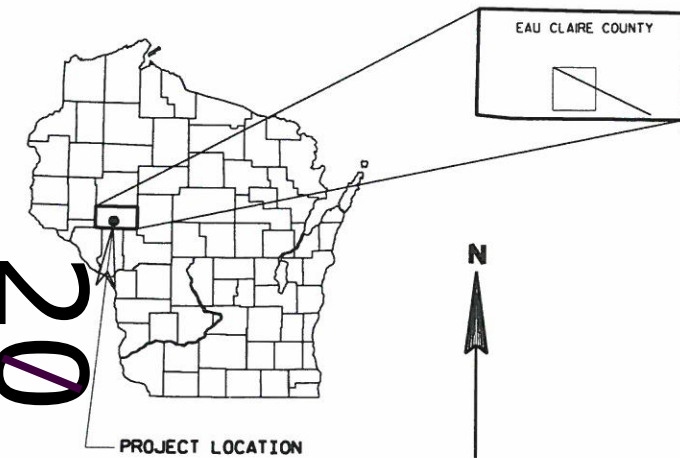


ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details (Includes Erosion Control Plans)
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 = 42



DESIGN DESIGNATION

A.D.T. (2014)	=	1,150
A.D.T. (2034)	=	1,400
D.H.V.	=	120
D.	=	50/50
T.	=	6.5%
DESIGN SPEED	=	55 MPH
ESALS	=	N/A

CONVENTIONAL SYMBOLS PLAN

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

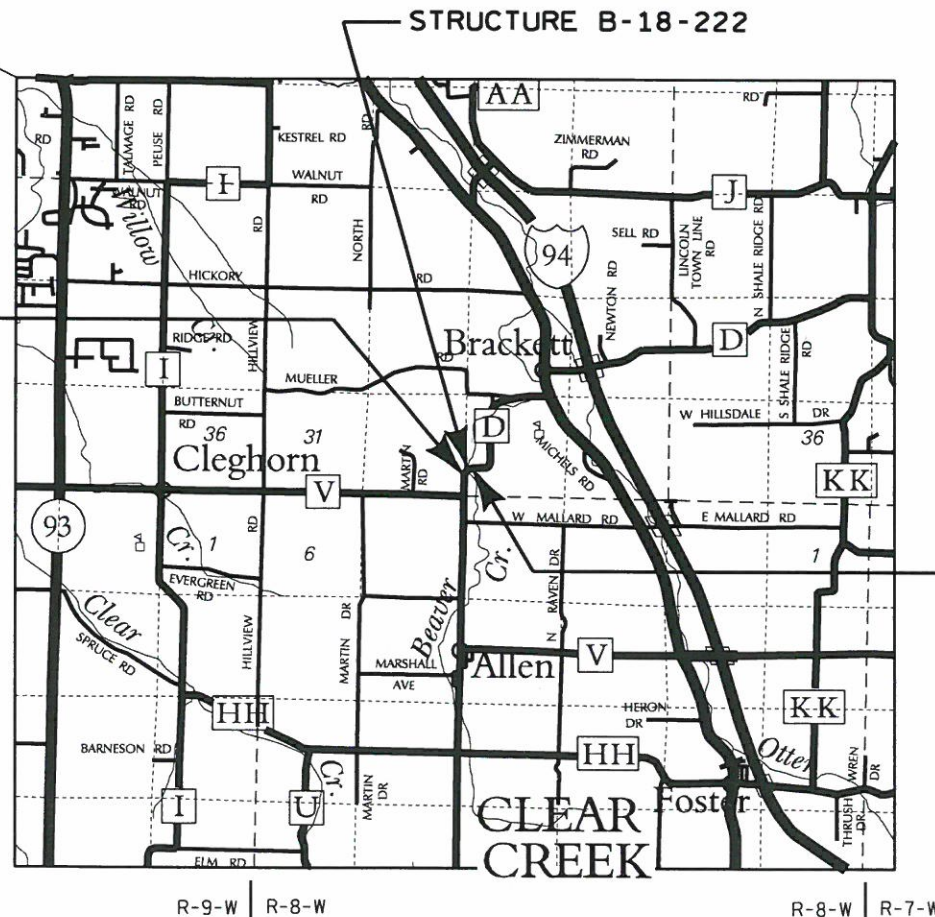
PROFILE

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

BEGIN PROJECT

STA. 8+25
Y = 232898.95
X = 374017.95

T-26-N
T-25-N



LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.066 MI.

END PROJECT

STA. 11+73.50
Y = 233135.08
X = 374274.27

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

STATE PROJECT

7828-03-70

FEDERAL PROJECT

PROJECT

WISC 2014058

CONTRACT

1

ACCEPTED FOR

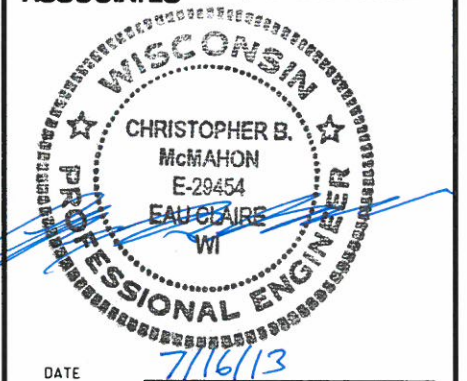
County of Eau Claire

6-19-2013
Date

Manuel
Highway Commissioner

ORIGINAL PLANS PREPARED BY

AYRES ASSOCIATES 3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

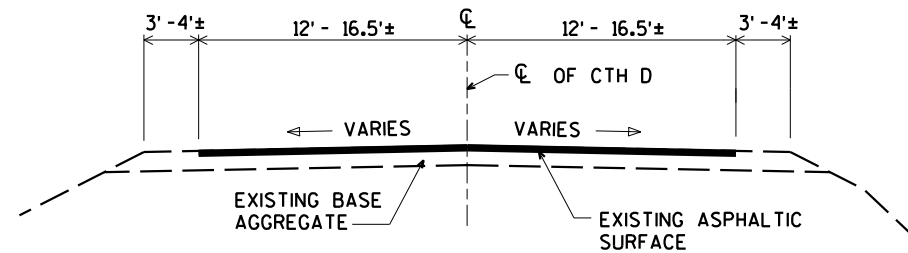


STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

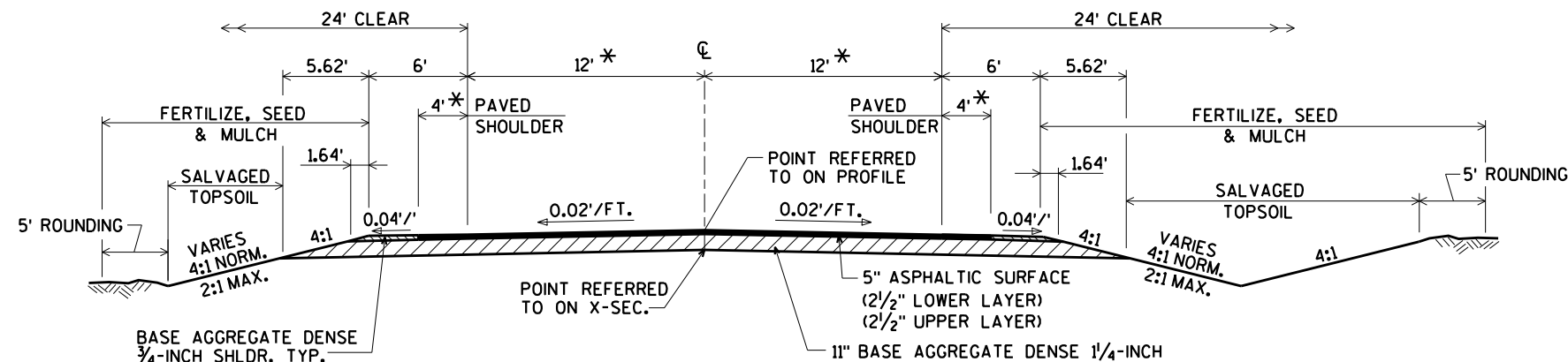
PREPARED BY	AYRES ASSOCIATES INC.
Surveyor	AYRES ASSOCIATES INC.
Designer	
Management Consultant	KNIGHT E/A INC.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/28/13 *Ryan B. Milane*
Management Consultant Signature

E

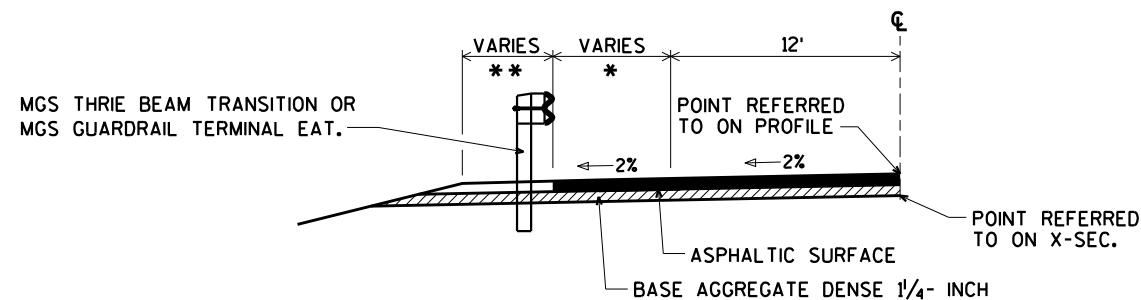


TYPICAL EXISTING SECTION
(CTH D)



TYPICAL FINISHED SECTION
(CTH D)

* THE ASPHALTIC SURFACE SHALL BE PLACED 36 FEET WIDE AT THE ENDS OF THE APPROACH SLAB AND FOLLOW THE FACE OF GUARDRAIL, AND TAPER TO 32 FEET AT THE ENDS OF THE PROJECT.



TYPICAL FINISHED HALF SECTION WITH BEAM GUARD

** 4'-0" NORMAL
6'-0" MAX. (AT ANCHORAGES)

* 6' NORMAL
8' MAX. (AT ANCHORAGES)

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

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

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

SEED MIXTURE NO. 20 AND SEEDING TEMPORARY SHALL BE USED IN THE PROJECT AND SHALL BE PLACED AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLAN, OR AS DIRECTED BY THE ENGINEER. SILT FENCE TO BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO BRIDGE REMOVAL.

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

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

SHRINKAGE IS ESTIMATED AT 30%

WETLANDS EXIST IN THE PROJECT AREA AND THE CONTRACTOR SHALL NOT DISTURB OUTSIDE OF THE SLOPE INTERCEPTS IN THESE AREAS

UTILITIES

CENTURYLINK
835 RED IRON ROAD
BLACK RIVER FALLS, WI 54615
ATTN: DONNA SMOTHERS
715-284-4375
donna.smothers@centurytel.com

EAU CLAIRE ENERGY COOPERATIVE
8214 HIGHWAY 12
P.O. BOX 368
FALL CREEK, WI 54742-368
ATTN: GARY BRECKA, PE
715-836-6474
gbrecka@ecec.com

CHARTER COMMUNICATIONS
1201 McCANN DRIVE
ALTOONA, WI 54720
ATTN: SHANE YODER
715-831-8940 (EXT. 619)
shane.yoder@chartercom.com

* * DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

DIGGERS HOTLINE

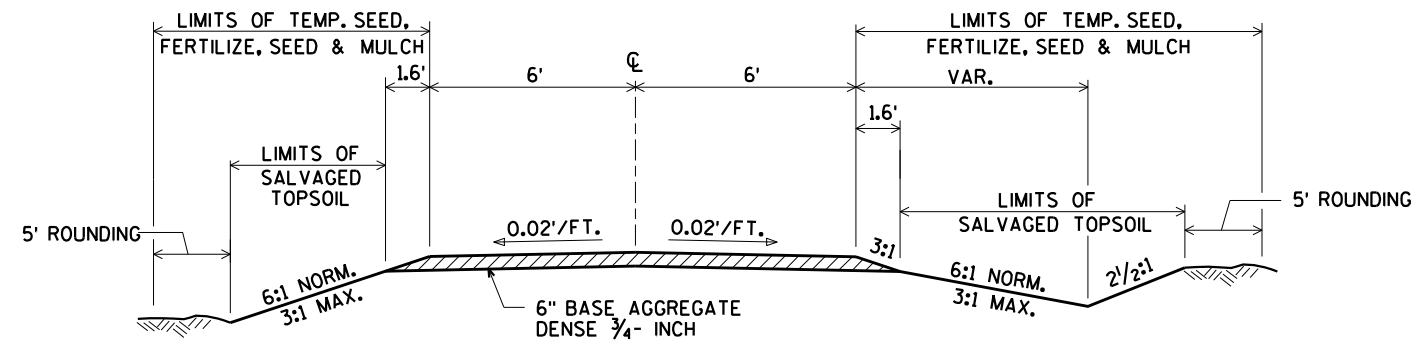
Dial **811** or (800) 242-8511
www.DiggersHotline.com

DESIGNER

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: CHRIS MCMAHON, PE
715-834-3161
mcmahonc@ayresassociates.com

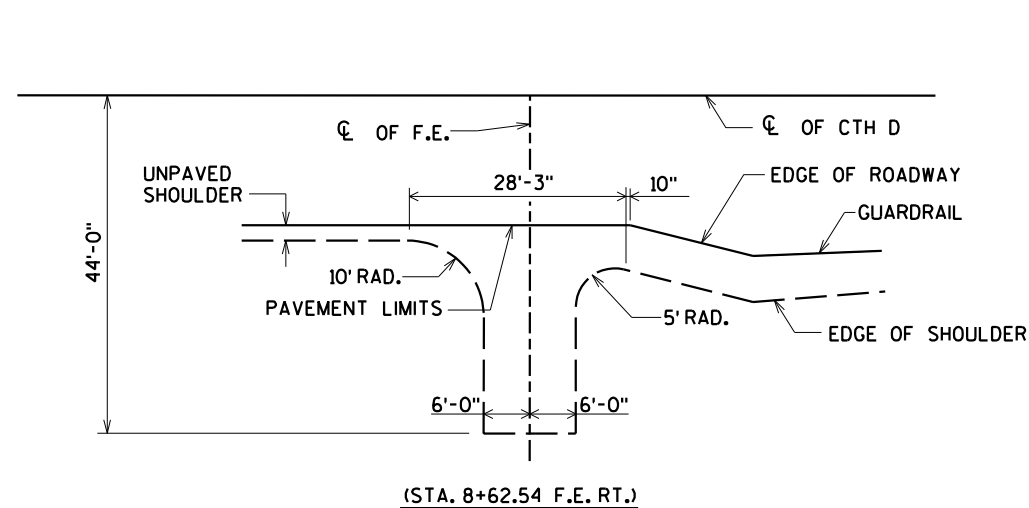
WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONTACT:

NICK SCHAFF
1300 WEST CLAIREMONT AVE.
P.O. BOX 4001
EAU CLAIRE, WI 54702-4001
715-839-1609
nicholas.schaff@wisconsin.gov

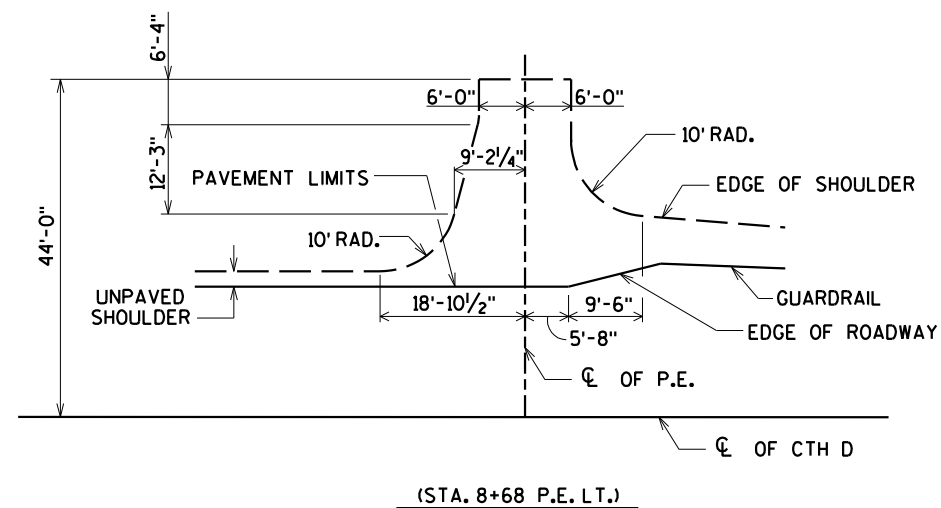


TYPICAL SECTION FOR PRIVATE ENTRANCE AND FIELD ENTRANCE

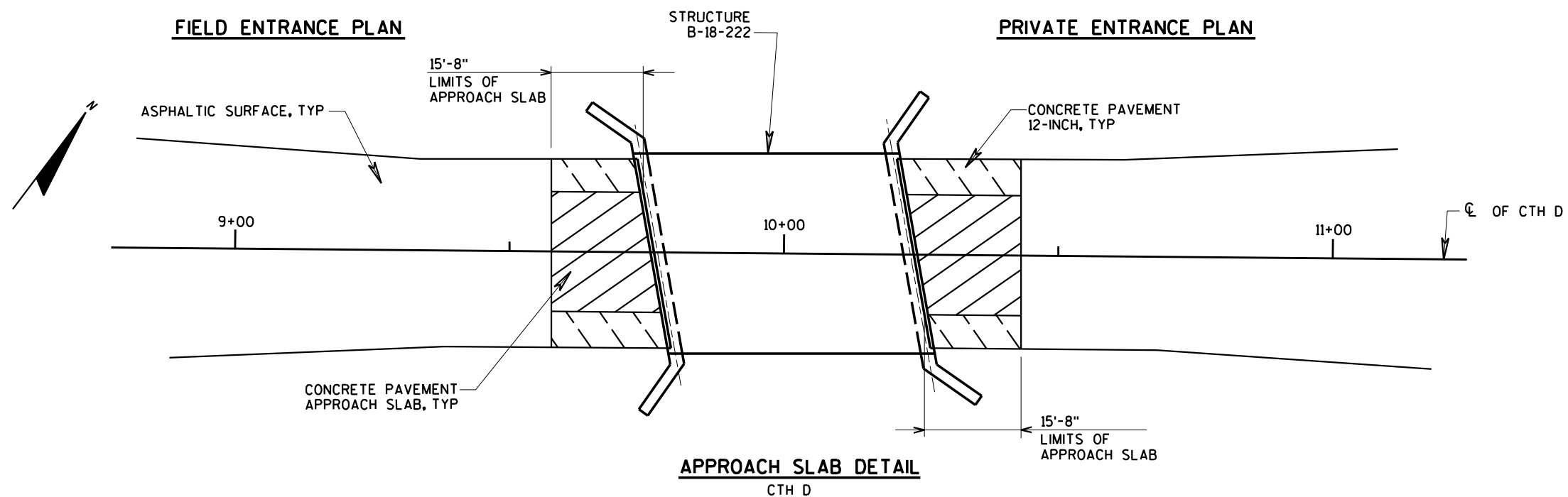
(STA. 8+62.54 F.E. RT. & STA. 8+68 P.E. LT.)



FIELD ENTRANCE PLAN



PRIVATE ENTRANCE PLAN

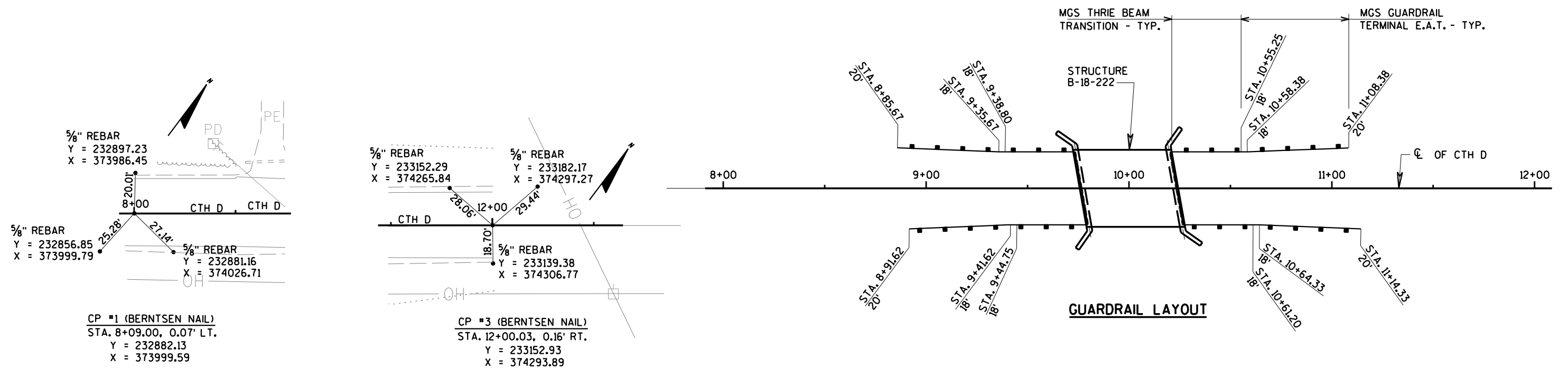
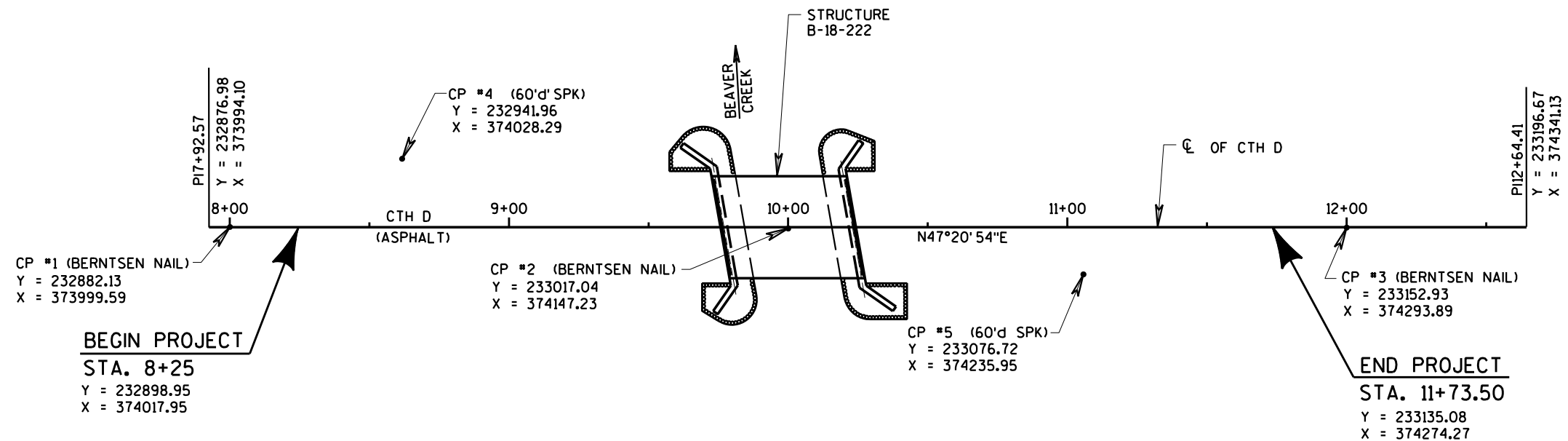


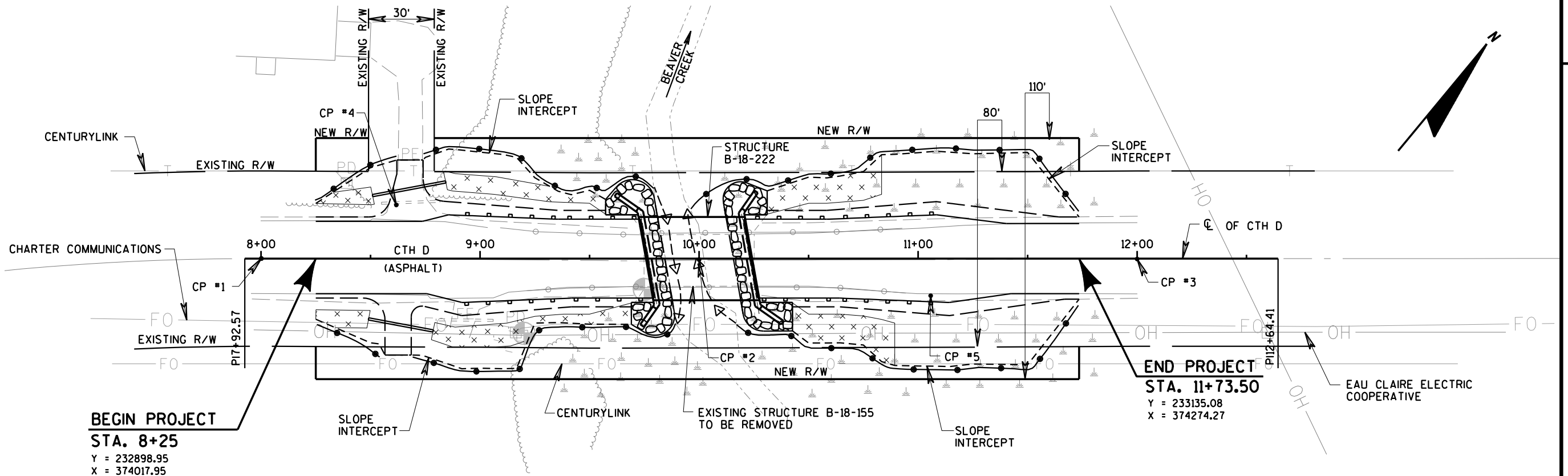
APPROACH SLAB DETAIL

CTH D

ABBREVIATIONS

AC	ACRES
CHIS	CHISELED
C	CENTERLINE
COR	CORNER
CWT	COUNT
CY	CUBIC YARD
EL	ELEVATION
GAL	GALLON
H	HOUSE
IP	IRON PIPE
LB	POUND
LF	LINEAR FEET
LS	LUMP SUM
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MON	MONUMENT
NORM	NORMAL
OAL	OVERALL LENGTH
PC	POINT OF CURVATURE
PD	PEDESTAL
PI	POINT OF INTERSECTION
PK	PARKER-KALON
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PP	POWER POLE
PT	POINT OF TANGENCY
R	RADIUS
REQ'D	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
SF	SQUARE FEET
SHLDR	SHOULDER
STA	STATION
SY	SQUARE YARD
TLE	TEMPORARY LIMITED EASEMENT
VAR	VARIABLE
WL	WELL





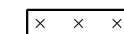
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 0.64 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.39 ACRES

HIGH WATER 2 EL. 944.8

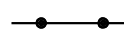
LEGEND



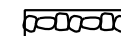
EROSION MAT CLASS II TYPE B



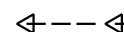
TEMPORARY DITCH CHECKS (UNDISTRIBUTED)



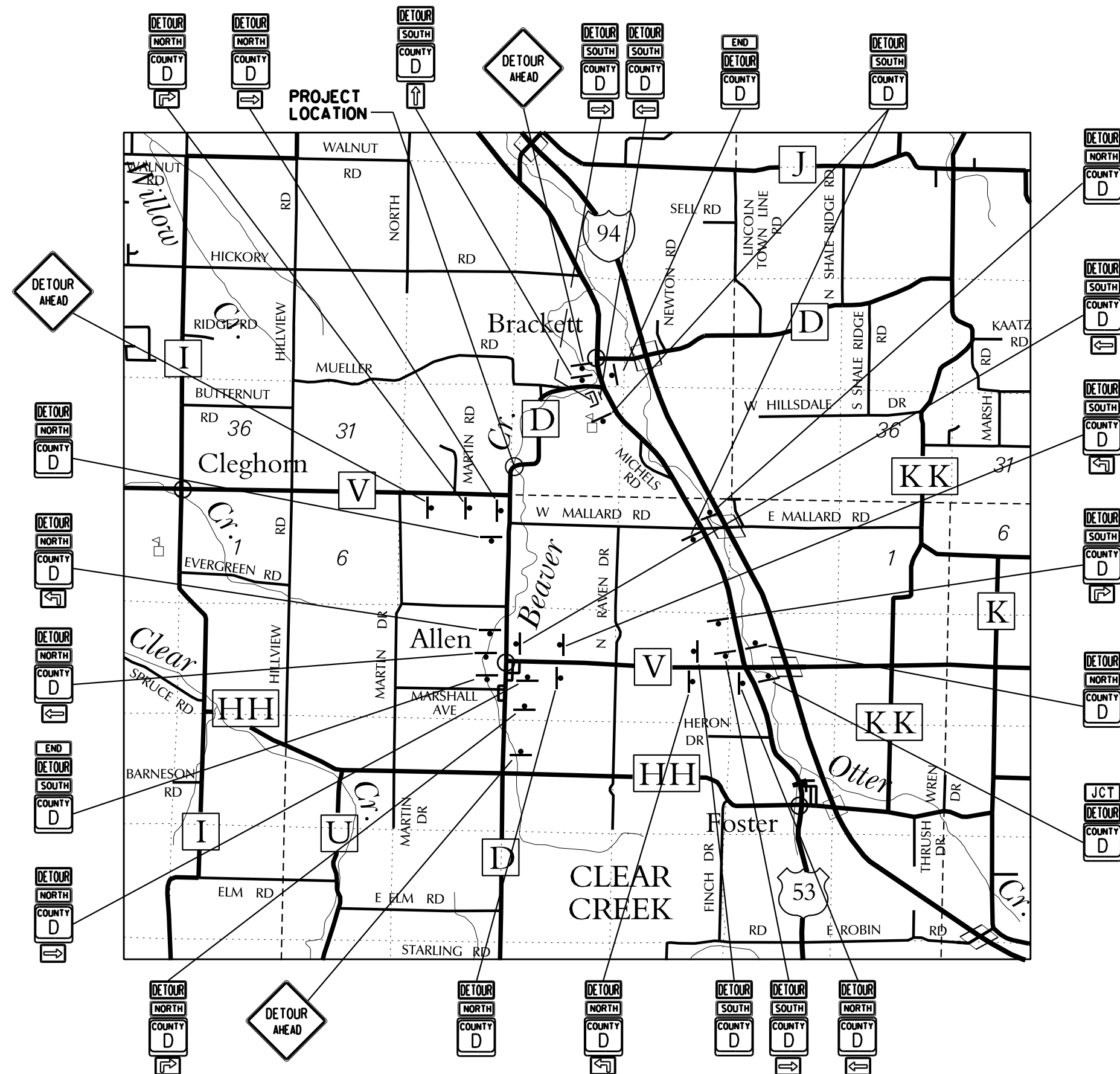
SILT FENCE



RIPRAP HEAVY



SILT SCREEN



GENERAL NOTES

1. DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTORS METHODS OR SEQUENCE OF OPERATION.
2. ALL SIGN LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. SIGN FACE LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS. UNLESS OTHERWISE PROVIDED IN THE PLAN.
4. ROAD MACHINERY, TRUCK ENTRANCE, FLAGMAN AHEAD, ETC., SIGNS SHALL BE USED AS NEEDED AND SHALL BE REMOVED OR COVERED AT NIGHT, WEEKENDS OR WHEN THE ACTIVITY OR CONDITION DOES NOT EXIST. NO FLASHER SHALL BE USED WITH A COVERED SIGN.
5. ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.
6. EXISTING TRAFFIC SIGNS MAY REQUIRE RELOCATION DURING STAGES OF CONSTRUCTION AND SHALL BE LOCATED AS REQUIRED BY THE ENGINEER IN THE FIELD.
7. "WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

LEGEND

- SIGN ON PERMANENT SUPPORT
- || TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS WITH SIGNS ON EACH SIDE

SIGN SIZES

M1-5a	= 24" x 24"
M2-1	= 21" x 15"
M3-1	= 24" x 12"
M3-2	= 24" x 12"
M3-3	= 24" x 12"
M3-4	= 24" x 12"
M4-8	= 24" x 12"
M4-8a	= 24" x 18"
M4-9	= 30" x 24"
M05-1 R	= 21" x 21"
M05-1 L	= 21" x 21"
M06-1	= 21" x 21"
M4-6	= 24" x 12"
R1-1	= 36" x 36"
R11-2B	= 48" x 30"
R11-3C	= 60" x 30"
W1-6	= 48" x 24"
W01-1 R	= 36" x 36"
W013-1	= 18" x 18"

→	W1-6
DETOUR NORTH COUNTY D	M4-8
DETOUR SOUTH COUNTY D	M3-1, 2, 3, 4
→	M1-5a
→	M05-1 R, 1 L, M06-1
END	M4-6
JCT	M2-1
DETOUR AHEAD	W20-2

GENERAL NOTES

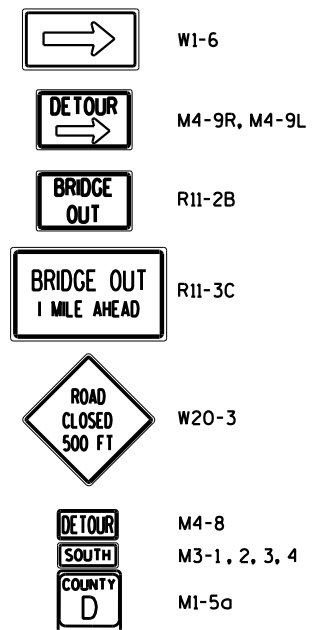
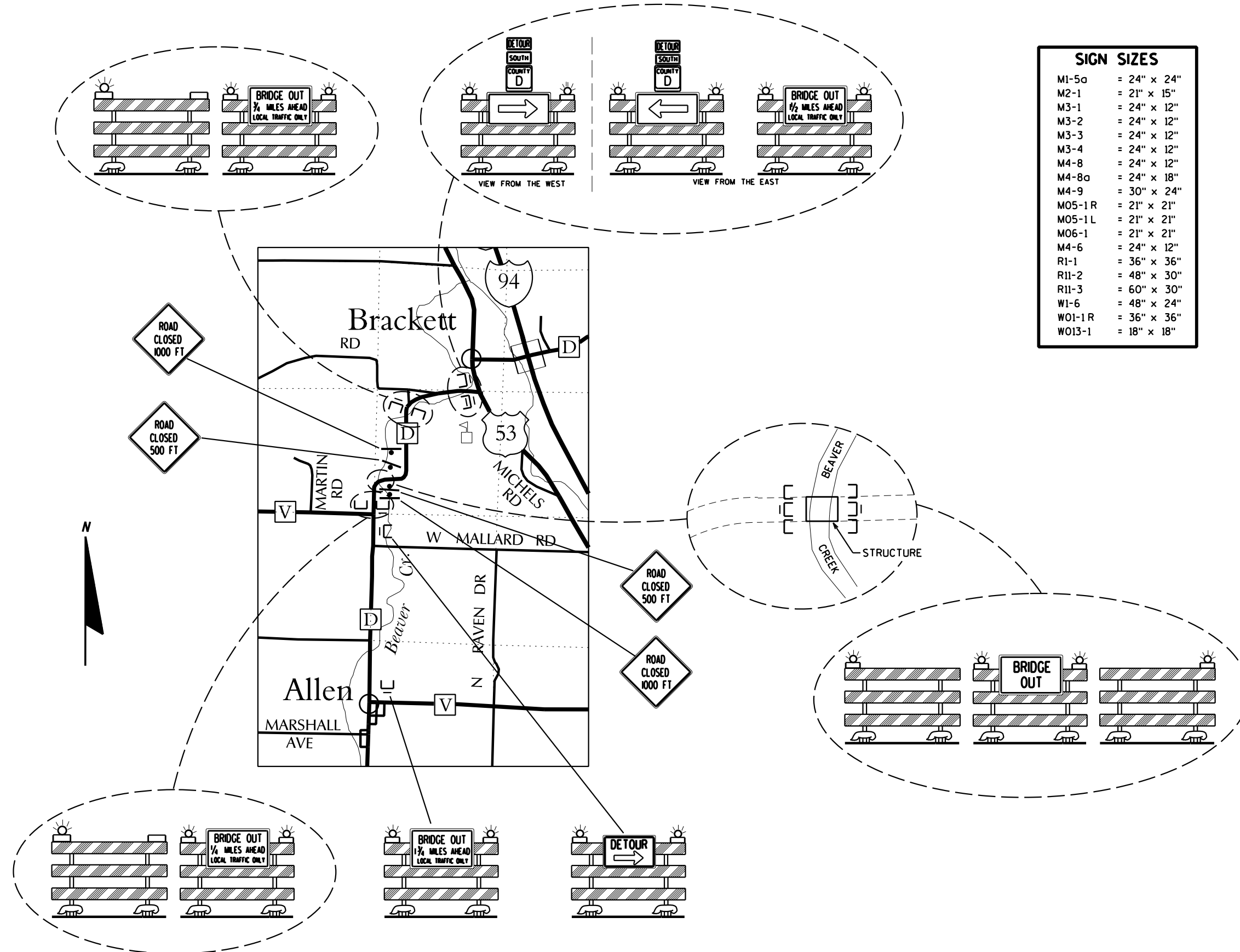
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R11-2	= 48" x 30"
R11-3	= 60" x 30"
W1-6	= 48" x 24"
W01-1R	= 36" x 36"
W013-1	= 18" x 18"

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS WITH SIGN
- TYPE III BARRICADE WITH ONE (1) TYPE "A" FLASHING LIGHT
- TYPE III BARRICADE WITH TWO (2) TYPE "A" FLASHING LIGHTS WITH SIGN WITH SIGNS ON EACH SIDE



DATE 04DEC13		E S T I M A T E O F Q U A N T I T I E S			
LINE		7828-03-70			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	2.000	2.000
0020	201.0205	GRUBBING	STA	2.000	2.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	2.000	2.000
0040	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 01. 10+00	LS	1.000	1.000
0060	205.0100	EXCAVATION COMMON **p**	CY	630.000	630.000
0070	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01. B-18-222	LS	1.000	1.000
0090	208.0100	BORROW	CY	307.000	307.000
0100	210.0100	BACKFILL STRUCTURE	CY	500.000	500.000
0110	213.0100	FINISHING ROADWAY (PROJECT) 01. 7828-03-70	EACH	1.000	1.000
0130	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	125.000	125.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	775.000	775.000
0150	415.0120	CONCRETE PAVEMENT 12-INCH	SY	48.000	48.000
0160	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	96.000	96.000
0170	455.0605	TACK COAT	GAL	28.000	28.000
0180	465.0105	ASPHALTIC SURFACE	TON	305.000	305.000
0190	502.0100	CONCRETE MASONRY BRIDGES	CY	250.000	250.000
0200	502.3200	PROTECTIVE SURFACE TREATMENT	SY	235.000	235.000
0210	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	5,850.000	5,850.000
0220	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	25,510.000	25,510.000
0240	513.7050	RAILING STEEL TYPE W (STRUCTURE) 01. B-18-222	LS	1.000	1.000
0250	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	26.000	26.000
0260	520.0112	CULVERT PIPE CLASS III 12-INCH	LF	64.000	64.000
0300	550.2106	PILING CIP CONCRETE 10 3/4 X 0.365-INCH	LF	1,080.000	1,080.000
0310	606.0300	RIPRAP HEAVY	CY	125.000	125.000
0320	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	210.000	210.000
0330	614.0920	SALVAGED RAIL	LF	361.000	361.000
0340	614.2500	MGS THRIE BEAM TRANSITION	LF	164.000	164.000
0350	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0360	619.1000	MOBILIZATION	EACH	0.660	0.660
0370	625.0500	SALVAGED TOPSOIL	SY	1,085.000	1,085.000
0380	627.0200	MULCHING	SY	1,640.000	1,640.000
0390	628.1504	SILT FENCE	LF	910.000	910.000
0400	628.1520	SILT FENCE MAINTENANCE	LF	2,730.000	2,730.000
0410	628.1550	SILT SCREEN	LF	170.000	170.000
0420	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	5.000	5.000
0430	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0440	628.2023	EROSION MAT CLASS II TYPE B	SY	430.000	430.000
0460	628.7504	TEMPORARY DITCH CHECKS	LF	50.000	50.000
0470	629.0210	FERTILIZER TYPE B	CWT	1.500	1.500
0480	630.0120	SEEDING MIXTURE NO. 20	LB	55.000	55.000
0490	630.0200	SEEDING TEMPORARY	LB	45.000	45.000
0500	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	4.000	4.000
0510	637.2230	SIGNS TYPE II REFLECTIVE F	SF	12.000	12.000
0520	642.5001	FIELD OFFICE TYPE B	EACH	0.500	0.500
0530	643.0100	TRAFFIC CONTROL (PROJECT) 01. 7828-03-70	EACH	1.000	1.000
0550	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	1,120.000	1,120.000
0560	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	1,760.000	1,760.000
0570	643.0900	TRAFFIC CONTROL SIGNS	DAY	800.000	800.000
0580	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 7828-03-70	EACH	1.000	1.000

DATE 04DEC13			E S T I M A T E O F Q U A N T I T I E S		
LINE			7828-03-70		
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0590	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	7,600.000	7,600.000
0600	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	275.000	275.000
0610	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	1,394.000	1,394.000
0620	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	300.000	300.000
0630	650.5000	CONSTRUCTION STAKING BASE	LF	300.000	300.000
0640	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	2.000	2.000
0650	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01. B-18-222	LS	1.000	1.000
0670	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 7828-03-70	LS	1.000	1.000
0690	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	300.000	300.000
0700	690.0150	SAWING ASPHALT	LF	67.000	67.000
0710	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500.000	500.000
0720	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	1,500.000	1,500.000
0730	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	600.000	600.000
0740	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	150.000	150.000

CLEARING AND GRUBBING (CATEGORY 0010)			203.0100 REMOVING SMALL PIPE CULVERTS				
STATION TO STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	STATION TO STATION	DESCRIPTION	LENGTH	LOCATION	EACH
Sta. 8+00 to Sta. 10+00	2	2	PE Sta. 8+68.3	12" Diameter	27'	25.7' LT	1
			FE Sta. 8+92.9	12" Diameter	26'	28' RT	1
			TOTAL				2

EARTHWORK SUMMARY (CATEGORY 0010)												
DIVISION	STATION TO STATION	LOCATION	**P** 205.0100 EXCAVATION COMMON		SALVAGED/ UNUSEABLE PAVEMENT MATERIAL (4) CY	AVAILABLE MATERIAL (5) CY	UNEXPANDED FILL CY	EXPANDED FILL (6) CY	MASS ORDINATE ±(7) CY	WASTE CY	208.0100 BORROW CY	COMMENTS:
			CUT (2) CY	EBS (3) CY								
1	8+25 TO 9+75.73	CTH D	440	0	0	440	57	73	367	367	0	
	10+24.27 TO 11+73.50	CTH D	190	0	0	190	382	497	-307	0	307	
GRANDTOTAL			630	0	0	630	439	570		367	307	
TOTAL EXCAVATION COMMON			630									

NOTES:
1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
2) SALVAGED/UNUSEABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
3) EBS EXCAVATION TO BE BACKFILLED WITH BORROW MATERIAL.
4) SALVAGED/UNUSEABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSEABLE PAVEMENT MATERIAL
6) EXPANDED FILL FACTOR = 1.30
EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
7) THE MASS ORDINATE ± QTY CALCULATED FOR THE DIVISION.
PLUS (+) QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.
MINUS (-) QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

213.0100 FINISHING ROADWAY (CATEGORY 0010)				BASE AGGREGATE DENSE (CATEGORY 0010)			
LOCATION	EACH			STATION TO STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1 1/4-INCH TON
PROJECT 7828-03-70	1			Sta. 8+25 to Sta. 9+75.73	LT	20	190
				Sta. 8+25 to Sta. 9+75.73	RT	20	195
				PE Sta. 9+68	LT	20	---
				FE Sta. 9+62.54	RT	15	---
				Sta. 10+24.27 to Sta. 11+73.50	LT	25	200
				Sta. 10.24.27 to Sta. 11+73.50	RT	25	190
				TOTALS			
						125	775

415.0120 CONCRETE PAVEMENT 12-INCH		
STATION TO STATION	LOCATION	SY
Sta. 9+58.63 to Sta. 9+74.29	LT	10
Sta. 9+58.63 to Sta. 9+79.58	RT	14
Sta. 10+20.42 to Sta. 10+41.37	LT	14
Sta. 10+25.70 to Sta. 10+41.37	RT	10
TOTALS		48

<u>415.0410 CONCRETE PAVEMENT APPROACH SLAB</u>	
STATION TO STATION	SY
Sta. 9+58.63 to Sta. 9+76.41	48
Sta. 10+23.59 to Sta. 10+41.37	48
TOTAL	96

455.0605 TACK COAT (CATEGORY 0010)		
STATION TO STATION	LOCATION	GAL
Sta. 8+25 to Sta. 9+58.63	Mainline	14
Sta. 10+41.37 to Sta. 11+73.50	Mainline	14
TOTAL		28

465.0105 ASPHALTIC SURFACE (CATEGORY 0010)		
STATION TO STATION	LOCATION	TON
Sta. 8+25 to Sta. 9+58.63	Mainline	155
Sta. 10+41.37 to Sta. 11+73.50	Mainline	150
TOTAL		305

520.0112 CULVERT PIPE CLASS III 12-INCH			
STATION TO STATION	LOCATION	THICKNESSS	LF
		(INCHES) STEEL	
PE Sta. 8+68	30.98' LT	0.064	34
FE Sta. 8+62.54	29.29' RT	0.064	30
TOTAL			64

614.0920 SALVAGED RAIL (CATEGORY 0010)		
STATION TO STATION	LOCATION	LF
Sta. 9+09 to Sta. 10+93	LT	186
Sta. 9+21 to Sta. 10+95	RT	175
TOTAL		361

614.2500 MGS THRIE BEAM TRANSITION (CATEGORY 0010)		
STATION TO STATION	LOCATION	LF
Sta. 9+38.80 to Sta. 9+72.56	18' LT	41
Sta. 9+44.75 to Sta. 9+78.90	18' RT	41
Sta. 10+21.10 to Sta. 10+55.25	18' LT	41
Sta. 10+27.44 to Sta. 10+61.20	18' RT	41
TOTAL		164

614.2610 MGS GUARDRAIL TERMINAL EAT (CATEGORY 0010)		
STATION TO STATION	LOCATION	EACH
Sta. 8+85.67 to Sta. 9+38.80	20'/18' LT	1
Sta. 8+91.62 to Sta. 9+44.75	20'/18' RT	1
Sta. 10+55.25 to Sta. 11+08.38	18'/20' LT	1
Sta. 10.61.20 to Sta. 11+14.33	18'/20' RT	1
TOTAL		4

619.1000 MOBILIZATION	
LOCATION	EACH
PROJECT 7828-03-70 (CATEGORY 0010)	0.23
PROJECT 7828-03-70 (CATEGORY 0020)	0.43
TOTAL	0.66

SALVAGED TOPSOIL, MULCHING, FERTILIZER, SEED & TEMPORARY SEED (CATEGORY 0010)

STATION TO STATION	LOCATION	625.0500	627.0200	629.0210	630.0120	630.0200
		SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING NO. 20 LB	SEEDING TEMPORARY LB
Sta. 8+25 to Sta. 11+73.50	Mainline	1,085	1,310	1.1	44	35
Undistributed		---	330	0.4	11	10
TOTALS		1,085	1,640	1.5	55	45

SILT FENCE & SILT FENCE MAINTENANCE (CATEGORY 0010)

STATION TO STATION	LOCATION	628.1504	628.1520
		LF	MAINTENANCE LF
Sta. 8+25 to Sta. 8+62	LT	45	135
Sta. 8+74 to Sta. 9+79	LT	120	360
Sta. 8+25 to Sta. 8+54	RT	35	105
Sta. 8+69 to Sta. 9+89	RT	140	420
Sta. 9+96 to Sta. 11+73.50	LT	205	615
Sta. 10+17 to Sta. 11+73.50	RT	180	540
Undistributed		185	555
TOTALS		910	2,730

628.1550 SILT SCREEN (CATEGORY 0010)

STATION TO STATION	LF
South Abutment	70
North Abutment	65
Undistributed	35
TOTALS	170

MOBILIZATIONS EROSION CONTROL & EMERGENCY EROSION CONTROL (CATEGORY 0010)

LOCATION	628.1905	628.1910
	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 7828-03-70	5	2

628.2023 EROSION MAT CLASS II TYPE B (CATEGORY 0010)

STATION TO STATION	LOCATION	SY
Sta. 8+25 to Sta. 8+52	LT	20
Sta. 8+25 to Sta. 8+50	RT	20
Sta. 8+83 to Sta. 9+57	LT	60
Sta. 8+78 to Sta 9+69	RT	80
Sta. 10+31 to Sta 10+83	LT	80
Sta. 10+43 to Sta. 10+89	RT	85
Undistributed		85
TOTAL		430

628.7504 TEMPORARY DITCH CHECKS (CATEGORY 0010)

LOCATION	LF
UNDISTRIBUTED	50

634.0612 WOOD POSTS 4X6 INCH X 12 FT (CATEGORY 0010)

STATION	LOCATION	EACH
Sta. 9+71	LT	1
Sta. 9+78	RT	1
Sta. 10+22	LT	1
Sta. 10+29	RT	1
TOTAL		4

637.2230 SIGNS TYPE II REFLECTIVE F (CATEGORY 0010)

STATION	LOCATION	DESCRIPTION	SF
Sta. 9+71	LT	W5-52L	3
Sta. 9+78	RT	W5-52R	3
Sta. 10+22	LT	W5-52R	3
Sta. 10+29	RT	W5-52L	3
TOTAL			12

642.5001 FIELD OFFICE TYPE B (CATEGORY 0010)

LOCATION	EACH
PROJECT 7828-03-70	0.5

643.0100 TRAFFIC CONTROL (CATEGORY 0010)

LOCATION	EACH
PROJECT 7828-03-70	1

643.0420 TRAFFIC CONTROL BARRICADES TYPE III (CATEGORY 0010)

LOCATION	EACH	CALENDAR DAYS	DAYS
PROJECT 7828-03-70	14	80	1,120

643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (CATEGORY 0010)

LOCATION	EACH	CALENDAR DAYS	DAYS
PROJECT 7828-03-70	22	80	1,760

643.0900 TRAFFIC CONTROL SIGNS (CATEGORY 0010)

LOCATION	EACH	CALENDAR DAYS	DAYS
PROJECT 7828-30-70	10	80	800

643.2000 TRAFFIC CONTROL DETOUR (CATEGORY 0010)

LOCATION	EACH
PROJECT 7828-03-70	1

643.3000 TRAFFIC CONTROL DETOUR SIGNS (CATEGORY 0010)

LOCATION	EACH	CALENDAR DAYS	DAYS
PROJECT 7828-30-70	95	80	7,600

646.0106 PAVEMENT MARKING EPOXY 4-INCH (CATEGORY 0010)

STATION	DESCRIPTION	LF
Sta. 8+25 to Sta. 11+73.50	Double Yellow Centerline	697
Sta. 8+25 to Sta. 11+73.50	White Edgeline	697
TOTAL		1,394

CONSTRUCTION STAKING

CATEGORY	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 PIPE CULVERTS EACH	650.6500 STRUCTURE LAYOUT LS	650.9910 SUPPLEMENTARY CONTROL LS	650.9920 SLOPE STAKES LF
0010	Sta. 8+50 to Sta. 11+73.50	300	300	---	---	1	300
0010	PE Sta. 8+68 LT	---	---	1	---	---	---
0010	FE Sta. 8+62.64 RT	---	---	1	---	---	---
0020	B-18-222	---	---	---	1	---	---
TOTALS		300	300	2	1	1	300

690.0150 SAWING ASPHALT (CATEGORY 0010)

STATION	LOCATION	LF
Sta. 8+25	Mainline	34
Sta. 11+73.50	Mainline	33
TOTAL		67

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	TOTAL ACRES	NEW	EXISTING	TOTAL FEE	TOTAL ACRES REMAINING
1	DANIEL CHARLES SOUSEK AND TAMMY J. SOUSEK	FEE	4.34	0.11	0.33	0.44	3.90
2	DONALD J. PIEPER	FEE	35.66	0.12	0.32	0.44	35.22
50	EAU CLAIRE ELECTRIC COOPERATIVE	RELEASE OF RIGHTS					
51	CENTURYTEL, INC.	RELEASE OF RIGHTS					

EAU CLAIRE ELECTRIC COOPERATIVE

V. 443, P. 555 DOC NO: 432952 - PARCEL 1
V. 585, P. 474 DOC NO: 517823 - PARCEL 1
V. 1154, P. 266 DOC NO: 763339 - PARCEL 1
V. 157, P. 153 DOC NO: 105563 - PARCEL 1 & 2
V. 390, P. 172 DOC NO: 395842 - PARCEL 2
V. 592, P. 587 DOC NO: 521390 - PARCEL 2
V. 864, P. 793 DOC NO: 651080 - PARCEL 2
DOC NO: 943665 - PARCEL 2

CENTURYTEL, INC.

V. 866, P. 539 DOC NO: 651769 - PARCEL 1
V. 326, P. 706 DOC NO: 365227 - PARCEL 1 & 2

POINT	Y	X
1	232928.37	373990.85
2	232939.41	373980.69
3	232955.72	373998.39
4	232976.04	374020.46
5	233175.53	374237.01
6	233164.50	374247.17
7	233105.66	374301.37
8	233094.63	374311.54
9	232858.50	374055.22
10	232869.54	374045.06

NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83(2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARING AND GRID DISTANCES, GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE II (3/4" X 24" REINFORCEMENT BAR WEIGHING 1.13 LB/FT) AND ARE PLACED PRIOR TO THE COMPLETION OF THE PROJECT OR AT THE TIME OF LAND TITLE TRANSFER.

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

EXISTING RIGHT OF WAY WIDTH OF 80' BASED ON CONVEYANCE DOCUMENT RECORDED IN VOLUME 150, PAGE 117 AS DOCUMENT NUMBER 191836, DATED 6/3/1936. THE CENTERLINE OF EXISTING ROAD WAS USED TO DEFINE CENTER OF THE RIGHT OF WAY

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

END RELOCATION ORDER

STA. = 11+73.50
X = 374274.27
Y = 233135.08
1218.74' NORTH AND 572.70' EAST
OF THE SOUTHWEST CORNER OF
SECTION 33 TOWNSHIP 26 NORTH
RANGE 8 WEST
TOTAL NET LENGTH OF
RELOCATION ORDER 0.066 MILES

TOWN

WASHINGTON

SW-SW
33-26-8

CONVENTIONAL UTILITY SYMBOLS

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

CONVENTIONAL ABBREVIATIONS

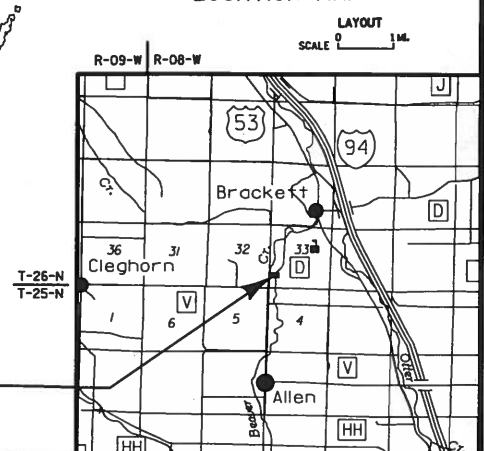
ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET. AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	CURVE DATA	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	IF UNLESS NOTED	PROPOSED R/W LINE	—
R/W MONUMENT	• (SET)	EXISTING H.E. LINE	—
R/W STANDARD	• (SET)	PROPERTY LINE	—
SIGN	ISIGN	LOT & TIE LINES	—
SECTION CORNER MONUMENT	•	SLOPE INTERCEPTS	—
SECTION CORNER SYMBOL	•	CORPORATE LIMITS	—
FEE (HATCH VARIES)	•	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	—
TEMPORARY LIMITED EASEMENT	•	NO ACCESS (BY ACQUISITION)	—
PERMANENT LIMITED EASEMENT	•	NO ACCESS (BY STATUTORY AUTHORITY)	—
R/W BOUNDARY POINT	•	SECTION LINE	—
PARCEL NUMBER	•	QUARTER LINE	—
UTILITY PARCEL NUMBER	•	SIXTEENTH LINE	—
SIGN NUMBER (OFF PREMISE)	•	EXISTING CENTERLINE	—
BUILDING	•	PROPOSED REFERENCE LINE	—
	•	PARALLEL OFFSET	—

R/W PROJECT NUMBER 7828-03-00	SHEET NUMBER 4.01	TOTAL SHEETS 1
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR CTH V - USH 53 (BEAVER CREEK BRIDGE B180155)		
CTH D	EAU CLAIRE COUNTY	
CONSTRUCTION PROJECT NUMBER 7828-03-70		

LOCATION MAP

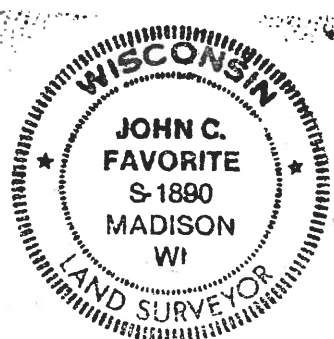


PLAT PREPARED BY

AVRES ASSOCIATES

Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54601

THIS SURVEY IS PREPARED AT THE REQUEST OF THE EAU CLAIRE COUNTY HIGHWAY DEPARTMENT. THE FIELD SURVEY WAS PERFORMED IN AUGUST 2011. THIS SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



JOHN C. FAVORITE, RLS JULY 3, 2013
S-1890 DATE

REVISION DATE: EAU CLAIRE COUNTY

APPROVED FOR EAU CLAIRE COUNTY HIGHWAY DEPARTMENT
DATE: 7-10-2013 COMMISSIONER

NOTES:
FOR ALIGNMENT CONTROLS, TIES, AND
GUARDRAIL LAYOUT, SEE ALIGNMENT CONTROLS,
TIES, & GUARDRAIL LAYOUT SHEET.

SALVAGE EXISTING GUARDRAIL
TO EAU CLAIRE COUNTY

CONSTRUCT PE
STA. 8+68, LT.
REMOVE EXISTING 12" ϕ CP
STA. 8+68.3, 25.7' LT.
NEW - 12" ϕ CP REQ'D.
STA. 8+68, 30.98' LT.
L = 34'
INLET EL. 951.90
OUTLET EL. 951.03

ORIGIN OF LEVELS
EAU CLAIRE COUNTY GPS POINT
PID SC3108
BM 30JWO 1972
EL. = 951.93
(NAVD88)

BEGIN PROJECT
STA. 8+25
(SAWCUT REQUIRED)
Y=232898.95
X=374017.95

CONSTRUCT FE
STA. 8+62.54, RT.
REMOVE EXISTING 12" ϕ CP
STA. 8+92.9, 28' RT.
NEW - 12" ϕ CP REQ'D.
STA. 8+62.54, 29.29' RT.
L = 30'
INLET EL. 951.97
OUTLET EL. 951.05

END PROJECT
STA. 11+73.50
(SAWCUT REQUIRED)
Y = 233135.08
X = 374274.27

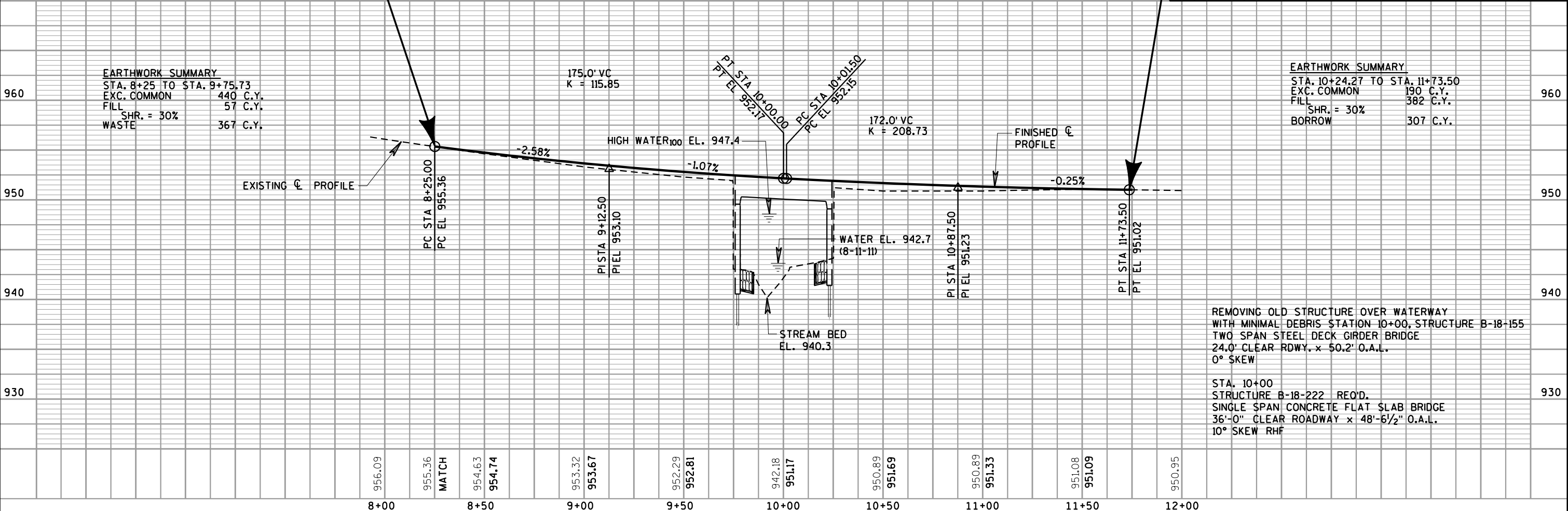
BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	9+20	60'd SPK IN PP, 34' RT.	953.78
2	9+75	CHIS. SO. SW COR. OF BRIDGE, 14' RT.	952.60

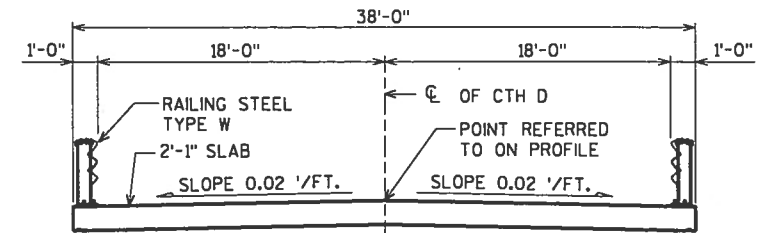
NET LENGTH OF CENTERLINE STA. 8+25 TO 11+73.50 = 348.50 LIN. FT.

EARTHWORK SUMMARY
STA. 8+25 TO STA. 9+75.73
EXC. COMMON 440 C.Y.
FILL 57 C.Y.
SHR. = 30%
WASTE 367 C.Y.

EARTHWORK SUMMARY
STA. 10+24.27 TO STA. 11+73.50
EXC. COMMON 190 C.Y.
FILL 382 C.Y.
SHR. = 30%
BORROW 307 C.Y.

REMOVING OLD STRUCTURE OVER WATERWAY
WITH MINIMAL DEBRIS STATION 10+00, STRUCTURE B-18-155
TWO SPAN STEEL DECK GIRDER BRIDGE
24.0' CLEAR RDWY. x 50.2' O.A.L.
0° SKEW
STA. 10+00
STRUCTURE B-18-222 REQ'D.
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
36'-0" CLEAR ROADWAY x 48'-6 1/2" O.A.L.
10° SKEW RHF





CROSS SECTION THRU ROADWAY

DESIGN DATA

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.07
OPERATING RATING FACTOR : 1.39
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

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

CONCRETE MASONRY	{ SLAB _____	$f'_c =$	4,000 p.s.i.
	{ ALL OTHER _____	$f'_c =$	3,500 p.s.i.
HIGH STRENGTH BAR	STEEL REINFORCEMENT (GRADE 60) _____	$f_y =$	60,000 p.s.i.

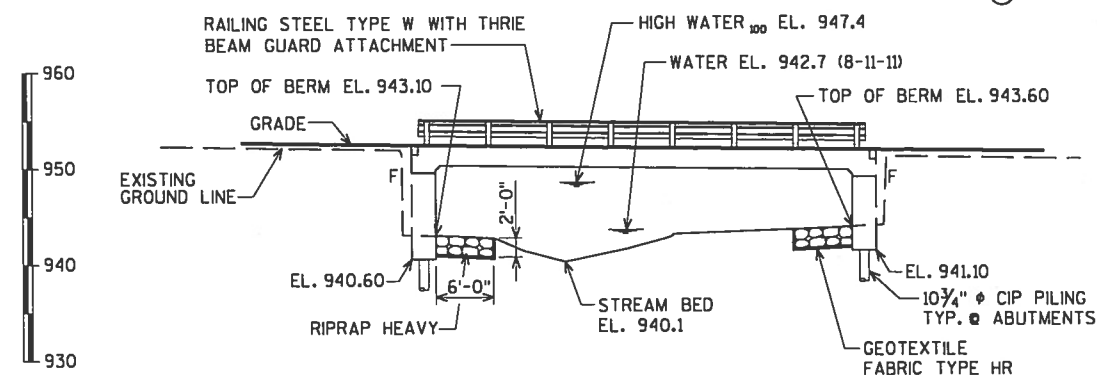
DRAINAGE AREA = 9.26 sq. mi.
WATERWAY AREA = 112 sq. ft.
V = 7.1 f.p.s.
Q₁₀₀ = 800 c.f.s.
HIGH WATER₁₀₀ EL. 947.4
HIGH WATER₂ EL. 944.8
RDWY. OVERFLOW = N/A
SCOUR CRITICAL CODE = 8

SOUTH ABUTMENT TO BE SUPPORTED ON 10 $\frac{3}{4}$ " ϕ x 0.365" CIP PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS $\pm$ PER
PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED LENGTH 65'-0".

NORTH ABUTMENT TO BE SUPPORTED ON 10 $\frac{3}{4}$ " ϕ x 0.365" CIP PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS $\pm$ PER
PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED LENGTH 55'-0".

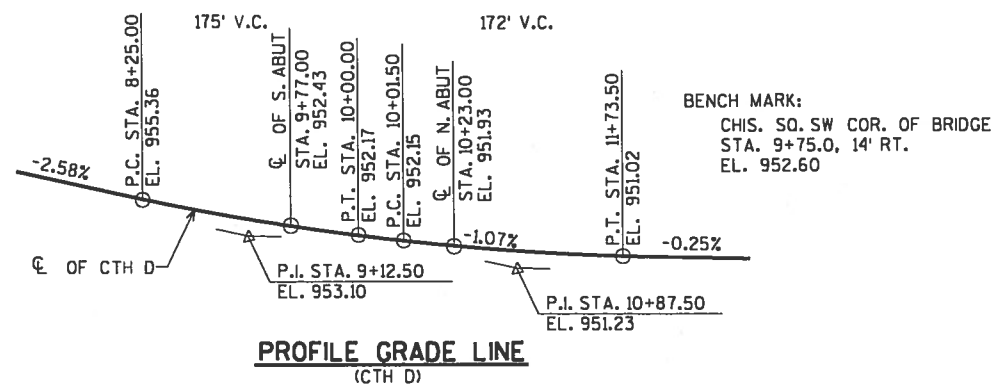
*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

A.D.T. = 1150 (2014)
A.D.T. = 1400 (2034)
R.D.S. = 55 M.P.H.



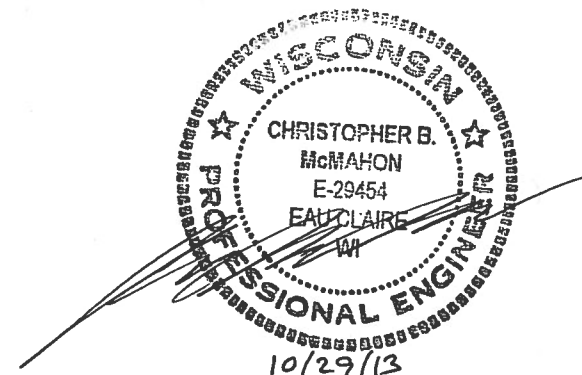
ELEVATION

(NORMAL TO $\mathbb{C}$ OF CREEK)



LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT WING DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT WING DETAILS
8. ABUTMENT DETAILS & BILL OF BARS
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE DETAILS
11. RAILING STEEL TYPE W



BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
AYRES ASSOCIATES		3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> KAR CHIEF STRUCTURES DESIGN ENGINEER		11/26/13 DATE
STRUCTURE B-18-222			
CTH D OVER BEAVER CREEK			
COUNTY EAU CLAIRE	TOWN/CITY/VILLAGE WASHINGTON		
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY CJM	DESIGN CK'D. JCK	DRAWN BY KAZ	PLANS CK'D. CBM
GENERAL PLAN			SHEET 1 OF 11

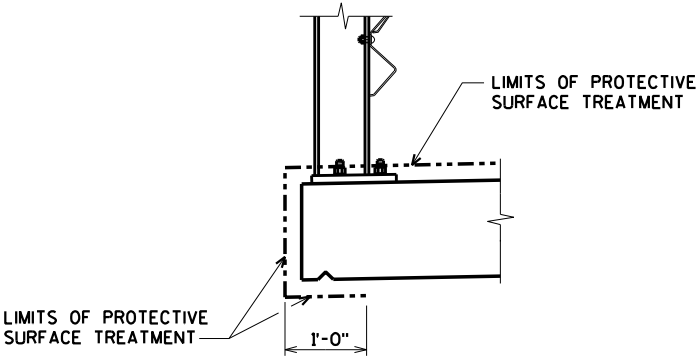
\$PRNAME\$
U:\42-0835.00 - Eau Claire Co. CTH D over Beaver Creek\BRIDGE\420835qbFINAL.dgn

STATE PROJECT NUMBER

7828-03-70

TOTAL ESTIMATED QUANTITIES

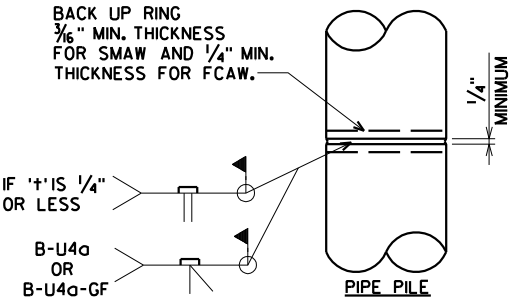
BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL	CATEGORY 0020	CATEGORY 0030
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	-----	-----	-----	1	1	-----
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-18-222	LS	-----	-----	-----	1	1	-----
210.0100	BACKFILL STRUCTURE	CY	270	230	-----	500	480	20
502.0100	CONCRETE MASONRY BRIDGES	CY	55	49	146	250	239	11
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	235	235	224	11
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	2,970	2,880	-----	5,850	5,610	240
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1,910	1,860	21,740	25,510	24,560	950
513.7050	RAILING STEEL TYPE W B-18-222	LS	-----	-----	-----	1	1	-----
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13	13	-----	26	26	-----
550.2106	PILING CIP CONCRETE 10¾ X 0.365-INCH	LF	585	495	-----	1,080	1,080	-----
606.0300	RIPRAP HEAVY	CY	60	65	-----	125	125	-----
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	105	105	-----	210	206	4
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	135	140	-----	275	275	-----
	NON-BID ITEMS							
	FILLER	SIZE	-----	-----	-----	½" & ¾"	½" & ¾"	½" & ¾"



PROTECTIVE SURFACE TREATMENT DETAIL

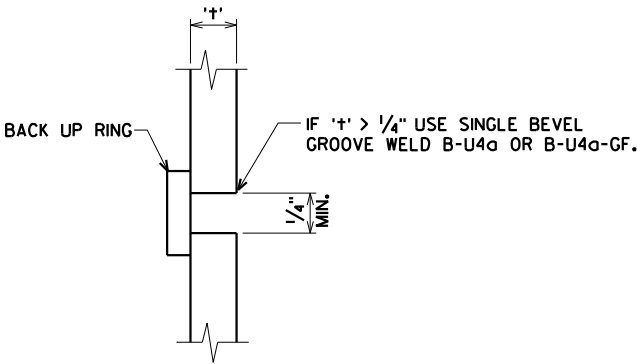
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.
THE EXISTING STRUCTURE, B-18-155, TO BE REMOVED, IS A TWO SPAN STEEL DECK GIRDER BRIDGE, 50.2 FT. LONG WITH A 24.0 FT. CLEAR ROADWAY WIDTH.
AT BACKFACE OF ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.
TWO FOOT ADDITIONAL WIDTH TO BE 100% FUNDED BY COUNTY. THE QUANTITIES FOR THIS ADDITIONAL WIDTH ARE INCLUDED IN CATEGORY 0030.



PILE SPLICE DETAIL

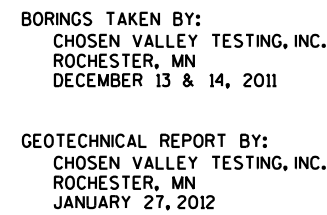
CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
GRINDING MAY BE USED IN LIEU OF BACKGOUGING.



CIP PILE WELD DETAIL

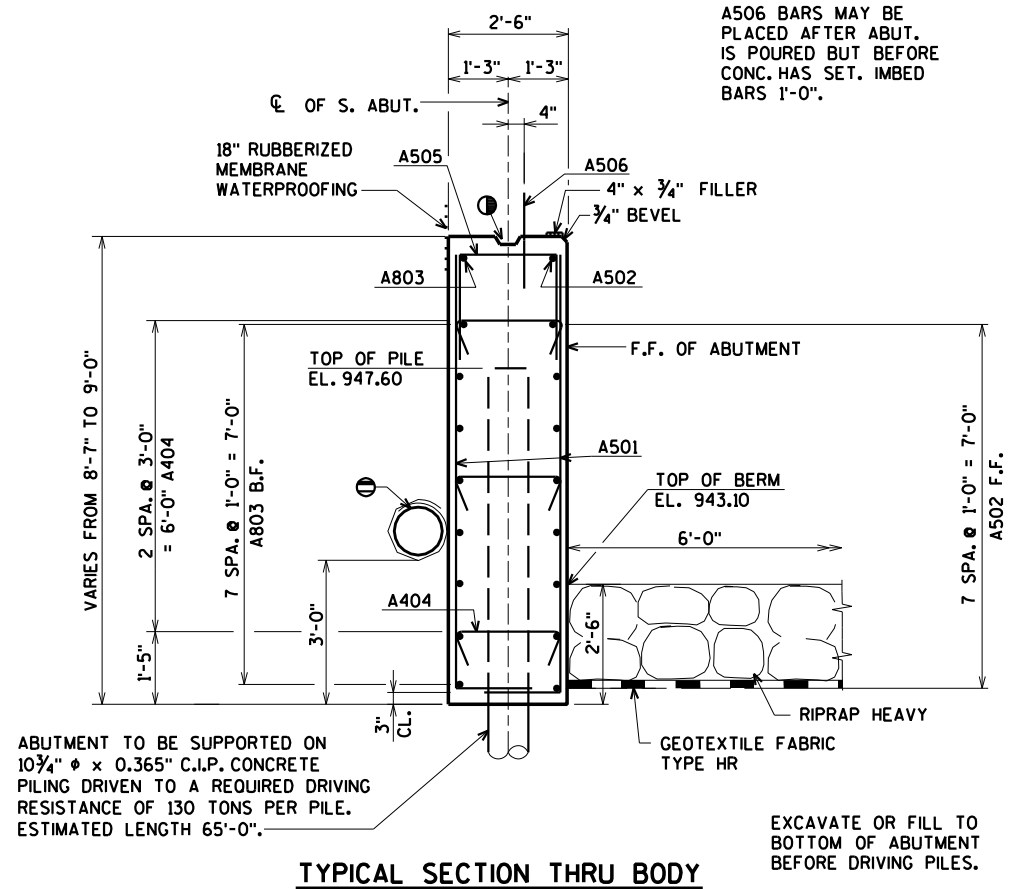
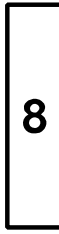
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
	DRAWN BY	KAZ	PLANS CK'D. JCK/KLW
QUANTITIES AND NOTES			SHEET 2 OF 11

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

8

\$PRFNAME\$
U:±42-0835.00 - Eau Claire Co. CTH D over Beaver Creek±BRIDGE±420835_abut.dgn

7828-03-70



NOTE: DO NOT PLACE FILL ABOVE
THREE FEET FROM BOTTOM OF
ABUTMENT UNTIL SUPERSTRUCTURE
IS IN PLACE.

⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

KEYED CONST. JOINT - FORMED
BY A BEVELED 2" x 6".

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING
TO EXTEND FROM BRIDGE SEAT TO TOP OF
WING.

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

ORIGINAL PLANS PREPARED BY

AYRES
ASSOCIATES

3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

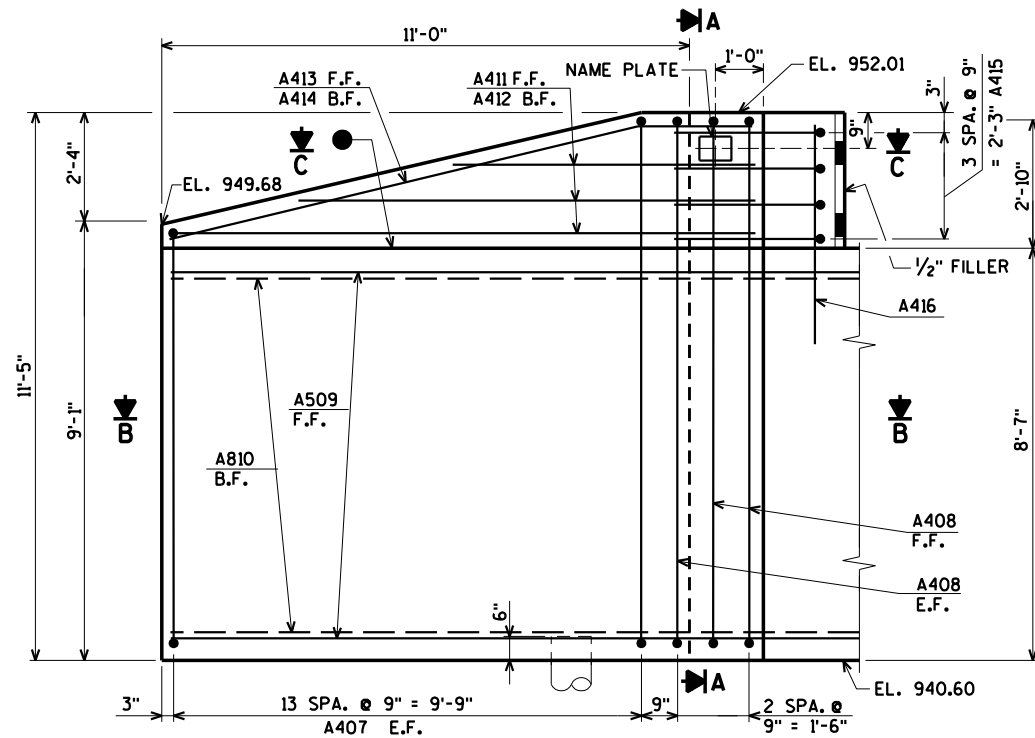
WORK THIS SHEET WITH SHEETS 5 & 8.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
DRAWN BY		KAZ	PLANS CK'D. JCK/KLW
SOUTH ABUTMENT		SHEET 4 OF 11	

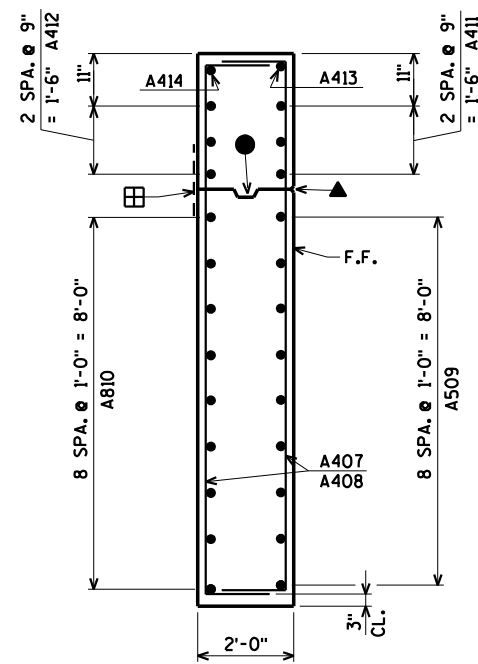
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U:\42-0835.00 - Eau Claire Co. CTH D over Beaver Creek\BRIDGE\420835_abut.dgn

STATE PROJECT NUMBER

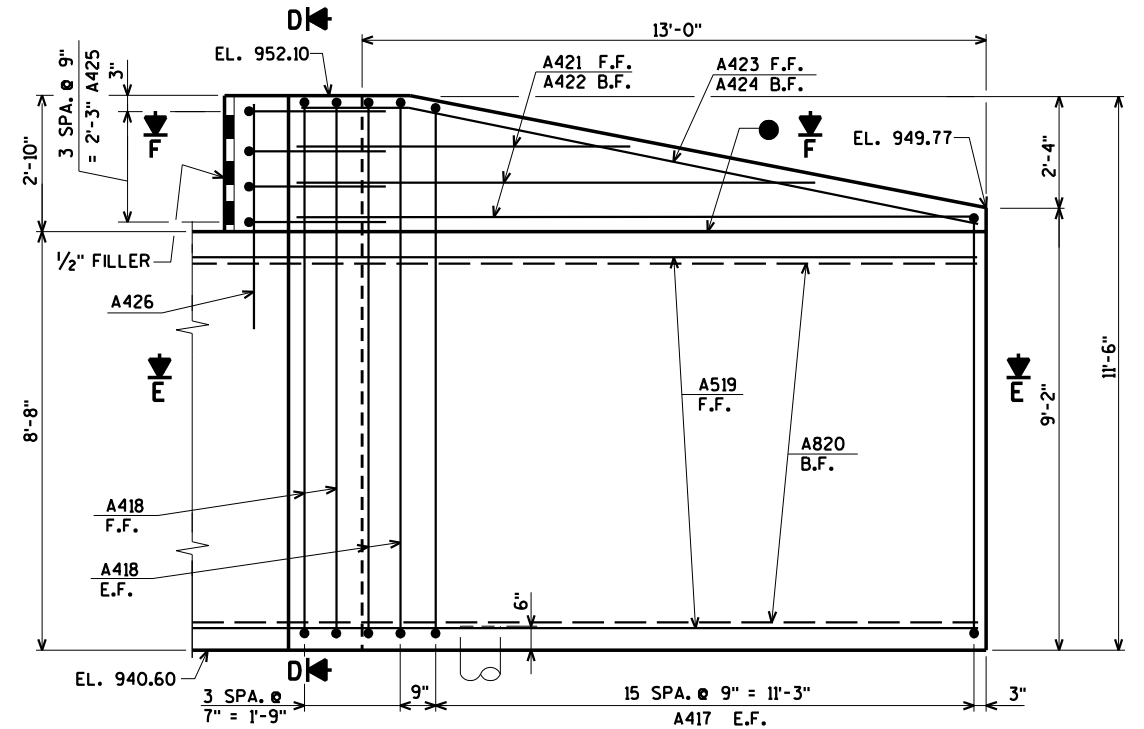
7828-03-70



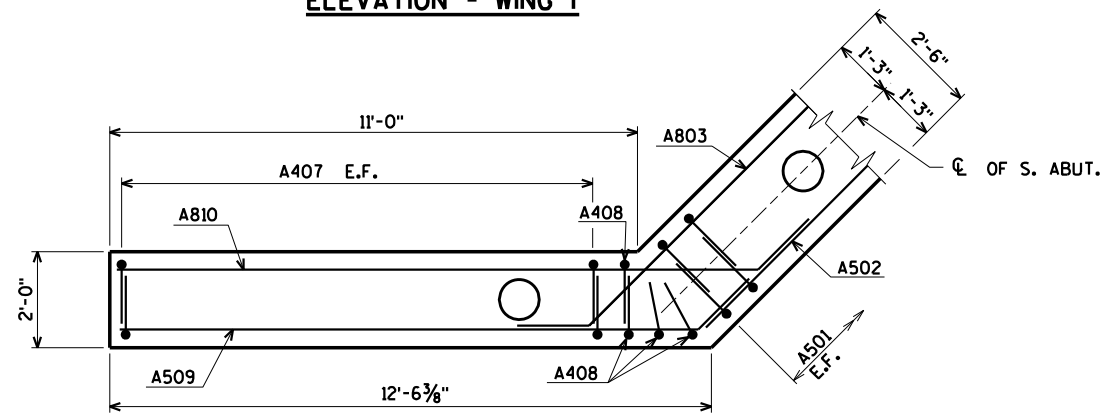
ELEVATION - WING 1



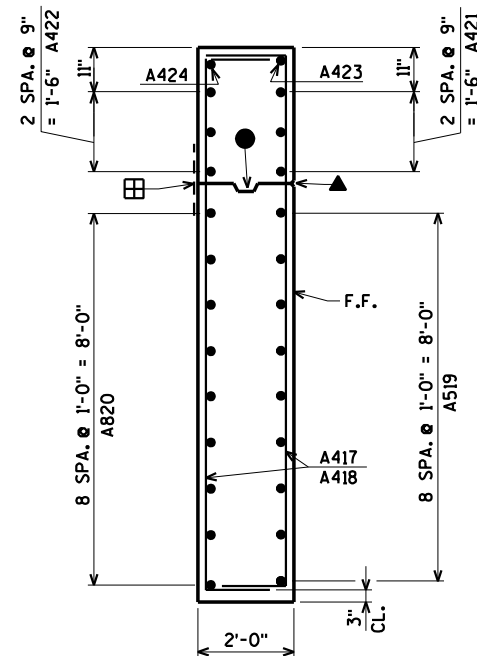
SECTION A



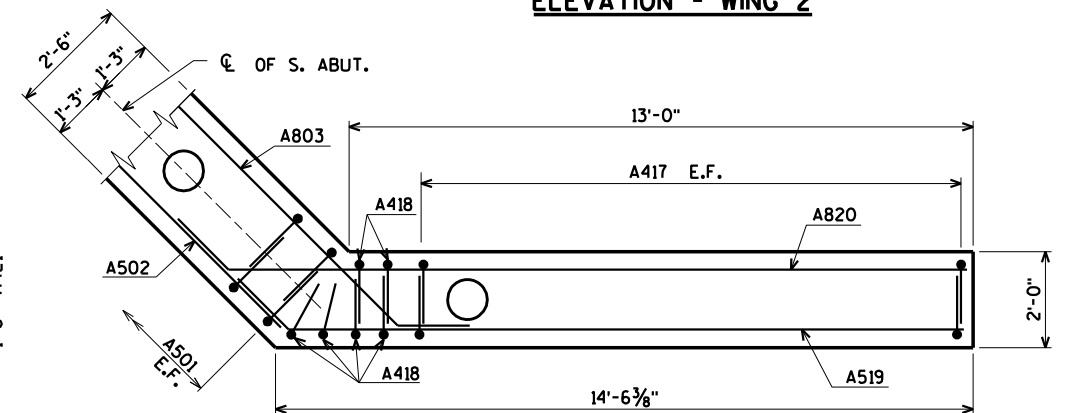
ELEVATION - WING 2



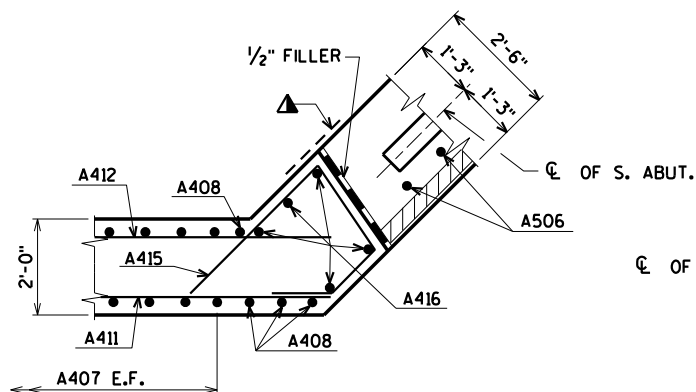
SECTION B



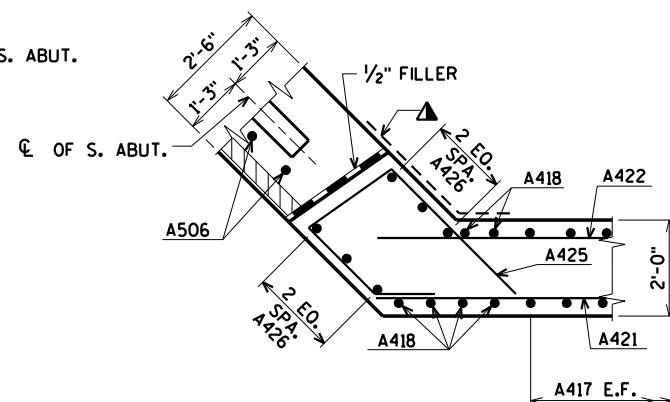
SECTION D



SECTION E



SECTION C



SECTION F

- ▲ 3/4" 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
- OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
- ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BEAM SEAT TO TOP OF WINGWALL.
- 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
- B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
www.AyresAssociates.com

WORK THIS SHEET WITH SHEETS 4 & 8.

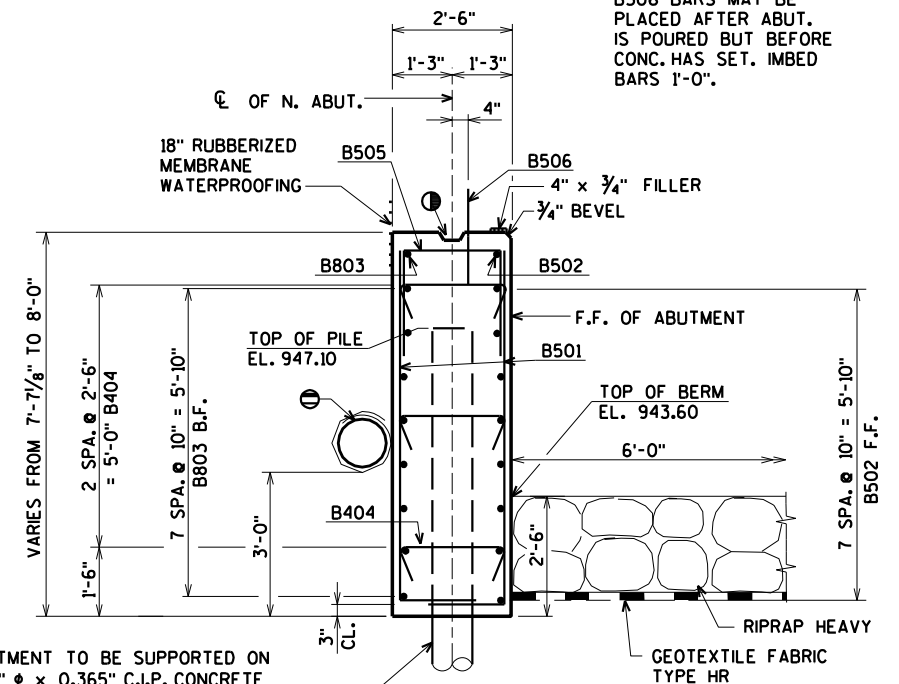
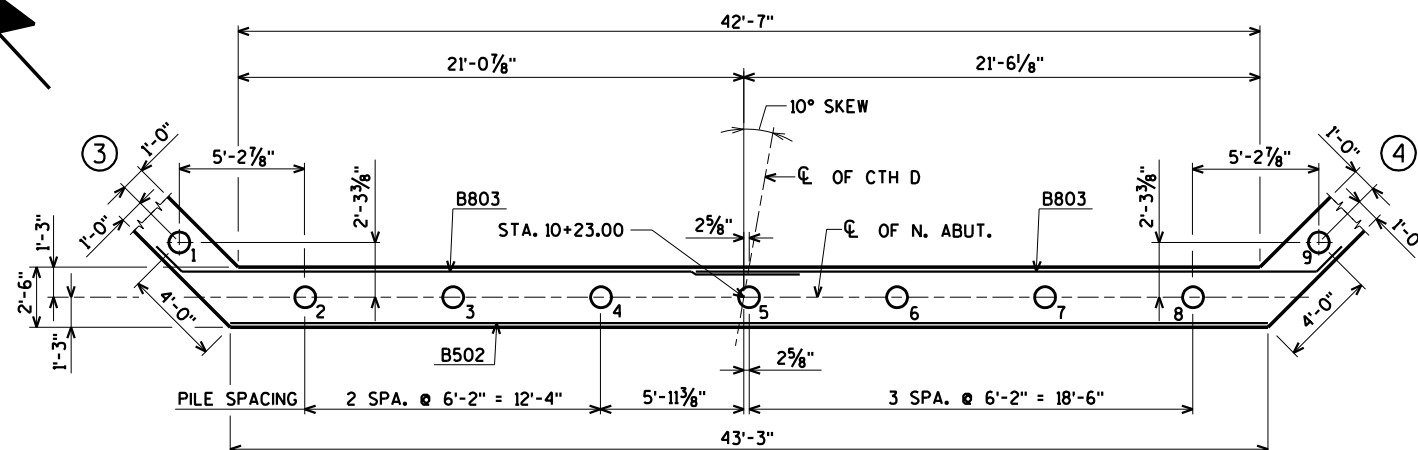
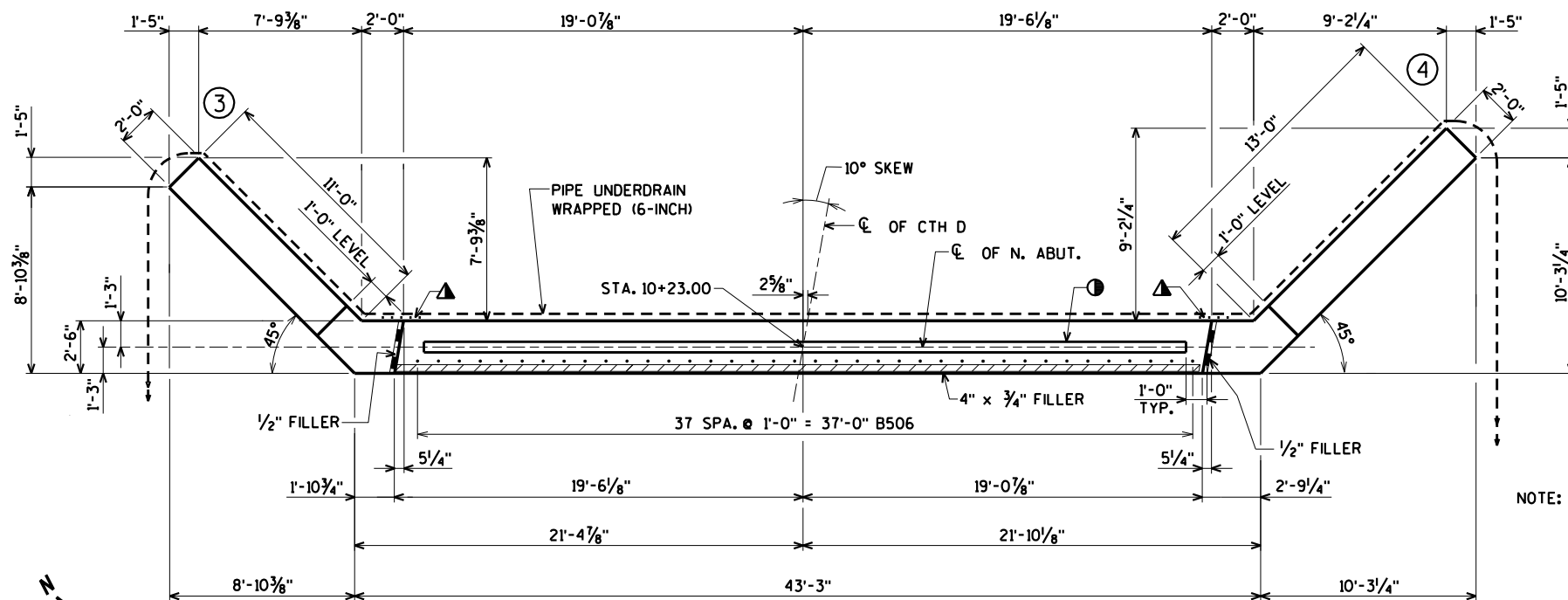
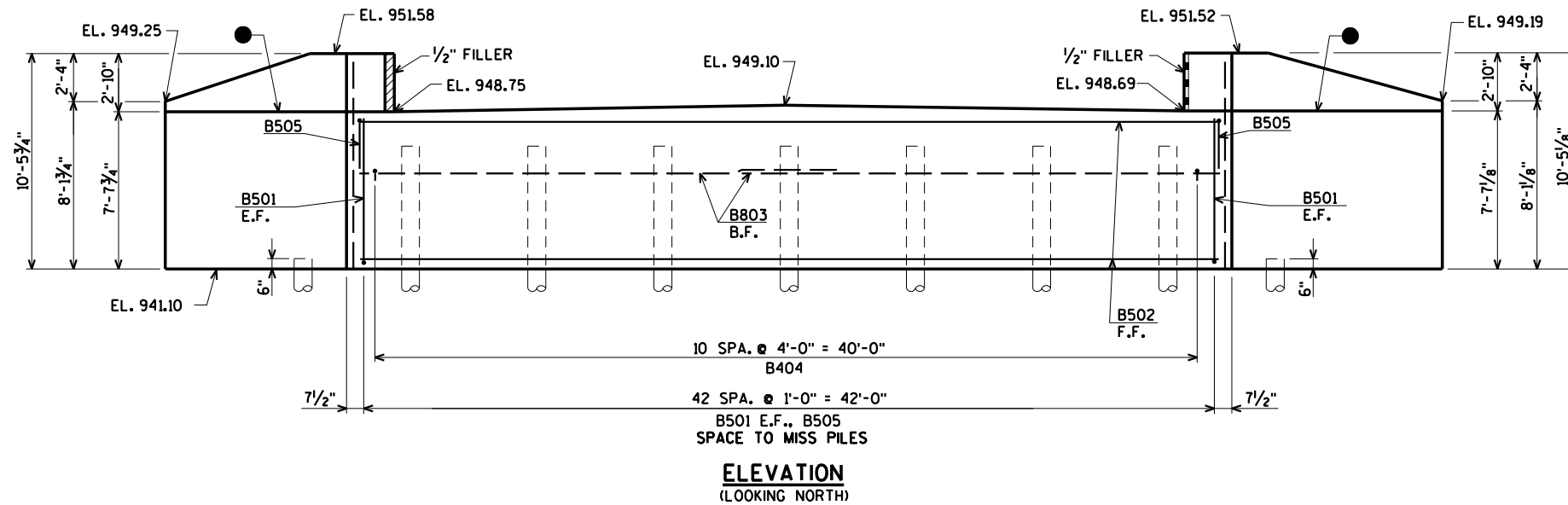
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
SOUTH ABUTMENT WING DETAILS			SHEET 5 OF 11

\$PRNAME\$
U:\42-0835.00 - Eau Claire Co. CTH D over Beaver Creek\BRIDGE\420835_abut.dgn

NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF
1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

7828-03-70



ABUTMENT TO BE SUPPORTED ON
10 3/4" ϕ x 0.365" C.I.P. CONCRETE
PILING DRIVEN TO A REQUIRED DRIVING
RESISTANCE OF 130 TONS PER PILE.
ESTIMATED LENGTH 55'-0".

EXCAVATE OR FILL TO
BOTTOM OF ABUTMENT
BEFORE DRIVING PILES.

NOTE: FOR RODENT SHIELD DETAIL
SEE SHEET 8.

NOTE: DO NOT PLACE FILL ABOVE
THREE FEET FROM BOTTOM OF
ABUTMENT UNTIL SUPERSTRUCTURE
IS IN PLACE.

⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5%
MIN. TO SUITABLE DRAINAGE. ATTACH RODENT
SHIELD AT ENDS OF PIPE UNDERDRAIN. RODENT
SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE
UNDERDRAIN WRAPPED 6-INCH".

● OPT. KEYED CONST. JOINT - FORMED
BY A BEVELED 2' x 6".

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▲ 18" RUBBERIZED MEMBRANE WATERPROOFING
TO EXTEND FROM BRIDGE SEAT TO TOP OF
WING.

FOR PILE SPlice DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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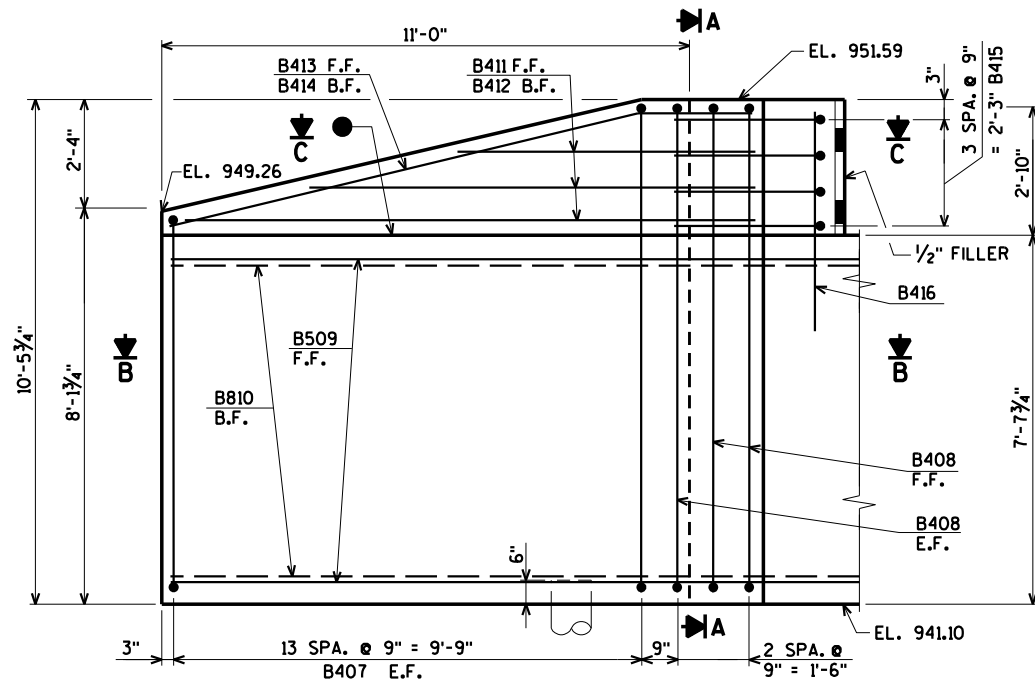
WORK THIS SHEET WITH SHEETS 7 & 8.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
NORTH ABUTMENT		SHEET 6 OF 11	

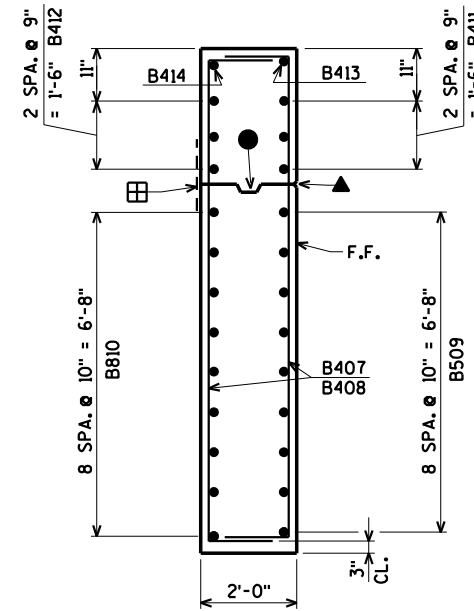
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U:\42-0835,00 - Eau Claire Co. CTH D over Beaver Creek\BRIDGE\420835_abut.dgn

STATE PROJECT NUMBER

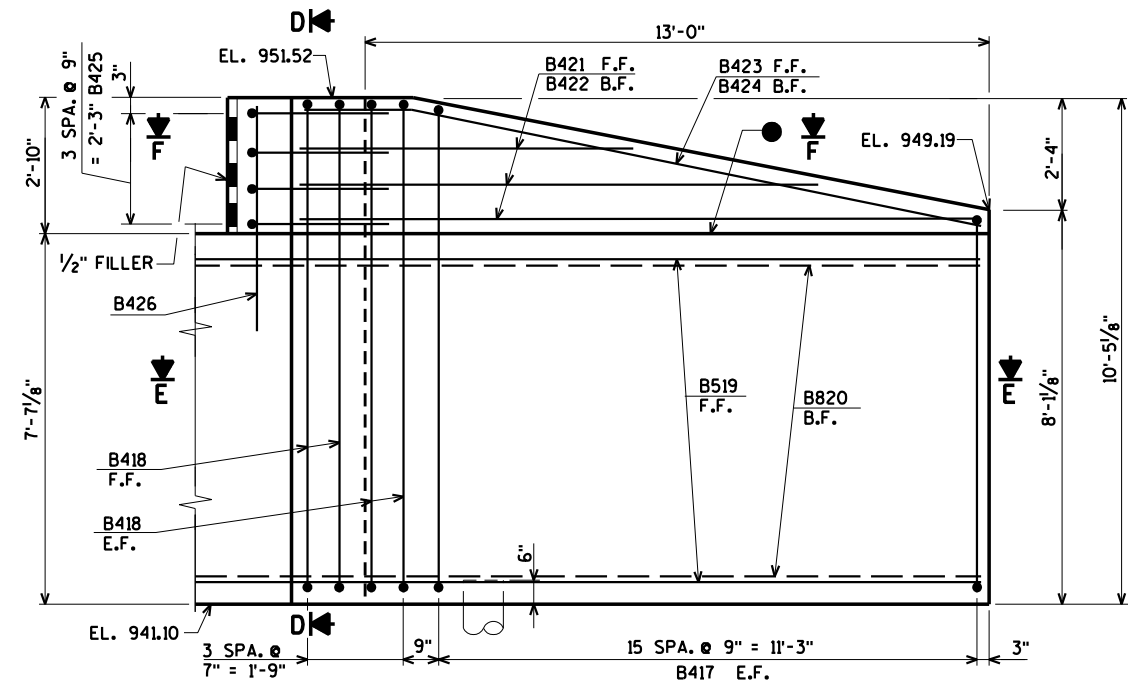
7828-03-70



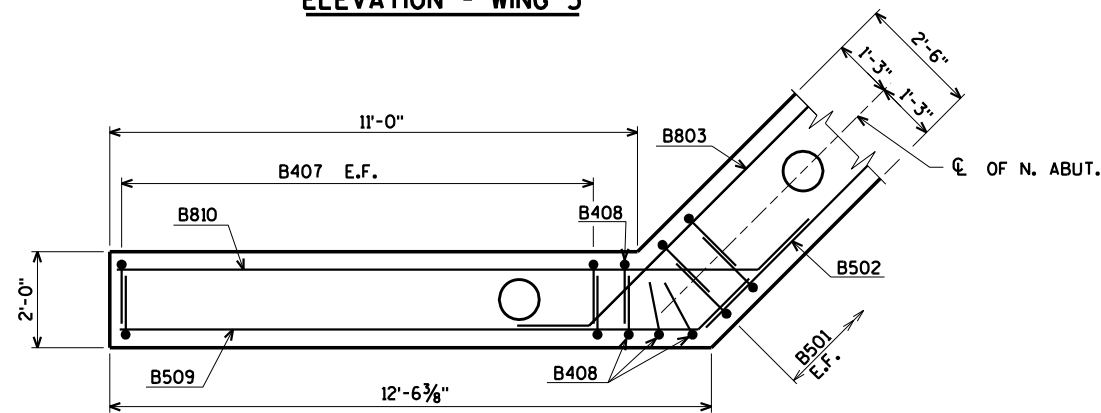
ELEVATION - WING 3



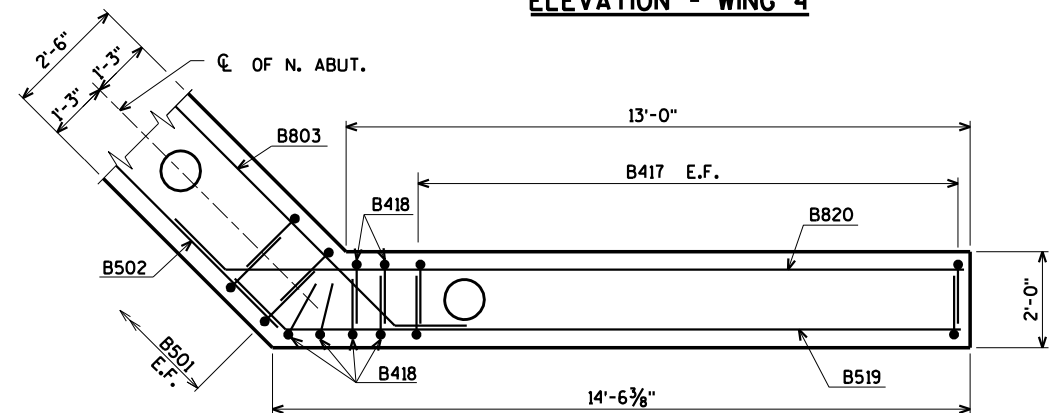
SECTION A



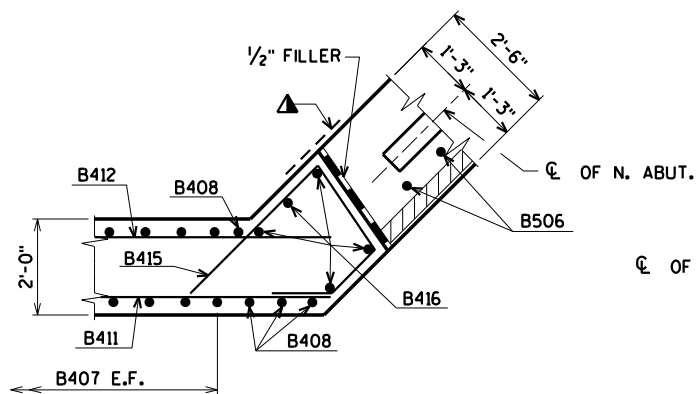
ELEVATION - WING 4



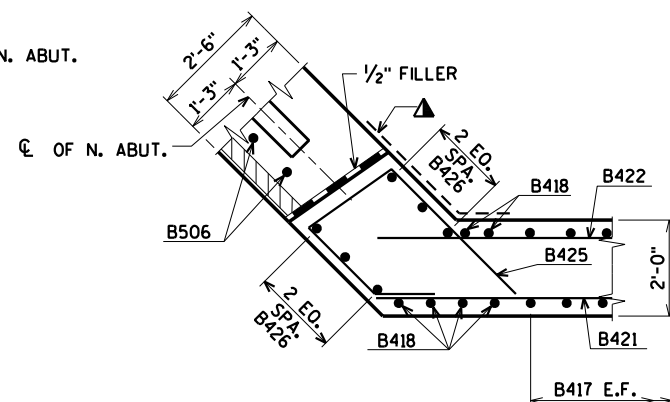
SECTION B



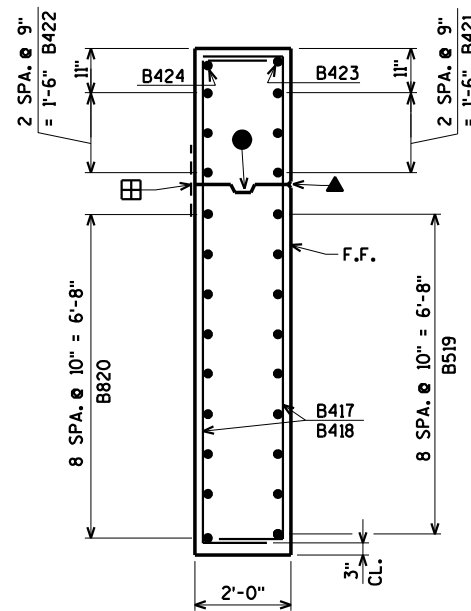
SECTION E



SECTION C



SECTION F



SECTION D

- ▲ 3/4" 'V' GROOVE ON F.F. OF WING WALL - NOT REQUIRED IF CONST. JT. IS NOT USED.
- OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
- ▲ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BEAM SEAT TO TOP OF WINGWALL.
- ▣ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
- B.F. DENOTES BACK FACE.
F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

ORIGINAL PLANS PREPARED BY
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Eau Claire, WI 54701
www.AyresAssociates.com

WORK THIS SHEET WITH SHEETS 6 & 8.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
NORTH ABUTMENT WING DETAILS			SHEET 7 OF 11

BILL OF BARS - NORTH ABUTMENT

[illegible][illegible]

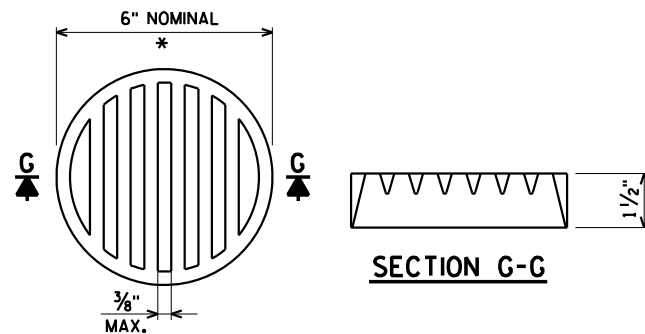
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

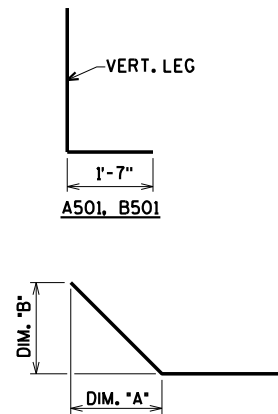


* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

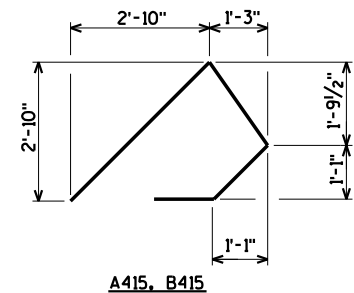
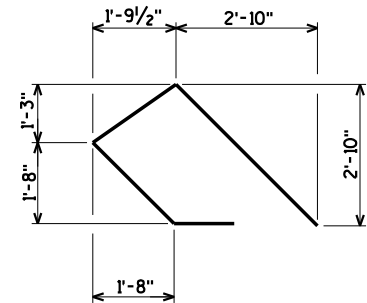
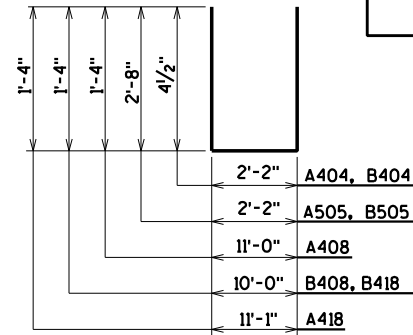
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL

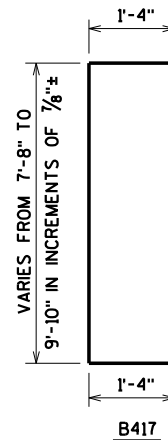
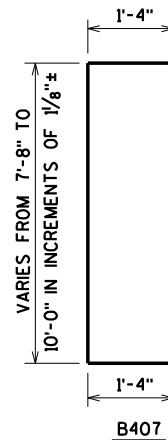
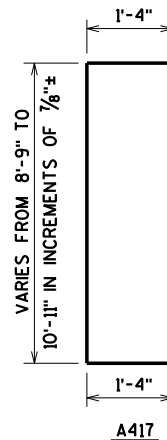
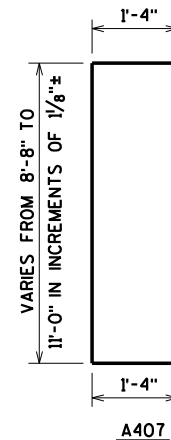


BAR NO.	DIM. "A"	DIM. "B"
A803	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
A509	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
A810	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
A413	9'-9"	2'-4"
A414	9'-9"	2'-4"
A519	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
A820	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
A423	11'-10"	2'-4"
A424	11'-10"	2'-4"
B803	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
B509	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
B810	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
B413	9'-9"	2'-4"
B414	9'-9"	2'-4"
B519	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
B820	1'-0 $\frac{3}{4}$ "	1'-0 $\frac{3}{4}$ "
B423	11'-10"	2'-4"
B424	11'-10"	2'-4"



BAR MARK	NO REQ'D.	LENGTH
A407	2 SERIES OF 14	11' - 2" TO 13' - 6"
A411	1 SERIES OF 3	5' - 8" TO 12' - 0"
A412	1 SERIES OF 3	5' - 8" TO 12' - 0"
A417	2 SERIES OF 16	11' - 3" TO 13' - 5"
A421	1 SERIES OF 3	6' - 4" TO 14' - 0"
A422	1 SERIES OF 3	6' - 4" TO 14' - 0"
B407	2 SERIES OF 14	10' - 2" TO 12' - 6"
B411	1 SERIES OF 3	5' - 8" TO 12' - 0"
B412	1 SERIES OF 3	5' - 8" TO 12' - 0"
B417	2 SERIES OF 16	10' - 2" TO 12' - 4"
B421	1 SERIES OF 3	6' - 4" TO 14' - 0"
B422	1 SERIES OF 3	6' - 4" TO 14' - 0"

BUNDLE AND TAG EACH SERIES SEPARATELY.

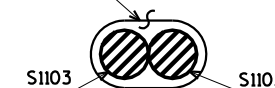


WORK THIS SHEET WITH SHEETS 4 THRU 7.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
DRAWN BY		KAZ	PLANS CK'D. JCK/KLW
ABUTMENT DETAILS AND BILL OF BARS		SHEET 8 OF 11	



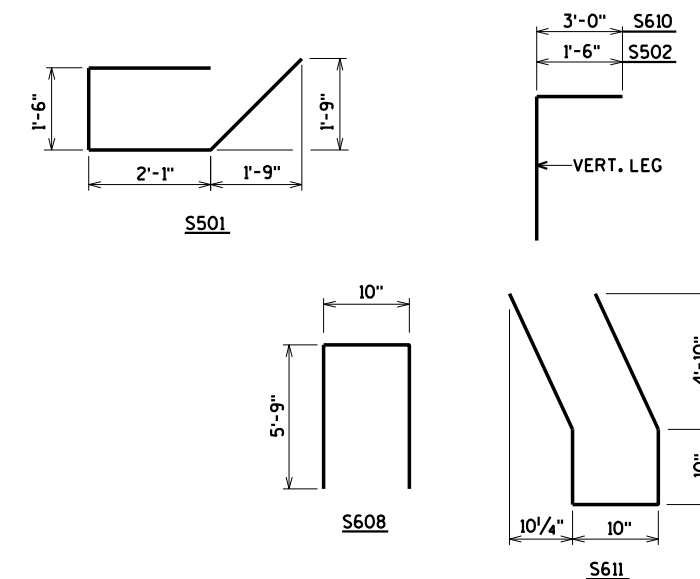
CROSS SECTION THRU ROADWAY



BUNDLING DETAIL

[illegible]

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
		DRAWN BY KAZ	PLANS CK'D. JCK/H
SUPERSTRUCTURE		SHEET 9 OF	

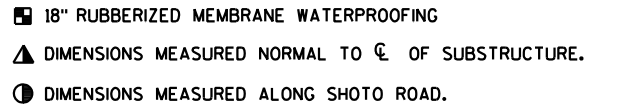


Diagram of a parabolic arch with 10 equal spaces. The total length is 46'-0". The rise values at each space are: 0.5", 1.0", 1.3", 1.6", 1.6", 1.6", 1.3", 1.0", and 0.5". The ends are labeled "C OF ABUT.".

CAMBER SPANS AS SHOWN TO PROVIDE
FOR DEADLOAD DEFLECTION & FUTURE
CREEP. CAMBER DOES NOT INCLUDE
ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE $\mathbb{C}$ OF ABUTMENTS, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF DECK AND CROWN OR $\mathbb{C}$.

LOCATION	£ OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	£ OF N. ABUT.
W. EDGE OF SLAB	952.10	952.04	951.98	951.93	951.87	951.82	951.77	951.72	951.68	951.63	951.58
£ OF STRUCTURE	952.43	952.38	952.32	952.27	952.21	952.17	952.12	952.07	952.02	951.98	951.93
E. EDGE OF SLAB	952.01	951.96	951.90	951.85	951.80	951.75	951.70	951.65	951.61	951.56	951.52

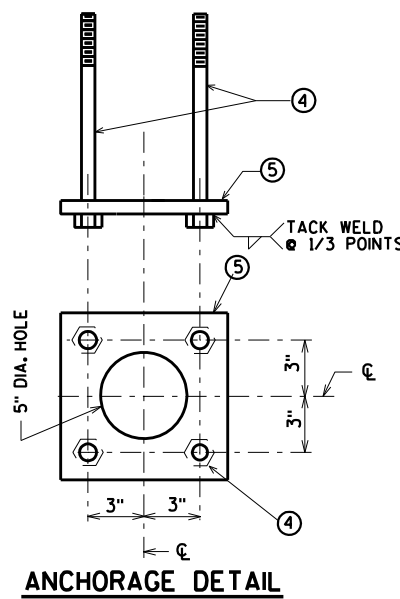
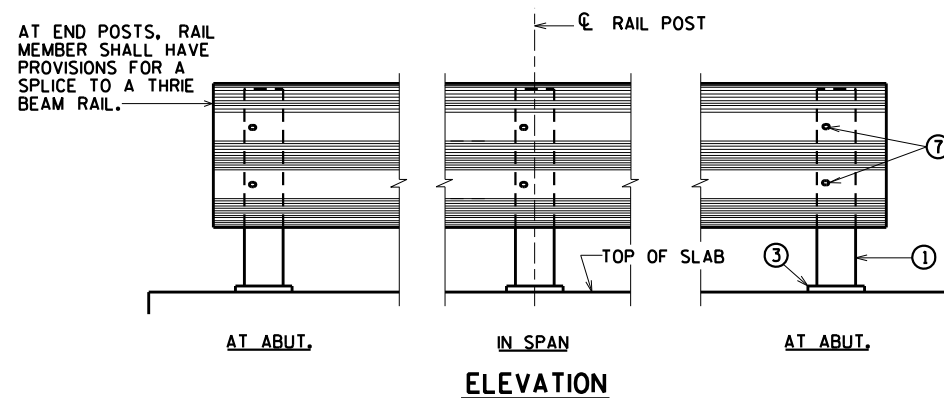
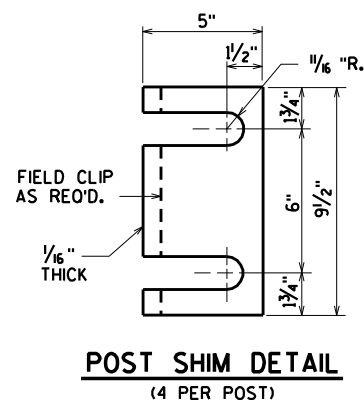
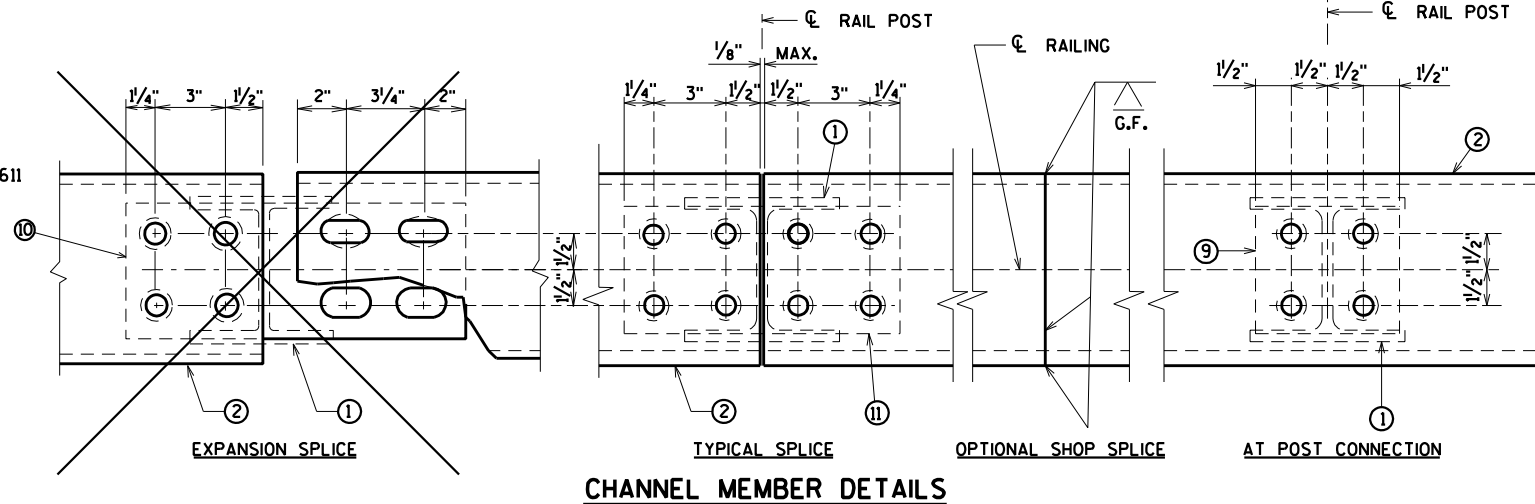
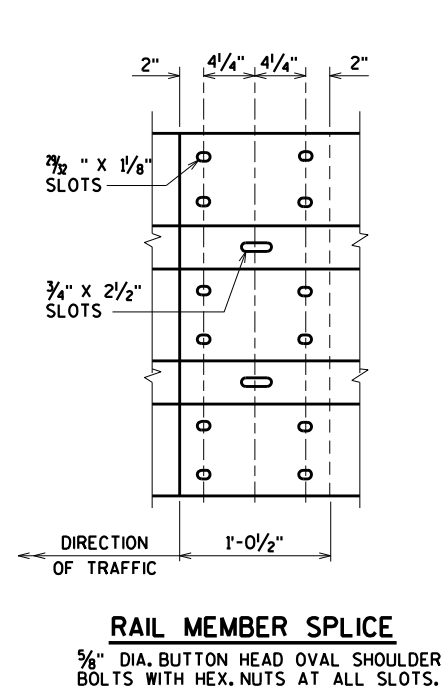
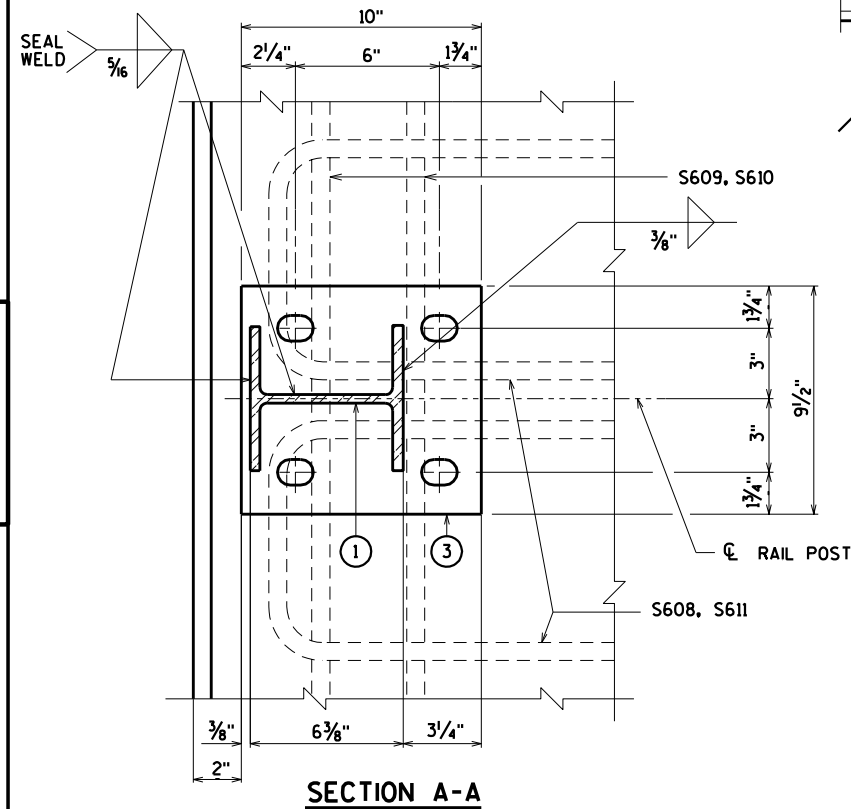
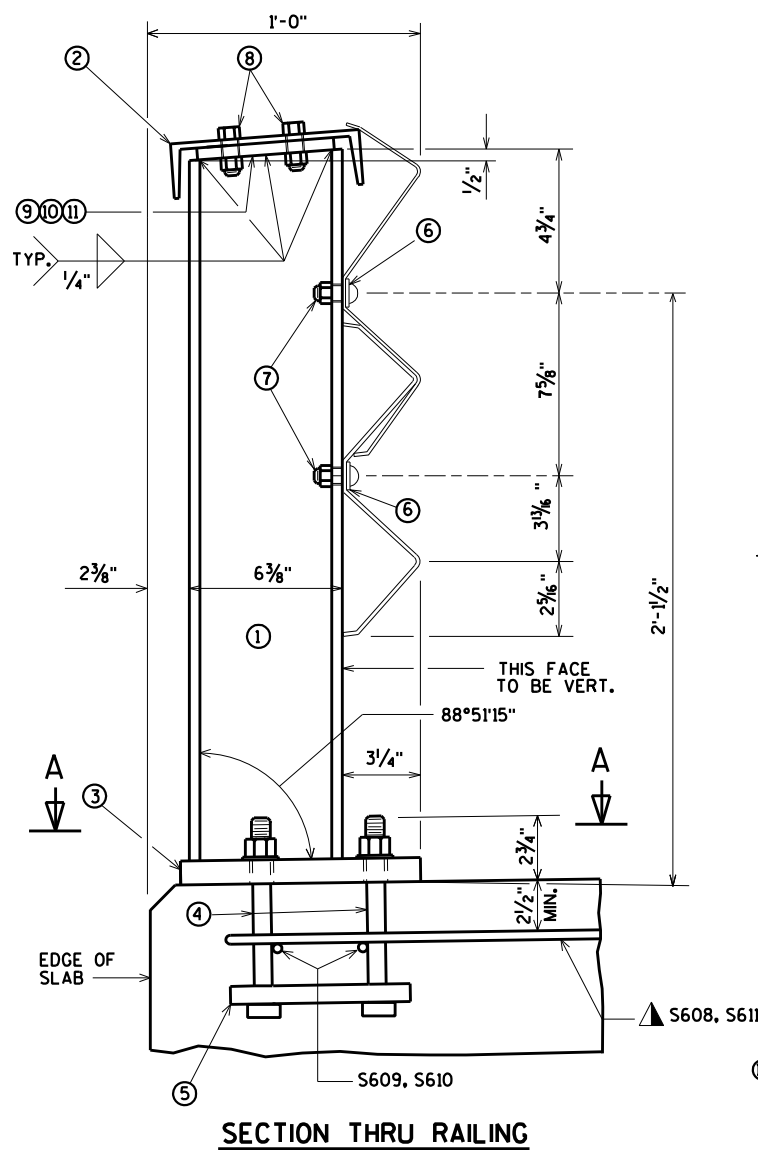
ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

WORK THIS SHEET WITH SHEET 9.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
		DRAWN BY	KAZ PLANS CK'D. JCK/KLW
SUPERSTRUCTURE DETAILS		SHEET 10 OF 11	

\$PRNAME\$
U:\42-0835.00 - Eau Claire Co. CTH D over Beaver Creek\BRDGE\420835.Wrail.dgn

8



LEGEND

- ① W6x25 WITH 2 - 3/4" x 2 1/2" VERT. SLOTS IN FLG. (SLOT ON OTHER SIDE OF WEB IS OPTIONAL) FOR NO. 7. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POSTS VERTICAL AND NORMAL TO GRADE LINE.
- ② C8x11.5 WITH 1 5/8" DIA. HOLES FOR NO. 8.
- ③ BASE PLATE 1" x 9 1/2" x 10" WITH 1 1/8" x 1 1/2" SLOTTED HOLES FOR ANCHOR BOLTS NO. 4. WELD TO NO. 1 AS SHOWN.
- ④ A325 - 7/8" DIA. HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 14" LONG AT END POSTS AND AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 15". ~~USE 8" LONG AT ALL OTHER LOCATIONS. 4 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 3. CHAMFER TOP OF BOLTS BEFORE THREADING.~~
- ⑤ 1/4" x 8" x 8" FLAT BAR WITH 1 5/8" DIA. HOLES FOR ANCHOR BOLTS NO. 4.
- ⑥ 1 3/4" x 3" MOUNTING BOLT WASHER (GALVANIZED).
- ⑦ 5/8" DIA. BUTTON HEAD POST MOUNTING BOLT WITH ROUND WASHER AND NUT.
- ⑧ 5/8" DIA. x 2" HEX BOLTS WITH NUT AND TWO WASHERS EACH.
- ⑨ PLATE 1/2" x 5 3/4" x 6" AT BASIC POST CONNECTION. 1/4" DIA. HOLES IN PLATE. 1/8" DIA. HOLES IN CHANNEL.
- ⑩ ~~PLATE 1/2" x 5 3/4" x 1 2 1/2". 1/4" DIA. HOLES IN PLATE. 1/8" DIA. HOLES IN CHANNEL. EXPANSION SLOTS ON JOINT SIDE OF POST. 1/8" x 2 1/4" IN PLATE. 1/8" x 2 1/4" IN CHANNEL. AT EXPANSION SPLICE.~~
- ⑪ PLATE 1/2" x 5 3/4" x 1 1/2". 1/4" DIA. HOLES IN PLATE. 1/8" DIA. HOLES IN CHANNEL. (AT TYPICAL SPLICE.)

GENERAL NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE W B-18-222" WHICH INCLUDES ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL MATERIAL EXCEPT ANCHORAGE DETAIL NO. 5 SHALL BE GALVANIZED AFTER FABRICATION.

PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND CHANNELS SHALL BE GIVEN A NO. 6 COMMERCIAL BLAST CLEANING BY SSPC SPECS.

ALL MATERIAL USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO ASTM DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

FILL BOLT SLOT OPENINGS IN POST SHIMS & PLATE NO. 3 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CHANNEL MEMBER SHALL BE ATTACHED CONTINUOUSLY TO A MINIMUM OF FOUR POSTS AND A MAXIMUM OF EIGHT (EXCEPT AT ABUTMENTS).

AT EXPANSION SLOTS IN RAIL AND CHANNEL MEMBERS, TIGHTEN BOLTS, BACK OFF ONE HALF TURN AND BURR THREADS. RAIL MEMBERS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC AND THE UPPER RAIL SHALL LAP THE LOWER RAIL.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

SEE STANDARD SPECIFICATIONS FOR RAIL TYPE.

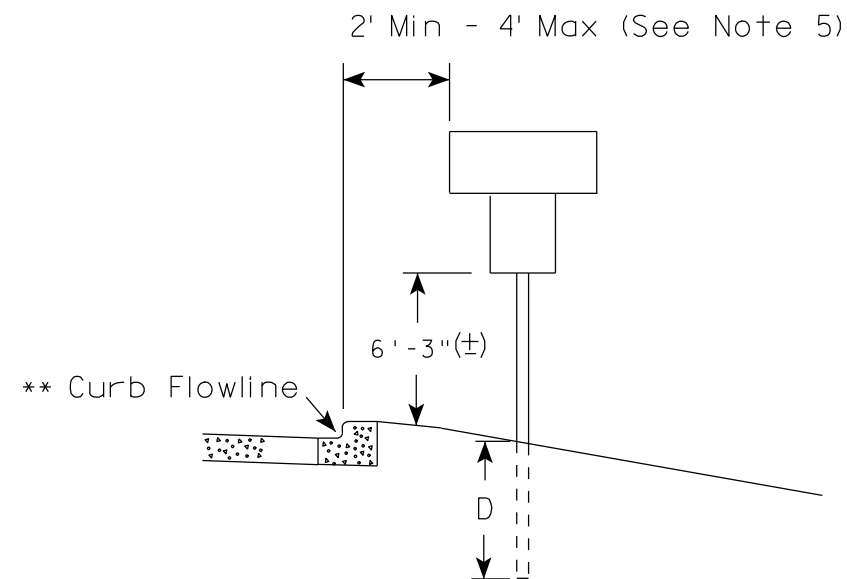
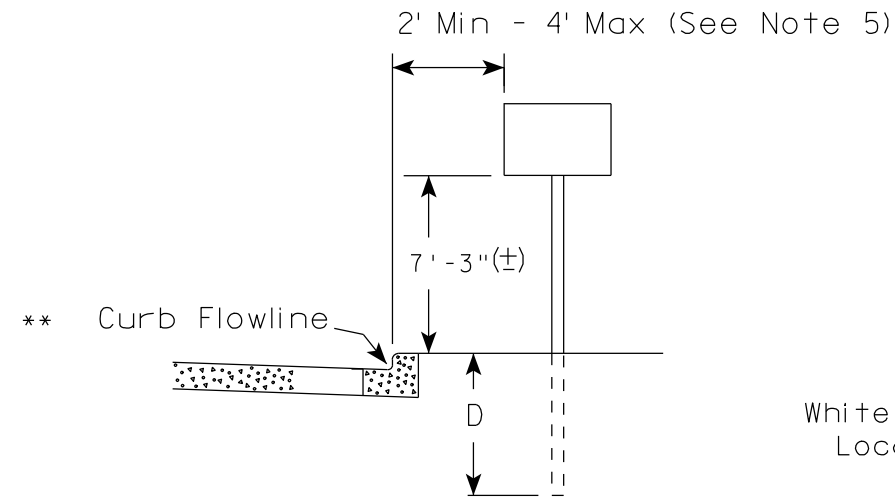
▲ TIE TO TOP MAT OF STEEL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-222			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
RAILING STEEL TYPE "W"			SHEET 11 OF 11

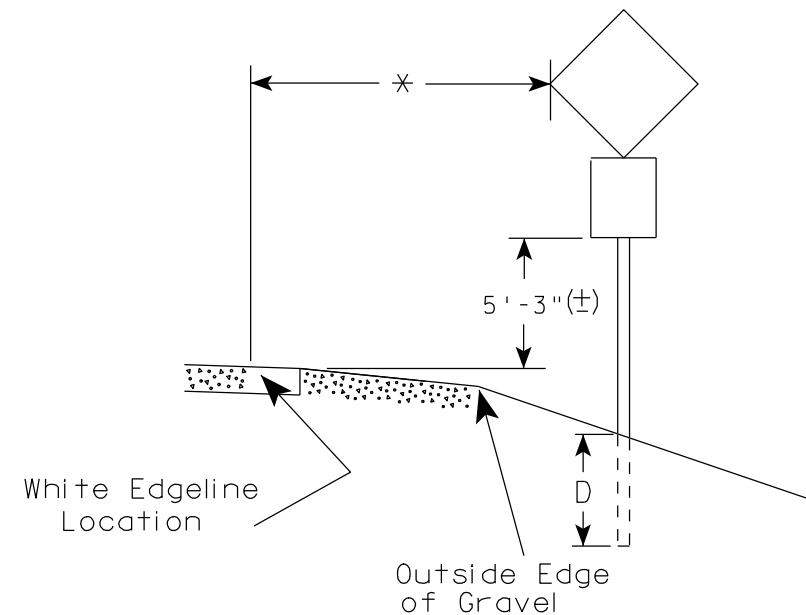
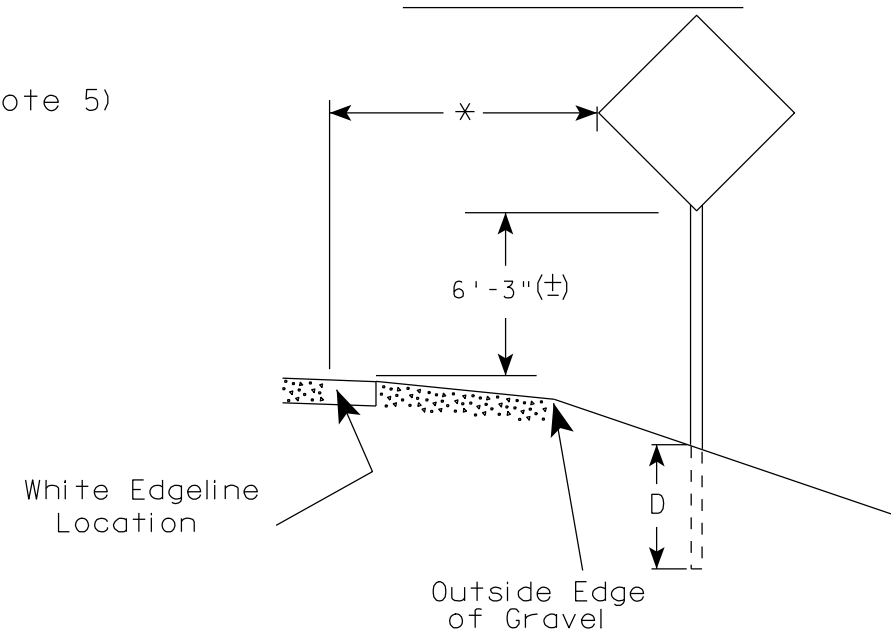
PLANS PREPARED BY
AYRES ASSOCIATES
Engineers/Architects
Scientists/Surveyors
3433 Oakwood Hills Parkway
Eau Claire, WI 54701

8

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

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

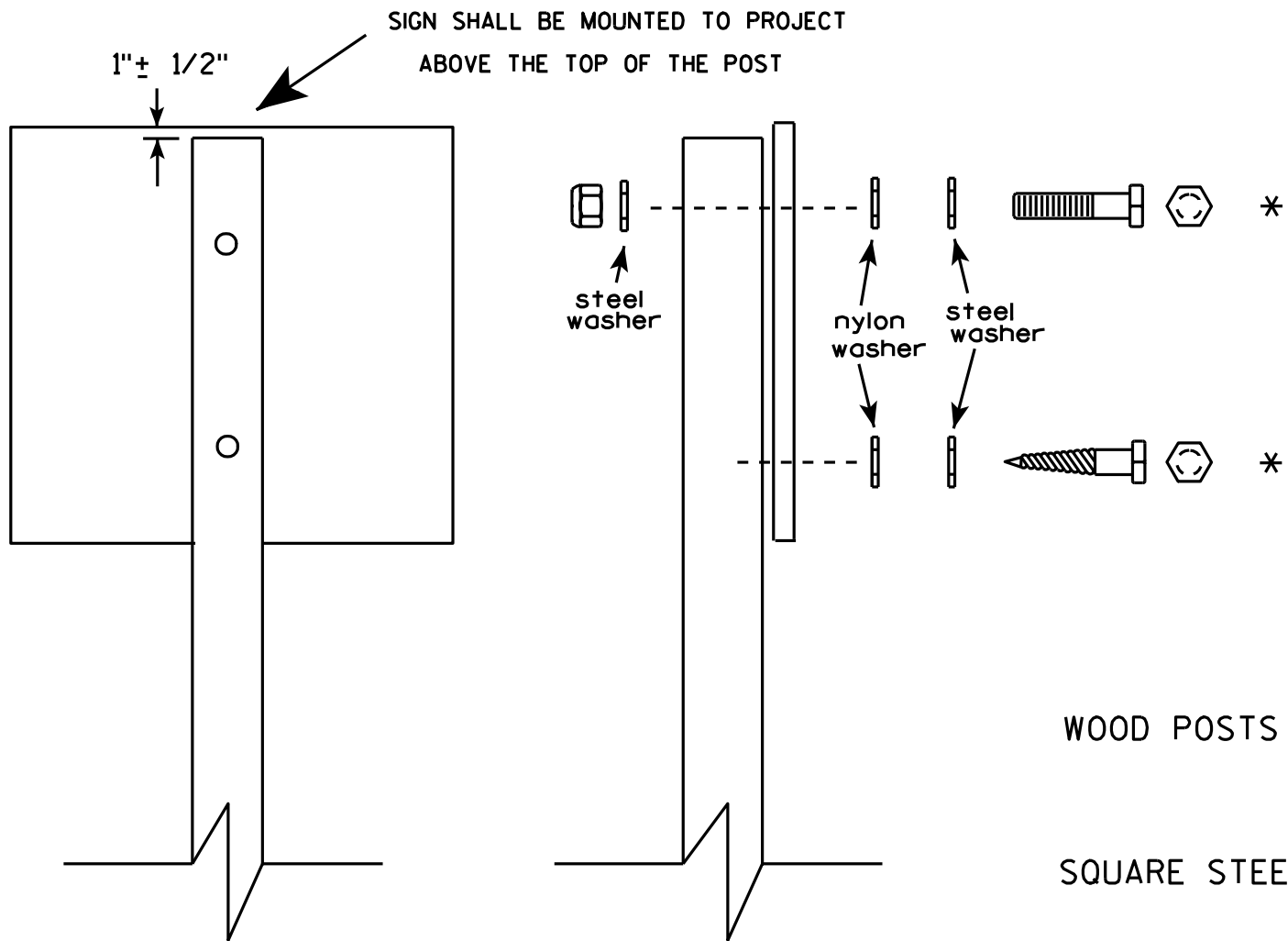
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

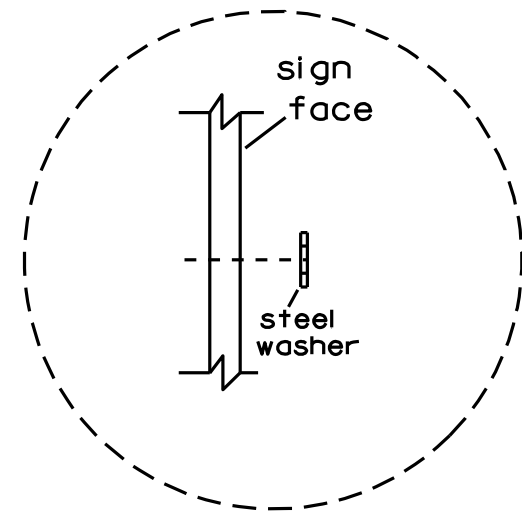


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

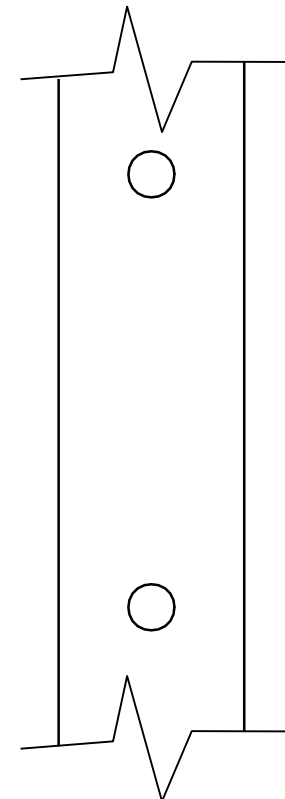
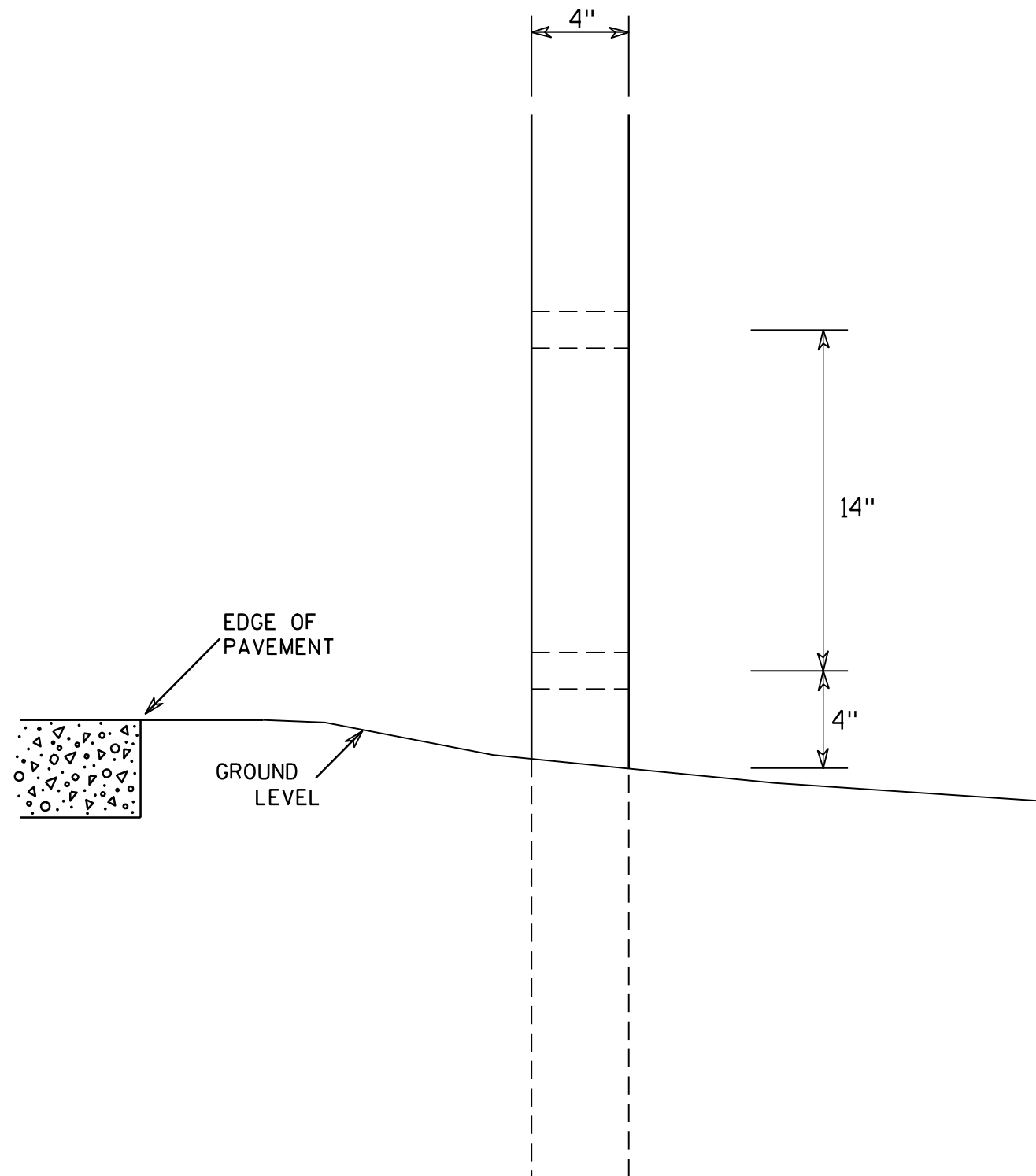
- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375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



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

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

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



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

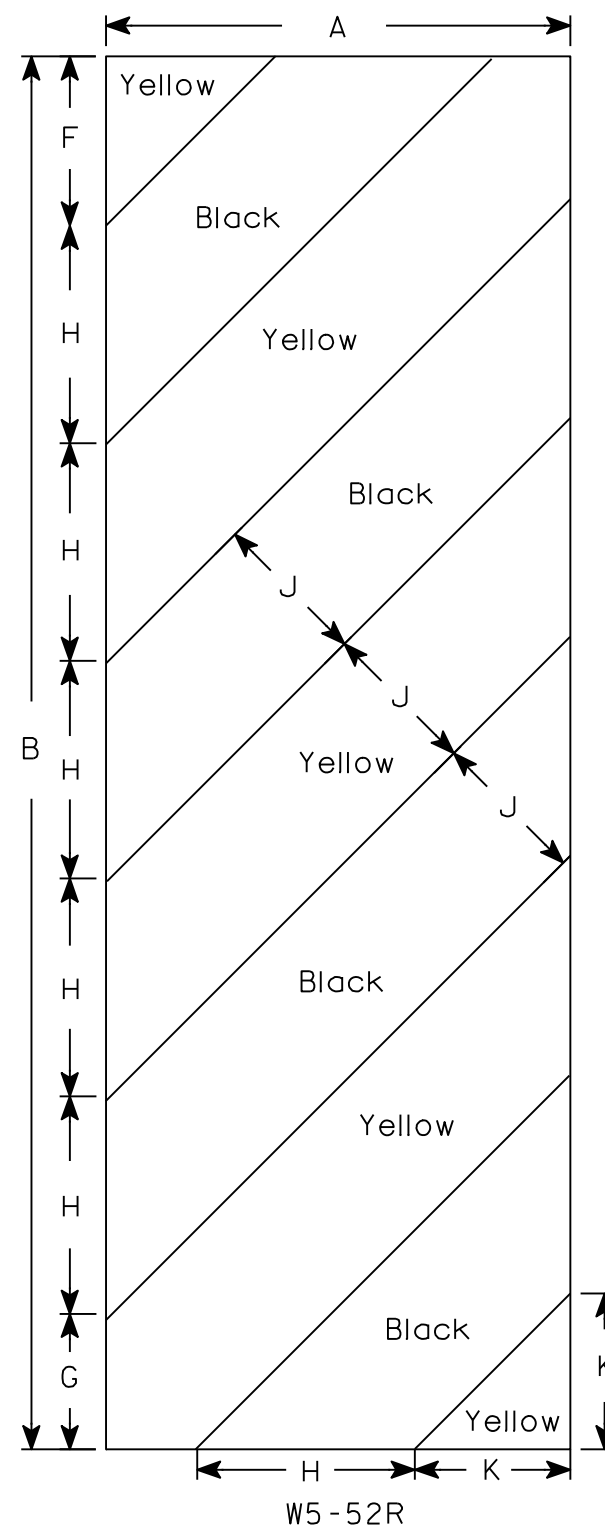
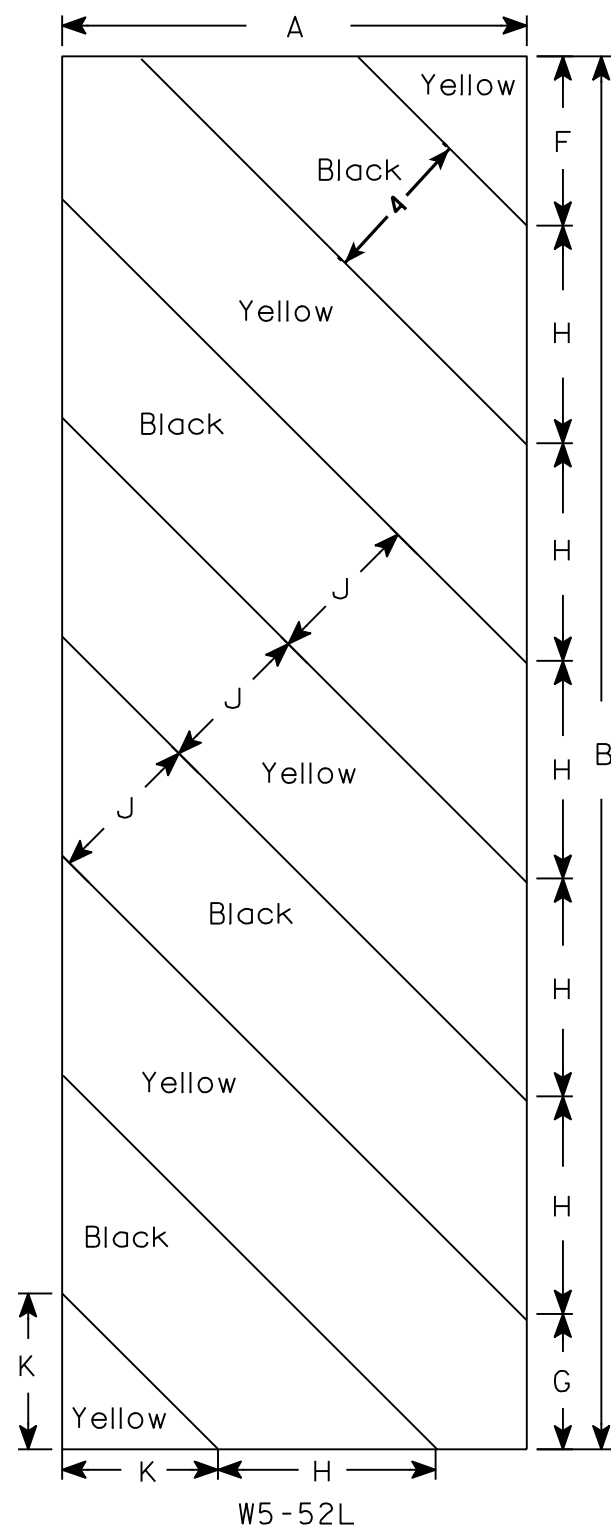
PROJECT NO: 7828-03-70

HWY: CTH D

COUNTY: EAU CLAIRE

SHEET NO:

E



NOTES

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

[illegible]

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: 7828-03-70

HWY: CTH D

COUNTY: EAU CLAIRE

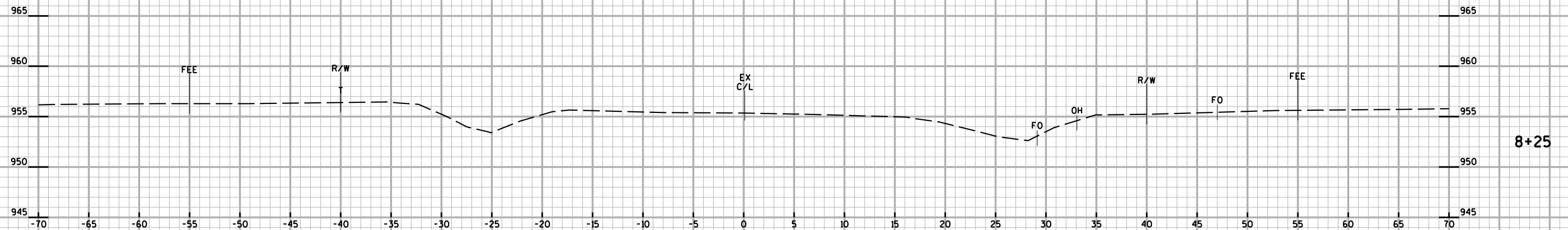
SHEET NO:

E

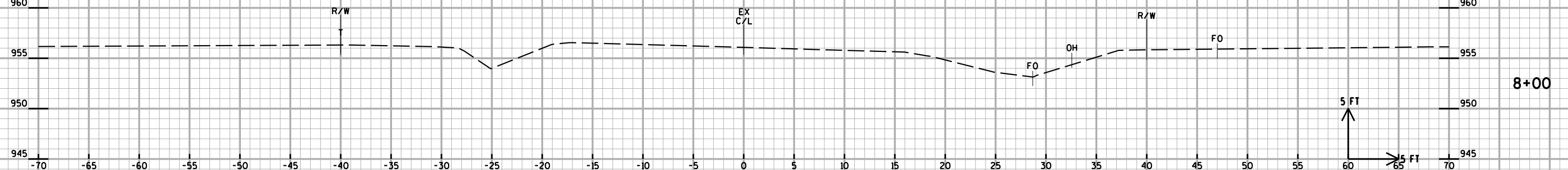
*EARTHWORK SUMMARY (CATEGORY 0010)										
DIVISION	STATION	AREA			INCREMENTAL VOLUME			CUMULATIVE VOLUME		
		CUT SF	SALVAGED/ UNUSEABLE PAVEMENT MATERIAL SF	FILL SF	CUT (1) CY	SALVAGED/ UNUSEABLE PAVEMENT MATERIAL (2) CY	FILL (3) CY	CUT (1) 1.00 CY	EXPANDED FILL (4) 1.30 CY	MASS ORDNATE ±(5) CY
1 CTH D	8+25	56	0	0						
	8+50	81	0	0	64	0	0	64	0	64
	8+63	105	0	1	45	0	0	109	0	109
	8+68	111	0	2	20	0	32	129	41	88
	8+75	118	0	4	30	0	1	159	42	117
	8+86	130	0	0	51	0	1	210	44	166
	8+92	138	0	0	30	0	0	240	44	196
	9+00	135	0	0	40	0	0	280	44	236
	9+11	116	0	5	51	0	1	331	45	286
	9+17	105	0	6	24	0	1	355	46	309
	9+25	49	0	5	23	0	2	378	49	329
	9+36	33	0	7	17	0	2	395	51	344
	9+42	31	0	9	7	0	2	402	54	348
	9+50	30	0	12	9	0	3	411	58	353
	9+75.73	30	0	12	29	0	12	440	73	367
	STRUCTURE (B-18-222)									
	10+24.27	19	0	44	18	0	42	18	55	-37
	10+50	19	0	44	6	0	12	24	70	-46
	10+58	20	0	41	5	0	9	29	82	-53
	10+64	22	0	42	9	0	18	38	105	-67
	10+75	25	0	48	8	0	22	46	134	-88
	10+83	27	0	103	6	0	25	52	166	-114
	10+89	28	0	126	12	0	51	64	233	-169
	11+00	31	0	125	10	0	37	74	281	-207
	11+08	36	0	125	8	0	27	82	316	-234
	11+14	40	0	119	17	0	44	99	373	-274
	11+25	45	0	99	45	0	71	144	465	-321
	11+50	53	0	54	46	0	24	190	497	-307
	11+73.50	53	0	0						
TOTALS					630	0	344			
205.0100 EXCAVATION COMMON =					SAY 630			208.0100 BORROW =	SAY 307	

NOTES:
1) EXCAVATION COMMON IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100
2) SALVAGED/UNUSEABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
3) DOES NOT INCLUDE UNUSABLE PAVEMENT EXCAVATION VOLUME.
4) EXPANDED FILL FACTOR = 1.30 EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
5) THE MASS ORDNATE ± QTY CALCULATED FOR THE DIVISION.

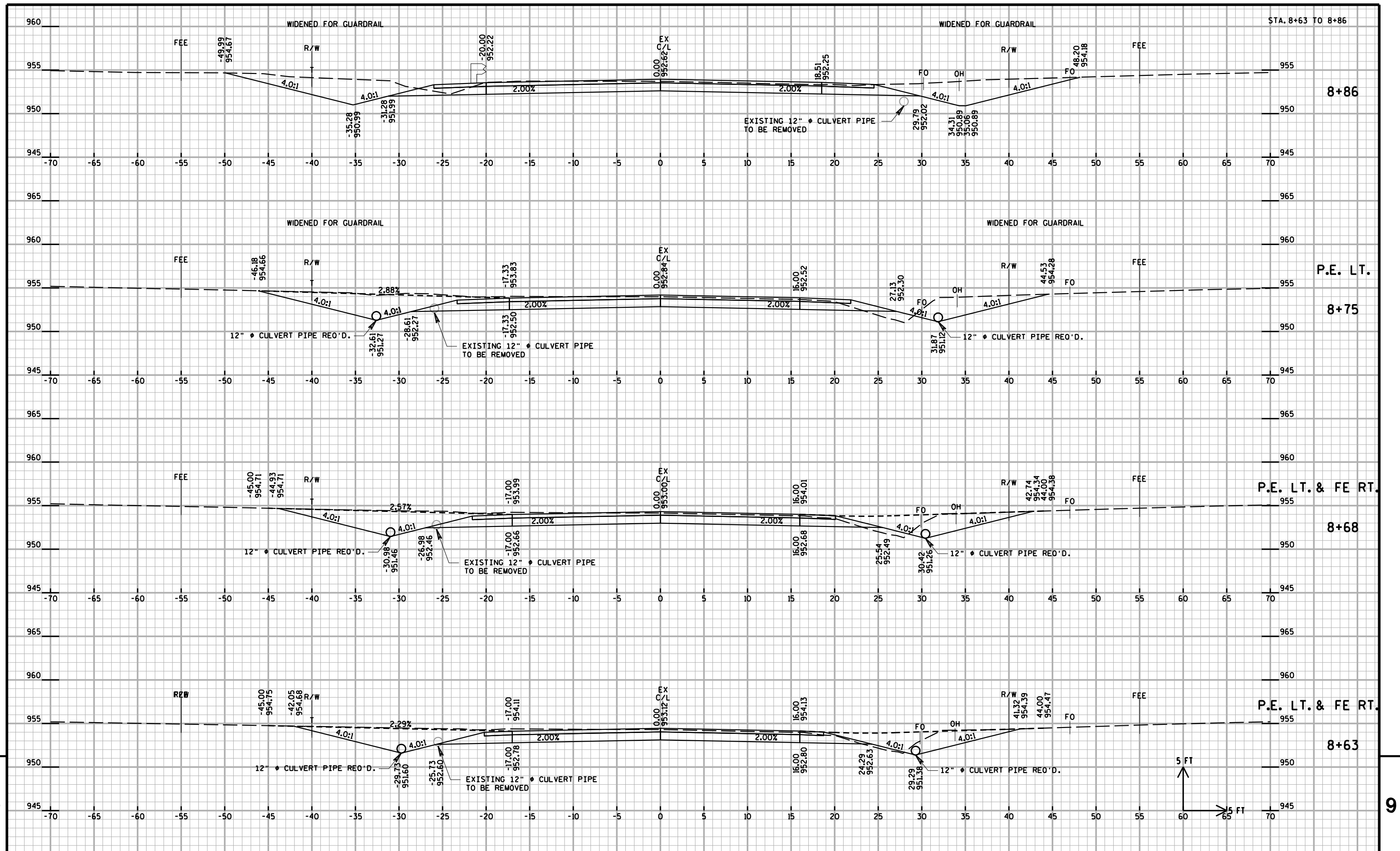
PLUS (+) QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.
MINUS (-) QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

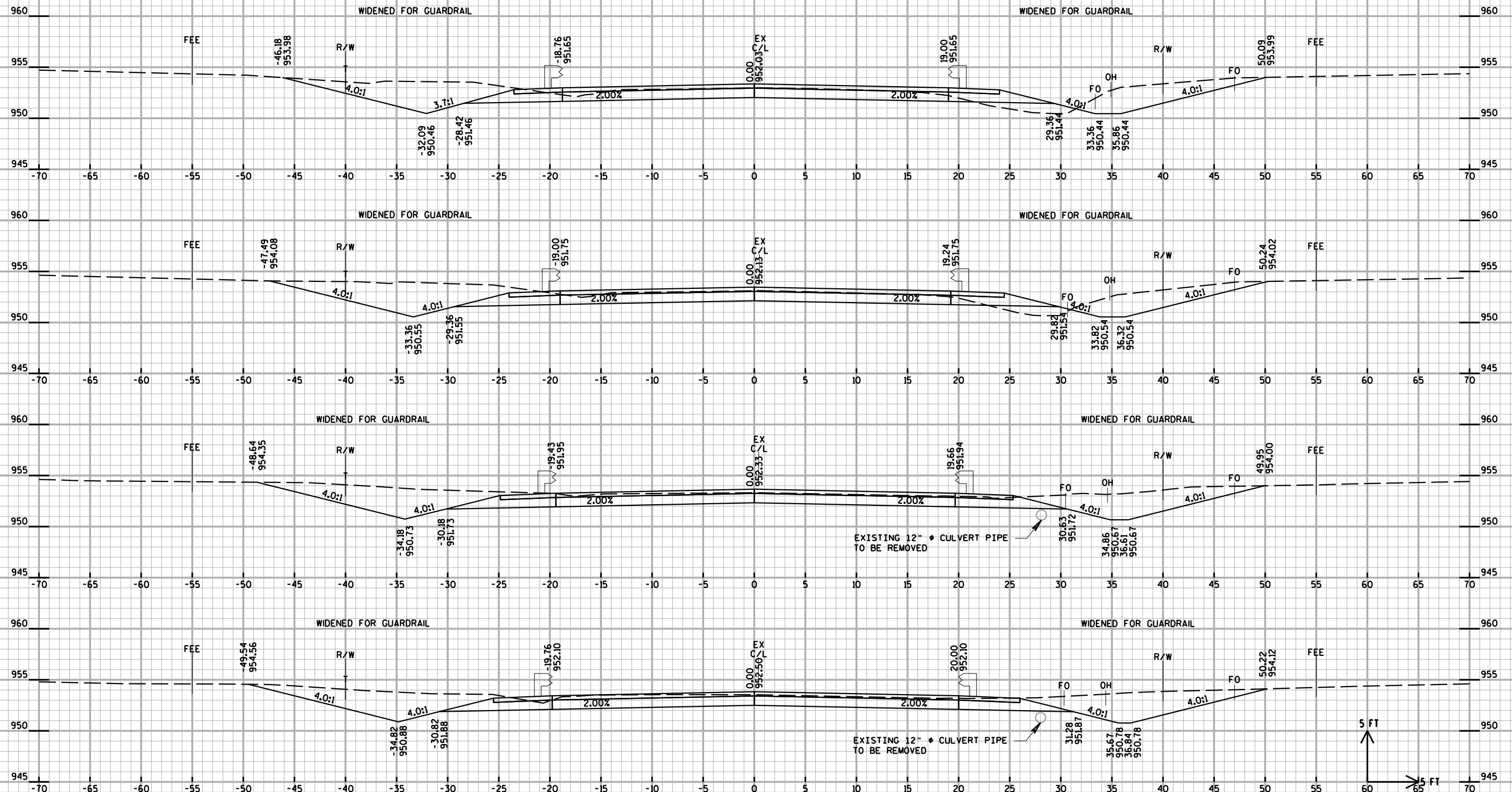


BEGIN PROJECT
STA. 8+25
(MATCH EXISTING)



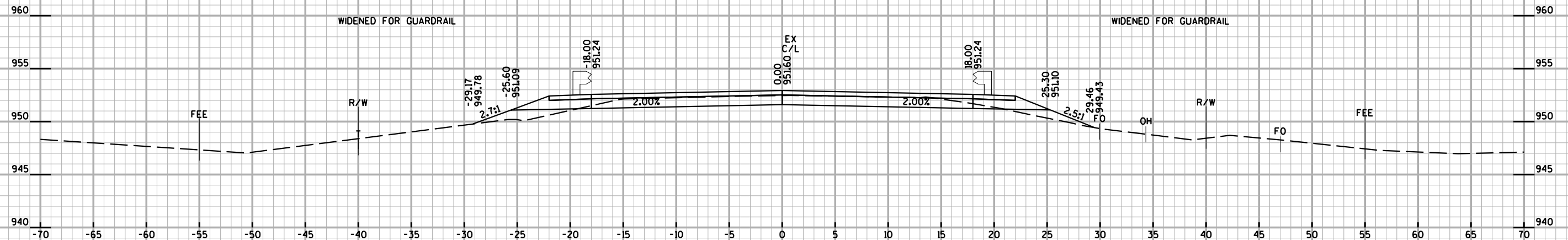
5 FT
5 FT





9

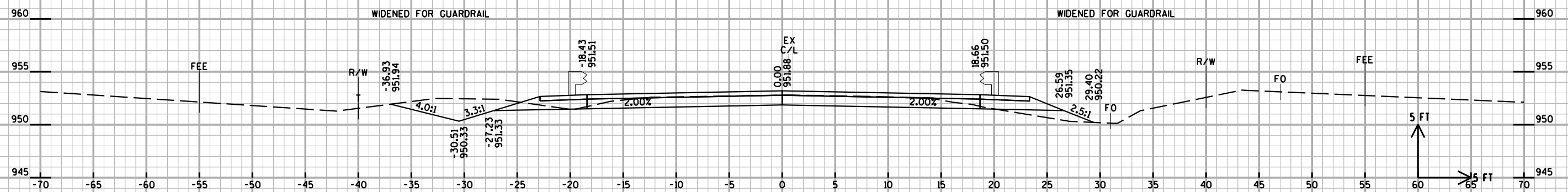
9



9+42

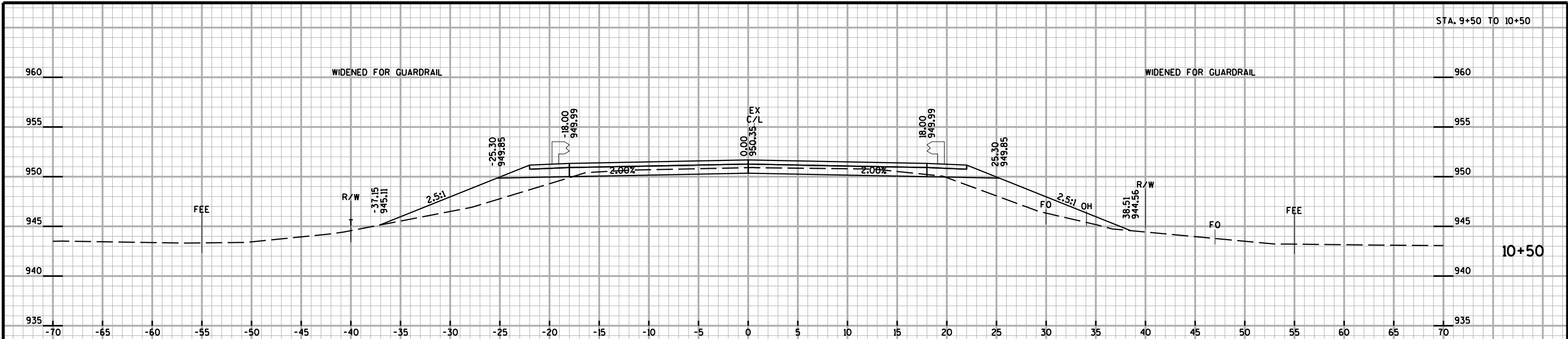


9+36

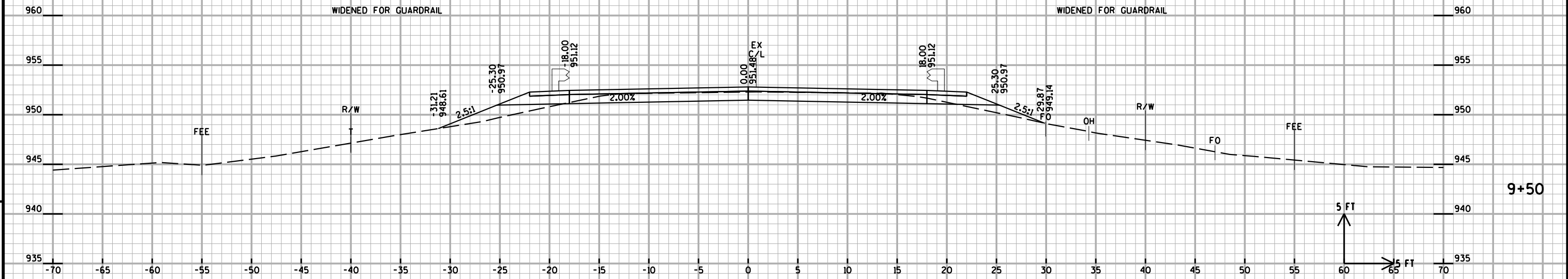


9+25

5 FT
5 FT



STRUCTURE B-18-222



PROJECT NO: 7828-03-70

HWY: CTH D

COUNTY: EAU CLAIRE

CROSS SECTIONS

SHEET

E

FILE NAME : U:\42-0835.00 - Eau Claire Co. CTH D over Beaver Creek\InRoads\420835_xs_rev.051613.dgn

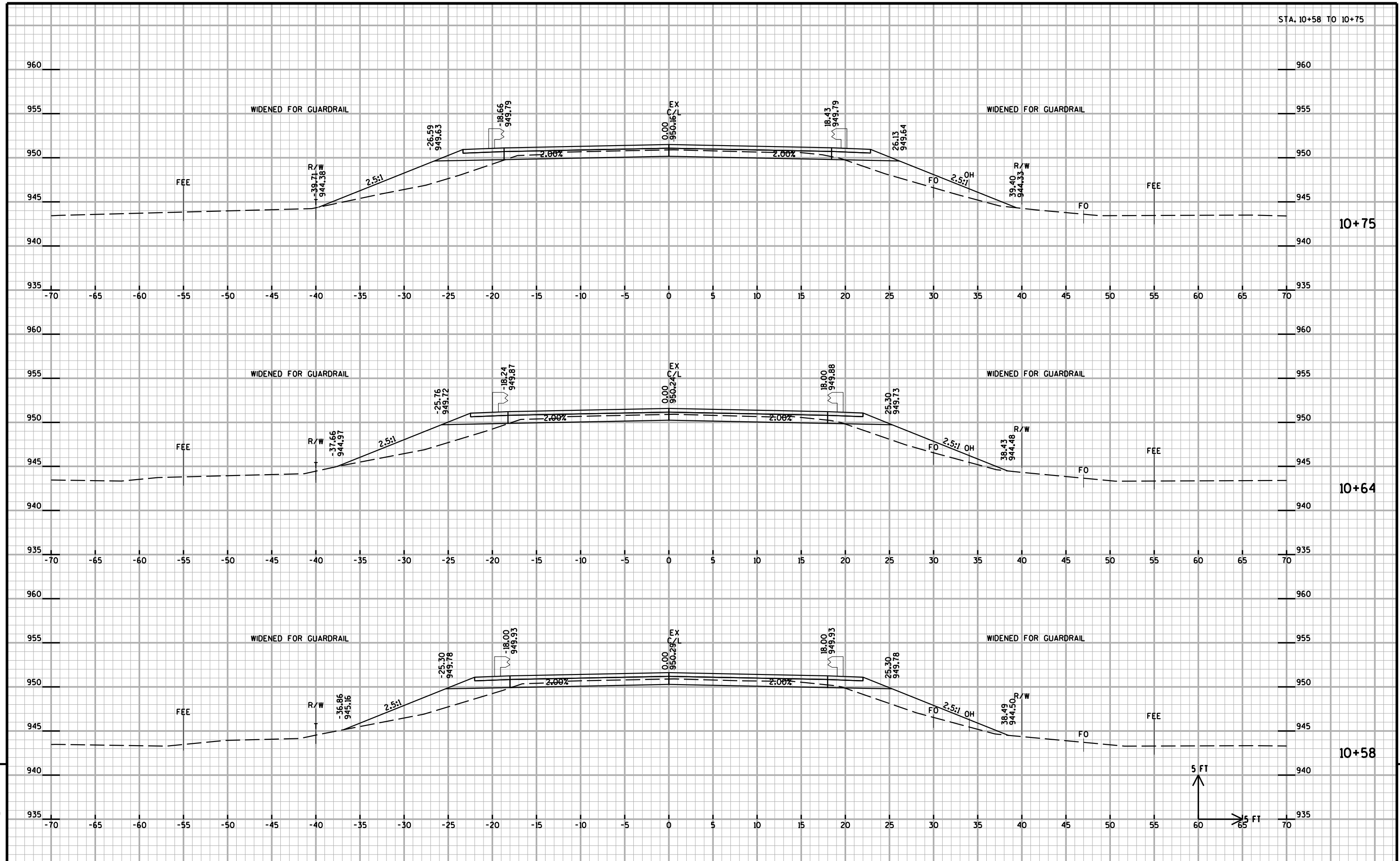
PLOT DATE : 6/24/2013

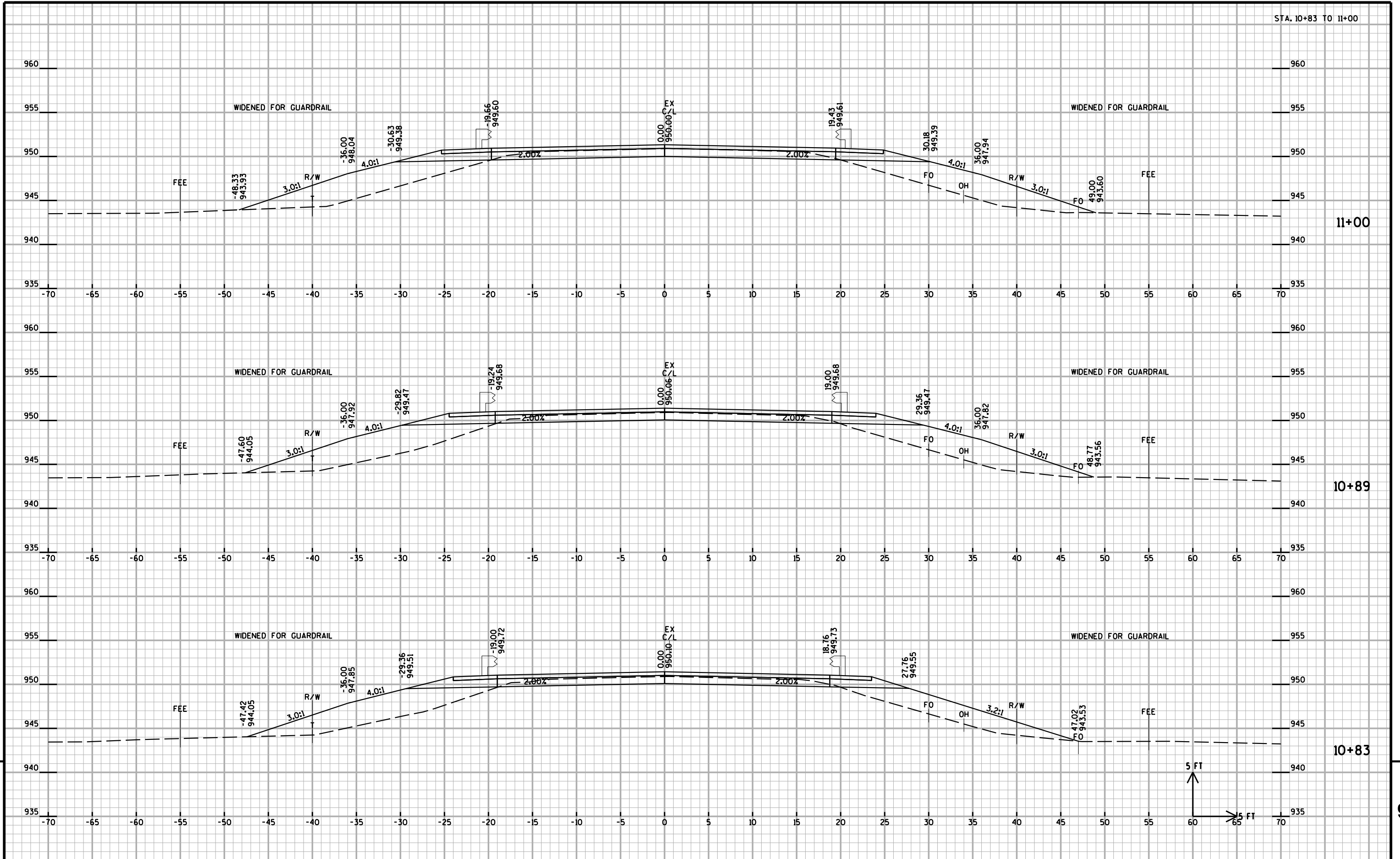
PLOT BY : AYRES-EC

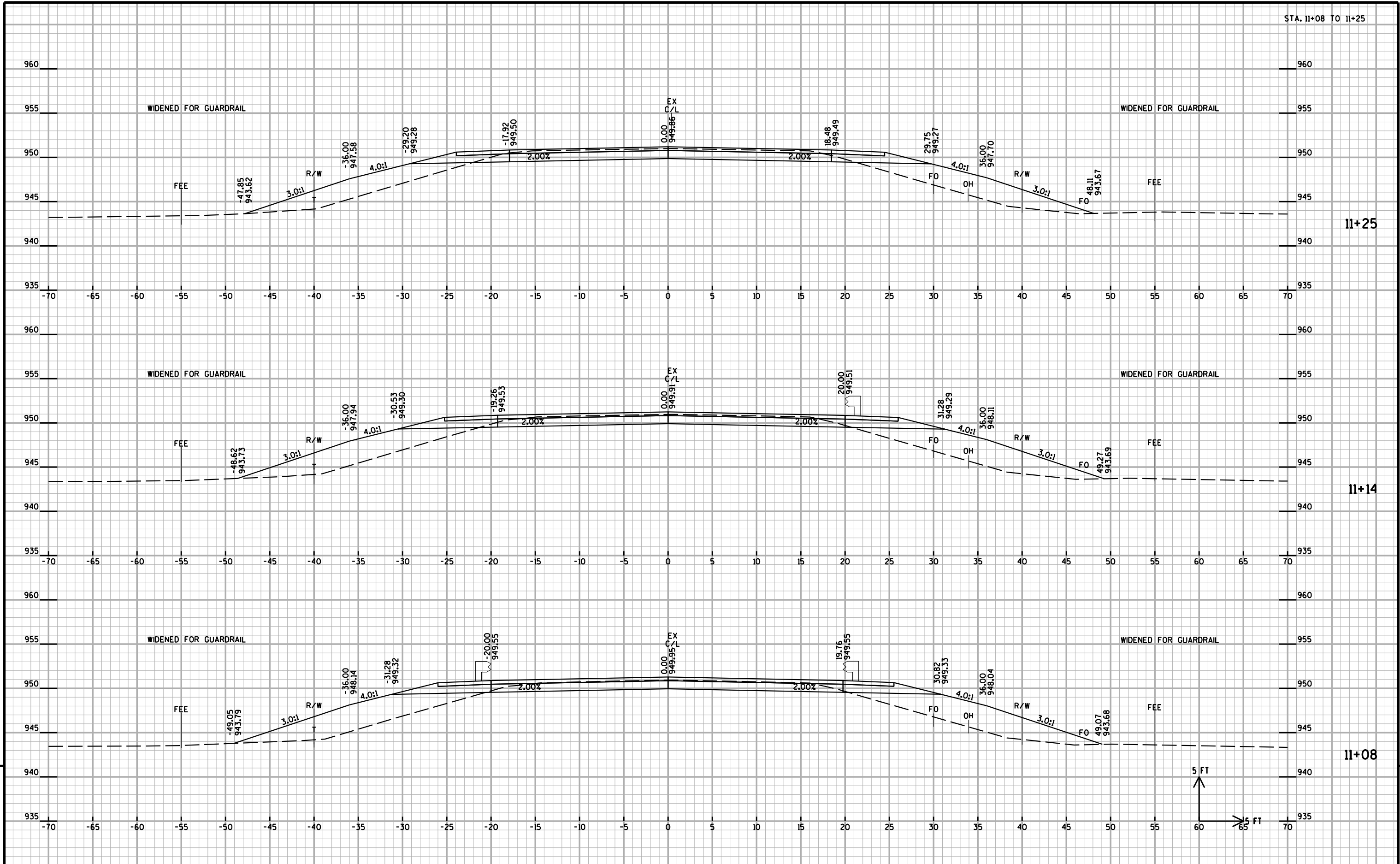
PLOT NAME :

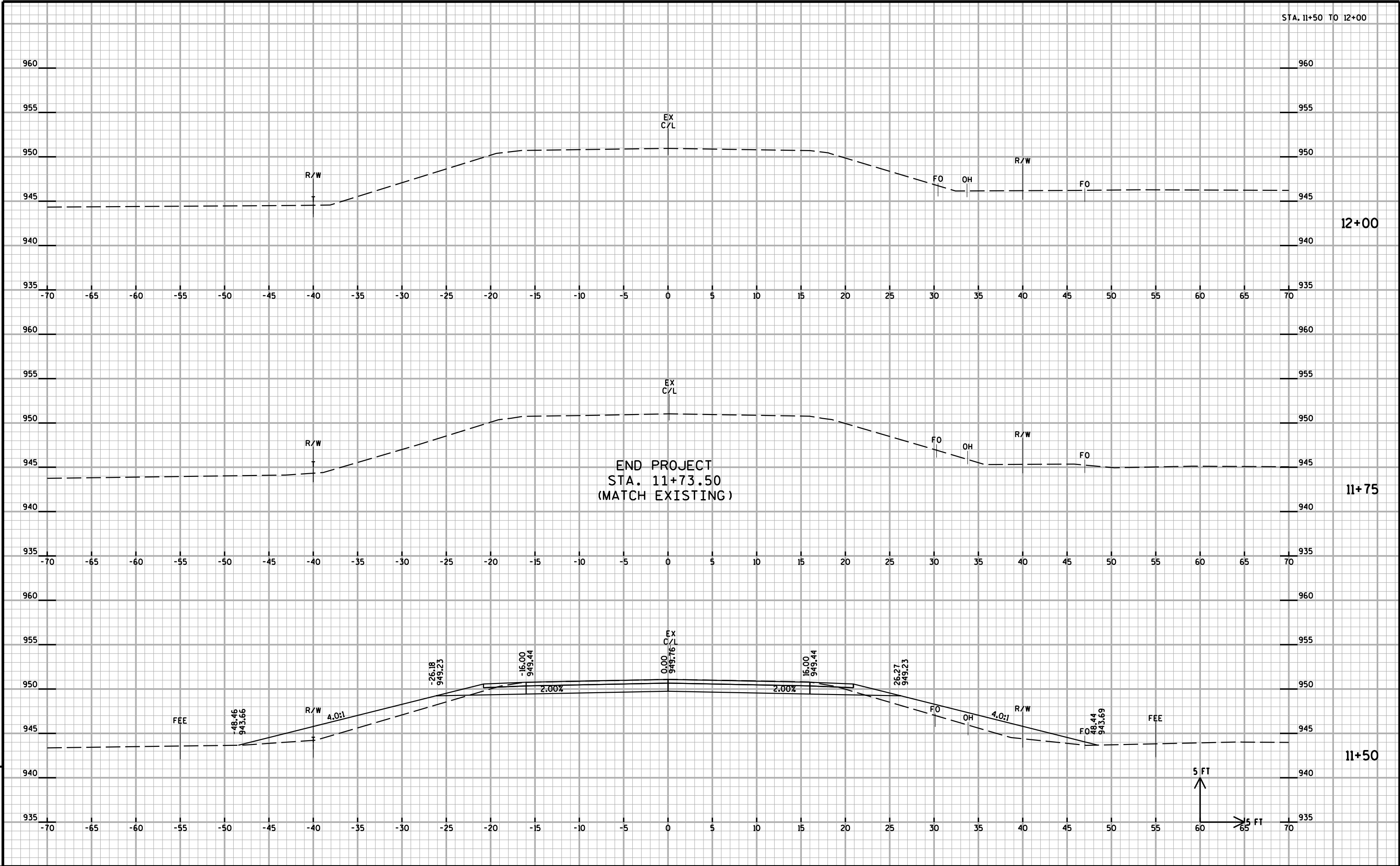
PLOT SCALE : 1:10

WISDOT/CADDs SHEET 21

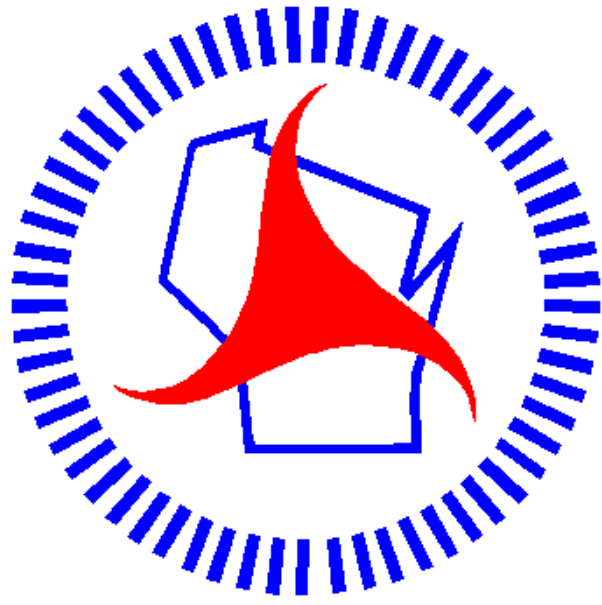








Notes

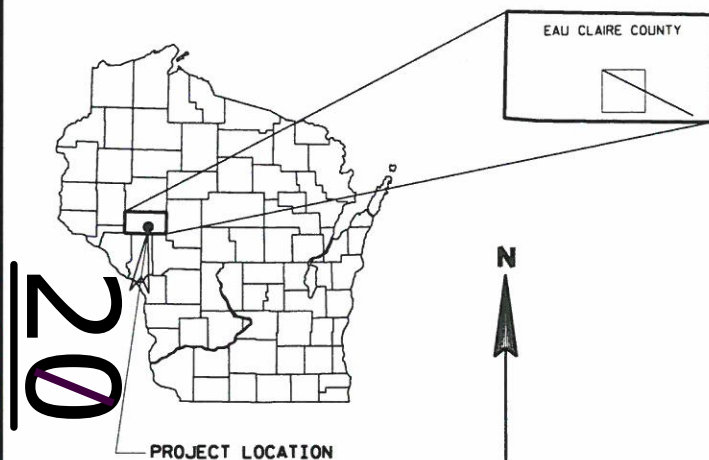


Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>

TOTAL SHEETS = 42



A.D.T.	(2014)	=	100
A.D.T.	(2034)	=	140
D.H.V.		=	10
D.		=	50/50
T.		=	5%
DESIGN SPEED		=	55 MPH
ESALS		=	N/A

CONVENTIONAL SYMBOLS PLAN

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

HIGH VOLTAGE

MARSH AREA

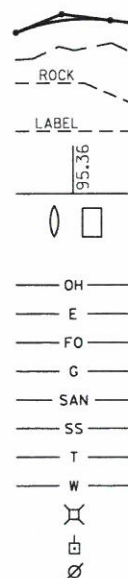
WOODED OR SHRUB AREA

PROFILE
GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
SPECIAL DITCH

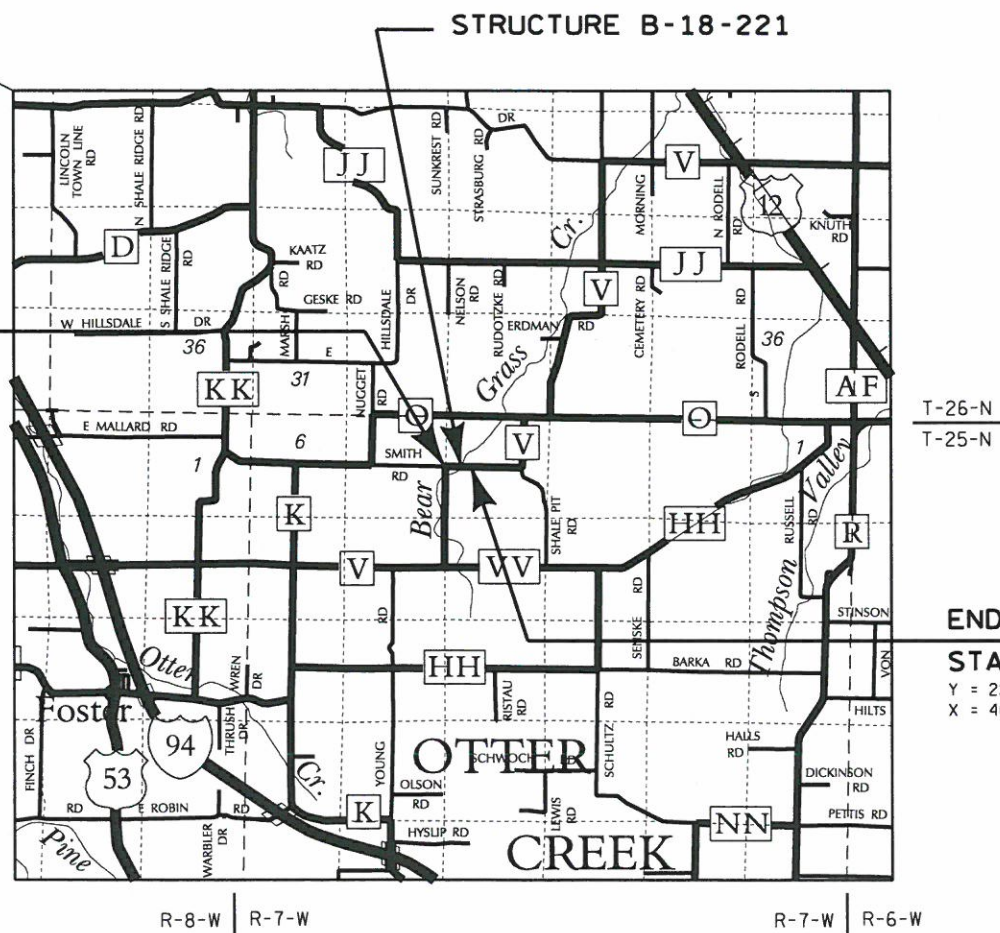
GRADE ELEVATION

CULVERT (Profile View)

UTILITIES
OVERHEAD ELECTRIC
ELECTRIC
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



TOTAL NET LENGTH OF CENTERLINE = 0.047 MI.



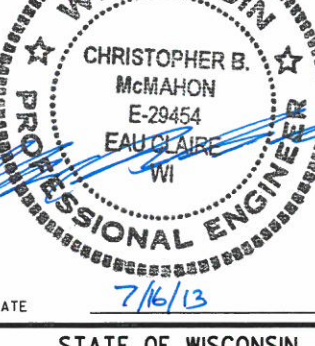
LAYOUT

SCALE 0 1 Mi.

END PROJECT
STA. 11+50
Y = 229351.06
X = 405869.96

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7830-00-70	WISC 2014059	1

ACCEPTED FOR	
County	<u>of Eau Claire</u>
<u>7.16.2013</u> Date	<u>[Signature]</u> Highway Commissioner
ORIGINAL PLANS PREPARED BY	
AYRES ASSOCIATES	3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com
	
DATE	<u>7/16/13</u>
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	<u>AYRES ASSOCIATES INC</u>
Designer	<u>AYRES ASSOCIATES INC</u>
Management Consultant	<u>KNIGHT E/A INC.</u>
C.O. Examiner	
APPROVED FOR THE DEPARTMENT	
DATE: <u>10/28/13</u>	<u>[Signature]</u> Management Consultant Signature

ABBREVIATIONS

AC	ACRES
CHIS	CHISELED
CL	CENTERLINE
COR	CORNER
CWT	COUNT
CY	CUBIC YARD
EL	ELEVATION
GAL	GALLON
H	HOUSE
IP	IRON PIPE
LB	POUND
LF	LINEAR FEET
LS	LUMP SUM
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
MON	MONUMENT
NORM	NORMAL
OAL	OVERALL LENGTH
PC	POINT OF CURVATURE
PD	PEDESTAL
PI	POINT OF INTERSECTION
PK	PARKER-KALON
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PP	POWER POLE
PT	POINT OF TANGENCY
R	RADIUS
REQ'D	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
SF	SQUARE FEET
SHLDR	SHOULDER
STA	STATION
SY	SQUARE YARD
TLE	TEMPORARY LIMITED EASEMENT
VAR	VARIES
WL	WELL

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER.

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

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

THE DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A MONUMENT TO BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

SEED MIXTURE NO. 20 AND SEEDING TEMPORARY SHALL BE USED IN THE PROJECT AND SHALL BE PLACED AS SHOWN IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLAN, OR AS DIRECTED BY THE ENGINEER. SILT FENCE TO BE PLACED PRIOR TO CONSTRUCTION AND IN PLACE PRIOR TO BRIDGE REMOVAL.

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

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

SHRINKAGE IS ESTIMATED AT 30%

WETLANDS EXIST IN THE PROJECT AREA AND THE CONTRACTOR SHALL NOT DISTURB OUTSIDE OF THE SLOPE INTERCEPTS IN THESE AREAS

UTILITIES

EAU CLAIRE ENERGY COOPERATIVE
8214 HIGHWAY 12
P.O. BOX 368
FALL CREEK, WI 54742-368
ATTN: GARY BRECKA, PE
715-836-6474
gbrecka@cecec.com

CENTURYLINK
835 RED IRON ROAD
BLACK RIVER FALLS, WI 54615
ATTN: DONNA SMOTHERS
715-284-4375
donna.smothers@centurytel.com

* * DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

DIGGERS HOTLINE

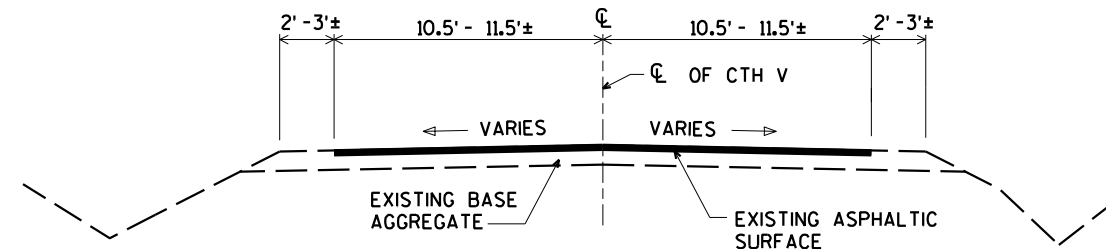
Dial **811** or (800) 242-8511
www.DiggersHotline.com

DESIGNER

AYRES ASSOCIATES
3433 OAKWOOD HILLS PARKWAY
EAU CLAIRE, WI 54701
ATTN: CHRIS MCMAHON, PE
715-834-3161
mcmahonc@ayresassociates.com

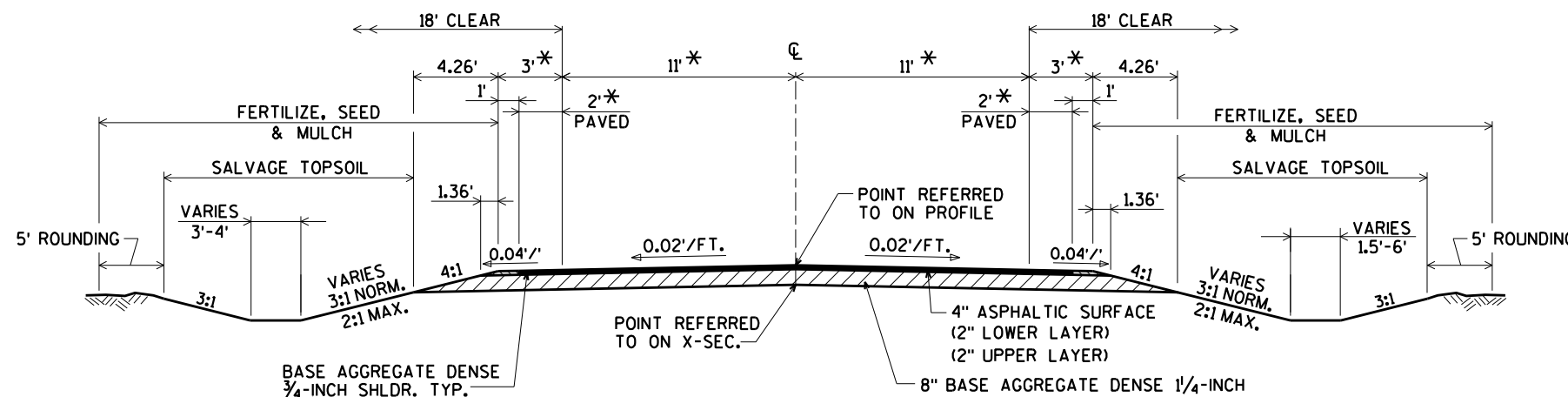
WISCONSIN DEPARTMENT OF
NATURAL RESOURCES CONTACT:

NICK SCHAFF
1300 WEST CLAIREMONT AVE.
P.O. BOX 4001
EAU CLAIRE, WI 54702-4001
715-839-1609
nicholas.schaff@wisconsin.gov



TYPICAL EXISTING SECTION

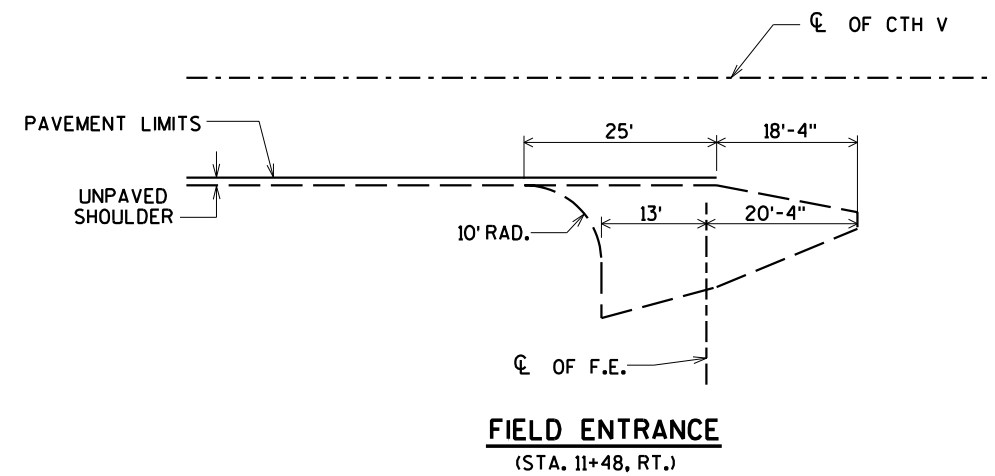
(CTH V)

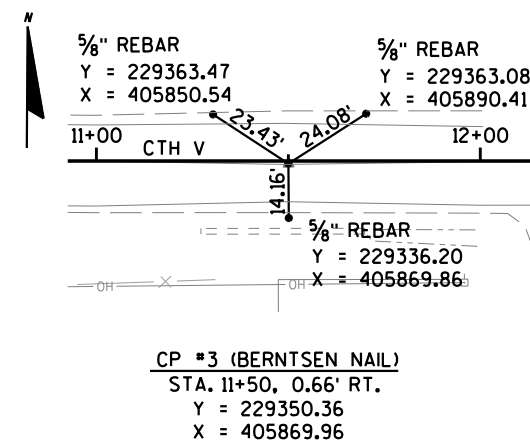
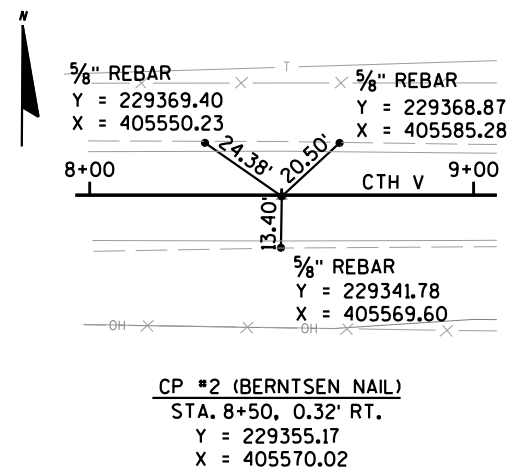
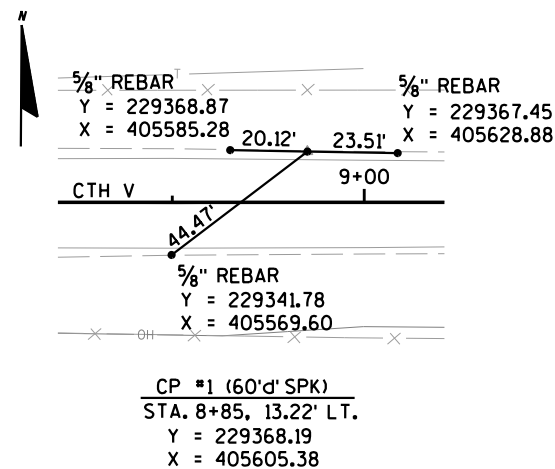
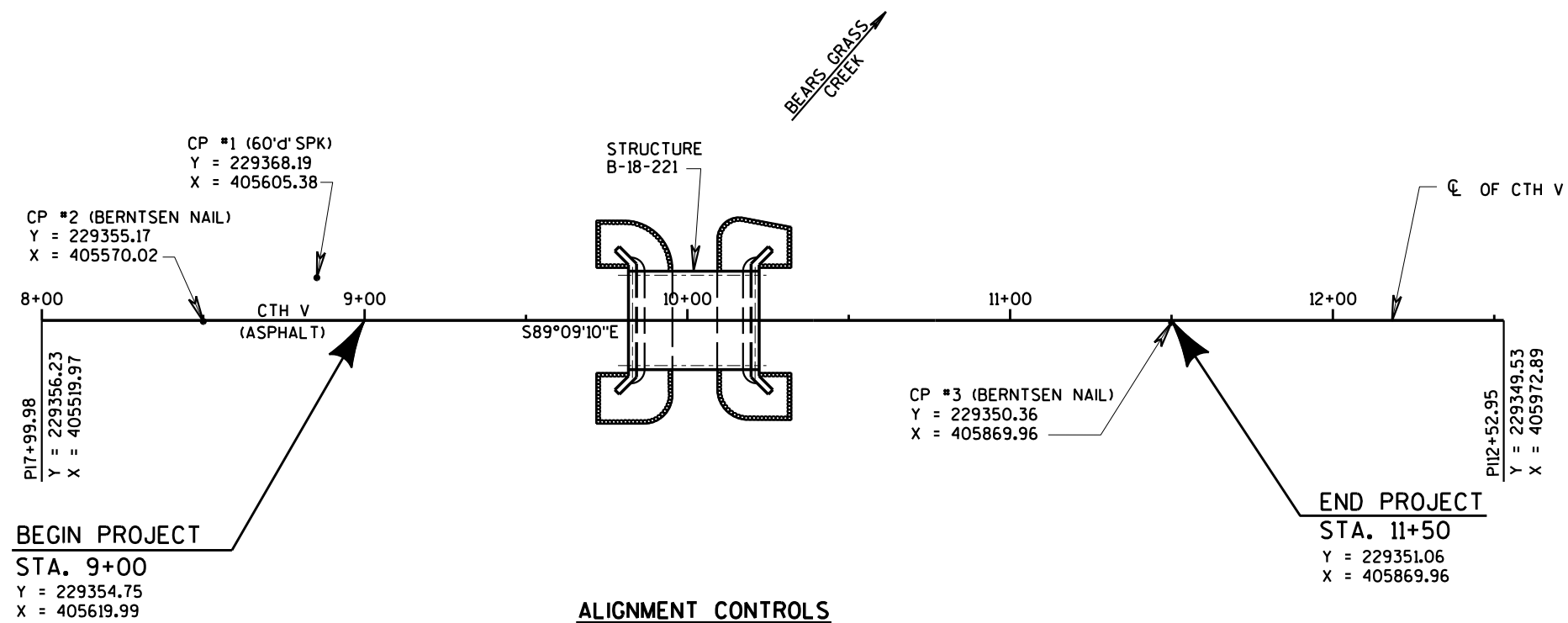


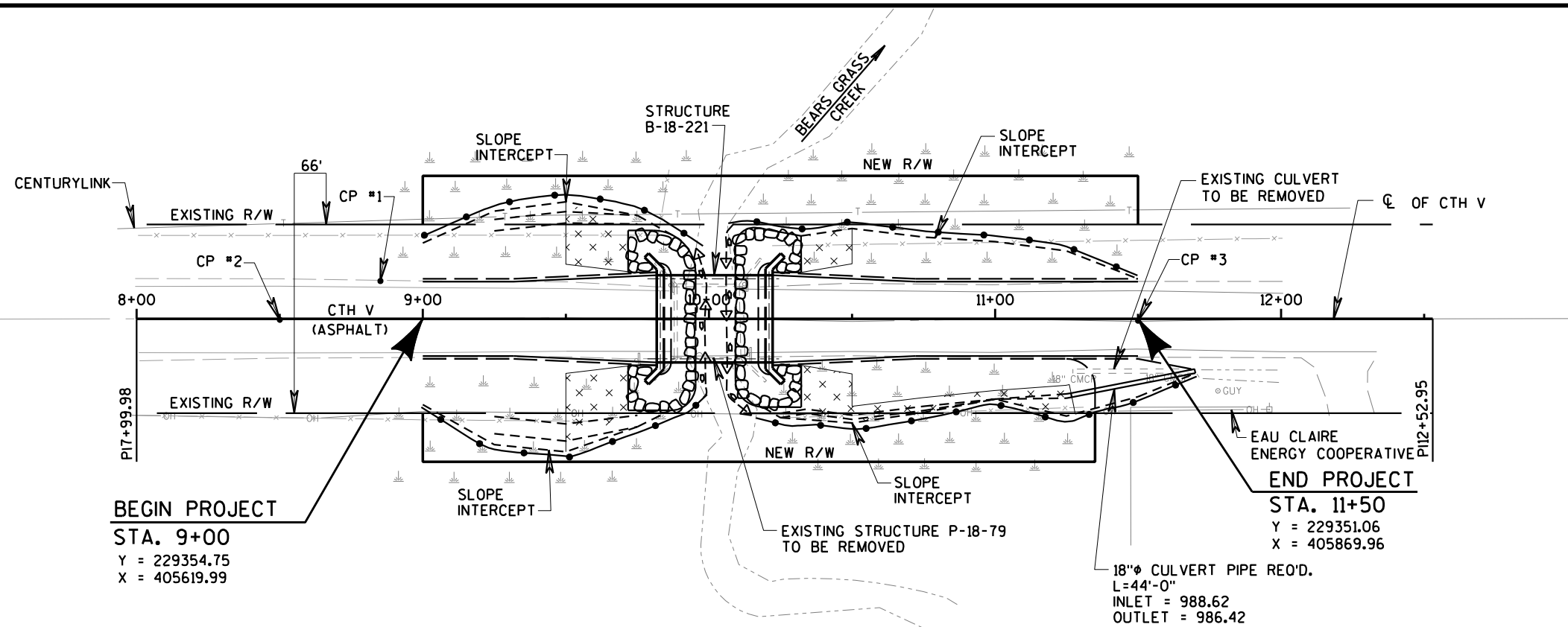
TYPICAL FINISHED SECTION

(CTH V)

* THE ASPHALT SURFACE SHALL BE PLACED 30.5 FEET WIDE AT THE ENDS OF THE BRIDGE AND TAPER TO 26 FEET WIDE AT 50 FEET FROM THE ENDS OF THE BRIDGE.



ALIGNMENT TIES

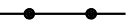
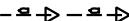


	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 0.64 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.39 ACRES

HIGH WATER 2 EL. 981.5

LEGEND

-  EROSION MAT CLASS II TYPE B
-  TEMPORARY DITCH CHECKS (UNDISTRIBUTED)
-  SILT FENCE
-  RIPRAP HEAVY
-  TURBIDITY BARRIER

DATE 05DEC13		E S T I M A T E O F Q U A N T I T I E S			
LINE				7830-00-70	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	3.000	3.000
0020	201.0205	GRUBBING	STA	3.000	3.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	1.000	1.000
0050	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 02. 10+00	LS	1.000	1.000
0060	205.0100	EXCAVATION COMMON **p**	CY	237.000	237.000
0080	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 02. B-18-221	LS	1.000	1.000
0090	208.0100	BORROW	CY	145.000	145.000
0100	210.0100	BACKFILL STRUCTURE	CY	200.000	200.000
0120	213.0100	FINISHING ROADWAY (PROJECT) 02. 7830-00-40	EACH	1.000	1.000
0130	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	20.000	20.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	365.000	365.000
0170	455.0605	TACK COAT	GAL	17.000	17.000
0180	465.0105	ASPHALTIC SURFACE	TON	150.000	150.000
0190	502.0100	CONCRETE MASONRY BRIDGES	CY	141.000	141.000
0200	502.3200	PROTECTIVE SURFACE TREATMENT	SY	160.000	160.000
0210	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	2,700.000	2,700.000
0220	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	17,310.000	17,310.000
0230	513.4060	RAILING TUBULAR TYPE M (STRUCTURE) 01. B-18-221	LS	1.000	1.000
0250	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	18.000	18.000
0270	520.0118	CULVERT PIPE CLASS III 18-INCH	LF	44.000	44.000
0280	550.0500	PILE POINTS	EACH	10.000	10.000
0290	550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	600.000	600.000
0310	606.0300	RIPRAP HEAVY	CY	170.000	170.000
0320	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	170.000	170.000
0360	619.1000	MOBILIZATION	EACH	0.340	0.340
0370	625.0500	SALVAGED TOPSOIL	SY	700.000	700.000
0380	627.0200	MULCHING	SY	925.000	925.000
0390	628.1504	SILT FENCE	LF	660.000	660.000
0400	628.1520	SILT FENCE MAINTENANCE	LF	1,320.000	1,320.000
0420	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	5.000	5.000
0430	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0440	628.2023	EROSION MAT CLASS II TYPE B	SY	320.000	320.000
0450	628.6005	TURBIDITY BARRIERS	SY	135.000	135.000
0460	628.7504	TEMPORARY DITCH CHECKS	LF	50.000	50.000
0470	629.0210	FERTILIZER TYPE B	CWT	0.800	0.800
0480	630.0120	SEEDING MIXTURE NO. 20	LB	35.000	35.000
0490	630.0200	SEEDING TEMPORARY	LB	25.000	25.000
0500	634.0612	POSTS WOOD 4X6-INCH X 12-FT	EACH	4.000	4.000
0510	637.2230	SIGNS TYPE II REFLECTIVE F	SF	12.000	12.000
0520	642.5001	FIELD OFFICE TYPE B	EACH	0.500	0.500
0540	643.0100	TRAFFIC CONTROL (PROJECT) 02. 7830-00-70	EACH	1.000	1.000
0600	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	335.000	335.000
0610	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	62.500	62.500
0620	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	210.000	210.000
0630	650.5000	CONSTRUCTION STAKING BASE	LF	210.000	210.000
0640	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	1.000	1.000
0660	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 02. B-18-221	LS	1.000	1.000
0680	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 02. 7830-00-70	LS	1.000	1.000

DATE 05DEC13		E S T I M A T E O F Q U A N T I T I E S			
LINE		7830-00-70			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0690	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	210.000	210.000
0700	690.0150	SAWING ASPHALT	LF	44.000	44.000
0720	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	846.000	846.000
0730	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	HRS	600.000	600.000
0740	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT \$5.00/HR	HRS	150.000	150.000

CLEARING AND GRUBBING (CATEGORY 0010)

STATION TO STATION	201.0105	201.0205
	CLEARING STA	GRUBBING STA
Sta. 8+00 to Sta. 10+00	3	3

203.0100 REMOVING SMALL PIPE CULVERTS

STATION TO STATION	DESCRIPTION	LENGTH	LOCATION	EACH
Sta. 11+48	18" Diameter	43'	18' RT	1

EARTHWORK SUMMARY (CATEGORY 0010)

DIVISION	STATION TO STATION	LOCATION	**P**		SALVAGED/ UNUSEABLE	AVAILABLE MATERIAL (5) CY	UNEXPANDED FILL CY	EXPANDED FILL (6) CY	MASS ORDINATE ±(7) CY	WASTE CY	208.0100 BORROW CY	COMMENTS:
			205.0100		PAVEMENT							
			EXCAVATION COMMON CUT (2) CY	EBS (3) CY	MATERIAL (4) CY							
1	9+00 TO 9+81.75	CTH V	133	0	0	133	132	172	-39	0	39	
	10+22.25 TO 11+50	CTH V	104	0	0	104	162	211	-107	0	107	
GRANDTOTAL			237	0	0	237	294	382		0	145	

TOTAL EXCAVATION COMMON 237

- NOTES:
- 1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
 - 2) SALVAGED/UNUSEABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
 - 3) EBS EXCAVATION TO BE BACKFILLED WITH BORROW MATERIAL.
 - 4) SALVAGED/UNUSEABLE PAVEMENT MATERIAL
 - 5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSEABLE PAVEMENT MATERIAL
 - 6) EXPANDED FILL FACTOR = 1.30
EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
 - 7) THE MASS ORDINATE ± QTY CALCULATED FOR THE DIVISION.
PLUS (+) QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.
MINUS (-) QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

213.0100 FINISHING ROADWAY (CATEGORY 0010)

LOCATION	EACH
PROJECT 7830-00-70	1

BASE AGGREGATE DENSE (CATEGORY 0010)

STATION TO STATION	LOCATION	305.0110	305.0120
		3/4-INCH TON	1 1/4-INCH TON
Sta. 9+00 to Sta. 9+81.75	Mainline	10	145
Sta. 10+22.25 to Sta. 11+50	Mainline	10	220
TOTALS		20	365

455.0605 TACK COAT (CATEGORY 0010)

STATION TO STATION	LOCATION	GAL
Sta. 9+00 to Sta. 9+81.75	Mainline	7
Sta. 10+22.25 to Sta. 11+50	Mainline	10
TOTAL		17

465.0105 ASPHALTIC SURFACE (CATEGORY 0010)

STATION TO STATION	LOCATION	TON
Sta. 9+00 to Sta. 9+81.75	Mainline	60
Sta. 10+22.25 to Sta. 11+50	Mainline	90
TOTAL		150

520.0118 CULVERT PIPE CLASS III 18-INCH

STATION TO STATION	LOCATION	THICKNESS (INCHES)	LF
		STEEL	
Sta. 11+26.69 to Sta. 11+69.87	26.7' RT to 18.3' RT	0.064	44

619.1000 MOBILIZATION

LOCATION	EACH
PROJECT 7830-00-70 (CATEGORY 0010)	0.07
PROJECT 7830-00-70 (CATEGORY 0020)	0.27
TOTAL	0.34

SALVAGED TOPSOIL, MULCHING, FERTILIZER, SEED & TEMPORARY SEED (CATEGORY 0010)

STATION TO STATION	LOCATION	625.0500	627.0200	629.0210	630.0120	630.0200
		SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING NO. 20 LB	SEEDING TEMPORARY LB
Sta. 9+00 to Sta. 11+50	Mainline	700	740	0.6	27	20
Undistributed		---	185	0.2	8	5
TOTALS		700	925	0.8	35	25

SILT FENCE & SILT FENCE MAINTENANCE (CATEGORY 0010)

STATION TO STATION	LOCATION	628.1504	628.1520
		LF	LF
Sta. 9+00 to Sta. 9+96	LT	105	210
Sta. 9+00 to Sta. 9+99	RT	110	220
Sta. 10+07 to Sta. 11+50	LT	150	300
Sta. 10+16 to Sta. 11+70	RT	160	320
Undistributed		135	270
TOTALS		660	1,320

MOBILIZATIONS EROSION CONTROL & EMERGENCY EROSION CONTROL (CATEGORY 0010)

LOCATION	628.1905	628.1910
	MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 7830-00-70	5	2

628.2023 EROSION MAT CLASS II TYPE B (CATEGORY 0010)

STATION TO STATION	LOCATION	SF
Sta. 9+50 to Sta. 9+71.75	LT	60
Sta. 9+50 to Sta. 9+71.75	RT	70
Sta. 10+32.25 to Sta. 10+50	LT	30
Sta. 10+32.25 to Sta. 11+27.92	RT	95
Undistributed		65
TOTAL		320

628.6005 TURBIDITY BARRIER (CATEGORY 0010)

LOCATION	LF
West Abutment	55
East Abutment	50
Undistributed	30
TOTALS	135

628.7504 TEMPORARY DITCH CHECKS (CATEGORY 0010)

LOCATION	LF
UNDISTRIBUTED	50

634.0612 WOOD POSTS 4X6 INCH X 12 FT (CATEGORY 0010)

STATION	LOCATION	EACH
Sta. 9+81	LT	1
Sta. 9+81	RT	1
Sta. 10+23	LT	1
Sta. 10+23	RT	1
TOTAL		4

637.2230 SIGNS TYPE II REFLECTIVE F (CATEGORY 0010)

STATION	LOCATION	DESCRIPTION	SF
Sta. 9+81	LT	W5-52L	3
Sta. 9+81	RT	W5-52R	3
Sta. 10+23	LT	W5-52R	3
Sta. 10+23	RT	W5-52L	3
TOTAL			12

642.5001 FIELD OFFICE TYPE B (CATEGORY 0010)

LOCATION	EACH
PROJECT 7830-00-70	0.5

643.0100 TRAFFIC CONTROL (CATEGORY 0010)

LOCATION	EACH
PROJECT 7830-00-70	1

646.0106 PAVEMENT MARKING EPOXY 4-INCH (CATEGORY 0010)

STATION	DESCRIPTION	LF
Sta. 9+00 to Sta. 11+50	Yellow Dashed Centerline	62.5
TOTAL		62.5

CONSTRUCTION STAKING

CATEGORY	LOCATION	650.4500	650.5000	650.6000	650.6500	650.9910	650.9920
		SUBGRADE LF	BASE LF	PIPE CULVERTS EACH	STRUCTURE LAYOUT LS	SUPPLEMENTARY CONTROL LS	SLOPE STAKES LF
0010	Sta. 9+00 to Sta. 11+50	210	210	1	---	1	210
0020	B-18-221	---	---	---	1	---	---
TOTALS		210	210	1	1	1	210

690.0150 SAWING ASPHALT (CATEGORY 0010)

STATION	LOCATION	LF
Sta. 9+00	Mainline	23
Sta. 11+50	Mainline	21
TOTAL		44

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	TOTAL ACRES	NEW	EXISTING	TOTAL FEE	TOTAL ACRES REMAINING
1	JENNIFER J. WILLIAMS	FEE	40.00	0.10	0.10	0.20	39.80
2	THOMAS B. PRANCKUS	FEE	40.00	0.09	0.27	0.36	39.64
50	CENTURYTEL, INC.	RELEASE OF RIGHTS					

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

50 CENTURYTEL, INC.

V. 326, P. 706
DOC NO: 365227 - PARCEL 1

R/W PROJECT NUMBER 7830-00-00	SHEET NUMBER 4.01	TOTAL SHEETS 1
FEDERAL PROJECT NUMBER		
PLAT OF RIGHT-OF-WAY REQUIRED FOR CTH VV - CTH O (BEARGRASS CREEK BRIDGE P180079)		
CTH V	EAU CLAIRE COUNTY	
CONSTRUCTION PROJECT NUMBER 7830-00-70		

BEGIN RELOCATION ORDER

STA. = 9+00.00
X = 405620.16
Y = 229366.85
5.62' NORTH AND 657.80' EAST
OF THE WEST 1/4 CORNER OF
SECTION 4 TOWNSHIP 25 NORTH
RANGE 7 WEST

7/8" REBAR W/
EAU CLAIRE COUNTY
ALUMINUM CAP
X = 404962.36
Y = 229361.23

P17+99.98
X = 405519.97
Y = 229356.23

POINT	Y	X
1	229387.75	405620.47
2	229404.75	405620.72
3	229401.05	405870.70
4	229384.05	405870.45
5	229318.21	405859.47
6	229301.21	405859.22
7	229304.76	405619.25
8	229321.76	405619.50

NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, EAU CLAIRE COUNTY, NAD83(2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARING AND GRID DISTANCES, GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE II (3/4" X 24" REINFORCEMENT BAR WEIGHING 1.13 LB/FT) AND ARE PLACED PRIOR TO THE COMPLETION OF THE PROJECT OR AT THE TIME OF LAND TITLE TRANSFER.

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

EXISTING RIGHT OF WAY BASED ON CENTERLINE OF EXISTING PAVEMENT AND PRESUMED TO BE 66 FEET IN WIDTH IN ACCORDANCE WITH WISCONSIN STATE STATUTE 81.31(2)

CONVENTIONAL ABBREVIATIONS

ACCESS POINT, DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET. AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	CURVE DATA	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	P.L.E.	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

FOUND IRON PIPE/PIN	IF
R/W MONUMENT	R/W
R/W STANDARD	R/W
SECTION CORNER MONUMENT	SCM
SECTION CORNER SYMBOL	SCS
FEE (HATCH VARIES)	FEE
TEMPORARY LIMITED EASEMENT	TLE
PERMANENT LIMITED EASEMENT	P.L.E.
R/W BOUNDARY POINT	R/W
PARCEL NUMBER	PN
UTILITY PARCEL NUMBER	UPN
SIGN NUMBER (OFF PREMISE)	SN
BUILDING	B

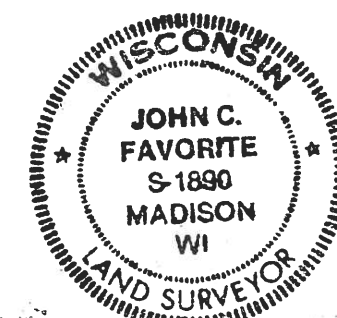
CONVENTIONAL SYMBOLS

PROPOSED R/W LINE	---
EXISTING H.E. LINE	---
PROPERTY LINE	---
LOT & TIE LINES	---
SLOPE INTERCEPTS	---
CORPORATE LIMITS	---
NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	---
NO ACCESS (BY ACQUISITION)	---
NO ACCESS (BY STATUTORY AUTHORITY)	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
EXISTING CENTERLINE	---
PROPOSED REFERENCE LINE	---
PARALLEL OFFSET	---

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD	---
TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
POWER POLE	---
TELEPHONE POLE	---
TELEPHONE PEDESTAL	---
ELECTRIC TOWER	---

OTTER CREEK



JOHN C. FAVORITE RLS JULY 3, 2013
S-1890 DATE

REVISION DATE:

EAU CLAIRE COUNTY

APPROVED FOR EAU CLAIRE COUNTY HIGHWAY DEPARTMENT
DATE: 7-10-2013
COMMISSIONER

5

NOTES:
FOR ALIGNMENT CONTROLS AND TIES,
SEE ALIGNMENT CONTROLS & TIES SHEET.

ORIGIN OF LEVELS

EAU CLAIRE COUNTY GPS POINT
OTTER CREEK NORTH GPS 5D10
P.I.D. = DJ4610
EL. = 1008.19
(NAVD88)

BEGIN PROJECT

STA. 9+00
(SAWCUT REQUIRED)
Y = 229354.75
X = 405619.99

END PROJECT

STA. 11+50
(SAWCUT REQUIRED)
Y = 229351.06
X = 405869.96

CONSTRUCT FE
STA. 11+48, RT.

REMOVE EXISTING 18"Ø CP
STA. 11+48, 18' RT.

NEW 18"Ø CP REQ'D.
STA. 11+48, 23' RT.
L = 44'
INLET EL. 988.62
OUTLET EL. 986.42

		BENCH MARKS	
NO.	STA.	DESCRIPTION	ELEV.
1	9+88	CHIS. BOX IN TOP OF SW WING, 14' RT.	988.22
2	11+96	RR SPK IN PP, 31' RT.	991.51

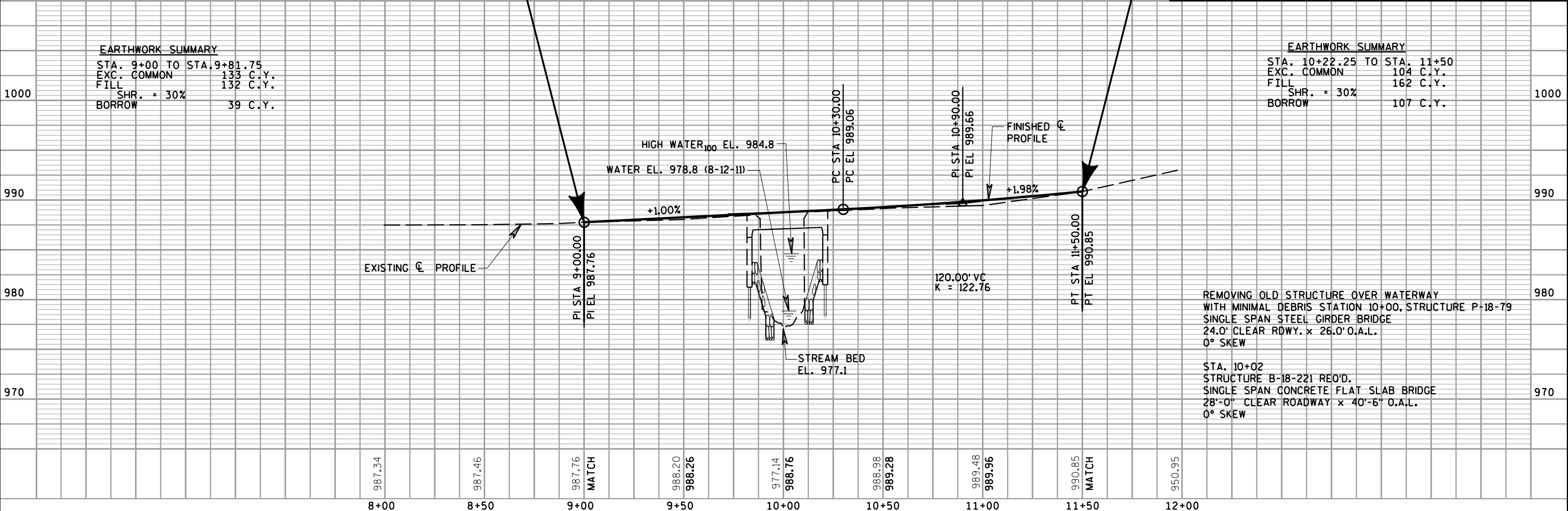
NET LENGTH OF CENTERLINE STA. 9+00 TO 11+50 = 250 LIN. FT.

EARTHWORK SUMMARY

STA. 9+00 TO STA. 9+81.75
EXC. COMMON 133 C.Y.
FILL 132 C.Y.
SHR. = 30%
BORROW 39 C.Y.

EARTHWORK SUMMARY

STA. 10+22.25 TO STA. 11+50
EXC. COMMON 104 C.Y.
FILL 162 C.Y.
SHR. = 30%
BORROW 107 C.Y.

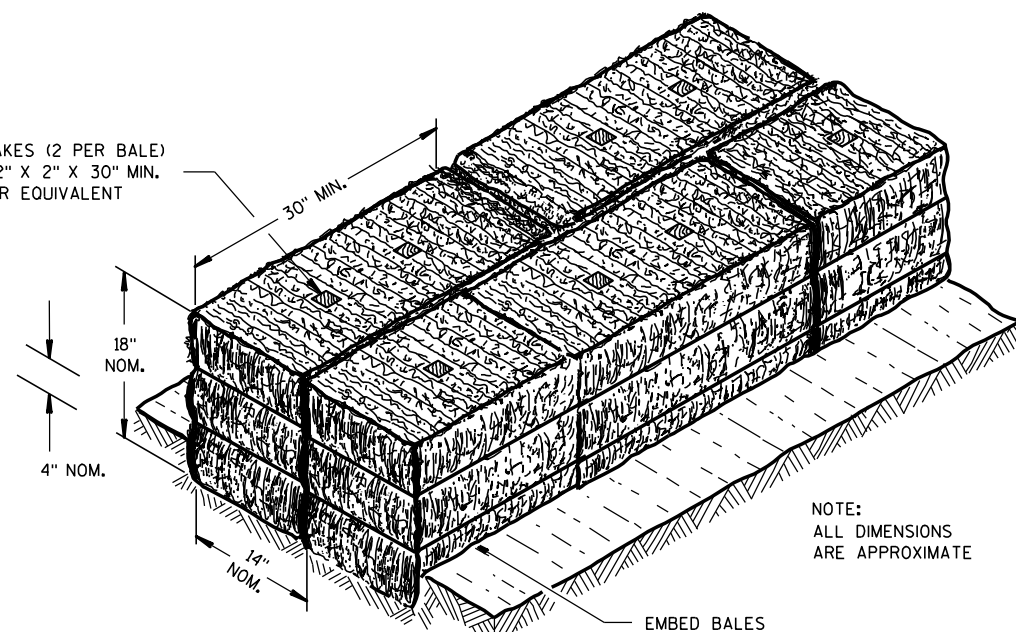


5

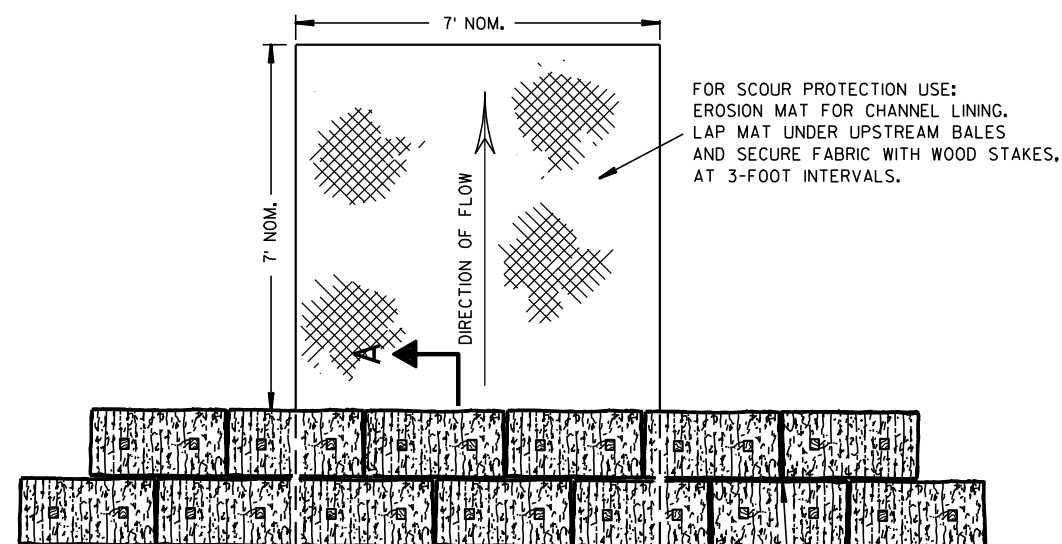
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)

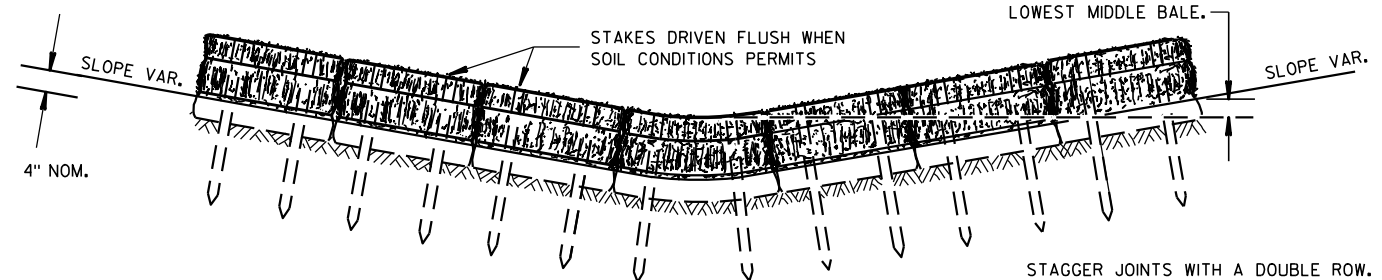
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



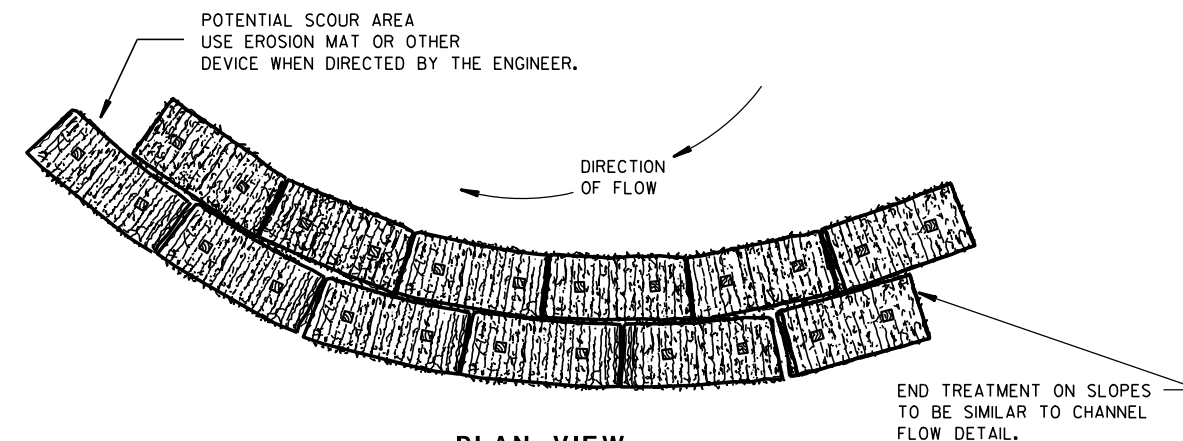
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

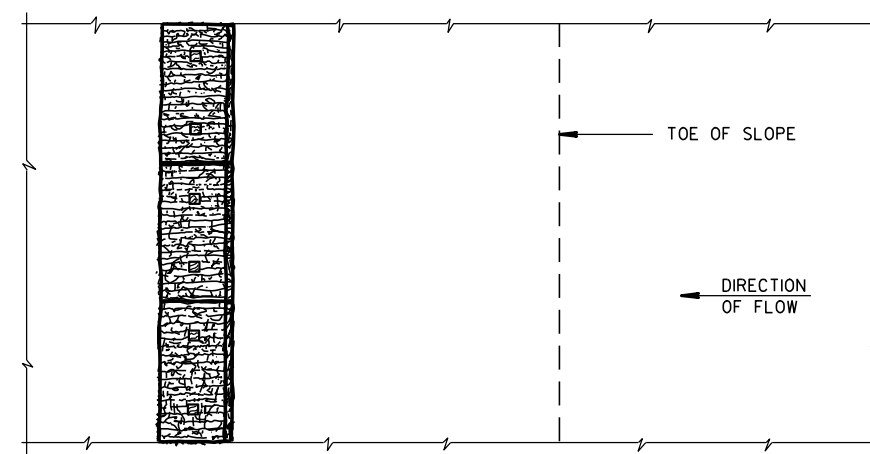
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

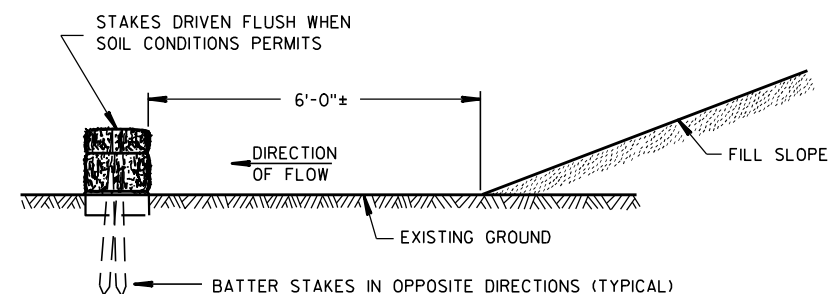


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

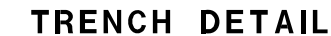
6/04/02
DATE

FHWA

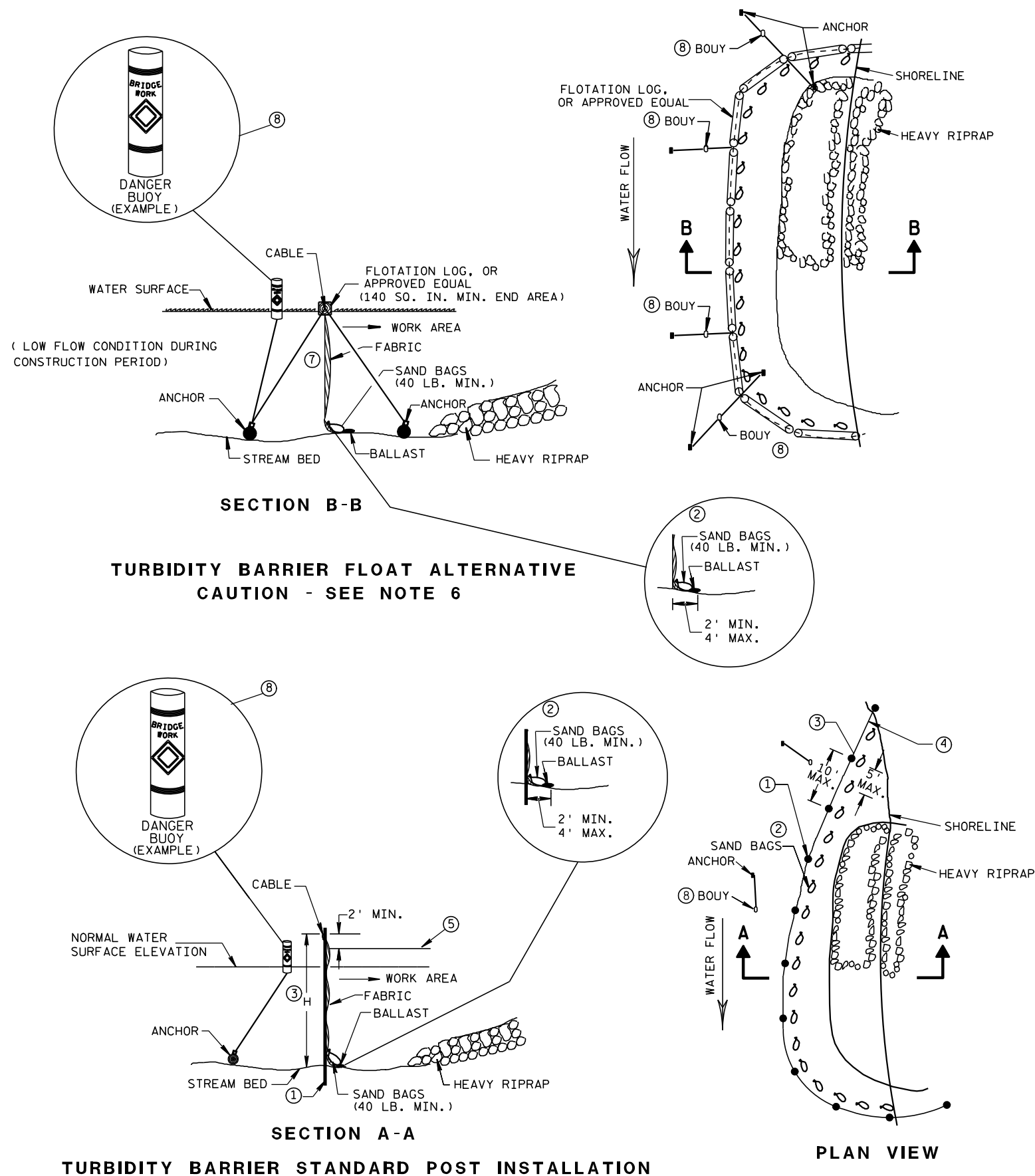
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER

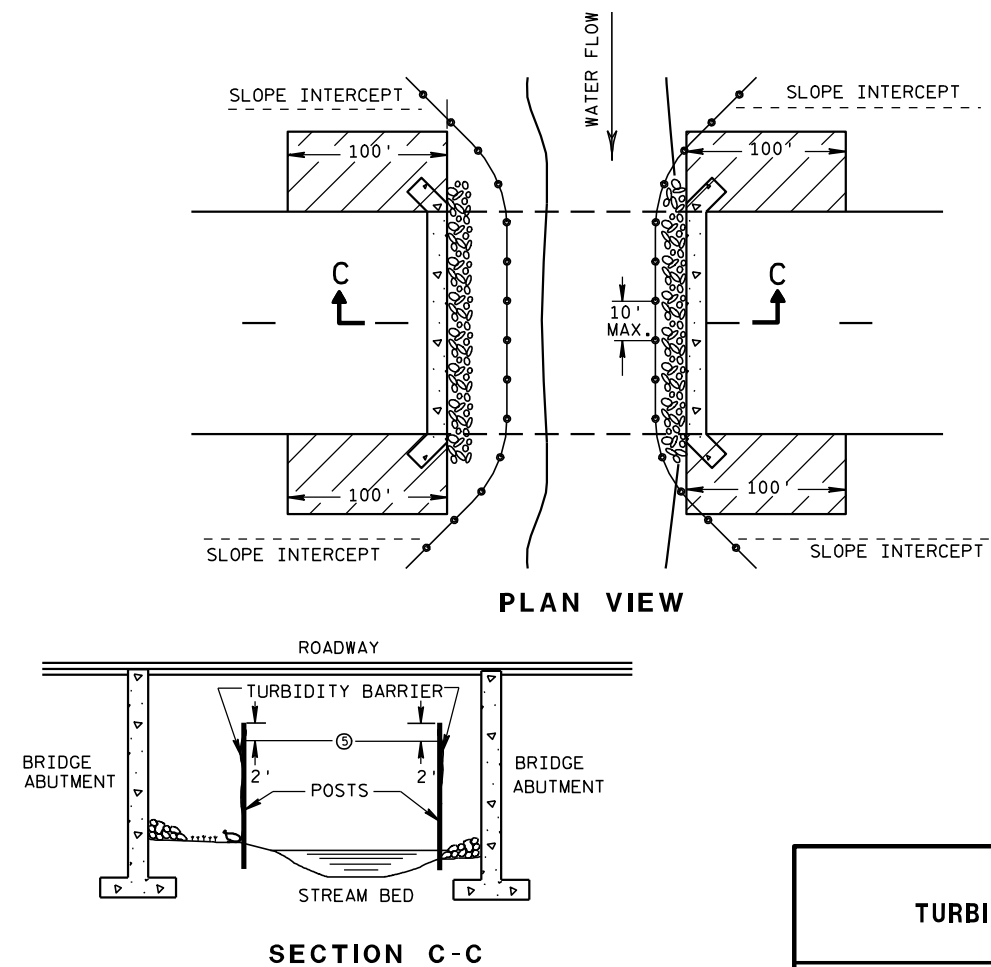


GENERAL NOTES

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

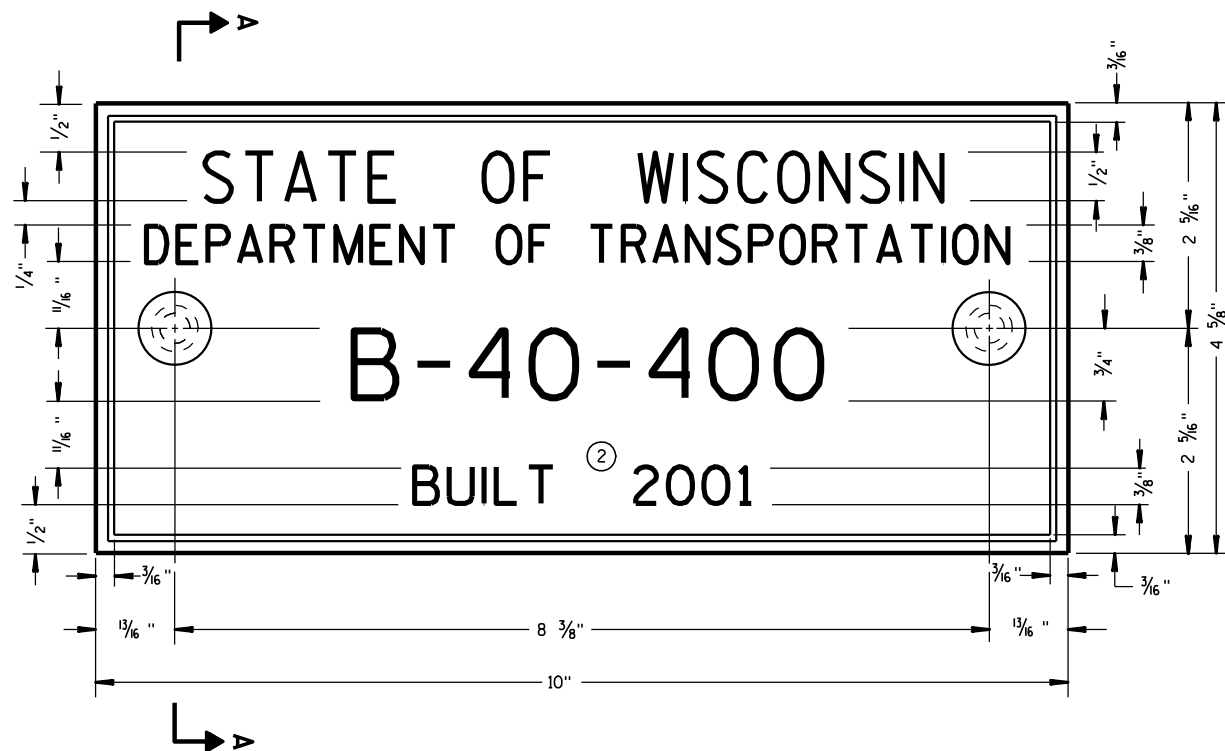
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

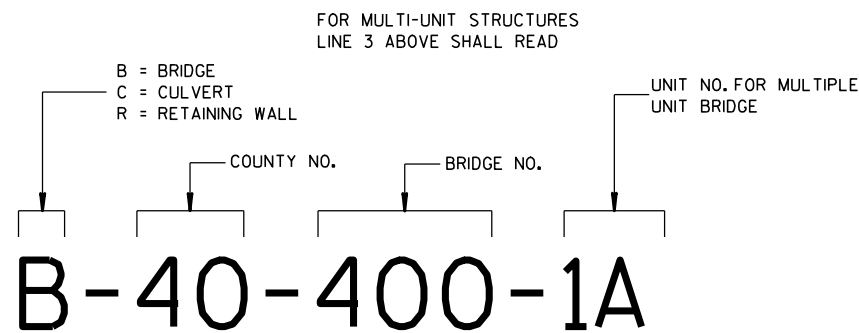
6/04/02
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



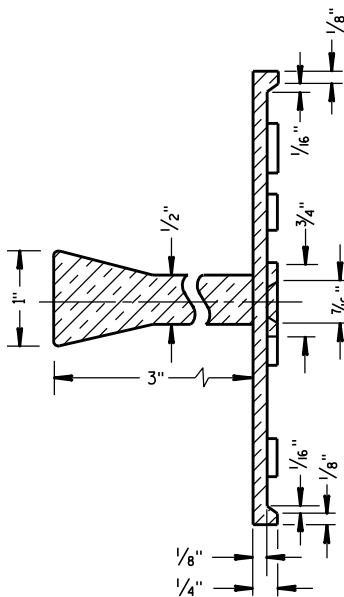
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

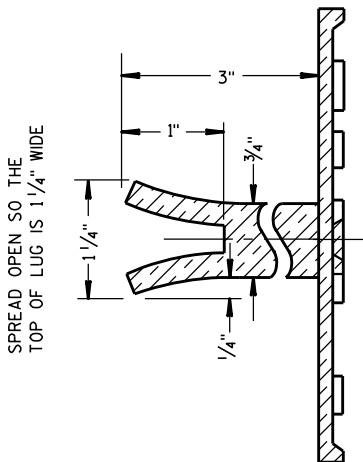
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

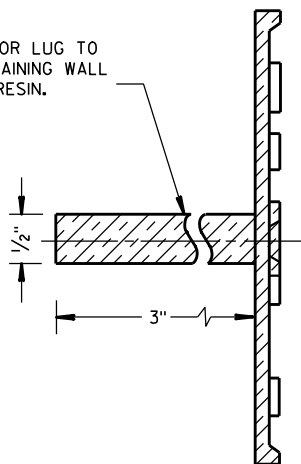


SECTION A-A



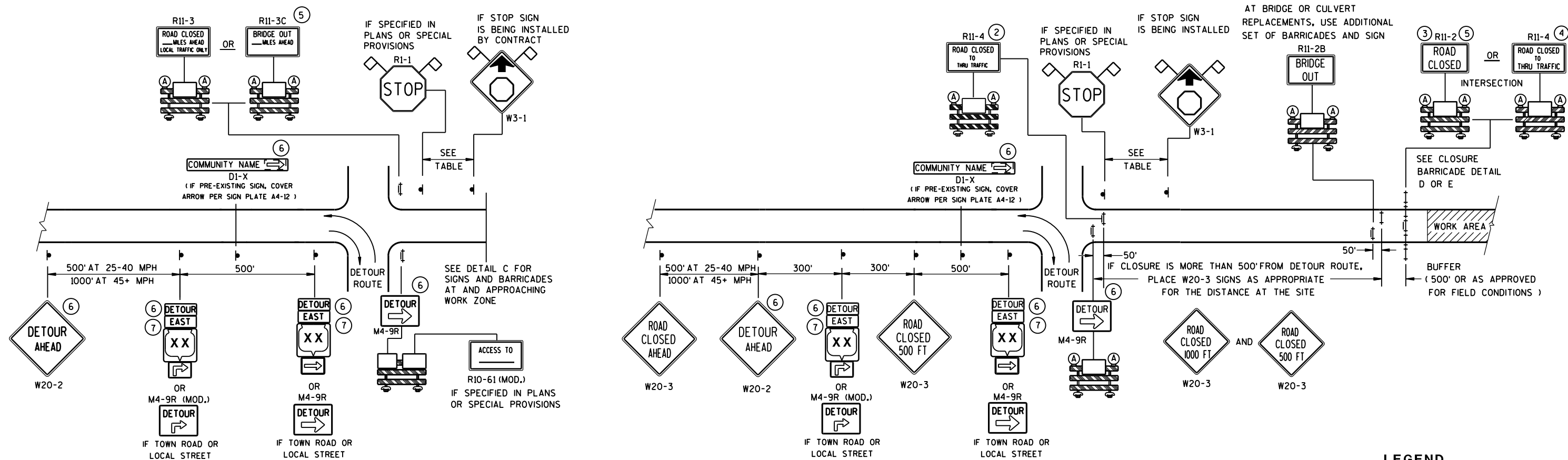
ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

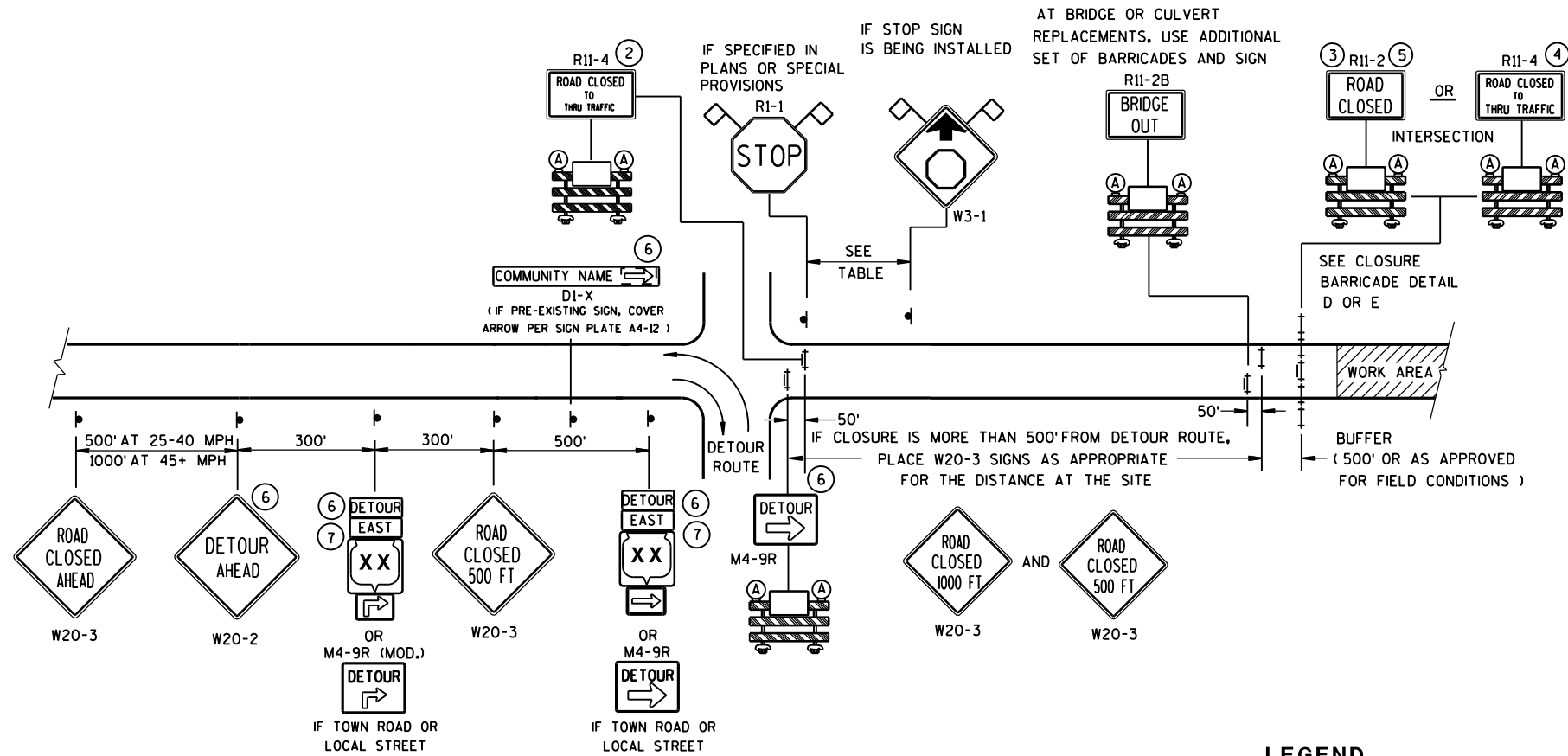
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/26/10 DATE	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



DETAIL A

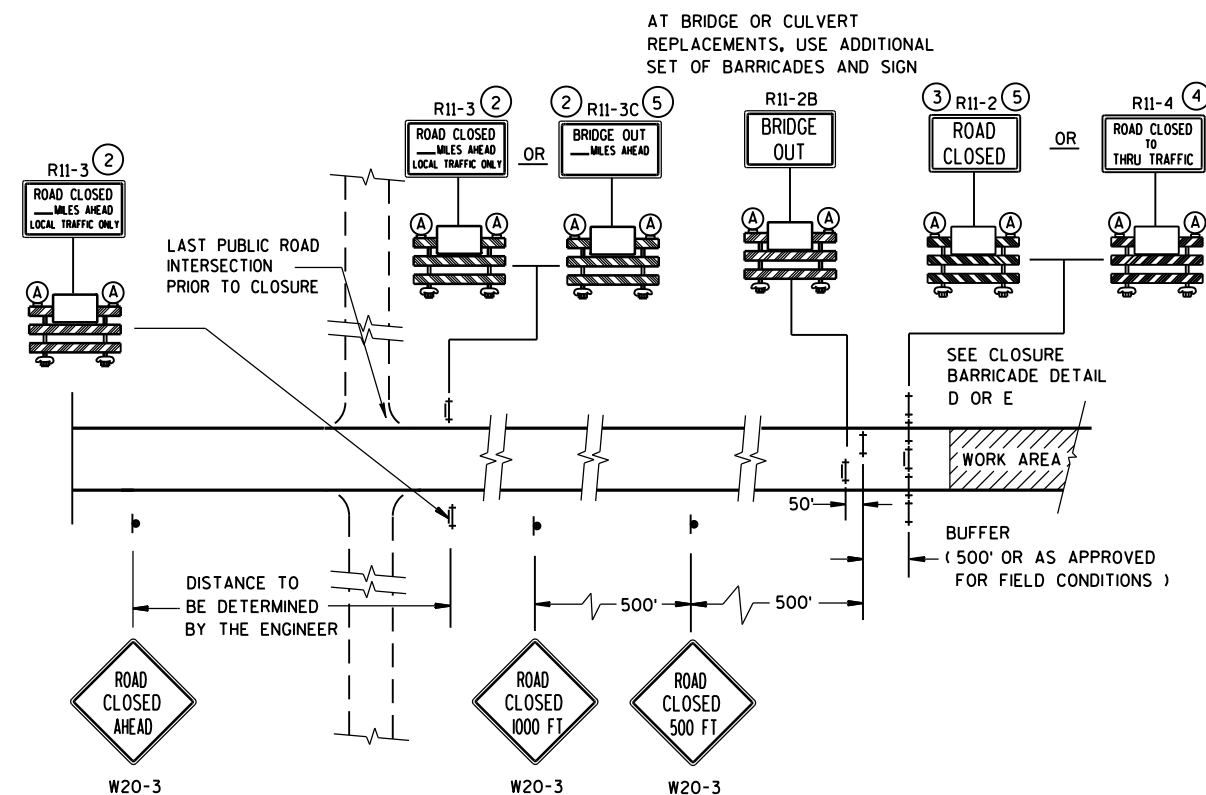
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

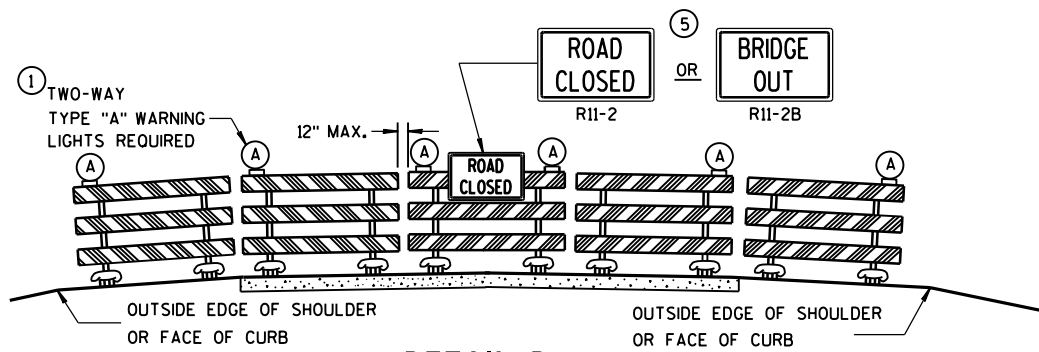
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

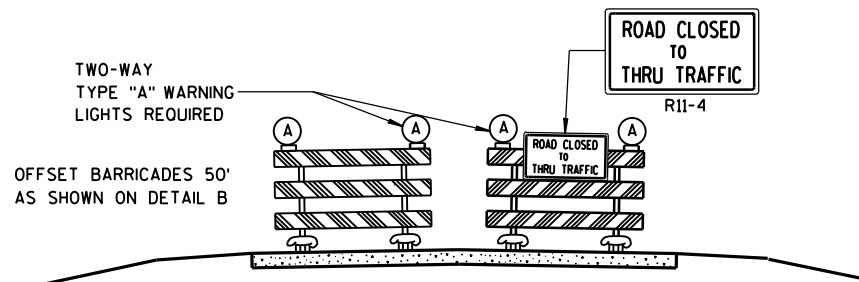
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

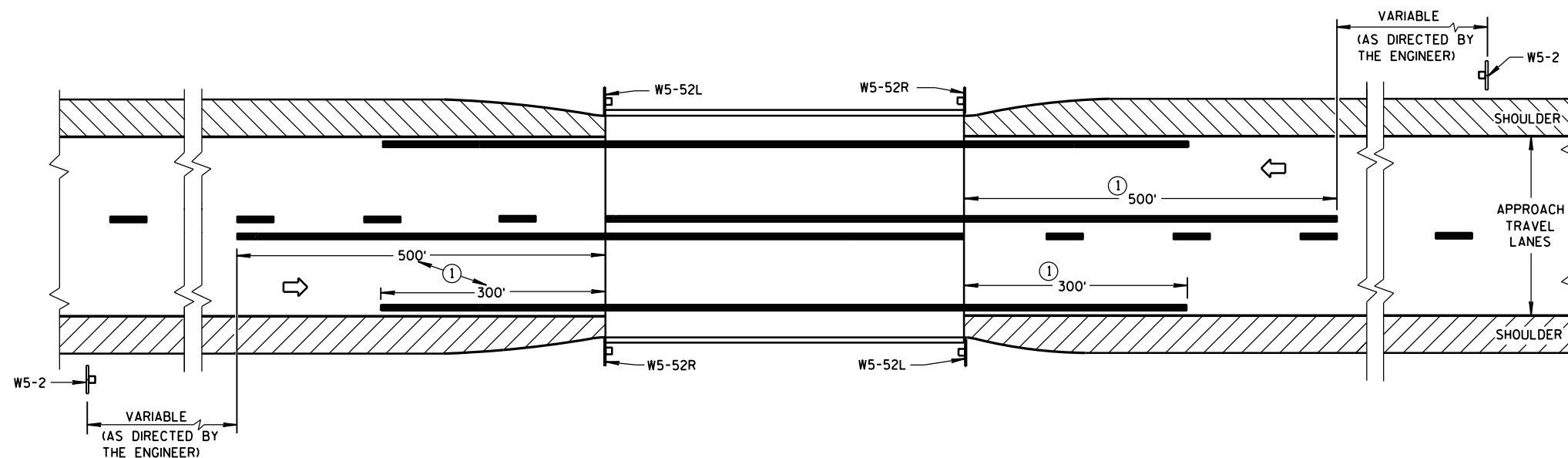
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36"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

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

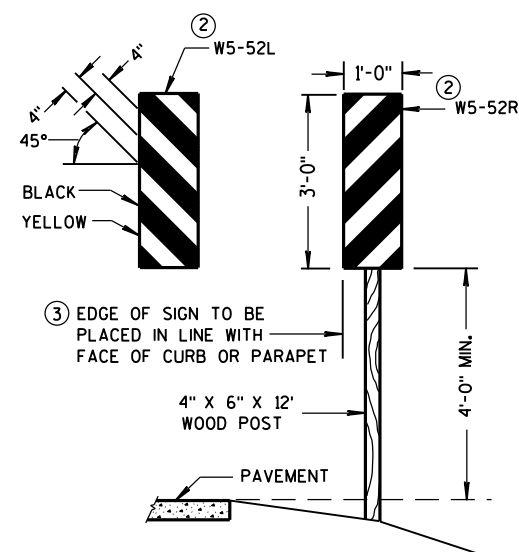
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



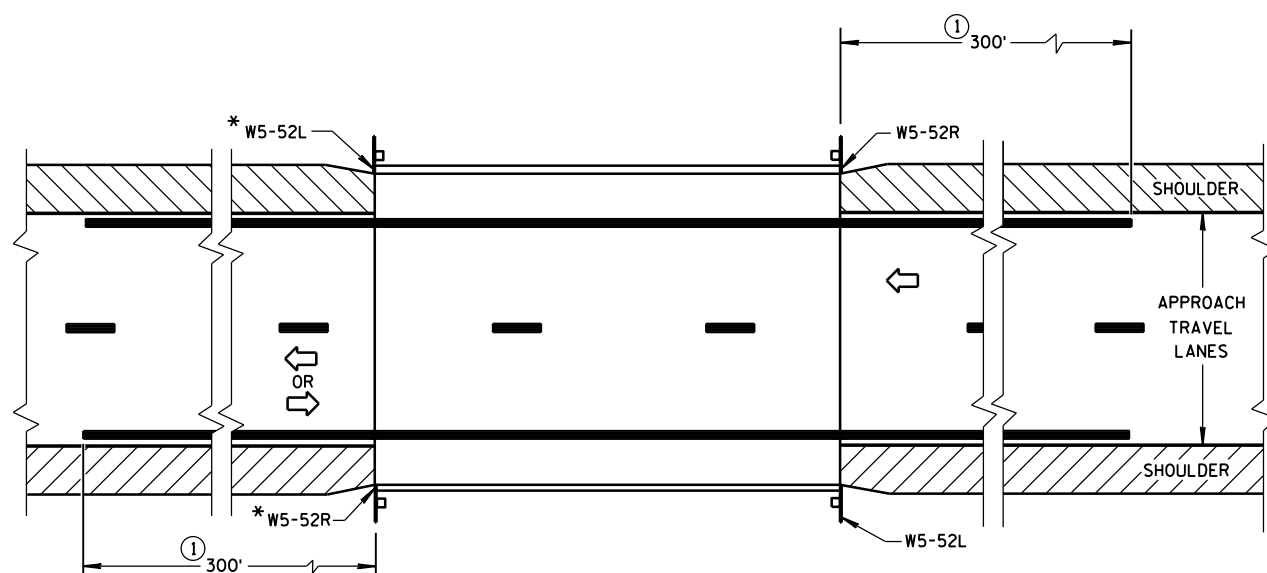
OBJECT MARKER PLACEMENT

GENERAL NOTES

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

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

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

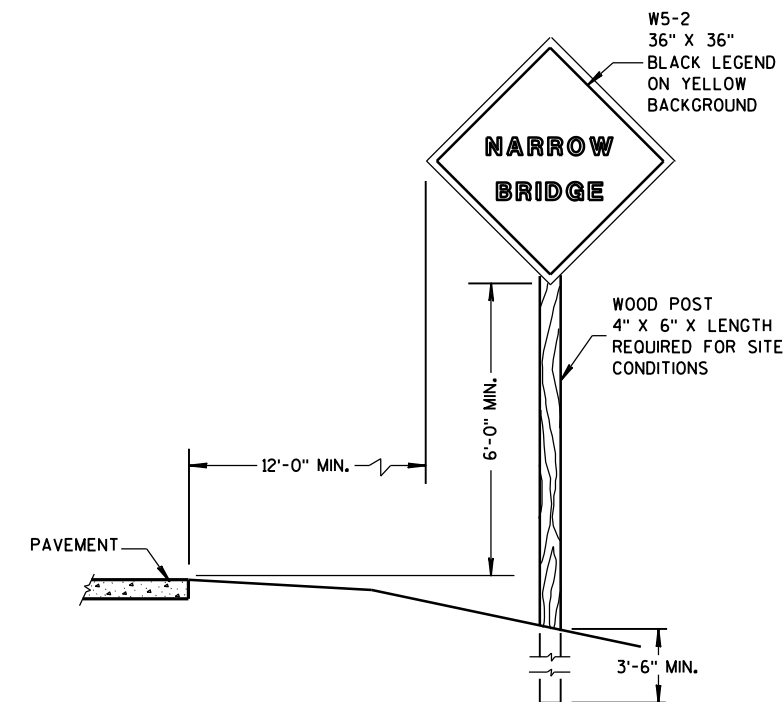


*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

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



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

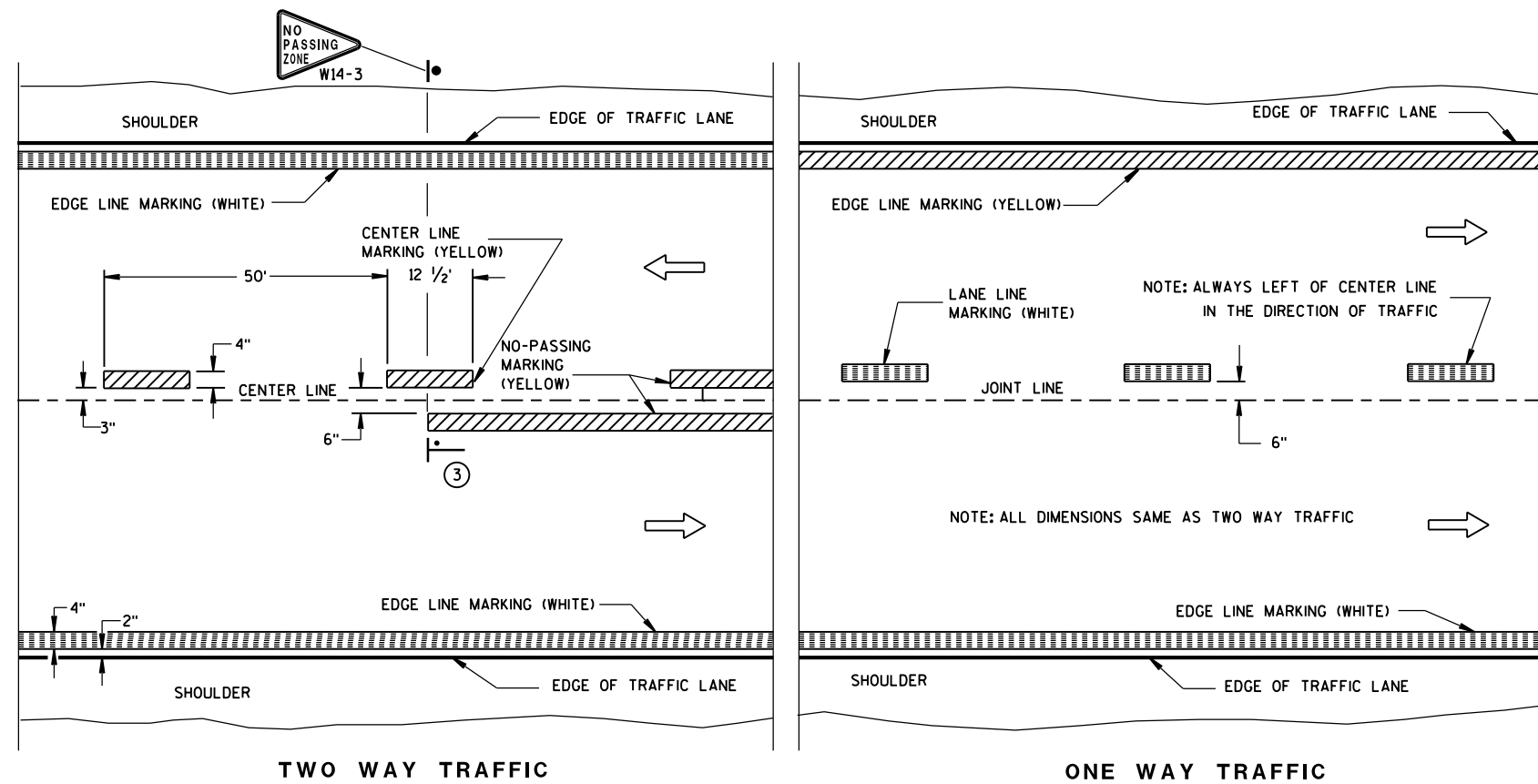
3/4/2013

DATE

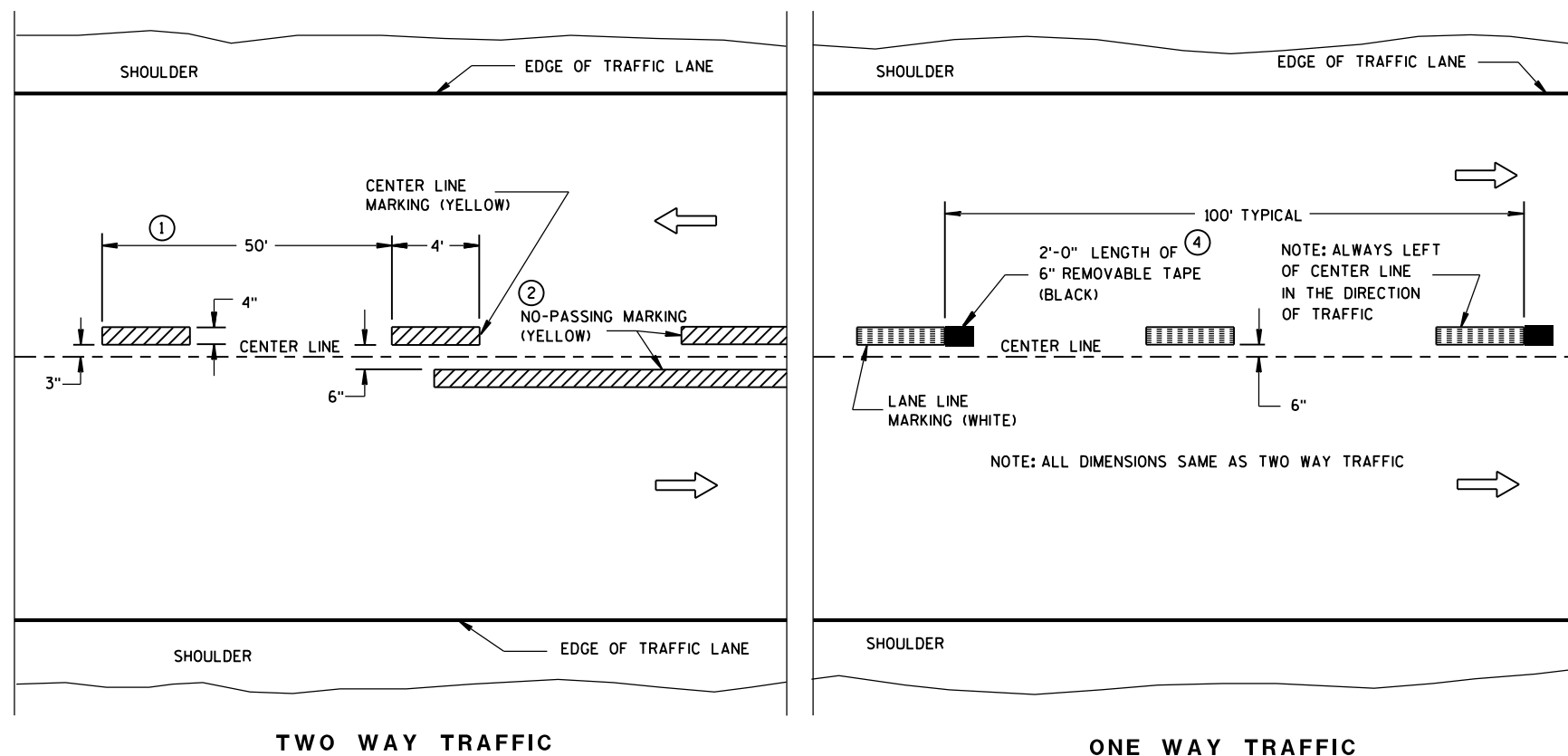
FHWA

/S/ Travis Feltes

STATE TRAFFIC ENGINEER OF DESIGN



PERMANENT PAVEMENT MARKING



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

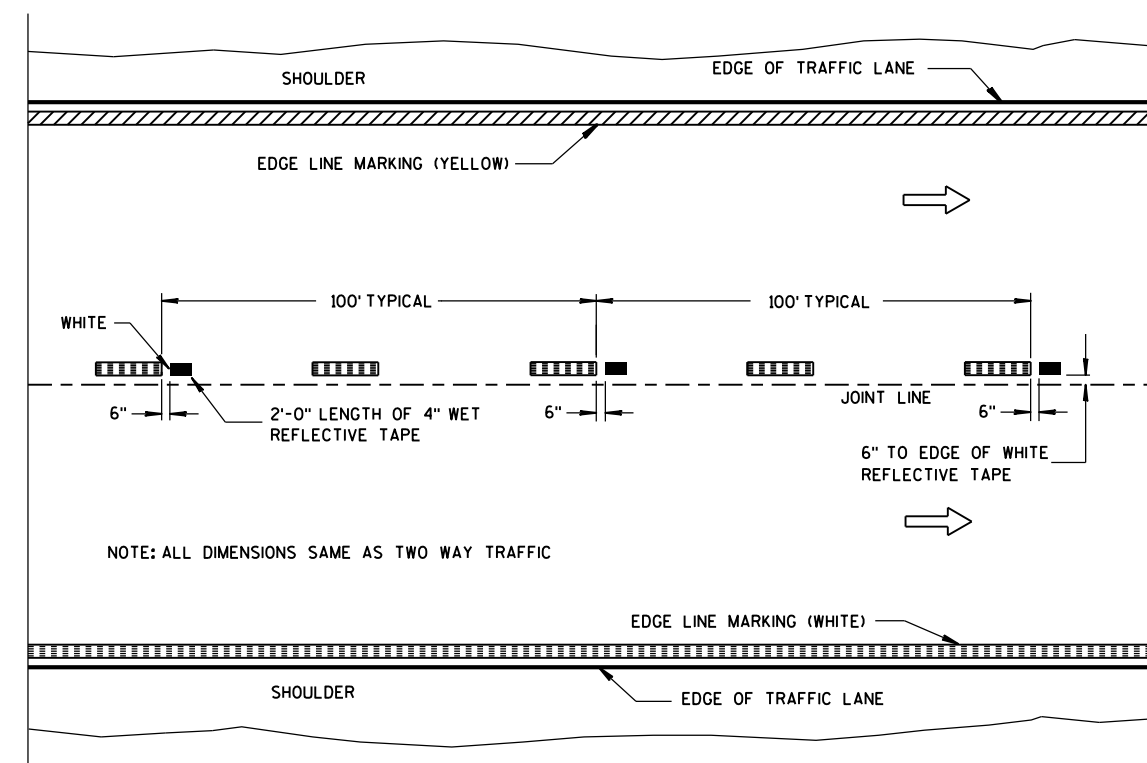
GENERAL NOTES

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

- ① HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- ② NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- ③ NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
- ④ CONCRETE ONLY.

NOTE

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

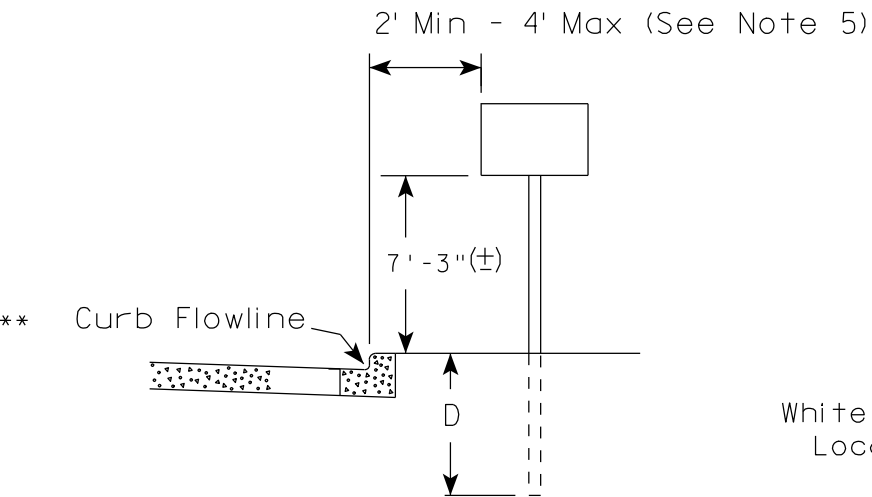
-  "T" MARKING
-  POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

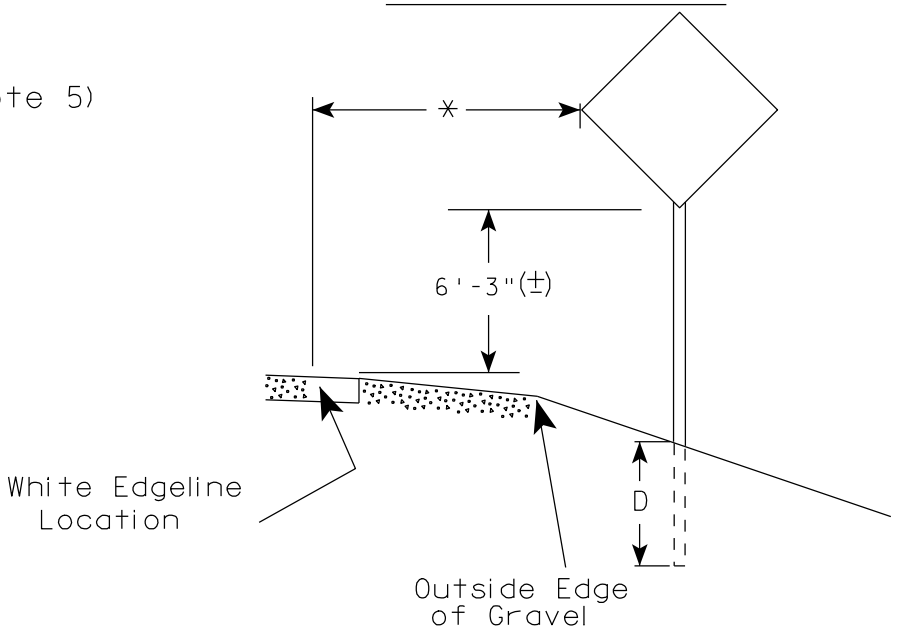
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA

URBAN AREA



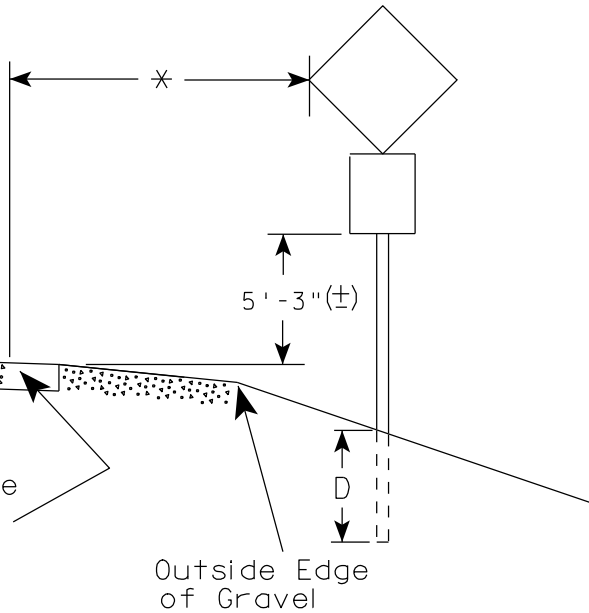
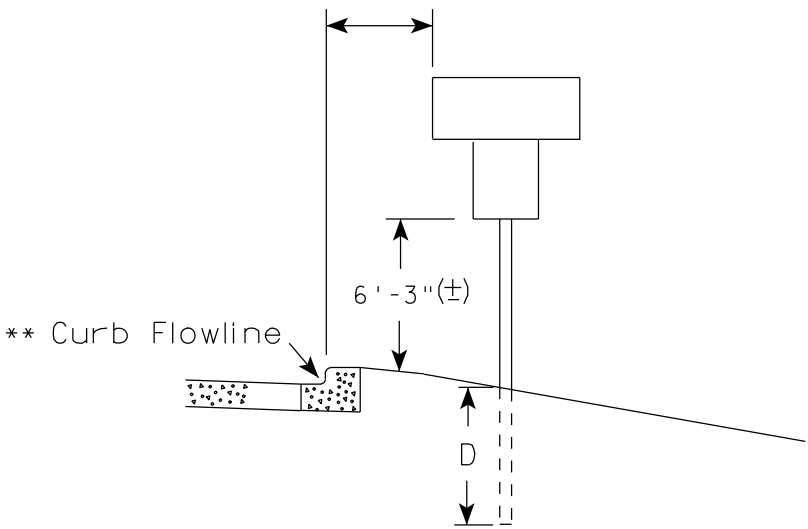
RURAL AREA (See Note 2)



GENERAL NOTES

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

2' Min - 4' Max (See Note 5)



POST EMBEDMENT DEPTH

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

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

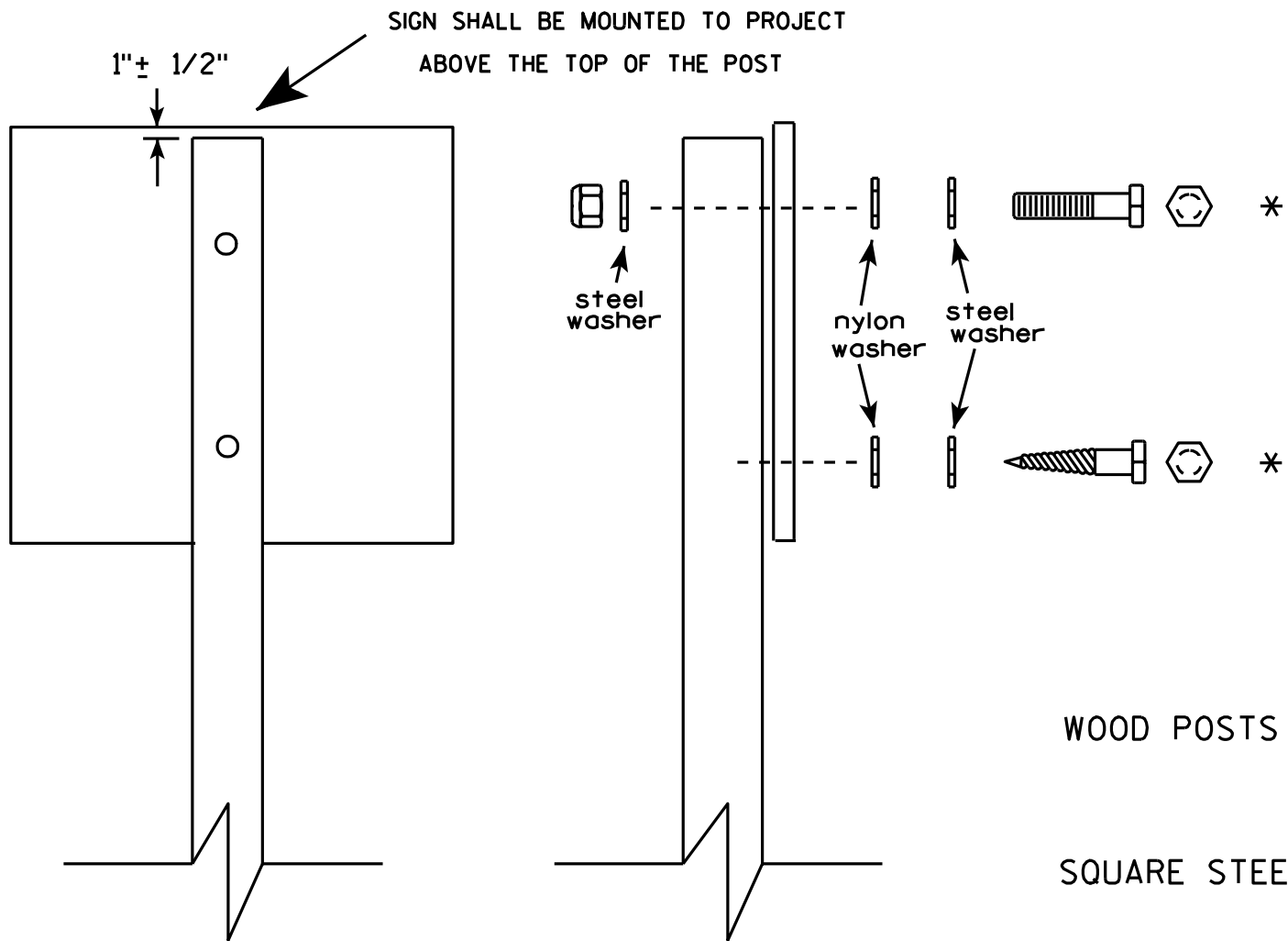
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

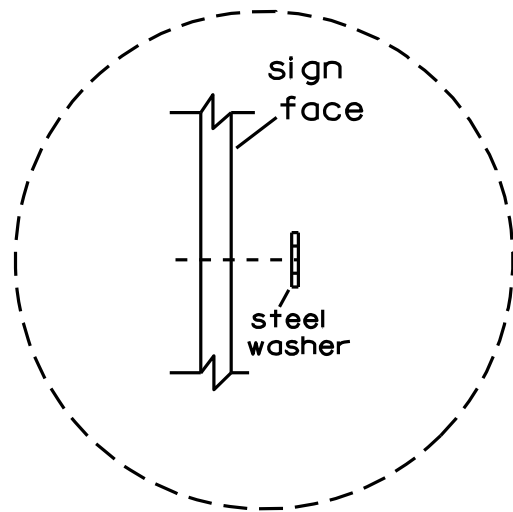


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

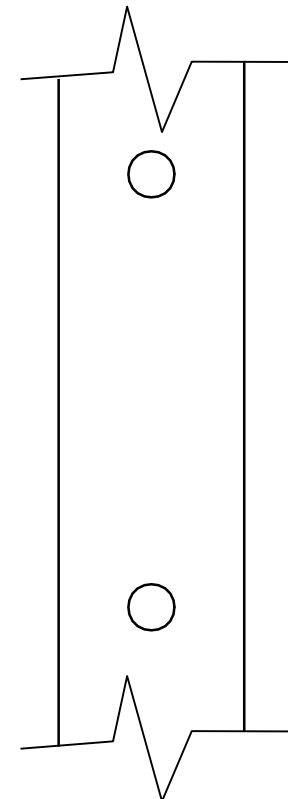
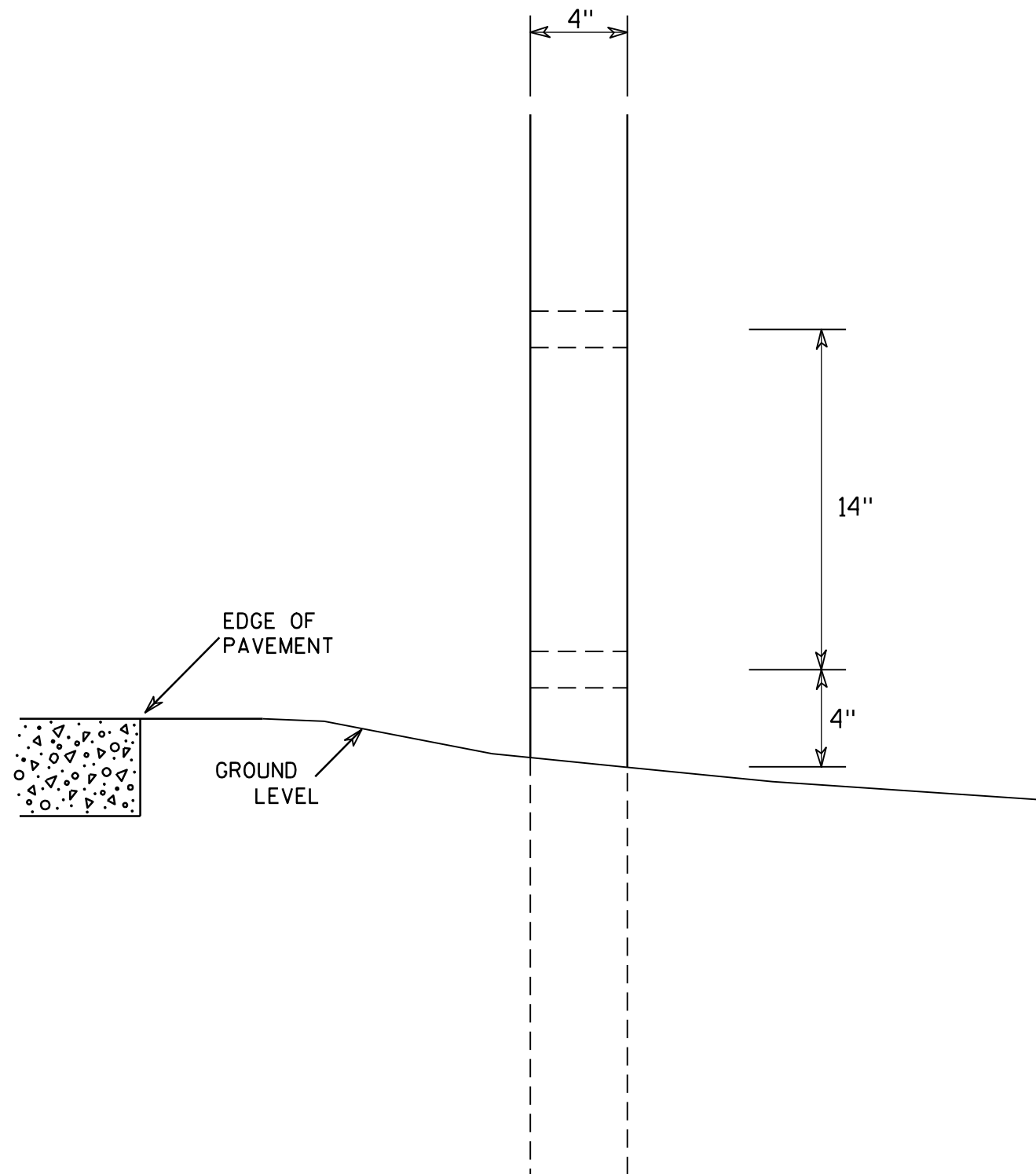
- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375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



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

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

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



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

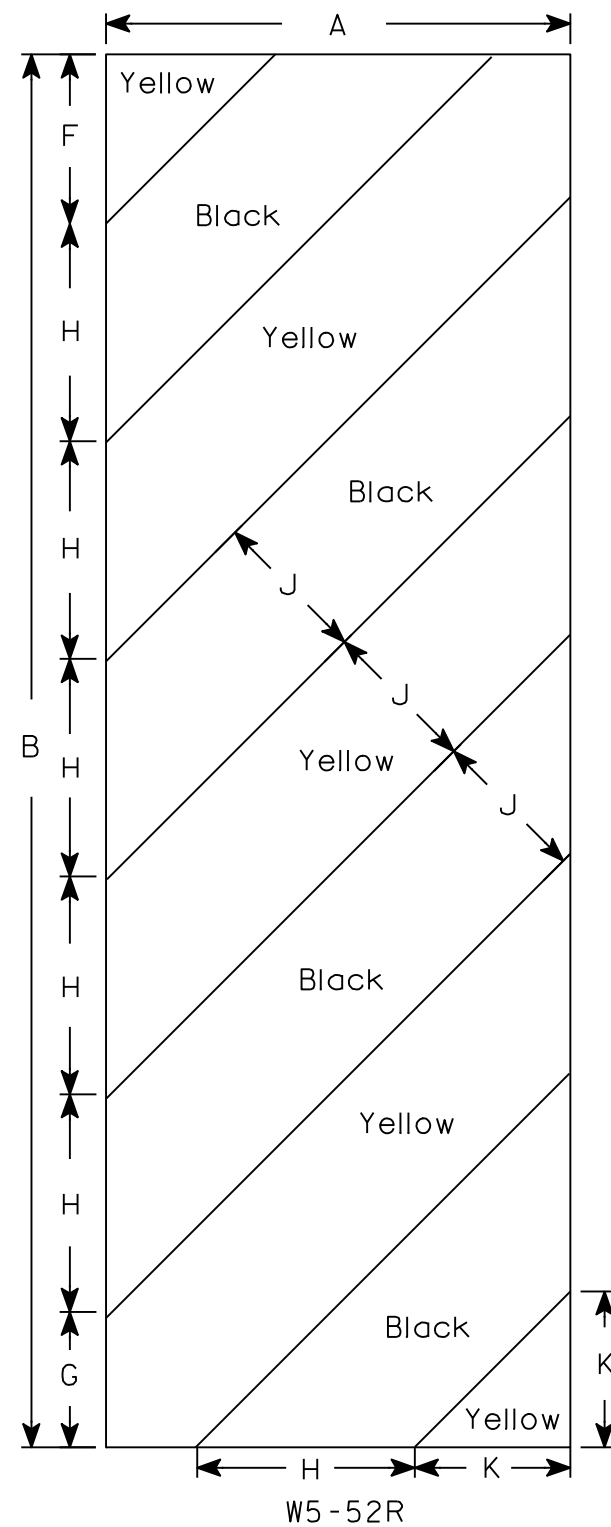
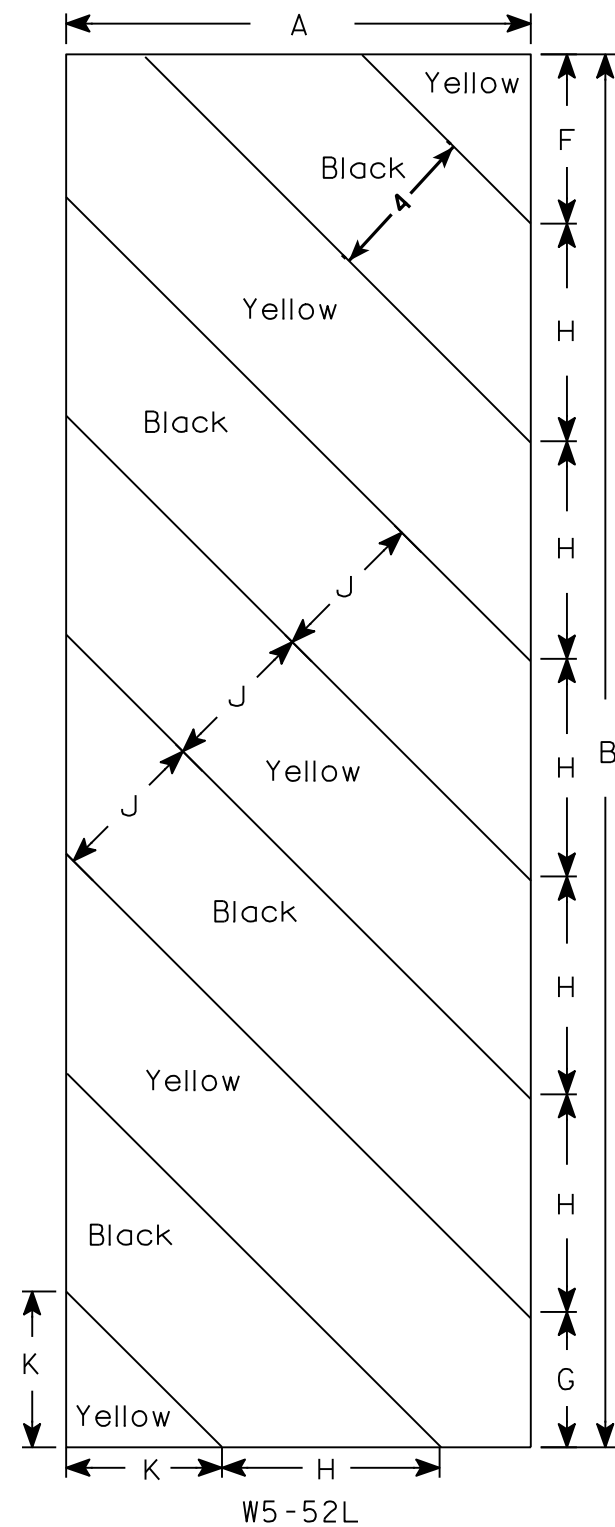
PROJECT NO: 7830-00-70

HWY: CTH V

COUNTY: EAU CLAIRE

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 5⁄16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

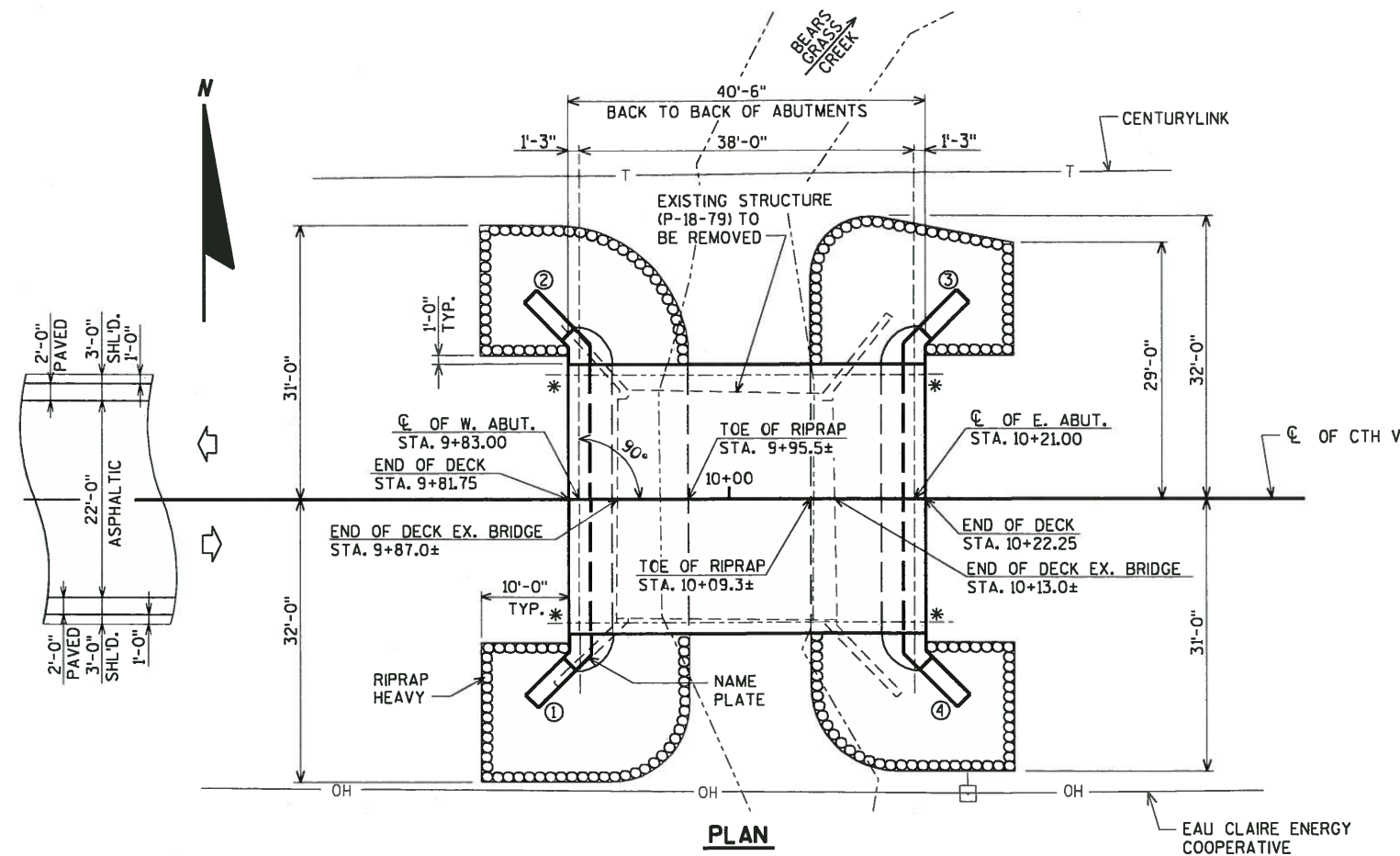
SPRNFAMES
U:\42-0836.00 - Eau Claire Co. CTH V over Bears Grass Creek\BRIDGE\420836gp.dgn

DATE: 4/27/12

CHECKED BY: CBM

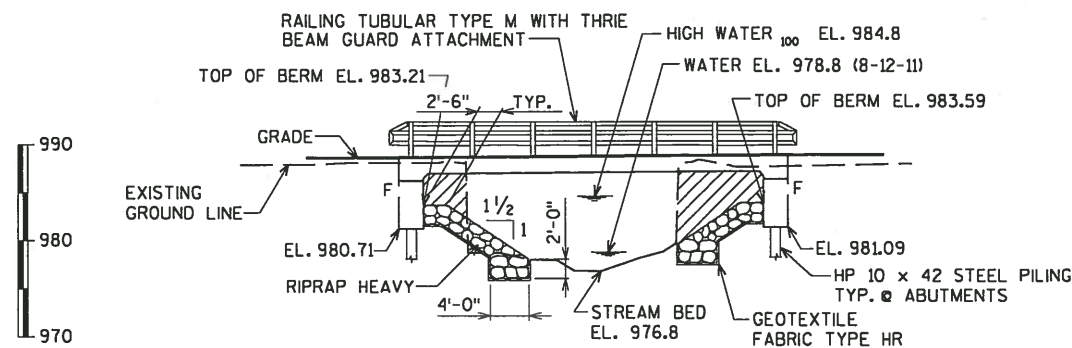
BACK CHECKED BY:
CORRECTED BY:

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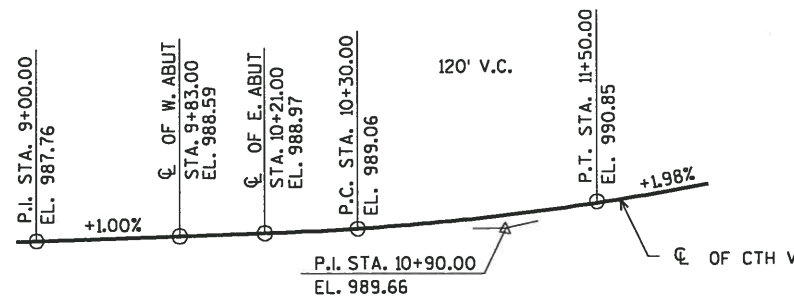
* ANCHOR ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.
○ DENOTES WING NUMBER.

SINGLE SPAN CONCRETE FLAT SLAB



ELEVATION

COST OF EXCAVATION AND FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-18-221".

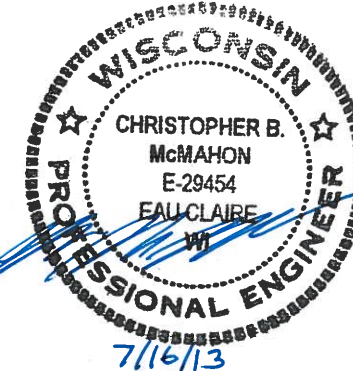


PROFILE GRADE LINE
(CTH V)

BENCH MARK:
CHIS. BOX IN SW COR. OF BRIDGE
STA. 9+88.0, 14' RT.
EL. 988.22

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES AND NOTES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT WING DETAILS
6. EAST ABUTMENT
7. EAST ABUTMENT WING DETAILS
8. ABUTMENT BILL OF BARS
9. SUPERSTRUCTURE
10. SUPERSTRUCTURE DETAILS
11. RAILING TUBULAR TYPE M

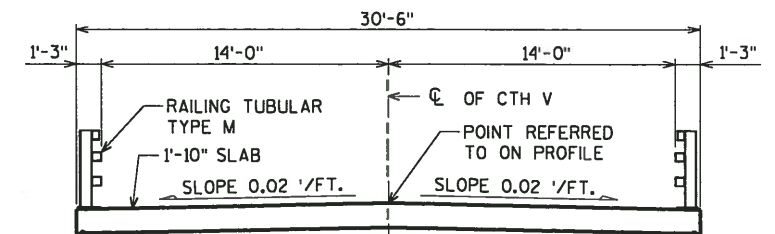


BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

STATE PROJECT NUMBER

7830-00-70



CROSS SECTION THRU ROADWAY

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.27
OPERATING RATING FACTOR: 1.65
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

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

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY { SLAB f'_c = 4,000 p.s.i.
ALL OTHER f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) f_y = 60,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FLOOD

DRAINAGE AREA = 7.38 sq. mi.
WATERWAY AREA = 162 sq. ft.
V = 4.0 f.p.s.
Q₁₀₀ = 650 c.f.s.
HIGH WATER₁₀₀ EL. 984.8
HIGH WATER₂ EL. 981.5
RDWY. OVERFLOW = N/A
SCOUR CRITICAL CODE = 8

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 125 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 60'-0".

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.D.T. = 100 (2014)
A.D.T. = 140 (2034)
R.D.S. = 55 M.P.H.

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
AYRES ASSOCIATES			
3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> KAR 11/26/13 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-18-221			
CTH V OVER BEARS GRASS CREEK			
COUNTY EAU CLAIRE		TOWN/CITY/VILLAGE OTTER CREEK	
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPEC.			
DESIGNED BY KAZ	DESIGN CK'D. JCK	DRAWN BY KAZ	PLANS CK'D. CBM
GENERAL PLAN			SHEET 1 OF 11

8

\$PRNAME\$
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STATE PROJECT NUMBER

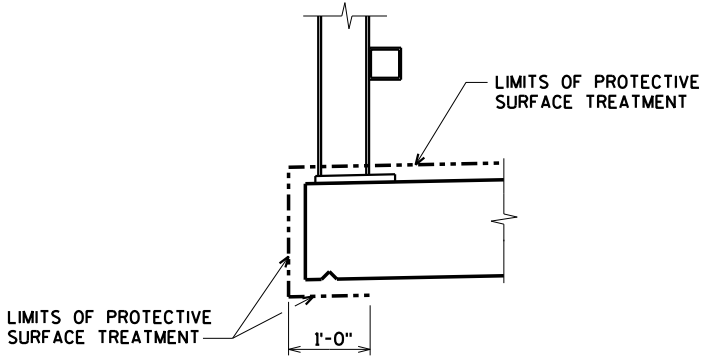
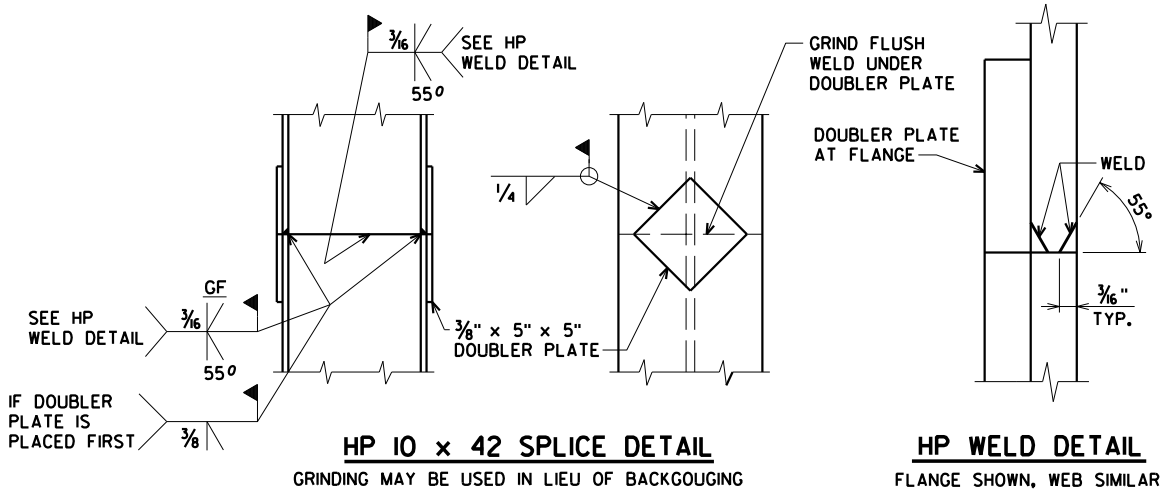
7830-00-70

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-18-221	LS	-----	-----	-----	1
210.0100	BACKFILL STRUCTURE	CY	100	100	-----	200
502.0100	CONCRETE MASONRY BRIDGES	CY	26	26	89	141
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	160	160
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	1,350	1,350	-----	2,700
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	1,620	1,620	14,070	17,310
513.4060	RAILING TUBULAR TYPE M B-18-221	LS	-----	-----	-----	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	9	-----	18
550.0500	PILE POINTS	EACH	5	5	-----	10
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	300	300	-----	600
606.0300	RIPRAP HEAVY	CY	90	80	-----	170
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	85	85	-----	170
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	175	160	-----	335
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURES.
THE EXISTING STRUCTURE, P-18-79, TO BE REMOVED, IS A SINGLE SPAN STEEL DECK GIRDER BRIDGE, 26.0 FT. LONG WITH A 24.0 FT. CLEAR ROADWAY WIDTH.
AT BACKFACE OF ABUTMENTS ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE.
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.



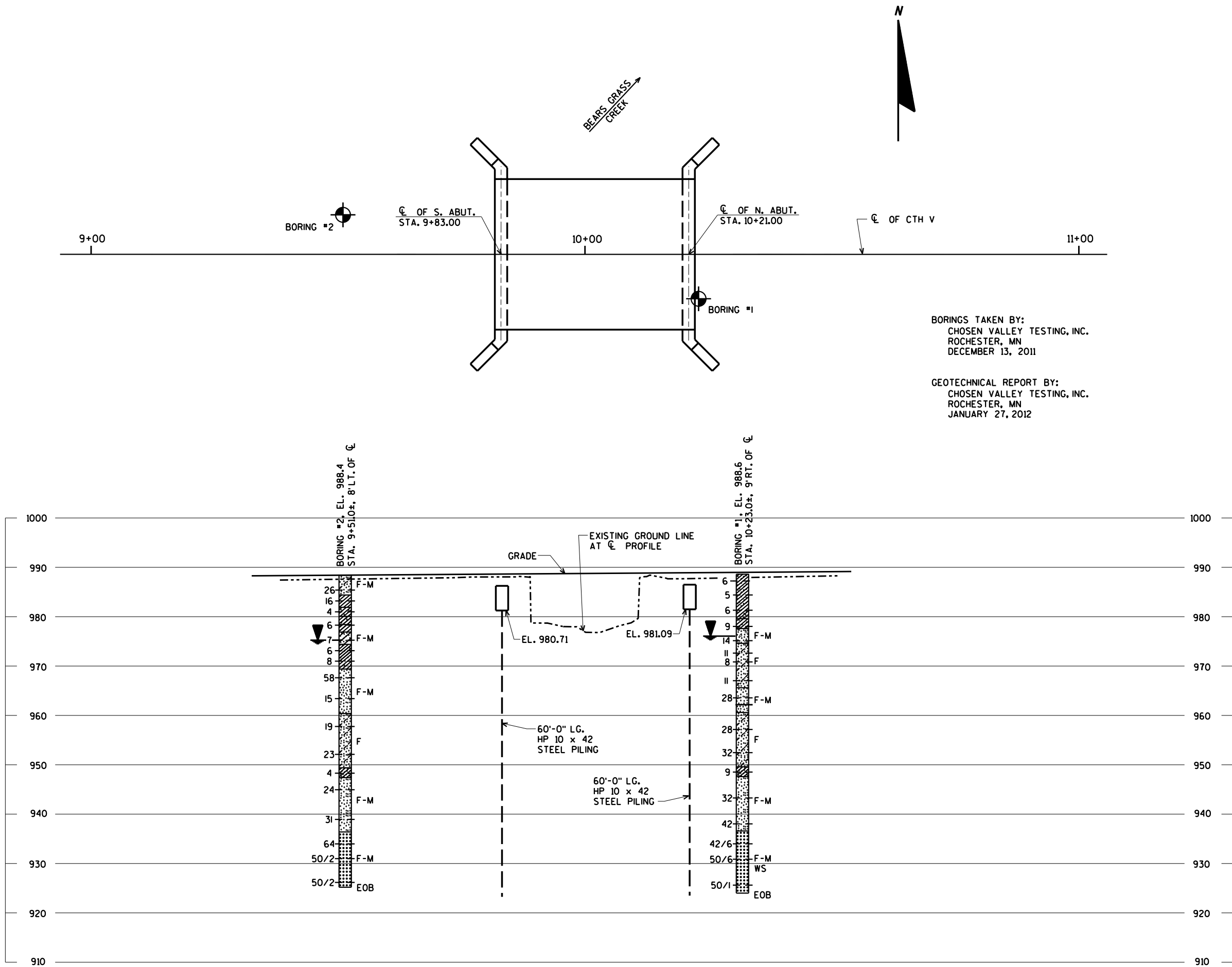
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NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-221			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
QUANTITIES AND NOTES			SHEET 2 OF 11

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

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STATE PROJECT NUMBER

7830-00-70

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL SAND GRAVEL SILT PEAT CLAY SANDSTONE LIMESTONE IGNEOUS ROCK

LEGEND OF PROBING

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6
95/6=95 BLOWS FOR 6" PENETRATION PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING

BORING NO.
STA.
ELEV.
UNCONFINED STRENGTH 7.7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO
LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A Cased OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-221			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
SUBSURFACE EXPLORATION			SHEET 3 OF 11

\$PRFNAME\$
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7830-00-70

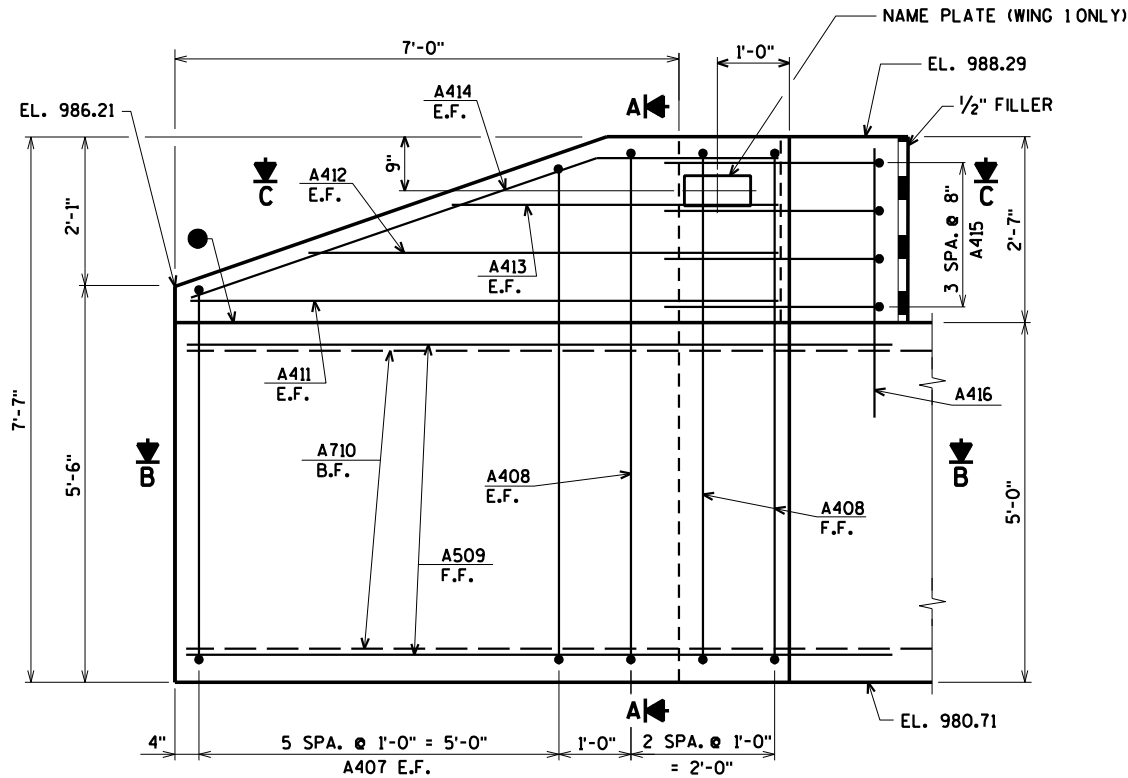


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|--|------|-----------------|------------------------|
| | | | |
| NO. | DATE | REVISION | BY |
| STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION | | | |
| STRUCTURE B-18-221 | | | |
| | | DRAWN
BY KAZ | PLANS
CK'D. JCK/KLW |
| WEST
ABUTMENT | | SHEET 4 OF 11 | |
| | | | |

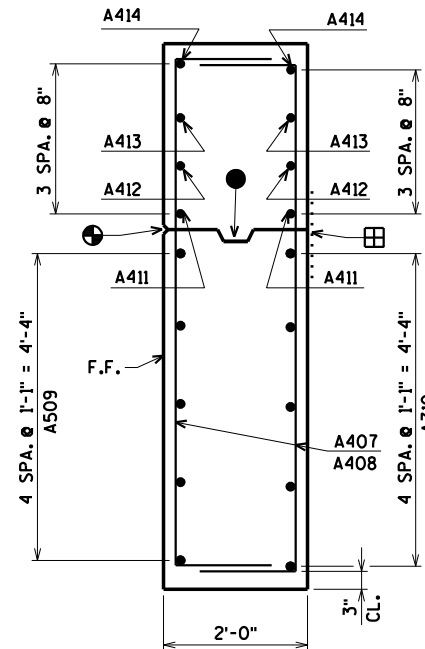
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STATE PROJECT NUMBER

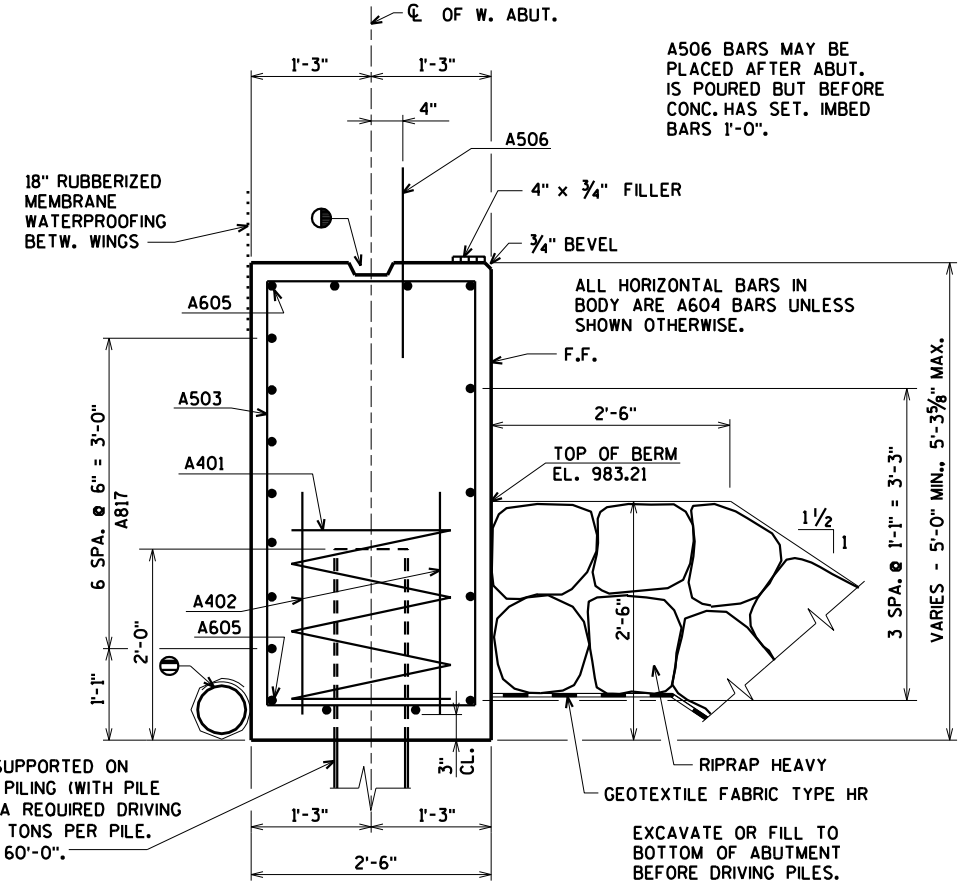
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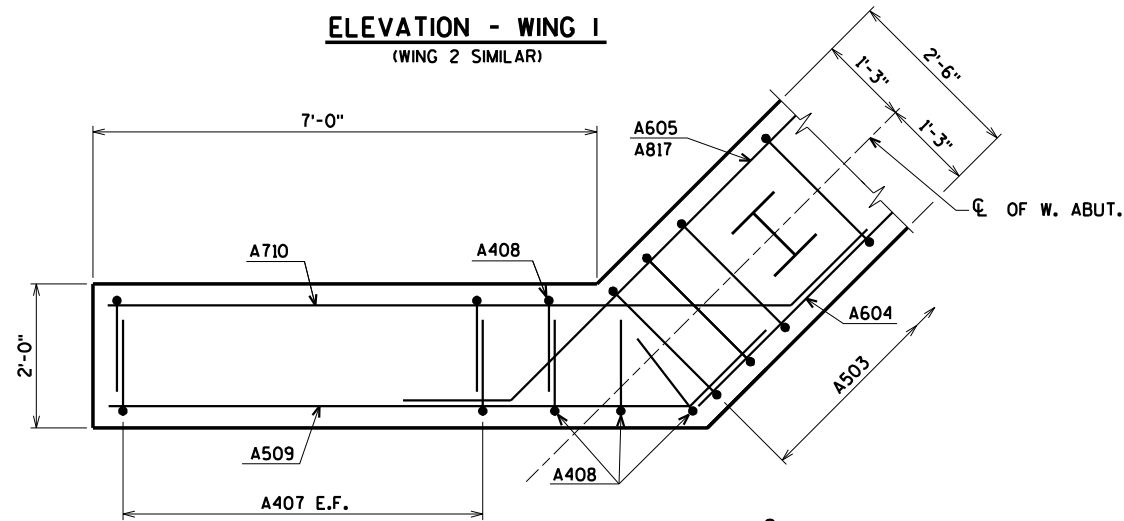
ELEVATION - WING 1
(WING 2 SIMILAR)



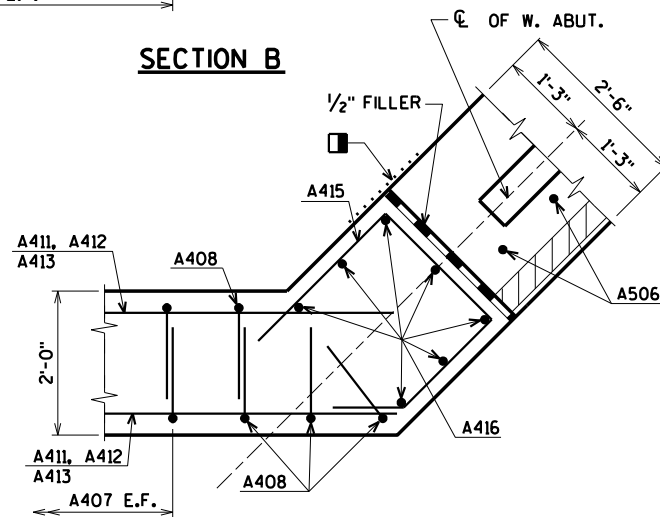
SECTION A



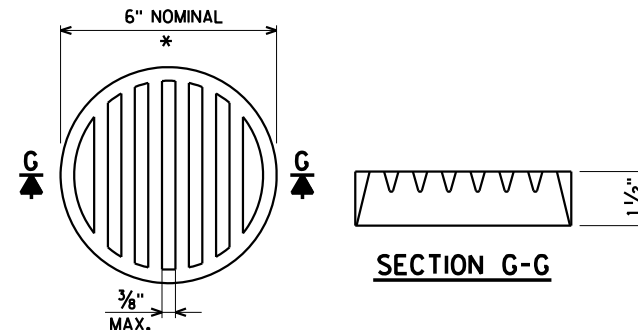
TYPICAL SECTION THRU BODY



SECTION B



SECTION C



* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

THE RODENT SHIELD SHALL BE PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH SHEET METAL SCREWS.

RODENT SHIELD DETAIL

⊖ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SDD REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".

⊙ KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

⊕ 3/4" 'V' GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.

⊡ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-221			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
WEST ABUTMENT WING DETAILS			SHEET 5 OF 11



RODENT SHIELD DETAIL

- F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-221			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
EAST ABUTMENT WING DETAILS		SHEET 7 OF 11	

\$PRFNAME\$
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BILL OF BARS - WEST ABUTMENT

BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	1,350# UNCOATED 1,620# COATED
							LOCATION
A401		5	28-0	X			BODY @ PILES
A402		10	2-3				BODY @ PILES
A503		44	13-10	X			BODY VERT.
A604		9	34-11				BODY HORIZ. F.F.
A605		4	22-6	X			BODY HORIZ. B.F.
A506	X	30	2-0				BODY DOWELS
A407	X	24	8-6	X		⊗	WINGS 1 & 2 VERT. E.F.
A408	X	8	9-8	X			WINGS 1 & 2 VERT. E.F.
A509	X	10	9-9	X			WINGS 1 & 2 HORIZ. F.F.
A710	X	10	11-3	X			WINGS 1 & 2 HORIZ. B.F.
A411	X	4	8-2				WINGS 1 & 2 HORIZ. E.F.
A412	X	4	6-6				WINGS 1 & 2 HORIZ. E.F.
A413	X	4	4-6				WINGS 1 & 2 HORIZ. E.F.
A414	X	4	8-6	X			WINGS 1 & 2 DIAG. E.F.
A415	X	8	8-5	X			WINGS 1 & 2 HORIZ.
A416	X	14	3-8				WINGS 1 & 2 VERT.
A817		14	23-7	X			BODY HORIZ. B.F.

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

⊗ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE

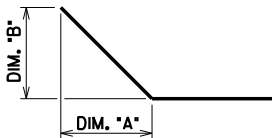
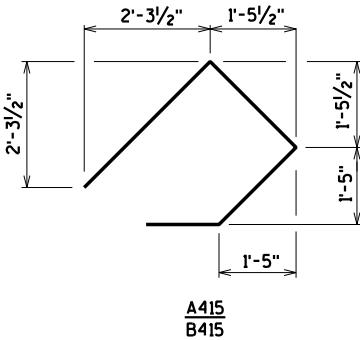
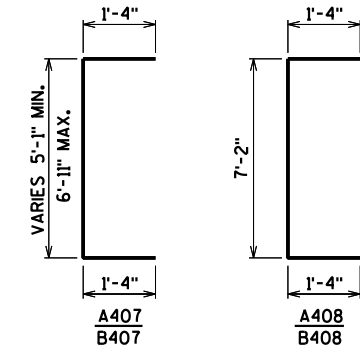
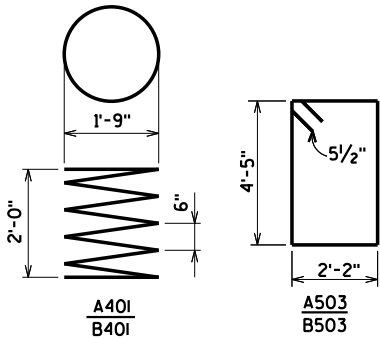
BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
A407	4 SERIES OF 6	7'-7" TO 9'-5"
B407	4 SERIES OF 6	7'-7" TO 9'-5"

BUNDLE AND TAG EACH SERIES SEPARATELY.

BILL OF BARS - EAST ABUTMENT

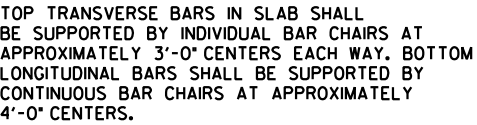
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	1,350# UNCOATED 1,620# COATED
							LOCATION
B401		5	28-0	X			BODY @ PILES
B402		10	2-3				BODY @ PILES
B503		44	13-10	X			BODY VERT.
B604		9	34-11				BODY HORIZ. F.F.
B605		4	22-6	X			BODY HORIZ. B.F.
B506	X	30	2-0				BODY DOWELS
B407	X	24	8-6	X		⊗	WINGS 3 & 4 VERT. E.F.
B408	X	8	9-8	X			WINGS 3 & 4 VERT. E.F.
B509	X	10	9-9	X			WINGS 3 & 4 HORIZ. F.F.
B710	X	10	11-3	X			WINGS 3 & 4 HORIZ. B.F.
B411	X	4	8-2				WINGS 3 & 4 HORIZ. E.F.
B412	X	4	6-6				WINGS 3 & 4 HORIZ. E.F.
B413	X	4	4-6				WINGS 3 & 4 HORIZ. E.F.
B414	X	4	8-6	X			WINGS 3 & 4 DIAG. E.F.
B415	X	8	8-5	X			WINGS 3 & 4 HORIZ.
B416	X	14	3-8				WINGS 3 & 4 VERT.
B817		14	23-7	X			BODY HORIZ. B.F.



BAR NO.	DIM. "A"	DIM. "B"
A605	1'-0 3/4"	1'-0 3/4"
A509	1'-0 3/4"	1'-0 3/4"
A710	1'-0 3/4"	1'-0 3/4"
A414	5'-10"	2'-0"
A817	1'-0 3/4"	1'-0 3/4"
B605	1'-0 3/4"	1'-0 3/4"
B509	1'-0 3/4"	1'-0 3/4"
B710	1'-0 3/4"	1'-0 3/4"
B414	5'-10"	2'-0"
B817	1'-0 3/4"	1'-0 3/4"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-221			
DRAWN BY KAZ		PLANS CK'D. JCK/KLW	
ABUTMENT BILL OF BARS			SHEET 8 OF 11

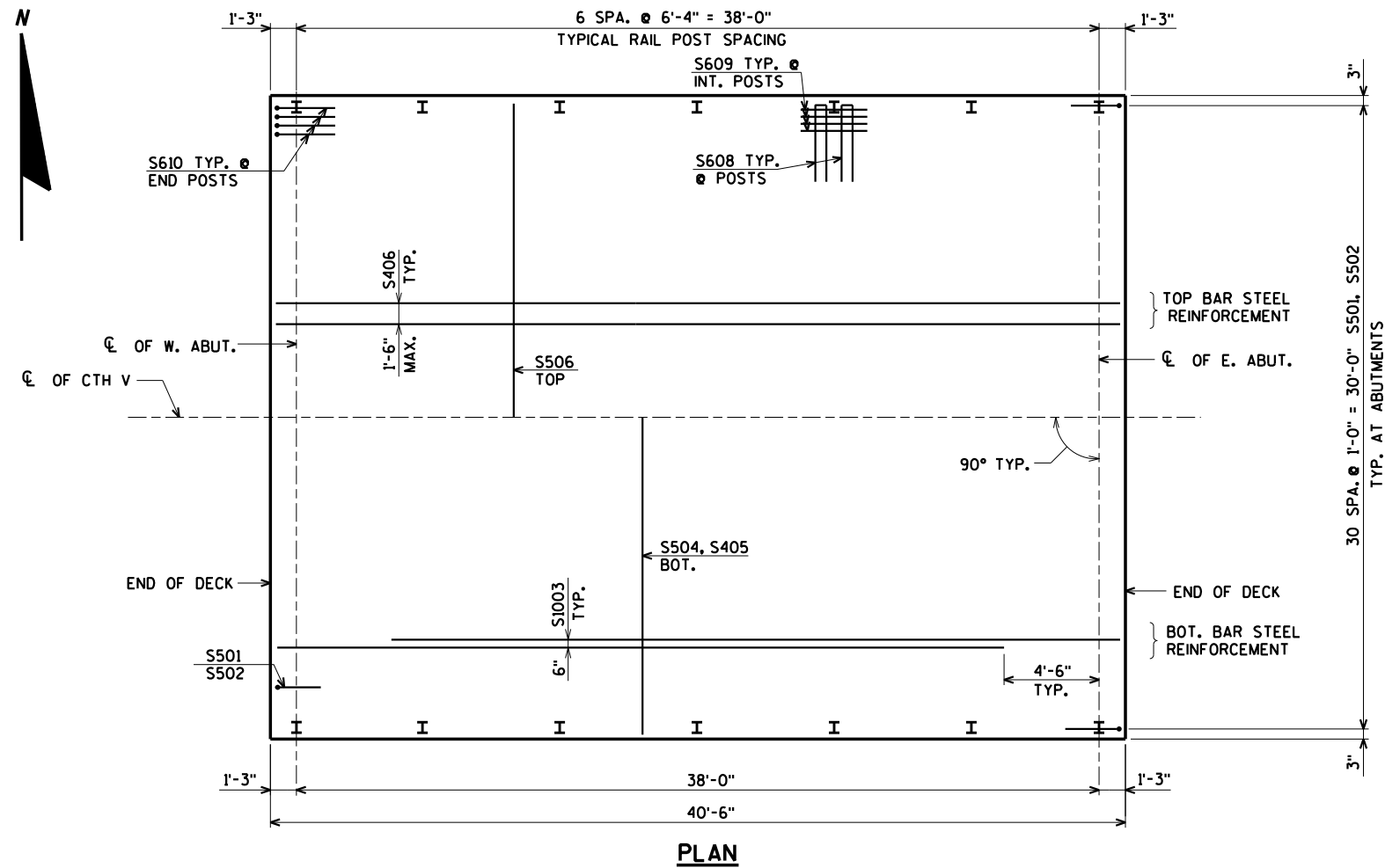
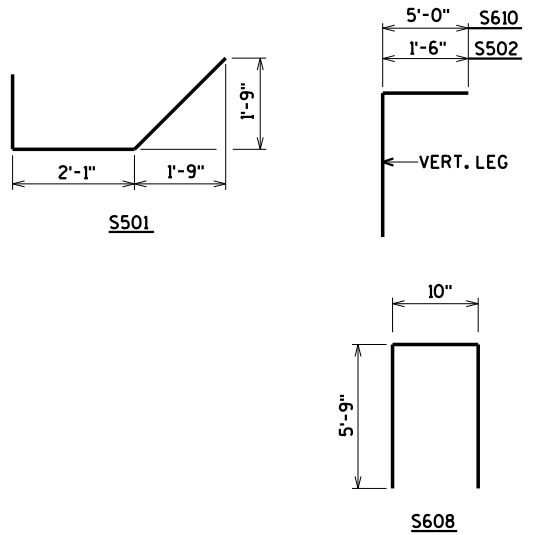
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com



ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM.
ANY TOLERANCES NECESSARY TO CORRECT
CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

[illegible]

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.





PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE C OF ABUTMENTS, AND AT 1/2 PT. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OF C.

LOCATION	℄ OF W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF E. ABUT.
N. EDGE OF SLAB	988.29	988.33	988.37	988.40	988.44	988.48	988.52	988.56	988.59	988.63	988.67
℄ OF STRUCTURE	988.59	988.63	988.67	988.70	988.74	988.78	988.82	988.86	988.89	988.93	988.97
S. EDGE OF SLAB	988.29	988.33	988.37	988.40	988.44	988.48	988.52	988.56	988.59	988.63	988.67

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-18-221			
		DRAWN BY KAZ	PLANS CK'D. JCK/KLW
ay	SUPERSTRUCTURE DETAILS		SHEET 10 OF 11

- ① W6 x 25 WITH $1\frac{1}{8}$ " x $1\frac{1}{2}$ " HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE $1\frac{1}{4}$ " x $1\frac{3}{4}$ " x 1'-8" WITH $1\frac{1}{8}$ " x $1\frac{1}{2}$ " SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - $1\frac{1}{8}$ " DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED), 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. ~~USE 1'-3" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 $\frac{3}{4}$ " LONG AT ALL OTHER LOCATIONS.~~ (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
- ④ $\frac{5}{8}$ " x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH $1\frac{1}{8}$ " DIA. HOLES FOR ANCHOR BOLTS NO. 3
- ⑤ TS 5 x 4 x .025 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑤A TS 5 x 5 x .025 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
- ⑥ $\frac{7}{8}$ " DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, $\frac{3}{8}$ " x $1\frac{5}{8}$ " x $1\frac{5}{8}$ " WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- ⑦ $\frac{1}{2}$ " THK. BACK-UP PLATE WITH 2 - $\frac{7}{8}$ " x $1\frac{1}{2}$ " THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
- ⑧ 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR $\frac{7}{8}$ " DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
- ⑨ SPLICE SLEEVE FABRICATED FROM $\frac{1}{4}$ " PLATE. PROVIDE "SLIDING FIT".
- ⑩ $\frac{3}{8}$ " x $3\frac{5}{8}$ " x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A $\frac{3}{8}$ " x $2\frac{5}{8}$ " x 2'-4" PLATE USED IN NO. 5. $\frac{3}{8}$ " x $3\frac{5}{8}$ " x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ ~~$\frac{7}{8}$ " ϕ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER, USE $1\frac{1}{2}$ " x $1\frac{1}{4}$ " LONGIT. SLOTTED HOLES AT FIELD JOINTS AND $1\frac{1}{2}$ " x $2\frac{1}{4}$ " MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.~~
- ⑫ $\frac{7}{8}$ " DIA. x $1\frac{1}{2}$ " LONG THREADED SHOP WELDED STUDS (2 REQ'D).
- ⑬ $\frac{3}{8}$ " x 8" x 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
- ⑭ $\frac{7}{8}$ " DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
- ⑮ 1" ϕ HOLES IN TUBES NO. 5A FOR $\frac{7}{8}$ " DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

**3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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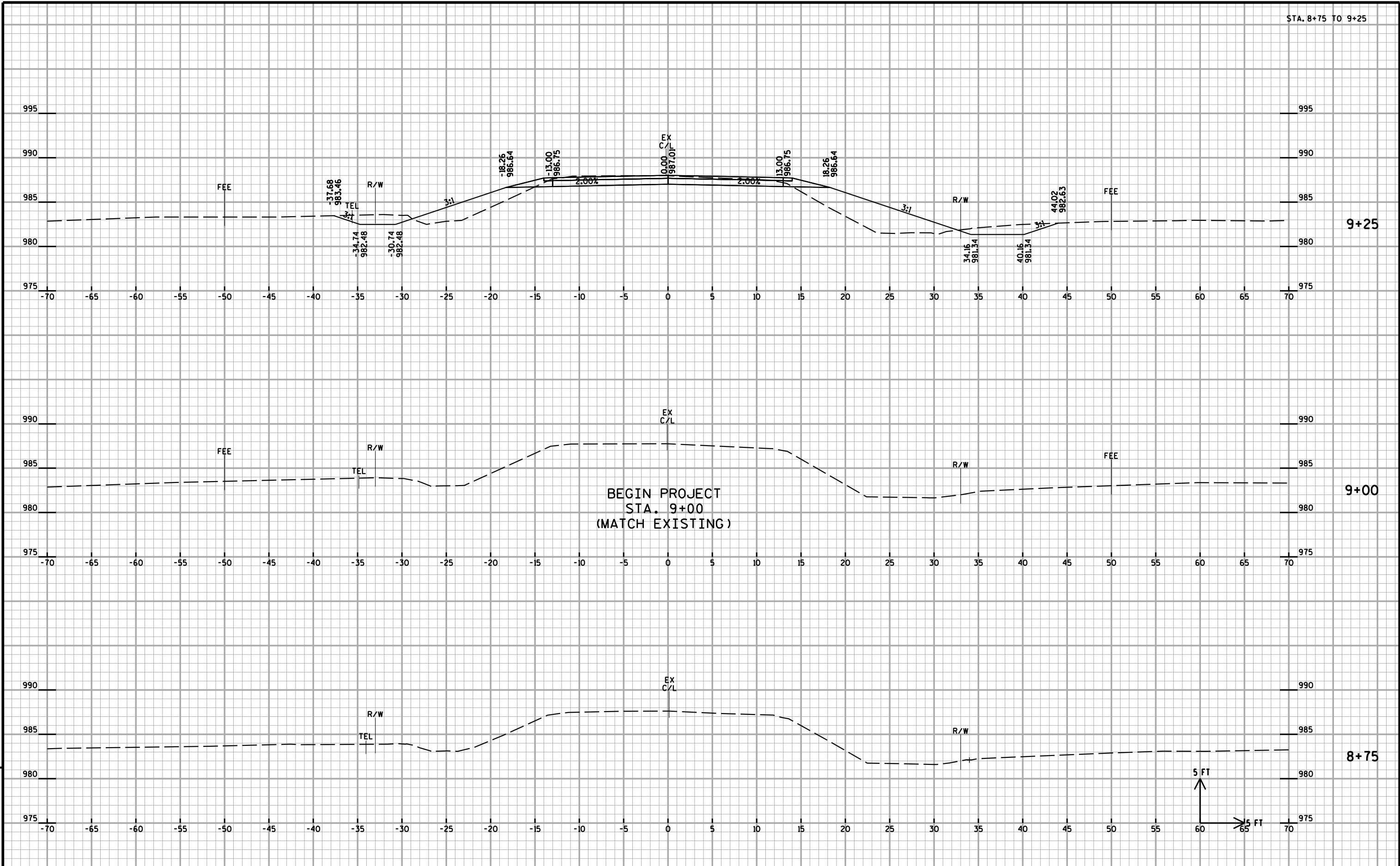
SECTION D

*EARTHWORK SUMMARY (CATEGORY 0010)

DIVISION	STATION	CUT SF	AREA	FILL SF	INCREMENTAL VOLUME			CUMULATIVE VOLUME			MASS ORDNATE ±(5) CY
			SALVAGED/ UNUSEABLE PAVEMENT MATERIAL SF		CUT (1) CY	SALVAGED/ UNUSEABLE PAVEMENT MATERIAL (2) CY	FILL (3) CY	CUT (1) 1.00 CY	EXPANDED FILL (4) 1.30 CY		
1	9+00	29	0	0							
CTH V	9+25	40	0	55	32	0	25	32	33	-1	
	9+50	43	0	70	39	0	58	71	108	-37	
	9+75	59	0	23	47	0	43	118	164	-46	
	9+81.75	59	0	23	15	0	6	133	172	-39	
	STRUCTURE (B-18-221)										
	10+22.25	20	0	53	20	0	54	153	242	-89	
	10+50	20	0	53	17	0	41	170	295	-125	
	10+75	16	0	53	13	0	30	183	334	-151	
	11+00	13	0	53	23	0	17	206	356	-150	
	11+25	37	0	53	11	0	2	217	359	-142	
	11+35	24	0	53	20	0	18	237	382	-145	
	11+50	47	0	53							
TOTALS					237	0	294				
		205.0100 EXCAVATION COMMON =				SAY 237		208.0100 BORROW =		SAY 145	

NOTES:
1) EXCAVATION COMMON IS THE SUM OF THE CUT COLUMN. ITEM NUMBER 205.0100
2) SALVAGED/UNUSEABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
3) DOES NOT INCLUDE UNUSABLE PAVEMENT EXCAVATION VOLUME.
4) EXPANDED FILL FACTOR = 1.30 EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR
5) THE MASS ORDNATE ± QTY CALCULATED FOR THE DIVISION.

PLUS (+) QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION.
MINUS (-) QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.



PROJECT NO: 7830-00-70

HWY: CTH V

COUNTY: EAU CLAIRE

CROSS SECTIONS

SHEET

E

FILE NAME : U:\42-0836.00 - Eau Claire Co. CTH V over Bears Grass Creek\InRoads\420836_xs.dgn

PLOT DATE : 6/11/2013

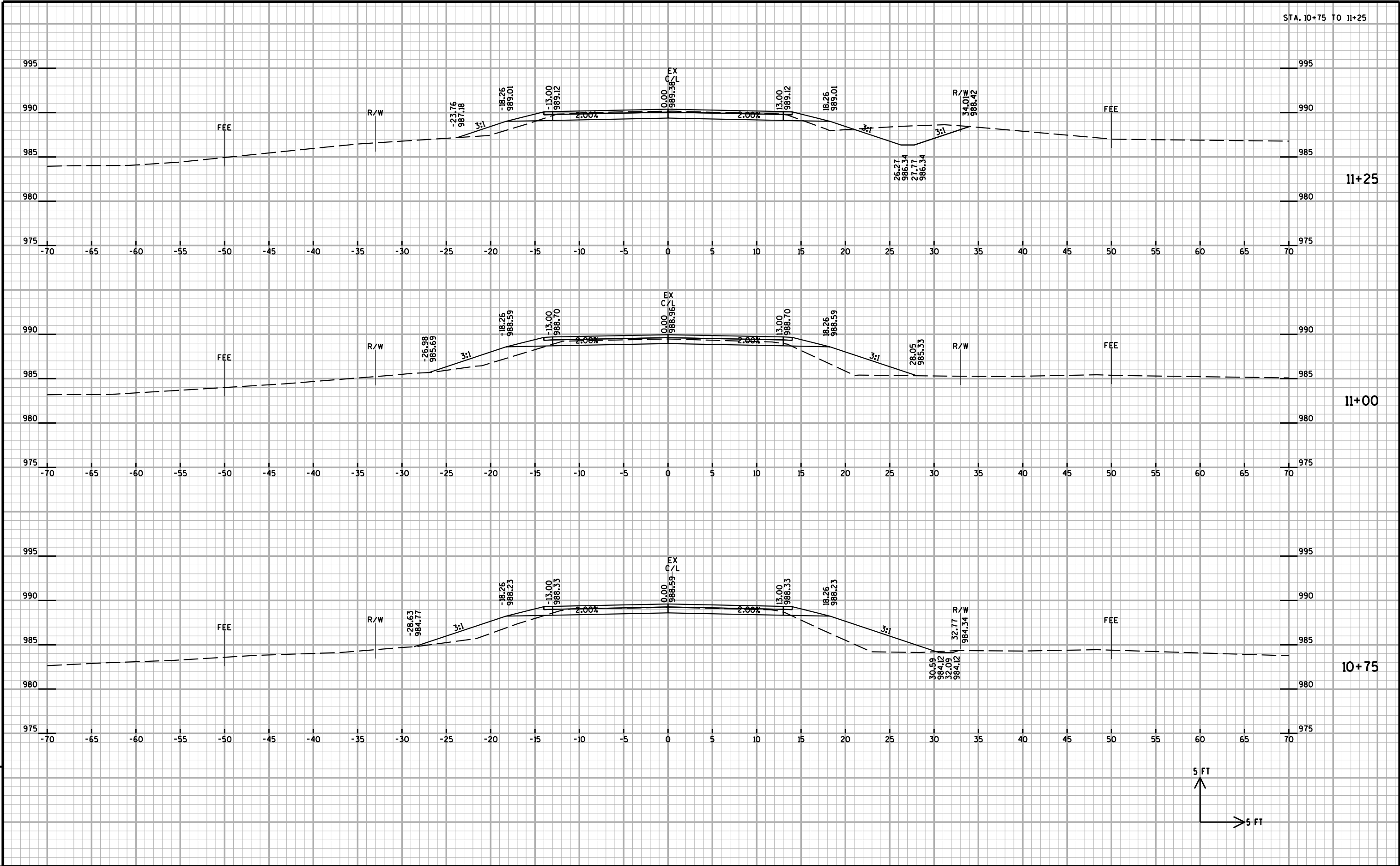
PLOT BY : AYRES-EC

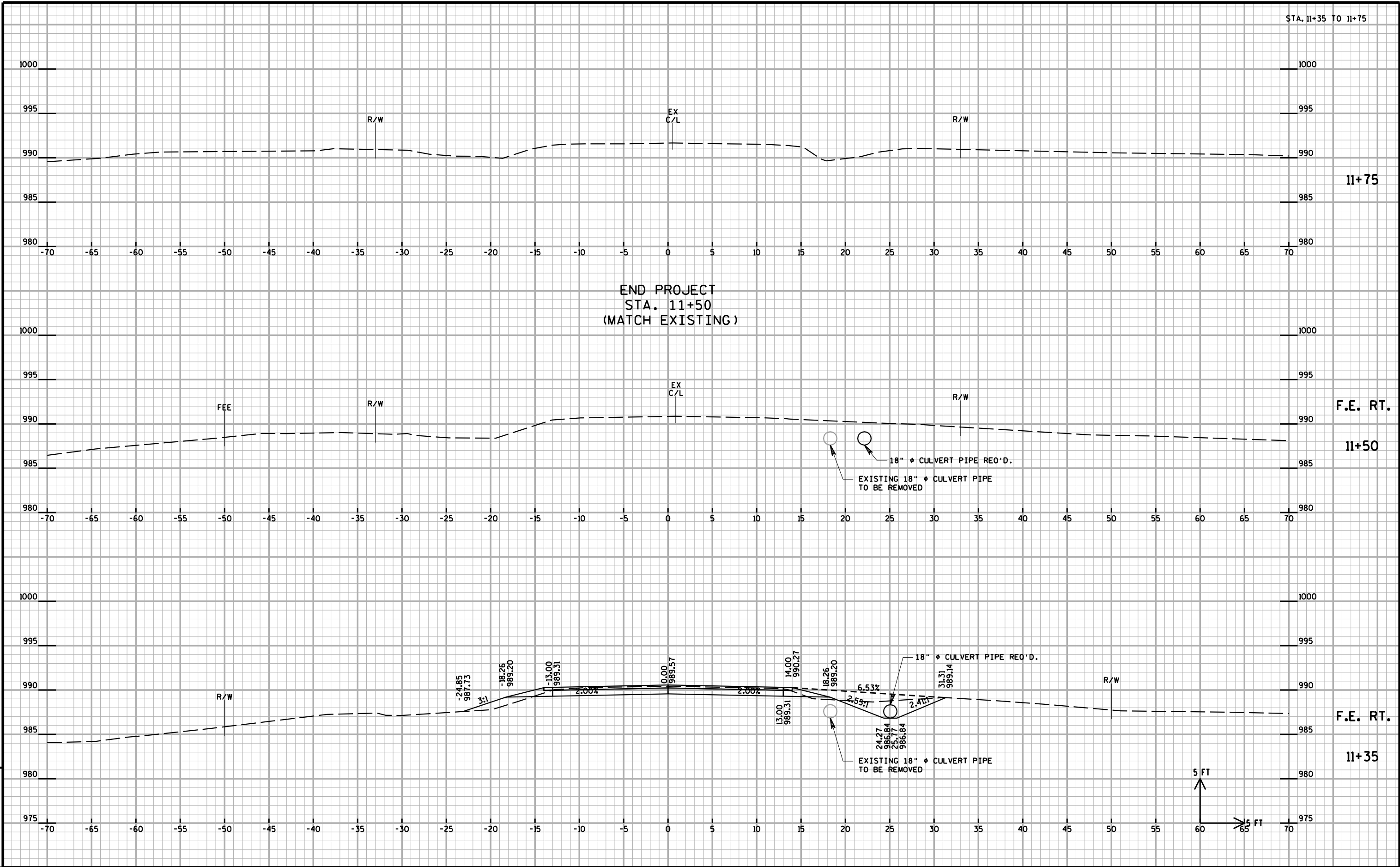
PLOT NAME :

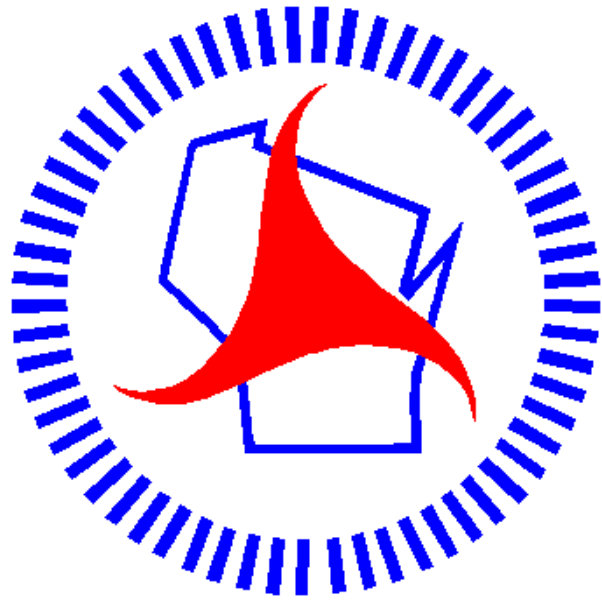
PLOT SCALE : 1:10

WISDOT/CADDs SHEET 21









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