

LAX

JANUARY 2021

PROJECT ID:
WITH: N/A

5479-00-70

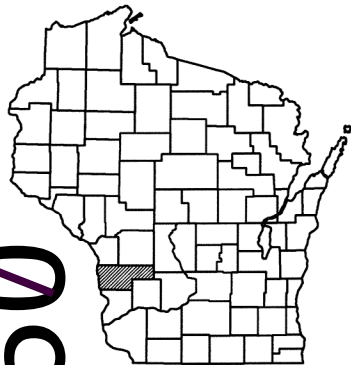
COUNTY:

VERNON

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 (Includes Erosion Control)
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 = 36



DESIGN DESIGNATION

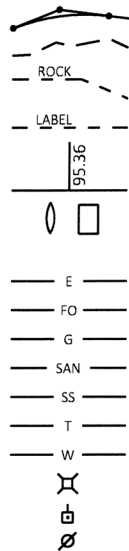
A.A.D.T.	2021	=	520
A.A.D.T.	2041	=	600
D.H.V.		=	11.8
D.D.		=	60/40
T.		=	14.0%
DESIGN SPEED		=	45 MPH
ESALS		=	138,700

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	



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

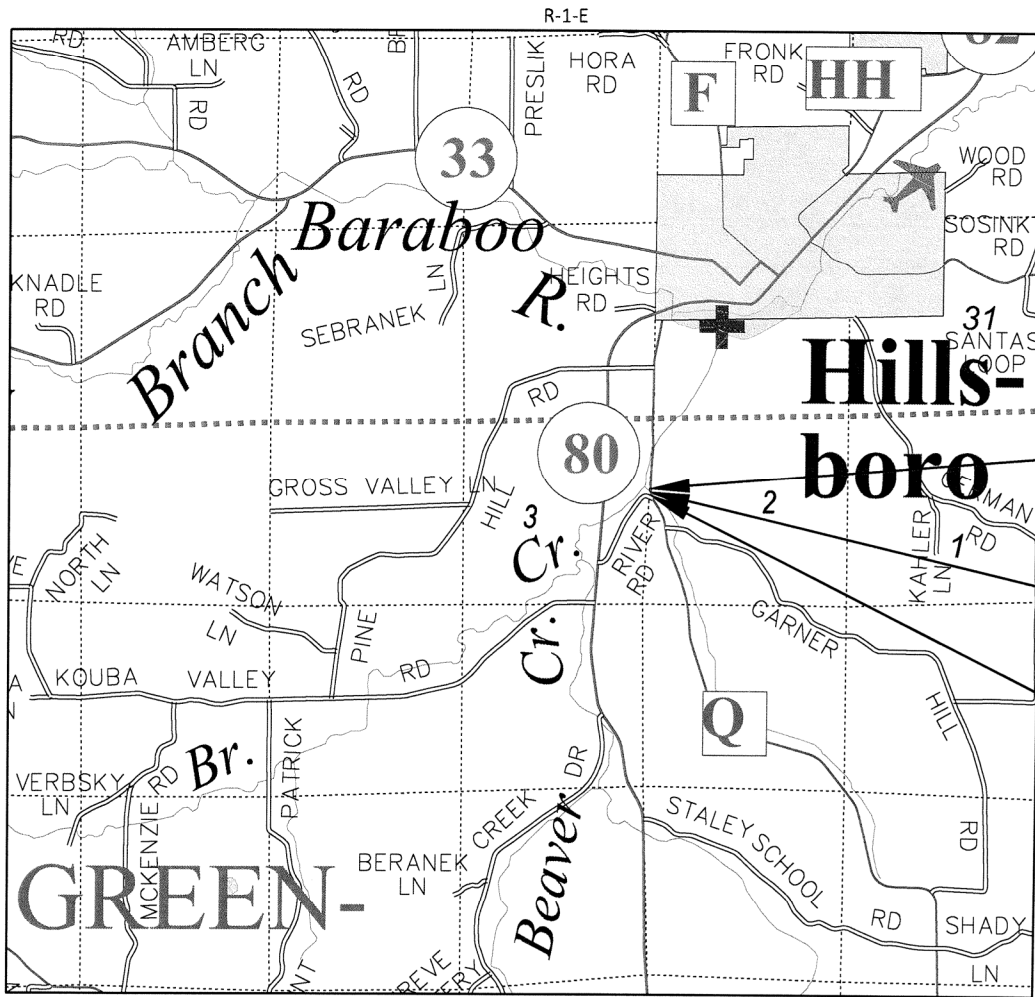
CTH EE - STH 80

BR S BRANCH CREEK BRIDGE, B62-0259

CTH Q
VERNON COUNTY

STATE PROJECT NUMBER

5479-00-70



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.025

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), VERNON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT

5479-00-70

FEDERAL PROJECT

PROJECT

WISC 2021080

CONTRACT

1

ACCEPTED FOR
COUNTY OF VERNON

Date 2020.07.13
09:41:01 -05'00'
(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY



1702 PANKRATZ STREET, MADISON, WI 53704
(608) 242-7779 www.msa-ps.com



DATE: 7/10/2020
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES
Designer	MSA PROFESSIONAL SERVICES
Project Manager	ALEIGHA BURG, P.E.
Regional Examiner	ALEIGHA BURG, P.E.
Regional Supervisor	OSCAR WINGER, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 7/13/2020 Aleigha Burg, P.E.
(Signature)

STANDARD ABBREVIATIONS

AC	ACRE	F/L	FLOW LINE	SALV	SALVAGED
AGG	AGGREGATE	FT	FOOT	SAN	SANITARY SEWER
<	ANGLE	GN	GRID NORTH	SECT	SECTION
ASPH	ASPHALTIC	HR	HANDICAP RAMP	SHLDR	SHOULDER
AC	ASPHALT CEMENT	HT	HEIGHT	SW	SIDEWALK
ADT	AVERAGE DAILY TRAFFIC	CWT	HUNDREDWEIGHT	S	SOUTH
B & B	BALLED AND BURLAPPED	HYD	HYDRANT	SB	SOUTHBOUND
BM	BENCH MARK	IN DIA	INCH DIAMETER	SPECS	SPECIFICATIONS
CB	CATCH BASIN	INL	INLET	SO	SQUARE
℄ OR C/L	CENTER LINE	ID	INSIDE DIAMETER	SF OR SO FT	SQUARE FEET
C-C	CENTER TO CENTER	I	INTERSECTION ANGLE	SY	SQUARE YARD
CONC	CONCRETE	IE	INVERT ELEVATION	SSPRC	STORM SEWER
CO	COUNTY	IP	IRON PIPE OR PIN		PIPE REINFORCED CONCRETE
CTH	COUNTY TRUNK HIGHWAY	JCT	JUNCTION	STD	STANDARD
CY	CUBIC YARD	L	LENGTH OF CURVE	SDD	STANDARD DETAIL DRAWINGS
CULV	CULVERT	LF	LINEAR FOOT	STH	STATE TRUNK HIGHWAYS
CP	CULVERT PIPE	LC	LONG CHORD OF CURVE	STA	STATION
CPRC	CULVERT PIPE	LCB	LONG CHORD BEARING	SS	STORM SEWER
	REINFORCED CONCRETE	LS	LUMP SUM	T	TANGENT
C & G	CURB AND GUTTER	MH	MANHOLE	TEL	TELEPHONE
D	DEGREE OF CURVE	N	NORTH	TEMP	TEMPORARY
DHV	DESIGN HOUR VOLUME	Y	NORTH GRID COORDINATE	TLE	TEMPORARY LIMITED EASEMENT
DIA OR ϕ	DIAMETER	OE	OUTLET ELEVATION	T	TON
DIST	DISTRICT	OL	OUT LOT	TC	TOP OF CURB
DWY	DRIVEWAY	OD	OUTSIDE DIAMETER	TN	TOWN
E	EAST	OH	OVERHEAD LINES	TRANS	TRANSITION
X	EAST GRID COORDINATE	PAVT	PAVEMENT	T	TRUCKS (percent of)
EB	EASTBOUND	PLE	PERMANENT LIMITED EASEMENT	TYP	TYPICAL
ELEC	ELECTRIC	PC	POINT OF CURVATURE	UNCL	UNCLASSIFIED
EL OR ELEV	ELEVATION	PI	POINT OF INTERSECTION	USH	UNITED STATES HIGHWAY
EMB	EMBANKMENT	PT	POINT OF TANGENCY	VAR	VARIABLE
EW	ENDWALL	PCC	PORTLAND CEMENT CONCRETE	VERT	VERTICAL
ESALS	EQUIVALENT SINGLE	LB	POUND	VC	VERTICAL CURVE
	AXLE LOADS	PE	PRIVATE ENTRANCE	VOL	VOLUME
EXC	EXCAVATION	R OR RAD	RADIUS	WM	WATER MAIN
EBS	EXCAVATION BELOW	RR	RAILROAD	WV	WATER VALVE
	SUBGRADE	R	RANGE	W	WEST
EXIST	EXISTING	℄ OR R/L	REFERENCE LINE	WB	WESTBOUND
EXP	EXPANSION	REQD	REQUIRED	YD	YARD
F-F	FACE TO FACE	RT	RIGHT		
FERT	FERTILIZER	R/W	RIGHT-OF-WAY		
FE	FIELD ENTRANCE	RD	ROAD		

DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: LEAH RHODES, PE
1702 PANKRATZ STREET
MADISON, WI 53704
608-355-8945
LRHODES@MSA-PS.COM

COUNTY CONTACT

VERNON COUNTY
ATTN: PHIL HEWITT, COMMISSIONER
1335 RAILROAD AVENUE
VIROQUA, WI 54665
608-637-5452
PHIL.HEWITT@VERNONCOUNTY.ORG

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
ATTN: KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
608-785-9115
KAREN.KALVELAGE@WISCONSIN.GOV

UTILITIES

BURIED FIBER OPTIC:
HILLSBORO TELEPHONE COMPANY
ATTN: CHAD SCHMIDT
P.O. BOX 427
HILLSBORO, WI 54634
PHONE: 608-489-4415
CSCHMIDT@HILLSBOROTEL.COM

OVERHEAD ELECTRIC:
VERNON ELECTRIC COOPERATIVE
ATTN: MARK SEE
110 SAUGSTAD ROAD
WESTBY, WI 54667
PHONE: 608-634-3121
MSEE@VERNONELECTRIC.ORG

* NOT A MEMBER OF
DIGGERS HOTLINE



Dial 811 or (800)242-8511

www.DiggersHotline.com

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 = 0.41 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.22 ACRES

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 3 LBS. PER 1000 SQUARE FEET. SLOPES STEEPER THAN 3:1 WILL REQUIRE EROSION MAT URBAN CLASS I TYPE B.

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

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

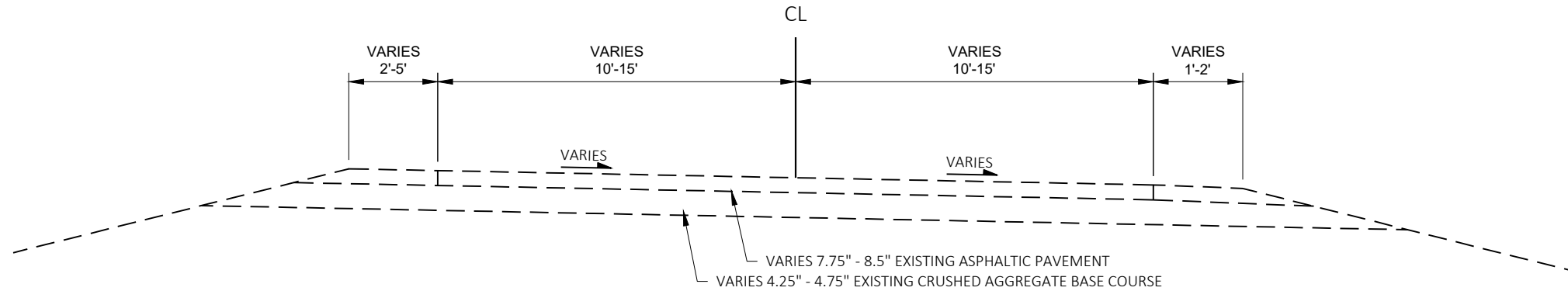
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (2012 ADJUSTED). BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

THE 4½" ASPHALTIC SURFACE SHALL CONSIST OF A 2" UPPER LAYER WITH 12.5MM NOMINAL SIZE AGGREGATE AND A 2½" LOWER LAYER WITH 19.0MM NOMINAL SIZE AGGREGATE.

ASPHALTIC SURFACE QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

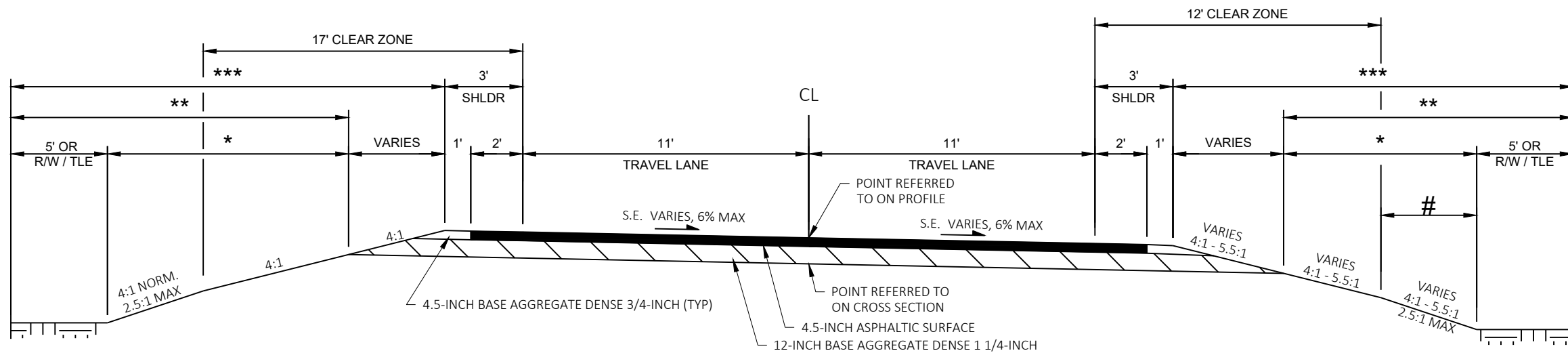
SILT FENCE TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION OR BRIDGE REMOVAL. EROSION CONTROL FEATURES FOR THE TEMPORARY WATER DIVERSION SHALL BE DETAILED IN THE CONTRACTOR'S EROSION CONTROL IMPLEMENTATION PLAN AND SHALL BE APPROVED BY THE DEPARTMENT OF NATURAL RESOURCES.

WETLANDS ARE PRESENT OUTSIDE THE EXISTING TOE OF SLOPE ON THE WEST SIDE OF THE STRUCTURE, AREAS OUTSIDE THE SLOPE INTERCEPTS ON THE WEST SIDE OF CTH Q SHALL NOT BE DISTURBED EXCEPT AS REQUIRED TO CONSTRUCT STRUCTURE B-62-0259 OR THE TEMPORARY WATER DIVERSION. RESTORE AREAS THAT ARE DISTURBED BY THE TEMPORARY WATER DIVERSION.



EXISTING TYPICAL SECTION

STA 9+38 - STA 10+70



FINISHED TYPICAL SECTION

STA 9+38 - STA 10+70

NOTES:

- * SALVAGED TOPSOIL
- ** MULCHING LIMITS
- *** SEEDING MIXTURE #20 & FERTILIZER TYPE B LIMITS
- # PLACE EROSION MAT URBAN CLASS I TYPE B BEYOND RIPRAP LIMITS ON EAST SIDE OF CTH Q.

PROJECT NO: 5479-00-70

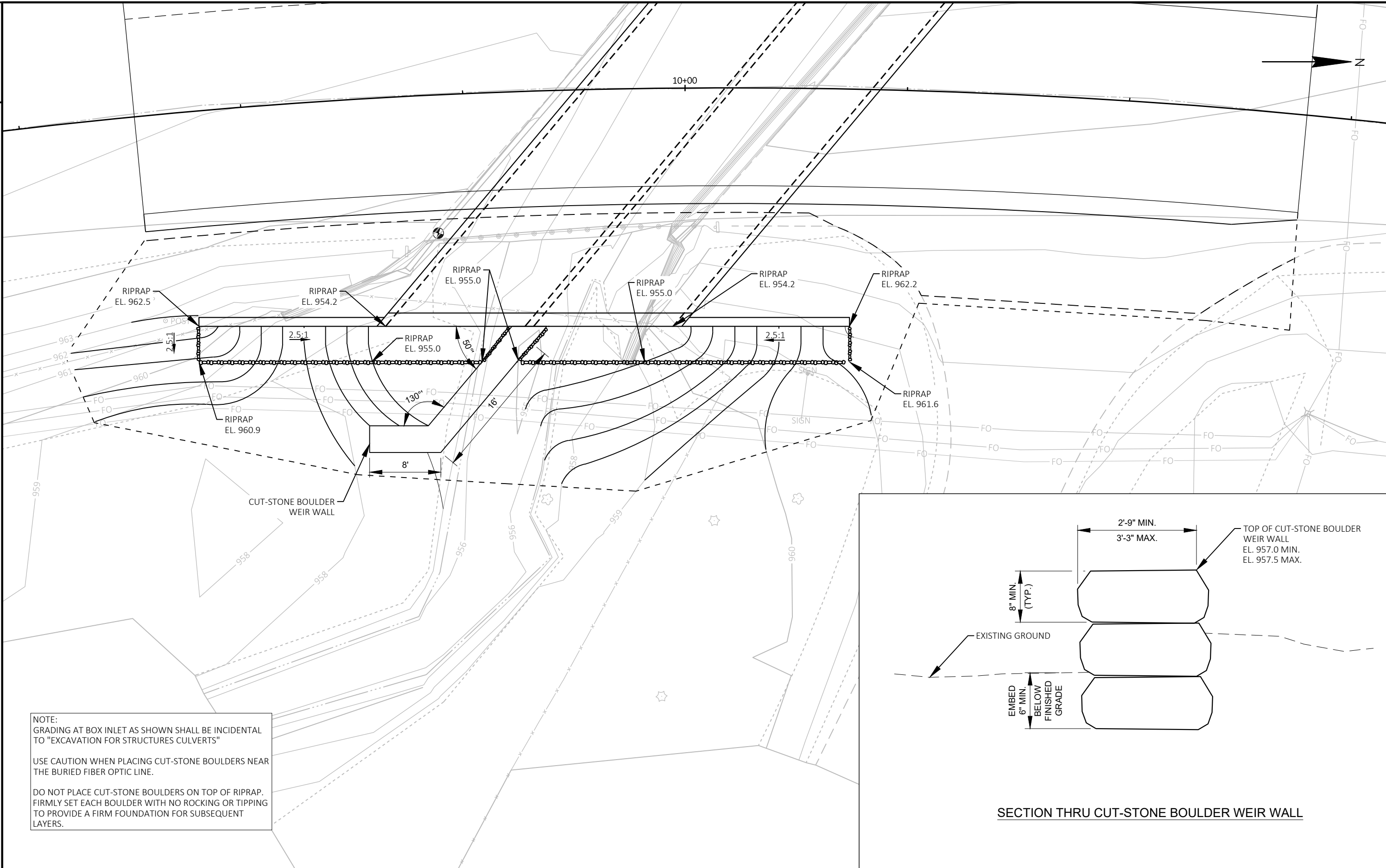
HWY: CTH Q

COUNTY: VERNON

PLAN: TYPICAL SECTIONS

SHEET

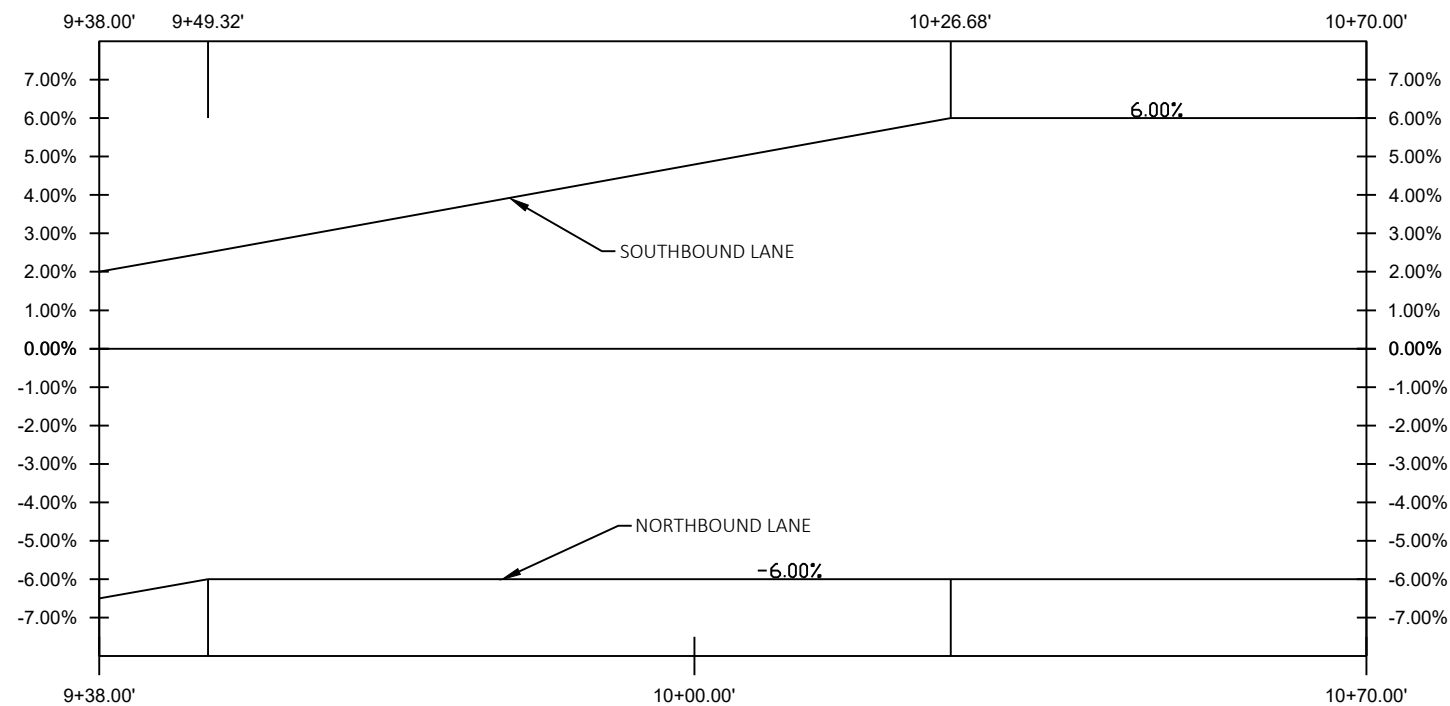
E



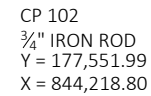
NOTE:
GRADING AT BOX INLET AS SHOWN SHALL BE INCIDENTAL
TO "EXCAVATION FOR STRUCTURES CULVERTS"

USE CAUTION WHEN PLACING CUT-STONE BOULDERS NEAR
THE BURIED FIBER OPTIC LINE.

DO NOT PLACE CUT-STONE BOULDERS ON TOP OF RIPRAP.
FIRMLY SET EACH BOULDER WITH NO ROCKING OR TIPPING
TO PROVIDE A FIRM FOUNDATION FOR SUBSEQUENT
LAYERS.



SUPERELEVATION



Estimate Of Quantities

5479-00-70					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	1.000	1.000
0004	201.0205	Grubbing	STA	1.000	1.000
0006	203.0200	Removing Old Structure (station) 01. 10+00	LS	1.000	1.000
0008	206.2000	Excavation for Structures Culverts (structure) 01. B-62-259	LS	1.000	1.000
0010	210.2500	Backfill Structure Type B	TON	2,175.000	2,175.000
0012	213.0100	Finishing Roadway (project) 01. 5479-00-70	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	26.000	26.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	350.000	350.000
0018	311.0110	Breaker Run	TON	250.000	250.000
0020	455.0605	Tack Coat	GAL	21.000	21.000
0022	465.0105	Asphaltic Surface	TON	103.000	103.000
0024	504.0100	Concrete Masonry Culverts	CY	263.000	263.000
0026	505.0400	Bar Steel Reinforcement HS Structures	LB	40,120.000	40,120.000
0028	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	2,530.000	2,530.000
0030	516.0500	Rubberized Membrane Waterproofing	SY	27.000	27.000
0032	606.0200	Riprap Medium	CY	60.000	60.000
0034	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	70.000	70.000
0036	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5479-00-70	EACH	1.000	1.000
0038	619.1000	Mobilization	EACH	1.000	1.000
0040	624.0100	Water	MGAL	8.000	8.000
0042	625.0500	Salvaged Topsoil	SY	313.000	313.000
0044	627.0200	Mulching	SY	350.000	350.000
0046	628.1504	Silt Fence	LF	325.000	325.000
0048	628.1520	Silt Fence Maintenance	LF	325.000	325.000
0050	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0052	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0054	628.2008	Erosion Mat Urban Class I Type B	SY	90.000	90.000
0056	629.0210	Fertilizer Type B	CWT	0.330	0.330
0058	630.0120	Seeding Mixture No. 20	LB	14.000	14.000
0060	630.0200	Seeding Temporary	LB	14.000	14.000
0062	630.0500	Seed Water	MGAL	11.000	11.000
0064	633.5100	Markers Row	EACH	7.000	7.000
0066	633.5200	Markers Culvert End	EACH	4.000	4.000
0068	642.5001	Field Office Type B	EACH	1.000	1.000
0070	643.0420	Traffic Control Barricades Type III	DAY	1,404.000	1,404.000
0072	643.0705	Traffic Control Warning Lights Type A	DAY	1,872.000	1,872.000
0074	643.0900	Traffic Control Signs	DAY	936.000	936.000
0076	643.5000	Traffic Control	EACH	1.000	1.000

Estimate Of Quantities

5479-00-70

Line	Item	Item Description	Unit	Total	Qty
0078	645.0105	Geotextile Type C	SY	450.000	450.000
0080	645.0120	Geotextile Type HR	SY	170.000	170.000
0082	646.1020	Marking Line Epoxy 4-Inch	LF	492.000	492.000
0084	650.4500	Construction Staking Subgrade	LF	132.000	132.000
0086	650.5000	Construction Staking Base	LF	132.000	132.000
0088	650.6500	Construction Staking Structure Layout (structure) 01. B-62-259	LS	1.000	1.000
0090	650.9910	Construction Staking Supplemental Control (project) 01. 5479-00-70	LS	1.000	1.000
0092	650.9920	Construction Staking Slope Stakes	LF	132.000	132.000
0094	690.0150	Sawing Asphalt	LF	100.000	100.000
0096	715.0502	Incentive Strength Concrete Structures	DOL	1,578.000	1,578.000
0098	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0100	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,200.000	1,200.000
0102	SPV.0090	Special 01. Cut-Stone Boulder Weir Wall	LF	24.000	24.000
0104	SPV.0105	Special 01. Temporary Water Diversion Culvert B-62-0259	LS	1.000	1.000

3

CLEARING AND GRUBBING

				201.0105	201.0205
				CLEARING	GRUBBING
STATION	TO	STATION	LOCATION	STA	STA
10+00	-	11+00	MAINLINE, LT.	1	1
TOTALS				1	1

BASE AGGREGATE DENSE

				305.0110	305.0120	624.0100
				BASE	BASE AGGREGATE	
				AGGREGATE	DENSE 1 1/4-	
				DENSE 3/4-INCH	INCH	WATER
STATION	TO	STATION	LOCATION	TON	TON	MGAL
9+38	-	10+70	MAINLINE	26	350	8
TOTALS				26	350	8

3

ASPHALTIC SURFACE

				455.0605	465.0105
				TACK COAT	ASPHALTIC
					SURFACE
STATION	TO	STATION	LOCATION	GAL	TON
9+38	-	10+70	MAINLINE	21	103
TOTALS				21	103

EROSION CONTROL

				625.0500	627.0200	628.2008	629.0210	630.0120	630.0200	630.0500
				SALVAGED	MULCHING	EROSION MAT	FERTILIZER TYPE	SEEDING	SEEDING	
				TOPSOIL		URBAN CLASS I	B	MIXTURE NO. 20	TEMPORARY	SEED WATER
				SY	SY	TYPE B	CWT	LB	LB	MGAL
STATION	TO	STATION	LOCATION			SY				
9+38	-	10+70	MAINLINE, LT.	175	205	-	0.19	8	-	7
9+38	-	10+70	MAINLINE, RT.	75	75	70	0.07	3	-	2
	-		UNDISTRIBUTED	63	70	20	0.07	3	14	2
TOTALS				313	350	90	0.33	14	14	11

SILT FENCE

				628.1504	628.1520
				SILT FENCE	SILT FENCE
				LF	MAINTENANCE
					LF
STATION	TO	STATION	LOCATION		
9+38	-	10+70	MAINLINE, RT.	130	130
9+38	-	10+70	MAINLINE, LT.	150	150
	-		UNDISTRIBUTED	45	45
TOTALS				325	325

MOBILIZATIONS EROSION CONCTROL

				628.1905	628.1910
				MOBILIZATIONS	MOBILIZATIONS
				EROSION	EMERGENCY
				CONTROL	CONTROL
				EACH	EACH
STATION	TO	STATION	DESCRIPTION		
9+38	-	10+70	PROJECT 5479-00-70	2	2
TOTALS				2	2

MARKERS ROW

			633.5100
			MARKERS ROW
			EACH
STATION	OFFSET	LOCATION	
9+00.94	31.81	MAINLINE, LT.	1
9+43.42	70.16	MAINLINE, LT.	1
10+21.18	62.00	MAINLINE, LT.	1
10+75.00	62.00	MAINLINE, LT.	1
10+75.00	34.77	MAINLINE, LT.	1
10+75.00	31.23	MAINLINE, RT.	1
9+00.00	34.24	MAINLINE, RT.	1
TOTAL			7

MARKERS CULVERT END

633.5200 MARKERS CULVERT END		
STATION	LOCATION	EACH
9+65	24', RT.	1
10+01	25', RT.	1
10+14	31', LT.	1
10+47	33', LT.	1
TOTAL		4

TRAFFIC CONTROL

		643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH		643.0900 TRAFFIC CONTROL SIGNS DAY		643.5000 TRAFFIC CONTROL EACH	
LOCATION	DAYS		DAY		DAY		DAY		EACH
BEGIN OF PROJECT/ RIVER ROAD	78	9	702	10	780	4	312	-	
END OF PROJECT	78	7	546	10	780	4	312	-	
PINE HILL ROAD	78	1	78	2	156	2	156	-	
UNDISTRIBUTED	78	1	78	2	156	2	156	1	
TOTALS			1,404		1,872		936		1

PAVEMENT MARKING

646.1020 MARKING LINE EPOXY 4-INCH LF				
STATION TO	STATION	LOCATION	DESCRIPTION	LF
9+38	- 10+70	MAINLINE, RT.	SOLID WHITE	130
9+86	- 10+70	MAINLINE, LT.	SOLID WHITE	86
9+38	- 9+86	MAINLINE, LT.	INTERMITTENT WHITE (3' LINE, 9' GAP)	12
9+38	- 10+70	MAINLINE, C/L	DOUBLE YELLOW	264
TOTAL				492

CONSTRUCTION STAKING

		650.4500 CONSTRUCTION STAKING SUBGRADE LF		650.5000 CONSTRUCTION STAKING BASE LF		650.6500.01 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-62-0259) LS		650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5479-00-70) LS		650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	
STATION	TO	STATION	LOCATION								
9+38	-	10+70	MAINLINE	132	132	-	-	-	-	132	
	-		PROJECT	-	-	1	1	1	1	-	
TOTALS				132	132	1	1	1	1	132	

CUT-STONE BOULDER WEIR WALL

SPV.0090.01 CUT-STONE BOULDER WEIR WALL LF				
STATION TO	STATION	LOCATION		LF
9+62	- 9+80	26' - 40', RT.		24
TOTAL				24

TEMPORARY WATER DIVERSION

SPV.0105.01 TEMPORARY WATER DIVERSION CULVERT B-62-0259 LS	
LOCATION	
BR S BRANCH CREEK	1
TOTAL	1

SAWING ASPHALT

690.0150 SAWING ASPHALT LF				
STATION TO	STATION	LOCATION		LF
9+38	- 9+38	MAINLINE		31
9+38	- 9+80	MAINLINE, LT.		44
10+70	- 10+70	MAINLINE		25
TOTAL				100

4

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE, AND OTHER MINOR 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

PARCEL NUMBER 25
SECTION CORNER
NOTATION FOR COMBUSTIBLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
CAUTION
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
PARALLEL OFFSETS

UTILITY NUMBER 40
R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN
SIGN
SIGN

CONVENTIONAL UTILITY SYMBOLS

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

W
G
T
OH
E
TV
FO
SAN
SS

NON-COMPENSABLE
COMPENSABLE

CURVE DATA ABBREVIATIONS

LONG CHORD
LONG CHORD BEARING
RADIUS
DEGREE OF CURVE
CENTRAL ANGLE
LENGTH OF CURVE
TANGENT
DIRECTION AHEAD
DIRECTION BACK

LCH
LCB
R
D
Δ/DELTA
L
T
DA
DB

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS
ACRES
AHEAD
ALUMINUM
AND OTHERS
BACK
BLOCK
CENTERLINE
CERTIFIED SURVEY MAP
CONCRETE
COUNTY
COUNTY TRUNK HIGHWAY
DISTANCE
CORNER
DOCUMENT NUMBER
EASEMENT
EXISTING
GAS VALVE
GRID NORTH
HIGHWAY EASEMENT
IDENTIFICATION
LAND CONTRACT
LEFT
MONUMENT
NATIONAL GEODETIC SURVEY
NUMBER

AR
AC
AH
ALUM
ET AL
BK
BLK
C/L
CSM
CONC
CO
CTH
DIST
COR
DOC
EASE
EX
GV
GN
HE
ID
LC
LT
MON
NGS
NO

OUTLOT
PAGE
POINT OF TANGENCY
PROPERTY LINE
RECORDED AS
REEL / IMAGE
REFERENCE LINE
PERMANENT LIMITED EASEMENT
POINT OF BEGINNING
POINT OF CURVATURE
POINT OF COMPOUND CURVE
POINT OF INTERSECTION
REMAINING
RESTRICTIVE DEVELOPMENT EASEMENT
RIGHT
RIGHT OF WAY
SECTION
SEPTIC VENT
SQUARE FEET
STATE TRUNK HIGHWAY
STATION
TELEPHONE PEDESTAL
TEMPORARY LIMITED EASEMENT
TRANSPORTATION PROJECT PLAT
UNITED STATES HIGHWAY
VOLUME

OL
P
PT
PL
(100')
R/I
R/L
PLE
POB
PC
PCC
PI
REM
RDE
RT
R/W
SEC
SEPV
SF
STH
STA
TP
TLE
TPP
USH
V

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), VERNON 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 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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

BEGIN RELOCATION
ORDER STA. 9+00.00
Y = 177,734.600
X = 844,092.171

APPROXIMATELY 218 FEET NORTH
OF AND 85 FEET EAST OF THE
EAST 1/4 CORNER OF SECTION 3,
T-13-N, R-1-E, TOWN OF
GREENWOOD, VERNON COUNTY WI.

END RELOCATION
ORDER STA. 10+75.00
Y = 177,898.760
X = 844,032.904

APPROXIMATELY 382 FEET NORTH
OF AND 26 FEET EAST OF THE
EAST 1/4 CORNER OF SECTION 3,
T-13-N, R-1-E, TOWN OF
GREENWOOD, VERNON COUNTY WI.

PROJECT LOCATION

R/W PROJECT NUMBER
5479-00-00

SHEET
NUMBER
4.01

TOTAL
SHEETS
2

FEDERAL PROJECT NUMBER

CTH EE - STH 80
BR S BR BARABOO RVR BRIDGE, B-62-0259

CTH Q

VERNON COUNTY

ACCEPTED FOR

COUNTY of VERNON

3-10-20
(Date) *Chip Hewitt*
Highway Commissioner

ORIGINAL PLAT PREPARED BY

MSA

ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL

1702 Pankratz Street, Madison, WI 53704
608-242-7779 1-800-446-0679 www.msa-ps.com
© MSA Professional Services, Inc.

WISCONSIN
BRADLEY L. TISDALE
S-2824
WAUNAKEE
WI
LAND SURVEYOR

03/06/2020
(Date) *Bradley L. Tisdale*
(Professional Land Surveyor)

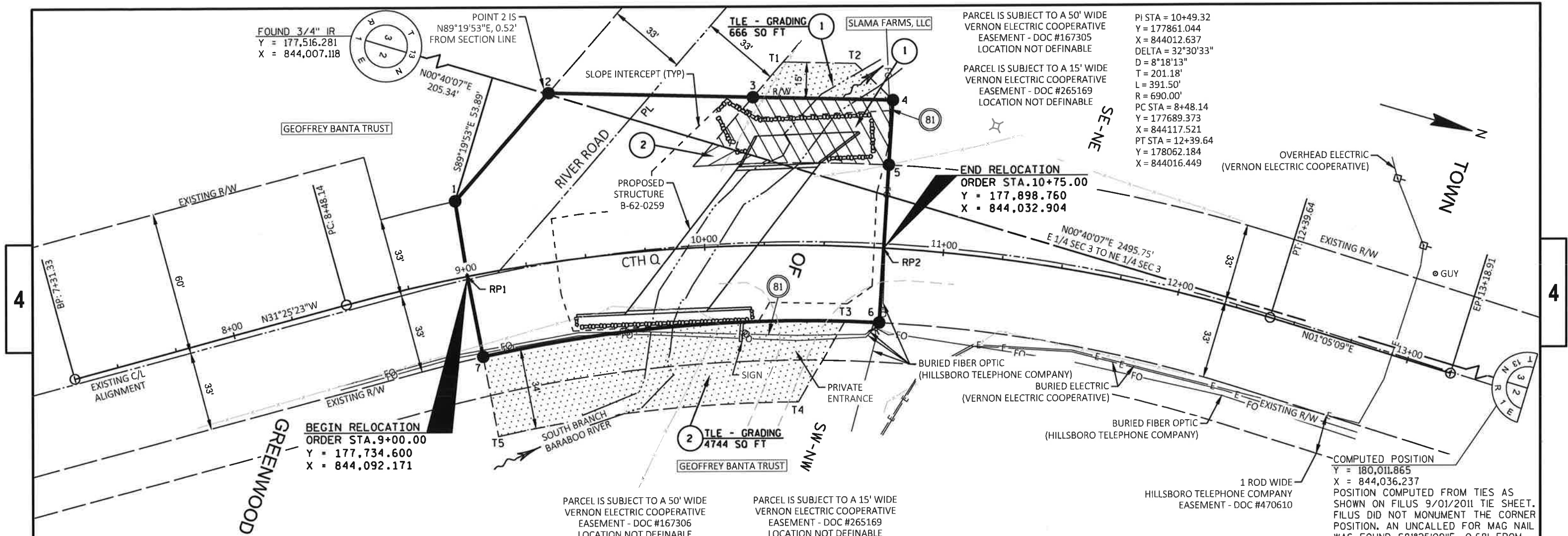
CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS
MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.

FILE NAME : P:\7300S\7330S\7339\07339028\CADD\RW\5479-00-70_CTH Q_VERNONCO_RW PLAT-TITLE SHEET.DWG

PLOT DATE : 3/6/2020 10:14 AM

PLOT BY : BRAD TISDALE

PLOT NAME :



CTH Q RIGHT-OF-WAY IS BASED ON PREVIOUS PROJECT 7306 AS DEFINED IN DOCUMENT #259215 AND BLAKESLEE PLAT OF SURVEY DATED 07-14-2004.

RIVER ROAD RIGHT-OF-WAY IS BASED ON THE EXISTING CENTERLINE

UTILITY INTERESTS REQUIRED			
UTILITY NUMBER	OWNER(S)	PARCEL AFFECTED	INTEREST REQUIRED
80	VERNON ELECTRIC COOPERATIVE	1 - DOC #265169 & 167305 2 - DOC #265169 & 167306	RELEASE OF RIGHTS
81	HILLSBORO TELEPHONE COMPANY	1 - NO EASEMENT OF RECORD 2 - DOC #470610	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE COUNTY.				
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W SQ FT REQUIRED			TLE SQ FT
			NEW	EXISTING	TOTAL	
1	SLAMA FARMS, LLC, PURCHASER, SUBJECT TO LAND CONTRACT WITH GEOFFREY M. BANTA, TRUSTEE OF THE GEOFFREY BANTA TRUST DATED JANUARY 14, 2016, VENDOR	FEE/TLE	1752	638	2390	666
2	GEOFFREY M. BANTA, TRUSTEE OF THE GEOFFREY BANTA TRUST DATED JANUARY 14, 2016	FEE/TLE	158	2464	2622	4744

CURVE	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD LENGTH
6-7	166.81'	603.60'	15°50'02"	S20°52'42"E	166.28'

LINE	BEARING	DISTANCE
RP1-1	S64°39'45"W	31.83'
1-2	N65°18'48"W	59.57'
2-3	N14°49'12"W	85.54'
3-4	N14°49'12"W	58.65'
4-5	N77°24'53"E	27.23'
5-RP2	N77°24'53"E	34.77'
RP2-6	N77°24'53"E	31.23'
7-RP1	S62°52'59"W	34.24'

TLE POINT	STATION	OFFSET
T1	10+32.83	76.62 L
T2	10+60.00	76.54 L
T3	10+60.00	31.34 R
T4	10+40.00	65.53 R
T5	9+00.00	68.25 R

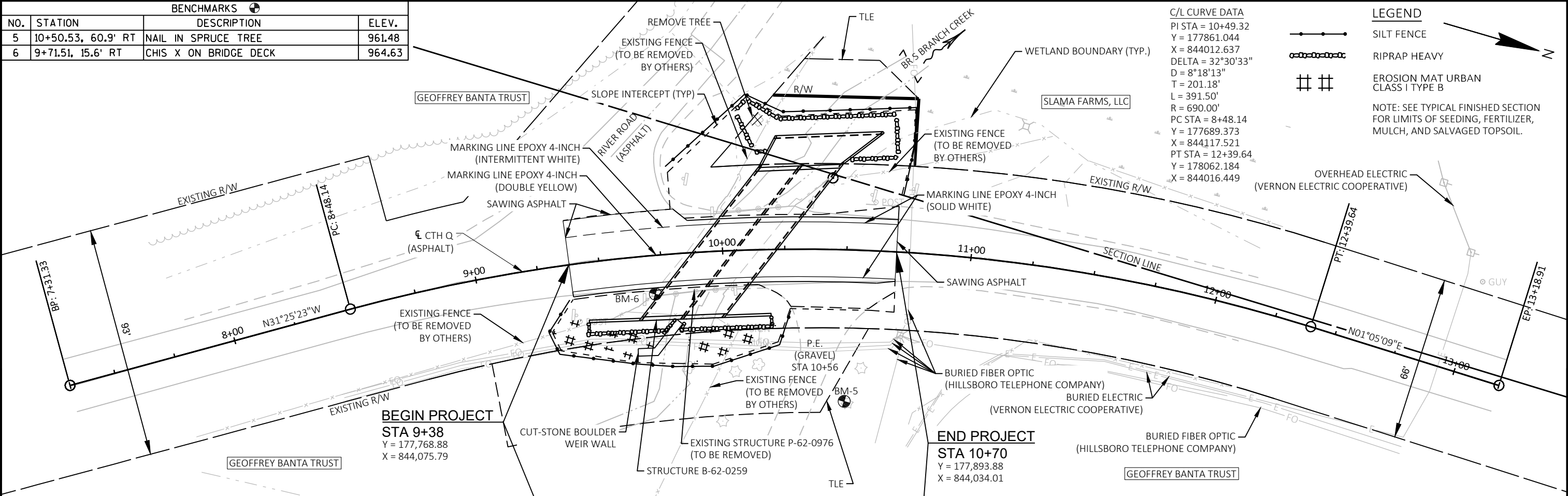
R/W POINT	STATION	OFFSET	Y	X
1	9+00.94	31.81 L	177,720.979	844,063.405
2	9+43.42	70.16 L	177,745.860	844,009.275
3	10+21.18	62.00 L	177,828.557	843,987.395
4	10+75.00	62.00 L	177,885.251	843,972.394
5	10+75.00	34.77 L	177,891.185	843,998.971
6	10+75.00	31.23 R	177,905.566	844,063.387
7	9+00.00	34.24 R	177,750.206	844,122.645

I, BRADLEY L. TISDALE, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE COUNTY OF VERNON I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: *Bradley L. Tisdale* DATE: 03/06/20
PRINT NAME: BRADLEY L. TISDALE
REGISTRATION NUMBER: S-2824
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE COUNTY OF VERNON
SIGNATURE: *Phil Hewitt* DATE: 3-10-20
PRINT NAME: PHIL HEWITT

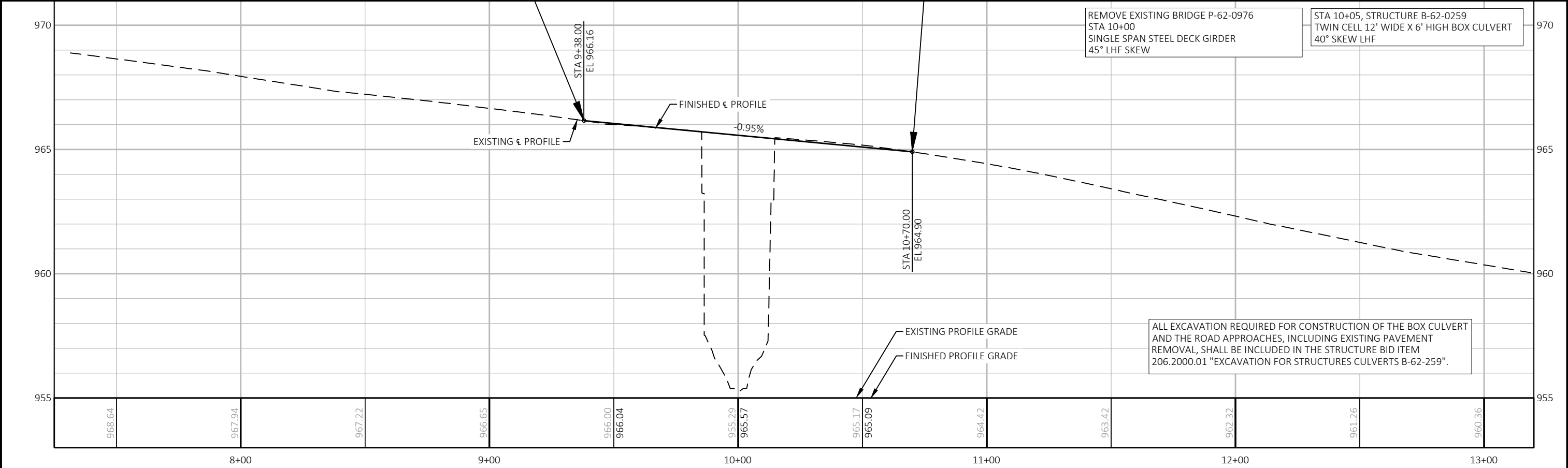
REVISION DATE	DATE 03/06/2020	SCALE, FEET	HWY: CTH Q	STATE R/W PROJECT NUMBER 5479-00-00	PLAT SHEET 4.02
	GRID FACTOR	0 20 40	COUNTY: VERNON	CONSTRUCTION PROJECT NUMBER 5479-00-70	PS&E SHEET

BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
5	10+50.53, 60.9' RT	NAIL IN SPRUCE TREE	961.48
6	9+71.51, 15.6' RT	CHIS X ON BRIDGE DECK	964.63



C/L CURVE DATA
PI STA = 10+49.32
Y = 177861.044
X = 844012.637
DELTA = 32°30'33"
D = 8°18'13"
T = 201.18'
L = 391.50'
R = 690.00'
PC STA = 8+48.14
Y = 177689.373
X = 844117.521
PT STA = 12+39.64
Y = 178062.184
X = 844016.449

LEGEND
—●— SILT FENCE
—●— RIPRAP HEAVY
EROSION MAT URBAN CLASS I TYPE B
NOTE: SEE TYPICAL FINISHED SECTION FOR LIMITS OF SEEDING, FERTILIZER, MULCH, AND SALVAGED TOPSOIL.



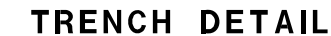
PROJECT NO: 5479-00-70	HWY: CTH Q	COUNTY: VERNON	PLAN AND PROFILE: CTH Q	SHEET E
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Standard Detail Drawing List

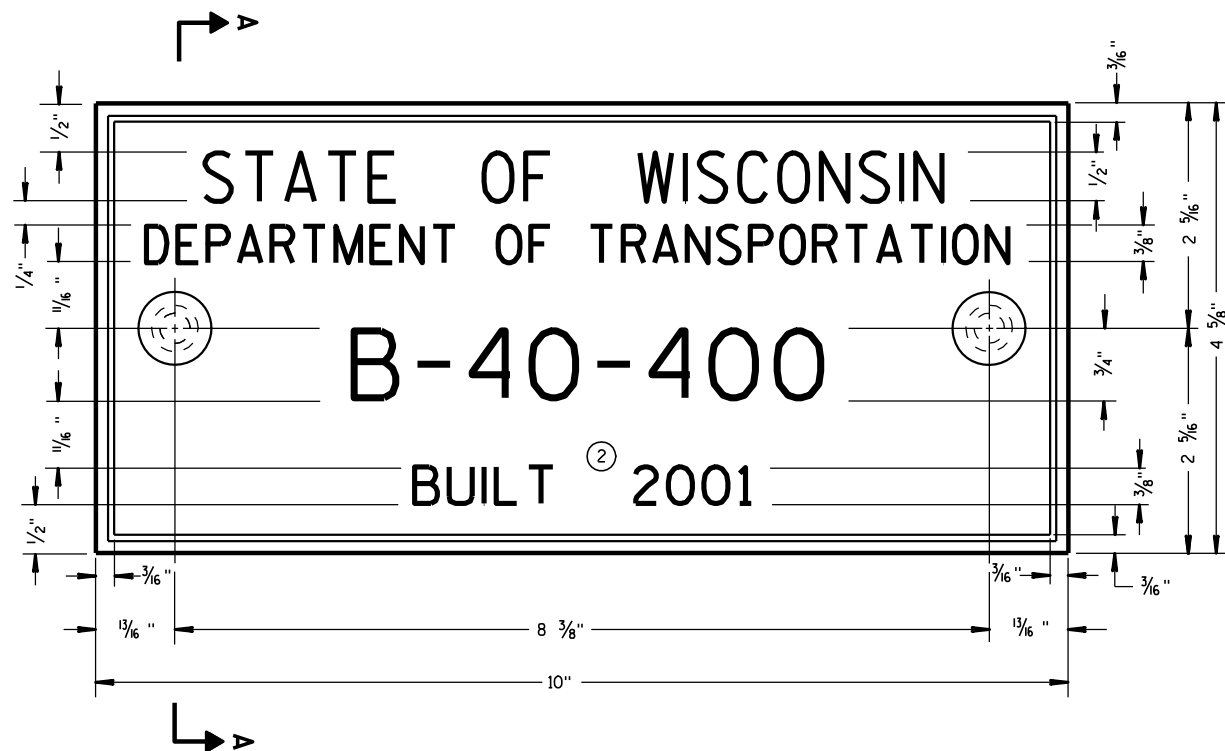
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



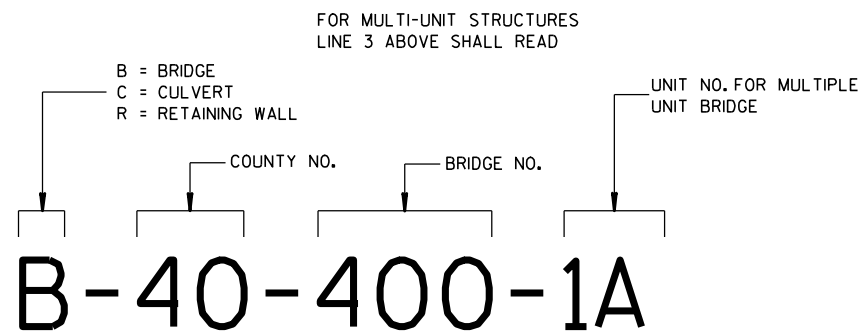
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS 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;">SILT FENCE</div>	
<div style="text-align: center;">STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</div>	
<div>APPROVED <u>4-29-05</u> DATE</div>	<div><u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER</div>



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



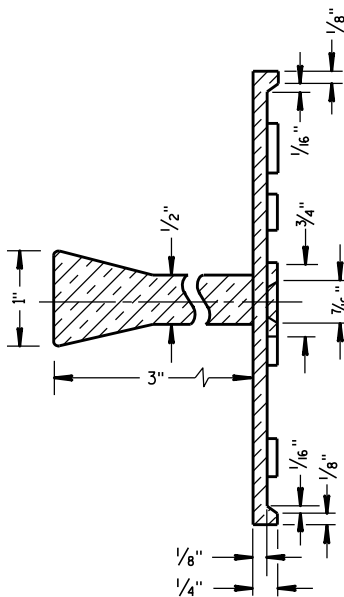
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

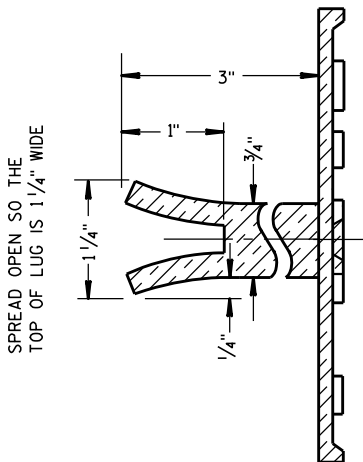
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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

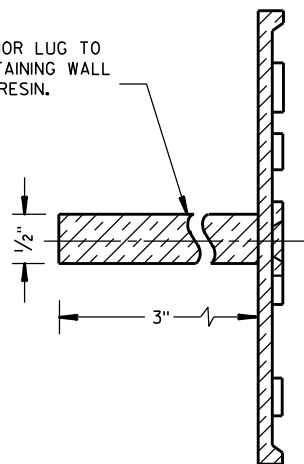


SECTION A-A



ALTERNATE LUG

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

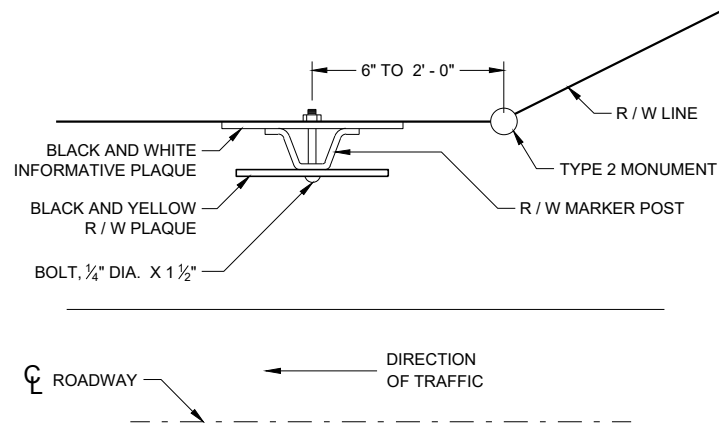


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

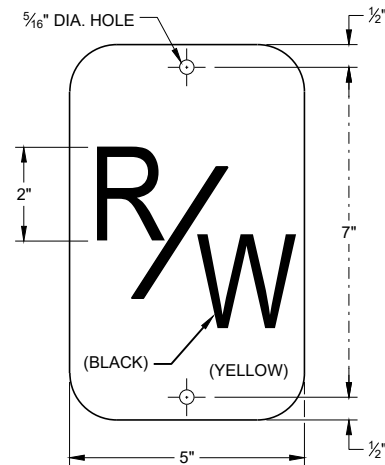
**NAME PLATE
(STRUCTURES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/26/10
DATE
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA

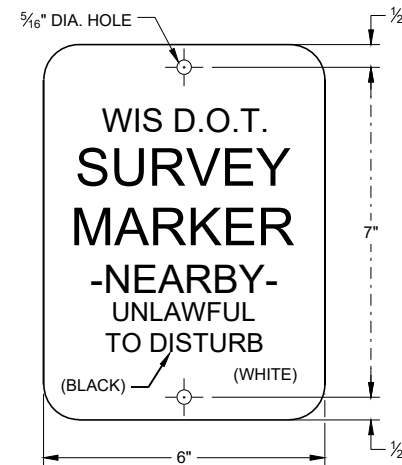


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

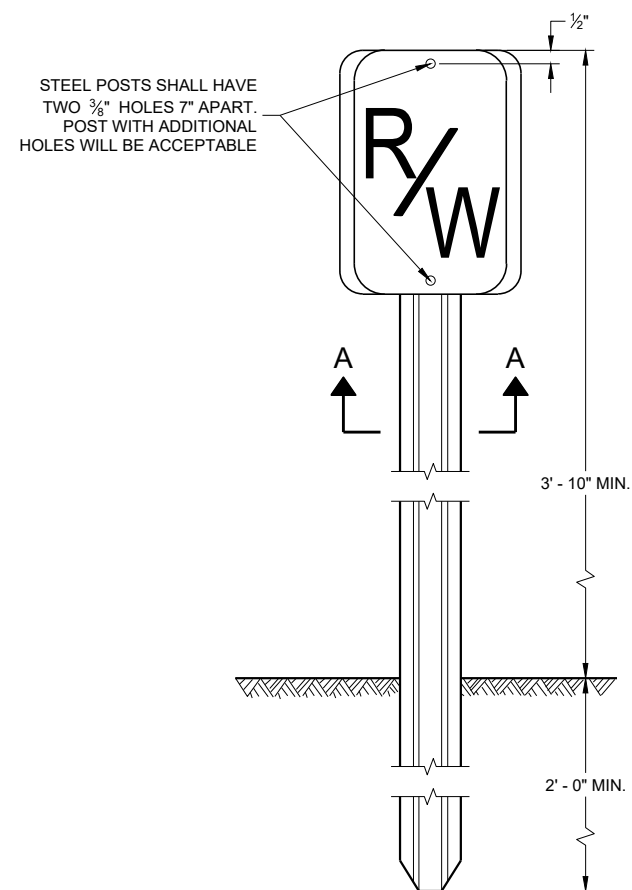
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

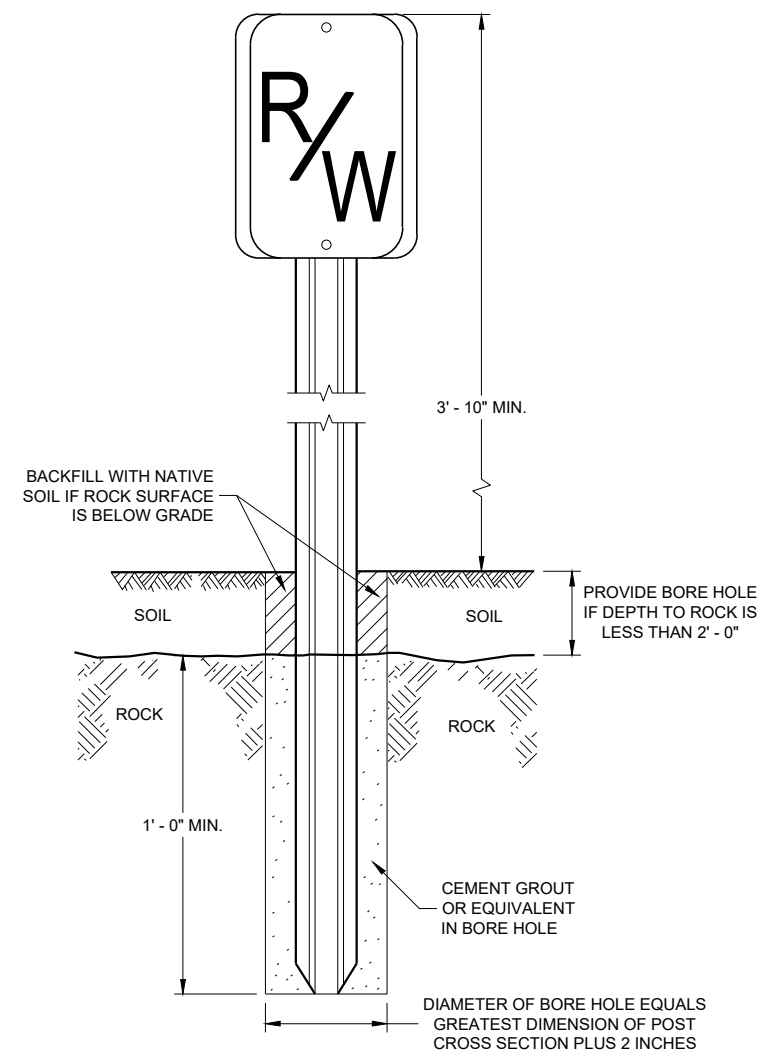
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

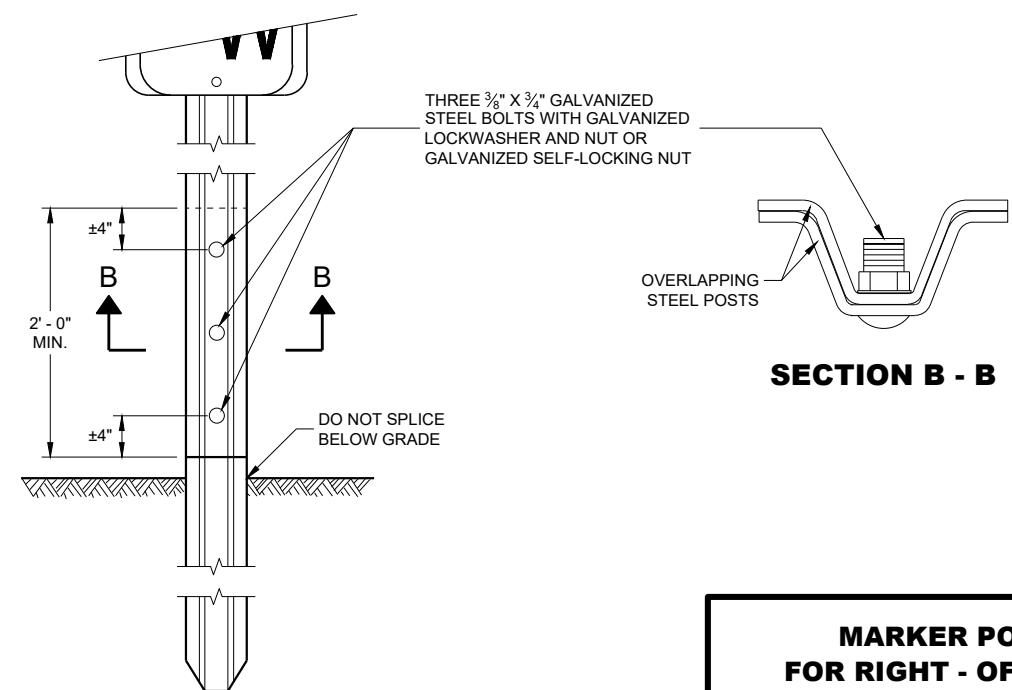
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



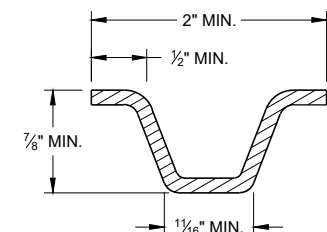
**FRONT VIEW
STEEL MARKER POST**



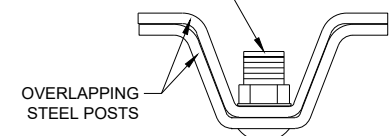
**FRONT VIEW
ROCK INSTALLATION ①**



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



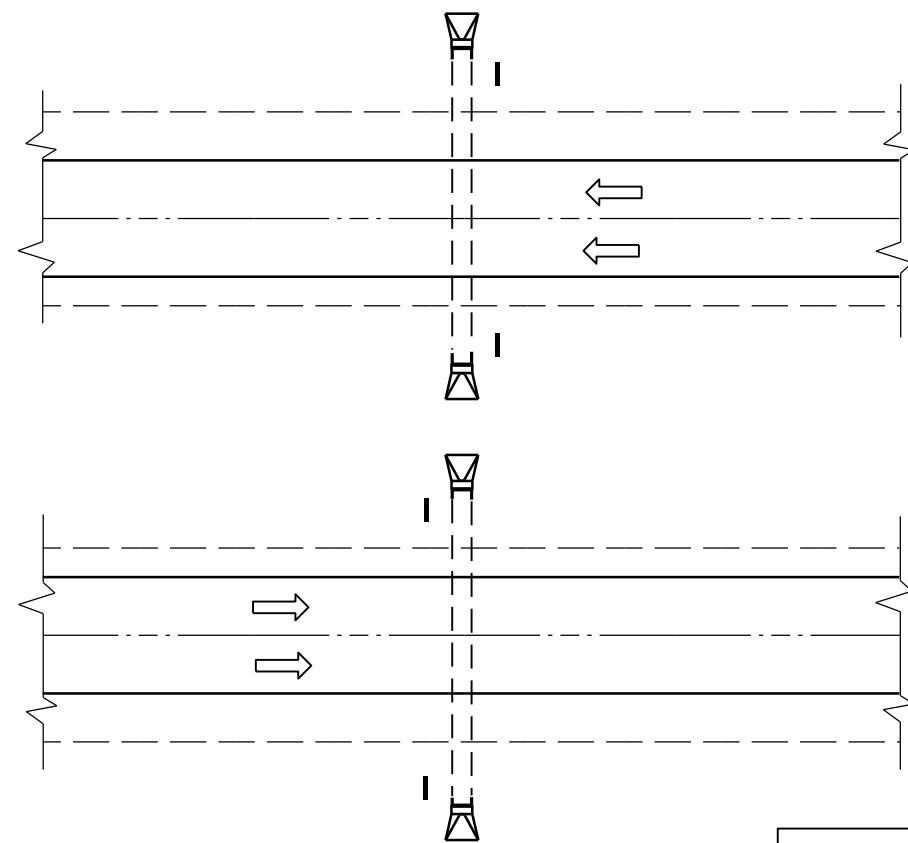
SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

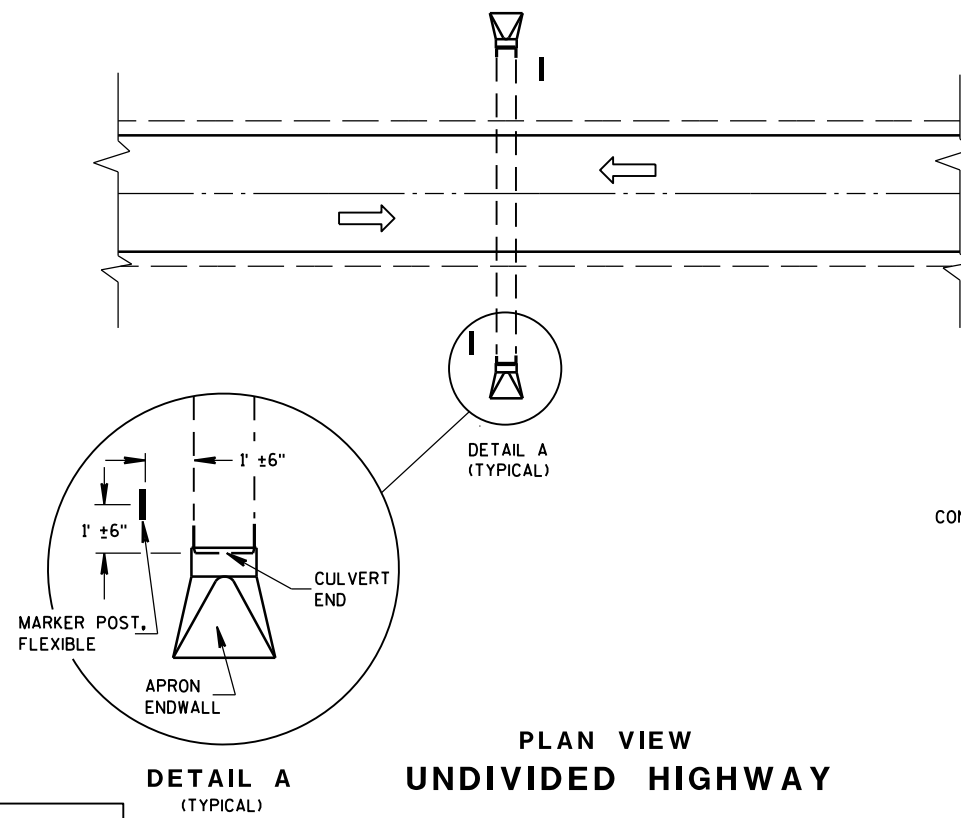
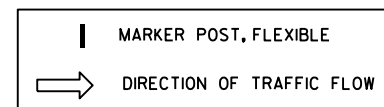
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016
DATE
/S/ Ray Kumapayi
CHIEF SURVEYING AND MAPPING
ENGINEER

FHWA



PLAN VIEW
DIVIDED HIGHWAY

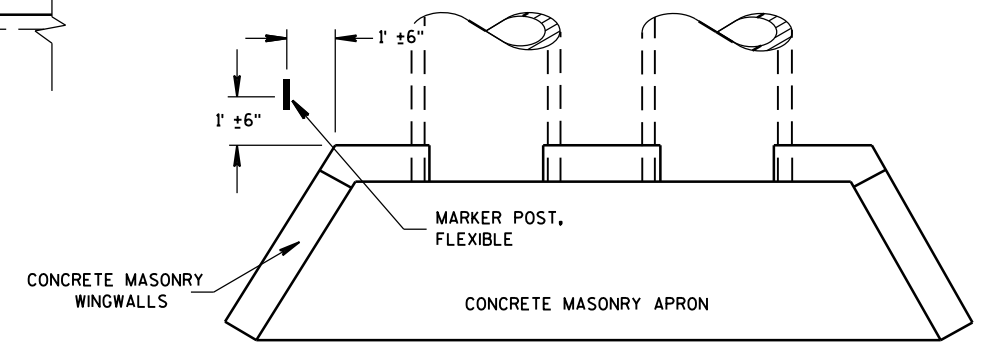


PLAN VIEW
UNDIVIDED HIGHWAY

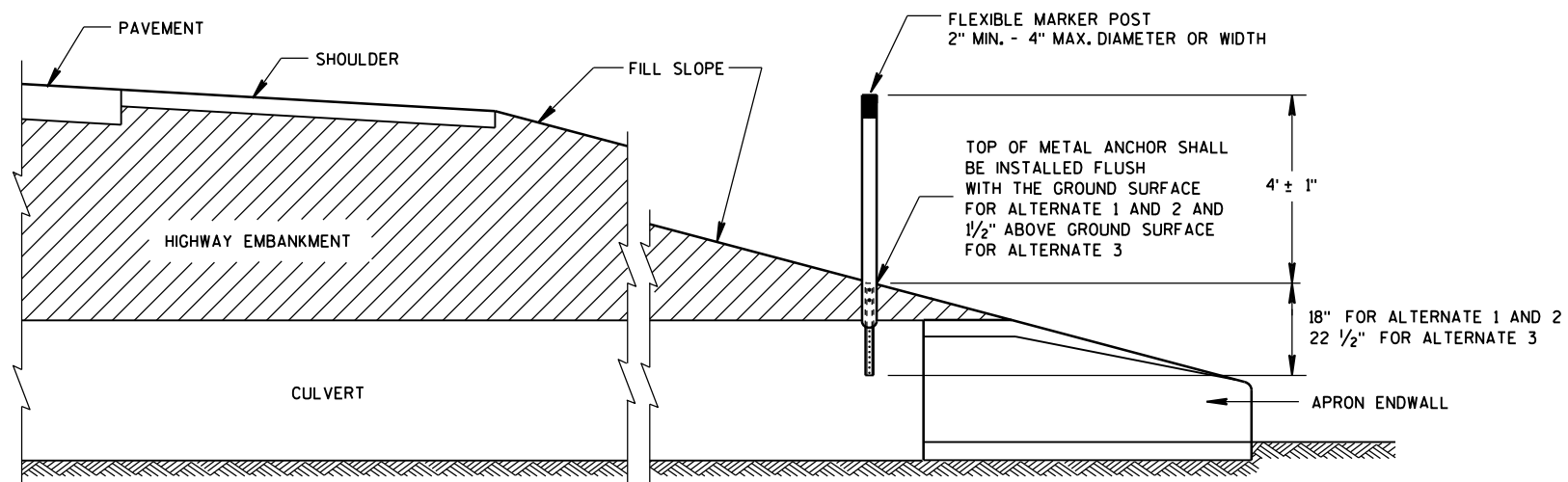
FLEXIBLE MARKER POST LOCATION

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.



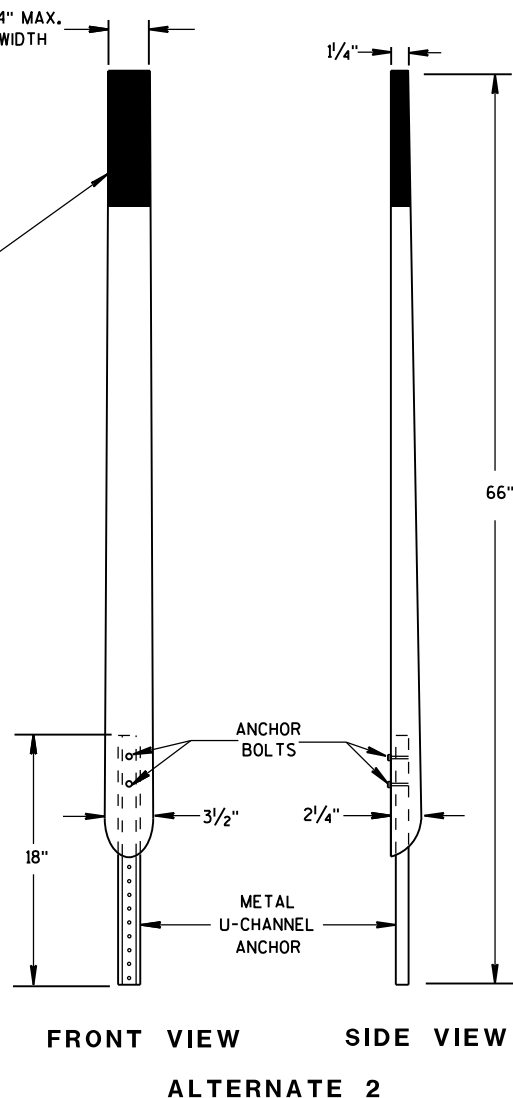
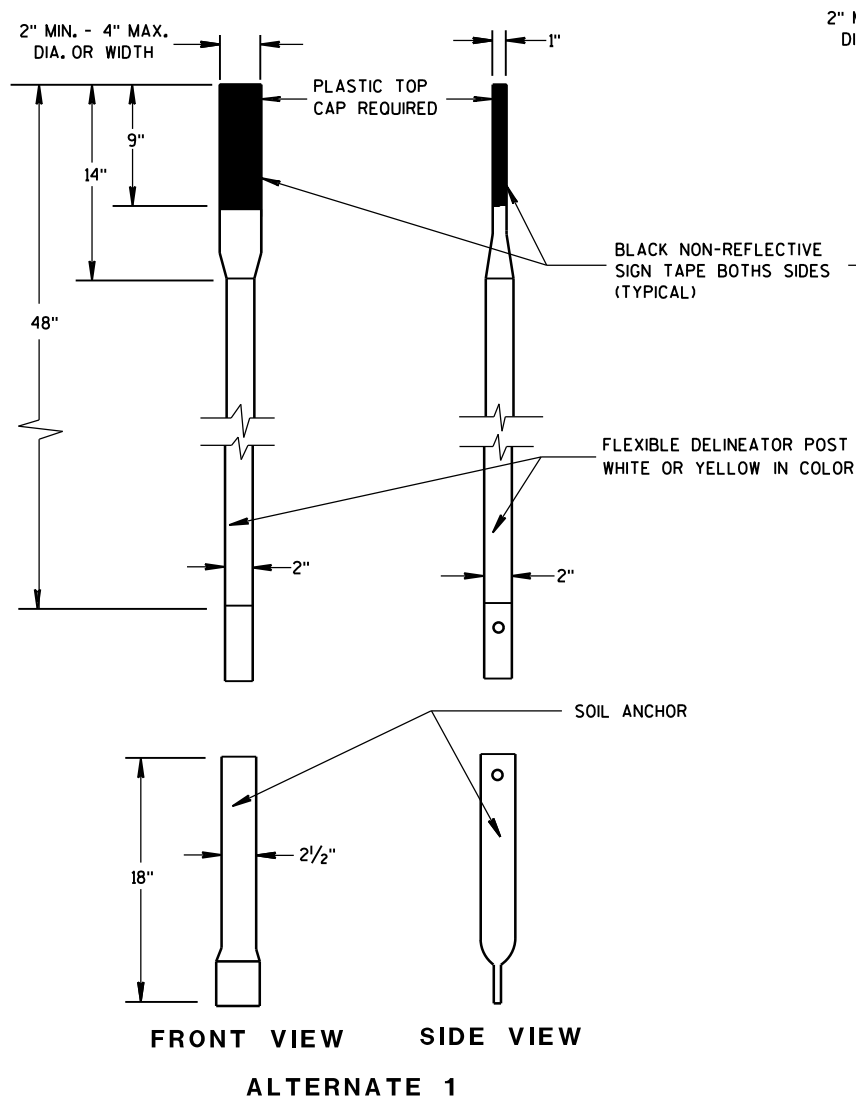
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



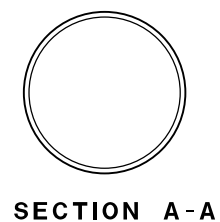
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

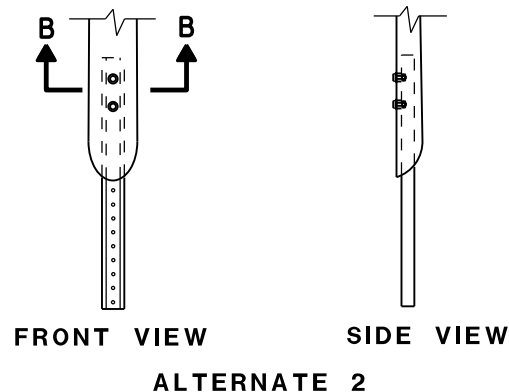
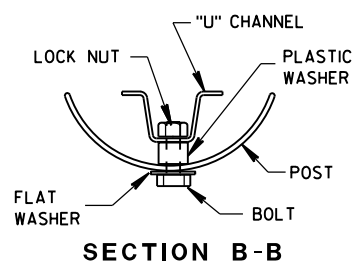
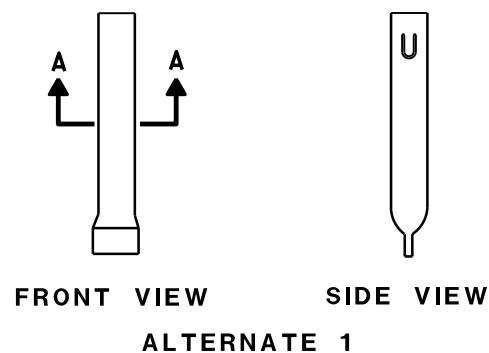
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



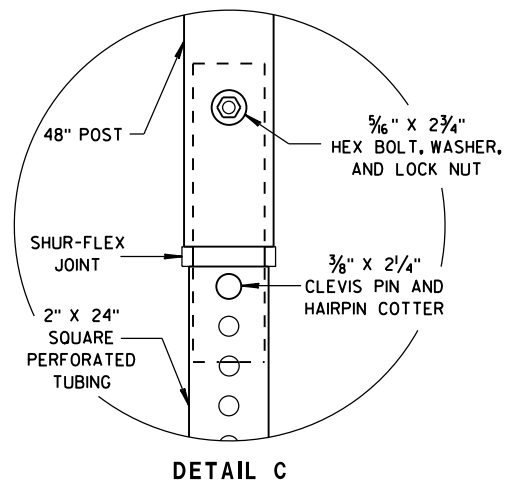
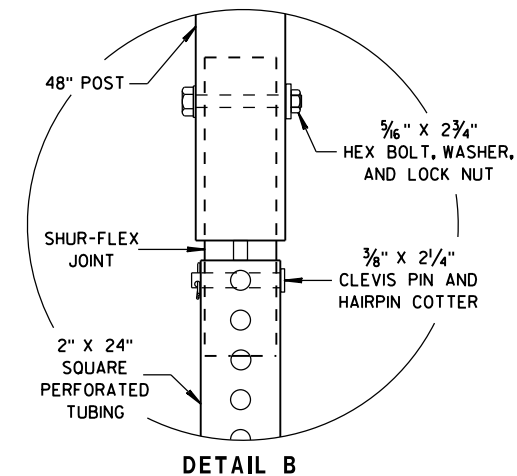
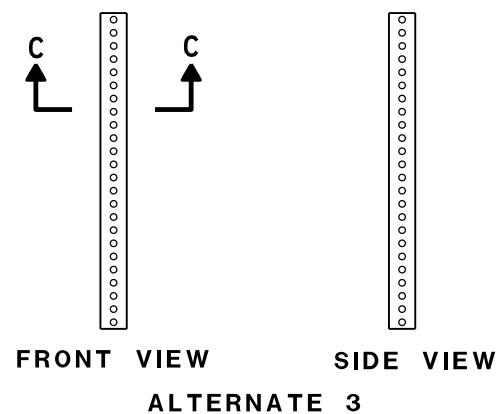
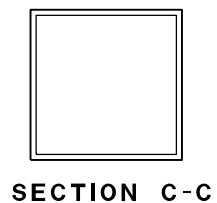
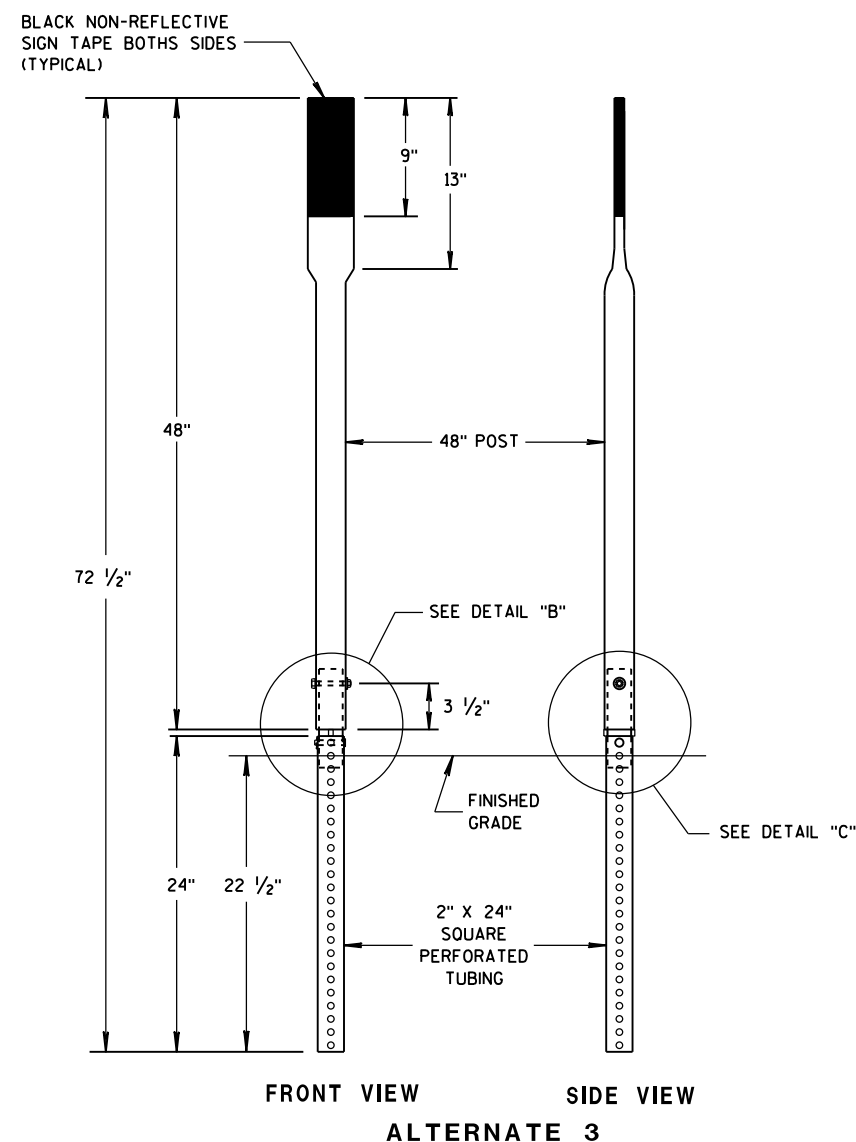
FLEXIBLE MARKER POSTS



SECTION A-A



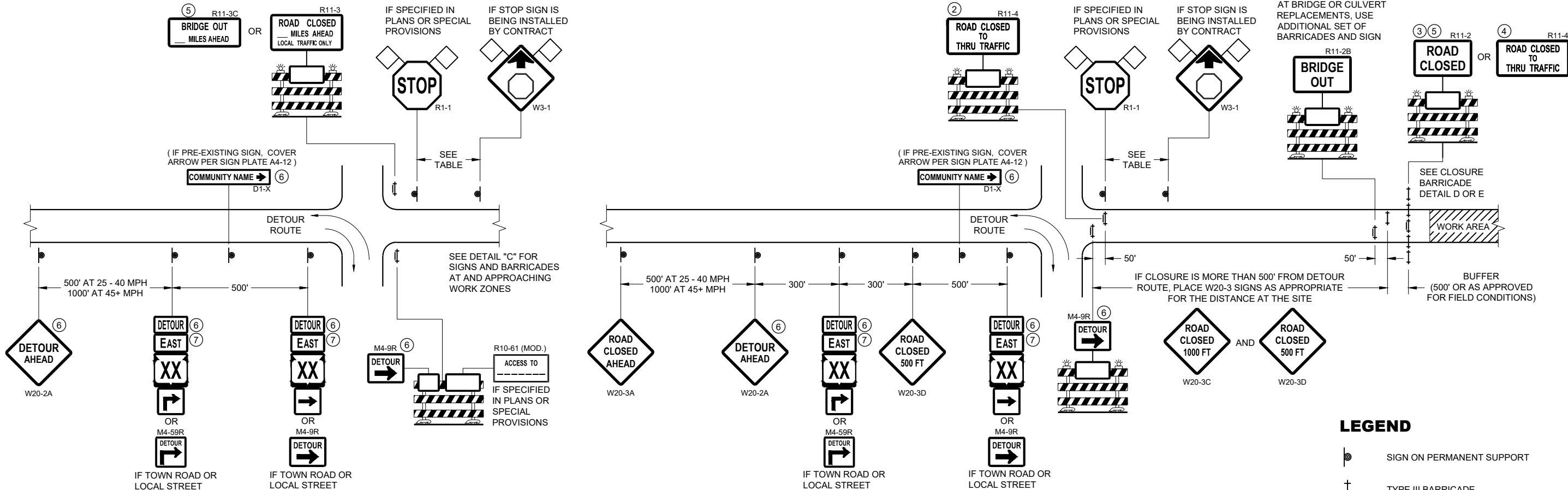
FLEXIBLE MARKER POST ANCHORS



FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO 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)

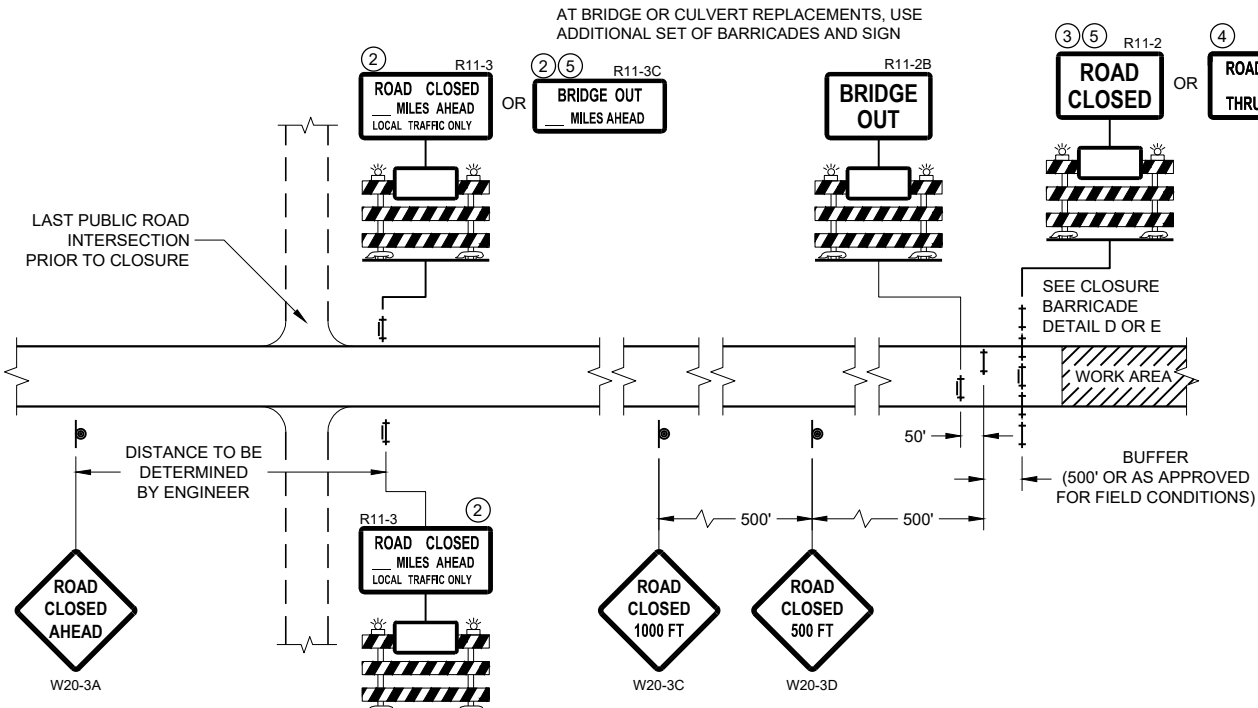
LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX OR **XX** OR **COUNTY X**
M1 - 4 M1 - 6 M1 - 5A
→ OR **→**
M05 - 1 M06 - 1

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



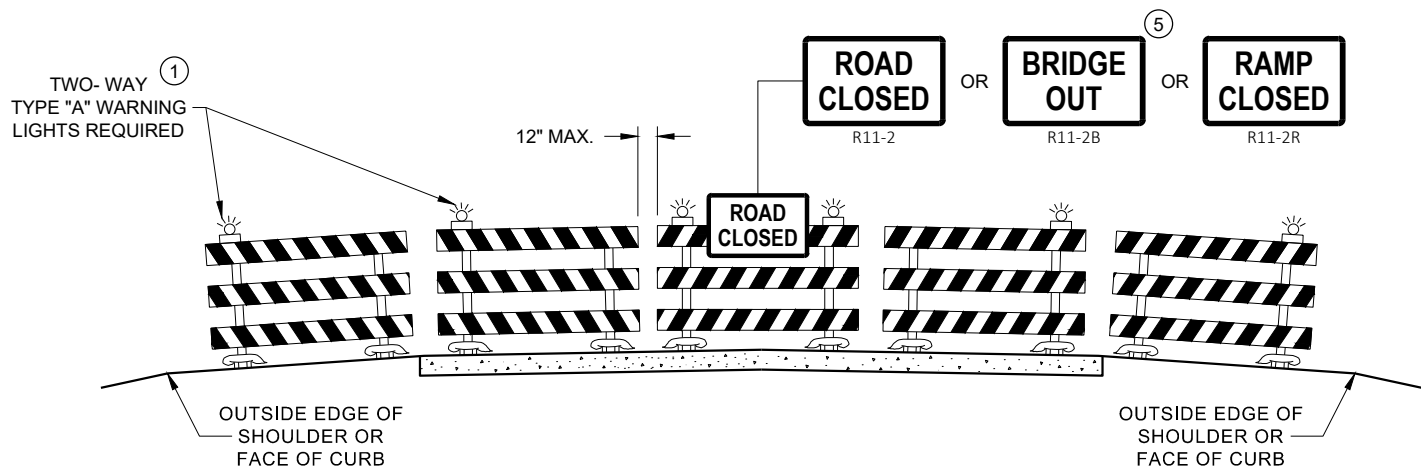
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

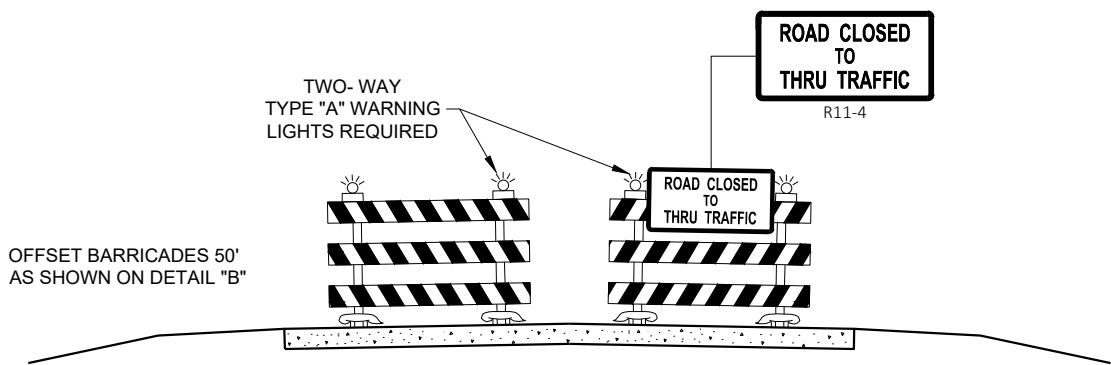
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON 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"

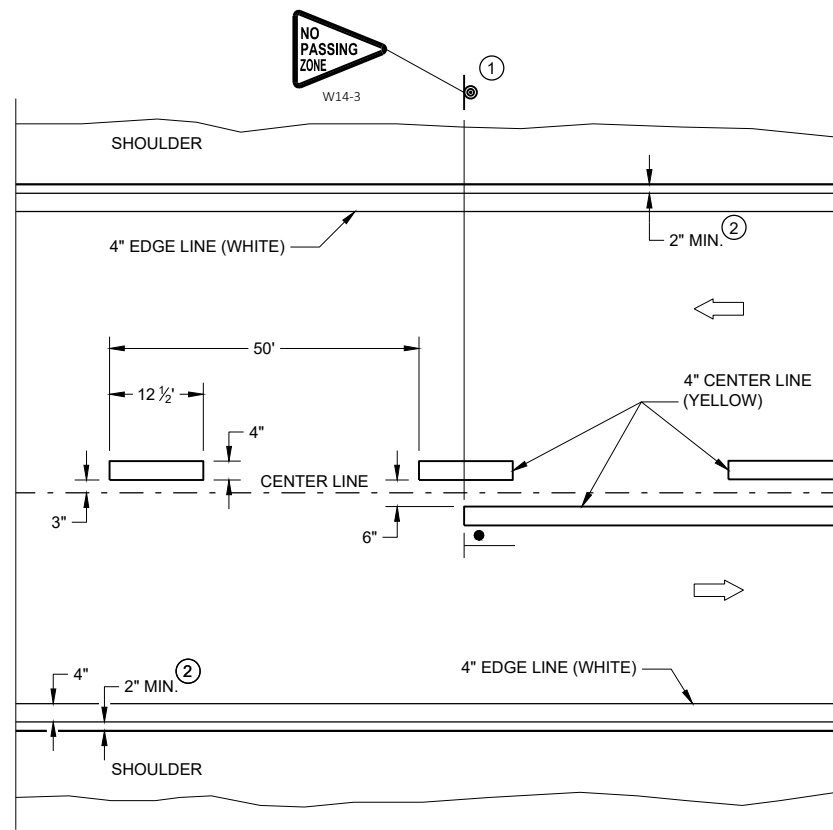
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS 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**

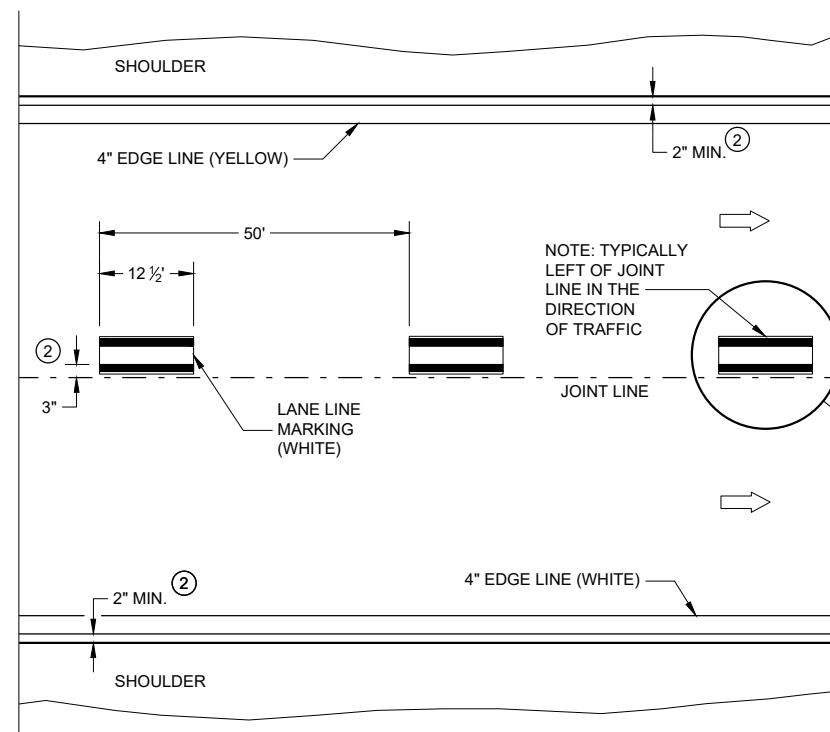
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DEPARTMENT OF TRANSPORTATION

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February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

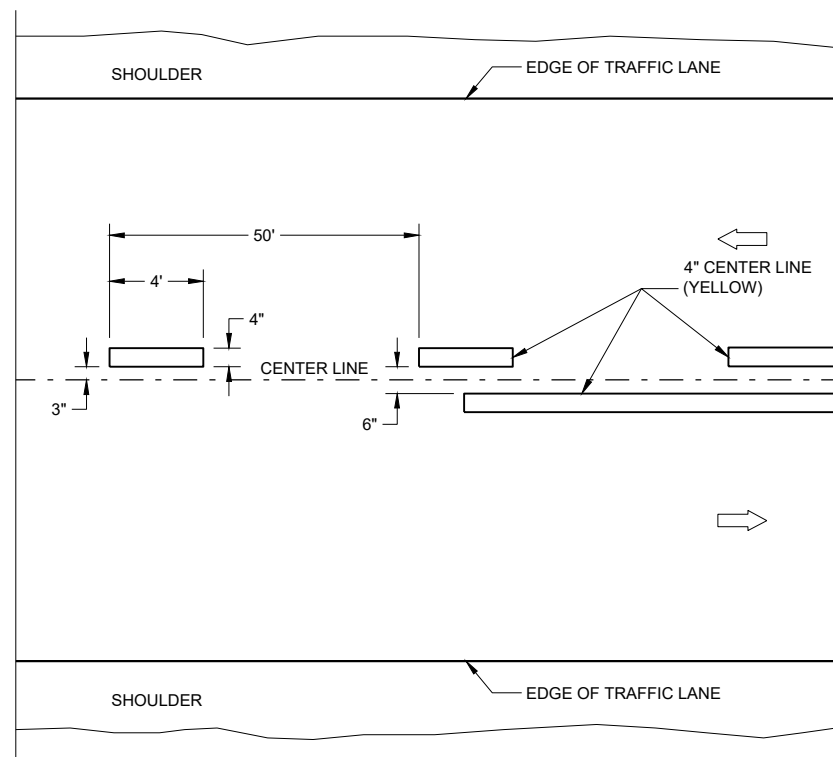


TWO WAY TRAFFIC

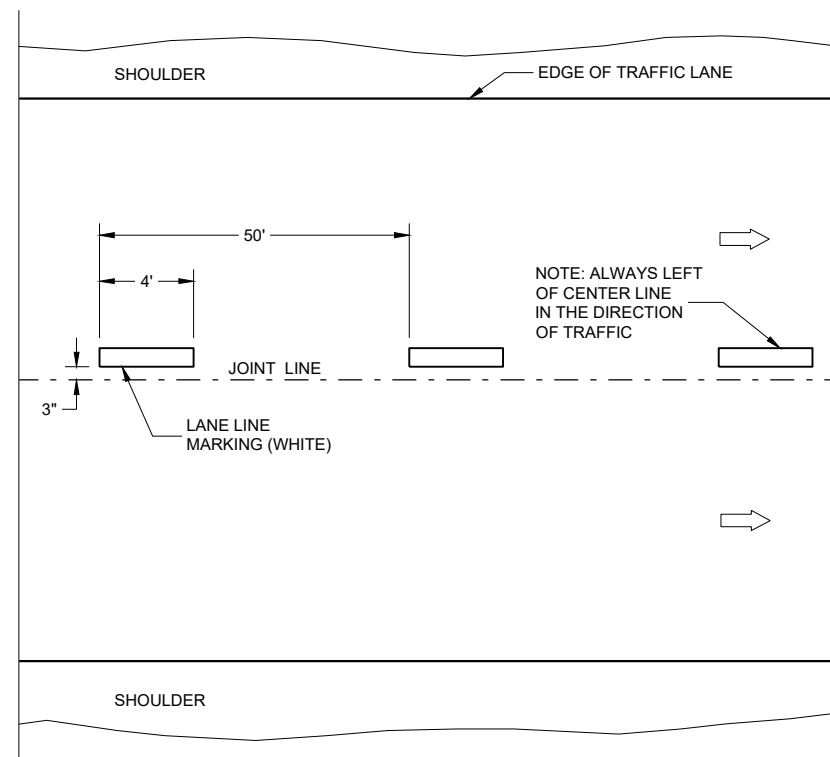


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC




TEMPORARY PAVEMENT MARKING

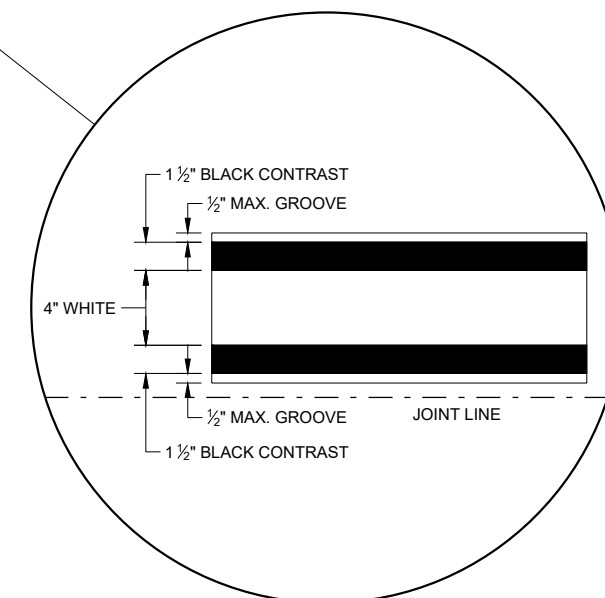
GENERAL NOTES

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

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

LEGEND

-  "T" MARKING
 SIGN ON PERMANENT SUPPORT
 DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

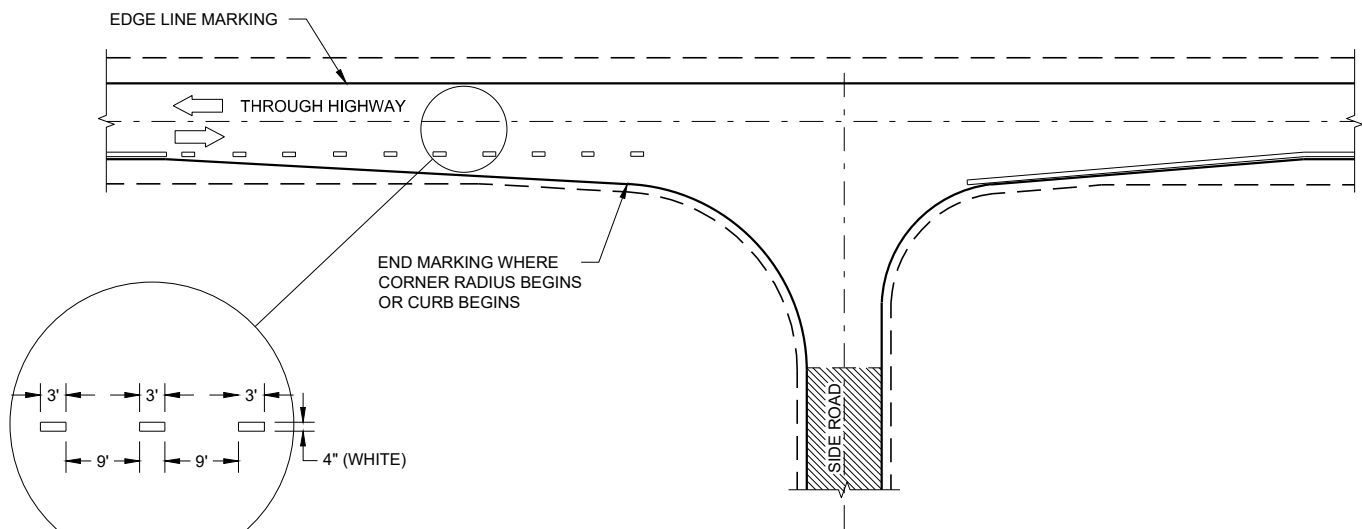
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Matthew Rauch
STATEWIDE SIGNING AND MARKING
ENGINEER

SDD 15C08 - 20a

SDD15C08 - 20a



MINOR INTERSECTION

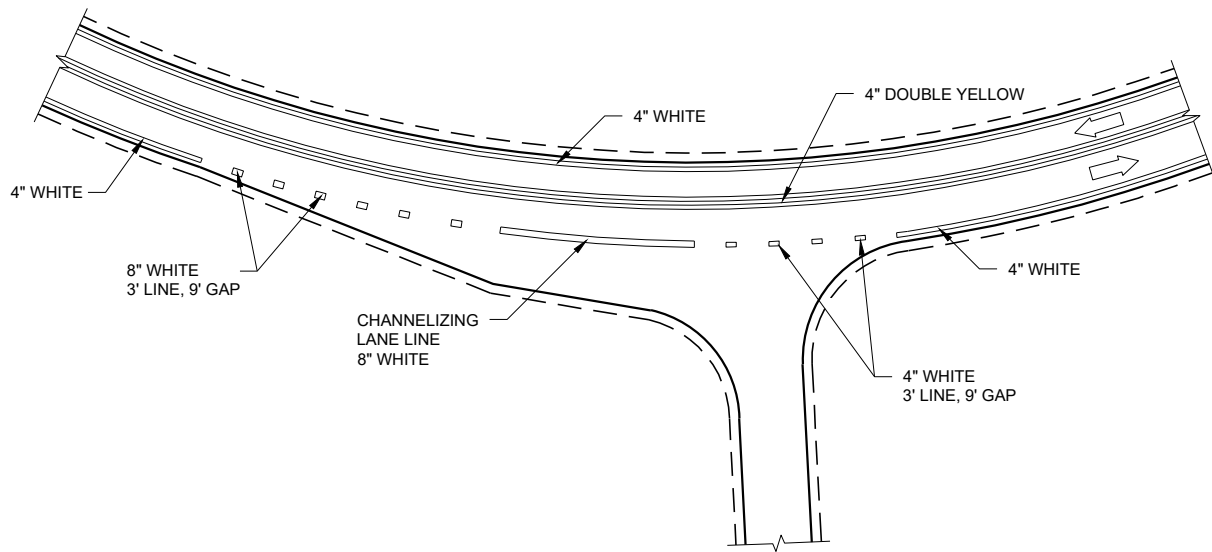
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

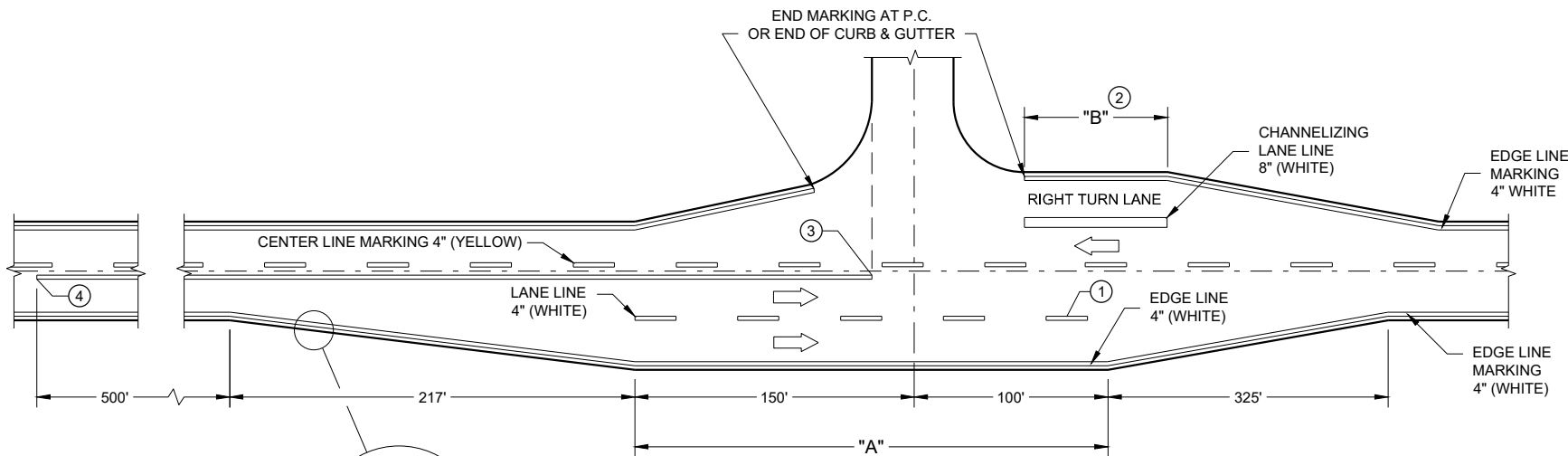
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

➡ DIRECTION OF TRAVEL



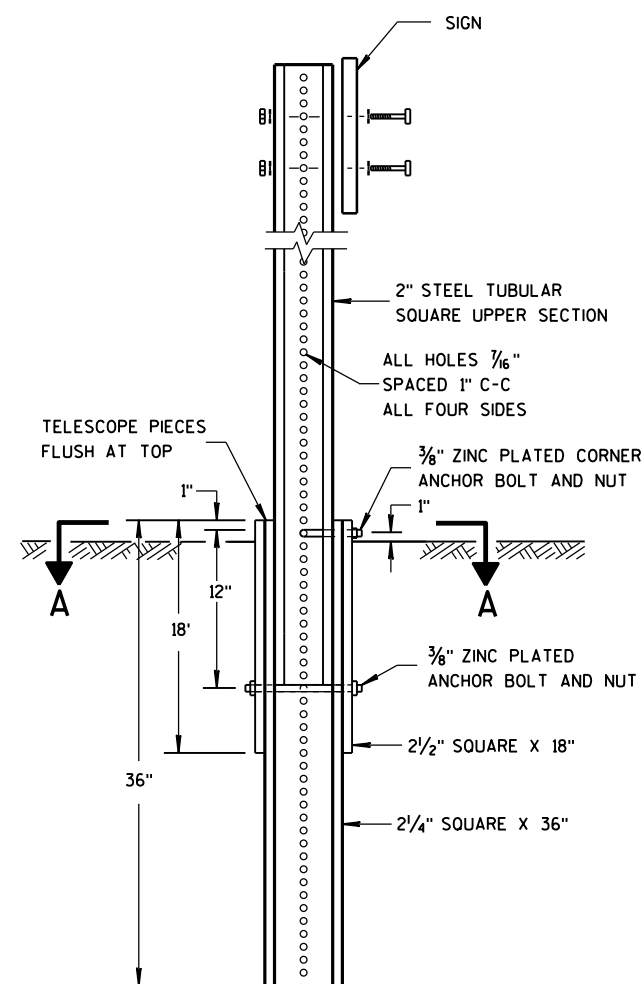
INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



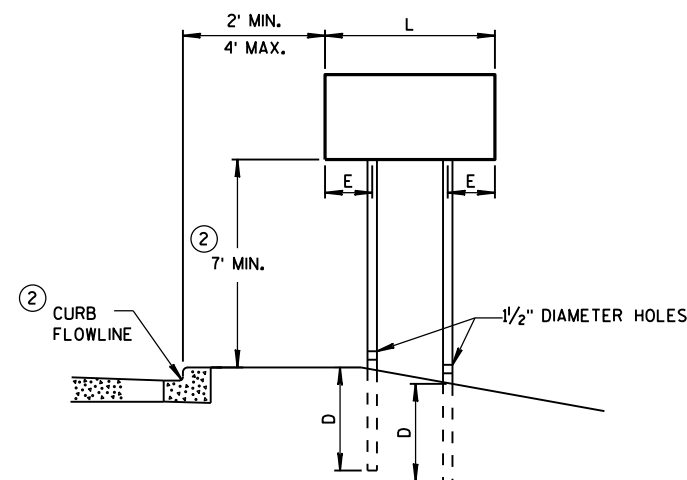
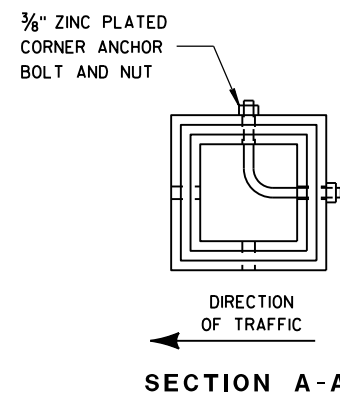
DETAIL OF TUBULAR STEEL SIGN POST

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.

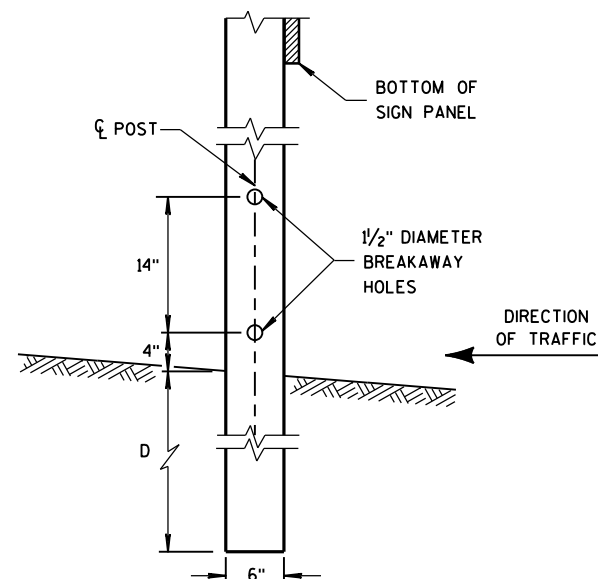


URBAN AREA

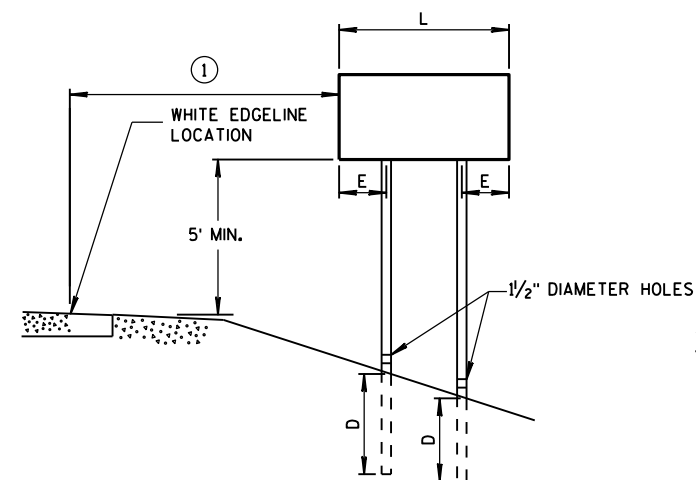
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

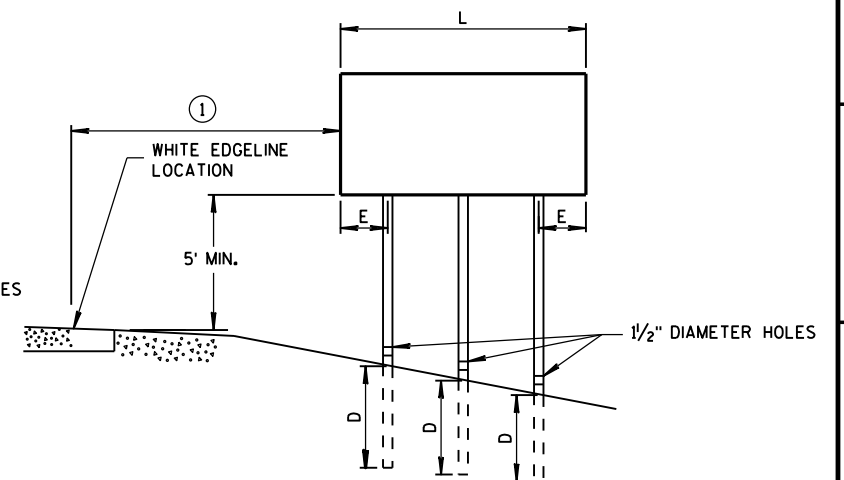
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4" x 6" WOOD POST MODIFICATION



RURAL AREA



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.

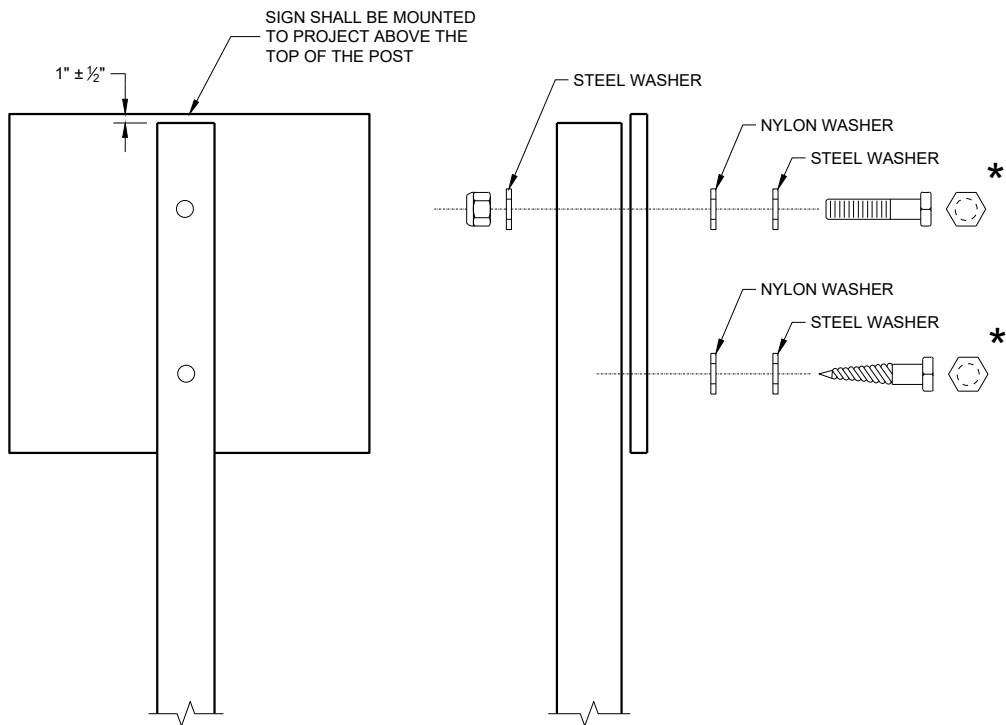
4" X 6" WOOD POST

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

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF 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 POST (4" x 6")
LAG SCREWS - 3/8" x 3"
MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

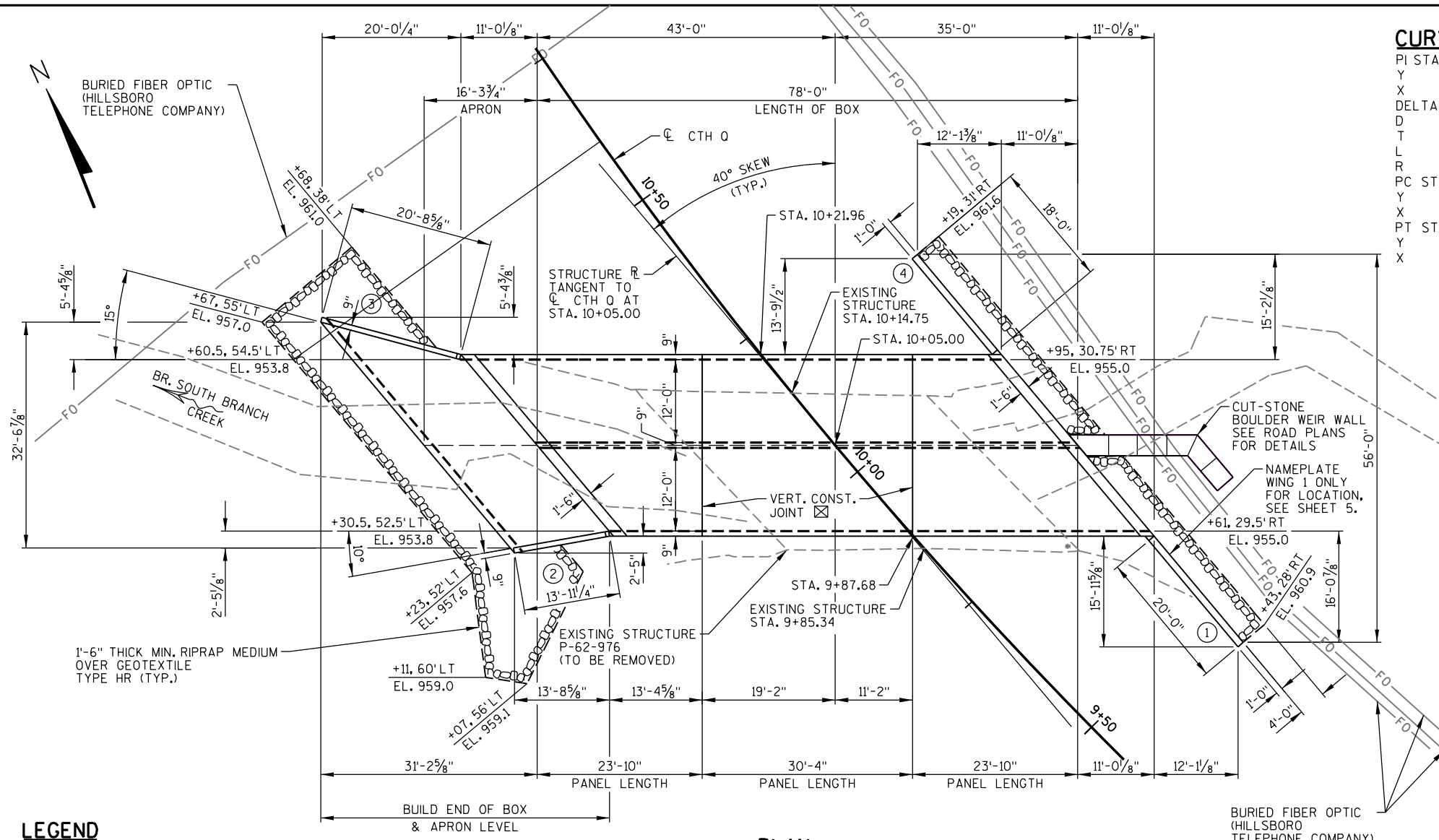
WASHERS (ALL POSTS) -
1 1/4" O.D. x 3/8" I.D. x 1/16" STEEL
1 1/4" O.D. x 3/8" I.D. x 0.080 NYLON

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

ATTACHMENT OF SIGNS
TO POSTS

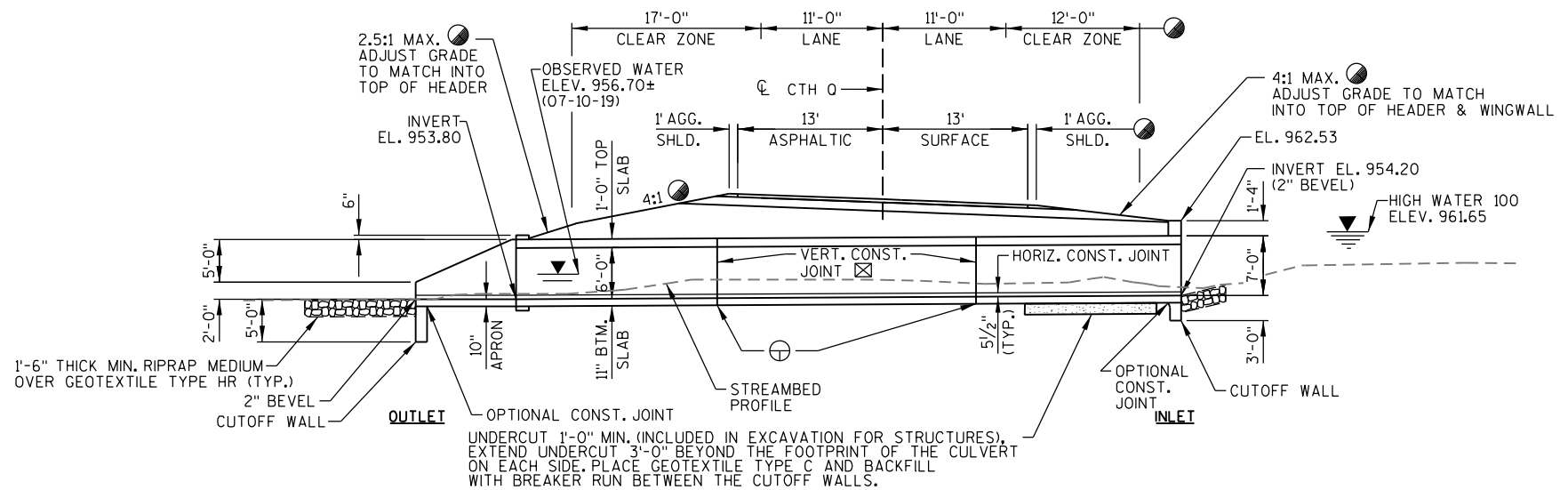
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



- LEGEND**
- - INDICATES WING NUMBER
 - - DIMENSION GIVEN NORMAL TO CTH 0.
 - ⊠ - 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB.
 - ⊕ - IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAWCUTS WITHIN 12 HOURS AFTER POURING.

PLAN
TWO CELL REINFORCED CONCRETE BOX CULVERT



ELEVATION
(LOOKING NORTH - NORMAL TO BOX)

CURVE DATA

PI STA	= 10+49.32
Y	= 177861.044
X	= 844012.637
DELTA	= 32°30'33"
D	= 8°18'13"
T	= 201.18'
L	= 391.50'
R	= 690.00'
PC STA	= 8+48.14
Y	= 177689.373
X	= 844117.521
PT STA	= 12+39.64
Y	= 178062.184
X	= 844016.449

STATE PROJECT NUMBER			
5479-00-70			
BENCHMARKS			
NO.	STATION	DESCRIPTION	ELEV.
5	10+50.53, 60.9' RT	NAIL IN SPRUCE TREE	961.48
6	9+71.51, 15.6' RT	CHISELED X ON BRIDGE DECK	964.63

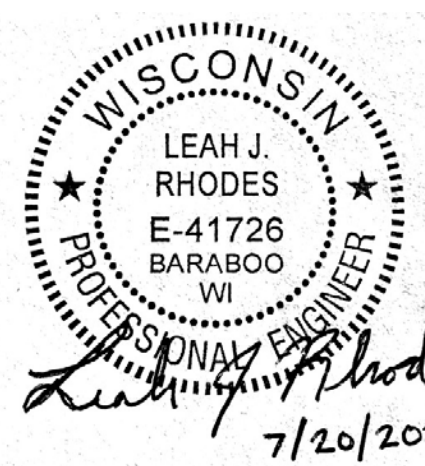
DESIGN DATA

LIVE LOAD:	TRAFFIC DATA:
DESIGN LOADING: HL-93	A.A.D.T. (2021) = 520
INVENTORY RATING FACTOR: 1.05	A.A.D.T. (2041) = 600
OPERATIONAL RATING FACTOR: 1.35	R.D.S. = 45 MPH
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 255 KIPS	
EARTH LOAD: DESIGNED FOR 3 TO 6 FEET OF FILL	
MATERIAL PROPERTIES:	
CONCRETE MASONRY	f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT HS STRUCTURES	fy = 60,000 P.S.I.
FOUNDATION DATA:	
ALLOWABLE SOIL BEARING CAPACITY	2,000 P.S.F.
HYDRAULIC DATA:	
100 YEAR FREQUENCY	
DRAINAGE AREA	2.5 SQ. MI.
Q ₁₀₀	770 C.F.S.
VELOCITY	5.65 F.P.S.
WATERWAY AREA	134 SQ. FT.
HIGH WATER 100 ELEVATION	961.65
ROADWAY OVERFLOW DESIGN FREQUENCY	>100 YEARS
SCOUR CRITICAL CODE	8
Q ₂ ELEVATION (140 C.F.S.)	958.45
VELOCITY ₂	3.70 F.P.S.

- LIST OF DRAWINGS**
1. GENERAL PLAN
 2. CROSS SECTION, QUANTITIES, NOTES & DETAILS
 3. BOX CULVERT
 4. BOX CULVERT DETAILS
 5. INLET WING DETAILS
 6. OUTLET APRON & WING DETAILS
 7. SUBSURFACE EXPLORATION

CONSULTANT DESIGN CONTACT:
LEAH RHODES
(608) 355-8945

BRIDGE OFFICE CONTACT:
AARON BONK
(608) 261-0261



NO.	DATE	REVISION	BY
MSA ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL 1702 PANKRATZ ST., MADISON WI 53704 (608) 242-7779 www.msa-ps.com © MSA Professional Services, Inc.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION ACCEPTED <i>[Signature]</i> SDR 09/04/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-62-259			
CTH 0 OVER BR. S. BRANCH CREEK			
COUNTY	VERNON	TOWN/CITY/VILLAGE	GREENWOOD
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPEC.			
DESIGNED BY	JZ	DESIGN CK'D.	LJR
DRAWN BY	RLR	PLANS CK'D.	JZ
GENERAL PLAN			SHEET 1 OF 7

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
203.0200.01	REMOVING OLD STRUCTURE STATION 10+00	LS	1
206.2000.01	EXCAVATION FOR STRUCTURES CULVERTS B-62-259	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	2175
311.0110	BREAKER RUN	TON	250
504.0100	CONCRETE MASONRY CULVERTS	CY	263
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	40,120
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,530
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	27
606.0200	RIPRAP MEDIUM	CY	60
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	70
645.0105	GEOTEXTILE TYPE C	SY	450
645.0120	GEOTEXTILE TYPE HR	SY	170
NON-BID ITEMS			
	PREFORMED FILLER	SIZE	¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

CONCRETE CUTOFF WALLS AND WING FOOTINGS SHALL BE POURED SEPARATELY.

THE CONCRETE IN THE CUTOFF WALL MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

THIS STRUCTURE WILL REPLACE THE EXISTING STRUCTURE, P-62-976, A 29.4' LONG, SINGLE SPAN, STEEL DECK GIRDER BRIDGE WITH A 30.2' CLEAR WIDTH.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-62-259" SHALL BE THE EXISTING GROUND LINE. ALL EXCAVATION REQUIRED FOR CONSTRUCTION OF THE BOX CULVERT AND THE ROAD APPROACHES, INCLUDING EXISTING PAVEMENT REMOVAL, SHALL BE INCLUDED IN "EXCAVATION FOR STRUCTURES CULVERTS B-62-259".

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE B" REQUIRED ON THE BOX CULVERT SIDES AND BEHIND WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 36 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES". ALL PRECAST BOX SECTIONS SHALL BE PLACED ON A BEDDING OF "BACKFILL STRUCTURE TYPE B" OF 6" MIN. DEPTH.

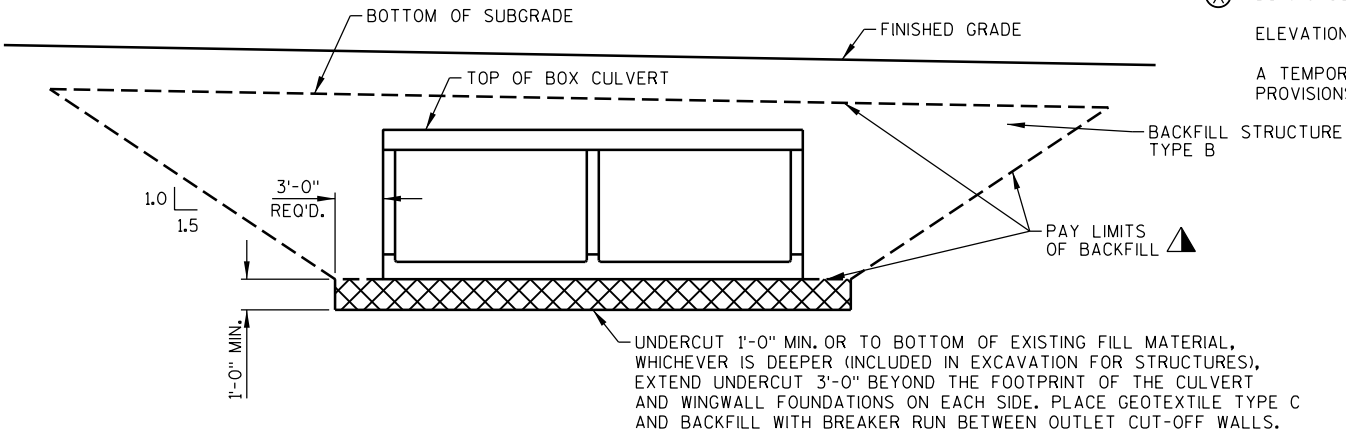
BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

CONSTRUCTION OF THE STREAM DIVERSION SHALL BE IN ACCORDANCE WITH THE DETAILS PROVIDED IN THE "TEMPORARY WATER DIVERSION, CULVERT B-62-259" SPECIAL PROVISION.

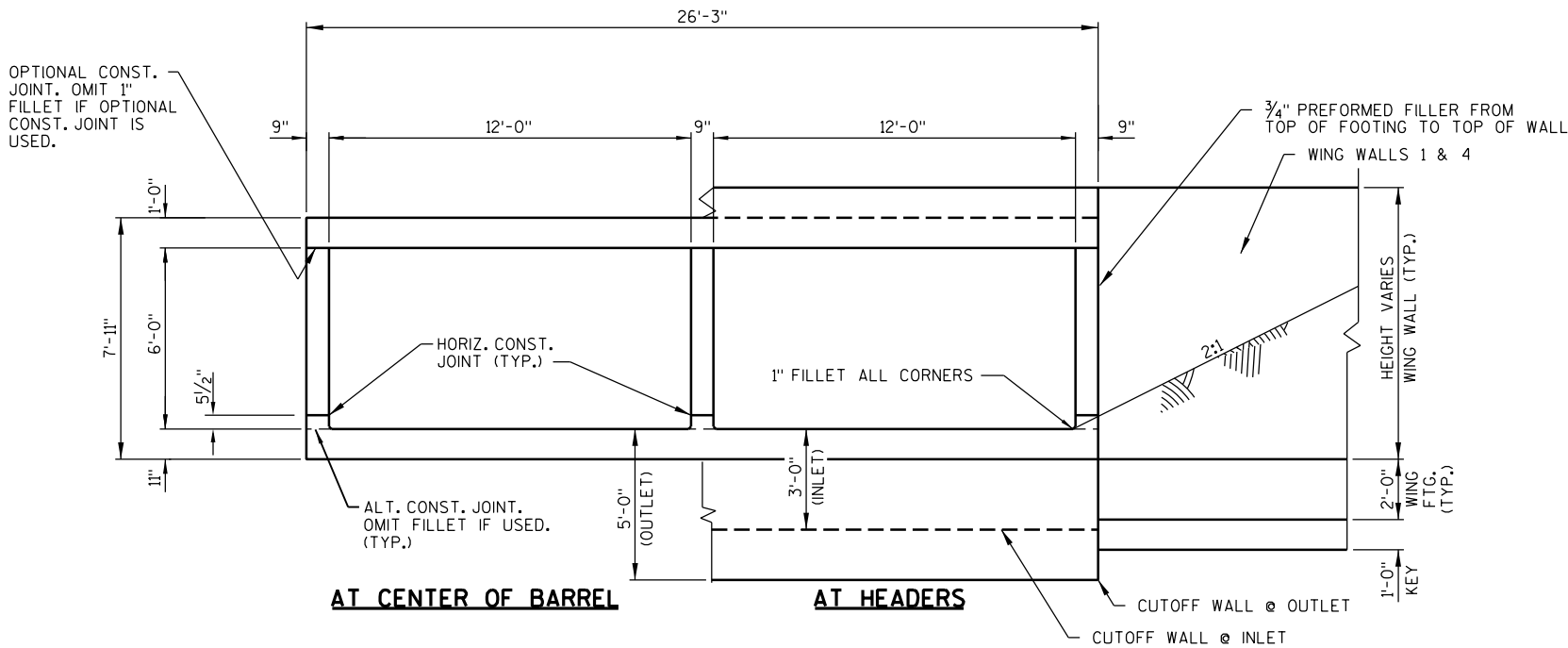
DURING SUBSTRUCTURE REMOVAL, REMOVE ALL PORTIONS OF ABUTMENTS THAT ARE IN CONFLICT WITH THE PROPOSED BOX OR THE BOX CULVERT UNDERCUT LIMITS.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88 (2012 ADJUSTED). BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

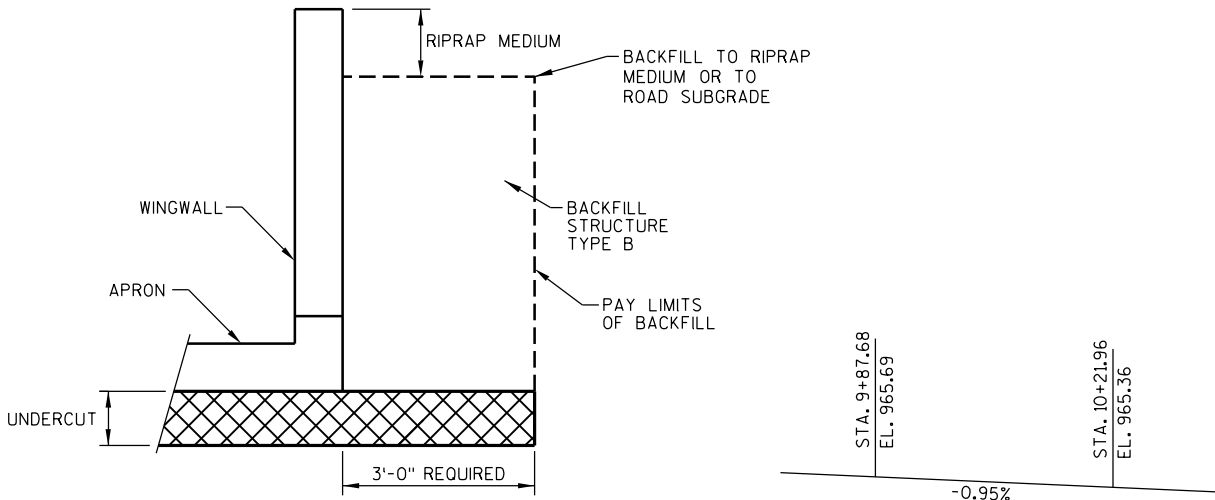
A TEMPORARY WATER DIVERSION SHALL BE PROVIDED DURING CONSTRUCTION OF THE NEW CULVERT. THE TEMPORARY WATER DIVERSION BID ITEM IS DETAILED IN THE SPECIAL PROVISIONS AND PROVIDED IN THE ROADWAY QUANTITIES



BOX BACKFILL STRUCTURE DETAIL

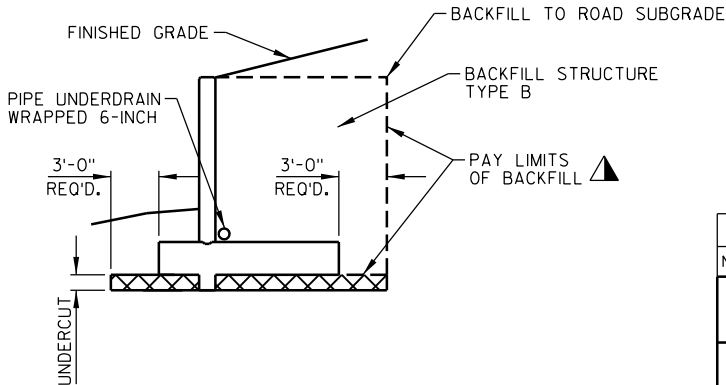


TYPICAL SECTION THRU BOX



OUTLET WING BACKFILL DETAIL

PROFILE GRADE LINE - CTH Q



INLET WING BACKFILL DETAIL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-62-259			
DRAWN BY RLR		PLANS CK'D. JZ	
CROSS SECTION, QUANTITIES, NOTES & DETAILS			SHEET 2 OF 7



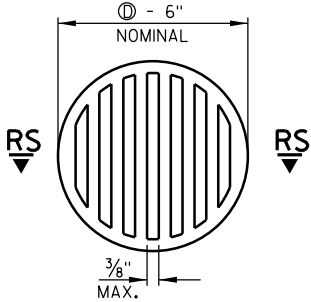
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-62-259	
DRAWN BY		RLR	PLANS CK'D. JZ
BOX CULVERT		SHEET 3 OF 1	

RODENT SHIELD NOTES:
ORIENT SHIELD SO SLOTS ARE VERTICAL.

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 EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO.10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS. THE RODENT SHIELD, PIPE COUPLING AND SCREWS, SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

RODENT SHIELD

Ⓢ - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION RS-RS

BILL OF BARS

UNCOATED 37,445 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B401	624	6'-4"	X		BOX CORNERS - EXT. - VERT./TRANS.
B602	222	25'-11"			TOP & BOTTOM SLAB - EXT. - TRANS.
B603	160	14'-1"		Ⓢ	TOP & BOTTOM SLAB - END PANEL - EXT. - TRANS.
B404	134	30'-0"			CENTER PANEL - ALL - LONGIT.
B405	32	17'-6"		Ⓢ	END PANEL - SHORT SIDE - EXT. - LONGIT.
B406	32	29'-4"		Ⓢ	END PANEL - LONG SIDE - EXT. - LONGIT.
B407	64	18'-1"		Ⓢ	END PANEL - SHORT SIDE - INT. - LONGIT.
B408	64	28'-9"		Ⓢ	END PANEL - LONG SIDE - INT. - LONGIT.
B509	222	25'-11"			TOP & BOTTOM SLAB - INT. - TRANS.
B510	160	14'-1"		Ⓢ	TOP & BOTTOM SLAB - END PANEL - INT. - TRANS.
B411	425	2'-4"			WALL DOWELS - BOTTOM - VERT.
B412	212	6'-3"			WALLS - INTERIOR - VERT.
B413	210	6'-11"	X		WALLS - PIER - VERT.
B414	24	12'-7"			END PANEL - SHORT WALL - LONGIT.
B415	24	34'-0"			END PANEL - LONG WALL - LONGIT.
B416	28	23'-4"			END PANEL - PIER WALL - LONGIT.
B517	175	4'-0"			CONSTRUCTION JOINT DOWEL - LONGIT.
B418	27	3'-6"	X		INLET CUT OFF WALL - VERT.
B419	4	33'-10"			INLET CUT OFF WALL & TOP HEADER - TRANS.
B420	36	5'-3"	X		INLET BOTTOM HEADER - STIRRUP - VERT.
B421	36	5'-8"	X		OUTLET BOTTOM HEADER - STIRRUP - VERT.
B1022	24	33'-10"			HEADERS - ALL - TRANS.
B423	36	7'-2"	X		INLET TOP HEADER - STIRRUP - VERT.
B424	36	5'-10"	X		OUTLET TOP HEADER - STIRRUP - VERT.
B425	10	5'-0"	X		BOX CORNER @ WING 1 - HORIZ.
B426	10	5'-1"	X		BOX CORNER @ WING 2 - HORIZ.
B427	3	7'-7"			BOX CORNERS @ INLET - VERT.

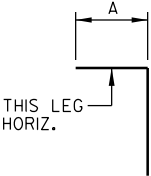
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

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

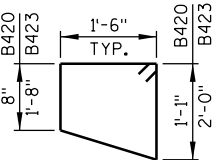
BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
B603	4 SERIES OF 40	2'-5" TO 25'-8"
B405	4 SERIES OF 8	13'-1" TO 21'-11"
B406	4 SERIES OF 8	24'-11" TO 33'-9"
B407	4 SERIES OF 16	13'-4" TO 22'-10"
B408	4 SERIES OF 16	24'-0" TO 33'-5"
B510	4 SERIES OF 40	2'-5" TO 25'-8"

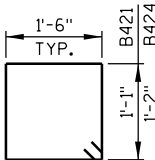
BUNDLE AND TAG EACH SERIES SEPARATELY



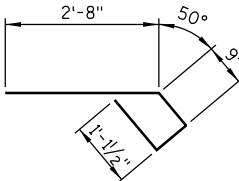
MARK	A
B401	1'-9"
B413	8"
B418	1'-0"



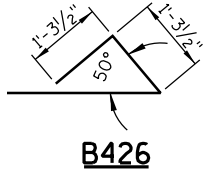
B420, B423



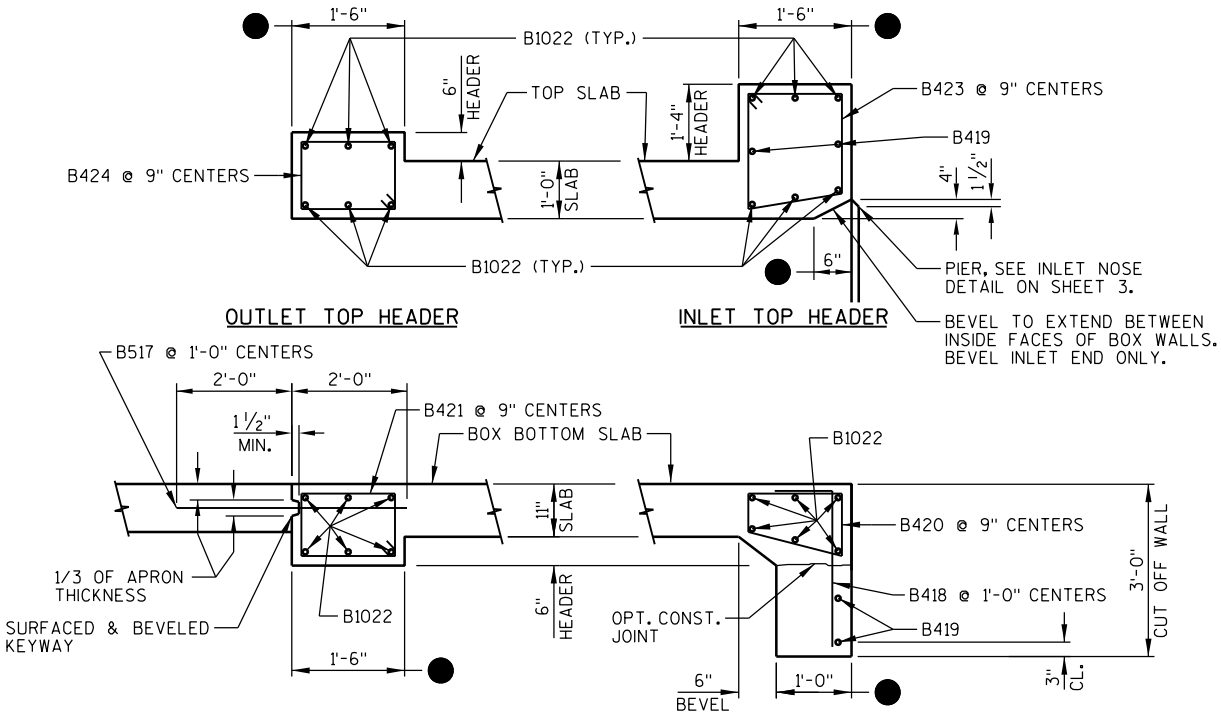
B421, B424



B425



B426

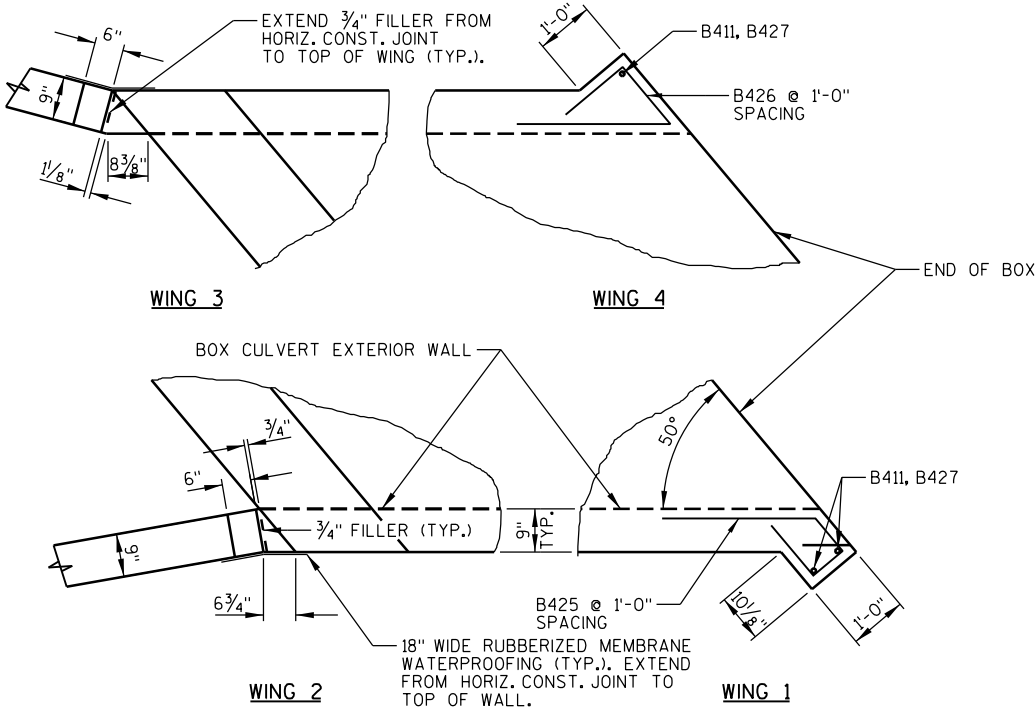


NOTE:
IN LIEU OF A CONSTRUCTION JOINT IN THE BOTTOM SLAB, THE CONTRACTOR MAY PROVIDE 2" DEEP SAWCUT WITHIN 12 HOURS AFTER POURING.

HEADER DETAILS

SEE SHEET 6 FOR ALTERNATE CUT-OFF WALL DETAILS

● - DIMENSIONS ARE GIVEN NORMAL TO THE END OF BOX



PLAN - CORNER DETAILS

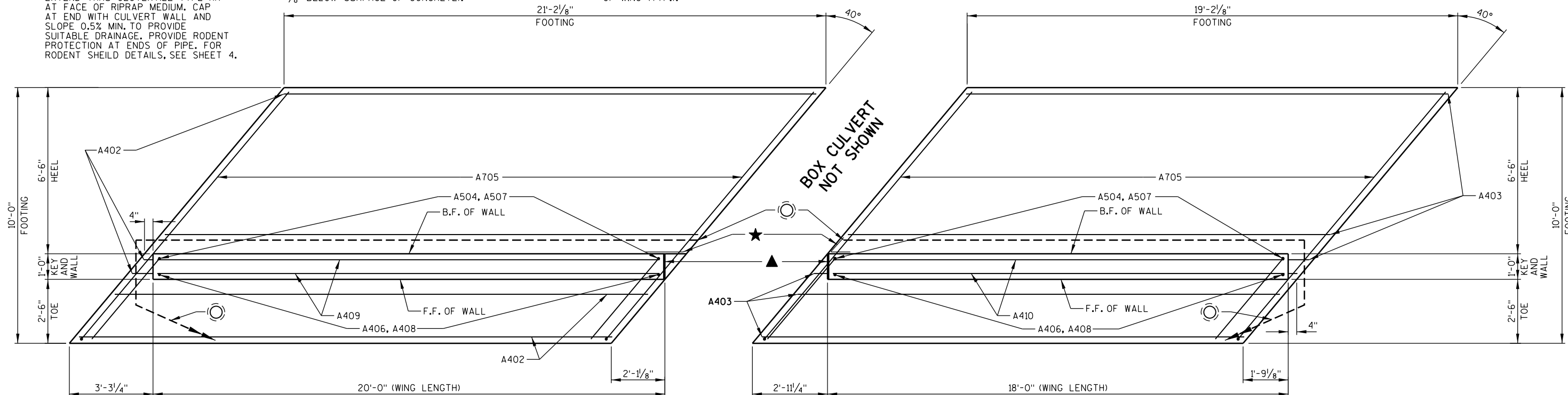
SEE SHEETS 5 & 6 FOR WING DETAILS

 —CONST. JOINT FORMED BY BEVELED 2x6.

 —PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP MEDIUM. CAP AT END WITH CULVERT WALL AND SLOPE 0.5% MIN. TO PROVIDE SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR PROTECTION SHEILD DETAILS, SEE SHEET 4.

▲ — 3/4" FILLER. EXTEND FILLER FROM CONST. JOINT TO TOP OF WING. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

★ — 18" MIN. WIDTH RUBBERIZED
MEMBRANE WATERPROOFING.
EXTEND FROM CONST.
JOINT TO TOP
OF WING (TYP.).



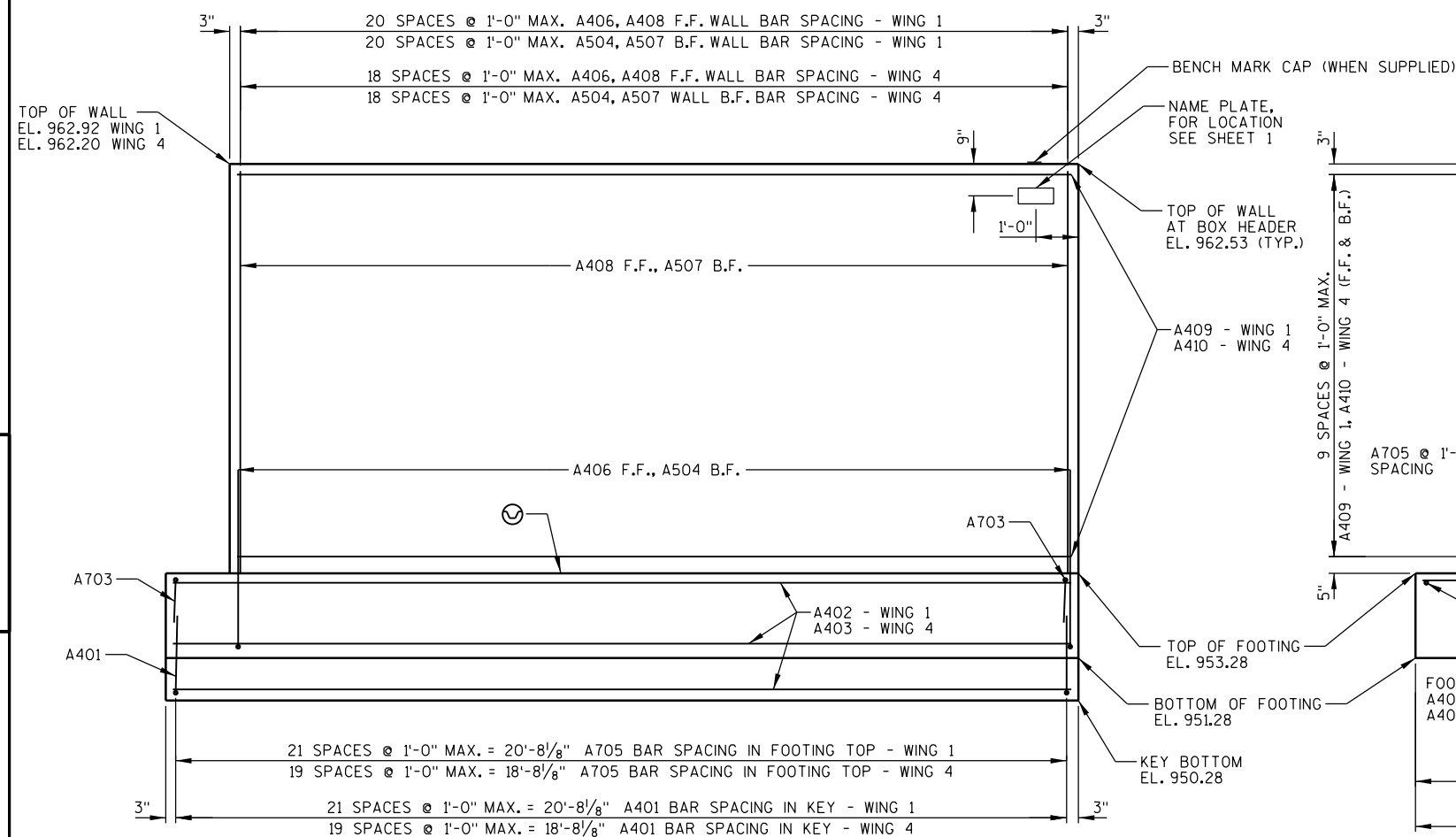
PLAN WING 1

PLAN WING 4

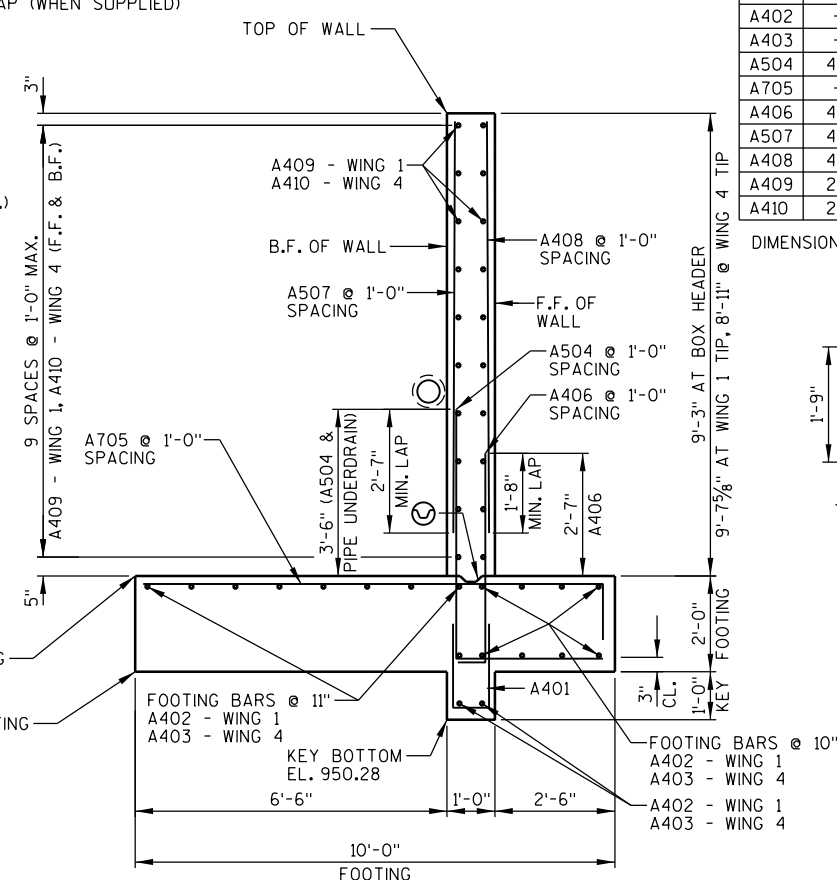
COATED 1610 LBS.
UNCOATED 1780 LBS.

MARK	NUMBER REQUIRED		LENGTH	BENT	LOCATION
	COATED	UNCOATED			
A401	-	42	4'-2"	X	FOOTING - KEY - VERT.
A402	-	19	20'-9"		FOOTING - WING 1 - LONGIT.
A403	-	19	18'-9"		FOOTING - WING 4 - LONGIT.
A504	40	-	9'-3"	X	FOOTING TOE & WALL - B.F. - DOWEL - VERT.
A705	-	42	13'-6"	X	FOOTING - TOP - TRANS.
A406	40	-	5'-0"	X	FOOTING & WALL - F.F. - DOWEL - VERT.
A507	40	-	8'-8"		WALL - B.F. - VERT.
A408	40	-	8'-8"		WALL - F.F. - VERT.
A409	20	-	19'-7"		WALL - WING 1 - F.F. & B.F. - LONGIT.
A410	20	-	17'-7"		WALL - WING 4 - F.F. & B.F. - LONGIT.

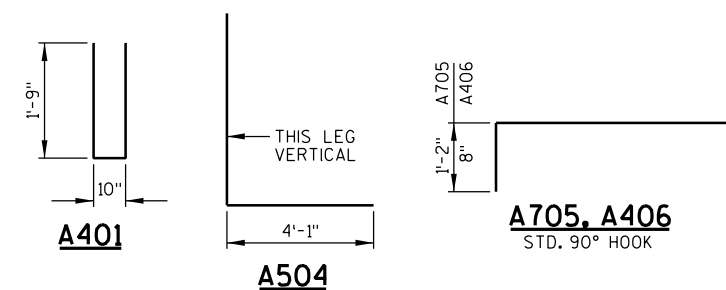
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



WING ELEVATION



TYPICAL SECTION THRU WING



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-62-259	
DRAWN BY		RLR	PLANS CK'D. JZ
INLET WING DETAILS		SHEET 5 OF 7	

COATED 920 LBS.
UNCOATED 895 LBS.

BILL OF BARS

MARK	NUMBER REQUIRED COATED	UNCOATED	LENGTH	BENT	BAR SERIES	LOCATION
C401	-	34	5'-6"	X		OUTLET APRON CUT-OFF WALL - VERT.
C402	-	5	43'-5"			OUTLET APRON CUT-OFF WALL - TRANS.
C403	-	12	38'-6"		Ⓢ	OUTLET APRON - TRANS.
C404	-	26	15'-10"			OUTLET APRON - LONGIT.
C405	-	1	12'-1"			OUTLET APRON @ WING 2 - LONGIT.
C406	-	1	5'-7"			OUTLET APRON @ WING 2 - LONGIT.
C407	-	4	10'-0"		Ⓢ	OUTLET APRON @ WING 3 - LONGIT.
C408	13	-	2'-9"			WINGS 2 & 3 - F.F. DOWELS - VERT.
C409	5	-	3'-8"		Ⓢ	WING 2 - F.F. - END - VERT.
C410	5	-	5'-3"		Ⓢ	WING 2 - F.F. - VERT.
C411	4	-	13'-7"			WING 2 & OUTLET APRON - LONGIT.
C412	2	-	11'-11"			WING 2 - F.F. & B.F. - LONGIT.
C413	2	-	7'-11"			WING 2 - F.F. & B.F. - LONGIT.
C414	2	-	3'-10"			WING 2 - F.F. & B.F. - LONGIT.
C515	2	-	14'-5"			WING 2 - F.F. & B.F. - TOP - LONGIT.
C516	34	-	9'-7"	X		WINGS 2 & 3 - B.F. - VERT.
C417	5	-	6'-10"	X	Ⓢ	WING 2 - B.F. - END - VERT.
C518	14	-	4'-9"		Ⓢ	WING 2 - B.F. - VERT.
C419	8	-	3'-8"		Ⓢ	WING 3 - F.F. - END - VERT.
C420	8	-	5'-3"		Ⓢ	WING 3 - F.F. - VERT.
C421	4	-	20'-4"			WING 3 & OUTLET APRON - LONGIT.
C422	2	-	17'-10"			WING 3 - F.F. & B.F. - LONGIT.
C423	2	-	11'-9"			WING 3 - F.F. & B.F. - LONGIT.
C424	2	-	5'-8"			WING 3 - F.F. & B.F. - LONGIT.
C525	2	-	21'-0"			WING 3 - F.F. & B.F. - TOP - LONGIT.
C426	8	-	6'-11"	X	Ⓢ	WING 3 - B.F. - END - VERT.
C527	20	-	4'-10"		Ⓢ	WING 3 - B.F. - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

Ⓢ - LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS. BENT BARS IF USED IN BAR SERIES TABLE SHALL BE BENT AFTER CUTTING.

BAR SERIES TABLE

MARK	NO. REQUIRED	LENGTH
C403	1 SERIES OF 12	33'-10" TO 43'-2"
C407	1 SERIES OF 4	5'-8" TO 14'-4"
C409	1 SERIES OF 5	2'-6" TO 4'-9"
C410	1 SERIES OF 5	4'-2" TO 6'-4"
C417	1 SERIES OF 5	6'-1" TO 7'-7"
C518	1 SERIES OF 14	3'-2" TO 6'-4"
C419	1 SERIES OF 8	2'-6" TO 4'-9"
C420	1 SERIES OF 8	4'-1" TO 6'-4"
C426	1 SERIES OF 8	6'-1" TO 7'-9"
C527	1 SERIES OF 20	3'-3" TO 6'-4"

BUNDLE AND TAG EACH SERIES SEPARATELY

MARK	A
C401	1'-0"
C516	6'-1"
C417	3'-8"
C426	3'-8"

THIS LEG
HORIZ.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE		B-62-259	
DRAWN BY		RLR	PLANS CK'D. JZ
OUTLET APRON & WING DETAILS		SHEET 6 OF 7	

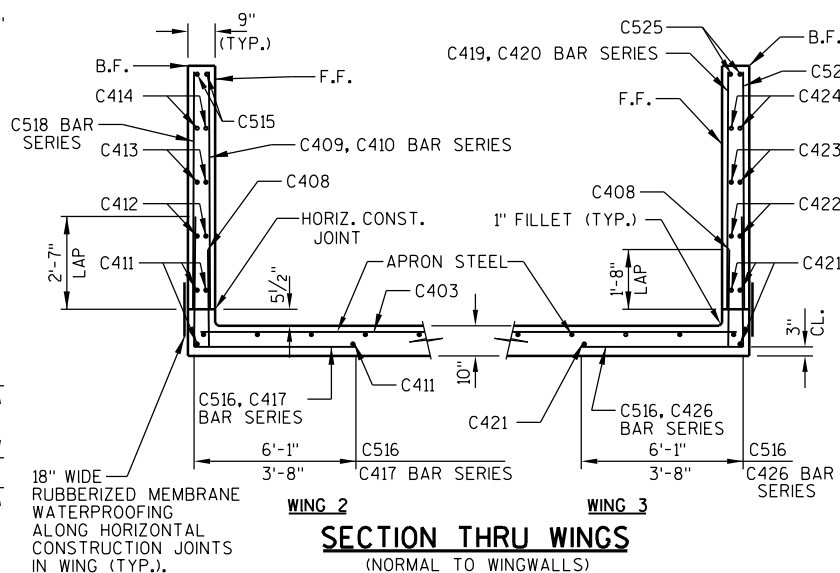
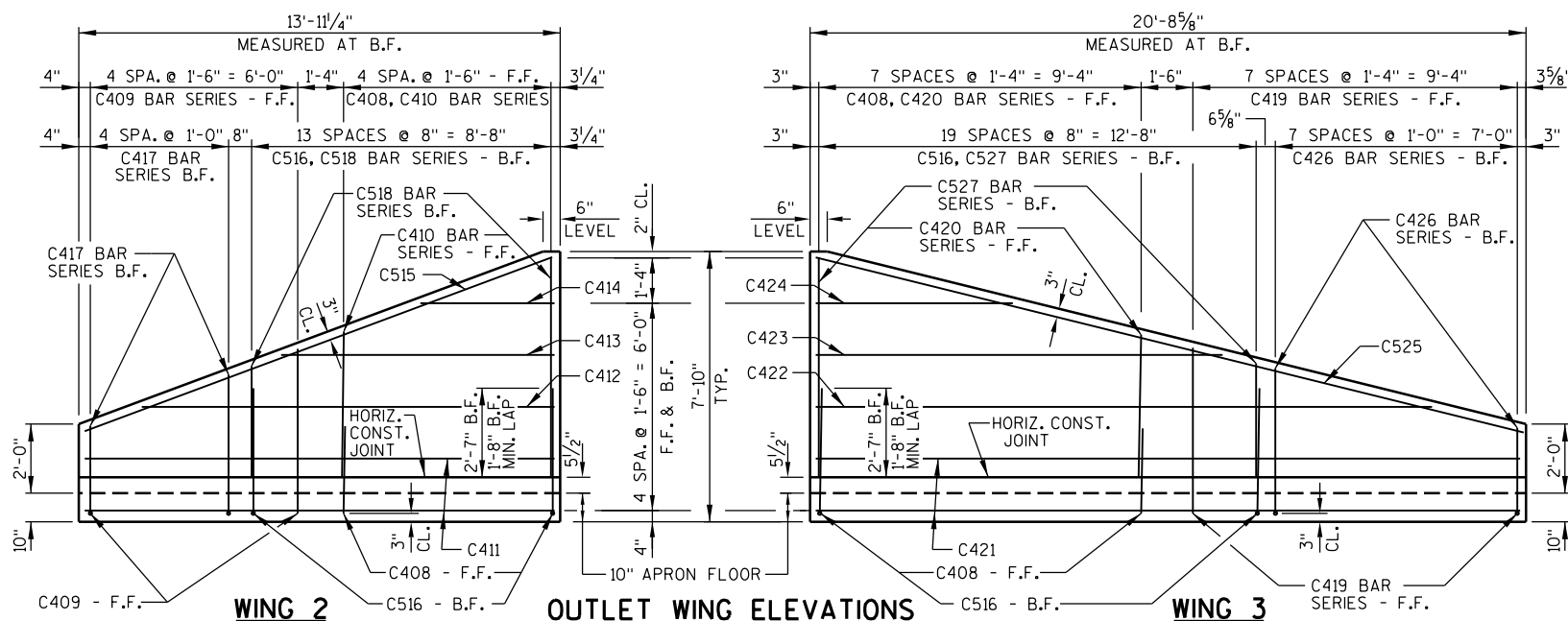
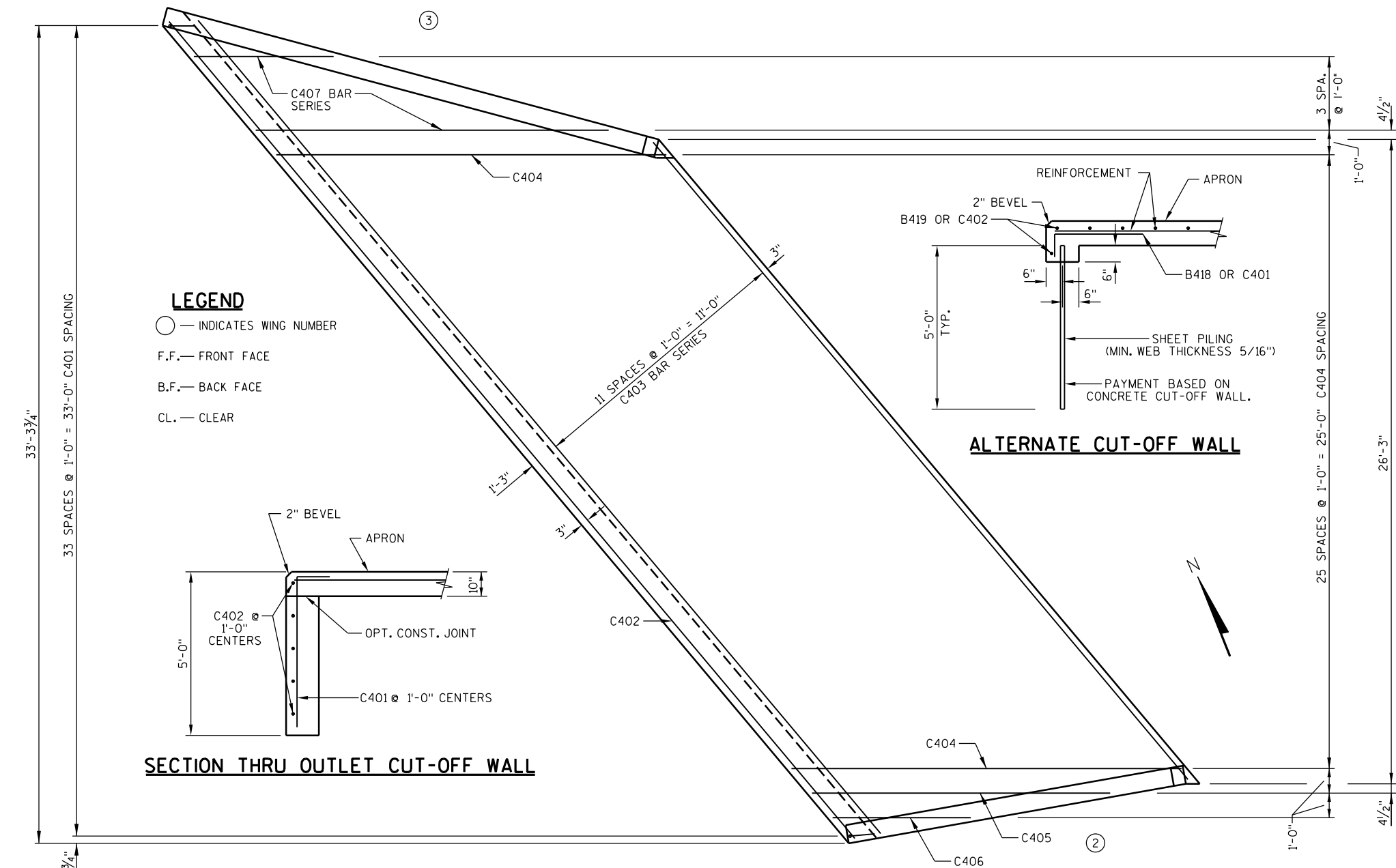
LEGEND

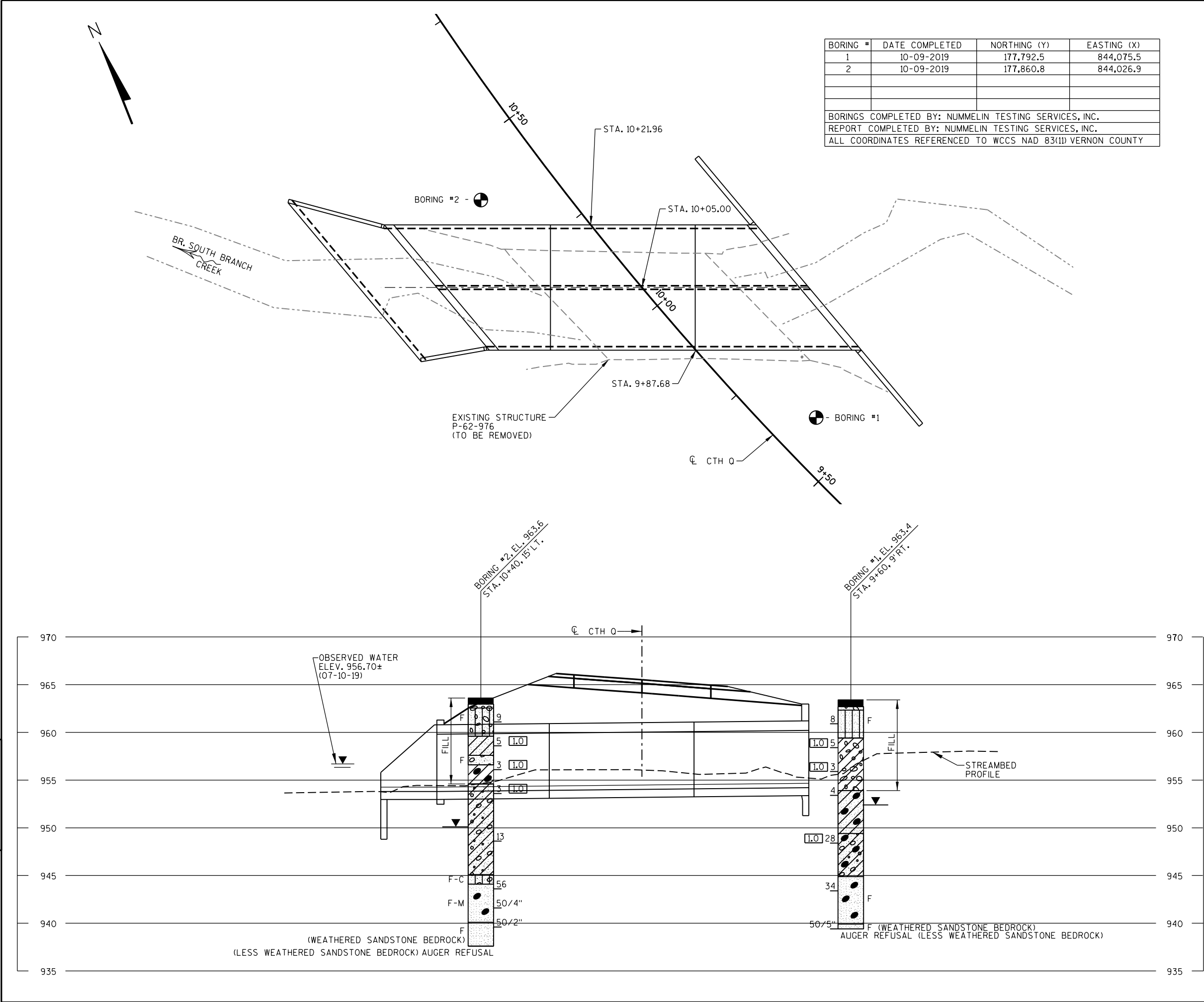
○ — INDICATES WING NUMBER

F.F.— FRONT FACE

B.F.— BACK FACE

CL.— CLEAR

SECTION THRU OUTLET CUT-OFF WALL**ALTERNATE CUT-OFF WALL****OUTLET APRON PLAN****SECTION THRU WINGS**
(NORMAL TO WINGWALLS)



BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	10-09-2019	177,792.5	844,075.5
2	10-09-2019	177,860.8	844,026.9
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
REPORT COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(11) VERNON COUNTY			

STATE PROJECT NUMBER

5479-00-70

MATERIAL SYMBOLS

ASPHALT

CONCRETE

SAND

BOULDERS OR COBBLES

SHALE

TOPSOIL

FILL

CLAY

LIMESTONE

SANDSTONE

PEAT

GRAVEL

SILT

BEDROCK (UNKNOWN)

IGNEOUS/META

LEGEND OF BORING

BORING # EL. STA./OFF-SET

ST (1) 0.25

ST (2) 17

F-C

COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29'

REC=80%, ROD=72%

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

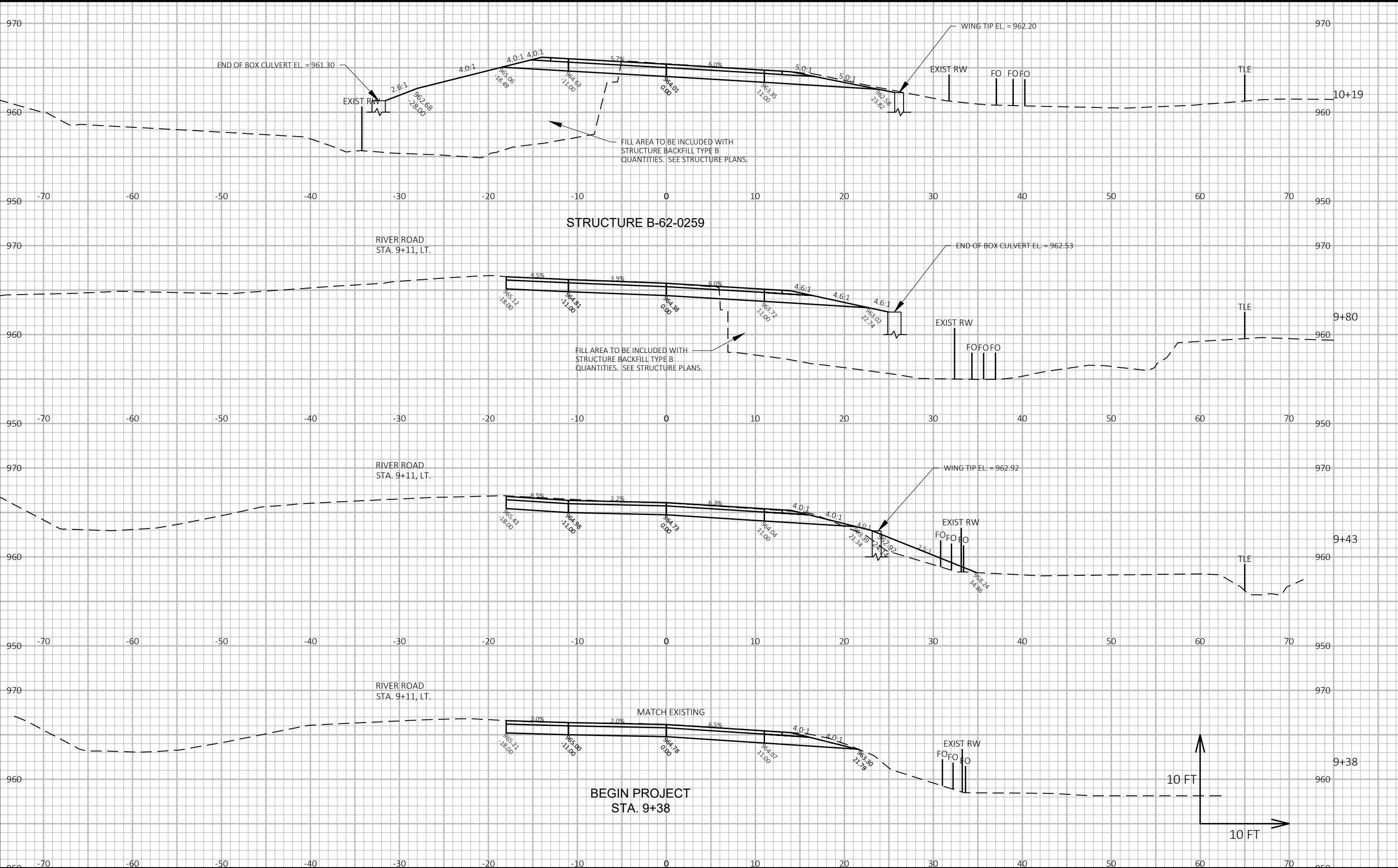
ABBREVIATIONS

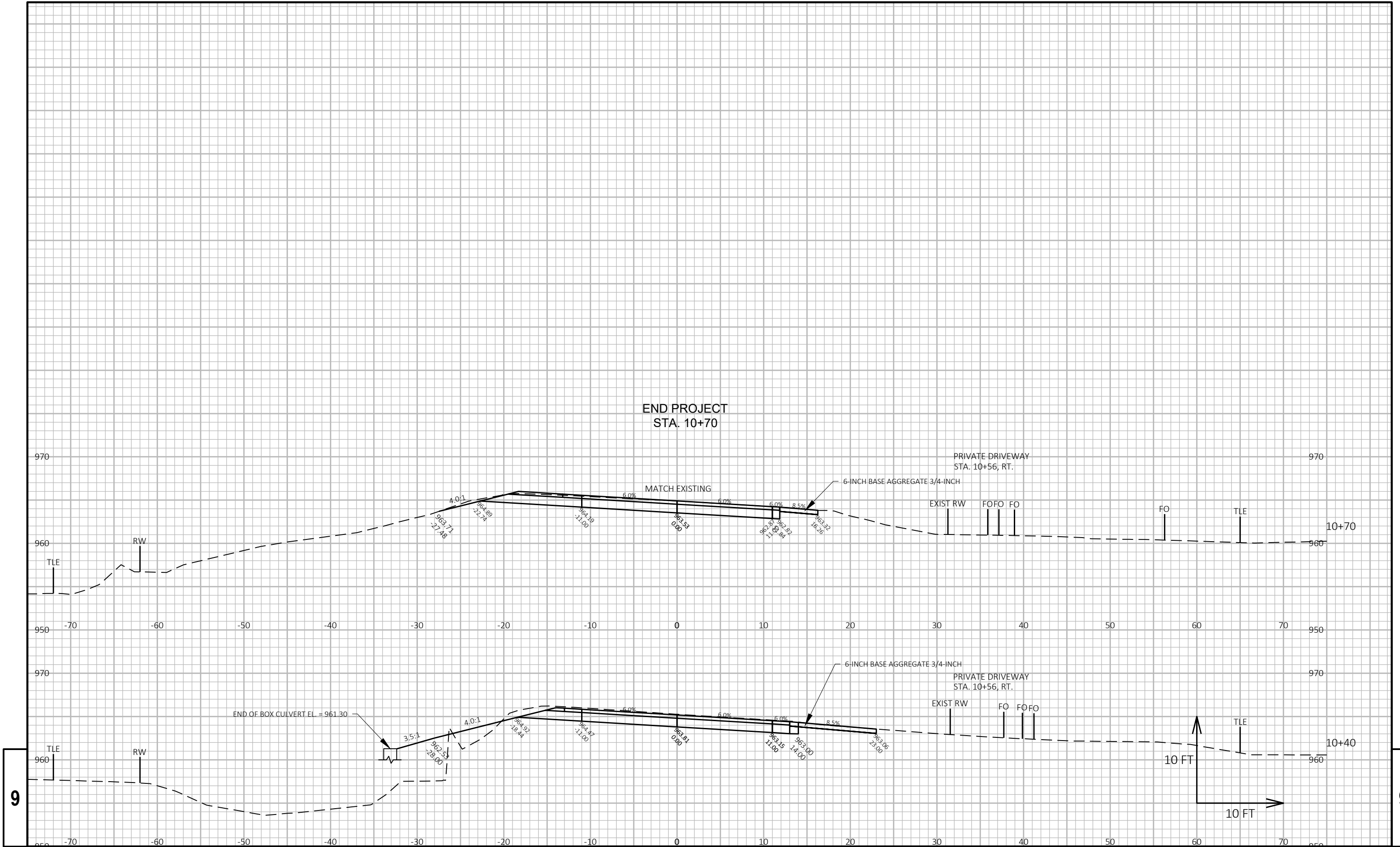
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

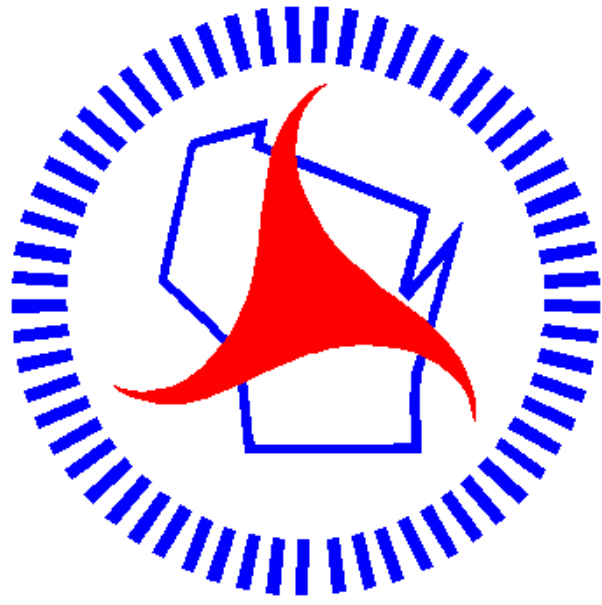
BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT 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-62-259			
DRAWN BY		RLR	PLANS CK'D. JZ
SUBSURFACE EXPLORATION		SHEET 7 OF 7	





Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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