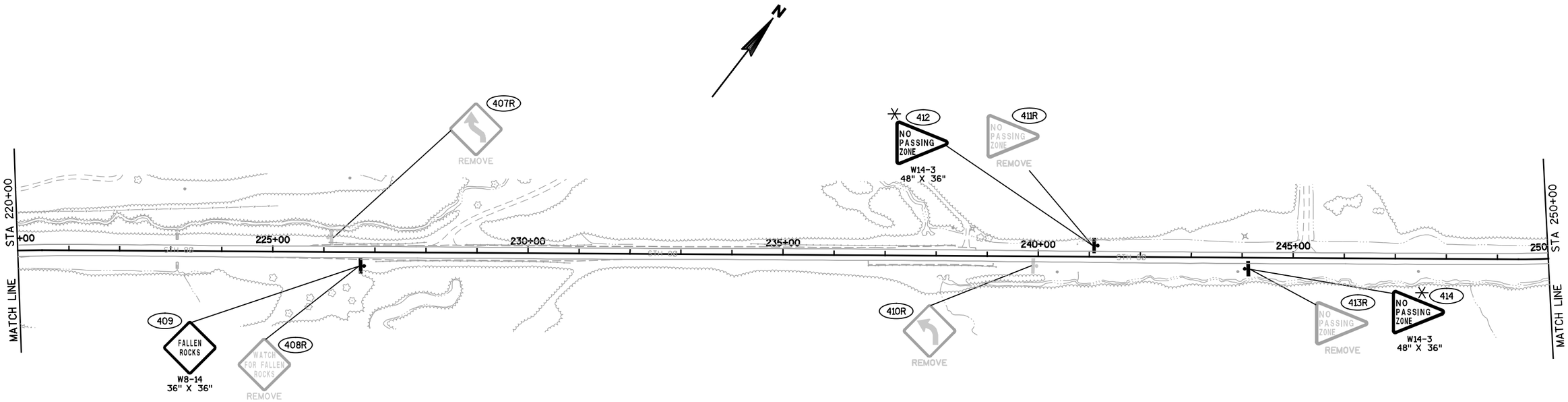


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

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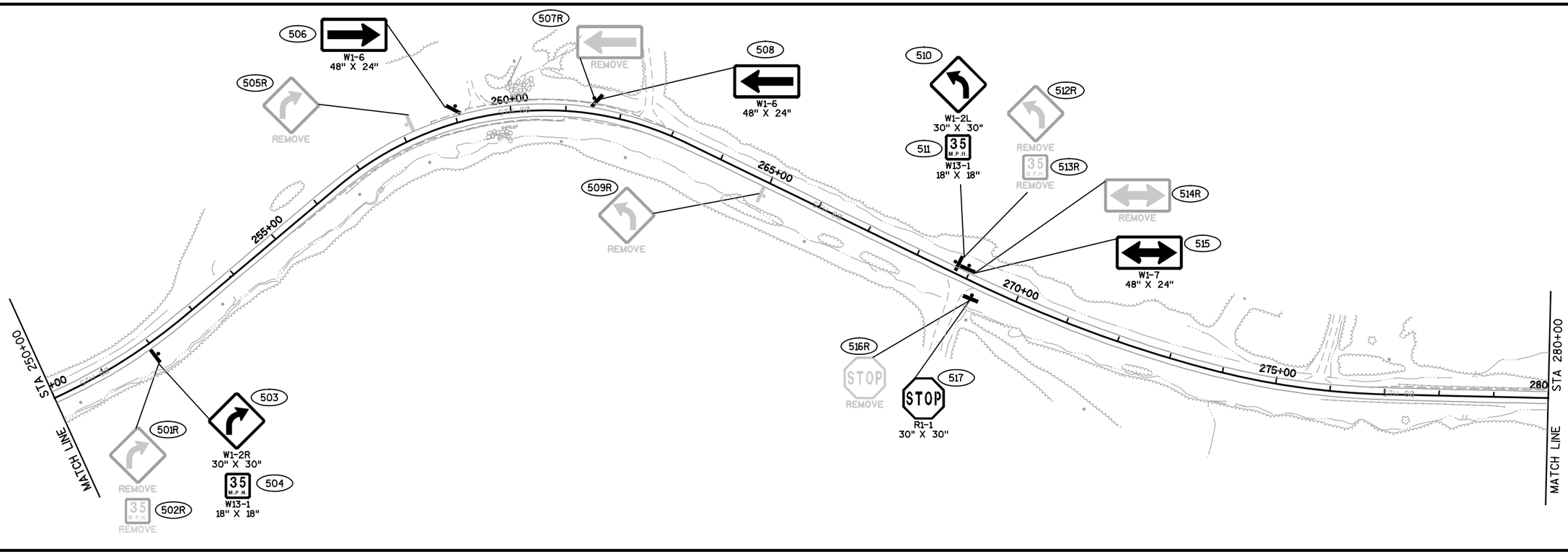
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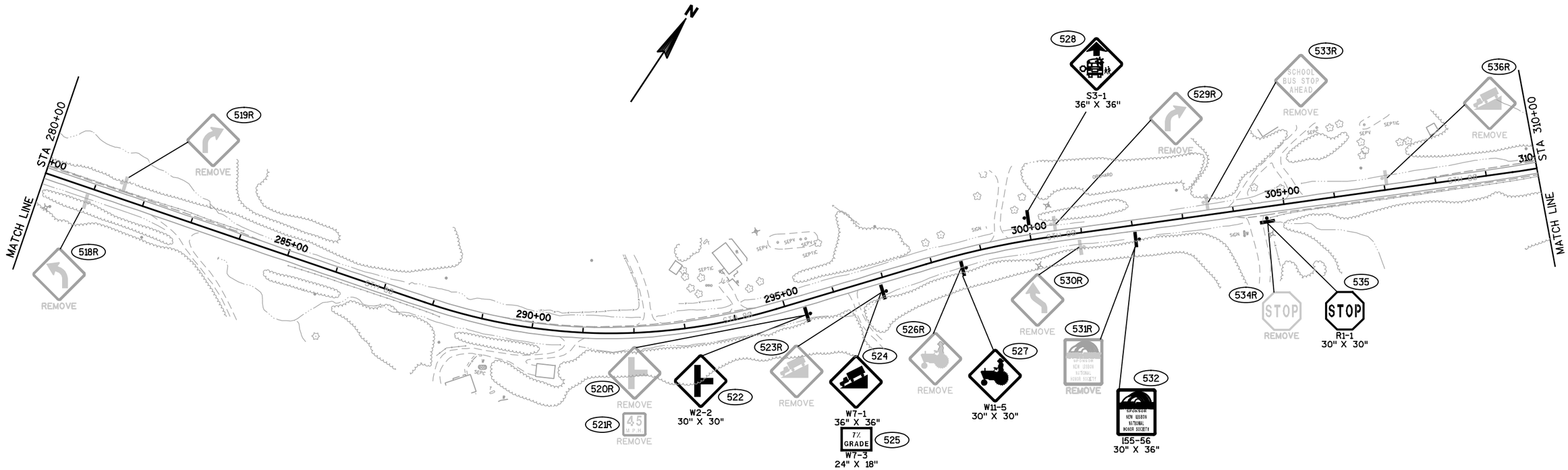




PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-03-60\cad\023204_ps.dgn PLOT DATE : 8/9/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.





PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

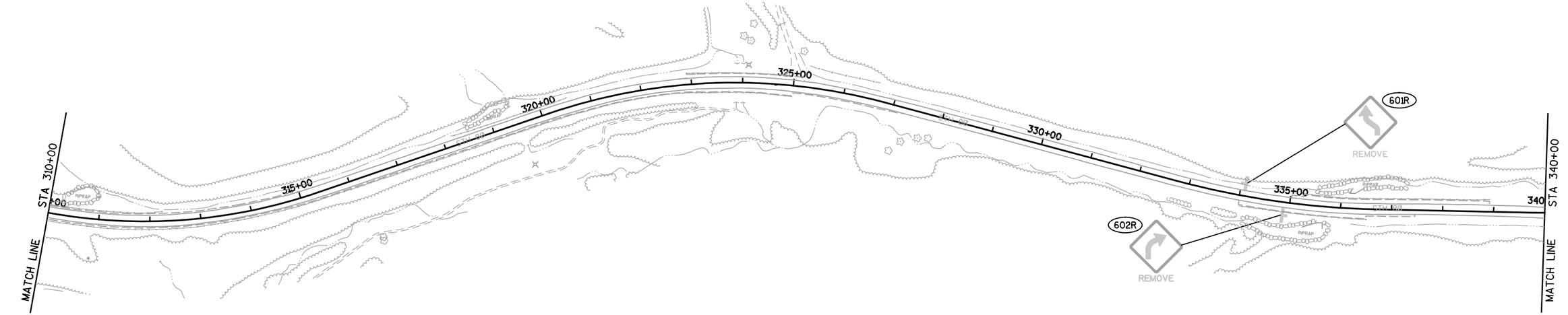
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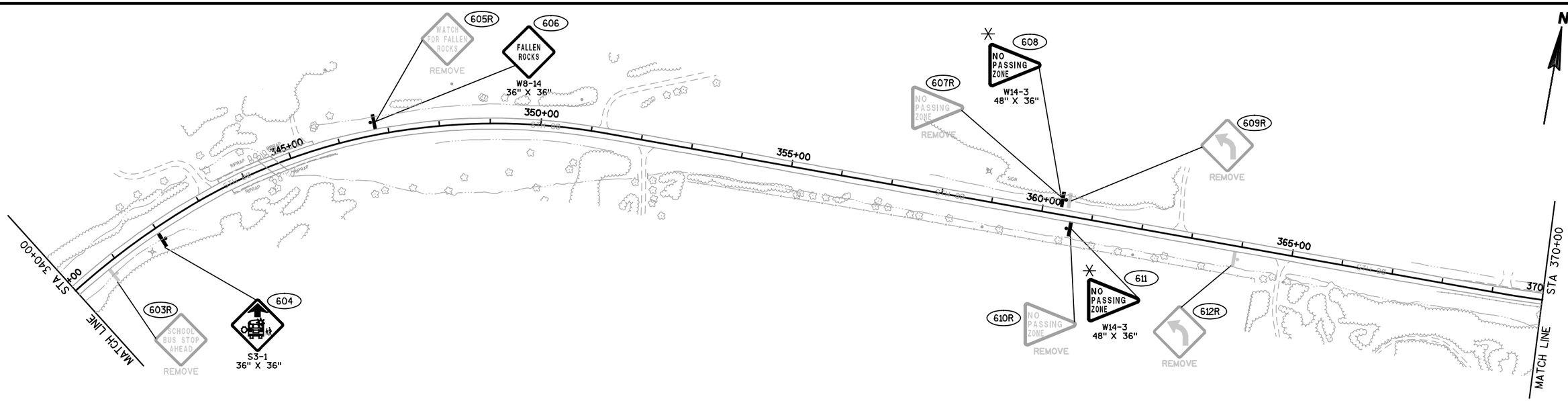
2

2

✳ FINAL LOCATIONS OF W14-3 "NO PASSING ZONE" SIGNS TO BE DETERMINED AFTER LOCATING NO PASSING ZONES IS COMPLETED.

N



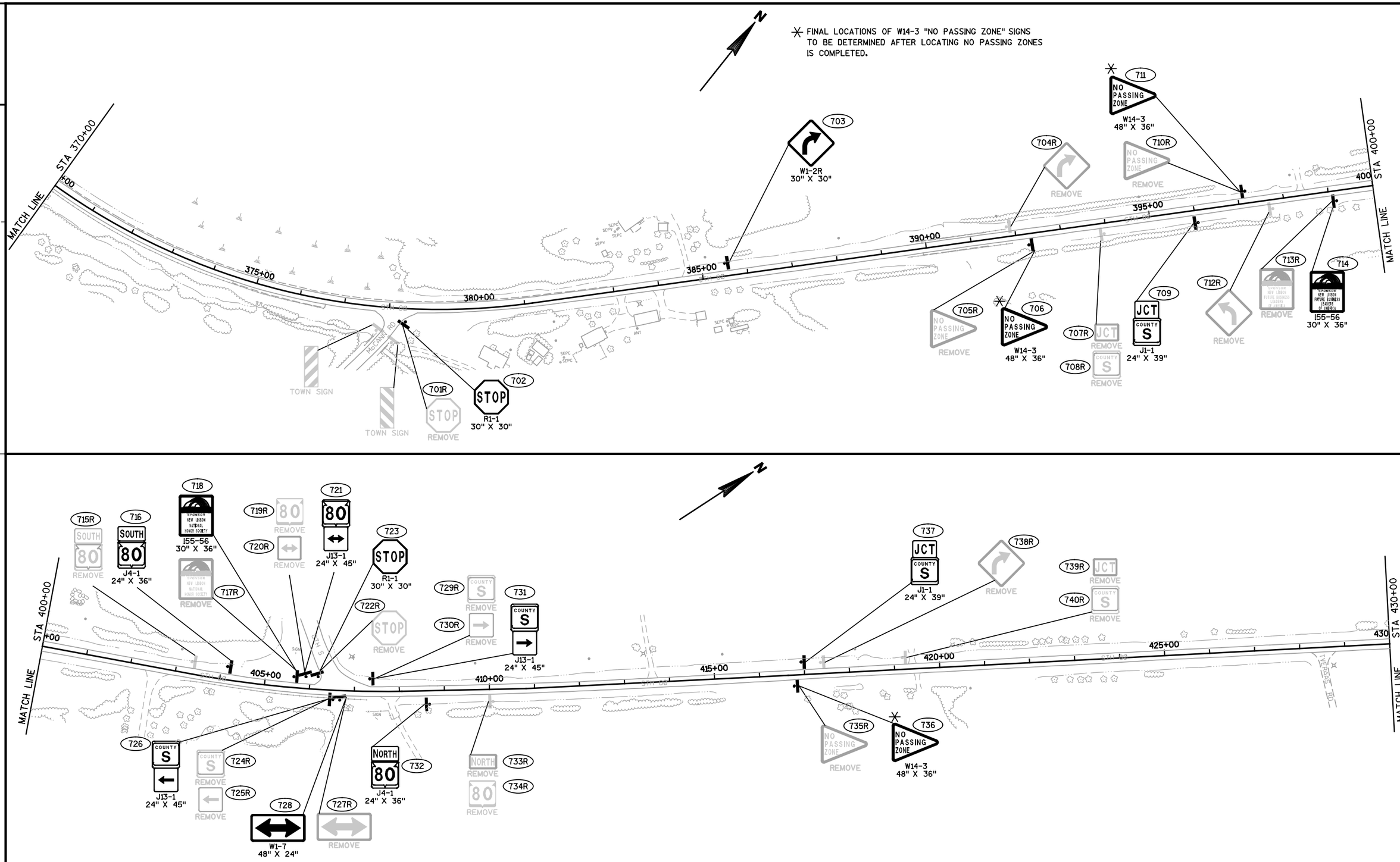


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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

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WISDOT/CADDS SHEET 42

2

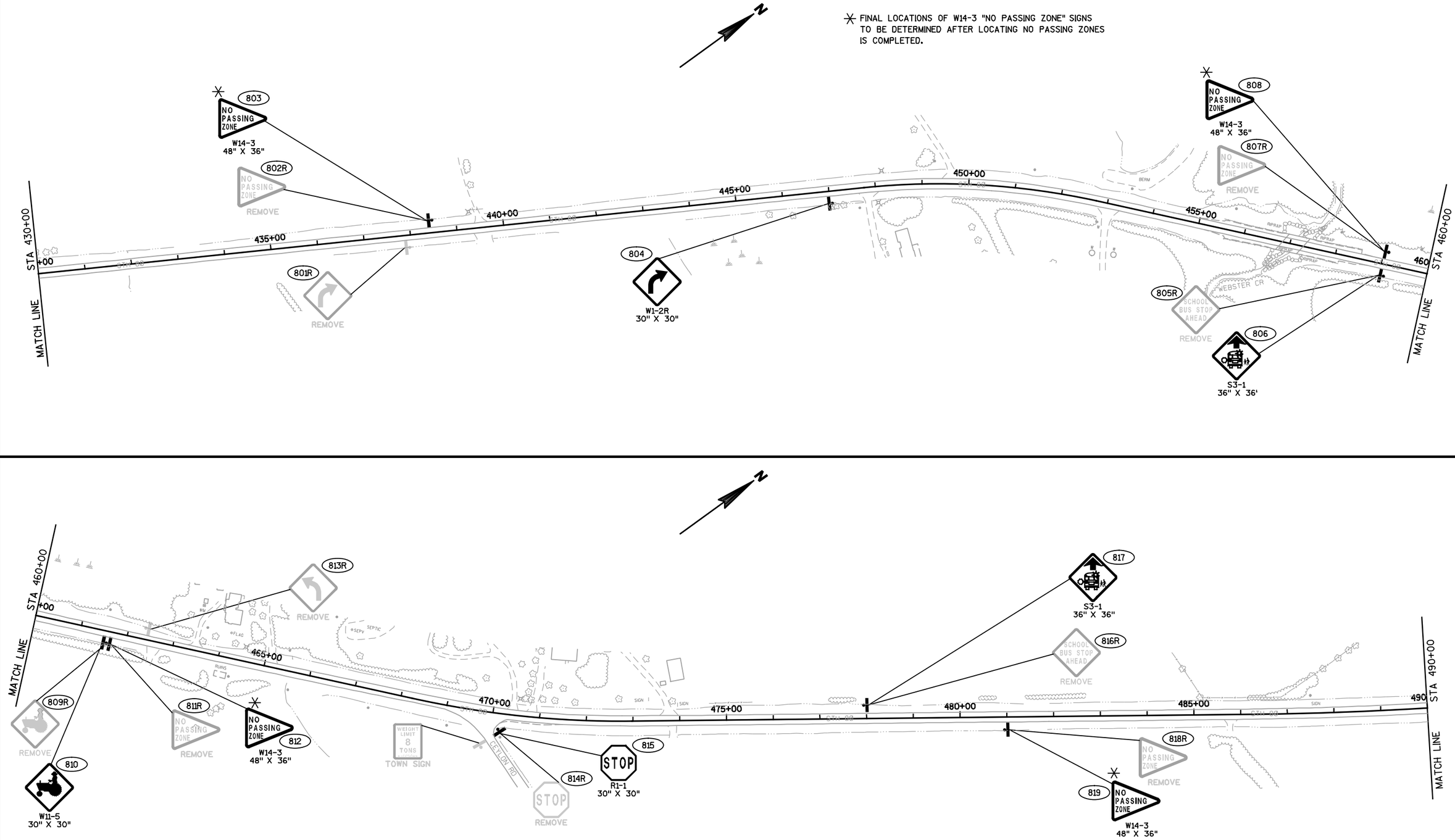


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

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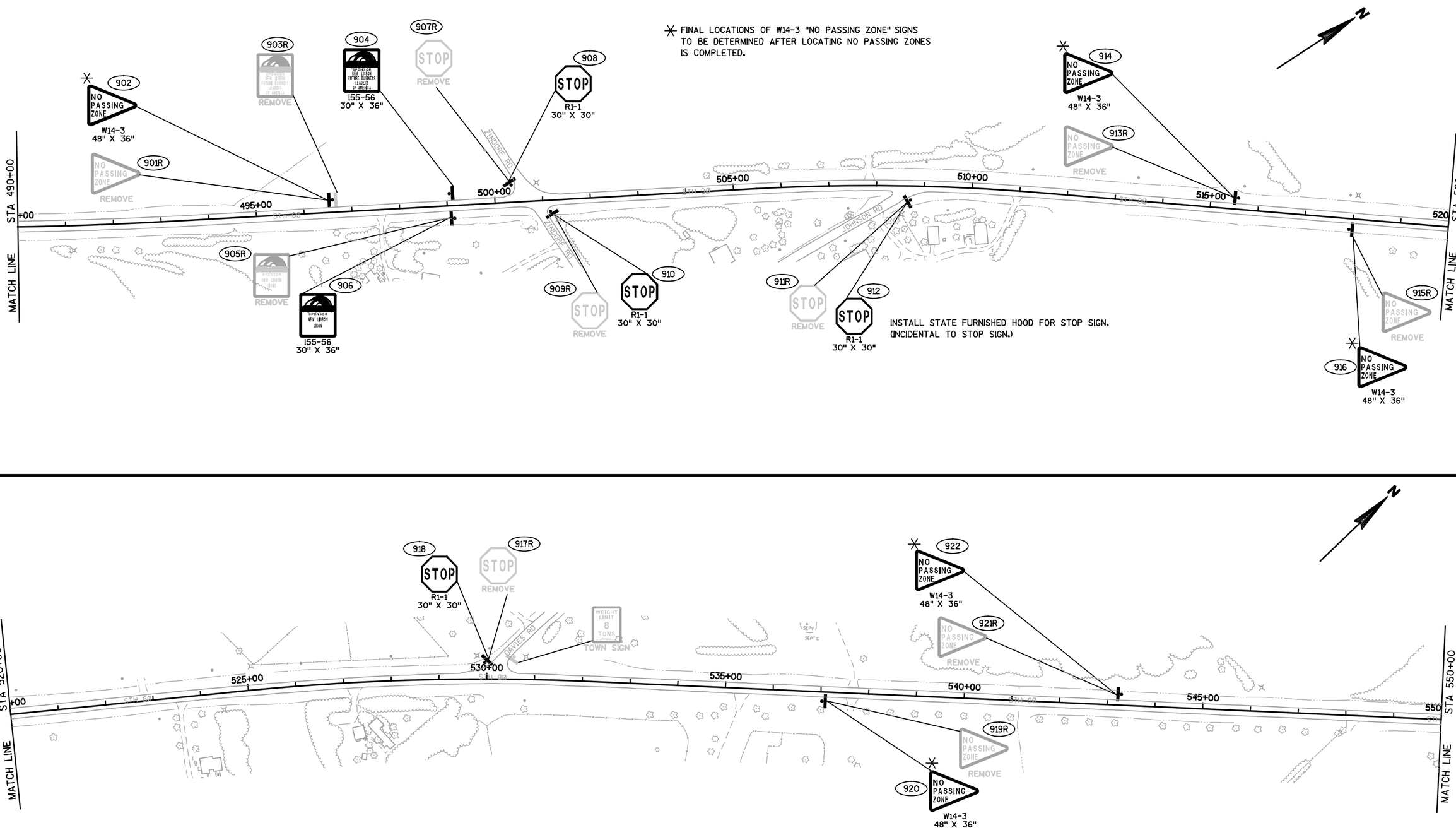
2

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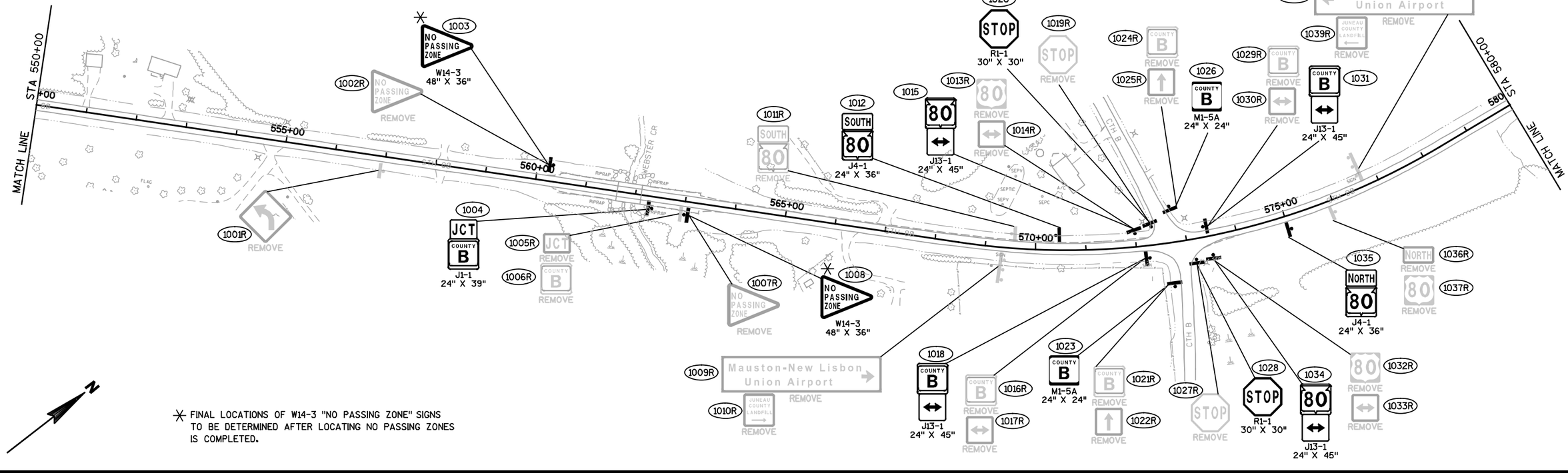
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

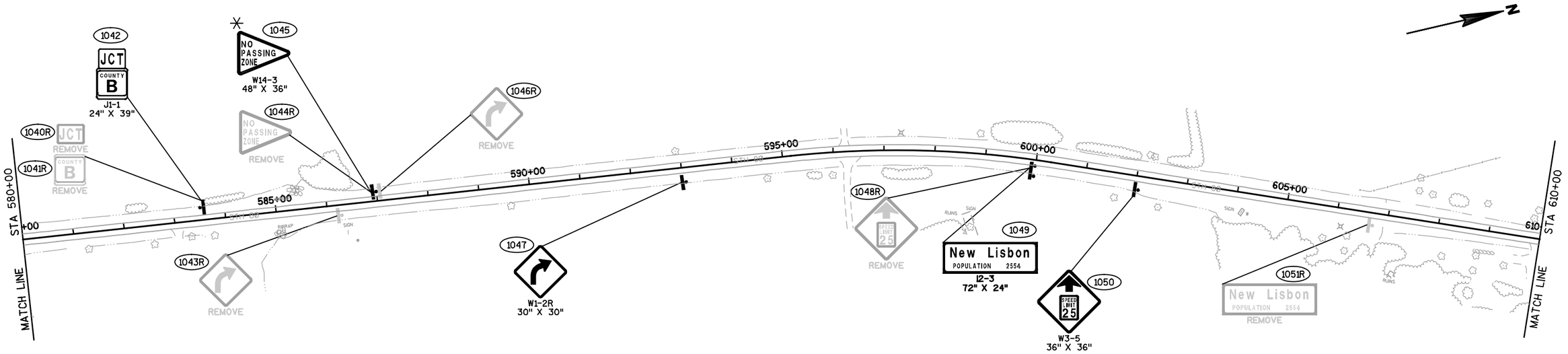
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET	E

FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-03-60\cad\023209_ps.dgn PLOT DATE : 8/7/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.

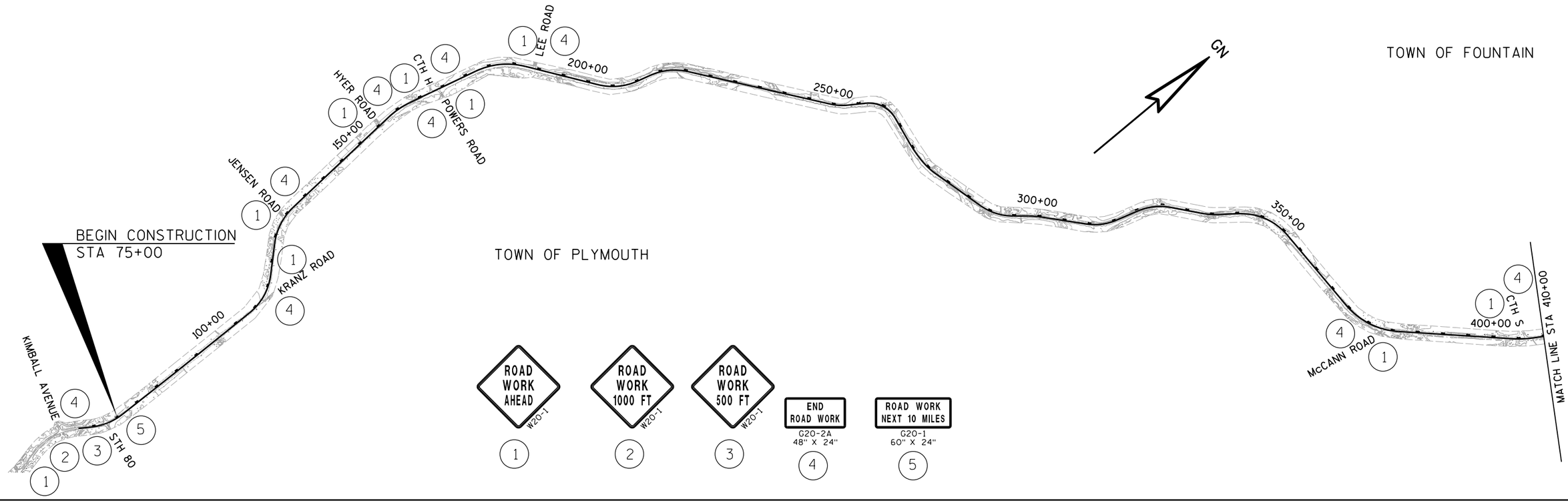




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FILE NAME : G:\1-ROAD PROJECTS\WisDOT Master Contracts\STH 80 5530-03-60\cad\023210_ps.dgn PLOT DATE : 8/8/2012 PLOT BY : MikeCO PLOT NAME : PLOT SCALE : 200.0000 sf / in.

WISDOT/CADDS SHEET 42

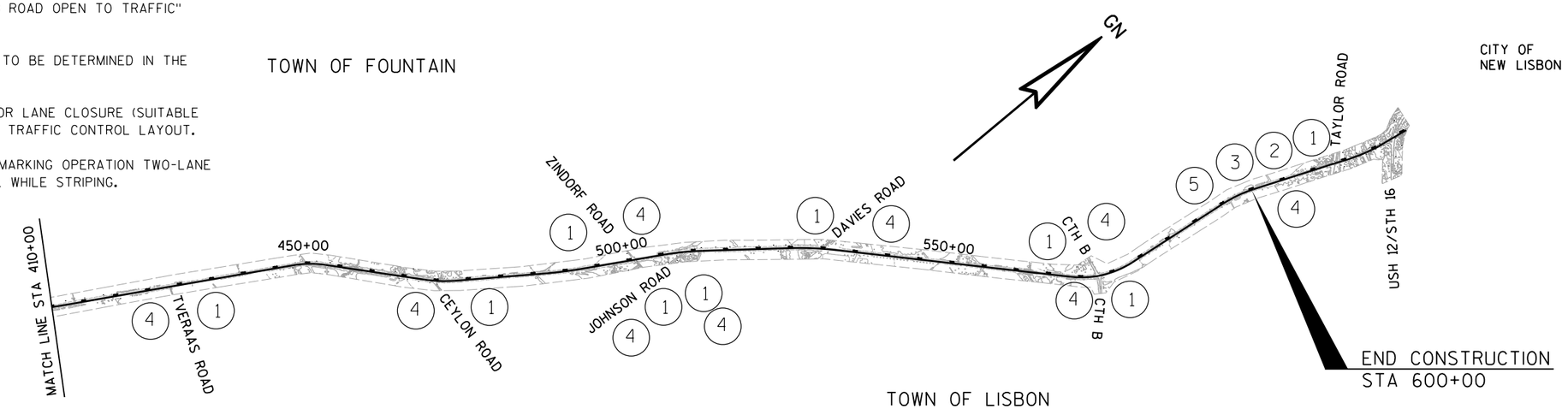


NOTES: SEE S.D.D. 15 C 4-1 "TRAFFIC CONTROL ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR SIGN SPACING AND LOCATION.

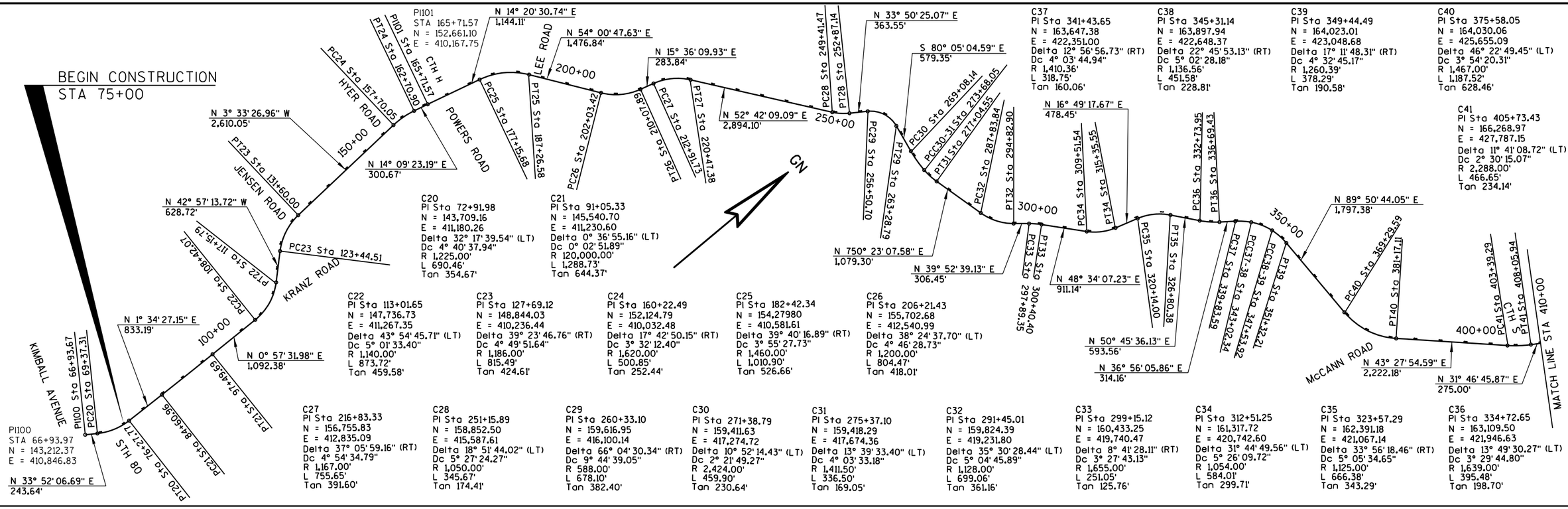
EXACT LOCATIONS AND SPACING OF SIGNS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

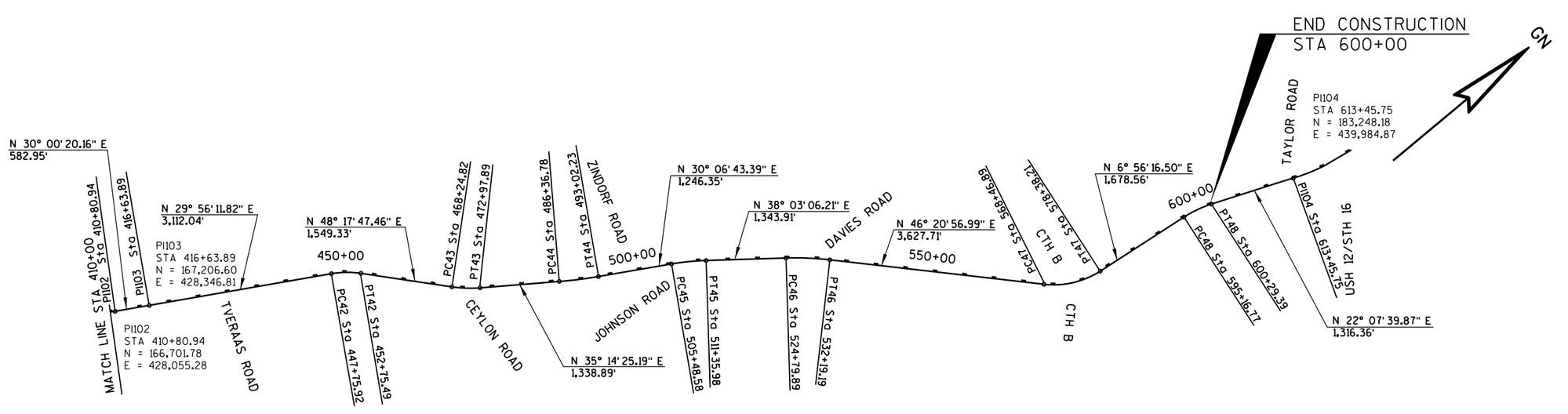
SEE S.D.D. 15 C 12-3 "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)" FOR WORK ZONE TRAFFIC CONTROL LAYOUT.

SEE S.D.D. 15 C 19-1a "MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY" FOR TRAFFIC CONTROL WHILE STRIPING.



PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	TRAFFIC CONTROL	SHEET 20	E





PROJECT NO: 5530-03-30	HWY: STH 80	COUNTY: JUNEAU	ALIGNMENT DETAIL	SHEET 21	E

DATE 26DEC12 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	5530-03-60 QUANTITY
0010	201.0105	CLEARING	STA	36.000	36.000
0020	201.0205	GRUBBING	STA	36.000	36.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	7.000	7.000
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	244.000	244.000
0050	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	135,792.000	135,792.000
0080	204.0165	REMOVING GUARDRAIL	LF	10,686.000	10,686.000
0090	205.0100	EXCAVATION COMMON	CY	5,000.000	5,000.000
0110	213.0100	FINISHING ROADWAY (PROJECT) 02. 5530-03-60	EACH	1.000	1.000
0120	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	20,561.000	20,561.000
0130	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,680.000	1,680.000
0140	305.0500	SHAPING SHOULDERS	STA	930.000	930.000
0150	311.0115	BREAKER RUN	CY	6,360.000	6,360.000
0170	440.4410.S	INCENTIVE IRI RIDE	DOL	39,544.000	39,544.000
0180	455.0105	ASPHALTIC MATERIAL PG58-28	TON	1,477.000	1,477.000
0200	455.0605	TACK COAT	GAL	3,974.000	3,974.000
0210	460.1101	HMA PAVEMENT TYPE E-1	TON	26,860.000	26,860.000
0230	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	17,280.000	17,280.000
0240	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	239.000	239.000
0250	465.0310	ASPHALTIC CURB	LF	951.000	951.000
0260	465.0315	ASPHALTIC FLUMES	SY	23.000	23.000
0270	520.8000	CONCRETE COLLARS FOR PIPE	EACH	1.000	1.000
0280	521.0118	CULVERT PIPE CORRUGATED STEEL 18-INCH	LF	30.000	30.000
0290	521.1018	APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	EACH	2.000	2.000
0300	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	1.000	1.000
0310	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	196.000	196.000
0320	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	51.000	51.000
0330	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	49.000	49.000
0340	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	8.000	8.000
0350	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	2.000	2.000
0360	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	2.000	2.000
0420	606.0200	RIPRAP MEDIUM	CY	4.000	4.000
0460	611.0642	INLET COVERS TYPE MS	EACH	2.000	2.000
0470	611.3902	INLETS MEDIAN 2 GRATE	EACH	1.000	1.000
0500	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	27.000	27.000
0510	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	42.000	42.000
0520	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	4,338.000	4,338.000
0530	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	175.000	175.000
0540	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL	EACH	3.000	3.000
0550	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	EACH	9.000	9.000
0560	614.2300	MGS GUARDRAIL 3	LF	1,463.000	1,463.000
0570	614.2330	MGS GUARDRAIL 3 K	LF	3,575.000	3,575.000
0580	614.2500	MGS THRIE BEAM TRANSITION	LF	546.000	546.000
0590	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	46.000	46.000

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DATE 26DEC12 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	5530-03-60 QUANTITY
0610	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 02. 5530-30-60	EACH	1.000	1.000
0620	619.1000	MOBILIZATION	EACH	0.500	0.500
0640	625.0500	SALVAGED TOPSOIL	SY	175.000	175.000
0650	627.0200	MULCHING	SY	175.000	175.000
0660	628.1504	SILT FENCE	LF	5,146.000	5,146.000
0670	628.1520	SILT FENCE MAINTENANCE	LF	5,146.000	5,146.000
0680	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0690	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0700	628.2023	EROSION MAT CLASS II TYPE B	SY	7,777.000	7,777.000
0710	628.7005	INLET PROTECTION TYPE A	EACH	1.000	1.000
0720	629.0210	FERTILIZER TYPE B	CWT	0.120	0.120
0730	630.0120	SEEDING MIXTURE NO. 20	LB	5.000	5.000
0750	630.0200	SEEDING TEMPORARY	LB	5.000	5.000
0760	633.5200	MARKERS CULVERT END	EACH	12.000	12.000
0770	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	26.000	26.000
0780	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	82.000	82.000
0790	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	10.000	10.000
0800	637.0202	SIGNS REFLECTIVE TYPE II	SF	817.990	817.990
0810	638.2602	REMOVING SIGNS TYPE II	EACH	180.000	180.000
0820	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	136.000	136.000
0830	642.5201	FIELD OFFICE TYPE C	EACH	0.500	0.500
0840	642.6001	FIELD LABORATORY	EACH	0.500	0.500
0860	643.0100	TRAFFIC CONTROL (PROJECT) 02. 5530-03-60	EACH	1.000	1.000
0870	643.0300	TRAFFIC CONTROL DRUMS	DAY	1,840.000	1,840.000
0900	643.0900	TRAFFIC CONTROL SIGNS	DAY	3,864.000	3,864.000
0910	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	30.000	30.000
0920	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	103,255.000	103,255.000
0940	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	74,564.000	74,564.000
0960	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	305.000	305.000
1010	648.0100	LOCATING NO-PASSING ZONES	MI	9.900	9.900
1030	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	7.000	7.000
1050	690.0150	SAWING ASPHALT	LF	691.000	691.000
1090	SPV.0060	SPECIAL 03. JOINT TIES FOR CONCRETE PIPE	EACH	24.000	24.000
1100	SPV.0070	SPECIAL 01. SPRAYED ASPHALTIC SHOULDER TREATMENT	GAL	4,518.000	4,518.000

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CLEARING AND GRUBBING

CATEGORY	STATION - STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
0010	124+00 - 125+00	LT	1	1
	216+00 - 217+00	LT	1	1
	225+00 - 227+00	RT	2	2
	227+00 - 228+00	LT	1	1
	229+00 - 231+00	RT	2	2
	231+00 - 233+00	LT	2	2
	262+00 - 263+00	LT	1	1
	274+00 - 276+00	RT	2	2
	276+00 - 278+00	LT	2	2
	279+00 - 281+00	RT	2	2
	283+00 - 285+00	LT	2	2
	289+00 - 291+00	RT	2	2
	304+00 - 306+00	RT	2	2
	308+00 - 310+00	LT	2	2
	311+00 - 313+00	LT	2	2
	366+00 - 368+00	RT	2	2
	388+00 - 390+00	RT	2	2
	391+00 - 393+00	LT	2	2
	391+00 - 393+00	RT	2	2
	403+00 - 404+00	RT	1	1
	406+00 - 407+00	RT	1	1
		TOTAL	36	36

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	COMMENT
0010	126+86	MAINLINE	1	36 INCH
	129+28	MAINLINE	1	24 INCH
	155+62	MAINLINE	1	30 INCH
	189+38	MAINLINE	1	24 INCH
	275+78	DW LT	1	18 INCH
	397+86	MAINLINE	1	24 INCH
	404+46	MAINLINE		24 INCH
	494+55	MAINLINE	1	24 INCH
		TOTAL	7	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	LOCATION	204.0115 SY
0010	75+00	MAINLINE	10
		KRANZ ROAD	6
		JENSEN ROAD	7
		HYER ROAD	7
	163+83.05	B-29-128	7
	164+43.62	B-29-128	7
		CTH H	12
		POWERS ROAD	9
		LEE ROAD	8
	207+10	DW LT	6
		LECHNER ROAD	8
	344+27.18	B-29-129	12
	344+97.30	B-29-129	12
		MCCANN ROAD	11
		CTH S	13
	456+61.94	B-29-130	12
	457+51.26	B-29-130	12
		CEYLON ROAD	6
		ZINDORF ROAD LT	7
		ZINDORF ROAD RT	6
		JOHNSON ROAD	7
		DAVIES ROAD	7
	561+47.69	B-29-131	12
	562+27.36	B-29-131	12
		CTH B LT	10
		CTH B RT	8
	600+00	MAINLINE	10
		TOTAL	244

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION - STATION	204.0120 SY
0010	75+00 - 111+25	9256
	111+25 - 129+00	4527
	129+00 - 155+40	6561
	155+40 - 163+83.05	2246
	164+43.62 - 167+56	1174
	167+56 - 189+08	5076
	189+08 - 268+95	21423
	268+95 - 344+27.18	20411
	344+97.30 - 378+00	8640
	378+00 - 406+75	7479
	406+75 - 456+61.94	12338
	457+51.26 - 469+80	3480
	469+80 - 501+00	7914
	501+00 - 508+60	1956
	508+60 - 530+10	5467
	530+10 - 561+47.69	7841
	562+27.36 - 572+75	3186
	572+75 - 600+00	6817
	TOTAL	135792

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REMOVING GUARDRAIL

CATEGORY	STATION - STATION	LOCATION	204.0165 LF	COMMENT
0010	124+53 - 128+15	LT	362	
	163+08 - 164+00	LT	92	B-29-0128
	163+08 - 164+00	RT	92	B-29-0128
	164+28 - 165+20	LT	92	B-29-0128
	164+28 - 165+20	RT	92	B-29-0128
	216+18 - 217+56	LT	138	
	226+10 - 228+02	LT	192	
	228+76 - 231+26	LT	250	CABLE GUARD
	227+02 - 230+84	RT	382	
	234+20 - 238+39	LT	419	
	236+67 - 239+19	RT	252	
	256+51 - 260+47	RT	431	
	259+50 - 262+35	LT	300	
	275+86 - 279+22	RT	336	
	277+25 - 284+05	LT	680	
	285+05 - 288+20	RT	315	
	304+69 - 325+00	RT	2031	
	309+74 - 312+26	LT	252	
	318+17 - 320+56	LT	239	
	322+91 - 324+88	LT	197	
	334+03 - 336+52	RT	249	C-29-61
	335+26 - 338+94	LT	368	C-29-61
	343+33 - 344+39	LT	114	B-29-0129
	344+66 - 345+15	LT	52	B-29-0129
	343+68 - 344+60	RT	92	B-29-0129
	344+87 - 345+92	RT	105	B-29-0129
	368+92 - 376+57	RT	765	
	389+70 - 391+80	LT	210	
	389+56 - 391+92	RT	236	
	403+15 - 407+30	RT	415	
	455+52 - 456+94	LT	142	B-29-0130
	457+38 - 458+55	LT	117	B-29-0130
	455+58 - 456+75	RT	117	B-29-0130
	457+19 - 458+11	RT	92	B-29-0130
	560+46 - 561+63	LT	117	B-29-0131
	562+13 - 563+30	LT	117	B-29-0131
	560+46 - 561+63	RT	117	B-29-0131
	562+13 - 563+30	RT	117	B-29-0131
	TOTAL		10686	

EARTHWORK SUMMARY FOR BARRIER SYSTEM GRADING SHAPING FINISHING*

CATEGORY	STATION - STATION	LOCATION	205.0100 EXCAVATION COMMON CY	FILL CY	208.0100 EXPANDED FILL CY	BORROW CY	WASTE CY	MASS ORDINATE CY
0010	122+19 - 124+29	LT	32	30	37	5	0	-5
	127+45 - 128+25	LT	25	52	65	40	0	-46
	225+62 - 227+72	RT	44	261	326	282	0	-328
	227+99 - 228+43	LT	13	2	3	0	10	-318
	228+52 - 228+86	LT	4	18	22	18	0	-335
	230+13 - 231+43	RT	20	247	308	288	0	-623
	230+76 - 232+06	LT	43	40	50	7	0	-630
	254+61 - 256+71	RT	51	111	139	88	0	-718
	259+42 - 259+66	LT	10	4	4	0	5	-713
	262+08 - 262+40	LT	6	10	12	6	0	-719
	274+38 - 276+48	RT	74	94	118	44	0	-763
	275+80 - 277+70	LT	27	45	56	29	0	-791
	278+64 - 280+74	RT	82	48	60	0	22	-770
	283+61 - 285+71	LT	34	11	14	0	21	-749
	283+77 - 285+67	RT	57	103	129	73	0	-822
	289+83 - 291+93	RT	32	170	213	181	0	-1003
	307+82 - 309+92	LT	86	0	0	0	86	-917
	311+38 - 313+48	LT	75	76	95	20	0	-936
	316+49 - 318+89	LT	38	91	114	76	0	-1012
	324+64 - 324+96	LT	10	0	0	0	10	-1002
	366+36 - 368+46	RT	43	166	208	165	0	-1167
	388+06 - 390+16	RT	41	271	339	299	0	-1465
	388+25 - 390+35	LT	63	305	382	318	0	-1784
	391+16 - 393+26	LT	74	103	129	55	0	-1838
	391+32 - 393+42	RT	38	369	461	423	0	-2261
	401+67 - 403+77	RT	25	433	541	517	0	-2778
	406+88 - 408+78	RT	77	87	109	32	0	-2810
	TOTAL		1124	3147	3934	2965	154	

* FOR INFORMATIONAL PURPOSES ONLY. EXCAVATION COMMON AND BORROW ARE PAID FOR BY THE BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.

EARTHWORK SUMMARY

CATEGORY	STATION - STATION	LOCATION	205.0100 EXCAVATION COMMON CY	WASTE CY
0010	UNDISTRIBUTED FOR AREAS OF EBS	MAINLINE	5000	5000
		TOTAL	5000	5000

NOTE: QUANTITY FOR REMOVING ANY EBS AREAS INDENTIFIED IN THE FIELD.

BASE AGGREGATE DENSE

CATEGORY	STATION - STATION	305.0110 3/4 INCH TON	305.0120 1 1/4 INCH TON	311.0115 BREAKER RUN STONE TON
0010	75+00 - 111+25	628	---	---
	111+25 - 129+00	718	---	---
	129+00 - 155+40	491	---	---
	155+40 - 163+83.05	556	---	---
	164+43.62 - 167+56	464	---	---
	167+56 - 189+08	373	---	---
	189+08 - 268+95	4254	---	---
	268+95 - 344+27.18	4996	---	---
	344+97.30 - 378+00	1392	---	---
	378+00 - 406+75	1523	---	---
	406+75 - 456+61.94	1479	---	---
	457+51.26 - 469+80	623	---	---
	469+80 - 501+00	541	---	---
	501+00 - 508+60	132	---	---
	508+60 - 530+10	373	---	---
	530+10 - 561+47.69	954	---	---
	562+27.36 - 572+75	592	---	---
	572+75 - 600+00	472	---	---
	UNDISTRIBUTED FOR CULVERT REPLACEMENTS	---	180	360
	UNDISTRIBUTED FOR EBS AREAS	---	1500	6000
	TOTAL	20561	1680	6360

ASPHALT PAVEMENT

CATEGORY	STATION - STATION	455.0105 ASPHALTIC MATERIAL PG 58-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON
0010	75+00 - 111+25	100	268	1814
	111+25 - 129+00	50	136	918
	129+00 - 155+40	71	190	1286
	155+40 - 163+83.05	24	65	440
	164+43.62 - 167+56	13	34	230
	167+56 - 189+08	55	147	995
	189+08 - 268+95	233	626	4234
	268+95 - 344+27.18	224	602	4067
	344+97.30 - 378+00	97	262	1768
	378+00 - 406+75	83	222	1503
	406+75 - 456+61.94	133	358	2418
	457+51.26 - 469+80	38	101	682
	469+80 - 501+00	85	230	1551
	501+00 - 508+60	21	57	383
	508+60 - 530+10	59	159	1072
	530+10 - 561+47.69	85	227	1537
	562+27.36 - 572+75	34	92	624
	572+75 - 600+00	73	198	1336
	TOTAL	1477	3974	26860

SHAPING SHOULDERS

CATEGORY	STATION - STATION	LOCATION	305.0500 STA
0010	75+00 - 123+59	LT	49
	75+00 - 163+08	RT	88
	128+15 - 163+08	LT	35
	165+20 - 215+90	LT	51
	165+20 - 227+02	RT	62
	230+83 - 236+65	RT	6
	231+46 - 234+20	LT	3
	238+39 - 259+50	LT	22
	239+21 - 256+01	RT	17
	260+97 - 275+78	RT	15
	262+32 - 277+00	LT	15
	279+34 - 284+97	RT	6
	284+30 - 309+22	LT	25
	290+53 - 304+59	RT	14
	312+78 - 318+19	LT	6
	324+88 - 335+26	LT	11
	324+95 - 333+99	RT	9
	336+55 - 343+68	RT	8
	338+94 - 343+34	LT	5
	345+21 - 389+65	LT	45
	345+92 - 367+76	RT	22
	376+57 - 389+46	RT	13
	391+86 - 455+52	LT	64
	392+02 - 403+07	RT	11
	407+38 - 455+58	RT	49
	458+11 - 560+46	RT	103
	458+55 - 560+46	LT	102
	563+30 - 600+00	LT	37
	563+30 - 600+00	RT	37
	TOTAL		930

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 TON	COMMENT
0010	83+28	LT	4	
	84+80	LT	4	
	91+37	RT	3	
	100+14	RT	3	
	101+00	LT	3	
	111+80	LT	3	
	132+12	RT	3	
	134+84	RT	3	
	142+75	RT	3	
	150+26	LT	2	
	155+31	LT	3	
	193+76	RT	3	
	207+10	LT	5	MAKE APRON 6' WIDE
	215+70	LT	3	
	218+28	RT	3	
	228+40	LT	3	
	238+57	LT	2	
	245+21	LT	3	
	259+39	LT	3	
	262+50	LT	3	
	268+90	RT	3	
	275+75	LT	16	REPLACE CULVERT AND PATCH
	282+81	RT	3	
	290+80	RT	3	
	292+29	LT	3	
	294+07	LT	3	
	296+37	RT	3	
	299+37	LT	3	
	304+16	LT	3	
	304+42	RT	3	
	305+22	LT	3	
	325+00	LT	2	
	343+19	LT	3	
	345+24	LT	3	
	351+22	LT	2	
		SUBTOTAL	113	

ASPHALTIC CURB

CATEGORY	STATION - STATION	LOCATION	465.0310 LF
0010	309+22 - 312+78	LT	356
	319+00 - 324+95	RT	595
		TOTAL	951

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 TON	COMMENT
	352+10	RT	2	
	362+74	LT	2	
	364+83	RT	2	
	369+23	LT	3	
	383+14	RT	3	
	384+02	RT	3	
	384+66	LT	3	
	398+38	LT	3	
	402+57	RT	3	
	407+77	RT	3	
	413+63	LT	2	
	419+39	LT	3	
	419+48	RT	3	
	428+50	RT	3	TVERAAAS ROAD
	439+54	LT	3	
	439+54	RT	4	
	447+83	RT	3	
	449+63	LT	3	
	453+00	RT	3	
	462+59	RT	3	
	463+45	LT	2	
	465+08	LT	3	
	470+41	LT	3	
	470+81	LT	3	
	473+75	LT	3	
	473+83	RT	3	
	485+81	RT	3	
	497+62	RT	2	
	507+84	LT	3	
	511+00	LT	2	
	522+79	LT	3	
	523+61	RT	3	
	527+24	RT	3	
	535+36	RT	3	
	537+66	LT	3	
	537+66	RT	3	
	548+16	RT	3	
	551+00	LT	2	
	552+61	LT	3	
	554+77	RT	3	
	558+13	LT	3	
	558+13	RT	3	
	566+31	RT	3	
	566+94	LT	3	
	596+23	LT	3	
	596+31	RT	3	
		SUBTOTAL	126	
		TOTAL	239	

3

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
0010	312+78	LT	7	2	15
	324+95	RT	16	2	15
		TOTAL	23	4	30

CULVERT PIPE CORRUGATED STEEL

CATEGORY	STATION	LOCATION	MINIMUM THICKNESS INCHES	521.0118 18-INCH LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH*
0010	275+78	DW LT	0.064	30	1
		TOTAL		30	1

* ADDITIONAL QUANTITY LISTED ELSEWHERE

APRON ENDWALLS FOR CULVERT PIPE STEEL

CATEGORY	STATION	LOCATION	MINIMUM THICKNESS INCHES	521.1018 18-INCH EACH	521.1030 30-INCH EACH	COMMENT
0010	100+97	RT	0.079	---	1	FIELD VERIFY AND MATCH EXISTING INVERTS
	275+60	DW LT	0.064	1	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	275+96	DW LT	0.064	1	---	FIELD VERIFY AND MATCH EXISTING INVERTS
		TOTAL		2	1	

CONCRETE COLLARS FOR PIPE

CATEGORY	STATION	LOCATION	520.8000 EACH
10	404+46	LT	1
		TOTAL	1

CULVERT PIPE REINFORCED CONCRETE CLASS III

CATEGORY	STATION	LOCATION	522.0124 24-INCH LF	522.0130 30-INCH LF	522.0136 36-INCH LF	633.5200 MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH*
0010	126+86	MAINLINE	---		49	2	1
	129+28	MAINLINE	58		---	2	1
	155+62	MAINLINE	---	51	---	2	1
	189+38	MAINLINE	52	---	---	2	1
	397+86	MAINLINE	51	---	---	2	1
	494+55	MAINLINE	35	---	---	2	1
		TOTAL	196	51	49	12	6

* ADDITIONAL QUANTITY LISTED ELSEWHERE

APRON ENDWALLS FOR CULVERT REINFFORCED CONCRETE

CATEGORY	STATION	LOCATION	521.1024 24-INCH EACH	521.1030 30-INCH EACH	521.1036 36-INCH EACH	COMMENT
0010	126+86	LT	---	---	1	FIELD VERIFY AND MATCH EXISTING INVERTS
	126+86	RT	---	---	1	FIELD VERIFY AND MATCH EXISTING INVERTS
	129+28	LT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	129+28	RT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	155+62	LT	---	1	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	155+62	RT	---	1	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	189+38	LT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	189+38	RT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	397+86	LT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	397+86	RT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	494+55	LT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
	494+55	RT	1	---	---	FIELD VERIFY AND MATCH EXISTING INVERTS
		TOTAL	8	2	2	

3

INLETS AND COVERS

CATEGORY	STATION	LOCATION	611.0642 INLET COVERS TYPE MS EACH	611.3902 INLET MEDIAN 2 GRATE EACH	COMMENT
0010	404+46	LT	2	1	INLET DEPTH IS APPROXIMATELY 4.5 FEET. FIELD VERIFY AND MATCH EXISTING INVERTS
		TOTAL	2	1	

STEEL THRIE BEAM STRUCTURE APPROACH

CATEGROY	STATION - STATION	LOCATION	614.0200 LF	COMMENT
0010	344+00 - 344+39	LT	21	B-29-129
	344+66 - 345+05	LT	21	B-29-129
		TOTAL	42	

STEEL PLATE BEAM GUARD SHORT RADIUS

CATEGORY	STATION - STATION	LOCATION	614.0345 LF	NO. OF CRT POSTS*	COMMENT
0010	215+90 - 216+06	LT	12.5	5	DRIVEWAY - 8' RADIUS
	228+09 - 228+25	LT	12.5	5	DRIVEWAY - 16' RADIUS (ONLY INSTALL 1 PIECE)
	228+60 - 228+68	LT	12.5	5	DRIVEWAY - 8' RADIUS
	259+50 - 259+66	LT	25	7	DRIVEWAY - 16' RADIUS
	262+16 - 262+32	LT	25	7	DRIVEWAY - 16' RADIUS
	304+59 - 304+67	RT	12.5	5	DRIVEWAY - 8' RADIUS
	324+72 - 324+88	LT	25	7	DRIVEWAY - 16' RADIUS
	343+27 - 343+43	LT	25	7	B-29-0129 - 16' RADIUS
	345+00 - 345+16	LT	25	7	B-29-0129 - 16' RADIUS
		TOTAL	175	55	

* FOR INFORMATION PURPOSES ONLY

BARRIER SYSTEM GRADING SHAPING FINISHING

CATEGORY	STATION	LOCATION	614.0010 EACH
0010	123+59	LT	1
	128+15	LT	1
	227+02	RT	1
	228+25	LT	1
	228+60	LT	1
	230+83	RT	1
	231+46	LT	1
	256+01	RT	1
	259+50	LT	1
	262+32	LT	1
	275+78	RT	1
	277+00	LT	1
	279+34	RT	1
	284+31	LT	1
	284+97	RT	1
	290+53	RT	1
	309+22	LT	1
	312+78	LT	1
	318+19	LT	1
	324+88	LT	1
	367+76	RT	1
	389+46	RT	1
	389+65	LT	1
	391+86	LT	1
	392+02	RT	1
	403+15	RT	1
	407+30	RT	1
	TOTAL		27

STEEL PLATE BEAM GUARD

CATEGORY	STATION - STATION	LOCATION	614.2300 CLASS A LF	COMMENTS
0010	216+06 - 228+06	LT	1200	LONG POST
	228+68 - 230+93	LT	225	LONG POST
	259+66 - 262+16	LT	250	
	304+67 - 324+42	RT	1975	LONG POST
	318+72 - 324+72	LT	600	LONG POST
	343+43 - 344+18	LT	75	B-29-129
	344+87 - 345+00	LT	13	B-29-129
	TOTAL		4338	

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

CATEGORY	STATION	LOCATION	EACH	COMMENTS
0010	215+90	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	228+25	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	228+60	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	259+50	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	262+32	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	304+59	RT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	324+88	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	343+27	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
	345+16	LT	1	INSTALL 6.25 LF TERMINAL ONLY. DO NOT INSTALL 6.25 LF HEIGHT TRANSITION PIECE
		TOTAL	9	

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

CATEGORY	STATION - STATION	LOCATION	614.0370 EACH	LF*	COMMENT
0010	230+93 - 231+46	LT	1	53	
	318+19 - 318+72	LT	1	53	
	324+42 - 324+95	RT	1	53	
		TOTAL	3	159	

* FOR INFORMATIONAL PURPOSES ONLY

MGS GUARDRAIL

CATEGORY	STATION - STATION	LOCATION	614.2300 TYPE 3 LF	614.2330 TYPE 3K LF	COMMENTS
0010	124+12 - 127+62	LT	---	350	
	227+55 - 230+30	RT	---	275	
	234+73 - 237+86	LT	313	---	
	237+18 - 238+68	RT	150	---	
	256+54 - 260+44	RT	375	---	
	276+31 - 278+81	RT	---	250	
	277+53 - 283+78	LT	---	625	
	285+50 - 290+00	RT	---	450	
	309+75 - 312+25	LT	---	250	
	334+52 - 336+02	RT	150		C-29-61
	335+79 - 338+41	LT	262		C-29-61
	345+26 - 345+39	RT	13		B-29-129
	368+29 - 376+04	RT	---	775	
	390+18 - 391+33	LT	---	125	
	389+99 - 391+49	RT	---	150	
	403+60 - 406+85	RT	---	325	
	456+05 - 456+55	LT	50	---	B-29-130
	456+11 - 456+36	RT	25	---	B-29-130
	457+77 - 458+02	LT	25	---	B-29-130
	560+99 - 561+24	LT	25	---	B-29-131
	560+99 - 561+24	RT	25	---	B-29-131
	562+52 - 562+77	LT	25	---	B-29-131
	562+52 - 562+77	RT	25	---	B-29-131
		TOTAL	1463	3575	

MGS THRIE BEAM TRANSITION

CATEGROY	STATION - STATION	LOCATION	614.2500 LF	COMMENT
0010	163+61 - 164+00	LT	39	B-29-128
	163+61 - 164+00	RT	39	B-29-128
	164+28 - 164+67	LT	39	B-29-128
	164+28 - 164+67	RT	39	B-29-128
	344+21 - 344+60	RT	39	B-29-129
	344+87 - 345+26	RT	39	B-29-129
	456+55 - 456+94	LT	39	B-29-130
	456+36 - 456+75	RT	39	B-29-130
	457+38 - 457+77	LT	39	B-29-130
	457+19 - 457+58	RT	39	B-29-130
	561+24 - 561+63	LT	39	B-29-131
	561+24 - 561+63	RT	39	B-29-131
	562+13 - 562+52	LT	39	B-29-131
	562+13 - 562+52	RT	39	B-29-131
		TOTAL	546	

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MGS GUARDRAIL TERMINAL EAT

614.2610

CATEGORY	STATION - STATION	LOCATION	EACH	LF*	COMMENT
0010	123+59 - 124+12	LT	1	53	
	127+62 - 128+15	LT	1	53	
	163+08 - 163+61	LT	1	53	B-29-128
	163+08 - 163+61	RT	1	53	B-29-128
	164+67 - 165+20	LT	1	53	B-29-128
	164+67 - 165+20	RT	1	53	B-29-128
	227+02 - 227+55	RT	1	53	
	230+30 - 230+83	RT	1	53	
	234+20 - 234+73	LT	1	53	
	237+86 - 238+39	LT	1	53	
	236+65 - 237+18	RT	1	53	
	238+68 - 239+21	RT	1	53	
	256+01 - 256+54	RT	1	53	
	260+44 - 260+97	RT	1	53	
	275+78 - 276+31	RT	1	53	
	278+81 - 279+34	RT	1	53	
	277+00 - 277+53	LT	1	53	
	283+78 - 284+31	LT	1	53	
	284+97 - 285+50	RT	1	53	
	290+00 - 290+53	RT	1	53	
	324+42 - 324+95	RT	1	53	
	309+22 - 309+75	LT	1	53	
	312+25 - 312+78	LT	1	53	
	318+19 - 318+72	LT	1	53	
	333+99 - 334+52	RT	1	53	C-29-61
	336+02 - 336+55	RT	1	53	C-29-61
	335+26 - 335+79	LT	1	53	C-29-61
	338+41 - 338+94	LT	1	53	C-29-61
	343+68 - 344+21	RT	1	53	B-29-129
	345+39 - 345+92	RT	1	53	B-29-129
	367+76 - 368+29	RT	1	53	
	376+04 - 376+57	RT	1	53	
	389+65 - 390+18	LT	1	53	
	391+33 - 391+86	LT	1	53	
	389+46 - 389+99	RT	1	53	
	391+49 - 392+02	RT	1	53	
	403+07 - 403+60	RT	1	53	
	406+85 - 407+38	RT	1	53	
	455+52 - 456+05	LT	1	53	B-29-130
	455+58 - 456+11	RT	1	53	B-29-130
	458+02 - 458+55	LT	1	53	B-29-130
	457+66 - 458+11	RT	1	53	B-29-130
	560+46 - 560+99	LT	1	53	B-29-131
	560+46 - 560+99	RT	1	53	B-29-131
	562+77 - 563+30	LT	1	53	B-29-131
	562+77 - 563+30	RT	1	53	B-29-131
	TOTAL		46	2438	

* FOR INFORMATIONAL PURPOSES ONLY

CATEGORY	STATION - STATION		LOCATION	SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LBS	SEEDING TEMPORARY LBS
0010	122+19 - 124+29	*	LT	203	203	0.13	5	5
	127+45 - 128+25	*	LT	146	146	0.09	4	4
	225+62 - 227+72	*	RT	509	509	0.32	14	14
	227+99 - 228+43	*	LT	43	43	0.03	1	1
	228+52 - 228+86	*	LT	60	60	0.04	2	2
	230+13 - 231+43	*	RT	267	267	0.17	7	7
	230+76 - 232+06	*	LT	92	92	0.06	2	2
	254+61 - 256+71	*	RT	378	378	0.24	10	10
	259+42 - 259+66	*	LT	12	12	0.01	0	0
	262+08 - 262+40	*	LT	37	37	0.02	1	1
	274+38 - 276+48	*	RT	386	386	0.24	10	10
	275+80 - 277+70	*	LT	101	101	0.06	3	3
	278+64 - 280+74	*	RT	200	200	0.13	5	5
	283+61 - 285+71	*	LT	76	76	0.05	2	2
	283+77 - 285+67	*	RT	381	381	0.24	10	10
	289+83 - 291+93	*	RT	303	303	0.19	8	8
	307+82 - 309+92	*	LT	271	271	0.17	7	7
	311+38 - 313+48	*	LT	116	116	0.07	3	3
	316+49 - 318+89	*	LT	163	163	0.10	4	4
	324+64 - 324+96	*	LT	27	27	0.02	1	1
	366+36 - 368+46	*	RT	542	542	0.34	15	15
	388+06 - 390+16	*	RT	426	426	0.27	12	12
	388+25 - 390+35	*	LT	540	540	0.34	15	15
	391+16 - 393+26	*	LT	439	439	0.28	12	12
	391+32 - 393+42	*	RT	536	536	0.34	14	14
	401+67 - 403+77	*	RT	491	491	0.31	13	13
	406+88 - 408+78	*	RT	310	310	0.20	8	8
	UNDISTRIBUTED FOR CULVERT REPLACEMENTS		MAINLINE	175	175	0.12	5	5
	TOTAL			7230	7230	5	195	195

* FOR INFORMATIONAL PURPOSES ONLY. SALVAGED TOPSOIL, MULCHING, FERTILIZER TYPE B, SEEDING MIXTURE NO. 20, AND SEEDING TEMPORARY ARE PAID FOR BY THE BID ITEM BARRIER SYSTEM GRADING SHAPING FINISHING.

EROSION CONTROL

CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2023 EROSION MAT CLASS II TYPE B SY	628.7005 INLET PROTECTION TYPE A EACH
0010	100+97	RT	10	10	13	---
	122+19 - 124+29	LT	210	210	203	---
	126+86	LT	10	10	16	---
	126+86	RT	10	10	16	---
	127+45 - 128+25	LT	80	80	146	---
	129+28	LT	10	10	10	---
	129+28	RT	10	10	10	---
	138+27	LT	10	10	16	---
	138+27	RT	10	10	16	---
	155+62	LT	10	10	13	---
	155+62	RT	10	10	13	---
	189+38	LT	10	10	10	---
	189+38	RT	10	10	10	---
	225+62 - 227+72	RT	210	210	509	---
	227+99 - 228+43	LT	44	44	43	---
	228+52 - 228+86	LT	34	34	60	---
	230+13 - 231+43	RT	130	130	267	---
	230+76 - 232+06	LT	130	130	92	---
	253+73	LT	10	10	16	---
	253+73	RT	10	10	16	---
	254+61 - 256+71	RT	210	210	378	---
	259+42 - 259+66	LT	24	24	12	---
	262+08 - 262+40	LT	32	32	37	---
	274+38 - 276+48	RT	210	210	386	---
	275+60	LT	10	10	10	---
	275+96	LT	10	10	10	---
	275+80 - 277+70	LT	190	190	101	---
	278+64 - 280+74	RT	210	210	200	---
	283+61 - 285+71	LT	210	210	76	---
	283+77 - 285+67	RT	190	190	381	---
	289+83 - 291+93	RT	210	210	303	---
	307+82 - 309+92	LT	210	210	271	---
	311+38 - 313+48	LT	210	210	116	---
	316+49 - 318+89	LT	240	240	163	---
	324+64 - 324+96	LT	32	32	27	---
	366+36 - 368+46	RT	210	210	542	---
	388+06 - 390+16	RT	210	210	426	---
	388+25 - 390+35	LT	210	210	540	---
	391+16 - 393+26	LT	210	210	439	---
	391+32 - 393+42	RT	210	210	536	---
	397+86	LT	10	10	10	---
	397+86	RT	10	10	10	---
	401+67 - 403+77	RT	210	210	491	---
	404+46	LT	---	---	---	1
	406+88 - 408+78	RT	190	190	310	---
	494+55	LT	10	10	10	---
	494+55	RT	10	10	10	---
	UNDISTRIBUTED		500	500	500	---
		TOTAL	5146	5146	7777	1

MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
0010	PROJECT	1	2

TRAFFIC CONTROL SUMMARY

CATEGORY	DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAYS
0010	92	20	1840	42	3864

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
101R	74+75	STH 80, Left	M3-2	24" x 12"	East Cardinal Route Marker						1	2	
102R	74+75	STH 80, Left	M3-3	24" x 12"	South Cardinal Route Marker						1		Mounted with 101R
103R	74+75	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 101R
104R	74+75	STH 80, Left	M1-6	72" x 24"	State Route Marker (3 Headed Panel)	82, 80, 82					1		Mounted with 101R
105R	74+75	STH 80, Left	M6-1	21" x 21"	Arrow (Left)						1		Mounted with 101R
106R	74+75	STH 80, Left	M6-2	21" x 21"	Arrow (Tilt Right)						1		Mounted with 101R
107R	74+75	STH 80, Left	M6-2	21" x 21"	Arrow (Tilt Right)						1		Mounted with 101R
108R	75+25	STH 80, Right	J4-1	24" x 36"	Reassurance Assembly (2 Headed Route Panel)	North					1	1	
						STH 80							
109R	76+45	STH 80, Right	R2-1	24" x 30"	Speed Limit (55)						1	1	
110R	76+45	STH 80, Left	R2-1	24" x 30"	Speed Limit (45)						1	1	
111R	78+00	STH 80, Left	D1-2	66" x 30"	Two Destinations (Arrows)	Arrow Left, Mauston					1	2	
						Elroy, Arrow Tilt Right							
112R	79+75	STH 80, Left	D1-2	78" x 24"	One Destination (Arrow)	Arrow Ahead, Elroy-Sparta					1	2	
						State Trail							
113R	79+75	STH 80, Left	D1-2	78" x 24"	One Destination (Arrow)	Arrow Ahead, The '400'					1		Mounted with 112R
						State Trail							
114R	81+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
115R	81+10	STH 80, Left	M3-2	24" x 12"	East Cardinal Route Marker						1		Mounted on back of 114R
116R	81+10	STH 80, Left	M1-6	72" x 24"	State Route Marker	82					1		Mounted on back of 114R
117R	81+10	STH 80, Left	M5-1L	21" x 21"	Advance Arrow Left Turn						1		Mounted on back of 114R
118R	82+20	STH 80, Right	D2-1	81" X 15"	Destination/Distance (One)	New Lisbon 11					1	2	
119R	82+20	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1		Mounted on back of 118R
120R	82+50	STH 80, Left	W3-5	36" x 36"	Speed Limit 45 Ahead (Arrow)						1	1	
121R	84+20	STH 80, Left	W1-4R	30" x 30"	Right Reverse Curve						1	1	
122R	84+20	STH 80, Left	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	45					1		Mounted with 121R
123R	84+20	STH 80, Left	M3-3	24" x 12"	South Cardinal Route Marker						1	1	
124R	84+20	STH 80, Left	M3-4	24" x 12"	West Cardinal Route Marker						1		Mounted with 123R
125R	84+20	STH 80, Left	M1-6	24" x 24"	State Route Marker	80					1		Mounted with 123R
126R	84+20	STH 80, Left	M1-6	24" x 24"	State Route Marker	82					1		Mounted with 123R
127R	84+20	STH 80, Left	M5-2R	21" x 21"	Advance Arrow Right Bent						1		Mounted with 123R
128R	84+20	STH 80, Left	M5-2R	21" x 21"	Advance Arrow Right Bent						1		Mounted with 123R
129R	89+60	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
130R	89+60	STH 80, Left	M1-6	24" x 24"	State Route Marker	82					1		Mounted with 129R
131R	98+45	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
132R	99+50	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
133R	104+50	STH 80, Right	W1-4L	30" x 30"	Left Reverse Curve						1	1	
134R	110+45	STH 80, Right	W1-6	48" x 24"	Night Arrow (Single)						1	1	
135R	112+10	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
136R	128+80	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
201	73+50	STH 80, Left	J3-3	72" X 57"	Directional Assembly (3 Headed Route Panel)	West, South, West			2	28.50			
						STH 82, STH 80, STH 82							
						Arrow Left, Arrow Tilt Right, Arrow Tilt Right							
202	75+30	STH 80, Right	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	North		1		6.00			
						STH 80							
203	76+50	STH 80, Right	R2-1	24" x 30"	Speed Limit (55)			1		5.00			
204	74+00	STH 80, Left	R2-2	24" x 30"	Speed Limit (45)			1		5.00			
205	78+00	STH 80, Left	D1-2	66" x 30"	Two Destinations (Arrows)	Arrow Left, Mauston		2		13.75			
						Elroy, Arrow Tilt Right							
206	79+30	STH 80, Left	D1-4	84" x 48"	Four Destinations (Arrows)	Arrow Ahead, Elroy-Sparta		2		28.00			
						State Trail							
						Arrow Ahead, The '400'							
						State Trail							
207	81+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
208	81+10	STH 80, Left	J2-3	72" X 57"	Route Turn Assembly (3 Headed Route Panel)	East, South, West			2	28.50			
						STH 82, STH 80, STH 82							
						Adv. Arrow Lt Turn, Adv. Arrow Rt Bent, Adv. Arrow Rt Bent							
209	80+00	STH 80, Right	D2-1	84" X 15"	Destination/Distance (One)	New Lisbon 11	2			8.75			
210	82+20	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
211	82+45	STH 80, Left	W3-5	36" x 36"	Speed Limit 45 Ahead (Arrow)			1		9.00			
						Sheet Totals	2	10	4	144.5	36	22	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
212	84+15	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						STH 82							
213	98+45	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
214	99+50	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
215	106+00	STH 80, Right	W1-4L	30" x 30"	Left Reverse Curve			1		6.25			
216	110+45	STH 80, Right	W1-6	48" x 24"	Night Arrow (Single)		1			8.00			
217	112+10	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
218	128+80	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
301	133+50	STH 80, Left	W1-4L	30" x 30"	Left Reverse Curve			1		6.25			
302R	137+00	STH 80, Left	W1-4L	30" x 30"	Left Reverse Curve						1	1	
303R	139+55	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
304	139+55	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
305R	148+35	STH 80, Right	W1-2R	30" x 30"	Right Curve						1	1	
306R	150+00	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
307	150+00	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
308R	155+20	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
309	155+20	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
310R	156+75	STH 80, Right	M2-1	21" x 15"	Junction Marker	Jct					1	1	
311R	156+75	STH 80, Right	M1-5A	24" x 24"	County Marker	H					1		Mounted with 309R
312	156+75	STH 80, Right	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH H							
313R	162+00	STH 80, Left	M3-3	24" x 12"	South Cardinal Route Marker						1	1	
314R	162+00	STH 80, Left	M1-6	24" x 24"	State Route Marker	80					1		Mounted with 312R
315	165+35	STH 80, Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	South		1		6.00			
						STH 80							
316	167+10	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	STH 80		1		7.50			
						Arrow Left-Right							
317R	167+20	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
318	167+20	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
319	167+35	STH 80, Right	J13-1	24" x 45"	Directional Without Cardinal	CTH H		1		7.50			
						Arrow Left							
320R	167+50	STH 80, Right	M1-5A	24" x 24"	County Marker	H					1	1	
321R	167+50	STH 80, Right	M6-1	21" x 21"	Arrow (Left)						1		Mounted with 318R
322R	167+50	STH 80, Right	W1-7	48" x 24"	Night Arrow (Double)						1		Mounted with 318R
323	167+50	STH 80, Right	W1-7	48" x 24"	Night Arrow (Double)		1			8.00			
324R	167+80	STH 80, Left	M1-5A	24" x 24"	County Marker	H					1	1	
325	167+80	STH 80, Left	M1-5A	24" x 24"	County Marker	H	1			4			
326R	167+85	STH 80, Left	R12-55	48" x 18"	_ TON BRIDGE __ MILES AHEAD	20, .7					1	1	
327	167+85	STH 80, Left	R12-55	48" x 18"	_ TON BRIDGE __ MILES AHEAD	20, .7	1			6.00			
328R	168+30	STH 80, Left	M1-5A	24" x 24"	County Marker	H					1	1	
329R	168+30	STH 80, Left	M6-1	21" x 21"	Arrow (Right)						1		Mounted with 326R
330	168+30	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	CTH H		1		7.50			
						Arrow Right							
331R	169+25	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
332	169+25	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
333	170+00	STH 80, Right	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	North		1		6.00			
						STH 80							
334R	170+00	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	ELROY					1	1	
						METHODIST							
						CHURCH							
335	170+00	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	ELROY		1		7.50			
						METHODIST							
						CHURCH							
336R	172+05	STH 80, Right	M3-1	24" x 12"	North Cardinal Route Marker						1	1	
337R	172+05	STH 80, Right	M1-6	24" x 24"	State Route Marker	80					1		Mounted with 333R
338R	172+60	STH 80, Left	W1-2l	30" x 30"	Left Curve						1	1	
339	178+00	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH H							
340R	180+50	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
341R	180+50	STH 80, Left	M1-5A	24" x 24"	County Marker	H					1		Mounted with 337R
						Sheet Totals	8	16	0	149.9	24	17	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
342R	188+90	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
343	188+90	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
344R	189+00	STH 80, Right	W1-7	48" x 24"	Night Arrow (Double)						1	1	
345	189+00	STH 80, Right	W1-7	48" x 24"	Night Arrow (Double)		1			8.00			
401R	194+25	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
402	194+25	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
403R	195+05	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
404	195+05	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
405R	215+55	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
406	215+55	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
407R	226+10	STH 80, Left	W1-4L	30" x 30"	Left Reverse Curve						1	1	
408R	226+75	STH 80, Right	W8-54	30" x 30"	Watch for Fallen Rocks						1	1	
409	226+75	STH 80, Right	W8-14	36" x 36"	Fallen Rocks			1		9.00			
410R	239+95	STH 80, Right	W1-2L	30" x 30"	Left Curve						1	1	
411R	241+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
412	241+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
413R	244+10	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
414	244+10	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
501R	252+00	STH 80, Right	W1-2R	30" x 30"	Right Curve						1	1	
502R	252+00	STH 80, Right	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	35					1		Mounted with 501R
503	252+00	STH 80, Right	W1-2R	30" x 30"	Right Curve				1	6.25	1	1	
504	252+00	STH 80, Right	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	35				2.25			Mount with 503
505R	258+20	STH 80, Left	W1-2R	30" x 30"	Right Curve						1	1	
506	259+00	STH 80, Left	W1-6	48" x 24"	Night Arrow (Single)		1			8.00			
507R	261+50	STH 80, Left	W1-6	48" x 24"	Night Arrow (Single)						1	1	
508	261+50	STH 80, Left	W1-6	48" x 24"	Night Arrow (Single)		1			8.00			
509R	265+00	STH 80, Right	W1-2L	30" x 30"	Left Curve						1	1	
510R	268+75	STH 80, Left	W1-2L	30" x 30"	Left Curve						1	1	
511R	268+75	STH 80, Left	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	35					1		Mounted with 507R
512	268+75	STH 80, Left	W1-2L	30" x 30"	Left Curve				1	6.25			
513	268+75	STH 80, Left	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	35				3.00			Mount with 509
514R	268+90	STH 80, Left	W1-7	48" x 24"	Night Arrow (Double)						1	1	
515	268+90	STH 80, Left	W1-7	48" x 24"	Night Arrow (Double)		1			8.00			
516R	269+20	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
517	269+20	STH 80, Right	R1-1	30" x 30"	Stop			1		5.18			
518R	280+95	STH 80, Right	W1-2L	30" x 30"	Left Curve						1	1	
519R	281+50	STH 80, Left	W1-2R	30" x 30"	Right Curve						1	1	
520R	295+40	STH 80, Right	W2-2	30" x 30"	Side Road (90 Degrees)						1	1	
521R	295+40	STH 80, Right	W13-1	18" x 18"	Advisory Speed Plate (Yellow Black)	45					1		Mounted with 507R
522	295+40	STH 80, Right	W2-2	30" x 30"	Side Road (90 Degrees)			1		6.25			
523R	296+95	STH 80, Right	W7-1	30" x 30"	Hill						1	1	
524	296+95	STH 80, Right	W7-1	36" x 36"	Hill				1	9.00			
525	296+95	STH 80, Right	W7-3	24" x 18"	(%) Grade	7%				3.00			Mount with 523
526R	298+50	STH 80, Right	W11-5	30" x 30"	Farm Machinery Symbol						1	1	
527	298+50	STH 80, Right	W11-5	30" x 30"	Farm Machinery Symbol			1		6.25			
528	300+00	STH 80, Left	S3-1	36" x 36"	School Bus Stop Ahead			1		9.00			
529R	300+50	STH 80, Left	W1-2R	30" x 30"	Right Curve						1	1	
530R	301	STH 80, Right	W1-4L	30" x 30"	Left Reverse Curve						1	1	
531R	302+10	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	NEW LISBON NATIONAL HONOR SOCIETY					1	1	
532	302+10	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	NEW LISBON NATIONAL HONOR SOCIETY		1		7.50			
533R	303+50	STH 80, Left	S3-1	30" x 30"	School Bus Stop Ahead						1	1	
534R	304+60	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
535	304+60	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
536R	307+00	STH 80, Left	W7-1	30" x 30"	Hill						1	1	
601R	334+05	STH 80, Left	W1-4L	30" x 30"	Left Reverse Curve						1	1	
602R	334+95	STH 80, Right	W1-2R	30" x 30"	Right Curve						1	1	
603R	340+75	STH 80, Right	S3-1	30" x 30"	School Bus Stop Ahead						1	1	
604	342+00	STH 80, Right	S3-1	36" x 36"	School Bus Stop Ahead			1		9.00			
605R	346+70	STH 80, Left	W8-54	30" x 30"	Watch for Fallen Rocks						1	1	
606	346+70	STH 80, Left	W8-14	36" x 36"	Fallen Rocks			1		9.00			
607R	360+40	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
608	360+40	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
609R	360+40	STH 80, Left	W1-2L	30" x 30"	Left Curve						1		Mounted on back of 607R
610R	244+10	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
611	244+10	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
						Sheet Totals	6	15	3	174.47	39	35	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
612R	363+90	STH 80, Right	W1-2L	30" x 30"	Left Curve						1	1	
701R	378+35	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
702	378+35	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
703	385+50	STH 80, Left	W1-2R	30" x 30"	Right Curve			1		6.25			
704R	391+90	STH 80, Left	W1-2R	30" x 30"	Right Curve						1	1	
705R	392+35	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
706	392+35	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
707R	393+90	STH 80, Right	M2-1	21" x 15"	Junction Marker	Jct					1	1	
708R	393+90	STH 80, Right	M1-5A	24" x 24"	County Marker	S					1		Mounted with 706R
709	396+00	STH 80, Right	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH S							
710R	397+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
711	397+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
712R	397+65	STH 80, Right	W1-2L	30" x 30"	Left Curve						1	1	
713R	399+15	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	NEW LISBON					1	1	
						FUTURE BUSINESS							
						LEADERS							
						OF AMERICA							
714	399+15	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	NEW LISBON		1		7.50			
						FUTURE BUSINESS							
						LEADERS							
						OF AMERICA							
715R	403+35	STH 80, Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	South					1	1	
						STH 80							
716	404+20	STH 80, Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	South		1		6.00			
						STH 80							
717R	405+70	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	NEW LISBON					1	1	
						NATIONAL							
						HONOR SOCIETY							
718	405+70	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	NEW LISBON		1		7.50			
						NATIONAL							
						HONOR SOCIETY							
719R	405+90	STH 80, Left	M1-6	24" x 24"	State Route Marker	80					1	1	
720R	405+90	STH 80, Left	M6-4	21" x 21"	Directional Arrow Right & Left						1		Mounted with 718R
721	405+90	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	STH 80		1		7.50			
						Arrow Right & Left							
722R	406+20	STH 80, Left	R1-1	36" x 36"	Stop						1	1	
723	406+20	STH 80, Left	R1-1	30" x 30"	Stop		1			5.18			
724R	406+50	STH 80, Right	M1-5A	24" x 24"	County Marker	S					1	1	
725R	406+50	STH 80, Right	M6-1	21" x 21"	Arrow (Left)						1		Mounted with 723R
726	406+50	STH 80, Right	J13-1	24" x 45"	Directional Without Cardinal	CTH S			1	7.50			
						Arrow Left							
727R	406+70	STH 80, Right	W1-7	48" x 24"	Night Arrow (Double)						1	1	
728	406+70	STH 80, Right	W1-7	48" x 24"	Night Arrow (Double)			1		8.00			
729R	407+40	STH 80, Left	M1-5A	24" x 24"	County Marker	S					1	1	
730R	407+40	STH 80, Left	M6-1	21" x 21"	Arrow (Right)						1		Mounted with 728R
731	407+40	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	CTH S		1		7.50			
						Arrow Right							
732	408+60	STH 80, Right	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	North		1		6.00			
						STH 80							
733R	410+00	STH 80, Right	M3-1	24" x 12"	North Cardinal Route Marker						1	1	
734R	410+00	STH 80, Right	M1-6	24" x 24"	State Route Marker	80					1		Mounted with 731R
735R	416+80	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
736	416+80	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
737	419+20	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH S							
738R	417+40	STH 80, Left	W1-2R	30" x 30"	Right Curve						1	1	
739R	419+20	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
740R	419+20	STH 80, Left	M1-5A	24" x 24"	County Marker	S					1		Mounted with 737R
801R	437+90	STH 80, Right	W1-2R	30" x 30"	Right Curve						1	1	
802R	438+40	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
803	438+40	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
804	447+00	STH 80, Right	W1-2R	30" x 30"	Right Curve			1		6.25			
805R	459+10	STH 80, Right	S3-1	30" x 30"	School Bus Stop Ahead						1	1	
806	459+10	STH 80, Right	S3-1	36" x 36"	School Bus Stop Ahead			1		9.00			
807R	459+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
808	459+10	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
809R	461+60	STH 80, Right	W11-5	30" x 30"	Farm Machinery Symbol						1	1	
810	461+60	STH 80, Right	W11-5	30" x 30"	Farm Machinery Symbol			1		6.25			
						Sheet Totals	2	18	1	138.61	30	24	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
811R	461+60	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1		Mounted on back of 808R
812	461+60	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
813R	462+40	STH 80, Left	W1-2L	30" x 30"	Left Curve						1	1	
814R	470+15	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
815	470+15	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
816R	478+00	STH 80, Left	S3-1	30" x 30"	School Bus Stop Ahead						1	1	
817	478+00	STH 80, Left	S3-1	36" x 36"	School Bus Stop Ahead			1		9.00			
818R	481+00	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
819	481+00	STH 80, Right	W14-3	48" x 36"	No Passing Zone					6.00			Mount on back of 809
901R	496+60	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
902	496+60	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
903R	496+60	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	NEW LISBON					1		Mounted on back of 901R
						FUTURE BUSINESS							
						LEADERS							
						OF AMERICA							
904	499+10	STH 80, Left	I55-56	30" x 36"	Adopt A Highway	NEW LISBON		1		7.50			Mount on back of 902
						FUTURE BUSINESS							
						LEADERS							
						OF AMERICA							
905R	499+10	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	NEW LISBON					1	1	
						LIONS							
906	499+10	STH 80, Right	I55-56	30" x 36"	Adopt A Highway	NEW LISBON		1		7.50			
						LIONS							
907R	500+30	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
908	500+30	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
909R	501+15	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
910	501+15	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
911R	508+70	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
912	508+70	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			Install State Furnished Hood. (Incidental to Stop Sign.)
913R	515+50	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
914	515+50	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
915R	518+00	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
916	518+00	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
917R	530+00	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
918	530+00	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
919R	537+10	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1	1	
920	537+10	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			
921R	543+25	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
922	543+25	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
1001R	556+95	STH 80, Right	W1-2L	30" x 30"	Left Curve						1	1	
1002R	560+25	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
1003	560+25	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
1004	562+30	STH 80, Right	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH B							
1005R	563+00	STH 80, Right	M2-1	21" x 15"	Junction Marker	Jct					1	1	
1006R	563+00	STH 80, Right	M1-5A	24" x 24"	County Marker	B					1		Mounted with 1004R
1007R	563+00	STH 80, Right	W14-3	48" x 36"	No Passing Zone						1		Mounted on back of 1004R
1008	563+00	STH 80, Right	W14-3	48" x 36"	No Passing Zone			1		6.00			Mount on back of 1006
1009R	569+35	STH 80, Right	D1-2	126" x 24"	One Destination (Arrow)	Mauston-New Lisbon					1	2	
						Union Airport Arrow Right					1	1	
1010R	569+40	STH 80, Right		24" X 30"	Juneau County Landfill Arrow Right						1		Mounted with 1009R
1011R	569+60	STH 80, Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	South					1	1	
						STH 80							
1012	570+50	STH 80, Left	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	South		1		6.00			
						STH 80							
1013R	572+00	STH 80, Left	M1-6	24" x 24"	State Route Marker	80					1	1	
1014R	572+00	STH 80, Left	M6-4	21" x 21"	Directional Arrow Right & Left						1		Mounted with 1013R
1015	572+00	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	STH 80		1		7.50			
						Arrow Right & Left							
1016R	572+20	STH 80, Right	M1-5A	24" x 24"	County Marker	B					1	1	
1017R	572+20	STH 80, Right	M6-4	21" x 21"	Directional Arrow Right & Left						1		Mounted with 1013R
1018	572+20	STH 80, Right	J13-1	24" x 45"	Directional Without Cardinal	CTH B		1		7.50			
						Arrow Right & Left							
						Sheet Totals	3	17	0	131.4	29	23	

SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIZE	DESCRIPTION	ORDER LINES	634.0614 WOOD POSTS 14' EACH	634.0616 WOOD POSTS 16' EACH	634.0618 WOOD POSTS 18' EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	NOTES
1019R	572+35	STH 80, Left	R1-1	30" x 30"	Stop						1	1	
1020	572+35	STH 80, Left	R1-1	30" x 30"	Stop			1		5.18			
1021R	572+70	STH 80, Right	M1-5A	24" x 24"	County Marker	B					1	1	
1022R	572+70	STH 80, Right	M6-1	21" x 21"	Arrow Ahead						1		Mounted with 1021R
1023	572+70	STH 80, Right	M1-5A	24" x 24"	County Marker	B	1			4.00			
1024R	572+75	STH 80, Left	M1-5A	24" x 24"	County Marker	B					1	1	
1025R	572+75	STH 80, Left	M6-1	21" x 21"	Arrow Ahead						1		Mounted with 1024R
1026	572+75	STH 80, Left	M1-5A	24" x 24"	County Marker	B	1			4.00			
1027R	573+15	STH 80, Right	R1-1	30" x 30"	Stop						1	1	
1028	573+15	STH 80, Right	R1-1	30" x 30"	Stop		1			5.18			
1029R	573+40	STH 80, Left	M1-5A	24" x 24"	County Marker	B					1	1	
1030R	573+40	STH 80, Left	M6-4	21" x 21"	Directional Arrow Right & Left						1		Mounted with 1029R
1031	573+40	STH 80, Left	J13-1	24" x 45"	Directional Without Cardinal	CTH B			1	7.50			
						Arrow Right & Left							
1032R	573+40	STH 80, Right	M1-6	24" x 24"	State Route Marker	80					1	1	
1033R	573+40	STH 80, Right	M6-4	21" x 21"	Directional Arrow Right & Left						1		Mounted with 1032R
1034	573+40	STH 80, Right	J13-1	24" x 45"	Directional Without Cardinal	STH 80			1	7.50			
						Arrow Right & Left							
1035R	575+90	STH 80, Right	M3-1	24" x 12"	North Cardinal Route Marker						1	1	
1036R	575+90	STH 80, Right	M1-6	24" x 24"	State Route Marker	80					1		Mounted with 1035R
1037	575+90	STH 80, Right	J4-1	24" x 36"	Reassurance Assembly (1 Headed Route Panel)	North		1		6.00			
						STH 80							
1038R	576+70	STH 80, Left	D1-2	126" x 24"	One Destination (Arrow)	Mauston-New Lisbon					1	2	
						Arrow Left Union Airport					1	1	
1039R	576+70	STH 80, Left		24" X 30"	Juneau County Landfill Arrow Left						1		Mounted with 1009R
1040R	583+60	STH 80, Left	M2-1	21" x 15"	Junction Marker	Jct					1	1	
1041R	583+60	STH 80, Left	M1-5A	24" x 24"	County Marker	B					1		Mounted with 1040R
1042	583+60	STH 80, Left	J1-1	24" x 39"	Junction Assembly	Jct		1		6.50			
						CTH B							
1043R	586+25	STH 80, Right	W1-2R	30" x 30"	Right Curve						1	1	
1044R	587+00	STH 80, Left	W14-3	48" x 36"	No Passing Zone						1	1	
1045	587+00	STH 80, Left	W14-3	48" x 36"	No Passing Zone			1		6.00			
1046R	587+00	STH 80, Left	W1-2R	30" x 30"	Right Curve						1		Mounted on back of 1044R
1047	593+00	STH 80, Right	W1-2R	30" x 30"	Right Curve			1		6.25			
1048R	600+00	STH 80, Right	W3-5	36" x 36"	Speed Limit 25 Ahead (Arrow)						1	1	
1049	600+00	STH 80, Right	I2-3	72" x 24"	Community Population Name Sign	New Lisbon	2			12.00			
						Population 2554							
1050	602+00	STH 80, Right	W3-5	36" x 36"	Speed Limit 25 Ahead (Arrow)			1		9.00			
1051R	606+70	STH 80, Right	I2-3	72" x 24"	Community Population Name Sign	New Lisbon					1	1	
						Population 2554							
						Sheet Totals	5	6	2	79.11	22	15	
						Signing Totals	26	82	10	817.99	180	136	

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STATE PROJECT NO: 5530-03-60 | **HWY: STH 80** | **COUNTY: JUNEAU** | **MISCELLANEOUS QUANTITIES** | **SHEET NO:** 38 | **E**

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ ORG DATE : _____ ORIGINATOR : DIST _ PLOT SCALE : 1:1

PAVEMENT MARKING EPOXY

			646.0106	646.0406 SAME DAY YELLOW		647.0566	
CATEGORY	STATION - STATION	LOCATION	WHITE 4-INCH LF	SOLID 4-INCH LF	SKIP DASH 4-INCH LF	STOP LINE 18-INCH LF	COMMENTS
0010	75+00 - 81+00	CENTERLINE	---	600	150	---	SOLID LT - SKIP DASH RT
	75+00 - 110+25	RT EDGE	3525	---	---	---	
	75+00 - 125+50	LT EDGE	5050	---	---	---	
	81+00 - 105+00	CENTERLINE	---	2400	600	---	SOLID LT - SKIP DASH RT
	105+00 - 131+00	CENTERLINE	---	5200	---	---	DOUBLE YELLOW
	110+25 - 112+00	RT EDGE	175	---	---	---	
	112+00 - 168+40	RT EDGE	5640	---	---	---	
	129+40 - 155+00	LT EDGE	2560	---	---	---	
	131+00 - 141+00	CENTERLINE	---	1000	250	---	SOLID LT - SKIP DASH RT
	141+00 - 150+00	CENTERLINE	---	---	225	---	SKIP DASH
	150+00 - 160+00	CENTERLINE	---	1000	250	---	SKIP DASH LT - SOLID RT
	160+00 - 185+00	CENTERLINE	---	5000	---	---	DOUBLE YELLOW
	155+70 -0166+80	LT EDGE	1110	---	---	---	
	168+00 - 188+45	LT EDGE	2045	---	---	---	
	169+50 - 268+65	RT EDGE	9915	---	---	---	
	185+00 - 194+00	CENTERLINE	---	900	225	---	SOLID LT - SKIP DASH RT
	189+35 - 406+10	LT EDGE	21675	---	---	---	
	194+00 - 195+00	CENTERLINE	---	200	---	---	DOUBLE YELLOW
	195+00 - 204+00		---	900	225	---	SOLID LT - SKIP DASH RT
	204+00 - 233+00	CENTERLINE	---	5800	---	---	DOUBLE YELLOW
	233+00 - 241+00	CENTERLINE	---	800	200	---	SOLID LT - SKIP DASH RT
	241+00 - 244+00	CENTERLINE	---	600	---	---	DOUBLE YELLOW
	244+00 - 252+50	CENTERLINE	---	850	213	---	SKIP DASH LT - SOLID RT
	252+50 - 349+00	CENTERLINE	---	19300	---	---	DOUBLE YELLOW
	269+25 - 377+70	RT EDGE	10845	---	---	---	
	349+00 - 360+00	CENTERLINE	---	1100	275	---	SOLID LT - SKIP DASH RT
	360+00 - 371+00	CENTERLINE	---	1100	275	---	SKIP DASH LT - SOLID RT
	371+00 - 380+00	CENTERLINE	---	1800	---	---	DOUBLE YELLOW
	378+60 - 469+00	RT EDGE	9040	---	---	---	
	380+00 - 392+00	CENTERLINE	---	1200	300	---	SOLID LT - SKIP DASH RT
	392+00 - 396+00	CENTERLINE	---	---	100	---	SKIP DASH
	396+00 - 405+00	CENTERLINE	---	900	225	---	SKIP DASH LT - SOLID RT
	407+30 - 500+20	LT EDGE	9290	---	---	---	
	405+00 - 408+00	CENTERLINE	---	600	---	---	DOUBLE YELLOW
	408+00 - 416+00	CENTERLINE	---	800	200	---	SOLID LT - SKIP DASH RT
	416+00 - 438+00	CENTERLINE	---	---	550	---	SKIP DASH
	438+00 - 449+00	CENTERLINE	---	900	225	---	SKIP DASH LT - SOLID RT
	449+00 - 459+00	CENTERLINE	---	1000	250	---	SOLID LT - SKIP DASH RT
	459+00 - 461+00	CENTERLINE	---	400	---	---	DOUBLE YELLOW
	461+00 - 469+50	CENTERLINE	---	850	213	---	SKIP DASH LT - SOLID RT
		SUBTOTAL	80870	55200	4951	0	

PAVEMENT MARKING EPOXY

			646.0106	646.0406 SAME DAY YELLOW		647.0566	
CATEGORY	STATION - STATION	LOCATION	WHITE 4-INCH LF	SOLID 4-INCH LF	SKIP DASH 4-INCH LF	STOP LINE 18-INCH LF	COMMENTS
	470+30 - 500+60	RT EDGE	3030	---	---	---	
	469+50 - 480+00	CENTERLINE	---	1050	263	---	SOLID LT - SKIP DASH RT
	480+00 - 496+00	CENTERLINE	---	---	400	---	SKIP DASH
	501+20 - 529+30	LT EDGE	2810	---	---	---	
	501+30 - 508+30	RT EDGE	700	---	---	---	
	508+00 - 515+00	CENTERLINE	---	700	175	---	SOLID LT - SKIP DASH RT
	509+00 - 572+40	RT EDGE	6340	---	---	---	
	515+00 - 518+00	CENTERLINE	---	600	---	---	DOUBLE YELLOW
	518+00 - 526+00	CENTERLINE	---	800	200	---	SKIP DASH LT - SOLID RT
	526+00 - 539+00	CENTERLINE	---	1300	325	---	SOLID LT - SKIP DASH RT
	530+60 - 572+20	LT EDGE	4160	---	---	---	
	539+00 - 543+00	CENTERLINE	---	800	---	---	DOUBLE YELLOW
	543+00 - 555+00	CENTERLINE	---	1200	300	---	SKIP DASH LT - SOLID RT
	555+00 - 560+00	CENTERLINE	---	500	125	---	SOLID LT - SKIP DASH RT
	560+00 - 563+00	CENTERLINE	---	600	---	---	DOUBLE YELLOW
	563+00 - 572+00	CENTERLINE	---	900	225	---	SKIP DASH LT - SOLID RT
	572+00 - 575+00	CENTERLINE	---	600	---	---	DOUBLE YELLOW
	573+15 - 600+00	LT EDGE	2685	---	---	---	
	573+40 - 600+00	RT EDGE	2660	---	---	---	
	575+00 - 587+00	CENTERLINE	---	1200	300	---	SOLID LT - SKIP DASH RT
	587+00 - 597+00	CENTERLINE	---	1000	250	---	SKIP DASH LT - SOLID RT
	597+00 - 600+00	CENTERLINE	---	600	---	---	DOUBLE YELLOW
		KRANZ ROAD	---	---	---	25	
		JENSEN ROAD	---	---	---	20	
		HYER ROAD	---	---	---	20	
		CTH H	---	---	---	20	
		POWERS ROAD	---	---	---	20	
		LEE ROAD	---	---	---	20	
		MCCANN ROAD	---	---	---	20	
		CTH S	---	---	---	20	
		CEYLON ROAD	---	---	---	20	
		ZINDORF ROAD LT	---	---	---	20	
		ZINDORF ROAD RT	---	---	---	20	
		JOHNSON ROAD	---	---	---	20	
		DAVIES ROAD	---	---	---	20	
		CTH B LT	---	---	---	20	
		CTH B RT	---	---	---	20	
		SUBTOTAL	22385	11850	2563	305	
		TOTAL	103255	74564		305	

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LOCATING NO-PASSING ZONES

CATEGORY	STATION - STATION	LOCATION	648.0100 MI
0010	75+00 - 600+00	MAINLINE	9.9
		TOTAL	9.9

SAWING ASPHALT

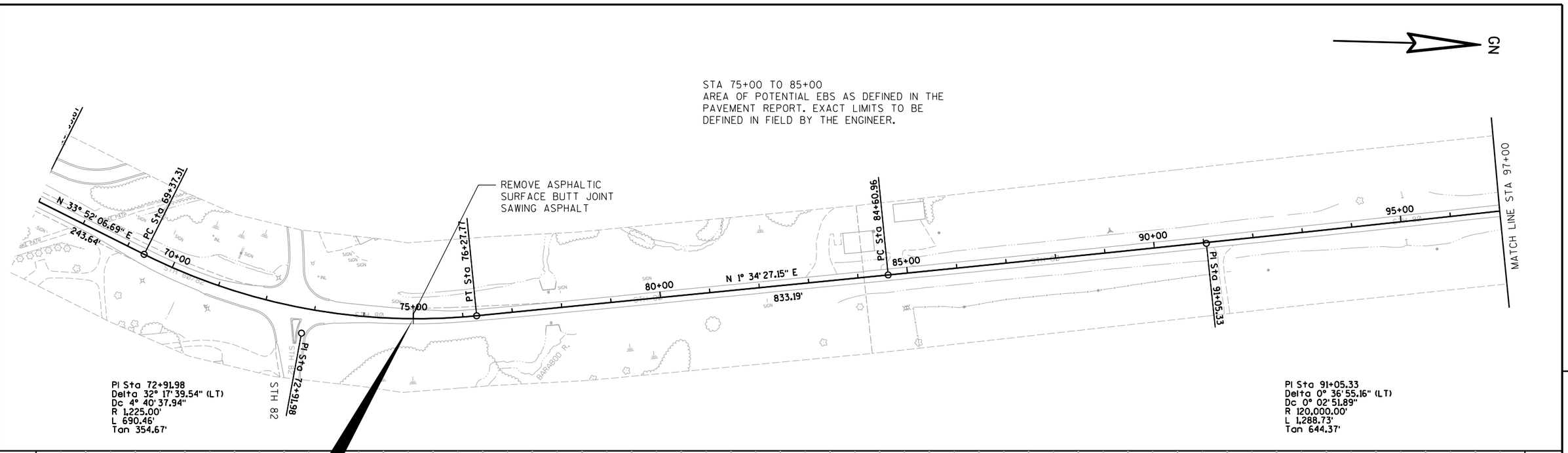
CATEGORY	STATION	LOCATION	690.0150 LF
0010	75+00	MAINLINE	22
		KRANZ ROAD	22
	126+81	MAINLINE	22
	126+91	MAINLINE	22
		JENSEN ROAD	22
	129+23	MAINLINE	22
	129+33	MAINLINE	22
		HYER ROAD	22
	155+57	MAINLINE	22
	155+67	MAINLINE	22
		CTH H	22
		POWERS ROAD	22
		LEE ROAD	22
	189+33	MAINLINE	22
	189+43	MAINLINE	22
	207+10	DW LT	16
		LECHNER ROAD	22
	275+75	DW LT	15
		MCCANN ROAD	22
	397+81	MAINLINE	22
	397+91	MAINLINE	22
		CTH S	22
		CEYLON ROAD	22
	494+50	MAINLINE	22
	494+60	MAINLINE	22
		ZINDORF ROAD LT	22
		ZINDORF ROAD RT	22
		JOHNSON ROAD	22
		DAVIES ROAD	22
		CTH B LT	22
		CTH B RT	22
	600+00	MAINLINE	22
		TOTAL	691

JOINT TIES FOR CONCRETE PIPE

CATEGORY	STATION	LOCATION	SPV.0060.03 EACH	COMMENT
0010	75+00	LT & RT	12	36 INCH RCCP
	600+00	LT & RT	12	36 INCH RCCP
		TOTAL	24	

SPRAYED ASPHALTIC SHOULDER TREATMENT

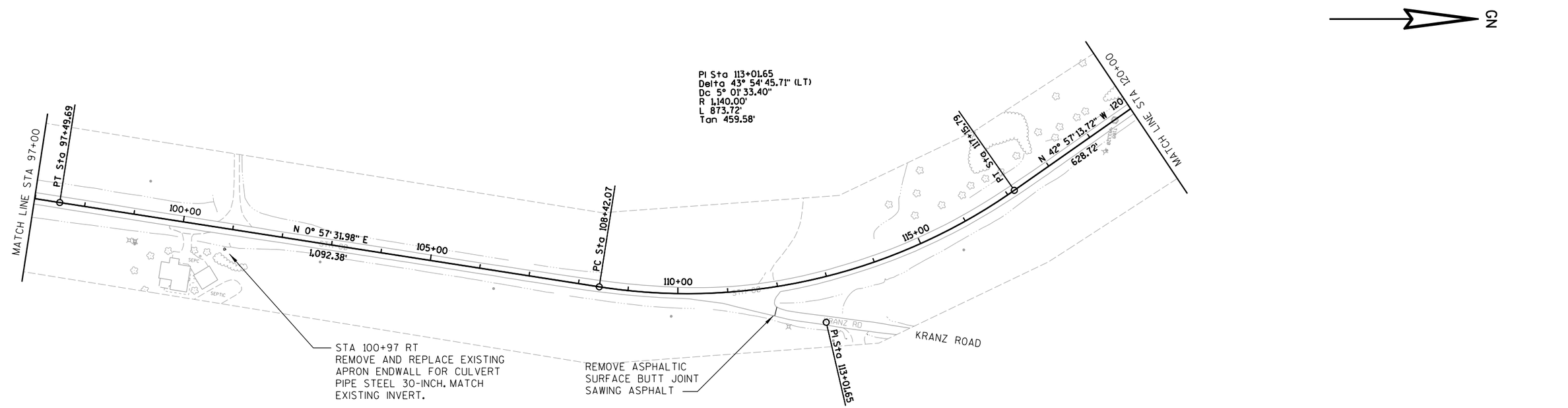
CATEGORY	STATION - STATION	LOCATION	SPV.0070.01 GAL
0010	123+59 - 128+15	LT	91
	163+08 - 164+00	LT	18
	163+08 - 164+00	RT	18
	164+28 - 165+20	LT	18
	164+28 - 165+20	RT	18
	215+90 - 228+25	LT	247
	227+02 - 230+83	RT	76
	228+60 - 231+46	LT	57
	234+20 - 238+39	LT	84
	236+65 - 239+21	RT	51
	256+01 - 260+97	RT	99
	259+50 - 262+32	LT	56
	275+78 - 279+34	RT	71
	277+00 - 284+31	LT	146
	284+97 - 290+53	RT	111
	304+59 - 324+95	RT	407
	309+22 - 312+78	LT	71
	318+19 - 324+88	LT	2134
	333+99 - 336+55	RT	51
	335+26 - 338+94	LT	74
	343+34 - 344+39	LT	21
	344+66 - 345+21	LT	11
	343+68 - 344+60	RT	18
	344+87 - 345+92	RT	21
	367+76 - 376+57	RT	176
	389+65 - 391+86	LT	44
	389+46 - 392+02	RT	51
	403+07 - 407+38	RT	86
	455+52 - 456+94	LT	28
	455+58 - 456+75	RT	23
	457+38 - 458+55	LT	23
	457+19 - 458+11	RT	18
	560+46 - 561+63	LT	23
	560+46 - 561+63	RT	23
	562+13 - 563+30	LT	23
	562+13 - 563+30	RT	23
		TOTAL	4518



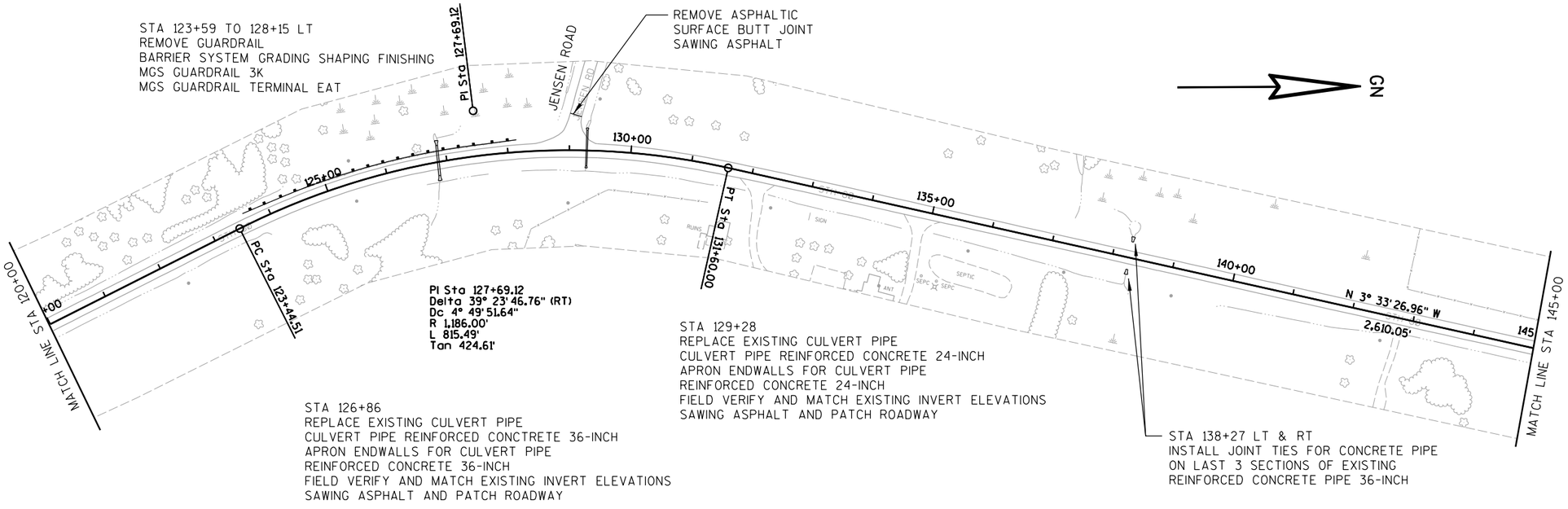
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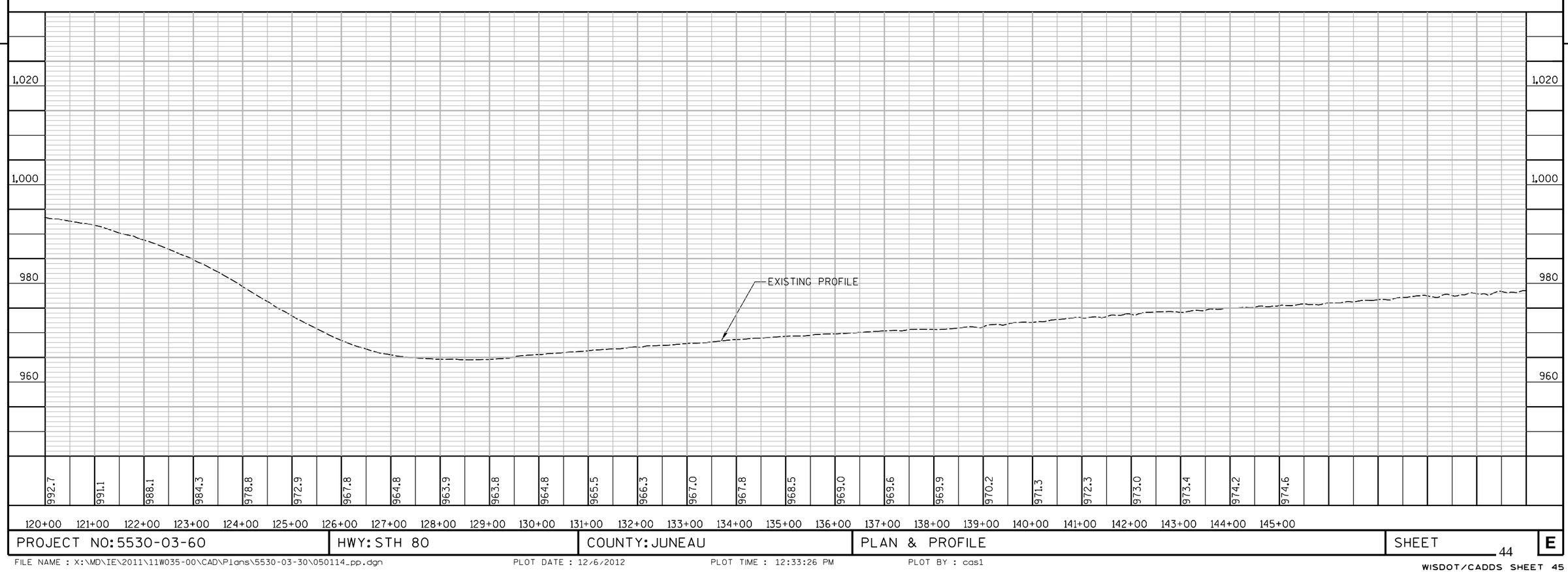
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 42	E



PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 43	E

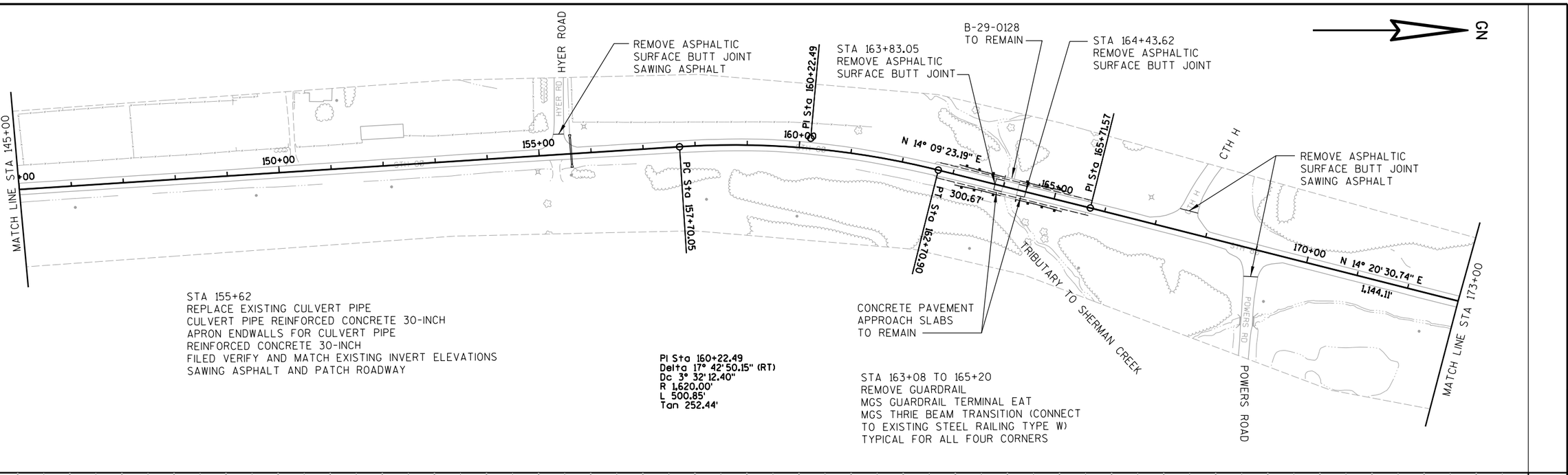




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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 44	E

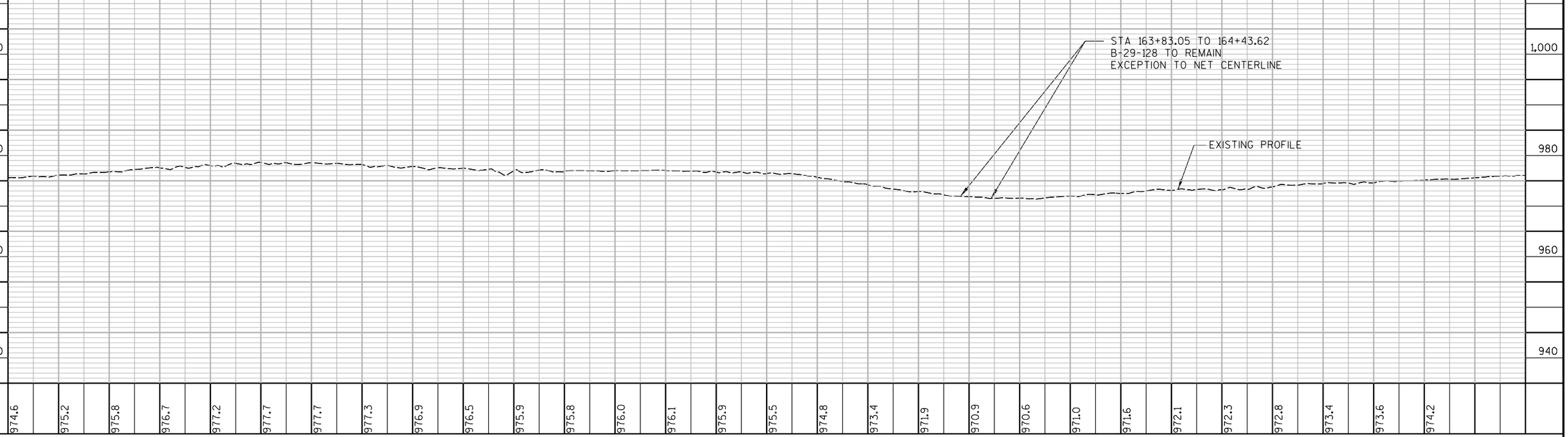


STA 155+62
REPLACE EXISTING CULVERT PIPE
CULVERT PIPE REINFORCED CONCRETE 30-INCH
APRON ENDWALLS FOR CULVERT PIPE
REINFORCED CONCRETE 30-INCH
FILED VERIFY AND MATCH EXISTING INVERT ELEVATIONS
SAWING ASPHALT AND PATCH ROADWAY

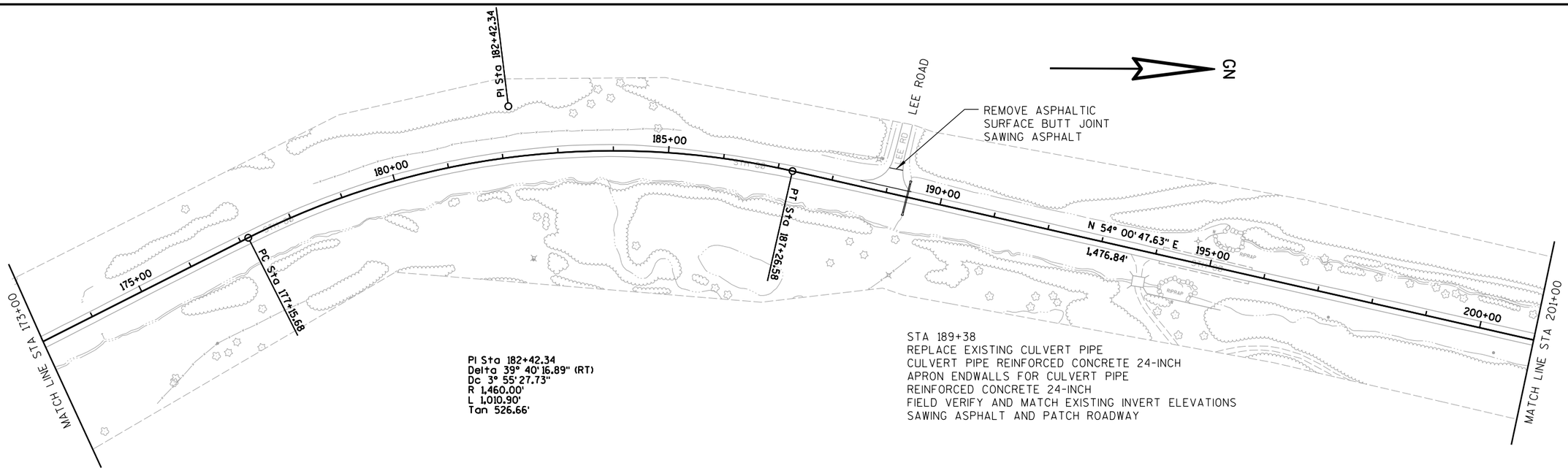
PI Sta 160+22.49
Delta 17° 42' 50.15" (RT)
Dc 3° 32' 12.40"
R 1,620.00'
L 500.85'
Tan 252.44'

CONCRETE PAVEMENT
APPROACH SLABS
TO REMAIN

STA 163+08 TO 165+20
REMOVE GUARDRAIL
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION (CONNECT
TO EXISTING STEEL RAILING TYPE W)
TYPICAL FOR ALL FOUR CORNERS

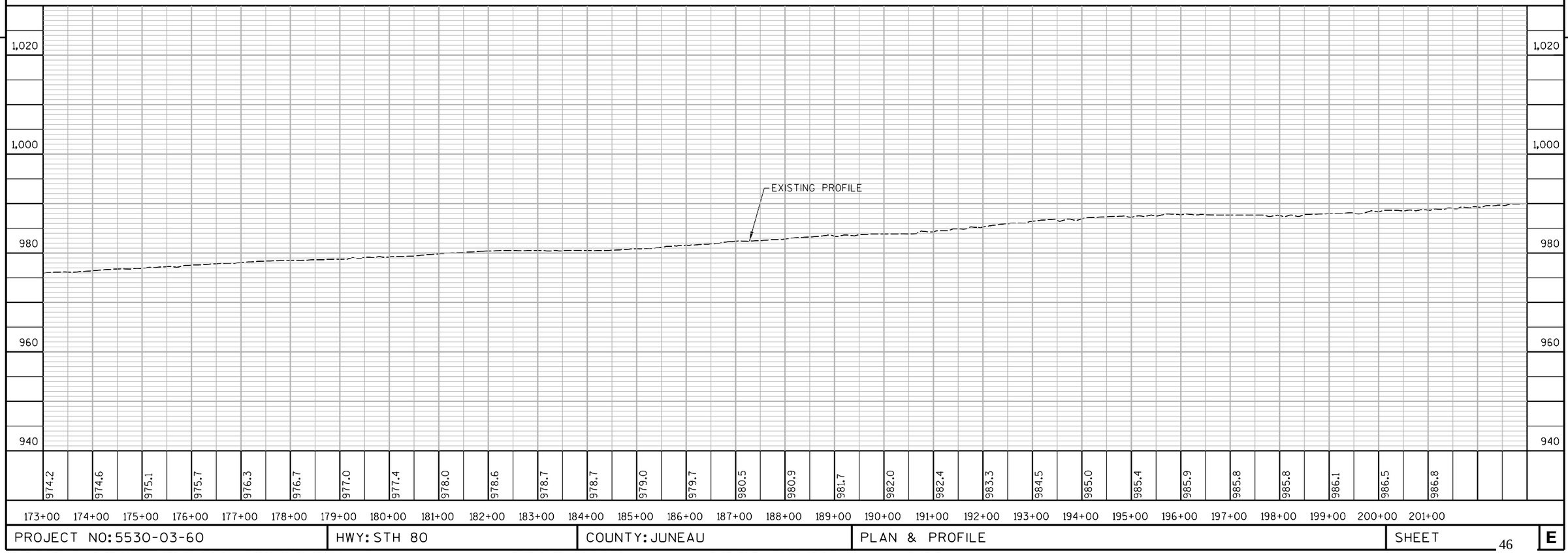


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 45	E



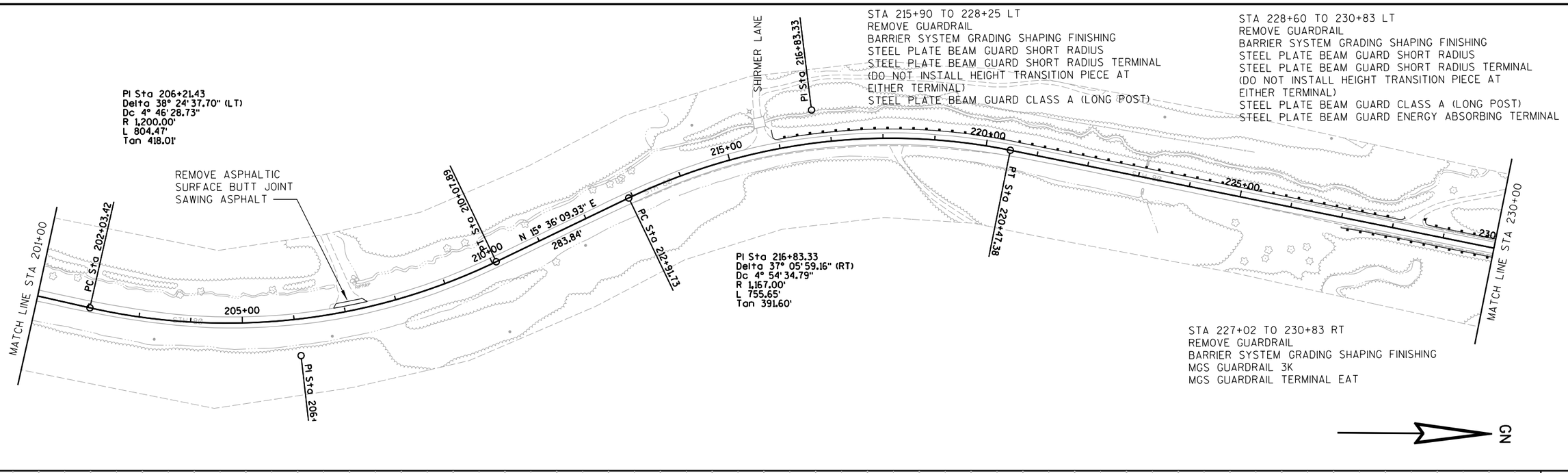
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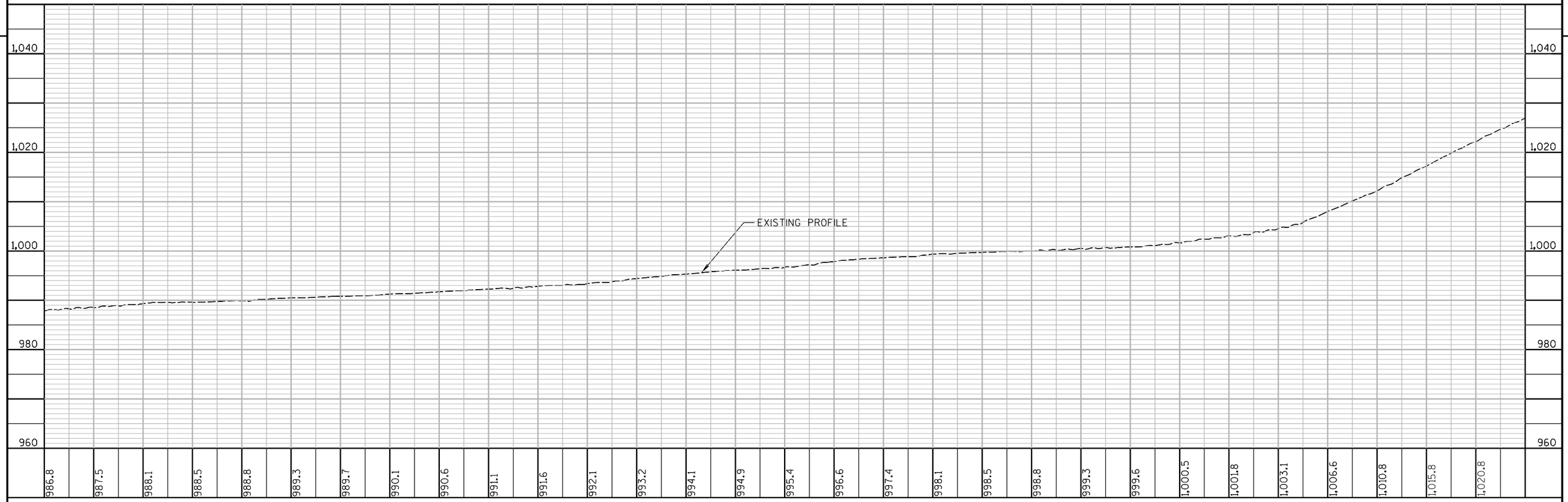
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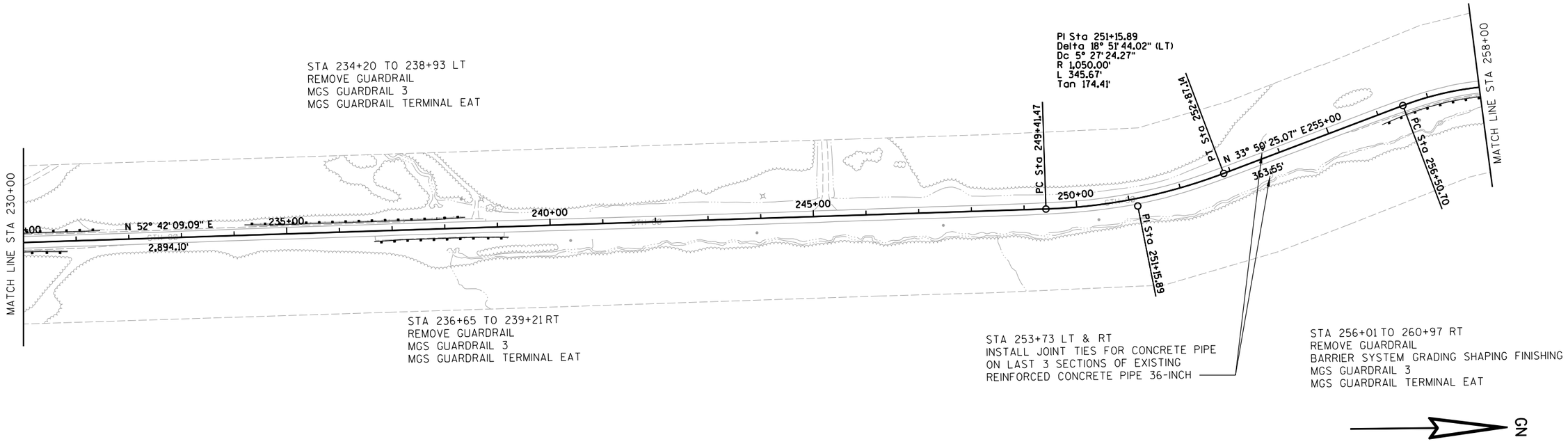
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 46	E

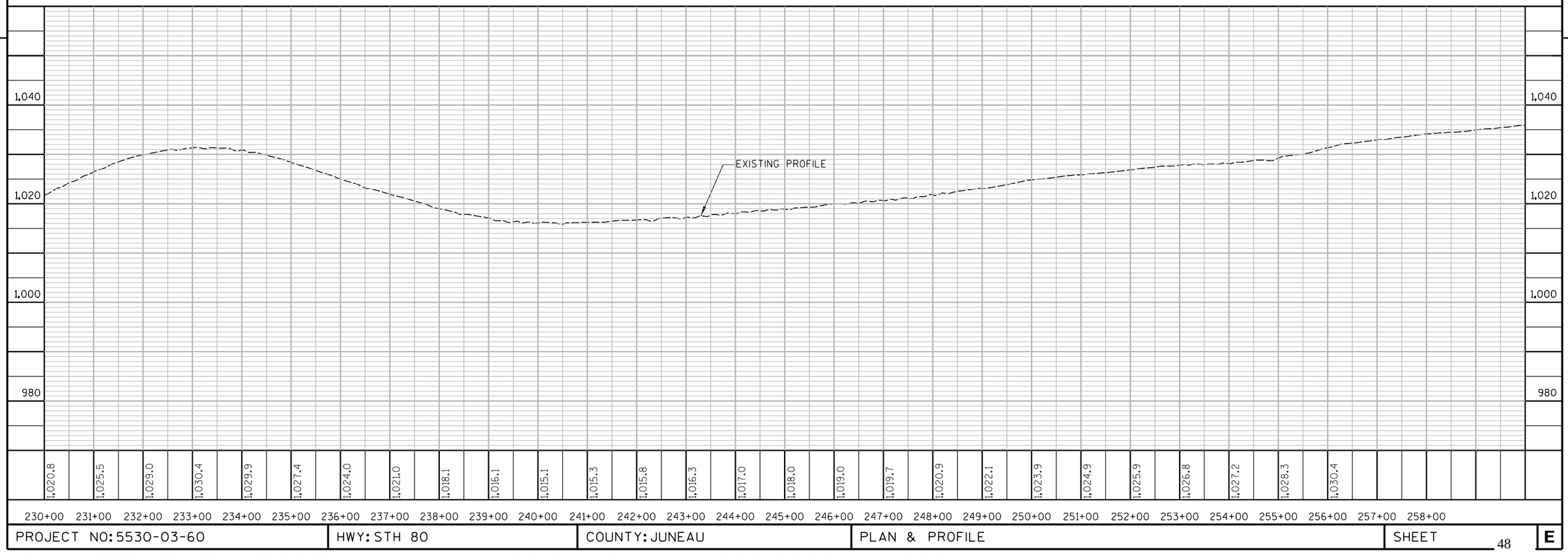
FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\050116_pp.dgn PLOT DATE : 12/6/2012 PLOT TIME : 12:33:27 PM PLOT BY : cas1



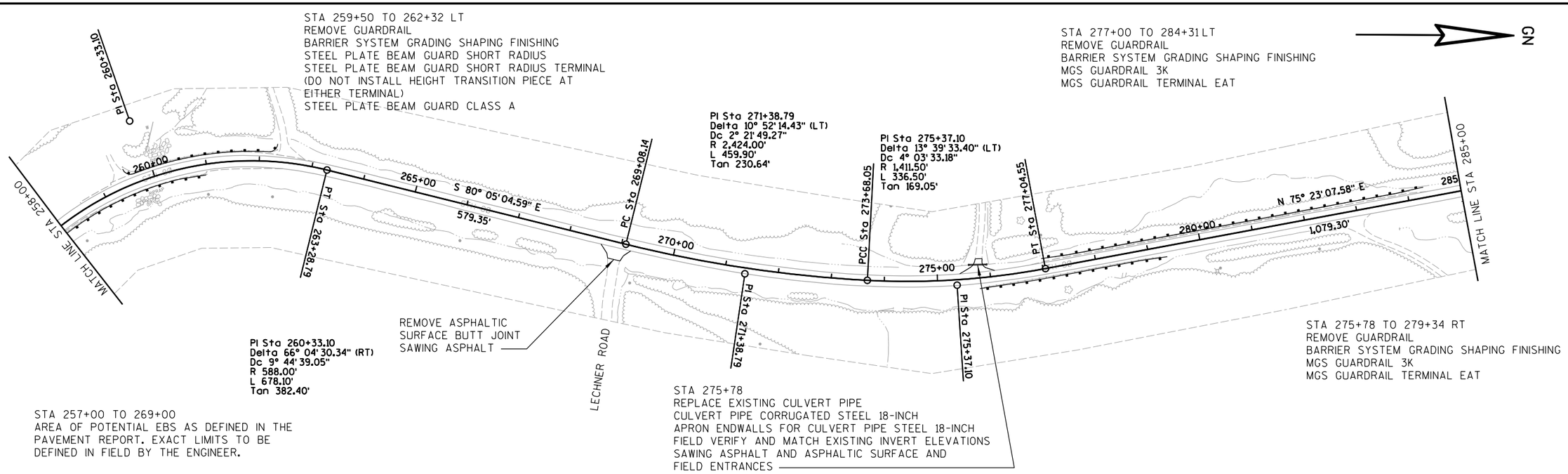


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 47	E





PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 48	E



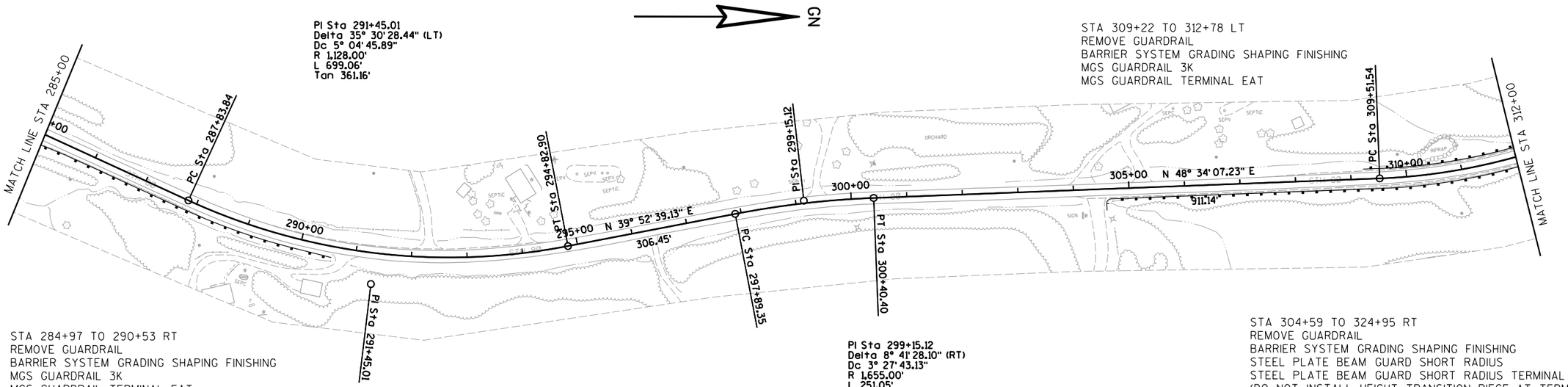
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 49	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\050119_pp.dgn PLOT DATE : 12/6/2012 PLOT TIME : 12:33:29 PM PLOT BY : cas1

WISDOT/CADDS SHEET 45



PI Sta 291+45.01
Delta 35° 30' 28.44" (LT)
Dc 5° 04' 45.89"
R 1,128.00'
L 699.06'
Tan 361.16'

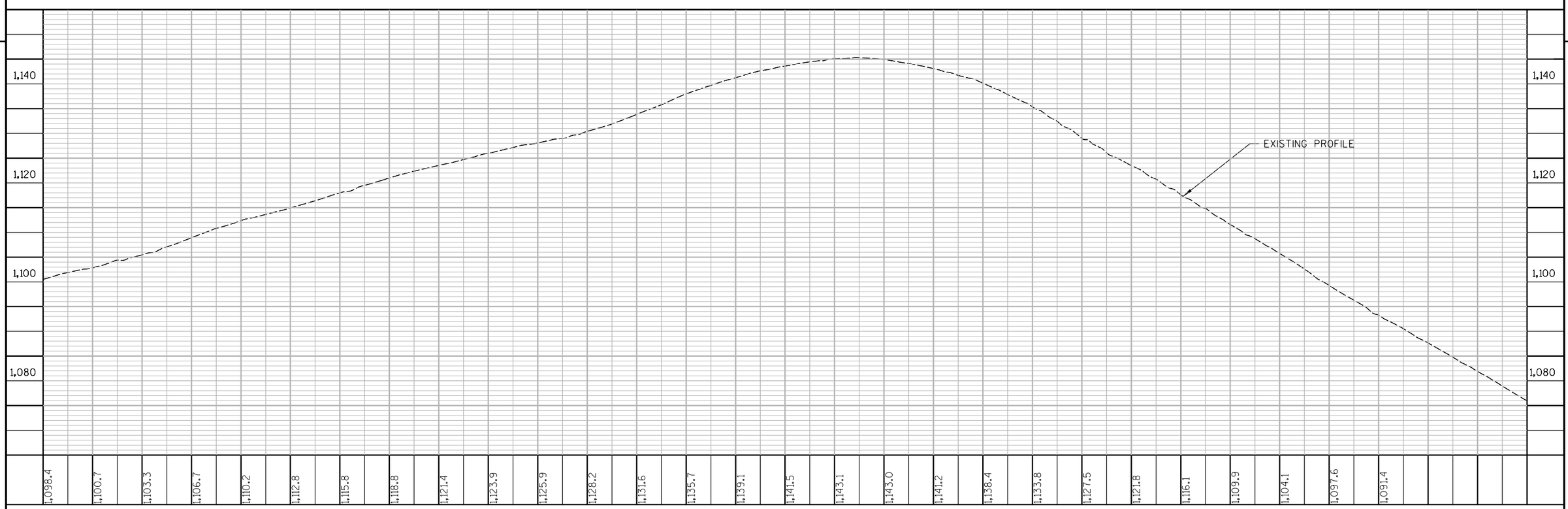
STA 284+97 TO 290+53 RT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

PI Sta 299+15.12
Delta 8° 41' 28.10" (RT)
Dc 3° 27' 43.13"
R 1,655.00'
L 251.05'
Tan 125.76'

STA 309+22 TO 312+78 LT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

STA 304+59 TO 324+95 RT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
STEEL PLATE BEAM GUARD SHORT RADIUS
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
(DO NOT INSTALL HEIGHT TRANSITION PIECE AT TERMINAL)
STEEL PLATE BEAM GUARD CLASS A (LONG POST)
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

5



PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 50	E

STA 318+19 TO 324+88 LT
REMOVE GUARDRAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
STEEL PLATE BEAM GUARD SHORT RADIUS
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
(DO NOT INSTALL HEIGHT TRANSITION PIECE AT TERMINAL)
STEEL PLATE BEAM GUARD CLASS A (LONG POST)
STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

PI Sta 312+51.25
Delta 31° 44' 49.56" (LT)
Dc 5° 26' 09.72"
R 1,054.00'
L 584.01'
Tan 299.71'

STA 312+78 LT
ASPHALTIC FLUME

MATCH LINE STA 312+00

PI Sta 312+51.25

PC Sta 315+25.55

315+00

N 16° 49' 17.67" E

478.45'

320+00

PC Sta 320+14.00

PI Sta 323+57.29

325+00

PI Sta 323+80.38

PI Sta 323+57.29
Delta 33° 56' 18.46" (RT)
Dc 5° 05' 34.65"
R 1,125.00'
L 666.38'
Tan 343.29'

STA 324+95 RT
ASPHALTIC FLUME

N 50° 45' 36.13" E

330+00

593.56'

PC Sta 332+73.95

PI Sta 334+72.65
Delta 13° 49' 30.27" (LT)
Dc 3° 29' 44.80"
R 1,639.00'
L 395.48'
Tan 198.70'

PI Sta 334+72.65

335+00

STA 333+99 TO 336+55 RT
REMOVE GUARDRAIL
MGS GUARDRAIL 3
MGS GUARDRAIL TERMINAL EAT

PT Sta 336+69.43

N 36° 56' 05.86" E

314.16'

340+00

PC Sta 339+83.59

STA 335+26 TO 338+94 LT
REMOVE GUARDRAIL
MGS GUARDRAIL 3
MGS GUARDRAIL TERMINAL EAT

MATCH LINE STA 341+00

RIPRAP

GN

EXISTING PROFILE

EXISTING PROFILE

IDENTICAL POINT

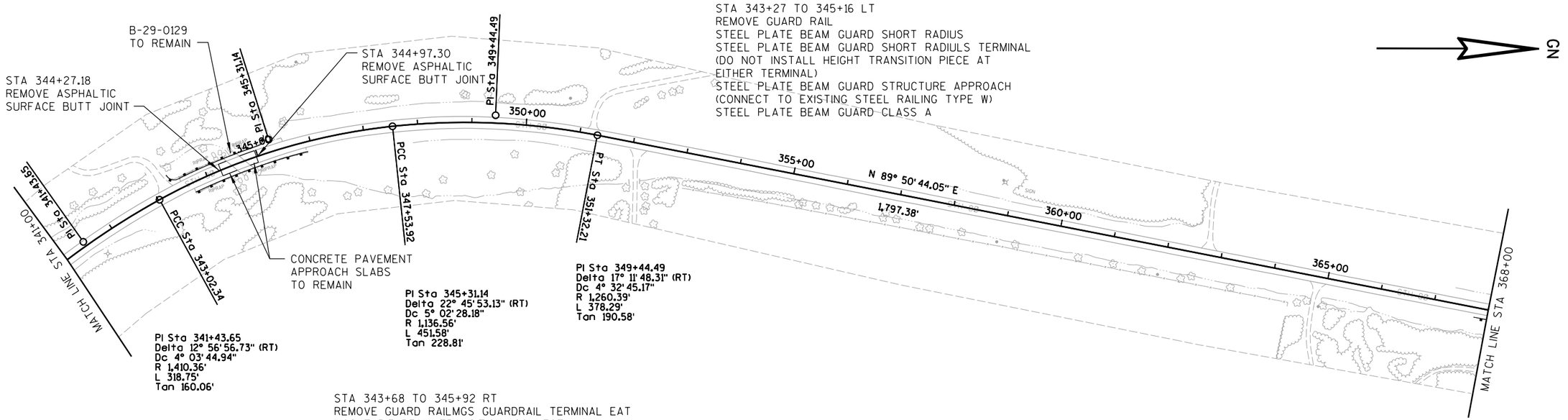
1,080 1,060 1,040 1,020

1,040 1,020 1,000 980

1,091.4 1,086.0 1,080.2 1,074.3 1,068.0 1,061.4 1,055.2 1,049.4 1,044.0 1,038.3 1,032.3 1,026.2 1,020.1 1,015.4 1,011.9 1,009.5 1,007.6 1,006.1 1,004.6 1,003.1 1,001.8 1,000.9 1,000.1 999.2 998.0 996.4 994.9 993.6 992.3 990.9

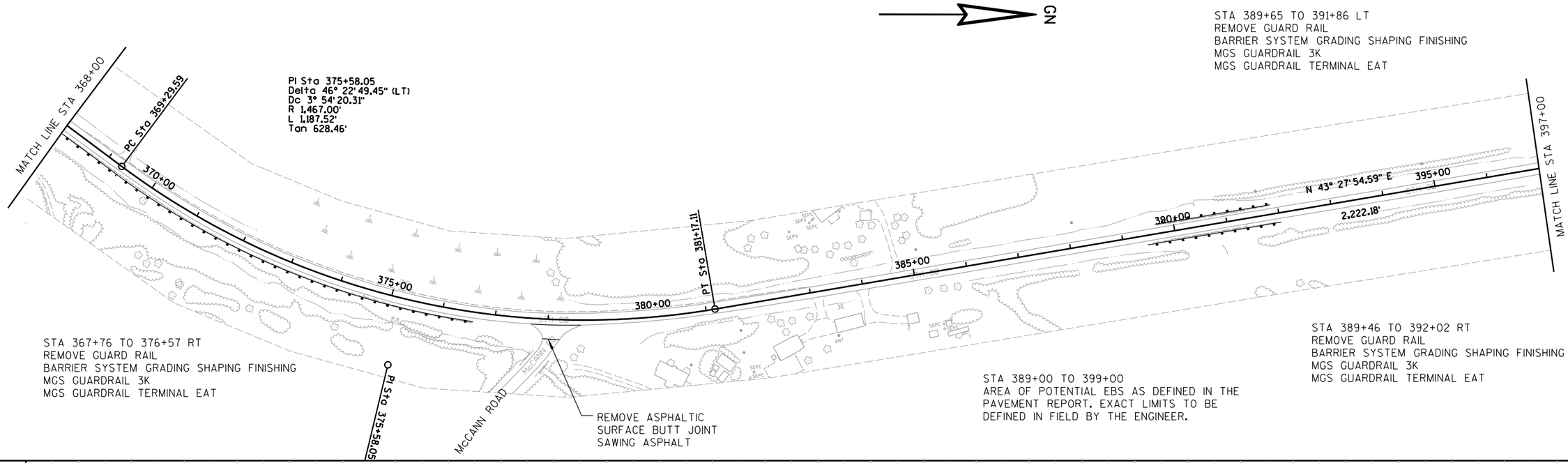
312+00 313+00 314+00 315+00 316+00 317+00 318+00 319+00 320+00 321+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00 331+00 332+00 333+00 334+00 335+00 336+00 337+00 338+00 339+00 340+00 341+00

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 51	E



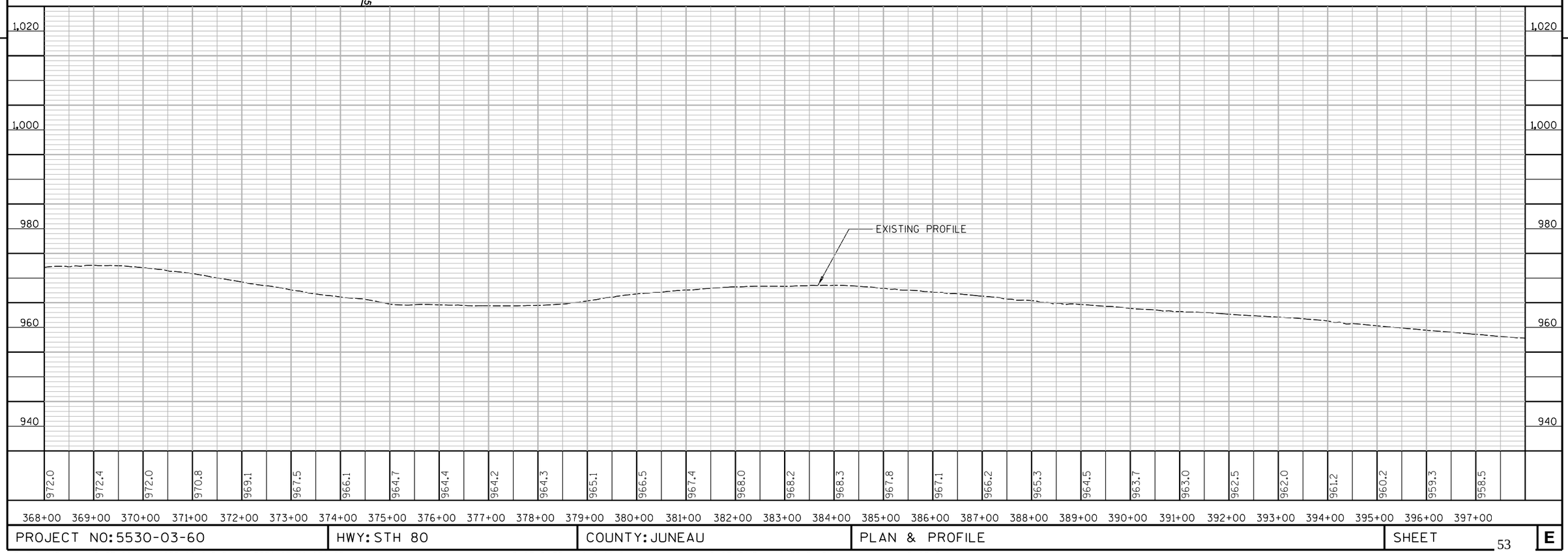
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 52	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\050122_pp.dgn PLOT DATE : 12/6/2012 PLOT TIME : 12:33:30 PM PLOT BY : cas1



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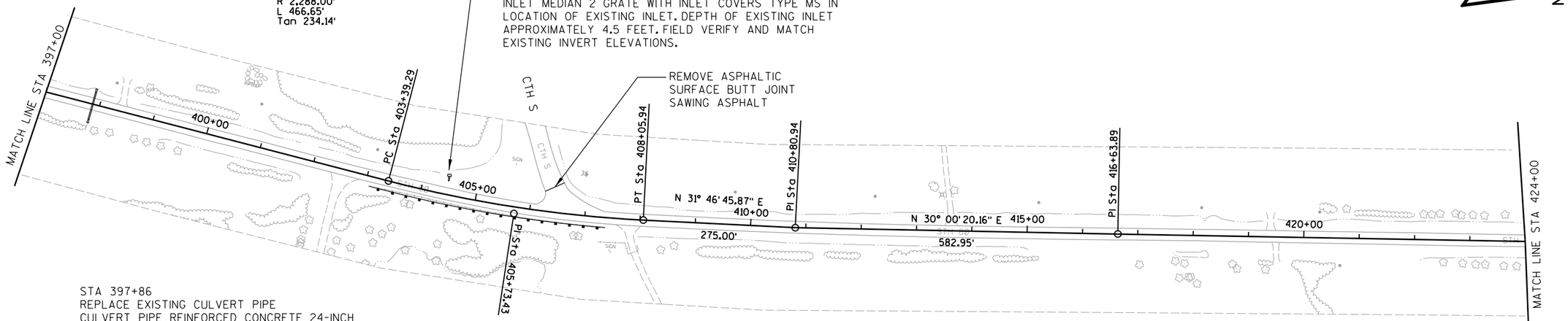


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 53	E

PI Sta 405+73.43
Delta 11° 41' 08.72" (LT)
Dc 2° 30' 15.07"
R 2,288.00'
L 466.65'
Tan 234.14'

STA 404+46 35' LT
REMOVE EXISTING INLET AND 8 FEET OF EXISTING PIPE.
CONNECT CULVERT PIPE REINFORCED CONCRETE 24-INCH
TO EXISTING PIPE WITH CONCRETE COLLAR. CONSTRUCT
INLET MEDIAN 2 GRATE WITH INLET COVERS TYPE MS IN
LOCATION OF EXISTING INLET. DEPTH OF EXISTING INLET
APPROXIMATELY 4.5 FEET. FIELD VERIFY AND MATCH
EXISTING INVERT ELEVATIONS.

REMOVE ASPHALTIC
SURFACE BUTT JOINT
SAWING ASPHALT

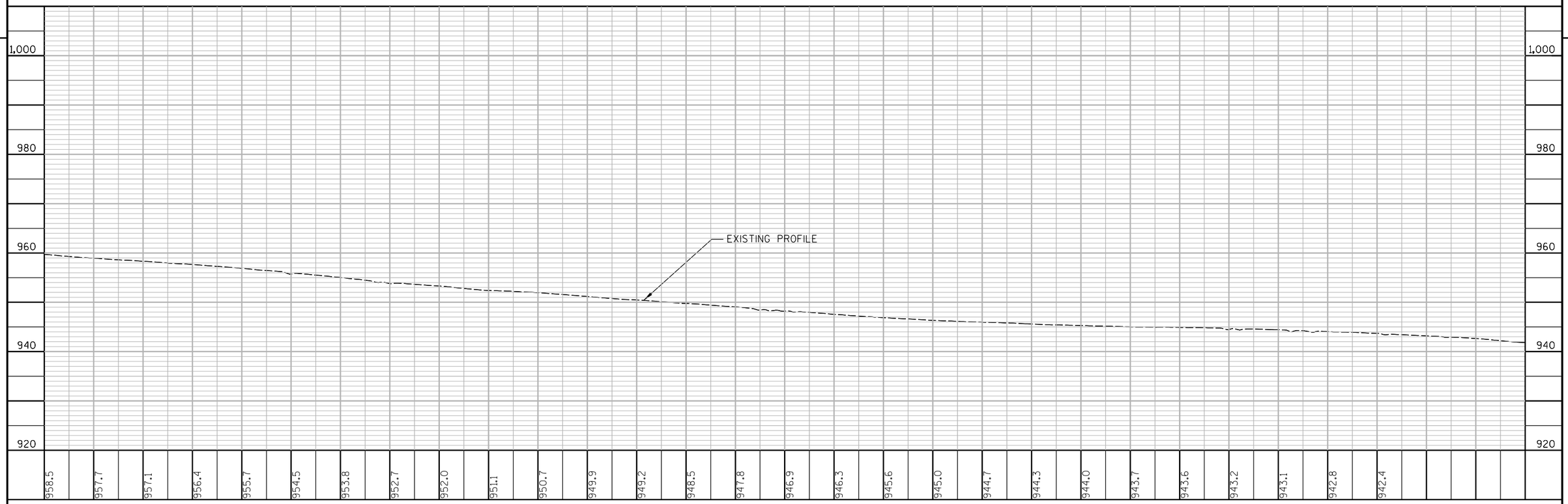


STA 397+86
REPLACE EXISTING CULVERT PIPE
CULVERT PIPE REINFORCED CONCRETE 24-INCH
APRON ENDWALLS FOR CULVERT PIPE
REINFORCED CONCRETE 24-INCH
FIELD VERIFY AND MATCH EXISTING INVERT ELEVATIONS
SAWING ASPHALT AND PATCH ROADWAY

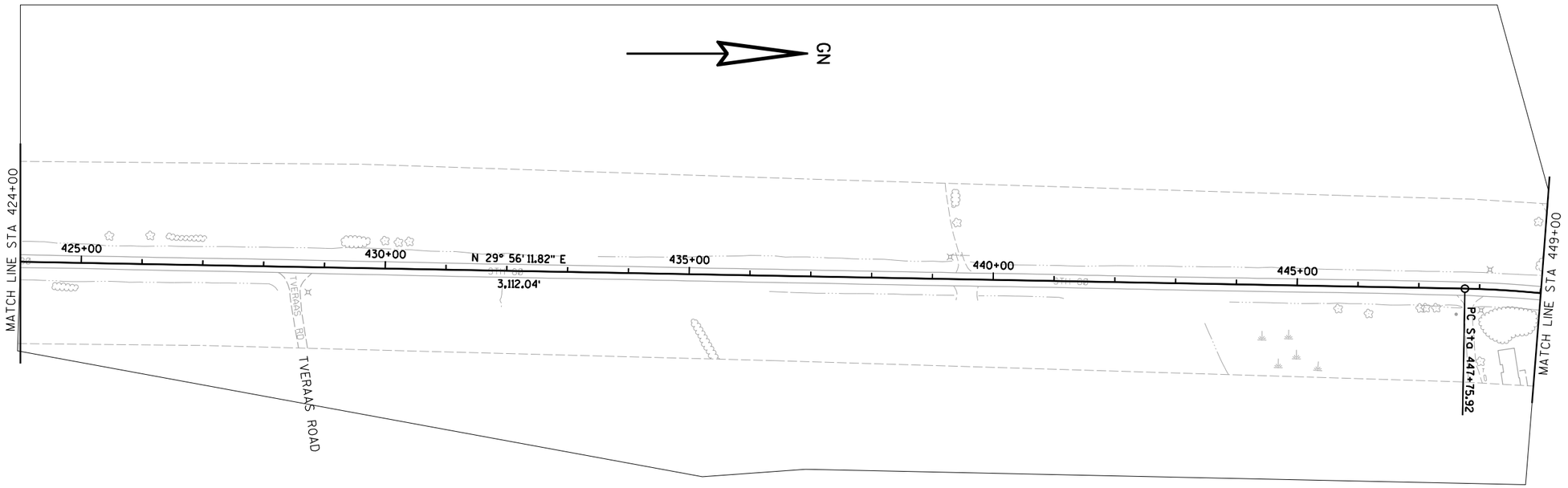
STA 403+07 TO 407+38 RT
REMOVE GUARD RAIL
BARRIER SYSTEM GRADING SHAPING FINISHING
MGS GUARDRAIL 3K
MGS GUARDRAIL TERMINAL EAT

5

5

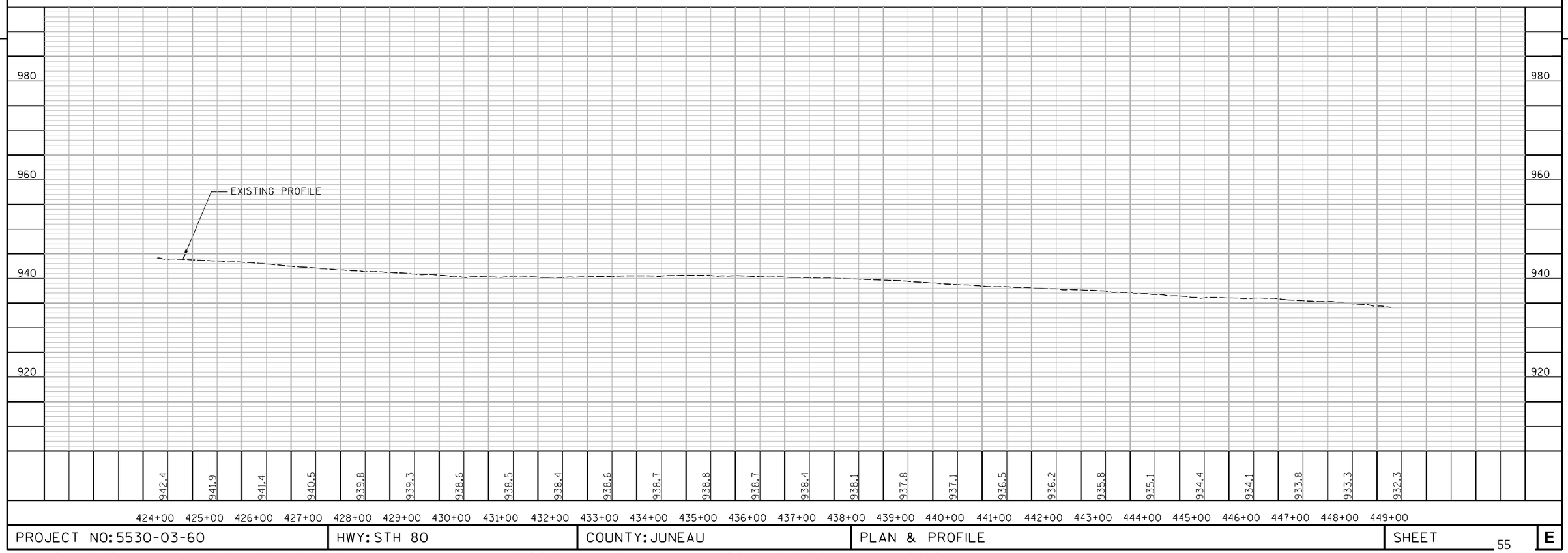


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 54	E



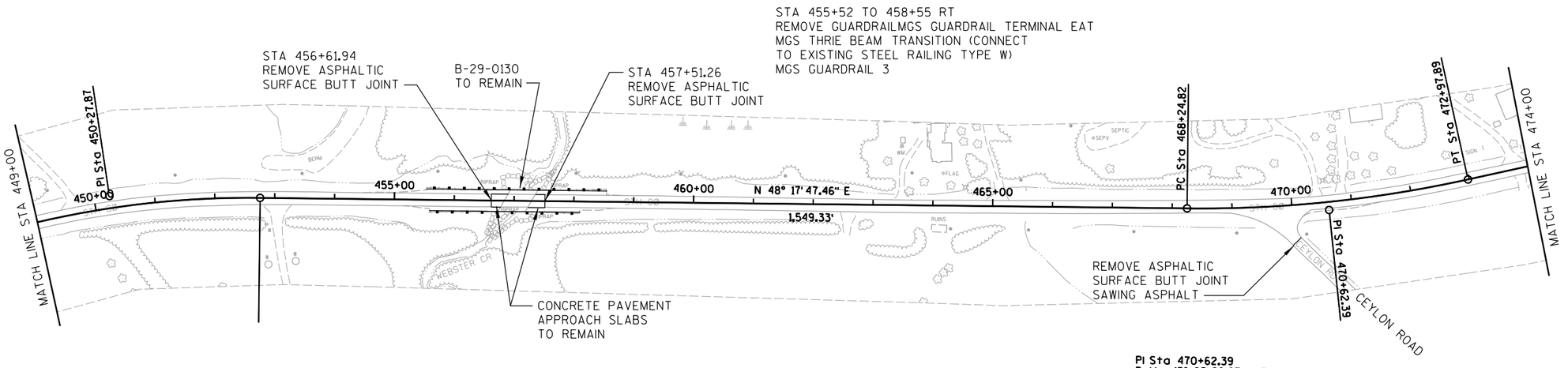
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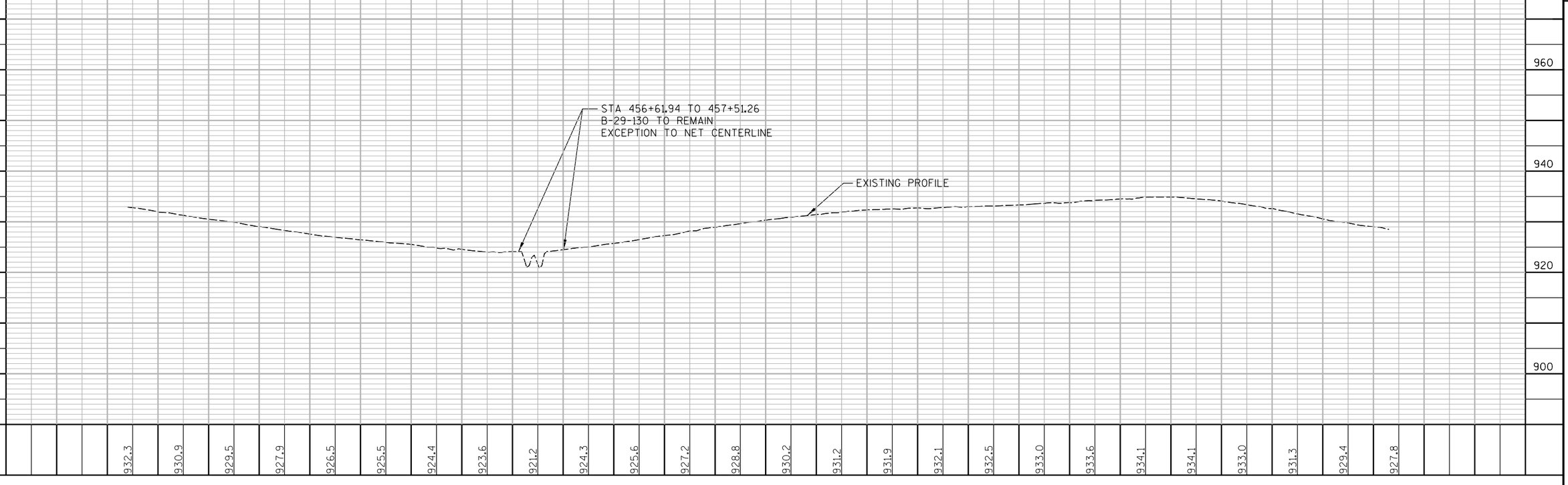
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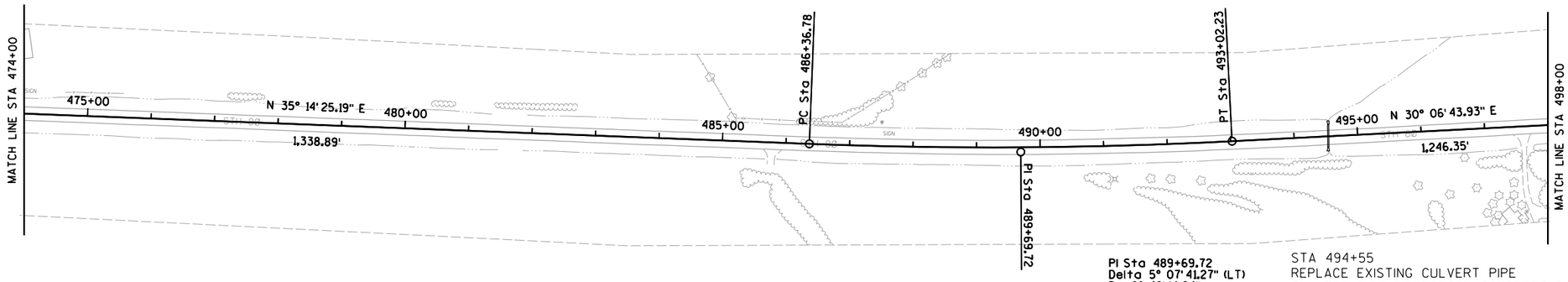
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 55	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\050125_pp.dgn PLOT DATE : 12/6/2012 PLOT TIME : 12:33:31 PM PLOT BY : cas1



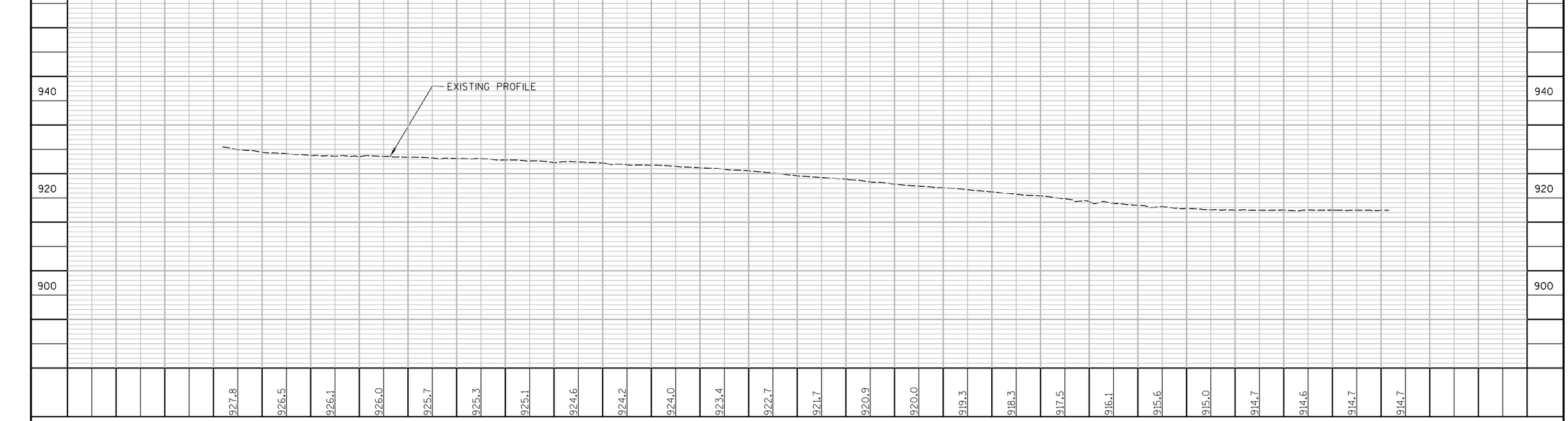


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 56	E

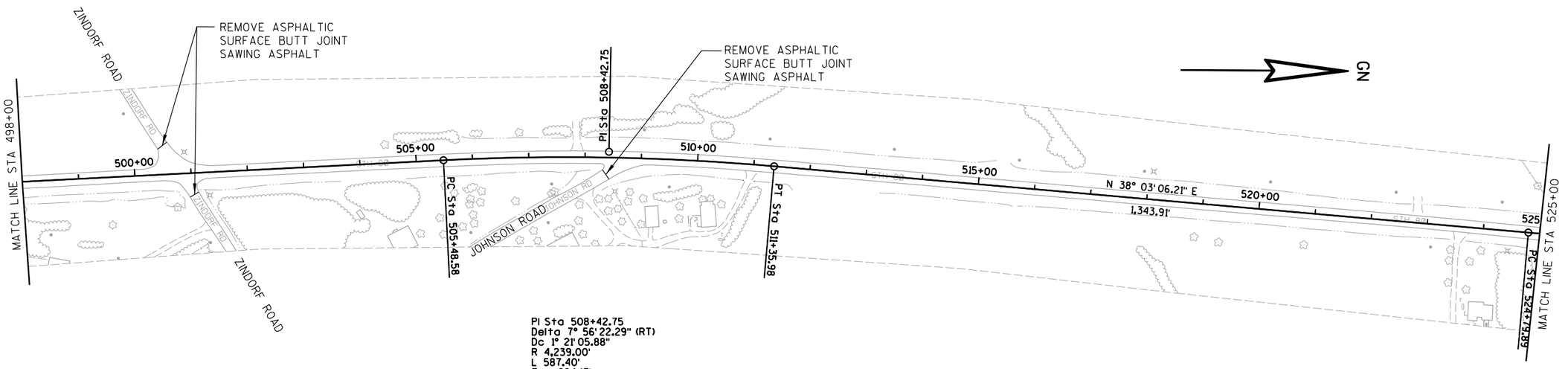


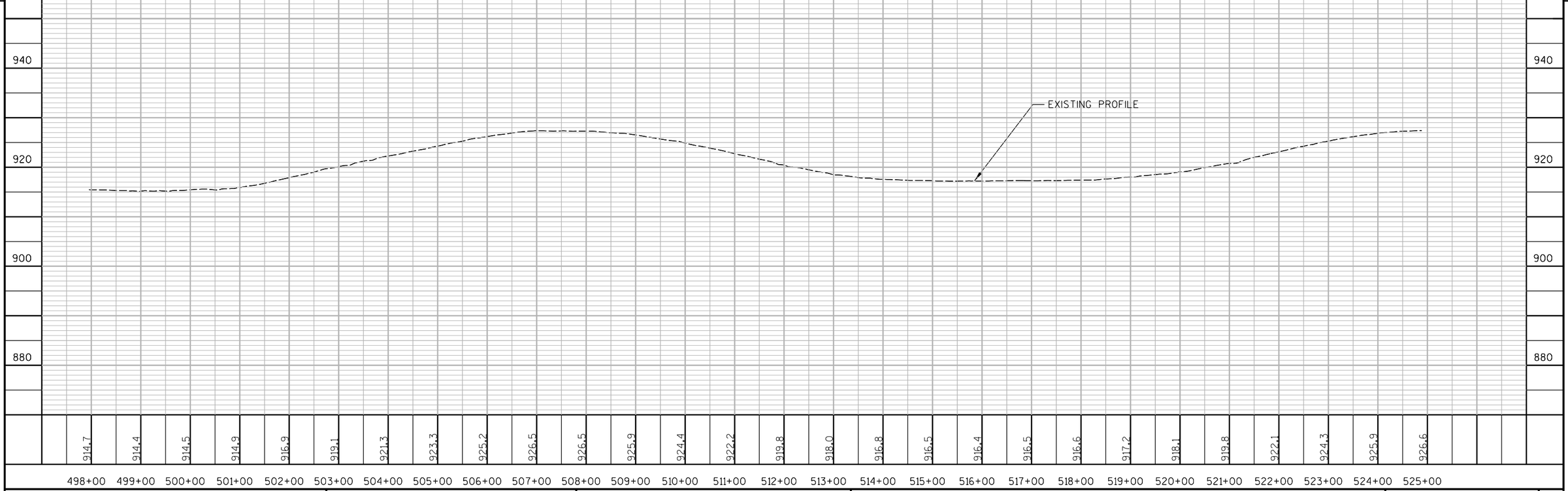
PI Sta 489+69.72
Delta 5° 07' 41.27" (LT)
Dc 0° 46' 14.24"
R 7,435.00'
L 665.45'
Tan 332.95'

STA 494+55
REPLACE EXISTING CULVERT PIPE
CULVERT PIPE REINFORCED CONCRETE 24-INCH
APRON ENDWALLS FOR CULVERT PIPE
REINFORCED CONCRETE 24-INCH
FIELD VERIFY AND MATCH EXISTING INVERT ELEVATIONS
SAWING ASPHALT AND PATCH ROADWAY

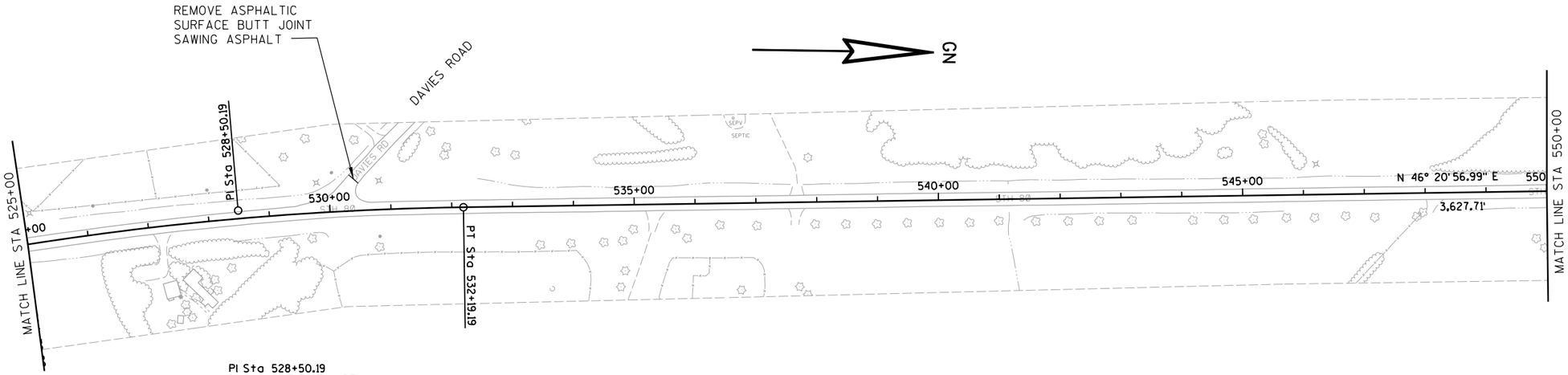


PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 57	E





PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 58	E



PI Sta 528+50.19
Delta 8° 17' 50.78" (RT)
Dc 1° 07' 20.45"
R 5,105.00'
L 739.29'
Tan 370.29'

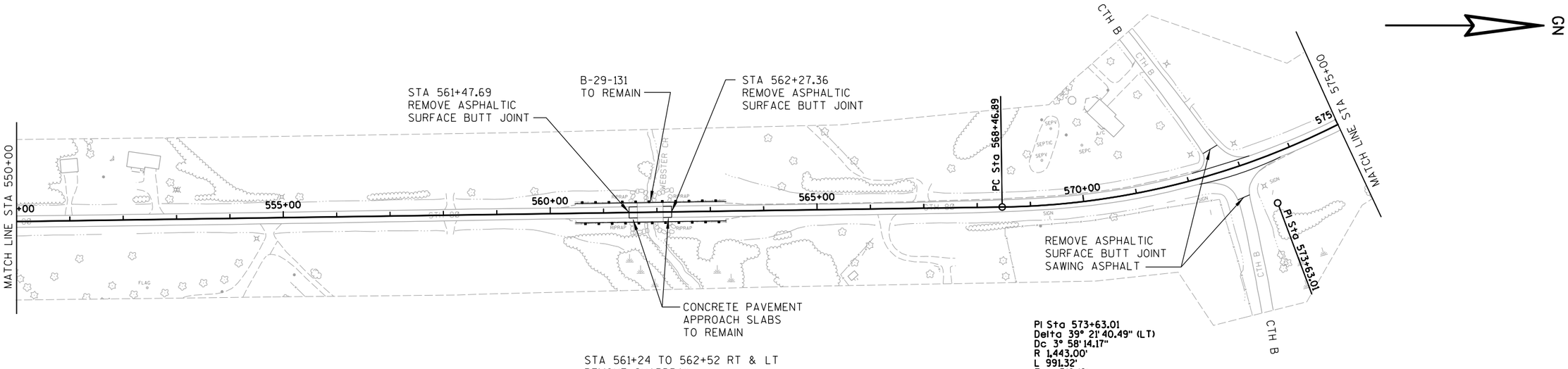
960
940
920
900
880

EXISTING PROFILE

926.6 926.4 924.7 922.4 920.0 917.7 915.2 912.5 910.0 907.9 906.4 905.1 904.1 903.1 902.5 901.7 900.9 900.8 900.9 901.2 901.2 902.1 902.4 903.5 905.2 906.7

525+00 526+00 527+00 528+00 529+00 530+00 531+00 532+00 533+00 534+00 535+00 536+00 537+00 538+00 539+00 540+00 541+00 542+00 543+00 544+00 545+00 546+00 547+00 548+00 549+00 550+00

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 59	E



STA 561+24 TO 562+52 RT & LT
REMOVE GUARDRAIL
MGS GUARDRAIL TERMINAL EAT
MGS THRIE BEAM TRANSITION (CONNECT
TO EXISTING STEEL RAILING TYPE W)
MGS GUARDRAIL 3
TYPICAL FOR ALL FOUR CORNERS

PI Sta 573+63.01
Delta 39° 21' 40.49" (LT)
Dc 3° 58' 14.17"
R 1,443.00'
L 991.32'
Tan 516.12'

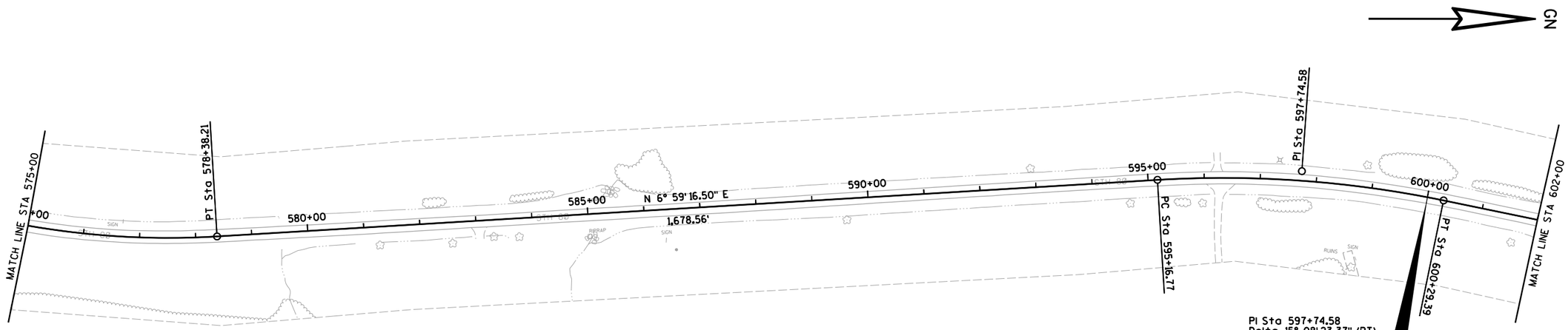


940
920
900
880

906.7 907.8 908.2 907.9 907.6 906.5 905.2 903.7 902.3 900.2 899.5 898.7 889.8 898.1 898.3 898.8 899.3 899.8 900.1 900.4 900.9 901.1 901.4 901.7 902.0 902.4

550+00 551+00 552+00 553+00 554+00 555+00 556+00 557+00 558+00 559+00 560+00 561+00 562+00 563+00 564+00 565+00 566+00 567+00 568+00 569+00 570+00 571+00 572+00 573+00 574+00 575+00

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 60	E



END CONSTRUCTION
STA 600+00

EXISTING PROFILE

940 920 900 880 860

902.4 902.3 902.1 901.5 900.7 900.1 899.8 899.2 898.8 898.5 897.9 898.6 899.5 900.4 901.4 902.6 903.7 904.9 905.9 906.9 908.3 908.8 908.9 908.4 907.2 905.8 903.9 902.0

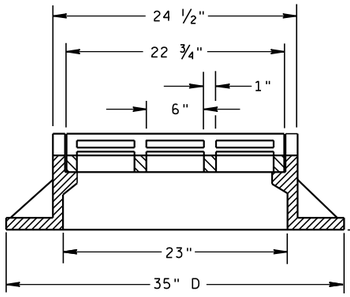
575+00 576+00 577+00 578+00 579+00 580+00 581+00 582+00 583+00 584+00 585+00 586+00 587+00 588+00 589+00 590+00 591+00 592+00 593+00 594+00 595+00 596+00 597+00 598+00 599+00 600+00 601+00 602+00

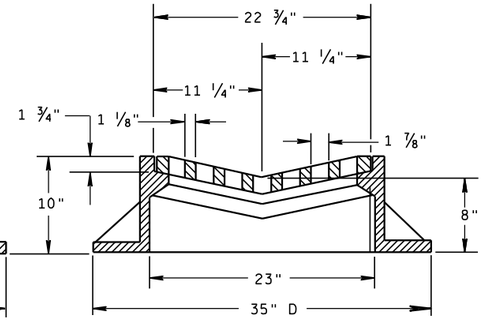
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PLAN & PROFILE	SHEET 61	E

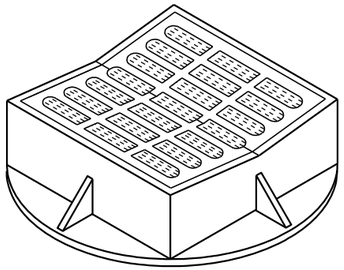
Standard Detail Drawing List

08A05-16B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
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
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-02A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-02G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-14A	PAVEMENT MARKING (MAINLINE)
15C08-14B	PAVEMENT MARKING (INTERSECTIONS)
15C08-14F	PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-01A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

6



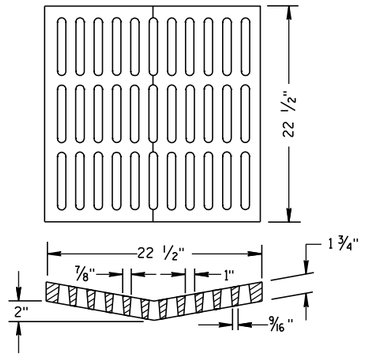




TYPE "B"

(APPROXIMATE WEIGHT 395 LBS.)

FRAME..... 285 LBS.
GRATE..... 110 LBS.

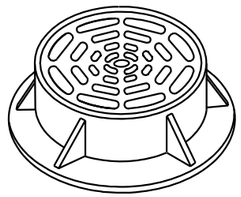


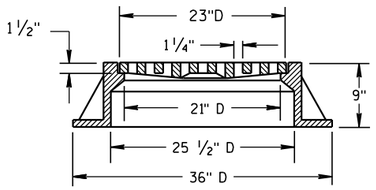
ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 125 LBS.)
GRATE.....125 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE





TYPE "C"

(APPROXIMATE WEIGHT 340 LBS.)

FRAME..... 235 LBS.
GRATE..... 105 LBS.

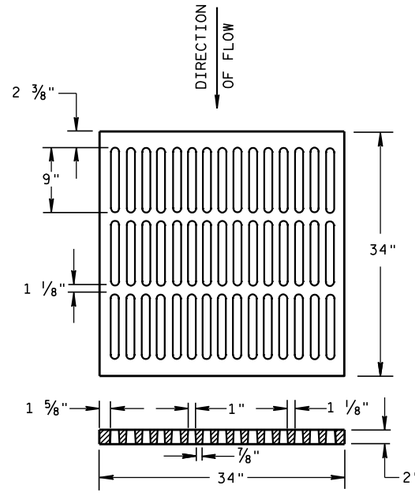
GENERAL NOTES

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

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

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

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

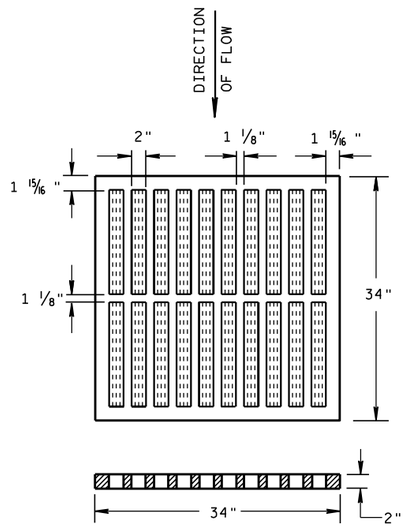


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 365 LBS.)
GRATE.....365 LBS.

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

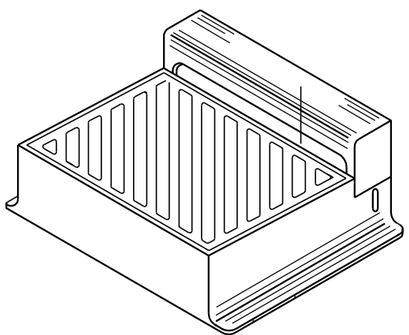


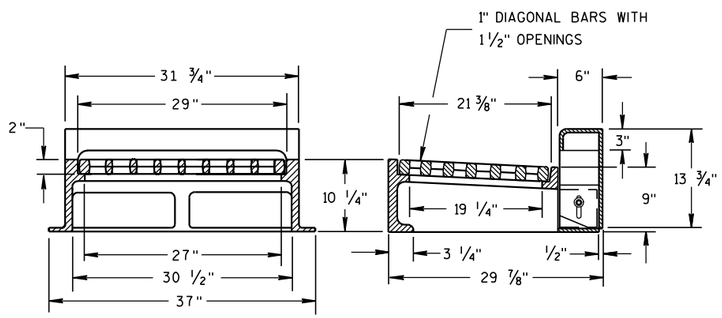
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 270 LBS.)
GRATE.....270 LBS.

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

TYPE "WM"

(APPROXIMATE WEIGHT 670 LBS.)

FRAME..... 360 LBS.
GRATE..... 160 LBS.
CURB BOX..... 150 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/4/1999
DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOPMENT ENGINEER

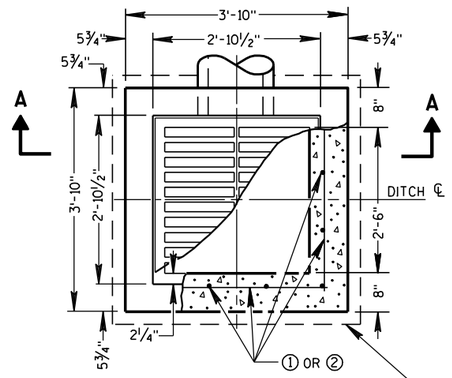
FHWA

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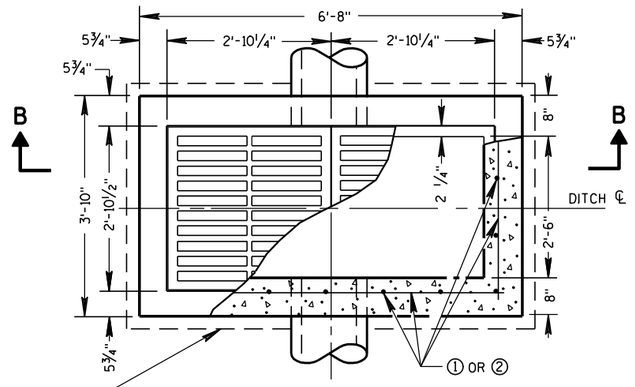
S.D.D. 8 A 5-16b

6

S.D.D. 8 A 5-16b

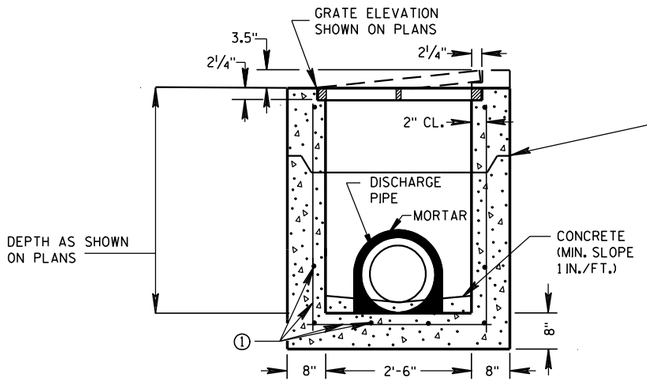


PLAN VIEW

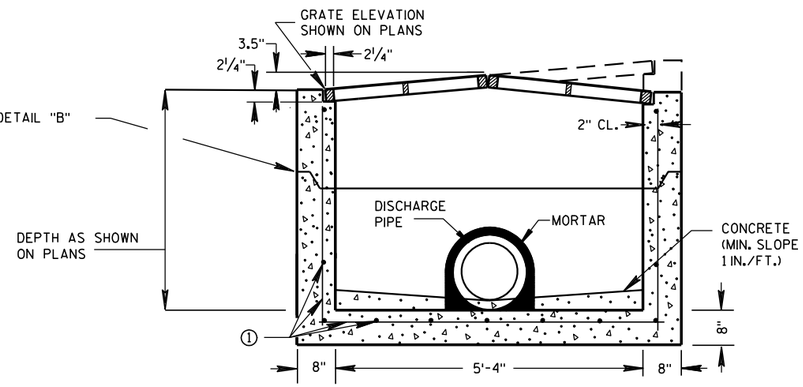


PLAN VIEW

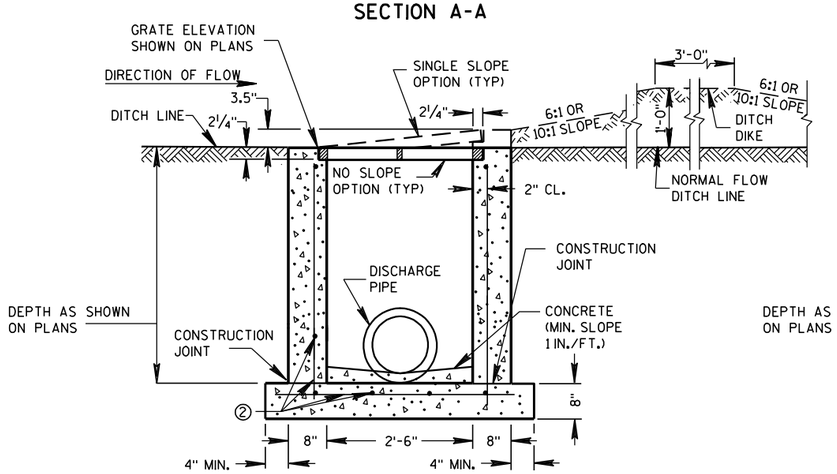
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



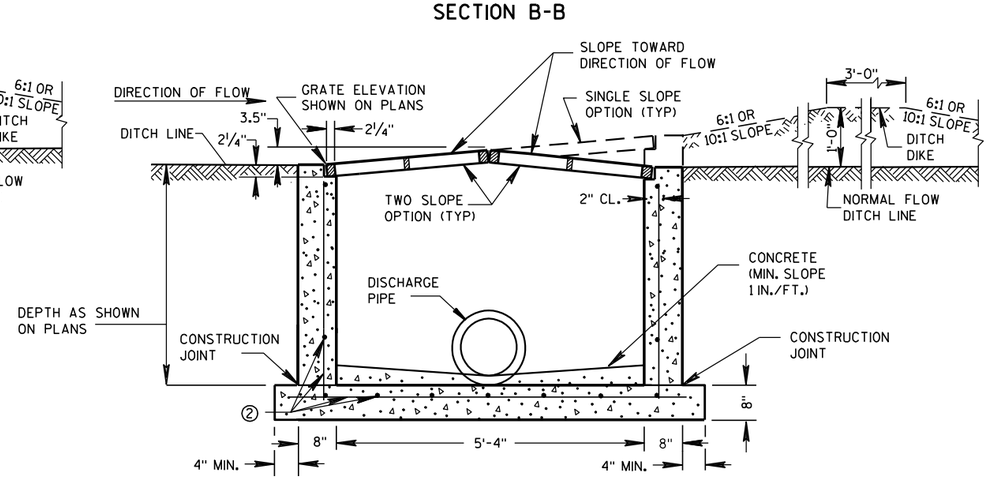
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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.

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

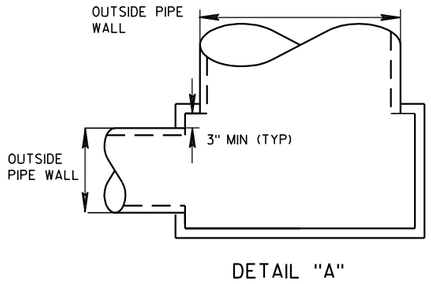
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

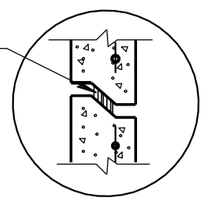
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

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



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

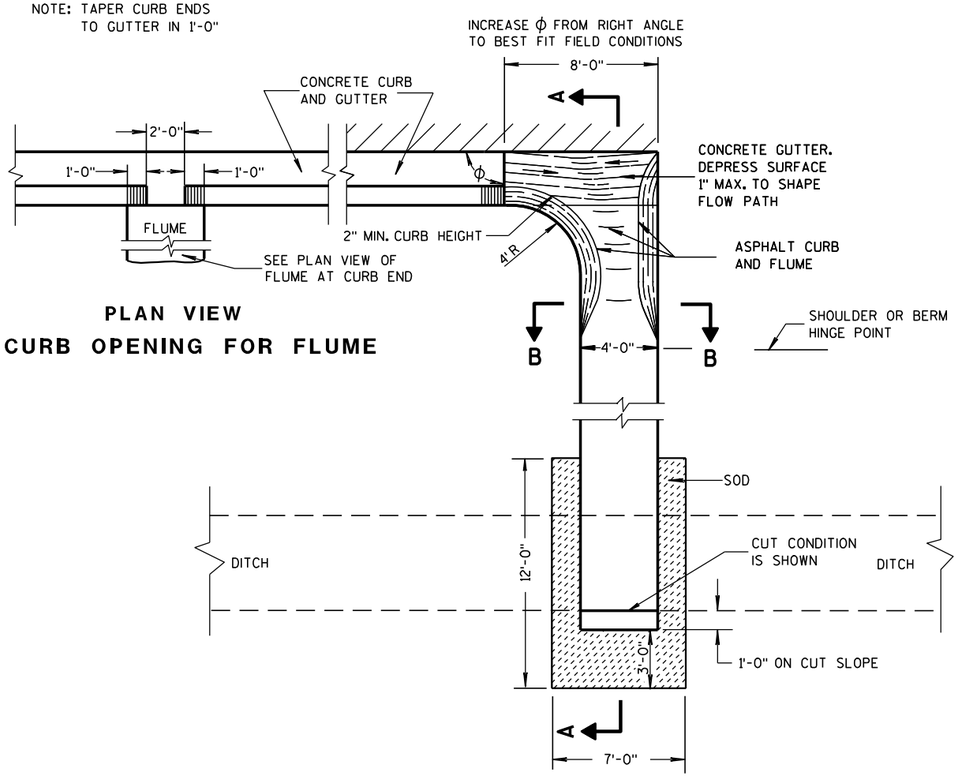
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

S.D.D. 8 C 8-1

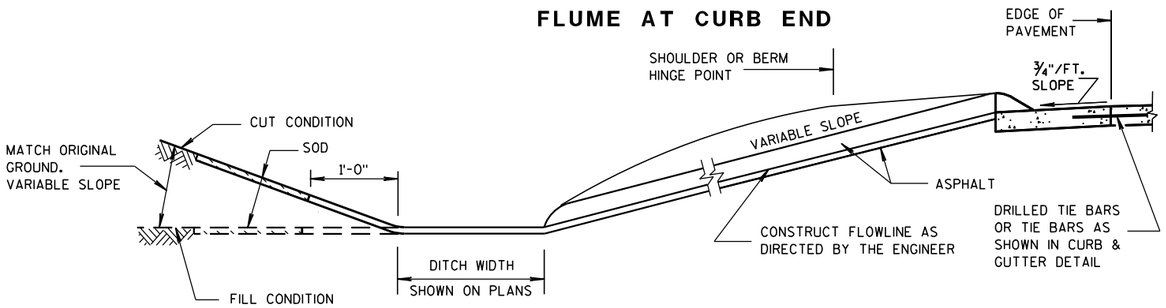
S.D.D. 8 C 8-1

ASPHALTIC FLUME

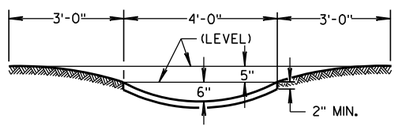


PLAN VIEW
CURB OPENING FOR FLUME

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.

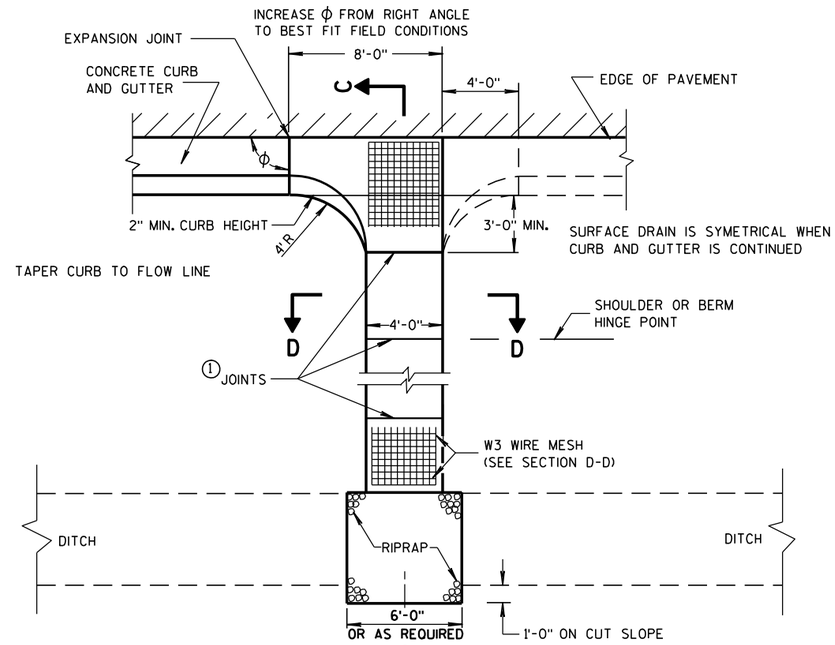
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

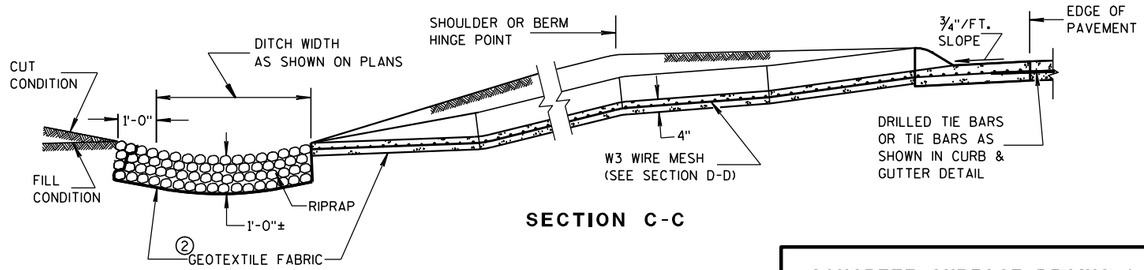
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

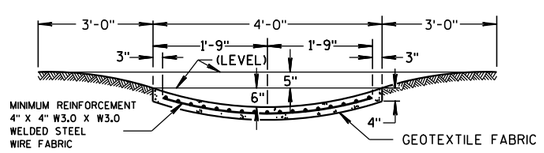
③ CONCRETE SURFACE DRAIN



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
65
MENT

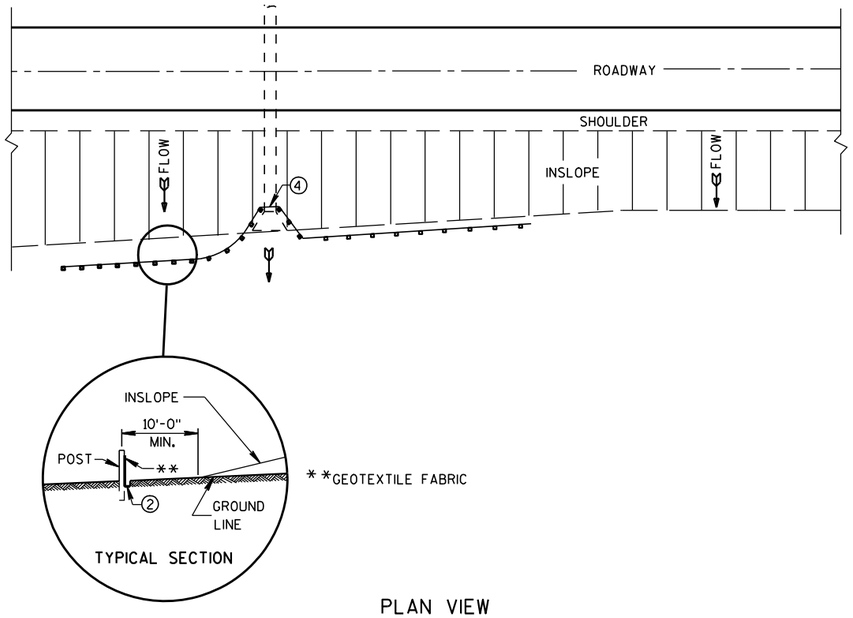
FHWA

6

S.D.D. 8 D 4-5

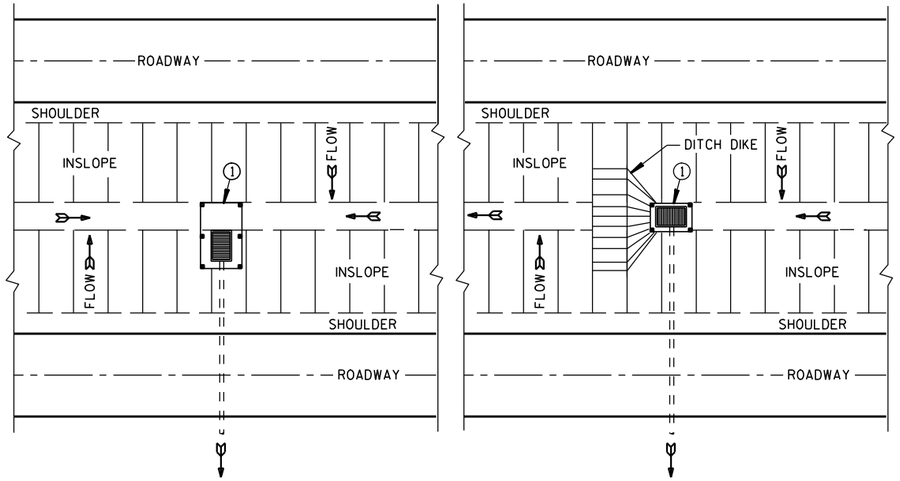
6

S.D.D. 8 D 4-5



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



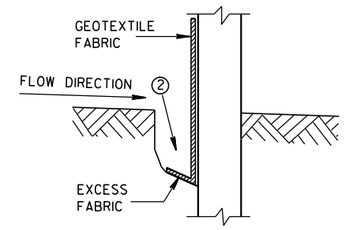
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

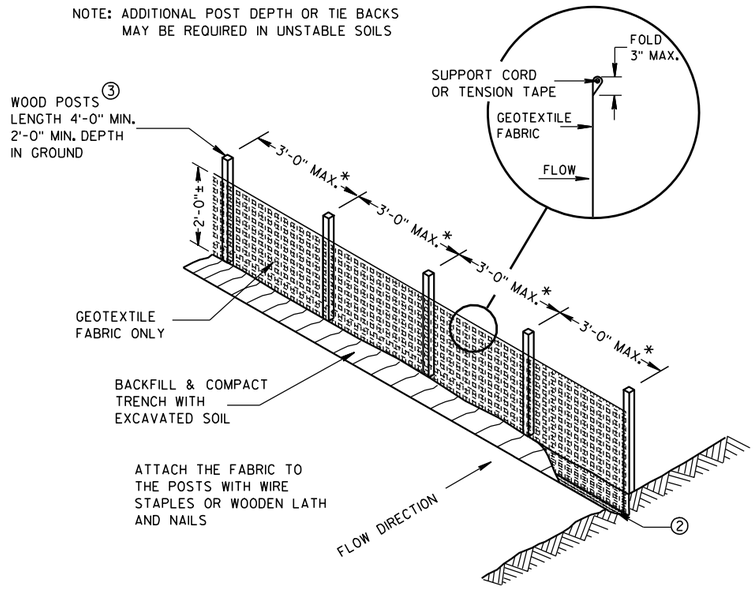
GENERAL NOTES

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.

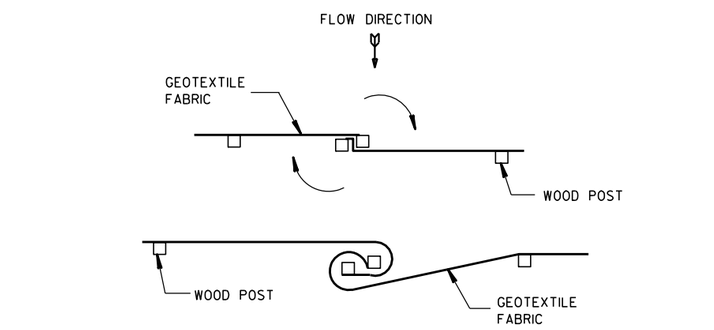


TRENCH DETAIL

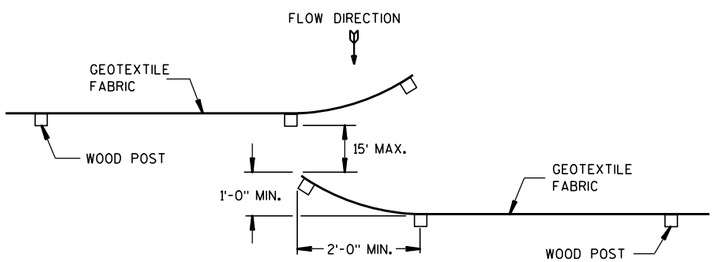


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

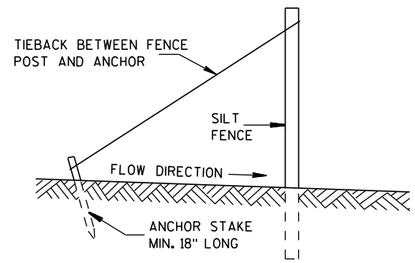


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

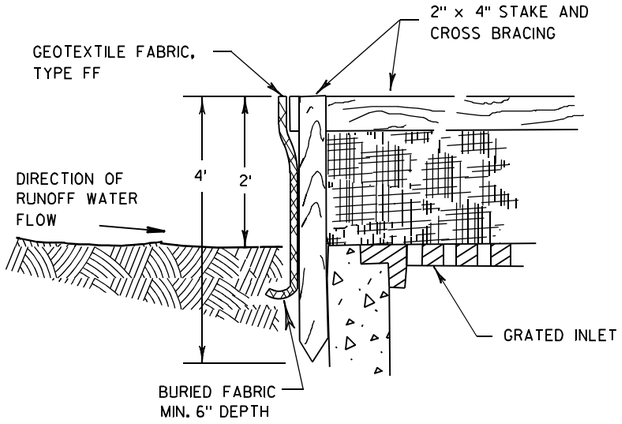
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

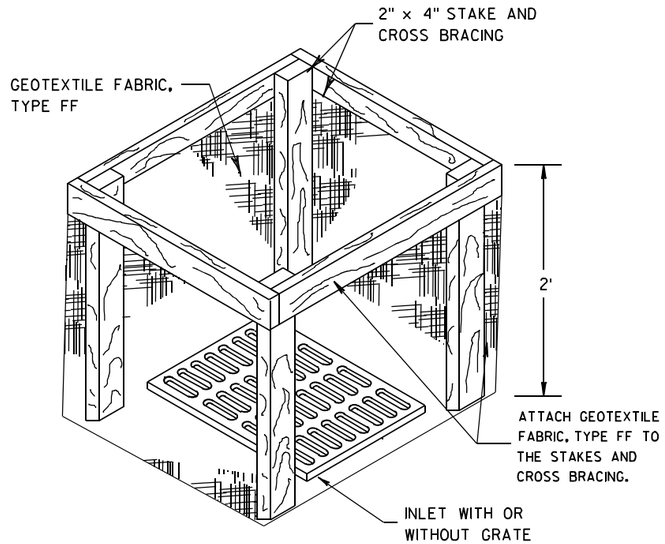
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S.D.D. 8 E 9-6

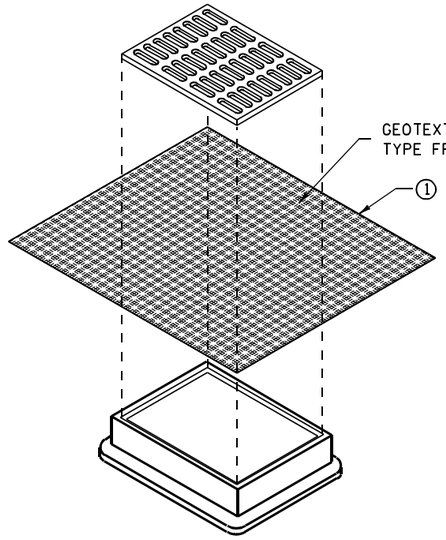
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S.D.D. 8 E 9-6



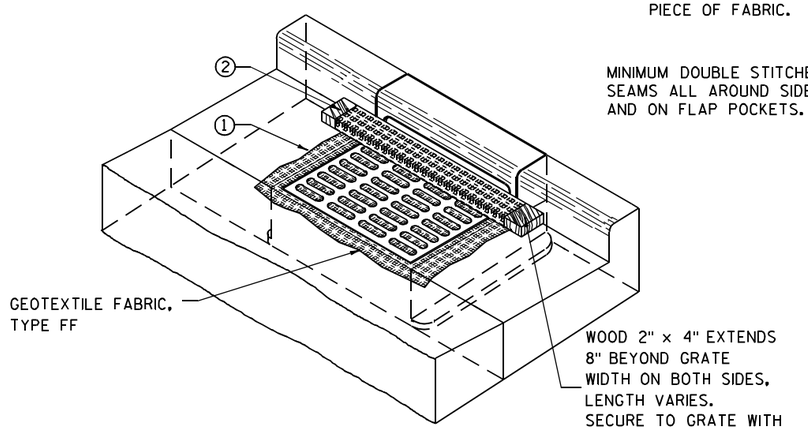


INLET PROTECTION, TYPE A

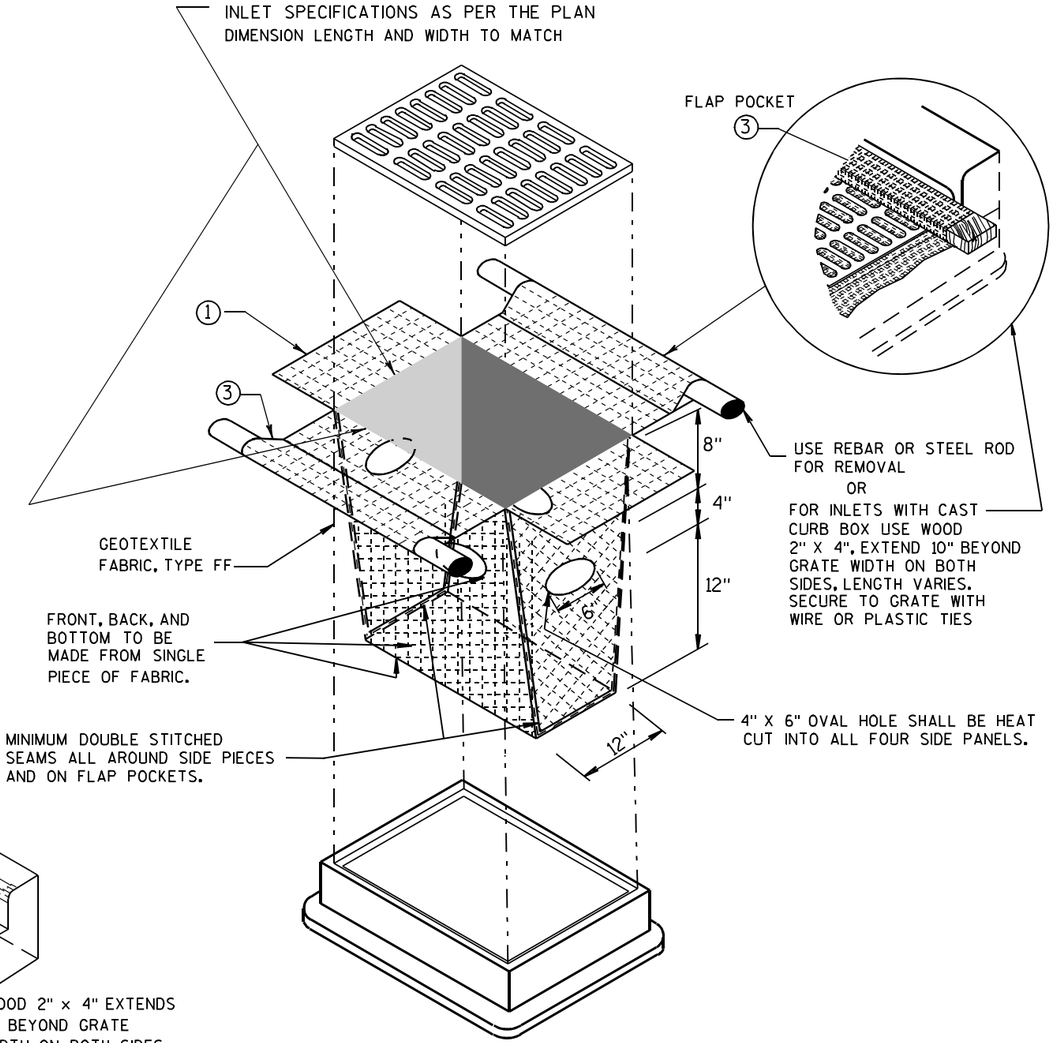


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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

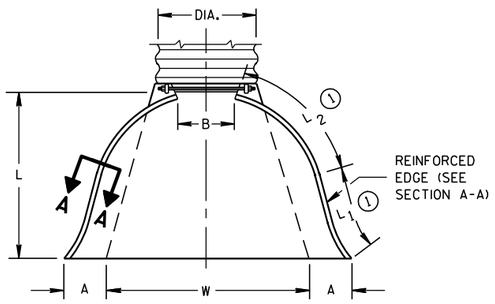
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

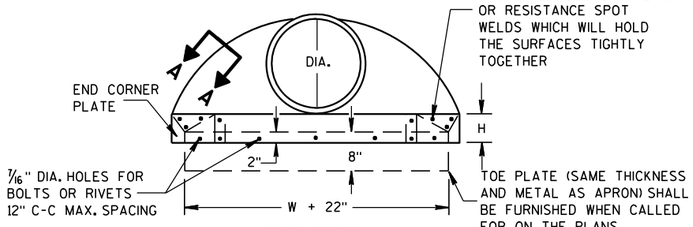
REINFORCED CONCRETE APRON ENDWALLS

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

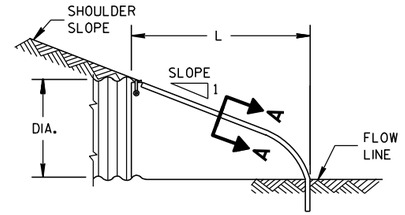
*MINIMUM
**MAXIMUM



PLAN VIEW

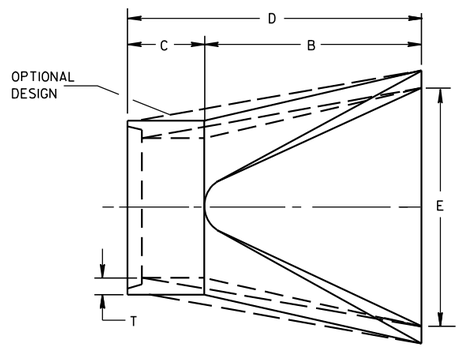


END VIEW

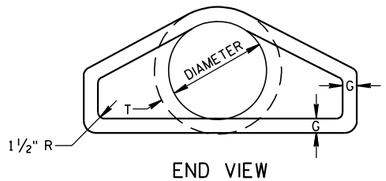


SIDE ELEVATION

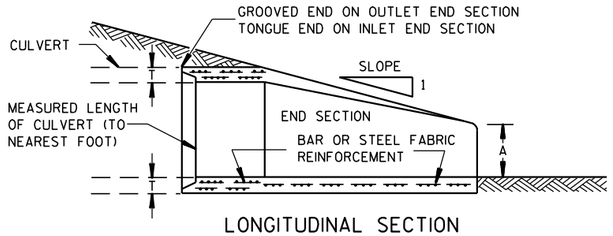
METAL ENDWALLS



PLAN

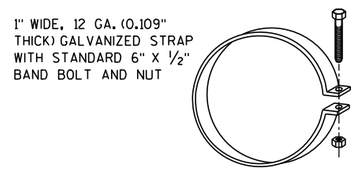


END VIEW



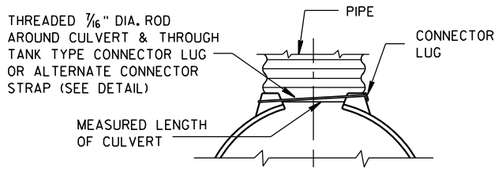
LONGITUDINAL SECTION

CONCRETE ENDWALLS

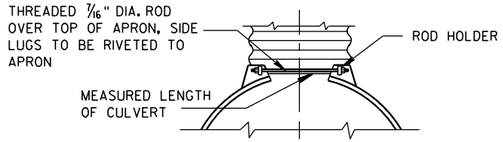


ALTERNATE FOR TYPE 1 CONNECTION

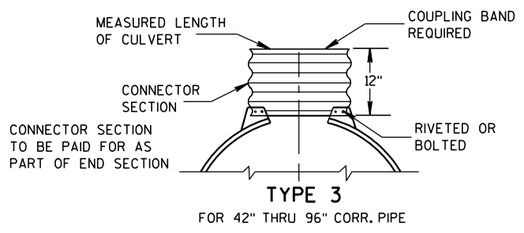
END SECTION CONNECTOR STRAP



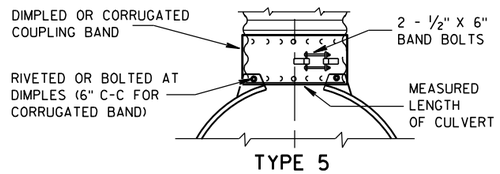
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

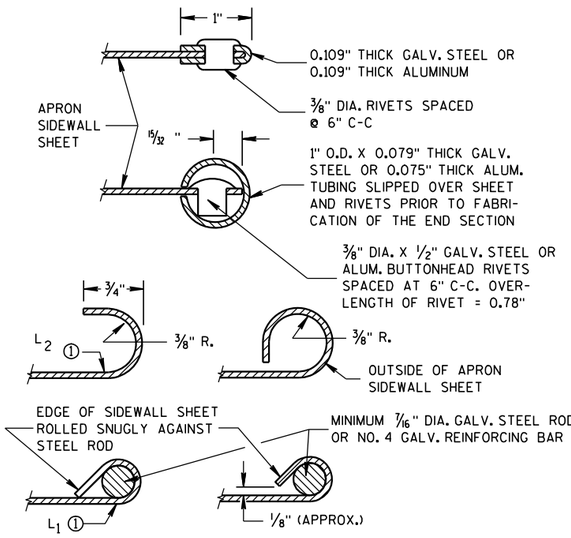
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

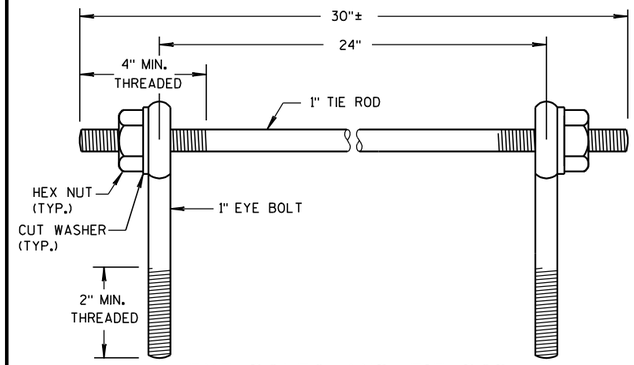
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

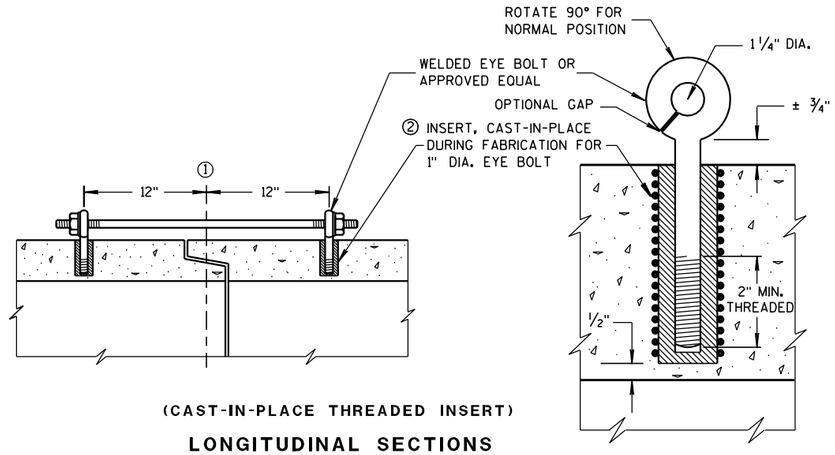
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

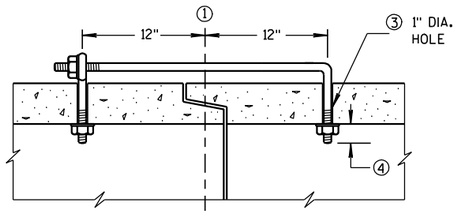
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

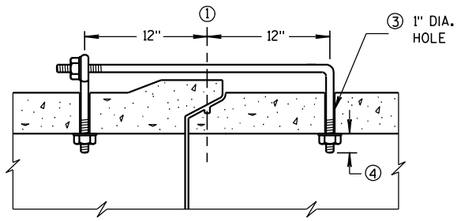
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

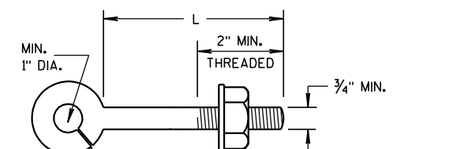


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

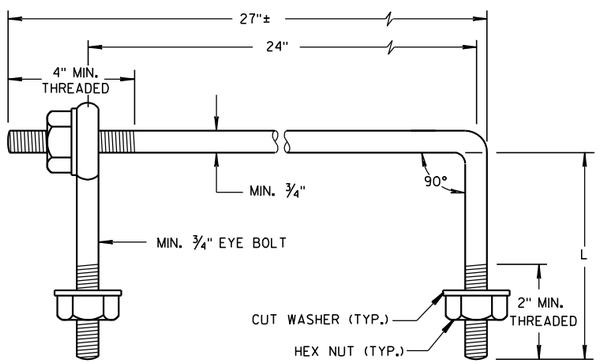
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

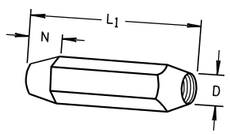
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

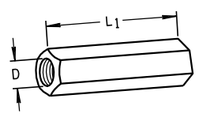
ADJUSTABLE TIE ROD TABLE

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



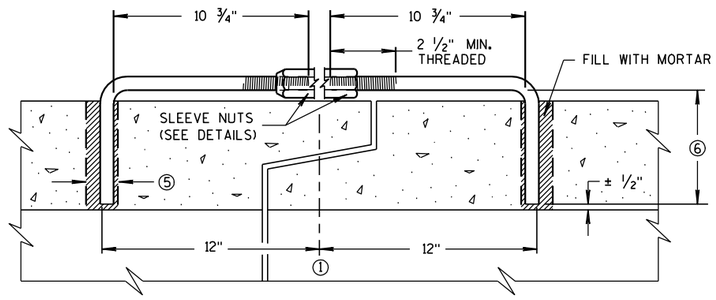
TAPERED



PLAIN

RIGHT AND LEFT THREADS

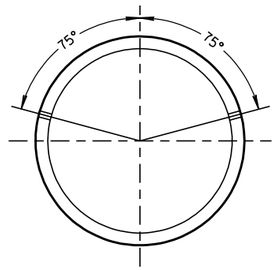
SLEEVE NUTS



LONGITUDINAL SECTION

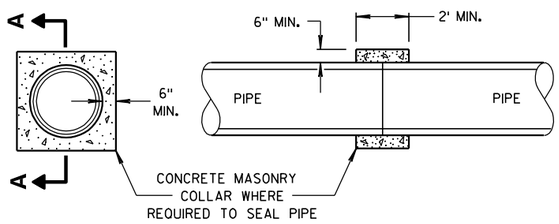
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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
FHWA

6

S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7

GENERAL NOTES

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

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

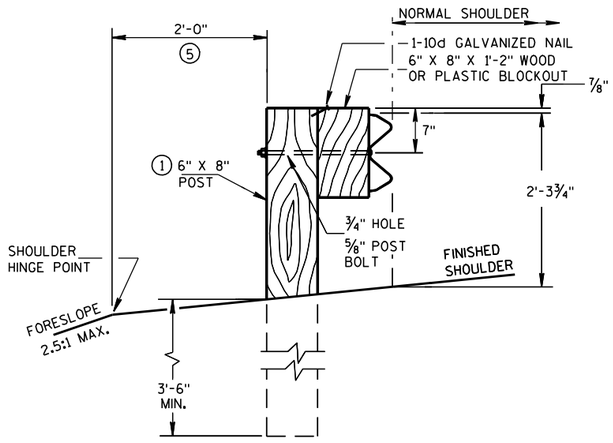
(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

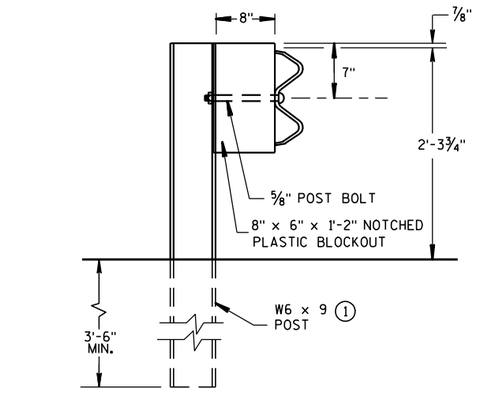
(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

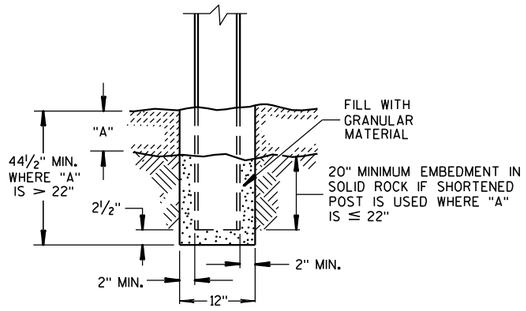
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



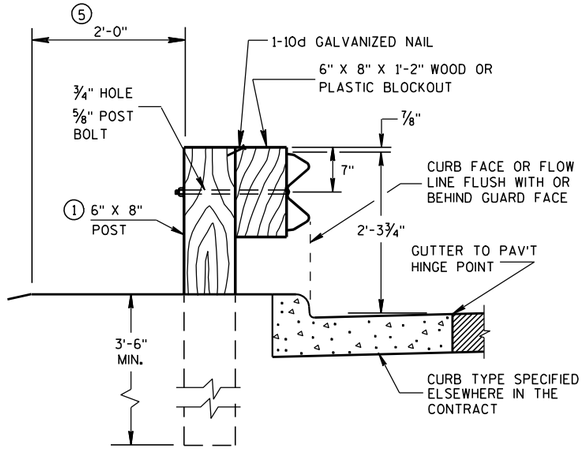
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



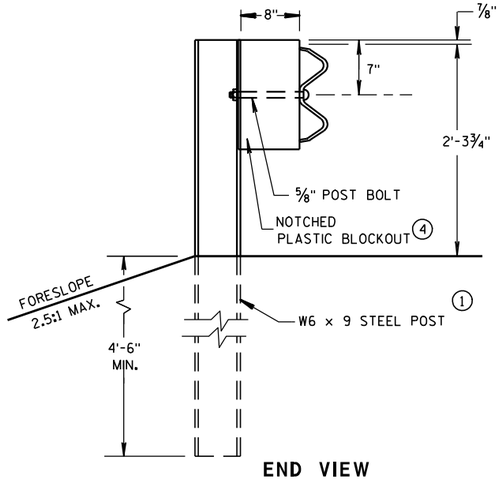
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



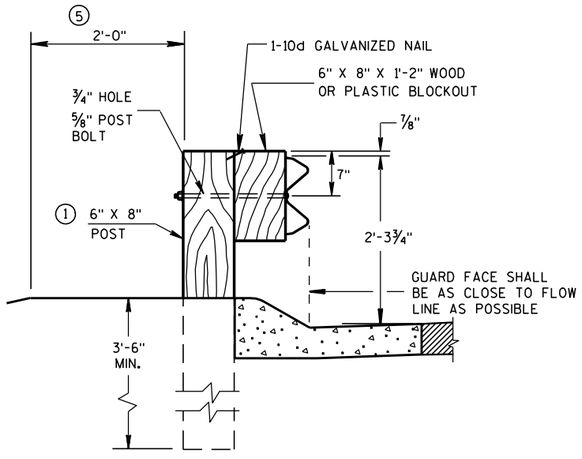
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



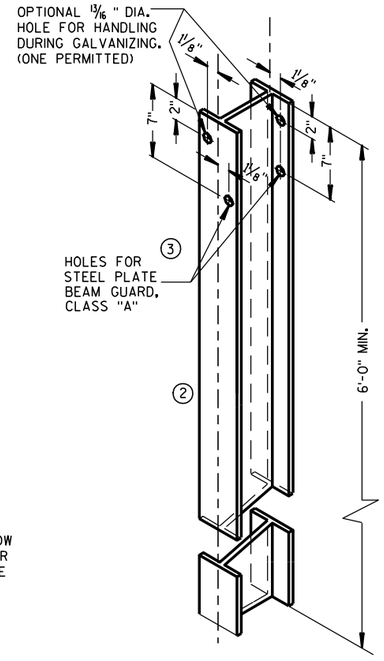
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

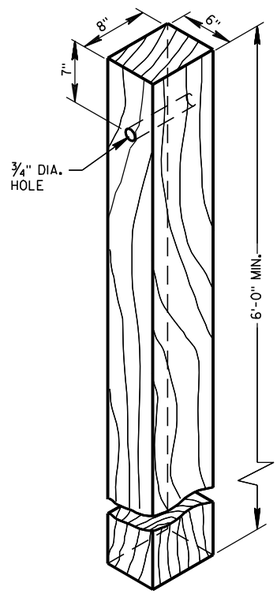


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

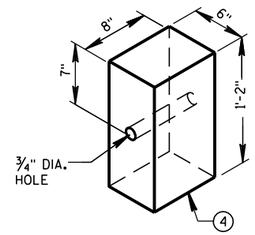


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

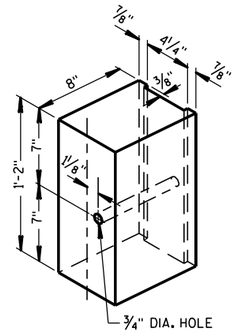
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



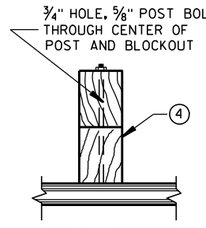
WOOD POST
(6"X8") NOMINAL



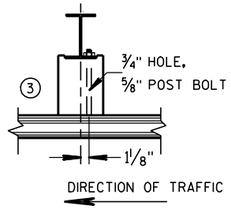
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



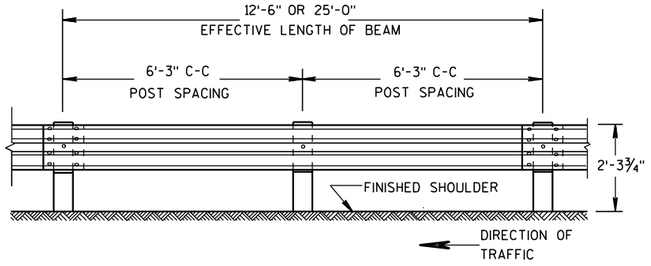
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

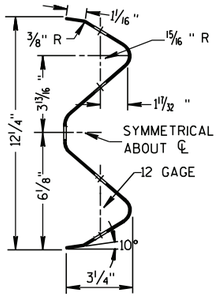
TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

6
S.D.D. 14 B 15-7a

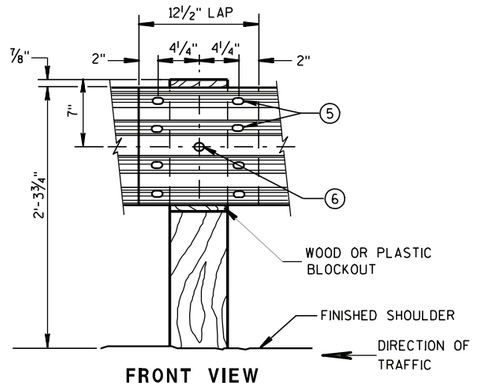


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM

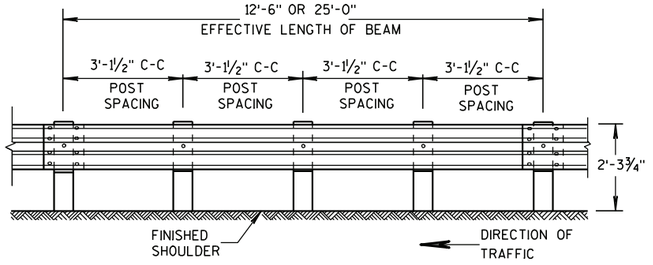


FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

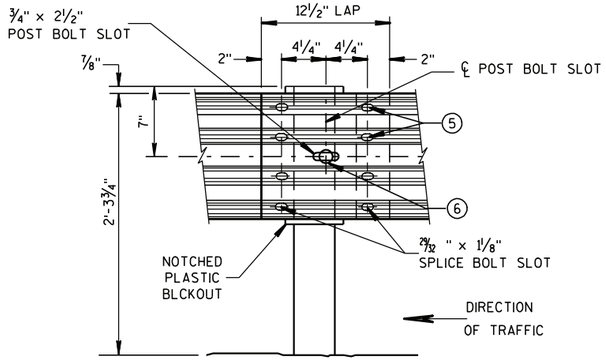
GENERAL NOTES

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



FRONT VIEW

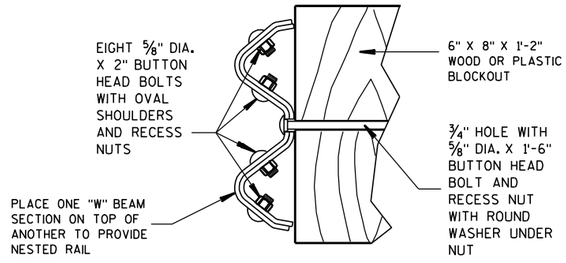
POST SPACING FOR LONGER POST AT HALF POST SPACING W BEAM (LHW)



FRONT VIEW

BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

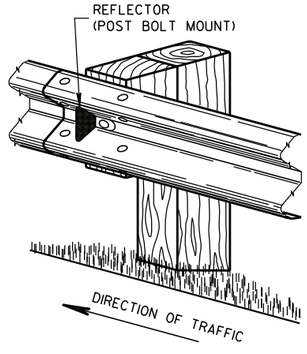


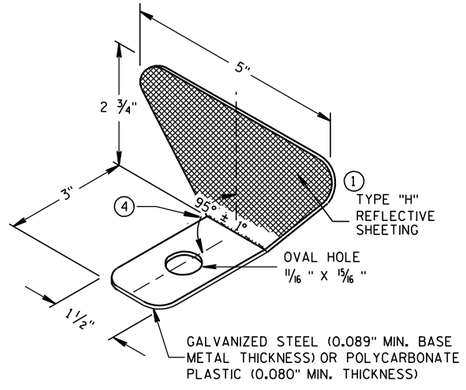
NESTED W BEAM (NW)

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

REFLECTOR SPACING (2)

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



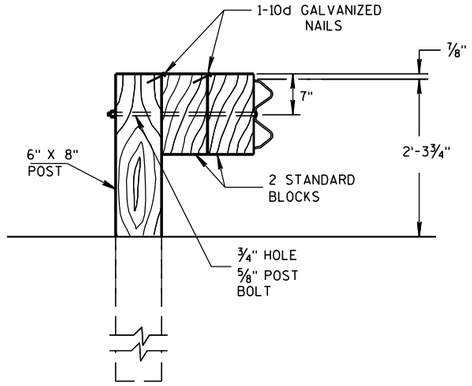


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (1)

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

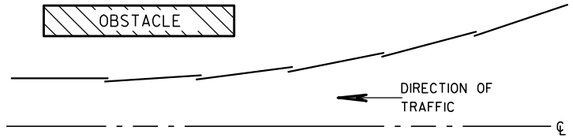
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 15-7b

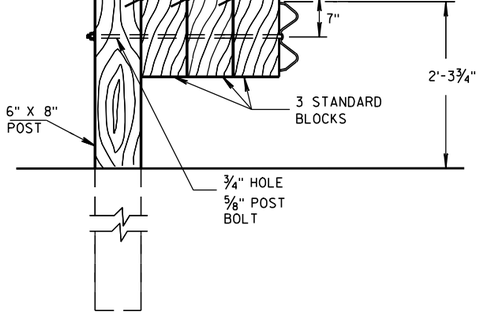


DETAIL FOR DOUBLE BLOCKS

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

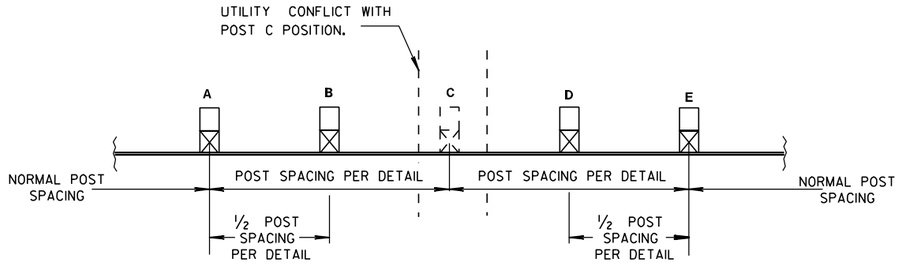


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

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

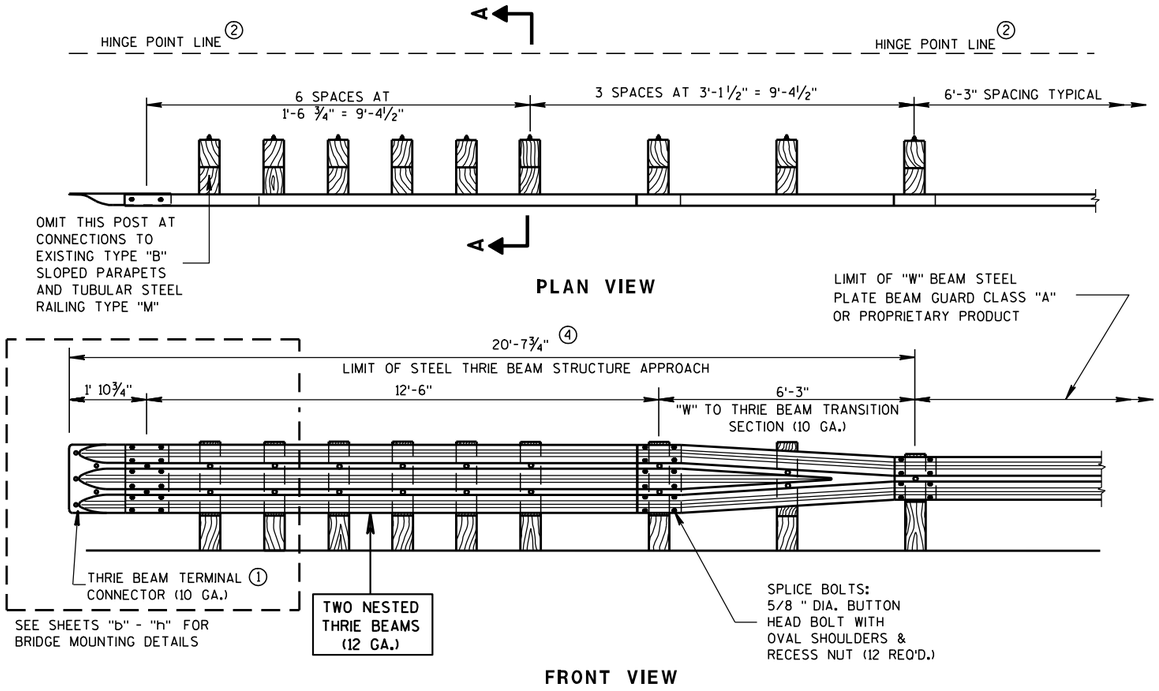
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/11	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6
S.D.D. 14 B 15-7c



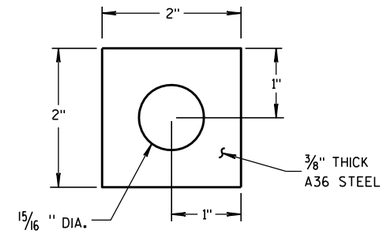


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

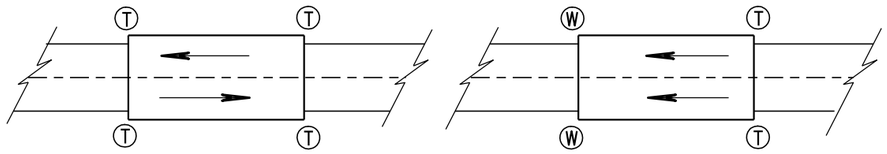
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



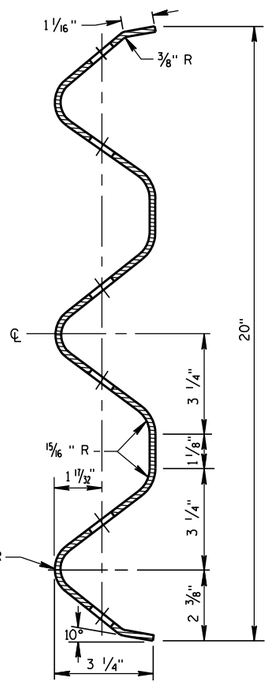
TWO WAY TRAFFIC

ONE WAY TRAFFIC

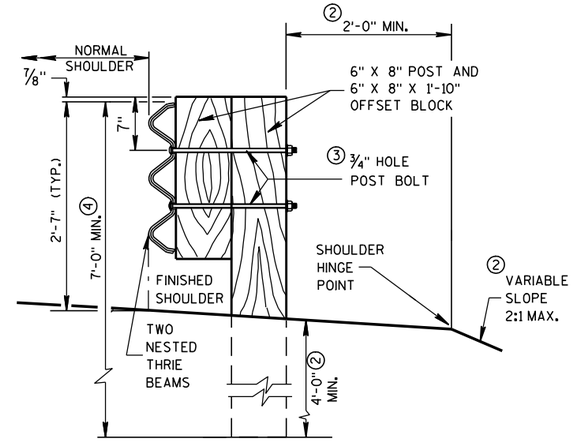
(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

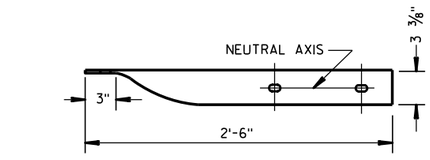
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

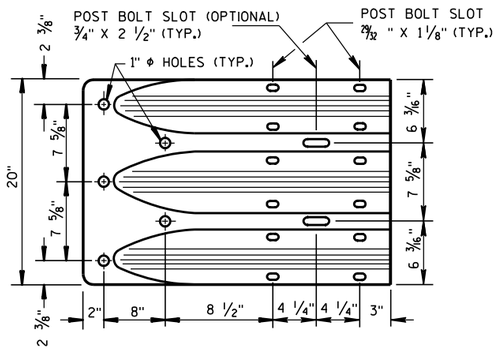


SECTION THRU THRIE BEAM RAIL ELEMENT

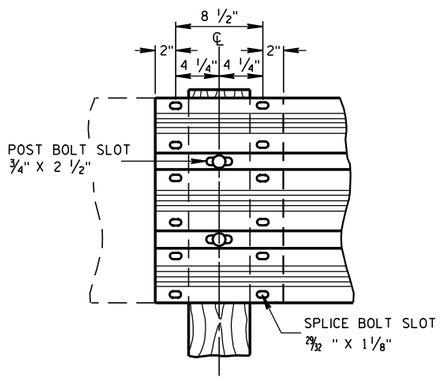


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



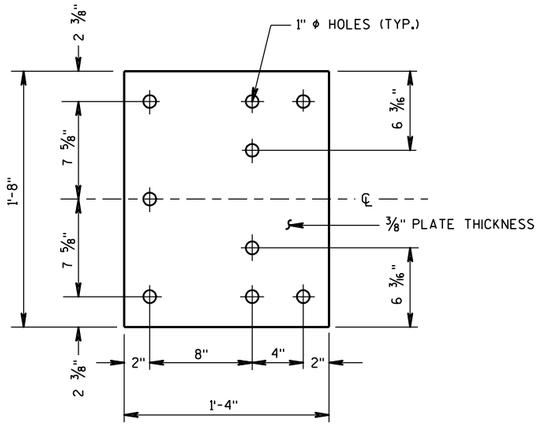
THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

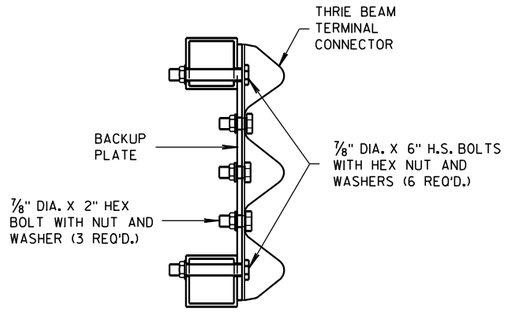
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

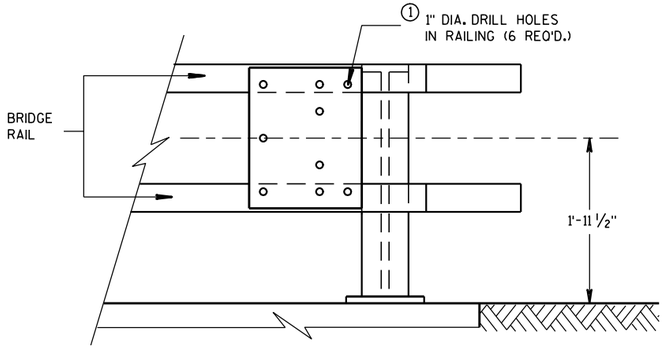
FHWA



BACK-UP PLATE DETAIL



SECTION G-G



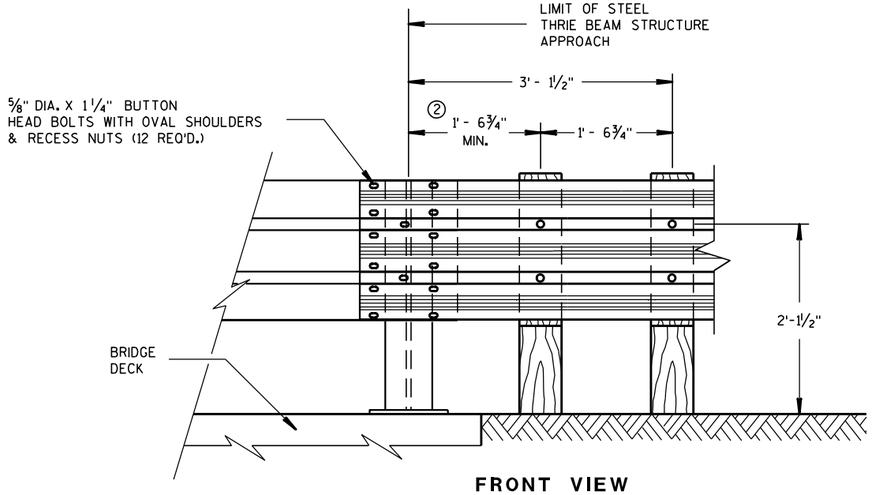
BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

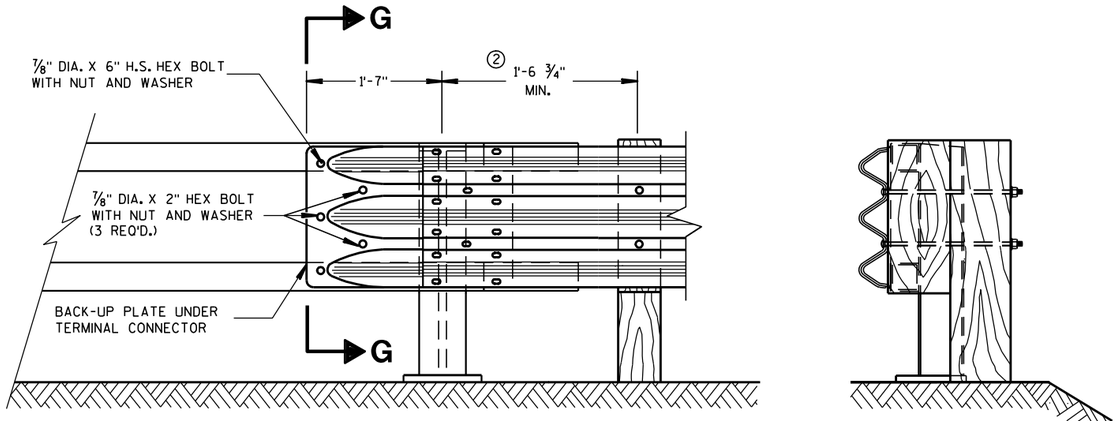
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

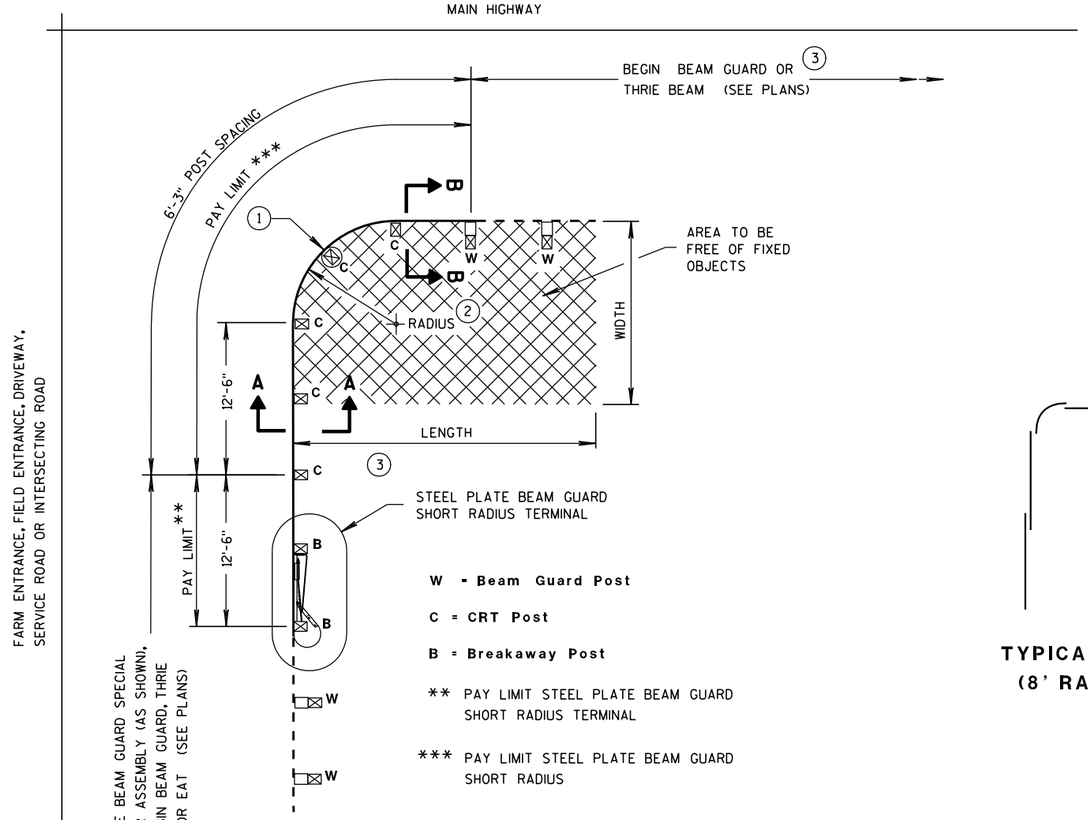
APPROVED
8/31/2012 DATE
/S/ Jerry H ____ ROADWAY STANDARDS ENGINEER
ENT
FHWA

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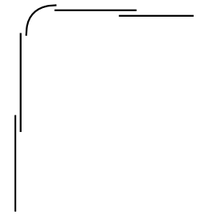
S.D.D. 14 B 20-11e

6

S.D.D. 14 B 20-11e



TYPICAL LAYOUT
(8' RADIUS SHOWN)



TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2. UNLESS NOTED OTHERWISE.

SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

(1) ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.

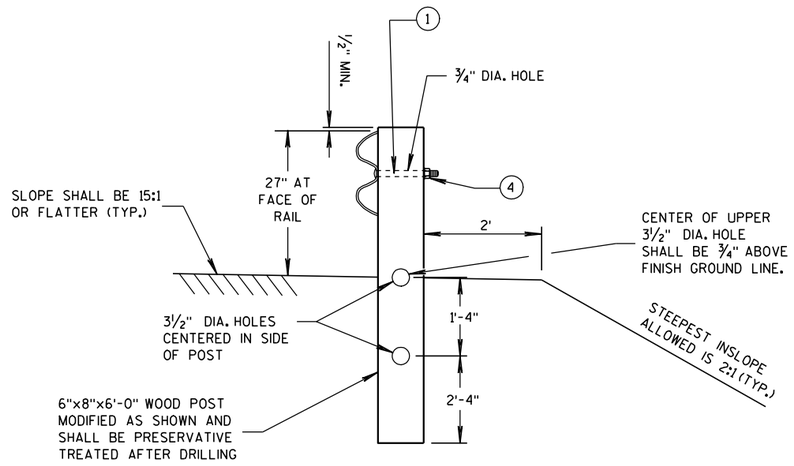
(2) RADIUS FROM 8' - 36'. SEE PLAN.

(3) HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.

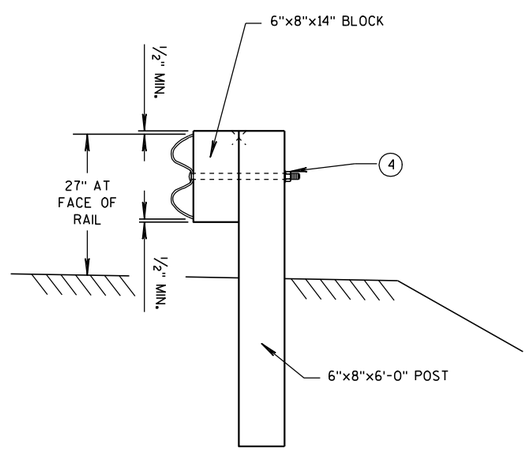
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



SECTION A-A
(CRT POST)



SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

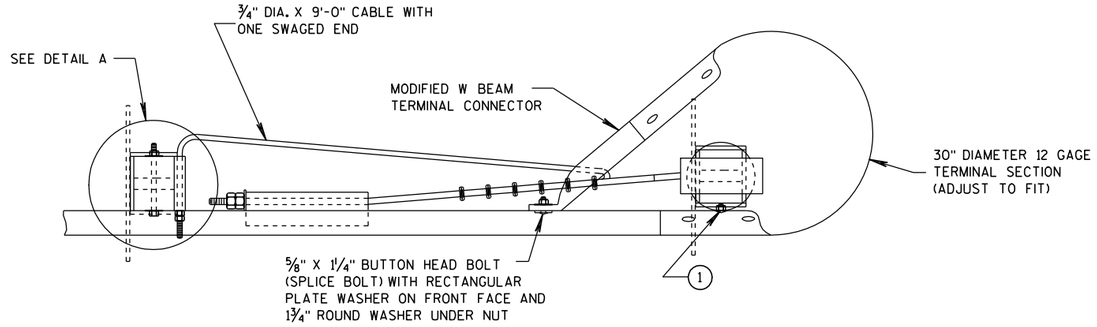
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

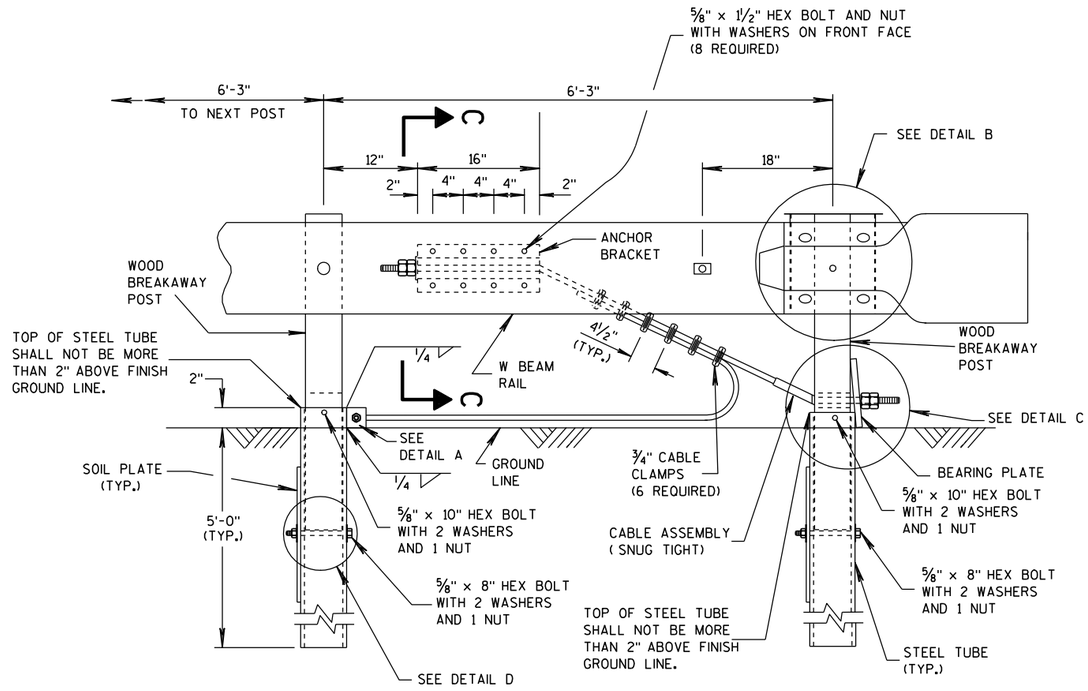
S.D.D. 14 B 27-1a

6

S.D.D. 14 B 27-1a



PLAN VIEW



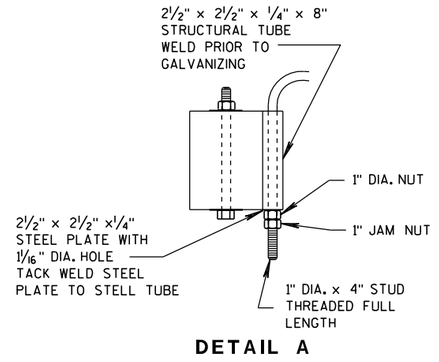
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

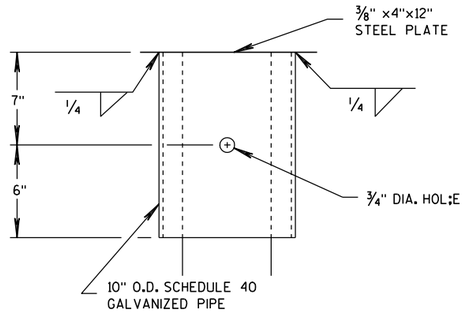
GENERAL NOTES

(1) ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A ⅝" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.

INSTALL GALVANIZED ¾" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A



DETAIL B

(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

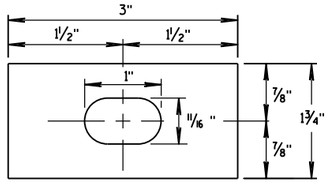
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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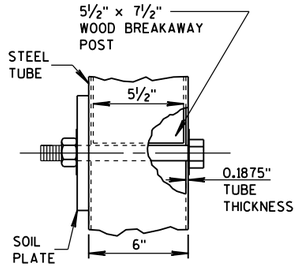
S.D.D. 14 B 27-1b

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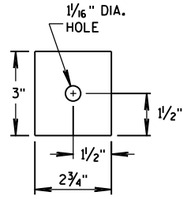
S.D.D. 14 B 27-1b



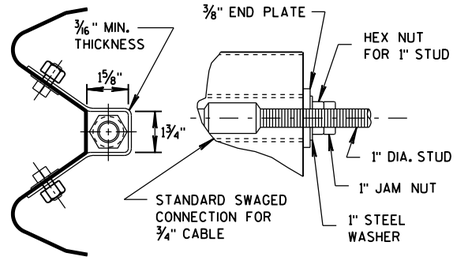
RECTANGULAR PLATE WASHER



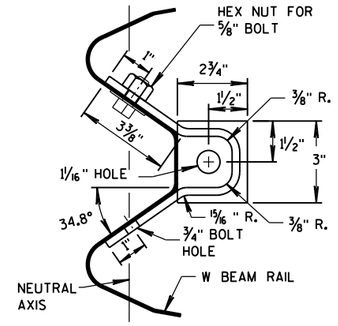
DETAIL D



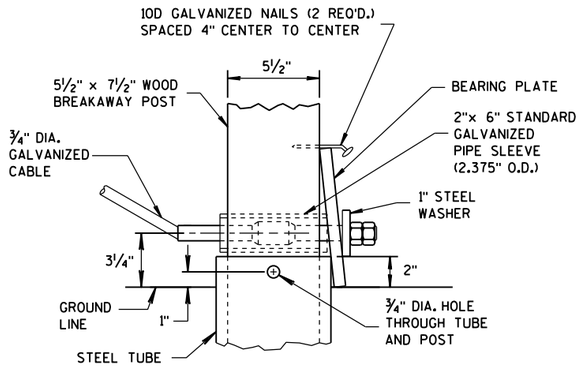
END PLATE



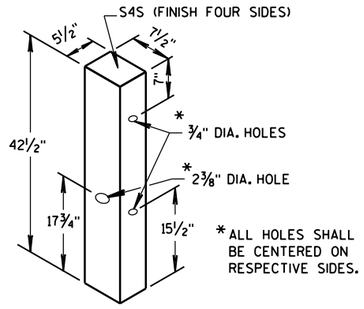
SECTION C-C
(END PLATE REMOVED)



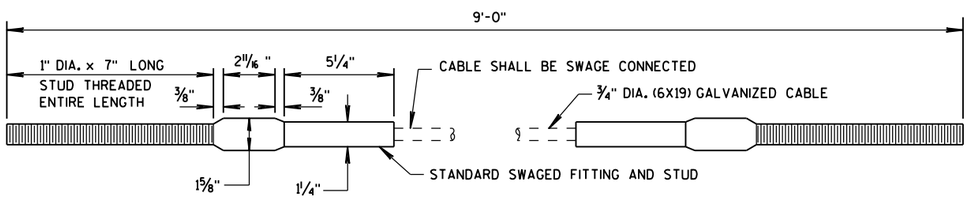
ANCHOR BRACKET



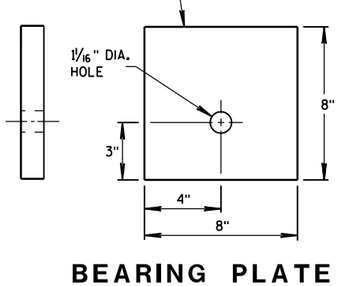
DETAIL C



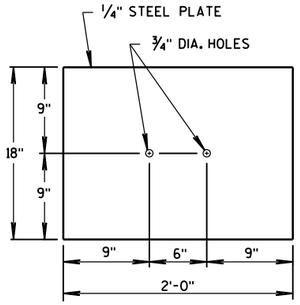
WOOD BREAKAWAY POST



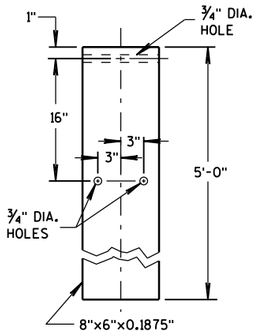
CABLE ASSEMBLY



BEARING PLATE



SOIL PLATE



STEEL TUBE

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/08 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 27-1c

6

S.D.D. 14 B 27-1c

GENERAL NOTES

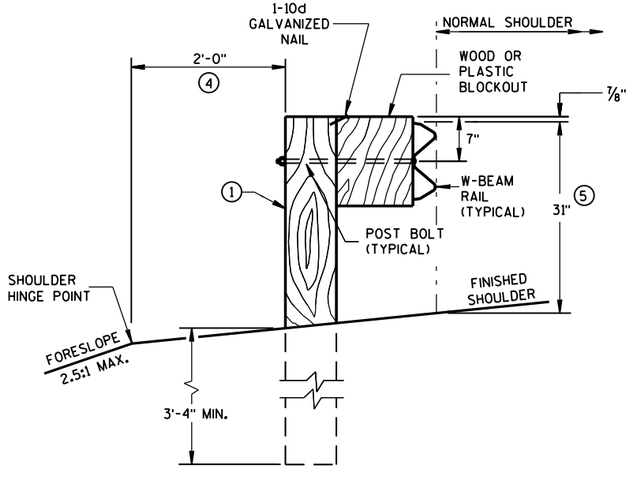
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

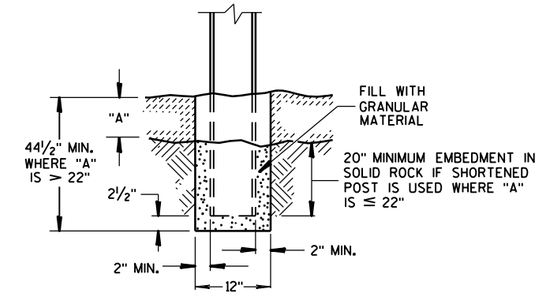
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



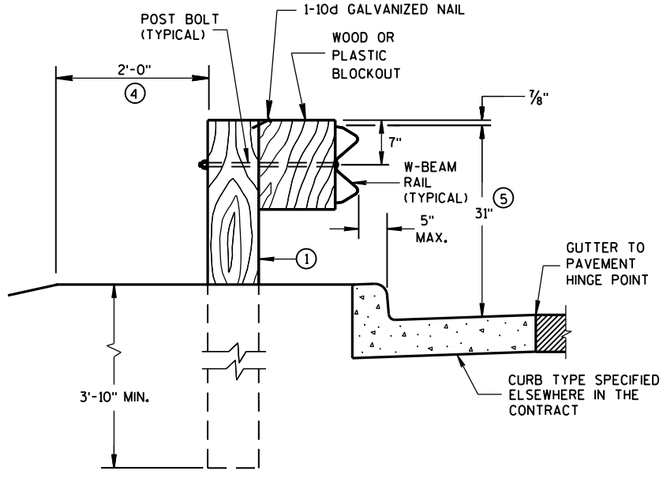
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



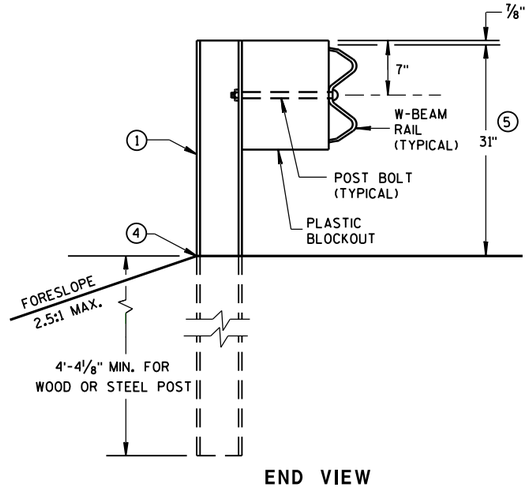
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



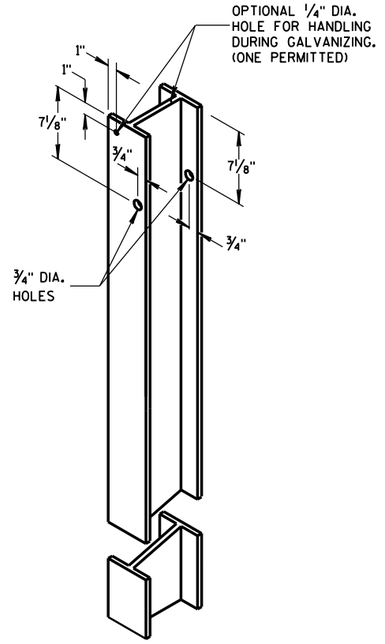
END VIEW

LOCATED ALONG A CURBED ROADWAY

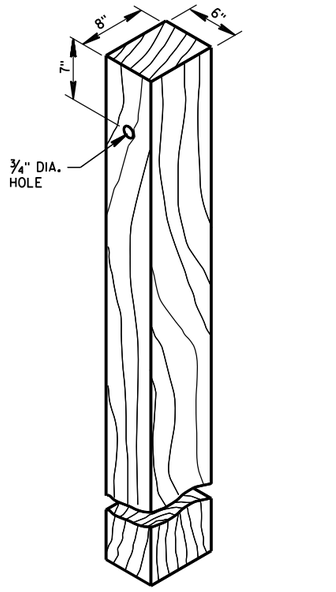


END VIEW

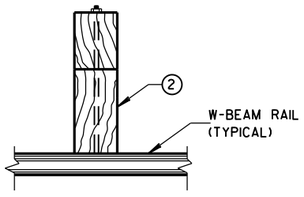
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



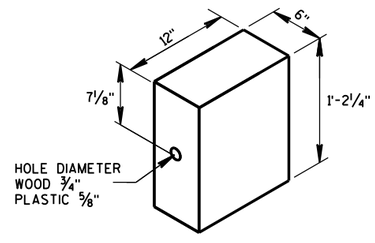
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



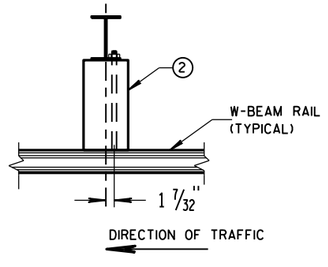
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

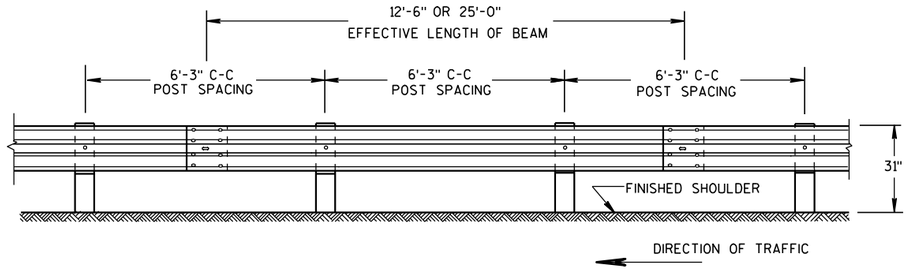


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

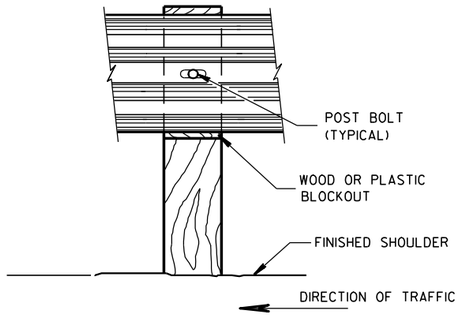
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



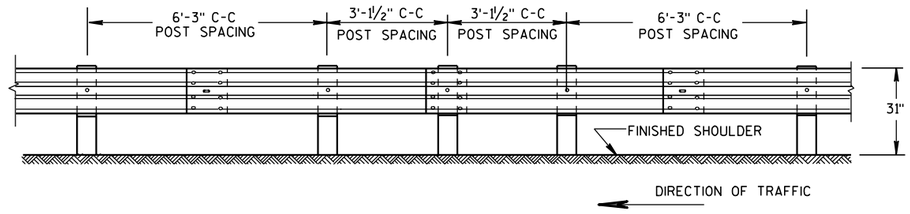
FRONT VIEW AT WOOD POST

GENERAL NOTES

1. PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
2. DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
3. REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
4. PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
5. 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

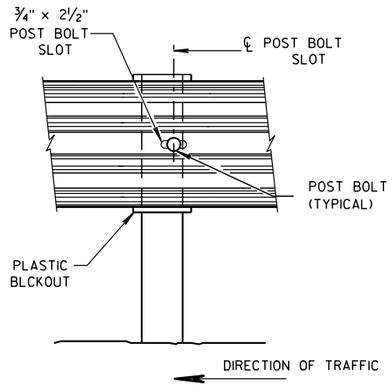
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

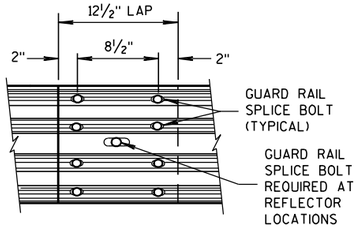


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

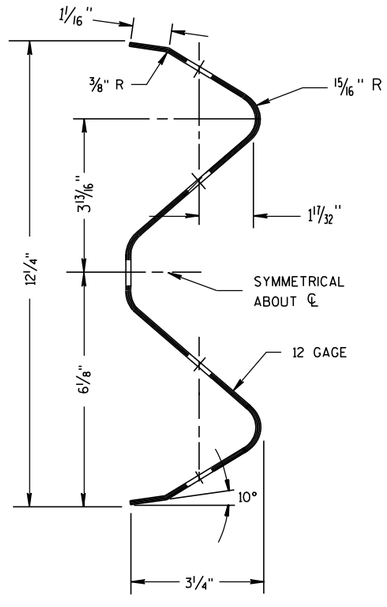


FRONT VIEW AT STEEL POST

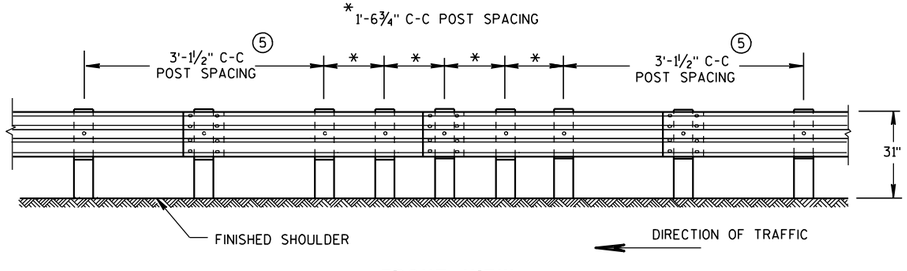


FRONT VIEW

MID-SPAN BEAM SPLICE

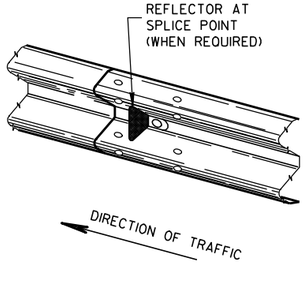


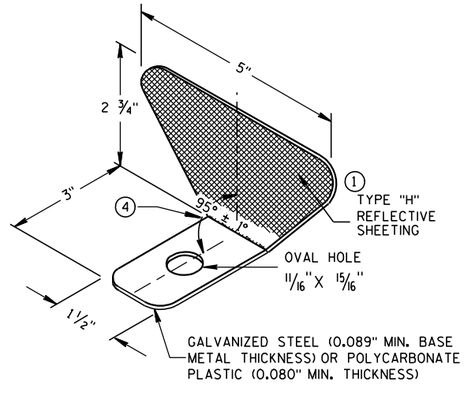
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

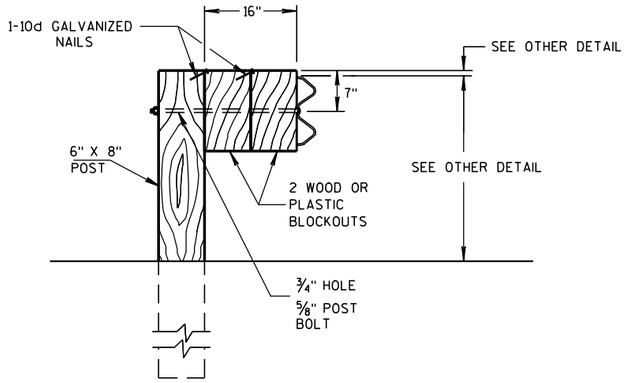
REFLECTOR SPACING ②

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

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

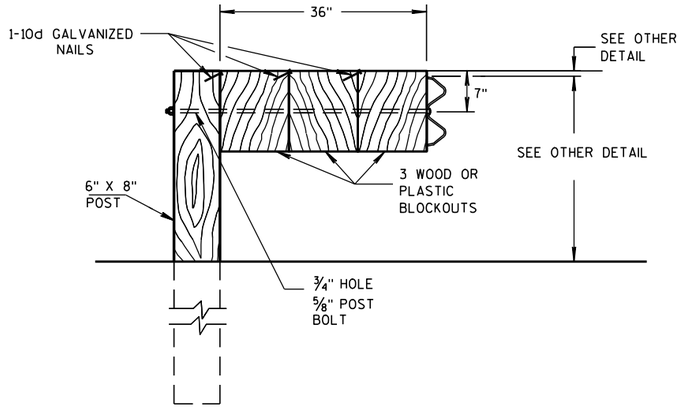
STATE OF WISCONSIN
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DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

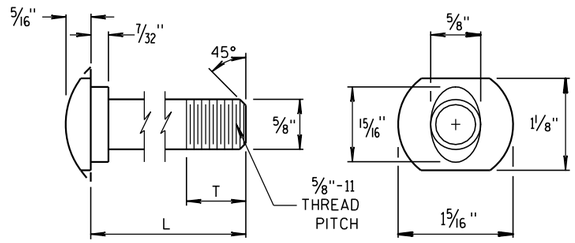


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

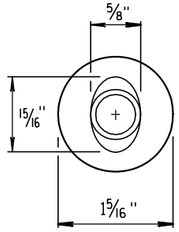
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

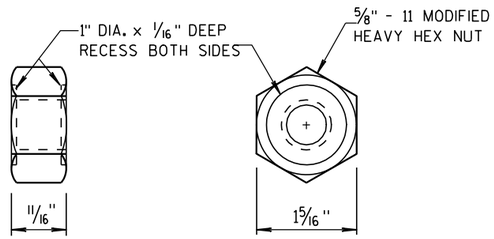


POST BOLT TABLE

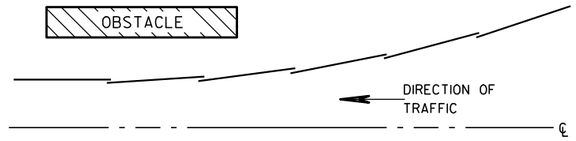
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

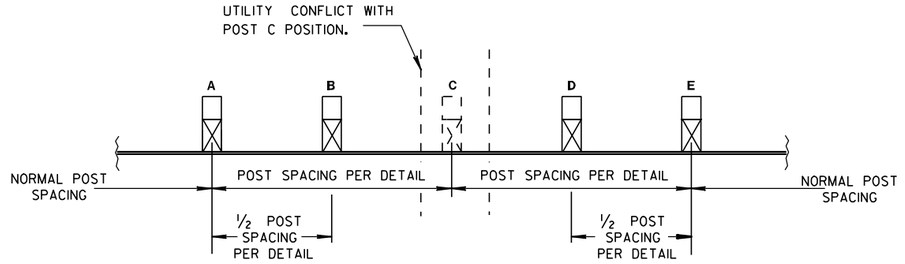


POST BOLT AND RECESS NUT

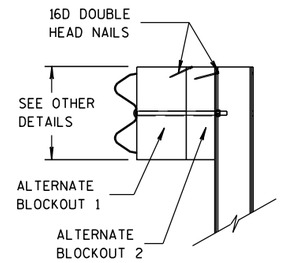


PLAN VIEW

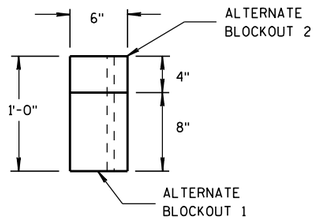
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
11/15/2011 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	80 ENT

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

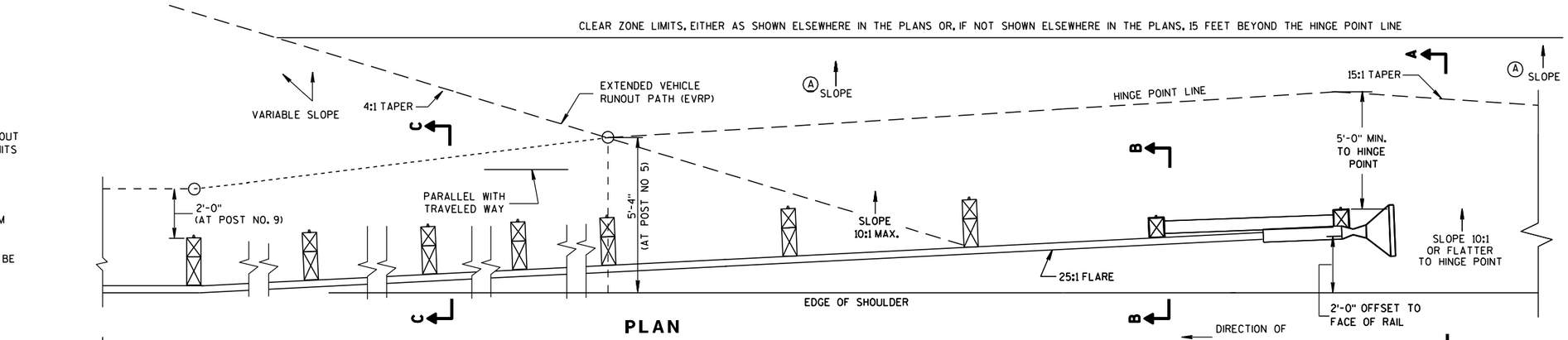
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

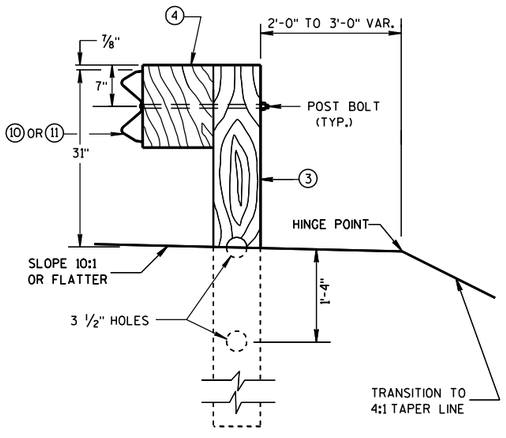
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

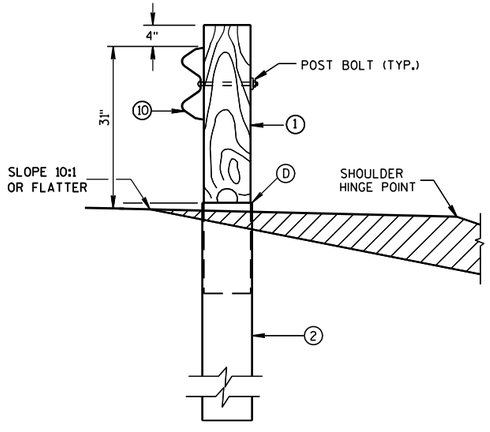
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

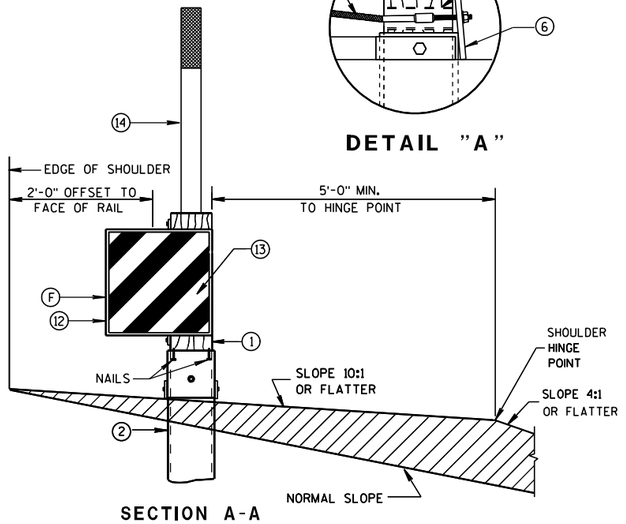




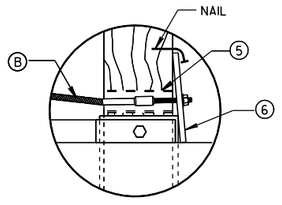
SECTION C-C
TYPICAL AT POST NOS. 3-9



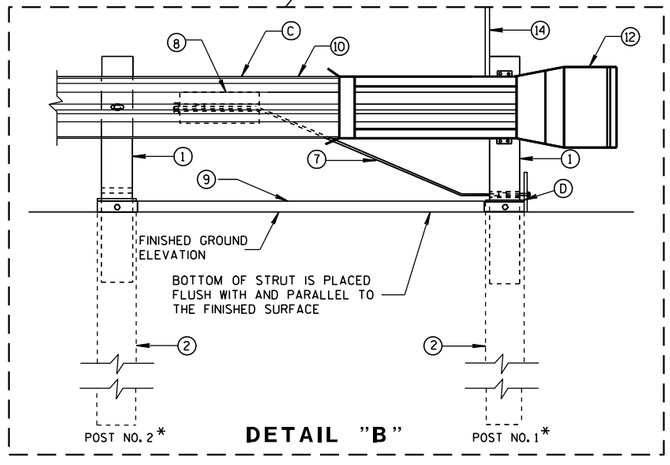
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



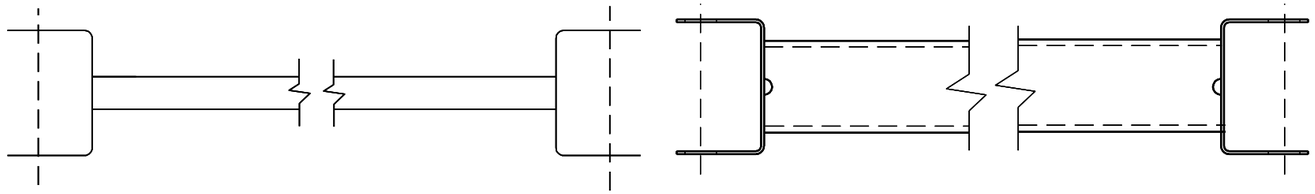
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 44-1a

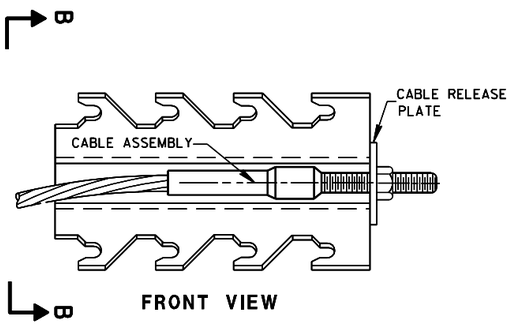
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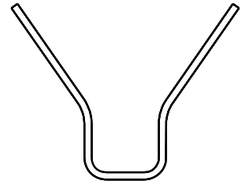
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

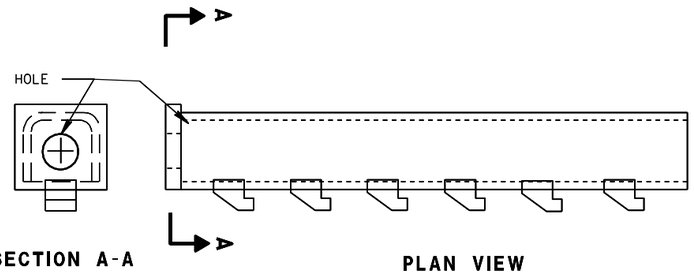
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



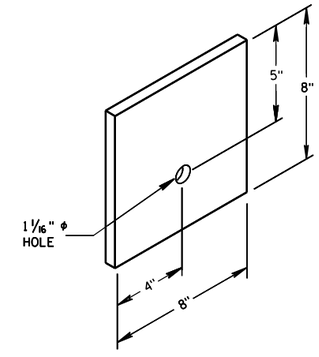
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



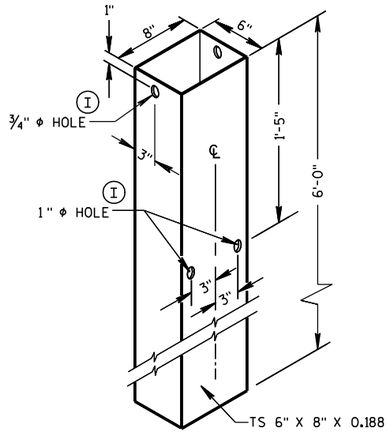
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

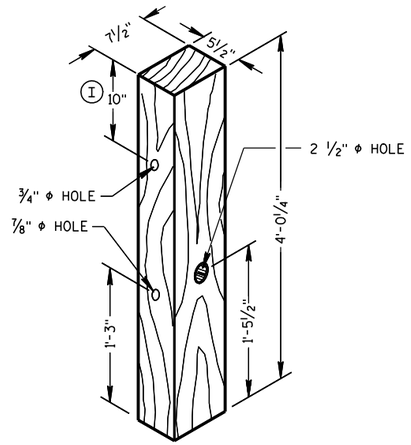
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

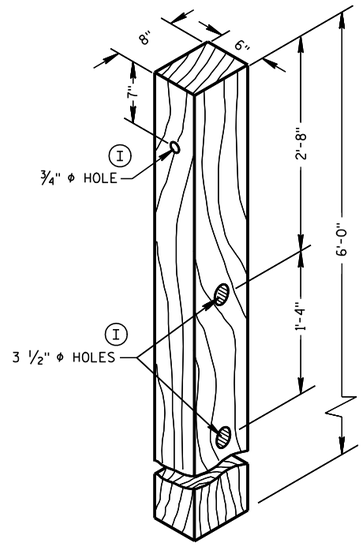


FOUNDATION TUBE (2)



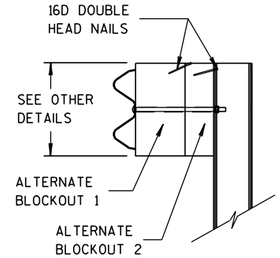
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

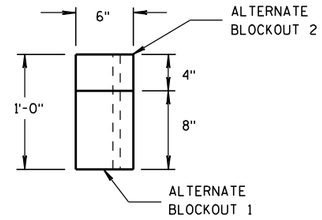


POSTS NUMBER 3-9

WOOD CRT POST (3)

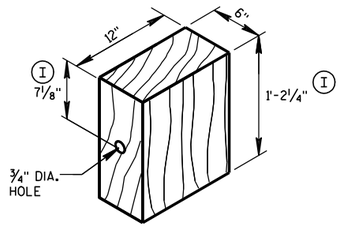


SIDE VIEW



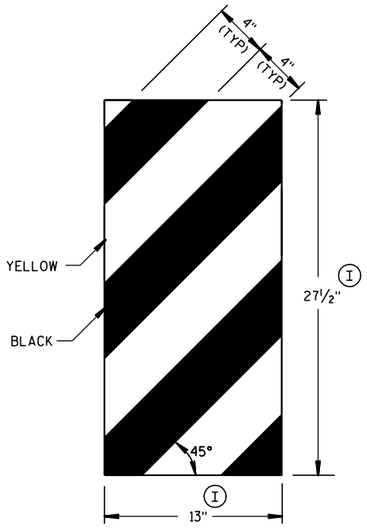
TOP VIEW

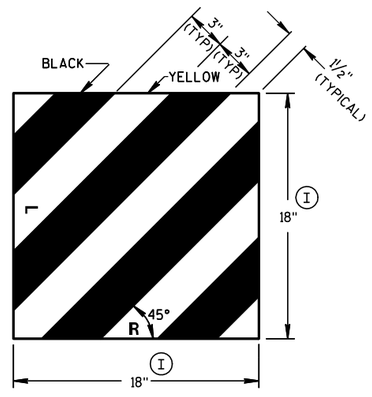
ALTERNATE WOOD BLOCKOUT DETAIL



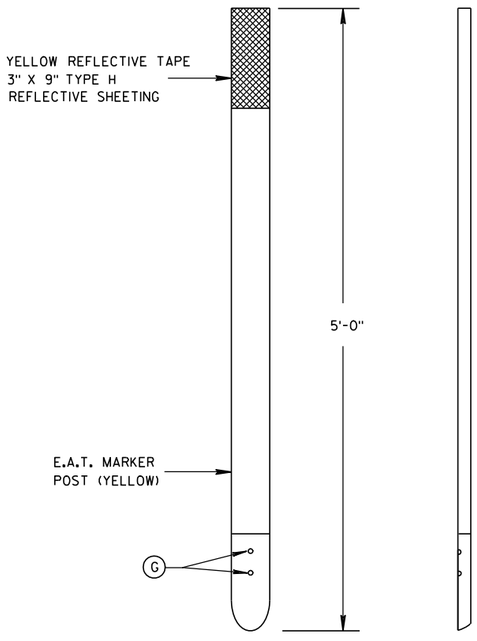
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





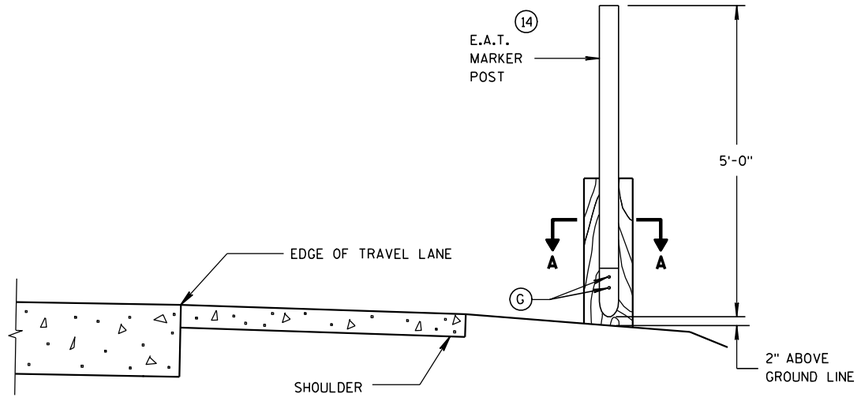
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

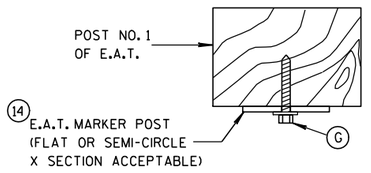
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

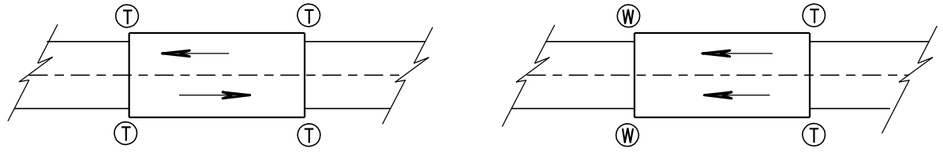
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS 83
ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC **ONE WAY TRAFFIC**

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

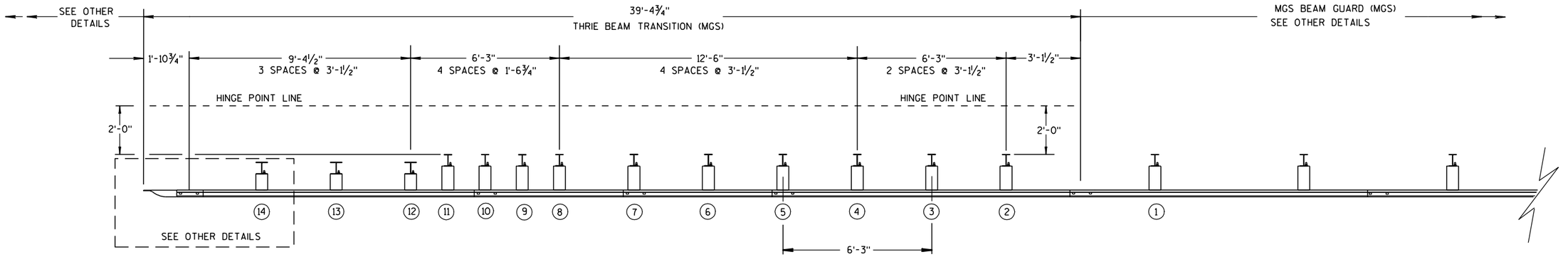
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED DURING EXCAVATION, SEE STANDARD DETAIL DRAWING 14 B 42.

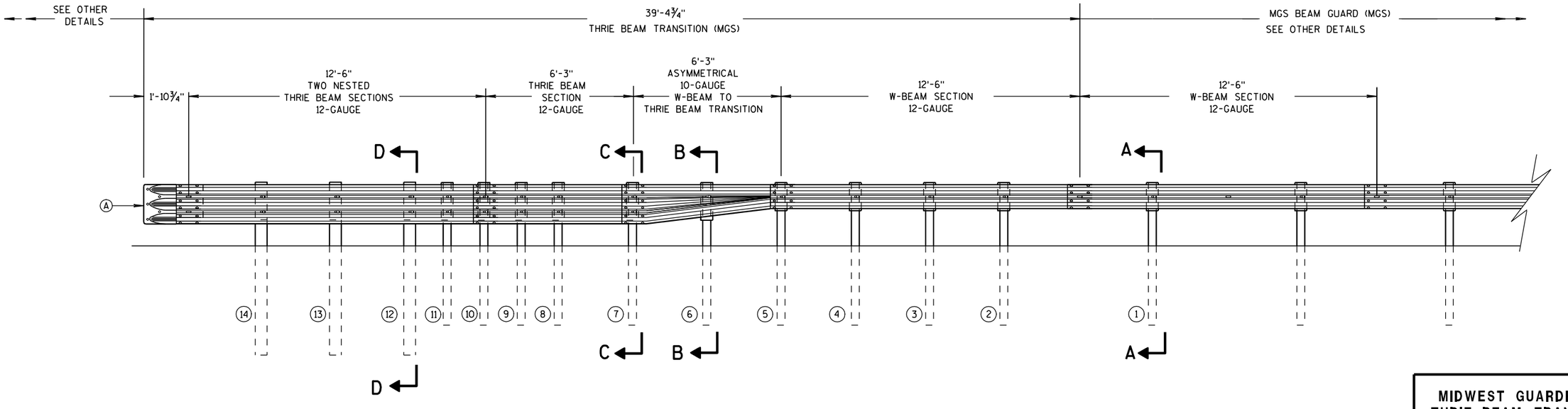
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

(A) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

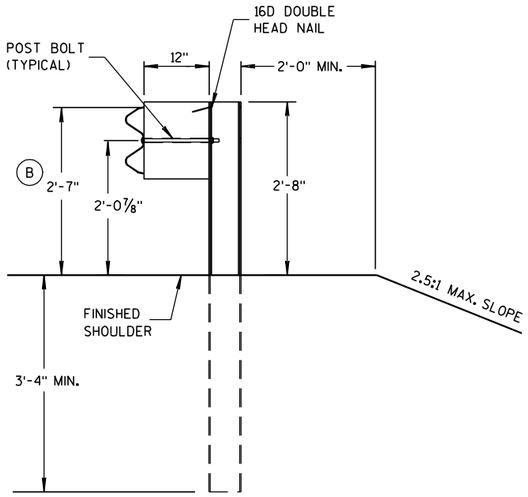
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 45-2a

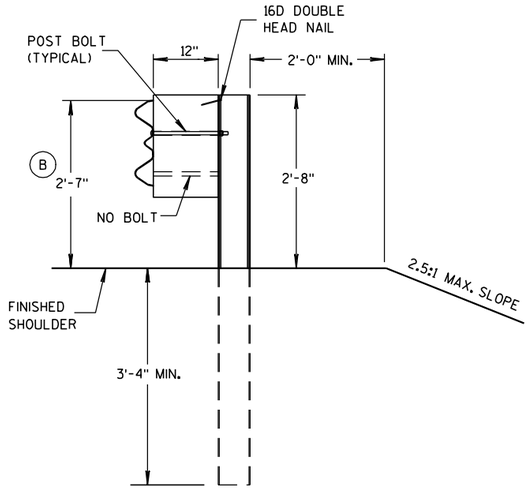
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



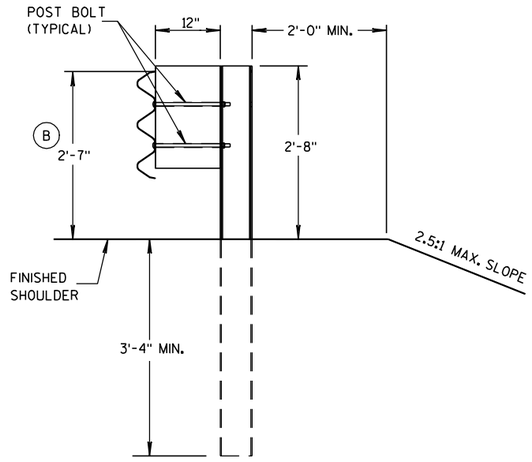
SECTION A-A

POSTS 1-5



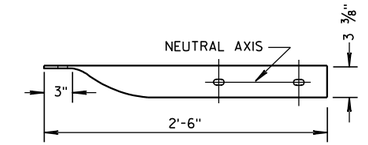
SECTION B-B

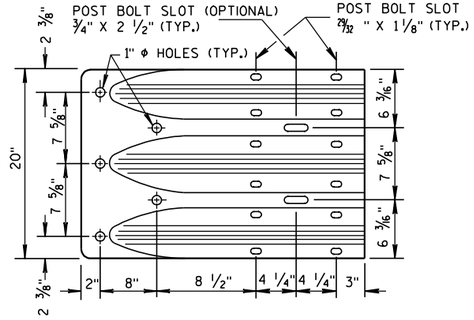
POST 6



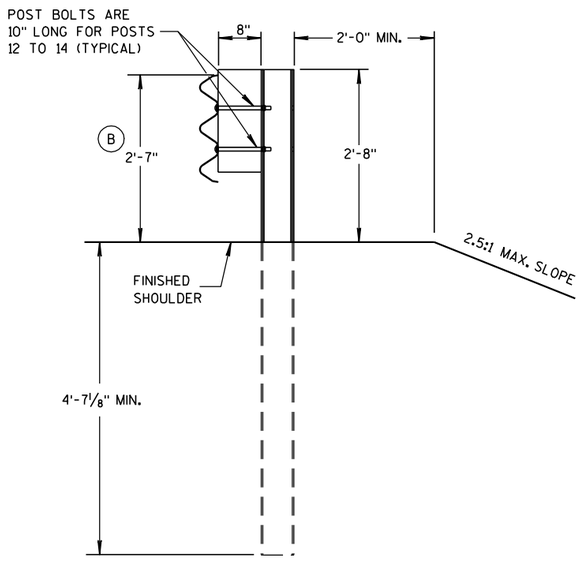
SECTION C-C

POSTS 7-11



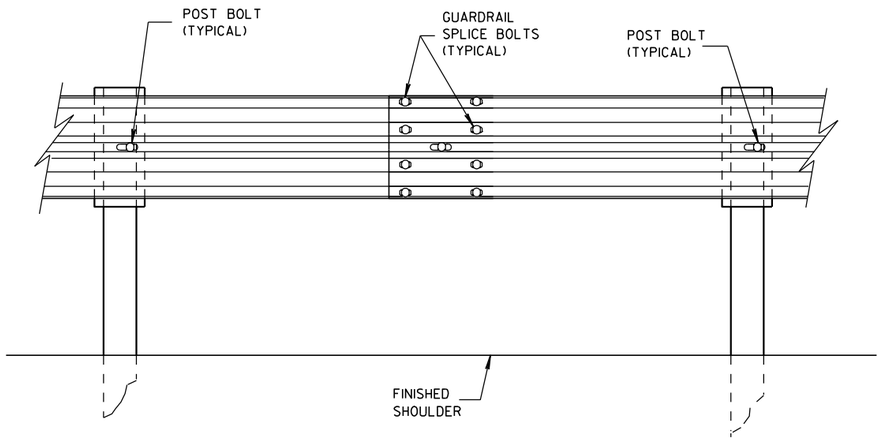


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

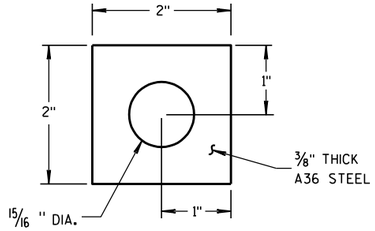
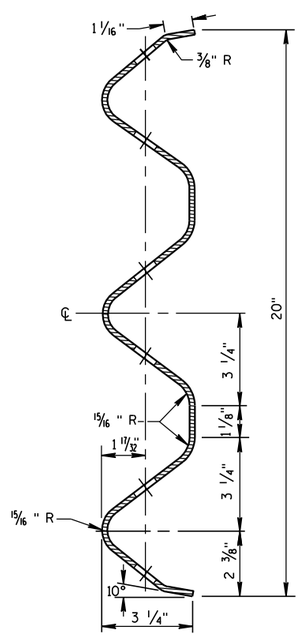


PLATE WASHER DETAIL



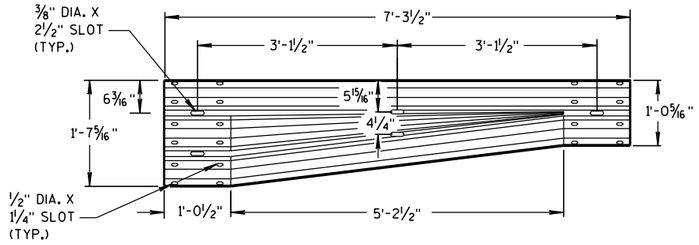
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

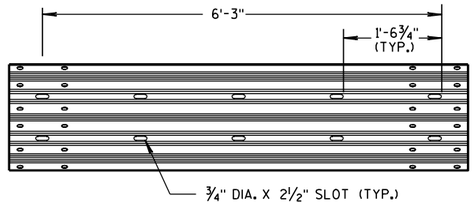
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

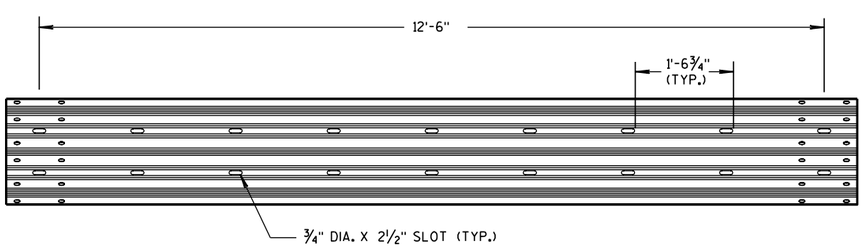
S.D.D. 14 B 45-2b



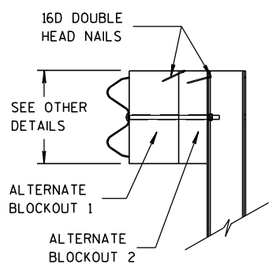
W-BEAM TO THRIE BEAM TRANSITION SECTION



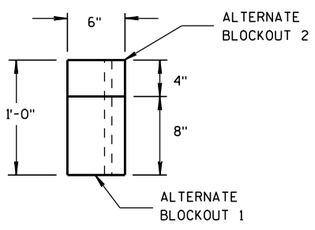
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

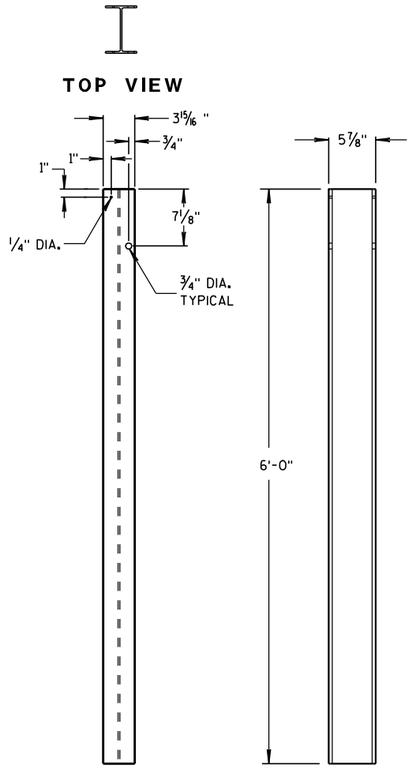


SIDE VIEW



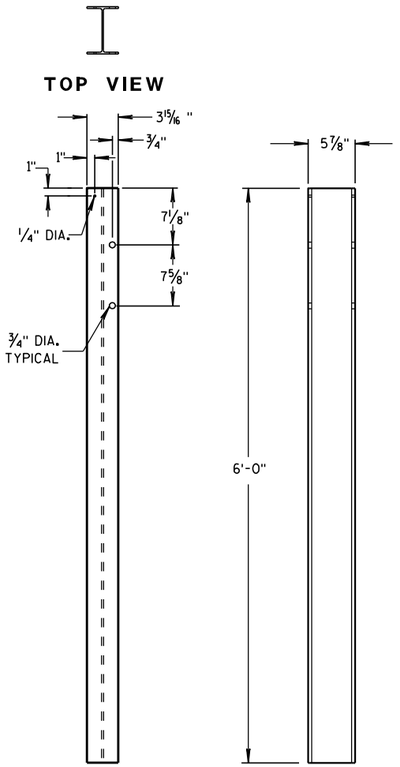
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



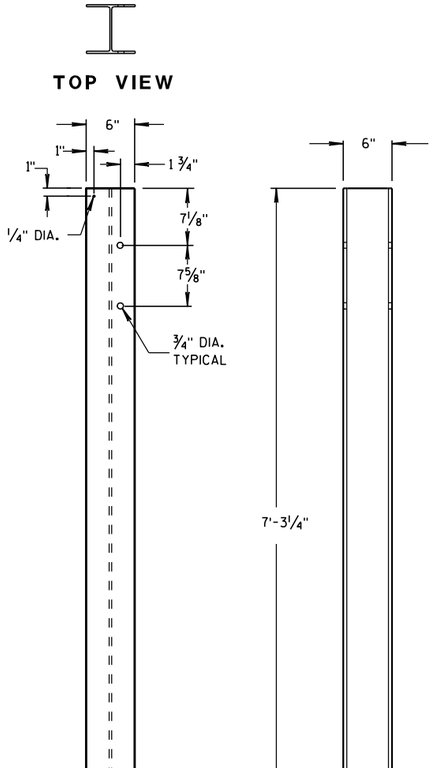
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5



FRONT VIEW SIDE VIEW

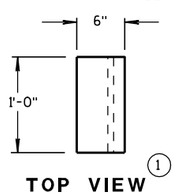
STEEL POSTS 6-11



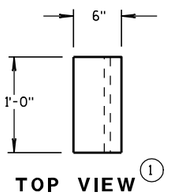
FRONT VIEW SIDE VIEW

STEEL POSTS 12-14

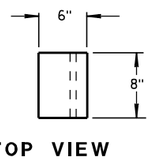
(1) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



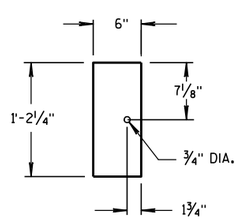
TOP VIEW (1)



TOP VIEW (1)

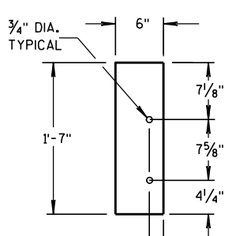


TOP VIEW



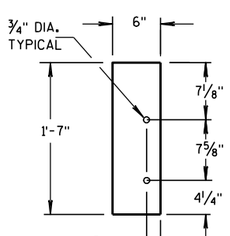
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

STEEL POST SIZES

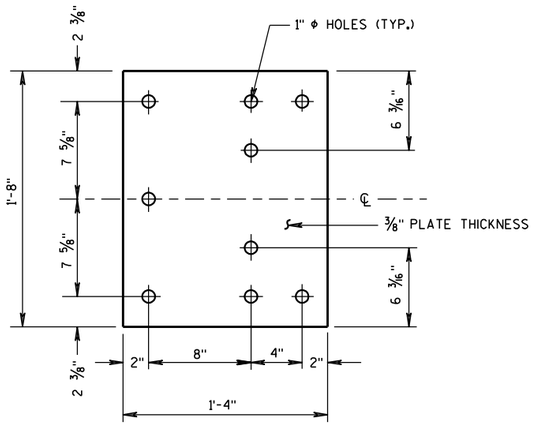
POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

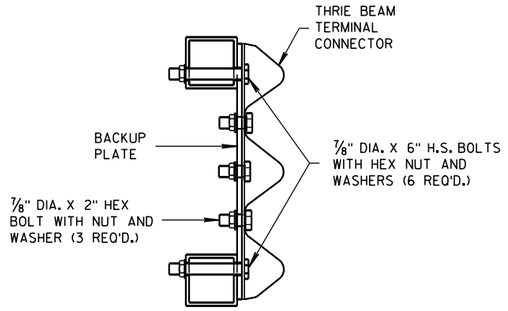
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-2c



BACK-UP PLATE DETAIL

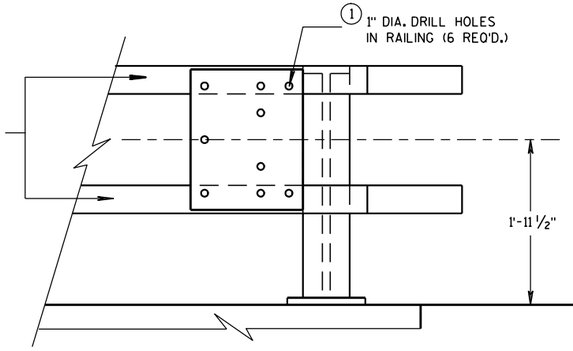


SECTION J-J

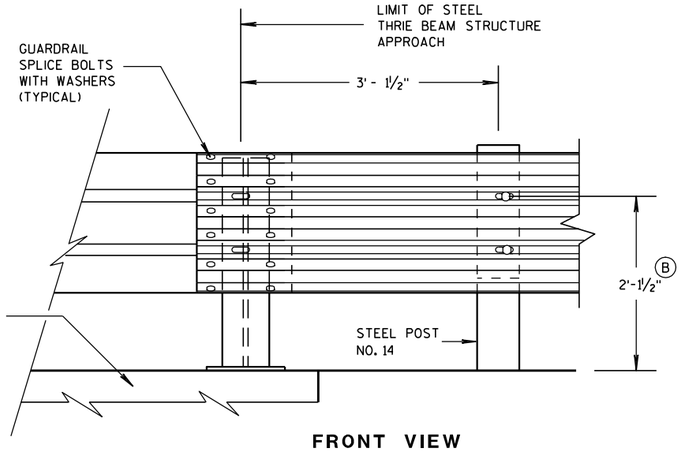
GENERAL NOTES

(1) INCLUDE THE PAYMENT FOR DRILLING HOLES IN RAILING IN THE ITEM "STEEL THRIE BEAM STRUCTURE APPROACH".

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

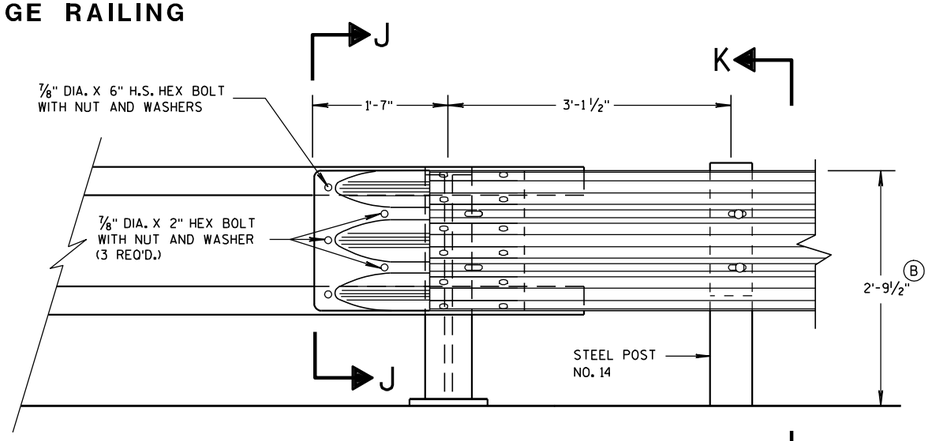


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

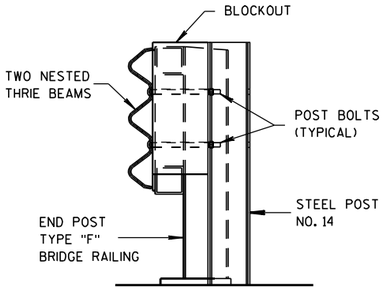


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-8-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]87 ENGINEER
FHWA

6

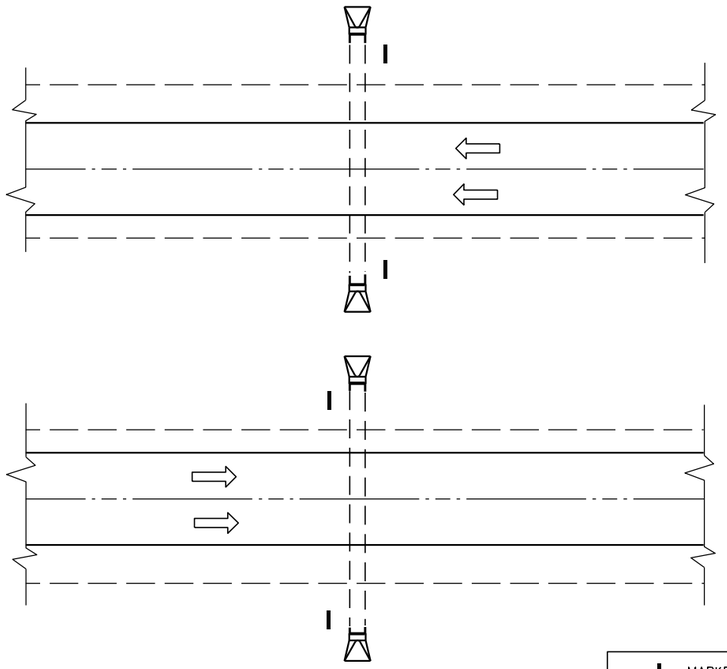
S.D.D. 14 B 45-2g

6

S.D.D. 14 B 45-2g

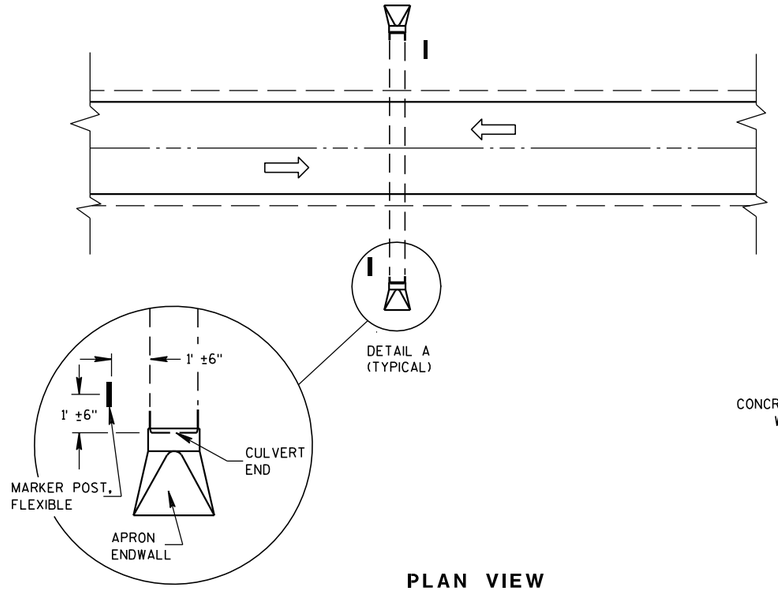
GENERAL NOTES

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

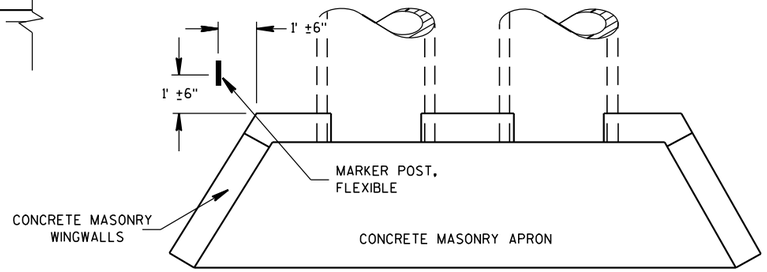
DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY



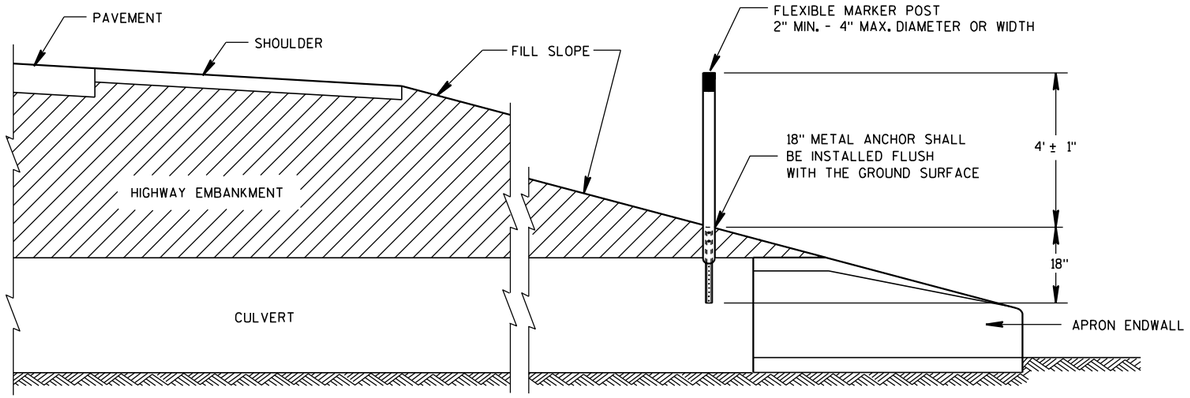
PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

MARKER POST, FLEXIBLE

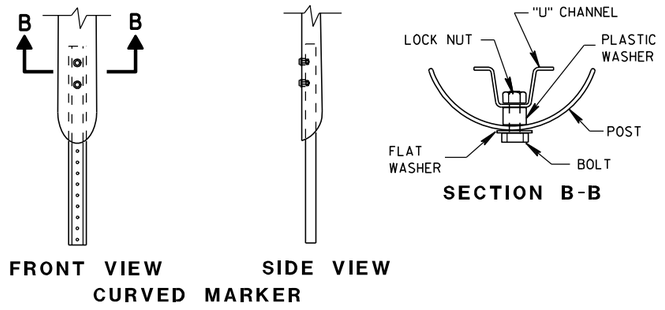
DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION



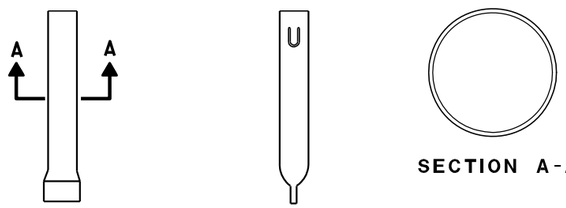
CROSS SECTION

FLEXIBLE MARKER POST



FRONT VIEW SIDE VIEW
CURVED MARKER

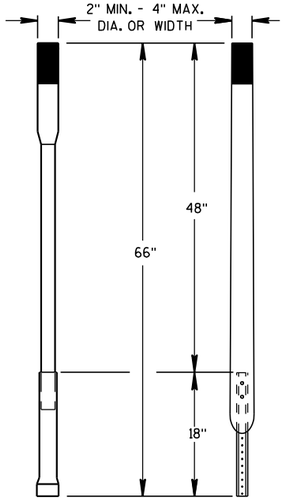
SECTION B-B



FRONT VIEW SIDE VIEW
ROUND MARKER

SECTION A-A

FLEXIBLE MARKER POST ANCHORS



ALTERNATE 1 ALTERNATE 2

FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE, FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98
DATE

/S/ Rory L. Rhinesmith
CHEIF ROADWAY DEVELOP 88 INEER

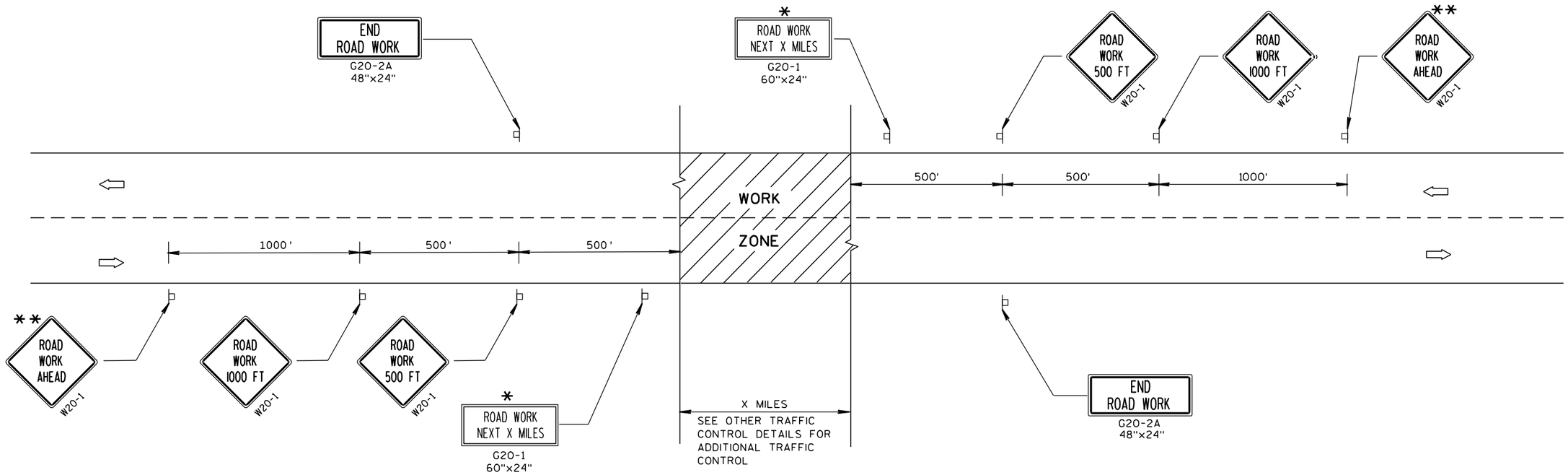
FHWA

6

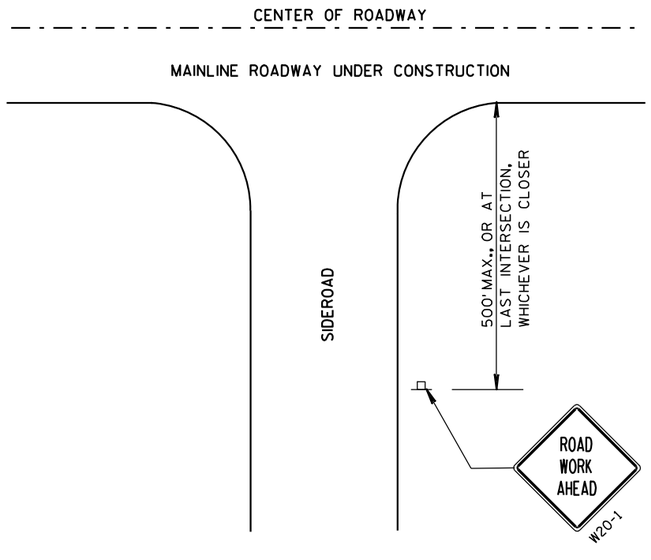
S.D.D. 15 A 3-1

6

S.D.D. 15 A 3-1



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 OR SIGNING.

LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

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

5/23/00 DATE

/S/ Chester J. [illegible] CHIEF SIGNS AND MARK[illegible]NEER

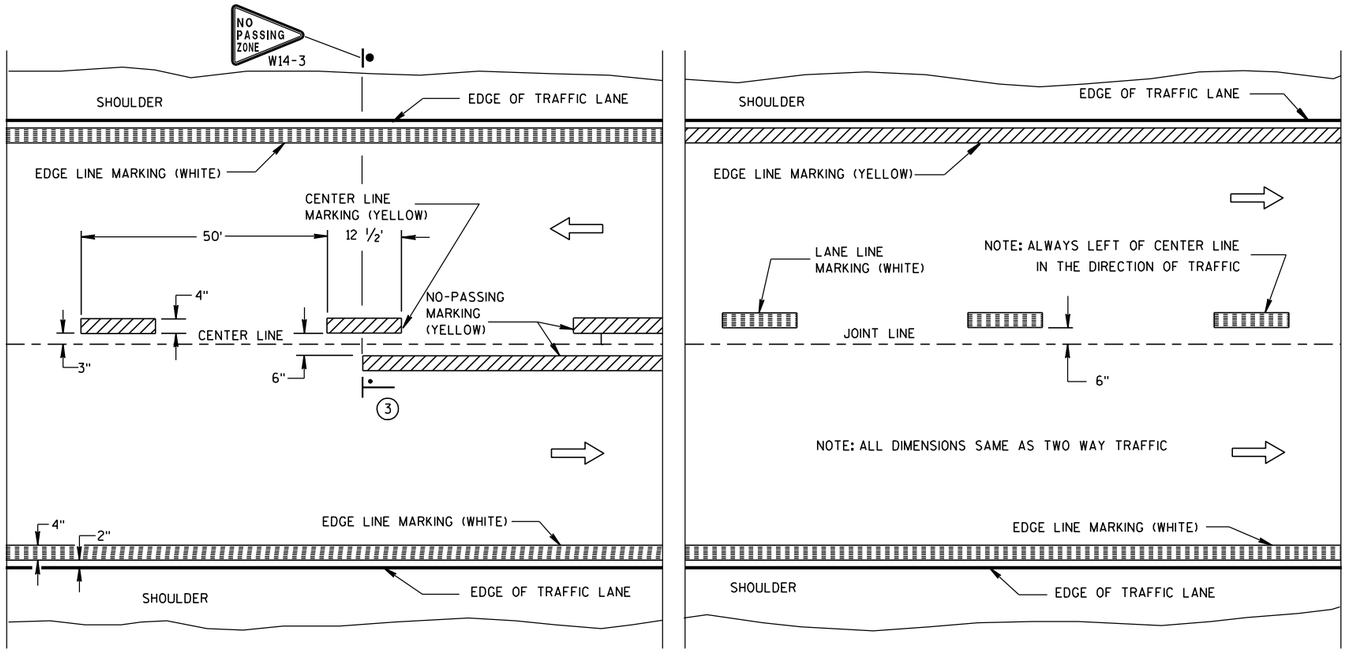
FHWA

6

S.D.D. 15 C 4-1

6

S.D.D. 15 C 4-1



TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

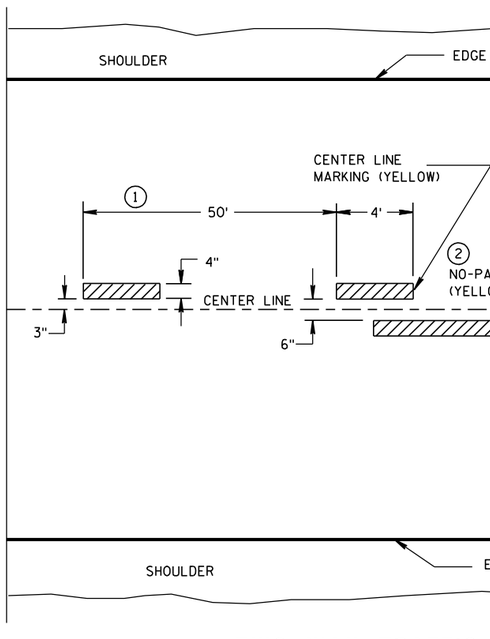
GENERAL NOTES

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

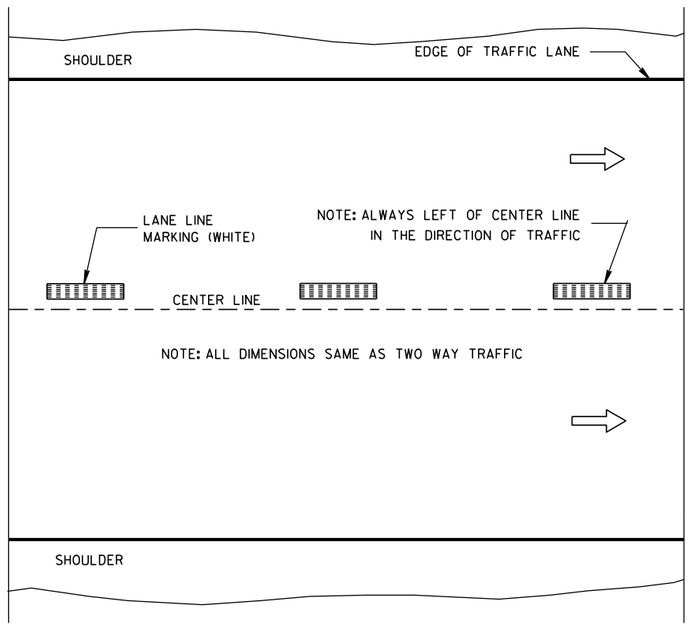
1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING 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.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



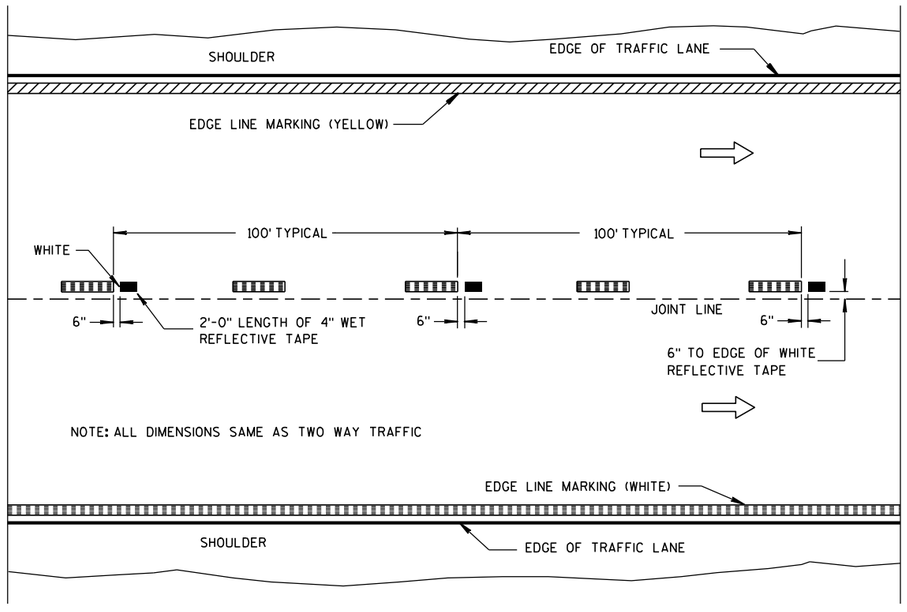
TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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



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
6-23-11 DATE
/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER

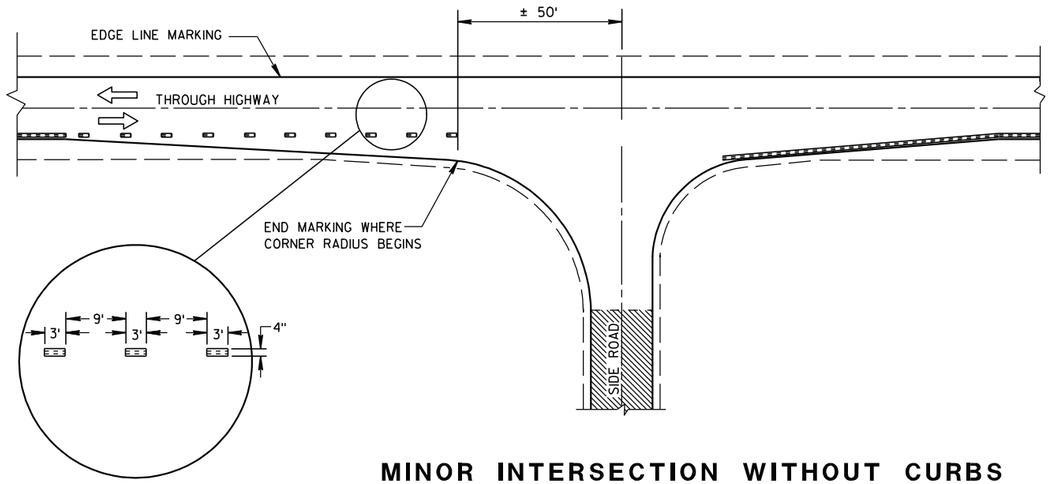
FHWA

6

S.D.D. 15 C 8-14a

6

S.D.D. 15 C 8-14a



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.

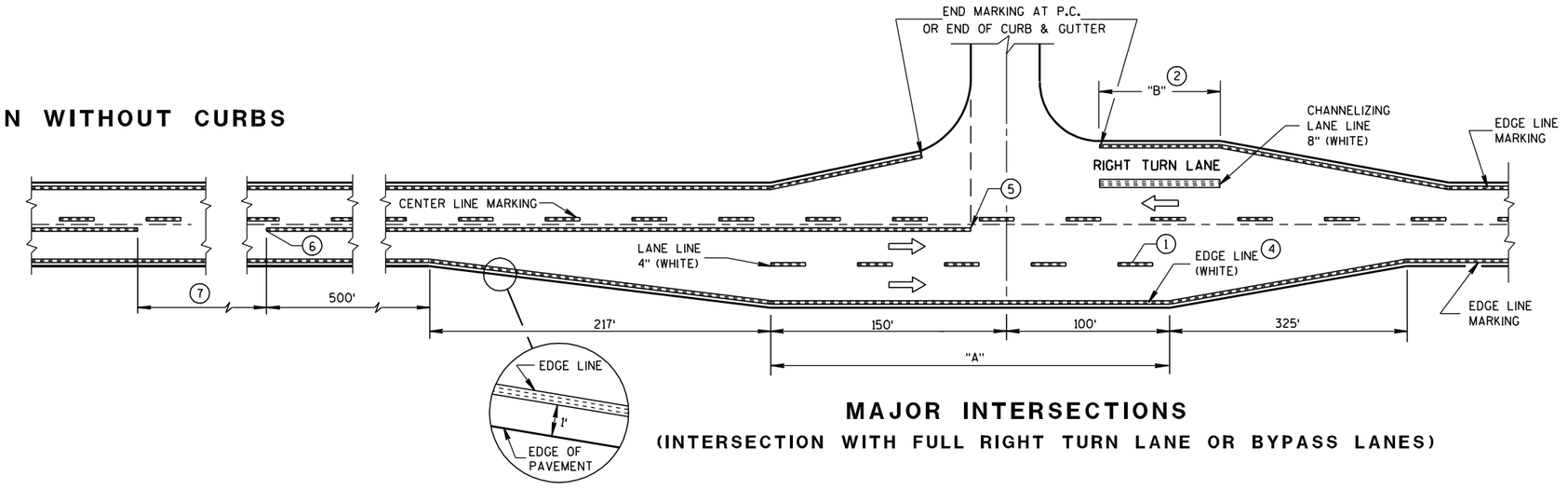
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

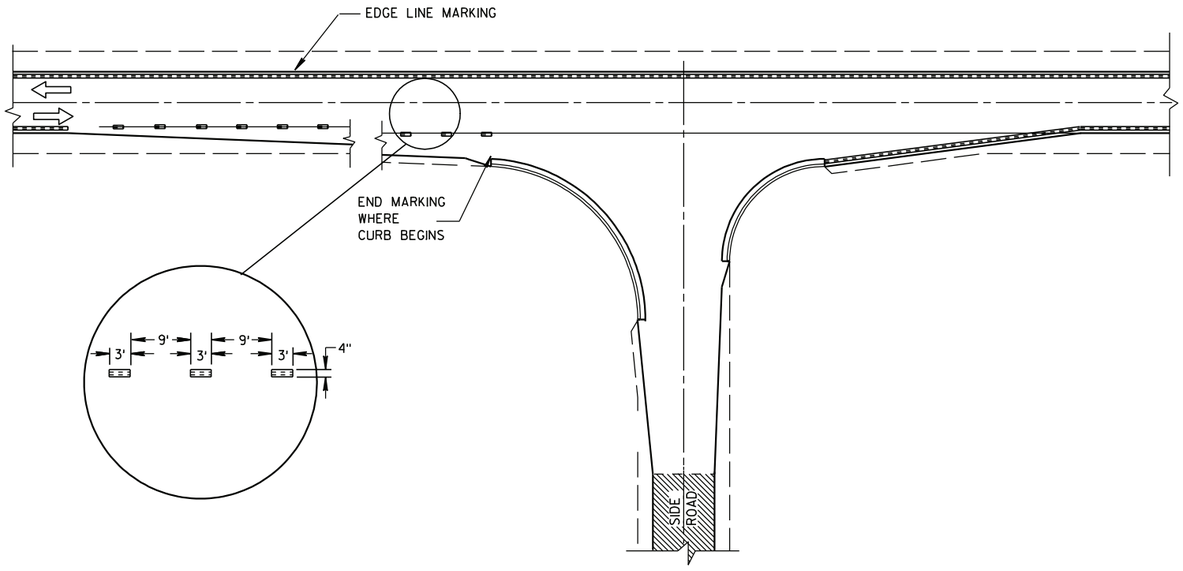
ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

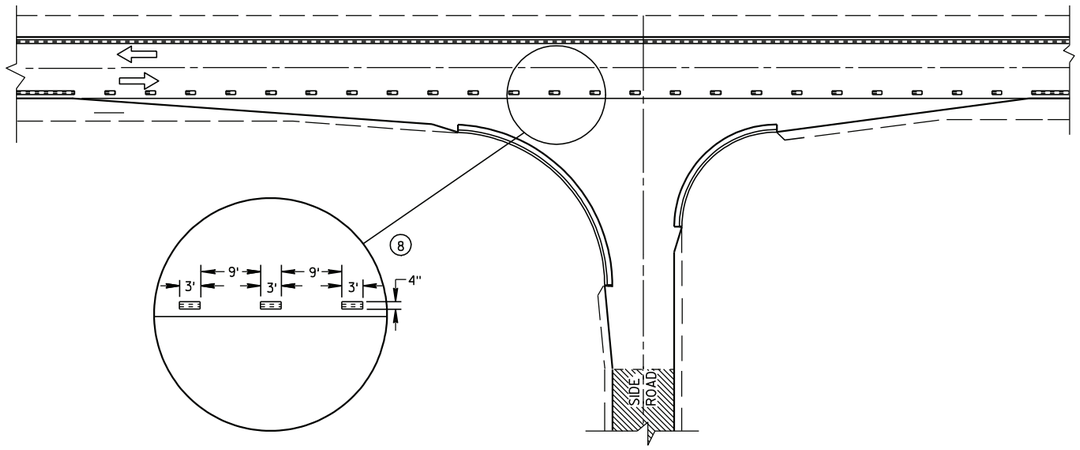
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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)

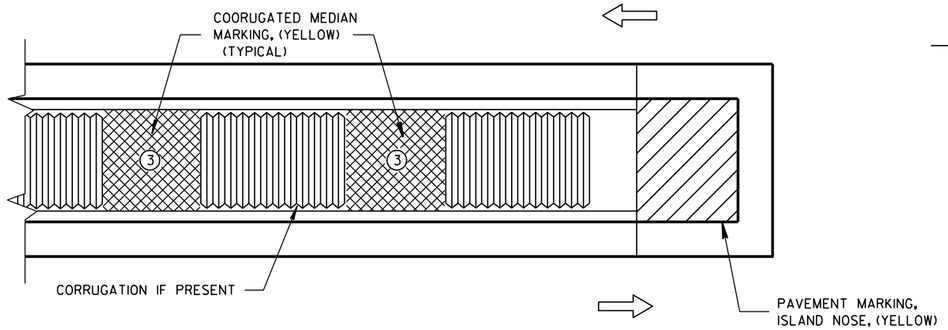
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

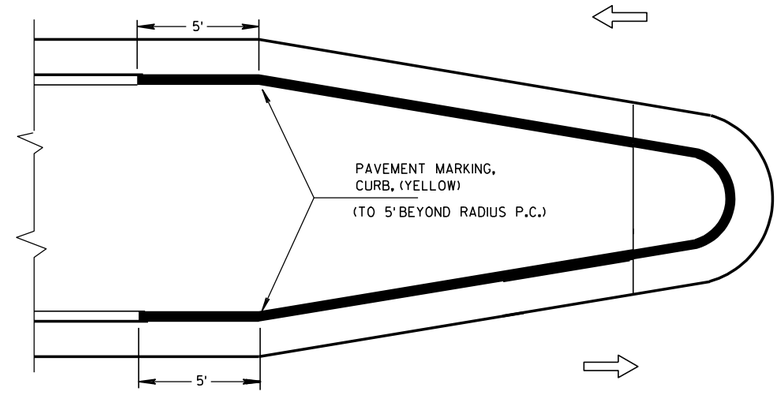
S.D.D. 15 C 8-14b

6

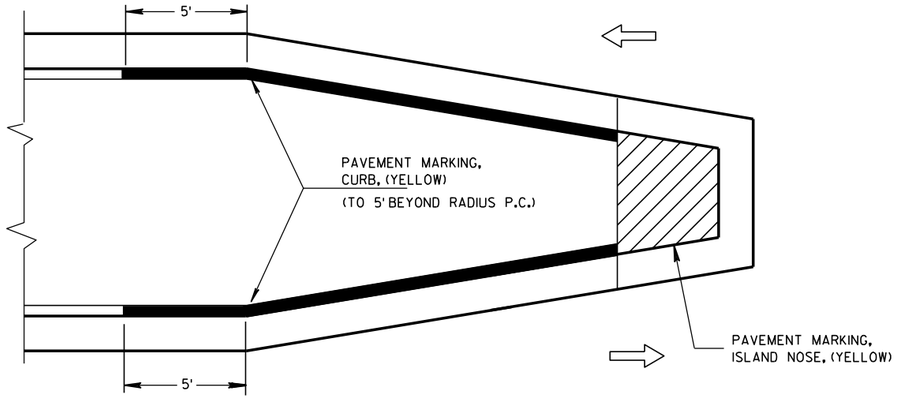
S.D.D. 15 C 8-14b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

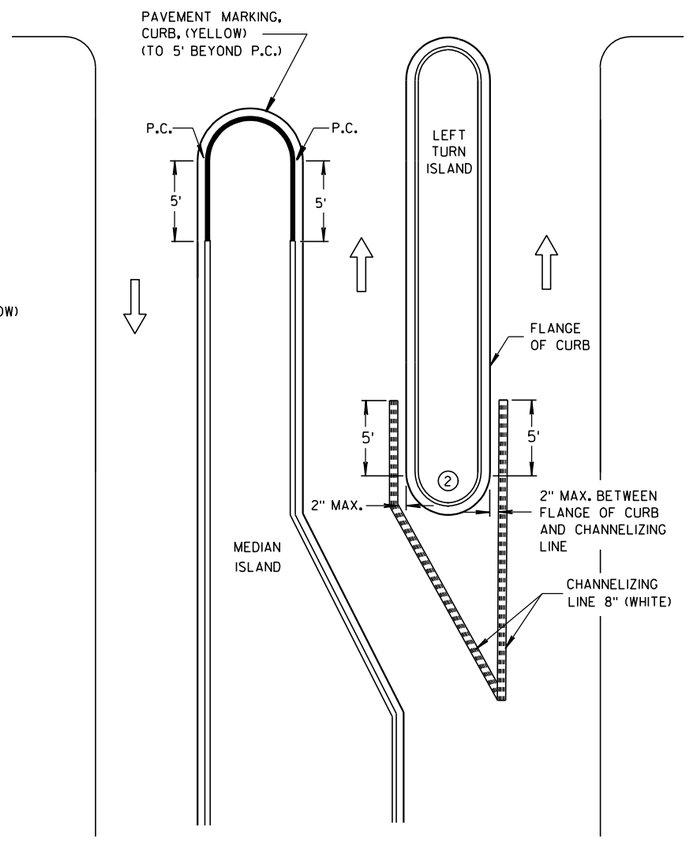


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

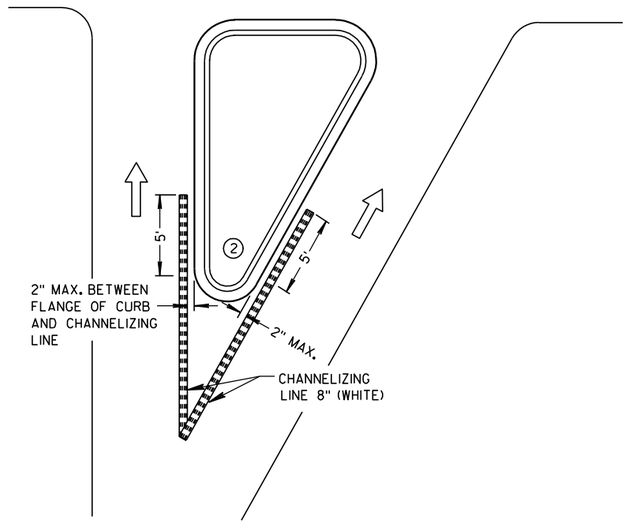
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



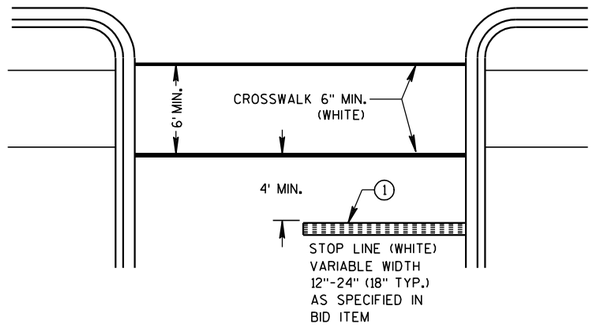
LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. STOP LINE IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
3. 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



STOP LINE AND CROSSWALK

LEGEND

- ISLAND NOSE MARKING
- CURB MAKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS, STOP LINE & CROSS WALK)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-14f

6

S.D.D. 15 C 8-14f

TWO-LANE ROADWAY

SYMBOLS

WORK AREA

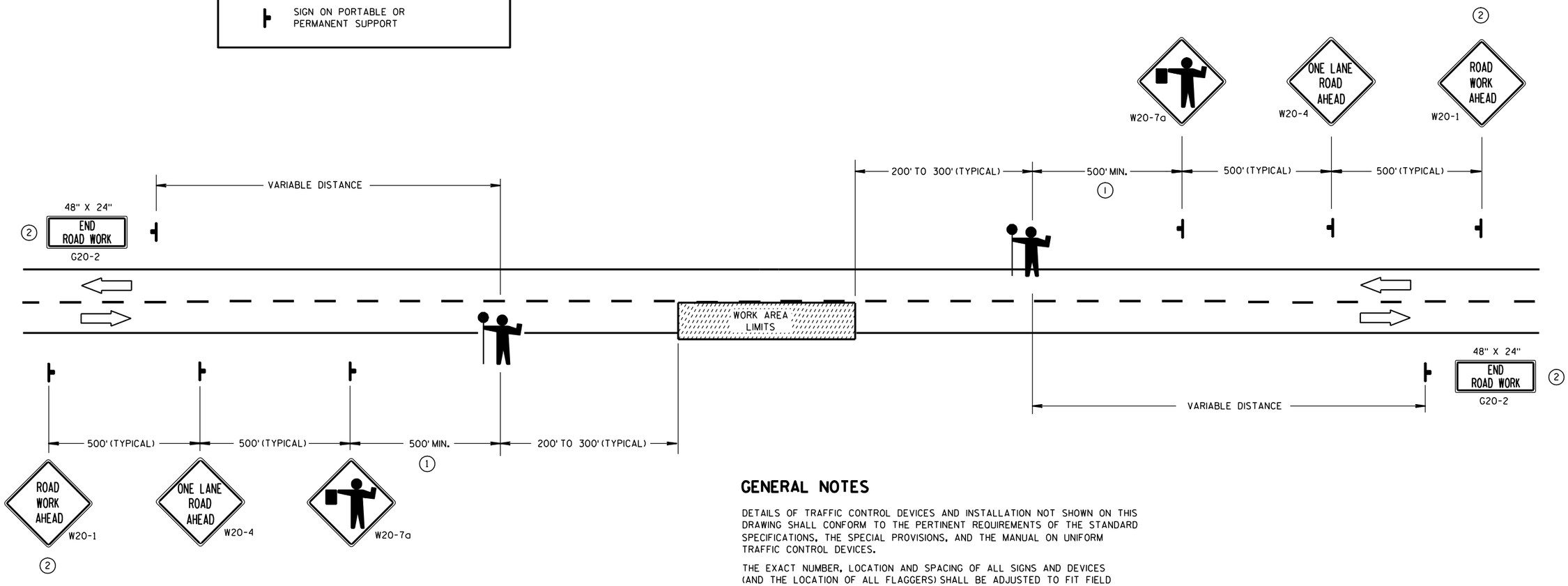
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT



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, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

9/5/06 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

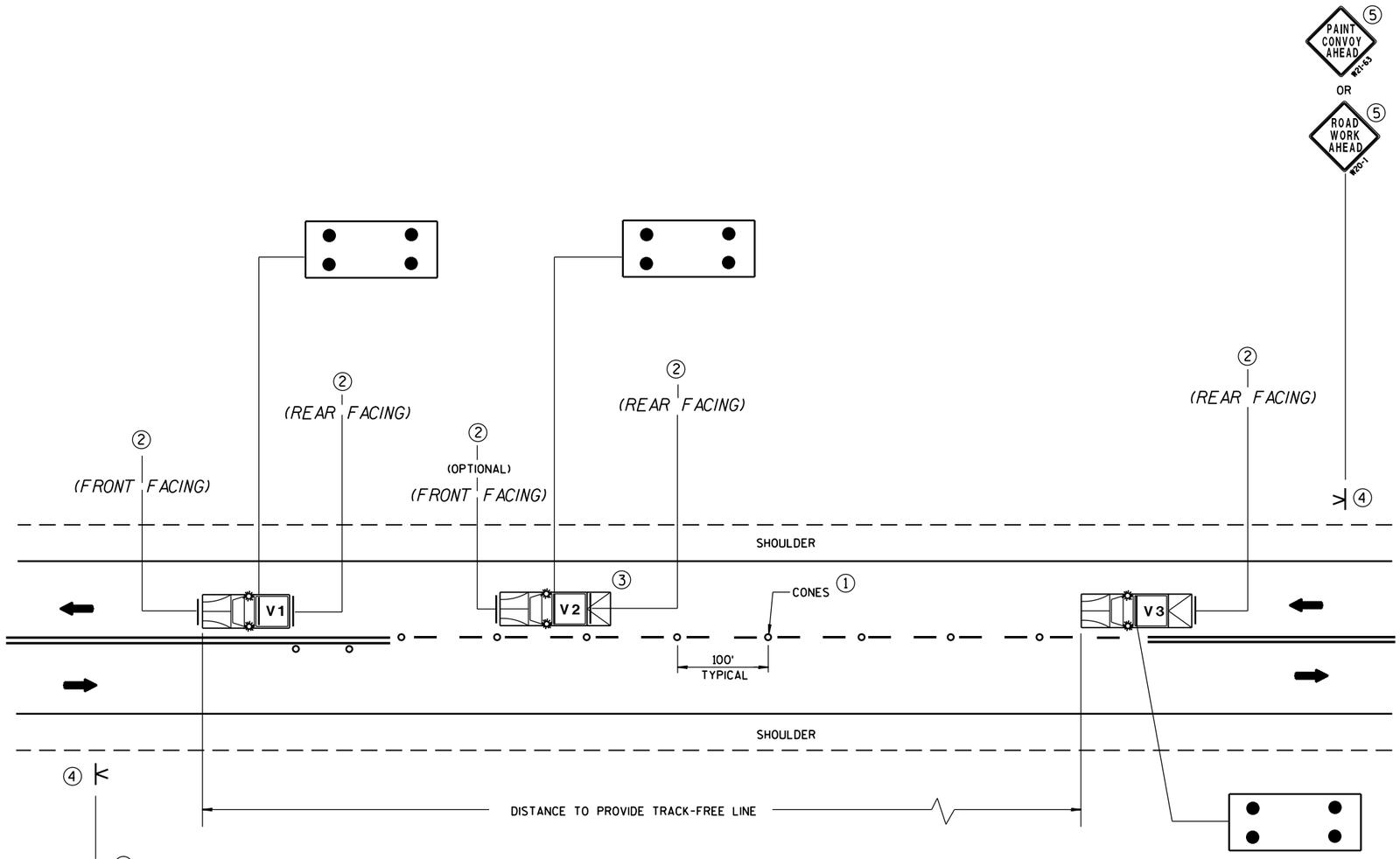
FHWA

6

S.D.D. 15 C 12-3

6

S.D.D. 15 C 12-3



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 PORTABLE SUPPORT
- DIRECTION OF TRAVEL
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
12/6/2011 DATE	/S/ Thomas N. Notbohm STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 19-1a

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.

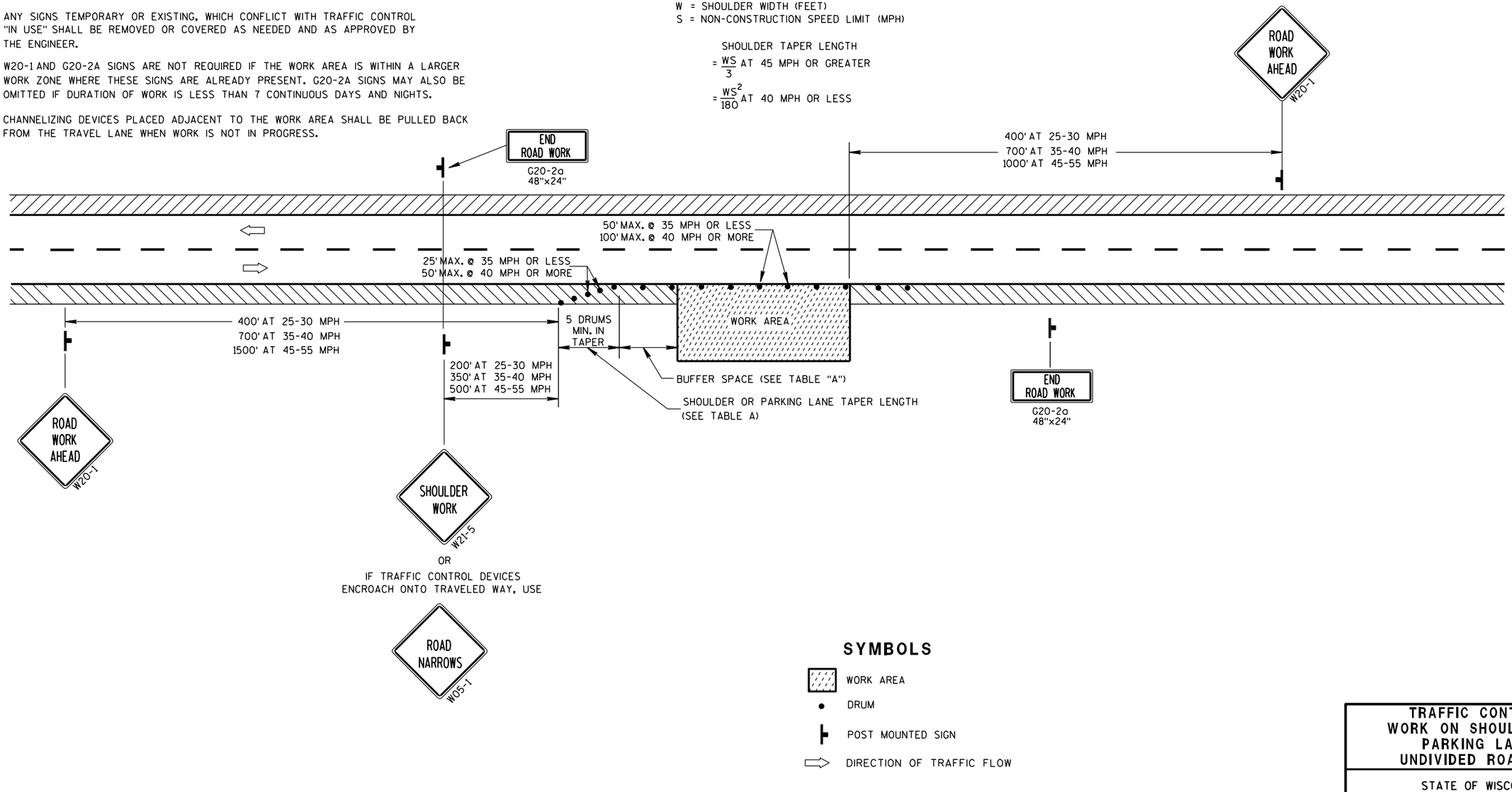
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

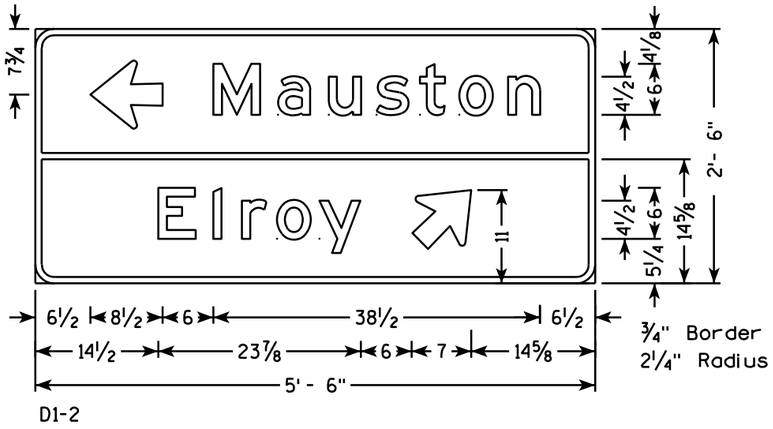
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

6

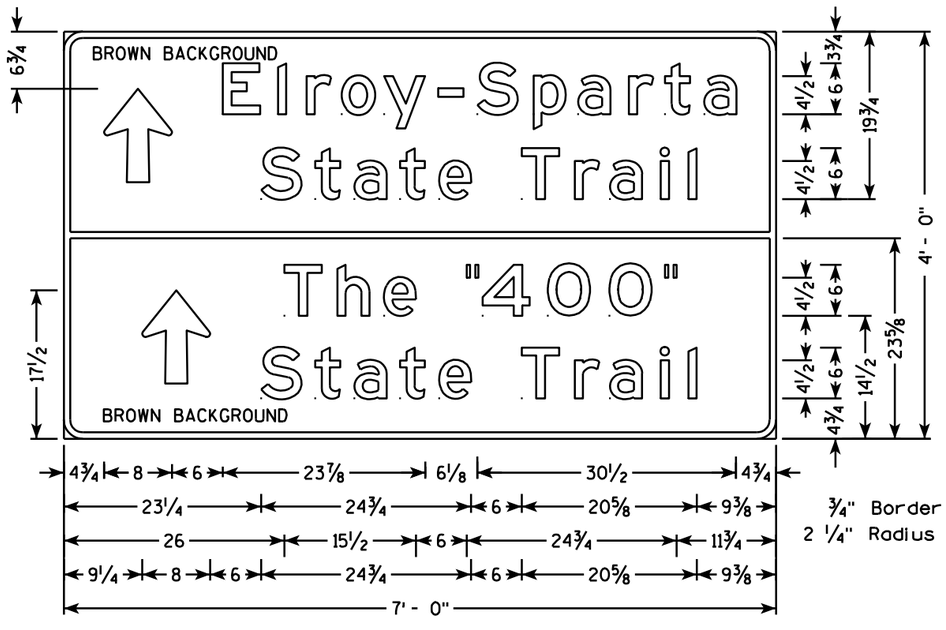
S.D.D. 15 D 28-1



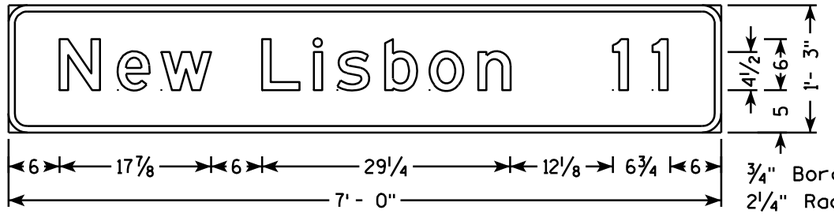
D1-2

NOTES

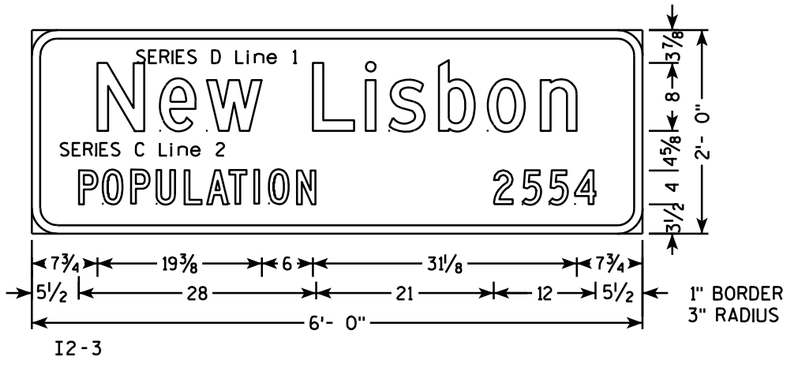
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN except as Shown
   Message - WHITE
3. Message Series - E except as Shown



D1-4



D2-1



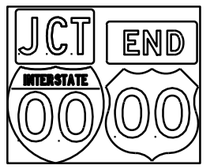
I2-3

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	PERMANENT SIGNING	SHEET NO: 96	E

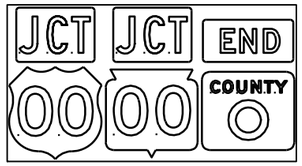
TYPICAL ASSEMBLIES



J1-1



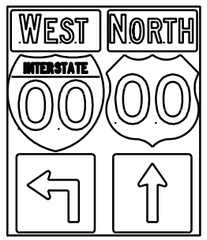
J1-2



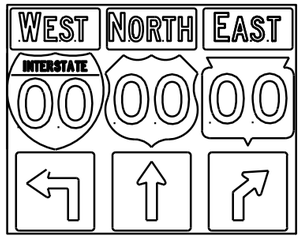
J1-3



J2-1



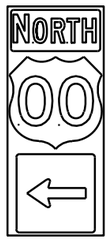
J2-2



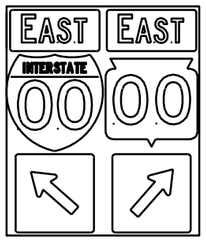
J2-3



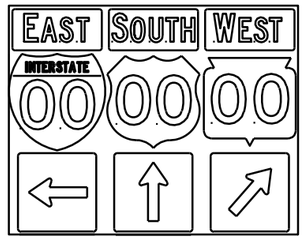
JV



J3-1



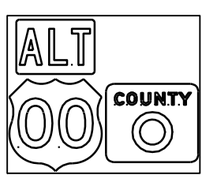
J3-2



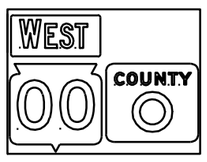
J3-3



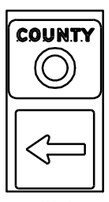
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



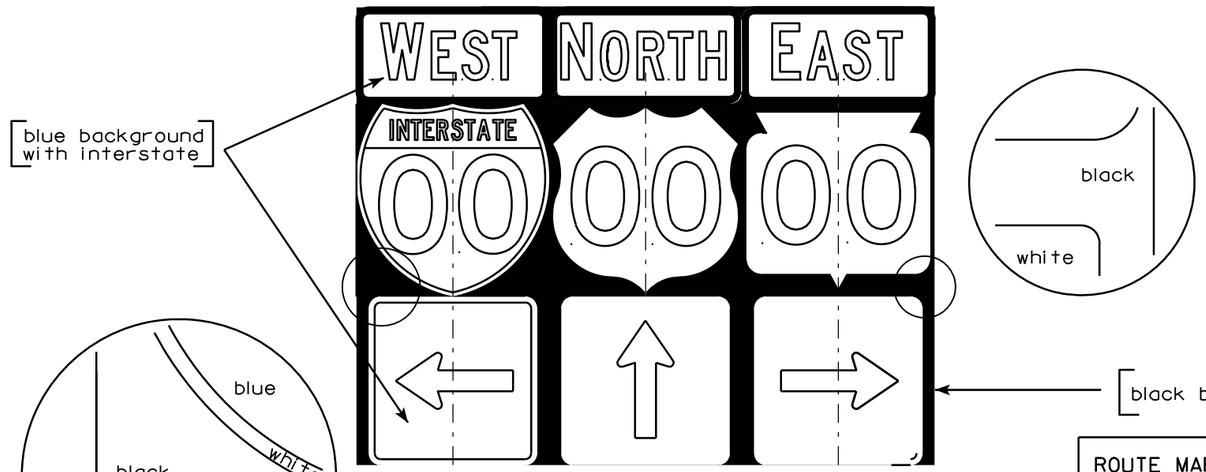
J23-1



J22-1

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 since base material is plywood.
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.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

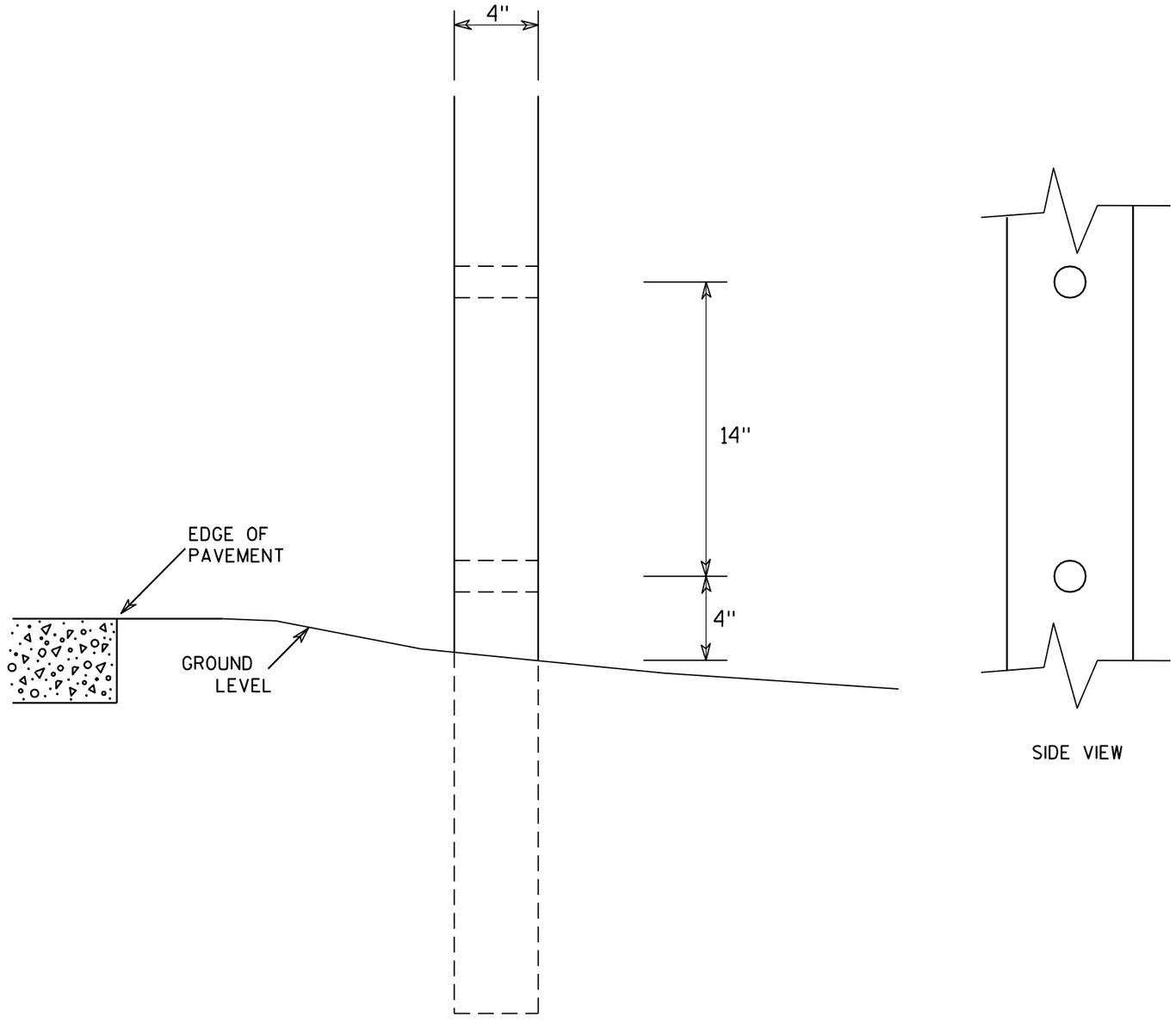
DATE 10/21/09 PLATE NO. A2-1S.6

7

7

PROJECT NO:

SHEET NO: 97 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

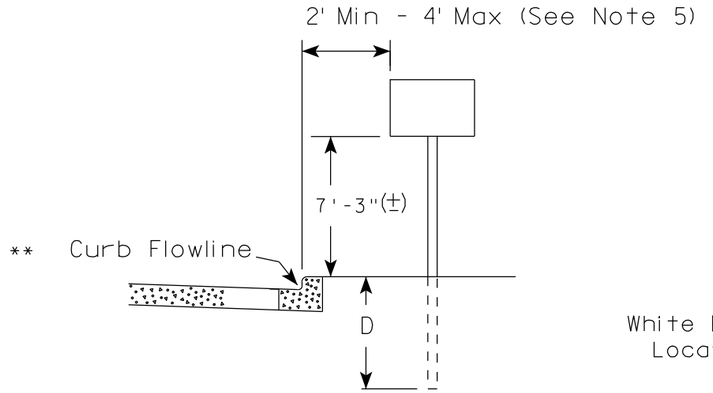
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

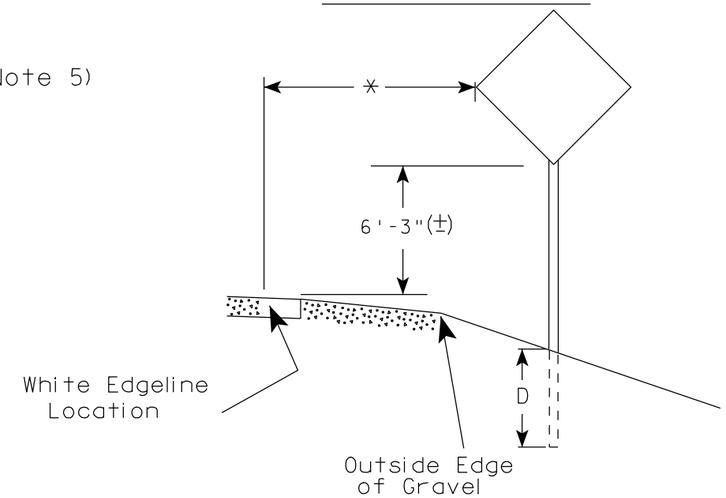
DATE 3/27/97 PLATE NO. A4-11.2

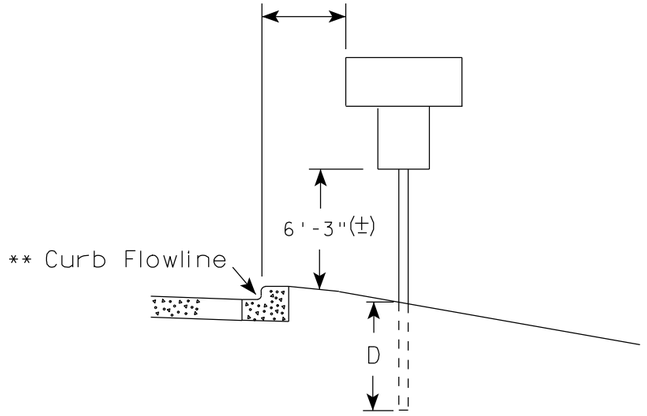
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E

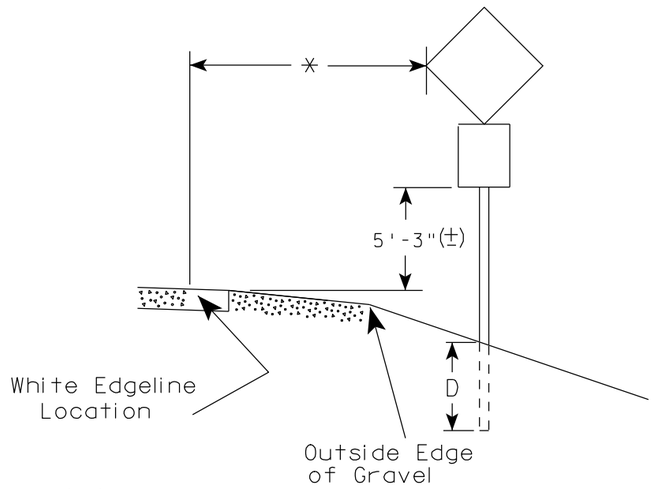
URBAN AREA



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.

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

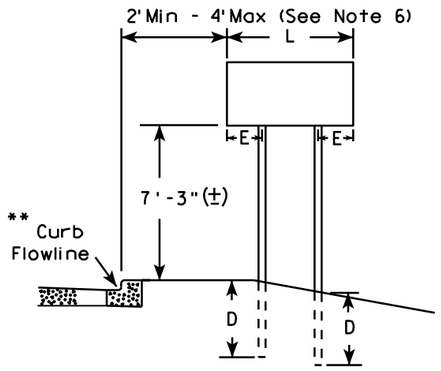
DATE 9/21/2011 PLATE NO. A4-3.16

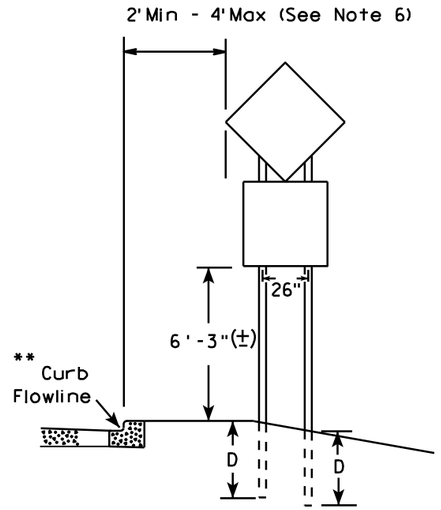
7

7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 99 | E

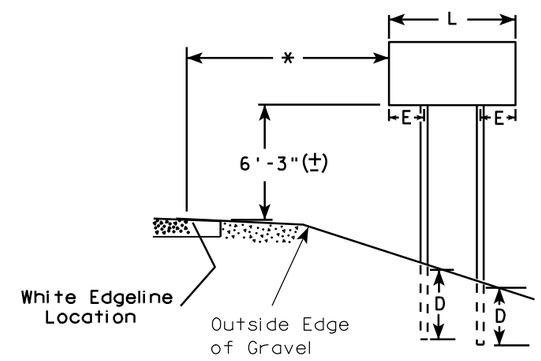
URBAN AREA

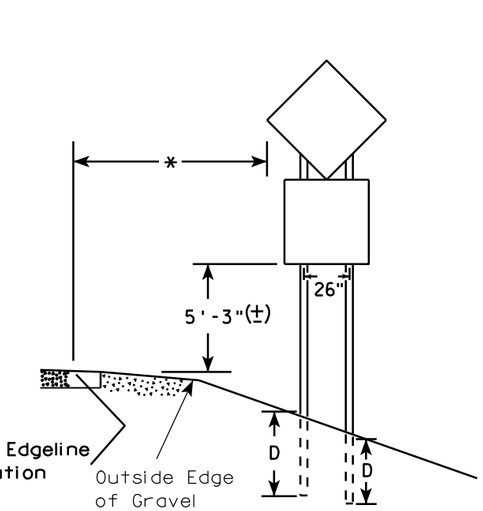




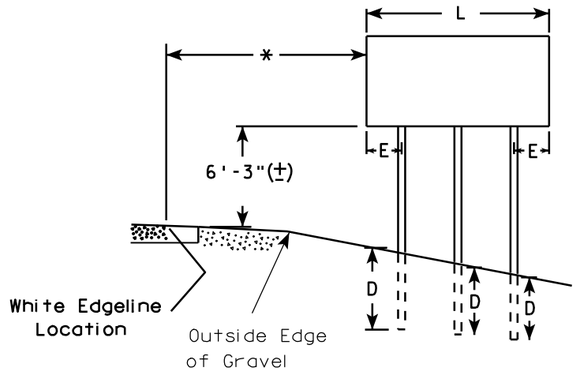
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For multiple 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 (A4-5) 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 stop signs (R1-1F) 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) & End of Road Markers (W5-56 & W5-56A) 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 20 S.F. or less 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'

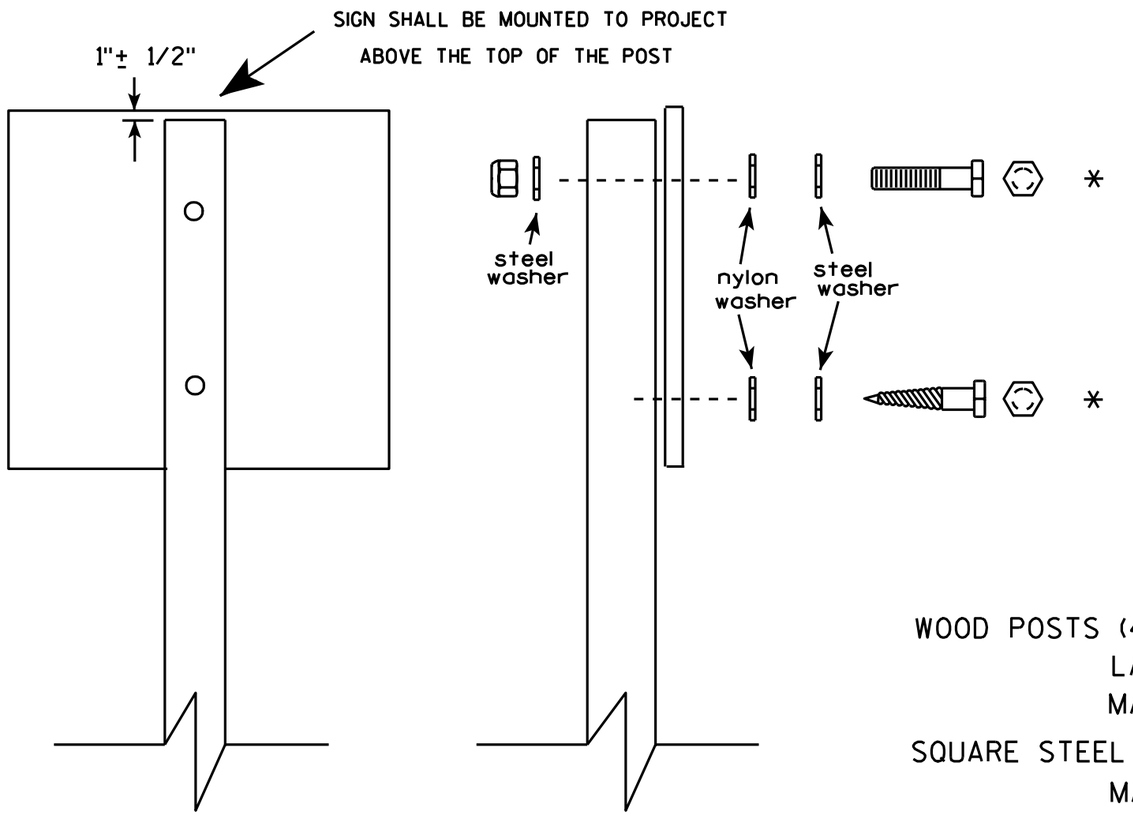
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 100	E



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

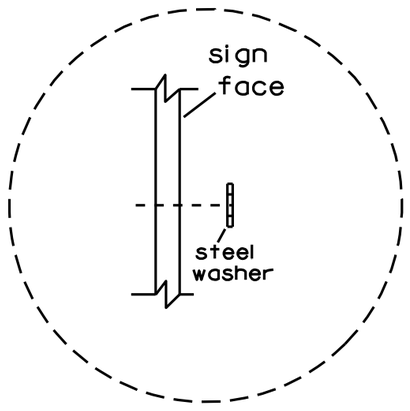
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

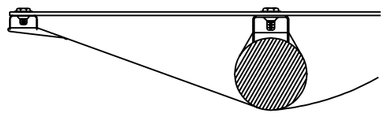
7

7

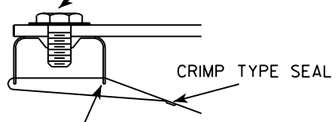
PROJECT NO:

SHEET NO: 101 E

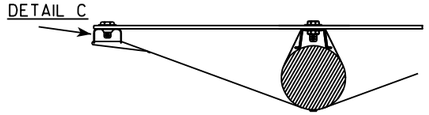
BRACE BANDING

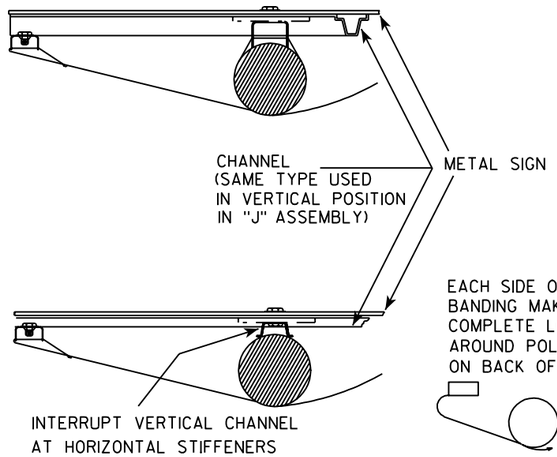


DETAIL C
CADMIUM PLATED STEEL BOLT
THROUGH BLACK BORDER



DETAIL C

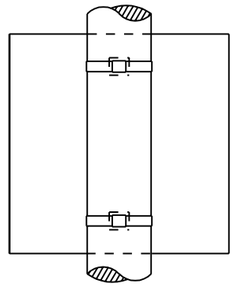


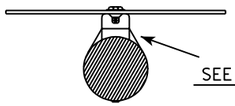


EACH SIDE OF BRACE
BANDING MAKES ONE
COMPLETE LOOP
AROUND POLE-SEAL
ON BACK OF POLE

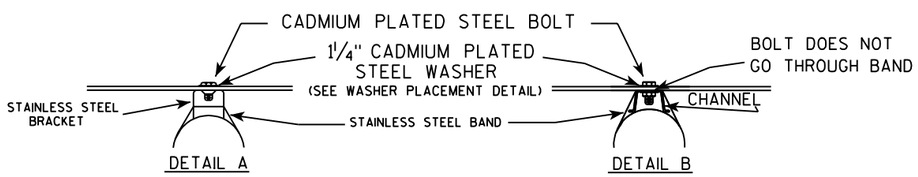
BRACKET BANDING

SINGLE SIGN





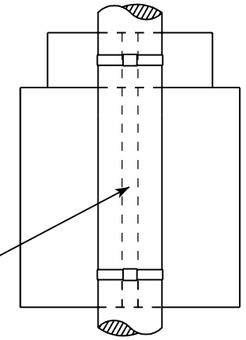
SEE DETAIL A



DETAIL A

DETAIL B

"J" ASSEMBLY

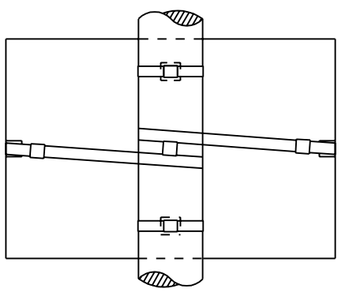


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

SEE DETAIL B

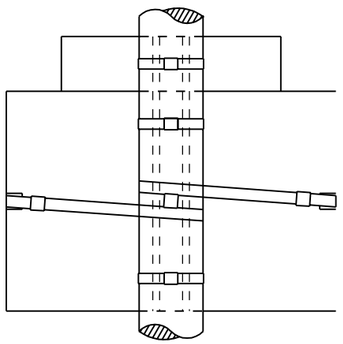
GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

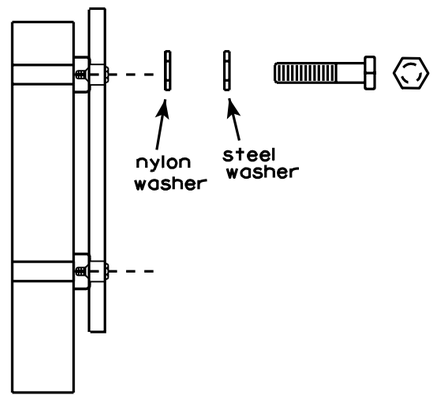


BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY BUT NOT SO TIGHT AS TO APPRECIABLY CURVE FACE OF SIGN.



WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E

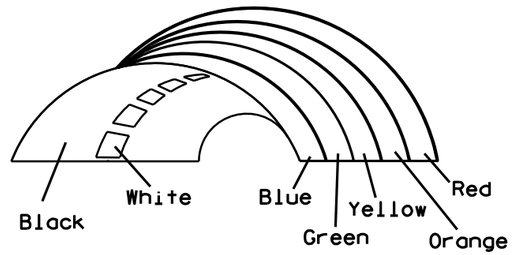


* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

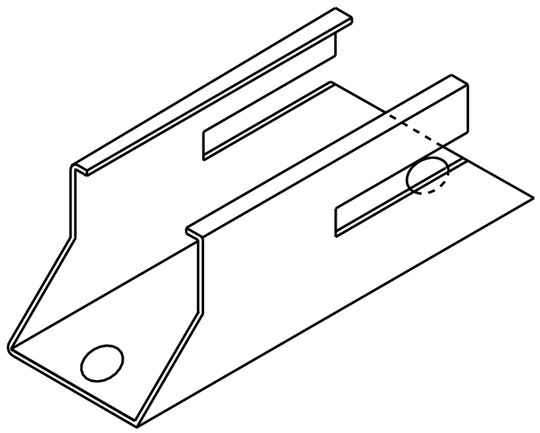
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103

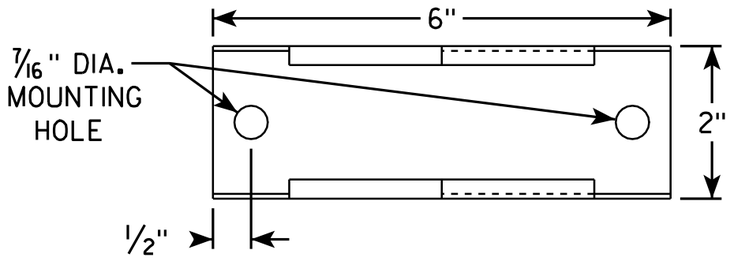
ISOMETRIC VIEW



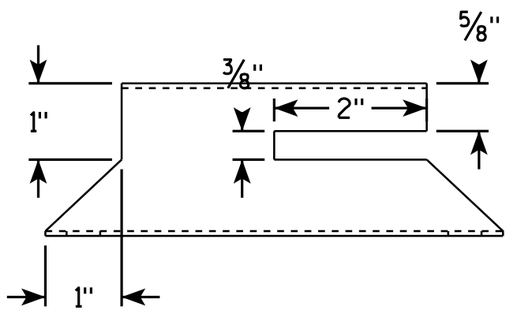
NOTES

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

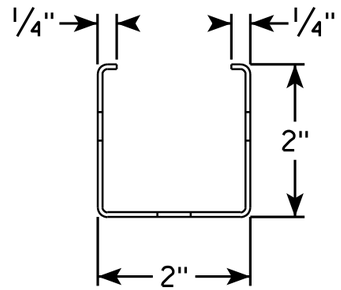
TOP VIEW



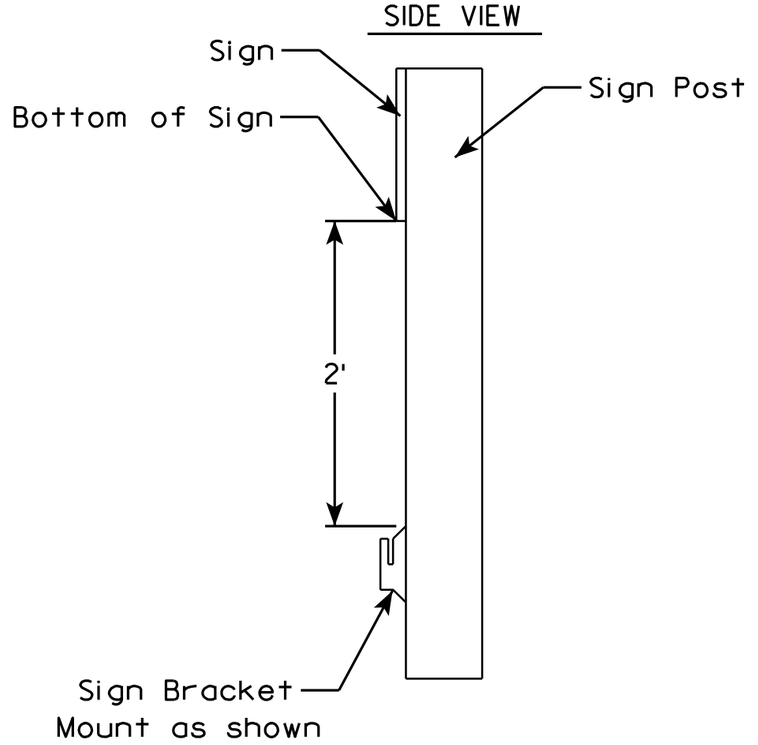
SIDE VIEW



END VIEW



SIDE VIEW



7

7

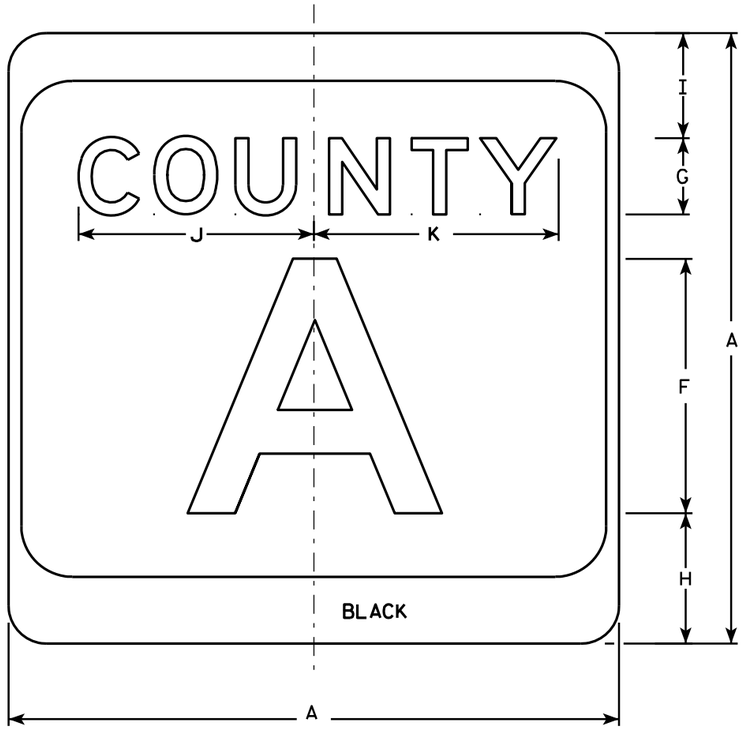
ROLLUP SIGN BRACKET I55-56B

WISCONSIN DEPT OF TRANSPORTATION

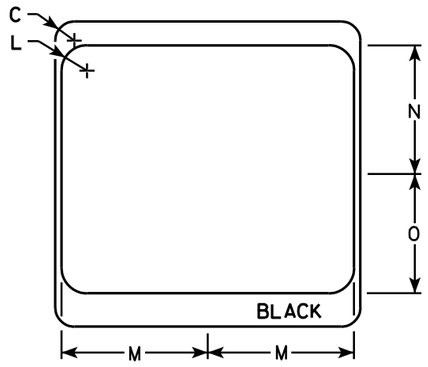
APPROVED Matthew R Rauch for State Traffic Engineer

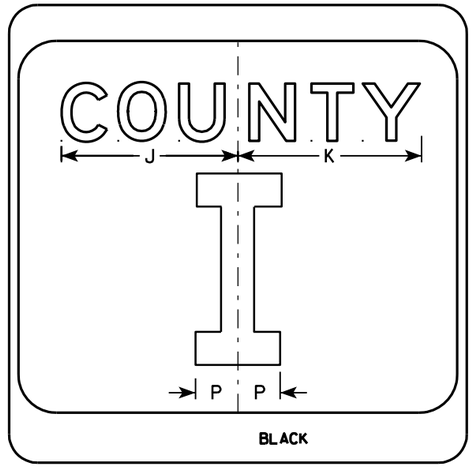
DATE 2/5/10 PLATE NO. I55-56B.1

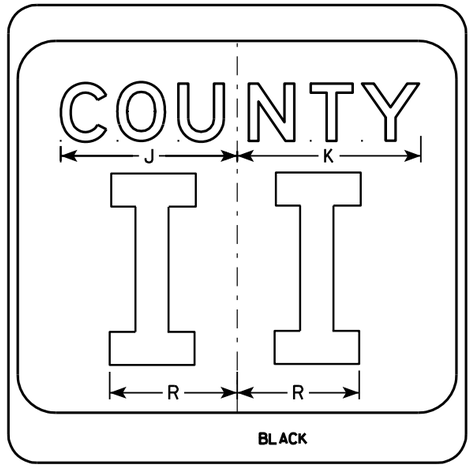
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E



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

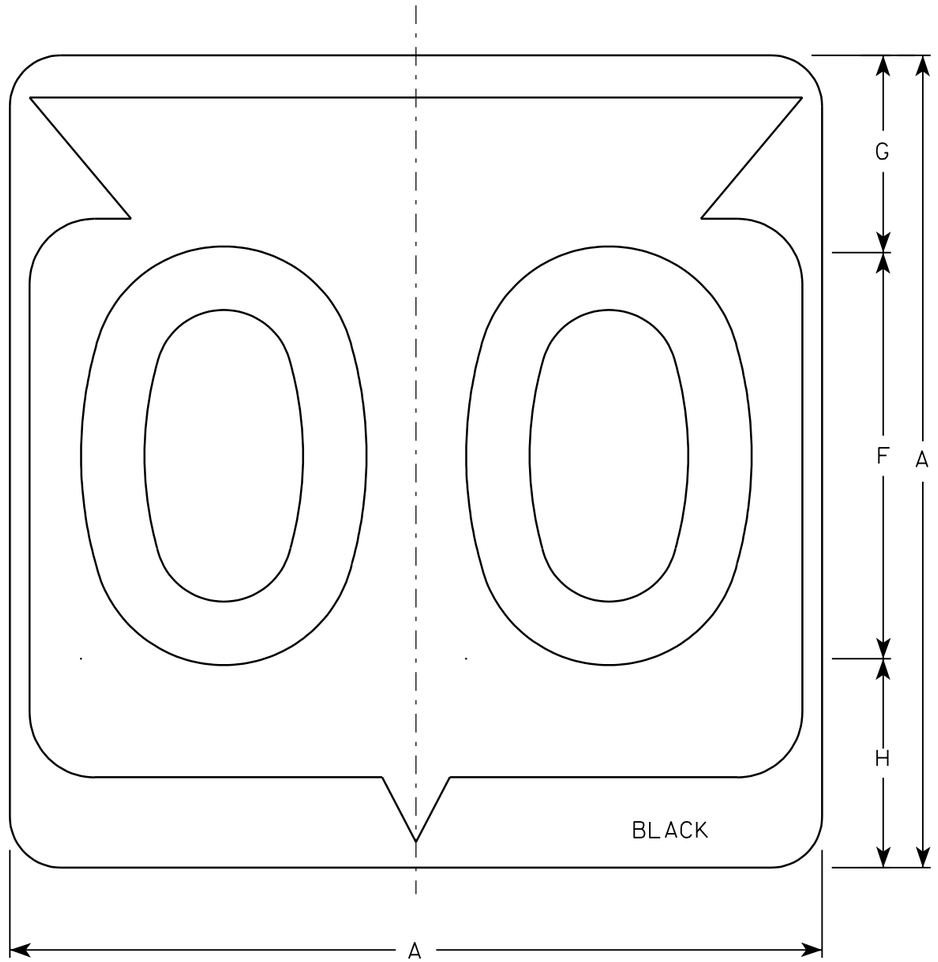
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

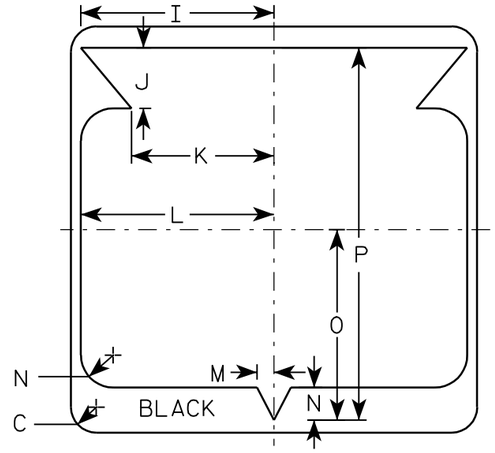
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 105 | E



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

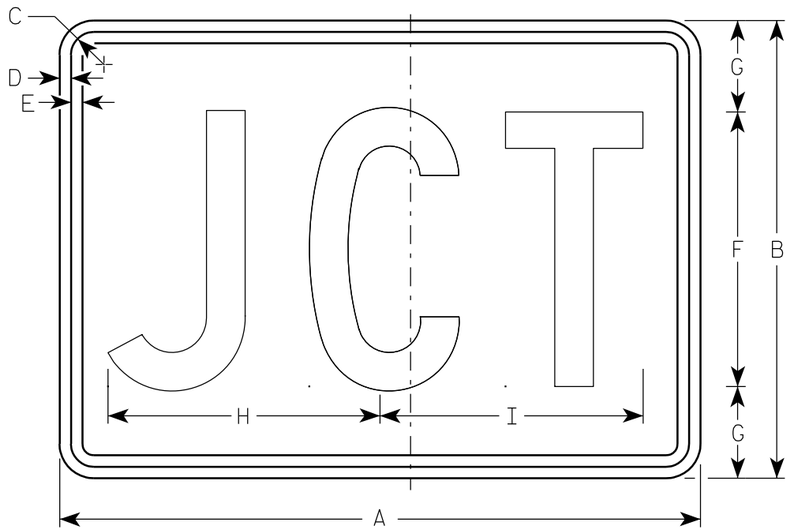
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

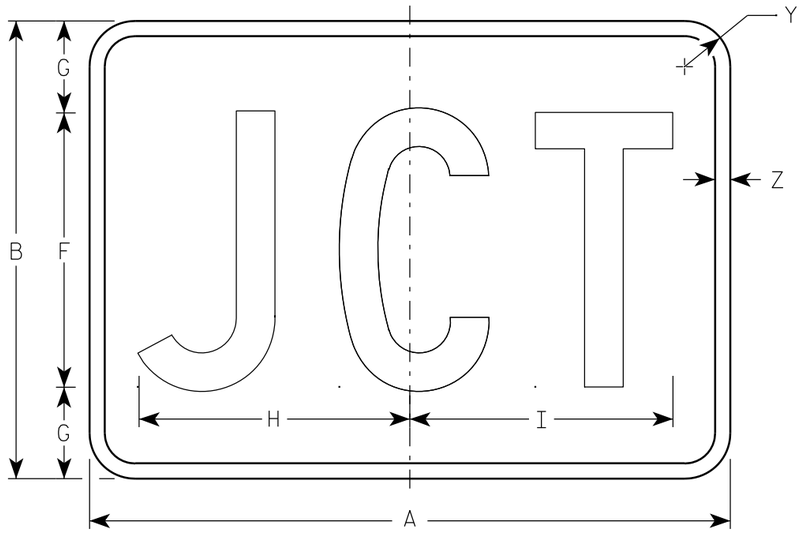
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E



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



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

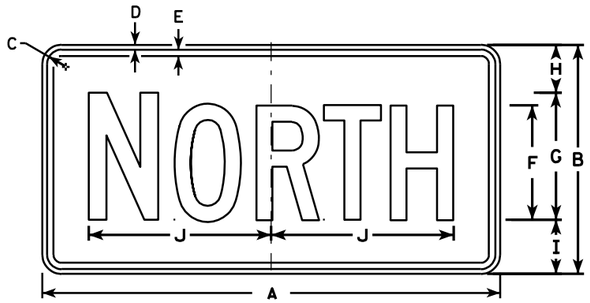
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

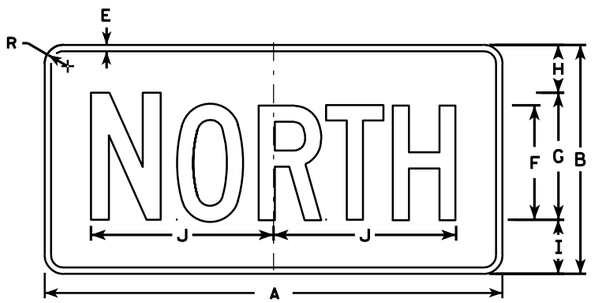
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E



M3-1
MK3-1
MO3-1



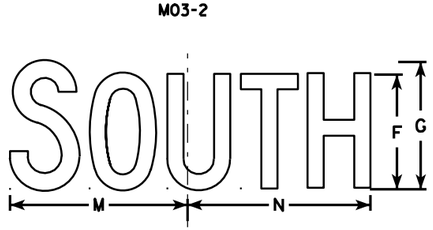
MB3-1
MG3-1
MM3-1
MN3-1



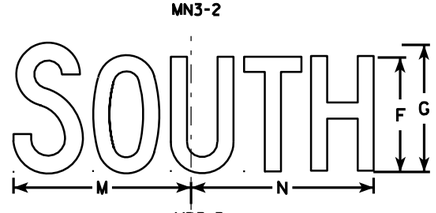
M3-2
MK3-2
MO3-2



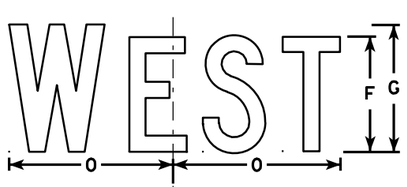
MB3-2
MG3-2
MM3-2
MN3-2



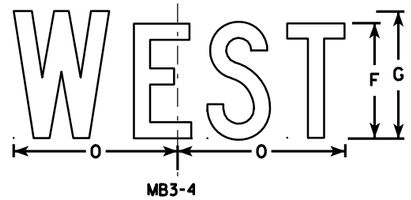
M3-3
MK3-3
MO3-3



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



M3-4
MK3-4
MO3-4



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

NOTES

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

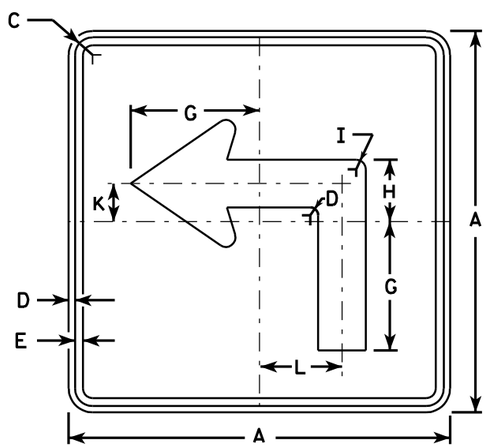
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

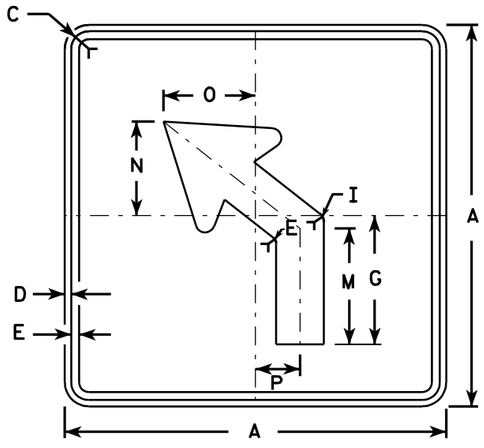
APPROVED Matthew R Rauch for State Traffic Engineer

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

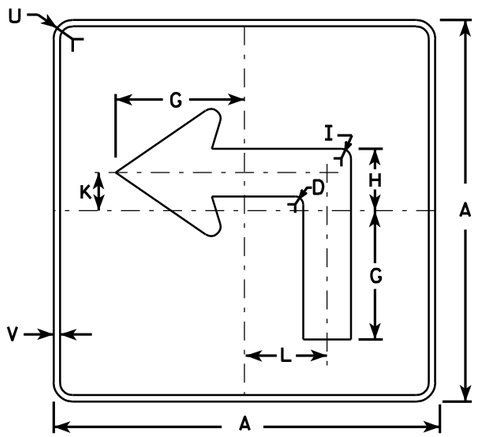
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	E



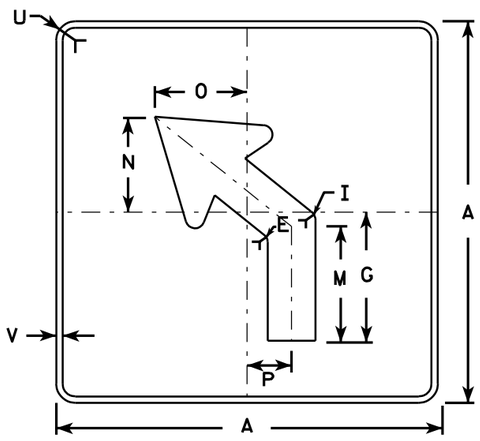
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



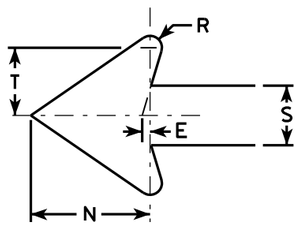
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



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 (Detour or temporary Signs - Reflective) Message - Black
   MB5-1 and MB5-2 Background - Blue Message - White - Type H Reflective (Detour or temporary Signs - 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 - Reflective Message - Black
   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.

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 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	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	0.28
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	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

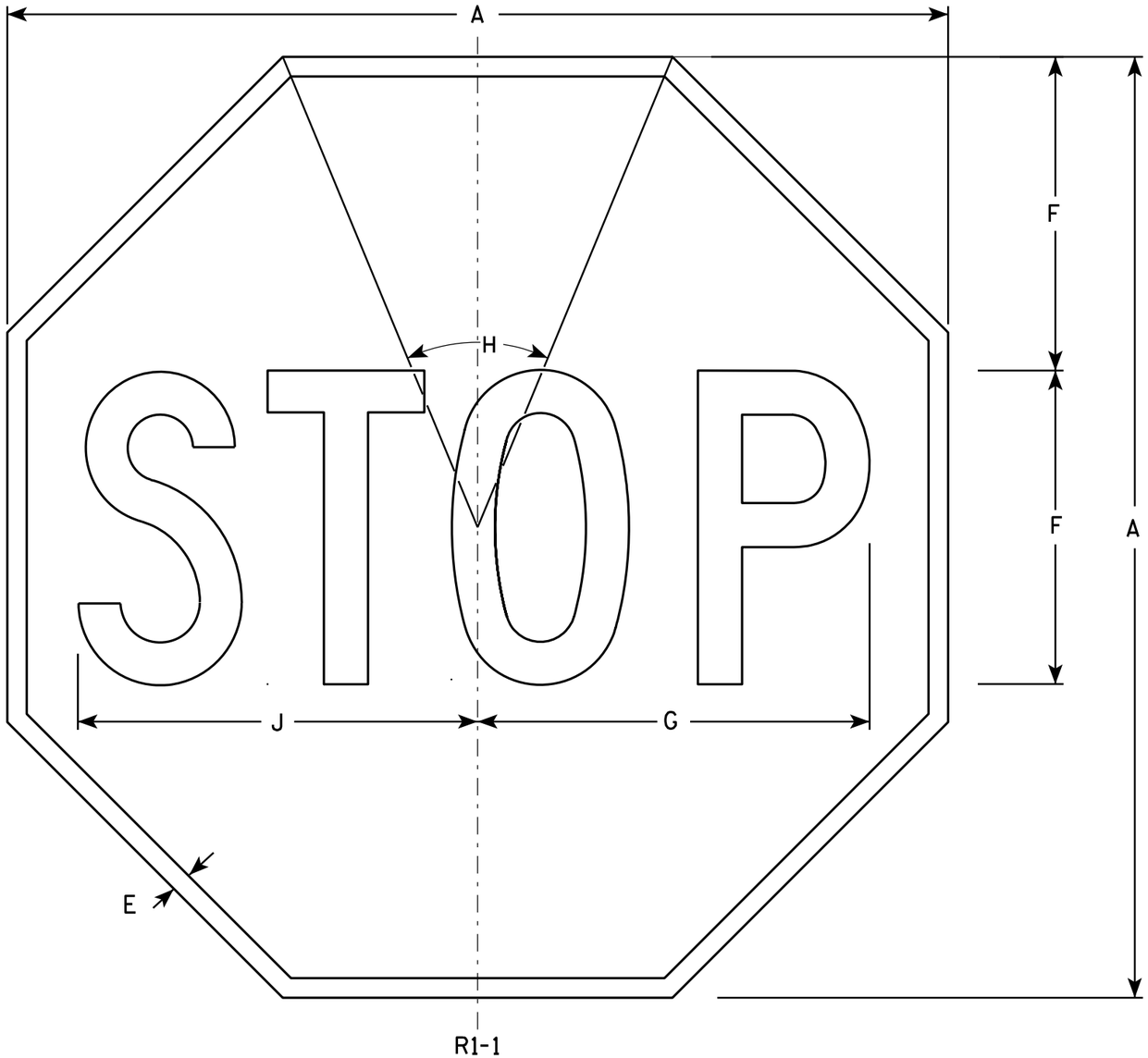
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M5-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	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

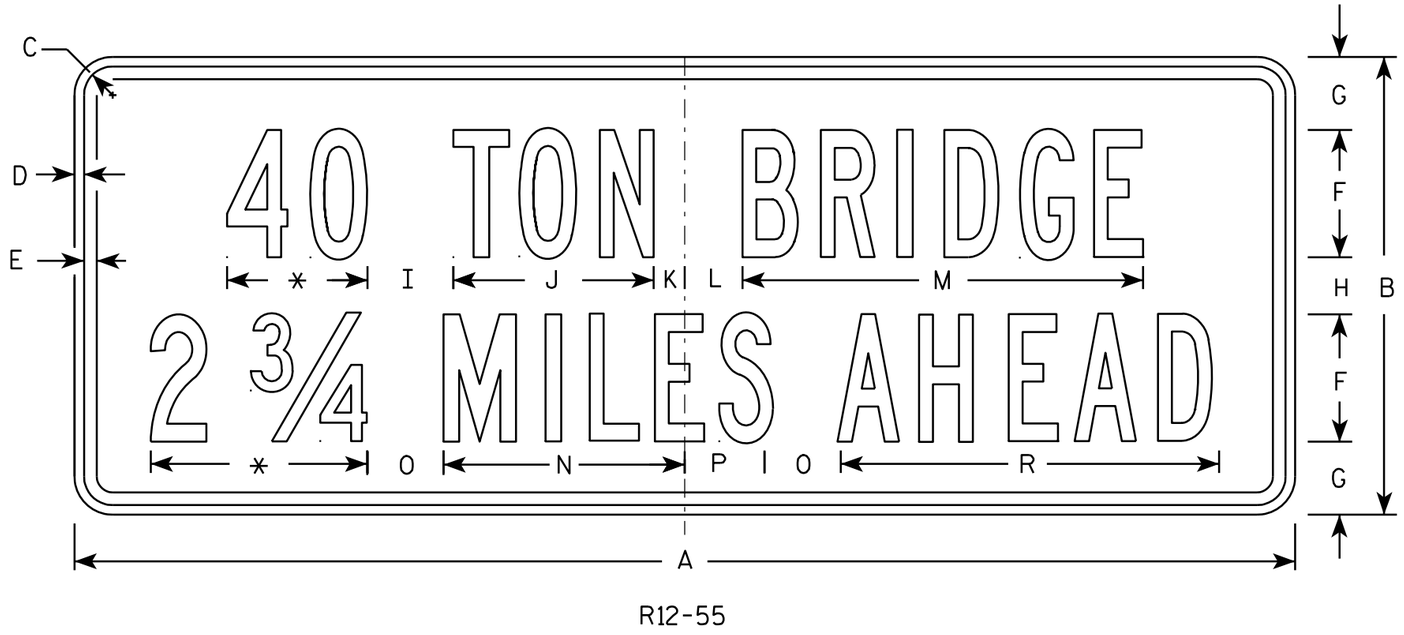
STANDARD SIGN
R1-1

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: 110 | E



R12-55

* Varies

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 - B for Size 2, Series D for Sizes 3 & 4
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.
6. For distances less than 5 miles, that figure should be expressed to the nearest 1/4 mile.

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	18	1 1/8	3/8	1/2	5	2 7/8	2 1/4	3 3/8	7 7/8	1 1/4	2 1/4	15 3/4	9 1/2	3	3 1/8		14 7/8									6.0
2M	48	18	1 1/8	3/8	1/2	5	2 7/8	2 1/4	3 3/8	7 7/8	1 1/4	2 1/4	15 3/4	9 1/2	3	3 1/8		14 7/8									6.0
3	90	24	2 1/4	3/4	1	6	4	4	6	15 1/4	2 1/2	3 1/2	30 5/8	18 3/8	6	6 1/4		28 3/8									15.0
4	120	30	2 1/4	3/4	1	8	5 1/4	3 5/8	8	19 5/8	4	3	39 1/2	24 1/2	7	6 3/4		36 3/8									20.0
5	120	30	2 1/4	3/4	1	8	5 1/4	3 5/8	8	19 5/8	4	3	39 1/2	24 1/2	7	6 3/4		36 3/8									20.0

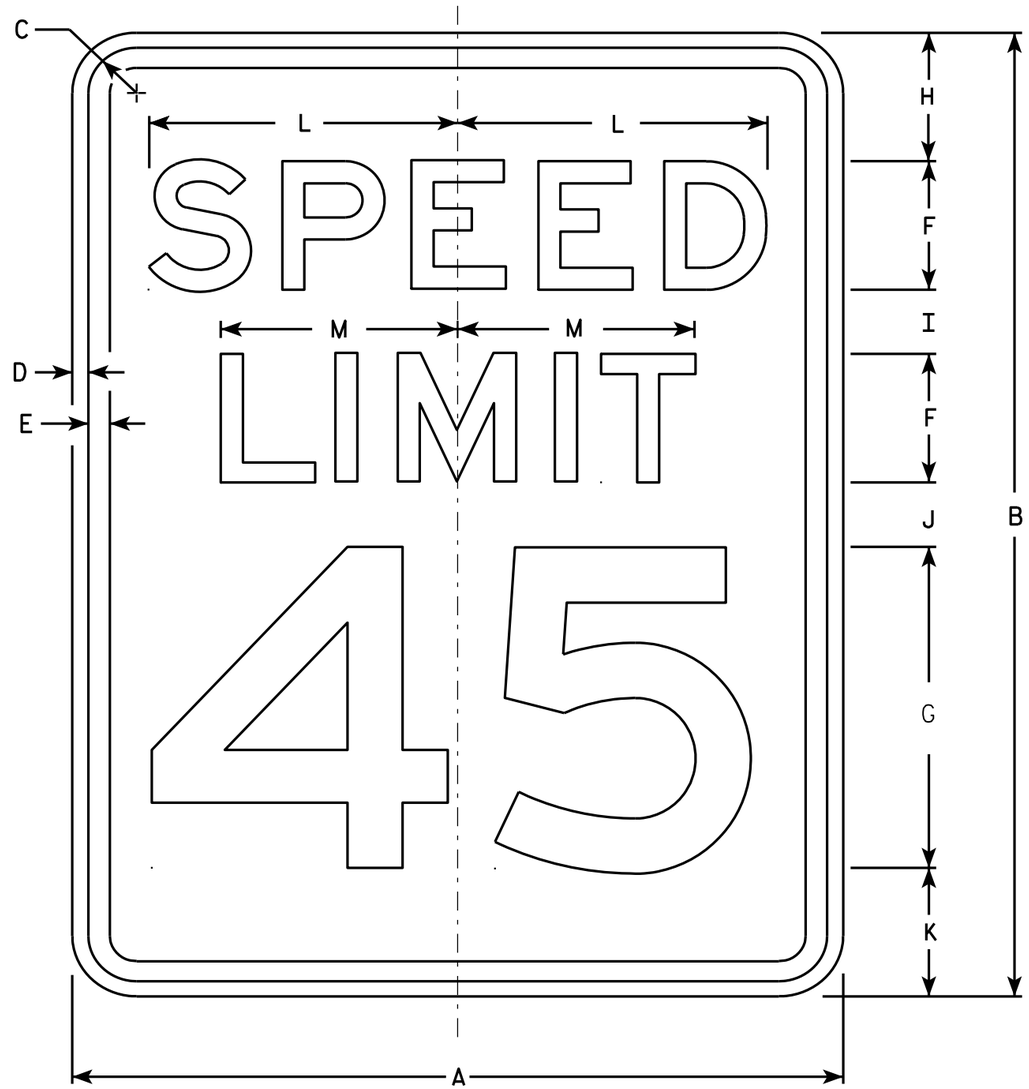
STANDARD SIGN
R12-55

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/23/11 PLATE NO. R12-55.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E



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

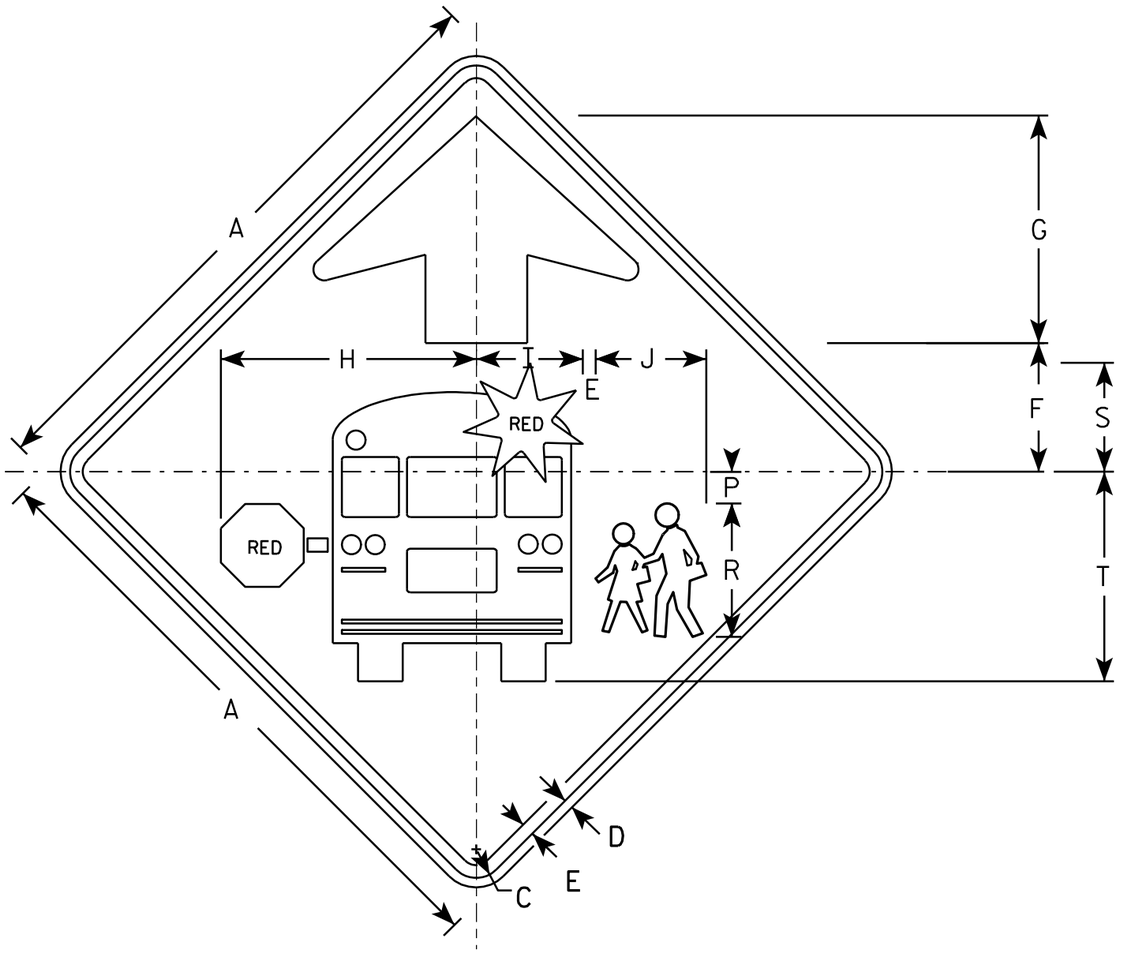
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

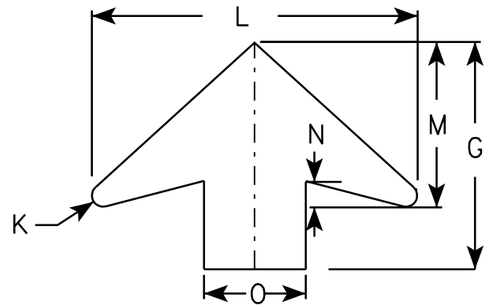
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 112 | E



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

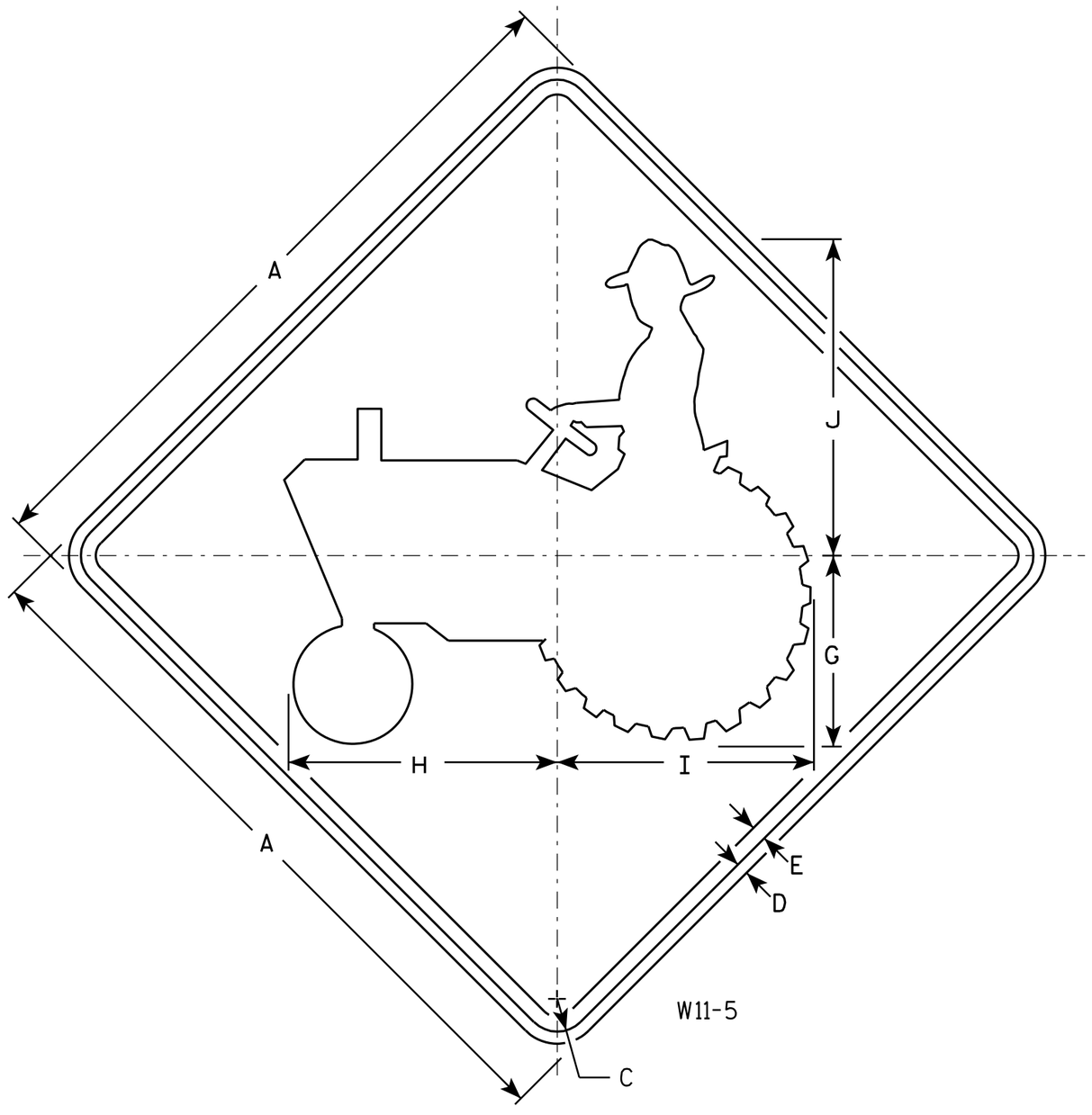
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 113 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 - 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		6 3/8	9	8 5/8	10 5/8																	4.0
2S	30		1 3/8	1/2	5/8		8	11 1/4	10 3/4	13 1/4																	6.25
2M	30		1 3/8	1/2	5/8		8	11 1/4	10 3/4	13 1/4																	6.25
3																											
4	36		1 5/8	5/8	3/4		9 5/8	13 1/2	12 7/8	16																	9.0
5	48		2 1/4	3/4	1		12 3/4	18	17 1/4	21 1/8																	16.0

STANDARD SIGN
W11-5

WISCONSIN DEPT OF TRANSPORTATION

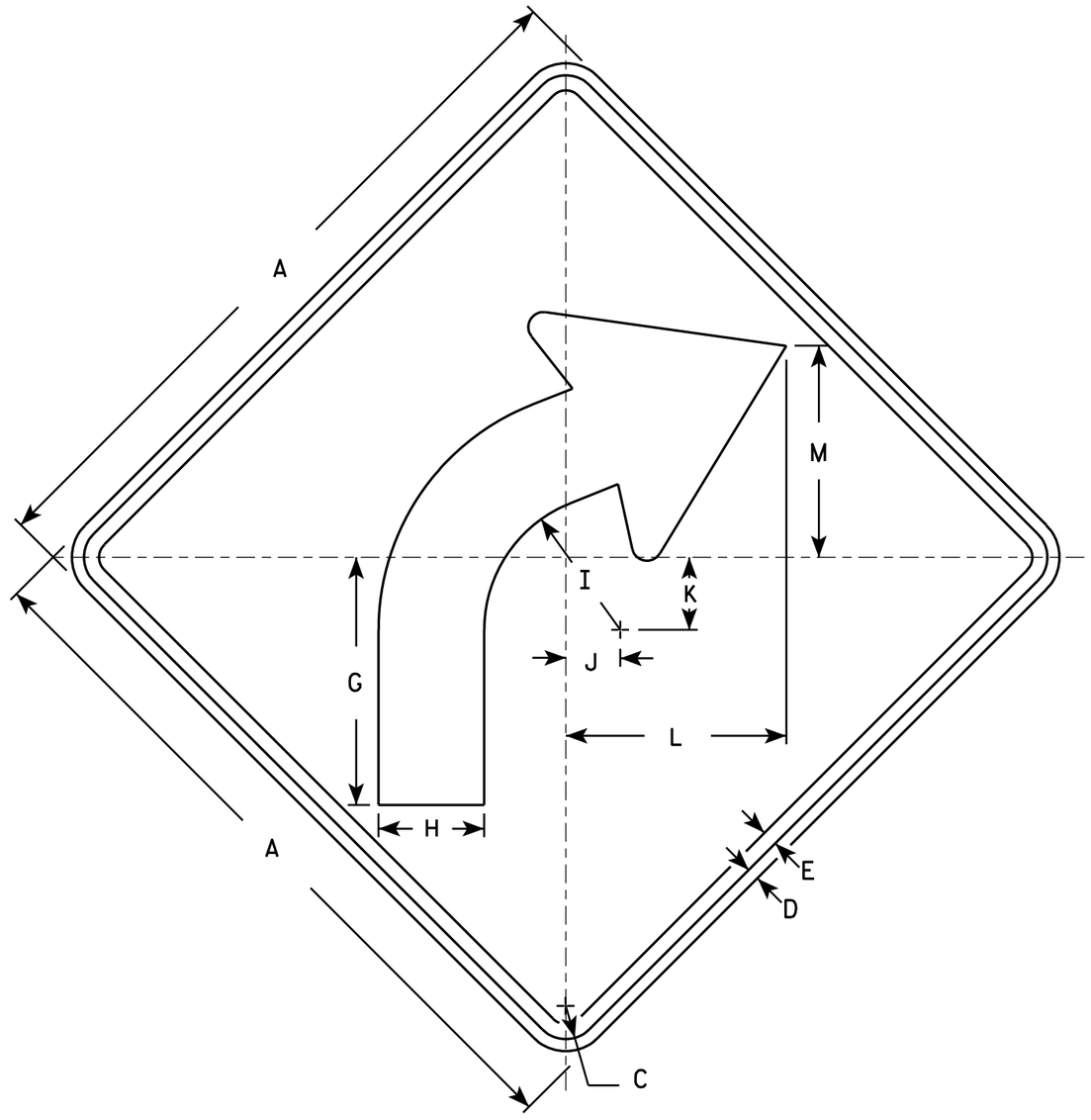
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W11-5.5

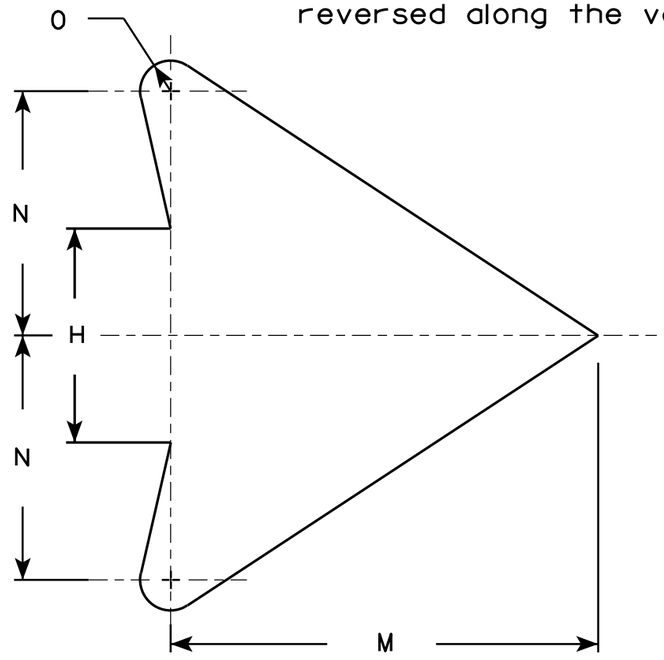
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



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	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

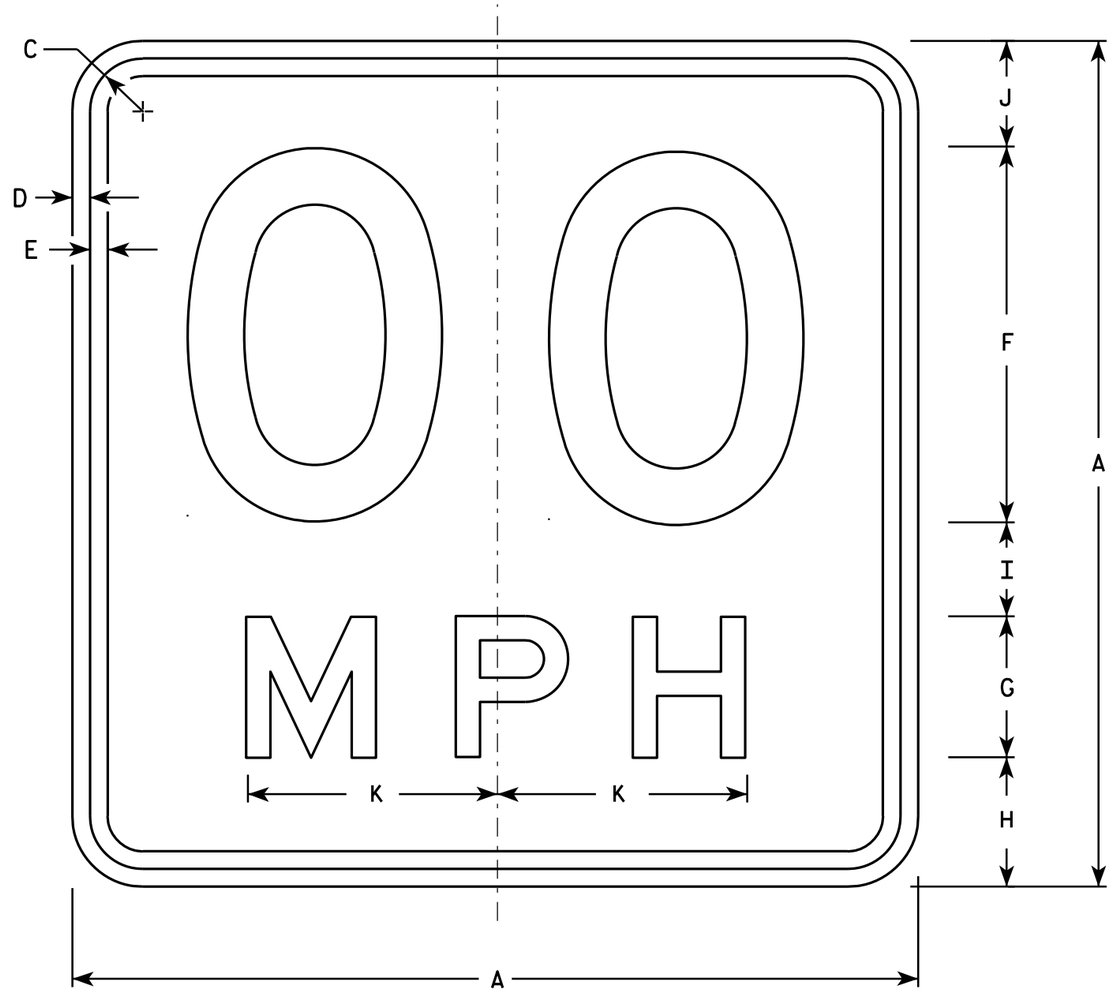
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	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		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

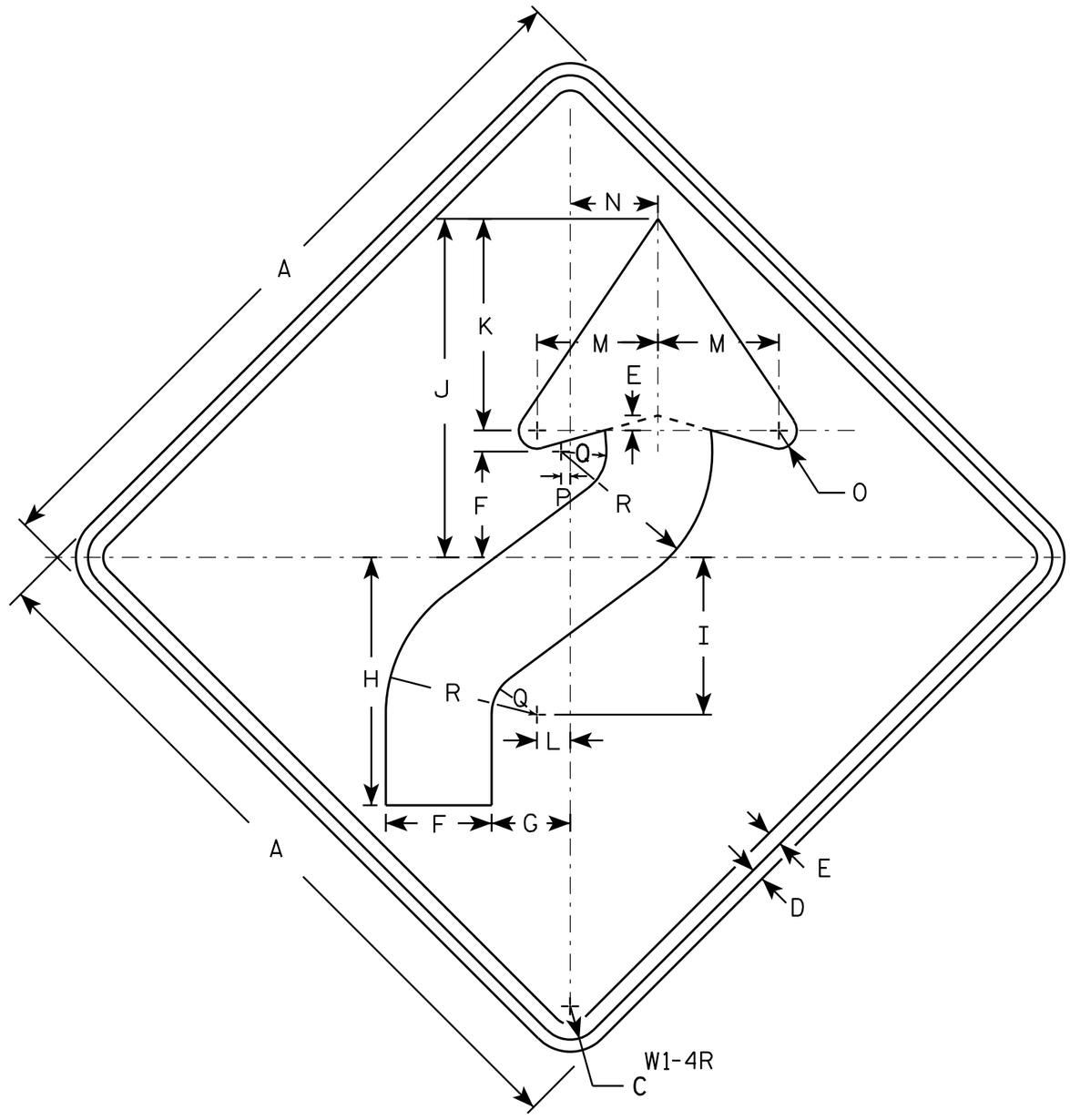
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 116 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R 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	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	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
3	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
4	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
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
W1-4

WISCONSIN DEPT OF TRANSPORTATION

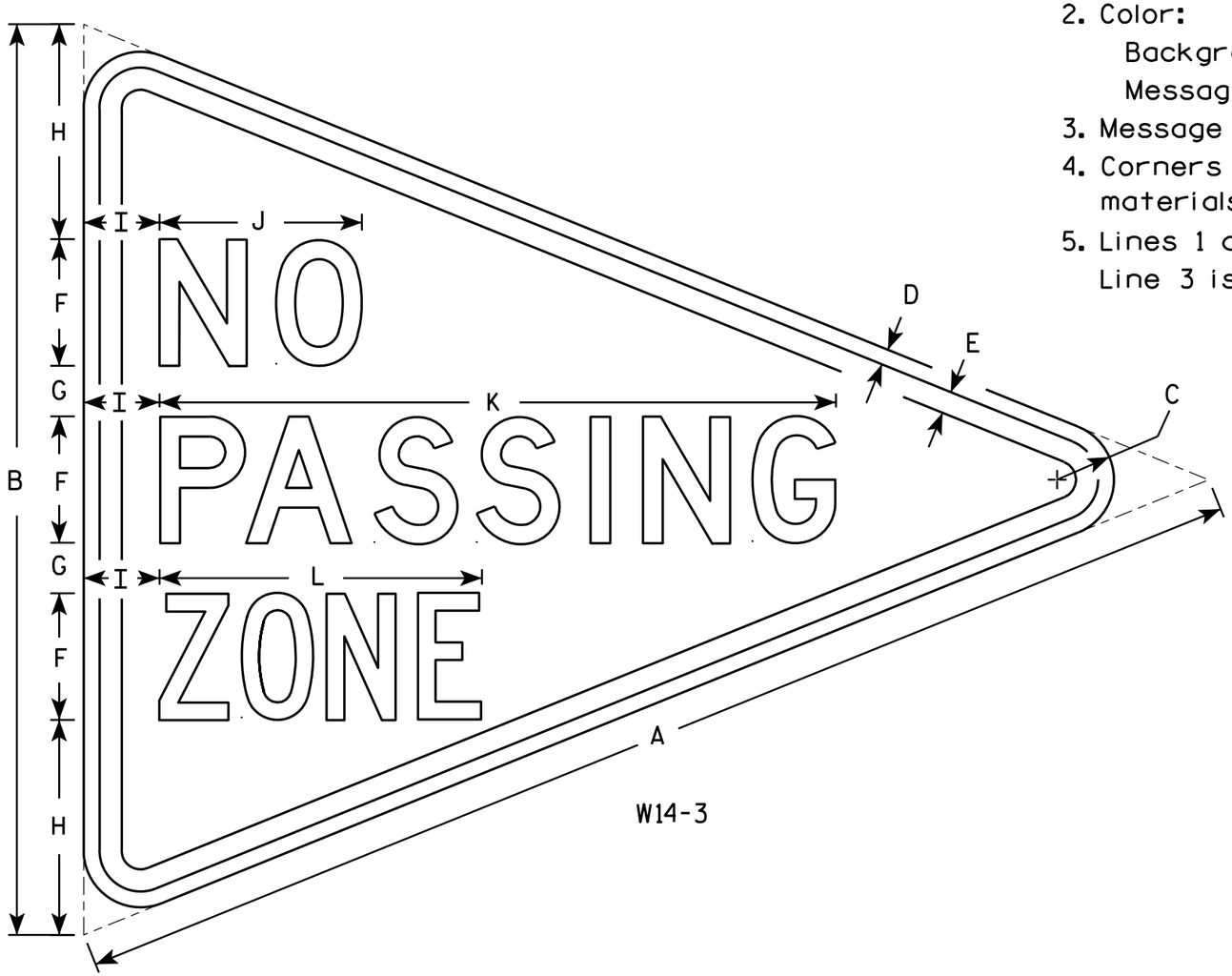
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

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

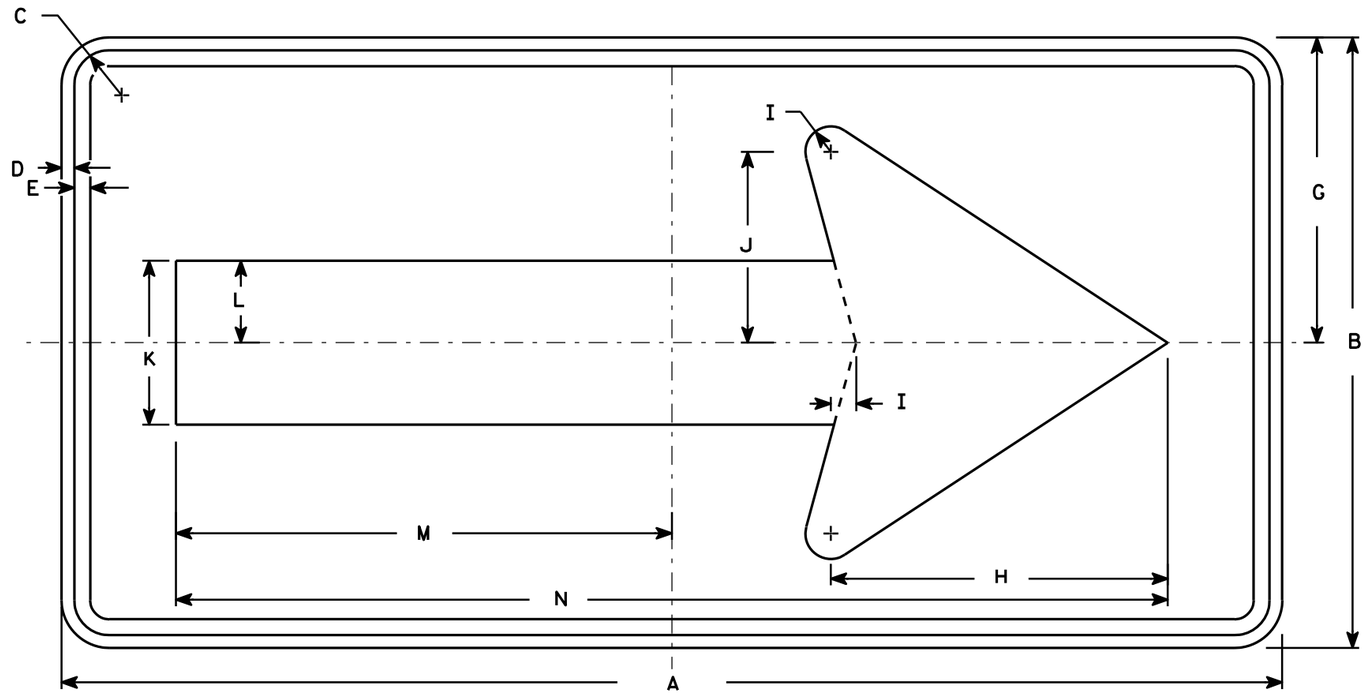
STANDARD SIGN
W14-3

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: 118	E



W1-6

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	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

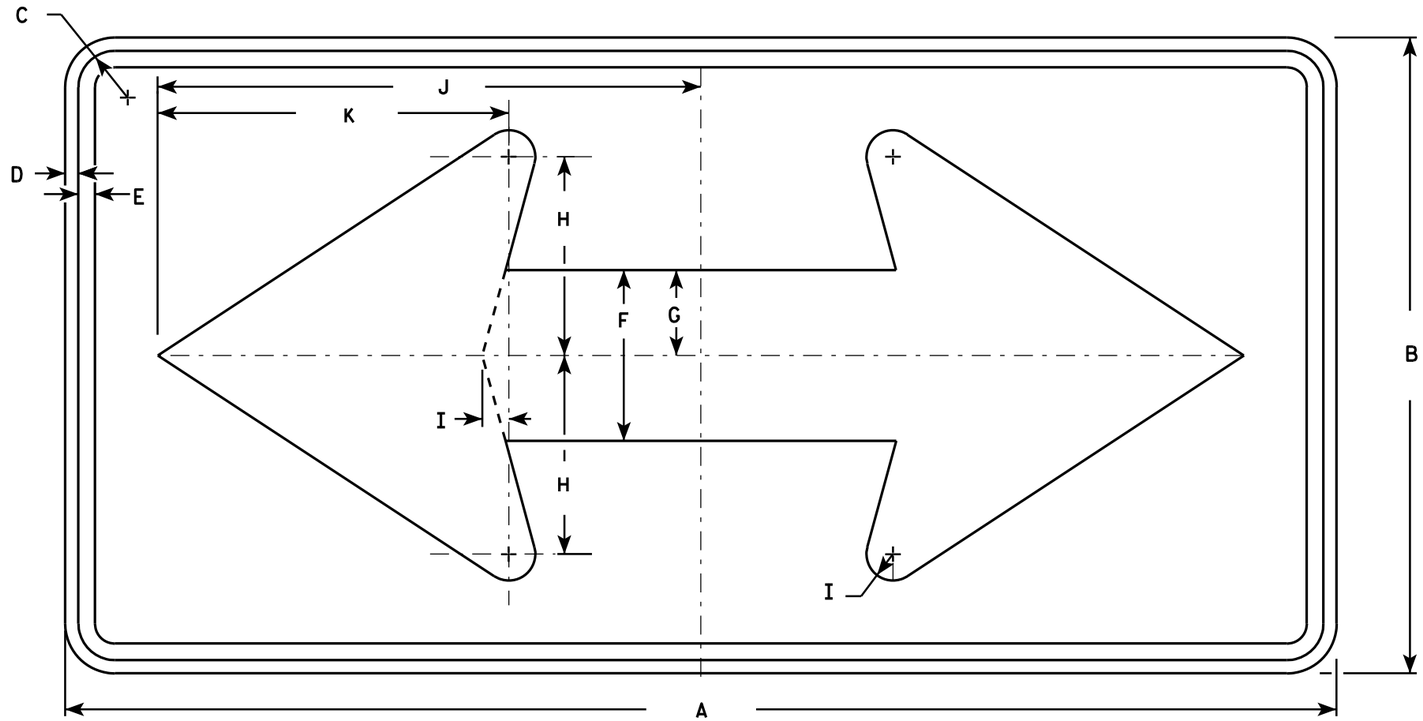
STANDARD SIGN
W1-6

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: 119



W1-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   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	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

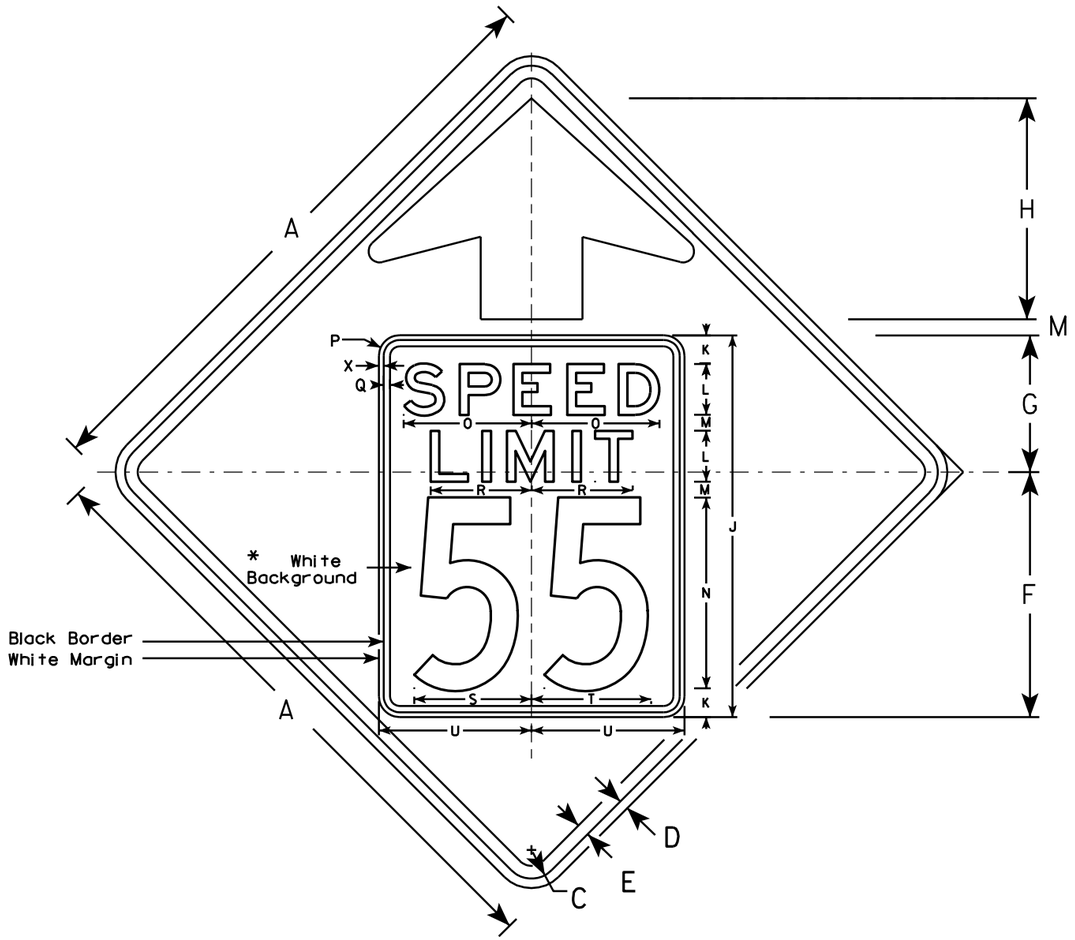
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E

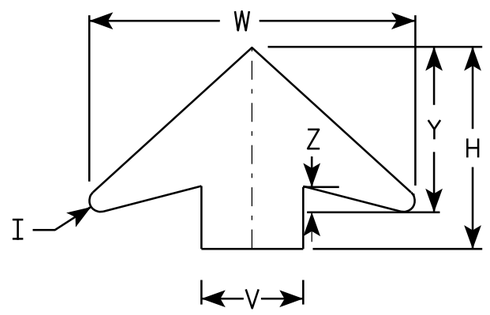


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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

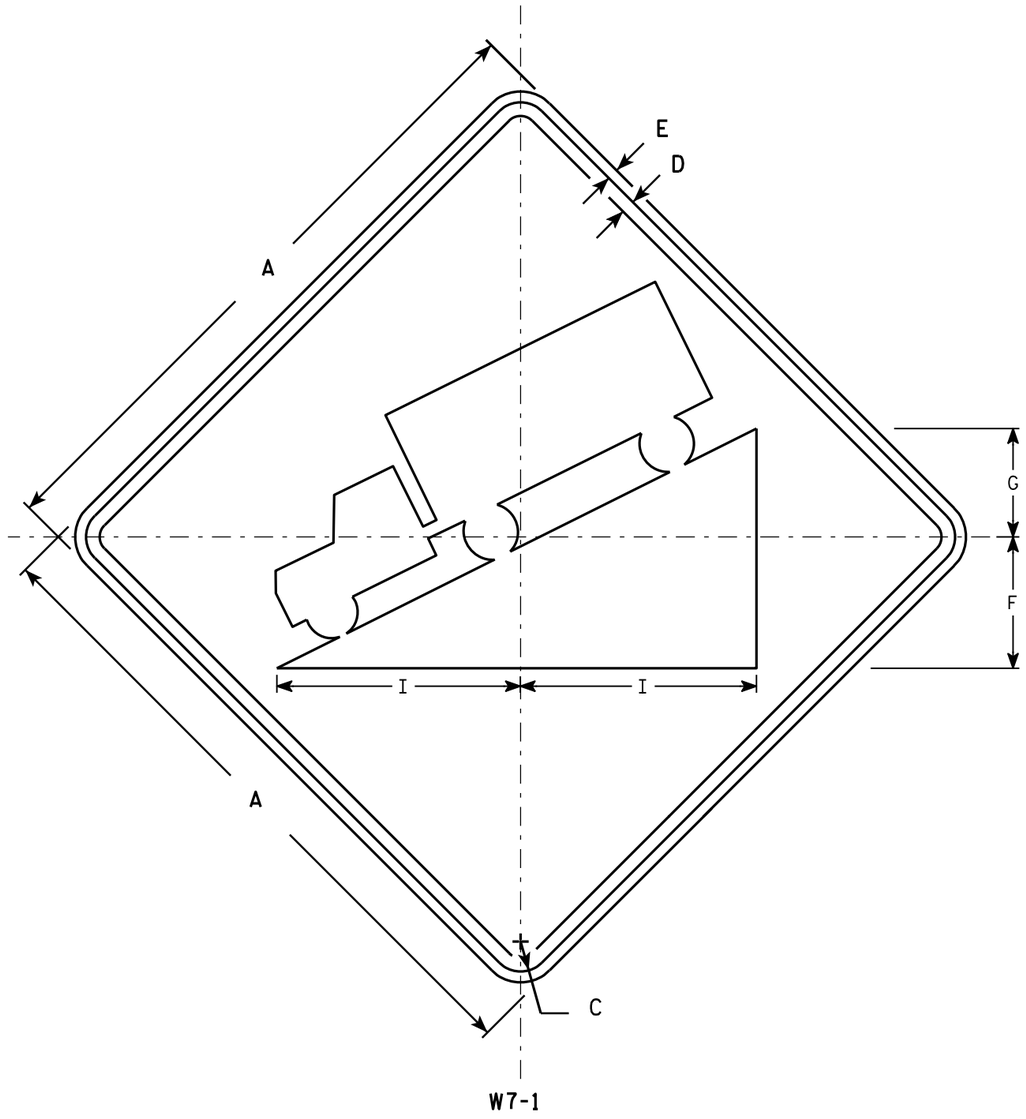
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 121 E



W7-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	3/8	5	4		8 3/4																		4.0
2S	30		1 3/8	1/2	5/8	6	5		11																		6.25
2M	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
3	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0

STANDARD SIGN
W7-1

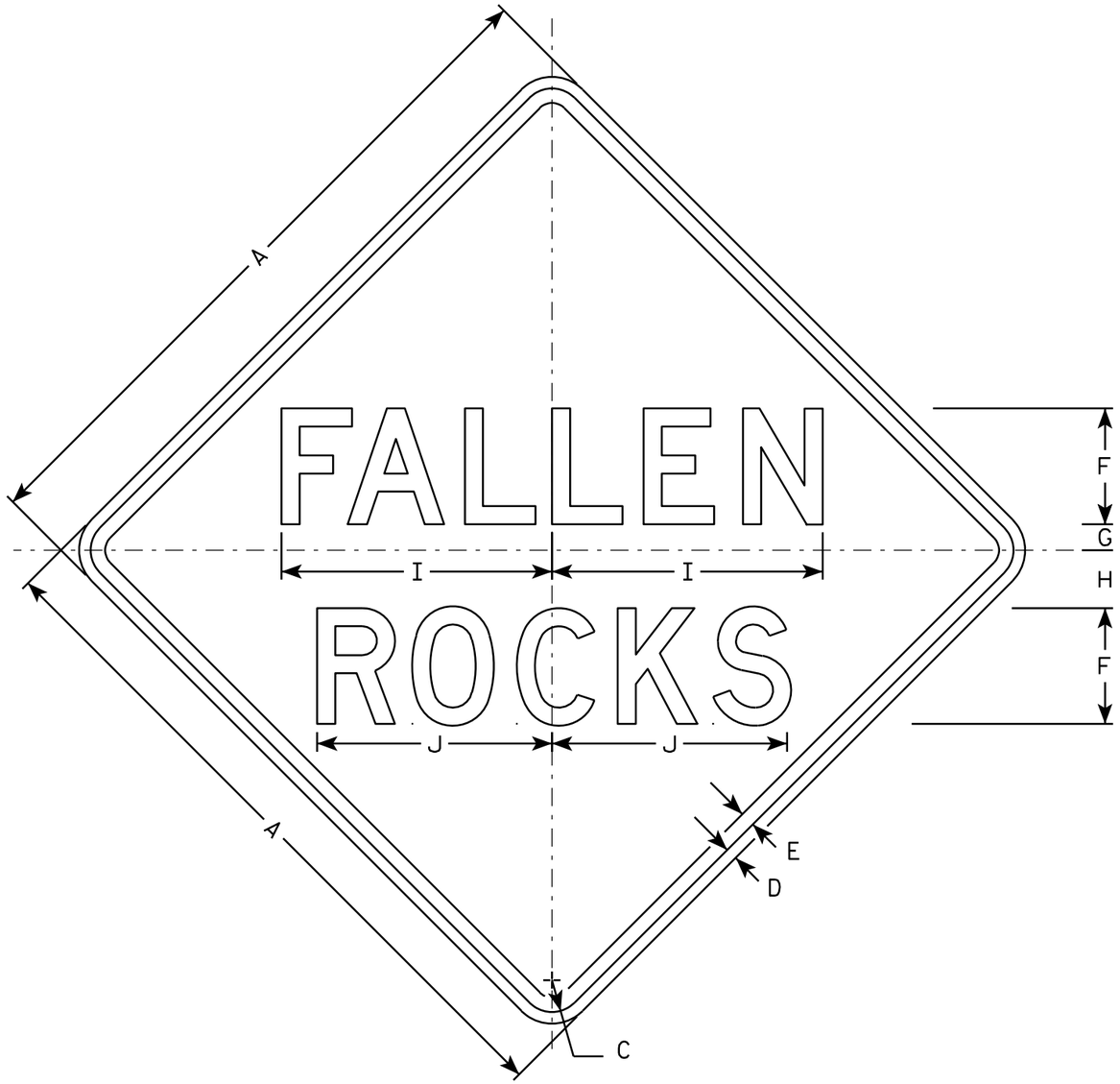
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/18/11 PLATE NO. W7-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 122	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W71.DGN PLOT DATE : 18-APR-2011 14:47 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.952219:1.000000
WISDOT/CADDS SHEET 42



W8-14

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	1 1/8	2 1/2	11 3/4	10 1/8																	6.25
2M	36		1 5/8	5/8	3/4	6	1 3/8	3	14	12 1/8																	9.0
3	36		1 5/8	5/8	3/4	6	1 3/8	3	14	12 1/8																	9.0
4	36		1 5/8	5/8	3/4	6	1 3/8	3	14	12 1/8																	9.0
5	48		2 1/4	3/4	1	8	1 3/4	4	18 3/4	16 1/4																	16.0

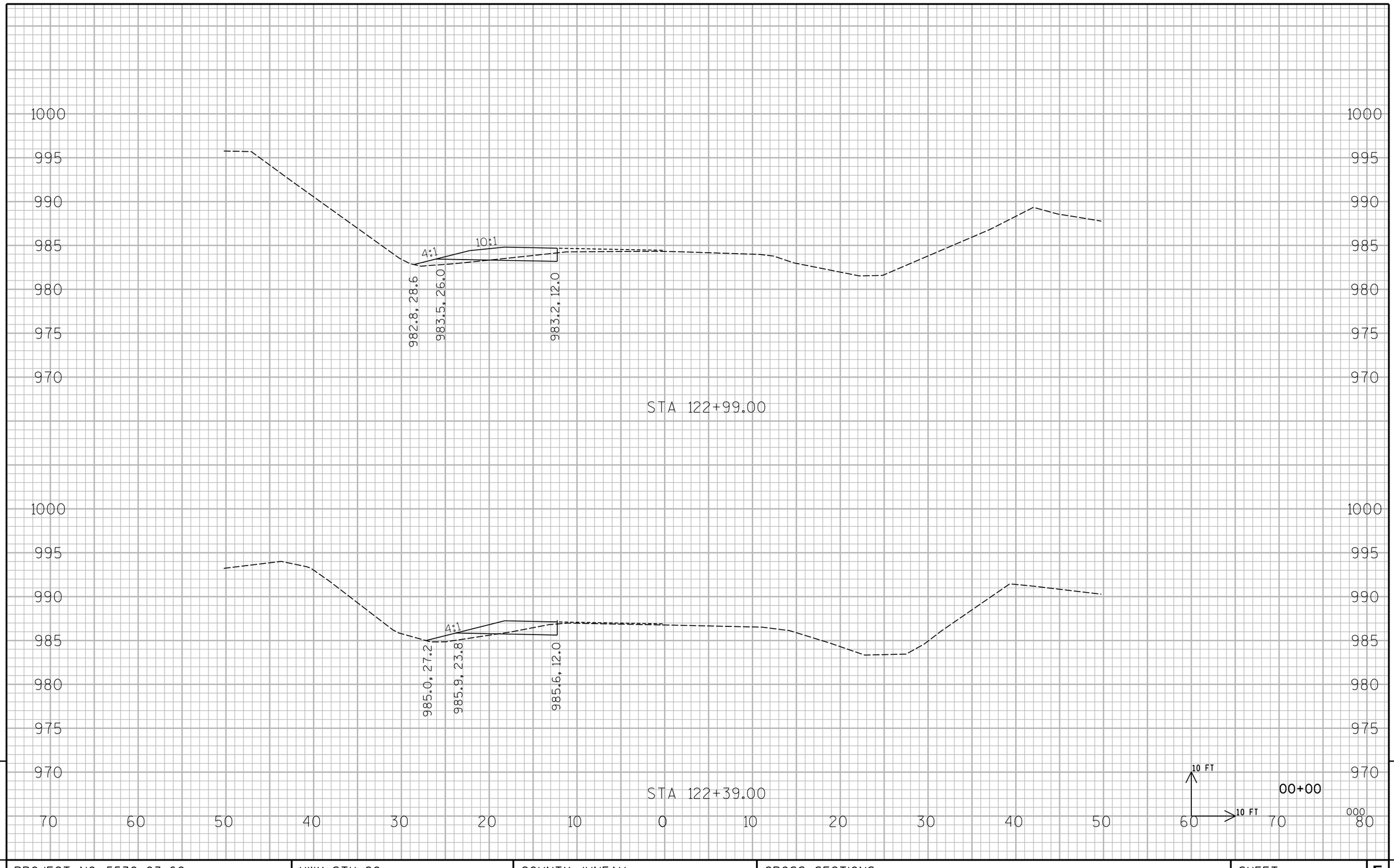
STANDARD SIGN
W8-14

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/07/10 PLATE NO. W8-14.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 123 | E



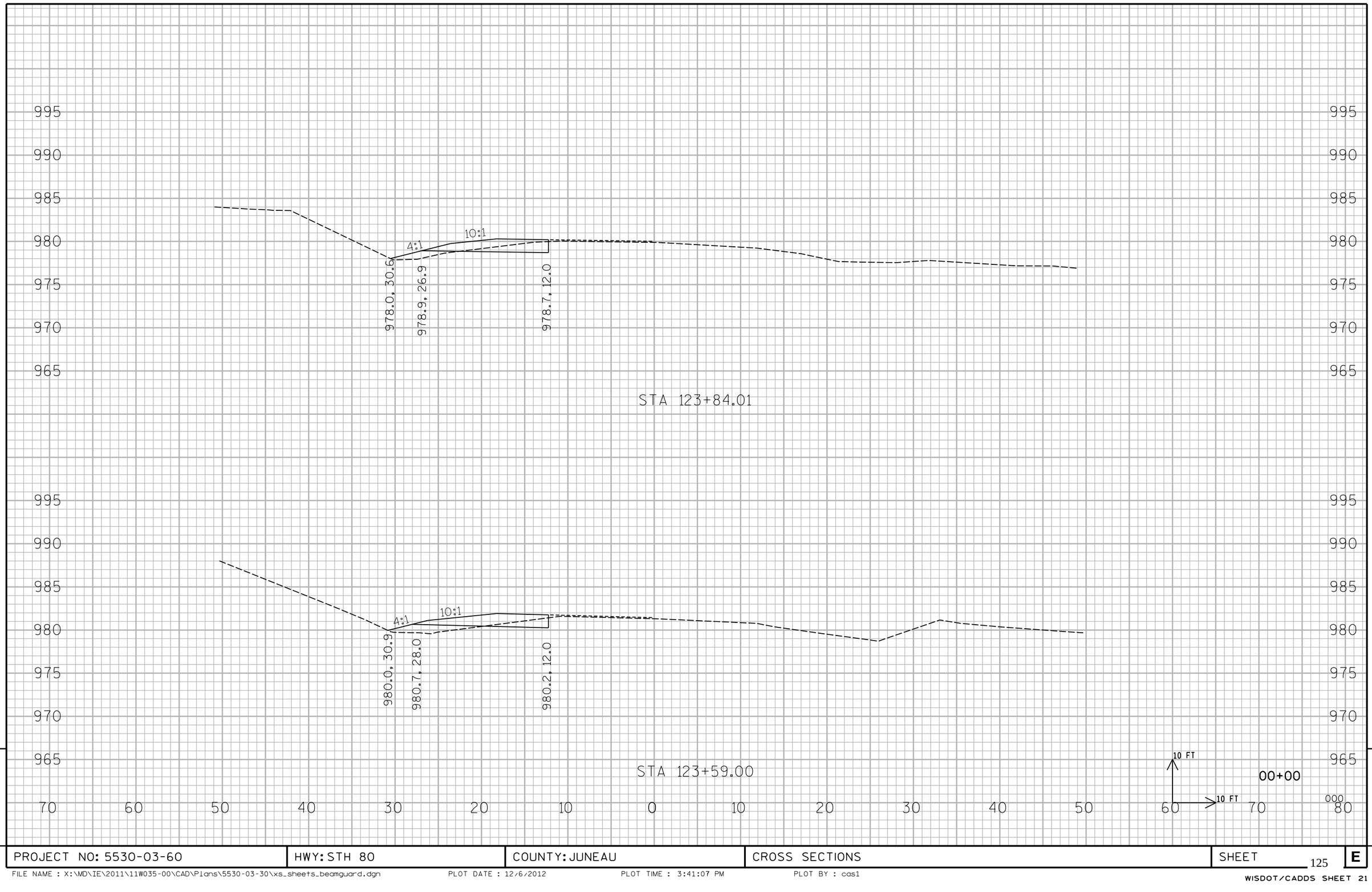
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 124	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:07 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



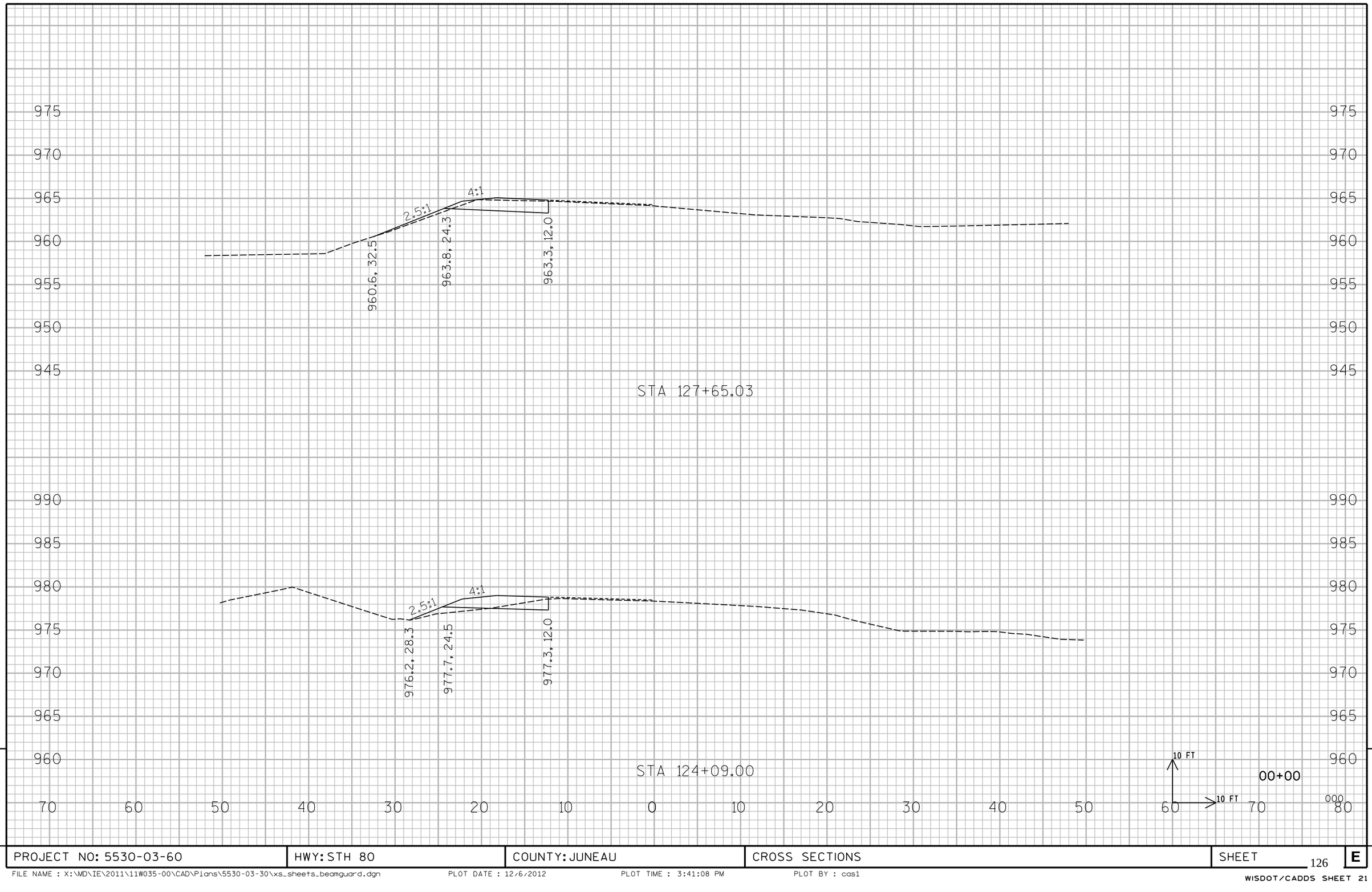
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 125	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:07 PM PLOT BY : cas1

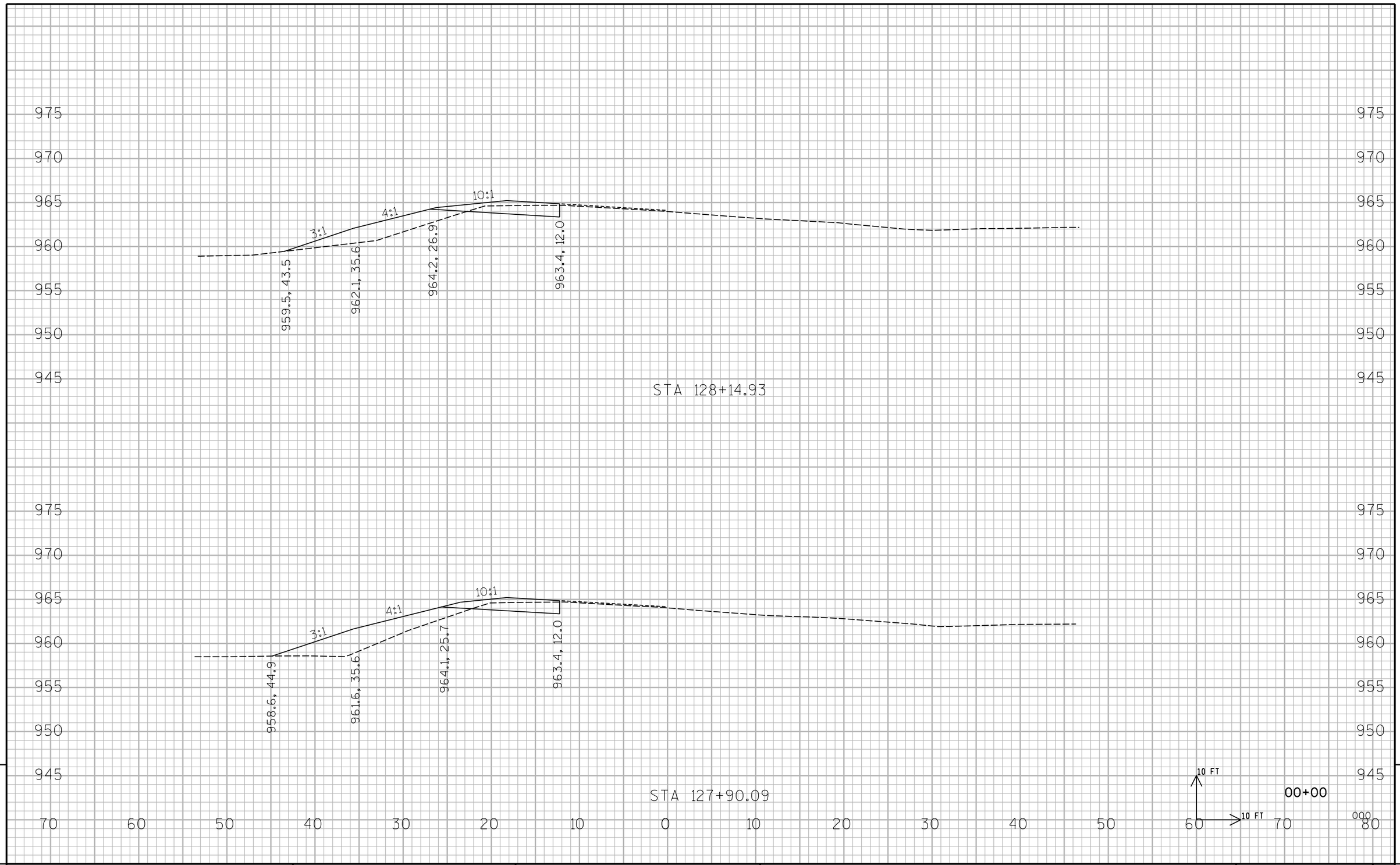
WISDOT/CADDS SHEET 21



9

9

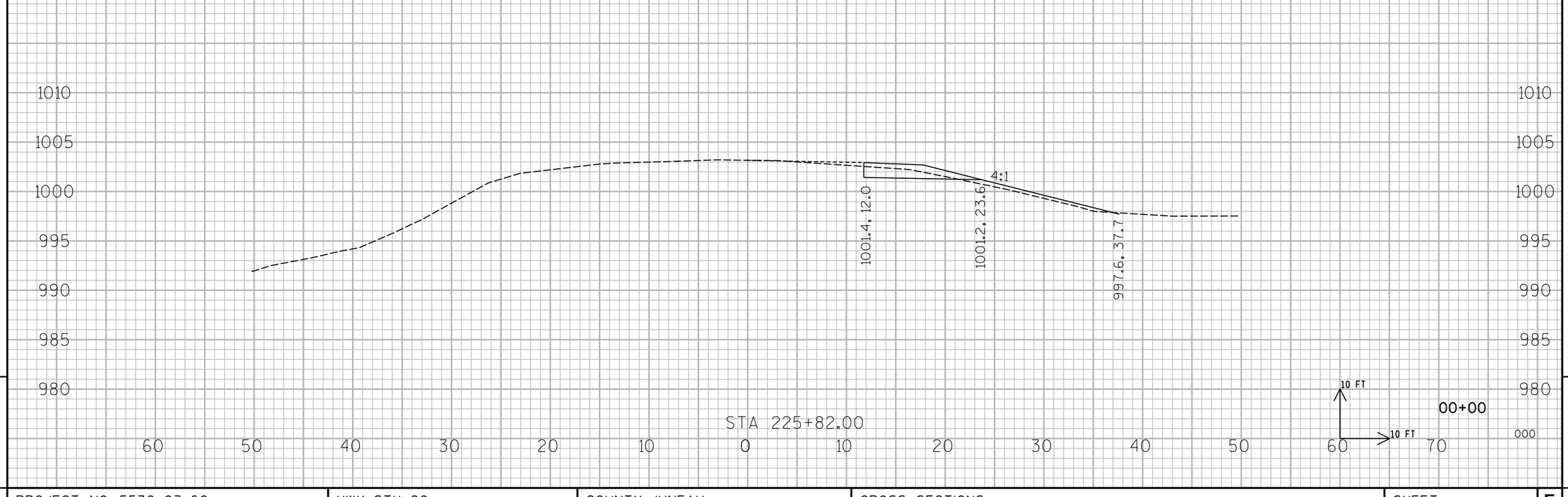
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 126	E



PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 127	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:08 PM PLOT BY : cas1

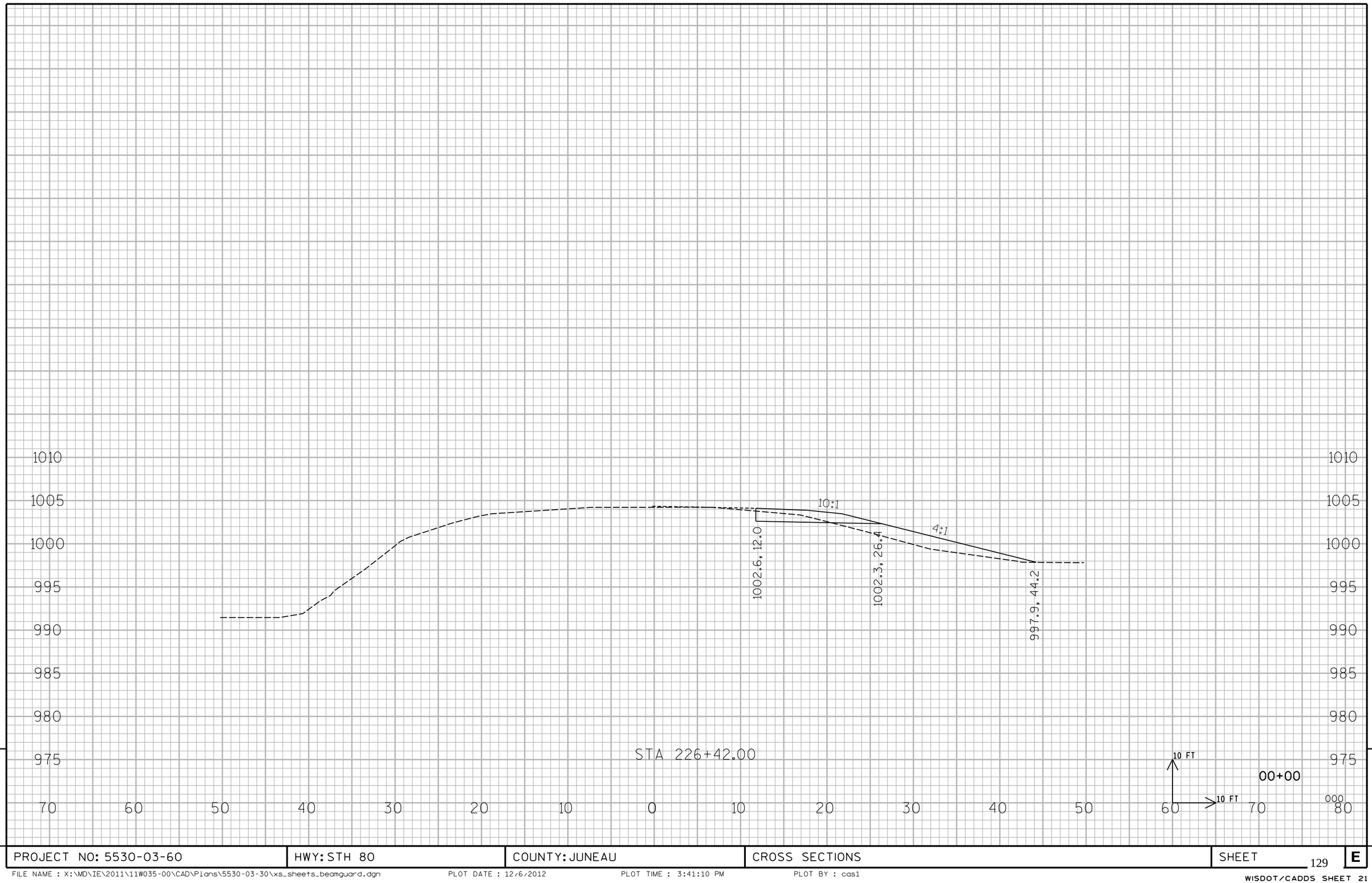
WISDOT/CADDS SHEET 21



9

9

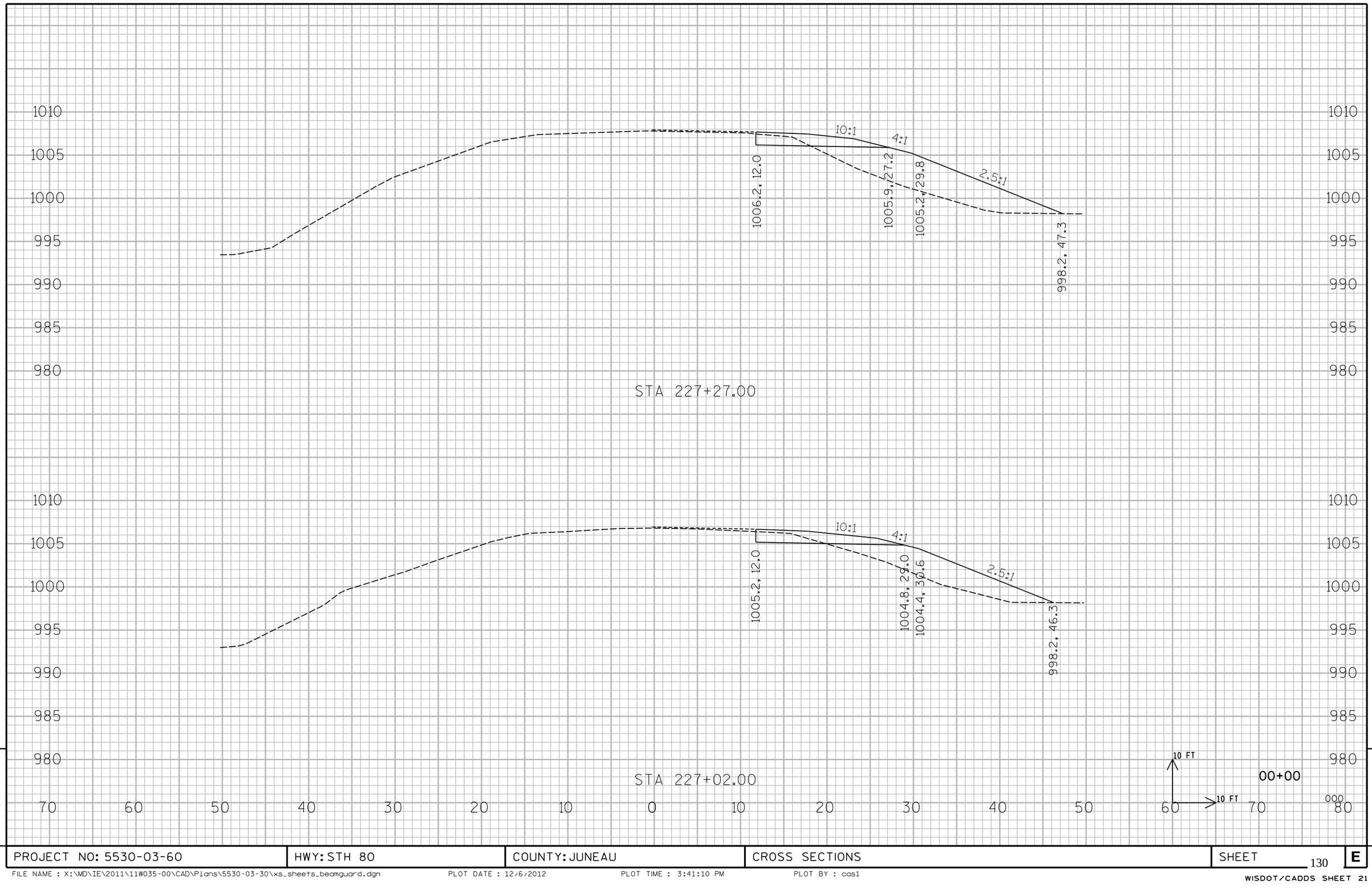
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 128	E



9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 129	E



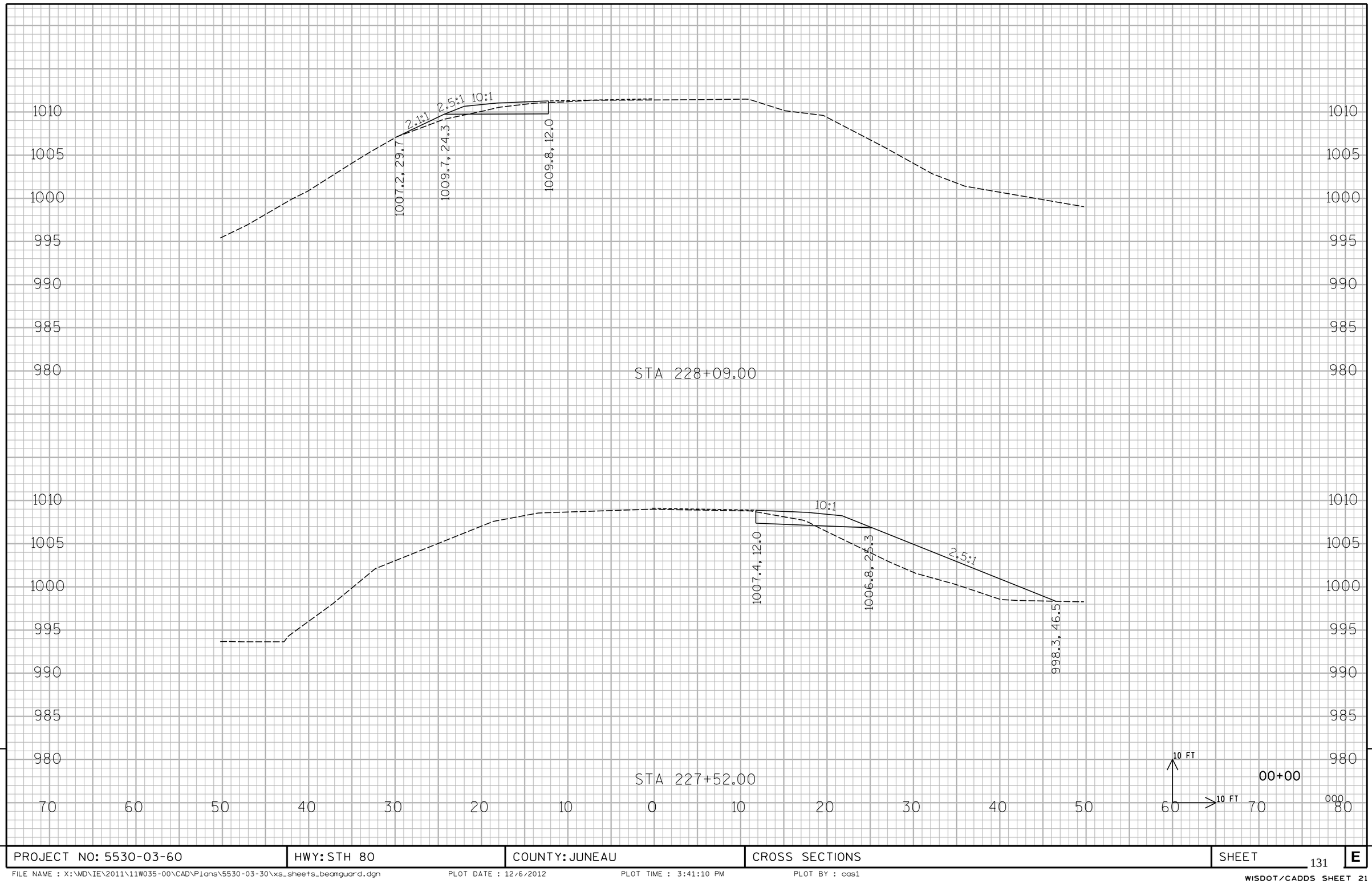
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 130	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:10 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



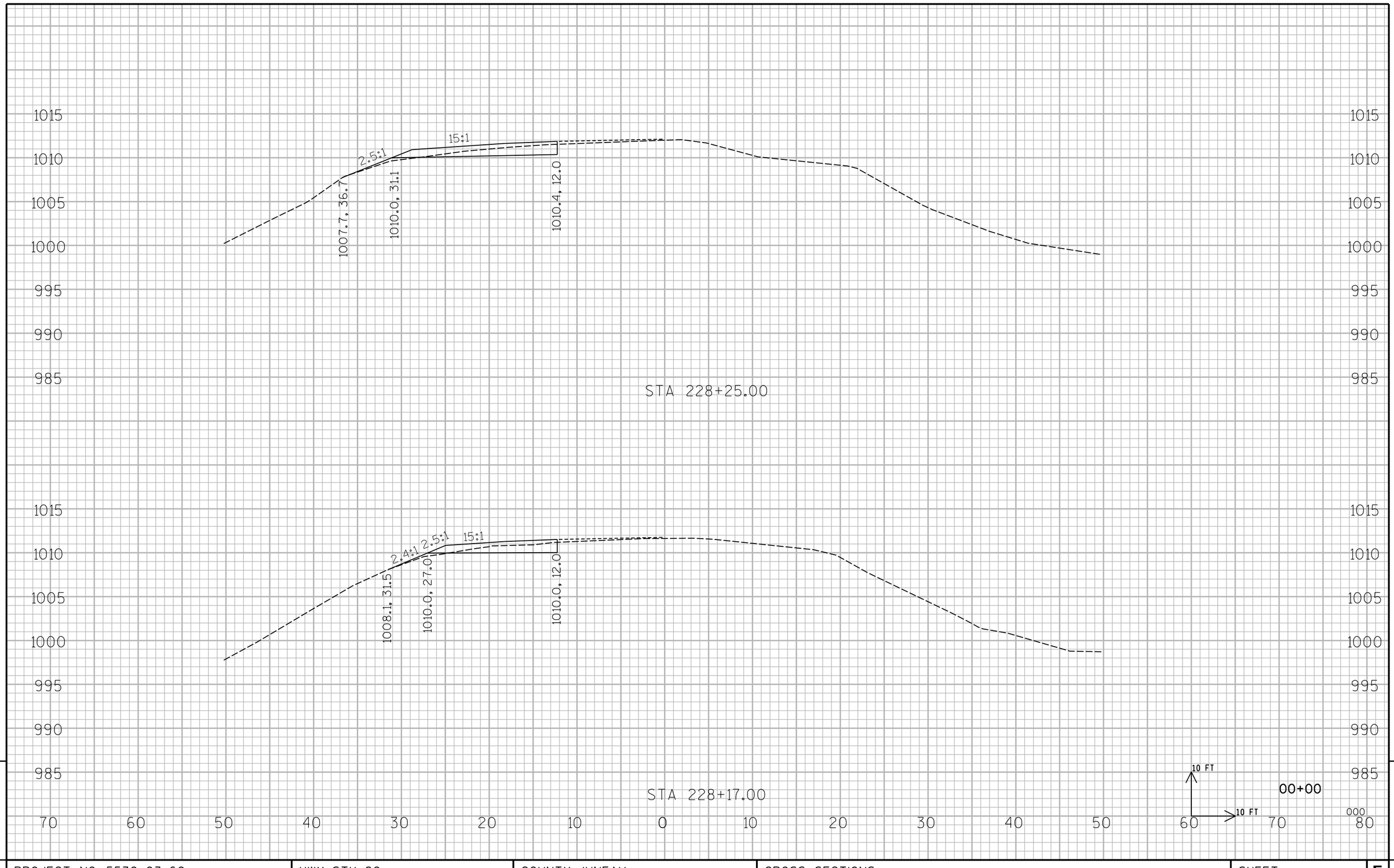
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 131	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:10 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



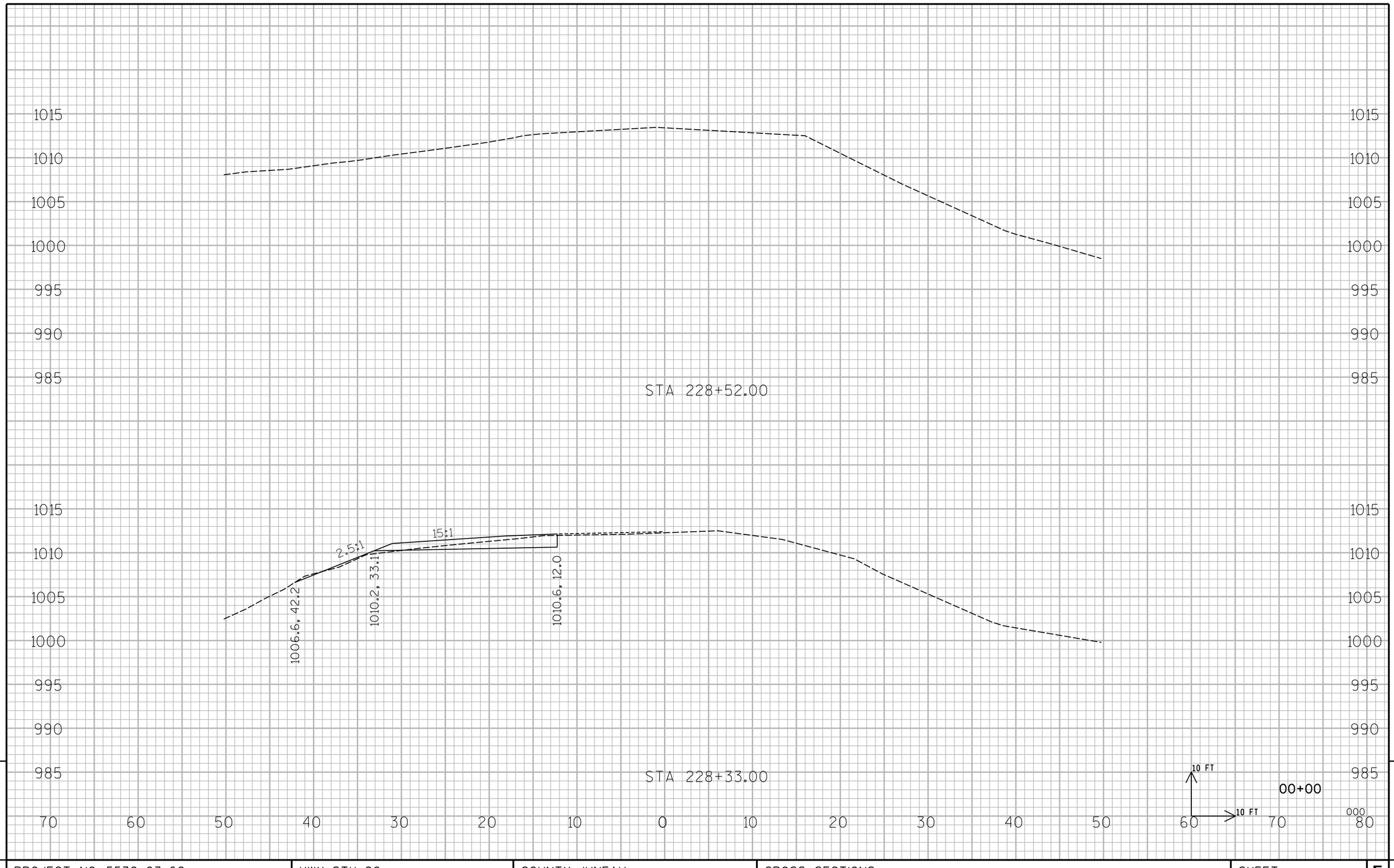
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 132	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:11 PM PLOT BY : cas1

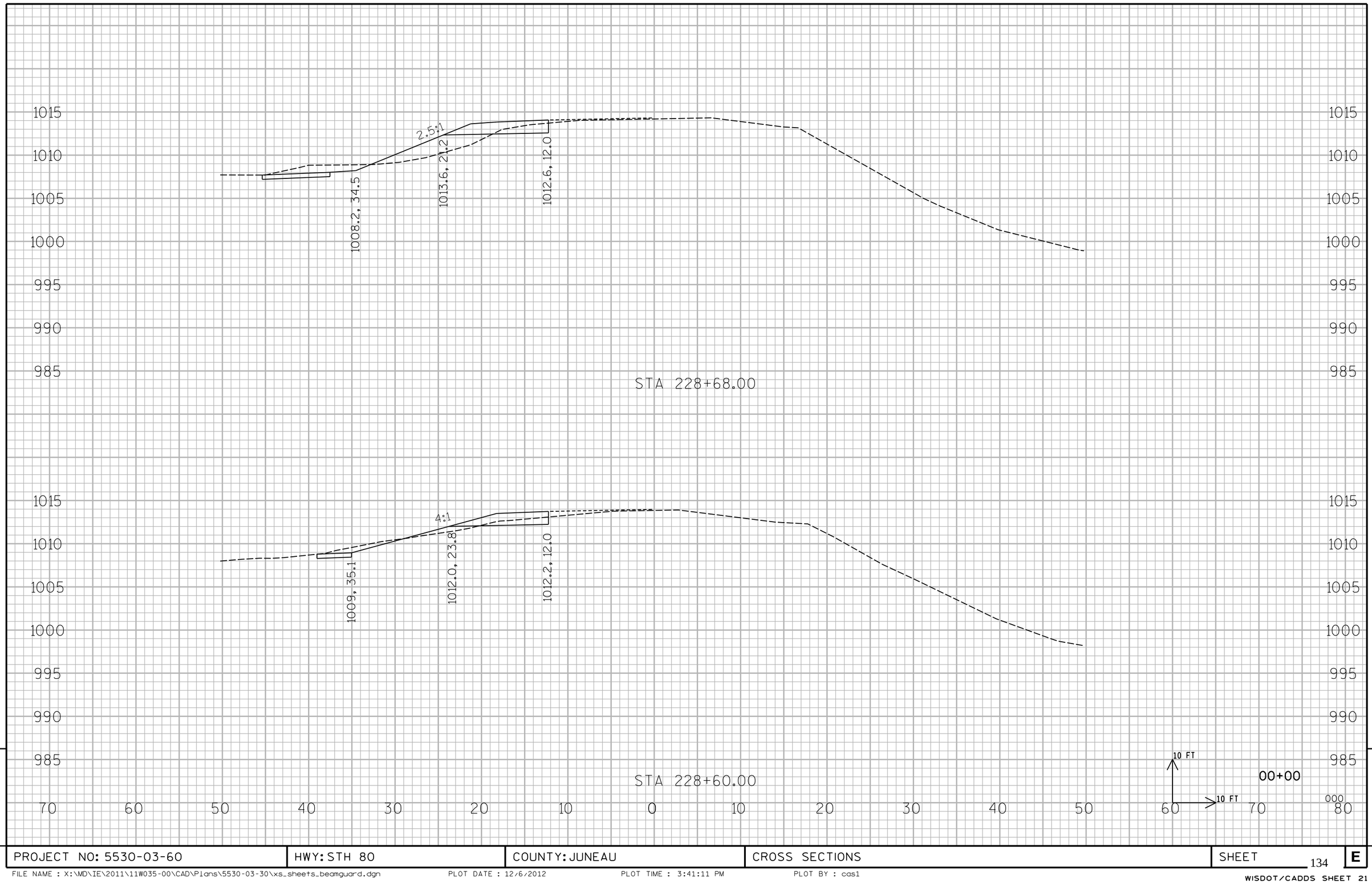
WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 133	E



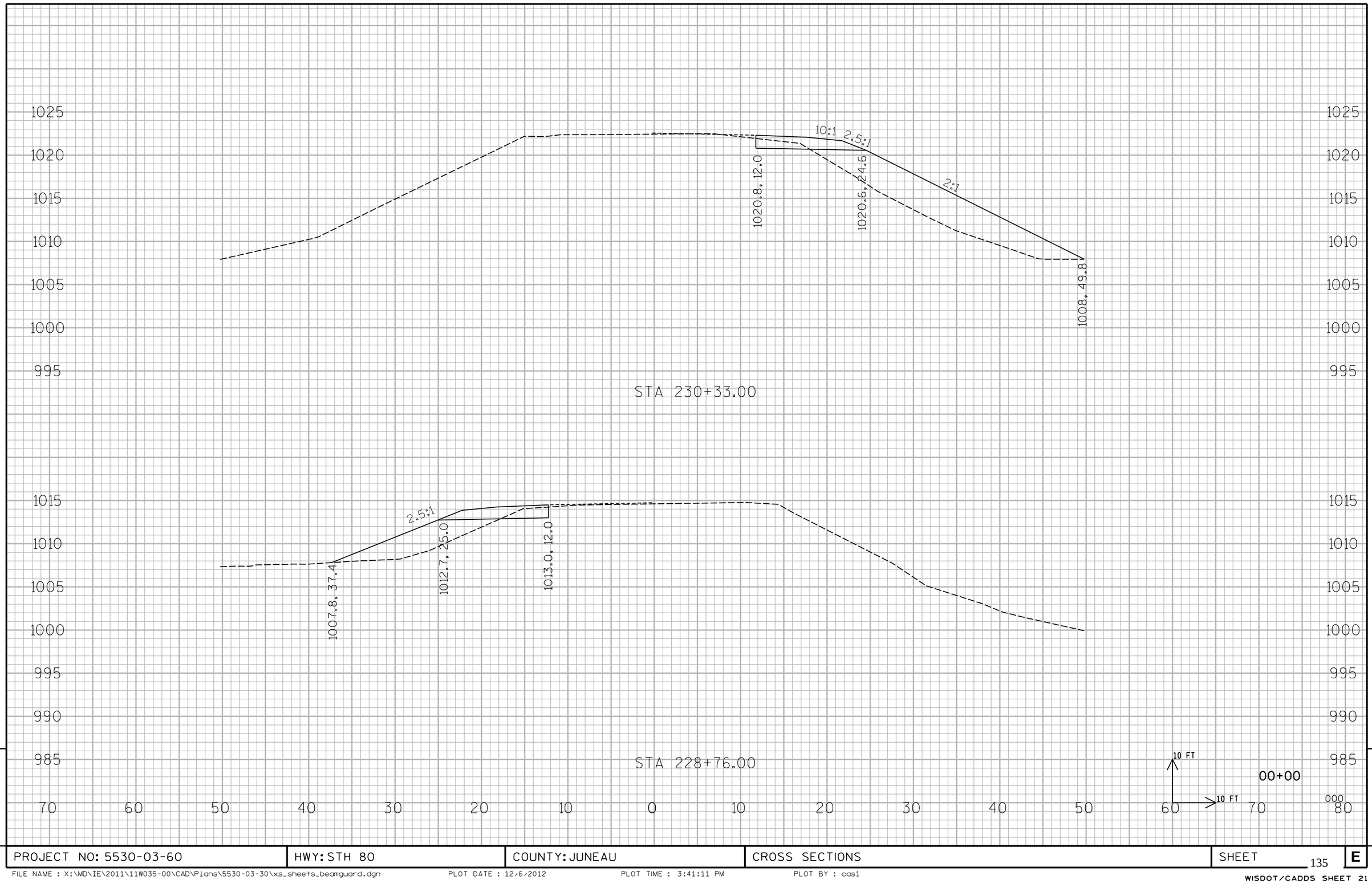
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 134	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:11 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



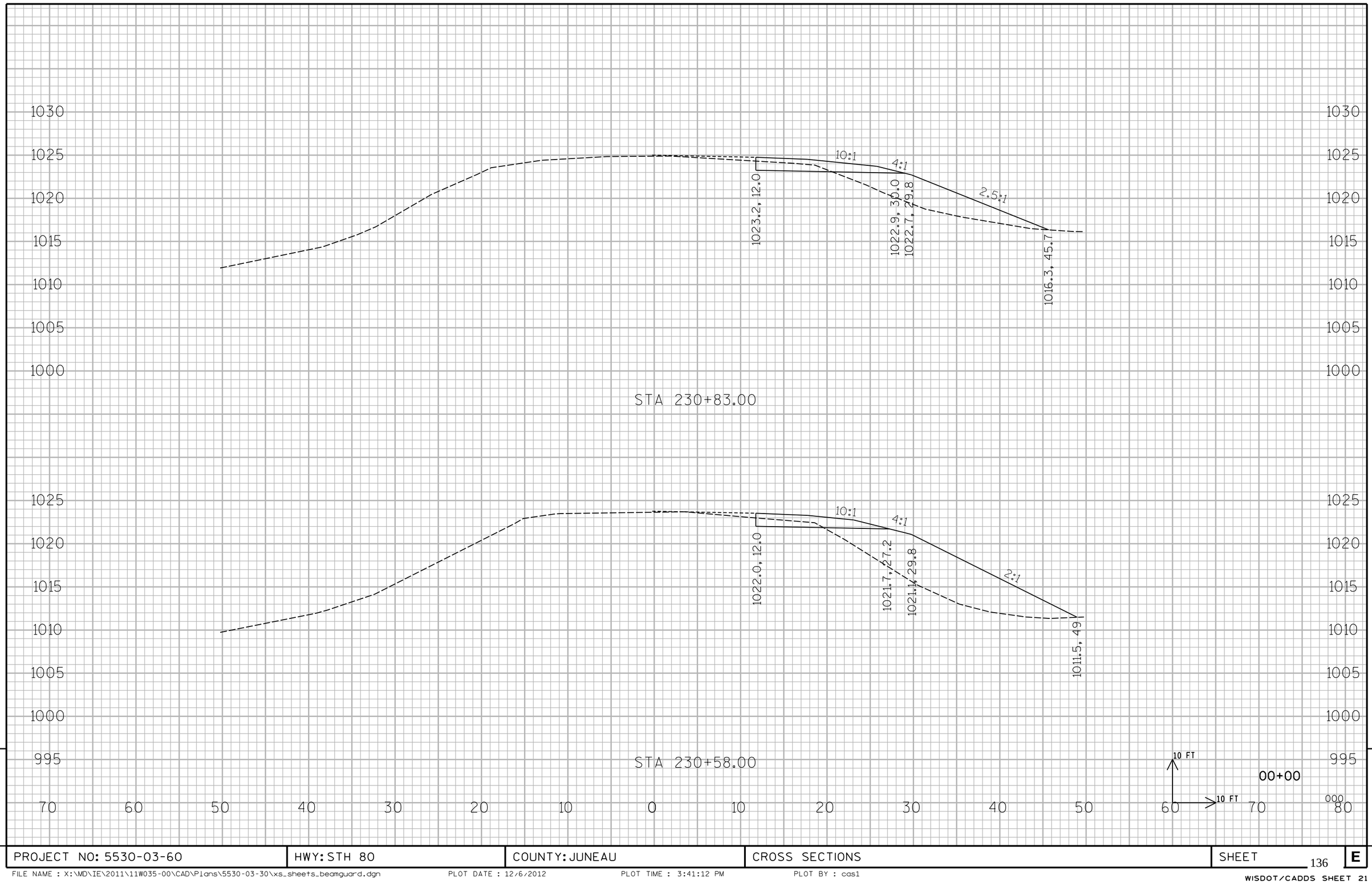
9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 135	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:11 PM PLOT BY : cas1

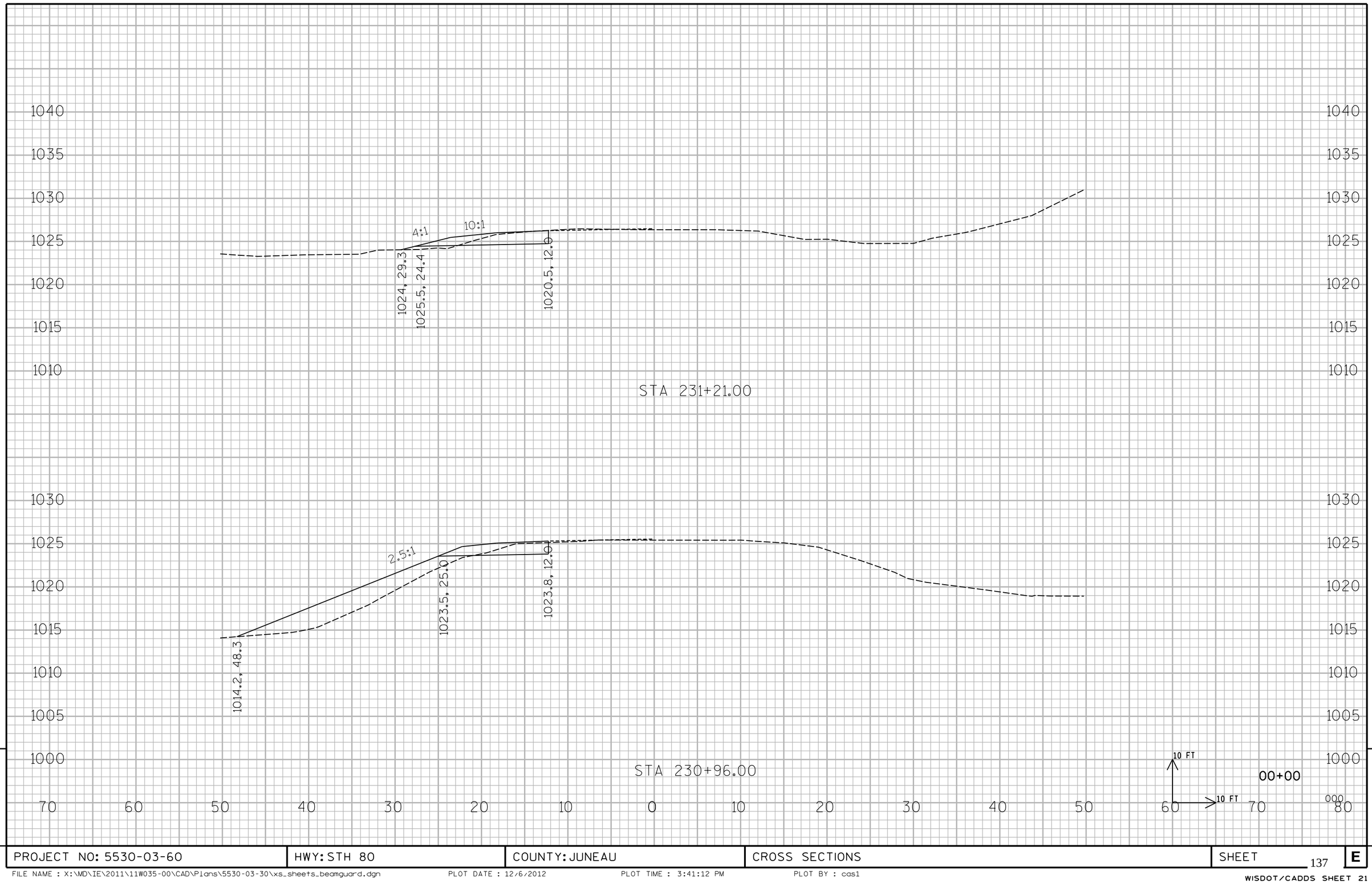
WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 136	E



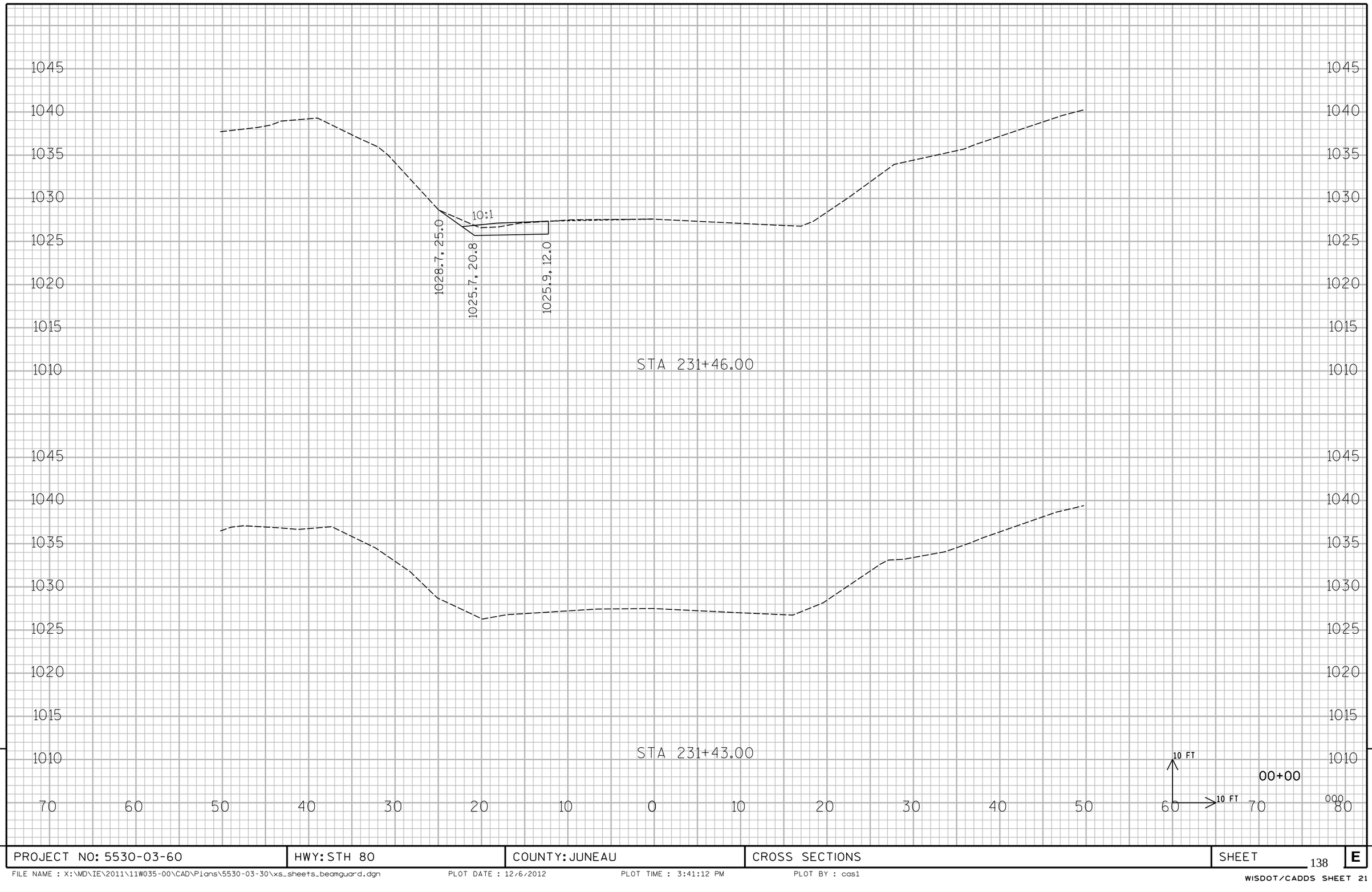
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 137	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:12 PM PLOT BY : cas1

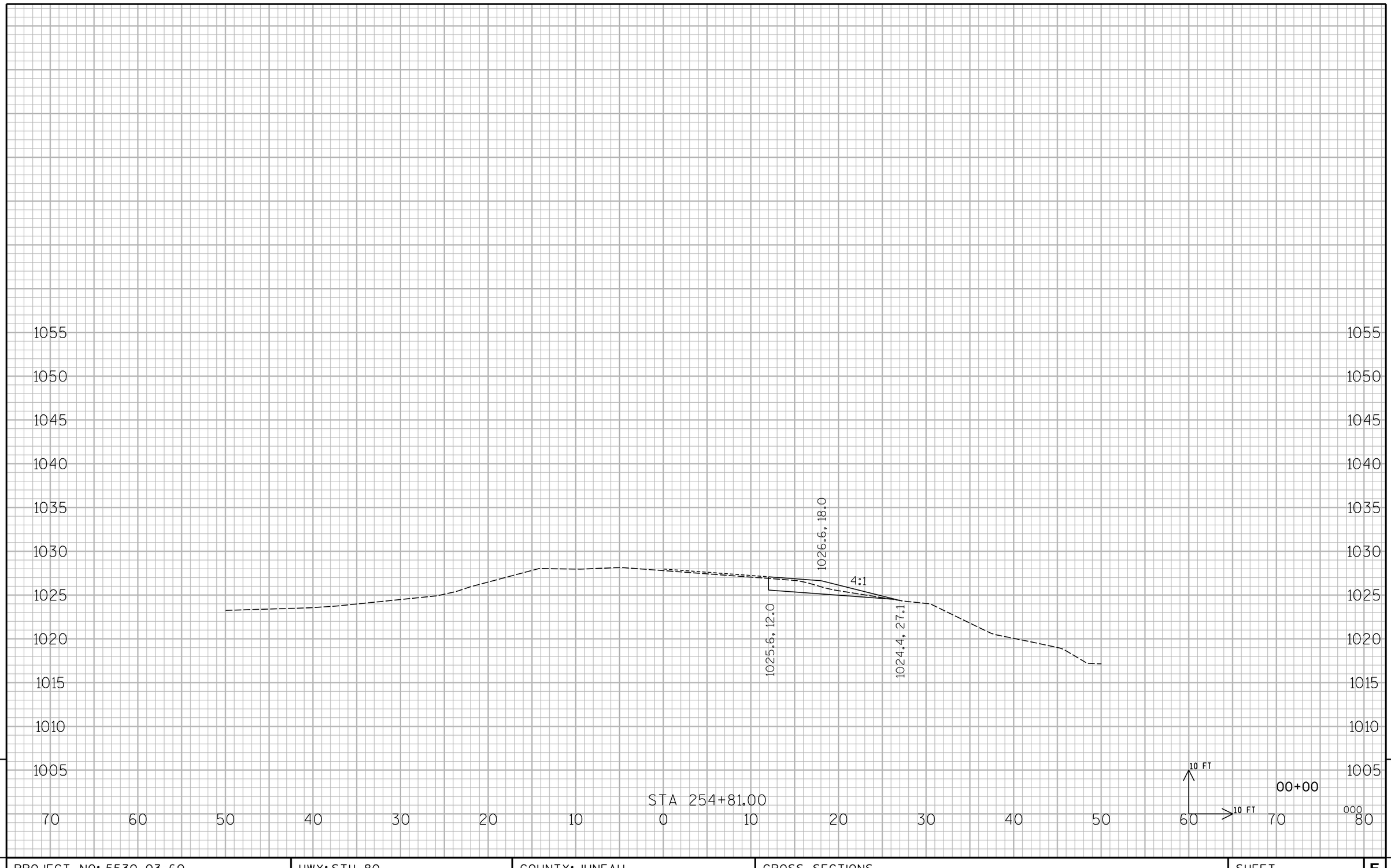
WISDOT/CADDS SHEET 21



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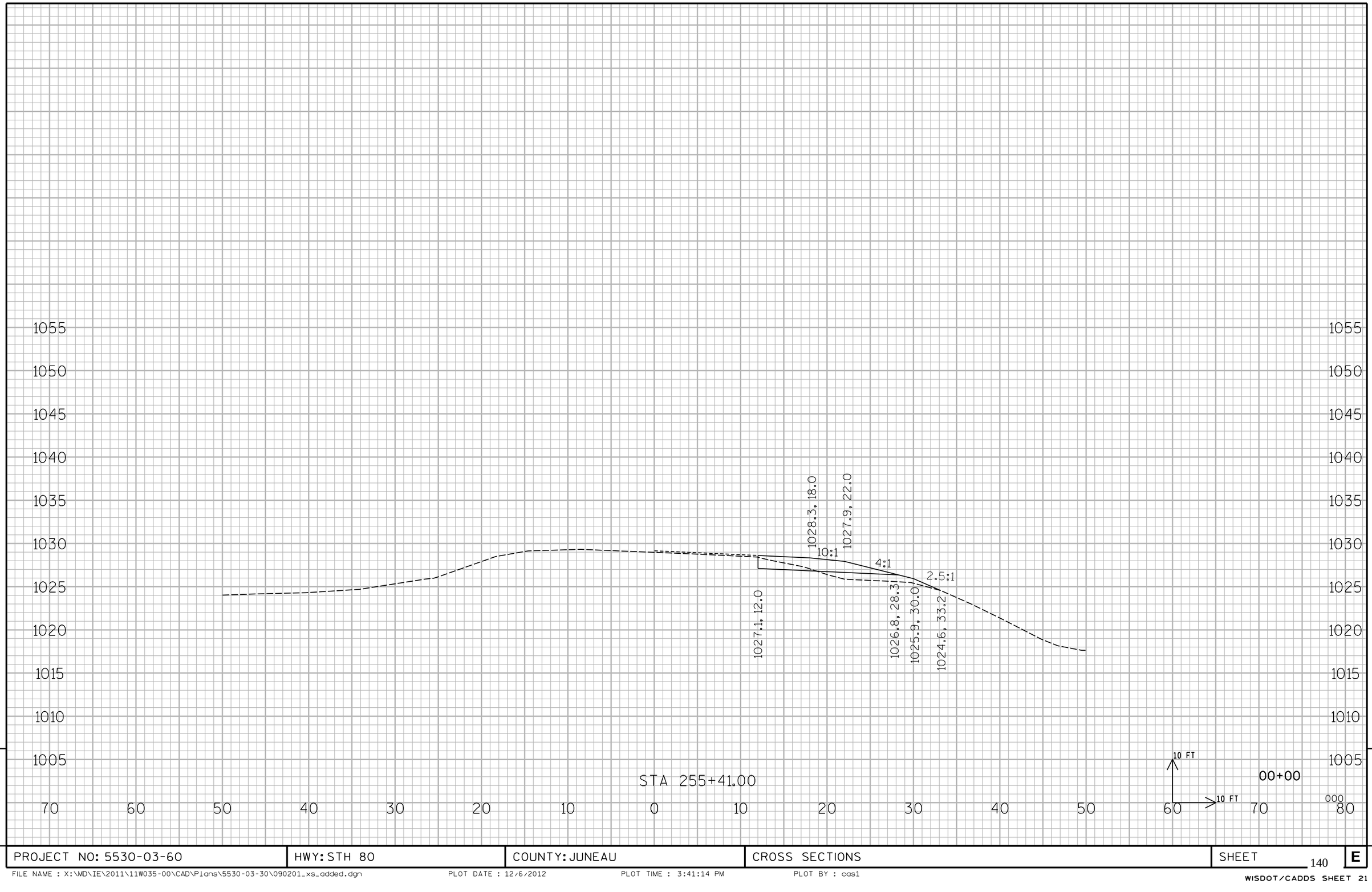
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 138	E



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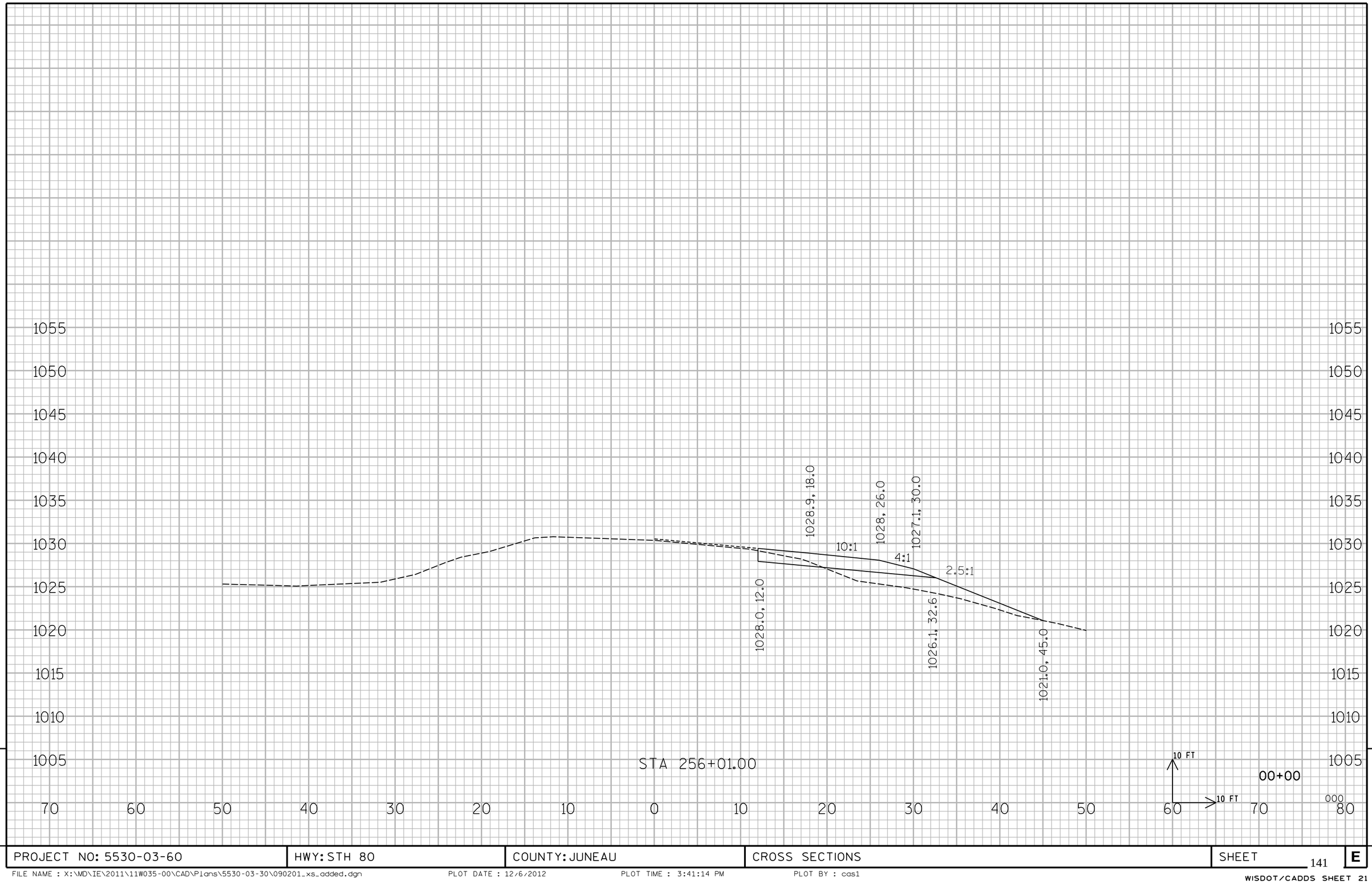
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 139	E



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 140	E



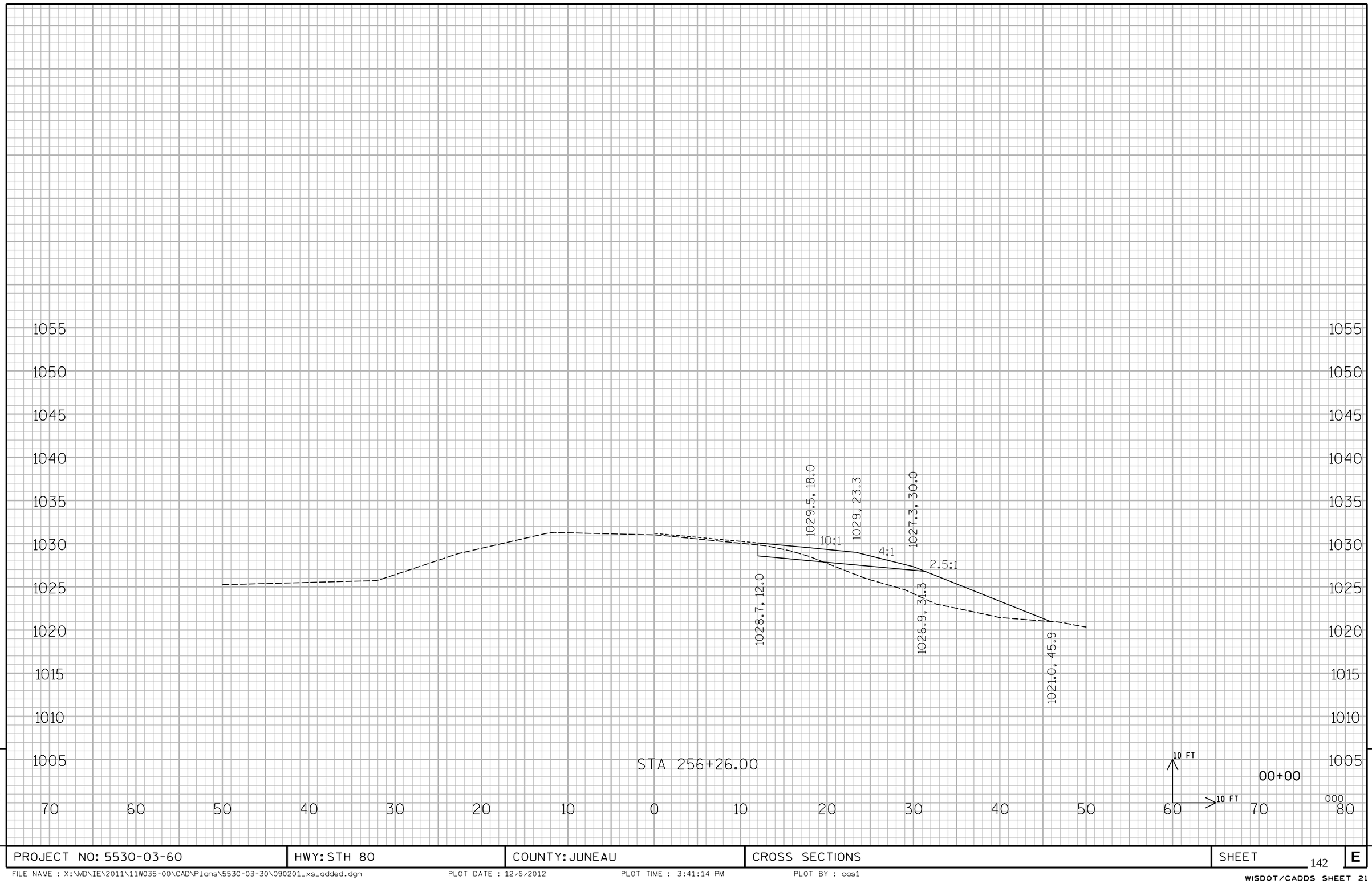
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 141	E

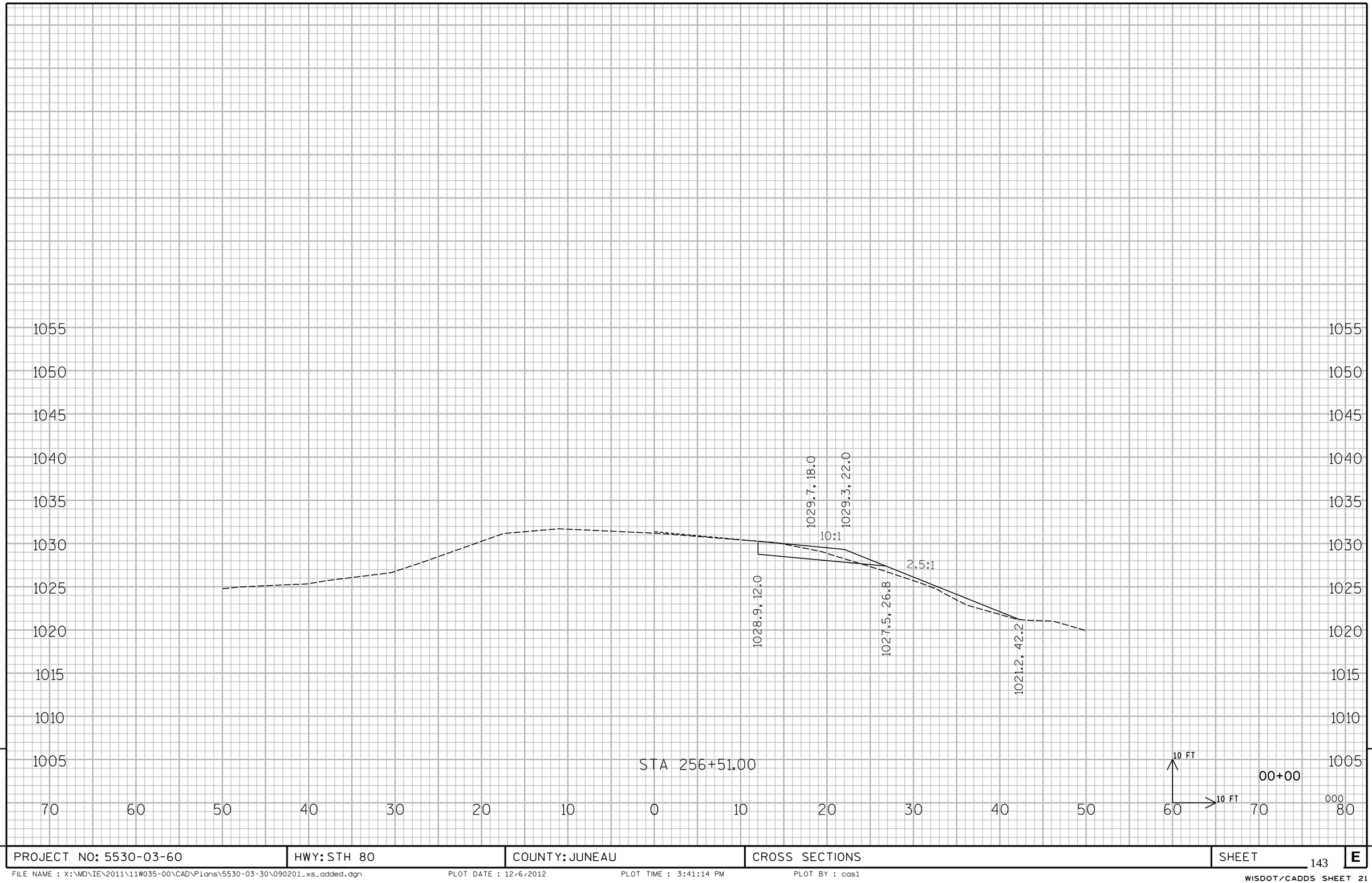
FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:14 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



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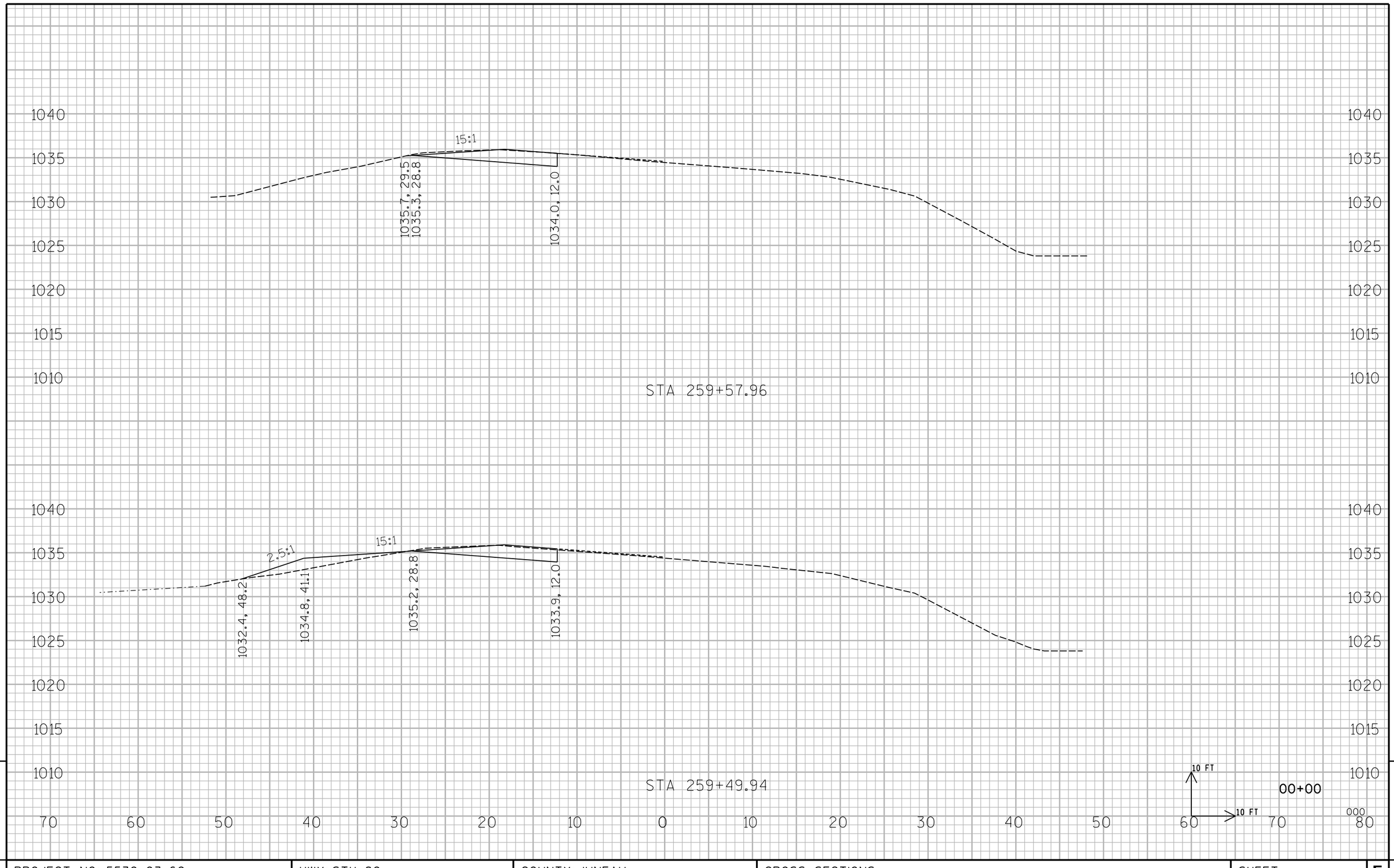
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 142	E



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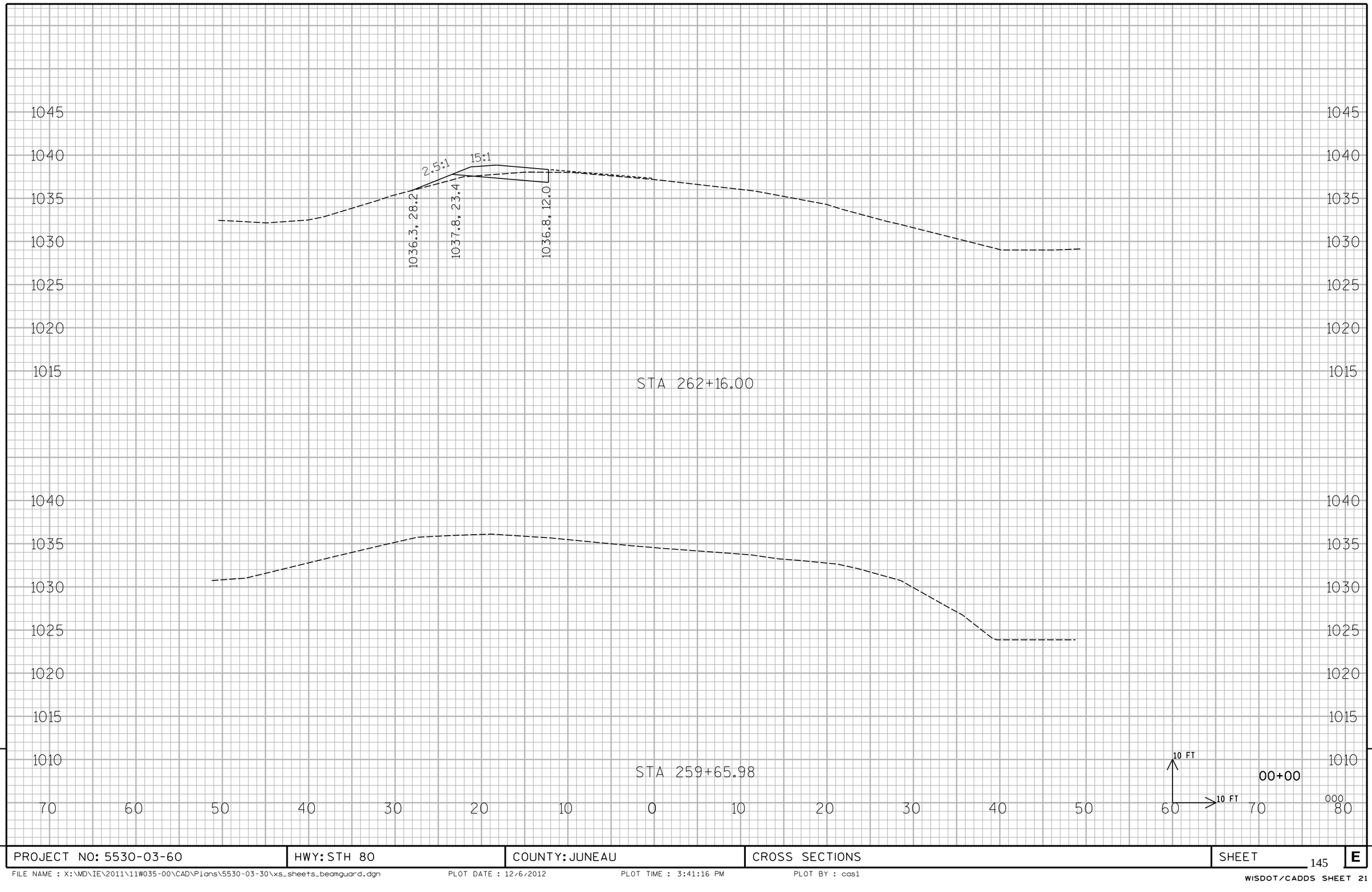
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 143	E



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 144	E



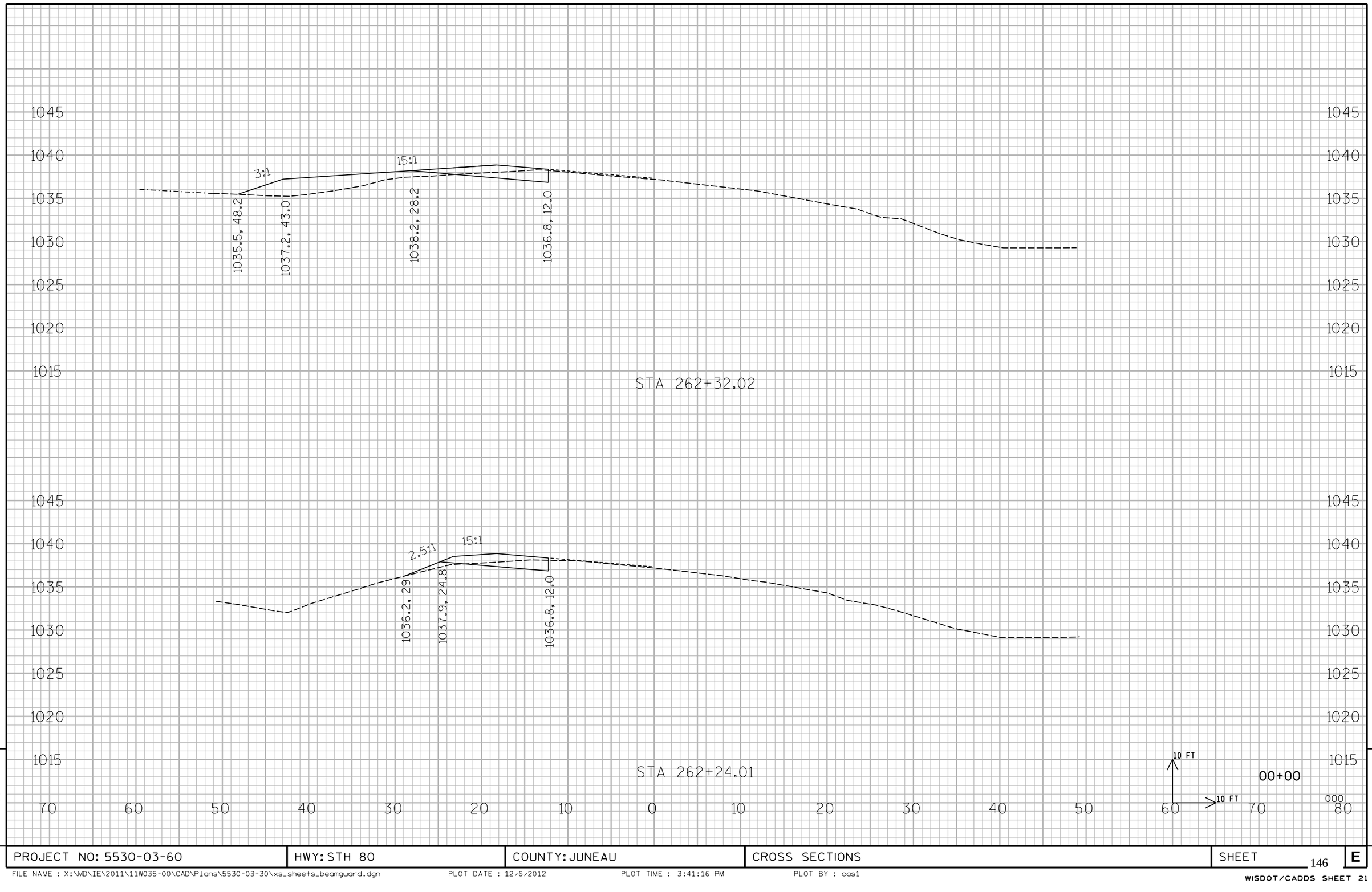
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 145	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:16 PM PLOT BY : cas1

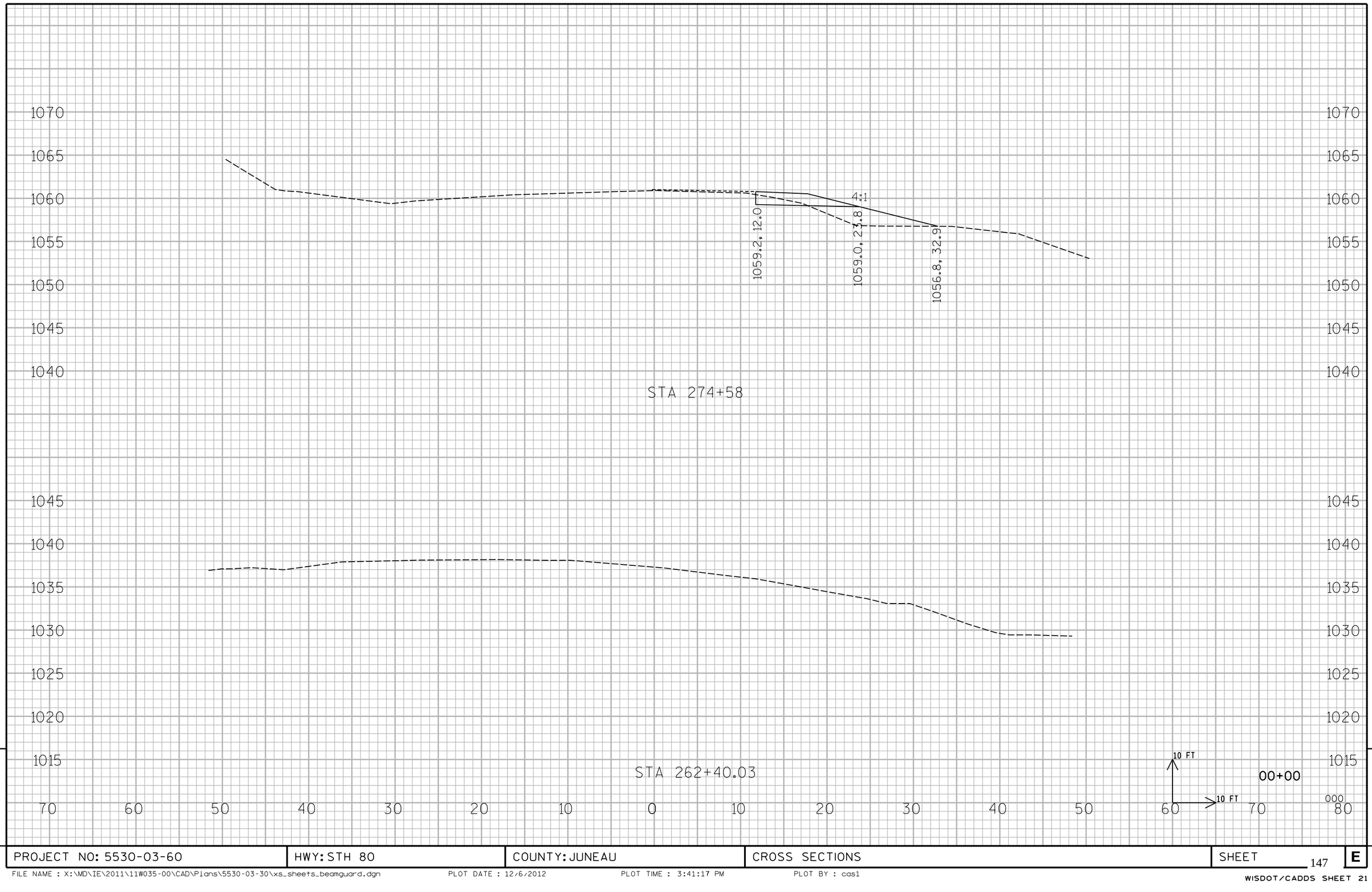
WISDOT/CADDS SHEET 21



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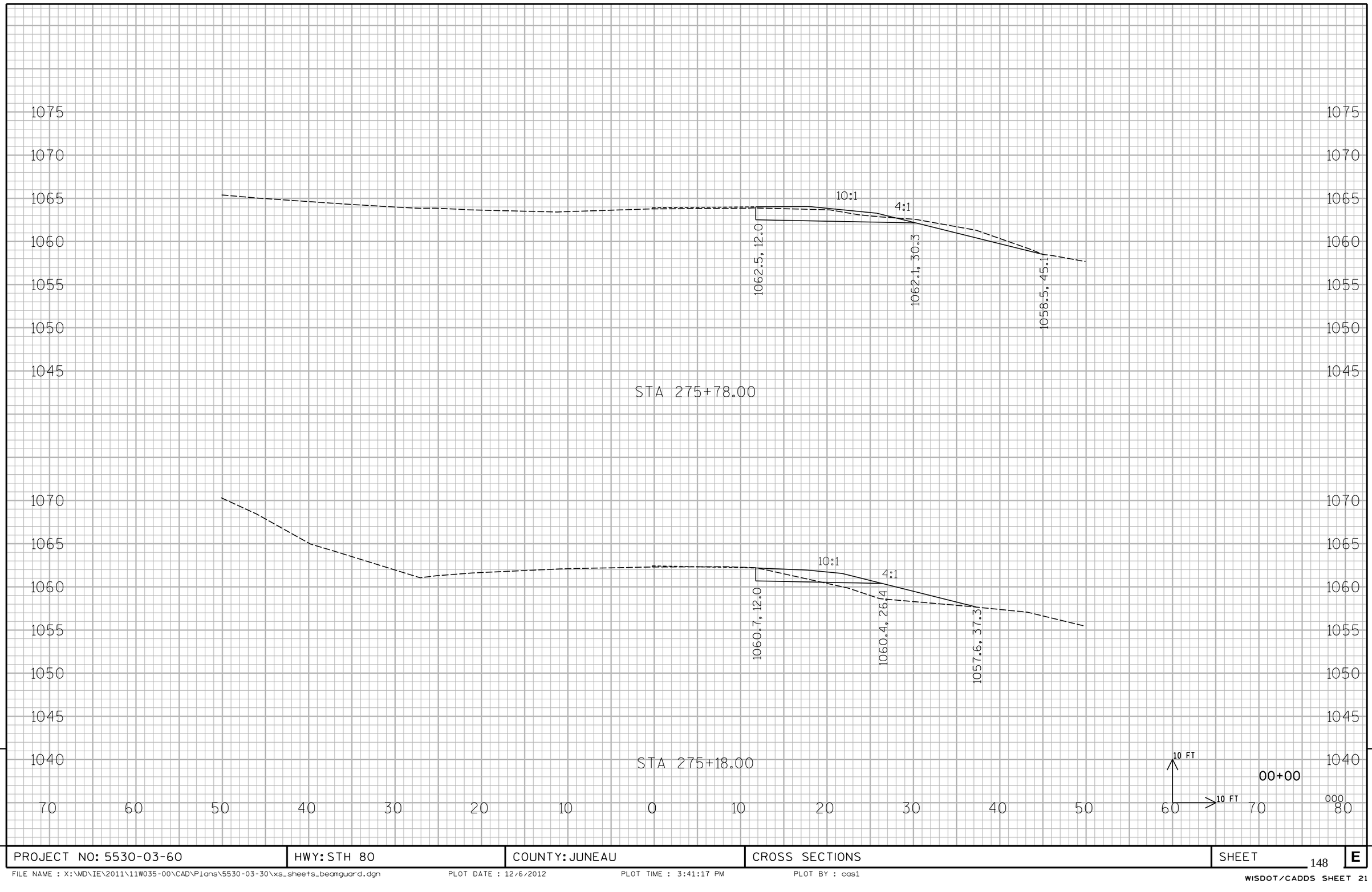
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 146	E



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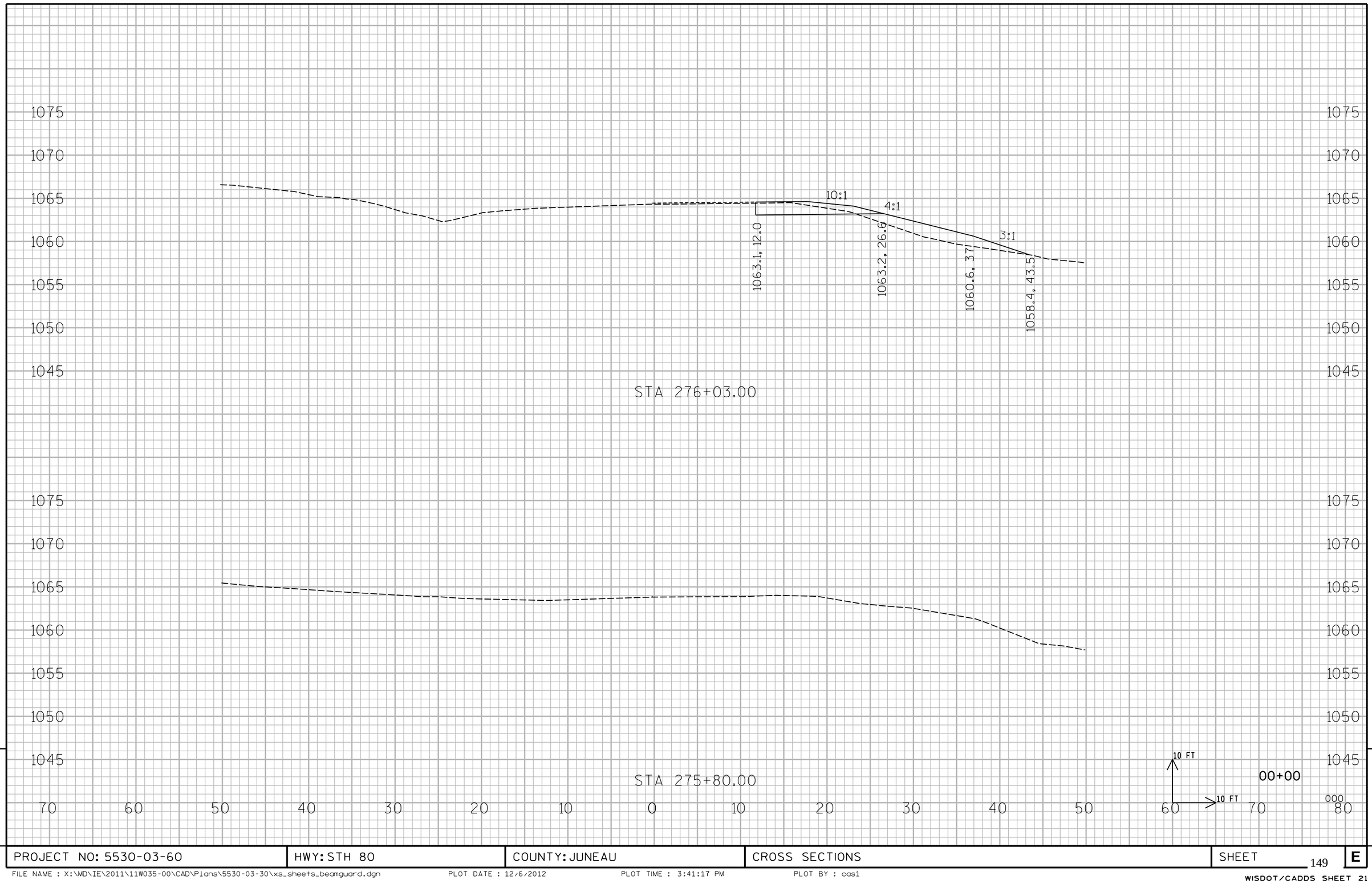
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 147	E



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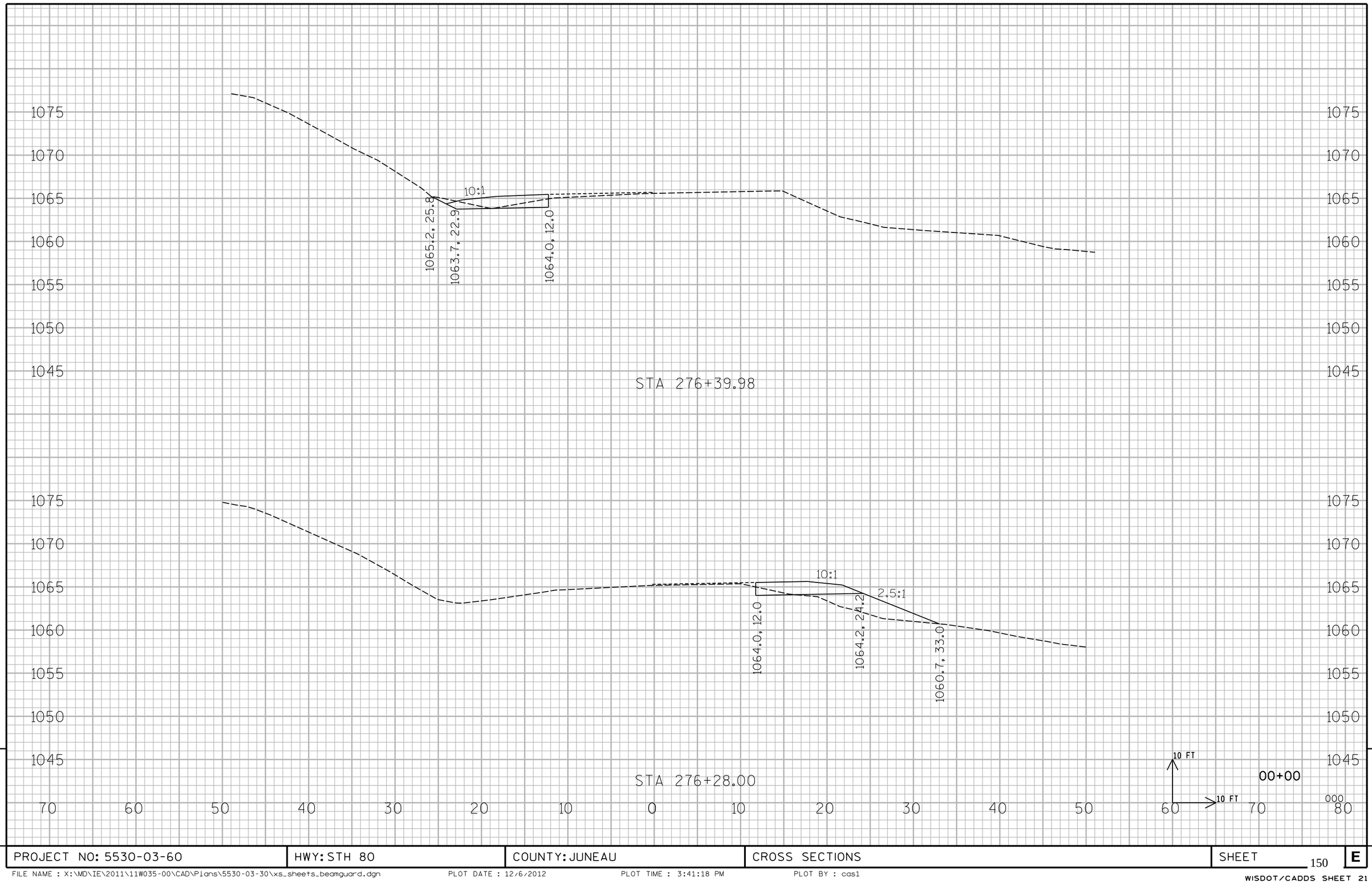
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 148	E



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 149	E



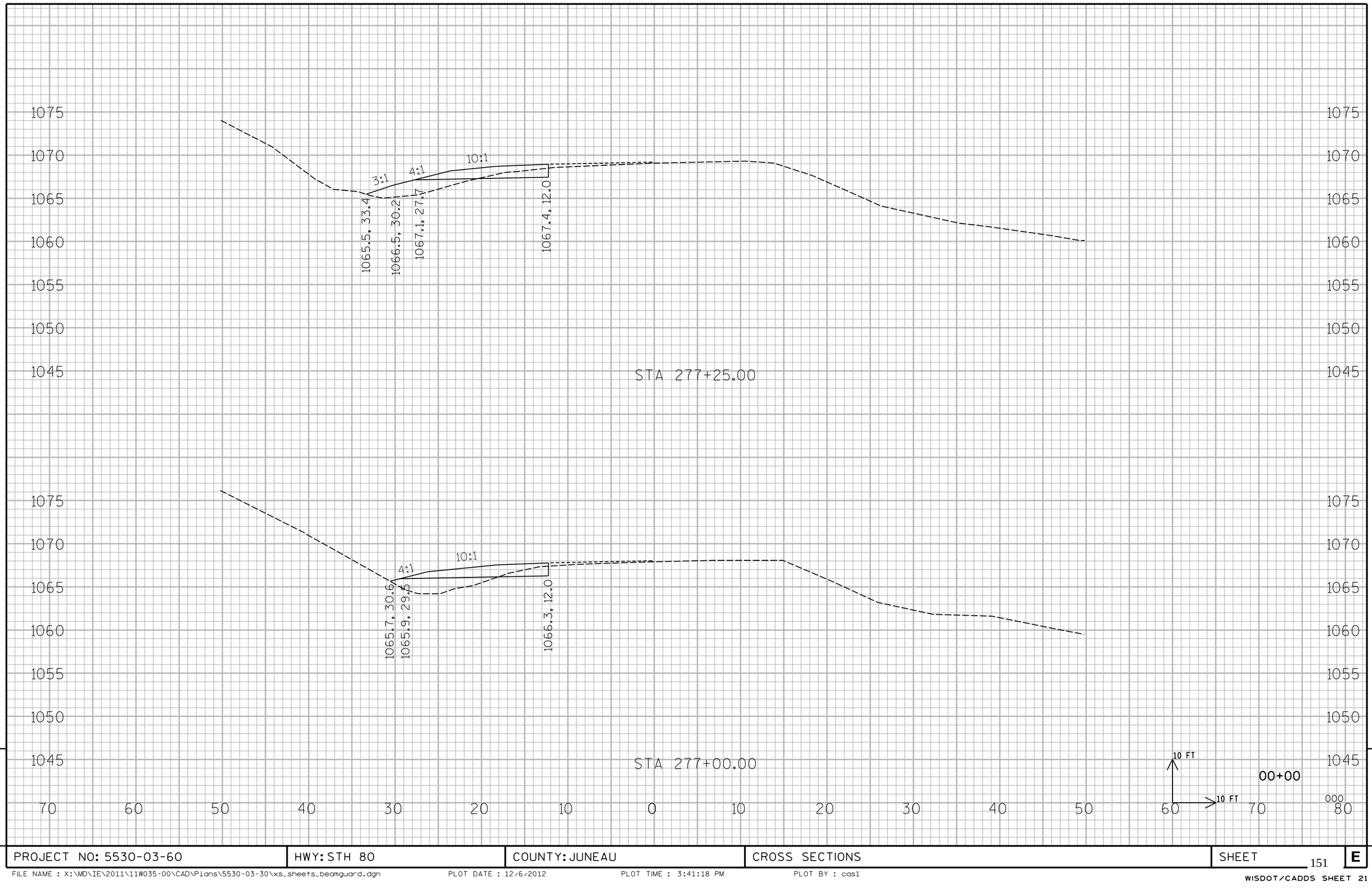
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 150	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:18 PM PLOT BY : cas1

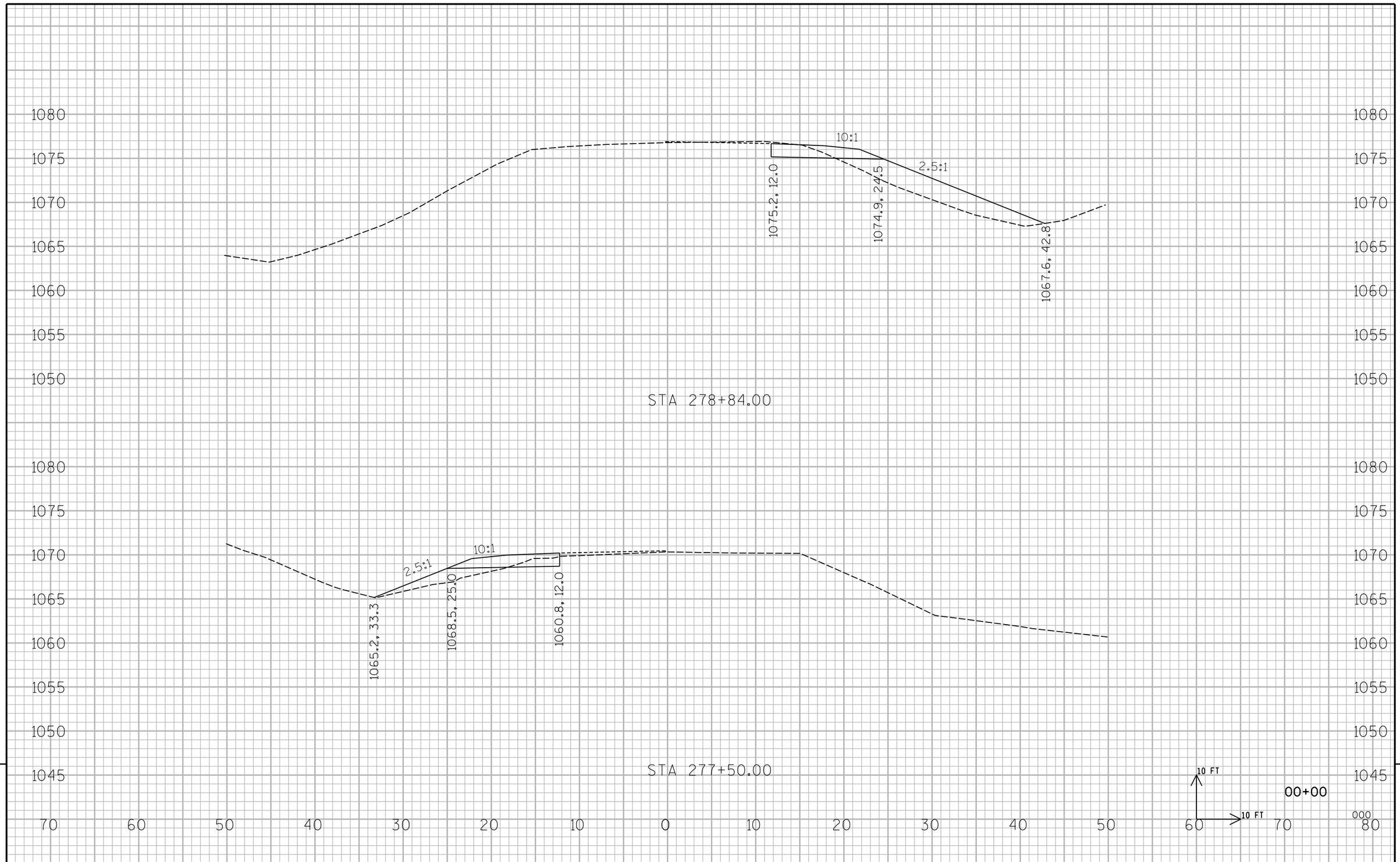
WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 151	E



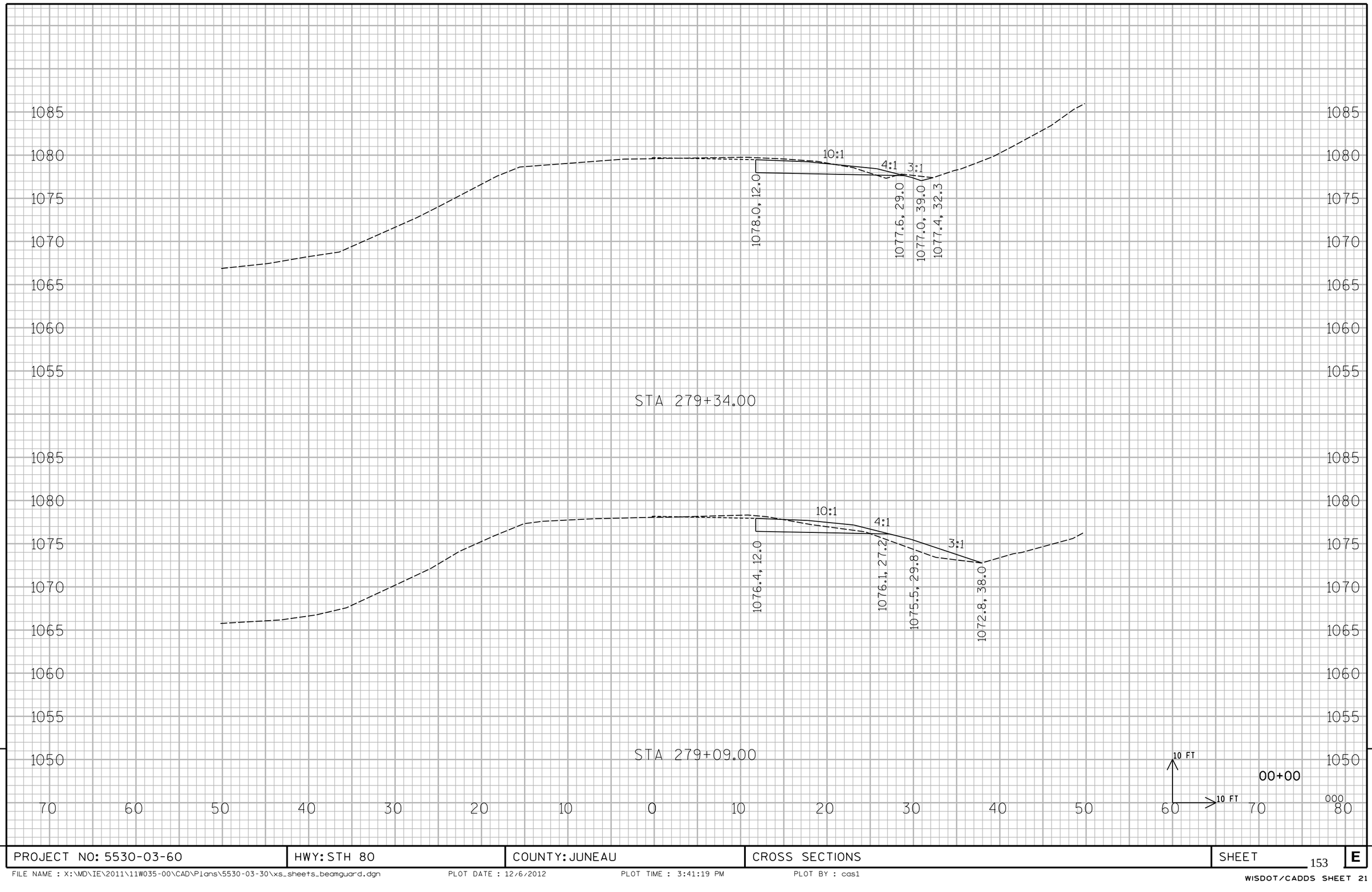
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 152	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:18 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



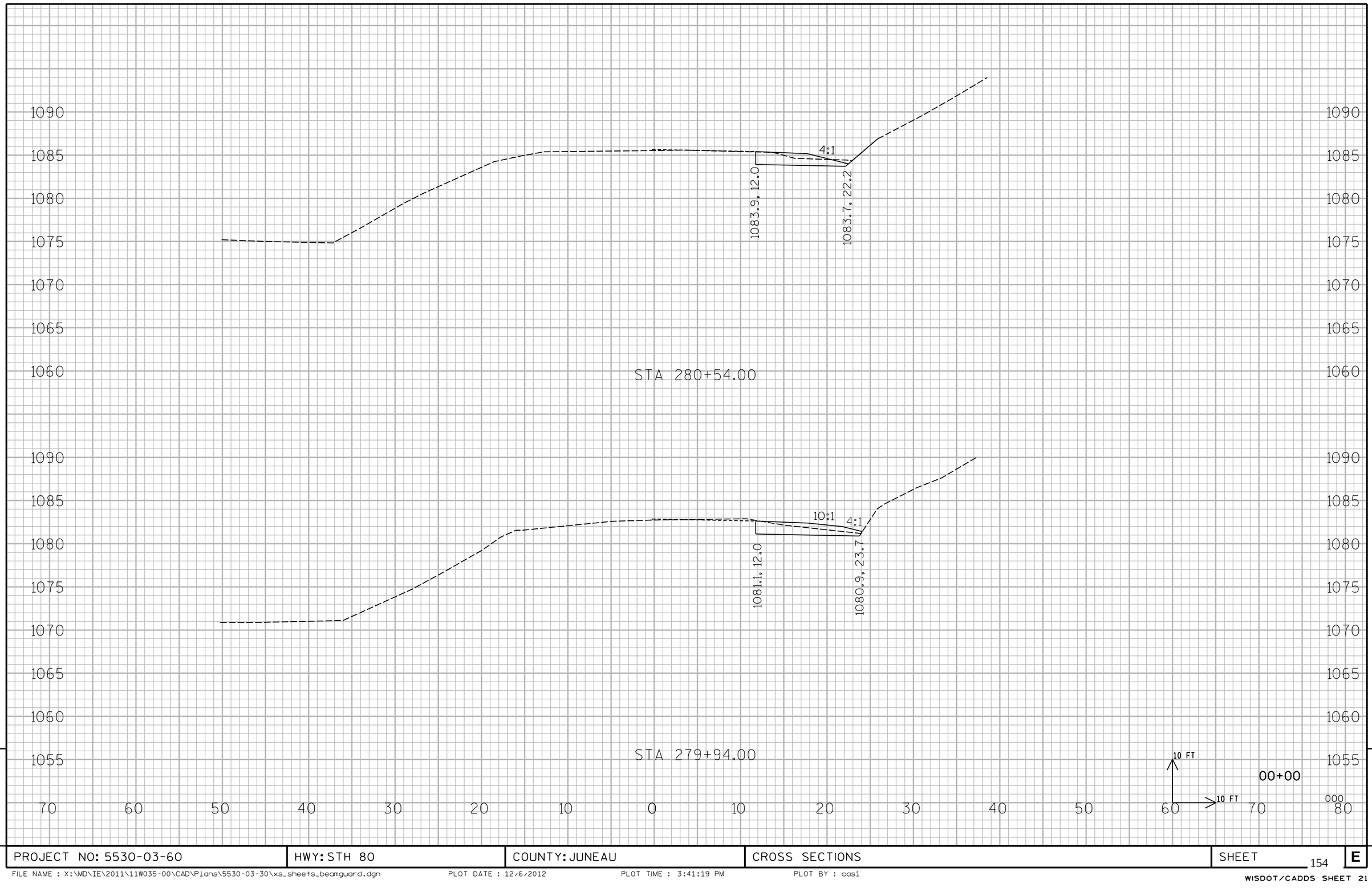
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 153	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:19 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21

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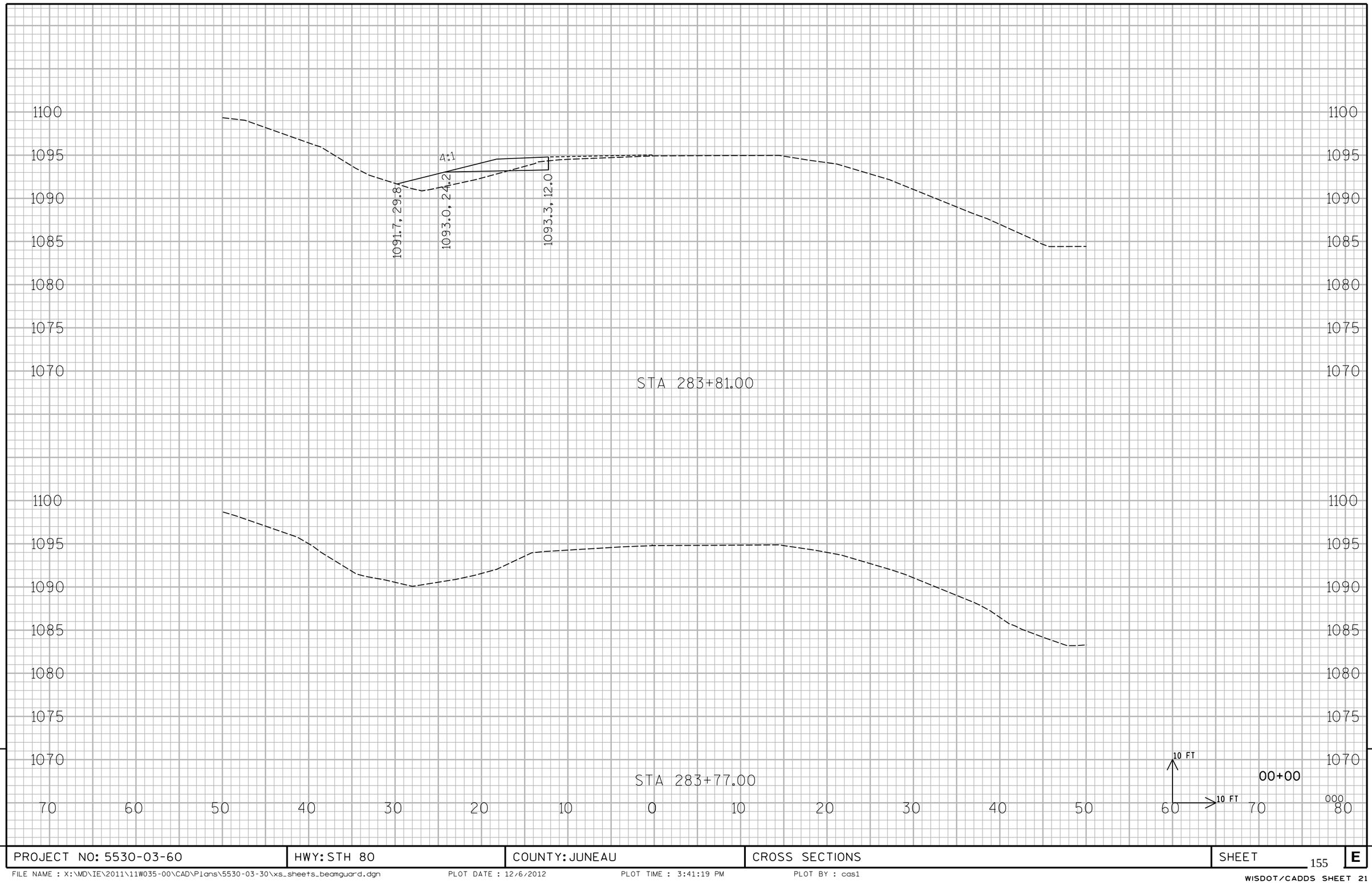
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 154	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:19 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



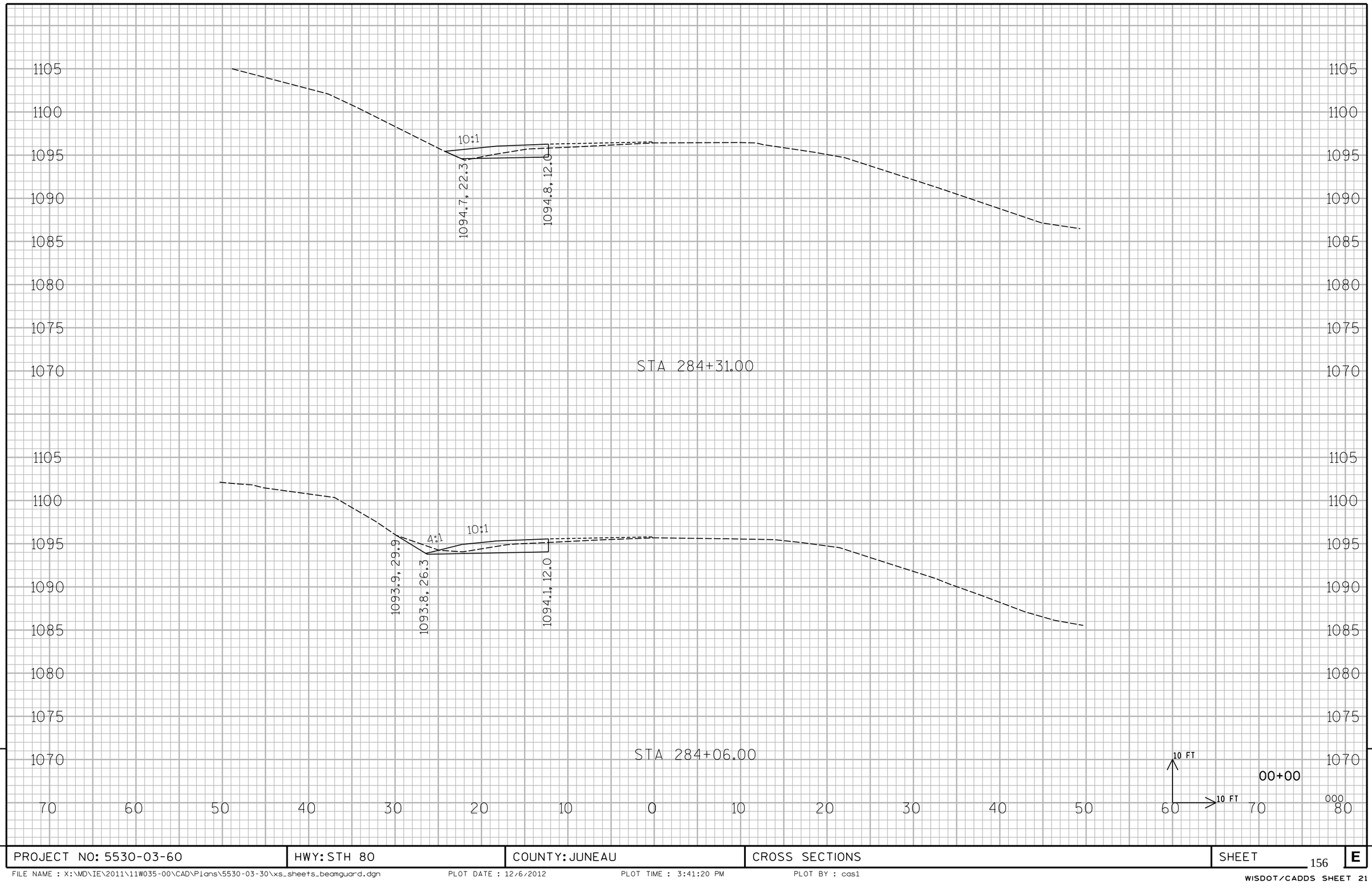
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 155	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:19 PM PLOT BY : cas1

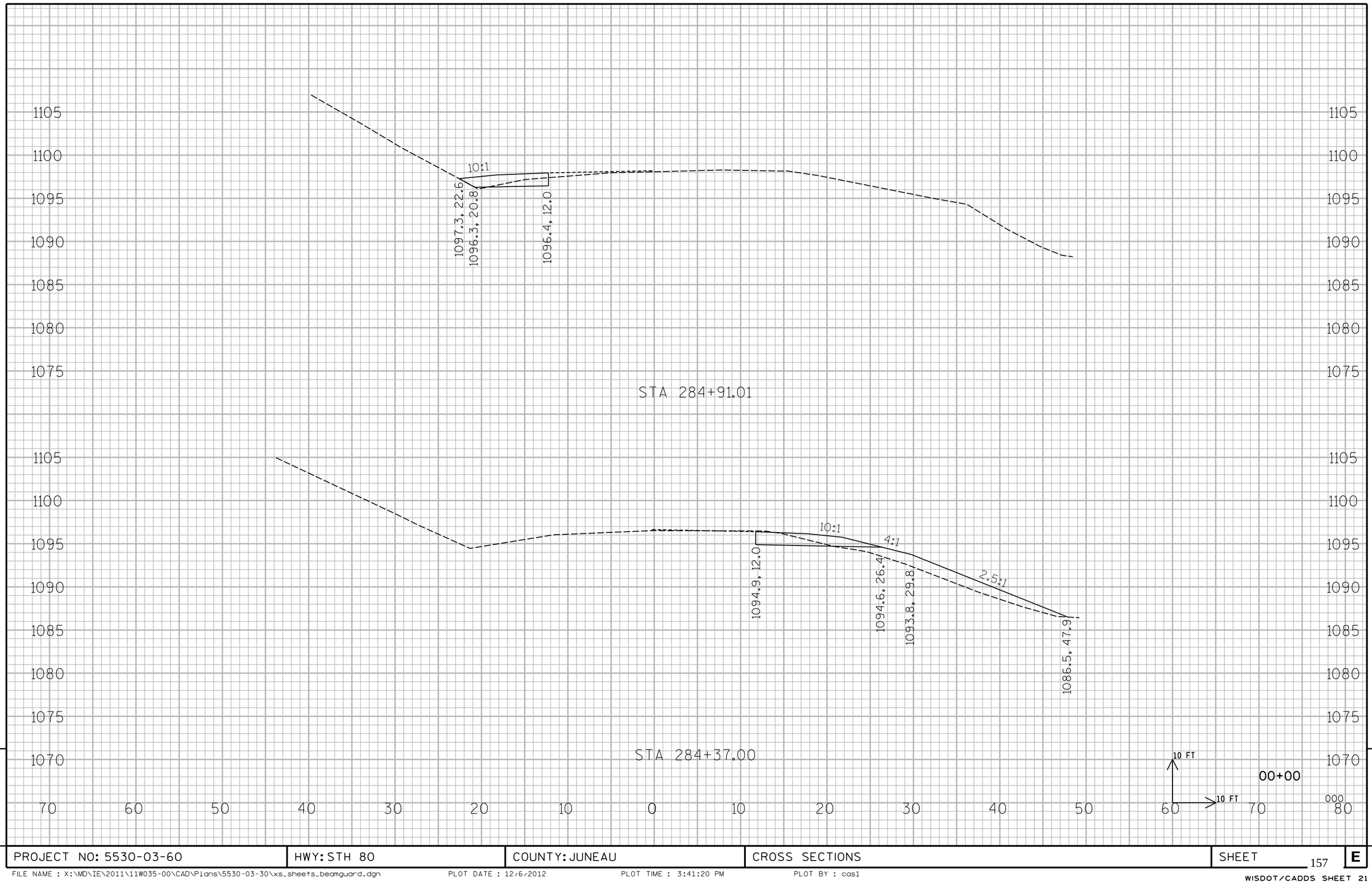
WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 156	E



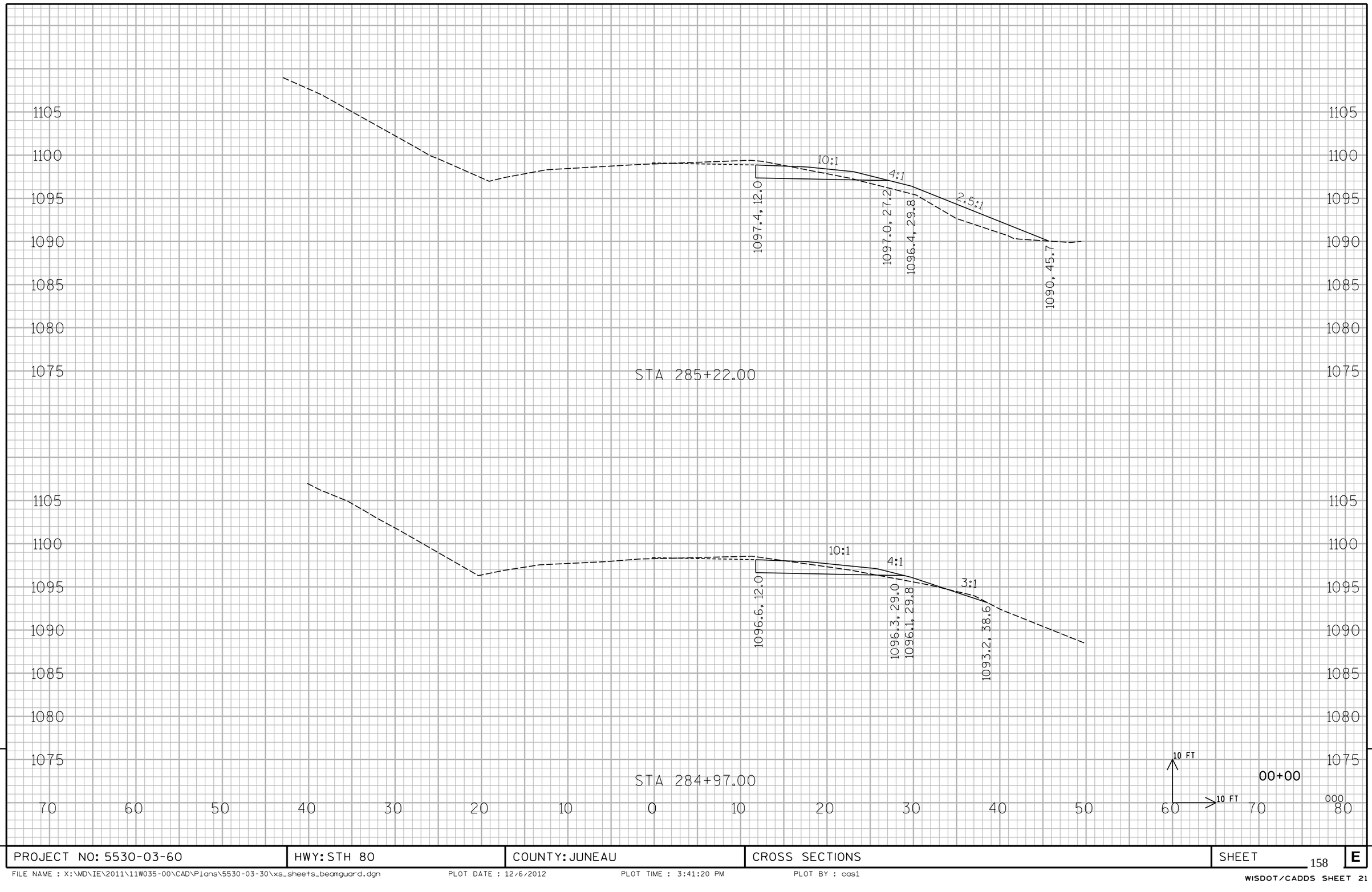
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 157	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:20 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21

9



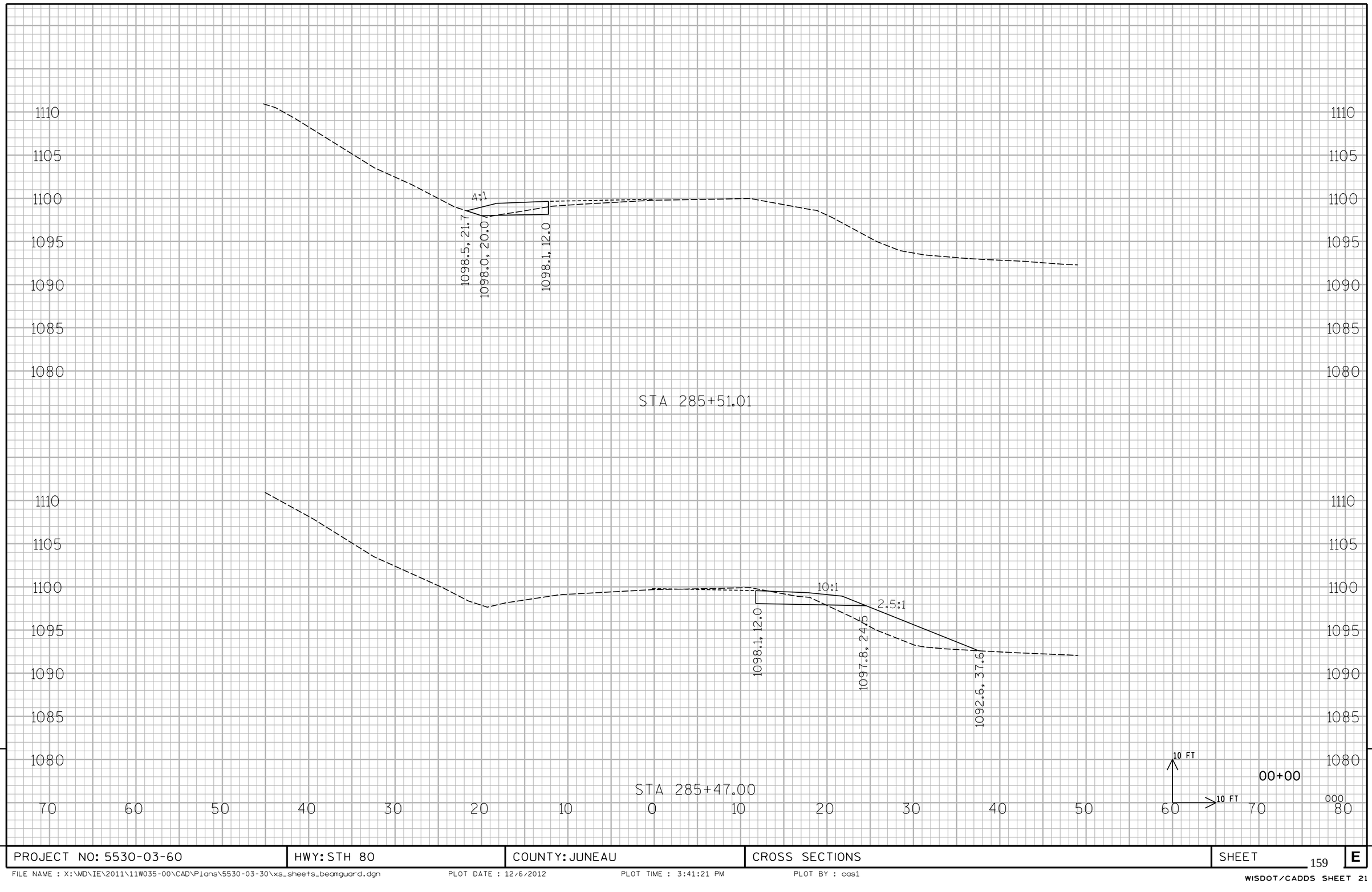
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 158	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:20 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



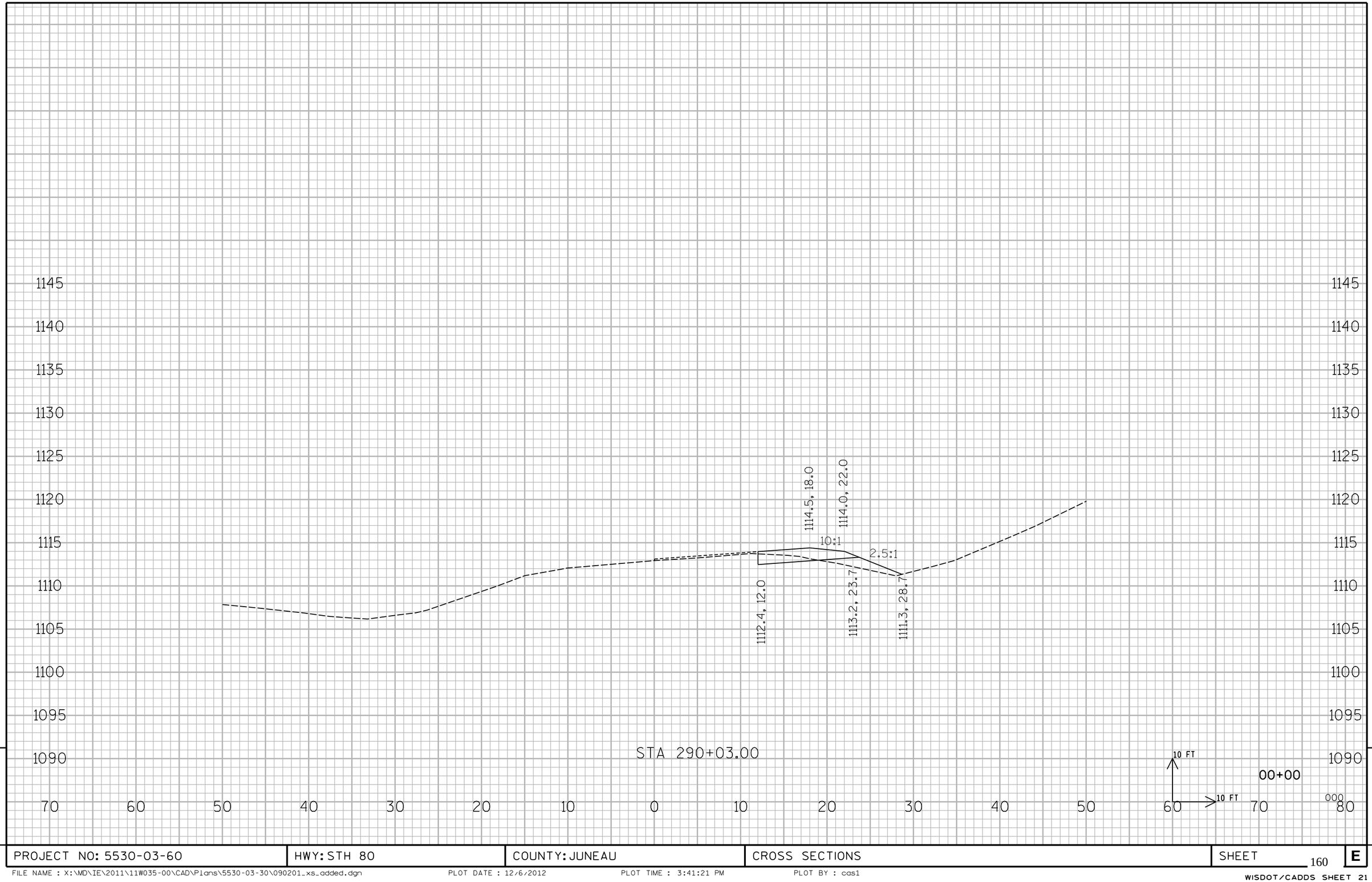
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 159	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:21 PM PLOT BY : cas1

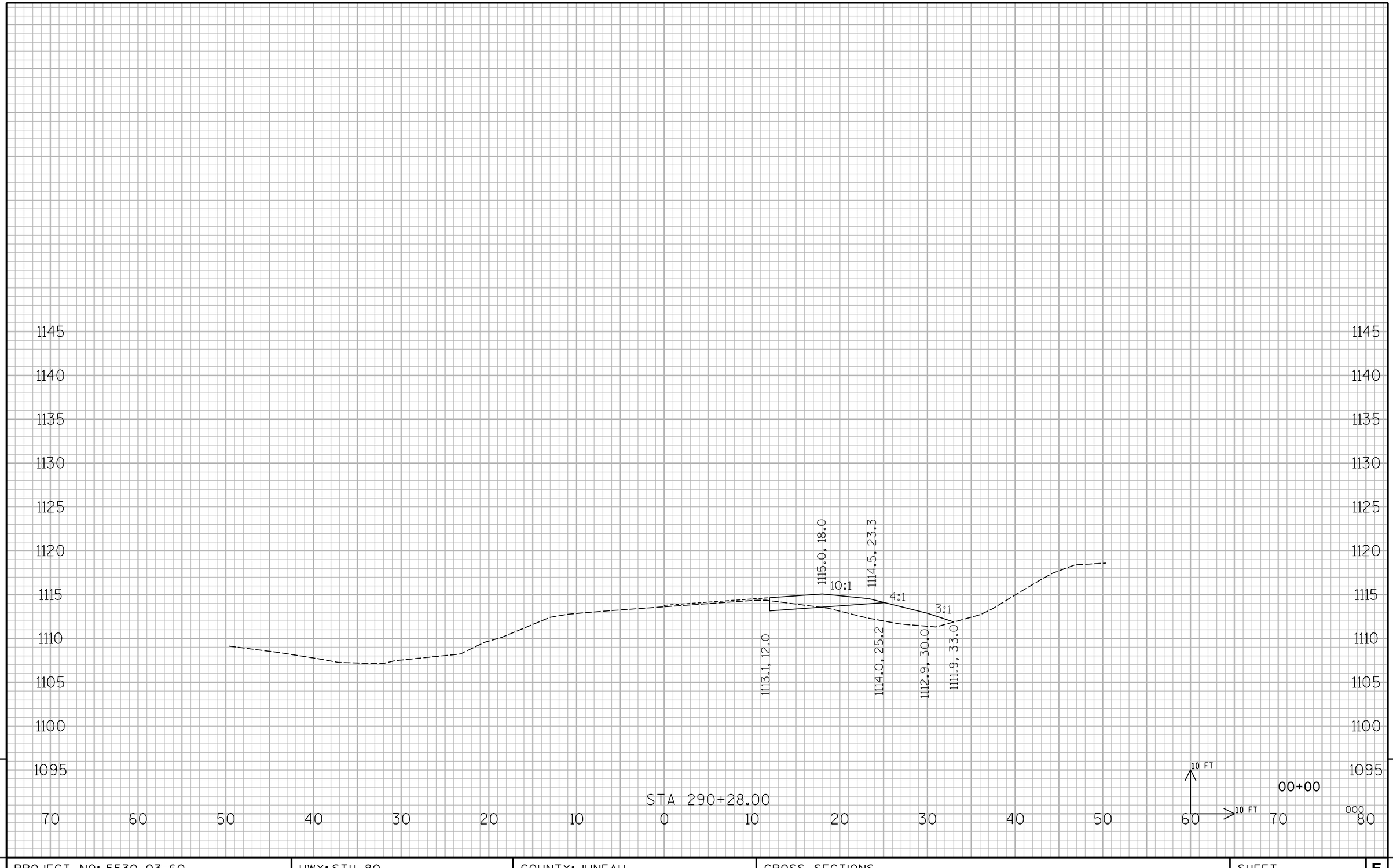
WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 160	E

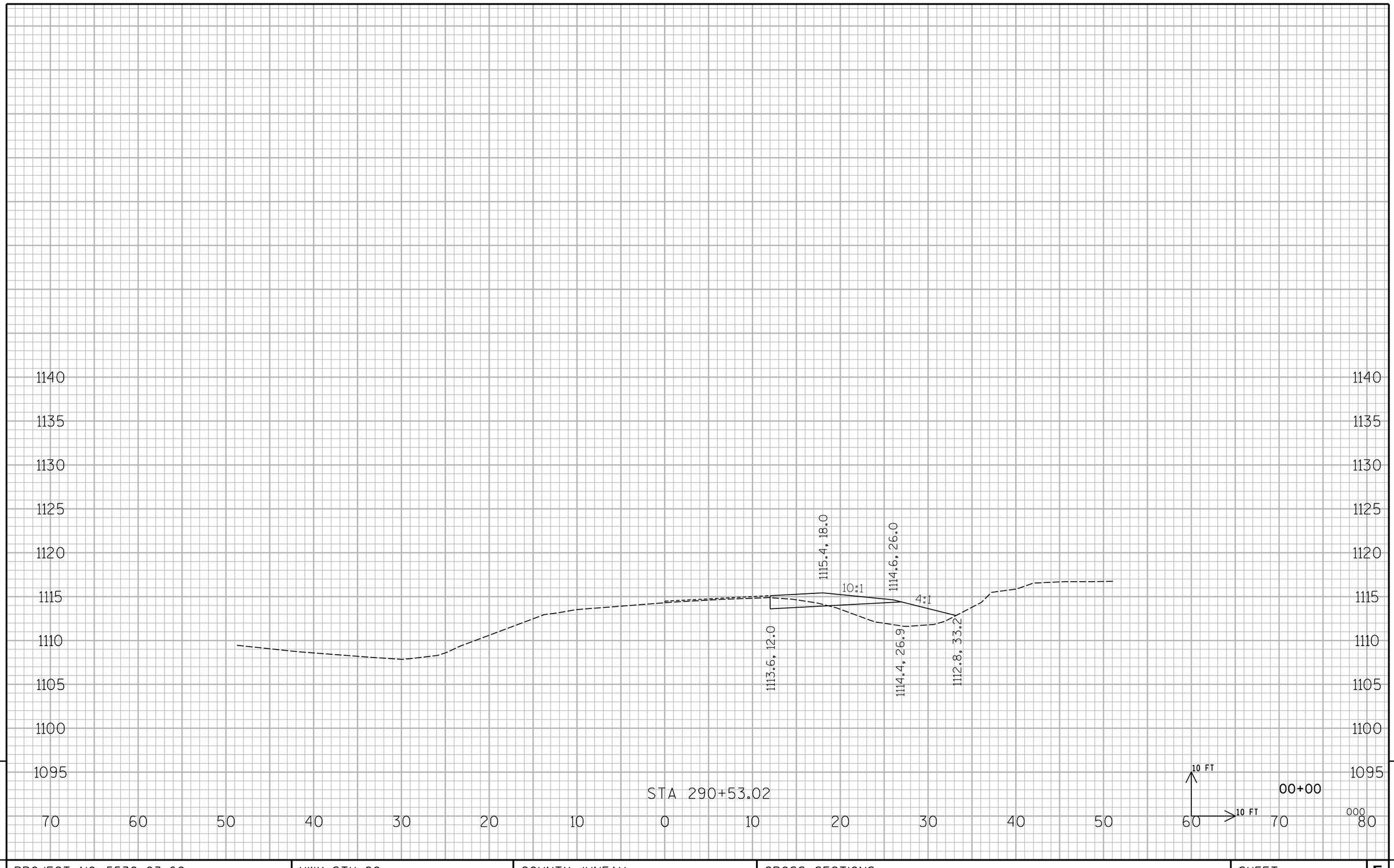


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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 161	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:21 PM PLOT BY : cas1

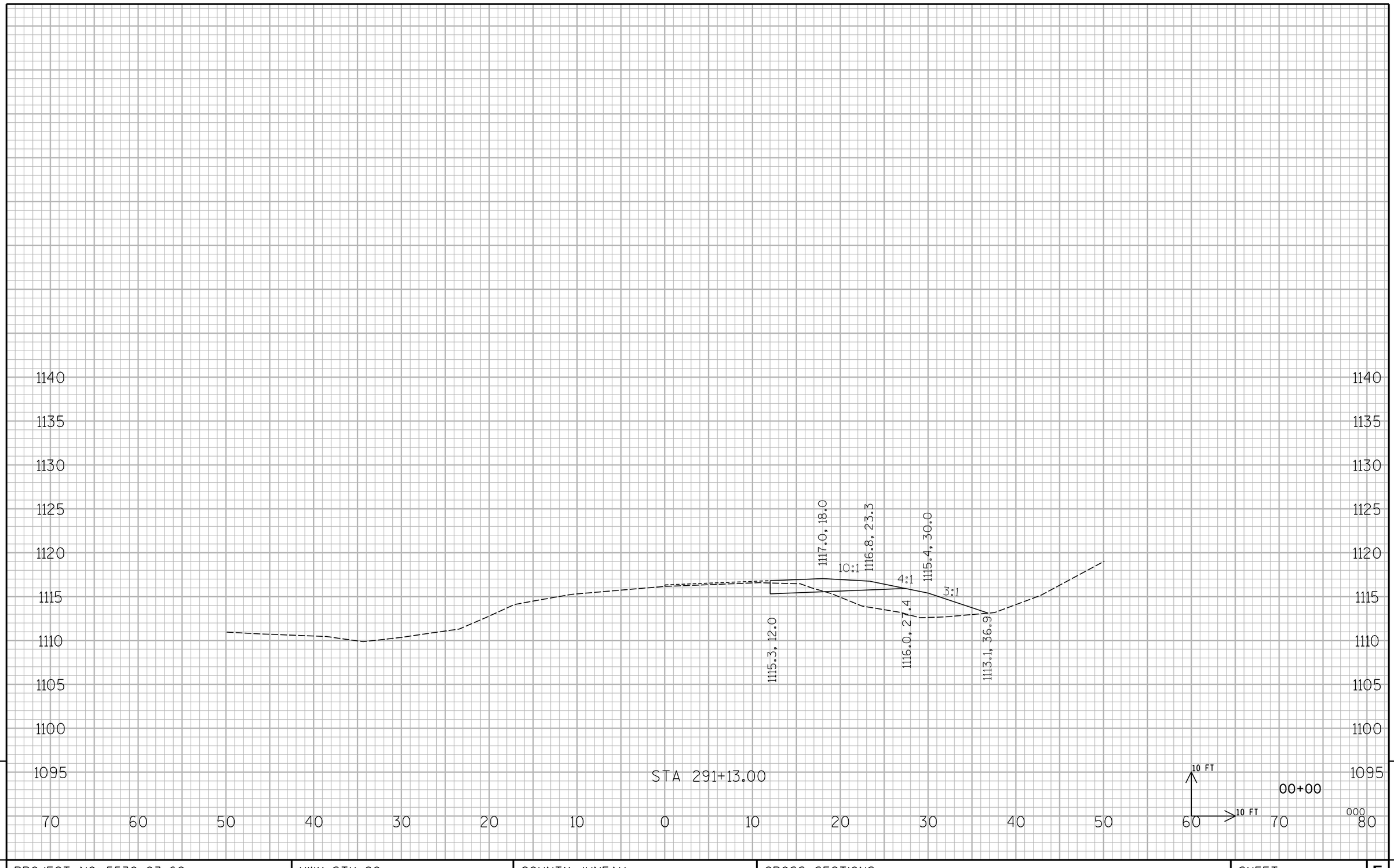
WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 162	E



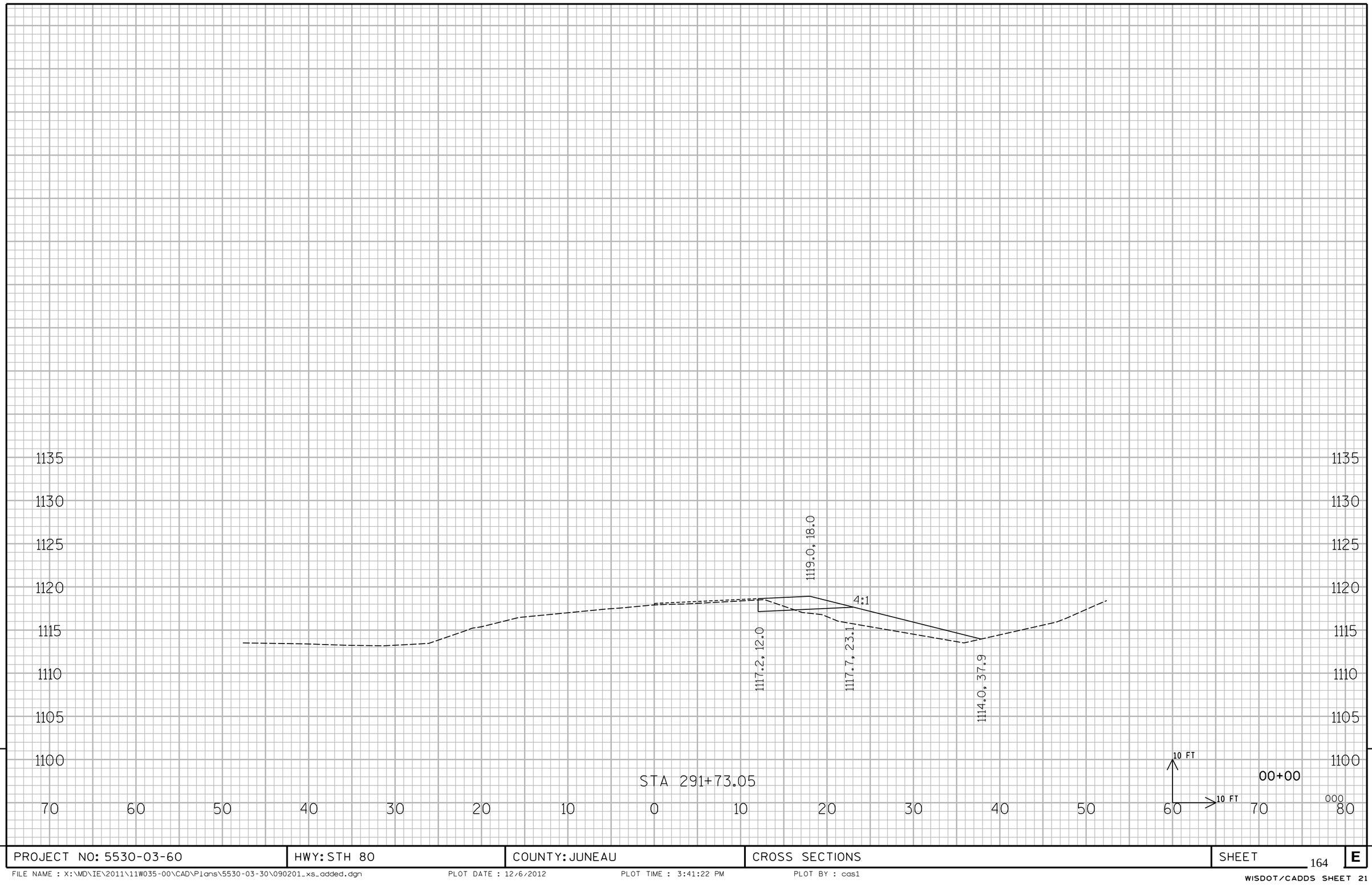
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 163	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:22 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



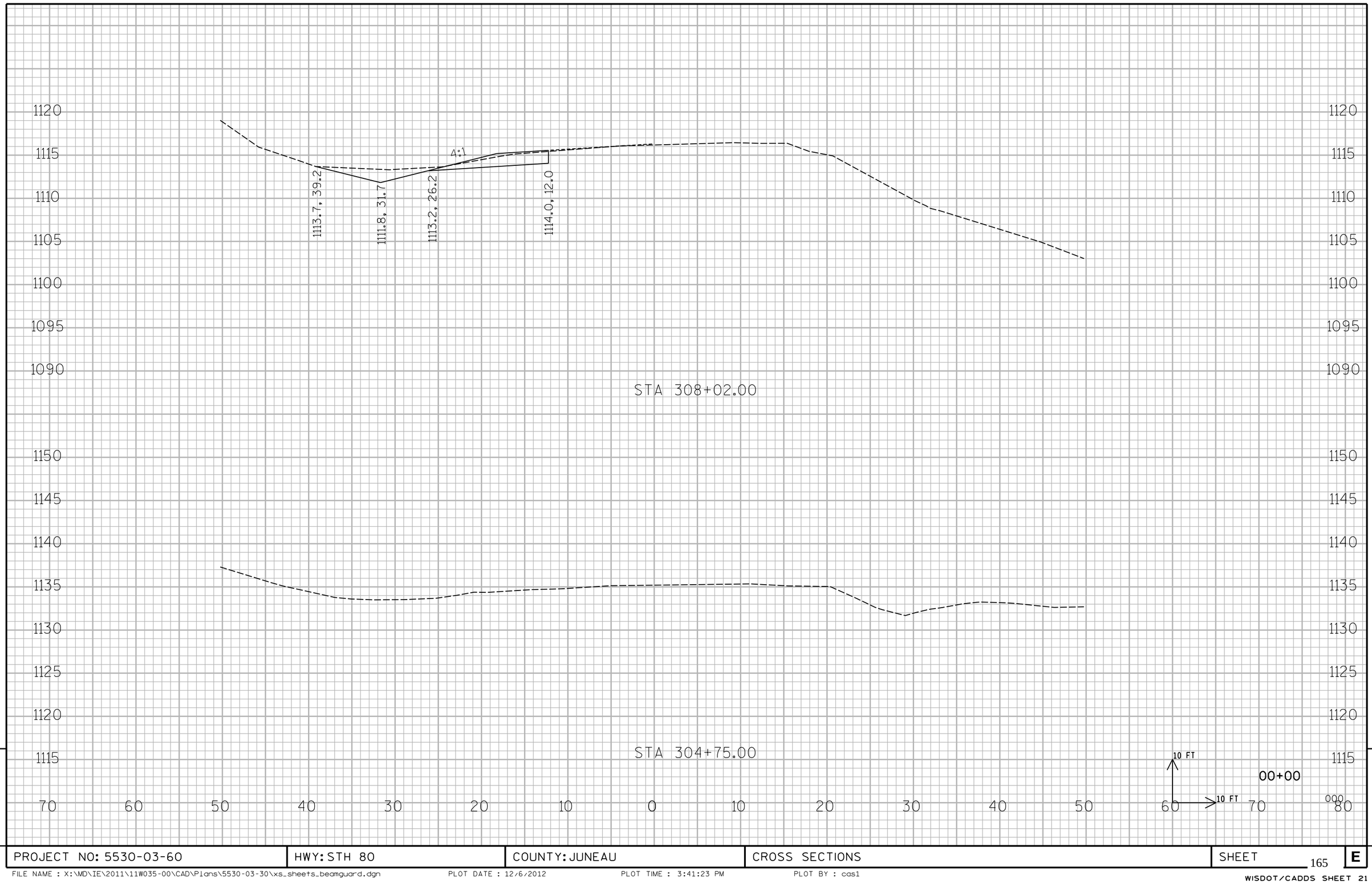
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 164	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:22 PM PLOT BY : cas1

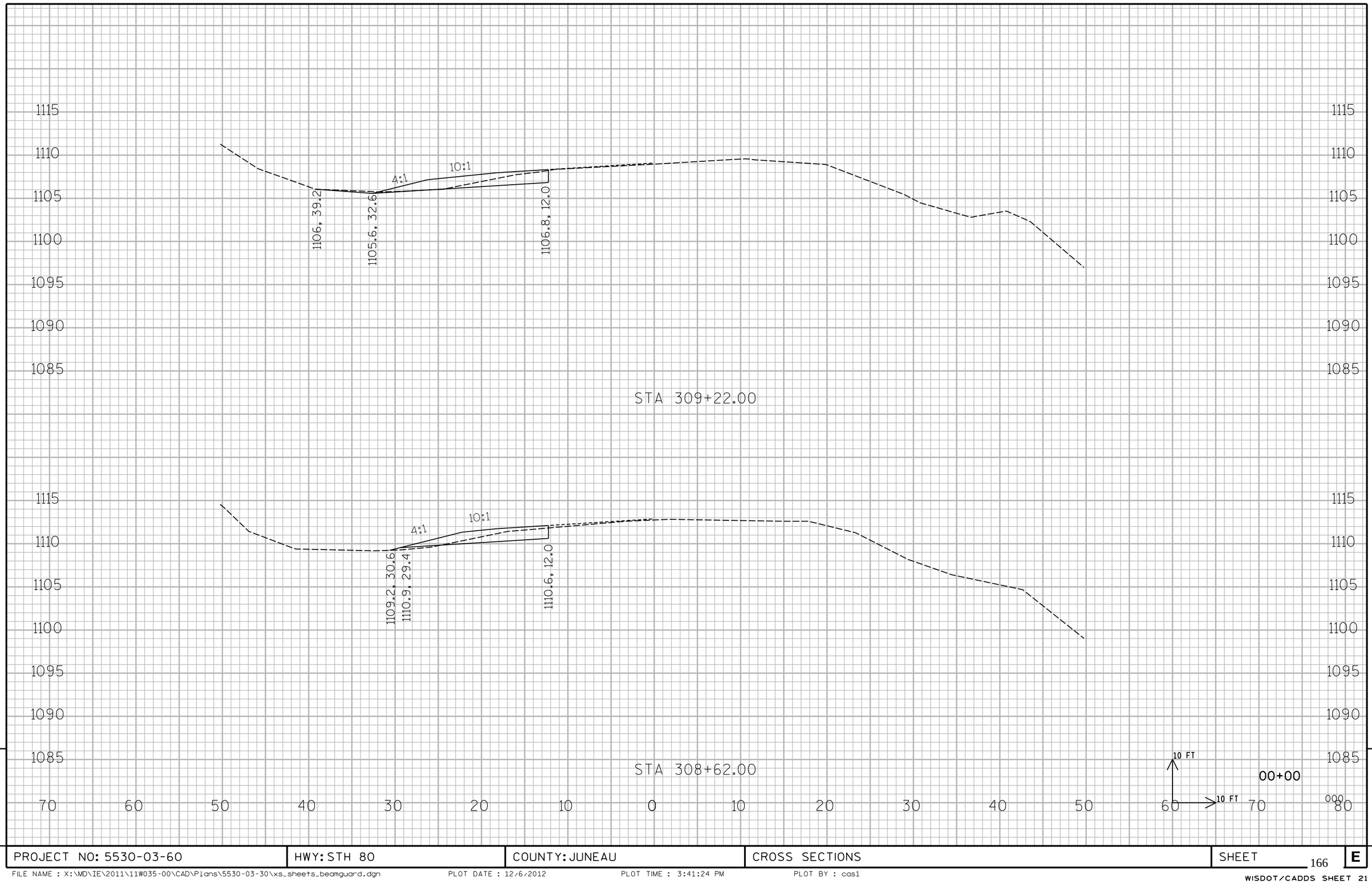
WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 165	E



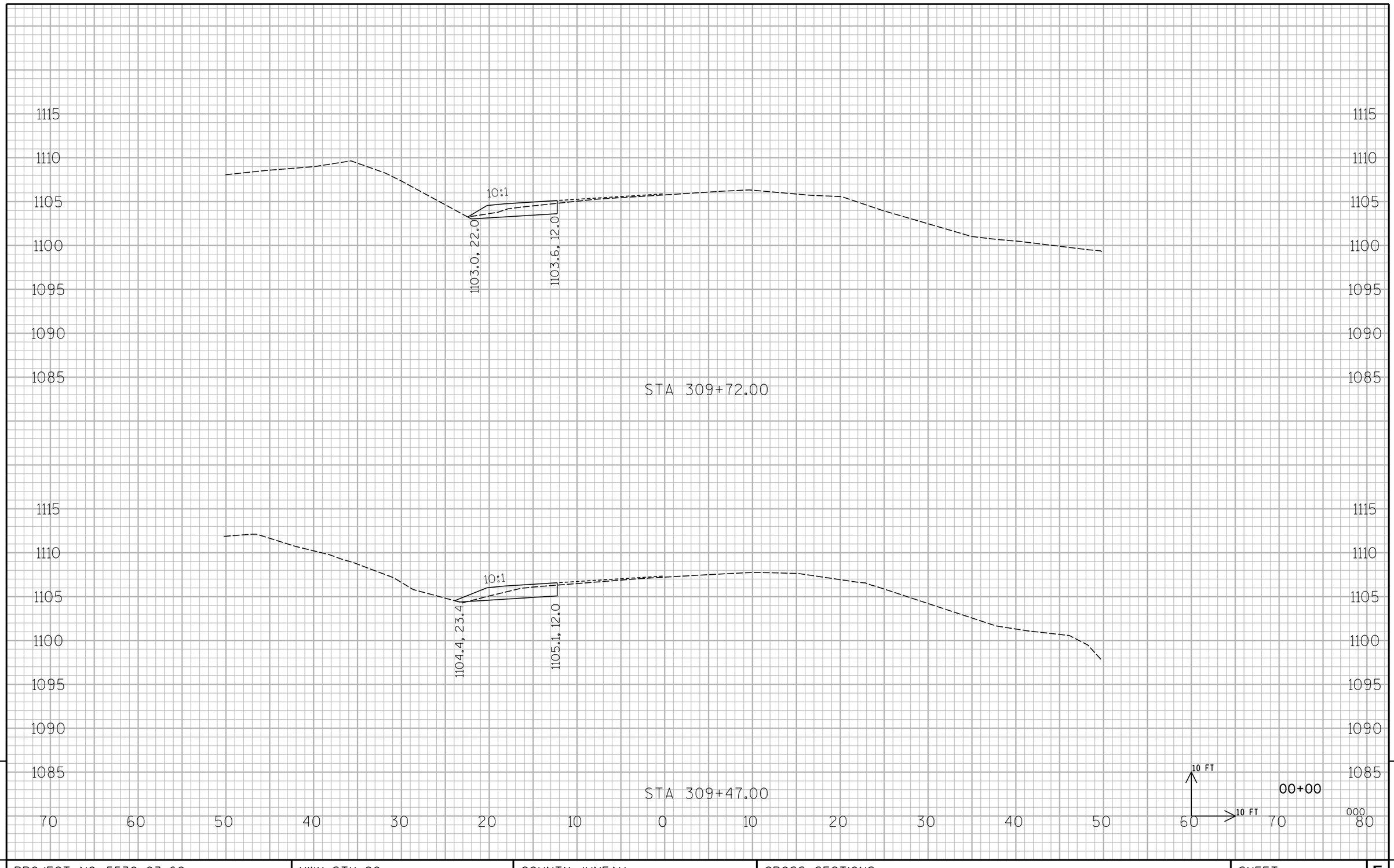
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 166	E

9

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:24 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



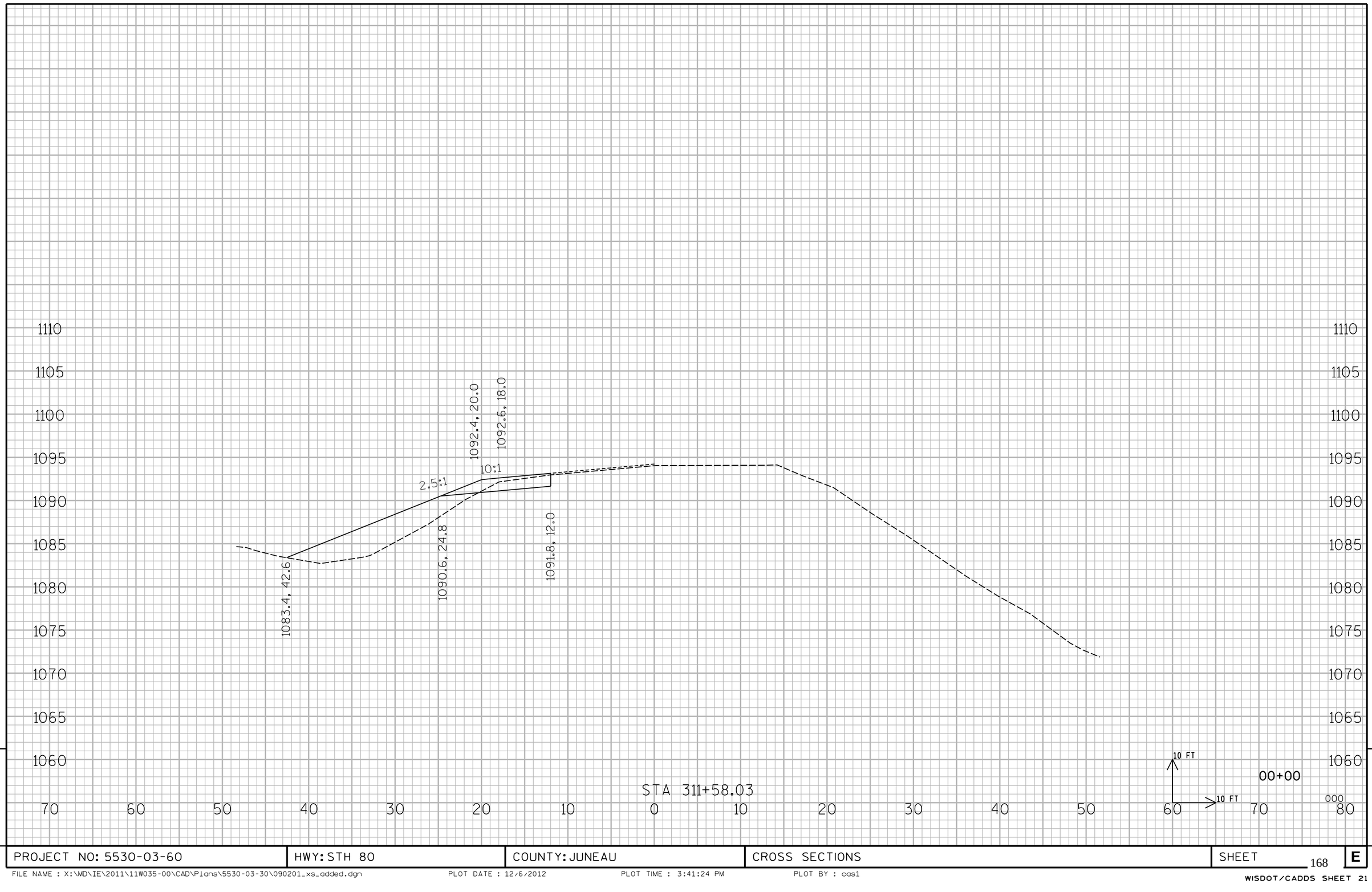
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 167	E

9

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:24 PM PLOT BY : cas1

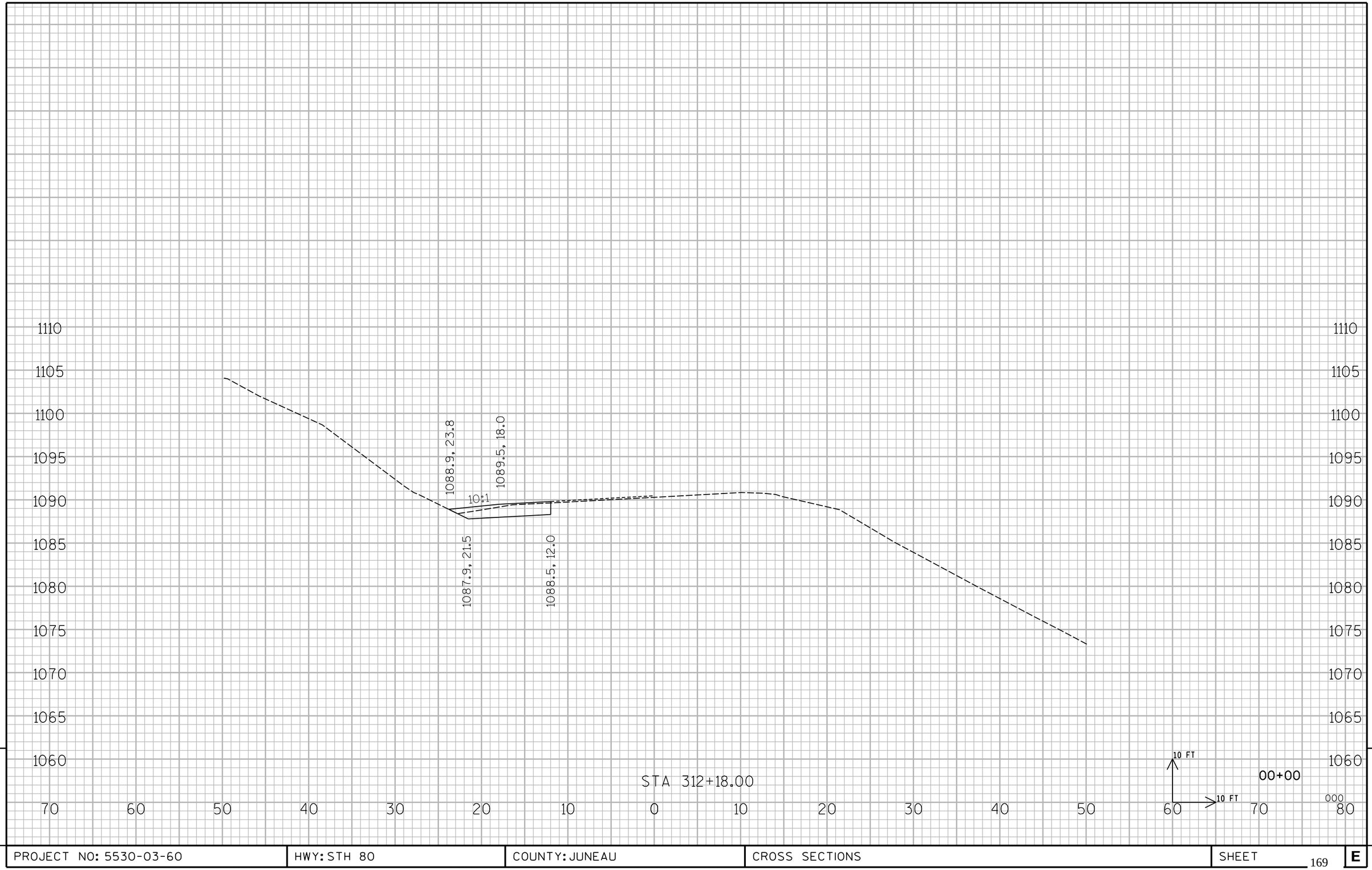
WISDOT/CADDS SHEET 21



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9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 168	E



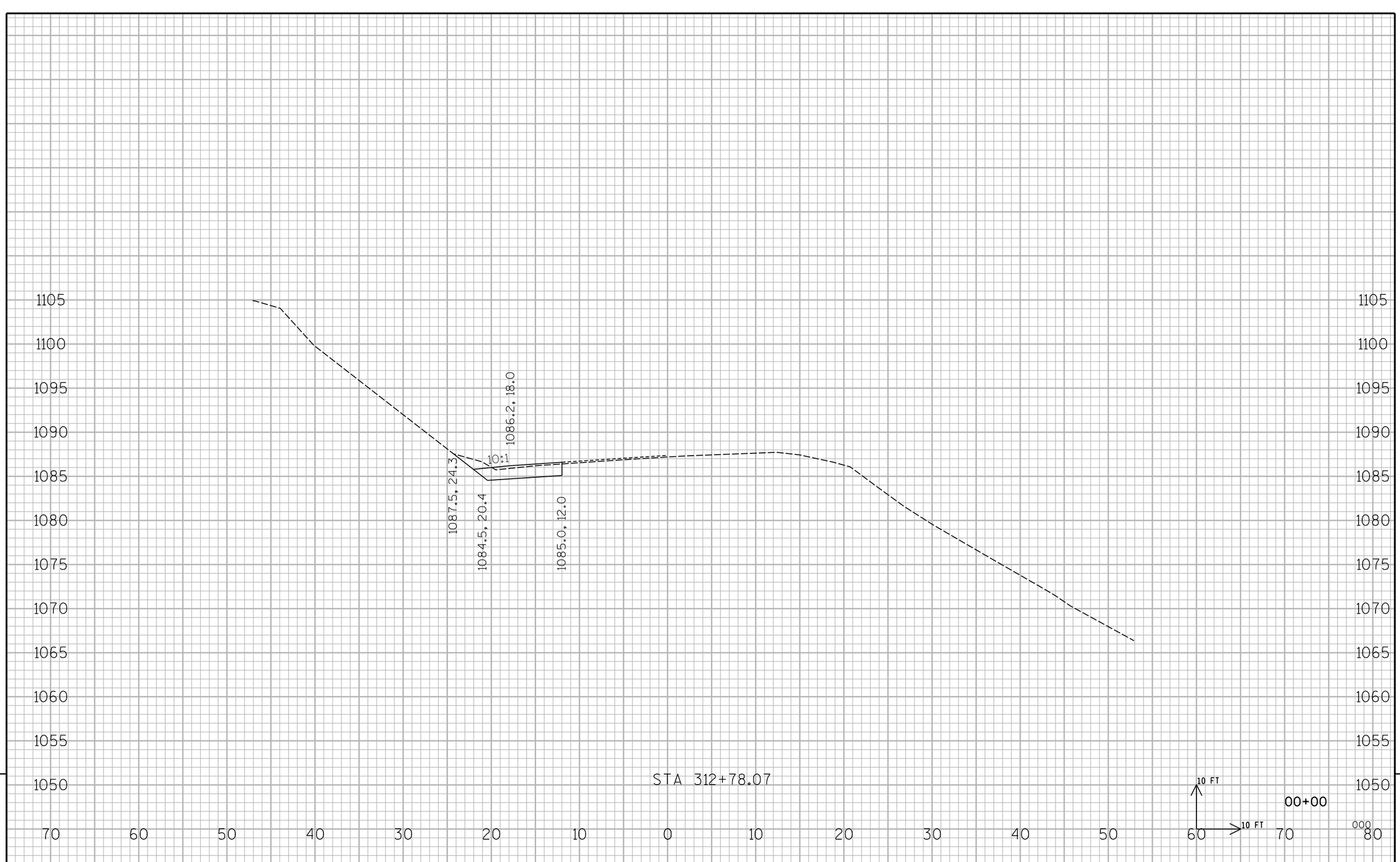
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 169	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:25 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21

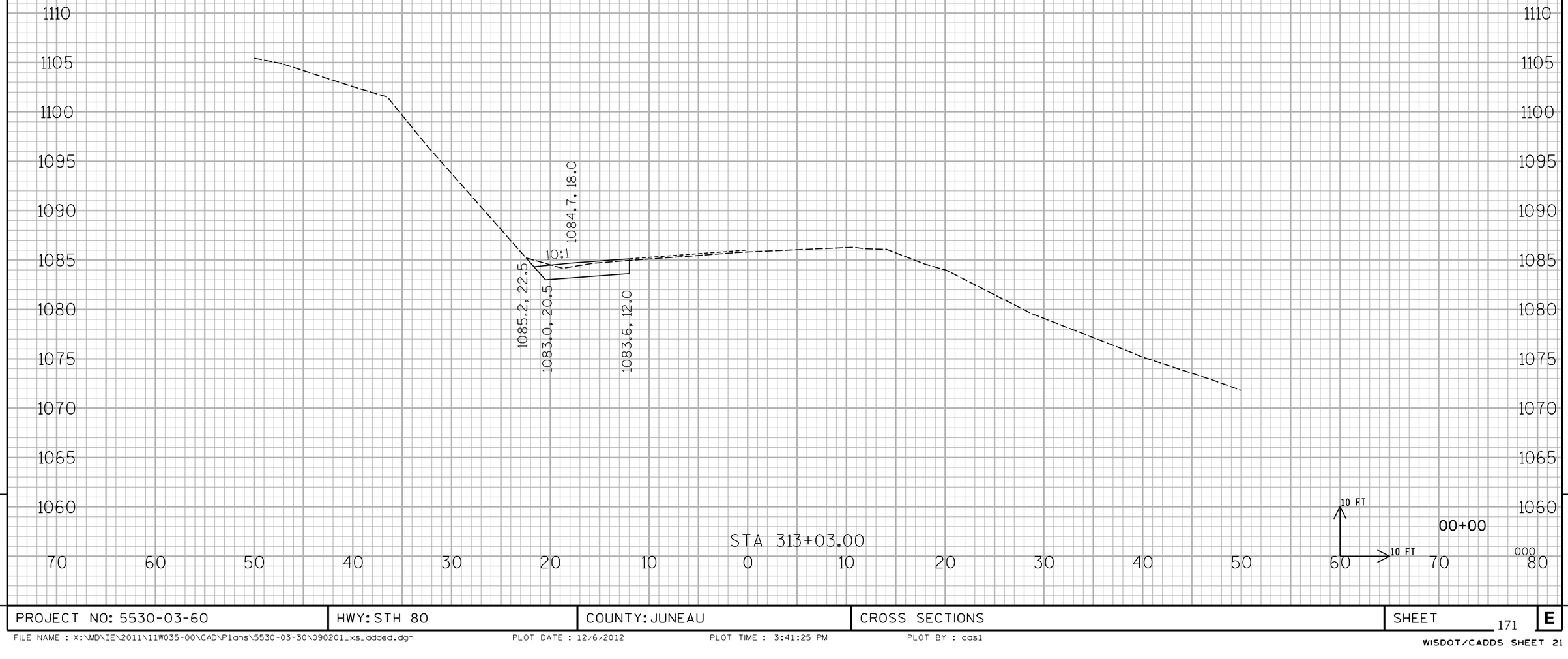


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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 170	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:25 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



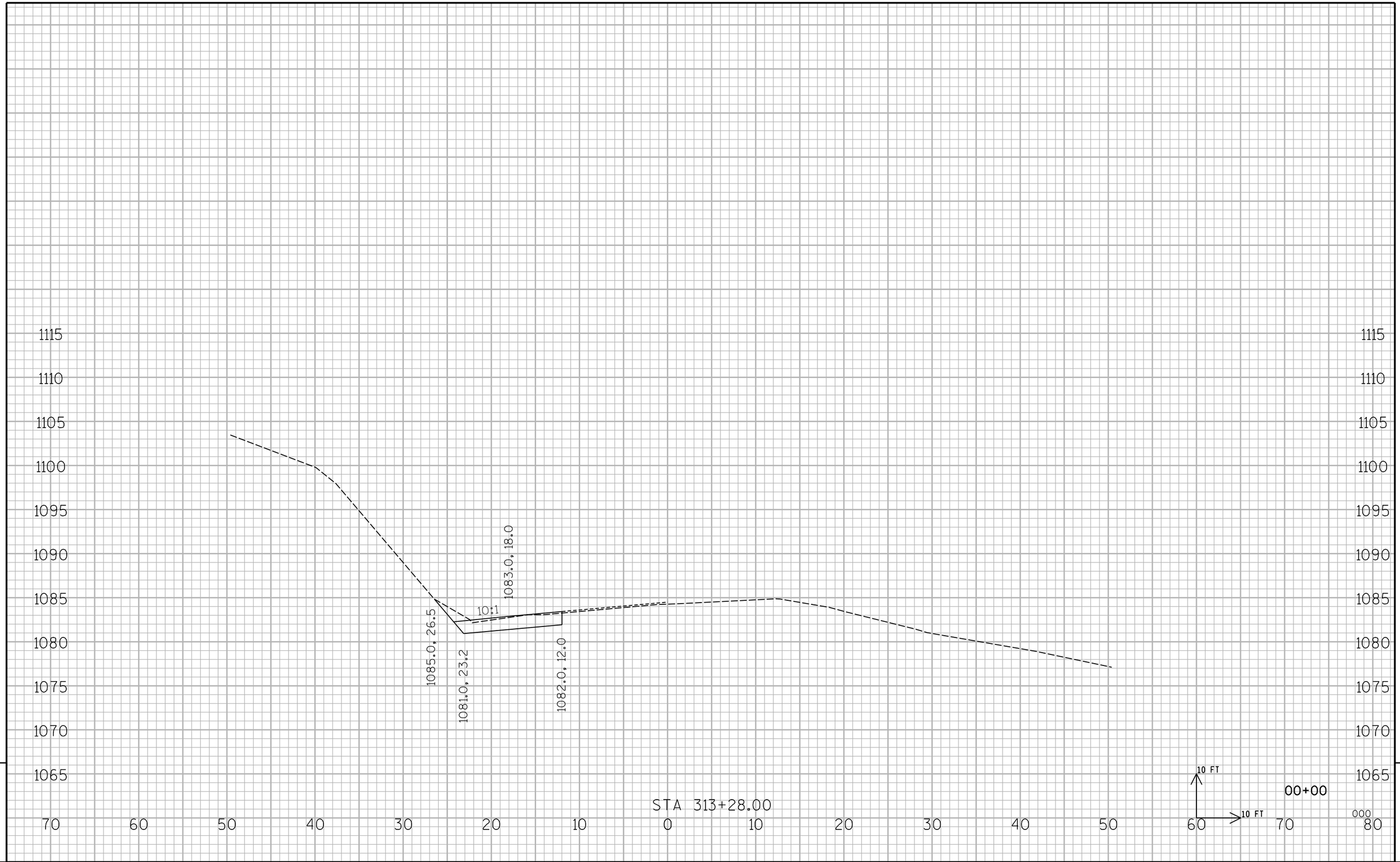
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 171	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:25 PM PLOT BY : cas1

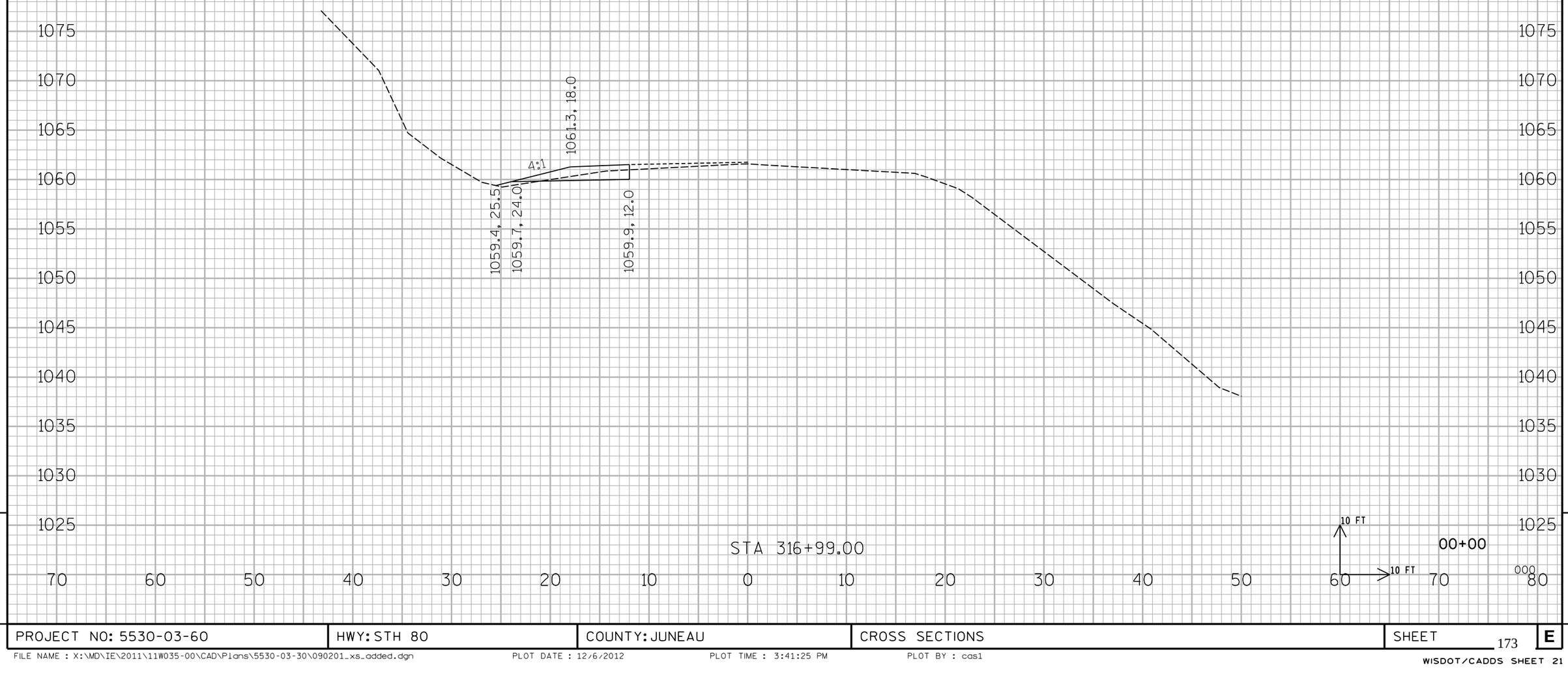
WISDOT/CADDS SHEET 21



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9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 172	E



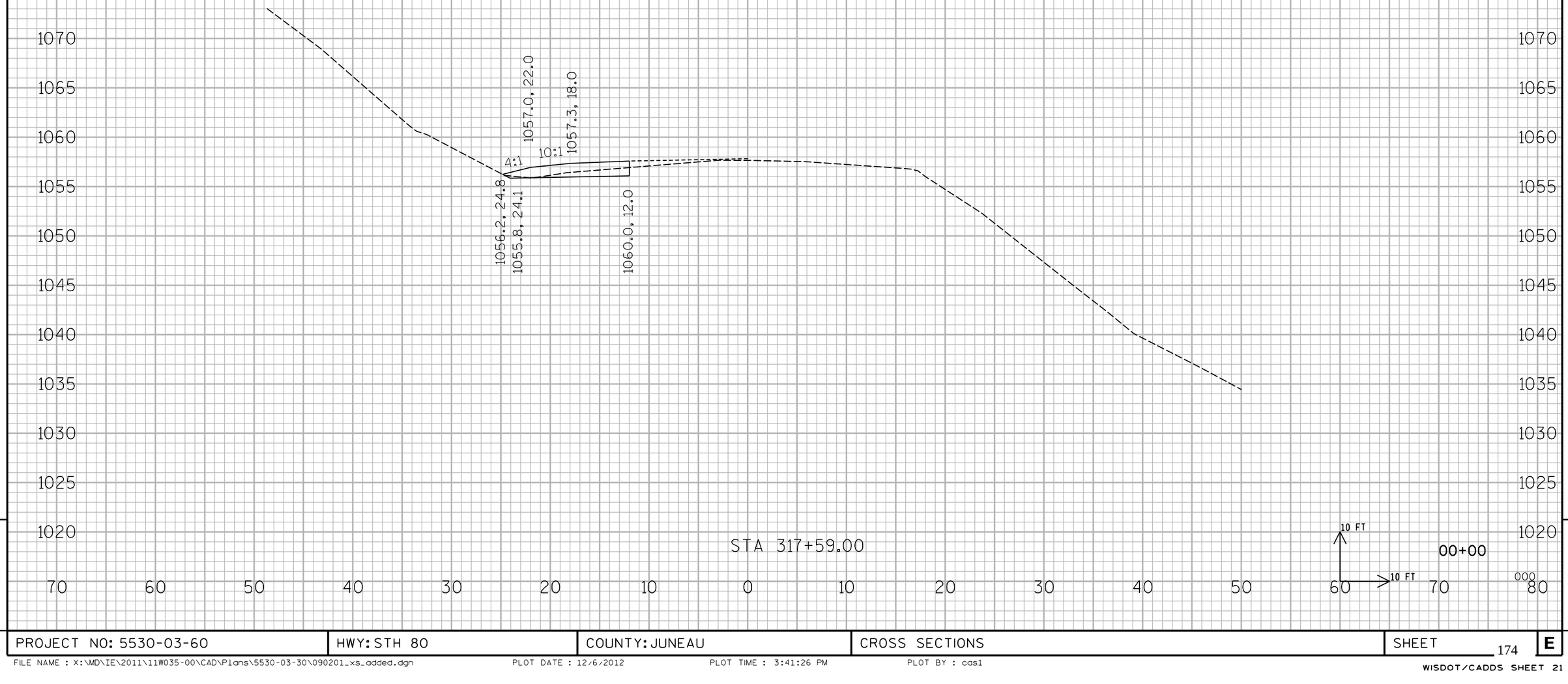
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 173	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:25 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



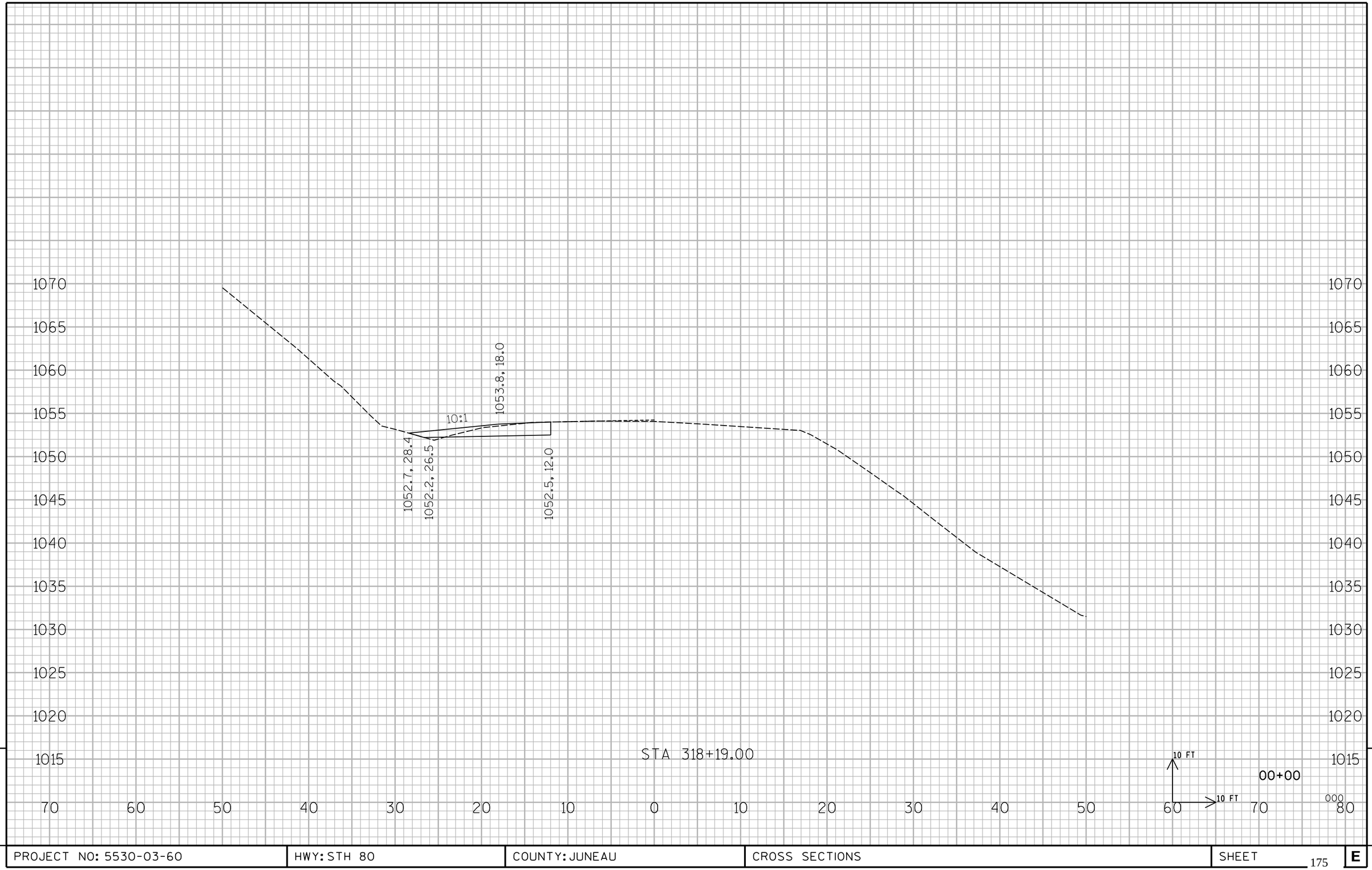
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 174	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:26 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



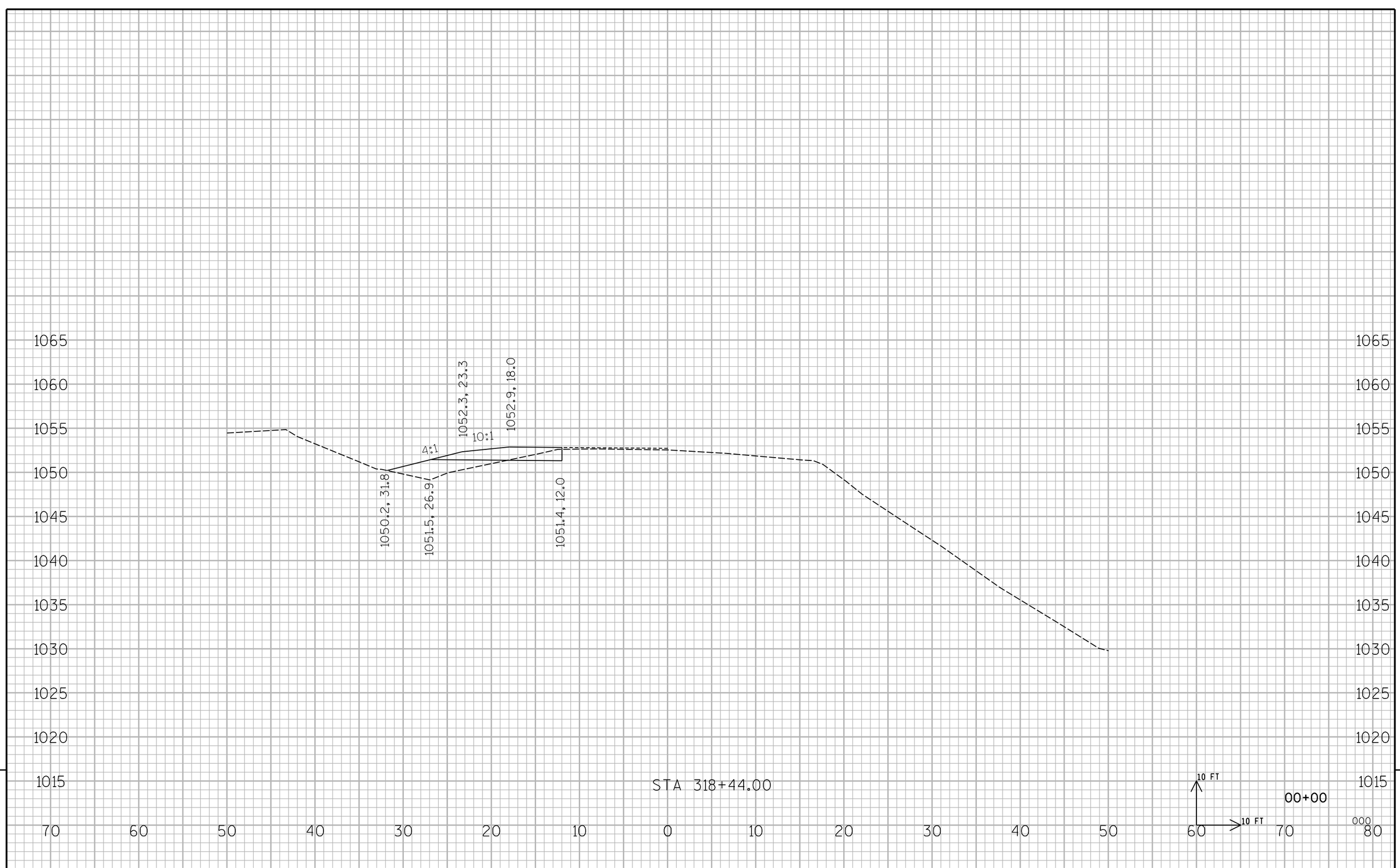
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 175	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:26 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21

9



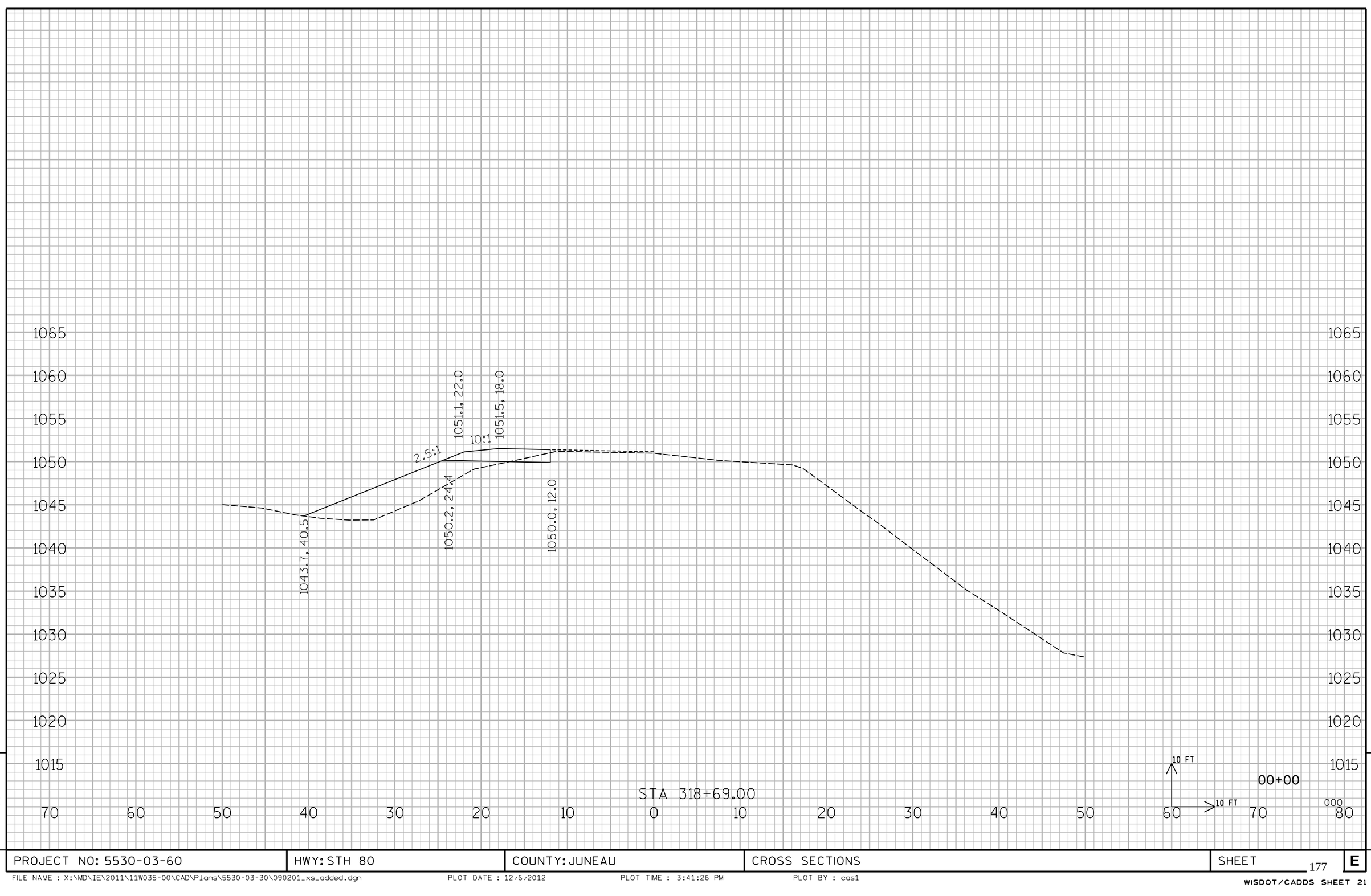
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 176	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:26 PM PLOT BY : cas1

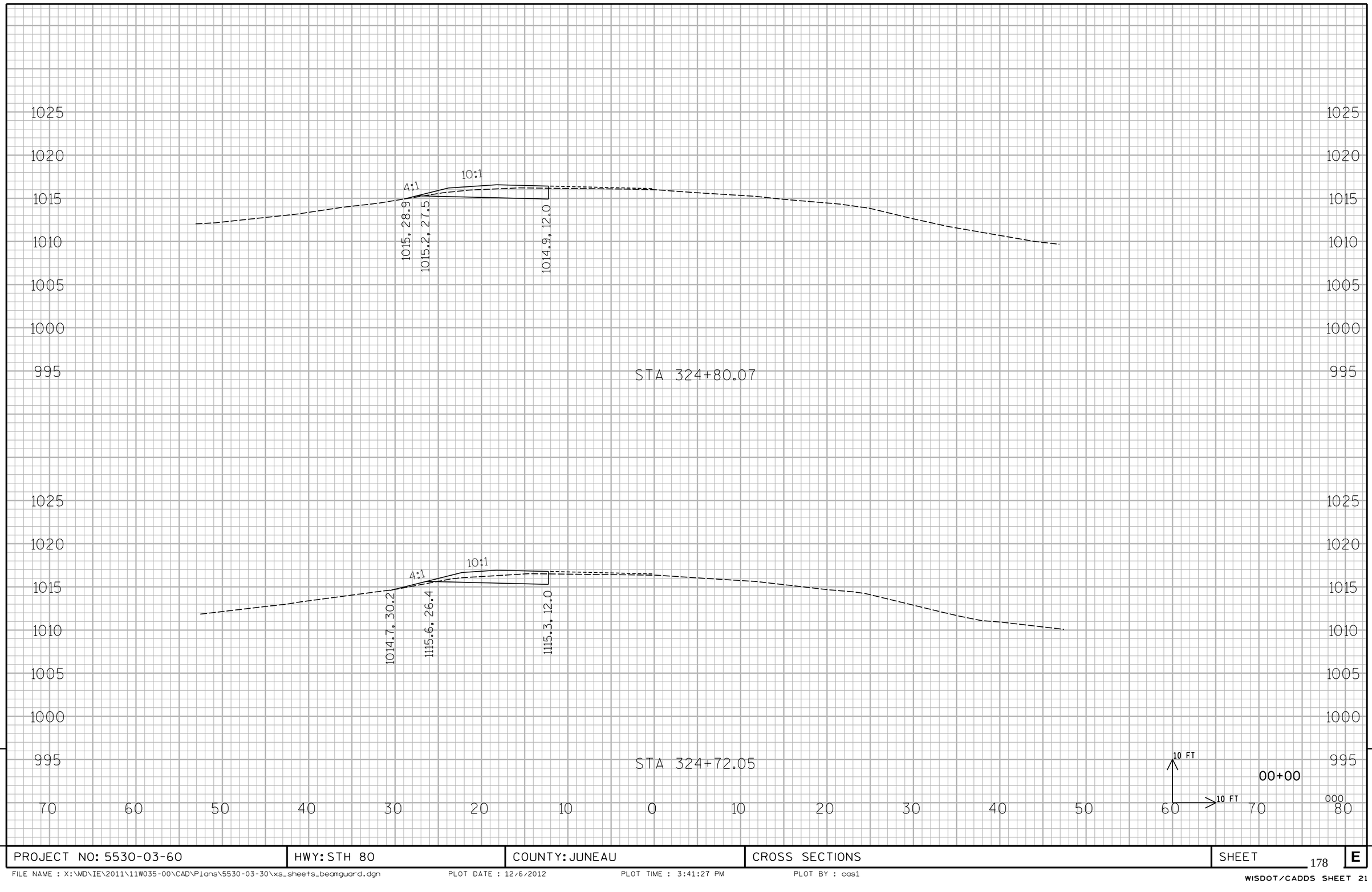
WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 177	E



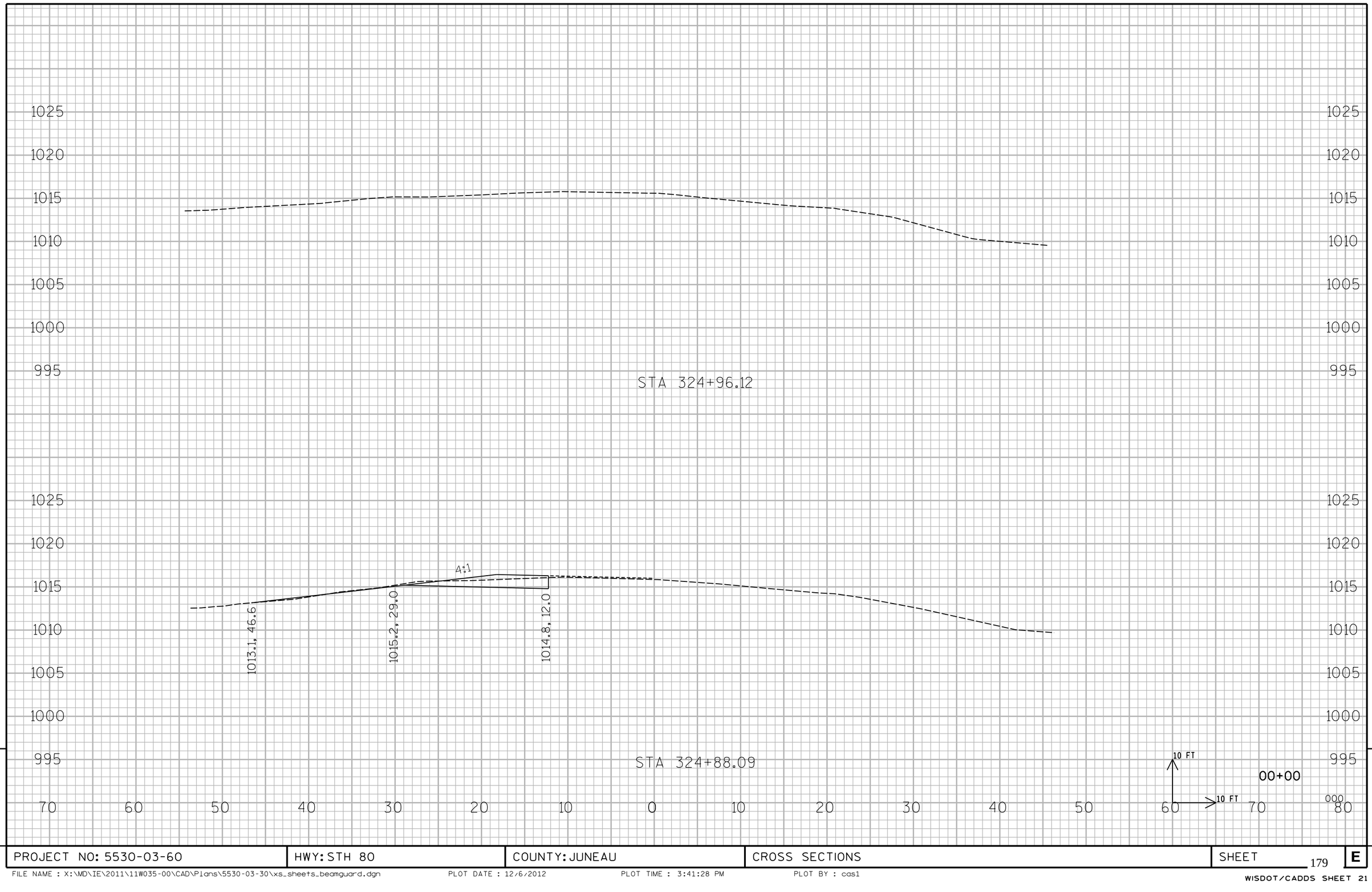
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 178	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:27 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 179	E

990
985
980
975
970
965
960
955
950

970.0, 18.0
4:1
968.7, 12.0
968.4, 24.0
963.4, 44.4

STA 366+56.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

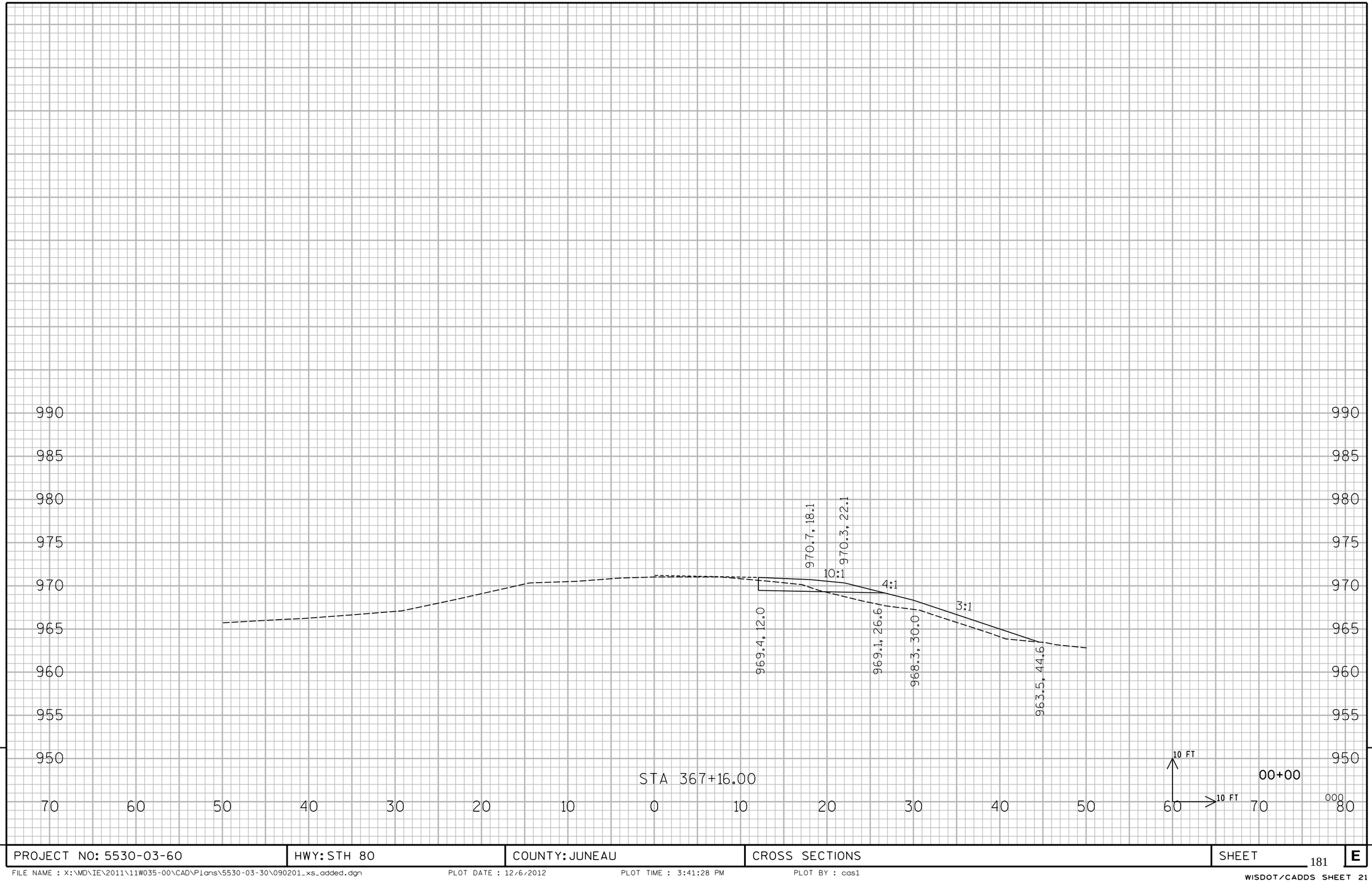
10 FT
10 FT
00+00

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 180	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:28 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



9

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 181	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:28 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21

995
990
985
980
975
970
965
960
955
950

971.6, 18.0
970.8, 26.0
969.8, 30.0
10:1
4:1
2.5:1
970.2, 12.0
969.8, 29.2
963, 46.9

STA 367+76.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

10 FT
10 FT
00+00

9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 182	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:28 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21

995
990
985
980
975
970
965
960
955
950

971.8, 18.0
971.3, 23.3
969.6, 30.0
10:1
4:1
3:1
970.4, 12.0
970.1, 27.5
962.4, 48.0

STA 368+01.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

10 FT
10 FT
00+00

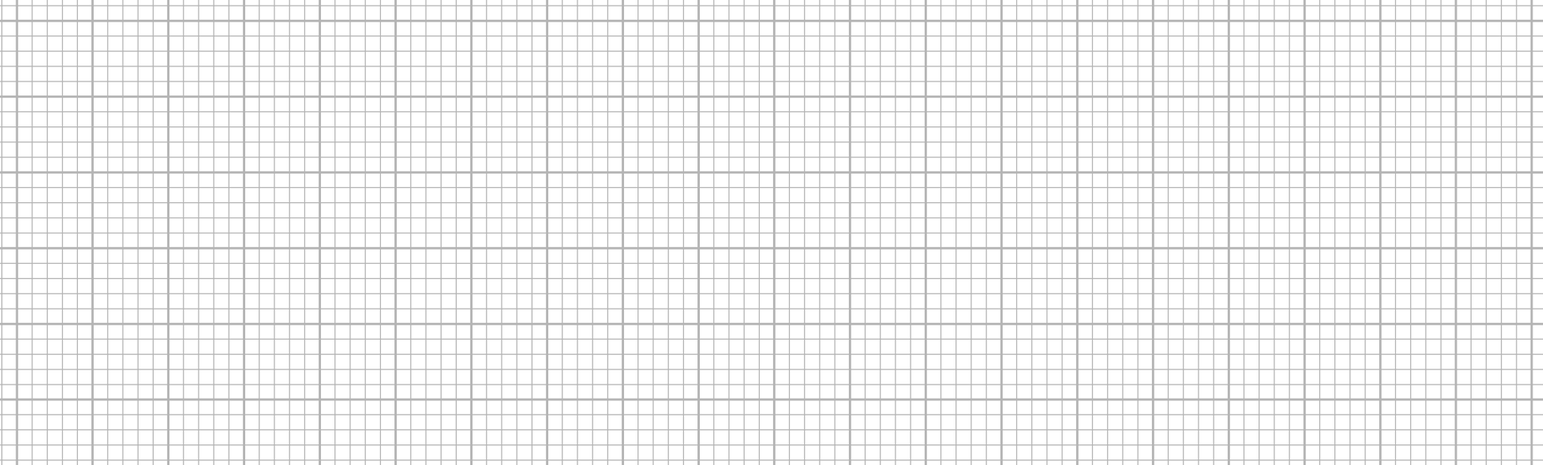
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 183	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\090201_xs_added.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:29 PM PLOT BY : cas1

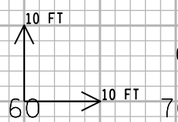
WISDOT/CADDS SHEET 21

995
990
985
980
975
970
965
960
955
950



STA 368+26.00

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

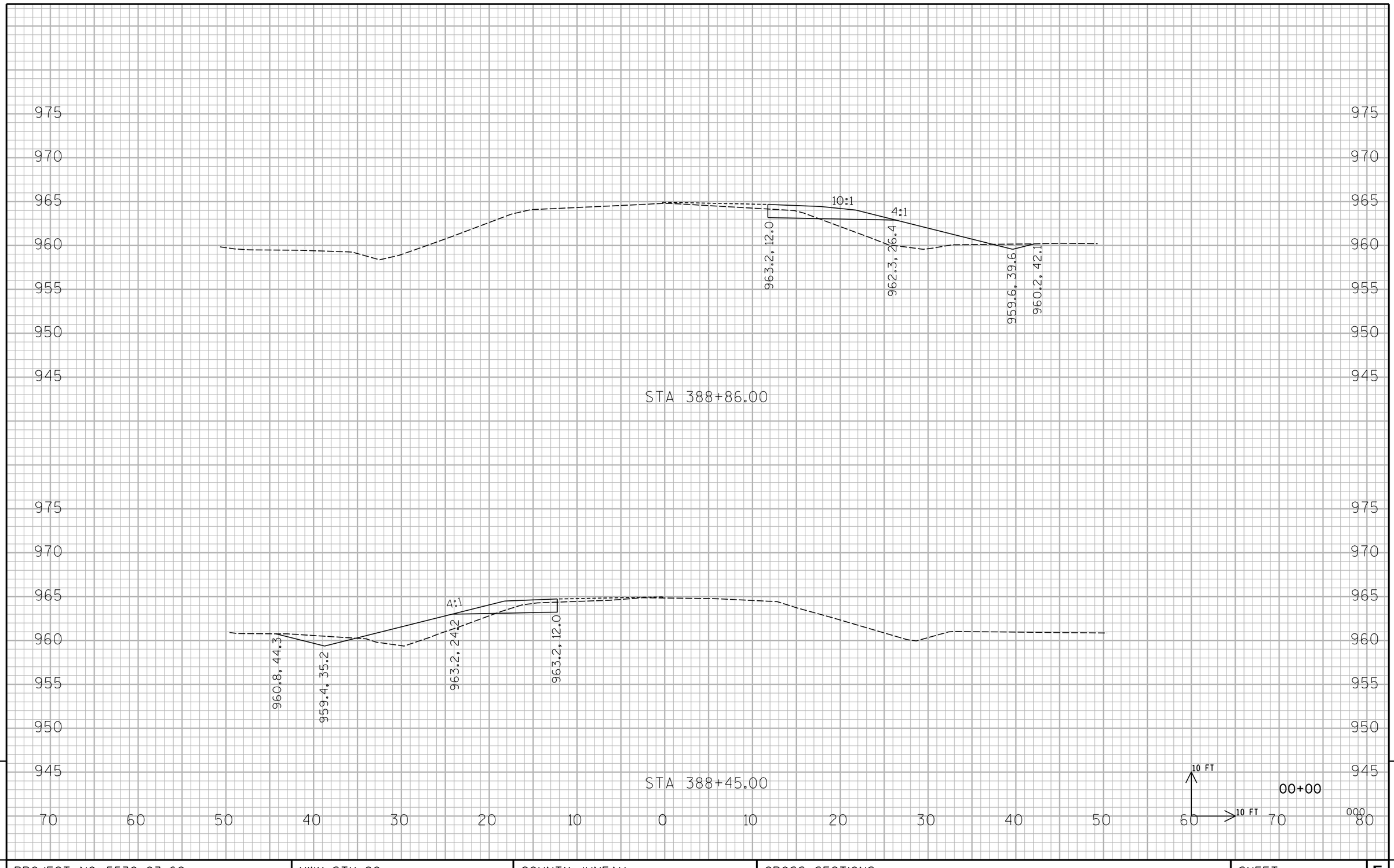


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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 184	E



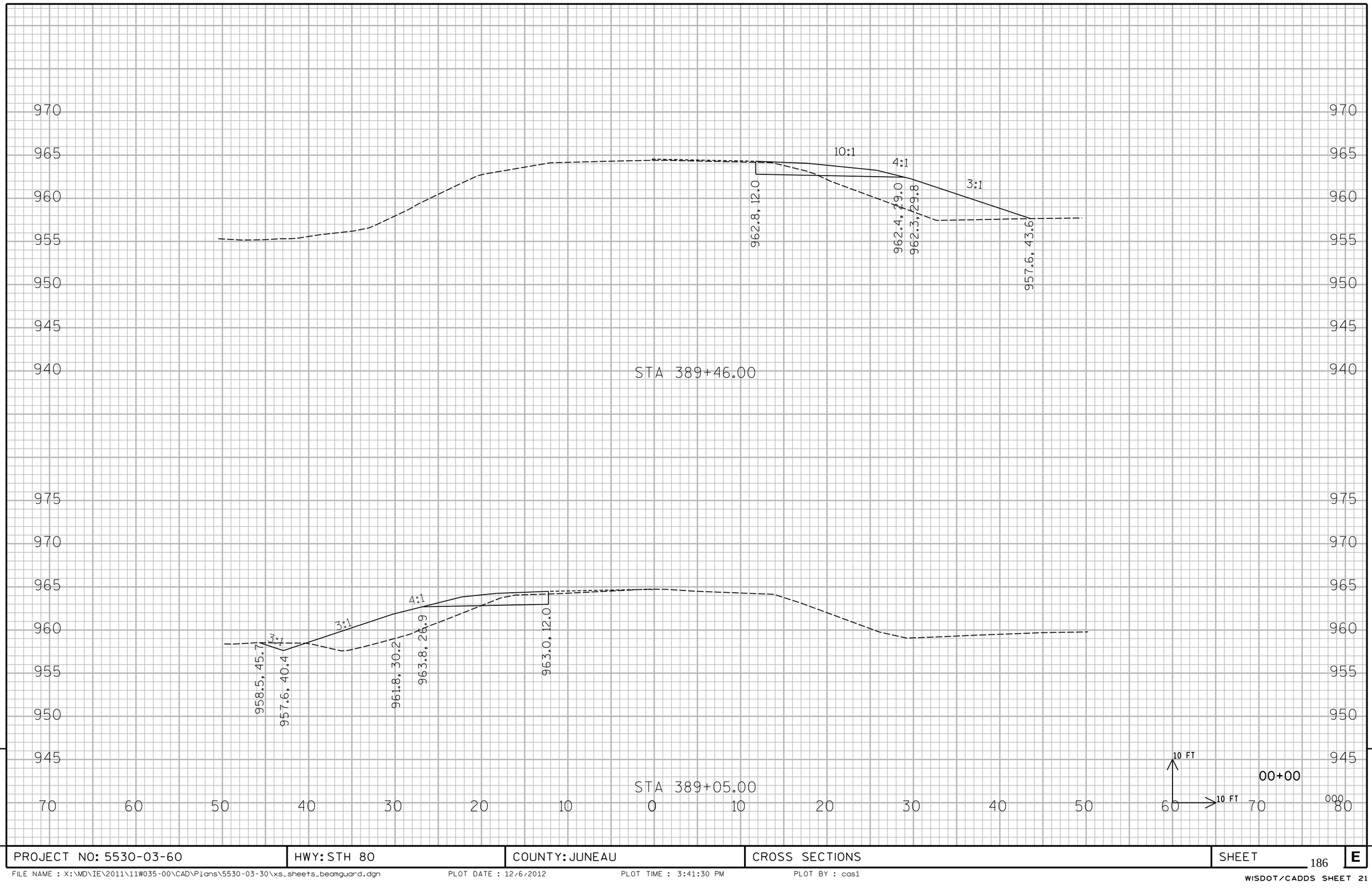
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 185	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:30 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



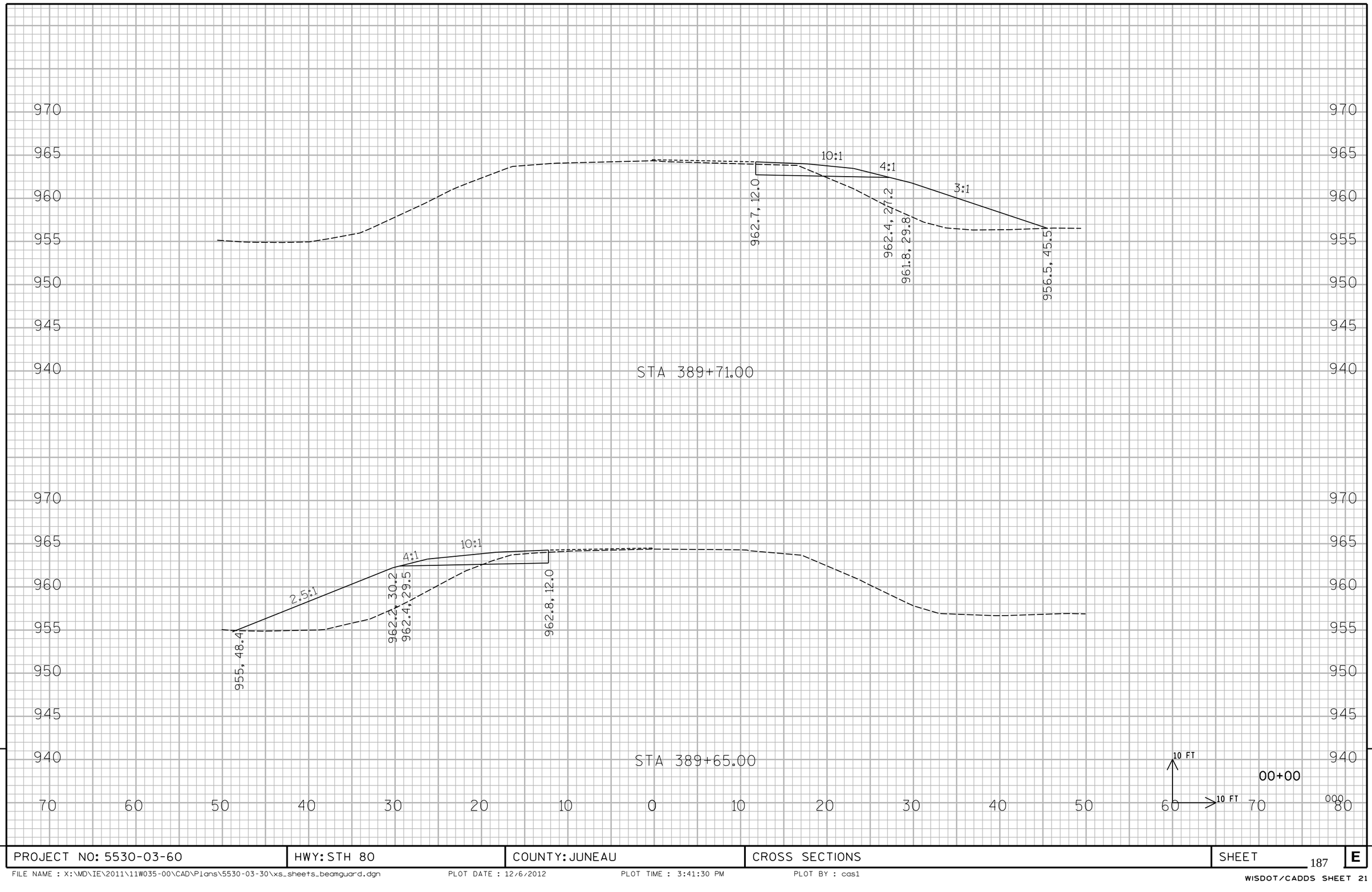
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 186	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:30 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



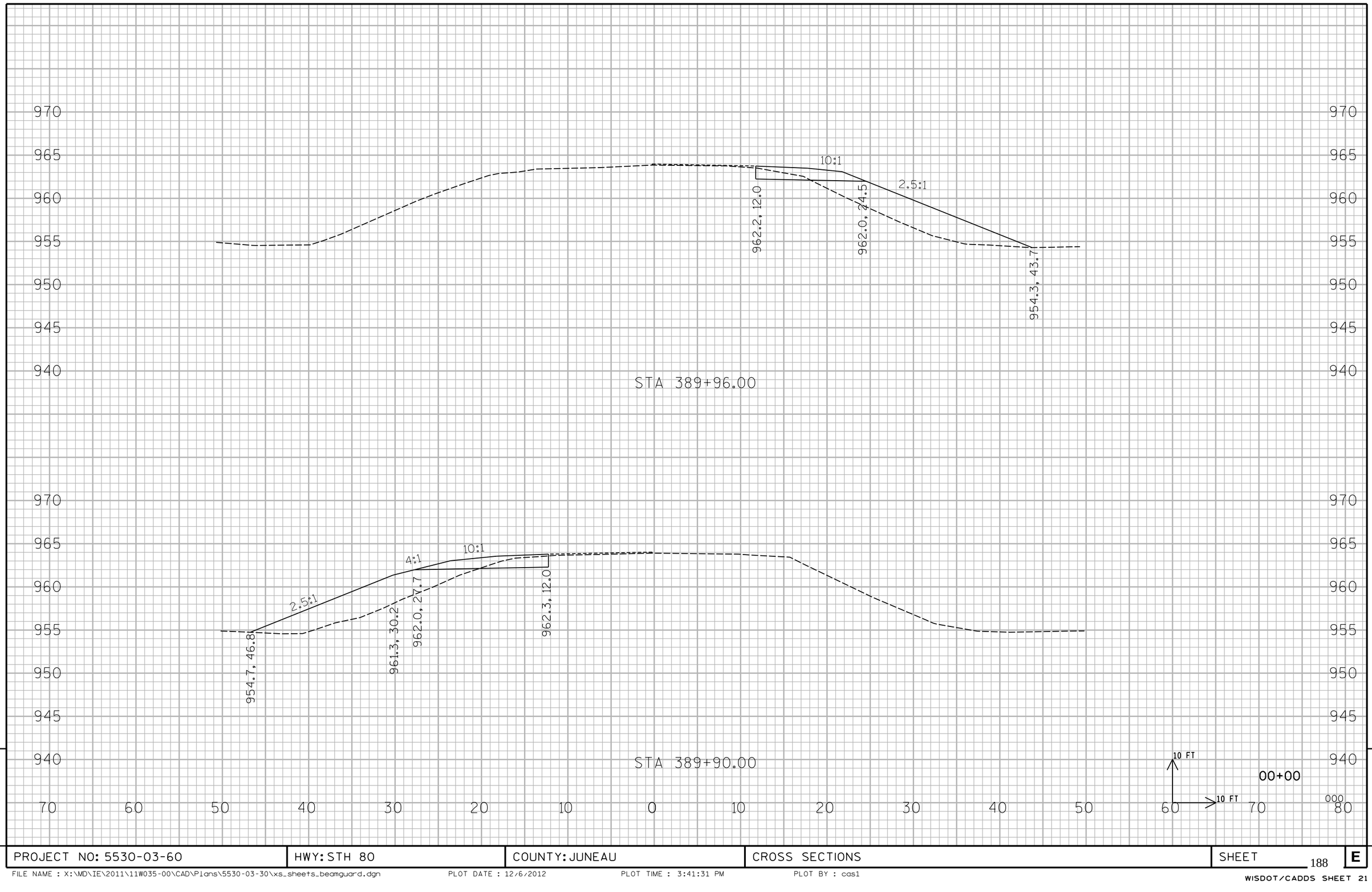
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 187	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:30 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



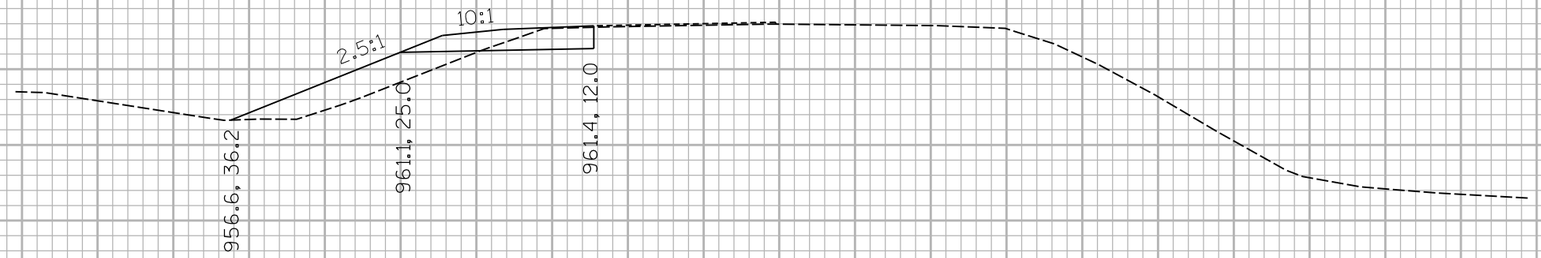
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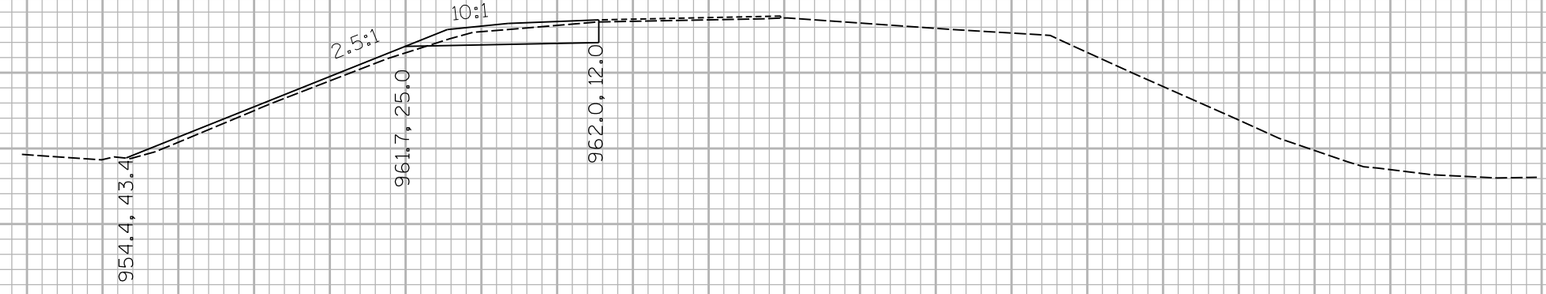
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 188	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:31 PM PLOT BY : cas1

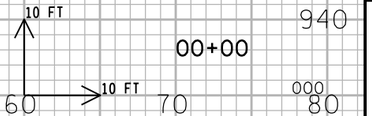
WISDOT/CADDS SHEET 21



STA 391+36.00



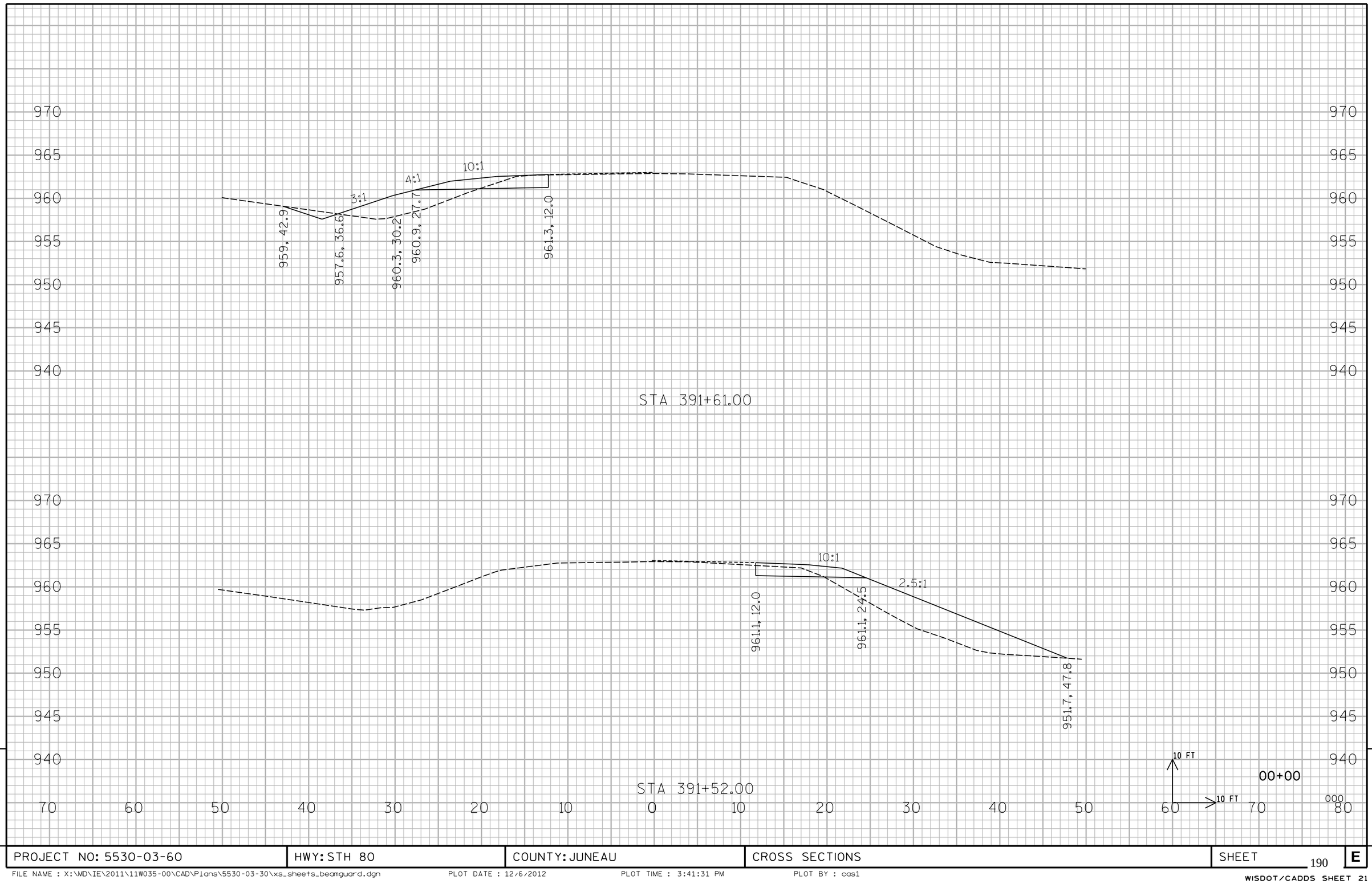
STA 390+15.00



PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 189	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:31 PM PLOT BY : cas1

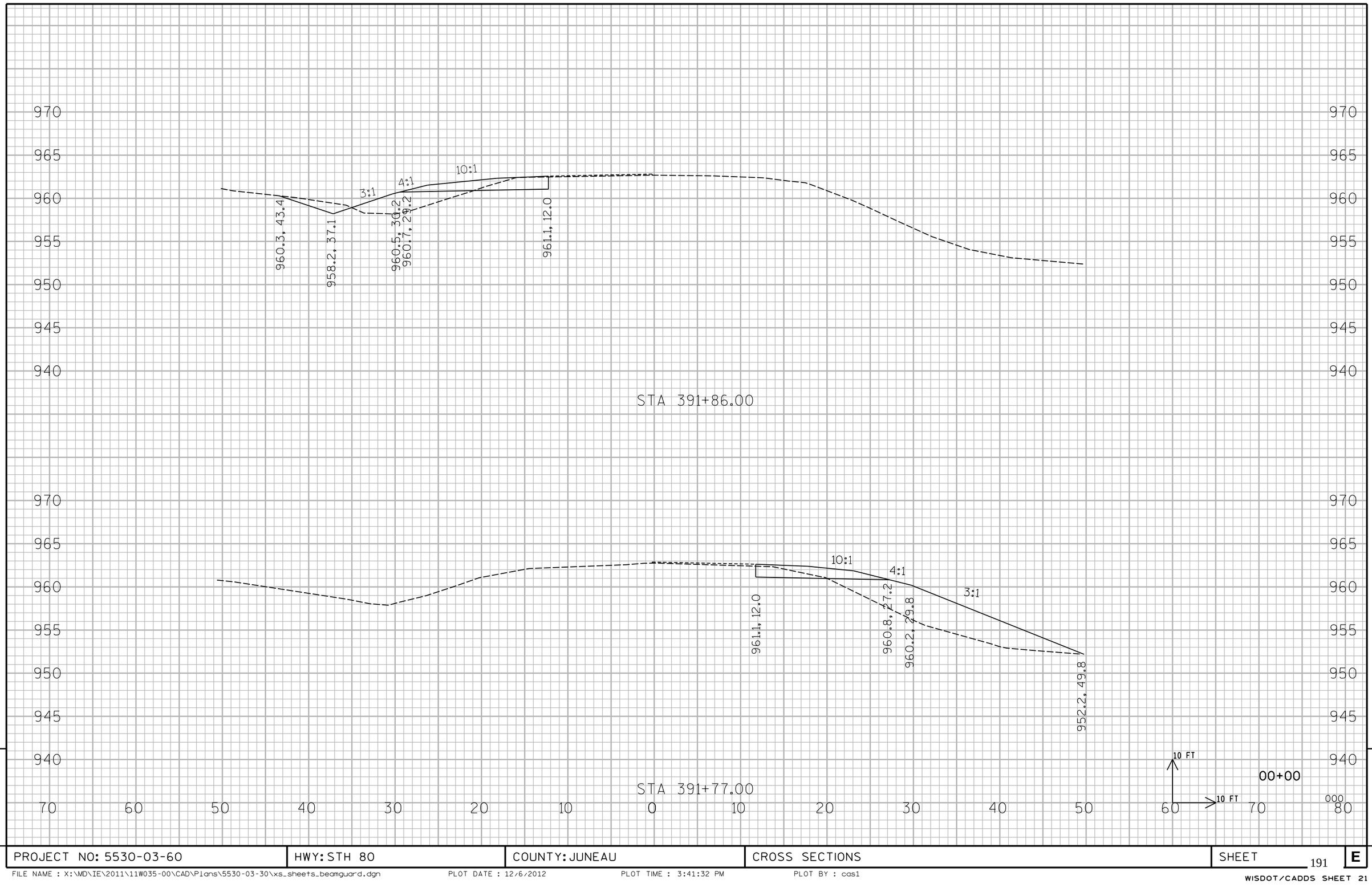
WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 190	E

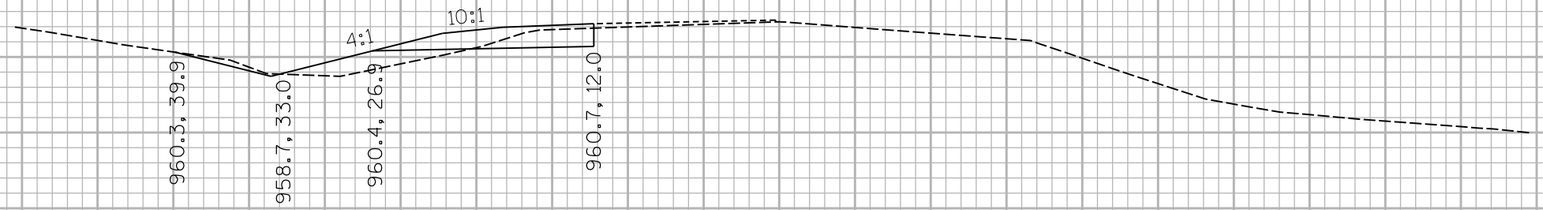


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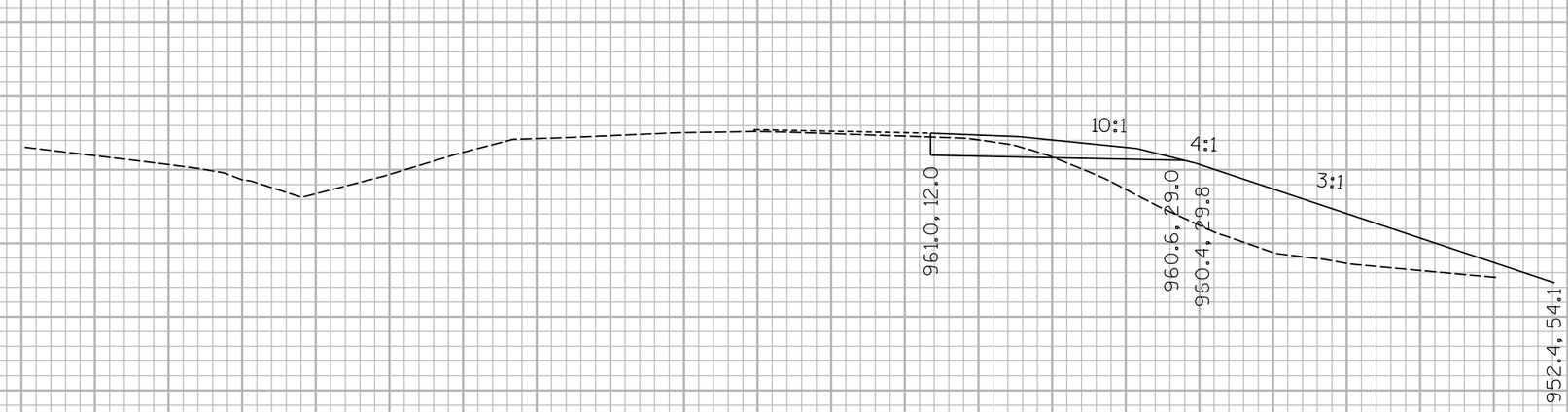
PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 191	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:32 PM PLOT BY : cas1

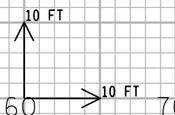
WISDOT/CADDS SHEET 21



STA 392+46.00



STA 392+02.00

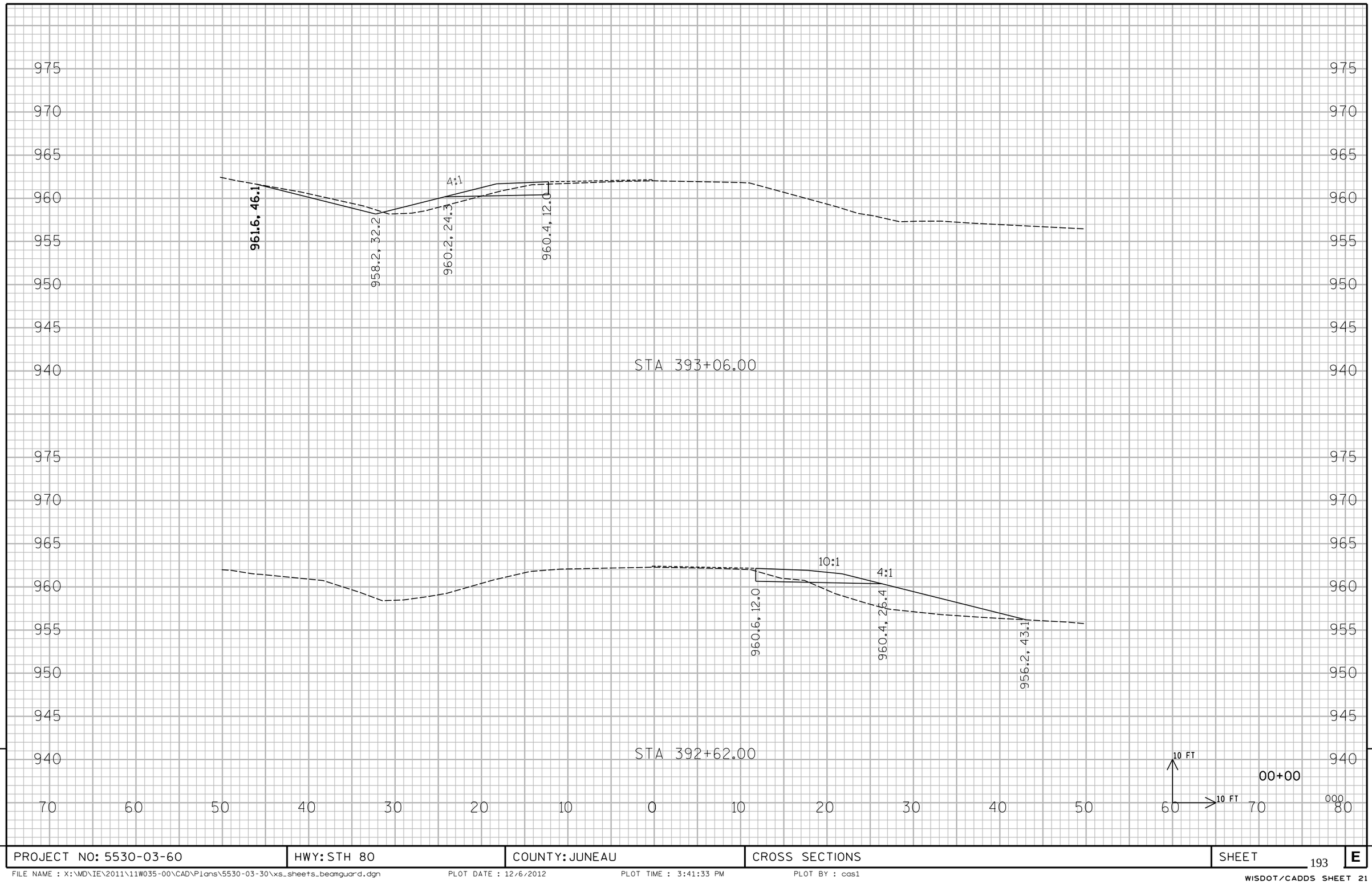


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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 192	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:32 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



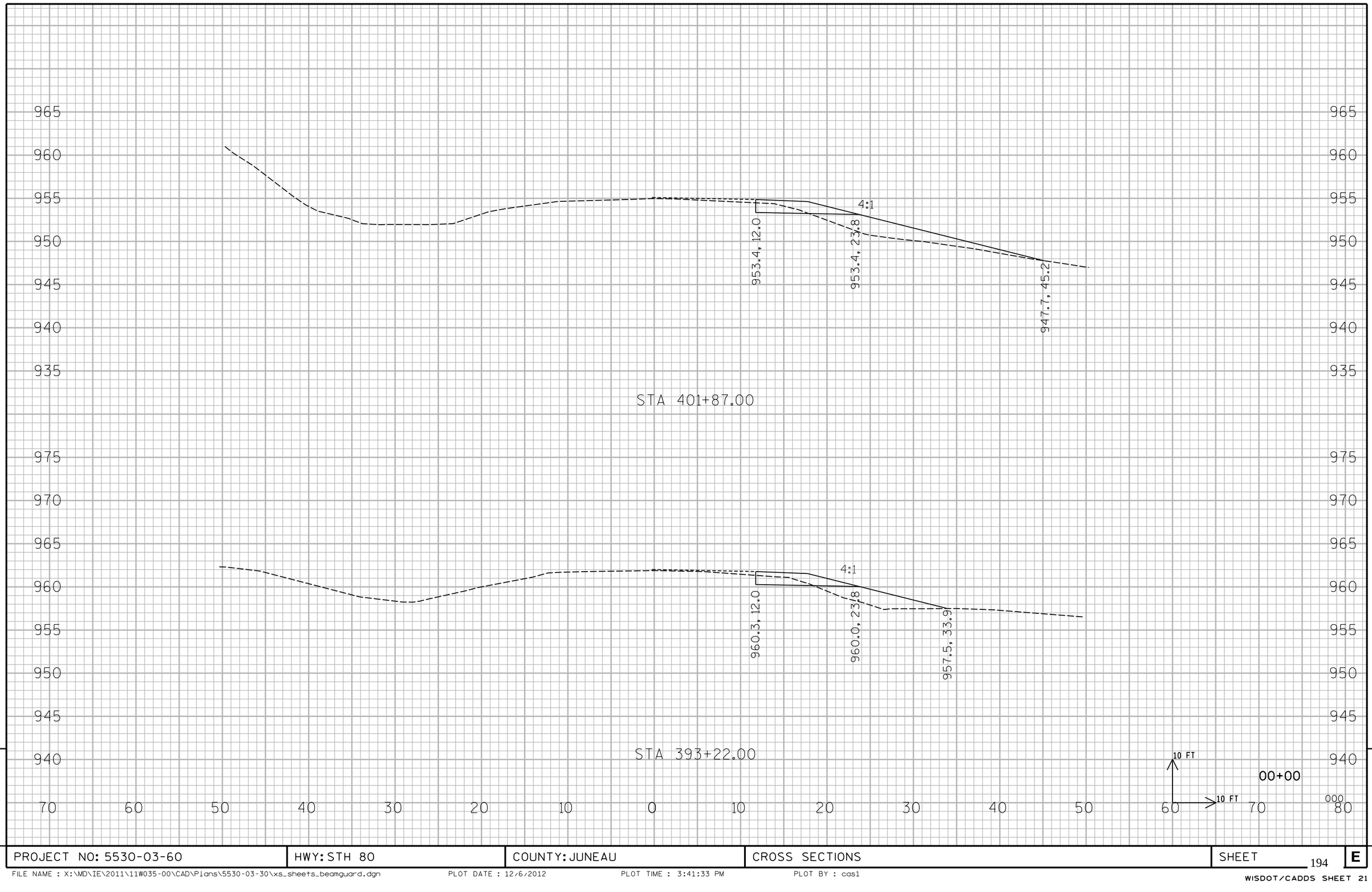
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 193	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:33 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



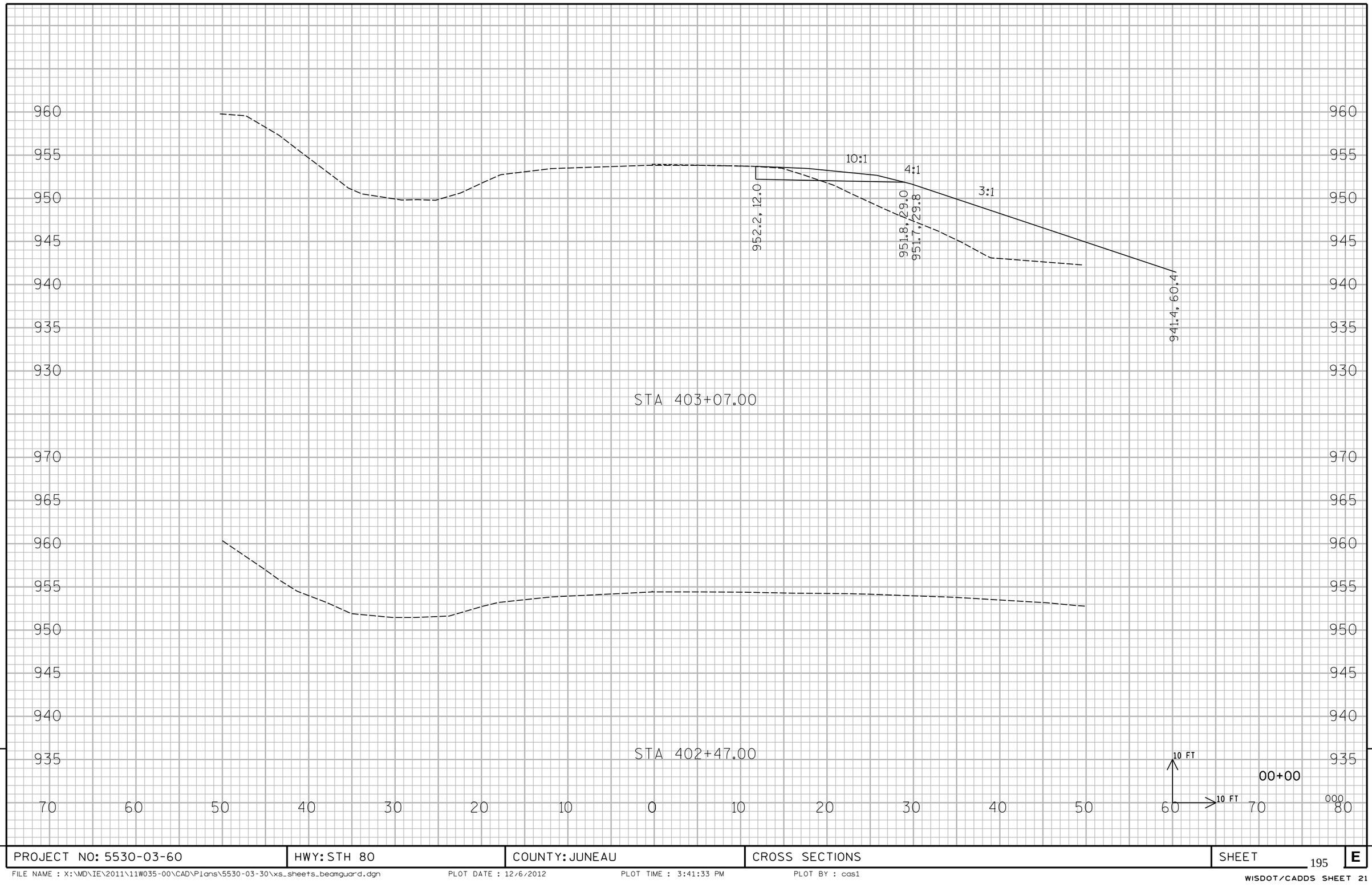
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 194	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:33 PM PLOT BY : cas1

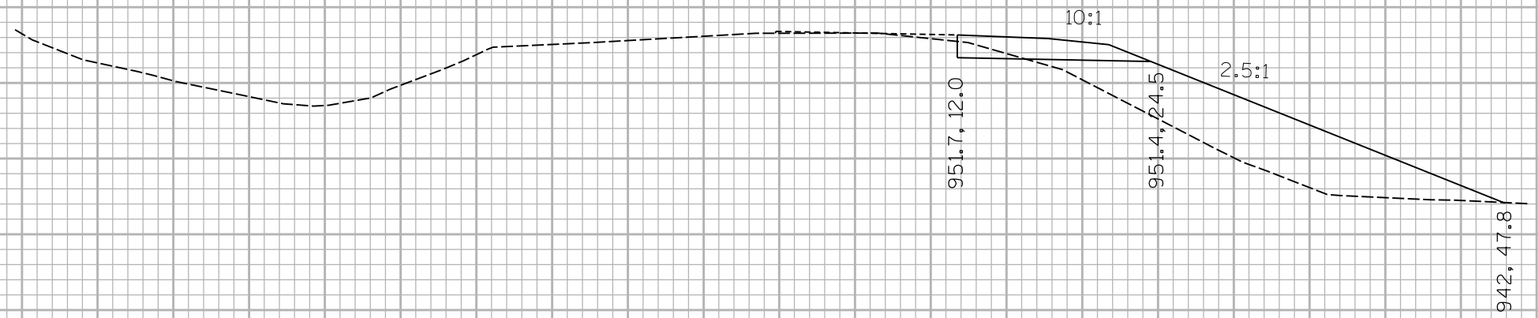
WISDOT/CADDS SHEET 21



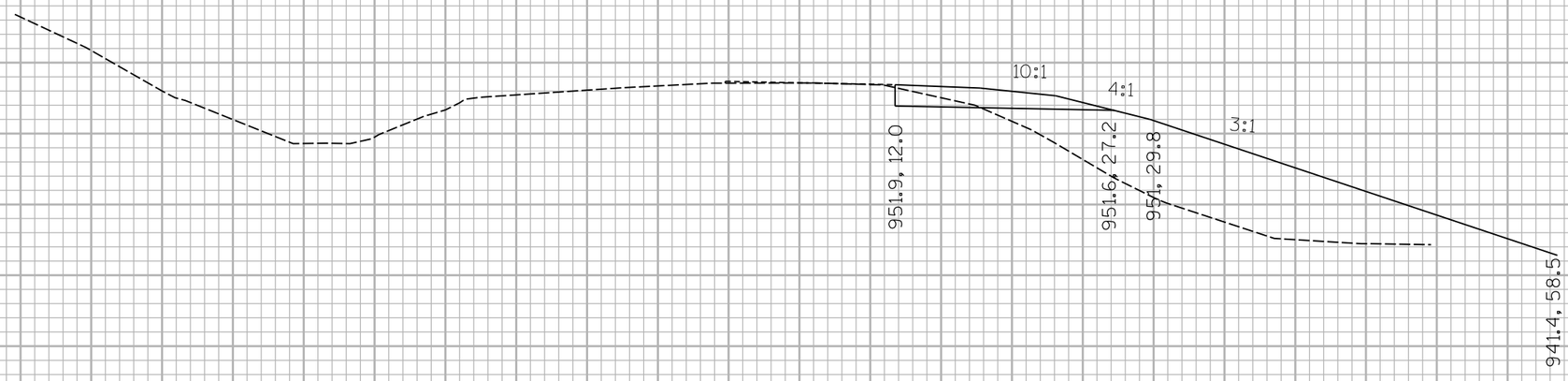
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 195	E



STA 403+57.00



STA 403+32.00

960 955 950 945 940 935 930

70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

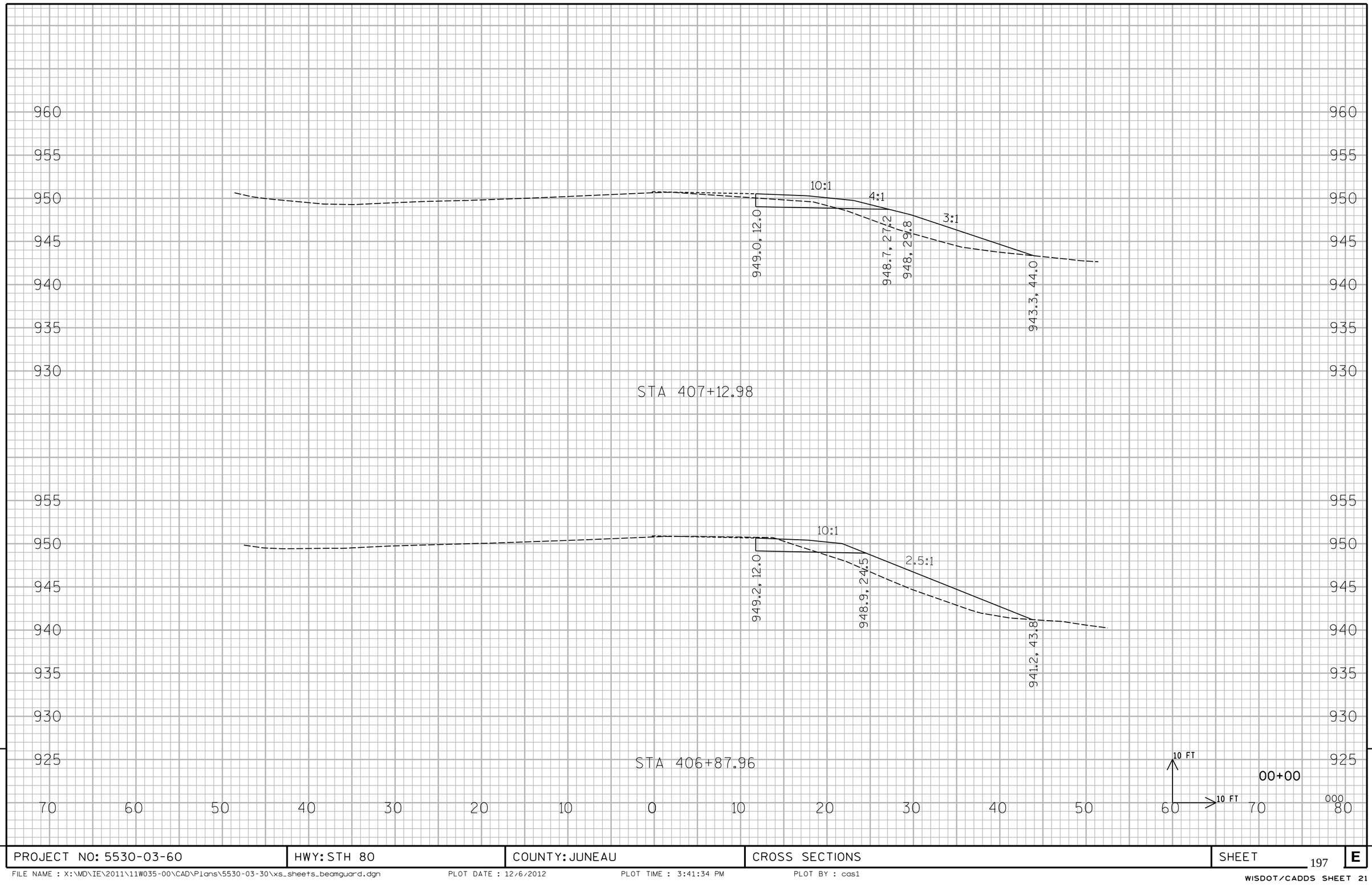
10 FT
10 FT
00+00
000

9 9

PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 196	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:34 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



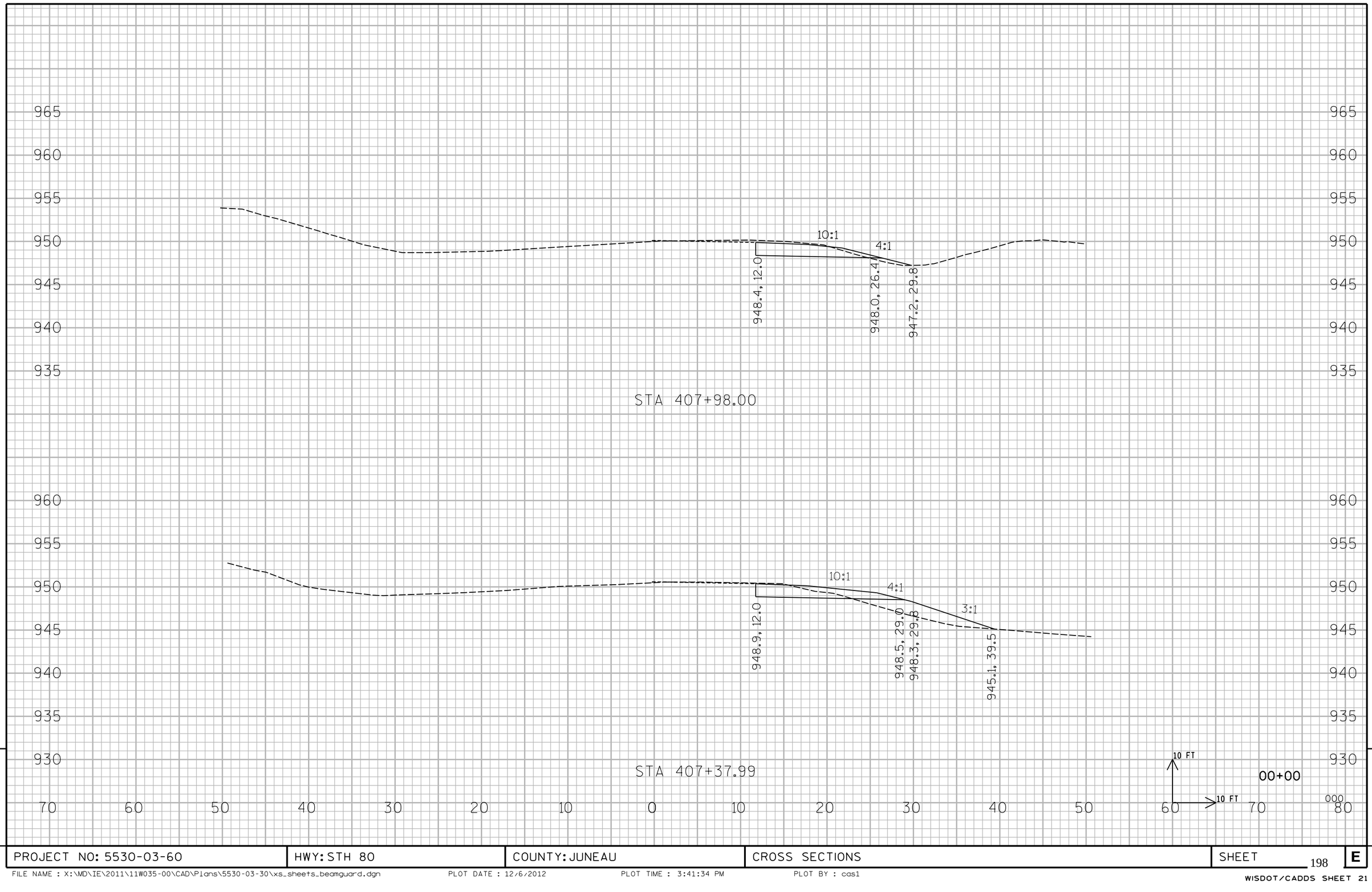
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 197	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:34 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



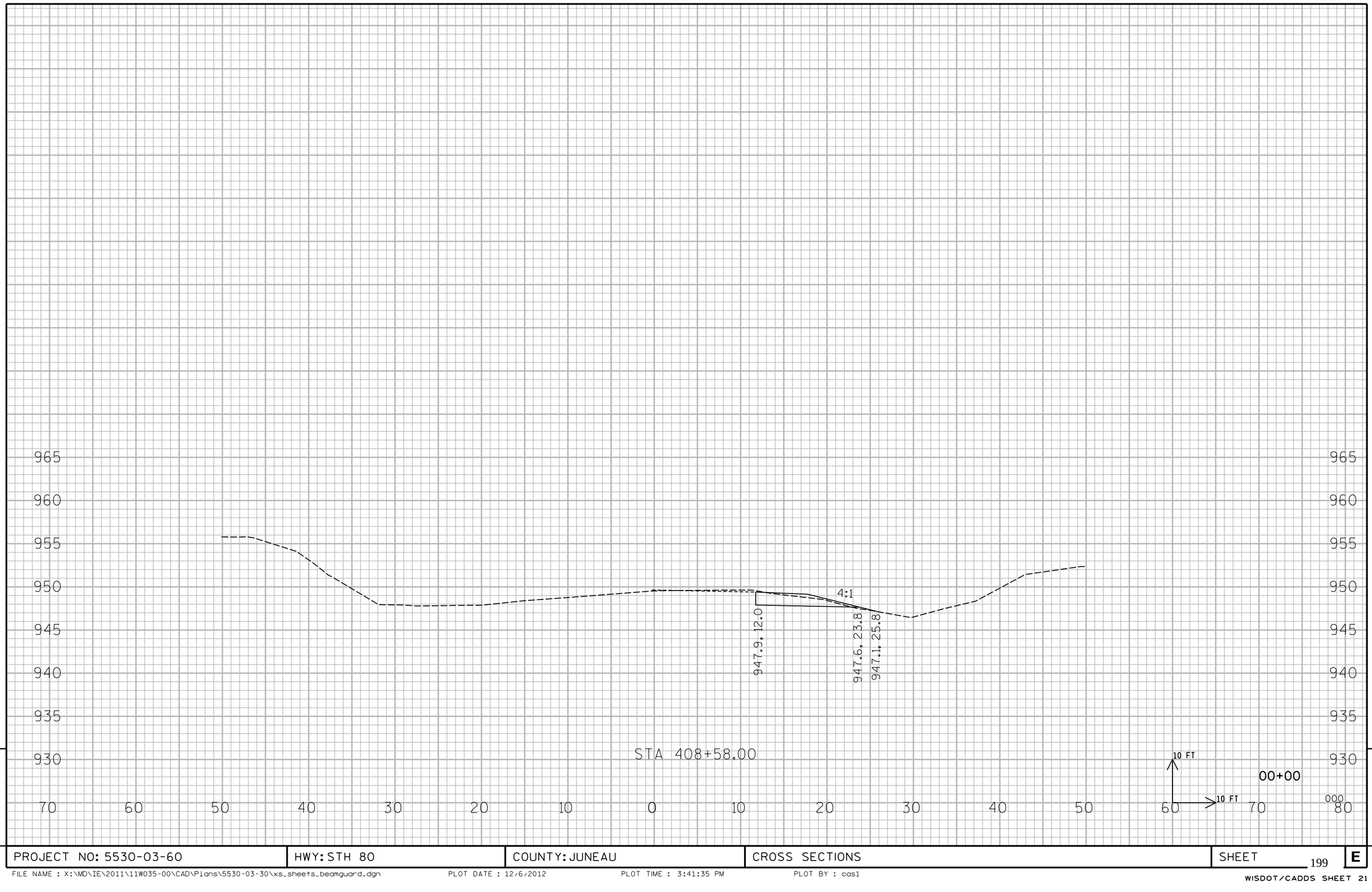
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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 198	E

FILE NAME : X:\MD\IE\2011\11W035-00\CAD\Plans\5530-03-30\xs_sheets_beamguard.dgn PLOT DATE : 12/6/2012 PLOT TIME : 3:41:34 PM PLOT BY : cas1

WISDOT/CADDS SHEET 21



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PROJECT NO: 5530-03-60	HWY: STH 80	COUNTY: JUNEAU	CROSS SECTIONS	SHEET 199	E

Wisconsin Department of Transportation

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