NWL JAN 2017

PROJECT ID: 7882-05-72

WITH: N/A

COUNTY: DUNN

14

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 = 250



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STH 29 - KNAPP

STH 29 - IH 94

CTH Q

DUNN COUNTY

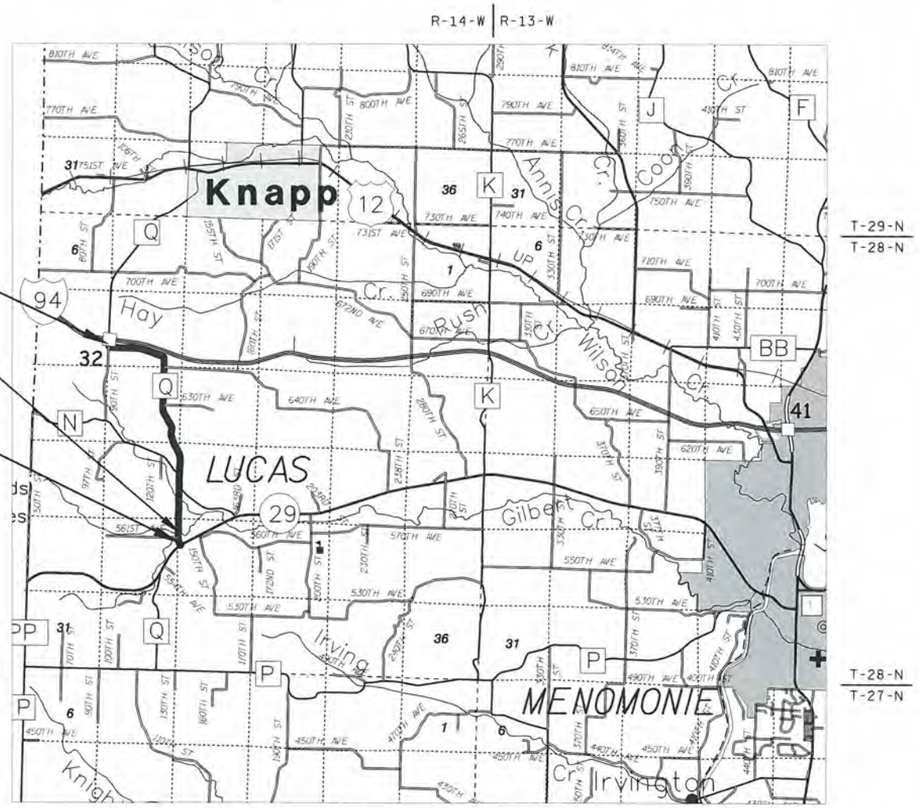
STATE PROJECT NUMBER
7882-05-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7882-05-72	WISC 2017013	1

END PROJECT
STA 276+47.09

EXCEPTION TO NET ℄ LENGTH
STA 108+23.62 - STA 108+97.51
B-17-166

BEGIN PROJECT
STA 100+47.79
Y = 172782.66
X = 117929.23



LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 3.319

DESIGN DESIGNATION

A.A.D.T.	2017	=	830
A.A.D.T.	2037	=	910
D.H.V.		=	---
D.D.		=	50/50
T.		=	7.0%
DESIGN SPEED		=	55 MPH
ESALS		=	130,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
WOODED OR SHRUB AREA		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

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

ACCEPTED FOR DUNN COUNTY

7/12/16 DATE — COUNTY COMMISSIONER

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

WISCONSIN
ERIC C. SORENSEN
33706-006
Eau Claire
WI
PROFESSIONAL ENGINEER

DATE: 7/8/16

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	AYRES ASSOCIATES
Management Consultant	KNIGHT E/A, INC.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 7/27/16 (Management Consultant Signature)

E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\010100_TI.DWG
LAYOUT NAME - 010101_TI

PLOT DATE : 6/29/2016 10:22 AM PLOT BY : GALLAGHER, JAMES PLOT NAME :

2

GENERAL NOTES

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

DRAINAGE
2.) PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

3.) CROSS DRAIN PIPE LOCATIONS AND ELEVATIONS AS SHOWN ON THE CROSS SECTIONS SHEETS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

4.) EXISTING PIPE CULVERT SIZES SHOWN ARE APPROXIMATE AND THE CONTRACTOR WILL BASE ITS BID ON THE ACTUAL FIELD CONDITIONS.

GRADING/EROSION CONTROL
5.) EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE EARTHWORK. EBS IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

6.) SEED, INSTALL EROSION MAT, MULCH AND FERTILIZE ALL SALVAGED TOPSOILED AREAS WITHIN 7 WORKING DAYS AFTER GRADING WORK IS COMPLETED.

7.) SEED MIXTURE NO.20 SHALL BE USED THROUGHOUT THE PROJECT, EXCEPT LAWN AREAS WHERE NO.40 SHALL BE USED AND ALONG WETLANDS AND WATERWAYS WHERE NO.70 SHALL BE USED.

8.) DISTURBED AREAS SHALL BE FERTILIZED, SEEDED AND MULCHED OR FERTILIZED AND SODDED AS DIRECTED BY THE ENGINEER.

9.) THE LOCATIONS OF ROCK AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE ADDITIONAL AREAS OF ROCK THAT ARE NOT SHOWN.

MISCELLANEOUS
10.) A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

11.) EXACT LOCATION OF ALL DRIVEWAY ENTRANCES TO BE REVIEWED AND APPROVED BY THE COUNTY ENGINEER.

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

13.) STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATION OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

14.) TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

15.) TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.05 GAL./S.Y. WHEN PLACED BETWEEN THE LAYERS OF ASPHALTIC PAVEMENT. TACK COAT HAS BEEN ESTIMATED AT AN APPLICATION RATE OF 0.07 GAL./S.Y. WHEN PLACED OVER PULVERIZED HMA MATERIAL.

16.) HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 110 LB/SY/IN.

17.) CURVE DATA IS BASED ON THE RADIUS DEFINITION.

18.) THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.

19.) ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, 1991 ADJUSTMENT - NAVD88 (1991).

ORDER OF SECTION 2 SHEETS

TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
PAVING DETAILS
PLAN DETAILS
EROSION CONTROL
STORM SEWER PLAN
PERMANENT SIGNING AND PAVEMENT MARKING
DETOUR ROUTE

ABBREVIATIONS

E/O	EAST OF
EOB	EDGE OF BASE
LR	LENGTH OF RUNOUT
N/O	NORTH OF
REQ'D	REQUIRED
S/O	SOUTH OF
W/O	WEST OF

COUNTY CONTACT

DUNN COUNTY PUBLIC WORKS DEPARTMENT
3303 USH 12 EAST
MENOMONIE, WI 54751
ATTN: JESSE RINTALA, PE
jrintala@co.dunn.wi.us
(715) 232-2181

DNR CONTACT

DNR WEST CENTRAL REGION HQ
1300 WEST CLAIREMONT
EAU CLAIRE, WI 54702
ATTN: CHRIS WILLGER
christopherj.willger@wisconsin.gov
(715) 839-1609

DESIGN CONTACT

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: ERIC SORENSEN, PE
sorensene@ayresassociates.com
(715) 834-3161

UTILITIES

AT&T
304 SOUTH DEWEY STREET
EAU CLAIRE, WI 54701
ATTN: RICK PODOLAK
(715) 839-5565
rp4514@att.com

CENTURYLINK
20 SOUTH WILSON AVENUE
RICE LAKE, WI 54868
ATTN: KYLE SCHLAMPP
(715) 234-5573
kyle.schlampp@centurylink.com

DUNN ENERGY COOPERATIVE
P.O. BOX 220
MENOMONIE, WI 54751
ATTN: MIKE ANDRASCHKO
(715) 232-6240
mandra@dunnenergy.com

LEVEL 3 COMMUNICATIONS
715 NORTH 2ND STREET
MINNEAPOLIS, MN 55401
ATTN: BRADLEY MORSETH
(612) 605-5547
brad.morseth@level3.com

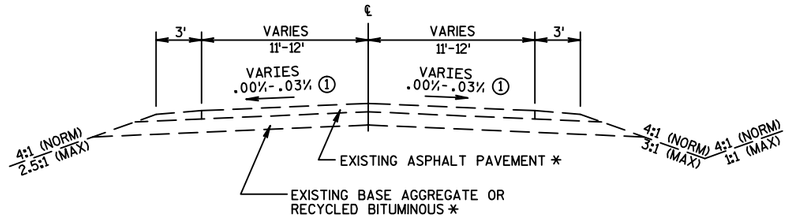
WINDSTREAM COMMUNICATIONS
8531 CR FF
WISCONSIN RAPIDS, WI 54494
ATTN: DENNIS RUESS
(812) 456-1249
dennis.ruess@windstream.com

*WISDOT STOC
433 WEST ST. PAUL AVENUE
SUITE 300
MILWAUKEE, WI 53203
ATTN: JEFF MADSON
(414) 225-3723
jeffrey.madson@dot.wi.gov

AT&T LEGACY
128 WEST SUNSET AVENUE
APPLETON, WI 54911
ATTN: WILLIAM KOENIG
(608) 638-0575
wekoenig@att.net

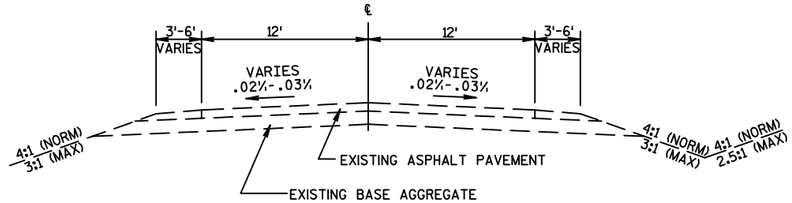
*DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

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

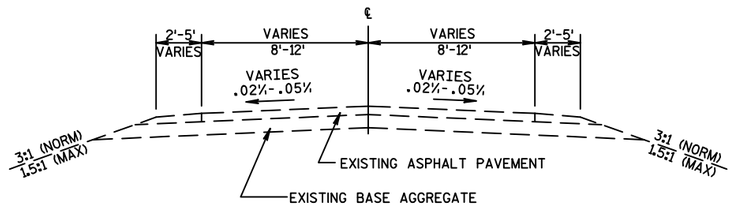


EXISTING TYPICAL SECTION CTH Q

*EXISTING PAVEMENT STRUCTURE					
BORING	STATION	OFFSET	ASPHALT	BASE AGG	RECYCLED
1	107+75	10' RT	2"	2"	0"
2	118+00	10' LT	4.5"	6"	0"
3	15+40	10' RT	6"	6"	0"
4	135+15	10' LT	5"	6"	0"
6	153+00	10' RT	3"	0"	4"
8	168+00	10' LT	4"	0"	4"
9	175+00	10' RT	4"	0"	3"
11	191+00	10' RT	4"	0"	3"
12	199+60	10' LT	4"	6"	0"
13	209+10	10' RT	6"	0"	0"
14	217+10	10' RT	4"	0"	4"
15	226+00	10' LT	4"	0"	4"
17	245+10	10' LT	5"	2"	0"
18	261+00	10' RT	6"	0"	0"
19	271+00	10' RT	6"	0"	0"

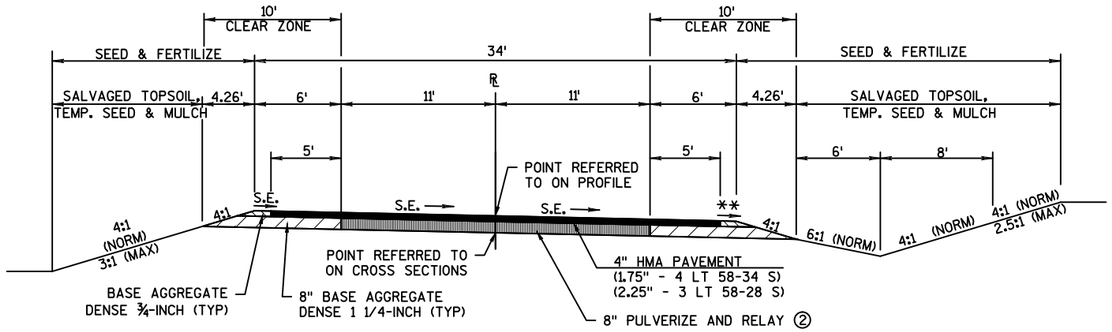


EXISTING TYPICAL SECTION CTH N



EXISTING TYPICAL SECTION SIDE ROADS

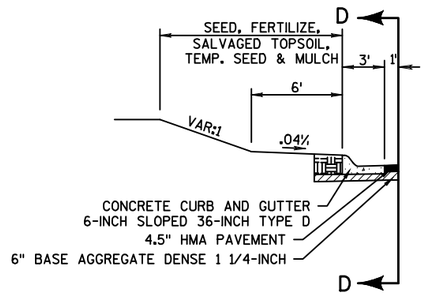
① THE EXISTING SUPERELEVATION ALONG CTH Q RANGES FROM 2.8% TO 10.7%.



FINISHED SUPERELEVATED TYPICAL SECTION - REHABILITATION

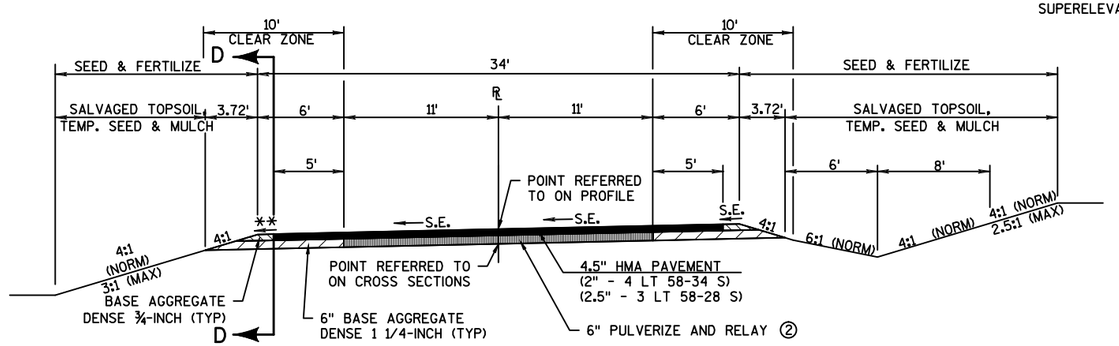
STA 100+47.79 - STA 104+23.58

** THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTION EQUALS THE SUPERELEVATION RATE WHEN THE SUPERELEVATION RATE IS GREATER THAN 4%. IF THE SUPERELEVATION RATE IS LESS THAN OR EQUAL TO 4%. THE LOW SIDE SHOULDER SLOPE IS 4%. HIGH SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION RATE.



SECTION D-D

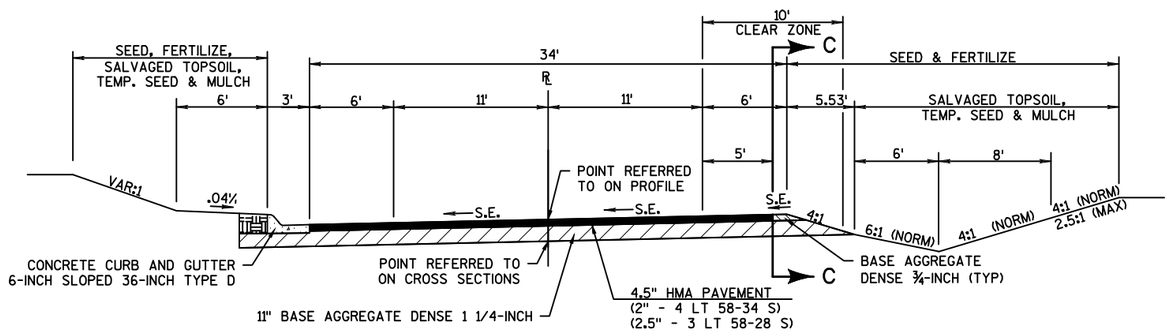
STA 159+40.77 - STA 174+00.00, LT



FINISHED SUPERELEVATED TYPICAL SECTION - REHABILITATION

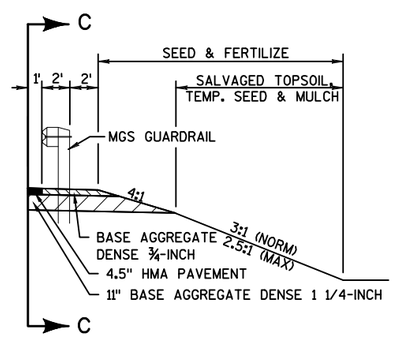
STA 159+40.77 - STA 174+00.00
STA 193+85.39 - STA 199+00.77
STA 232+32.90 - STA 249+23.90
STA 271+86.33 - STA 276+47.09

② HANDLE PULVERIZED MATERIAL IN SUCH A WAY THAT IT CAN BE INCORPORATED INTO THE PAVEMENT STRUCTURE OVER CULVERT PIPES THAT HAVE BEEN REMOVED AND/OR INSTALLED MAINTAINING A UNIFORM PAVEMENT STRUCTURE UP TO AND OVER THE CULVERT PIPE(S). ANY ADDITIONAL BASE AGGREGATE DENSE MATERIAL REQUIRED TO MAINTAIN PAVEMENT STRUCTURE DEPTHS DUE TO LOST MATERIAL IS INCIDENTAL TO CULVERT PIPE INSTALLATION.



FINISHED SUPERELEVATED TYPICAL SECTION - RECONSTRUCT

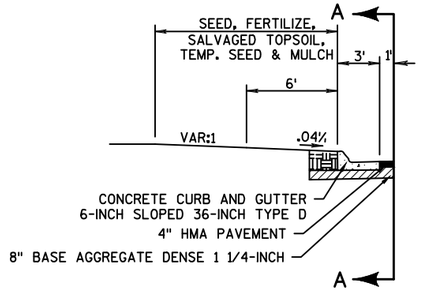
STA 174+00.00 - STA 185+58.99



SECTION C-C

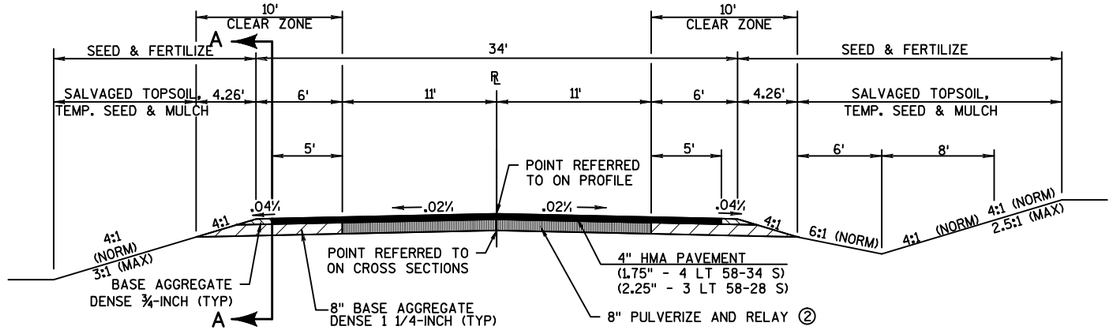
STA 181+00.00 - STA 185+58.99, RT

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	TYPICAL SECTIONS	SHEET 4	E



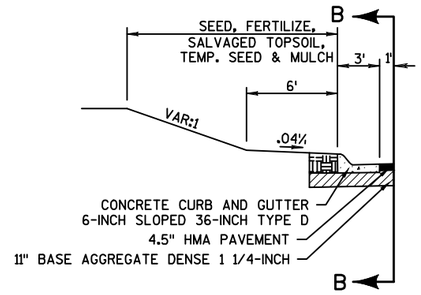
SECTION A-A

STA 116+00.00 - STA 120+50.00, LT



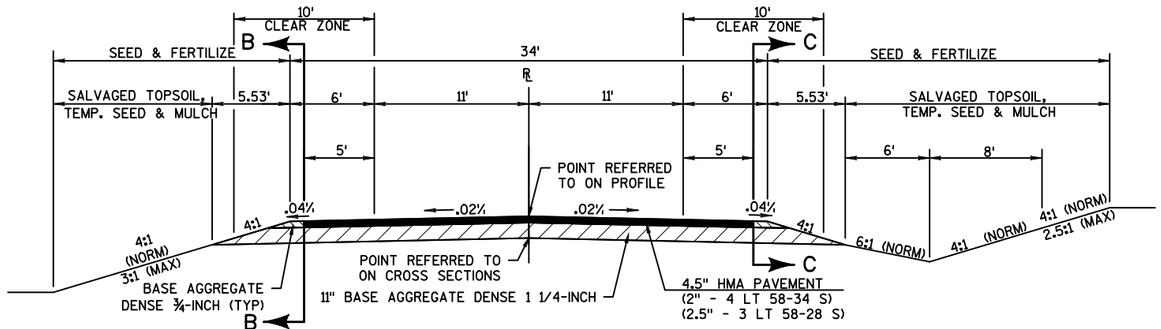
FINISHED TYPICAL SECTION - REHABILITATION

STA 104+23.58 - STA 137+00.00



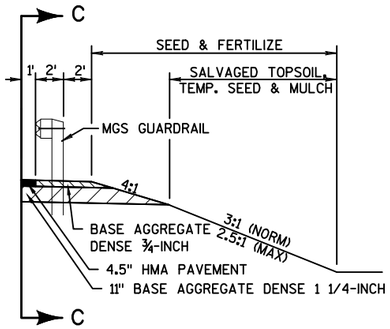
SECTION B-B

STA 144+00.00 - STA 148+00.00, RT
STA 144+50.00 - STA 146+50.00, LT
STA 185+58.99 - STA 189+00.00, LT



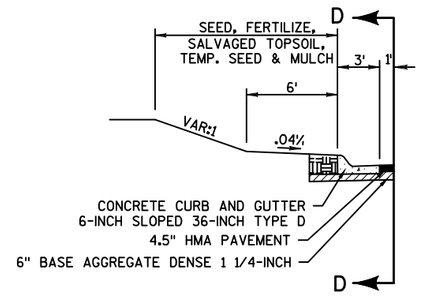
FINISHED TYPICAL SECTION - RECONSTRUCT

STA 137+00.00 - STA 152+00.00
STA 185+58.99 - STA 192+00.00



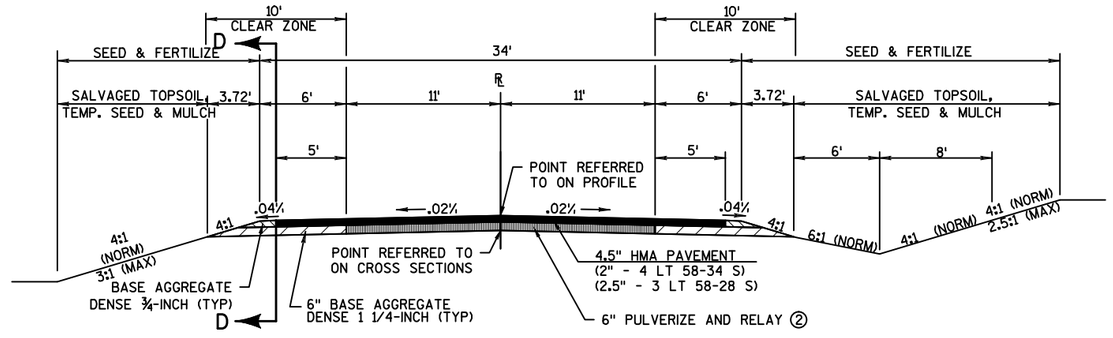
SECTION C-C

STA 185+58.99 - STA 191+50.00, RT



SECTION D-D

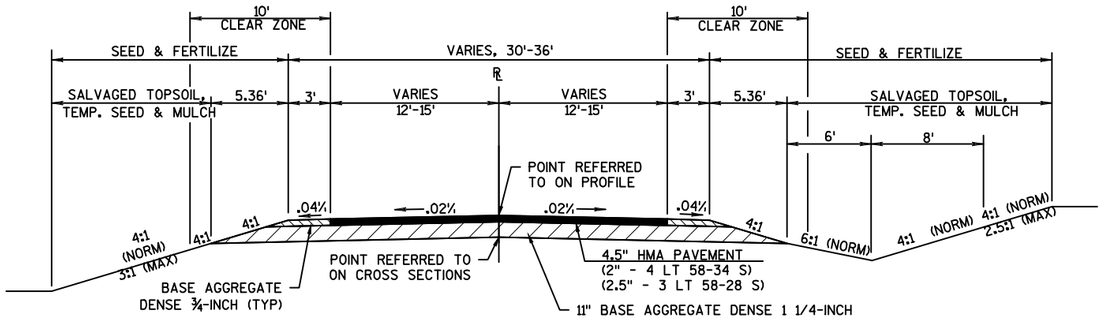
STA 159+00.00 - STA 159+40.77, LT



FINISHED TYPICAL SECTION - REHABILITATION

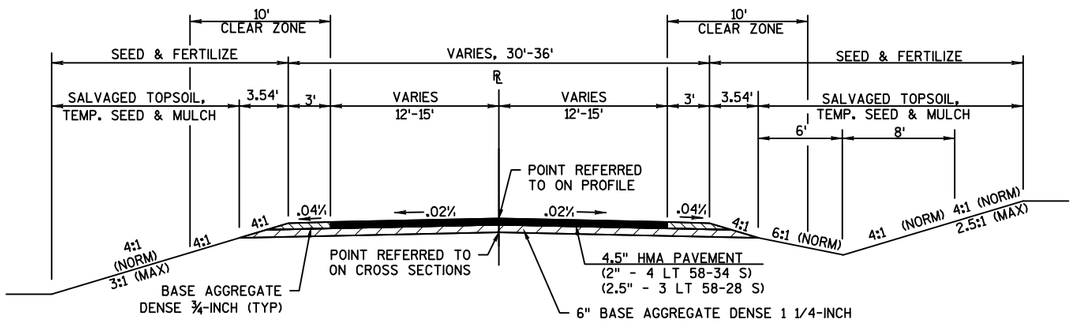
STA 152+00.00 - STA 159+40.77
STA 192+00.00 - STA 193+85.39
STA 199+00.77 - STA 232+32.90
STA 249+23.90 - STA 271+86.33

② HANDLE PULVERIZED MATERIAL IN SUCH A WAY THAT IT CAN BE INCORPORATED INTO THE PAVEMENT STRUCTURE OVER CULVERT PIPES THAT HAVE BEEN REMOVED AND/OR INSTALLED MAINTAINING A UNIFORM PAVEMENT STRUCTURE UP TO AND OVER THE CULVERT PIPE(S). ANY ADDITIONAL BASE AGGREGATE DENSE MATERIAL REQUIRED TO MAINTAIN PAVEMENT STRUCTURE DEPTHS DUE TO LOST MATERIAL IS INCIDENTAL TO CULVERT PIPE INSTALLATION.



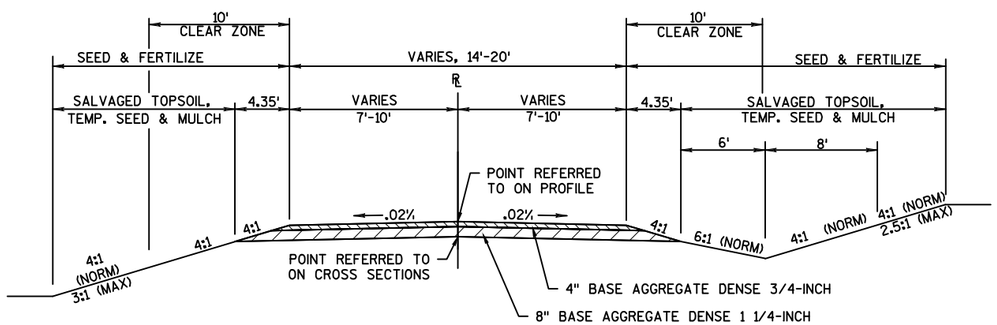
FINISHED TYPICAL SECTION - CTH N

STA 7+60.00 - STA 10+00.00
STA 10+00.00 - STA 12+25.00



FINISHED TYPICAL SECTION - SIDE ROADS

STA 25+00.00 - STA 26+22.70
STA 30+00.00 - STA 31+25.00



FINISHED TYPICAL SECTION - SIDE ROADS

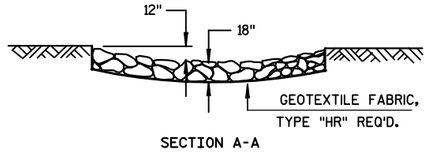
STA 19+16.10 - STA 20+00.00

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	TYPICAL SECTIONS	SHEET 6	E

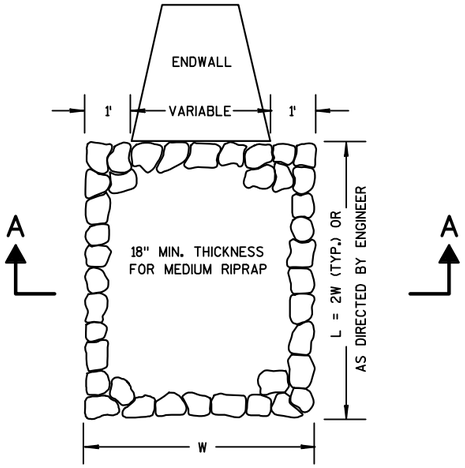
RUNOFF COEFFICIENT TABLE

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

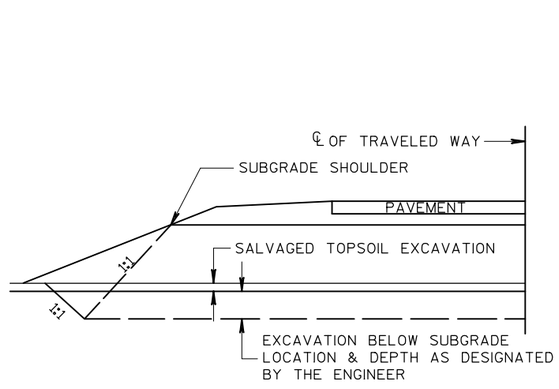
TOTAL PROJECT AREA = 43.57 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 29.18 ACRES



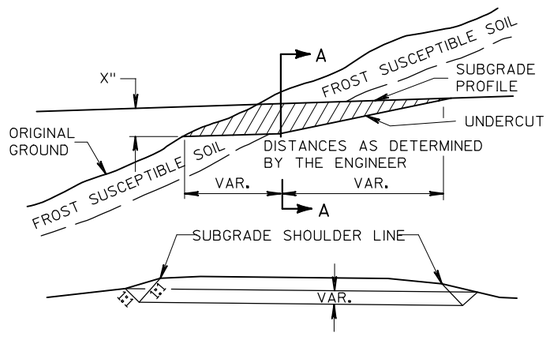
SECTION A-A



MEDIUM RIPRAP TREATMENT AT CULVERTS



DETAIL FOR EXCAVATION BELOW SUBGRADE



SECTION A-A
CROSS SECTION SHOWING UNDERCUT

DETAIL FOR EXCAVATION BELOW SUBGRADE AT CUTS

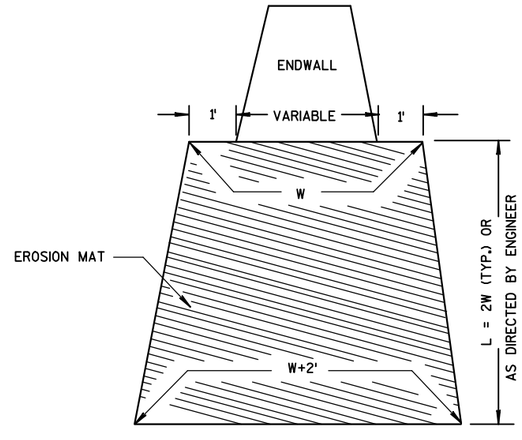
NOTE:
EXACT LOCATIONS AND EXTENT OF E.B.S. SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER.

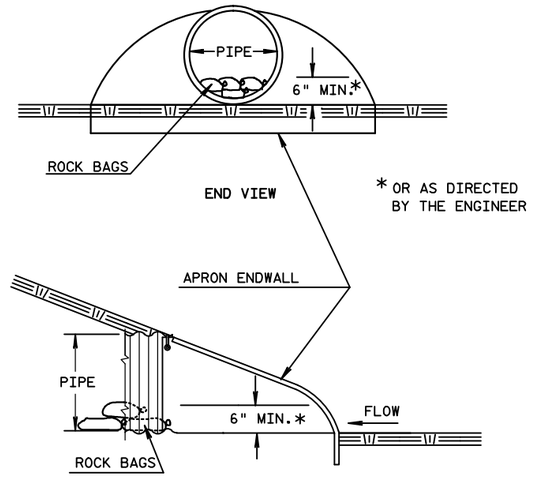
BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.

THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED.

"X" DIMENSION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

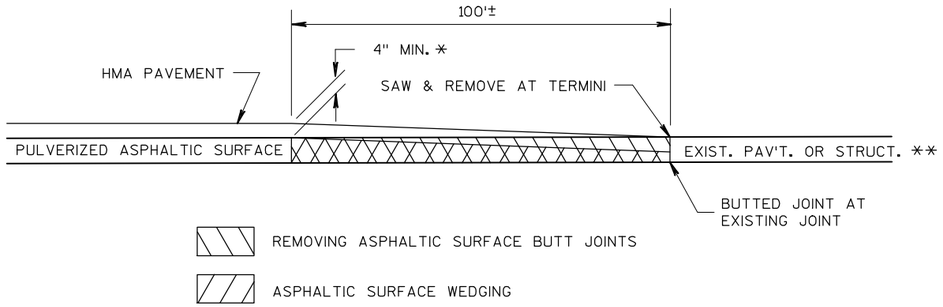


EROSION MAT TREATMENT AT CULVERTS



SIDE VIEW

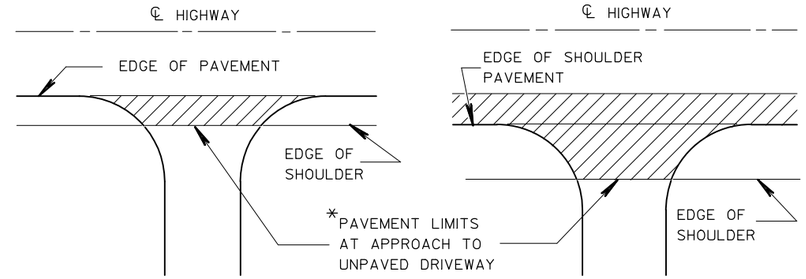
CULVERT PIPE CHECK



OVERLAP JOINT, BUTTED DETAIL

STA 100+48 - STA 101+48
STA 107+23 - STA 108+23
STA 108+97 - STA 109+97
STA 132+06 - STA 133+06
STA 133+37 - STA 134+37
* STA 275+47 - STA 276+47 (4.5" DEPTH)

**STA 133+06 - STA 133+37
EXISTING PAVEMENT AND BASE COURSE TO BE REMOVED AND REPLACED WITH NEW HMA PAVEMENT AND BASE AGGREGATE DENSE. DEPTH OF PROPOSED PAVEMENT STRUCTURE WILL BE DETERMINED BY ENGINEER AND WILL MATCH TOP OF EXISTING HEADER AT STRUCTURE B-17-084.

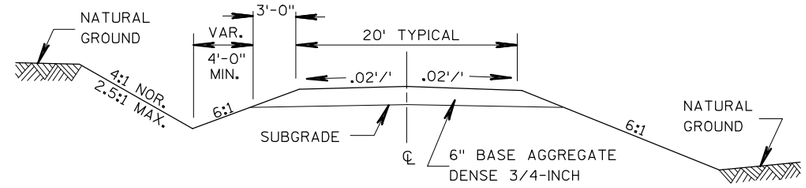


*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

PLAN VIEW

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

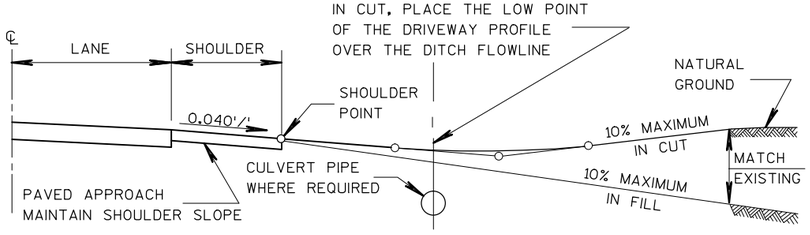
RURAL DRIVEWAY INTERSECTION DETAIL



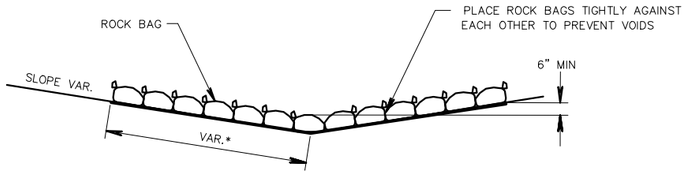
IN CUT

IN FILL

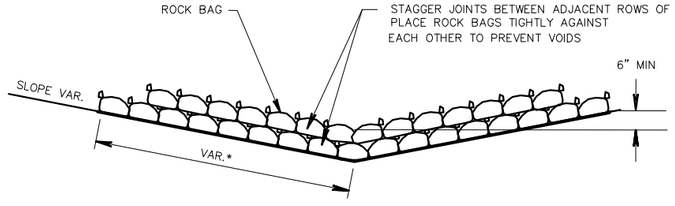
TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE



TYPICAL DRIVEWAY PROFILES



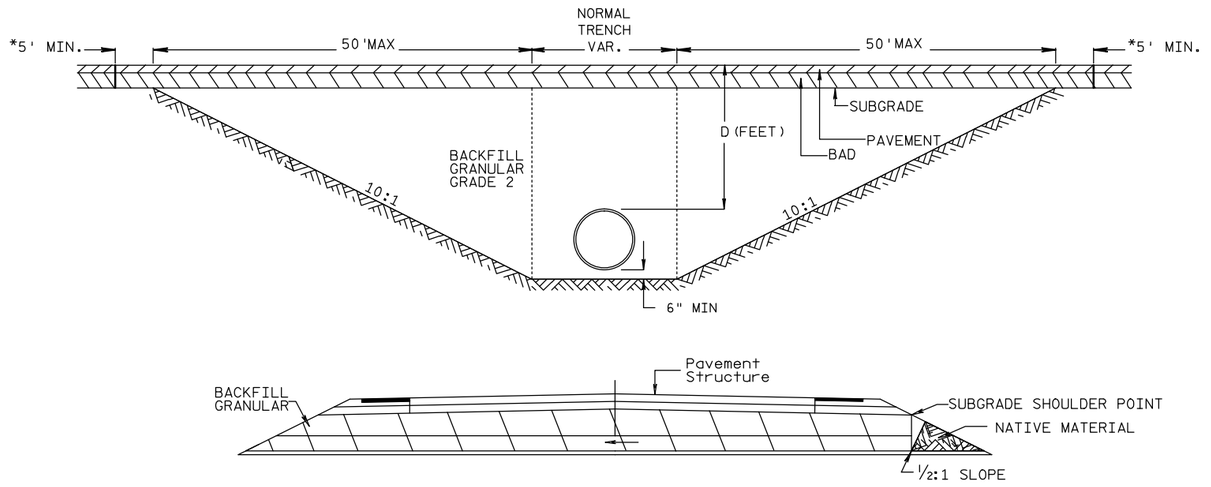
SIDE VIEW (SINGLE LAYER)



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

SIDE VIEW (MULTIPLE LAYER)

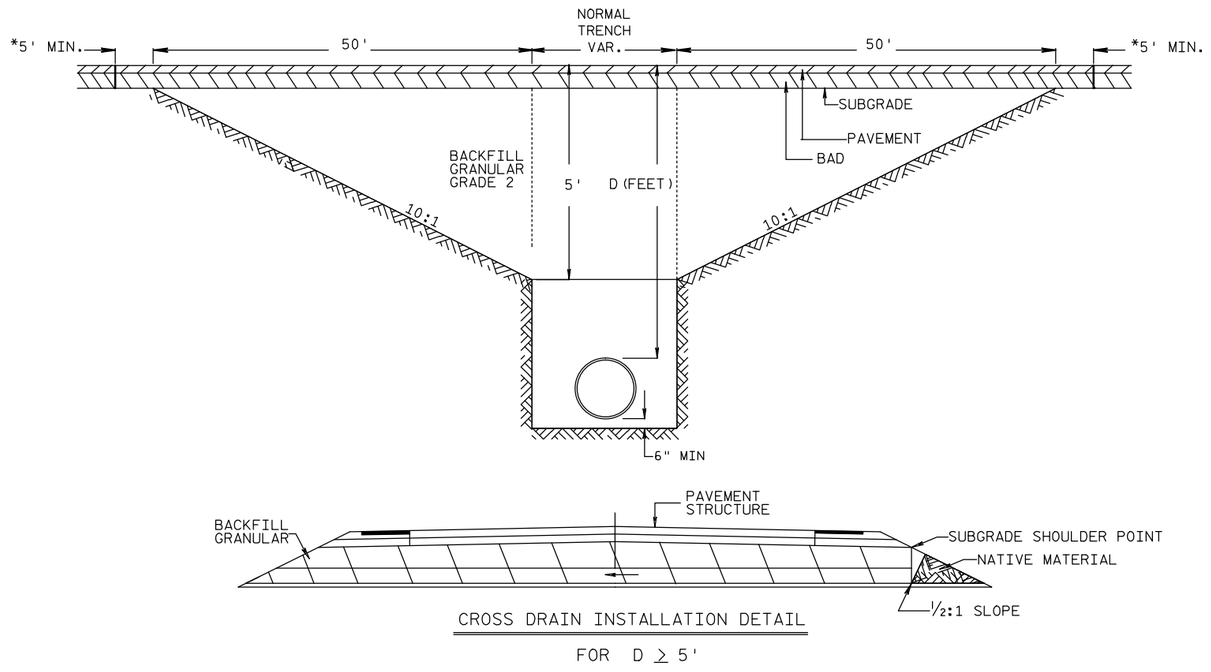
ROCK BAGS (DITCH CHECK)



CROSS DRAIN INSTALLATION DETAIL

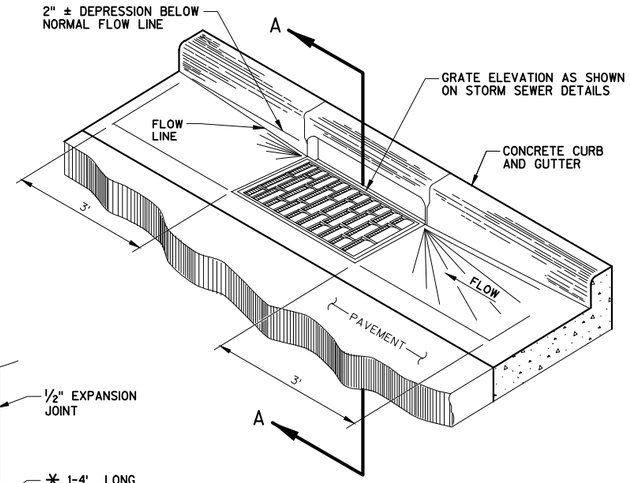
FOR D ≤ 5'

* Pavement Removal Limits (Typical)

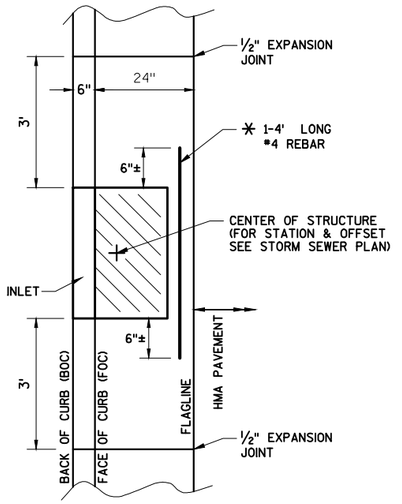


CROSS DRAIN INSTALLATION DETAIL

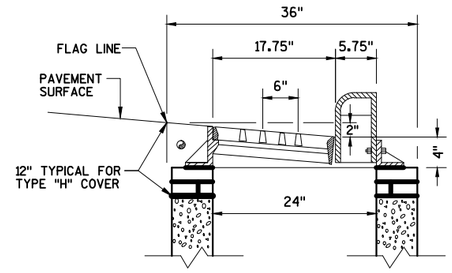
FOR D ≥ 5'



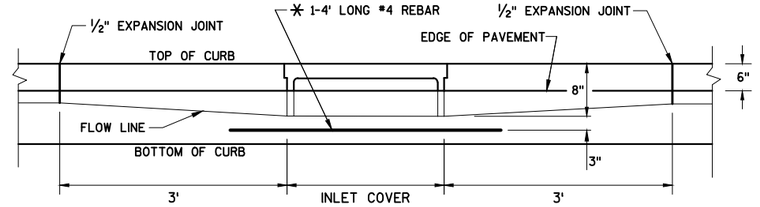
PERSPECTIVE



30" CONCRETE CURB & GUTTER



SECTION A-A



ELEVATION

(✳ INCLUDED IN COST OF "CONCRETE CURB & GUTTER")

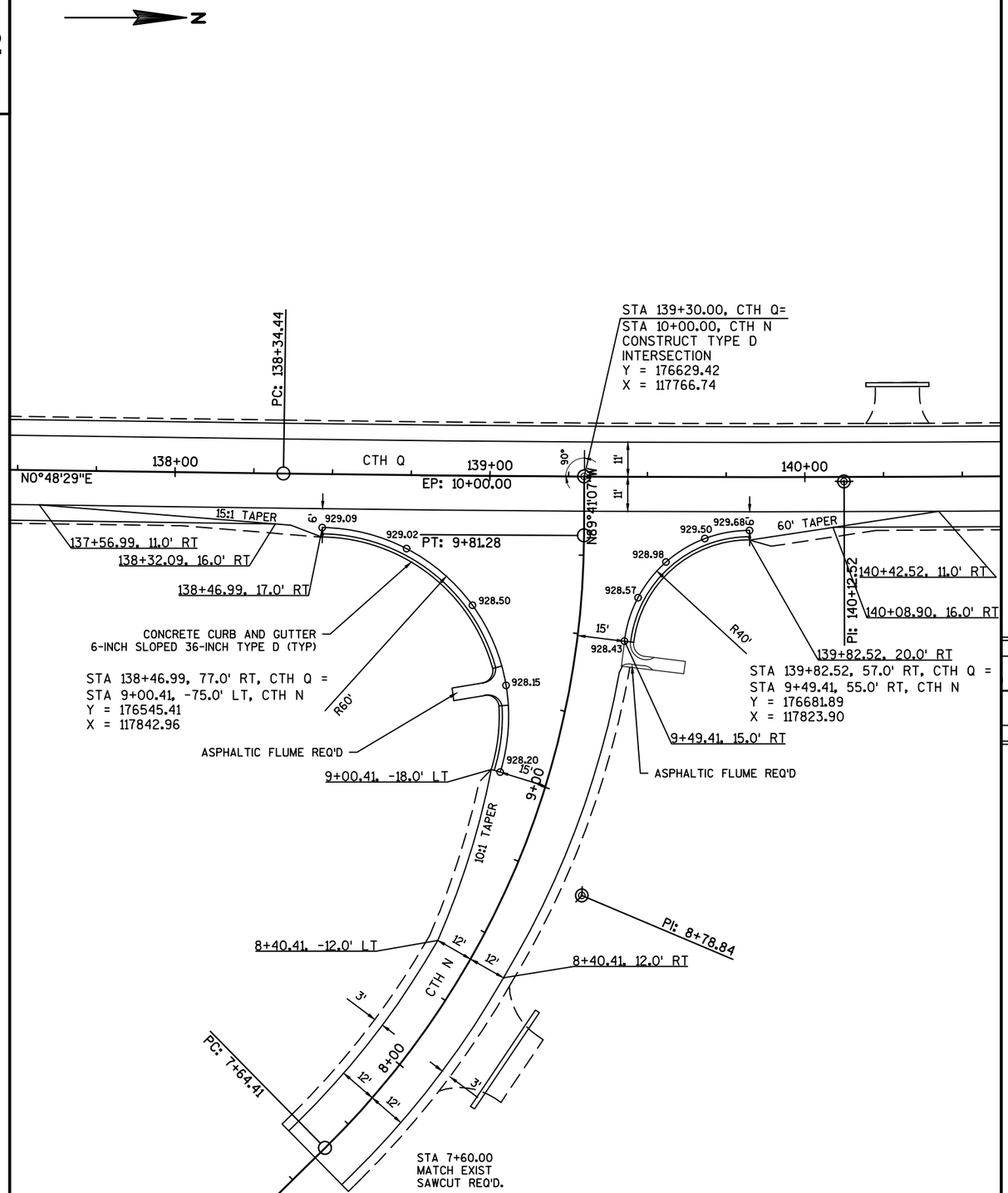
DETAIL OF CURB AND GUTTER AT INLETS

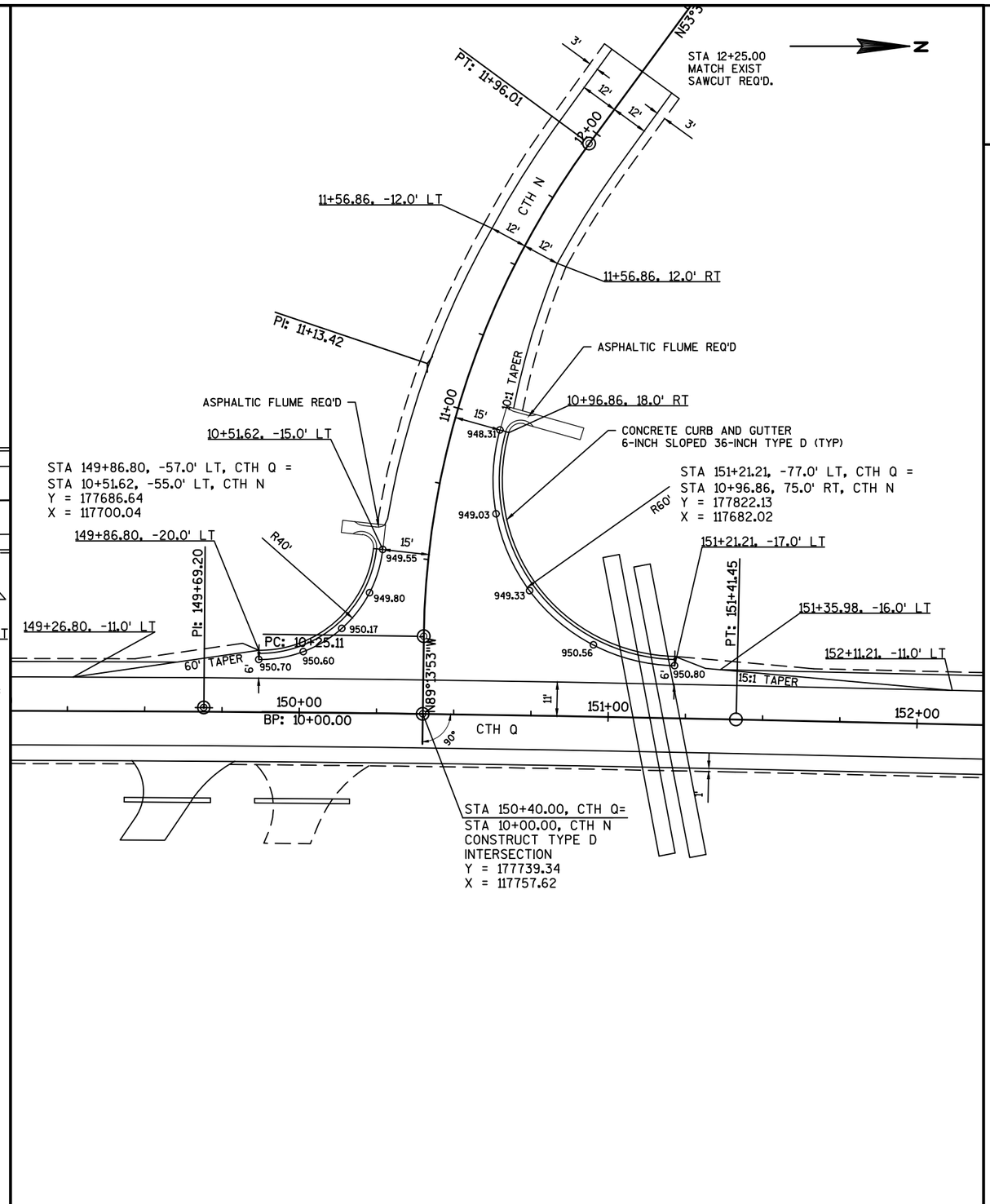
(TYPE 3-H INLET SHOWN)

Station	Description	Left Outside Shoulder	Left Outside Lane	Right Outside Lane	Right Outside Shoulder
99+52.78	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
99+52.78	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
100+03.78	Level Crown	0.00%	0.00%	-2.00%	-4.00%
100+54.78	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
101+05.78	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
101+56.78	Begin Full Super	6.00%	6.00%	-6.00%	-6.00%
103+72.58	End Full Super	6.00%	6.00%	-6.00%	-6.00%
104+23.58	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
104+74.58	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
105+25.58	Level Crown	0.00%	0.00%	-2.00%	-4.00%
105+76.58	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
105+76.58	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
157+87.76	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
157+87.76	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
158+38.76	Level Crown	-4.00%	-2.00%	0.00%	0.00%
158+89.76	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
159+40.76	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
159+91.76	Begin Full Super	-6.00%	-6.00%	6.00%	6.00%
162+20.85	End Full Super	-6.00%	-6.00%	6.00%	6.00%
163+66.42	Begin Full Super	-5.00%	-5.00%	5.00%	5.00%
166+01.92	End Full Super	-5.00%	-5.00%	5.00%	5.00%
166+27.52	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
166+78.72	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
167+29.92	Level Crown	-4.00%	-2.00%	0.00%	0.00%
167+81.12	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
167+81.12	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
169+83.35	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
169+83.35	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
170+34.29	Level Crown	0.00%	0.00%	-2.00%	-4.00%
170+85.24	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
171+36.18	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
171+69.29	Begin Full Super	5.30%	5.30%	-5.30%	-5.30%
173+93.78	End Full Super	5.30%	5.30%	-5.30%	-5.30%
177+58.82	Begin Full Super	6.00%	6.00%	-6.00%	-6.00%
180+18.18	End Full Super	6.00%	6.00%	-6.00%	-6.00%
182+64.18	Begin Full Super	-6.00%	-6.00%	6.00%	6.00%
185+07.99	End Full Super	-6.00%	-6.00%	6.00%	6.00%
185+58.99	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
186+09.99	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
186+60.99	Level Crown	-4.00%	-2.00%	0.00%	0.00%
187+11.99	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
187+11.99	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
192+32.38	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
192+32.38	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
192+83.38	Level Crown	0.00%	0.00%	-2.00%	-4.00%

Station	Description	Left Outside Shoulder	Left Outside Lane	Right Outside Lane	Right Outside Shoulder
193+34.38	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
193+85.38	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
194+36.38	Begin Full Super	6.00%	6.00%	-6.00%	-6.00%
198+49.78	End Full Super	6.00%	6.00%	-6.00%	-6.00%
199+00.78	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
199+51.78	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
200+02.78	Level Crown	0.00%	0.00%	-2.00%	-4.00%
200+53.78	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
200+53.78	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
230+79.90	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
230+79.90	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
231+30.90	Level Crown	-4.00%	-2.00%	0.00%	0.00%
231+81.90	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
232+32.90	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
232+83.90	Begin Full Super	-6.00%	-6.00%	6.00%	6.00%
239+14.42	End Full Super	-6.00%	-6.00%	6.00%	6.00%
239+65.42	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
240+16.42	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
240+67.42	Level Crown	-4.00%	-2.00%	0.00%	0.00%
241+18.42	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
241+18.42	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
242+88.34	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
242+88.34	End Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
243+39.57	Level Crown	-4.00%	-2.00%	0.00%	0.00%
243+90.80	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
244+42.03	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
244+85.57	Begin Full Super	-5.70%	-5.70%	5.70%	5.70%
248+75.24	End Full Super	-5.70%	-5.70%	5.70%	5.70%
249+18.78	Low Shoulder Match	-4.00%	-4.00%	4.00%	4.00%
249+70.01	Reverse Crown	-4.00%	-2.00%	2.00%	2.00%
250+21.24	Level Crown	-4.00%	-2.00%	0.00%	0.00%
250+72.47	Begin Normal Crown	-4.00%	-2.00%	-2.00%	-2.00%
250+72.47	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
270+33.33	End Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%
270+33.33	End Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
270+84.33	Level Crown	0.00%	0.00%	-2.00%	-4.00%
271+35.33	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
271+86.33	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
272+37.33	Begin Full Super	6.00%	6.00%	-6.00%	-6.00%
276+45.40	End Full Super	6.00%	6.00%	-6.00%	-6.00%
276+96.40	Low Shoulder Match	4.00%	4.00%	-4.00%	-4.00%
277+47.40	Reverse Crown	2.00%	2.00%	-2.00%	-4.00%
277+98.40	Level Crown	0.00%	0.00%	-2.00%	-4.00%
278+49.40	Begin Normal Crown	-2.00%	-2.00%	-2.00%	-4.00%
278+49.40	Begin Normal Shoulder	-4.00%	-2.00%	-2.00%	-4.00%

2





PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	INTERSECTION DETAILS	SHEET 11	E

N

STA 200+97.15, CTH Q=
STA 25+00.00, 630TH AVENUE
CONSTRUCT TYPE C
INTERSECTION
Y = 182471.92
X = 116475.83

200+00 | 201+00 | BP: 25+00.00 | 202+00

N0°05'27"E

CTH Q

1' | 11' | 11'

90°

15:1 TAPER | 6' | 10:1 TAPER | 6'

199+36.43, 11.0' RT

200+11.43, 16.0' RT

200+26.43, 17.0' RT

202+21.49, 11.0' RT

201+71.49, 16.0' RT

201+61.49, 17.0' RT

3' | 3' | 3'

630TH AVENUE

R55' | R50'

15' | 15'

S89°20'27"E

26+00

10:1 TAPER

10' | 10'

STA 200+26.43, 72.0' RT, CTH Q =
STA 25+72.70, 70.0' RT, 630TH AVENUE
Y = 182401.09
X = 116547.72

25+72.70, 15.0' RT

STA 201+61.49, 67.0' RT, CTH Q =
STA 25+66.36, -65.0' LT, 630TH AVENUE
Y = 182536.15
X = 116542.93

25+66.36, -15.0' LT

26+22.70, 10.0' RT

26+22.70, -10.0' LT

EP: 26+25.00

STA 26+22.70
MATCH EXIST
SAWCUT REQ'D.

PI STA = 26+25.00
Y = 182470.48
X = 116600.82

N

STA 227+30.29, CTH Q=
STA 30+00.00, 640TH AVENUE
CONSTRUCT TYPE C
INTERSECTION
Y = 185105.01
X = 116491.01

PI: 227+32.74

226+00 | 227+00 | BP: 30+00.00 | 228+00

N0°27'38"E | N1°04'55"E

CTH Q

1' | 11' | 11'

88°

15:1 TAPER | 6' | 10:1 TAPER | 6'

225+67.35, 11.0' RT

226+42.35, 16.0' RT

226+57.35, 17.0' RT

228+47.49, 11.0' RT

227+97.49, 16.0' RT

227+87.49, 17.0' RT

3' | 3' | 3'

640TH AVENUE

R60' | R40'

15' | 15'

N88°54'44"E

31+00

10' | 10'

STA 226+57.35, 77.0' RT, CTH Q =
STA 30+75.00, 75.0' RT, 640TH AVENUE
Y = 185031.44
X = 116567.42

30+75.00, 15.0' RT

STA 227+87.49, 57.0' RT, CTH Q =
STA 30+59.10, -55.0' LT, 640TH AVENUE
Y = 185161.12
X = 116549.05

30+59.10, -15.0' LT

31+25.00, 10.0' RT

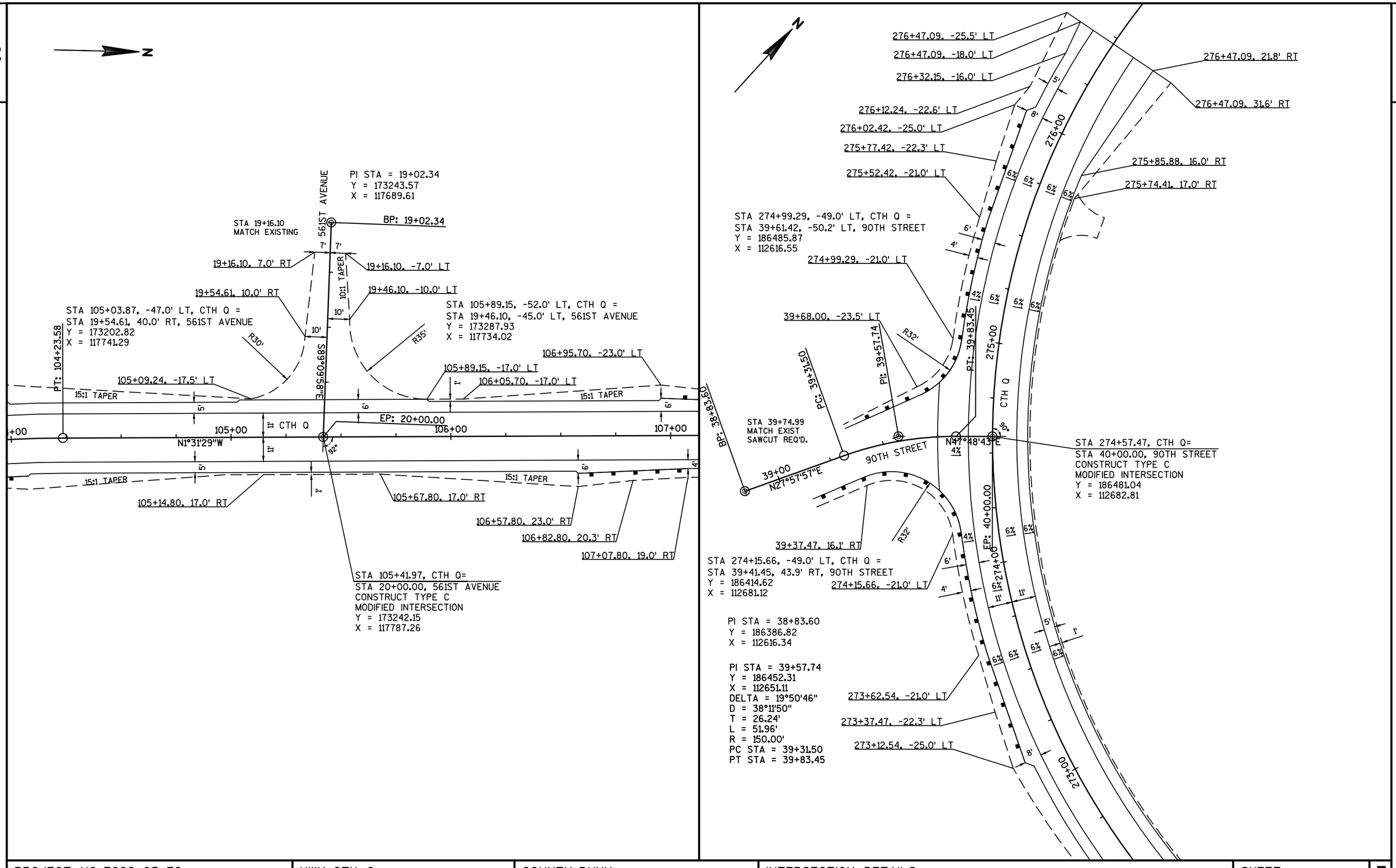
31+25.00, -10.0' LT

EP: 31+25.00

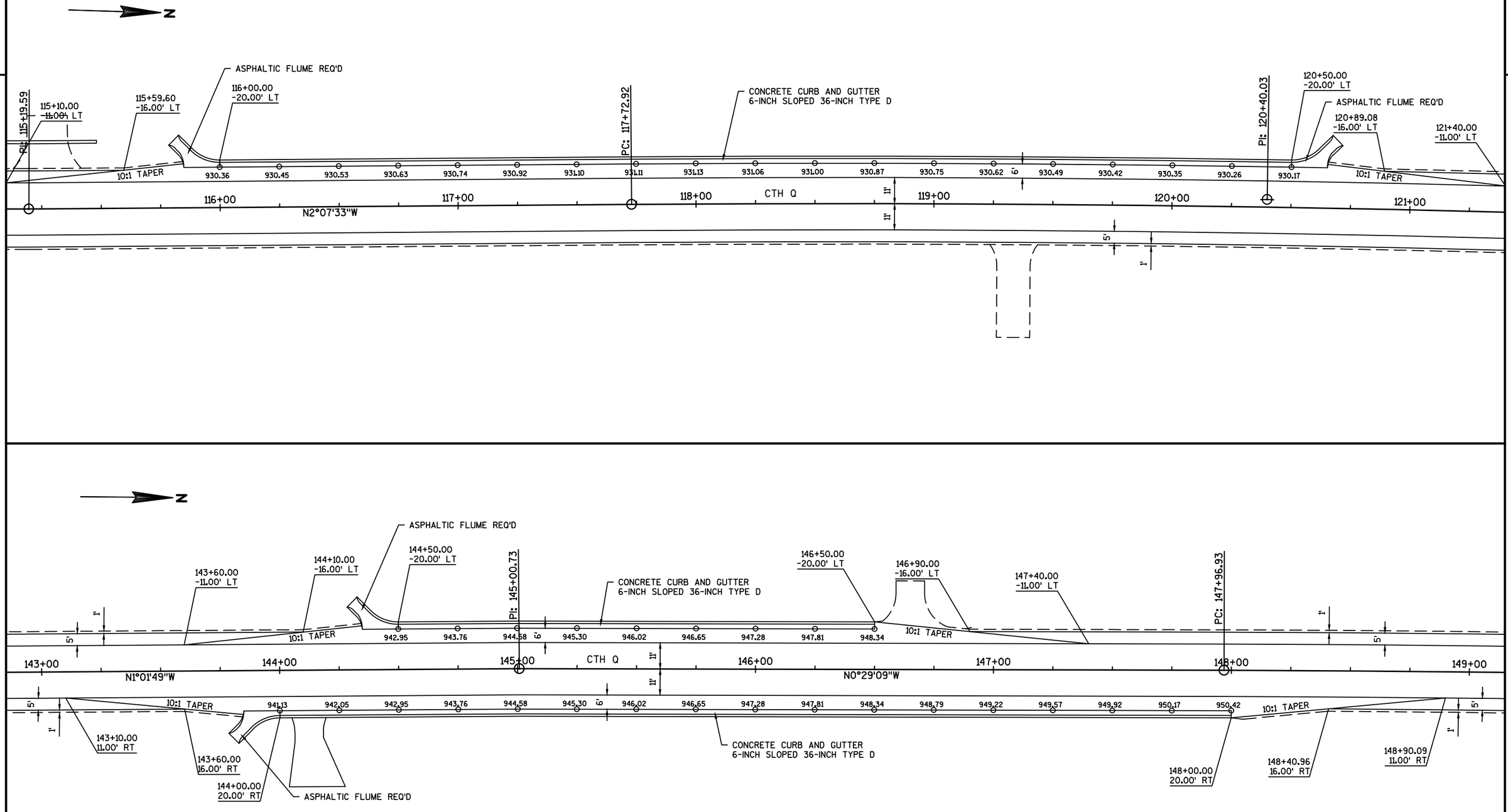
STA 31+25.00
MATCH EXIST
SAWCUT REQ'D.

PI STA = 31+25.00
Y = 185107.38
X = 116615.98

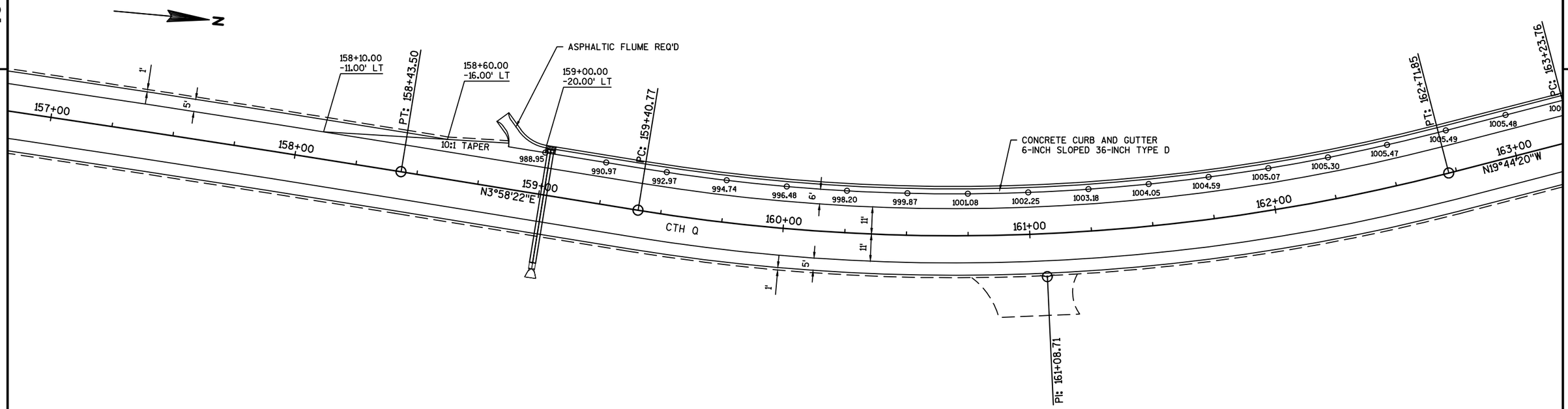
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	INTERSECTION DETAILS	SHEET 12	E

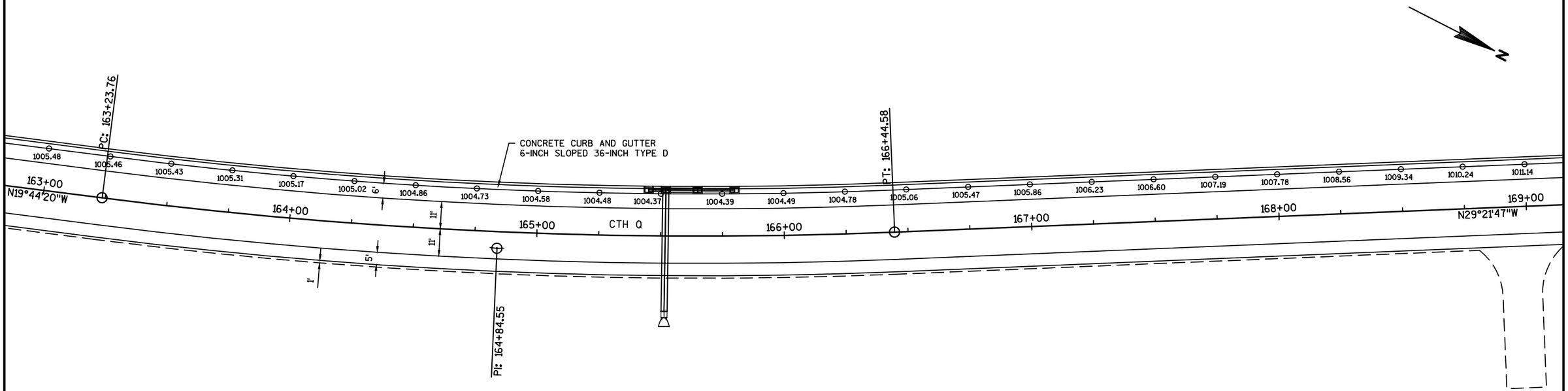


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	INTERSECTION DETAILS	SHEET 13	E



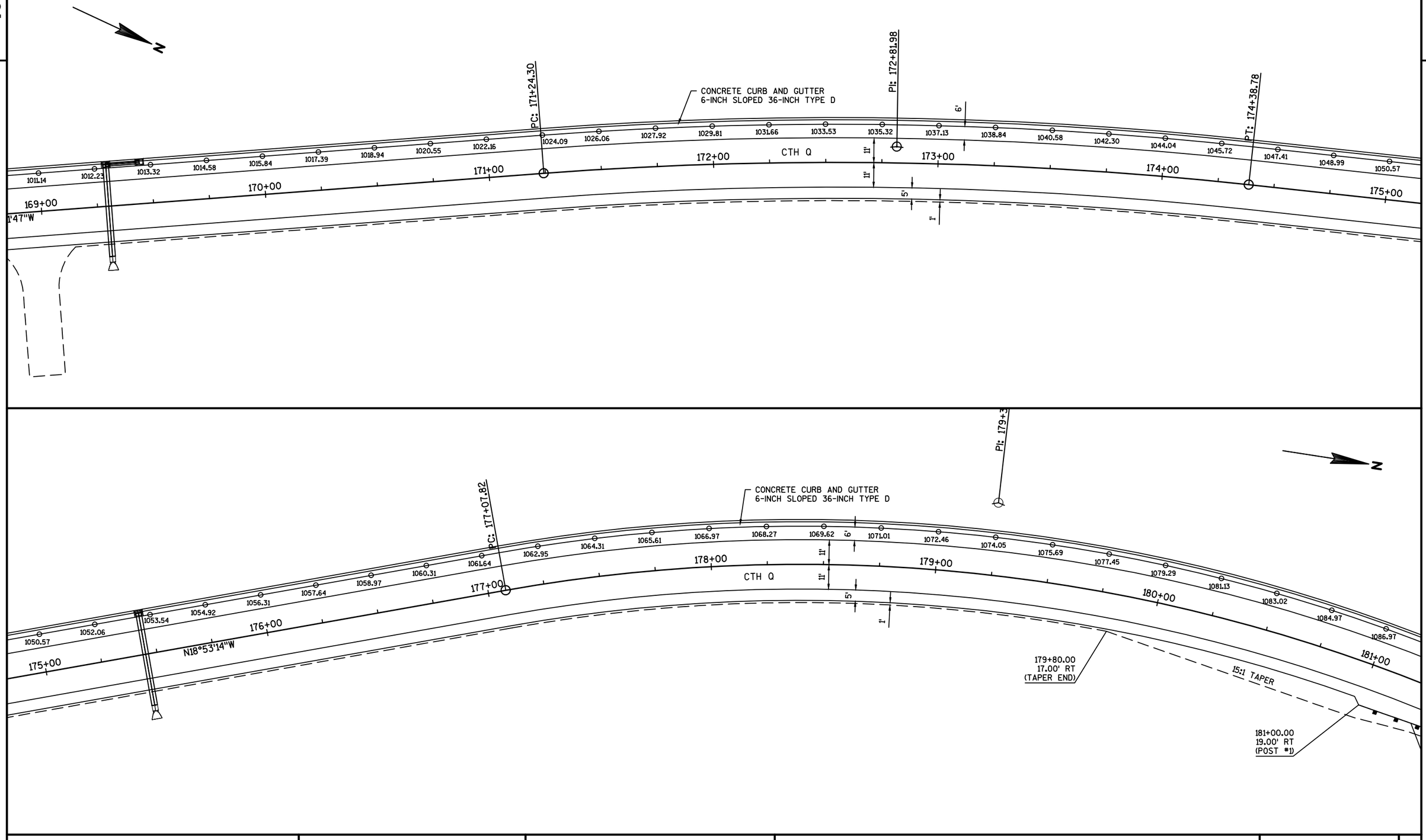
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PAVING DETAILS	SHEET 14	E



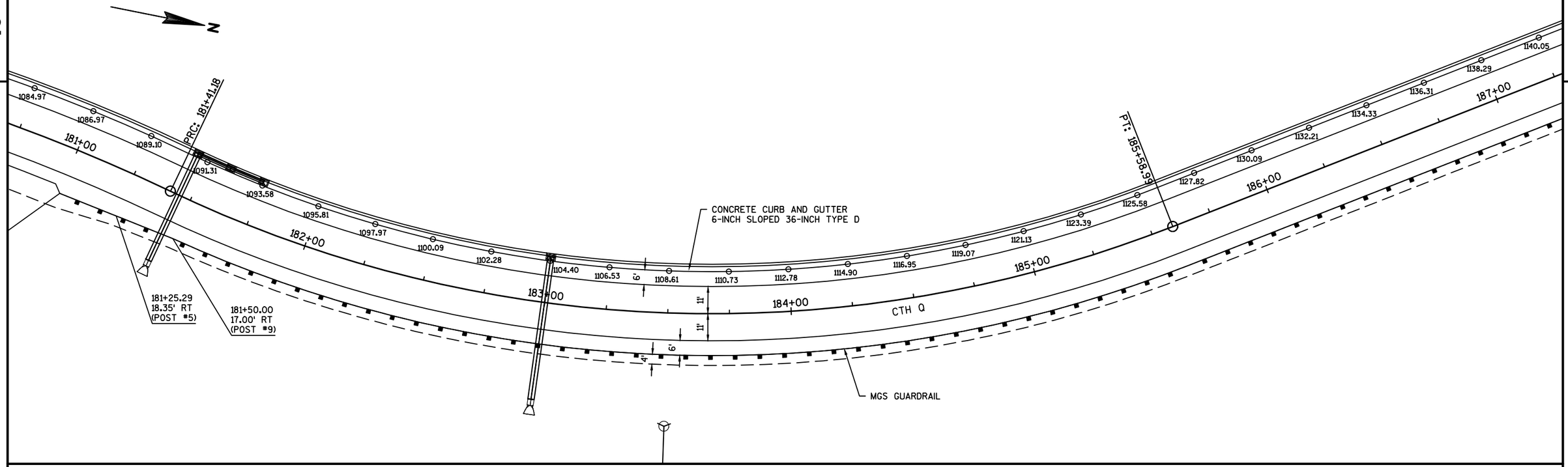


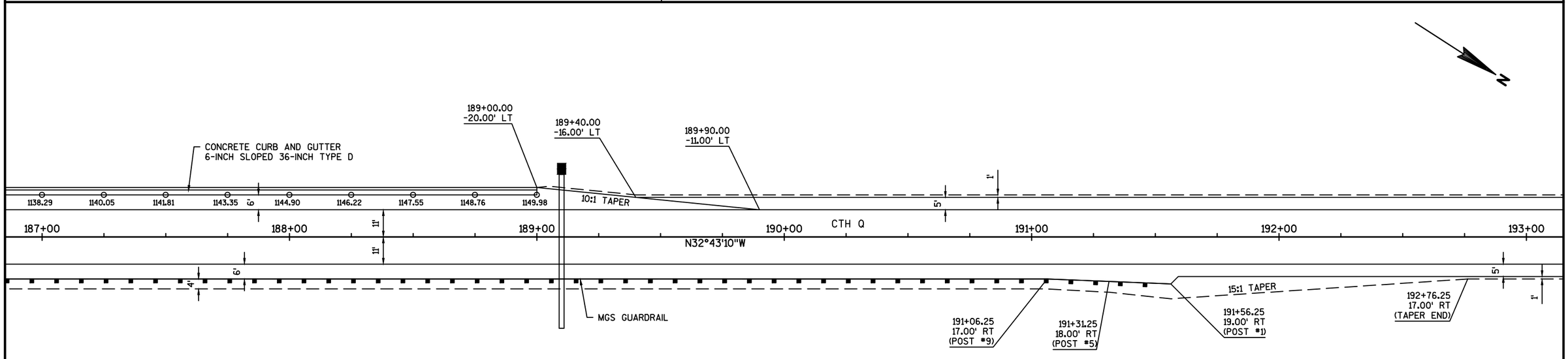
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PAVING DETAILS	SHEET 15	E

2

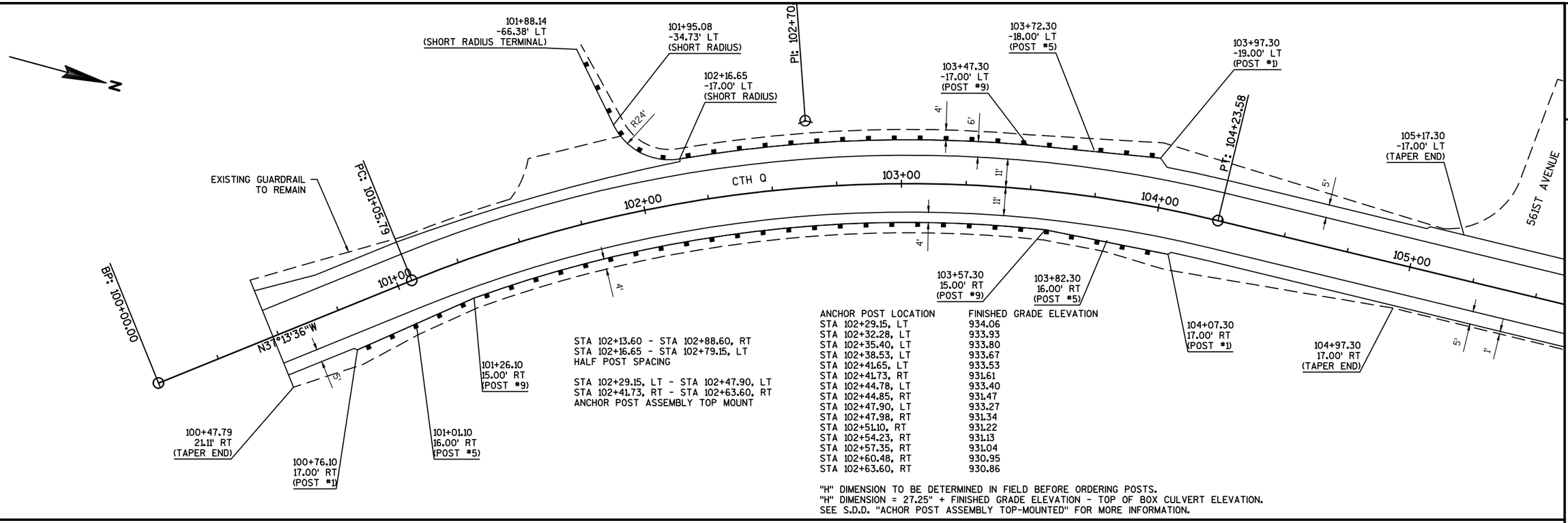


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PAVING DETAILS	SHEET 16	E





PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PAVING DETAILS	SHEET 17	E

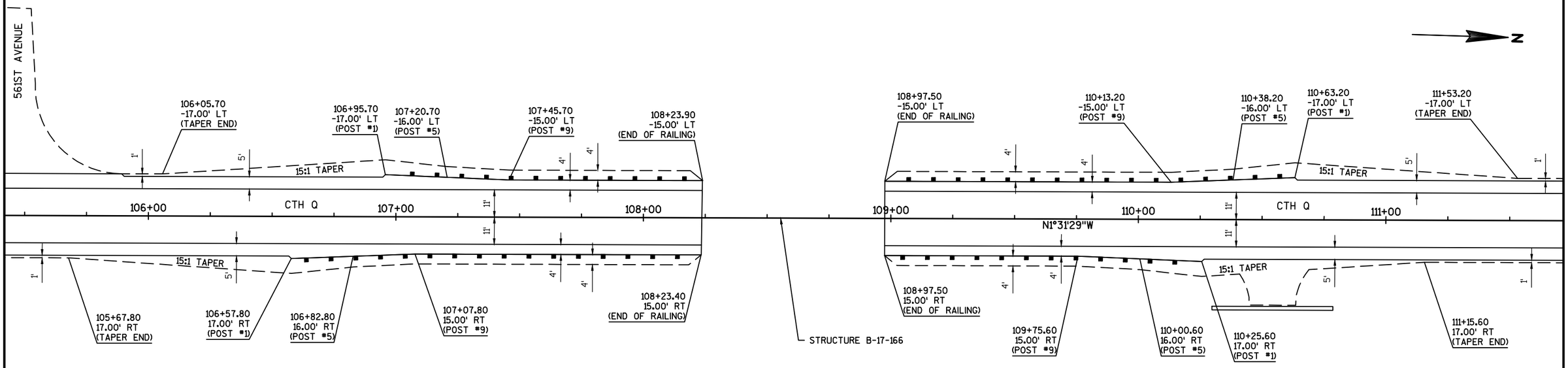


STA 102+13.60 - STA 102+88.60, RT
STA 102+16.65 - STA 102+79.15, LT
HALF POST SPACING

STA 102+29.15, LT - STA 102+47.90, LT
STA 102+41.73, RT - STA 102+63.60, RT
ANCHOR POST ASSEMBLY TOP MOUNT

ANCHOR POST LOCATION	FINISHED GRADE ELEVATION
STA 102+29.15, LT	934.06
STA 102+32.28, LT	933.93
STA 102+35.40, LT	933.80
STA 102+38.53, LT	933.67
STA 102+41.65, LT	933.53
STA 102+41.73, RT	931.61
STA 102+44.78, LT	933.40
STA 102+44.85, RT	931.47
STA 102+47.90, LT	933.27
STA 102+47.98, RT	931.34
STA 102+51.10, RT	931.22
STA 102+54.23, RT	931.13
STA 102+57.35, RT	931.04
STA 102+60.48, RT	930.95
STA 102+63.60, RT	930.86

"H" DIMENSION TO BE DETERMINED IN FIELD BEFORE ORDERING POSTS.
"H" DIMENSION = 27.25" + FINISHED GRADE ELEVATION - TOP OF BOX CULVERT ELEVATION.
SEE S.D.D. "ACHOR POST ASSEMBLY TOP-MOUNTED" FOR MORE INFORMATION.



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN DETAILS	SHEET 18	E

2

N

130+55.60
-17.00' LT
(TAPER END)

131+90.60
-20.00' LT
(POST #1)

132+15.60
-19.00' LT
(POST #5)

132+40.60
-18.00' LT
(POST #9)

133+06.26
-18.00' LT
(END OF RAILING)

133+36.73
-18.00' LT
(END OF RAILING)

134+39.90
-18.00' LT
(POST #9)

134+64.90
-19.00' LT
(POST #5)

134+89.90
-20.00' LT
(POST #1)

136+24.90
-17.00' LT
(TAPER END)

15:1 TAPER

15:1 TAPER

1'

5'

7'

4'

7'

4'

11'

11'

130+00

131+00

132+00

133+00

134+00

135+00

136+00

N0°48'29"E

CTH Q

5'

7'

4'

7'

4'

1'

15:1 TAPER

15:1 TAPER

130+18.30
17.00' RT
(TAPER END)

131+53.30
20.00' RT
(POST #1)

131+78.30
19.00' RT
(POST #5)

132+03.30
18.00' RT
(POST #9)

133+06.45
18.00' RT
(END OF RAILING)

133+36.97
18.00' RT
(END OF RAILING)

134+02.60
18.00' RT
(POST #9)

134+27.60
19.00' RT
(POST #5)

134+52.60
20.00' RT
(POST #1)

135+87.60
17.00' RT
(TAPER END)

STRUCTURE B-17-084

N

274+34.72
-82.50' LT
(MATCH EXIST. BEAMGUARD)

274+60.39
-66.97' LT
(SHORT RADIUS TERMINAL)

274+41.68
-58.99' LT
(SHORT RADIUS)

274+74.59
-33.25' LT
(SHORT RADIUS)

273+62.54
-17.00' LT
(POST #9)

274+15.66
-17.00' LT
(SHORT RADIUS)

R32'

R32'

274+99.29
-17.00' LT
(SHORT RADIUS)

273+37.47
-16.97' LT
(POST #5)

273+12.54
-19.00' LT
(POST #1)

90TH STREET

275+52.42
-17.00' LT
(POST #9)

275+77.42
-16.97' LT
(POST #5)

276+02.42
-19.00' LT
(POST #1)

276+12.24
-22.59' LT
(TAPER END)

14'

6'

4'

11'

11'

274+00

275+00

276+00

15:1 TAPER

15:1 TAPER

CTH Q

5'

1'

5'

5'

271+92.54
-17.00' LT
(TAPER END)

PC: 271+86.33

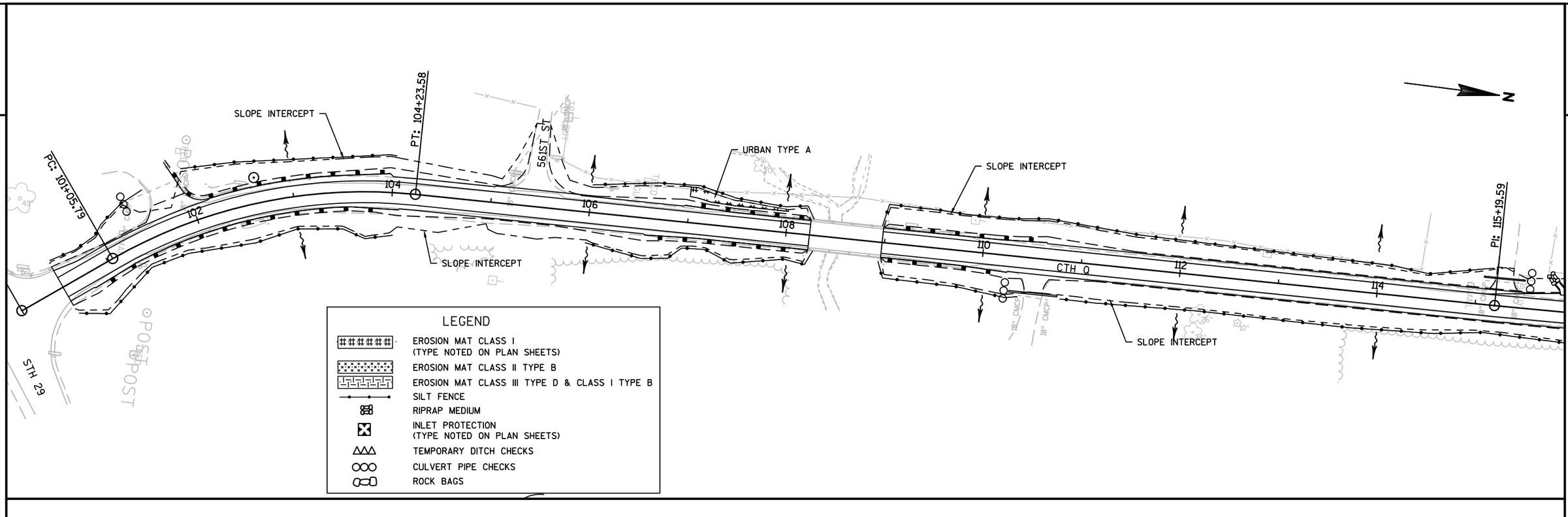
1'

272+00

PC: 276+96.39

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN DETAILS	SHEET 19	E

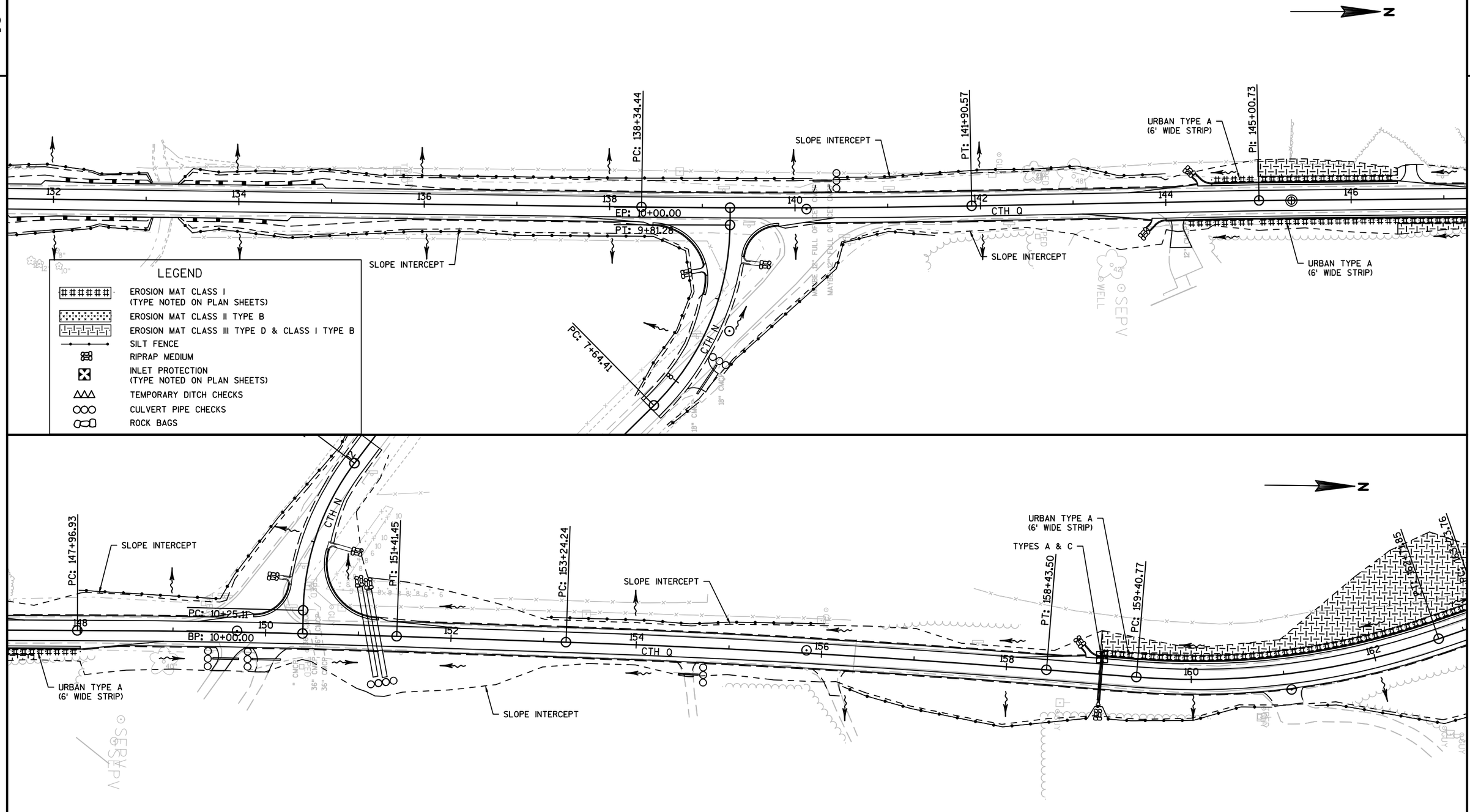
2



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 20	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\022000_EC.DWG
LAYOUT NAME - 022001_EC
PLOT DATE : 6/29/2016 10:29 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

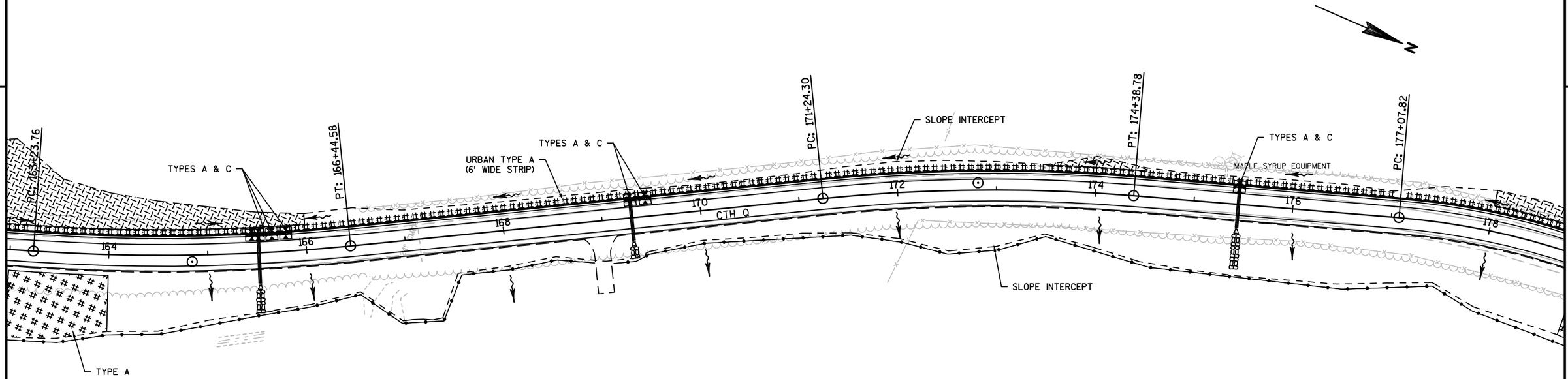
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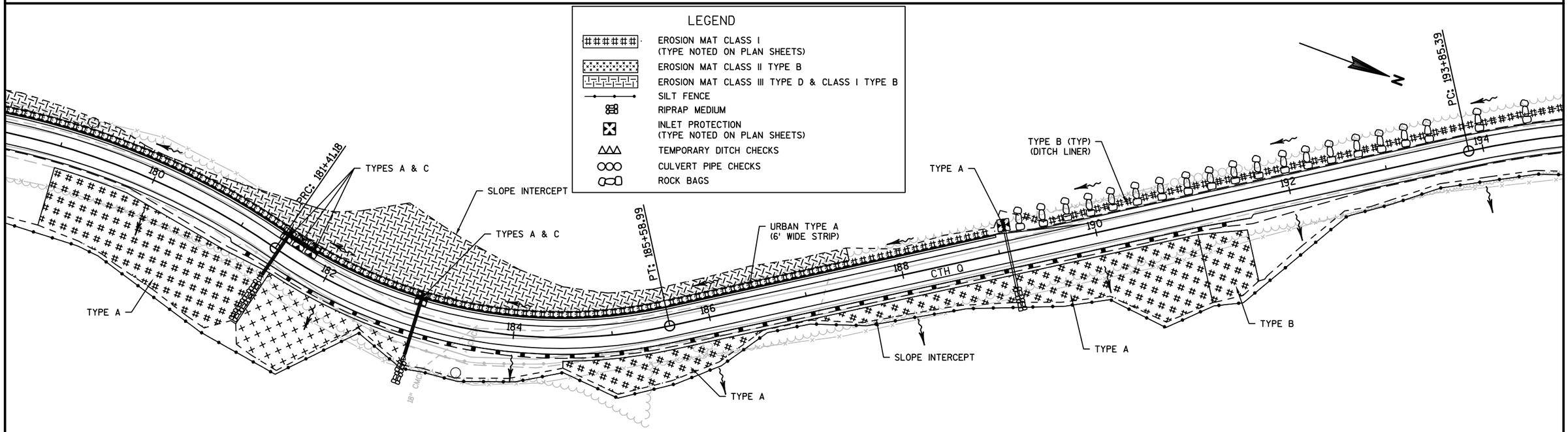


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 21	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\022000_EC.DWG
LAYOUT NAME - 022002_EC
PLOT DATE : 6/29/2016 10:30 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



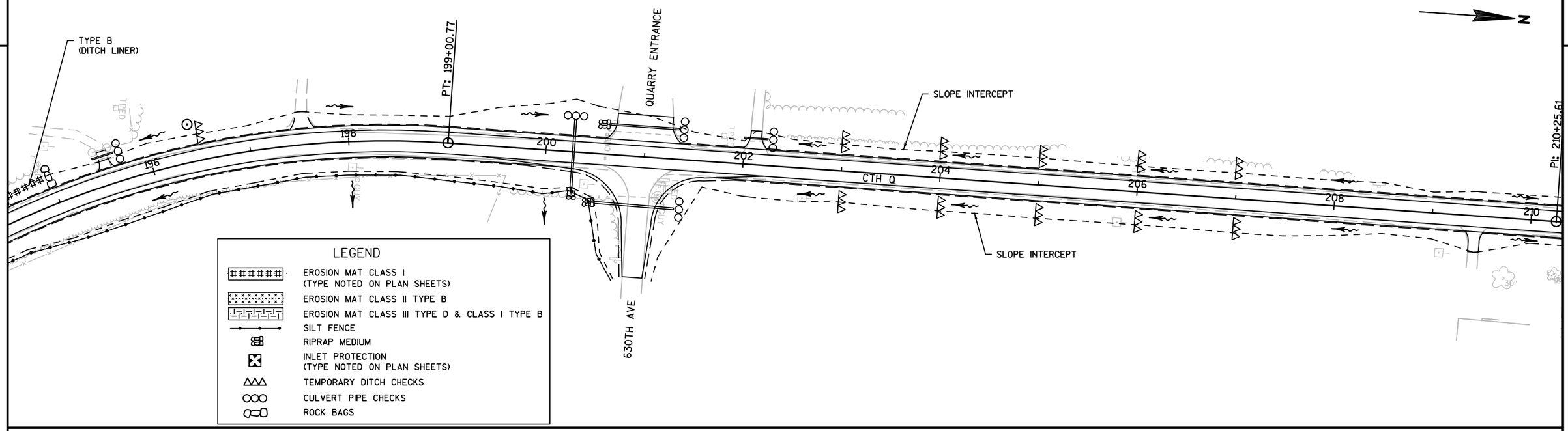


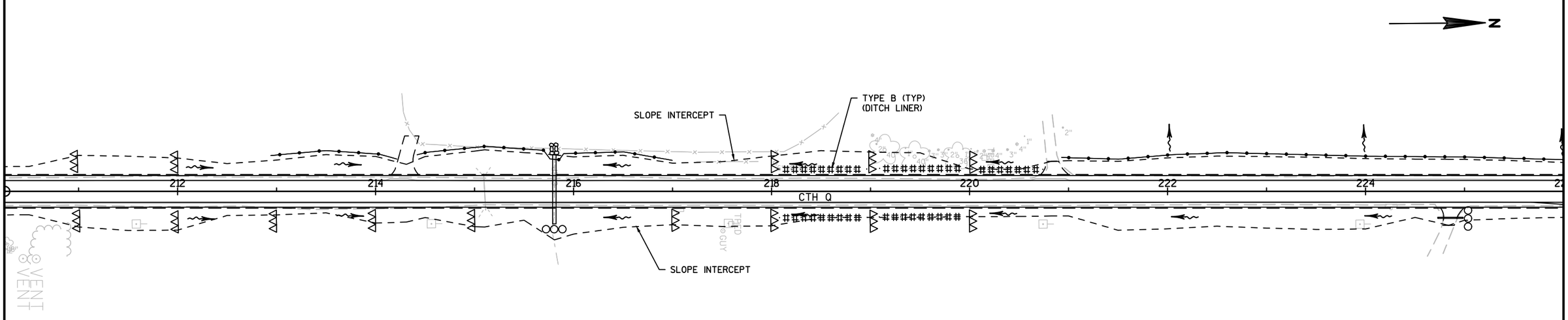
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 22	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\022000_EC.DWG
LAYOUT NAME - 022003_EC

PLOT DATE : 6/29/2016 10:30 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT

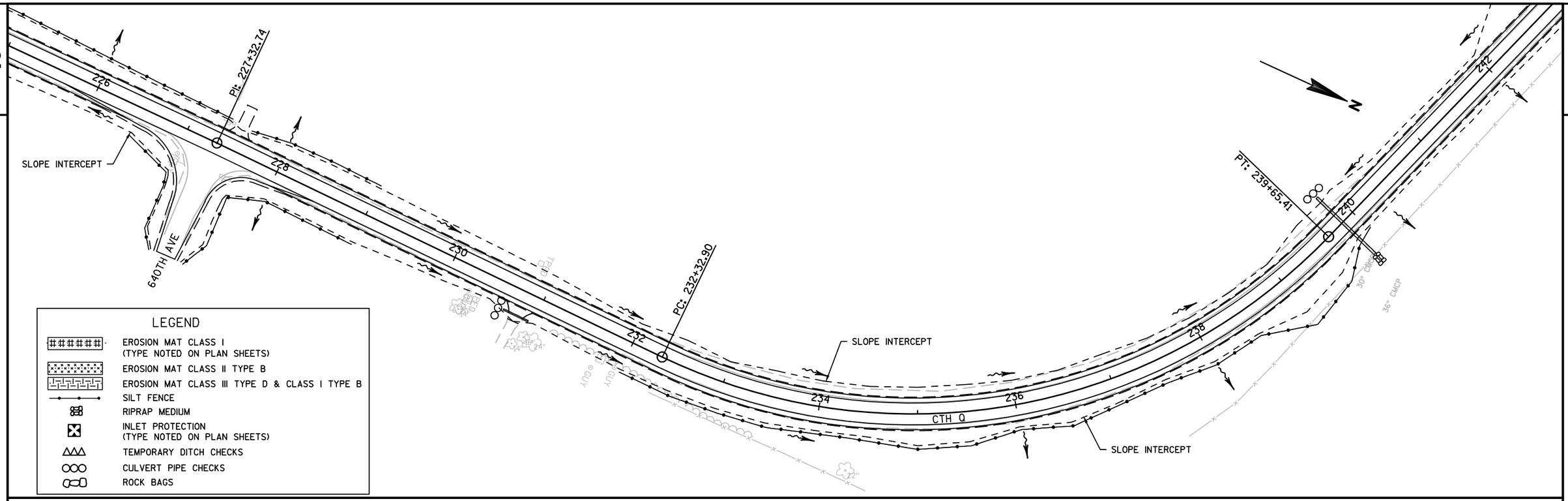
WISDOT/CADDS SHEET 44

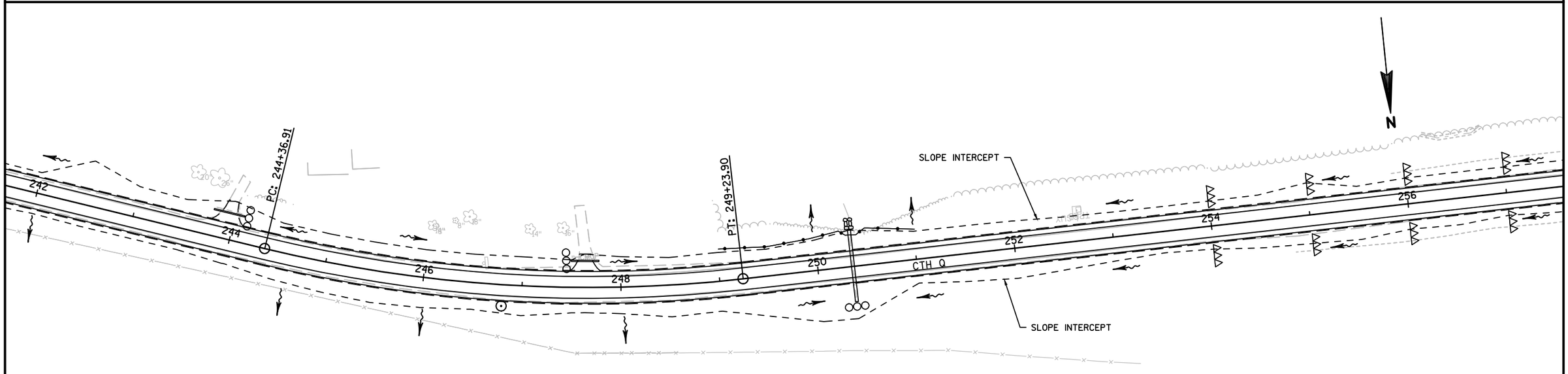




PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 23	E

2





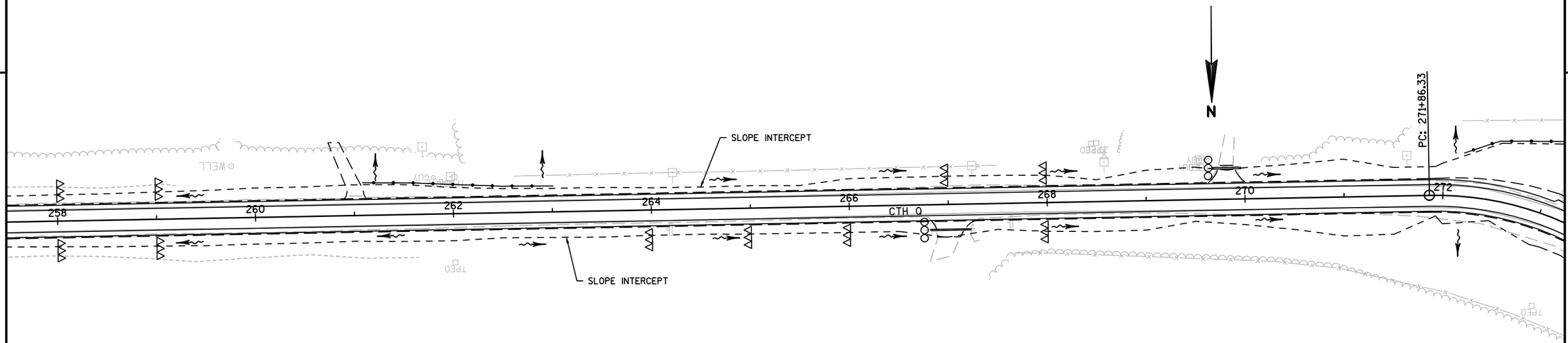
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 24	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\022000_EC.DWG
LAYOUT NAME - 022005_EC

PLOT DATE : 6/29/2016 10:31 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:100 FT

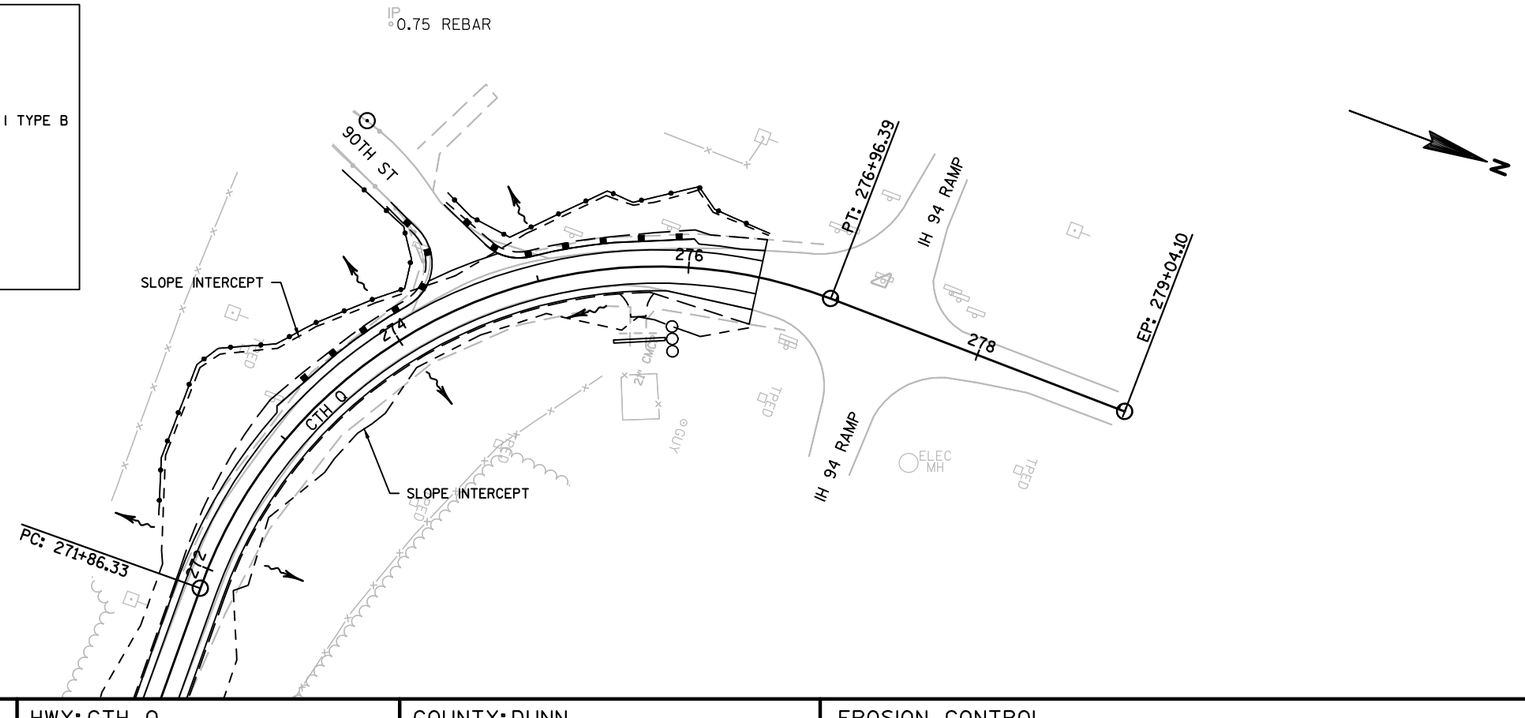
WISDOT/CADDS SHEET 44

2



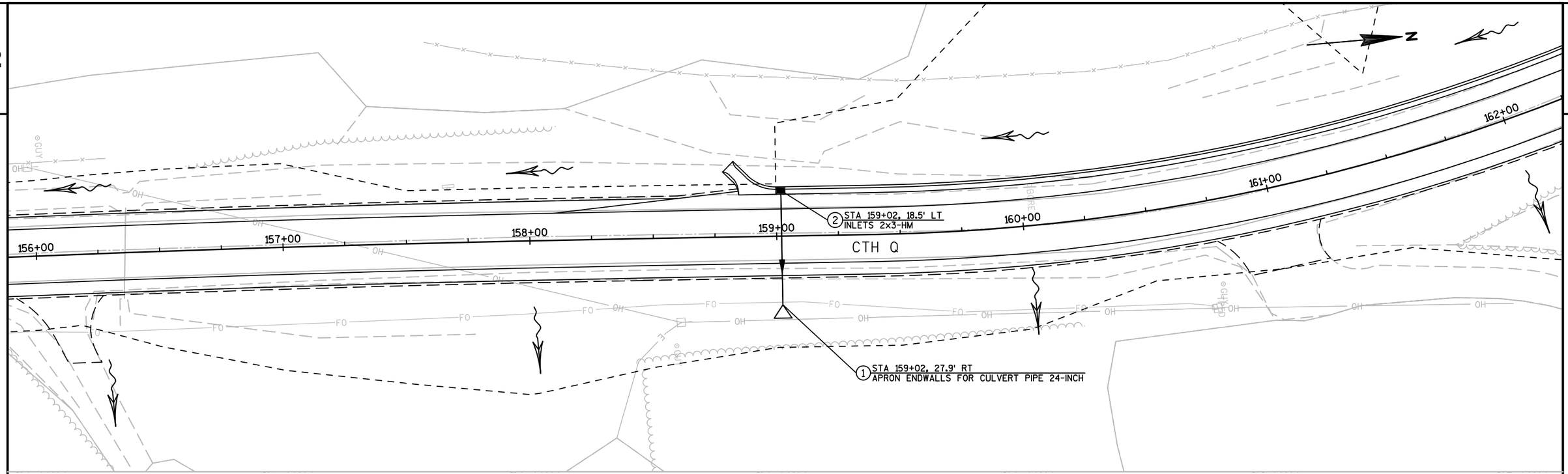
LEGEND

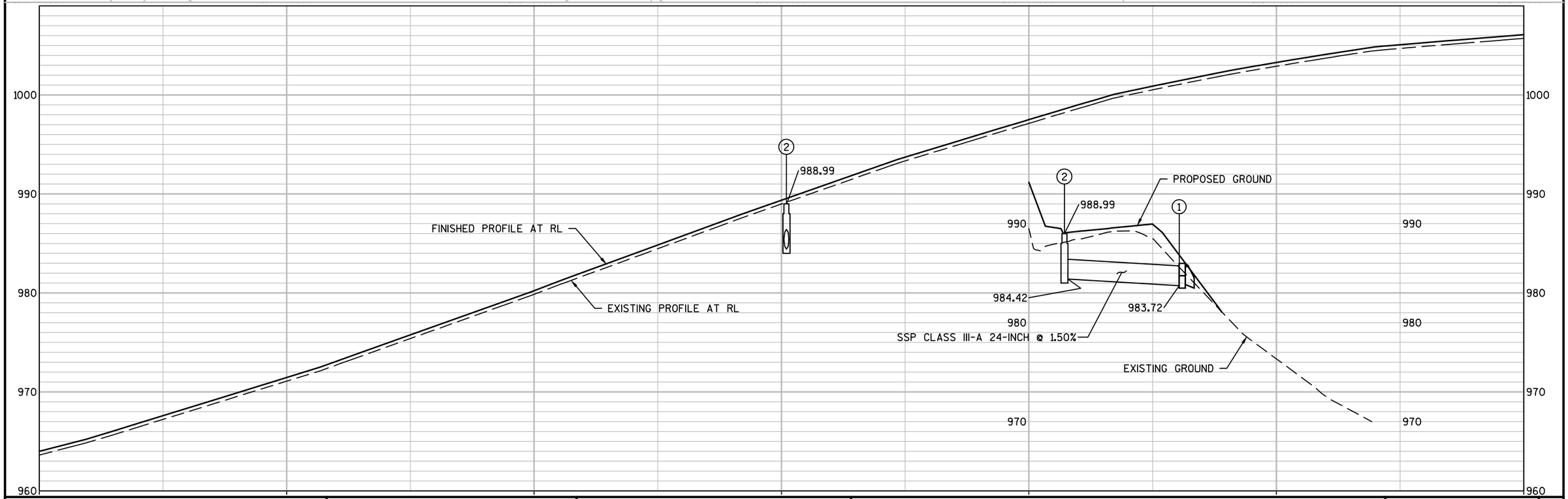
- EROSION MAT CLASS I (TYPE NOTED ON PLAN SHEETS)
- EROSION MAT CLASS II TYPE B
- EROSION MAT CLASS III TYPE D & CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- INLET PROTECTION (TYPE NOTED ON PLAN SHEETS)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- ROCK BAGS



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	EROSION CONTROL	SHEET 25	E

2





PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	STORM SEWER	SHEET 26	E

2

4 STA 165+45, 18.5' LT
INLETS 2x3-HM

5 STA 165+52, 18.5' LT
INLETS 2x3-HM

6 STA 165+65, 18.5' LT
INLETS 2x3-HM

7 STA 165+80, 18.5' LT
INLETS 2x3-HM

9 STA 169+30, 18.5' LT
INLETS 2x3-HM

10 STA 169+45, 18.5' LT
INLETS 2x3-HM

3 STA 165+52, 30.5' RT
APRON ENDWALLS FOR CULVERT PIPE 24-INCH

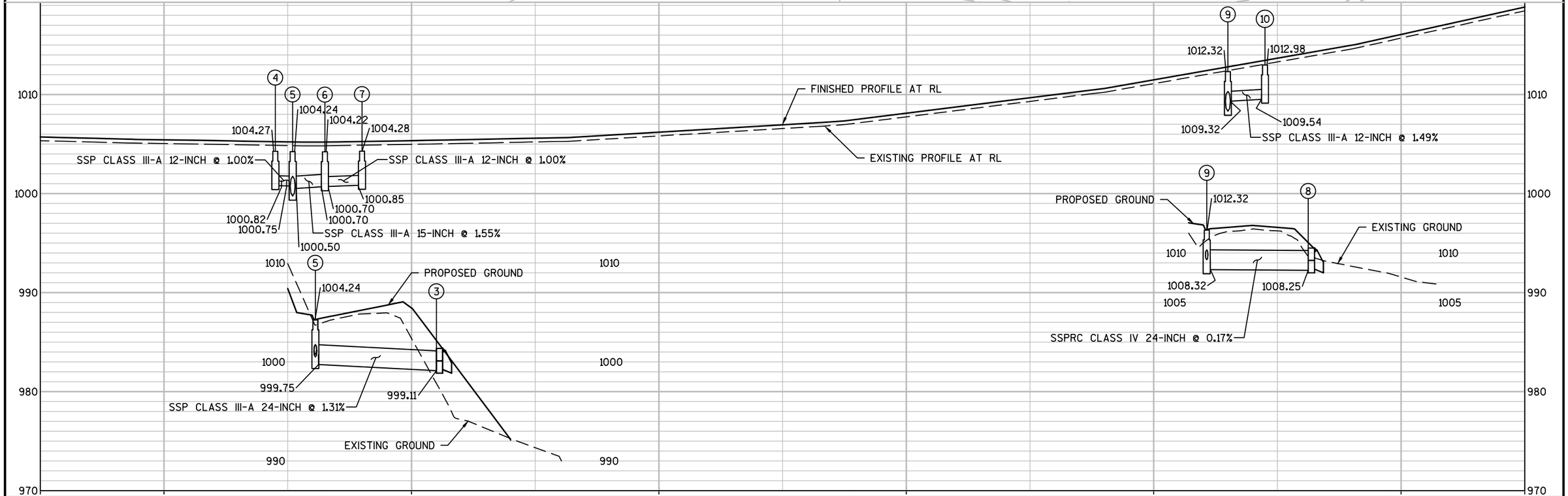
8 STA 169+30, 22.5' RT
APRON ENDWALLS FOR CULVERT PIPE 24-INCH

165+00 166+00 167+00 168+00 169+00 170+00

CTH Q

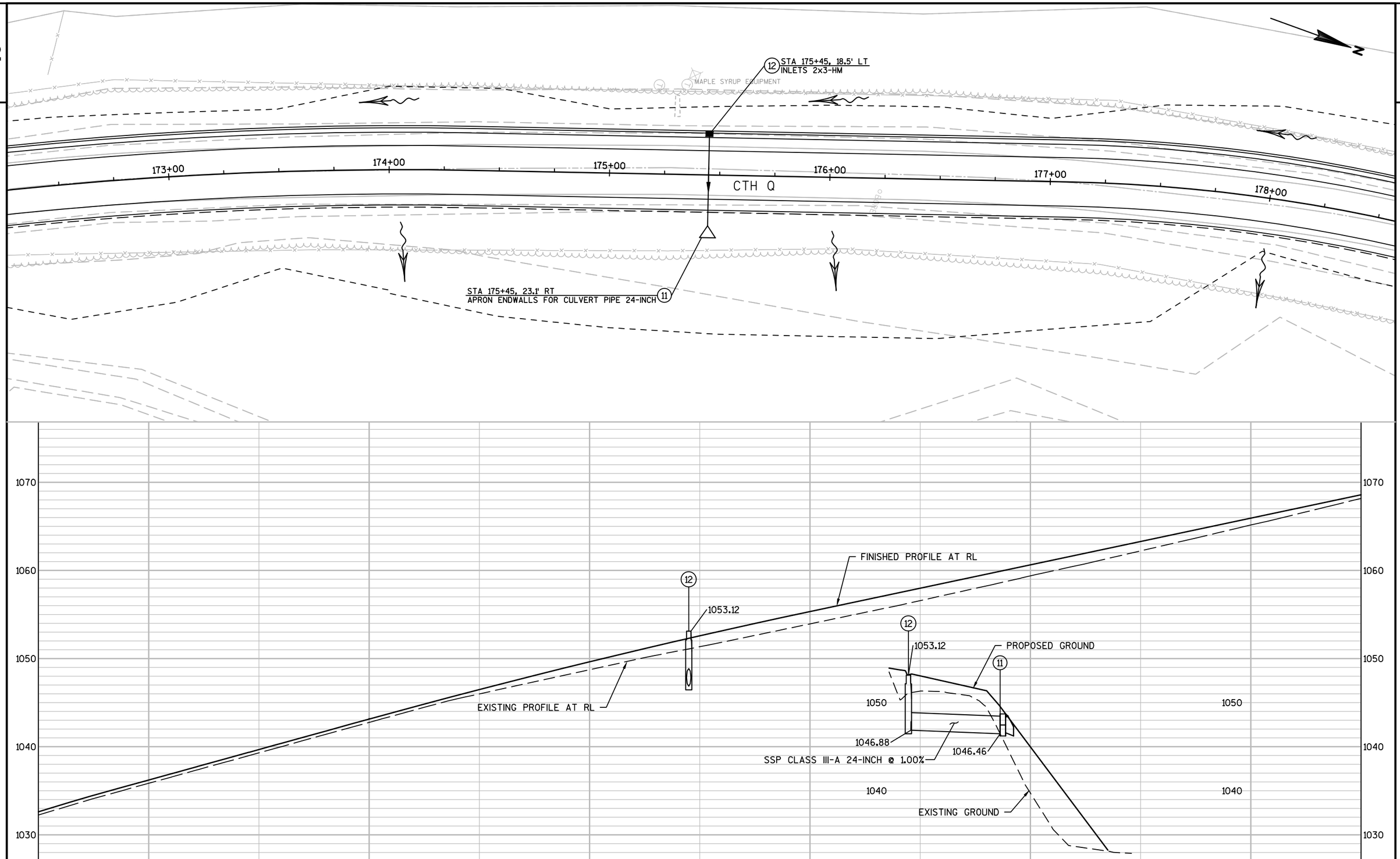
24" SSP

8" SSP



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	STORM SEWER	SHEET 27 E

2



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	STORM SEWER	SHEET 28	E

2

2

N

14 STA 181+45, 18.5' LT
INLETS 2x3-HM

15 STA 181+60, 18.5' LT
INLETS 2x3-HM

16 STA 181+75, 18.5' LT
INLETS 2x3-HM

18 STA 183+00, 18.5' LT
INLETS 2x3-HM

180+00

181+00

182+00

183+00

184+00

185+00

CTH Q

STA 181+45, 29.1' RT
APRON ENDWALLS FOR CULVERT PIPE 24-INCH 13

17 STA 183+00, 39.6' RT
APRON ENDWALLS FOR CULVERT PIPE 24-INCH

1110
1100
1090
1080
1070

FINISHED PROFILE AT RL

EXISTING PROFILE AT RL

1104.27

1092.09

1093.45

1090.74

1089.62

1088.46

1088.36

1087.20

SSP CLASS III-A 12-INCH @ 8.00%

SSP CLASS III-A 12-INCH @ 8.00%

PROPOSED GROUND

1104.27

1099.59

1099.08

SSP CLASS III-A 24-INCH @ 0.88%

EXISTING GROUND

1090.74

1085.62

1084.67

SSP CLASS III-A 24-INCH @ 2.00%

PROPOSED GROUND

EXISTING GROUND

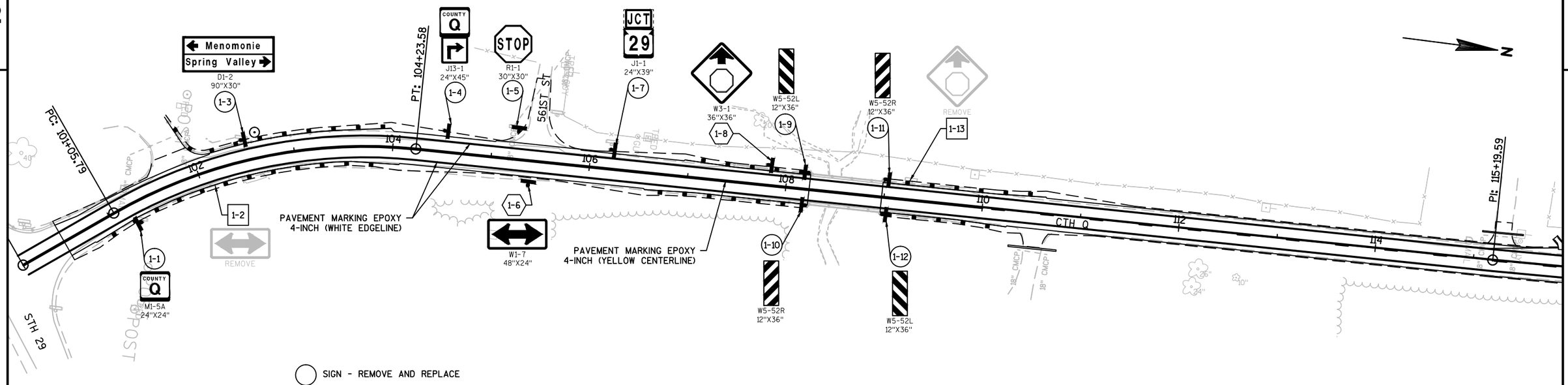
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	STORM SEWER	SHEET 29	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\022500_SS.DWG
LAYOUT NAME - 022504_SS

PLOT DATE : 7/13/2016 11:45 AM PLOT BY : AYRES ASSOCIATES PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 41

2

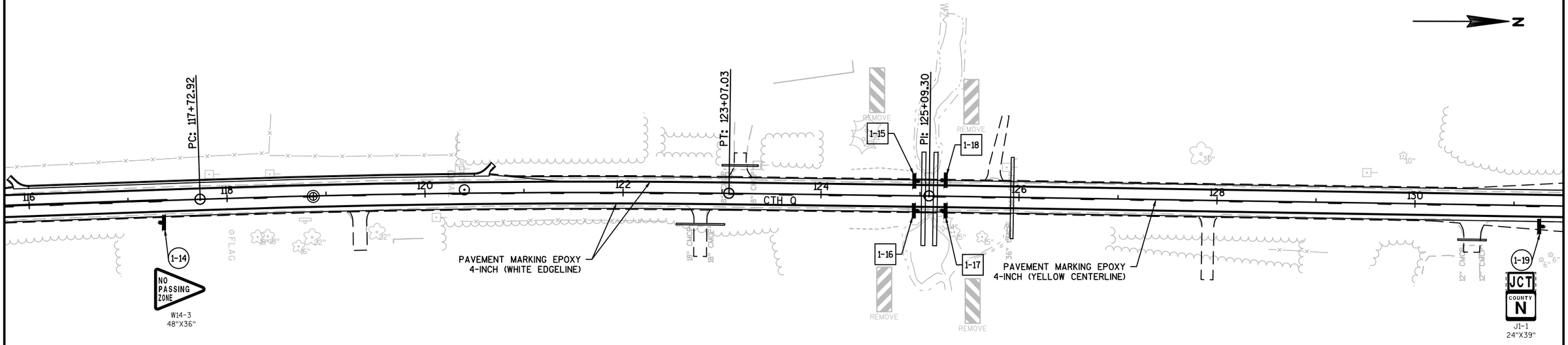


SIGN - REMOVE AND REPLACE

SIGN - REMOVE EXISTING

SIGN - PLACE NEW

NO PASSING ZONE LIMITS TO BE DETERMINED WITH
THE BID ITEM "LOCATING NO PASSING ZONES".
DO NOT INSTALL SIGNS UNTIL PROJECT IS RESIGHTED.



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 30	E

2

N

W5-52L 12"X36" (2-2)
W5-52R 12"X36" (2-3)
NO PASSING ZONE W14-3 48"X36" (2-5)
COUNTY Q M1-5A 24"X24" (2-6)
PC: 138+34.44
W1-7 48"X24" (2-12)
COUNTY N Q J13-2 48"X45" (2-13)
PT: 141+90.57
PI: 145+00.73
132 134 136 138 140 142 144 146
EP: 10+00.00
PT: 9+61.28
CTH Q
PAVEMENT MARKING EPOXY 4-INCH (WHITE EDGELINE)
PAVEMENT MARKING EPOXY 4-INCH (YELLOW CENTERLINE)
W5-52R 12"X36" (2-1)
W5-52L 12"X36" (2-4)
COUNTY Q N J13-2 48"X45" (2-7)
NO ENGINE BRAKING EXCEPT IN EMERGENCY R10-64 30"X36" (2-9)
COUNTY N M1-5A 24"X24" (2-8)
PC: 7+64.41
CTH N
STOP R1-1 30"X30" (2-10)
COUNTY Q N J13-2 48"X45" (2-11)
COUNTY N Q J13-2 48"X45" (2-14)
PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
PAVEMENT MARKING EPOXY 4-INCH (WHITE EDGELINE)

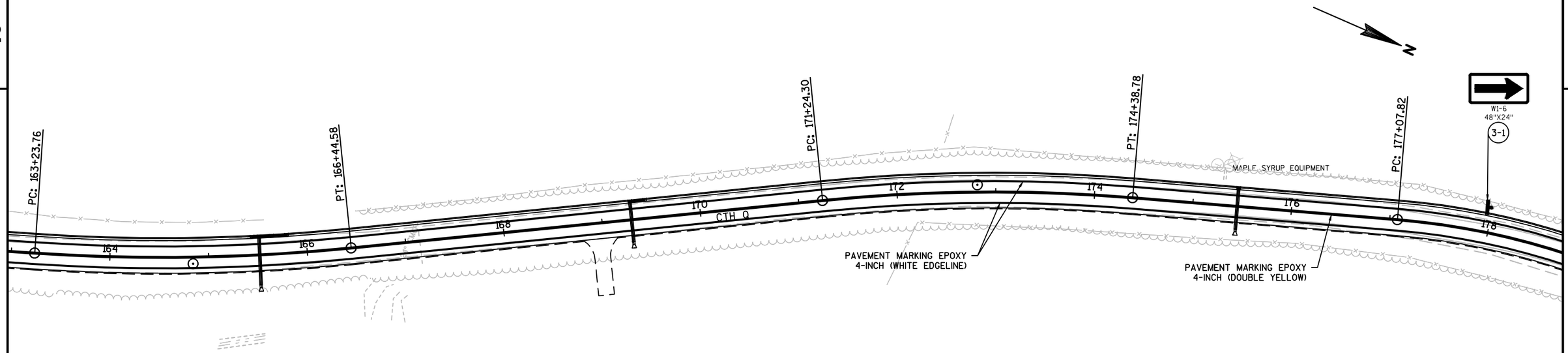
SIGN - REMOVE AND REPLACE
SIGN - REMOVE EXISTING
SIGN - PLACE NEW

NO PASSING ZONE LIMITS TO BE DETERMINED WITH THE BID ITEM "LOCATING NO PASSING ZONES". DO NOT INSTALL SIGNS UNTIL PROJECT IS RESIGHTED.

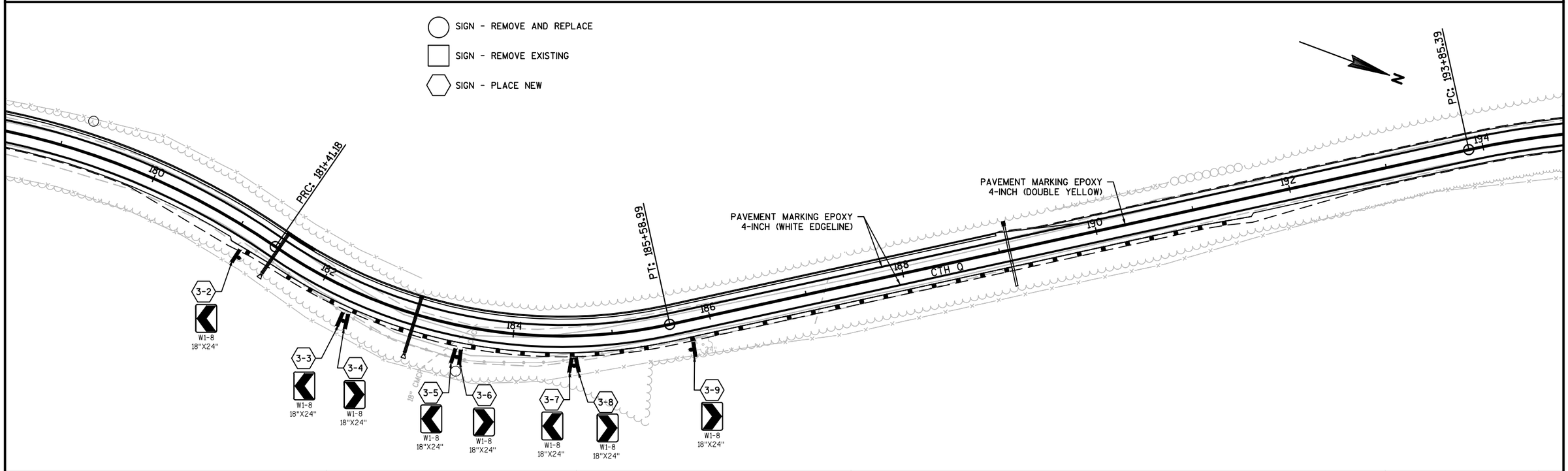
PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
PAVEMENT MARKING EPOXY 4-INCH (WHITE EDGELINE)
COUNTY N Q J13-2 48"X45" (2-15)
PC: 147+96.93
COUNTY N Q J13-2 48"X45" (2-16)
STOP R1-1 30"X30" (2-17)
CTH N
COUNTY N M1-5A 24"X24" (2-21)
W1-5R 30"X30" 40 M.P.H. W13-1 18"X18" (2-20)
COUNTY Q N J13-2 48"X45" (2-22)
PT: 151+41.45
PC: 153+24.24
PC: 10+25.11
BP: 10+00.00
148 150 152 154 156 158 160 162
CTH Q
COUNTY N JCT J1-1 24"X39" (2-25)
PT: 158+43.50
PC: 159+40.77
PT: 162+71.85
PC: 163+23.76
W1-7 48"X24" (2-19)
COUNTY N Q J13-2 48"X45" (2-18)
COUNTY Q M1-5A 24"X24" (2-23)
PAVEMENT MARKING EPOXY 4-INCH (WHITE EDGELINE)
PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
W1-5R 30"X30" 35 M.P.H. W13-1 18"X18" (2-24)

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 31	E

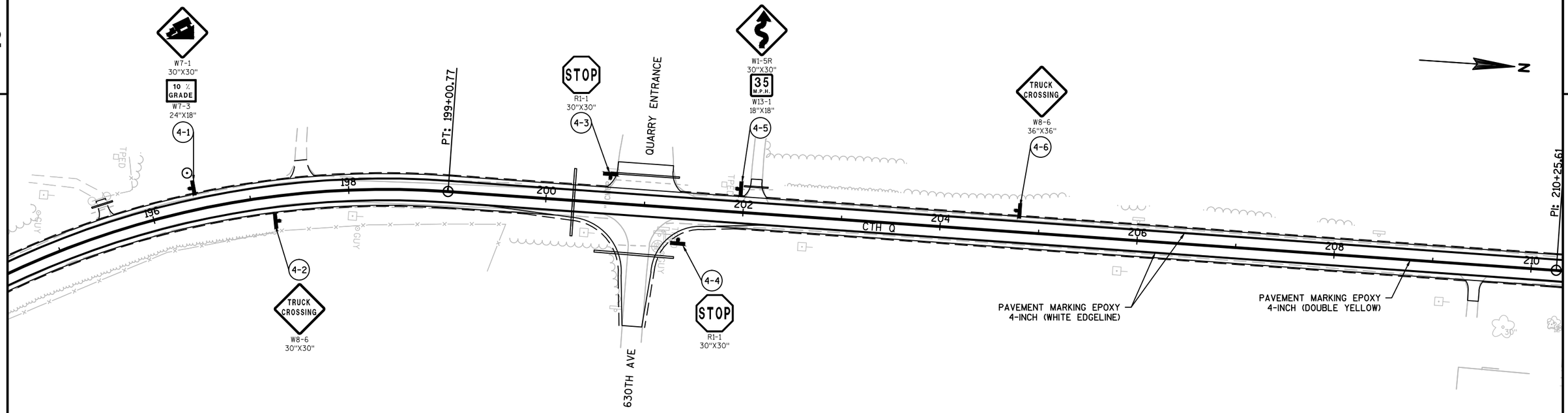
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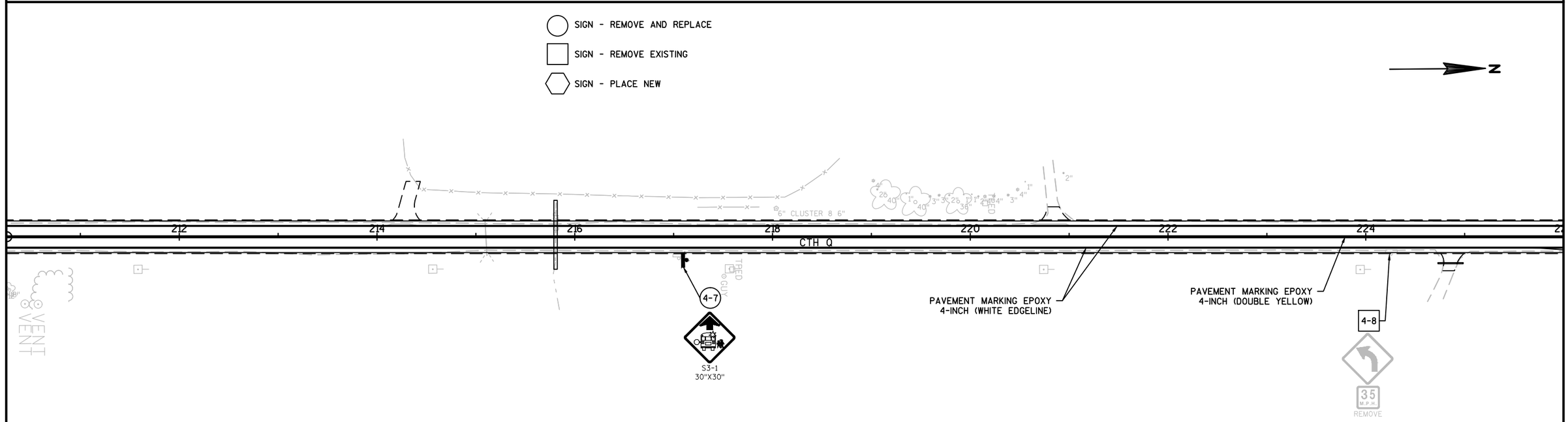
NO PASSING ZONE LIMITS TO BE DETERMINED WITH
THE BID ITEM "LOCATING NO PASSING ZONES".
DO NOT INSTALL SIGNS UNTIL PROJECT IS RESIGHTED.



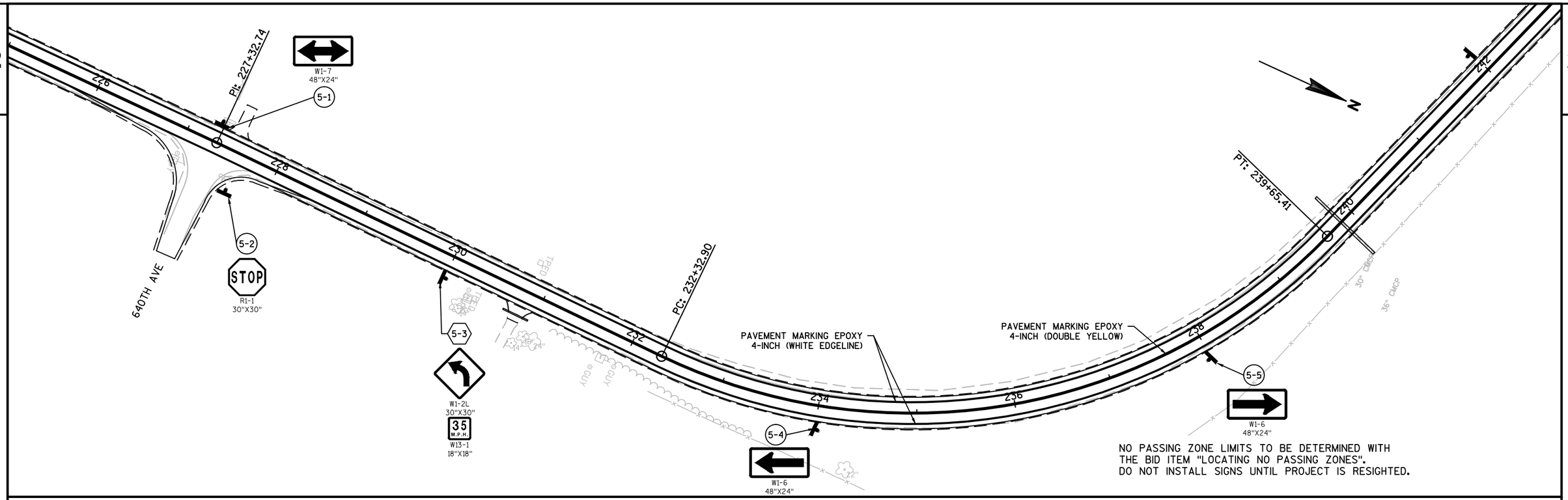
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 32	E

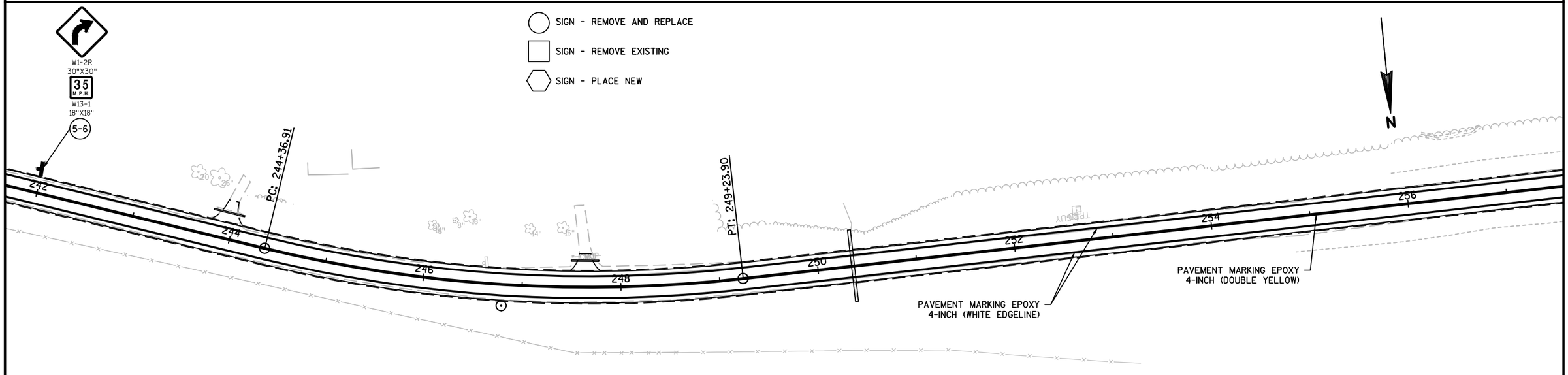


NO PASSING ZONE LIMITS TO BE DETERMINED WITH
THE BID ITEM "LOCATING NO PASSING ZONES".
DO NOT INSTALL SIGNS UNTIL PROJECT IS RESIGHTED.

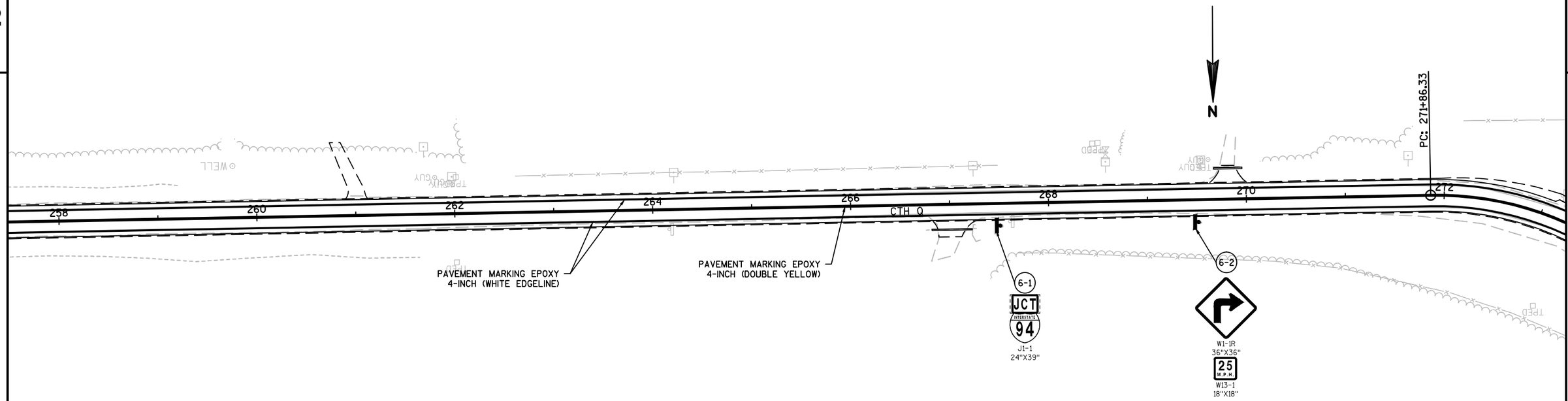


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 33	E


PI: 227+32.74
W1-7
48"X24"
5-1
226
228
640TH AVE
5-2
STOP
R1-1
30"X30"
230
5-3
W1-2L
30"X30"
35
M.P.H.
W13-1
18"X18"
232
PC: 232+32.90
PAVEMENT MARKING EPOXY
4-INCH (WHITE EDGELINE)
234
5-4
W1-6
48"X24"
236
PAVEMENT MARKING EPOXY
4-INCH (DOUBLE YELLOW)
5-5
W1-6
48"X24"
238
PT: 239+65.41
240
242
30" CMCP
36" CMCP
N
NO PASSING ZONE LIMITS TO BE DETERMINED WITH
THE BID ITEM "LOCATING NO PASSING ZONES".
DO NOT INSTALL SIGNS UNTIL PROJECT IS RESIGHTED.


W1-2R
30"X30"
35
M.P.H.
W13-1
18"X18"
5-6
SIGN - REMOVE AND REPLACE
SIGN - REMOVE EXISTING
SIGN - PLACE NEW
242
PC: 244+36.91
244
246
248
PT: 249+23.90
250
252
254
256
N
PAVEMENT MARKING EPOXY
4-INCH (WHITE EDGELINE)
PAVEMENT MARKING EPOXY
4-INCH (DOUBLE YELLOW)

2

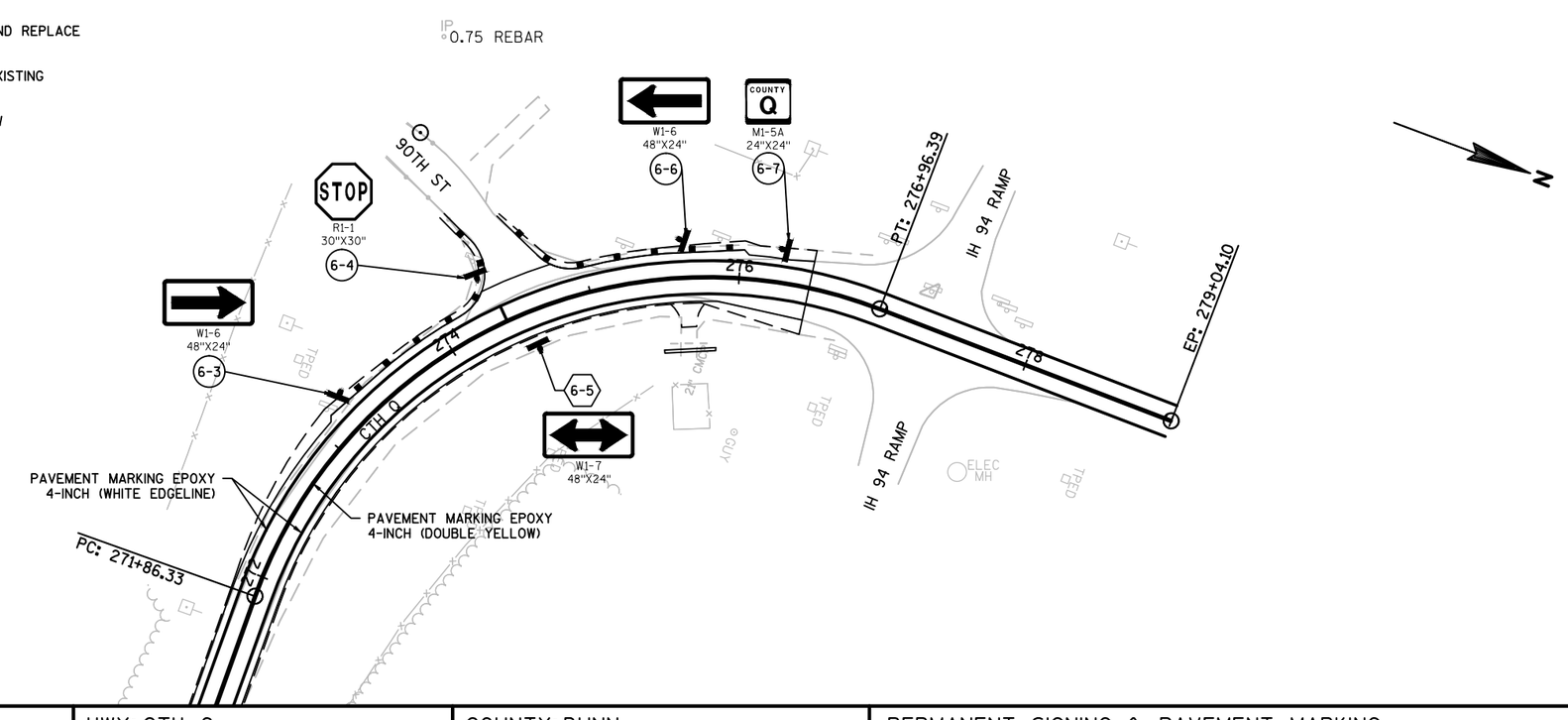


NO PASSING ZONE LIMITS TO BE DETERMINED WITH
THE BID ITEM "LOCATING NO PASSING ZONES".
DO NOT INSTALL SIGNS UNTIL PROJECT IS RESIGHTED.

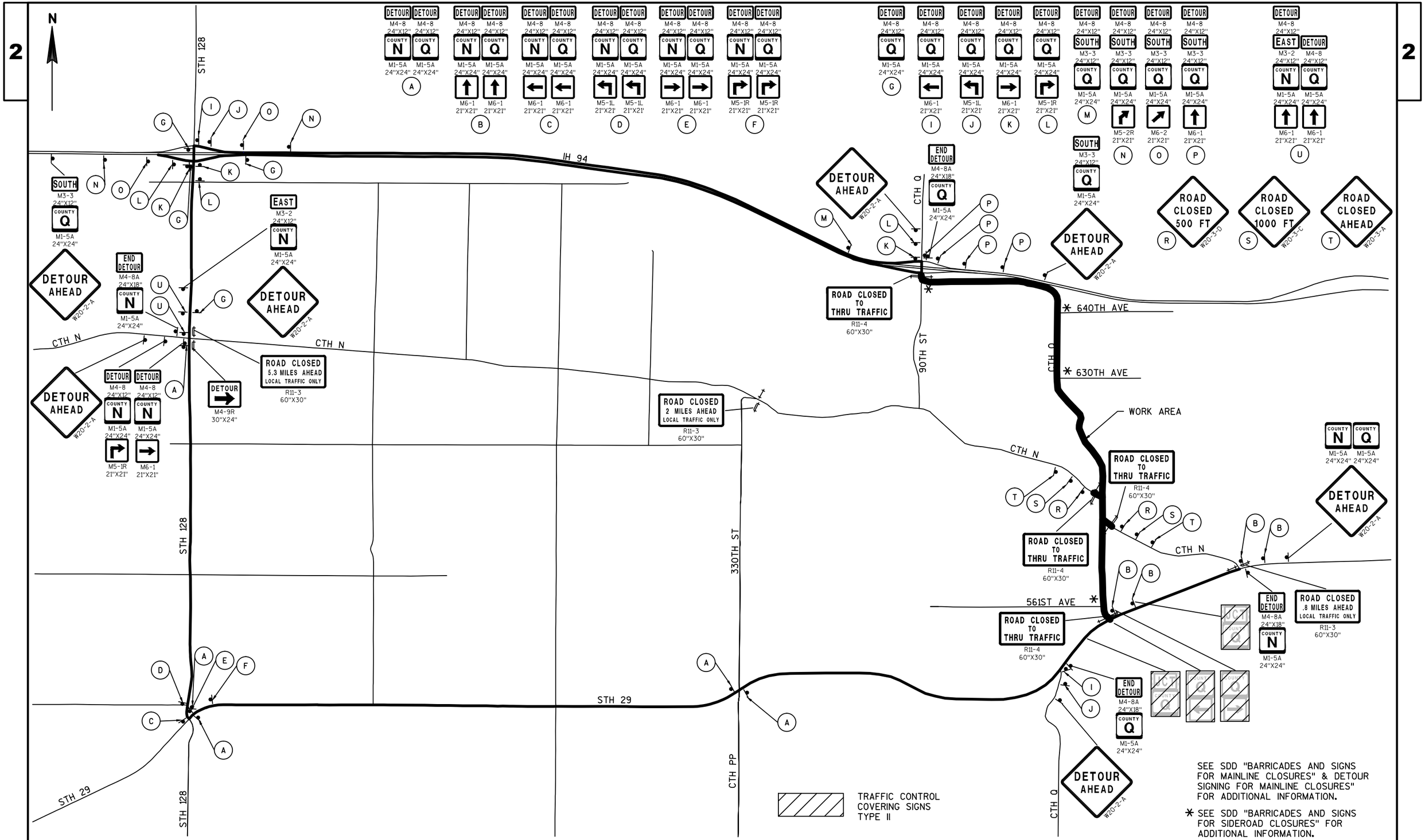
SIGN - REMOVE AND REPLACE

SIGN - REMOVE EXISTING

SIGN - PLACE NEW



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PERMANENT SIGNING & PAVEMENT MARKING	SHEET 35	E



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	DETOUR ROUTE	SHEET 36	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\027000_DT.DWG
LAYOUT NAME - 027001_DT

PLOT DATE : 6/29/2016 10:43 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : Custom

7882-05-72

Line	Item	Item Description	Unit	Total	Qty
0010	201.0205	Grubbing	STA	57.000	57.000
0020	203.0100	Removing Small Pipe Culverts	EACH	30.000	30.000
0030	203.0200	Removing Old Structure (station) 01. STA 125+09	LS	1.000	1.000
0040	203.0200	Removing Old Structure (station) 02. STA 156+36	LS	1.000	1.000
0050	203.0200	Removing Old Structure (station) 03. STA 215+10	LS	1.000	1.000
0060	204.0105	Removing Pavement Butt Joints	SY	1,766.000	1,766.000
0070	204.0110	Removing Asphaltic Surface	SY	1,424.000	1,424.000
0080	204.0165	Removing Guardrail	LF	1,053.000	1,053.000
0090	204.0170	Removing Fence	LF	5,181.000	5,181.000
0100	204.0180	Removing Delineators and Markers	EACH	27.000	27.000
0110	204.0215	Removing Catch Basins	EACH	1.000	1.000
0120	205.0100	Excavation Common	CY	24,989.000	24,989.000
0130	205.0200	Excavation Rock	CY	3,393.000	3,393.000
0140	205.0400	Excavation Marsh	CY	14.000	14.000
0150	209.2100	Backfill Granular Grade 2	CY	1,320.000	1,320.000
0160	213.0100	Finishing Roadway (project) 01. 7882-05-72	EACH	1.000	1.000
0170	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,750.000	1,750.000
0180	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	20,300.000	20,300.000
0190	312.0110	Select Crushed Material	TON	1,000.000	1,000.000
0200	325.0100	Pulverize and Relay	SY	34,956.000	34,956.000
0210	440.4410	Incentive IRI Ride	DOL	13,276.000	13,276.000
0220	455.0605	Tack Coat	GAL	5,720.000	5,720.000
0230	460.2000	Incentive Density HMA Pavement	DOL	10,260.000	10,260.000
0240	460.5223	HMA Pavement 3 LT 58-28 S	TON	9,010.000	9,010.000
0250	460.5244	HMA Pavement 4 LT 58-34 S	TON	7,010.000	7,010.000
0260	465.0105	Asphaltic Surface	TON	90.000	90.000
0270	465.0315	Asphaltic Flumes	SY	114.000	114.000
0280	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	9.000	9.000
0290	520.1030	Apron Endwalls for Culvert Pipe 30-Inch	EACH	2.000	2.000
0300	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	4.000	4.000
0310	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	64.000	64.000
0320	521.0148	Culvert Pipe Corrugated Steel 48-Inch	LF	140.000	140.000
0330	521.0348	Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 48-Inch 4 to 1	EACH	4.000	4.000
0340	521.0542	Apron Endwalls for Pipe Arch Sloped Cross Drains Steel 42x29-Inch 4 to 1	EACH	1.000	1.000
0350	521.0564	Apron Endwalls for Pipe Arch Sloped Cross Drains Steel 64x43-Inch 4 to 1	EACH	4.000	4.000
0360	521.0742	Pipe Arch Corrugated Steel 42x29-Inch	LF	56.000	56.000
0370	521.0764	Pipe Arch Corrugated Steel 64x43-Inch	LF	138.000	138.000

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Line	Item	Item Description	Unit	Total	Qty
0380	521.1242	Apron Endwalls for Pipe Arch Steel 42x29-Inch	EACH	1.000	1.000
0390	521.1505	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 4 to 1	EACH	2.000	2.000
0400	521.1515	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 15-Inch 6 to 1	EACH	20.000	20.000
0410	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	18.000	18.000
0420	530.0115	Culvert Pipe Corrugated Polyethylene 15-In	LF	278.000	278.000
0430	530.0118	Culvert Pipe Corrugated Polyethylene 18-Inch	LF	314.000	314.000
0440	530.0124	Culvert Pipe Corrugated Polyethylene 24-Inch	LF	92.000	92.000
0450	530.0130	Culvert Pipe Corrugated Polyethylene 30-Inch	LF	66.000	66.000
0460	530.0136	Culvert Pipe Corrugated Polyethylene 36-Inch	LF	120.000	120.000
0470	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	4,375.000	4,375.000
0480	606.0200	Riprap Medium	CY	235.000	235.000
0490	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	41.000	41.000
0500	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	67.000	67.000
0510	608.3015	Storm Sewer Pipe Class III-A 15-Inch	LF	13.000	13.000
0520	608.3024	Storm Sewer Pipe Class III-A 24-Inch	LF	299.000	299.000
0530	611.0627	Inlet Covers Type HM	EACH	12.000	12.000
0540	611.0642	Inlet Covers Type MS	EACH	1.000	1.000
0550	611.3230	Inlets 2x3-FT	EACH	12.000	12.000
0560	611.3901	Inlets Median 1 Grate	EACH	1.000	1.000
0570	614.0305	Steel Plate Beam Guard Class A	LF	552.000	552.000
0580	614.0345	Steel Plate Beam Guard Short Radius	LF	161.000	161.000
0590	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	3.000	3.000
0600	614.0390	Steel Plate Beam Guard Short Radius Terminal	EACH	2.000	2.000
0610	614.2300	MGS Guardrail 3	LF	1,276.000	1,276.000
0620	614.2310	MGS Guardrail 3 HS	LF	75.000	75.000
0630	614.2500	MGS Thrie Beam Transition	LF	156.000	156.000
0640	614.2610	MGS Guardrail Terminal EAT	EACH	8.000	8.000
0650	614.8010	Anchor Post Assembly Top Mount	EACH	15.000	15.000
0660	619.1000	Mobilization	EACH	1.000	1.000
0670	624.0100	Water	MGAL	460.000	460.000
0680	625.0500	Salvaged Topsoil	SY	90,600.000	90,600.000
0690	627.0200	Mulching	SY	84,700.000	84,700.000
0700	628.1504	Silt Fence	LF	20,350.000	20,350.000
0710	628.1520	Silt Fence Maintenance	LF	20,350.000	20,350.000
0720	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0730	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0740	628.2002	Erosion Mat Class I Type A	SY	4,750.000	4,750.000

7882-05-72

Line	Item	Item Description	Unit	Total	Qty
0750	628.2004	Erosion Mat Class I Type B	SY	1,300.000	1,300.000
0760	628.2006	Erosion Mat Urban Class I Type A	SY	4,050.000	4,050.000
0770	628.2023	Erosion Mat Class II Type B	SY	8,350.000	8,350.000
0780	628.2039	Erosion Mat Class III Type D	SY	7,300.000	7,300.000
0790	628.7005	Inlet Protection Type A	EACH	13.000	13.000
0800	628.7015	Inlet Protection Type C	EACH	12.000	12.000
0810	628.7504	Temporary Ditch Checks	LF	645.000	645.000
0820	628.7555	Culvert Pipe Checks	EACH	152.000	152.000
0830	628.7570	Rock Bags	EACH	130.000	130.000
0840	629.0210	Fertilizer Type B	CWT	70.000	70.000
0850	630.0120	Seeding Mixture No. 20	LB	3,050.000	3,050.000
0860	630.0140	Seeding Mixture No. 40	LB	100.000	100.000
0870	630.0170	Seeding Mixture No. 70	LB	50.000	50.000
0880	630.0200	Seeding Temporary	LB	1,525.000	1,525.000
0890	633.5200	Markers Culvert End	EACH	25.000	25.000
0900	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	38.000	38.000
0910	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	26.000	26.000
0920	637.2210	Signs Type II Reflective H	SF	233.500	233.500
0930	637.2230	Signs Type II Reflective F	SF	241.000	241.000
0940	638.2602	Removing Signs Type II	EACH	105.000	105.000
0950	638.3000	Removing Small Sign Supports	EACH	58.000	58.000
0960	642.5001	Field Office Type B	EACH	1.000	1.000
0970	643.0100	Traffic Control (project) 01. 7882-05-72	EACH	1.000	1.000
0980	643.0420	Traffic Control Barricades Type III	DAY	1,880.000	1,880.000
0990	643.0705	Traffic Control Warning Lights Type A	DAY	3,760.000	3,760.000
1000	643.0900	Traffic Control Signs	DAY	940.000	940.000
1010	643.2000	Traffic Control Detour (project) 01. 7882-05-72	EACH	1.000	1.000
1020	643.3000	Traffic Control Detour Signs	DAY	17,860.000	17,860.000
1030	645.0120	Geotextile Type HR	SY	740.000	740.000
1040	646.0106	Pavement Marking Epoxy 4-Inch	LF	67,373.000	67,373.000
1050	648.0100	Locating No-Passing Zones	MI	3.330	3.330
1060	650.4000	Construction Staking Storm Sewer	EACH	20.000	20.000
1070	650.4500	Construction Staking Subgrade	LF	17,991.000	17,991.000
1080	650.5000	Construction Staking Base	LF	17,991.000	17,991.000
1090	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	4,375.000	4,375.000
1100	650.6000	Construction Staking Pipe Culverts	EACH	10.000	10.000
1110	650.9910	Construction Staking Supplemental Control (project) 01. 7882-05-72	LS	1.000	1.000
1120	650.9920	Construction Staking Slope Stakes	LF	17,991.000	17,991.000
1130	690.0150	Sawing Asphalt	LF	330.000	330.000

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Line	Item	Item Description	Unit	Total	Qty
1140	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
1150	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	630.000	630.000
1160	SPV.0060	Special 01. Remove And Reinstall Steel Plate Beam Guard EAT	EACH	4.000	4.000
1170	SPV.0090	Special 01. Remove And Reinstall Guardrail	LF	100.000	100.000

CLEARING AND GRUBBING

STATION TO STATION	*** CLEARING STA	201.0205 GRUBBING STA
122+00 - 124+00	2	2
126+00 - 127+00	1	1
131+00 - 132+00	1	1
142+00 - 144+00	2	2
145+00 - 149+00	4	4
150+00 - 152+00	2	2
156+00 - 157+00	1	1
158+00 - 170+00	12	12
171+00 - 193+00	22	22
194+00 - 197+00	3	3
218+00 - 220+00	2	2
231+00 - 233+00	2	2
250+00 - 251+00	1	1
10+00 - 12+00	2	2
PROJECT TOTALS		**57**

*** FOR INFORMATION ONLY. WORK TO BE PERFORMED BY OTHERS.

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	SIZE INCHES	LENGTH FEET	MATERIAL	203.0100 EACH
110+54	RT	18	30	CMCP	1
115+28	LT	18	33	CMCP	1
122+79	RT	18	21	CMCP	1
123+18	LT	18	30	CMCP	1
125+93	LT/RT	36	52	CMCP	1
130+58	RT	12	20	CMCP	1
140+30	LT	12	17	CMCP	1
144+12	RT	12	23	CMCP	1
150+00	RT	18	61	CMCP	1
150+48	LT/RT	36	50	CMCP	1
150+60	LT/RT	36	47	CMCP	1
154+58	RT	36	29	CMCP	1
167+14	LT/RT	24	41	CMCP	1
183+58	LT/RT	18	71	CMCP	1
187+19	LT/RT	24	49	CMCP	1
195+55	LT	12	24	CMCP	1
200+28	LT/RT	18	44	CMCP	1
200+97	LT	12	80	CMCP	1
202+12	LT	18	32	CMCP	1
215+81	LT/RT	24	51	CMCP	1
230+81	RT	12	25	CMCP	1
239+86	LT/RT	36	81	CMCP	1
243+97	LT	15	26	CMCP	1
247+63	LT	15	26	CMCP	1
250+35	LT/RT	36	59	CMCP	1
266+97	RT	21	50	CMCP	1
269+83	LT	12	26	CMCP	1
275+65	RT	21	24	CMCP	1
8+20	CTH N	18	42	CMCP	1
25+41	630TH AVE	21	40	CMCP	1
PROJECT TOTAL					**30**

REMOVING OLD STRUCTURE

STATION	LOCATION	203.0200 LS	DESCRIPTION
125+09	LT/RT	1	8'x6'x44' REINFORCED CONCRETE BOX CULVERT
156+36	LT/RT	1	37' CATTLE PASS
215+10	LT/RT	1	37' CATTLE PASS

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION TO STATION	LOCATION	204.0105 SY
100+48 - 101+48	CTH Q	293
107+23 - 108+23	CTH Q	294
108+97 - 109+97	CTH Q	312
132+06 - 133+06	CTH Q	261
133+37 - 134+37	CTH Q	265
275+47 - 276+47	CTH Q	341
PROJECT TOTAL		**1766**

REMOVING ASPHALTIC SURFACE

STATION TO STATION	LOCATION	204.0110 SY
144+12	PE	77
149+57	PE	63
176+00 - 177+00	CTH Q	244
25+00 - 26+25	630TH AVE	310
201+00	CE	225
202+12	PE	40
30+00 - 31+25	640TH AVE	360
39+75 - 40+00	90TH ST	105
PROJECT TOTAL		**1424**

REMOVING GUARDRAIL

STATION TO STATION	LOCATION	204.0165 LF
101+35 - 102+92	RT	157
101+88 - 103+53	LT	202
124+78 - 125+29	RT	51
124+89 - 125+41	LT	52
181+13 - 185+90	RT	477
39+12 - 39+68	RT	54
39+36 - 39+77	LT	60
PROJECT TOTAL		**1053**

REMOVING FENCE

STATION TO STATION	LOCATION	204.0170 LF
138+27 - 139+17	RT	106
141+00 - 145+34	LT	434
150+64 - 151+70	LT	203
151+54 - 152+82	LT	128
158+99 - 165+09	LT	610
165+58 - 167+00	LT	142
172+00 - 172+17	RT	17
172+77 - 193+18	RT	2041
176+95 - 182+94	LT	599
194+47 - 198+60	RT	440
7+70 - 9+39	LT	170
10+33 - 11+01	RT	81
10+51 - 11+78	RT	210
PROJECT TOTAL		**5181**

REMOVING CATCH BASINS

STATION	LOCATION	204.0215 EACH
25+41	630TH AVE	1
PROJECT TOTAL		**1**

REMOVING DELINEATORS AND MARKERS

STATION TO STATION	LOCATION	204.0180 LF
125+93	LT/RT	2
125+93	LT/RT	2
150+48	LT/RT	2
150+60	LT/RT	2
156+36	LT/RT	2
167+14	LT/RT	2
183+58	LT/RT	2
187+19	LT/RT	2
200+28	LT/RT	2
215+10	LT/RT	2
215+81	LT/RT	2
239+86	LT/RT	2
250+35	LT/RT	2
25+41	630TH AVE	1
PROJECT TOTAL		**27**

3

EARTHWORK SUMMARY

STATION TO STATION	LOCATION	205.0100 EXCAVATION CUT (2) CY	205.0100 COMMON (1) EBS (3) CY	SALVAGED/UNUSABLE PAVEMENT MATERIAL CY	(4) AVAILABLE MATERIAL CY	(5) 205.0400 EXCAVATION MARSH CY	(10) 205.0200 EXCAVATION ROCK CY	(6) REDUCED MARSH IN FILL CY	(7) REDUCED EBS IN FILL CY	(8) EXPANDED MARSH BACKFILL CY	(9) EXPANDED EBS FILL CY	UNEXPANDED FILL CY	(11) EXPANDED FILL CY	(12) MASS ORDINATE +/- CY	WASTE CY	208.1100 SELECT BORROW CY	209.2100 BACKFILL GRANULAR GRADE 2 CY
100+48 - 276+47	CTH Q	23023	---	896	22127	14	3393	8	---	20	---	21400	22075	52	52	---	20
7+60 - 10+00	CTH N	618	---	---	618	---	---	---	---	---	---	283	353	265	265	---	---
10+00 - 12+25	CTH N	347	---	---	347	---	---	---	---	---	---	280	350	-3	-3	---	---
UNDISTRIBUTED		---	1000	---	---	---	---	---	800	---	1300	---	---	---	---	---	1300
SUBTOTALS		23989	1000	896	23093	14	3393	8	800	20	1300	21963	22779	314	314	---	1320
PROJECT TOTALS			**24989**			**14**	**3393**									**---**	**1320**

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

FINISHING ROADWAY

PROJECT	213.0100 EACH
7882-05-72	1
PROJECT TOTAL	**1**

BASE AGGREGATE DENSE

STATION TO STATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
100+47 - 137+00	200	2900
137+00 - 152+00	100	4100
152+00 - 174+00	150	1400
174+00 - 185+59	100	3300
185+59 - 192+00	50	1800
192+00 - 276+47	500	4950
7+60 - 10+00	50	700
10+00 - 12+25	50	600
561ST AVENUE	50	50
630TH AVENUE	20	200
640TH AVENUE	20	200
DRIVEWAYS	460	100
PROJECT TOTALS	**1750**	**20300**

SELECT CRUSHED MATERIAL

STATION TO STATION	LOCATION	312.0110 TON
UNDISTRIBUTED	CTH Q	1000
PROJECT TOTAL		**1000**

PULVERIZE AND RELAY

STATION TO STATION	LOCATION	325.0100 SY
100+47 - 137+00	CTH Q	8930
152+00 - 174+00	CTH Q	5378
192+00 - 276+47	CTH Q	20648
PROJECT TOTAL		**34956**

HMA PAVEMENT ITEMS

STATION TO STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5244 HMA PAVEMENT 4 LT 58-34 S TON	465.0105 ASPHALTIC SURFACE TON
100+47 - 108+24	CTH Q	270	340	260	---
108+97 - 137+00	CTH Q	990	1260	990	---
137+00 - 200+00	CTH Q	1660	3220	2510	---
200+00 - 276+47	CTH Q	2670	3820	2970	---
7+60 - 10+00	CTH N	40	120	90	---
10+00 - 12+25	CTH N	40	110	90	---
630TH AVENUE	RT	25	70	50	---
640TH AVENUE	RT	25	70	50	---
DRIVEWAYS	PROJECT	---	---	---	90
PROJECT TOTALS		**5720**	**9010**	**7010**	**90**

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 SY
116+00	LT	14
120+50	LT	14
144+00	RT	14
144+50	LT	14
159+00	LT	14
9+28	LT	12
9+49	RT	11
10+52	LT	8
10+97	RT	13
PROJECT TOTAL		**114**

CULVERT PIPE

STATION	LOCATION	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	521.0148 CULVERT PIPE CORRUGATED STEEL 48-INCH LF	530.0115 CULVERT PIPE CORRUGATED POLYETHYLENE 15-INCH LF	530.0118 CULVERT PIPE CORRUGATED POLYETHYLENE 18-INCH LF	530.0124 CULVERT PIPE CORRUGATED POLYETHYLENE 24-INCH LF	530.0130 CULVERT PIPE CORRUGATED POLYETHYLENE 30-INCH LF	530.0136 CULVERT PIPE CORRUGATED POLYETHYLENE 36-INCH LF	THICKNESS STEEL INCHES	*** 520.1024 APRON ENDWALL FOR CULVERT PIPE 24-INCH EACH	520.1030 APRON ENDWALL FOR CULVERT PIPE 30-INCH EACH	520.1036 APRON ENDWALL FOR CULVERT PIPE 36-INCH EACH	521.0348 APRON ENDWALL FOR CULVERT PIPE SLOPED CROSS DRAINS 48-INCH 4:1 EACH	521.1505 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS 4:1 24-INCH EACH	521.1515 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS 6:1 15-INCH EACH	521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS 6:1 18-INCH EACH	INVERT ELEV	DISCHARGE ELEV	SLOPE %
110+54	RT	---	---	---	31	---	---	---	---	---	---	---	---	---	---	2	---	---	---
115+28	LT	---	---	30	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
122+79	RT	---	---	---	31	---	---	---	---	---	---	---	---	---	---	2	---	---	---
123+18	LT	---	---	---	30	---	---	---	---	---	---	---	---	---	---	2	---	---	---
125+04	LT/RT	---	70	---	---	---	---	---	0.109	---	---	---	2	---	---	---	919.00	917.00	2.86
125+16	LT/RT	---	70	---	---	---	---	---	0.109	---	---	---	2	---	---	---	919.00	917.00	2.86
125+93	LT/RT	---	---	---	---	---	---	64	---	---	---	2	---	---	---	---	920.50	920.00	.78
130+58	RT	---	---	---	35	---	---	---	---	---	---	---	---	---	---	2	---	---	---
140+30	LT	---	---	24	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
149+57	RT	---	---	---	28	---	---	---	---	---	---	---	---	---	---	2	---	---	---
150+00	RT	---	---	---	31	---	---	---	---	---	---	---	---	---	---	2	---	---	---
154+58	RT	---	---	28	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
195+55	LT	---	---	28	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
200+28	LT/RT	---	---	---	---	58	---	---	---	2	---	---	---	---	---	---	1186.25	1184.83	2.45
201+00	LT	---	---	---	69	---	---	---	---	---	---	---	---	---	---	2	---	---	---
202+12	LT	---	---	24	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
224+84	RT	---	---	24	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
230+81	RT	---	---	27	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
239+86	LT/RT	---	---	---	---	---	66	---	---	---	2	---	---	---	---	---	1192.64	1191.31	2.02
243+97	LT	---	---	29	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
247+63	LT	---	---	24	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
250+35	LT/RT	---	---	---	---	---	---	56	---	---	---	2	---	---	---	---	1197.92	1197.19	1.30
266+97	RT	---	---	40	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---
269+83	LT	---	---	---	28	---	---	---	---	---	---	---	---	---	---	2	---	---	---
275+65	RT	---	---	---	---	34	---	---	---	---	---	---	---	---	---	---	---	---	---
8+20	RT	---	---	---	31	---	---	---	---	---	---	---	---	---	---	2	---	---	---
25+50	LT/RT	64	---	---	---	---	---	---	0.064	---	---	---	---	2	---	---	---	---	---
SUB TOTALS		64	140	278	314	92	66	120		2	2	4	4	2	20	18			
PROJECT TOTALS		**64**	**140**	**278**	**314**	**92**	**66**	**120**		**9**	**2**	**4**	**4**	**2**	**20**	**18**			

NOTES
- ALL SUBSURFACE ELEVATIONS ARE PIPE FLOWLINES
- FINAL LOCATION TO BE DETERMINED BY ENGINEER

*** OTHER QUANTITIES LOCATED ELSEWHERE IN PLAN.

CULVERT PIPE

STATION	LOCATION	521.0742 PIPE ARCH CORRUGATED STEEL 42X29-INCH LF	521.0764 PIPE ARCH CORRUGATED STEEL 64X43-INCH LF	THICKNESS STEEL INCHES	521.0542 APRON ENDWALL PIPE ARCH STEEL SLOPED CROSS DRAINS 4:1 42X29-INCH EACH	521.0564 APRON ENDWALL PIPE ARCH STEEL SLOPED CROSS DRAINS 4:1 64X43-INCH EACH	521.1242 APRON ENDWALL PIPE ARCH STEEL 42X29-INCH EACH	INVERT ELEV	DISCHARGE ELEV	SLOPE %
151+11	LT/RT	---	70	0.109	---	2	---	944.00	943.60	.57
151+20	LT/RT	---	68	0.109	---	2	---	944.00	943.68	.47
215+81	LT/RT	56	---	0.079	1	---	1	1192.05	1190.72	2.37
PROJECT TOTALS		**56**	**138**		**1**	**4**	**1**			

NOTES
- ALL SUBSURFACE ELEVATIONS ARE PIPE FLOWLINES
- FINAL LOCATION TO BE DETERMINED BY ENGINEER

STORM SEWER SCHEDULE

STRUCTURE NUMBER	STATION	* OFFSET	611.3230 INLETS 2x3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.0627 INLET COVERS TYPE HM EACH	611.0642 INLET COVERS TYPE MS EACH	FLOWLINE/RIM ELEV	*** STRUCTURE DEPTH FT	** INVERT ELEV	FROM	DISCHARGE ELEV	TO	SLOPE	**** 520.1024 APRON ENDWALL FOR CULVERT PIPE 24-INCH EACH	608.0424 SSPRC CLASS IV 24-INCH LF	608.3012 STORM SEWER PIPE CLASS III-A 12-INCH LF	308.3015 STORM SEWER PIPE CLASS III-A 15-INCH LF	608.3024 STORM SEWER PIPE CLASS III-A 24-INCH LF	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
1	159+02	27.9' RT	---	---	---	---	---	---	---	2	983.72	---	---	1	---	---	---	---	1
2	159+02	18.5' LT	1	---	1	---	988.99	3.82	984.42	---	---	1	1.50%	---	---	---	---	46	1
3	165+52	30.5' RT	---	---	---	---	---	---	---	5	999.11	---	---	1	---	---	---	---	1
4	165+45	18.5' LT	1	---	1	---	1004.27	2.62	1000.82	---	---	5	1.00%	---	---	7	---	---	1
5	165+52	18.5' LT	1	---	1	---	1004.24	3.74	999.75	4,6	---	3	1.31%	---	---	---	---	49	1
6	165+65	18.5' LT	1	---	1	---	1004.22	2.69	1000.70	7	---	5	1.55%	---	---	---	13	---	1
7	165+80	18.5' LT	1	---	1	---	1004.28	2.60	1000.85	---	---	6	1.00%	---	---	15	---	---	1
8	169+30	22.5' RT	---	---	---	---	---	---	---	9	1008.25	---	---	1	---	---	---	---	1
9	169+30	18.5' LT	1	---	1	---	1012.32	3.25	1008.32	10	---	8	0.17%	---	41	---	---	---	1
10	169+45	18.5' LT	1	---	1	---	1012.98	2.60	1009.54	---	---	9	1.49%	---	---	15	---	---	1
11	175+45	23.1' RT	---	---	---	---	---	---	---	12	1046.46	---	---	1	---	---	---	---	1
12	175+45	18.5' LT	1	---	1	---	1053.12	5.49	1046.88	---	---	11	1.00%	---	---	---	---	42	1
13	181+45	29.1' RT	---	---	---	---	---	---	---	14	1084.67	---	---	1	---	---	---	---	1
14	181+45	18.5' LT	1	---	1	---	1090.69	4.32	1085.62	15	---	13	2.00%	---	---	---	---	48	1
15	181+60	18.5' LT	1	---	1	---	1091.87	2.68	1088.36	16	---	14	8.00%	---	---	15	---	---	1
16	181+75	18.5' LT	1	---	1	---	1093.06	2.60	1089.62	---	---	15	8.00%	---	---	15	---	---	1
17	183+00	39.6' RT	---	---	---	---	---	---	---	18	1099.08	---	---	1	---	---	---	---	1
18	183+00	18.5' LT	1	---	1	---	1104.27	3.93	1099.59	---		17	0.88%	---	---	---	---	58	1
INL	189+10	27.5' LT	---	1	---	1	1149.01	4.00	1145.01	---	---	AE	0.72%	---	---	---	---	56	1
AE	189+10	35.5' RT	---	---	---	---	---	---	---	INL	1144.57	---	---	1	---	---	---	---	1
SUB TOTALS			12	1	12	1								7	41	67	13	299	20
PROJECT TOTALS			**12**	**1**	**12**	**1**								**9**	**41**	**67**	**13**	**299**	**20**

NOTES
* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT
**** OTHER QUANTITIES LOCATED ELSEWHERE IN PLAN.

CONCRETE CURB AND GUTTER 6-INCH SLOPED

STATION TO STATION	LOCATION	601.0557 36-INCH TYPE D LF
116+00 - 120+50	LT	450
138+47 - 9+00	RT	108
9+49 - 139+82	RT	55
144+00 - 148+00	RT	400
144+50 - 146+50	LT	200
149+86 - 10+51	LT	56
10+97 - 151+21	LT	106
159+00 - 189+00	LT	3000
PROJECT TOTALS		**4375**

RIPRAP MEDIUM

STATION	LOCATION	606.0200 CY	645.0120 GEOTEXTILE TYPE HR SY
116+00	LT	4	15
120+50	LT	4	15
125+04	RT	17	48
125+16	RT	17	48
125+93	RT	12	35
144+00	RT	4	15
144+50	LT	4	15
151+45	LT	20	55
151+55	LT	20	55
159+00	LT	4	15
159+02	RT	6	20
165+80	RT	9	30
169+30	RT	4	15
175+45	RT	16	52
181+45	RT	19	60
183+00	RT	4	15
189+10	RT	4	15
200+28	RT	7	22
25+50	LT	7	22
200+50	LT	4	15
215+81	LT	12	35
239+86	RT	9	28
250+35	LT	12	35
9+28	LT	4	15
9+49	RT	4	15
10+52	LT	4	15
10+97	RT	4	15
PROJECT TOTALS		**235**	**740**

STEEL PLATE BEAM GUARD

STATION TO STATION	LOCATION	614.0305 TYPE A LF	614.0305 SHORT RADIUS LF	614.0370 EAT EACH	614.0390 SHORT RADIUS TERMINAL EACH	SPV.0090.01 REMOVE AND GUARDRAIL LF	SPV.0060.01 REINSTALL EAT EACH	NUMBER OF CRT POSTS	NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
101+88 - 103+97	LT	150	44	1	1	---	---	8	1 @ 12.5' & 1 @ 25'	40' x 20'
106+57 - 108+23	RT	88	---	---	---	25	1	---	---	---
106+95 - 108+23	LT	50	---	---	---	25	1	---	---	---
108+97 - 110+25	RT	50	---	---	---	25	1	---	---	---
108+97 - 110+63	LT	88	---	---	---	25	1	---	---	---
273+12 - 274+35	LT	63	72	1	---	---	---	12	1 @ 12.5' & 2 @ 25'	50' x 20'
274+60 - 276+02	LT	63	45	1	1	---	---	8	1 @ 12.5' & 1 @ 25'	50' x 20'
PROJECT TOTALS		**552**	**161**	**3**	**2**	**100**	**4**			

MGS GUARDRAIL ITEMS

STATION TO STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2310 MGS GUARDRAIL 3 HS	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
100+76 - 104+07	RT	150	75	---	2
131+53 - 133+06	RT	63	---	39	1
131+90 - 133+06	LT	25	---	39	1
133+37 - 134+90	LT	63	---	39	1
133+37 - 134+53	RT	25	---	39	1
181+00 - 191+56	RT	950	---	---	2
PROJECT TOTALS		**1276**	**75**	**156**	**8**

MOBILIZATION

LOCATION	619.1000 EACH
PROJECT LIMITS	1
PROJECT TOTAL	**1**

ANCHOR POST ASSEMBLIES TOP MOUNTED

STATION TO STATION	LOCATION	614.8010 EACH
100+76 - 104+07	RT	8
101+88 - 103+97	LT	7
PROJECT TOTAL		**15**

WATER

LOCATION	624.0100 MGAL
BASE COMPACTION	220
PULVERIZE AND RELAY COMPACTION	160
DUST CONTROL	80
PROJECT TOTAL	**460**

TOPSOIL, SALVAGED TOPSOIL, MULCHING, FERTILIZER, & SEEDING

STATION TO STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 NO. 40 LB	630.0170 NO. 70 LB	630.0200 SEEDING TEMPORARY LB
100+47 - 276+47	LT/RT	88000	65200	55	2375	---	---	1190
7+60 - 10+00	LT/RT	1400	1400	1	38	---	---	19
10+00 - 12+25	LT/RT	1200	1200	1	32	---	---	16
UNDISTRIBUTED		---	16900	13	605	100	50	300
PROJECT TOTALS		**90600**	**84700**	**70**	**3050**	**100**	**50**	**1525**

3

SILT FENCE

STATION TO STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF
100+47 - 104+00	RT	355	355
100+47 - 104+00	LT	340	340
106+00 - 108+23	LT	235	235
106+00 - 108+23	RT	250	250
108+97 - 115+15	LT	640	640
108+97 - 133+10	RT	2415	2415
126+00 - 133+10	LT	710	710
133+40 - 7+60	RT	730	730
133+40 - 144+00	LT	1060	1060
7+60 - 141+50	RT	340	340
148+00 - 12+25	LT	930	930
153+00 - 156+00	LT	300	300
156+30 - 200+75	RT	4650	4650
213+00 - 217+00	LT	400	400
221+00 - 229+00	LT	800	800
226+50 - 229+00	RT	355	355
232+00 - 240+00	RT	800	800
249+00 - 251+00	LT	200	200
261+00 - 263+00	LT	200	200
272+00 - 276+47	LT	580	580
UNDISTRIBUTED		4060	4060
PROJECT TOTALS		**20350**	**20350**

EROSION MAT

STATION TO STATION	LOCATION	628.2002 CLASS I TYPE A SY	628.2004 CLASS I TYPE B SY	628.2006 URBAN CLASS I TYPE A SY	628.2023 CLASS II TYPE B SY	628.2039 CLASS III TYPE D SY
107+00 - 108+00	LT	---	---	70	---	---
116+00 - 120+50	LT	---	---	300	---	---
144+25 - 148+00	RT	---	---	250	90	90
144+50 - 146+50	LT	---	---	135	260	260
159+00 - 166+00	LT	---	---	470	2600	2600
163+00 - 164+00	RT	750	---	---	---	---
166+00 - 178+00	LT	---	---	800	70	70
178+00 - 189+00	LT	---	---	735	2580	2580
179+00 - 183+00	RT	1500	---	---	845	---
184+50 - 191+50	RT	2035	360	---	---	---
189+25 - 195+00	LT	---	385	---	---	---
218+00 - 220+75	LT	---	185	---	---	---
218+00 - 220+00	RT	---	135	---	---	---
UNDISTRIBUTED		465	235	1290	1905	1700
PROJECT TOTALS		**4750**	**1300**	**4050**	**8350**	**7300**

INLET PROTECTION

STATION	LOCATION	628.7005 TYPE A EACH	628.7015 TYPE C EACH
159+02	LT	1	1
165+45	LT	1	1
165+52	LT	1	1
165+65	LT	1	1
165+80	LT	1	1
169+30	LT	1	1
169+45	LT	1	1
175+45	LT	1	1
181+45	LT	1	1
181+60	LT	1	1
181+75	LT	1	1
183+00	LT	1	1
189+10	LT	1	---
PROJECT TOTALS		**13**	**12**

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 EACH
PROJECT LIMITS	4
PROJECT TOTAL	**4**

MOBILIZATIONS EMERGENCY EROSION CONTROL

LOCATION	628.1910 EACH
PROJECT LIMITS	6
PROJECT TOTAL	**6**

ROCK BAGS

STATION	LOCATION	628.7570 EACH
189+25	LT	5
189+50	LT	5
189+75	LT	5
190+00	LT	5
190+25	LT	5
190+50	LT	5
190+75	LT	5
191+00	LT	5
191+25	LT	5
191+50	LT	5
191+75	LT	5
192+00	LT	5
192+25	LT	5
192+50	LT	5
192+75	LT	5
193+00	LT	5
193+25	LT	5
193+50	LT	5
194+00	LT	5
194+50	LT	5
195+00	LT	5
UNDISTRIBUTED		25
PROJECT TOTAL		**130**

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 LF
196+50	RT	12
203+00	LT/RT	24
204+00	LT/RT	24
205+00	LT/RT	24
206+00	LT/RT	24
207+00	LT/RT	24
211+00	LT/RT	24
212+00	LT/RT	24
213+00	RT	12
214+00	RT	12
215+00	RT	12
217+00	RT	12
218+00	LT/RT	24
219+00	LT/RT	24
220+00	LT/RT	24
254+00	LT/RT	24
255+00	LT/RT	24
256+00	LT/RT	24
257+00	LT/RT	24
258+00	LT/RT	24
259+00	LT/RT	24
264+00	RT	12
265+00	RT	12
266+00	RT	12
267+00	LT	12
268+00	LT/RT	24
UNDISTRIBUTED		129
PROJECT TOTAL		**645**

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 EACH
101+80	LT,CE	2
110+54	RT,PE	2
115+28	LT,PE	2
122+79	RT,FE	2
123+18	LT/PE	2
125+04	LT	10
125+16	LT	10
125+93	LT	7
130+58	RT	2
8+20	RT	2
140+30	LT,FE	2
149+57	RT,PE	2
150+00	RT,PE	2
151+11	RT	13
151+20	RT	13
154+58	RT,PE	2
195+55	LT,FE	2
200+28	LT	3
201+00	LT/CE	2
201+00	630TH AVE	2
202+12	LT,PE	2
215+81	RT	10
224+84	RT,PE	2
230+81	RT,PE	2
239+86	LT	5
243+97	LT,PE	2
247+63	LT,PE	2
250+35	RT	7
266+97	RT,PE	2
269+83	LT,PE	2
275+65	RT, PE	2
UNDISTRIBUTED		30
PROJECT TOTAL		**152**

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
125+04	LT/RT	2
125+16	LT/RT	2
125+93	LT/RT	2
151+11	LT/RT	2
159+02	RT	1
165+52	RT	1
169+30	RT	1
175+45	RT	1
181+45	RT	1
183+00	RT	1
189+10	RT	1
200+28	LT/RT	2
215+81	LT/RT	2
239+86	LT/RT	2
250+35	LT/RT	2
25+50	LT/RT	2
PROJECT TOTAL		**25**

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PERMANENT SIGNING

APPROX STATION LOCATION	SIGN GROUP NUMBER	SIGN CODE	SIGN SIZE WxH (INCHES)	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4x6-INCH 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENT
101+25 RT	1-1	M1-5A	24 X 24	---	1	4.00	---	1	1	
102+00 RT	1-2	W1-7		---	---	---	---	1	1	
102+50 LT	1-3	D1-2	90 X 30	---	1	18.75	---	1	1	MENOMONIE, SPRING GREEN
104+50 LT	1-4	J13-1	24 X 45	1	---	---	7.50	2	1	
105+25 LT	1-5	R1-1	30 X 30	1	---	6.25	---	1	1	
105+40 RT	1-6	W1-7	48 X 24	1	---	---	8.00	---	---	
106+25 LT	1-7	J1-1	24 X 39	---	1	6.50	---	2	1	
107+80 LT	1-8	W3-1	36 X 36	---	1	---	9.00	---	---	
108+15 LT	1-9	W5-52L	12 X 36	1	---	---	3.00	1	1	
108+15 RT	1-10	W5-52R	12 X 36	1	---	---	3.00	1	1	
109+00 LT	1-11	W5-52R	12 X 36	1	---	---	3.00	1	1	
109+00 RT	1-12	W5-52L	12 X 36	1	---	---	3.00	1	1	
109+25 LT	1-13	W3-1		---	---	---	---	1	1	
117+30 RT	1-14	W14-3	48 X 36	---	1	---	6.00	1	1	
125+00 LT	1-15	W5-52L		---	---	---	---	1	1	
125+00 RT	1-16	W5-52R		---	---	---	---	1	1	
125+20 RT	1-17	W5-52L		---	---	---	---	1	1	
125+20 LT	1-18	W5-52R		---	---	---	---	1	1	
131+25 RT	1-19	J1-1	24 X 39	---	1	---	---	3	1	
133+00 RT	2-1	W5-52R	12 X 36	1	---	---	3.00	1	1	
133+00 LT	2-2	W5-52L	12 X 36	1	---	---	3.00	1	1	
133+40 LT	2-3	W5-52R	12 X 36	1	---	---	3.00	1	1	
133+40 RT	2-4	W5-52L	12 X 36	1	---	---	3.00	1	1	
135+50 LT	2-5	W14-3	48 X 36	---	1	---	6.00	1	1	
137+75 LT	2-6	M1-5A	24 X 24	1	---	4.00	---	1	1	
138+40 RT	2-7	J13-2	48 X 45	---	1	15.00	---	5	1	
8+60 LT	2-8	M1-5A	24 X 24	1	---	4.00	---	2	1	
8+60 LT	2-9	R10-64	30 X 36	---	1	7.50	---	1	1	
139+50 RT	2-10	R1-1	30 X 30	1	---	6.25	---	1	1	
139+60 RT	2-11	J13-2	48 X 45	---	1	15.00	---	5	1	
139+35 LT	2-12	W1-7	48 X 24	---	1	---	8.00	---	---	
139+90 LT	2-13	J13-2	48 X 45	---	1	15.00	---	5	1	
141+70 RT	2-14	J13-2	48 X 45	---	1	15.00	---	5	1	
148+00 LT	2-15	J13-2	48 X 45	---	1	15.00	---	5	1	
150+00 LT	2-16	J13-2	48 X 45	---	1	15.00	---	5	1	
150+10 LT	2-17	R1-1	30 X 30	1	---	6.25	---	1	1	
150+20 RT	2-18	J13-2	48 X 45	---	1	15.00	---	5	1	
150+25 RT	2-19	W1-7	48 X 24	1	---	---	8.00	---	---	
12+25 RT	2-20	W1-5R	30 X 30	---	1	---	6.25	1	1	
		W13-1	18 X 18	---	---	---	2.25	1	---	"40" MPH
11+30 RT	2-21	M1-5A	24 X 24	1	---	4.00	---	2	1	
151+20 LT	2-22	J13-2	48 X 45	---	1	15.00	---	5	1	
152+30 RT	2-23	M1-5A	24 X 24	1	---	4.00	---	1	1	
155+70 RT	2-24	W1-5R	30 X 30	---	1	---	6.25	1	1	
		W13-1	18 X 18	---	---	---	2.25	1	---	"35" MPH
158+50 LT	2-25	J1-1	24 X 39	---	1	6.50	---	3	1	

- CONTINUE NEXT PAGE -

PERMANENT SIGNING

APPROX STATION LOCATION	SIGN GROUP NUMBER	SIGN CODE	SIGN SIZE WxH (INCHES)	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4x6-INCH 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENT
178+00 LT	3-1	W1-6	48 X 24	1	---	---	8.00	1	1	
181+10 RT	3-2	W1-8	18 X 24	1	---	---	3.00	---	---	
182+30 RT	3-3	W1-8	18 X 24	1	---	---	3.00	---	---	
182+30 RT	3-4	W1-8	18 X 24	---	---	---	3.00	---	---	
183+50 RT	3-5	W1-8	18 X 24	1	---	---	3.00	---	---	
183+50 RT	3-6	W1-8	18 X 24	---	---	---	3.00	---	---	
184+50 RT	3-7	W1-8	18 X 24	1	---	---	3.00	---	---	
184+50 RT	3-8	W1-8	18 X 24	---	---	---	3.00	---	---	
185+75 RT	3-9	W1-8	18 X 24	1	---	---	3.00	---	---	
196+40 LT	4-1	W7-1	30 X 30	1	---	---	6.25	1	1	
		W7-3	24 X 18	---	---	---	3.00	---	---	"10 %"
197+25 RT	4-2	W8-6	36 X 36	---	1	---	9.00	1	1	
200+60 LT	4-3	R1-1	30 X 30	1	---	6.25	---	1	1	
201+40 RT	4-4	R1-1	30 X 30	1	---	6.25	---	1	1	
201+95 LT	4-5	W1-5R	30 X 30	---	1	---	6.25	1	1	
		W13-1	18 X 18	---	---	---	2.25	1	---	"35" MPH
204+80 LT	4-6	W8-6	30 X 30	1	---	---	6.25	1	1	
217+10 RT	4-7	S3-1	30 X 30	1	---	---	6.25	1	1	
224+25 RT	4-8	W1-2L		---	---	---	---	1	1	
		W13-1		---	---	---	---	1	---	
227+30 LT	5-1	W1-7	48 X 24	1	---	---	8.00	1	1	
227+60 RT	5-2	R1-1	30 X 30	1	---	6.25	---	1	1	
230+00 RT	5-3	W1-2L	30 X 30	---	1	---	6.25	---	---	
		W13-1	18 X 18	---	---	---	2.25	---	---	"35" MPH
234+00 RT	5-4	W1-6	48 X 24	1	---	---	8.00	---	---	
238+00 RT	5-5	W1-6	48 X 24	1	---	---	8.00	---	---	
242+00 RT	5-6	W1-2R	30 X 30	---	1	---	6.25	1	1	
		W13-1	18 X 18	---	---	---	2.25	1	---	"35" MPH
267+50 RT	6-1	J1-1	24 X 39	---	1	6.50	---	2	1	
269+50 RT	6-2	W1-1R	36 X 36	---	1	---	9.00	1	1	
		W13-1	18 X 18	---	---	---	2.25	1	---	"25" MPH
273+25 LT	6-3	W1-6	48 X 24	1	---	---	8.00	1	1	
274+40 LT	6-4	R1-1	30 X 30	1	---	6.25	---	1	1	
274+50 RT	6-5	W1-7	48 X 24	1	---	---	8.00	---	---	
275+60 LT	6-6	W1-6	48 X 24	1	---	---	8.00	1	1	
276+25 LT	6-7	M1-5A	24 X 24	1	---	4.00	---	1	1	
PROJECT TOTALS				**38**	**26**	**233.50**	**241.00**	**105**	**58**	

FIELD OFFICE TYPE B

PROJECT	642.5001 EACH
7882-05-72	1
PROJECT TOTAL	**1**

LOCATING NO-PASSING ZONES

STATION TO STATION	648.0100 MI
100+47 - 276+47	3.33
PROJECT TOTAL	**3.33**

TRAFFIC CONTROL

PROJECT	# OF DAYS	643.0100 EACH	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0900 SIGNS DAY	643.2000 DETOUR EACH	643.3000 DETOUR SIGNS DAY
7882-05-72	94	1	1880	3760	940	1	17860
PROJECT TOTALS		**1**	**1880**	**3760**	**940**	**1**	**17860**

PAVEMENT MARKING EPOXY 4-INCH

STATION TO STATION	LOCATION	DESCRIPTION	646.0106 WHITE LF	646.0106 YELLOW LF
100+47 - 276+47	CTH Q	CL/EDGELINE	34700	30813
7+60 - 10+00	CTH N	CL/EDGELINE	480	480
10+00 - 12+25	CTH N	CL/EDGELINE	450	450
SUB TOTALS			35630	31743
PROJECT TOTAL			**67373**	

(1) ACTUAL CENTERLINE QUANTITY TO BE DETERMINED BASED ON LOCATING NO-PASSING ZONES.

3

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

STATION TO STATION	LOCATION	650.4500 C&G LF
116+00 - 120+50	LT	450
138+47 - 9+00	RT	108
9+49 - 139+82	RT	55
144+00 - 148+00	RT	400
144+50 - 146+50	LT	200
149+86 - 10+51	LT	56
10+97 - 151+21	LT	106
159+00 - 189+00	LT	3000
PROJECT TOTAL		**4375**

CONSTRUCTION STAKING

STATION TO STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF
100+47 - 108+23	CTH Q	776	776	776
108+97 - 276+47	CTH Q	16750	16750	16750
7+60 - 10+00	CTH N	240	240	240
10+00 - 12+25	CTH N	225	225	225
PROJECT TOTALS		**17991**	**17991**	**17991**

CONSTRUCTION STAKING PIPE CULVERTS

STATION	LOCATION	650.6000 EACH
125+04	CTH Q	1
125+16	CTH Q	1
125+93	CTH Q	1
151+11	CTH Q	1
151+20	CTH Q	1
200+28	CTH Q	1
25+50	630TH AVE	1
215+81	CTH Q	1
239+86	CTH Q	1
250+35	CTH Q	1
PROJECT TOTAL		**10**

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

PROJECT	650.9910 LS
7882-05-72	1

SAWING

STATION	LOCATION	690.0150 ASPHALT LF
100+47	CTH Q	35
7+60	CTH N	24
144+12	PE	24
149+57	PE	14
12+25	CTH N	24
201+00	CE	56
202+12	PE	12
26+25	630TH AVE	20
209+44	PE	11
31+25	640TH AVE	20
39+75	90TH ST	50
276+47	CTH Q	40
PROJECT TOTAL		**330**

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS WITH PLASTIC CAPS), UNLESS OTHERWISE NOTED. WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 1026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 29 ESTABLISHED FROM PREVIOUS PROJECT 7610-03-21.

EXISTING HIGHWAY RIGHT-OF-WAY FOR 561ST AVENUE ESTABLISHED FROM PREVIOUS PROJECT 7610-03-21.

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH N ESTABLISHED FROM CSM 3040 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH N PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR 630TH AVENUE ESTABLISHED FROM A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR 630TH AVENUE PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR 640TH AVENUE ESTABLISHED FROM A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR 640TH AVENUE PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR I-94 ESTABLISHED FROM PREVIOUS PROJECT 1026-03-21.

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

A **PERMANENT LIMITED EASEMENT** (PLE) FOR THE RIGHT TO CONSTRUCT AND MAINTAIN A DRAINAGE FACILITY, INCLUDING FOR SUCH PURPOSE THE RIGHT TO OPERATE THE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY TO DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES WITHIN THE RIGHT OF WAY.

CONVENTIONAL SYMBOLS

SECTION LINE		SECTION CORNER	
QUARTER LINE		R/W MONUMENT	●
SIXTEENTH LINE		NON-MONUMENTED R/W POINT	o
NEW REFERENCE LINE		FOUND IRON PIN	IP
EXISTING R/W LINE DEFINED BY PLAT		VALVE (GAS, WATER, ETC.)	⊘ (TYPE)
ADJACENT EXISTING R/W LINE		SIGN	SIGN
PROPERTY LINE	P.L.	OFF-PREMISE SIGN	I-25 SIGN
LOT, TIE & OTHER MINOR LINES		NOTATION FOR COMBUSTABLE FLUIDS	CAUTION
CORPORATE LIMITS		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	CAUTION
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	(TYPE)		
TRANSMISSION STRUCTURES			
BUILDING			
NATIONAL GEODETIC SURVEY MONUMENT	Ⓐ		
SIXTEENTH CORNER MONUMENT	Ⓐ		

	NON-COMPENSIBLE	COMPENSIBLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

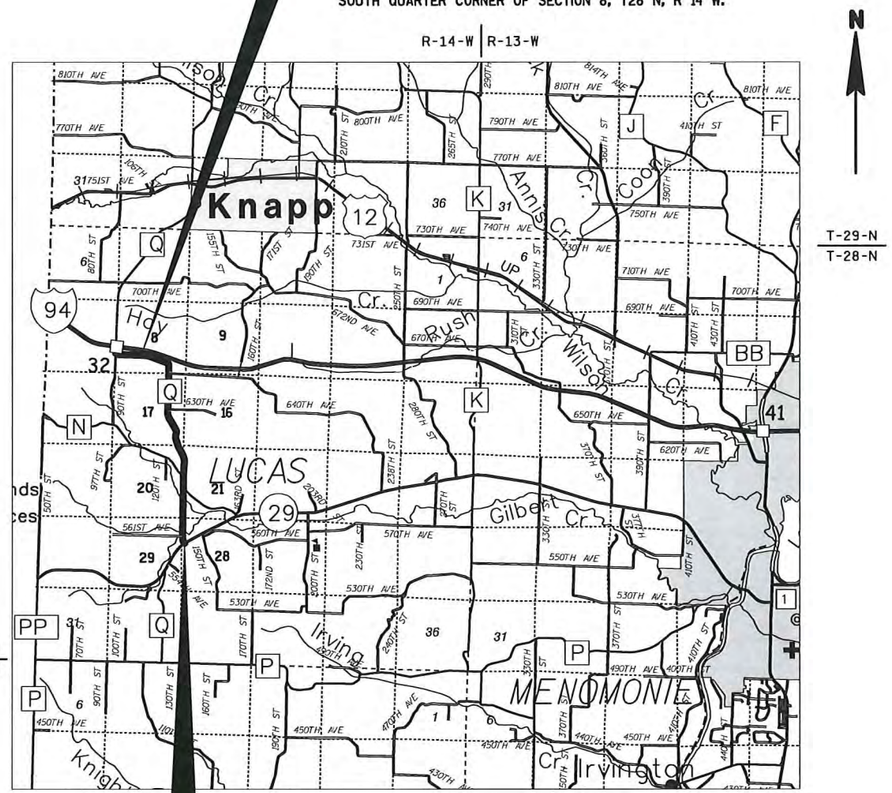
CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF CURVATURE	PC
ACRES	AC	POINT OF COMPOUND CURVE	PCC
AHEAD	AH	POINT OF INTERSECTION	PI
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REFERENCE LINE	R/L
BLDG	BLDG	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV	TRANSPORTATION PROJECT PLAT	TPP
GRID NORTH	GN	UNITED STATES HIGHWAY	USH
HIGHWAY EASEMENT	HE	VOLUME	V
HOUSE	HSE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

END RELOCATION ORDER
PROJECT 7882-05-02
STA. 267+63.91
Y = 186381.39
X = 113346.41
LOCATED 1299.56' NORTH AND 1866.31' WEST OF THE SOUTH QUARTER CORNER OF SECTION 8, T28 N, R 14 W.



BEGIN RELOCATION ORDER PROJECT 7882-05-02
STA. 106+00.00
Y = 173300.17
X = 117785.72
LOCATED 1368.74' NORTH AND 21.86' WEST OF THE WEST QUARTER CORNER OF SECTION 28, T28 N, R 14 W.

LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 3.061 MI.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
7882-05-02	4.01	11
FEDERAL PROJECT NUMBER ----------		

PLAT OF RIGHT-OF-WAY REQUIRED FOR
CTH Q RECONSTRUCTION
(STH 29 TO I-94)
CTH Q — DUNN COUNTY

CONSTRUCTION PROJECT NUMBER
7882-05-72



ACCEPTED FOR DUNN COUNTY

1/13/2016 (Date) — Public Works Director

ORIGINAL PLAT PREPARED BY
AYRES ASSOCIATES

THIS SURVEY IS PREPARED AT THE REQUEST OF DUNN COUNTY.

THE FIELD SURVEY WAS PERFORMED IN OCT/NOV 2014.

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

WISCONSIN
James R. Cappeart S-3044 Green Bay Wis.
LAND SURVEYOR

(SIGNATURE) James Cappeart
DATE: 12/30/2015
(PRINTED NAME) JAMES R. CAPPEART
(REGISTRATION NUMBER) S-3044

REVISION DATE
3/28/2016 NC

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

AREAS SHOWN IN THE TOTAL AC. COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL AC.	R/W AC. REQUIRED NEW	EXISTING	TOTAL	TOTAL AC. REM.	TLE AC.
1	4.05	NEUBAUER IRREVOCABLE TRUST	TLE	39.50	-----	-----	-----	39.50	0.09
2	4.05 - 4.06	STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES	PLE & TLE	78.50	-----	-----	-----	78.50	0.10 (PLE) 0.20 (TLE)
3	4.06	JOHN R & LINDA M HINTZ	TLE	1.00	-----	-----	-----	1.00	0.03
4	4.06	BRUCE A LYNCH	FEE & TLE	38.00	0.08	0.63	0.71	37.29	0.10
5	4.06	GERALD R & KATHY JO MILLER REVOCABLE TRUST	FEE & TLE	50.25	0.41	1.77	2.18	48.07	0.05
6	4.06	DAVID R PITT	TLE	1.00	-----	-----	-----	1.00	0.05
7	4.07	JOANNE K THORUD	FEE	54.40	1.16	1.53	2.69	51.71	-----
8	4.07	THOMAS & PATRICIA STOLL	FEE & TLE	3.26	0.11	0.35	0.46	2.80	0.01
9	4.07	JEFFREY S & JODY STEVENS	FEE	5.00	0.15	0.18	0.33	4.67	-----
10	4.07	JOSEPH J & JEAN M HAEFNER	FEE	5.00	0.02	0.21	0.23	4.77	-----
11	4.07	JESS J & DANA L MANEY	FEE	5.00	0.16	0.36	0.52	4.48	-----
12	4.07	PETER D & SHARON M SCHWARTZ	FEE & TLE	44.60	0.92	1.24	2.16	42.48	0.09
13	4.07	BENJAMIN J HINTZ & MEGAN D FRAME	FEE & TLE	10.00	0.20	0.53	0.73	9.27	0.02
14	4.08-4.09	ROBERT P WEBER	FEE & TLE	98.00	2.72	2.71	5.43	92.57	0.20
15	4.08	GERALD J TRAINOR	FEE & TLE	21.00	0.93	2.83	3.76	17.24	0.02
16	4.08	KEVIN & HEIDI BORDENAVE	TLE	2.76	-----	-----	-----	2.76	0.01
17	4.08-4.09	GATES REVOCABLE TRUST	FEE & TLE	77.24	0.01	0.24	0.25	76.99	0.15
18	4.09	RANDALL A & DENISE M KIESOW	FEE & TLE	40.00	0.02	0.61	0.63	39.37	0.13
19	4.09	PASE & CHUEYI LOR	FEE & TLE	40.00	0.01	1.43	1.44	38.56	0.18
20	4.10	SAM P & DONNA GIBSON	TLE	25.00	-----	-----	-----	25.00	0.01
21	4.10	JOEY C BREHM & JOY E BREHM	FEE & TLE	34.00	0.01	0.53	0.54	33.46	0.01
22	4.10	BRUNKOW HARDWOOD CORPORATION	FEE & TLE	38.30	0.02	0.84	0.86	37.44	0.05
23	4.10	RICHARD G & TAMMY J MOORE	TLE	6.50	-----	-----	-----	6.50	0.01
50	4.05-4.09	DUNN ENERGY COOPERATIVE	RELEASE OF RIGHTS						
51	4.05-4.07	AT&T OF WISCONSIN	RELEASE OF RIGHTS						
52	4.08-4.10	CENTURYLINK	RELEASE OF RIGHTS						

4

REVISION DATE 3/28/2016	DATE 11/20/2015	SCALE, FEET	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.02
	GRID FACTOR _____	NO SCALE	COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 51 E

T 28 N R 18 W

29 TOWN 20

28 LUCAS 21

4 4

561ST AVENUE

BEGIN RELOCATION ORDER
STA. 106+00.00

29

COUNTY Q

COUNTY N

COUNTY N

110 120 130 140 150 160 170

1 2 3 4 OF 5 6 7 8 9 10 11 12 13

REVISION DATE 3/28/2016 NC	DATE 11/20/2015	SCALE. FEET 0 250 500	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.03
	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 52 E

FILE NAME : 78820502_RWPL_TITLESHEET.DWG PLOT DATE : 3/28/2016 8:25 AM PLOT BY : CAPPEART, JAMES PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 75

T 28 N R 18 W

TOWN

17

OF

LUCAS

END RELOCATION ORDER
STA. 267+63.91

COUNTY Q

630TH AVE

640TH AVE

INTERSTATE 94

4

4

8

REVISION DATE 3/28/2016 NC	DATE 11/20/2015	SCALE, FEET 0 250 500	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.04
	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET E

FILE NAME : 78820502_RWPL_TITLESHEET.DWG
LAYOUT NAME - ****

PLOT DATE : 3/28/2016 8:25 AM PLOT BY : CAPPEART, JAMES PLOT NAME : PLOT SCALE : 1 IN:500 FT

WISDOT/CADDS SHEET 75

4

50 DUNN ENERGY COOPERATIVE
NO RECORDED EASEMENT
PARCEL 1

51 AT&T OF WISCONSIN
NO RECORDED EASEMENT
PARCELS 1 & 2

SEE SHEET 4.06

TOWN OF LUCAS

SE-NE
29-28-14

SW-NW
28-28-14

NE-NW
29-28-14

NW-NW
28-28-14

"DETAIL"
NOT TO SCALE

SECTION LINE
P.L. LINE
R/L
S89°01'15"E
8.58'
STA = 105+58.82
1/16TH

BEGIN RELOCATION ORDER
STA. 106+00.00
Y= 173300.17
X= 117785.72
LOCATED 1368.74' NORTH AND 21.86' WEST OF THE WEST QUARTER CORNER OF SECTION 28, T 28 N, R 14 W.

561ST AVENUE
66'
P.L.

N01°15'59"W 1328.04'
MON-1/16th COR

SECTION LINE
N01°15'59"W 2656.08'
MON. TO MON.

ALUMINUM MON.
Y=171931.43
X=117807.58

T 28 N
R 14 W
29 28

EXISTING R/W

STH 29

POST

PI 102+70.03

PC 101+05.79

POB 100+00.00
Y=172144.61
X=117958.14

R/L N37°13'36"W

PT 104+23.58

275'

SIXTEENTH LINE

CURVE DATA CTH Q
PI STA = 102+70.03
Y = 172829.49
X = 117934.35
DELTA = 35°42'08"
D = 11°14'04"
T = 164.24'
L = 317.79'
R = 510.00'
PC STA = 101+05.79
PT STA = 104+23.58

1 NEUBAUER IRREVOCABLE TRUST

50 DUNN ENERGY COOPERATIVE
POWER POLE

106+50.00
33.29'-40.00'

106+00.00
32.75'-40.00'

111+50.00
32.92'-40.00'

TLE FOR SLOPES

SLOPE INTERCEPT

EXISTING R/W

CTH Q

R/L N 01°31'29" W

99'

GILBERT CREEK

51 AT&T OF WISCONSIN
PEDESTAL AND UNDERGROUND FACILITIES

LUCAS 2
STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

CURVE DATA CTH Q
PI STA = 120+40.03
Y = 174739.51
X = 117741.94
DELTA = 02°45'25"
D = 00°30'58"
T = 267.10'
L = 534.10'
R = 11100.00'
PC STA = 117+72.93
PT STA = 123+07.03
AHEAD TANGENT
N00°37'52"E

"DETAIL"
NOT TO SCALE
STA = 118+87.25
LINE
R/L
N89°37'14"W
0.68'
SECTION LINE
SECTION

115+00.00
32.71'-39.80'

117+00.00
33.17'-40.00'

114+50.00
33.26'-40.00'

PI 115+19.59
Y = 174219.43
X = 117761.25

R/L N02°07'33"W

PC 117+72.93

STA 118+87.25

RAILROAD SPIKE
Y=174586.86
X=117748.88

T 28 N
R 14 W
1 20 21 28
29 28

MATCH LINE

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, DUNN COUNTY ZONE, NAD 83(2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 1026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 29 ESTABLISHED FROM PREVIOUS PROJECT 7610-03-21.
EXISTING HIGHWAY RIGHT-OF-WAY FOR 561ST AVENUE ESTABLISHED FROM PREVIOUS PROJECT 7610-03-21.

REVISION DATE 3/28/2016 NC	DATE: 11/20/2015	SCALE. FEET 0 100 200	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.05
	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 54 E

50 DUNN ENERGY COOPERATIVE
VOL. 125, P15 DOC #196009
- PARCEL 2 (BLANKET)
VOL. 124, P610 DOC #196011
- PARCEL 5 (BLANKET)
VOL. 124, P601 DOC #196010
- PARCEL 5 (BLANKET)

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
200	124+21.50	4.88'
201	124+21.50	0.00'
203	124+27.50	32.50'
204	124+75.00	55.00'
205	126+00.00	55.00'
206	126+22.65	32.35'
207	139+99.79	31.84'
208	140+99.74	32.87'
209	140+99.69	40.00'
211	144+25.00	40.00'
212	144+53.51	50.00'
213	145+35.58	50.00'
214	145+35.67	0.00'
215	145+35.67	0.47'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
215-200	S00°14'03"W	2108.04'
200-201	N89°22'08"W	4.88'
201-203	N89°22'08"W	32.50'
203-204	N24°42'49"W	52.56'
204-205	N0°45'34"E	125.17'
205-206	N45°48'29"E	32.03'
206-207	N0°46'42"E	1376.67'
207-208	N0°53'45"W	99.66'
208-209	S88°59'24"W	7.13'
209-211	N0°57'53"W	325.00'
211-212	N20°21'36"W	30.21'
212-213	N00°09'39"E	82.55'
213-214	N89°24'51"E	48.62'
214-215	N89°24'51"E	0.47'

SEE SHEET 4.05

SEE SHEET 4.07

TOWN OF LUCAS

SE-SE 20-28-14

NE-SE 20-28-14

SW-SW 21-28-14

NW-SW 21-28-14

SECTION LINE

QUARTER LINE

SIXTEENTH LINE

MATCH LINE

"DETAIL" NOT TO SCALE

STA = 118+87.25
R/L
N89°37'14"W
0.68'

RAILROAD SPIKE
Y=174586.86
X=117748.88

RAILROAD SPIKE
Y=177235.03
X=117759.71

4 BRUCE A LYNCH

5 GERALD R & KATHY JO MILLER REVOCABLE TRUST
PIN: 17014228142040100001
ACRES REMAINING: 39.09

3 JOHN R & LINDA M HINTZ

2 STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

5 GERALD R & KATHY JO MILLER REVOCABLE TRUST
PIN: 17014228142130002
ACRES REMAINING: 9.12

6 DAVID R PITT

AT&T OF WISCONSIN 51
VOL. 371, P141
DOC #373902

DUNN ENERGY COOPERATIVE 50
DOC #527487
30' WIDE CENTERED ON LINE

DUNN ENERGY COOPERATIVE 50
POWER POLE

GILBERT CREEK

TLE FOR DRIVEWAY
TLE FOR DRIVEWAY & SLOPES
TLE FOR SLOPES
PLE FOR CULVERT
SLOPE INTERCEPT
EXISTING R/W
HSE

CTH Q
CTH N

PI 120+40.03
PT 123+07.03
R/L N0°37'52"E
R/L N0°48'29"
PC 138+34.44
PT 141+90.57
R/L N1°1'49"W
R/L N0°29'9"W
PI 140+12.52

PI 125+09.30
Y = 175208.85
X = 117747.11

PI STA = 144+00.73
Y = 177200.09
X = 117759.53

16.5'
99'
66'

CURVE DATA CTH Q
PI STA = 120+40.03
Y = 174739.51
X = 117741.94
DELTA = 02°45'25"
D = 00°30'58"
T = 267.10'
L = 534.10'
R = 11100.00'
PC STA = 117+72.93
PT STA = 123+07.03
BACK TANGENT
N02°07'33"W

CURVE DATA CTH Q
PI STA = 140+12.52
Y = 176711.93
X = 117768.31
DELTA = 01°50'18"
D = 00°30'58"
T = 178.08'
L = 356.13'
R = 11100.00'
PC STA = 138+34.44
PT STA = 141+90.57

PLE COURSE TABLE		
LINE	BEARING	LENGTH
215-200	S0°14'03"W	2108.04'
200-226	S89°22'08"E	28.62'
226-225	N0°46'42"E	22.50'
225-224	S89°22'08"E	21.45'
224-223	N0°45'20"E	199.83'
223-222	N89°11'31"W	21.37'
222-225	S0°46'42"W	199.90'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
215-216	S88°50'18"E	33.00'
216-217	S0°53'45"E	457.79'
217-218	S44°48'18"E	300.92'
218-219	S45°11'42"W	66.00'
219-221	N89°45'56"W	166.49'
221-226	S0°46'42"W	1390.73'
226-200	N89°22'08"W	28.62'
200-215	N0°14'03"E	2108.04'

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
200	124+21.50	4.88'
215	145+35.67	0.47'
216	145+34.72	33.46'
217	140+76.95	33.29'
218	138+66.46	245.72'
219	138+20.00	191.51'
221	138+18.33	33.02'
222	126+50.00	33.63'
223	126+50.00	55.00'
224	124+50.00	55.00'
225	124+50.00	33.55'
226	123+14.45	33.21'

NOTES:

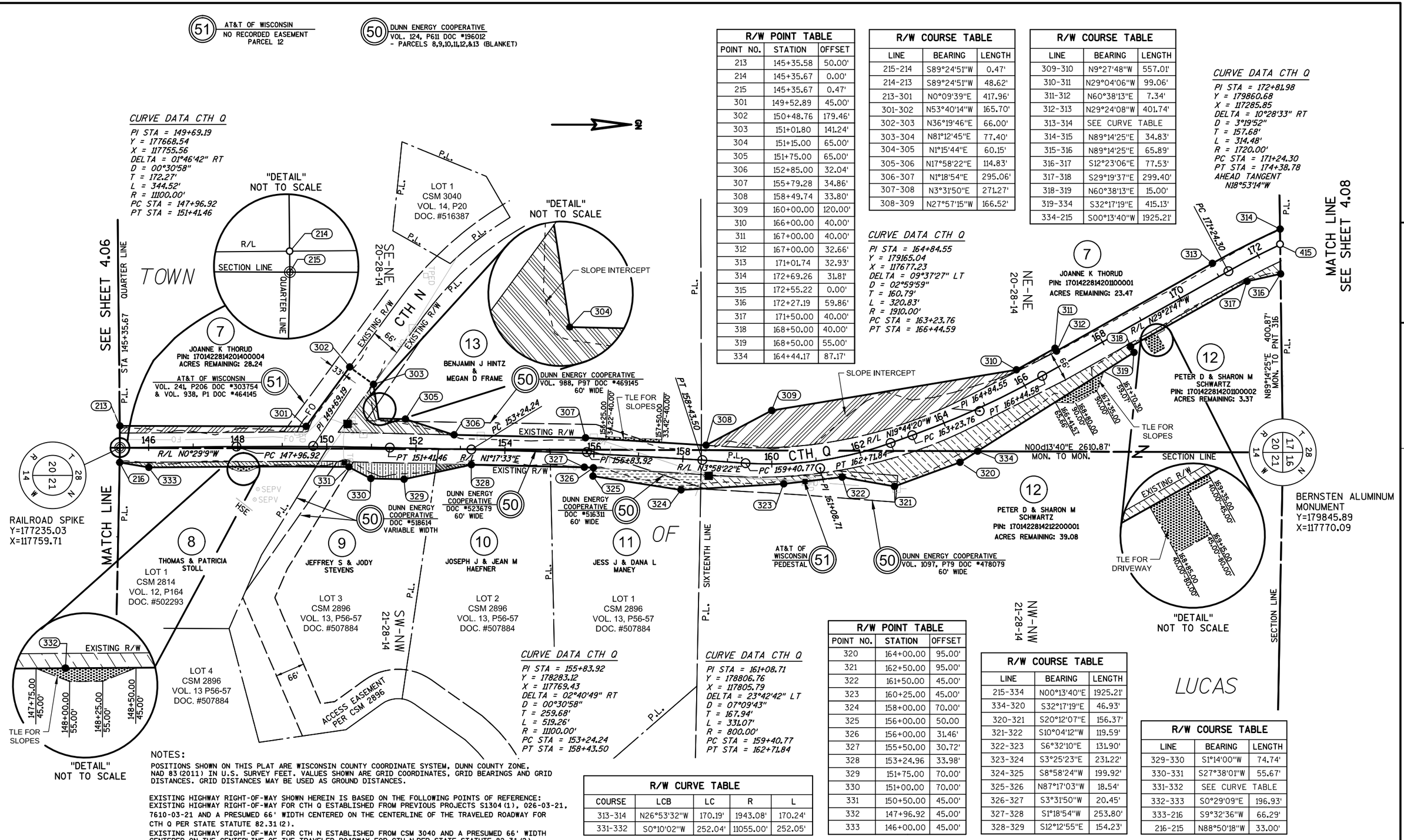
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, DUNN COUNTY ZONE, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 1026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH N ESTABLISHED FROM CSM 3040 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH N PER STATE STATUTE 82.31(2).

REVISION DATE 3/28/2016	DATE: 11/20/2015	SCALE, FEET 0 100 200	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.06
	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 55 E

FILE NAME : V:\TRANS-EC\410690\C3D\RW\78820502_RWPL.DWG PLOT DATE : OCTOBER 2015 PLOT BY : CAPPEART, JAMES PLOT NAME : PLOT SCALE : 1:200



R/W POINT TABLE		
POINT NO.	STATION	OFFSET
213	145+35.58	50.00'
214	145+35.67	0.00'
215	145+35.67	0.47'
301	149+52.89	45.00'
302	150+48.76	179.46'
303	151+01.80	141.24'
304	151+15.00	65.00'
305	151+75.00	65.00'
306	152+85.00	32.04'
307	155+79.28	34.86'
308	158+49.74	33.80'
309	160+00.00	120.00'
310	166+00.00	40.00'
311	167+00.00	40.00'
312	167+00.00	32.66'
313	171+01.74	32.93'
314	172+69.26	31.81'
315	172+55.22	0.00'
316	172+27.19	59.86'
317	171+50.00	40.00'
318	168+50.00	40.00'
319	168+50.00	55.00'
334	164+44.17	87.17'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
215-214	S89°24'51"W	0.47'
214-213	S89°24'51"W	48.62'
213-301	N0°09'39"E	417.96'
301-302	N53°40'14"W	165.70'
302-303	N36°19'46"E	66.00'
303-304	N81°12'45"E	77.40'
304-305	N1°15'44"E	60.15'
305-306	N17°58'22"E	114.83'
306-307	N1°18'54"E	295.06'
307-308	N3°31'50"E	271.27'
308-309	N27°57'15"W	166.52'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
309-310	N9°27'48"W	557.01'
310-311	N29°04'06"W	99.06'
311-312	N60°38'13"E	7.34'
312-313	N29°24'08"W	401.74'
313-314	SEE CURVE TABLE	
314-315	N89°14'25"E	34.83'
315-316	N89°14'25"E	65.89'
316-317	S12°23'06"E	77.53'
317-318	S29°19'37"E	299.40'
318-319	N60°38'13"E	15.00'
319-334	S32°17'19"E	415.13'
334-215	S00°13'40"W	1925.21'

CURVE DATA CTH Q
PI STA = 172+81.98
Y = 179860.68
X = 117285.85
DELTA = 10°28'33" RT
D = 3°19'52"
T = 157.68'
L = 314.48'
R = 1720.00'
PC STA = 171+24.30
PT STA = 174+38.78
AHEAD TANGENT
N18°53'14"W

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
320	164+00.00	95.00'
321	162+50.00	95.00'
322	161+50.00	45.00'
323	160+25.00	45.00'
324	158+00.00	70.00'
325	156+00.00	50.00
326	156+00.00	31.46'
327	155+50.00	30.72'
328	153+24.96	33.98'
329	151+75.00	70.00'
330	151+00.00	70.00'
331	150+50.00	45.00'
332	147+96.92	45.00'
333	146+00.00	45.00'

R/W CURVE TABLE				
COURSE	LCB	LC	R	L
313-314	N26°53'32"W	170.19'	1943.08'	170.24'
331-332	S0°10'02"W	252.04'	11055.00'	252.05'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
215-334	N00°13'40"E	1925.21'
334-320	S32°17'19"E	46.93'
320-321	S20°12'07"E	156.37'
321-322	S10°04'12"W	119.59'
322-323	S6°32'10"E	131.90'
323-324	S3°25'23"E	231.22'
324-325	S8°58'24"W	199.92'
325-326	N87°17'03"W	18.54'
326-327	S3°31'50"W	20.45'
327-328	S1°18'54"W	253.80'
328-329	S12°12'55"E	154.23'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
329-330	S1°14'00"W	74.74'
330-331	S27°38'01"W	55.67'
331-332	SEE CURVE TABLE	
332-333	S0°29'09"E	196.93'
333-216	S9°32'36"W	66.29'
216-215	N88°50'18"W	33.00'

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, DUNN COUNTY ZONE, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH N ESTABLISHED FROM CSM 3040 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH N PER STATE STATUTE 82.31(2).

REVISION DATE	DATE: 11/20/2015	SCALE, FEET	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.07	
3/28/2016 NC	GRID FACTOR _____	0 100 200	COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 56	E

FILE NAME : V:\TRANS-EC\410690\C3D\RW\78820502_RWPL.DWG PLOT DATE : OCTOBER 2015 PLOT BY : CAPPEART, JAMES PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 75

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, DUNN COUNTY ZONE, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 1026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 29 ESTABLISHED FROM PREVIOUS PROJECT 7610-03-21.

EXISTING HIGHWAY RIGHT-OF-WAY FOR 630TH AVENUE ESTABLISHED FROM A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR 630TH AVENUE PER STATE STATUTE 82.31(2).

(50) DUNN ENERGY COOPERATIVE
VOL. 125, P16 DOC #196014
- PARCEL 14 (BLANKET)
VOL. 124, P612 DOC #196013
- PARCELS 14,15,17 (BLANKET)
VOL. 132, P377 DOC #205552
-PARCELS 14, 15 (BLANKET)

(52) CENTURYLINK
VOL. 241, P404 DOC #303900
- PARCEL 17 (BLANKET)

R/W CURVE TABLE				
COURSE	LCB	LC	R	L
314-401	N21°45'13"W	178.23'	1943.08'	178.29'
403-404	N4°57'42"W	385.05'	800.00'	388.87'
410-411	N16°50'48"W	477.65'	852.02	484.13'

1 1/4" IRON PIPE
Y=179811.14
X=115149.83

T 28 N R 14 W — 17 20

TOWN

SEE SHEET 4.07

MATCH LINE

P.L. STA 172+55.22

SECTION LINE

N89°14'25"E 2620.49' MON. - MON.

S89°14'25"W 400.87' MON. TO PNT 316

BERNTSEN ALUMINUM MONUMENT
Y=179845.89
X=117770.09

T 28 N R 14 W — 17 16 20 21

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
401	174+44.41	32.23'
402	176+90.00	33.15'
403	177+07.82	50.00'
404	180+72.39	50.00'
405	182+69.61	115.88'
406	185+04.06	53.21'
408	189+35.00	50.00
409	189+35.00	30.82'
410	193+95.53	34.14'
411	198+61.72'	30.80'
412	200+00.00	31.53'
413	200+00.00	40.00'

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
414	200+55.00	40.00'
415	200+55.00	32.16'
416	201+04.32	32.73'
417	201+04.71	0.00
418	201+05.58	72.63'
419	200+63.74	72.63'
420	200+44.00	40.45'
421	196+02.10	59.12'
422	194+13.01	31.55'
423	193+25.23	32.42'
424	191+00.00	105.00'
425	190+25.00	105.00'

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
426	188+61.87	60.00'
427	183+65.44	103.66'
428	182+50.00	110.00'
429	177+50.00	75.00'
430	172+50.00	65.00
314	172+69.26	31.81'
315	172+55.22	0.00'
316	172+27.19	59.86'

SW-SE 17-28-14

SE-SE 17-28-14

NW-SE 17-28-14

NE-SE 17-28-14

OF

SIXTEENTH LINE

P.L.

(15) GERALD J TRAINOR
PIN: 170142281417400001
ACRES REMAINING: 16.13

(14) ROBERT P WEBER
PIN: 170142281417400002
ACRES REMAINING: 19.26

(15) GERALD J TRAINOR
PIN: 170142281417400002
ACRES REMAINING: 2.04

(14) ROBERT P WEBER
PIN: 170142281417400001
ACRES REMAINING: 33.87

CTH Q

EXISTING R/W

R/L N18°53'14"W

R/L N32°43'10"W

SLOPE INTERCEPT

TLE FOR SLOPES

PI 172+81.98

PC 177+07.82

PT 174+38.78

PI 179+30.73

PCC 181+41.18

PI 183+62.61

PT 185+58.99

CURVE DATA CTH Q
PI STA = 172+81.98
Y = 179860.68
X = 117285.85
DELTA = 10°28'33" RT
D = 03°19'52"
T = 157.68'
L = 314.48'
R = 1720.00'
PC STA = 171+24.30
PT STA = 174+38.78
BACK TANGENT
N29°21'47"W

CURVE DATA CTH Q
PI STA = 179+30.73
Y = 180475.34
X = 117075.56
DELTA = 33°6'22" RT
D = 07°38'22"
T = 222.91'
L = 433.36'
R = 750.00'
PC STA = 177+07.82
PCC STA = 181+41.18

CURVE DATA CTH Q
PI STA = 183+62.61
Y = 180906.07
X = 117184.70
DELTA = 46°56'19" LT
D = 11°14'04"
T = 221.43'
L = 417.81'
R = 510.00'
PCC STA = 181+41.18
PT STA = 185+58.99

R/W COURSE TABLE		
LINE	BEARING	LENGTH
316-315	S89°14'25"W	65.89'
315-314	S89°14'25"W	34.83'
314-401	SEE CURVE TABLE	
401-402	N19°06'19"W	245.60'
402-403	N62°16'24"W	24.51'
403-404	SEE CURVE TABLE	
404-405	N11°14'51"W	189.94'
405-406	N4°05'28"E	203.24'
406-408	N31°55'47"W	425.16'
408-409	N57°16'50"E	19.18'
409-410	N33°07'30"W	460.92'
410-411	SEE CURVE TABLE	
411-412	N0°34'07"W	139.61'
412-413	N89°54'33"W	8.47'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
413-414	N0°05'27"E	55.00'
414-415	S89°54'33"E	7.84'
415-416	N0°34'07"W	49.32'
416-417	N89°24'20"E	32.73'
417-418	N89°24'20"E	72.63'
418-419	S0°05'27"W	41.84'
419-420	S58°33'48"W	37.75'
420-421	S8°42'20"E	422.15'
421-422	S17°31'38"E	196.39'
422-423	S33°07'30"E	71.15'
423-424	S50°34'52"E	236.64'
424-425	S32°43'10"E	75.00'
425-426	S17°17'51"E	169.22'
426-427	S32°43'10"E	530.22'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
427-428	S7°04'42"E	139.47'
428-429	S5°50'51"W	472.64'
429-430	S18°45'25"E	488.27'
430-316	S12°23'06"E	22.57'

"DETAIL" NOT TO SCALE

TLE FOR SLOPES

EXISTING R/W

R/L NO°5'27"E

PC 196+50.36

PT 199+00.77

(16) KEVIN & HEIDI BORDENAVE
LOT 1
CSM 4121
VOL. 20, P62
DOC. #604670

(17) GATES REVOCABLE TRUST
PIN: 170142281417420003
ACRES REMAINING: 36.99

CURVE DATA CTH Q
PI STA = 196+50.36
Y = 182010.57
X = 116475.10
DELTA = 32°48'37" RT
D = 06°21'58"
T = 264.97'
L = 515.38'
R = 900.00'
PC STA = 193+85.39
PT STA = 199+00.77

"DETAIL" NOT TO SCALE

(14) ROBERT P WEBER
PIN: 170142281417400001
ACRES REMAINING: 33.87

LUCAS

630TH AVE

66'

QUARTER LINE MON. - PNT 418
S89°24'20"W 1236.13'

STA 201+04.71

SEE SHEET 4.09

MATCH LINE

S00°18'45"W 2647.20'

ALUMINUM MONUMENT
Y=182493.05
X=117784.53

T 28 N R 14 W — 17 16 20 21

REVISION DATE	DATE: 11/20/2015	SCALE. FEET 0 100 200	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.08	
3/28/2016 NC	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 57	E

FILE NAME : V:\TRANS-EC\410690\C3D\RW\78820502_RWPL.DWG PLOT DATE : OCTOBER 2015 PLOT BY : CAPPEART, JAMES PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 75

SEE SHEET 4.08

SEE SHEET 4.10

MATCH LINE

MATCH LINE

50 DUNN ENERGY COOPERATIVE
VOL. 125, P16 DOC #196014
- PARCEL 14 (BLANKET)
VOL. 124, P614 DOC #196016
- PARCELS 18 (BLANKET)
VOL. 132, P377 DOC #205552
-PARCELS 14 (BLANKET)

52 CENTURYLINK
NO RECORDED EASEMENT
-PARCEL 18

R/W COURSE TABLE		
LINE	BEARING	LENGTH
510-511	S1°05'16"E	38.92'
511-512	S61°11'35"W	49.81'
512-513	S1°08'12"W	10.83'
513-514	S0°25'01"W	1064.16'
514-515	S89°32'22"E	6.90'
515-516	S0°27'38"W	50.00'
516-517	N89°32'22"W	6.86'
517-518	S0°25'01"W	641.94'
518-519	S0°12'03"W	657.94'
519-520	S0°34'07"E	89.91'
520-521	S62°07'20"E	65.21'
521-500	S0°05'27"W	23.81'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
500-417	S89°24'20"W	90.33'
417-416	S89°24'20"W	32.73'
416-501	N0°34'07"W	145.28'
501-502	N0°12'03"E	658.51'
502-503	N0°25'01"E	667.12'
503-504	N89°32'22"W	7.12'
504-505	N0°27'38"E	10.00'
505-506	S89°32'22"E	7.11'
506-507	N0°25'01"E	1079.52'
507-508	N1°08'12"E	70.42'
508-509	N88°42'29"E	32.93'
509-510	N88°42'29"E	74.81'

TOWN

SW-NE
17-28-14

17
GATES REVOCABLE TRUST

STA 201+04.71 QUARTER LINE

630TH AVE

S89°24'20"W
1218.43' MON. - 500

N01°18'04"E 2647.13'
MON. TO MON.

14
ROBERT P WEBER
PIN: 17014228141714000001
ACRES REMAINING: 38.14

SE-NE
17-28-14

LOT 1
CSM 203
VOL. 1 P203
DOC. #329564

OF

SIXTEENTH LINE

P.L.

R/L N0°5'27"E

R/L N0°27'38"E

SECTION LINE

SLOPE INTERCEPT

EXISTING R/W

TLE FOR SLOPES

TLE FOR DRIVEWAY

TLE FOR DRIVEWAY & SLOPES

CTH Q

66'

HSE

VENT

OHP

CENTURYLINK PEDESTAL

52 CENTURYLINK
VOL. 938, P1 DOC #464942
& VOL. 1134, P68 DOC #481902
66' WIDE

50 DUNN ENERGY COOPERATIVE
VOL. 1134, P68
DOC #481902
60' WIDE

18
RANDALL A &
DENISE M KIESOW

NE-NE
17-28-14

19
PASE &
CHUEYI LOR

NW-NE
17-28-14

"DETAIL"
NOT TO SCALE

ALUMINUM MONUMENT
Y=185081.83
X=115212.72

1245.75' MON. - PNT 508

2586.37' MON. - MON.

PI 210+25.61
Y = 183400.38
X = 116477.30

PI 227+32.74
Y = 185107.45
X = 116491.02

640TH AVE

1232.87' MON. - 510

S88°42'29"W

ALUMINUM MONUMENT
Y=182493.05
X=117784.53

RAILROAD SPIKE
Y=185140.14
X=117798.44

LUCAS

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
500	201+05.79	90.33'
501	202+49.58	34.40'
502	209+08.10	33.13'
503	215+75.00	32.88'
504	215+75.00	40.00'
505	215+85.00	40.00'
506	215+85.00	32.89'
507	226+64.52	33.71'
508	227+35.00	32.91'
509	227+39.05	74.75'
510		

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
511	226+99.33	75.87'
512	226+74.98	32.41'
514	216+00.00	32.80'
515	216+00.00	40.00'
516	215+50.00	40.00'
517	215+50.00	33.14'
518	209+07.84	32.87'
519	202+49.90	31.60'
520	201+60.00	32.64'
521	201+29.60	90.33'
416	201+04.32	32.73'
417	201+04.71	0.00

NOTES:

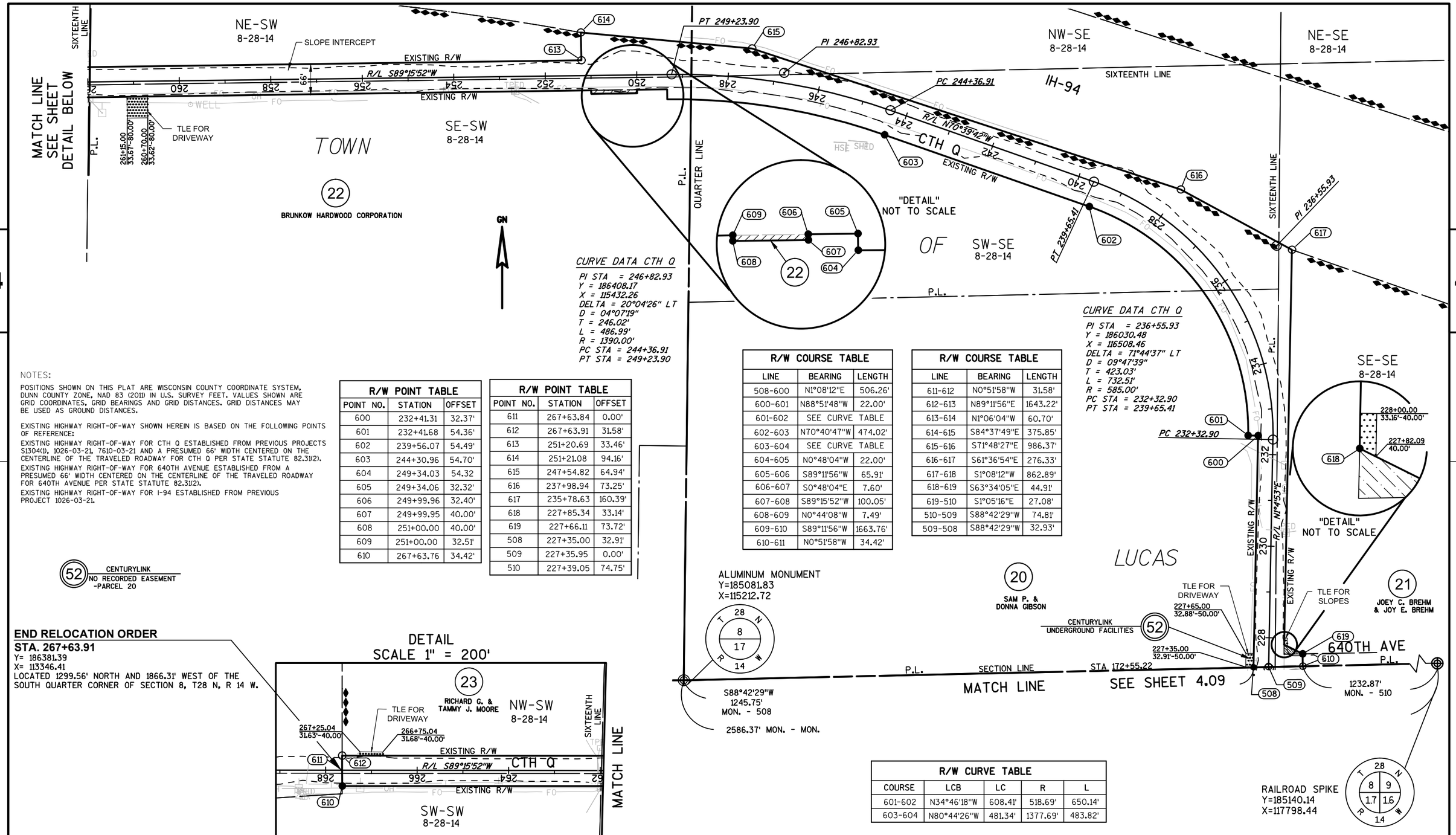
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, DUNN COUNTY ZONE, NAD 83(2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 1026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR 630TH AVENUE ESTABLISHED FROM A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR 630TH AVENUE PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR 640TH AVENUE ESTABLISHED FROM A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR 640TH AVENUE PER STATE STATUTE 82.31(2).

REVISION DATE 3/28/2016 NC	DATE: 11/20/2015	SCALE: FEET 0 100 200	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02	PLAT SHEET 4.09
	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72	PS&E SHEET 58 E



CURVE DATA CTH Q

PI STA = 246+82.93
Y = 186408.17
X = 115432.26
DELTA = 20°04'26" LT
D = 04°07'19"
T = 246.02'
L = 486.99'
R = 1390.00'
PC STA = 244+36.91
PT STA = 249+23.90

CURVE DATA CTH Q

PI STA = 236+55.93
Y = 186030.48
X = 116508.46
DELTA = 71°44'37" LT
D = 09°47'39"
T = 423.03'
L = 732.51'
R = 585.00'
PC STA = 232+32.90
PT STA = 239+65.41

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATE SYSTEM, DUNN COUNTY ZONE, NAD 83 (2011) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR CTH Q ESTABLISHED FROM PREVIOUS PROJECTS S1304(1), 1026-03-21, 7610-03-21 AND A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR CTH Q PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR 640TH AVENUE ESTABLISHED FROM A PRESUMED 66' WIDTH CENTERED ON THE CENTERLINE OF THE TRAVELED ROADWAY FOR 640TH AVENUE PER STATE STATUTE 82.31(2).

EXISTING HIGHWAY RIGHT-OF-WAY FOR I-94 ESTABLISHED FROM PREVIOUS PROJECT 1026-03-21.

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
600	232+41.31	32.37'
601	232+41.68	54.36'
602	239+56.07	54.49'
603	244+30.96	54.70'
604	249+34.03	54.32
605	249+34.06	32.32'
606	249+99.96	32.40'
607	249+99.95	40.00'
608	251+00.00	40.00'
609	251+00.00	32.51'
610	267+63.76	34.42'

R/W POINT TABLE		
POINT NO.	STATION	OFFSET
611	267+63.84	0.00'
612	267+63.91	31.58'
613	251+20.69	33.46'
614	251+21.08	94.16'
615	247+54.82	64.94'
616	237+98.94	73.25'
617	235+78.63	160.39'
618	227+85.34	33.14'
619	227+66.11	73.72'
508	227+35.00	32.91'
509	227+35.95	0.00'
510	227+39.05	74.75'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
508-600	N1°08'12"E	506.26'
600-601	N88°51'48"W	22.00'
601-602	SEE CURVE TABLE	
602-603	N70°40'47"W	474.02'
603-604	SEE CURVE TABLE	
604-605	N0°48'04"W	22.00'
605-606	S89°11'56"W	65.91'
606-607	S0°48'04"E	7.60'
607-608	S89°15'52"W	100.05'
608-609	N0°44'08"W	7.49'
609-610	S89°11'56"W	1663.76'
610-611	N0°51'58"W	34.42'

R/W COURSE TABLE		
LINE	BEARING	LENGTH
611-612	N0°51'58"W	31.58'
612-613	N89°11'56"E	1643.22'
613-614	N1°06'04"W	60.70'
614-615	S84°37'49"E	375.85'
615-616	S71°48'27"E	986.37'
616-617	S61°36'54"E	276.33'
617-618	S1°08'12"W	862.89'
618-619	S63°34'05"E	44.91'
619-510	S1°05'16"E	27.08'
510-509	S88°42'29"W	74.81'
509-508	S88°42'29"W	32.93'

R/W CURVE TABLE				
COURSE	LCB	LC	R	L
601-602	N34°46'18"W	608.41'	518.69'	650.14'
603-604	N80°44'26"W	481.34'	1377.69'	483.82'

52 CENTURYLINK
NO RECORDED EASEMENT
-PARCEL 20

END RELOCATION ORDER
STA. 267+63.91
Y= 186381.39
X= 113346.41
LOCATED 1299.56' NORTH AND 1866.31' WEST OF THE SOUTH QUARTER CORNER OF SECTION 8, T28 N, R 14 W.

DETAIL
SCALE 1" = 200'

REVISION DATE 3/28/2016 NC	DATE: 11/20/2015	SCALE, FEET 0 100 200	HWY: CTH Q	STATE R/W PROJECT NUMBER 7882-05-02
	GRID FACTOR _____		COUNTY: DUNN	CONSTRUCTION PROJECT NUMBER 7882-05-72

PLAT SHEET 4.10
PS&E SHEET 59 E

PI STA = 100+00.00
Y = 172744.61
X = 117958.14

STA 101+80
CONSTRUCT CE
(GRAVEL)
(EXISTING 18" CMCP
TO REMAIN)

CP*13
NW QUAD OF CTH Q & N5575,
2' BEHIND GUARDRAIL
3/4" REBAR
Y 172899.78
X 117819.42

CONSTRUCTION LIMITS
STA 19+16.10
MATCH EXISTING

PI STA = 19+02.34
Y = 173243.57
X = 117689.61

PI STA = 20+00.00
Y = 173242.15
X = 117787.26

CP*12
170' S/O ℄ DRIVEWAY N5677,
3' W/O WEST EOB CTH Q
3/4" REBAR
Y 17404.63
X 117750.88

PI STA = 115+19.59
Y = 174219.43
X = 117761.25

N

EXISTING GUARDRAIL
TO REMAIN

PI: 102+70.03

PT: 104+23.58

61ST AVENUE

S89°08'58"E

BP: 19+02.34

AT&T

R/W

WETLANDS

CP*13

PC: 101+05.79

CP 13

102

104

106

108

110

112

114

CP 12

EP: 20+00.00

CTH Q

N1°31'29"W

N37°13'36"W

DUNN ENERGY/
AT&T

TEMPORARY EASEMENT
(TLE)

SLOPE INTERCEPT

CP*12

WETLANDS

TEMPORARY EASEMENT
(TLE)

AT&T

PI: 115+19.59

STA 115+28
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

AT&T

WETLANDS

DUNN ENERGY

SLOPE INTERCEPT

R/W

SOUTH BRANCH GILBERT CREEK

WETLANDS

TEMPORARY EASEMENT
(TLE)

PI STA = 102+70.03
Y = 172959.62
X = 117794.78
DELTA = 35°42'08"
D = 11°14'04"
T = 164.24'
L = 317.79'
R = 510.00'
PC STA = 101+05.79
PT STA = 104+23.58
SE = 6%
LR = 153'

STA 101+88.0 - STA 103+97.3, LT
STEEL PLATE BEAMGUARD REQ'D

STA 100+76.1 - STA 104+07.3, RT
MGS GUARDRAIL REQ'D

STA 106+57.8 - STA 108+23.4, RT
STA 106+95.7 - STA 108+23.9, LT
STA 108+97.5 - STA 110+25.6, RT
STA 108+97.5 - STA 110+63.2, LT
REMOVE AND REINSTALL GUARDRAIL REQ'D

STA 110+54
CONSTRUCT PE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 101+35 - STA 102+92, RT
STA 101+88 - STA 103+53, LT
REMOVING GUARDRAIL REQ'D

BEGIN PROJECT
STA 100+47.79
MATCH EXISTING
SAWCUT REQ'D
Y 172782.66
X 117929.23

STH 29

FINISHED PROFILE

EXISTING PROFILE

STA 102+44.93
EXISTING TRIPLE CELL
BOX CULVERT TO REMAIN

STA 108+60.48
EXISTING STRUCTURE B-17-166
TWO SPAN CONCRETE HAUNCHED
SLAB BRIDGE TO REMAIN

100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115
939.03	938.46	937.48	935.81	933.84	931.82	930.25	929.34	929.04	928.97	929.00	929.27	929.92	930.65	931.31	931.92
	938.46	937.63	936.14	934.17	932.15	930.59	929.67	929.38	929.30	929.33	929.61	930.25	930.99	931.64	932.14
932.21	932.26	932.27	932.09	931.88	931.66	931.40	931.14	930.90	930.65	930.38	930.19	929.92	929.72	929.86	
932.24	932.26	932.27	932.26	932.21	931.99	931.73	931.47	931.23	930.98	930.72	930.53	930.25	930.06	930.19	

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 60	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\050100_PP.DWG
LAYOUT NAME - 050101_PP

PLOT DATE : 7/18/2016 2:57 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

STA 116+00 - STA 120+50 LT
CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

PI: 115+19.59

PC: 117+72.92

PI: 120+40.03

PT: 123+07.03

TEMPORARY EASEMENT (TLE)

LUCAS CEMETERY

DUNN ENERGY/ AT&T

SLOPE INTERCEPT

STA 123+18
CONSTRUCT PE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 125+75
CONSTRUCT FE
(GRAVEL)

STA 125+09
REMOVING OLD STRUCTURE

STA 125+93
REMOVING SMALL PIPE CULVERTS

N

CP 16

R/W

TEMPORARY EASEMENT (TLE)

WETLANDS

BM*12

BM*11

BM 1572

CP 5

CP 17

CP 11

116 118 120 122 CTH Q 124 126 128 130

N2°07'33"W

N0°37'52"E

N0°48'29"E

TEMPORARY EASEMENT (TLE)

SLOPE INTERCEPT

TEMPORARY EASEMENT (TLE)

WETLANDS

PI: 125+09.30

TRIBUTARY TO GILBERT CREEK

CP*11

PERMANENT EASEMENT (PLE)

TEMPORARY EASEMENT (TLE)

R/W

STA 124+78 - STA 125+29, RT
STA 124+89 - STA 125+41, LT
REMOVING GUARDRAIL REQ'D

PI STA = 115+19.59
Y = 174219.43
X = 117761.25

STA 119+34
CONSTRUCT PE
(GRAVEL)

PI STA = 120+40.03
Y = 174739.51
X = 117741.94
DELTA = 2°45'25"
D = 0°30'58"
T = 267.10'
L = 534.10'
R = 11100.00'
PC STA = 117+72.92
PT STA = 123+07.03
SE = NC
LR = N/A

STA 122+79
CONSTRUCT FE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

CP*11
55' N/O ℄ DECK (SOUTH BRIDGE),
3' E/O EAST EOB CTH Q
3/4" REBAR
Y 175268.93
X 117762.62

PI STA = 125+09.30
Y = 175208.85
X = 117747.11

STA 127+91
CONSTRUCT FE
(GRAVEL)

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
11	125+86.86	60D SPIKE IN PPOL NW QUAD	924.67'
	30.27' LT	OF BRIDGE.	
12	123+35.89	60D SPIKE IN PPOL WEST SIDE	925.26'
	27.82' LT	OF CTH Q, 150'± S OF BRIDGE.	

FINISHED PROFILE

EXISTING PROFILE

STA 125+04
1-48"x70' CPCS
2-APRON ENDWALLS REQ'D

STA 125+16
1-48"x70' CPCS
2-APRON ENDWALLS REQ'D

STA 125+93
1-36"x64' CPCPE
2-APRON ENDWALLS REQ'D

900 910 920 930 940 950 960 970

115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130

929.86	930.19	930.13	930.46	930.37	930.70	930.54	930.87	930.74	931.08	931.11	931.44	931.13	931.47	931.00	931.34	930.76	931.09	930.50	930.83	930.35	930.69	930.18	930.51	930.03	930.37	929.54	929.87	929.11	929.45	928.70	929.03	928.28	928.61	928.11	928.44	928.00	928.34	927.83	928.16	927.73	928.07	927.86	928.19	927.97	928.30	928.05	928.38	927.98	928.32	927.98	928.31	927.97	928.31	928.04	928.37	928.13	928.47	928.13	928.46	927.98	928.31

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 61	E

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
6	133+70.99	COUNTY GPS MONUMENT "LUCAS"	927.65'
	20.92' RT	NE SIDE OF N BRANCH GILBERT CREEK	

CP*10
60' W/O ℄ DECK,
4' W/O WEST EOB CTH Q
3/4" REBAR
Y 176086.89
X 117742.46

STA 140+30
CONSTRUCT FE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

PI STA = 140+12.52
Y = 176711.93
X = 117768.31
DELTA = 1°50'18"
D = 0°30'58"
T = 178.08'
L = 356.13'
R = 11100.00'
PC STA = 138+34.44
PT STA = 141+90.57
SE = NC
LR = N/A

STA 144+00 - STA 148+00 RT
STA 144+50 - STA 146+50 LT
CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

N

TEMPORARY EASEMENT (TLE)
NORTH BRANCH GILBERT CREEK
TEMPORARY EASEMENT (TLE)
CP*10
R/W
DUNN ENERGY/ AT&T
WETLANDS
SLOPE INTERCEPT
PC: 138+34.44
AT&T
PT: 141+90.57
DUNN ENERGY/ AT&T
R/W
PI: 145+00.73
130
132
134
136
138
140
142
144
N0°48'29"E
BM 3635
CTH Q
EP: 10+00.00
PI: 9+81.26
N89°41'07"W
N1°01'49"W
BM*6
TEMPORARY EASEMENT (TLE)
R/W
SLOPE INTERCEPT
R/W
WETLANDS
PC: 7+64.41
PI: 140+12.52
R/W
SLOPE INTERCEPT
AT&T
TEMPORARY EASEMENT (TLE)
PI: 8+78.84
CTH Q
TEMPORARY EASEMENT (TLE)

STA 130+58
CONSTRUCT PE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 131+53.3 - STA 133+06.5, RT
STA 131+90.6 - STA 133+06.3, LT
STA 133+36.7 - STA 134+89.9, LT
STA 133+37.0 - STA 134+52.6, RT
MGS GUARDRAIL REQ'D

STA 138+27 - STA 139+17, RT
STA 141+00 - STA 145+34, LT
REMOVING FENCE

CONSTRUCTION LIMITS
STA 7+60.00
MATCH EXISTING
SAWCUT REQ'D

STA 144+12
CONSTRUCT PE
(ASPHALT)
REMOVING SMALL PIPE CULVERTS

5

5

REHAB
RECON
STA 137+00.00
EL 929.13
VCL = 450.00
K = 112.73
VPC STA 143+50.00
VPC EL 939.46
FINISHED PROFILE
EXISTING ROCK PROFILE
0.21%
4.22%
EXISTING PROFILE
VPC STA 139+00.00
VPC EL 929.54
VPI STA 141+25.00
VPI EL 930.01
VPT STA 143+50.00
VPT EL 939.46
VCL = 600.00
K = 133.26
STA 133+21.34
EXISTING STRUCTURE B-17-084
TRIPLE CELL BOX CULVERT
TO REMAIN

970 960 950 940 930 920 910 900

130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145

| | | |

PI STA = 149+69.20
Y = 177668.54
X = 117755.56
DELTA = 1°46'42"
D = 0°30'58"
T = 172.27'
L = 344.52'
R = 11100.00'
PC STA = 147+96.93
PT STA = 151+41.45
SE = NC
LR = N/A

STA 146+65
CONSTRUCT FE
(GRAVEL)

SLOPE INTERCEPT

R/W

PC: 147+96.93

AT&T

PI: 145+00.73

PC: 10+25.11

BP: 10+00.00

N0°29'09"W

146

148

150

CP 9

CP#9

TEMPORARY EASEMENT
(TLE)

R/W

PI STA = 145+00.00
Y = 177199.36
X = 117759.55

CP#9
BETWEEN DRIVEWAYS N5934 & N5936
3/4" REBAR
Y 174041.63
X 117750.88

STA 149+57
CONSTRUCT PE
(ASPHALT)
18" CPCPE REQ'D

STA 150+00
CONSTRUCT PE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 150+48
STA 150+60
REMOVING SMALL PIPE CULVERTS

N3°13'55"W

11+96.01

R/W

CTH N

N53°37'31"W

CONSTRUCTION LIMITS
STA 12+25.00
MATCH EXISTING
SAWCUT REQ'D

R/W

DUNN ENERGY

PI: 11+13.43

PI: 149+69.20

PT: 151+41.45

R/W

152

CTH Q

N1°17'33"E

PC: 153+24.24

DUNN ENERGY

SLOPE INTERCEPT

R/W

SLOPE INTERCEPT

STA 154+58
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE STRUCTURE

STA 150+64 - STA 151+70, LT
STA 151+54 - STA 152+82, LT
STA 158+99 - STA 165+09 LT
REMOVING FENCE

PI: 155+83.92

154

156

PI STA = 155+83.92
Y = 178283.13
X = 117769.43
DELTA = 2°40'49"
D = 0°30'58"
T = 259.68'
L = 519.26'
R = 11100.00'
PC STA = 153+24.24
PT STA = 158+43.50
SE = NC
LR = N/A

STA 156+18
CONSTRUCT PE
(GRAVEL)

STA 156+36
REMOVING OLD STRUCTURE

STA 159+00 - STA 189+00 LT
CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

TEMPORARY EASEMENT
(TLE)

R/W

PT: 158+43.50

PC: 159+40.77

158

CP 31

N3°58'22"E

160

AT&T

R/W

DUNN ENERGY

N

5

5

VPI STA 146+50.00
VPI EL 952.06

VPT STA 149+50.00
VPT EL 951.15

VCL = 150.00
K = 145.07

RECON

REHAB

STA 152+00.00
EL 951.69

EXISTING ROCK PROFILE
4.22%

EXISTING PROFILE

FINISHED PROFILE

-0.30%

0.73%

VCL = 600.00
K = 133.26

VPC STA 150+00.00
VPC EL 951.00

VPI STA 150+75.00
VPI EL 950.77

VPT STA 151+50.00
VPT EL 951.32

STA 151+10.82
1-64"x43"x70' PIPE ARCH CS
2-APRON ENDWALLS REQ'D
SKEW 12° RHF

STA 151+20.47
1-64"x43"x68' PIPE ARCH CS
2-APRON ENDWALLS REQ'D
SKEW 12° RHF

1000 990 980 970 960 950 940 930 920

145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160

947.32 944.92
949.22 946.36
950.33 947.62
951.19 948.68
951.24 949.56
951.15 950.26
950.94 950.76
950.98 951.08
951.13 951.21
951.11 951.15
950.85 951.00
950.65 950.94
950.75 951.04
950.91 951.32
951.31 951.69
951.78 952.15
952.42 952.80
953.27 953.65
954.27 954.65
955.73 956.10
957.73 958.10
960.56 960.94
963.62 963.99
967.22 967.59
971.08 971.45
975.38 975.76
979.85 980.22
984.46 984.84
988.99 989.36
993.34 993.71
997.13 997.50

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 63	E

PI STA = 161+08.71
Y = 178806.76
X = 117805.79
DELTA = 23°42'41"
D = 7°09'43"
T = 167.94'
L = 331.08'
R = 800.00'
PC STA = 159+40.77
PT STA = 162+71.85
SE = 6.0%
LR = 153'

PI STA = 164+84.55
Y = 179165.04
X = 117677.24
DELTA = 9°37'27"
D = 2°59'59"
T = 160.79'
L = 320.83'
R = 1910.00'
PC STA = 163+23.76
PT STA = 166+44.58
SE = 5.0%
LR = 128'

STA 159+00 - STA 189+00 LT
CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

PC: 159+40.77
PT: 162+71.85
PC: 163+23.76
PT: 166+44.58
PC: 171+24.30
PI: 172+81.98
PT: 174+38.78
TEMPORARY EASEMENT (TLE)
R/W
SLOPE INTERCEPT
CTH Q
N29°21'47"W
N38°44'20"W
CP 20
CP 21
CP 22
CP 23
CP 24
BM 1500
AT&T
BM#5
DUNN ENERGY
STA 161+00
CONSTRUCT PE
(GRAVEL)
PI: 161+08.71
PI: 164+84.55
SLOPE INTERCEPT
TEMPORARY EASEMENT (TLE)
TEMPORARY EASEMENT (TLE)
STA 167+14
REMOVING SMALL PIPE CULVERTS
STA 169+00
CONSTRUCT FE
(GRAVEL)
STA 165+58 - STA 167+00, LT
STA 172+00 - STA 172+17, RT
STA 172+77 - STA 193+18, RT
REMOVING FENCE

PI STA = 172+81.98
Y = 179860.68
X = 117285.85
DELTA = 10°28'33"
D = 3°19'52"
T = 157.68'
L = 314.48'
R = 1720.00'
PC STA = 171+24.30
PT STA = 174+38.78
SE = 5.3%
LR = 135'

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
5	160+71.71	RR SPIKE IN E FACE PPOL	999.39'
	44.20' RT	E OF CTH Q & S OF DWY N6020	

REHAB
RECON
6.89%
FINISHED PROFILE
EXISTING PROFILE
VPI STA 175+00.00
VPI EL 1050.03
VPC STA 174+00.00
VPC EL 1043.14
VCL = 200.00
K = 125.87

997.13	1000.51	1002.90	1004.70	1005.72	1006.09	1006.09	1006.04	1005.92	1005.64	1005.34	1005.05	1004.85	1004.97	1005.21	1005.82	1006.57	1007.74	1009.31	1011.10	1013.29	1015.70	1018.46	1021.35	1024.91	1028.53	1032.26	1035.85	1039.31	1042.77	1046.00	1048.74
997.50	1000.89	1003.27	1005.07	1006.09	1006.46	1006.41	1006.30	1006.02	1005.71	1005.43	1005.22	1005.34	1005.59	1006.20	1006.94	1008.12	1009.68	1011.48	1013.66	1016.07	1018.83	1021.72	1025.29	1028.90	1032.63	1036.23	1039.68	1043.14	1046.49	1049.64

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 64	E

TEMPORARY EASEMENT (TLE)

MAPLE STRIP DEVELOPMENT

PC: 177+07.82

PI: 179+30.74

STA 181+13 - STA 185+90, RT
REMOVING GUARDRAIL

STA 176+95 - STA 182+94, LT
REMOVING FENCE

STA 183+58
STA 187+19
REMOVING SMALL PIPE CULVERTS

PI STA = 183+62.61
Y = 180906.07
X = 117184.70
DELTA = 46°56'19"
D = 11°14'04"
T = 221.43'
L = 417.81'
R = 510.00'
PC STA = 181+41.18
PT STA = 185+58.99
SE = 6.0%
LR = 153'

STA 159+00 - STA 189+00 LT
CONCRETE CURB & GUTTER
6-INCH SLOPED 36-INCH TYPE D

SLOPE INTERCEPT

R/W

PRC: 181+41.18

PT: 185+58.99

N18°53'14"W

N32°43'10"W

CP 24

CP 25

CP 26

CP 27

CP 28

CP 29

CP 30

CP 72

CP 73

CTH Q

PROPOSED R/W

PI STA = 179+30.74
Y = 180475.34
X = 117075.56
DELTA = 33°06'22"
D = 7°38'22"
T = 222.92'
L = 433.36'
R = 750.00'
PC STA = 177+07.82
PT STA = 181+41.18
SE = 6.0%
LR = 153'

PI: 183+62.61

STA 181+00.0 - STA 191+56.3, RT
MGS GUARDRAIL REQ'D

VPI STA 175+00.00
VPI EL 1050.03

VPT STA 176+00.00
VPT EL 1055.34

VPC STA 178+50.00
VPC EL 1068.60

VPI STA 180+00.00
VPI EL 1076.55

VPC STA 181+75.00
VPC EL 1093.86

VPT STA 181+50.00
VPT EL 1091.39

VPI STA 182+50.00
VPI EL 1101.28

VPT STA 183+25.00
VPT EL 1107.54

VPC STA 186+50.00
VPC EL 1134.67

VPI STA 187+50.00
VPI EL 1143.02

VPT STA 188+50.00
VPT EL 1147.89

VPC STA 189+00.00
VPC EL 1150.32

EXISTING ROCK PROFILE

FINISHED PROFILE

EXISTING PROFILE

5.30%

9.89%

8.35%

4.87%

VCL = 200.00
K = 125.87

VCL = 300.00
K = 65.43

VCL = 150.00
K = 97.36

VCL = 200.00
K = 57.44

VCL = 250.00
K = 68.38

STA 189+10
1-24"x58' CPRC CL. III
1-INLET MEDIAN 1 GRATE
1-INLET COVER TYPE MS
1-APRON ENDWALL REQ'D

1048.74	1051.35	1053.94	1056.58	1059.39	1062.22	1065.16	1068.18	1071.22	1074.62	1078.13	1081.97	1086.51	1091.79	1096.86	1100.87	1104.51	1108.32	1112.56	1117.45	1121.68	1125.82	1130.07	1134.35	1138.21	1141.98	1144.83	1147.61	1150.18	1152.74	1155.89
1049.64	1052.59	1055.34	1057.99	1060.64	1063.29	1065.95	1068.60	1071.44	1074.67	1078.27	1082.26	1086.63	1091.39	1096.30	1100.99	1105.42	1109.63	1113.80	1117.97	1122.15	1126.32	1130.50	1134.67	1138.63	1142.15	1145.24	1147.89	1150.32	1152.94	1155.92

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 65	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\050100_PP.DWG
LAYOUT NAME - 050106_PP

PLOT DATE : 7/18/2016 2:58 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
4	201+24.85	RR SPIKE IN PPOL, NE QUAD OF	1190.27'
	31.11' RT	INTERSECTION AT CTH Q & 630TH	

STA 195+55
CONSTRUCT FE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

PI: 196+50.36

STA 197+54
CONSTRUCT PE
(GRAVEL)

CP*8
35' N/O ℄ 630TH STREET,
20' W/O WEST EOB CTH Q
3/4" REBAR
Y 182506.93
X 116444.45

STA 201+00
CONSTRUCT CE
(ASPHALT)
18" CPRC CL. III REQ'D
REMOVING SMALL PIPE CULVERTS

STA 202+12
CONSTRUCT PE
(ASPHALT)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

N

DUNN ENERGY

TEMPORARY EASEMENT (TLE)

CENTURYLINK

SLOPE INTERCEPT

PT: 199+00.77

PC: 193+85.39

R/W

QUARRY ENTRANCE

CTH Q

CP*8

CP 8

TEMPORARY EASEMENT (TLE)

CENTURYLINK

BP: 25+00.00

BM 1556

BM#4

N32°43'10"W

N0°05'27"E

S89°20'27"E

87.28

EP: 26+25.00

R/W

R/W (CLEAR TO R/W LIMITS)

DUNN ENERGY

SLOPE INTERCEPT

TEMPORARY EASEMENT (TLE)

CP 30

PI STA = 196+50.36
Y = 182010.57
X = 116475.10
DELTA = 32°48'37"
D = 6°21'58"
T = 264.97'
L = 515.38'
R = 900.00'
PC STA = 193+85.39
PT STA = 199+00.77
SE = 6.0%
LR = 153'

CONSTRUCTION LIMITS
STA 26+22.70
MATCH EXISTING
SAWCUT REQ'D

630TH AVENUE

STA 181+00.0 - STA 191+56.3, RT
MGS GUARDRAIL REQ'D

STA 194+47 - STA 198+60, RT
REMOVING FENCE

STA 200+28
REMOVING SMALL PIPE CULVERTS

RECON

REHAB

VCL = 250.00

K = 68.38

STA 192+00.00
EL 1171.32

8.52%

VPI STA 190+25.00
VPI EL 1156.40

VPT STA 191+50.00
VPT EL 1167.06

FINISHED PROFILE

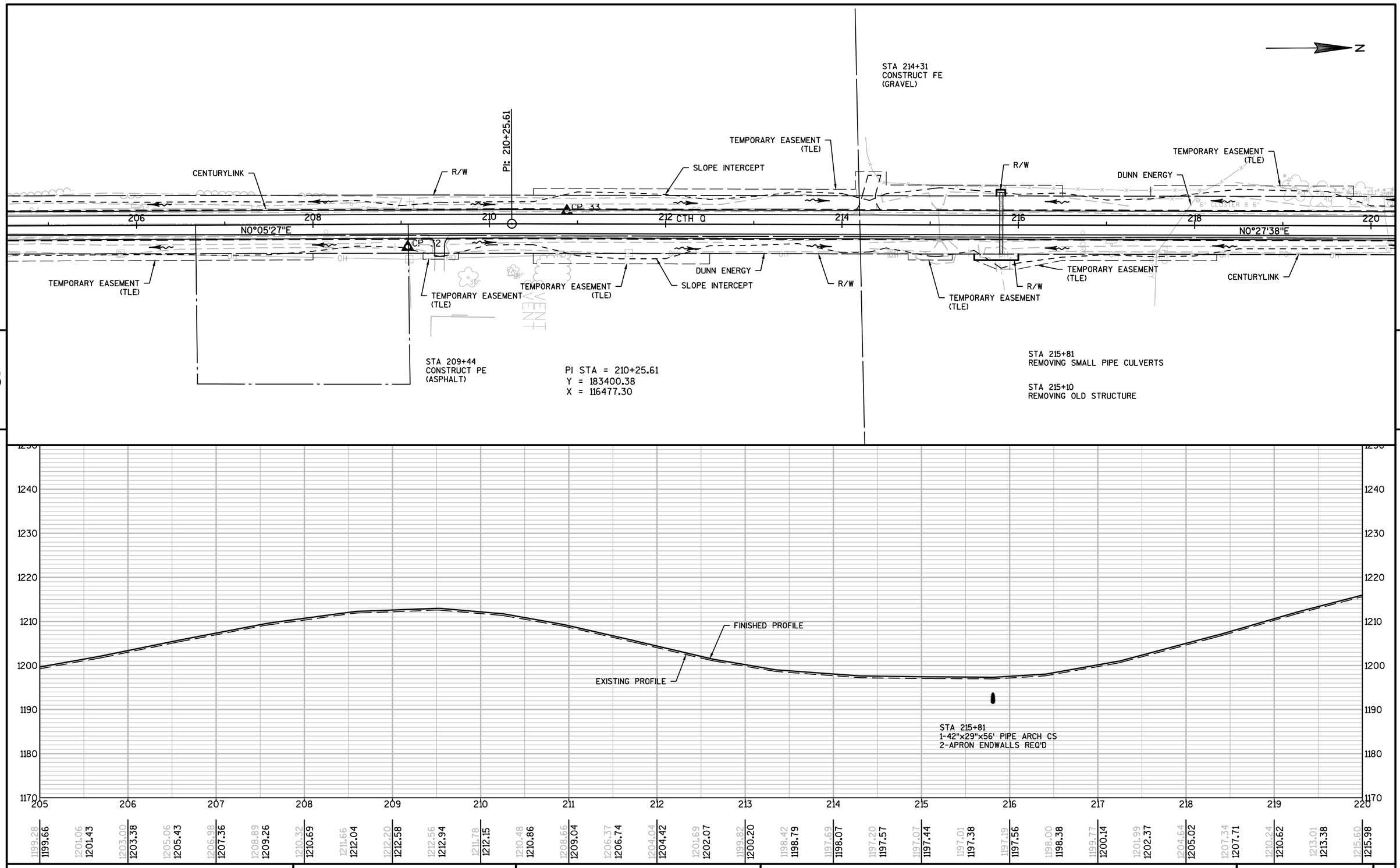
EXISTING PROFILE

STA 200+28
1-24"x58' CPCPE
2-APRON ENDWALLS REQ'D

1220 1210 1200 1190 1180 1170 1160 1150 1140

190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205

| | | |



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 67 E

STA 220+83
CONSTRUCT PE
(GRAVEL)

PI STA = 227+32.74
Y = 185107.45
X = 116491.03

STA 227+49
CONSTRUCT FE
(GRAVEL)

CP*6
55' S/O ℄ DRIVEWAY N6510,
5' W/O WEST EOB CTH Q
3/4" REBAR
Y 185400.97
X 116480.49

PI STA = 236+55.93
Y = 186030.48
X = 116508.46
DELTA = 71°44'37"
D = 9°47'39"
T = 423.03'
L = 732.51'
R = 585.00'
PC STA = 232+32.90
PT STA = 239+65.41
SE = 6.0%
LR = 153'

N

TEMPORARY EASEMENT (TLE)
SLOPE INTERCEPT
CENTURYLINK
PI: 227+32.74
TEMPORARY EASEMENT (TLE)
R/W
CP*6
CENTURYLINK
PC: 232+32.90
DUNN ENERGY
WINDSTREAM
220
222
N0°27'38"E
224
CTH Q
226
CP 7
228
BP: 30+00.00
CP 6
230
N1°04'55"E
232
234
DUNN ENERGY
TEMPORARY EASEMENT (TLE)
SLOPE INTERCEPT
CP*7
TEMPORARY EASEMENT (TLE)
BM*3
R/W
WINDSTREAM
CM 13122
N88°54'44"E
TEMPORARY EASEMENT (TLE)
R/W
R/W
DUNN ENERGY
SLOPE INTERCEPT
EP: 31+25.00
640TH AVENUE

STA 224+84
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D

CP*7
NORTH EDGE OF DRIVEWAY N6470,
5' E/O EAST EOB CTH Q
3/4" REBAR
Y 184878.27
X 116506.38

CONSTRUCTION LIMITS
STA 31+25.00
MATCH EXISTING
SAWCUT REQ'D

STA 230+81
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
3	227+00.35	RR SPIKE IN PPOL, SE QUAD OF	1224.17'
	33.12' RT	INTERSECTION AT CTH Q & 640TH	

1250
1240
1230
1220
1210
1200
1190
1180

FINISHED PROFILE
EXISTING PROFILE

220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235

| | | |

PI STA = 236+55.93
Y = 186030.48
X = 116508.46
DELTA = 71°44'37"
D = 9°47'39"
T = 423.03'
L = 732.51'
R = 585.00'
PC STA = 232+32.90
PT STA = 239+65.41
SE = 6.0%
LR = 153'

STA 243+97
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

PI STA = 246+82.93
Y = 186408.16
X = 115432.26
DELTA = 20°04'26"
D = 4°07'19"
T = 246.02'
L = 486.99'
R = 1390.00'
PC STA = 244+36.91
PT STA = 249+23.90
SE = 5.7%
LR = 146'

STA 247+63
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 239+86
REMOVING SMALL PIPE CULVERTS

WINDSTREAM
SLOPE INTERCEPT
R/W
LEVEL 3
CTH Q
N70°39'42"W
CP 34
CP
PT: 239+65.41
PC: 244+36.91
PT: 249+23.90
PI: 236+55.93
PI: 246+82.93
30" CMCP
36" CMCP
N

FINISHED PROFILE
EXISTING PROFILE

STA 239+86
1-30"x66' CPCPE
2-APRON ENDWALLS REQ'D

235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250
1210.17	1210.55	1209.10	1209.47	1207.85	1208.23	1206.40	1206.78	1204.84	1205.21	1203.13	1203.51	1201.65	1202.02	1200.37	1200.74	1199.56	1199.94	1199.05	1199.43	1198.66	1199.04	1198.91	1199.29	1199.51	1199.89	1200.47	1200.85	1201.78	1202.16	1203.33	1203.71	1204.89	1205.27	1206.49	1206.86	1207.89	1208.27	1209.23	1209.61	1209.96	1210.34	1210.39	1210.76	1210.56	1210.94	1210.47	1210.84	1210.07	1210.44	1209.37	1209.74	1208.25	1208.63	1207.12	1207.50	1205.84	1206.21	1204.71	1205.09	1203.94	1204.32

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 69	E

STA 250+35
REMOVING SMALL PIPE CULVERTS

STA 261+00
CONSTRUCT FE
(GRAVEL)

CP*4
STRAIGHT NORTH OF PPOL 40,
5' N/O NORTH EOB CTH Q
3/4" REBAR
Y 186404.34
X 113910.86

N

TEMPORARY EASEMENT
(TLE)

DUNN ENERGY
R/W
CENTURYLINK
WINDSTREAM
BM*2
BM 12655
R/W
SLOPE INTERCEPT
DUNN ENERGY
CENTURYLINK
WINDSTREAM

250 252 254 256 CTH Q 258 260 262 264

CP 5
CP 19
CP 18 S89°15'52"W
CP 4

CP*5
R/W
SLOPE INTERCEPT
CP*4

CP*5
IN LINE WITH N/S 36" CULVERT,
6' W/O NORTH EOB CTH Q
3/4" REBAR
Y 186425.14
X 115075.09

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	252+60.90	RR SPIKE IN PPOL, S SIDE CTH Q	1205.24'
	30.45' LT	1ST PPOL W OF DWY N6567	

FINISHED PROFILE
EXISTING PROFILE

STA 250+35
1-36"x56' CPCPE
2-APRON ENDWALLS REQ'D

1250 1240 1230 1220 1210 1200 1190 1180

250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265

| | | |

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	278+29.97	RR SPIKE IN PPOL, SW QUAD OF	1202.14'
	99.45' LT	INTERSECTITON AT CTH Q & I-94	

CP*3
85' E/O ℄ DRIVEWAY N6643,
6' S/O SOUTH EOB CTH Q
3/4" REBAR
Y 186360.87
X 113212.76

STA 269+83
CONSTRUCT PE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

CENTURYLINK

DUNN ENERGY

CP*2

PC: 271+86.33

N27°51'47"E 408.84'

90TH STREET

BP: 38+85.80

PC: 39+31.50

PI: 39+57.74

PT: 39+83.45

EP: 40+09.00

CONSTRUCTION LIMITS
STA 39+74.99
MATCH EXISTING
SAWCUT REQ'D

STA 273+12.5 - STA 274+34.7
STA 274+60.2 - STA 276+02.5
STEEL PLATE BEAMGUARD REQ'D

SLOPE INTERCEPT

CP*2
SE QUAD CTH Q & 90TH STREET,
3' S/O NORTH END OF GUARDRAIL
3/4" REBAR
Y 186437.78
X 112678.64

CP*3

SLOPE INTERCEPT

DUNN ENERGY

WINDSTREAM

R/W

CTH Q

S89°15'52"W

TEMPORARY EASEMENT
(TLE)

R/W

SLOPE INTERCEPT

CENTURYLINK

AT&T

LEVEL 3

PT: 276+96.39

STA 275+65
CONSTRUCT PE
(GRAVEL)
24" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

BM*1

BM 12000

N0°33'27"E

STA 266+97
CONSTRUCT PE
(GRAVEL)
15" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 39+12 - STA 39+68, RT
STA 39+36 - STA 39+77, LT
REMOVING GUARDRAIL

PI STA = 275+13.83
Y = 186371.76
X = 112596.55
DELTA = 91°19'35"
D = 17°54'18"
T = 327.49'
L = 510.06'
R = 320.00'
PC STA = 271+86.33
PT STA = 276+96.39
SE = 6.0%
LR = 153'

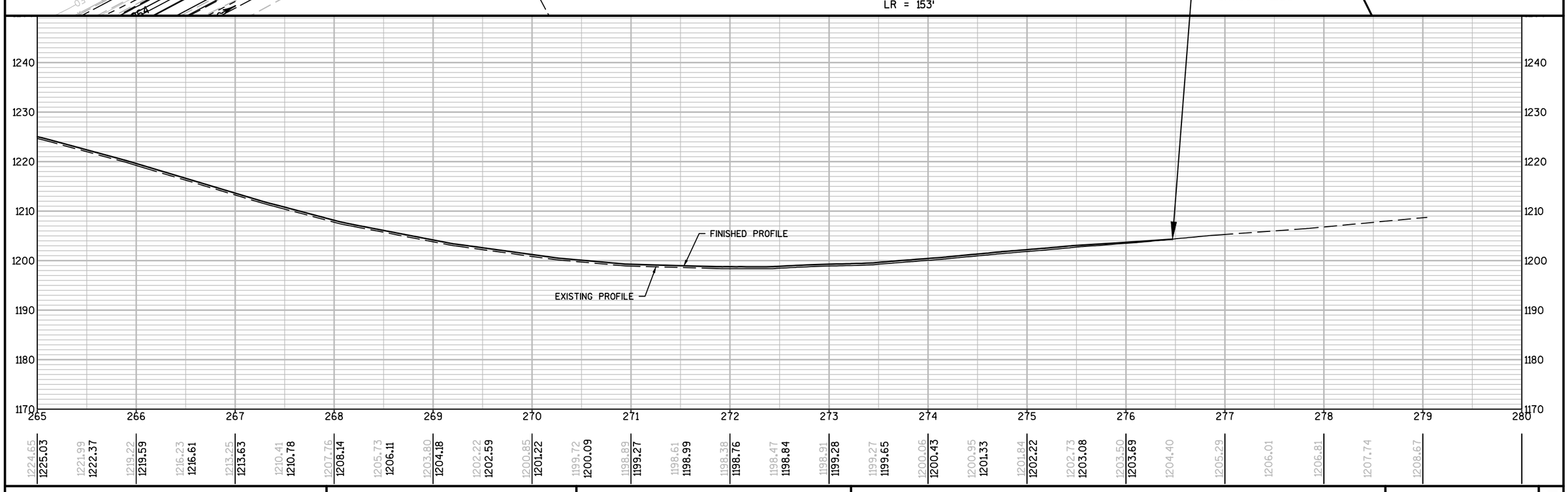
END PROJECT
STA 276+47.09
MATCH EXISTING
SAWCUT REQ'D

EP: 279+04.10

PI STA = 279+04.10
Y = 186906.93
X = 112602.07

5

5



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH Q	SHEET 71	E

STA 7+70 - STA 9+39, LT
REMOVING FENCE

BP: 5+59.06

PI STA = 5+59.06
Y = 176400.61
X = 118124.02

N44°30'04"W

CTH N

WETLANDS

R/W

SLOPE INTERCEPT

WETLANDS

PC: 7+64.41

PT: 9+81.28

EP: 10+00.00

PC: 138+34.44

DUNN ENERGY

AT&T

R/W

N89°41'07"W

R/W

PI STA = 8+78.84
Y = 176628.69
X = 117899.88
DELTA = 45°11'02"
D = 20°50'05"
T = 114.43'
L = 216.87'
R = 275.00'
PC STA = 7+64.41
PT STA = 9+81.28
SE = NC
LR = N/A

PI STA = 10+00.00
Y = 176629.42
X = 117766.74

CONSTRUCTION LIMITS
STA 7+60.00
MATCH EXISTING
SAWCUT REQ'D

SLOPE INTERCEPT

PI: 8+78.84

PI: 140+12.52

R/W

STA 8+20
CONSTRUCT FE
(GRAVEL)
18" CPCPE REQ'D
REMOVING SMALL PIPE CULVERTS

STA 10+33 - STA 11+01, RT
STA 10+51 - STA 11+78, RT
REMOVING FENCE

PI STA = 10+00.00
Y = 177739.34
X = 117757.62

PI STA = 11+13.42
Y = 177740.86
X = 117644.21
DELTA = 35°36'22"
D = 20°50'05"
T = 88.31'
L = 170.90'
R = 275.00'
PC STA = 10+25.11
PT STA = 11+96.01
SE = NC
LR = N/A

AT&T

R/W

TEMPORARY EASEMENT (TLE)

11+13.42

PC: 10+25.11

PI: 149+69.20

SLOPE INTERCEPT

PT: 11+96.01

EP: 13+10.52

EXISTING R/W

CP*9

N53°37'31"W

CTH N

N88°18'55"W

SLOPE INTERCEPT

PT: 151+41.45

R/W

DUNN ENERGY

PI STA = 13+10.52
Y = 177861.15
X = 117480.84

AT&T

R/W

N11°13'31"E

CP*9
BETWEEN DRIVEWAYS N5934 & N5936
3/4" REBAR
Y 174041.63
X 117750.88

PC: 153+24.24

CONSTRUCTION LIMITS
STA 12+25.00
MATCH EXISTING
SAWCUT REQ'D

CTH N - SOUTH

VCL = 100.00
K = 32.74

VPC STA 7+75.00
VPC EL 929.15

VPI STA 8+25.00
VPI EL 929.20

VPT STA 8+75.00
VPT EL 928.67

STA 10+00.00
EL 929.64

FINISHED PROFILE

0.10%

-1.05%

2.00%

EXISTING PROFILE

STA 7+60.00
EL 929.13

VCL = 100.00
K = 86.32

VPC STA 8+75.00
VPC EL 928.67

VPI STA 9+25.00
VPI EL 928.14

VPT STA 9+75.00
VPT EL 929.14

929.10 929.12 929.04 929.12 929.14 929.14 928.91 928.90 925.31 928.50 925.57 928.74 929.64

CTH N - NORTH

STA 10+00.00
EL 950.94

VPC STA 10+25.00
VPC EL 950.44

VPI STA 10+75.00
VPI EL 949.44

VPT STA 11+25.00
VPT EL 947.69

VCL = 100.00
K = 39.75

STA 12+25.00
EL 945.46

-2.00%

-3.49%

FINISHED PROFILE

-0.97%

EXISTING PROFILE

VCL = 100.00
K = 67.10

VPC STA 11+25.00
VPC EL 947.69

VPI STA 11+75.00
VPI EL 945.95

VPT STA 12+25.00
VPT EL 945.46

950.65 950.94 943.73 949.89 946.75 948.52 946.29 946.90 945.70 945.78 945.21 944.82

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: CTH N	SHEET 72	E

FILE NAME : V:\TRANS-EC\410690\C3D\SHEETSPLAN\050100_PP.DWG
LAYOUT NAME - 050113_PP

PLOT DATE : 7/18/2016 2:14 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

PI STA = 25+00.00
Y = 182471.92
X = 116475.83

PI STA = 26+25.00
Y = 182470.48
X = 116600.82

CP*8
35' N/O ℄ 630TH STREET,
20' W/O WEST EOB CTH Q
3/4" REBAR
Y 182506.93
X 116444.45

PT: 199+00.77

S89°20'27"E

630TH AVENUE

BM 1386

STA 25+41
REMOVING SMALL PIPE CULVERTS

STA 25+41
REMOVING CATCH BASIN

CONSTRUCTION LIMITS
STA 26+22.70
MATCH EXISTING
SAWCUT REQ'D

CTH Q

BP: 25+00.00

EP: 26+25.00

SLOPE INTERCEPT

TEMPORARY EASEMENT (TLE)

R/W

DUNN ENERGY

CENTURYLINK

CP*7
NORTH EDGE OF DRIVEWAY N6470,
5' E/O EAST EOB CTH Q
3/4" REBAR
Y 184878.27
X 116506.38

PI: 227+32.74

N88°54'44"E

640TH AVENUE

BM 1312

PI STA = 30+00.00
Y = 185105.01
X = 116491.01

PI STA = 31+25.00
Y = 185107.38
X = 116615.98

BP: 30+00.00

EP: 31+25.00

WINDSTREAM

CONSTRUCTION LIMITS
STA 31+25.00
MATCH EXISTING
SAWCUT REQ'D

630TH AVENUE

VCL = 30.00
K = 7.77

STA 25+00.00 EL 1191.55
VPC STA 25+00.00 VPC EL 1191.49
VPI STA 25+75.00 VPI EL 1192.25
VPT STA 26+00.00 VPT EL 1192.90
STA 26+25.00 EL 1193.56

EXISTING PROFILE

-0.80%
3.06%
2.61%
-2.00%

FINISHED PROFILE

STA 25+50
1-24"x64' CPCS
2-APRON ENDWALLS REQ'D

VPC STA 25+20.00 VPC EL 1191.15
VPT STA 25+50.00 VPT EL 1191.49
VPI STA 25+35.00 VPI EL 1191.03

VCL = 50.00
K = 111.60

1191.17 1191.55
1191.64 1191.49
1192.90 1192.90

640TH AVENUE

VCL = 50.00
K = 103.87

STA 30+00.00 EL 1225.78
VPC STA 30+25.00 VPC EL 1225.27
VPI STA 30+50.00 VPI EL 1224.77
VPT STA 30+75.00 VPT EL 1223.73
STA 31+25.00 EL 1221.79

EXISTING PROFILE

-2.02%
-4.13%
-3.65%

FINISHED PROFILE

VPC STA 30+75.00 VPC EL 1223.73
VPI STA 31+00.00 VPI EL 1222.70
VPT STA 31+25.00 VPT EL 1221.79

VCL = 50.00
K = 23.72

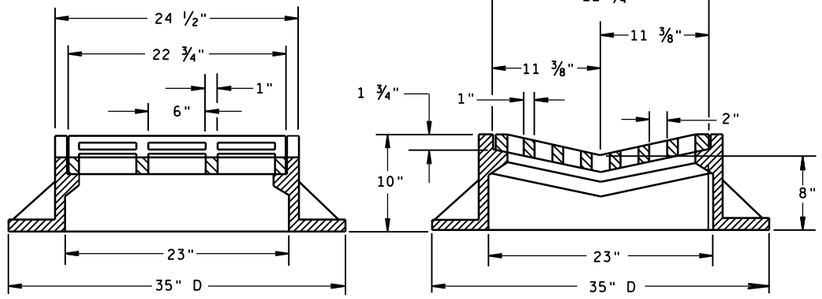
1225.41 1225.78
1224.53 1224.64
1222.70 1222.73

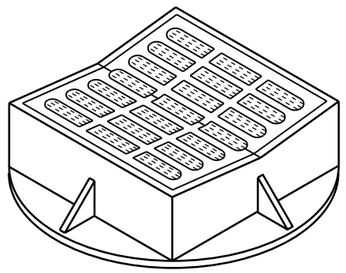
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PLAN AND PROFILE: 630TH AVENUE AND 640TH AVENUE	SHEET 73	E

Standard Detail Drawing List

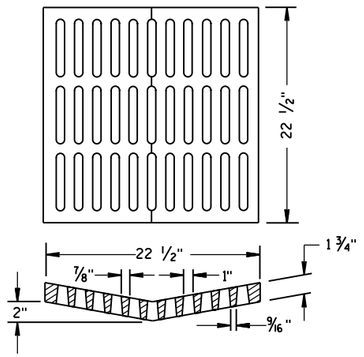
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
14B15-08A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-08C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-08A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-08C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
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
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B51-01A	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-01B	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-01C	ANCHOR POST ASSEMBLY TOP-MOUNTED
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)

6



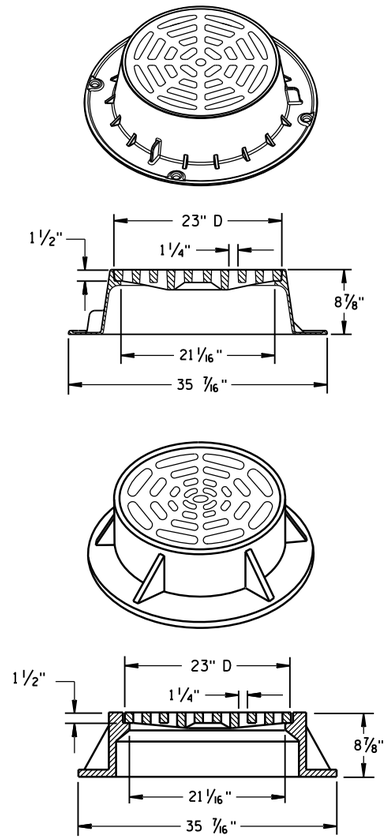


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

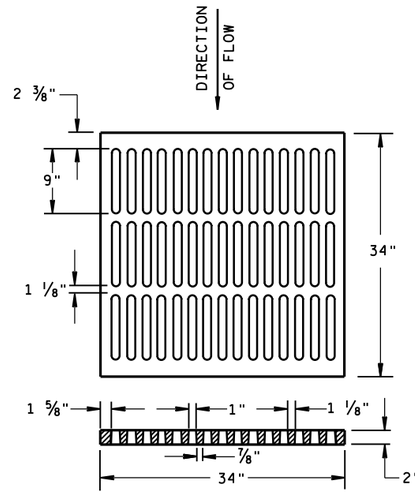
NOTE: EITHER CASTING IS ACCEPTABLE

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.

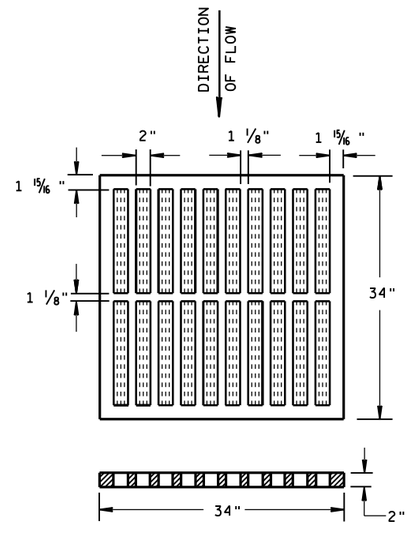
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



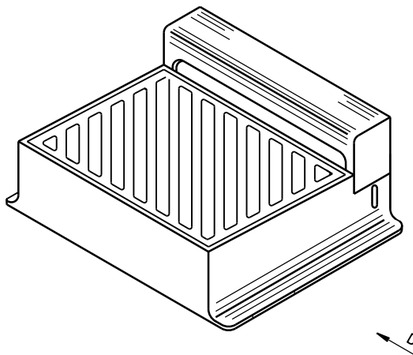
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

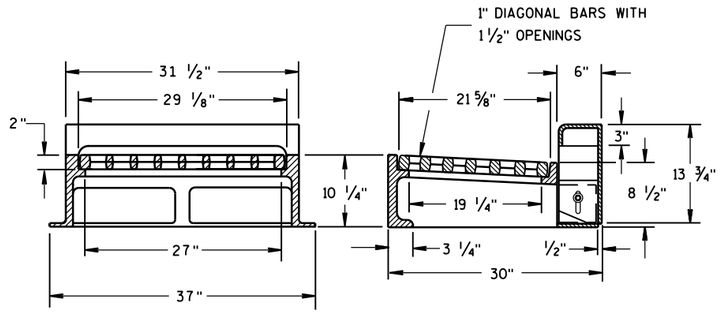


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

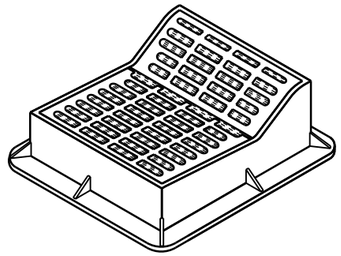
INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

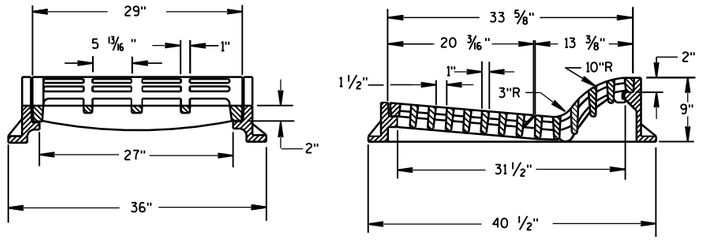
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

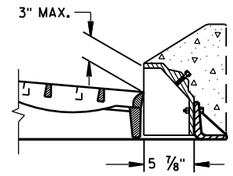
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

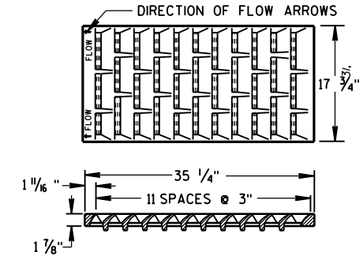
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

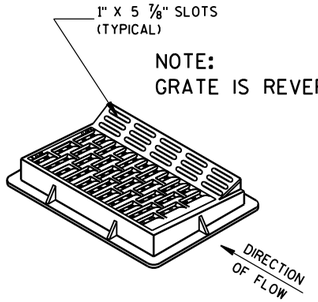
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

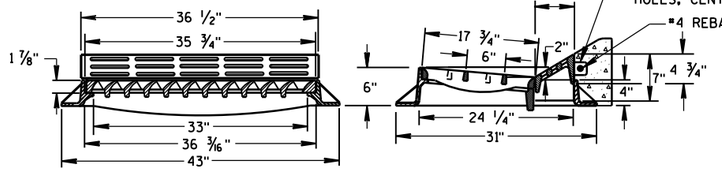
GENERAL NOTES

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



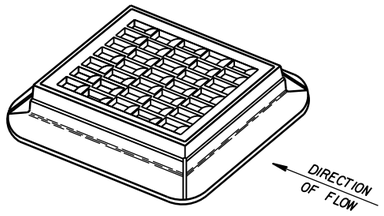


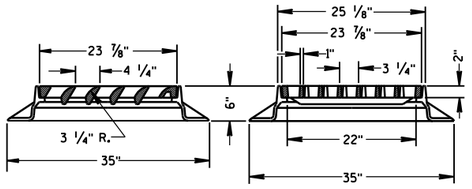


TYPE "HM"

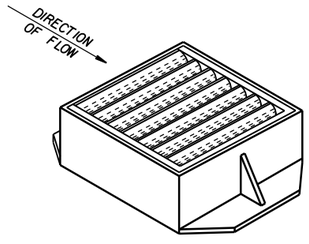
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

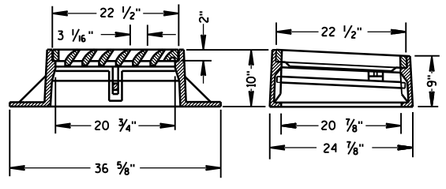
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



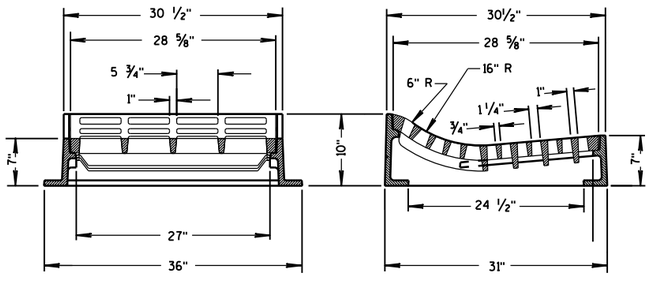


TYPE "S"



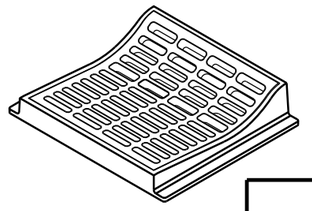


TYPE "V"



TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

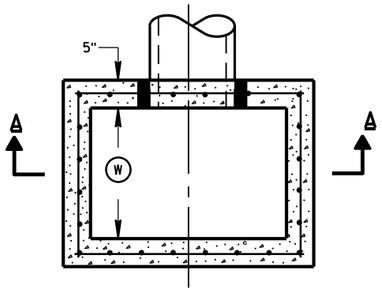
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

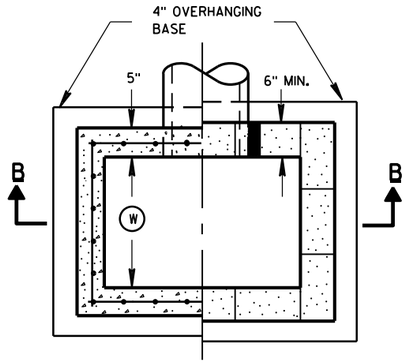
FHWA

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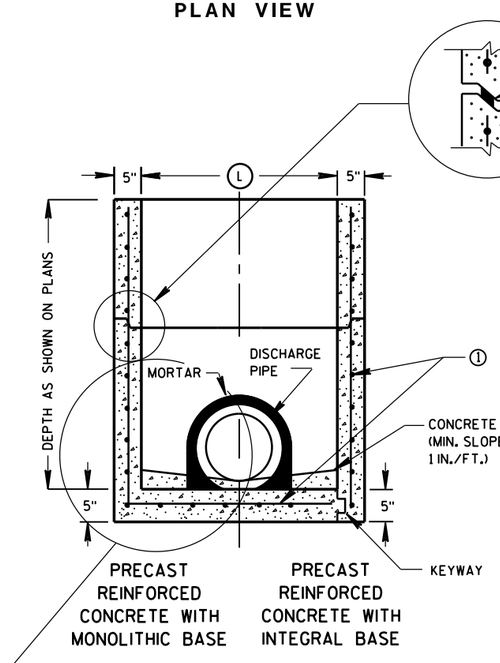
S.D.D. 8 A 5-19c



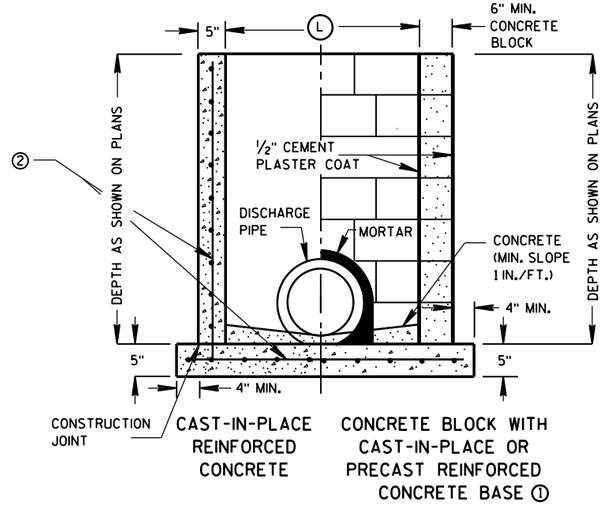
PLAN VIEW



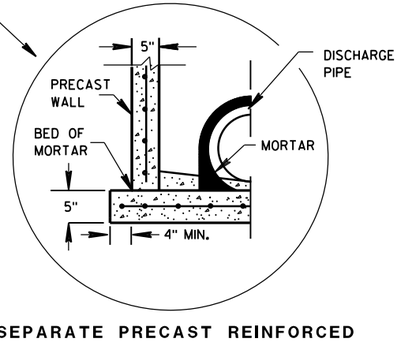
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

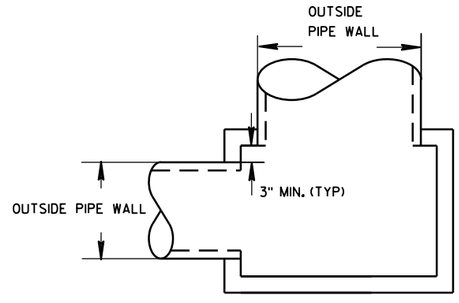
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



DETAIL "A"

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

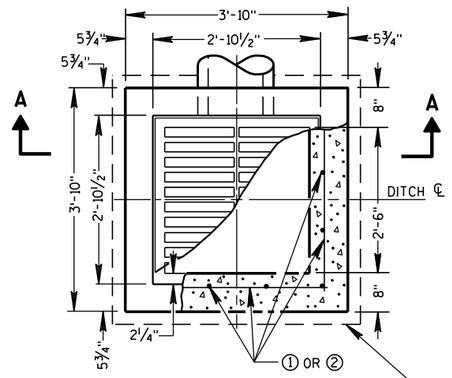
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

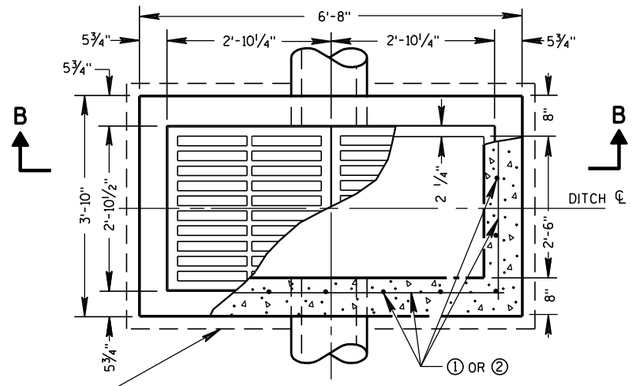
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

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S.D.D. 8 C 7-1

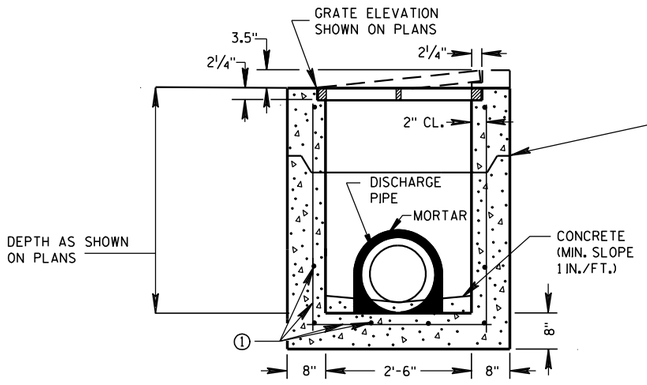


PLAN VIEW

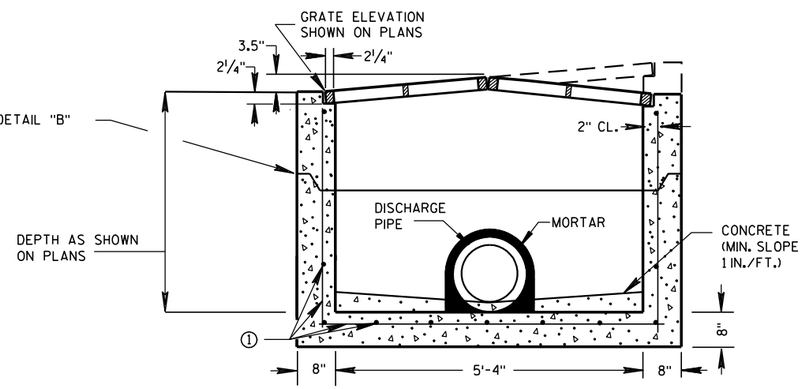


PLAN VIEW

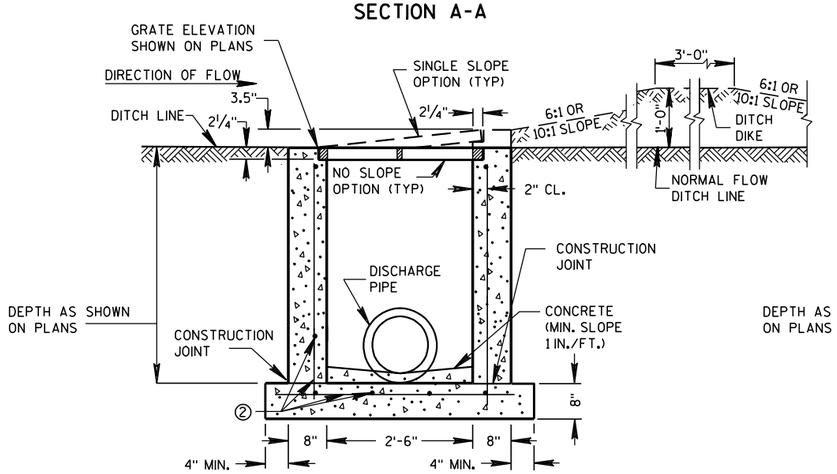
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



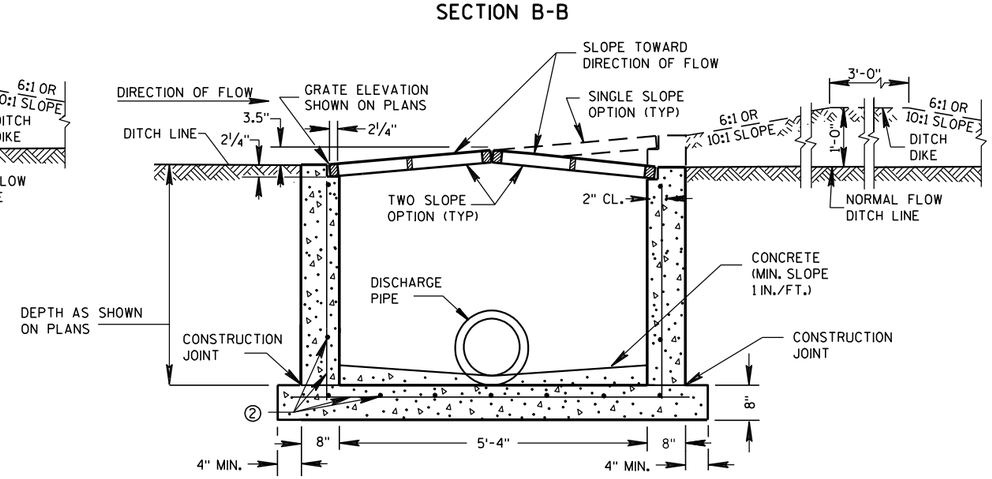
PRECAST REINFORCED CONCRETE SECTION A-A



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.

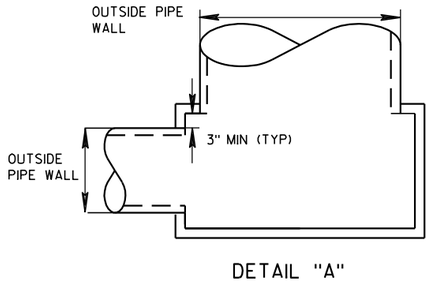
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

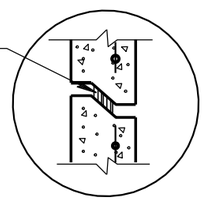
PIPE MATRIX

	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"

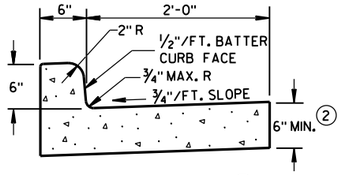
INLETS MEDIAN 1 AND 2 GRATE

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DEPARTMENT OF TRANSPORTATION

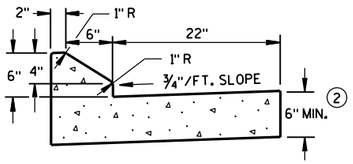
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

S.D.D. 8 C 8-1

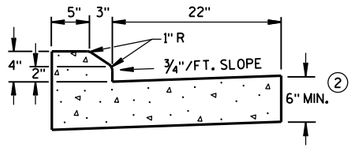
S.D.D. 8 C 8-1



TYPES A & D ①

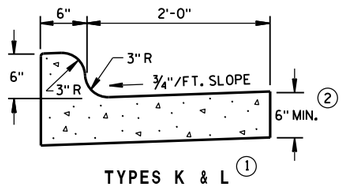


6" SLOPED CURB TYPES G & J ①

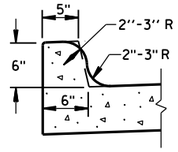


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

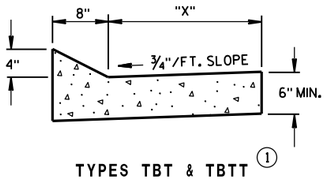


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

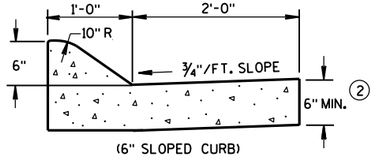
CONCRETE CURB & GUTTER 30"



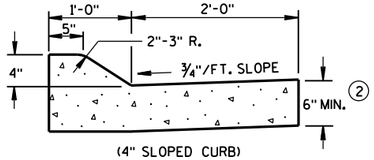
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

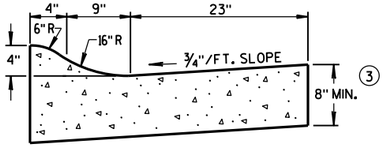


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

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.

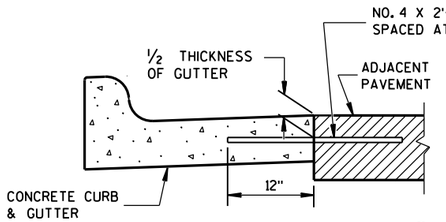
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

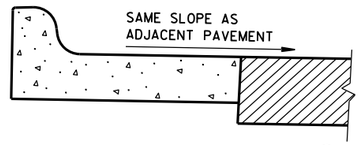
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

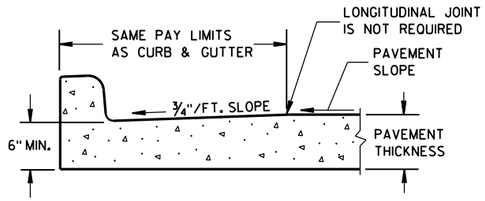
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



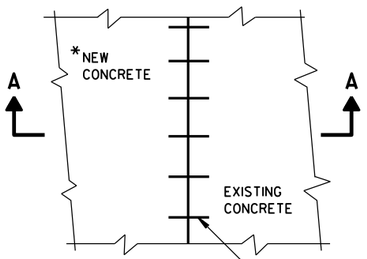
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

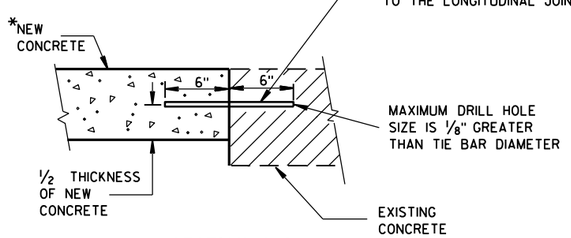


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



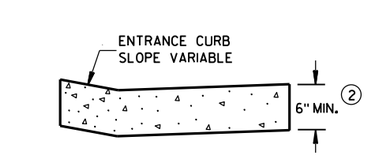
PLAN VIEW

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

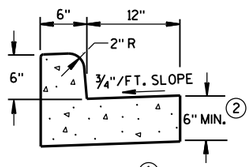


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

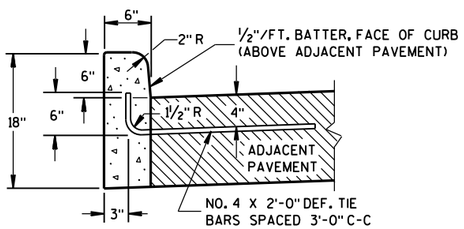


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

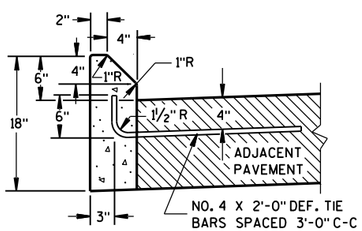


① TYPES A & D

CONCRETE CURB & GUTTER 18"

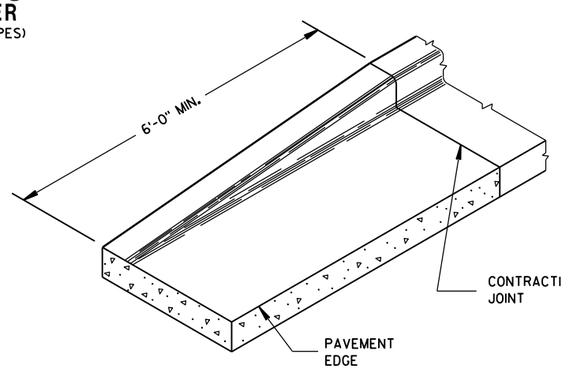


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

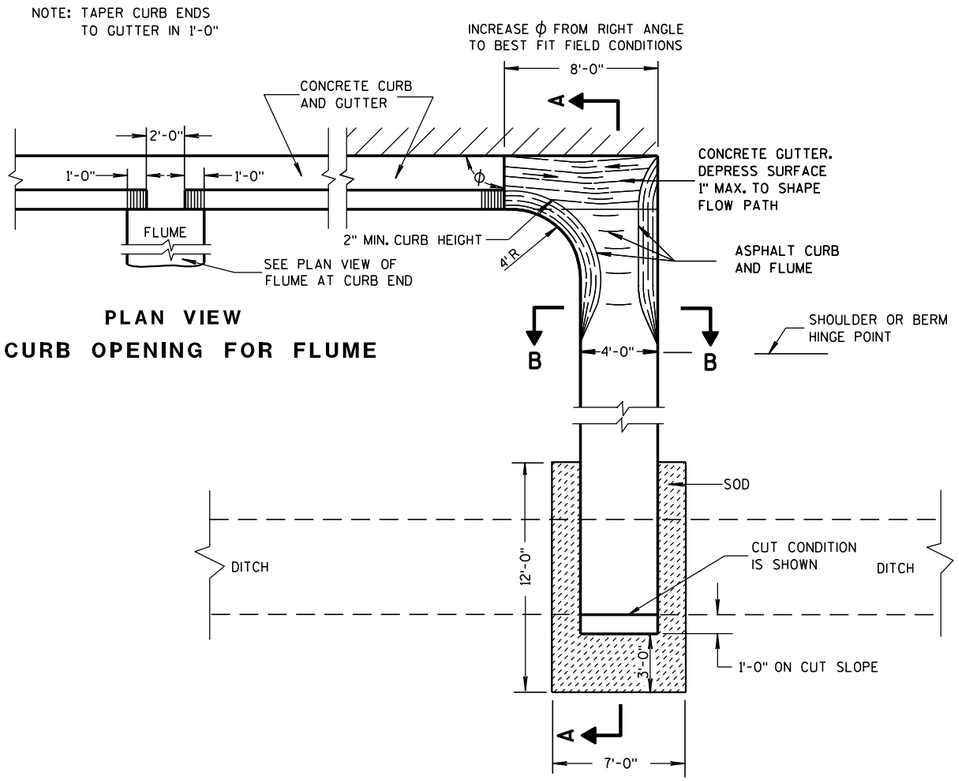
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

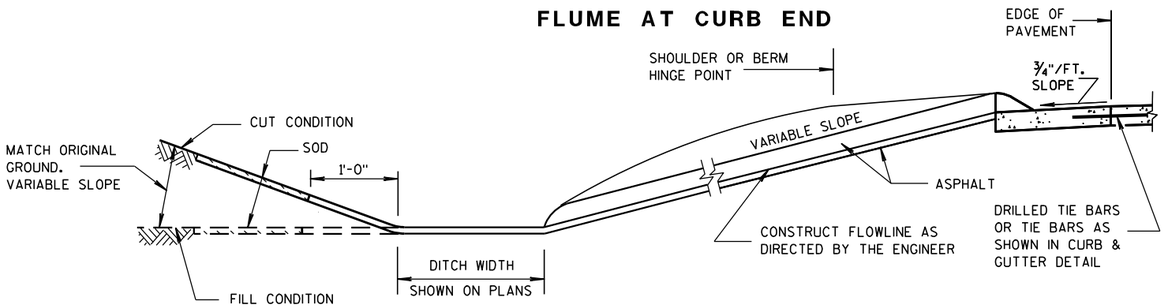
S.D.D. 8 D 1-18

ASPHALTIC FLUME

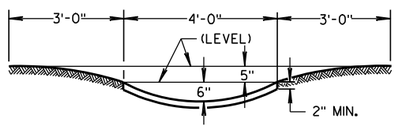


PLAN VIEW
CURB OPENING FOR FLUME

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.

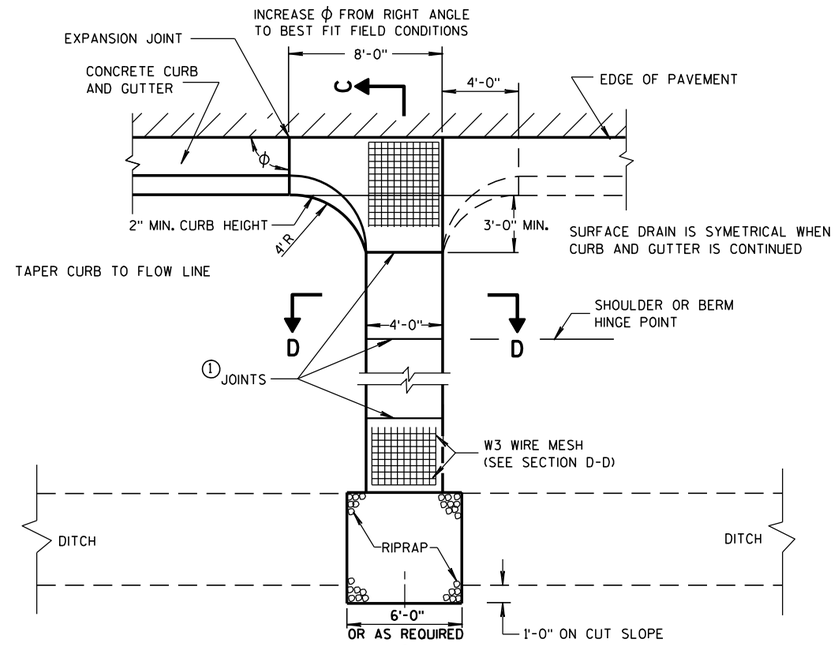
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

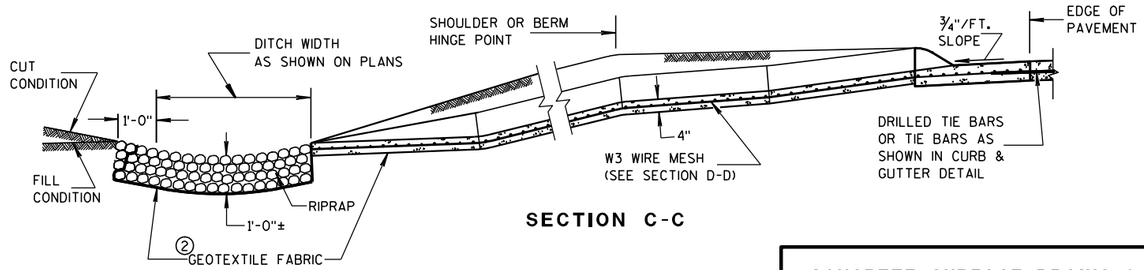
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

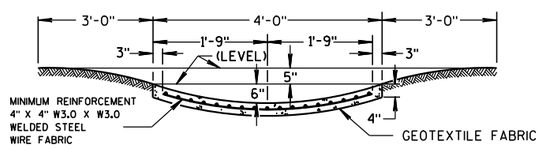
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

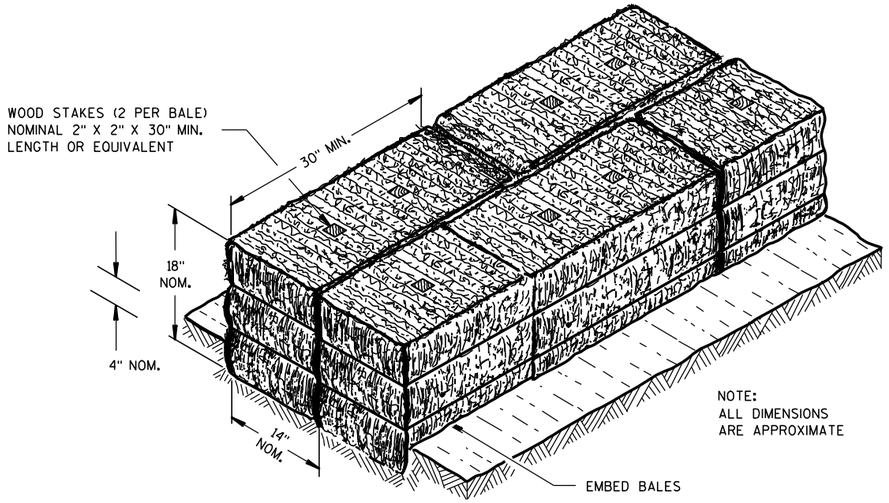
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

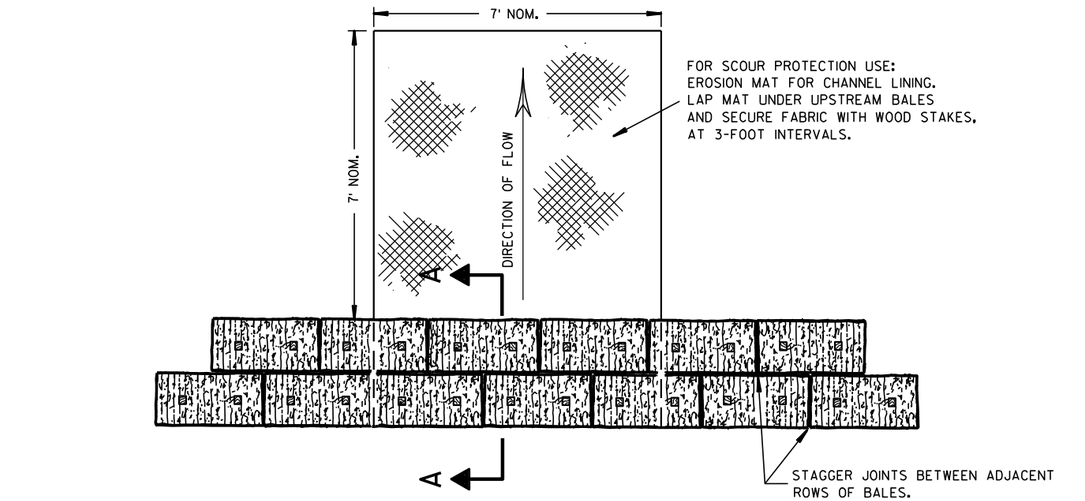
9-4-08 DATE — /S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER — MENT

FHWA

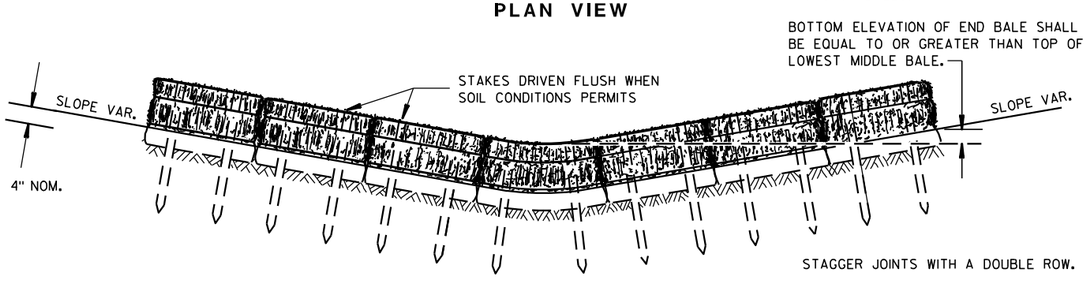
6
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



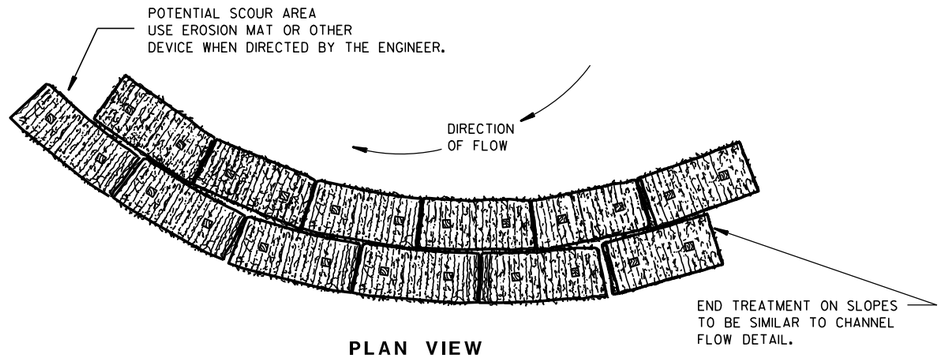
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

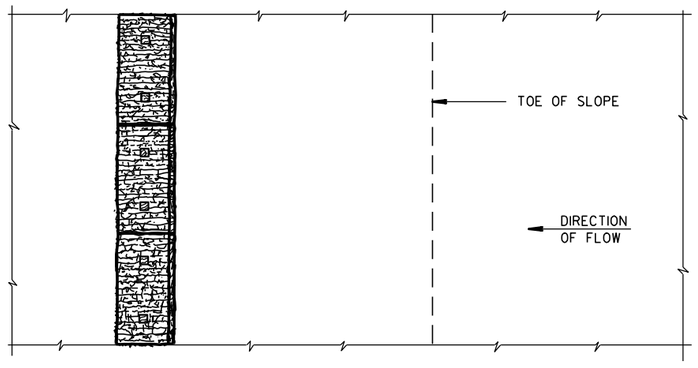
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

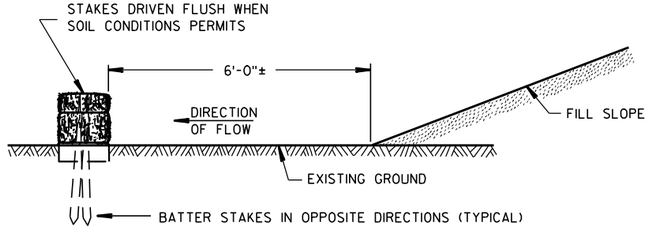


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

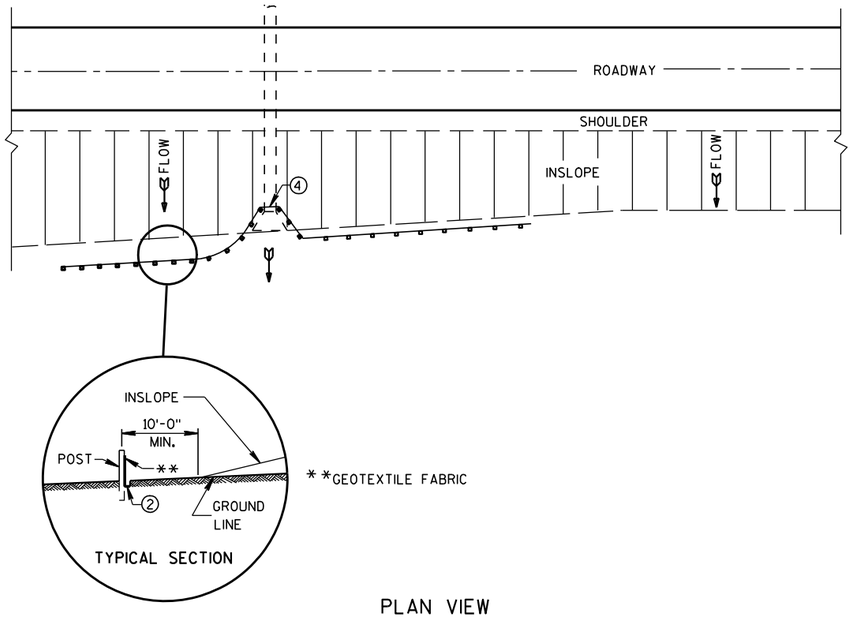
TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

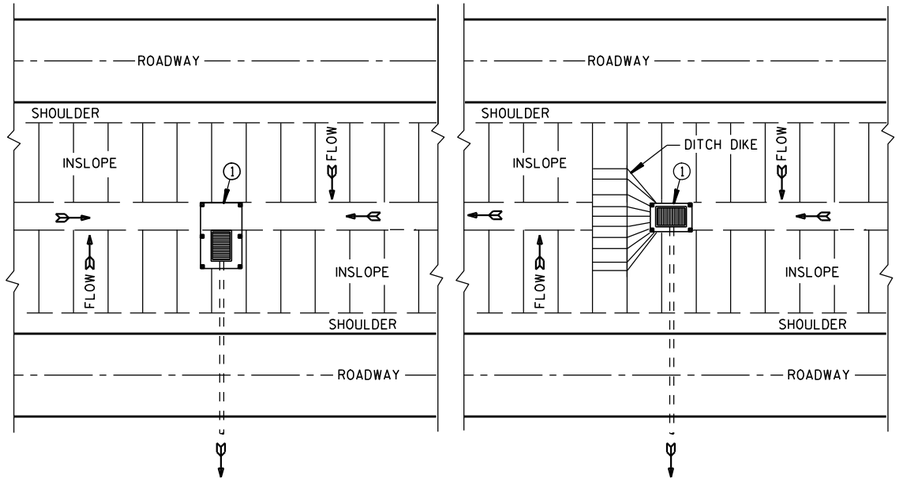
6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



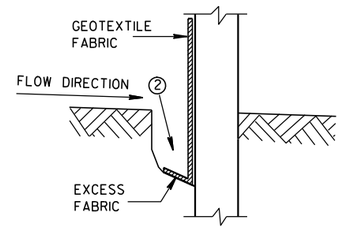
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

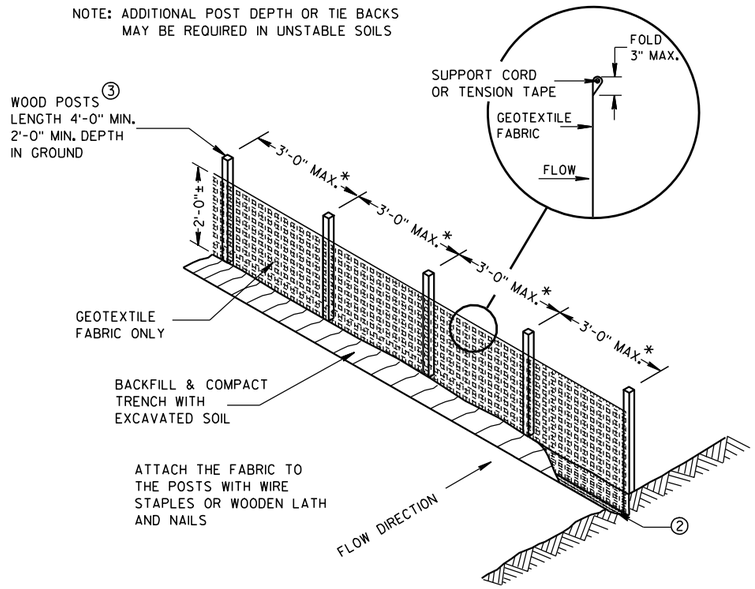
GENERAL NOTES

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

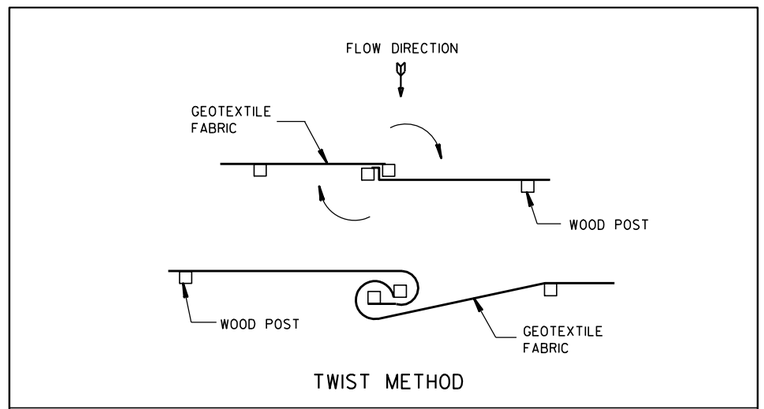
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



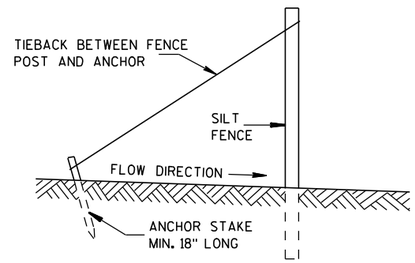
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

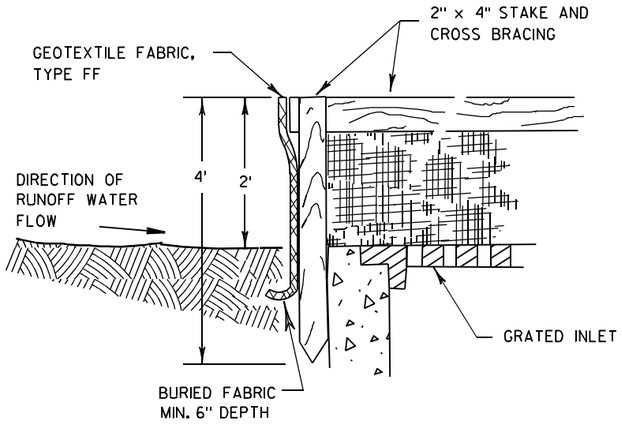
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

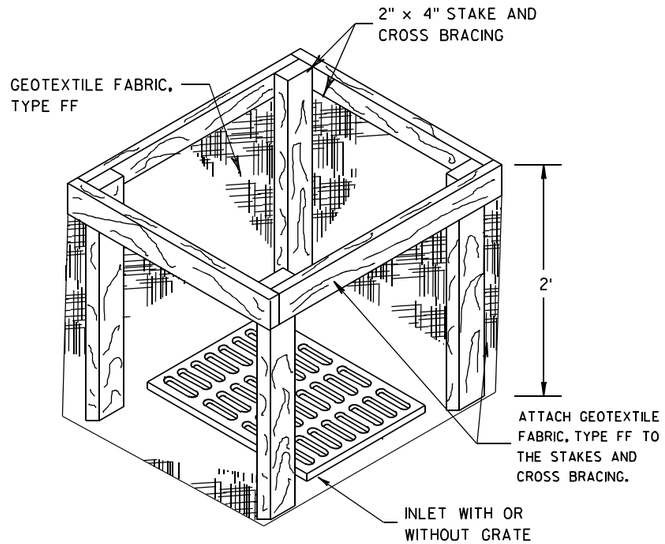
6

S.D.D. 8 E 9-6

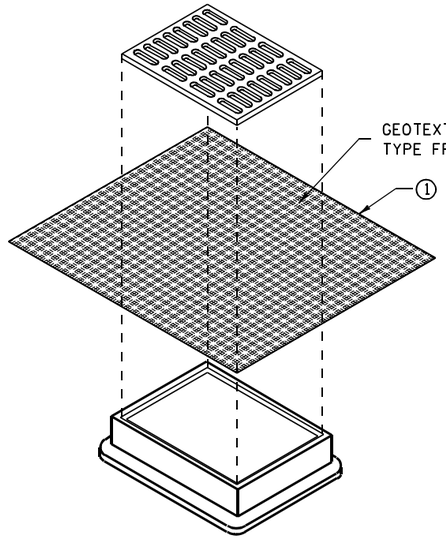
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S.D.D. 8 E 9-6



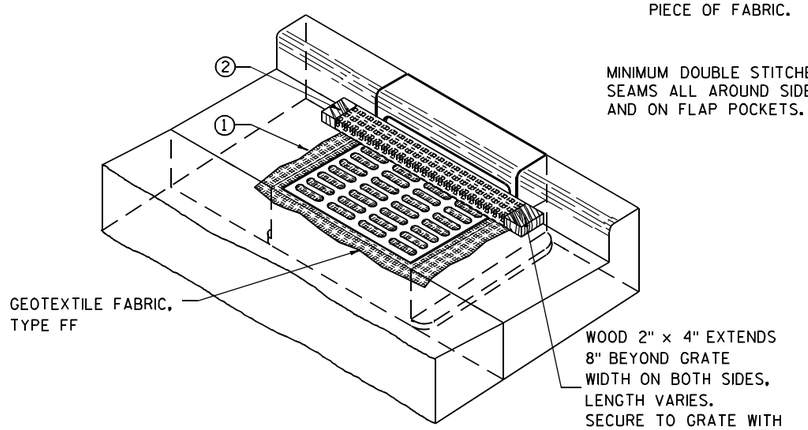


INLET PROTECTION, TYPE A

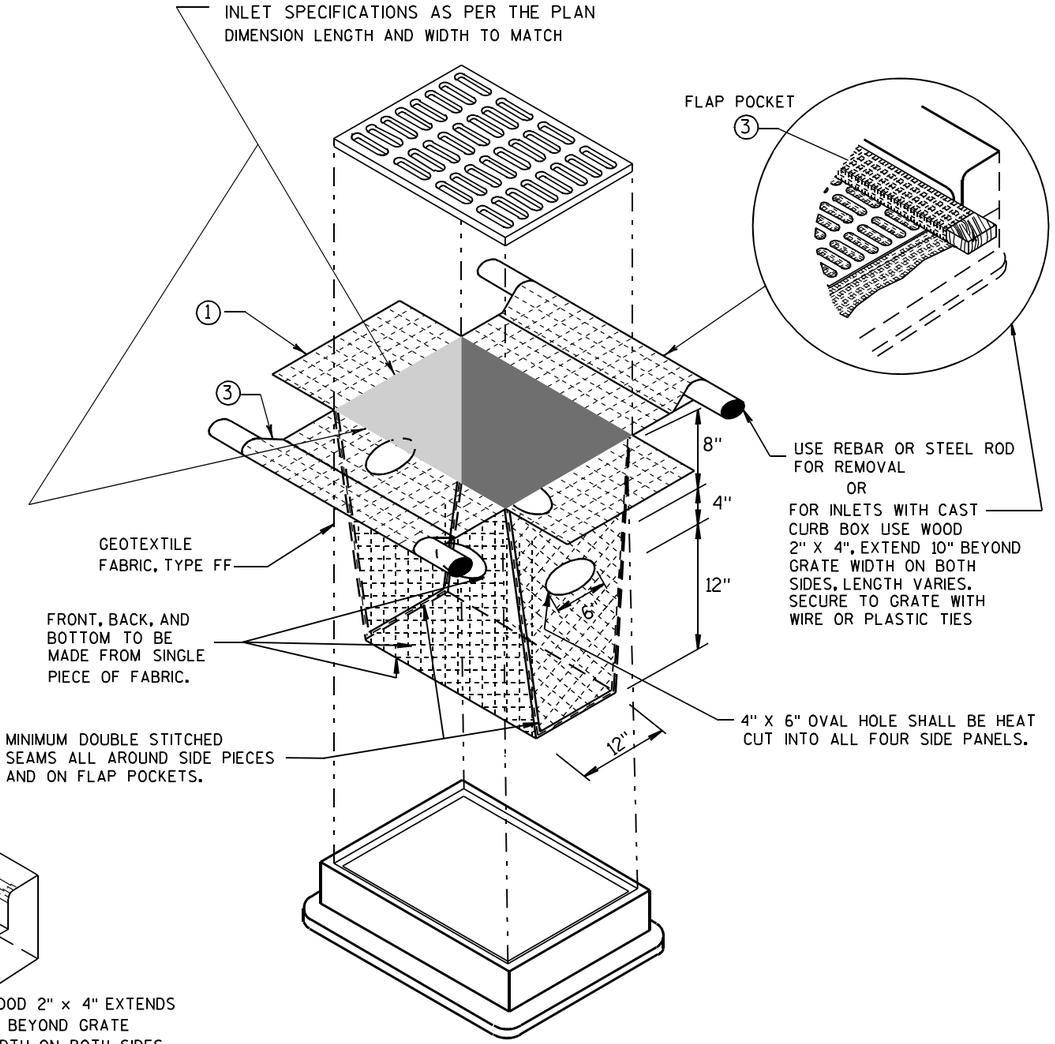


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

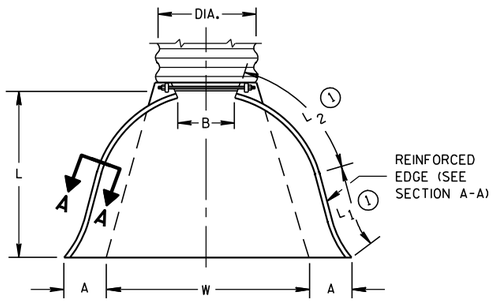
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

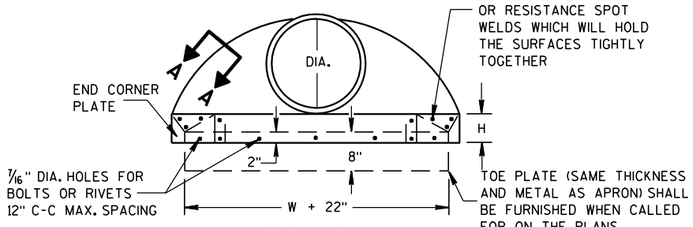
REINFORCED CONCRETE APRON ENDWALLS

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

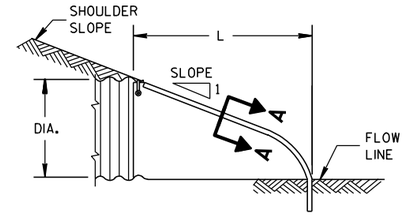
*MINIMUM
**MAXIMUM



PLAN VIEW

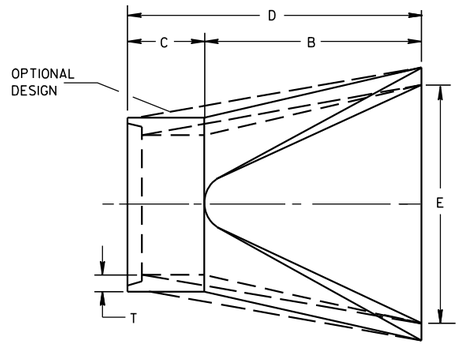


END VIEW

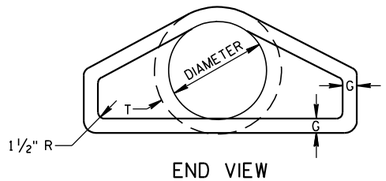


SIDE ELEVATION

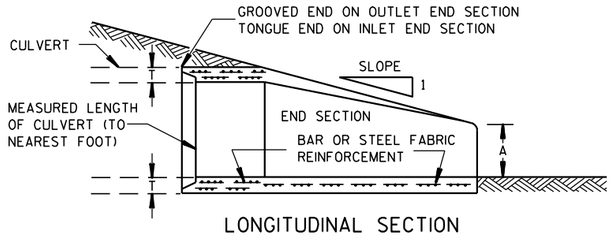
METAL ENDWALLS



PLAN

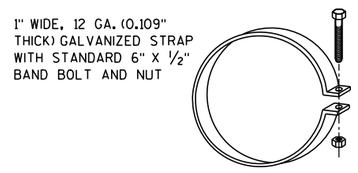


END VIEW



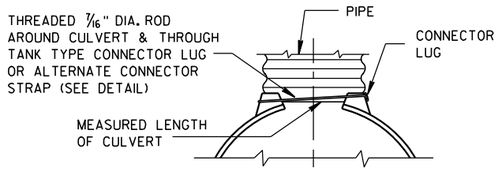
LONGITUDINAL SECTION

CONCRETE ENDWALLS

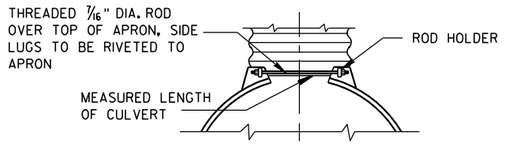


ALTERNATE FOR TYPE 1 CONNECTION

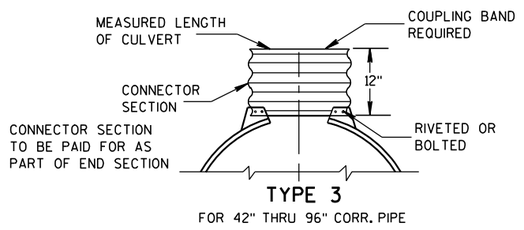
END SECTION CONNECTOR STRAP



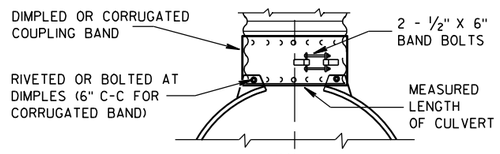
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

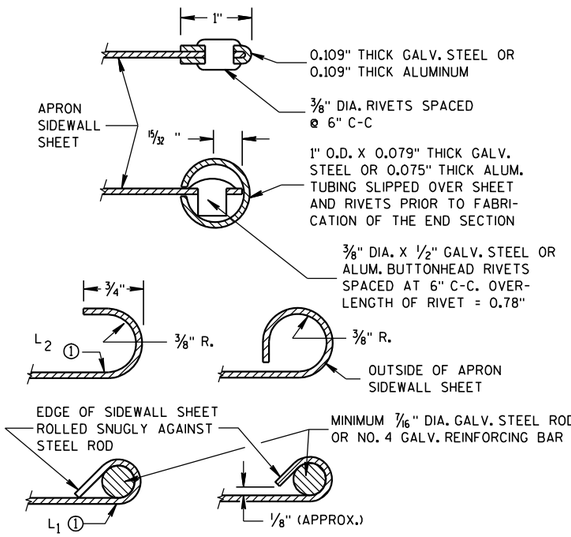
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

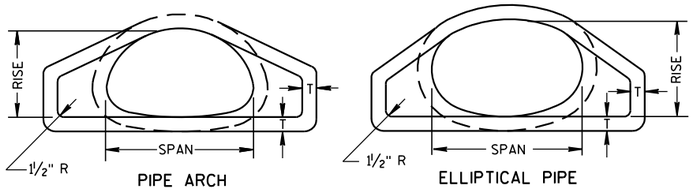
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

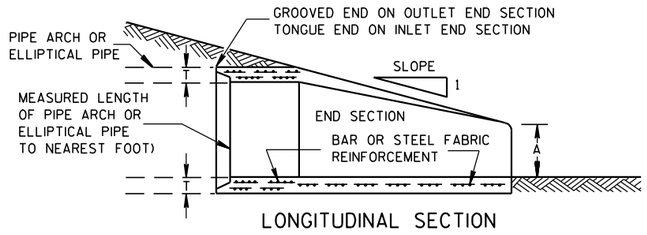
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

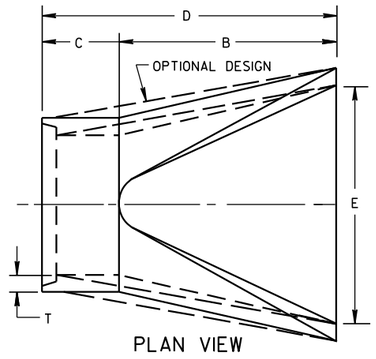
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S.D.D. 8 F 1-11



END VIEW

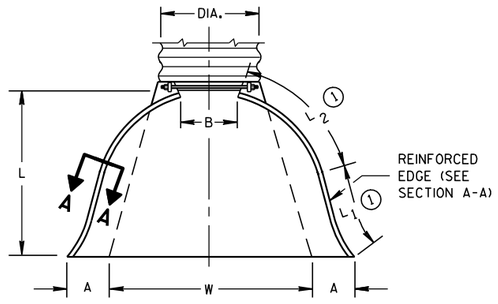


LONGITUDINAL SECTION

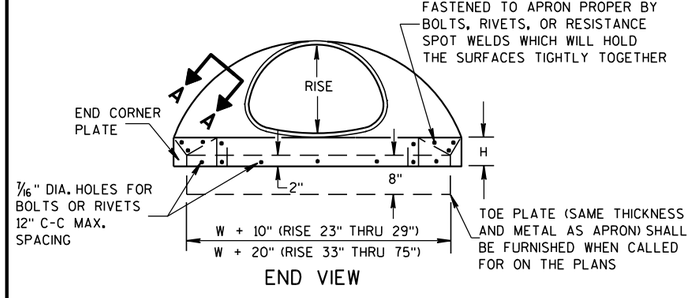


PLAN VIEW

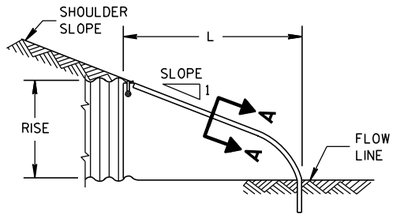
CONCRETE ENDWALLS



PLAN VIEW

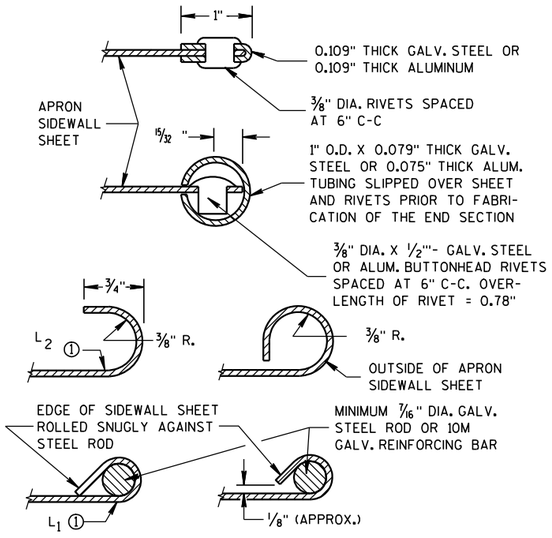


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

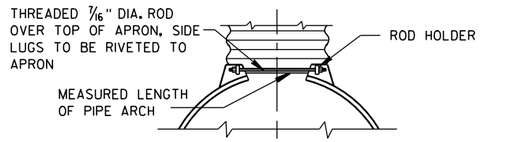
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

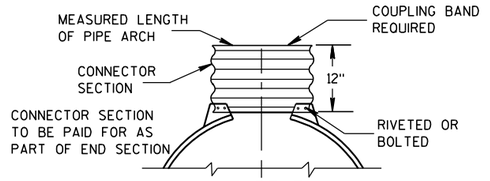
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



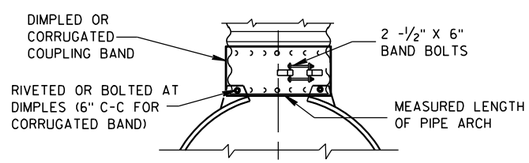
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

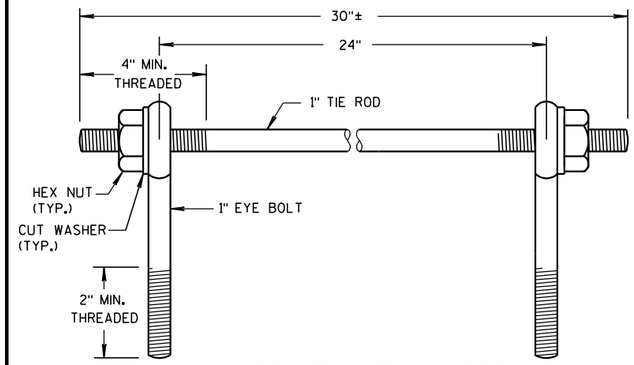
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

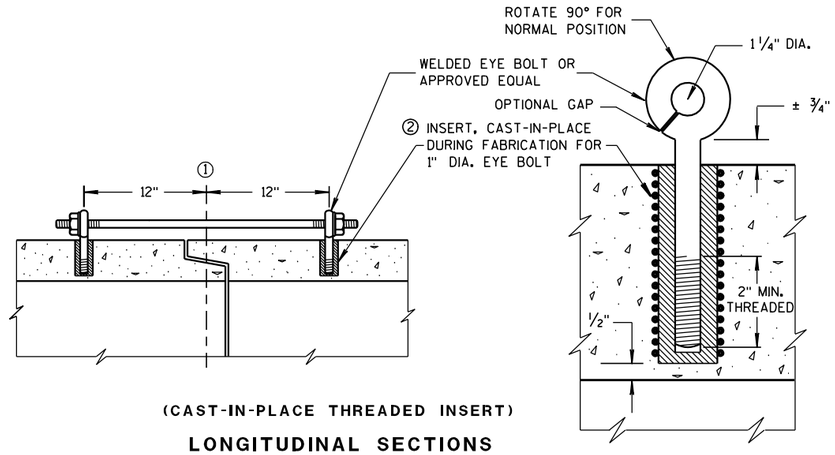
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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.

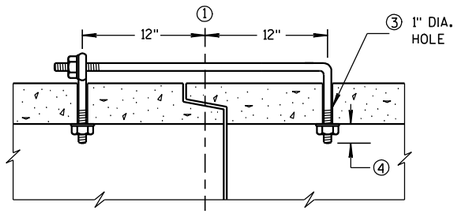
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

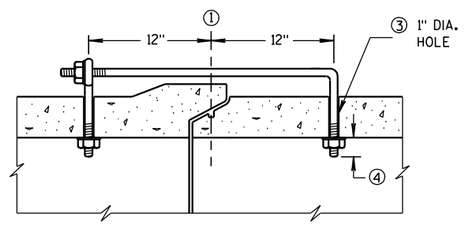
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

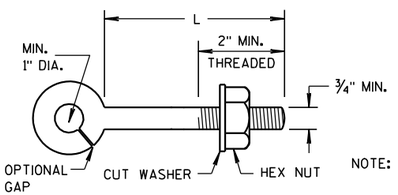


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

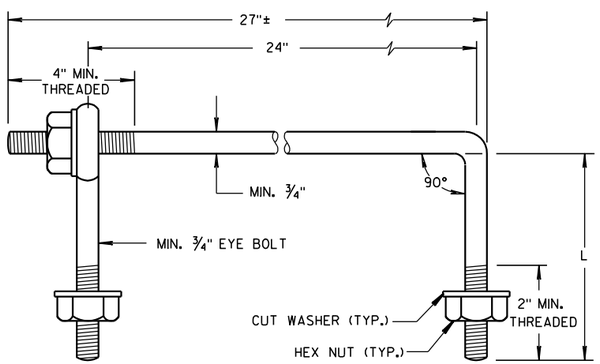
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

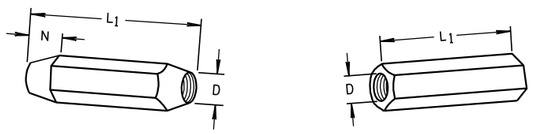
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

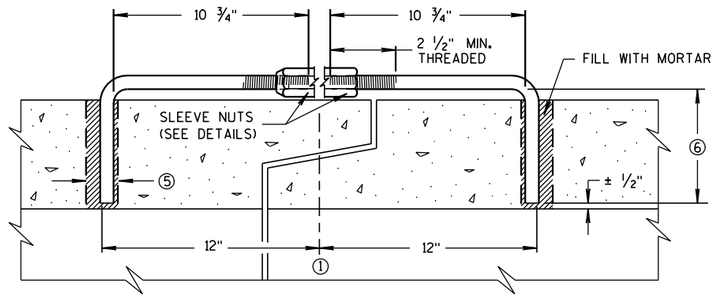
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

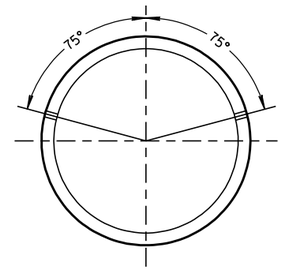
SLEEVE NUTS



LONGITUDINAL SECTION

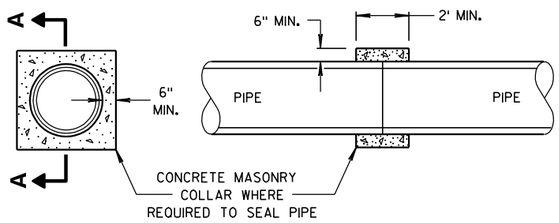
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

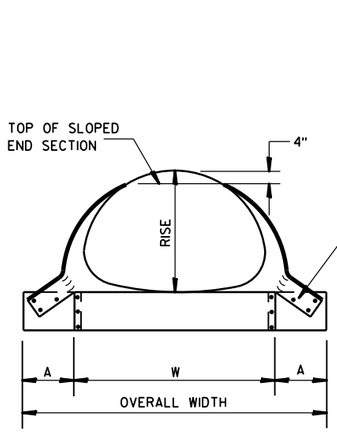
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

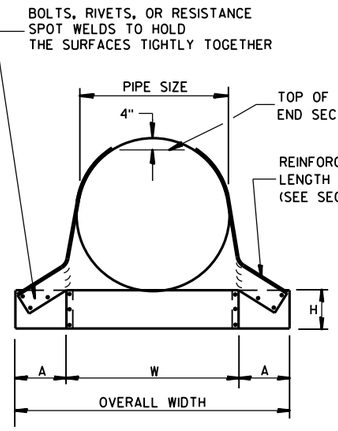
S.D.D. 8 F 4-7

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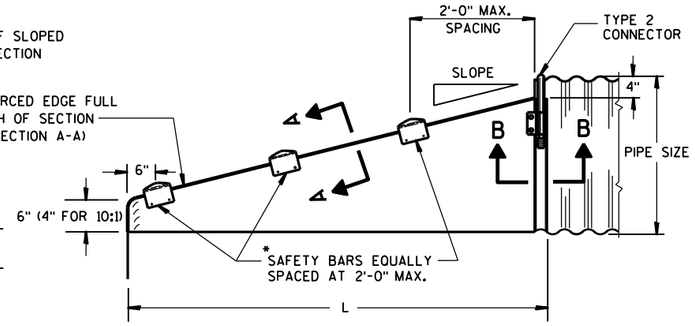
S.D.D. 8 F 4-7



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

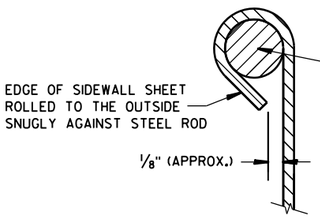
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

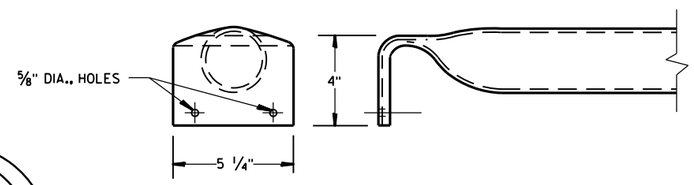
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

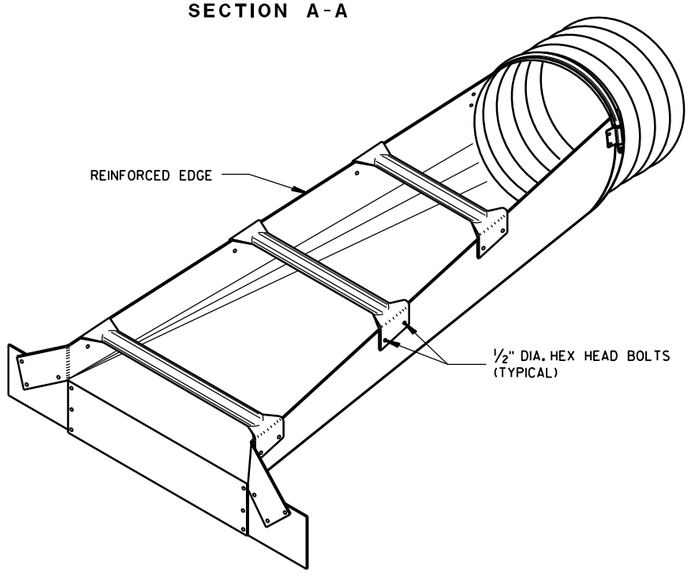


DETAIL OF SAFETY BAR

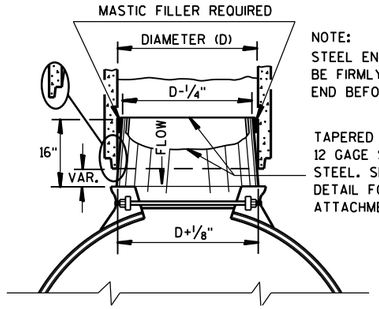
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

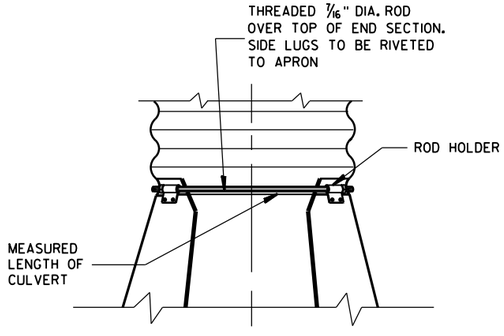
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



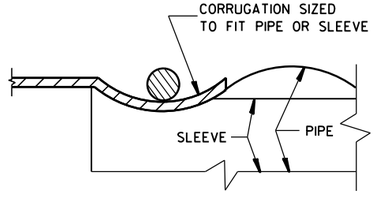
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

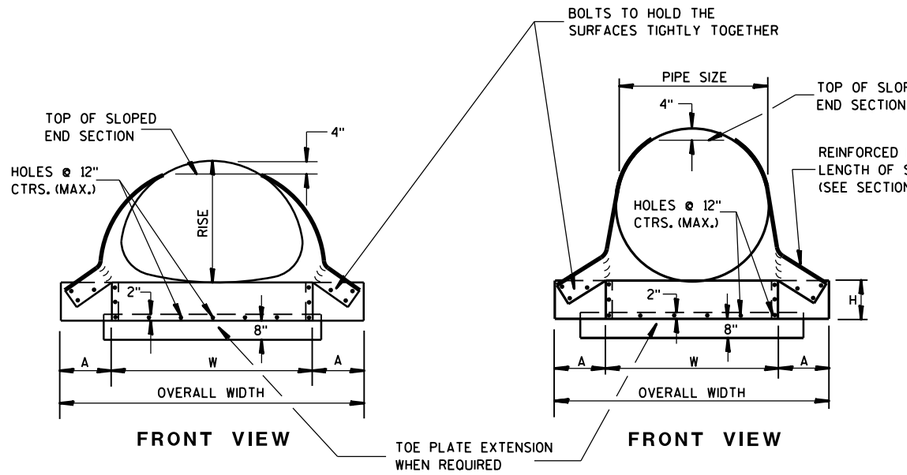
STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

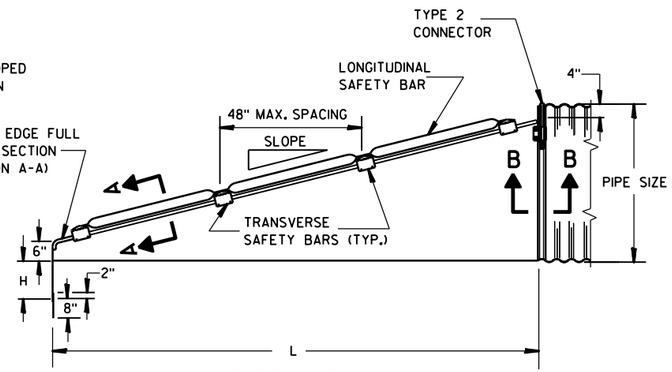
6

S.D.D. 8 F 7-5



FRONT VIEW

FRONT VIEW



SIDE VIEW
(48" SIZE ILLUSTRATED)

GENERAL NOTES

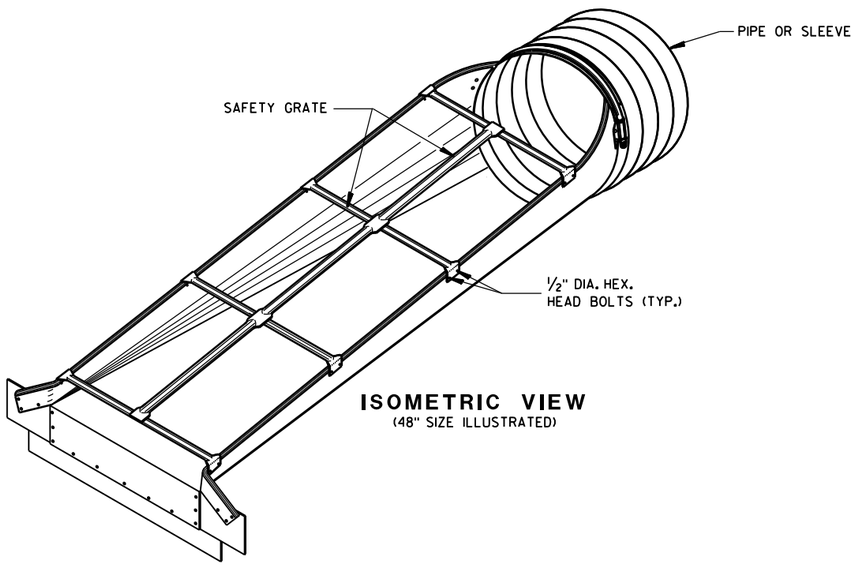
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

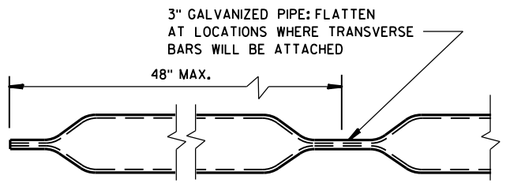
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

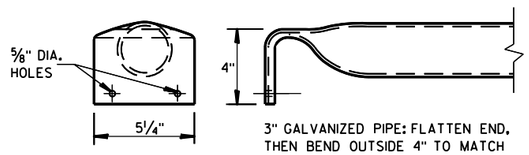
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



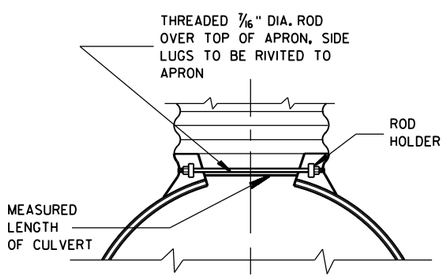
LONGITUDINAL SAFETY BAR



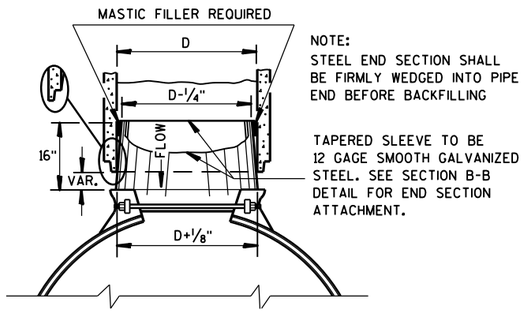
TRANSVERSE SAFETY BAR

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

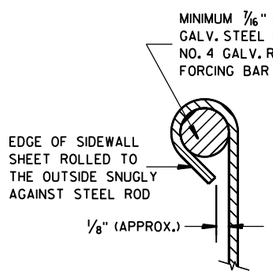
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



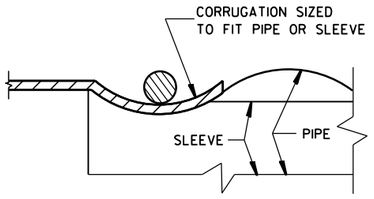
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

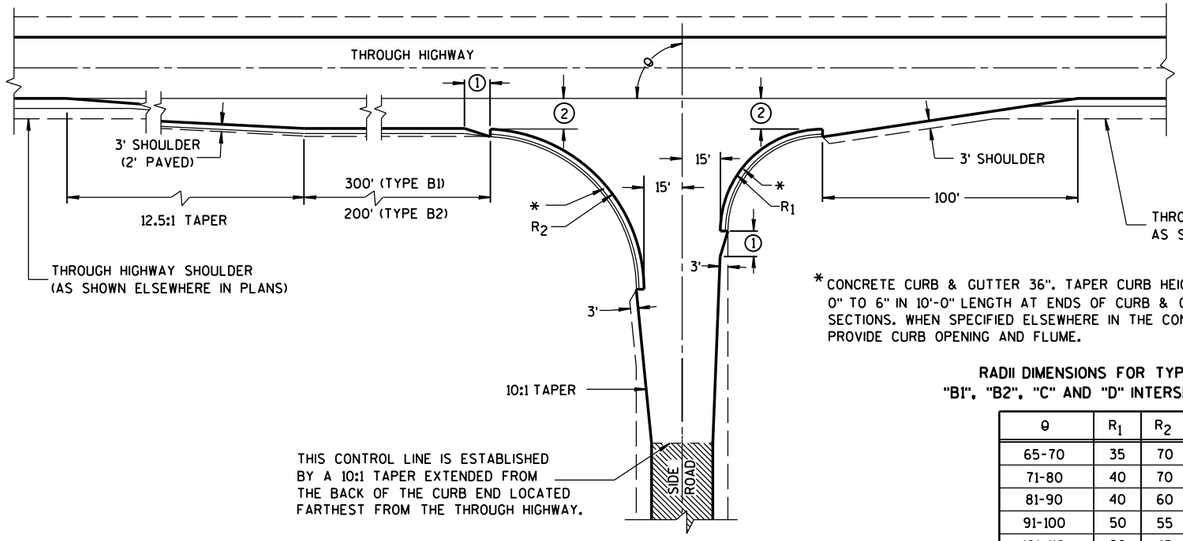
6/5/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 8 F 8-2

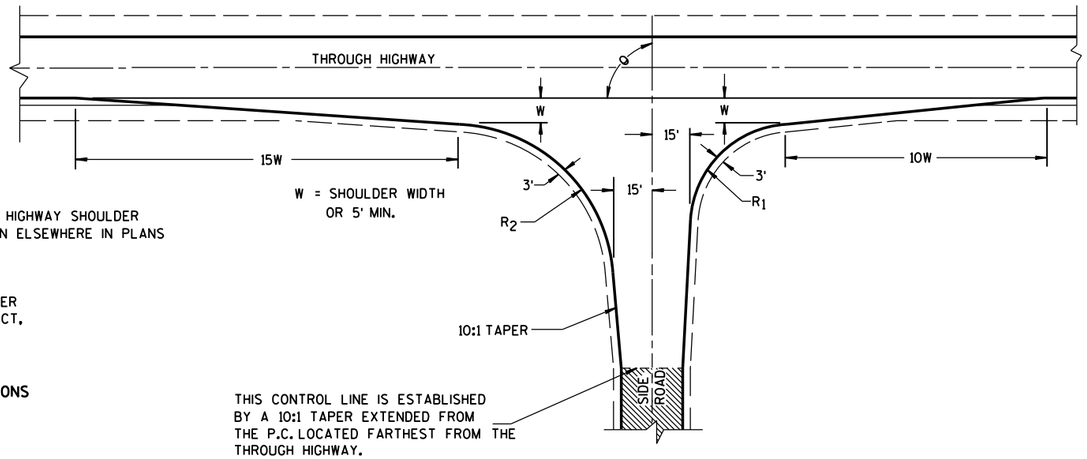


TYPE "B1" AND "B2"

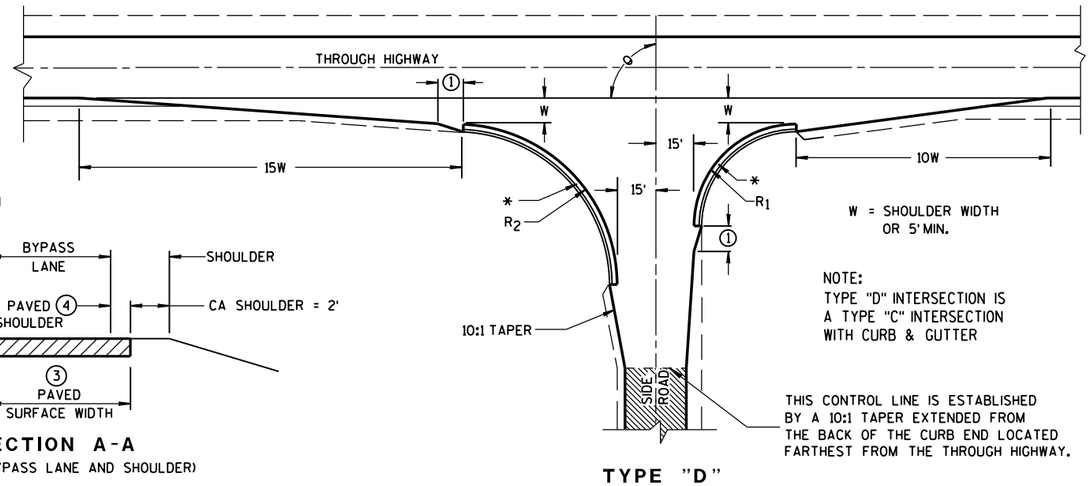
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

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

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



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

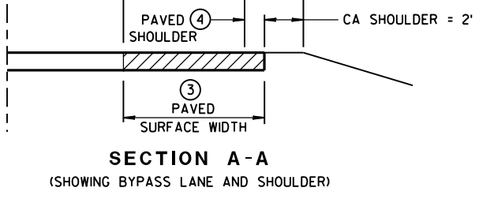
(1) 10-FT TYPICAL.

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

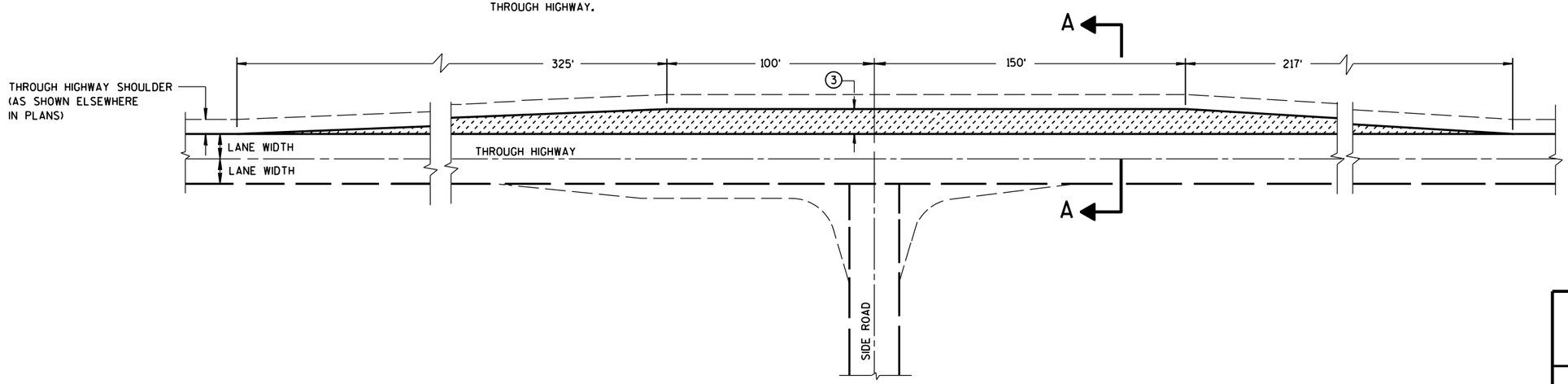
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

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

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



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 A 1-13a

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.

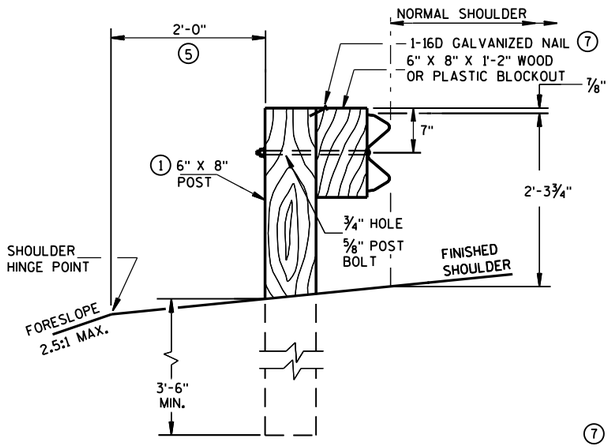
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(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.

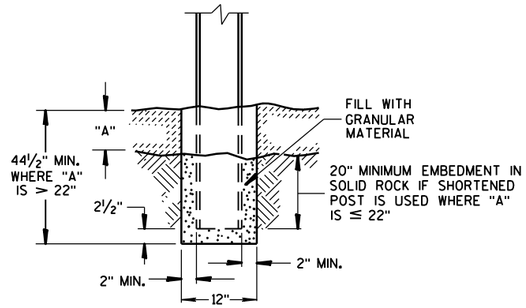
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

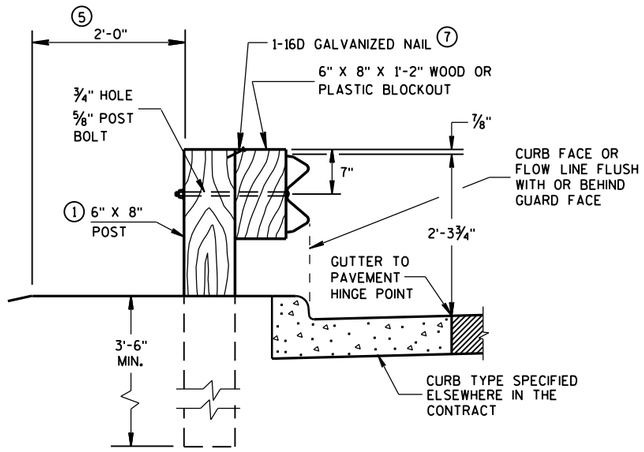
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



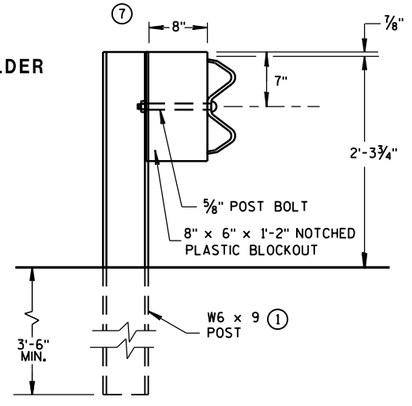
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



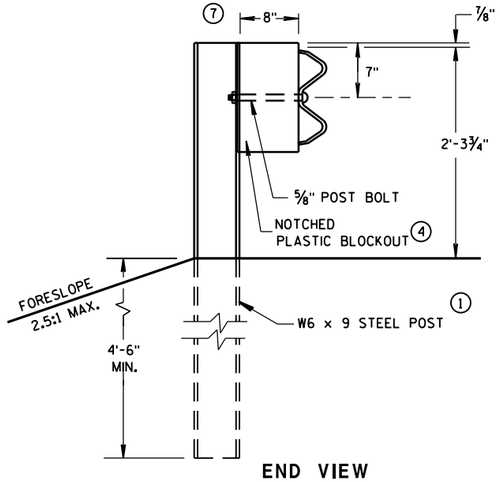
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



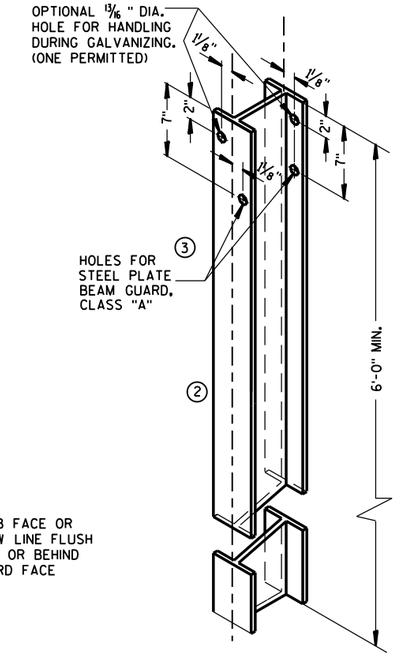
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION

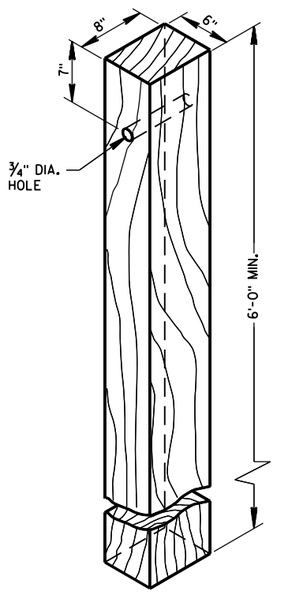


END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

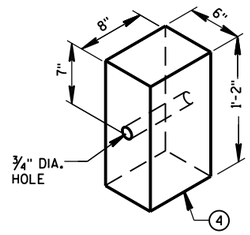


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

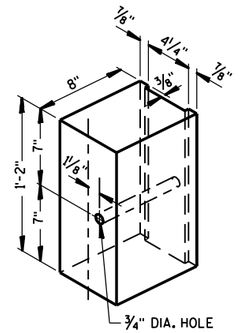
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



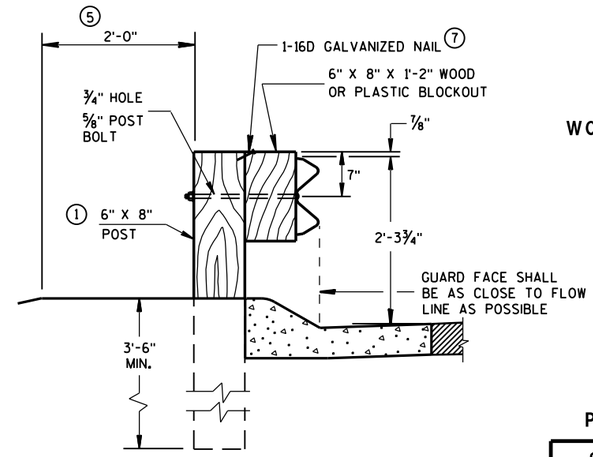
WOOD POST
(6"X8") NOMINAL



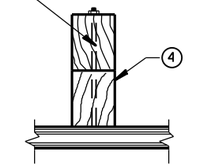
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



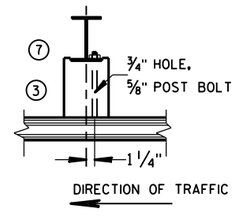
TYPICAL NOTCHED (1)
PLASTIC BLOCKOUT
FOR STEEL POSTS



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



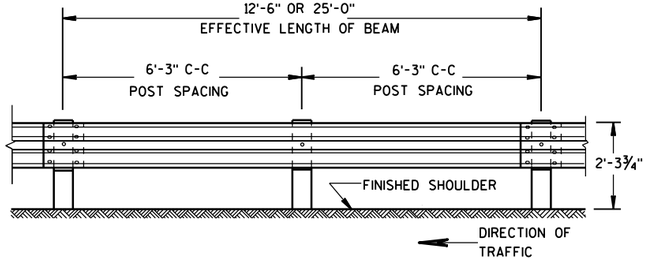
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

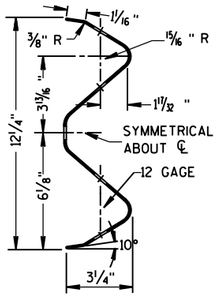
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 90

6
S.D.D. 14 B 15-8a

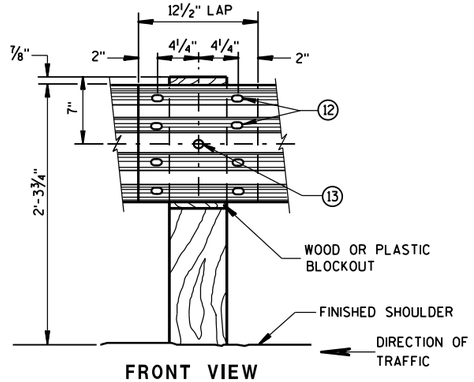


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

(8) PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

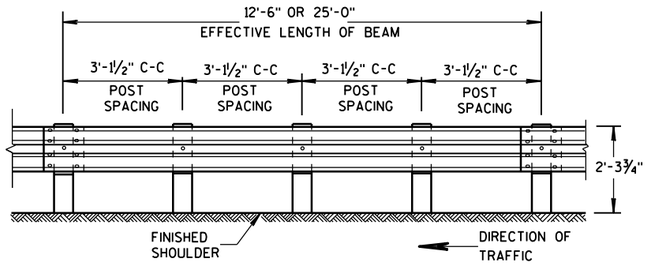
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

(10) REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

(11) PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

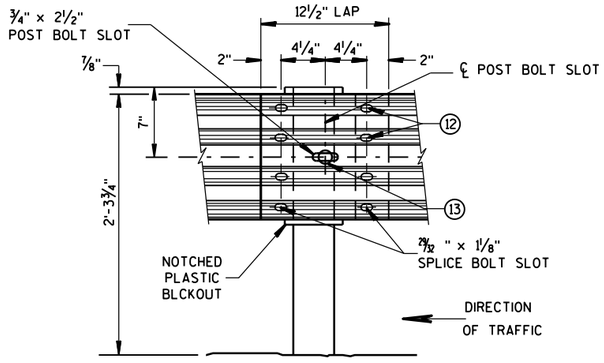
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



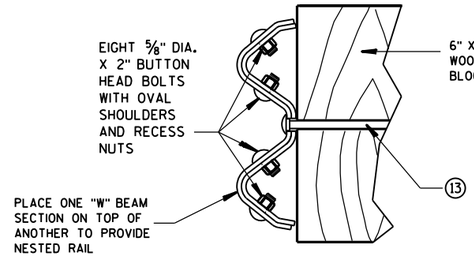
FRONT VIEW

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



FRONT VIEW

BEAM SPLICE AT STEEL POST



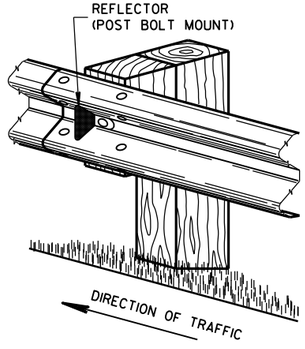
NESTED W BEAM (NW)

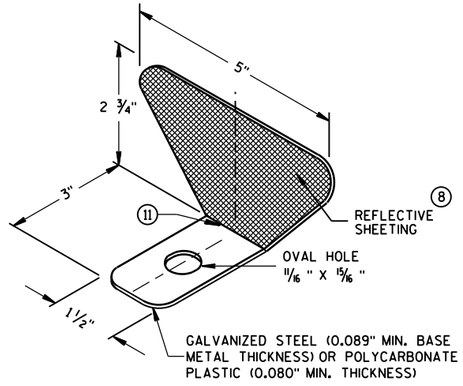
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

REFLECTOR SPACING (9)

	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 (10)	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 (11)	3
	> 200'	100' C-C	2	





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION (8)

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

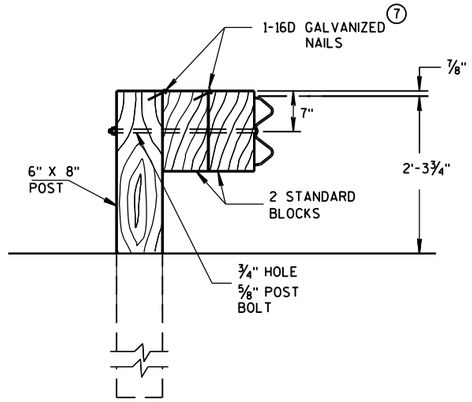
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

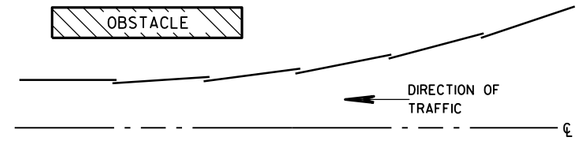
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S.D.D. 14 B 15-8b

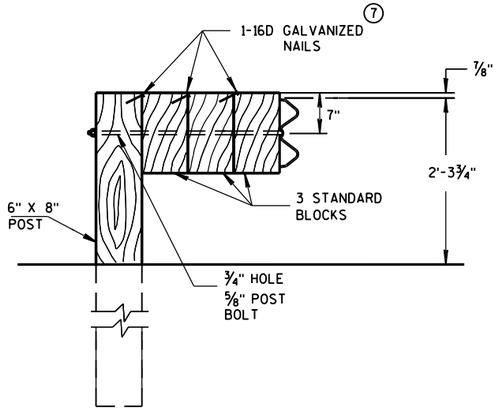


DETAIL FOR DOUBLE BLOCKS

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

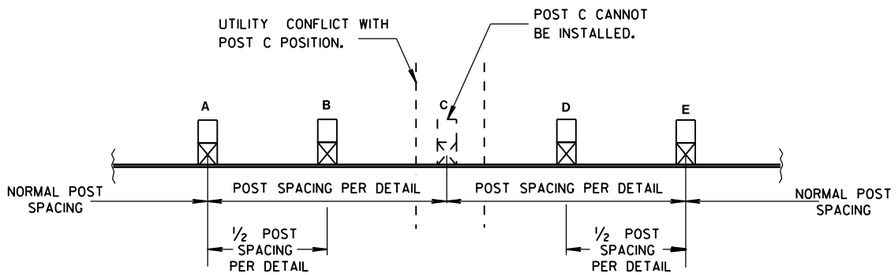


PLAN VIEW
BEAM LAPPING DETAIL



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

June 2014	/S/ Jerry H. Zogg	
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER	FHWA

6

S.D.D. 14 B 15-8c

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
(1)	4	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
(2)	**	STEEL TUBE: OPTION 1 - QUANITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
(3)	2	SOIL PLATE: 2'-0" X 1'-6" X ¼" **
(4)	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
(5)	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
(6)	1	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
(7)	1	BEARING PLATE
(8)	1	BCT CABLE ASSEMBLY
(9)	1	CABLE ANCHOR BOX
(10)	1	STRUT & YOKE
(11)	1	STEEL PLATE BEAM, END PANEL 12 GA. 13'-6½" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
(12)	3	STEEL PLATE BEAM: 12 GA. 13'-6½"
(13)	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
(14)	1	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(15)	1	E.A.T. MARKER POST

GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL ⅝" ø X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.

(D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.

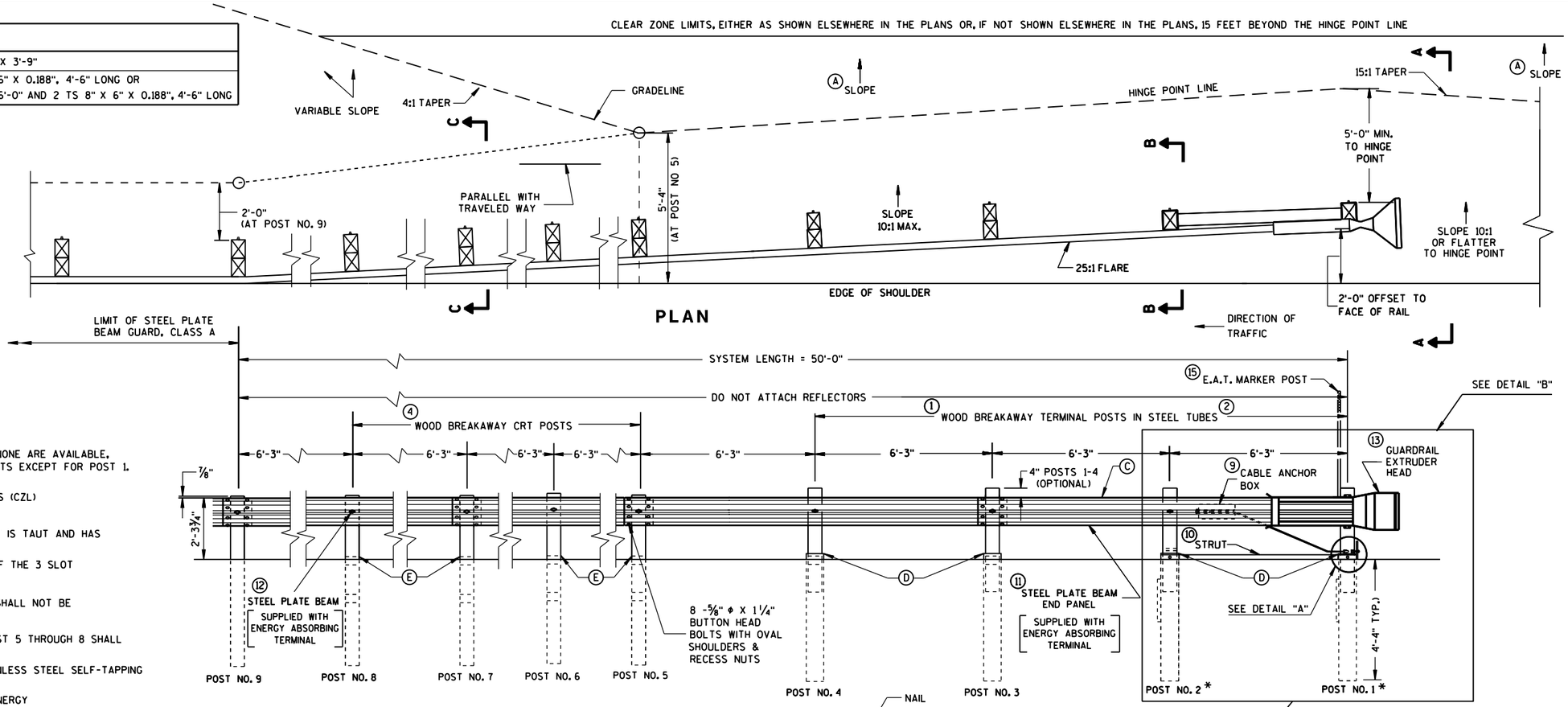
(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

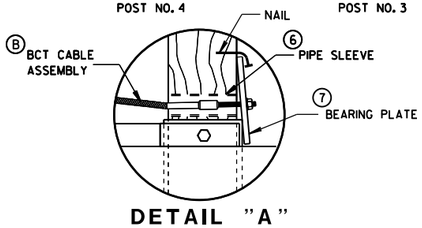
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

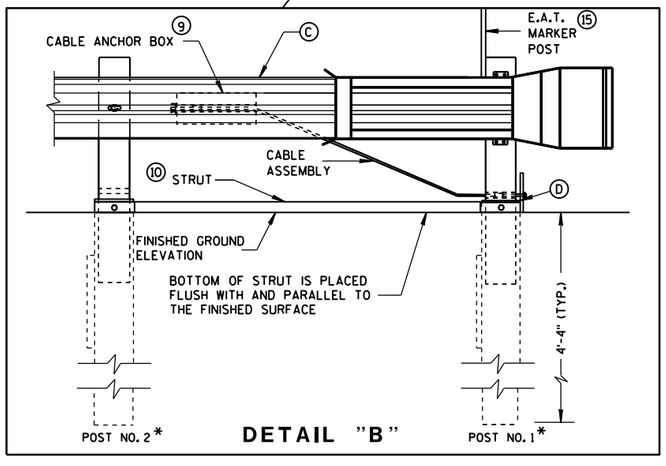
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH SOIL TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



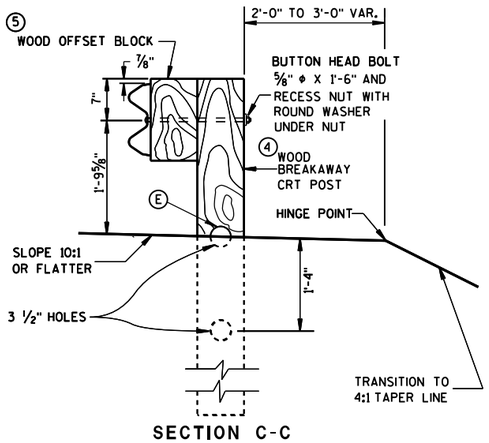
ELEVATION



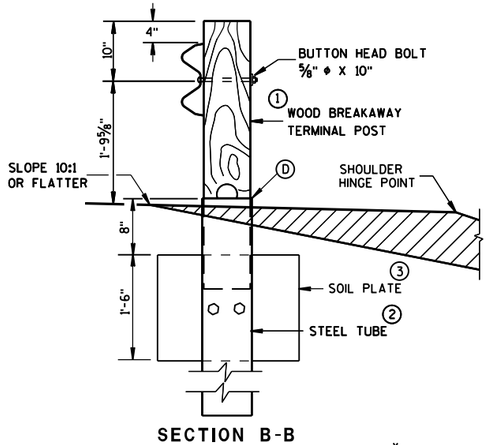
DETAIL "A"



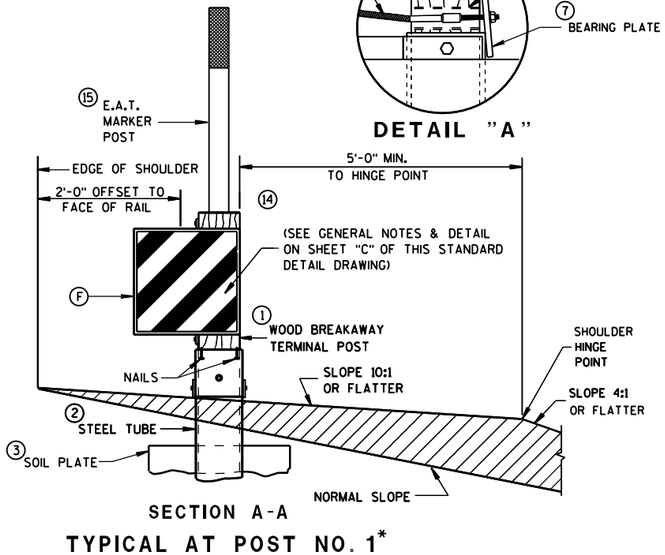
DETAIL "B"



SECTION C-C
TYPICAL AT POST NOS. 6, 8



SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

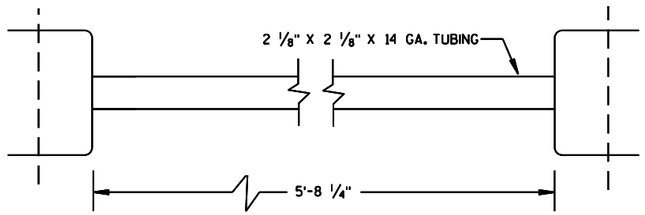
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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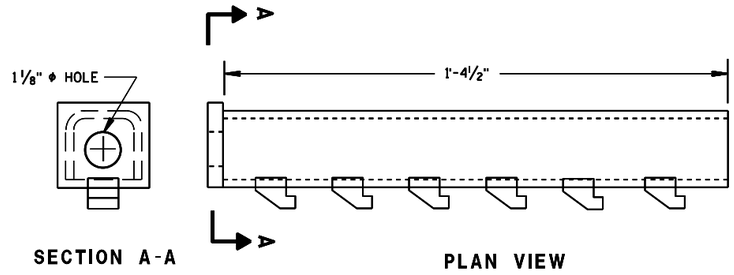
S.D.D. 14 B 24-8a

6

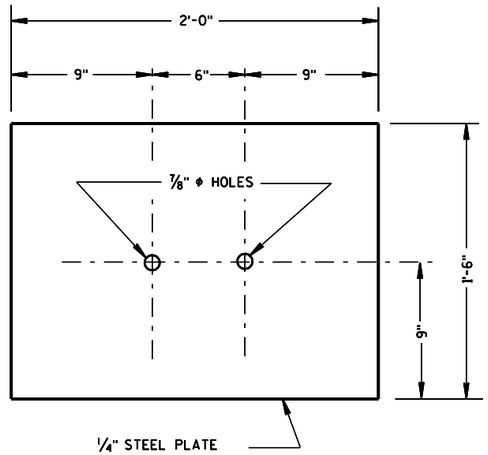
S.D.D. 14 B 24-8a



⑩ STRUT DETAIL (SKT-350)

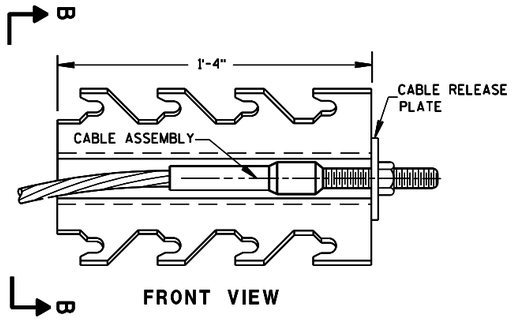


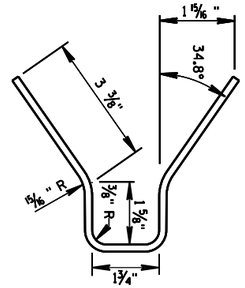
⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)



③ SOIL PLATE

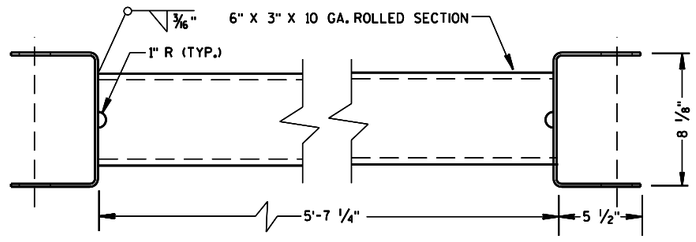
(SKT-350, ET-2000/ET-2000 PLUS)





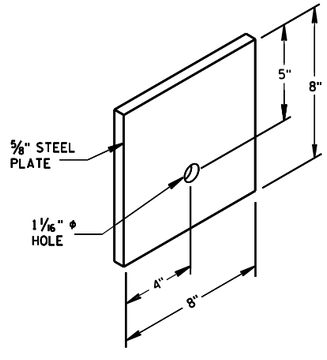
⑨ CABLE ANCHOR BOX (SKT-350)

(SKT-350)



⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



⑦ STEEL BEARING PLATE

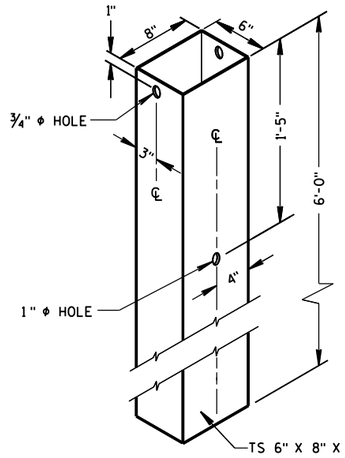
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

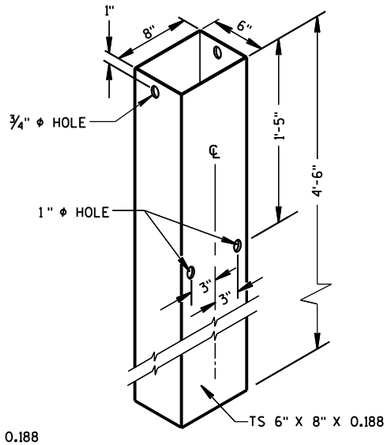
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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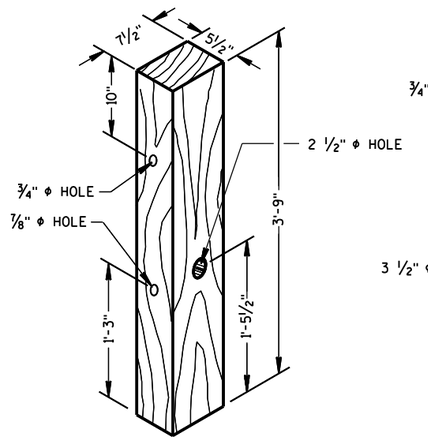
S.D.D. 14 B 24-8b



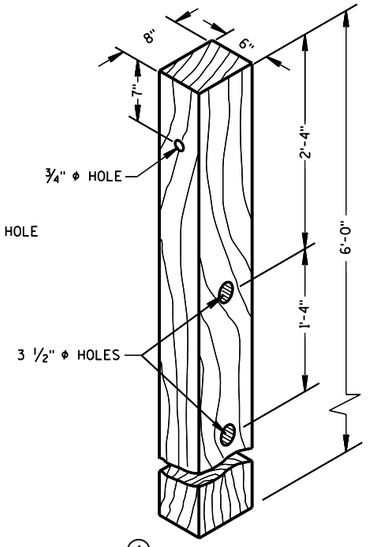
② 72" STEEL TUBE
(POSTS NO. 1-4



② 54" STEEL TUBE
(POSTS NO. 1-4



① TERMINAL POST
(POSTS NO. 1-4



④ CRT POST
(POSTS NO'S 5-8

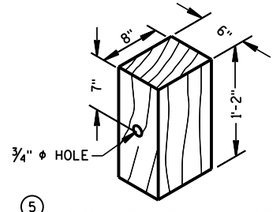
WOOD BREAKAWAY POSTS

GENERAL NOTES

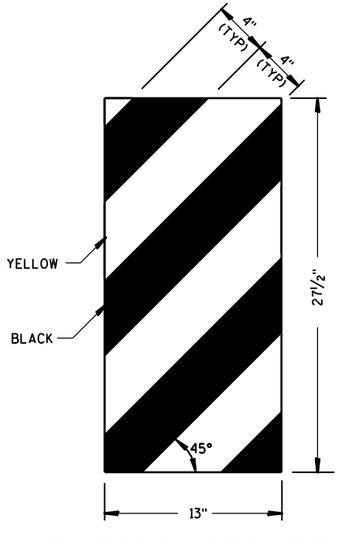
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 ½" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

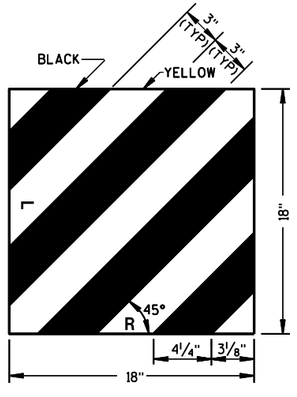
(G) ½" DIA. X 3" LAG BOLT WITH WASHER.



⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

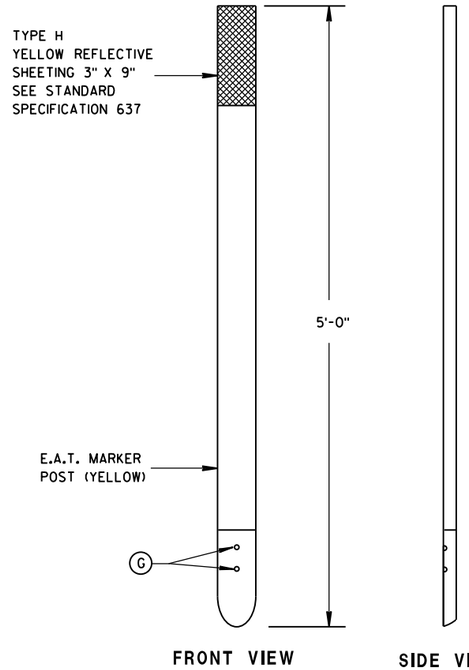


ET-2000 PLUS ONLY



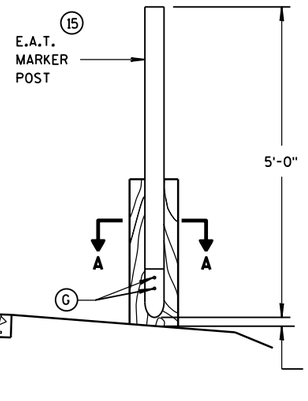
ET-2000 AND SKT-350

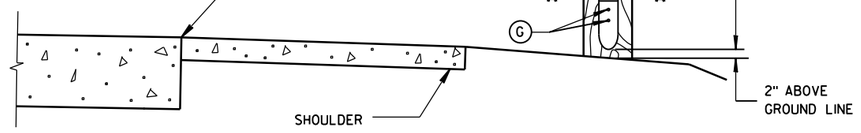
⑭ REFLECTIVE SHEETING DETAILS



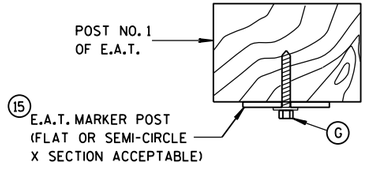
FRONT VIEW SIDE VIEW

⑮ E.A.T. MARKER POST





TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

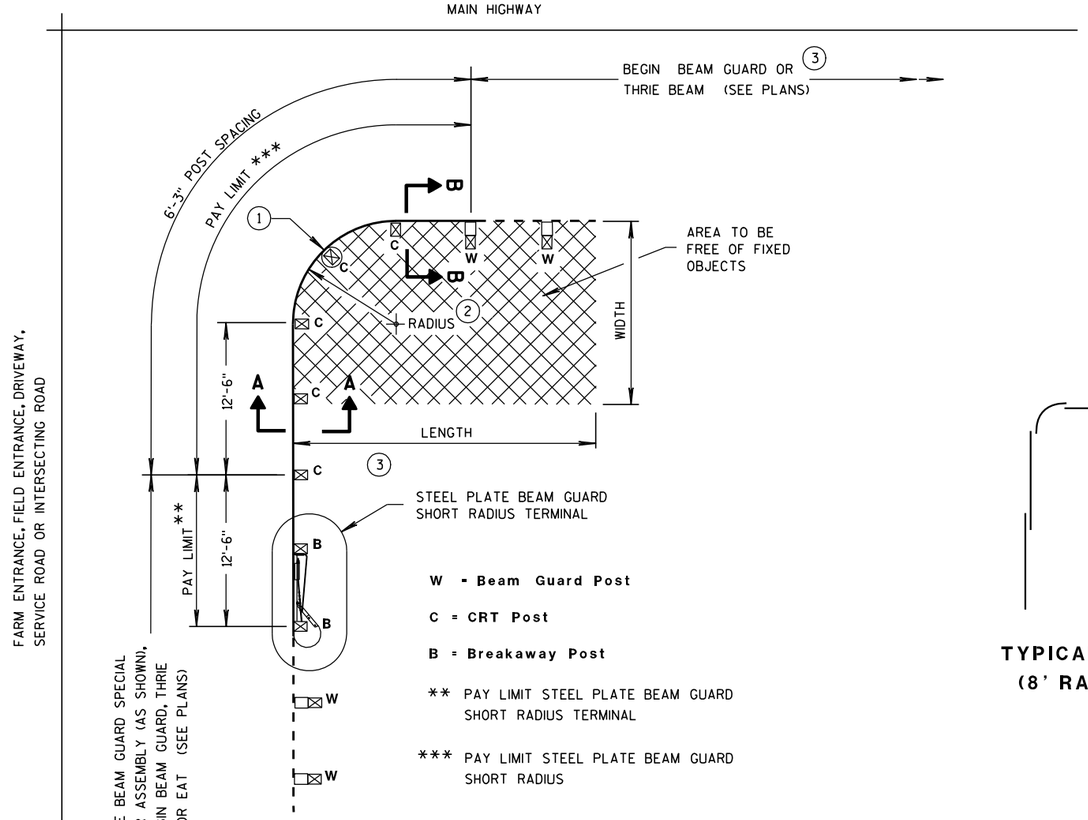
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

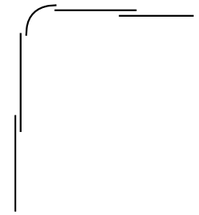
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 24-8c



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.

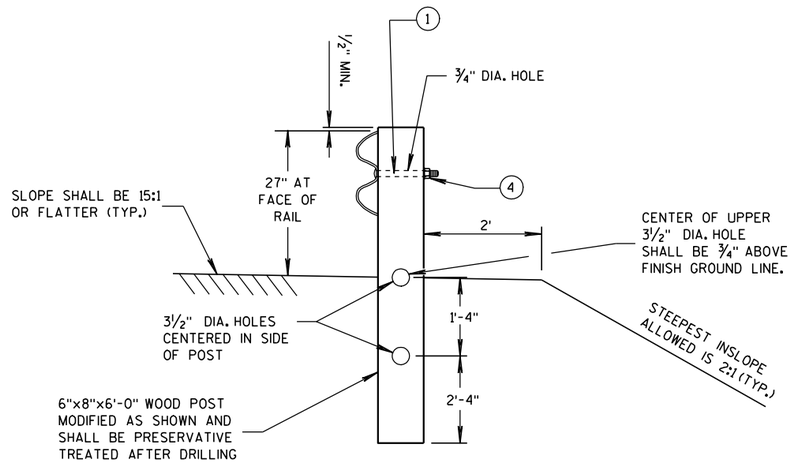
(2) RADIUS FROM 8' - 36'. SEE PLAN.

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

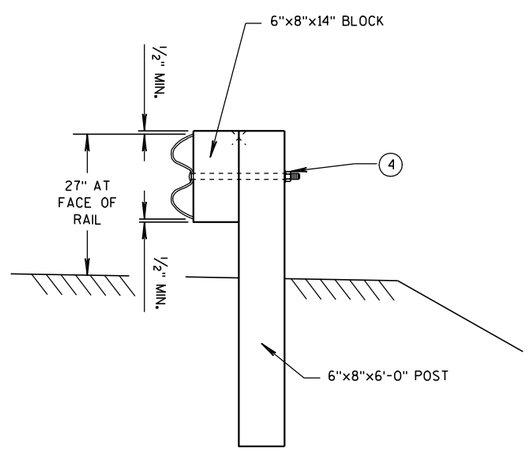
(4) 5/8" ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

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

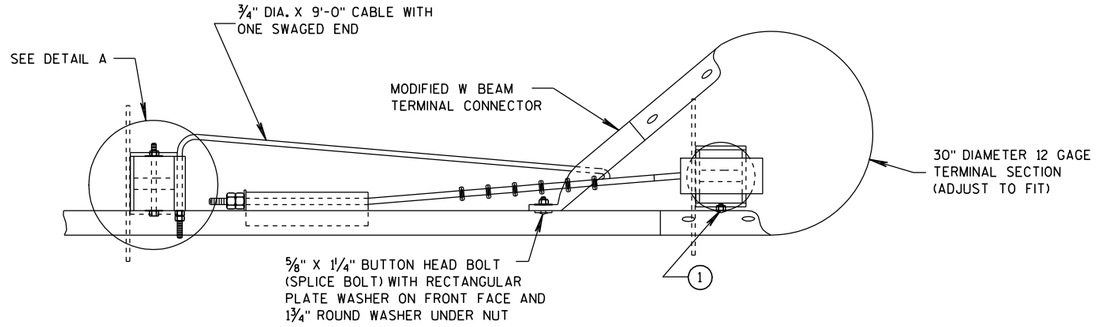
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

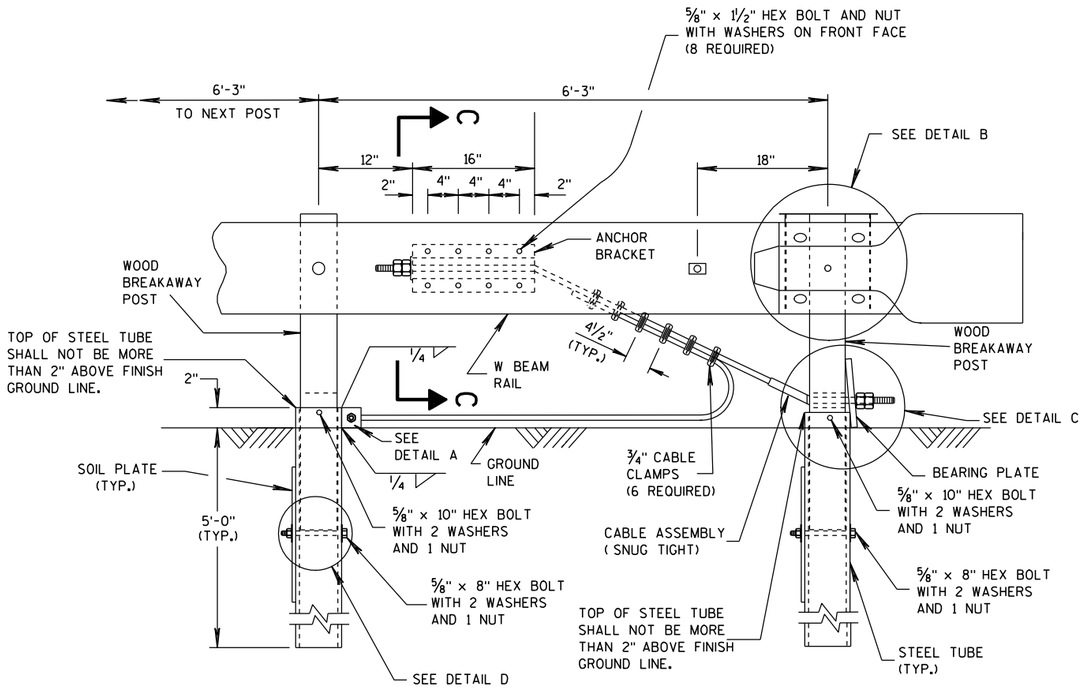
S.D.D. 14 B 27-1a

6

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



PLAN VIEW



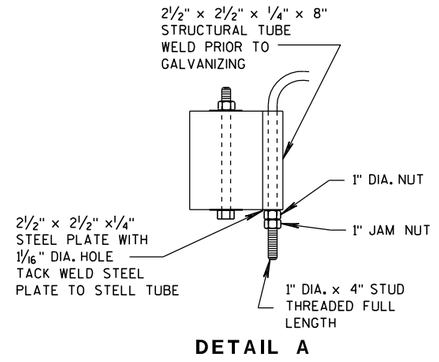
ELEVATION VIEW

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

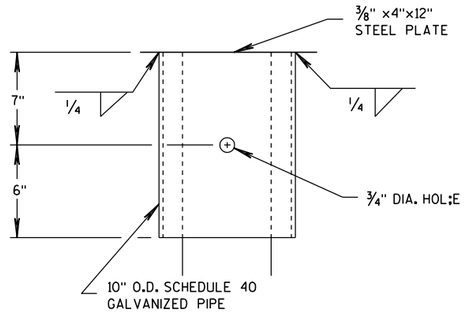
GENERAL NOTES

(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

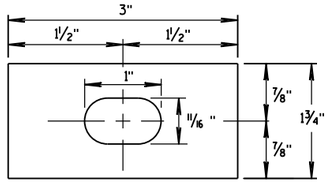
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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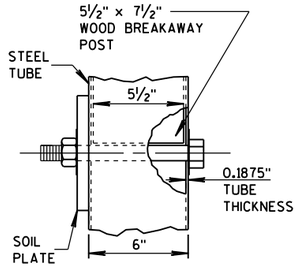
S.D.D. 14 B 27-1b

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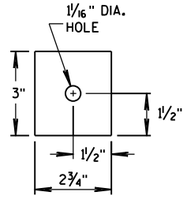
S.D.D. 14 B 27-1b



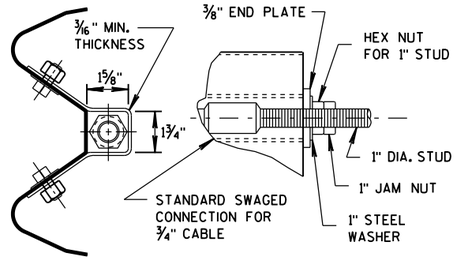
RECTANGULAR PLATE WASHER



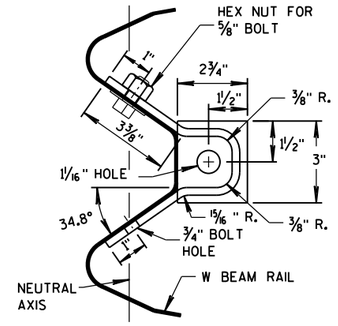
DETAIL D



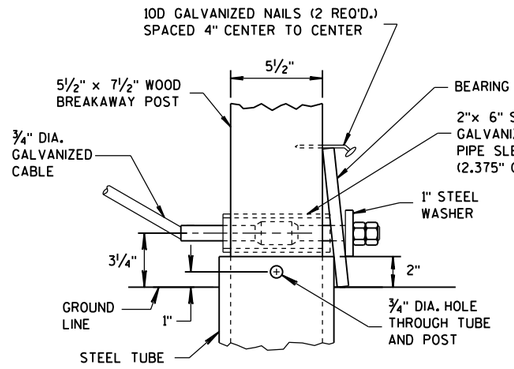
END PLATE



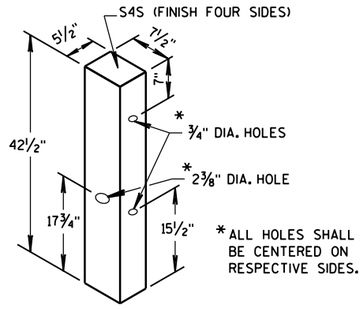
SECTION C-C
(END PLATE REMOVED)



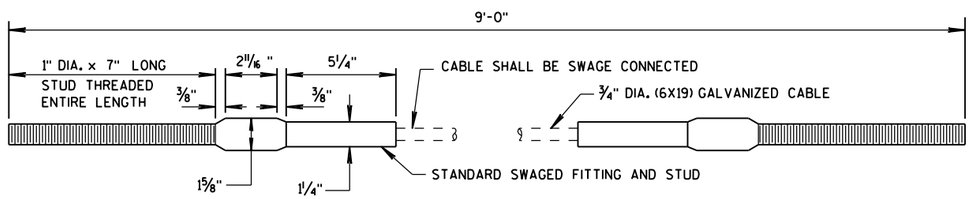
ANCHOR BRACKET



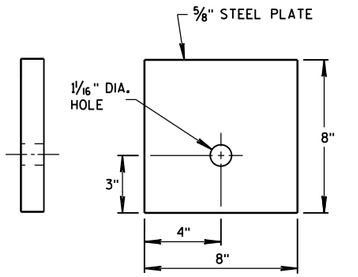
DETAIL C



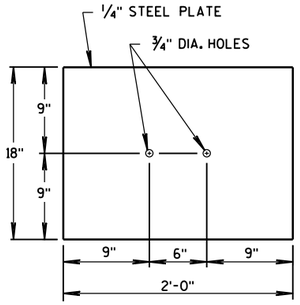
WOOD BREAKAWAY POST



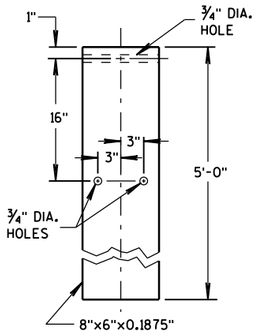
CABLE ASSEMBLY



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 ENGINEER
FHWA

6

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

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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.

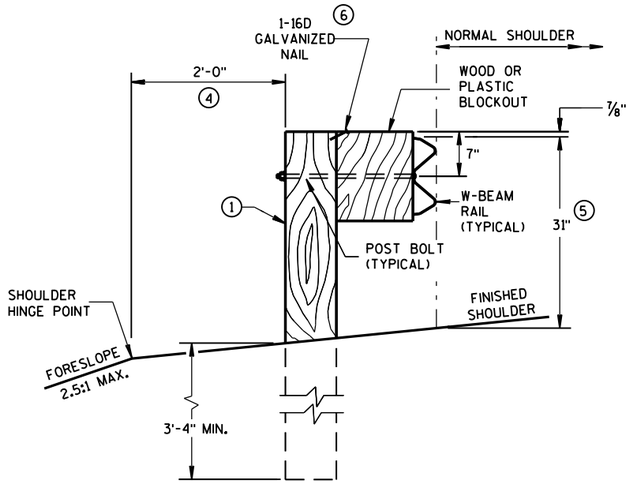
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES 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).

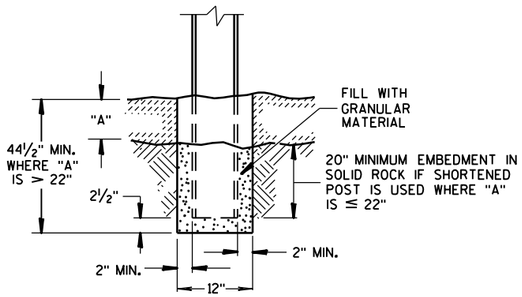
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



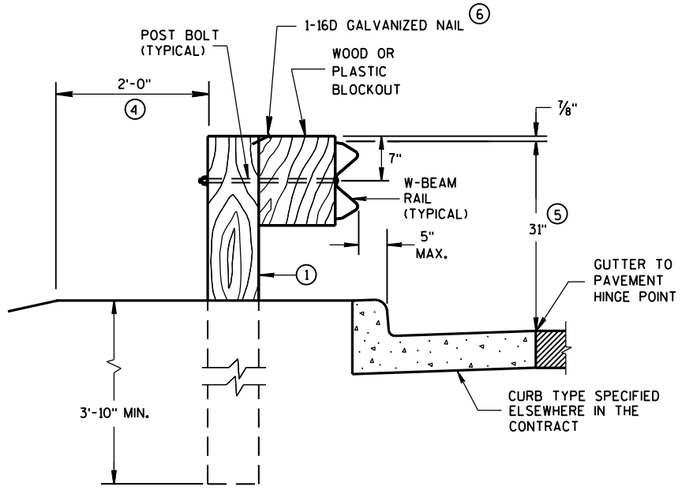
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



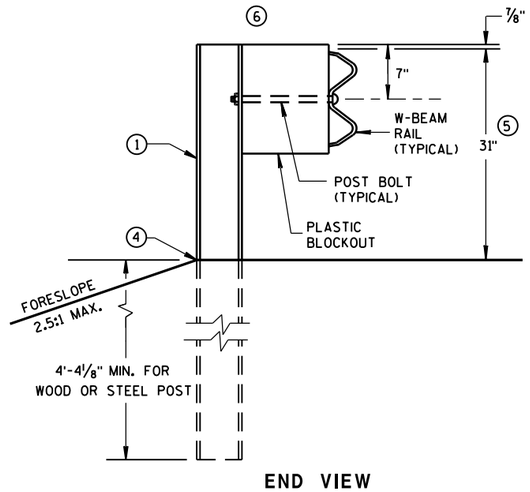
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



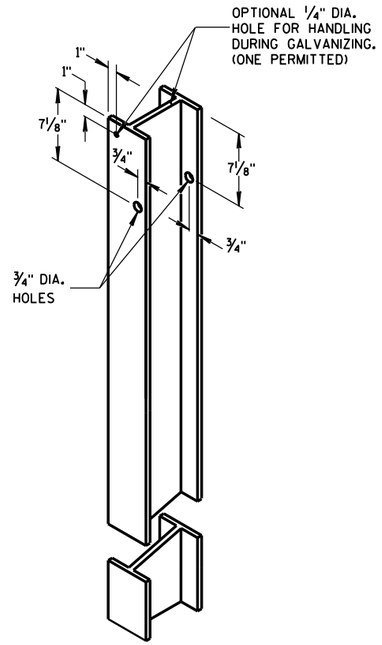
END VIEW

LOCATED ALONG A CURBED ROADWAY

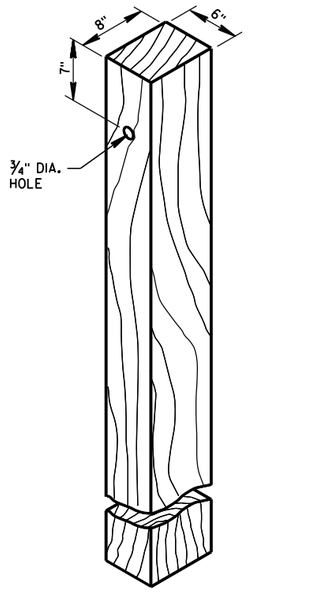


END VIEW

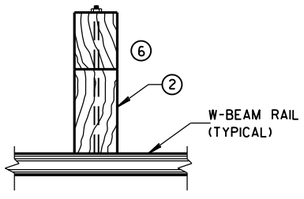
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



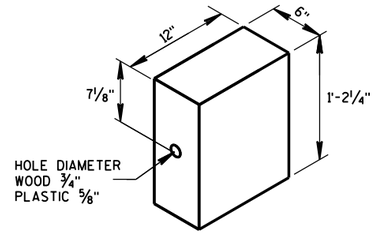
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



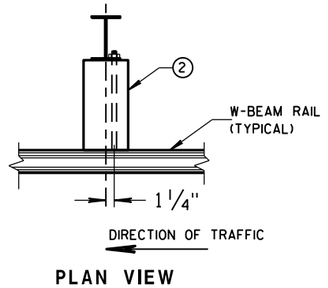
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



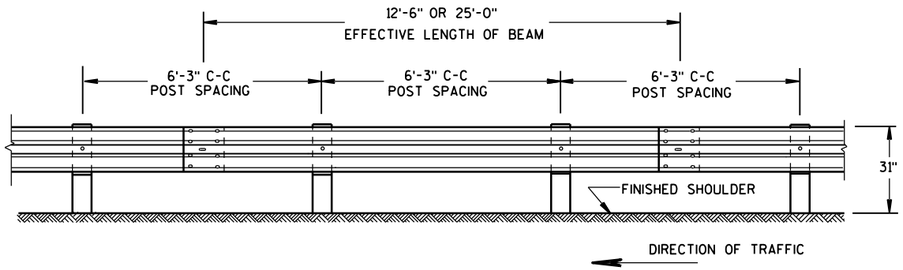
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

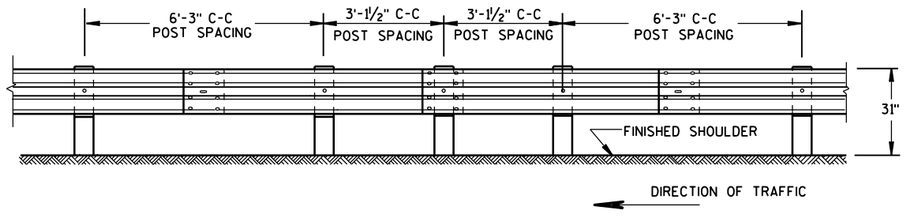
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S.D.D. 14 B 42-3a



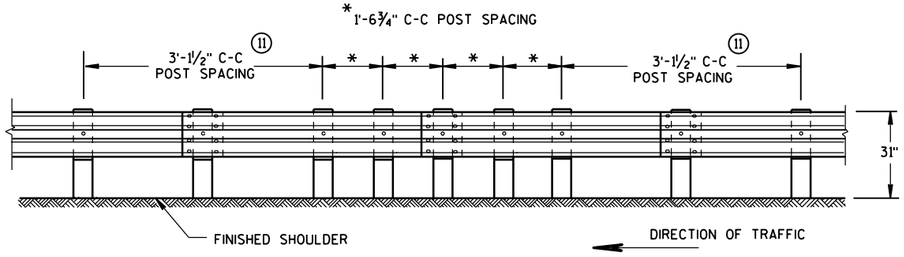
FRONT VIEW

POST SPACING STANDARD INSTALLATION



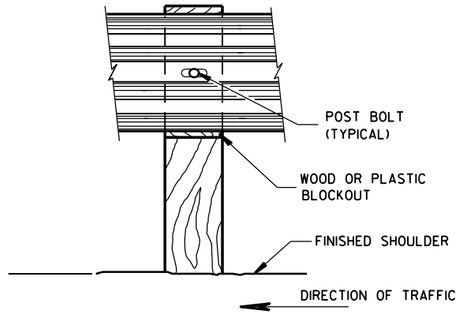
FRONT VIEW

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

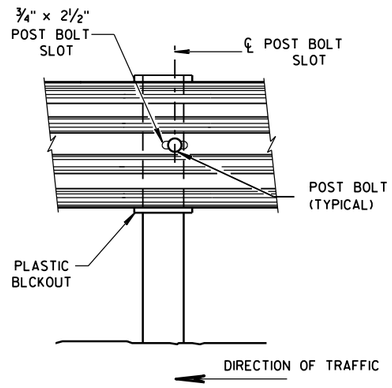


FRONT VIEW

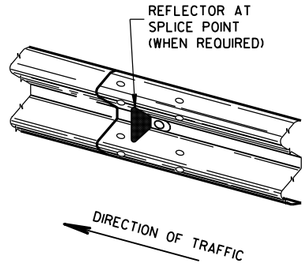
QUARTER POST SPACING (QS)

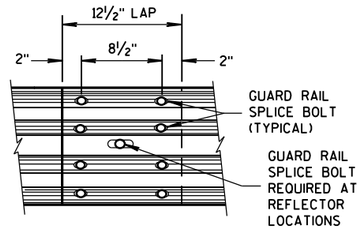


FRONT VIEW AT WOOD POST



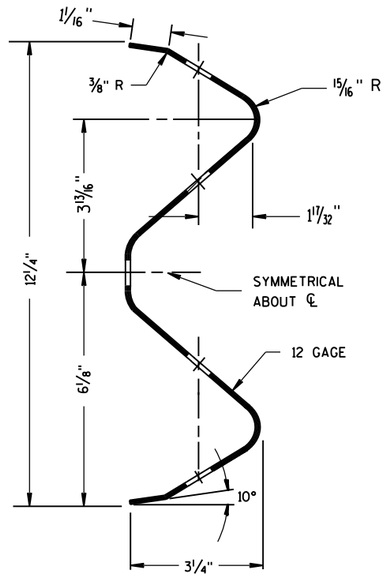
FRONT VIEW AT STEEL POST



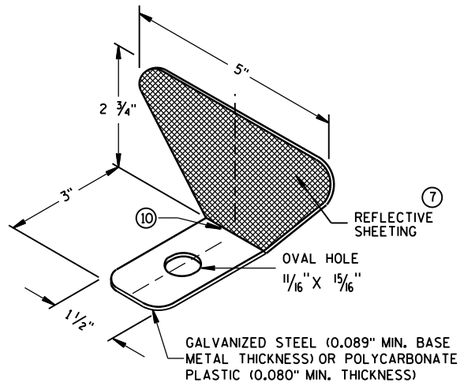


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ 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.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

	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 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

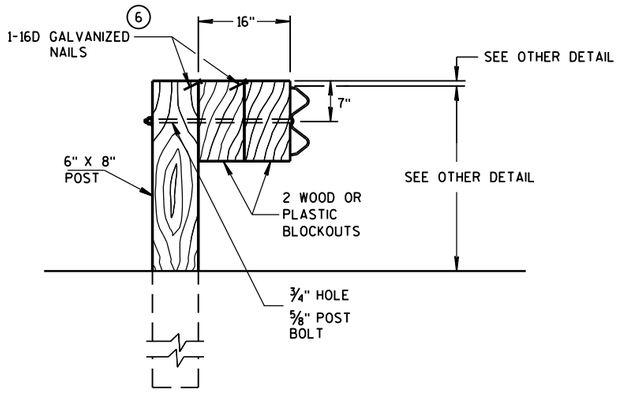
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

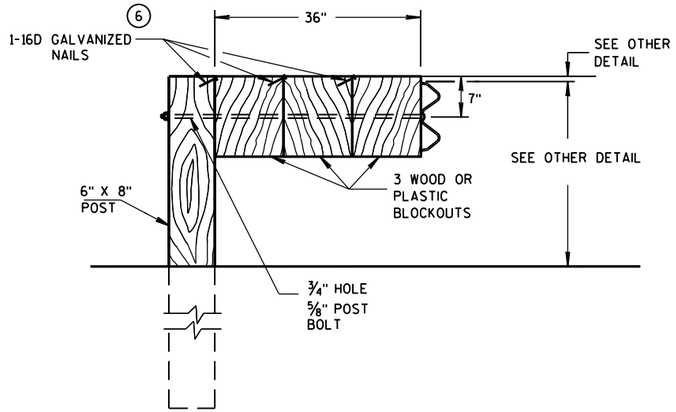
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S.D.D. 14 B 42-3b



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.

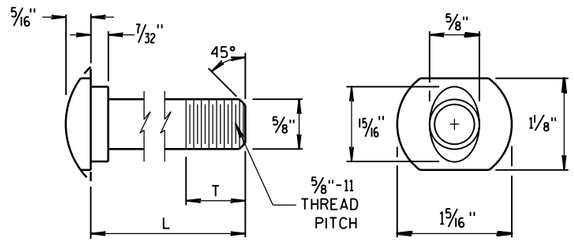


DETAIL FOR 36" BLOCKOUT DEPTH

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.

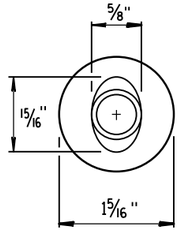
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

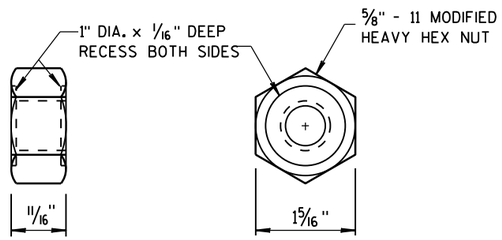


POST BOLT TABLE

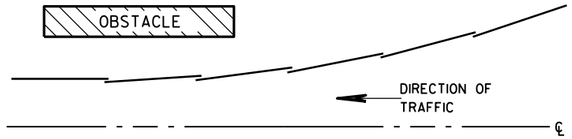
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

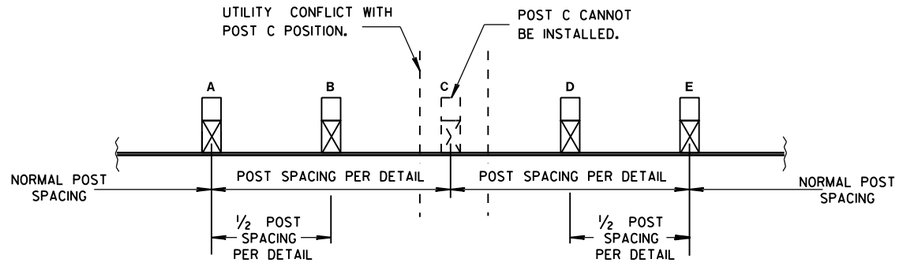


POST BOLT AND RECESS NUT

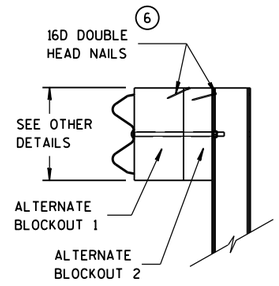


PLAN VIEW

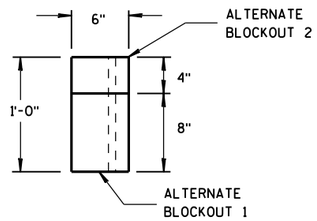
BEAM LAPPING DETAIL



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
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(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.

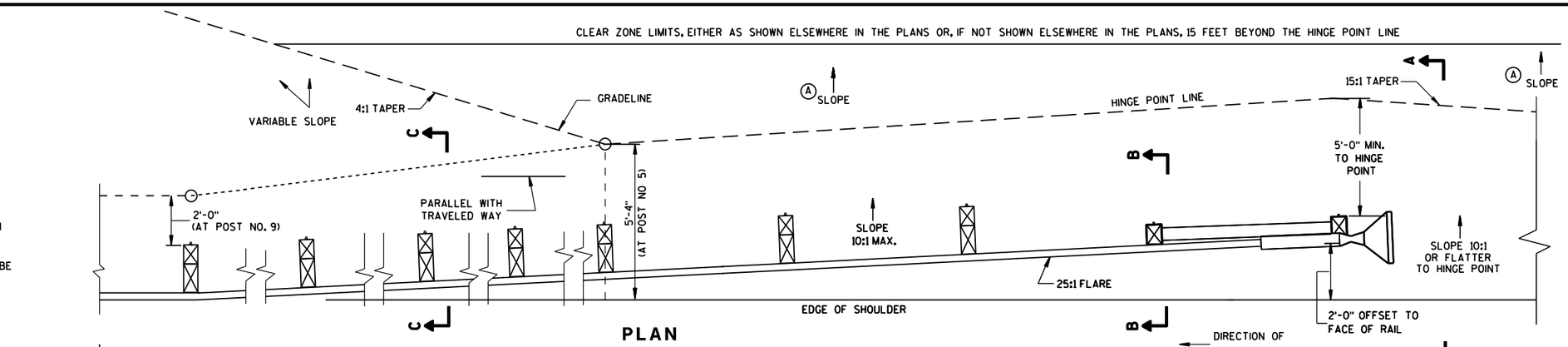
SEE SDD 14B42 FOR MORE INFORMATION.

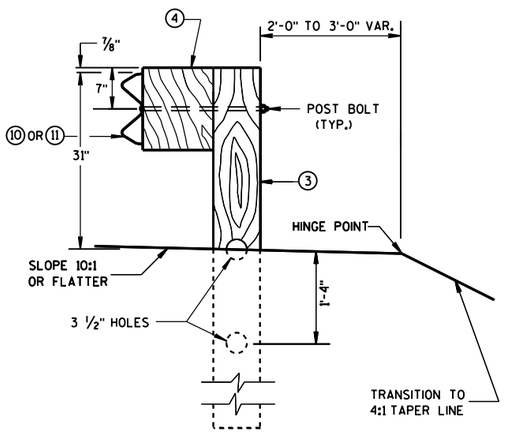
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

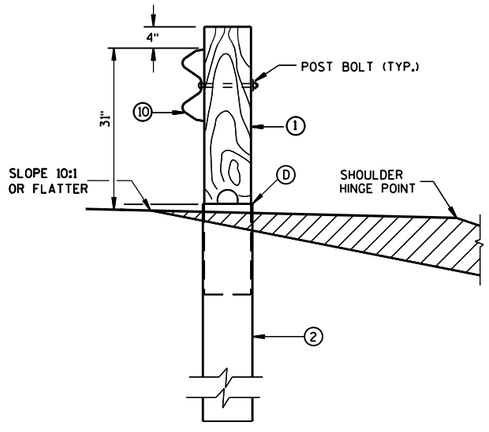
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

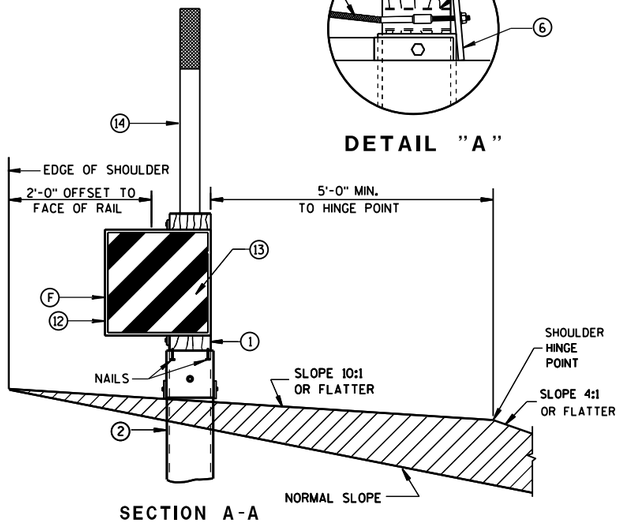




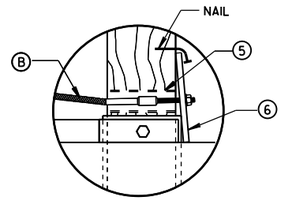
SECTION C-C
TYPICAL AT POST NOS. 3-9



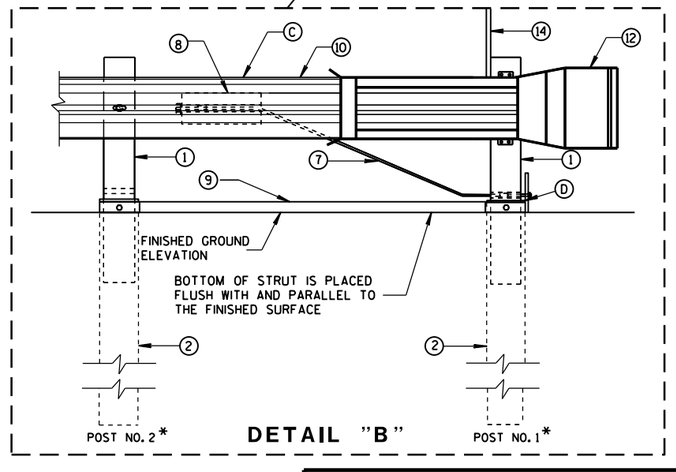
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



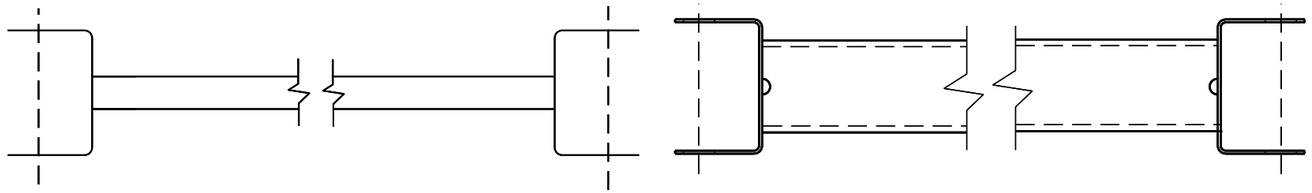
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

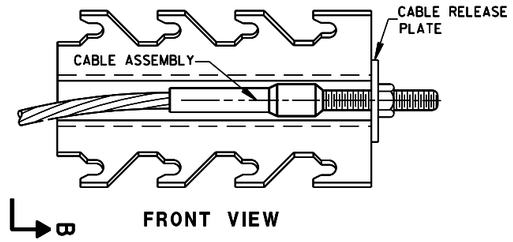
S.D.D. 14 B 44-2a



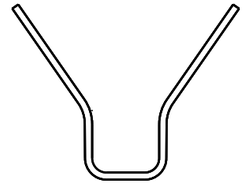
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

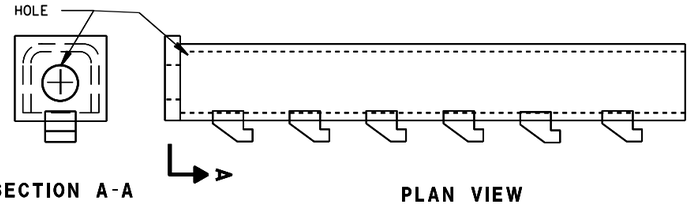
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR 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 F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



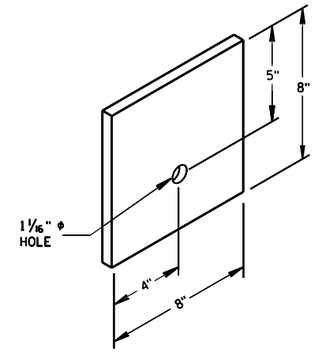
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



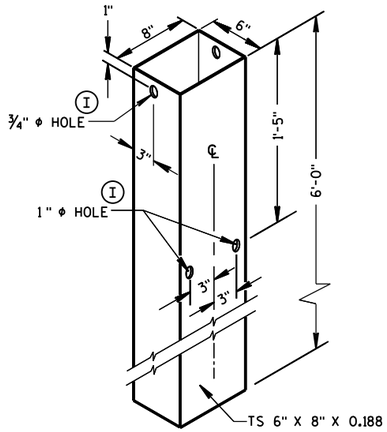
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

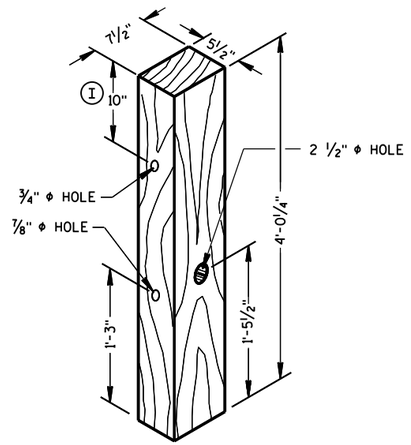
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 44-2b

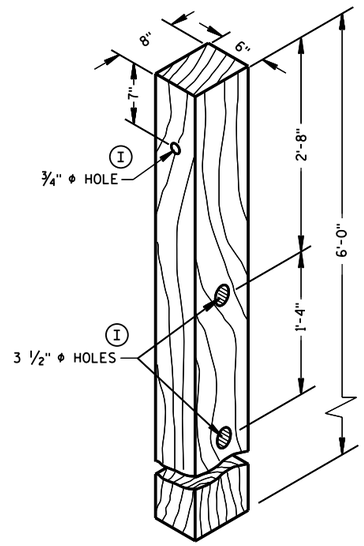


FOUNDATION TUBE (2)



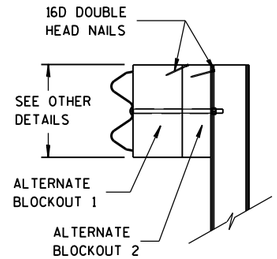
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

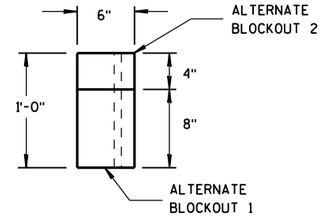


POSTS NUMBER 3-9

WOOD CRT POST (3)

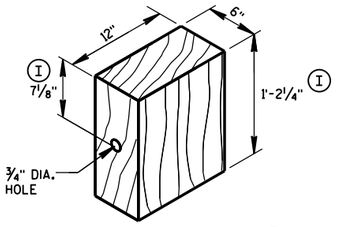


SIDE VIEW



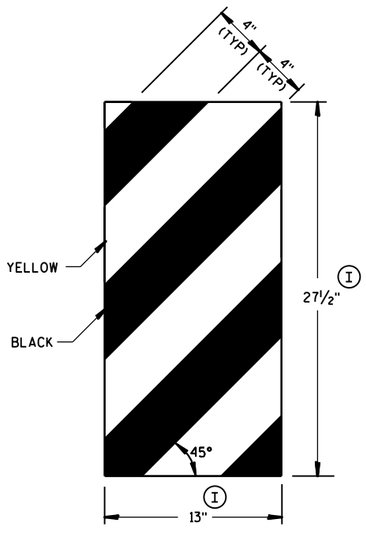
TOP VIEW

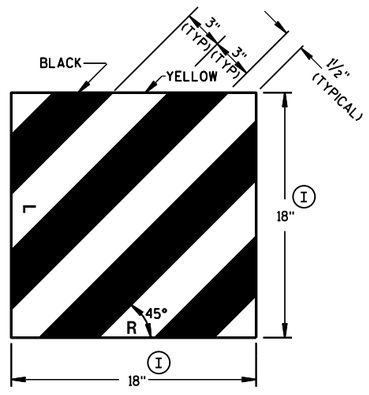
ALTERNATE WOOD BLOCKOUT DETAIL



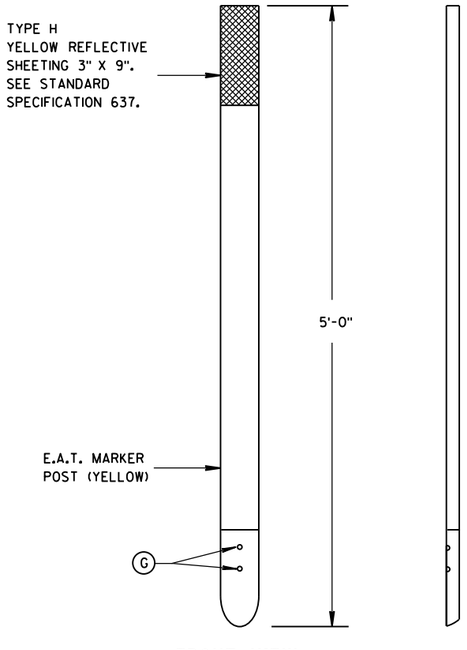
WOOD BLOCKOUT (4)

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





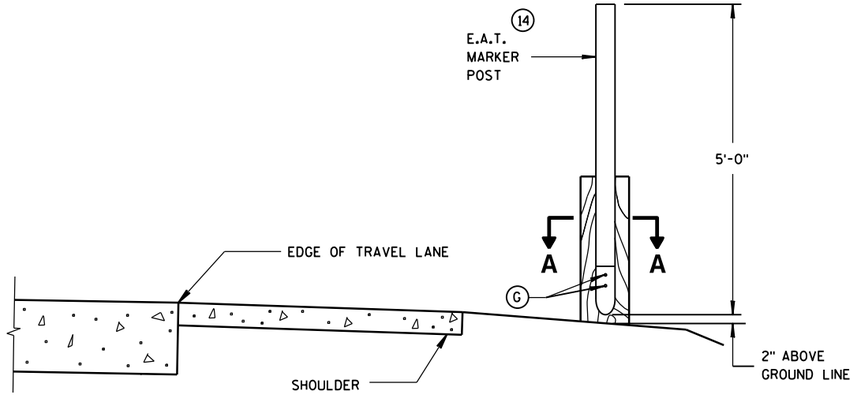
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

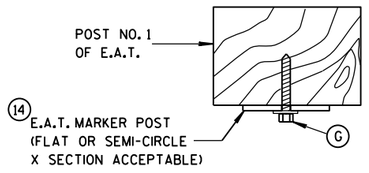
SIDE VIEW

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

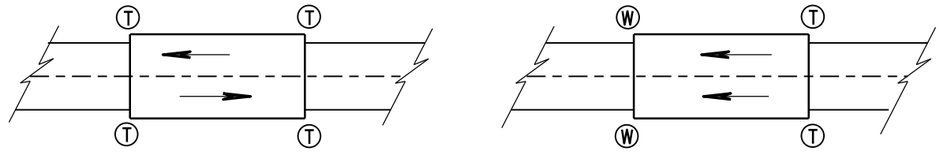
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

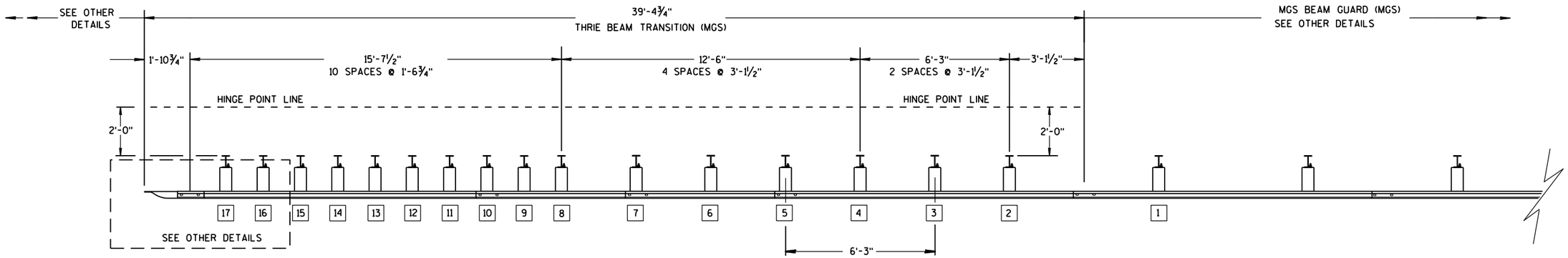
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

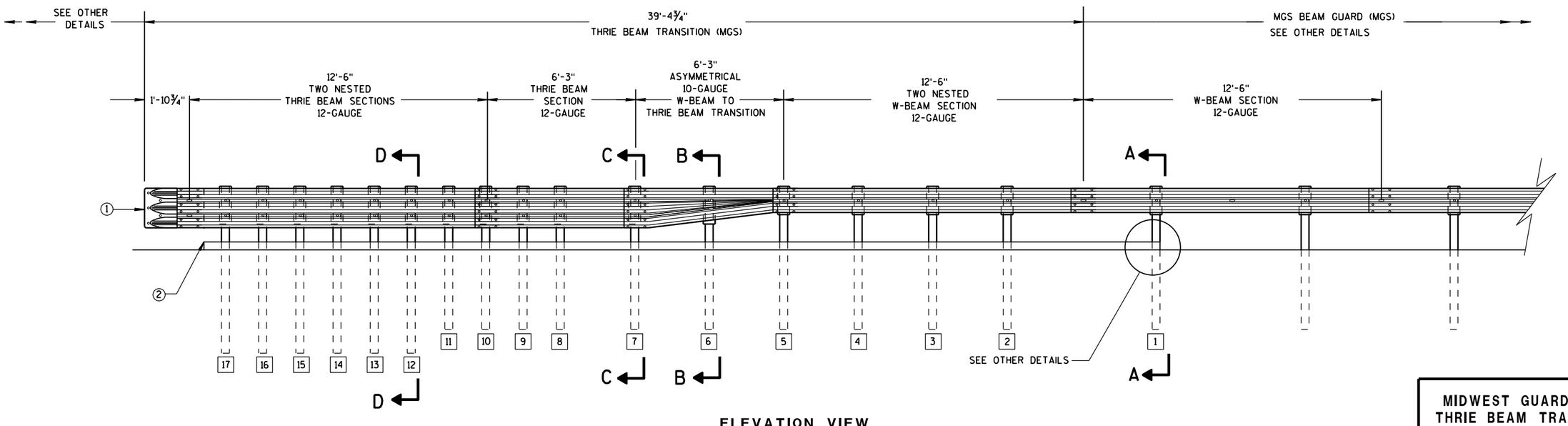
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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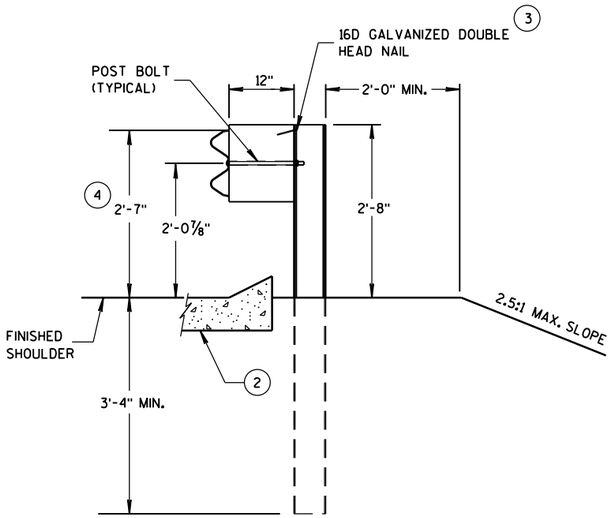
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

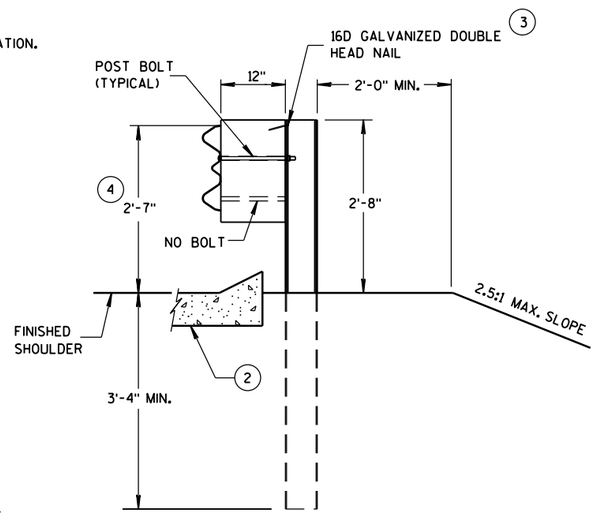
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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



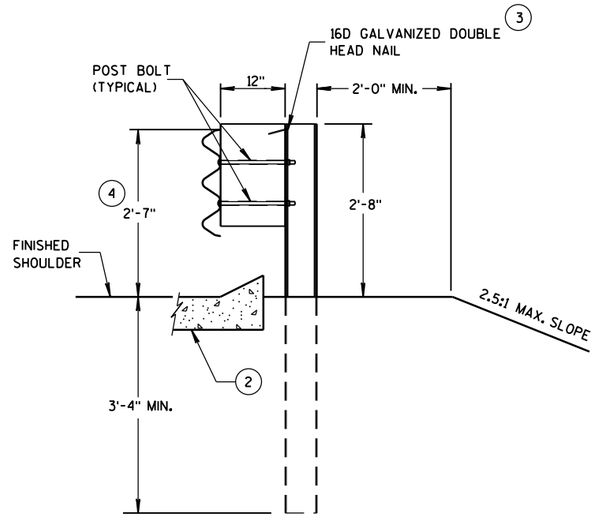
SECTION A-A

POSTS 1-5



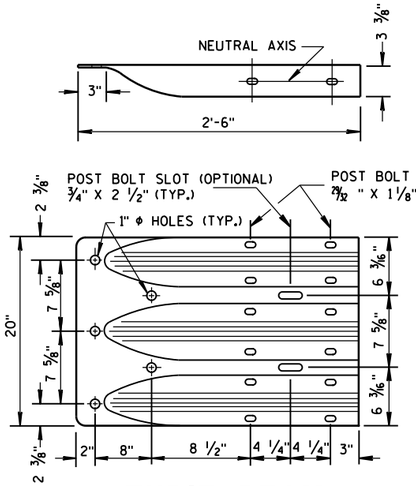
SECTION B-B

POST 6



SECTION C-C

POSTS 7-11



THRIE BEAM TERMINAL CONNECTOR

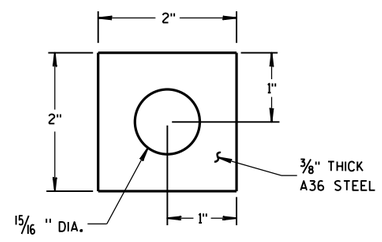
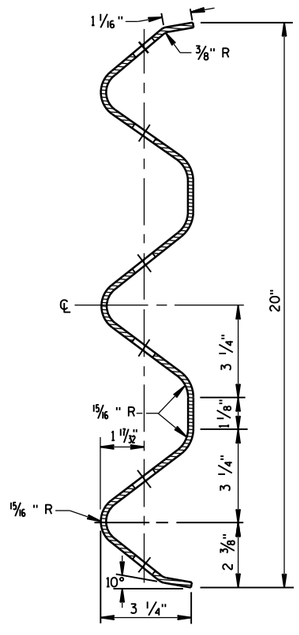
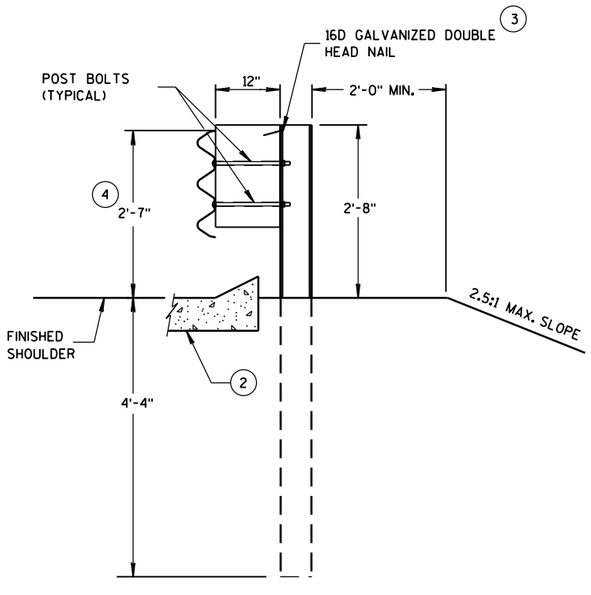


PLATE WASHER DETAIL

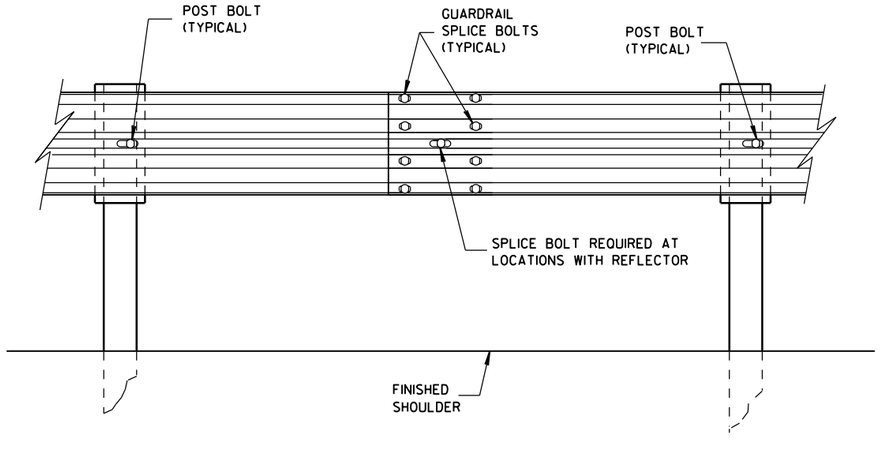


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-17



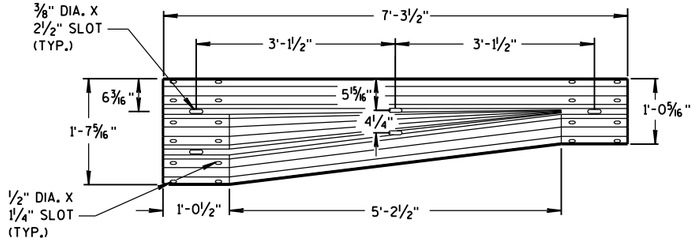
SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

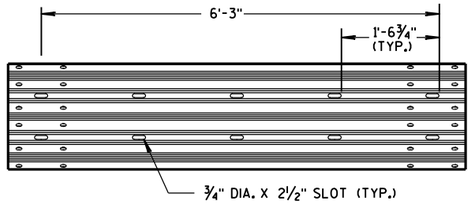
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

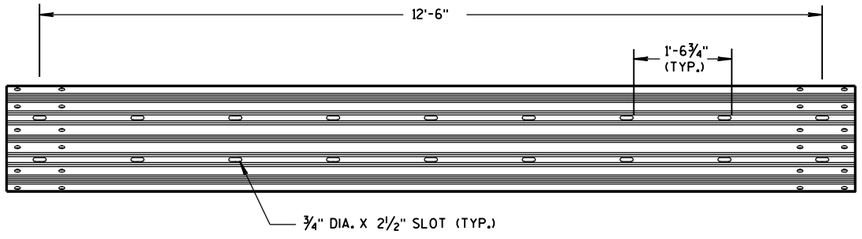
S.D.D. 14 B 45-4b



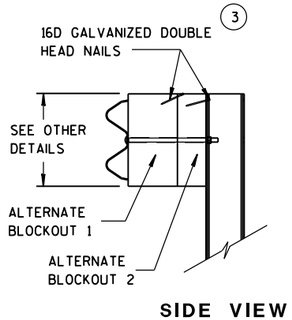
W-BEAM TO THRIE BEAM TRANSITION SECTION



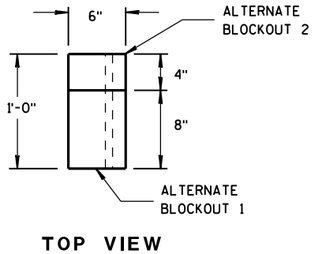
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

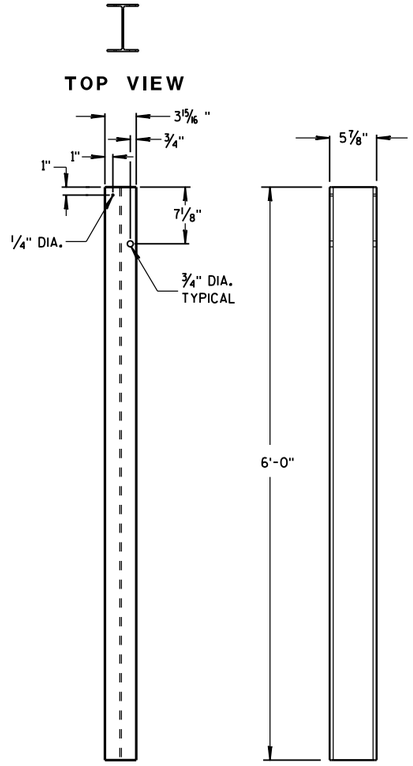


SIDE VIEW

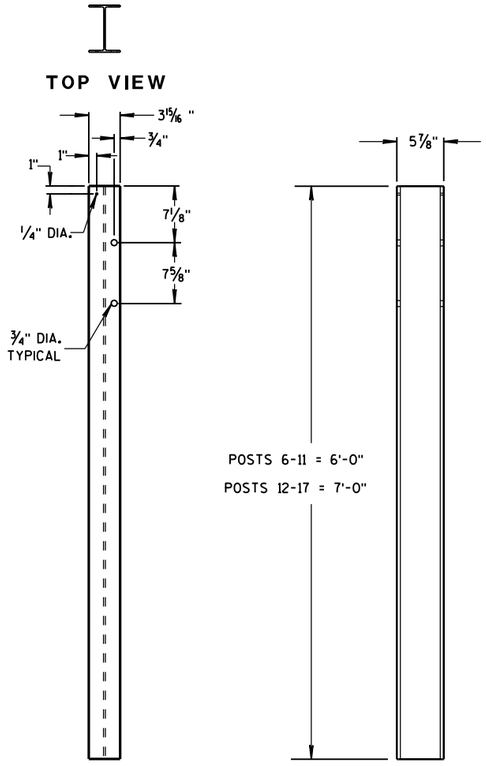


TOP VIEW

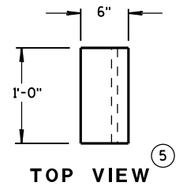
ALTERNATE WOOD BLOCKOUT DETAIL



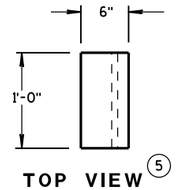
STEEL POSTS 1-5



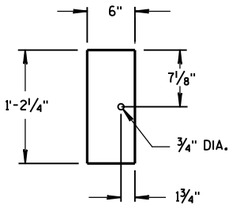
STEEL POSTS 6-17



TOP VIEW

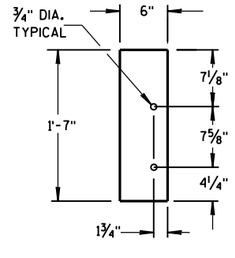


TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

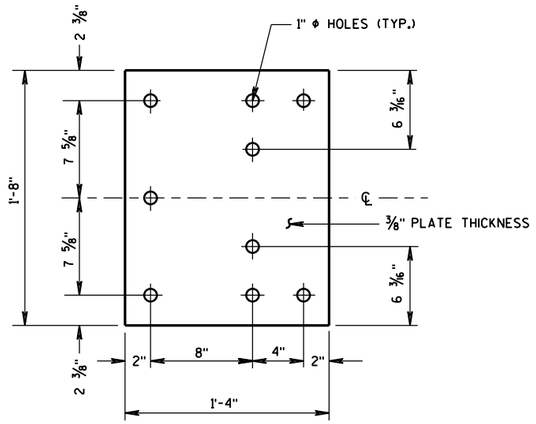
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

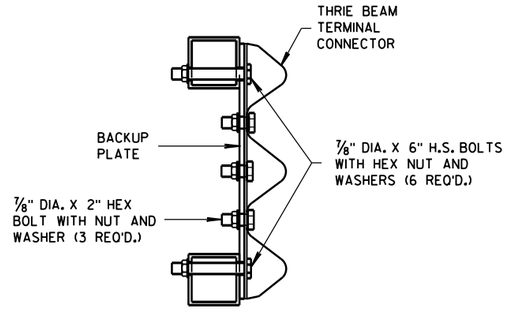
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

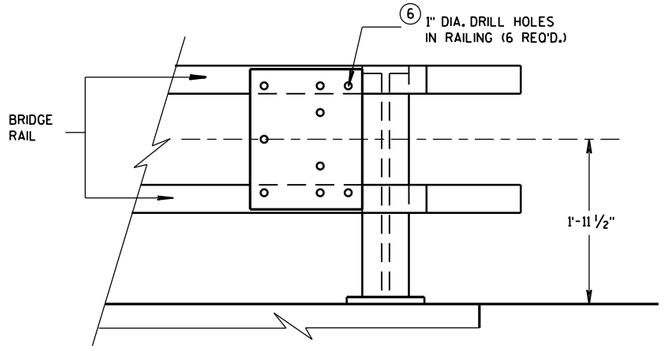
S.D.D. 14 B 45-4c
S.D.D. 14 B 45-4c



BACK-UP PLATE DETAIL



SECTION J-J

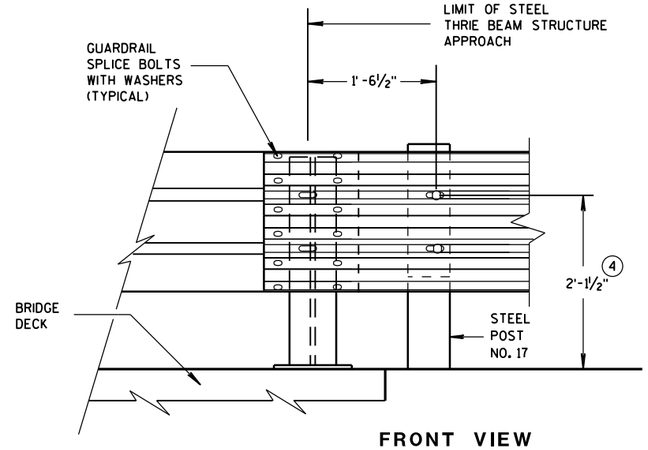


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

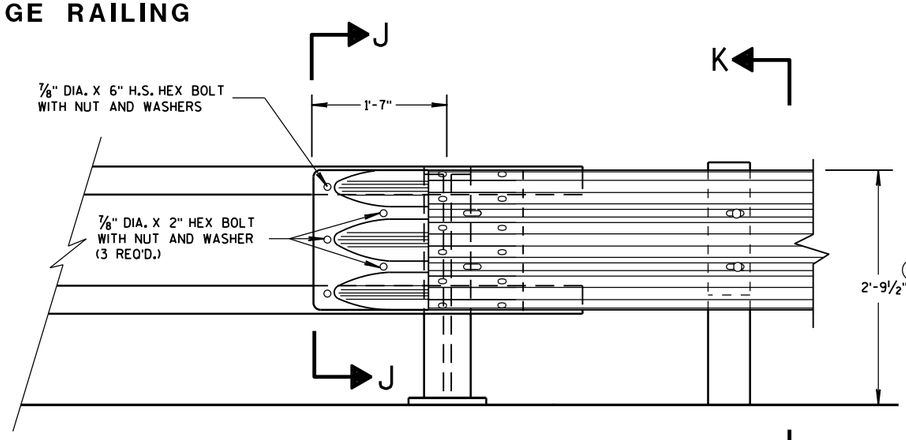
4 TOLERANCE FOR TOP OF BEAM IS ± 1".

6 DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

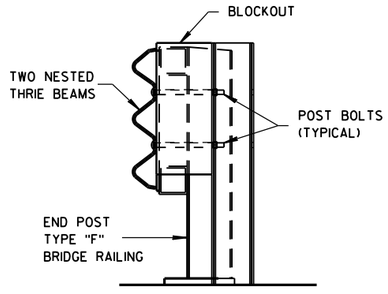


FRONT VIEW

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

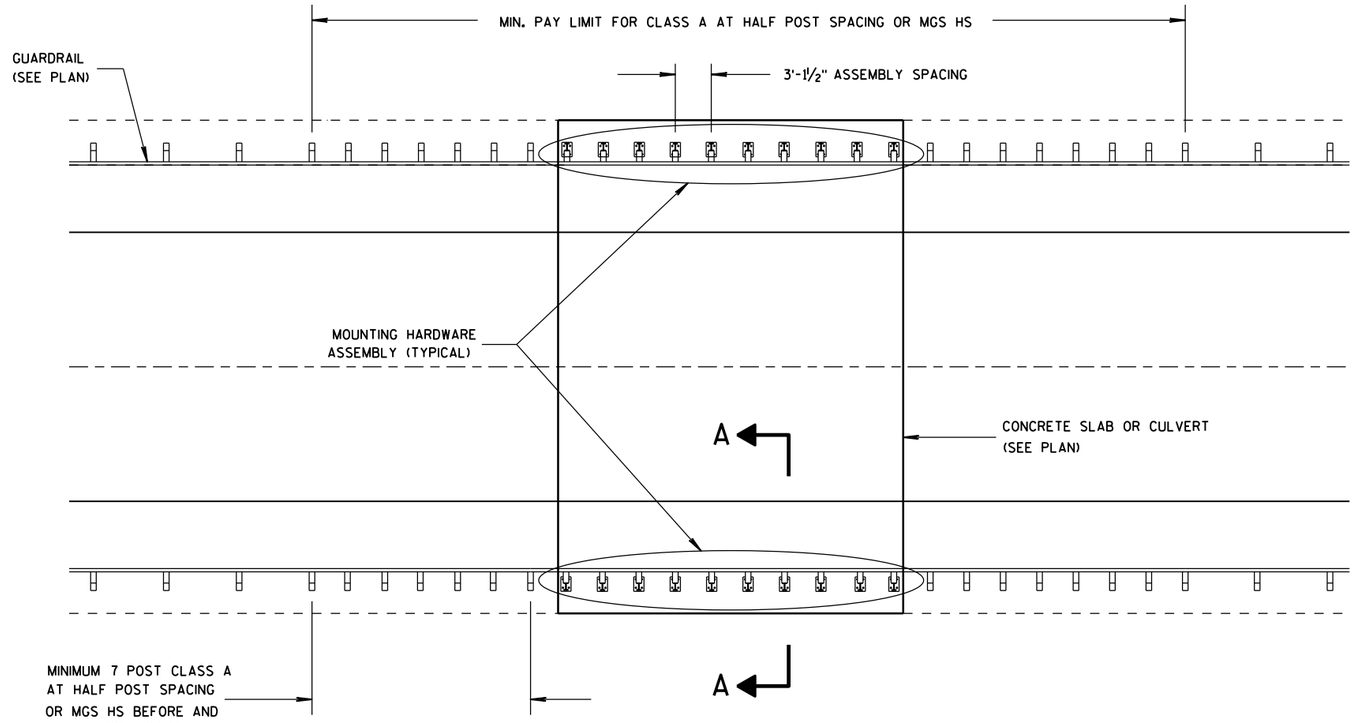
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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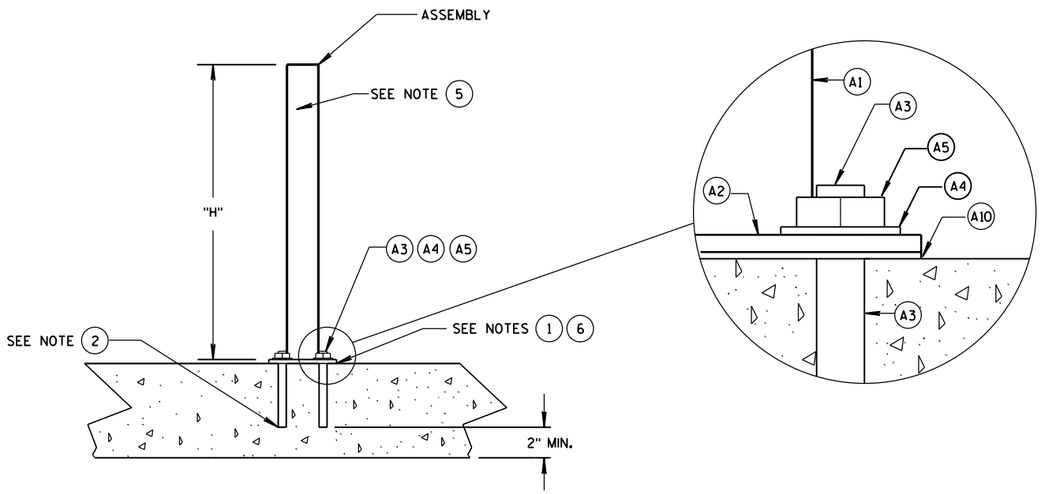
S.D.D. 14 B 45-4g

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S.D.D. 14 B 45-4g

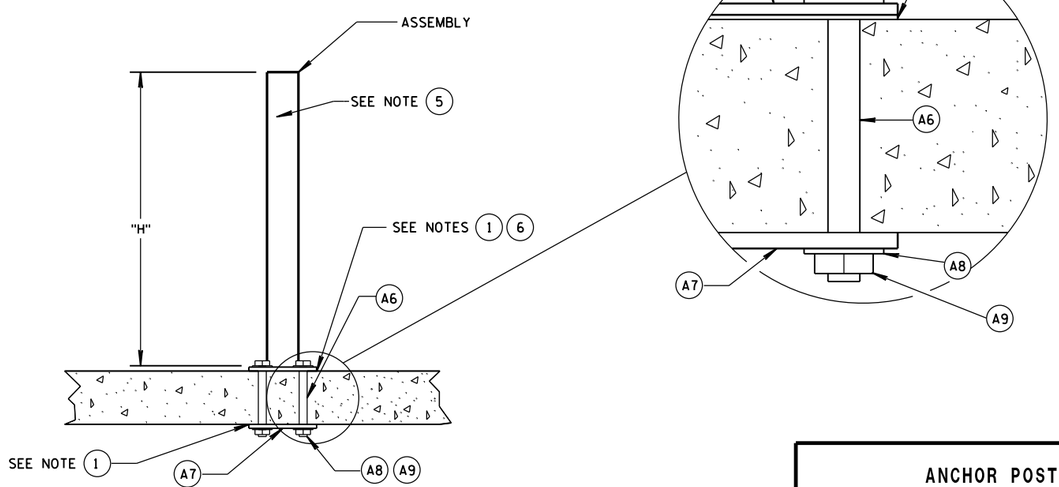


PLAN VIEW



ADHESIVE ANCHOR DETAIL

SEE NOTE 4



BOLT THROUGH DETAIL

SEE NOTE 4

GENERAL NOTES

HOLES DRILLED INTO CONCRETE SLAB OR CULVERT ARE 1⅛-INCH DIAMETER.

POST BASE PLATE (AND BOTTOM PLATES IF USED) SHALL BE FLAT WITH ALL SURFACES SMOOTH, AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS. CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF CONCRETE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

"H" DIMENSION WILL VARY. SEE PLAN FOR "H" DIMENSION. CONTRACTOR HAS OPTION OF INSTALLING POSTS THAT ARE TALLER THAN "H" DIMENSION AND CUT POSTS TO PROPER "H" DIMENSION IN THE FIELD. IF ELECTING TO FIELD CUT POSTS, DRILL HOLES AT APPROPRIATE LOCATIONS AND APPLY GALVANIZATION.

GALVANIZE STEEL COMPONENTS AFTER FABRICATION PER SECTION 614 OF THE WISCONSIN DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS.

INSTALL 1 NUT AND 1 WASHER WHERE APPLICABLE. PROVIDE SUFFICIENT LENGTH OF BOLT OR THREADED ROD TO ALLOW FOR ¼-INCH TO ½-INCH OF THREAD TO BEYOND THE NUT.

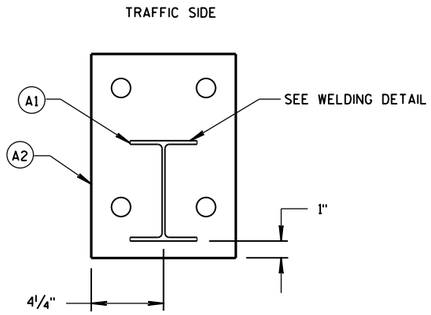
1. PLACE NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER ON THE BOTTOM (A2) AND IN DRILL HOLES FOR BOLT THROUGH OPTION.
2. BOND STRENGTH OF ADHESIVE IS 1,305 PSI OR GREATER WITH A MINIMUM EMBEDMENT DEPTH OF 8-INCHES. IF MINIMUM EMBEDMENT CANNOT BE ACHIEVED BOLT THROUGH STRUCTURE.
3. USE GAS-METAL ARC WELDING (GMAW) PROCESS WITH ER70S-3 WELDING WIRE AND ARGON-OXYGEN OR CO2 COVER GAS.
4. OTHER COMPONENT OF BARRIER SYSTEM NOT SHOWN. SEE OTHER STANDARD DETAIL DRAWINGS. SEE SDD 14 B 15 OR SDD 14 B 42 FOR MORE DETAILS.
5. HOLES TO MOUNT BEAM GUARD AND BLOCK NOT SHOWN ON DRAWINGS. SEE OTHER STANDARD DETAIL DRAWINGS. SEE SDD 14 B 15 OR SDD 14 B 42 FOR MORE DETAILS.
6. ADD AND ADJUST SHIM PLATES AS NECESSARY TO INSTALL POST PLUMB. SEE (A10) FOR DETAIL.

ANCHOR POST ASSEMBLY TOP-MOUNTED

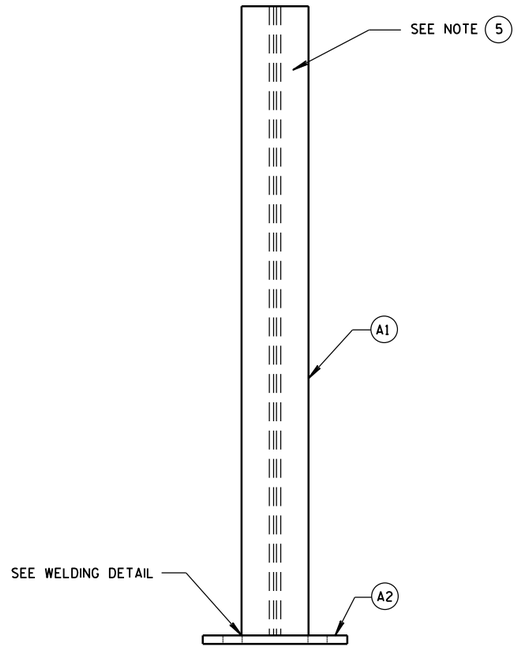
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

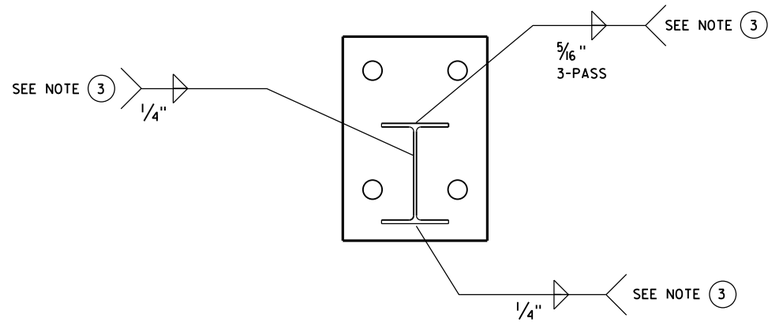
S.D.D. 14 B 51-1a



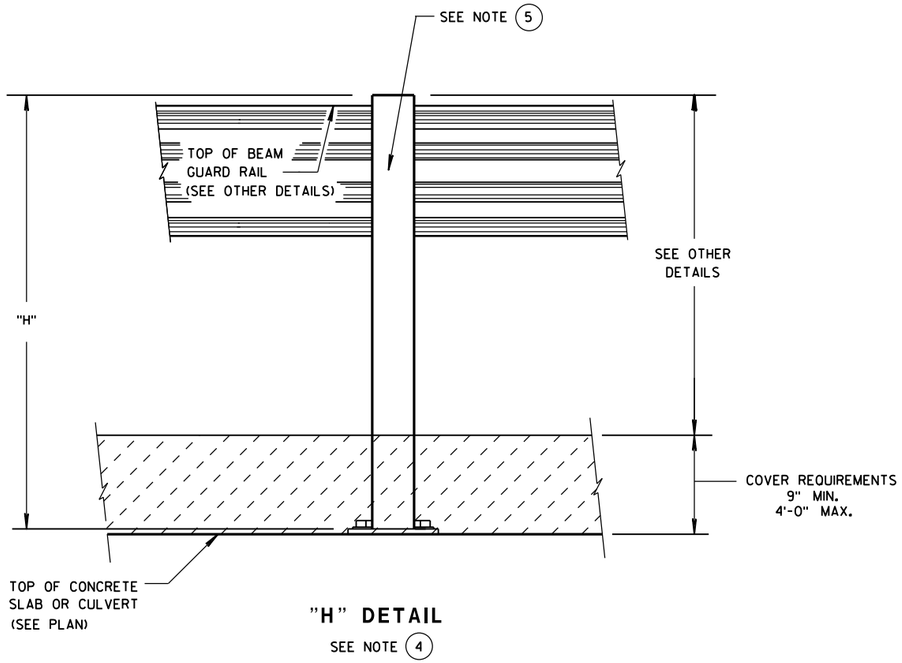
PLAN VIEW OF ASSEMBLY



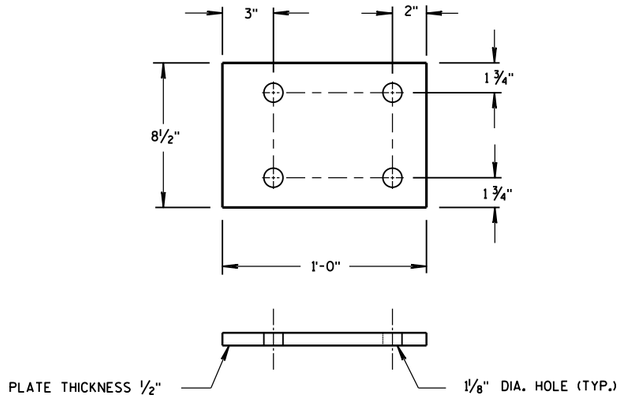
PROFILE VIEW OF ASSEMBLY



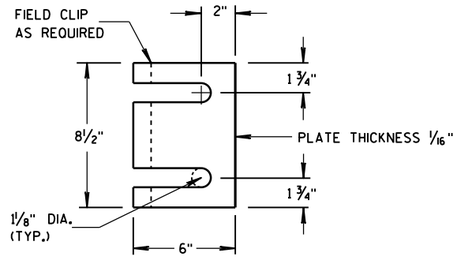
WELDING DETAIL



"H" DETAIL
SEE NOTE (4)



A2 DETAILS



A10 DETAILS

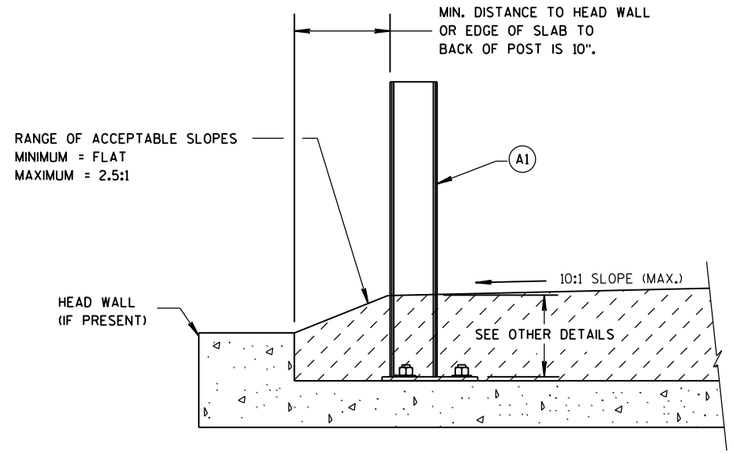
ANCHOR POST
ASSEMBLY TOP-MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 51-1b

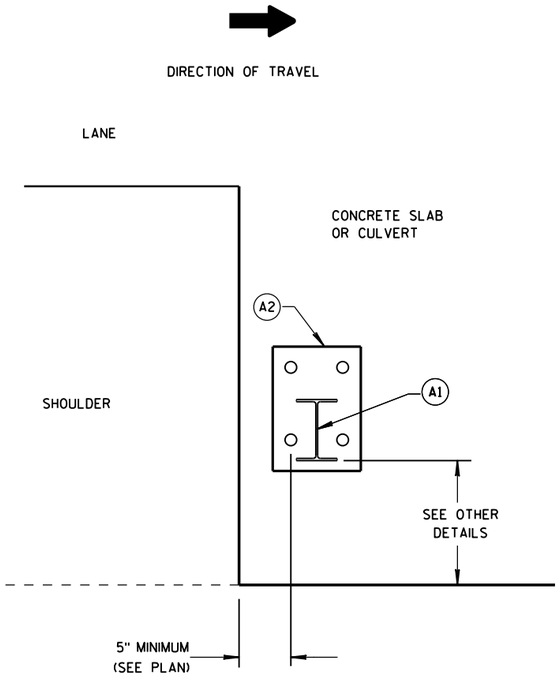
MATERIALS LIST

ITEM	DESCRIPTION	MATERIAL SPECIFICATIONS	NOTES
(A1)	W6x9 or W6x8.5	ASTM A992, 50 KSI MIN. ASTM A709 GRADE 50 OR ASTM A36	SEE SDD 14B15 OR 14B42 LENGTH WILL VARY
(A2)	STEEL BASE PLATE	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
(A3)	1" DIA. THREADED ROD	SAE J429 GRADE 2, ASTM A307 GRADE C, OR ASTM F1554 GRADE 36	LENGTH WILL VARY
(A4)	1" DIA. FLAT WASHER	ASTM F844	
(A5)	1" HEX NUT	ASTM A563A	
(A6)	1" DIA. HEX BOLT	ASTM A307	LENGTH WILL VARY
(A7)	PLATE WASHER	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
(A8)	1" DIA. FLAT WASHER	ASTM F844	
(A9)	1" DIA. HEX NUT	ASTM A563A	
(A10)	SHIM PLATE	SEE (A2)	4 MAX PER POST



SECTION A-A

SEE NOTE (4)



EDGE PLACEMENT

SEE NOTE (4)

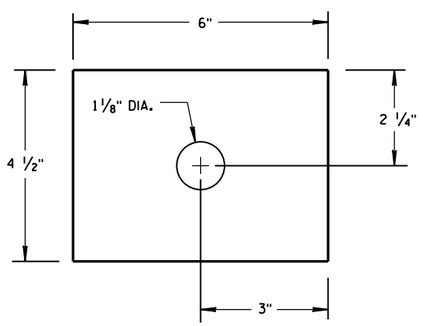
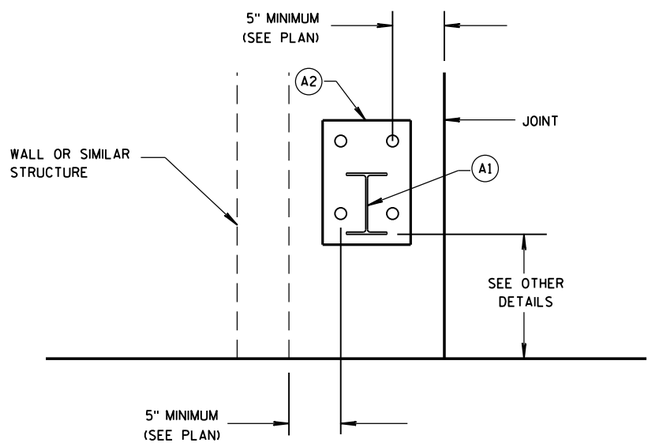


PLATE WASHER - (A7)



OBSTRUCTION AND JOINT PLACEMENT

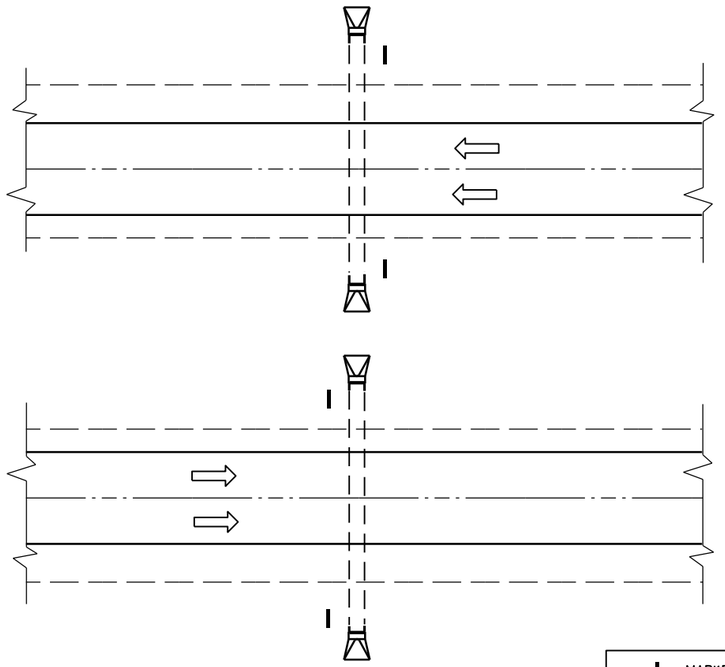
SEE NOTE (4)

ANCHOR POST
ASSEMBLY TOP-MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

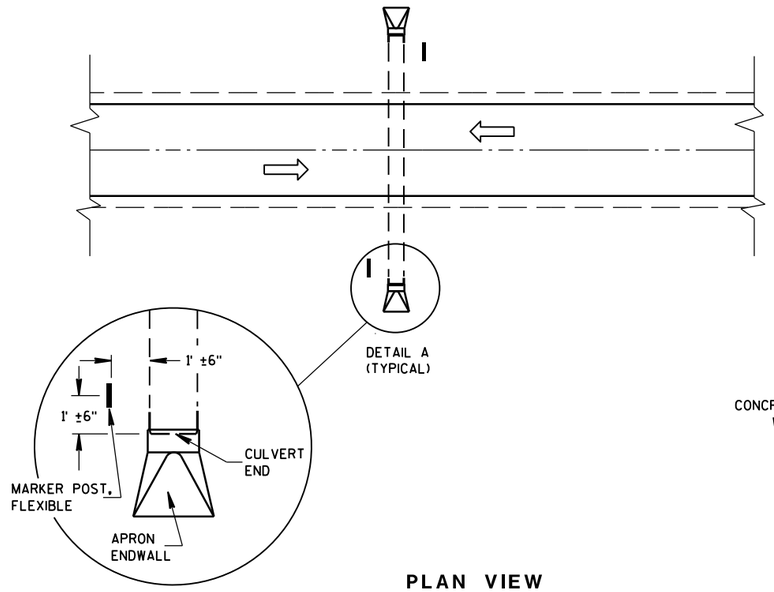
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 51-1c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

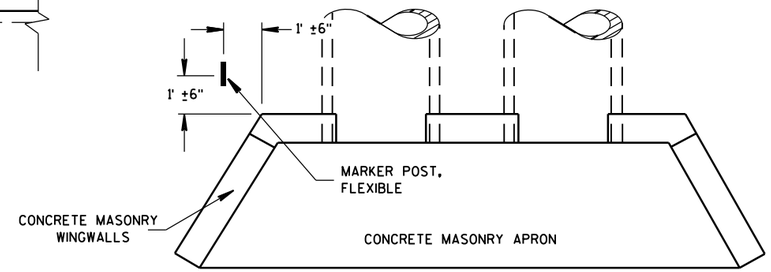
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

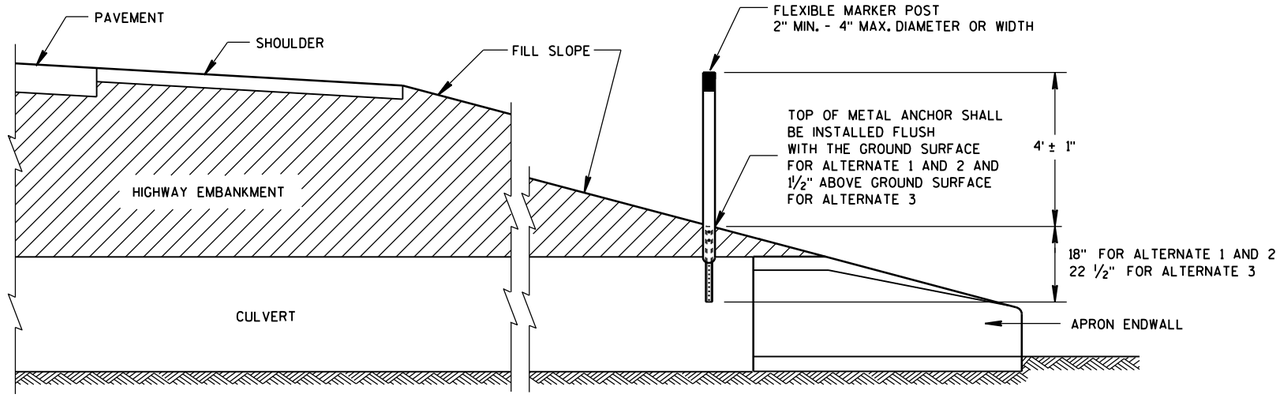
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

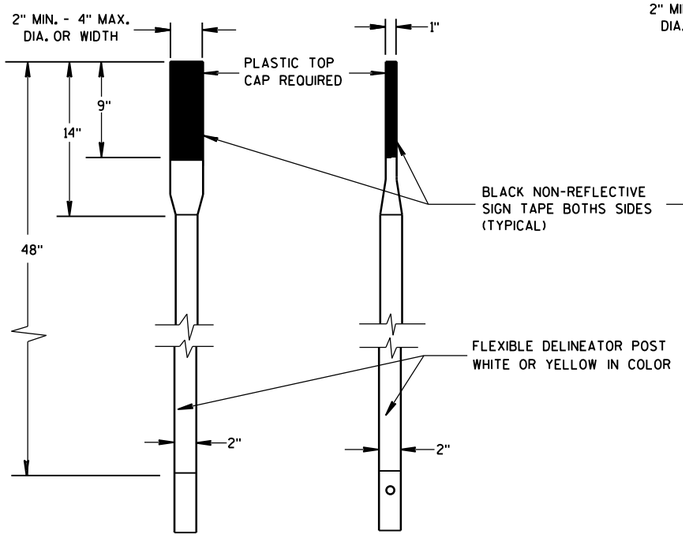
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

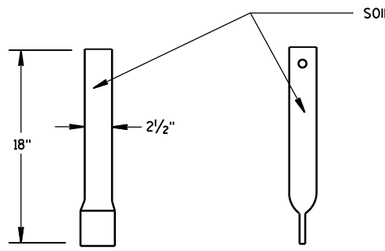
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S.D.D. 15 A 3-2a

6

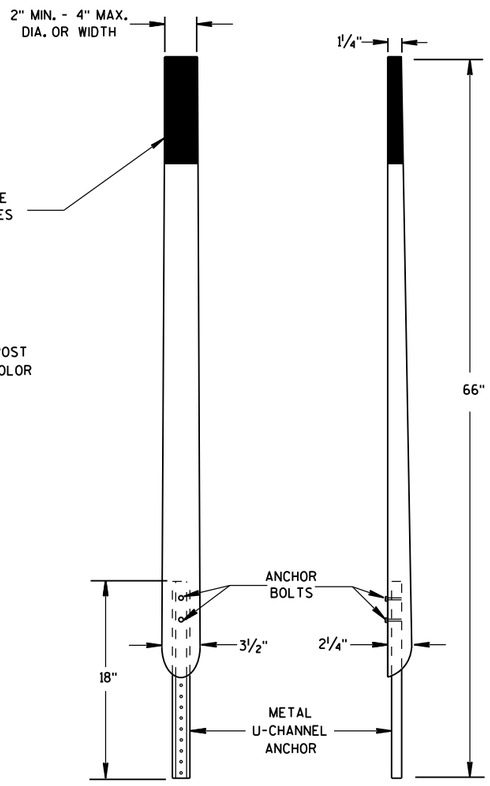
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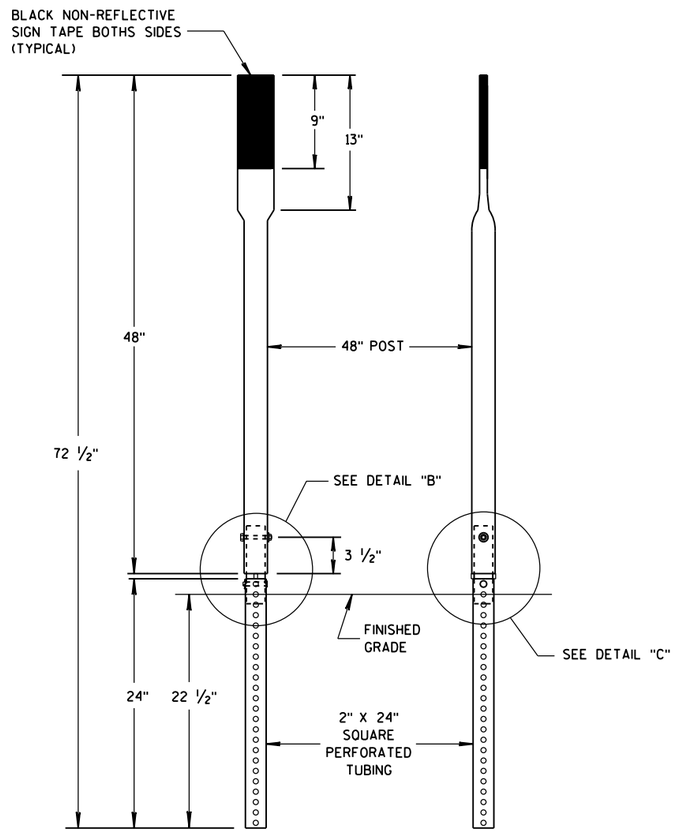
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

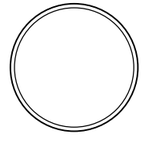
ALTERNATE 2



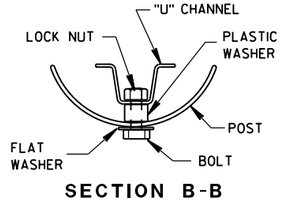
FRONT VIEW SIDE VIEW

ALTERNATE 3

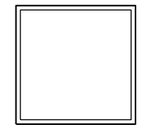
FLEXIBLE MARKER POSTS



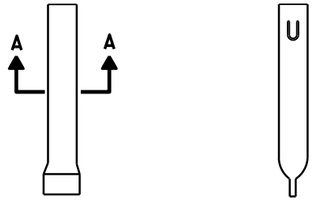
SECTION A-A



SECTION B-B

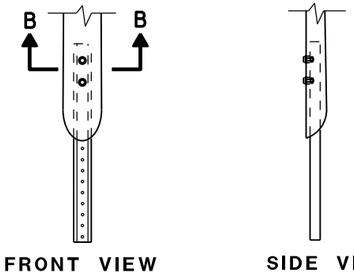


SECTION C-C



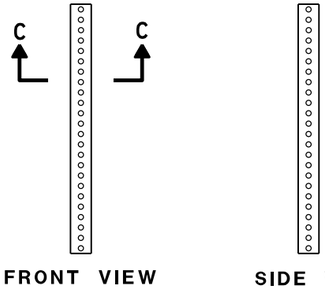
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

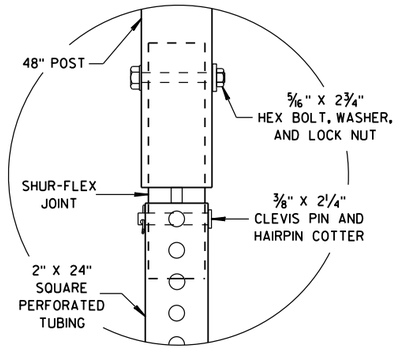
ALTERNATE 2



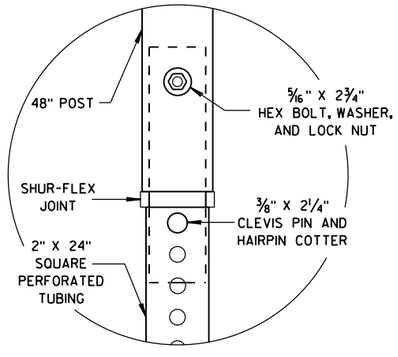
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

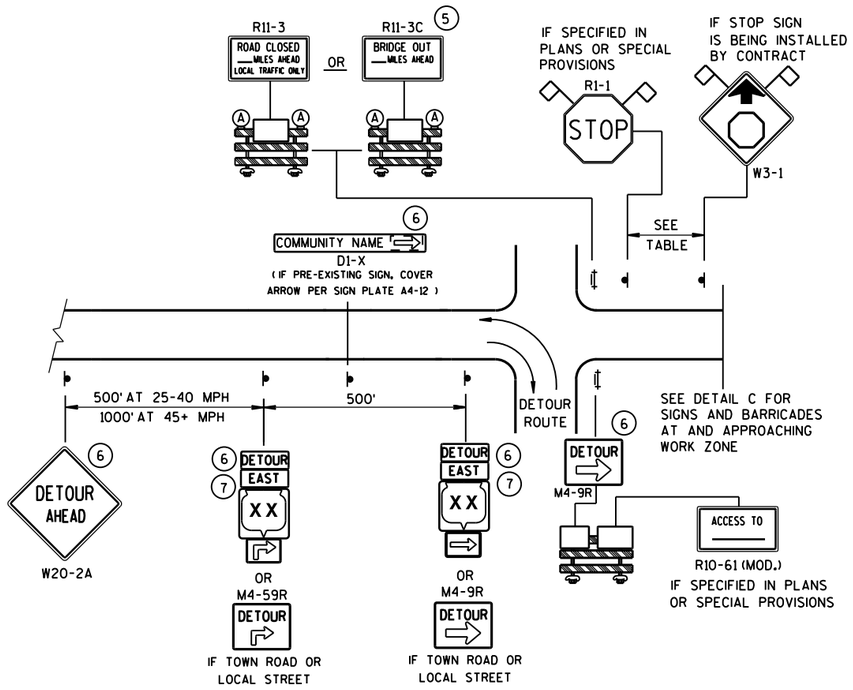
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

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

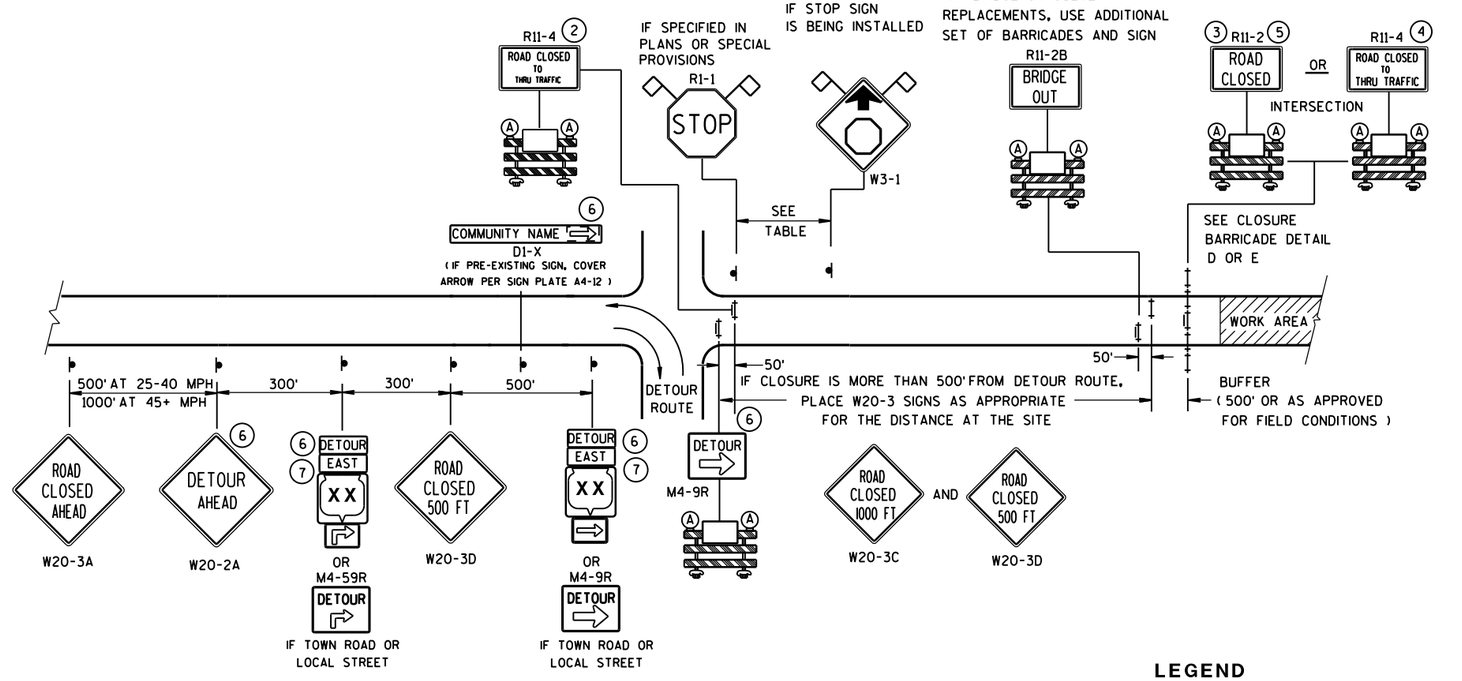
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S.D.D. 15 A 3-2b



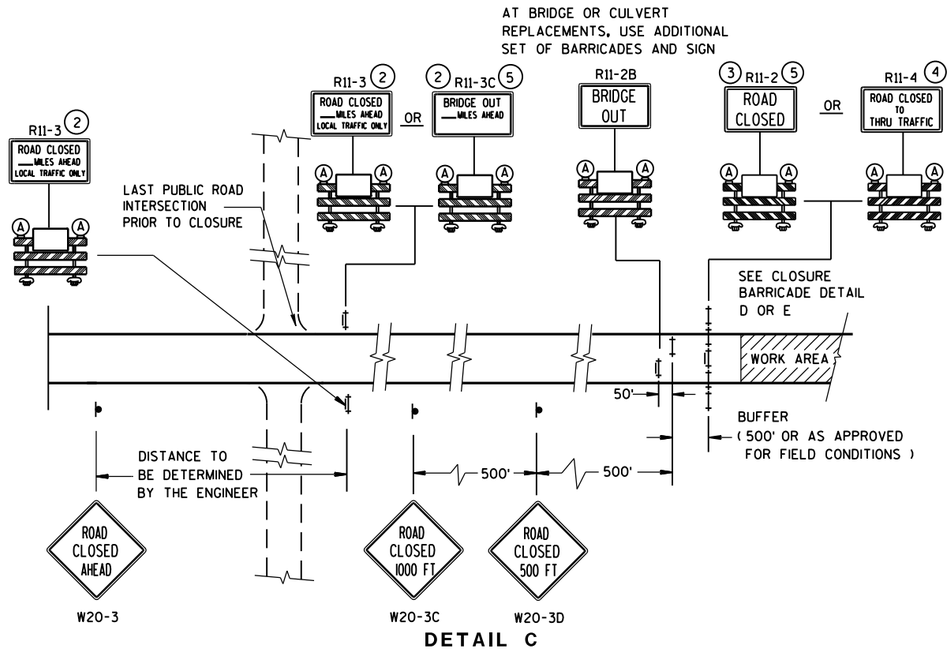
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

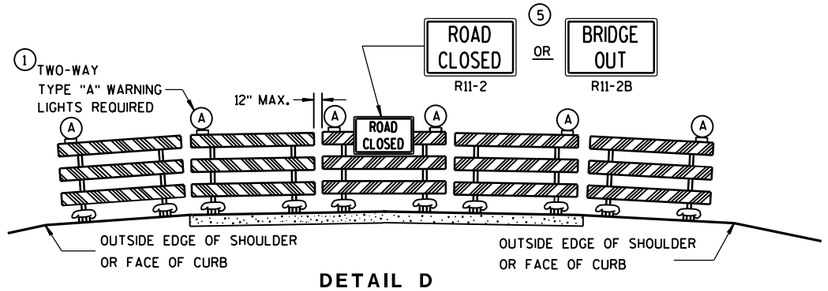
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

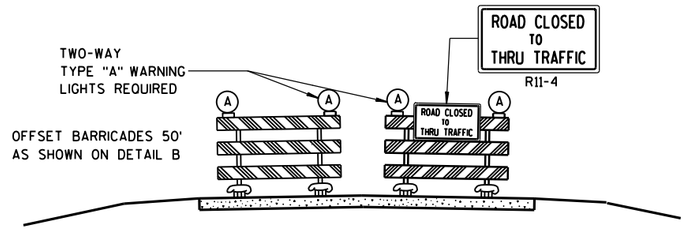
6
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

FHWA

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

6

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

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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.

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

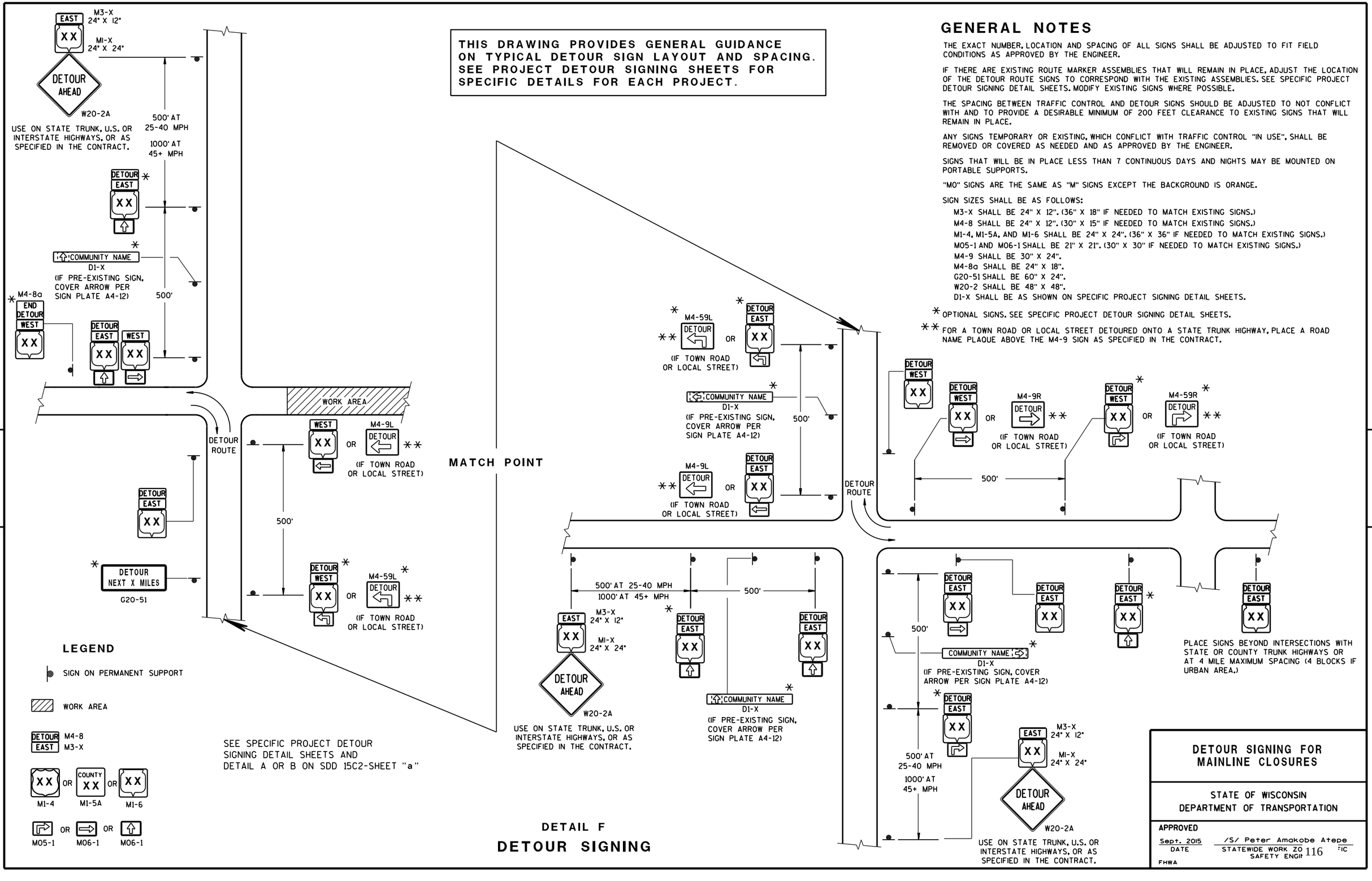
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

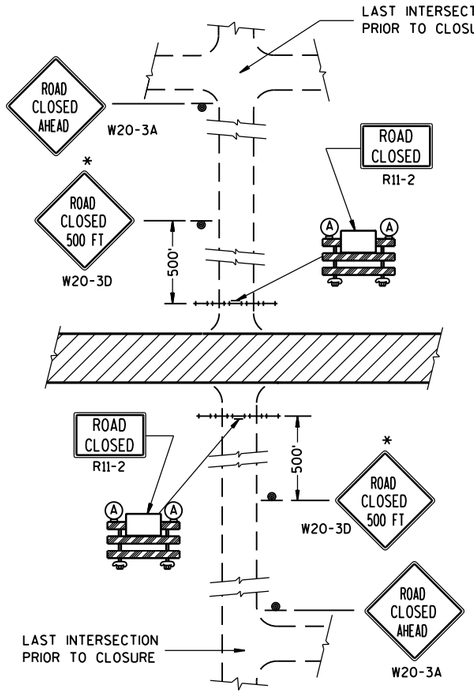
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGI FIC

FHWA

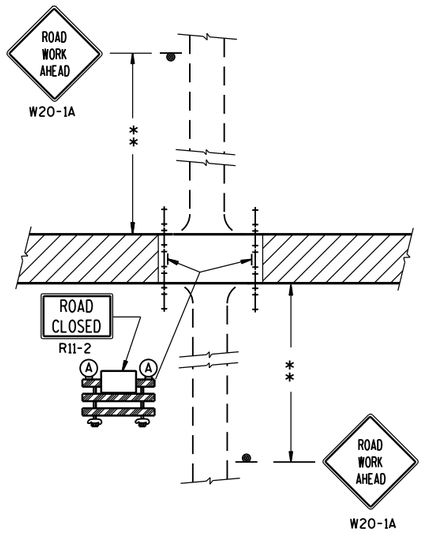
S.D.D. 15 C 2-6c

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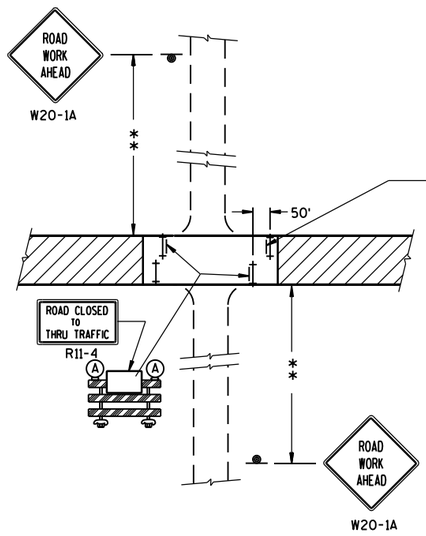
DETAIL 1

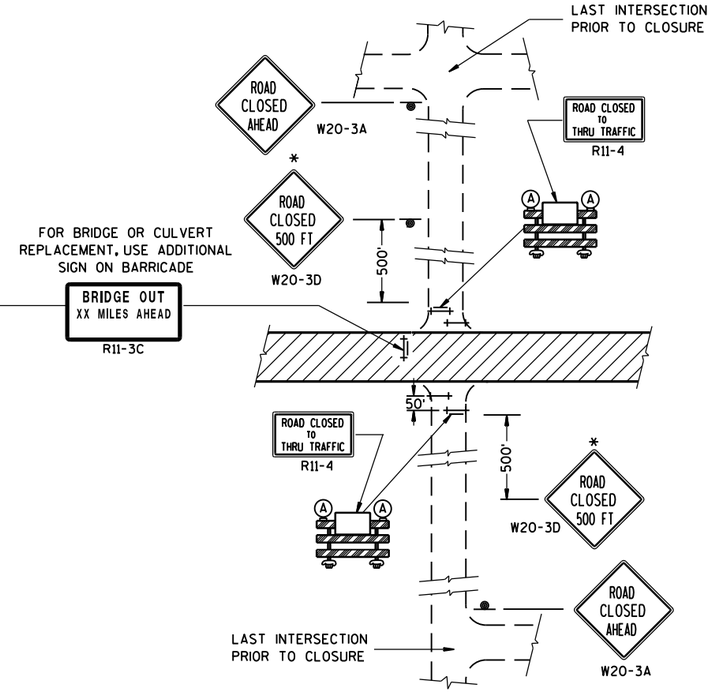
(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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.

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

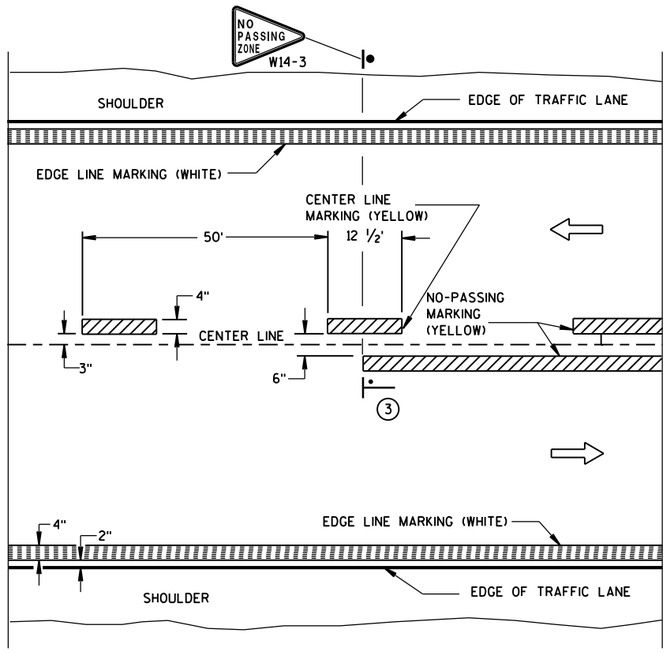
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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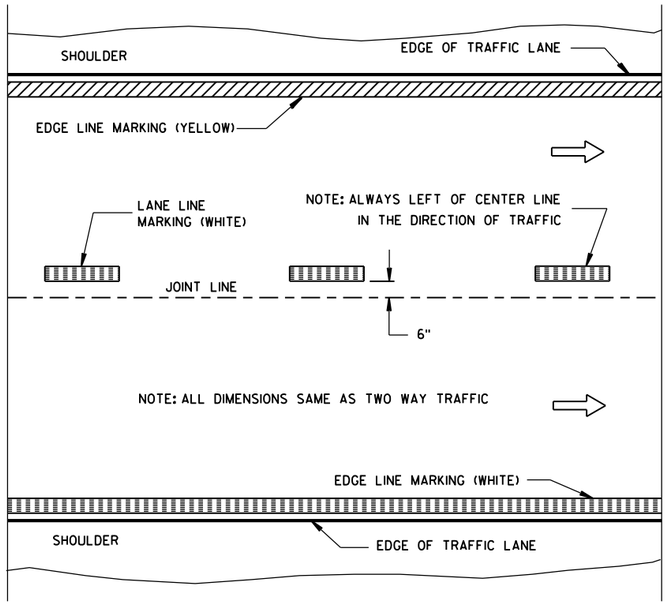
S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3

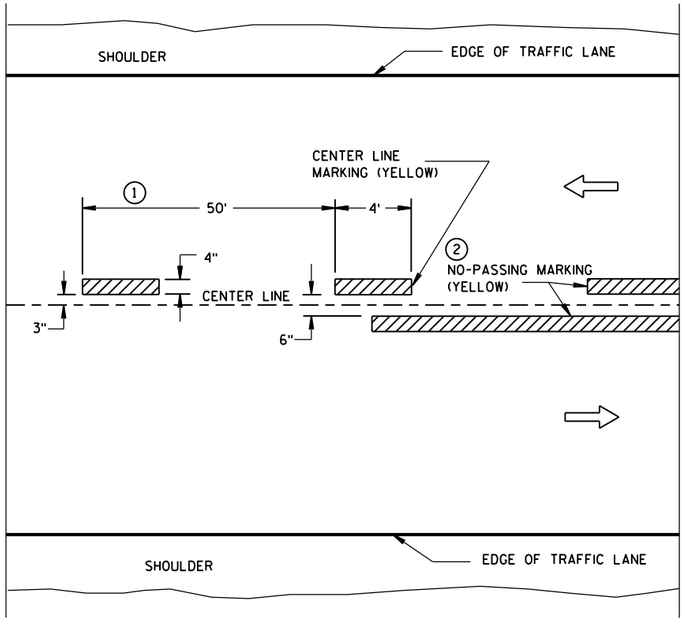


TWO WAY TRAFFIC

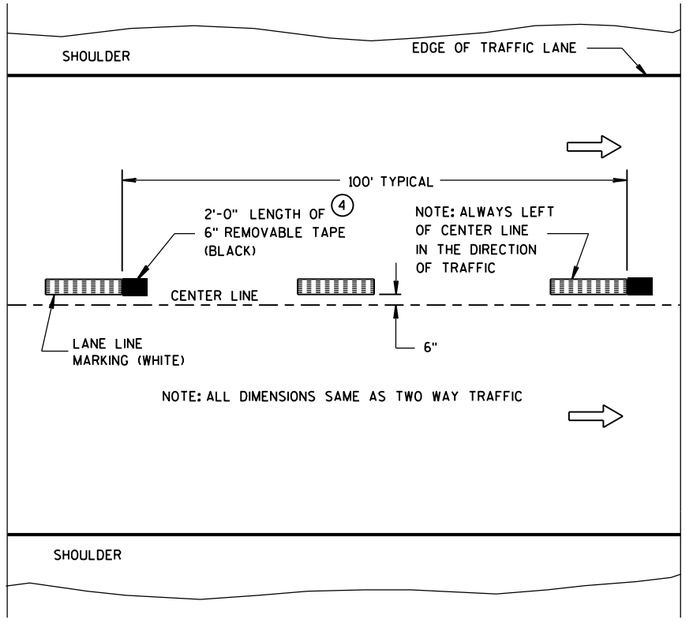


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

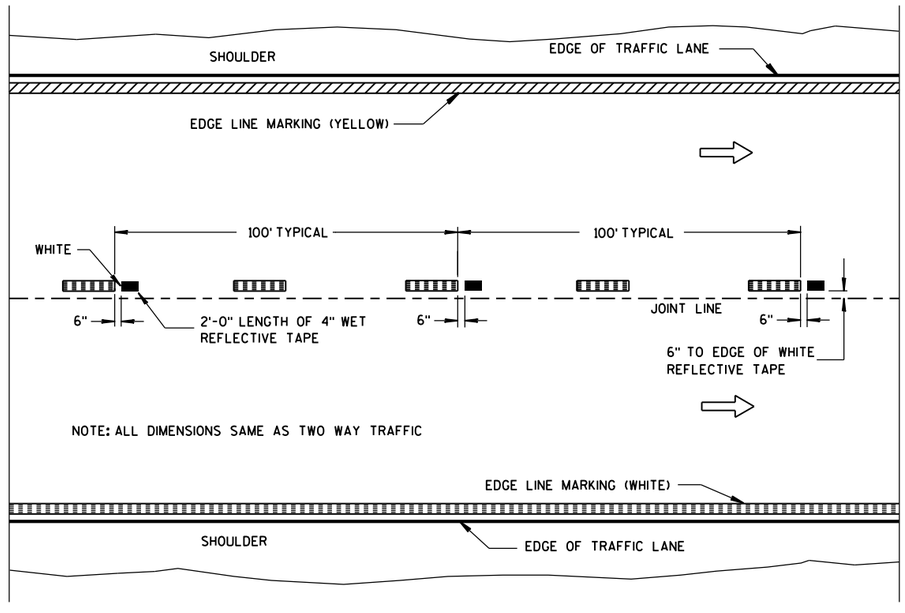
GENERAL NOTES

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

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

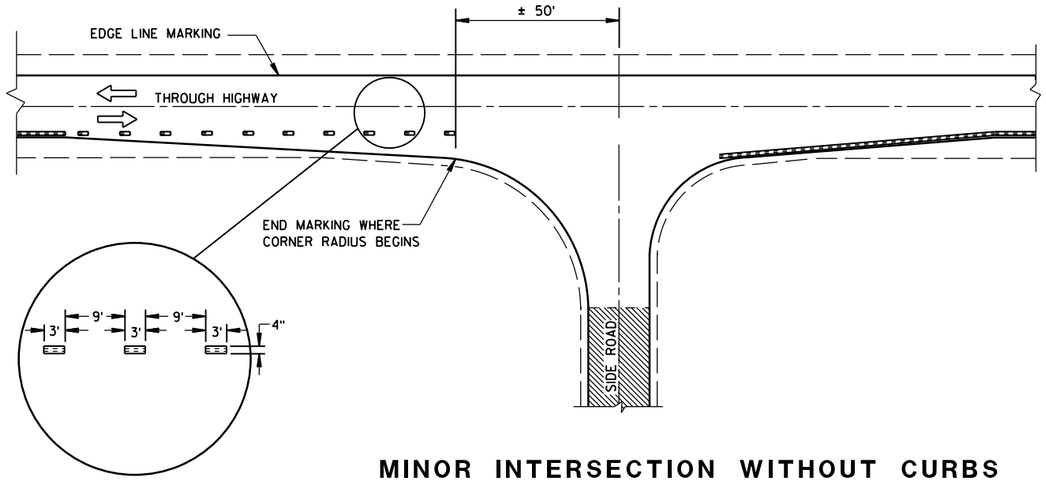
FHWA

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S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

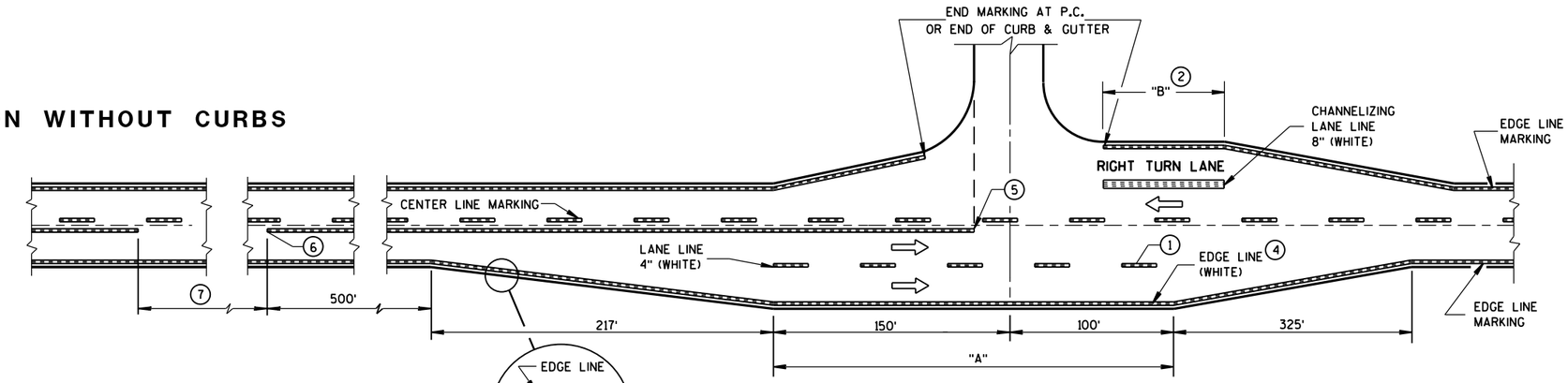
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

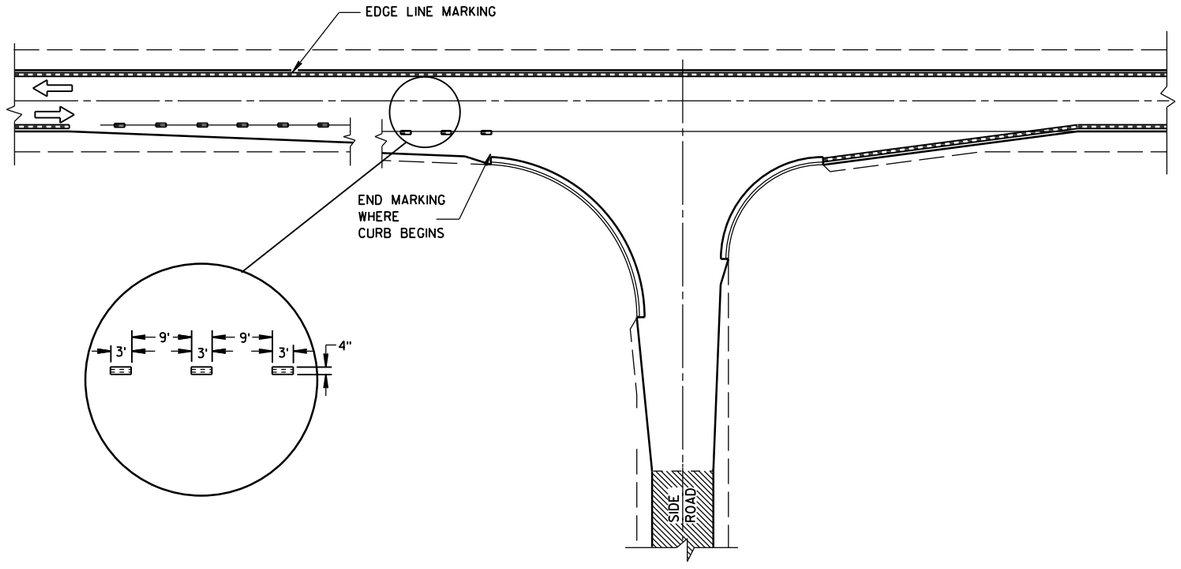
(7)

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



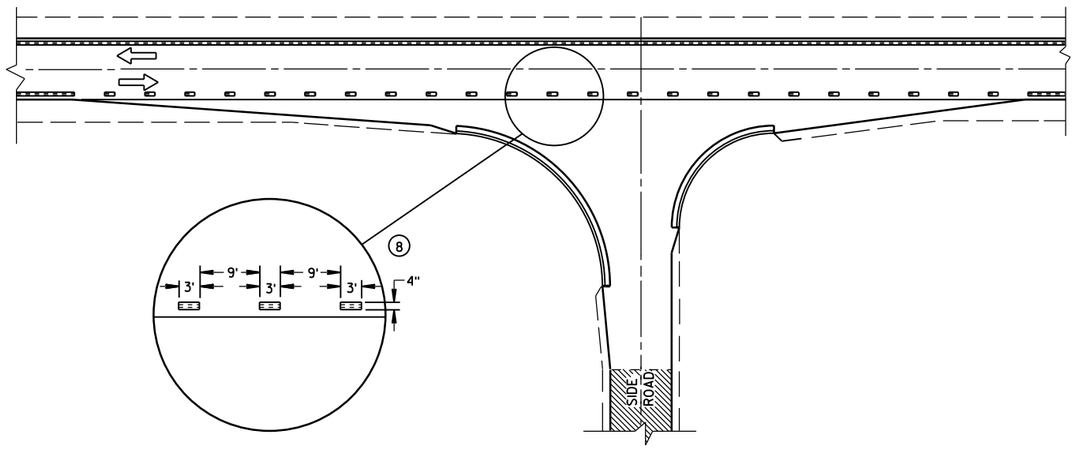
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

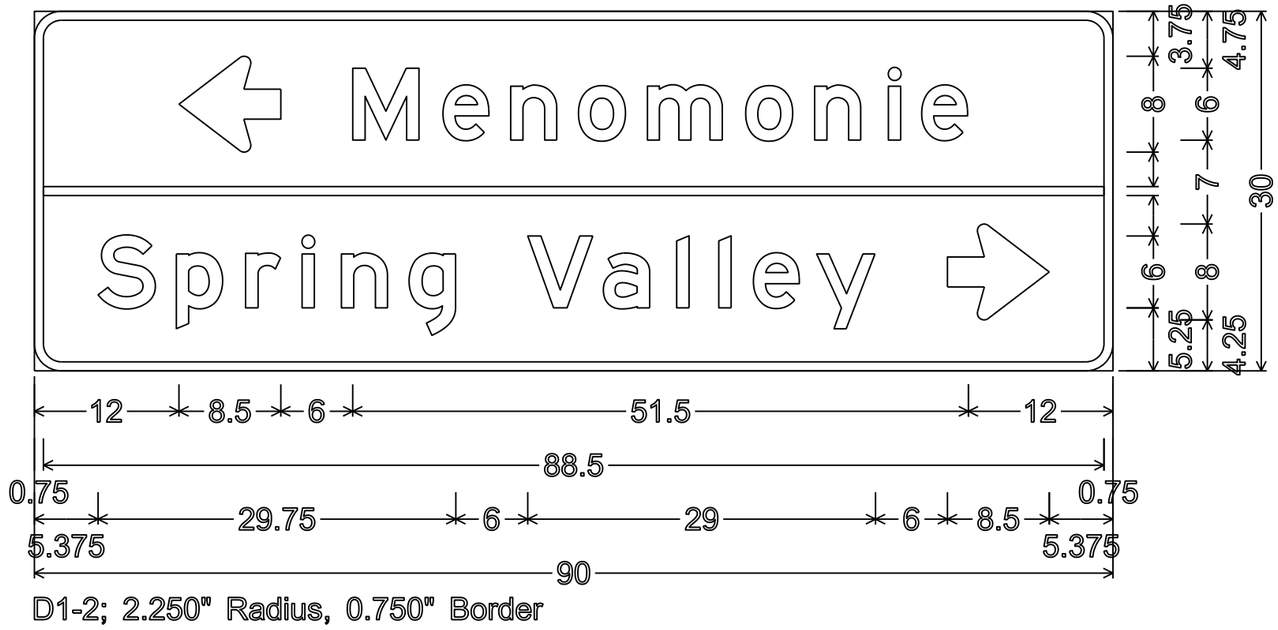
S.D.D. 15 C 8-16b

6

S.D.D. 15 C 8-16b

NOTES

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



D1-2; 2.250" Radius, 0.750" Border

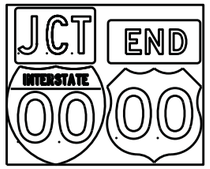
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_d6\617lg616.dgn PLOT DATE : 07-JUN-2016 13:39 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.640305:1.000000

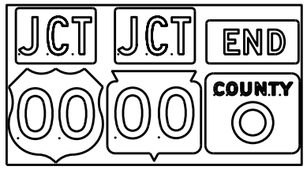
TYPICAL ASSEMBLIES



J1-1



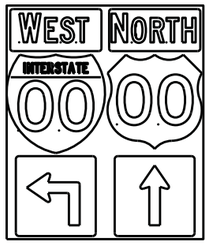
J1-2



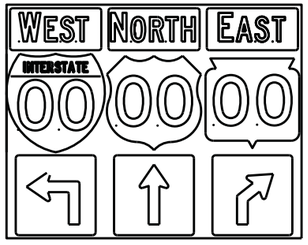
J1-3



J2-1



J2-2

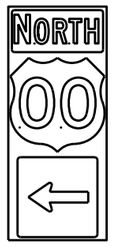


J2-3

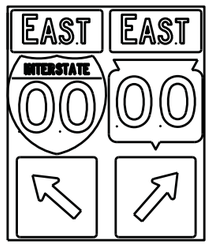


JV

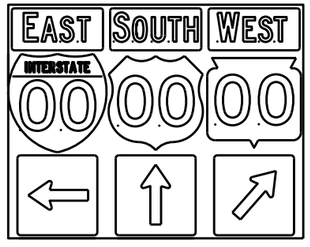
(Typical Vertical J-Assembly
See Note 10 and 11)



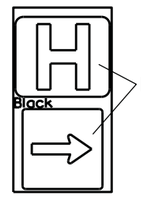
J3-1



J3-2



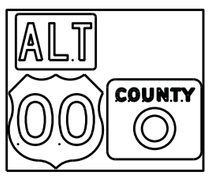
J3-3



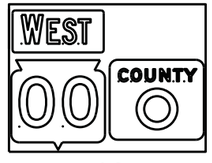
JH-1



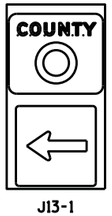
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

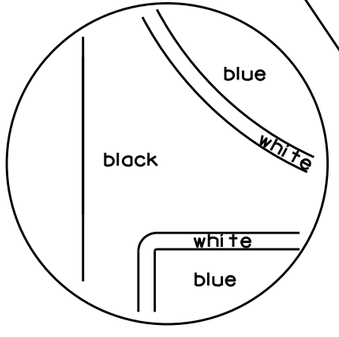


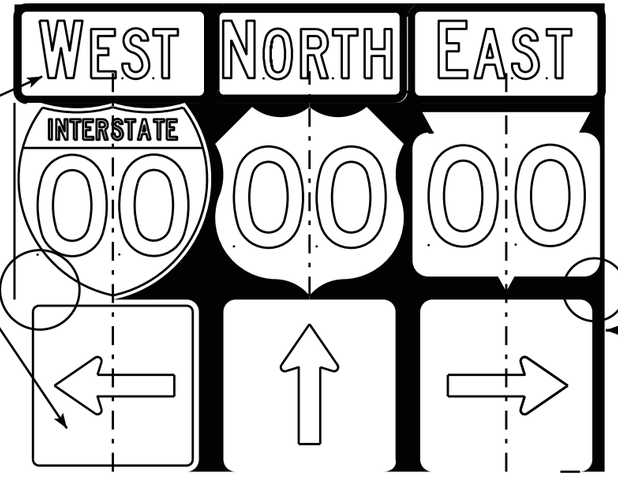
J23-1

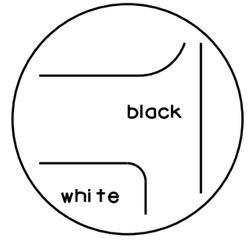


J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

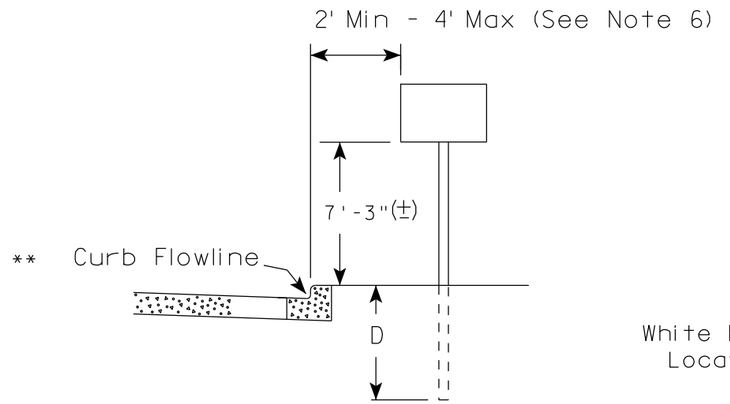
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

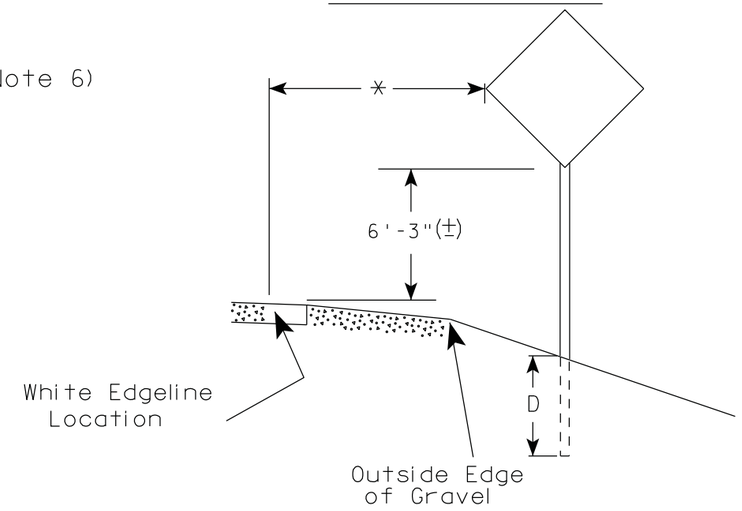
DATE 2/06/14 PL... A2-1S.8

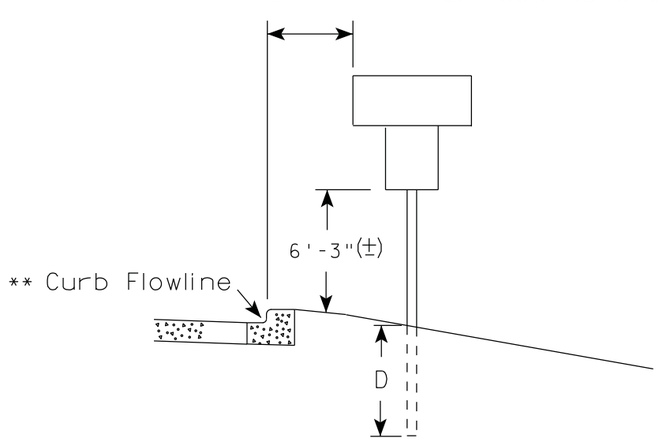
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO:	E

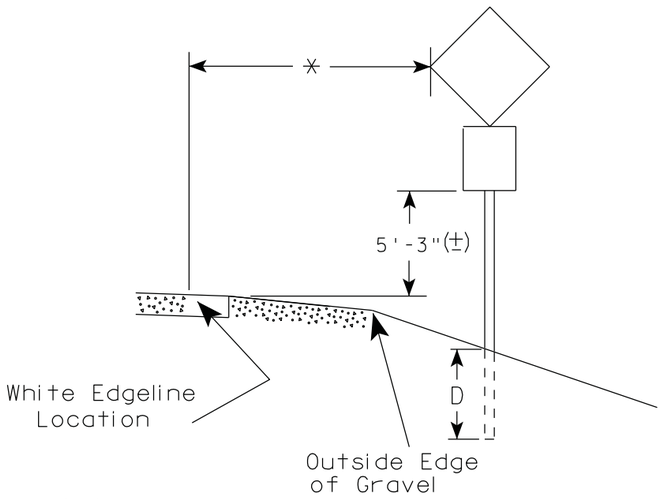
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

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

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

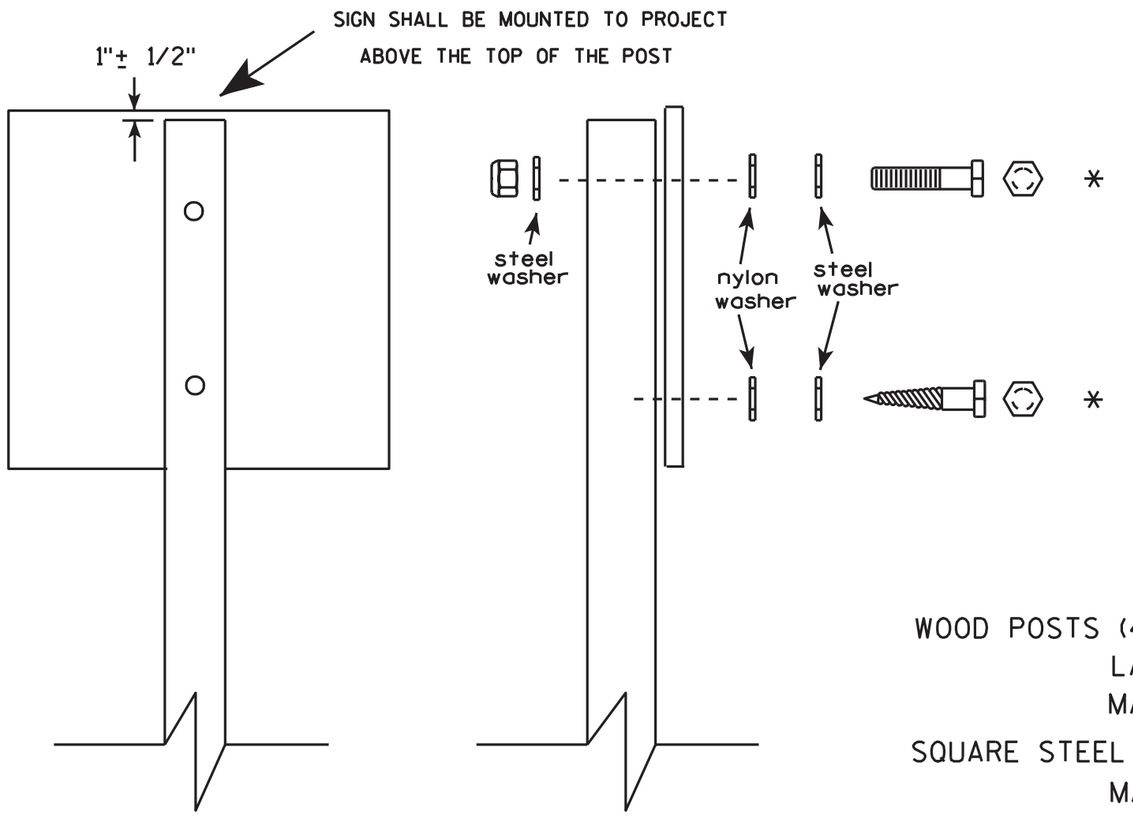
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO:	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

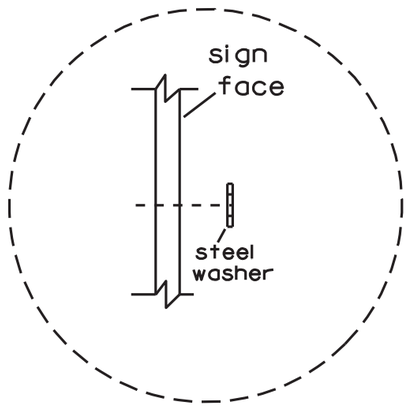
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

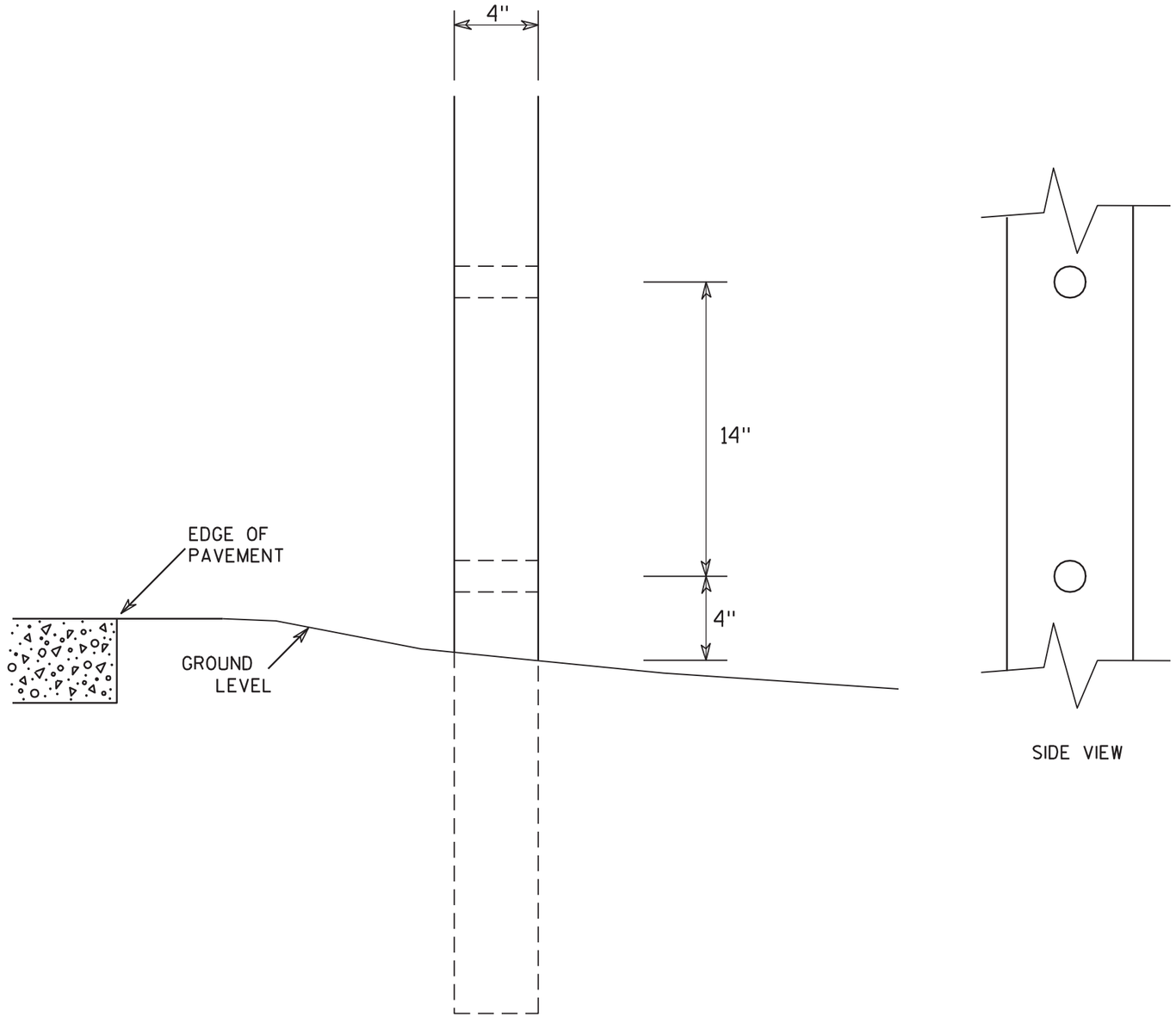
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO: 123	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\A48.DGN PLOT DATE : 23-MAR-2010 10:15 PLOT BY : ditjph
WISDOT/CADDS SHEET 42



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

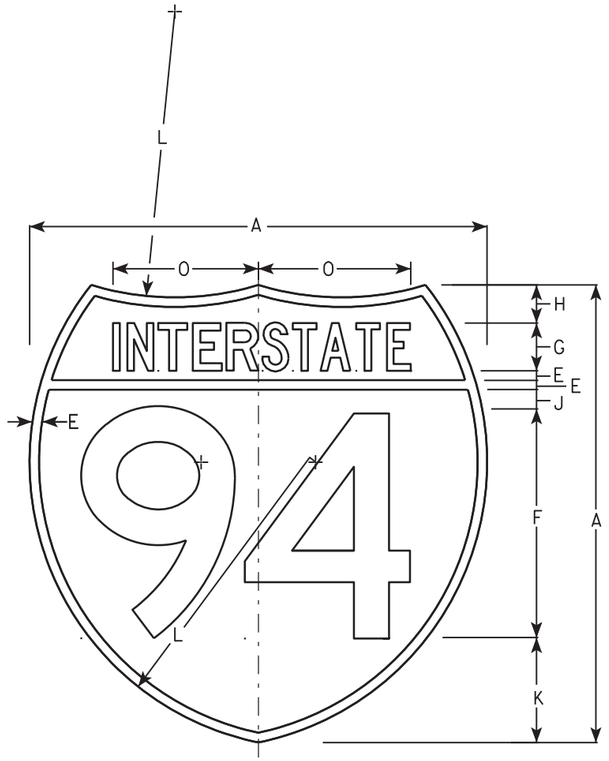
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

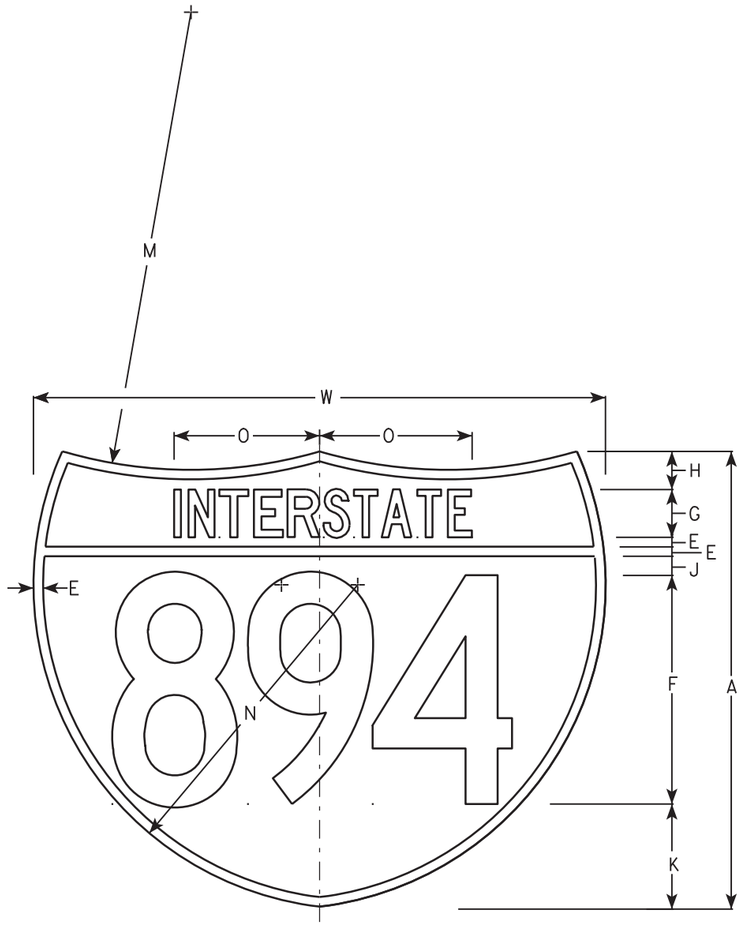
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO: 124	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

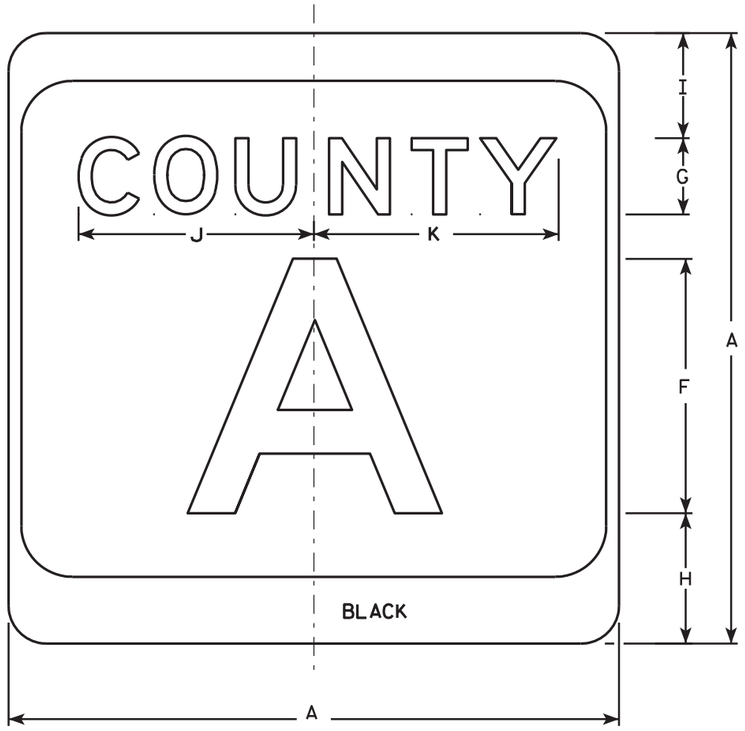
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

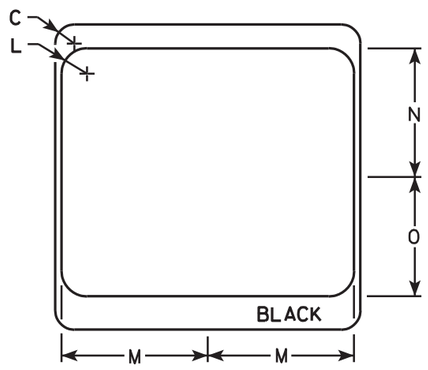
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

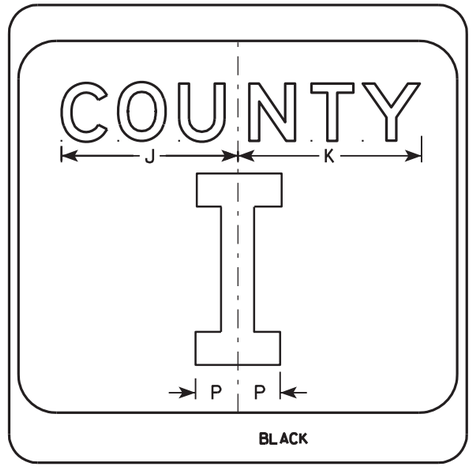
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 125 | E

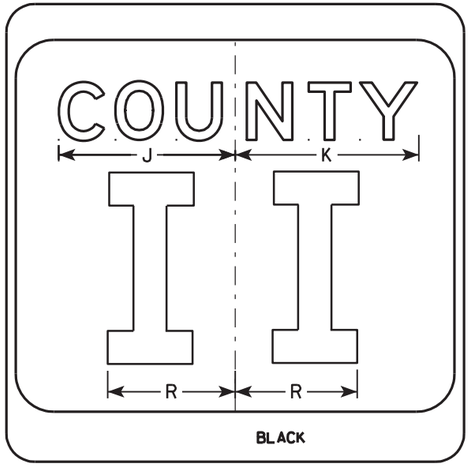




NOTES

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

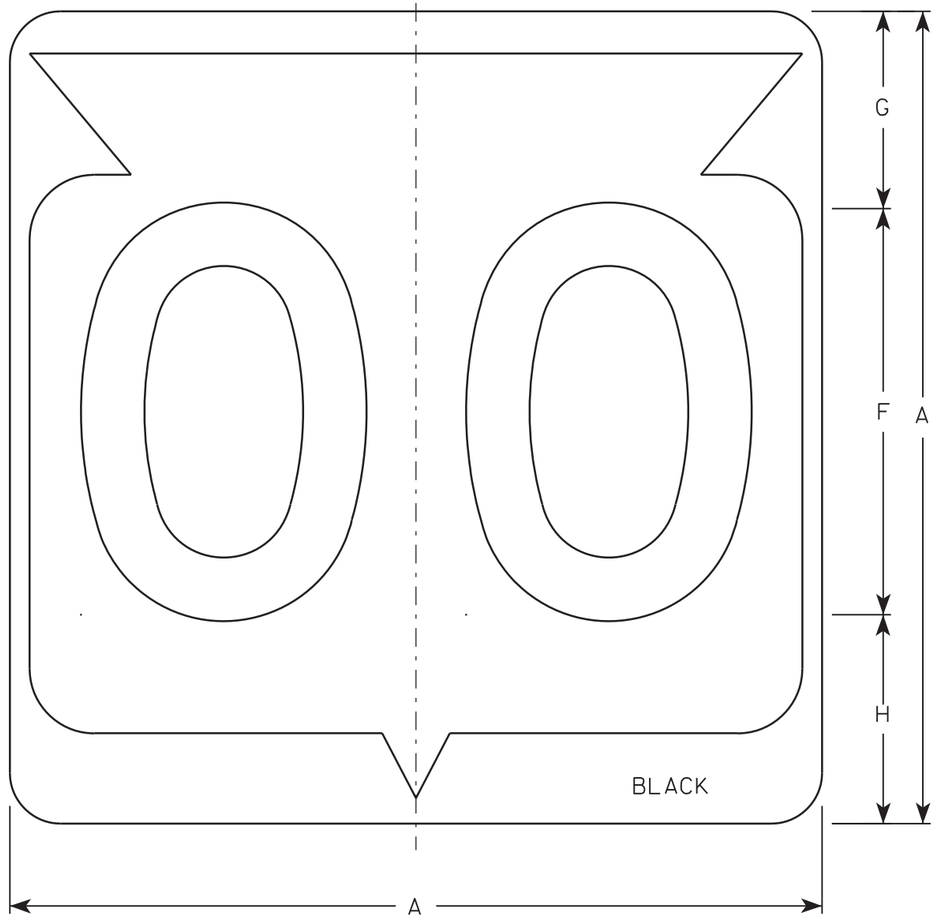
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

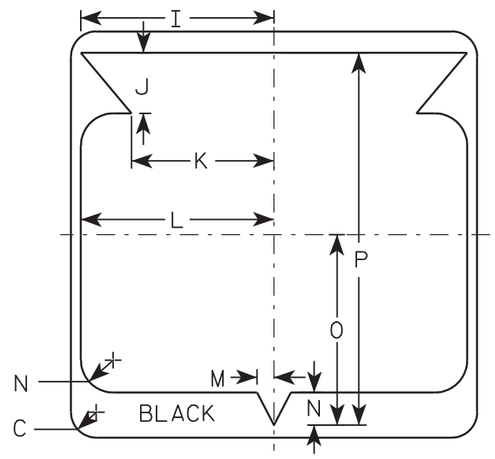
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO: 126	E



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

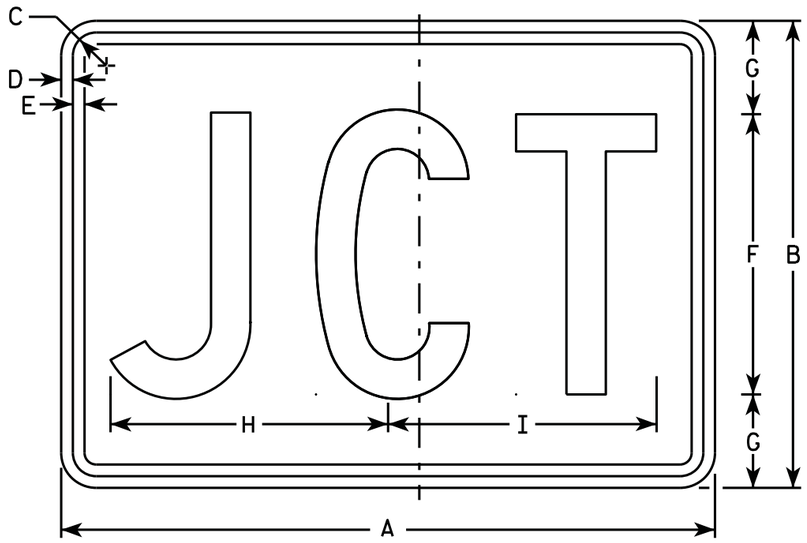
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

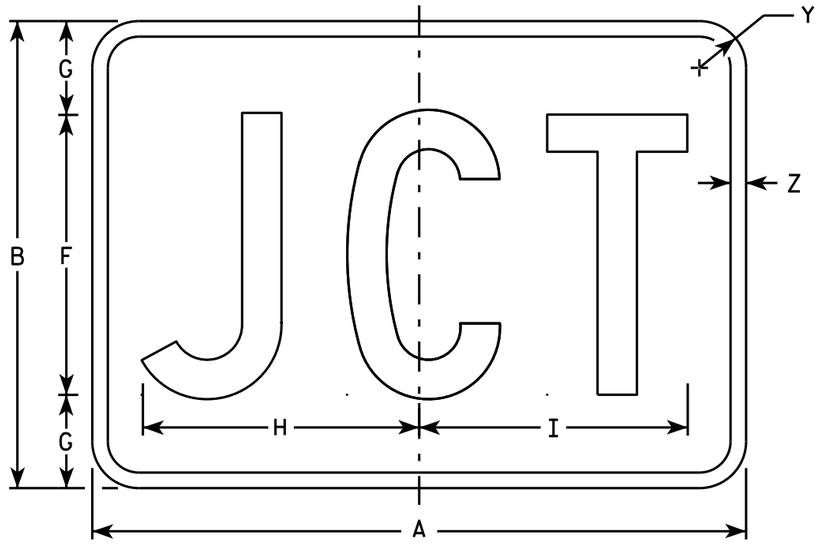
APPROVED Chester J Spany for State Traffic Engineer

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

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO: 127	E



M2-1
MM2-1
MP2-1



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

NOTES

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

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

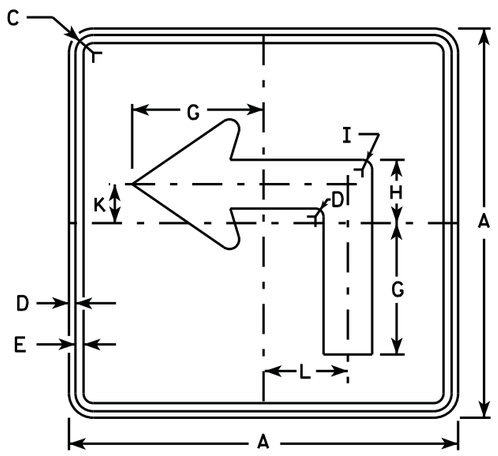
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

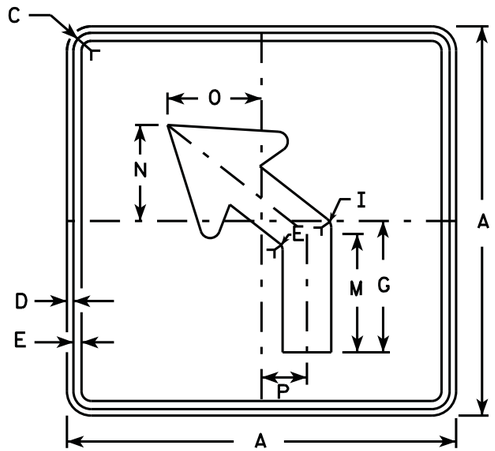
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M2-1.12

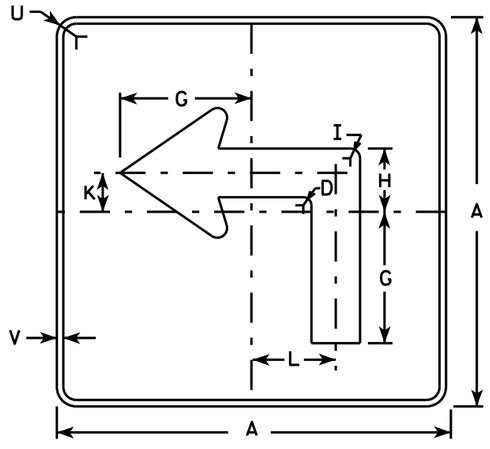
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO. 128 | E



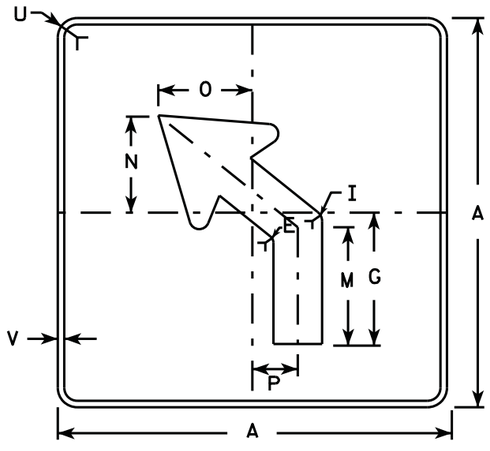
M5-1L
MM5-1L
MO5-1L
MP5-1L



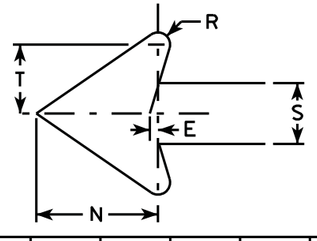
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

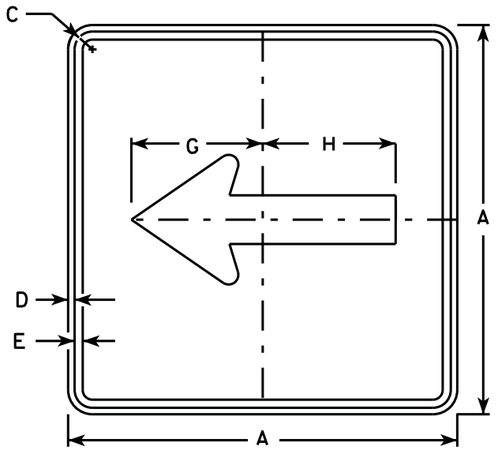
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

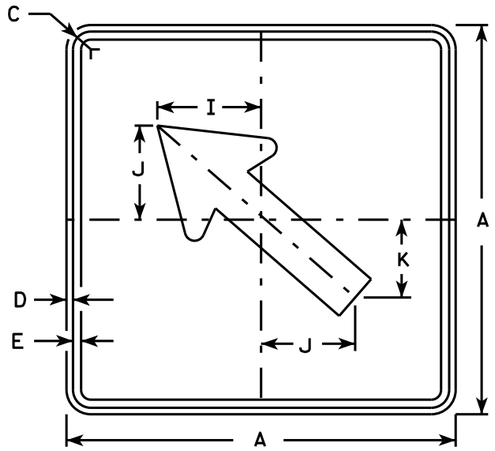
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO. 129 | E



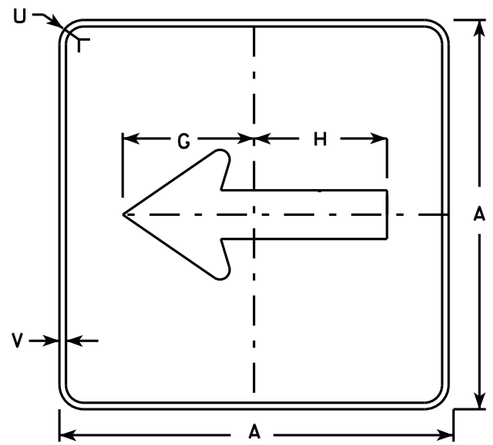
M6-1
MM6-1
MO6-1
MP6-1



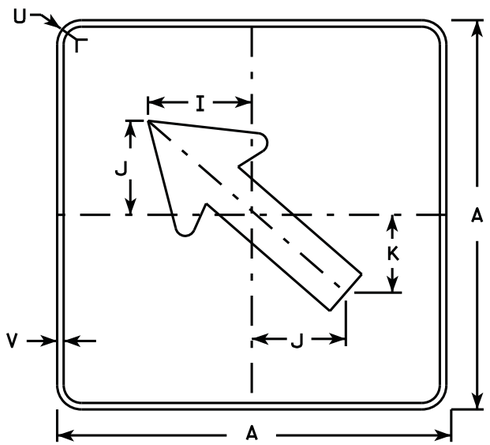
M6-2
MM6-2
MO6-2
MP6-2

NOTES

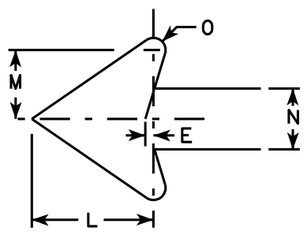
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

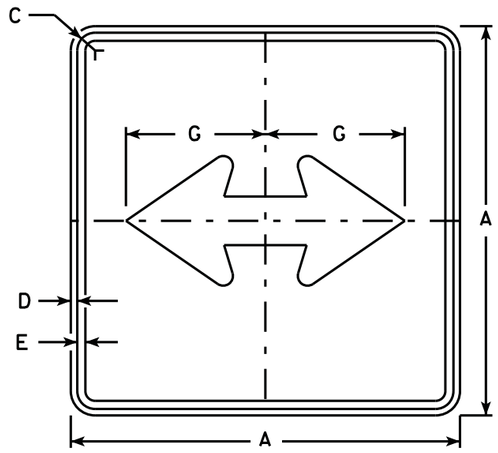
APPROVED Matthew R Rauch
for State Traffic Engineer

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

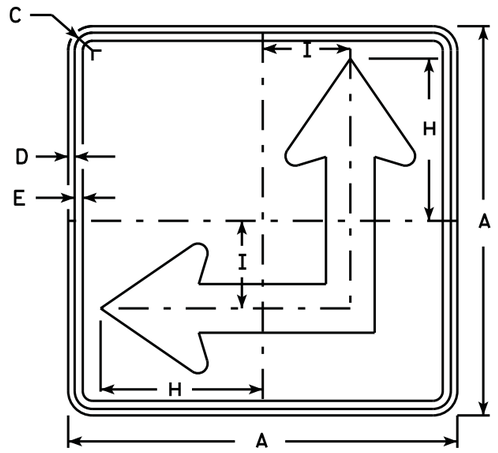
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO. 130 | E

7

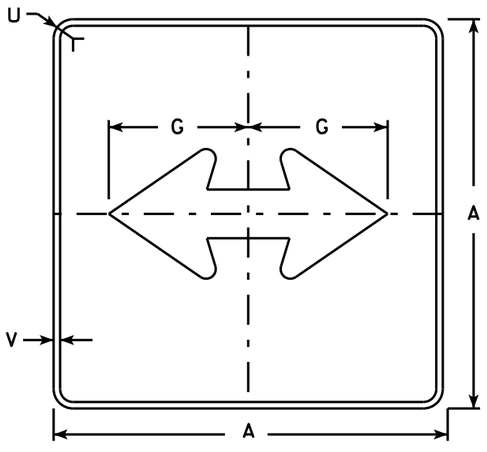
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 15-OCT-2015 13:17 PLOT BY : ss...plotuser...ss PLOT NAME : PLOT SCALE : 18.607113:1.000000
WISDOT/CADDS SHEET 42



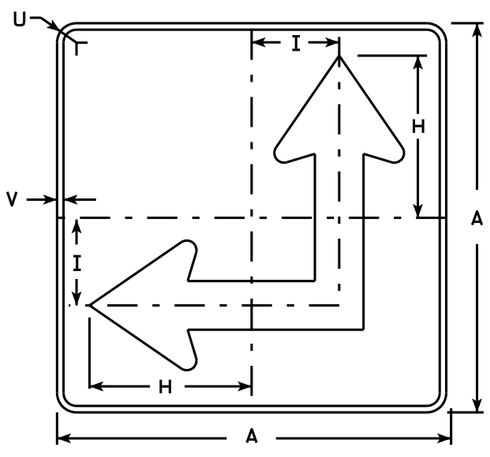
M6-4
MM6-4
MO6-4
MP6-4



M6-6
MM6-6
MO6-6
MP6-6



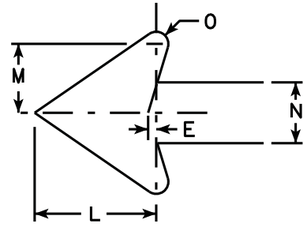
MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

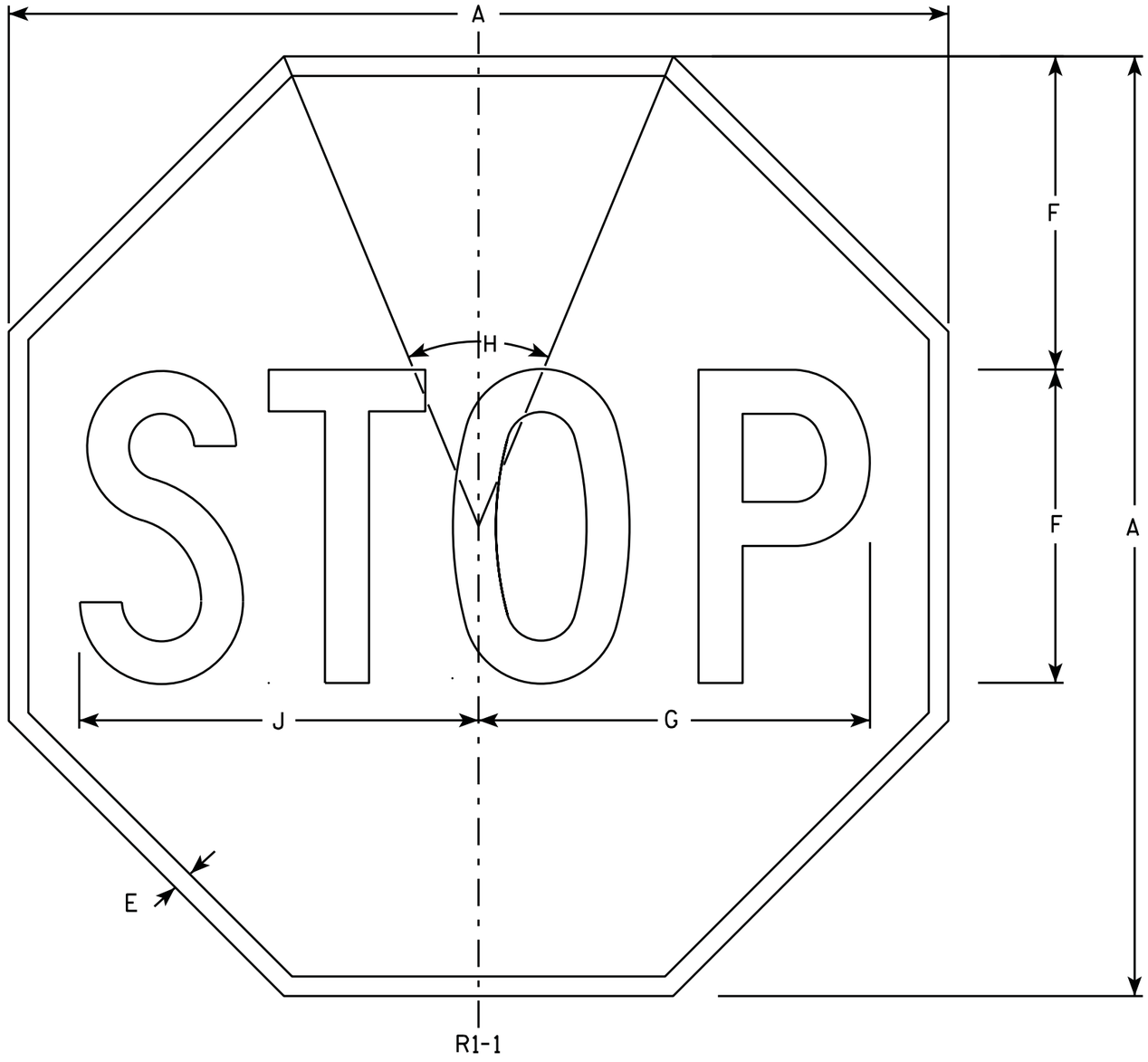
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO. 131 | 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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
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

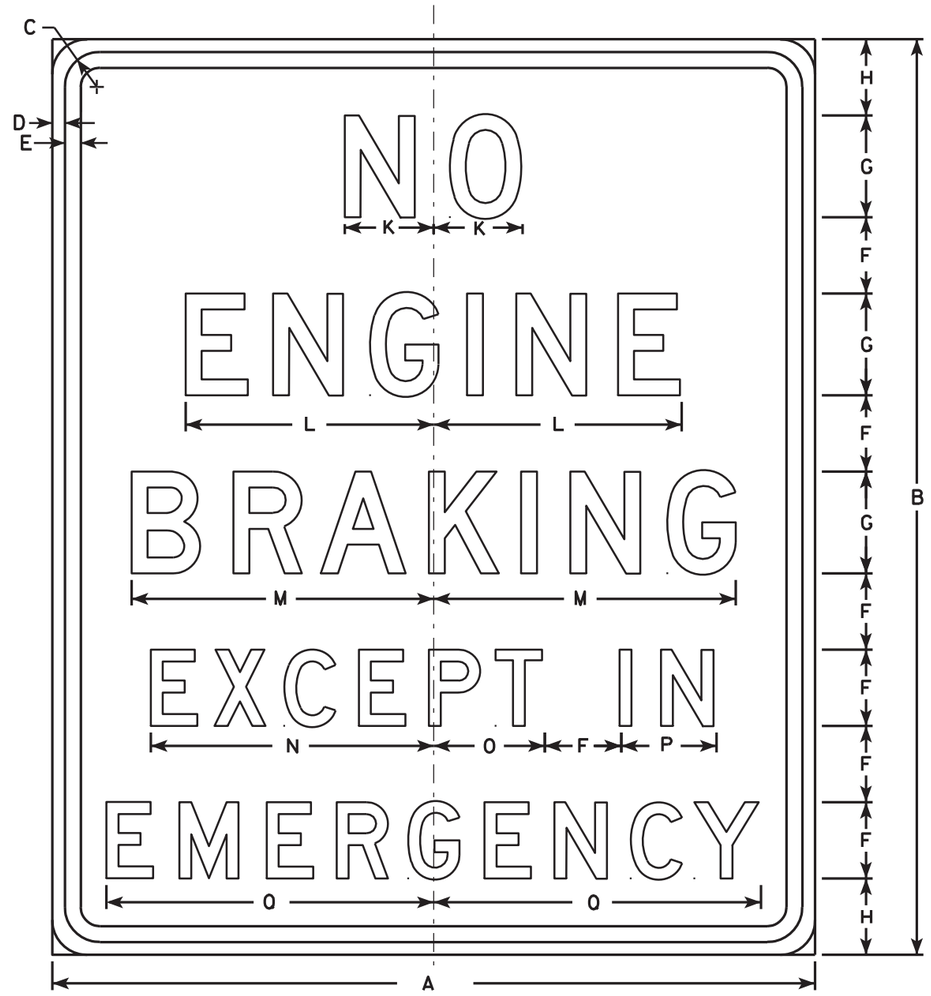
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.12

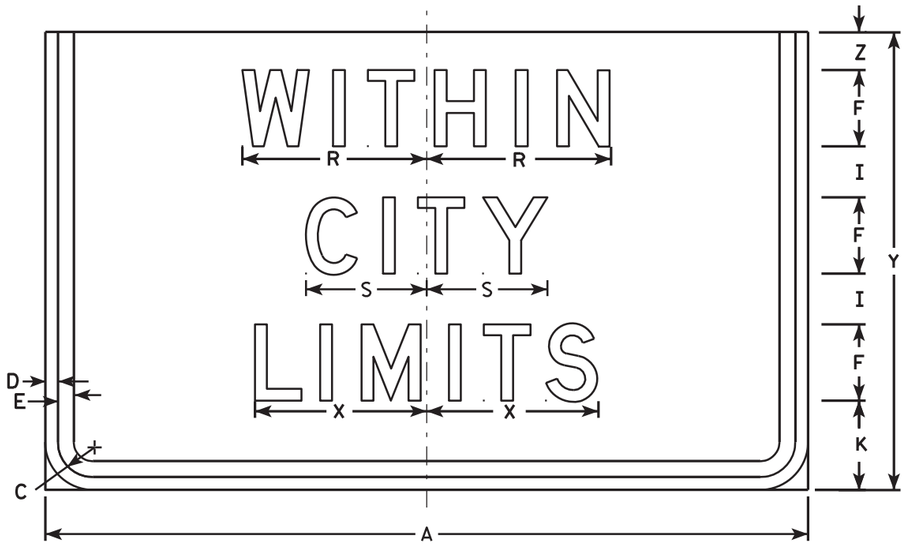
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO. 132 | E



R10-64

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D 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. Line 2 of R10-64F is Series C for "TOWNSHIP" Only



R10-64F

VILLAGE
V
V

Area sq. ft.
3.75
7.0

TOWNSHIP
U
U

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	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2S	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
2M	30	36	1 3/8	1/2	5/8	3	4	3	2		3 1/2	9 3/4	11 7/8	11 1/8	4 3/8	3 3/4	12 7/8	7 1/4	4 3/4		8 1/4	8 3/4	5/8	6 3/4	18	1 1/2	7.5
3	42	48	1 3/8	1/2	5/8	4	5	4 1/2	3		4	12 1/4	14 7/8	14 1/8	5 1/4	4 3/4	16 1/4	9	6		11	11 1/4	1 1/2	8 1/2	24	2	14.0
4																											
5																											

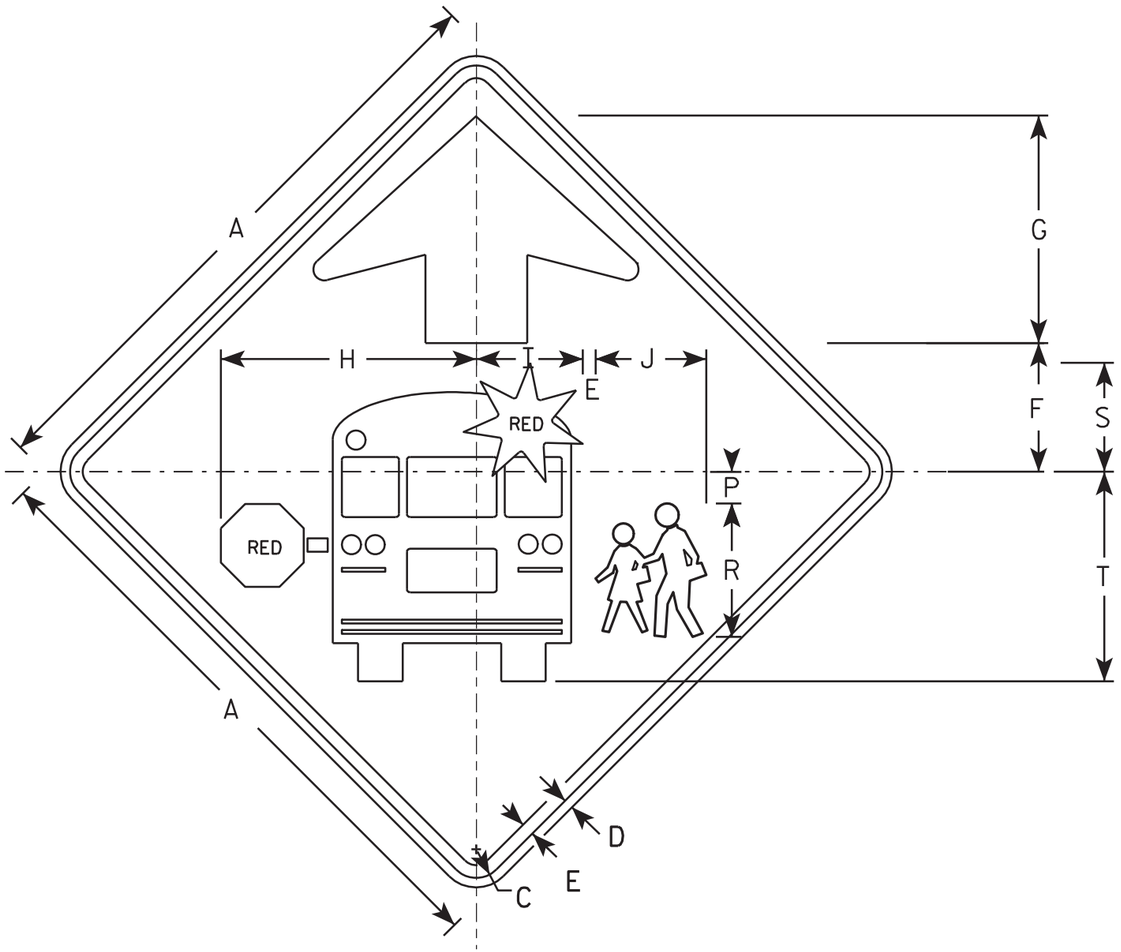
STANDARD SIGN
R10-64 & R10-64F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-64.7

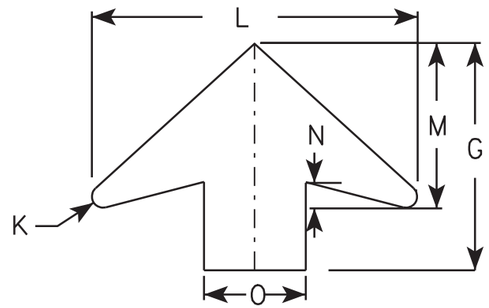
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 133 | E



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																											

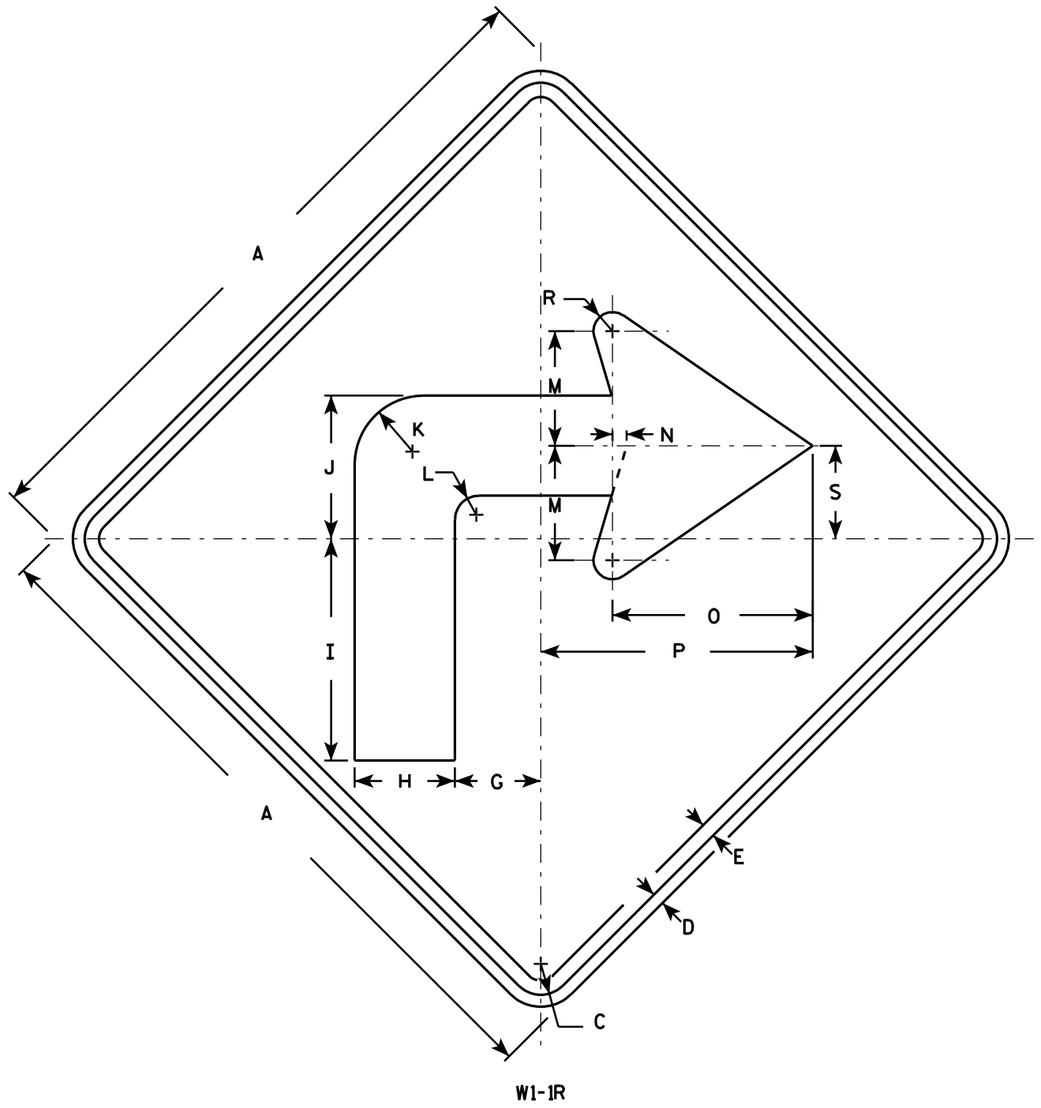
STANDARD SIGN
S3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/8/10 PLATE NO. S3-1.6

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 134 | 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

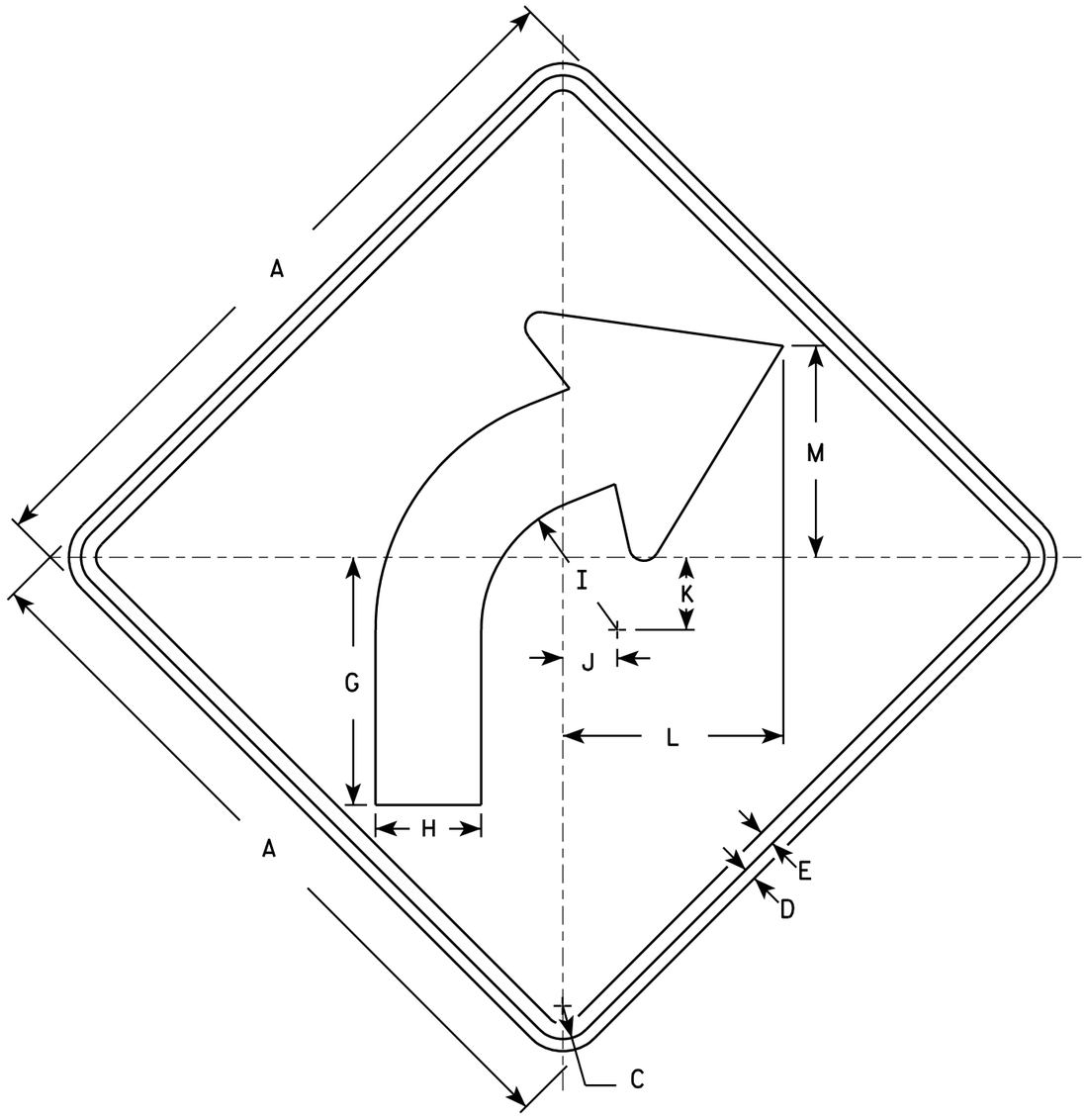
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 135 | E

7

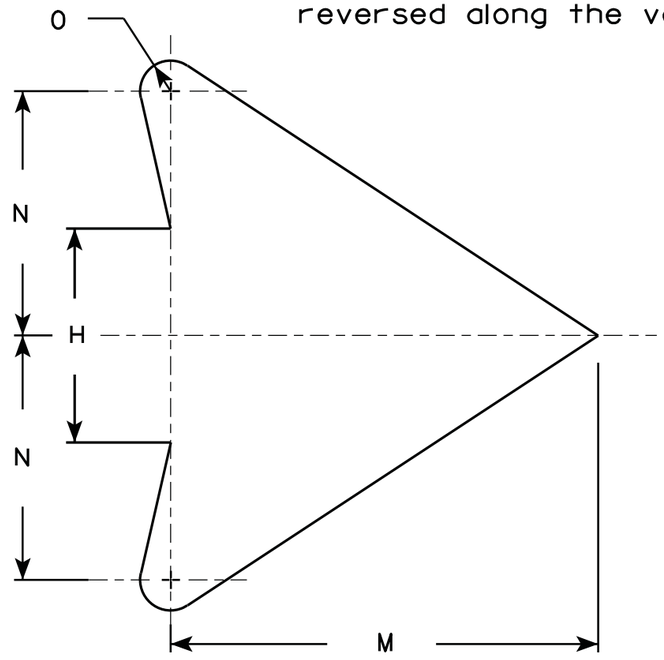
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W11.DGN PLOT DATE : 15-MAY-2012 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.939035:1.000000
WISDOT/CADDS SHEET 42

NOTES

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

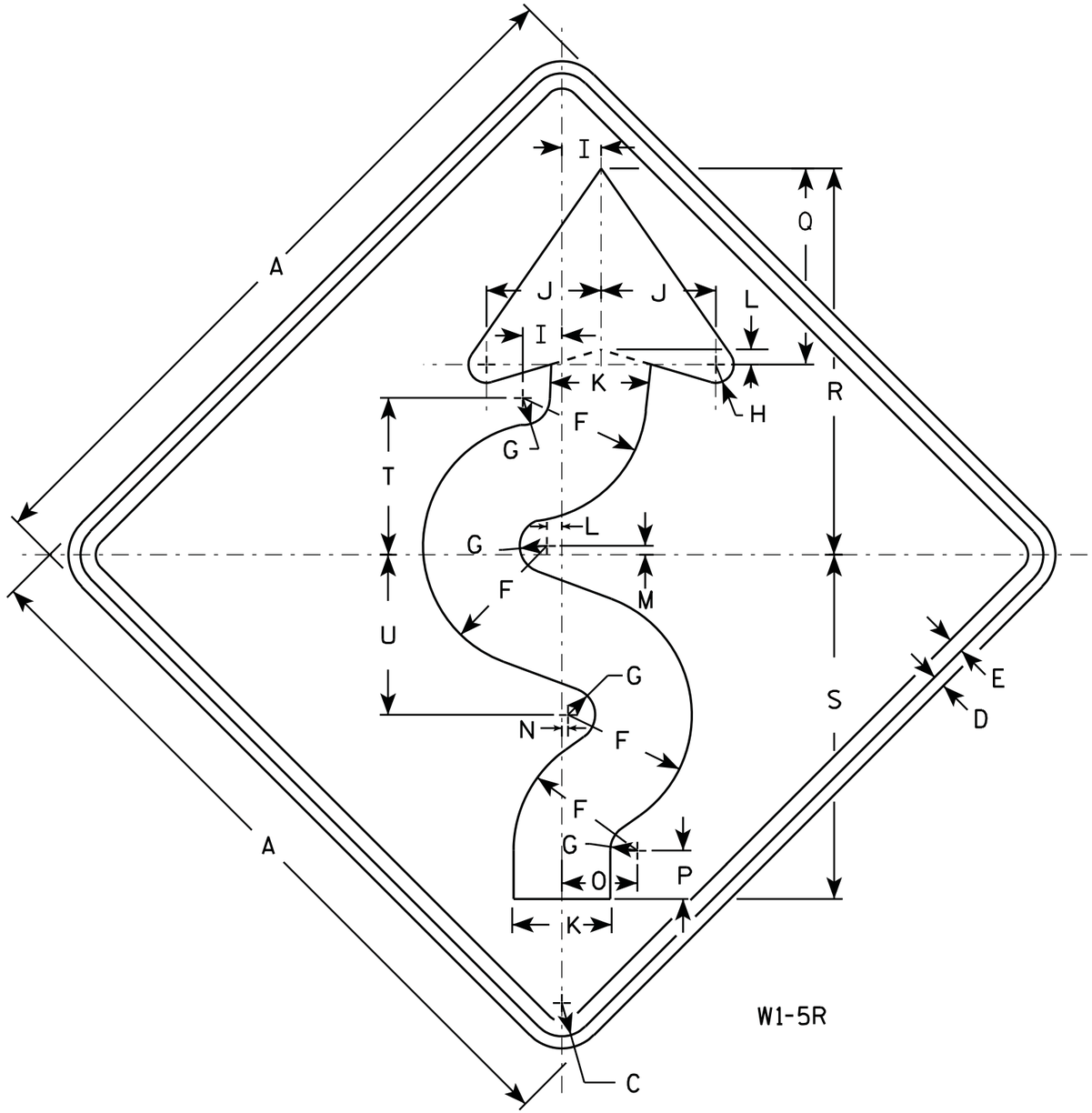
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 136 | E



W1-5R

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. W1-5L is the same as W1-5R 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

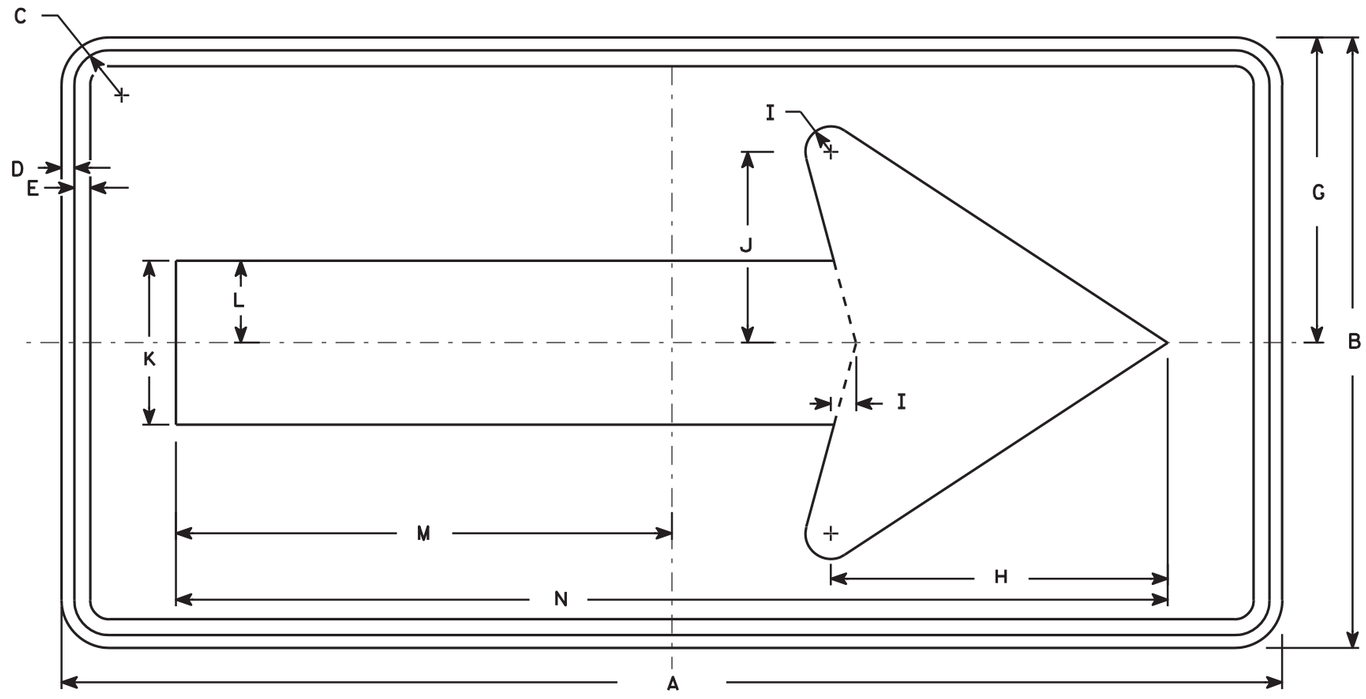
STANDARD SIGN
W1-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/18/12 PLATE NO. W1-5.8

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 137 | 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

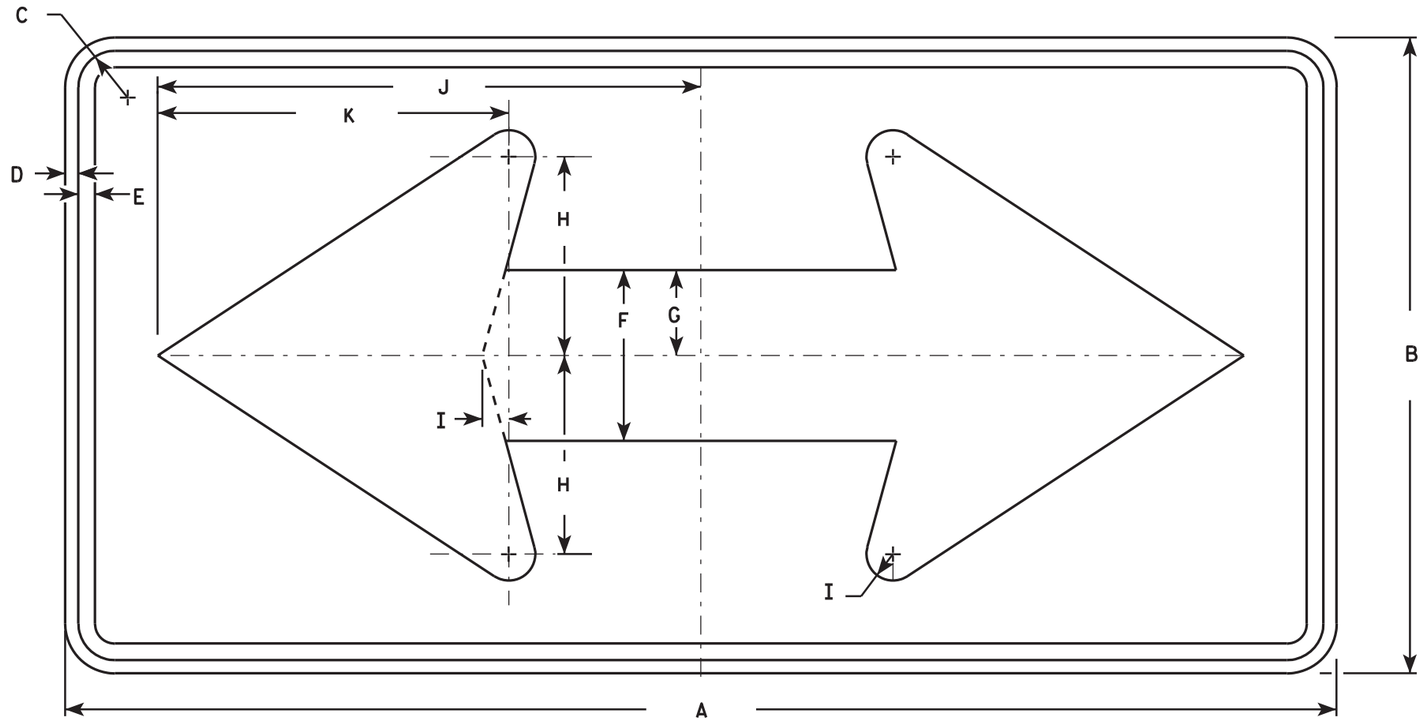
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 138



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

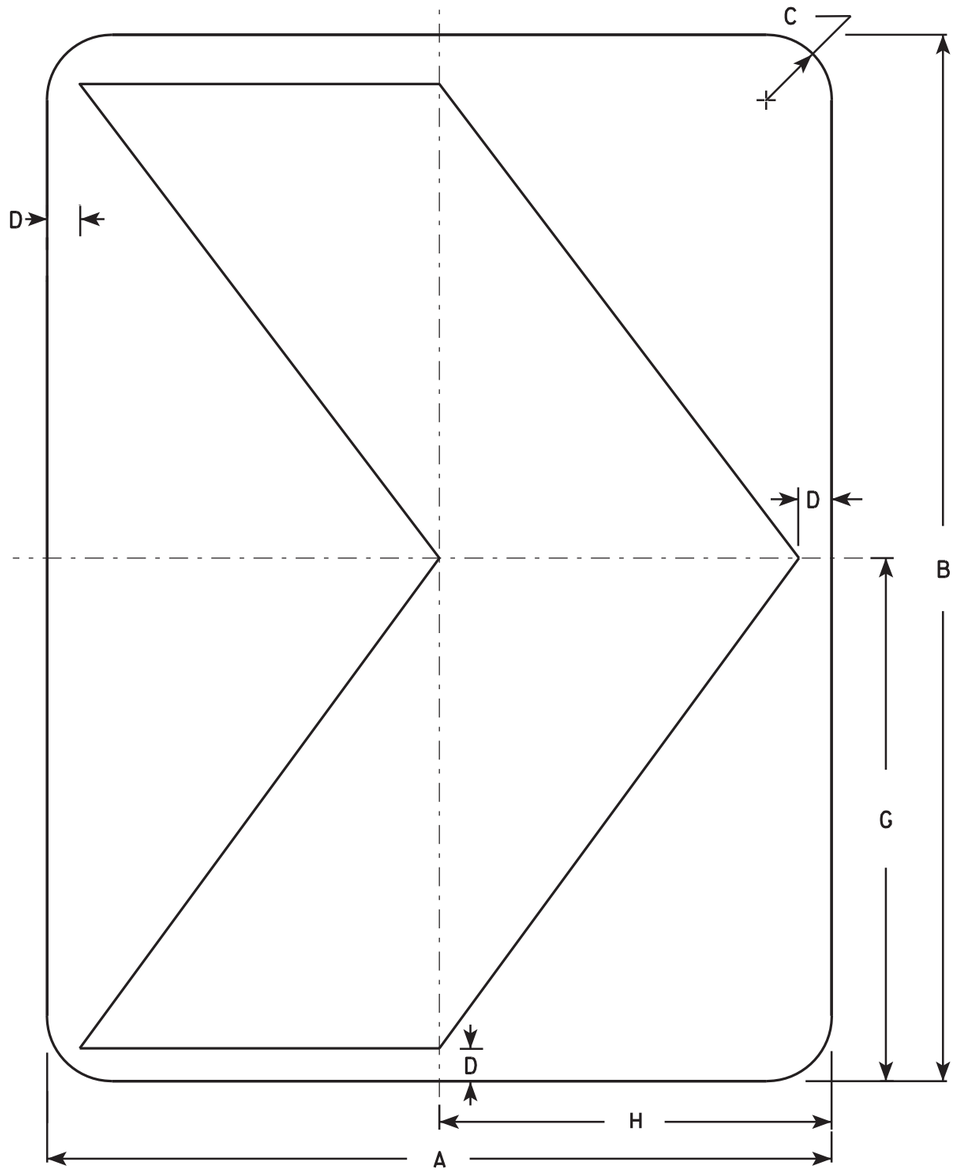
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 139 | E



W1-8

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	12	18	1 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

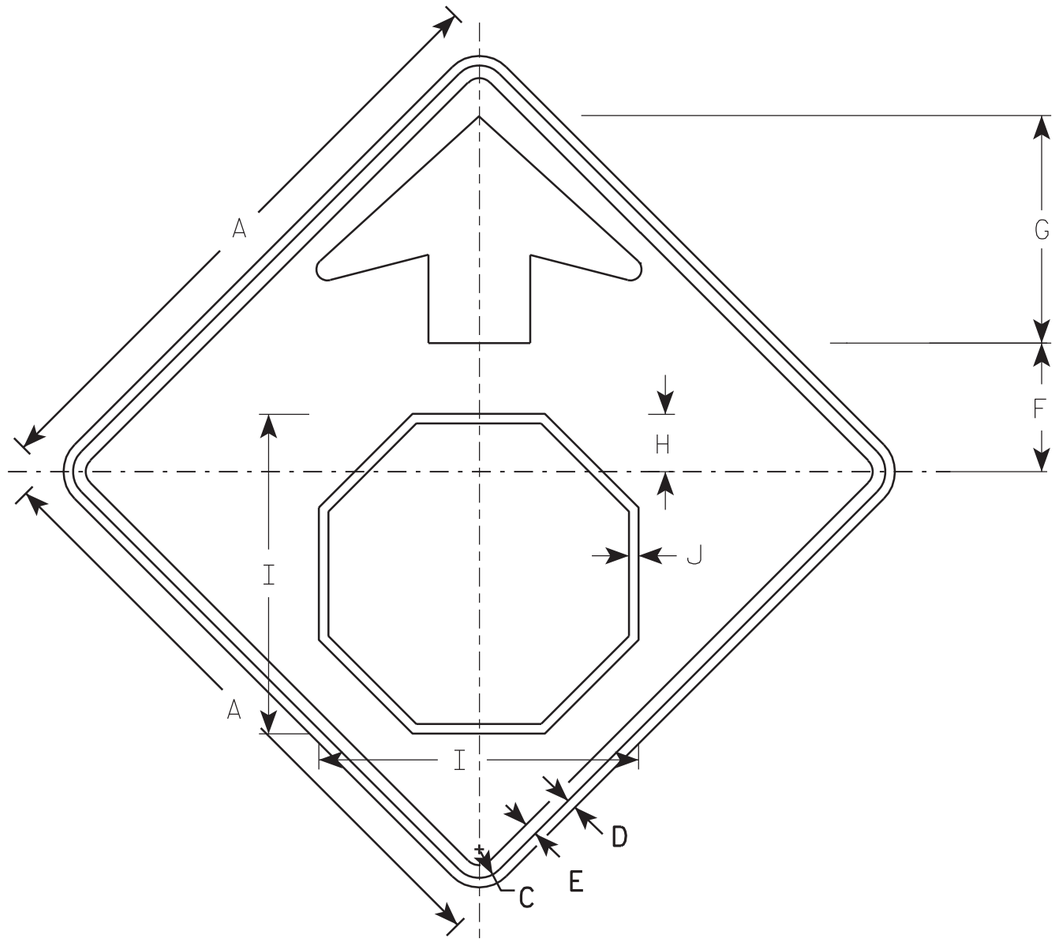
STANDARD SIGN
W1-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

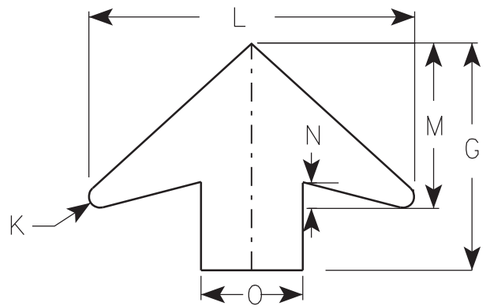
PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 140 | E



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

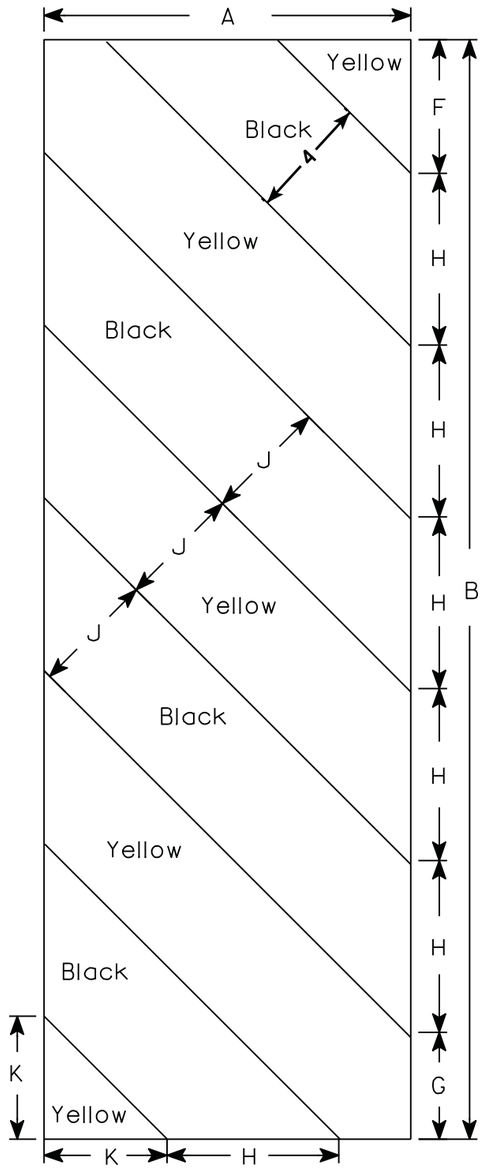
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

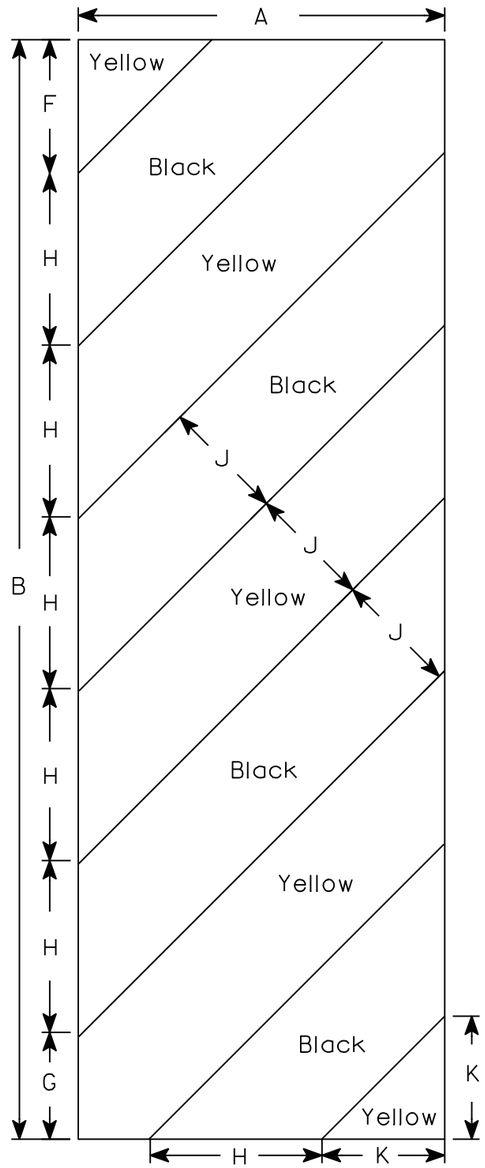
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 141 | E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

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

STANDARD SIGN

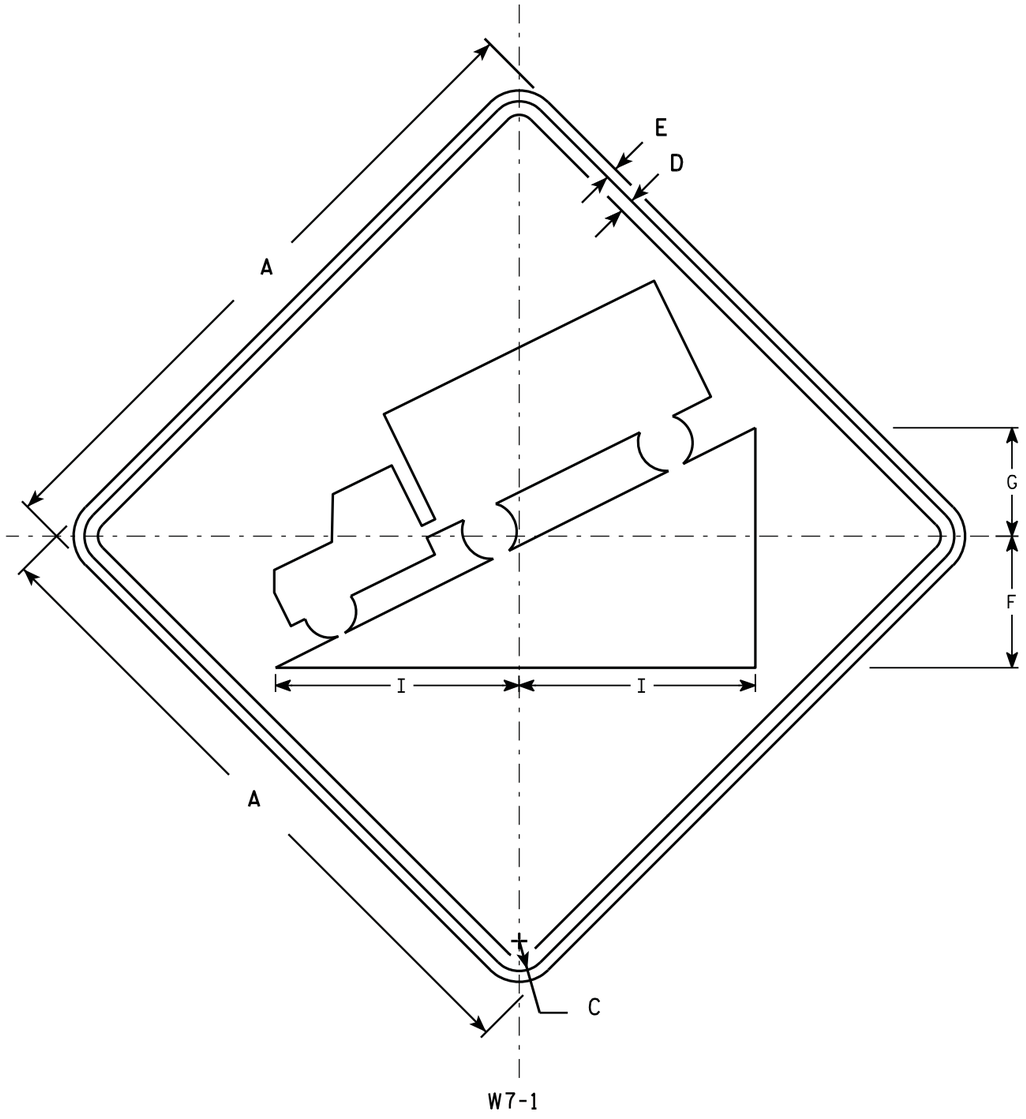
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 142 | 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 - 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	O	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

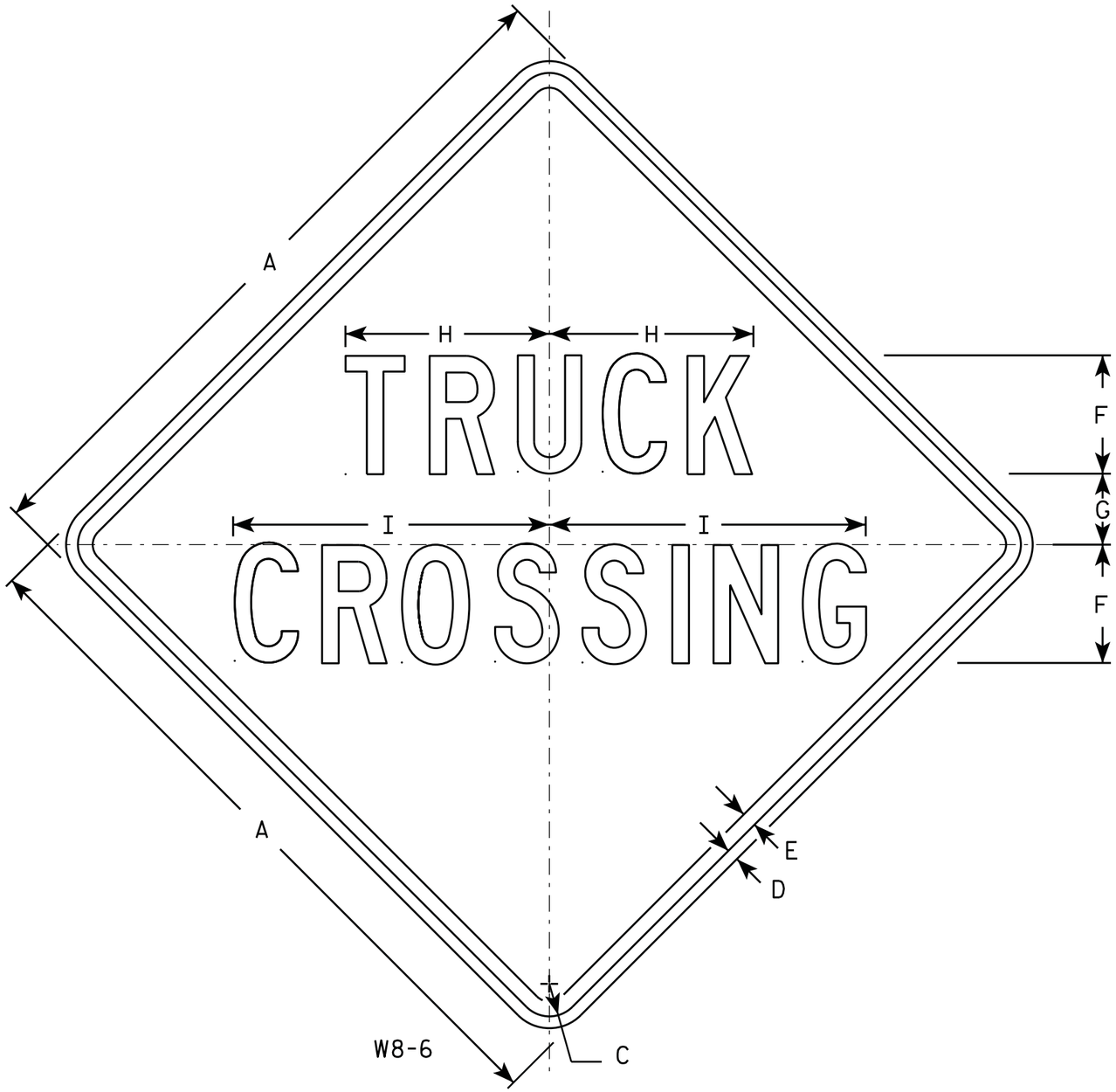
STANDARD SIGN
W7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W7-1.13

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN		SHEET NO: 143	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 - 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	24		1 1/8	3/8	1/2	4	2 1/2	6 7/8	10 5/8																		4.0
2S	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
2M	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
3	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
4	36		1 5/8	5/8	3/4	6	3 1/2	10 3/8	16																		9.0
5	48		2 1/4	3/4	1	8	5	13 3/4	21 1/4																		16.0

STANDARD SIGN
W8-6

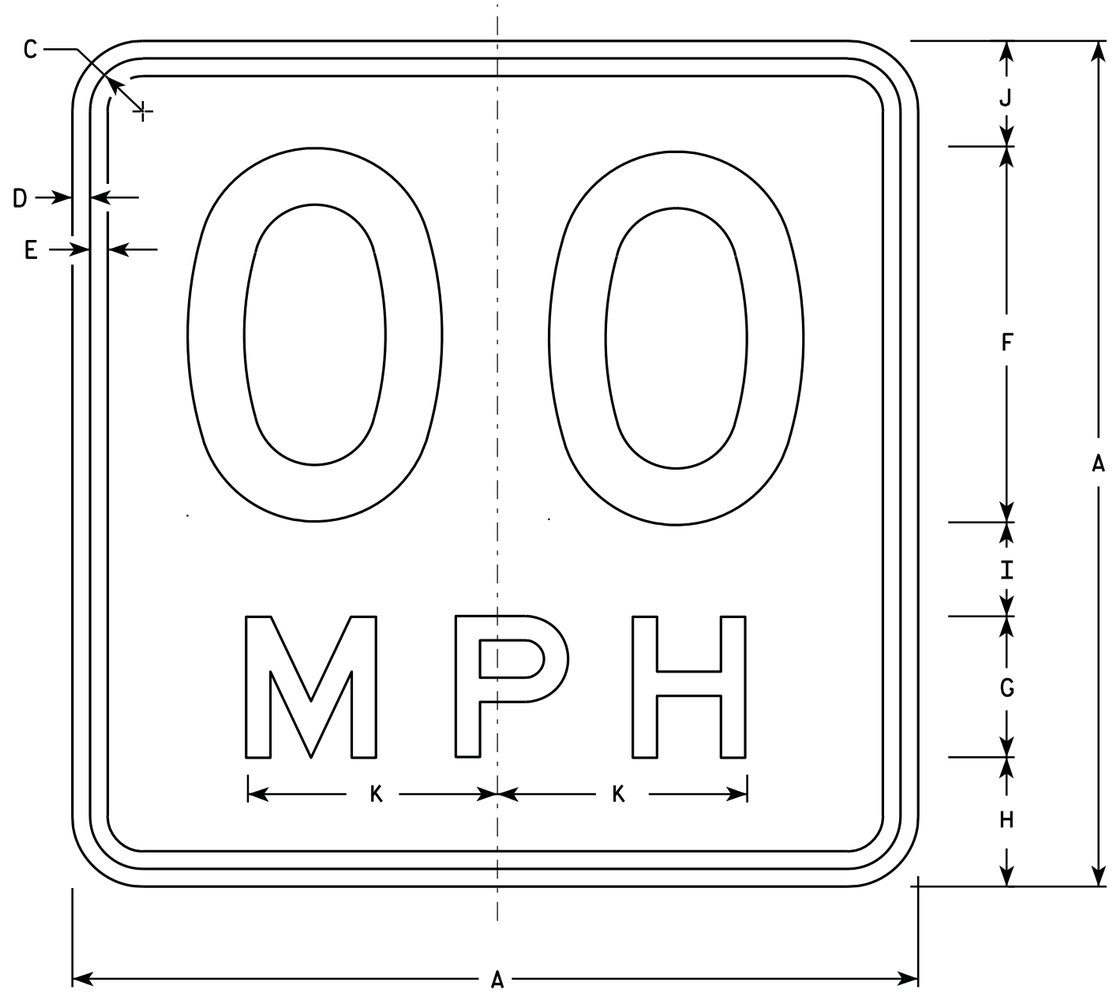
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch
for State Traffic Engineer

DATE 11/25/13 PLATE W8-6.8

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W86.DGN PLOT DATE : 25-NOV-2013 15:14 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.594294:1.000000
WISDOT/CADDS SHEET 42



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

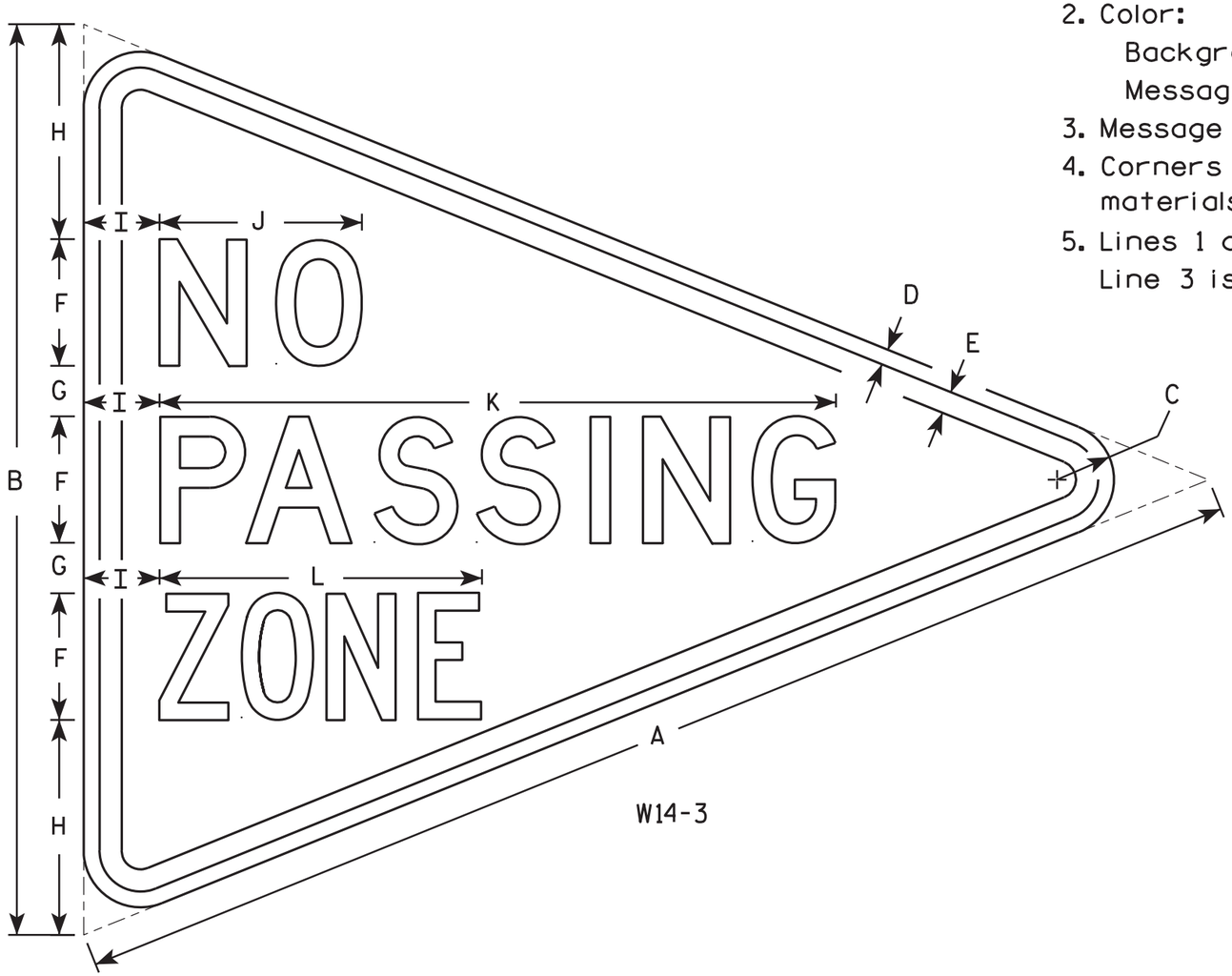
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 145 | 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: 7882-05-72 | HWY: CTH Q | COUNTY: DUNN | SHEET NO: 146 | E

EARTHWORK DATA - CTH Q

STATION	AREA (SF)					INCR. VOL (CY)					CUMULATIVE VOL (CY)					
	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	MASS ORDINATE
100+76.10	14.37	0.00	13.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101+00.00	12.28	0.00	6.69	0.00	0.00	11.80	0.00	8.85	0.00	0.00	11.80	11.06	0.00	0.00	0.00	0.74
101+01.10	12.16	0.00	6.42	0.00	0.00	0.50	0.00	0.27	0.00	0.00	12.29	11.39	0.00	0.00	0.00	0.90
101+26.10	11.74	0.00	15.57	0.00	0.00	11.06	0.00	10.18	0.00	0.00	23.36	24.12	0.00	0.00	0.00	-0.76
101+79.84	10.15	0.00	0.25	0.00	0.00	21.78	0.00	15.75	0.00	0.00	45.14	43.80	0.00	0.00	0.00	1.34
102+00.00	10.15	0.00	25.67	0.00	0.00	7.58	0.00	9.68	0.00	0.00	52.72	55.89	0.00	0.00	0.00	-3.18
103+00.00	11.43	0.00	16.25	0.00	0.00	39.96	0.00	77.62	0.00	0.00	92.68	152.91	0.00	0.00	0.00	-60.23
103+47.30	18.46	0.00	17.78	0.00	0.00	26.19	0.00	29.80	0.00	0.00	118.87	190.17	0.00	0.00	0.00	-71.30
103+57.30	20.67	0.00	20.63	0.00	0.00	7.25	0.00	7.11	0.00	0.00	126.12	199.06	0.00	0.00	0.00	-72.94
103+72.30	22.37	0.00	26.69	0.00	0.00	11.95	0.00	13.15	0.00	0.00	138.07	215.49	0.00	0.00	0.00	-77.42
103+82.30	20.71	0.00	29.20	0.00	0.00	7.98	0.00	10.35	0.00	0.00	146.05	228.43	0.00	0.00	0.00	-82.38
103+97.30	19.64	0.00	32.03	0.00	0.00	11.21	0.00	17.01	0.00	0.00	157.26	249.69	0.00	0.00	0.00	-92.44
104+00.00	19.68	0.00	30.65	0.00	0.00	1.97	0.00	3.13	0.00	0.00	159.22	253.61	0.00	0.00	0.00	-94.39
104+07.30	18.22	0.00	27.33	0.00	0.00	5.12	0.00	7.84	0.00	0.00	164.35	263.41	0.00	0.00	0.00	-99.06
104+97.30	6.31	0.00	2.92	0.00	0.00	40.89	0.00	50.42	0.00	0.00	205.23	326.43	0.00	0.00	0.00	-121.20
105+00.00	6.39	0.00	2.64	0.00	0.00	0.64	0.00	0.28	0.00	0.00	205.87	326.78	0.00	0.00	0.00	-120.91
105+09.24	7.27	0.00	1.64	0.00	0.00	2.34	0.00	0.73	0.00	0.00	208.21	327.70	0.00	0.00	0.00	-119.49
105+43.90	25.02	0.00	0.04	0.00	0.00	20.72	0.00	1.08	0.00	0.00	228.93	329.05	0.00	0.00	0.00	-100.12
105+67.80	11.87	0.00	0.15	0.00	0.00	16.33	0.00	0.08	0.00	0.00	245.26	329.15	0.00	0.00	0.00	-83.89
106+00.00	9.20	0.00	4.25	0.00	0.00	12.56	0.00	2.62	0.00	0.00	257.82	332.43	0.00	0.00	0.00	-74.61
106+05.70	8.98	0.00	6.20	0.00	0.00	1.92	0.00	1.10	0.00	0.00	259.74	333.81	0.00	0.00	0.00	-74.07
106+57.80	6.65	0.00	30.02	0.00	0.00	15.07	0.00	34.94	0.00	0.00	274.81	377.48	0.00	0.00	0.00	-102.67
106+82.80	7.88	0.00	23.84	0.00	0.00	6.72	0.00	24.93	0.00	0.00	281.54	408.65	0.00	0.00	0.00	-127.11
106+95.70	8.99	0.00	19.37	0.00	0.00	4.03	0.00	10.32	0.00	0.00	285.57	421.55	0.00	0.00	0.00	-135.98
107+00.00	9.34	0.00	18.77	0.00	0.00	1.46	0.00	3.04	0.00	0.00	287.03	425.35	0.00	0.00	0.00	-138.32
107+07.80	10.14	0.00	16.94	0.00	0.00	2.81	0.00	5.16	0.00	0.00	289.84	431.80	0.00	0.00	0.00	-141.95
107+20.70	11.24	0.00	4.44	0.00	0.00	5.11	0.00	5.11	0.00	0.00	294.95	438.18	0.00	0.00	0.00	-143.23
107+45.70	25.78	0.00	1.10	0.00	0.00	17.14	0.00	2.57	0.00	0.00	312.09	441.39	0.00	0.00	0.00	-129.30
108+00.00	16.30	0.00	0.67	0.00	0.00	42.31	0.00	1.78	0.00	0.00	354.40	443.61	0.00	0.00	0.00	-89.22
109+00.00	13.63	0.00	10.20	0.00	0.00	55.44	0.00	20.13	0.00	0.00	409.83	468.78	0.00	0.00	0.00	-58.94
109+75.60	10.34	0.00	18.00	0.00	0.00	33.57	0.00	39.47	0.00	0.00	443.40	518.12	0.00	0.00	0.00	-74.72
110+00.00	4.92	0.00	48.68	0.00	0.00	6.90	0.00	30.13	0.00	0.00	450.30	555.78	0.00	0.00	0.00	-105.48
110+00.60	4.91	0.00	48.77	0.00	0.00	0.11	0.00	1.08	0.00	0.00	450.41	557.13	0.00	0.00	0.00	-106.72
110+13.20	4.59	0.00	52.89	0.00	0.00	2.22	0.00	23.72	0.00	0.00	452.62	586.78	0.00	0.00	0.00	-134.16
110+25.60	4.24	0.00	58.63	0.00	0.00	2.03	0.00	25.61	0.00	0.00	454.65	618.80	0.00	0.00	0.00	-164.14
110+38.20	4.89	0.00	44.14	0.00	0.00	2.13	0.00	23.98	0.00	0.00	456.78	648.77	0.00	0.00	0.00	-191.99
110+54.27	18.12	0.00	33.54	0.00	0.00	6.85	0.00	23.12	0.00	0.00	463.63	677.66	0.00	0.00	0.00	-214.03
110+63.20	17.53	0.00	37.37	0.00	0.00	5.90	0.00	11.73	0.00	0.00	469.53	692.32	0.00	0.00	0.00	-222.80
111+00.00	4.69	0.00	42.74	0.00	0.00	15.14	0.00	54.59	0.00	0.00	484.67	760.56	0.00	0.00	0.00	-275.90
111+15.60	4.47	0.00	38.10	0.00	0.00	2.65	0.00	23.35	0.00	0.00	487.31	789.75	0.00	0.00	0.00	-302.44
111+53.20	3.58	0.00	33.98	0.00	0.00	5.61	0.00	50.19	0.00	0.00	492.92	852.49	0.00	0.00	0.00	-359.57
112+00.00	3.40	0.00	37.63	0.00	0.00	6.05	0.00	62.07	0.00	0.00	498.97	930.07	0.00	0.00	0.00	-431.10
113+00.00	5.39	0.00	32.18	0.00	0.00	16.29	0.00	129.28	0.00	0.00	515.26	1091.67	0.00	0.00	0.00	-576.41
114+00.00	4.61	0.00	24.05	0.00	0.00	18.52	0.00	104.13	0.00	0.00	533.78	1221.84	0.00	0.00	0.00	-688.06
115+00.00	17.33	0.00	4.55	0.00	0.00	40.62	0.00	52.97	0.00	0.00	574.40	1288.05	0.00	0.00	0.00	-713.65

EARTHWORK DATA - CTH Q

STATION	AREA (SF)					INCR. VOL (CY)					CUMULATIVE VOL (CY)					
	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	MASS ORDINATE
115+27.53	39.99	0.00	4.41	0.00	0.00	29.22	0.00	4.57	0.00	0.00	603.62	1293.76	0.00	0.00	0.00	-690.14
116+00.00	4.77	0.00	14.11	0.00	0.00	60.07	0.00	24.84	0.00	0.00	663.69	1324.82	0.00	0.00	0.00	-661.12
117+00.00	6.29	0.00	15.37	0.00	0.00	20.48	0.00	54.59	0.00	0.00	684.17	1393.05	0.00	0.00	0.00	-708.87
118+00.00	8.70	0.00	1.88	0.00	0.00	27.75	0.00	31.94	0.00	0.00	711.92	1432.97	0.00	0.00	0.00	-721.05
119+00.00	15.24	0.00	7.18	0.00	0.00	44.33	0.00	16.77	0.00	0.00	756.25	1453.93	0.00	0.00	0.00	-697.68
119+33.59	11.82	0.00	1.78	0.00	0.00	16.83	0.00	5.57	0.00	0.00	773.08	1460.90	0.00	0.00	0.00	-687.81
120+00.00	6.96	0.00	19.29	0.00	0.00	23.09	0.00	25.91	0.00	0.00	796.17	1493.28	0.00	0.00	0.00	-697.11
121+00.00	3.00	0.00	26.53	0.00	0.00	18.44	0.00	84.85	0.00	0.00	814.61	1599.35	0.00	0.00	0.00	-784.74
122+00.00	3.21	0.00	26.67	0.00	0.00	11.51	0.00	98.52	0.00	0.00	826.12	1722.50	0.00	0.00	0.00	-896.38
122+78.50	3.60	0.00	18.67	0.00	0.00	9.90	0.00	65.93	0.00	0.00	836.02	1804.91	0.00	0.00	0.00	-968.89
123+00.00	4.79	0.00	27.40	0.00	0.00	3.34	0.00	18.34	0.00	0.00	839.36	1827.84	0.00	0.00	0.00	-988.48
123+17.97	30.06	0.00	14.76	0.00	0.00	11.60	0.00	14.04	0.00	0.00	850.96	1845.38	0.00	0.00	0.00	-994.42
124+00.00	3.56	0.00	56.96	0.00	0.00	51.07	0.00	108.95	0.00	0.00	902.03	1981.57	0.00	0.00	0.00	-1079.55
125+00.00	5.05	0.00	210.69	0.00	0.00	15.94	0.00	495.66	0.00	0.00	917.97	2601.14	0.00	0.00	0.00	-1683.18
125+03.50	4.60	0.00	247.02	0.00	0.00	0.63	0.00	29.67	0.00	0.00	918.59	2638.23	0.00	0.00	0.00	-1719.63
125+15.50	2.73	0.00	242.54	0.00	0.00	1.63	0.00	108.79	0.00	0.00	920.22	2774.21	0.00	0.00	0.00	-1853.99
125+74.66	3.05	0.00	36.48	0.00	0.00	6.34	0.00	305.70	0.00	0.00	926.56	3156.34	0.00	0.00	0.00	-2229.78
125+93.00	18.31	0.00	146.06	0.00	0.00	7.25	0.00	61.98	0.00	0.00	933.81	3233.82	0.00	0.00	0.00	-2300.00
126+00.00	8.23	0.00	75.57	0.00	0.00	3.44	0.00	28.73	0.00	0.00	937.25	3269.73	0.00	0.00	0.00	-2332.48
127+00.00	2.25	0.00	52.04	0.00	0.00	19.40	0.00	236.30	0.00	0.00	956.65	3565.10	0.00	0.00	0.00	-2608.45
127+91.21	4.00	0.00	17.33	0.00	0.00	10.56	0.00	117.17	0.00	0.00	967.20	3711.57	0.00	0.00	0.00	-2744.37
128+00.00	4.70	0.00	18.78	0.00	0.00	1.42	0.00	5.88	0.00	0.00	968.62	3718.92	0.00	0.00	0.00	-2750.30
129+00.00	3.88	0.00	19.96	0.00	0.00	15.89	0.00	71.74	0.00	0.00	984.51	3808.59	0.00	0.00	0.00	-2824.08
130+00.00	4.83	0.00	25.99	0.00	0.00	16.12	0.00	85.08	0.00	0.00	1000.62	3914.94	0.00	0.00	0.00	-2914.32
130+18.30	4.11	0.00	26.42	0.00	0.00	3.03	0.00	17.76	0.00	0.00	1003.65	3937.15	0.00	0.00	0.00	-2933.50
130+55.60	5.60	0.00	20.05	0.00	0.00	6.71	0.00	32.10	0.00	0.00	1010.36	3977.27	0.00	0.00	0.00	-2966.92
130+58.35	5.73	0.00	20.35	0.00	0.00	0.58	0.00	2.06	0.00	0.00	1010.93	3979.85	0.00	0.00	0.00	-2968.91
131+00.00	3.59	0.00	42.17	0.00	0.00	7.19	0.00	48.22	0.00	0.00	1018.12	4040.13	0.00	0.00	0.00	-3022.00
131+53.30	3.89	0.00	52.45	0.00	0.00	7.38	0.00	93.39	0.00	0.00	1025.51	4156.87	0.00	0.00	0.00	-3131.36
131+78.30	3.94	0.00	46.37	8.62	0.00	3.62	0.00	45.75	3.99	0.00	1029.13	4211.06	5.99	0.00	2.40	-3181.93
131+90.60	4.24	0.00	40.60	8.52	0.00	1.86	0.00	19.81	3.90	0.00	1031.00	4232.90	11.84	0.00	4.74	-3201.90
132+00.00	4.68	0.00	32.71	5.29	0.00	1.55	0.00	12.76	2.40	0.00	1032.55	4247.05	15.45	0.00	6.18	-3214.50
132+03.30	5.13	0.00	28.90	4.85	0.00	0.60	0.00	3.77	0.62	0.00	1033.15	4251.29	16.38	0.00	6.55	-3218.14
132+15.60	6.85	0.00	17.29	2.22	0.00	2.73	0.00	10.52	1.61	0.00	1035.88	4263.23	18.79	0.00	7.52	-3227.35
132+40.60	10.69	0.00	1.95	0.00	0.00	8.12	0.00	8.91	1.03	0.00	1044.00	4273.59	20.33	0.00	8.13	-3229.59
133+00.00	15.41	0.00	8.26	0.00	0.00	28.71	0.00	11.23	0.00	0.00	1072.71	4287.63	20.33	0.00	8.13	-3214.92
134+00.00	14.73	0.00	2.74	0.00	0.00	55.82	0.00	20.37	0.00	0.00	1128.53	4313.10	20.33	0.00	8.13	-3184.57
134+02.60	14.20	0.00	3.09	0.00	0.00	1.39	0.00	0.28	0.00	0.00	1129.92	4313.45	20.33	0.00	8.13	-3183.53
134+27.60	9.52	0.00	9.49	0.00	0.00	10.98	0.00	5.82	0.00	0.00	1140.90	4320.72	20.33	0.00	8.13	-3179.82
134+39.90	7.53	0.00	14.54	0.00	0.00	3.88	0.00	5.47	0.00	0.00	1144.78	4327.56	20.33	0.00	8.13	-3182.78
134+52.60	6.72	0.00	19.09	0.00	0.00	3.35	0.00	7.91	0.00	0.00	1148.14	4337.45	20.33	0.00	8.13	-3189.31
134+64.90	5.99	0.00	19.26	0.00	0.00	2.90	0.00	8.73	0.00	0.00	1151.03	4348.37	20.33	0.00	8.13	-3197.34
134+89.90	5.92	0.00	21.25	0.00	0.00	5.51	0.00	18.75	0.00	0.00	1156.55	4371.81	20.33	0.00	8.13	-3215.26
135+00.00	5.95	0.00	19.67	0.00	0.00	2.22	0.00	7.65	0.00	0.00	1158.76	4381.38	20.33	0.00	8.13	-3222.61
135+87.60	5.65	0.00	9.29	0.00	0.00	18.81	0.00	46.98	0.00	0.00	1177.57	4440.10	20.33	0.00	8.13	-3262.53

EARTHWORK DATA - CTH Q

STATION	AREA (SF)					INCR. VOL (CY)					CUMULATIVE VOL (CY)					MASS ORDINATE
	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	
136+00.00	5.37	0.00	9.77	0.00	0.00	2.53	0.00	4.38	0.00	0.00	1180.10	4445.57	20.33	0.00	8.13	-3265.47
136+24.90	4.86	0.00	10.12	0.00	0.00	4.72	0.00	9.17	0.00	0.00	1184.82	4457.04	20.33	0.00	8.13	-3272.22
137+00.00	25.66	7.33	18.23	0.00	0.00	42.45	10.20	39.43	0.00	0.00	1227.26	4506.33	20.33	0.00	8.13	-3289.26
138+00.00	35.19	7.33	9.98	0.00	0.00	112.68	27.16	52.24	0.00	0.00	1339.94	4571.62	20.33	0.00	8.13	-3269.04
139+00.00	37.20	7.33	9.52	0.00	0.00	134.05	27.16	36.12	0.00	0.00	1473.99	4616.77	20.33	0.00	8.13	-3207.30
139+30.00	38.30	7.33	10.39	0.00	0.00	41.94	8.15	11.07	0.00	0.00	1515.93	4630.60	20.33	0.00	8.13	-3187.34
140+00.00	218.67	7.33	14.80	0.00	0.00	333.11	19.01	32.66	0.00	0.00	1849.04	4671.43	20.33	0.00	8.13	-2914.07
140+29.52	155.03	7.33	0.22	0.00	0.00	204.29	8.02	8.21	0.00	0.00	2053.33	4681.69	20.33	0.00	8.13	-2728.07
141+00.00	29.68	7.33	11.87	0.00	0.00	241.08	19.14	15.77	0.00	0.00	2294.41	4701.41	20.33	0.00	8.13	-2525.84
142+00.00	18.67	7.33	18.91	0.00	0.00	89.53	27.16	56.98	0.00	0.00	2383.94	4772.64	20.33	0.00	8.13	-2534.70
143+00.00	42.25	7.33	13.38	0.00	0.00	112.82	27.16	59.80	0.00	0.00	2496.76	4847.38	20.33	0.00	8.13	-2523.78
144+00.00	91.52	7.33	0.65	0.00	0.00	247.72	27.16	25.99	0.00	0.00	2744.48	4879.87	20.33	0.00	8.13	-2335.71
144+12.27	110.69	7.33	0.01	0.00	0.00	45.94	3.33	0.15	0.00	0.00	2790.42	4880.06	20.33	0.00	8.13	-2293.29
145+00.00	216.71	7.33	0.00	0.00	21.65	531.93	23.83	0.01	0.00	35.17	3322.35	4831.71	20.33	38.69	8.13	-1736.85
146+00.00	268.62	7.33	0.00	0.00	86.36	898.77	27.16	0.00	0.00	200.02	4221.12	4556.69	20.33	258.71	8.13	-590.21
146+65.00	210.13	7.33	0.00	0.00	24.23	576.28	17.65	0.00	0.00	133.12	4797.40	4373.65	20.33	405.14	8.13	151.45
147+00.00	149.05	7.33	0.00	0.00	4.77	232.81	9.51	0.00	0.00	18.80	5030.20	4347.80	20.33	425.82	8.13	400.59
148+00.00	49.67	7.33	23.83	0.00	0.00	368.01	27.16	44.14	0.00	8.84	5398.21	4390.82	20.33	435.54	8.13	698.42
149+00.00	72.52	7.33	7.94	0.00	0.00	226.28	27.16	58.83	0.00	0.00	5624.49	4464.36	20.33	435.54	8.13	824.01
149+57.21	111.33	7.33	0.00	0.00	0.00	194.77	15.54	8.41	0.00	0.00	5819.26	4474.87	20.33	435.54	8.13	992.73
150+00.00	89.01	7.33	0.00	0.00	0.00	158.76	11.62	0.00	0.00	0.00	5978.02	4474.87	20.33	435.54	8.13	1139.86
150+40.00	39.16	7.33	5.42	0.00	0.00	94.94	10.86	4.02	0.00	0.00	6072.96	4479.89	20.33	435.54	8.13	1218.92
151+00.00	116.64	7.33	19.26	0.00	0.00	173.11	16.30	27.43	0.00	0.00	6246.07	4514.18	20.33	435.54	8.13	1341.45
151+10.00	136.70	7.33	17.44	0.00	0.00	46.91	2.72	6.80	0.00	0.00	6292.99	4522.68	20.33	435.54	8.13	1377.15
151+20.00	158.22	7.33	15.46	0.00	0.00	54.61	2.72	6.09	0.00	0.00	6347.60	4530.29	20.33	435.54	8.13	1421.43
151+30.00	195.51	7.33	14.95	0.00	0.00	65.50	2.72	5.63	0.00	0.00	6413.11	4537.33	20.33	435.54	8.13	1477.18
152+00.00	125.21	7.33	7.60	0.00	0.00	415.74	19.01	29.23	0.00	0.00	6828.85	4573.87	20.33	435.54	8.13	1837.37
153+00.00	3.56	0.00	4.28	0.00	0.00	238.46	13.58	21.99	0.00	0.00	7067.31	4601.35	20.33	435.54	8.13	2034.77
154+00.00	4.56	0.00	2.14	0.00	0.00	15.05	0.00	11.88	0.00	0.00	7082.35	4616.21	20.33	435.54	8.13	2034.96
154+58.07	14.37	0.00	1.80	0.00	0.00	20.36	0.00	4.24	0.00	0.00	7102.72	4621.50	20.33	435.54	8.13	2050.03
155+00.00	3.07	0.00	10.89	0.00	0.00	13.55	0.00	9.86	0.00	0.00	7116.26	4633.83	20.33	435.54	8.13	2051.25
156+00.00	13.05	0.00	9.54	0.00	0.00	29.85	0.00	37.84	0.00	0.00	7146.11	4681.12	20.33	435.54	8.13	2033.81
156+17.52	8.33	0.00	13.06	0.00	0.00	6.94	0.00	7.33	0.00	0.00	7153.05	4690.29	20.33	435.54	8.13	2031.58
157+00.00	3.51	0.00	103.52	0.00	0.00	18.08	0.00	178.06	0.00	0.00	7171.13	4912.87	20.33	435.54	8.13	1827.08
158+00.00	2.92	0.00	60.17	0.00	0.00	11.90	0.00	303.14	0.00	0.00	7183.03	5291.80	20.33	435.54	8.13	1460.05
159+00.00	0.55	0.00	98.30	0.00	0.00	6.42	0.00	293.46	0.00	0.00	7189.45	5658.62	20.33	435.54	8.13	1099.64
160+00.00	9.79	0.00	16.31	0.00	0.00	19.15	0.00	212.23	0.00	0.00	7208.60	5923.91	20.33	435.54	8.13	853.51
161+00.00	46.67	0.00	0.50	0.00	0.00	104.55	0.00	31.13	0.00	0.00	7313.15	5962.82	20.33	435.54	8.13	919.15
162+00.00	213.93	0.00	123.85	0.00	0.00	482.59	0.00	230.28	0.00	0.00	7795.75	6250.67	20.33	435.54	8.13	1113.89
163+00.00	328.29	0.00	275.00	0.00	0.00	1004.12	0.00	738.60	0.00	0.00	8799.87	7173.92	20.33	435.54	8.13	1194.76
164+00.00	165.62	0.00	252.44	0.00	0.00	914.64	0.00	976.73	0.00	0.00	9714.51	8394.83	20.33	435.54	8.13	888.49
165+00.00	88.95	0.00	192.59	0.00	0.00	471.41	0.00	824.12	0.00	0.00	10185.92	9424.98	20.33	435.54	8.13	329.75
165+50.00	44.29	0.00	141.31	0.00	0.00	123.37	0.00	309.17	0.00	0.00	10309.29	9811.44	20.33	435.54	8.13	66.66
165+60.00	37.74	0.00	123.52	0.00	0.00	15.19	0.00	49.04	0.00	0.00	10324.48	9872.75	20.33	435.54	8.13	20.55
165+65.00	34.05	0.00	102.53	0.00	0.00	6.65	0.00	20.93	0.00	0.00	10331.13	9898.91	20.33	435.54	8.13	1.03

EARTHWORK DATA - CTH Q

STATION	AREA (SF)					INCR. VOL (CY)					CUMULATIVE VOL (CY)					MASS ORDINATE
	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	
165+80.00	23.36	0.00	76.06	0.00	0.00	15.95	0.00	49.61	0.00	0.00	10347.07	9960.92	20.33	435.54	8.13	-45.03
166+00.00	13.00	0.00	92.95	0.00	0.00	13.47	0.00	62.60	0.00	0.00	10360.54	10039.17	20.33	435.54	8.13	-109.81
167+00.00	108.10	0.00	149.81	0.00	0.00	224.26	0.00	449.54	0.00	0.00	10584.80	10601.10	20.33	435.54	8.13	-447.48
168+00.00	1.45	0.00	48.82	0.00	0.00	202.86	0.00	367.83	0.00	0.00	10787.66	11060.89	20.33	435.54	8.13	-704.41
169+00.00	16.63	0.00	13.11	0.00	0.00	33.47	0.00	114.69	0.00	0.00	10821.13	11204.25	20.33	435.54	8.13	-814.30
169+30.00	7.91	0.00	20.16	0.00	0.00	13.63	0.00	18.48	0.00	0.00	10834.76	11227.35	20.33	435.54	8.13	-823.78
169+45.00	3.31	0.00	20.39	0.00	0.00	3.12	0.00	11.26	0.00	0.00	10837.88	11241.43	20.33	435.54	8.13	-834.74
170+00.00	4.39	0.00	18.36	0.00	0.00	7.84	0.00	39.46	0.00	0.00	10845.72	11290.76	20.33	435.54	8.13	-876.23
171+00.00	1.82	0.00	35.38	0.00	0.00	11.50	0.00	99.51	0.00	0.00	10857.22	11415.15	20.33	435.54	8.13	-989.11
172+00.00	2.32	0.00	71.17	0.00	0.00	7.68	0.00	197.31	0.00	0.00	10864.90	11661.78	20.33	435.54	8.13	-1228.06
173+00.00	1.60	0.00	148.49	0.00	0.00	7.26	0.00	406.78	0.00	0.00	10872.17	12170.25	20.33	435.54	8.13	-1729.27
174+00.00	16.65	7.33	62.29	0.00	0.00	33.80	13.58	390.33	0.00	0.00	10905.97	12658.17	20.33	435.54	8.13	-2196.96
175+00.00	8.39	7.33	226.53	0.00	0.00	46.38	27.16	534.84	0.00	0.00	10952.35	13326.72	20.33	435.54	8.13	-2846.30
175+45.00	2.67	7.33	238.88	0.00	0.00	9.22	12.22	387.84	0.00	0.00	10961.56	13811.51	20.33	435.54	8.13	-3334.10
176+00.00	0.00	0.00	209.93	0.00	0.00	2.72	7.47	457.12	0.00	0.00	10964.28	14382.91	20.33	435.54	8.13	-3910.25
177+00.00	0.06	0.00	116.25	0.00	0.00	0.11	0.00	604.04	0.00	0.00	10964.39	15137.97	20.33	435.54	8.13	-4665.19
178+00.00	62.67	7.33	114.51	0.00	0.00	116.17	13.58	427.34	0.00	0.00	11080.56	15672.14	20.33	435.54	8.13	-5096.78
179+00.00	63.11	7.33	102.64	0.00	0.00	232.92	27.16	402.14	0.00	0.00	11313.48	16174.82	20.33	435.54	8.13	-5393.69
179+80.12	38.43	7.33	75.19	0.00	0.00	150.64	21.76	263.84	0.00	0.00	11464.12	16504.61	20.33	435.54	8.13	-5594.61
180+00.00	35.30	7.33	138.06	0.00	0.00	27.15	5.40	78.52	0.00	0.00	11491.27	16602.77	20.33	435.54	8.13	-5671.02
181+00.00	52.37	7.33	193.09	0.00	0.00	162.36	27.16	613.25	0.00	0.00	11653.63	17369.34	20.33	435.54	8.13	-6302.39
181+25.29	102.40	7.33	262.86	0.00	0.00	72.48	6.87	213.50	0.00	0.00	11726.10	17636.22	20.33	435.54	8.13	-6503.66
181+45.00	164.81	7.33	206.80	0.00	8.62	97.55	5.35	171.46	0.00	3.15	11823.65	17846.21	20.33	439.00	8.13	-6621.46
181+50.00	180.01	7.33	191.98	0.00	13.14	31.93	1.36	36.92	0.00	2.02	11855.58	17889.60	20.33	441.22	8.13	-6634.27
181+60.00	212.15	7.33	211.05	0.00	24.15	72.62	2.72	74.64	0.00	6.91	11928.20	17973.40	20.33	448.82	8.13	-6648.17
181+75.00	264.45	7.33	210.06	0.00	46.29	132.39	4.07	116.98	0.00	19.57	12060.59	18092.71	20.33	470.34	8.13	-6639.17
182+00.00	388.83	7.33	181.77	0.00	93.65	302.44	6.79	181.41	0.00	64.79	12363.03	18230.39	20.33	541.60	8.13	-6481.19
183+00.00	1028.83	7.33	0.00	0.00	574.83	2625.29	27.16	336.62	0.00	1237.93	14988.32	16949.01	20.33	1903.32	8.13	-2601.69
184+00.00	378.46	7.33	3.42	0.00	161.42	2606.08	27.16	6.33	0.00	1363.43	17594.40	15082.22	20.33	3403.09	8.13	1844.02
185+00.00	94.20	7.33	57.23	0.00	0.00	875.28	27.16	112.31	0.00	298.93	18469.68	14811.58	20.33	3731.91	8.13	2962.79
186+00.00	63.00	7.33	23.05	0.00	0.00	291.10	27.16	148.65	0.00	0.00	18760.79	14997.39	20.33	3731.91	8.13	3040.91
187+00.00	99.62	7.33	0.00	0.00	0.00	301.14	27.16	42.68	0.00	0.00	19061.92	15050.74	20.33	3731.91	8.13	3261.54
188+00.00	32.64	7.33	13.81	0.00	0.00	244.92	27.16	25.58	0.00	0.00	19306.84	15082.72	20.33	3731.91	8.13	3447.32
189+00.00	42.04	7.33	38.24	0.00	0.00	138.29	27.16	96.39	0.00	0.00	19445.14	15203.20	20.33	3731.91	8.13	3437.97
189+10.00	60.29	7.33	45.55	0.00	0.00	18.95	2.72	15.52	0.00	0.00	19464.08	15222.60	20.33	3731.91	8.13	3434.81
190+00.00	39.52	7.33	129.80	0.00	0.00	166.35	24.44	292.24	0.00	0.00	19630.43	15587.90	20.33	3731.91	8.13	3211.41
191+00.00	32.67	7.33	205.74	0.00	0.00	133.69	27.16	621.37	0.00	0.00	19764.12	16364.62	20.33	3731.91	8.13	2541.23
191+06.25	32.93	7.33	188.31	0.00	0.00	7.59	1.70	45.61	0.00	0.00	19771.72	16421.62	20.33	3731.91	8.13	2490.11
191+31.25	31.74	7.33	141.45	0.00	0.00	29.94	6.79	152.66	0.00	0.00	19801.65	16612.45	20.33	3731.91	8.13	2322.43
191+56.25	27.65	7.33	195.29	0.00	0.00	27.50	6.79	155.90	0.00	0.00	19829.15	16807.33	20.33	3731.91	8.13	2148.27
192+00.00	28.01	7.33	77.52	0.00	0.00	45.10	11.88	221.03	0.00	0.00	19874.25	17083.61	20.33	3731.91	8.13	1905.19
192+76.25	6.76	0.00	18.31	0.00	0.00	49.10	10.35	135.31	0.00	0.00	19923.35	17252.75	20.33	3731.91	8.13	1774.80
193+00.00	4.46	0.00	16.82	0.00	0.00	4.93	0.00	15.45	0.00	0.00	19928.28	17272.07	20.33	3731.91	8.13	1760.42
194+00.00	0.94	0.00	19.77	0.00	0.00	10.01	0.00	67.76	0.00	0.00	19938.29	17356.77	20.33	3731.91	8.13	1685.72
195+00.00	0.51	0.00	54.32	0.00	0.00	2.69	0.00	137.21	0.00	0.00	19940.98	17528.29	20.33	3731.91	8.13	1516.90

EARTHWORK DATA - CTH Q

STATION	AREA (SF)					INCR. VOL (CY)					CUMULATIVE VOL (CY)					MASS ORDINATE
	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	
195+55.05	6.51	0.00	15.50	0.00	0.00	7.15	0.00	71.17	0.00	0.00	19948.13	17617.25	20.33	3731.91	8.13	1435.08
196+00.00	6.36	0.00	24.55	0.00	0.00	10.71	0.00	33.34	0.00	0.00	19958.84	17658.93	20.33	3731.91	8.13	1404.11
197+00.00	2.70	0.00	15.09	0.00	0.00	16.79	0.00	73.41	0.00	0.00	19975.63	17750.70	20.33	3731.91	8.13	1329.14
197+54.15	15.28	0.00	4.65	0.00	0.00	18.03	0.00	19.79	0.00	0.00	19993.67	17775.43	20.33	3731.91	8.13	1322.43
198+00.00	3.63	0.00	19.71	0.00	0.00	16.06	0.00	20.68	0.00	0.00	20009.72	17801.29	20.33	3731.91	8.13	1312.64
199+00.00	1.35	0.00	30.91	0.00	0.00	9.23	0.00	93.74	0.00	0.00	20018.95	17918.46	20.33	3731.91	8.13	1204.69
200+00.00	21.89	0.00	52.34	0.00	0.00	43.03	0.00	154.17	0.00	0.00	20061.98	18111.17	20.33	3731.91	8.13	1055.02
200+27.80	45.53	0.00	64.53	0.00	0.00	34.71	0.00	60.16	0.00	0.00	20096.69	18186.37	20.33	3731.91	8.13	1014.52
200+96.69	56.52	0.00	0.00	0.00	0.00	130.18	0.00	82.32	0.00	0.00	20226.87	18289.27	20.33	3731.91	8.13	1041.80
201+00.00	54.81	0.00	0.00	0.00	0.00	6.83	0.00	0.00	0.00	0.00	20233.70	18289.27	20.33	3731.91	8.13	1048.63
202+00.00	9.83	0.00	8.46	0.00	0.00	119.72	0.00	15.67	0.00	0.00	20353.41	18308.86	20.33	3731.91	8.13	1148.75
202+11.60	26.78	0.00	5.94	0.00	0.00	7.86	0.00	3.09	0.00	0.00	20361.28	18312.73	20.33	3731.91	8.13	1152.75
203+00.00	5.15	0.00	13.43	0.00	0.00	52.27	0.00	31.70	0.00	0.00	20413.55	18352.35	20.33	3731.91	8.13	1165.40
204+00.00	6.02	0.00	18.87	0.00	0.00	20.69	0.00	59.80	0.00	0.00	20434.24	18427.10	20.33	3731.91	8.13	1111.34
205+00.00	4.72	0.00	18.86	0.00	0.00	19.89	0.00	69.86	0.00	0.00	20454.13	18514.43	20.33	3731.91	8.13	1043.90
206+00.00	5.65	0.00	16.66	0.00	0.00	19.21	0.00	65.77	0.00	0.00	20473.34	18596.65	20.33	3731.91	8.13	980.89
207+00.00	8.34	0.00	16.53	0.00	0.00	25.91	0.00	61.46	0.00	0.00	20499.25	18673.47	20.33	3731.91	8.13	929.98
208+00.00	4.77	0.00	13.90	0.00	0.00	24.28	0.00	56.35	0.00	0.00	20523.53	18743.91	20.33	3731.91	8.13	883.82
209+00.00	11.56	0.00	0.06	0.00	0.00	30.24	0.00	25.85	0.00	0.00	20553.77	18776.22	20.33	3731.91	8.13	881.76
209+43.59	30.99	0.00	3.61	0.00	0.00	34.35	0.00	2.96	0.00	0.00	20588.12	18779.92	20.33	3731.91	8.13	912.41
210+00.00	5.00	0.00	6.44	0.00	0.00	37.60	0.00	10.49	0.00	0.00	20625.72	18793.03	20.33	3731.91	8.13	936.89
211+00.00	16.61	0.00	15.92	0.00	0.00	40.03	0.00	41.40	0.00	0.00	20665.75	18844.79	20.33	3731.91	8.13	925.17
212+00.00	17.16	0.00	17.24	0.00	0.00	62.55	0.00	61.42	0.00	0.00	20728.30	18921.56	20.33	3731.91	8.13	910.95
213+00.00	1.34	0.00	15.50	0.00	0.00	34.27	0.00	60.64	0.00	0.00	20762.57	18997.36	20.33	3731.91	8.13	869.41
214+00.00	6.66	0.00	16.11	0.00	0.00	14.81	0.00	58.54	0.00	0.00	20777.38	19070.53	20.33	3731.91	8.13	811.05
214+31.18	8.02	0.00	6.31	0.00	0.00	8.47	0.00	12.95	0.00	0.00	20785.86	19086.72	20.33	3731.91	8.13	803.34
215+00.00	2.19	0.00	57.80	0.00	0.00	13.00	0.00	81.70	0.00	0.00	20798.86	19188.85	20.33	3731.91	8.13	714.22
215+80.65	24.56	0.00	50.37	0.00	0.00	39.95	0.00	161.54	0.00	0.00	20838.81	19390.77	20.33	3731.91	8.13	552.24
216+00.00	13.77	0.00	30.06	0.00	0.00	13.74	0.00	28.82	0.00	0.00	20852.54	19426.80	20.33	3731.91	8.13	529.95
217+00.00	3.73	0.00	20.63	0.00	0.00	32.41	0.00	93.87	0.00	0.00	20884.96	19544.13	20.33	3731.91	8.13	445.03
218+00.00	22.75	0.00	12.60	0.00	0.00	49.05	0.00	61.54	0.00	0.00	20934.00	19621.06	20.33	3731.91	8.13	417.15
219+00.00	27.96	0.00	11.78	0.00	0.00	93.90	0.00	45.16	0.00	0.00	21027.91	19677.51	20.33	3731.91	8.13	454.60
220+00.00	5.37	0.00	8.85	0.00	0.00	61.71	0.00	38.20	0.00	0.00	21089.62	19725.26	20.33	3731.91	8.13	468.56
220+82.67	11.85	0.00	6.73	0.00	0.00	26.36	0.00	23.85	0.00	0.00	21115.98	19755.08	20.33	3731.91	8.13	465.11
221+00.00	5.42	0.00	7.02	0.00	0.00	5.54	0.00	4.41	0.00	0.00	21121.52	19760.59	20.33	3731.91	8.13	465.13
222+00.00	8.35	0.00	31.41	0.00	0.00	25.50	0.00	71.17	0.00	0.00	21147.02	19849.56	20.33	3731.91	8.13	401.67
223+00.00	8.39	0.00	33.40	0.00	0.00	31.01	0.00	120.02	0.00	0.00	21178.03	19999.58	20.33	3731.91	8.13	282.66
224+00.00	11.50	0.00	19.92	0.00	0.00	36.85	0.00	98.75	0.00	0.00	21214.88	20123.02	20.33	3731.91	8.13	196.06
224+83.87	21.07	0.00	14.78	0.00	0.00	50.60	0.00	53.90	0.00	0.00	21265.48	20190.40	20.33	3731.91	8.13	179.28
225+00.00	11.05	0.00	15.07	0.00	0.00	9.60	0.00	8.92	0.00	0.00	21275.07	20201.54	20.33	3731.91	8.13	177.73
226+00.00	4.01	0.00	15.46	0.00	0.00	27.90	0.00	56.54	0.00	0.00	21302.97	20272.22	20.33	3731.91	8.13	134.96
227+00.00	6.82	0.00	7.09	0.00	0.00	20.06	0.00	41.77	0.00	0.00	21323.03	20324.43	20.33	3731.91	8.13	102.81
227+33.25	23.96	0.00	4.03	0.00	0.00	18.95	0.00	6.85	0.00	0.00	21341.98	20333.00	20.33	3731.91	8.13	113.19
227+49.40	22.06	0.00	0.77	0.00	0.00	13.77	0.00	1.44	0.00	0.00	21355.75	20334.79	20.33	3731.91	8.13	125.16
228+00.00	6.03	0.00	17.72	0.00	0.00	26.33	0.00	17.33	0.00	0.00	21382.08	20356.45	20.33	3731.91	8.13	129.83

EARTHWORK DATA - CTH Q

STATION	AREA (SF)					INCR. VOL (CY)					CUMULATIVE VOL (CY)					MASS ORDINATE
	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	
229+00.00	5.04	0.00	19.62	0.00	0.00	20.51	0.00	69.15	0.00	0.00	21402.59	20442.89	20.33	3731.91	8.13	63.91
230+00.00	4.05	0.00	13.34	0.00	0.00	16.85	0.00	61.03	0.00	0.00	21419.44	20519.18	20.33	3731.91	8.13	4.47
230+80.68	21.74	0.00	3.61	0.00	0.00	38.53	0.00	25.32	0.00	0.00	21457.97	20550.82	20.33	3731.91	8.13	11.35
231+00.00	6.48	0.00	4.79	0.00	0.00	10.10	0.00	3.00	0.00	0.00	21468.07	20554.58	20.33	3731.91	8.13	17.69
232+00.00	2.86	0.00	11.27	0.00	0.00	17.29	0.00	29.73	0.00	0.00	21485.35	20591.74	20.33	3731.91	8.13	-2.19
233+00.00	1.98	0.00	5.31	0.00	0.00	8.96	0.00	30.70	0.00	0.00	21494.32	20630.12	20.33	3731.91	8.13	-31.60
234+00.00	4.61	0.00	7.63	0.00	0.00	12.20	0.00	23.95	0.00	0.00	21506.52	20660.06	20.33	3731.91	8.13	-49.34
235+00.00	4.99	0.00	9.06	0.00	0.00	17.77	0.00	30.89	0.00	0.00	21524.29	20698.68	20.33	3731.91	8.13	-70.19
236+00.00	6.35	0.00	6.30	0.00	0.00	20.99	0.00	28.44	0.00	0.00	21545.28	20734.22	20.33	3731.91	8.13	-84.74
237+00.00	3.94	0.00	6.81	0.00	0.00	19.04	0.00	24.28	0.00	0.00	21564.32	20764.57	20.33	3731.91	8.13	-96.05
238+00.00	2.61	0.00	5.12	0.00	0.00	12.12	0.00	22.09	0.00	0.00	21576.44	20792.18	20.33	3731.91	8.13	-111.54
239+00.00	2.49	0.00	23.87	0.00	0.00	9.45	0.00	53.68	0.00	0.00	21585.89	20859.28	20.33	3731.91	8.13	-169.19
239+85.59	15.74	0.00	0.00	0.00	0.00	28.89	0.00	37.83	0.00	0.00	21614.78	20906.57	20.33	3731.91	8.13	-187.59
240+00.00	14.21	0.00	0.00	0.00	0.00	7.99	0.00	0.00	0.00	0.00	21622.77	20906.57	20.33	3731.91	8.13	-179.60
241+00.00	8.75	0.00	0.46	0.00	0.00	42.52	0.00	0.85	0.00	0.00	21665.29	20907.64	20.33	3731.91	8.13	-138.15
242+00.00	10.01	0.00	0.02	0.00	0.00	34.75	0.00	0.88	0.00	0.00	21700.04	20908.74	20.33	3731.91	8.13	-104.50
243+00.00	13.08	0.00	0.00	0.00	0.00	42.76	0.00	0.03	0.00	0.00	21742.80	20908.77	20.33	3731.91	8.13	-61.77
243+97.09	34.19	0.00	0.58	0.00	0.00	84.98	0.00	1.05	0.00	0.00	21827.78	20910.08	20.33	3731.91	8.13	21.89
244+00.00	33.39	0.00	0.67	0.00	0.00	3.64	0.00	0.07	0.00	0.00	21831.42	20910.17	20.33	3731.91	8.13	25.45
245+00.00	5.66	0.00	8.73	0.00	0.00	72.32	0.00	17.41	0.00	0.00	21903.74	20931.94	20.33	3731.91	8.13	76.01
246+00.00	4.36	0.00	7.14	0.00	0.00	18.57	0.00	29.39	0.00	0.00	21922.31	20968.67	20.33	3731.91	8.13	57.84
247+00.00	5.14	0.00	4.07	0.00	0.00	17.59	0.00	20.75	0.00	0.00	21939.91	20994.61	20.33	3731.91	8.13	49.50
247+63.27	17.63	0.00	2.51	0.00	0.00	26.67	0.00	7.71	0.00	0.00	21966.57	21004.25	20.33	3731.91	8.13	66.53
248+00.00	8.38	0.00	3.94	0.00	0.00	17.69	0.00	4.39	0.00	0.00	21984.27	21009.74	20.33	3731.91	8.13	78.73
249+00.00	3.74	0.00	7.81	0.00	0.00	22.45	0.00	21.76	0.00	0.00	22006.72	21036.93	20.33	3731.91	8.13	73.99
250+00.00	26.10	0.00	11.69	0.00	0.00	55.26	0.00	36.10	0.00	0.00	22061.98	21082.06	20.33	3731.91	8.13	84.12
250+35.50	32.86	0.00	32.24	0.00	0.00	38.76	0.00	28.88	0.00	0.00	22100.73	21118.16	20.33	3731.91	8.13	86.77
251+00.00	11.46	0.00	5.20	0.00	0.00	52.93	0.00	44.73	0.00	0.00	22153.66	21174.08	20.33	3731.91	8.13	83.79
252+00.00	11.18	0.00	3.20	0.00	0.00	41.92	0.00	15.57	0.00	0.00	22195.58	21193.54	20.33	3731.91	8.13	106.25
253+00.00	7.46	0.00	3.58	0.00	0.00	34.51	0.00	12.57	0.00	0.00	22230.09	21209.24	20.33	3731.91	8.13	125.05
254+00.00	5.60	0.00	2.48	0.00	0.00	24.19	0.00	11.23	0.00	0.00	22254.28	21223.28	20.33	3731.91	8.13	135.20
255+00.00	15.98	0.00	0.40	0.00	0.00	39.98	0.00	5.33	0.00	0.00	22294.26	21229.94	20.33	3731.91	8.13	168.52
256+00.00	8.35	0.00	4.13	0.00	0.00	45.05	0.00	8.38	0.00	0.00	22339.31	21240.42	20.33	3731.91	8.13	203.09
257+00.00	5.86	0.00	2.87	0.00	0.00	26.30	0.00	12.97	0.00	0.00	22365.61	21256.64	20.33	3731.91	8.13	213.18
258+00.00	4.74	0.00	4.57	0.00	0.00	19.62	0.00	13.78	0.00	0.00	22385.23	21273.86	20.33	3731.91	8.13	215.57
259+00.00	5.57	0.00	10.41	0.00	0.00	19.09	0.00	27.74	0.00	0.00	22404.32	21308.53	20.33	3731.91	8.13	199.99
260+00.00	4.95	0.00	7.13	0.00	0.00	19.48	0.00	32.49	0.00	0.00	22423.80	21349.15	20.33	3731.91	8.13	178.86
261+00.00	8.07	0.00	2.07	0.00	0.00	24.10	0.00	17.04	0.00	0.00	22447.90	21370.45	20.33	3731.91	8.13	181.66
262+00.00	5.99	0.00	8.22	0.00	0.00	26.03	0.00	19.05	0.00	0.00	22473.94	21394.26	20.33	3731.91	8.13	183.89
263+00.00	6.61	0.00	4.40	0.00	0.00	23.33	0.00	23.38	0.00	0.00	22497.27	21423.48	20.33	3731.91	8.13	177.99
264+00.00	6.29	0.00	4.52	0.00	0.00	23.88	0.00	16.53	0.00	0.00	22521.15	21444.14	20.33	3731.91	8.13	181.21
265+00.00	5.10	0.00	3.24	0.00	0.00	21.09	0.00	14.37	0.00	0.00	22542.24	21462.11	20.33	3731.91	8.13	184.33
266+00.00	8.03	0.00	3.35	0.00	0.00	24.31	0.00	12.21	0.00	0.00	22566.55	21477.37	20.33	3731.91	8.13	193.38
266+96.83	27.37	0.00	0.00	0.00	0.00	63.47	0.00	6.01	0.00	0.00	22630.02	21484.89	20.33	3731.91	8.13	249.34
267+00.00	27.72	0.00	0.00	0.00	0.00	3.24	0.00	0.00	0.00	0.00	22633.26	21484.89	20.33	3731.91	8.13	252.57

EARTHWORK DATA - CTH Q

STATION	AREA (SF) CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	INCR. VOL (CY) CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUMULATIVE VOL (CY) CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	MASS ORDINATE
268+00.00	17.31	0.00	0.00	0.00	0.00	83.38	0.00	0.00	0.00	0.00	22716.64	21484.89	20.33	3731.91	8.13	335.96
269+00.00	16.04	0.00	3.45	0.00	0.00	61.76	0.00	6.39	0.00	0.00	22778.40	21492.87	20.33	3731.91	8.13	389.74
269+82.72	12.63	0.00	1.27	0.00	0.00	43.92	0.00	7.22	0.00	0.00	22822.32	21501.90	20.33	3731.91	8.13	424.63
270+00.00	8.38	0.00	3.47	0.00	0.00	6.72	0.00	1.51	0.00	0.00	22829.05	21503.80	20.33	3731.91	8.13	429.46
271+00.00	5.15	0.00	20.37	0.00	0.00	25.06	0.00	44.14	0.00	0.00	22854.10	21558.98	20.33	3731.91	8.13	399.33
271+92.54	4.54	0.00	5.06	0.00	0.00	16.60	0.00	43.59	0.00	0.00	22870.70	21613.46	20.33	3731.91	8.13	361.45
272+00.00	5.75	0.00	9.74	0.00	0.00	1.42	0.00	2.04	0.00	0.00	22872.12	21616.01	20.33	3731.91	8.13	360.31
273+00.00	7.96	0.00	92.75	0.00	0.00	25.40	0.00	189.79	0.00	0.00	22897.52	21853.25	20.33	3731.91	8.13	148.47
273+12.54	7.16	0.00	84.58	0.00	0.00	3.51	0.00	41.18	0.00	0.00	22901.03	21904.73	20.33	3731.91	8.13	100.51
273+37.47	7.23	0.00	22.90	0.00	0.00	6.64	0.00	49.61	0.00	0.00	22907.67	21966.74	20.33	3731.91	8.13	45.14
273+62.54	10.39	0.00	12.57	0.00	0.00	8.18	0.00	16.47	0.00	0.00	22915.85	21987.33	20.33	3731.91	8.13	32.73
274+00.00	5.70	0.00	1.47	0.00	0.00	11.16	0.00	9.74	0.00	0.00	22927.02	21999.50	20.33	3731.91	8.13	31.72
274+50.84	4.95	0.00	0.39	0.00	0.00	10.02	0.00	1.75	0.00	0.00	22937.04	22001.68	20.33	3731.91	8.13	39.56
275+00.00	3.59	0.00	3.58	0.00	0.00	7.77	0.00	3.61	0.00	0.00	22944.81	22006.20	20.33	3731.91	8.13	42.82
275+52.42	22.55	0.00	14.91	0.00	0.00	25.38	0.00	17.95	0.00	0.00	22970.19	22028.64	20.33	3731.91	8.13	45.76
275+65.29	18.23	0.00	13.55	0.00	0.00	9.72	0.00	6.78	0.00	0.00	22979.91	22037.12	20.33	3731.91	8.13	47.00
275+77.42	22.11	0.00	16.49	0.00	0.00	9.06	0.00	6.75	0.00	0.00	22988.97	22045.55	20.33	3731.91	8.13	47.62
276+00.00	27.26	0.00	23.34	0.00	0.00	20.64	0.00	16.66	0.00	0.00	23009.61	22066.37	20.33	3731.91	8.13	47.44
276+02.42	28.28	0.00	21.95	0.00	0.00	2.49	0.00	2.03	0.00	0.00	23012.10	22068.91	20.33	3731.91	8.13	47.40
276+12.24	32.44	0.00	5.51	0.00	0.00	11.04	0.00	4.99	0.00	0.00	23023.14	22075.15	20.33	3731.91	8.13	52.19

EARTHWORK DATA - CTH N

STATION	AREA (SF) CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	INCR. VOL (CY) CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUMULATIVE VOL (CY) CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	MASS ORDINATE
8+00.00	56.05	0.00	5.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8+20.00	60.42	0.00	13.27	0.00	0.00	43.14	0.00	6.96	0.00	0.00	43.14	8.70	0.00	0.00	0.00	34.44
8+50.00	73.76	0.00	35.03	0.00	0.00	74.54	0.00	26.84	0.00	0.00	117.68	42.25	0.00	0.00	0.00	75.44
9+00.00	137.44	0.00	60.26	0.00	0.00	195.56	0.00	88.23	0.00	0.00	313.24	152.53	0.00	0.00	0.00	160.70
9+50.00	192.10	0.00	113.32	0.00	0.00	305.13	0.00	160.72	0.00	0.00	618.37	353.44	0.00	0.00	0.00	264.93

EARTHWORK DATA - CTH N

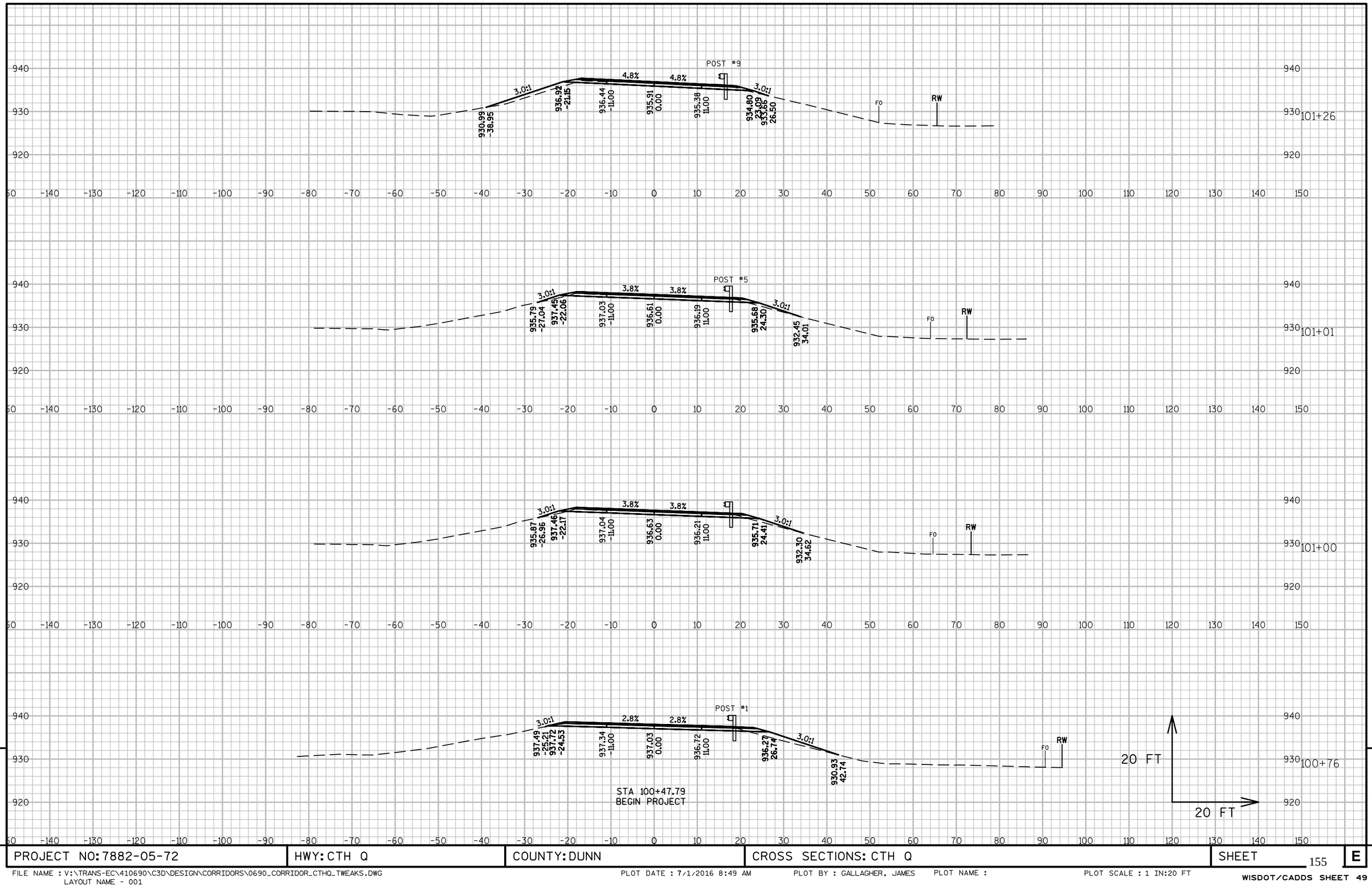
STATION	AREA (SF) CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	INCR. VOL (CY) CUT	UNUSABLE PVMT MAT.	FILL	MARSH EXC	ROCK EXC	CUMULATIVE VOL (CY) CUT 1.00	EXP. FILL 1.25	EXPANDED MARSH 1.50	EXPANDED ROCK 1.10	REDUCED MARSH 0.60	MASS ORDINATE
10+50.00	148.07	0.00	132.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11+00.00	69.44	0.00	65.34	0.00	0.00	201.40	0.00	183.04	0.00	0.00	201.40	228.81	0.00	0.00	0.00	-27.41
11+50.00	23.49	0.00	18.26	0.00	0.00	86.04	0.00	77.40	0.00	0.00	287.44	325.56	0.00	0.00	0.00	-38.12
12+00.00	41.28	0.00	3.07	0.00	0.00	59.97	0.00	19.75	0.00	0.00	347.41	350.25	0.00	0.00	0.00	-2.84

EARTHWORK DATA NOTES

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

9

9



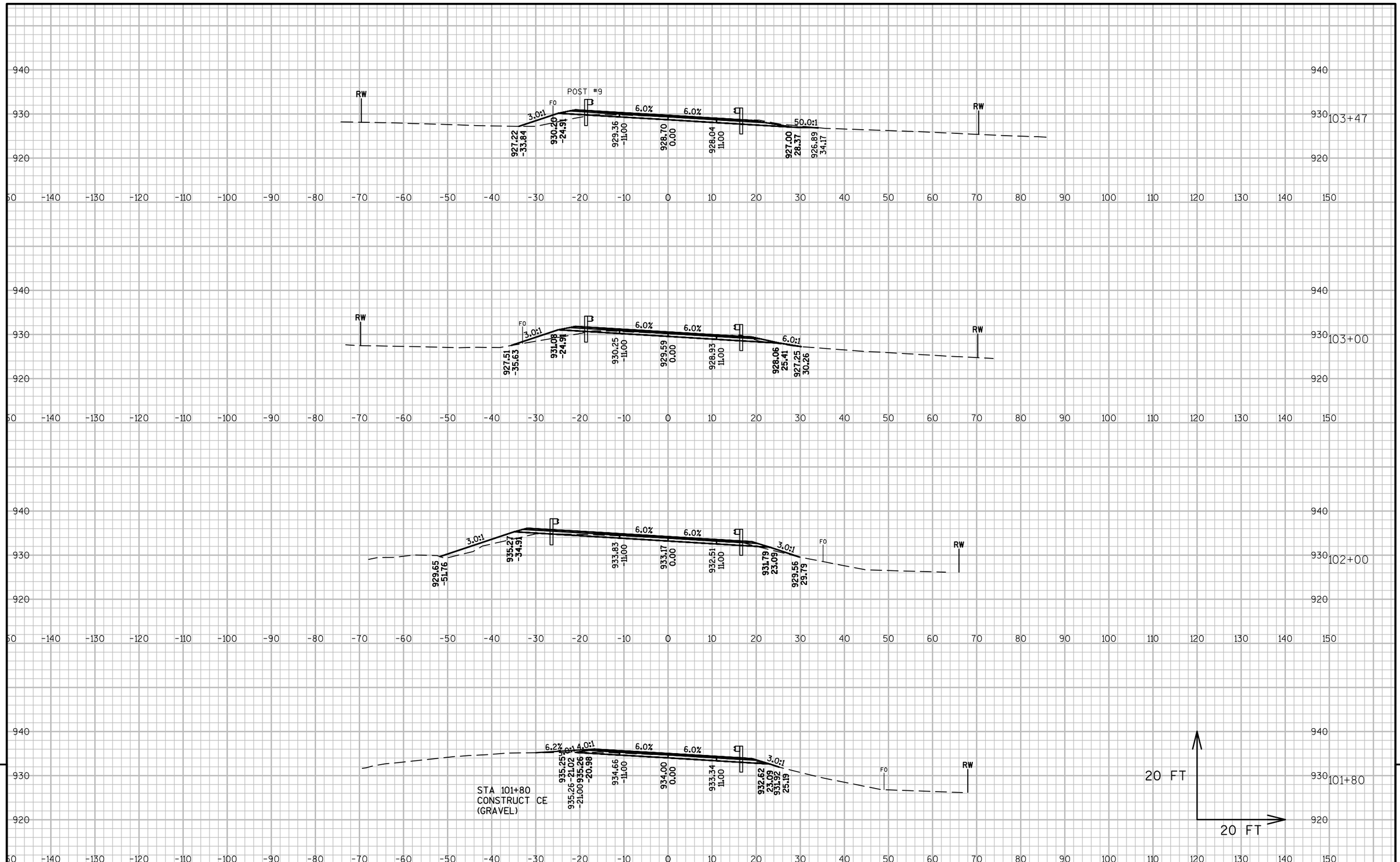
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 155 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 001

PLOT DATE : 7/1/2016 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



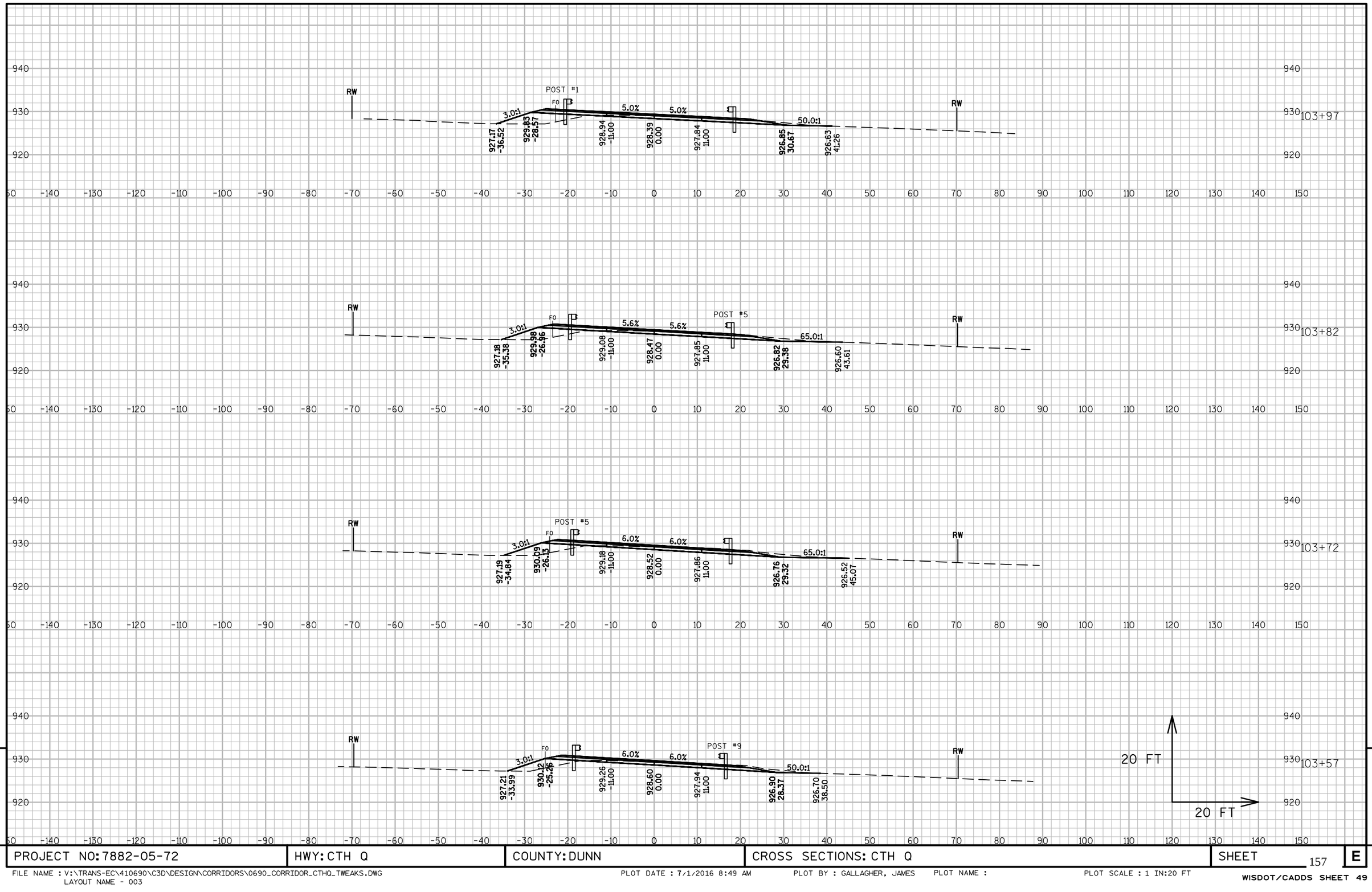
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 156	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 002

PLOT DATE : 7/1/2016 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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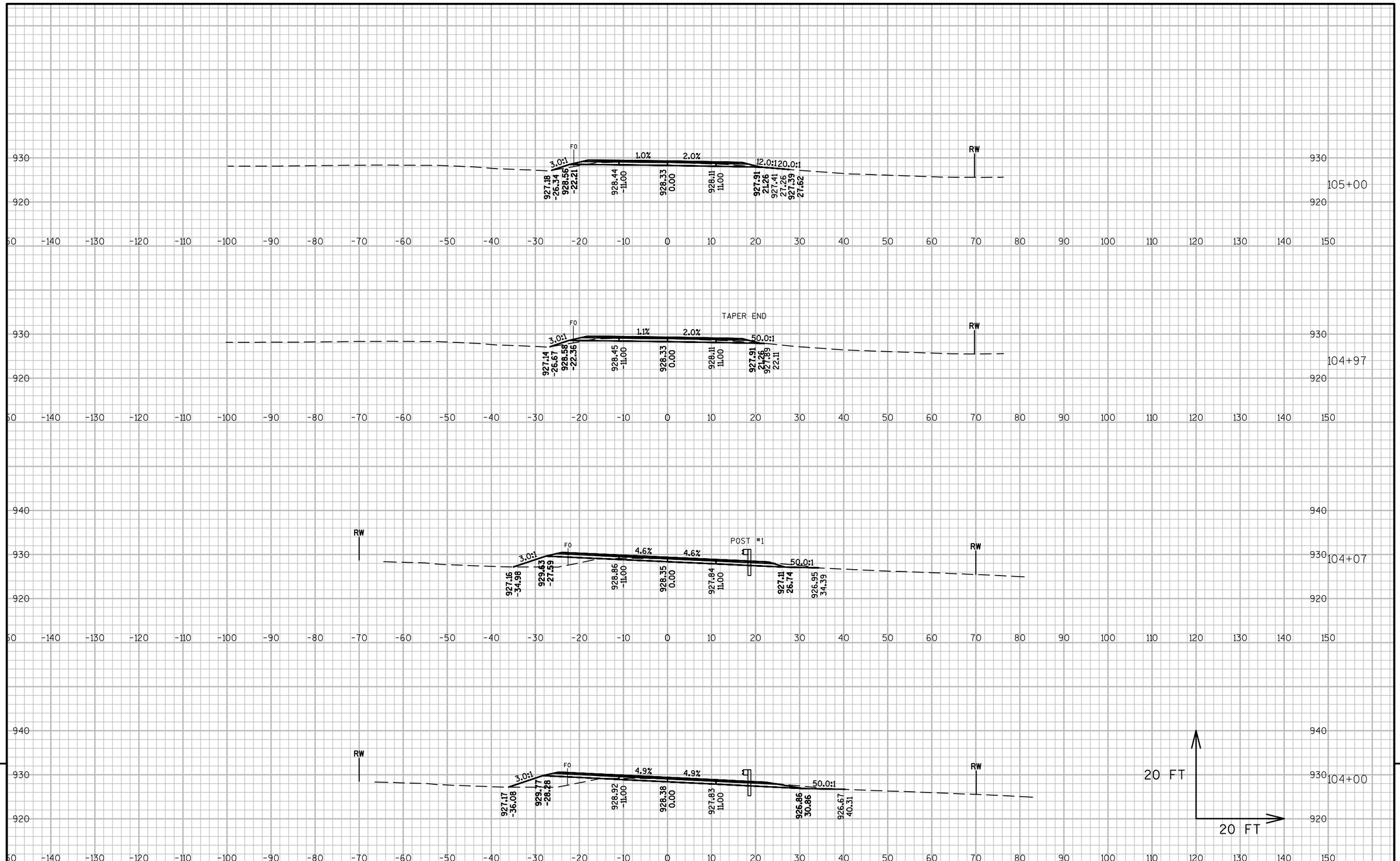
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 157	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 003

PLOT DATE : 7/1/2016 8:49 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



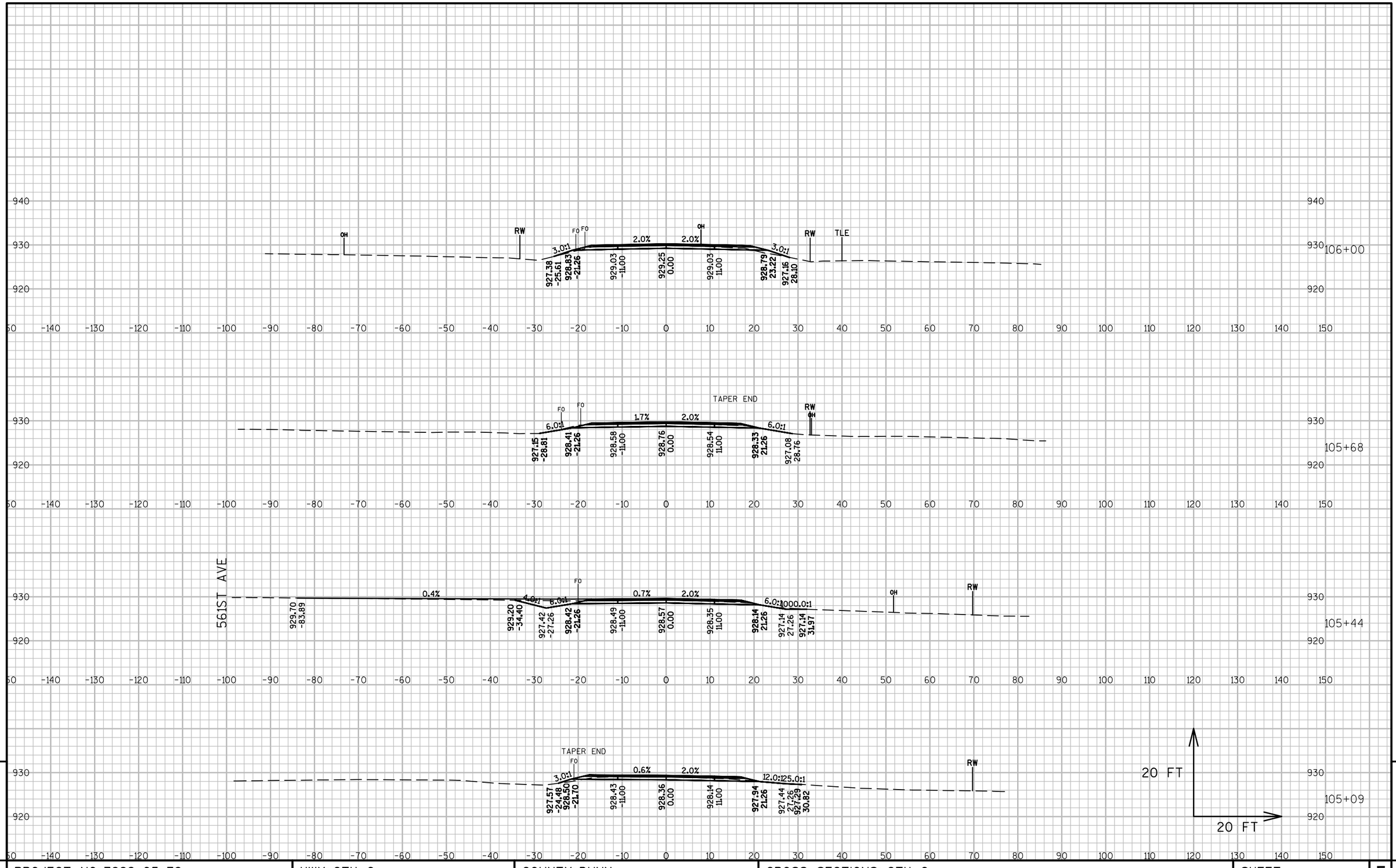
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 158	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 004

PLOT DATE : 7/1/2016 8:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



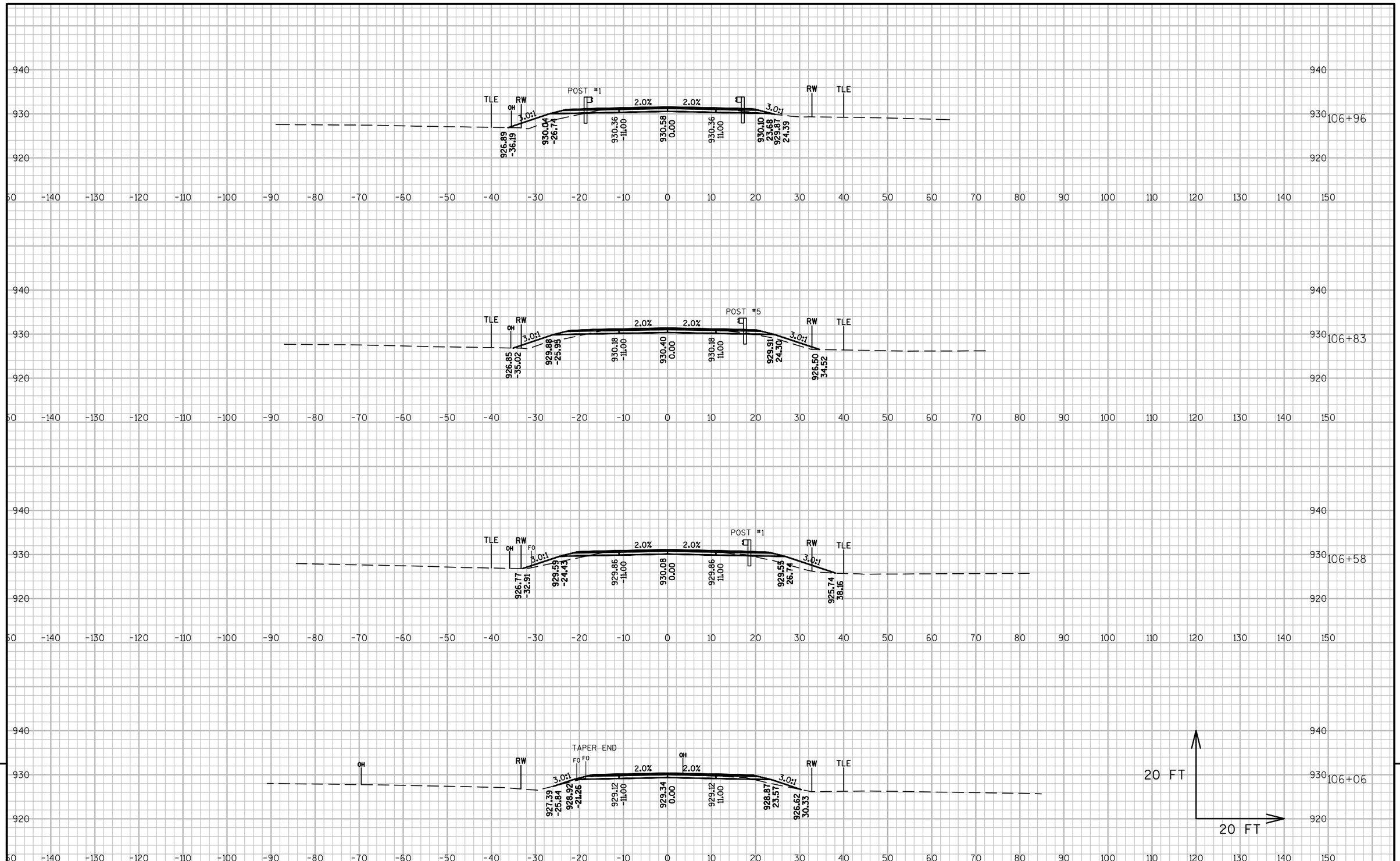
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 159	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 005

PLOT DATE : 7/1/2016 8:50 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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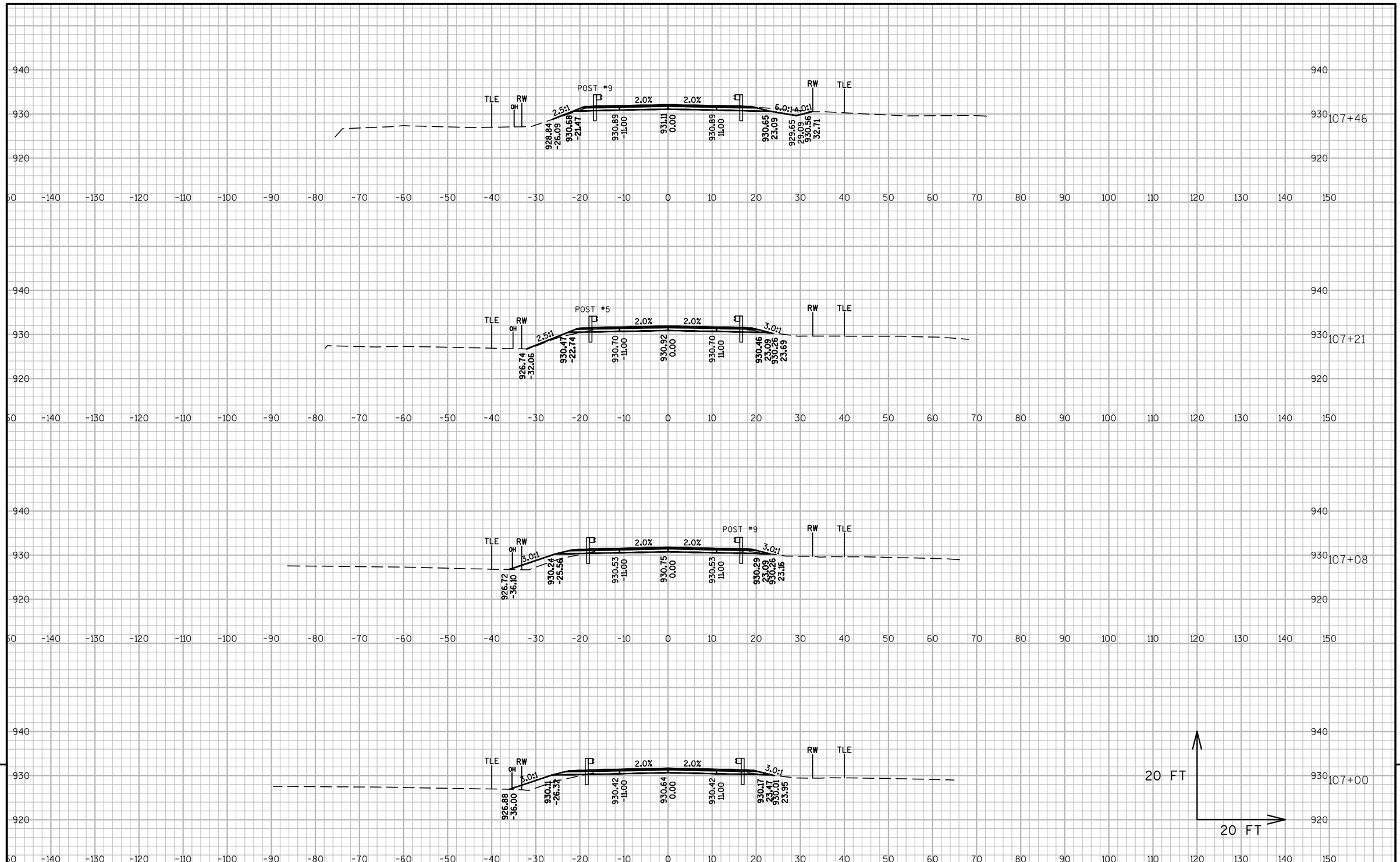
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 160	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 006

PLOT DATE : 7/1/2016 8:51 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

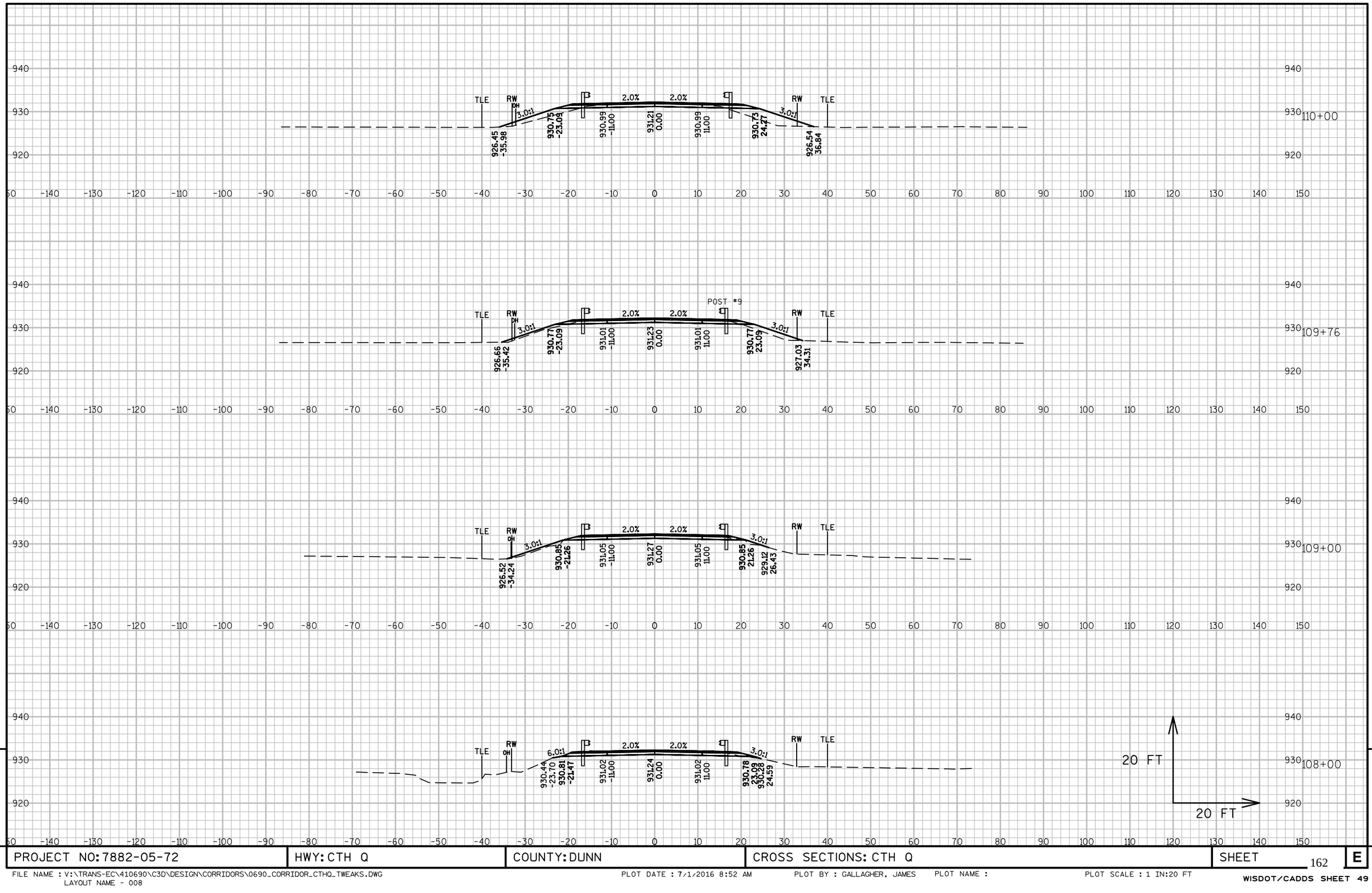


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 161 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 007

PLOT DATE : 7/1/2016 8:51 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



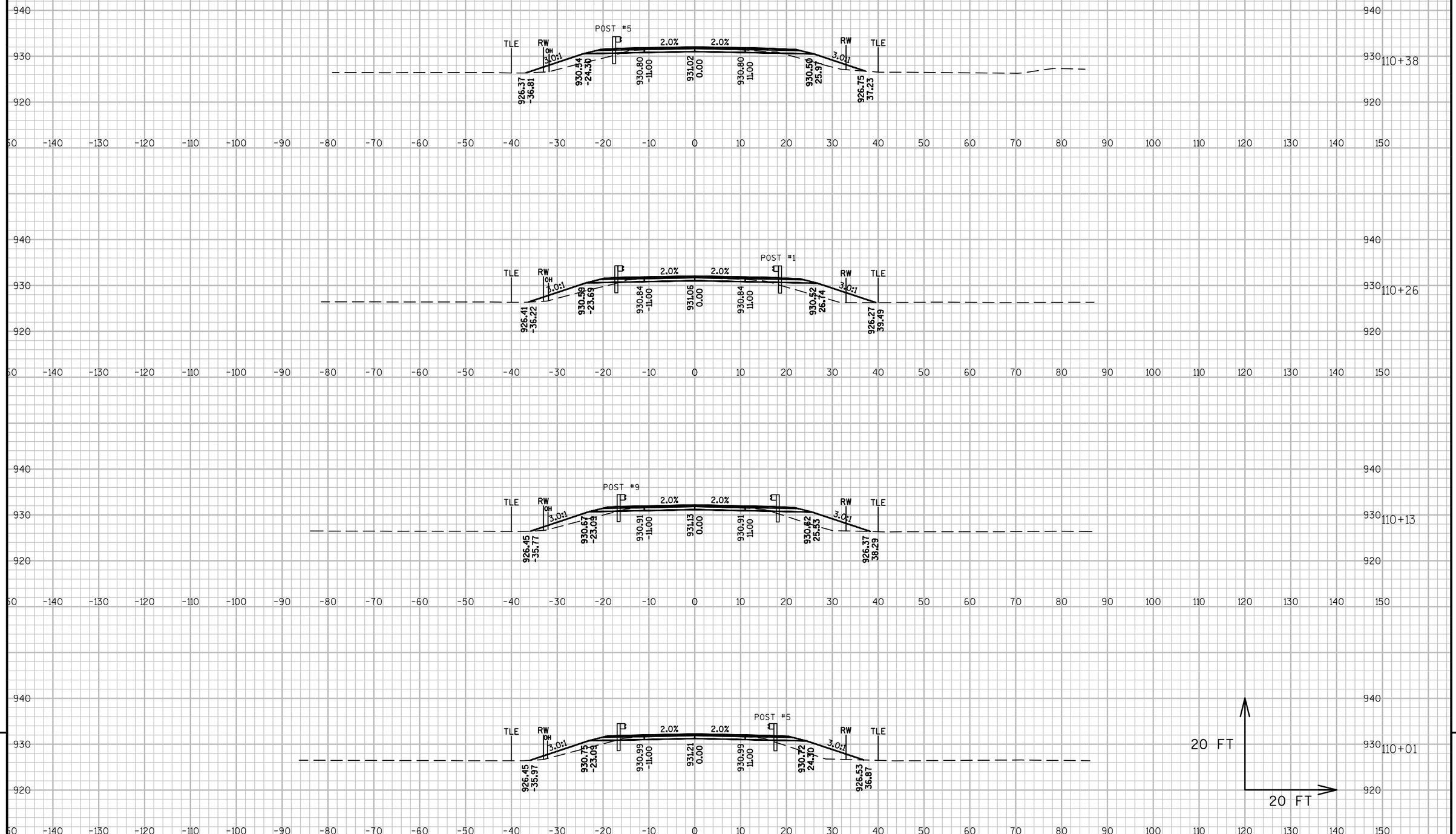
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 162	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 008

PLOT DATE : 7/1/2016 8:52 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



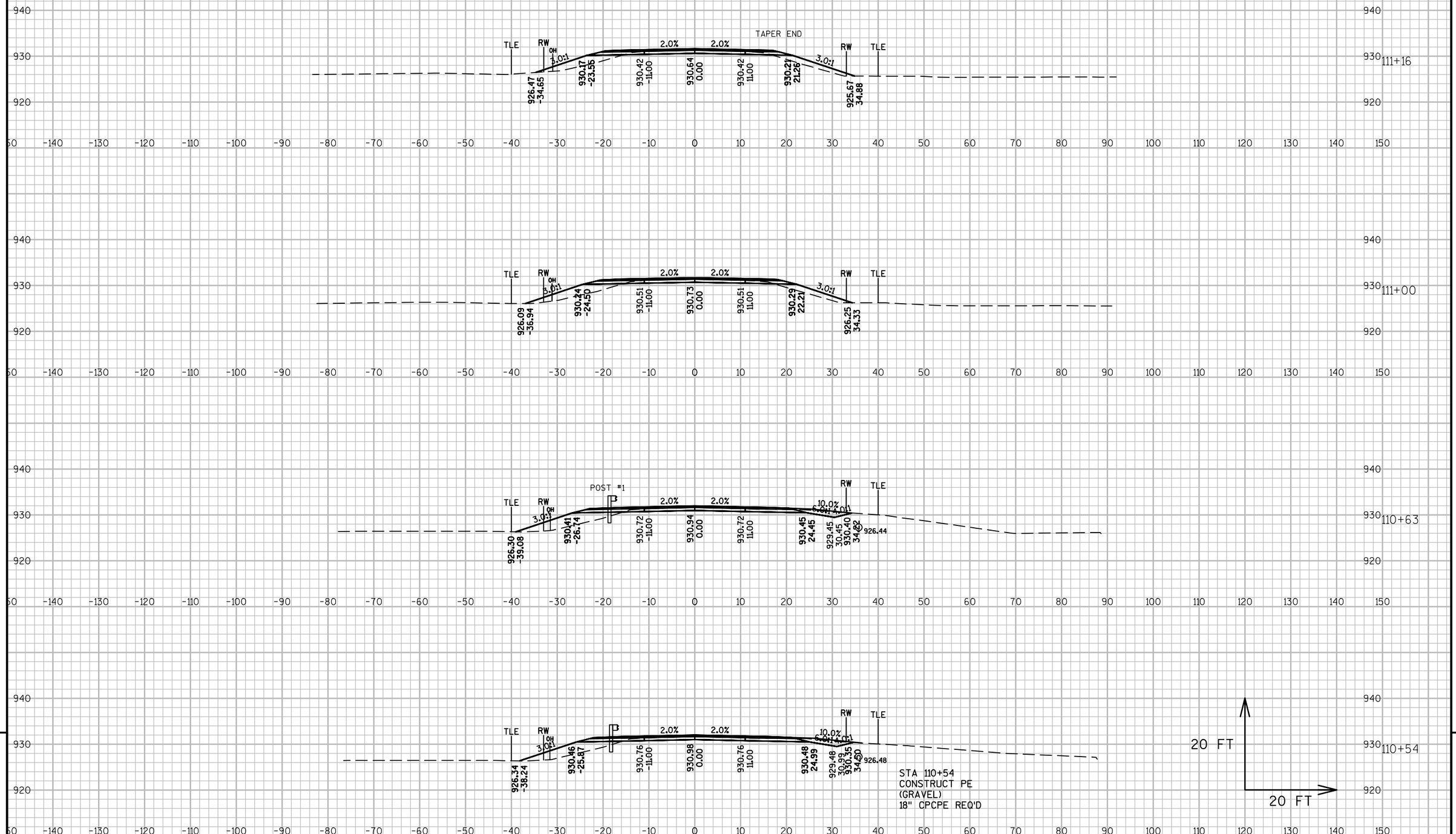
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 163 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 009

PLOT DATE : 7/1/2016 8:52 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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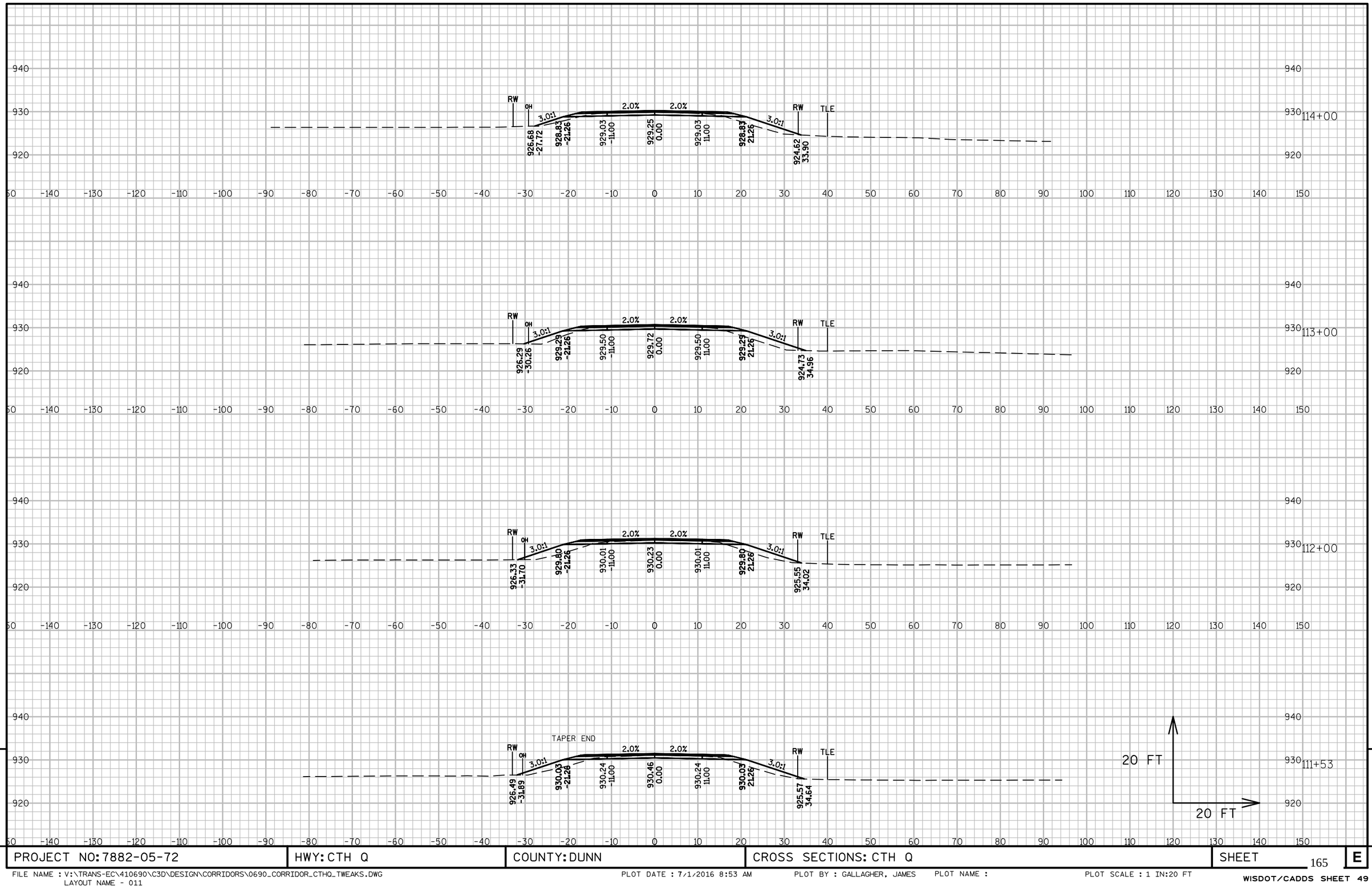
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 164	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 010

PLOT DATE : 7/1/2016 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



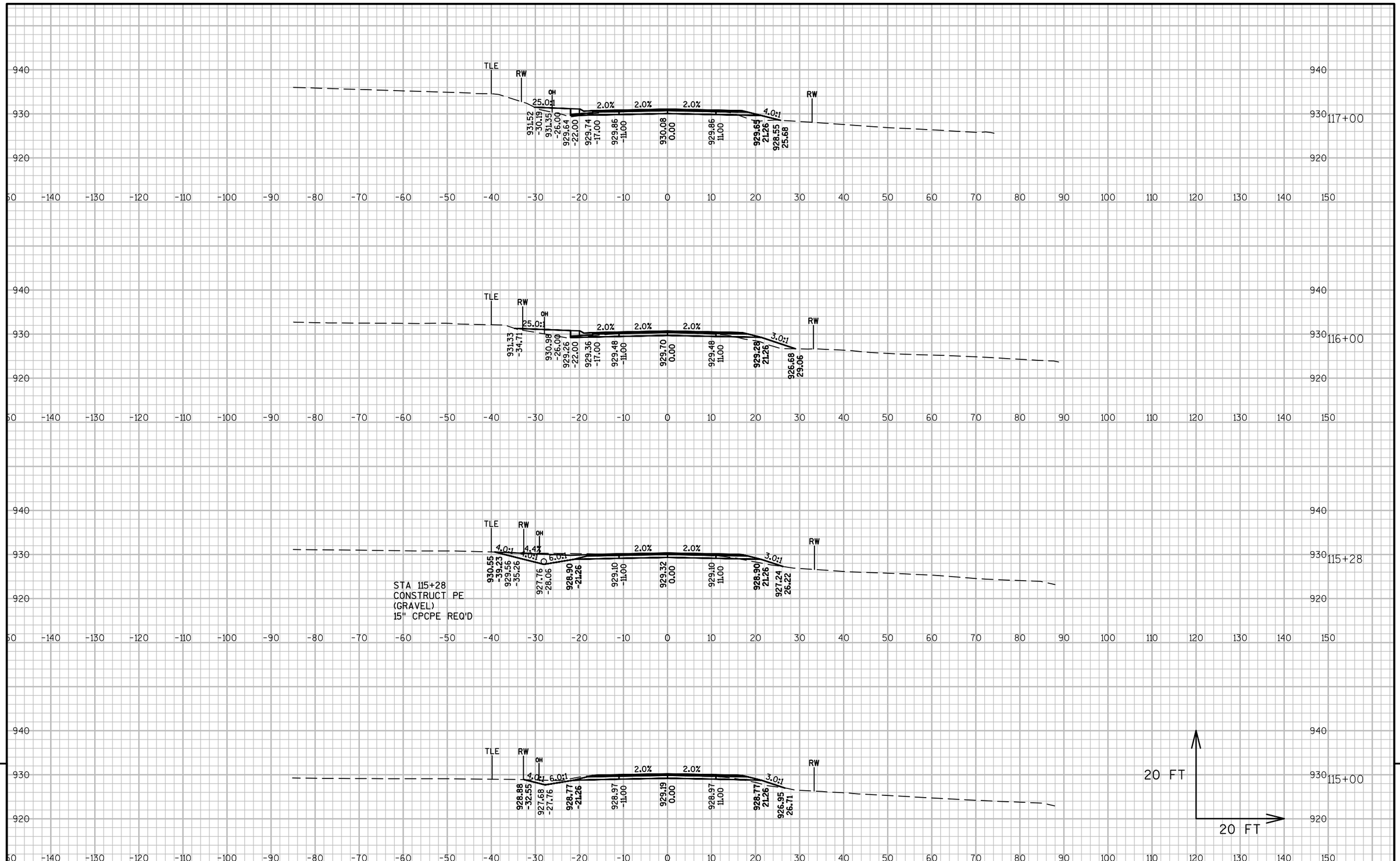
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 165	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 011

PLOT DATE : 7/1/2016 8:53 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



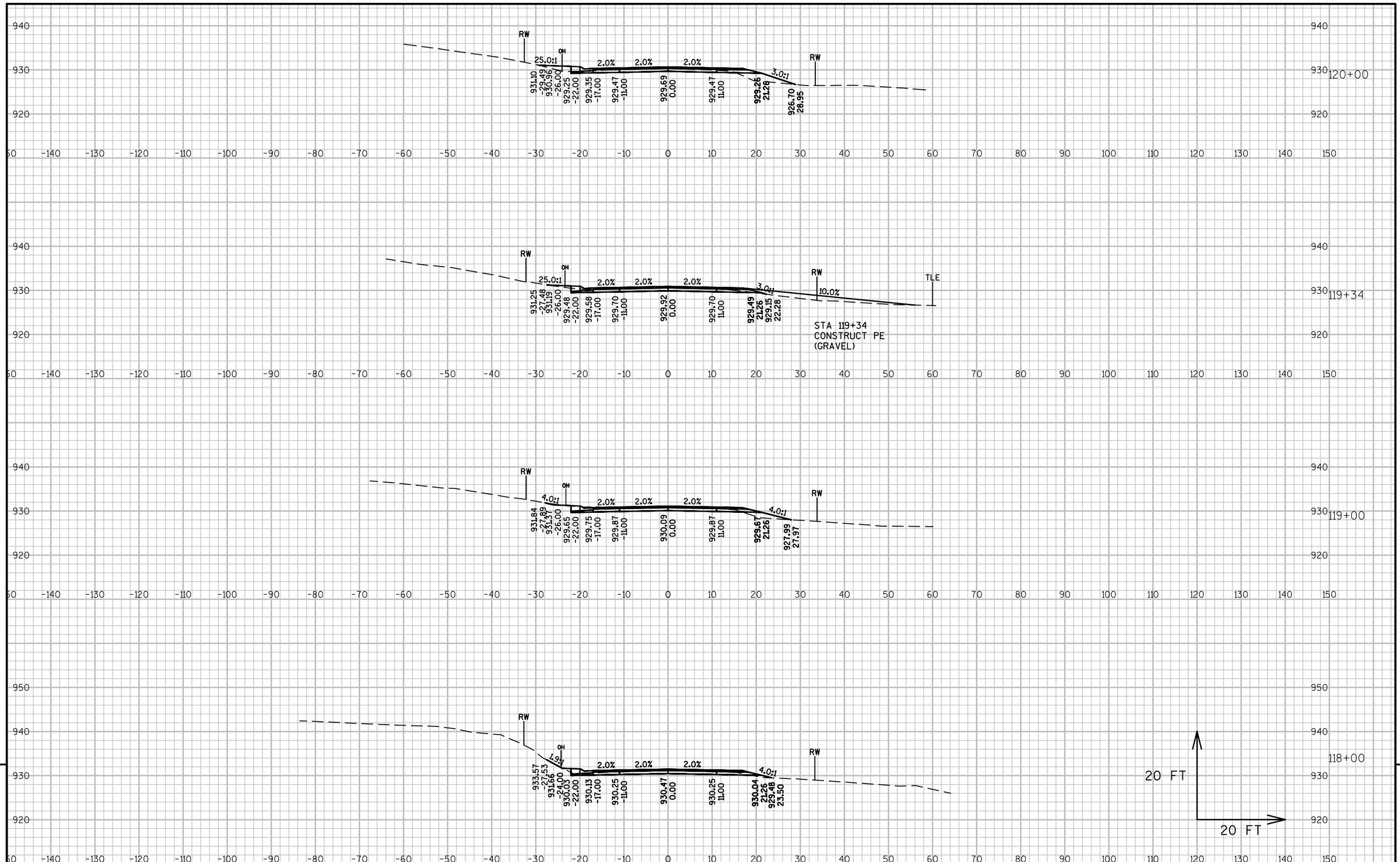
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 166 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 012

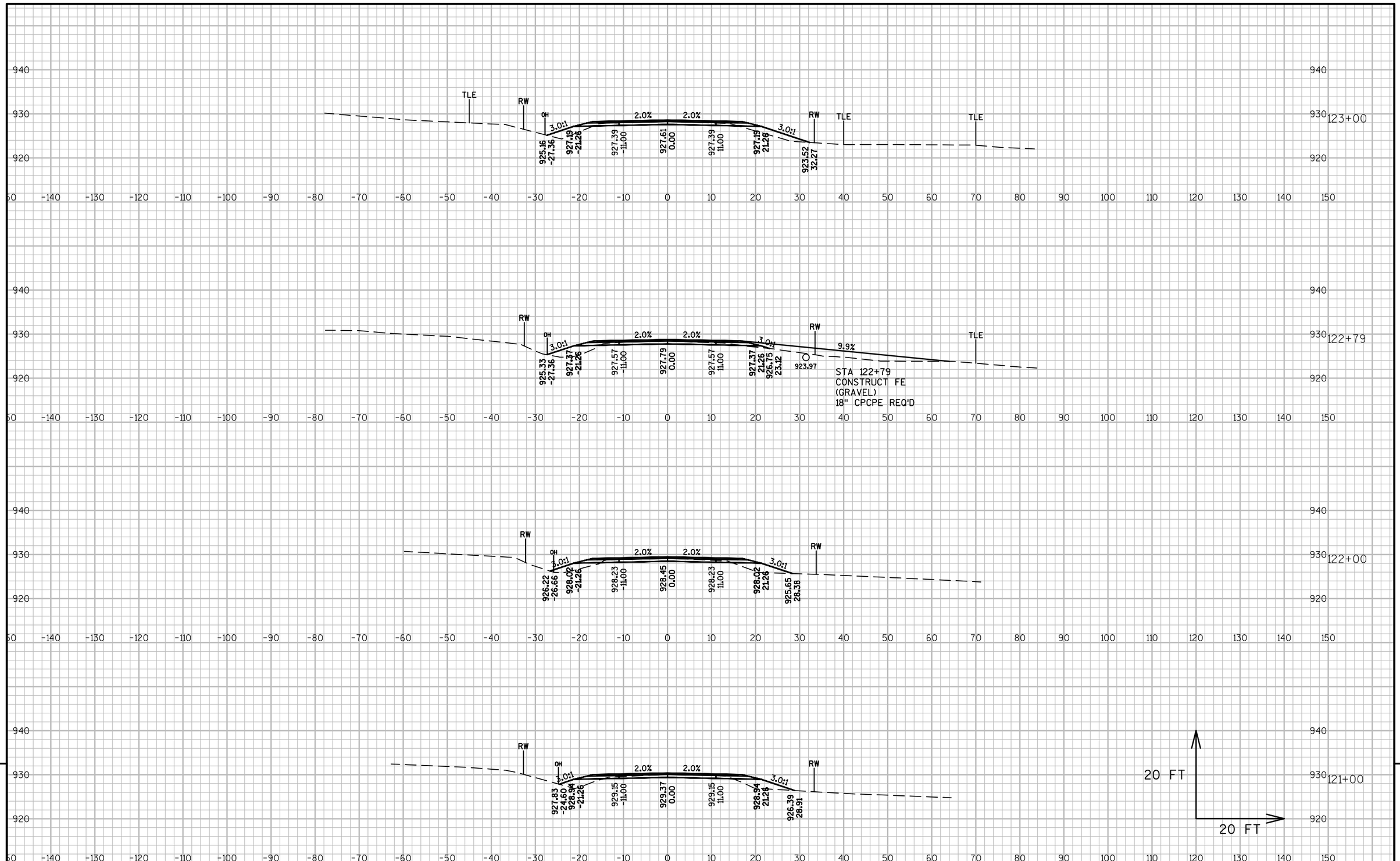
PLOT DATE : 7/1/2016 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 167	E



9

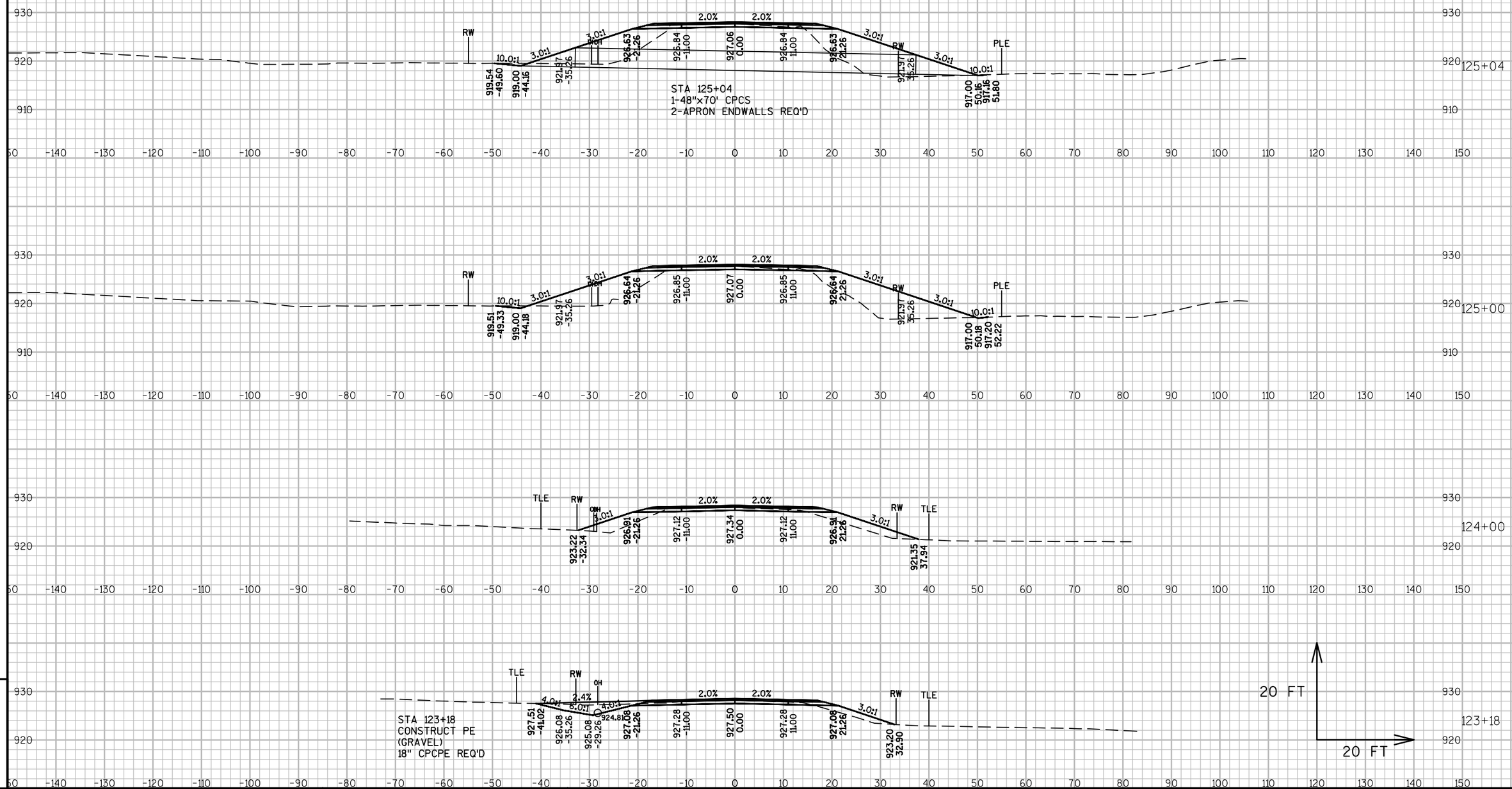
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 168	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 014

PLOT DATE : 7/1/2016 8:54 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

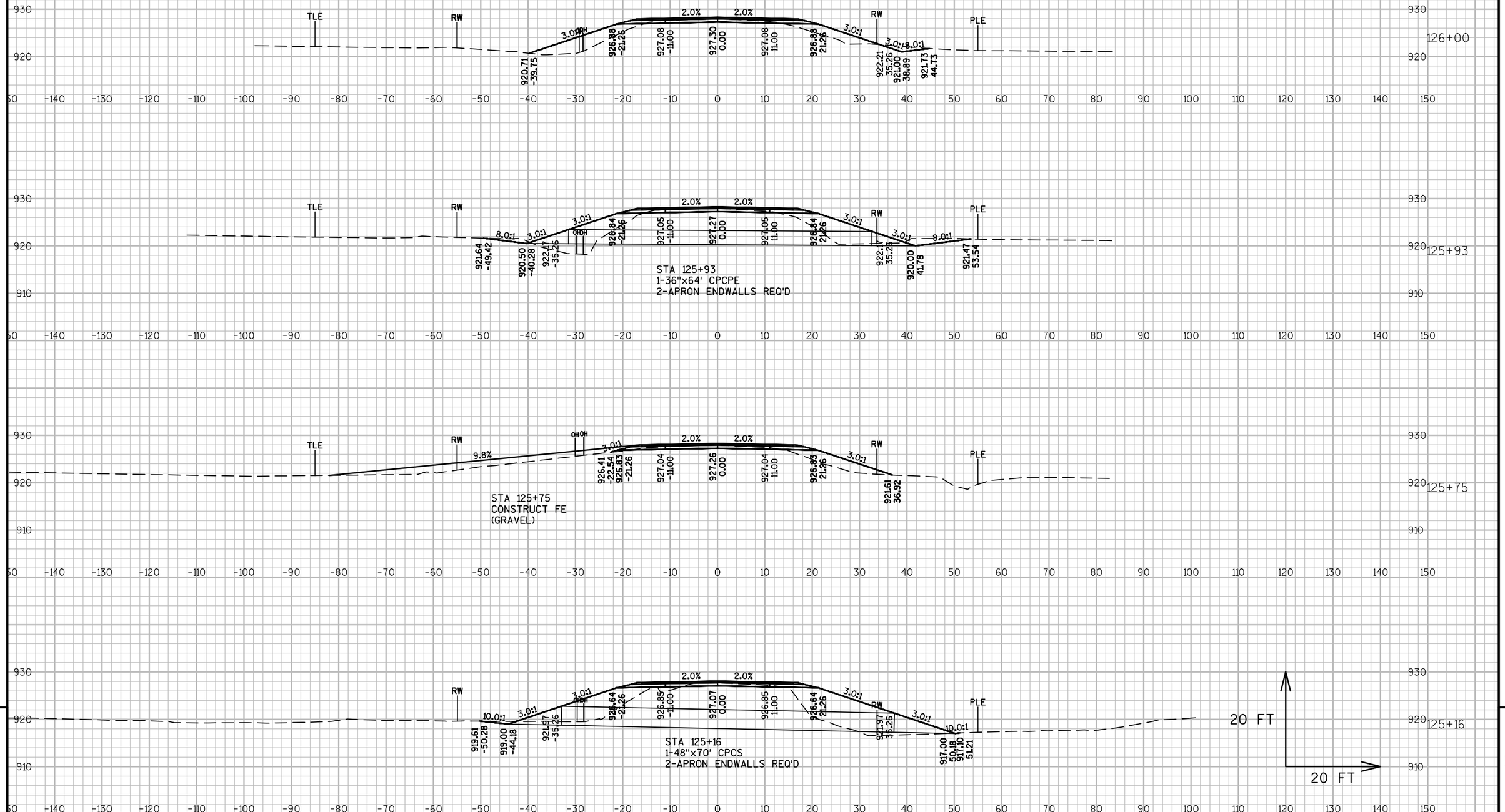


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 169	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 015

PLOT DATE : 7/1/2016 8:55 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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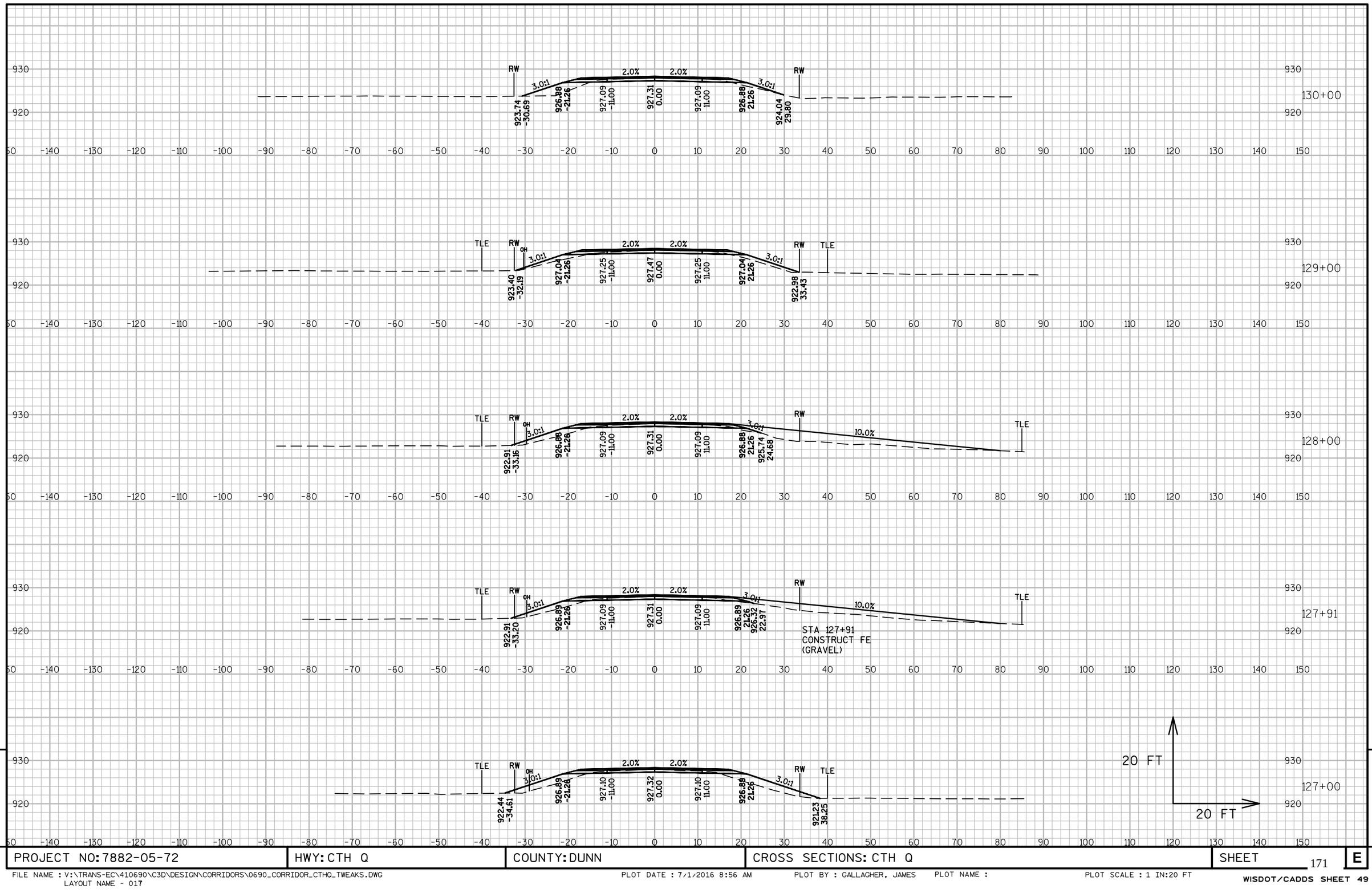
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 170	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 016

PLOT DATE : 7/1/2016 8:55 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



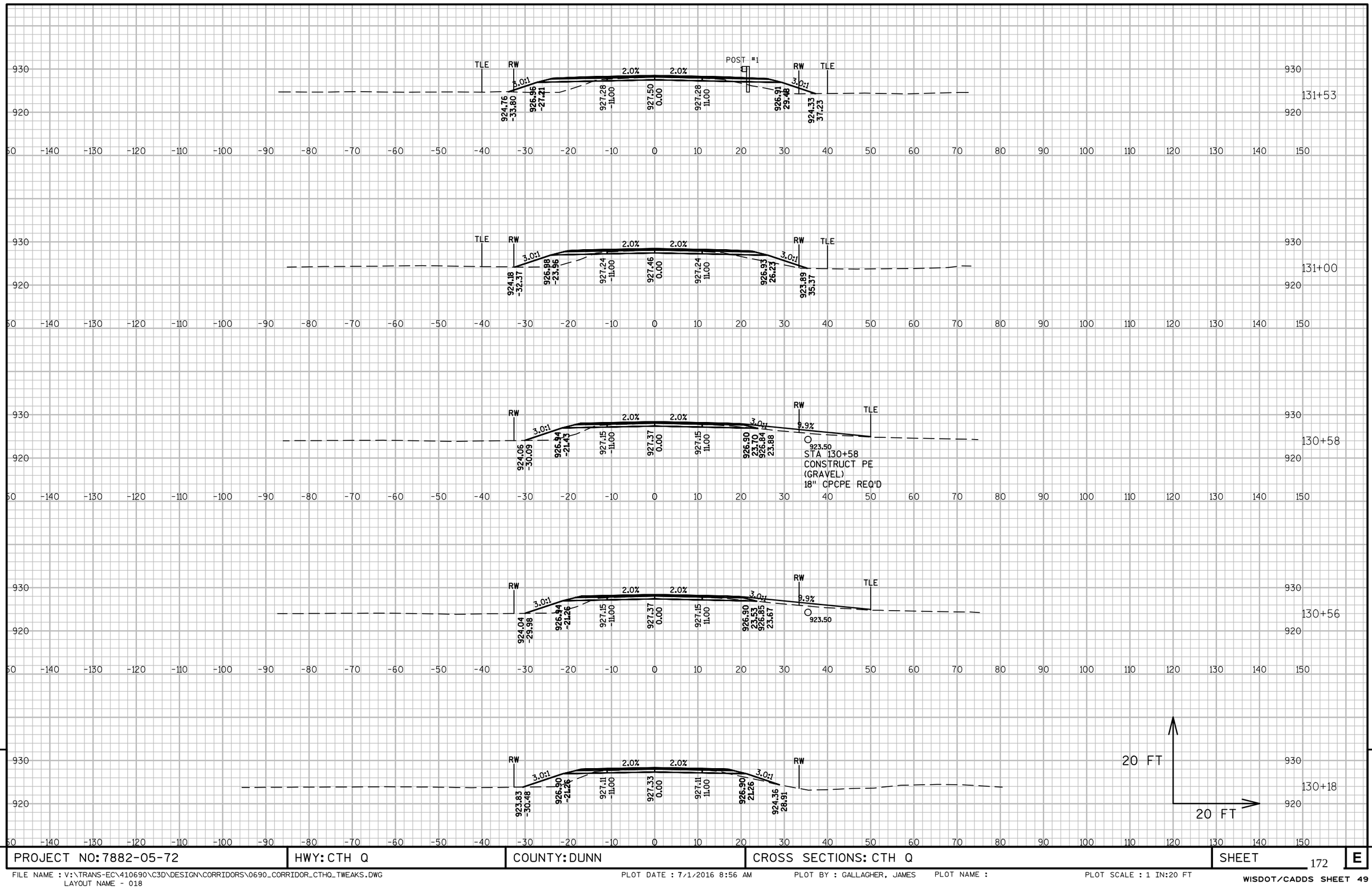
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 171	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 017

PLOT DATE : 7/1/2016 8:56 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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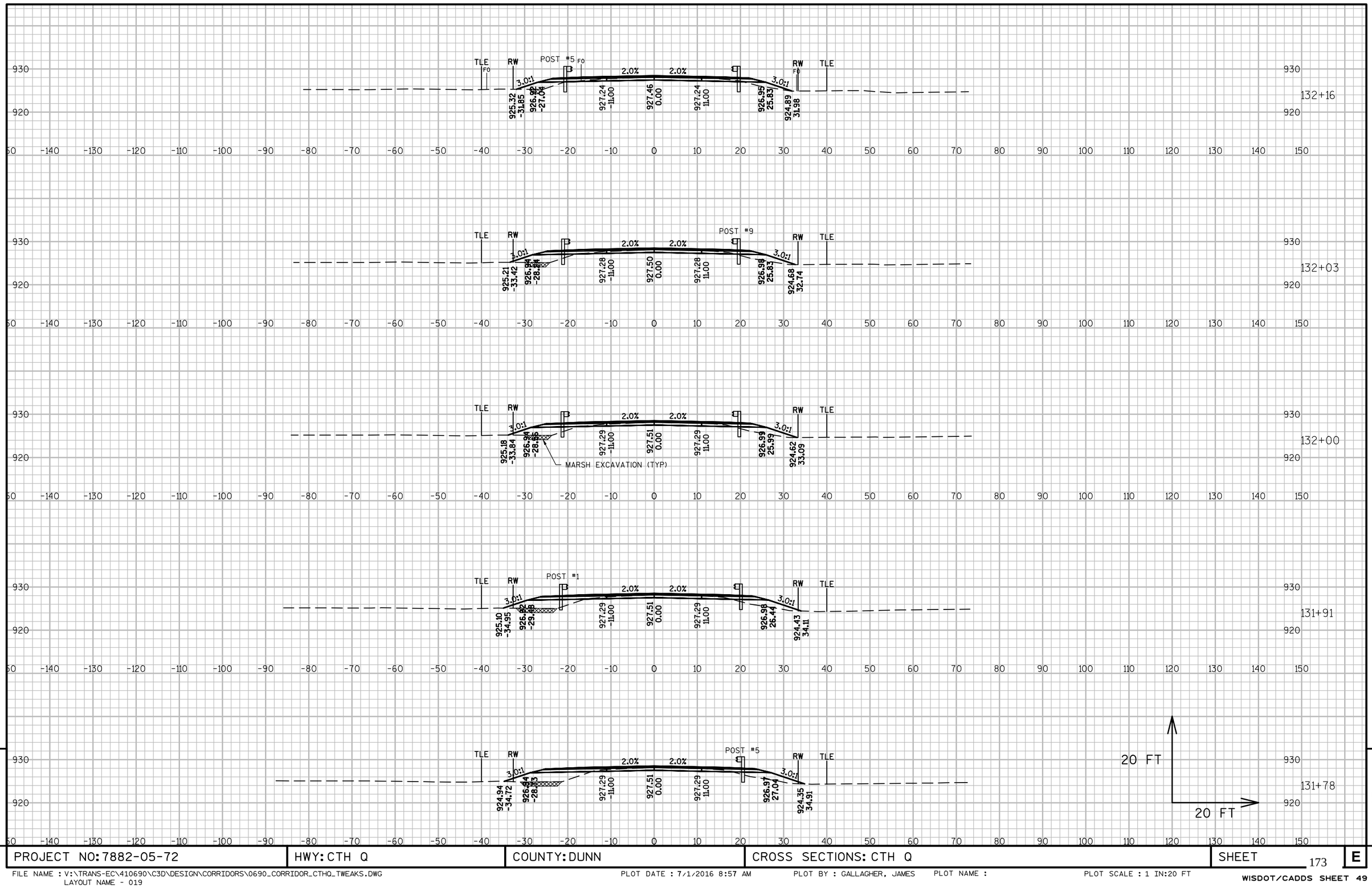
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 172	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 018

PLOT DATE : 7/1/2016 8:56 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



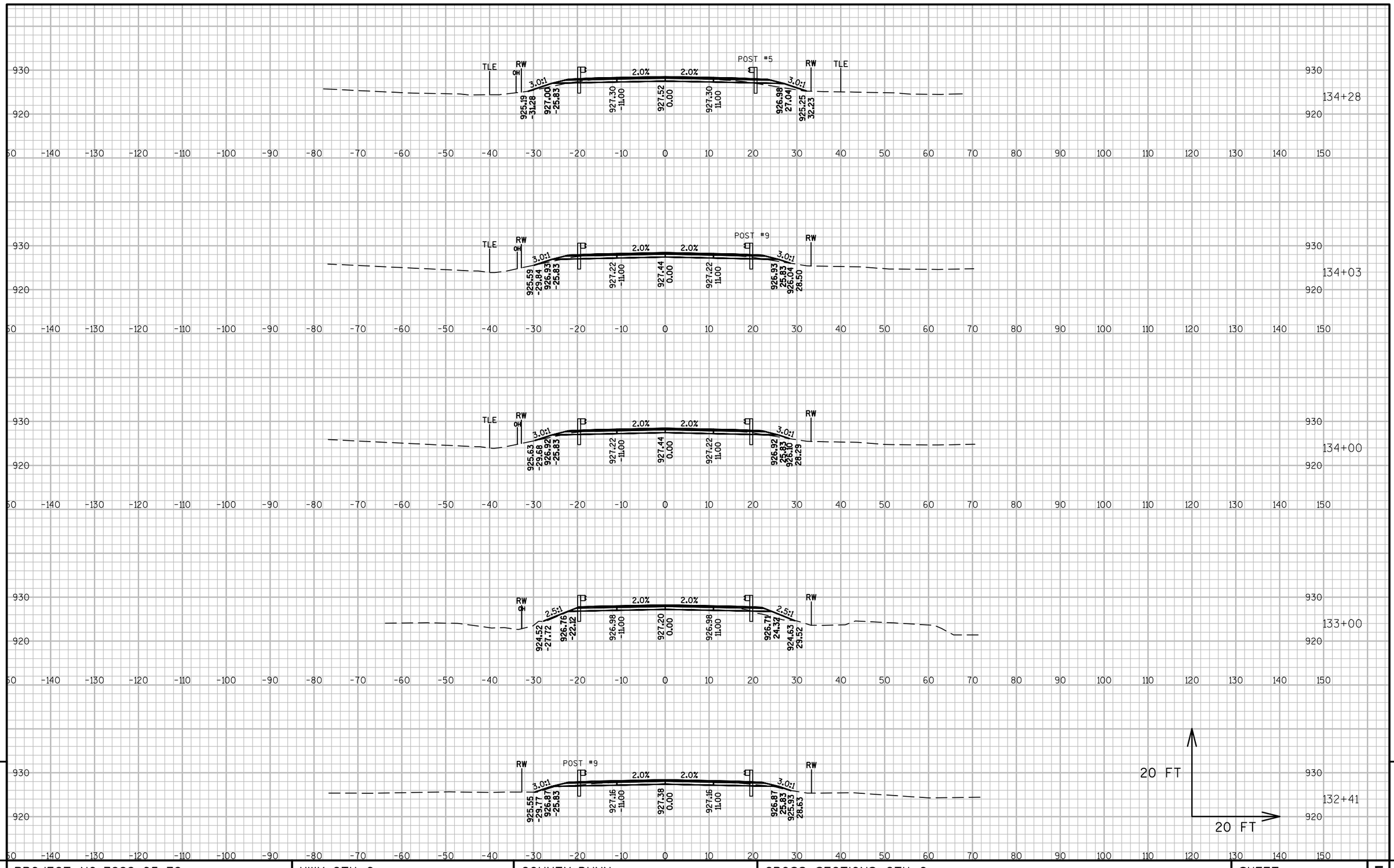
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 173	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 019

PLOT DATE : 7/1/2016 8:57 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

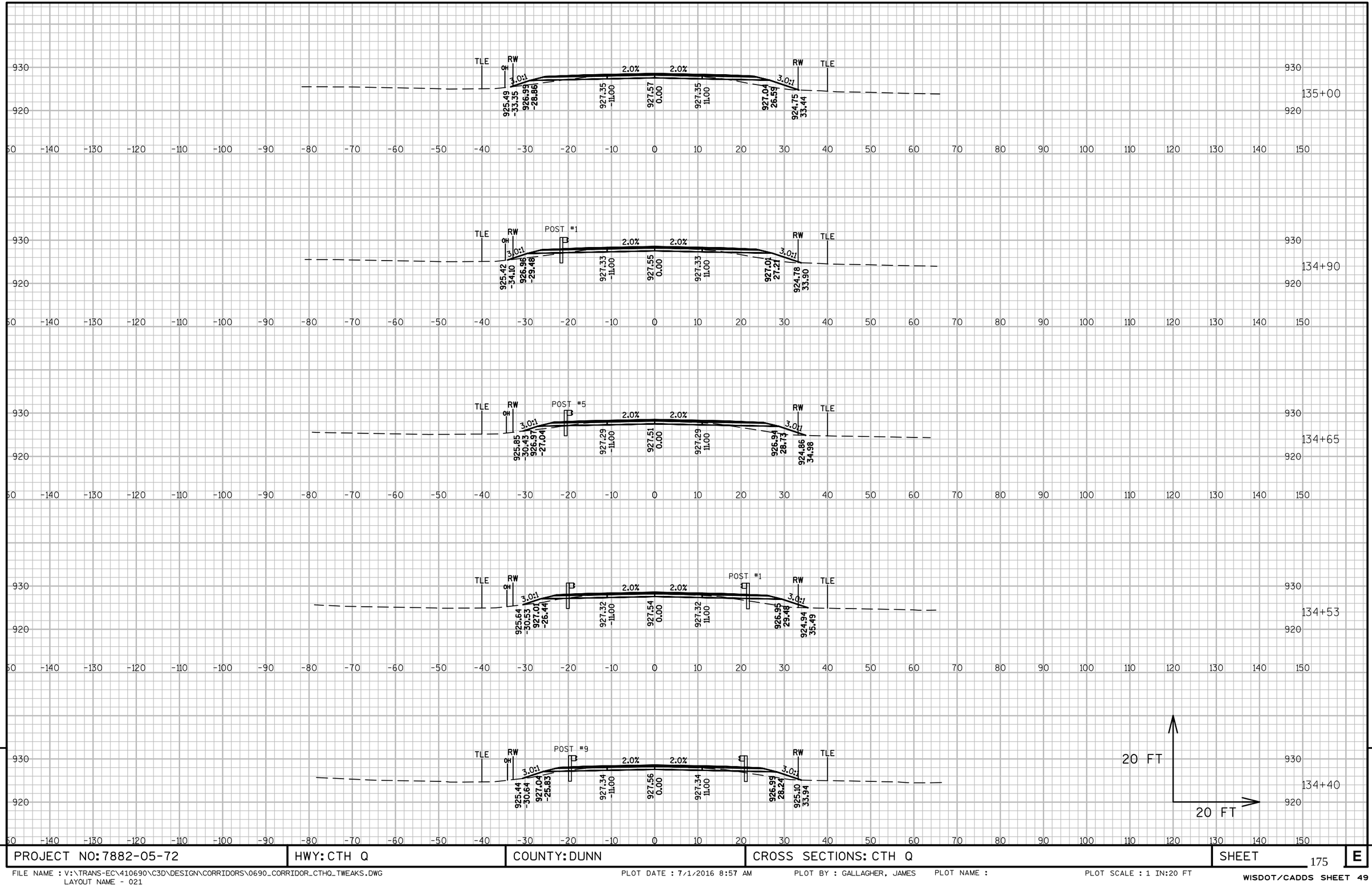


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 174	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 020
PLOT DATE : 7/1/2016 8:57 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

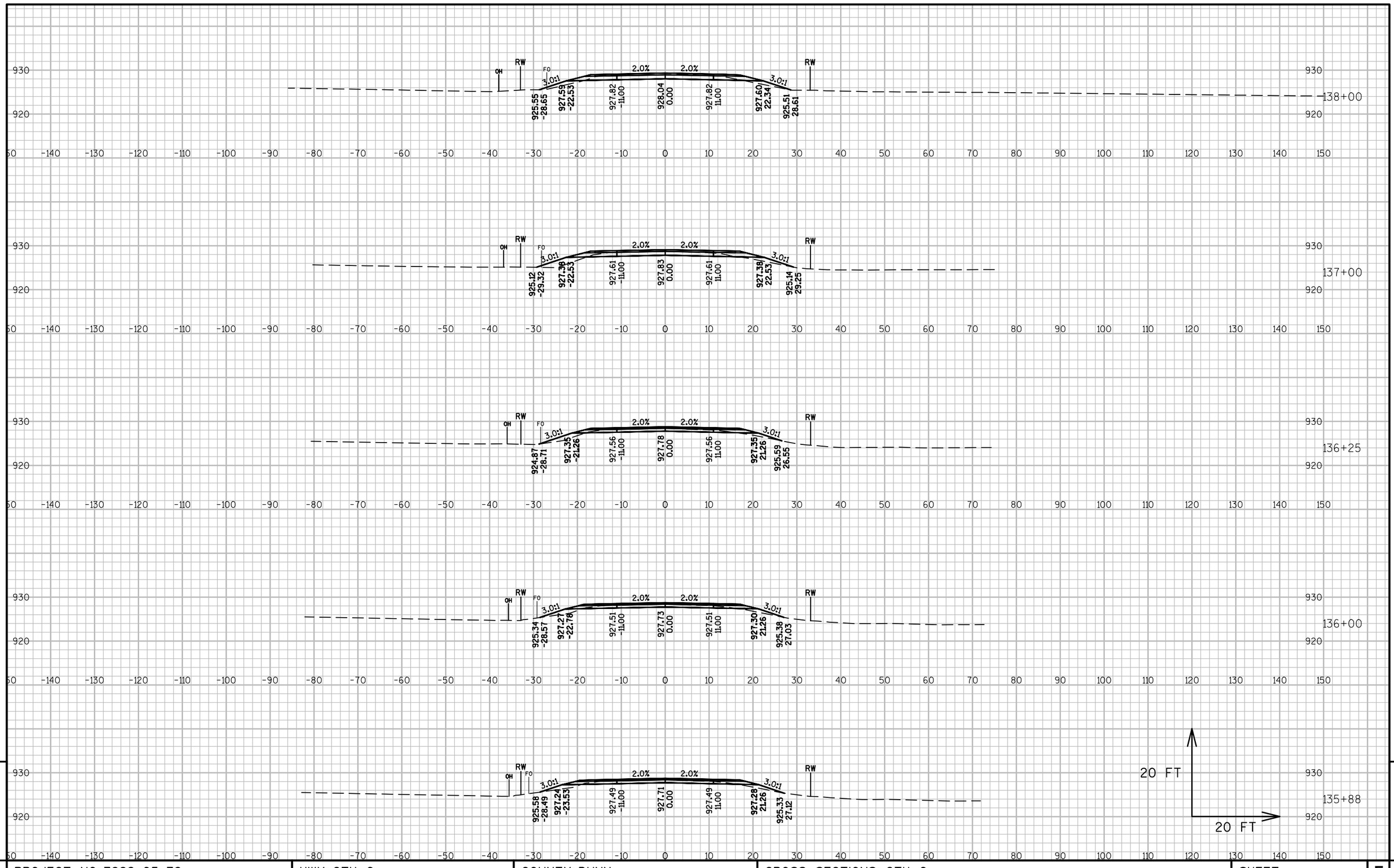
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 175	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 021

PLOT DATE : 7/1/2016 8:57 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



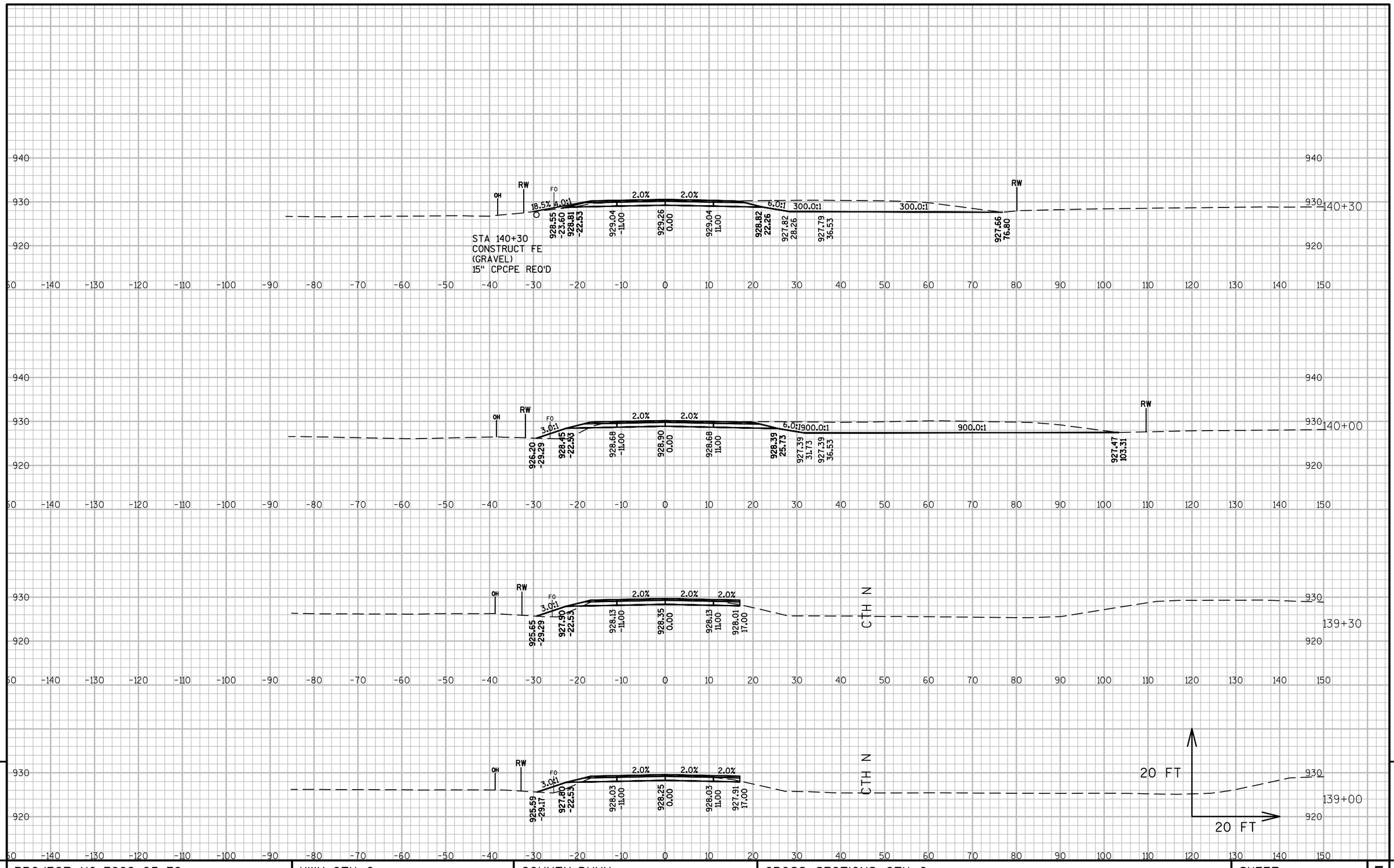
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 176	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 022

PLOT DATE : 7/1/2016 8:58 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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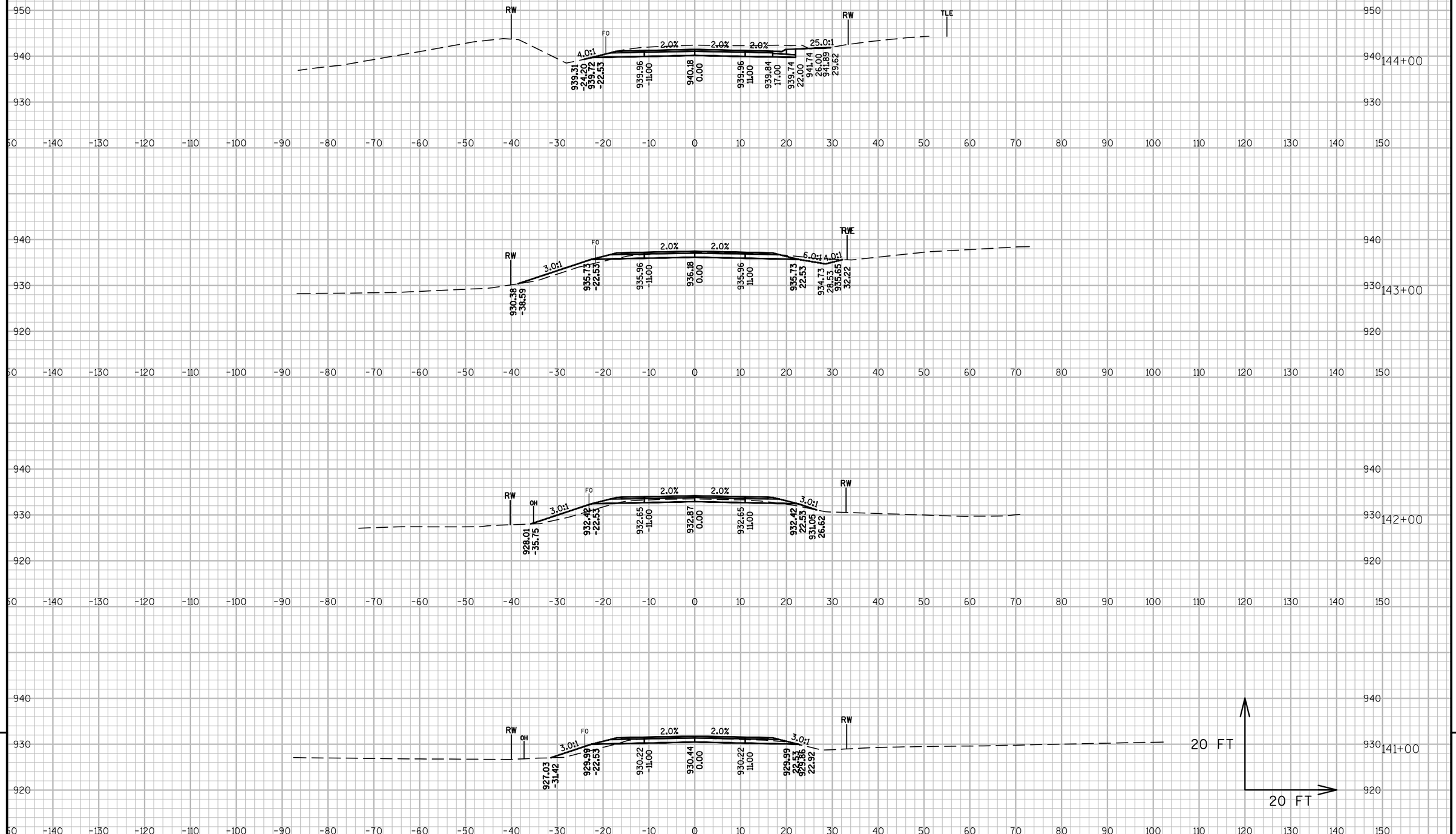
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 177	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 023

PLOT DATE : 7/1/2016 8:58 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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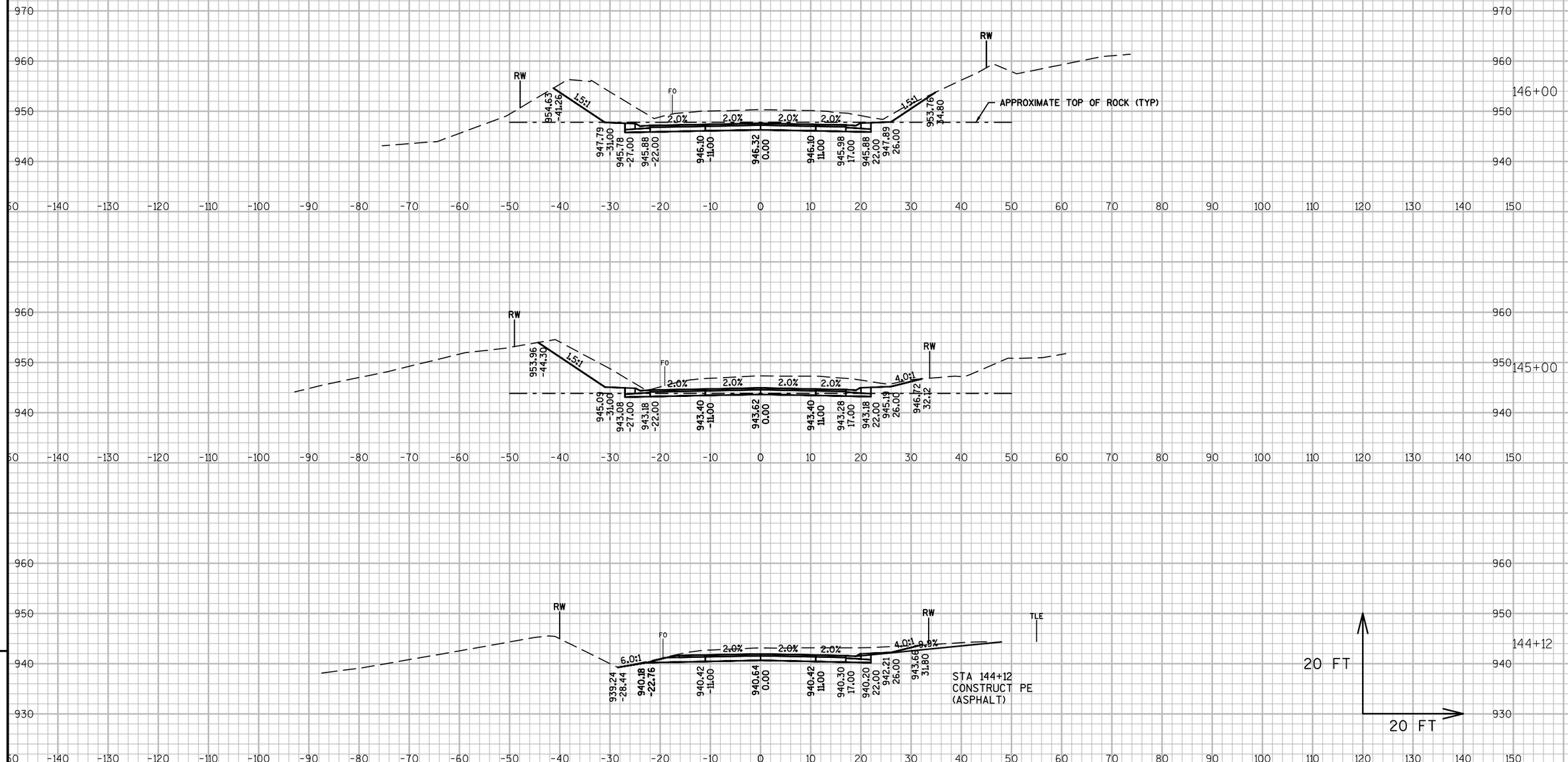
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 178	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 024

PLOT DATE : 7/1/2016 8:59 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

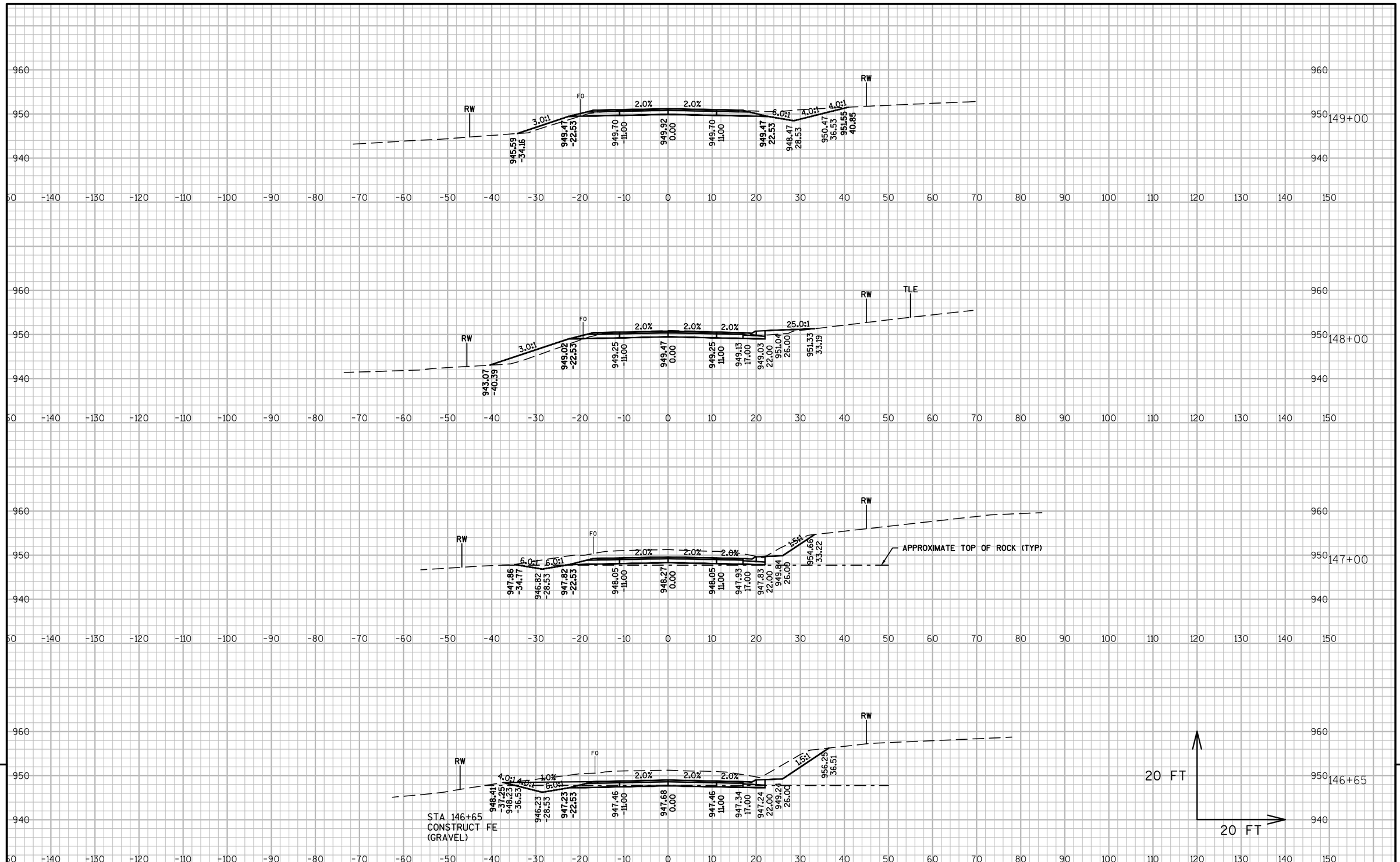


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 179	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 025
PLOT DATE : 7/1/2016 8:59 AM
PLOT BY : GALLAGHER, JAMES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



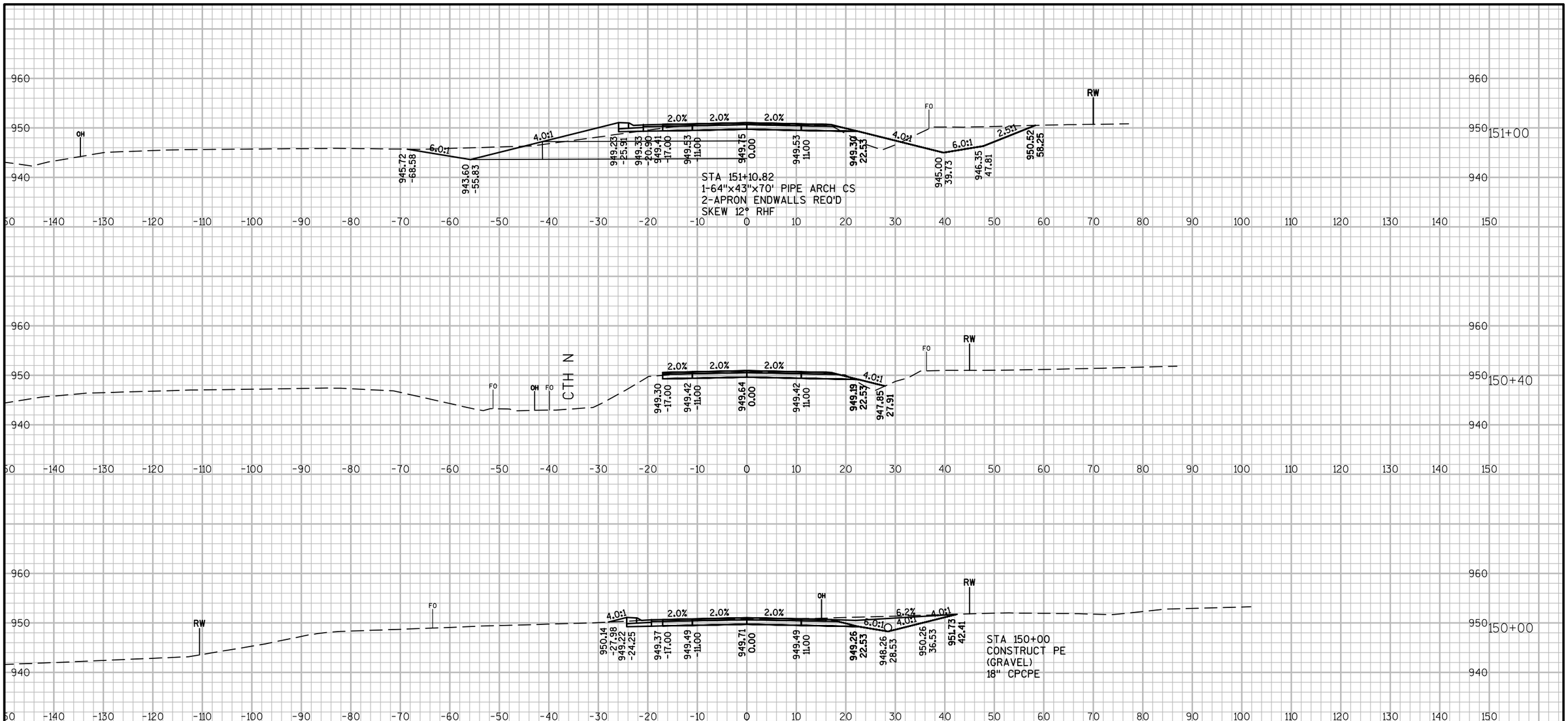
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 180	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 026

PLOT DATE : 7/1/2016 9:00 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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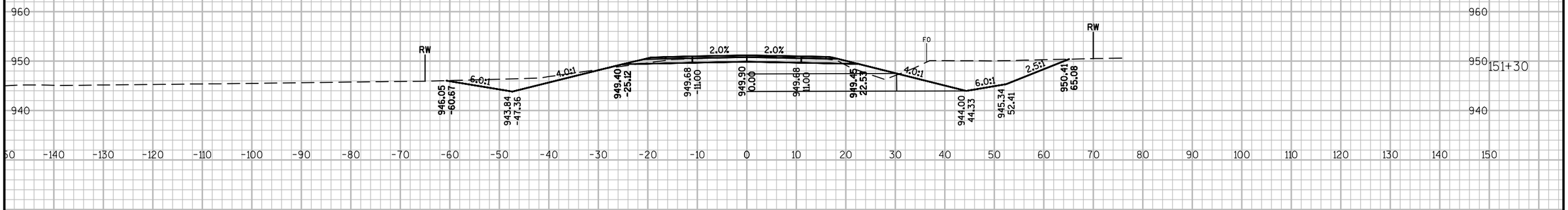
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 181	E

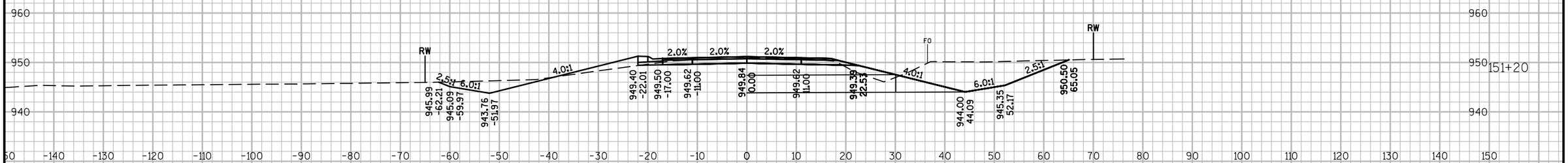
FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 027

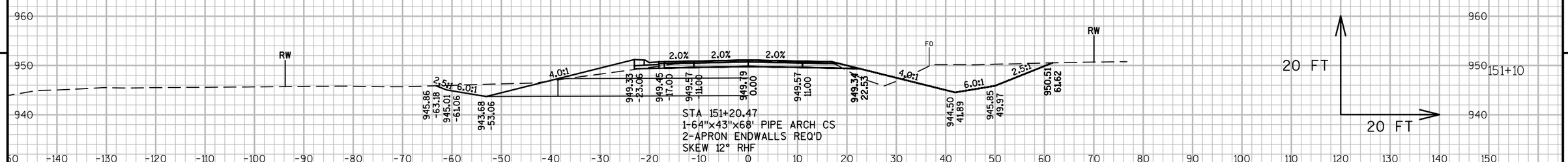
PLOT DATE : 7/1/2016 9:00 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



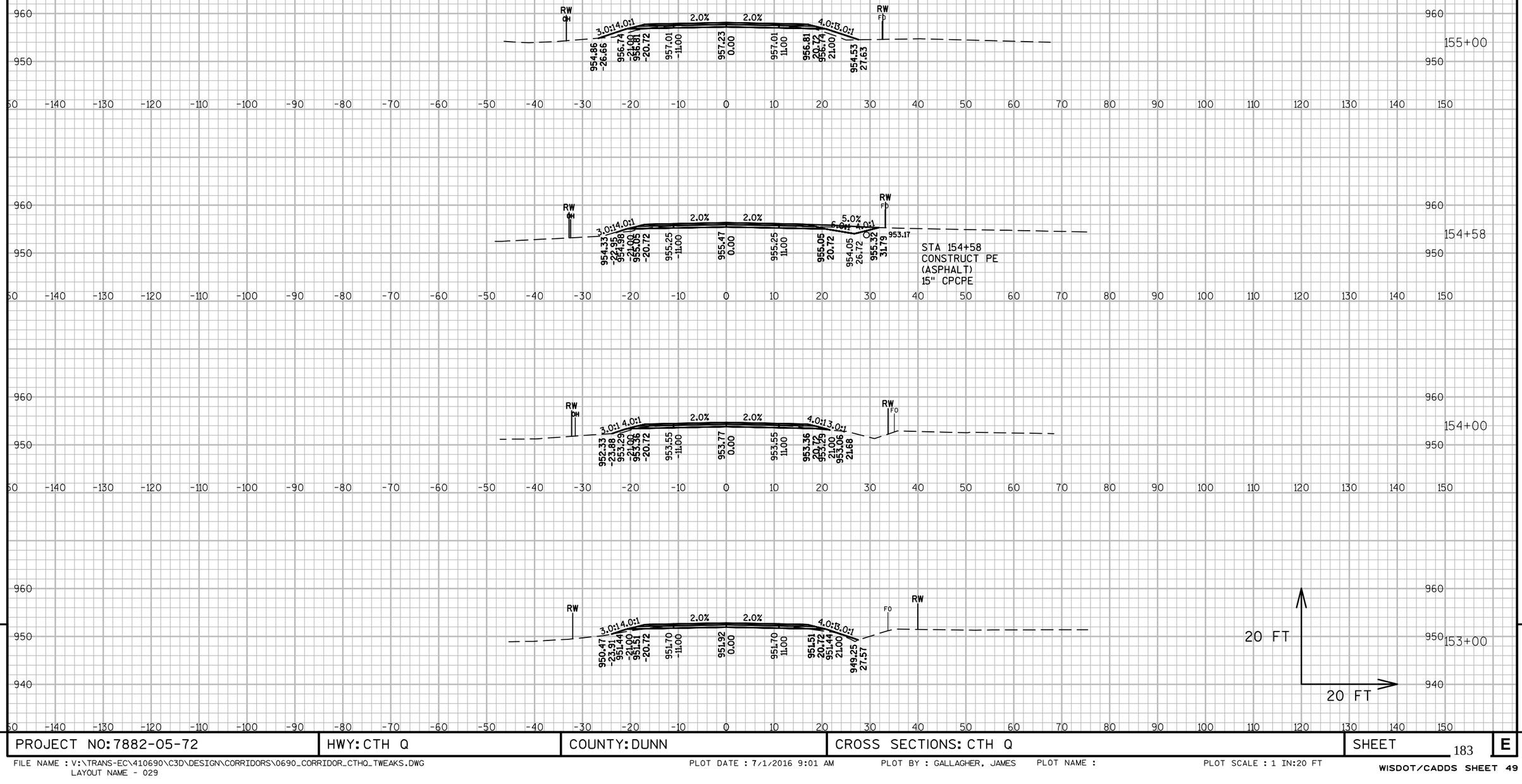






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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 182 E



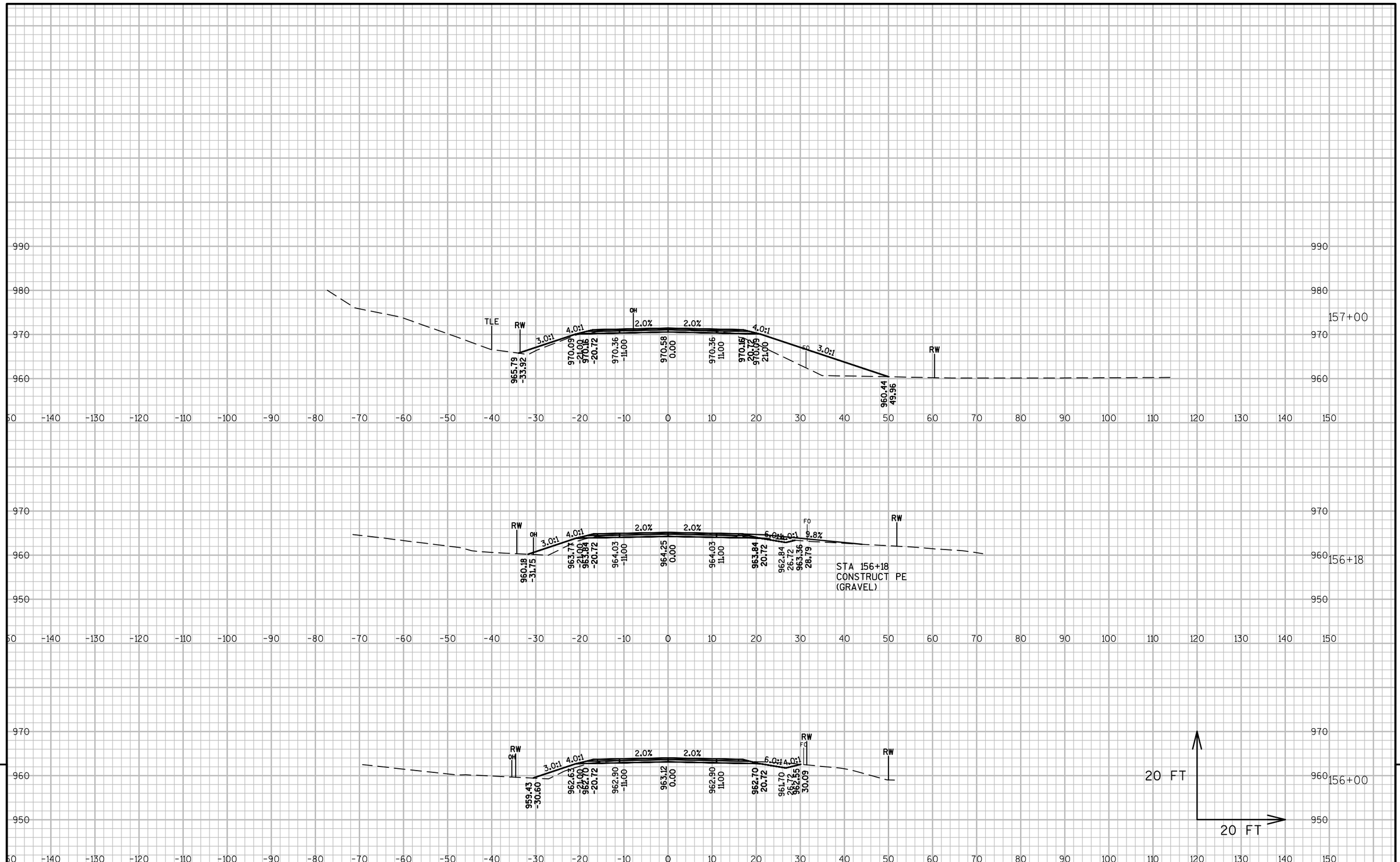
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 183	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 029

PLOT DATE : 7/1/2016 9:01 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

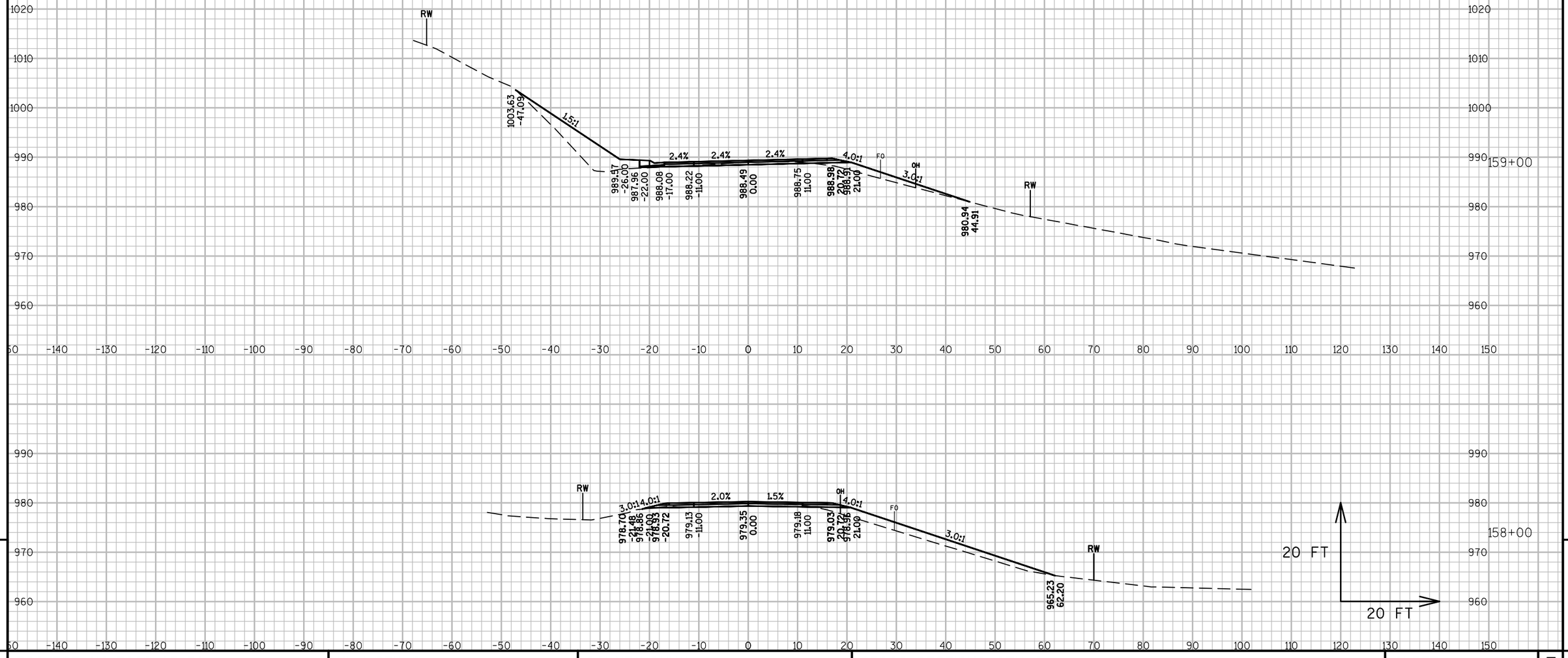


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 184	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 030

PLOT DATE : 7/1/2016 9:01 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

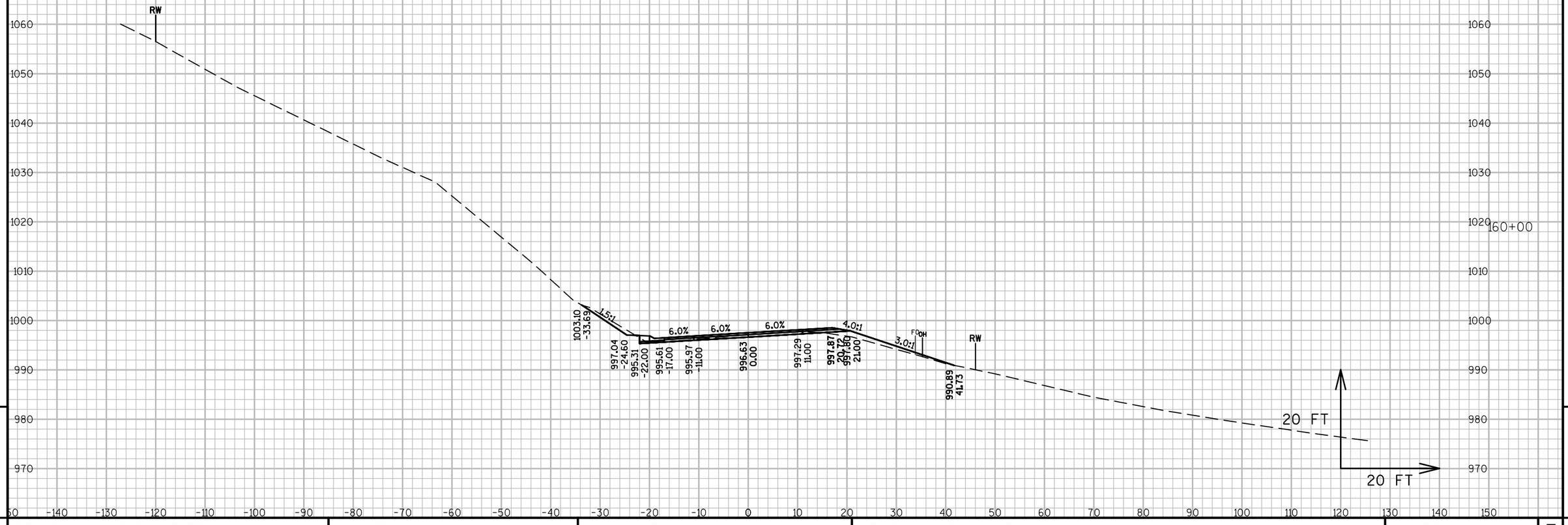


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 185	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 031

PLOT DATE : 7/1/2016 9:02 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

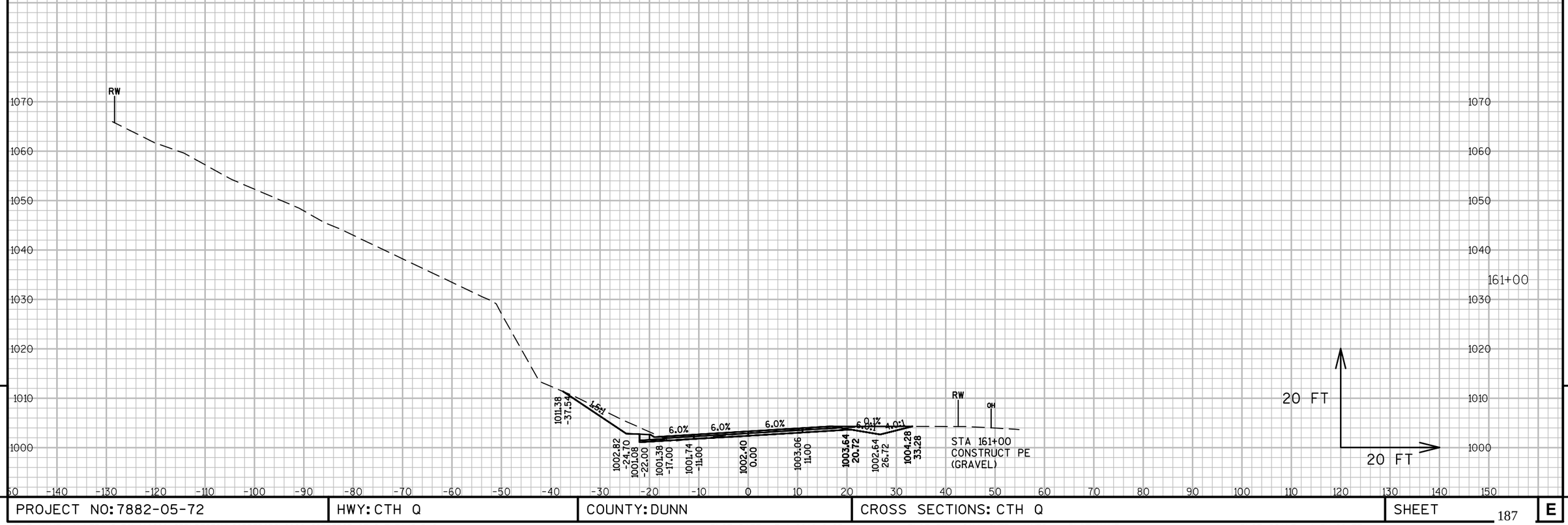
WISDOT/CADDS SHEET 49



PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 186	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 032

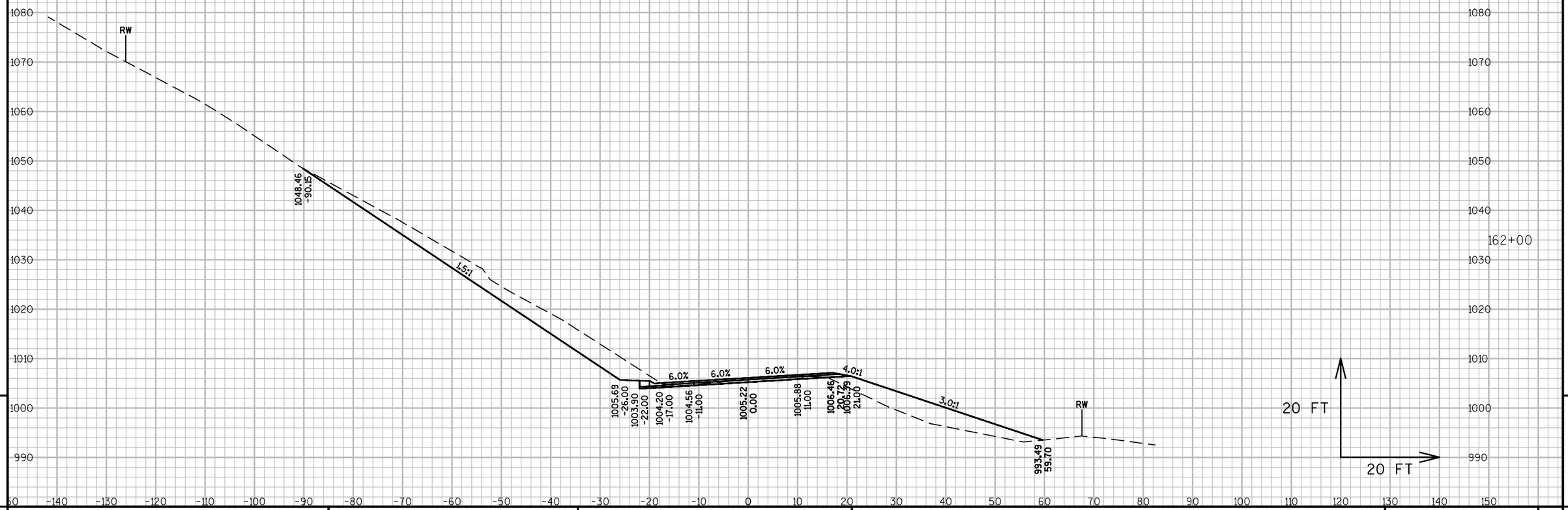
PLOT DATE : 7/1/2016 9:02 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 187	E



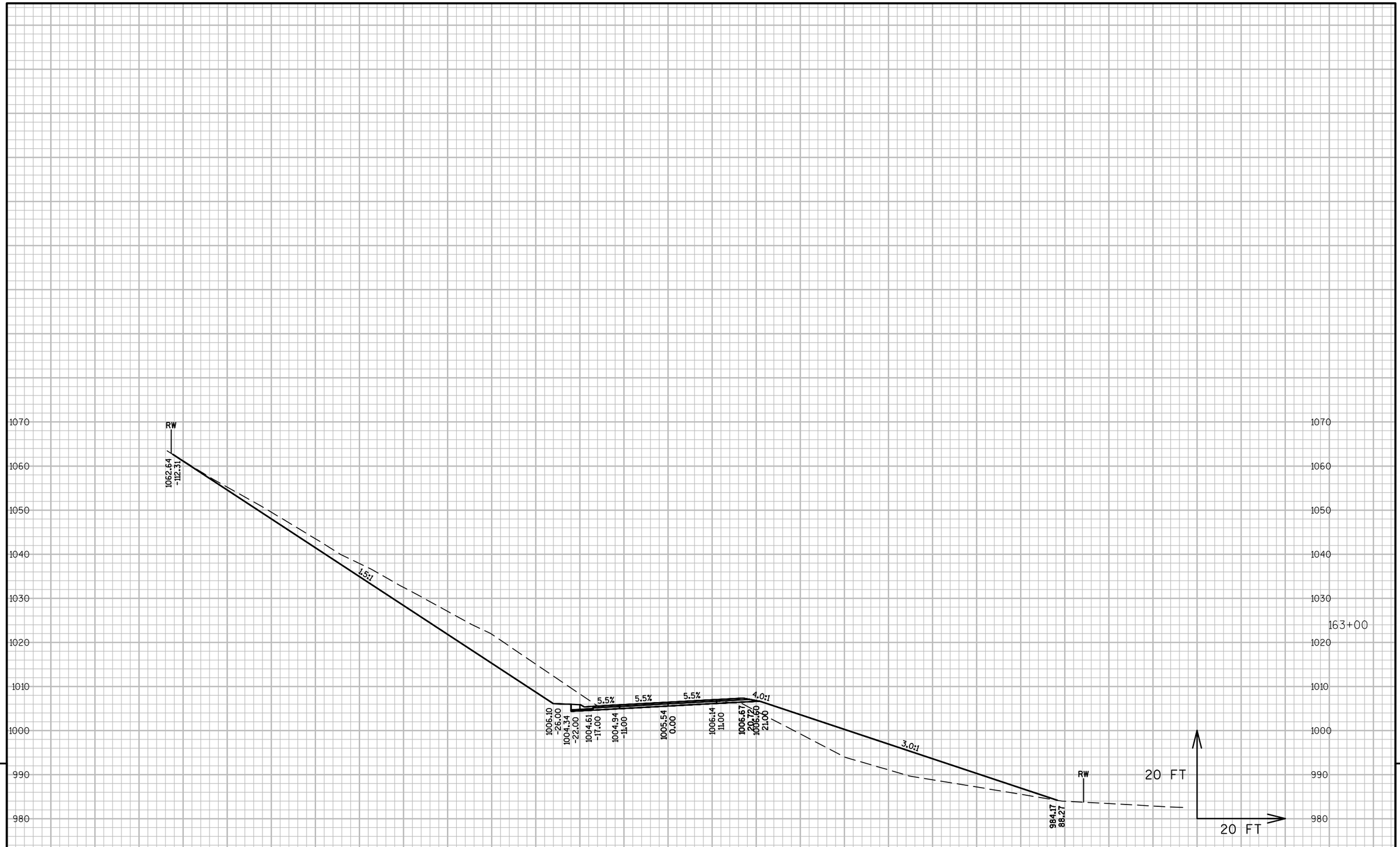
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 188	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 034

PLOT DATE : 7/1/2016 9:03 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

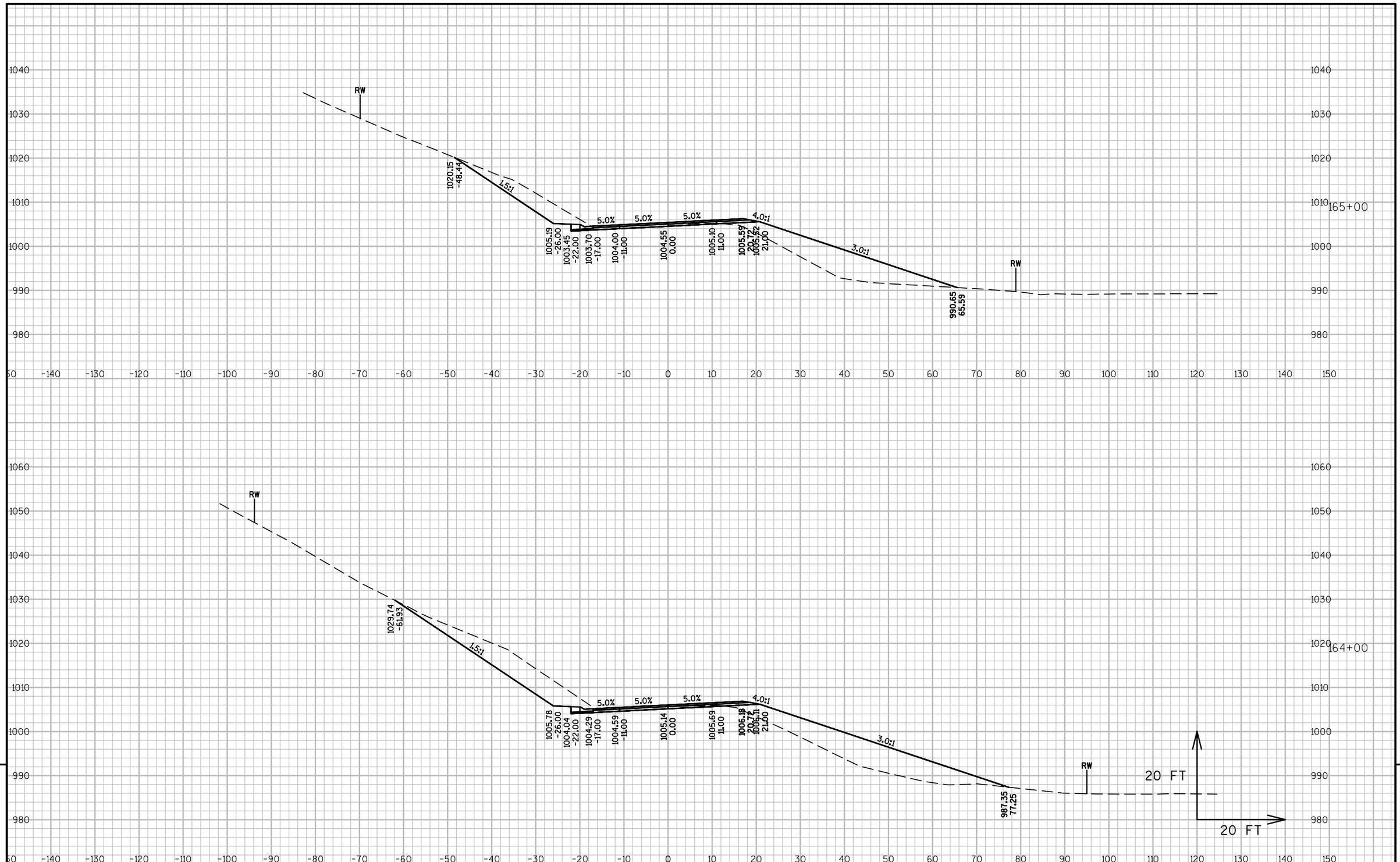
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 189	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 035

PLOT DATE : 7/1/2016 9:04 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

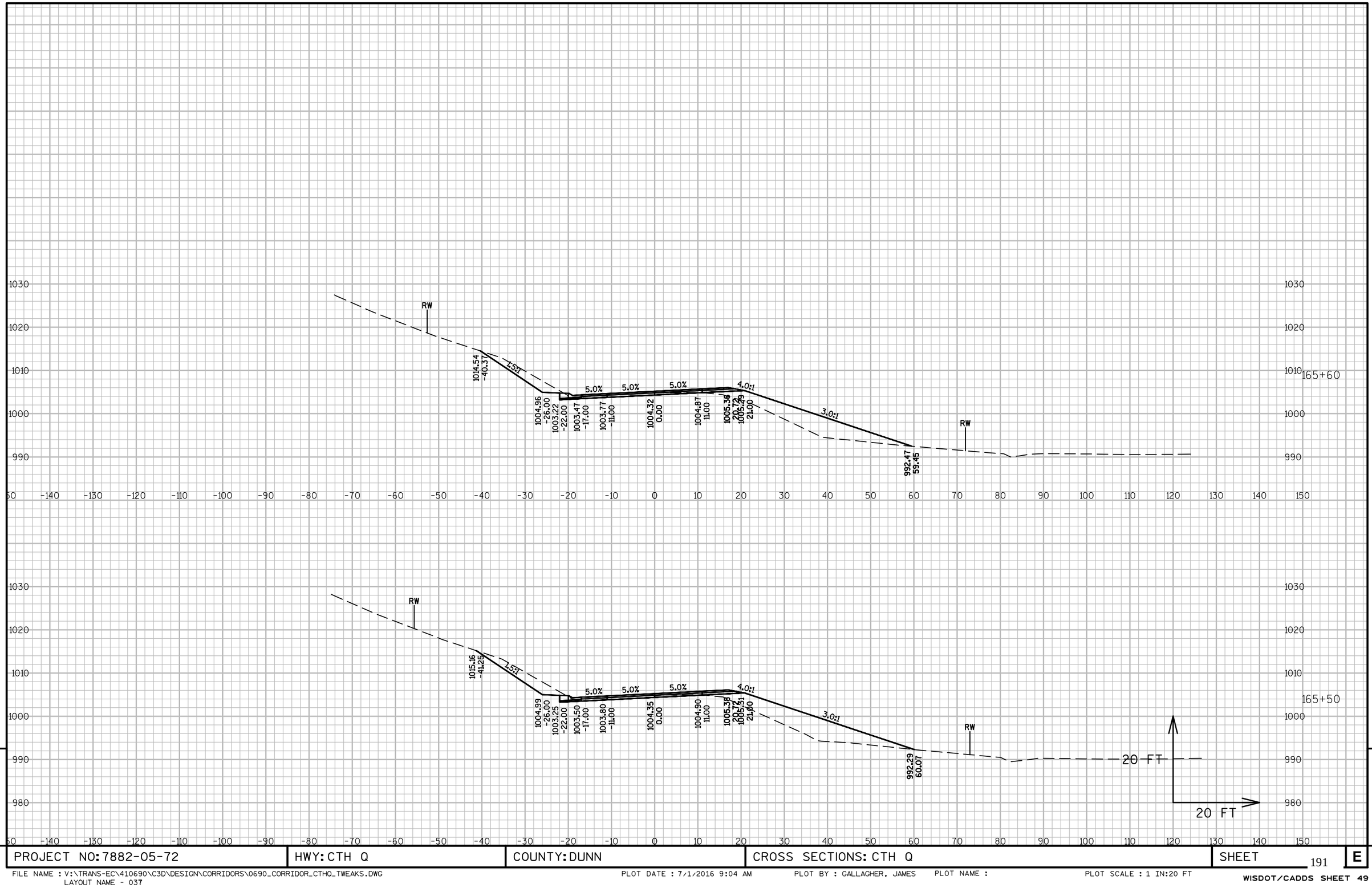
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 190 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 036

PLOT DATE : 7/1/2016 9:04 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

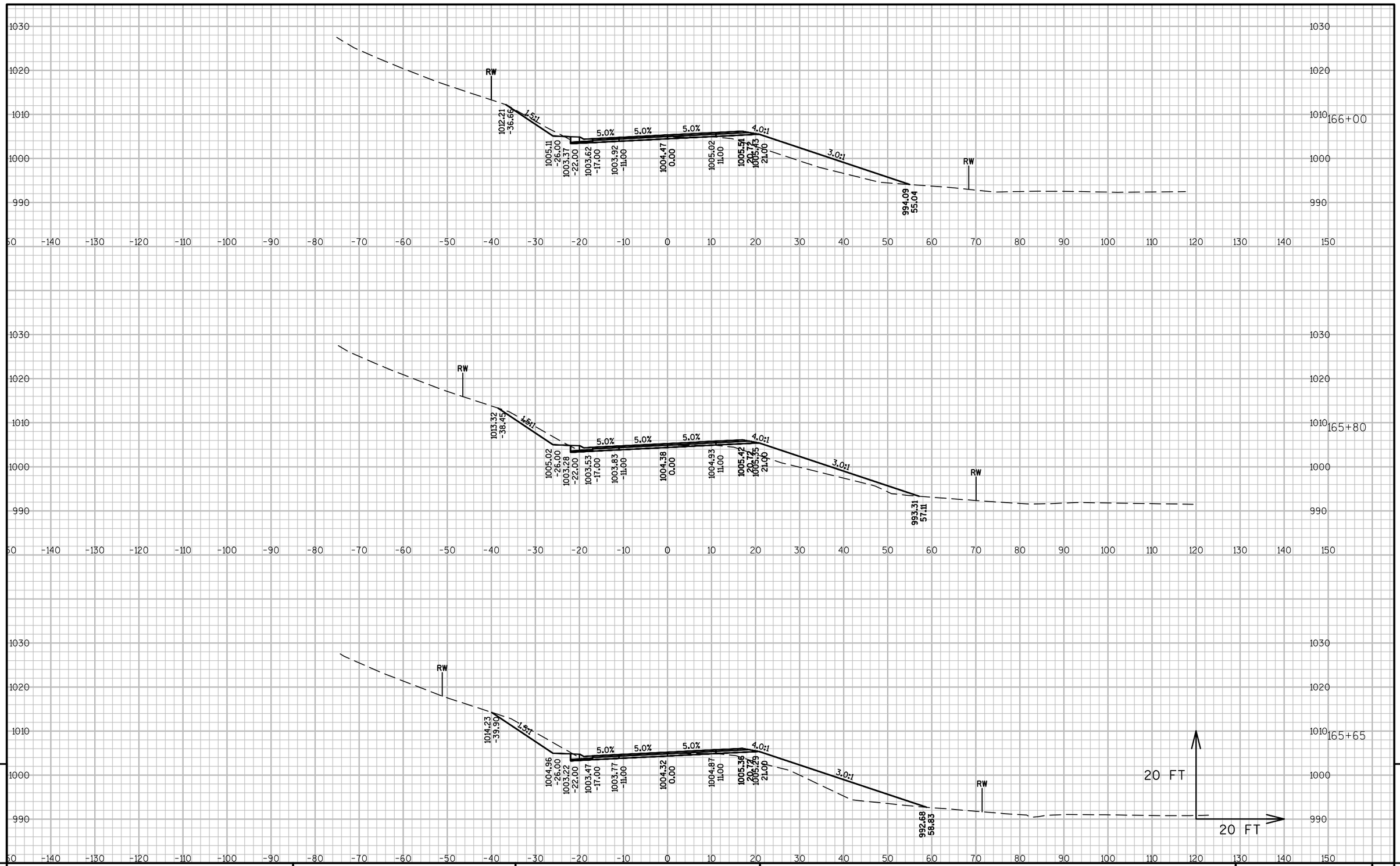
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 191	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 037

PLOT DATE : 7/1/2016 9:04 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

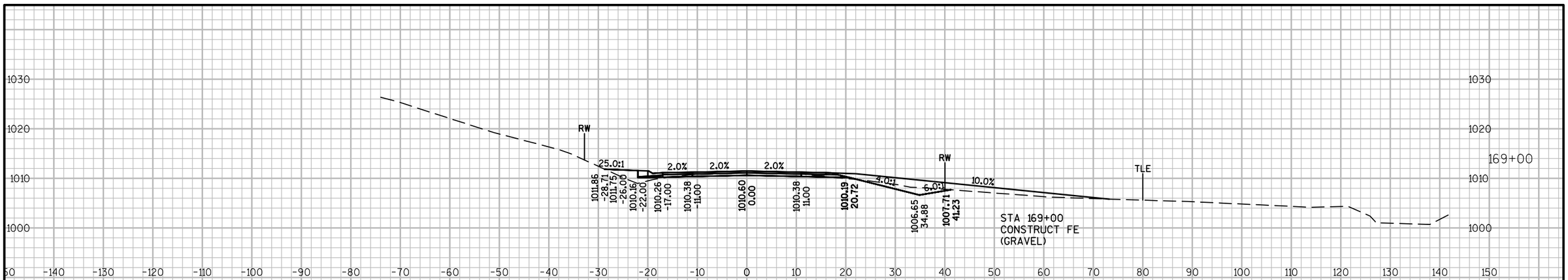
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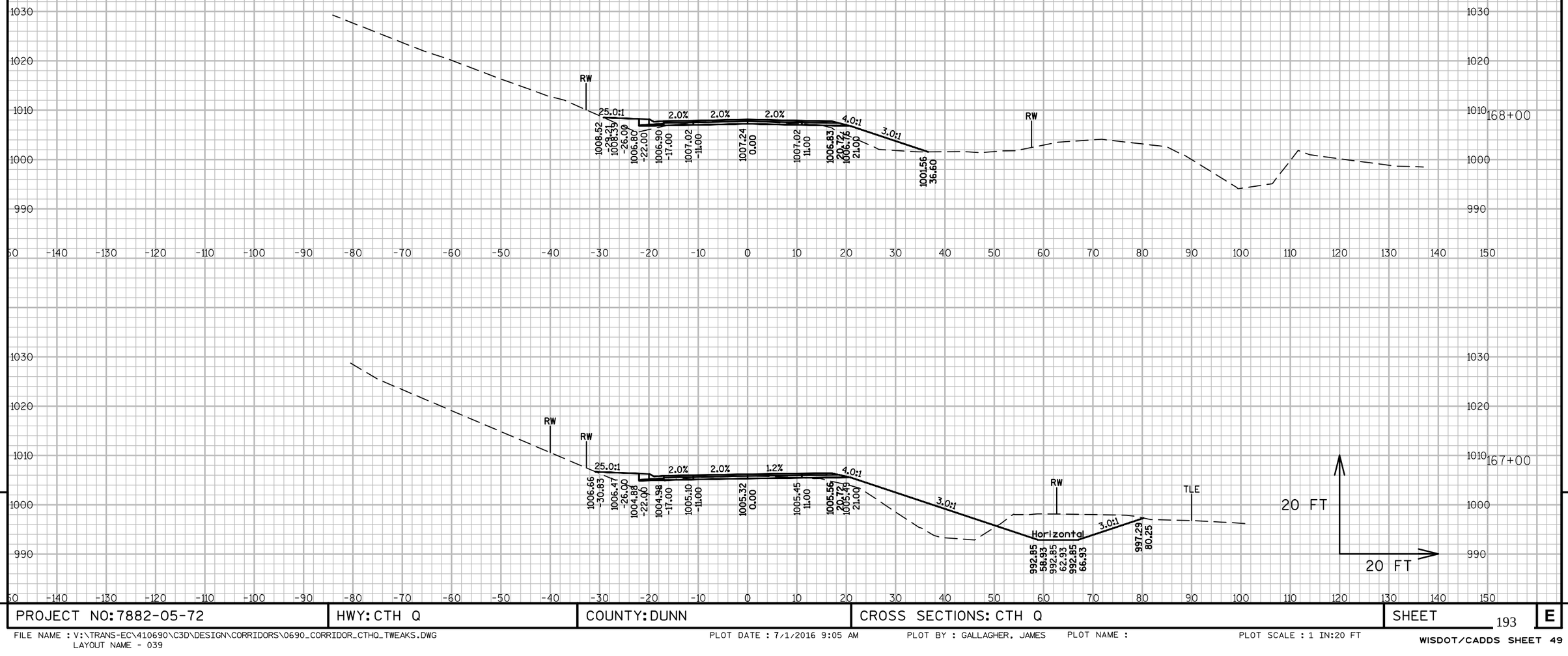
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 192	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 038

PLOT DATE : 7/1/2016 9:05 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





9

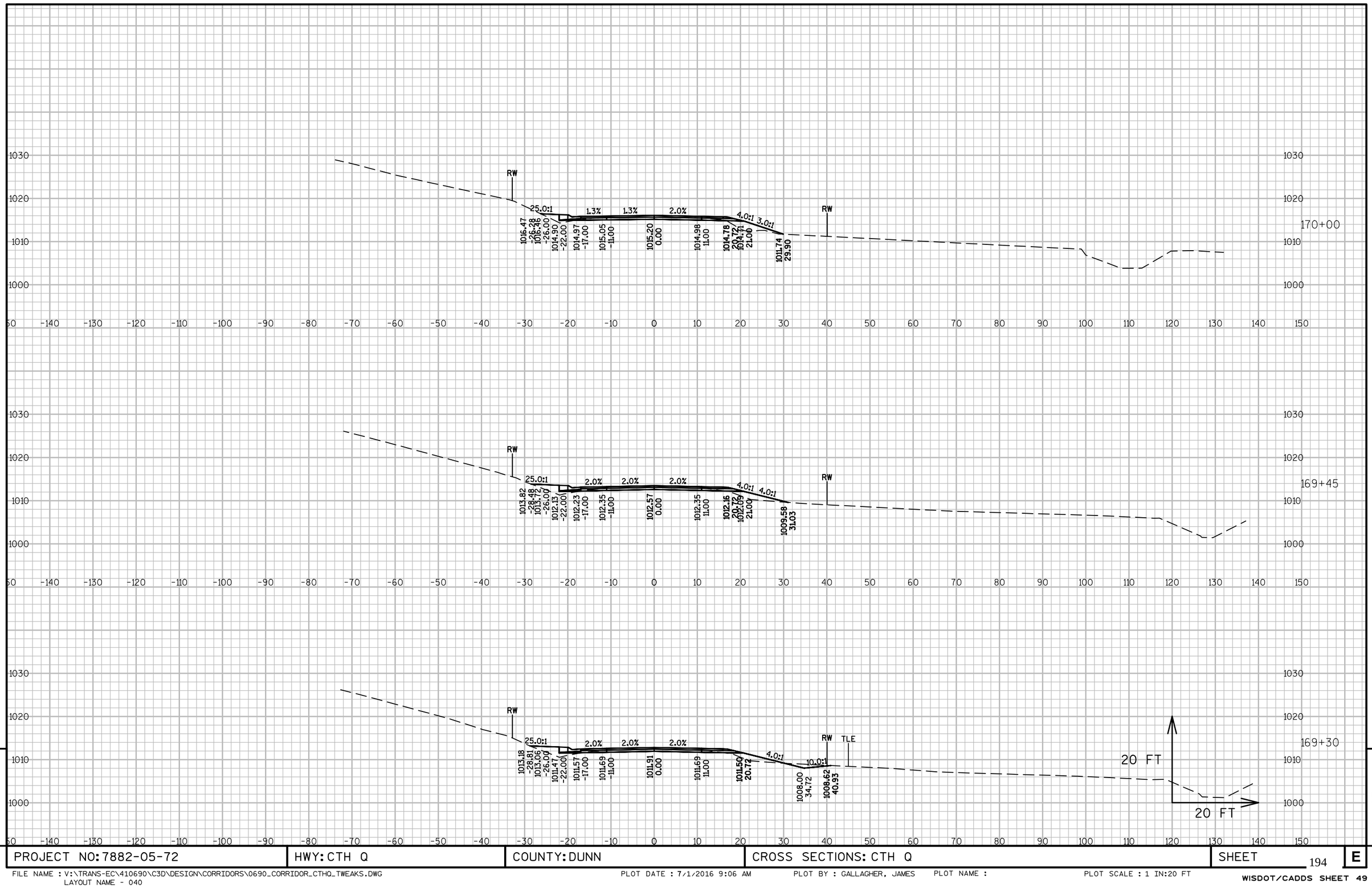
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 193	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 039

PLOT DATE : 7/1/2016 9:05 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

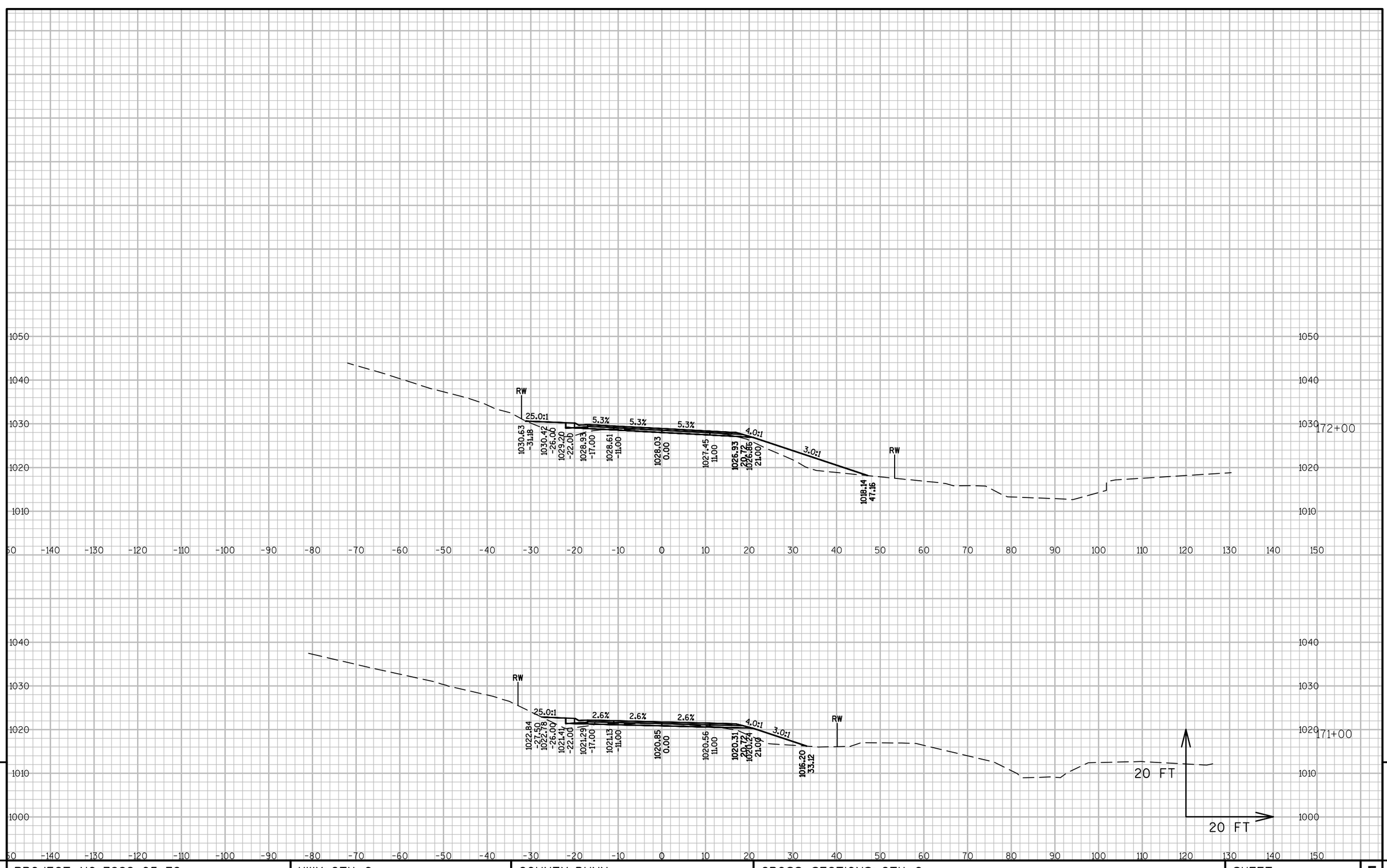
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 194	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 040

PLOT DATE : 7/1/2016 9:06 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

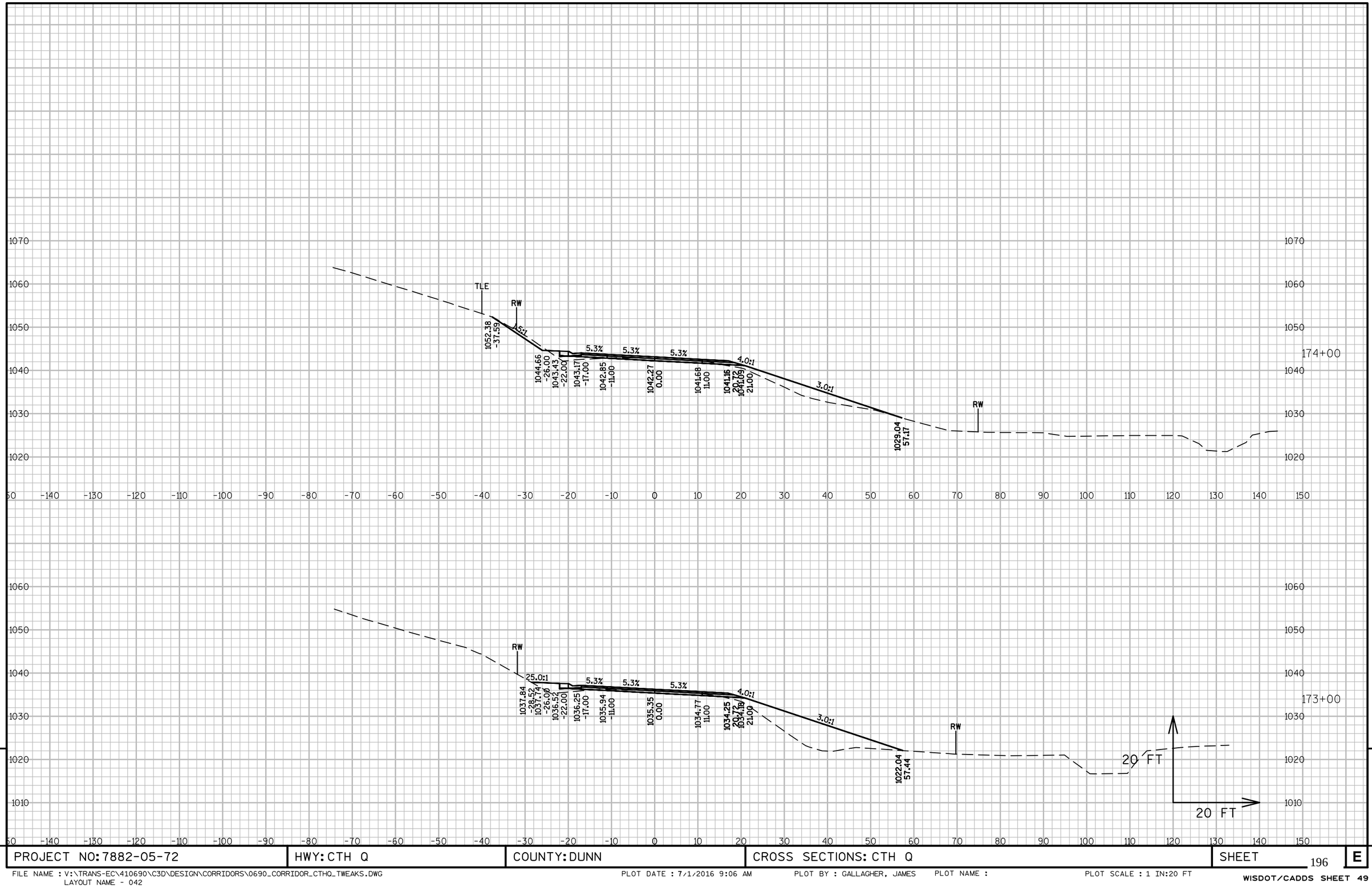
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 195	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 041

PLOT DATE : 7/1/2016 9:06 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

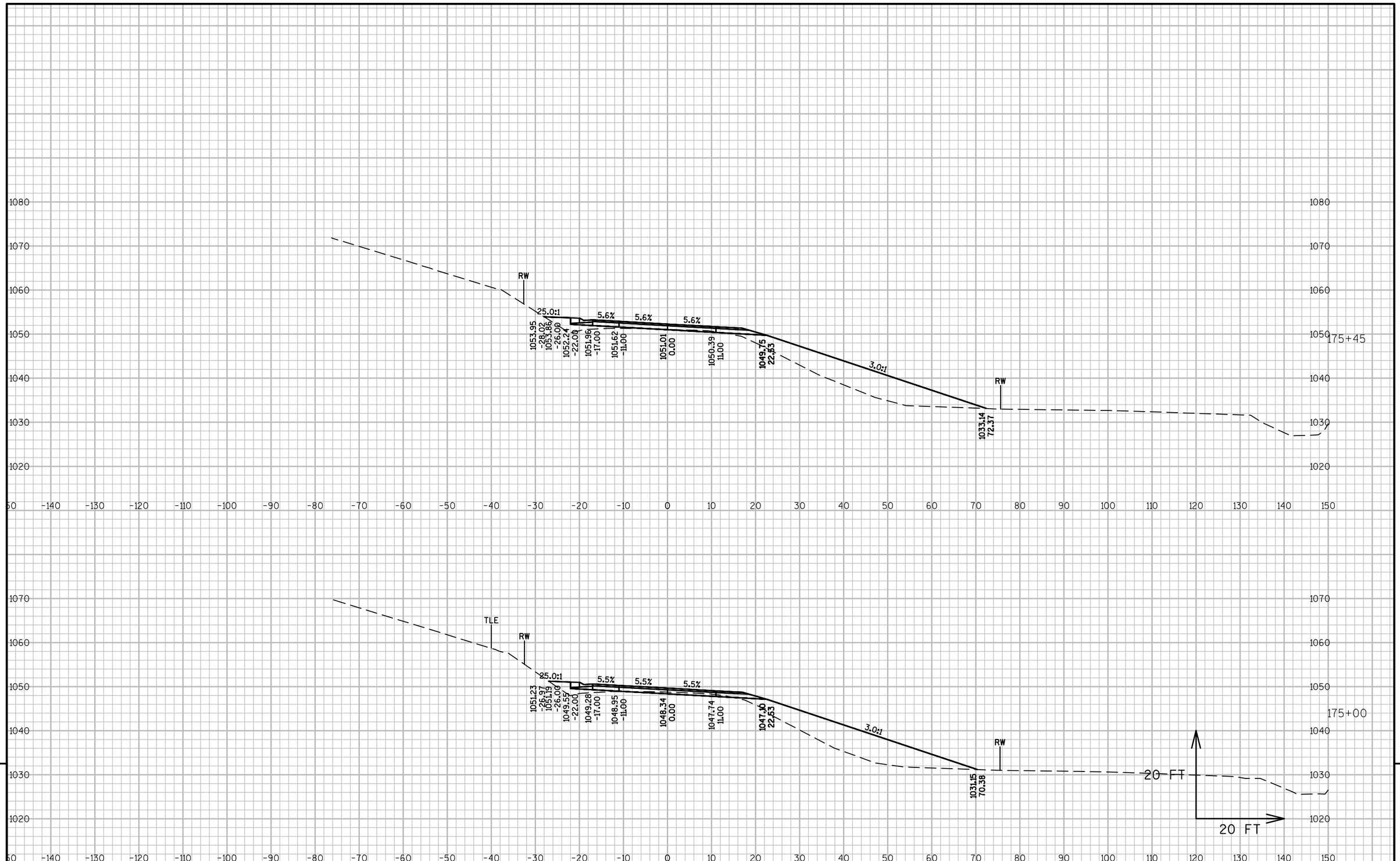
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 042

PLOT DATE : 7/1/2016 9:06 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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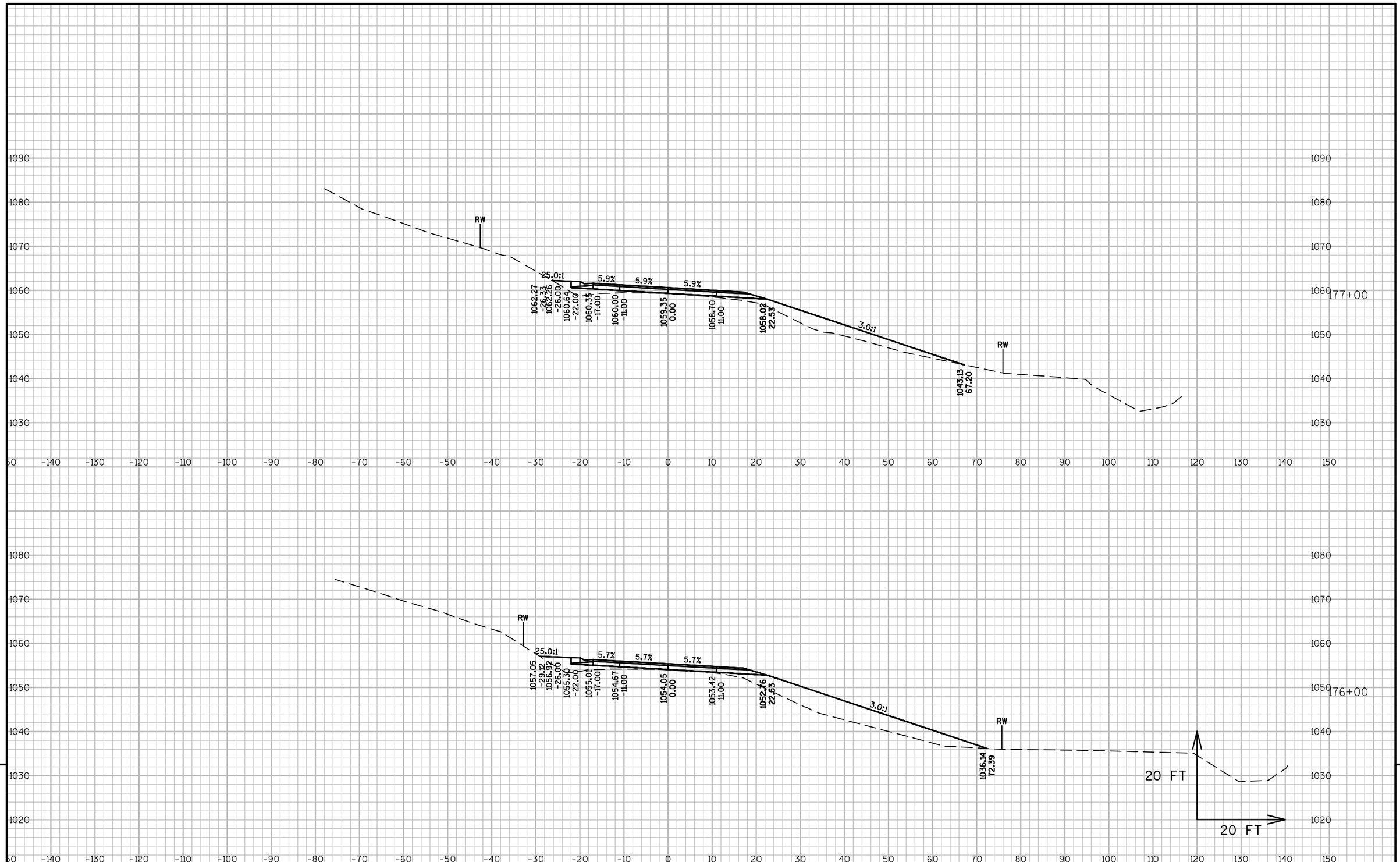
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 197	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 043

PLOT DATE : 7/1/2016 9:07 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

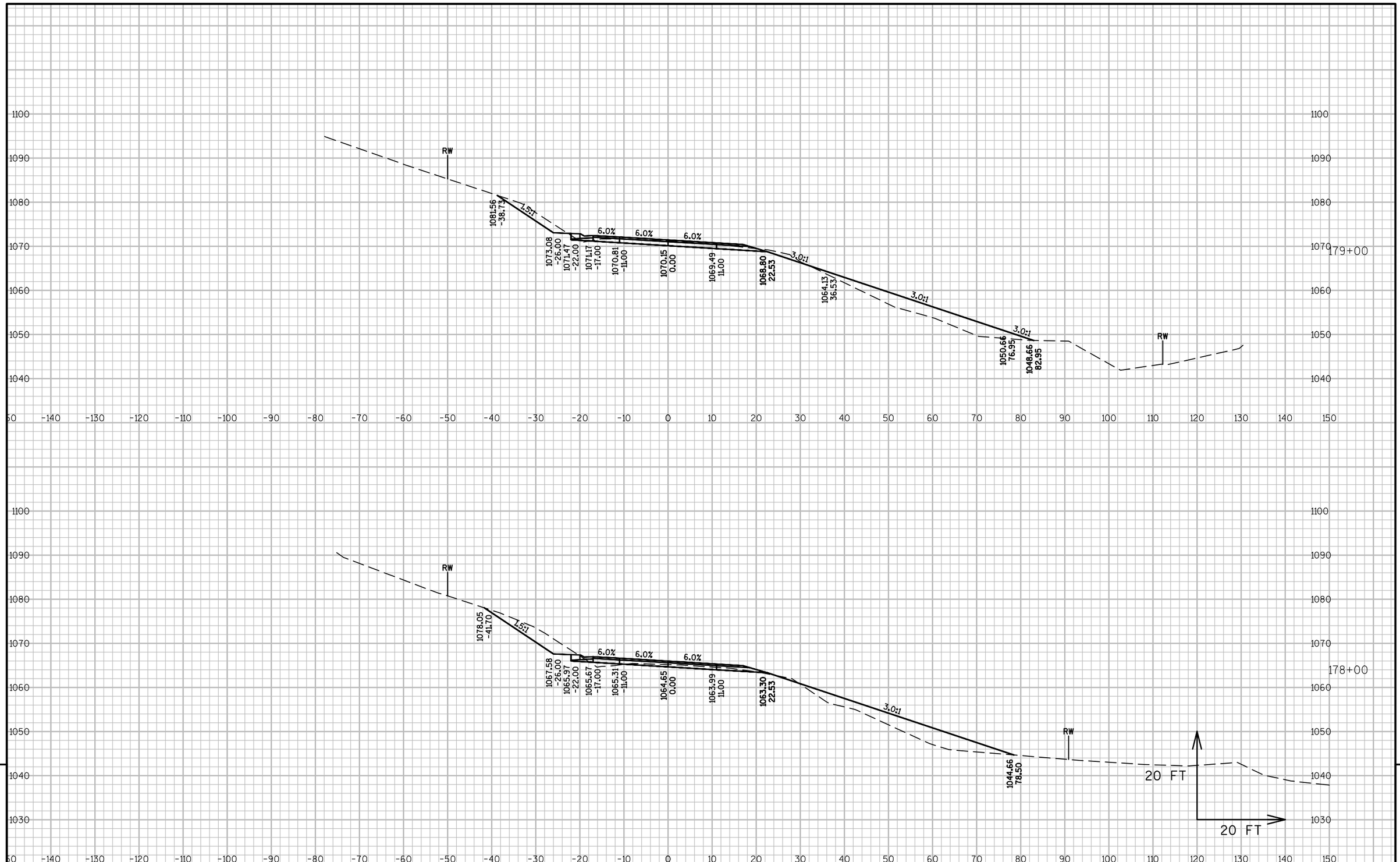
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 198	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 044

PLOT DATE : 7/1/2016 9:07 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

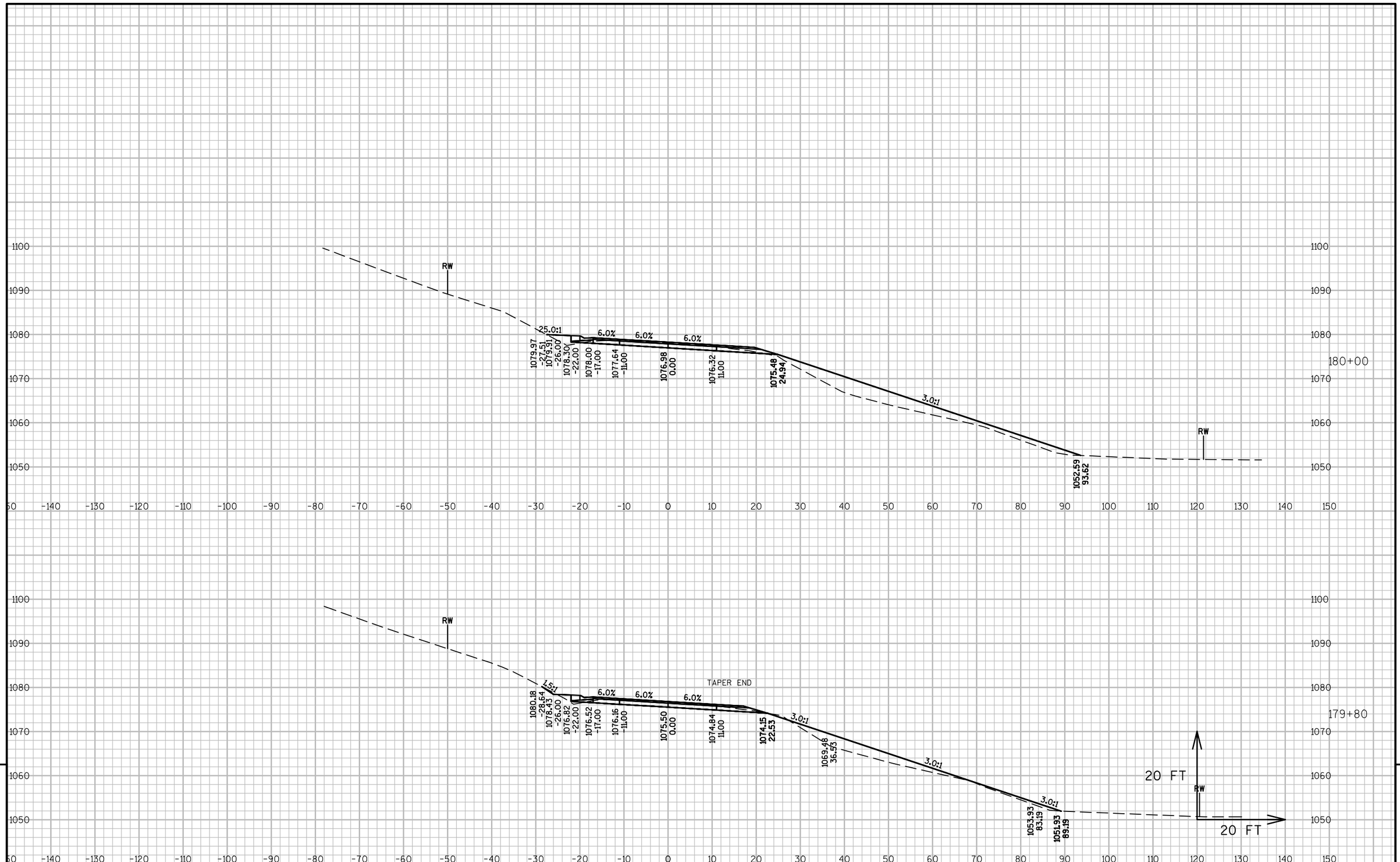
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 199	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 045

PLOT DATE : 7/1/2016 9:08 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



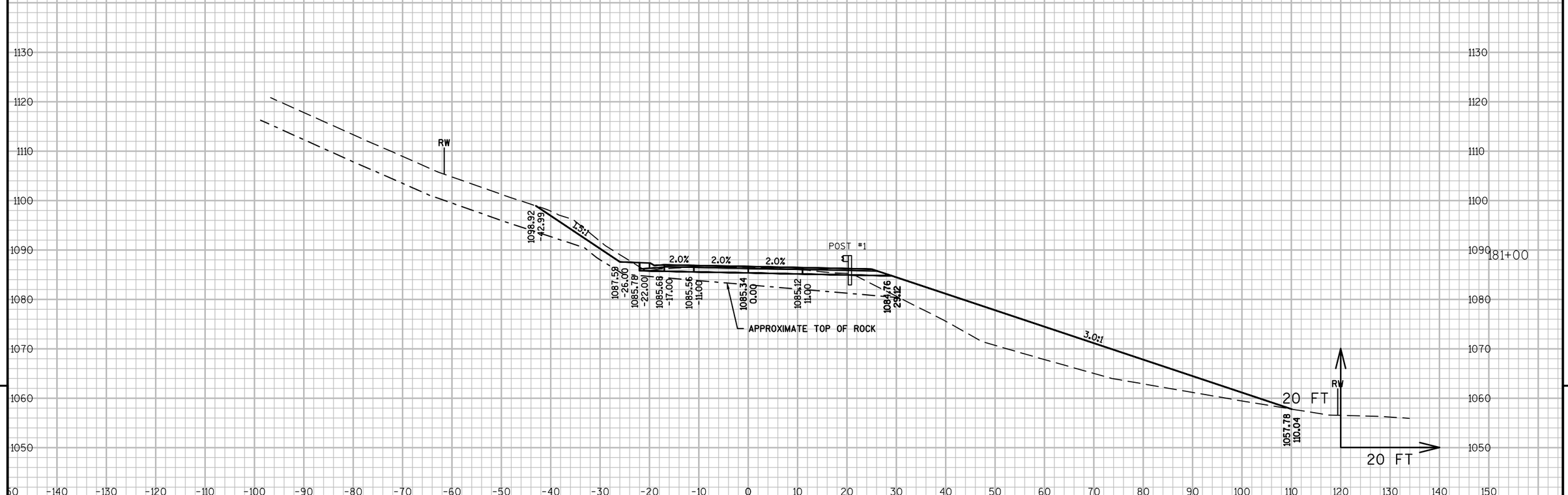
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 200	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 046

PLOT DATE : 7/1/2016 9:08 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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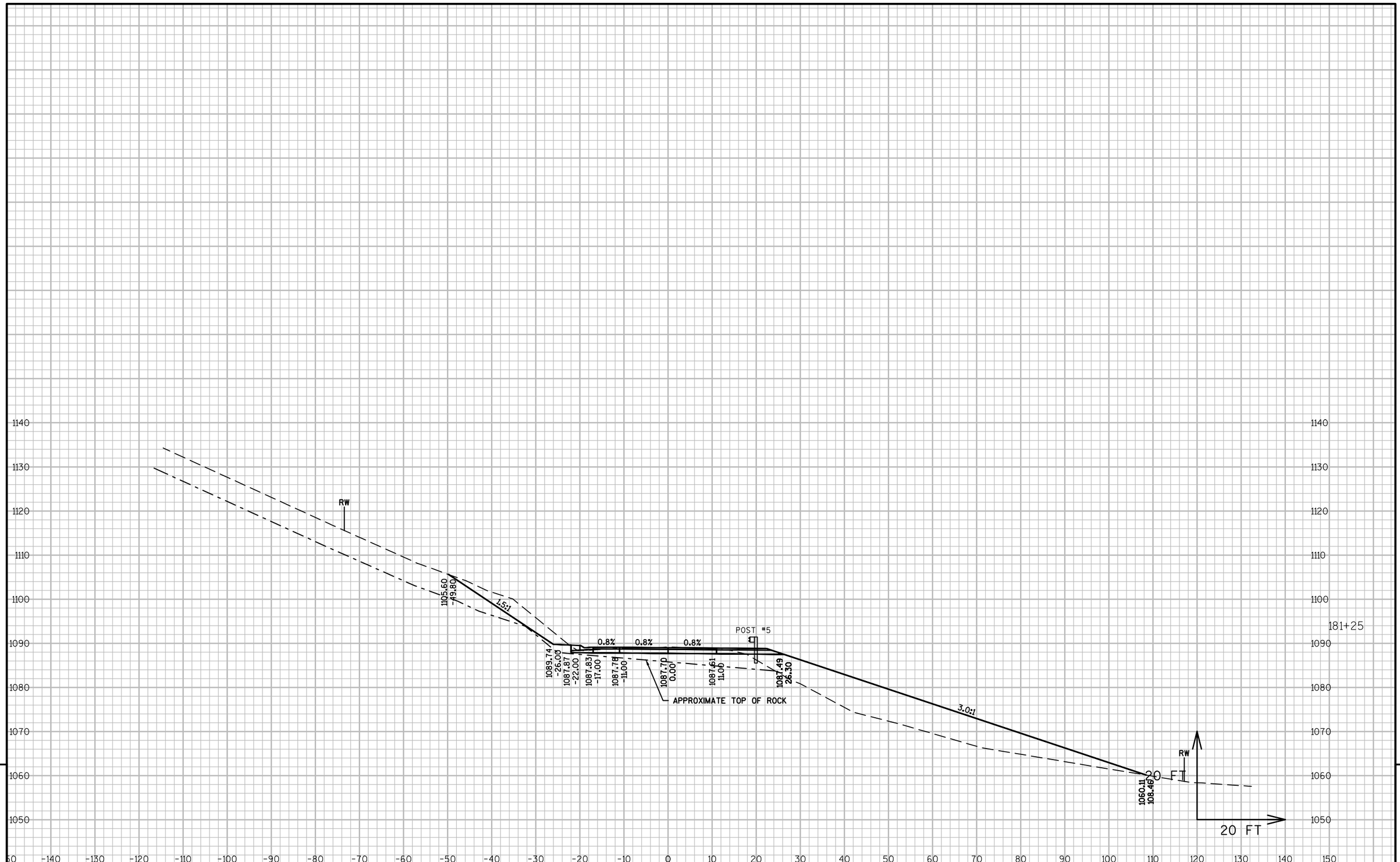
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 201	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 047

PLOT DATE : 7/1/2016 9:09 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

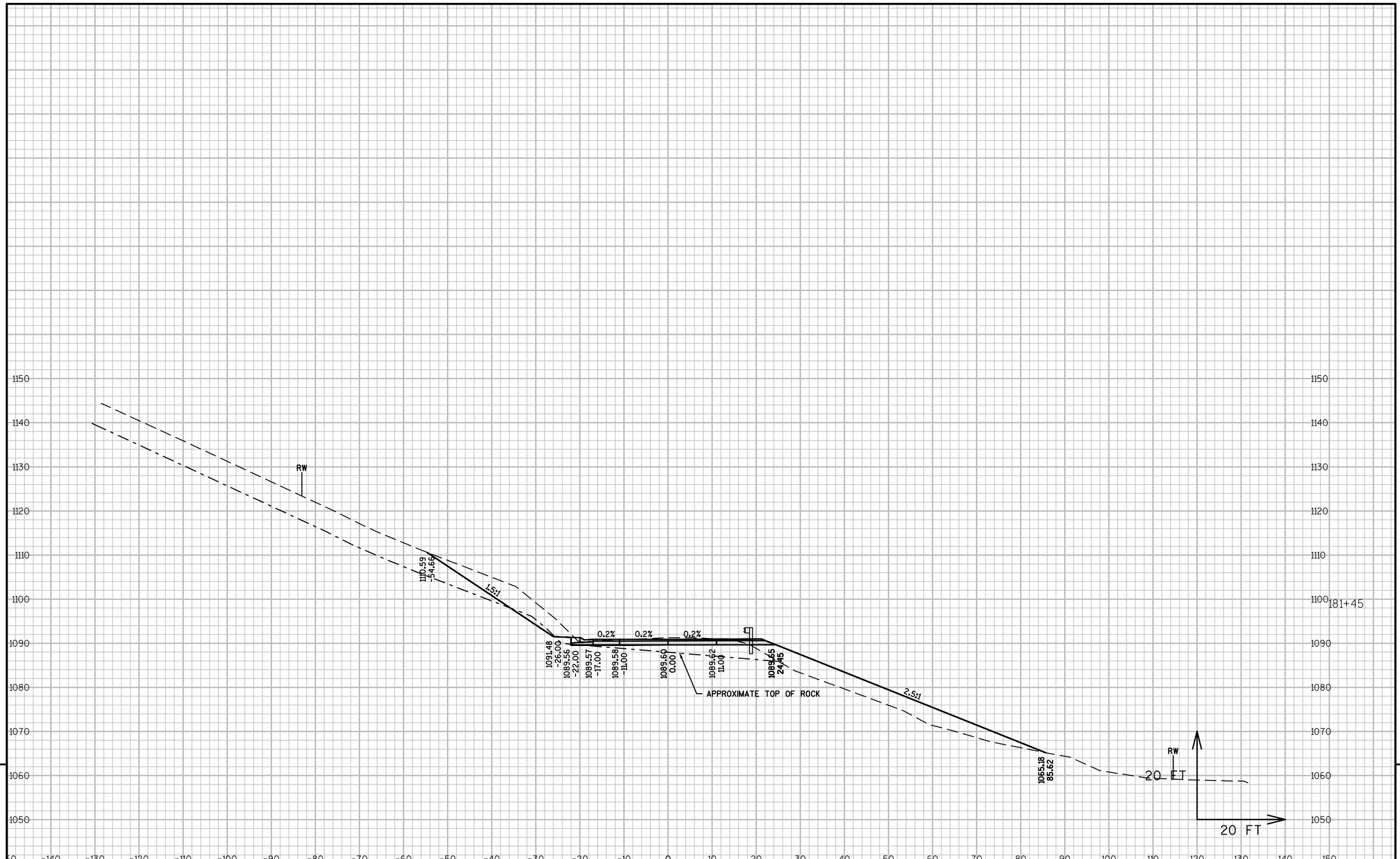
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 202	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 048

PLOT DATE : 7/1/2016 9:09 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

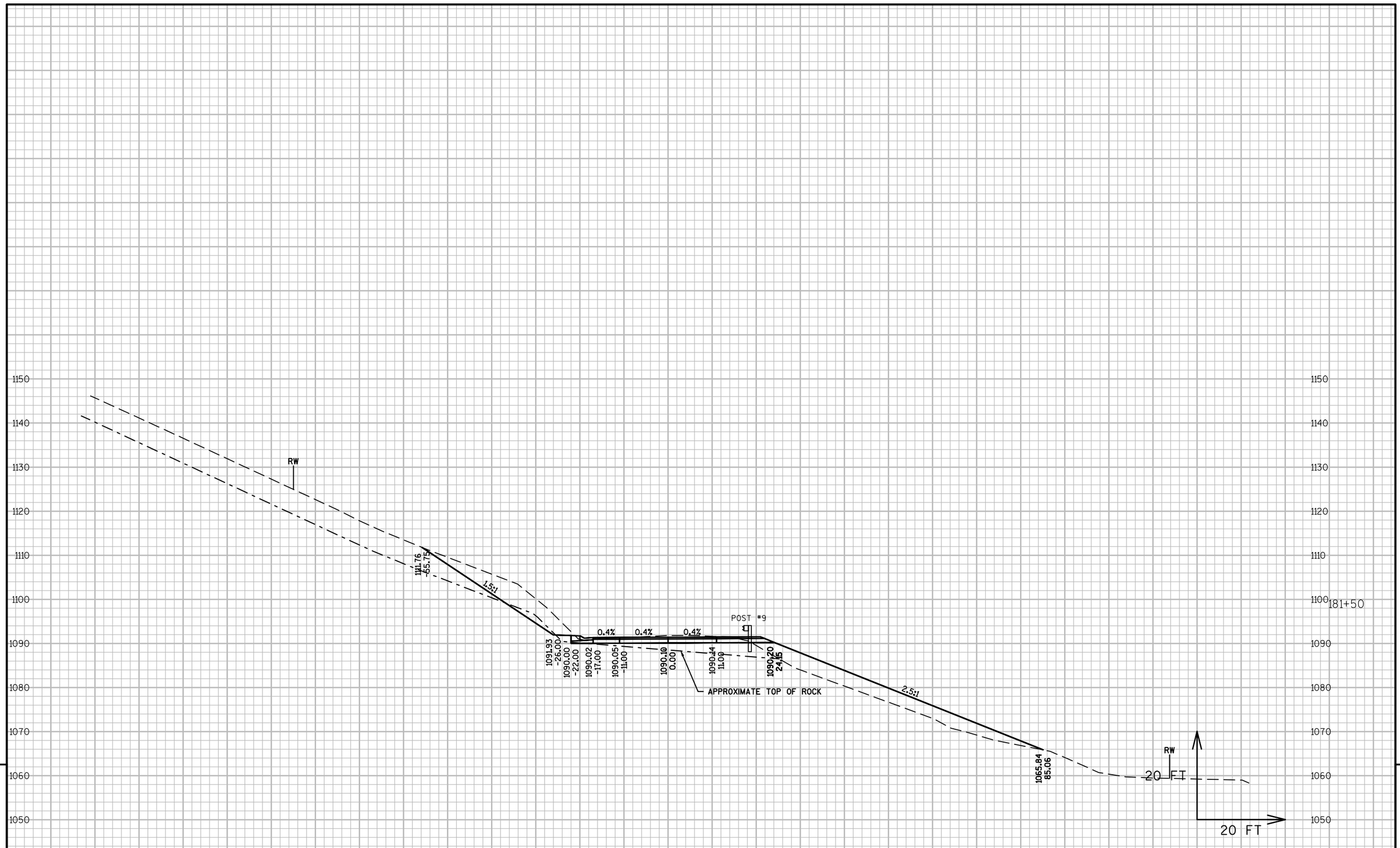
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 203	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 049

PLOT DATE : 7/1/2016 9:09 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

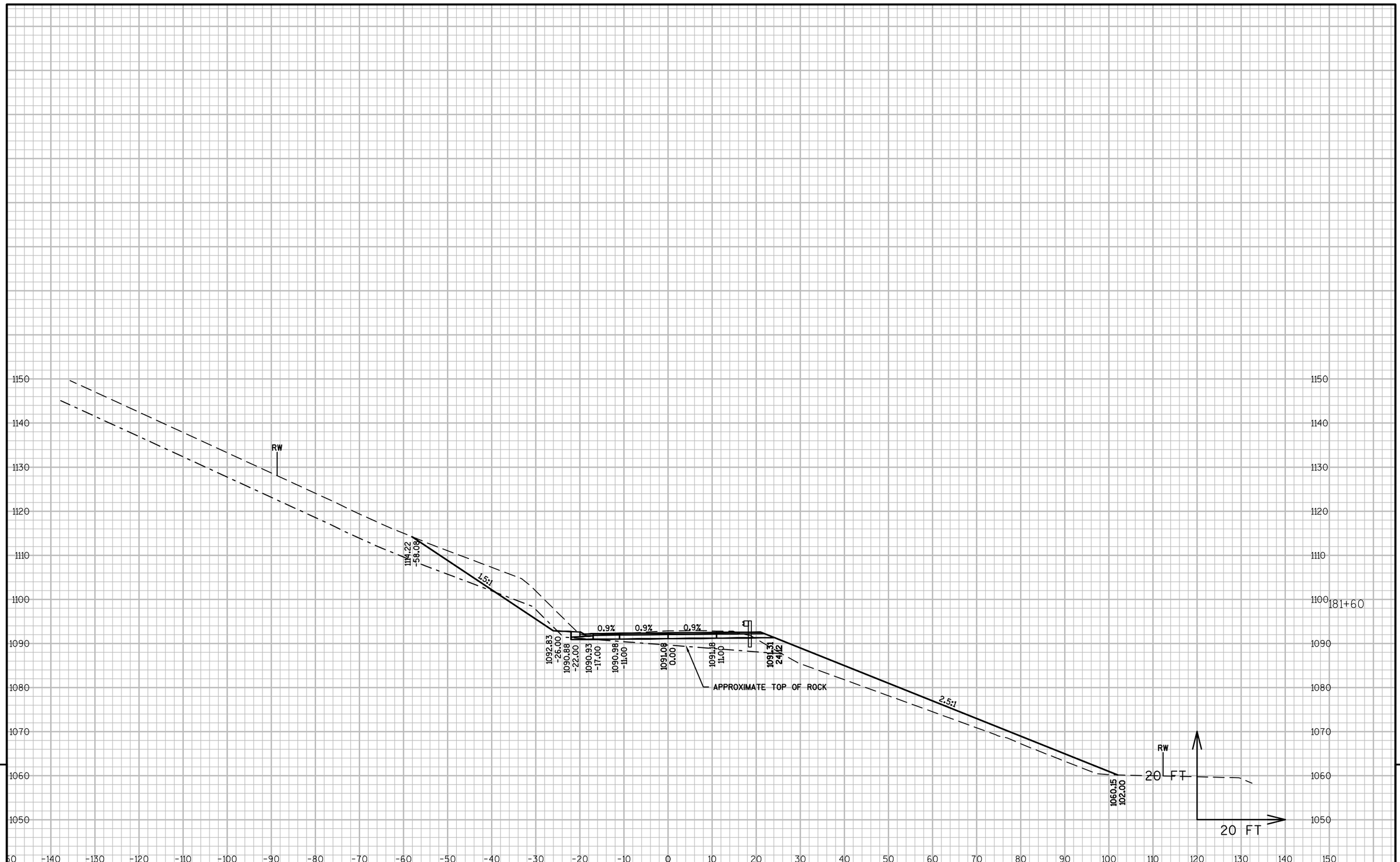
WISDOT/CADDS SHEET 49



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9

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 204	E



9

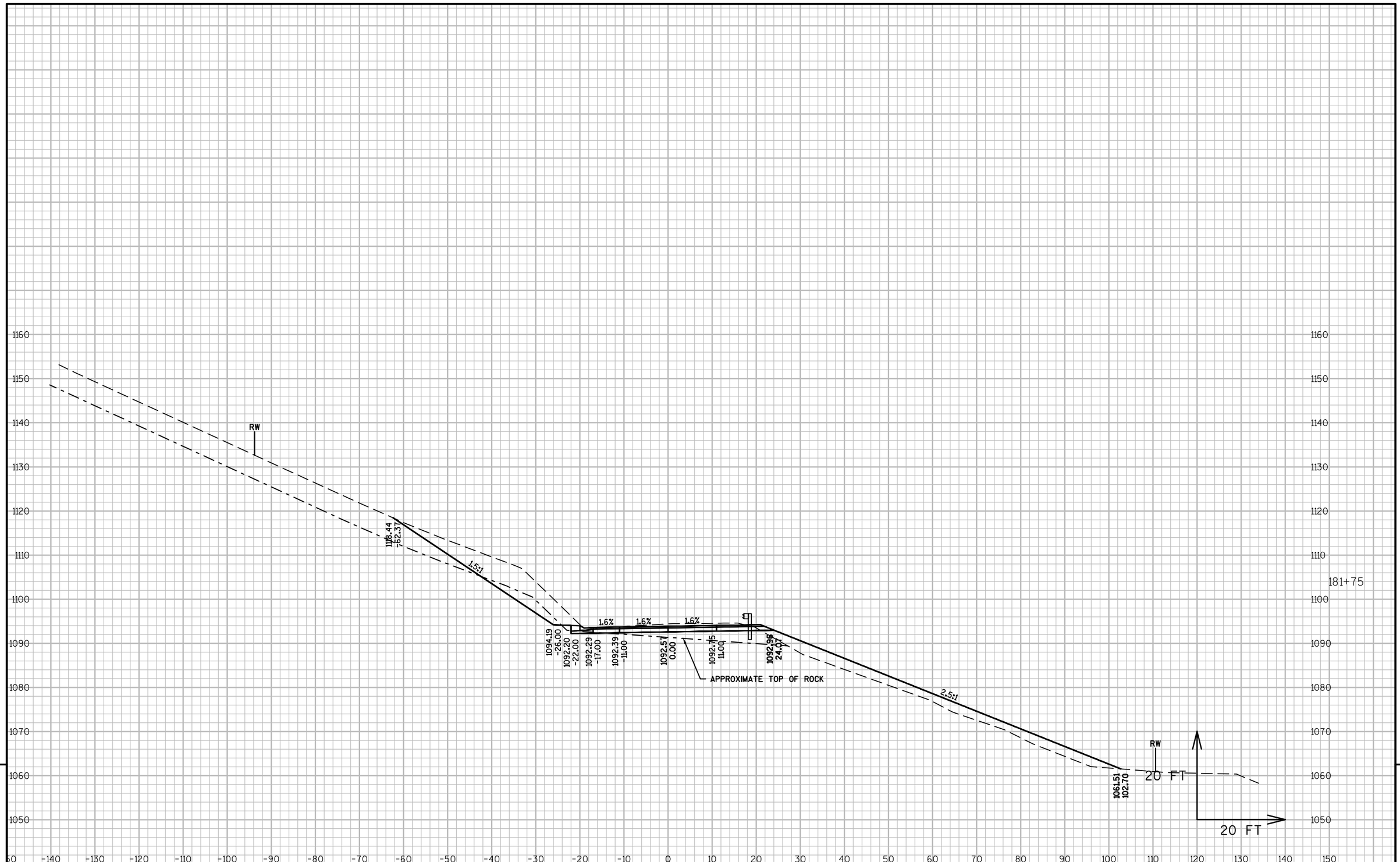
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 205	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 051

PLOT DATE : 7/1/2016 9:10 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

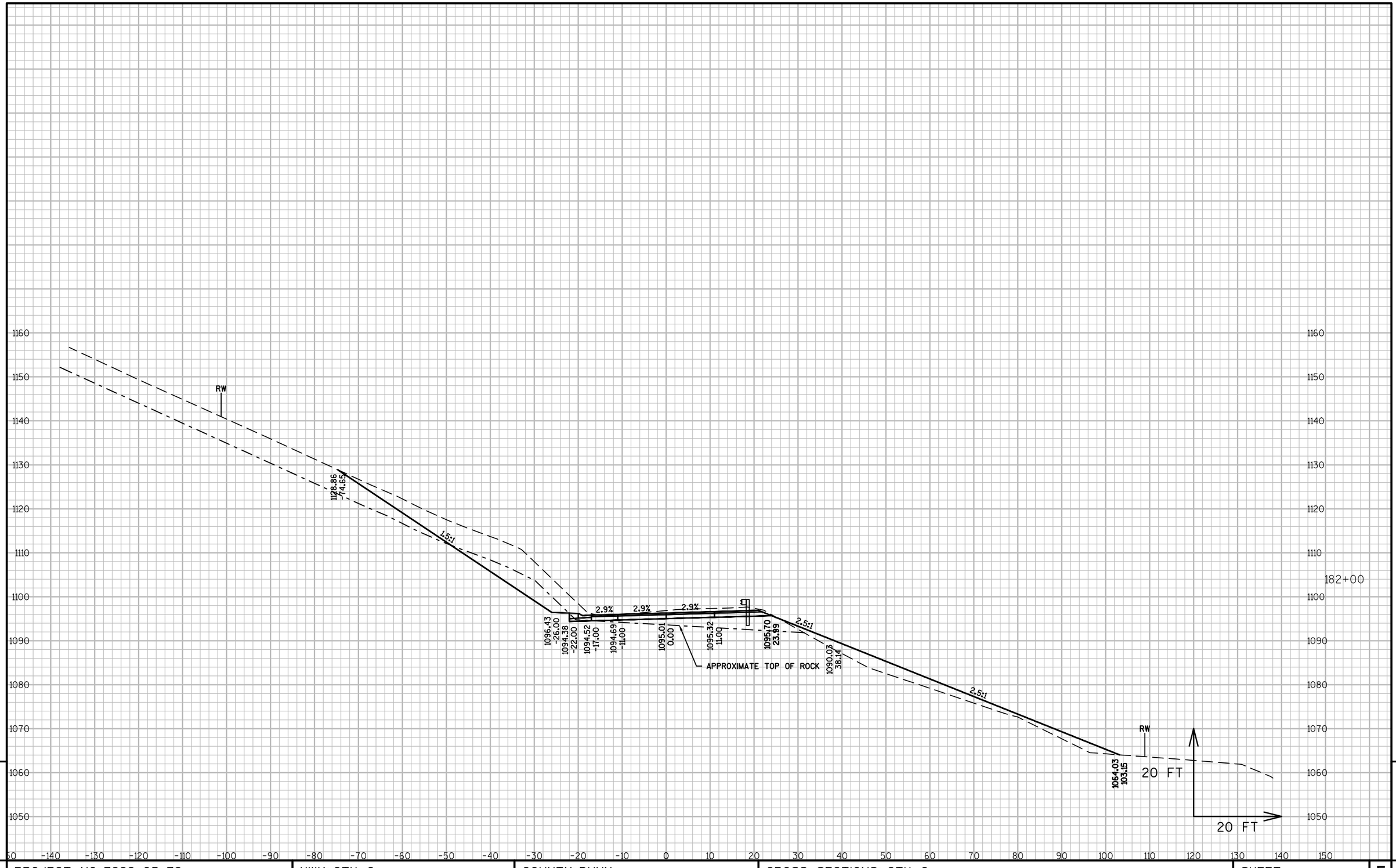
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 206	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 052

PLOT DATE : 7/1/2016 9:11 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



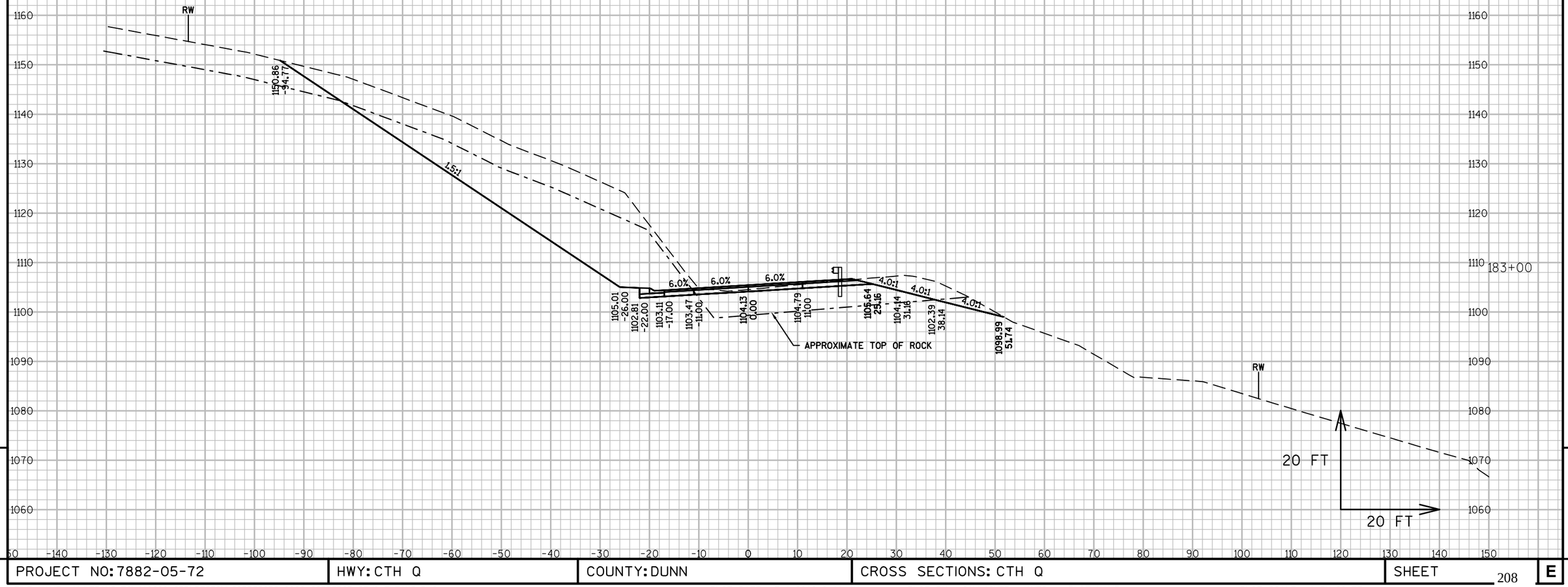
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 207	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 053

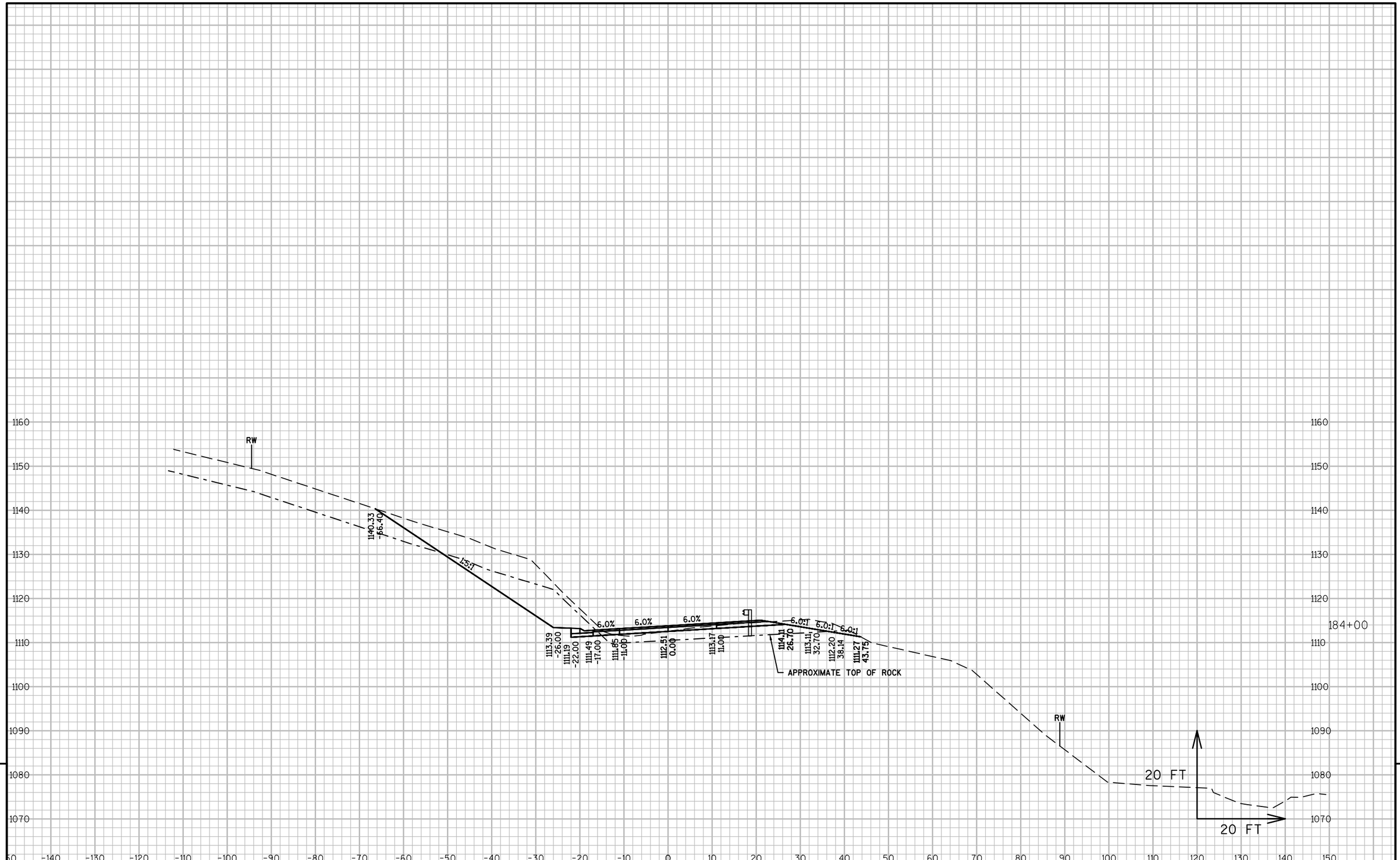
PLOT DATE : 7/1/2016 9:11 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



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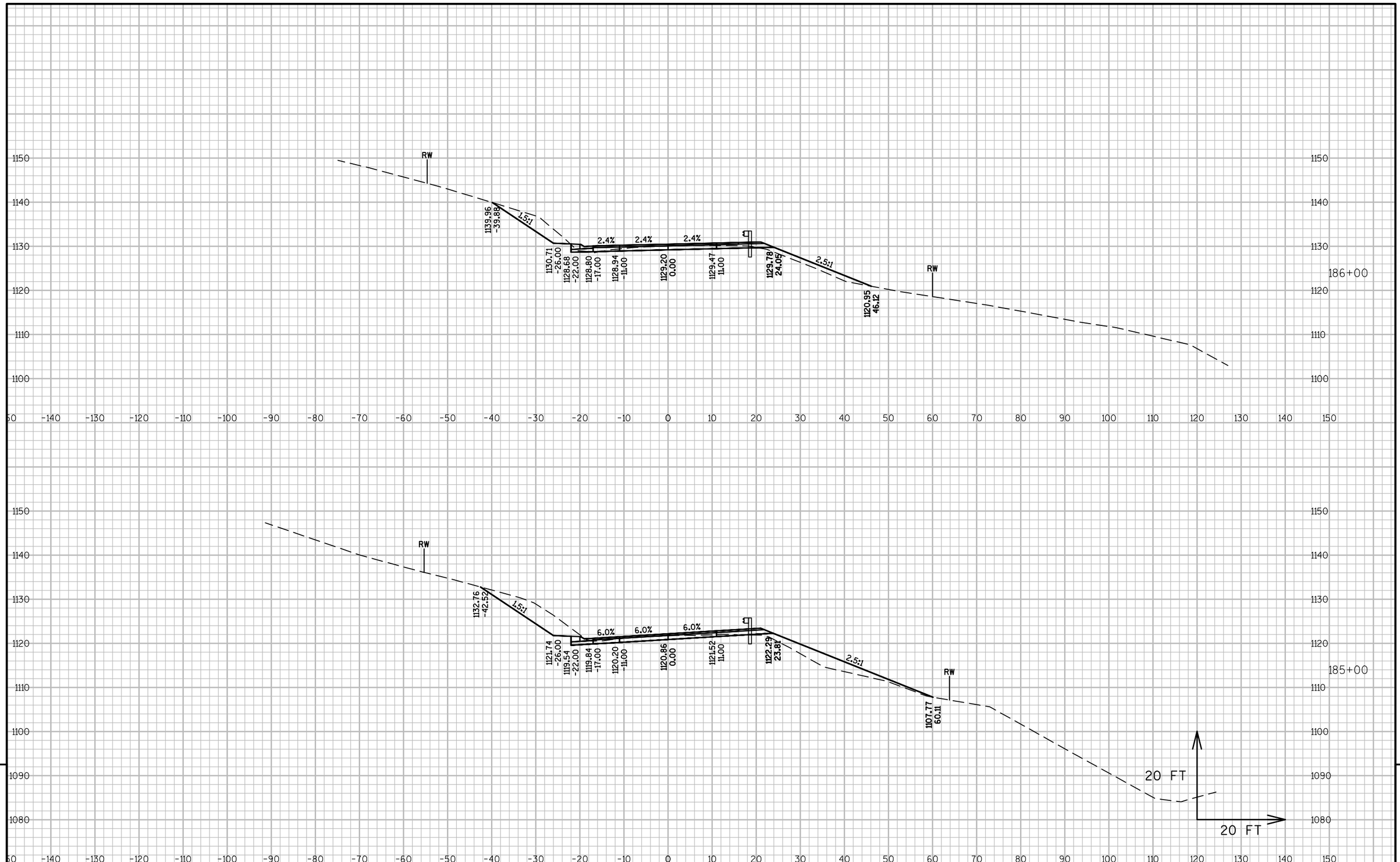
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 208	E



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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 209	E



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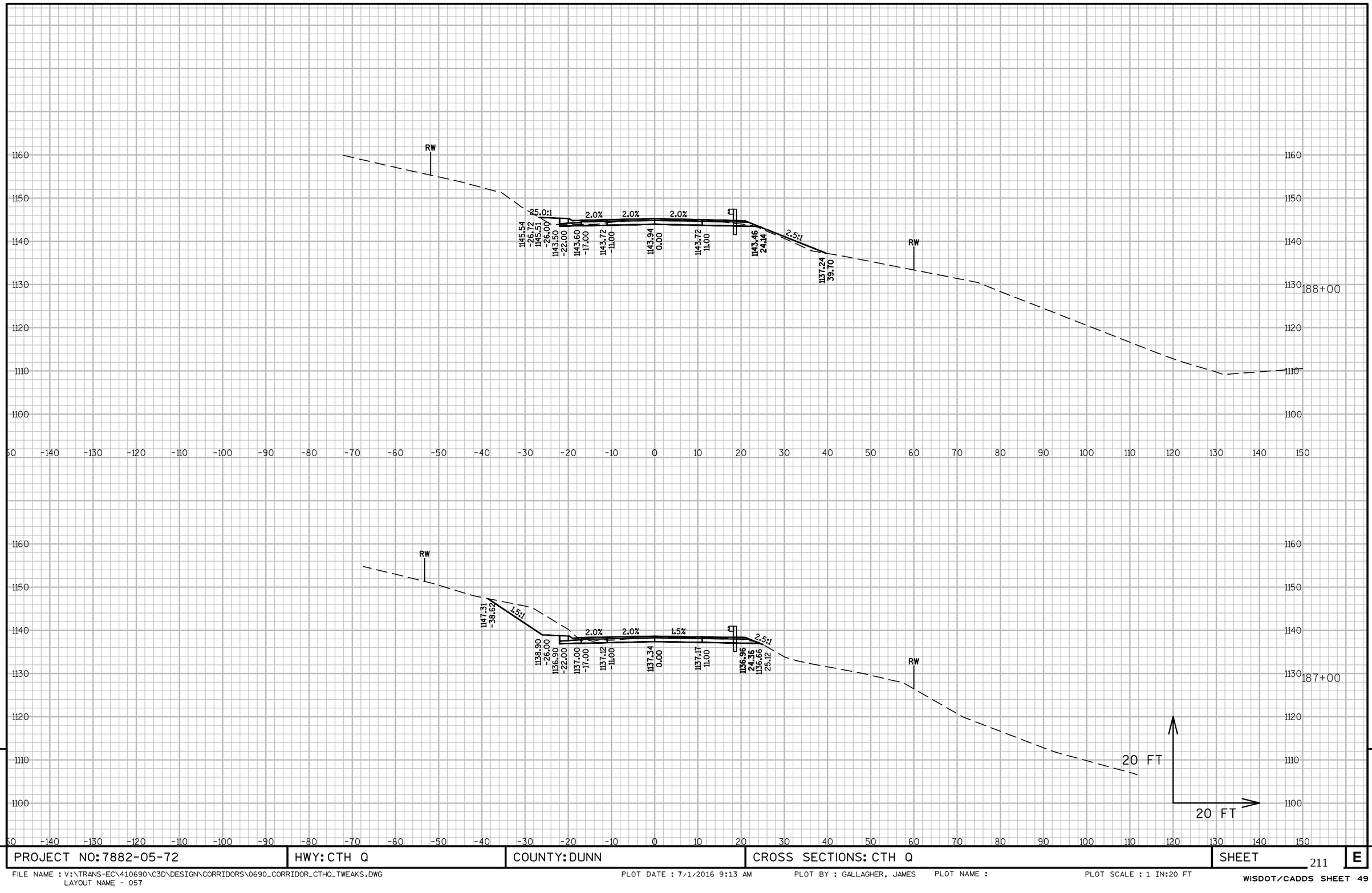
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 210	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 056

PLOT DATE : 7/1/2016 9:12 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

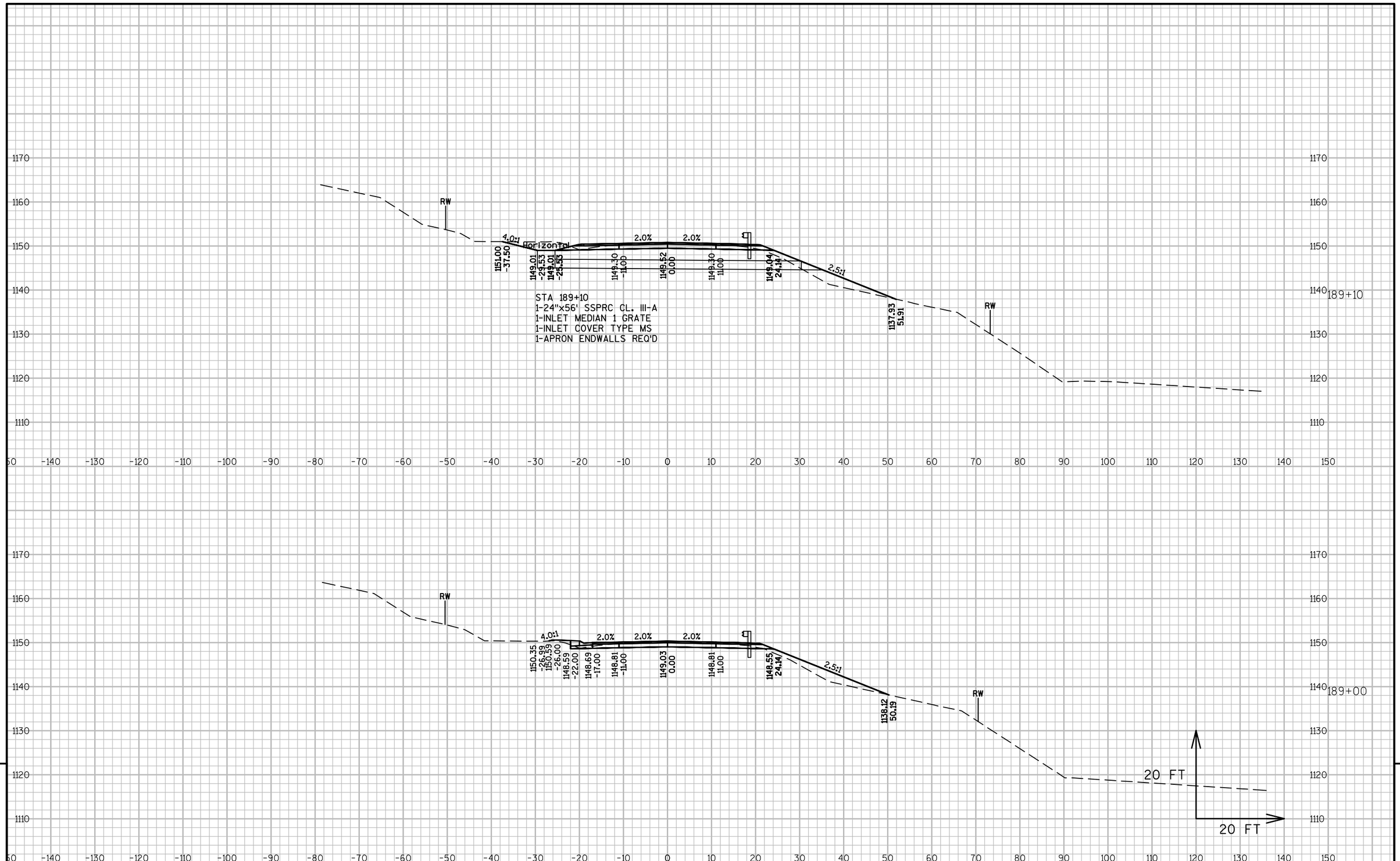


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 211	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 057

PLOT DATE : 7/1/2016 9:13 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

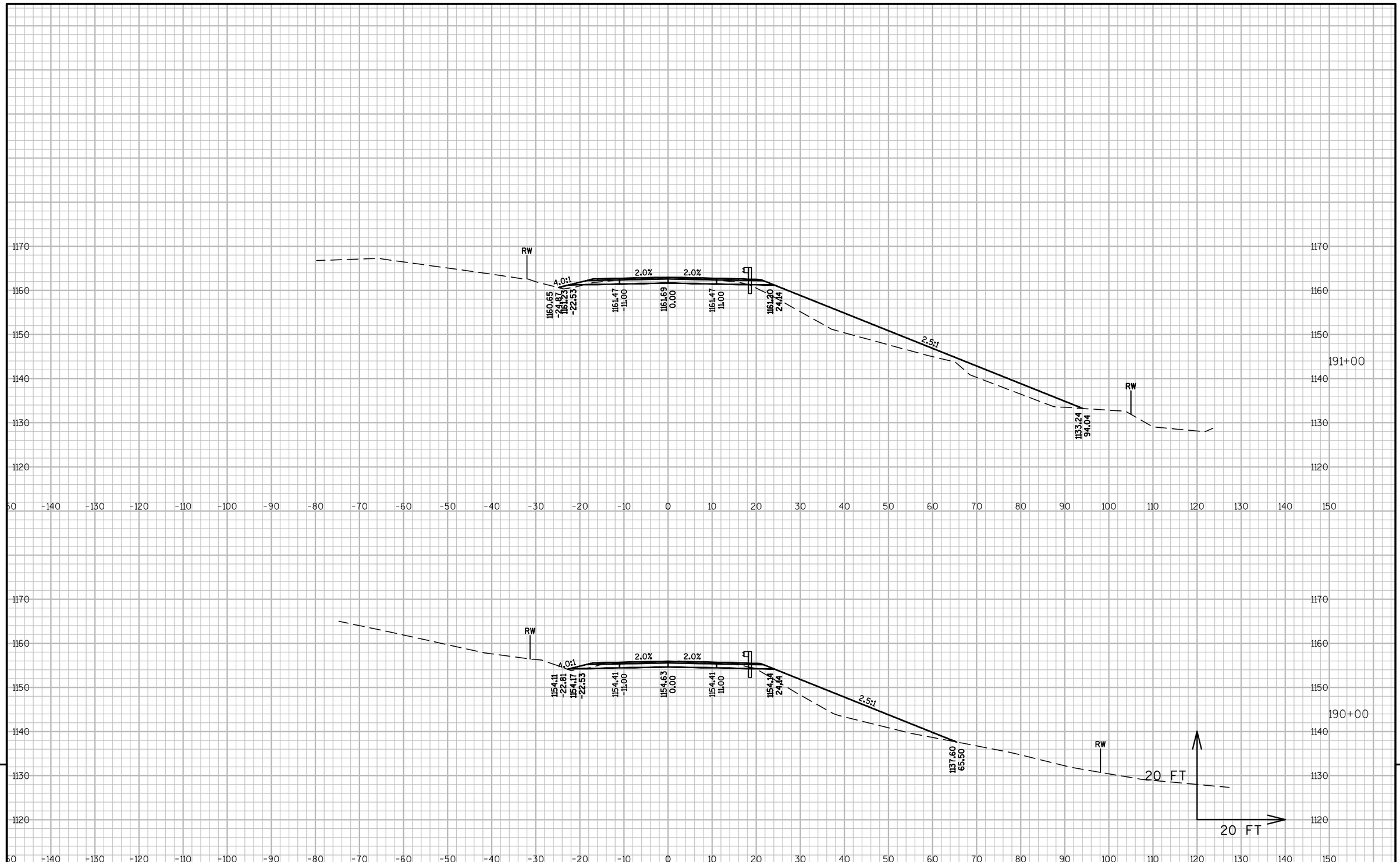


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 212 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 058

PLOT DATE : 7/1/2016 9:13 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



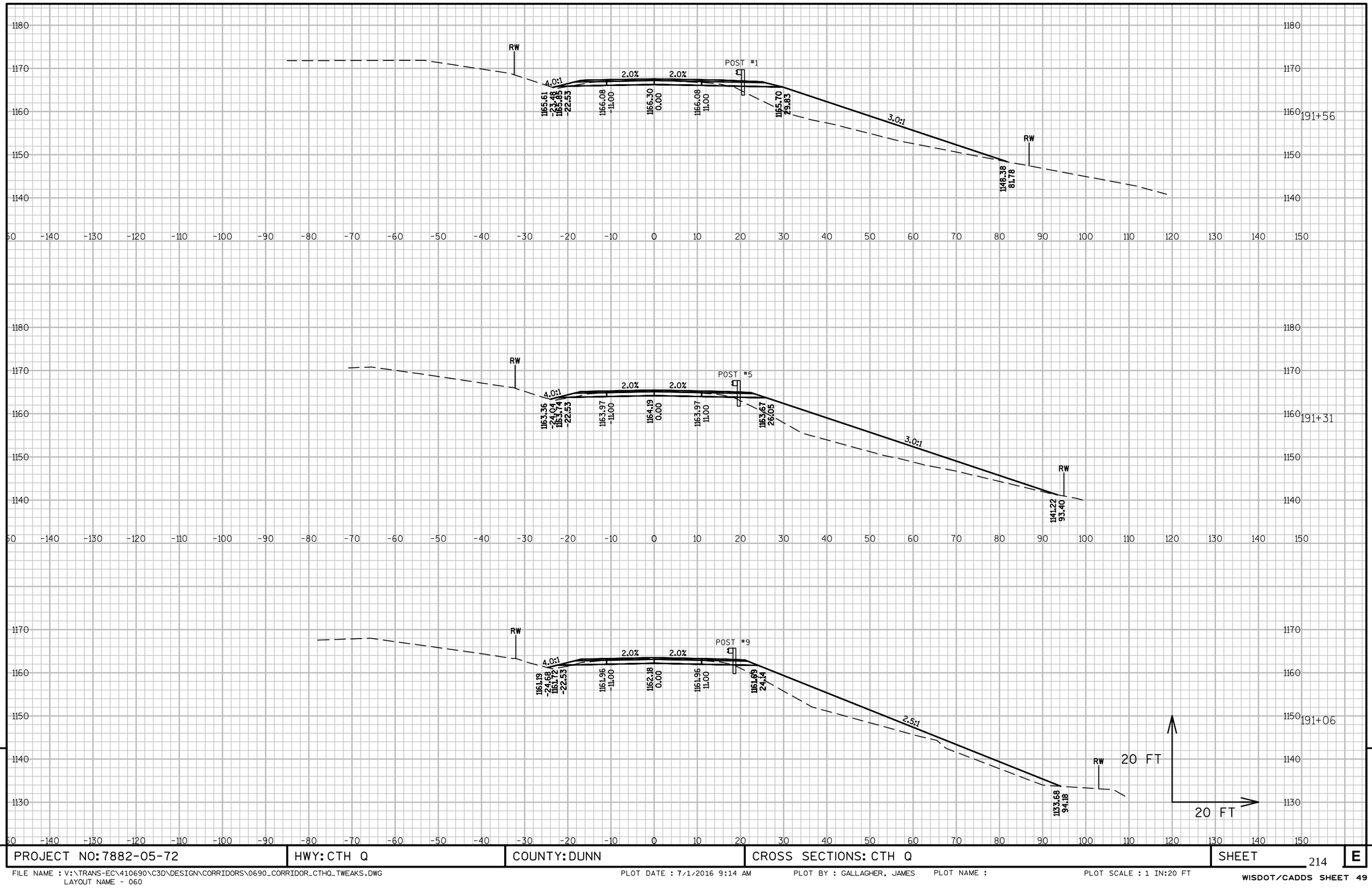
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 213	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 059

PLOT DATE : 7/1/2016 9:13 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

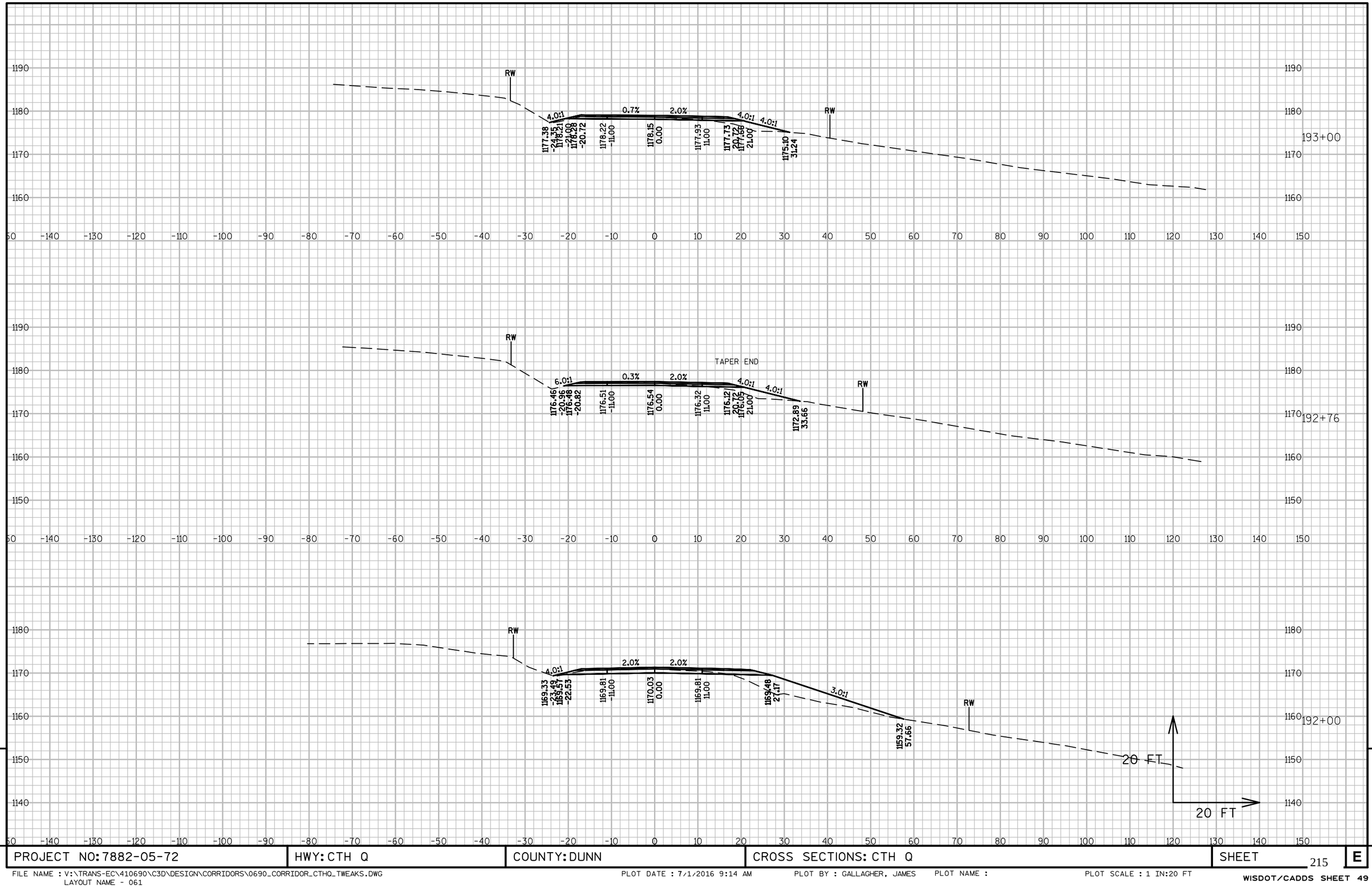


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 214 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 060

PLOT DATE : 7/1/2016 9:14 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

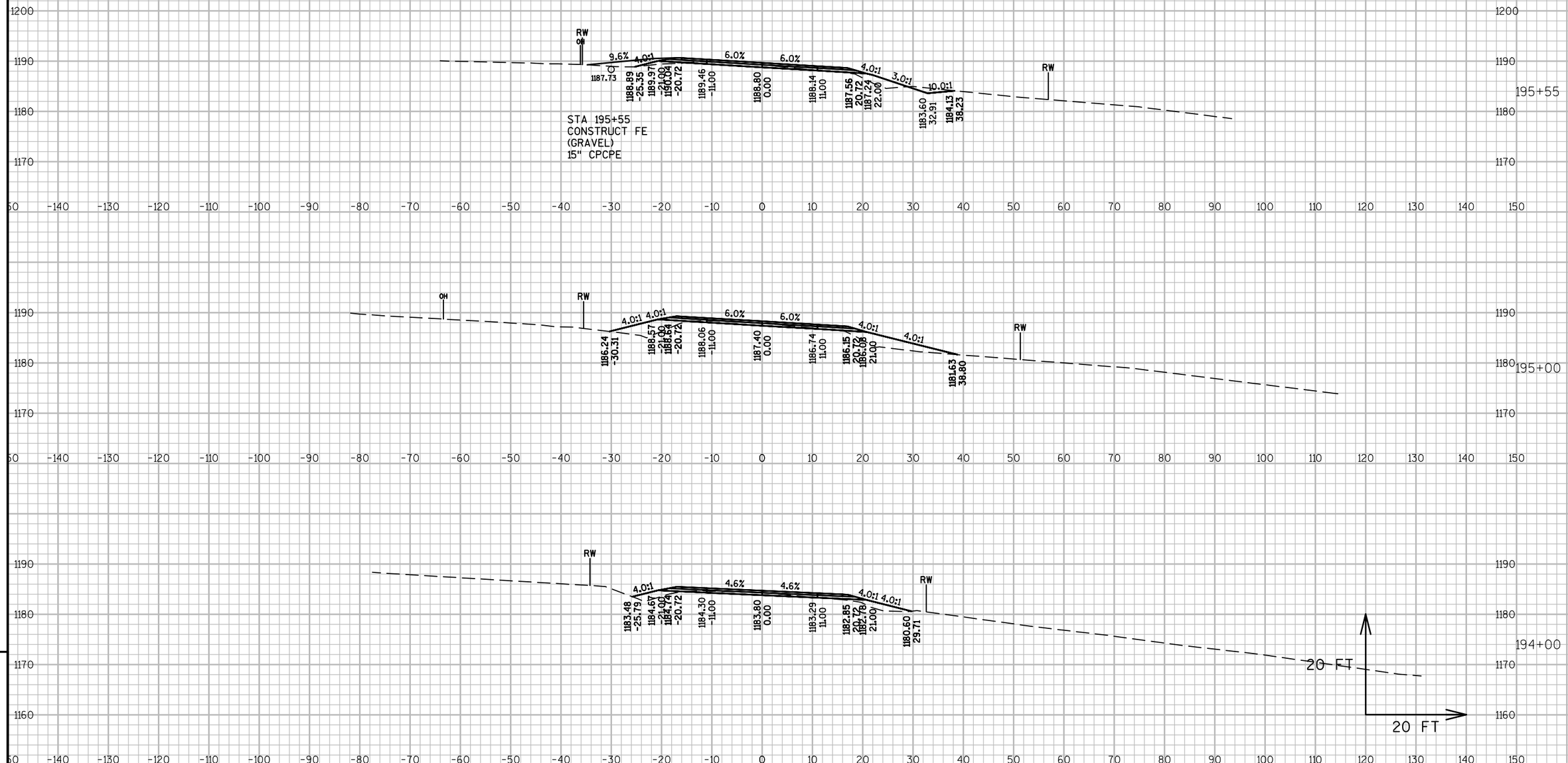


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 215	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 061

PLOT DATE : 7/1/2016 9:14 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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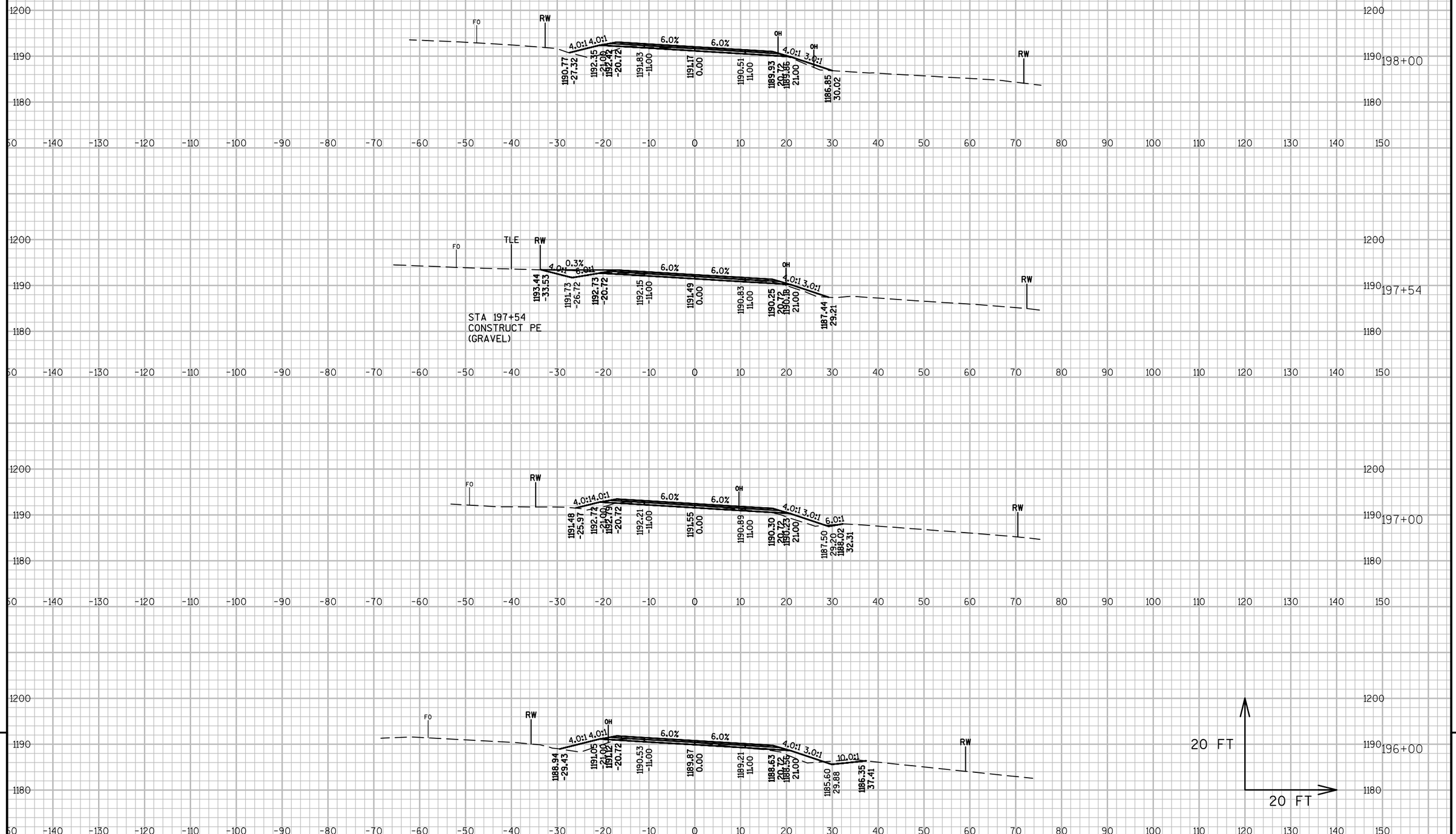
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 216	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 062

PLOT DATE : 7/1/2016 9:15 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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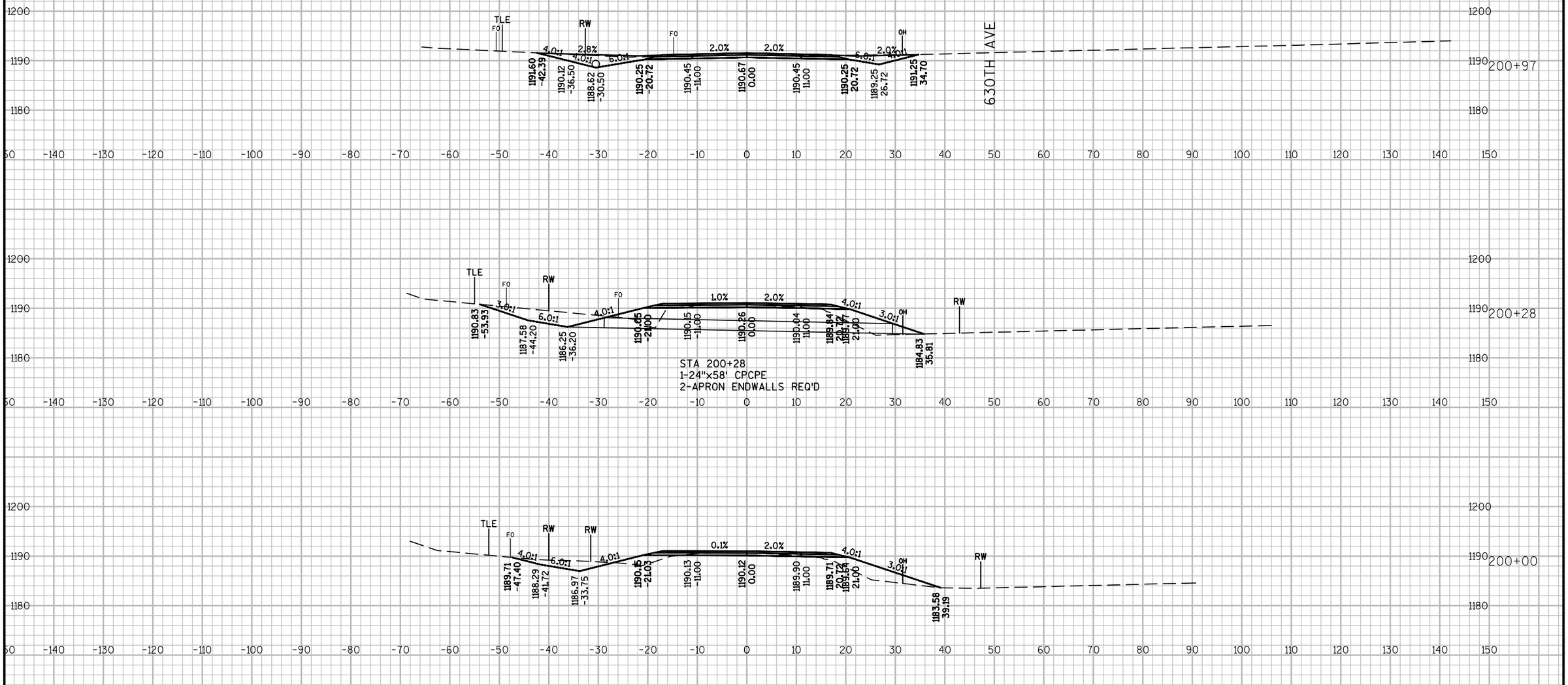
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 217	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 063

PLOT DATE : 7/1/2016 9:15 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

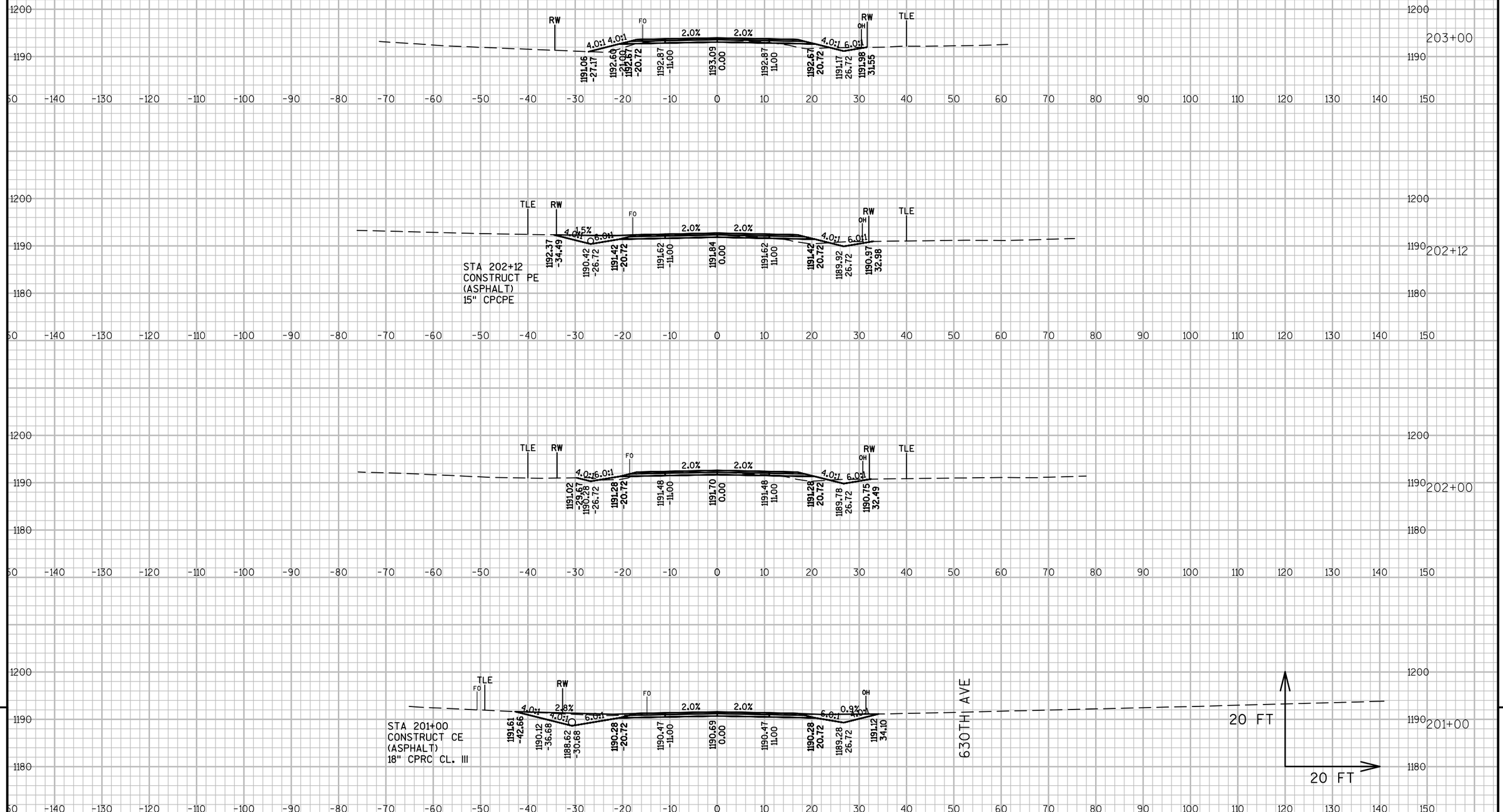


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 218 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 064

PLOT DATE : 7/1/2016 9:16 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

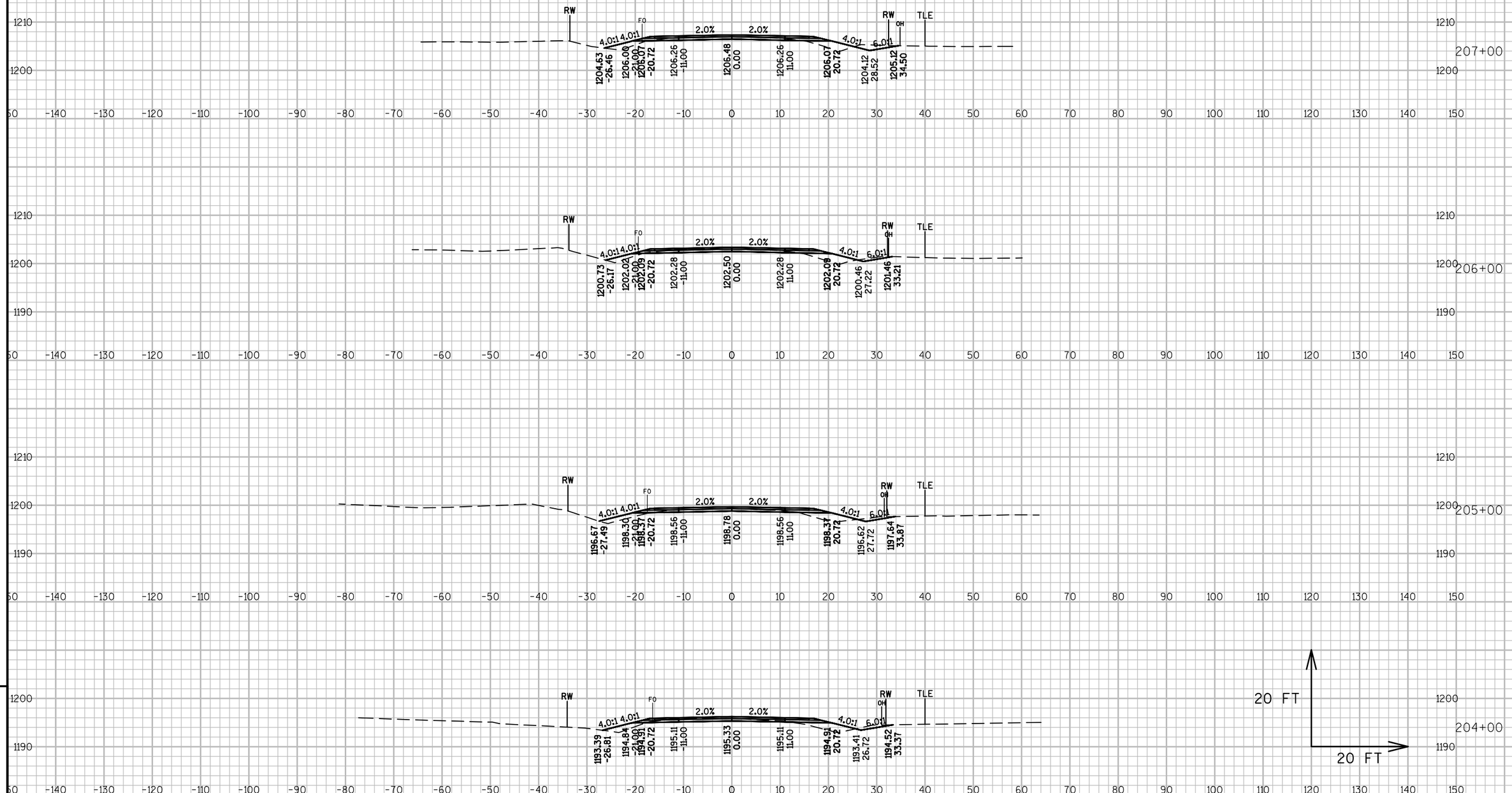


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 219	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 065
PLOT DATE : 7/1/2016 9:16 AM
PLOT BY : GALLAGHER, JAMES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

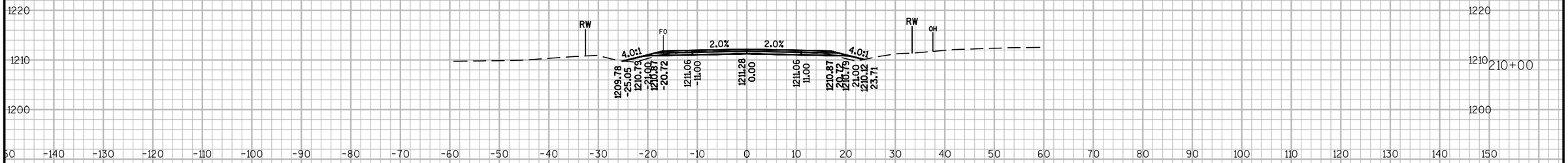


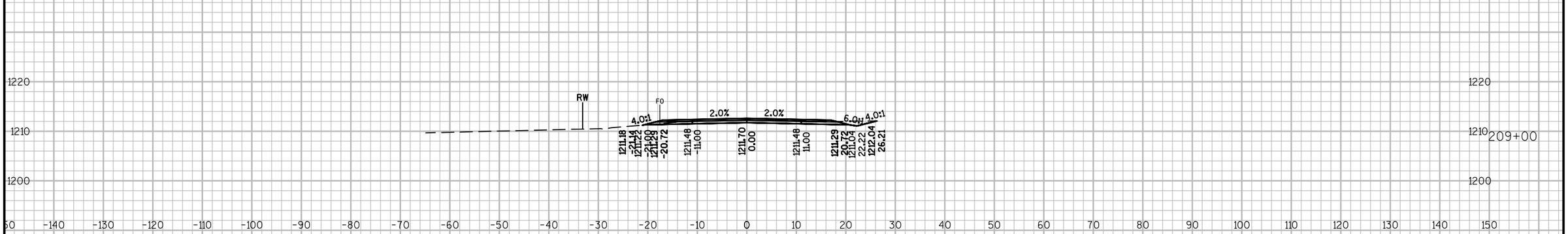
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 220	E

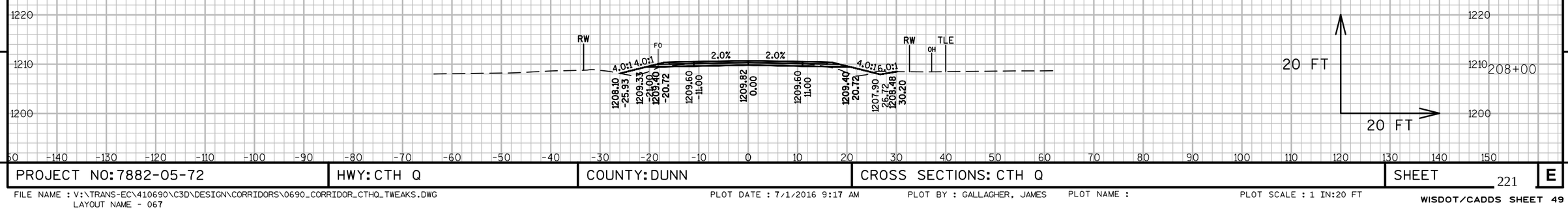
FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 066

PLOT DATE : 7/1/2016 9:16 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







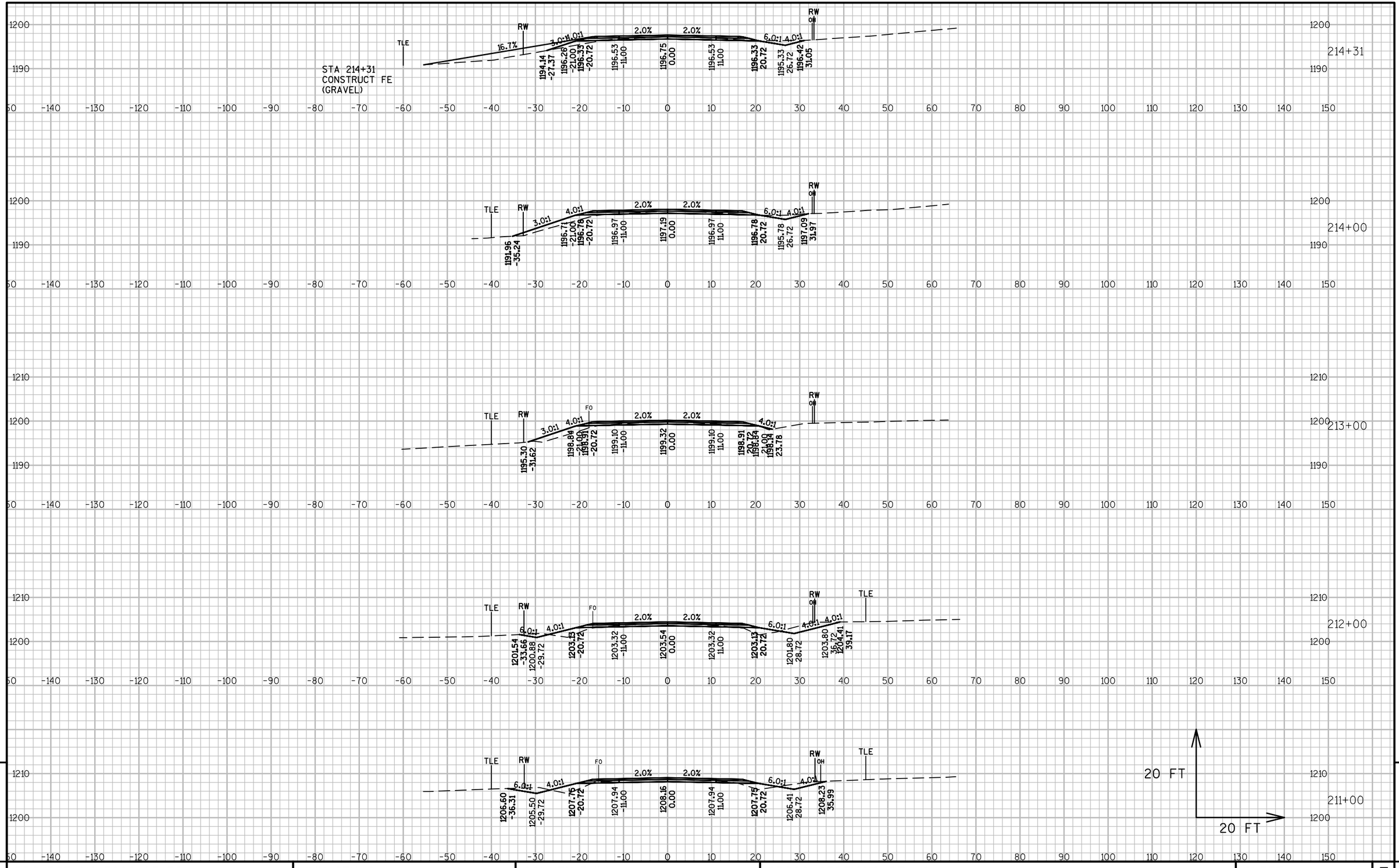
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 221	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 067
PLOT DATE : 7/1/2016 9:17 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

STA 214+31
CONSTRUCT FE
(GRAVEL)



9

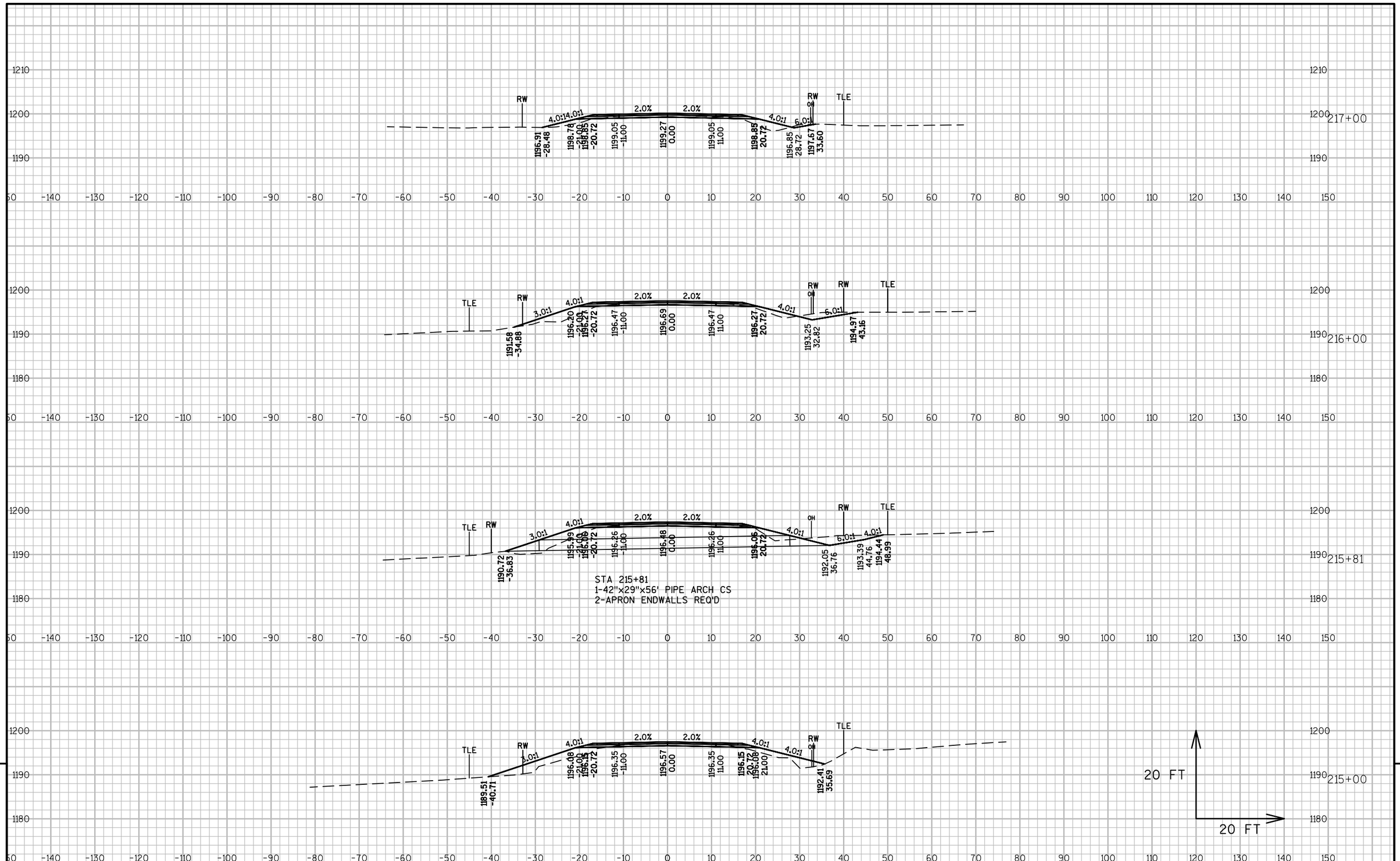
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 222	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 068

PLOT DATE : 7/1/2016 9:17 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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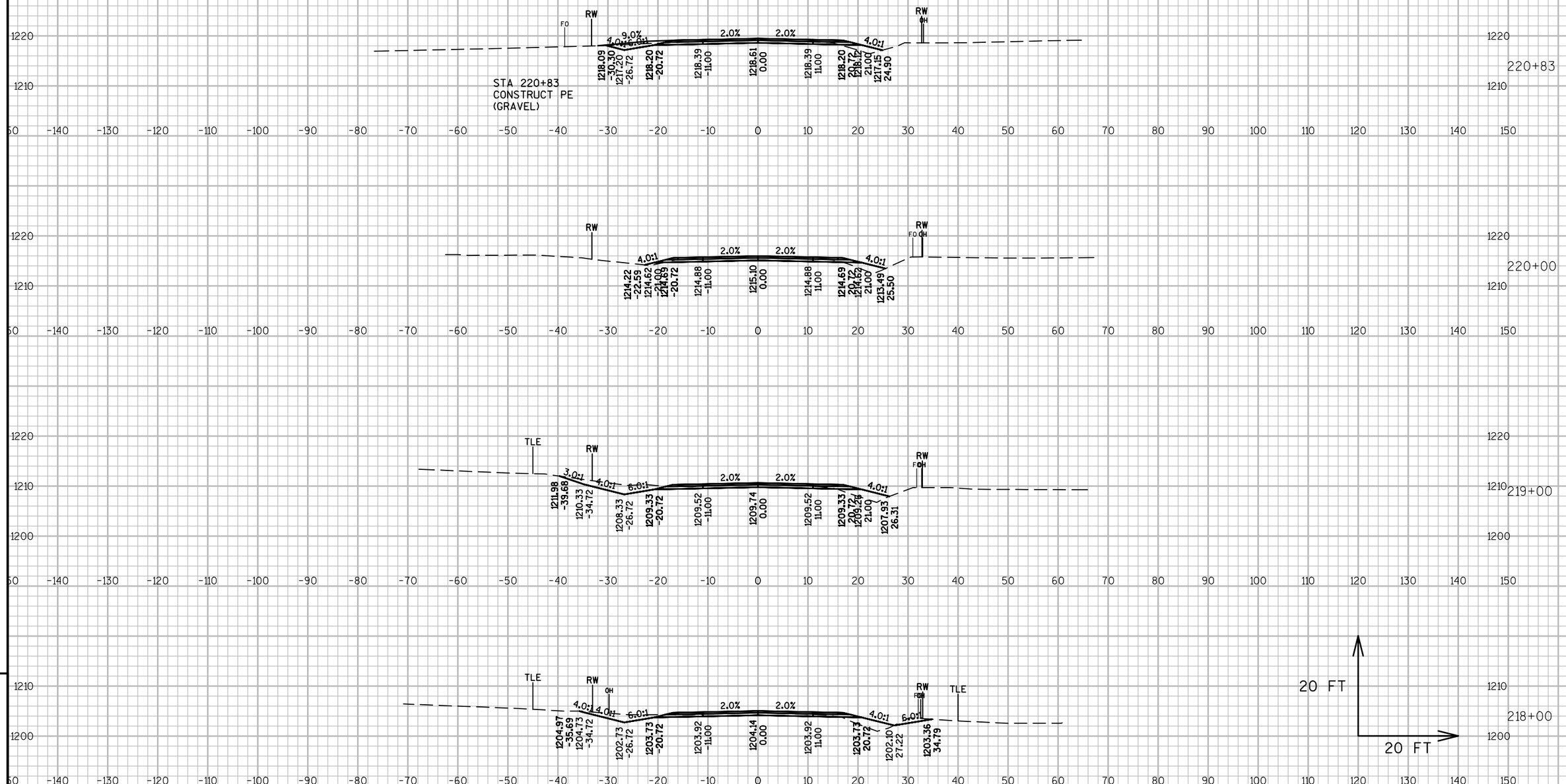
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 223	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 069

PLOT DATE : 7/1/2016 9:17 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

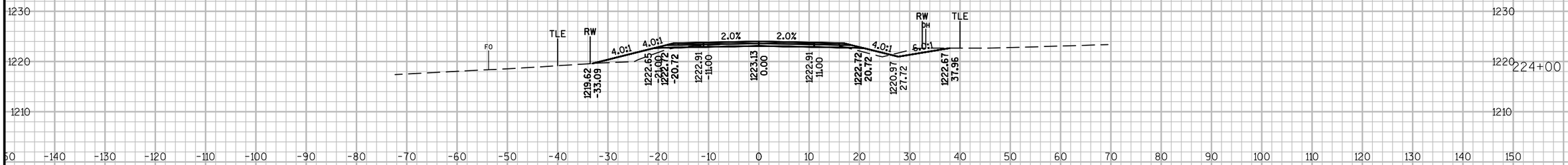


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 224	E

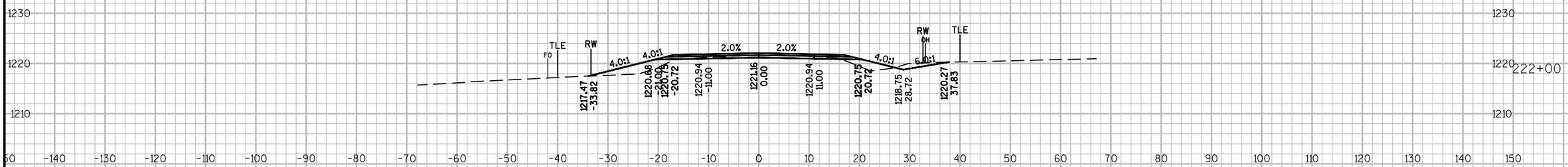
FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 070

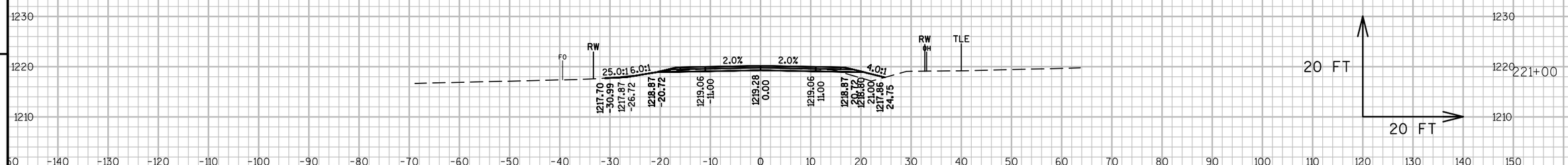
PLOT DATE : 7/1/2016 9:18 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49







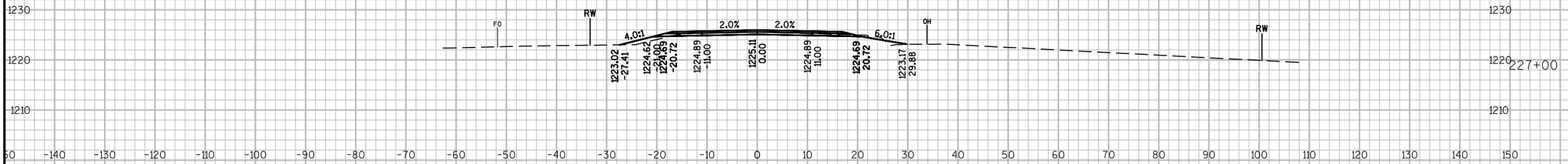


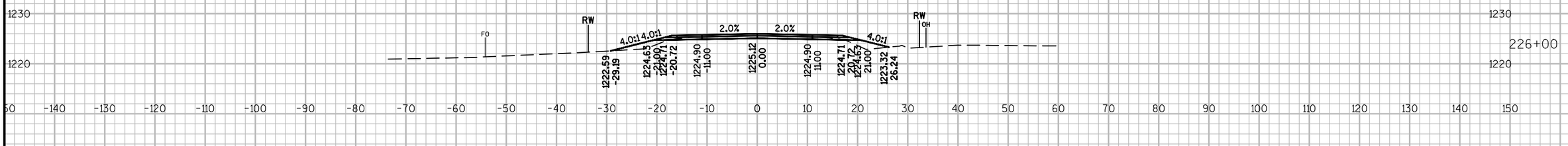
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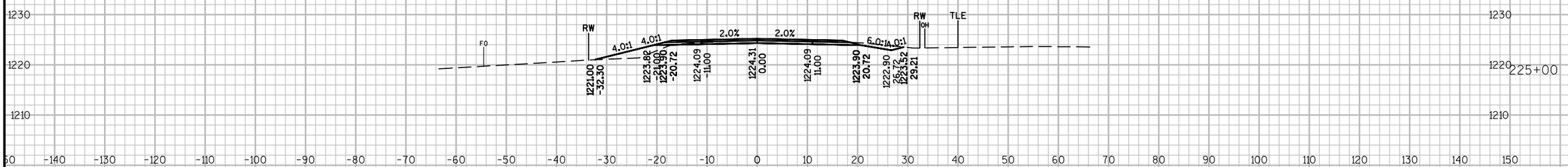
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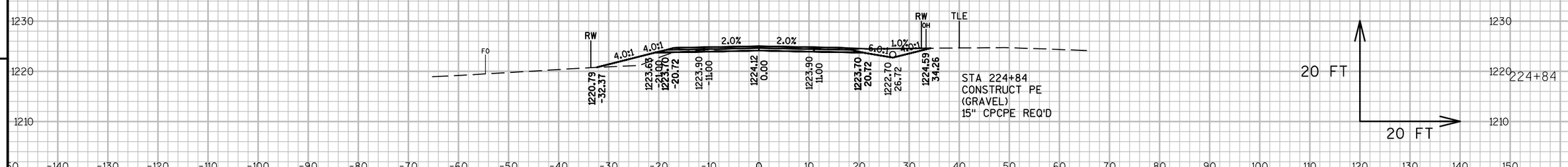
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 225	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 071
PLOT DATE : 7/1/2016 9:18 AM
PLOT BY : GALLAGHER, JAMES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





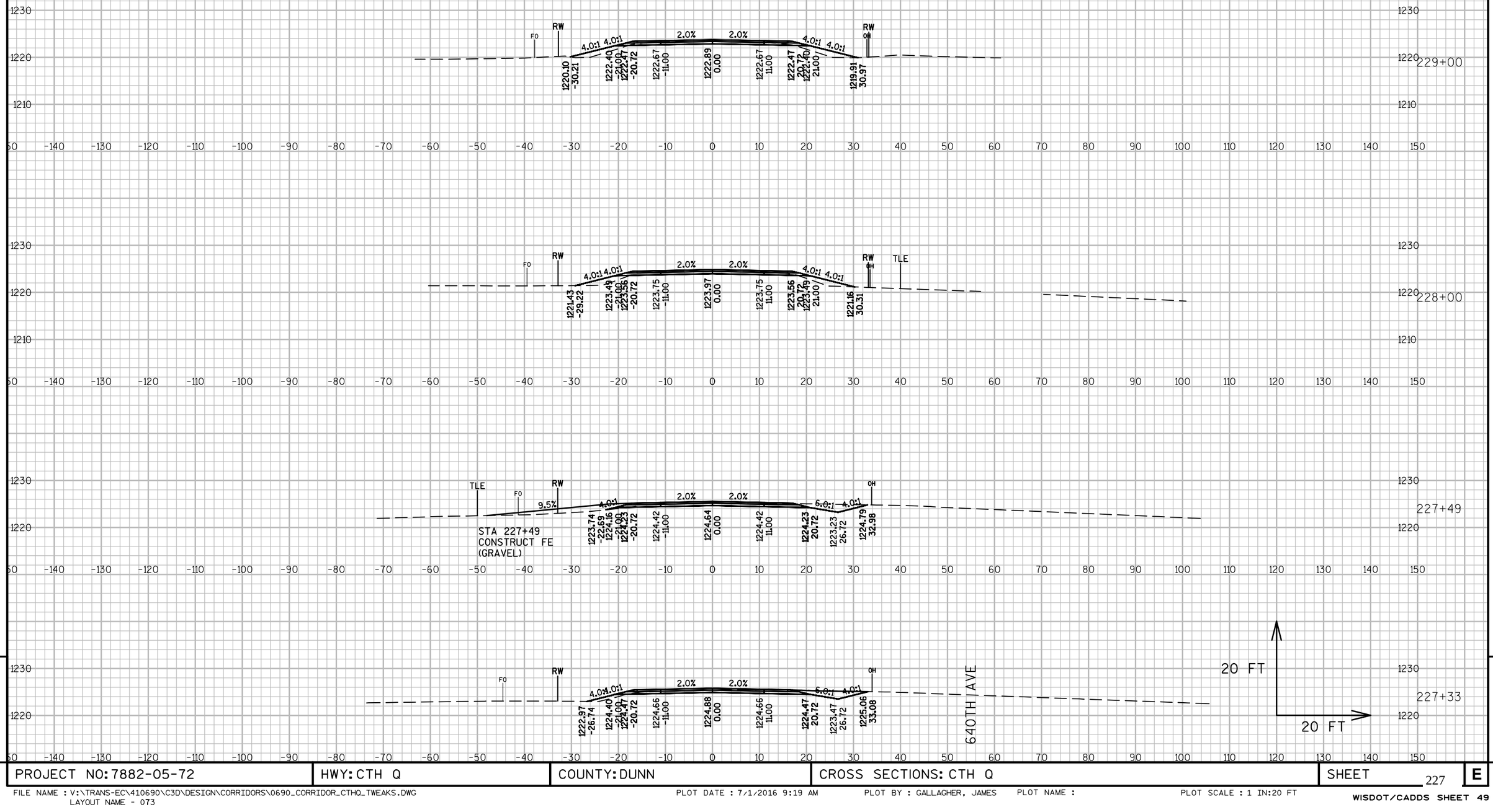




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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 226	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 072
PLOT DATE : 7/1/2016 9:19 AM
PLOT BY : GALLAGHER, JAMES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

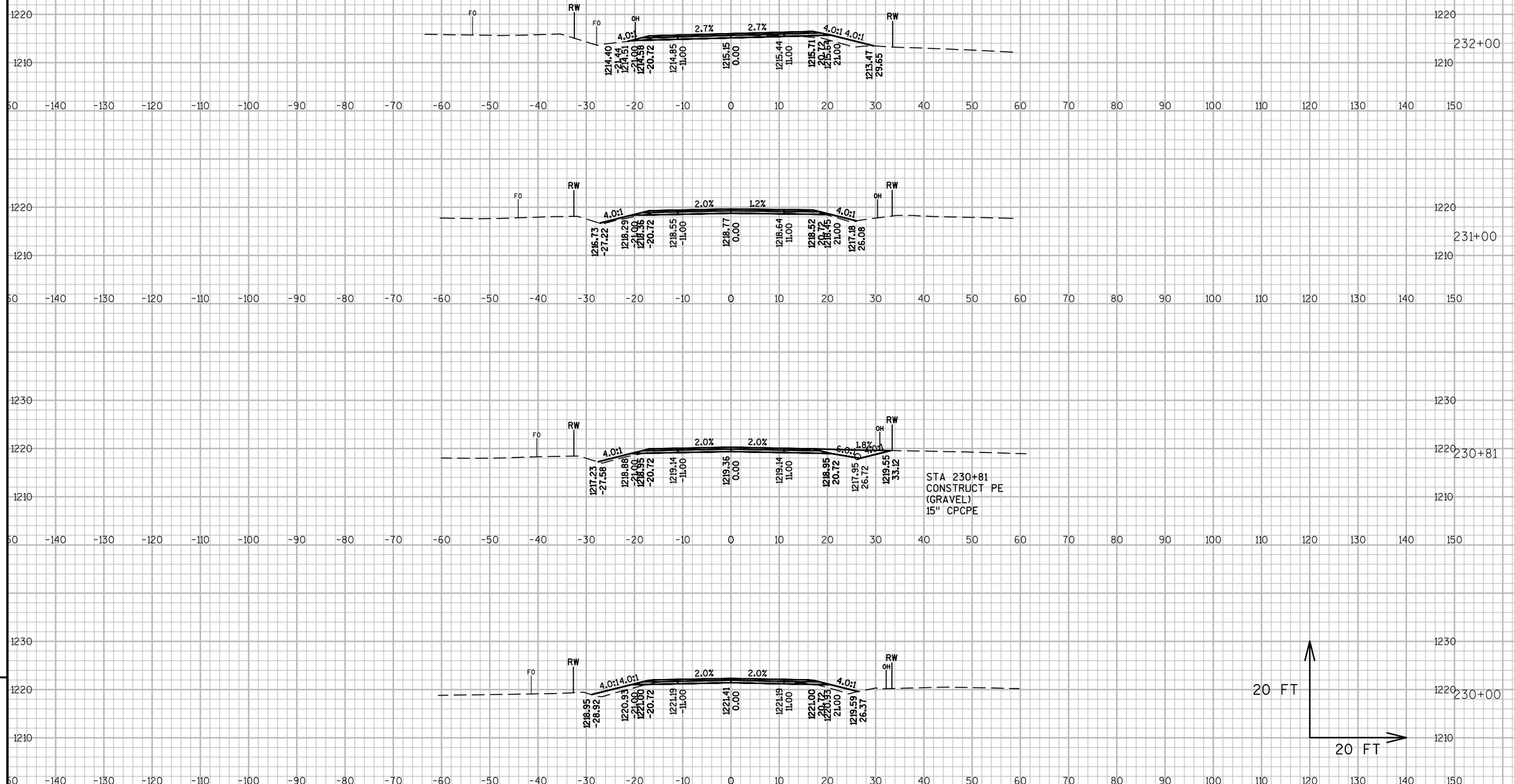
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 227	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 073

PLOT DATE : 7/1/2016 9:19 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

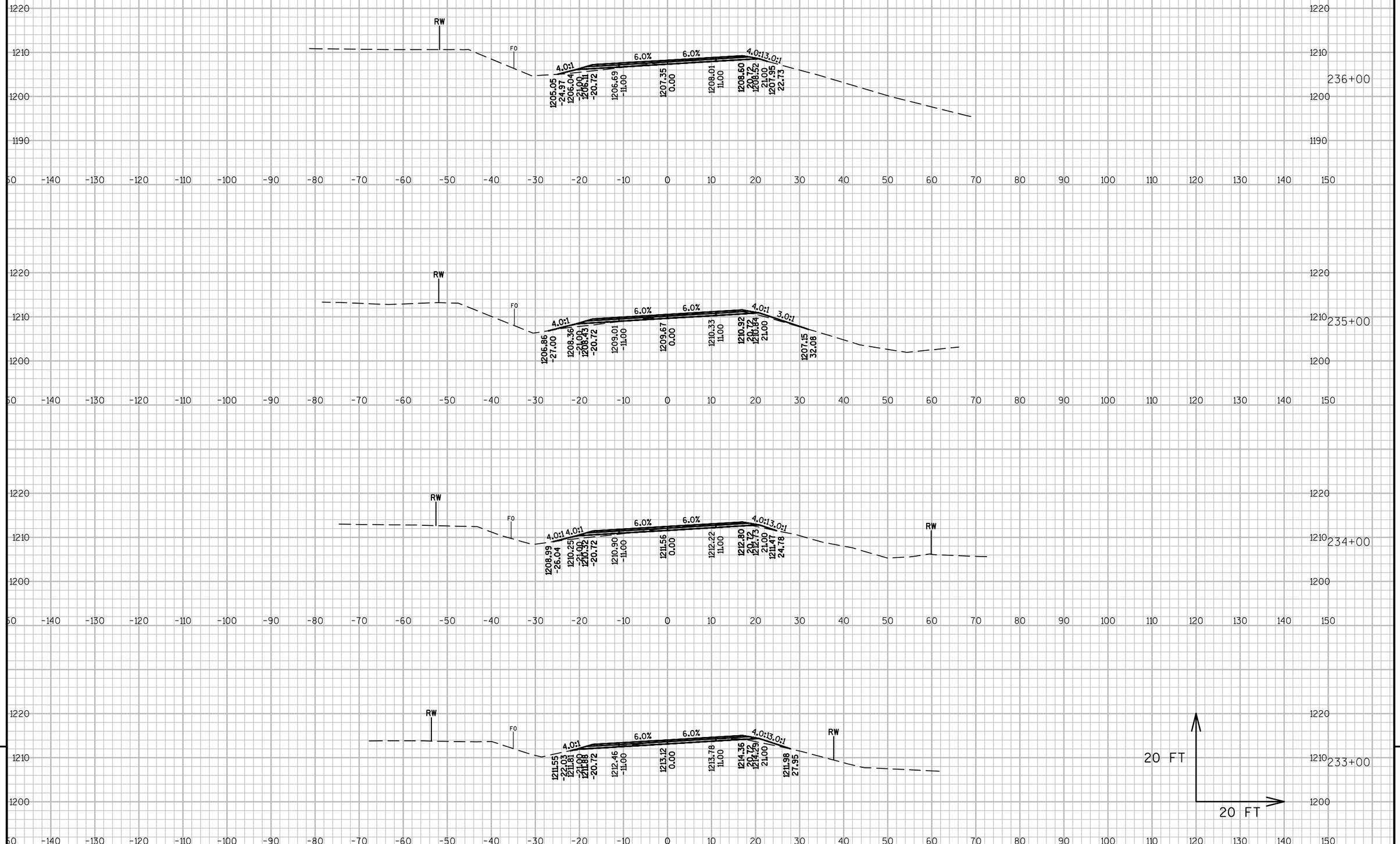


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 228	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 074
PLOT DATE : 7/1/2016 9:19 AM
PLOT BY : GALLAGHER, JAMES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

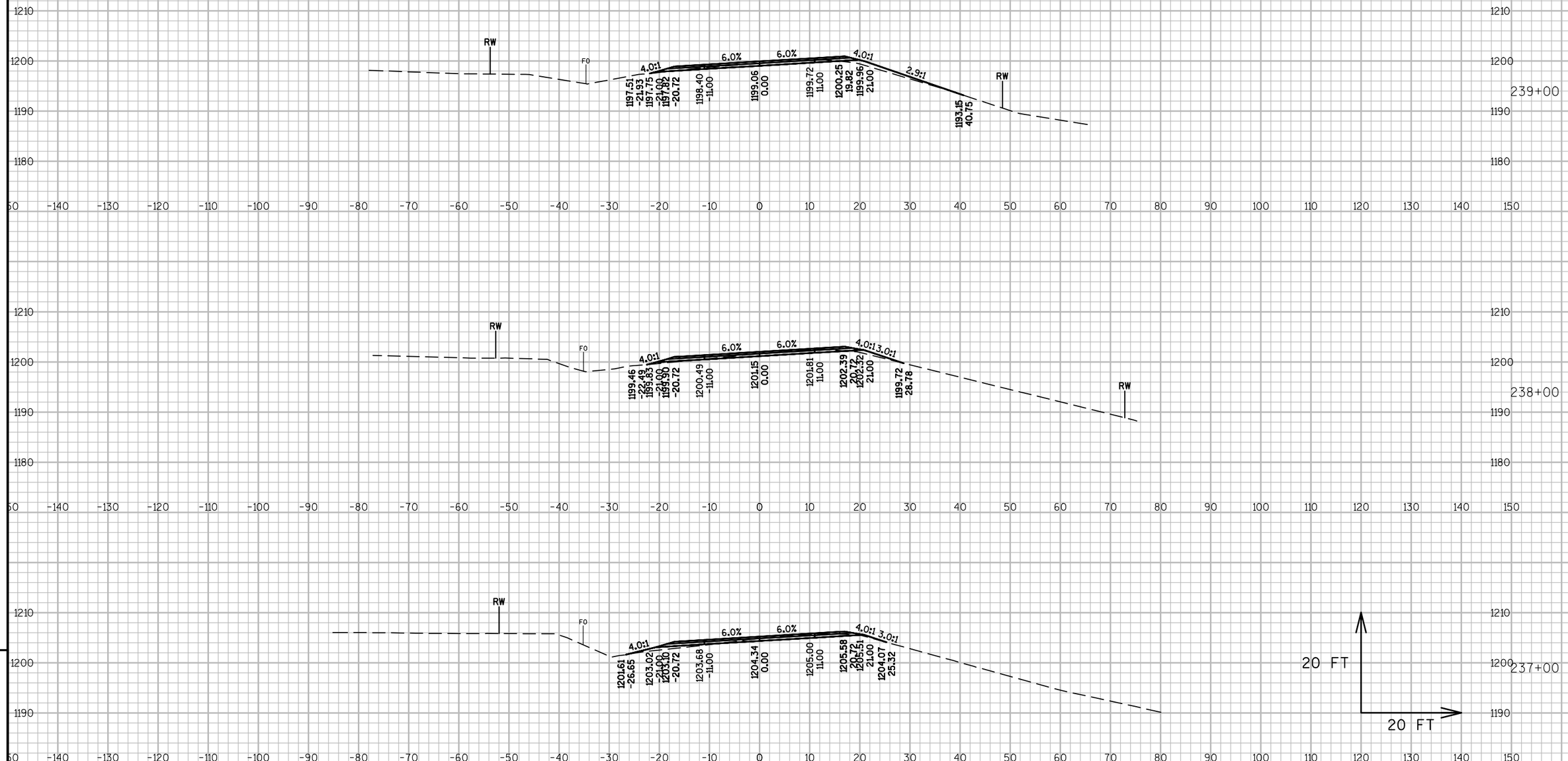
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 229	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 075

PLOT DATE : 7/1/2016 9:20 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

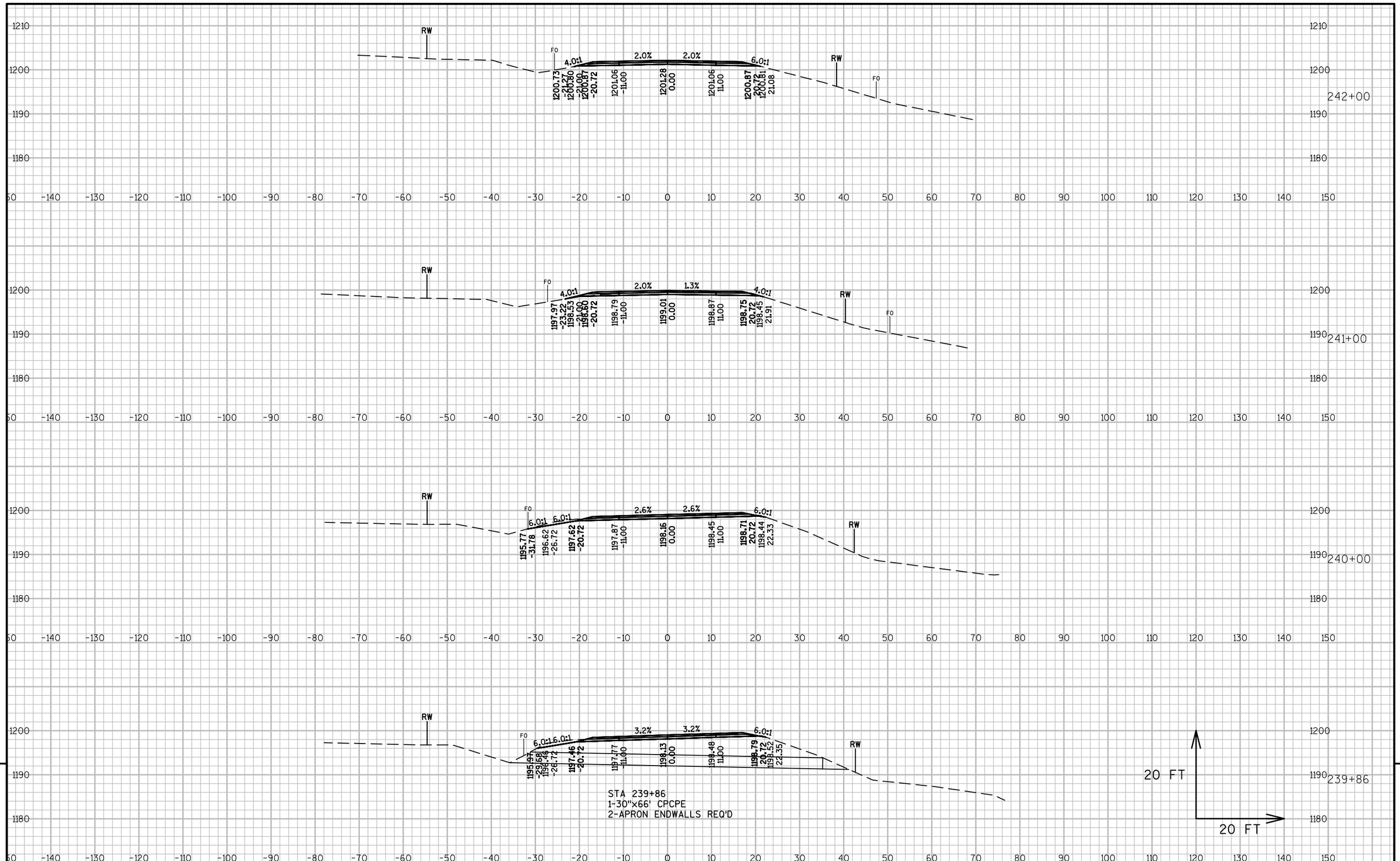
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 230	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 076

PLOT DATE : 7/1/2016 9:20 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

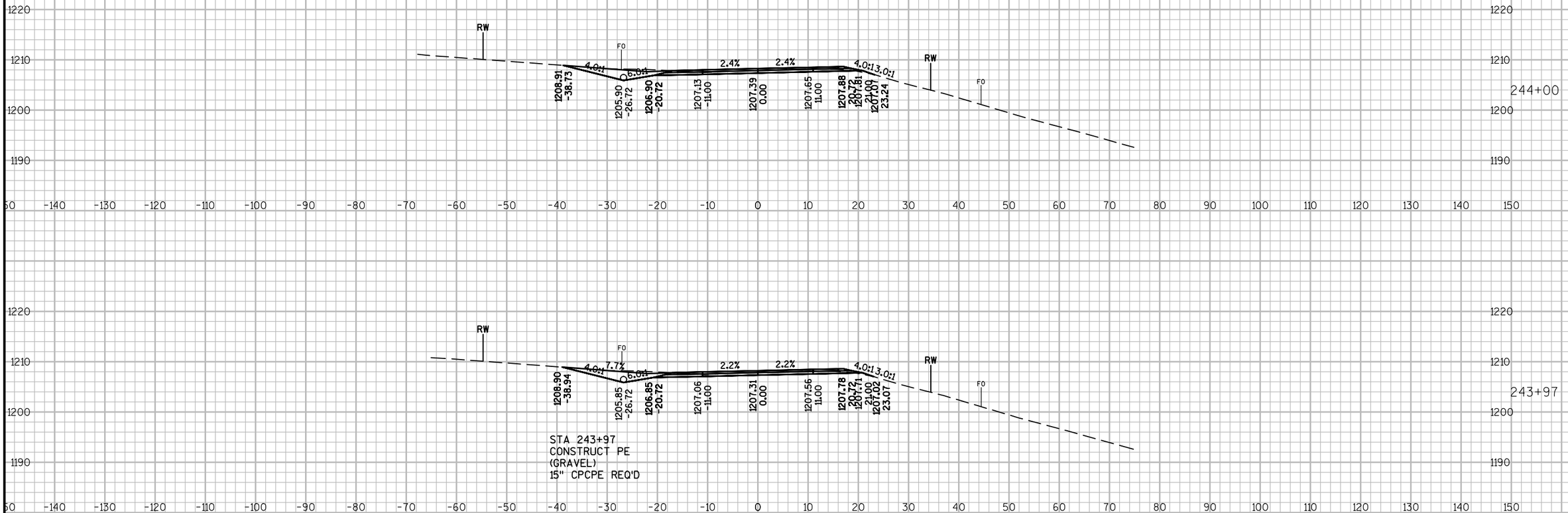


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 231	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 077
PLOT DATE : 7/1/2016 9:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



9

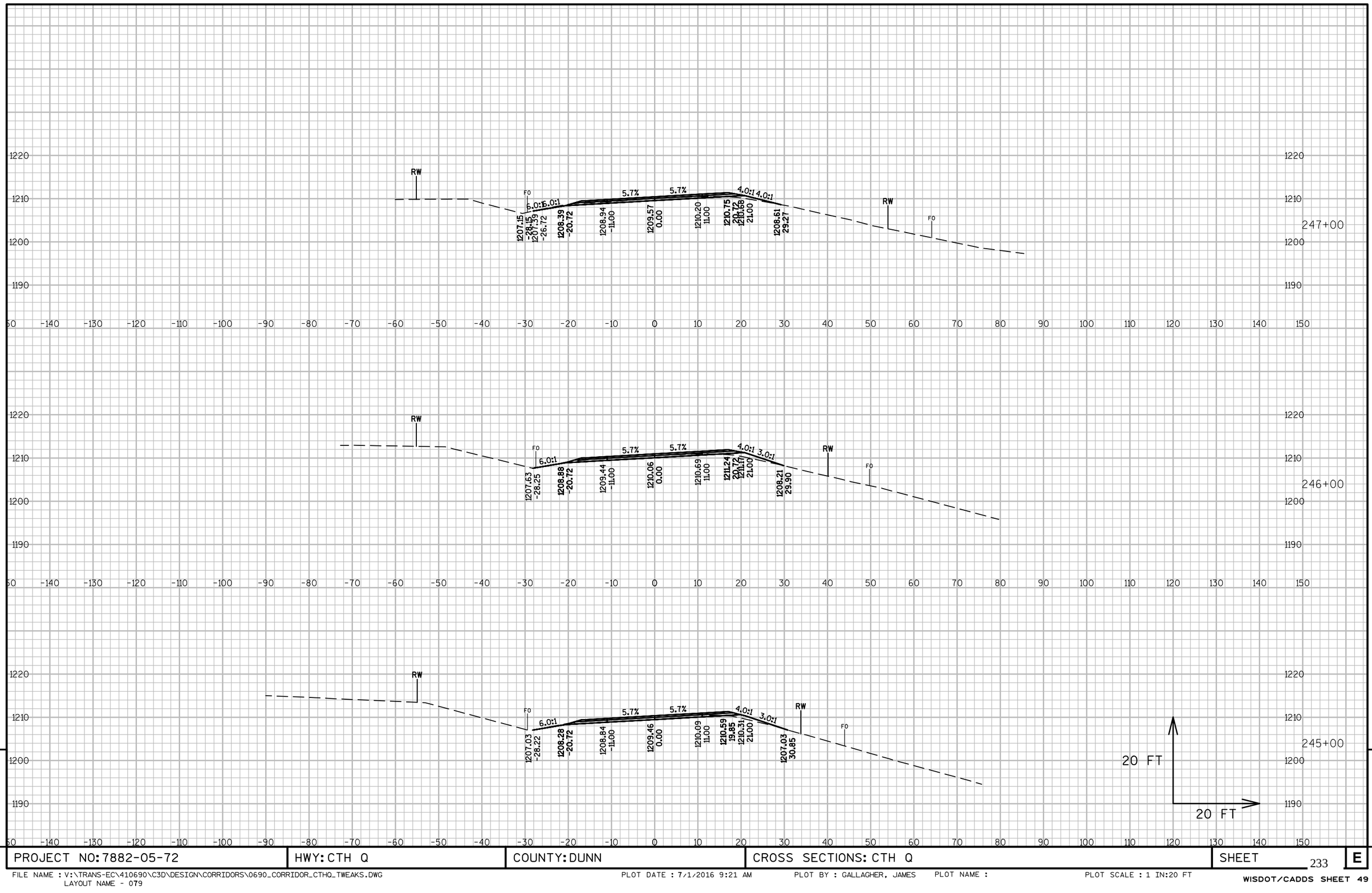
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 232	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 078

PLOT DATE : 7/1/2016 9:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



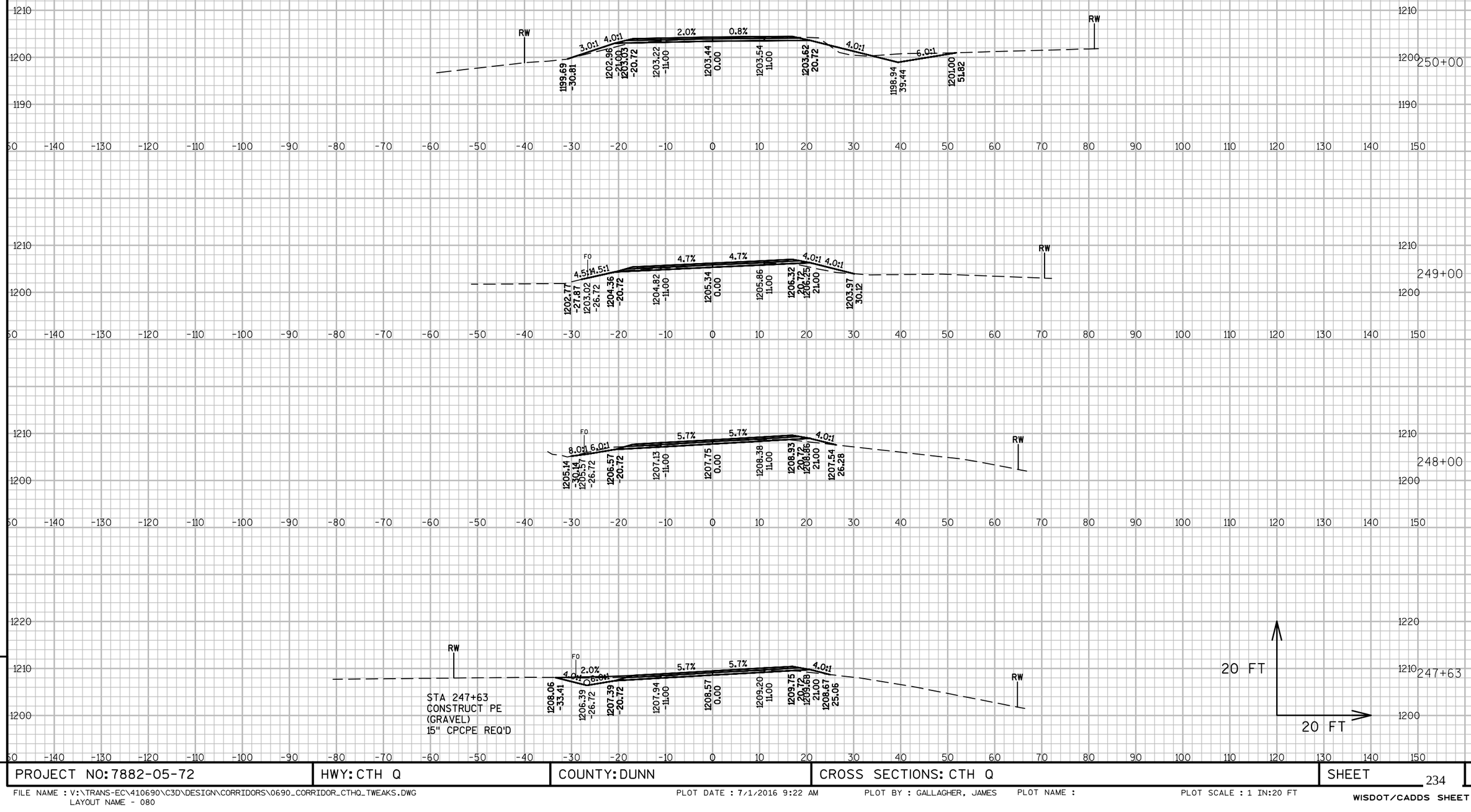
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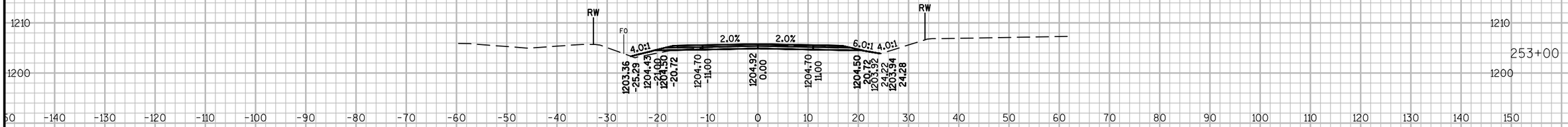
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 233	E

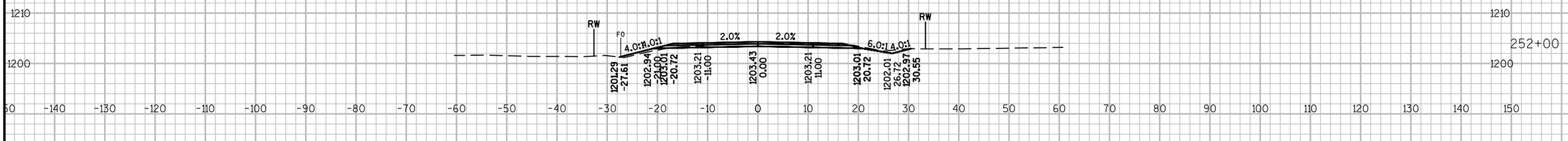
FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 079

PLOT DATE : 7/1/2016 9:21 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

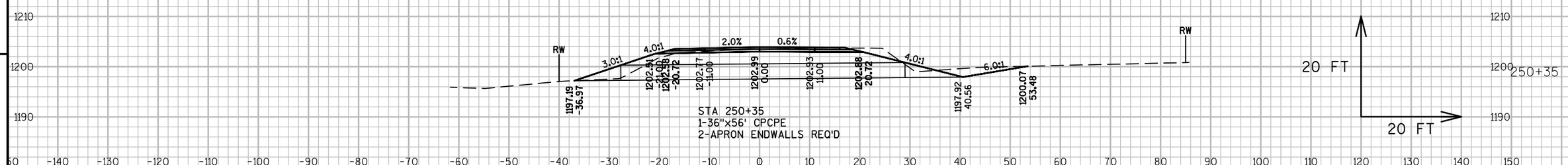


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 234	E









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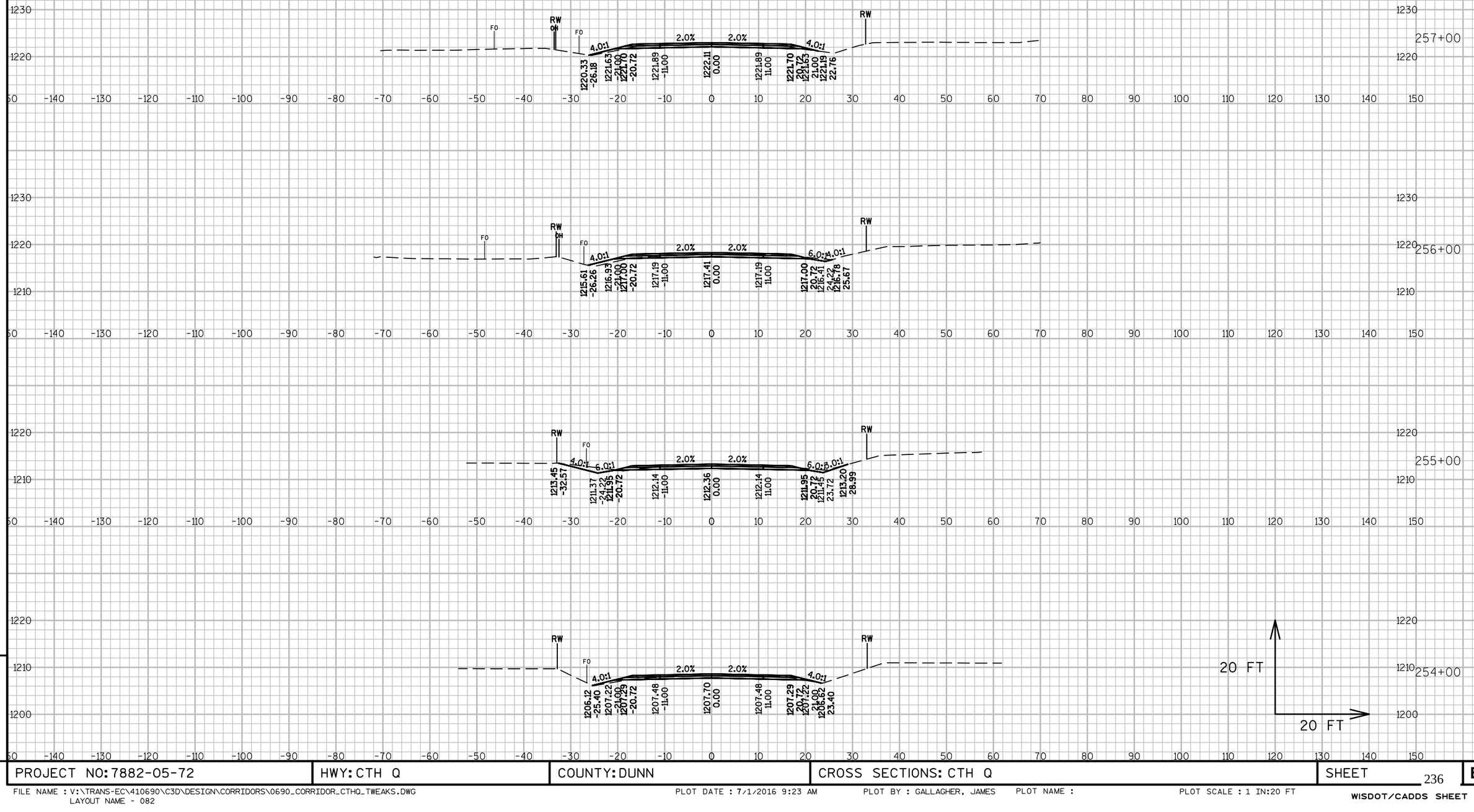
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 235	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 081

PLOT DATE : 7/1/2016 9:22 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

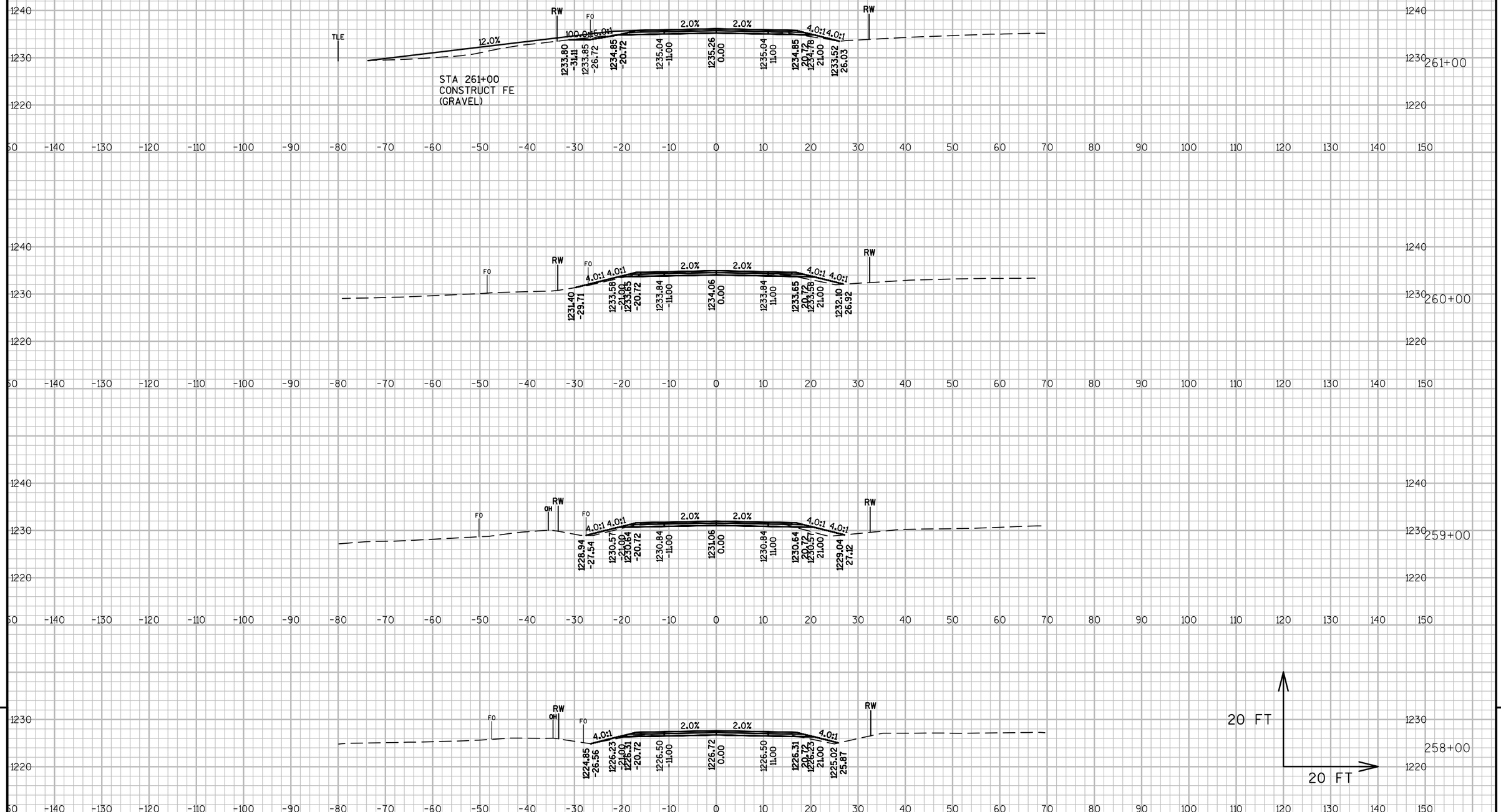
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 236	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 082

PLOT DATE : 7/1/2016 9:23 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

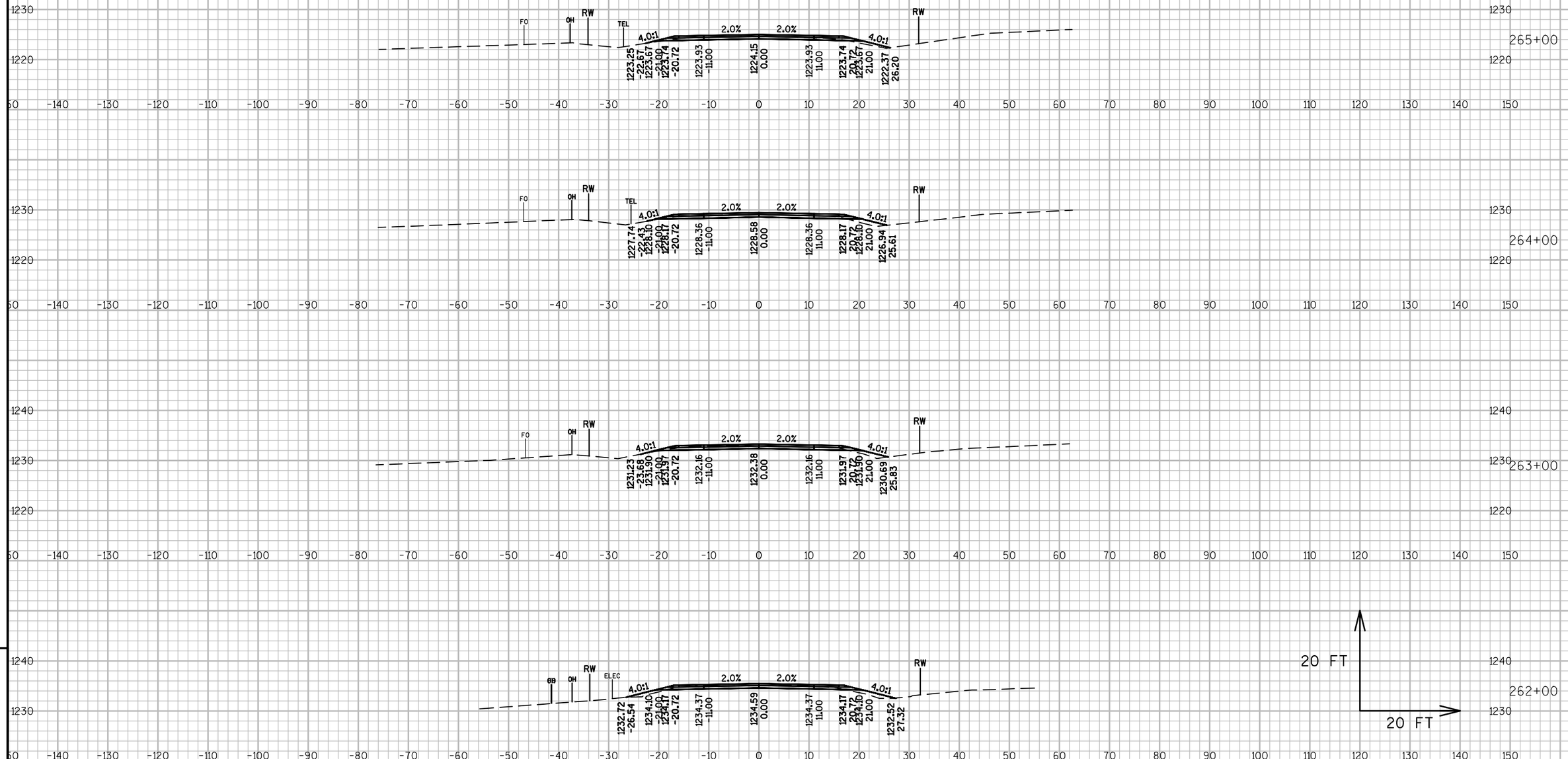


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 237 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 083

PLOT DATE : 7/1/2016 9:23 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



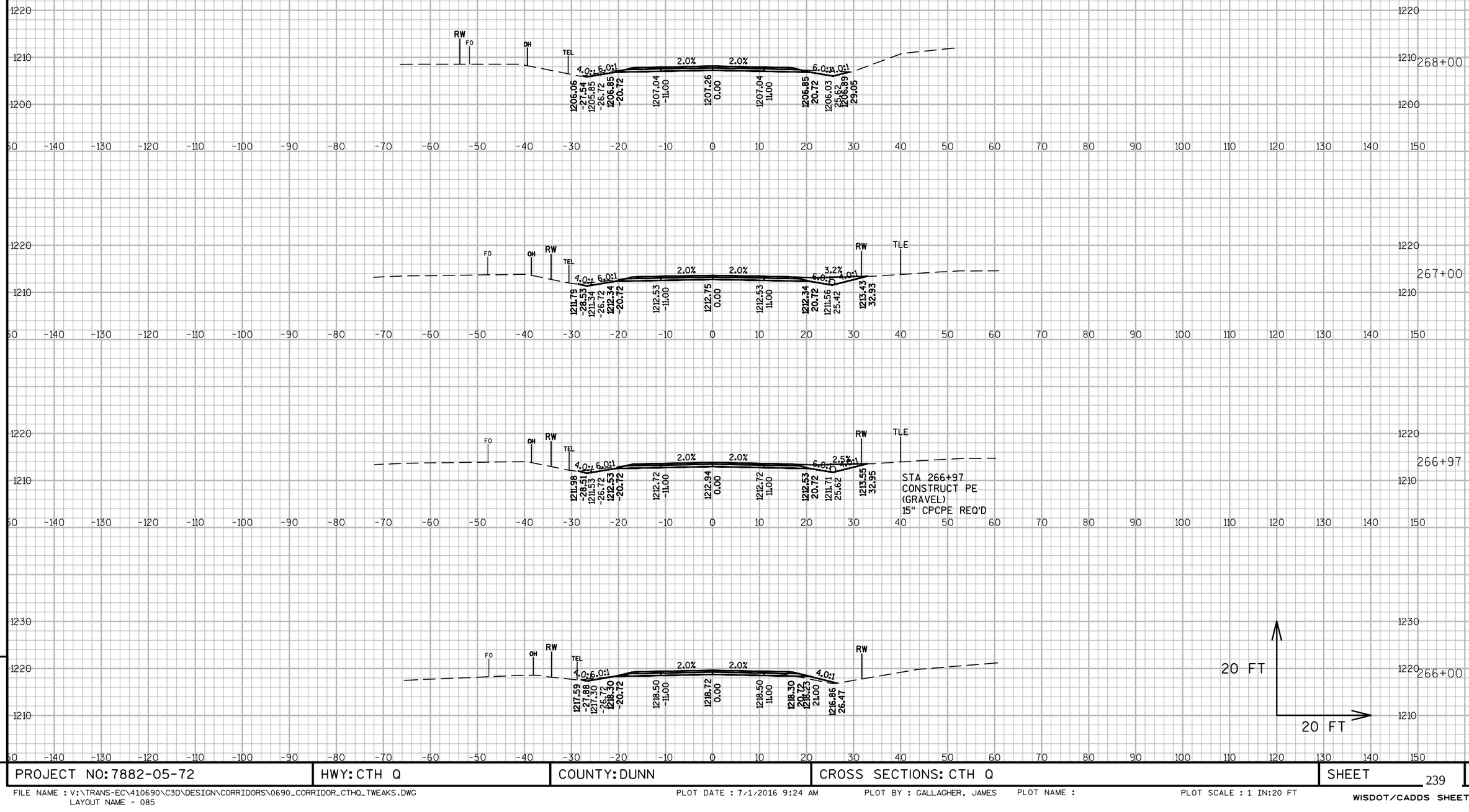
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 238 E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 084

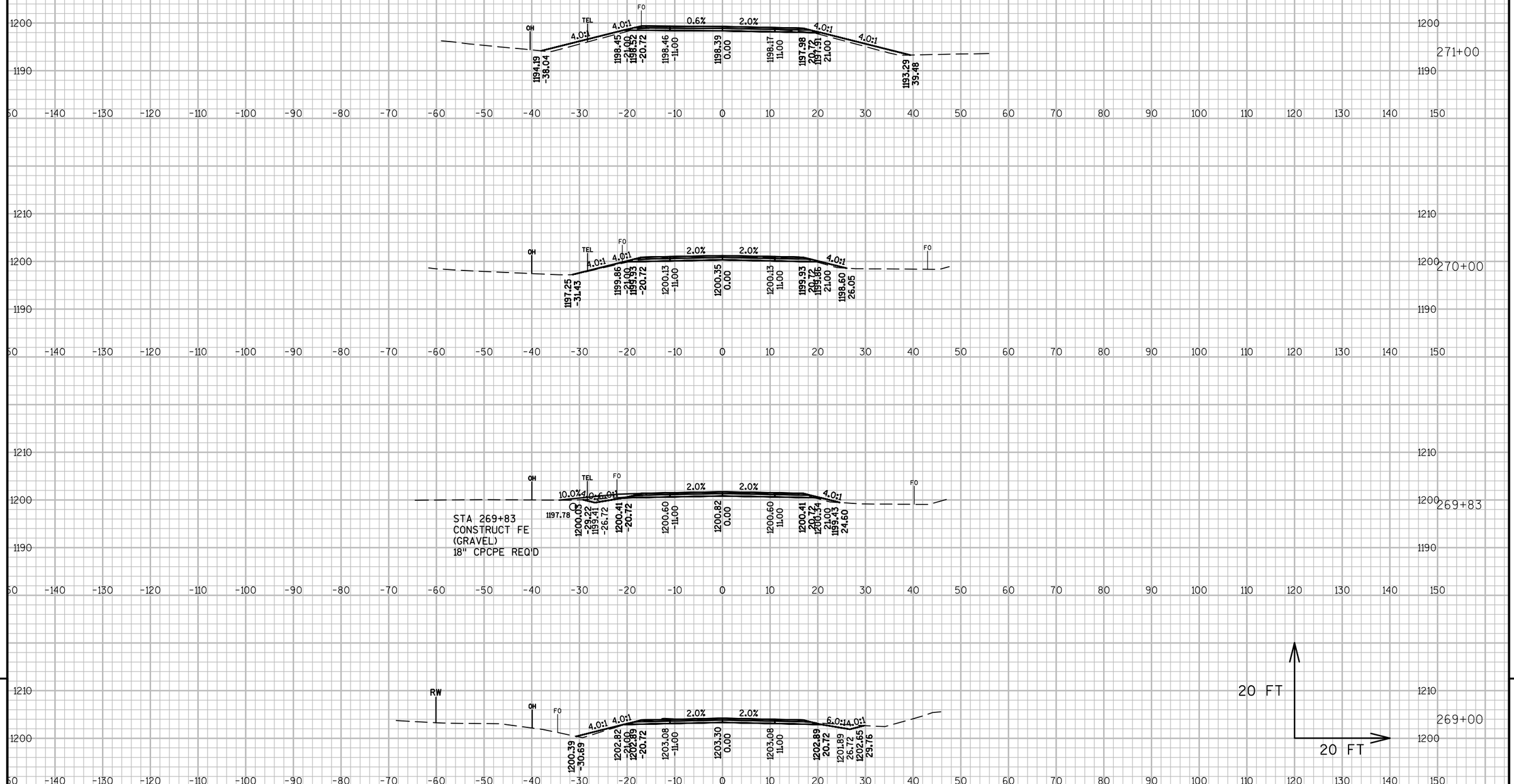
PLOT DATE : 7/1/2016 9:23 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 239	E

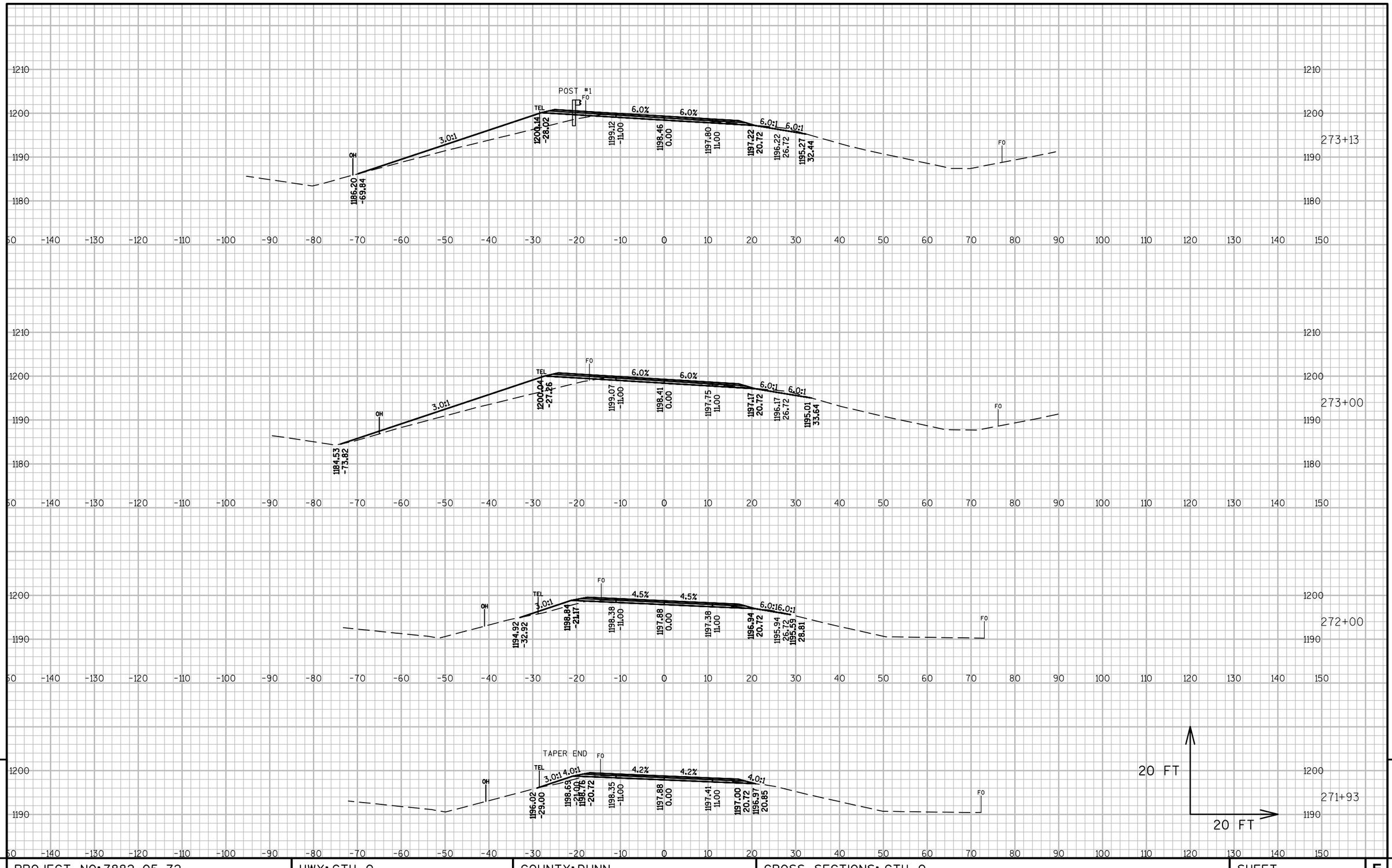


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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 240	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 086
PLOT DATE : 7/1/2016 9:24 AM
PLOT BY : GALLAGHER, JAMES
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

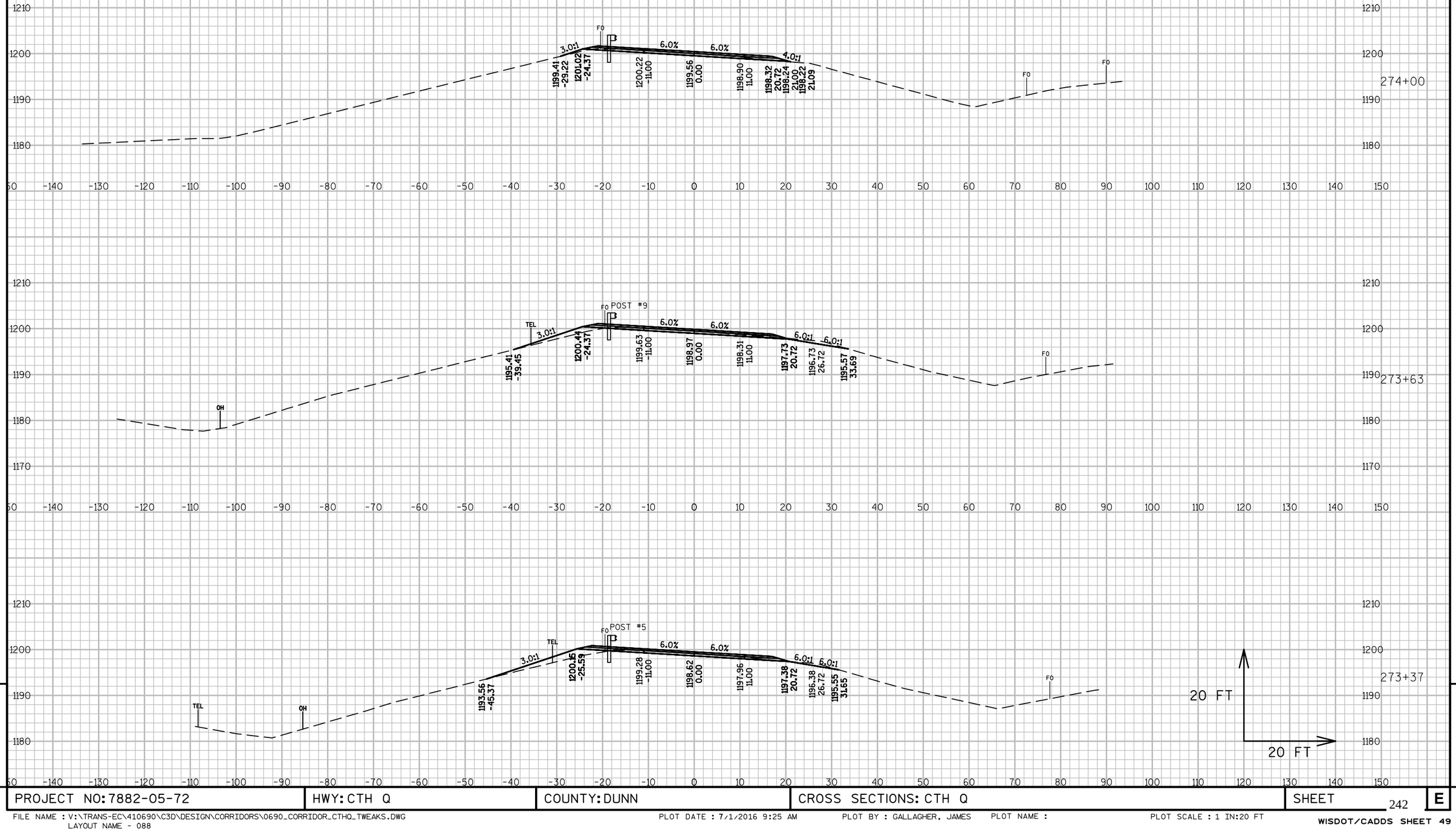


PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 241	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 087

PLOT DATE : 7/1/2016 9:25 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



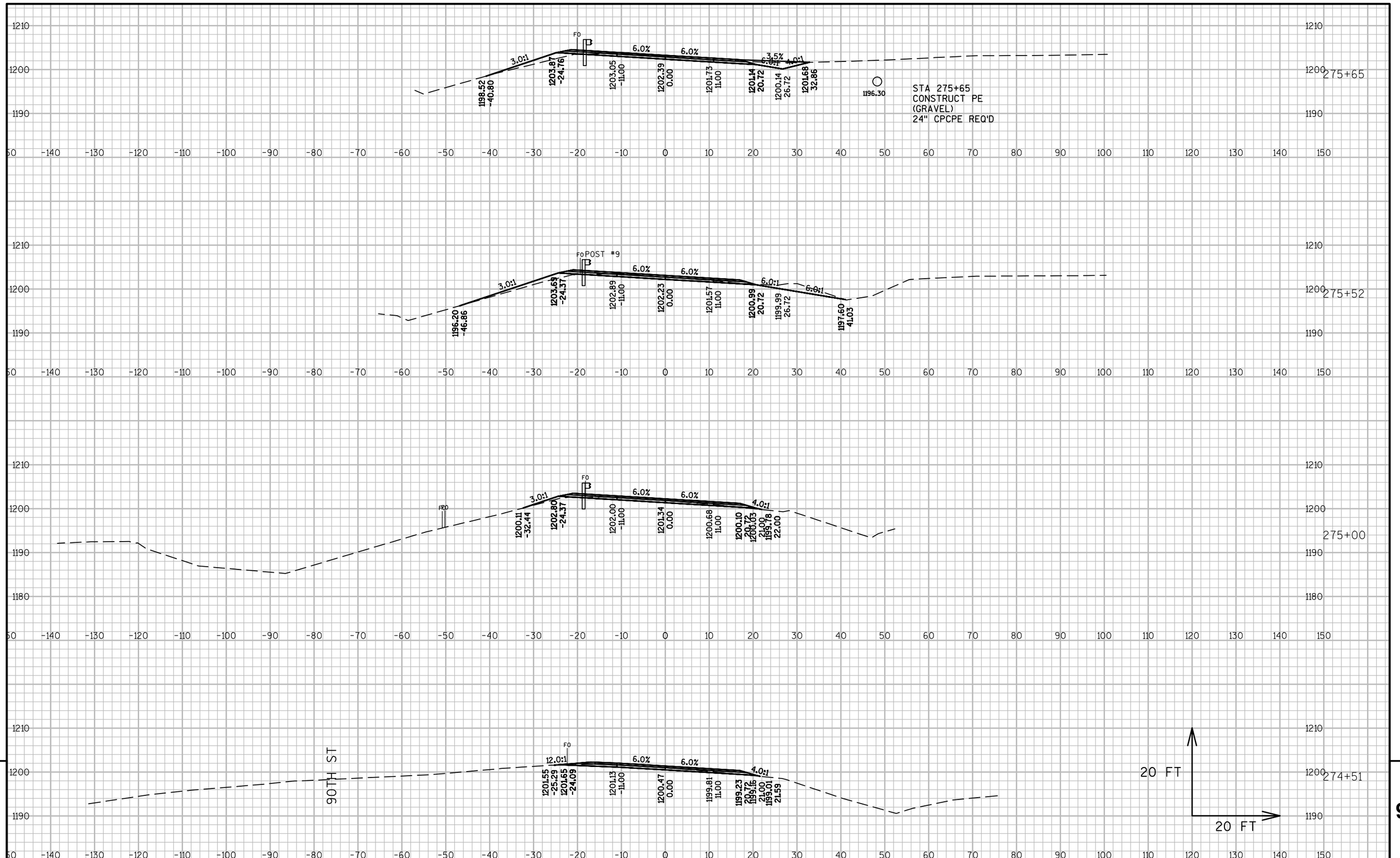
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 242	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 088

PLOT DATE : 7/1/2016 9:25 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

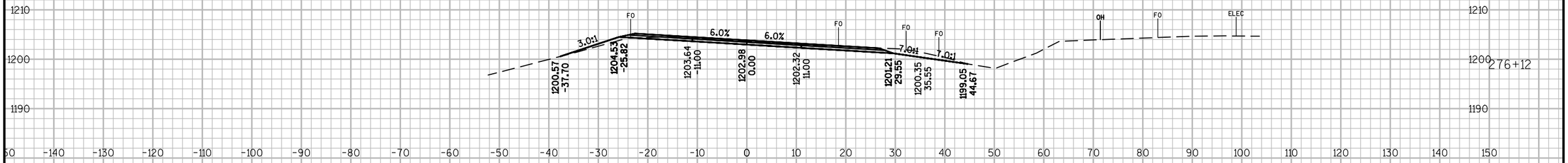
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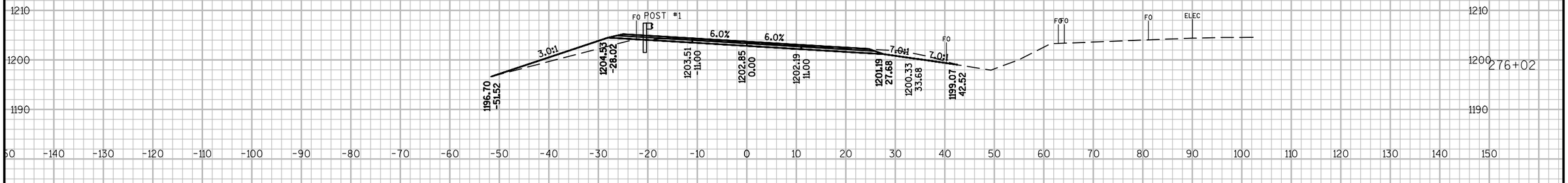
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 243	E

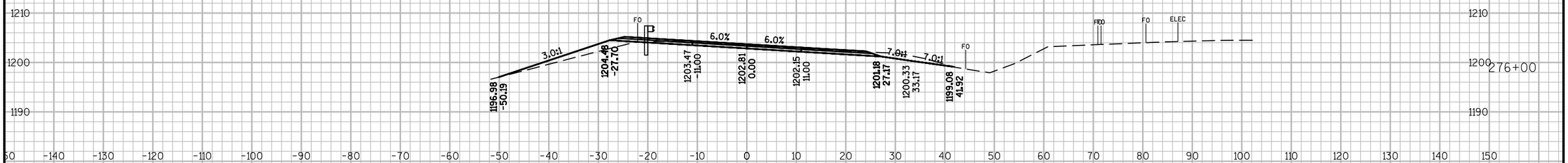
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LAYOUT NAME - 089

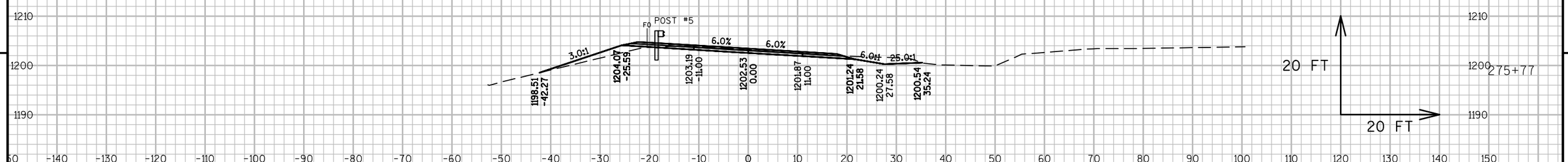
PLOT DATE : 7/1/2016 9:25 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

STA 276+47.09
END PROJECT









9

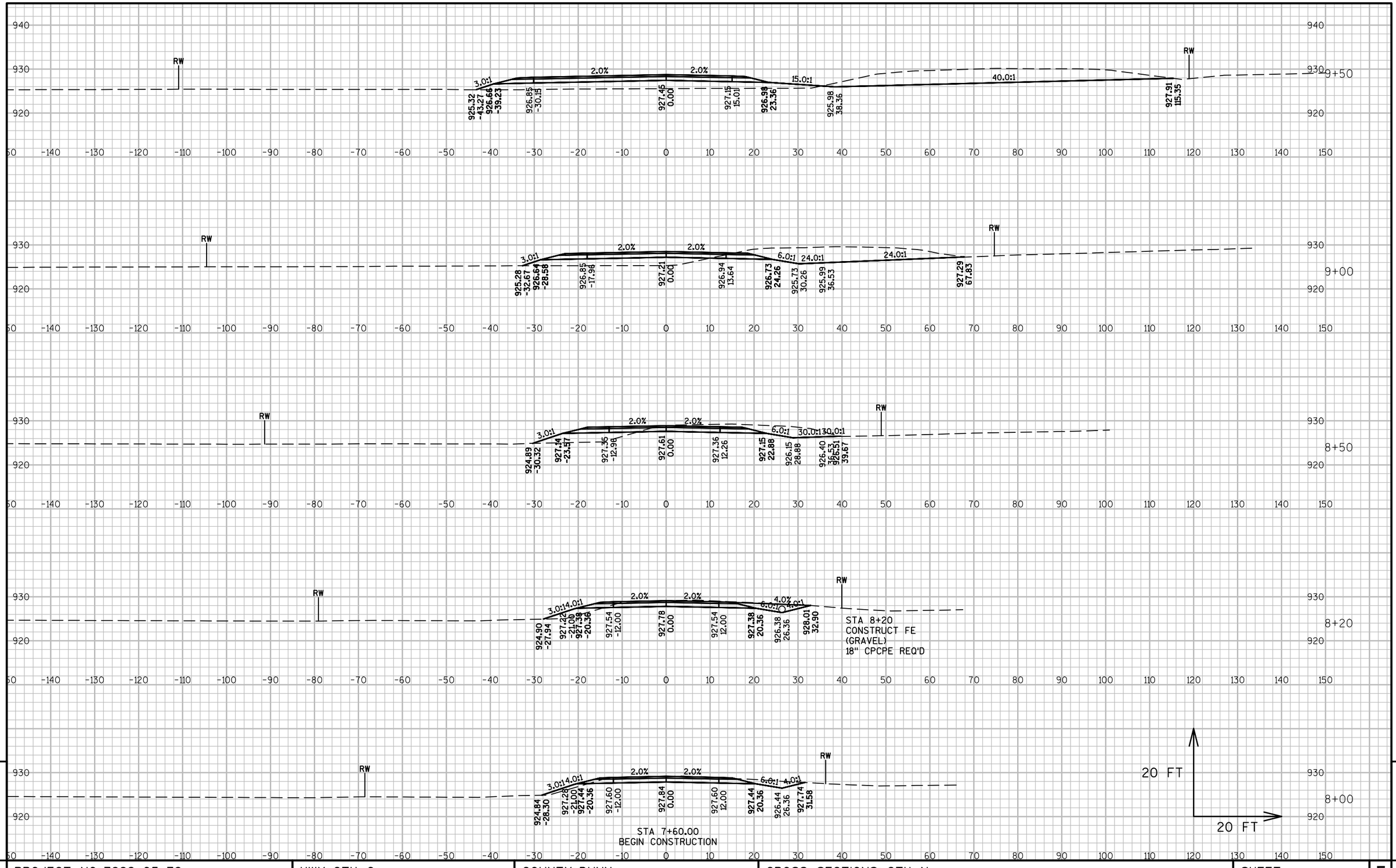
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PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH Q	SHEET 244	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 090

PLOT DATE : 7/1/2016 9:26 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

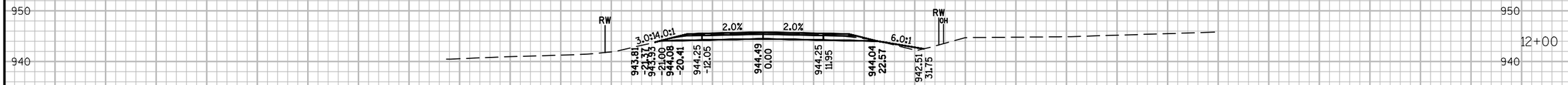
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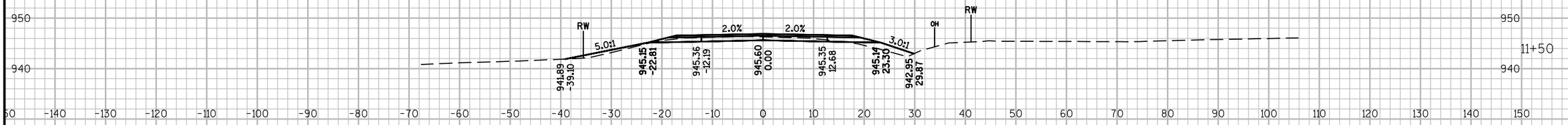
PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH N	SHEET 245	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 091

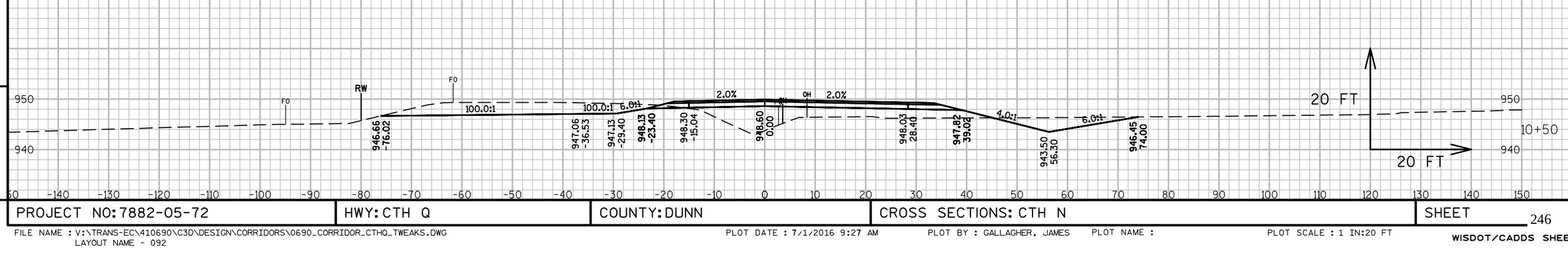
PLOT DATE : 7/1/2016 9:26 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

STA 12+25.00
END CONSTRUCTION





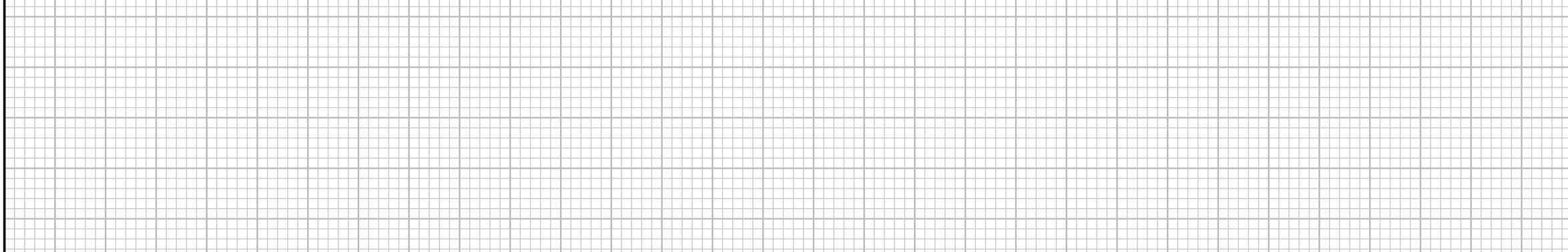


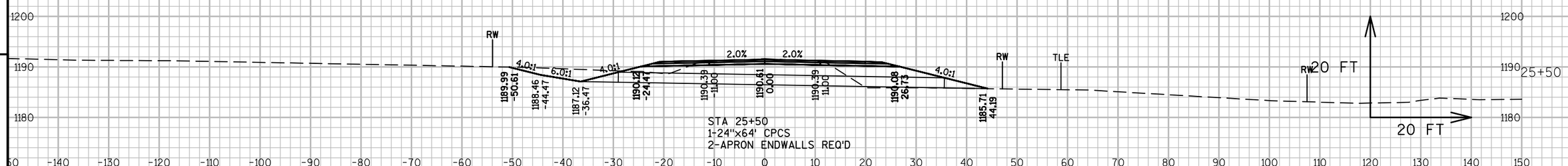


9 9

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: CTH N	SHEET 246	E

STA 26+22.70
END CONSTRUCTION



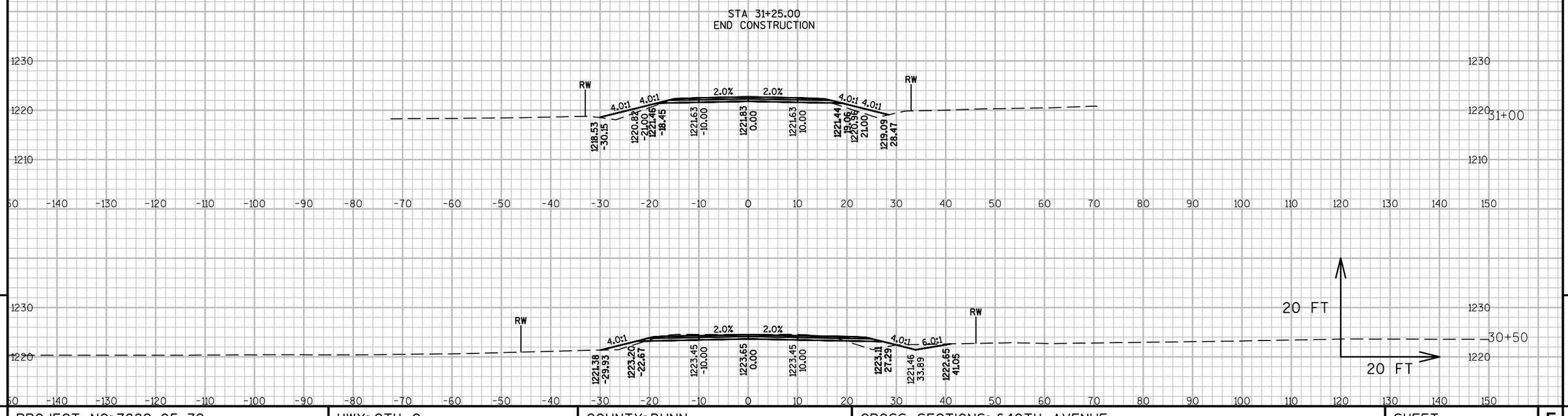


STA 25+50
1-24"x64' CPCS
2-APRON ENDWALLS REQ'D

9

9

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: 630TH AVENUE	SHEET 247	E



9

9

PROJECT NO: 7882-05-72	HWY: CTH Q	COUNTY: DUNN	CROSS SECTIONS: 640TH AVENUE	SHEET 248	E

FILE NAME : V:\TRANS-EC\410690\C3D\DESIGN\CORRIDORS\0690_CORRIDOR_CTHQ_TWEAKS.DWG
LAYOUT NAME - 094

PLOT DATE : 7/1/2016 9:27 AM PLOT BY : GALLAGHER, JAMES PLOT NAME : PLOT SCALE : 1 IN:20 FT

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov