SUP

APRIL 2021

PROJECT ID: 8866-00-72

WITH: N/A

COUNTY: POLK

25

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 = 112

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STAR PRAIRIE - OSCEOLA

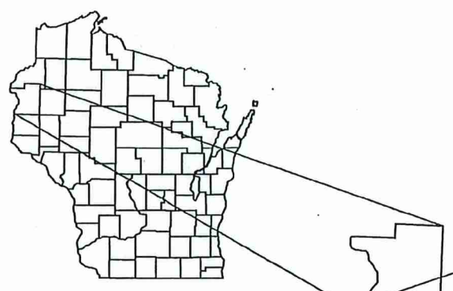
SCL TO CTH Y

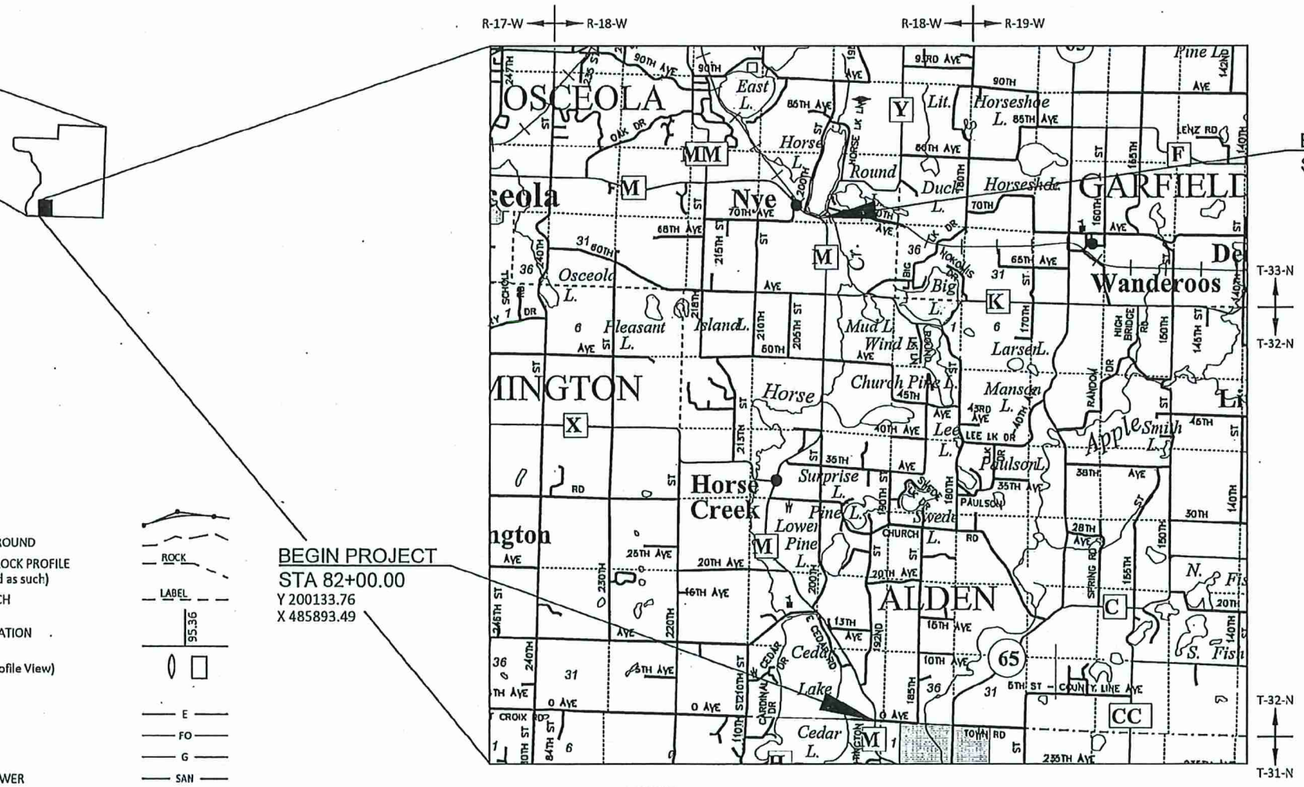
CTH M

POLK COUNTY

STATE PROJECT NUMBER
8866-00-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8866-00-72	WISC 2021051	1





BEGIN PROJECT
STA 82+00.00
Y 200133.76
X 485893.49

END PROJECT
STA 503+70.10

LAYOUT SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 7.987 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, POLK 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.

DESIGN DESIGNATION

A.A.D.T.	(2020)	=	3500
A.A.D.T.	(2040)	=	4200
D.H.V.		=	N/A
D.D.		=	50/50
T.		=	7.7%
DESIGN SPEED		=	55 MPH
ESALS		=	540,000

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	SOUTH	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

ACCEPTED FOR POLK COUNTY

7-20-2020 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

AYRES

WISCONSIN
MARK R. PETERSEN
E-36785
EAU CLAIRE
WI
PROFESSIONAL ENGINEER

DATE: 7/16/20 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES INC
Designer	AYRES ASSOCIATES INC
Project Manager	MATTHEW VAN NATTA, PE
Regional Examiner	NORTHWEST REGION
Regional Supervisor	ANDREW STENSLAND, PE

APPROVED FOR THE DEPARTMENT

DATE: 7/22/2020 (Signature)

E

FILE NAME : I:\41\410770_POLK CTH M\C3D\SHEETSPLAN\010101-TI.DWG PLOT DATE : 7/16/2020 3:36 PM PLOT BY : RESHESKE, CARRIE PLOT NAME :

GENERAL NOTES

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

THE EXACT LOCATION AND WIDTH OF DRIVEWAY ENTRANCES WILL BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE PLANS.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

FOR ALL WORK AT CULVERT PIPES APPLY SEED, TEMPORARY SEED, MULCH, AND FERTILIZER TO DISTURBED AREAS OR AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND ENDWALLS, VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER.

INTERSECTION RADII TO BE PLACED IN KIND. EXISTING RADII SHOWN ON PLAN AND PROFILE FOR INFORMATION ONLY.

ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

EXISTING RIGHT-OF-WAY LOCATION IS APPROXIMATE; BASED ON GIS DATA.

UTILITY CONTACTS

XCEL ENERGY - DISTRIBUTION
801 KELLER AVENUE S
AMERY, WI 54001
ATTN: ASHLEY CHAPMAN
715-268-3218
ashley.d.chapman@xcelenergy.com

POLK-BURNETT ELECTRIC COOPERATIVE - ELECTRIC
1001 STATE ROAD 35
CENTURIA, WI 54824
ATTN: NATHAN VOLGREN
715-646-2191
CELL:715-269-1440
nvolgren@polkburnett.com

CENTURYLINK
2426 75TH AVENUE
OSCEOLA, WI 54020
ATTN: MIKE VANDENBOS
715-294-2463
mike.vandenbos@centurylink.com

FRONTIER COMMUNICATIONS
1851 N 14TH AVENUE
WAUSAU, WI 54401
ATTN: CAL KLADE
715-847-1525
calvin.klade@ftr.com

VIKING GAS TRANSMISSION
2077 70TH AVENUE
OSCEOLA, WI 54020
ATTN: STEVE KEILEN
715-294-2155
CELL: 715-417-0435
steven.keilen@oneok.com

NORTHERN NATURAL GAS
6579 420TH STREET
HARRIS, MN 55032
ATTN: MIKE PERRON
402-530-3158
CELL: 763-307-0233
michael.perron@nngco.com

* DENOTES NOT A DIGGERS HOTLINE MEMBER

DNR CONTACT

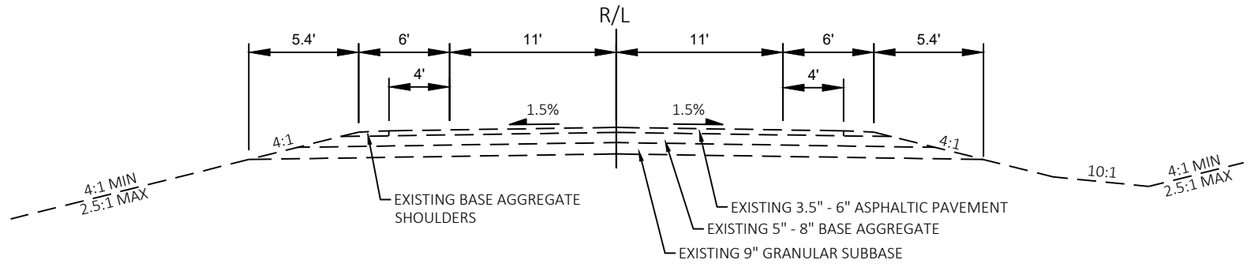
DNR NORTHERN REGION HQ
810 WEST MAPLE STREET
SPOONER, WI 54801
ATTN: AMY CRONK
715-635-4229
amy.cronk@wisconsin.gov

DESIGN CONTACT

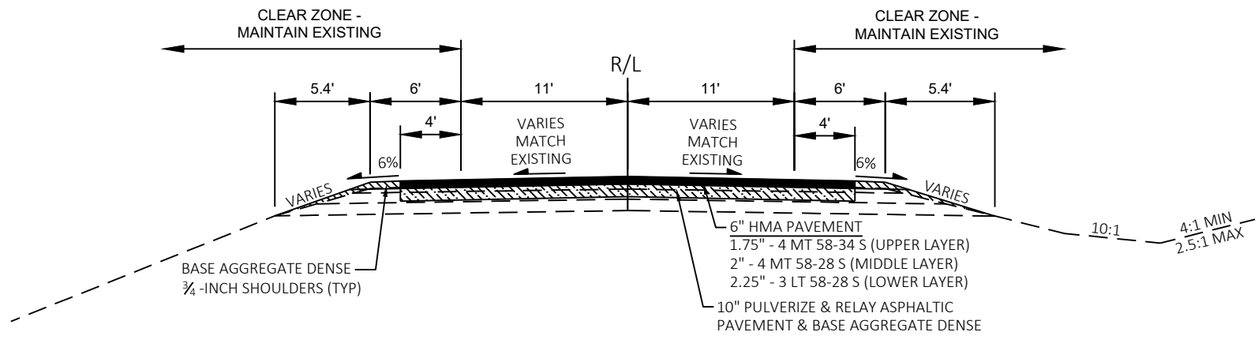
AYRES ASSOCIATES INC
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: MARK PETERSEN, PE
715-834-3161
petersenm@ayresassociates.com

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

2

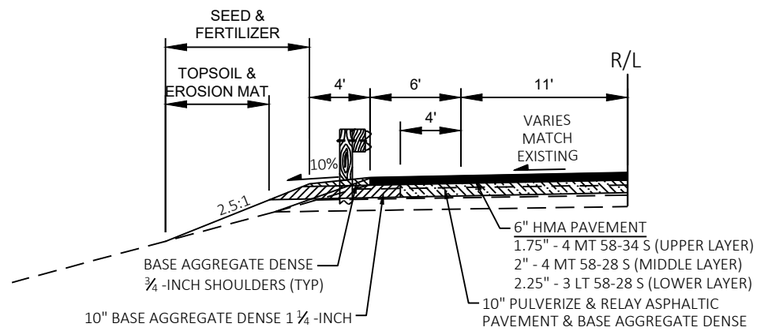


EXISTING TYPICAL SECTION



FINISHED TYPICAL SECTION

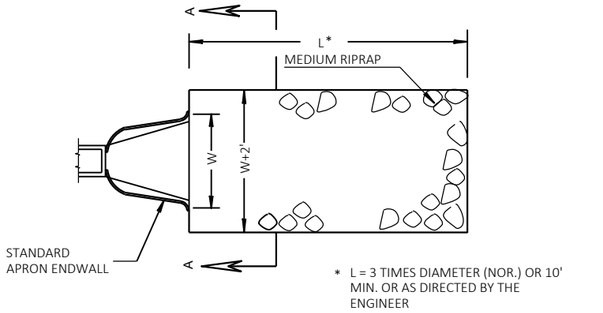
STA 82+00.00 - STA 503+70.10



FINISHED BEAMGUARD TYPICAL SECTION

STA 177+39.13 - STA 179+69.05, LT

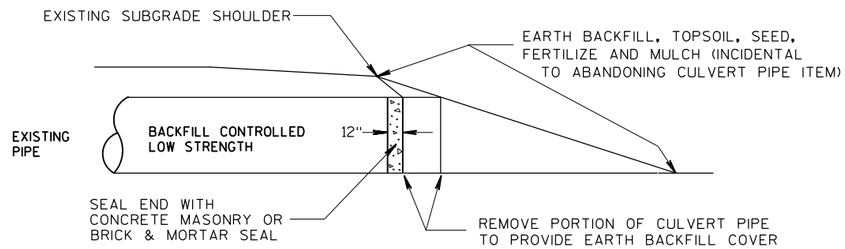
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	TYPICAL SECTIONS	SHEET 3	E



SECTION A-A

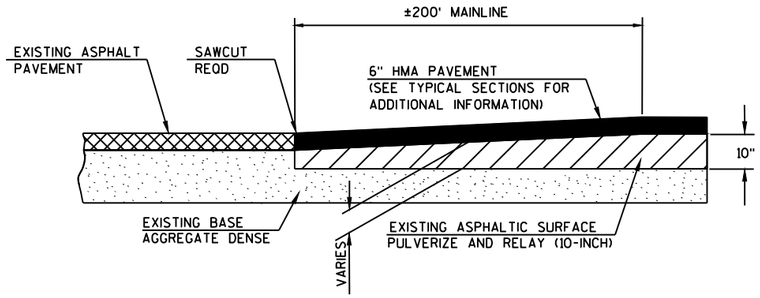
RIPRAP MEDIUM & GEOTEXTILE DETAIL AT APRON ENDWALLS

STA 225+76, LT

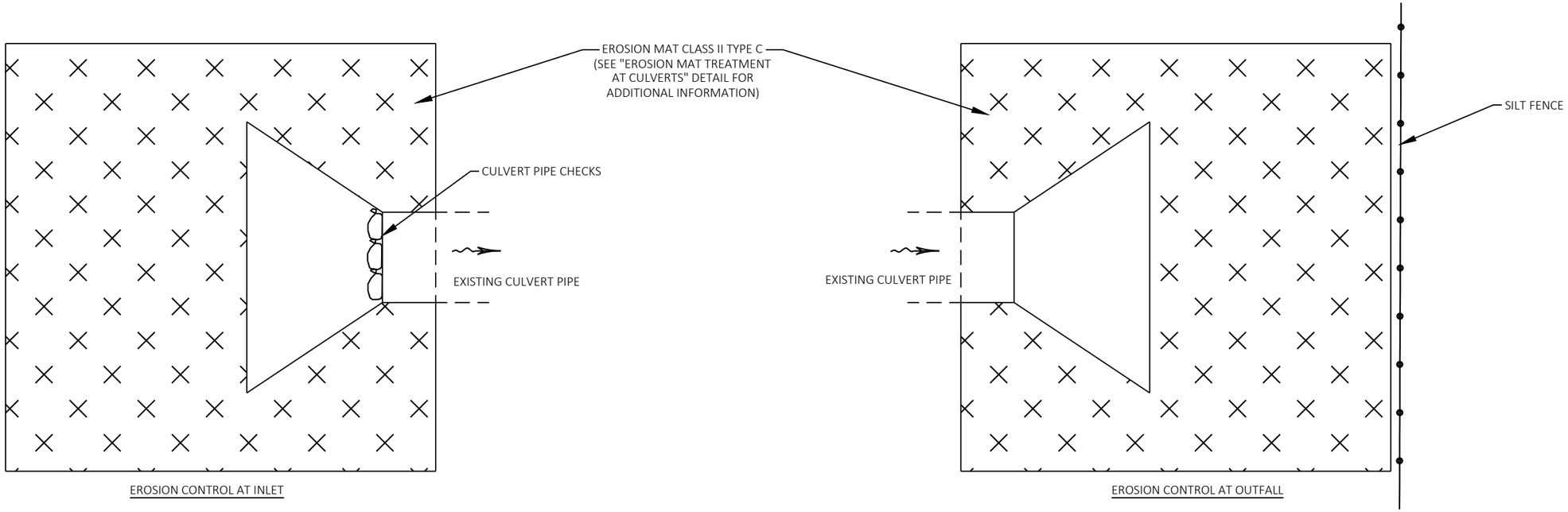


ABANDONING CULVERT PIPE DETAIL

STA 184+02



JOINT DETAIL MAINLINE

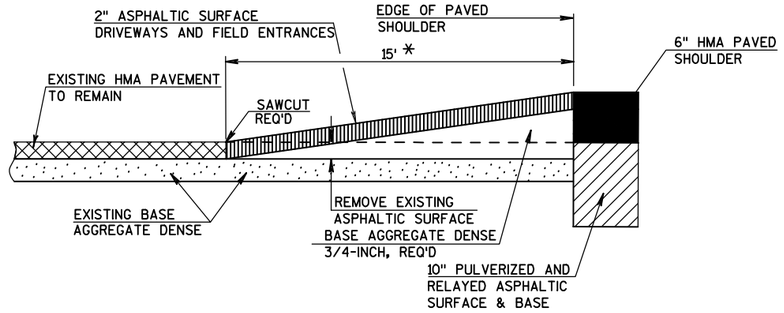


EROSION CONTROL AT INLET

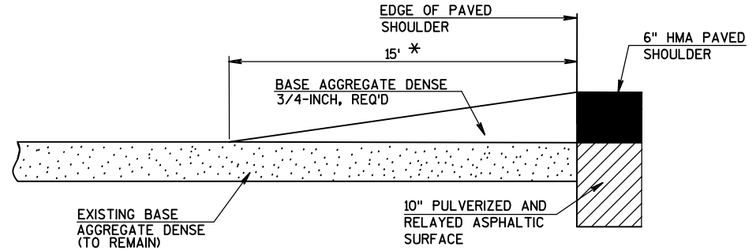
EROSION CONTROL AT OUTFALL

EROSION CONTROL AT NEW APRON ENDWALLS

FOR USE AT NEW ENDWALL LOCATIONS
SEE PLAN FOR NEW APRON ENDWALL LOCATIONS

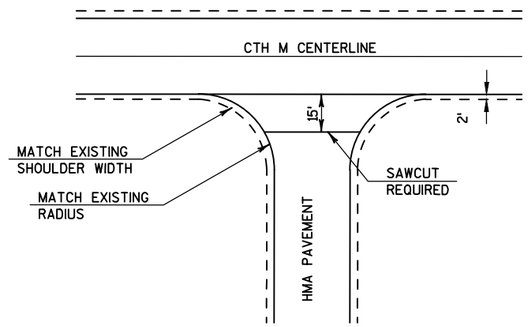


JOINT DETAIL FOR HMA PRIVATE ENTRANCES
(REPLACE IN KIND)

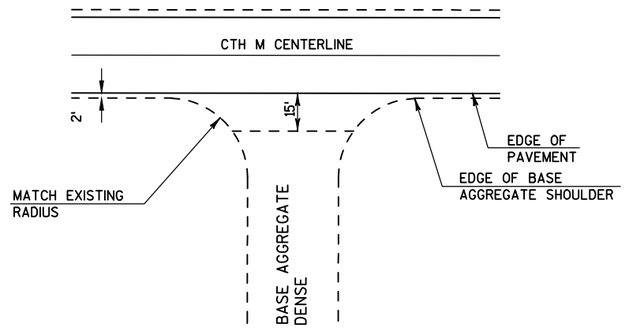


DETAIL FOR BASE AGGREGATE DENSE PRIVATE ENTRANCES

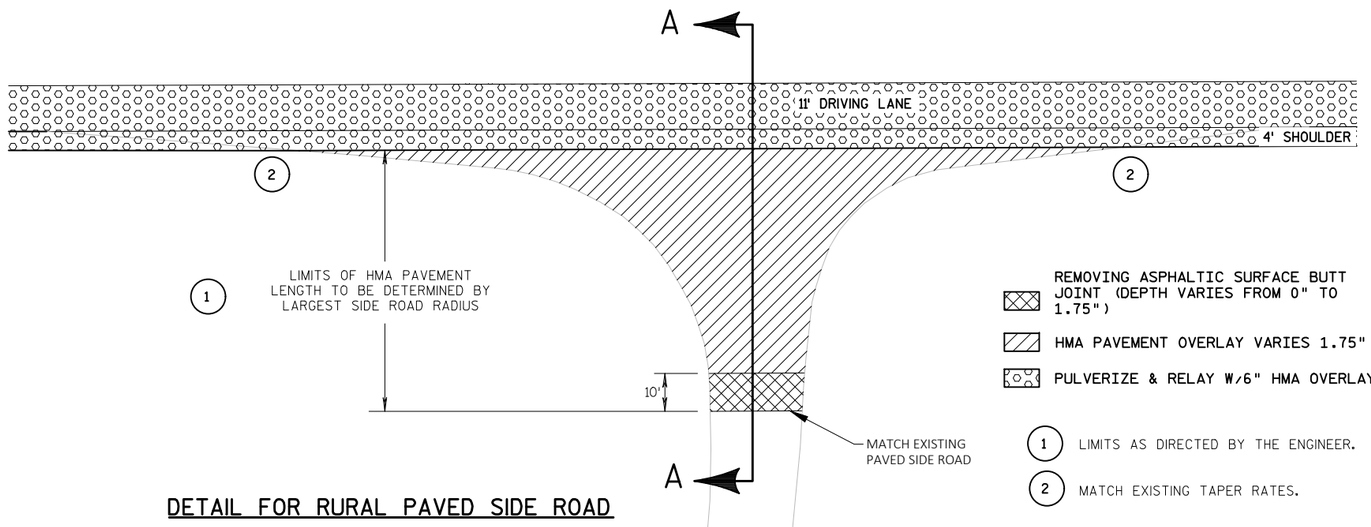
* OR AS DIRECTED BY THE ENGINEER



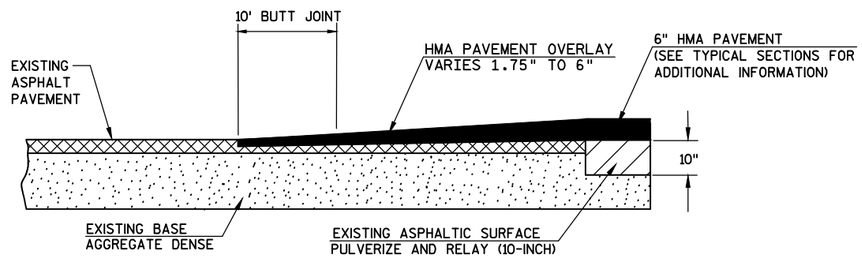
PRIVATE ENTRANCE AND FIELD ENTRANCE HMA DETAIL



PRIVATE ENTRANCE AND FIELD ENTRANCE BASE AGGREGATE DENSE DETAIL



DETAIL FOR RURAL PAVED SIDE ROAD



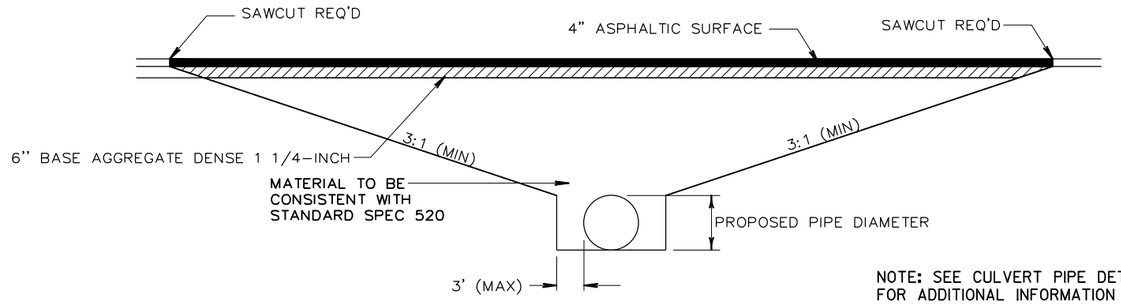
JOINT DETAIL SIDEROAD

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CONSTRUCTION DETAILS	SHEET 5	E

RUNOFF COEFFICIENT TABLE

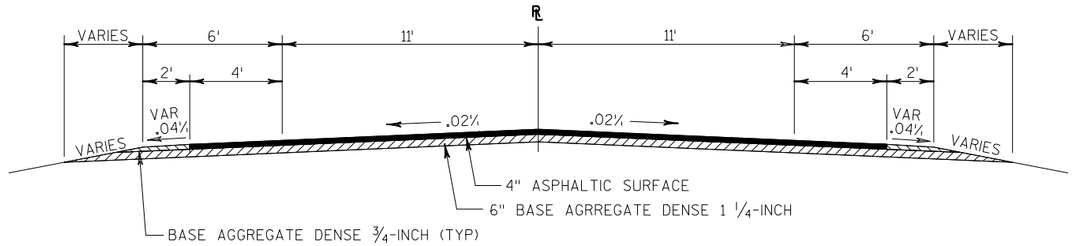
A	HYDROLOGIC SOIL GROUP											
	B		C						D			
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 135.65 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 46.47 ACRES



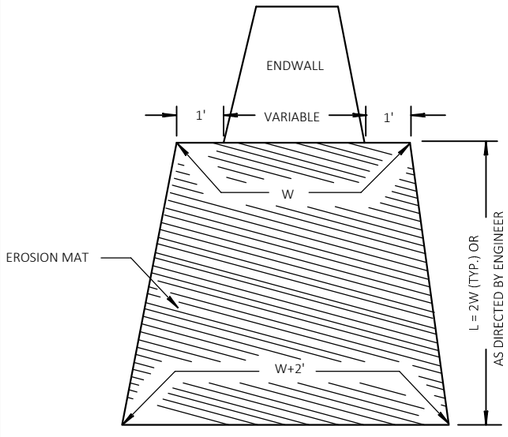
DETAIL FOR CTH M CULVERT PIPE REMOVAL, REPLACEMENT AND BASE PATCHING INSTALLATION

NOTE: REMOVAL OF PAVEMENT AND EXCAVATION ARE INCIDENTAL TO REMOVING CULVERT PIPE

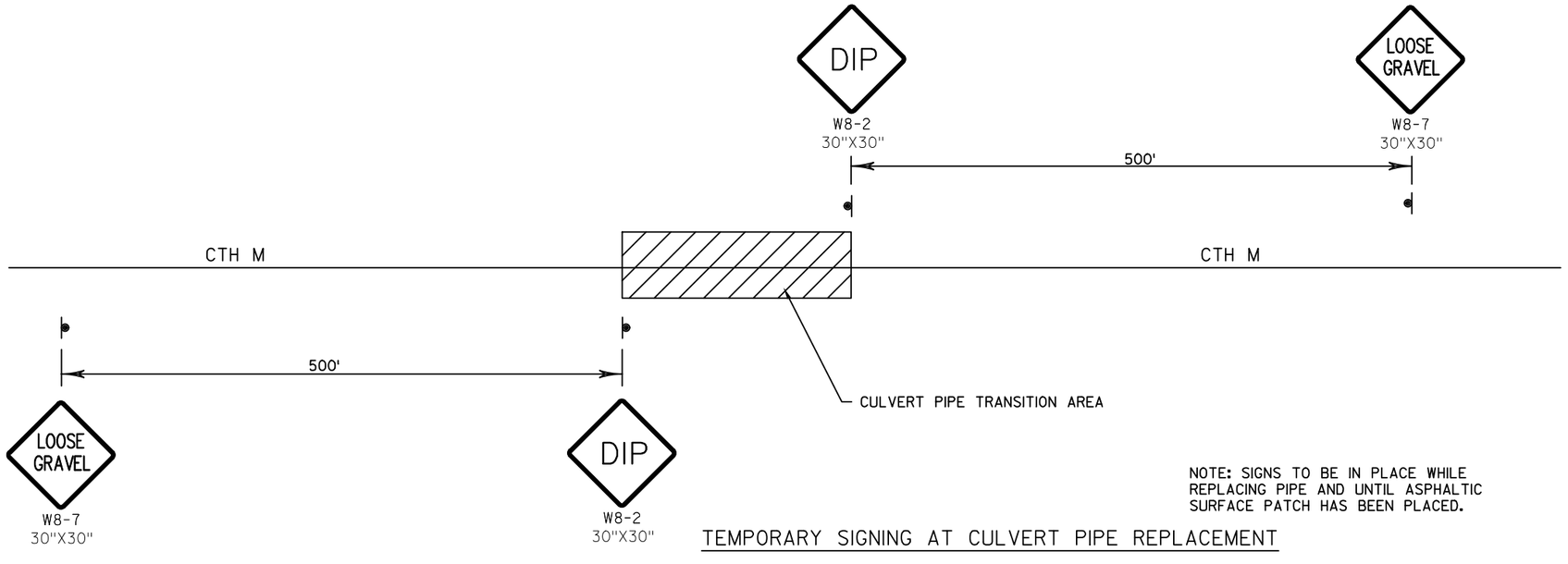


FINISHED TYPICAL SECTION FOR CTH M PIPE INSTALLATION AREAS

STA 174+91
STA 184+08



EROSION MAT TREATMENT AT CULVERTS

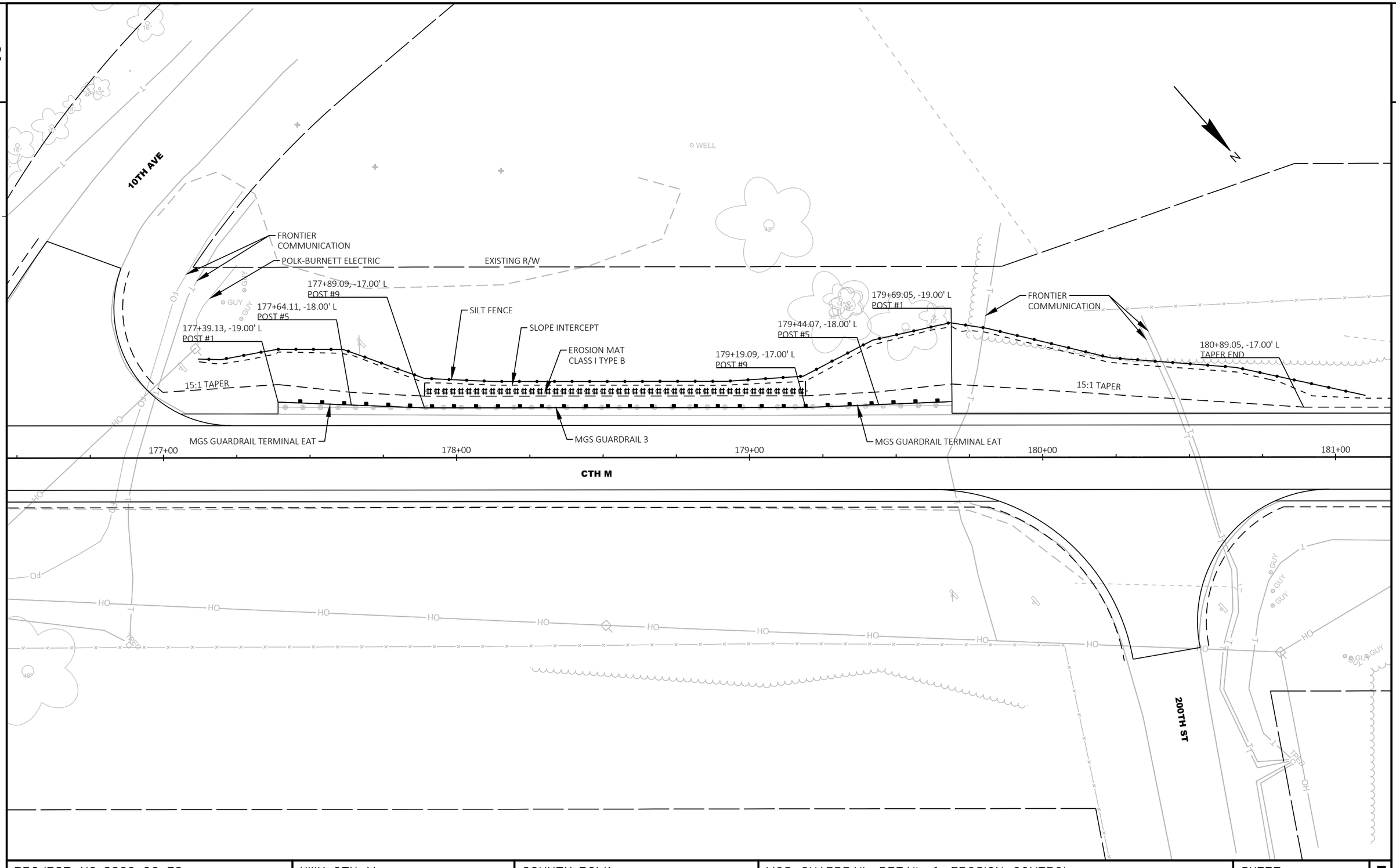


NOTE: SIGNS TO BE IN PLACE WHILE REPLACING PIPE AND UNTIL ASPHALTIC SURFACE PATCH HAS BEEN PLACED.

TEMPORARY SIGNING AT CULVERT PIPE REPLACEMENT

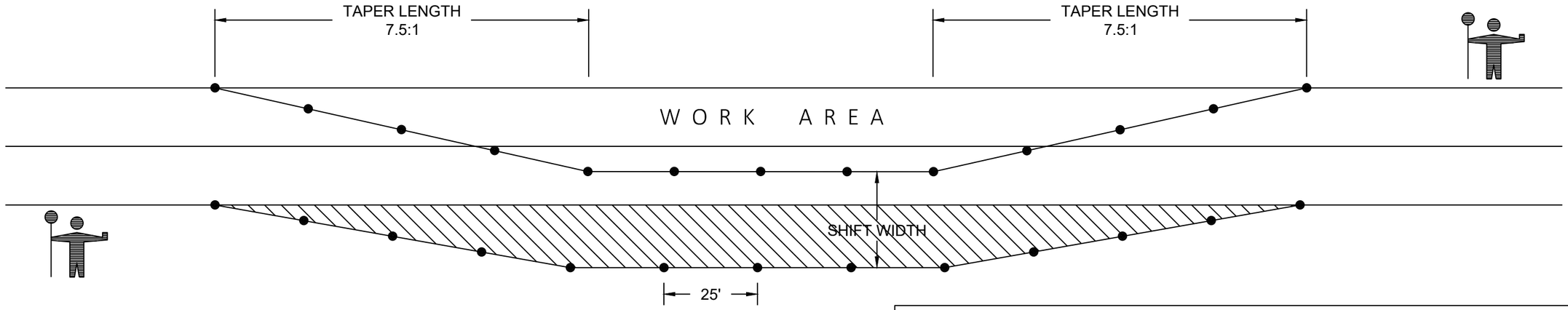
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CONSTRUCTION DETAILS	SHEET 6	E

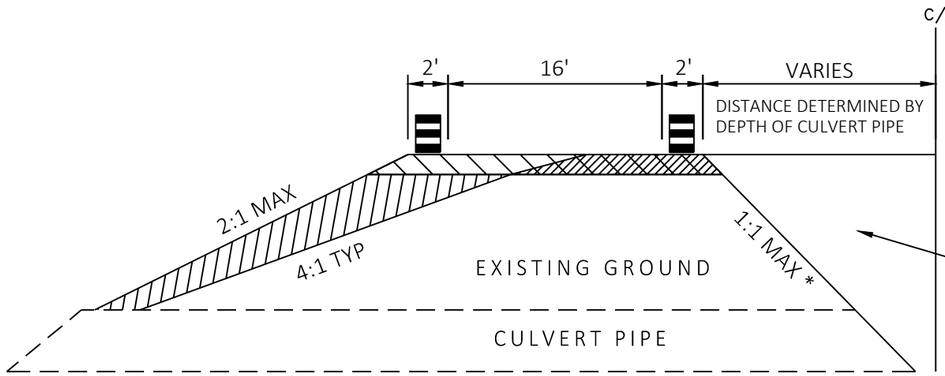
2



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	MGS GUARDRAIL DETAIL & EROSION CONTROL	SHEET 7	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\021001_CD.DWG
CTH M POLK CTY - 021004_CD
PLOT DATE : 7/14/2020 12:06 PM PLOT BY : AYRES ASSOCIATES PLOT NAME : PLOT SCALE : 1" = 30'_XREF
WISDOT/CADDS SHEET 42





FOR AREAS THAT DON'T ALLOW FOR ENOUGH WIDENING, USE TEMPORARY SHORING TO LIMIT IMPACTS. TEMPORARY SHORING PAID SEPARATELY FROM LANE SHIFT.

NOTES

1. EXTEND TAPERS ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION

2. WHEN WORK IS NOT IN PROGRESS:
   - REMOVE OR COVER ALL LANE CLOSURE SIGNS
   - MOVE ALL DEVICES A SAFE DISTANCE OUTSIDE THE SHOULDER
   - RESTORE LANES TO A SAFE OPERATING CONDITION

3. USE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION"

* USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS, & ANGULAR GRAVEL SOILS

KEY

- TRAFFIC CONTROL DRUM
- EXISTING PAVED SURFACE -OR- 6" BASE AGGREGATE DENSE 1 1/4 INCH - INCIDENTAL TO LANE SHIFT SYSTEM
- 6" BASE AGGREGATE DENSE 1 1/4 INCH - INCIDENTAL TO LANE SHIFT SYSTEM
- FILL - INCIDENTAL TO LANE SHIFT SYSTEM

LANE SHIFT DETAIL CTH M

STA 174+91
STA 184+08

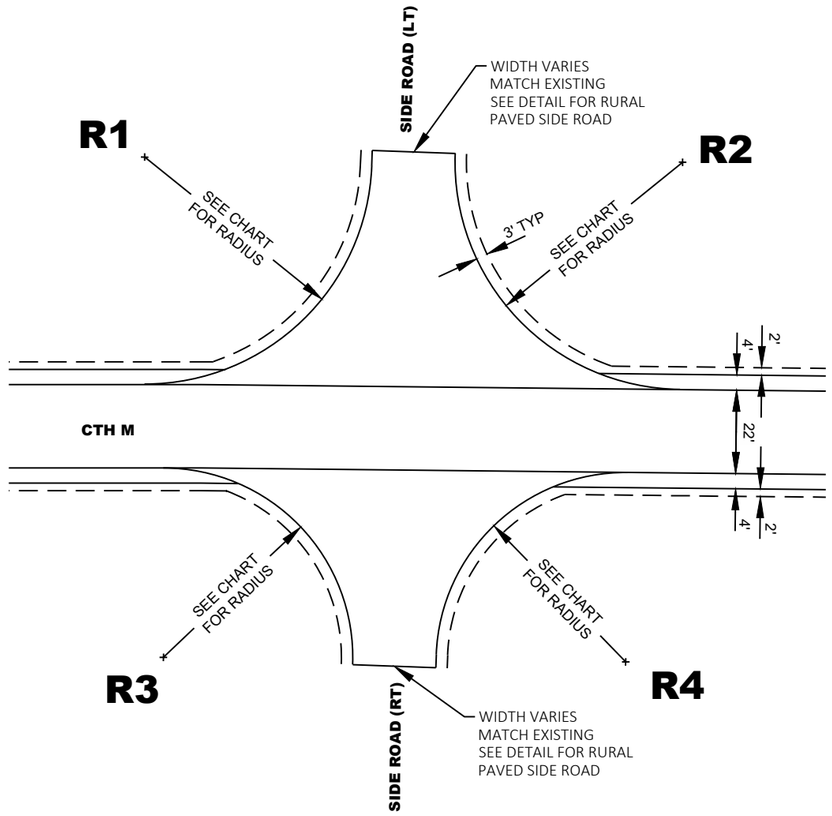
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CONSTRUCTION DETAIL	SHEET 8	E

2

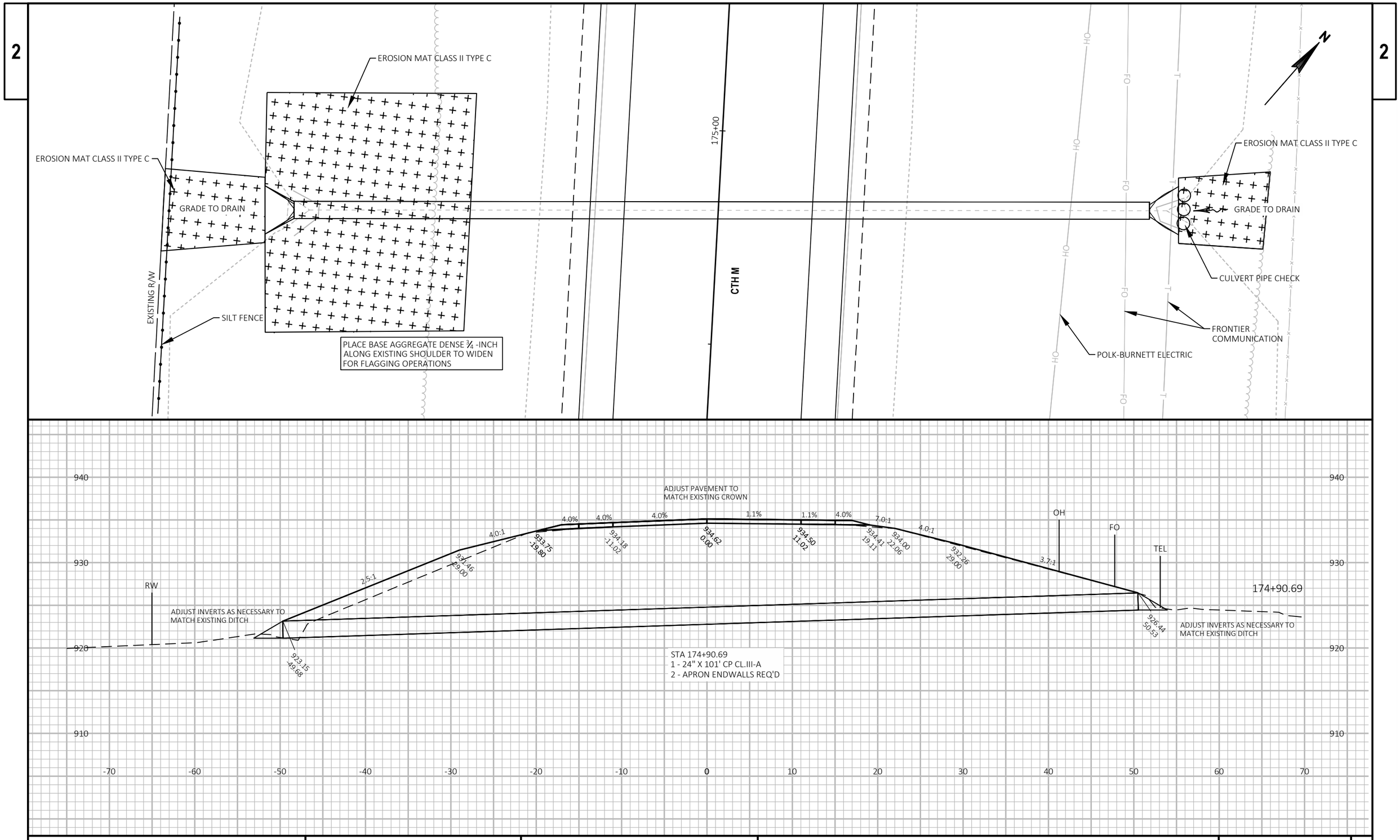
INTERSECTION RADII TO BE PLACED IN KIND. EXISTING RADII SHOWN ON PLAN AND PROFILE FOR INFORMATION ONLY.

	R1 RADIUS					R2 RADIUS				
ROAD NAME	STATION	OFFSET	Y	X	RADIUS	STATION	OFFSET	Y	X	RADIUS
SOUTH COUNTY LINE	82+12.73	-56.0	200146.38	485837.47	45'	83+14.73	-46.0	200244.17	485849.04	35'
* 196TH ST	112+78.81	-66.0	202795.12	484603.02	55'	113+85.33	-46.0	202900.74	484578.69	35'
E CEDAR RD	128+48.54	-66.0	204193.52	483923.38	55'	129+71.02	-51.0	204303.51	483867.46	40'
E CEDAR RD	171+25.70	-51.0	207725.83	481528.89	40'	172+72.94	-101.0	207793.92	481392.97	90'
10TH AVE	175+78.09	-86.0	208005.62	481180.63	75'	177+23.14	-51.0	208127.34	481094.33	40'
20TH AVE	213+86.46	-56.0	210990.93	478926.89	45'	214+98.04	-41.0	211073.94	478855.09	30'
35TH AVE/CTH X	285+92.24	-56.0	217513.65	477742.52	45'	287+19.07	-51.0	217632.52	477787.04	40'
203RD ST	315+94.00	-46.0	219784.86	479462.99	35'	316+81.76	-41.0	219826.81	479540.24	30'
40TH AVE	340+10.89	-46.0	221379.19	481097.45	35'	341+17.23	-56.0	221482.21	481098.52	45'
50TH AVE	392+28.39	-71.0	226588.03	481022.61	60'	393+69.72	-71.0	226730.09	481022.12	60'
60TH AVE	440+62.18	-51.0	231423.75	481046.04	40'	441+73.52	-61.0	231535.29	481038.66	50'

* 196TH ST IS A GRAVEL SIDE ROAD.



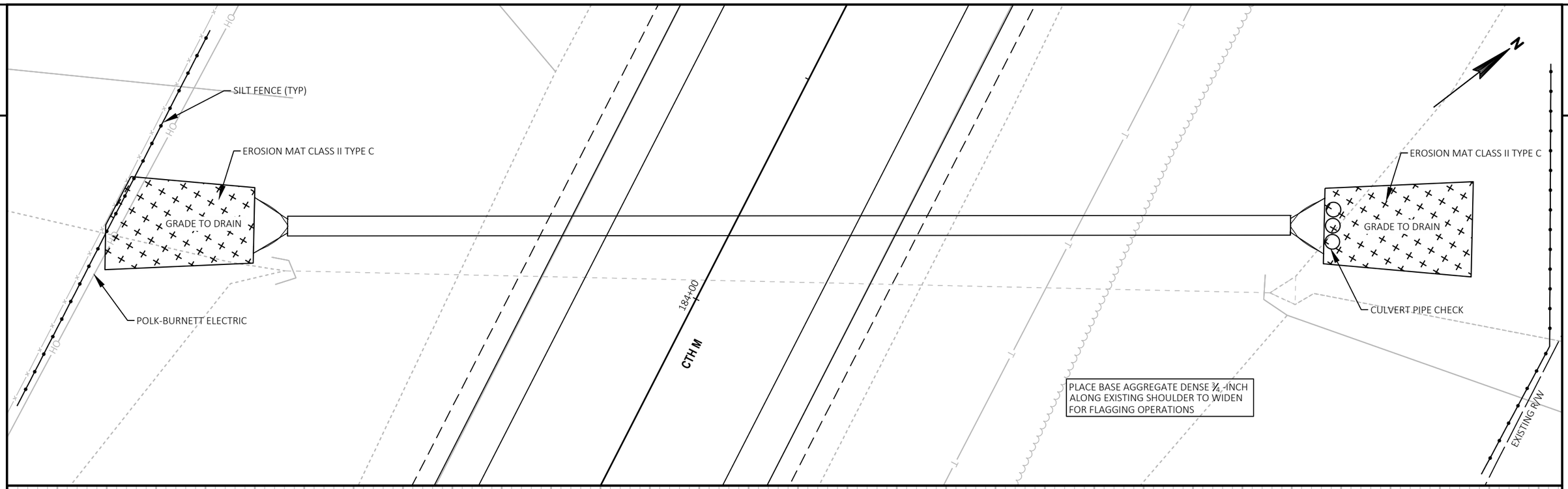
	R3 RADIUS					R4 RADIUS				
ROAD NAME	STATION	OFFSET	Y	X	RADIUS	STATION	OFFSET	Y	X	RADIUS
SOUTH COUNTY LINE	82+02.69	66.0	200136.58	485959.49	55'	83+29.69	61.0	200263.57	485954.24	50'
192ND ST	111+66.98	61.0	202743.52	484764.18	50'	112+80.98	51.0	202843.97	484709.36	40'
13TH AVE	158+63.80	66.0	206770.69	482352.45	55'	159+99.80	66.0	206883.61	482276.65	55'
200TH ST	179+61.80	81.0	208383.70	481001.24	70'	180+97.78	56.0	208454.24	480882.33	45'
30TH AVE	273+01.65	81.0	216246.10	477466.38	70'	274+43.77	61.0	216386.80	477492.02	50'
35TH AVE	304+20.82	71.0	219067.80	478527.12	60'	305+36.71	46.0	219150.06	478612.49	35'
200TH ST	336+91.70	41.0	221049.68	481100.70	30'	338+03.26	66.0	221151.16	481161.61	55'
50TH AVE	392+33.37	61.0	226594.69	481154.53	50'	393+56.05	61.0	226716.73	481154.15	50'
60TH AVE/CTH K	440+38.60	71.0	231397.31	481167.45	60'	441+83.57	66.0	231542.35	481165.86	55'
CTH Y	499+22.09	61.0	237077.78	480524.88	50'	500+64.49	81.0	237145.16	480396.05	70'



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PIPE REPLACEMENT DETAIL - STA 174+90.69	SHEET 10	E

FILE NAME : I:\41\410770_POLK CTH M\C3D\SHEETSPLAN\022501_SS.DWG
LAYOUT NAME - 022501_SS_1
PLOT DATE : 1/21/2021 12:34 PM
PLOT BY : WOOLEVER, NATHAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PIPE REPLACEMENT DETAIL - STA 184+08.35	SHEET 11	E

FILE NAME : I:\41\410770_POLK CTH M\C3D\SHEETSPLAN\022501_SS.DWG
LAYOUT NAME - 022501_SS_2
PLOT DATE : 1/21/2021 12:35 PM
PLOT BY : WOOLEVER, NATHAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 44

8866-00-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0205	Grubbing	STA	3.000	3.000
0006	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0008	204.0110	Removing Asphaltic Surface	SY	550.000	550.000
0010	204.0115	Removing Asphaltic Surface Butt Joints	SY	583.000	583.000
0012	204.0165	Removing Guardrail	LF	230.000	230.000
0014	204.0270	Abandoning Culvert Pipes	EACH	1.000	1.000
0016	204.9060.S	Removing (item description) 01. Culvert Pipe Endwall	EACH	9.000	9.000
0018	205.0100	Excavation Common	CY	10.000	10.000
0020	208.0100	Borrow	CY	218.000	218.000
0022	209.0200.S	Backfill Controlled Low Strength	CY	11.700	11.700
0024	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 8866-00-72	LS	1.000	1.000
0026	213.0100	Finishing Roadway (project) 01. 8866-00-72	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	11,490.000	11,490.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	210.000	210.000
0032	325.0100	Pulverize and Relay	SY	140,624.000	140,624.000
0034	374.1020.S	QMP Pulverize and Relay Compaction	SY	140,624.000	140,624.000
0036	455.0605	Tack Coat	GAL	14,379.000	14,379.000
0038	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	3.000	3.000
0040	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	3.000	3.000
0042	460.2005	Incentive Density PWL HMA Pavement	DOL	34,020.000	34,020.000
0044	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	50,610.000	50,610.000
0046	460.2010	Incentive Air Voids HMA Pavement	DOL	47,470.000	47,470.000
0048	460.5223	HMA Pavement 3 LT 58-28 S	TON	17,929.000	17,929.000
0050	460.6224	HMA Pavement 4 MT 58-28 S	TON	15,880.000	15,880.000
0052	460.6244	HMA Pavement 4 MT 58-34 S	TON	14,255.000	14,255.000
0054	465.0105	Asphaltic Surface	TON	52.000	52.000
0056	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	53.000	53.000
0058	511.1100	Temporary Shoring	SF	1,240.000	1,240.000
0060	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000
0062	520.3324	Culvert Pipe Class III-A 24-Inch	LF	203.000	203.000
0064	520.8700	Cleaning Culvert Pipes	EACH	13.000	13.000
0066	521.1015	Apron Endwalls for Culvert Pipe Steel 15-Inch	EACH	2.000	2.000
0068	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	4.000	4.000
0070	606.0200	Riprap Medium	CY	8.000	8.000
0072	614.2300	MGS Guardrail 3	LF	125.000	125.000
0074	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0076	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8866-00-72	EACH	1.000	1.000

8866-00-72

Line	Item	Item Description	Unit	Total	Qty
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	624.0100	Water	MGAL	1,200.000	1,200.000
0082	625.0100	Topsoil	SY	1,088.000	1,088.000
0084	627.0200	Mulching	SY	333.000	333.000
0086	628.1504	Silt Fence	LF	770.000	770.000
0088	628.1520	Silt Fence Maintenance	LF	770.000	770.000
0090	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0094	628.2004	Erosion Mat Class I Type B	SY	135.000	135.000
0096	628.2027	Erosion Mat Class II Type C	SY	343.000	343.000
0098	628.7504	Temporary Ditch Checks	LF	70.000	70.000
0100	628.7555	Culvert Pipe Checks	EACH	31.000	31.000
0102	629.0210	Fertilizer Type B	CWT	0.900	0.900
0104	630.0120	Seeding Mixture No. 20	LB	34.000	34.000
0106	630.0140	Seeding Mixture No. 40	LB	12.000	12.000
0108	630.0200	Seeding Temporary	LB	34.000	34.000
0110	630.0500	Seed Water	MGAL	28.000	28.000
0112	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	66.000	66.000
0114	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	23.000	23.000
0116	637.2210	Signs Type II Reflective H	SF	299.660	299.660
0118	637.2230	Signs Type II Reflective F	SF	225.980	225.980
0120	638.2102	Moving Signs Type II	EACH	12.000	12.000
0122	638.2602	Removing Signs Type II	EACH	84.000	84.000
0124	638.3000	Removing Small Sign Supports	EACH	75.000	75.000
0126	642.5001	Field Office Type B	EACH	1.000	1.000
0128	643.0300	Traffic Control Drums	DAY	100.000	100.000
0130	643.0420	Traffic Control Barricades Type III	DAY	25.000	25.000
0132	643.0900	Traffic Control Signs	DAY	4,200.000	4,200.000
0134	643.5000	Traffic Control	EACH	1.000	1.000
0136	645.0120	Geotextile Type HR	SY	20.000	20.000
0138	646.1020	Marking Line Epoxy 4-Inch	LF	84,540.000	84,540.000
0140	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	67,042.000	67,042.000
0142	646.6120	Marking Stop Line Epoxy 18-Inch	LF	68.000	68.000
0144	648.0100	Locating No-Passing Zones	MI	7.990	7.990
0146	649.0105	Temporary Marking Line Paint 4-Inch	LF	108,514.000	108,514.000
0148	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0150	650.8000	Construction Staking Resurfacing Reference	LF	42,170.000	42,170.000
0152	650.9910	Construction Staking Supplemental Control (project) 01. 8866-00-72	LS	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	389.000	389.000

8866-00-72

Line	Item	Item Description	Unit	Total	Qty
0156	690.0150	Sawing Asphalt	LF	391.000	391.000
0158	740.0440	Incentive IRI Ride	DOL	31,960.000	31,960.000
0160	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	500.000	500.000
0162	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	400.000	400.000
0164	SPV.0060	Special 01. Ditch Cleaning	EACH	1.000	1.000
0166	SPV.0060	Special 02. Lane Shift	EACH	4.000	4.000

3

CLEARING & GRUBBING

STATION TO STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
174+00 - 176+00	2	2
184+00 - 185+00	1	1
PROJECT TOTALS	**3**	**3**

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	SIZE	MATERIAL	203.0100 EACH
174+91	CTH M	18"x100'	CMCP	1
PROJECT TOTAL				**1**

EARTHWORK SUMMARY

DIVISION	STATION TO STATION	LOCATION	(1) 205.0100 EXCAVATION COMMON CY	SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(2) AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	(3) EXPANDED FILL CY	(4) MASS ORDINATE +/- CY	(5) WASTE CY	208.0100 BORROW CY
CULVERT 174+91	174+70 - 175+10	CTH M	---	---	---	24	31	-31	0	31
CULVERT 184+08	184+65 - 185+45	CTH M	---	---	---	36	47	-47	0	47
BEAM GUARD EARTHWORK	177+12 - 181+04	CTH M	0	0	0	108	140	-140	0	140
UNDISTRIBUTED			10	10	0	0	0	0	0	0
PROJECT TOTAL			**10**	**10**	**0**	**168**	**218**	**-218**	**0**	**218**

Notes:
(1) Salvaged/Unsuable Pavement Material is included in Cut.
(2) Available Material = Cut - Salvaged/Unusuable Pavement Material
(3) Expanded Fill Factor = 1.3 Expanded Fill = (Unexpanded Fill * Fill Factor)
(4) 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.
(5) Waste = Expanded Fill - Available Material - EBS (For information only - not a bid item)

REMOVING ASPHLATIC SURFACE

STATION	LOCATION	204.0110 SY
103+53 LT	DRIVEWAY	91
120+62 LT	DRIVEWAY	40
149+36 LT	DRIVEWAY	37
158+18 LT	DRIVEWAY	42
163+85 LT	DRIVEWAY	73
297+63 LT	DRIVEWAY	42
313+73 LT	DRIVEWAY	55
335+91 LT	DRIVEWAY	42
356+25 LT	DRIVEWAY	41
426+19 LT	DRIVEWAY	48
427+03 RT	DRIVEWAY	39
PROJECT TOTAL		**550**

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION	LOCATION	204.0115 SY
82+67 LT	SOUTH COUNTY LINE	26
82+69 RT	SOUTH COUNTY LINE	25
112+30 RT	192ND	29
129+15 LT	E CEDAR	26
159+31 RT	13TH	31
171+85 LT	E CEDAR	25
176+65 LT	10TH	31
180+40 RT	200TH	30
214+47 LT	20TH	39
273+80 RT	30TH	24
286+58 LT	CTH X	45
304+87 RT	35TH	27
316+42 LT	203RD	27
337+41 RT	200TH	31
340+61 LT	40TH	27
392+96 RT	50TH	27
393+00 LT	50TH	28
441+13 RT	CTH K	34
441+14 LT	CTH K	25
499+90 RT	CTH Y	26
PROJECT TOTAL		**583**

REMOVING CULVERT PIPE ENDWALL

STATION	LOCATION	SIZE	MATERIAL	204.9060.S EACH	COMMENTS
82+66	SOUTH COUNTY LINE	24"	CMCP, EAST	1	SOUTH ENDWALL ONLY
87+88	CTH M, RT	24"	CMCP	1	RT ENDWALL ONLY
109+55	CTH M	24"	CMCP	2	
199+41	CTH M	24"	CMCP	2	
316+39	203RD ST	18"	CMCP	1	NORTH ENDWALL ONLY
337+39	200TH ST	18"	CMCP	1	SOUTH ENDWALL ONLY
340+60	40TH AVE	18"	CMCP	1	NORTH ENDWALL ONLY
PROJECT TOTAL				**9**	

BASE AGGREGATE DENSE

STATION TO STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
82+00 - 503+70	CTH M	11100	---
82+67 LT	SOUTH COUNTY LINE	13	---
82+69 RT	SOUTH COUNTY LINE	17	---
112+30 RT	192ND	11	---
113+40 LT	196TH	15	---
129+15 LT	E CEDAR	19	---
159+31 RT	13TH	17	---
171+85 LT	E CEDAR	18	---
174+71 - 175+11	CTH M	27	60
176+65 LT	10TH	19	---
177+39 - 179+69 LT	CTH M	---	110
180+40 RT	200TH	20	---
183+93 - 184+23	CTH M	22	40
214+47 LT	20TH	10	---
273+80 RT	W CHURCH	22	---
286+58 LT	CTH X	16	---
304+87 RT	35TH	14	---
316+42 LT	203RD	11	---
337+41 RT	200TH	15	---
340+61 LT	40TH	12	---
392+96 RT	50TH	20	---
393+00 LT	50TH	16	---
441+13 RT	CTH K	15	---
441+14 LT	CTH K	19	---
499+90 RT	CTH Y	22	---
PROJECT TOTALS		**11490**	**210**

REMOVING GUARDRAIL

STATION TO STATION	LOCATION	204.0165 LF
177+39 - 179+69	LT	230
PROJECT TOTAL		**230**

ABANDONING CULVERT PIPES

STATION	LOCATION	204.0270 EACH
184+03	CTH M	1
PROJECT TOTAL		**1**

BACKFILL CONTROLLED LOW STRENGTH

STATION	LOCATION	209.0200.S CY
184+03	CTH M	11.7
PROJECT TOTAL		**11.7**

PREPARE FOUNDATION FOR ASPHALTIC PAVING

PROJECT	211.0100 LS
8866-00-72	1

FINISHING ROADWAY

PROJECT	213.0100 EACH
8866-00-72	1
PROJECT TOTAL	**1**

HMA PAVEMENT ITEMS

STATION TO STATION	LOCATION	460.6244 4 MT 58-34 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	460.5223 3 LT 58-28 S TON	455.0605 TACK COAT GAL	460.0105.S HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PAVEMENT PWL TEST STRIP DENSITY EACH
82+00 - 503+70	CTH M	13780	15500	17720	14065	3	3
82+67 LT	SOUTH COUNTY LINE	15	12	7	10	---	---
82+69 RT	SOUTH COUNTY LINE	22	18	10	15	---	---
112+30 RT	192ND	19	15	8	13	---	---
113+40 LT	196TH	16	13	7	11	---	---
129+15 LT	E CEDAR	25	20	11	16	---	---
159+31 RT	13TH	25	21	11	17	---	---
171+85 LT	E CEDAR	26	21	12	18	---	---
176+65 LT	10TH	32	25	14	20	---	---
180+40 RT	200TH	24	20	11	16	---	---
214+47 LT	20TH	16	13	7	11	---	---
273+80 RT	W CHURCH	31	23	13	19	---	---
286+58 LT	CTH X	30	23	13	18	---	---
304+87 RT	35TH	18	15	8	13	---	---
316+42 LT	203RD	12	9	5	8	---	---
337+41 RT	200TH	22	18	10	15	---	---
340+61 LT	40TH	15	12	7	10	---	---
392+96 RT	50TH	20	17	9	14	---	---
393+00 LT	50TH	28	22	12	18	---	---
441+13 RT	CTH K	31	25	13	20	---	---
441+14 LT	CTH K	17	14	8	12	---	---
499+90 RT	CTH Y	31	24	13	20	---	---
PROJECT TOTALS		**14255**	**15880**	**17929**	**14379**	**3**	**3**

PULVERIZE AND RELAY

STATION TO STATION	LOCATION	325.0100 SY
82+00 - 503+70	CTH M	140624
PROJECT TOTAL		**140624**

QMP PULVERIZE AND RELAY COMPACTION

STATION TO STATION	LOCATION	374.1020.S SY
82+00 - 503+70	CTH M	140624
PROJECT TOTAL		**140624**

ASPHALTIC SURFACE ITEMS

STATION TO STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
103+53	PE, LT	---	8
120+62	PE, LT	---	4
149+36	PE, LT	---	4
158+18	PE, LT	---	4
163+85	PE, LT	---	8
174+71 - 175+11	PIPE REPLACEMENT	30	---
183+93 - 184+23	PIPE REPLACEMENT	22	---
297+63	PE, LT	---	4
313+73	PE, LT	---	4
335+91	PE, LT	---	4
356+25	PE, LT	---	4
426+19	PE, LT	---	5
427+03	PE, RT	---	4
PROJECT TOTALS		**52**	**53**

CLEANING CULVERT PIPES

STATION	LOCATION	SIZE	MATERIAL	520.8700 EACH
82+68	SOUTH COUNTY LINE	29"x42"	CMCP	1
180+33	CTH M	15"	CMCP	1
199+41	CTH M	24"	CMCP	1
214+50	CTH M	18"	CMCP	1
235+63	CTH M	24"	CMCP	1
299+20	CTH M	24"	CMCP	1
308+87	CTH M	18"	CMCP	1
331+52	CTH M	24"	CMCP	1
340+60	40TH AVE	18"	CMCP	1
456+75	CTH M	24"	CMCP	1
464+68	CTH M	24"	CMCP	1
467+30	CTH M	24"	CMCP	1
497+96	CTH M	24"	CMCP	1
PROJECT TOTAL				**13**

3

TEMPORARY SHORING

STATION	LOCATION	511.1100 SF
174+91, RT	PIPE REPLACEMENT	360
174+91, LT	PIPE REPLACEMENT	360
184+08, RT	PIPE REPLACEMENT	260
184+08, LT	PIPE REPLACEMENT	260
PROJECT TOTAL		**1240**

CULVERT PIPE CLASS III-A NON-METAL & APRON ENDWALLS

STATION	LOCATION	520.1024 APRON ENDWALL FOR CULVERT PIPE 24-INCH EACH	520.3324 CP CL.III-A 24-INCH LF	521.1015 APRON ENDWALL 15-INCH LF	521.1018 FOR CULVERT 18-INCH LF	521.1024 PIPE STEEL 24-INCH EACH	THICKNESS STEEL INCHES
82+66	SOUTH COUNTY LINE	---	---	---	---	1	0.064
87+88	CTH M, RT	---	---	---	---	1	0.064
109+55	CTH M, LT/RT	---	---	---	---	2	0.064
174+91	CTH M	2	101	---	---	---	0.064
180+33	200TH ST	---	---	2	---	---	0.064
184+02	CTH M	2	102	---	---	---	0.064
199+41	CTH M, LT/RT	---	---	---	---	2	0.064
316+39	203RD ST, LT/RT	---	---	---	2	---	0.064
337+39	200TH ST, SOUTH	---	---	---	1	---	0.064
340+60	40TH AVE, NORTH	---	---	---	1	---	0.064
PROJECT TOTALS		**4**	**203**	**2**	**4**	**6**	

TOPSOIL, MULCHING, FERTILIZER, & SEEDING

STATION TO STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING NO. 20 LB	630.0140 MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL
82+66	SOUTH COUNTY LINE, ENDWALL	17	---	0.02	0.5	---	0.5	0.4
87+88	CTH M, ENDWALL RT	17	---	0.02	0.5	---	0.5	0.4
109+55	CTH M, ENDWALL LT/RT	34	---	0.03	1.0	---	1.0	0.8
174+91	CTH M, ENDWALL LT/RT	204	---	0.13	5.6	---	5.6	4.6
177+10 - 177+60	CTH M BEAM GUARD	53	53	0.04	1.5	1.0	1.5	1.2
177+60 - 179+44	CTH M BEAM GUARD	108	---	0.07	3.0	2.0	3.0	2.5
179+44 - 181+05	CTH M BEAM GUARD	213	213	0.14	5.8	3.9	5.8	4.8
180+33	200TH ST, ENDWALLS	21	---	0.02	0.6	---	0.6	0.5
184+08	CTH M, ENDWALL LT/RT	239	---	0.16	6.5	---	6.5	5.4
199+41	CTH M, ENDWALL LT/RT	34	---	0.03	1.0	---	1.0	0.8
316+39	203RD ST, ENDWALL LT/RT	24	---	0.02	0.7	---	0.7	0.6
337+39	200TH ST, ENDWALL SOUTH	12	---	0.01	0.4	---	0.4	0.3
340+60	40TH AVE, ENDWALL NORTH	12	---	0.01	0.4	---	0.4	0.3
	UNDISTRIBUTED	100	67	0.20	6.5	5.1	6.5	5.4
PROJECT TOTALS		**1088**	**333**	**0.90**	**34.0**	**12.0**	**34.0**	**28.0**

RIPRAP MEDIUM & GEOTEXTILE TYPE HR

STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
225+76	CTH M, LT	6	16
UNDISTRIBUTED	PROJECT	2	4
PROJECT TOTALS		**8**	**20**

MGS GUARDRAIL

STATION TO STATION	LOCATION	614.2300 GUARDRAIL 3 LF	614.2610 TERMINAL EAT EACH
177+39 - 179+69	CTH M, LT	125	2
PROJECT TOTALS		**125**	**2**

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100 EACH
0020	8866-00-72	1
	PROJECT TOTAL	**1**

MOBILIZATION

PROJECT	619.1000 EACH
8866-00-72	1
PROJECT TOTAL	**1**

WATER

LOCATION	624.0100 MGAL
BASE COMPACTION	1100
DUST CONTROL	100
PROJECT TOTAL	**1200**

SILT FENCE

STATION TO STATION	LOCATION	628.1504 LF	628.1520 MAINTENANCE LF
82+66	SOUTH COUNTY LINE	20	20
87+88	CTH M, RT	20	20
109+55	CTH M, LT/RT	20	20
174+91	CTH M, LT/RT	20	20
177+00 - 181+00	CTH M, LT	410	410
180+33	200TH ST	20	20
184+08	CTH M, LT/RT	20	20
199+41	CTH M, LT/RT	20	20
316+39	203RD ST	20	20
337+39	200TH ST	20	20
340+60	40TH AVE	20	20
UNDISTRIBUTED	PROJECT	160	160
PROJECT TOTALS		**770**	**770**

MOBILIZATIONS EROSION CONTROL AND EMERGENCY EROSION CONTROL

PROJECT	628.1905 EACH	628.1910 EMERGENCY EACH
8866-00-72	2	2
PROJECT TOTALS	**2**	**2**

PERMANENT SIGNING

PLAN & PROFILE SHEET NO	APPROX STATION LOCATION	SIGN CODE	SIGN SIZE WxH (INCHES)	634.0614 POSTS WOOD 14-FT EACH	634.0616 4X6-INCH 16-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENT
SHEET 1	82+20, LT	I2-2	66x15	---	1	6.88	---	1	1	ST CROIX CO
		M1-5A	24x24	---	---	4.00	---	1	---	"M", SHARES POST
	SOUTH COUNTY LINE	R1-1	30x30	1	---	5.18	---	1	1	
	SOUTH COUNTY LINE	R1-1	30x30	1	---	5.18	---	1	1	
	83+20, RT	I2-2	48x15	---	1	5.00	---	1	1	POLK CO
		M1-5A	24x24	---	---	4.00	---	1	---	"M", SHARES POST
	85+25, RT	R2-1	24x30	1	---	5.00	---	1	1	"55"
SHEET 2	96+75, LT	S3-1	30x30	1	---	---	6.25	1	1	
SHEET 3	192ND ST	R1-1	30x30	1	---	5.18	---	1	1	
	196TH ST	R1-1	30x30	1	---	5.18	---	---	---	
SHEET 4	E CEDAR RD	R1-1	30x30	1	---	5.18	---	1	1	
SHEET 6	13TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
	165+75, RT	W2-2	30x30	1	---	---	6.25	1	1	
SHEET 7	E CEDAR RD	R1-1	30x30	1	---	5.18	---	1	1	
	10TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
	200TH ST	R1-1	30x30	1	---	5.18	---	1	1	
SHEET 10	20TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
SHEET 13	268+30, RT	I2-3	84x24	2	---	14.00	---	1	1	HORSE CREEK UNINCORPORATED
	270+95, RT	W3-5	36x36	---	1	5.00	9.00	1	1	"45"
SHEET 14	30TH AVE	R1-1	30x30	1	---	5.18	---	1	1	"45"
	275+75, RT	J1-1	24x39	---	1	6.50	---	1	1	JCT, "X"
	278+05, LT	R2-1	24x30	1	---	5.00	---	1	1	"55"
	278+05, RT	R2-1	24x30	1	---	5.00	---	1	1	"45"
	283+95, LT	M1-5A	24x24	1	---	4.00	---	1	1	"M"
	285+55, RT	J13-1	24x45	---	1	7.50	---	1	1	"X", LT ARROW
	35TH AVE/CTH X	R1-1	30x30	1	---	5.18	---	1	1	
	286+60, RT	W1-7	48x24	1	1	8.00	---	1	1	
		M1-5A	24x24	---	---	4.00	---	1	---	"M", SHARES POST
	287+05, LT	J13-1	24x45	---	1	7.50	---	1	1	"X", RT ARROW
SHEET 15	290+60, RT	W1-2R	36x36	---	1	---	9.00	1	1	
		W13-1	18x18	---	---	---	2.25	---	---	"45", SHARES POST
	293+30, LT	J1-1	24x39	---	1	6.50	---	1	1	JCT, "X"
	296+40, LT	R2-1	24x30	1	---	5.00	---	1	1	"45"
	296+40, RT	R2-1	24x30	1	---	5.00	---	1	1	"55"
SHEET 16	35TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
	305+20, LT	W3-5	36x36	---	1	---	9.00	1	1	"45"
	308+00, LT	I2-3	84x24	2	---	14.00	---	1	1	HORSE CREEK UNINCORPORATED
	309+00, LT	S3-1	30x30	1	---	---	6.25	1	1	
	310+85, LT	W1-2L	36x36	---	1	---	9.00	1	1	
		W13-1	18x18	---	---	---	2.25	---	---	"45", SHARES POST
	203RD ST	R1-1	30x30	1	---	5.18	---	1	1	
SHEET 17	324+30, RT	W1-2L	36x36	---	1	---	9.00	1	1	
	328+55, RT	S3-1	30x30	1	---	---	6.25	1	1	
SHEET 18	200TH ST	R1-1	30x30	1	---	5.18	---	1	1	
	40TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
	345+00, LT	S3-1	30x30	1	---	---	6.25	1	1	
	346+75, LT	W1-2R	36x36	---	1	---	9.00	1	1	
SHEET 21	384+80	W2-1	30x30	1	---	---	6.25	1	1	
	50TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
SHEET 22	50TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
SHEET 24	433+00, RT	J1-1	24x39	---	1	6.50	---	1	1	JCT, "K"
SHEET 25	438+85, LT	M1-5A	24x24	1	---	4.00	---	1	1	"M"
	440+50, RT	J13-1	24x45	---	1	7.50	---	1	1	"K", RT ARROW
	60TH AVE	R1-1	30x30	1	---	5.18	---	1	1	
	60TH AVE/CTH K	R1-1	30x30	1	---	5.18	---	1	1	
	60TH AVE/CTH K	J13-1	24x45	---	1	7.50	---	1	1	"M", DOUBLE ARROW

- CONTINUED -

3

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 LF
UNDISTRIBUTED	PROJECT	70
PROJECT TOTAL		**70**

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 EACH
82+66	SOUTH COUNTY LINE	3
87+88	CTH M	3
109+55	CTH M	3
174+91	CTH M	3
180+33	200TH ST	2
184+08	CTH M	3
199+41	CTH M	3
316+39	203RD ST	2
337+39	200TH ST	2
340+60	40TH AVE	2
UNDISTRIBUTED		5
PROJECT TOTAL		**31**

EROSION MAT

STATION TO STATION	LOCATION	628.2004 CLASS I TYPE B SY	628.2027 CLASS II TYPE C SY
82+66	SOUTH COUNTY LINE, ENDWALL	---	14
87+88	CTH M, ENDWALL RT	---	14
109+55	CTH M, ENDWALL LT/RT	---	29
174+91	CTH M, ENDWALL LT/RT	---	99
177+60 - 179+45	CTH M, LT	108	---
180+33	200TH ST, ENDWALLS	---	17
184+08	CTH M, ENDWALL LT/RT	---	29
199+41	CTH M, ENDWALL LT/RT	---	29
316+39	203RD ST, ENDWALL LT/RT	---	21
337+39	200TH ST, ENDWALL SOUTH	---	10
340+60	40TH AVE, ENDWALL NORTH	---	10
UNDISTRIBUTED		27	70
PROJECT TOTALS		**135**	**343**

PERMANENT SIGNING - CONTINUED -

PLAN & PROFILE SHEET NO	APPROX STATION LOCATION	SIGN CODE	SIGN SIZE WxH (INCHES)	634.0614 POSTS WOOD 14-FT EACH	634.0616 4X6-INCH 16-FT EACH	637.2210 SIGNS 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
	441+70, LT	J13-1	24x45	---	1	7.50	---	1	1	"K", LT ARROW
	443+60, RT	M1-5A	24x24	1	---	4.00	---	1	1	"M"
	448+60, LT	J1-1	24x39	---	1	6.50	---	1	1	JCT, "K"
SHEET 27	482+25, RT	W1-2L	36x36	---	1	---	9.00	1	1	
		W13-1	18x18	---	---	---	2.25	---	---	"50", SHARES POST
SHEET 28	487+50, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	488+75, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	490+00, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	491+25, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	492+50, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	493+85, RT	J1-1	24x39	---	1	6.50	---	1	1	JCT, "Y"
	493+90, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	495+25, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	496+50, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	497+75, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
SHEET 29	499+25, RT	W1-8	18x24	1	---	---	3.00	1	1	
		W1-8	18x24	---	---	---	3.00	1	---	SHARES POST
	499+50, RT	J13-1	24x45	---	1	7.50	---	1	1	"Y", RT ARROW
	500+00, LT	W1-7	48x24	1	1	---	8.00	1	1	
		M1-5A	24x24	---	---	4.00	---	1	---	SHARES POST
	CTH Y	R1-1	30x30	1	---	5.18	---	1	1	
	500+50, LT	J13-1	24x45	---	1	7.50	---	1	1	"Y", LT ARROW
	503+25, RT	W2-2	30x30	1	---	---	6.25	1	1	
PROJECT	LOCATIONS	W14-3	48x36	1	---	---	5.56	---	---	
	DETERMINED	W14-3	48x36	1	---	---	5.56	---	---	
	BY "LOCATING	W14-3	48x36	1	---	---	5.56	---	---	
	NO PASSING ZONE"	W14-3	48x36	1	---	---	5.56	---	---	
		W14-3	48x36	1	---	---	5.56	---	---	
		W14-3	48x36	1	---	---	5.56	---	---	
		W14-3	48x36	1	---	---	5.56	---	---	
		W14-3	48x36	1	---	---	5.56	---	---	
	TOTALS			**60**	**23**	**299.66**	**225.98**	**84**	**70**	
	PROJECT TOTALS			**66 ***	**23**	**299.66**	**225.98**	**84**	**75 ***	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN THE PLAN

3

MOVING SIGNS TYPE II

SIGN NO	APPROX STATION LOCATION	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENT
1-1	SOUTH COUNTY LINE	1	1	---	NO ATV
1-2	83+20, RT	1	1	1	ALL POLK COUNTY HIGHWAYS ARE ATV ROUTES UNLESS POSTED
1-3	85+25, RT	1	1	1	ATV SPEED LIMIT 35 ATV'S MUST STAY ON PAVEMENT
4-1	E CEDAR RD	---	1	---	TOWN ROAD SIGNS
7-1	E CEDAR RD	---	1	---	TOWN ROAD SIGNS
10-1	216+00, RT	---	1	---	ADOPT-A-HIGHWAY
14-1	280+05, RT	1	1	1	ADOPT-A-HIGHWAY
14-2	283+95, LT	1	1	1	ADOPT-A-HIGHWAY
16-1	203RD ST	---	1	---	TOWN ROAD SIGNS
18-1	200TH ST	---	1	---	TOWN ROAD SIGNS
18-2	343+15, LT	1	1	1	ADOPT-A-HIGHWAY
25-1	60TH AVE	---	1	---	TOWN ROAD SIGNS
TOTALS		**6**	**12**	**5**	
PROJECT TOTALS		**66 ***	**12**	**75 ***	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN THE PLAN

TRAFFIC CONTROL ITEMS

PROJECT	DAYS	643.0300 DRUMS EACH	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAY	643.0900 SIGNS EACH	643.0900 SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
8866-00-72	105	---	---	---	---	10	1050	1
21 SIDE ROADS	105	---	---	---	---	21	2205	---
PIPE REPLACEMENTS	14	---	---	---	---	8	112	---
UNDISTRIBUTED		---	100	---	25	---	833	---
PROJECT TOTALS			**100**		**25**		**4200**	**1**

FIELD OFFICE TYPE B

PROJECT	642.5001 EACH
8866-00-72	1
PROJECT TOTAL	**1**

TEMPORARY MARKING LINE PAINT 4-INCH

STATION TO STATION		649.0105 YELLOW LF
82+00 - 503+70	1ST LIFT, CENTERLINE	54257
82+00 - 503+70	2ND LIFT, CENTERLINE	54257
PROJECT TOTAL		**108514**

LOCATING NO-PASSING ZONE

STATION TO STATION	648.0100 MI
82+00 - 503+70	7.99
PROJECT TOTAL	**7.99**

MARKING LINE EPOXY 4-INCH

STATION TO STATION	DESCRIPTION	646.1020 WHITE LF
82+00 - 503+70	EDGELINE	84340
CTH X	EDGELINE	50
CTH K	EDGELINE	50
CTH Y	EDGELINE	100
PROJECT TOTAL		**84540**

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

PROJECT	650.9910 LS
8866-00-72	1

CONSTRUCTION STAKING SLOPE STAKES

STATION TO STATION	650.9920 LF
177+00 - 180+89	389
PROJECT TOTAL	**389**

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
82+00	CTH M	30
103+53	PE, LT	30
120+62	PE, LT	15
149+36	PE, LT	14
158+18	PE, LT	16
163+85	PE, LT	34
174+91	PIPE REPLACEMENT	60
184+08	PIPE REPLACEMENT	68
297+63	PE, LT	16
313+73	PE, LT	18
335+91	PE, LT	12
356+25	PE, LT	15
426+19	PE, LT	20
427+03	PE, RT	13
503+70	CTH M	30
PROJECT TOTAL		**391**

DITCH CLEANING

STATION	LOCATION	SPV.0060.01 EACH
82+66, LT	SOUTH PIPE END	1
PROJECT TOTAL		**1**

LANE SHIFT

STATION	LOCATION	SPV.0060.02 EACH
174+91	PIPE REPLACEMENT	2
184+08	PIPE REPLACEMENT	2
PROJECT TOTAL		**4**

MARKING LINE SAME DAY EPOXY 4-INCH

STATION TO STATION	LOCATION	646.4520 YELLOW LF
82+00 - 503+70	CENTERLINE	66842
CTH X	CENTERLINE	50
CTH K	CENTERLINE	50
CTH Y	CENTERLINE	100
PROJECT TOTAL		**67042**

CONSTRUCTION STAKING PIPE CULVERTS

STATION	LOCATION	650.6000 EACH
174+91	CTH M	1
184+08	CTH M	1
PROJECT TOTAL		**2**

CONSTRUCTION STAKING RESURFACING REFERENCE

STATION TO STATION	650.8000 LF
82+00 - 503+70	42170
PROJECT TOTAL	**42170**

MARKING STOP LINE EPOXY 18-INCH

LOCATION	646.6120 LF
CTH X	24
CTH K	22
CTH Y	22
PROJECT TOTAL	**68**

3

Location	Station	Mixture Use	Underlying Surface	Bid Item	Tons	Thickness	Quality Management Program to be used for:	
							Mixture Acceptance	Density Acceptance
11 foot Driving Lane	82+00 - 503+75	Surface Layer	4 MT 58-28 S	4 MT 58-34 S	10,105	1.75''	PWL Incentative Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
11 foot Driving Lane	82+00 - 503+75	Binder Upper Layer	3 LT 58-28 S	4 MT 58-28 S	11,550	2''	PWL Incentative Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
11 foot Driving Lane	82+00 - 503+75	Binder Lower Layer	Pulverized Asphaltic Pavement and Base Course	3 LT 58-28 S	12,990	2.25''	PWL Incentative Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
4 foot shoulder	82+00 - 503+75	Surface Layer	4 MT 58-28 S	4 MT 58-34 S	3,675	1.75''	PWL Incentative Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentative
4 foot shoulder	82+00 - 503+75	Binder Upper Layer	3 LT 58-28 S	4 MT 58-28 S	3,950	2''	PWL Incentative Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentative
4 foot shoulder	82+00 - 503+75	Binder Lower Layer	Pulverized Asphaltic Pavement and Base Course	3 LT 58-28 S	4,730	2.25''	PWL Incentative Air Voids HMA Pavement 460.2010	Acceptance testing by the department; Not eligible for incentative
Various		Culvert Patches	Base Aggregate	Asphaltic Surface	52	4"	QMP as per SS 465	Acceptance by ordinary compaction

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
51	85+28	951.09	77.6' LT, 7" NAIL IN PPOL

STA 82+66, LT (SOUTH COUNTY LINE)
24" EXISTING CMCP WEST TO REMAIN

STA 82+66, LT (SOUTH COUNTY LINE)
24" EXISTING CMCP EAST TO REMAIN
REMOVING CULVERT PIPE ENDWALL (SOUTH)
1-24" APRON ENDWALL, SOUTH REQ'D
DITCH CLEANING (SOUTH)

MOVING SIGNS TYPE II
EXISTING NO ATV SIGN
(MOVE TO OTHER SIDE
OF ROAD)

ST CROIX CO
I2-2
66"X15"
COUNTY M
M1-5A
24"X24"

STOP
R1-1
30"X30"

1-1

CP#1
STA 83+41.35, 81.6' LT
¾ " REBAR W/CAP
Y = 200274.95
X = 485811.58

CP#1

BM#51

FRONTIER COMMUNICATION

XCEL ENERGY

STA 90+35
CONSTRUCT PE (17' GRAVEL)
CP TO REMAIN

PI: 79+74.78

PC: 87+46.41

EXISTING R/W

N0°06'46"W

EXISTING R/W

STA = 79+74.78
Y = 199908.54
X = 485893.94
DELTA = 0°00'00"

EXISTING ATV ROUTE
AND TOWN ROAD
SIGNS TO REMAIN

XCEL ENERGY

SOUTH COUNTY LINE

STOP
R1-1
30"X30"

1-2

MOVING SIGNS TYPE II
EXISTING ALL POLK COUNTY
HIGHWAYS ARE ATV ROUTES
UNLESS POSTED SIGN
(NEW POST SAME SPOT)

POLK CO
I2-2
48"X15"
COUNTY M
M1-5A
24"X24"

1-3

MOVING SIGNS TYPE II
EXISTING ATV SPEED LIMIT
35 AND ATV'S MUST STAY
ON PAVEMENT SIGNS
(NEW POST SAME SPOT)

SPEED LIMIT 55
R2-1
24"X30"

STA 82+68, RT (SOUTH COUNTY LINE)
29"x42" EXISTING CMCP TO REMAIN
CLEANING CULVERT PIPES

STA 87+88
24" EXISTING CMCP TO REMAIN
REMOVING CULVERT PIPE ENDWALL (RT)
1-24" APRON ENDWALL, RT REQ'D

STA 87+94
24" EXISTING CMCP TO REMAIN

FRONTIER COMMUNICATION

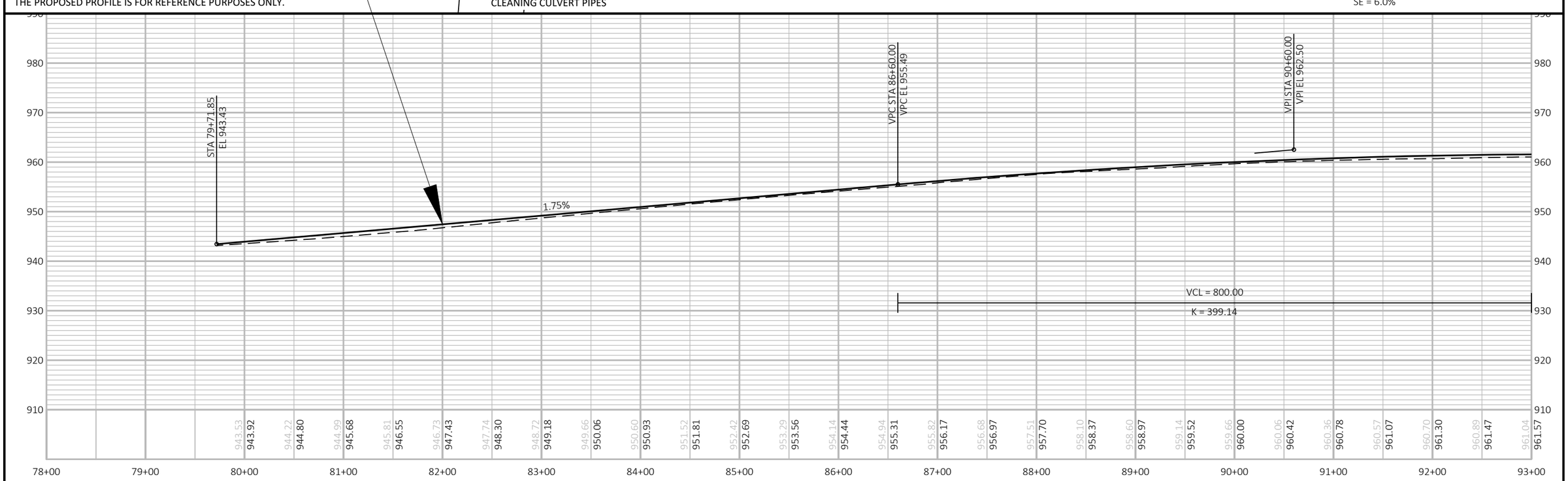
STA 92+86
CONSTRUCT FE (20' GRAVEL)

NOTE:
SUPERELEVATIONS ON CURVES
ARE SHOWN FOR INFORMATION
ONLY. MATCH THE EXISTING SE
AND TRANSITION.

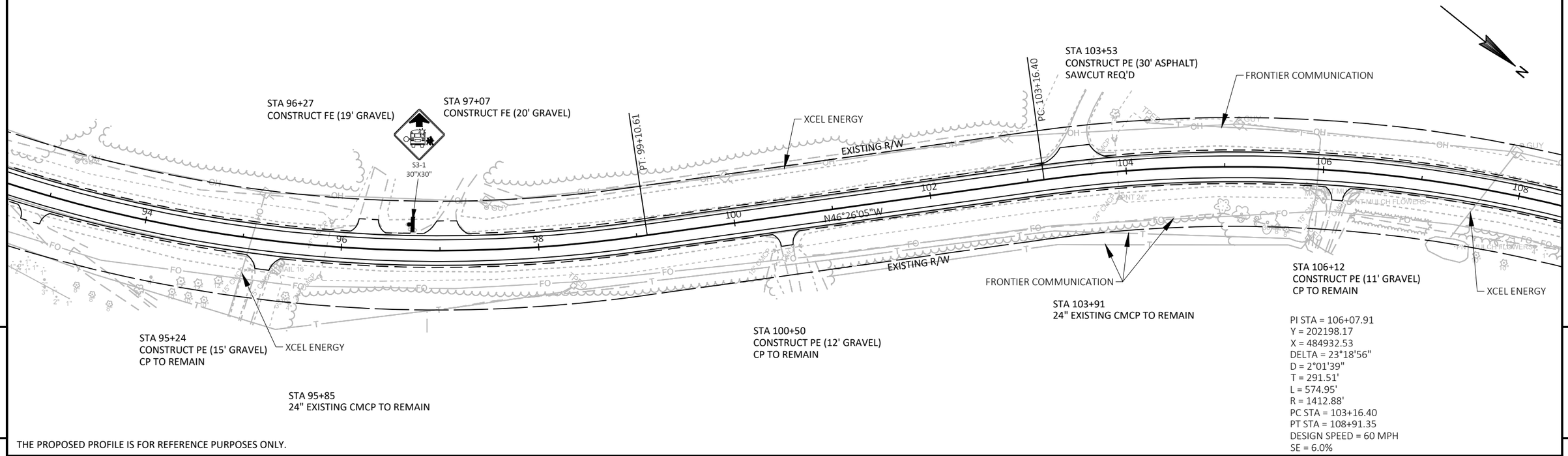
PI STA = 93+62.80
Y = 201296.55
X = 485887.94
DELTA = 46°33'20"
D = 1°59'58"
T = 616.39'
L = 1164.19'
R = 1432.77'
PC STA = 87+46.41
PT STA = 99+10.61
DESIGN SPEED = 60 MPH
SE = 6.0%

BEGIN PROJECT
STA 82+00.00
Y = 200133.76
X = 485893.49

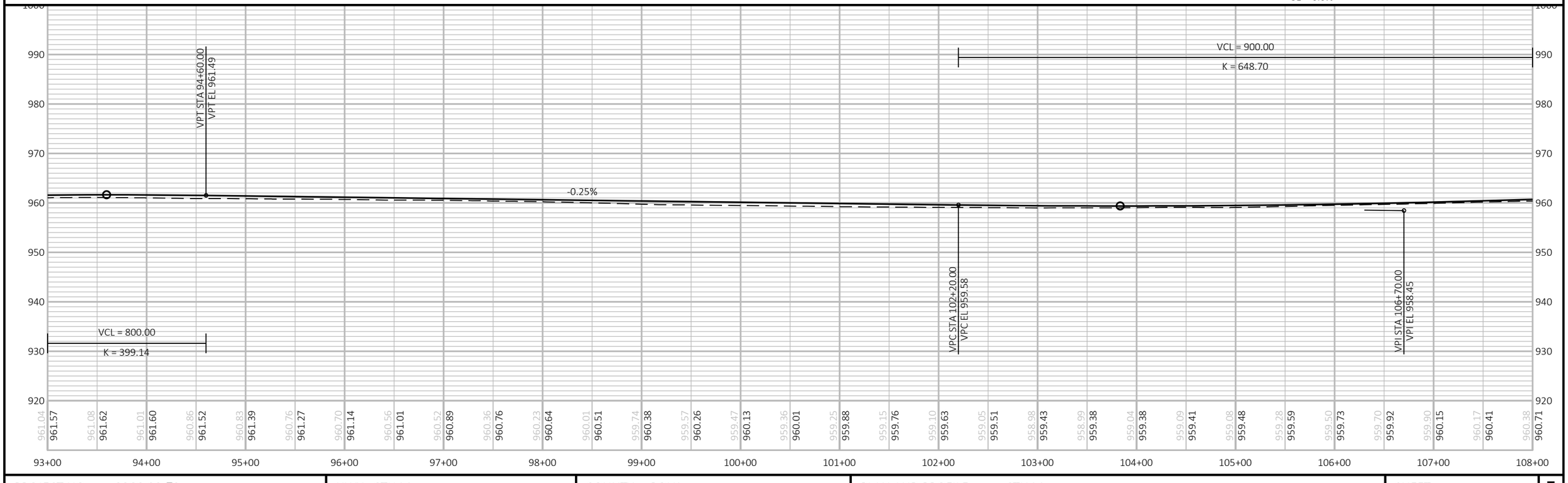
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 22	E

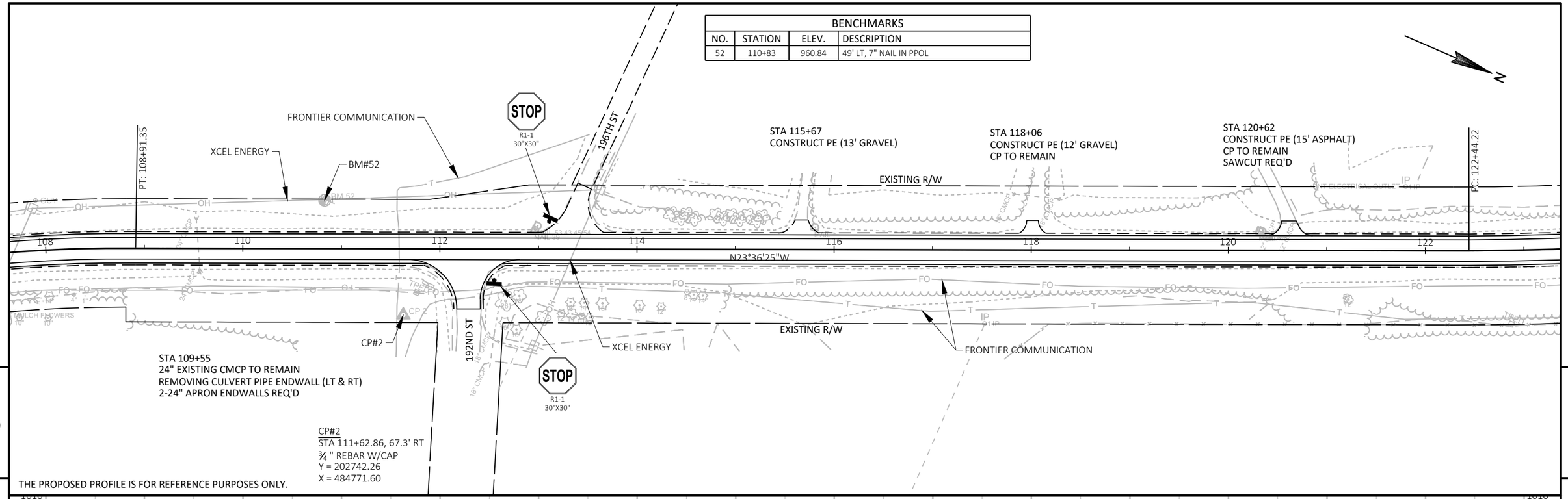


THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 23	E

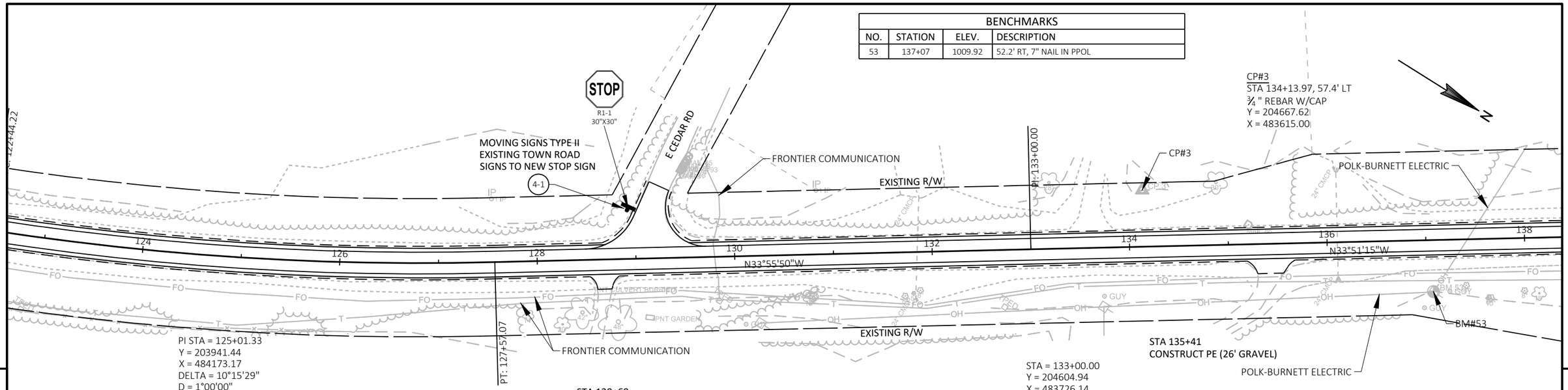
BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
52	110+83	960.84	49' LT, 7" NAIL IN PPOL



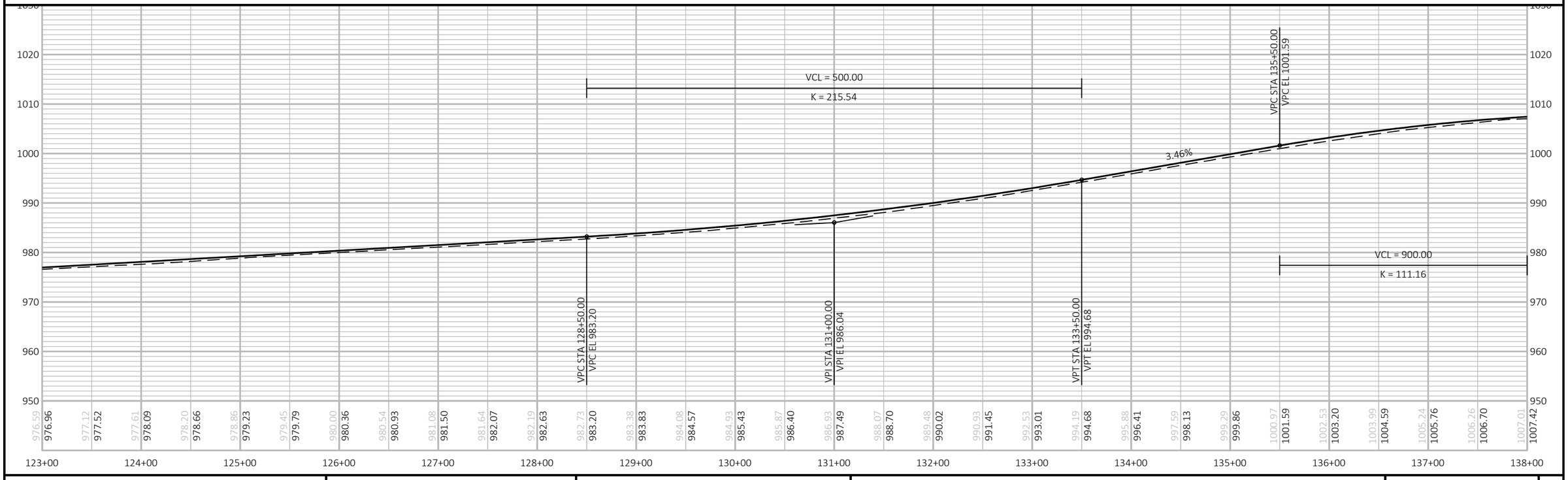
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 24	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 3
PLOT DATE : 7/14/2020 12:08 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

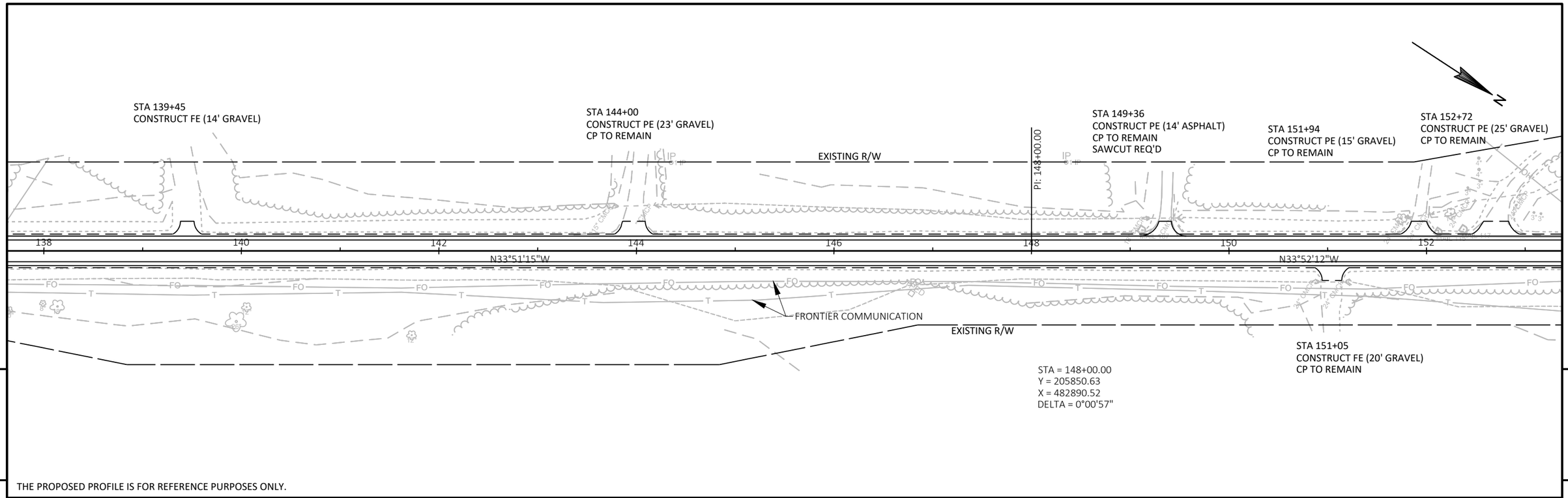
BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
53	137+07	1009.92	52.2' RT, 7" NAIL IN PPOL



THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 25	E



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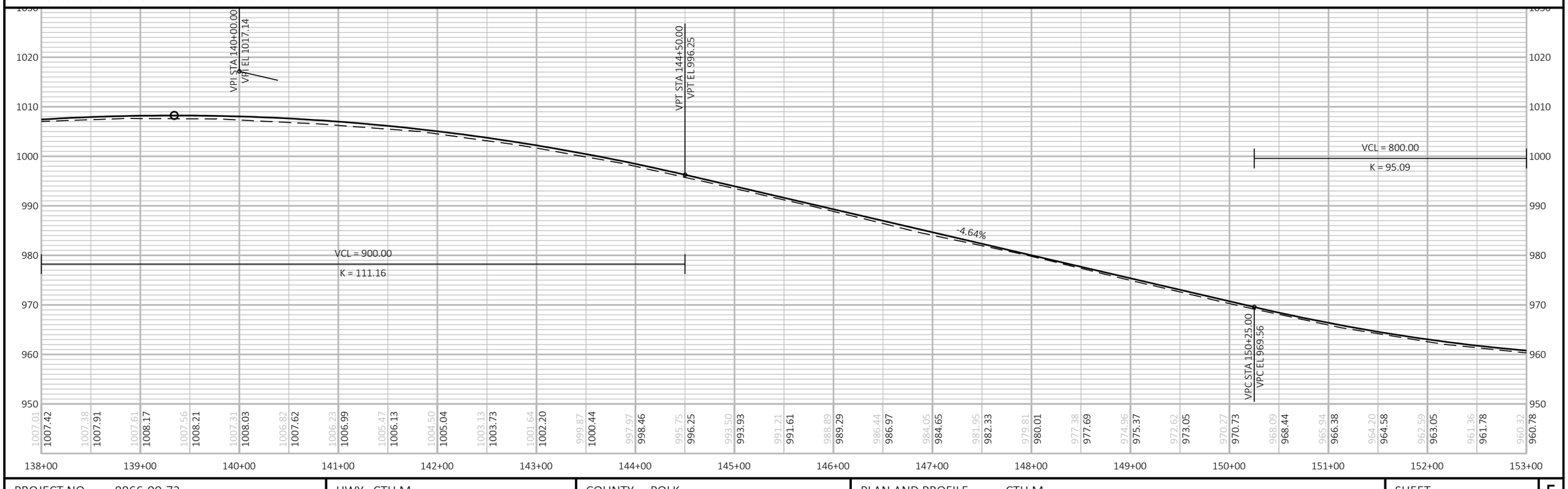
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 26	E

STA 158+18
CONSTRUCT PE (16' ASPHALT)
SAWCUT REQ'D

STA 159+27
CONSTRUCT PE (24' GRAVEL)
CP TO REMAIN

EXISTING R/W

STA 166+36
CONSTRUCT FE (16' GRAVEL)
CP TO REMAIN

PI: 160+86.90

STA 163+85
CONSTRUCT PE (34' ASPHALT)
SAWCUT REQ'D

PC: 166+90.80

POLK-BURNETT ELECTRIC

N33°52'12"W

N33°42'13"W

EXISTING R/W

POLK-BURNETT ELECTRIC

STA 154+36
48" EXISTING CMCP TO REMAIN

EXISTING ATV ROUTE
AND TOWN ROAD
SIGNS TO REMAIN

13TH AVE

CP#4

STOP
R1-1
30"X30"

STA = 160+86.90
Y = 206919.14
X = 482173.31
DELTA = 0°09'59"

FRONTIER COMMUNICATION

W2-2
30"X30"

STA 167+42
CONSTRUCT PE (18' GRAVEL)
CP TO REMAIN

POLK-BURNETT ELECTRIC

CP#4
STA 160+57.17, 61.7' RT
¾ " REBAR W/CAP
Y = 206928.85
X = 482241.11

STA 159+28 (13TH AVE)
18" EXISTING CMCP TO REMAIN

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.

VCL = 800.00
K = 95.09

VPC STA 159+25.00
VPC EL 969.86

VPI STA 163+75.00
VPI EL 986.84

3.77%

VPI STA 154+25.00
VPI EL 951.00

VPT STA 158+25.00
VPT EL 966.09

VCL = 900.00
K = 102.25

960.32 960.78 959.67 960.04 959.19 959.55 958.98 959.34 958.99 959.38 959.32 959.69 959.72 960.26 960.46 961.10 961.33 962.20 962.94 963.56 964.55 965.18 966.59 967.03 968.69 968.92 970.57 970.77 971.95 972.41 973.25 973.81 974.36 974.96 975.31 975.87 975.98 976.54 976.49 976.96 976.62 977.13 976.55 977.06 976.23 976.75 975.69 976.19 974.81 975.38 973.78 974.34 972.44 973.04 970.85 971.51 969.11 969.72 966.95 967.70 964.55 965.43

153+00 154+00 155+00 156+00 157+00 158+00 159+00 160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 27	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 6

PLOT DATE : 7/14/2020 12:09 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
54	169+51	959.84	55.3' RT, 7" NAIL IN PPOL

STA 171+83 (E CEDAR RD)
18" EXISTING CMCP TO REMAIN

MOVING SIGNS TYPE II
EXISTING TOWN ROAD
SIGNS TO NEW STOP SIGN

STOP
R1-1
30"X30"

E CEDAR RD

PT: 174+39.49

EXISTING R/W

STOP
R1-1
30"X30"

10TH AVE

STA 177+39 - STA 179+69
REMOVING GUARDRAIL
MGS GUARDRAIL REQ'D
(SEE DETAIL)

EXISTING ATV ROUTE
AND TOWN ROAD
SIGNS TO REMAIN

POLK-BURNETT ELECTRIC

CENTURYLINK

N48°54'12"W

BM#54

PI STA = 170+67.03
Y = 207731.00
X = 481624.25
DELTA = 14°02'22"
D = 0°56'15"
T = 376.23'
L = 748.69'
R = 3055.43'
PC STA = 166+90.80
PT STA = 174+39.49
DESIGN SPEED = 60 MPH
SE = 4.3%

POLK-BURNETT ELECTRIC

FRONTIER COMMUNICATION

ANTICIPATED WETLAND
DISTURBANCE (10 SF)

EXISTING R/W

EXISTING ATV ROUTE
AND TOWN ROAD
SIGNS TO REMAIN

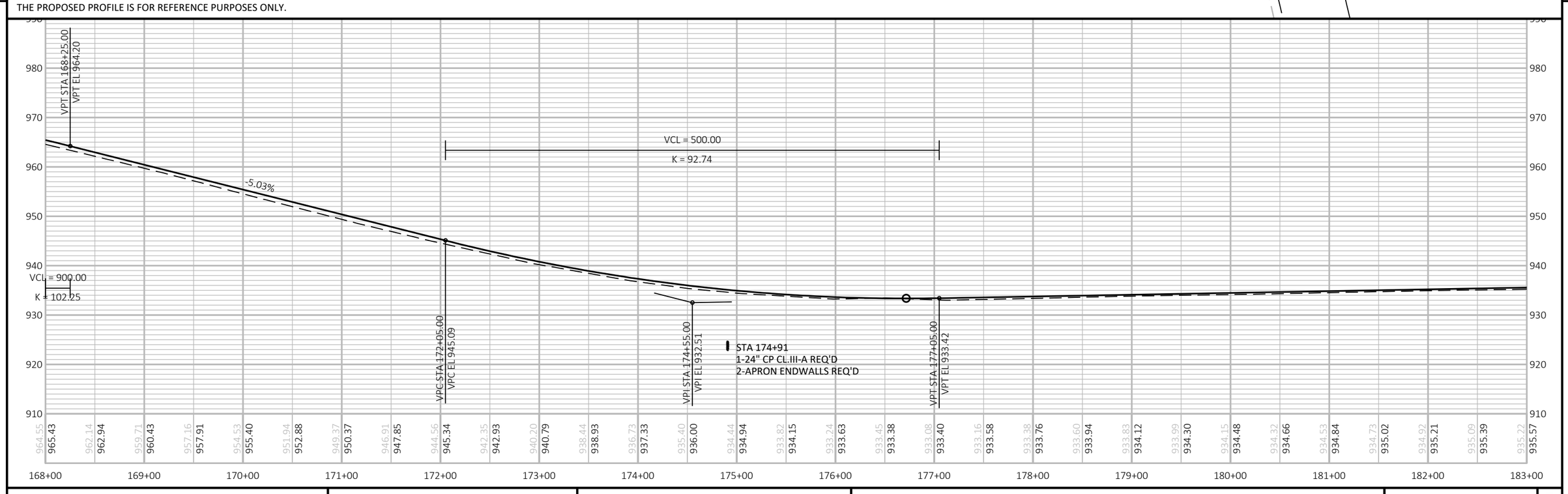
200TH ST

STOP
R1-1
30"X30"

STA 180+33 (200TH ST)
15" EXISTING CMCP TO REMAIN
2-15" APRON ENDWALLS REQ'D
CLEANING CULVERT PIPES

STA 174+91
REMOVING SMALL PIPE CULVERTS
(18" EXISTING CMCP)

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 28	E

FILE NAME : I:\41\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 7

PLOT DATE : 1/21/2021 12:41 PM PLOT BY : WOOLEVER, NATHAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
55	188+58	935.30	47.5' LT, 7" NAIL IN PPOL

STA = 187+55.00
Y = 208844.05
X = 480350.24
DELTA = 0°21'26"

CP#5
STA 189+07.59, 51.5' LT
¾ " REBAR W/CAP
Y = 208906.45
X = 480201.77

PI STA = 194+99.88
Y = 209337.04
X = 479791.84
DELTA = 29°19'53"
D = 1°29'59"
T = 499.87'
L = 977.81'
R = 1910.04'
PC STA = 190+00.00
PT STA = 199+77.82
DESIGN SPEED = 60 MPH
SE = 5.6%

STA 193+59
CONSTRUCT PE (18' GRAVEL)
CP TO REMAIN

STA 197+96
CONSTRUCT FE (17' GRAVEL)

STA 197+96
CONSTRUCT PE (16' GRAVEL)

ANTICIPATED WETLAND DISTURBANCE (298 SF)

ANTICIPATED WETLAND DISTURBANCE (109 SF)

BM#55

CP#5

PI: 187+55.00

PC: 190+00.00

POLK-BURNETT ELECTRIC

EXISTING R/W

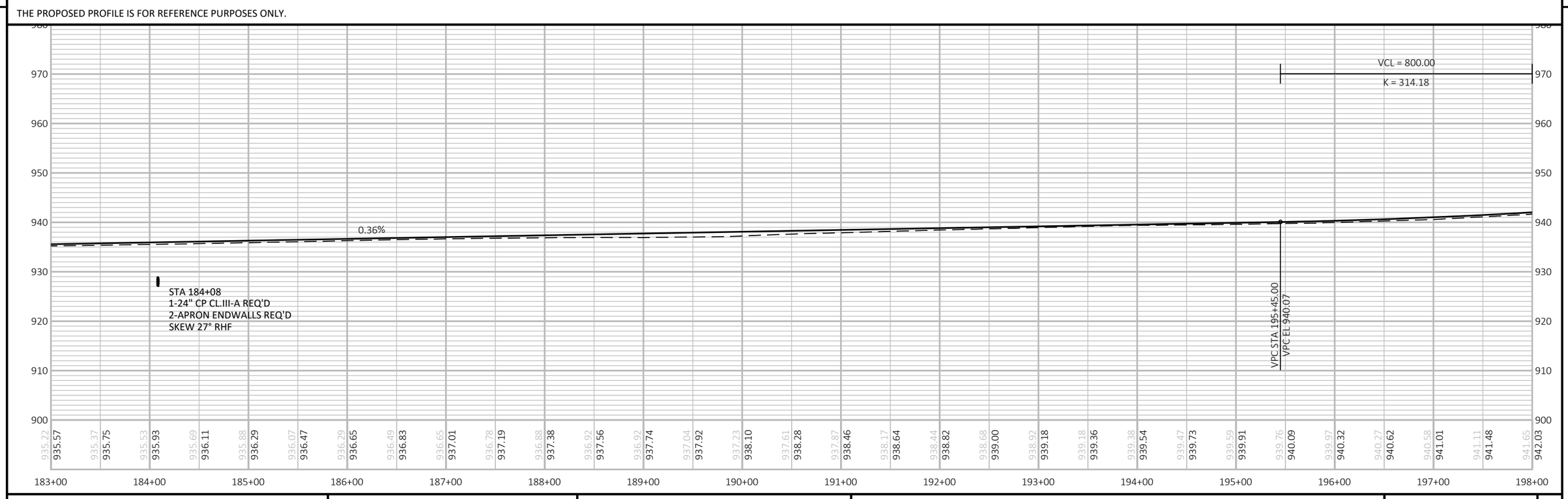
CENTURYLINK

N48°54'12"W

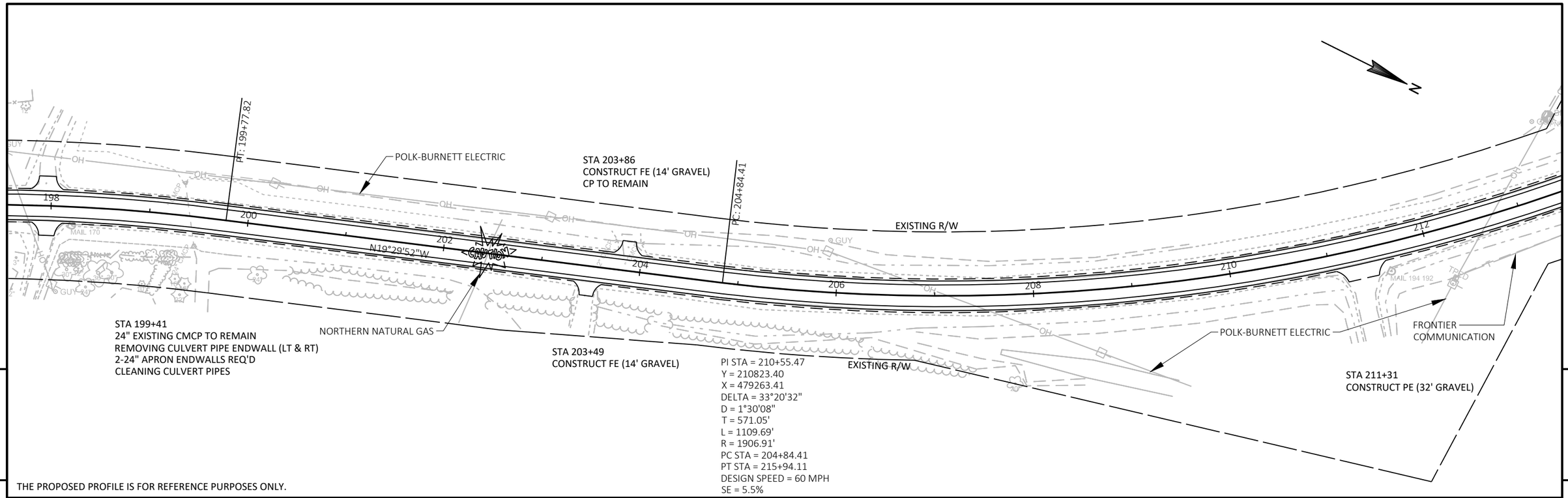
N48°32'46"W

STA 184+02
ABANDONING CULVERT AND
BACKFILL CONTROLLED LOW STRENGTH
(24" EXISTING CMCP)

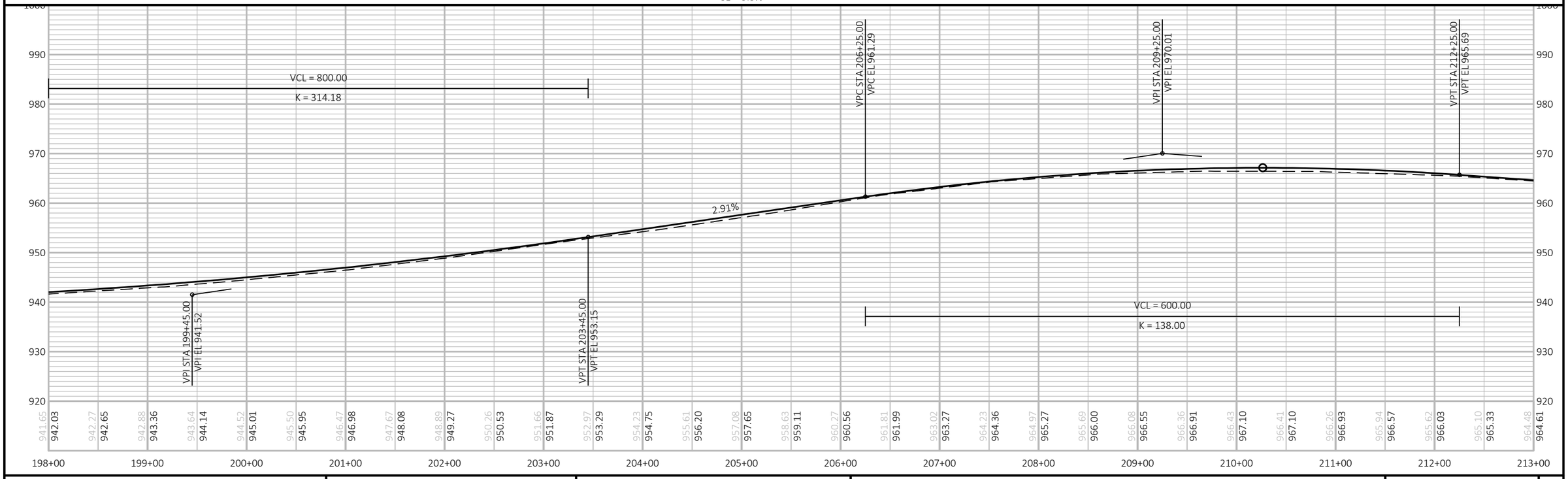
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



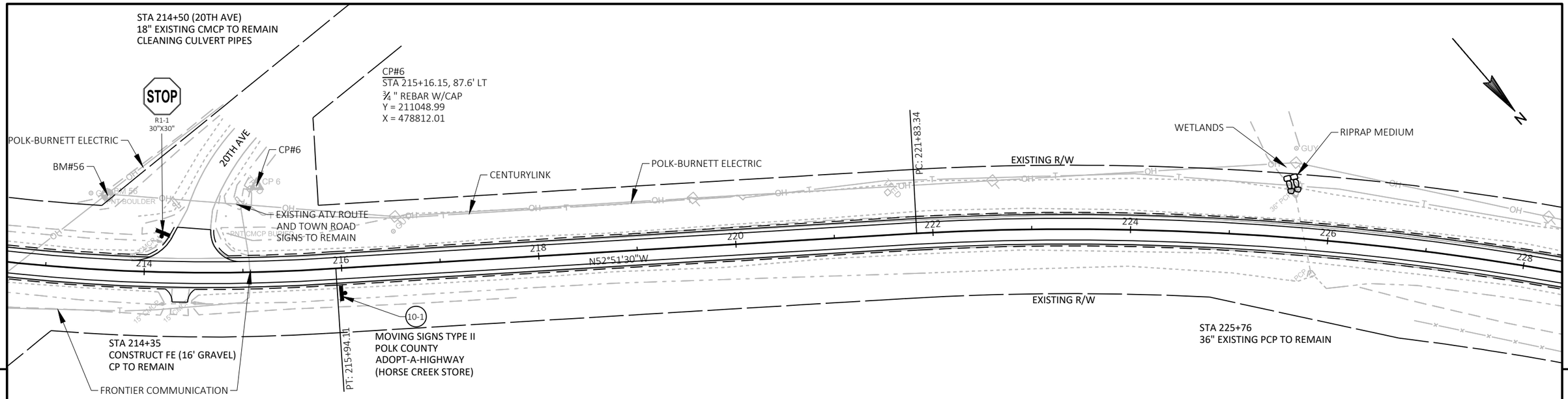
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 29	E



THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.

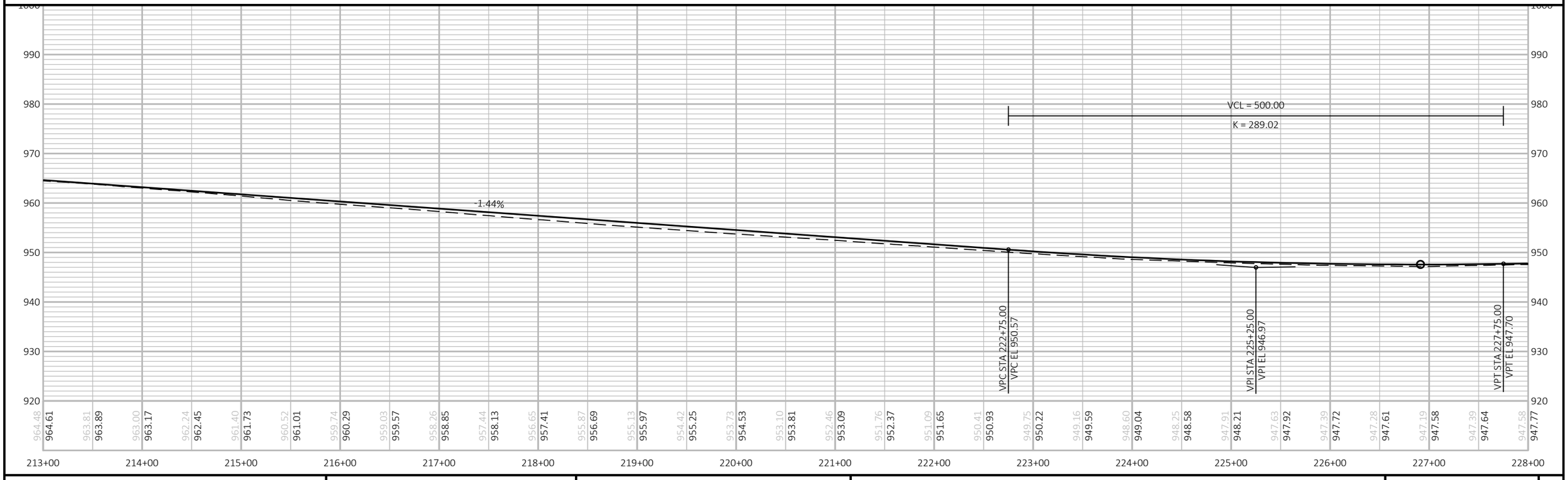


PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 30	E

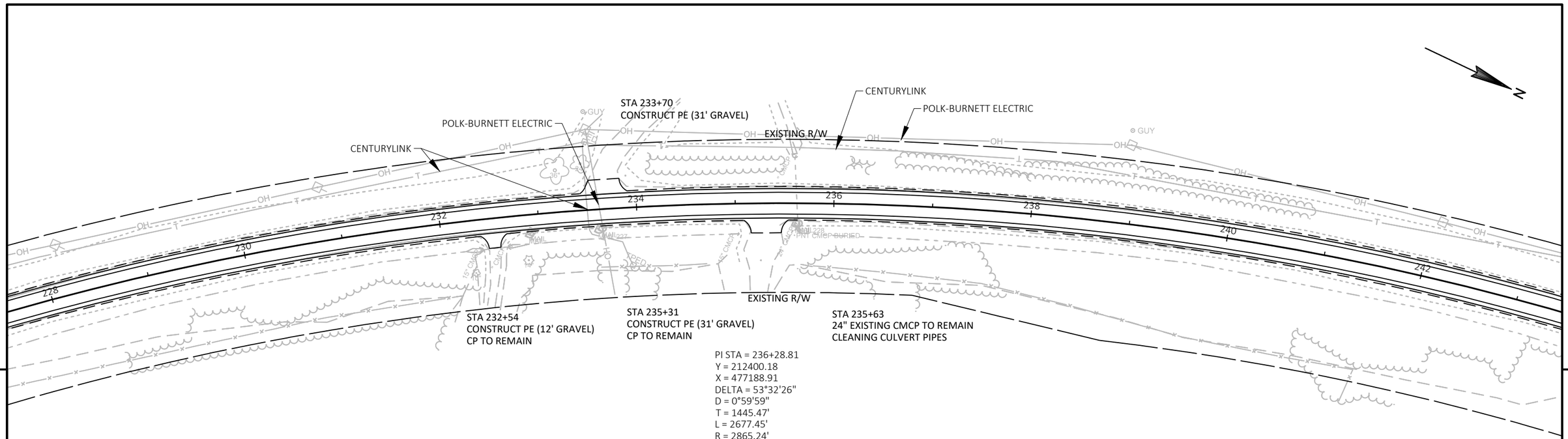


BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
56	213+58	961.23	75.8' LT, 7" NAIL IN PPOL

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 31	E



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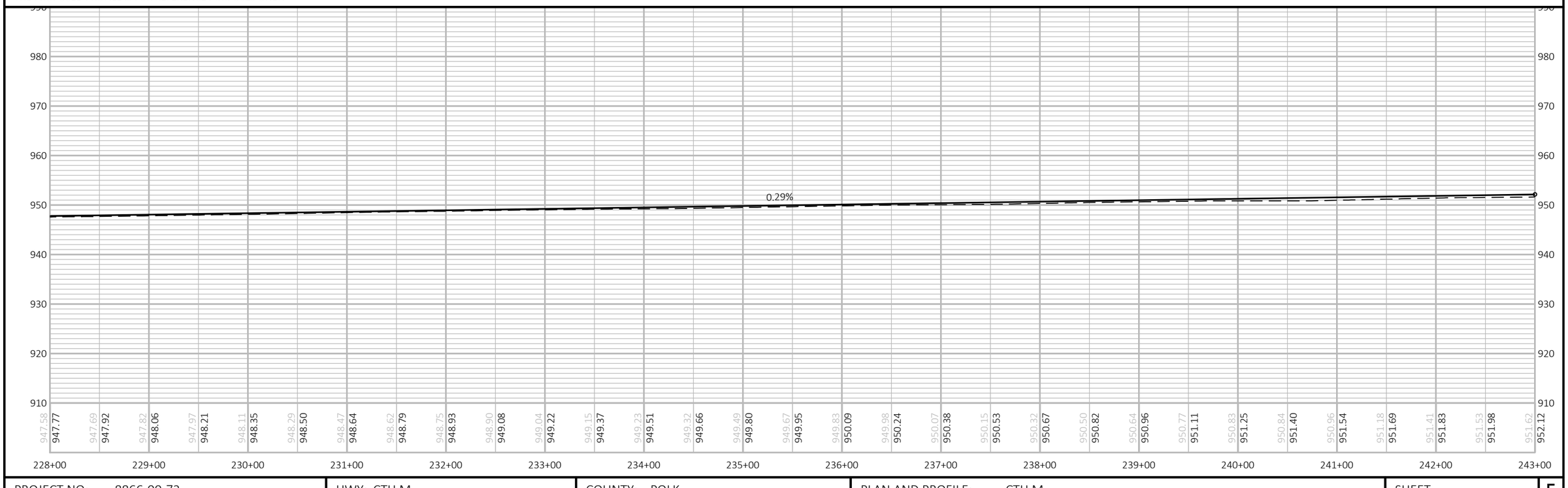
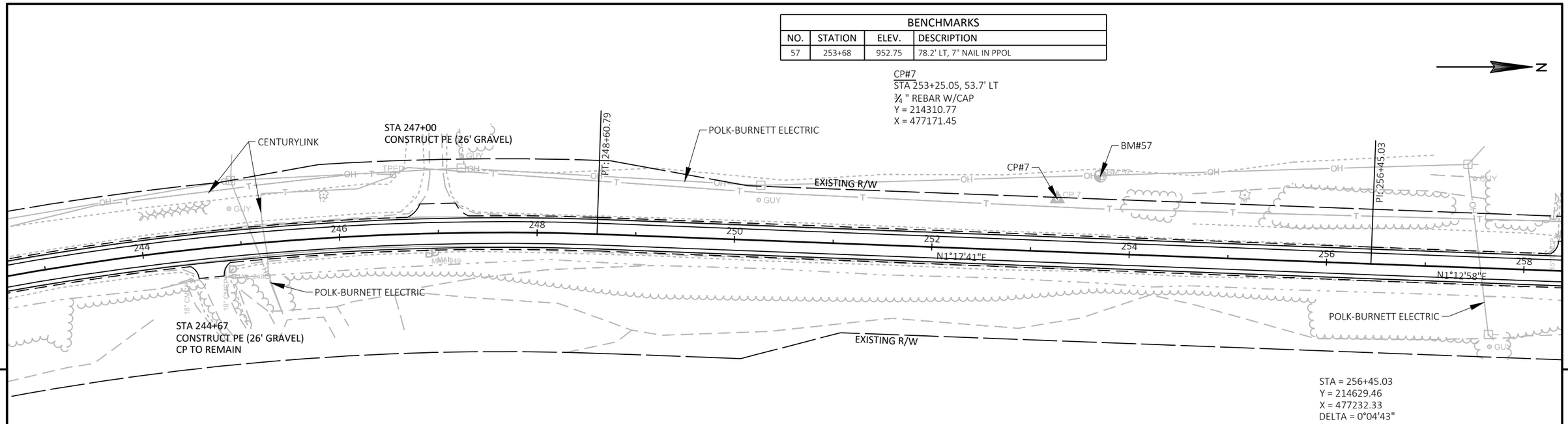
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 32	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
57	253+68	952.75	78.2' LT, 7" NAIL IN PPOL



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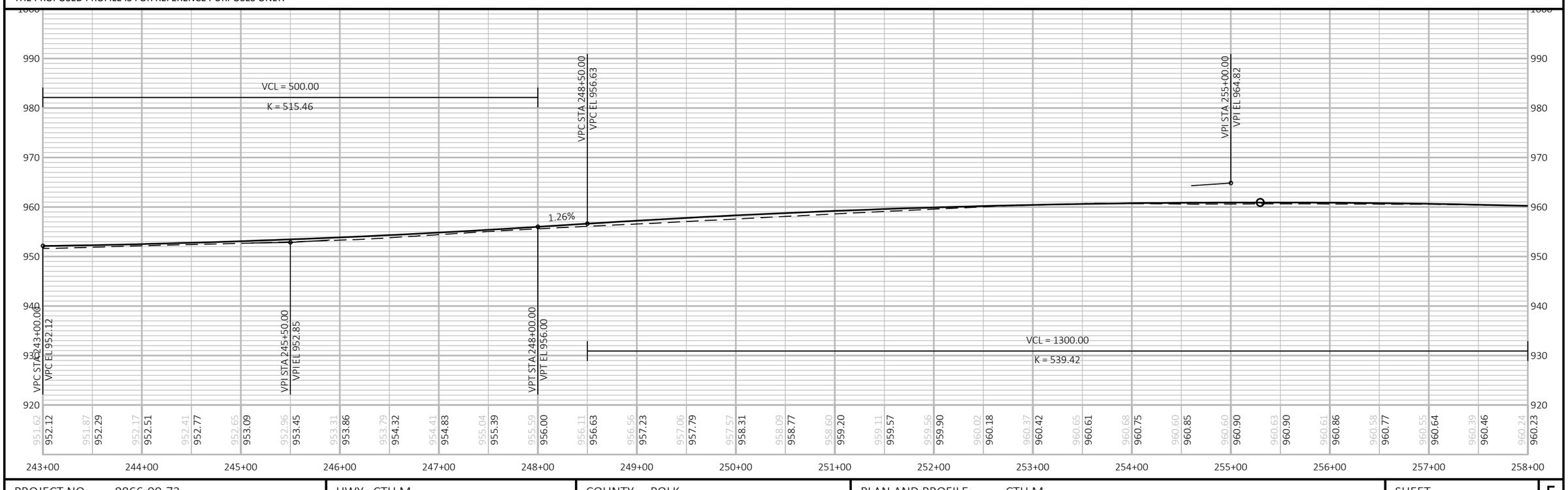
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 33	E

PI STA = 268+82.74
Y = 215866.92
X = 477257.09
DELTA = 17°06'04"
D = 1°00'00"
T = 430.70'
L = 855.00'
R = 2864.58'
PC STA = 264+52.04
PT STA = 273+07.04
DESIGN SPEED = 60 MPH
SE = 4.4%

STA 258+45
CONSTRUCT PE (18' GRAVEL)
CP TO REMAIN

STA 259+65
CONSTRUCT FE (10' GRAVEL)
CP TO REMAIN

STA 260+47
CONSTRUCT FE (14' GRAVEL)
CP TO REMAIN

PC: 264+52.04

CENTURYLINK

EXISTING R/W

PT: 273+07.04

N1°12'58"E

EXISTING R/W

HORSE CREEK
UNINCORPORATED
I2-3
84"X24"

STA 264+54
CONSTRUCT FE (20' GRAVEL)
CP TO REMAIN

STA 259+71
CONSTRUCT PE (15' GRAVEL)
CP TO REMAIN

STA 260+60
CONSTRUCT FE (12' GRAVEL)
CP TO REMAIN

SPEED LIMIT 45
W3-5
36"X36"

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.

VPT STA 261+50.00
VPT EL 957.34

VCL = 900.00
K = 548.78

-1.15%

VCL = 1300.00
K = 539.42

VPC STA 267+10.00
VPC EL 950.90

VPI STA 271+60.00
VPI EL 945.73

960.24 960.23 | 959.88 959.96 | 959.51 959.64 | 959.05 959.27 | 958.58 958.86 | 957.93 958.40 | 957.27 957.89 | 956.82 957.34 | 956.42 956.77 | 955.99 956.19 | 955.52 955.62 | 954.99 955.04 | 954.33 954.47 | 953.74 953.89 | 953.27 953.32 | 952.77 952.74 | 952.17 952.17 | 951.56 951.59 | 950.95 951.02 | 950.35 950.45 | 949.75 949.94 | 949.15 949.47 | 948.85 949.04 | 948.61 948.66 | 948.38 948.33 | 948.17 948.04 | 947.91 947.80 | 947.59 947.60 | 947.45 947.45 | 947.38 947.35 | 947.31 947.29

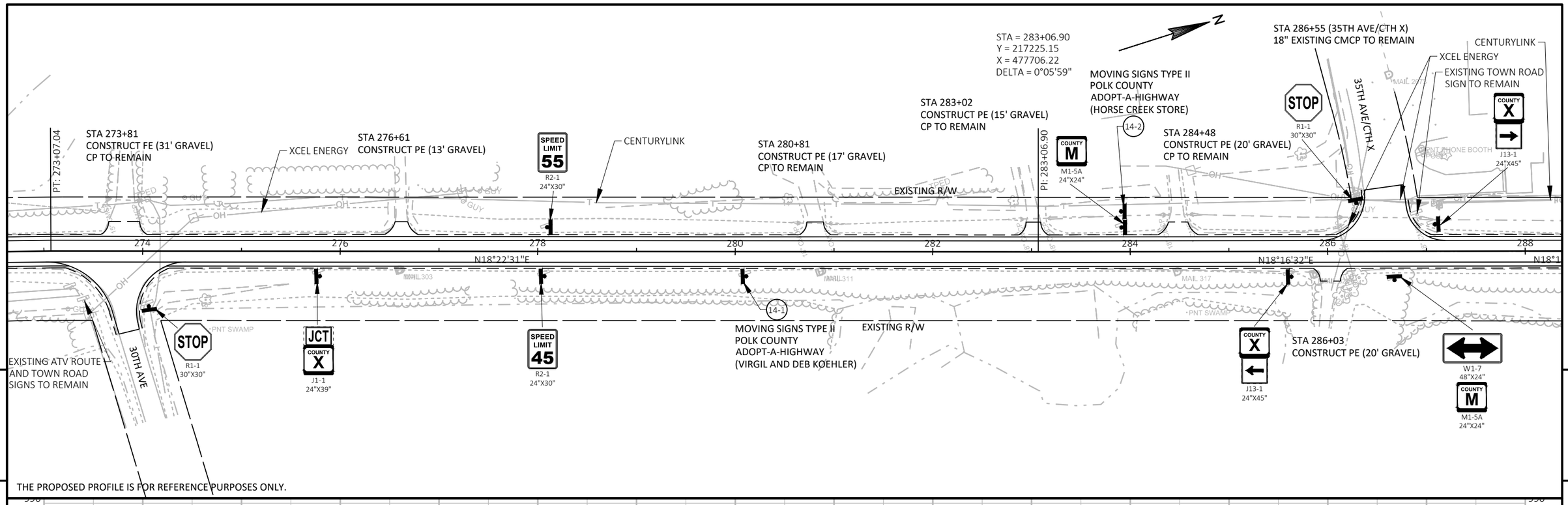
258+00 259+00 260+00 261+00 262+00 263+00 264+00 265+00 266+00 267+00 268+00 269+00 270+00 271+00 272+00 273+00

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 34	E

FILE NAME : I:\41\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 13

PLOT DATE : 7/22/2020 10:24 AM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



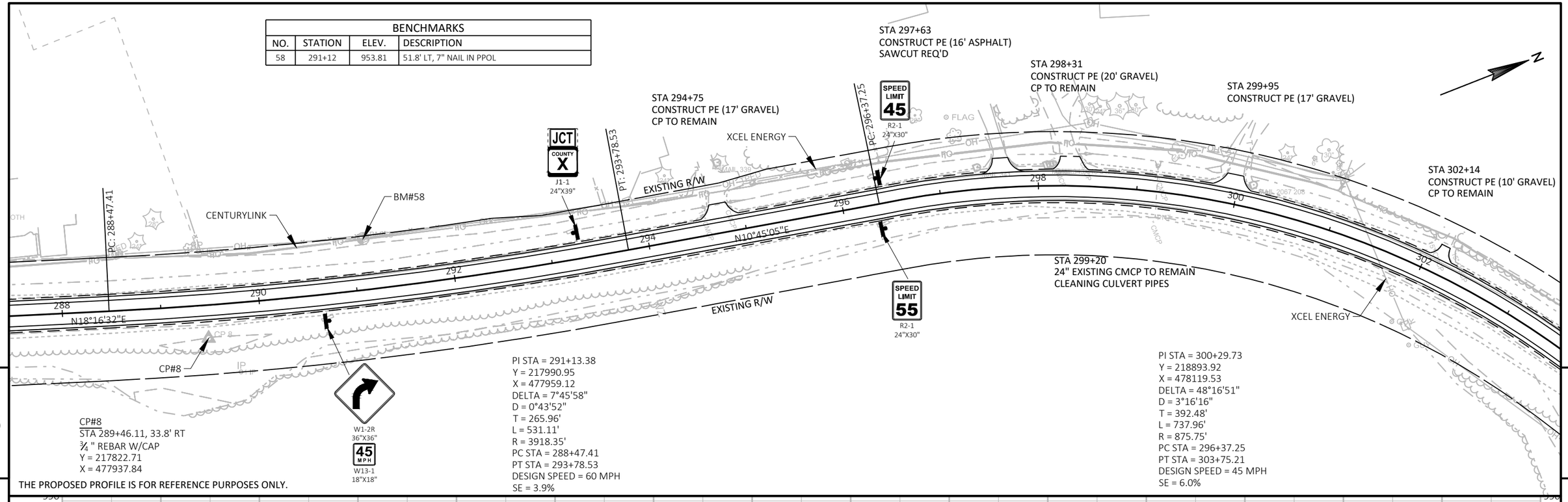
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 35	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 14

PLOT DATE : 7/14/2020 12:11 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

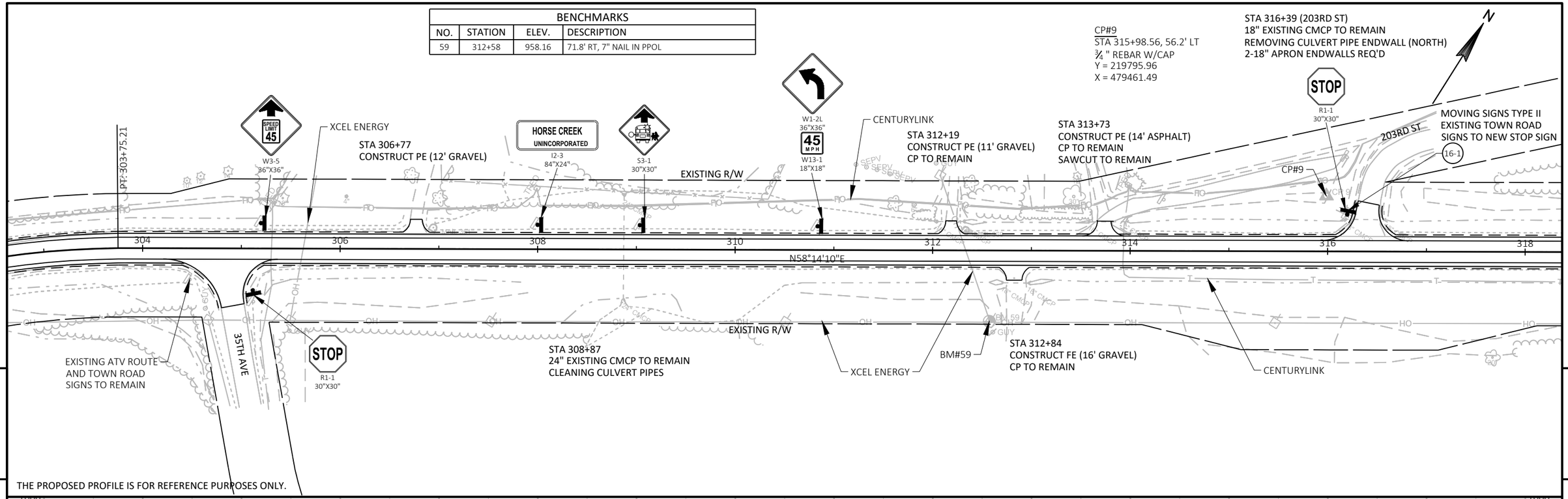
BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
58	291+12	953.81	51.8' LT, 7" NAIL IN PPOL



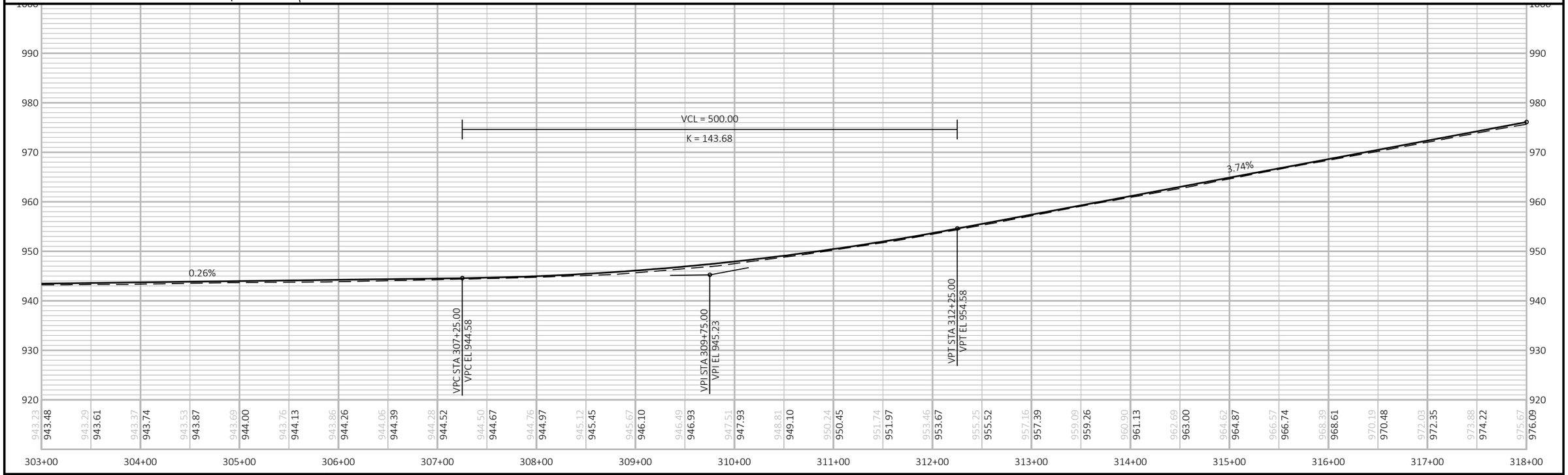
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 36	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 15
PLOT DATE : 7/14/2020 12:11 PM
PLOT BY : RESHESKE, CARRIE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

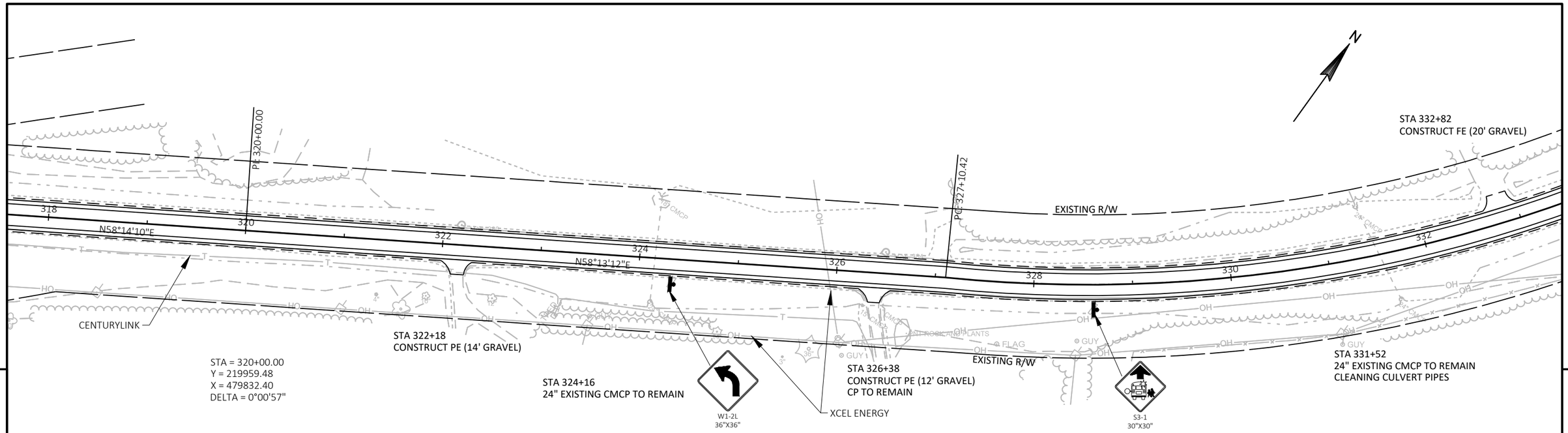
BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
59	312+58	958.16	71.8' RT, 7" NAIL IN PPOL



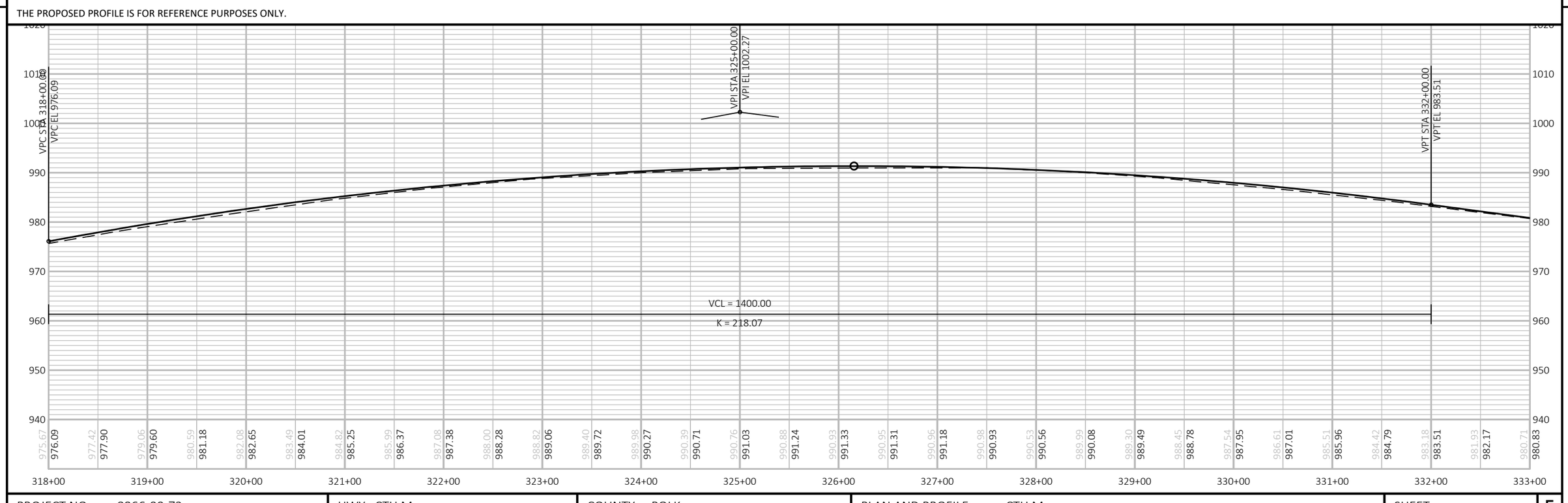
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 37	E



THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 38	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
60	338+51	969.15	70.5' RT, 7" NAIL IN PPOL

STA 335+91
CONSTRUCT PE (12' ASPHALT)
CP TO REMAIN
SAWCUT REQ'D

XCEL ENERGY

XCEL ENERGY

STOP
R1-1
30"X30"

40TH AVE

STA 340+60 (40TH AVE)
18" EXISTING CMCP TO REMAIN
REMOVING CULVERT PIPE ENDWALL (NORTH)
1-18" APRON ENDWALL REQ'D
CLEANING CULVERT PIPES

EXISTING TOWN ROAD
SIGN TO REMAIN

PT: 342+30.23

18-2
MOVING SIGNS TYPE II
ADOPT-A-HIGHWAY
(VIRGIL AND DEB KOEHLER)

S3-1
30"X30"

W1-2R
36"X36"

N

CENTURYLINK

EXISTING R/W

N0°43'46"W

PI STA = 335+50.21
Y = 220751.44
X = 481164.79
DELTA = 60°38'02"
D = 1°59'41"
T = 839.78'
L = 1519.81'
R = 1436.14'
PC STA = 327+10.42
PT STA = 342+30.23
DESIGN SPEED = 60 MPH
SE = 6.0%

BM#60

CP#10

XCEL ENERGY

200TH ST

STA 337+39 (200TH ST)
18" EXISTING CMCP TO REMAIN
REMOVING CULVERT PIPE ENDWALL (SOUTH)
1-18" APRON ENDWALL REQ'D

STOP
R1-1
30"X30"

18-1
MOVING SIGNS TYPE II
EXISTING TOWN ROAD
SIGNS TO NEW STOP SIGN

CP#10
STA 338+19.20, 49.1' RT
¾ " REBAR W/CAP
Y = 221171.80
X = 481150.04

STA 340+57
CONSTRUCT PE (20' GRAVEL)
CP TO REMAIN

EXISTING R/W

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.

VCL = 400.00
K = 203.56
-2.68%

VPC STA 339+60.00
VPC EL 963.14

VPI STA 341+60.00
VPI EL 957.78

VPT STA 343+60.00
VPT EL 956.35

333+00	334+00	335+00	336+00	337+00	338+00	339+00	340+00	341+00	342+00	343+00	344+00	345+00	346+00	347+00	348+00
980.71	979.44	978.15	976.75	975.37	974.02	972.68	971.40	970.10	968.72	967.34	965.98	964.62	963.36	962.10	960.85	959.59	958.73	957.97	957.23	956.74	956.29	955.88	955.46	955.03	954.60	954.18	953.76	953.46	953.18	952.81
980.83	979.49	978.15	976.81	975.47	974.13	972.79	971.45	970.11	968.77	967.43	966.09	964.75	963.41	962.11	960.93	959.87	958.94	958.12	957.43	956.87	956.43	956.07	955.71	955.35	954.99	954.64	954.28	953.92	953.56	953.21

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 39	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 18

PLOT DATE : 7/14/2020 12:12 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

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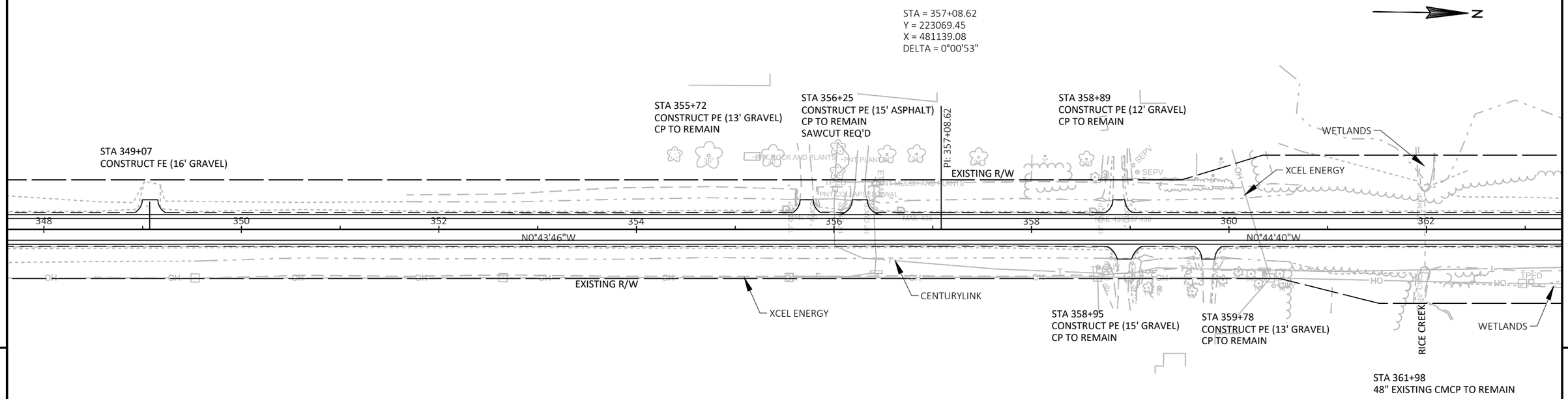

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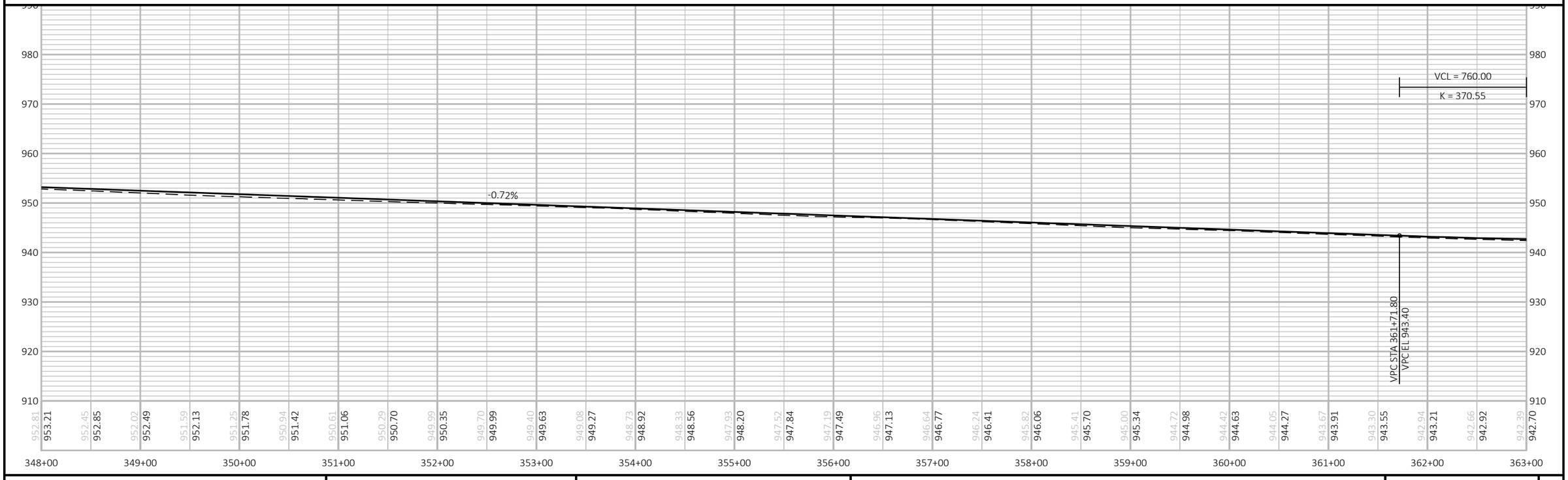
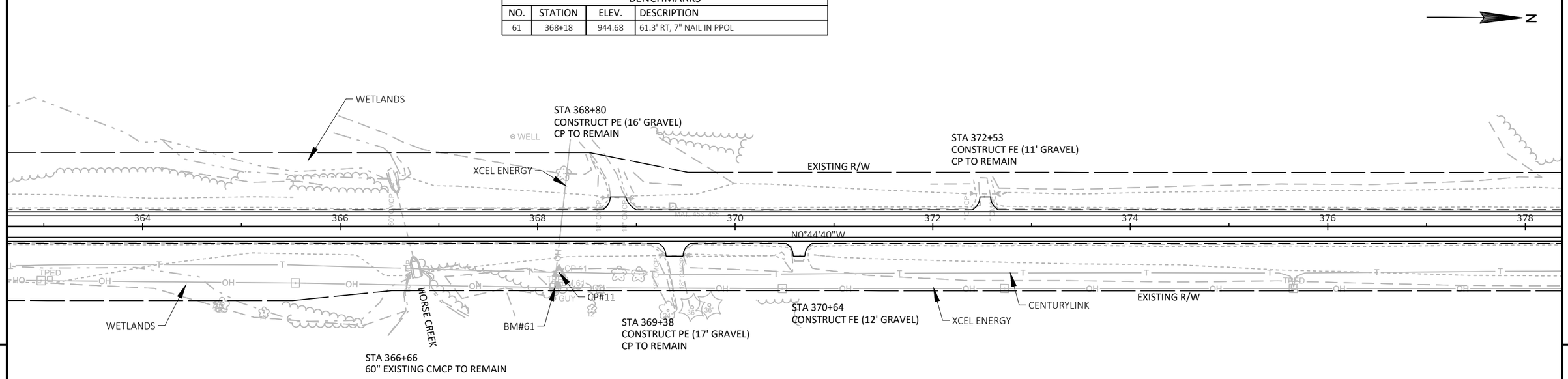
5

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 40	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
61	368+18	944.68	61.3' RT, 7" NAIL IN PPOL

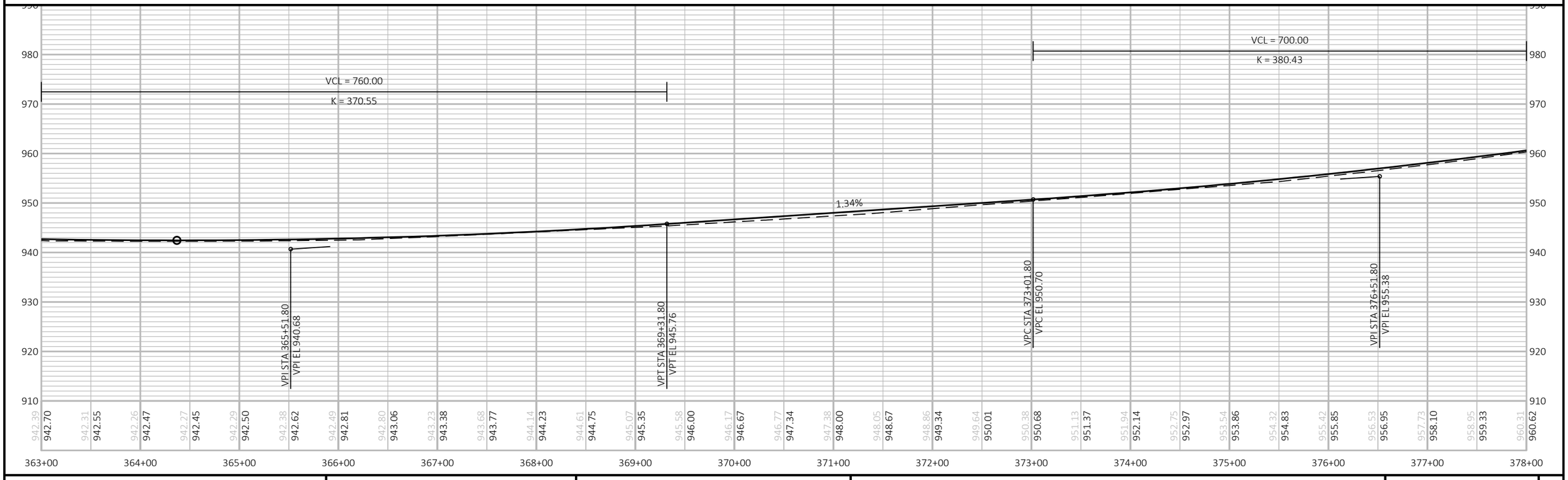


5

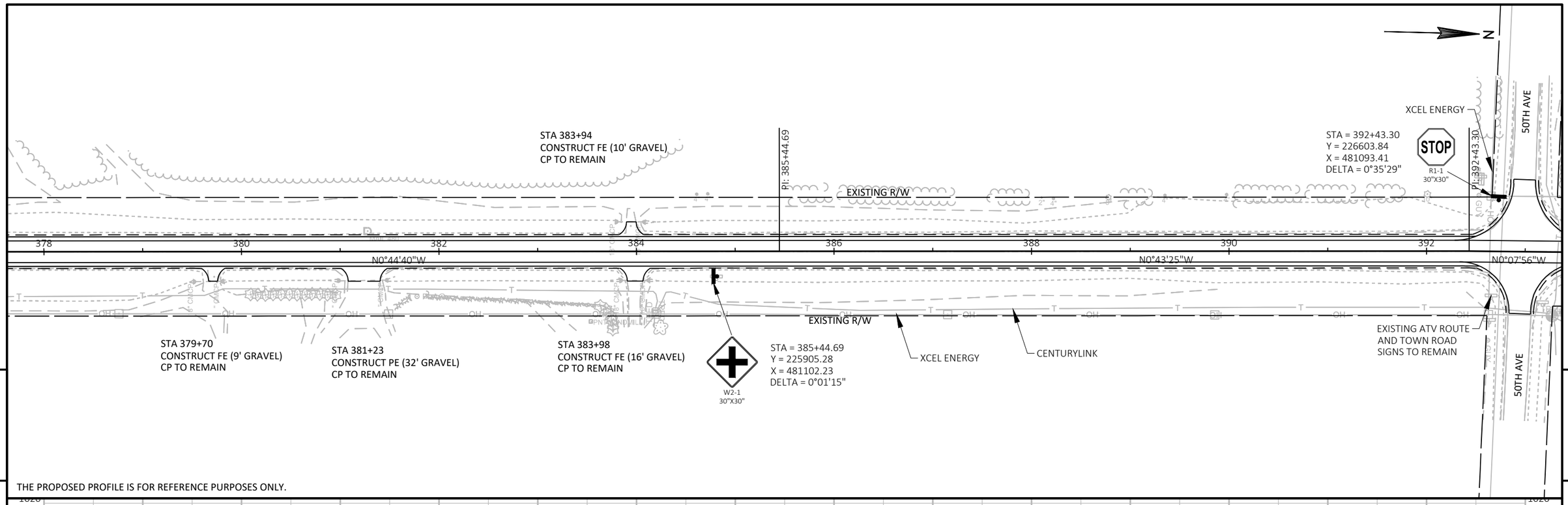
5

CP#11
STA 368+21.57, 46.5' RT
¾ " REBAR W/CAP
Y = 224182.92
X = 481171.08

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 41	E



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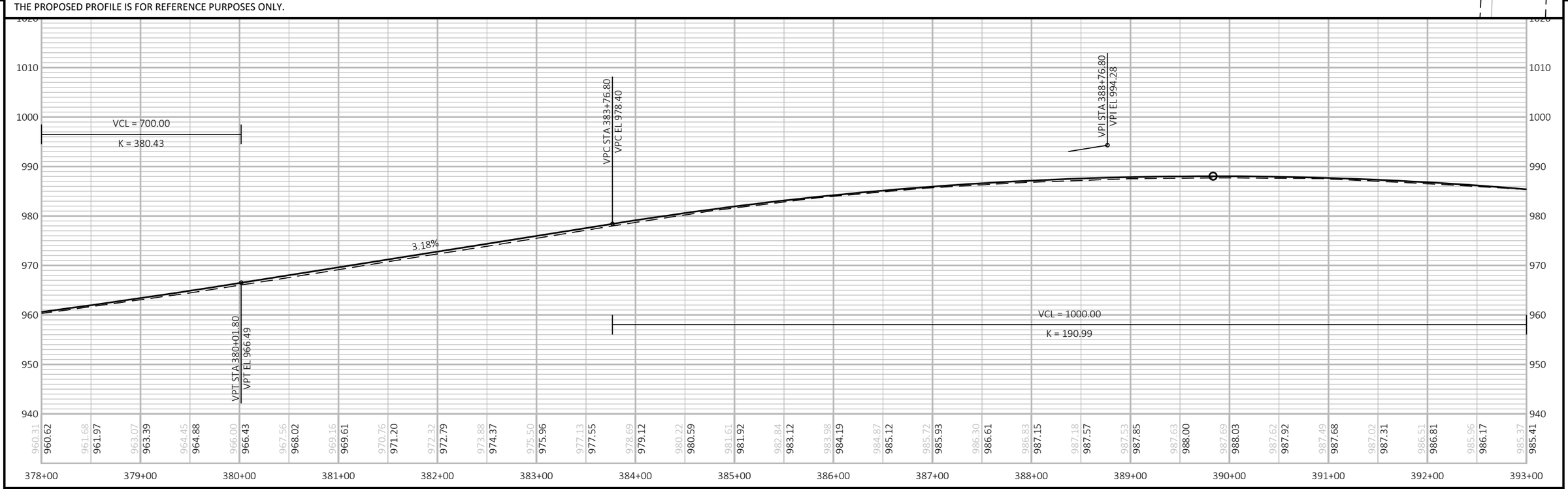
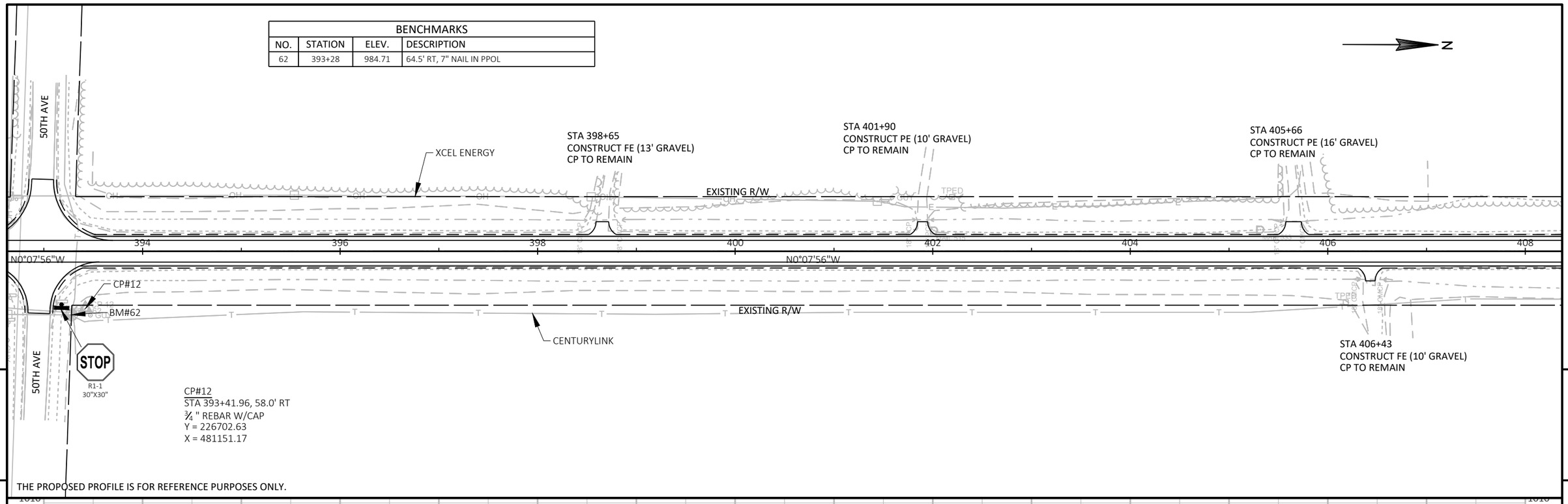
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



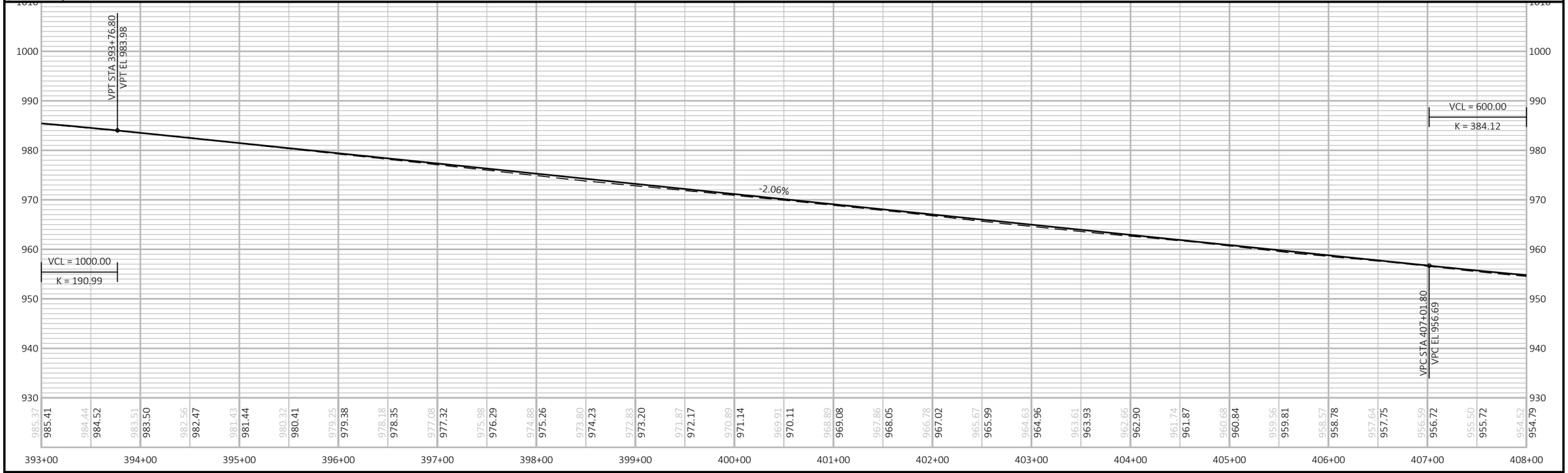
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 42	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
62	393+28	984.71	64.5' RT, 7" NAIL IN PPOL



CP#12
STA 393+41.96, 58.0' RT
¾ " REBAR W/CAP
Y = 226702.63
X = 481151.17

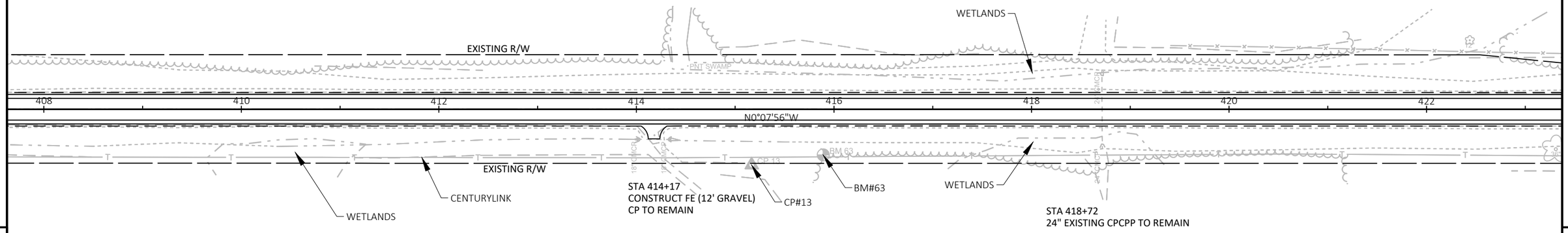
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 43	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 22
PLOT DATE : 7/14/2020 12:12 PM
PLOT BY : RESHESKE, CARRIE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
63	415+89	945.04	46.3' RT, 7" NAIL IN 36" ASPEN

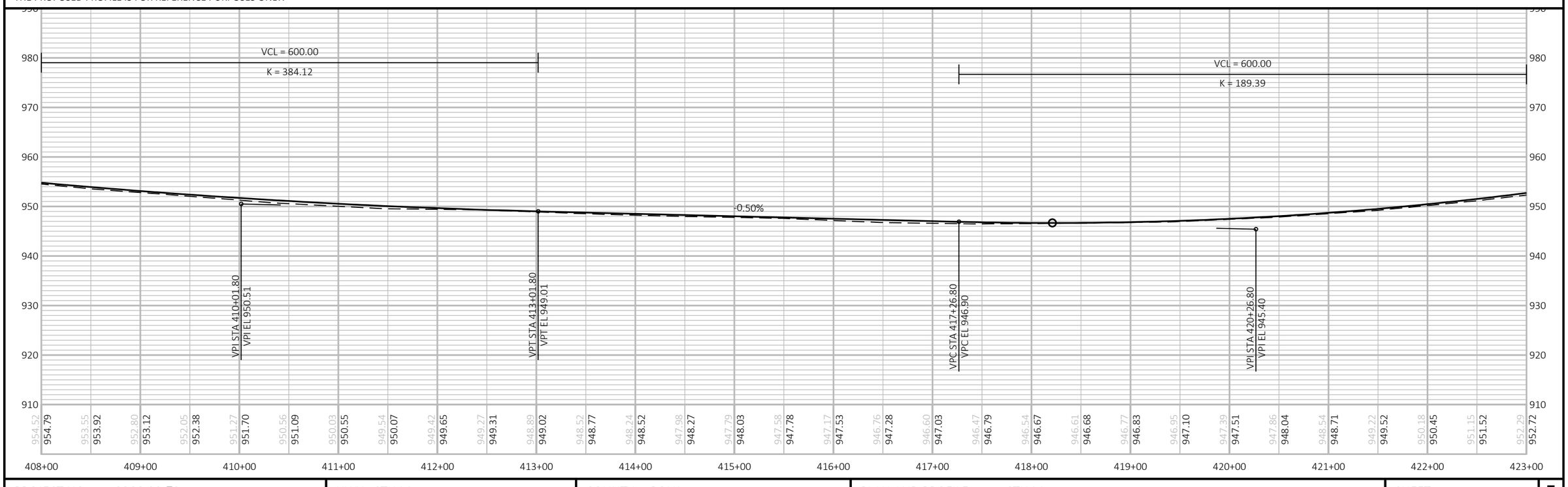


CP#13
STA 415+16.65, 56.5' RT
¾ " REBAR W/CAP
Y = 228877.31
X = 481144.68

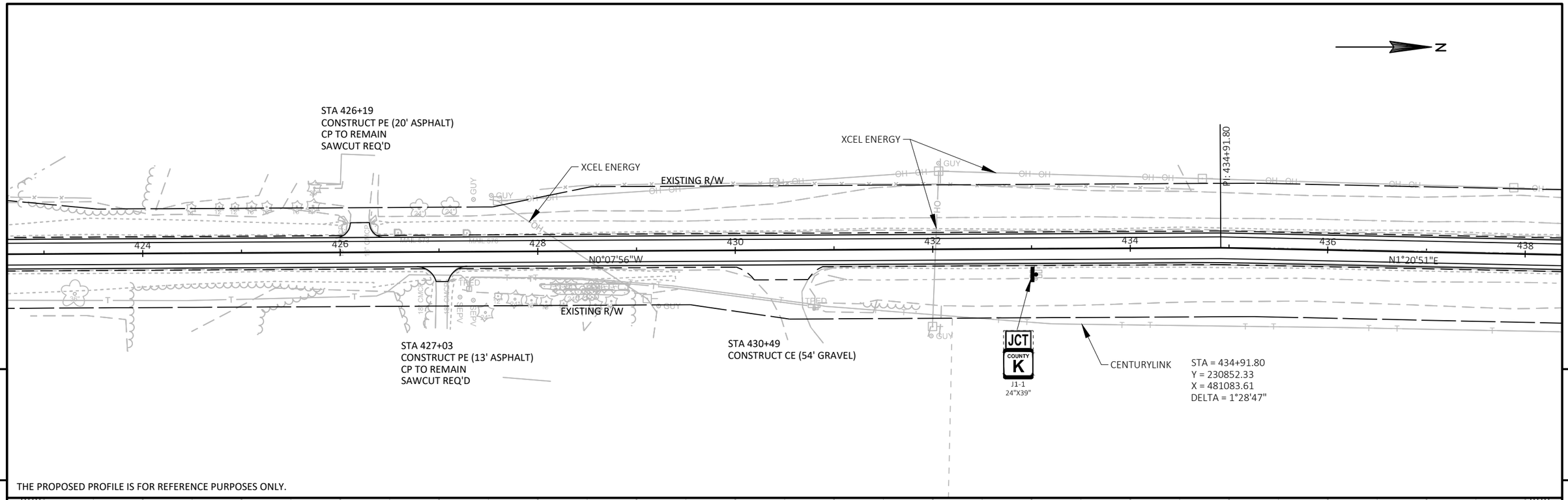
5

5

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 44	E



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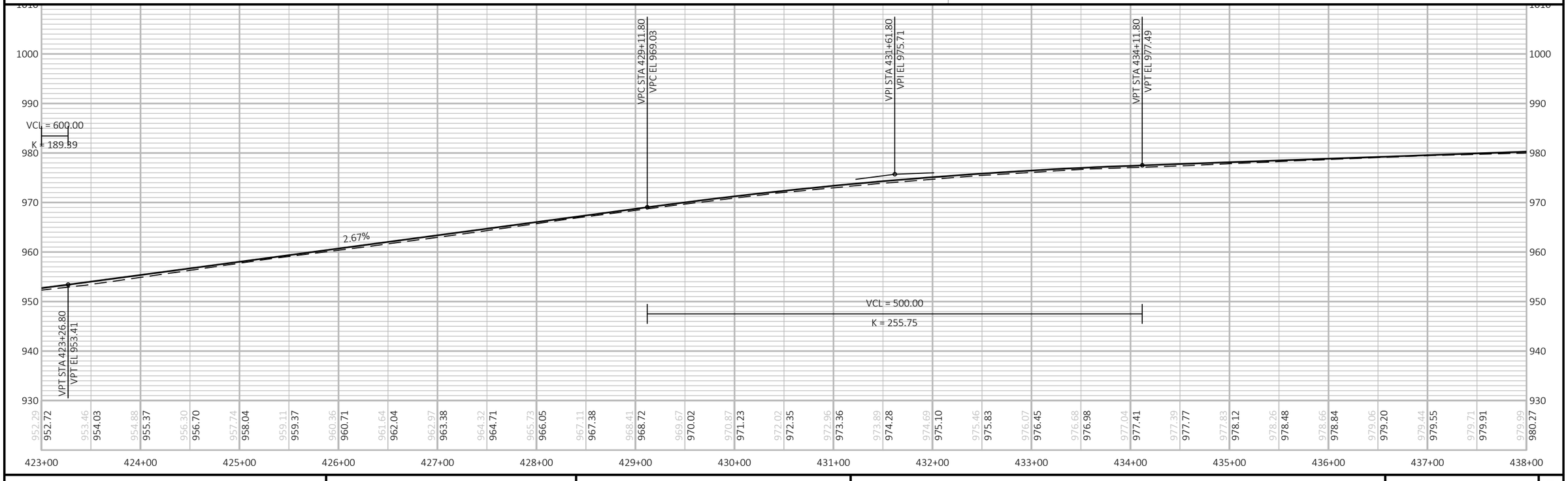
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 45	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
64	441+48	983.30	63.8' LT, 7" NAIL IN PPOL

N

EXISTING TOWN OF OSCEOLA PERMITS REQ'D SIGN TO REMAIN

BM#64

MOVING SIGNS TYPE II
EXISTING TOWN ROAD SIGNS TO NEW STOP SIGN

25-1

STOP R1-1 30"X30"

60TH AVE

COUNTY M M1-5A 24"X24"

COUNTY K J13-1 24"X45"

XCEL ENERGY

STA 445+02
CONSTRUCT PE (18' GRAVEL)

EXISTING R/W

GUY

JCT COUNTY K J1-1 24"X39"

PI: 449+55.24

CENTURYLINK

STA 451+51
CONSTRUCT PE (17' GRAVEL)
CP TO REMAIN

438 440 442 444 446 448 450 452

N1°20'51"E

N0°26'36"E

CENTURYLINK

CP 14

CP#14

COUNTY M M1-5A 24"X24"

STA 444+90
CONSTRUCT FE (16' GRAVEL)

EXISTING R/W

CENTURYLINK

STA 447+27
60" EXISTING RCCP TO REMAIN

CENTURYLINK

STA = 449+55.24
Y = 232315.36
X = 481118.03
DELTA = 0°54'15"

STA 440+39
CONSTRUCT FE (14' GRAVEL)

CENTURYLINK

COUNTY K J13-1 24"X45"

60TH AVE/CTH K

STOP R1-1 30"X30"

COUNTY M J13-1 24"X45"

STA 441+51
24" EXISTING CMCP TO REMAIN

CP#14
STA 442+59.71, 63.9' RT
¾ " REBAR W/CAP
Y = 231618.53
X = 481165.56

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.

5

5

VPC STA 442+01.80
VPC EL 983.14

VPI STA 446+01.80
VPI EL 986.00

VPT STA 450+01.80
VPT EL 979.89

VCL = 550.00
K = 527.83

0.72%

-1.53%

VPC STA 451+76.80
VPC EL 977.21

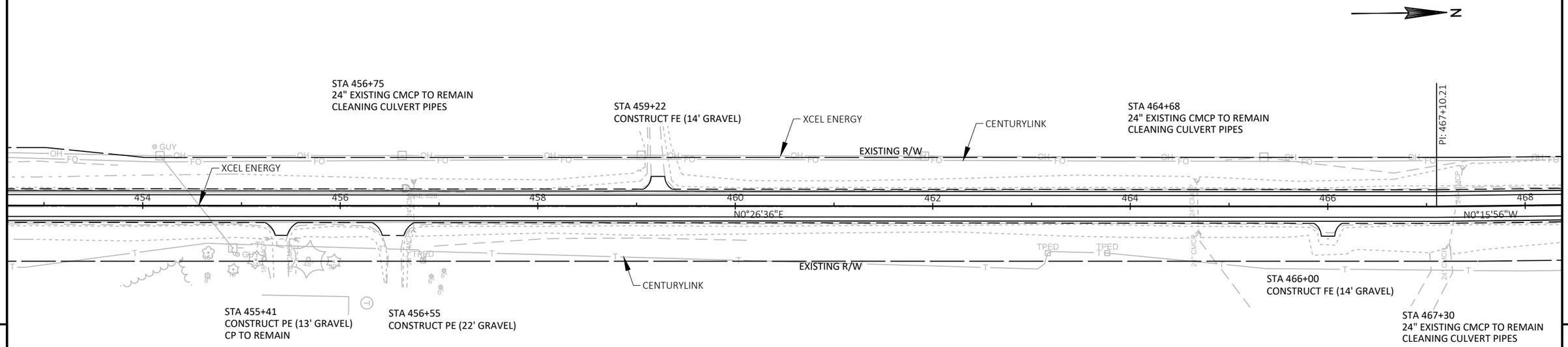
VCL = 800.00
K = 356.51

1020 1010 1000 990 980 970 960 950 940

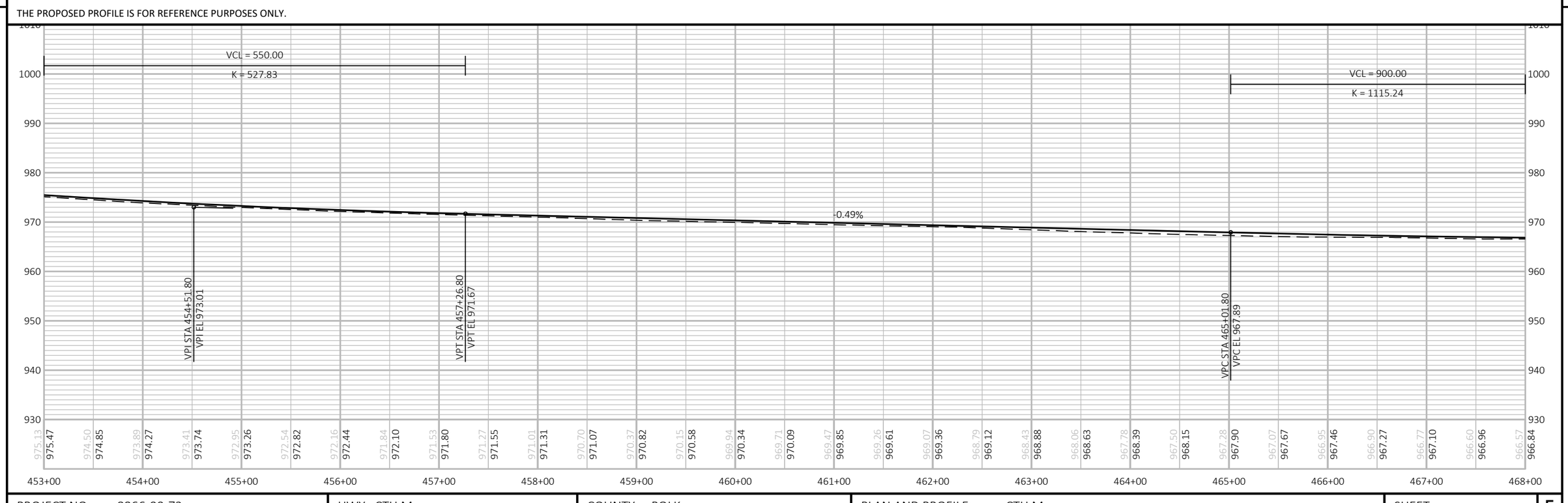
979.99 980.27 980.24 980.63 980.49 980.98 980.88 981.34 981.27 981.70 981.69 982.06 982.12 982.41 982.38 982.77 982.66 983.13 983.02 983.45 983.32 983.71 983.51 983.89 983.64 984.01 983.67 984.05 983.68 984.03 983.61 983.93 983.55 983.77 983.30 983.53 983.02 983.22 982.62 982.85 982.21 982.40 981.65 981.88 981.06 981.30 980.38 980.64 979.70 979.91 978.92 979.15 978.13 978.39 977.32 977.62 976.54 976.86 975.82 976.14 975.13 975.47

438+00 439+00 440+00 441+00 442+00 443+00 444+00 445+00 446+00 447+00 448+00 449+00 450+00 451+00 452+00 453+00

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 46	E

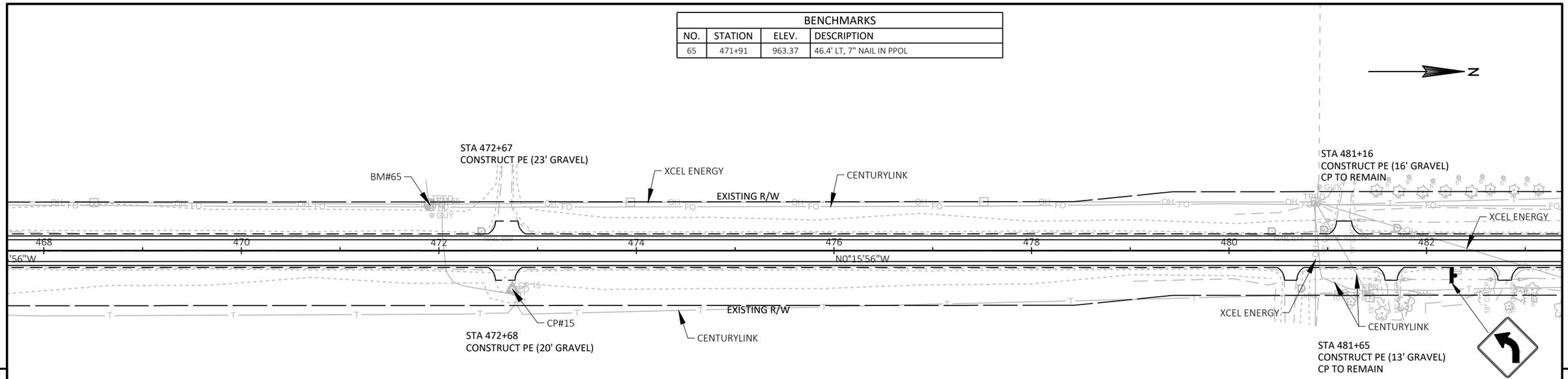


THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



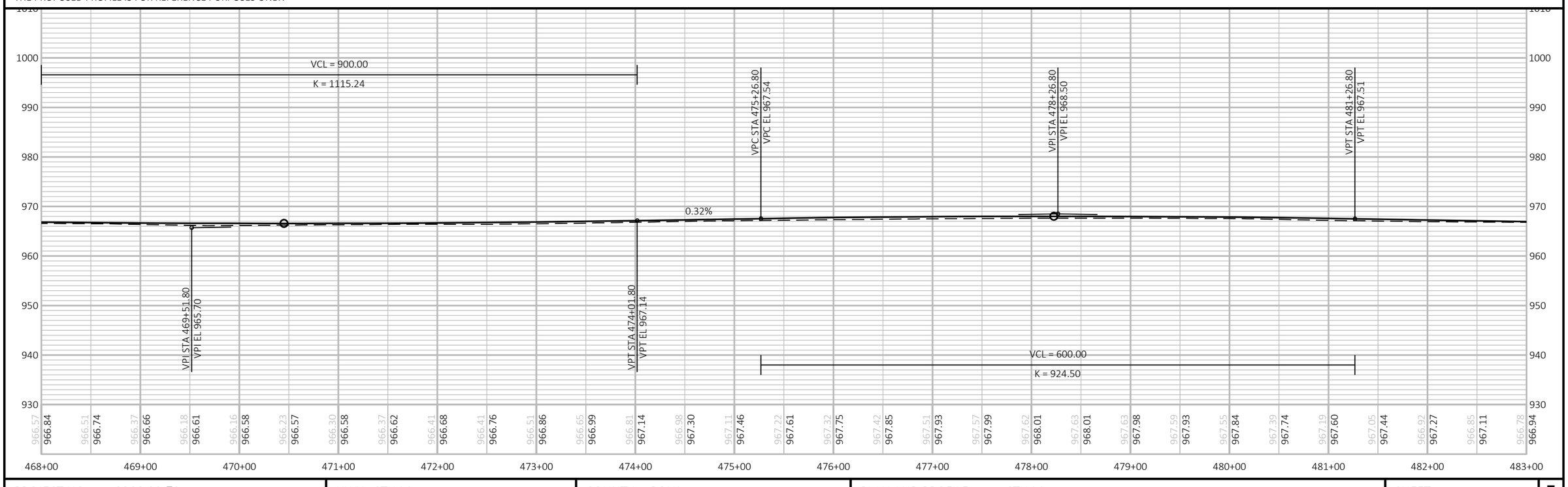
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 47	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
65	471+91	963.37	46.4' LT, 7" NAIL IN PPOL

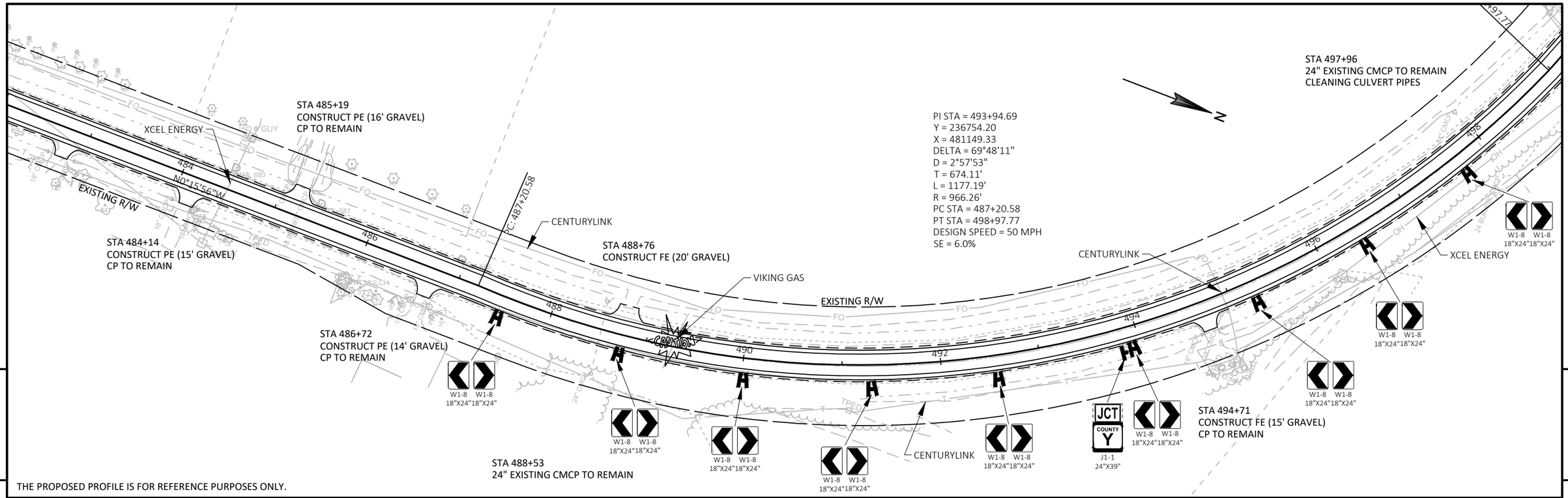


CP#15
STA 472+74.36, 39.2' RT
¾ " REBAR W/CAP
Y = 234634.61
X = 481168.15

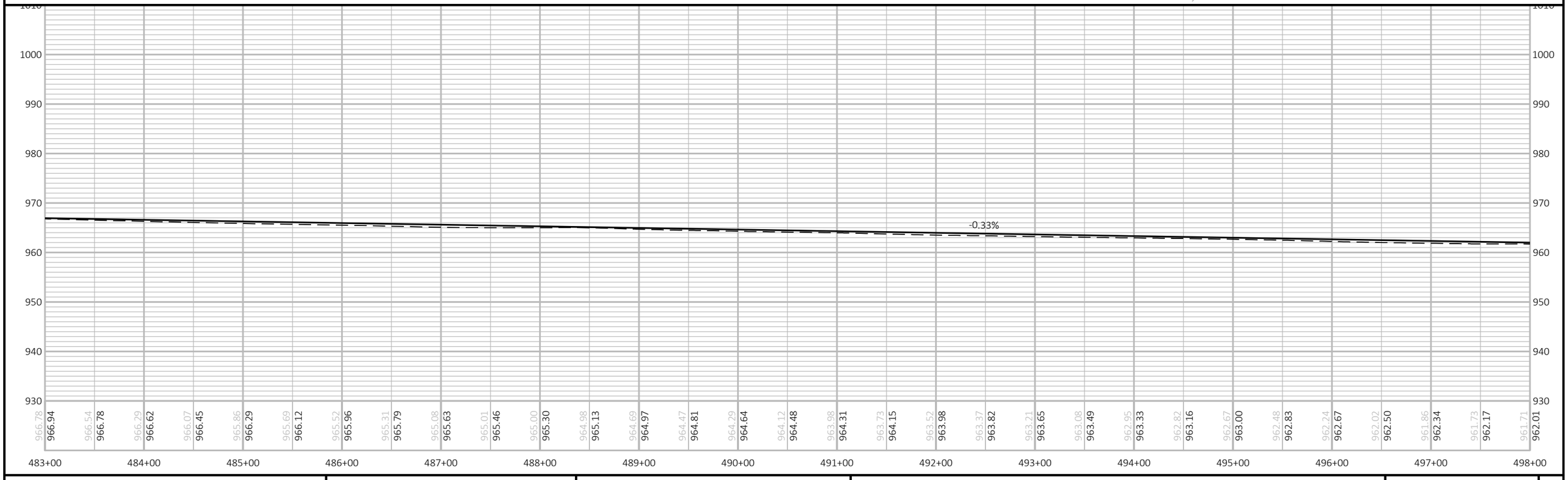
THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 48	E



THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.



PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 49	E

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
66	501+98	958.87	54.5' RT, 7" NAIL IN PPOL
67	510+82	958.69	37.3' RT, 7" NAIL IN PPOL

STA = 499+97.92
Y = 237046.89
X = 480432.59
DELTA = 1°17'22"

STA 500+24
CONSTRUCT FE (10' GRAVEL)
CP TO REMAIN

STA = 503+04.50
Y = 237146.79
X = 480142.74
DELTA = 0°08'39"

CP#17
30' SW OF C/L CTH M
¾ " REBAR W/CAP
Y = 237422.73
X = 479286.51

W1-7 48"X24"
M1-5A 24"X24"
J13-1 24"X45"
PT: 498+97.77
PI: 499+97.92
PI: 503+04.50
EP: 510+89.38
EXISTING R/W
CENTURYLINK
N69°41'34"W
N70°58'56"W
CP#16
BM#66
XCEL ENERGY
W2-2 30"X30"
W1-8 18"X24"
R1-1 30"X30"
CTH Y
BM#67
END PROJECT
STA 503+70.10

CP#16
STA 502+08.84, 45.8' RT
¾ " REBAR W/CAP
Y = 237158.90
X = 480248.10

THE PROPOSED PROFILE IS FOR REFERENCE PURPOSES ONLY.

STA 503+70.10
EL 960.13

961.71 962.01 961.54 961.84 961.44 961.68 961.30 961.52 961.04 961.35 960.78 961.19 960.62 961.02 960.45 960.86 960.30 960.69 960.14 960.53 960.00 960.36 959.86 960.20 959.74 959.64 959.58 959.55

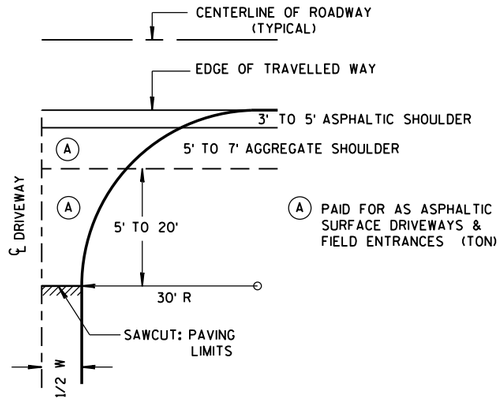
498+00 499+00 500+00 501+00 502+00 503+00 504+00 505+00 506+00 507+00 508+00 509+00 510+00 510+89

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	PLAN AND PROFILE: CTH M	SHEET 50	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 29
PLOT DATE : 7/14/2020 12:14 PM
PLOT BY : RESHESKE, CARRIE
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

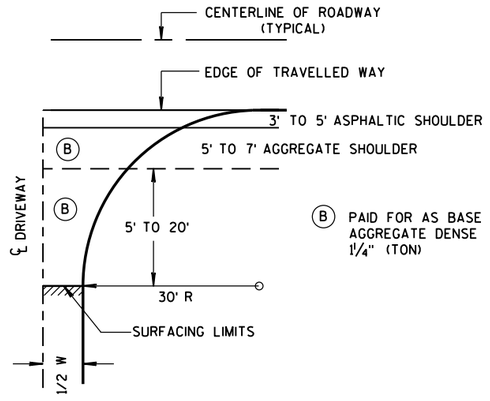
Standard Detail Drawing List

08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
13C19-02	HMA LONGITUDINAL JOINTS
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING



PLAN VIEW
HALF SECTION

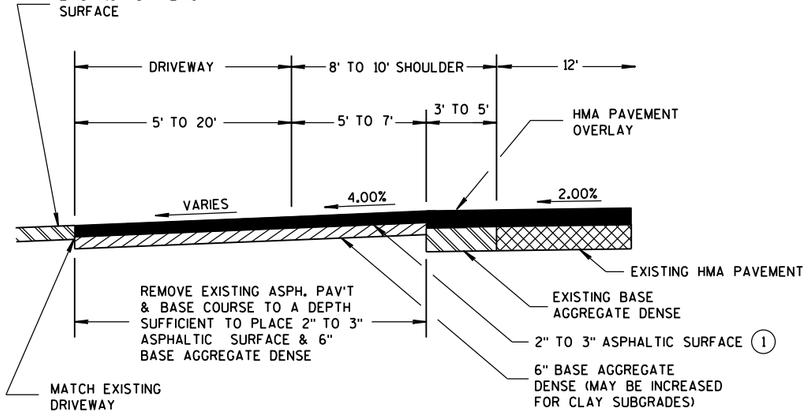
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

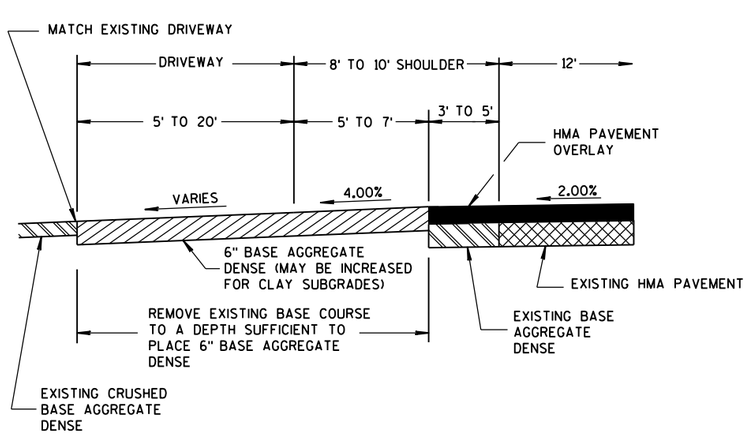
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

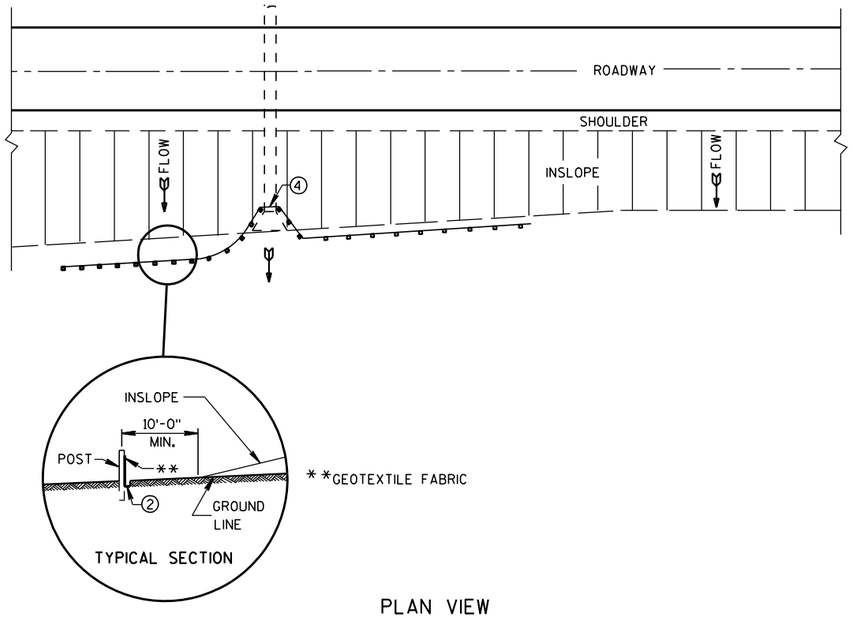
APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

S.D.D. 8 D 22-1

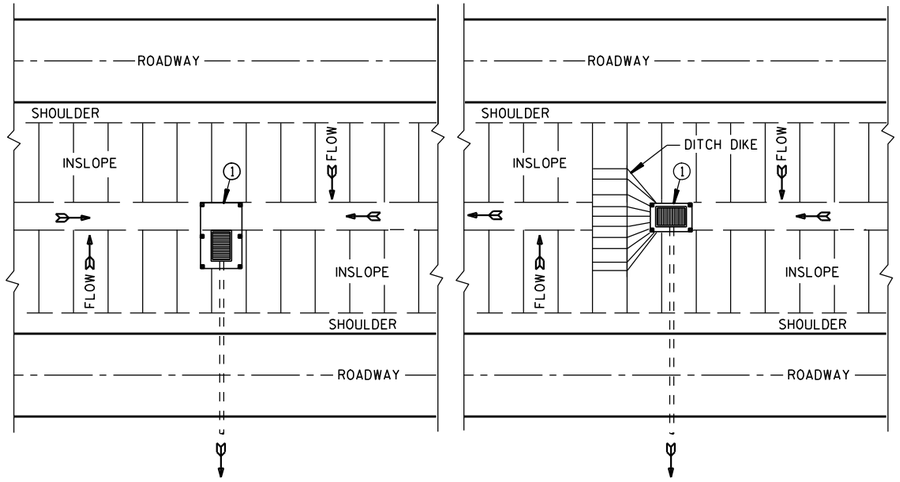
6

S.D.D. 8 D 22-1



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

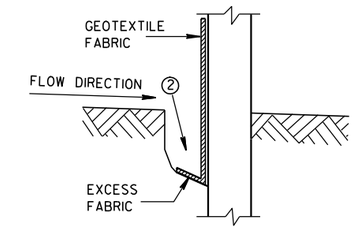
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

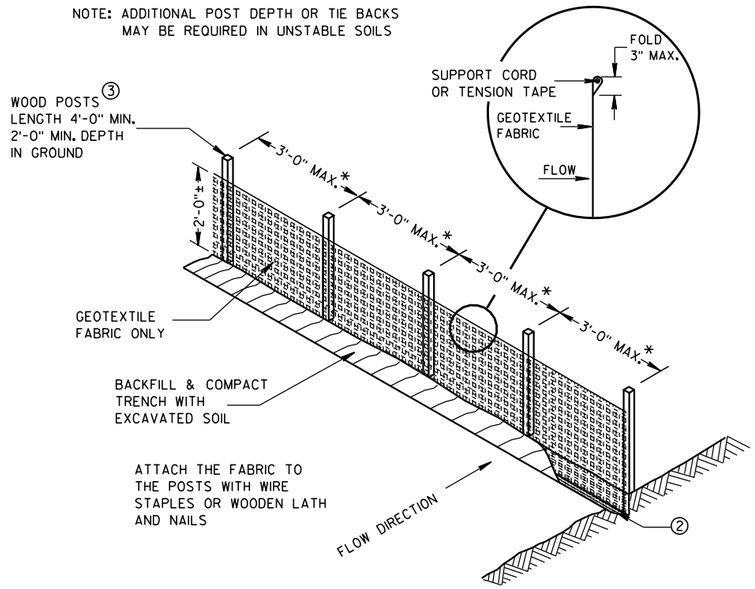
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

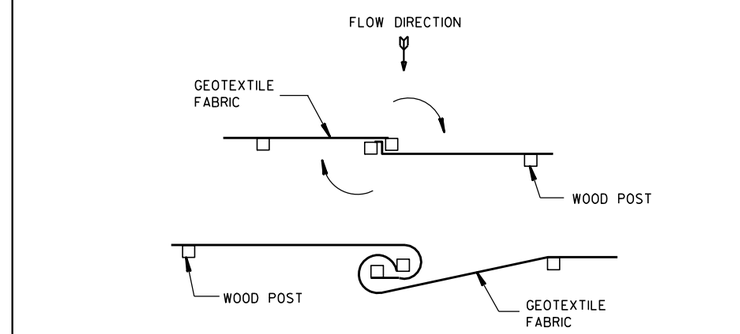
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



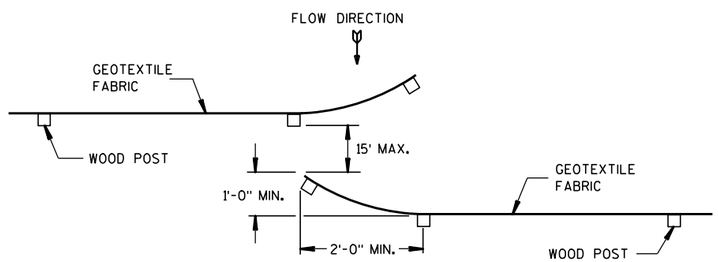
TRENCH DETAIL



SILT FENCE

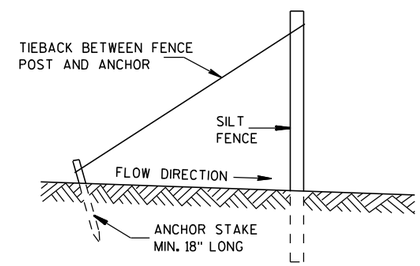


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

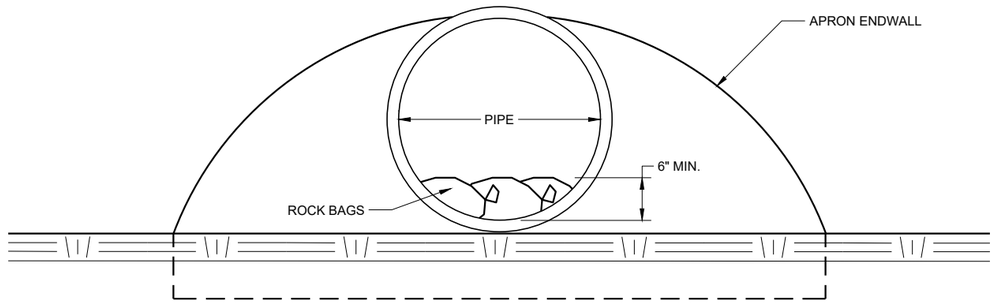
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

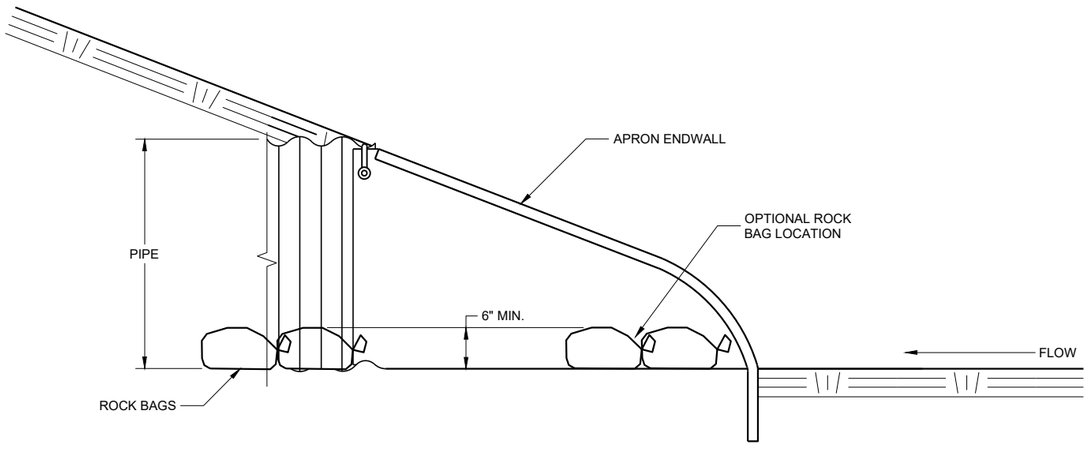
S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI
FHWA	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

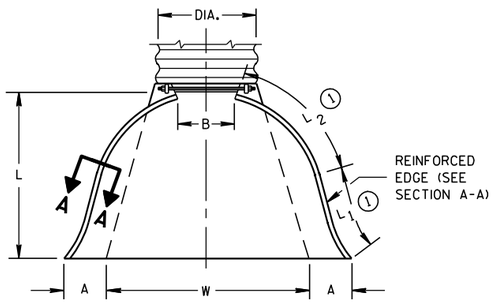
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

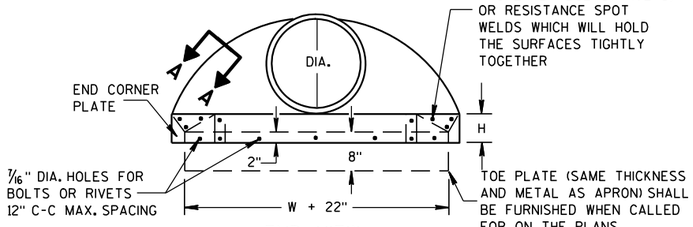
REINFORCED CONCRETE APRON ENDWALLS

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

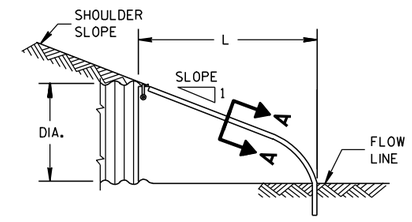
*MINIMUM
**MAXIMUM



PLAN VIEW

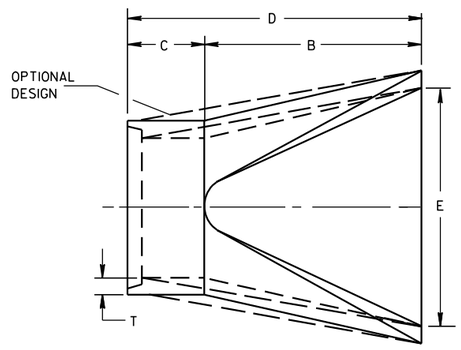


END VIEW

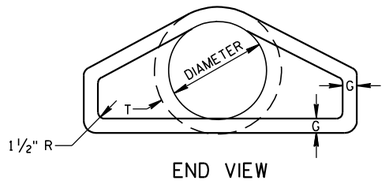


SIDE ELEVATION

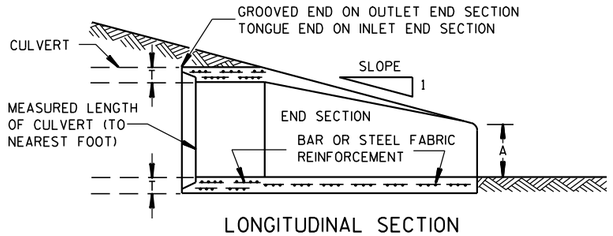
METAL ENDWALLS



PLAN

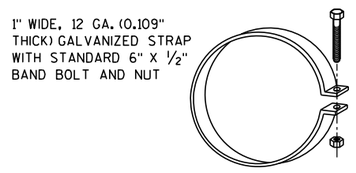


END VIEW



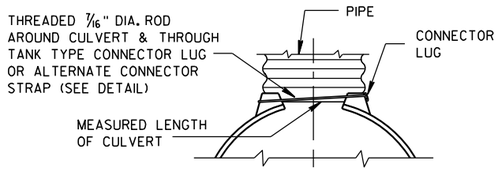
LONGITUDINAL SECTION

CONCRETE ENDWALLS

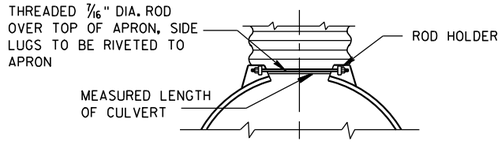


ALTERNATE FOR TYPE 1 CONNECTION

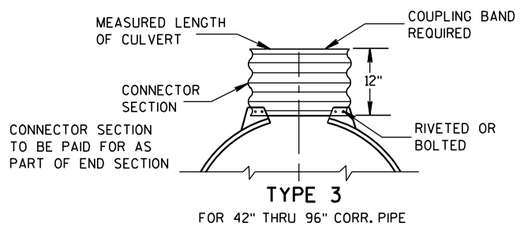
END SECTION CONNECTOR STRAP



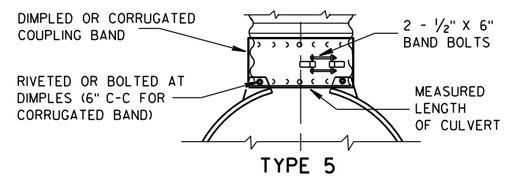
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

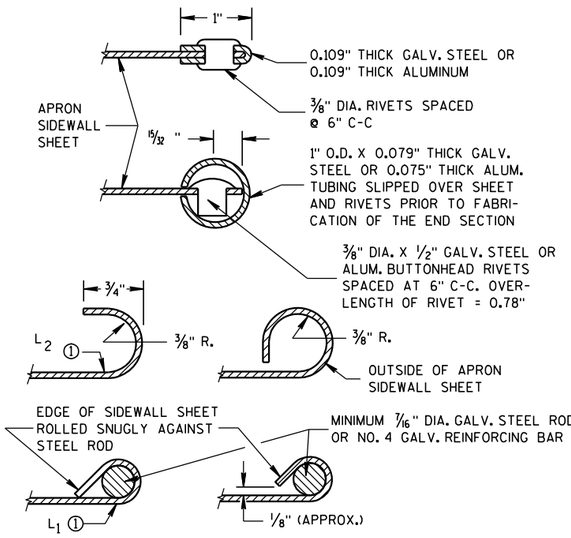
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

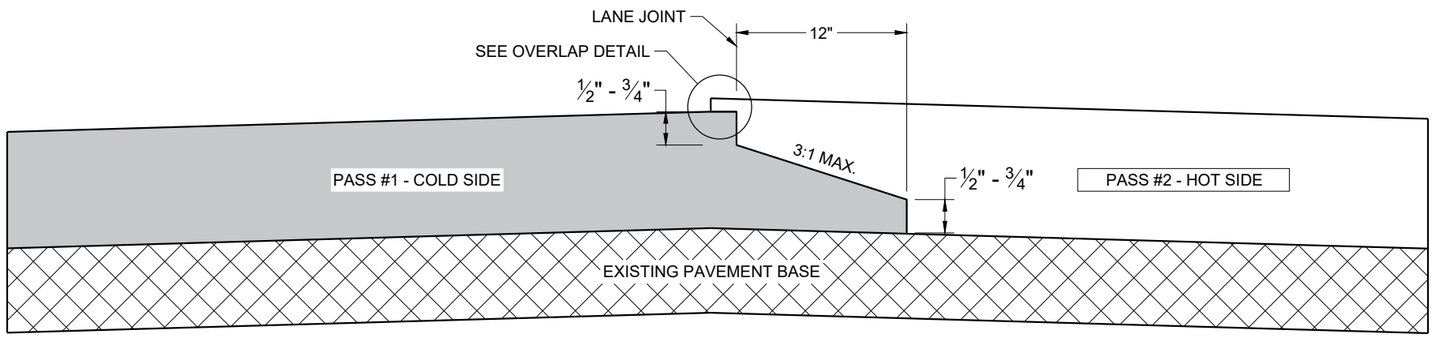
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

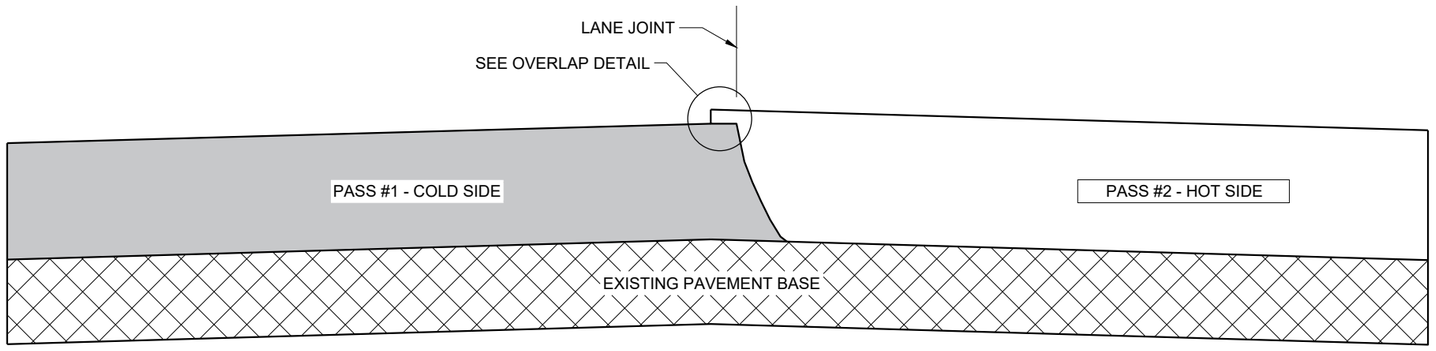
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

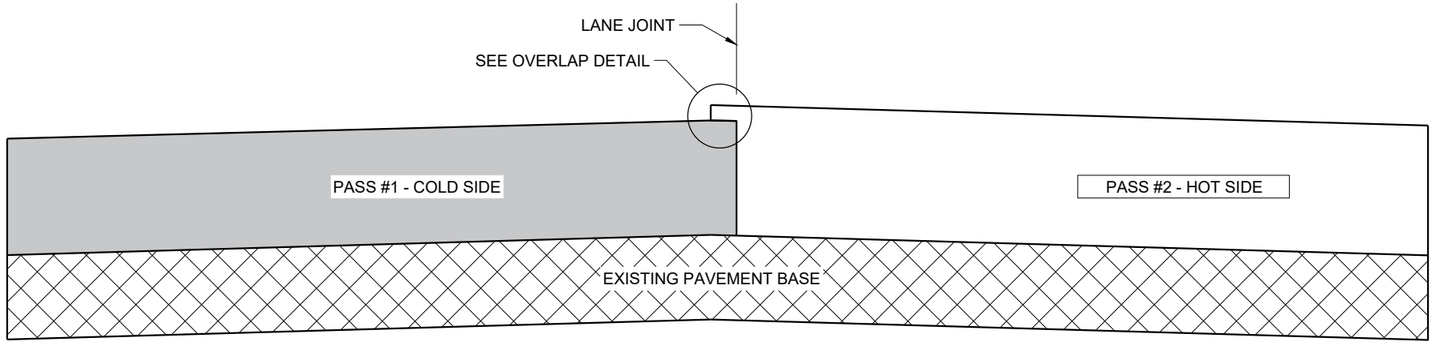
6
S.D.D. 8 F 1-11



TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL LONGITUDINAL JOINT



TYPICAL PAVEMENT CROSS SECTION
OF MILLED LONGITUDINAL JOINT

GENERAL NOTES

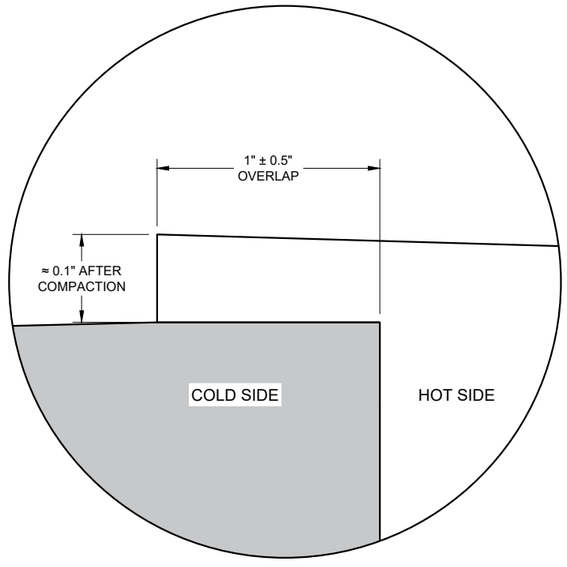
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION.

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 02

SDD 13C19 - 02

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

(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.

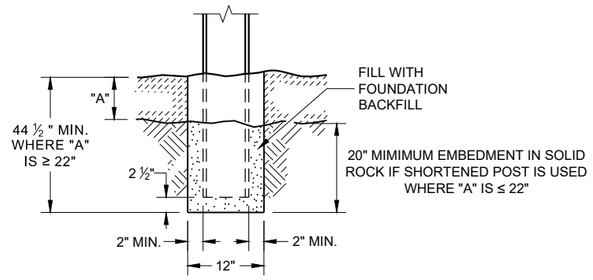
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

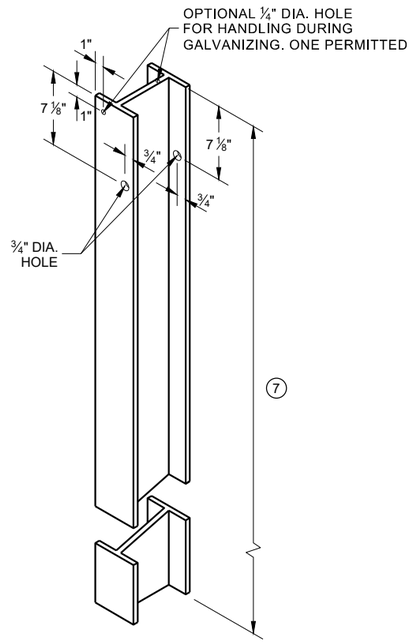
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

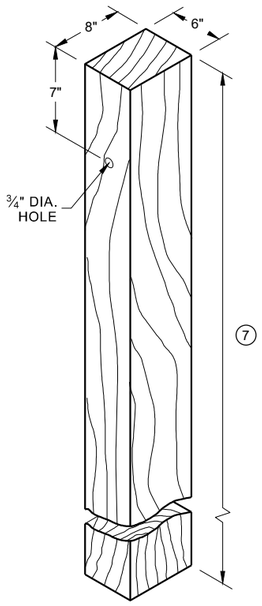
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



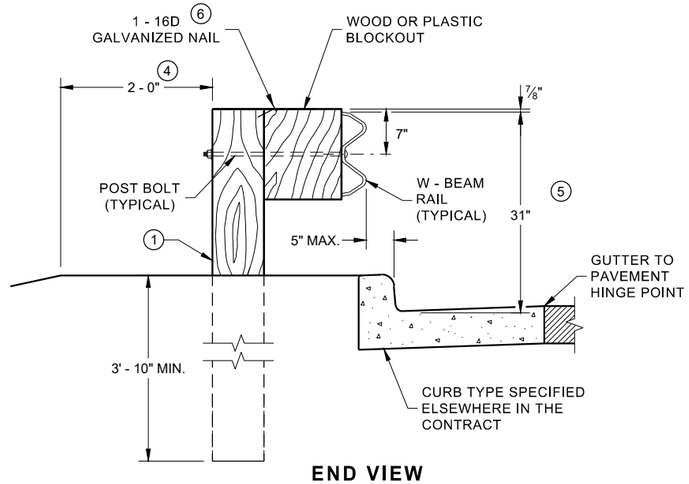
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



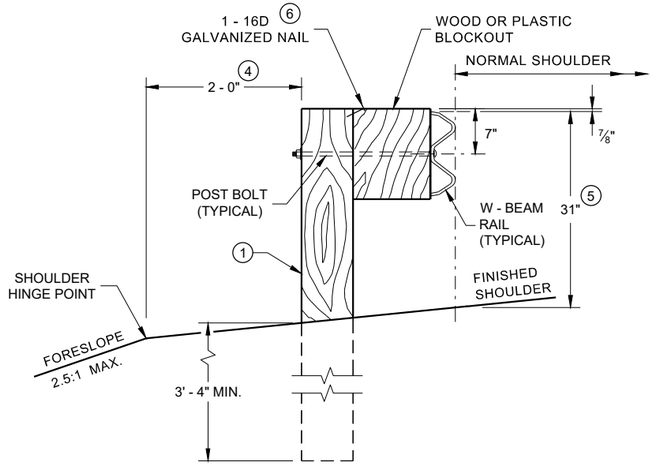
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



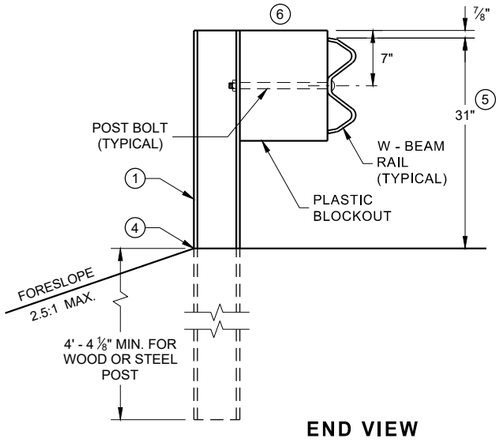
WOOD POST (6" X 8") NOMINAL (1)



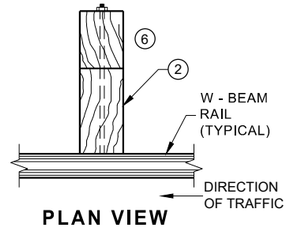
END VIEW
LOCATED ALONG A CURBED ROADWAY



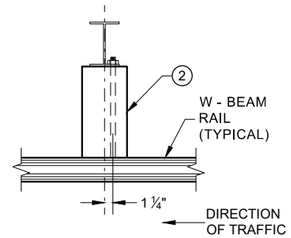
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



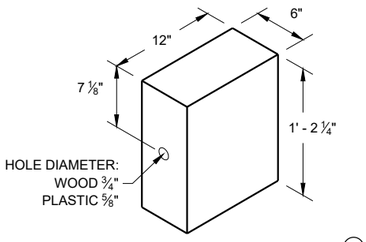
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

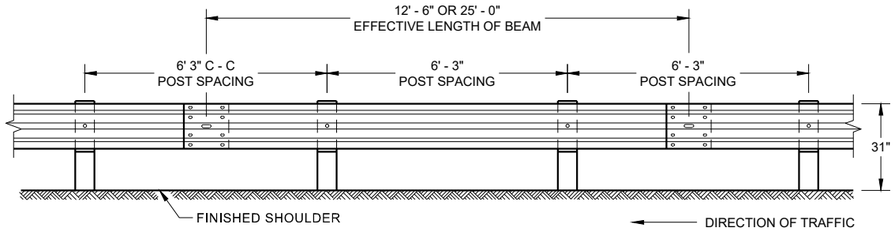


WOOD OR PLASTIC BLOCKOUT (2)

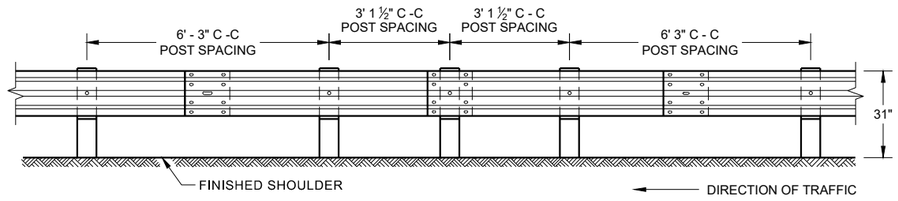
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

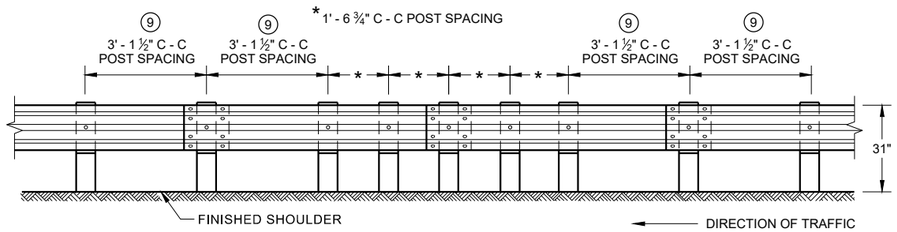
SDD 14B42 - 06a



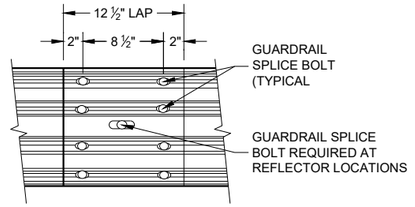
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

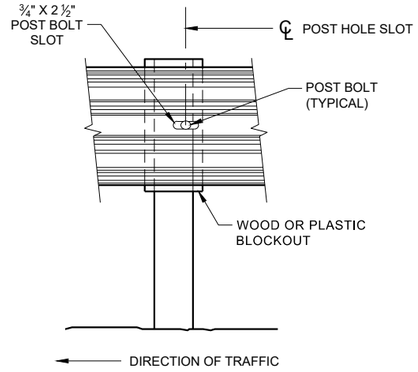
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

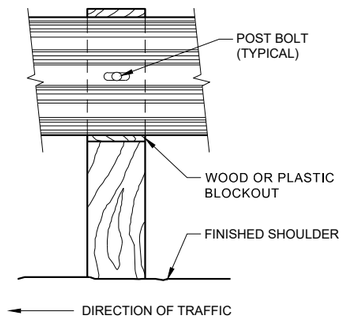
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

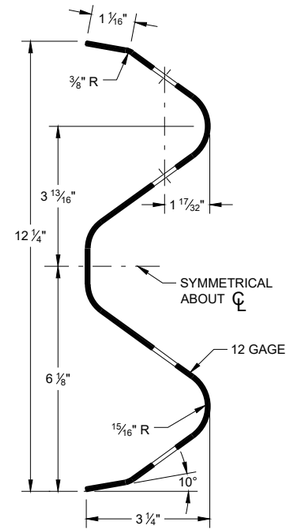
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



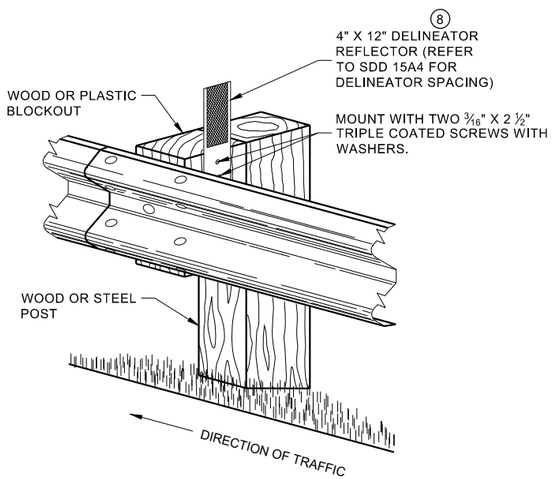
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



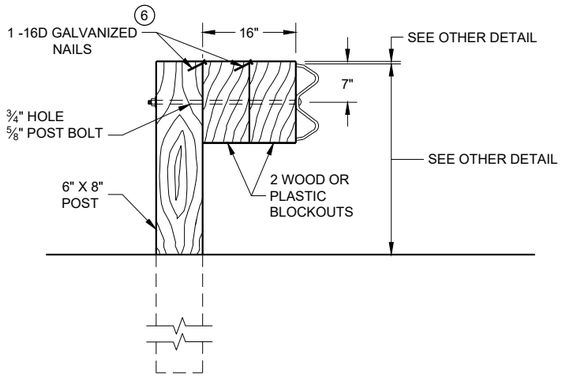
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

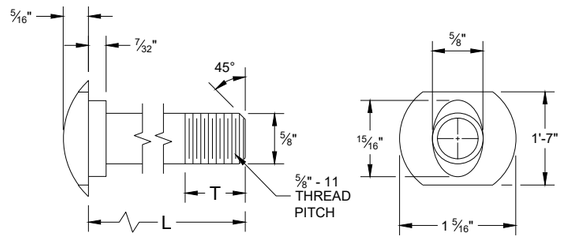


DETAIL FOR 16" BLOCKOUT DEPTH

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.

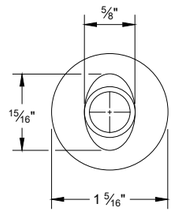
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

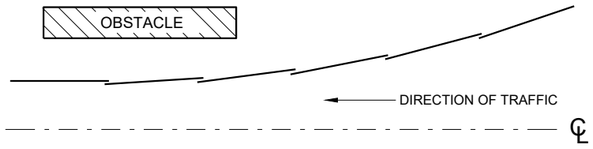


POST BOLT TABLE

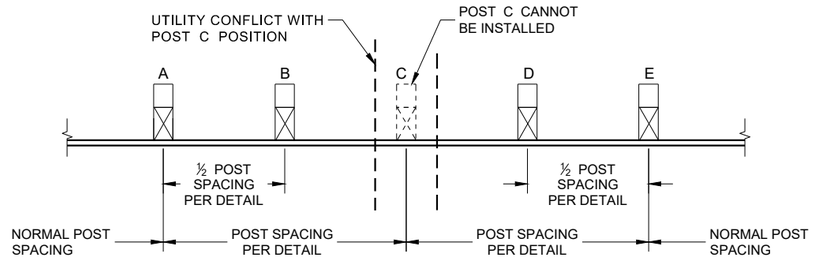
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



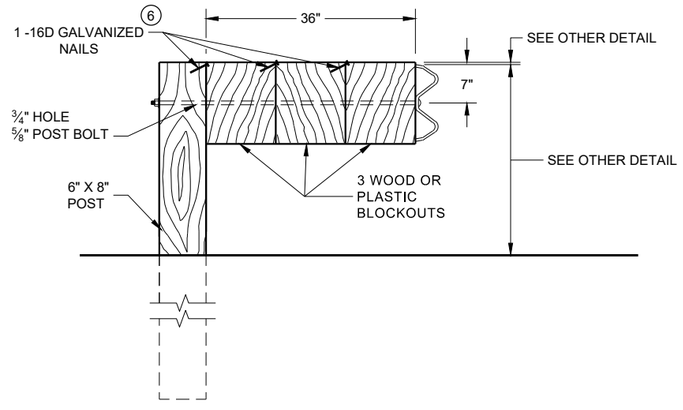
ALTERNATE BOLT HEAD



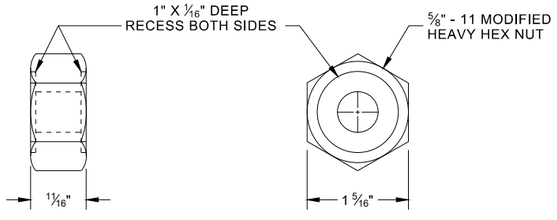
PLAN VIEW
BEAM LAPPING DETAIL



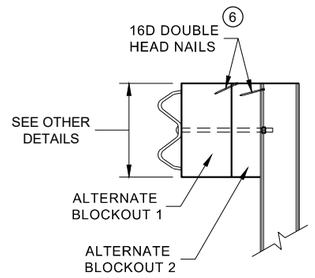
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



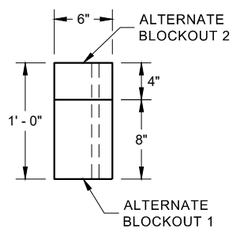
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

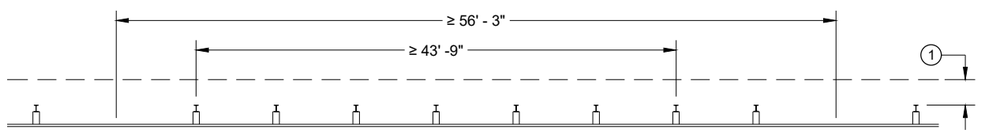
ALTERNATE WOOD BLOCKOUT DETAIL

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.

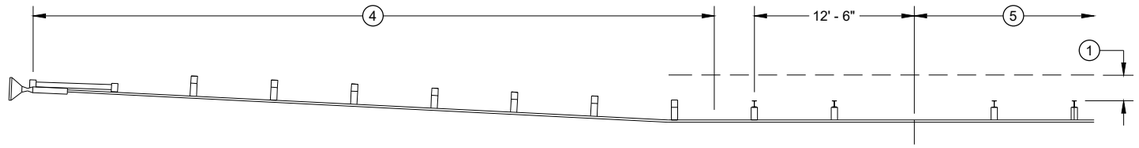
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD 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.

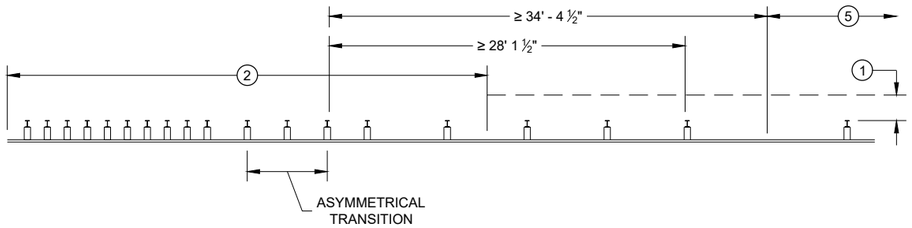
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



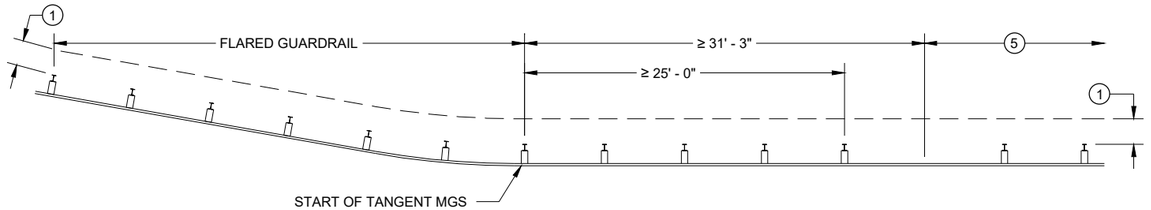
MISSING POST IN NORMAL BEAM GUARD RUN



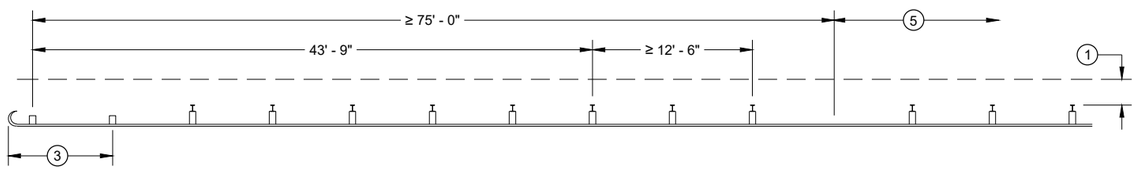
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



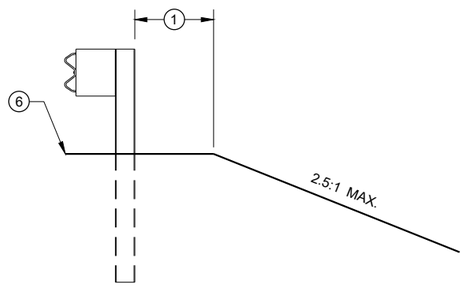
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

SDD 14B42 - 06d

SDD 14B42 - 06d

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 MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

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

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

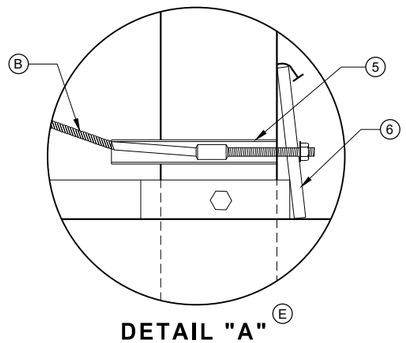
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

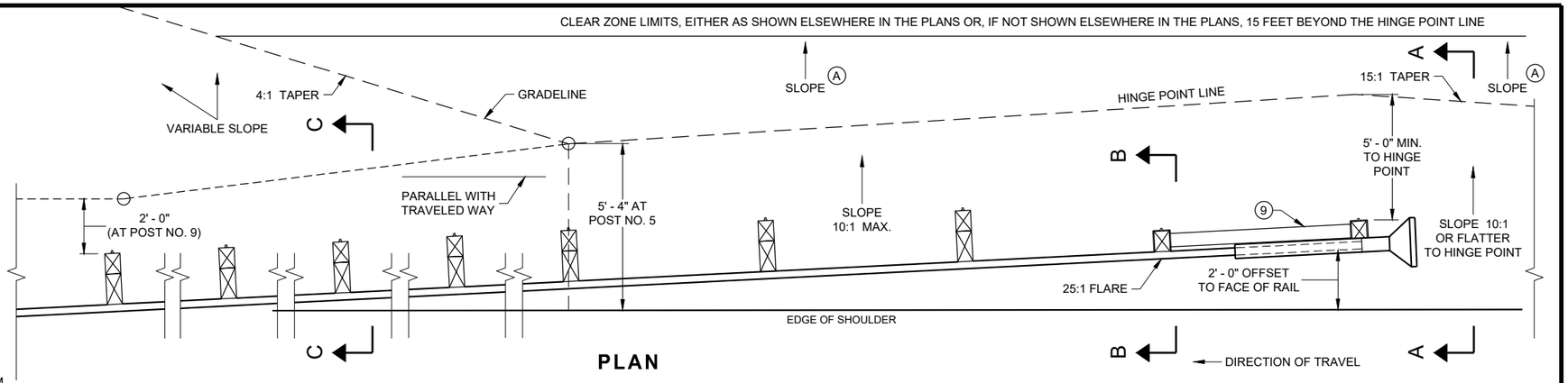
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

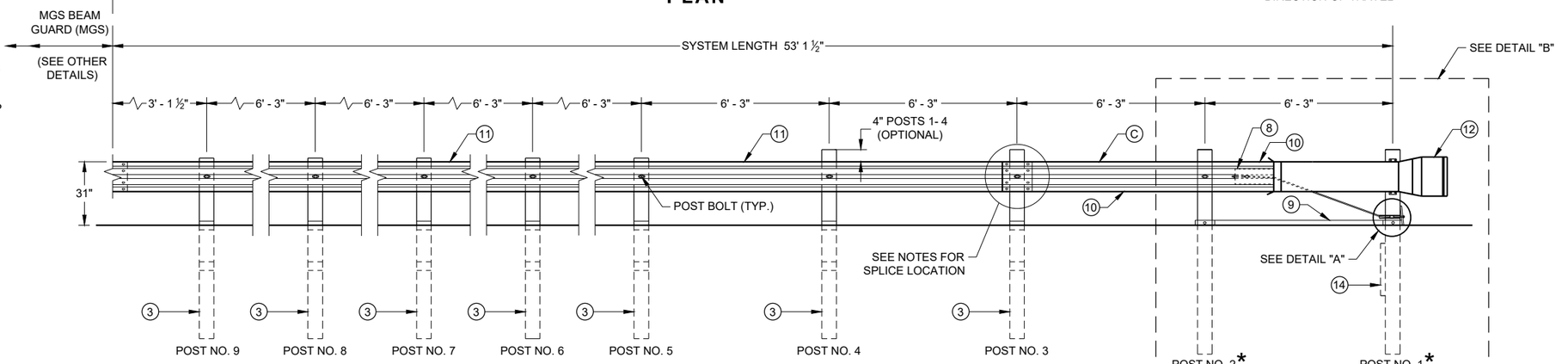
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



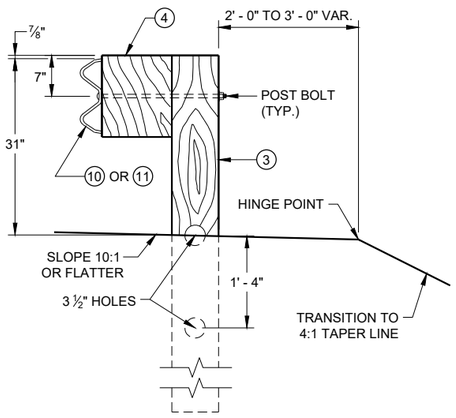
DETAIL "A" (E)



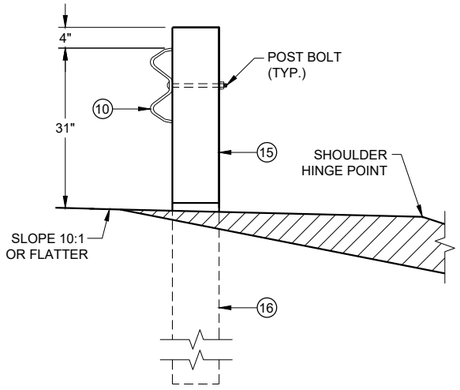
PLAN



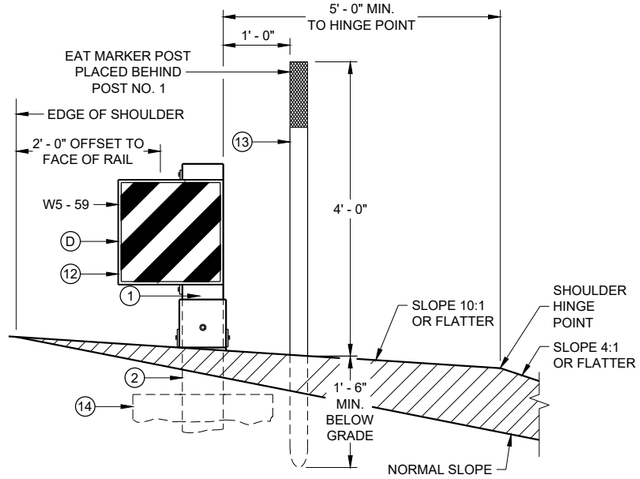
ELEVATION



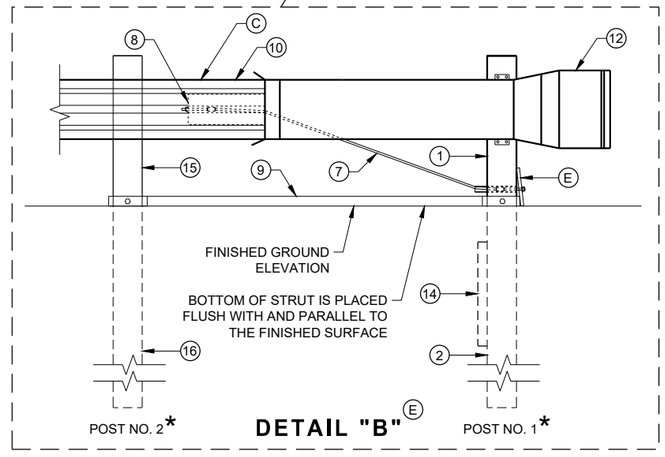
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



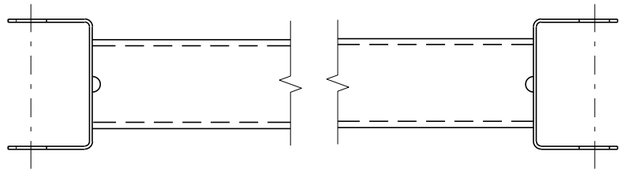
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

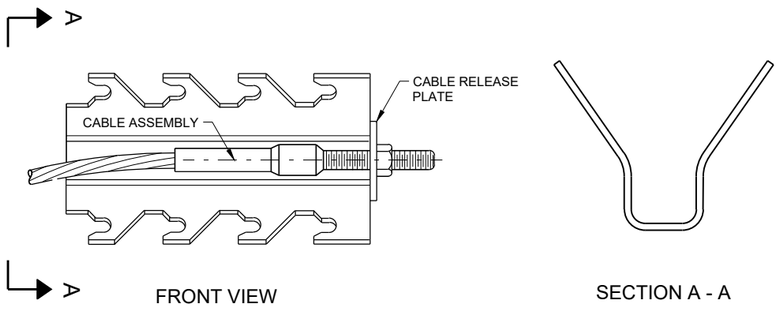
SDD 14B44 - 04a



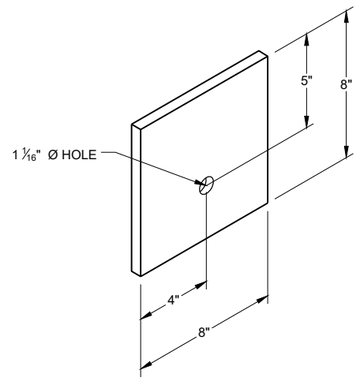
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
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	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

6

SDD 14B44 - 04b

SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

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

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

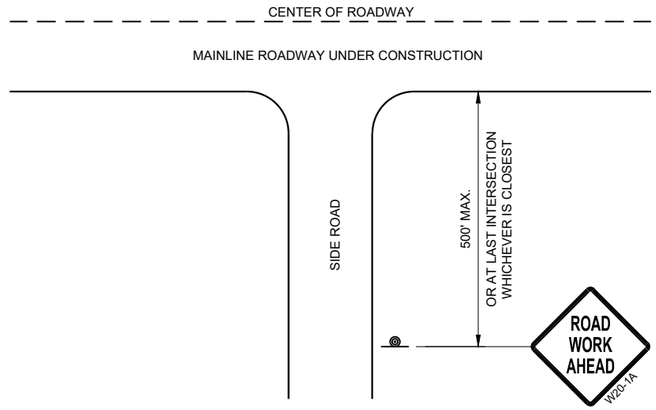
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



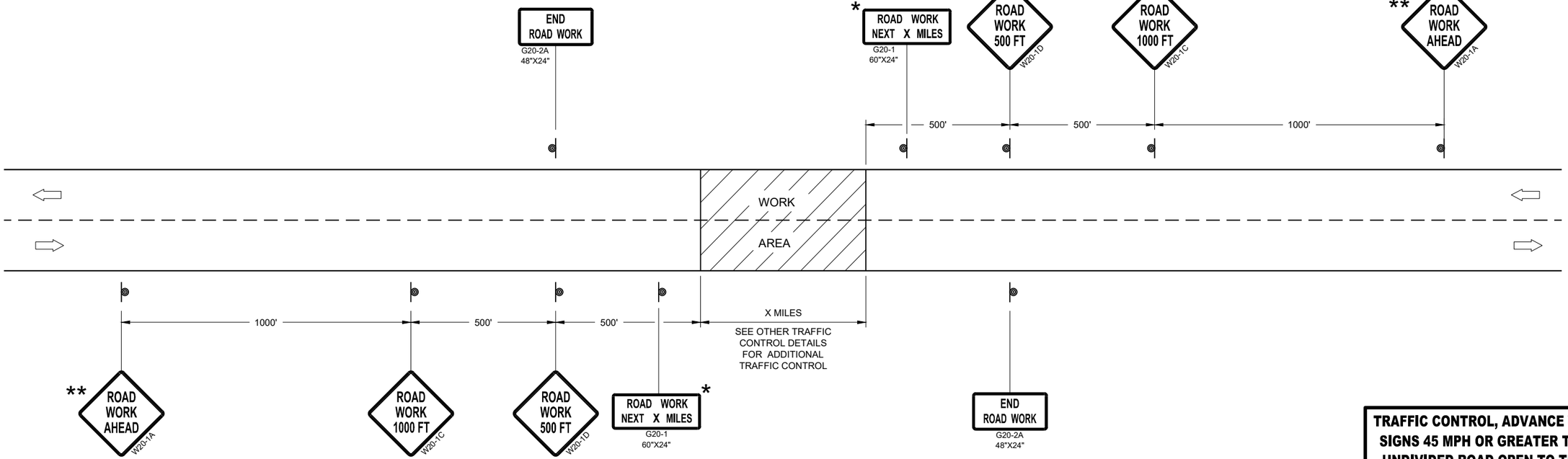
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

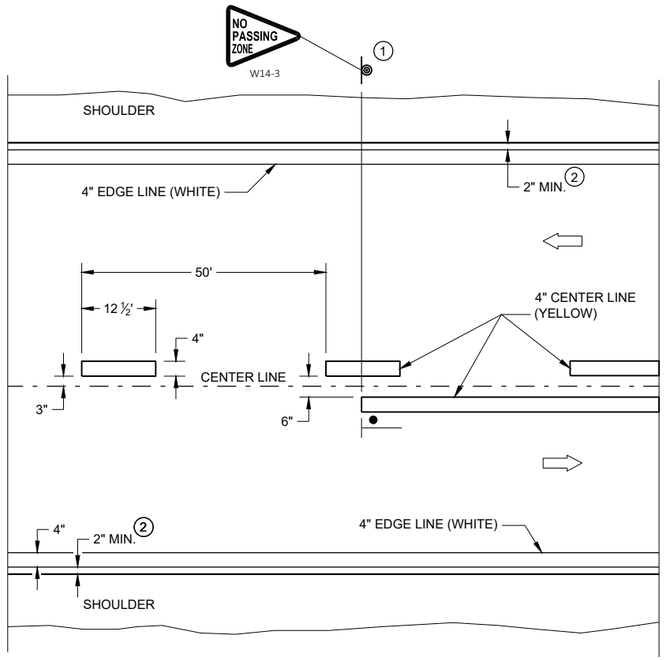
APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

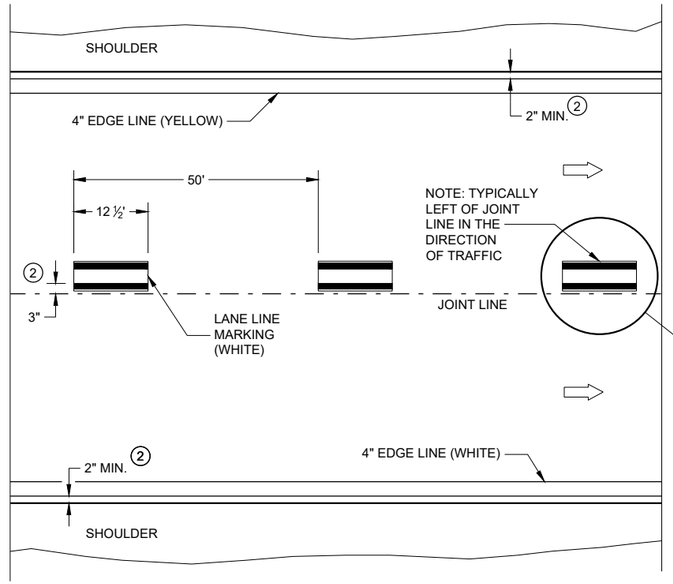
FHWA

6

SDD 15C04 - 05

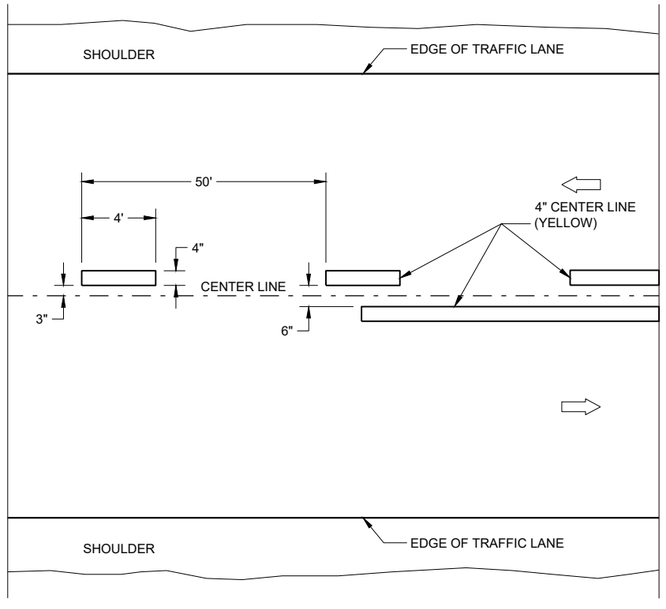


TWO WAY TRAFFIC

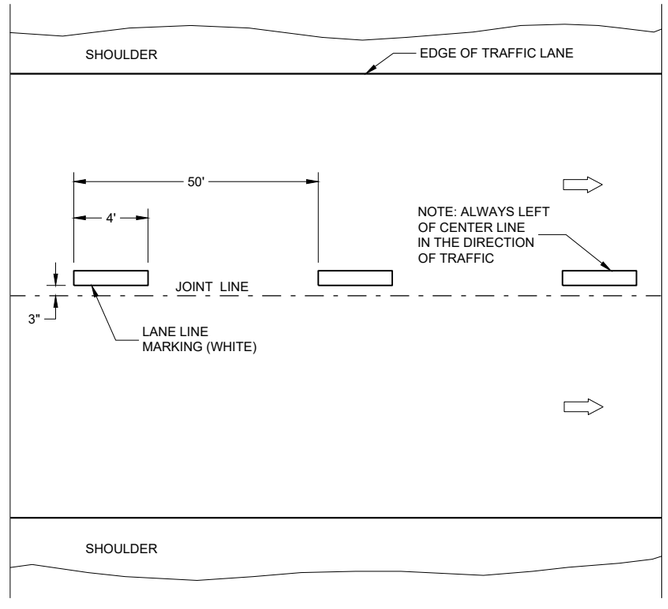


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

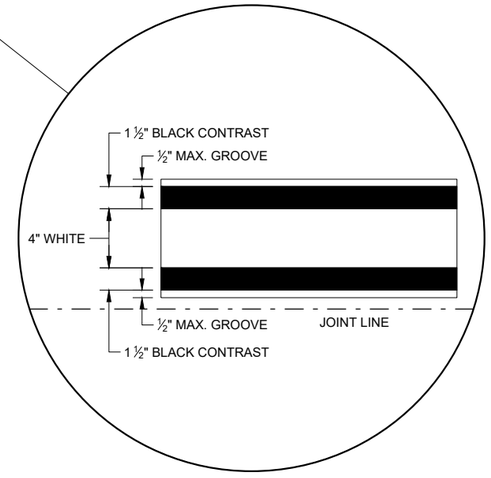
1. LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
2. MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

FHWA

SDD 15C08 - 20a

SDD 15C08 - 20a

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

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

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

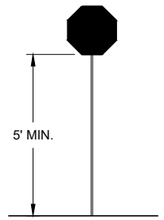
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



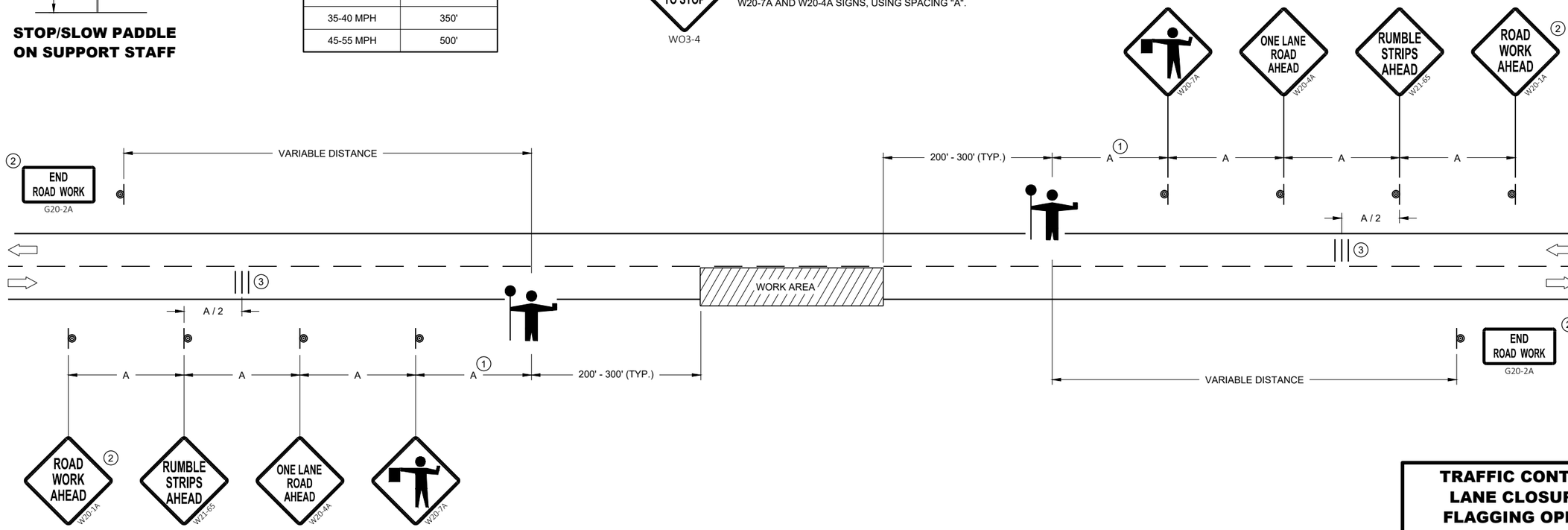
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

6
SDD 15C12 - 07

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

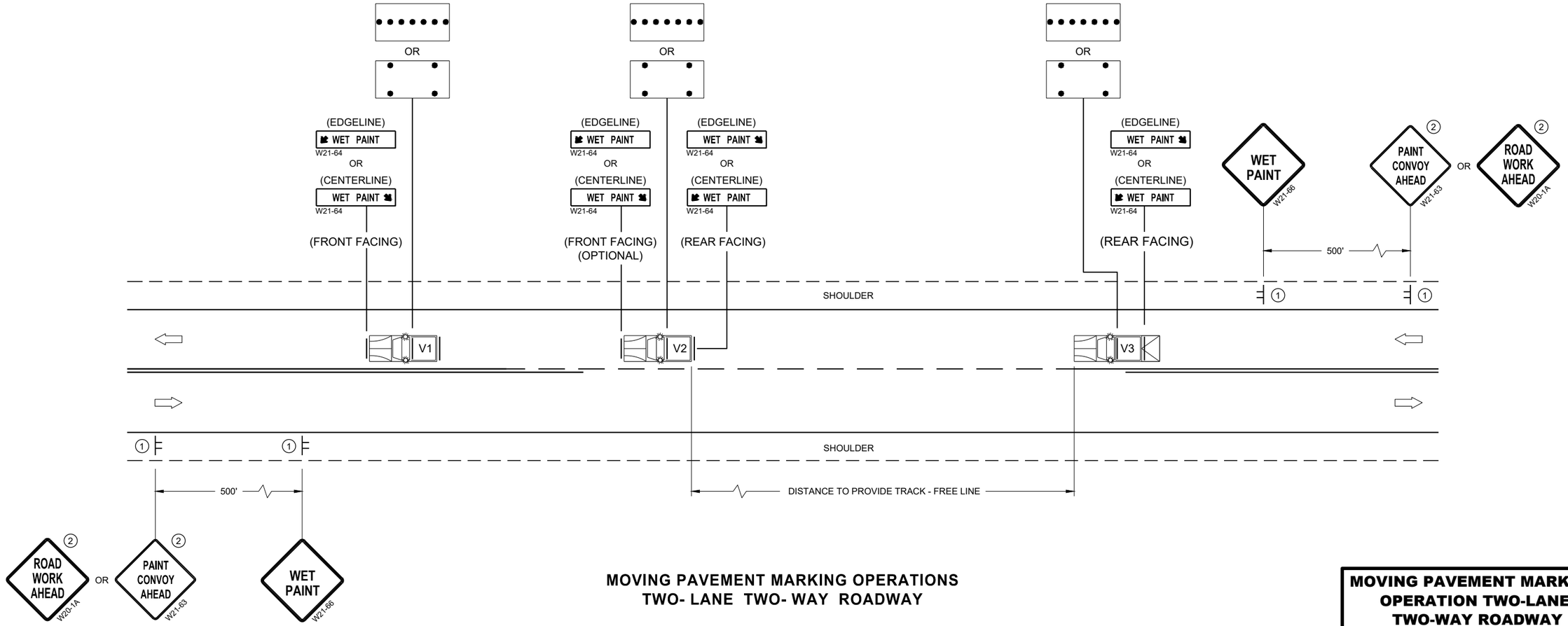
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

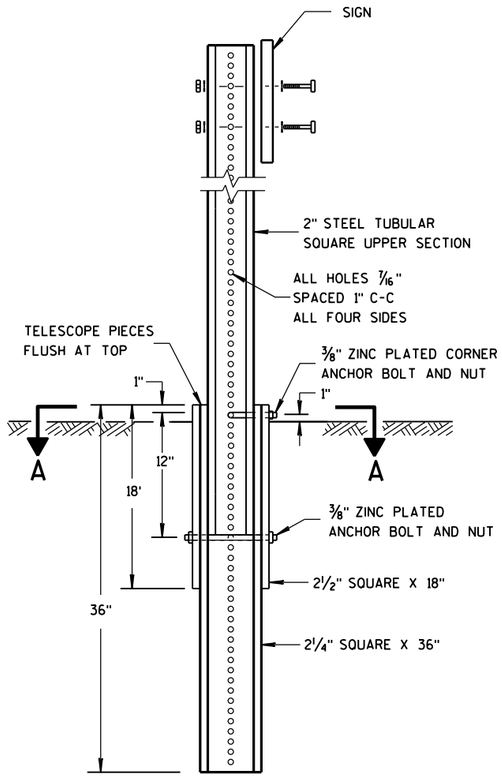
APPROVED
November 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

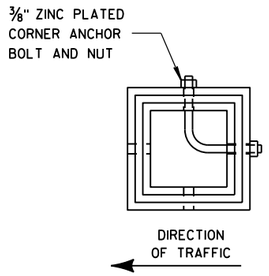
FHWA

SDD 15C19 - 06a

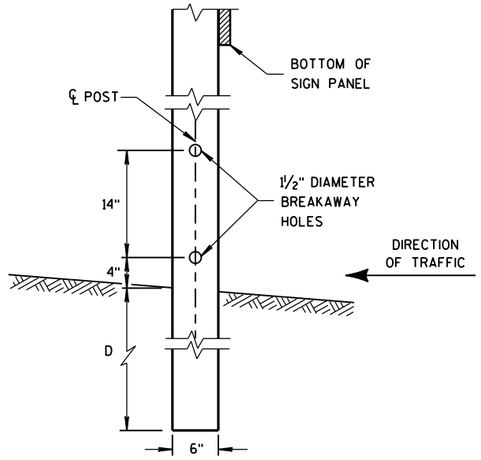
SDD 15C19 - 06a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



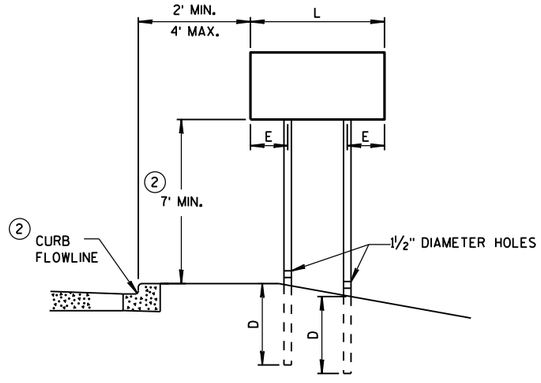
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

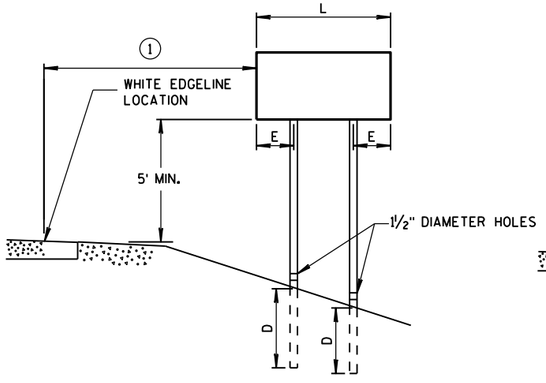
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

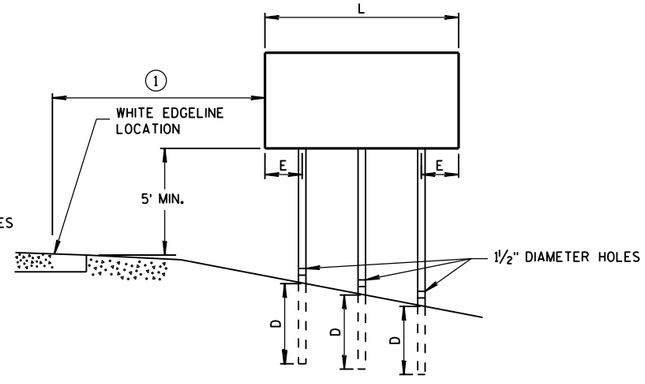
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

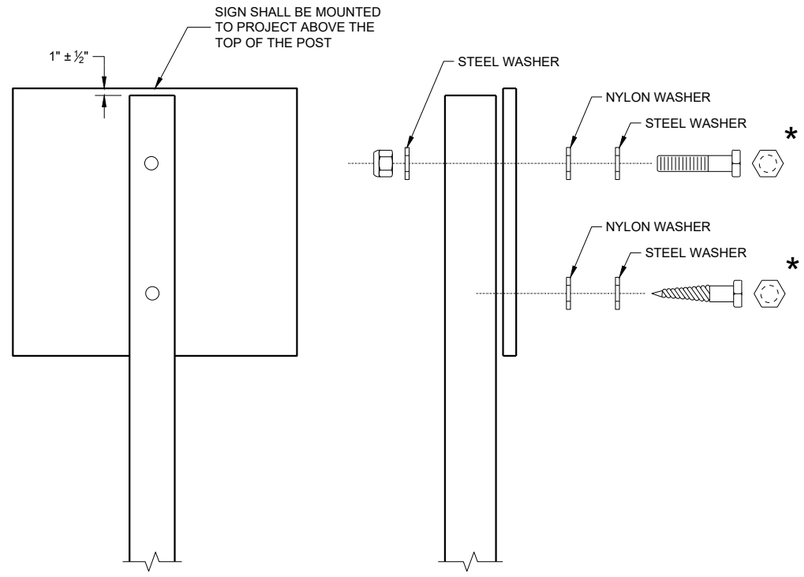
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



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 POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - 5/16" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH, GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

SDD 15D38 - 02b

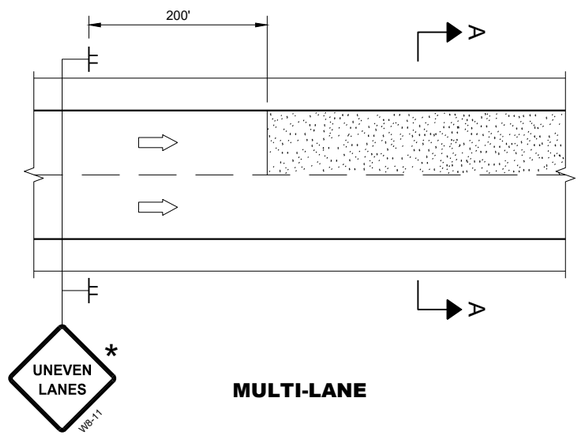
SDD 15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

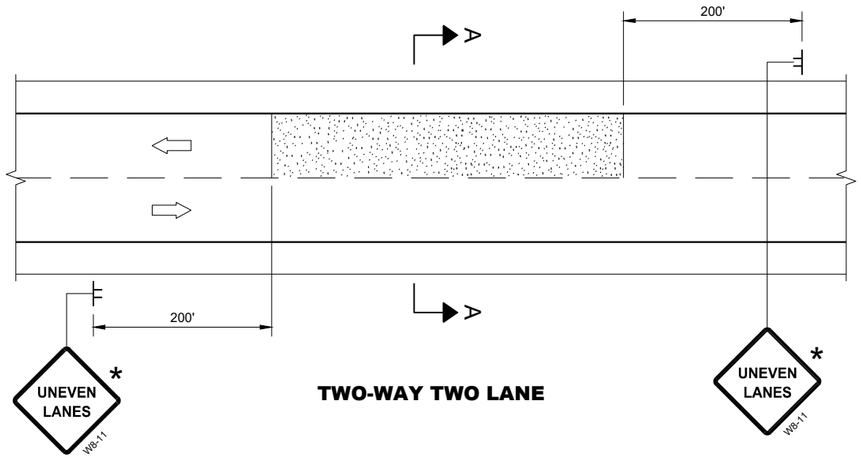
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



MULTI-LANE



TWO-WAY TWO LANE

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

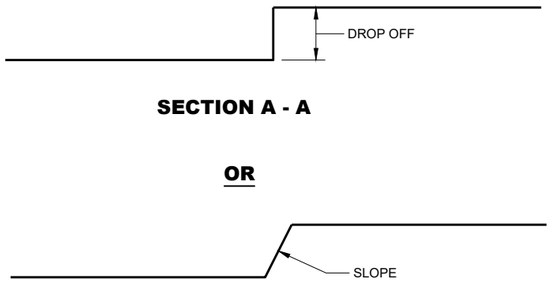
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

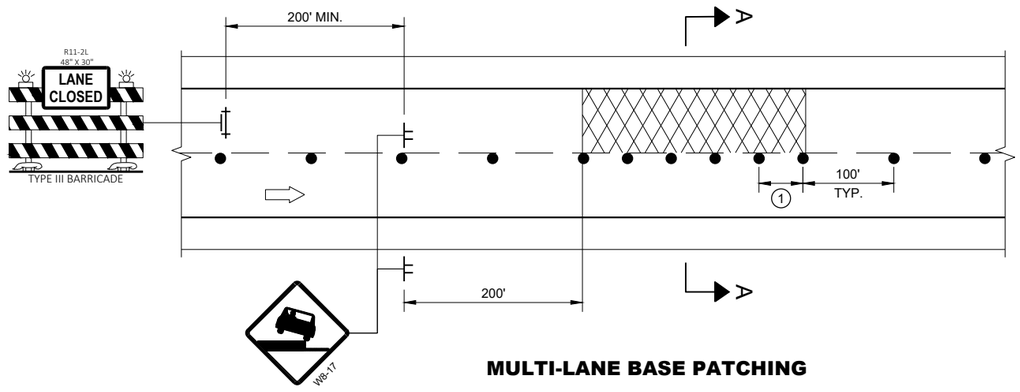
LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



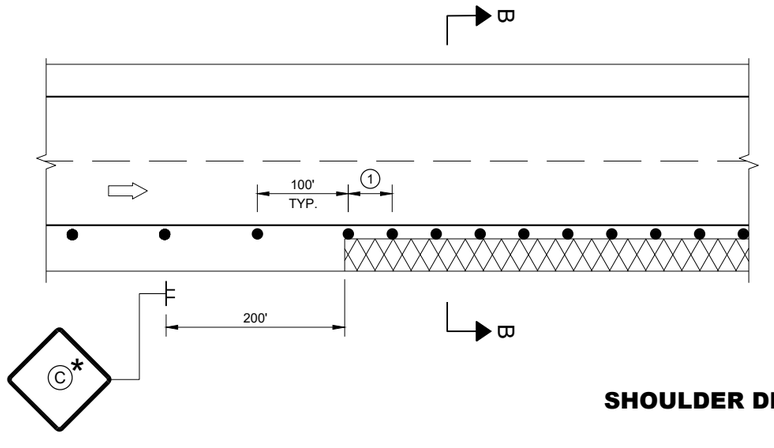
SECTION A - A

SECTION A - A

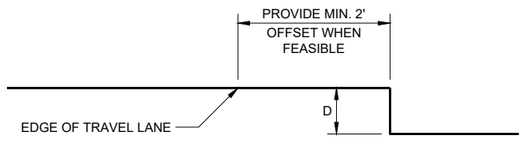


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

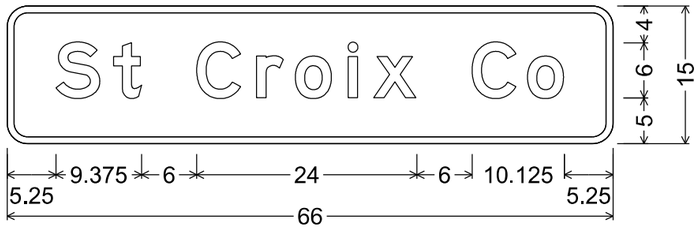
FHWA

6

SDD 15D39 - 02

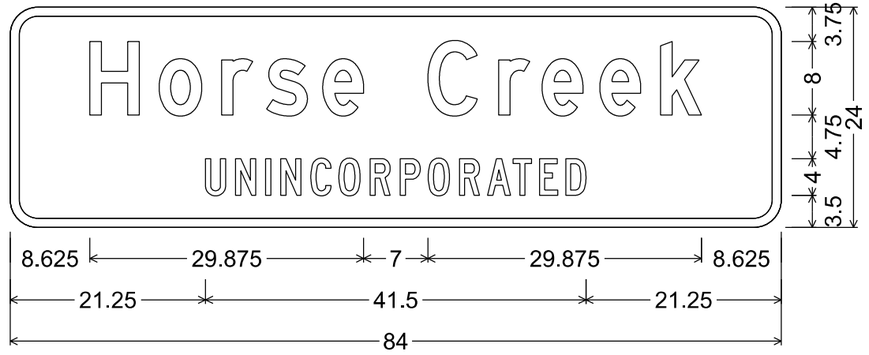
NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted.



I2-2; 2.250" Radius, 0.750" Border

I2-2; 2.250" Radius, 0.750" Border



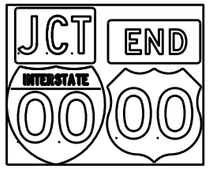
I2-3; 3.000" Radius, 1.000" Border
"Horse", D; "Creek", D; "UNINCORPORATED", C

7

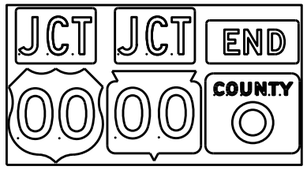
7

TYPICAL ASSEMBLIES

J1-1

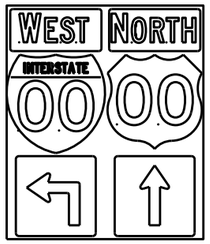


J1-2

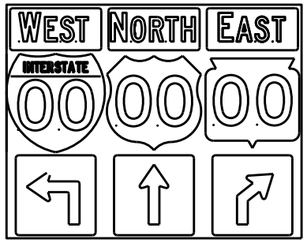


J1-3

J2-1



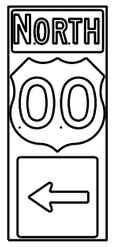
J2-2



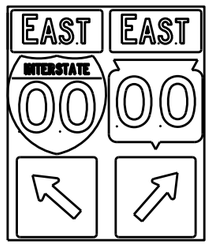
J2-3

JV

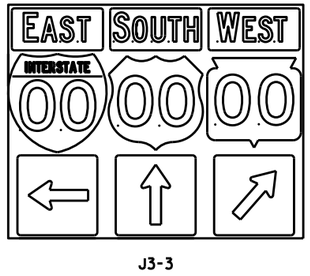
(Typical Vertical J-Assembly
See Note 10 and 11)



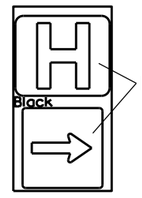
J3-1



J3-2

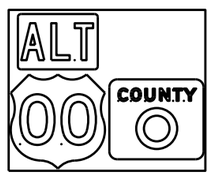


J3-3

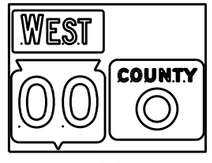


JH-1

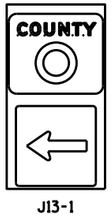
J4-1



J4-2



J4-2



J13-1

J12-1

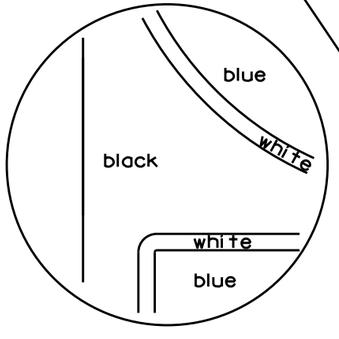
J32-1

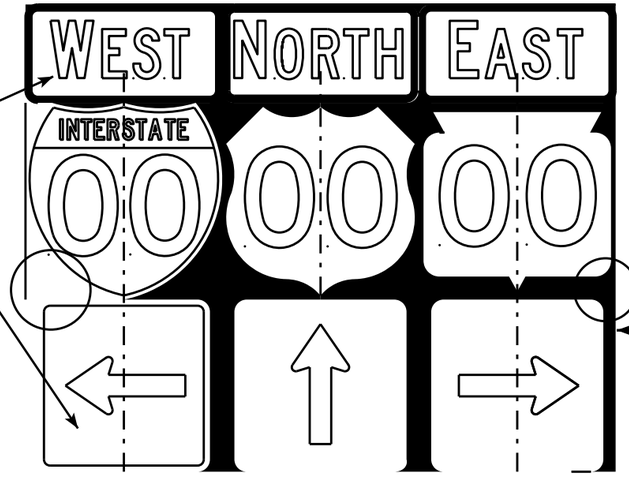
J33-1

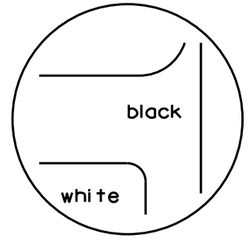
J23-1

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

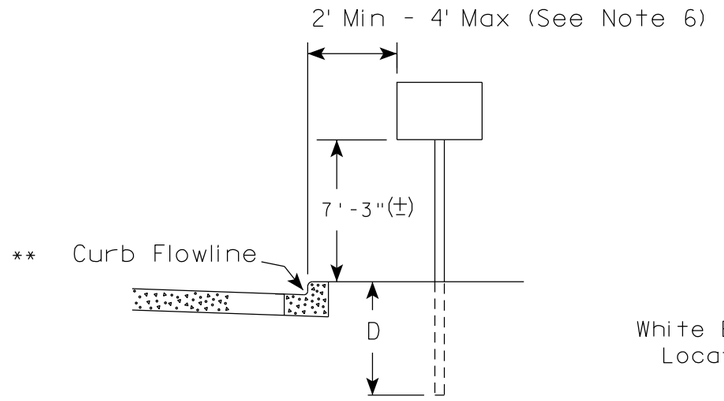
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

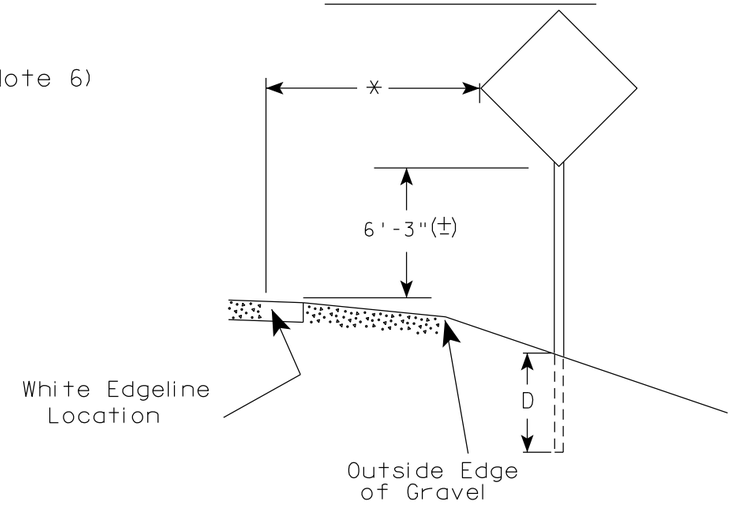
PROJECT NO: | SHEET NO: E

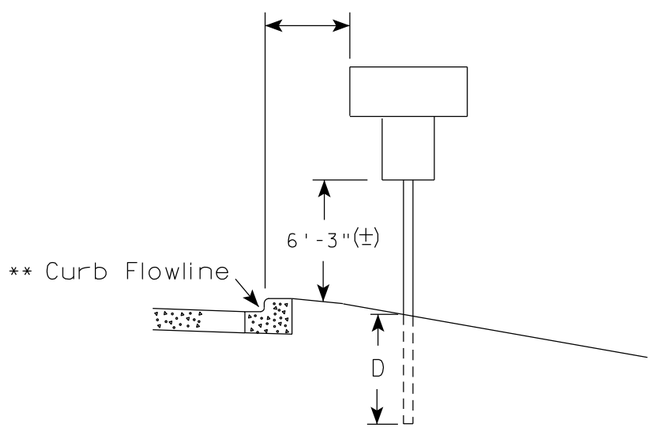
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

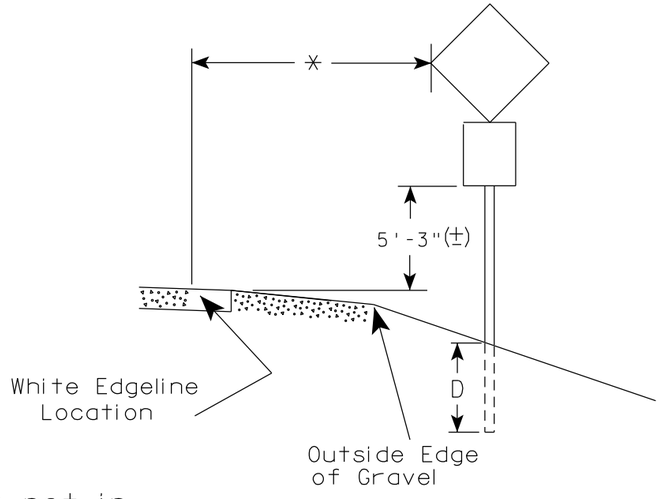
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

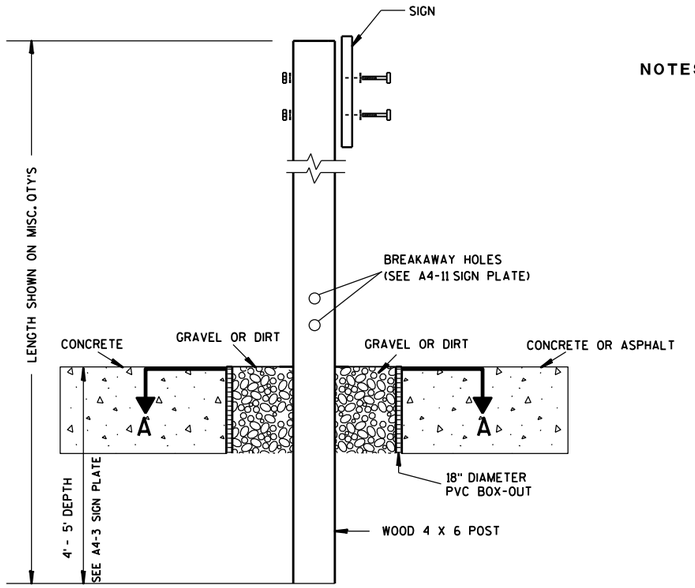
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

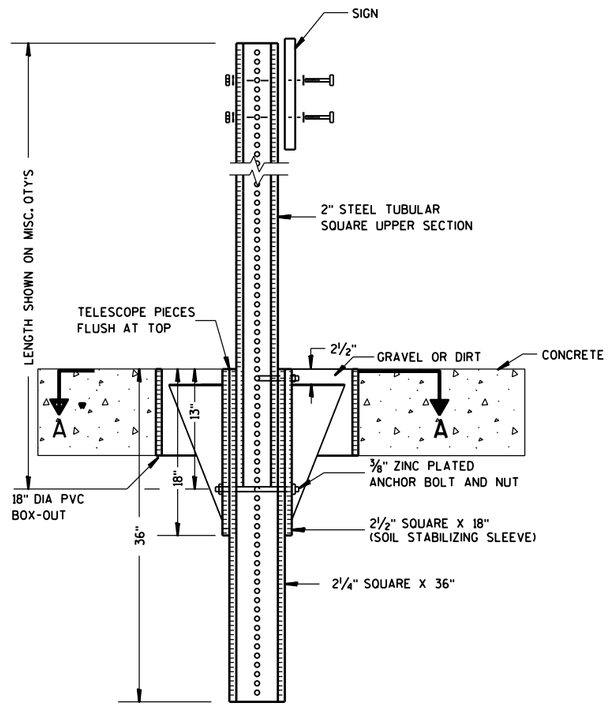
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 72	E



ELEVATION VIEW

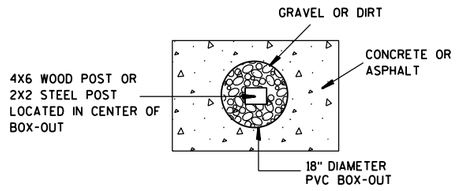
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

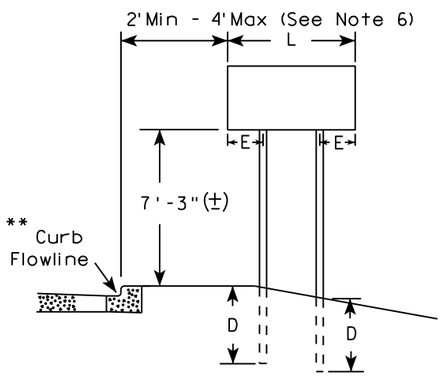
APPROVED Matthew R Rauch
for State Traffic Engineer

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

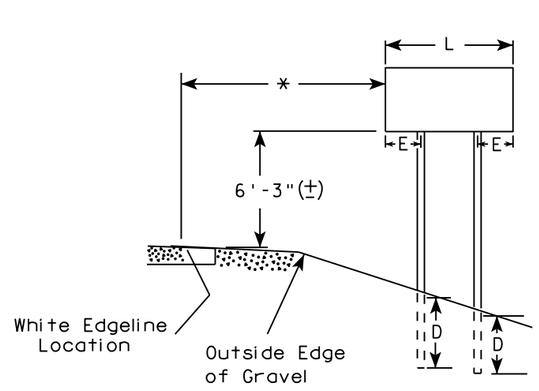
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

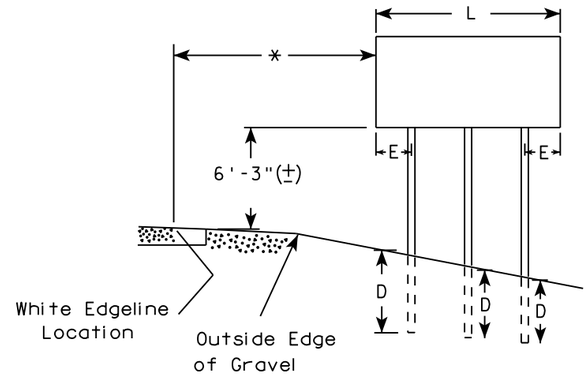
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

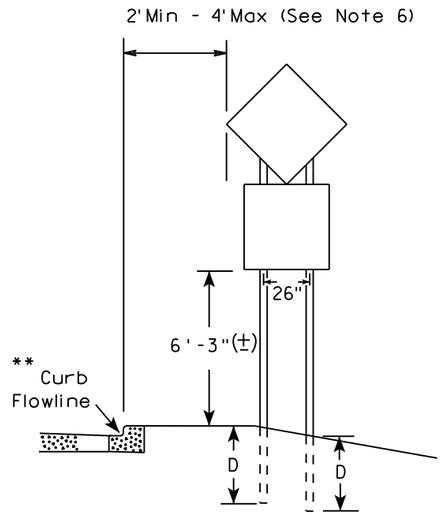
URBAN AREA



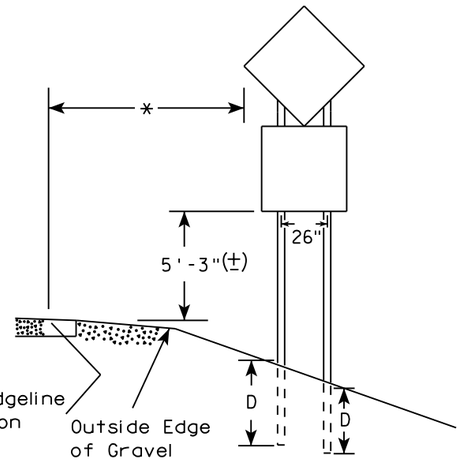
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

***

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

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

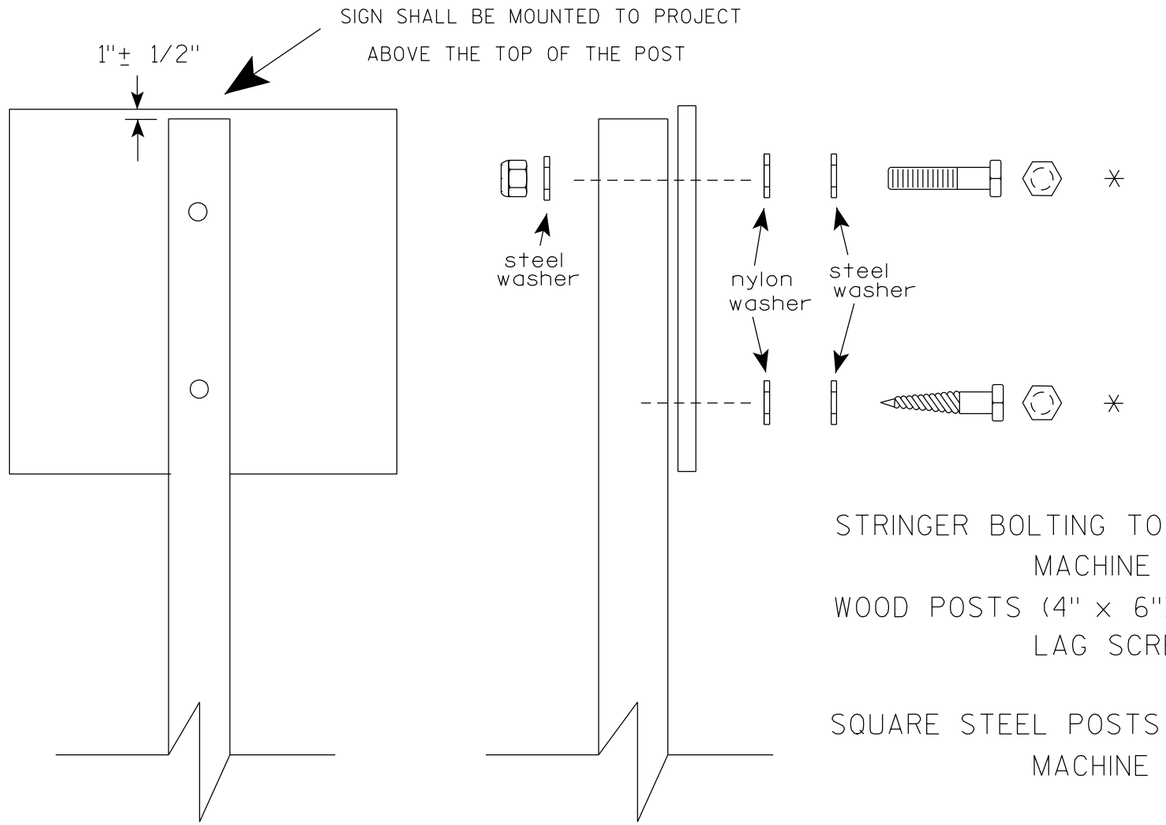
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 74	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.

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

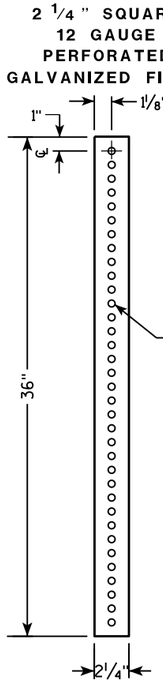
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

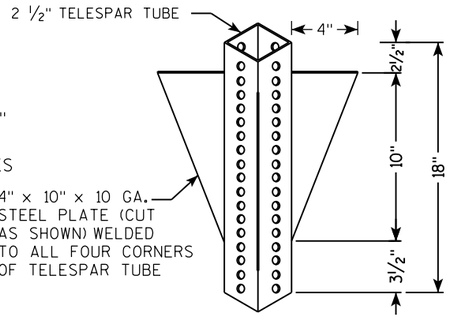
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

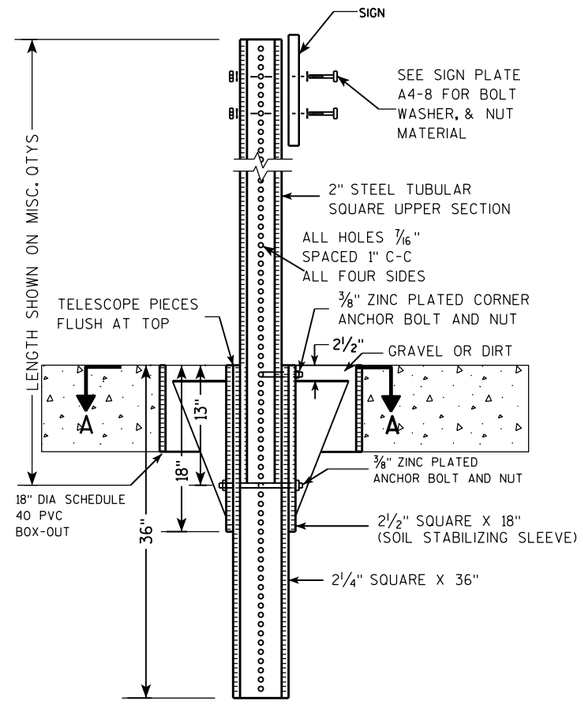
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



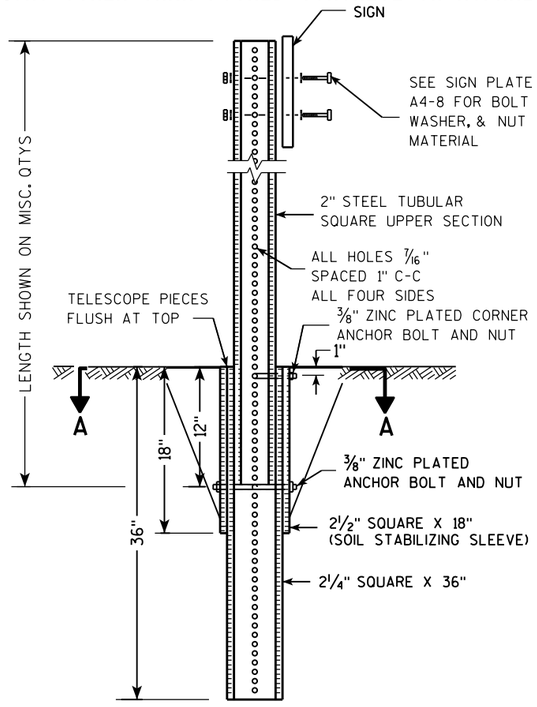
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

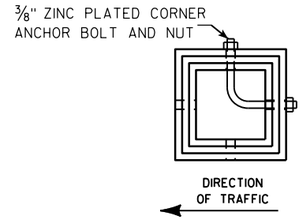


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

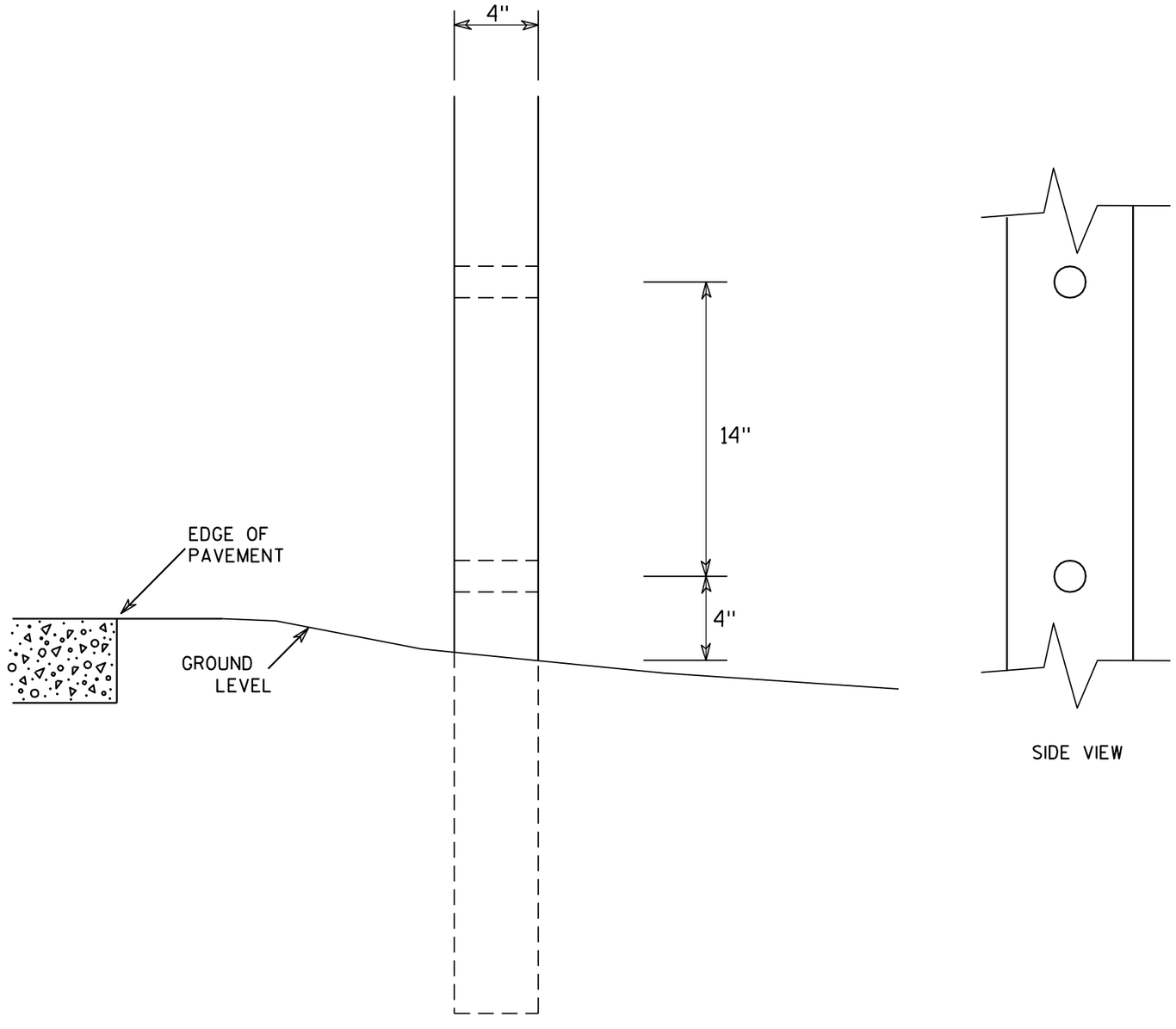
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 76 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

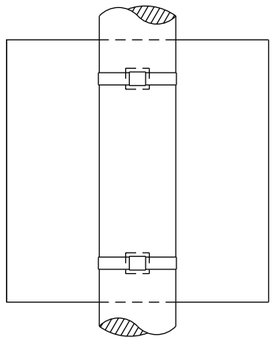
APPROVED Chester J Spang for State Traffic Engineer

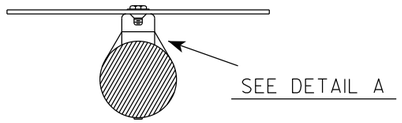
DATE 3/27/97 PLATE NO. A4-11.2

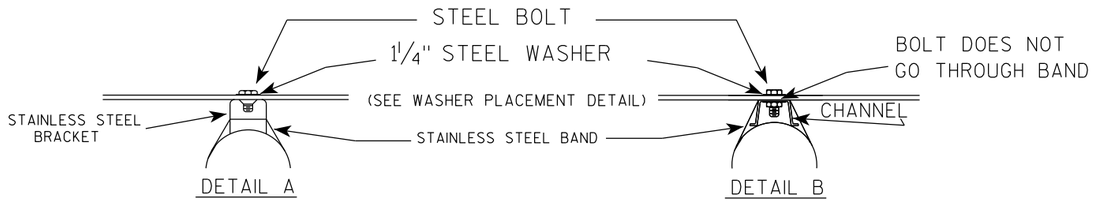
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 77	E

BANDING

SINGLE SIGN



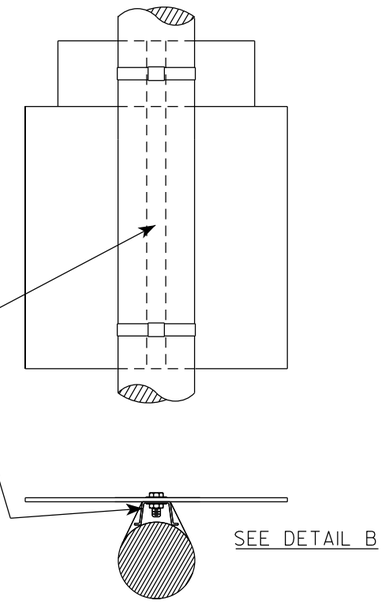




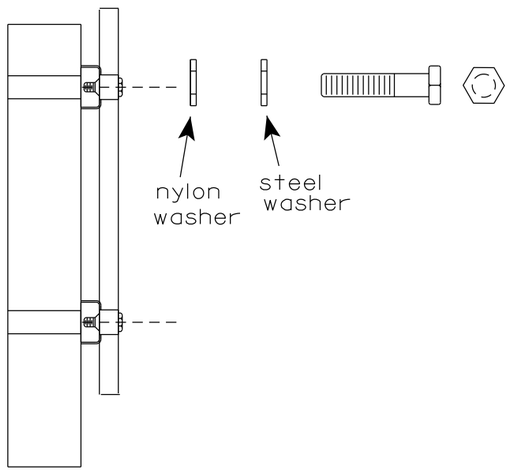
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

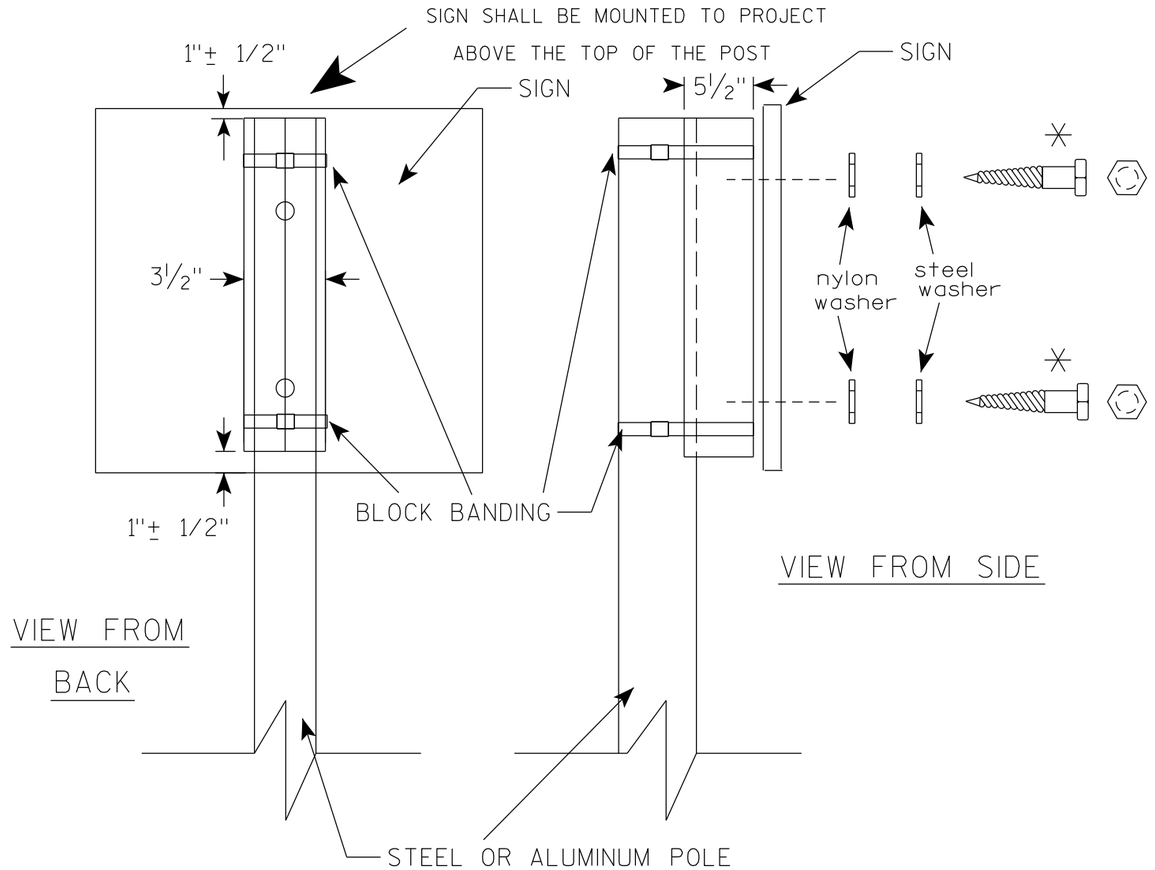
DATE 6/10/19 PLATE NO. A5-9.4

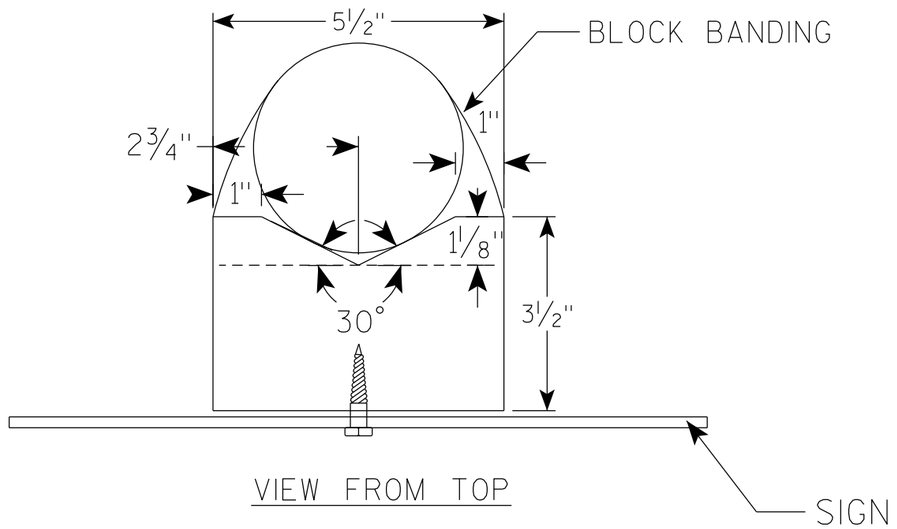
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 78	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

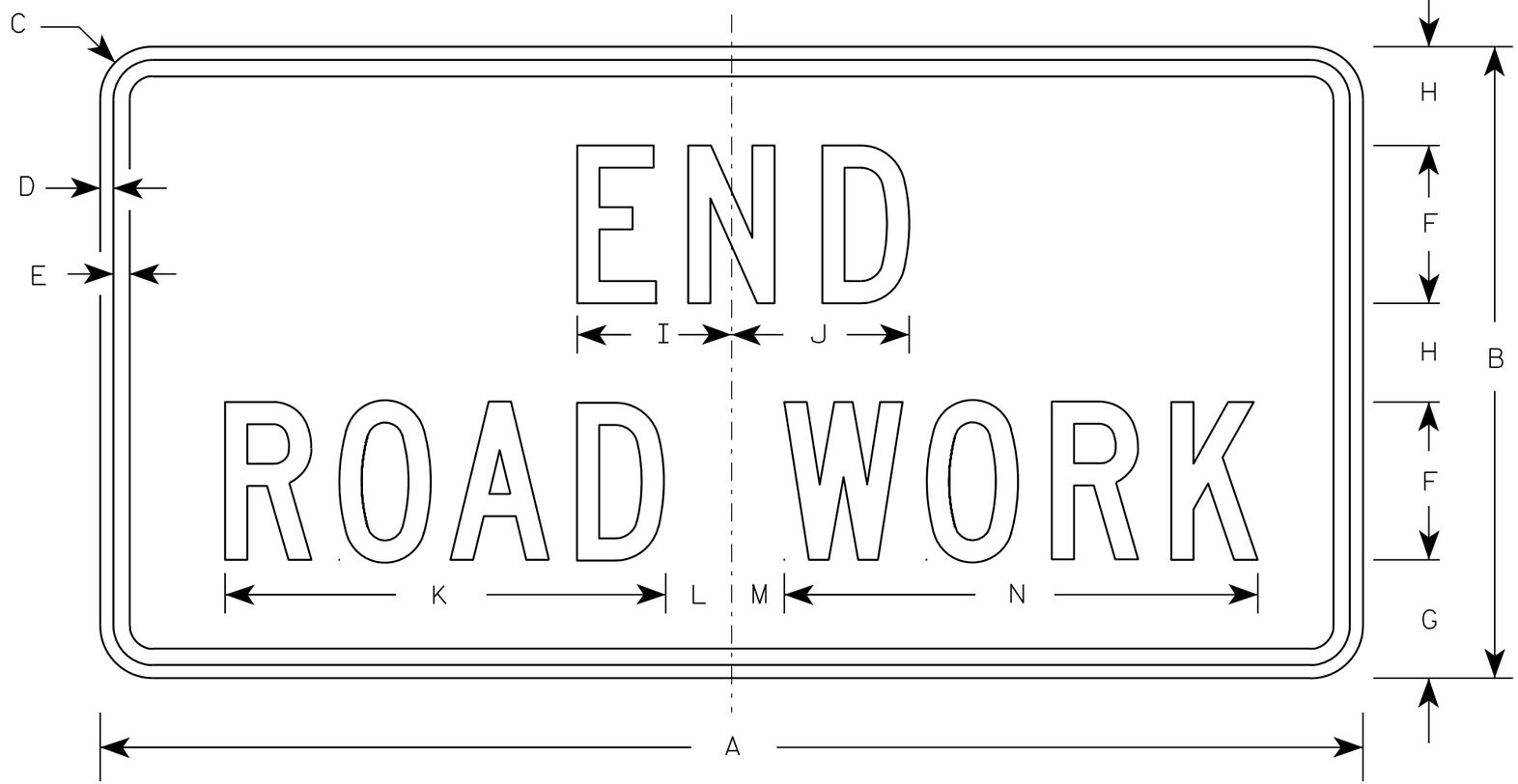
BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:				SHEET NO: 79	E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 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	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

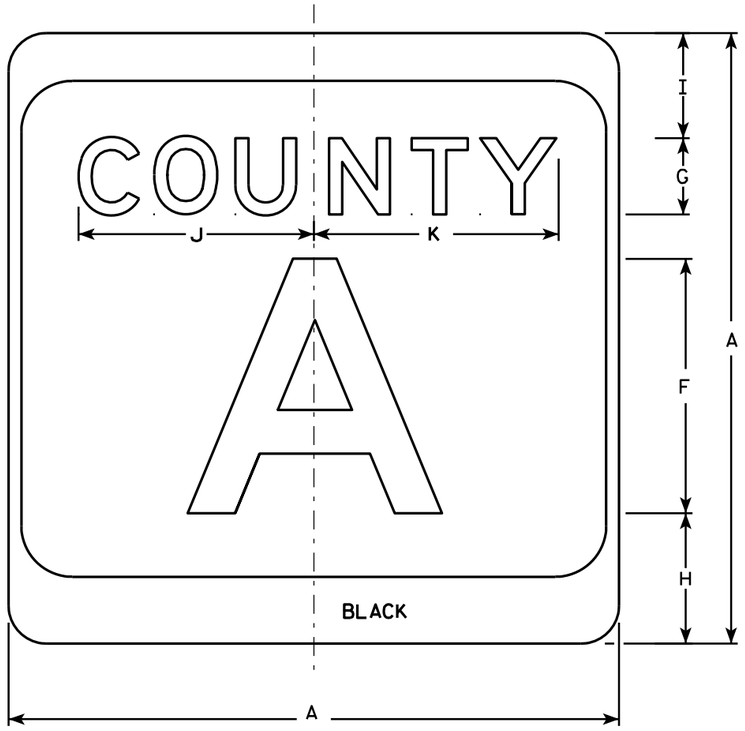
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

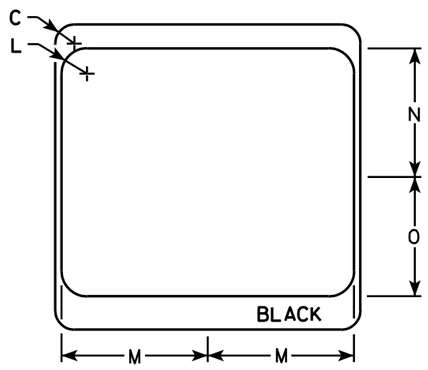
APPROVED Matthew R Rauch
for State Traffic Engineer

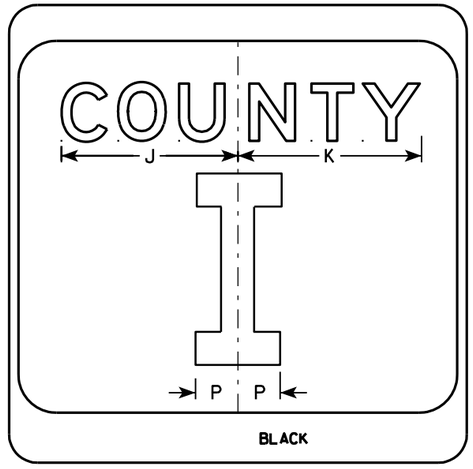
DATE 9/30/09 PLATE NO. G20-2A.8

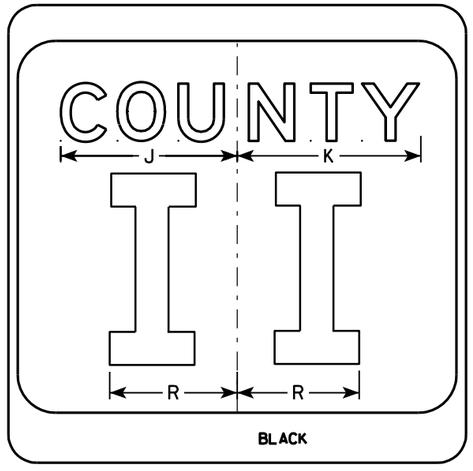
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 80	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

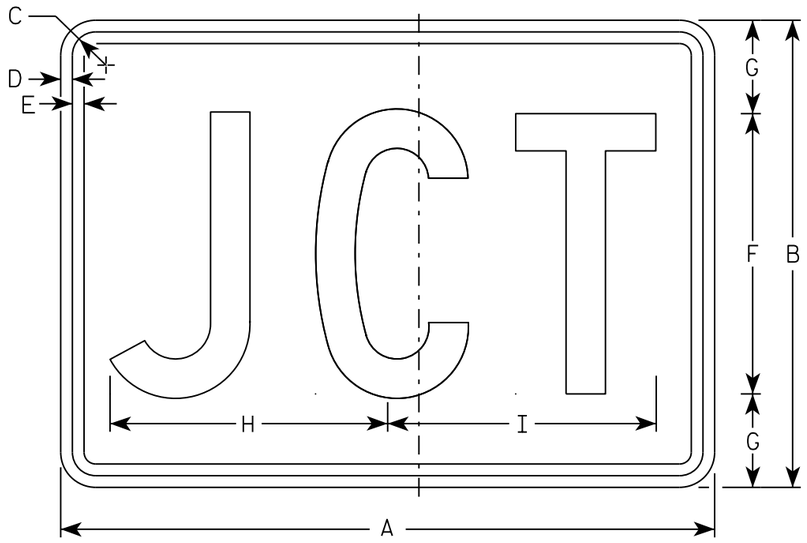
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

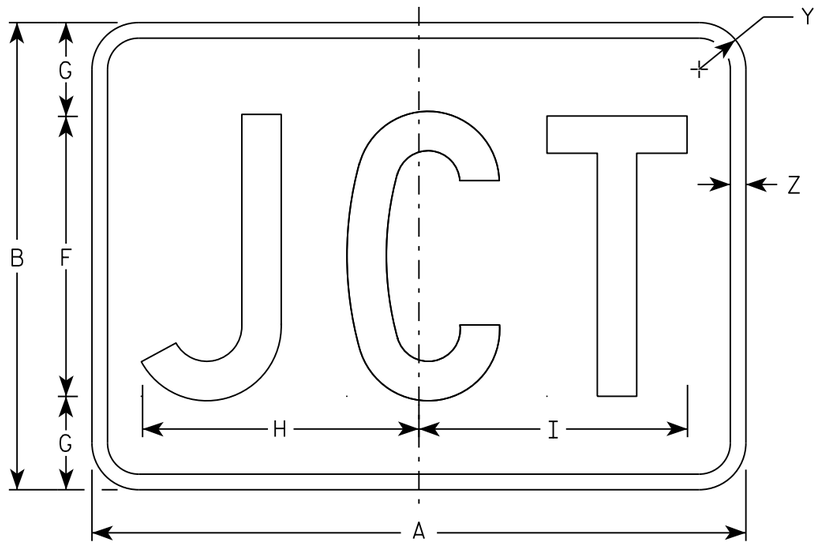
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 81 | 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

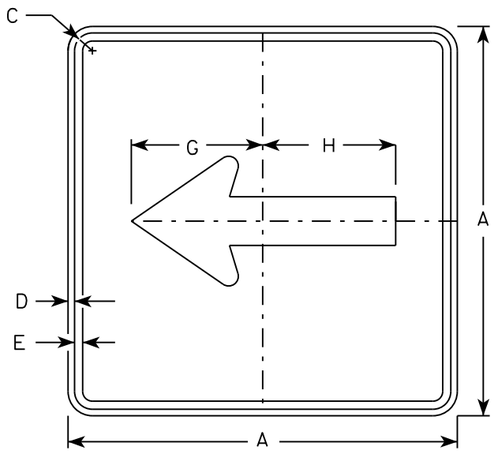
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

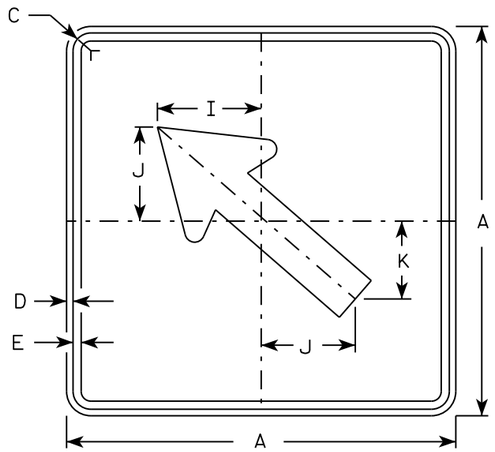
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 82 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



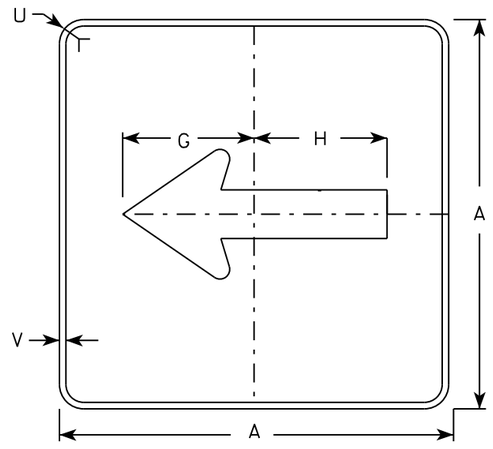
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2

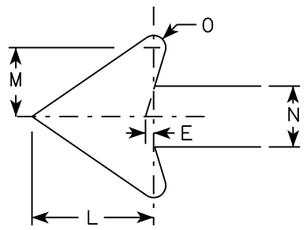
NOTES

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

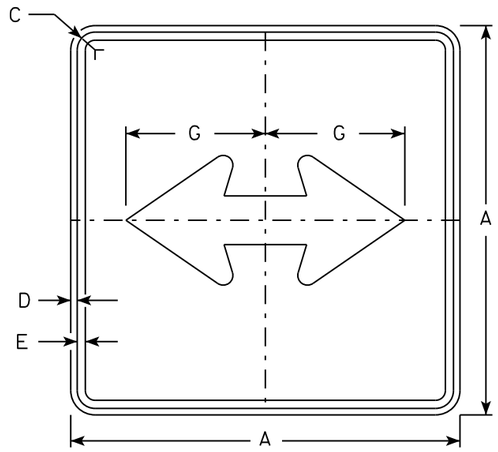
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

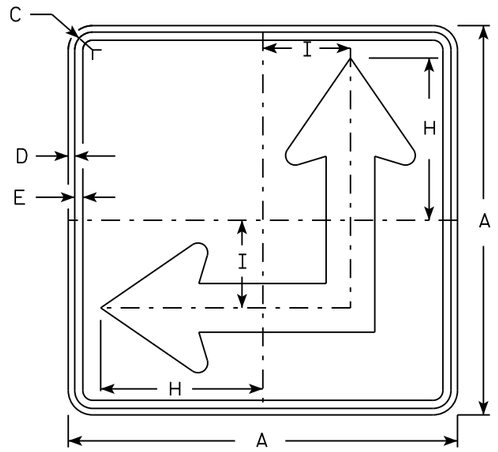
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 83 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



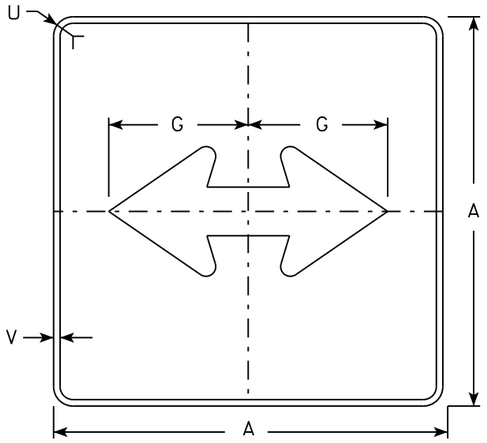
M6-4
MM6-4
MO6-4
MP6-4



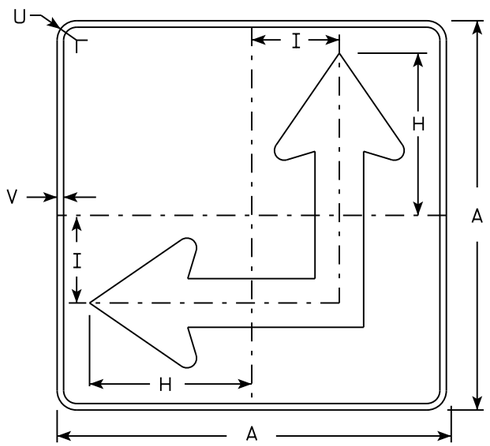
M6-6
MM6-6
MO6-6
MP6-6

NOTES

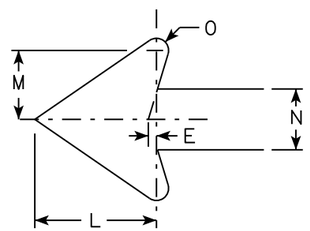
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - 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.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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

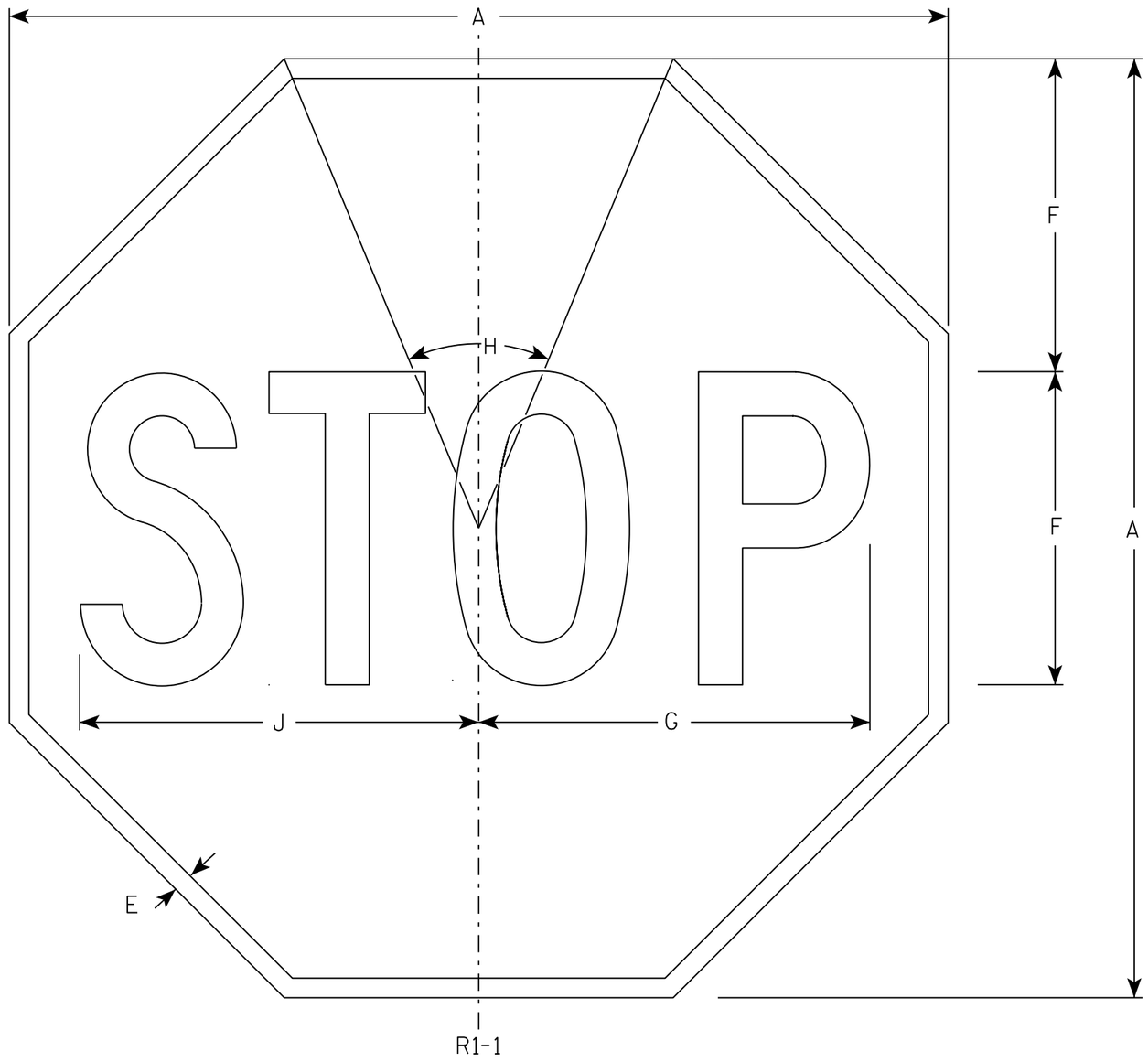
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 84 M6-4.10

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

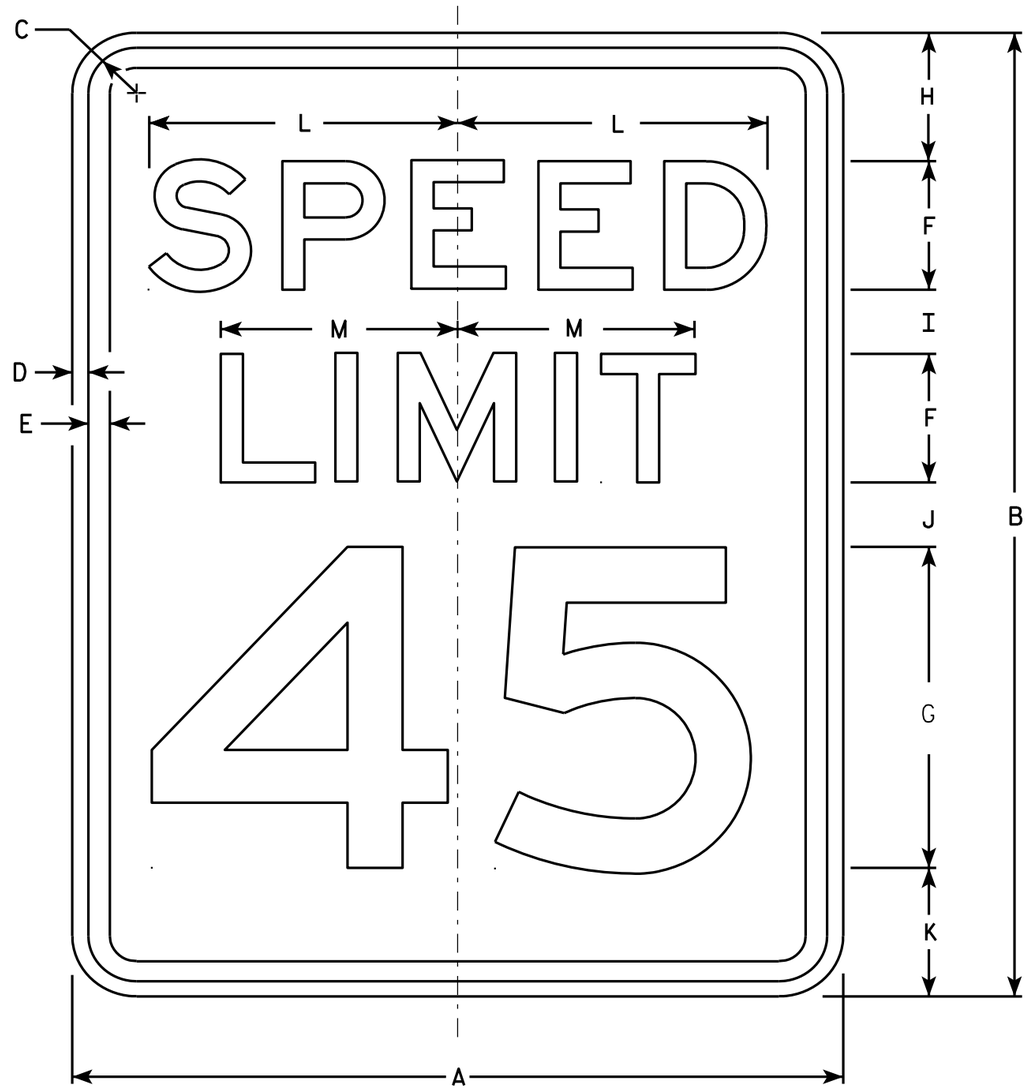
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 85	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

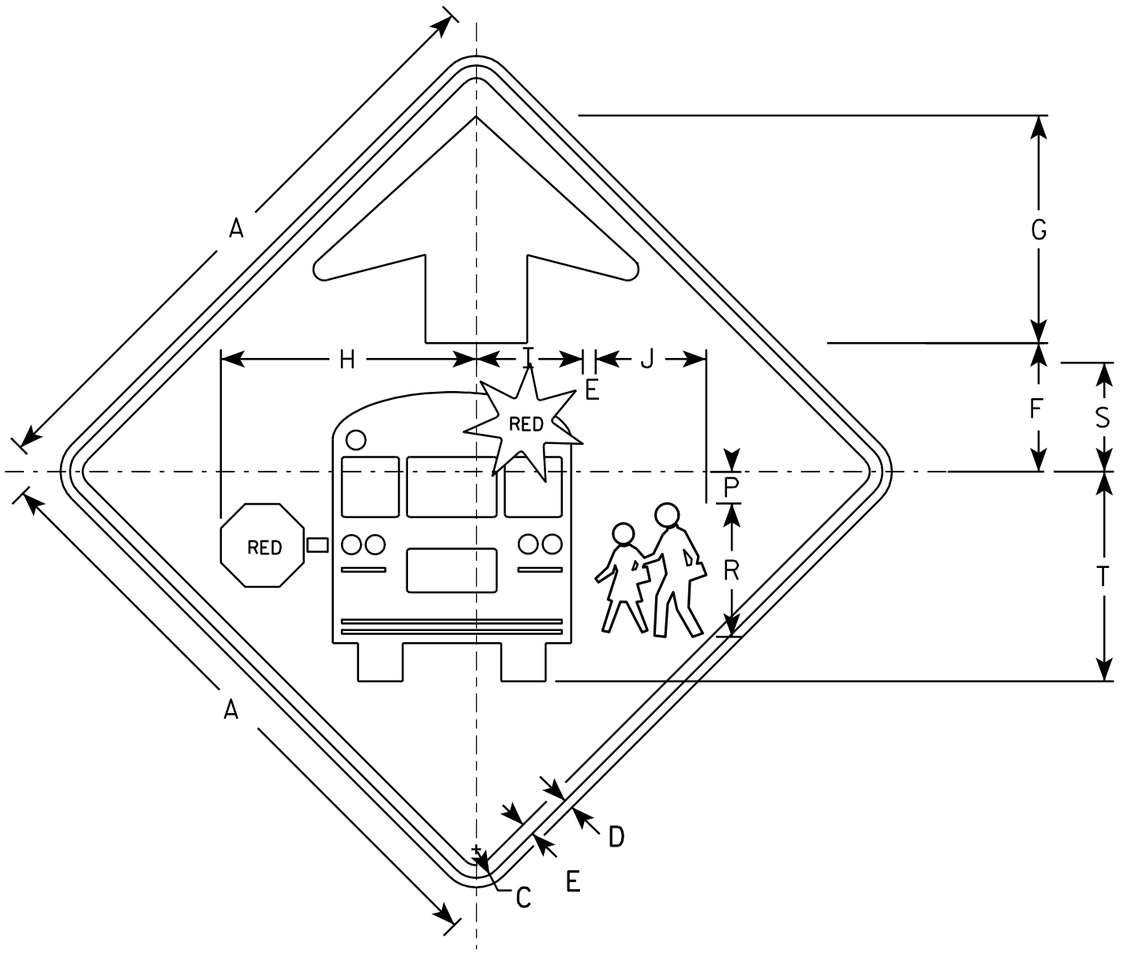
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

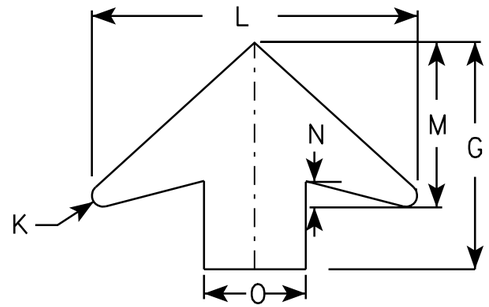
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 86 | E



S3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW-GREEN
   Message - BLACK except as noted
   Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	12 1/2	5 1/4	5 1/2	1/2	16	8	1 1/4	5	1 1/2		6 5/8	5 3/8	10 3/8							6.25
2	36		1 5/8	5/8	3/4	7 1/2	13 1/2	15 1/8	6 1/4	6 1/2	5/8	19 1/4	9 3/4	1 5/8	6	1 7/8		7 7/8	6 3/8	12 3/8							9.0
3	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
4	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
5																											

STANDARD SIGN
S3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

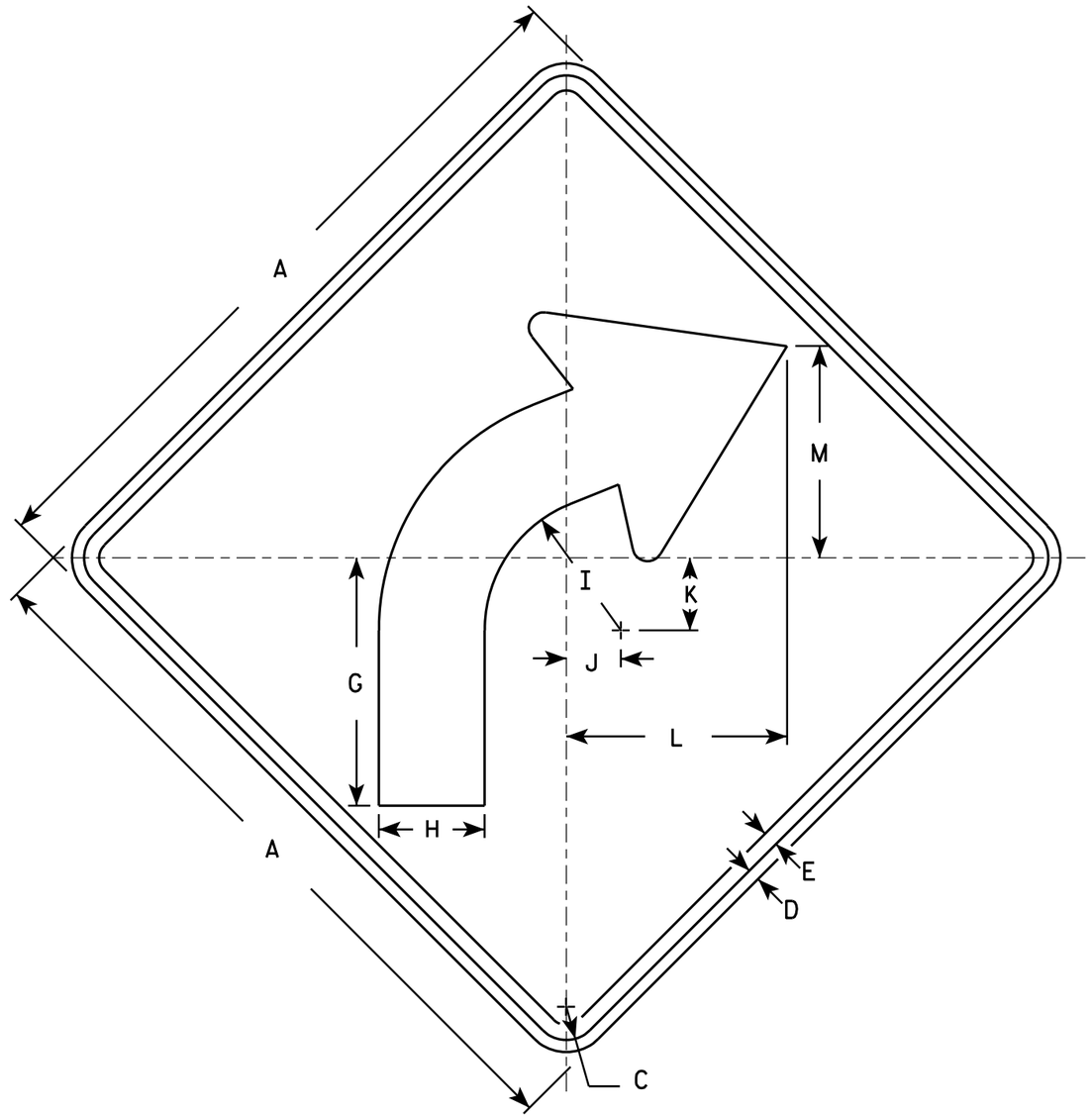
DATE 6/8/10 PLATE NO. S3-1.6

PROJECT NO:

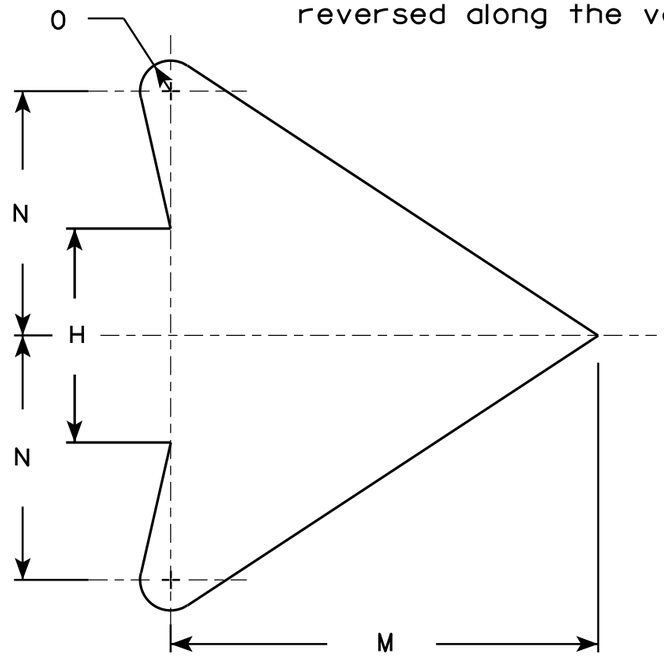
SHEET NO: 87 E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

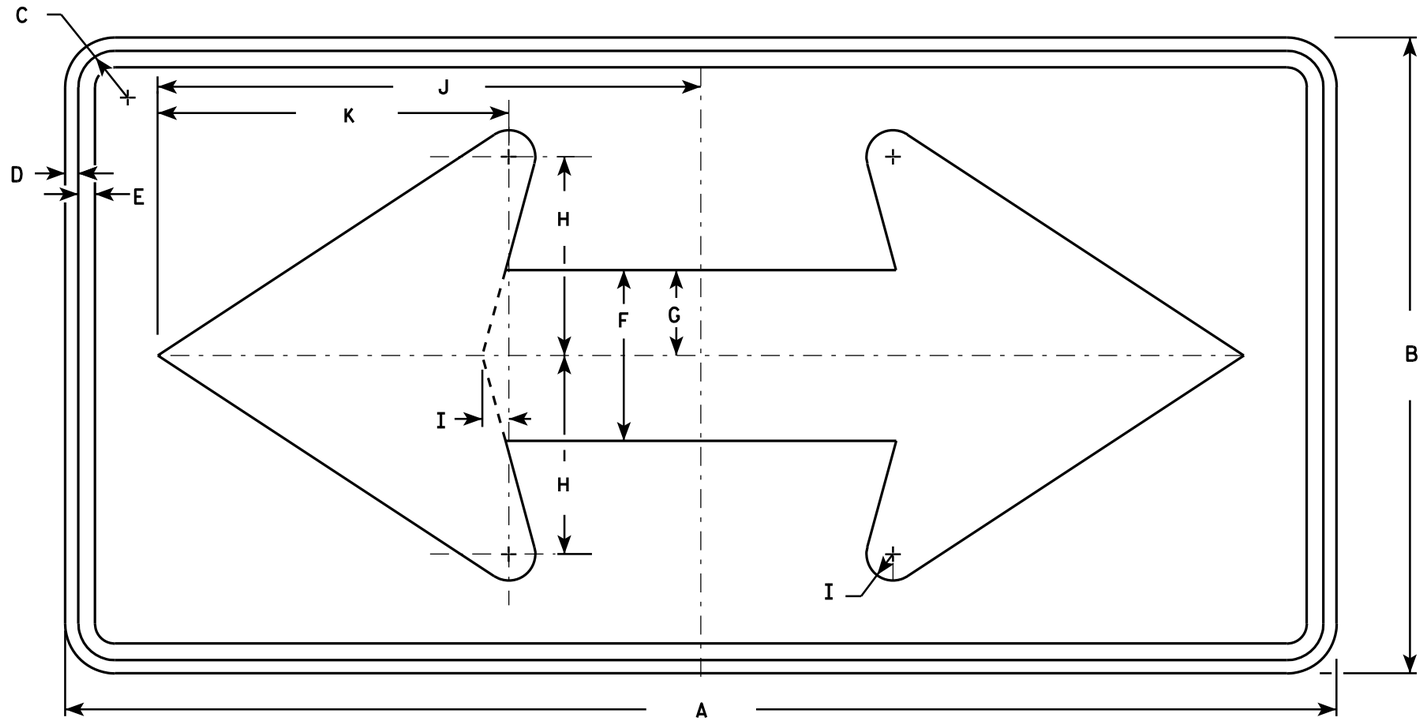
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 88	E



W1-7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

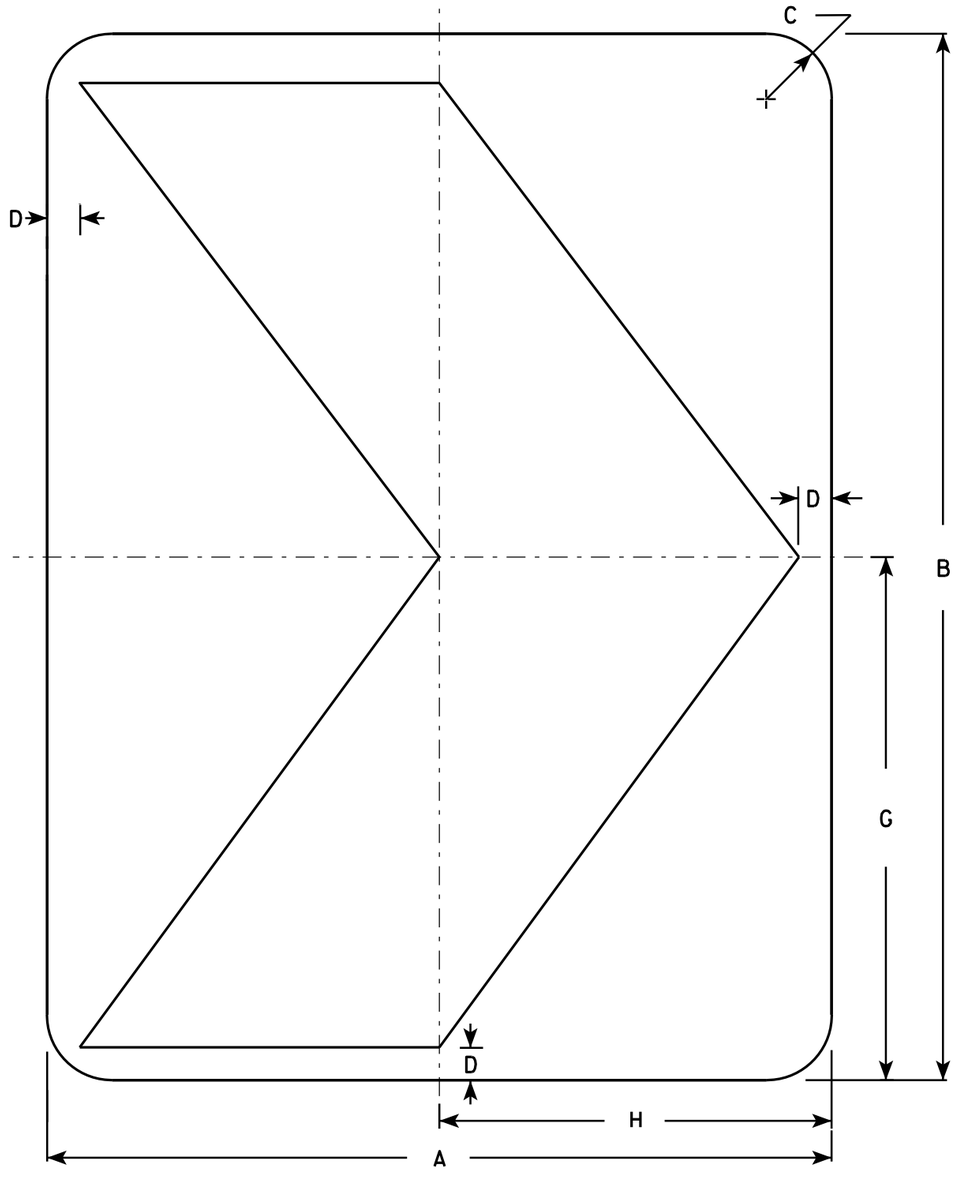
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 89 | 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

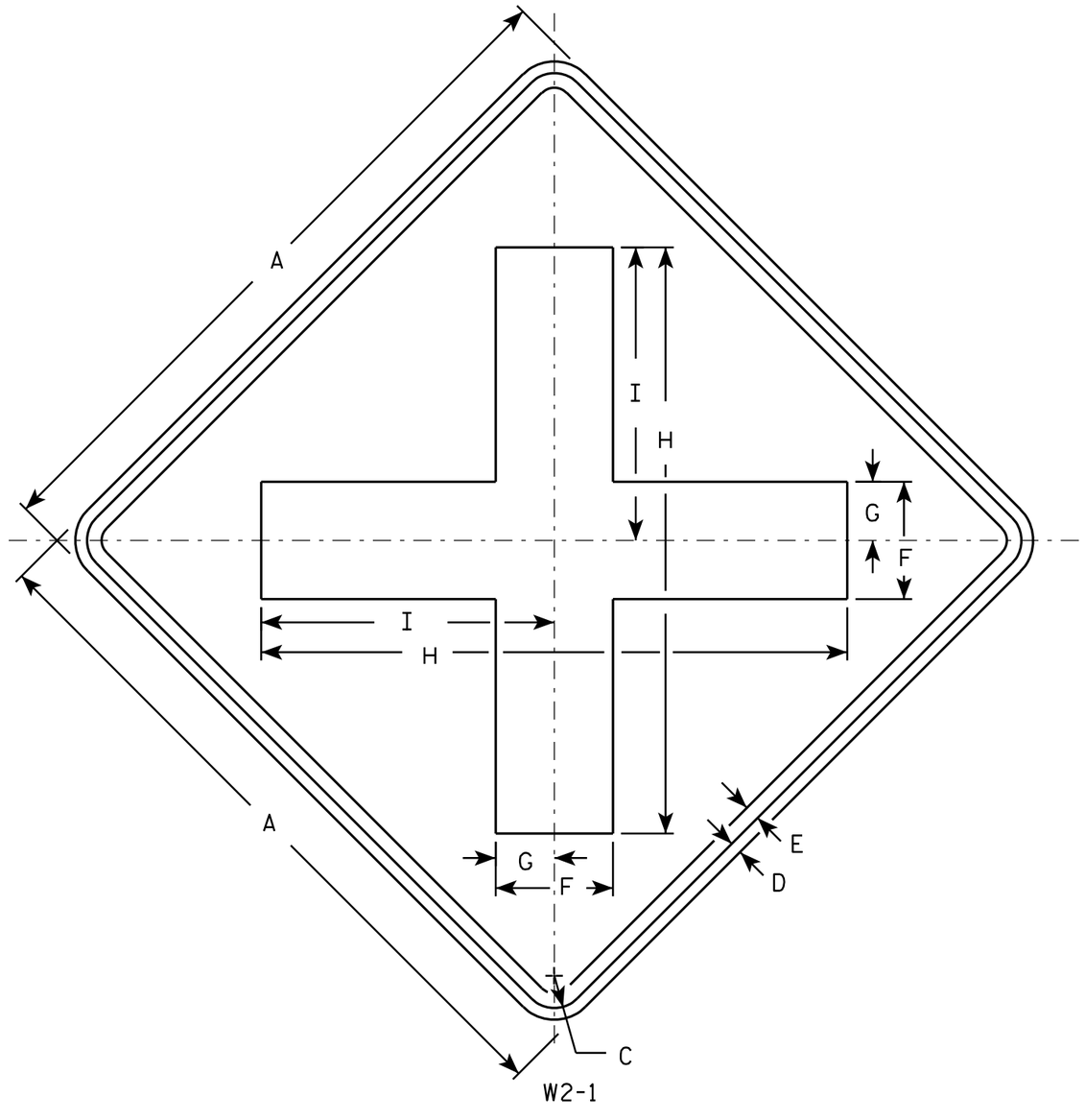
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 90 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

STANDARD SIGN
W2-1

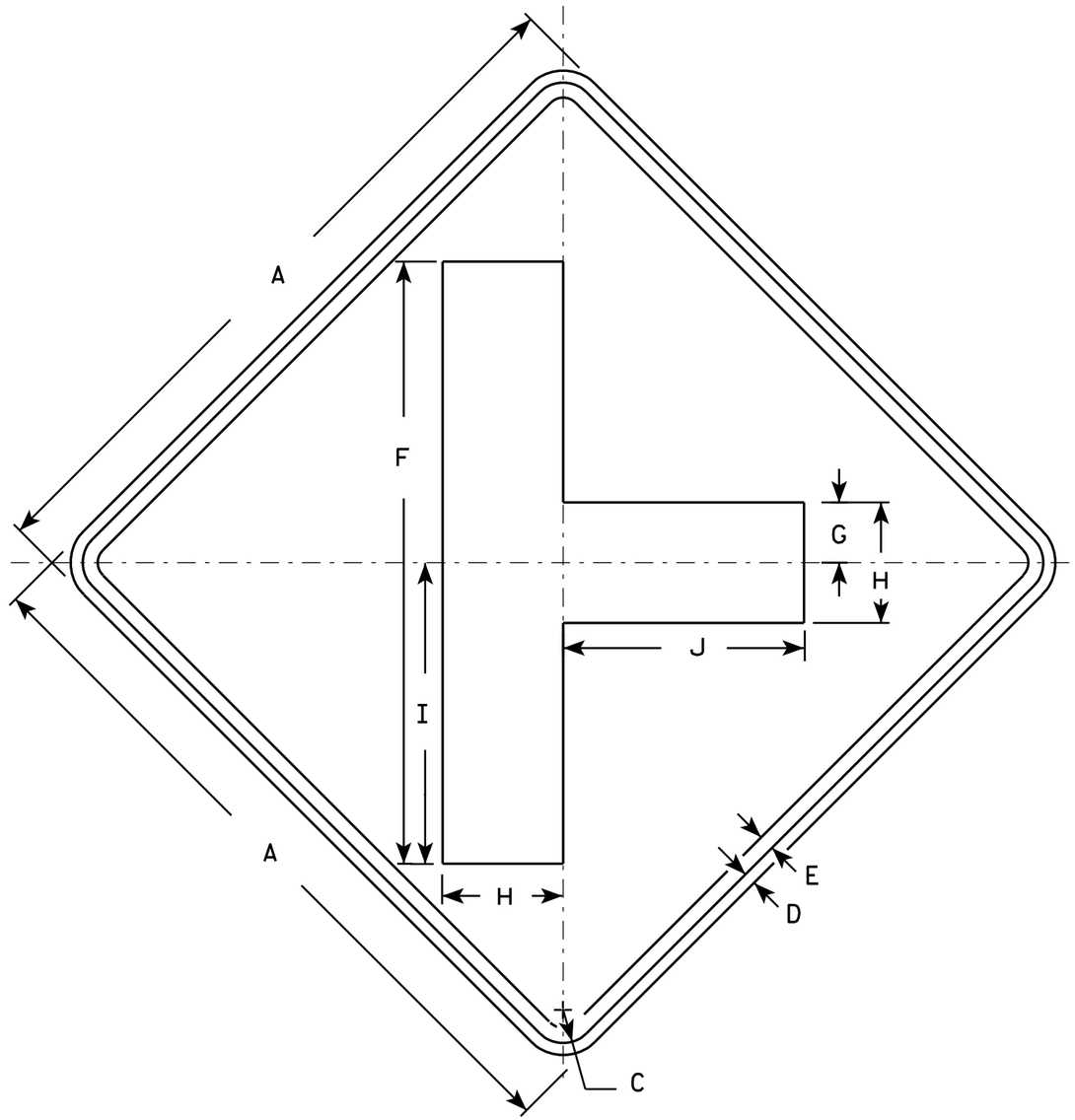
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 91 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W21.DGN PLOT DATE : 29-MAY-2012 10:10 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.202372:1.000000
WISDOT/CADDS SHEET 42



W2-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

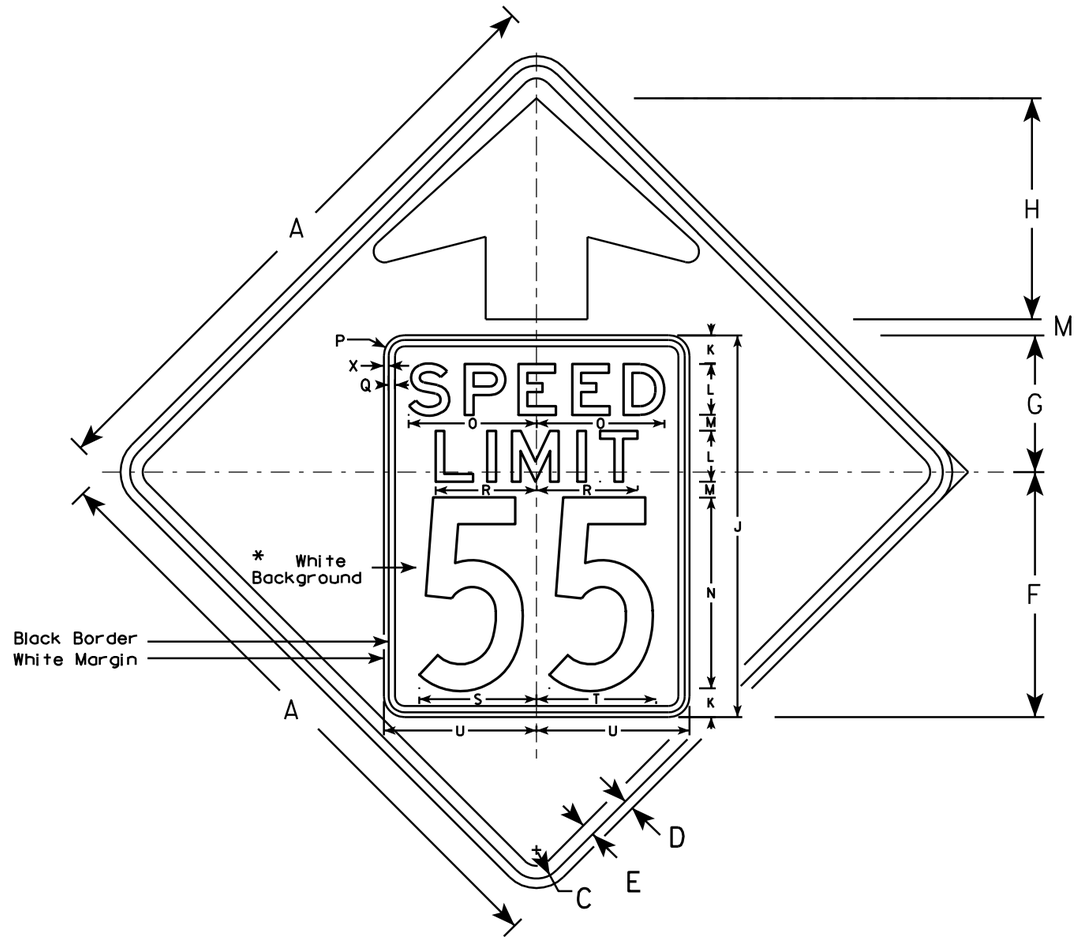
STANDARD SIGN
W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	E

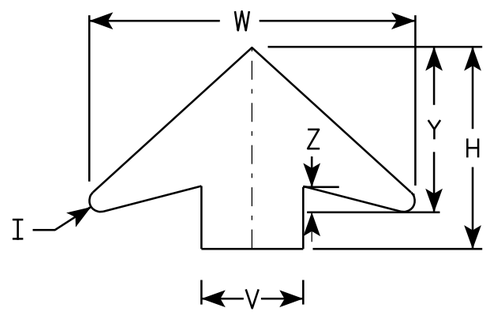


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

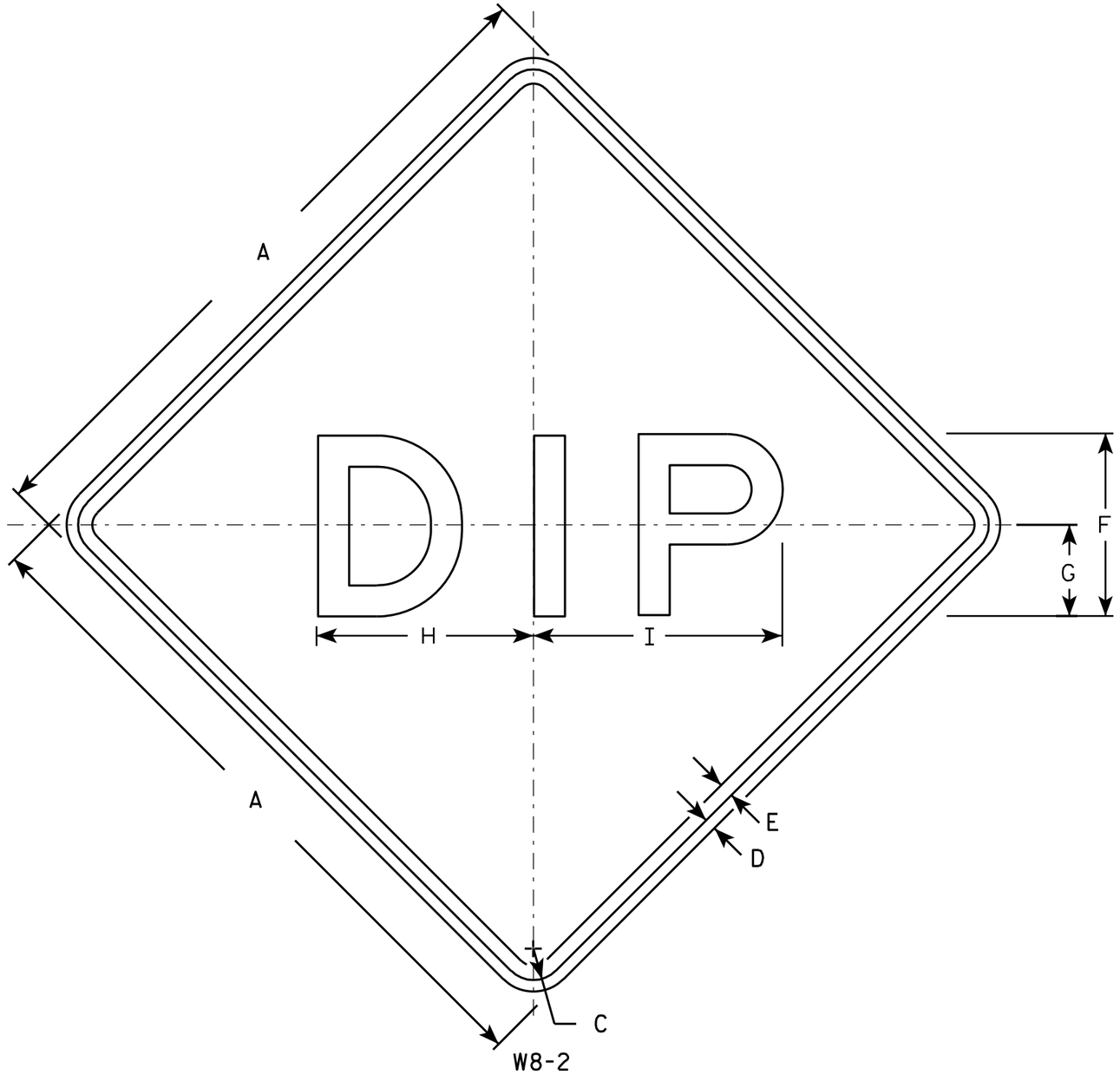
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 93 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 - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	6	3	7 1/8	8 1/8																		4.0
2S	30		1 3/8	1/2	5/8	8	4	9 1/2	10 7/8																		6.25
2M	36		1 5/8	5/8	3/4	10	5	11 7/8	13 1/2																		9.0
3	36		1 5/8	5/8	3/4	10	5	11 7/8	13 1/2																		9.0
4	36		1 5/8	5/8	3/4	10	5	11 7/8	13 1/2																		9.0
5	48		2 1/4	3/4	1	12	6	14 1/4	16 1/4																		16.0

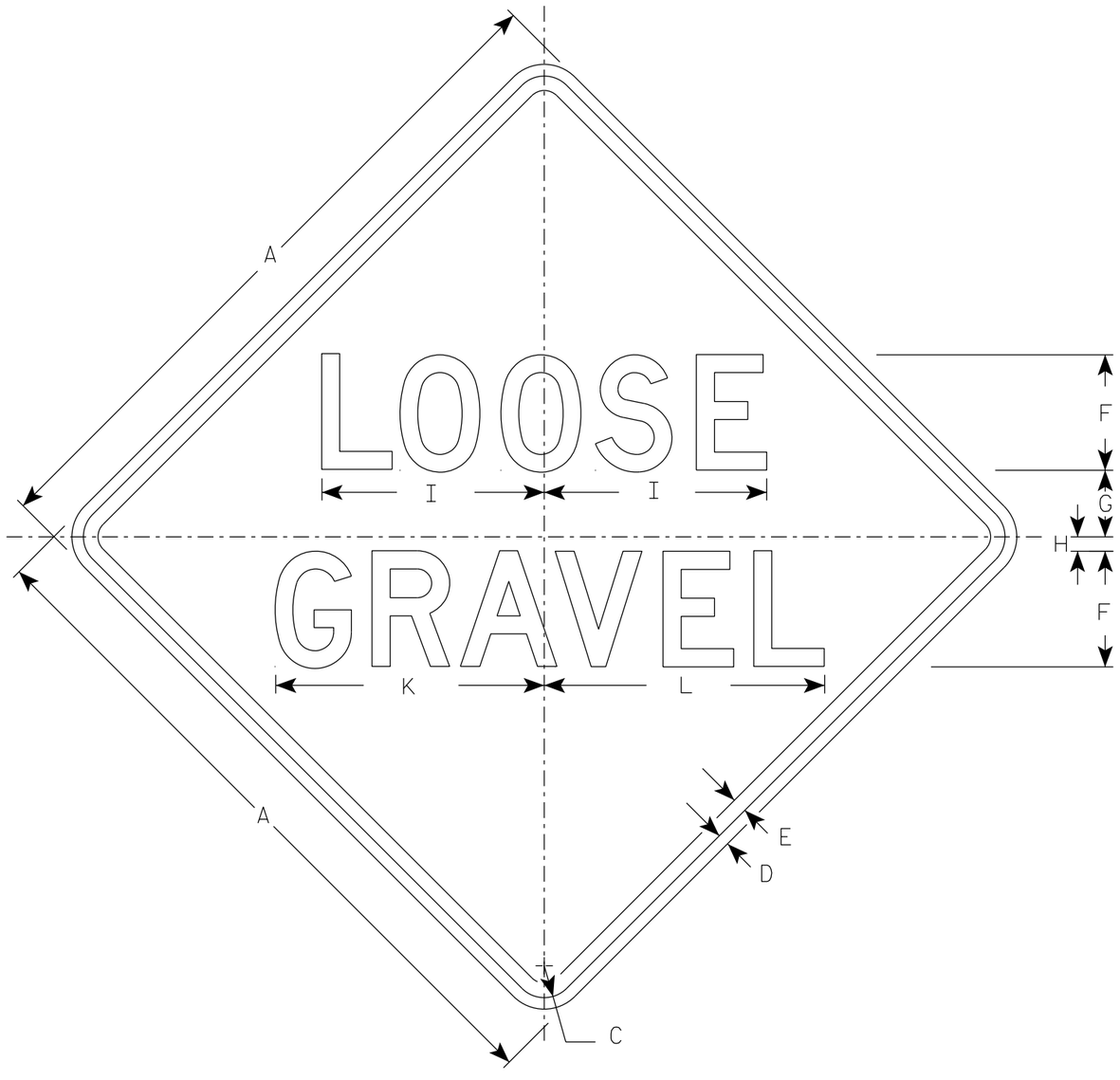
STANDARD SIGN
W8-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/14/13 PLATE NO. W8-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E



W8-7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D

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 3/4	1/2	7 3/4		9 1/4	9 3/4															4.0
2S	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
2M	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
3	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
4	36		1 5/8	5/8	3/4	6	4 1/8	3/4	11 5/8		14	14 1/2															9.0
5	48		2 1/4	3/4	1	8	5 1/2	1	15 1/2		18 5/8	19 3/8															16.0

STANDARD SIGN
W8-7

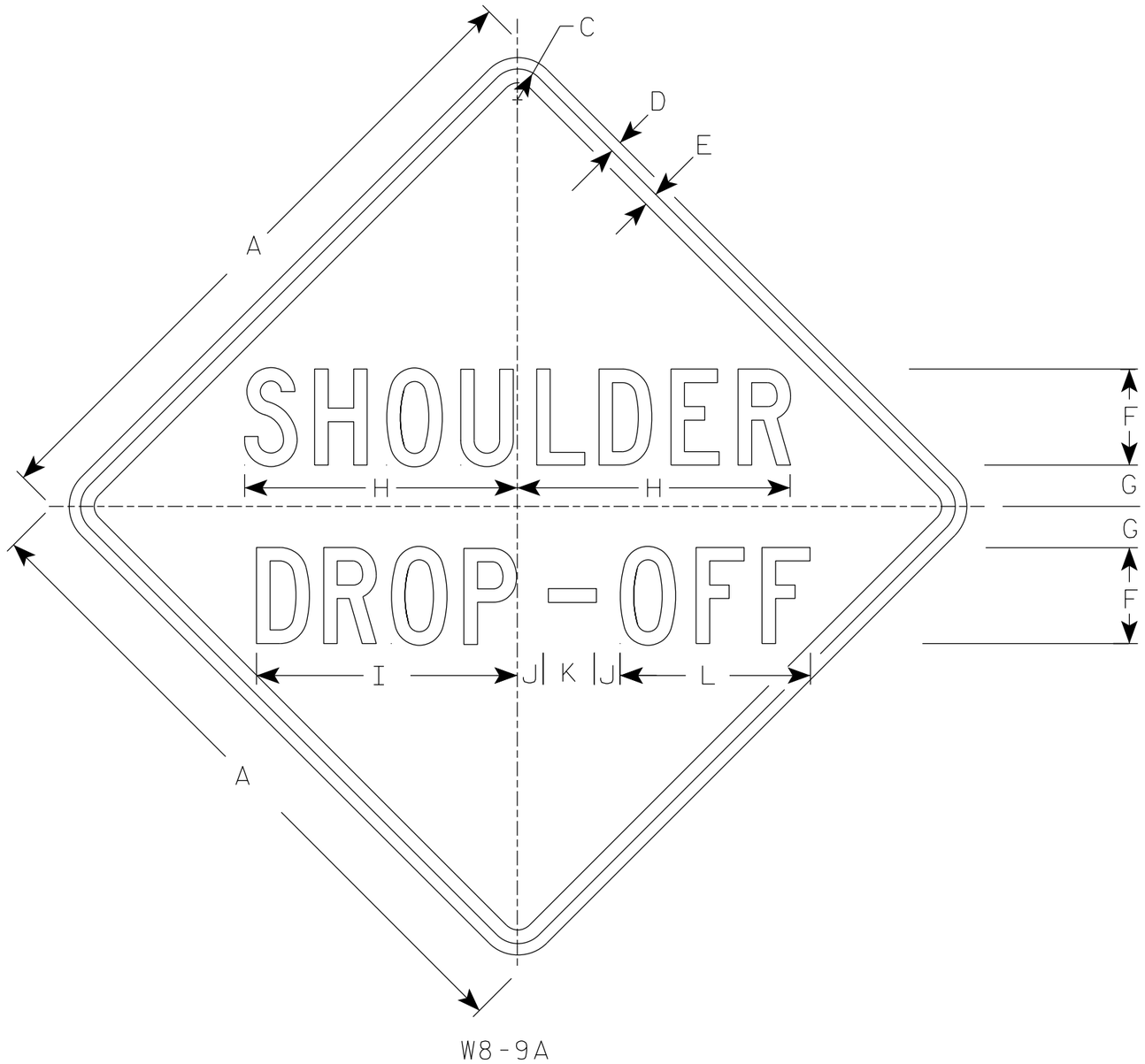
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/16/2020 PLATE NO. W8-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W87.dgn PLOT DATE : 16-APRIL 2020 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2	14 7/8	14	7/8	2 1/2	9 3/4															9.0
2S	48		2 1/4	3/4	1	7	3	19 7/8	19	1 7/8	3 3/4	13 7/8															16.0
2M	48		2 1/4	3/4	1	7	3	19 7/8	19	1 7/8	3 3/4	13 7/8															16.0
3	48		2 1/4	3/4	1	7	3	19 7/8	19	1 7/8	3 3/4	13 7/8															16.0
4	48		2 1/4	3/4	1	7	3	19 7/8	19	1 7/8	3 3/4	13 7/8															16.0
5	48		2 1/4	3/4	1	7	3	19 7/8	19	1 7/8	3 3/4	13 7/8															16.0

STANDARD SIGN
W8-9A

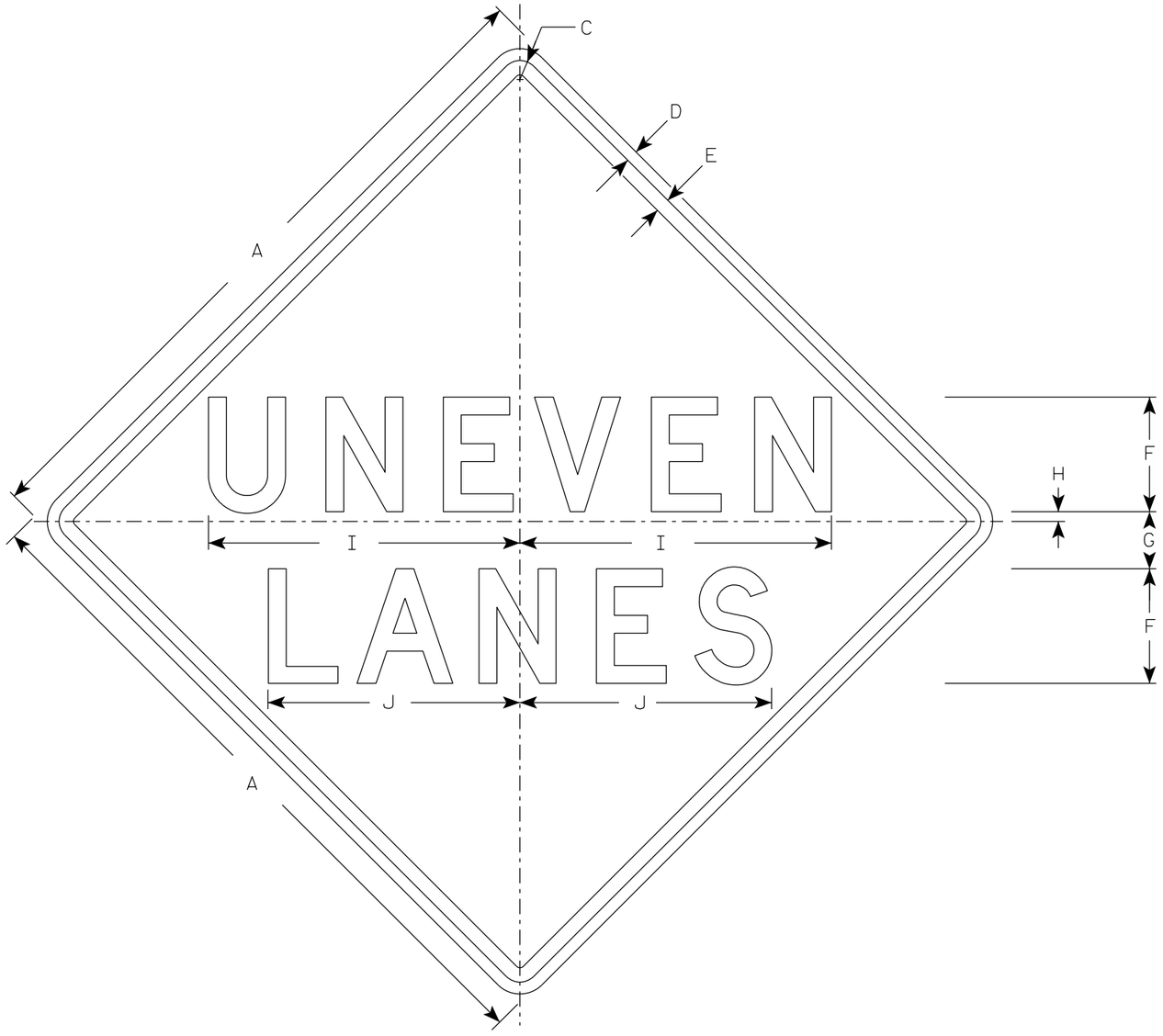
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/16/2020 PLATE NO. W8-9A.4

PROJECT NO:

SHEET NO: 96 E



W8-11

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3	1/2	16 3/8	13 1/4																	9.0
2S	48		2 1/4	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
2M	48		2 1/4	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
3	48		2 1/4	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
4	48		2 1/4	3/4	1	8	4	1	21 3/4	17 5/8																	16.0
5	48		2 1/4	3/4	1	8	4	1	21 3/4	17 5/8																	16.0

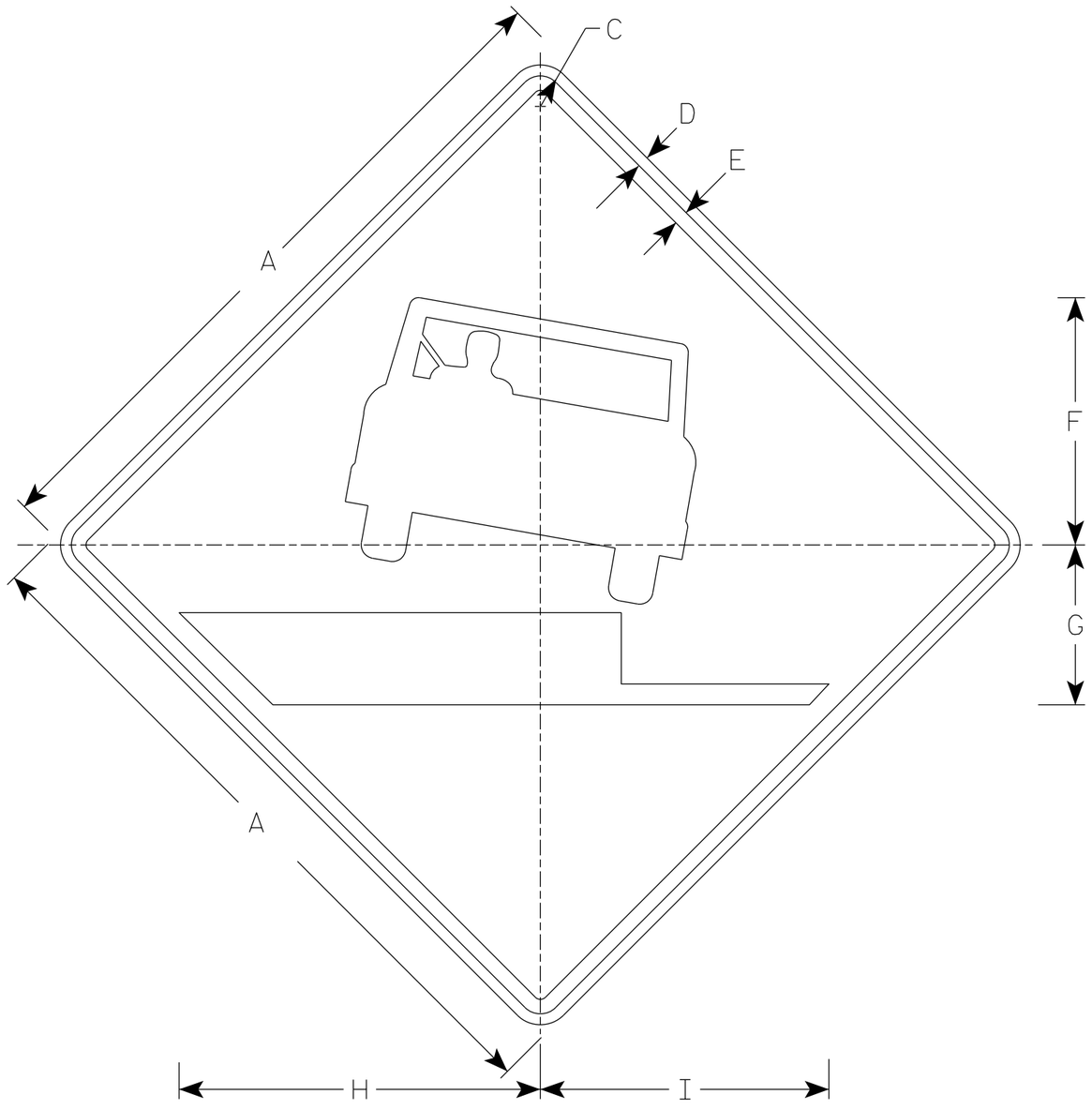
STANDARD SIGN
W8-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/20/2020 PLATE NO. W8-11.5

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



W8-17

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12 3/4	8 1/4	18 5/8	14 7/8																		9.0
2S	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
2M	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
3	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
4	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0
5	48		2 1/4	3/4	1	17	11	24 7/8	19 7/8																		16.0

STANDARD SIGN
W8-17

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/16/2020 PLATE NO. W8-17.2

PROJECT NO:

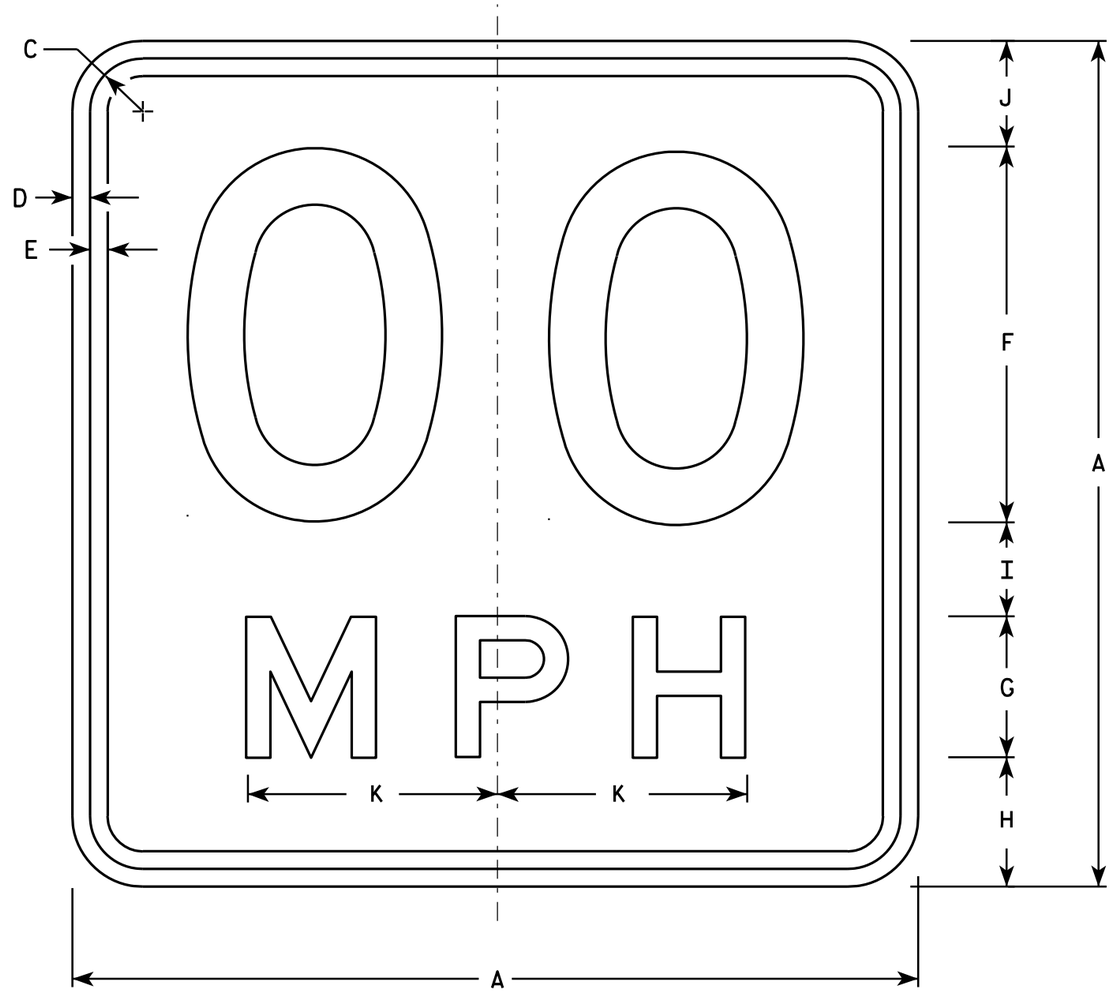
SHEET NO: 98 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W817.dgn PLOT DATE : 16-APRIL 2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

7



W13-1

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

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

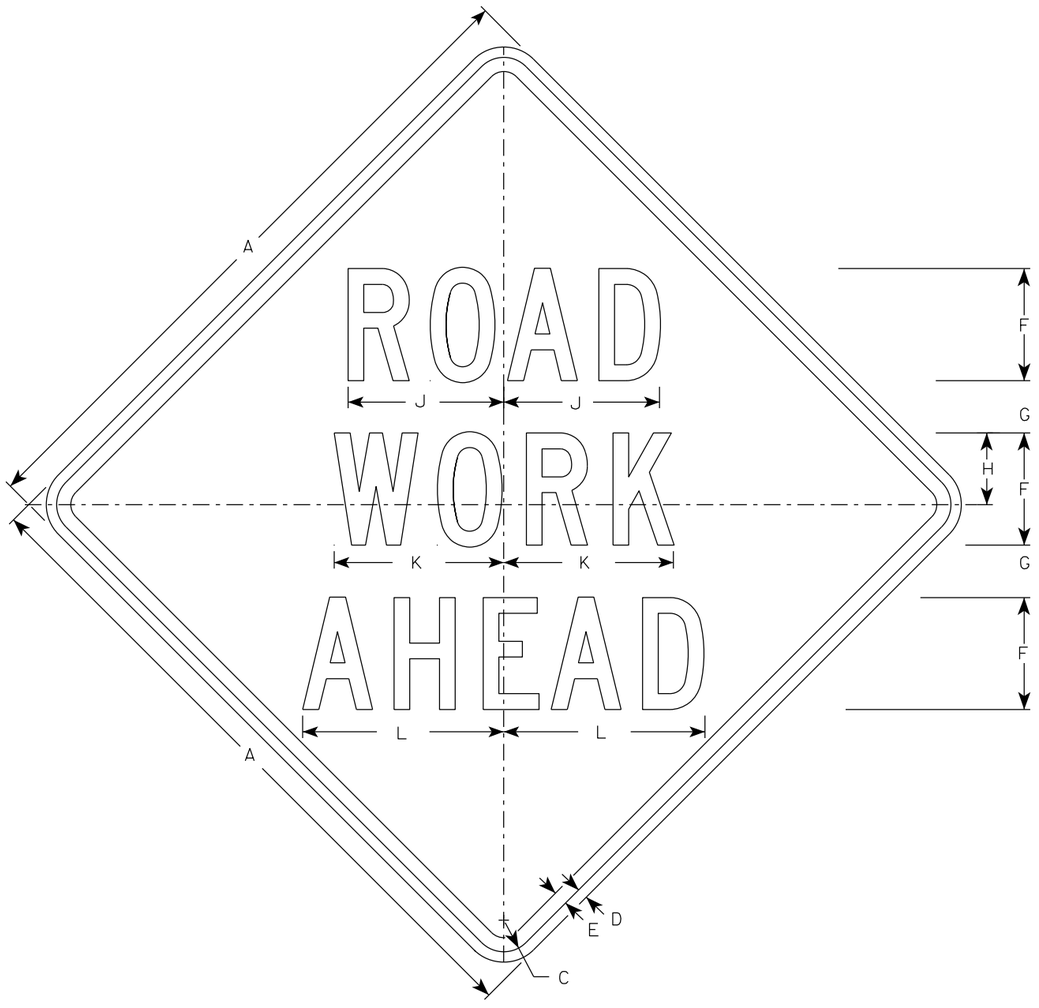
APPROVED Matthew R Rauch
For State Traffic Engineer

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

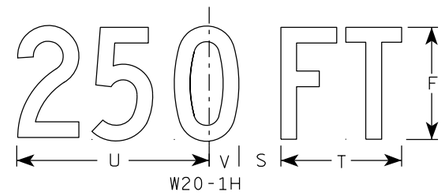
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 99 | E

NOTES

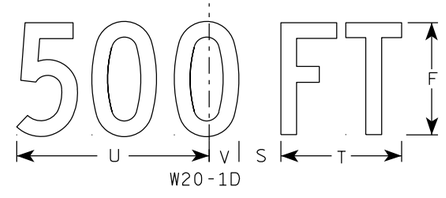
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A

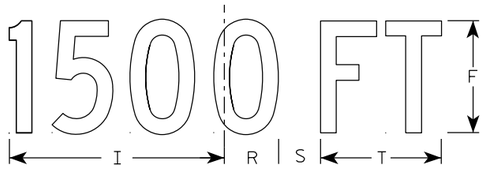


W20-1H

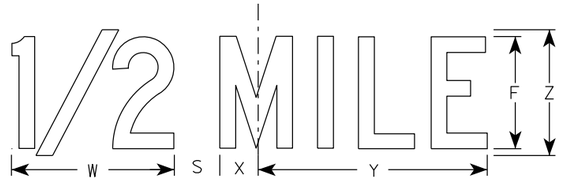


W20-1D

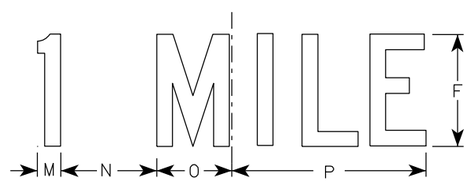
W20-1C



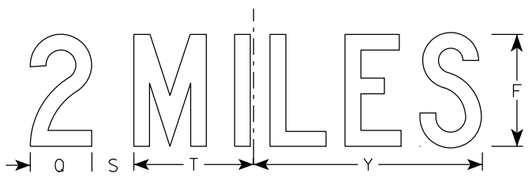
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

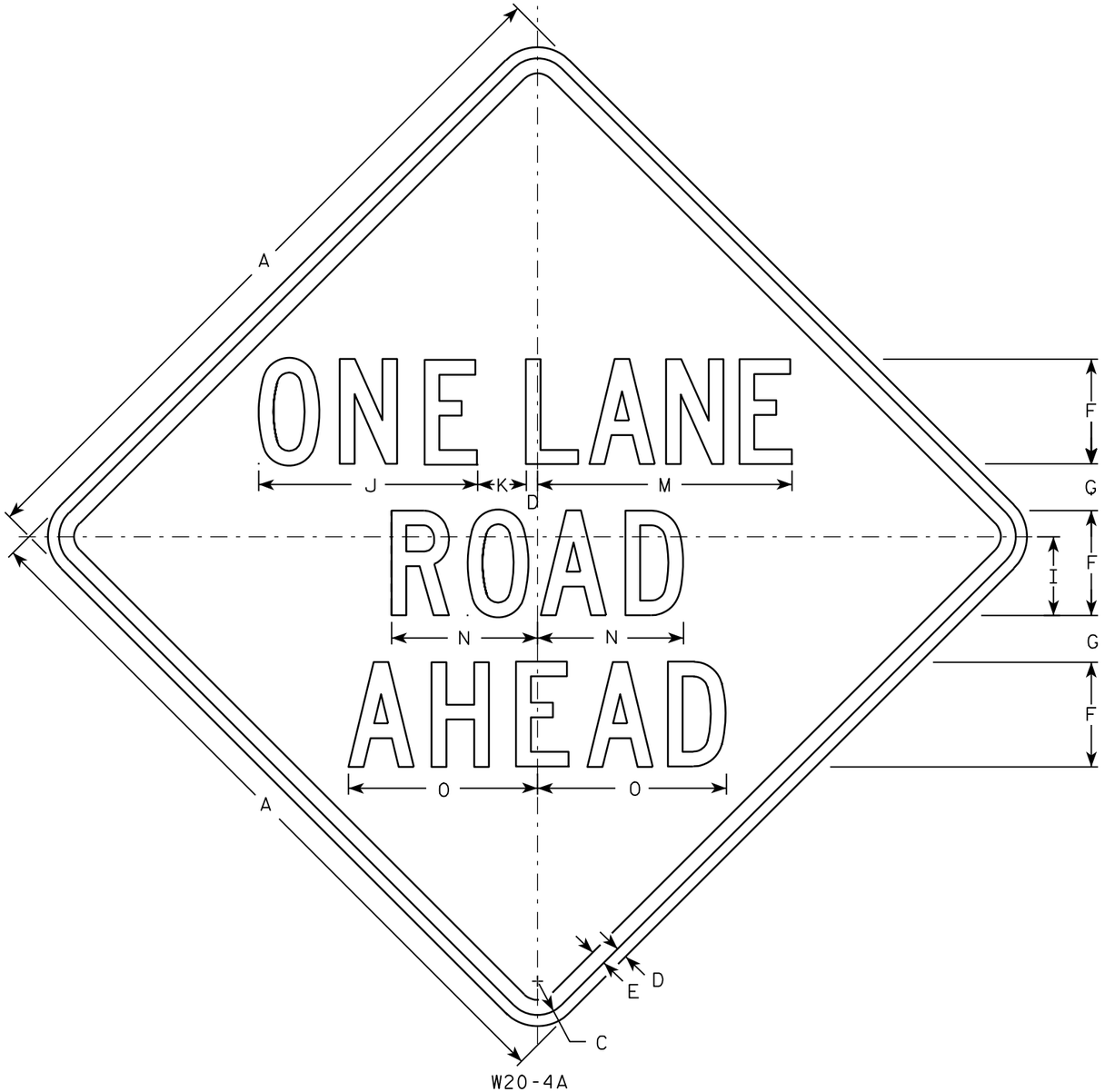
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

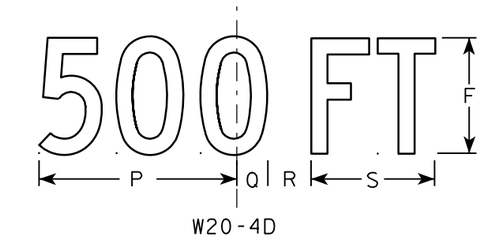
WISDOT/CADDS SHEET 42

7

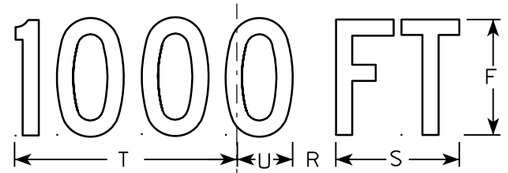
7



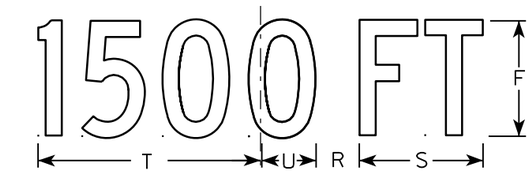
W20-4A



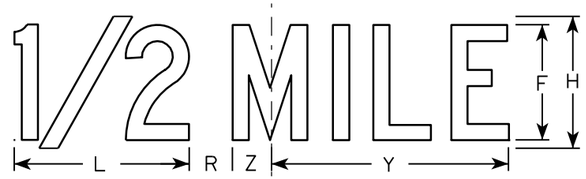
W20-4D



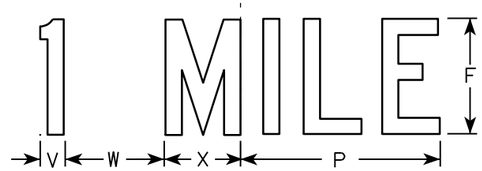
W20-4C



W20-4B



W20-4G



W20-4F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

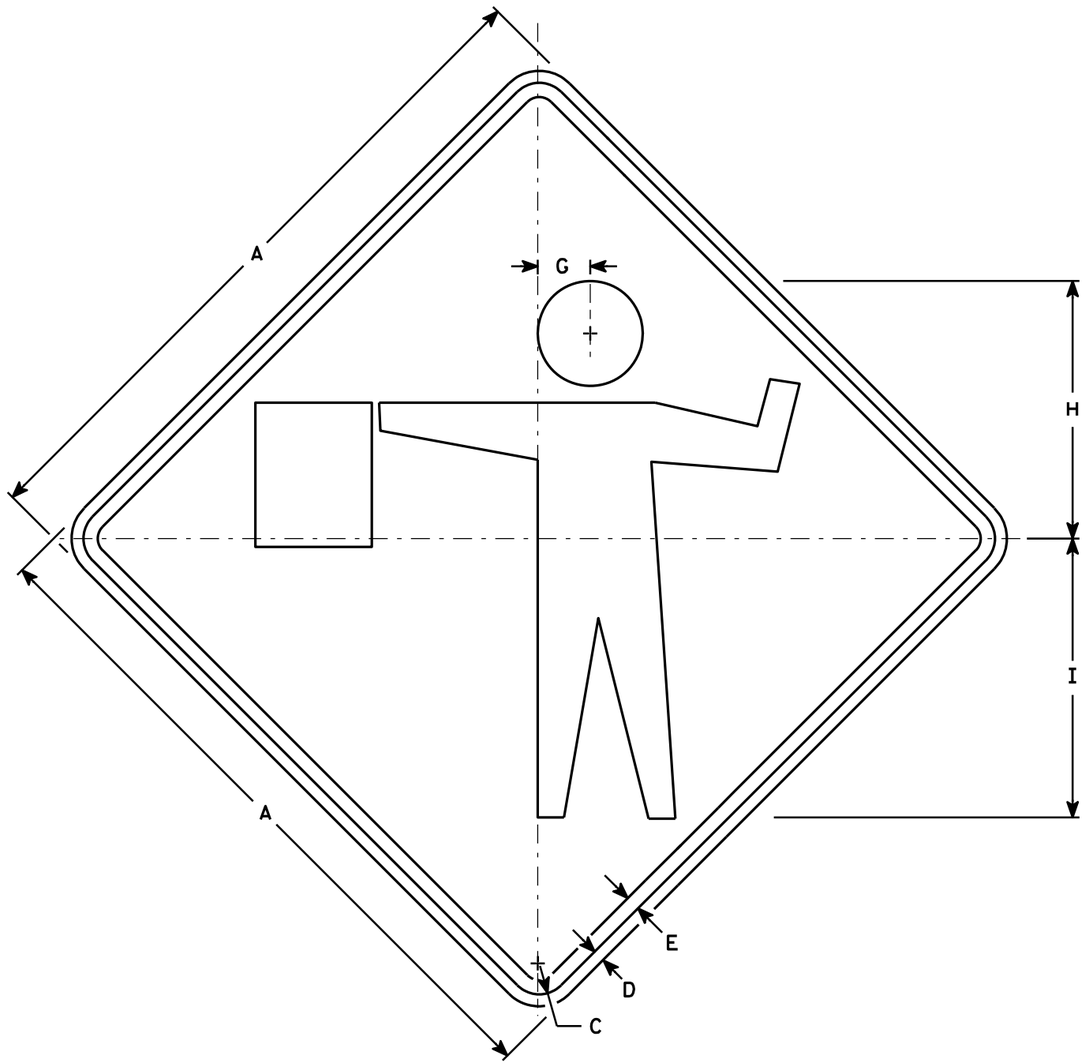
DATE 3/18/11 PLATE NO. W20-4.9

PROJECT NO:

SHEET NO: 101 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W204.DGN PLOT DATE : 18-MAR-2011 12:11 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



W20-7A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

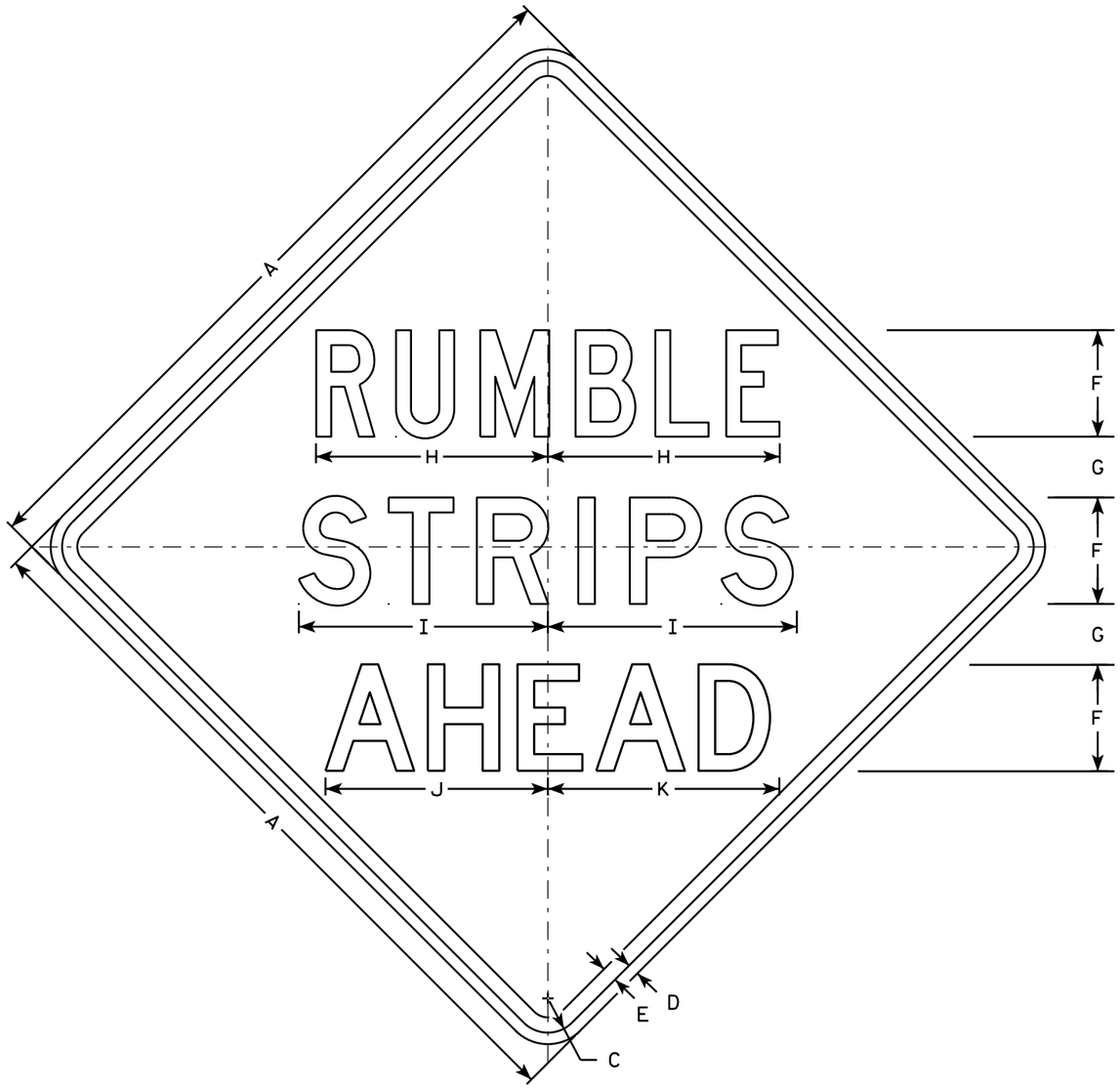
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

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

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W207A.DGN PLOT DATE : 18-MAR-2011 13:14 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.945391:1.000000 WISDOT/CADDS SHEET 42



W21-65

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 and 3 are Series D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

STANDARD SIGN

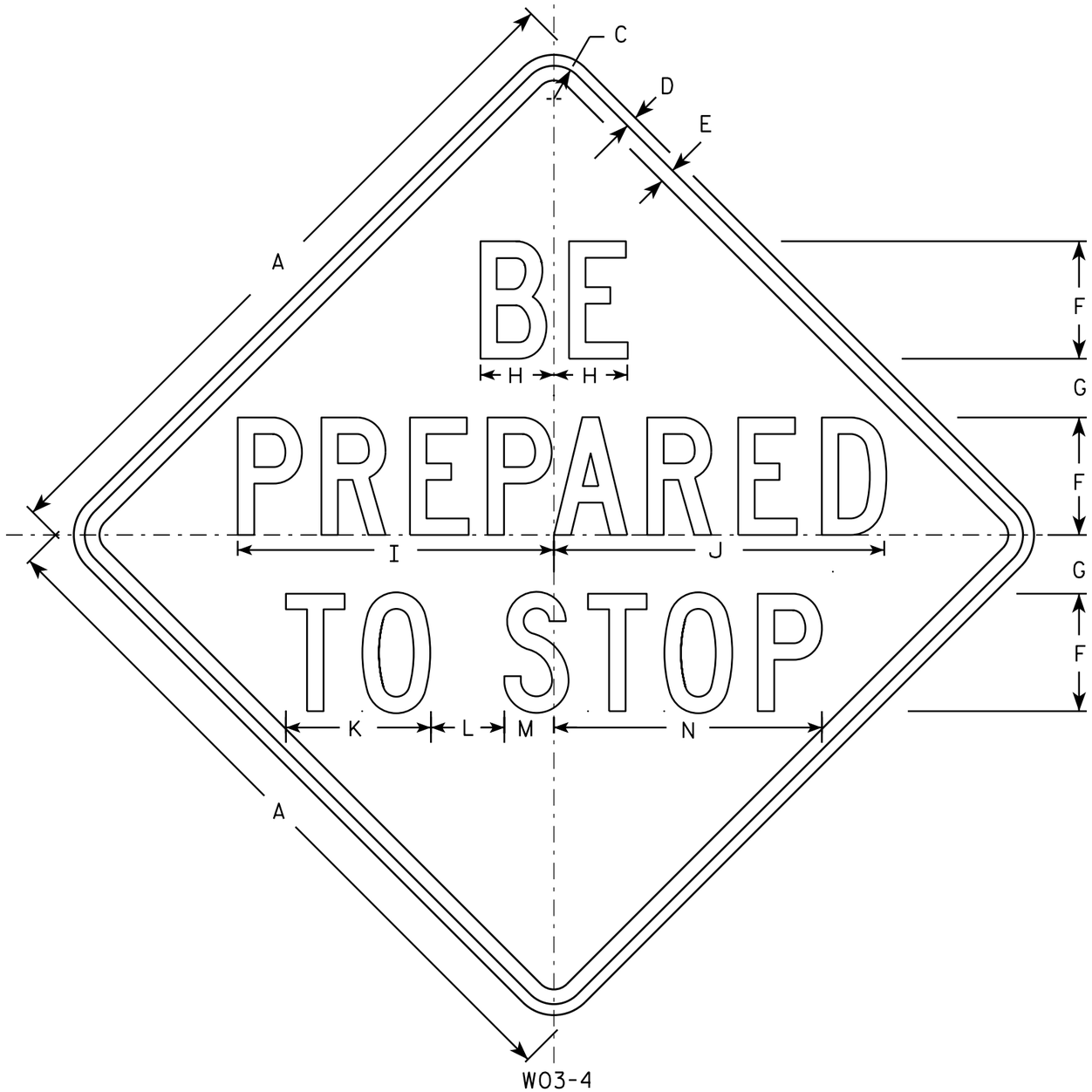
W21-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE W21-65.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	6	2 1/2	3 3/4	15 7/8	16 7/8	7 3/8	4	2 3/8	13 3/4													9.0
2S	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
2M	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
3	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
4	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0
5	48		2 1/4	3/4	1	8	4	5	21 1/2	22 1/2	9 7/8	5	3 3/8	18 1/4													16.0

STANDARD SIGN
W03-4

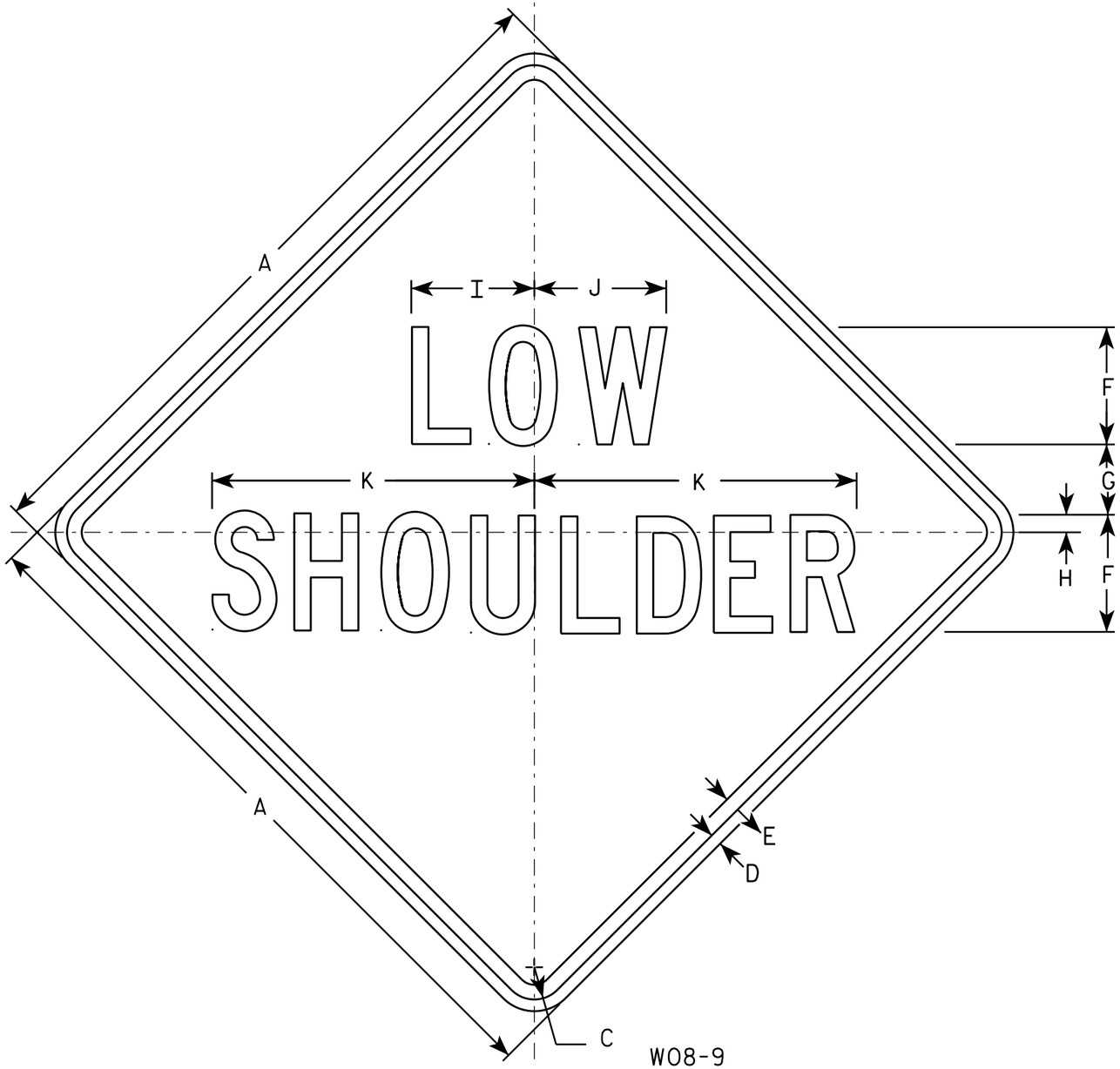
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/02/13 PLATE NO. W03-4.1

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W034.DGN PLOT DATE : 02-DEC-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 8.999518:1.000000
WISDOT/CADDS SHEET 42



W08-9

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	1	6 1/4	6 3/4	16 1/2																9.0
2S	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
2M	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
3	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
4	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0
5	48		2 1/4	3/4	1	8	5	1 1/4	8 1/4	9	21 7/8																16.0

STANDARD SIGN
W08-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

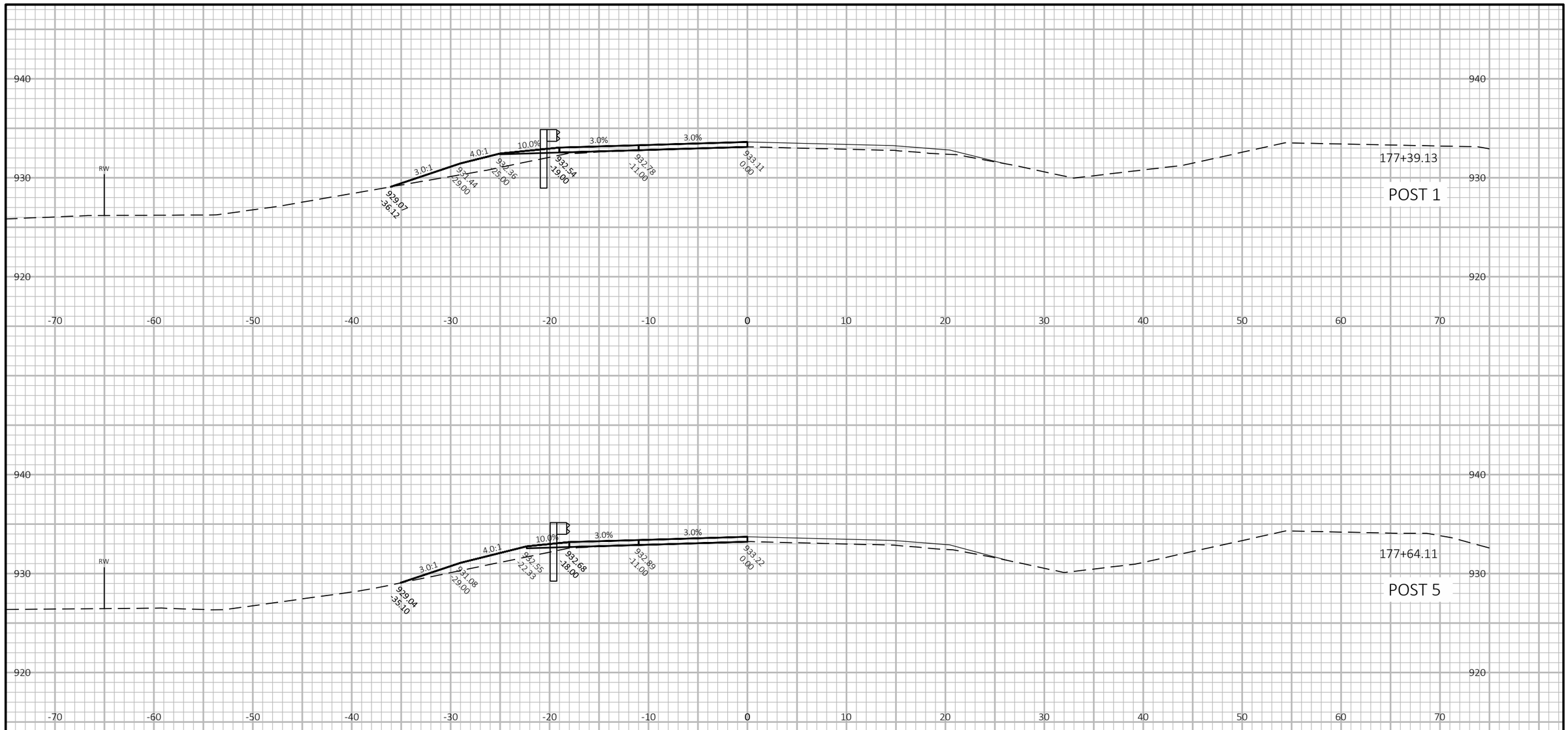
DATE 11/20/13 PLATE W08-9.1

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W089.DGN PLOT DATE : 20-NOV-2013 14:06 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42

CTH M - Beam Guard Grading

STATION	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Expanded Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.30	Mass Ordinate
177+12.16	0.00	10.10	0	0	0	0	0
177+25	0.00	10.39	0	5	0	6	-6
177+50	0.00	13.21	0	11	0	21	-21
177+75	0.00	6.19	0	9	0	32	-32
178+00	0.00	3.19	0	4	0	38	-38
178+25	0.00	2.68	0	3	0	41	-41
178+50	0.00	2.62	0	2	0	45	-45
178+75	0.00	2.56	0	2	0	48	-48
179+00	0.00	2.61	0	2	0	51	-51
179+25	0.00	5.54	0	4	0	56	-56
179+50	0.00	17.80	0	11	0	70	-70
179+75	0.00	20.74	0	18	0	93	-93
180+00	0.00	14.82	0	16	0	114	-114
180+25	0.00	7.02	0	10	0	128	-128
180+50	0.00	4.36	0	5	0	134	-134
180+75	0.00	2.13	0	3	0	138	-138
181+00	0.00	1.06	0	1	0	140	-140
181+04	0.00	0.98	0	0	0	140	-140

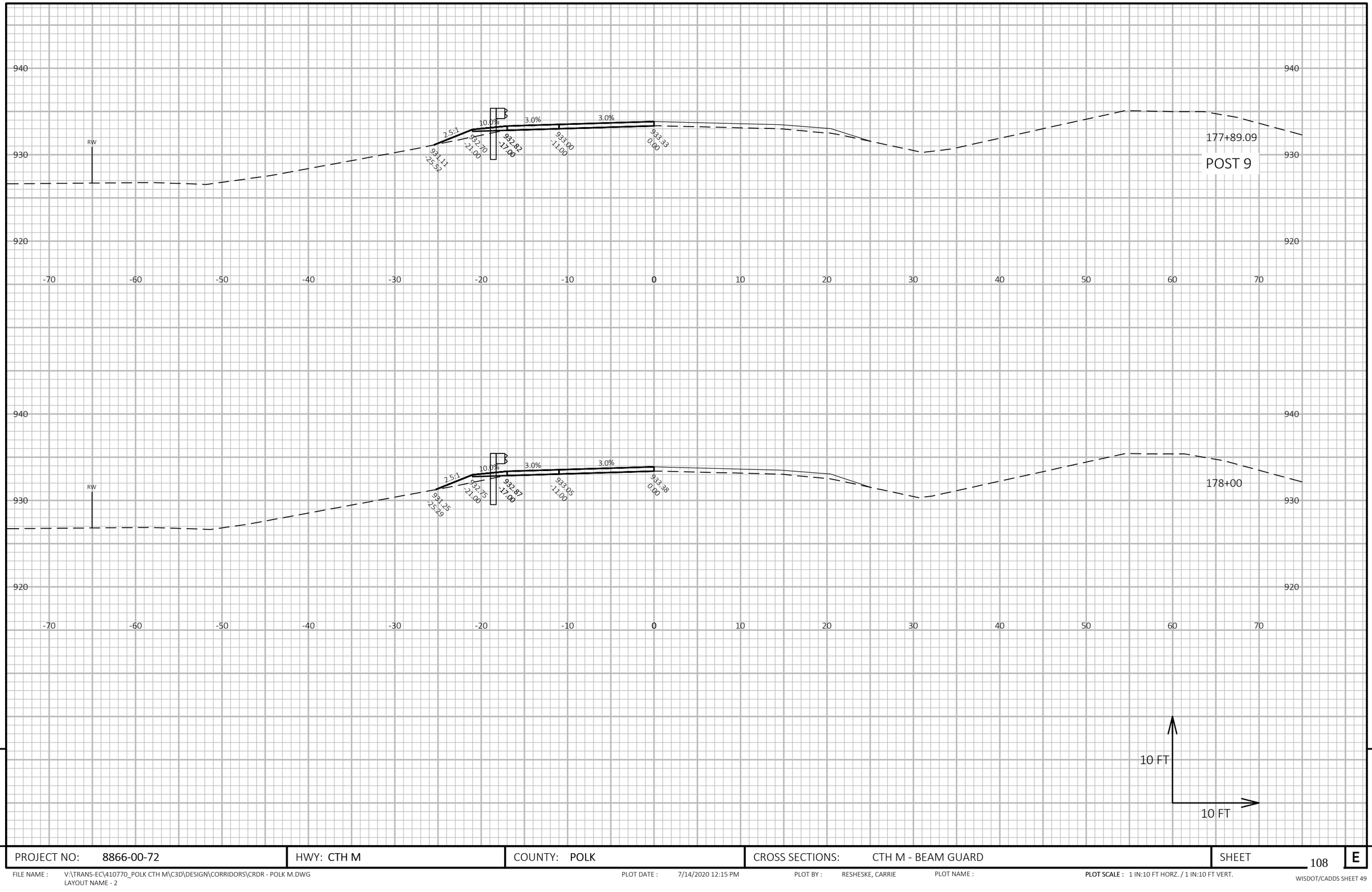


PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CROSS SECTIONS: CTH M - BEAM GUARD	SHEET 107	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\DESIGN\CORRIDORS\CRDR - POLK M.DWG
LAYOUT NAME - 1

PLOT DATE : 7/14/2020 12:15 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

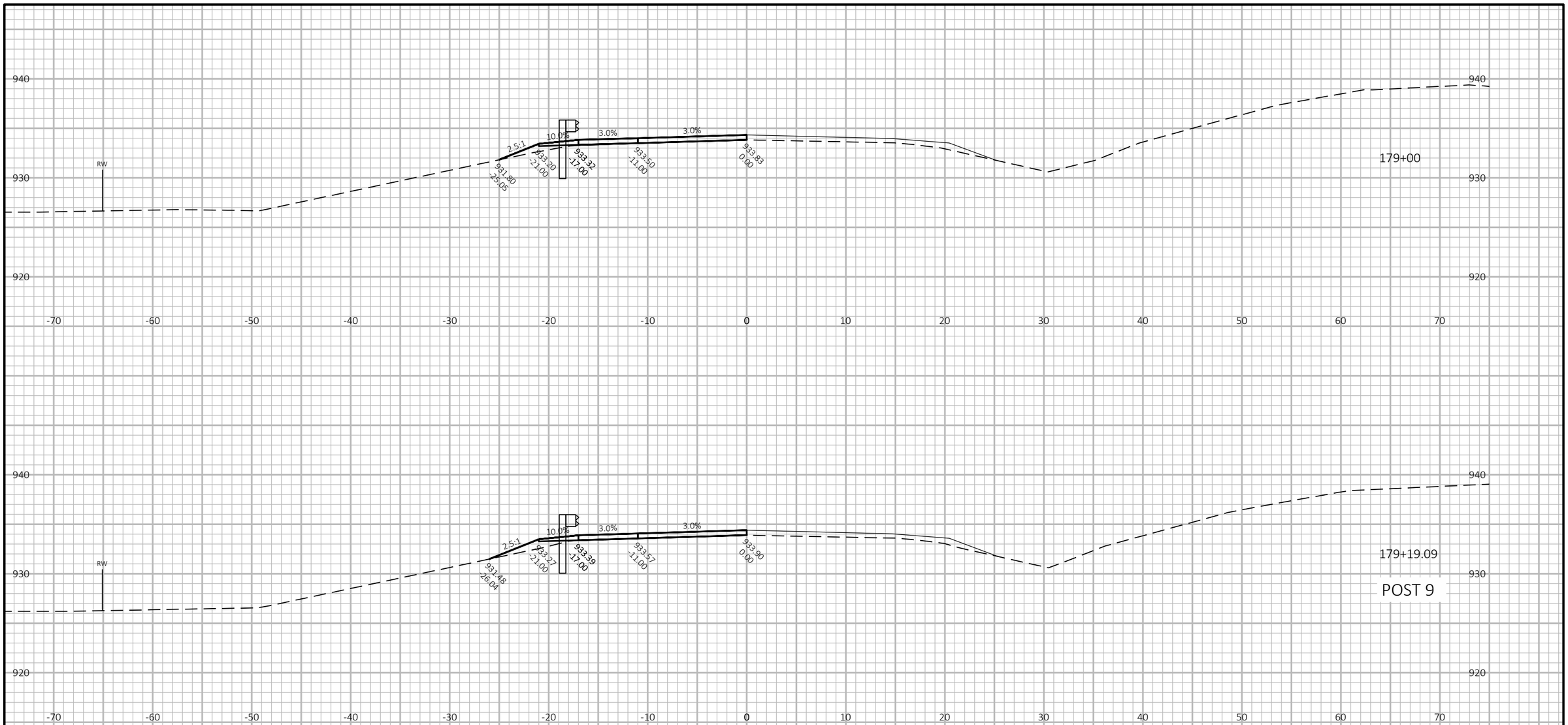
9

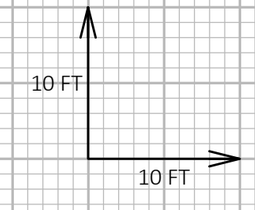
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CROSS SECTIONS: CTH M - BEAM GUARD	SHEET 108	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\DESIGN\CORRIDORS\CRDR - POLK M.DWG
LAYOUT NAME - 2

PLOT DATE : 7/14/2020 12:15 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

9

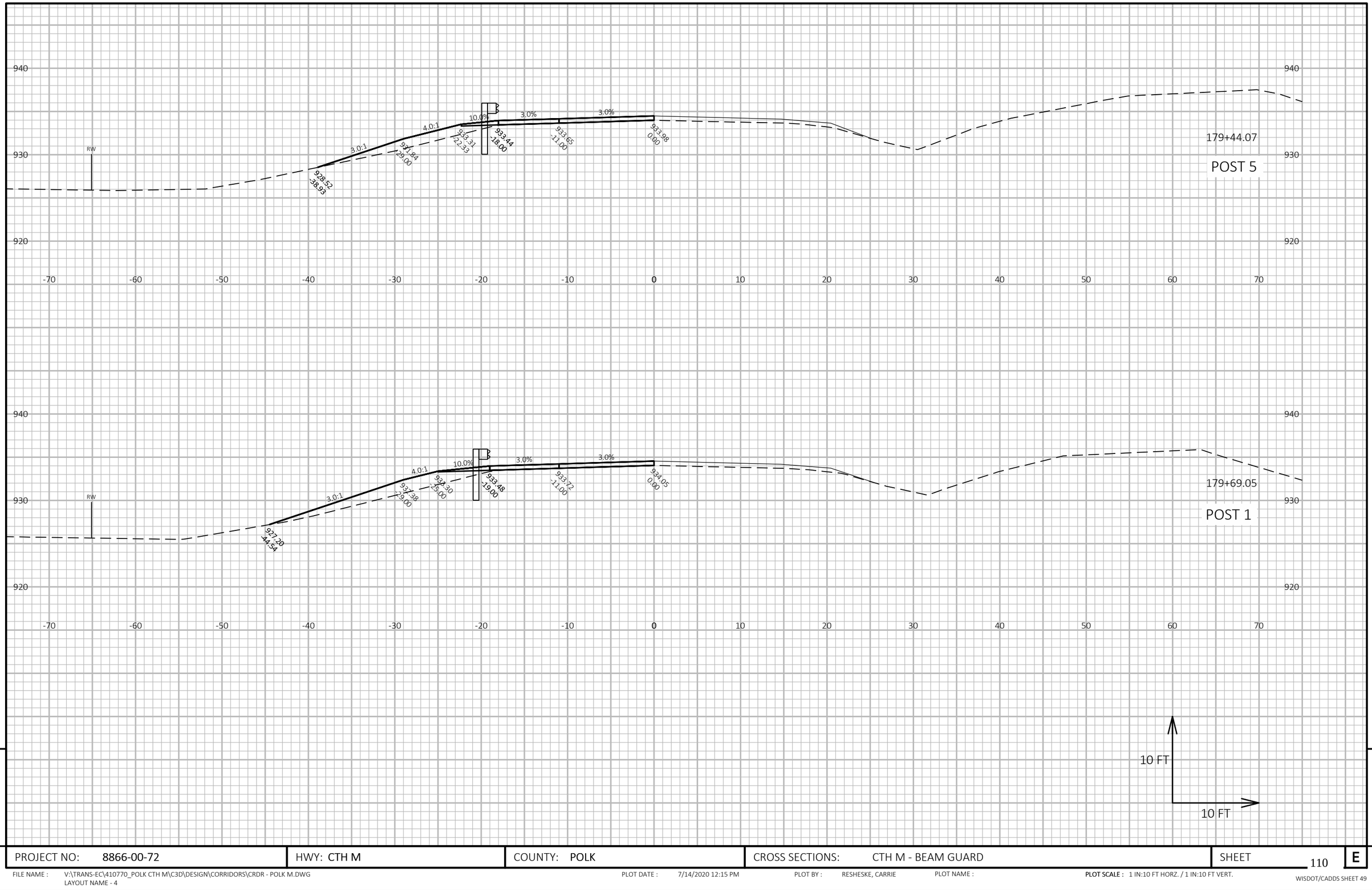
PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CROSS SECTIONS: CTH M - BEAM GUARD	SHEET 109	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\DESIGN\CORRIDORS\CRDR - POLK M.DWG
LAYOUT NAME - 3

PLOT DATE : 7/14/2020 12:15 PM PLOT BY : RESHESKE, CARRIE PLOT NAME :

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

WISDOT/CADDS SHEET 49

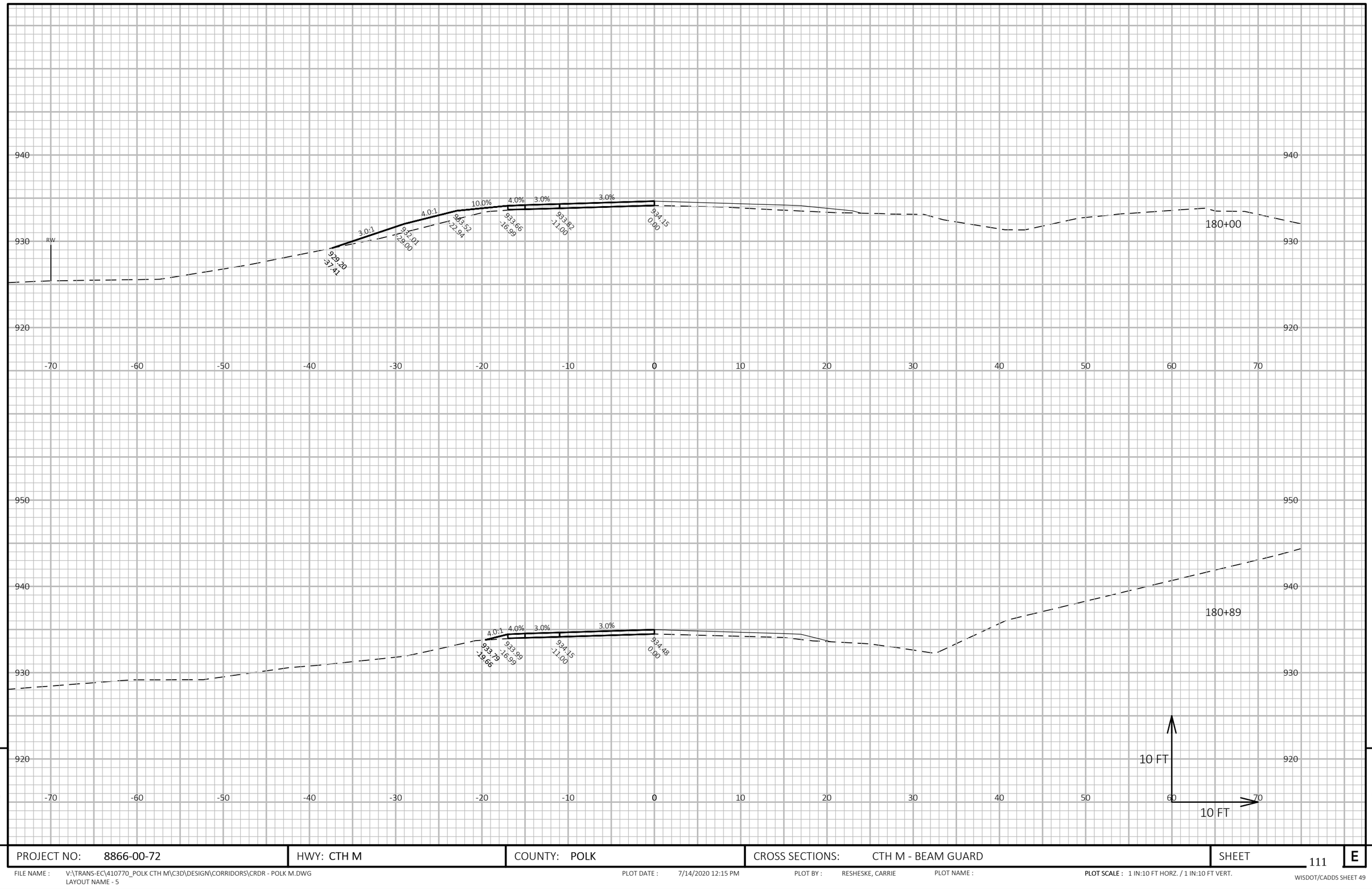


PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CROSS SECTIONS: CTH M - BEAM GUARD	SHEET 110	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\DESIGN\CORRIDORS\CRDR - POLK M.DWG
LAYOUT NAME - 4

PLOT DATE : 7/14/2020 12:15 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 8866-00-72	HWY: CTH M	COUNTY: POLK	CROSS SECTIONS: CTH M - BEAM GUARD	SHEET 111	E

FILE NAME : V:\TRANS-EC\410770_POLK CTH M\C3D\DESIGN\CORRIDORS\CRDR - POLK M.DWG
LAYOUT NAME - 5

PLOT DATE : 7/14/2020 12:15 PM PLOT BY : RESHESKE, CARRIE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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