RHI FEBRUARY 2019

PROJECT ID: 9848-00-70
WITH: N/A

COUNTY: LANGLADE

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 = 54

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T VILAS, COUNTY LINE ROAD

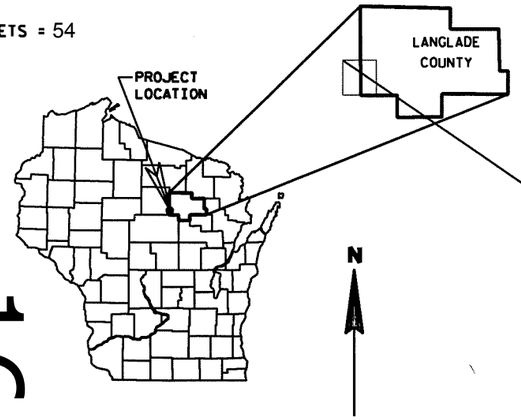
PINE RIVER BRIDGE B-34-0056

LOC STR

LANGLADE COUNTY

STATE PROJECT NUMBER
9848-00-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9848-00-70		



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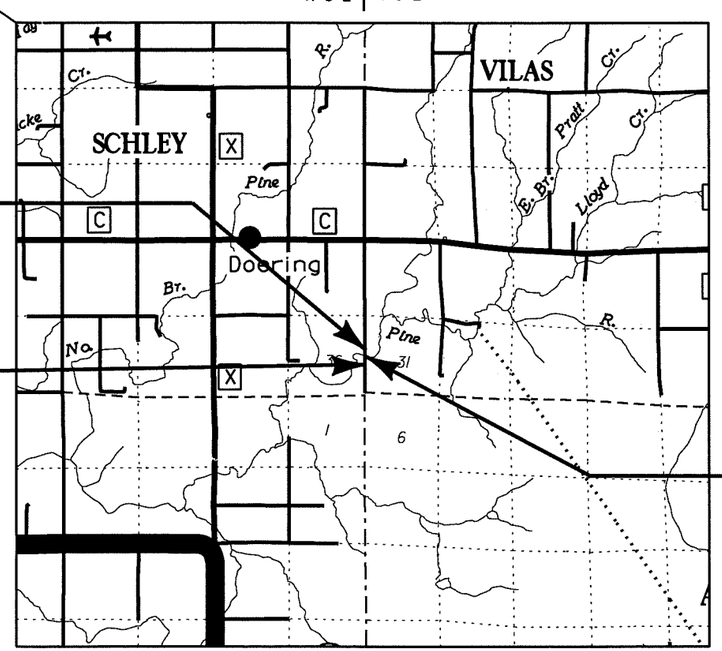


END PROJECT
STA. 11+75
Y = 367239.36
X = 549946.13

BEGIN PROJECT
STA. 8+50
Y = 366914.37
X = 549944.80

STRUCTURE B-34-56

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.062 MI.

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

DESIGN DESIGNATION

A.A.D.T. (2019)	=	<100
A.A.D.T. (2039)	=	<100
D.H.V.	=	10
D.	=	50/50
T.	=	5%
DESIGN SPEED	=	25 MPH
ESALS	=	36,500

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- HIGH VOLTAGE (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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

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

ACCEPTED FOR
Town of Vilas
7-2-18 (Date) (Chairman)

ORIGINAL PLANS PREPARED BY

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

WISCONSIN
CHRISTOPHER B. McMAHON
E-29454
EAU CLAIRE WI
PROFESSIONAL ENGINEER

DATE 7/9/18

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor AYRES ASSOCIATES INC
Designer AYRES ASSOCIATES INC

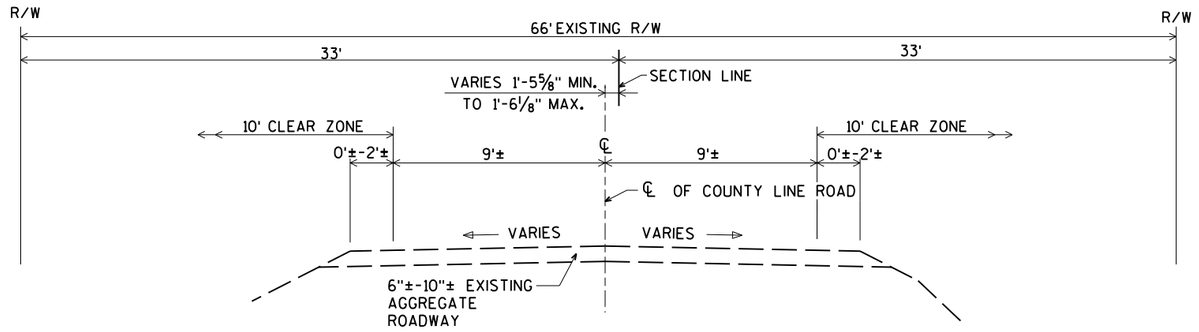
Management Consultant CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT
DATE: 7-27-2018
Management Consultant Signature

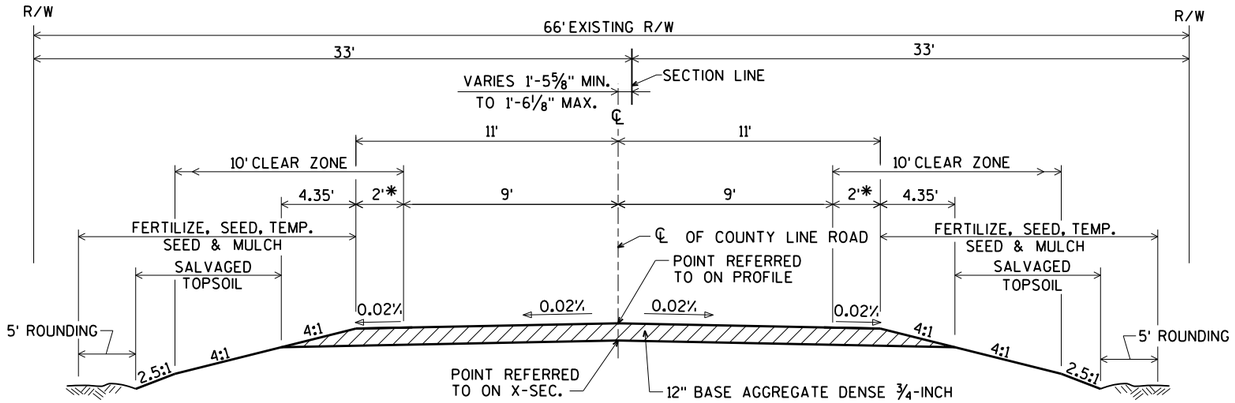
E

V:\Structures-EC\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089 ti.DGN PENTABLE:eau_shd_util.tbl carrie 1:200

WISDOT/CADDS SHEET 10



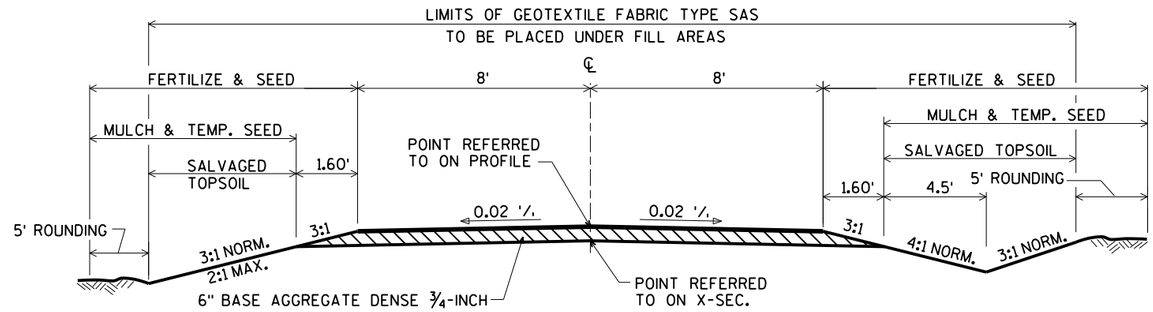
EXISTING TYPICAL SECTION



FINISHED TYPICAL SECTION

STA. 8+50 TO STA. 11+75

*BASE AGGREGATE SHOULDER SHALL BE PLACED
4.25' WIDE AT ENDS OF BRIDGE AND TAPER TO
2' WIDE AT 50' FROM THE ENDS OF THE BRIDGE.



TYPICAL SECTION - TEMPORARY BYPASS

STA. 28+50 TO STA. 31+94.62

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.

WETLANDS EXIST IN THE PROJECT AREA. NO DISTURBANCE IS ALLOWED OUTSIDE THE SLOPE INTERCEPT.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCLUSIVE OF THE ROADBED, SHALL BE FERTILIZED, SEEDED AND MULCHED OR EROSION MATTED 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.

EXCAVATION FOR STRUCTURES SHALL INCLUDE FURNISHING, PLACEMENT AND COMPACTION OF ANY FILL MATERIAL REQUIRED TO PROVIDE A SUITABLE FOUNDATION FOR SUBSTRUCTURE UNITS.

SALVAGE TOPSOIL SHALL BE PLACED ON THE SLOPES, TO THE POINT OF INTERCEPT WITH THE ORIGINAL GROUND SHOWN ON THE CROSS SECTIONS.

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

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM (NAVD 88).

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE 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.

UTILITIES

FRONTIER COMMUNICATIONS
521 4TH STREET
WAUSAU, WI 54403
ATTN: CHRIS POLLACK
715-847-1240
christopher.pollack@ftr.com

WISCONSIN PUBLIC SERVICE
P.O. BOX 1166
WAUSAU, WI 54402
ATTN: CLAYTON VIRCKS
715-848-7317
715-573-7806 (CELL)
chvircks@wisconsinpublicservice.com

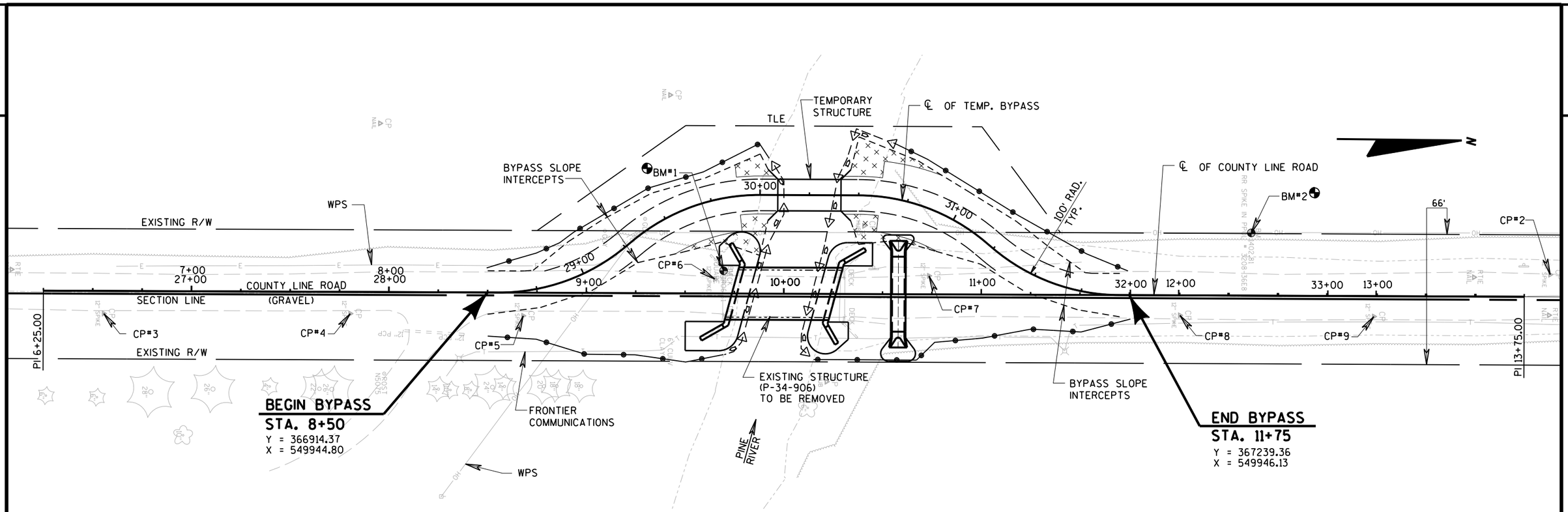
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

TOWN CONTACT
TOWN OF VILAS, CHAIRMAN
N6428 RANGELINE ROAD
DEERBROOK, WI 54424
ATTN: DAVID NICHOLSON
715-623-6688

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:
WENDY HENNIGES
107 SUTLIFF
RHINELANDER, WI 54501
715-365-8916
wendy.henniges@wisconsin.gov

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	TYPICAL SECTIONS	SHEET 2	E



NOTES:

GEOTEXTILE TYPE SAS TO BE PLACED UNDER THE FILL FOR THE TEMPORARY BYPASS.

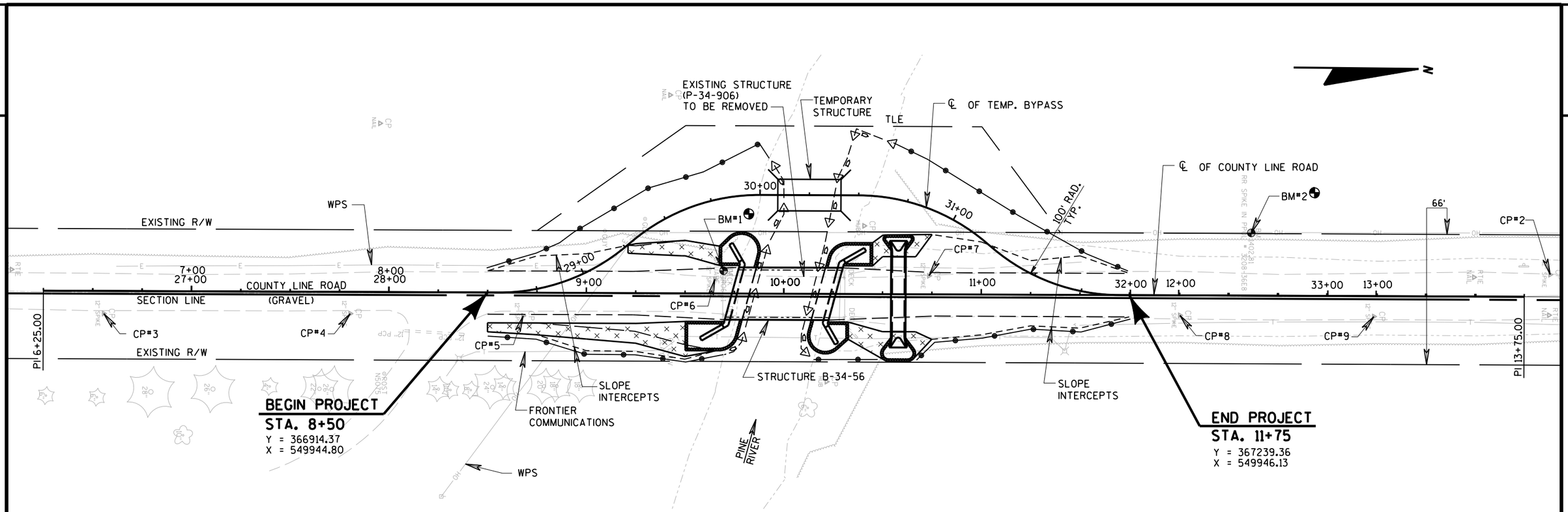
NO GRUBBING TO BE DONE ALONG THE TEMPORARY BYPASS.

HIGH WATER $_2$ EL. 1400.4

LEGEND

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

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	EROSION CONTROL - TEMPORARY BYPASS	SCALE, FEET 0 25 50	SHEET 3	E



	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											

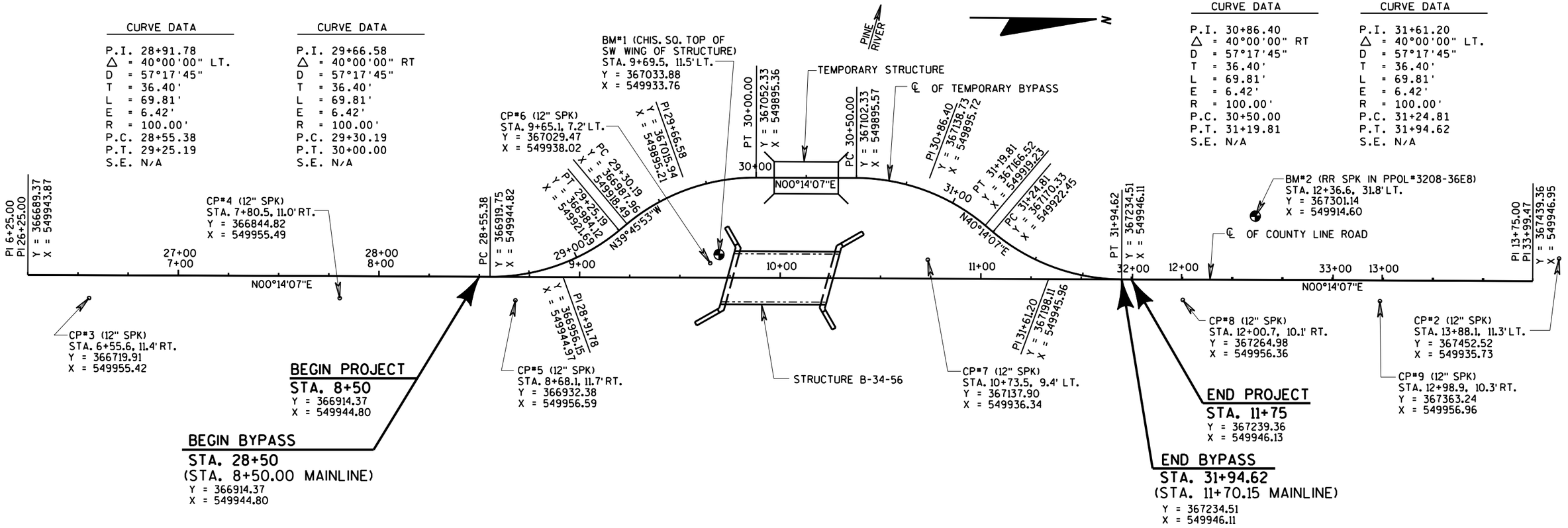
TOTAL PROJECT AREA = 0.75 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.46 ACRES

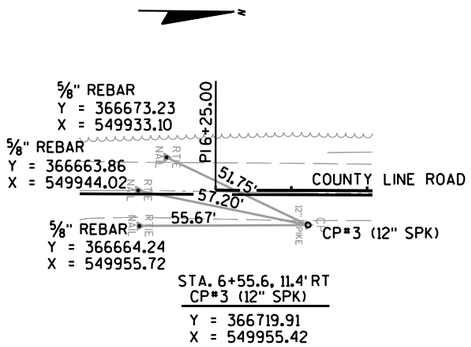
HIGH WATER $_2$ EL. 1400.4

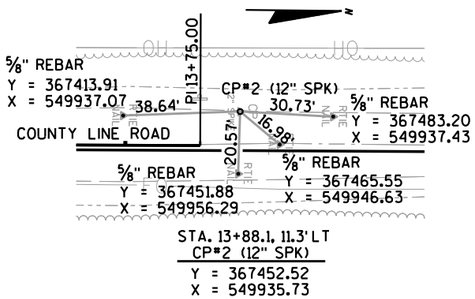
LEGEND

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

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	EROSION CONTROL - MAINLINE	SCALE, FEET 0 25 50	SHEET 4	E







ALIGNMENT TIES

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	ALIGNMENT CONTROLS	SHEET 5	E

9848-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0006	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0008	205.0100	Excavation Common	CY	1,474.000	1,474.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-34-56	LS	1.000	1.000
0012	208.0100	Borrow	CY	1,018.000	1,018.000
0014	210.1500	Backfill Structure Type A	TON	485.000	485.000
0016	213.0100	Finishing Roadway (project) 01. 9848-00-70	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	755.000	755.000
0020	502.0100	Concrete Masonry Bridges	CY	220.000	220.000
0022	502.3200	Protective Surface Treatment	SY	195.000	195.000
0024	505.0400	Bar Steel Reinforcement HS Structures	LB	4,830.000	4,830.000
0026	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	24,750.000	24,750.000
0028	506.0105	Structural Steel Carbon	LB	520.000	520.000
0030	513.4061	Railing Tubular Type M	LF	109.000	109.000
0032	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0034	522.2348	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 48x76-Inch	LF	38.000	38.000
0036	522.2648	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 48x76-Inch	EACH	2.000	2.000
0038	526.0100	Temporary Structure (station) 01. 30+25	LS	1.000	1.000
0040	550.0500	Pile Points	EACH	14.000	14.000
0042	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	330.000	330.000
0044	606.0300	Riprap Heavy	CY	140.000	140.000
0046	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0048	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9848-00-70	EACH	1.000	1.000
0050	619.1000	Mobilization	EACH	1.000	1.000
0052	624.0100	Water	MGAL	48.000	48.000
0054	625.0500	Salvaged Topsoil	SY	990.000	990.000
0056	627.0200	Mulching	SY	1,670.000	1,670.000
0058	628.1504	Silt Fence	LF	750.000	750.000
0060	628.1520	Silt Fence Maintenance	LF	1,500.000	1,500.000
0062	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0064	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0066	628.2027	Erosion Mat Class II Type C	SY	390.000	390.000
0068	628.6005	Turbidity Barriers	SY	325.000	325.000
0070	628.7504	Temporary Ditch Checks	LF	50.000	50.000
0072	629.0210	Fertilizer Type B	CWT	2.600	2.600

9848-00-70

Line	Item	Item Description	Unit	Total	Qty
0074	630.0120	Seeding Mixture No. 20	LB	60.000	60.000
0076	630.0200	Seeding Temporary	LB	60.000	60.000
0078	630.0300	Seeding Borrow Pit	LB	5.000	5.000
0080	633.1100	Delineators Temporary	EACH	16.000	16.000
0082	633.5200	Markers Culvert End	EACH	2.000	2.000
0084	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0086	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0088	638.2602	Removing Signs Type II	EACH	6.000	6.000
0090	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0092	642.5001	Field Office Type B	EACH	1.000	1.000
0094	643.0300	Traffic Control Drums	DAY	2,088.000	2,088.000
0096	643.0420	Traffic Control Barricades Type III	DAY	1,740.000	1,740.000
0098	643.0705	Traffic Control Warning Lights Type A	DAY	696.000	696.000
0100	643.0715	Traffic Control Warning Lights Type C	DAY	1,044.000	1,044.000
0102	643.0900	Traffic Control Signs	DAY	2,784.000	2,784.000
0104	643.5000	Traffic Control	EACH	1.000	1.000
0106	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0108	645.0120	Geotextile Type HR	SY	305.000	305.000
0110	645.0140	Geotextile Type SAS	SY	1,136.000	1,136.000
0112	650.4500	Construction Staking Subgrade	LF	590.000	590.000
0114	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0116	650.6500	Construction Staking Structure Layout (structure) 01. B-34-56	LS	1.000	1.000
0118	650.9910	Construction Staking Supplemental Control (project) 01. 9848-00-70	LS	1.000	1.000
0120	650.9920	Construction Staking Slope Stakes	LF	590.000	590.000
0122	715.0502	Incentive Strength Concrete Structures	DOL	1,320.000	1,320.000

3

CLEARING AND GRUBBING

STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA
8+50	-	11+75	LT & RT	4	4
TOTALS				4	4

COUNTY LINE ROAD EARTHWORK SUMMARY

From/To Station	Location	Excavation Common (1) (5) (item # 205.0100) Cut	Unexpanded Fill	Expanded Fill (2) Factor 1.30	Mass Ordinate +/- (3)	Waste	Borrow (item #208.0100)	Comment:
28+50 - 31+94.62	TEMP. BYPASS	0	783	1018	-1018	0	1018	
28+50 - 31+94.62	TEMP. BYPASS REMOVAL	1088	0	0	1088	1088	0	
8+50 - 11+75	COUNTY LINE ROAD	386	100	129	256	256	0	
TOTALS		1473	882	1147	326	1344	1018	

1) Excavation Common is the Cut. Item number 205.0100.
2) Expanded Fill. Factor = 1.30; Expanded Fill = Unexpanded Fill * Fill Factor
3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material on the project.
4) All quantities shown in CY.
5) Excavation Common for Temporary Bypass Removal includes 70 CY of Base Aggregate Dense.

BASE QUANTITIES

STA	TO	STA	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON
28+50	--	30+09	TEMP. BYPASS	75
30+41	--	31+94.62	TEMP. BYPASS	75
8+50	--	9+73.71	COUNTY LINE ROAD	260
10+26.29	--	11+75	COUNTY LINE ROAD	310
UNDISTRIBUTED				35
TOTALS				755

PIPE CULVERTS

STA	LOCATION	522.2348 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 48X76-INCH LF	522.2648 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 48X76-INCH EACH	* 606.0300 RIPRAP HEAVY CY	* 645.0120 GEOTEXTILE TYPE HR SY	633.5200 MARKERS CULVERT END EACH
10+58	MAINLINE	38	2	15	35	2
TOTALS		38	2	15	35	2

* ADDITIONAL QUANTITIES LOCATED ELSEWHERE IN PLAN.

FINISHING ROADWAY (ID 9848-00-70)

LOCATION	213.0100.01 EACH
COUNTY LINE RD	1
TOTAL	1

TEMPORARY STRUCTURE

LOCATION	526.0100 LS
TEMP. BYPASS 30+25	1
TOTAL	1

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	618.0100 EACH
0030	1
TOTAL	1

MOBILIZATION

CATEGORY	619.1000 EACH
0010	0.3
0020	0.7
TOTAL	1

WATER

PURPOSE	624.0100 WATER MGAL
COMPACTION	11.0
DUST CONTROL	37.0
TOTAL	48.0

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

3

3

EROSION CONTROL ITEMS

STA	TO	STA	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2027 EROSION MAT CLASS II TYPE C SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	645.0140 GEOTEXTILE TYPE SAS SY
28+50	--	30+09	TEMP. BYPASS-RT	90	105	125	250	45	0.2	4	4	5	562
28+50	--	30+09	TEMP. BYPASS-LT	90	175	165	330	20	0.2	5	5		
30+41	--	31+94.62	TEMP. BYPASS-RT	75	100	170	340	30	0.2	4	4		575
30+41	--	31+94.62	TEMP. BYPASS-LT	140	200	140	280	50	0.3	7	7		
8+50	--	9+73.71	COUNTY LINE RD-RT	135	155	0	0	110	0.3	7	7	--	--
8+50	--	9+73.71	COUNTY LINE RD-LT	80	170	0	0	40	0.3	6	6		
10+26.29	--	11+75	COUNTY LINE RD-RT	75	200	0	0	35	0.3	6	6		--
10+26.29	--	11+75	COUNTY LINE RD-LT	105	230	0	0	20	0.3	7	7		
UNDISTRIBUTED				200	335	150	300	40	0.5	11	11	--	--
TOTALS				990	1,670	750	1,500	390	2.6	60	60	5	1,136

EROSION CONTROL MOBILIZATION ITEMS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
ID 9848-00-70	4	4
TOTALS	4	4

TURBIDITY BARRIERS

LOCATION	628.6005 SY
SOUTH SIDE	115
NORTH SIDE	145
UNDISTRIBUTED	65
TOTAL	325

TEMPORARY DITCH CHECKS

LOCATION	628.7504 LF
UNDISTRIBUTED	50
TOTAL	50

ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

OBJECT MARKERS

STATION	LOC	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGNAGE TYPE
9+68	LT	--	--	1	1	W5-52L
9+68	RT	--	--	2	2	W5-52R, WEIGHT LIMIT
10+32	LT	--	--	2	2	W5-52R, WEIGHT LIMIT
10+32	RT	--	--	1	1	W5-52L
9+77	LT	1	3	--	--	W5-52L
9+69	RT	1	3	--	--	W5-52R
10+31	LT	1	3	--	--	W5-52R
10+23	RT	1	3	--	--	W5-52L
TOTALS		4	12	6	6	

FIELD OFFICE TYPE B

CATEGORY	642.5001 EACH
0010	0.3
0020	0.7
TOTAL	1

STAKING ITEMS

CATEGORY	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EA	650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-34-0056) LS	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (ID 9848-00-70) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	28+50 - 31+94.62	315	--	--	--	315
0010	8+50 - 11+75	275	1	--	1	275
0020	B-34-0056	--	--	1	--	--
TOTALS		590	1	1	1	590

TRAFFIC CONTROL ITEMS

LOCATION	DURATION DAYS	633.1100 DELINEATORS TEMPORARY EACH	643.0300 DRUMS NO.	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO.	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS NO.	643.0900 SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
PER SDD "TRAFFIC CONTROL TEMPORARY BYPASS ROADWAY"	87	16	24	2,088	20	1,740	8	696	12	1,044	32	2,784	--
COUNTY LINE RD	--	--	--	--	--	--	--	--	--	--	--	--	1
TOTALS		16		2,088		1,740		696		1,044		2,784	1

.

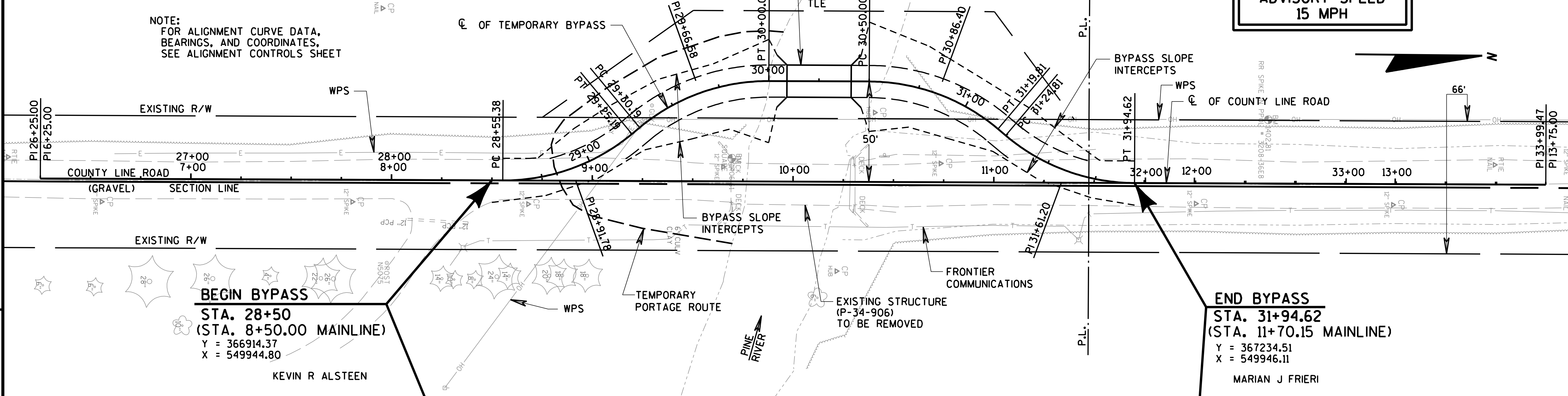
TRAFFIC CONTROL PLACEMENT SUBJECT TO ENGINEER APPROVAL

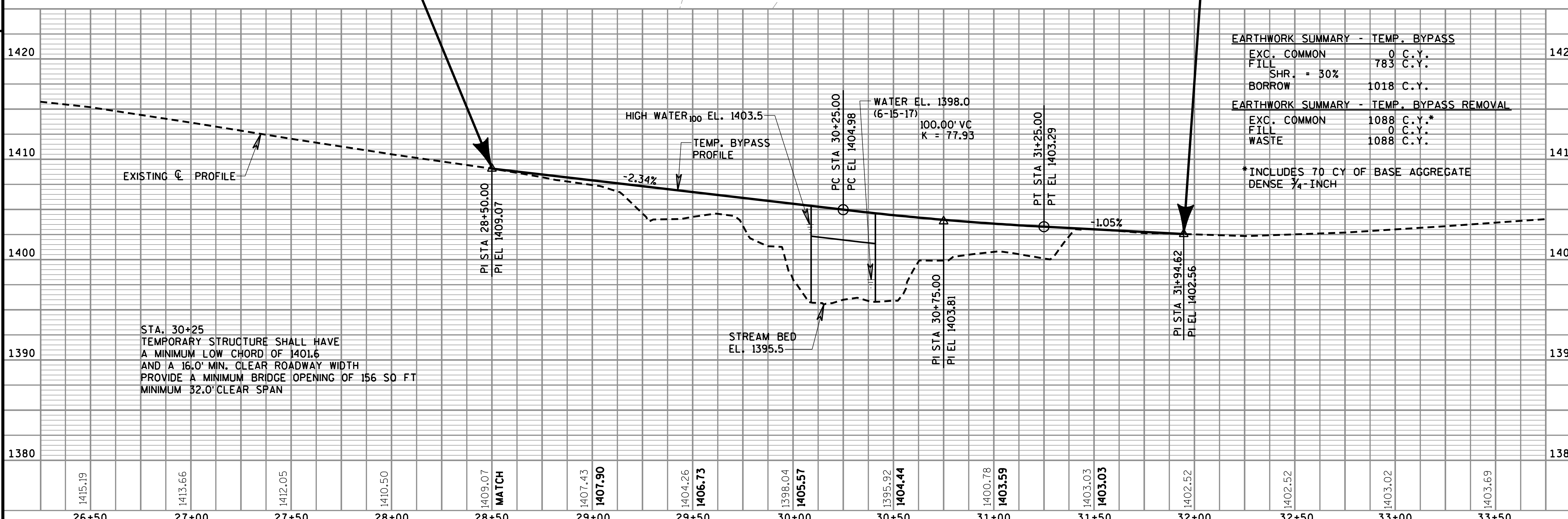
ALL QUANTITIES CATEGORY 0010 UNLESS OTHERWISE NOTED

		BENCH MARKS	
NO.	STA.	DESCRIPTION	ELEV.
1	9+69.5	CHIS. SQ. TOP OF SW WING OF STRUCTURE, 11.5' LT	1406.61
2	12+36.6	RR SPK IN PPOL#3208-36E8, 31.8' LT	1402.81

NOTE:
FOR ALIGNMENT CURVE DATA, BEARINGS, AND COORDINATES, SEE ALIGNMENT CONTROLS SHEET

TEMPORARY BYPASS ADVISORY SPEED 15 MPH





PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	PLAN AND PROFILE - TEMPORARY BYPASS	SCALE, FEET 0 25 50	SHEET 11	E

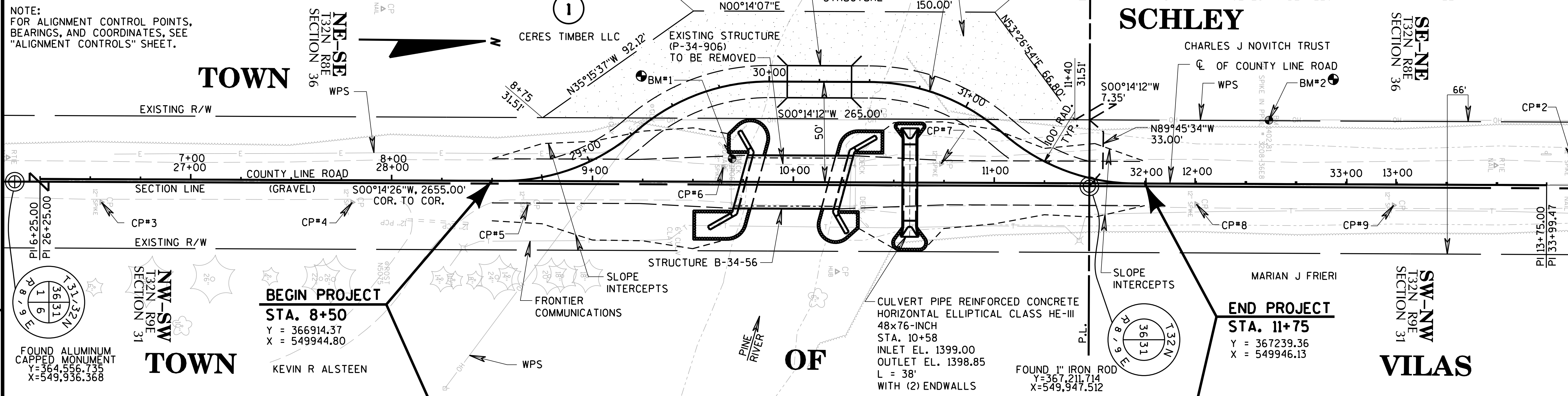
U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089 pp BY.dgn 7/12/2018 PENTABLE:BReau_shd_util.tbl BRIDGE 1:49.9999

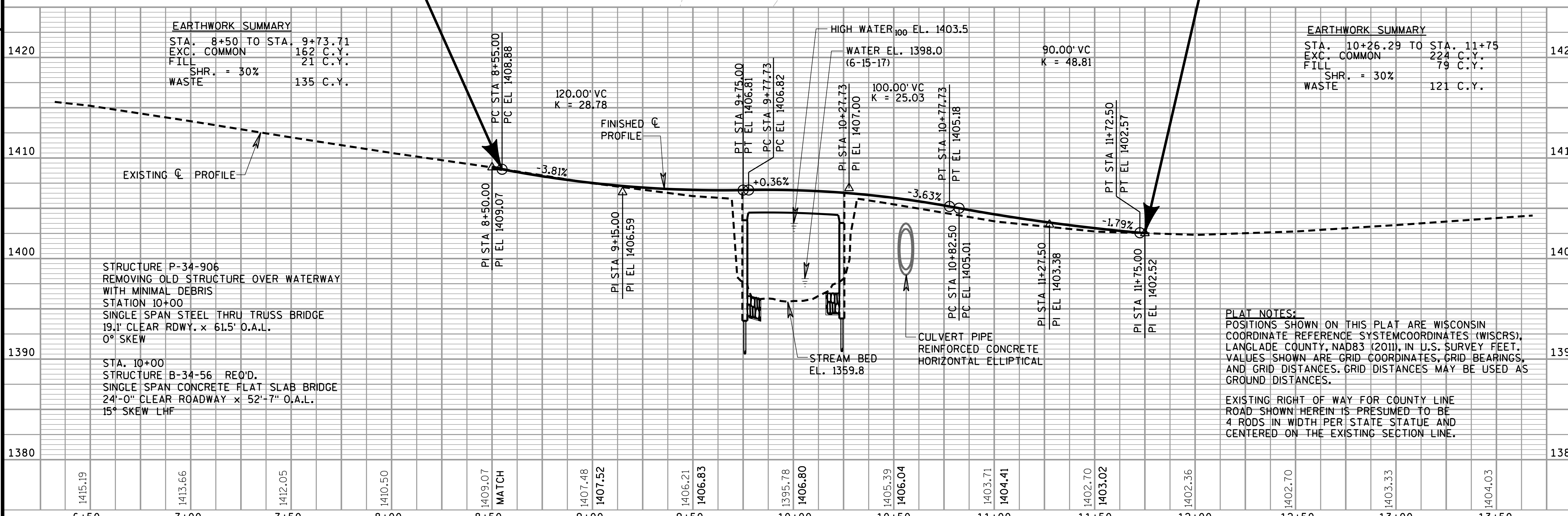
BENCH MARKS			
NO.	STA.	DESCRIPTION	ELEV.
1	9+69.5	CHIS. SQ. TOP OF SW WING OF STRUCTURE, 11.5' LT	1406.61
2	12+36.6	RR SPK IN PPOL#3208-36E8, 31.8' LT	1402.81

NOTE:
FOR ALIGNMENT CONTROL POINTS, BEARINGS, AND COORDINATES, SEE "ALIGNMENT CONTROLS" SHEET.

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTERESTS REQUIRED	T.L.E. ACRES
1	CERES TIMBER LLC	TLE	0.25





EARTHWORK SUMMARY

STA. 8+50 TO STA. 9+73.71	
EXC. COMMON	162 C.Y.
FILL	21 C.Y.
SHR. = 30%	
WASTE	135 C.Y.

EARTHWORK SUMMARY

STA. 10+26.29 TO STA. 11+75	
EXC. COMMON	224 C.Y.
FILL	79 C.Y.
SHR. = 30%	
WASTE	121 C.Y.

STRUCTURE P-34-906
REMOVING OLD STRUCTURE OVER WATERWAY
WITH MINIMAL DEBRIS
STATION 10+00
SINGLE SPAN STEEL THRU TRUSS BRIDGE
19.1' CLEAR RDWY. x 61.5' O.A.L.
0° SKEW

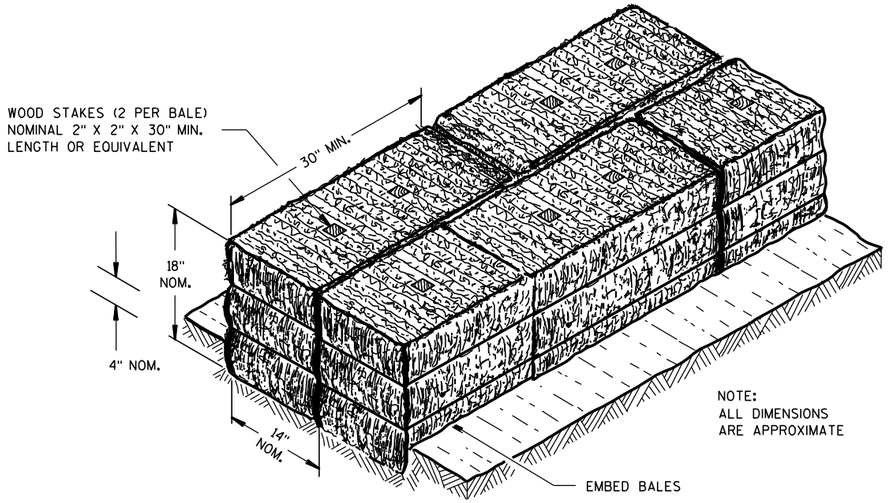
STA. 10+00
STRUCTURE B-34-56 REQ'D.
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
24'-0" CLEAR ROADWAY x 52'-7" O.A.L.
15° SKEW LHF

PLAT NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEMCOORDINATES (WISCRS), LANGLADE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

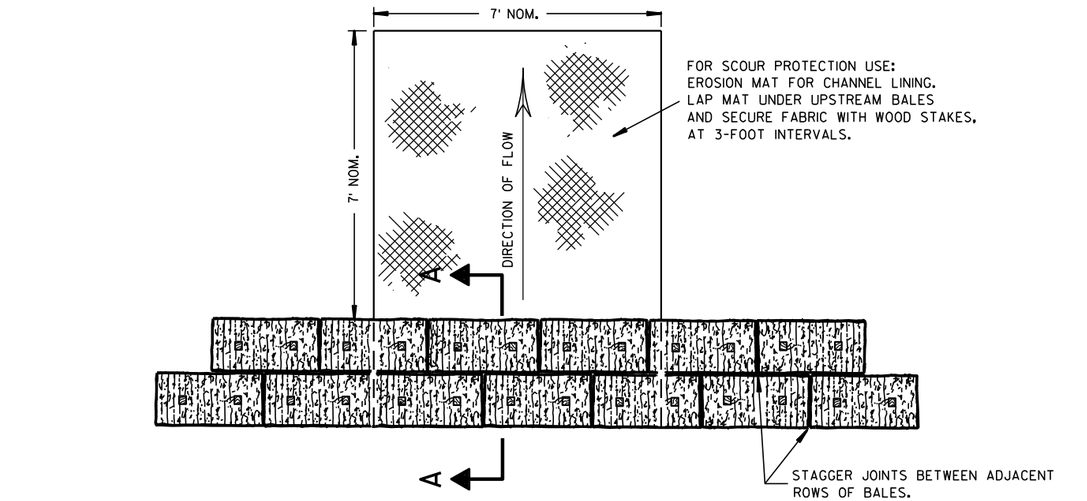
EXISTING RIGHT OF WAY FOR COUNTY LINE ROAD SHOWN HEREIN IS PRESUMED TO BE 4 RODS IN WIDTH PER STATE STATUE AND CENTERED ON THE EXISTING SECTION LINE.

Standard Detail Drawing List

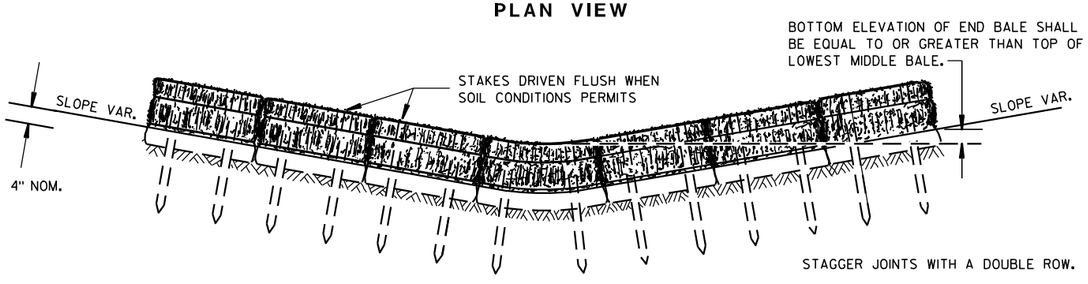
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-04A	FLEXIBLE DELINEATOR POST
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15D31-03	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



SECTION A-A



PLAN VIEW



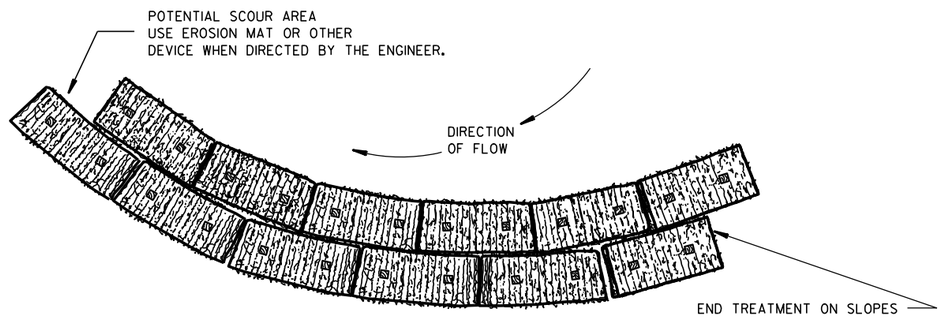
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

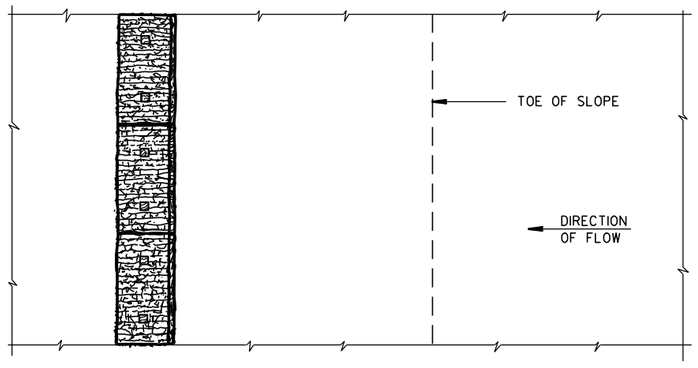
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

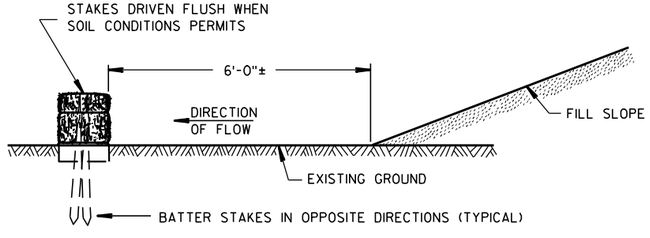


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

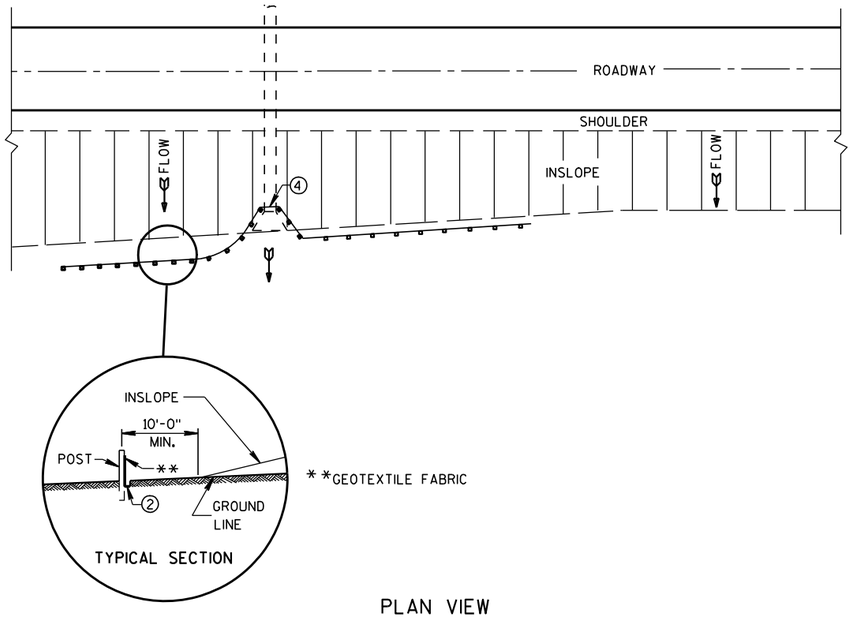
FHWA

6

S.D.D. 8 E 8-3

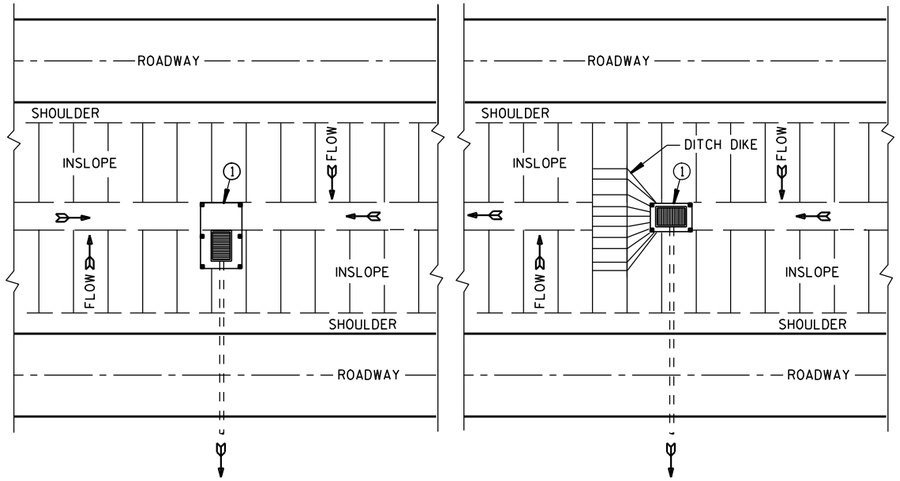
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

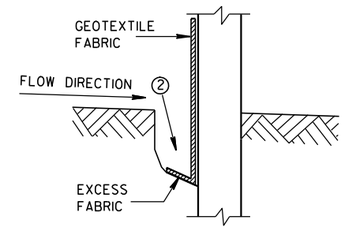
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

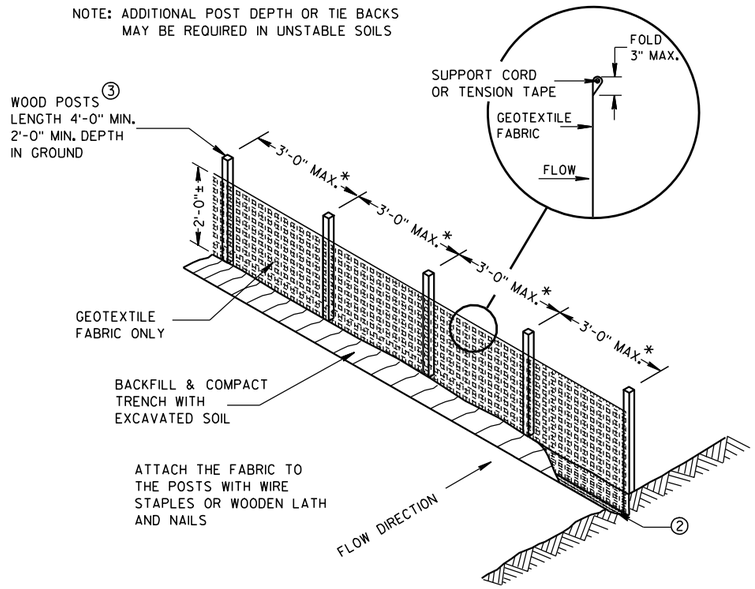
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

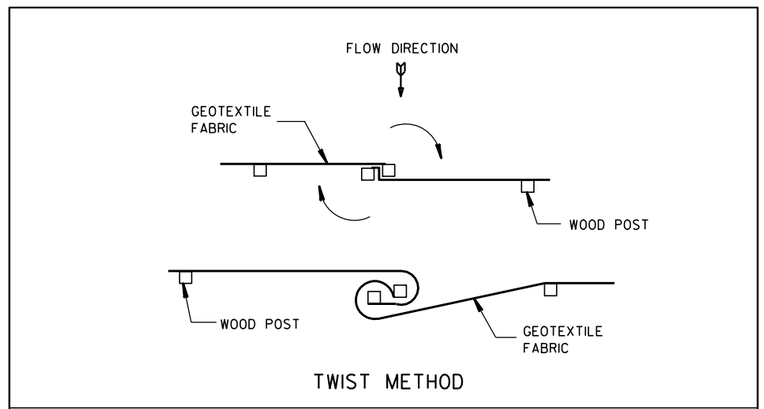
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



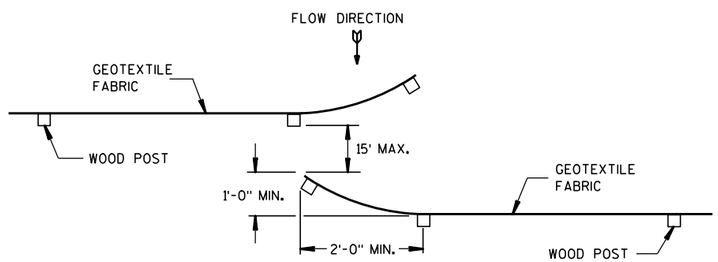
TRENCH DETAIL



SILT FENCE

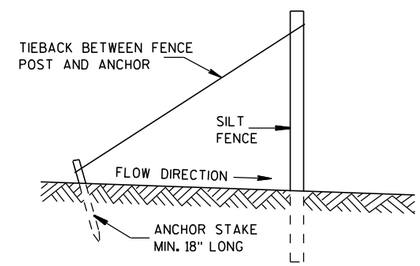


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

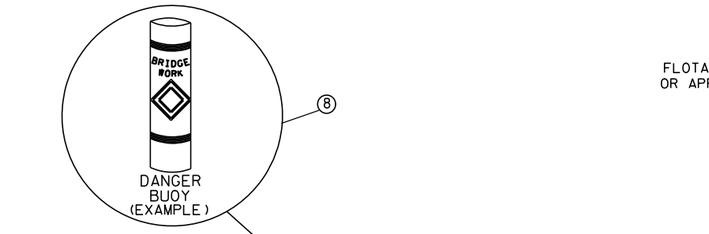
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

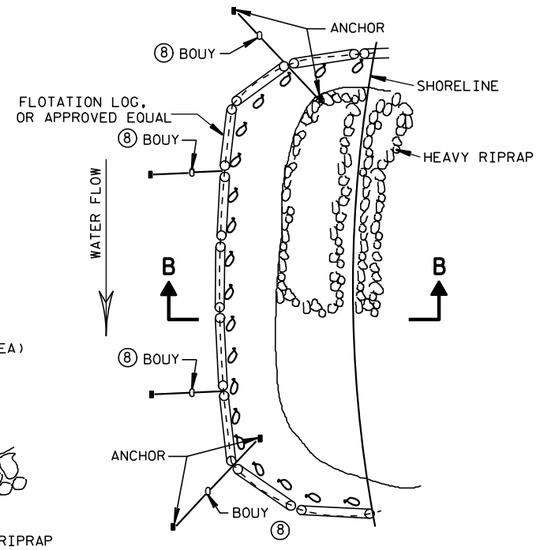
S.D.D. 8 E 9-6

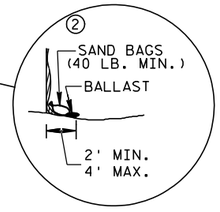
6

S.D.D. 8 E 9-6

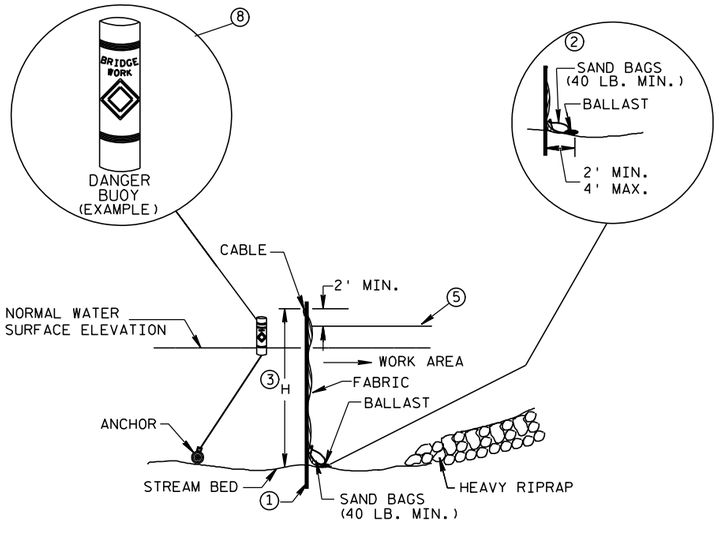


SECTION B-B

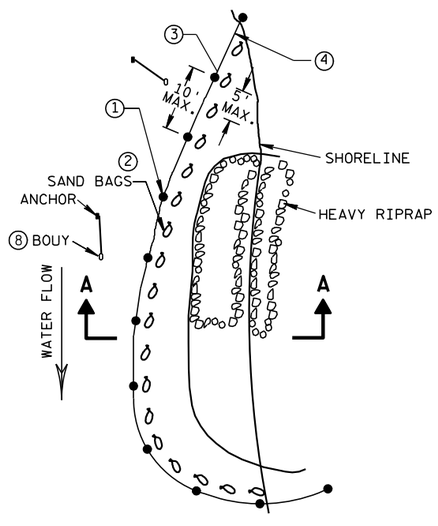




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

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.

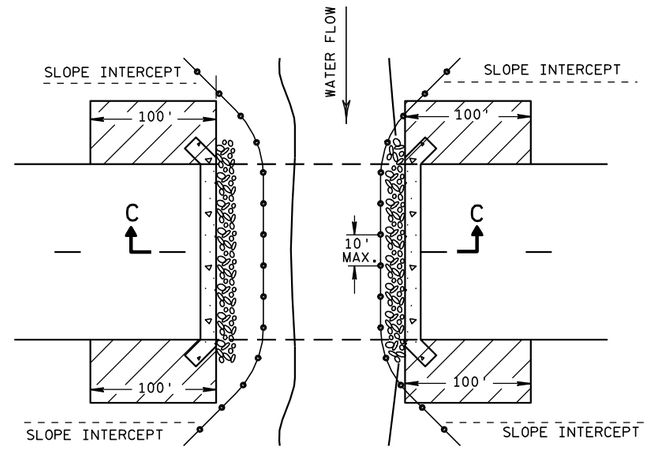
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

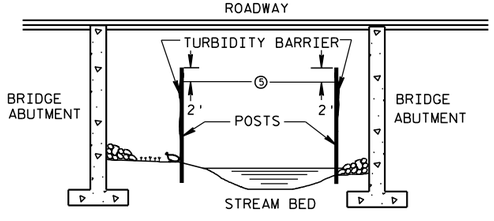
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

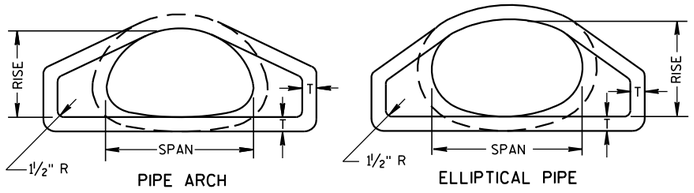
APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

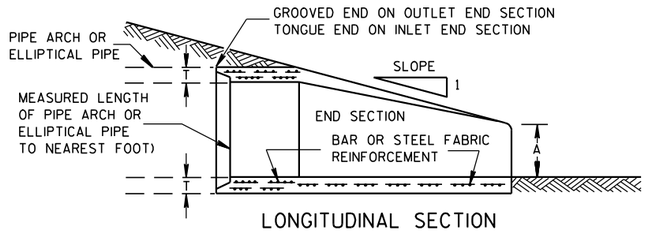
S.D.D. 8 E 11-2

6

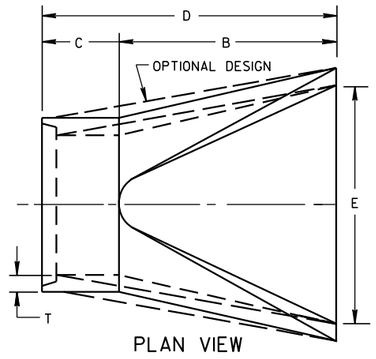
S.D.D. 8 E 11-2



END VIEW

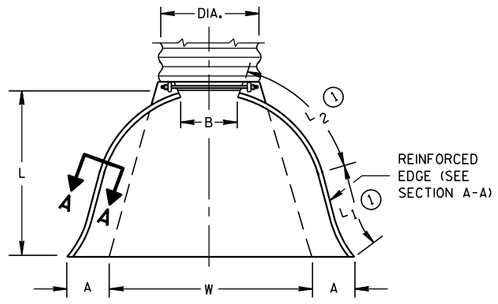


LONGITUDINAL SECTION

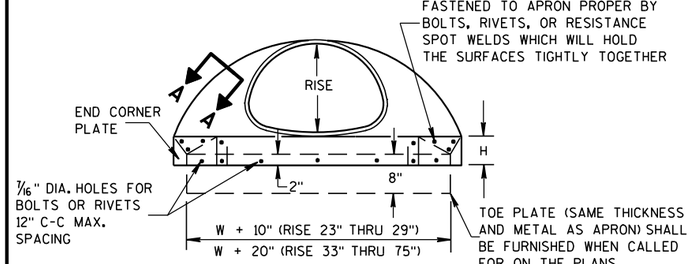


PLAN VIEW

CONCRETE ENDWALLS

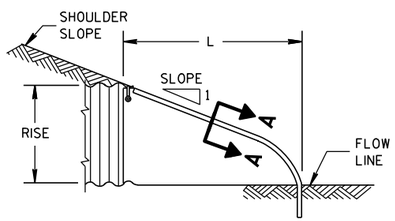


PLAN VIEW



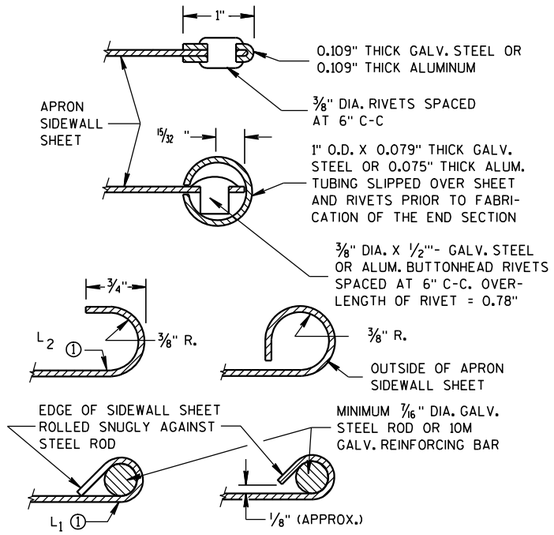
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

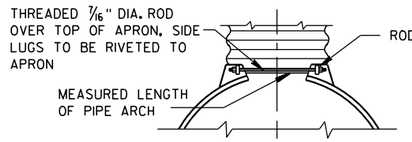
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

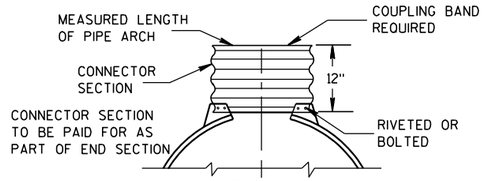
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



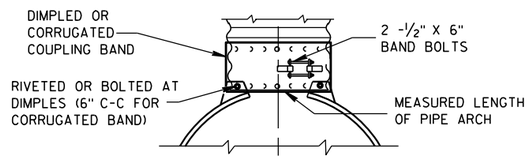
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

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

FHWA

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S.D.D. 8 F 2-1

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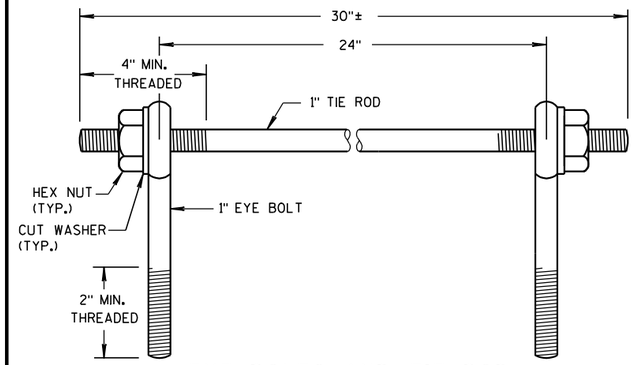
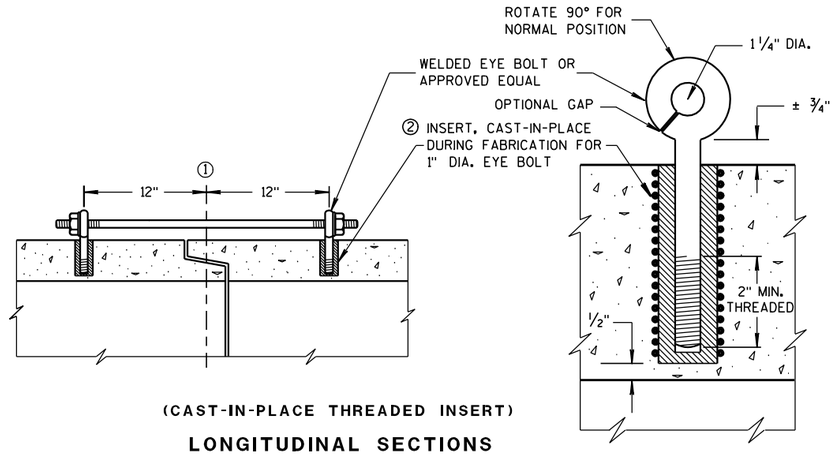
S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

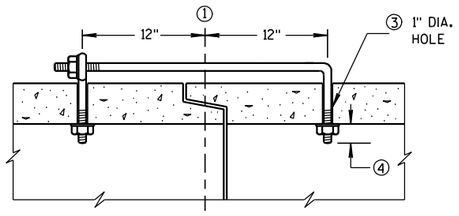
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

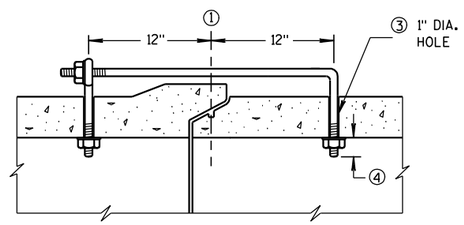
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

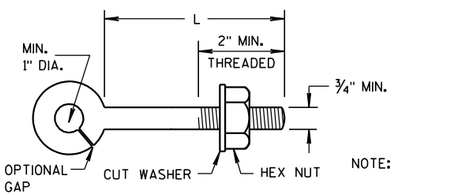


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

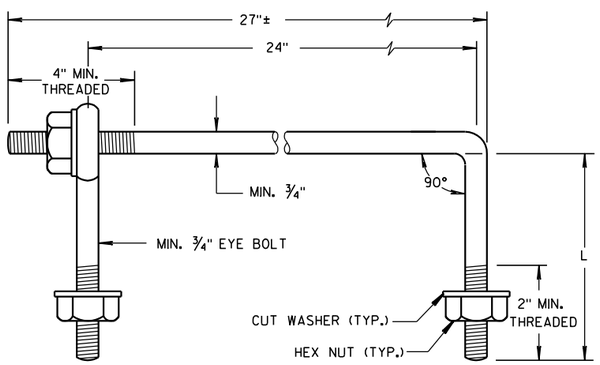
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

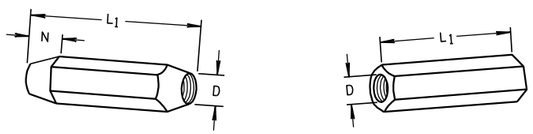
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

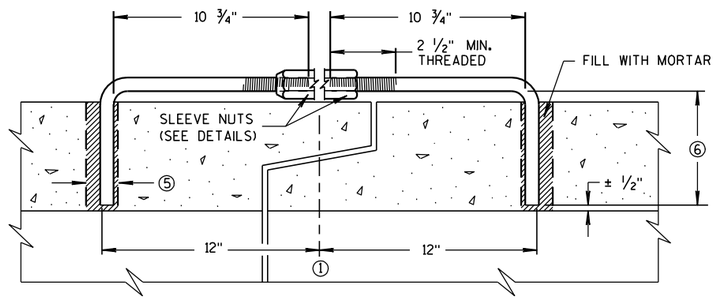
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

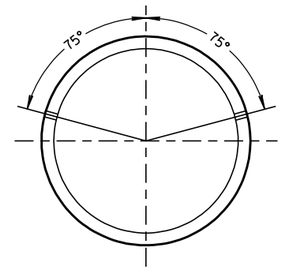
SLEEVE NUTS



LONGITUDINAL SECTION

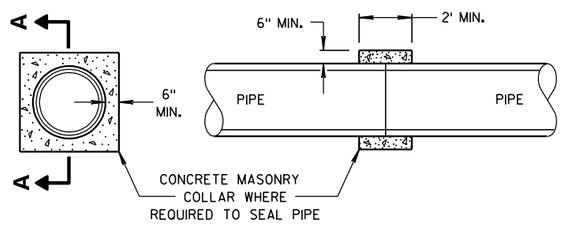
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 4-7

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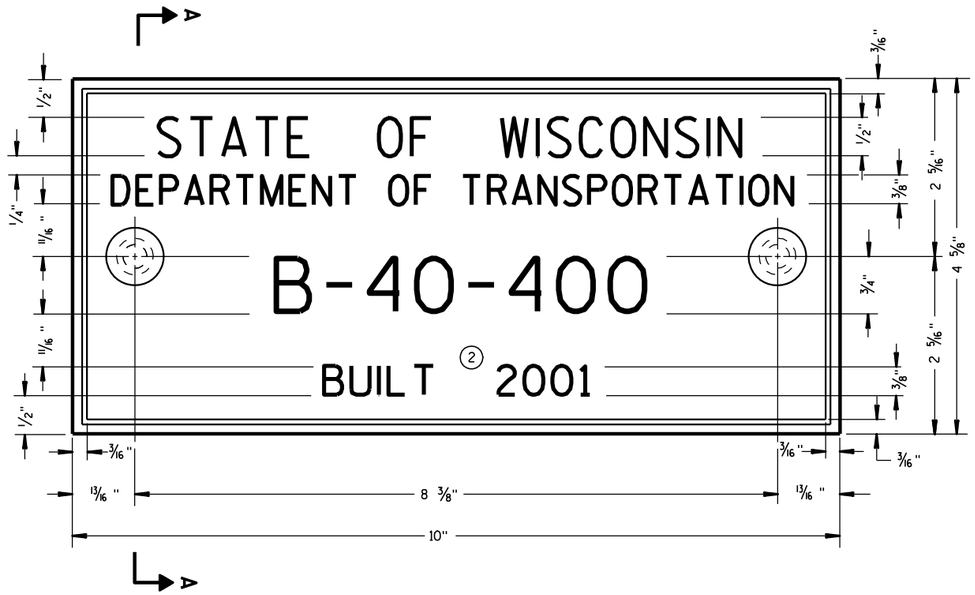
S.D.D. 8 F 4-7



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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

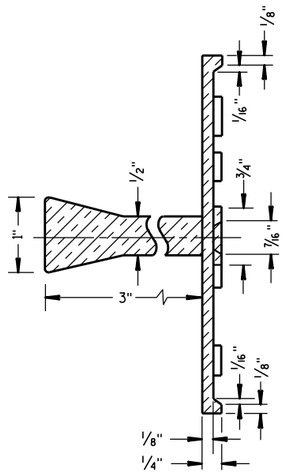
GENERAL NOTES

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

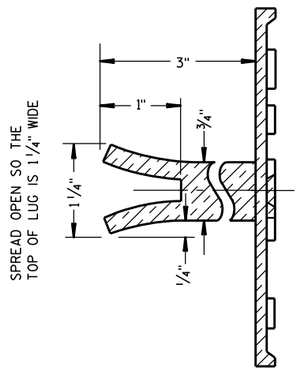
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

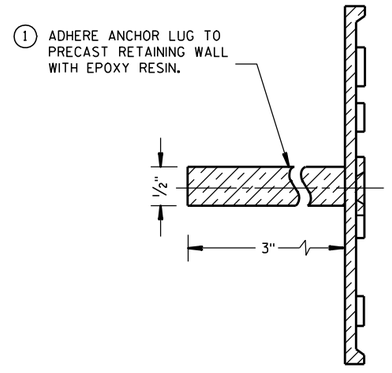
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

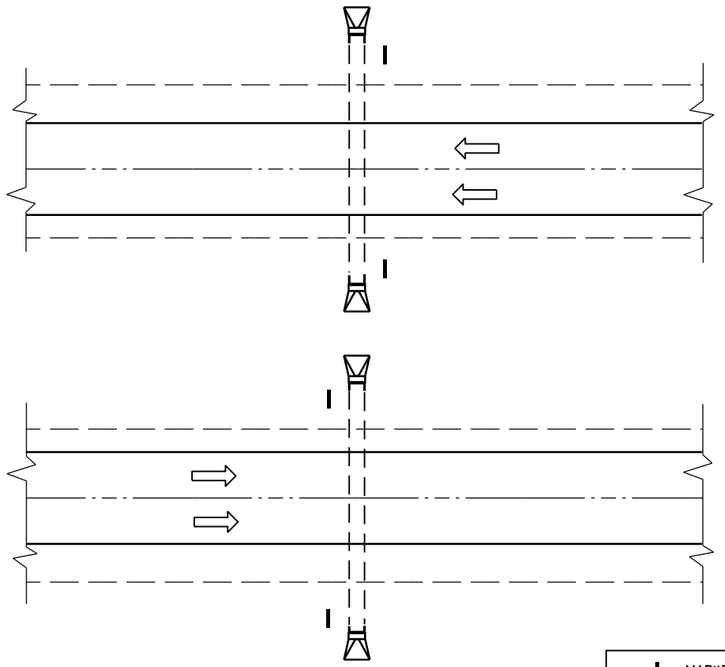
3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

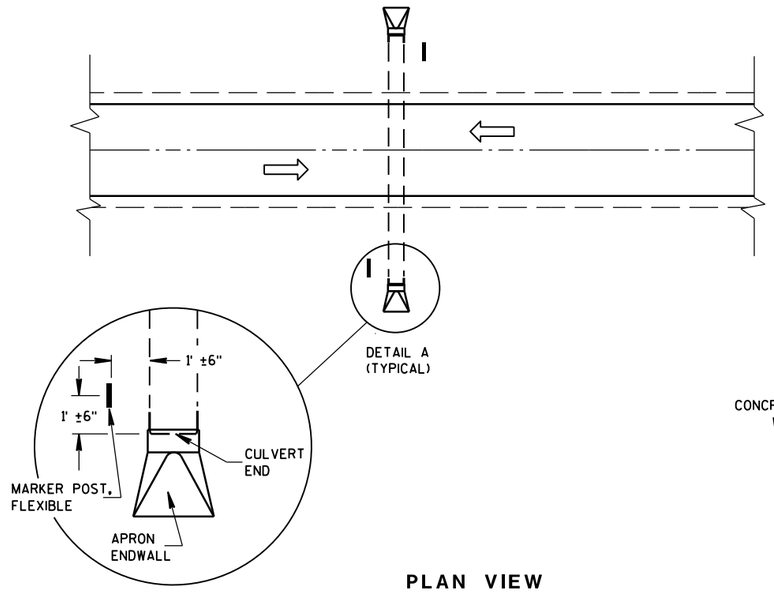
6

S.D.D. 12 A 3-10



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

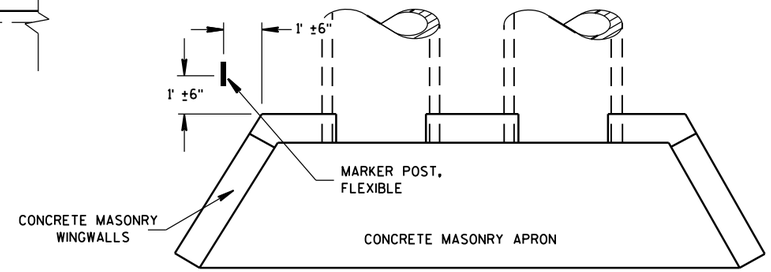
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

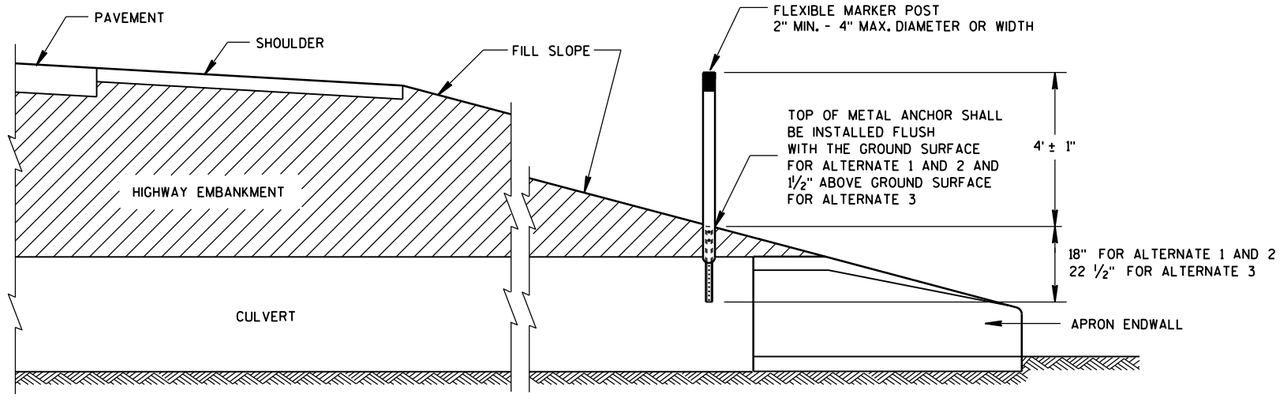
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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

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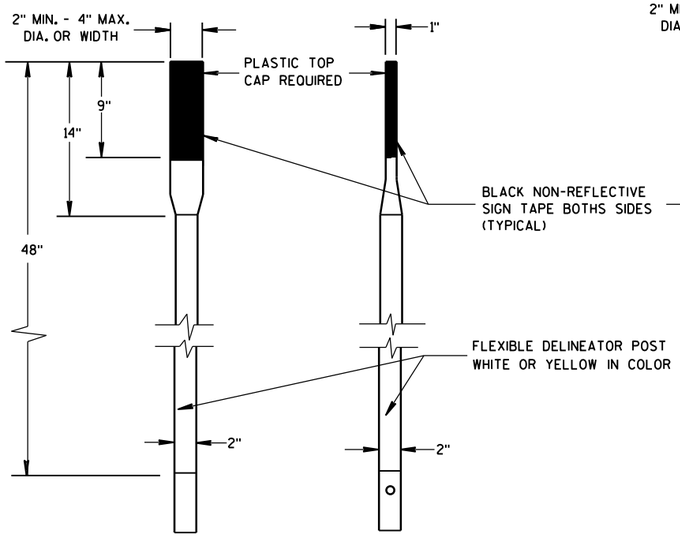
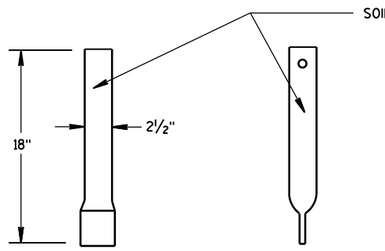
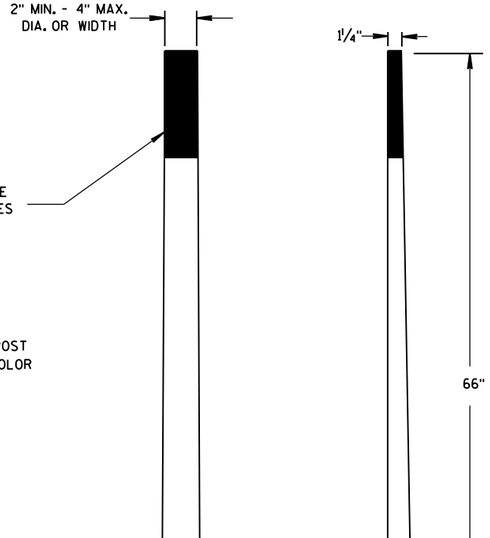
S.D.D. 15 A 3-2a





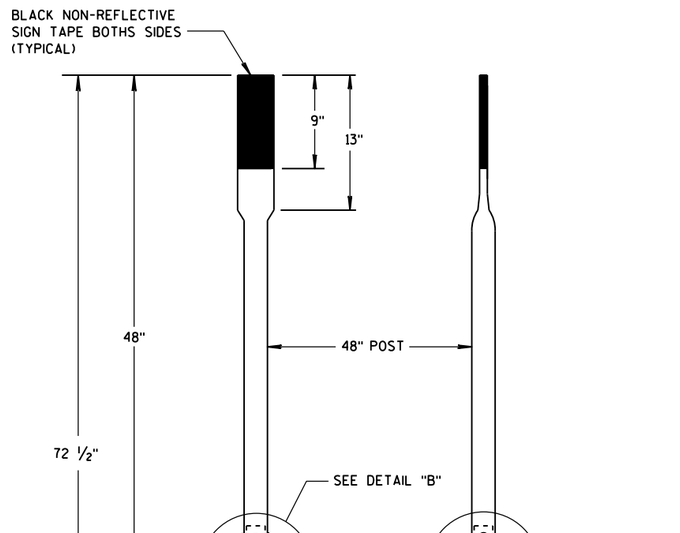
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

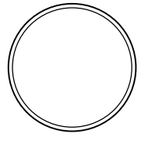
ALTERNATE 2



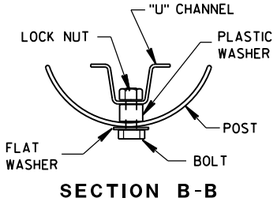
FRONT VIEW SIDE VIEW

ALTERNATE 3

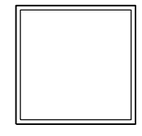
FLEXIBLE MARKER POSTS



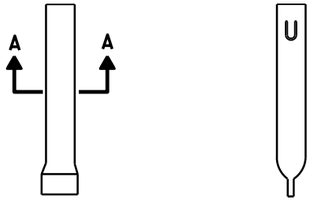
SECTION A-A



SECTION B-B

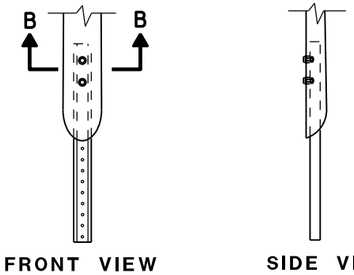


SECTION C-C



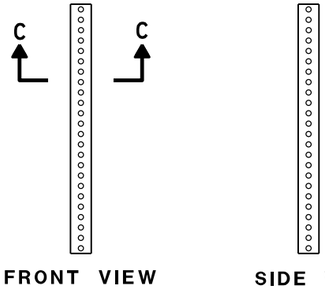
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

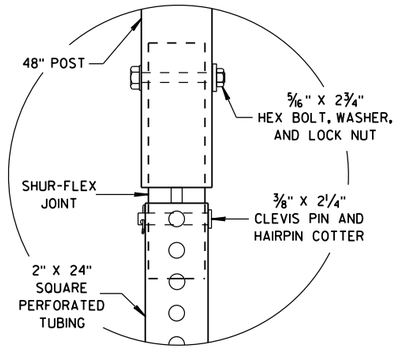
ALTERNATE 2



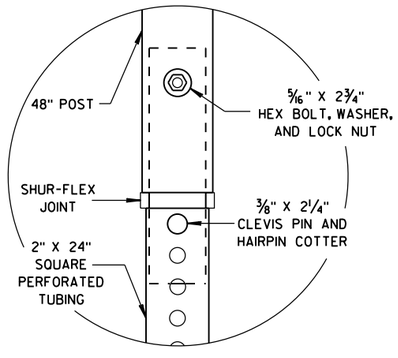
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



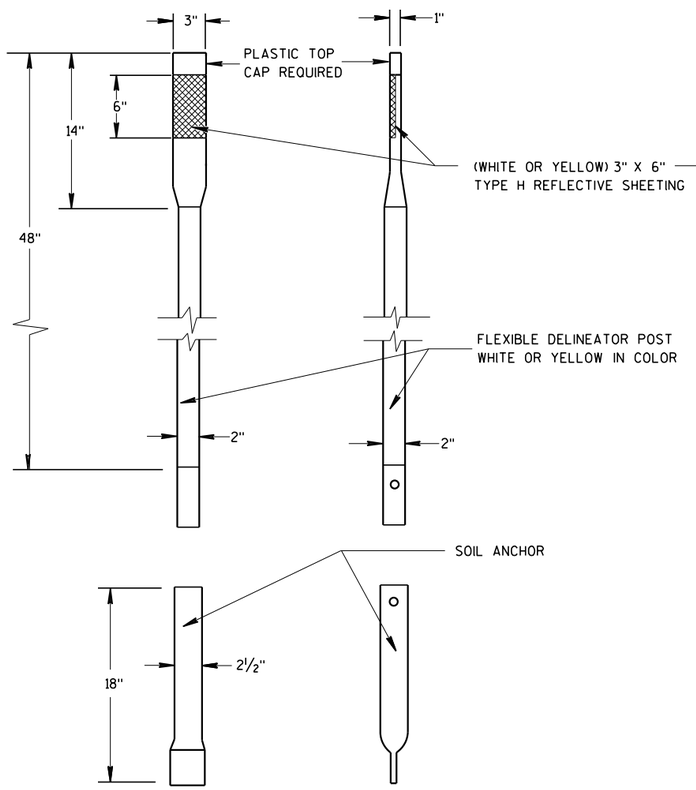
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

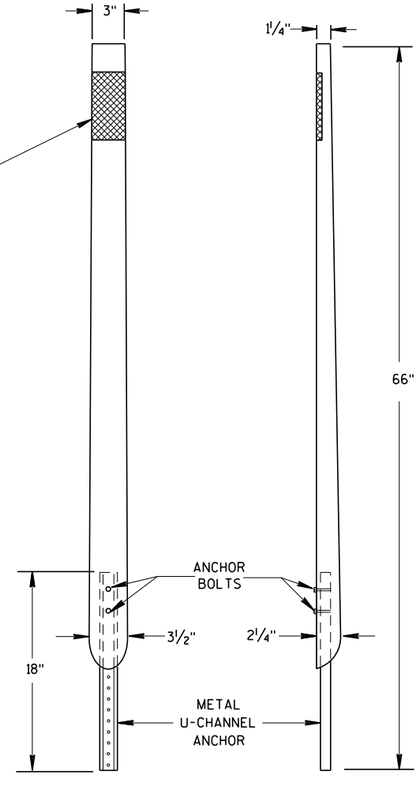
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
IGN
FHWA

6
S.D.D. 15 A 3-2b



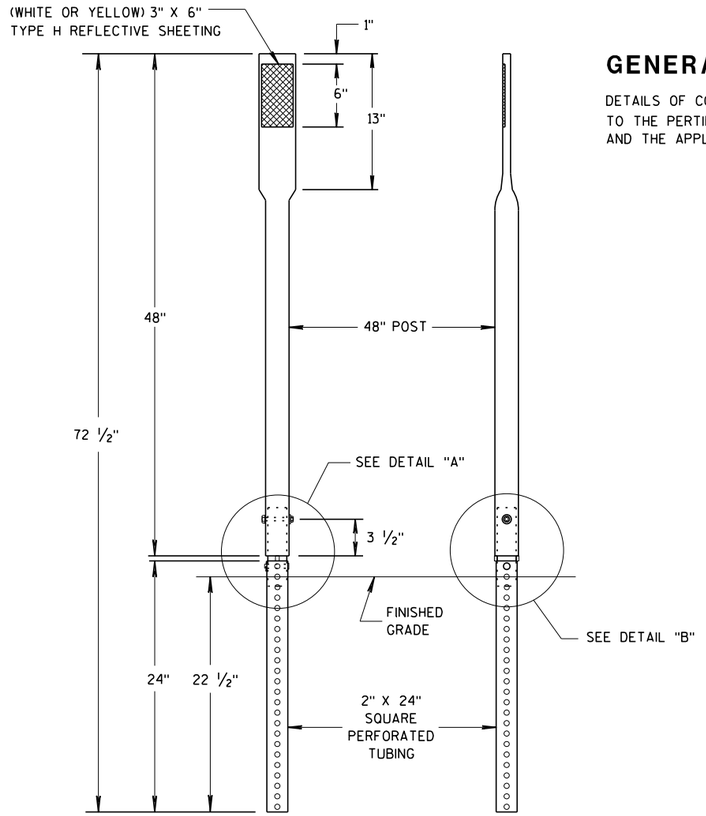
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2
FLEXIBLE DELINEATOR POSTS

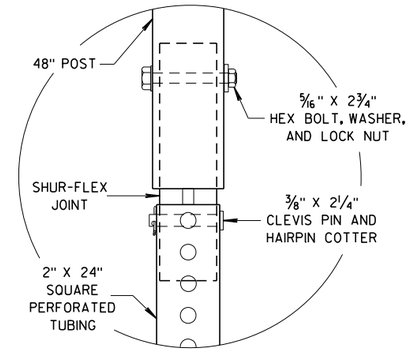


FRONT VIEW SIDE VIEW

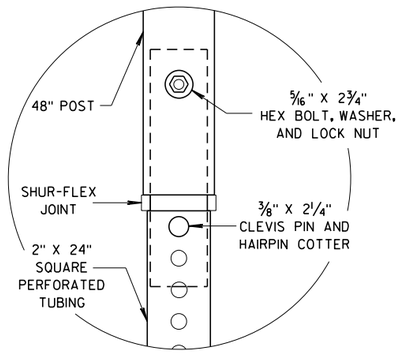
ALTERNATE 3

GENERAL NOTES

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



DETAIL A

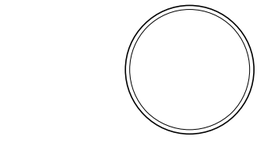


DETAIL B

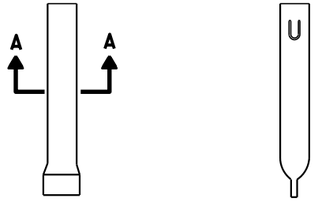
REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
*100' C-C	RAMPS
400' C-C	MAINLINE

*START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

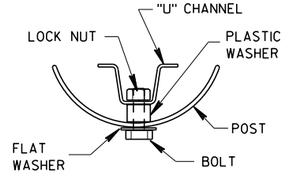


SECTION A-A

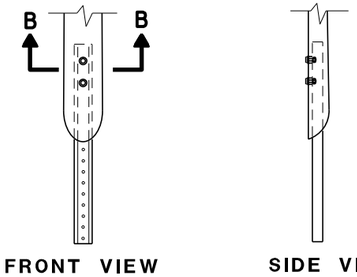


FRONT VIEW SIDE VIEW

ALTERNATE 1

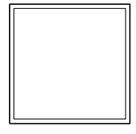


SECTION B-B

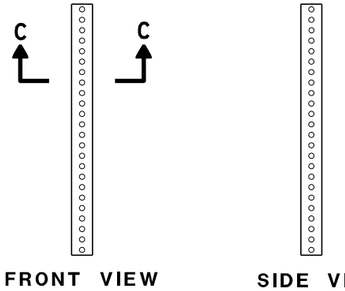


FRONT VIEW SIDE VIEW

ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



SECTION C-C



FRONT VIEW SIDE VIEW

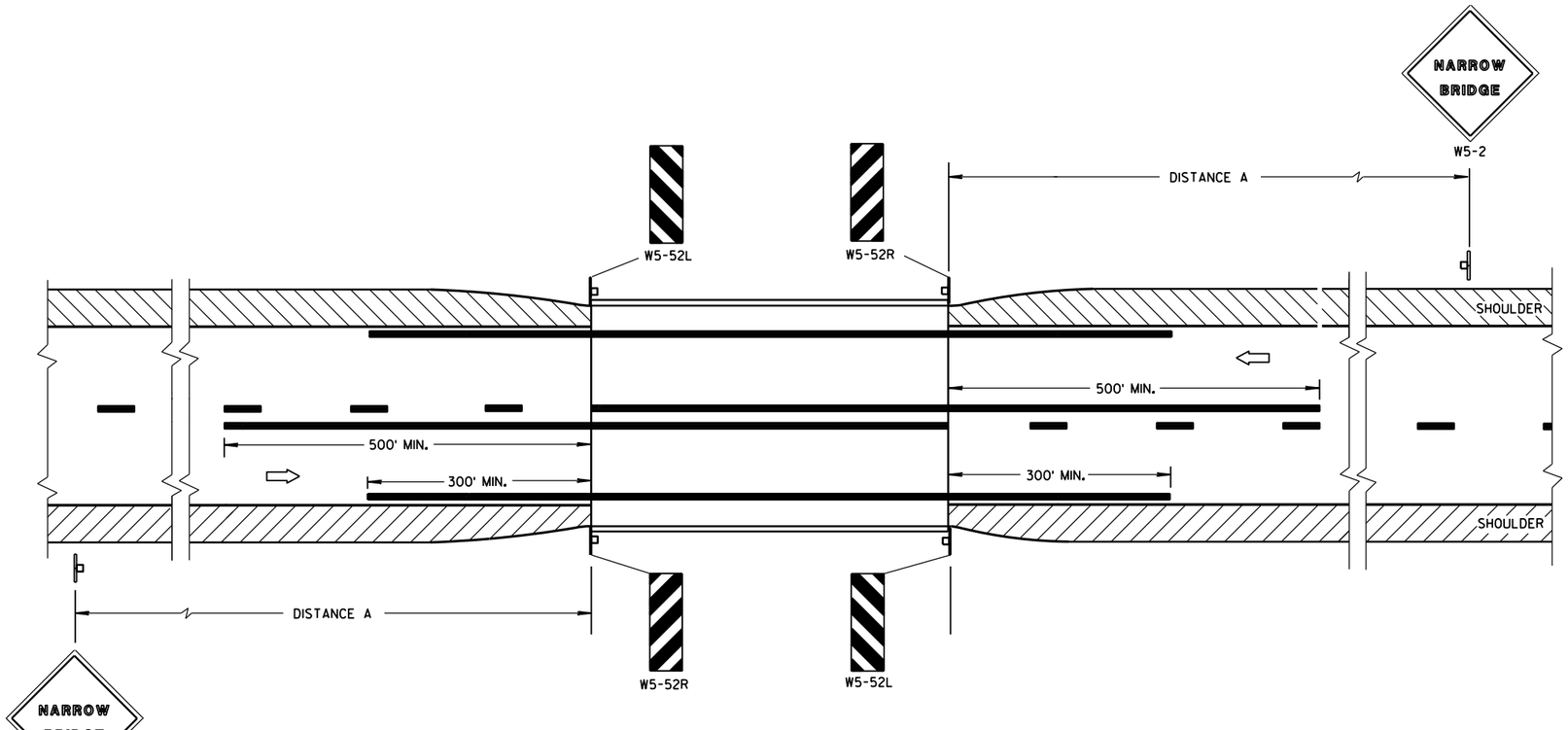
ALTERNATE 3

FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Matt Rauch
DATE STATE SIGNING AND MA 22 INEER
FHWA

6
S.D.D. 15 A 4-4a
6



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

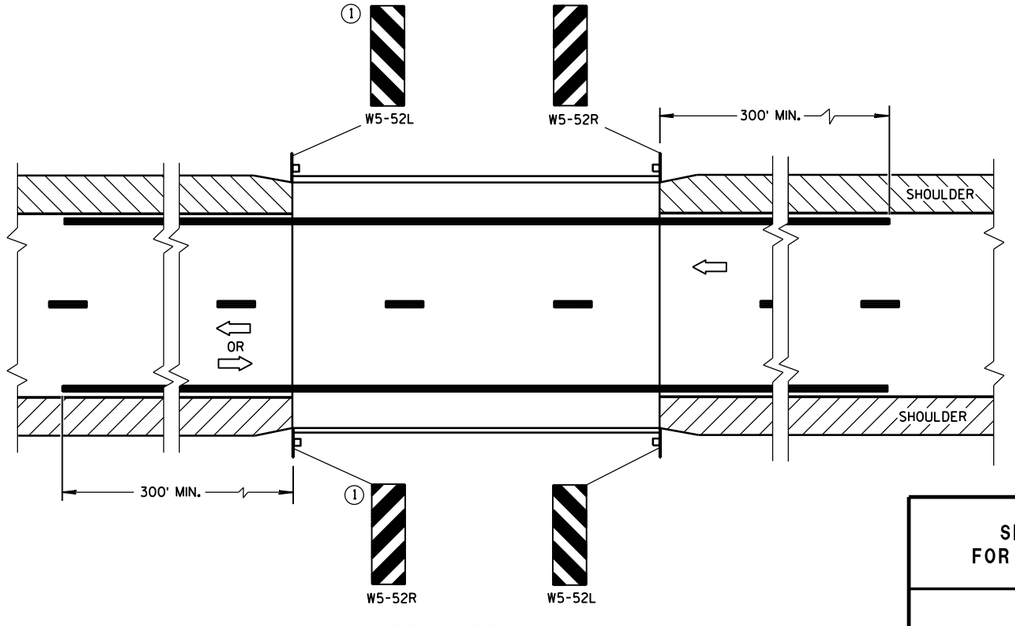
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

6

S.D.D. 15 C 6-9

S	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

END ROAD WORK
G20-2A
48"x24"

NO PASSING ZONE
W14-3
48"x36"

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

1000' 500' 400' 500' 200' 50' 50' 25' TYP.

W01-6 48"x24" ✳✳✳

R11-2 48"x30" ROAD CLOSED

TYPE III BARRICADE

FOR BRIDGE OR CULVERT REPLACEMENTS SUBSTITUTE
BRIDGE OUT
R11-2B
48"x30"

ROAD CLOSURE OR BRIDGE/CULVERT REPLACEMENT

BUFFER SPACE (SEE TABLE)

WORK AREA

BUFFER SPACE (SEE TABLE)

TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

W05-52L 12"x36"

W05-52R 12"x36"

OR

W01-3L
W01-4L
W013-1
XX M.P.H.
24"x24"

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

END TEMPORARY PAVEMENT MARKING, 4-INCH SOLID YELLOW CENTERLINE ✳✳

50' 50' 400' 200' 500' 500' 1000'

BEGIN TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

END TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINE

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGELINES. (USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT)

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTERLINE AND 2-WAY YELLOW RAISED PAVEMENT MARKERS AT 25' SPACING. USE REMOVABLE TAPE WHERE TEMPORARY MARKING CROSSES PERMANENT PAVEMENT.

GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

✳ IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE W01-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE W01-3 SIGN.

✳✳ WHEN THE DISTANCE TO/FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

✳✳✳ OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY-BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY DELINEATOR, (WHITE) (SINGLE DELINEATOR)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO-WAY YELLOW)
- XXX REMOVE PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- WORK AREA

TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

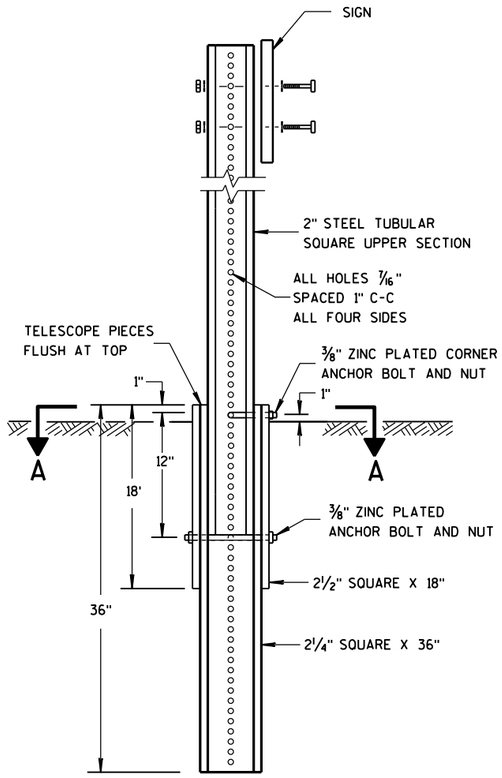
Sept. 2015 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER

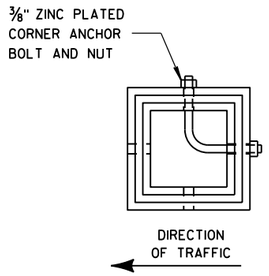
FHWA

6

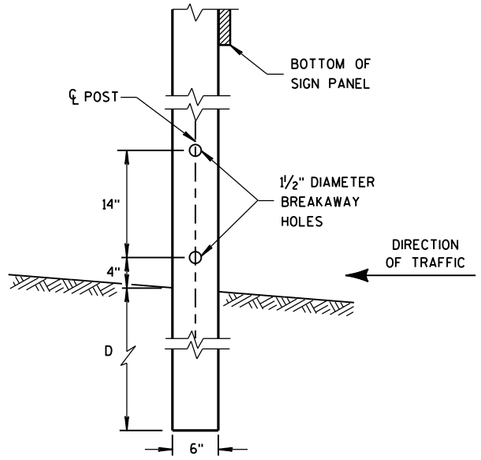
S.D.D. 15 D 31-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



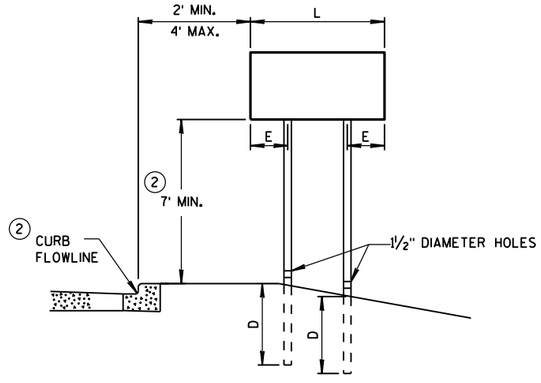
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

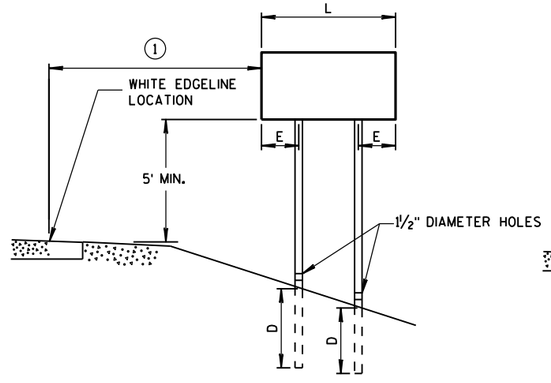
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

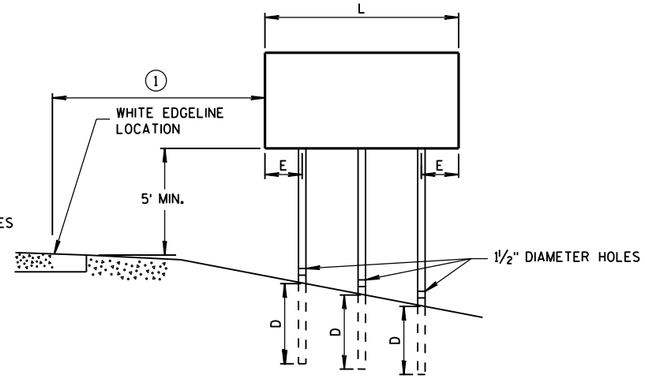
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

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



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

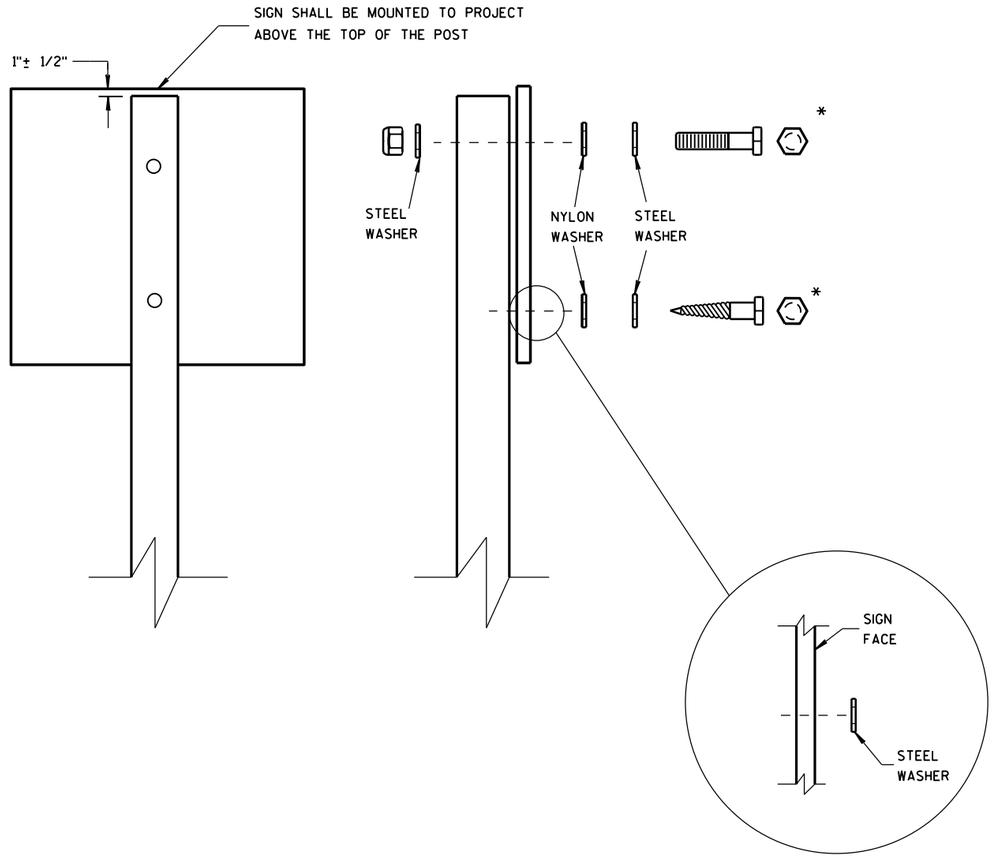
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

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

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

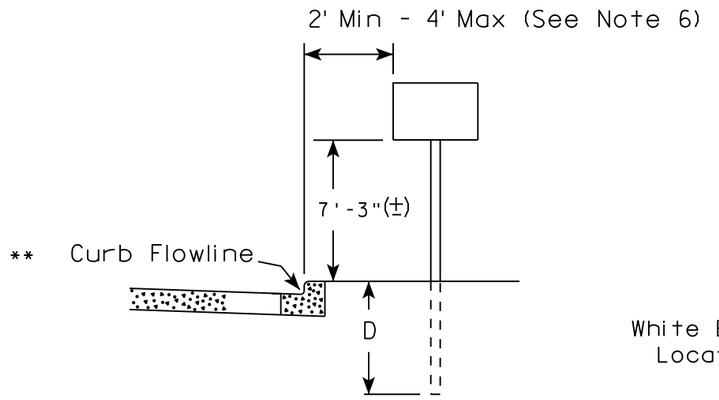
APPROVED

June 2017
DATE

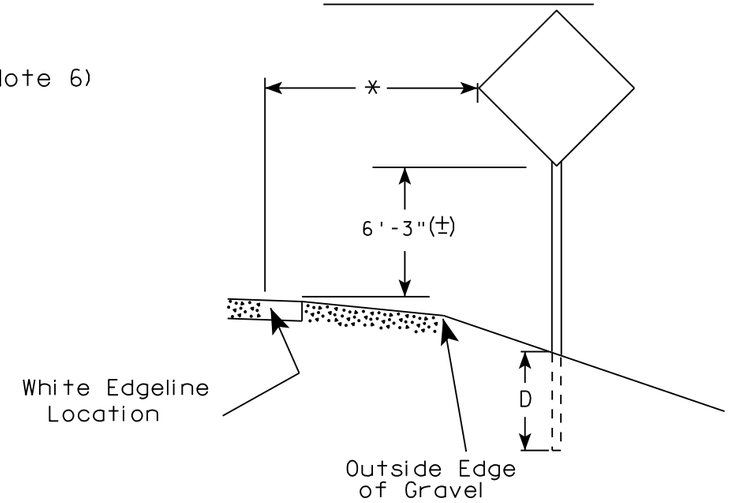
/S/ Andrew Heldtke
WORK ZONE ENG

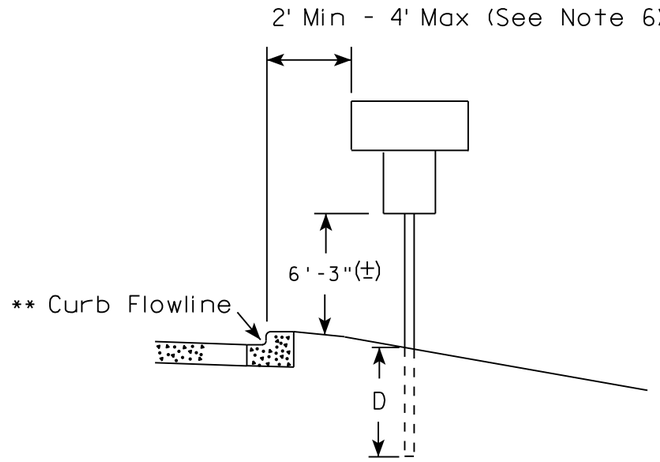
FHWA

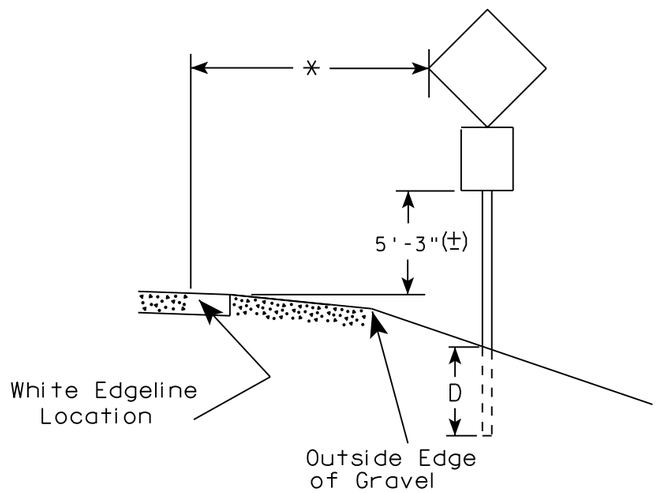
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

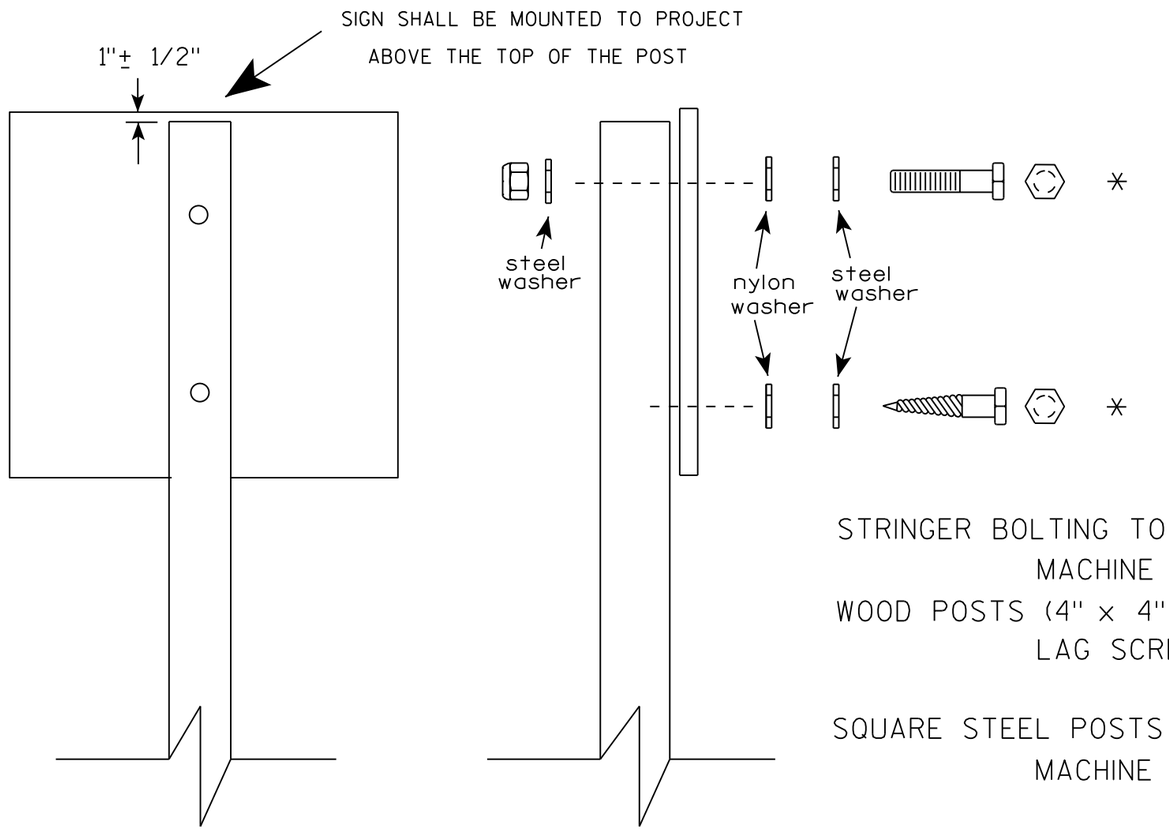
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE		SHEET NO: 27	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

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

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

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

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

WOOD POSTS (4" x 4" or 4" x 6")

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

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

WASHERS (ALL POSTS) -

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

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

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

ATTACHMENT OF SIGNS TO POSTS

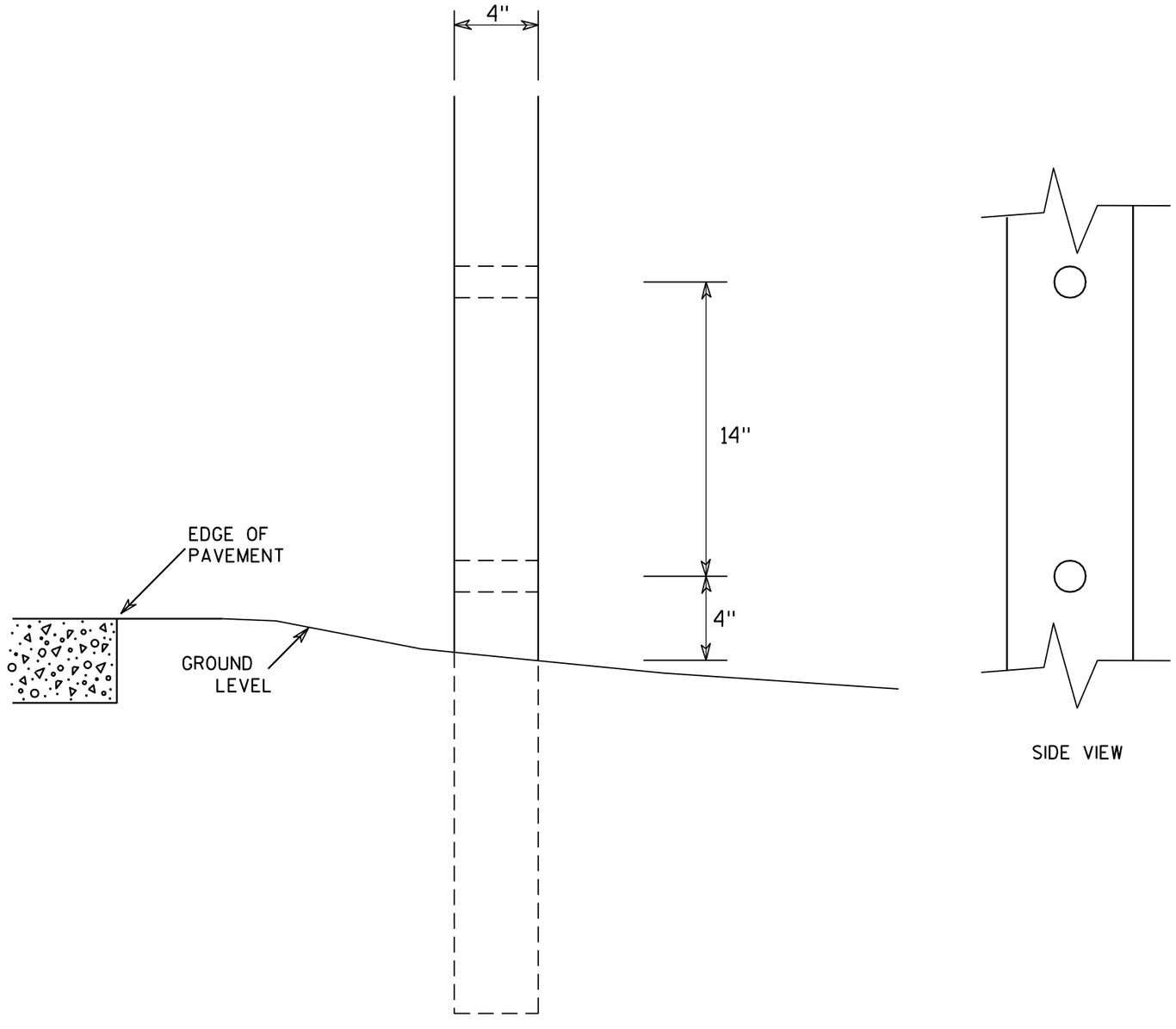
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE		SHEET NO:	E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



SIDE VIEW

GENERAL NOTES

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

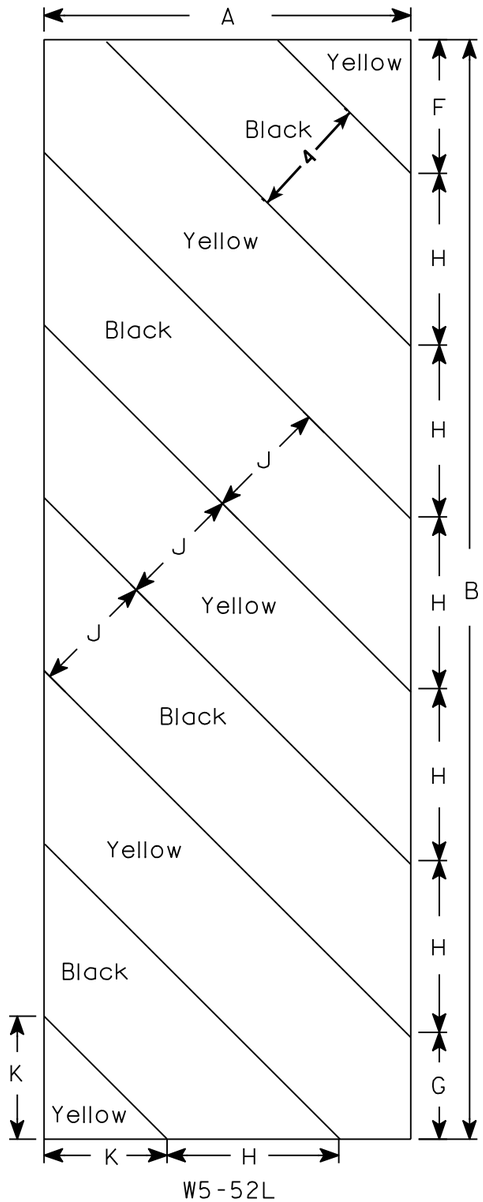
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

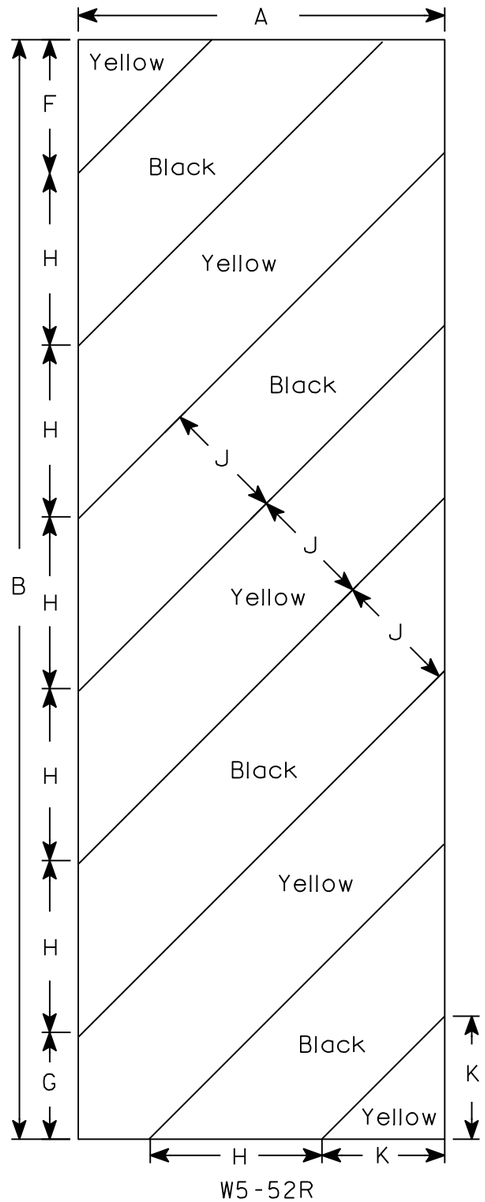
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE		SHEET NO: 29	E



W5-52L



W5-52R

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

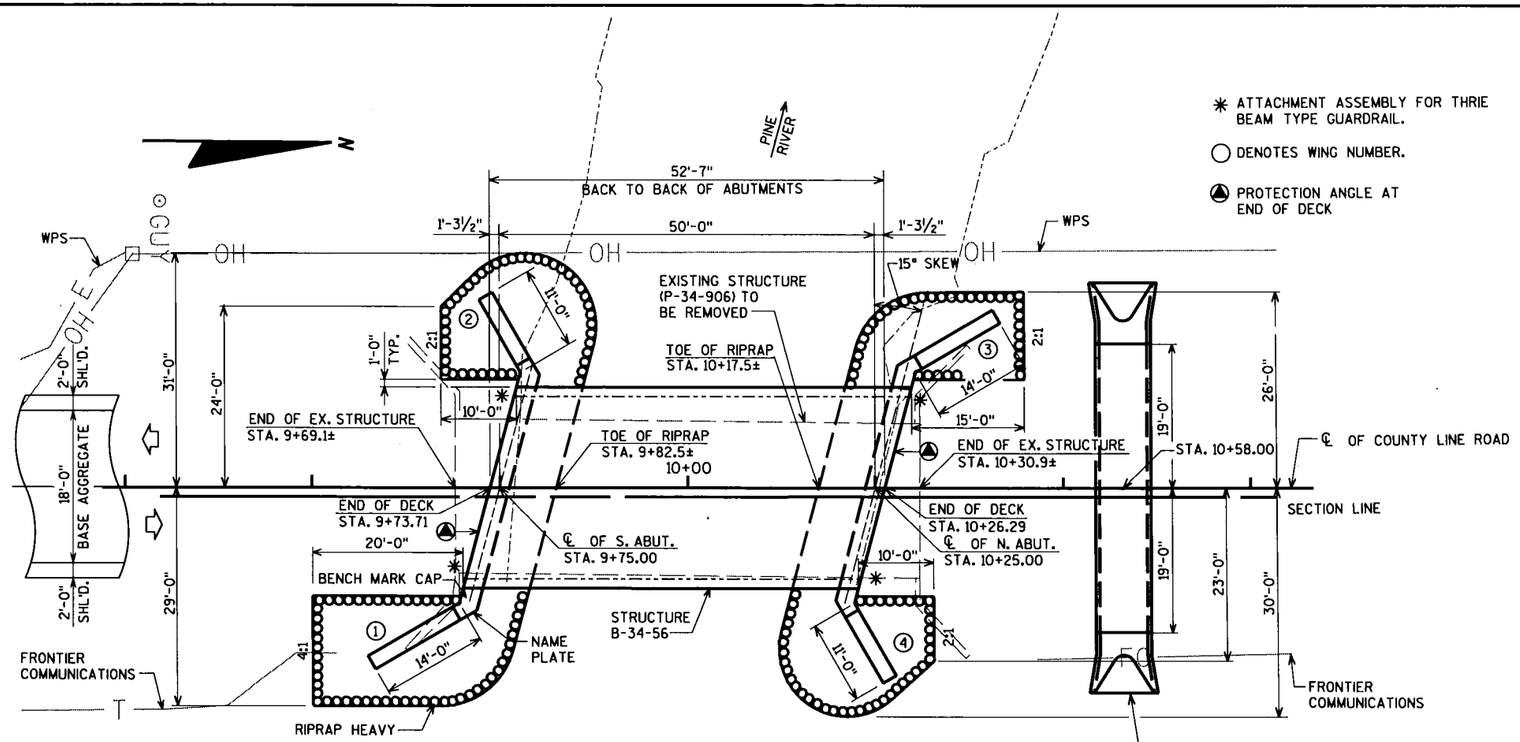
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: 9848-00-70 | HWY: COUNTY LINE ROAD | COUNTY: LANGLADE | SHEET NO: 30 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000

STATE PROJECT NUMBER
9848-00-70



PLAN

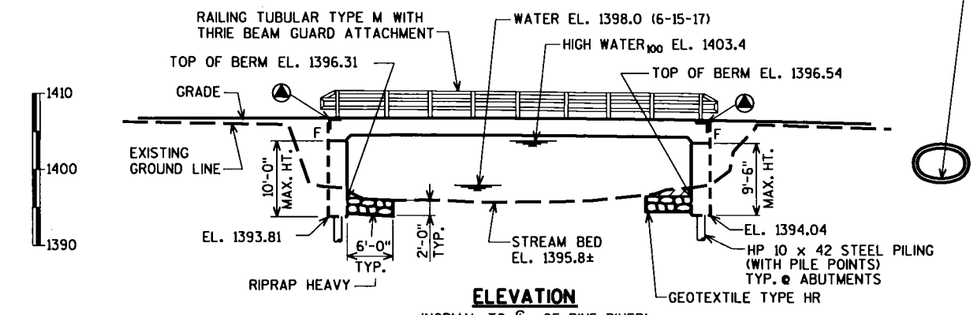
SINGLE SPAN CONCRETE FLAT SLAB

✱ ATTACHMENT ASSEMBLY FOR THRIE BEAM TYPE GUARDRAIL.

◯ DENOTES WING NUMBER.

◬ PROTECTION ANGLE AT END OF DECK

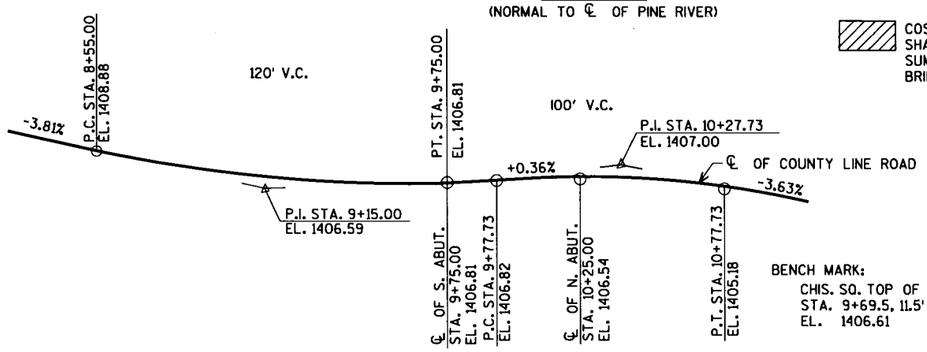
CULVERT PIPE REINFORCED CONCRETE
HORIZONTAL ELLIPTICAL CLASS HE-III
48x76-INCH
INLET EL. 1399.00
OUTLET EL. 1398.85
L = 38'
WITH (2) ENDWALLS
(SEE ROADWAY PLANS FOR ADDITIONAL PIPE DETAILS)



ELEVATION

(NORMAL TO ℄ OF PINE RIVER)

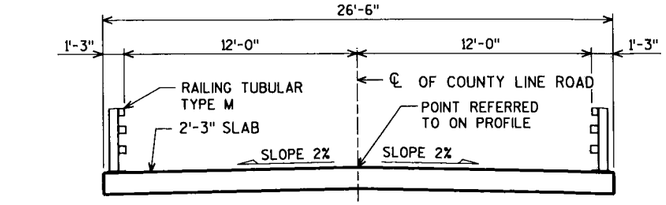
▨ COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-34-56".



PROFILE GRADE LINE

(COUNTY LINE ROAD)

BENCH MARK:
CHIS. SQ. TOP OF SW WING OF STRUCTURE
STA. 9+69.5, 11.5' LT.
EL. 1406.61



TYPICAL SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.11
OPERATING RATING FACTOR: 1.44
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE ——— 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 FREQUENCY

Q_{100} = 1,370 c.f.s. { BRIDGE = 1,101 c.f.s.
OVERFLOW = 240 c.f.s.
SUPPLEMENTAL STRUCTURE = 29 c.f.s.

VEL. = 3.4 f.p.s.
HW_{100} = EL. 1403.4
WATERWAY AREA = 322 sq. ft.
DRAINAGE AREA = 41.8 sq. mi.
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY

Q_2 = 450 c.f.s.
VEL. = 2.5 f.p.s.
HW_2 = EL. 1400.4

FREQUENCY OF OVERTOPPING

Q_{15} = 950 c.f.s.
WATER SURFACE EL. 1402.3
FREQUENCY = 15 YEARS

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING (WITH PILE POINTS) DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 160 TONS ǂ PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 25'-0".

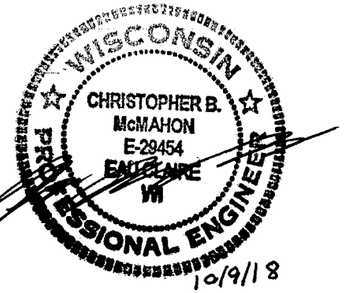
ǂ THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.A.D.T. = <100 (2019)
A.A.D.T. = <100 (2039)
R.D.S. = 25 M.P.H.

LIST OF DRAWINGS

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



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 William C. Dreher SDR 10/10/18
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-34-56

COUNTY LINE ROAD OVER PINE RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
LANGLADE	VILAS

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ZSS	CJM	ZSS	CBM

GENERAL PLAN

SHEET 31 13

DATE:
CHECKED BY:
BACK CHECKED BY:
CORRECTED BY:

8

8

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. 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-34-56	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	255	230	-----	485
502.0100	CONCRETE MASONRY BRIDGES	CY	50	50	120	220
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	195	195
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,450	2,380	-----	4,830
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,050	2,180	20,520	24,750
506.0105	STRUCTURAL STEEL CARBON	LB	260	260	-----	520
513.4061	RAILING TUBULAR TYPE M B-34-56	LF	-----	-----	109	109
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	6	-----	12
550.0500	PILE POINTS	EACH	7	7	-----	14
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	165	165	-----	330
606.0300	RIPRAP HEAVY	CY	70	55	-----	125
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	75	-----	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	50	-----	100
645.0120	GEOTEXTILE TYPE HR	SY	150	120	-----	270
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

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 AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-34-56" SHALL BE THE EXISTING GROUNDLINE.

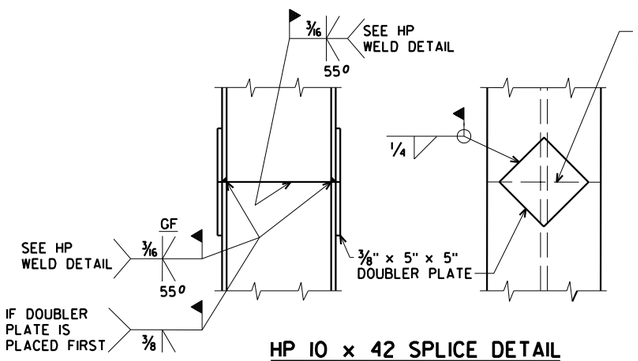
THE EXISTING STRUCTURE, P-34-906, TO BE REMOVED, IS A SINGLE SPAN STEEL THRU TRUSS BRIDGE, 61.5 FOOT LONG WITH A 19.1 FOOT CLEAR ROADWAY WIDTH.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

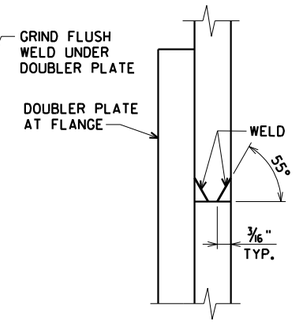
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

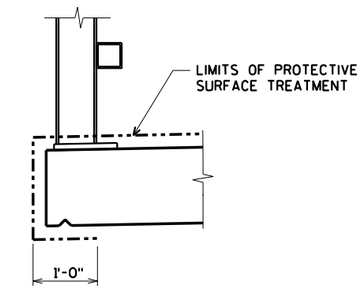


HP 10 x 42 SPLICE DETAIL

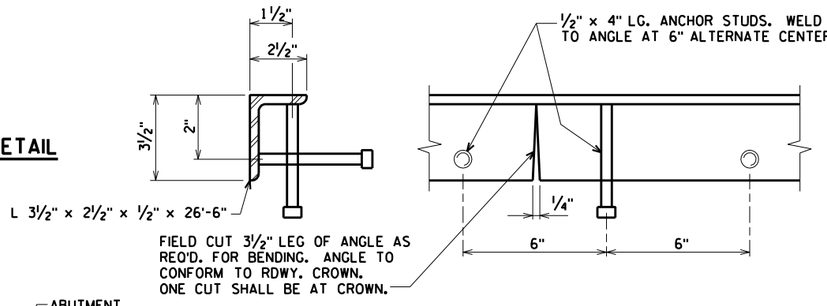


HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR



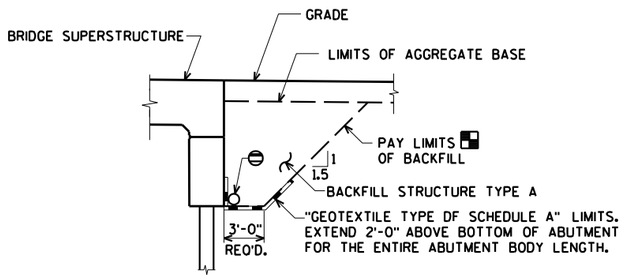
PROTECTIVE SURFACE TREATMENT DETAIL



PROTECTION ANGLE DETAIL

(ANGLE AND STUDS TO BE PAID FOR AT THE UNIT PRICE BID FOR "STRUCTURAL STEEL CARBON". (NO PAINT REQ'D.)

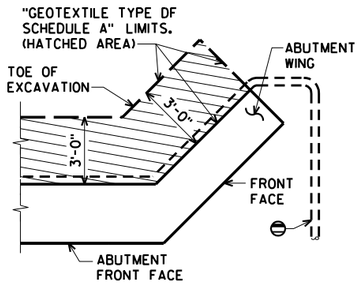
SANDBLAST PROTECTION ANGLE AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PROTECTION ANGLE SHALL BE HOT DIPPED GALVANIZED.



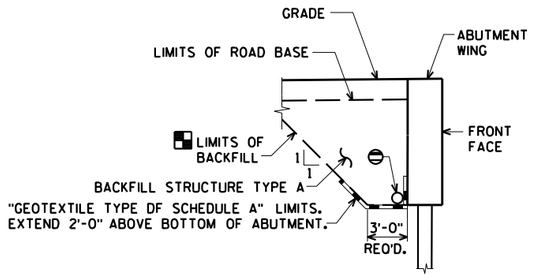
BACKFILL STRUCTURE LIMITS THRU ABUTMENT

▪ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 5.



BACKFILL STRUCTURE LIMITS ABUTMENT PLAN WITH WING



BACKFILL STRUCTURE LIMITS THRU WING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

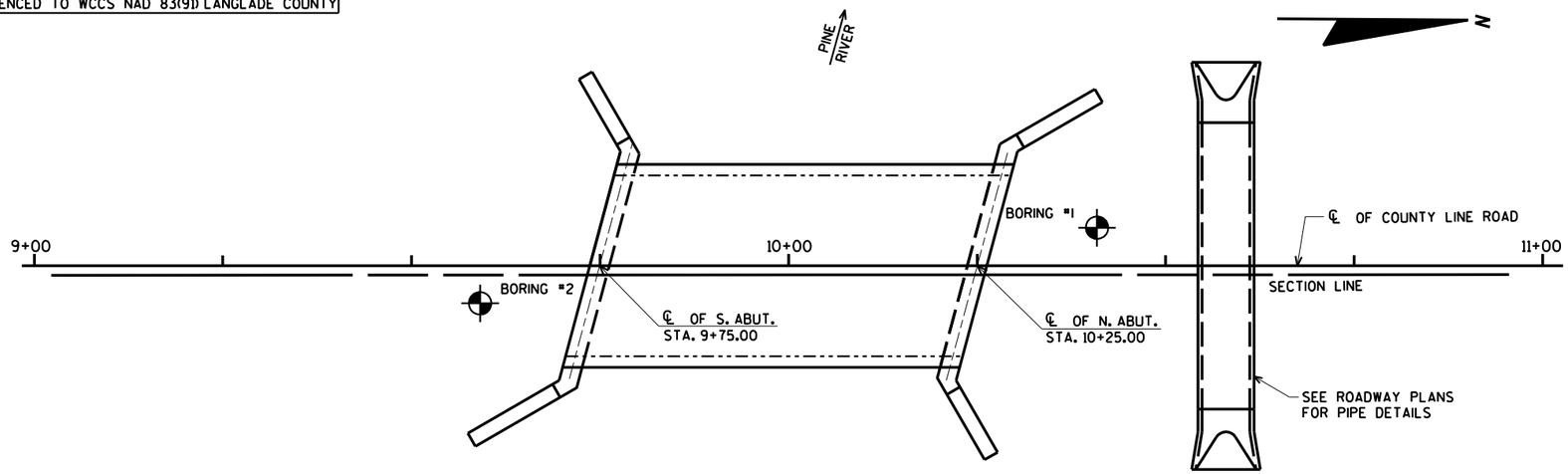
DRAWN BY ZSS | PLANS CK'D. CJM

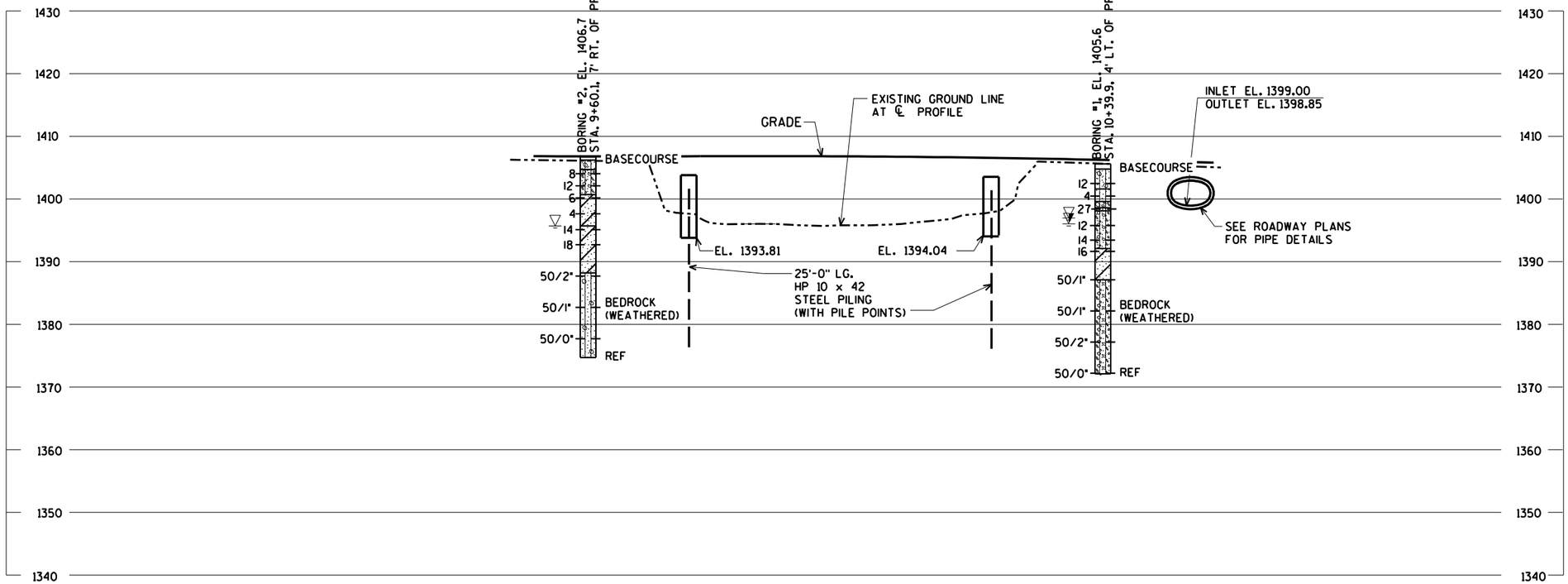
QUANTITIES AND NOTES

SHEET 2 OF 13
32

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

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	SEPT. 18, 2017	367105.29	549940.58
2	SEPT. 18, 2017	367023.44	549950.24
BORINGS COMPLETED BY: GEOTECHNICAL DRILLING CONTRACTORS, LLC			
REPORT COMPLETED BY: RIVER VALLEY TESTING CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) LANGLADE COUNTY			





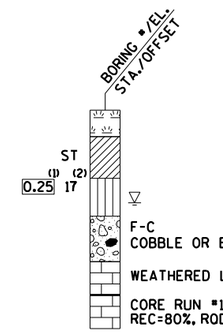
STATE PROJECT NUMBER

9848-00-70

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

SUBSURFACE EXPLORATION

SHEET 3 OF 13
33

8

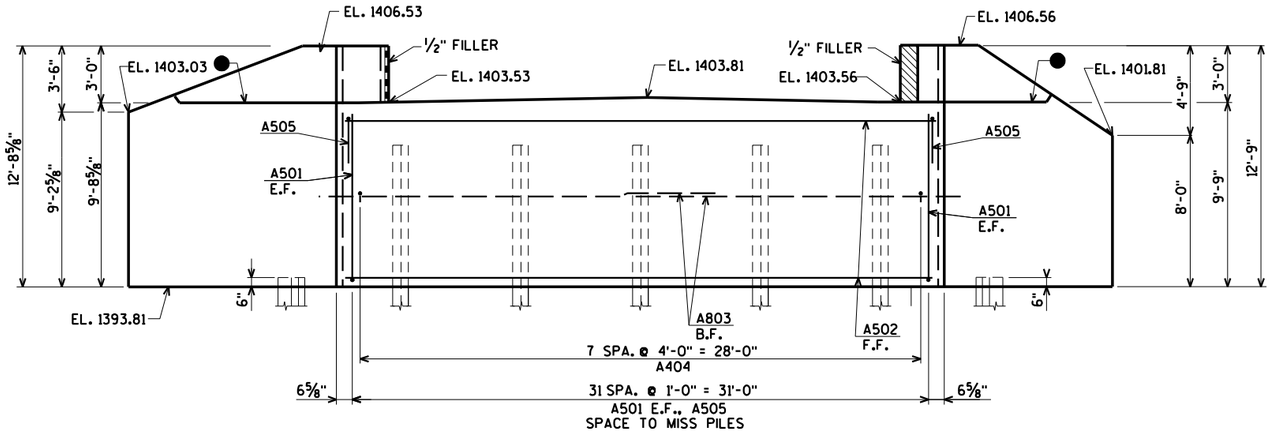
8

$PRFNAME$
U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Structures\Final\421089 soils.dgn

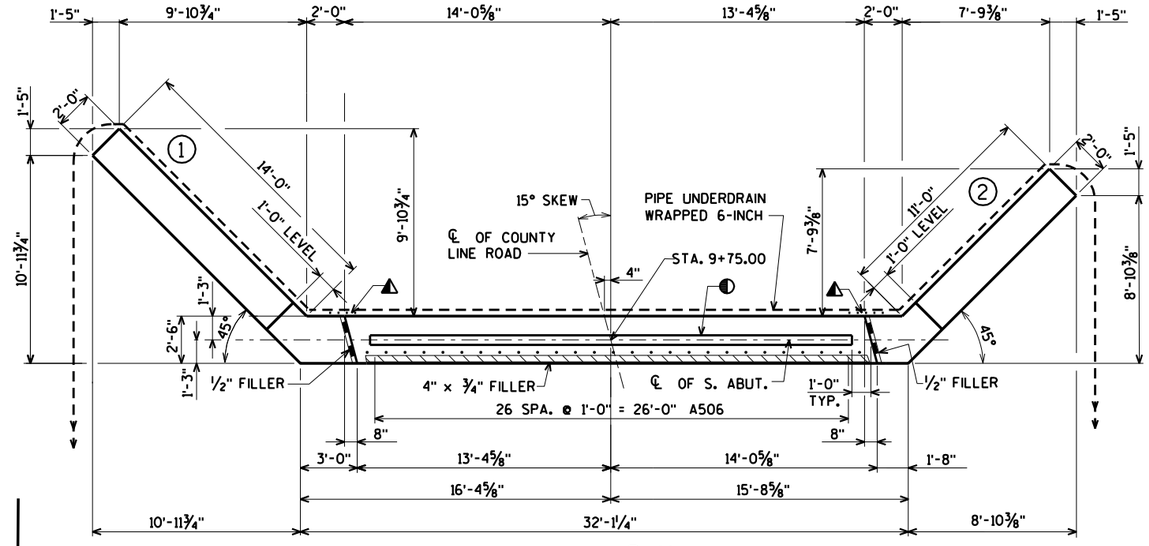
5/23/2018

PENTABLE:BReau_shd_util.tbl

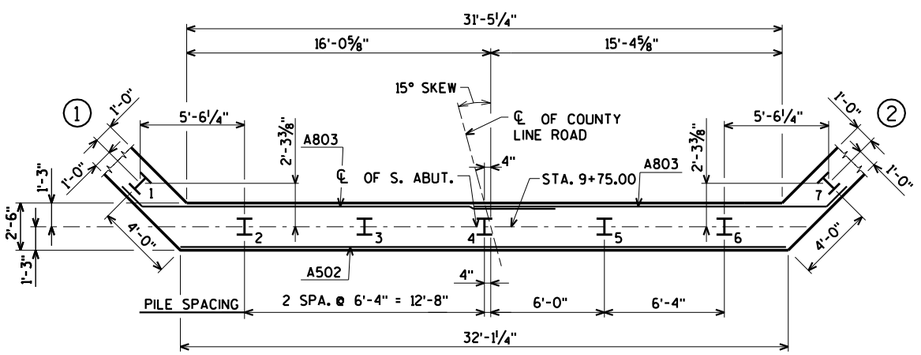
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



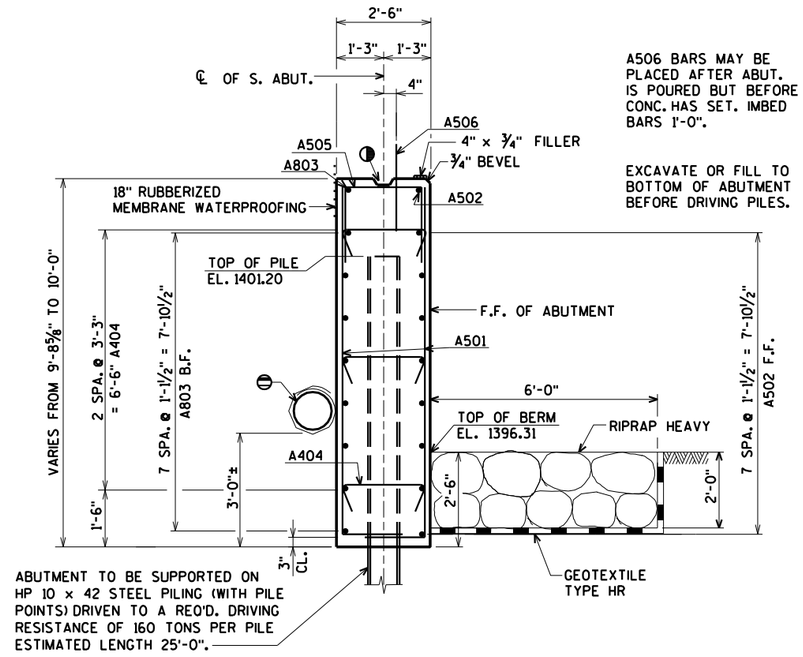
ELEVATION
(LOOKING SOUTH)



PLAN



PILE LAYOUT



A506 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. IMBED BARS 1'-0".

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

TYPICAL SECTION THRU BODY

NOTES: 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. FOR RODENT SHIELD DETAIL SEE SHEET 5.

● 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.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

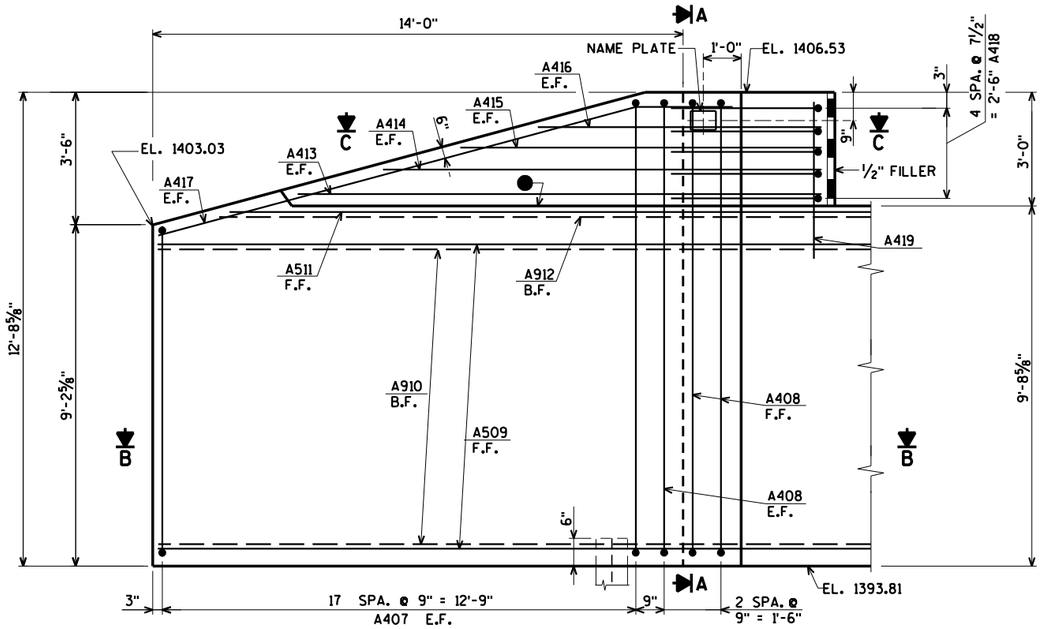
STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

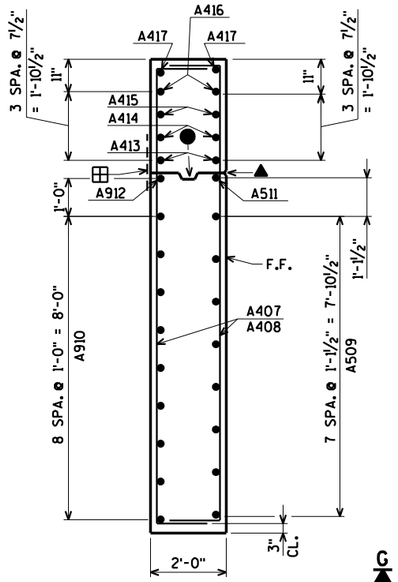
SOUTH ABUTMENT

SHEET 4 OF 13
34

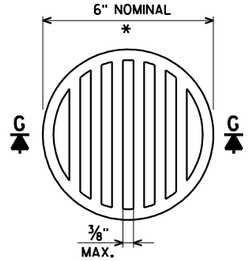
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

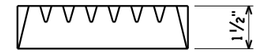


ELEVATION - WING 1



SECTION A





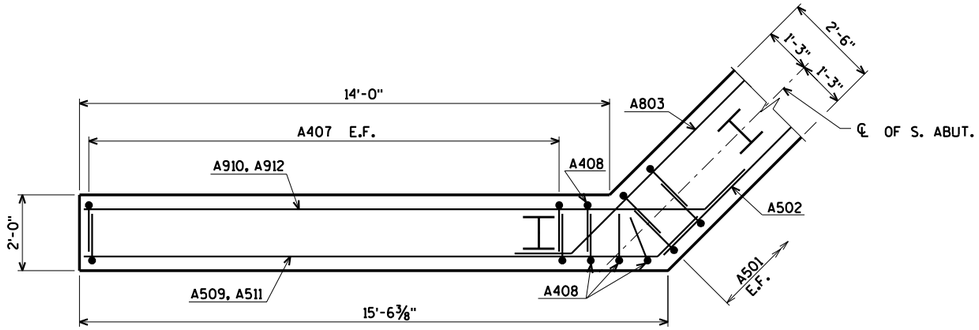
SECTION G-G

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

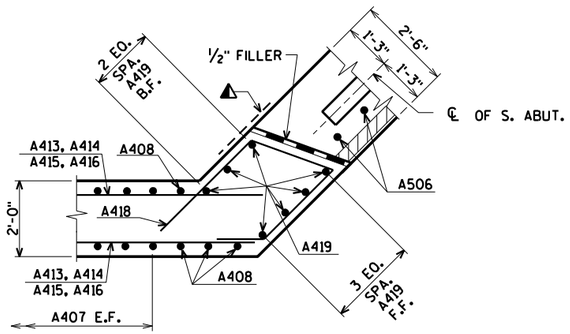
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY 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 STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL



SECTION B



SECTION C

▲ ¾" '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 IF CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES")

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

SOUTH ABUTMENT
WING 1
DETAILS

SHEET 5 OF 13
35

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STATE PROJECT NUMBER

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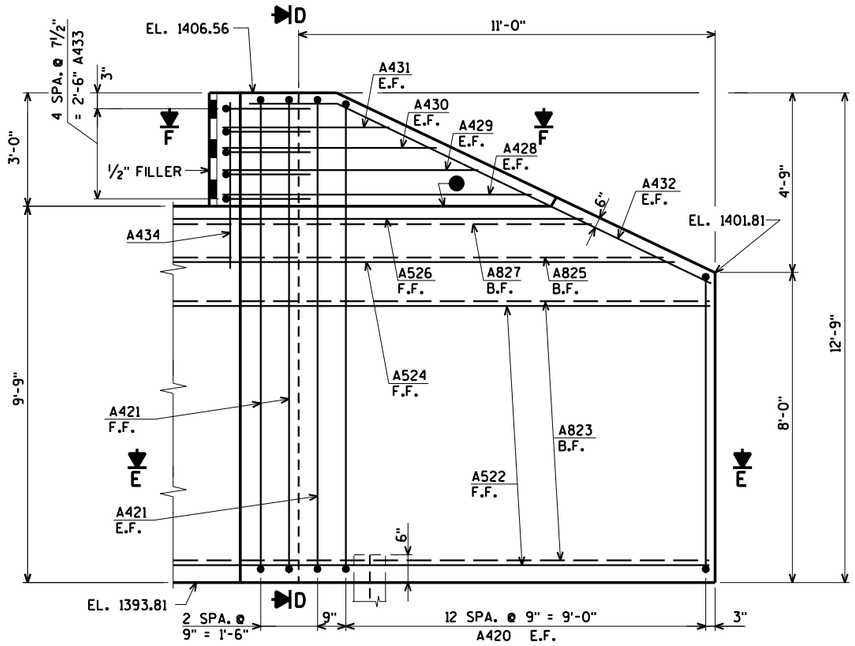
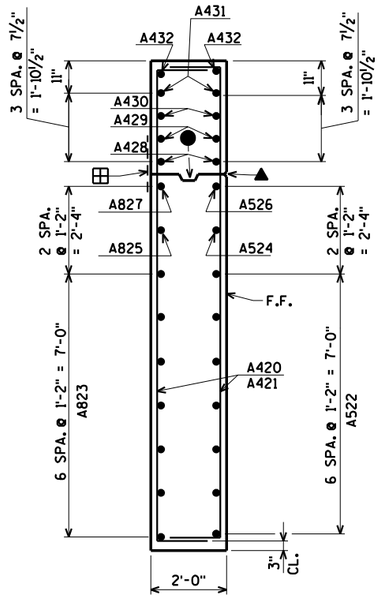
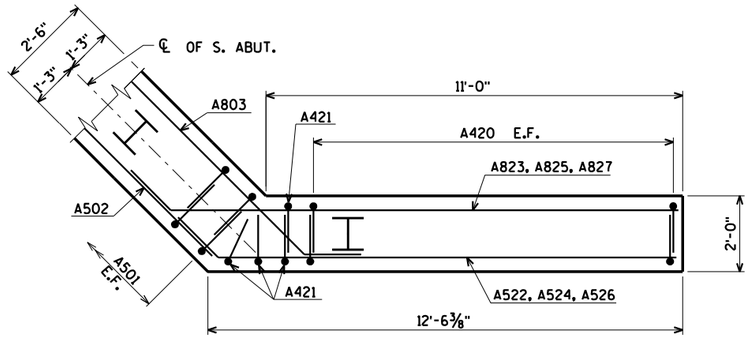


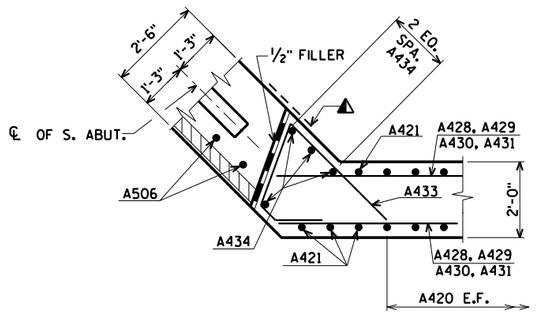
ELEVATION - WING 2



SECTION D



SECTION E



SECTION F

▲ ¾" '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".

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

NO.	DATE	REVISION	BY

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STRUCTURE B-34-56

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SOUTH ABUTMENT WING 2 DETAILS

SHEET 6 OF 13
36

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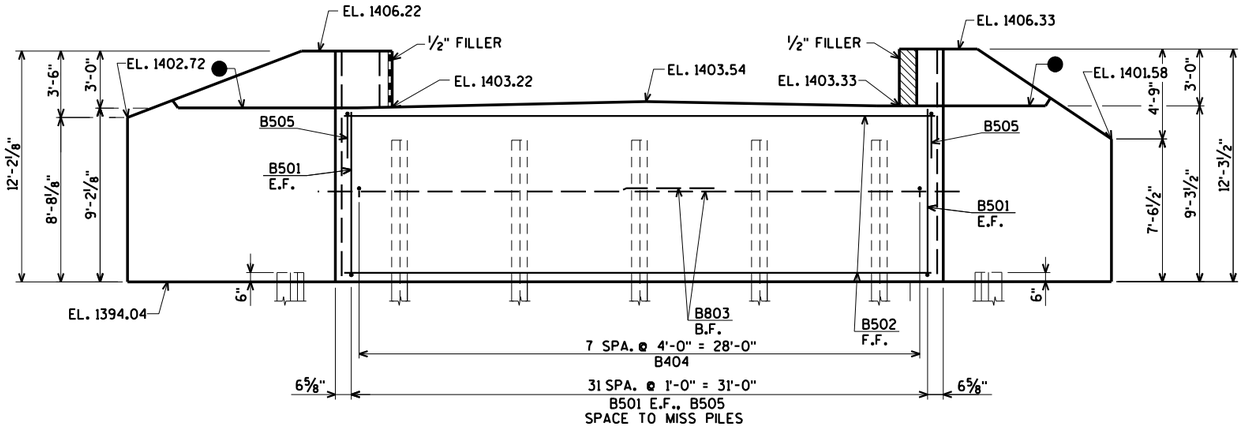
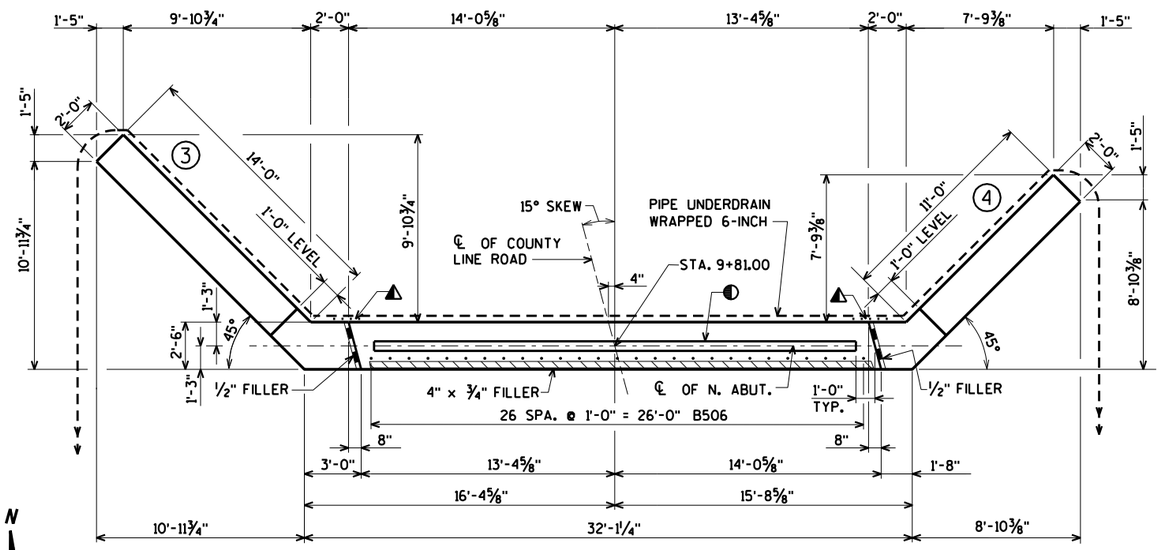
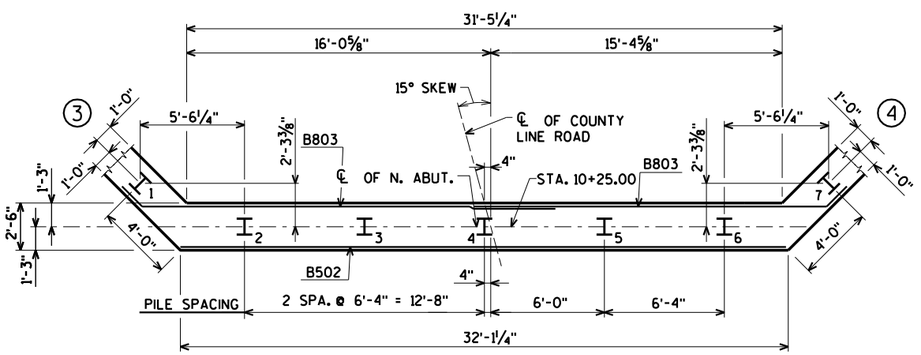
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



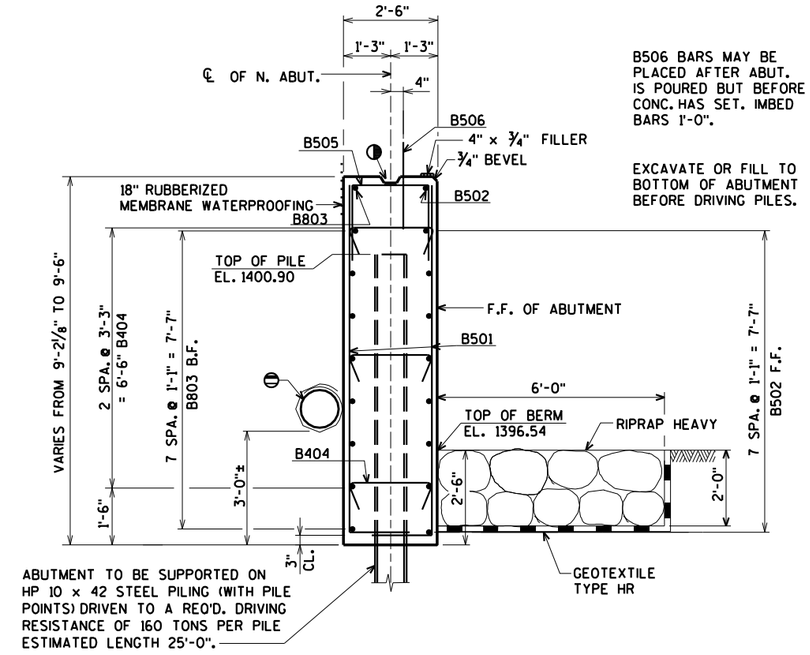
ELEVATION
(LOOKING NORTH)



PLAN



PILE LAYOUT



B506 BARS MAY BE PLACED AFTER ABUT. IS POURED BUT BEFORE CONC. HAS SET. IMBED BARS 1'-0".

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

TYPICAL SECTION THRU BODY

NOTES: 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. FOR RODENT SHIELD DETAIL SEE SHEET 5.

● 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.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

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NORTH ABUTMENT

SHEET 7 OF 13
37

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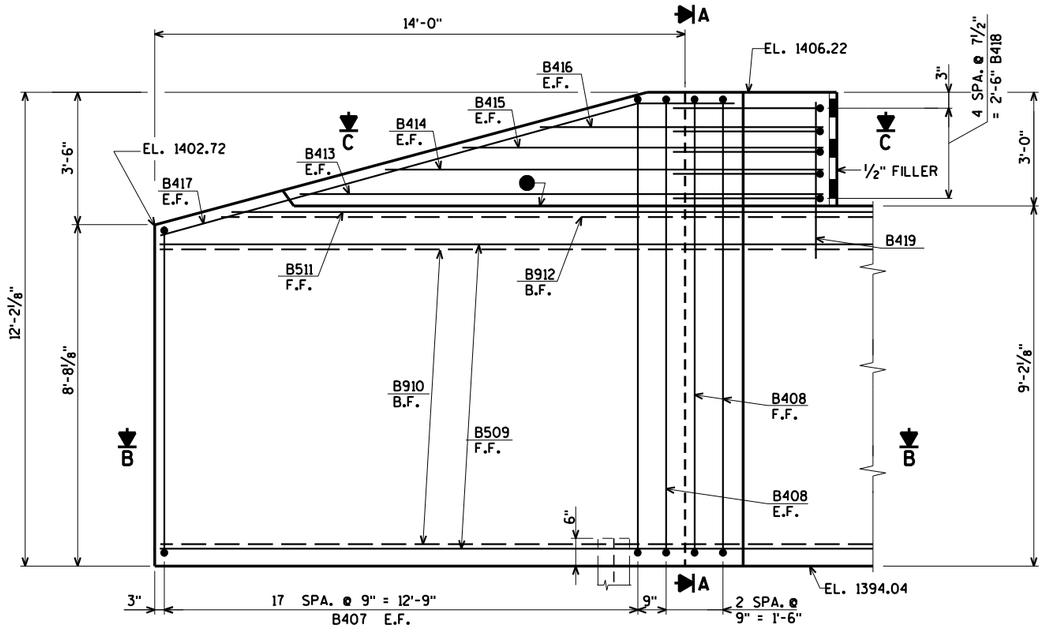
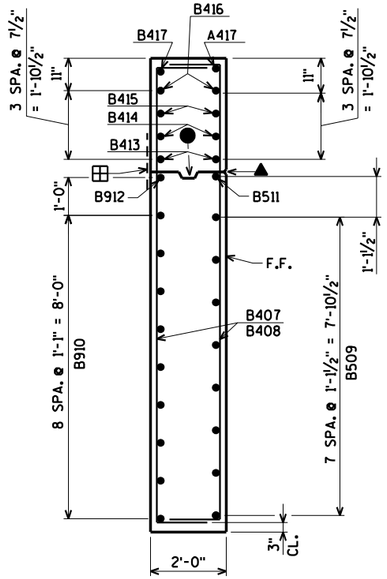
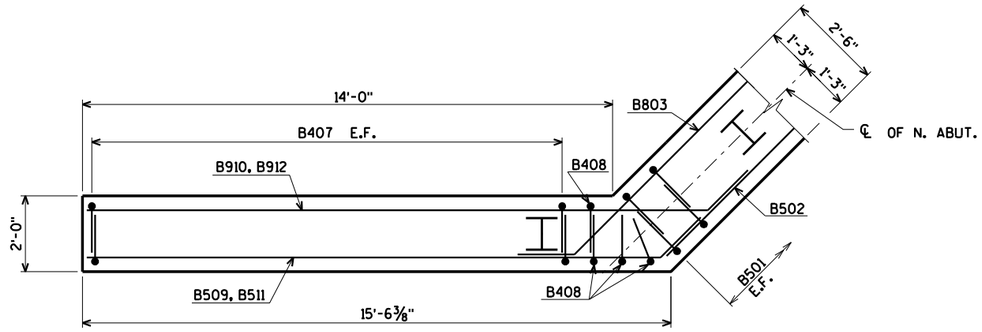


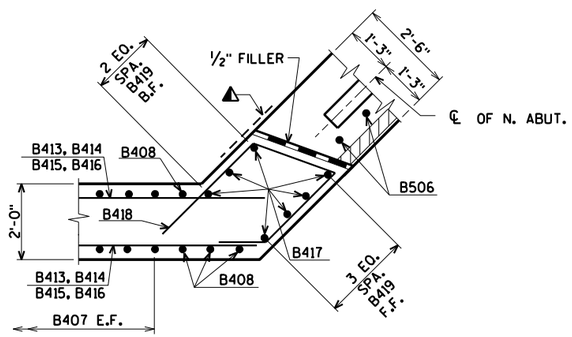
ELEVATION - WING 3



SECTION A



SECTION B



SECTION C

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F.F. DENOTES FRONT FACE.
E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

NORTH ABUTMENT
WING 3
DETAILS

SHEET 8 OF 13
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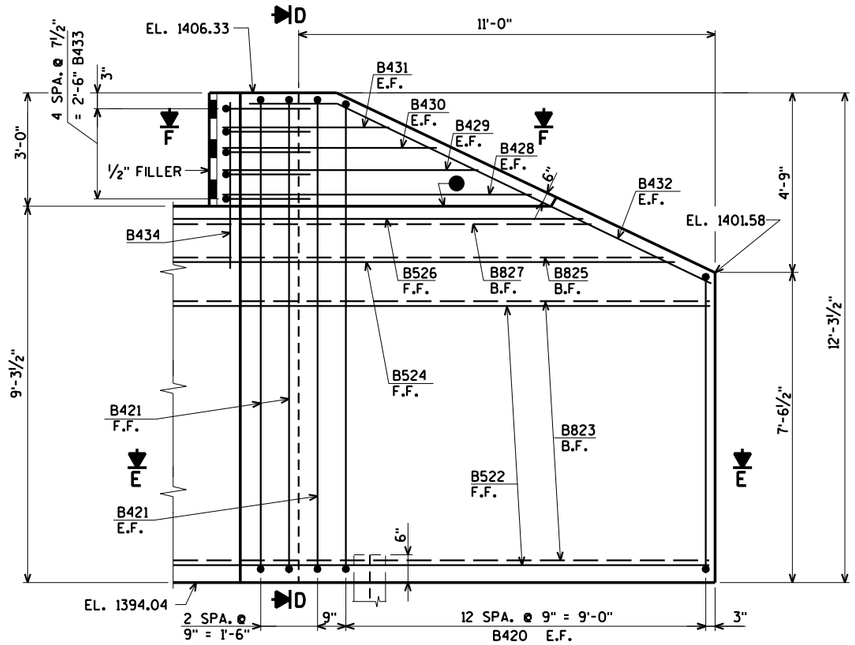
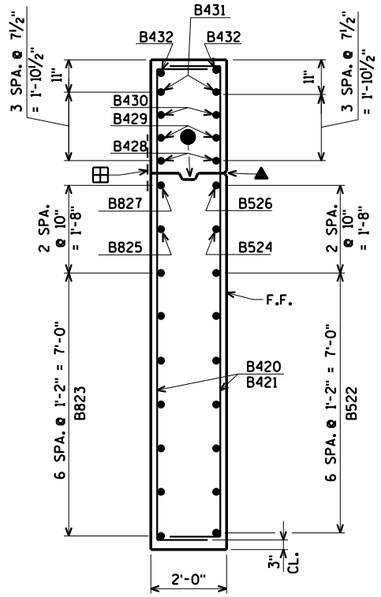
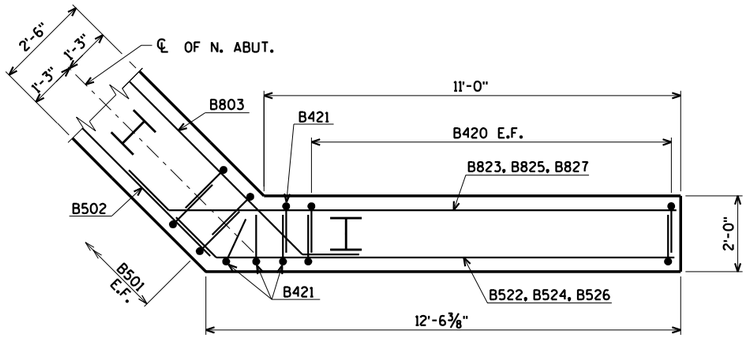


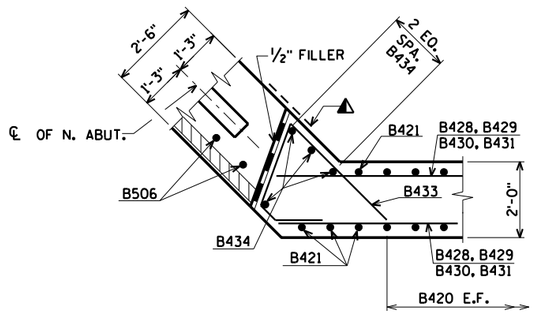
ELEVATION - WING 4



SECTION D



SECTION E



SECTION F

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

NORTH ABUTMENT WING 4 DETAILS

SHEET 9 OF 13
39

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STATE PROJECT NUMBER

9848-00-70

BILL OF BARS - SOUTH ABUTMENT

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	2,450# UNCOATED 2,050# COATED LOCATION
A501		64	10-7	X			BODY VERT. E.F.
A502		9	31-9				BODY HORIZ. F.F.
A803		18	22-1	X			BODY HORIZ. B.F.
A404		24	2-9	X			BODY TIES
A505		32	8-7	X			BODY VERT. TOP
A506	X	27	2-0				BODY DOWELS
A407	X	36	12-11	X		⊗	WING 1 VERT. E.F.
A408	X	4	14-9	X			WING 1 VERT. E.F.
A509	X	8	16-9	X			WING 1 HORIZ. F.F.
A910	X	9	18-5	X			WING 1 HORIZ. B.F.
A511	X	1	16-3	X			WING 1 HORIZ. F.F.
A912	X	1	13-7	X			WING 1 HORIZ. B.F.
A413	X	2	11-10				WING 1 HORIZ. E.F.
A414	X	2	9-7				WING 1 HORIZ. E.F.
A415	X	2	7-3				WING 1 HORIZ. E.F.
A416	X	2	4-11				WING 1 HORIZ. E.F.
A417	X	2	14-7	X			WING 1 DIAG. E.F.
A418	X	5	9-4	X			WING 1 HORIZ.
A419	X	7	4-4				WING 1 VERT.
A420	X	26	12-3	X		⊗	WING 2 VERT. E.F.
A421	X	4	14-10	X			WING 2 VERT. E.F.
A522	X	7	13-9	X			WING 2 HORIZ. F.F.
A823	X	7	15-5	X			WING 2 HORIZ. B.F.
A524	X	1	12-7	X			WING 2 HORIZ. F.F.
A825	X	1	15-3	X			WING 2 HORIZ. B.F.
A526	X	1	10-2	X			WING 2 HORIZ. F.F.
A827	X	1	11-11	X			WING 2 HORIZ. B.F.
A428	X	2	7-10				WING 2 HORIZ. E.F.
A429	X	2	6-6				WING 2 HORIZ. E.F.
A430	X	2	5-2				WING 2 HORIZ. E.F.
A431	X	2	3-10				WING 2 HORIZ. E.F.
A432	X	2	12-2	X			WING 2 DIAG. E.F.
A433	X	5	7-7	X			WING 2 HORIZ.
A434	X	4	4-4				WING 2 VERT.

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.

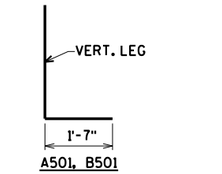
B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

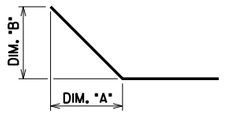
E.F. DENOTES EACH FACE.

BILL OF BARS - NORTH ABUTMENT

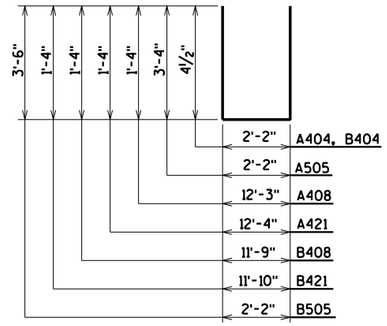
BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR	SERIES	2,380# UNCOATED 2,180# COATED LOCATION
B501		64	10-1	X			BODY VERT. E.F.
B502		9	31-10				BODY HORIZ. F.F.
B803		18	22-3	X			BODY HORIZ. B.F.
B404		24	2-9	X			BODY TIES
B505		32	8-11	X			BODY VERT. TOP
B506	X	27	2-0				BODY DOWELS
B407	X	36	12-5	X		⊗	WING 3 VERT. E.F.
B408	X	4	14-3	X			WING 3 VERT. E.F.
B509	X	8	16-9	X			WING 3 HORIZ. F.F.
B910	X	10	18-5	X			WING 3 HORIZ. B.F.
B511	X	1	14-3	X			WING 3 HORIZ. F.F.
B912	X	1	15-11	X			WING 3 HORIZ. B.F.
B413	X	2	12-1				WING 3 HORIZ. E.F.
B414	X	2	9-10				WING 3 HORIZ. E.F.
B415	X	2	7-7				WING 3 HORIZ. E.F.
B416	X	2	5-3				WING 3 HORIZ. E.F.
B417	X	2	14-7	X			WING 3 DIAG. E.F.
B418	X	5	9-4	X			WING 3 HORIZ.
B419	X	7	4-4				WING 3 VERT.
B420	X	26	11-8	X		⊗	WING 4 VERT. E.F.
B421	X	4	14-4	X			WING 4 VERT. E.F.
B522	X	7	13-9	X			WING 4 HORIZ. F.F.
B823	X	7	16-7	X			WING 4 HORIZ. B.F.
B524	X	1	12-4	X			WING 4 HORIZ. F.F.
B825	X	1	14-1	X			WING 4 HORIZ. B.F.
B526	X	1	10-8	X			WING 4 HORIZ. F.F.
B827	X	1	12-4	X			WING 4 HORIZ. B.F.
B428	X	2	7-10				WING 4 HORIZ. E.F.
B429	X	2	6-6				WING 4 HORIZ. E.F.
B430	X	2	5-3				WING 4 HORIZ. E.F.
B431	X	2	3-11				WING 4 HORIZ. E.F.
B432	X	2	12-3	X			WING 4 DIAG. E.F.
B433	X	5	7-7	X			WING 4 HORIZ.
B434	X	4	4-4				WING 4 VERT.

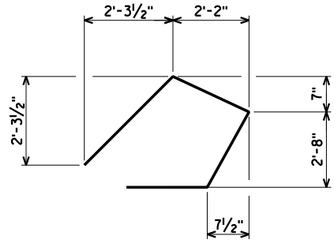


A501, B501

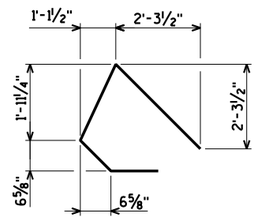


BAR NO.	DIM. "A"	DIM. "B"
A803	1'-0¾"	1'-0¾"
A509	1'-0¾"	1'-0¾"
A910	1'-0¾"	1'-0¾"
A511	1'-0¾"	1'-0¾"
A912	1'-0¾"	1'-0¾"
A417	12'-10"	3'-4"
A522	1'-0¾"	1'-0¾"
A823	1'-0¾"	1'-0¾"
A524	1'-0¾"	1'-0¾"
A825	1'-0¾"	1'-0¾"
A526	1'-0¾"	1'-0¾"
A827	1'-0¾"	1'-0¾"
A432	9'-10"	4'-8"
B803	1'-0¾"	1'-0¾"
B509	1'-0¾"	1'-0¾"
B910	1'-0¾"	1'-0¾"
B511	1'-0¾"	1'-0¾"
B912	1'-0¾"	1'-0¾"
B417	12'-10"	3'-5"
B522	1'-0¾"	1'-0¾"
B823	1'-0¾"	1'-0¾"
B524	1'-0¾"	1'-0¾"
B825	1'-0¾"	1'-0¾"
B526	1'-0¾"	1'-0¾"
B827	1'-0¾"	1'-0¾"
B432	9'-10"	4'-8"





A418, B418

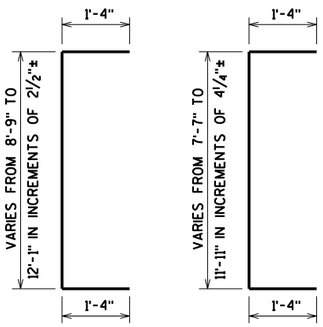


A433, B433

BAR SERIES TABLE

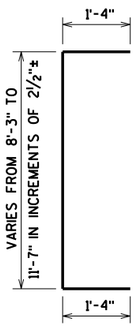
BAR MARK	NO REQ'D.	LENGTH
A407	2 SERIES OF 18	11'-3" TO 14'-7"
A420	2 SERIES OF 13	10'-1" TO 14'-5"
B407	2 SERIES OF 18	10'-9" TO 14'-1"
B420	2 SERIES OF 13	9'-7" TO 13'-9"

BUNDLE AND TAG EACH SERIES SEPARATELY.

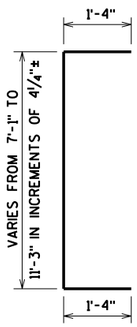


A407

A420



B407



B420

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

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ABUTMENT DETAILS AND BILL OF BARS

SHEET 10 OF 13
40

ORIGINAL PLANS PREPARED BY
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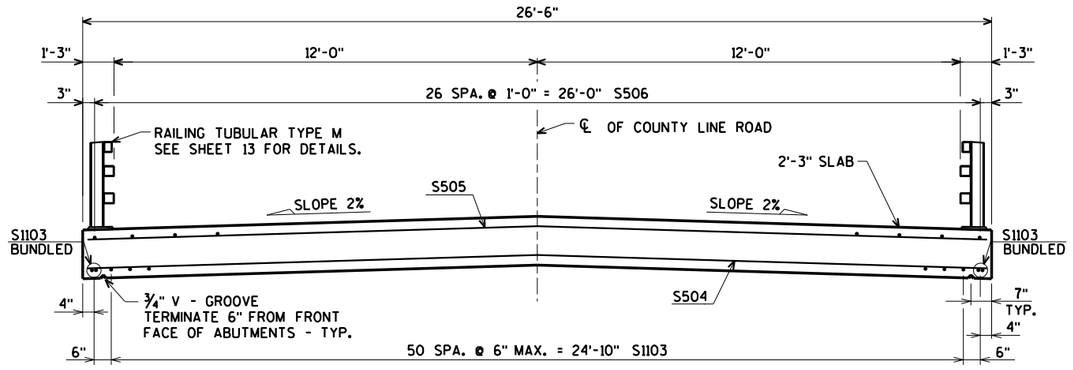
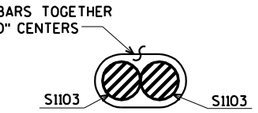
8



CROSS SECTION THRU BRIDGE
(LOOKING NORTH)

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

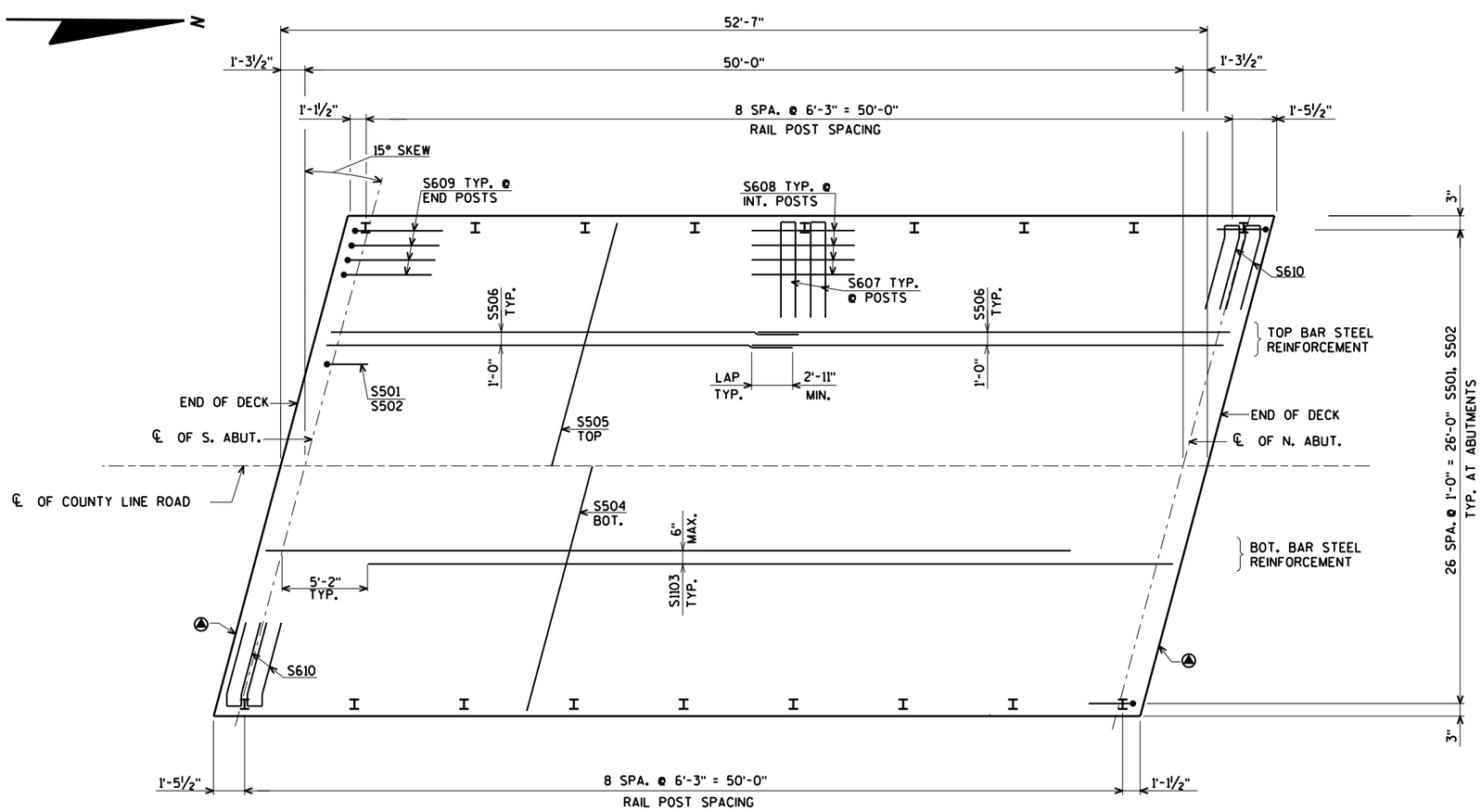
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



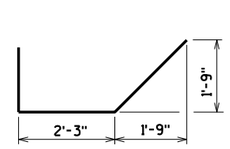
BUNDLING DETAIL

BILL OF BARS

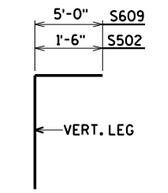
BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED	BAR SERIES	20,520# COATED LOCATION
S501	X	54	6-0	X			SLAB @ ABUT.
S502	X	54	3-11	X			SLAB @ ABUT.
S1103	X	55	46-0		X		SLAB LONG. BOT.
S504	X	77	27-1				SLAB TRANS. BOT.
S505	X	53	27-1				SLAB TRANS. TOP
S506	X	54	27-7				SLAB LONG. TOP
S607	X	32	12-0	X			SLAB @ RAIL POSTS
S608	X	56	6-0				SLAB @ INT. RAIL POSTS
S609	X	16	6-0	X			SLAB @ END RAIL POSTS
S610	X	4	12-0	X			SLAB @ END RAIL POSTS

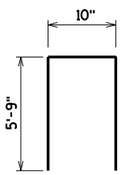


PLAN



S501





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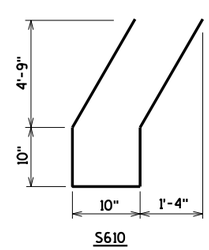

S610

▲ PROTECTION ANGLE AT END OF DECK.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

SUPERSTRUCTURE

SHEET 11 OF 13
41

ORIGINAL PLANS PREPARED BY
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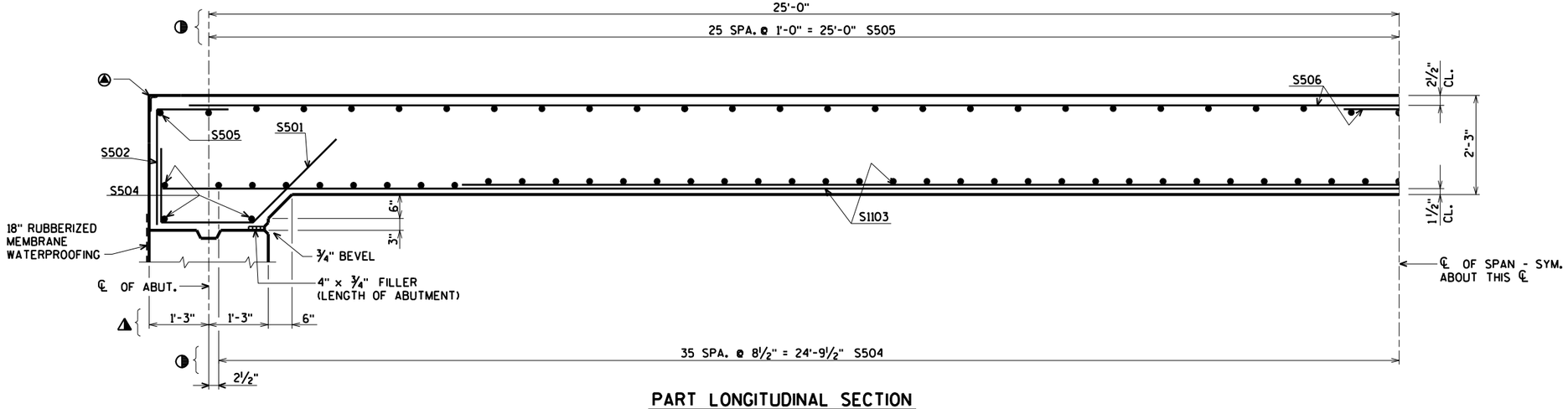
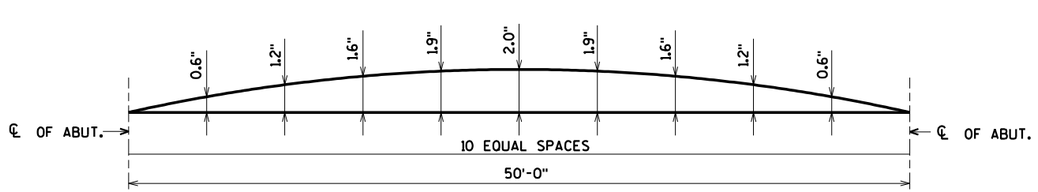


PART LONGITUDINAL SECTION

◑ DIMENSIONS MEASURED ALONG ℄ OF COUNTY LINE ROAD.

◭ DIMENSIONS MEASURED NORMAL TO ℄ OF SUBSTRUCTURE.

⑤ STEEL PROTECTION ANGLE, SEE SHEET 2 FOR DETAILS.



CAMBER DIAGRAM

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

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND 5/10 POINTS TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR ℄.

TOP OF DECK ELEVATIONS

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	1406.56	1406.57	1406.57	1406.56	1406.54	1406.51	1406.48	1406.43	1406.37	1406.30	1406.22
℄ OF STRUCTURE	1406.81	1406.83	1406.84	1406.83	1406.82	1406.80	1406.77	1406.73	1406.68	1406.61	1406.54
E. EDGE OF SLAB	1406.53	1406.55	1406.57	1406.57	1406.57	1406.55	1406.53	1406.49	1406.45	1406.39	1406.33

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

SUPERSTRUCTURE DETAILS

SHEET 12 OF 13
42

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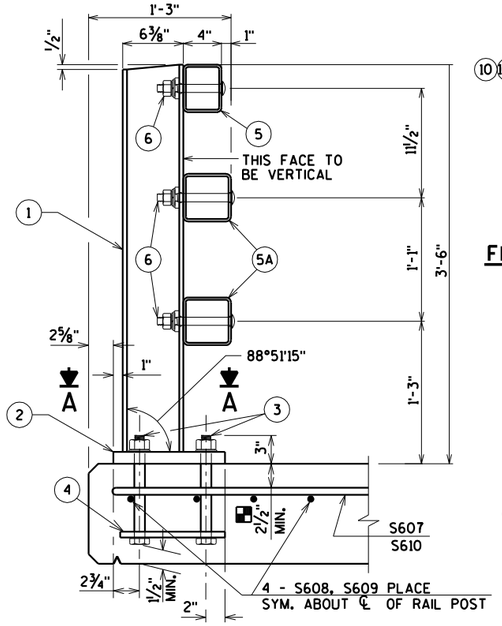
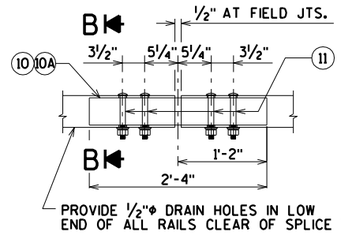
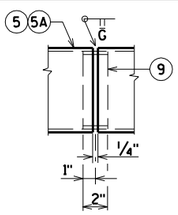


SECTION THRU RAILING ON DECK

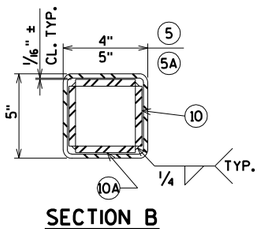


FIELD ERECTION JOINT DETAIL

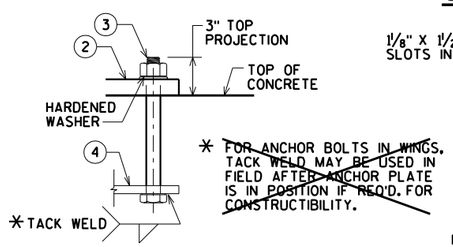


SHOP RAIL SPLICE DETAIL

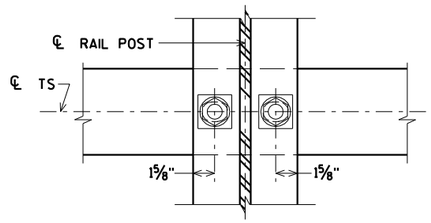
(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



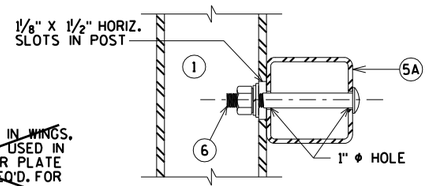
SECTION B



ANCHOR BOLTS



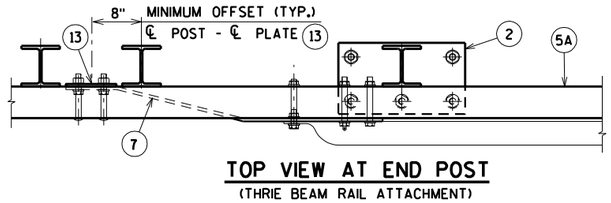
SECTION THRU POST WEB



SECTION THRU RAIL

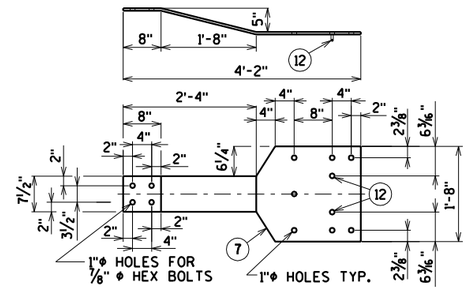
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



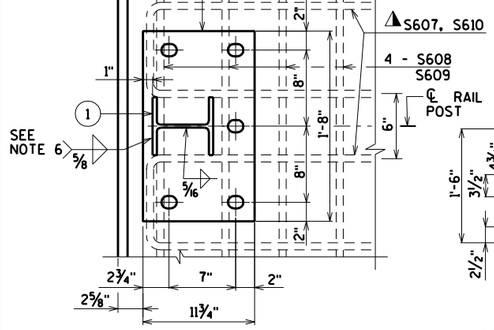
TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)

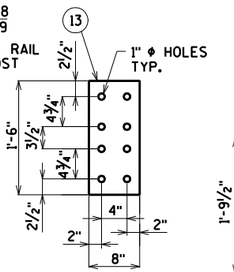


BACK-UP PLATE DETAIL

(AT BEAM GUARD ATTACHMENT)

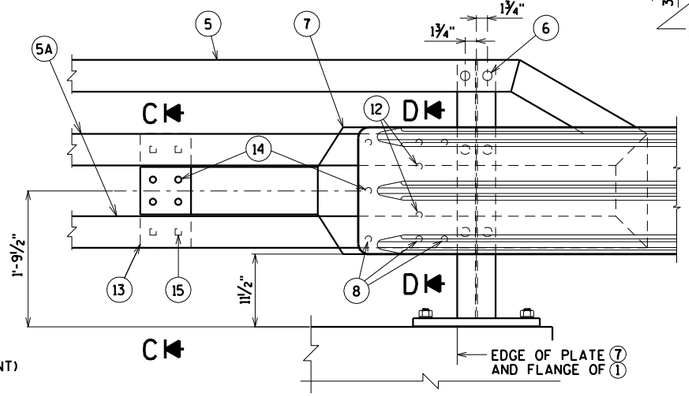


SECTION A



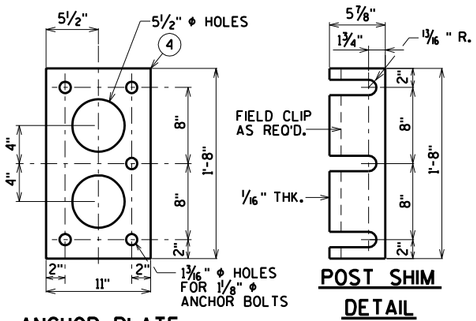
ANCHOR PLATE

(AT BEAM GUARD ATTACHMENT)



DETAIL AT END POST

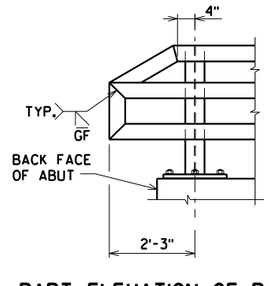
(THRIE BEAM RAIL ATTACHMENT)



ANCHOR PLATE

(AT RAIL TO DECK CONNECTION)

POST SHIM DETAIL



PART ELEVATION OF RAILING

LEGEND

① W6 x 25 WITH 1⅛" X 1½" 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 1¼" x 11¾" x 1'-8" WITH 1⅝" X 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.

③ ASTM A449 - 1⅛" 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'-9" LONG IN ABUTMENT WINGS.~~ AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. ~~USE 10¾" 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 ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3

⑤ TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑤A TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑥ ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" X 1⅝" X 1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)

⑦ ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" 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 ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

⑨ SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

⑩ ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

⑩A ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

⑪ ⅞" φ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16 " X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS ~~AND 15/16 " X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS~~ IN PLATE NO. 10A.

⑫ ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

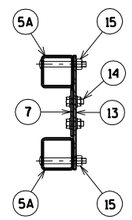
⑬ ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

⑭ ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).

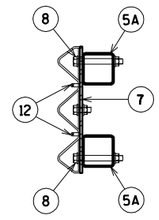
⑮ 1" φ HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-34-56" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. ~~RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.~~
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. 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 CUT.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. ~~WHEN PAINTING IS REQUIRED, ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 3 & 4) SHALL BE PAINTED OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.~~
11. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).
12. PLACE FIRST BOTTOM LONGITUDINAL BAR CLEAR OF DRIP GROOVE.



SECTION C



SECTION D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-34-56

DRAWN BY ZSS | PLANS CK'D. CJM

RAILING TUBULAR TYPE M

SHEET 13 OF 13
43

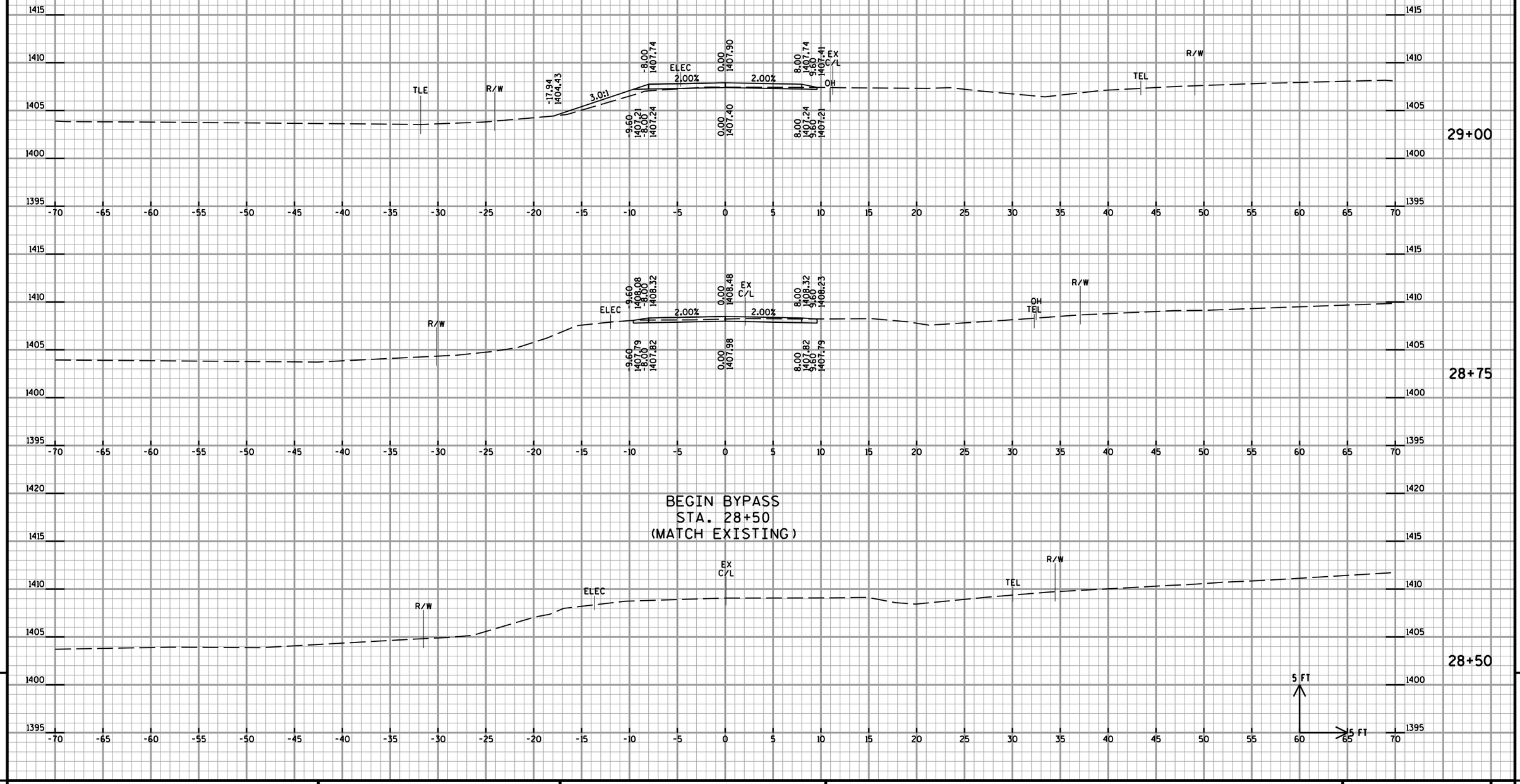
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

COUNTY LINE ROAD COMPUTER EARTHWORK

Station	Distance	Area (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	
						1.00	1.30	
				Note 1	Note 2	Note 1		Note 3
TEMPORARY BYPASS								
28+50	--	0.0	0.0					
28+75	25	0.0	0.0	0	0	0	0	0
29+00	25	0.0	4.2	0	2	0	3	-3
29+25	25	0.0	46.3	0	23	0	33	-33
29+50	25	0.0	57.3	0	48	0	95	-95
29+75	25	0.0	61.1	0	55	0	167	-167
30+00	25	0.0	249.5	0	144	0	353	-353
30+09	9	0.0	249.5	0	83	0	462	-462
TEMP. STRUCTURE	--	--	--	--	--	--	--	--
30+41	--	0.0	272.5	--	--	--	--	--
30+50	9	0.0	272.5	0	91	0	580	-580
30+75	25	0.0	103.4	0	174	0	806	-806
31+00	25	0.0	66.1	0	78	0	908	-908
31+25	25	0.0	53.6	0	55	0	980	-980
31+50	25	0.0	4.6	0	27	0	1015	-1015
31+75	25	0.0	0.0	0	2	0	1018	-1018
31+94.62	20	0.0	0.0	0	0	0	1018	-1018
				0	783			
TEMPORARY BYPASS REMOVAL (Note 4)								
28+50	--	--	--	--	--	--	--	--
31+94.62	344.62	--	--	1088	0	1088	0	1088
				1088	0			
MAINLINE - COUNTY LINE ROAD								
8+50	--	32.5	0.0					
8+75	25	39.7	0.0	33	0	33	0	33
9+00	25	45.6	0.0	39	0	73	0	73
9+25	25	43.8	0.0	41	0	114	0	114
9+50	25	20.4	15.3	30	7	144	9	135
9+73.71	24	20.4	15.3	18	13	162	27	135
B-34-0056	--	--	--	--	--	--	--	--
10+26.29	--	14.0	28.3	--	--	--	--	--
10+50	24	14.0	28.3	12	25	174	59	115
10+58	8	304.2	41.8	47	10	221	72	149
10+75	17	8.8	23.3	99	20	320	99	221
11+00	25	9.0	13.5	8	17	328	121	207
11+25	25	17.5	0.0	12	6	340	129	211
11+50	25	23.5	0.0	19	0	359	129	230
11+75	25	33.1	0.0	26	0	386	129	256
				386	100			

Note 1 - Cut	Cut includes existing asphalt pavement. Assumed to be reused as fill outside the 1:1 road core.
Note 2 - Fill	Volume needed to be filled.
Note 3 - Mass Ordinate	(Cut) - (Fill * 1.30)
Note 4 - Temporary Bypass Removal	Excavation Common includes 70 CY of Base Aggregate Dense

STA. 28+50 TO 29+00



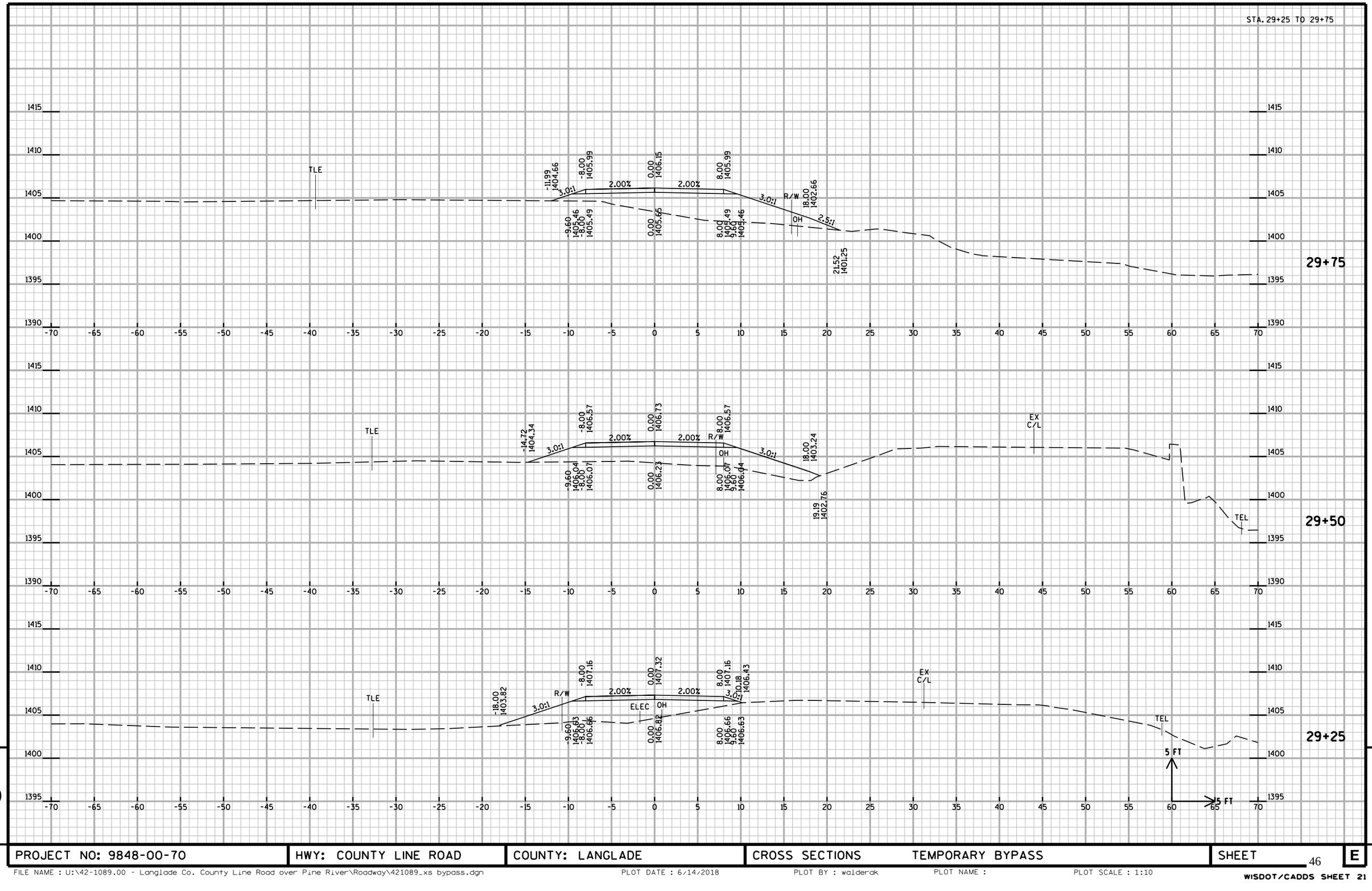
9 9

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS TEMPORARY BYPASS	SHEET 45 E

FILE NAME : V:\Structures-EC\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs bypass.dgn PLOT DATE : 10/24/2017 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 29+25 TO 29+75



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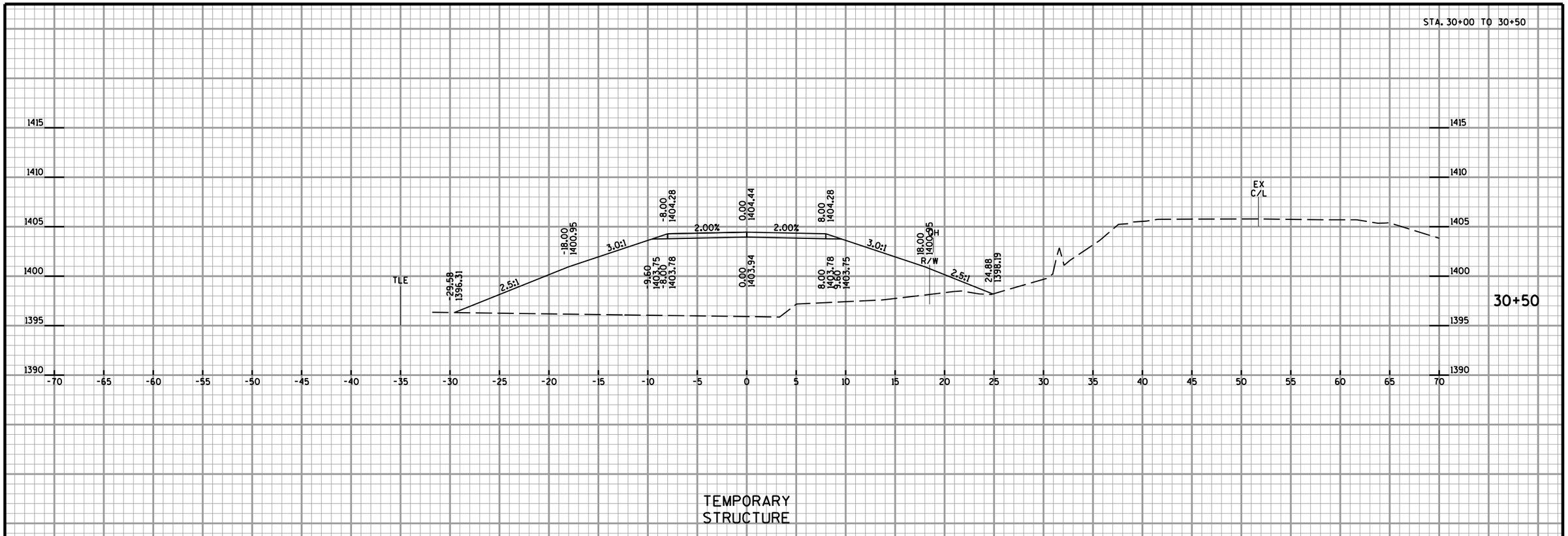
9

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS TEMPORARY BYPASS	SHEET 46	E

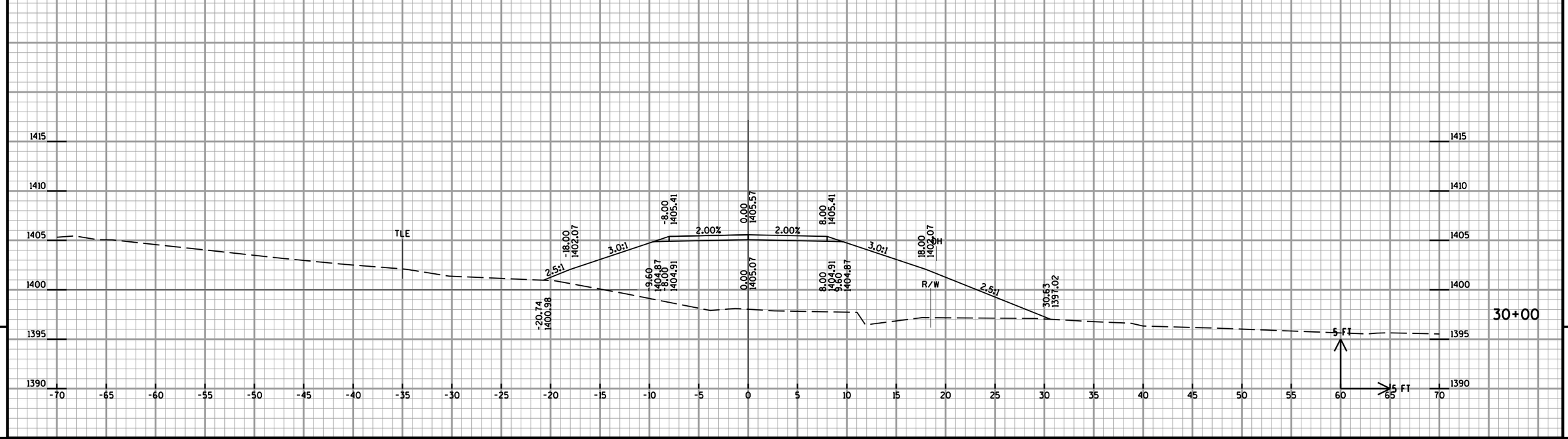
FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs bypass.dgn PLOT DATE : 6/14/2018 PLOT BY : walderak PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 30+00 TO 30+50



TEMPORARY
STRUCTURE



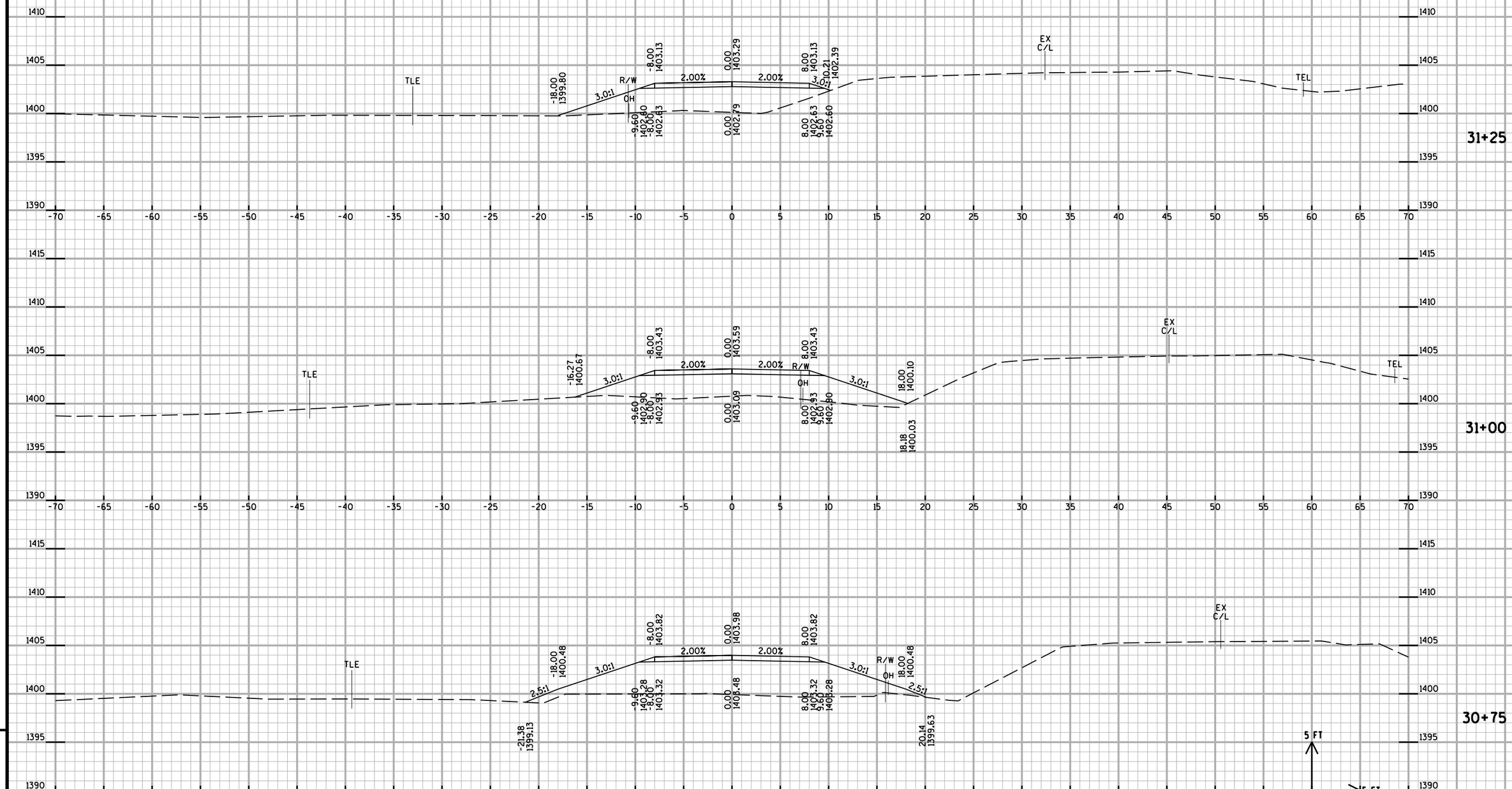
9 9

PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS TEMPORARY BYPASS	SHEET	E

FILE NAME : V:\Structures-EC\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs bypass.dgn PLOT DATE : 10/25/2017 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 30+75 TO 31+25



9

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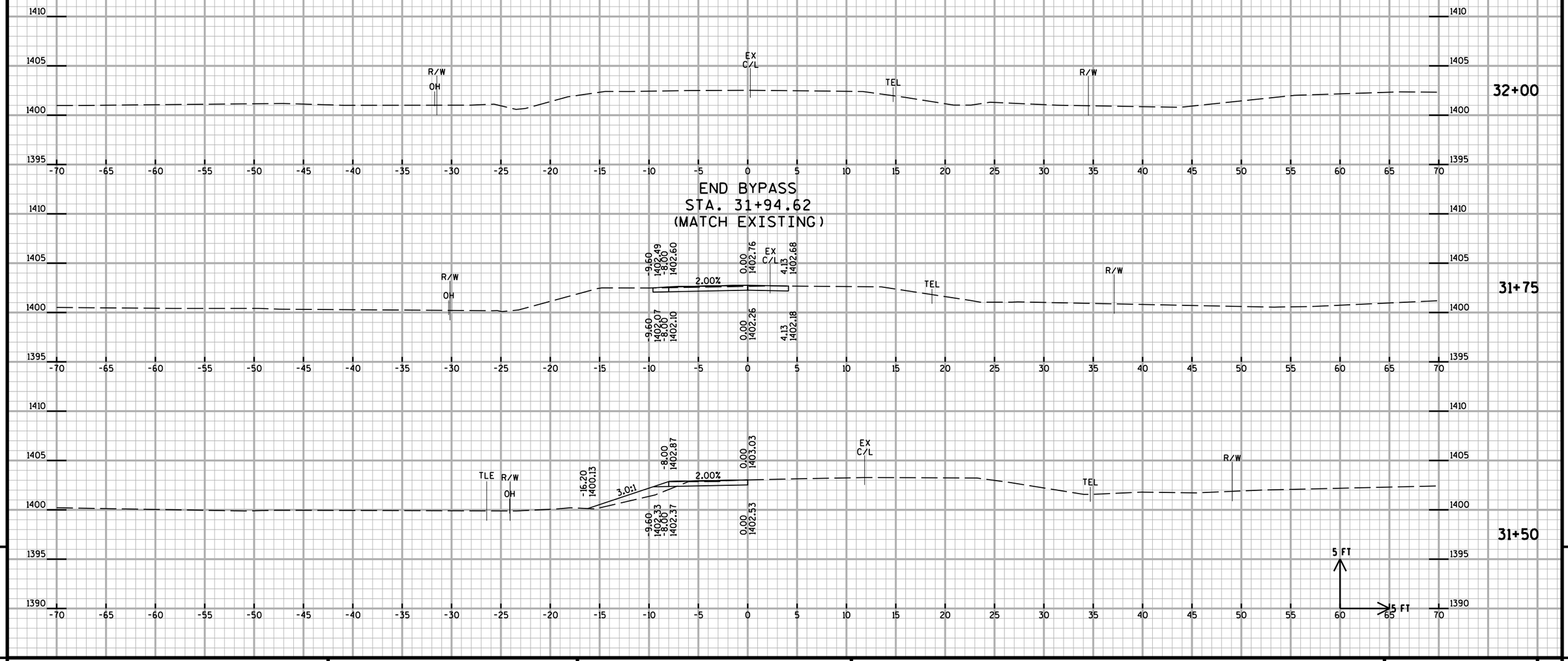
PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS TEMPORARY BYPASS	SHEET 48	E

FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs bypass.dgn PLOT DATE : 6/14/2018 PLOT BY : walderak PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 31+50 TO 32+00



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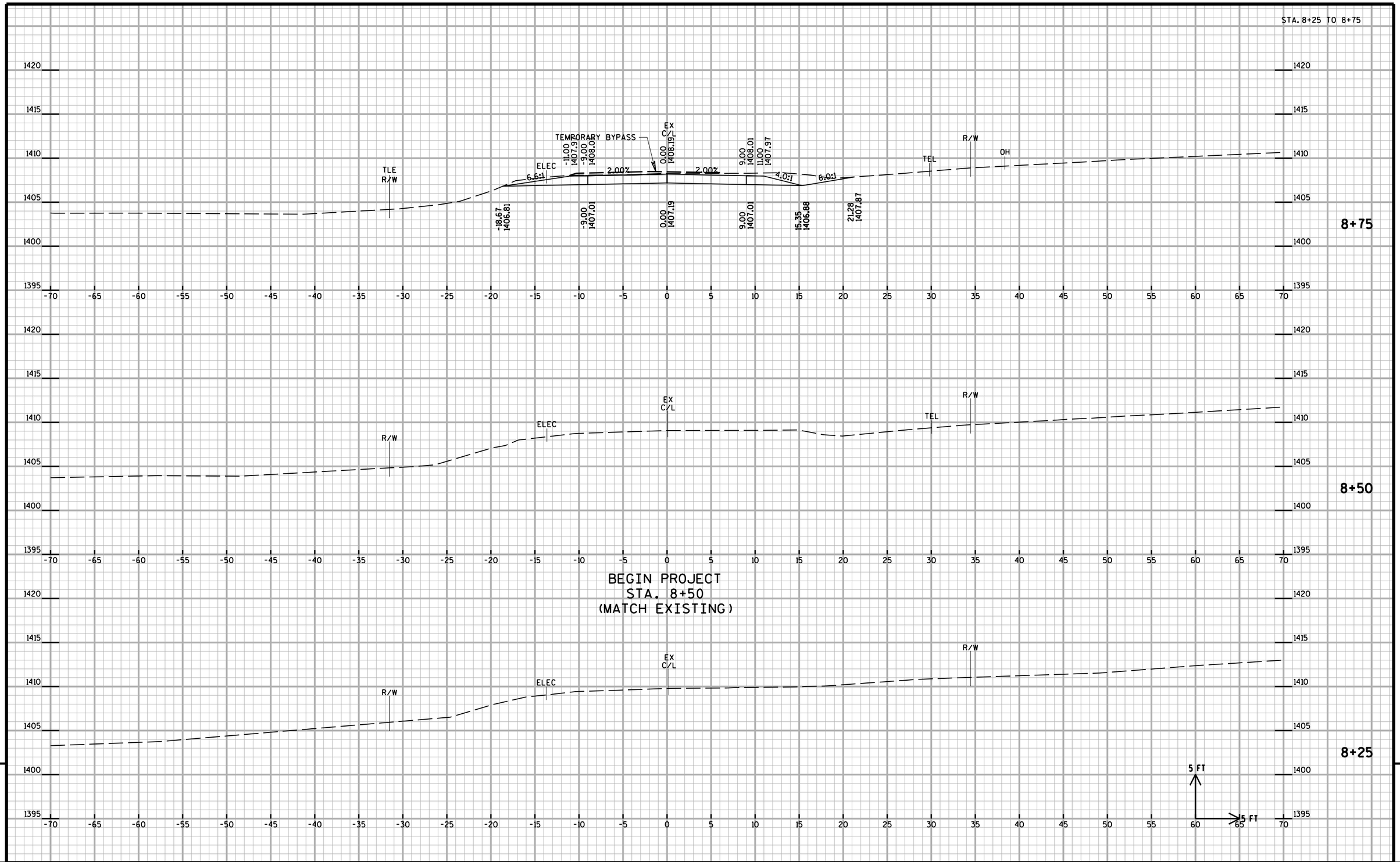
PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS TEMPORARY BYPASS	SHEET	E

FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs bypass.dgn PLOT DATE : 6/14/2018 PLOT BY : walderak PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 8+25 TO 8+75



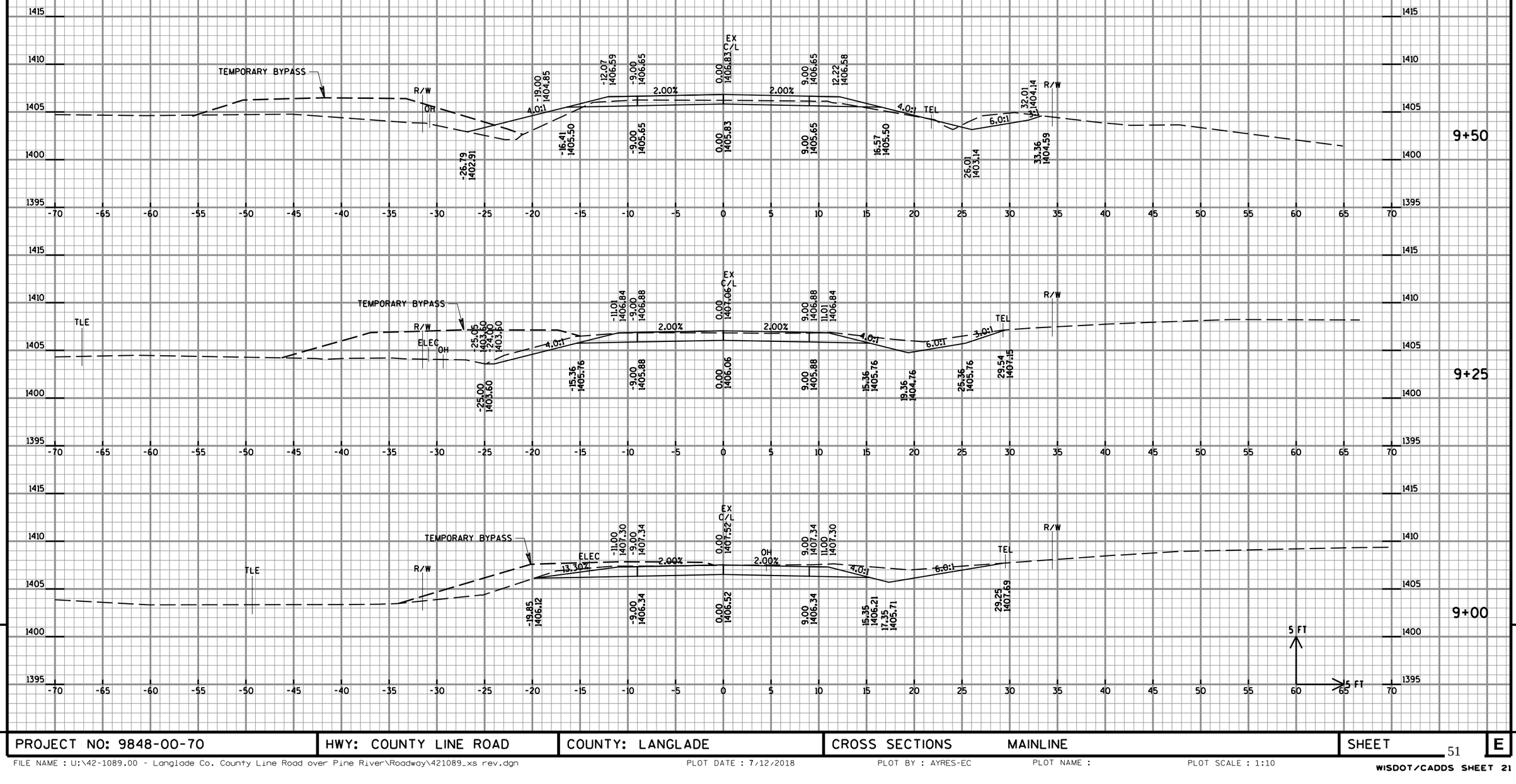
PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS MAINLINE	SHEET 50	E

FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs rev.dgn | PLOT DATE : 4/12/2018 | PLOT BY : walderak | PLOT NAME : | PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 9+00 TO 9+50

STRUCTURE
B-34-56



9

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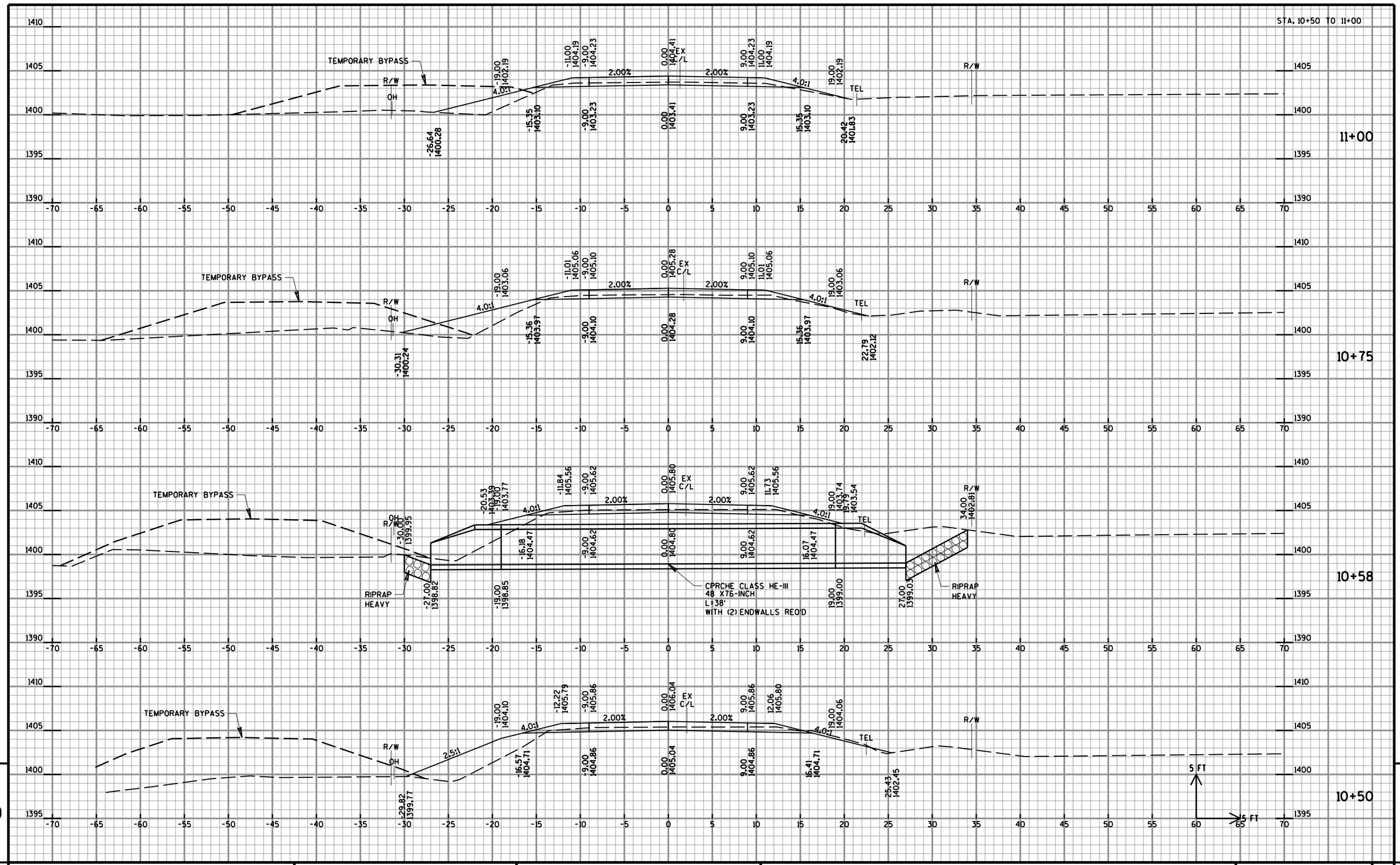
PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS MAINLINE	SHEET	E

FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs rev.dgn PLOT DATE : 7/12/2018 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 10+50 TO 11+00

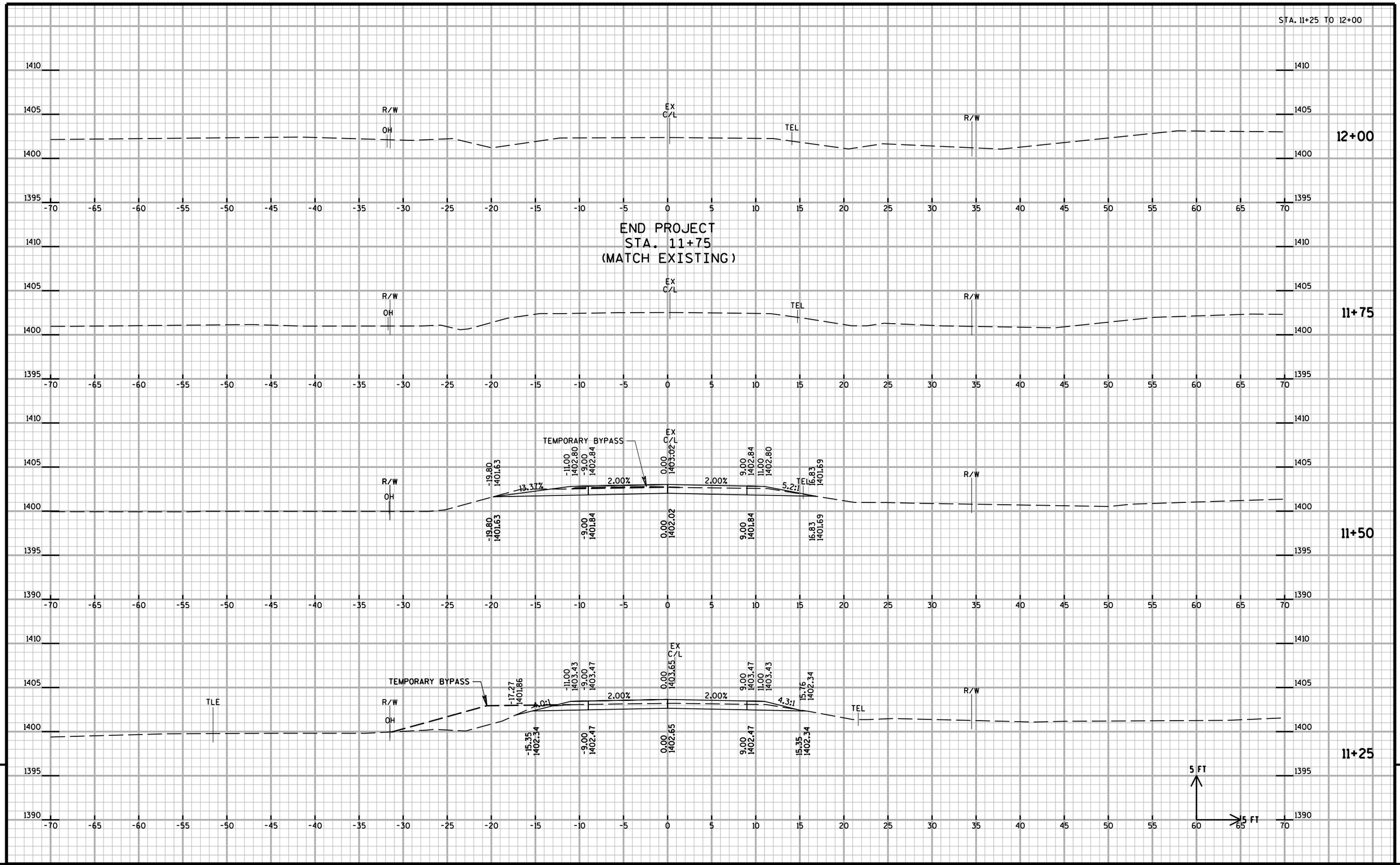


PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS MAINLINE	SHEET	E

FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs rev.dgn PLOT DATE : 7/12/2018 PLOT BY : AYRES-EC PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

STA. 11+25 TO 12+00



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PROJECT NO: 9848-00-70	HWY: COUNTY LINE ROAD	COUNTY: LANGLADE	CROSS SECTIONS MAINLINE	SHEET 53	E

FILE NAME : U:\42-1089.00 - Langlade Co. County Line Road over Pine River\Roadway\421089_xs rev.dgn PLOT DATE : 6/14/2018 PLOT BY : walderak PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

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