

MAD  
PROJECT ID: 5758-00-72  
WITH:

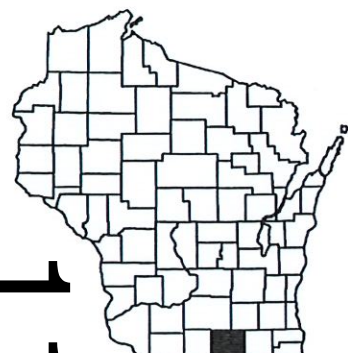
COUNTY: ROCK

NOVEMBER 2019

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 40



DESIGN DESIGNATION

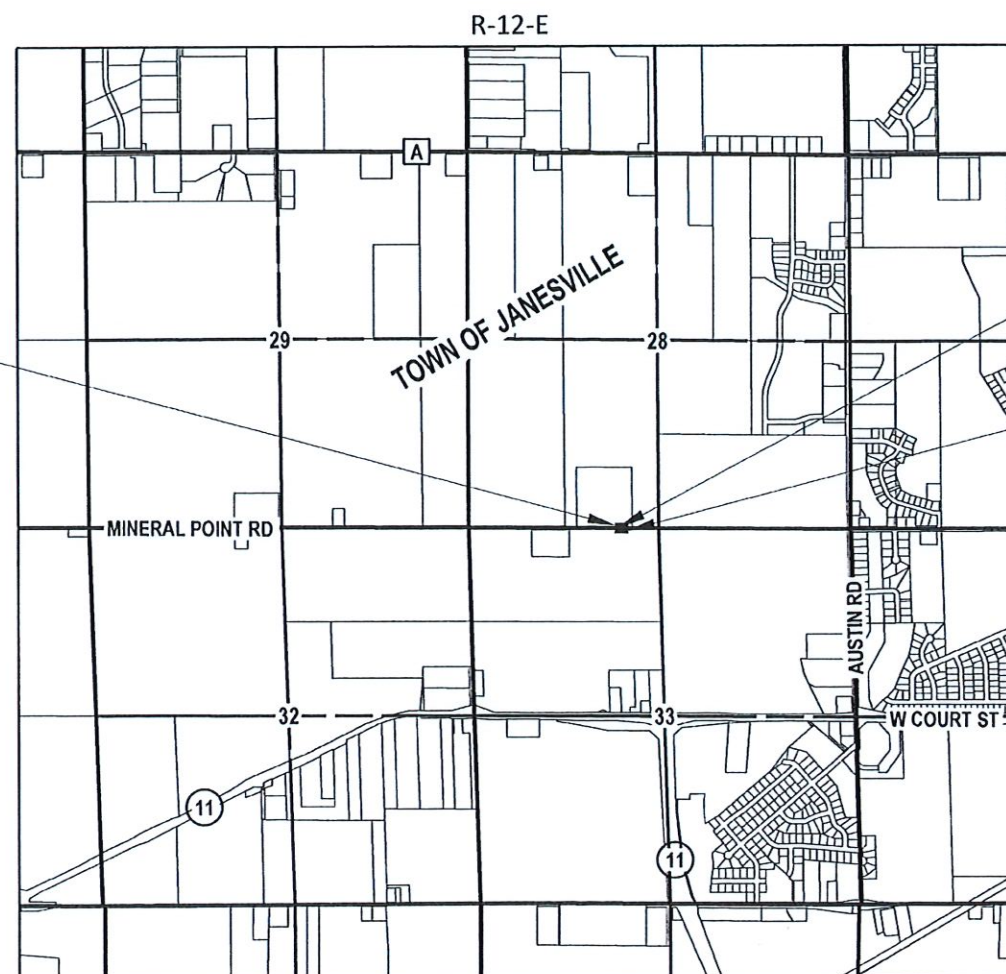
A.A.D.T.	2020	=	755
A.A.D.T.	2040	=	1015
D.H.V.		=	155
D.D.		=	50/50
T.		=	4.2%
DESIGN SPEED		=	50 MPH
ESALS		=	81,000

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED HIGHWAY EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
COMBUSTIBLE FLUIDS	
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	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

BEGIN PROJECT  
STA 10+00.00  
Y = 270435.89  
X = 476824.60



STRUCTURE  
B-53-0384

END PROJECT  
STA 12+48.00  
Y = 270432.40  
X = 477072.57

T-3-N

LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.047

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

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

TOWN OF JANESVILLE, MINERAL POINT ROAD

FISHER CREEK BRIDGE B-53-0384

TOWN ROAD  
ROCK COUNTY

STATE PROJECT NUMBER

5758-00-72

STATE PROJECT

5758-00-72

FEDERAL PROJECT

PROJECT

CONTRACT

ACCEPTED FOR  
TOWN OF JANESVILLE  
4-29-19 *[Signature]*  
(Date) (TOWN CHAIRMAN)

ACCEPTED FOR  
ROCK COUNTY  
4-30-19 *[Signature]*  
(Date) (PUBLIC WORKS DIRECTOR)

ORIGINAL PLANS PREPARED BY

**Batterman**

engineers surveyors planners  
R.H. BATTERMAN & CO., INC. P 608.365.4464  
2857 BARTELLS DRIVE TF 877.457.2235  
BELOIT, WI 53511 F 608.365.1850



4-29-19 *[Signature]*  
(Date) (SIGNATURE)

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

PREPARED BY  
Surveyor BATTERMAN  
Designer BATTERMAN  
Project Manager ZACHARY PEARSON, P.E.  
Regional Examiner SW REGION  
Regional Supervisor OSCAR I. WINGER, P.E.

APPROVED FOR THE DEPARTMENT  
DATE: 04/30/19 *[Signature]*  
(Signature)

E



GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NAVD 83. (2011)

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.

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 EXCAVATION COMMON. THE LOCATION OF EBS SHALL BE DETERMINED BY THE ENGINEER.

BREAKER RUN SHALL BE USED IN ALL EBS AREAS.

THE EXACT LOCATIONS OF ALL DRIVEWAY ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE EROSION CONTROL FEATURES ARE SHOWN ON THE PLAN AND ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

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

THE CONTRACTOR IS TO WORK WITH UTMOST CARE AND PROTECT ALL SURVEY MARKERS. REMOVAL OF ANY SURVEY MARKER IS TO BE WITH THE APPROVAL OF THE ENGINEER.

DETAILS OF CONSTRUCTION NOT SHOWN ON THE PLAN SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

RESTORATION OF EXPOSED SLOPE AND DITCHES SHALL TAKE PLACE NOT MORE THAN 7 DAYS AFTER FINISHED GRADING IS COMPLETE.

THE CONTRACTORS PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT PAVEMENT LONGITUDINAL JOINT FROM BEING LOCATED WITHIN A DRIVING OR TURNING LANE.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/INCH.

THE CONTRACTOR SHALL COORDINATE ALL UTILITY ADJUSTMENTS WITH THE APPROPRIATE UTILITY.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTY OWNERS ALONG THE PROJECT AT ALL TIMES.

ORDER OF DETAIL SHEETS

GENERAL NOTES  
TYPICAL SECTIONS  
CONSTRUCTION DETAILS  
EROSION CONTROL  
ALIGNMENT & CONTROL POINT TIES

UTILITIES

WISCONSIN POWER & LIGHT (ELECTRIC)  
ATTN: ZACHARY STOCKS  
3730 KENNEDY ROAD  
JANESVILLE, WI 53545-8812  
TELEPHONE: (608) 757-7516  
EMAIL: ZACHARYSTOCKS@ALLIANTENERGY.COM

AT&T WISCONSIN  
ATTN: CAROL ANASON  
316 W WASHINGTON AVENUE  
MADISON, WI 53701  
TELEPHONE: (920) 475-2799  
EMAIL: CA2624@ATT.COM

\*\*DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMEBERS.

ABBREVIATIONS

AC	ACRES	IP	IRON PIPE
AEW	APRON ENDWALL	JCT	JUNCTION
ASPH	ASPHALT	LHF	LEFT HAND FORWARD
AVG	AVERAGE	L	LENGTH
ADT	AVERAGE DAILY TRAFFIC	LS	LUMP SUM
BAD	BASE AGGREGATE DENSE	LT	LEFT
BM	BENCHMARK	MH	MANHOLE
CL	CENTERLINE OR CLASS	NC	NORMAL CROWN
CC	CENTER TO CENTER	N	NORTH
CE	COMMERCIAL ENTRANCE	PT	POINT
CONC	CONCRETE	PC	POINT OF CURVATURE
CMP	CORRUGATED METAL PIPE	PI	POINT OF INTERSECTION
CPRC	CULVERT PIPE CORRUGATED STEEL	PT	POINT OF TANGENCY
CSCP	CORRUGATED STEEL CULVERT PIPE	PL	PROPERTY LINE
CSM	CERTIFIED SURVEY MAP	PE	PRIVATE ENTRANCE
CTH	COUNTY TRUNK HIGHWAYS	R/RAD	RADIUS
CULV	CULVERT	RCP	REINFORCED CONCRETE PIPE
CP	CULVERT PIPE	REQ'D	REQUIRED
C&G	CURB & GUTTER	RT	RIGHT
D	DEGREE OF CURVATURE	R/W	RIGHT-OF-WAY
DHV	DESIGN HOURLY VOLUME	RHF	RIGHT HAND FORWARD
DIA	DIAMETER	SALV	SALVAGED
DWY	DRIVEWAY	SAN	SANITARY SEWER
E	EAST	SHLDR	SHOULDER
ELEV	ELEVATION	SDD	STANDARD DETAIL DRAWINGS
EW	ENDWALL	STA	STATION
ENT	ENTRANCE	STM	STORM SEWER
ESALS	EQUIVALENT SINGLE AXLE LOADS	SE	SUPERELEVATION
EX	EXISTING	SS	STORM SEWER
EXC	EXCAVATION	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
EBS	EXCAVATION BELOW SUBGRADE	TAN	TANGENT
EXIST	EXISTING	TLE	TEMPORARY LIMITED EASEMENT
FF	FACE TO FACE	T	TRUCKS
FERT	FERTILIZER	TYP	TYPICAL
FE	FEILD ENTRANCE	VERT	VERTICAL
FG	FINISHED GRADE	VC	VERTICAL CURVE
FT	FOOT	VOL	VOLUME
GV	GAS VALVE	VV	WATER VALVE
IE	INVERT ELEVATION	W	WELL
INL	INLET	X	EAST GRID COORDINATE
INV	INVERT	Y	NORTH GRID COORDINATE

PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

TYPE	THICKNESS	LAYERS	MAX. NO. SIZE GRADATION
ASPHALTIC SURFACE	2.0"	LOWER LAYER	12.5 MM
ASPHALTIC SURFACE	2.0"	UPPER LAYER	12.5 MM

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES  
ATTN: MIKE HALSTED  
101 SOUTH WEBSTER STREET  
MADISON, WI 53707  
TELEPHONE: (608) 345-3577  
EMAIL: MICHAEL.HALSTED@WISCONSIN.GOV

DESIGN CONTACT

R.H. BATTERMAN  
ATTN: RYAN RUDZINSKI, P.E.  
2857 BARTELLS DRIVE  
BELOIT, WI 53511  
TELEPHONE: (608) 365-4464  
EMAIL: RRUDZINSKI@RHBATTERMAN.COM

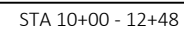
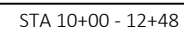
ROCK COUNTY

DIRECTOR OF PUBLIC WORKS  
DUANE M. JOREGENSON, P.E.  
3715 N. NEWVILLE ROAD  
JANESVILLE, WI 53545  
TELEPHONE: (608) 757-5450  
EMAIL: DUANE.JORGENSEN@CO.ROCK.WI.US

TOWN OF JANESVILLE

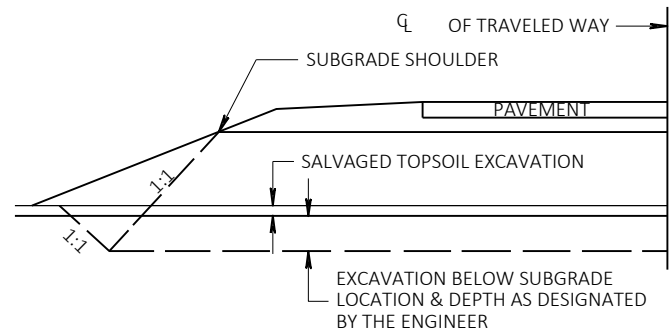
CHAIRMAN  
BRUCE SCHNEIDER  
1628 N. LITTLE COURT  
JANESVILLE, WI 53548  
TELEPHONE: (608) 754-1468



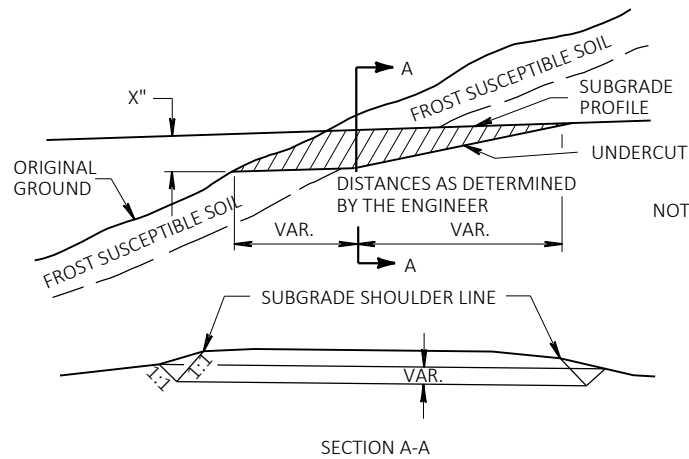


- 1 7.5-9 INCH ASPHALT PAVEMENT
- 2 3-6.5 INCH BASE AGGREGATE
- 3 4-INCH ASPHALTIC SURFACE (TWO LAYERS)
- 4 12-INCH BASE AGGREGATE DENSE 1¾-INCH
- 5 4-INCH BASE AGGREGATE DENSE ¾-INCH
- 6 LIMITS OF SEEDING MIXTURE NO. 20, EROSION MAT CLASS I TYPE A (URBAN), SEEDING TEMPORARY, AND FERTILIZER TYPE B (AS DIRECTED BY ENGINEER)
- 7 SALVAGED TOPSOIL





DETAIL FOR EXCAVATION BELOW SUBGRADE



DETAIL FOR EXCAVATION BELOW  
SUBGRADE AT CUTS

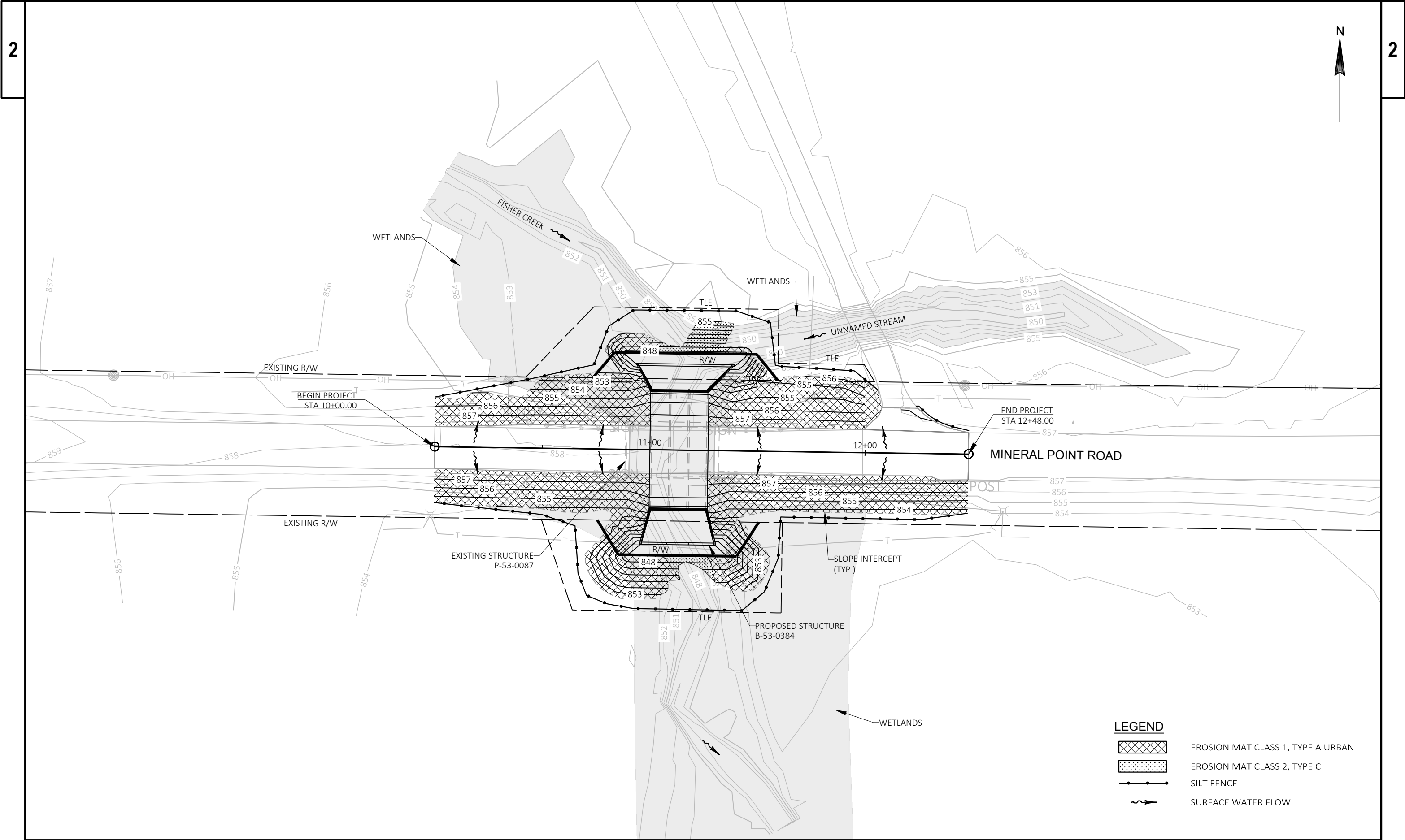
NOTE: EXACT LOCATIONS AND EXTENT OF E.B.S. SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.  
E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER  
BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.  
THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED.

RUNOFF COEFFICIENT TABLE

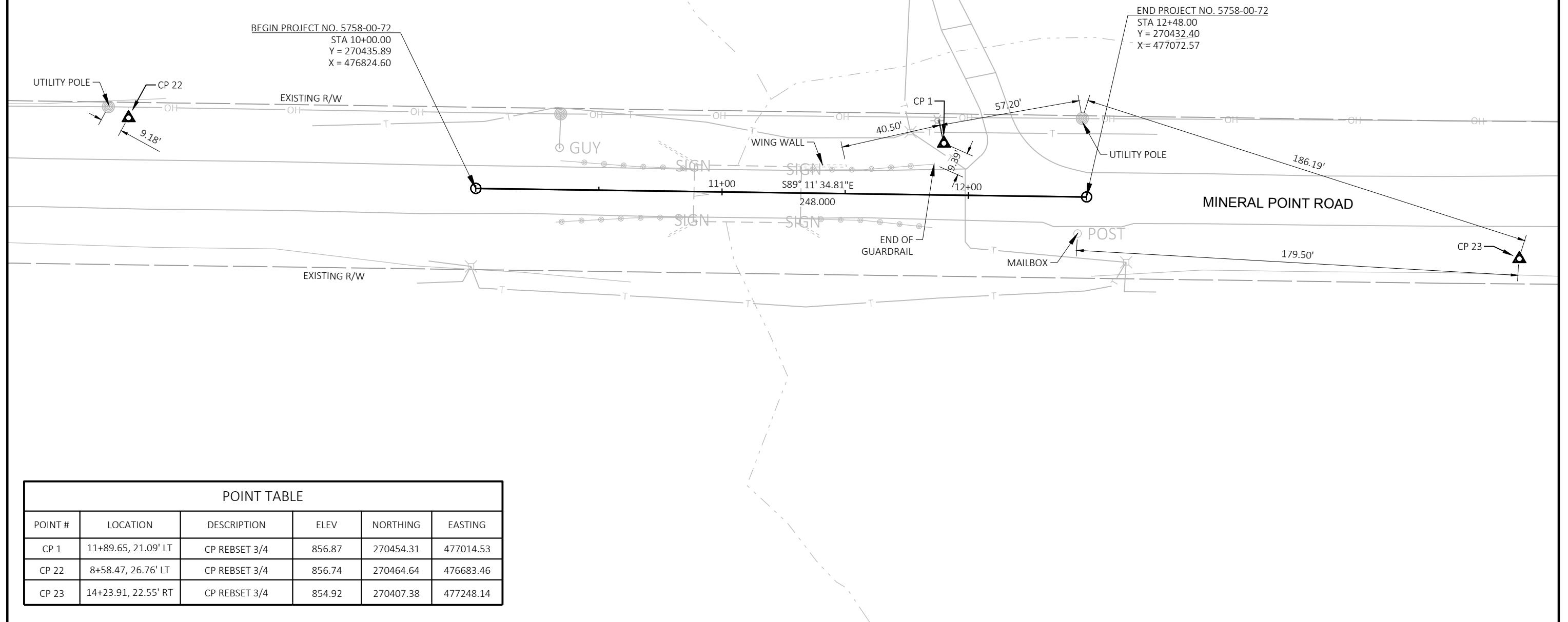
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.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 = 0.56 ACRES  
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.50 ACRES









POINT TABLE					
POINT #	LOCATION	DESCRIPTION	ELEV	NORTHING	EASTING
CP 1	11+89.65, 21.09' LT	CP REBSET 3/4	856.87	270454.31	477014.53
CP 22	8+58.47, 26.76' LT	CP REBSET 3/4	856.74	270464.64	476683.46
CP 23	14+23.91, 22.55' RT	CP REBSET 3/4	854.92	270407.38	477248.14



Estimate Of Quantities

5758-00-72					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0500.S	Removing Old Structure Over Waterway (station) 01. 11+10	LS	1.000	1.000
0008	204.0165	Removing Guardrail	LF	222.000	222.000
0010	205.0100	Excavation Common	CY	488.000	488.000
0012	206.2000	Excavation for Structures Culverts (structure) 01. B-53-0384	LS	1.000	1.000
0014	208.0100	Borrow	CY	188.000	188.000
0016	210.2500	Backfill Structure Type B	TON	995.000	995.000
0018	213.0100	Finishing Roadway (project) 01. 5758-00-72	EACH	1.000	1.000
0020	305.0110	Base Aggregate Dense 3/4-Inch	TON	35.000	35.000
0022	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	550.000	550.000
0024	311.0110	Breaker Run	TON	410.000	410.000
0026	455.0605	Tack Coat	GAL	35.000	35.000
0028	465.0105	Asphaltic Surface	TON	140.000	140.000
0030	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	10.000	10.000
0032	504.0100	Concrete Masonry Culverts	CY	172.000	172.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	18,400.000	18,400.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,060.000	2,060.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	40.000	40.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5758-00-72	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	624.0100	Water	MGAL	10.000	10.000
0046	625.0500	Salvaged Topsoil	SY	1,200.000	1,200.000
0048	627.0200	Mulching	SY	300.000	300.000
0050	628.1504	Silt Fence	LF	600.000	600.000
0052	628.1520	Silt Fence Maintenance	LF	600.000	600.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.2006	Erosion Mat Urban Class I Type A	SY	1,200.000	1,200.000
0060	628.2027	Erosion Mat Class II Type C	SY	60.000	60.000
0062	628.7560	Tracking Pads	EACH	1.000	1.000
0064	629.0210	Fertilizer Type B	CWT	1.000	1.000
0066	630.0120	Seeding Mixture No. 20	LB	35.000	35.000
0068	630.0200	Seeding Temporary	LB	35.000	35.000
0070	630.0300	Seeding Borrow Pit	LB	5.000	5.000
0072	633.5200	Markers Culvert End	EACH	2.000	2.000
0074	638.2602	Removing Signs Type II	EACH	4.000	4.000



Estimate Of Quantities

5758-00-72

Line	Item	Item Description	Unit	Total	Qty
0076	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0078	642.5001	Field Office Type B	EACH	1.000	1.000
0080	643.0420	Traffic Control Barricades Type III	DAY	1,400.000	1,400.000
0082	643.0705	Traffic Control Warning Lights Type A	DAY	2,000.000	2,000.000
0084	643.0900	Traffic Control Signs	DAY	1,200.000	1,200.000
0086	643.5000	Traffic Control	EACH	1.000	1.000
0088	645.0105	Geotextile Type C	SY	365.000	365.000
0090	650.4500	Construction Staking Subgrade	LF	248.000	248.000
0092	650.5000	Construction Staking Base	LF	248.000	248.000
0094	650.6500	Construction Staking Structure Layout (structure) 01. B-53-0384	LS	1.000	1.000
0096	650.9910	Construction Staking Supplemental Control (project) 01. 5758-00-72	LS	1.000	1.000
0098	650.9920	Construction Staking Slope Stakes	LF	248.000	248.000
0100	690.0150	Sawing Asphalt	LF	70.000	70.000
0102	715.0502	Incentive Strength Concrete Structures	DOL	1,032.000	1,032.000
0104	SPV.0105	Special 01. Dewatering	LS	1.000	1.000



3

CONSTRUCTION STAKING								SAWING PAVEMENT					
		650.4500	650.5000	650.6500	650.9910	650.9920	690.0150						
		CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING STRUCTURE LAYOUT	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL	CONSTRUCTION STAKING SLOPE STAKES	SAWING ASPHALT						
		STATION	LOCATION	LF	LF	LS	LS	LF	CATEGORY 0010	STATION	LOCATION	LF	
CATEGORY 0010		10+00 - 12+48	LT/RT	248	248	-	1	248		10+00		20	
CATEGORY 0020				-	-	1	-	-		12+06 - 12+24	LT	18	
										12+48		22	
TOTAL CATEGORY 0010				248	248	-	1	248	SUBTOTAL				60
TOTAL CATEGORY 0020				-	-	1	-	-	UNDISTRIBUTED				10
CLEARING AND GRUBBING													
				201.0105	201.0205								
				CLEARING	GRUBBING								
		STATION	LOCATION	STA	STA								
CATEGORY 0010		10+00 - 12+00	LT/RT	2	2								
TOTAL CATEGORY 0010				2	2								
REMOVING ITEMS													
				204.0165	638.2602	638.3000							
				REMOVING GUARDRAIL	REMOVING SIGNS TYPE II	REMOVING SMALL SIGN SUPPORTS							
		LOCATION		LF	EA	EA	MESSAGE						
CATEGORY 0010		10+30 - 11+85		222	-	-							
		10+90 - 11+30		-	4	4	BRIDGE HASH MARKS						
TOTAL CATEGORY 0010				222	4	4							
TRAFFIC CONTROL ITEMS													
				643.0420	643.0705	643.0900							
				TRAFFIC CONTROL BARRICADES TYPE III	TRAFFIC CONTROL WARNING LIGHTS TYPE A	TRAFFIC CONTROL SIGNS							
		STATION		DAYS	DAYS	DAYS							
CATEGORY 0010		10+00 - 12+48		1296	1872	1008	CATEGORY 0010						
							10+00 - 12+48						
							1120						
							0.7						
							31						
							31						
							-						
SUBTOTAL				1296	1872	1008	SUBTOTAL						
							1120						
							0.7						
							31						
							31						
							-						
UNDISTRIBUTED				104	128	192	UNDISTRIBUTED/BORROW PIT						
							80						
							0.3						
							4						
							4						
							5						
TOTAL CATEGORY 0010				1400	2000	1200	TOTAL CATEGORY 0010						
							1200						
							1						
							35						
							35						
							5						
EROSION CONTROL ITEMS													
				627.0200	628.1504	628.1520	628.1905	628.1910	628.2006	628.2027	628.7560		
				MULCHING	SILT FENCE	SILT FENCE MAINTENANCE	MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL	EROSION MAT URBAN CLASS I TYPE A	EROSION MAT CLASS II TYPE C	TRACKING PADS		
		STATION	LOCATION	SY	LF	LF	EA	EA	SY	SY	EA		
CATEGORY 0010		10+00 - 12+48	LT/RT	-	552	552	2	2	1070	50	1		
						</							

3



BASE AGGREGATE ITEMS				
	305.0110	305.0120	* 311.0110	624.0100
	BASE AGGREGATE DENSE 3/4-INCH	BASE AGGREGATE DENSE 1 1/4-INCH	BREAKER RUN	WATER
STATION	TON	TON	TON	MGAL
CATEGORY 0010				
10+00 - 12+48	30	481	25	8
SUBTOTAL	30	481	25	8
UNDISTRIBUTED	5	69	5	2
TOTAL CATEGORY 0010	35	550	30	10
* ADDITIONAL QUANTITY LISTED ELSEWHERE				

CULVERT ENDWALL SUMMARY			
			633.5200
	STATION	LOCATION	MARKERS CULVERT END EACH
CATEGORY 0010			
	11+00	RT	1
	11+27	LT	1
TOTAL CATEGORY 0010			2

ASPHALT PAVEMENT ITEMS						
			455.0605	465.0105	465.0120	
		THICKNESS	TACK COAT	ASPHALTIC SURFACE	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	
STATION	LOCATION	INCHES	GAL	TON	TON	
CATEGORY 0010						
10+00 - 12+48		2	15	65	-	
10+00 - 12+48		2	15	65	-	
12+00 - 12+48	LT	3	-	-	6	
SUBTOTAL			30	130	6	
UNDISTRIBUTED			5	10	4	
TOTAL CATEGORY 0010			35	140	10	

Division	From/To Station	Location	205.0100 Common Excavation (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Reduced EBS in Fill (6)	Expanded EBS Backfill (7)	Unexpanded Fill	Expanded Fill	Mass Ordinate +/- (14)	Waste	208.0100 Borrow	Comment:
			Cut (2)	EBS Excavation (3)			Factor 0.80	Factor 1.30		Factor 1.25				
Division - Mineral Point Road														
	10+00 - 12+48	Mineral Point Road	470	18	127	343	14	23	294	368	-24		188	164 CY OF CUT UNUSABLE IN FILL
Grand Total			470	18	127	343	14	23	294	368	-24	0	188	
Total Common Exc			488											

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) EBS Excavation to be backfilled with Breaker Run.

(4) Salvaged/Unusable Pavement Material

5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(6) Reduced EBS in Fill - Excavated EBS material is usable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8

(7) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100

Depending on selections:                   **Expanded Fill = (Unexpanded Fill) \* Fill Factor**

(8) 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.



CONVENTIONAL SYMBOLS			
SECTION LINE		PARCEL NUMBER	
QUARTER LINE		UTILITY NUMBER	
SIXTEENTH LINE			
NEW REFERENCE LINE		SECTION CORNER	
NEW R/W LINE			
EXISTING R/W LINE		NOTATION FOR COMBUSTABLE FLUIDS	
PROPERTY LINE			
LOT, TIE, AND OTHER MINOR LINES		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)			
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			
TEMP. LIMITED EASEMENT AREA			
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)			
TRANSMISSION STRUCTURES			
BUILDING			
BUILDING (TO BE REMOVED)			
BRIDGE			

CONVENTIONAL UTILITY SYMBOLS	
WATER	—W—
GAS	—G—
TELEPHONE	—T—
OVERHEAD TRANSMISSION LINES	—OH—
ELECTRIC	—E—
CABLE TELEVISION	—TV—
FIBER OPTIC	—FO—
SANITARY SEWER	—SAN—
STORM SEWER	—SS—
ELECTRIC TOWER	

	NON-COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		

#### CURVE DATA ABBREVIATIONS

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

#### CONVENTIONAL ABBREVIATIONS

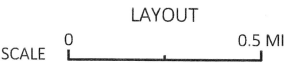
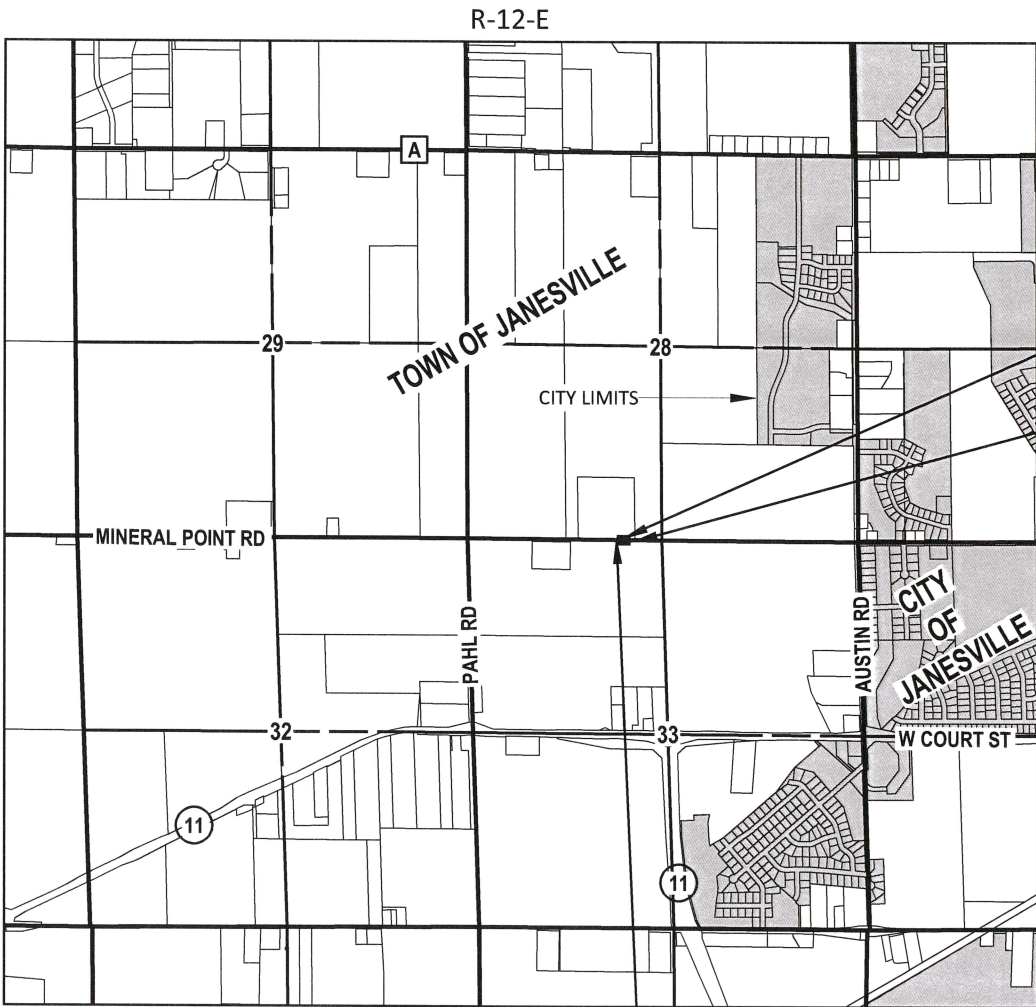
ACCESS RIGHTS	AR	OUTLOT	OL
ACRES	AC	PAGE	P
AHEAD	AH	POINT OF TANGENCY	PT
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REEL / IMAGE	R/I
BLOCK	BLK	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC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

#### NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), ROCK COUNTY, NAD83 (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 TYPE 2 MONUMENTS (TYPICALLY 3/4" x 24" REBAR) AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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



TOTAL NET LENGTH OF CENTERLINE = 0.04 MILES

R/W PROJECT NUMBER 5758-00-02	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER 5758-00-02	4.01	3
PLAT OF RIGHT OF WAY REQUIRED FOR TOWN OF JANESVILLE, MINERAL POINT ROAD FISHER CREEK BRIDGE P-53-0087		
TOWN ROAD		ROCK COUNTY

STRUCTURE  
B-53-0384

END RELOCATION ORDER  
STATION 12+48.00  
398.33' W OF AND 1.80' S  
OF THE NORTH 1/4 CORNER  
OF SECTION 33, T-3-N, R-12-E

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

ACCEPTED FOR  
ROCK COUNTY  
2-4-19  
(Date)  
(PUBLIC WORKS DIRECTOR)

ORIGINAL PLANS PREPARED BY

**Batterman**

engineers surveyors planners

R.H. BATTERMAN & CO., INC.  
2857 BARTELLS DRIVE  
BELOIT, WI 53511

P 608.365.4464  
TF 877.457.2235  
F 608.365.1850



THIS SURVEY IS PREPARED AT THE REQUEST OF ROCK COUNTY. THE  
FIELD SURVEY WAS PERFORMED IN MAY 2018. THIS SURVEY IS  
CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

(SIGNATURE) *Kristin Belongia*

DATE 02/04/2019

(PRINTED NAME) KRISTIN J. BELONGIA

(REGISTRATION NUMBER) S-2943

REVISION DATE



SCHEDULE OF LANDS & INTERESTS REQUIRED			AREAS SHOWN IN THE TOTAL AREA COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.			OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER.	
PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE (ACRES)
				NEW	EXISTING	TOTAL	
1	4.03	EDWARD F QUAERNA JR	FEE, TLE	0.021	0.155	0.176	0.064
2	4.03	DENNIS D & BARBARA A KERSTEN	FEE, TLE	0.024	0.221	0.245	0.077
3	4.03	AT&T WISCONSIN (WISCONSIN BELL, INC)	RELEASE OF RIGHTS	-	-	-	-



FEE COURSE TABLE		
COURSE	BEARING	DISTANCE
100 - 101	S89° 11' 35"E	73.00'
101 - 102	N40° 36' 45"E	15.62'
102 - 103	S89° 11' 35"E	66.00'
103 - 104	S38° 59' 55"E	15.62'
104 - 105	S89° 11' 35"E	89.00'
106 - 107	N89° 11' 35"W	97.00'
107 - 108	S32° 48' 45"W	18.87'
108 - 109	N89° 11' 35"W	55.00'
109 - 110	N31° 11' 54"W	18.87'
110 - 111	N89° 11' 35"W	76.00'

TLE COURSE TABLE		
COURSE	BEARING	DISTANCE
100 - 112	S89° 11' 35"E	42.00'
112 - 113	N44° 01' 00"E	45.28'
113 - 114	S89° 11' 35"E	86.00'
114 - 115	S00° 48' 25"W	25.00'
115 - 116	S89° 11' 35"E	40.00'
116 - 117	S31° 11' 54"E	9.43'
117 - 104	N89° 11' 35"W	45.00'
101 - 112	N89° 11' 35"W	31.00'
106 - 121	N89° 11' 35"W	86.00'
121 - 120	S00° 48' 25"W	42.00'
120 - 119	N89° 11' 35"W	97.00'
119 - 118	N18° 50' 49"W	44.60'
118 - 110	S89° 11' 35"E	26.00'
107 - 121	S89° 11' 35"E	11.00'
118 - 111	N89° 11' 35"W	50.00'
117 - 105	S89° 11' 35"E	44.00'

R/W STATION & OFFSET		
POINT #	STATION	OFFSET
100	10+00.00	33.00'
101	10+73.00	33.00'
102	10+83.00	45.00'
103	11+49.00	45.00'
104	11+59.00	33.00'
105	12+48.00	33.00'
106	12+48.00	33.00'
107	11+51.00	33.00'
108	11+41.00	49.00'
109	10+86.00	49.00'
110	10+76.00	33.00'
111	10+00.00	33.00'

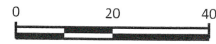
ENCROACHMENT TABLE			
ENCROACHMENT NUMBER	OWNER	TYPE	LOCATION
E-1	EDWARD F QUAERNA JR	YARD LIGHT	STA. 11+87, 30' LT

REVISION DATE				

DATE 02/04/2019

GRID FACTOR

SCALE, FEET



HWY: TOWN ROAD

COUNTY: ROCK

STATE R/W PROJECT NUMBER 5758-00-02

CONSTRUCTION PROJECT NUMBER 5758-00-72

PLAT SHEET 4.03

PS&E SHEET

E

FILE NAME: 33019 RW PLAT.DWG  
LAYOUT NAME: RW PLAT

PLOT DATE: 2/4/2019 1:11 PM

PLOT BY: CARYN MELLOM

PLOT NAME:

PLOT SCALE: 1 IN=40 FT

WISDOT/CADDs SHEET 75



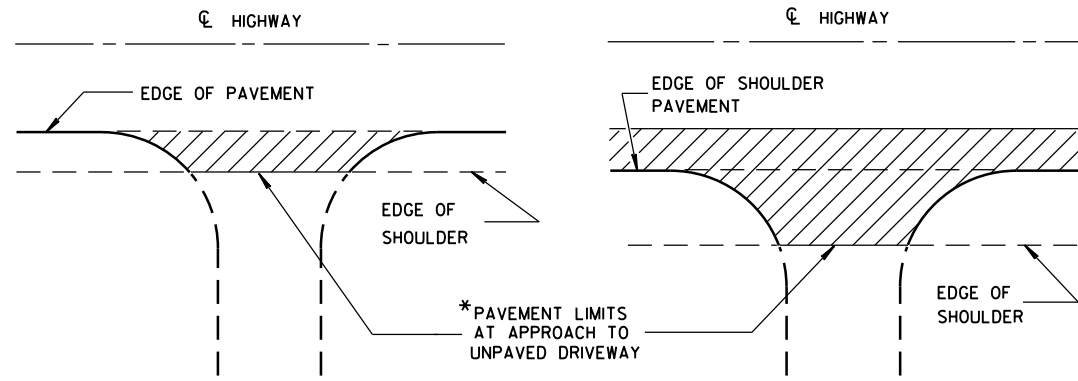




Standard Detail Drawing List

08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
12A03-10	NAME PLATE (STRUCTURES)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



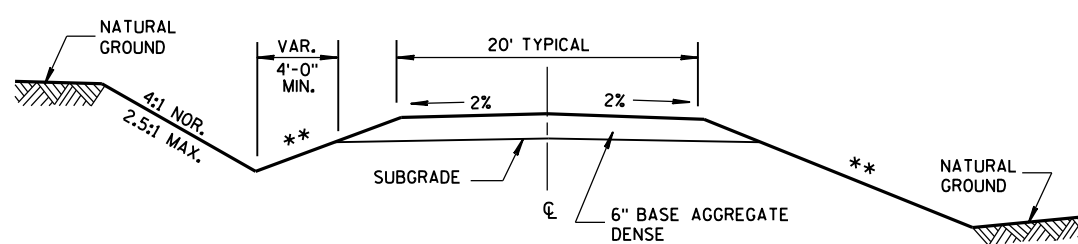


\*WHERE DRIVEWAY IS PAVED, APPROACH PAVEMENT SHOULD BE EXTENDED TO MATCH DRIVEWAY PAVEMENT.

**PLAN VIEW**  
(UNPAVED SHOULDER ON HIGHWAY)

**PLAN VIEW**  
(PAVED SHOULDER ON HIGHWAY)

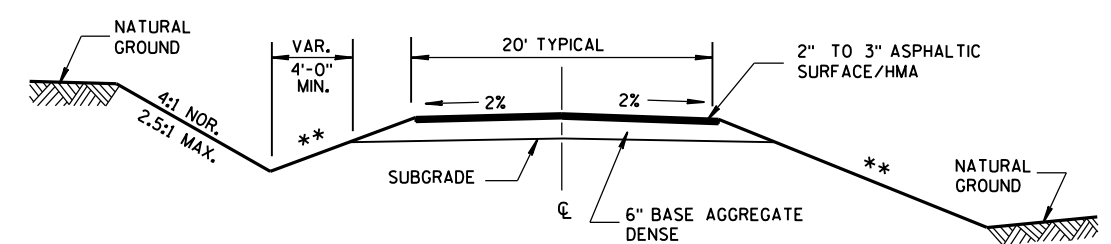
**RURAL DRIVEWAY INTERSECTION DETAIL**  
(NO CURB & GUTTER OR SIDEWALK)



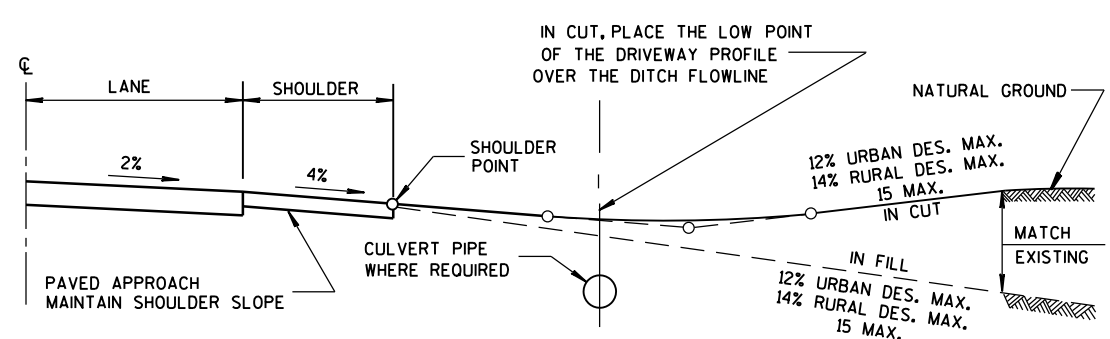
**TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE**  
**AGGREGATE SURFACE**

\*\* SLOPE CAN VARY WITH SPEED. SEE 11-45-2.6.2.

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥35 TO <60	6:1
≥60	10:1



**TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE**  
**ASPHALTIC SURFACE**



**TYPICAL DRIVEWAY PROFILES**

<b>DRIVEWAYS WITHOUT CURB &amp; GUTTER</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December, 2016 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	



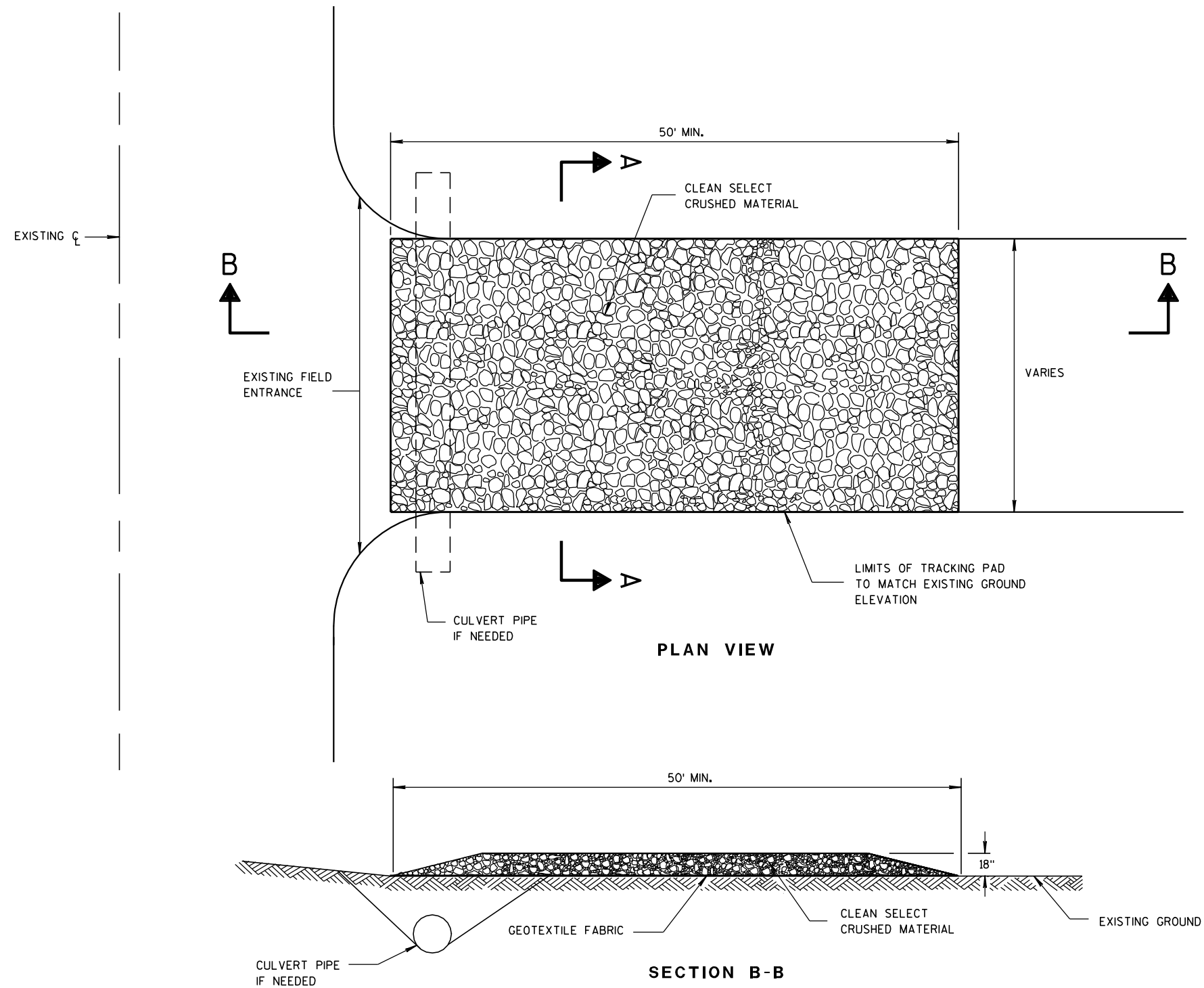


- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



<div style="text-align: center;"><b>SILT FENCE</b></div>	
<div style="text-align: center;"><b>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</b></div>	
<b>APPROVED</b> <u>4-29-05</u> DATE	<u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER





TRACKING PAD

## 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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

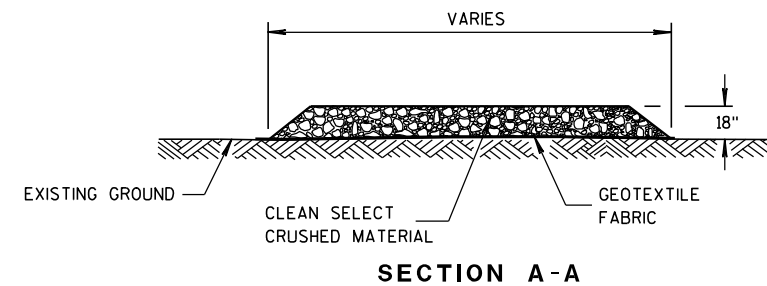
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



## TRACKING PAD

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

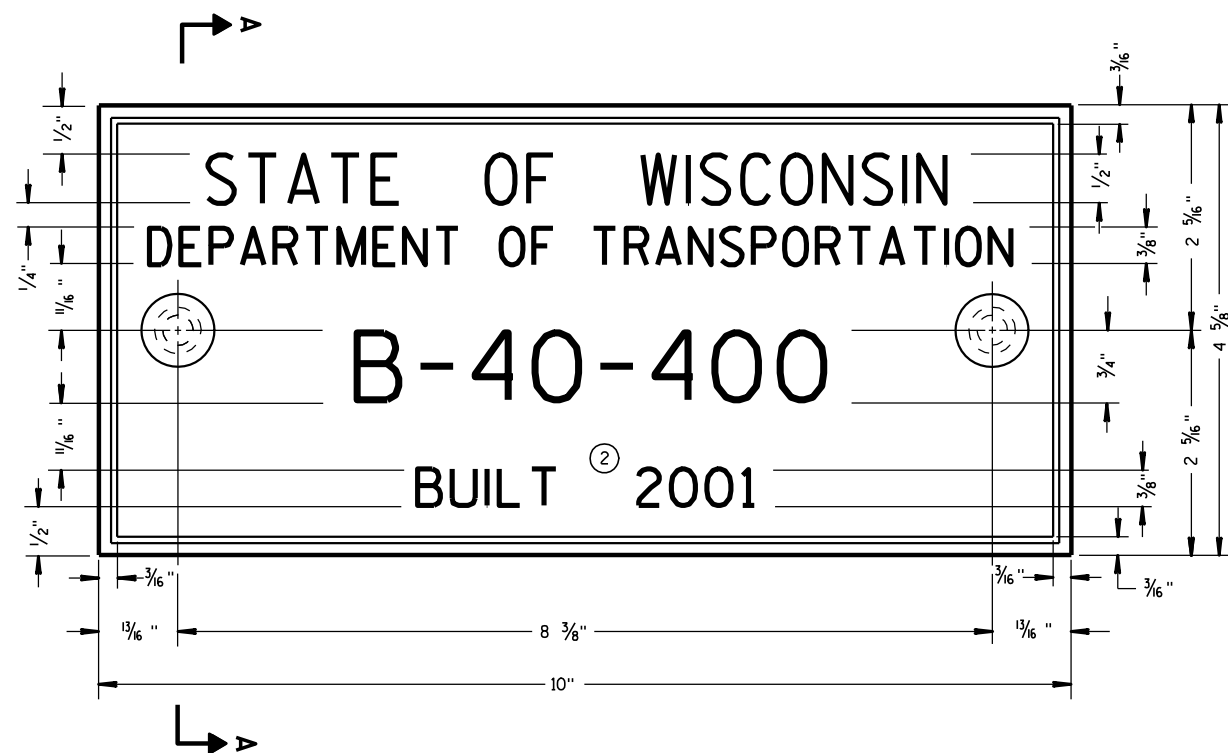
FHWA

/S/ Jerry H. Zogg

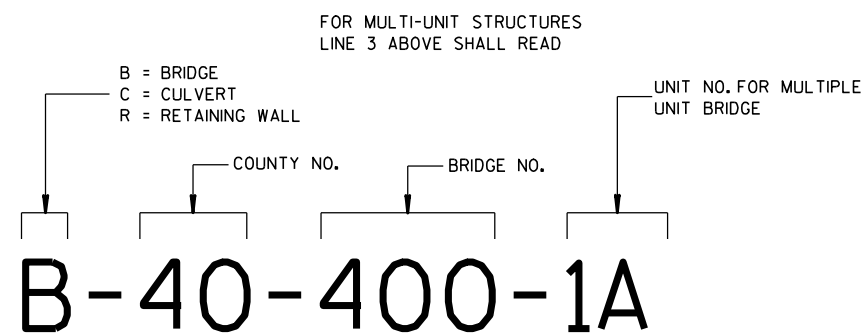
ROADWAY STANDARDS DEVELOPMENT

ENGINEER





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



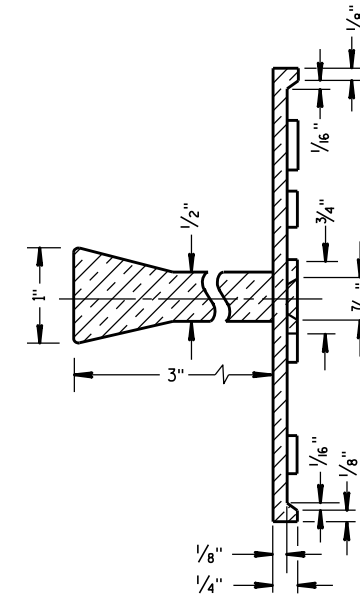
**NUMBERING DESIGNATION  
MULTI-UNIT STRUCTURES**

## GENERAL NOTES

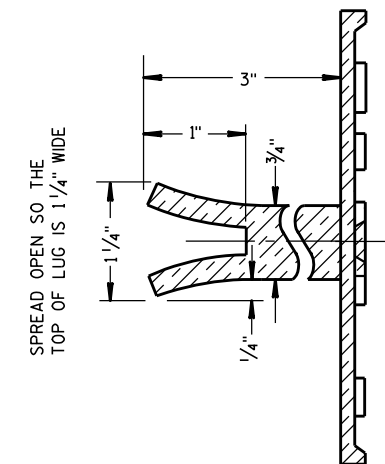
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

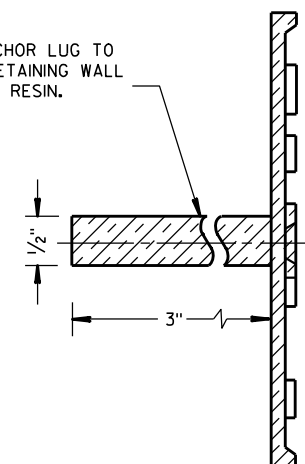


**SECTION A-A**



**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

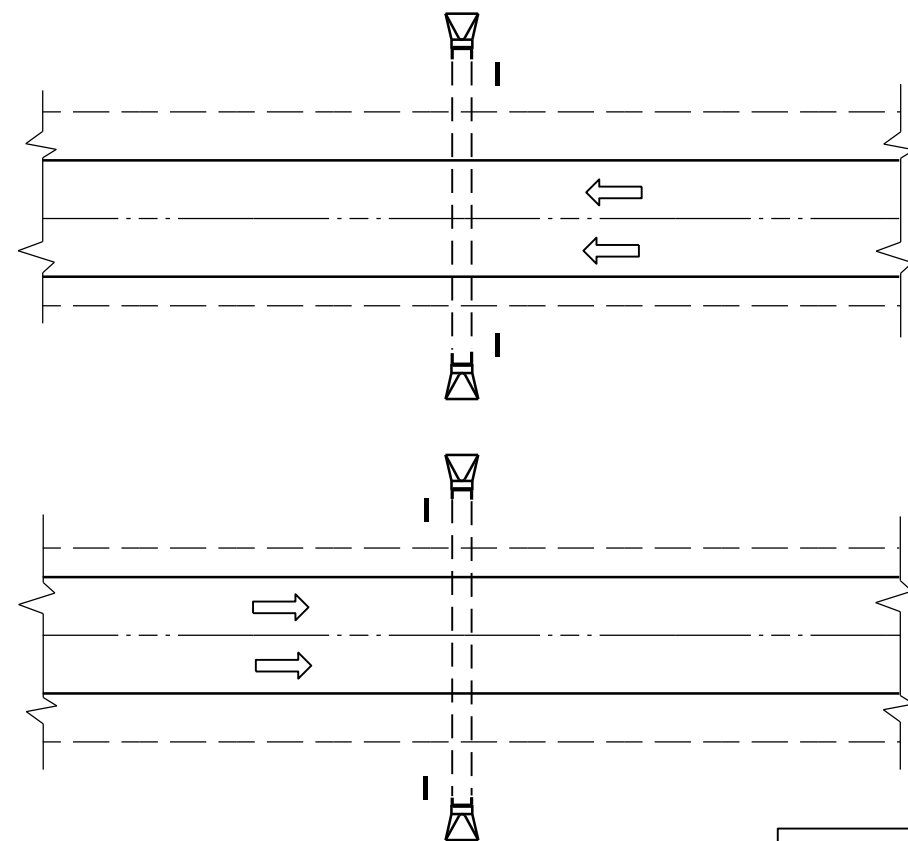
APPROVED

3/26/10  
DATE

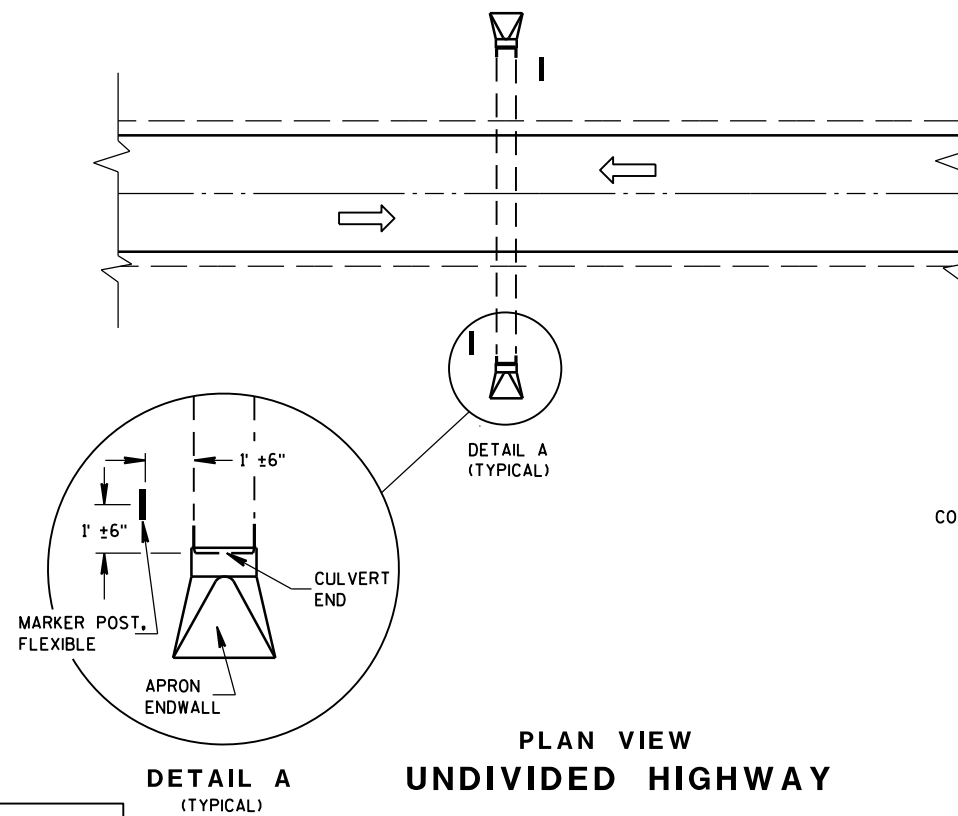
FHWA

/S/ Scot Becker  
CHIEF STRUCTURAL DEVELOPMENT ENGINEER

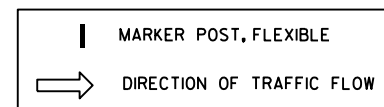




PLAN VIEW  
DIVIDED HIGHWAY



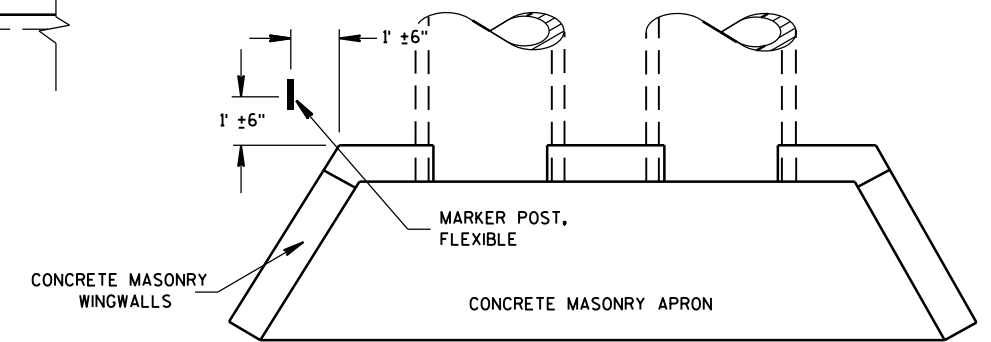
PLAN VIEW  
UNDIVIDED HIGHWAY



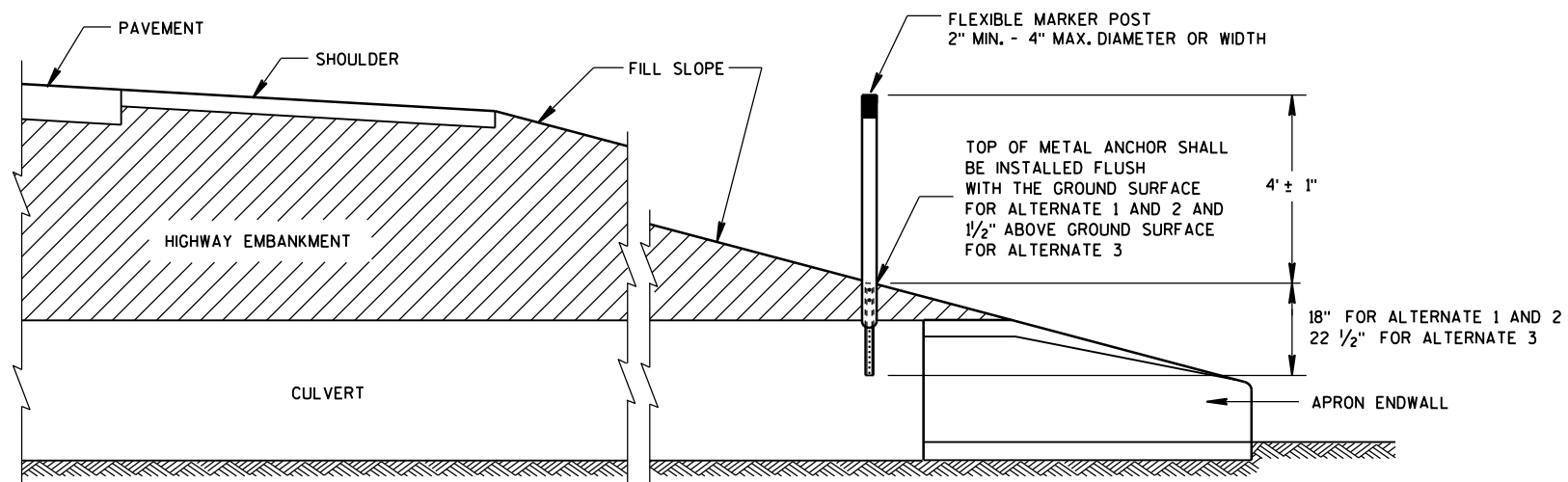
### FLEXIBLE MARKER POST LOCATION

### 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

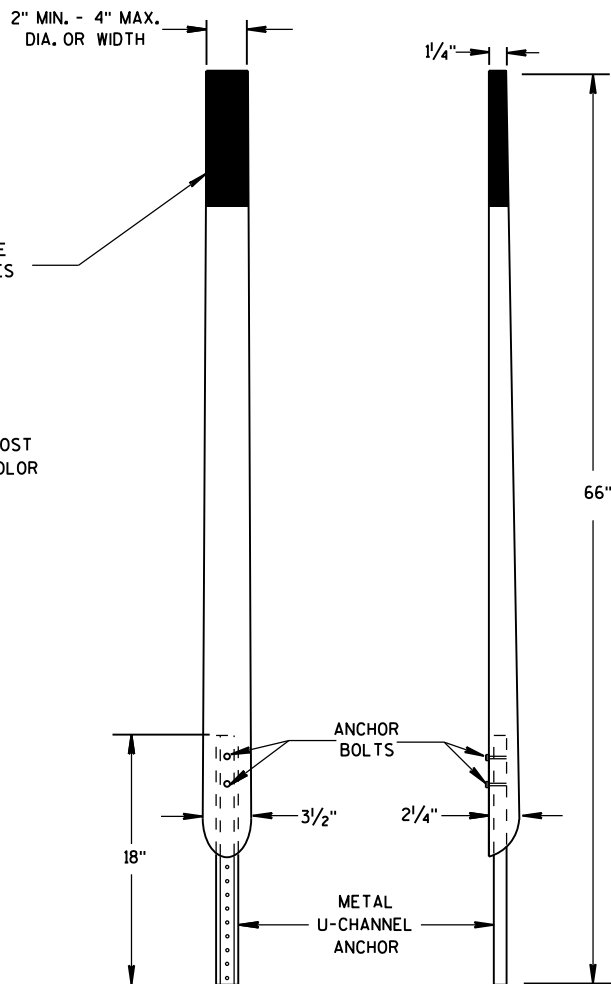
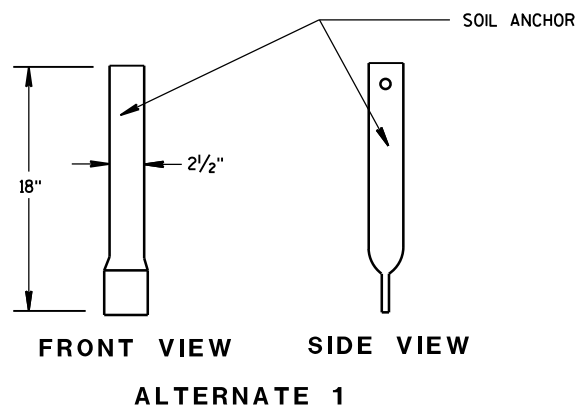
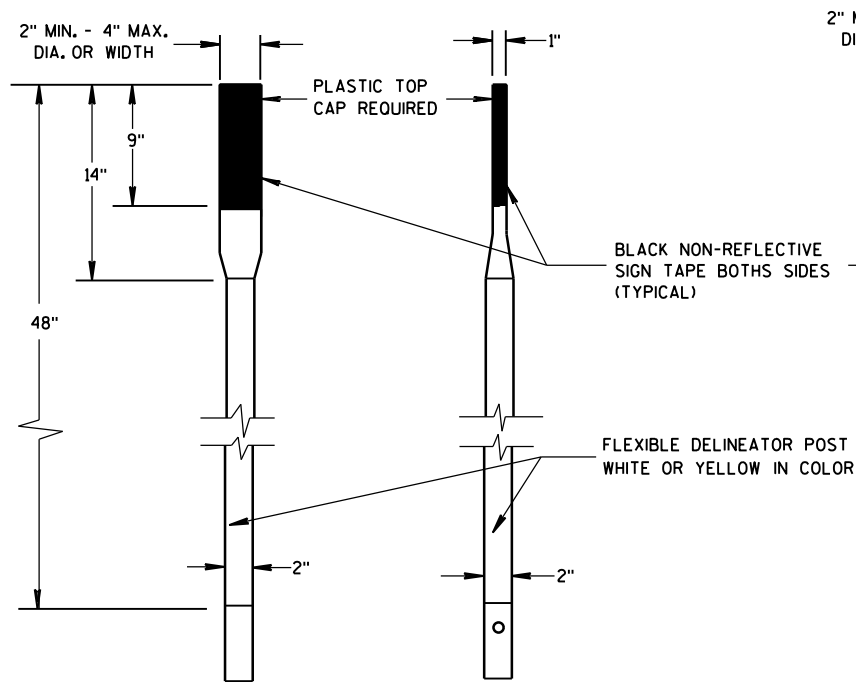


CROSS SECTION  
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST  
FOR CULVERT END

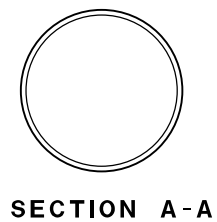
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION



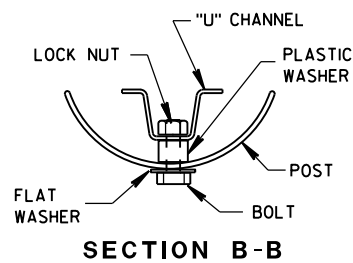
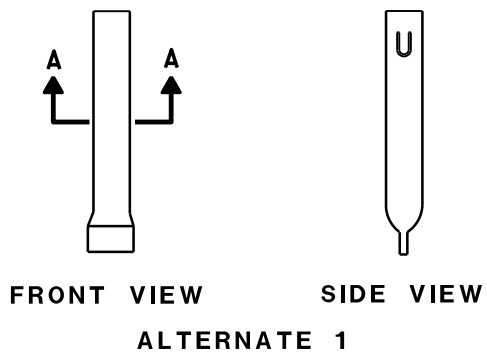


FRONT VIEW SIDE VIEW  
ALTERNATE 2

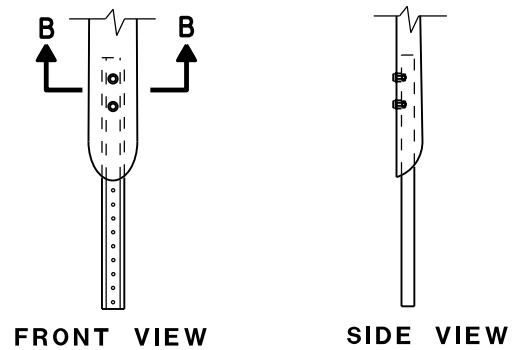
### FLEXIBLE MARKER POSTS



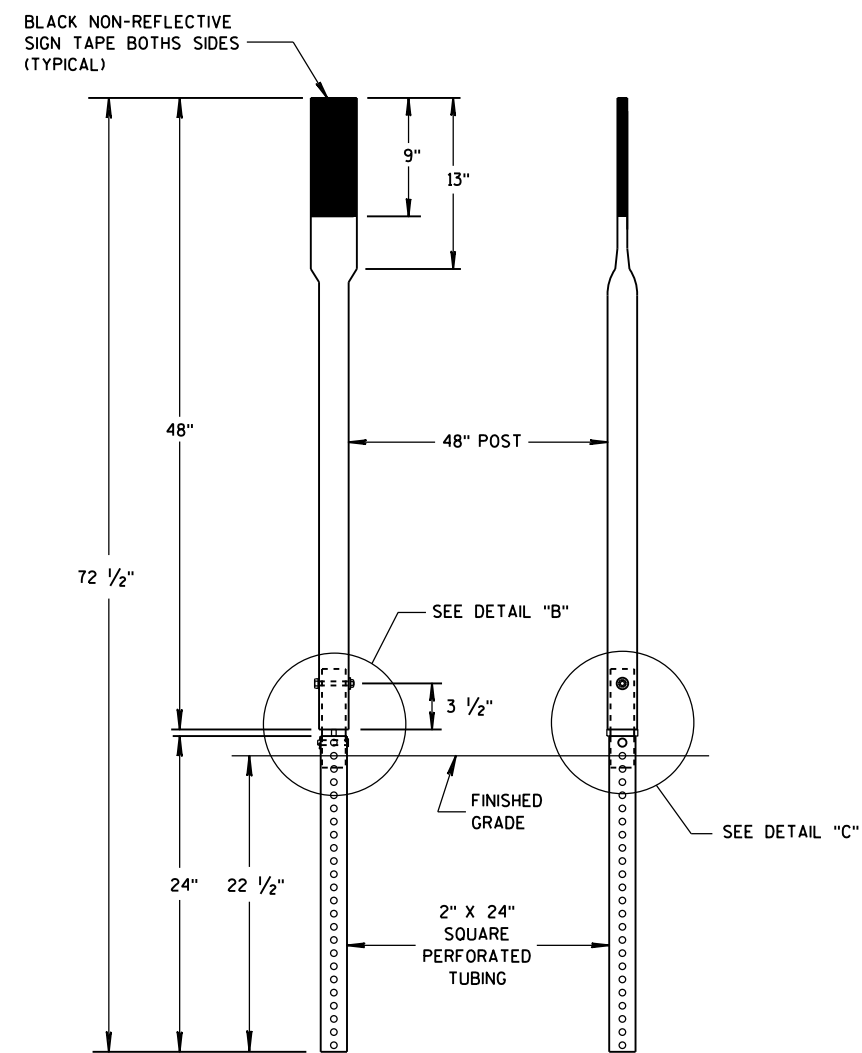
SECTION A-A



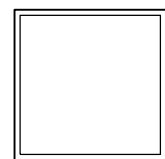
SECTION B-B



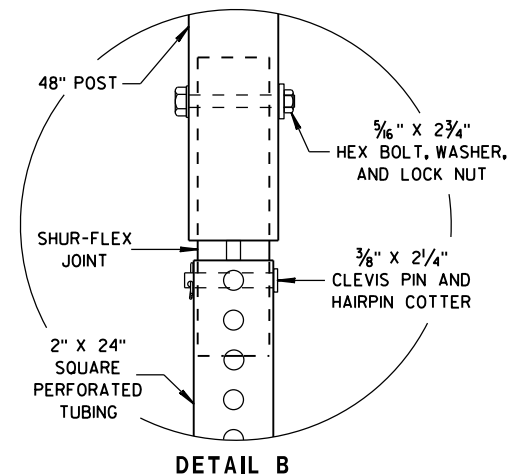
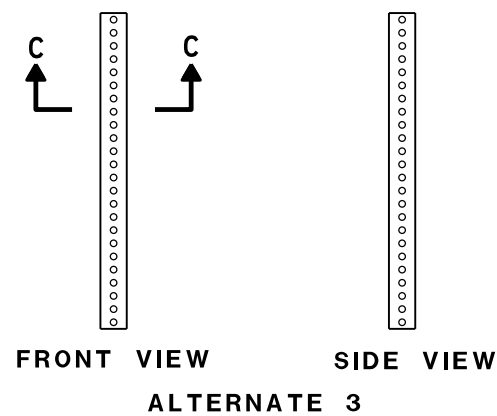
FRONT VIEW SIDE VIEW  
ALTERNATE 2  
FLEXIBLE MARKER POST ANCHORS



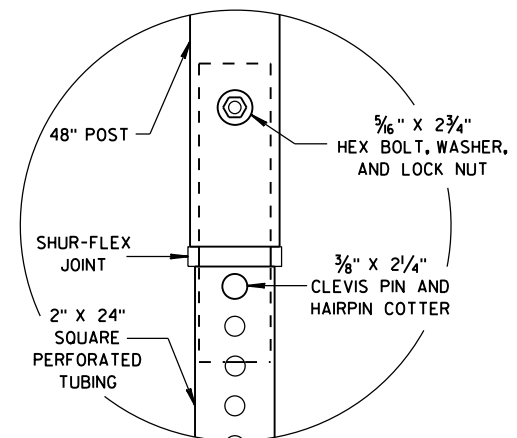
FRONT VIEW SIDE VIEW  
ALTERNATE 3



SECTION C-C



DETAIL B



DETAIL C

### FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

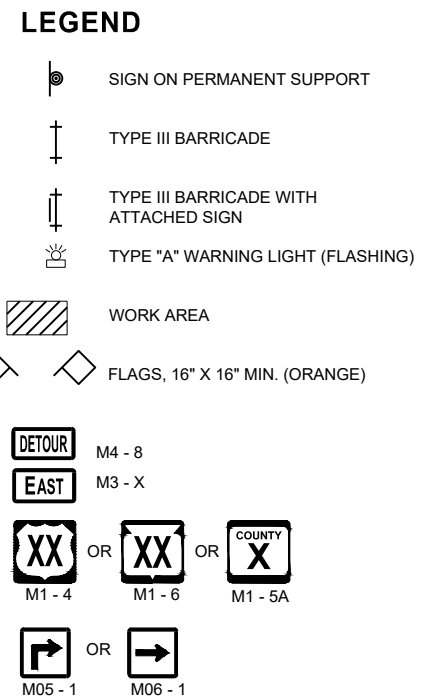
APPROVED

10/1/2012  
DATE

FHWA

/S/ Travis Feltes  
STATE TRAFFIC ENGINEER OF DESIGN





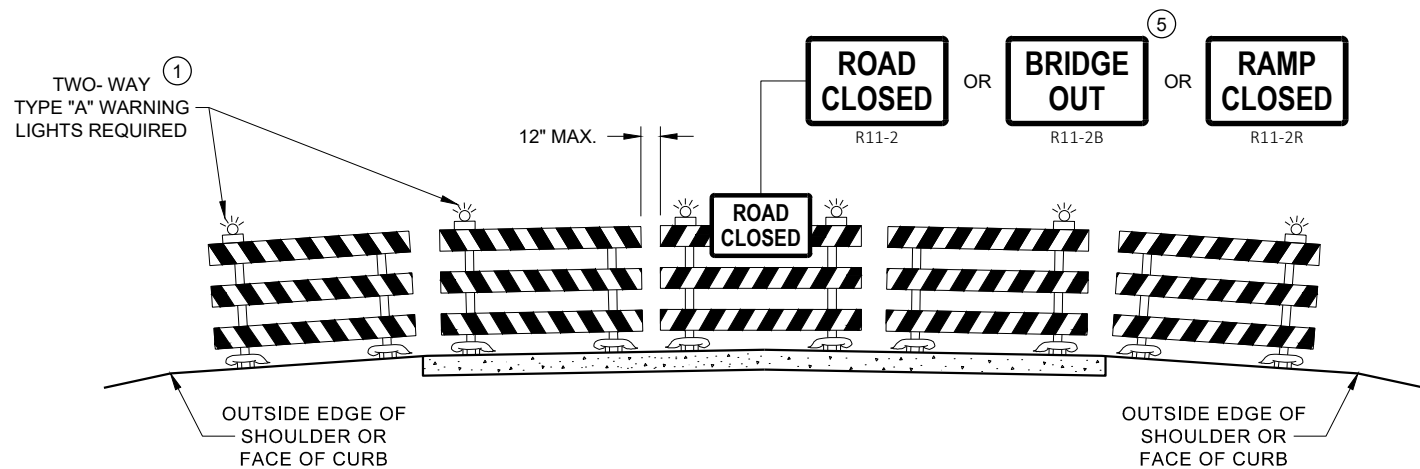
**DETAIL B**  
**MAINLINE CLOSURE WITH POSTED DETOUR**  
 WORK ZONE LESS THAN ½ MILE FROM  
 DETOUR ROUTE ( 1000 FEET IF URBAN )

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

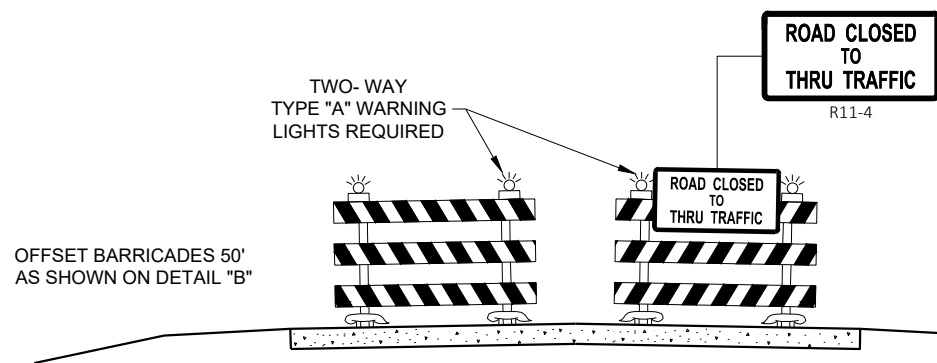
SEE SDD 15C2-SHEET "b"  
FOR GENERAL NOTES  
AND FOOTNOTES ① THROUGH ⑦







DETAIL D  
ROAD CLOSURE BARRICADE DETAIL  
APPROACH VIEW



DETAIL E  
LANE CLOSURE BARRICADE DETAIL  
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

## GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- 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 AN 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 ROAD 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 VARIOUS CLOSURES

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

APPROVED  
November 2018 /S/ Andrew Heidtke  
DATE WORK ZONE ENGINEER

FHWA



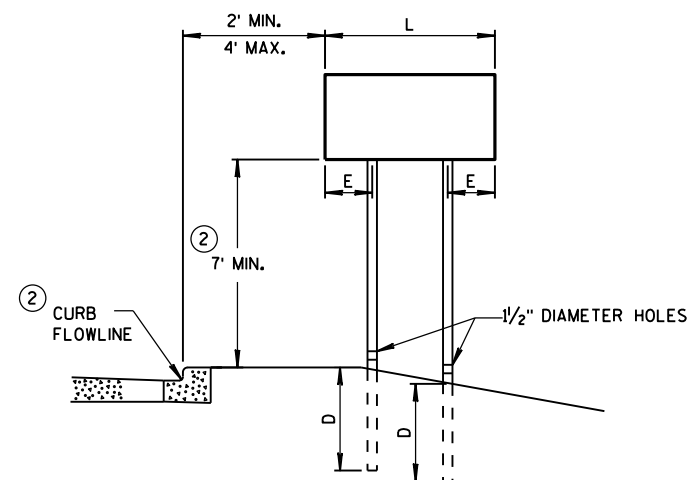
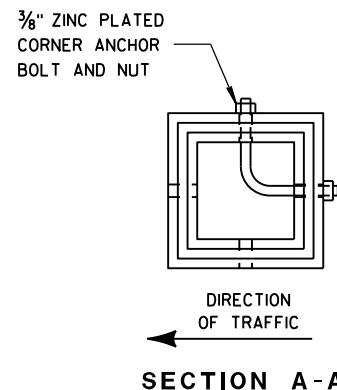


DETAIL OF TUBULAR STEEL SIGN POST

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.

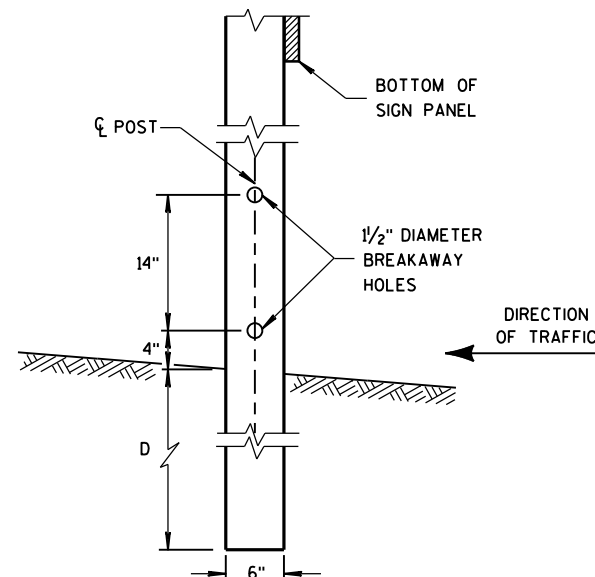


URBAN AREA

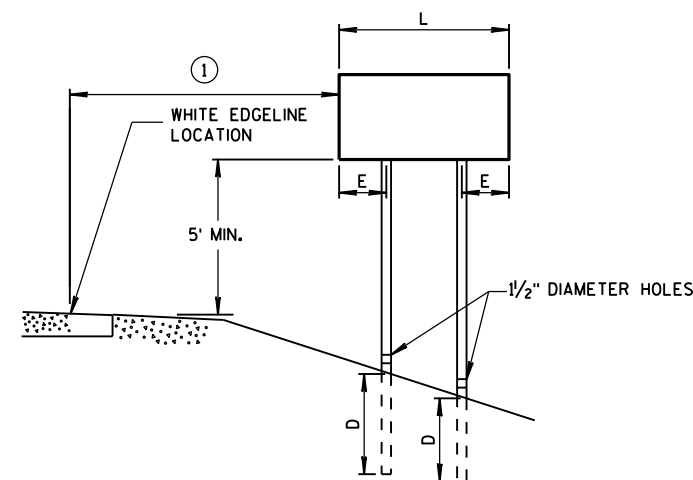
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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 MODIFICATION



RURAL AREA

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

## 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.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION





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.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



## LEGEND

△ SEE CORNER DETAILS (SHEET 5).

■ NAME PLATE LOCATION (SEE SHEET 4) AND BENCHMARK CAP (WHEN SUPPLIED).

\* BUILD APRON AND END OF BOX LEVEL.

⬡ INDICATES WING NUMBER.

● UNDER CUT STRUCTURE (TO BE PAID FOR UNDER "EXCAVATION FOR STRUCTURES"), PLACE GEOTEXTILE FABRIC TYPE C, AND BACKFILL WITH BREAKER RUN. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE CULVERT.

▲ ¾" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WING WALL.

▲ VERTICAL CONSTRUCTION JOINT 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING UP WALLS AND ACROSS TOP SLAB.

■ PLACE 9" OF BREAKER RUN IN CULVERT BEFORE ALLOWING STREAM FLOW THROUGH STRUCTURE

## DESIGN DATA

## LIVE LOAD:

DESIGN LOADING \_\_\_\_\_ HL-93  
INVENTORY RATING FACTOR \_\_\_\_\_ RF=1.05  
OPERATING RATING FACTOR \_\_\_\_\_ RF=1.35  
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) \_\_\_\_\_ 255 KIPS

## EARTH LOAD:

DESIGNED FOR 3.5' TO 4.0' FEET OF FILL

## MATERIAL PROPERTIES:

CONCRETE MASONRY, CULVERT \_\_\_\_\_ f'c = 3,500 P.S.I.  
HIGH-STRENGTH BAR STEEL \_\_\_\_\_ fy = 60,000 P.S.I.  
REINFORCEMENT, GRADE 60 \_\_\_\_\_

## TRAFFIC DATA

A.D.T. (2020) \_\_\_\_\_ 755  
A.D.T. (2040) \_\_\_\_\_ 1015  
DESIGN SPEED \_\_\_\_\_ 50 M.P.H.

## HYDRAULIC DATA

100-YEAR FREQUENCY \_\_\_\_\_  
DRAINAGE AREA \_\_\_\_\_ 1.7 SQ. MI.  
Q<sub>100</sub> TOTAL \_\_\_\_\_ 390 C.F.S.  
THROUGH STRUCTURE \_\_\_\_\_ 390 C.F.S.  
OVERTOPPING ROADWAY \_\_\_\_\_ N/A  
VELOCITY - THROUGH STRUCTURE \_\_\_\_\_ 3.6 F.P.S.  
WATERWAY AREA - THROUGH STRUCTURE \_\_\_\_\_ 109.0 SQ. FT.  
HIGH WATER<sub>100</sub> ELEVATION \_\_\_\_\_ 852.94  
SCOUR CRITICAL CODE \_\_\_\_\_ 8

EROSION CONTROL \_\_\_\_\_  
Q<sub>2</sub> \_\_\_\_\_ 102 C.F.S.  
HIGH WATER<sub>2</sub> ELEVATION \_\_\_\_\_ 850.96  
VELOCITY<sub>2</sub> \_\_\_\_\_ 1.6 F.P.S.

## LIST OF DRAWINGS

GENERAL PLAN \_\_\_\_\_ 1.  
SUBSURFACE EXPLORATION \_\_\_\_\_ 2.  
BARREL SECTION & OUTSIDE STEEL \_\_\_\_\_ 3.  
INSIDE STEEL \_\_\_\_\_ 4.  
WALL STEEL \_\_\_\_\_ 5.  
APRON DETAILS \_\_\_\_\_ 6.  
WING WALL DETAILS \_\_\_\_\_ 7.  
DETAILS \_\_\_\_\_ 8.  
CONSTRUCTION DETAILS \_\_\_\_\_ 9.

## BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
22	8+59	¾" IRON ROD SET, 26.6' LT.	856.74
1	11+90	¾" IRON ROD SET, 21.9' LT.	856.87
7	15+05	RAILROAD SPIKE IN POWERPOLE, 32.1' LT.	857.81
23	18+60	¾" IRON ROD SET, 23.0' LT.	854.92

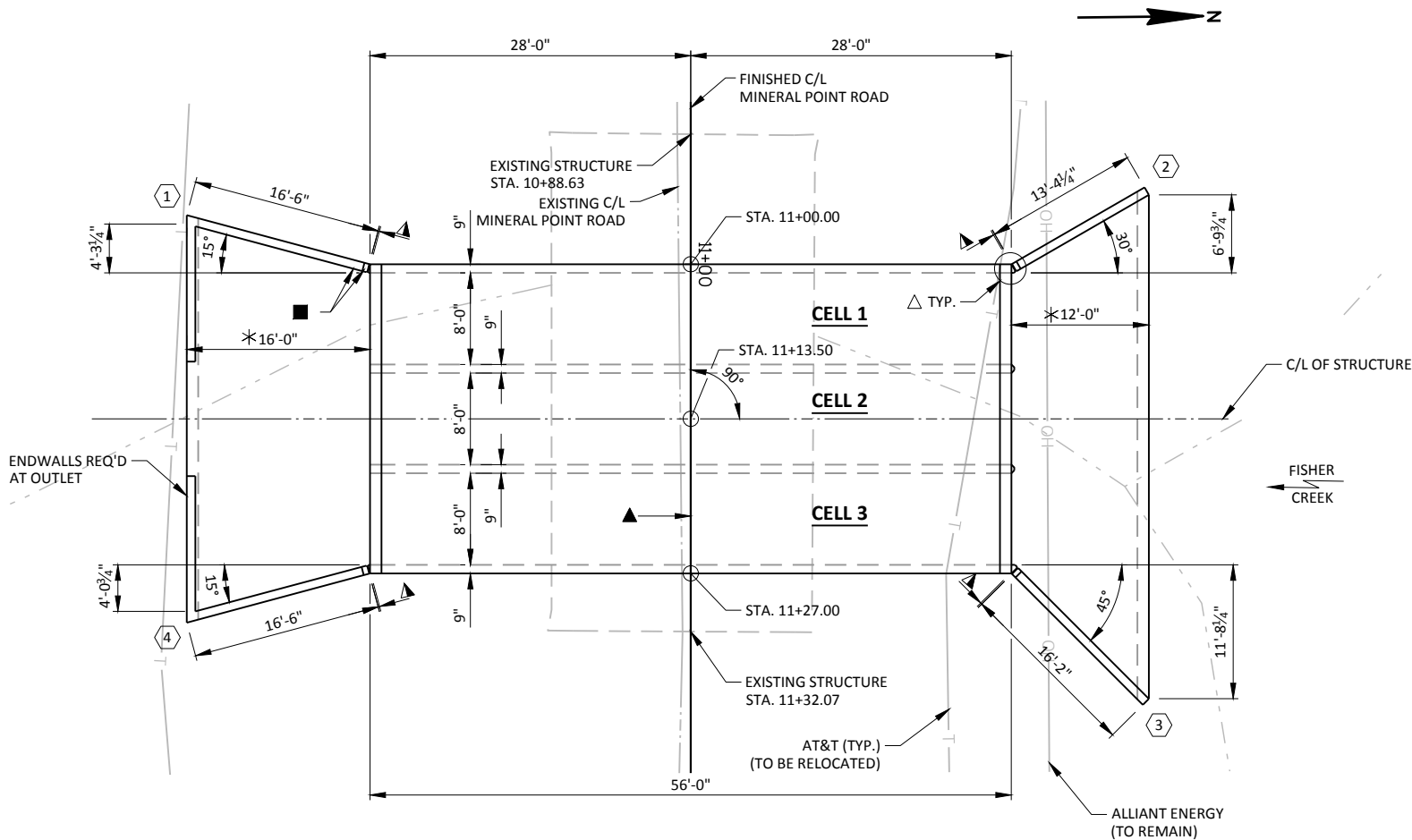


## DESIGN CONSULTANT

ROBERT HANOLD, PE  
(608) 588-7484

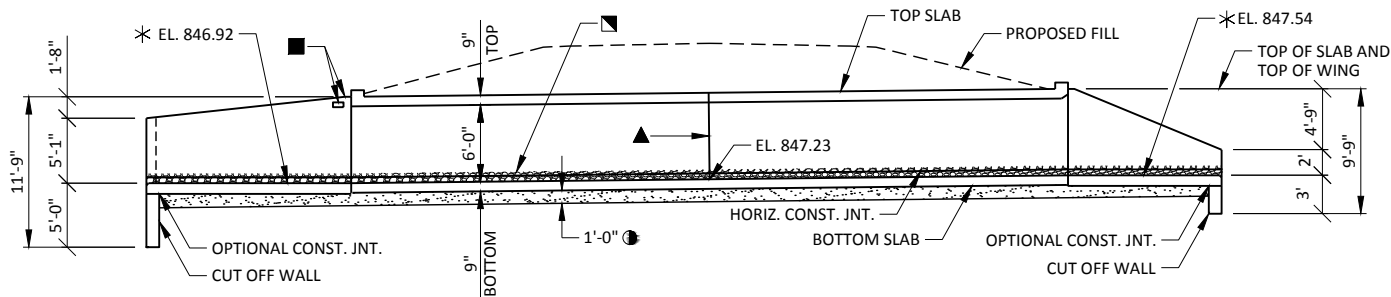
## BRIDGE OFFICE CONTACT

WILLIAM DREHER, PE  
(608) 266-8489



## PLAN B-53-384

(THREE-CELL BOX CULVERT)



## OUTLET

## ELEVATION

(INTERIOR WALL NOT SHOWN)

## INLET

## TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY (STA. 11+10)	LS	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS B-53-384	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	995
311.0110	BREAKER RUN	TON	380
504.0100	CONCRETE MASONRY CULVERTS	CY	172
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	18,400
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,060
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	40
645.0105	GEOTEXTILE TYPE C	SY	365
SPV.0105.01	DEWATERING	LS	1
NON-BID ITEMS			
	FILLER	SIZE	¾"
	NAME PLATE		

## GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION M153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE EXISTING STRUCTURE (P-53-87) IS A SINGLE SPAN CONCRETE DECK GIRDER STRUCTURE SUPPORTED ON FULL RETAINING CONCRETE ABUTMENTS. THE STRUCTURE HAS A CLEAR ROADWAY WIDTH OF 20.0' AND IS 43.4' LONG AND SHALL BE REMOVED.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES. ALL VOLUME EXCAVATED BUT NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE B INCLUDING THE APRON WINGWALLS WITHIN THE LENGTH OF THE CULVERT. SEE SHEET 4 FOR BACKFILL STRUCTURE DETAILS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED. THE ALTERNATE CUTOFF WALL MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONCRETE CUTOFF WALLS. PAYMENT SHALL BE BASED ON THE CONCRETE CUTOFF WALLS.

IN LIEU OF USING BREAKER RUN FOR THE BOX CONSTRUCTION PLATFORM, THE CONTRACTOR MAY ELECT TO SUBSTITUTE #1 OR #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL. THE REGION GEOTECHNICAL ENGINEER MAY BE CONTRACTED TO DETERMINE IF "OTHER GRANULAR MATERIAL" IS ACCEPTABLE.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH APPROVAL OF THE STRUCTURES DESIGN SECTION. MATERIALS, FABRICATION AND DESIGN OF PRECAST BOXES SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR TRANSPORTATION MATERIALS, M259 OR M273, AND AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION 2, SECTION 27, EXCEPT THE CONCRETE MIXTURE SHALL CONTAIN NOT LESS THAN 565 POUNDS OF CEMENTITIOUS MATERIALS PER CUBIC YARD.



SOIL BORINGS

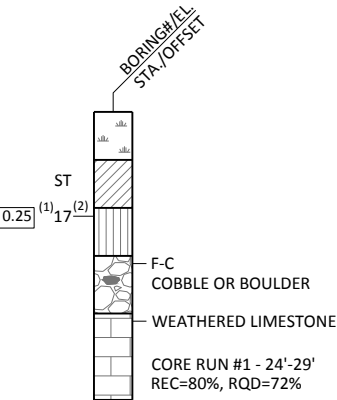
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	07/31/18	270,429.12	476,964.86
B-2	07/31/18	270,438.87	476,905.61

BORINGS & REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.  
5620 WOODLAND DRIVE  
WAUNAKEE, WI 53597

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 ELEVATIONS

	AT TIME OF DRILLING
	END OF DRILLING
	AFTER DRILLING

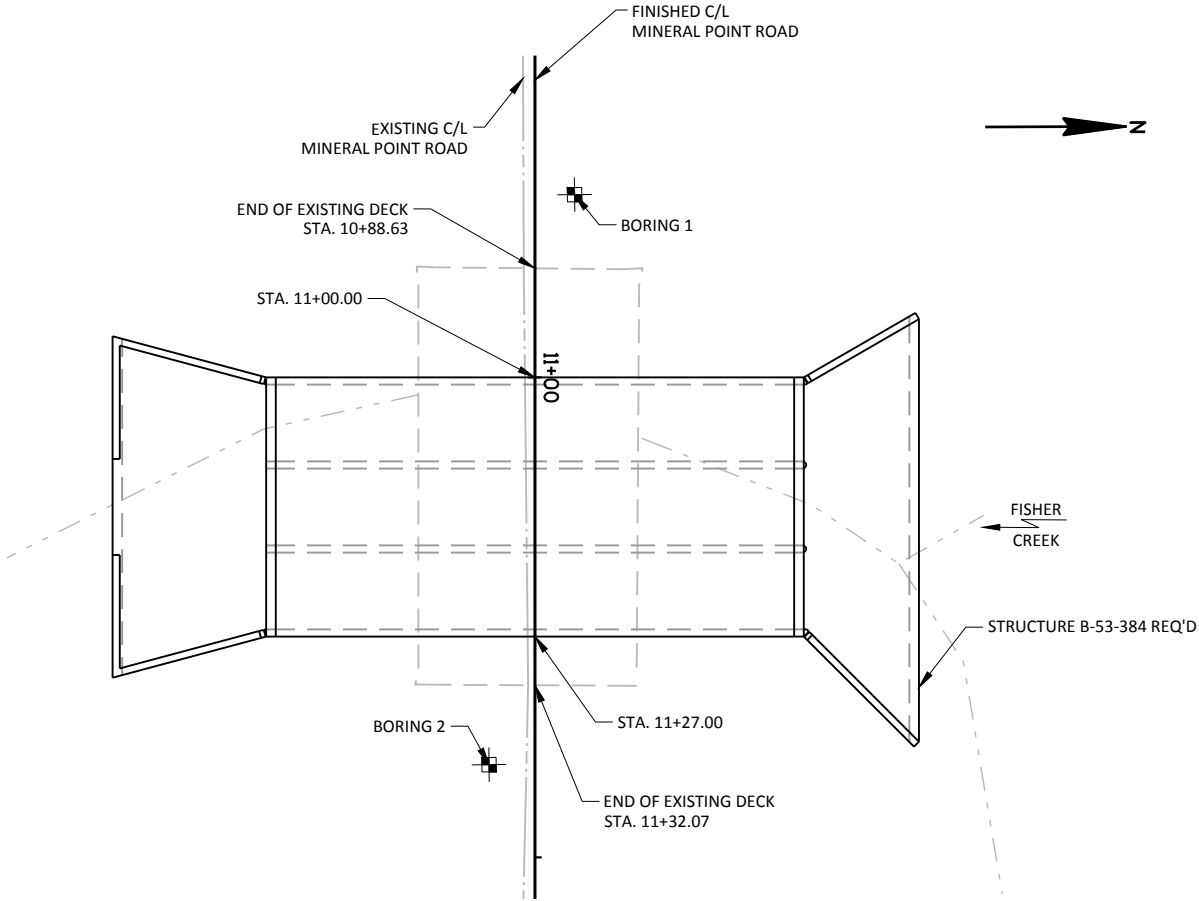
ABBREVIATIONS

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

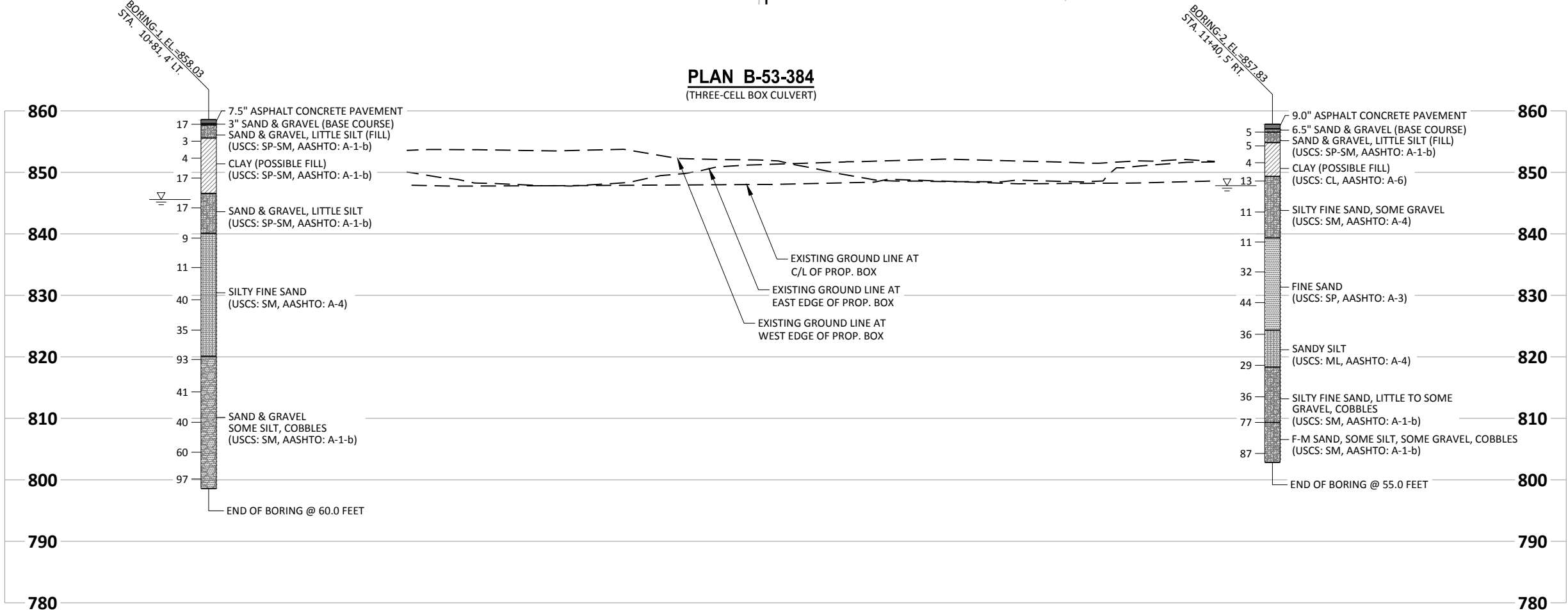
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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, SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS ARE NOT WARRANTED. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

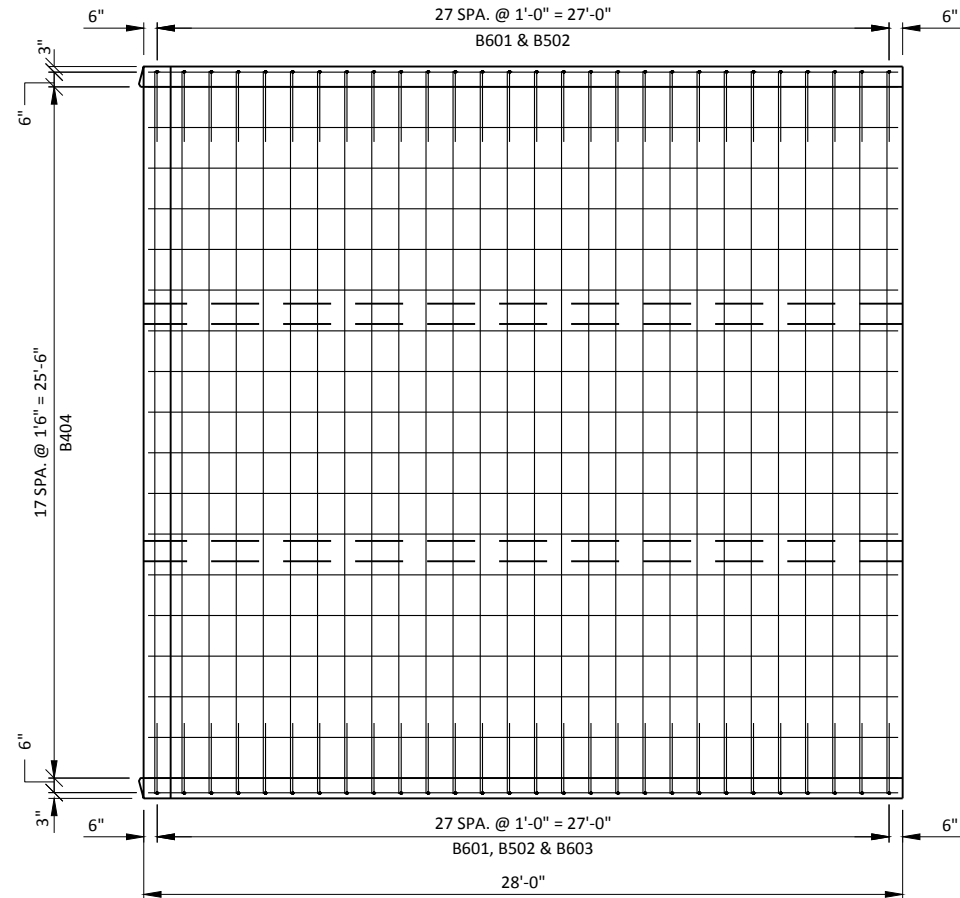
NO.	DATE	REVISION	BY
STRUCTURE B-53-384			
DRAWN BY		TMS	PLANS CK'D. RBH
SUBSURFACE EXPLORATION		SHEET 2 OF 9	



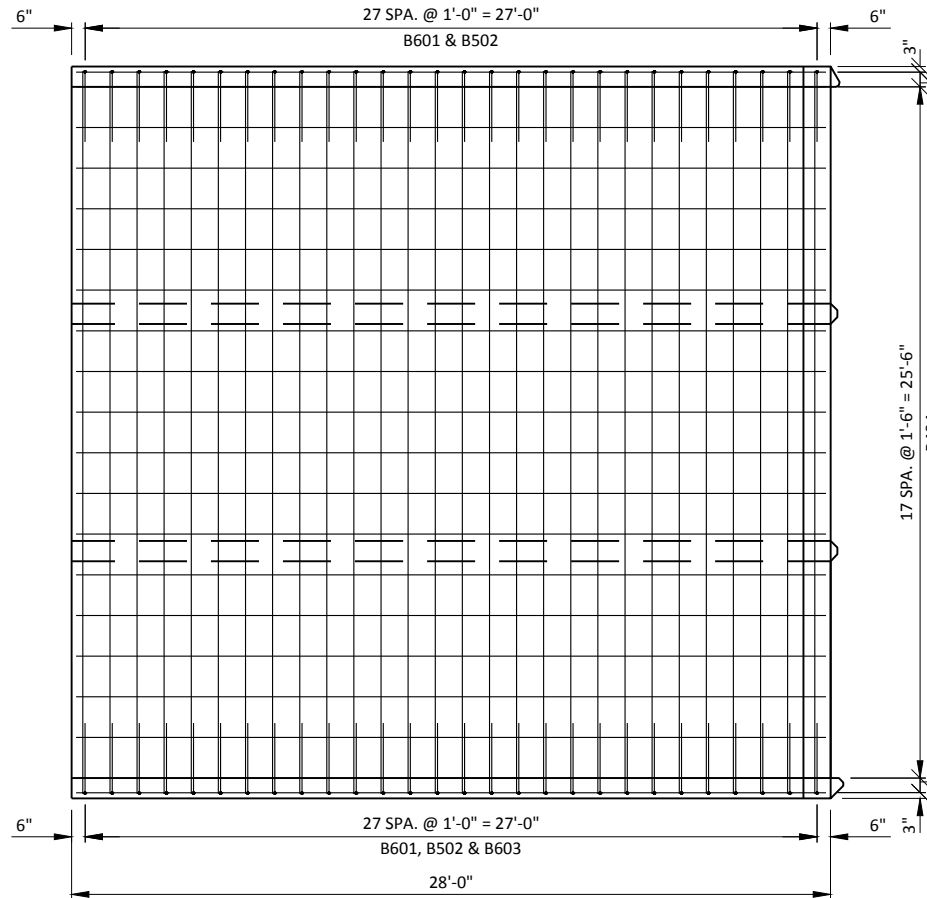
PLAN B-53-384  
(THREE-CELL BOX CULVERT)



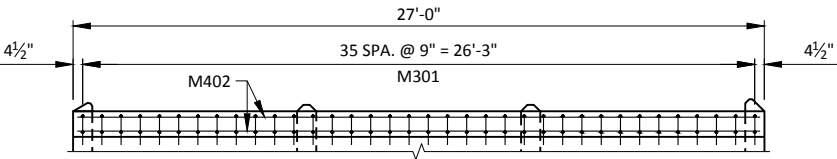




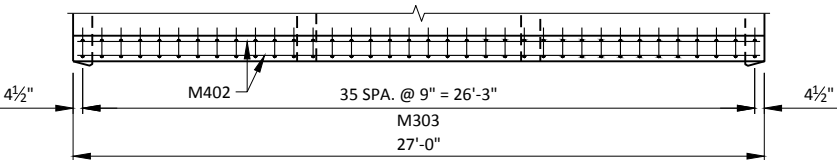
**OUTLET PANEL**  
OUTSIDE STEEL



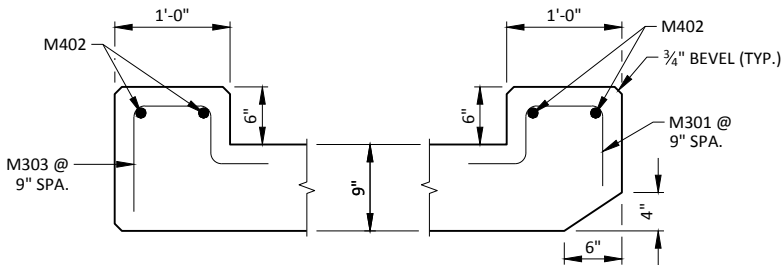
**INLET PANEL**  
OUTSIDE STEEL



**HEADER PLAN VIEW - INLET**

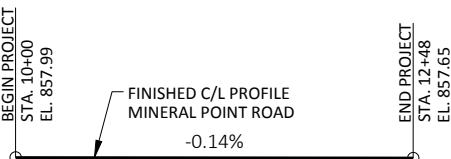


**HEADER PLAN VIEW - OUTLET**

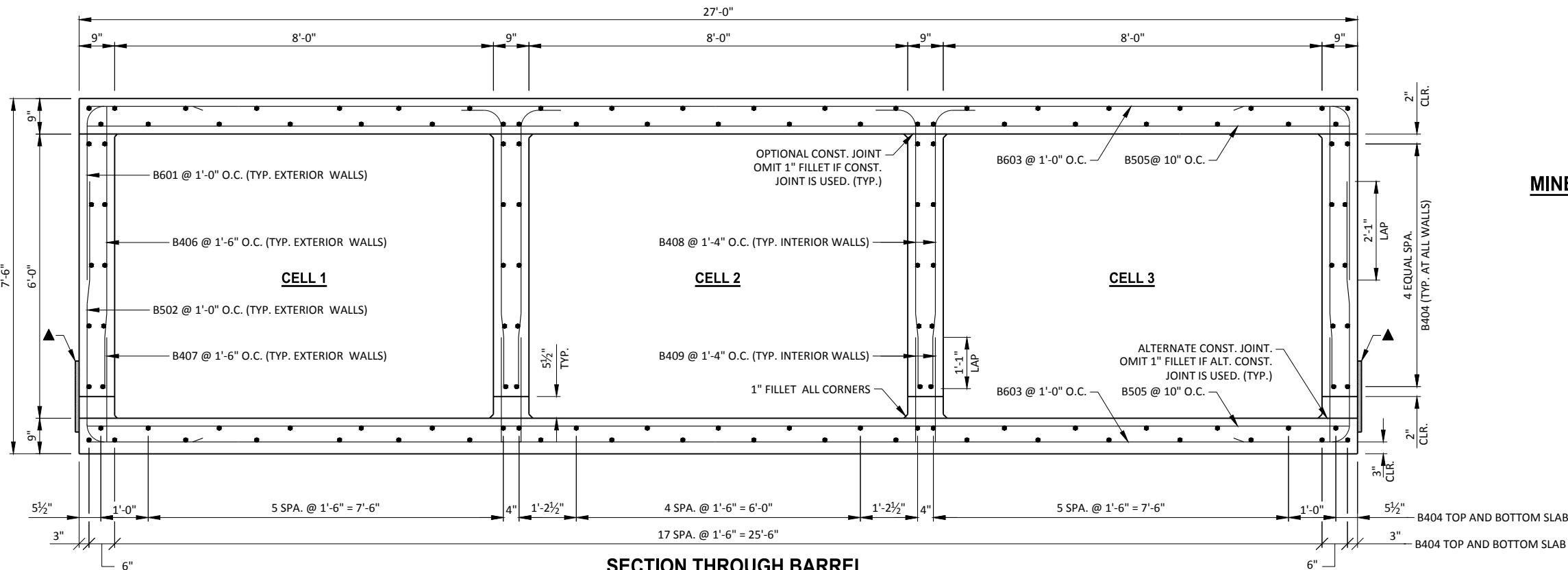


**OUTLET TOP HEADER**

**INLET TOP HEADER**



**MINERAL POINT ROAD - PROFILE GRADE LINE**



**SECTION THROUGH BARREL**  
(LOOKING UPSTREAM)

**NOTES**

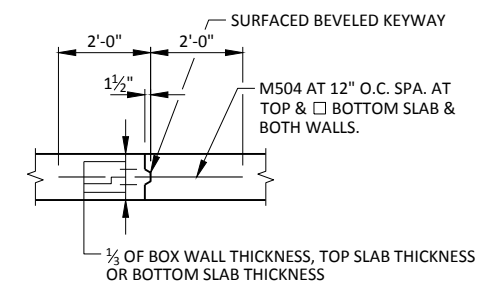
SEE SHEET 8 FOR BILL OF BARS.

**LEGEND**

- ▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING ALONG HORIZONTAL CONSTRUCTION JOINT.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-384			
DRAWN BY RBH		PLANS CK'D. PTB	
BARREL SECTION & OUTSIDE STEEL			SHEET 3 OF 9

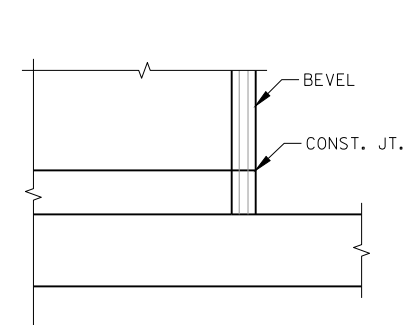




☐ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 3" DEEP SAWCUTS WITHIN 12 HOURS AFTER POURING.



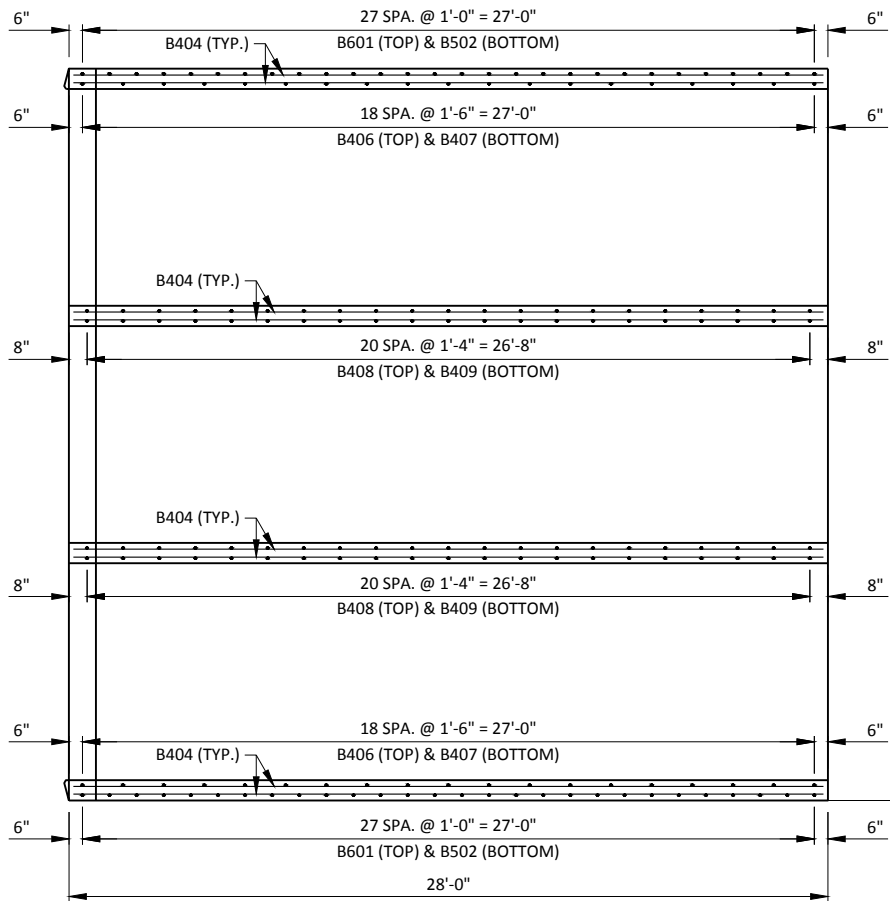
- ◆ **BACKFILL STRUCTURE TYPE B PAY LIMITS.** THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT THE ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQ'D. AT THE BARREL AND BEHIND THE APRON WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-53-384". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ◆ **UNDERCUT 1'-0".** EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".



SEE SHEET 8 FOR BILL OF BARS.

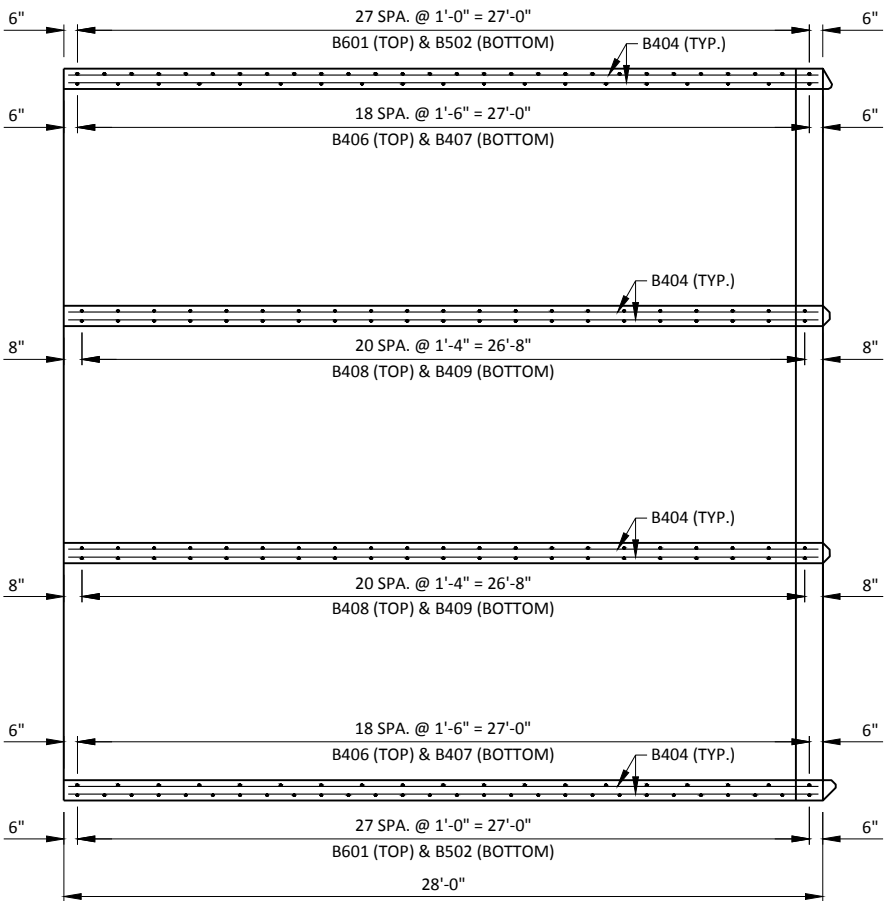
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
<b>STRUCTURE B-53-384</b>			
		DRAWN BY	RBH P
			PLANS CK'D.
<b>INSIDE STEEL</b>		SHEET 4 OF 9	





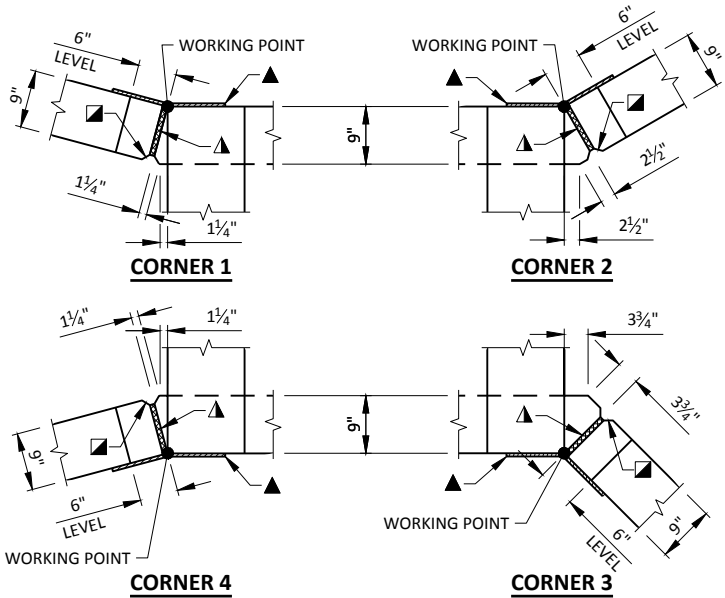
OUTLET PANEL

WALL STEEL

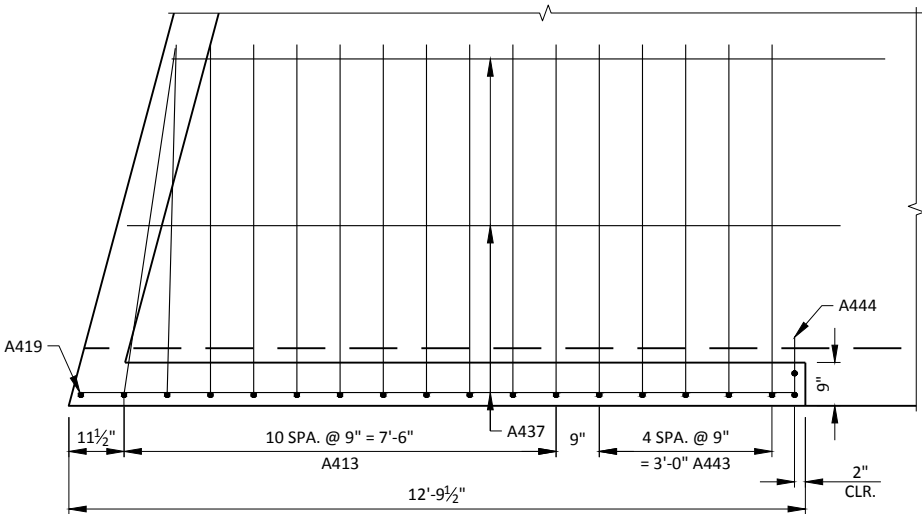


INLET PANEL

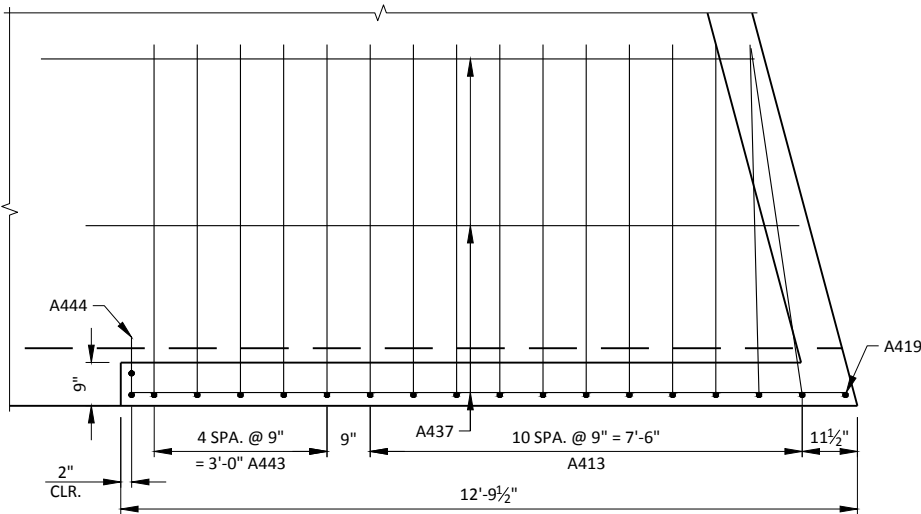
WALL STEEL



CORNER DETAILS



SOUTH-WEST END-WALL BOTTOM STEEL



SOUTH-EAST END-WALL BOTTOM STEEL

LEGEND

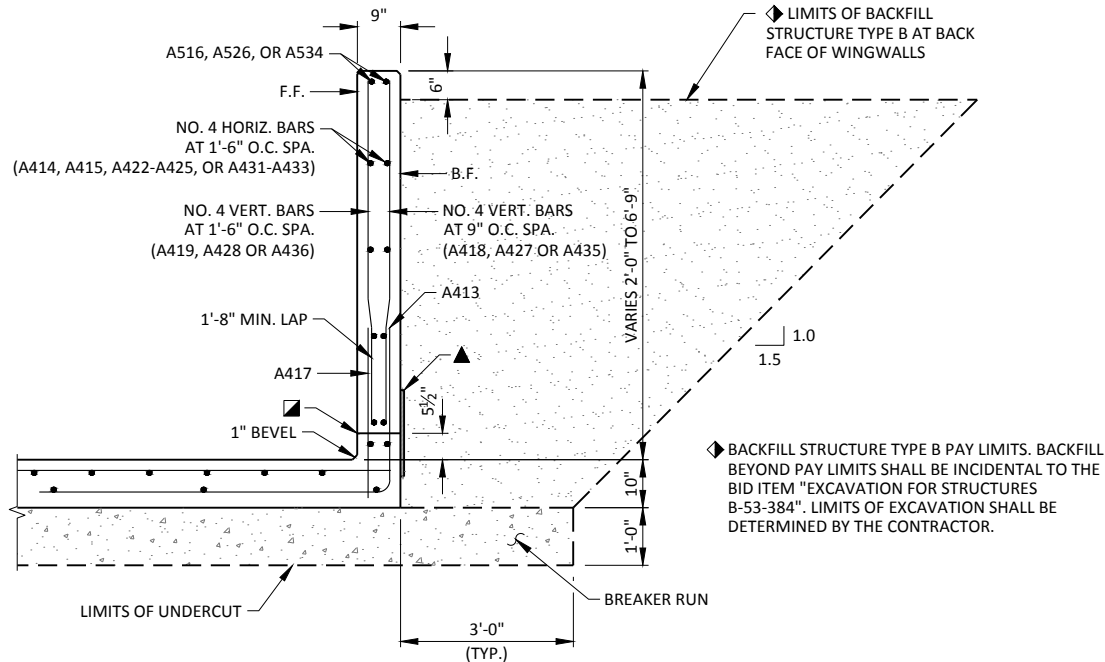
- ▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JOINT TO TOP OF WALL. (FLUSH WITH FACE OF CONCRETE)
- ▣ 1" BEVEL TYPICAL
- ▲ 3/4" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JOINT TO TOP OF WING.

NOTES

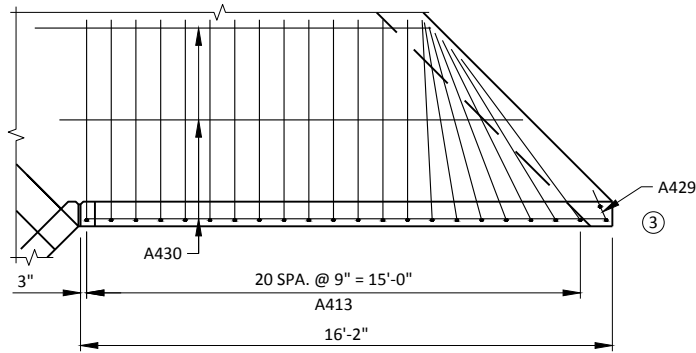
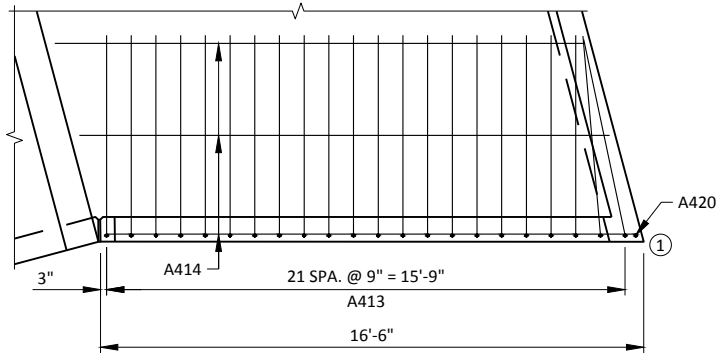
SEE SHEET 8 FOR BILL OF BARS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-384			
DRAWN BY		RBH	PLANS CK'D. PTB
WALL STEEL		SHEET 5 OF 9	

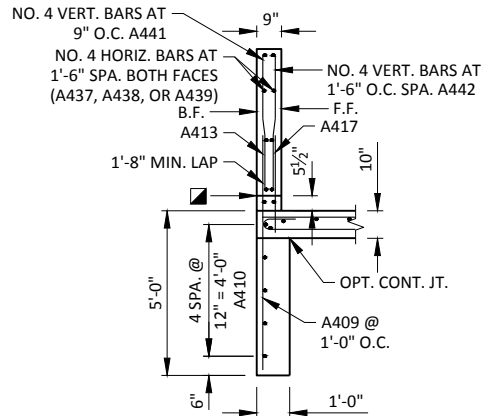
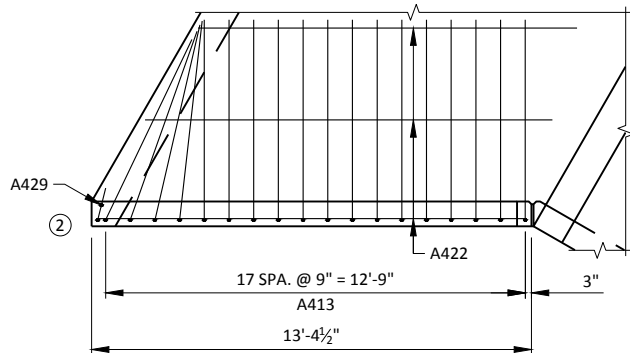
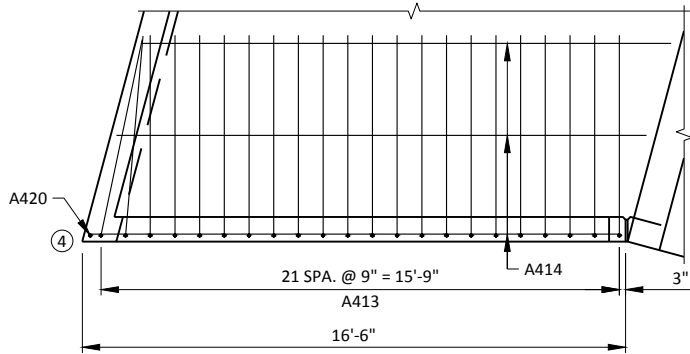




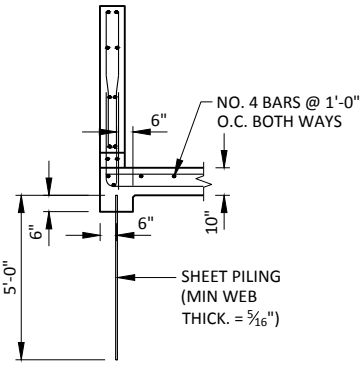
TYPICAL SECTION THROUGH WINGS



APRON BOTTOM STEEL

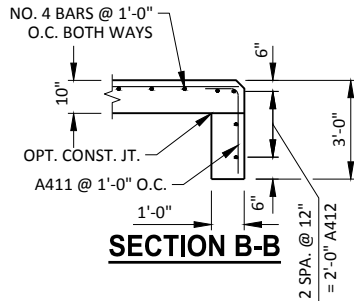


SECTION A-A

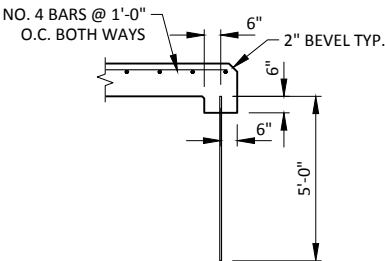


ALTERNATE CUT-OFF WALL

THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC CUT-OFF WALL. PAYMENT WILL BE BASED ON THE CONC. CUT OFF WALL.



SECTION B-B



ALTERNATE CUT-OFF WALL

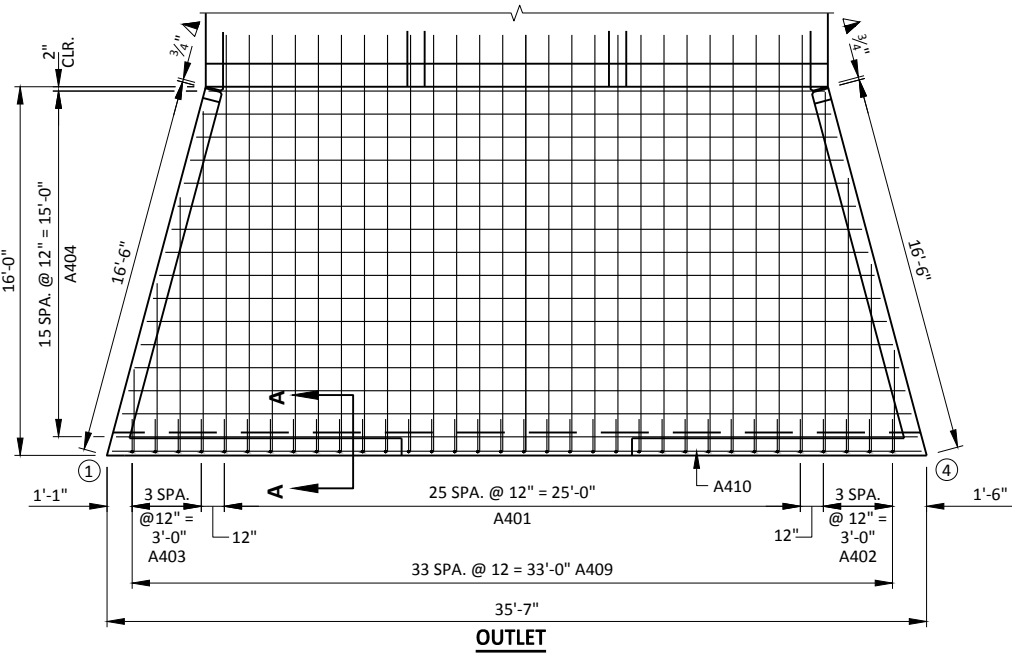
THE ABOVE ALT. MAY BE USED IN LIEU OF THE CAST-IN-PLACE CONC CUT-OFF WALL. PAYMENT WILL BE BASED ON THE CONC. CUT OFF WALL.

LEGEND

- ▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING ALONG HORIZONTAL CONSTRUCTION JOINT IN WING.
- HORIZONTAL CONSTRUCTION JOINT LOCATED 5 1/2" ABOVE FLOOR OF APRON
- ▲ 3/4" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FILLER FROM HORIZ. CONST. JOINT TO TOP OF WING.

NOTES

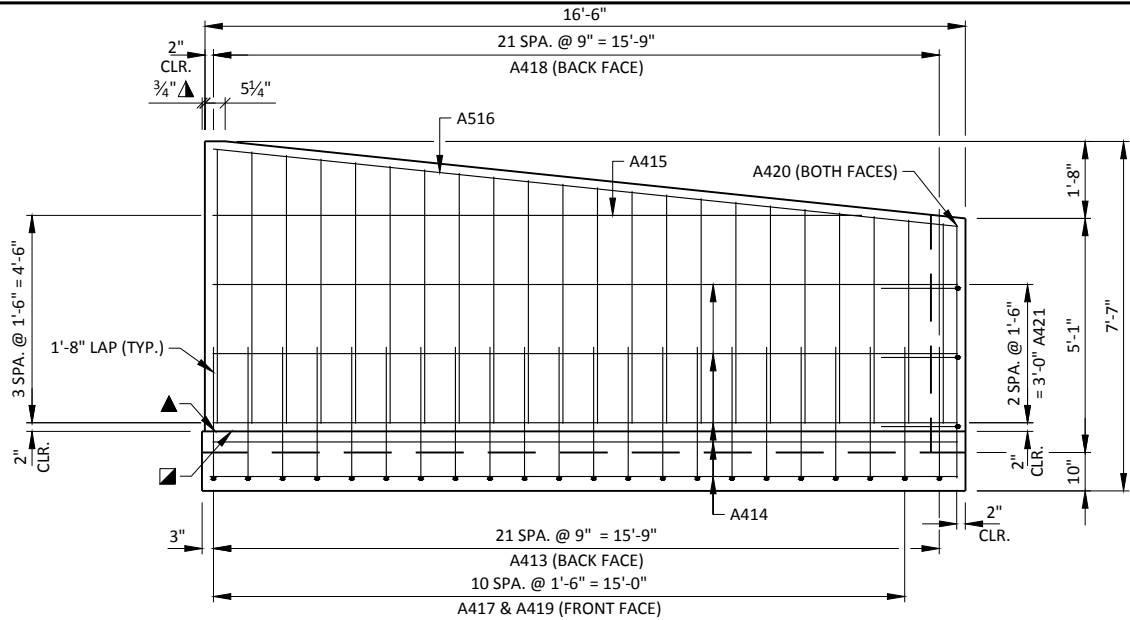
- SEE SHEET 8 FOR BILL OF BARS.
- ① INDICATES WING NUMBER



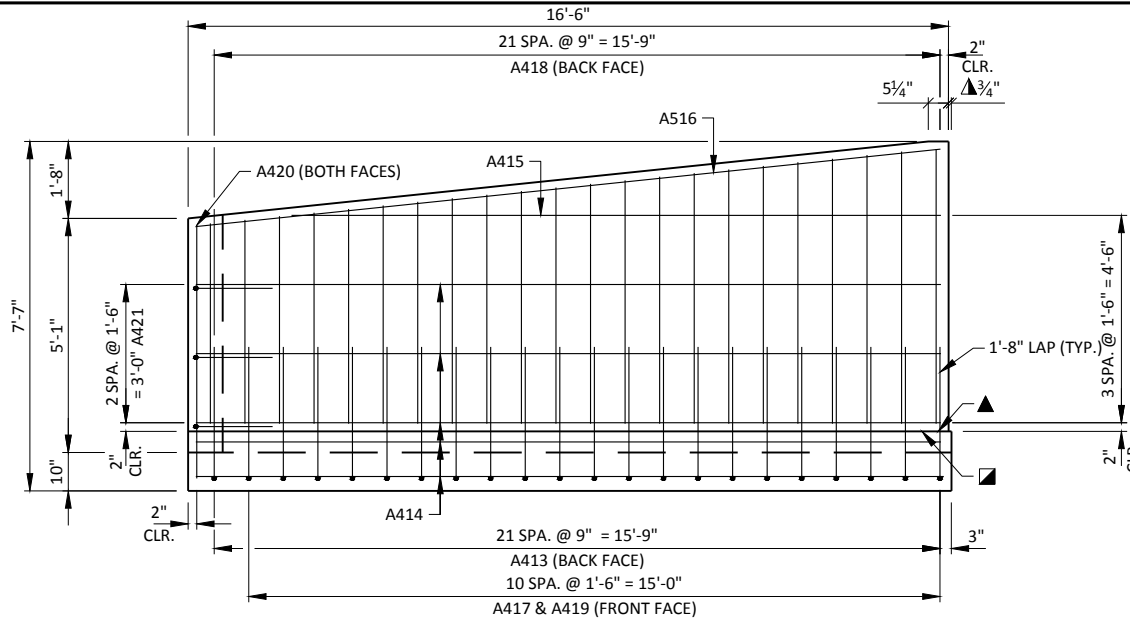
PLAN VIEW - APRON STEEL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-384			
DRAWN BY RBH		PLANS CK'D. PTB	
APRON DETAILS			SHEET 6 OF 9

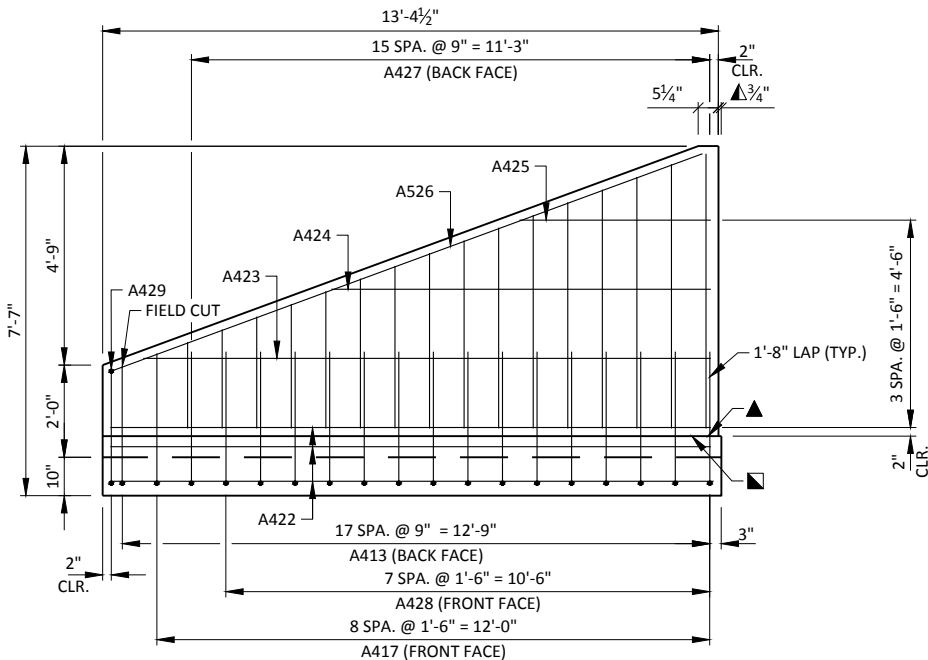




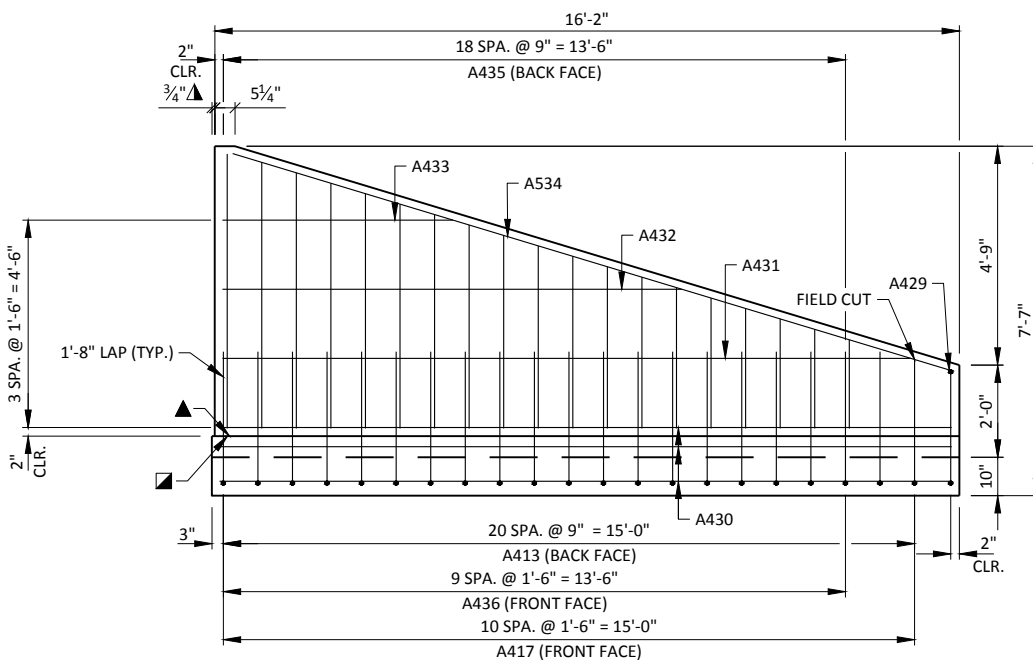
WINGWALL 1



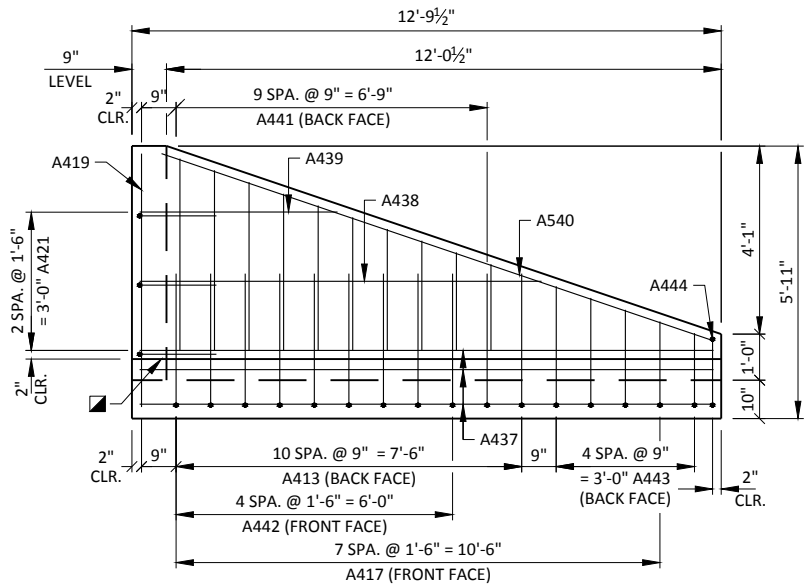
WINGWALL 4



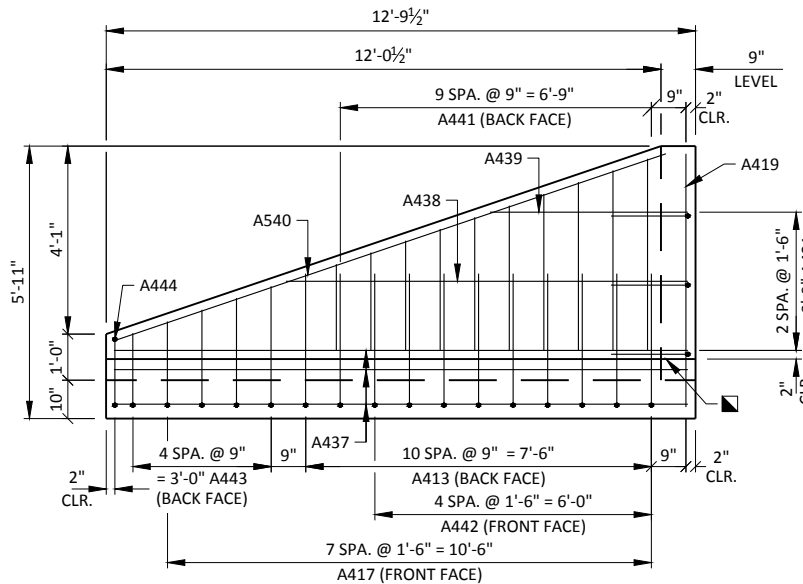
WINGWALL 2



WINGWALL 3



SOUTH-WEST ENDWALL



SOUTH-EAST ENDWALL

LEGEND

- ▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATER-PROOFING. PLACE ALONG HORIZONTAL CONSTRUCTION JOINT FOR ENTIRE WING LENGTH. (TYP.)
- HORIZONTAL CONSTRUCTION JOINT LOCATED 5 1/2" ABOVE FLOOR OF APRON
- ▲ 3/4" FILLER & 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FILLER FROM HORIZ. CONST. JOINT TO TOP OF WING.

NOTES

SEE SHEET 8 FOR BILL OF BARS.

① INDICATES WING NUMBER

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-384			
DRAWN BY		RBH	PTB
WING WALL DETAILS			SHEET 7 OF 9



BILL OF BARS  
BARREL

16,180 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
B601	112	6-3	2-8			EXT. WALLS - CORNER - OUTSIDE - TOP
B502	112	7-10	2-5			EXT. WALLS - CORNER - OUTSIDE - BOTTOM
B603	112	26-8				SLABS - OUTSIDE - TRANS.
B404	244	27-8				SLABS - OUTSIDE - LONGIT.
B505	136	26-8				SLABS - INSIDE - TRANS.
B406	76	5-11				EXT. WALLS - VERT. - INSIDE - TOP
B407	76	2-3				EXT. WALLS - VERT. - INSIDE - BOTTOM
B408	168	6-10	1-0			INT. WALLS - VERT. - TOP
B409	168	2-3				INT. WALLS - VERT. - BOTTOM

BILL OF BARS  
MISCELLANEOUS

470 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
M301	36	2-3	■			INLET HEADER - STIRRUP
M402	4	26-8				INLET/OUTLET HEADER - HORIZ.
M303	36	2-5	■			OUTLET HEADER - STIRRUP
M504	80	4-0				DOWEL BARS AT JOINT (12" O.C. SPA.)

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

THE DIMENSION IN THE BEND COLUMN ("D") IS THE OUT TO OUT HORIZONTAL LEG OF AN "L" SHAPED BAR. SEE TYPICAL BENDING DETAIL ON THIS SHEET.

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

■ SEE BENDING DETAILS.

BILL OF BARS  
APRONS

2,060 LB (COATED)  
1,750 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BEND "D"	COAT	BAR SERIES	LOCATION
A401	26	18-1				APRON - TOP - OUTLET
A402	4	10-0			✖	APRON - TOP - OUTLET
A403	4	9-2			✖	APRON - TOP - OUTLET
A404	16	30-9			✖	APRON - TOP - OUTLET - TRANS.
A405	26	14-1				APRON - TOP - INLET
A406	6	7-4			✖	APRON - TOP - INLET
A407	10	7-0			✖	APRON - TOP - INLET
A408	12	35-6			✖	APRON - TOP - INLET - TRANS.
A409	34	5-11	1-5			CUT OFF WALL - OUTLET - VERT.
A410	5	35-1				CUT OFF WALL - OUTLET - HORIZ.
A411	44	3-11	1-5			CUT OFF WALL - INLET - VERT.
A412	3	44-1				CUT OFF WALL - INLET - HORIZ.
A413	105	8-11	6-1	X		WINGWALLS - ENDWALLS - B.F. - VERT. - BOT.
A414	22	16-2		X		WINGWALLS 1 & 4 - HORIZ.
A415	4	14-1		X		WINGWALLS 1 & 4 - HORIZ.
A516	4	16-2		X		WINGWALLS 1 & 4 - HORIZ. - TOP
A417	58	2-11		X		WINGWALLS - ENDWALLS - F.F. - VERT. - BOT.
A418	44	5-2		X	✖	WINGWALLS 1 & 4 - VERT. - B.F.
A419	22	5-2		X	✖	WINGWALLS 1 & 4 - VERT. - F.F.
A420	4	5-5		X		WINGWALLS 1 & 4 - VERT. - END
A421	6	3-3	1-8	X		WINGWALLS - ENDWALLS - HORIZ. - CORNERS
A422	7	13-0		X		WINGWALL 2 - HORIZ.
A423	2	12-3		X		WINGWALL 2 - HORIZ.
A424	2	8-3		X		WINGWALL 2 - HORIZ.
A425	2	4-1		X		WINGWALL 2 - HORIZ.
A526	2	13-8		X		WINGWALL 2 - HORIZ. - TOP
A427	16	3-10		X	✖	WINGWALL 2 - VERT. - B.F.
A428	8	4-0		X	✖	WINGWALL 2 - VERT. - F.F.
A429	2	5-4	■	X		WINGWALLS 2 & 3 - VERT. - END
A430	7	15-9		X		WINGWALL 3 - HORIZ.
A431	2	14-11		X		WINGWALL 3 - HORIZ.
A432	2	9-11		X		WINGWALL 3 - HORIZ.
A433	2	5-0		X		WINGWALL 3 - HORIZ.
A534	2	16-3		X		WINGWALL 3 - HORIZ. - TOP
A435	19	3-11		X	✖	WINGWALL 3 - VERT. - B.F.
A436	10	3-11		X	✖	WINGWALL 3 - VERT. - F.F.
A437	14	12-5		X		ENDWALLS - HORIZ.
A438	4	8-8		X		ENDWALLS - HORIZ.
A439	4	4-3		X		ENDWALLS - HORIZ. - TOP
A540	4	12-7		X		ENDWALLS - HORIZ.
A441	20	3-0		X	✖	ENDWALLS - VERT. - B.F.
A442	10	3-1		X	✖	ENDWALLS - VERT. F.F.
A443	10	8-3	6-1	X	✖	ENDWALLS - VERT. B.F.
A444	2	3-2	■	X		ENDWALLS - VERT. END.

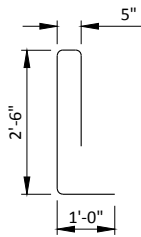
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A402	1 SERIES OF 4	15-7 TO 4-5
A403	1 SERIES OF 4	14-9 TO 3-7
A404	1 SERIES OF 16	34-9 TO 26-9
A406	1 SERIES OF 6	11-8 TO 3-0
A407	1 SERIES OF 10	11-6 TO 2-6
A408	1 SERIES OF 12	44-2 TO 26-10
A418	2 SERIES OF 22	6-0 TO 4-4
A419	2 SERIES OF 11	5-10 TO 4-5
A426	1 SERIES OF 16	5-11 TO 1-10
A427	1 SERIES OF 8	5-11 TO 2-1
A434	1 SERIES OF 19	5-11 TO 1-11
A435	1 SERIES OF 10	5-11 TO 1-11
A440	2 SERIES OF 10	4-1 TO 1-10
A441	2 SERIES OF 5	4-1 TO 2-1
A442	2 SERIES OF 5	8-11 TO 7-7

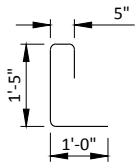
BUNDLE AND TAG EACH SERIES SEPARATELY.



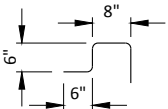
TYP. BENDING DETAIL



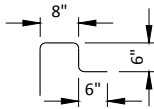
A429



A444



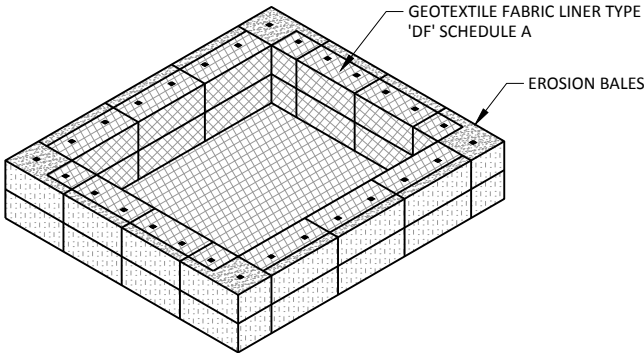
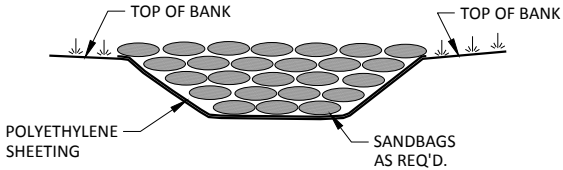
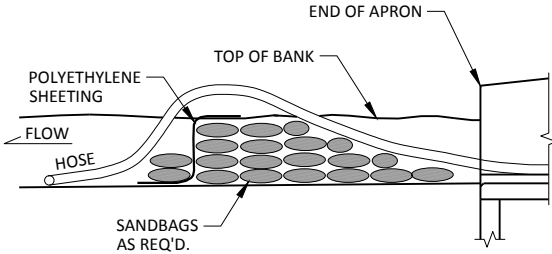
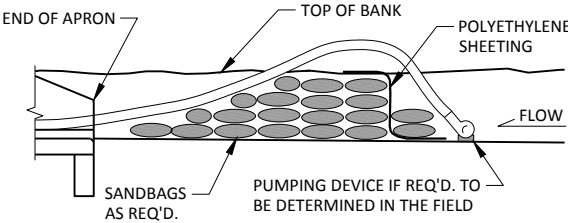
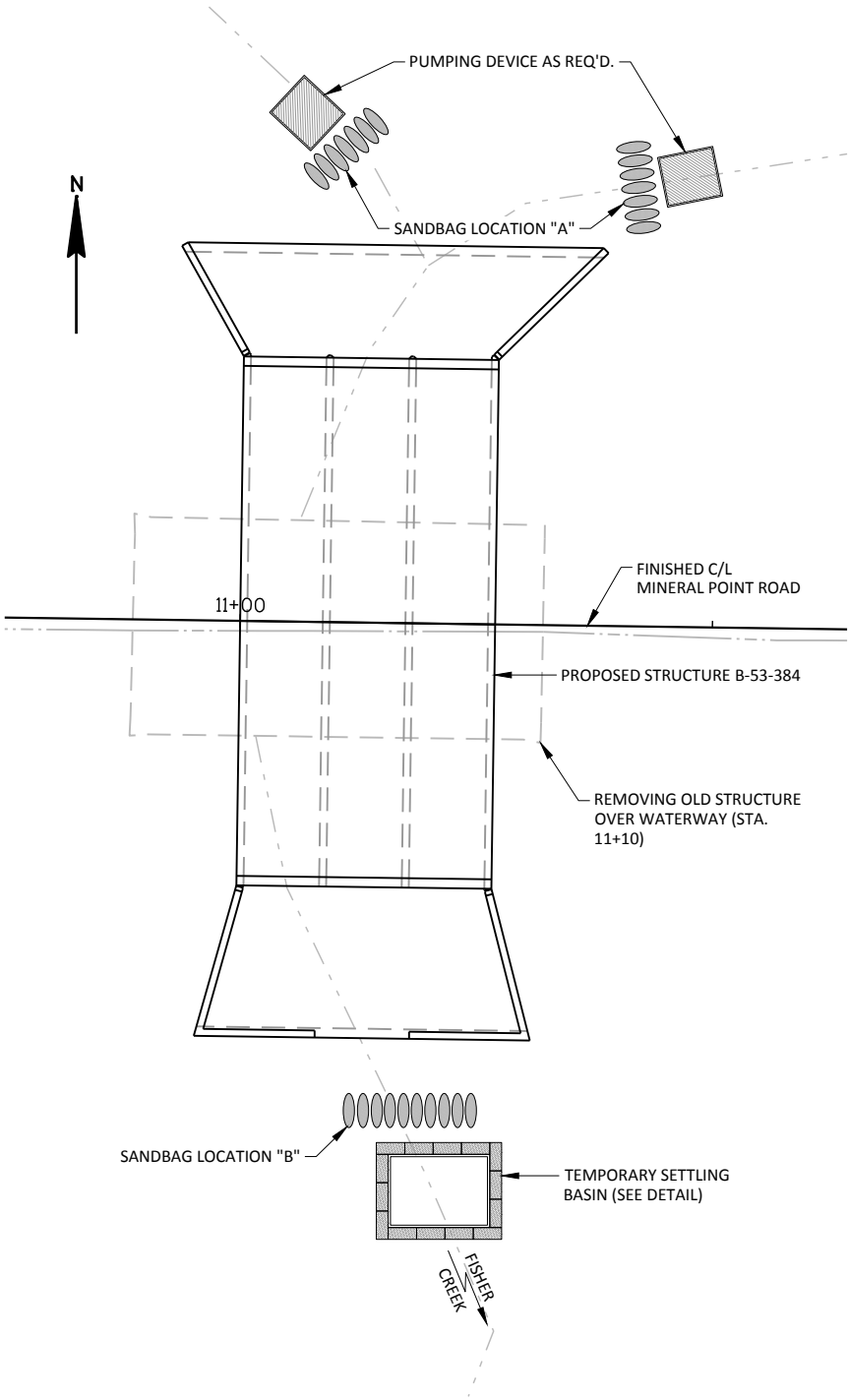
M301



M303

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-384			
DRAWN BY		RBH	PLANS CK'D. PTB
DETAILS			SHEET 8 OF 9





**NOTES:**

- DEWATERING DETAILS, SANDBAG LOCATIONS, AND TEMPORARY SETTLING BASIN DETAILS SHOWN ON THIS SHEET PRESENT ONE POSSIBLE CONSTRUCTION METHOD. ALTERNATE METHODS AND LOCATIONS MAY BE ACCEPTABLE PROVIDED THEY MEET THE APPROVAL OF THE FIELD ENGINEER. THE DEWATERING MEANS AND METHODS PROPOSED TO BE USED DURING CONSTRUCTION SHALL BE SUBMITTED FOR APPROVAL AS PART OF THE EROSION CONTROL IMPLEMENTATION PLAN.
- SIZE OF TEMPORARY SETTLING BASIN OR APPROVED ALTERNATE TO BE DETERMINED BY WATER QUANTITY AND QUALITY.
- THE TEMPORARY SETTLING BASIN SHALL BE COMPLETED PRIOR TO BEGINNING OF PUMPING OPERATIONS. WATER REMOVED FROM STRUCTURE EXCAVATION TO BE PUMPED TO BASIN OR APPROVED ALTERNATE PRIOR TO DISCHARGE INTO THE STREAM.
- BASIN SHALL BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC TYPE DF AND SEDIMENTS SHALL BE DISPOSED OF BY THE CONTRACTOR OFF OF THE PROJECT SITE.
- ALL EQUIPMENT AND MATERIALS REQUIRED FOR DEWATERING OPERATIONS TO BE PAID FOR UNDER BID ITEM "DEWATERING".

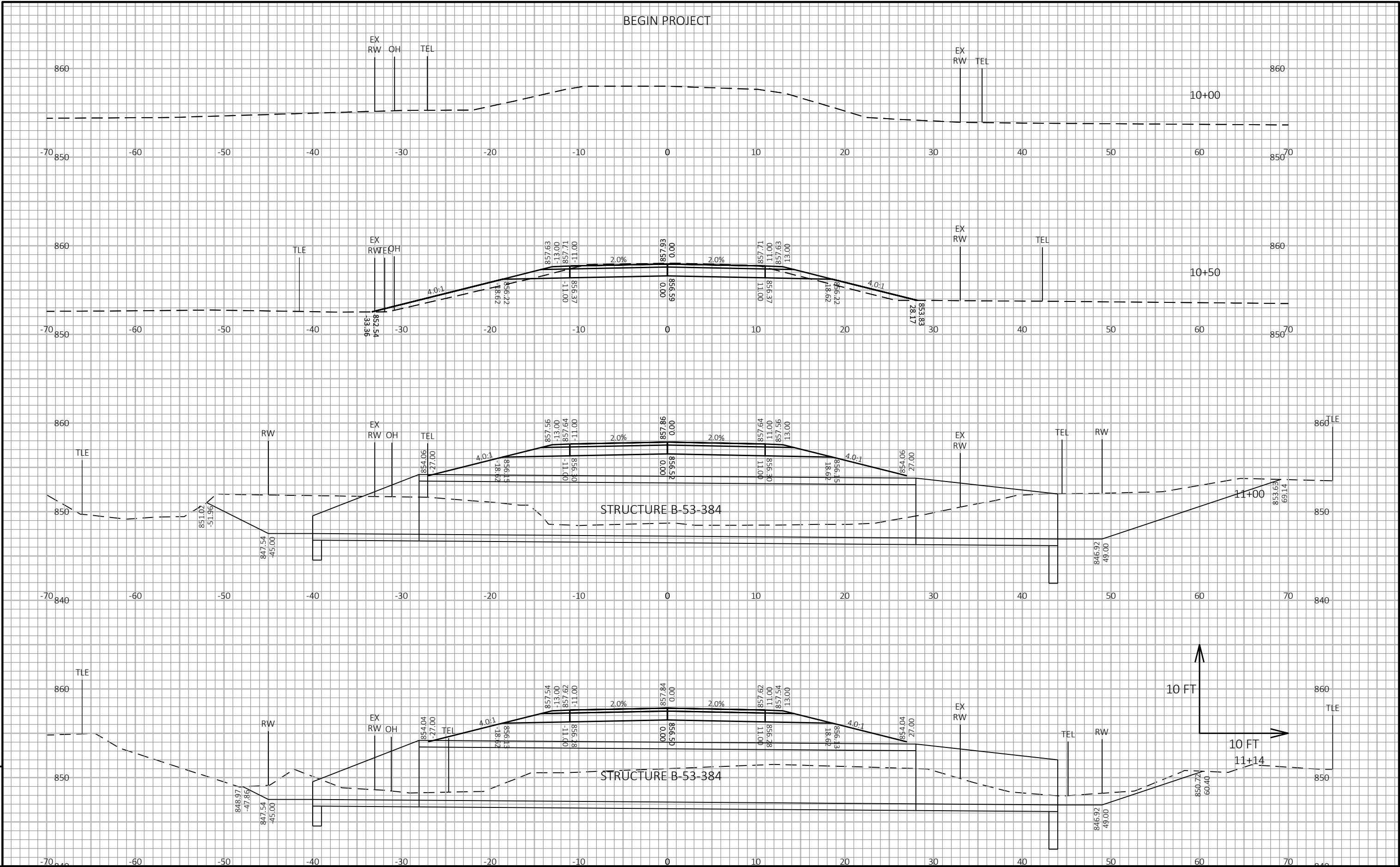
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-53-384			
DRAWN BY		RBH	PLANS CK'D. PTB.
CONSTRUCTION DETAILS			SHEET 9 OF 9



Mineral Point Rd															
STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
			Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut 1.00 Note 1	Expanded Fill 1.25 Note 2	Expanded EBS Backfill 1.30 Note 3	Mass Ordinate Note 4	
10+00	1000.00	0.00	36.66	12.19	4.67	2.50	0	0	0	0	0	0	0	0	0
10+25	1025.00	25.00	41.80	12.19	3.44	2.50	36	11	4	2	36	5	3	20	
10+50	1050.00	25.00	36.25	12.19	14.63	2.50	36	11	8	2	72	15	6	35	
10+75	1075.00	25.00	32.84	12.19	68.76	2.50	32	11	39	2	104	63	9	7	
11+00	1100.00	25.00	117.31	12.19	98.31	0.00	70	11	77	1	174	160	11	-31	
11+27	1127.00	27.00	55.10	14.63	96.32	0.00	86	13	97	0	260	282	11	-80	
11+50	1150.00	23.00	56.44	14.63	7.37	2.50	48	12	44	1	308	337	12	-100	
11+75	1175.00	25.00	71.18	14.63	4.79	2.50	59	14	6	2	367	344	15	-62	
12+00	1200.00	25.00	32.61	14.63	8.72	2.50	48	14	6	2	415	352	18	-35	
12+25	1225.00	25.00	30.69	16.50	7.42	2.50	29	14	7	2	444	361	21	-30	
12+48	1248.00	23.00	30.12	16.50	5.00	2.50	26	14	5	2	470	368	24	-24	
							470	127	294	18					

Notes:  
(1) Common Excavation is Item Number 205.0100  
(2) Expanded Fill Factor = 1.25  
**Expanded Fill = (Unexpanded Fill) \* Fill Factor**  
(3) Will be backfilled with Breaker Run  
(4) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a

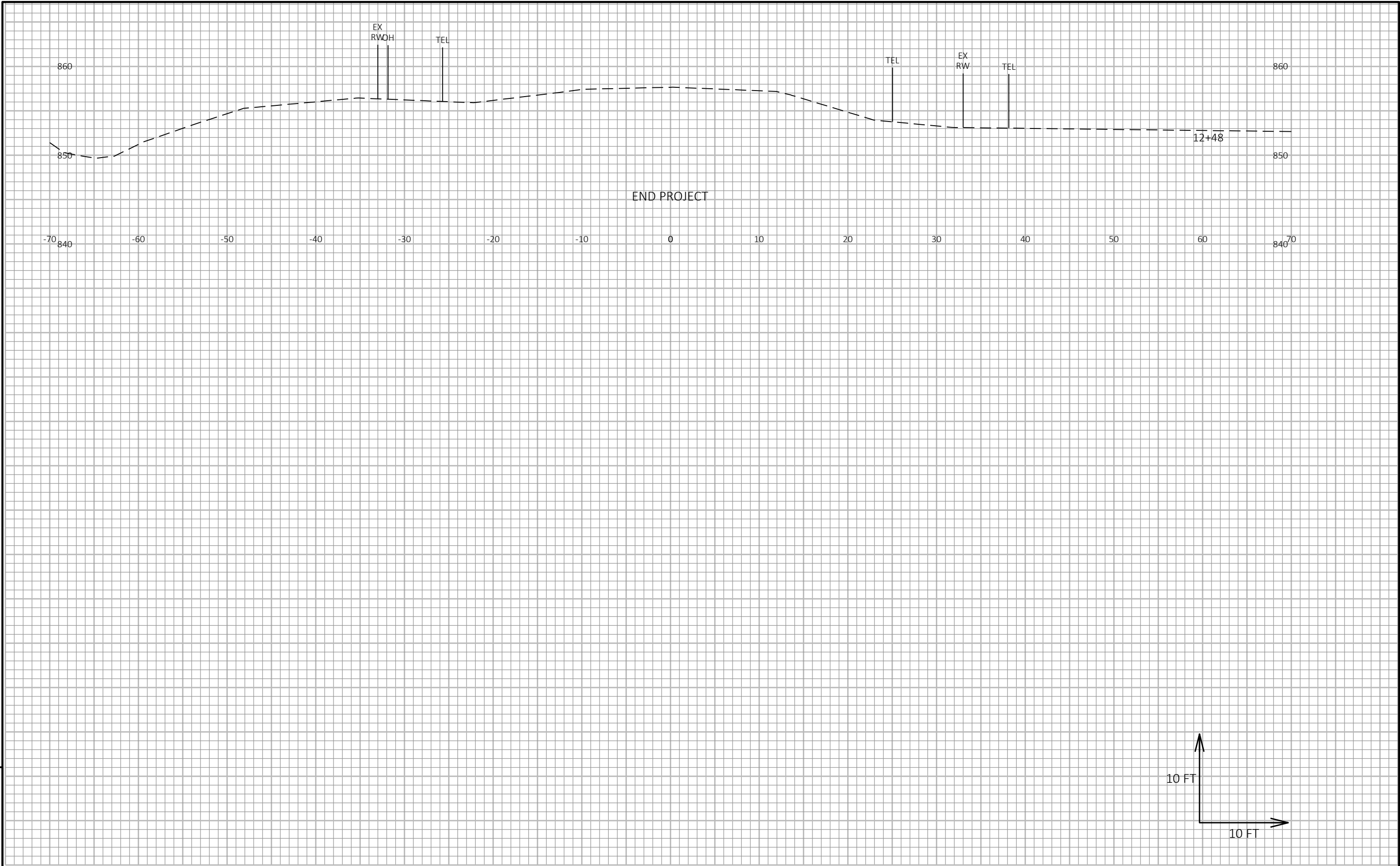












9

9

PROJECT NO: 5758-00-72	HWY: MINERAL POINT ROAD	COUNTY: ROCK	CROSS SECTIONS: MINERAL POINT ROAD	SHEET E
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## Notes





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

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