

NOVEMBER 2018  
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 = 50

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

QUILL POINT ROAD - CTH H

LONG LAKE INLET B-26-35

CTH G  
IRON COUNTY

STATE PROJECT NUMBER

9352-00-70

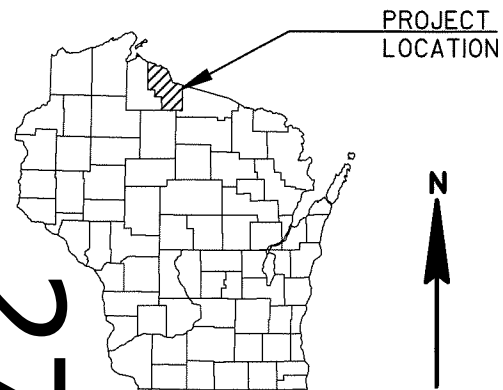
STATE PROJECT

9352-00-70

FEDERAL PROJECT

PROJECT

CONTRACT



DESIGN DESIGNATION

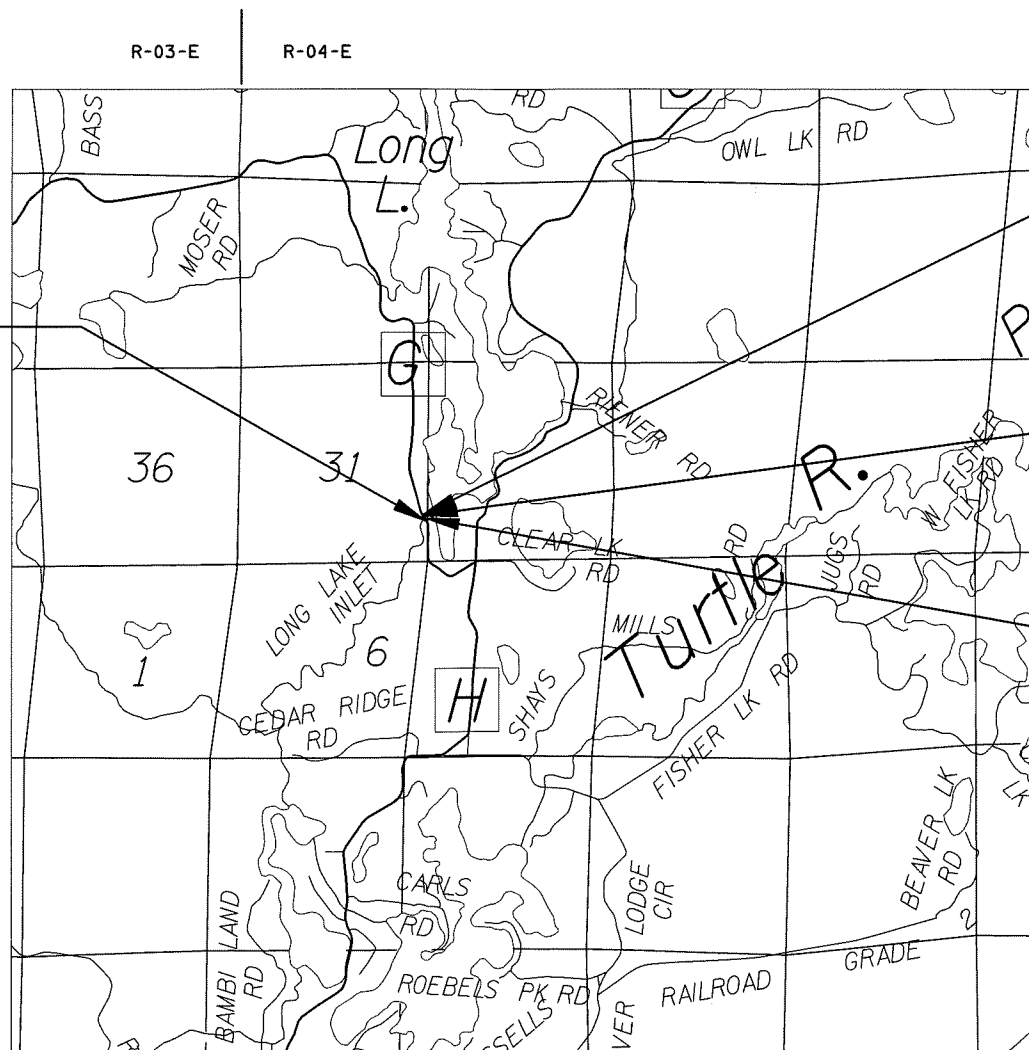
A.A.D.T. 2019 = 100  
A.A.D.T. 2039 = 110  
D.H.V. = 30  
D.D. = 61/39  
T. = 11.6%  
DESIGN SPEED = 35 MPH  
ESALS = 29,200

CONVENTIONAL SYMBOLS

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

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

BEGIN PROJECT & CONSTRUCTION  
STA 6+38.00  
Y=295,695.738  
X=782,110.106



SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.135

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, IRON COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THE PLANS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (2007).

END PROJECT  
STA 13+50.00

END CONSTRUCTION  
STA 12+98.00

STRUCTURE B-26-35

ACCEPTED FOR IRON COUNTY

DATE: 4/16/18  
(Signature)  
Highway Commissioner  
(Title of Official)

ORIGINAL PLANS PREPARED BY

CORRE

ENGINEERING

ERIC T. PRICE  
E-39027  
MADISON WI

DATE: 4/12/18  
(Signature)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor CORRE, INC.

Designer CORRE, INC.

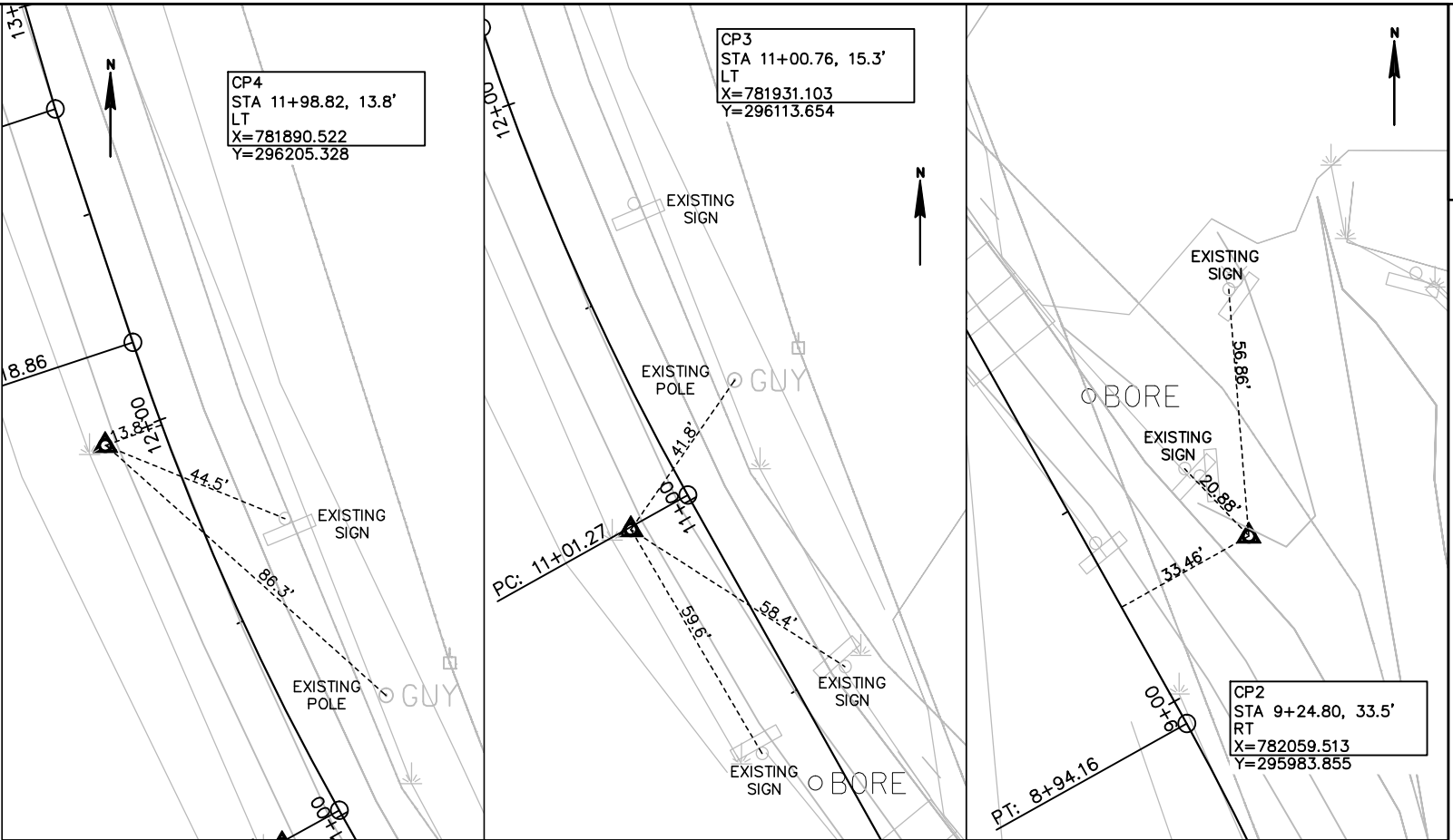
Management Consultant CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT

DATE: 4/30/2018  
(Signature)  
MANAGEMENT CONSULTANT SIGNATURE

GENERAL NOTES:

- ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO NAV 88 (2007).
- BEARINGS SHOWN ON THE PLANS ARE GRID BEARINGS TO THE NEAREST SECOND.
- CURVE DATA IS BASED ON THE ARC DEFINITION.
- THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- UTILITY REFERENCE LINES ON THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.
- NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
- EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS, EXACT LOCATIONS WILL BE DETERMINED BY THE E.C.I.P AND APPROVED BY THE ENGINEER IN THE FIELD.
- SILT FENCE IS TO BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IN PLACE PRIOR TO REMOVALS.
- DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE 4-INCH SALVAGED TOPSOILED, FERTILIZED, AND SEEDED AND MULCHED.
- A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.
- EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION.
- 3.5-INCH ASPHALTIC SURFACE SHALL BE CONSTRUCTED WITH 2 EQUAL LIFTS (1.75-INCH). THE MAXIMUM NOMINAL AGGREGATE SIZE SHALL BE 12.5 MM.



CONSTRUCTION TIES FOR CTH G OVER LAKE LAKE INLET

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 1.75 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.96 ACRES

UTILITY CONTACTS

- \* CENTURYLINK

COMMUNICATION  
BRIAN HUHN  
425 ELLINGSON AVENUE  
PO BOX 78  
HAWKINS, WI 54530

TELEPHONE: 715-532-0023  
E-MAIL: BRIAN.HUHN@CENTURYLINK.COM
- TOWN OF OMA

WATER  
STEVE FINCO (CHAIRMAN)  
4514 WEST TOWN HALL RD.  
HURLEY, WI 54534

TELEPHONE: 757-639-6046  
E-MAIL: STEVEN.C.FINCO@GMAIL.COM
- \* BAYFIELD ELECTRIC COOPERATIVE

ELECTRIC  
BILL JOHNSON  
68460 DISTRICT STREET  
IRON RIVER, WI 54847

TELEPHONE: 715-372-7517  
E-MAIL: BILL.JOHNSON@BAYFIELDELECTRIC.COM
- \* DENOTES DIGGERS HOTLINE MEMBER

COUNTY CONTACT

IRON COUNTY HIGHWAY DEPARTMENT  
607 3RD AVENUE N  
HURLEY, WI 54534

MIKE SWARTZ  
TELEPHONE: 715-561-4965  
E-MAIL: COMMISSIONER@IRONCOUNTYWI.ORG

CONSULTANT CONTACT

CORRE, INC.  
6510 GRAND TETON PLAZA, SUITE 314  
MADISON, WI 53719

ERIC PRICE, P.E.  
TELEPHONE: 608-826-6146  
E-MAIL: EPRICE@CORREINC.COM

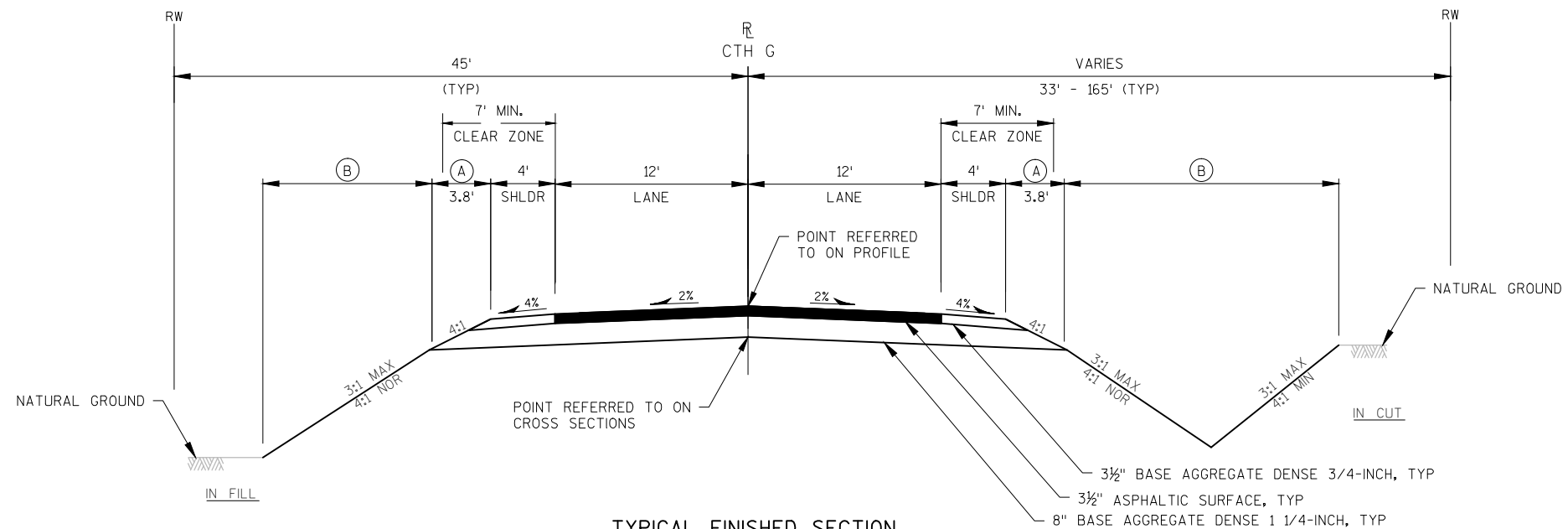
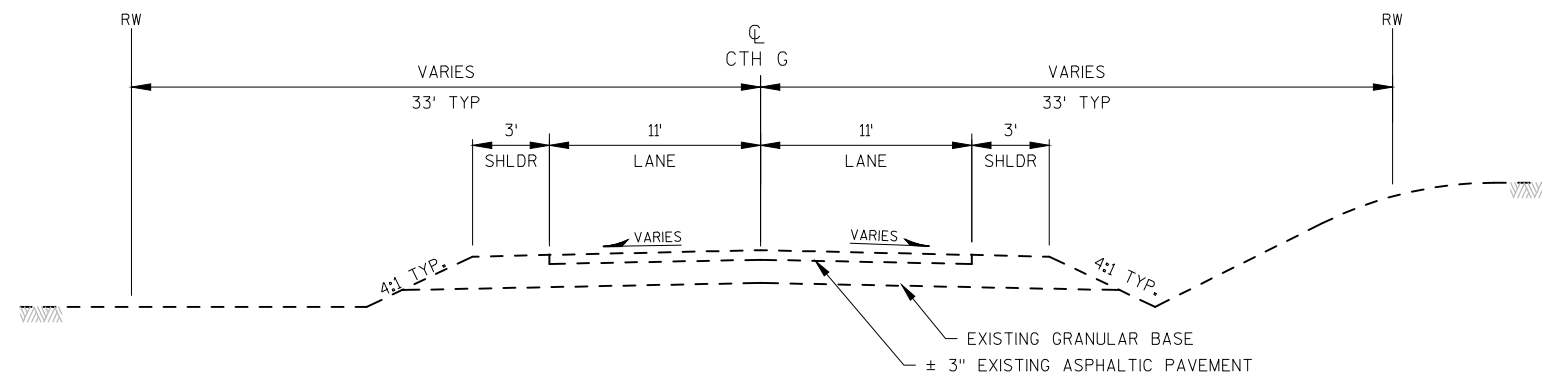
DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES  
NORTH CENTRAL DISTRICT  
107 SUTLIFF  
RHINELANDER, WI 54501

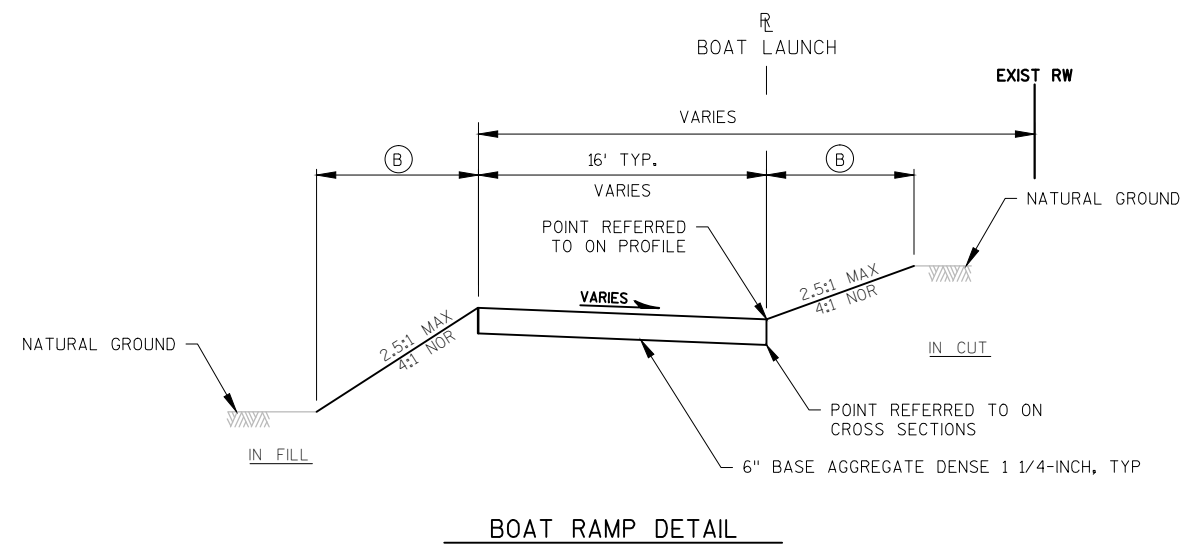
JON SIMONSEN  
TELEPHONE: 715-367-1936  
E-MAIL: JONATHON.SIMONSEN@WISCONSIN.GOV



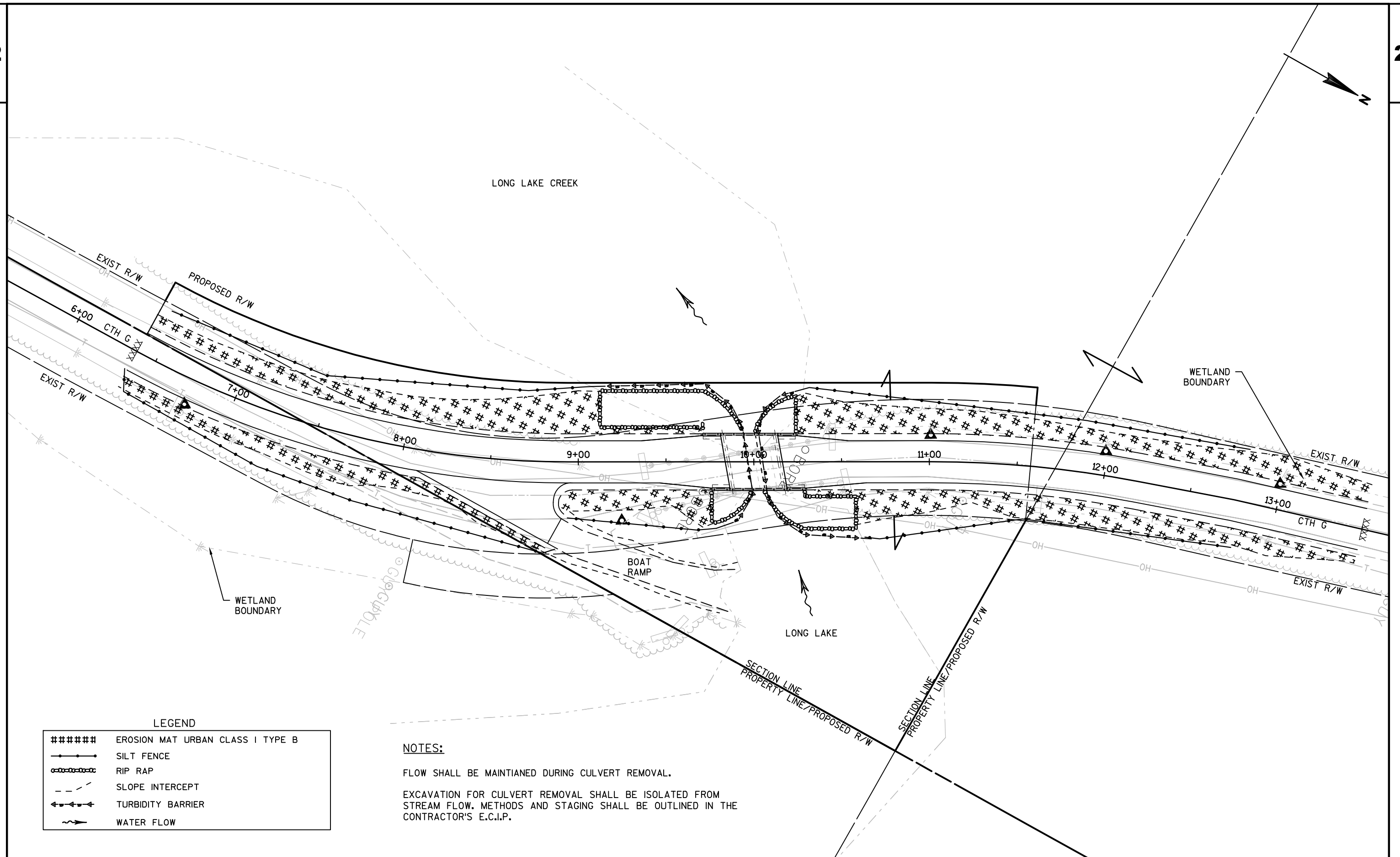
Dial 811 or (800)242-8511  
www.DiggersHotline.com

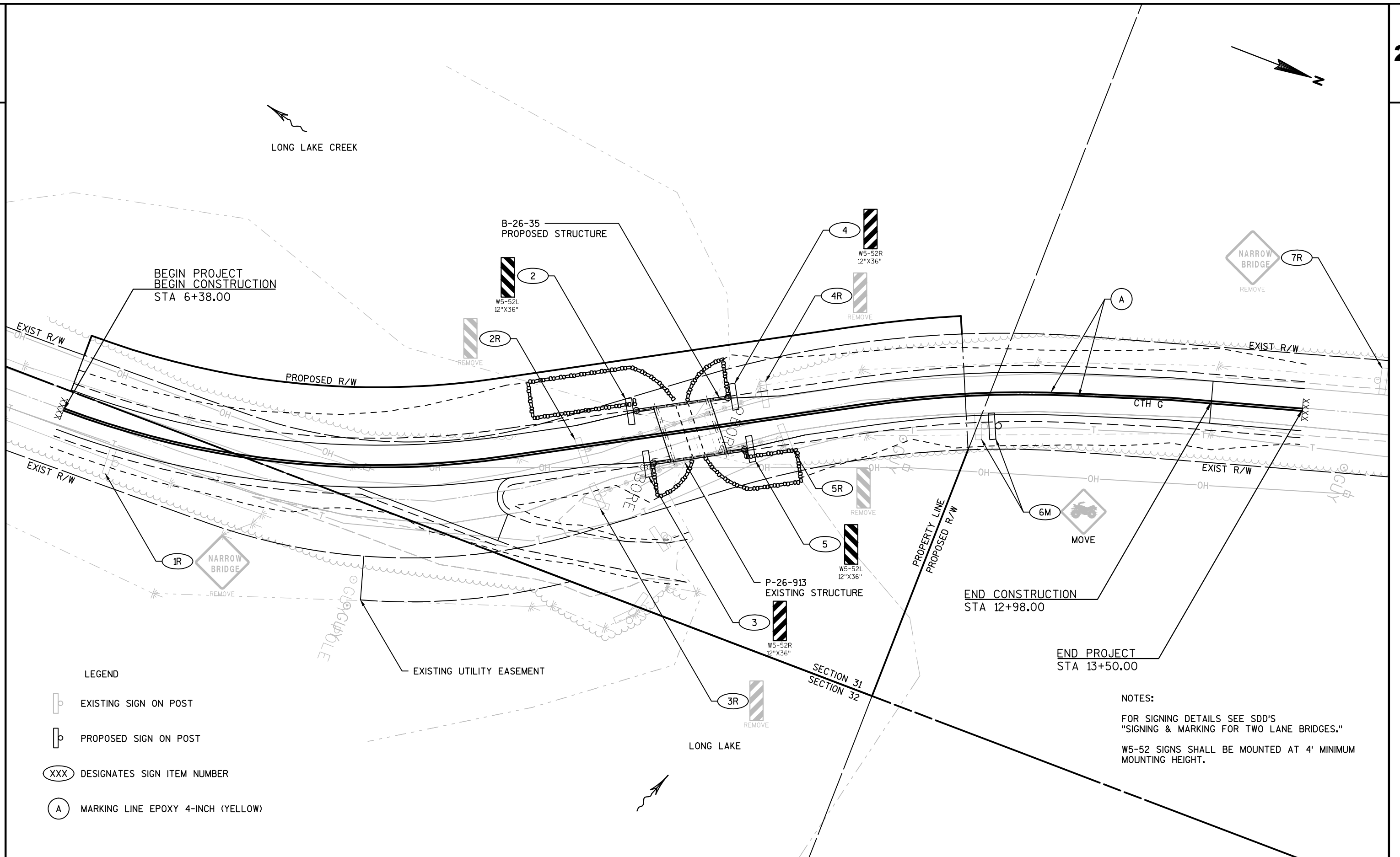


- (A) FERTILIZER TYPE B; SEEDING MIXTURE  
NO. 20; SEEDING TEMPORARY
- (B) SALVAGED TOPSOIL; MULCHING;  
FERTILIZER TYPE B; SEEDING MIXTURE  
NO. 20; SEEDING TEMPORARY



- Ⓐ FERTILIZER TYPE B; SEEDING MIXTURE  
NO. 20; SEEDING TEMPORARY
- Ⓑ SALVAGED TOPSOIL; MULCHING;  
FERTILIZER TYPE B; SEEDING MIXTURE  
NO. 20; SEEDING TEMPORARY





Estimate Of Quantities

9352-00-70					
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	203.0500.S	Removing Old Structure Over Waterway (station) 01. 10+00	LS	1.000	1.000
0008	205.0100	Excavation Common **P**	CY	129.000	129.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-26-35	LS	1.000	1.000
0012	208.0100	Borrow **P**	CY	2,270.000	2,270.000
0014	210.1500	Backfill Structure Type A	TON	250.000	250.000
0016	213.0100	Finishing Roadway (project) 01. 9352-00-70	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	112.000	112.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,259.000	1,259.000
0022	455.0605	Tack Coat	GAL	131.000	131.000
0024	465.0105	Asphaltic Surface	TON	365.000	365.000
0026	502.0100	Concrete Masonry Bridges	CY	126.000	126.000
0028	502.3200	Protective Surface Treatment	SY	149.000	149.000
0030	505.0400	Bar Steel Reinforcement HS Structures	LB	4,060.000	4,060.000
0032	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	15,220.000	15,220.000
0034	513.4061	Railing Tubular Type M 01. B-26-35	LF	110.000	110.000
0036	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0038	550.2124	Piling CIP Concrete 12 3/4 X 0.25-Inch	LF	375.000	375.000
0040	606.0300	Riprap Heavy	CY	360.000	360.000
0042	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	190.000	190.000
0044	618.0100	Maintenance And Repair of Haul Roads (project) 01. 9352-00-70	EACH	1.000	1.000
0046	619.1000	Mobilization	EACH	1.000	1.000
0048	624.0100	Water	MGAL	25.000	25.000
0050	625.0500	Salvaged Topsoil	SY	1,258.000	1,258.000
0052	627.0200	Mulching	SY	1,258.000	1,258.000
0054	628.1504	Silt Fence	LF	1,235.000	1,235.000
0056	628.1520	Silt Fence Maintenance	LF	1,235.000	1,235.000
0058	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0060	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0062	628.2008	Erosion Mat Urban Class I Type B	SY	1,258.000	1,258.000
0064	628.6005	Turbidity Barriers	SY	95.000	95.000
0066	629.0210	Fertilizer Type B	CWT	0.900	0.900
0068	630.0120	Seeding Mixture No. 20	LB	36.000	36.000
0070	630.0200	Seeding Temporary	LB	36.000	36.000
0072	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0074	637.2230	Signs Type II Reflective F	SF	12.000	12.000

Estimate Of Quantities

9352-00-70

Line	Item	Item Description	Unit	Total	Qty
0076	638.2102	Moving Signs Type II	EACH	1.000	1.000
0078	638.2602	Removing Signs Type II	EACH	6.000	6.000
0080	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0082	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,260.000	1,260.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	1,960.000	1,960.000
0090	643.0900	Traffic Control Signs	DAY	980.000	980.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	52.000	52.000
0096	645.0120	Geotextile Type HR	SY	495.000	495.000
0098	646.1020	Marking Line Epoxy 4-Inch	LF	1,320.000	1,320.000
0100	650.4500	Construction Staking Subgrade	LF	628.000	628.000
0102	650.5000	Construction Staking Base	LF	628.000	628.000
0104	650.6500	Construction Staking Structure Layout (structure) 01. B-26-35	LS	1.000	1.000
0106	650.9910	Construction Staking Supplemental Control (project) 01. 9352-00-70	LS	1.000	1.000
0108	650.9920	Construction Staking Slope Stakes	LF	660.000	660.000
0110	690.0150	Sawing Asphalt	LF	42.000	42.000
0112	715.0502	Incentive Strength Concrete Structures	DOL	756.000	756.000
0114	SPV.0045	Special 01. Waterway Buoys	DAY	240.000	240.000



Division	From/To Station	Location	205.0100 Excavation Common (1)	Available Material (2)	Unexpanded Fill	Expanded Fill (3)	Mass Ordinate +/- (4)	Waste	208.0100 Borrow
			Cut			Factor 1.25			
Division 1									
CTH G	6+38 - 9+76	South	65	65	1,346	1,682	-1,617	0	1,617
CTH G	10+24 - 12+98	North	64	64	485	607	-543	0	543
Division 1 Subtotal			129	129	1,831	2,289	-2,160	0	2,160
Division 2									
Boat Ramp	0+00 - 0+85		0	0	88	110	-110	0	110
Division 2 Subtotal			0	0	88	110	-110	0	110
Grand Total			129	129	1,919	2,399	-2,270	0	2,270
<div>▲</div> Total Excavation Common			129	Total Borrow					2,270

Notes:  
(1) Excavation Common is item number 205.0100  
(2) Available Material = Cut  
(3) Expanded Fill Factor = 1.25  

Expanded Fill = (Unexpanded Fill) \* Fill Factor

  
(4) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

▲ Pay Plan Quantity

NOTE: ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

3

<div><div>CLEARING AND GRUBBING ITEMS</div><table><tr><th>STATION - STATION</th><th>LOCATION</th><th>CLEARING 201.0105 STA</th><th>GRUBBING 201.0205 STA</th></tr><tr><td>7+00 - 9+00</td><td>LT</td><td>2</td><td>2</td></tr><tr><td>10+00 - 12+00</td><td>LT &amp; RT</td><td>2</td><td>2</td></tr><tr><td colspan="2">TOTALS</td><td>4</td><td>4</td></tr></table></div>					STATION - STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA	7+00 - 9+00	LT	2	2	10+00 - 12+00	LT & RT	2	2	TOTALS		4	4	<div><div>FINISHING ROADWAY (9352-00-70)</div><table><tr><th>LOCATION</th><th>213.0100 EACH</th></tr><tr><td>PROJECT</td><td>1</td></tr><tr><td>TOTAL</td><td>1</td></tr></table></div>					LOCATION	213.0100 EACH	PROJECT	1	TOTAL	1	<div><div>BASE AGGREGATE DENSE</div><table><tr><th colspan="3"></th><th>305.0110 BASE AGGREGATE DENSE 3/4-INCH TON</th><th>305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON</th></tr><tr><th>STATION</th><th>-</th><th>STATION</th><th>LOCATION</th><th></th></tr><tr><td>6+38</td><td>-</td><td>9+84</td><td>MAINLINE</td><td>--</td></tr><tr><td>6+38</td><td>-</td><td>9+84</td><td>LT</td><td>28</td></tr><tr><td>6+38</td><td>-</td><td>8+85</td><td>RT</td><td>21</td></tr><tr><td>8+92</td><td>-</td><td>9+84</td><td>RT</td><td>8</td></tr><tr><td>10+16</td><td>-</td><td>12+98</td><td>MAINLINE</td><td>--</td></tr><tr><td>10+16</td><td>-</td><td>12+98</td><td>LT</td><td>23</td></tr><tr><td>10+16</td><td>-</td><td>12+98</td><td>RT</td><td>22</td></tr><tr><td colspan="3">UNDISTRIBUTED</td><td>10</td><td></td></tr><tr><td colspan="3">TOTALS</td><td>112</td><td>1,259</td></tr></table></div>										305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	STATION	-	STATION	LOCATION		6+38	-	9+84	MAINLINE	--	6+38	-	9+84	LT	28	6+38	-	8+85	RT	21	8+92	-	9+84	RT	8	10+16	-	12+98	MAINLINE	--	10+16	-	12+98	LT	23	10+16	-	12+98	RT	22	UNDISTRIBUTED			10		TOTALS			112	1,259
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<div><div>ASPHALTIC ITEMS</div><table><tr><th>STATION - STATION</th><th>LOCATION</th><th>455.0605 TACK COAT GAL</th><th>465.0105 ASPHALTIC SURFACE TON</th></tr><tr><td>6+38 - 9+84</td><td>MAINLINE</td><td>76</td><td>214</td></tr><tr><td>10+16 - 12+98</td><td>MAINLINE</td><td>55</td><td>151</td></tr><tr><td colspan="2">TOTALS</td><td>131</td><td>365</td></tr></table></div>					STATION - STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	6+38 - 9+84	MAINLINE	76	214	10+16 - 12+98	MAINLINE	55	151	TOTALS		131	365	<div><div>EROSION CONTROL ITEMS</div><table><tr><th colspan="3"></th><th>628.1504 SILT FENCE LF</th><th>628.1520 MAINTENANCE LF</th><th>628.1905 EROSION CONTROL EACH</th><th>628.1910 EMERGENCY EROSION CONTROL EACH</th></tr><tr><th>STATION</th><th>-</th><th>STATION</th><th>LOCATION</th><th></th><th></th><th></th></tr><tr><td>6+38</td><td>-</td><td>9+84</td><td>RT/LT</td><td>610</td><td>610</td><td>-</td></tr><tr><td>10+16</td><td>-</td><td>12+98</td><td>RT/LT</td><td>464</td><td>464</td><td>-</td></tr><tr><td>6+34</td><td>-</td><td>12+98</td><td></td><td>-</td><td>-</td><td>3</td></tr><tr><td colspan="3">UNDISTRIBUTED</td><td>161</td><td>161</td><td>-</td><td>-</td></tr><tr><td colspan="3">TOTALS</td><td>1,235</td><td>1,235</td><td>3</td><td>3</td></tr></table></div>										628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF	628.1905 EROSION CONTROL EACH	628.1910 EMERGENCY EROSION CONTROL EACH	STATION	-	STATION	LOCATION				6+38	-	9+84	RT/LT	610	610	-	10+16	-	12+98	RT/LT	464	464	-	6+34	-	12+98		-	-	3	UNDISTRIBUTED			161	161	-	-	TOTALS			1,235	1,235	3	3																	
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UNDISTRIBUTED			161	161	-	-																																																																																							
TOTALS			1,235	1,235	3	3																																																																																							
<div><div>LANDSCAPING ITEMS</div><table><tr><th>STATION - STATION</th><th>LOCATION</th><th>625.0500 SALVAGED TOPSOIL SY</th><th>627.0200 MULCHING SY</th><th>628.2008 EROSION MAT URBAN CLASS I TYPE B SY</th><th>629.0210 FERTILIZER TYPE B CWT</th><th>630.0120 SEEDING MIXTURE NO. 20 LB</th><th>630.0200 SEEDING TEMPORARY LB</th></tr><tr><td>6+38 - 9+13</td><td>LT</td><td>314</td><td>314</td><td>314</td><td>0.2</td><td>8</td><td>8</td></tr><tr><td>6+38 - 8+85</td><td>RT</td><td>148</td><td>148</td><td>148</td><td>0.1</td><td>4</td><td>4</td></tr><tr><td>8+92 - 9+77</td><td>RT</td><td>90</td><td>90</td><td>90</td><td>0.1</td><td>2</td><td>2</td></tr><tr><td>10+25 - 12+98</td><td>LT</td><td>282</td><td>282</td><td>282</td><td>0.2</td><td>8</td><td>8</td></tr><tr><td>10+59 - 12+98</td><td>RT</td><td>214</td><td>214</td><td>214</td><td>0.1</td><td>6</td><td>6</td></tr><tr><td colspan="2">UNDISTRIBUTED</td><td>210</td><td>210</td><td>210</td><td>0.2</td><td>8</td><td>8</td></tr><tr><td colspan="2">TOTALS</td><td>1,258</td><td>1,258</td><td>1,258</td><td>0.9</td><td>36</td><td>36</td></tr></table></div>									STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	6+38 - 9+13	LT	314	314	314	0.2	8	8	6+38 - 8+85	RT	148	148	148	0.1	4	4	8+92 - 9+77	RT	90	90	90	0.1	2	2	10+25 - 12+98	LT	282	282	282	0.2	8	8	10+59 - 12+98	RT	214	214	214	0.1	6	6	UNDISTRIBUTED		210	210	210	0.2	8	8	TOTALS		1,258	1,258	1,258	0.9	36	36	<div><div>WATER</div><table><tr><th>LOCATION</th><th>624.0100 MGAL</th></tr><tr><td>BASE COMPACTION</td><td>25</td></tr><tr><td>TOTAL</td><td>25</td></tr></table></div>			LOCATION	624.0100 MGAL	BASE COMPACTION	25	TOTAL	25												
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NOTE: ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.																																																																																													
PROJECT NO:9352-00-70		HWY:CTH G		COUNTY:IRON		MISCELLANEOUS QUANTITIES		SHEET	E																																																																																				

3

SIGNING ITEMS									
SIGN NO.	STATION	LOCATION	SIGN CODE	SIZE	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MESSAGE
1R	6+75	RT			-	-	1	1	NARROW BRIDGE
2	9+71	LT	W5-52L	12 X 36	1	3.00	-	-	OBJECT MARKER
2R	9+37	LT			-	-	1	1	OBJECT MARKER
3	9+76	RT	W5-52R	12 X 36	1	3.00	-	-	OBJECT MARKER
3R	9+43	RT			-	-	1	1	OBJECT MARKER
4	10+24	LT	W5-52R	12 X 36	1	3.00	-	-	OBJECT MARKER
4R	10+41	LT			-	-	1	1	OBJECT MARKER
5	10+29	RT	W5-52L	12 X 36	1	3.00	-	-	OBJECT MARKER
5R	10+50	RT			-	-	1	1	OBJECT MARKER
7R	13+91	LT			-	-	1	1	NARROW BRIDGE
TOTALS					4	12	6	6	

FIELD OFFICE TYPE B

	642.5001
LOCATION	EACH
PROJECT	1
TOTAL	1

3

TRAFFIC CONTROL ITEMS					
LOCATION	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS DAYS	SPV.0045.01 WATERYWAY BUOYS EACH	DAYS
PROJECT	1,260	1,960	994	4	240
TOTALS	1,260	1,960	980		240

SAWING PAVEMENT		
STATION	LOCATION	690.0150 ASPHALT LF
6+38	CTH G	21
12+98	CTH G	21
TOTAL		42

MARKING LINE EPOXY 4-INCH			
STATION - STATION	LOCATION	646.1020 LF	REMARKS
6+38 - 12+98	CTH G	1320	YELLOW
TOTAL		1320	

MOVING SIGNING ITEMS					
SIGN NO.	STATION	LOCATION	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MESSAGE
6M	11+65	RT	1	1	ATV
TOTALS			1	1	

CONSTRUCTION STAKING ITEMS						
STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	CAT 0020 650.6500 STRUCTURE LAYOUT B-26-35 LS	650.9910 SUPPLEMENTAL CONTROL 9352-00-70 LS	650.9920 SLOPE STAKES LF
6+38 - 12+98	MAINLINE	628	628	1	1	660
TOTALS		628	628	1	1	660

NOTE: ALL ITEMS ARE CATEGORY 0010 UNLESS NOTED OTHERWISE.

PROJECT NO:9352-00-70	HWY:CTH G	COUNTY:IRON	MISCELLANEOUS QUANTITIES	SHEET	E
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CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP ●
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		OFF-PREMISE SIGN	
NEW R/W LINE	---	SIGN		COMPENSABLE	
EXISTING R/W OR HE LINE	---			NON-COMPENSABLE	
PROPERTY LINE	---				
LOT, TIE & OTHER MINOR LINES	---				
SLOPE INTERCEPT	---				
CORPORATE LIMITS	---				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	---				
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)	---				
TEMPORARY LIMITED EASEMENT AREA	---				
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)	---				
TRANSMISSION STRUCTURES	---				
BUILDING	---				
BRIDGE	---				

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), IRON COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE REBAR AND ARE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

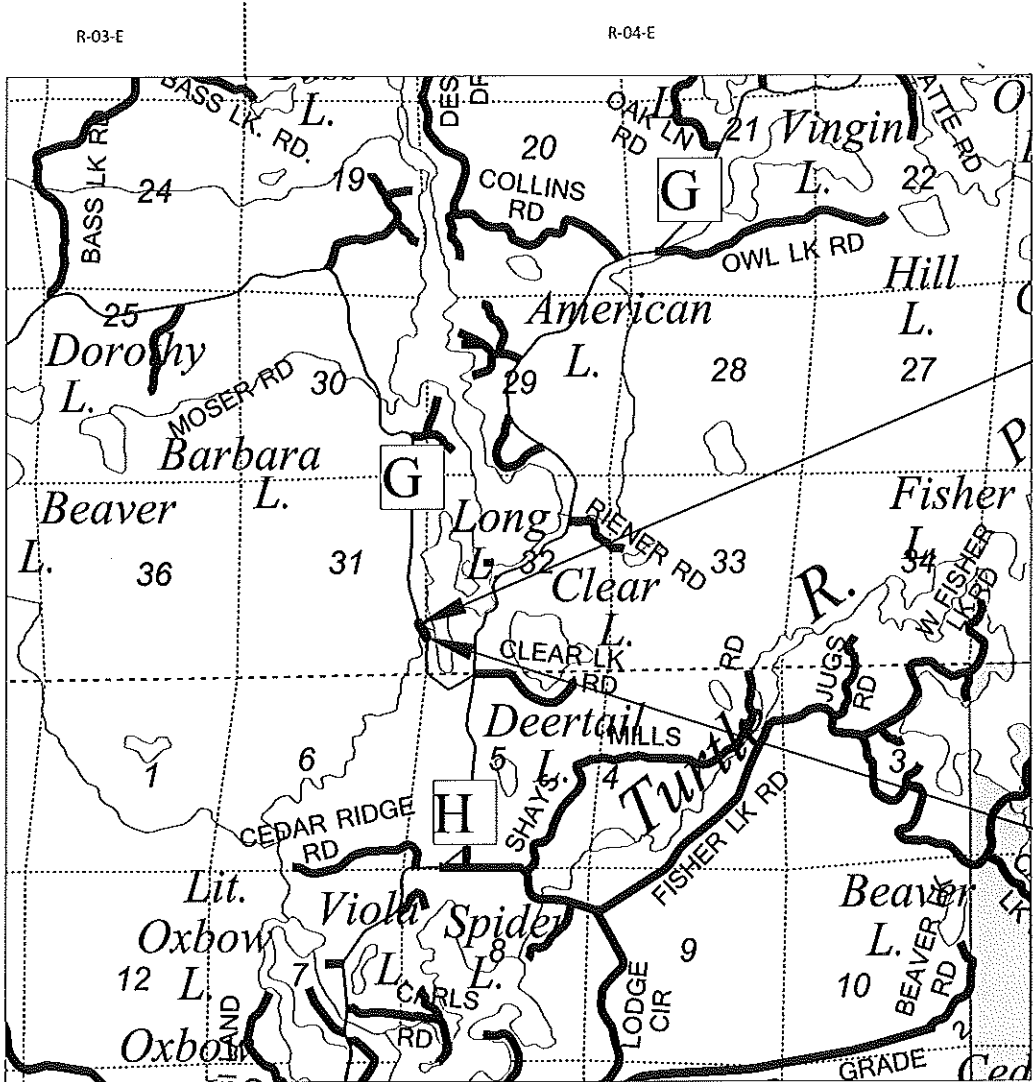
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD	---
TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---



CAUTION  
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST  
BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.



(MERCER LOCATED 5.6 MILES TO THE SOUTH OF THE PROJECT,  
WINCHESTER LOCATED 6.5 MILES TO THE EAST OF THE PROJECT)

LAYOUT  
SCALE 0 1 MILE  
TOTAL NET LENGTH OF CENTERLINE = 0.114 MILES

R/W PROJECT NUMBER 9352-00-00	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER	4.01	2
PLAT OF RIGHT OF WAY REQUIRED FOR QUILL POINT ROAD - CTH H LONG LAKE INLET P-26-0913		
CTH G	IRON COUNTY	
CONSTRUCTION PROJECT NUMBER: 9352-00-70		

END RELOCATION ORDER  
STA 12+00.00  
1,386.43' NORTH AND 193.48' WEST  
OF THE SOUTHEAST CORNER OF SEC 31,  
T-44-N, R-04-E

BEGIN RELOCATION ORDER  
STA 6+00.00  
832.39' NORTH AND 12.29' EAST  
OF THE SOUTHEAST CORNER OF SEC 31,  
T-44-N, R-04-E



1802 WARDEN STREET  
EAU CLAIRE, WI 54703  
(608)828-1011  
www.correinc.com



I, BRYON J. MOTSZKO, REGISTERED LAND SURVEYOR, S-2846, HEREBY  
CERTIFY THAT I HAVE SURVEYED THE LAND DESCRIBED HEREON AND  
THAT THE MAP HEREON IS A CORRECT REPRESENTATION OF THE  
SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE: 2/27/18

REVISION DATE	IRON COUNTY
APPROVED FOR COUNTY	
DATE: 3/8/18	

# SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW (AC)	EXISTING (AC)	TOTAL (AC)
1	JOYCE L. STUDZINSKI LIVING TRUST DATED MARCH 2, 2000	FEE	0.65	0.60	1.25
80	BAYFIELD ELECTRIC COOPERATIVE	RELEASE OF RIGHTS			

PT 101 - PT 102  
L = 233.35'  
LCH = 230.91'  
CB = N14° 50' 06" W  
R = 465.00'  
Δ = 028° 45' 08"

PT 103 - PT 104  
L = 60.52'  
LCH = 60.50'  
CB = N26° 36' 14" W  
R = 665.00'  
Δ = 005° 12' 52"

PT 105 - PT 202  
L = 152.79'  
LCH = 152.39'  
CB = S30° 17' 52" E  
R = 608.00'  
Δ = 014° 23' 55"

PT 108 - PT 204  
L = 51.27'  
LCH = 51.22'  
CB = N33° 12' 55" W  
R = 343.00'  
Δ = 008° 33' 50"

PT 203 - PT 106  
L = 137.24'  
LCH = 136.87'  
CB = N30° 14' 36" W  
R = 542.00'  
Δ = 014° 30' 29"

PT 201 - PT 200  
L = 176.10'  
LCH = 173.15'  
CB = S19° 17' 04" E  
R = 277.00'  
Δ = 036° 25' 33"

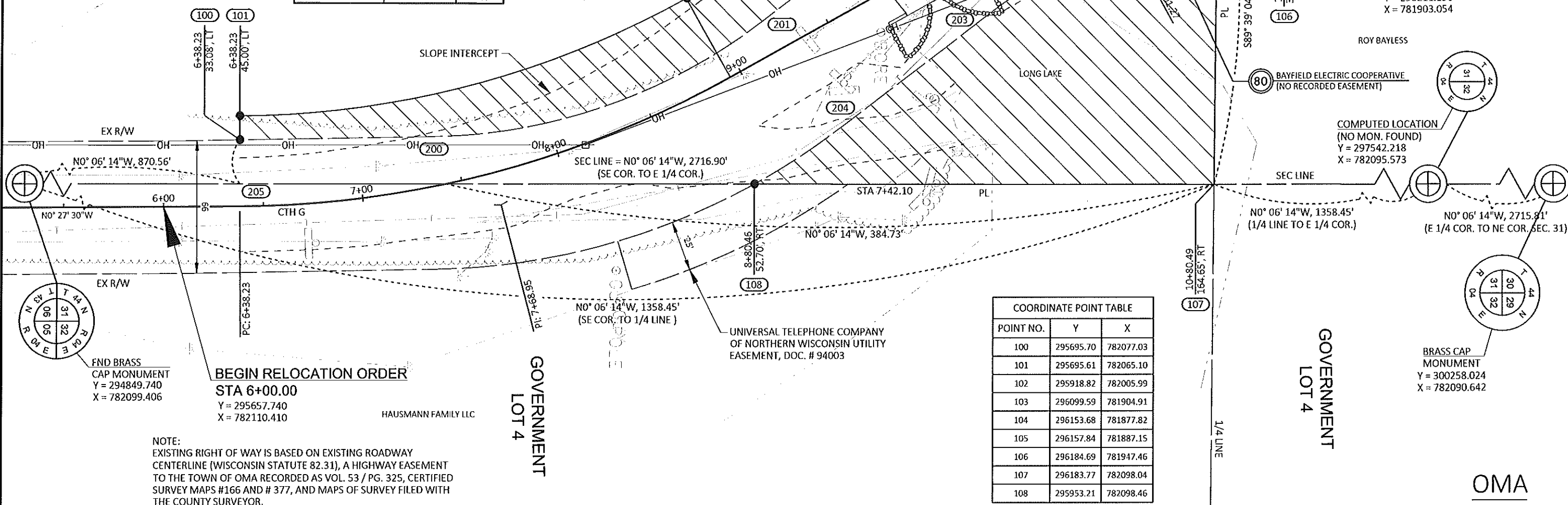
## TOWN

PI STA = 7+68.95  
Y = 295826.681  
X = 782109.059  
DELTA = 28° 45' 10"  
D = 11° 14' 04"  
T = 130.72'  
L = 255.93'  
R = 510.00'  
PC STA = 6+38.23  
Y = 295695.964  
X = 782110.104  
PT STA = 8+94.16  
Y = 295940.778  
X = 782045.263  
BK = N00° 27' 30.0" W  
AH = N29° 12' 39.7" W

PI STA = 11+60.24  
Y = 296173.023  
X = 781915.407  
DELTA = 10° 52' 01"  
D = 9° 14' 29"  
T = 58.97'  
L = 117.59'  
R = 620.00'  
PC STA = 11+01.27  
Y = 296121.551  
X = 781944.187  
PT STA = 12+18.86  
Y = 296228.998  
X = 781896.847  
BK = N29° 12' 39.7" W  
AH = N18° 20' 39.1" W

COURSE TABLE				
POINT	POINT	BEARING	DISTANCE	
100	- 101	S89° 32' 28"W	11.93'	
101	- 102	CURVE DATA		
102	- 103	N29° 12' 40"W	207.11'	
103	- 104	CURVE DATA		
104	- 105	N66° 00' 13"E	10.22'	
105	- 202	CURVE DATA		
202	- 201	S37° 29' 50"E	88.71'	
201	- 200	CURVE DATA		
200	- 100	S01° 04' 17"E	96.76'	
106	- 107	S89° 39' 04"E	150.58'	
107	- 108	S00° 06' 14"E	230.56'	
108	- 204	CURVE DATA		
204	- 203	N37° 29' 50"W	88.71'	
203	- 106	CURVE DATA		
105	- 106	N66° 00' 13"E	66.01'	
108	- 205	S00° 06' 14"E	257.33'	
205	- 100	S89° 32' 28"W	21.89'	

NOTE:  
0.65 AC. TOTAL OF NEW R/W  
(0.28 AC. LOCATED WITHIN LONG LAKE & LONG LAKE CREEK)

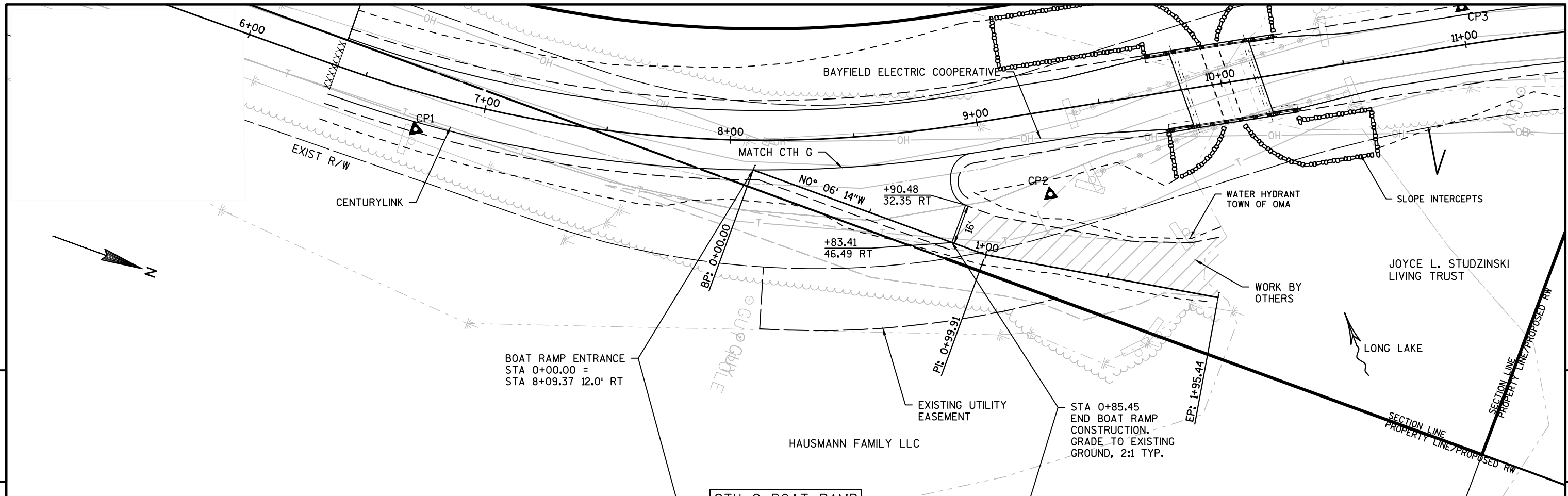


COORDINATE POINT TABLE		
POINT NO.	Y	X
100	295695.70	782077.03
101	295695.61	782065.10
102	295918.82	782005.99
103	296099.59	781904.91
104	296153.68	781877.82
105	296157.84	781887.15
106	296184.69	781947.46
107	296183.77	782098.04
108	295953.21	782098.46

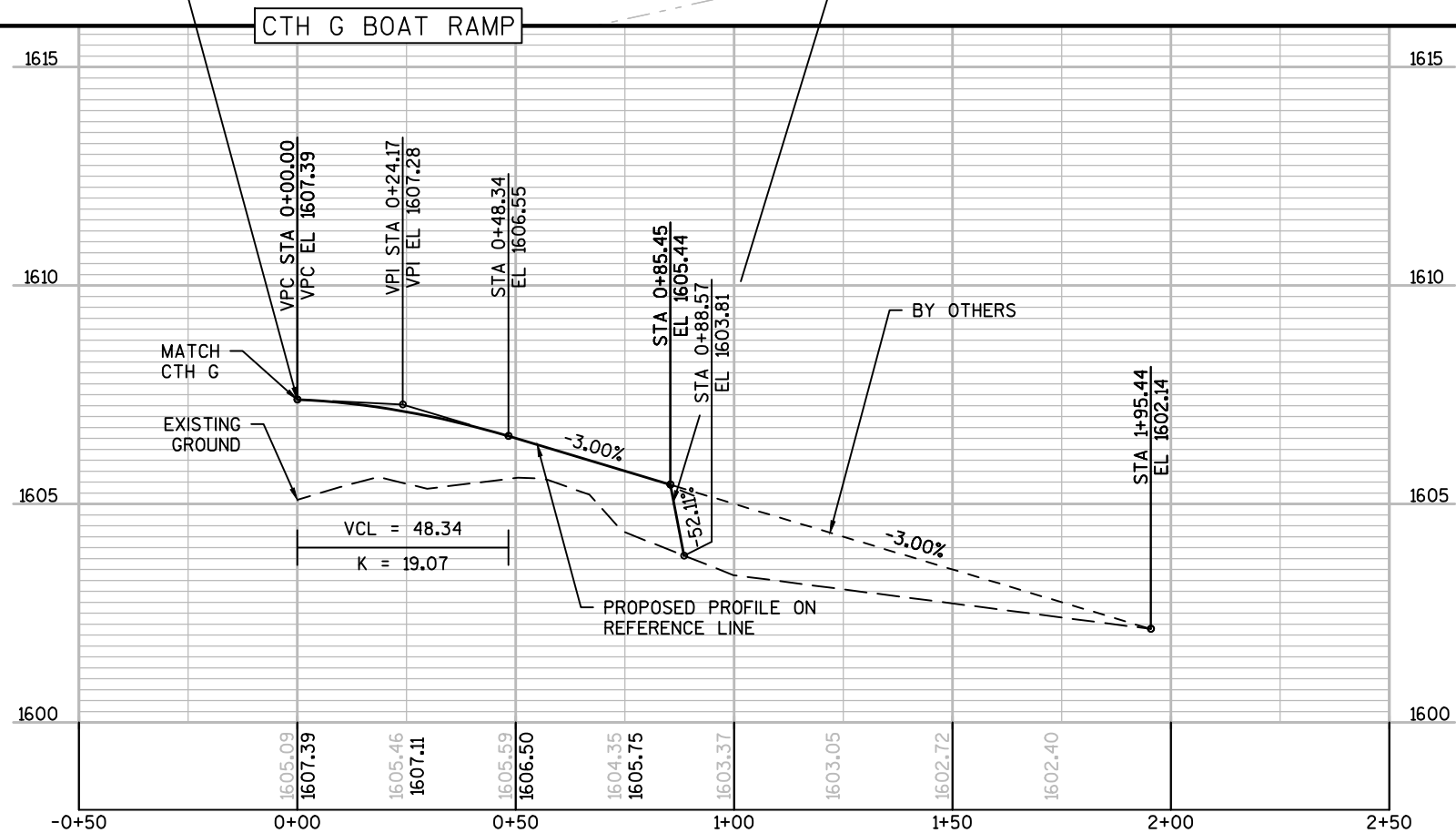
REVISION DATE	DATE <u>2/27/18</u>	SCALE, FEET	HWY: CTH G	STATE R/W PROJECT NUMBER: 9352-00-00	PLAT SHEET 4.02
	GRID FACTOR N/A	0 25 50	COUNTY: IRON	CONSTRUCTION PROJECT NUMBER: 9352-00-70	PS&E SHEET

5

5



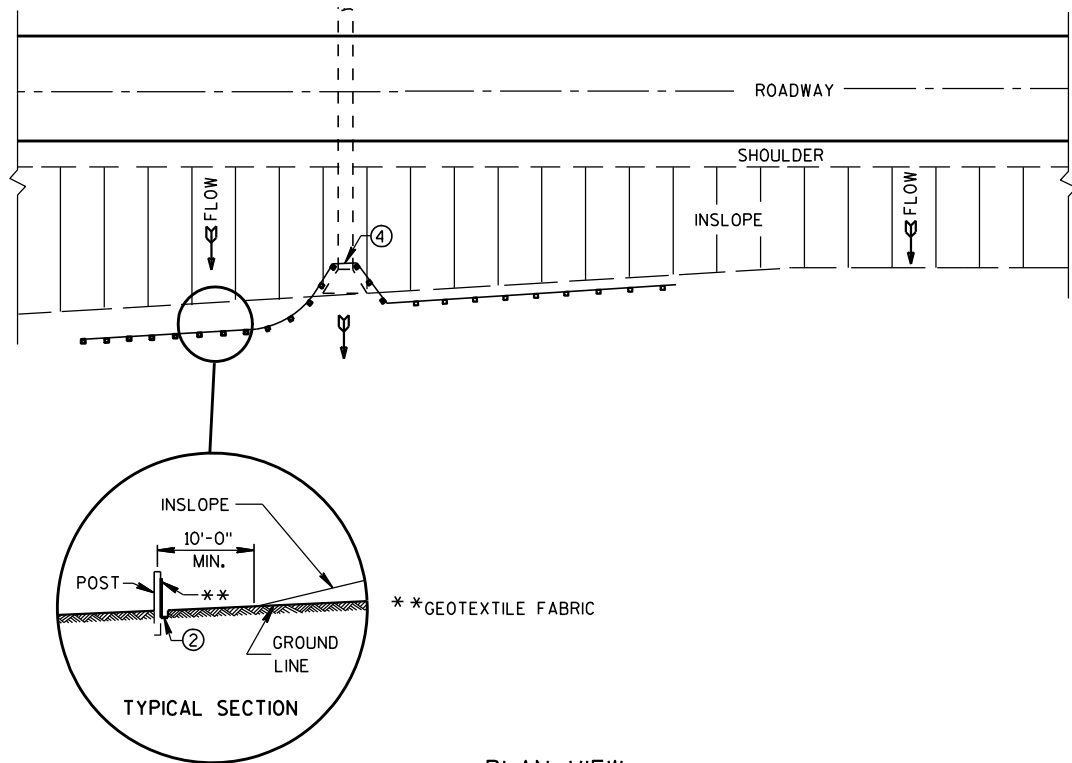
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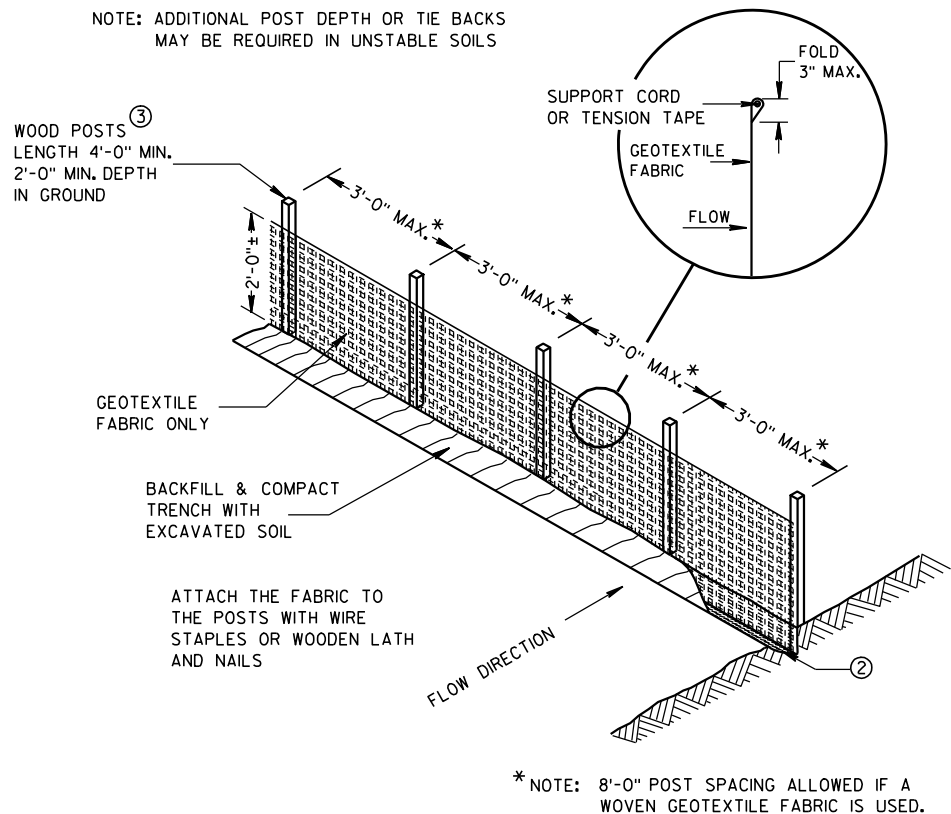
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES

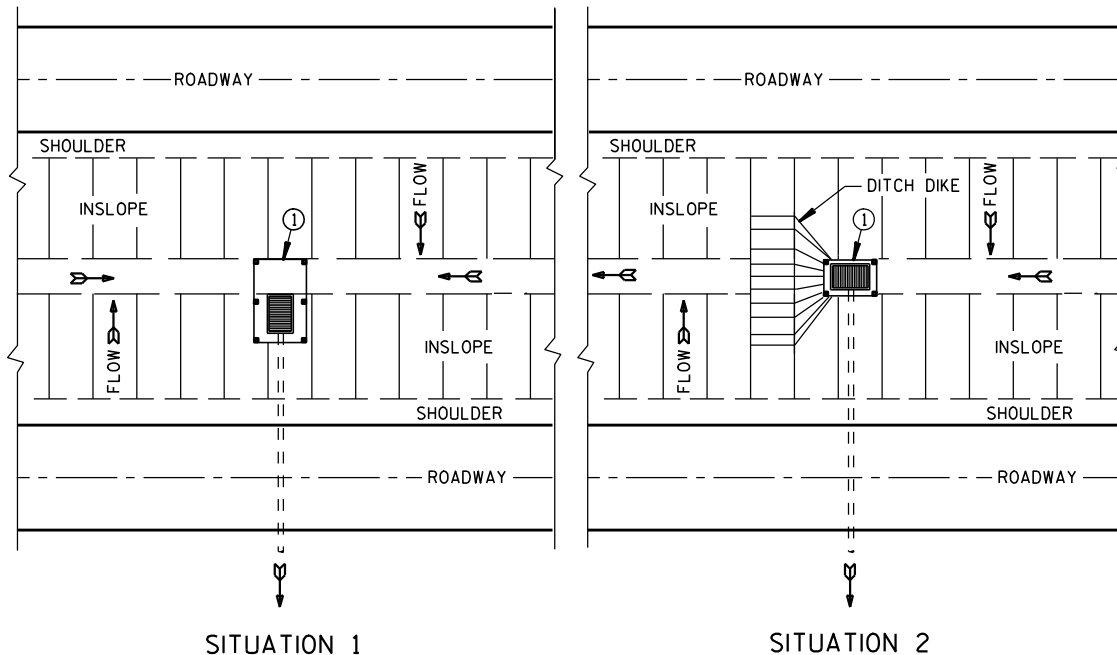




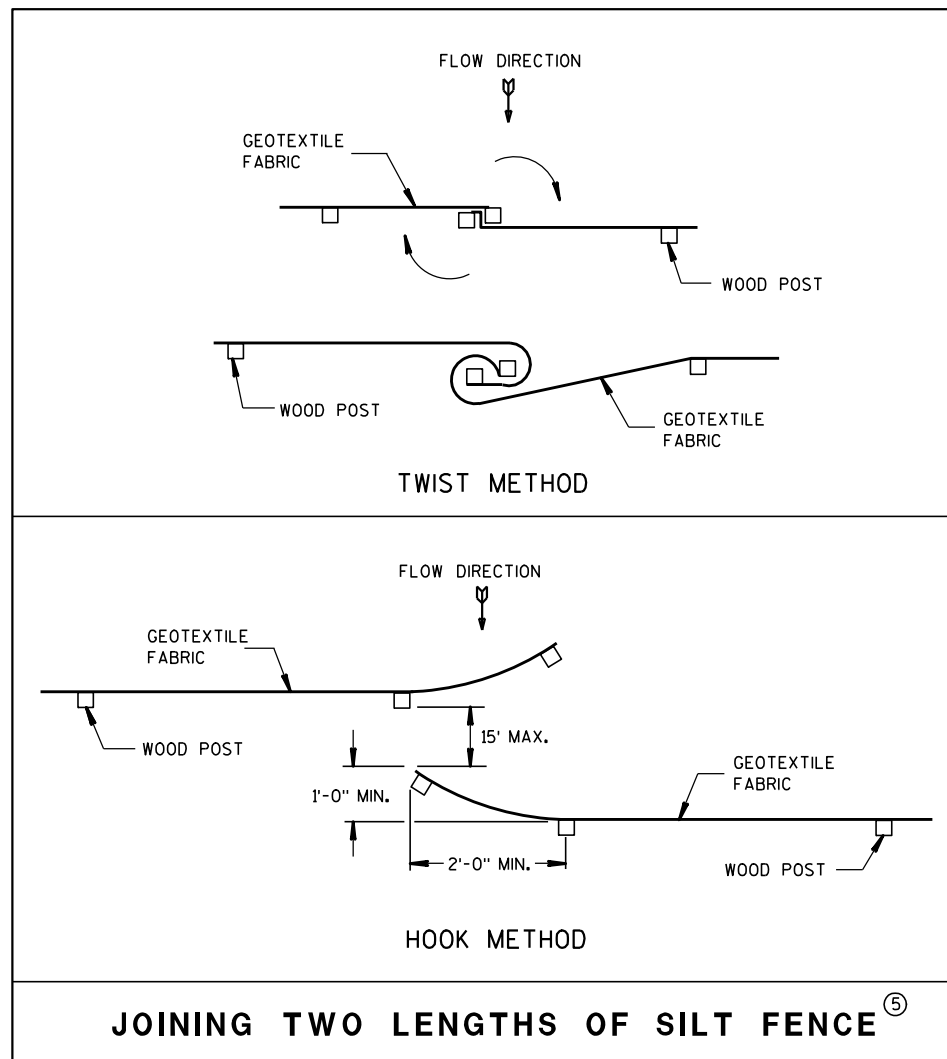
PLAN VIEW  
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW  
SILT FENCE AT MEDIAN SURFACE DRAINS

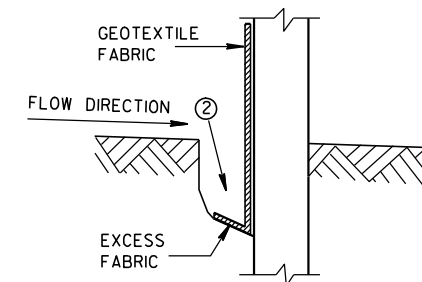


JOINING TWO LENGTHS OF SILT FENCE ⑤

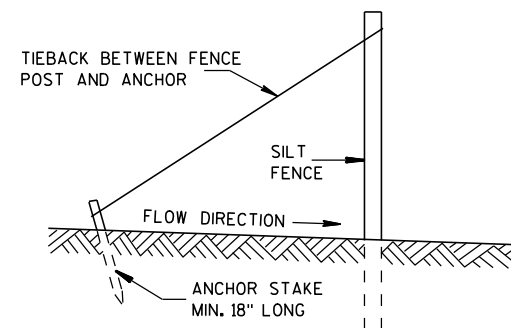
GENERAL NOTES

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 1 1/8" X 1 1/8" 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.

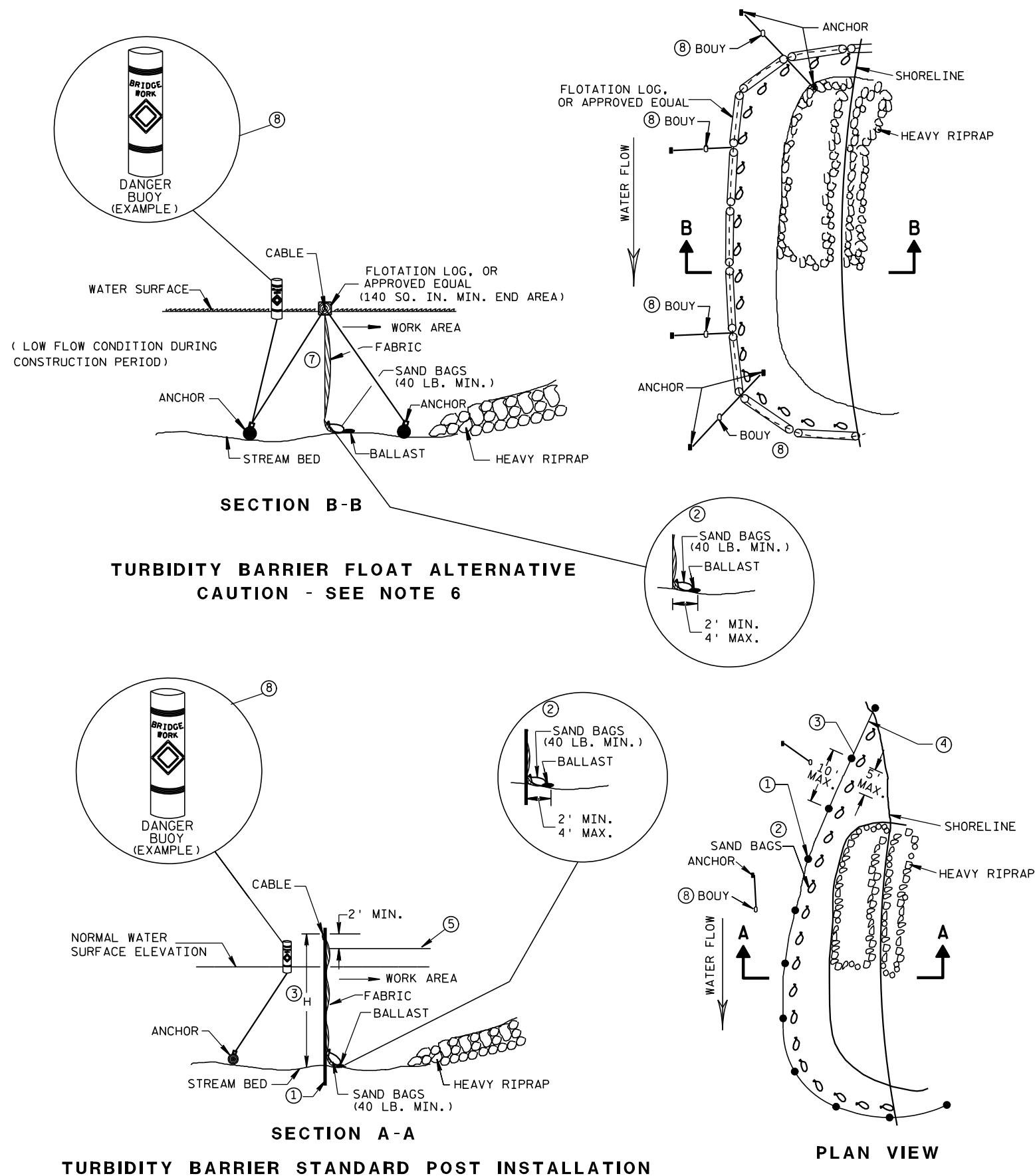


TRENCH DETAIL



SILT FENCE TIE BACK  
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

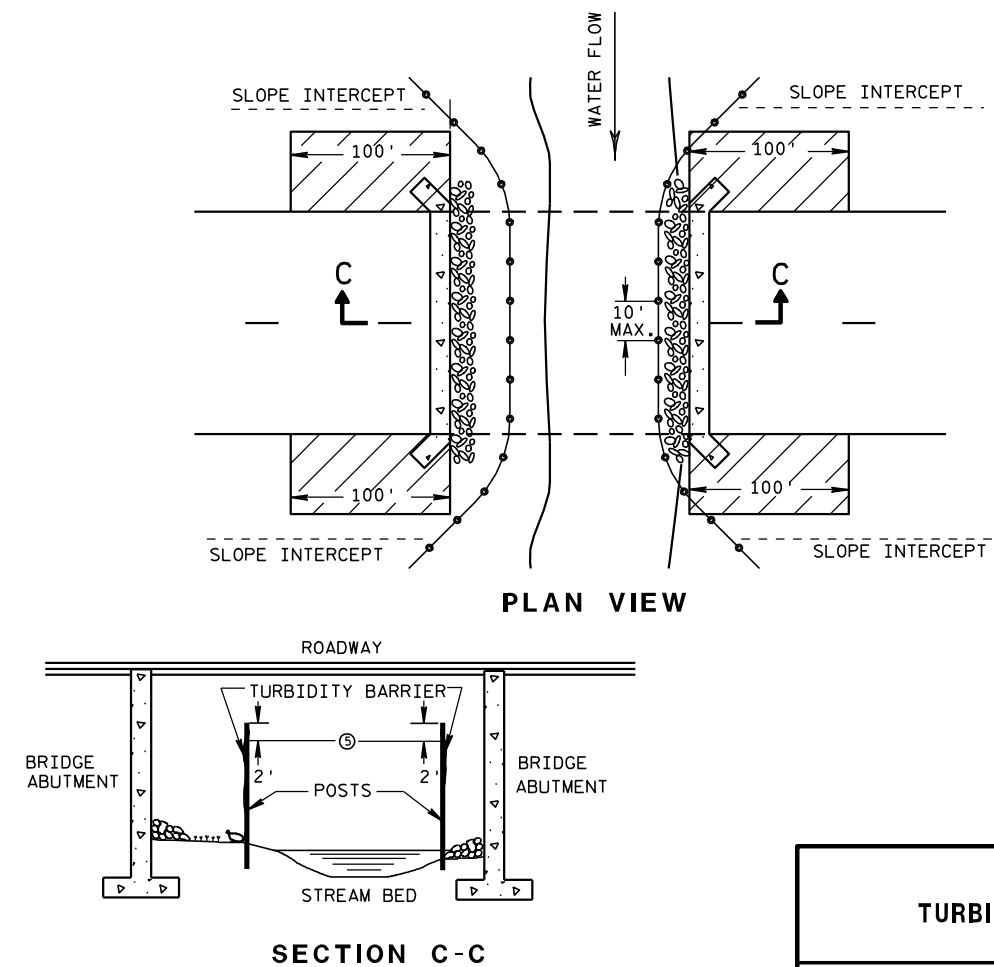


## GENERAL NOTES

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

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

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



## TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

### TURBIDITY BARRIER

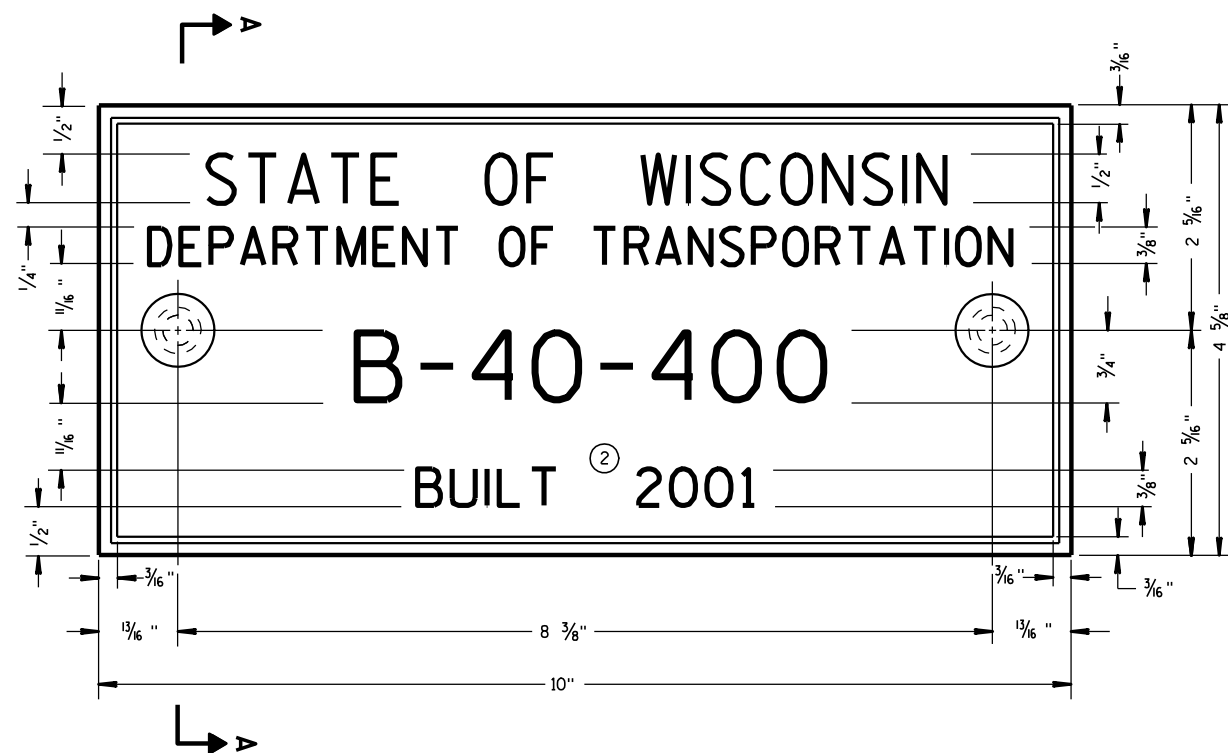
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

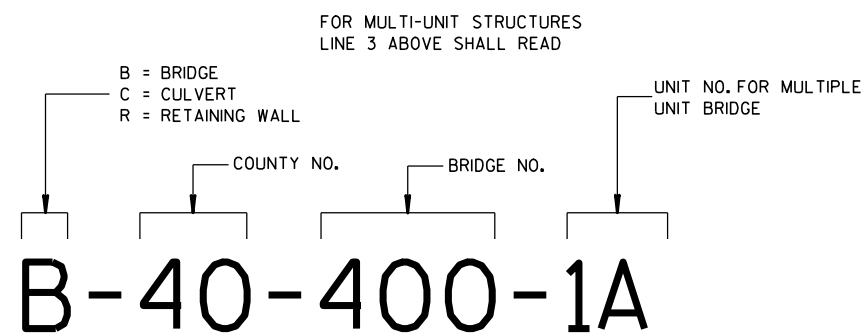
6/04/02  
DATE

FHWA

/S/ Beth Canestra  
CHIEF ROADWAY DEVELOPMENT ENGINEER



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



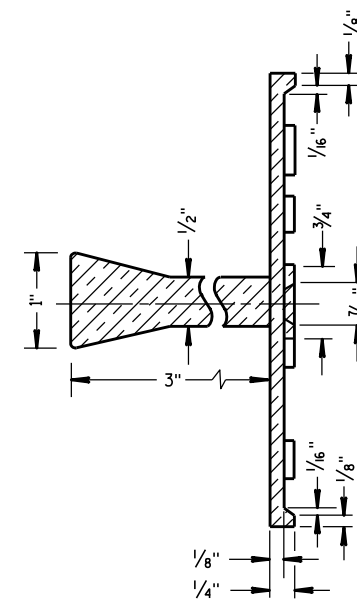
**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

## GENERAL NOTES

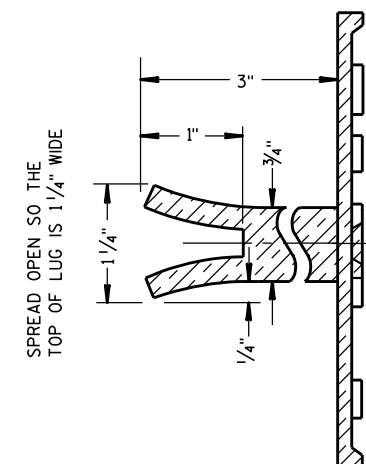
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

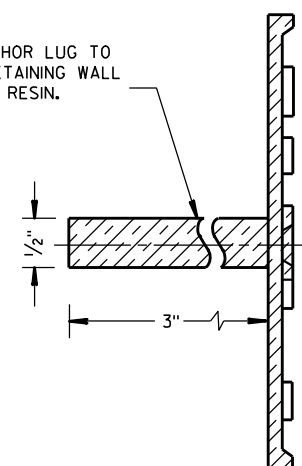


**SECTION A-A**



**ALTERNATE LUG**

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



**ALTERNATE LUG**  
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE  
(STRUCTURES)**

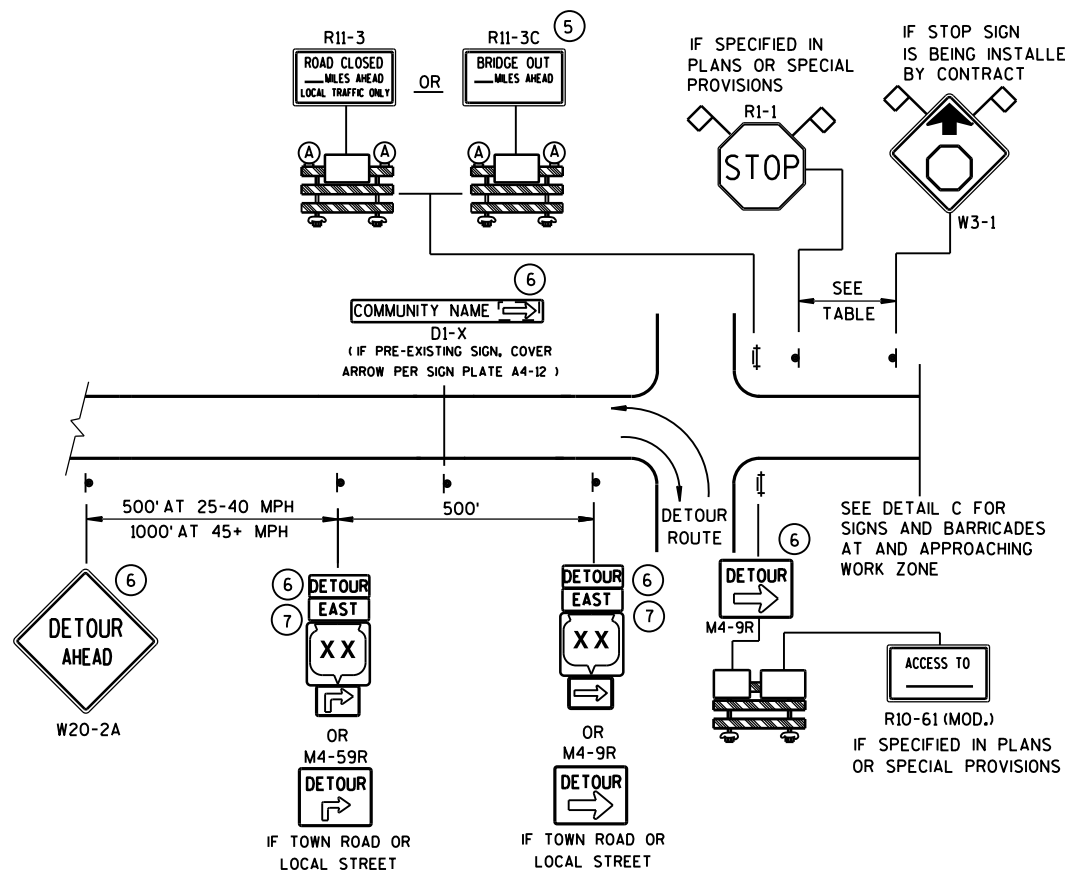
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10  
DATE

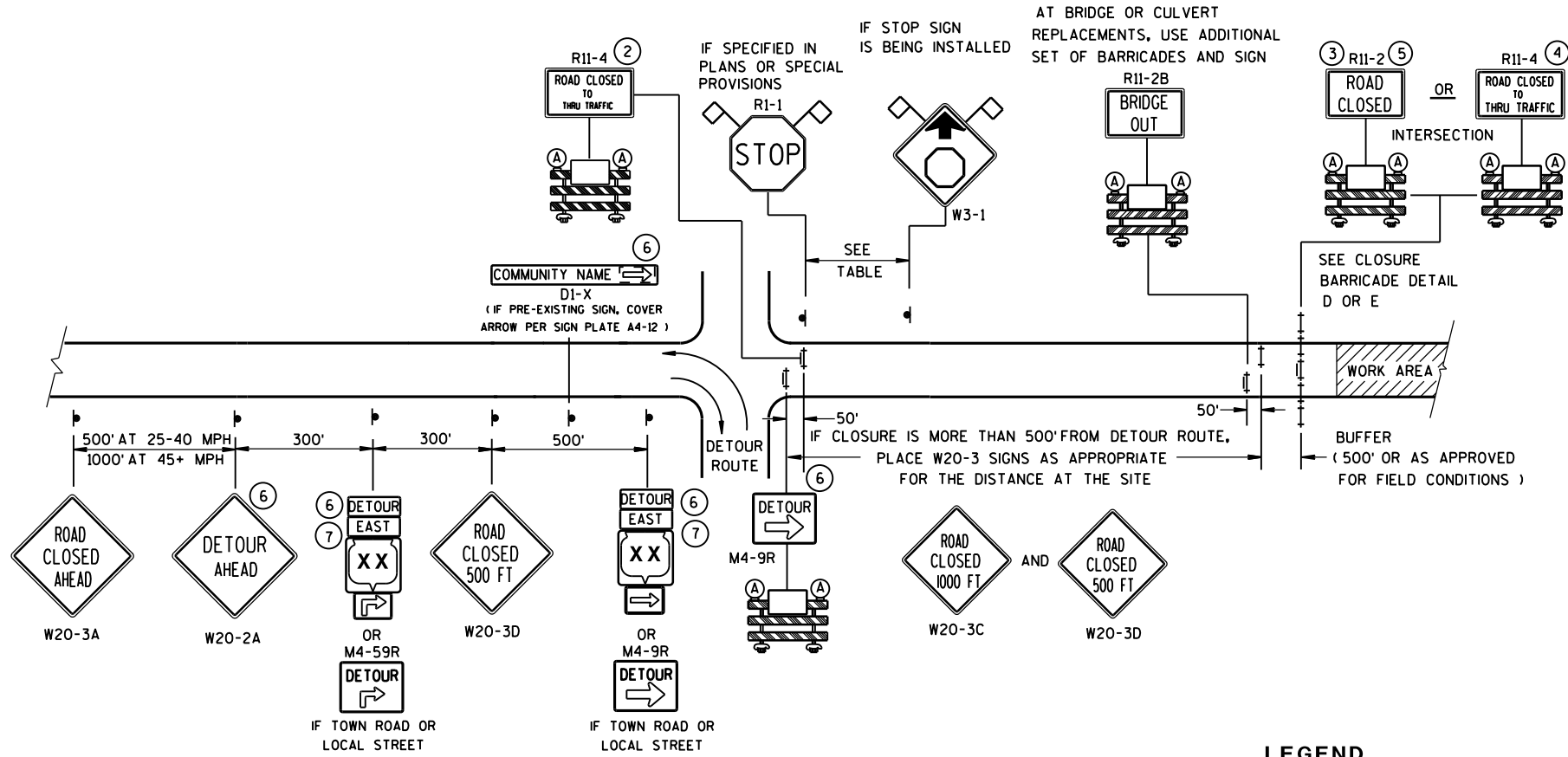
FHWA

/S/ Scot Becker  
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



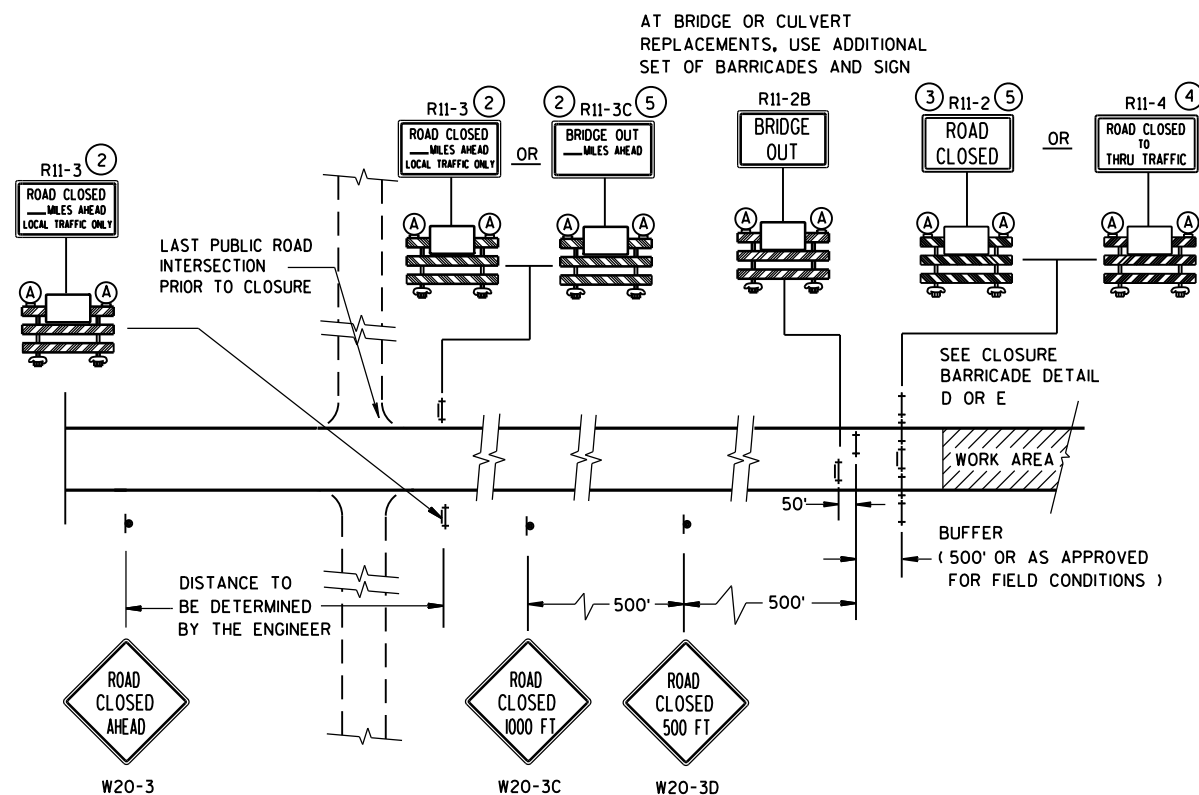
DETAIL A  
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B  
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C  
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

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

WORK AREA

DETOUR EAST M4-8 M3-X  
XX OR COUNTY XX OR XX  
M1-4 M1-5A M1-6

M05-1 OR M06-1

FLAGS, 16" X 16" MIN., (ORANGE)

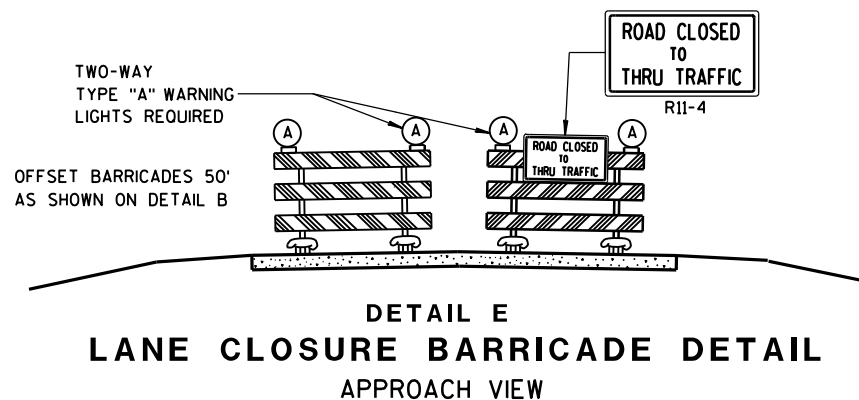
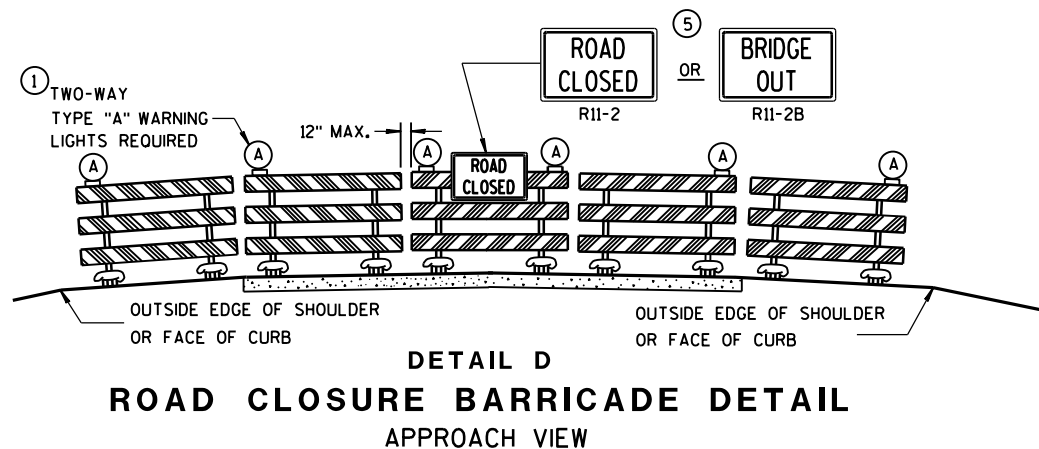
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

BARRICADES AND SIGNS  
FOR  
MAINLINE CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

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



SEE SDD 15C2-SHEET "a" FOR LEGEND

## GENERAL NOTES

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

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

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

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

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

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

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

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

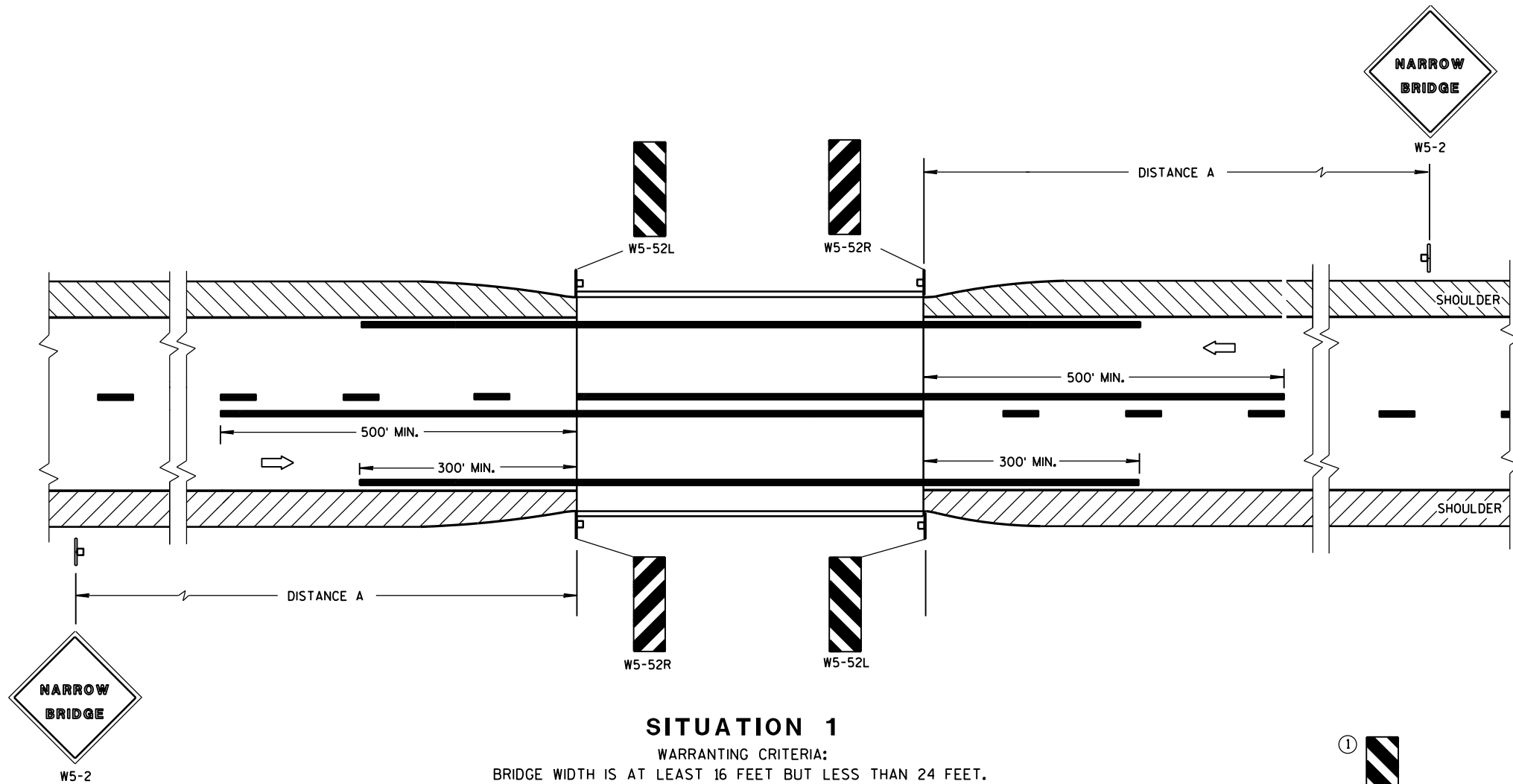
"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
Sept. 2015 DATE	/S/ Peter Amokobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



### 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

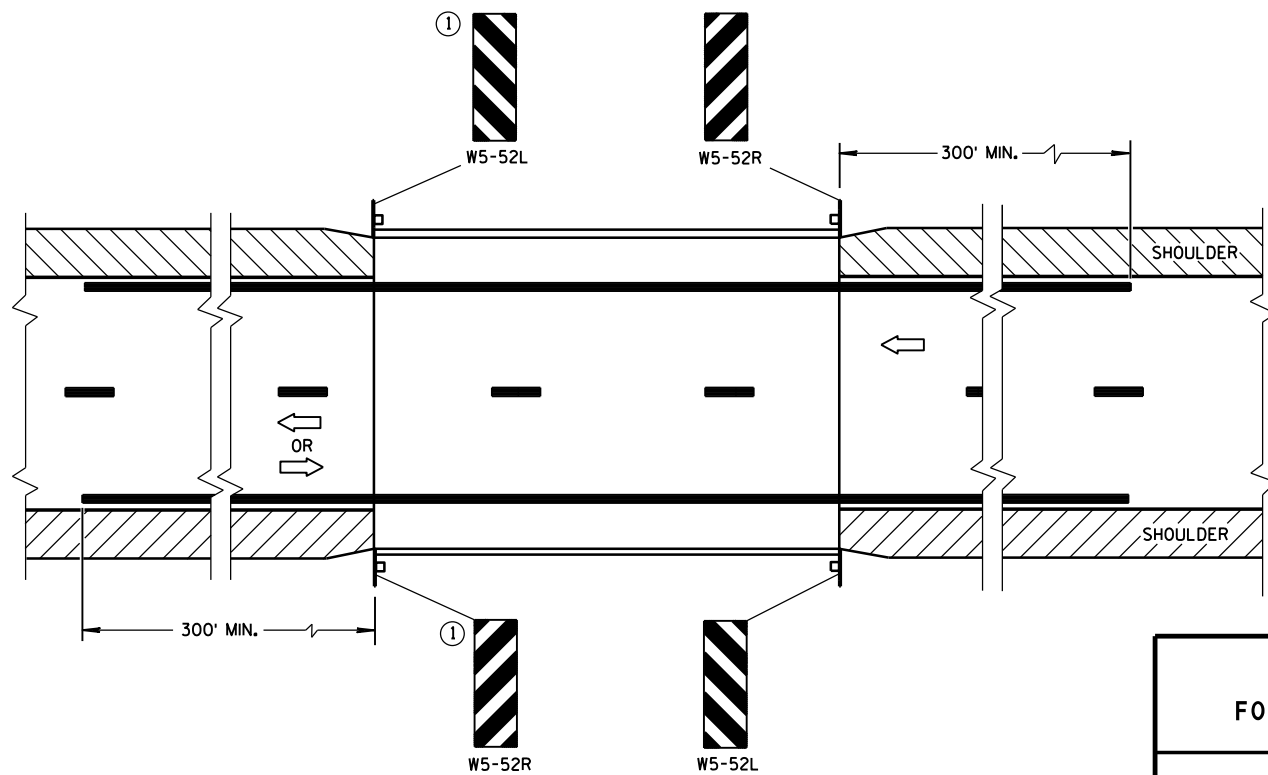
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

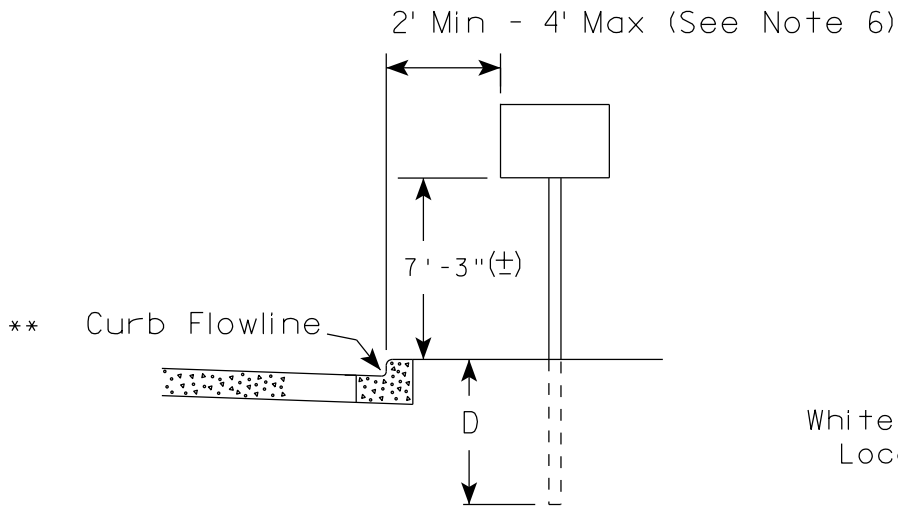
APPROVED

June 2017  
DATE

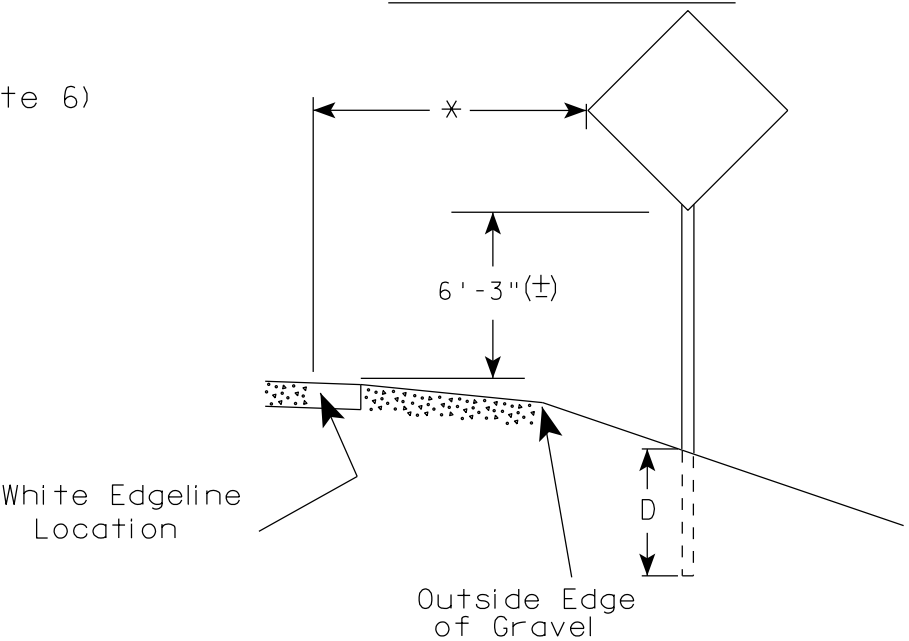
/S/ Matthew R. Rauch  
STATE SIGNING AND MARKING ENGINEER

FHWA

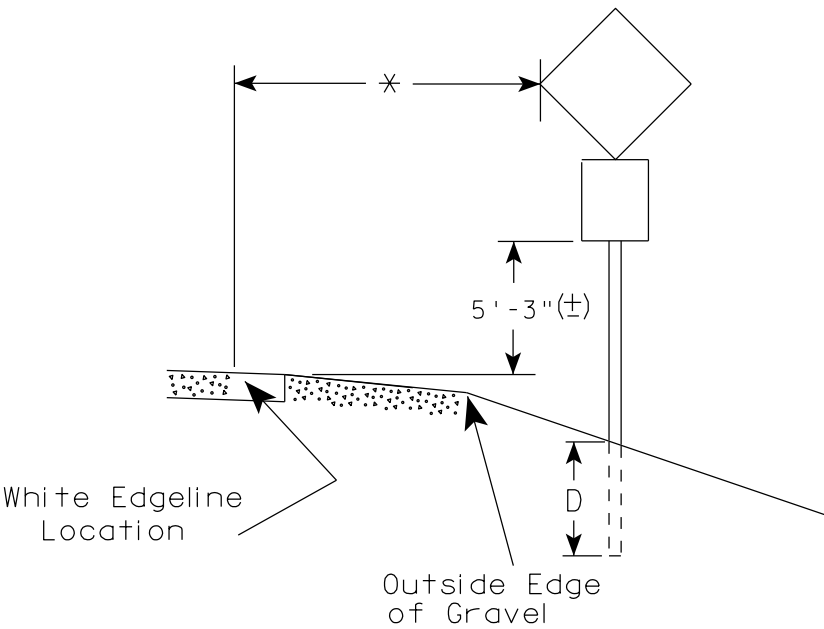
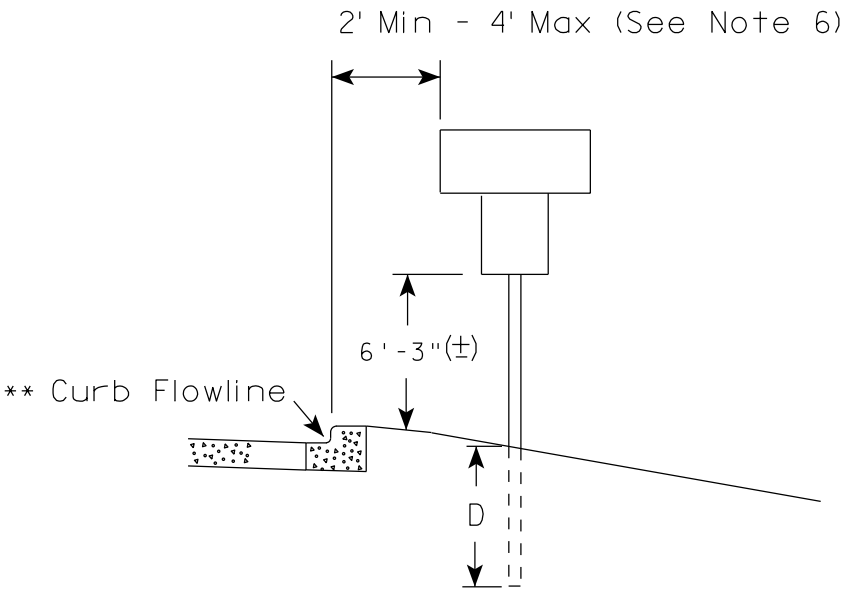
URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
  2. If signs are mounted on barrier wall, see A4-10 sign plate.
  3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
  4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
  5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
  6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
  7. The (±) tolerance for mounting height is 3 inches.
  8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
  9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).



POST EMBEDMENT DEPTH

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

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

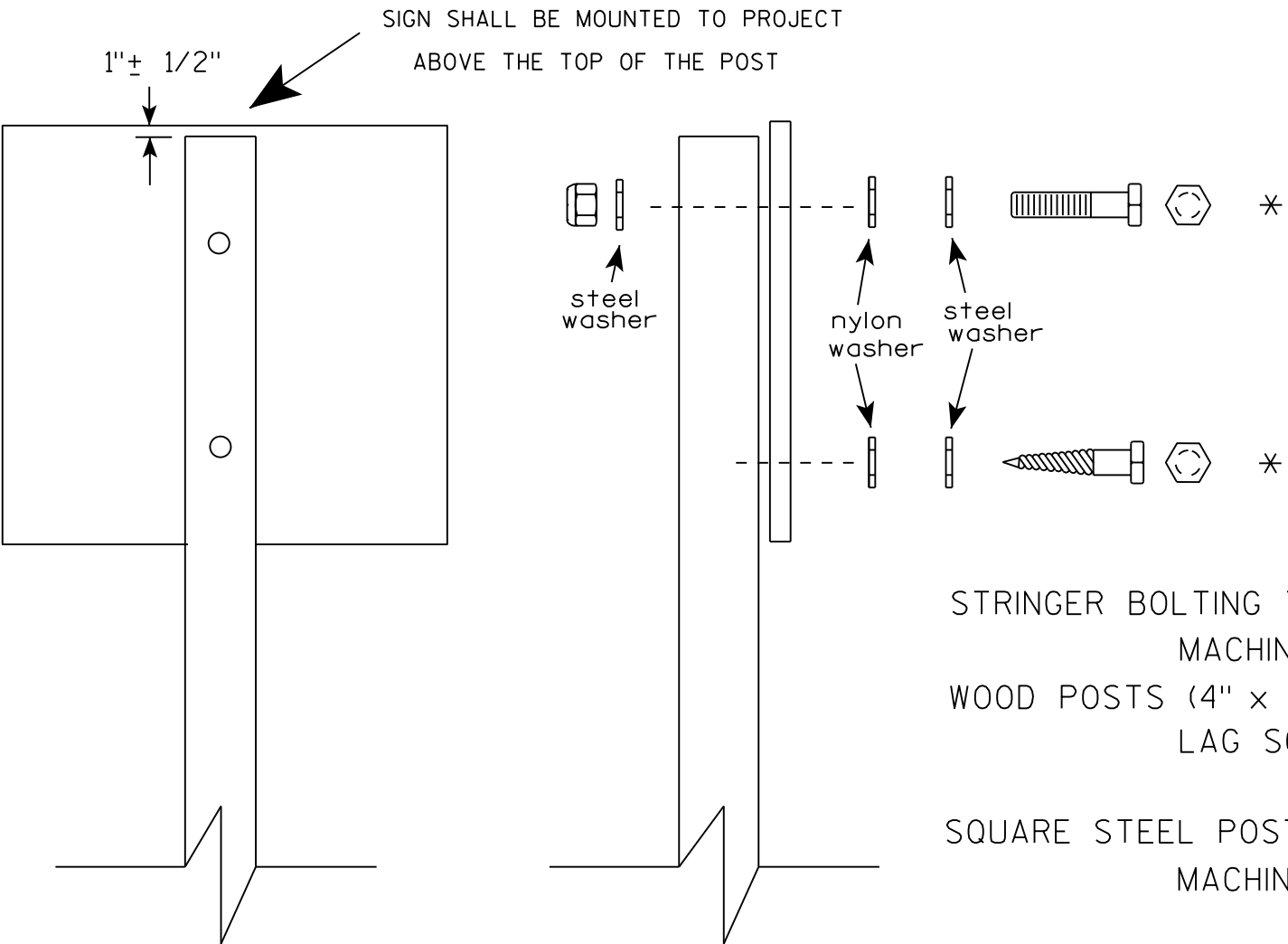
\* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION  
OF PERMANENT TYPE II  
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED  
*Matthew R. Rauch*  
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20



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.

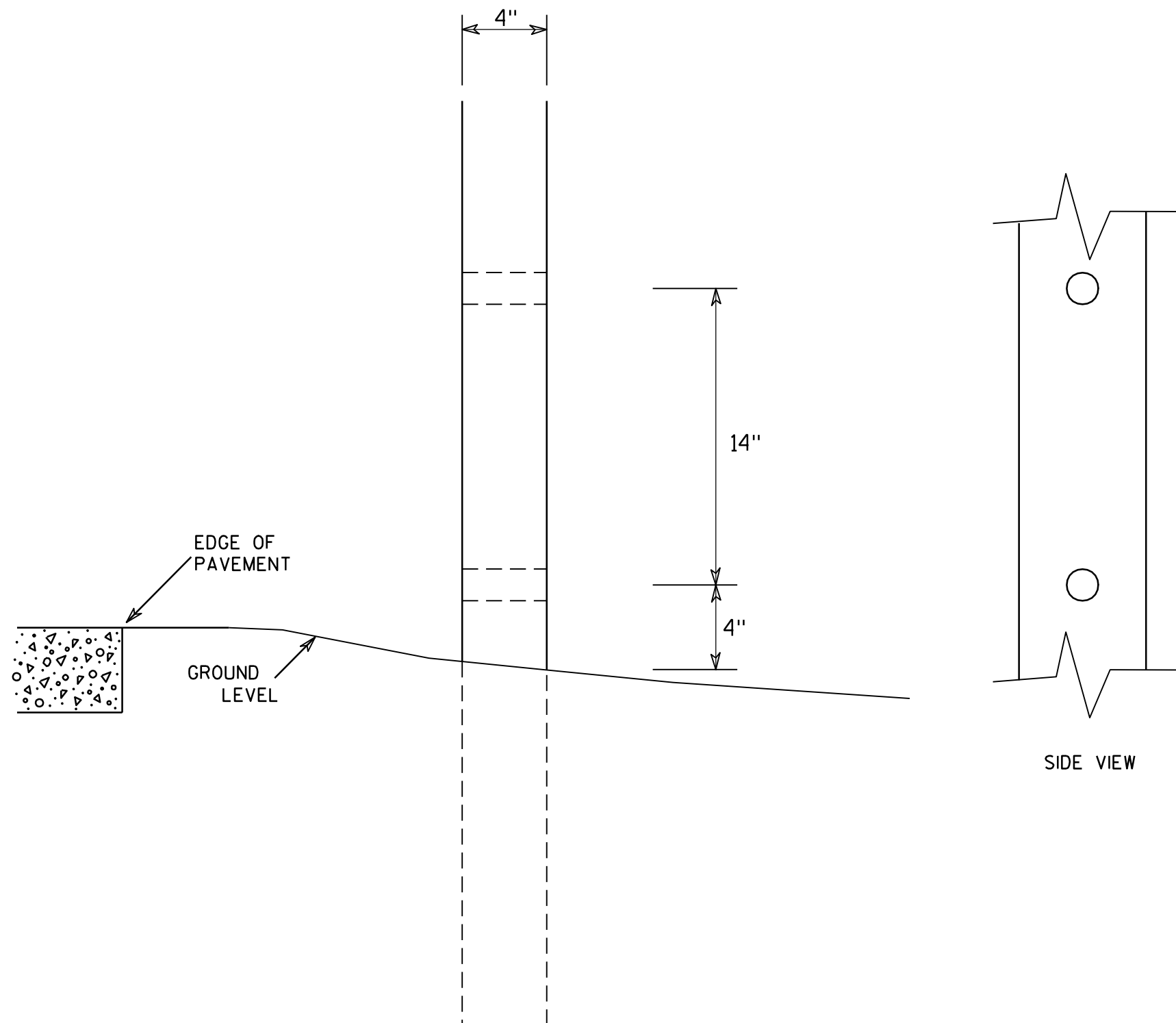
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
  - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8



7



### GENERAL NOTES

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

7

### 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

*Chester J. Spang*  
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

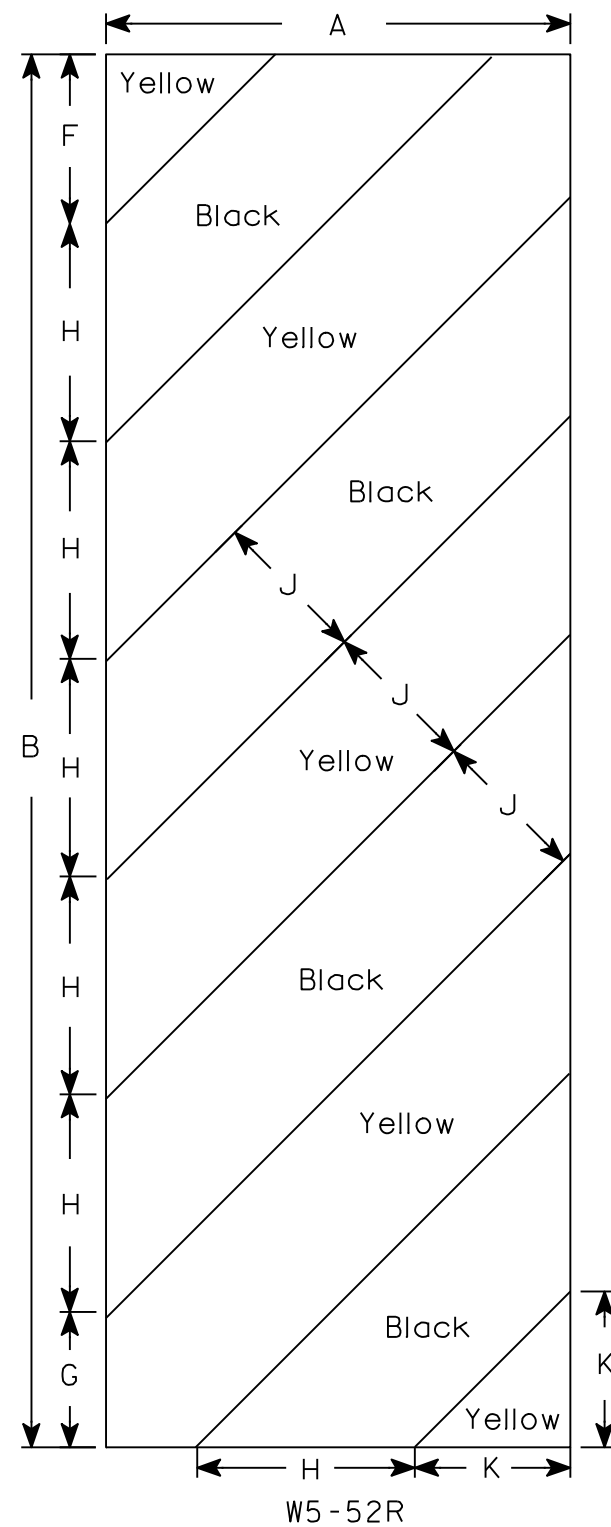
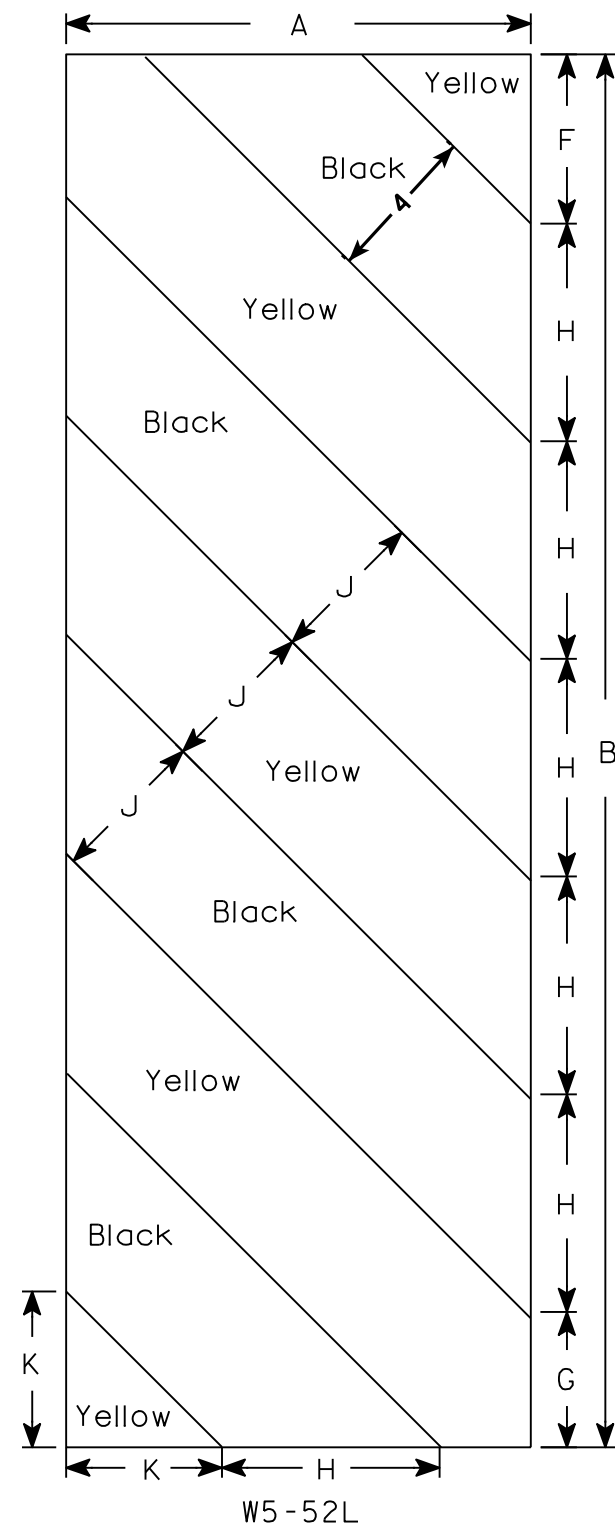
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

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

STANDARD SIGN  
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

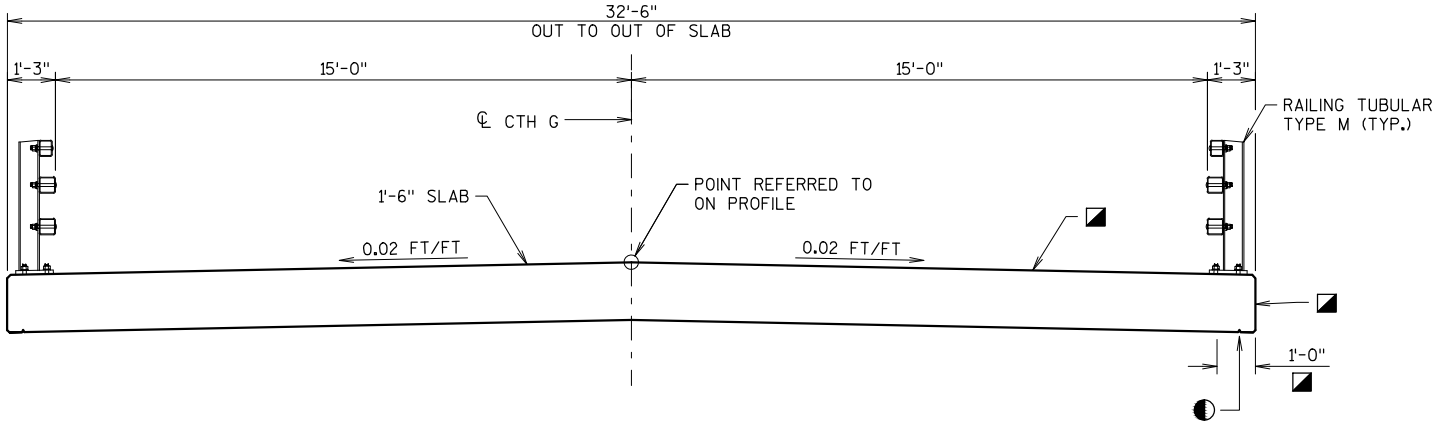
APPROVED *Matthew R. Rauch*  
for State Traffic Engineer

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



GENERAL NOTES

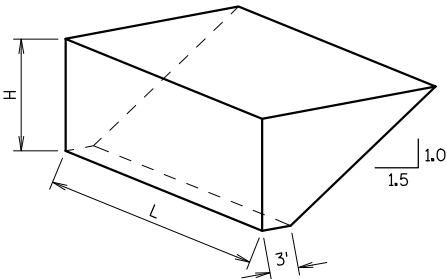
- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
- THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
- JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE I, II OR III OR AASHTO DESIGNATION M213.
- 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, OR AS DIRECTED BY THE ENGINEER.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-26-35" SHALL BE THE EXISTING GROUND LINE.
- SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.
- THE EXISTING STRUCTURE P-26-913, TO BE REMOVED, IS A TWIN 114-INCH METAL CULVERT PIPE, 23.5 FT. LONG WITH A 20.0 FT. CLEAR ROADWAY WIDTH.
- THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.
- 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.



CROSS SECTION THRU BRIDGE  
(LOOKING NORTH)

LEGEND

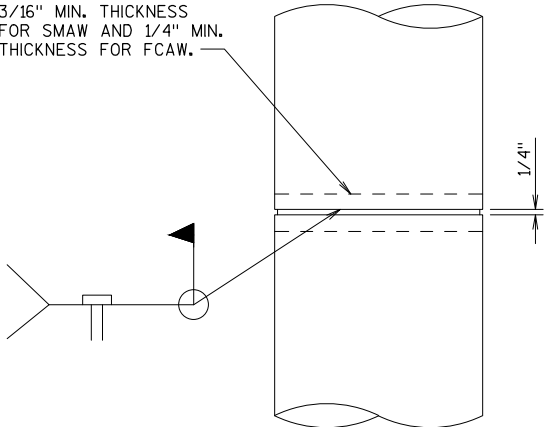
- 3/4" V-GROOVE REQ'D. EXTEND TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.
- COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS. PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE TOP AND EXTERIOR EXPOSED FACE OF WINGS, AND THE END 1'-0' OF THE FRONT FACE OF ABUTMENT.



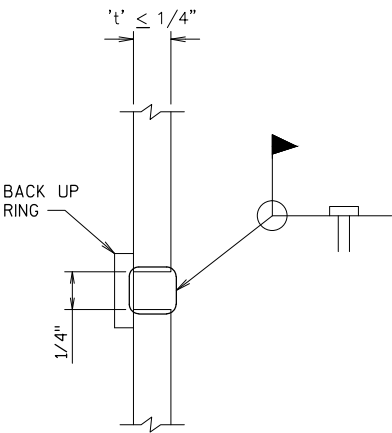
ABUTMENT BACKFILL QUANTITY DIAGRAM

L = OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT)  
H = AVERAGE ABUTMENT FILL HEIGHT (FT)  
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)  
 $V_{CF} = (L)(3.0')(H) + (L)(0.5')(1.5H)(H)$   
 $V_{CY} = V_{CF} (EF)/27$   
 $V_{TON} = V_{CY} (2.0)$

BACK UP RING.  
3/16" MIN. THICKNESS  
FOR SMAW AND 1/4" MIN.  
THICKNESS FOR FCAW.



CAST-IN-PLACE  
'PIPE PILE'

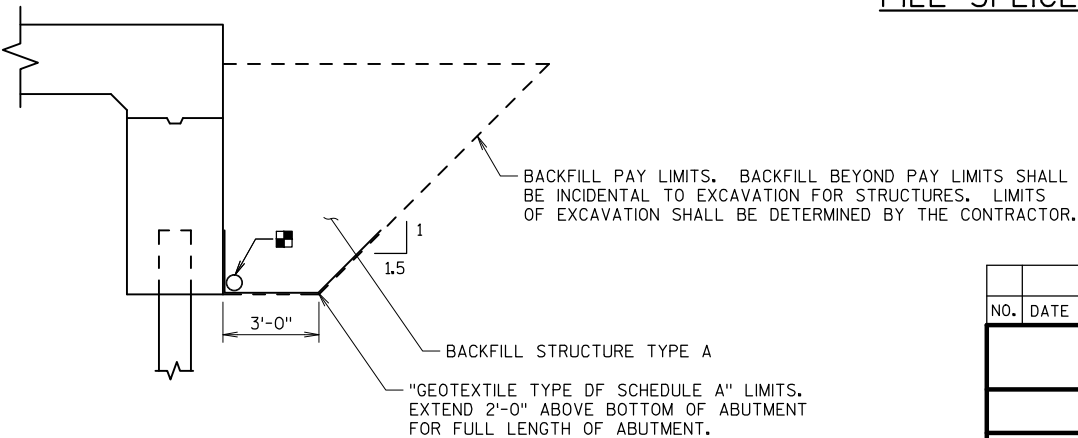


CIP PILE WELD DETAIL

PILE SPLICE DETAILS

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	SOUTH ABUT.	NORTH ABUT.	SUPER	TOTALS
203.0500.S	REMOVING STRUCTURE OVER WATERWAY STATION 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-26-35	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	125	125	-----	250
502.0100	CONCRETE MASONRY BRIDGES	CY	31	31	64	126
502.3200	PROTECTIVE SURFACE TREATMENT	SY	7	7	135	149
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,030	2,030	-----	4,060
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,360	1,360	12,500	15,220
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-----	20
513.4061	RAILING TUBULAR TYPE M B-26-35	LF	-----	-----	-----	110
550.2104	CIP CONCRETE 10 3/4 X 0.25-INCH	LF	175	200	-----	375
606.0300	RIPRAP HEAVY	CY	205	155	-----	360
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	95	-----	190
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	26	26	-----	52
645.0120	GEOTEXTILE TYPE HR	SY	285	210	-----	495
NON-BID ITEMS						
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"



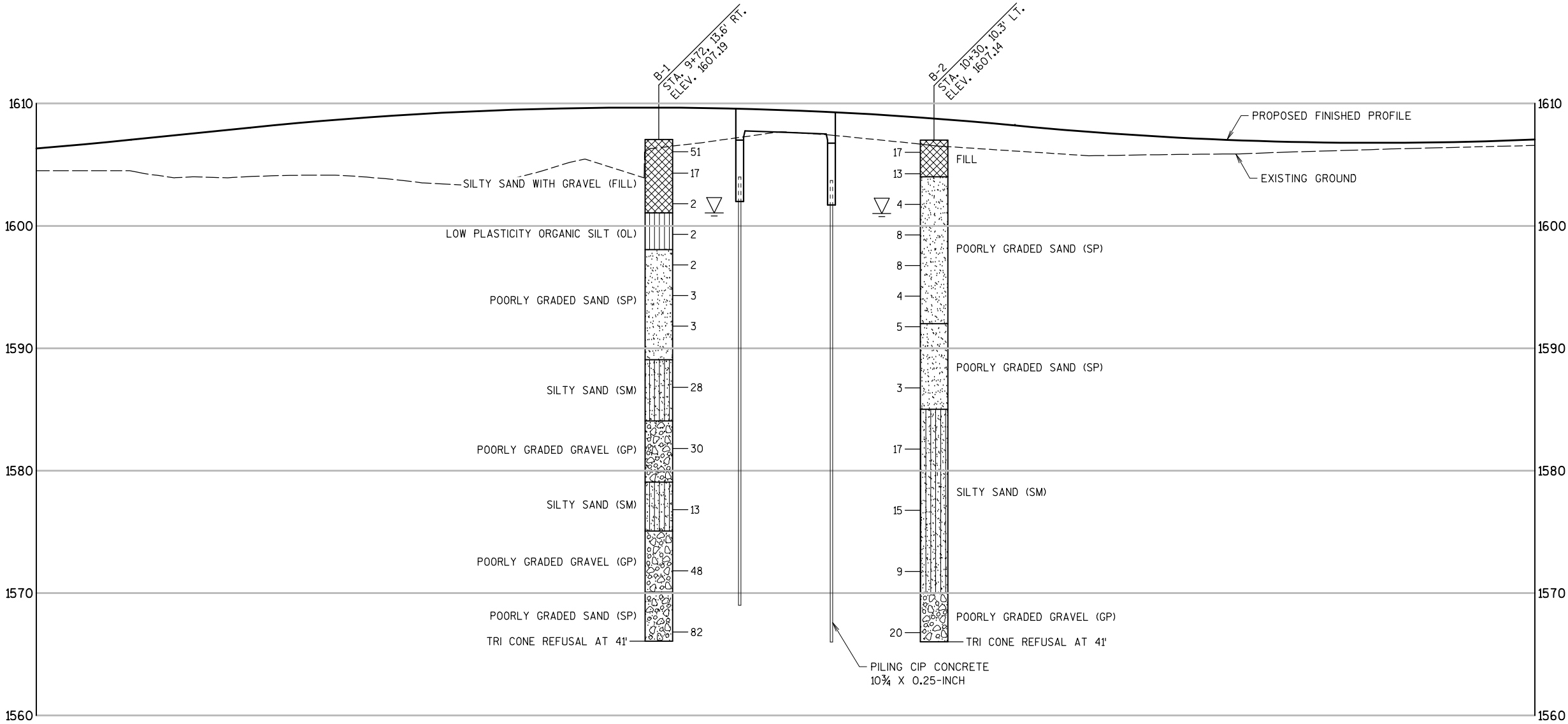
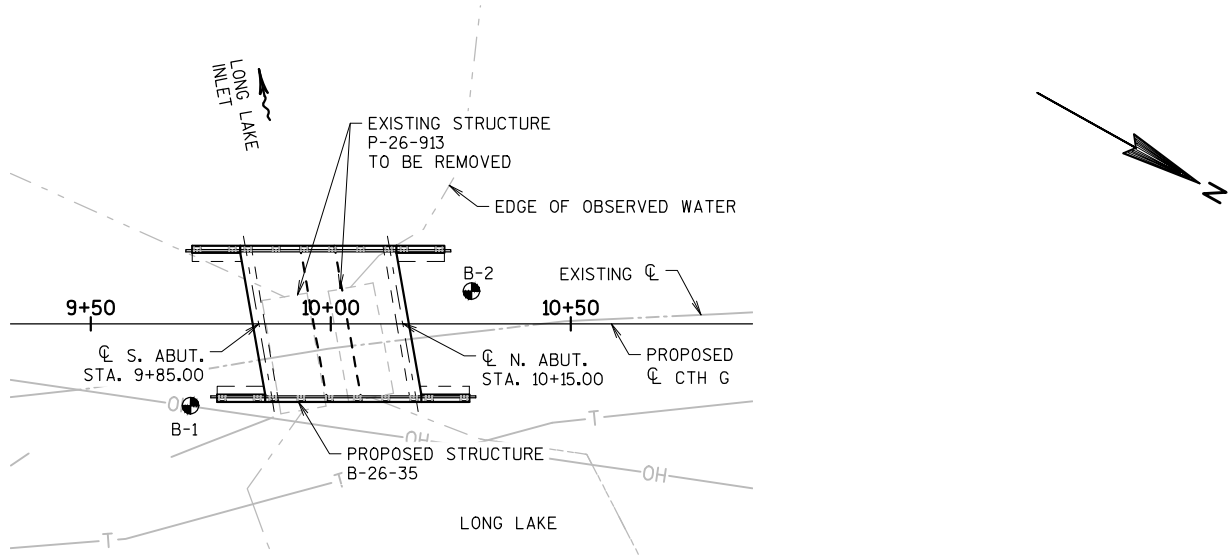
STRUCTURE BACKFILL LIMITS

- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY PKF		PLANS CK'D. ETP	
TYPICAL SECTION & QUANTITIES			SHEET 2 OF 10

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	DECEMBER 15, 2015	296055.434	781973.396
2	DECEMBER 16, 2015	296016.021	782022.761
BORINGS COMPLETED BY: TWIN PORTS TESTING			
REPORT COMPLETED BY: TWIN PORTS TESTING			
ALL COORDINATES REFERENCED TO WCCS NAD 83(9) IRON COUNTY			



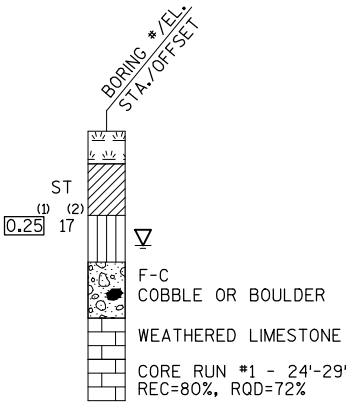
STATE PROJECT NUMBER

9352-00-70

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

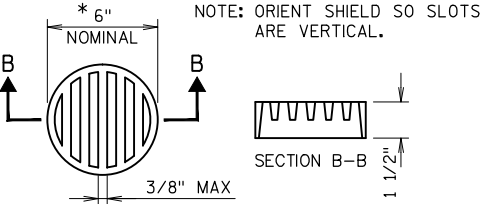
BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT 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-26-35			
DRAWN BY PKF		PLANS CK'D. ETP	
SUBSURFACE EXPLORATION		SHEET 3 OF 10	

LEGEND

- INDICATES WING NUMBER
- (A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".
- (A09) ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾" X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 115\* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A22) A510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE  
F.F. DENOTES FRONT FACE

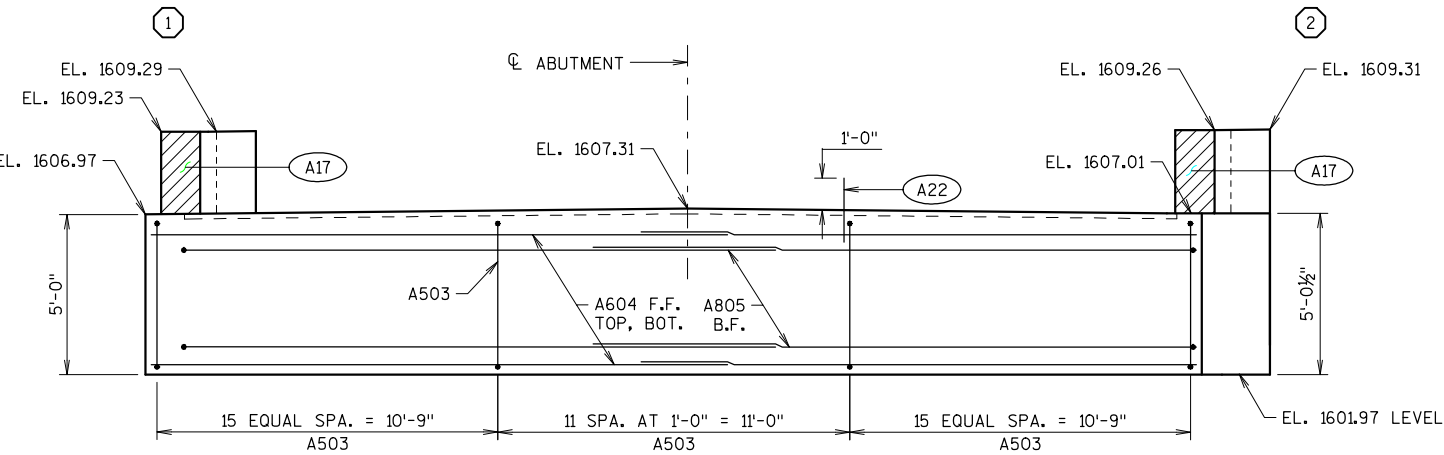


\* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

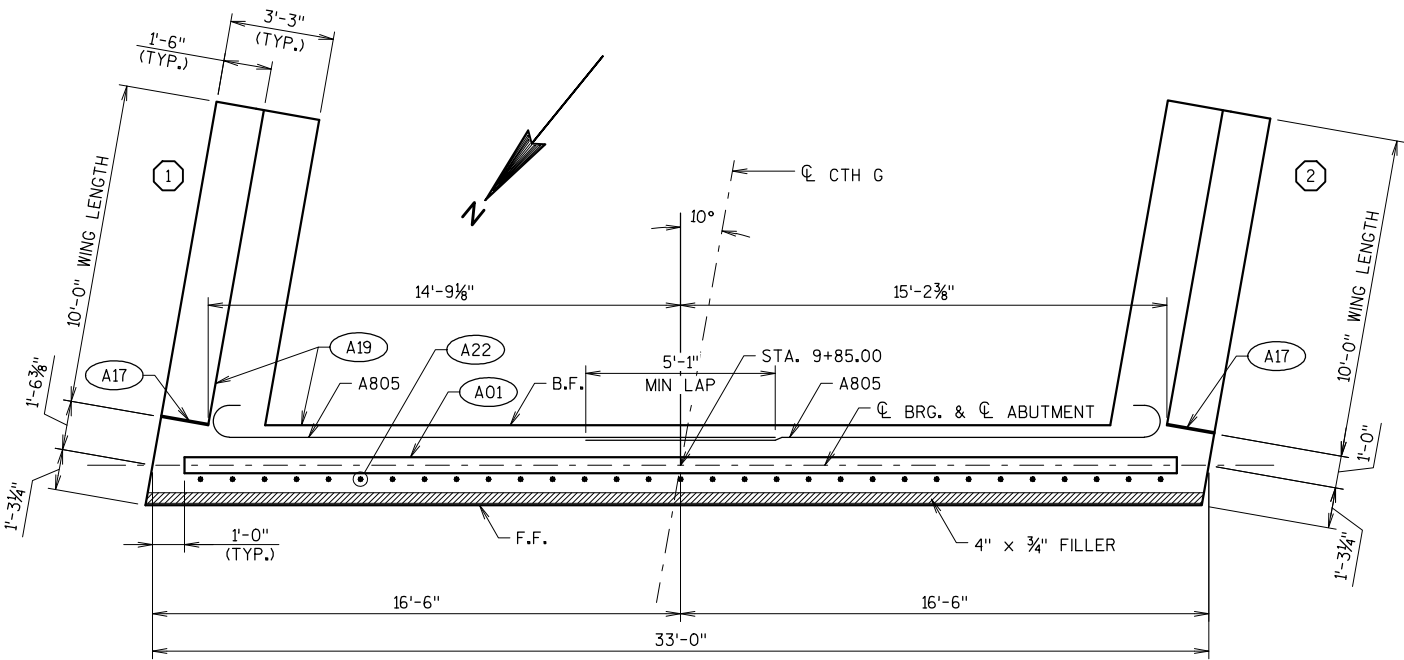
RODENT SHIELD DETAIL

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

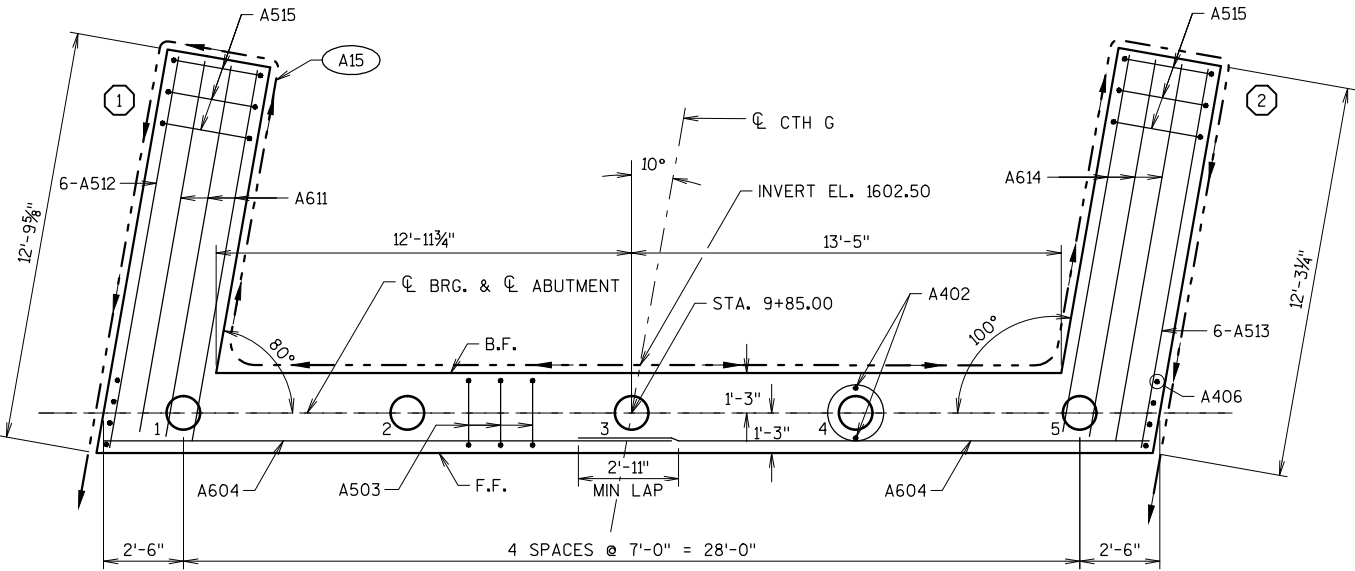
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL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



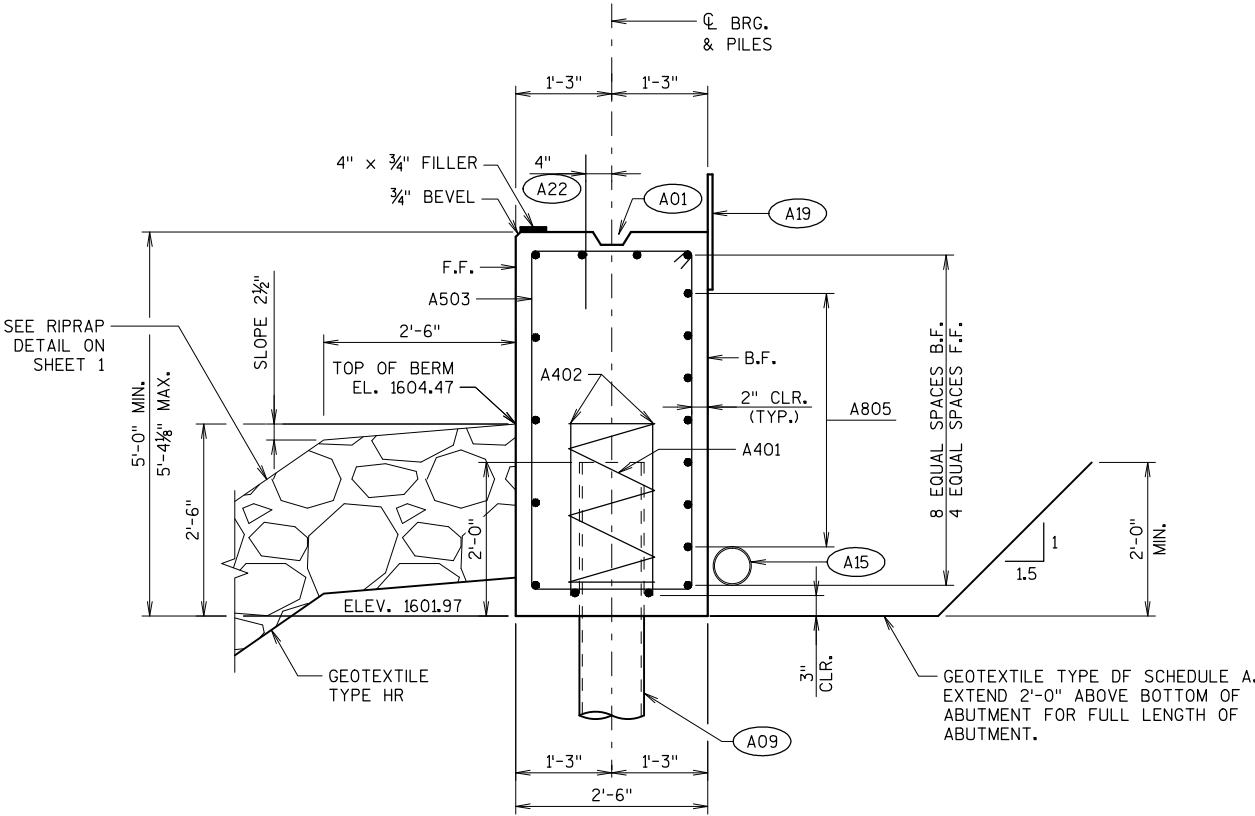
ELEVATION  
(LOOKING SOUTH)



PLAN



PILE PLAN



SECTION THRU BODY

HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE A604 BARS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY PKF		PLANS ETP CK'D.	
SOUTH ABUTMENT		SHEET 4 OF 10	



BILL OF BARS - SOUTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

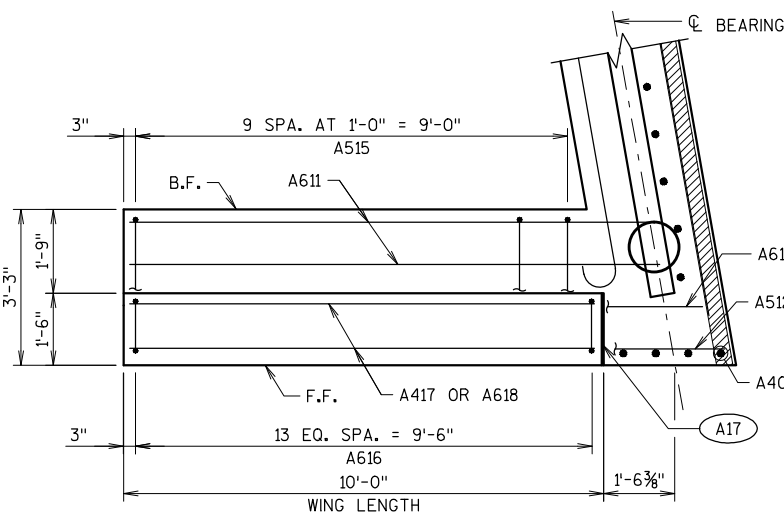
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 2,030 LBS
A401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE VERT.
A402	10	2'-3"			BODY - AT PILES - 2 PER PILE VERT.
A503	42	13'-10"	X		BODY - STIRRUPS VERT.
A604	22	17'-10"			BODY - F.F. TOP, BOT. HORIZ.
A805	14	18'-6"	X		BODY - B.F. HORIZ.
A406	8	4'-7"			BODY - ABUT ENDS VERT.
COATED BARS					TOTAL WEIGHT = 1,360 LBS
A510	31	2'-0"			BODY - TOP VERT.
A611	8	11'-11"			WING 1 - B.F. & TOP HORIZ.
A512	6	12'-5"			WING 1 - F.F. HORIZ.
A513	6	11'-11"			WING 2 - F.F. HORIZ.
A614	8	11'-11"			WING 2 - B.F. & TOP HORIZ.
A515	21	15'-4"	X		WINGS 1 & 2 - STIRRUPS VERT.
A616	28	9'-3"	X		WINGS 1 & 2 VERT.
A417	10	9'-8"			WINGS 1 & 2 - B.F. & F.F. HORIZ.
A618	4	9'-8"			WINGS 1 & 2 - TOP HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

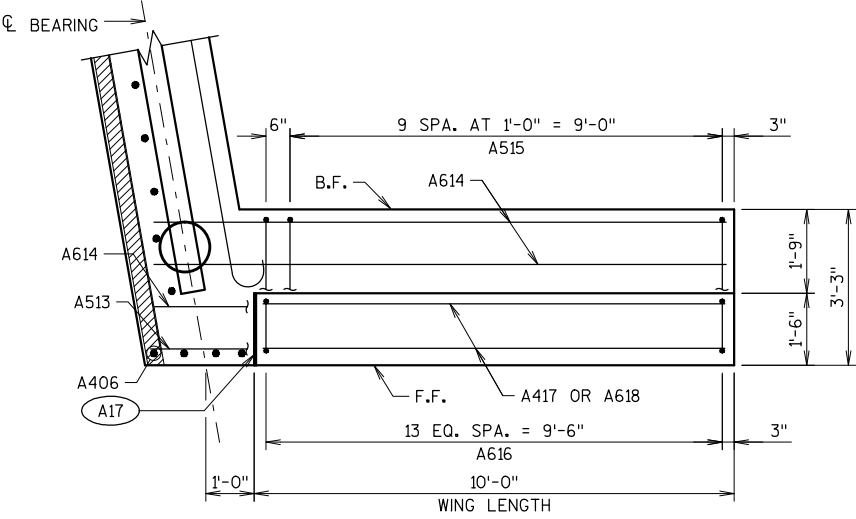
LEGEND

- (A03) OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & 3/4" "V" GROOVE AT F.F. IF JOINT IS USED).
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

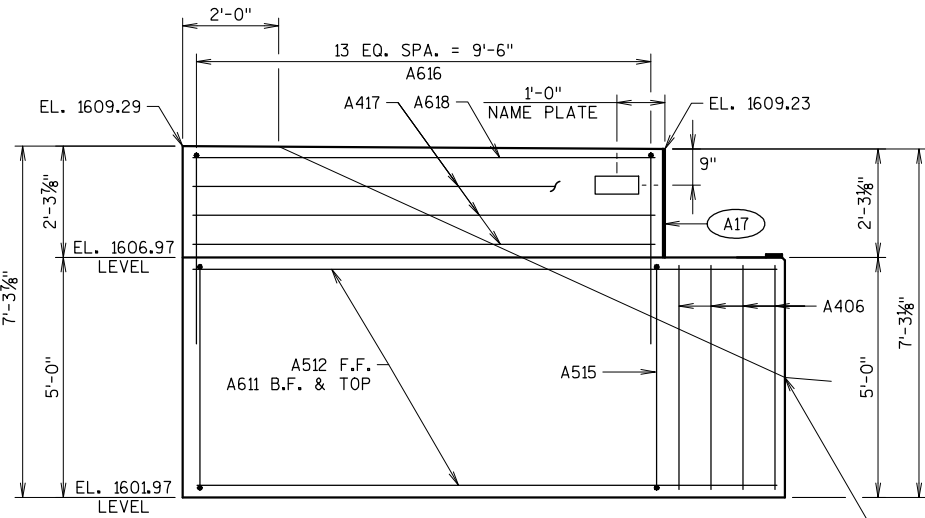
B.F. DENOTES BACK FACE  
F.F. DENOTES FRONT FACE  
\*\* MATCH SLOPE OF ROADWAY



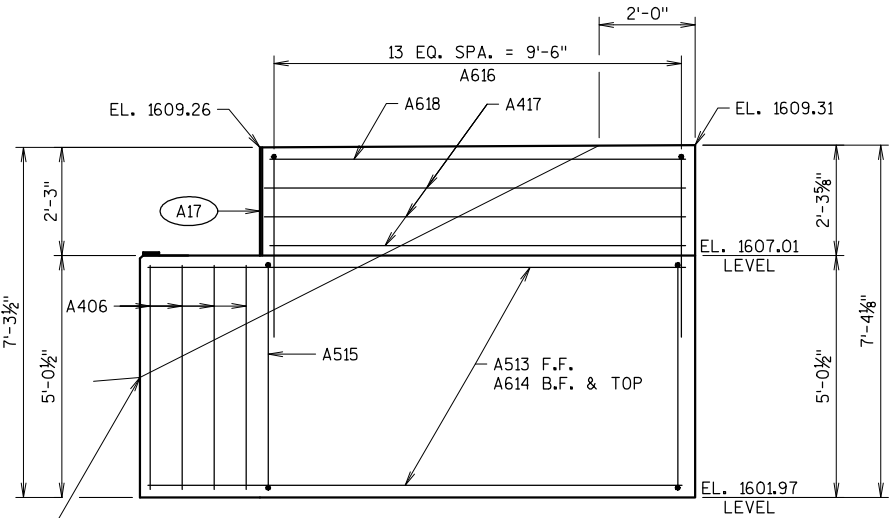
PLAN WING 1



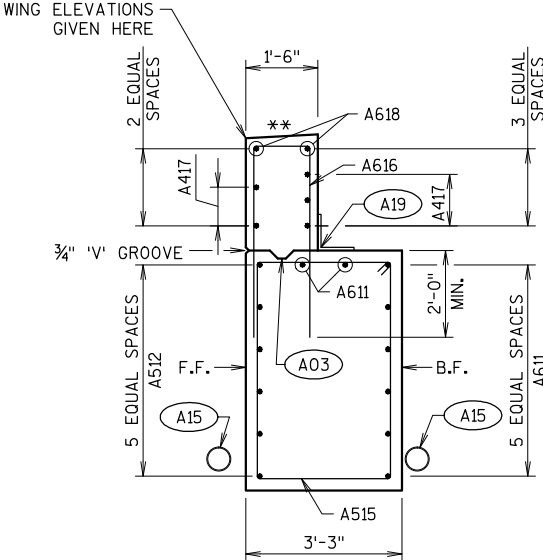
PLAN WING 2



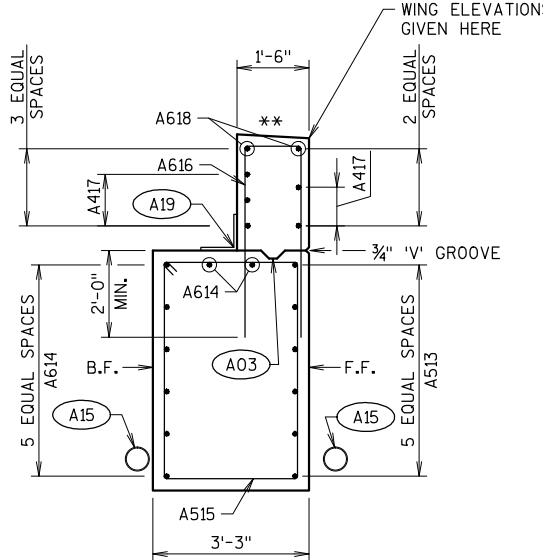
ELEVATION WING 1



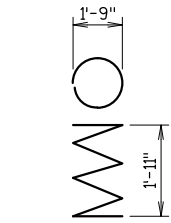
ELEVATION WING 2



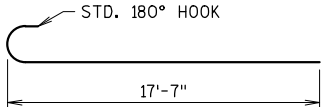
SECTION THRU WING 1



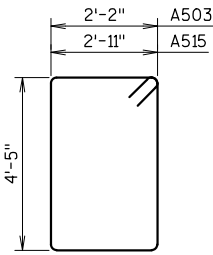
SECTION THRU WING 2



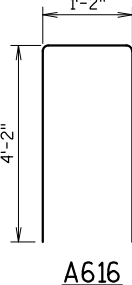
A401



A805



A503, A515



A616

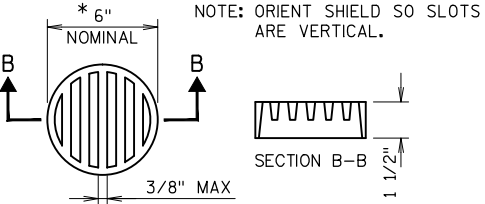


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY PKF		PLANS CK'D. ETP	
SOUTH ABUTMENT DETAILS		SHEET 5 OF 10	

LEGEND

- INDICATES WING NUMBER
- (A01) KEYED CONST. JOINT FORMED BY BEVELED 2" x 6".
- (A09) ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾" X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 115\* TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. SEE ADDITIONAL FOUNDATION DATA ON SHEET 1 AND PILE SPLICE DETAILS ON SHEET 2.
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- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- (A19) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A22) B510 BARS AT 1'-0". THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

B.F. DENOTES BACK FACE  
F.F. DENOTES FRONT FACE

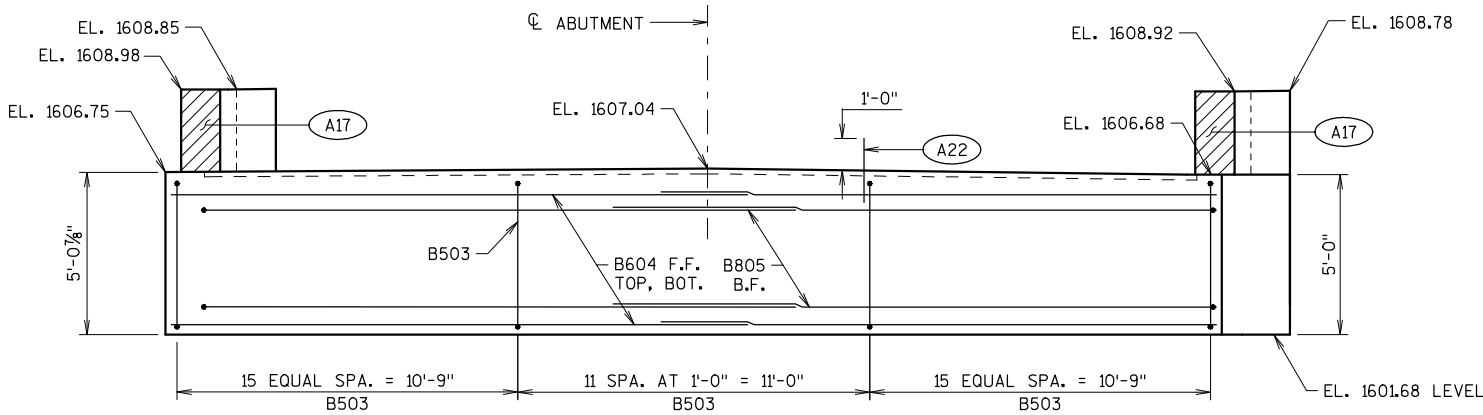


\* DIMENSION IS APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

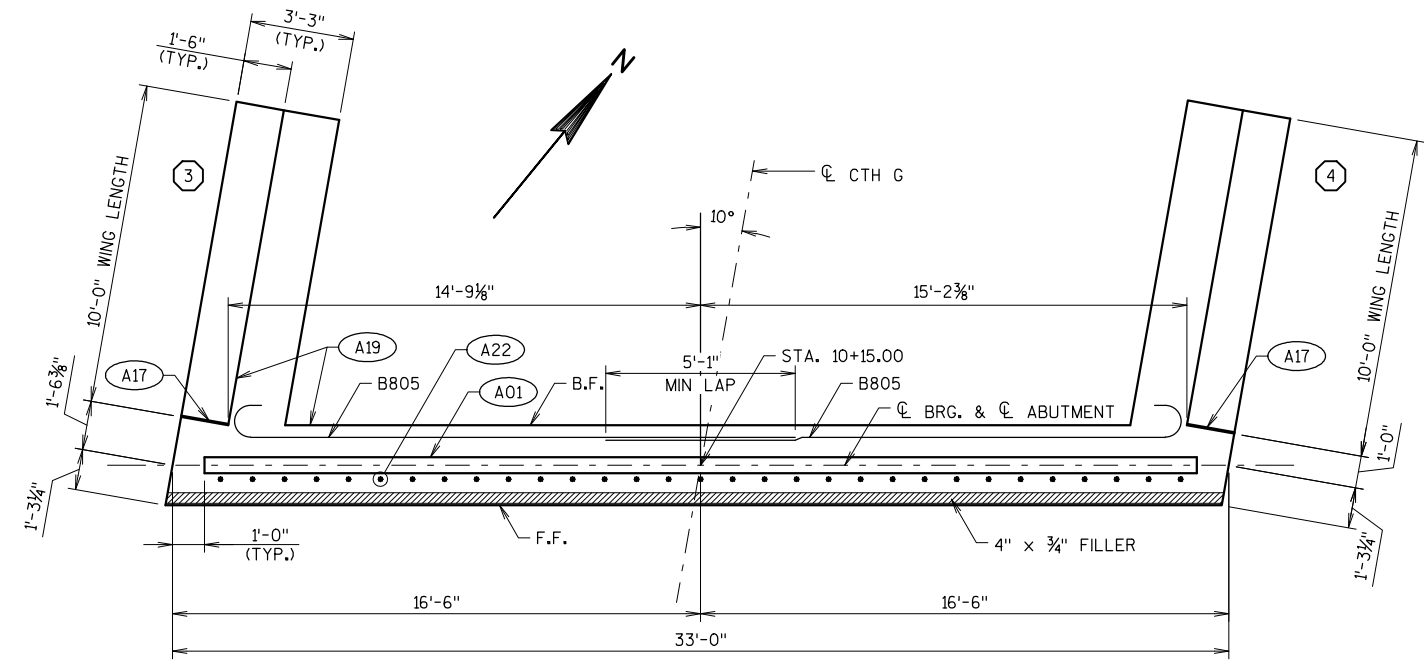
RODENT SHIELD DETAIL

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

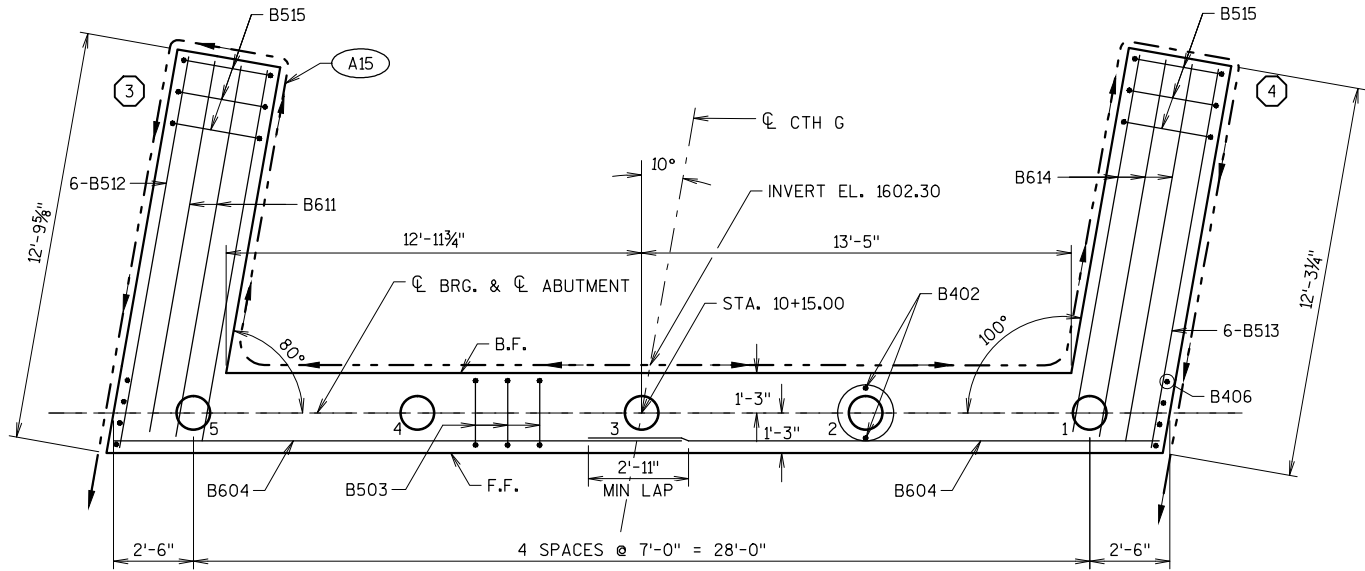
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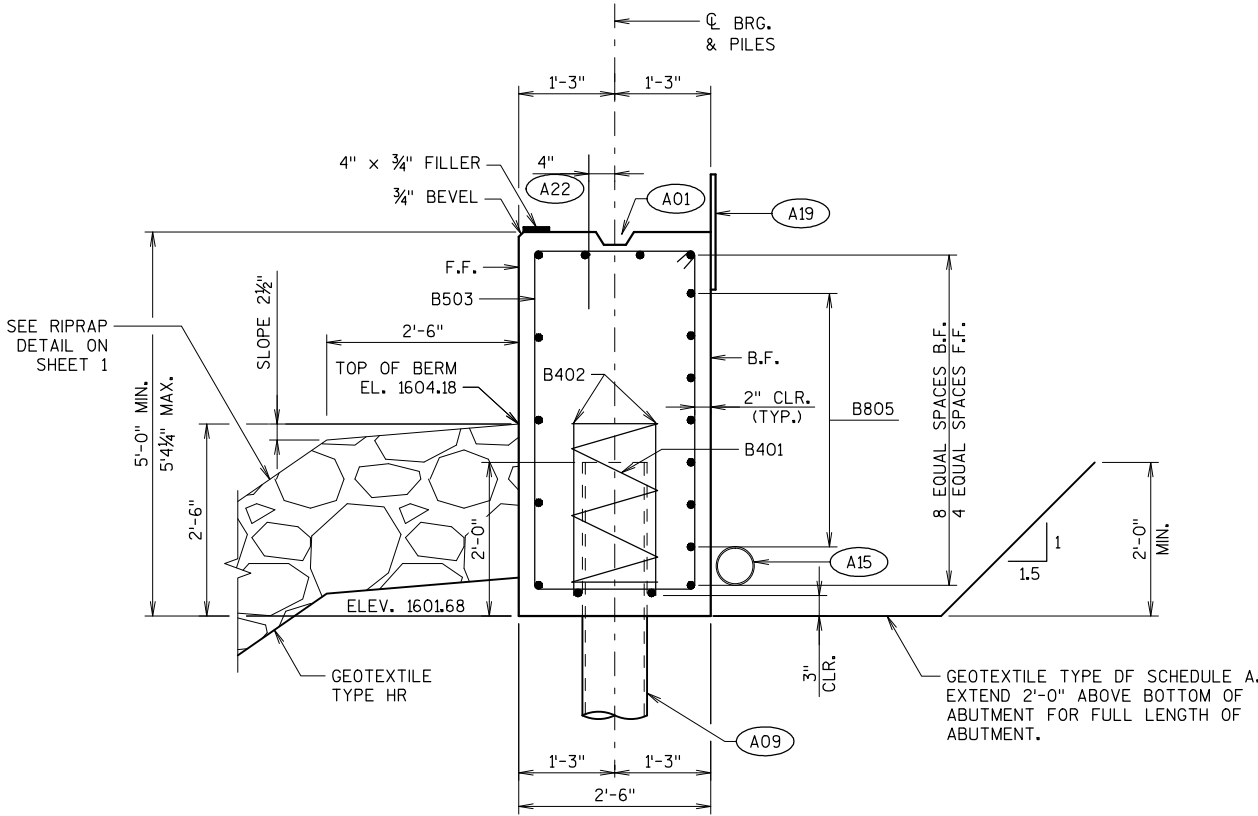
ELEVATION  
(LOOKING NORTH)



PLAN



PILE PLAN



SECTION THRU BODY

HORIZONTAL BARS NOT OTHERWISE IDENTIFIED ARE B604 BARS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY PKF		PLANS ETP	
NORTH ABUTMENT		SHEET 6 OF 10	





BILL OF BARS - NORTH ABUTMENT

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

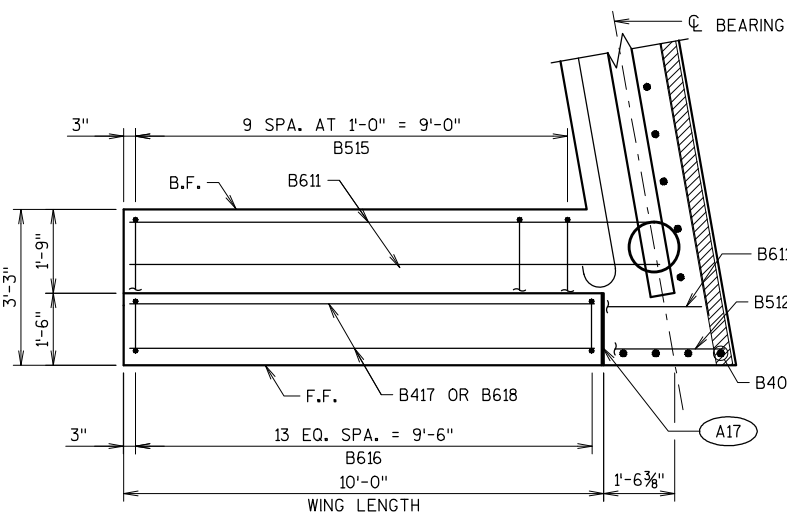
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
NON-COATED BARS					TOTAL WEIGHT = 2,030 LBS
B401	5	28'-0"	X		BODY - AT PILES - 1 PER PILE VERT.
B402	10	2'-3"			BODY - AT PILES - 2 PER PILE VERT.
B503	42	13'-10"	X		BODY - STIRRUPS VERT.
B604	22	17'-10"			BODY - F.F. TOP, BOT. HORIZ.
B805	14	18'-6"	X		BODY - B.F. HORIZ.
B406	8	4'-7"			BODY - ABUT ENDS VERT.
COATED BARS					TOTAL WEIGHT = 1,360 LBS
B510	31	2'-0"			BODY - TOP VERT.
B611	8	11'-11"			WING 3 - B.F. & TOP HORIZ.
B512	6	12'-5"			WING 3 - F.F. HORIZ.
B513	6	11'-11"			WING 4 - F.F. HORIZ.
B614	8	11'-11"			WING 4 - B.F. & TOP HORIZ.
B515	21	15'-4"	X		WINGS 3 & 4 - STIRRUPS VERT.
B616	28	9'-3"	X		WINGS 3 & 4 VERT.
B417	10	9'-8"			WINGS 3 & 4 - B.F. & F.F. HORIZ.
B618	4	9'-8"			WINGS 3 & 4 - TOP HORIZ.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

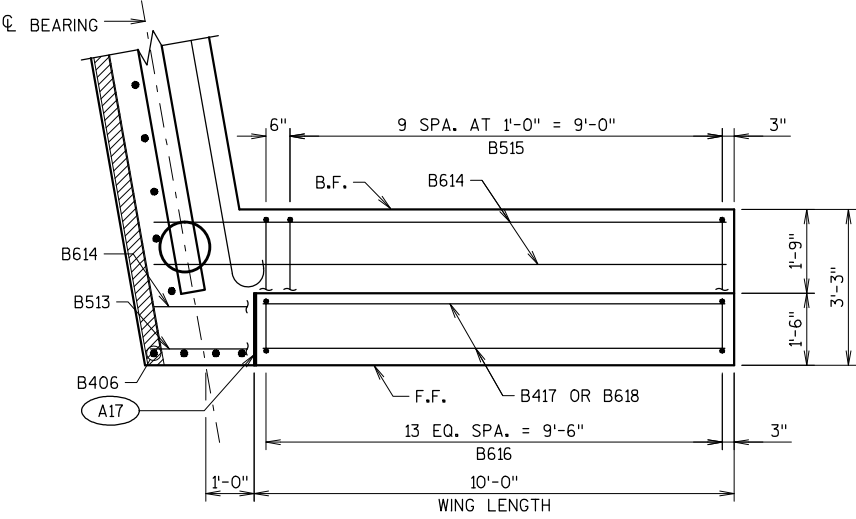
LEGEND

- A03 OPTIONAL KEYED CONST. JOINT FORMED BY BEVELED 2" x 6" (18" RUBBERIZED MEMBRANE WATERPROOFING AT B.F. & 3/4" "V" GROOVE AT F.F. IF JOINT IS USED).
- A15 PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN. RODENT SHIELD TO BE INCLUDED IN BID PRICE OF "PIPE UNDERDRAIN WRAPPED 6-INCH".
- A17 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)
- A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

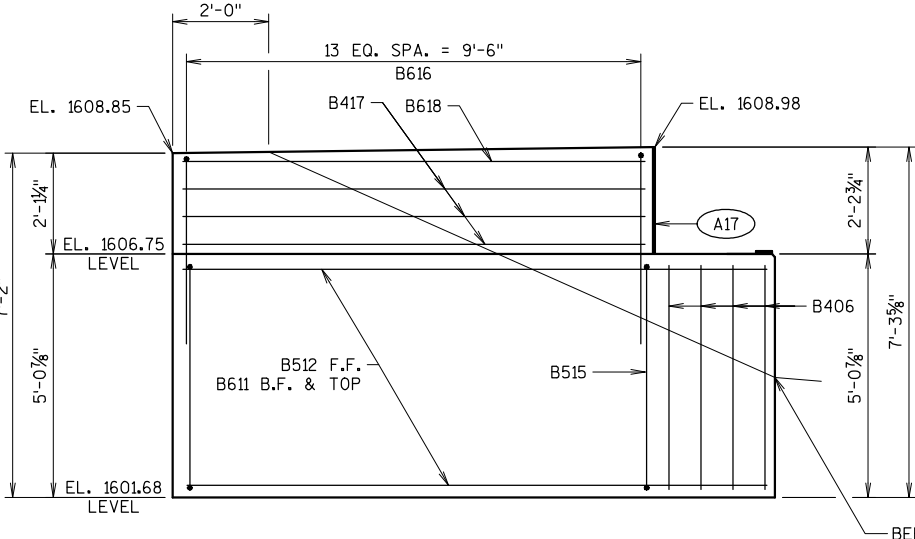
B.F. DENOTES BACK FACE  
F.F. DENOTES FRONT FACE  
\*\* MATCH SLOPE OF ROADWAY



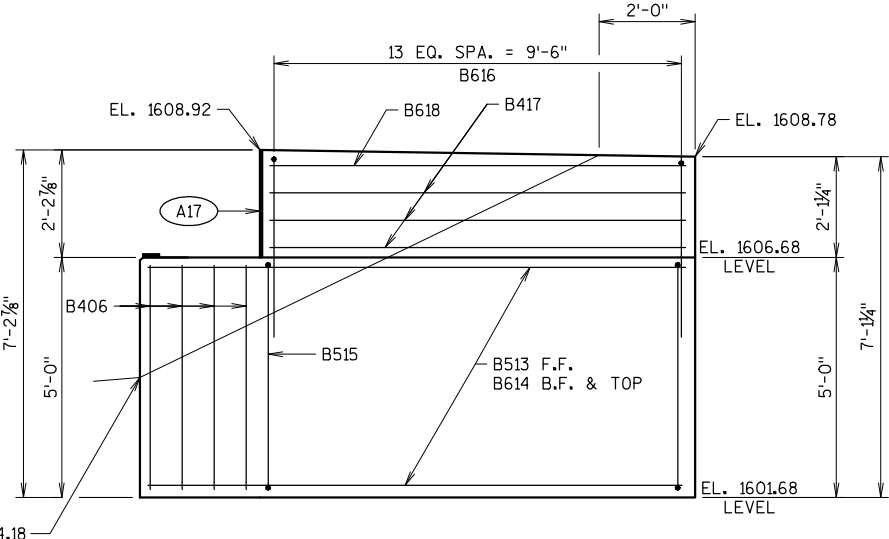
PLAN WING 3



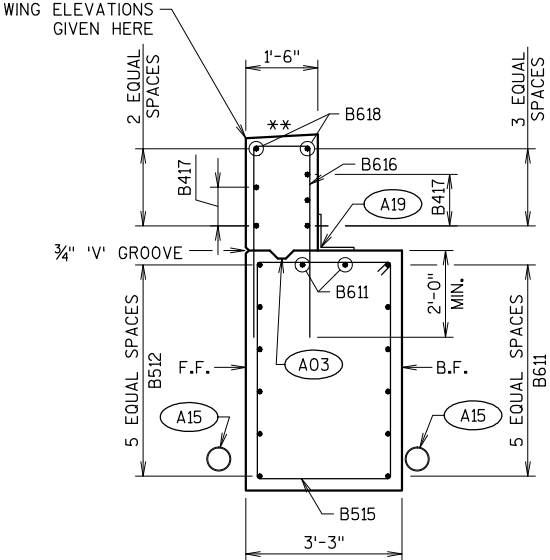
PLAN WING 4



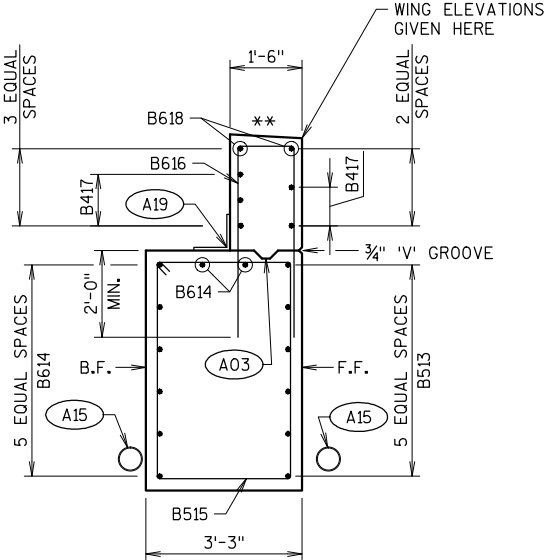
ELEVATION WING 3



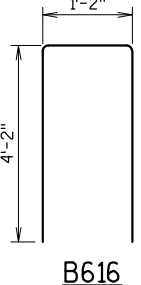
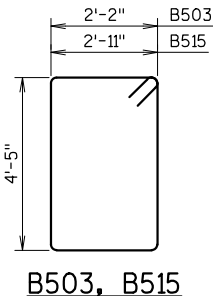
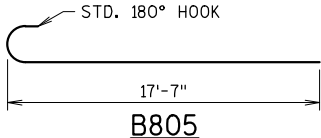
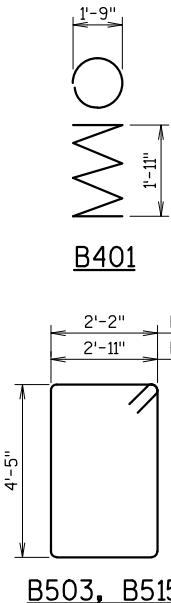
ELEVATION WING 4



SECTION THRU WING 3



SECTION THRU WING 4



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY PKF		PLANS ETP CK'D.	
NORTH ABUTMENT DETAILS		SHEET 7 OF 10	

NOTES

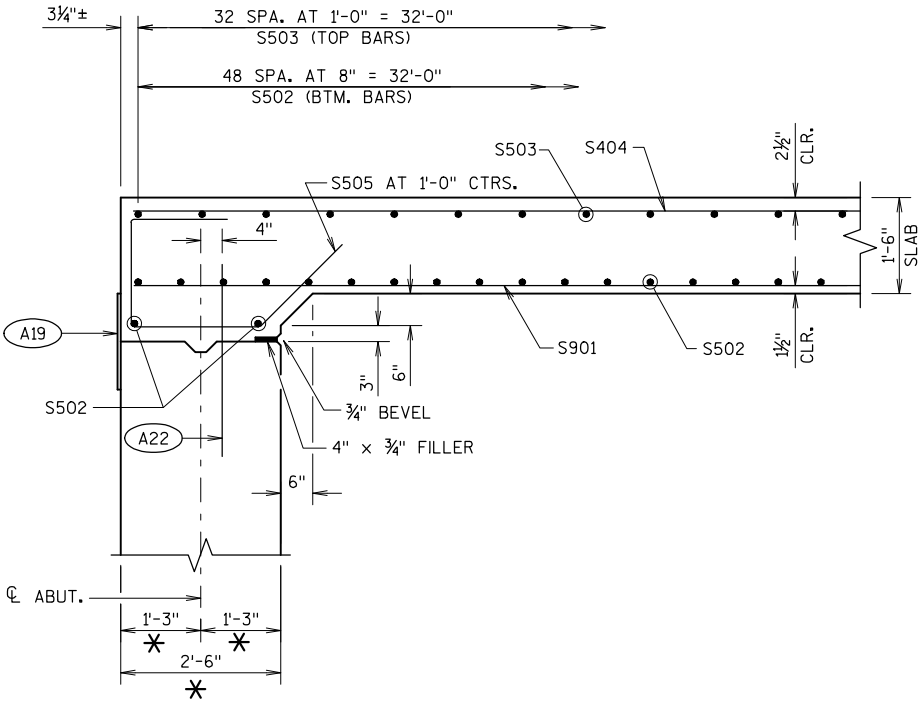
TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE C OF SUBSTRUCTURE UNITS.

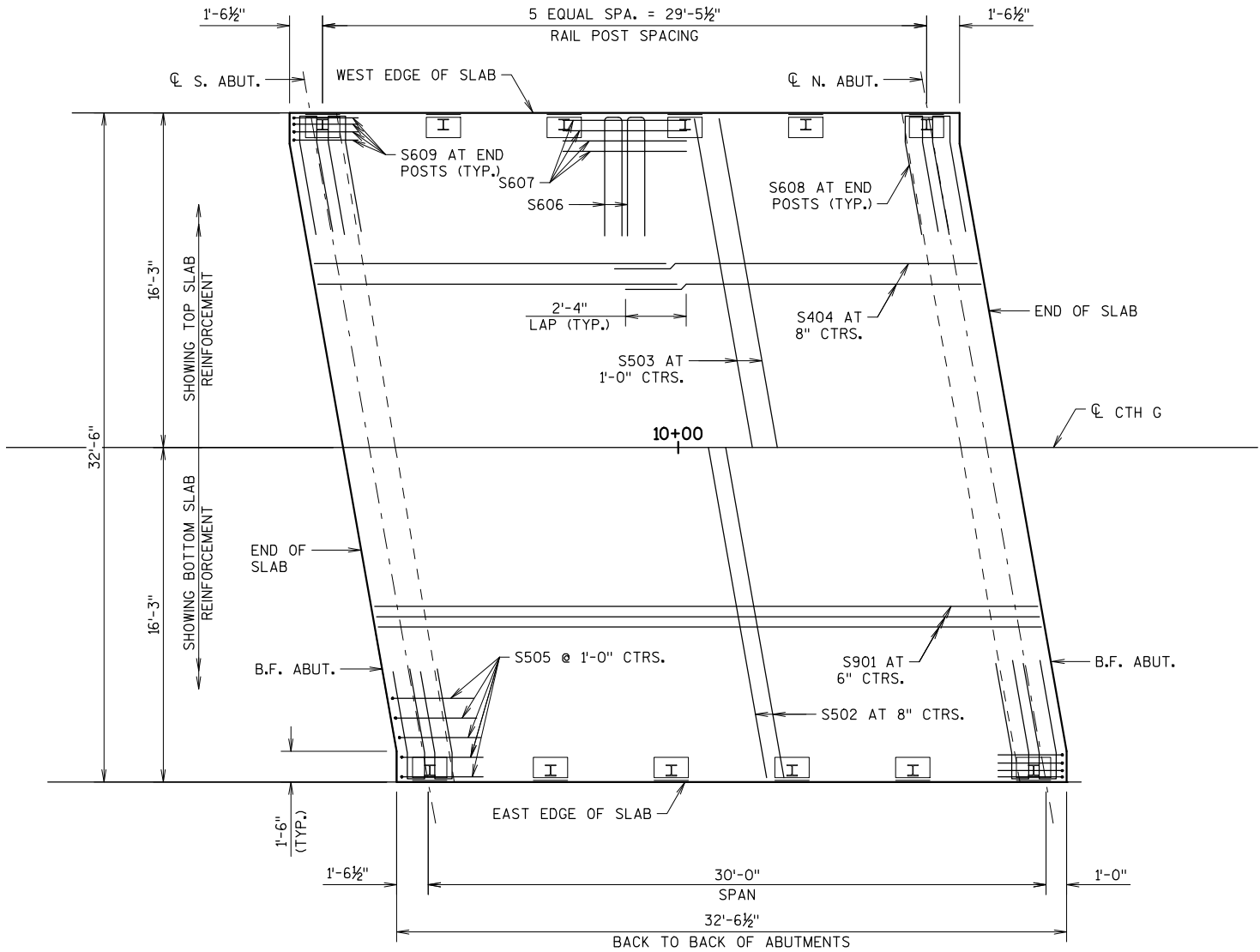
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

LEGEND

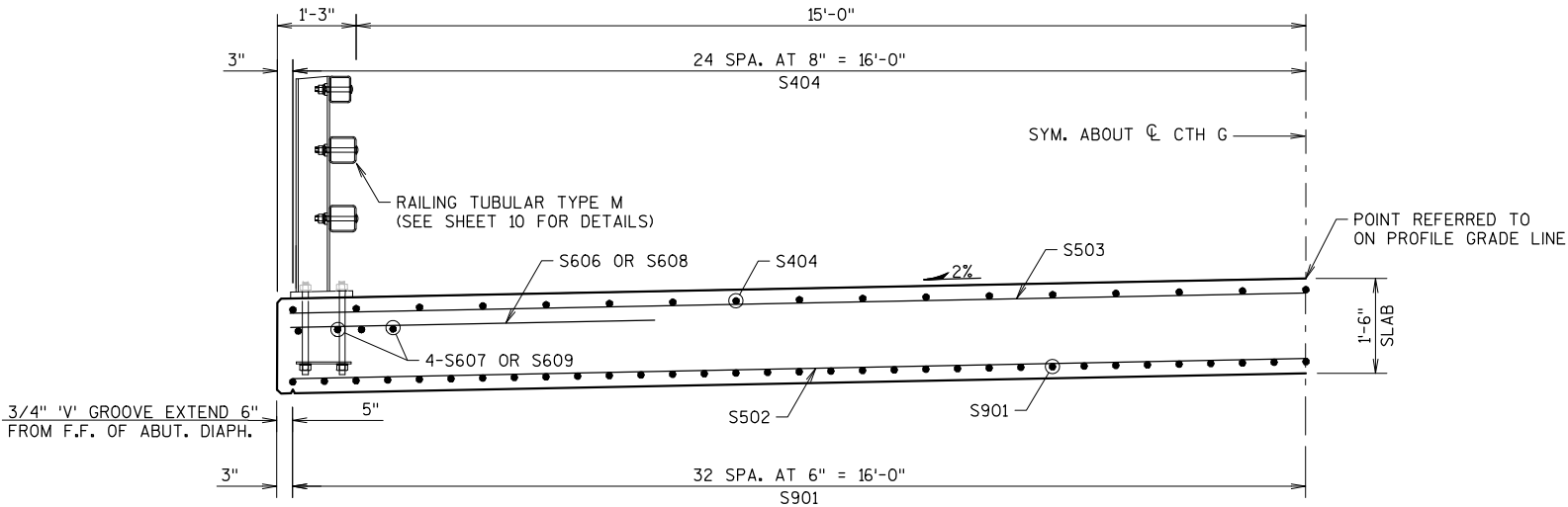
- A19 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- A22 A510 OR B510 BARS AT 1'-0" CTRS. THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- \* DIMENSION IS NORMAL TO C SUBSTRUCTURE.



PARTIAL LONGITUDINAL SECTION



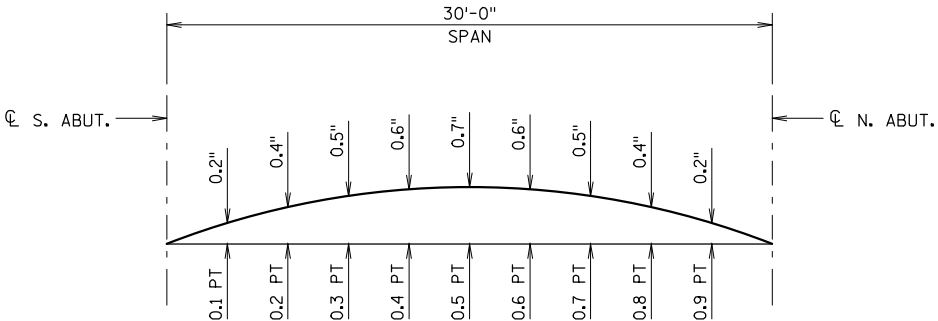
PLAN



TYPICAL SECTION THRU SLAB

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY PKF		PLANS CK'D. ETP	
SUPERSTRUCTURE		SHEET 8 OF 10	





CAMBER DIAGRAM

PROVIDE CAMBER AS SHOWN ABOVE TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. THIS DOES NOT INCLUDE ANY ALLOWANCE FOR FORM SETTLEMENT.

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

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

TOP OF SLAB ELEVATION AT FINAL GRADE  
LESS SLAB THICKNESS  
PLUS CAMBER  
PLUS FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)  
EQUALS TOP OF SLAB FALSEWORK ELEVATION.

TOP OF DECK ELEVATIONS

LOCATION	CL OF S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	CL OF N. ABUT.
WEST EDGE OF SLAB	1609.26	1609.24	1609.22	1609.20	1609.17	1609.15	1609.12	1609.09	1609.06	1609.03	1609.00
CL STRUCTURE	1609.56	1609.55	1609.52	1609.50	1609.48	1609.45	1609.42	1609.39	1609.36	1609.32	1609.29
EAST EDGE OF SLAB	1609.22	1609.20	1609.18	1609.15	1609.13	1609.10	1609.07	1609.04	1609.00	1608.97	1608.93

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

SURVEY TOP OF SLAB ELEVATIONS

SPAN POINT	S. ABUT.	0.5	N. ABUT.
WEST EDGE OF SLAB			
CL STRUCTURE			
EAST EDGE OF SLAB			

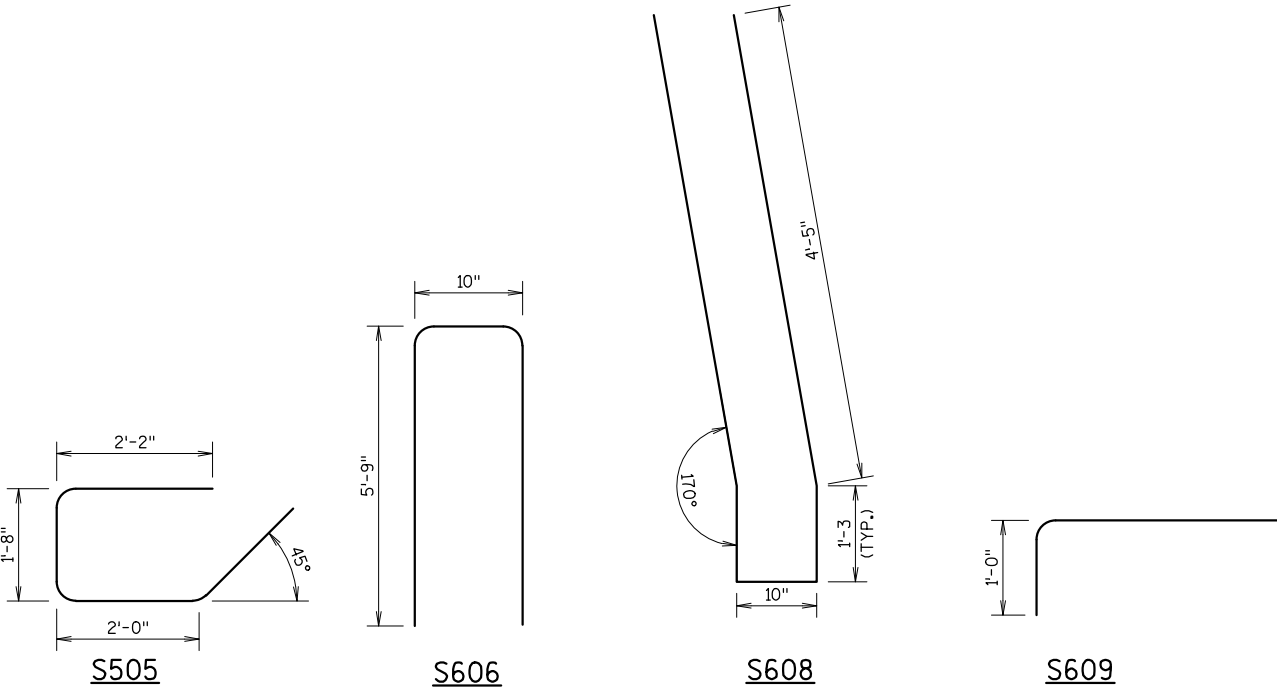
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE CL OF ABUTMENTS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR CL. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

BILL OF BARS - SUPERSTRUCTURE

DIMENSIONS IN BENDING DETAILS ARE OUT-TO-OUT OF BAR

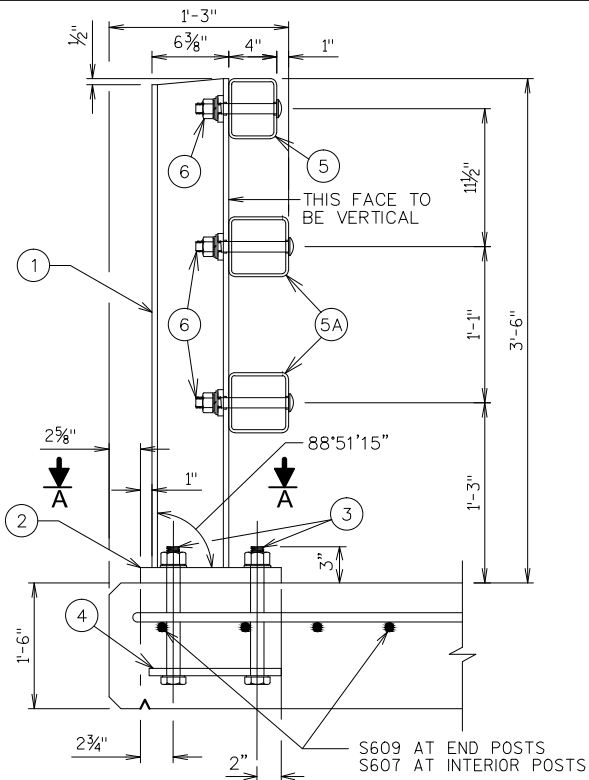
BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
COATED BARS					TOTAL WEIGHT = 12,500 LBS
S901	65	32'-2"			SLAB - BTM LONGIT.
S502	53	32'-8"			SLAB - BTM TRANS.
S403	49	32'-8"			SLAB - TOP TRANS.
S404	98	17'-3"			SLAB - TOP LONGIT.
S505	66	7'-8"	X		SLAB - AT ABUTMENTS VERT.
S606	16	12'-0"	X		SLAB - TOP - AT INT. RAIL POSTS TRANS.
S607	32	6'-0"			SLAB - TOP - AT INT. RAIL POSTS LONGIT.
S608	8	12'-0"	X		SLAB - TOP - AT EXT. RAIL POSTS TRANS.
S609	16	5'-2"	X		SLAB - TOP - AT EXT. RAIL POSTS LONGIT.

THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

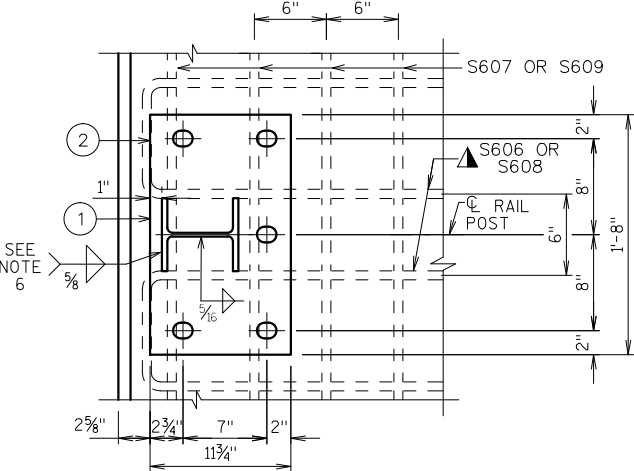


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY		PKF	PLANS CK'D. ETP
SUPERSTRUCTURE DETAILS		SHEET 9 OF 10	

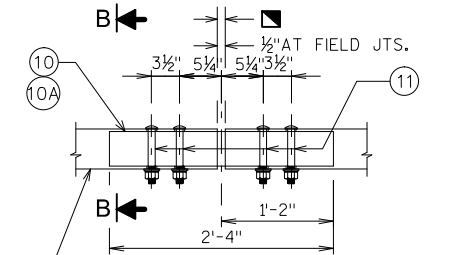




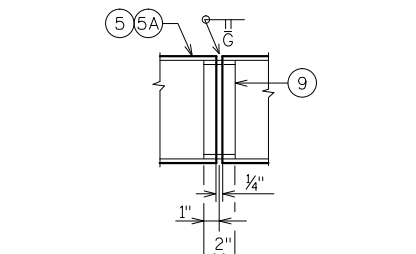
SECTION THRU RAILING ON DECK



SECTION A-A

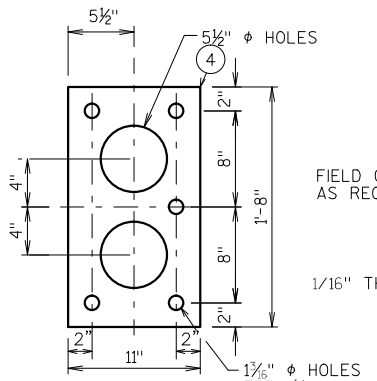


FIELD ERECTION JOINT DETAIL



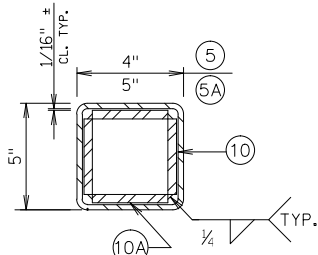
SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

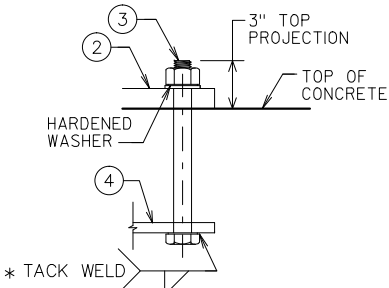


ANCHOR PLATE

AT RAIL TO SLAB CONNECTION

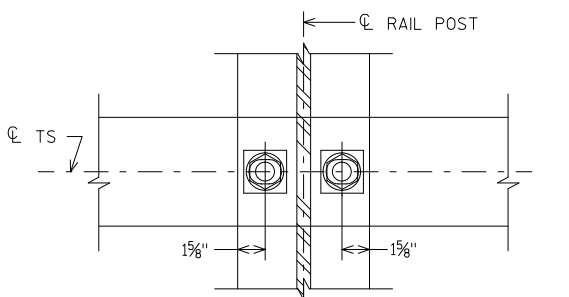


SECTION B-B

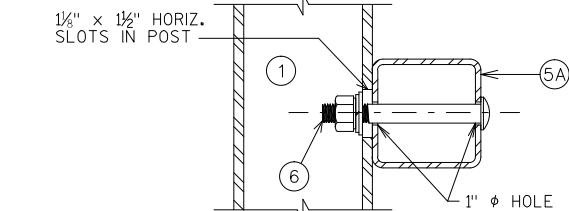


ANCHOR BOLTS

\* TACK WELD



SECTION THRU POST WEB



SECTION THRU RAIL

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

TYPICAL RAIL TO POST CONNECTIONS

LEGEND

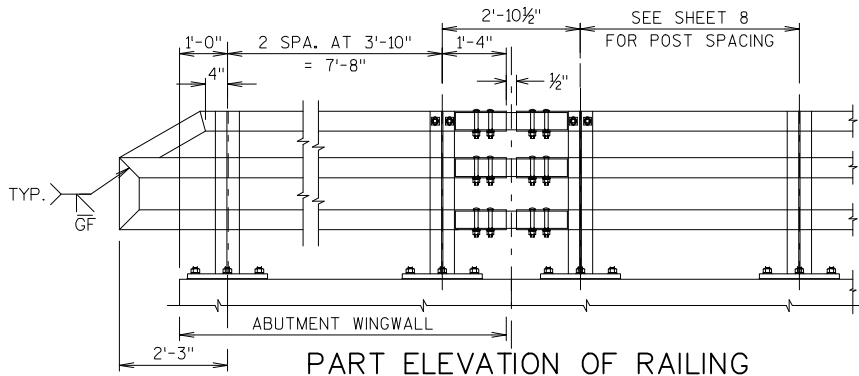
- ① W6 x 25 WITH 1/8" x 1/2" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1/4" x 11 3/4" x 1'-8" WITH 1 5/16" x 1 5/8" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - 1/8" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 1'-9" LONG IN ABUTMENT WINGS. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10 3/4" LONG AT ALL OTHER LOCATIONS. (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)
- ④ 5/8" 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 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16" x 1 5/8" x 1 5/8" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)
- ⑨ SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- ⑩ 3/8" x 3 5/8" x 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
- ⑩A 3/8" x 2 5/8" x 2'-4" PLATE USED IN NO. 5, 3/8" x 3 5/8" x 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
- ⑪ 7/8" phi A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 1 5/16" x 1" LONGIT. SLOTTED HOLES AT FIELD JOINTS AND 1 5/16" x 2 3/4" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A.

GENERAL NOTES

- BID ITEM SHALL BE "RAILING TUBULAR TYPE M B-26-35" WHICH INCLUDES ALL ITEMS SHOWN.
- 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.
- THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A "SNUG FIT" AND GIVEN AN ADDITIONAL 1/8 TURN.
- 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.
- ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
- WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
- 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.
- 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.
- 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 SSPC SPECIFICATIONS.

▲ TIE TO TOP MAT OF STEEL.

\* FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.



PART ELEVATION OF RAILING

STATE PROJECT NUMBER			
9352-00-70			
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-26-35			
DRAWN BY		PKF	PLANS CK'D. ETP
RAILING TUBULAR TYPE M		SHEET 10 OF 10	



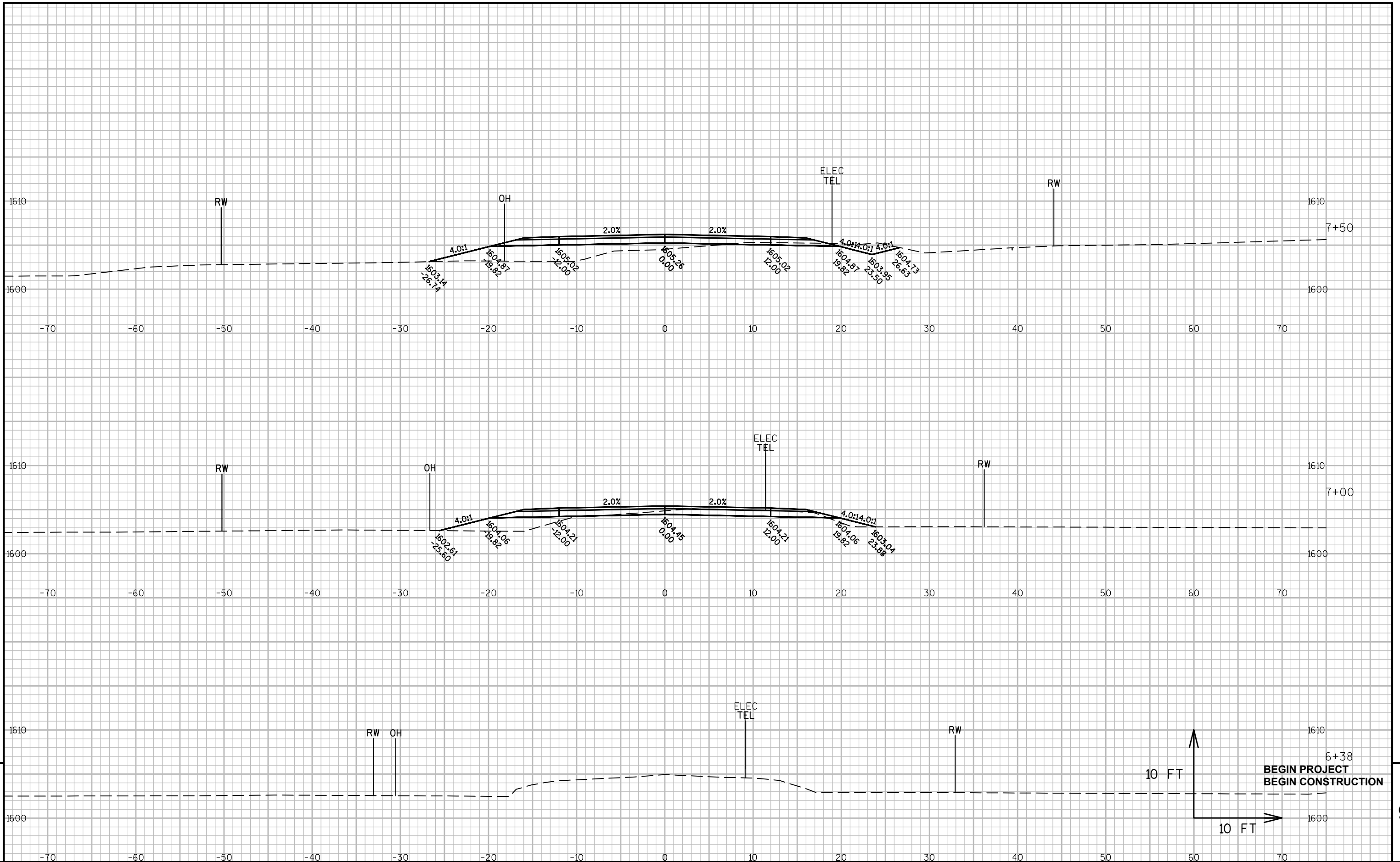
CTH G								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut	Expanded	
							Fill	
				Note 1		Note 1	Note 2	Note 3
06+38	0.00	20.40	9.33	-	-	-	-	0
06+50	12.00	19.86	9.56	9	4	9	5	4
06+75	25.00	17.29	11.71	17	10	26	18	9
07+00	25.00	12.83	17.11	14	13	40	34	6
07+25	25.00	10.64	23.61	11	19	51	58	-7
07+50	25.00	8.12	35.85	9	28	60	92	-33
07+75	25.00	1.76	58.52	5	44	64	147	-83
08+00	25.00	-	88.04	1	68	65	232	-167
08+01.65	1.65	-	90.28	-	5	65	238	-173
08+09.37	7.72	-	91.02	-	26	65	271	-206
08+25	15.63	-	108.34	-	58	65	343	-278
08+50	25.00	-	143.40	-	117	65	489	-424
08+75	25.00	-	177.43	-	149	65	674	-609
09+00	25.00	-	241.42	-	194	65	917	-852
09+25	25.00	-	215.09	-	211	65	1,181	-1,116
09+50	25.00	-	254.37	-	217	65	1,453	-1,388
09+71.14	21.14	-	149.18	-	158	65	1,650	-1,585
09+76.34	5.20	-	116.71	-	26	65	1,682	-1,617
Bridge								
10+23.67	0.00	-	114.43	-	-	65	1,682	-1,617
10+28.86	5.19	-	112.71	-	22	65	1,709	-1,644
10+50	21.14	-	138.28	-	98	65	1,832	-1,767
10+75	25.00	-	104.56	-	112	65	1,973	-1,908
11+00	25.00	-	77.50	-	84	65	2,078	-2,013
11+25	25.00	-	45.09	-	57	65	2,149	-2,084
11+50	25.00	5.27	24.71	2	32	67	2,189	-2,122
11+75	25.00	9.42	11.59	7	17	74	2,210	-2,136
12+00	25.00	13.95	6.91	11	9	85	2,221	-2,136
12+25	25.00	12.85	9.17	12	7	97	2,230	-2,133
12+50	25.00	10.30	13.00	11	10	108	2,243	-2,135
12+75	25.00	11.85	20.10	10	15	118	2,262	-2,144
12+98	23.00	12.19	29.43	10	21	129	2,289	-2,160

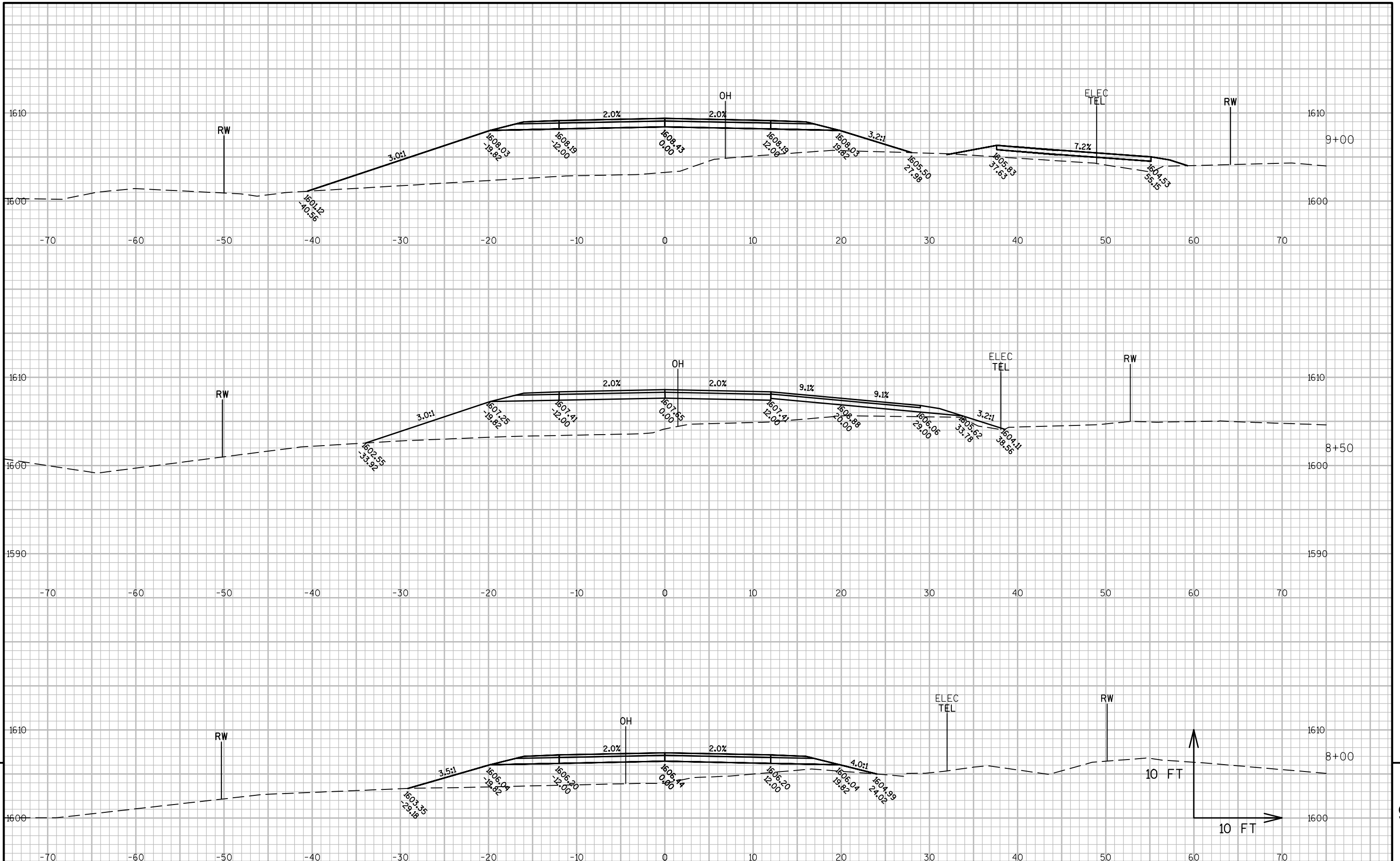
Total =	129	1,831
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Notes:  
(1) Common Excavation is item number 205.0100  
(2) Expanded Fill Factor = 1.25  
**Expanded Fill = (Unexpanded Fill) \* Fill Factor**  
(3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

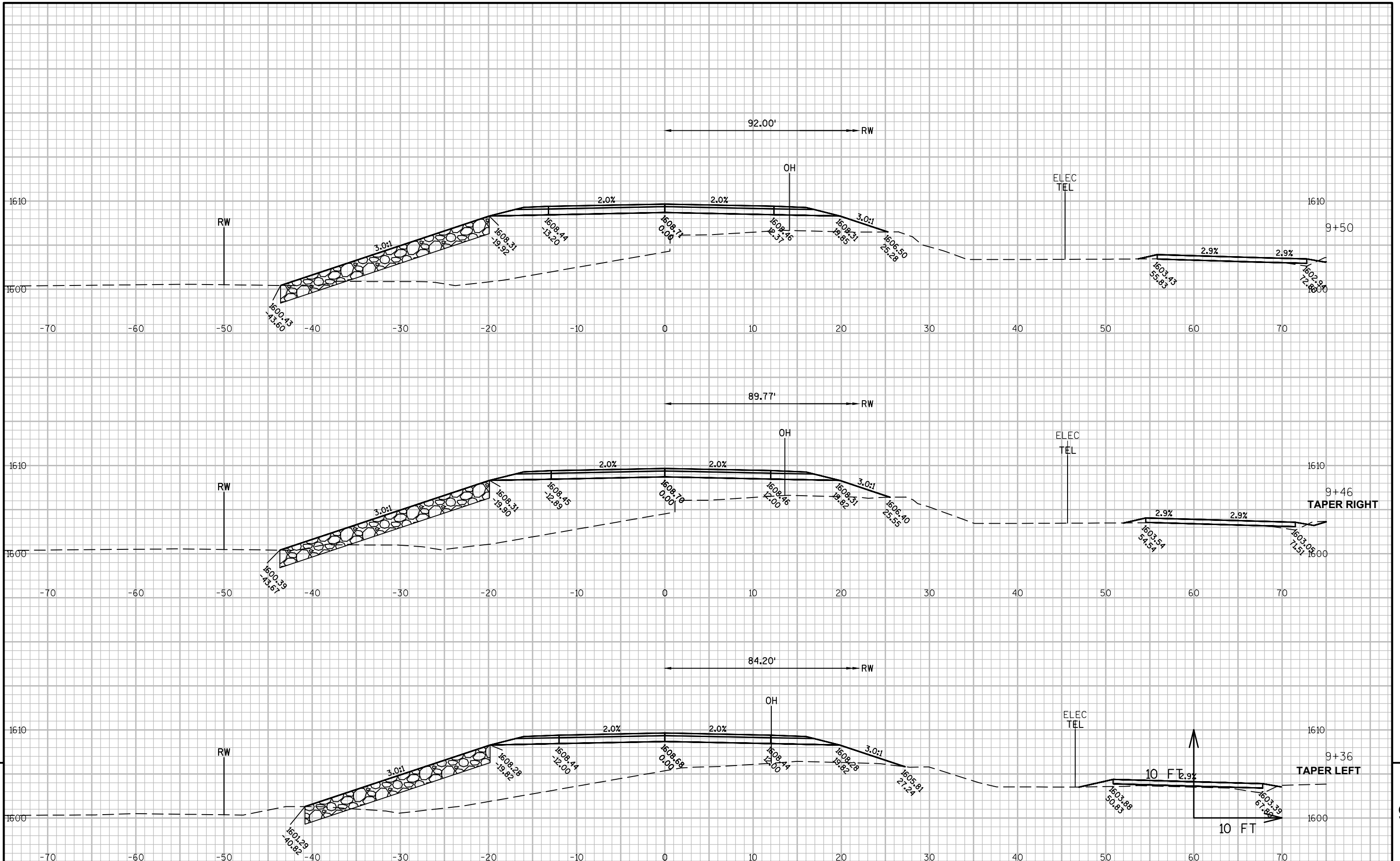
Boat Ramp								
STATION	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
		Cut	Fill	Cut	Fill	Cut	Expanded Fill	
				Note 1		Note 1	Note 2	Note 3
00+00	0.00	0.00	9.85	-	-	-	-	0
00+25	25.00	0.18	25.18	0	16	0	20	-20
00+50	25.00	-	38.64	0	30	0	57	-57
00+75	25.00	-	30.65	-	32	0	97	-97
00+85.45	10.45	-	21.48	-	10	0	110	-110
Total =		0		88				

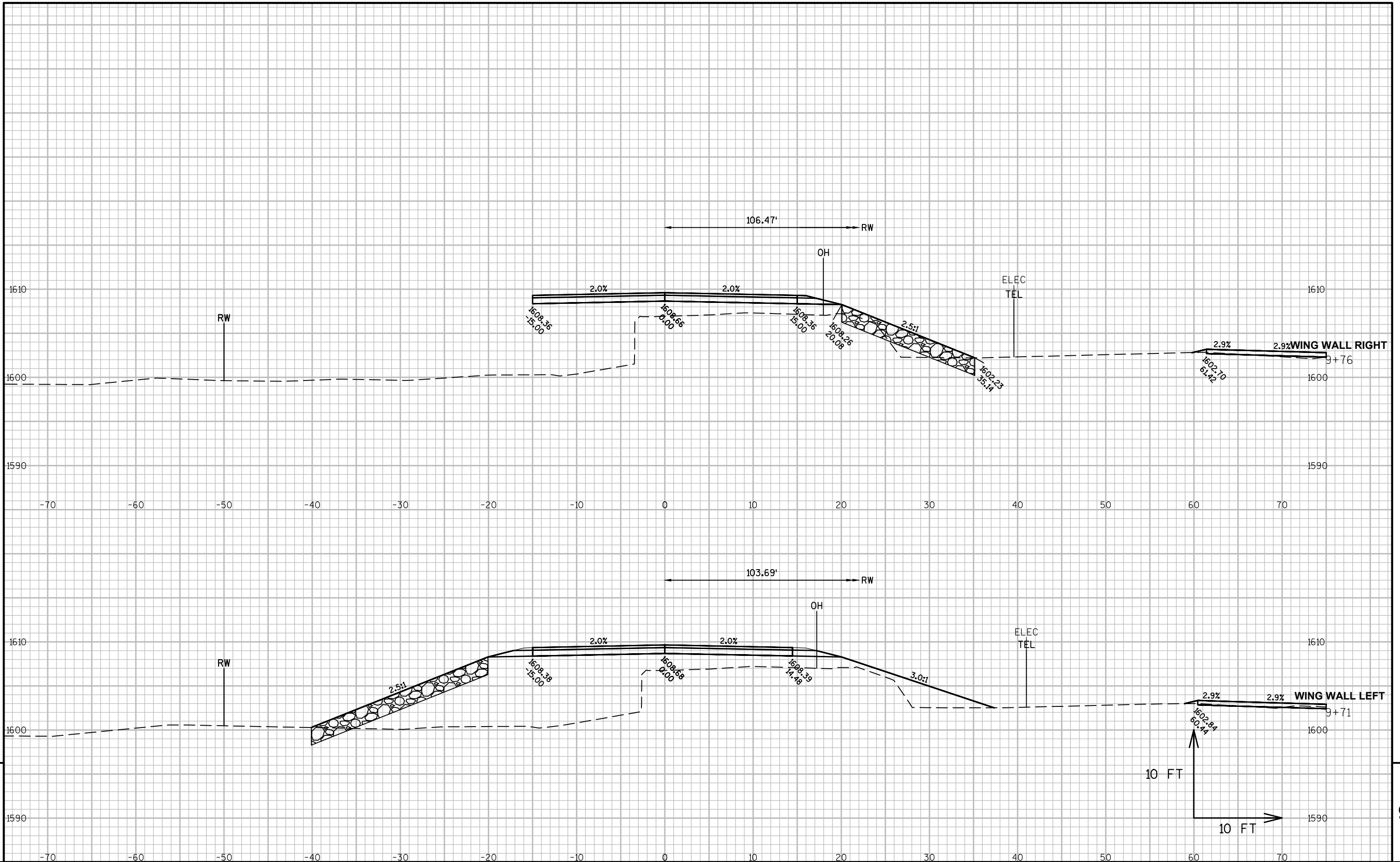
Notes:  
(1) Common Excavation is item number 205.0100  
(2) Expanded Fill Factor = 1.25  
**Expanded Fill = (Unexpanded Fill) \* Fill Factor**  
(3) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

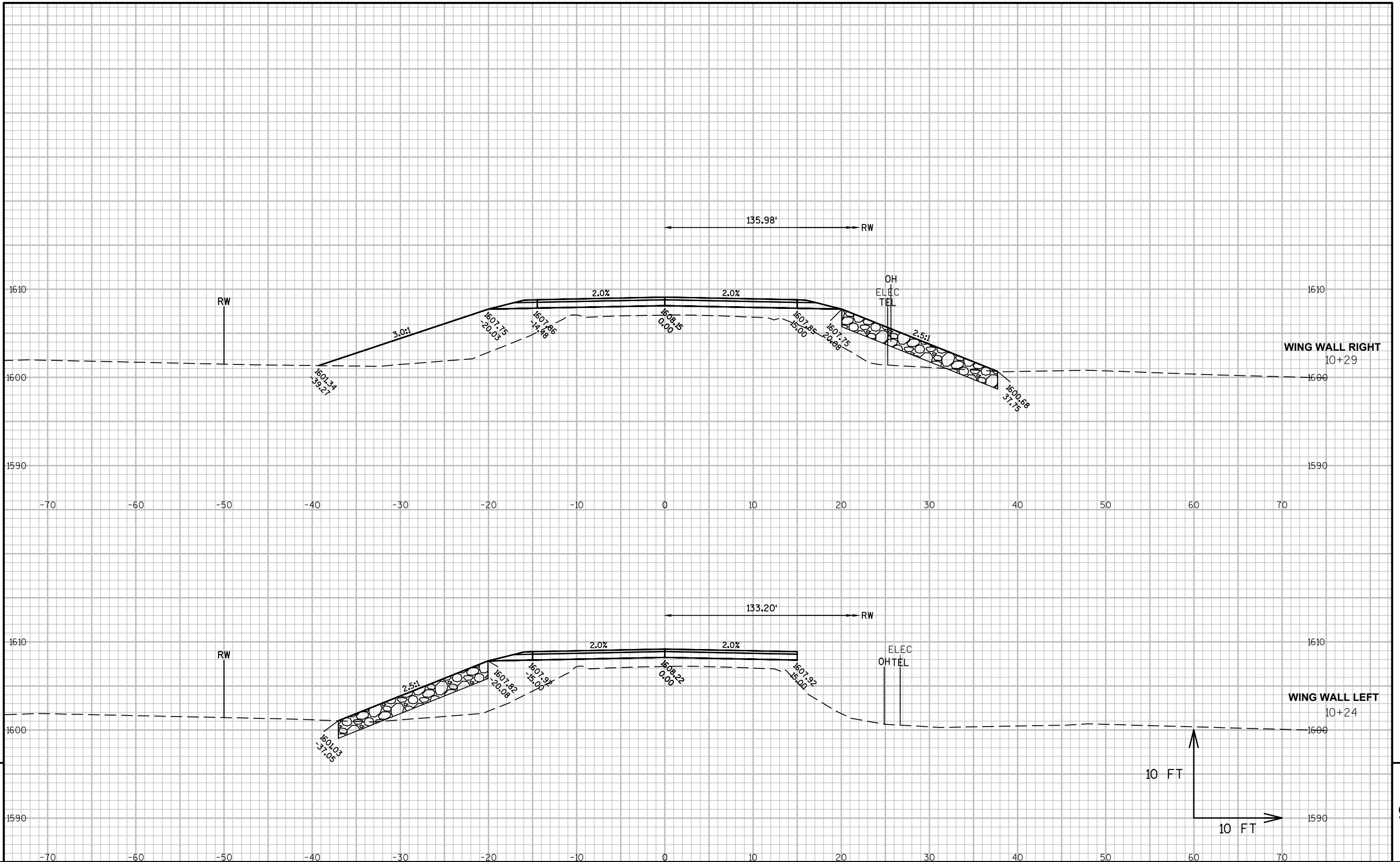


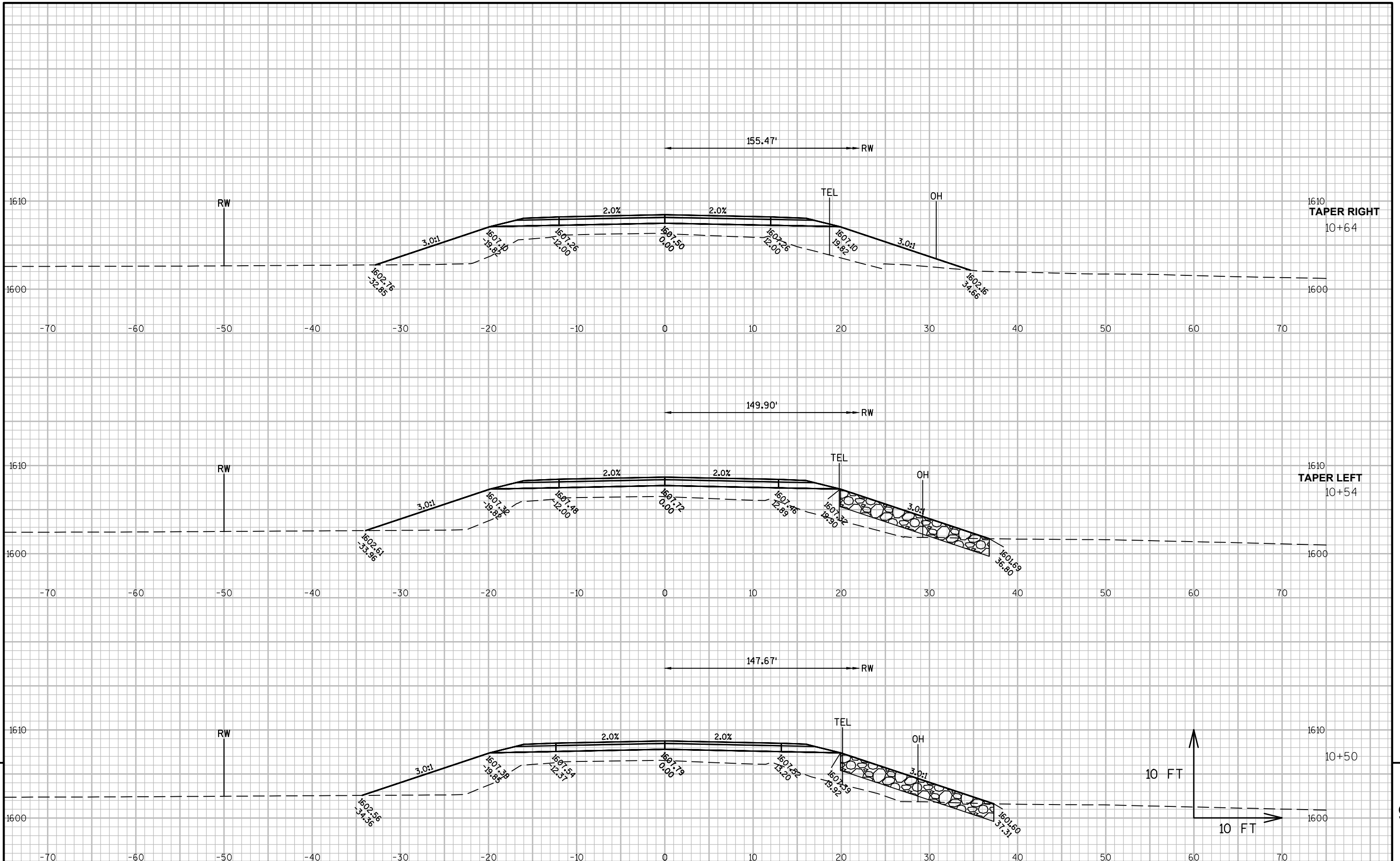


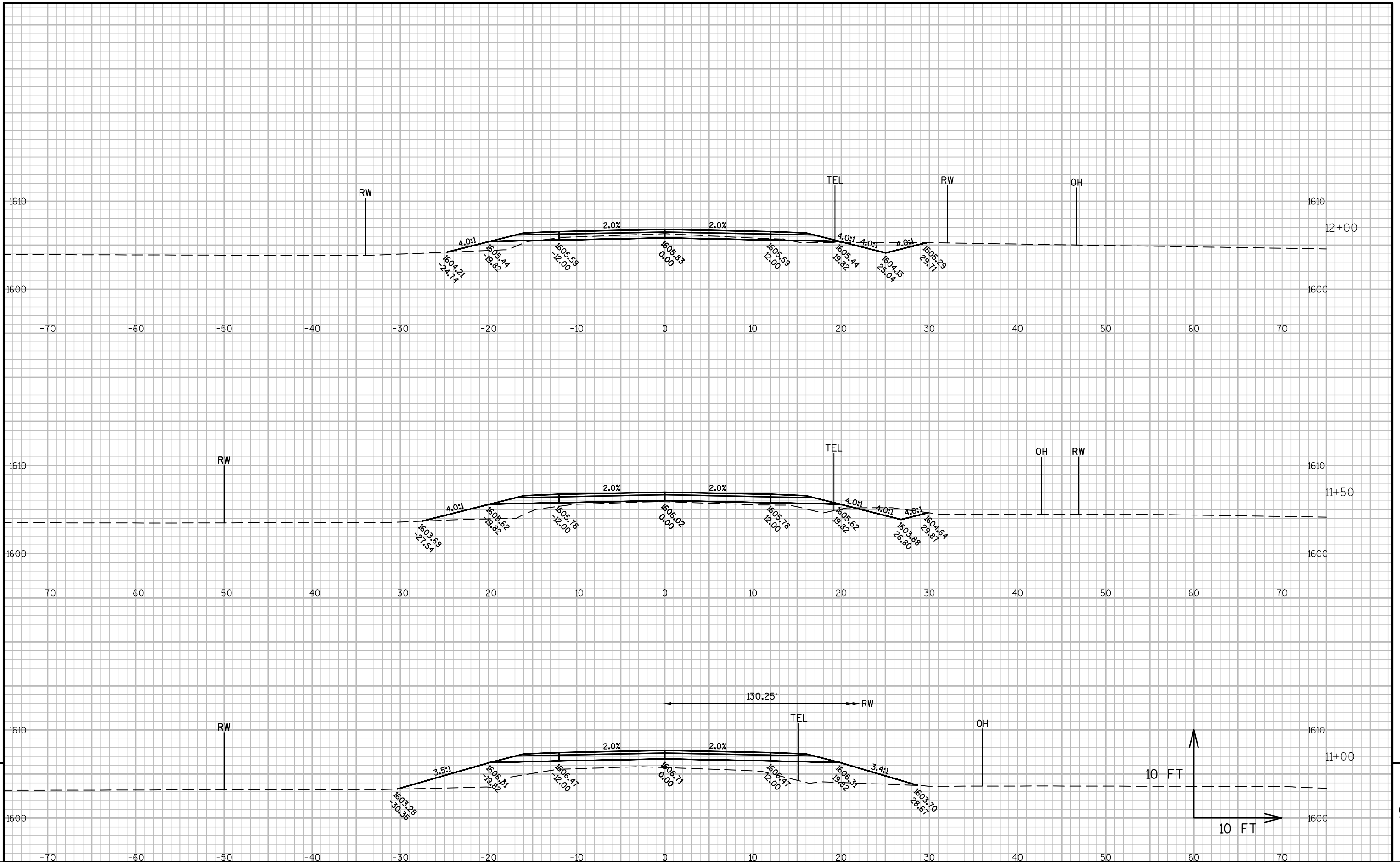


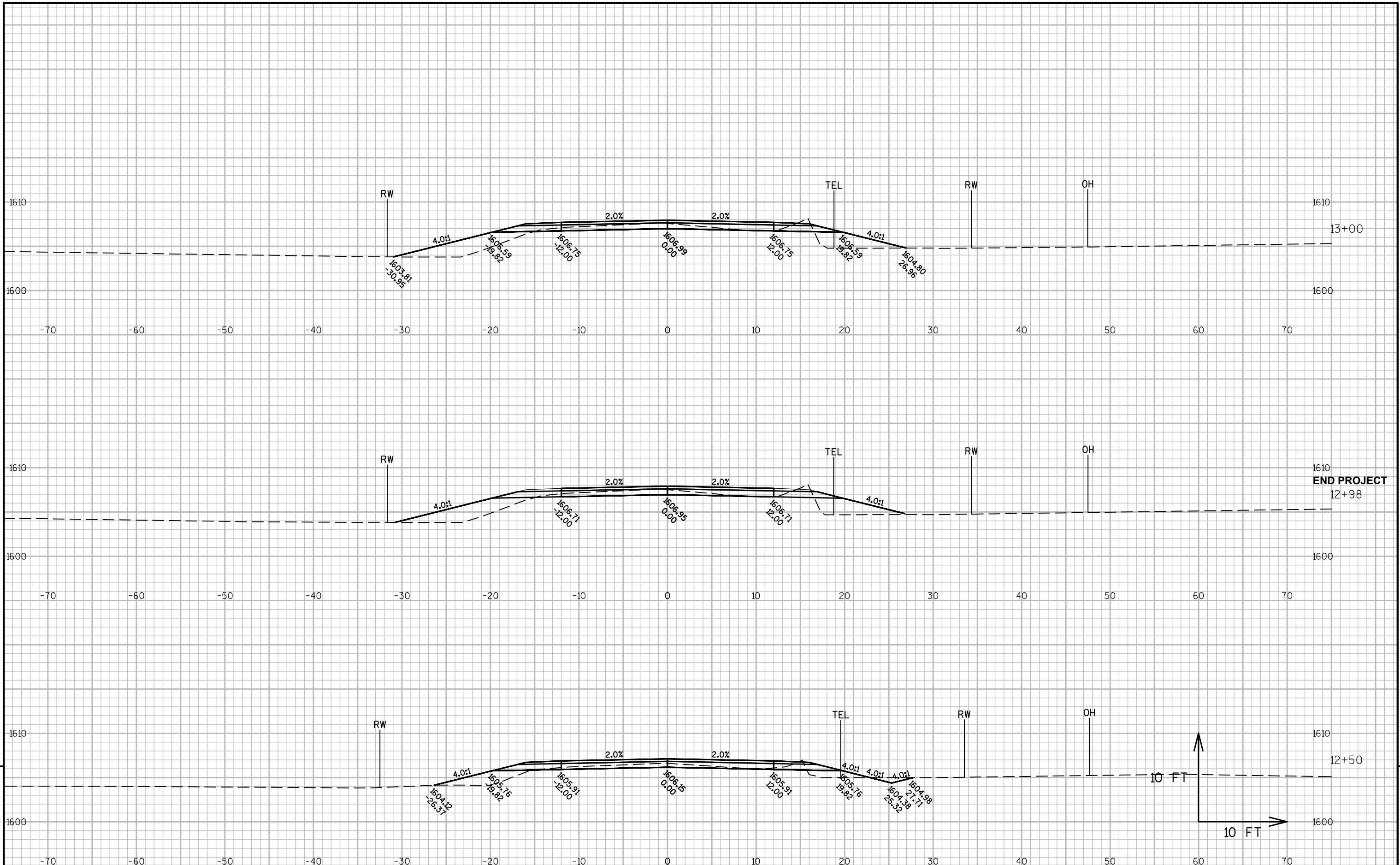


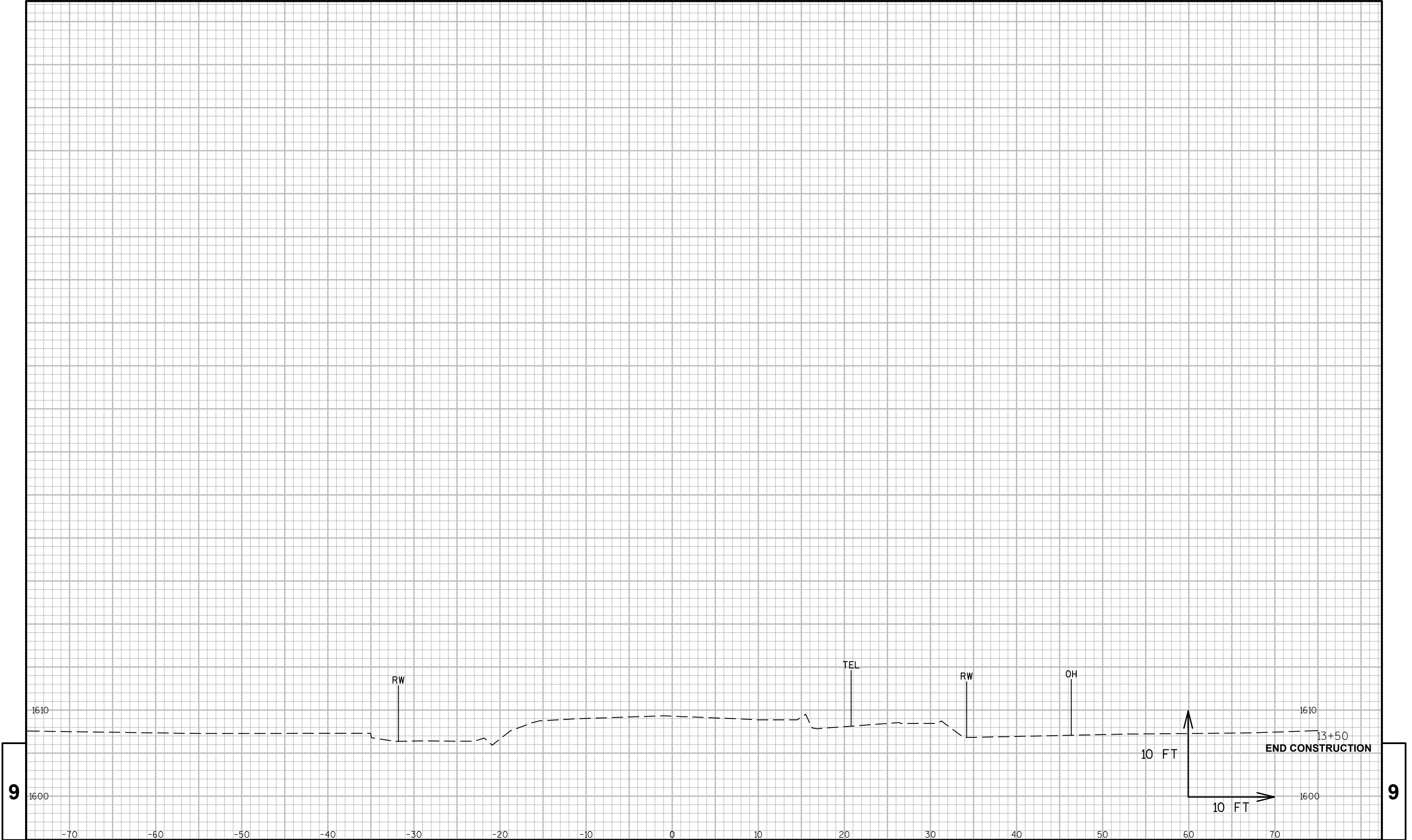






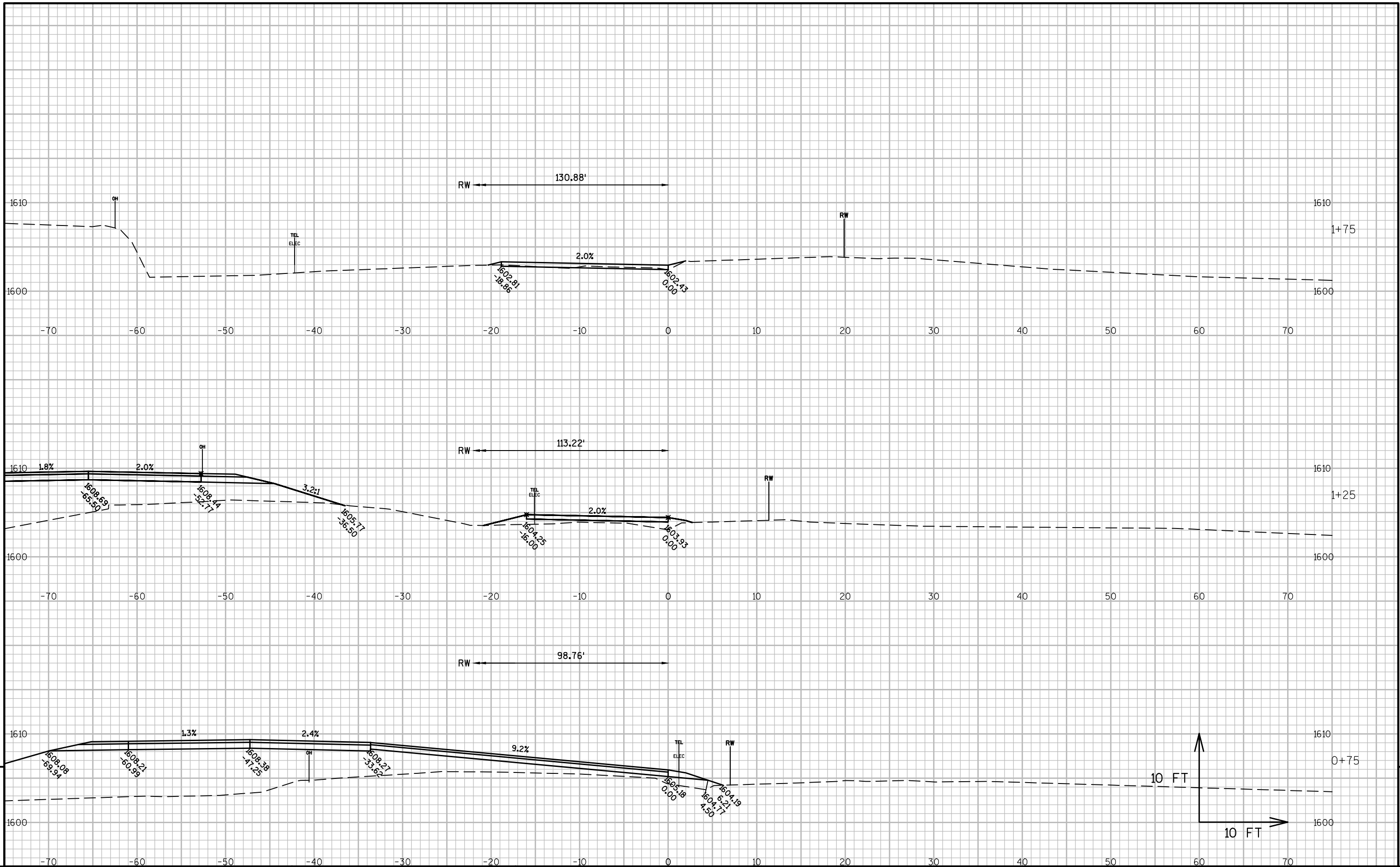






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## Notes



## ***Wisconsin Department of Transportation***

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through innovation and exceptional service.

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