

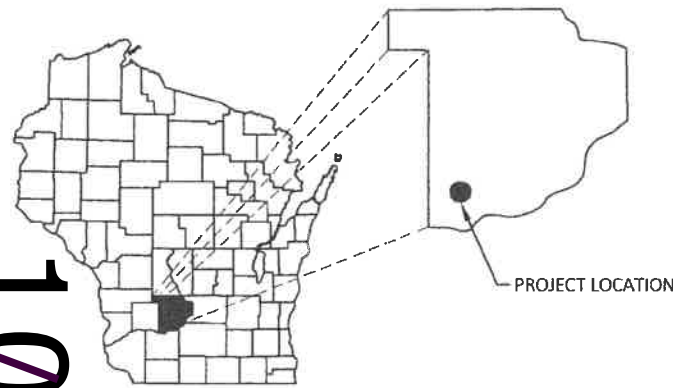
MAD

DEC 8, 2020

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 = 56



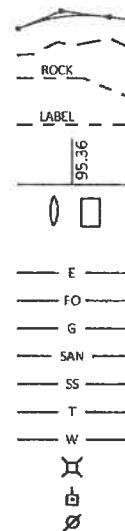
DESIGN DESIGNATION

A.A.D.T.	2021	=	875
A.A.D.T.	2041	=	965
D.H.V.		=	114
D.D.		=	60/40
T.		=	7.8
DESIGN SPEED		=	60
ESALS		=	210,000

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	

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



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

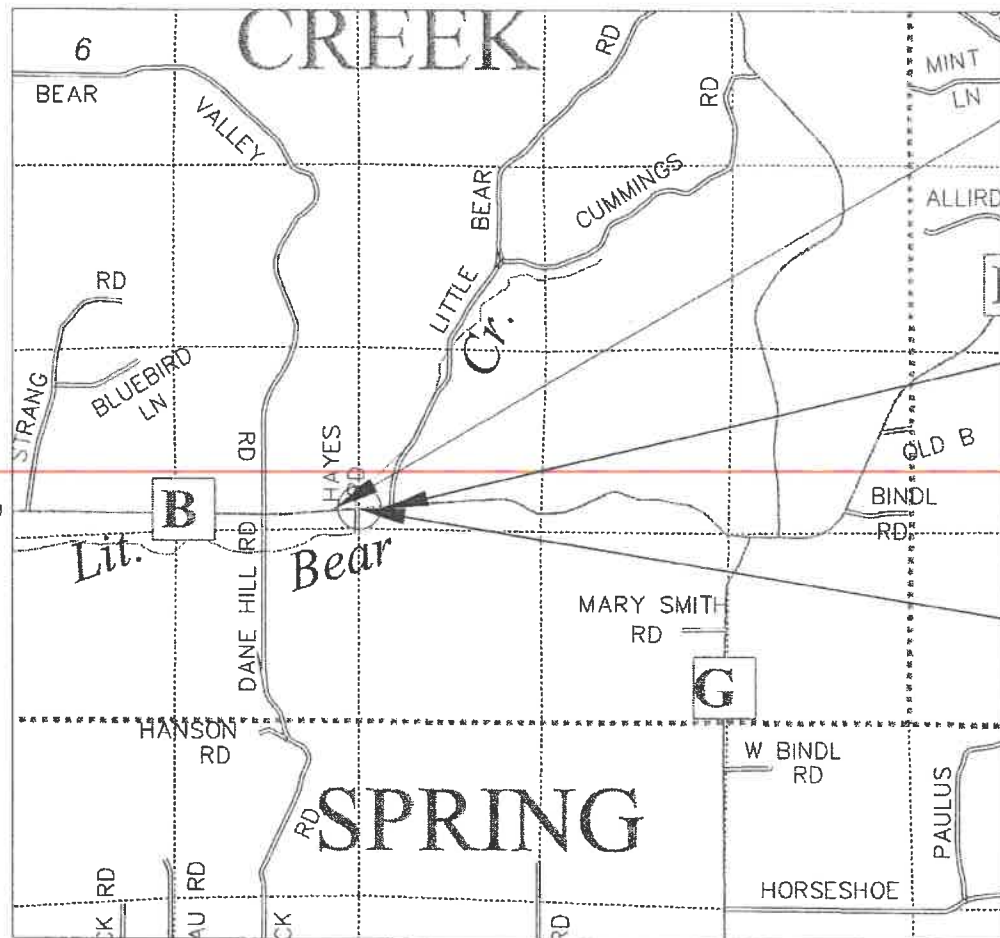
PLAN OF PROPOSED IMPROVEMENT

STH 130 - CTH G

LITTLE BEAR CREEK BRIDGE C-56-2033

CTH B
SAUK

STATE PROJECT NUMBER
5963-00-72



BEGIN PROJECT
STA 9+39.67

Y = 157 732.878
X = 541 566.638

END PROJECT
STA 10+67.22

Y = 157 742.660
X = 541 693.814

STRUCTURE
C-56-2033

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.0242 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), SAUK 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 (2011). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT

5963-00-72

FEDERAL PROJECT

PROJECT

CONTRACT

ACCEPTED FOR

SAUK COUNTY

6/8/20

(Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

WESTBROOK
Associated Engineers, Inc.
619 EAST HOXIE STREET
P.O. BOX 429
SPRING GREEN, WISCONSIN 53588
PHONE (608) 588-7866
FAX (608) 588-7954



DATE: 6-8-20

(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WESTBROOK ASSOCIATED ENGINEERS, INC
Designer	WESTBROOK ASSOCIATED ENGINEERS, INC
Project Manager	TRAVIS BUROS, PE
Regional Examiner	SW REGION
Regional Supervisor	OSCAR WINGER, PE

APPROVED FOR THE DEPARTMENT

DATE: 7/22/2020

(Signature)

E

STANDARD ABBREVIATIONS

ABUT.	Abutment	JT	Joint
AC	Acre	JCT	Junction
AGG.	Aggregate	LHF	Left-Hand Forward
AH	Ahead	L	Length of Curve
<	Angle	LIN FT OR LF	Linear Foot
ASPH	Asphaltic	LC	Long Chord of Curve
AVG.	Average	MH	Manhole
A.D.T	Average Daily Traffic	MB	Mailbox
BAD	Base Aggregate Dense	ML OR M/L	Match Line
BK	Back	N	North
BF	Back Face	Y	North Grid Coordinate
B.M.	Bench Mark	OD	Outside Diameter
BR.	Bridge	PLE	Permanent Limited Easement
C/L	Center Line	PT	Point
CC	Center to Center	PC	Point of Curvature
CTH	County Trunk Highway	PI	Point of Intersection
CR.	Creek	PRC	Point of Reverse Curvature
CY or CU YD	Cubic Yard	PT	Point of Tangency
CP	Culvert Pipe	POC	Point on Curve
C & G	Curb and Gutter	PVC	Polyvinyl Chloride
D	Degree of Curve	PCC	Portland Cement Concrete
DHV	Design Hour Volume	LB	Pound
DIA	Diameter	PSI	Pounds Per Square Inch
E	East	PE	Private Entrance
X	East Grid Coordinate	R	Radius
ELEC	Electric	RR	Railroad
EL OR ELEV	Elevation	RL OR R/L	Reference Line
ESALS	Equivalent Single Ac=xle Loads	RP	Reference Point
EBS	Excavation Below Subgrade	RCCP	Reinforced Concrete Culvert Pipe
FF	Face to Face	REQD	Required
FE	Field Entrance	RES	Residence or Residential
F	Fill	RW	Retaining Wall
FG	Finished Grade	RT	Right
FL or F/L	Flow Line	RHF	Right-Hand Forward
FT	Foot	R/W	Right-of-Way
FTG	Footing	R	River
GN	Grid North	RD	Road
HT	Height	RDWY	Roadway
CWT	Hundredweight	SALV	Salvaged
HYD	Hydrant	SAN S	Sanitary Sewer
INL	inlet		
ID	Inside Diameter		
INV	Invert		
IP	Iron Pipe or Pin		
IRS	Iron Rod Set		

SEC	Section
SHLDR	Shoulder
SHR	SHRINKAGE
SW	Sidewalk
S	South
SQ	Square
SF OR SQ FT	Square Feet
SY or SQ YD	Square Yard
STD	Standard
SDD	Standard Detail Drawings
STH	State Trunk Highway
STA	Station
SS	Storm Sewer
SG	Subgrade
SE	Superelevation
SL or S/L	Survey Line
SV	Septic Vent
T	Tangent
TEL	Telephone
TEMP	Temporary
TI	Temporary Interest
t	Ton
T or TN	Town
TRANS	Transition
TL OR T/L	Transit Line
T	Trucks (percent of)
TYP	Typical
UNCL	Unclassified
UG	Underground Cable
USH	United States Highway
VAR	Variable
V	Velocity or Design Speed
VERT	Vertical
VC	Vertical Curve
VOL	Volume
WM	Water Main
WV	Water Valve
W	West
WB	Westbound
YD	Yard

CONTACTS

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SPRING GREEN, WI 53588

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aplamer@westbrookeng.com

COUNTY LIAISON
SAUK COUNTY HIGHWAY SHOP
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BARABOO, WI 53913

ATTN: PATRICK GAVINSKI
PH: (262) 355-4855
Patrick.Gavinski@saukcountywi.gov

WDNR LIAISON
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711

ATTN: ANDY BARTA
PH: (608) 275-3308
andrew.barta@wisconsin.gov

UTILITIES

FRONTIER
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PORTAGE, WI 53901
PH: (608) 742-9507
Jerald.Moore@ftr.com

ALLIANT ENERGY
ATTN: MATTHEW HOSLER
900 PRAIRIE DR.
SPRING GREEN, WI 53581
PH: (608) 588-9705
matthewhosler@alliantenergy.com



**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS

GENERAL NOTES

EROSION CONTROL ITEMS TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER. ALL IN-WATER EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO DEMO, UNLESS WDNR AND PROJECT ENGINEER AGREE OTHERWISE AS PROPOSED IN THE PROJECTS ECIP. SILT FENCE SHALL BE IN PLACE PRIOR TO CONSTRUCTION.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE DRIVING LANES AND THE SHOULDERS ARE TO BE FERTILIZED, SEEDED, TEMPORARY SEEDED, AND MULCHED, OR AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 3 LBS PER 1000 SQUARE FEET.

ANY AND ALL DISTURBED AREAS THAT WILL NOT BE FINISHED AND RESTORED WITHIN 14 DAYS SHALL BE SEEDED WITH TEMPORARY SEED AND MULCHED WITHIN 48 HOURS.

RESTORATION OF EXPOSED SLOPES AND DITCHES SHALL TAKE PLACE WITHIN 7 CALENDAR DAYS AFTER FINISHED GRADING IS COMPLETE.

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

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

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.

D.O.T. MONUMENT IS TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR IN THE SAME WING THAT THE PROPOSED NAME PLATE WILL BE PLACED, AS DIRECTED BY THE ENGINEER.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SAUK COUNTY, HORIZONTAL DATUM NAD83, ELEVATION DATUM NAVD88.

ASPHALTIC SURFACE CALCULATIONS ARE BASED ON 112lb/sy/in.

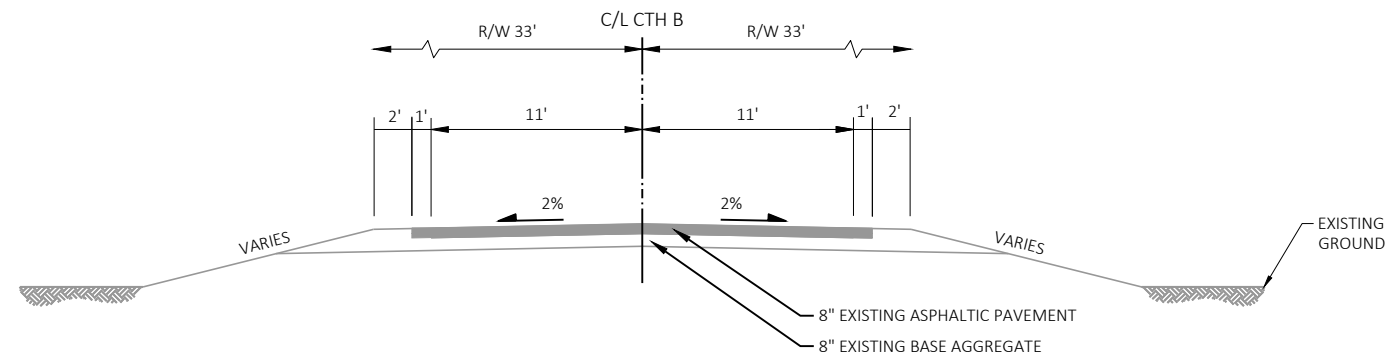
ASPHALTIC SURFACE LAYERS:
- UPPER: 2½"
- LOWER: 2½"

ORDER OF SECTION 2 SHEETS

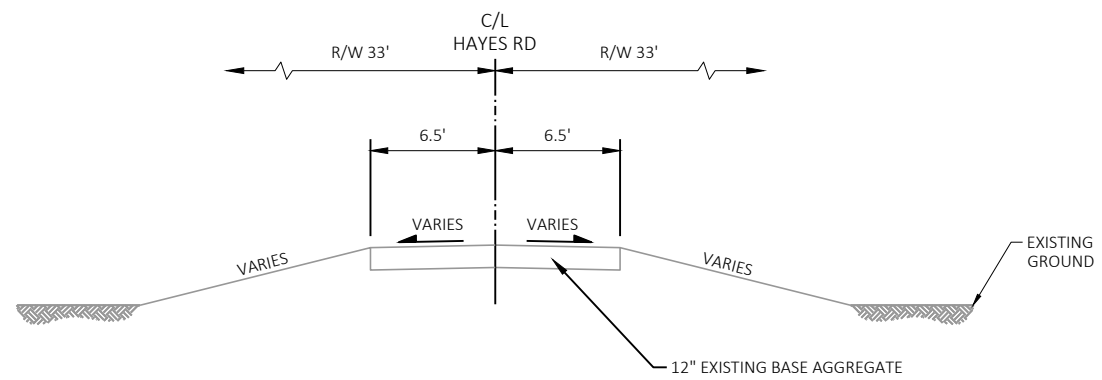
GENERAL NOTES
TYPICAL SECTIONS
SIGNING & PAVEMENT MARKING
ALIGNMENT DETAILS

RUNOFF COEFFICIENT TABLE

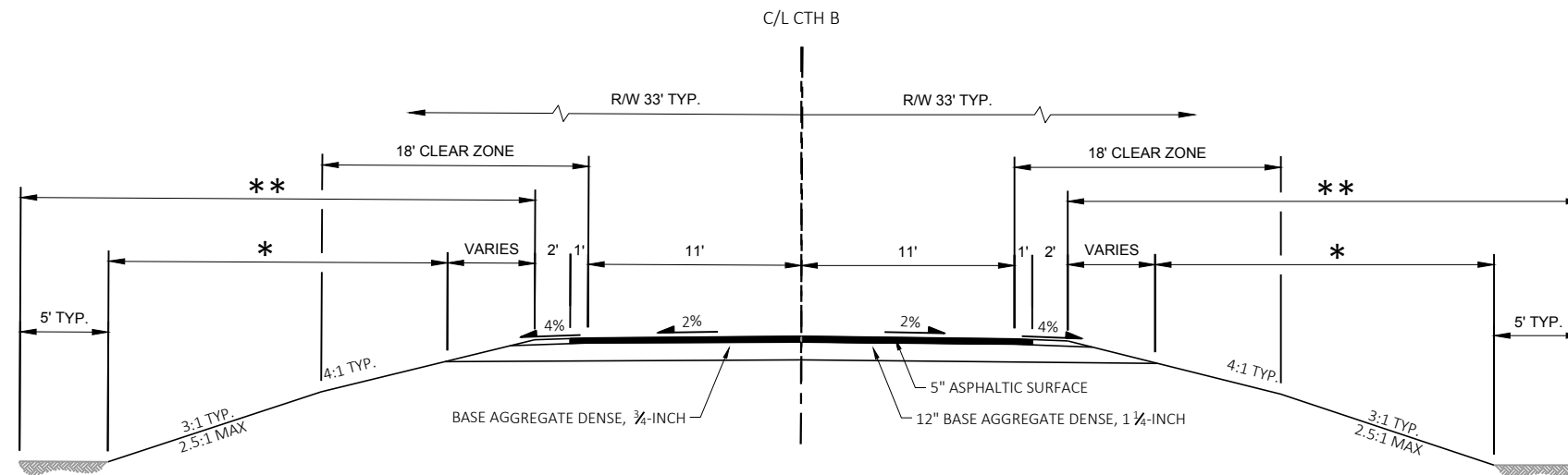
HYDROLOGIC SOIL GROUP												
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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



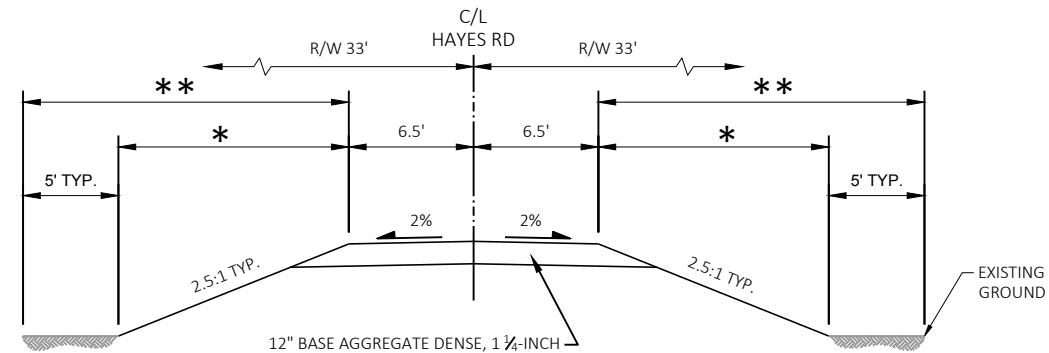
TYPICAL EXISTING SECTION CTH B



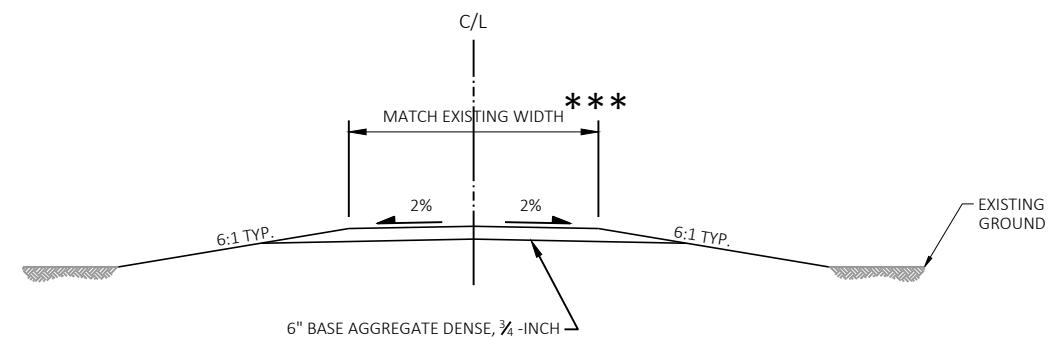
TYPICAL EXISTING SECTION HAYES RD



TYPICAL FINISHED SECTION CTH B

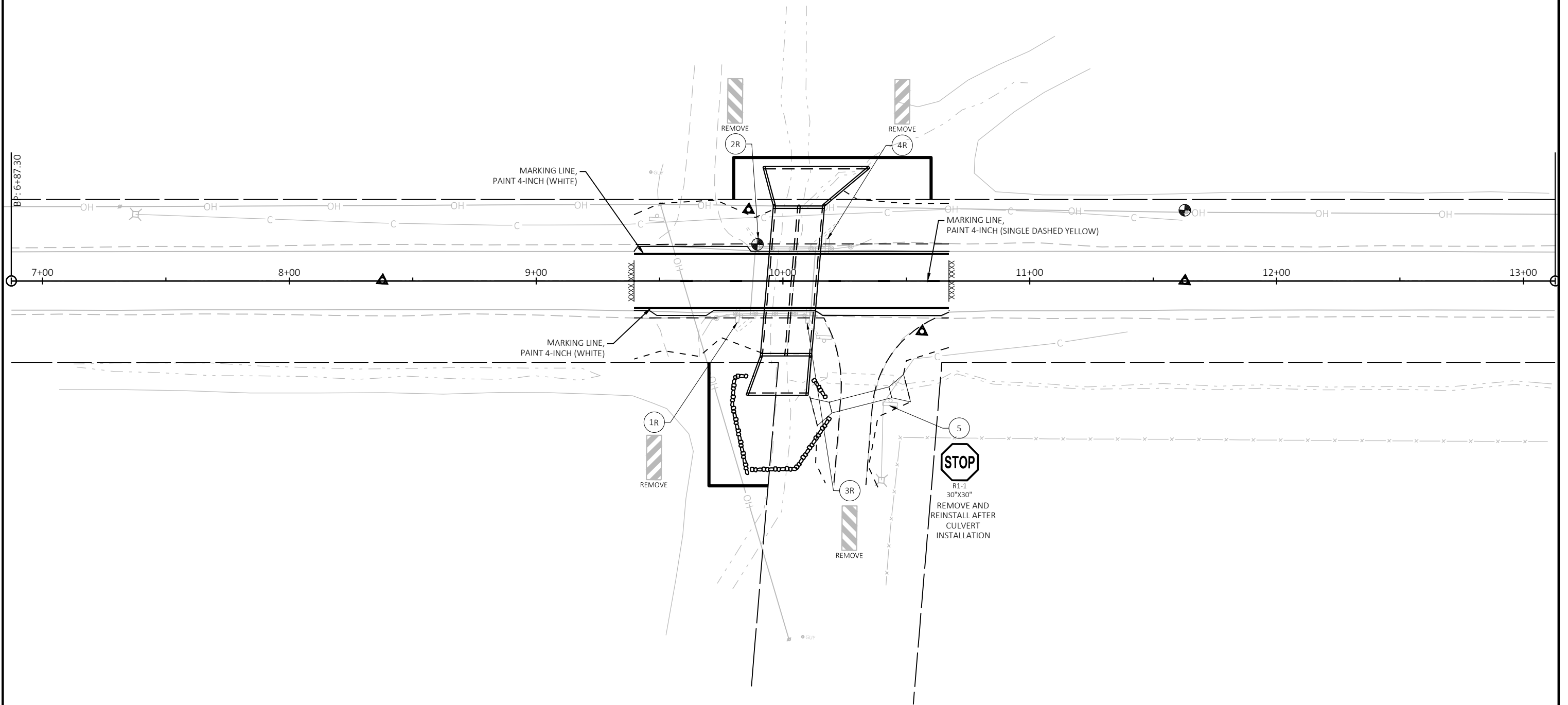


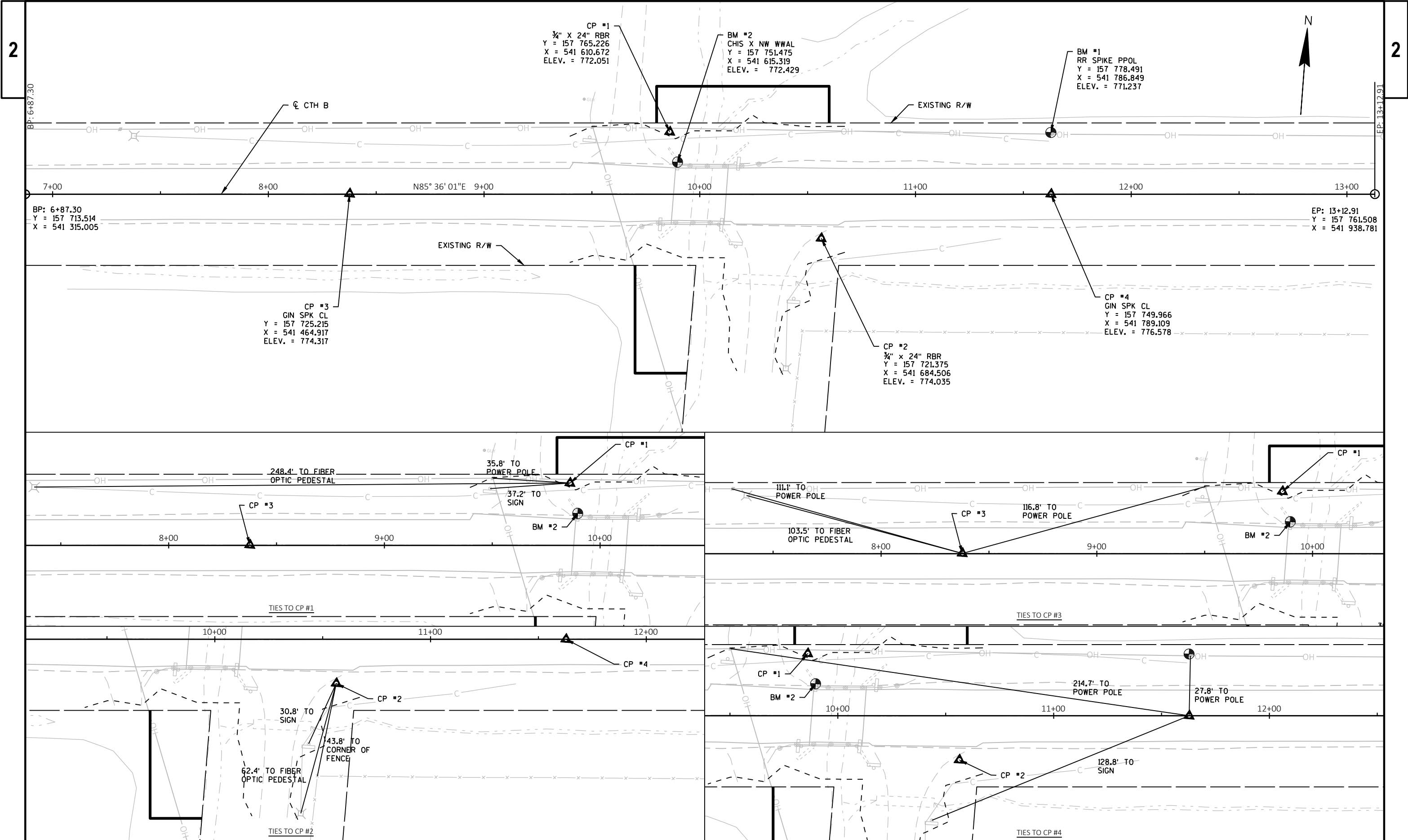
TYPICAL FINISHED SECTION HAYES RD



TYPICAL FINISHED DRIVEWAY & FIELD
ENTRANCE

- * LIMITS OF SALVAGED TOPSOIL, EROSION MAT AND MULCH
- ** LIMITS OF SEEDING, TEMPORARY SEEDING & FERTILIZER
- *** LENGTH TO BE DETERMINED BY ENGINEER IN THE FIELD. BLEND BACK FAR ENOUGH TO GET A SMOOTH PROFILE.





Estimate Of Quantities

5963-00-72					
Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0006	205.0100	Excavation Common	CY	121.000	121.000
0008	206.2000	Excavation for Structures Culverts (structure) 01. C-56-2033	LS	1.000	1.000
0010	208.0100	Borrow	CY	170.000	170.000
0012	210.2500	Backfill Structure Type B	TON	1,060.000	1,060.000
0014	213.0100	Finishing Roadway (project) 01. 5963-00-72	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	54.000	54.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	421.000	421.000
0020	311.0110	Breaker Run	TON	210.000	210.000
0022	455.0605	Tack Coat	GAL	26.000	26.000
0024	465.0105	Asphaltic Surface	TON	103.000	103.000
0026	504.0100	Concrete Masonry Culverts	CY	170.000	170.000
0028	505.0400	Bar Steel Reinforcement HS Structures	LB	18,470.000	18,470.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,900.000	1,900.000
0032	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
0034	521.1054	Apron Endwalls for Culvert Pipe Steel 54-Inch	EACH	2.000	2.000
0036	521.3154	Culvert Pipe Corrugated Steel 54-Inch	LF	26.000	26.000
0038	606.0300	Riprap Heavy	CY	73.000	73.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5963-00-72	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	624.0100	Water	MGAL	4.800	4.800
0046	625.0500	Salvaged Topsoil	SY	440.000	440.000
0048	627.0200	Mulching	SY	440.000	440.000
0050	628.1504	Silt Fence	LF	315.000	315.000
0052	628.1520	Silt Fence Maintenance	LF	630.000	630.000
0054	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0056	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0058	628.2008	Erosion Mat Urban Class I Type B	SY	90.000	90.000
0060	629.0210	Fertilizer Type B	CWT	0.400	0.400
0062	630.0130	Seeding Mixture No. 30	LB	12.000	12.000
0064	630.0200	Seeding Temporary	LB	18.000	18.000
0066	630.0500	Seed Water	MGAL	11.000	11.000
0068	633.5200	Markers Culvert End	EACH	4.000	4.000
0070	638.2102	Moving Signs Type II	EACH	1.000	1.000
0072	638.2602	Removing Signs Type II	EACH	4.000	4.000
0074	638.3000	Removing Small Sign Supports	EACH	4.000	4.000

Estimate Of Quantities

5963-00-72					
Line	Item	Item Description	Unit	Total	Qty
0076	642.5001	Field Office Type B	EACH	1.000	1.000
0078	643.0420	Traffic Control Barricades Type III	DAY	2,256.000	2,256.000
0080	643.0705	Traffic Control Warning Lights Type A	DAY	4,512.000	4,512.000
0082	643.0900	Traffic Control Signs	DAY	1,880.000	1,880.000
0084	643.5000	Traffic Control	EACH	1.000	1.000
0086	645.0105	Geotextile Type C	SY	325.000	325.000
0088	645.0120	Geotextile Type HR	SY	148.000	148.000
0090	646.1005	Marking Line Paint 4-Inch	LF	294.000	294.000
0092	650.4500	Construction Staking Subgrade	LF	128.000	128.000
0094	650.5000	Construction Staking Base	LF	128.000	128.000
0096	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0098	650.9910	Construction Staking Supplemental Control (project) 01. 5963-00-72	LS	1.000	1.000
0100	650.9920	Construction Staking Slope Stakes	LF	128.000	128.000
0102	690.0150	Sawing Asphalt	LF	48.000	48.000
0104	715.0502	Incentive Strength Concrete Structures	DOL	1,020.000	1,020.000
0106	SPV.0105	Special 01. Temporary Water Diversion, Culvert C-56- 2033	LS	1.000	1.000

3

EARTHWORK SUMMARY

STATION - STATION	LOCATION	COMMON EXCAVATION (1) (ITEM # 205.0100)	SALVGED / UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	WASTE	BORROW (7) (ITEM # 208.0100)	COMMENT:
		CUT (2)				FACTOR 1.25				
9+39.67 - 10+67.22 10+30, RT	CTH B	121	76	45	154	193	-148	0	148	
	HAYES RD	0	0	0	18	22	-22	0	22	
	TOTALS	121	76	45	172	215	-170	0	170	

- 1) COMMON EXCAVATIUON IS THE CUT. ITEM # 205.0100.
- 2) SALVAGED/UNUSABLE MATERIAL IS INCLUDED IN CUT.
- 3) SALVAGED/UNUSABLE MATERIAL INCLUDES ASPHATLIC PAVEMENT.
- 4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE MATERIAL
- 5) EXPANDED FILL FACTOR = 1.25: EXPANDED FILL = (UNEXPANDED FILL)*1.25
- 6) THE MASS ORDINATE + OR - CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL IN THE DIVISION.
- 7) BORROW = ABSOLUTE VALUE OF MASS ORDINATE

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 3/4-INCH SHLD. (TON)	305.0120 1 1/4-INCH BASE (TON)	624.0100 WATER (MGAL)
9+40 - 10+67 9+60, RT 9+66, LT 10+30, RT	CTH B	35	354	3.9
	F.E.	7	---	0.1
	P.E.	12	---	0.1
	HAYES RD	---	67	0.7
	TOTALS	54	421	4.8

3

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0600 TACK COAT (GAL)	465.0105 ASPHALTIC SURFACE (TON)
9+39.67 - 10+67.22	MAINLINE	26	103
	TOTALS	26	103

CULVERT

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	521.1054 APRON ENDWALLS FOR CULVERT PIPE STEEL 54-INCH (EACH)	521.3154 CULVERT PIPE CORRUGATED STEEL 54-INCH (LF)	650.6000 CONSTRUCTION STAKING PIPE CULVERTS (EACH)
10+30, RT	HAYES RD.	1	2	26	1
	TOTALS	1	2	26	1

FINISHING ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0130 SEEDING MIX NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
9+40 - 10+67	CTH B, LT	206	206	--	0.2	5	8	5
	CTH B, RT	145	145	--	0.1	4	6	4
	UNDISTRIBUTED	89	89	90	0.1	3	4	2
	TOTALS	440	440	90	0.4	12	18	11

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)
9+40 - 10+67	MAINLINE, LT	119	238
	MAINLINE, RT	134	268
	UNDISTRIBUTED	62	124
	TOTALS	315	630

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
ID 5963-00-72	2	2
TOTALS	2	2

MARKERS CULVERT END

STATION	LOCATION	633.5200 (EACH)
9+89.50	28', RT	1
9+94.50	28', LT	1
10+13.50	28', RT	1
10+18.50	28', LT	1
	TOTALS	4

PROJECT NO: 5963-00-72

HWY: CTH B

COUNTY: SAUK

MISCELLANEOUS QUANTITIES

SHEET

E

SIGNING

				638.2102	638.2602	638.3000	NOTES
				MOVING	REMOVING	REMOVING	
				SIGNS	SIGNS	SMALL SIGN	
				TYPE II	TYPE II	SUPPORTS	
STATION	LOCATION	PLAN NUMBER	SIGN CODE	(EACH)	(EACH)	(EACH)	
9+83	RT	1R	---	---	1	1	BRIDGE HASH MARKS
9+91	RT	2R	---	---	1	1	BRIDGE HASH MARKS
10+09	LT	3R	---	---	1	1	BRIDGE HASH MARKS
10+17	LT	4R	---	---	1	1	BRIDGE HASH MARKS
10+43	RT	5	R1-1	1	---	---	STOP
TOTAL				1	4	4	0

TRAFFIC CONTROL

		643.0420		643.0705		643.0900		643.5000
		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC
		BARRICADES		WARNING LIGHTS		SIGNS		CONTROL
		TYPE III		TYPE A				(EACH)
LOCATION	DURATION	(NO.)	(DAY)	(NO.)	(DAY)	(NO.)	(DAY)	
PROJECT	94	---	---	---	---	---	---	1
CTH B, WEST	94	11	1034	22	2068	9	846	---
CTH B, EAST	94	11	1034	22	2068	9	846	---
UNDISTRIBUTED	94	2	188	4	376	2	188	---
TOTAL		24	2256	48	4512	20	1880	1

PLACE TRAFFIC CONTROL IN ACCORDANCE WITH SDD 15C2.
PLACEMENT SUBJECT TO ENGINEER APPROVAL.

MARKING LINE PAINT 4-INCH

				646.1005	REMARK
STATION	- STATION	LOCATION	(LF)		
9+40	- 10+67	CENTERLINE	38		SINGLE DASHED YELLOW
9+40	- 10+67	LEFT EDGE	128		SOLID WHITE
9+40	- 10+67	RIGHT EDGE	128		SOLID WHITE
TOTAL			294		

CONSTRUCTION STAKING

				650.4500	650.5000	650.9910	650.992
				SUBGRADE	BASE	SUPPLEMENTAL	SLOPE
				(LF)	(LF)	(LS)	STAKES
STATION	- STATION	LOCATION	(LF)	(LF)	(LS)	(LF)	
9+40	- 10+67	MAINLINE	128	128	---	128	
		PROJECT	---	---	1	---	
TOTALS			128	128	1	128	

SAWING ASPHALT

STATION	LOCATION	690.0150 (LF)
9+40	MAINLINE	24
10+67	MAINLINE	24
TOTAL		48

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	⊠

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SAUK 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.

ALL NEW RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYP $\frac{3}{4}$ " X 24" IRON REBAR) 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.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

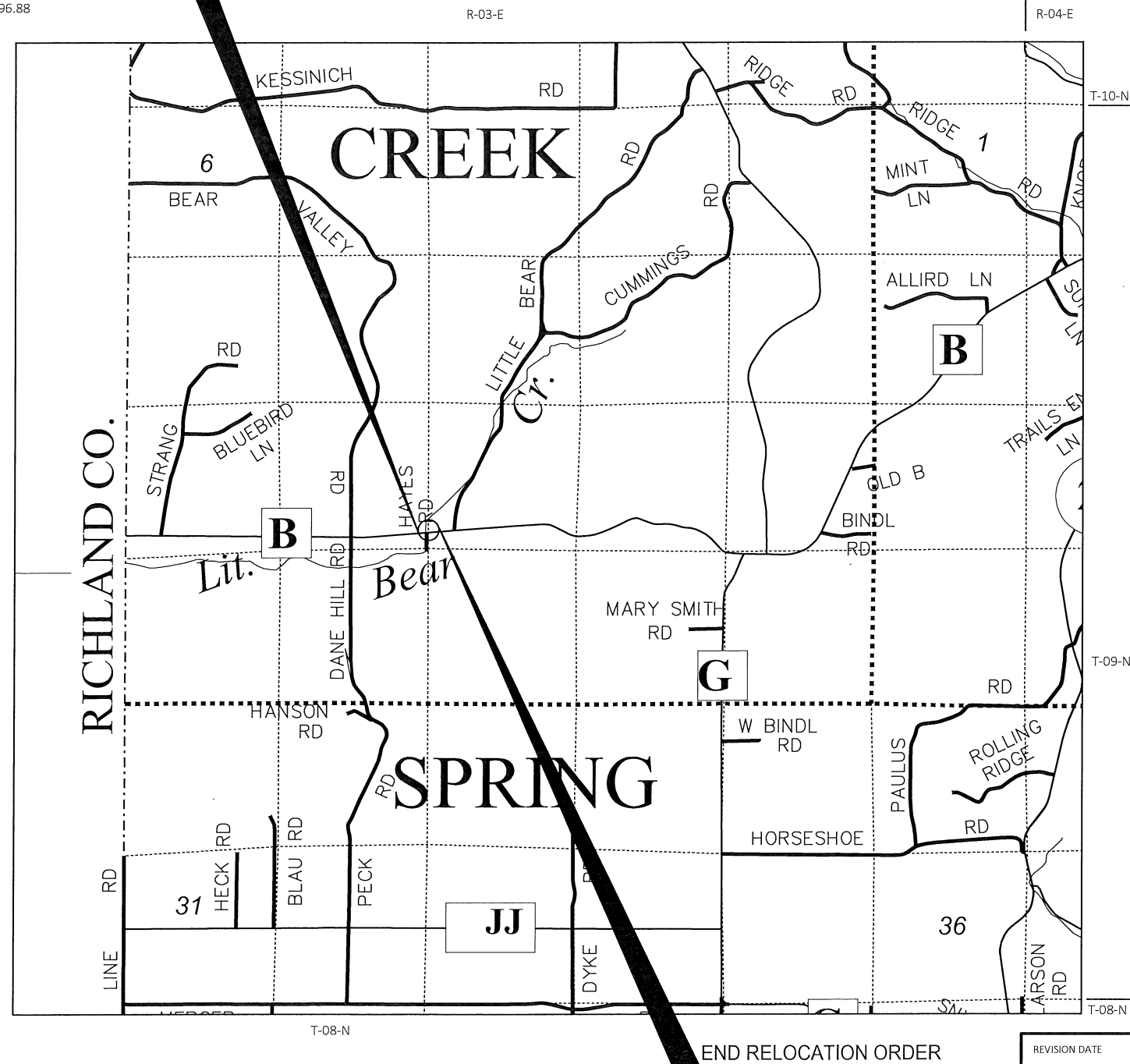
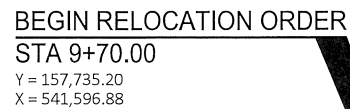
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

THE PROPOSED REFERENCE LINE IS COINCIDENTAL WITH THE EXISTING CENTERLINE AND IS REFERRED TO AS "RDWY CENTERLINE" WITHIN THIS PLAT.

R/W PROJECT NUMBER 5963-00-02	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	2
PLAT OF RIGHT OF WAY REQUIRED FOR STH 130 - CTH G (LITTLE BEAR CREEK BRIDGE C-56-2033) CTH B SAUK COUNTY		
CONSTRUCTION PROJECT NUMBER 5963-00-72		

CONVENTIONAL SYMBOLS			
SECTION LINE		PARCEL NUMBER	
QUARTER LINE		UTILITY NUMBER	
SIXTEENTH LINE		R/W MONUMENT	
NEW REFERENCE LINE		NON-MONUMENTED R/W POINT	
NEW R/W LINE		FOUND IRON PIN	
EXISTING R/W LINE		VALVE (GAS, WATER, ETC.)	
PROPERTY LINE		SIGN	
LOT, TIE, AND OTHER MINOR LINES		OFF-PREMISE SIGN	
SLOPE INTERCEPT		ACCESS CONTROLLED BY ACQUISITION	
CORPORATE LIMITS		NO ACCESS (BY STATUTORY AUTHORITY)	
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)		NO ACCESS (NEW HIGHWAY)	
TEMP. LIMITED EASEMENT AREA		NATIONAL GEODETIC SURVEY MONUMENT	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		SIXTEENTH CORNER MONUMENT	
TRANSMISSION STRUCTURES		PARALLEL OFFSETS	
BUILDING			
BUILDING (TO BE REMOVED)			
BRIDGE			

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



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

ACCEPTED FOR SAUK COUNTY

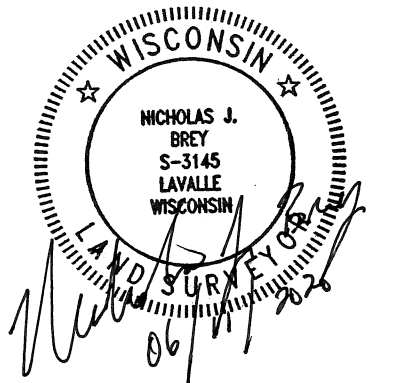
DATE: 6/11/20 [Signature]
HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY



WESTBROOK
Associated Engineers, Inc.

619 East Hoxie St. | P.O. Box 429 | Spring Green, WI 53588
P: (608) 588-7866 | F: (608) 588-7954 | www.westbrookeng.com



DATE: 06/11/2020 Uthman J. Brey
(Signature)

END RELOCATION ORDER
STA 10+60.00
Y = 157,742.11
X = 541,686.61

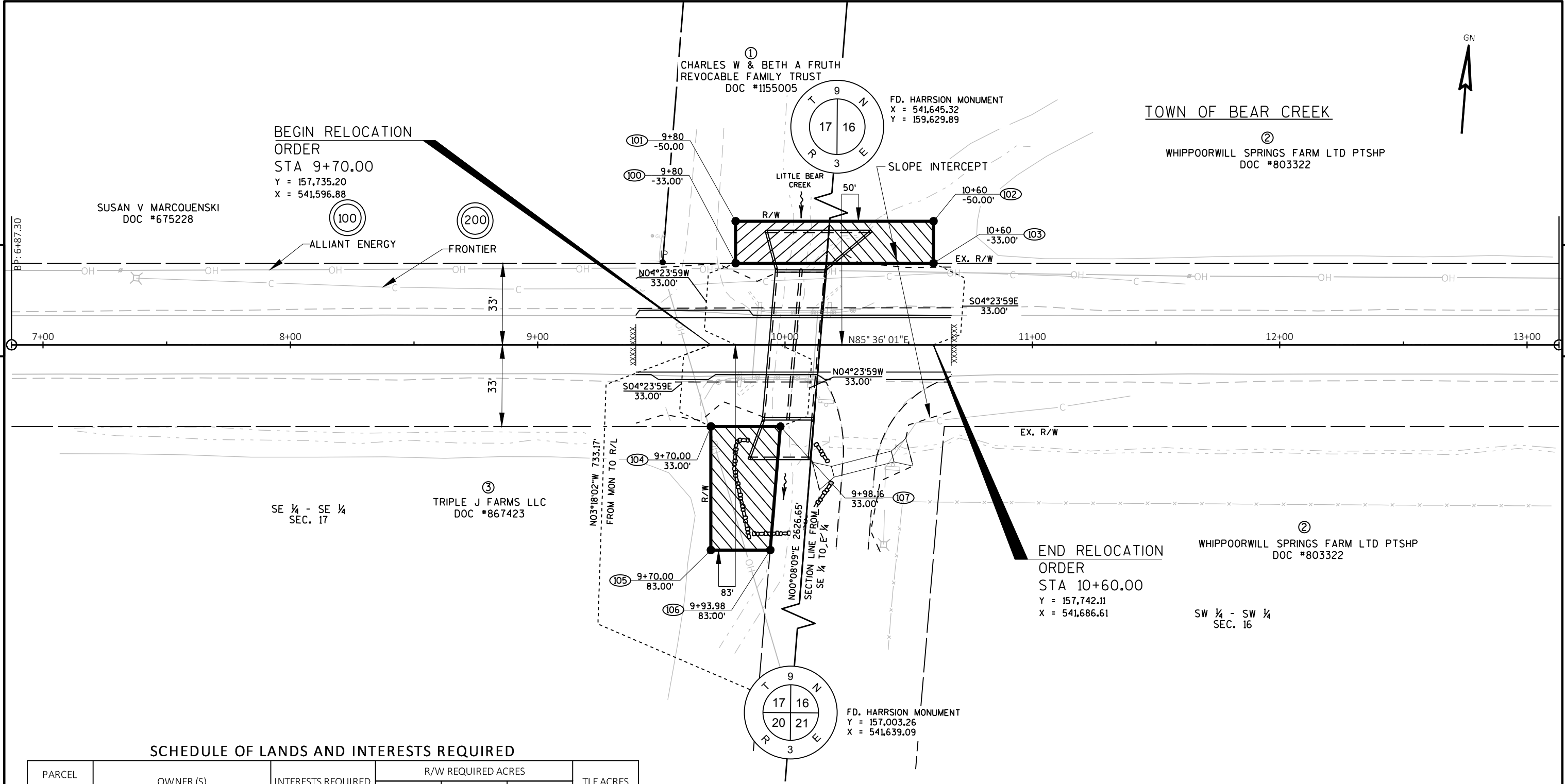
REVISION DATE

FILE NAME : G:\00-PROJECT FILES\2019\19095 CTH B AND CTH W BRIDGES - SAUK COUNTY\5963-00-72 CTH B\01-CAD\SHEETS\PLAN\040101 RP.DWG

PLOT DATE : 6/10/2020 11:30 AM

PLOT BY : NICHOLAS J. BREY

PLOT NAME :



SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED ACRES			TLE ACRES
			NEW	EXISTING	TOTAL	
1	CHARLES W & BETH A FRUTH REVOCABLE FAMILY TRUST	FEE	0.01	0.03	0.04	--
2	WHIPPOORWILL SPRINGS FARM LTD	FEE	0.02	0.03	0.05	--
3	TRIPLE J FARMS LLC	FEE	0.03	0.02	0.05	--
100	ALLIANT ENERGY	RELEASE OF RIGHTS	--	--	--	--
200	FRONTIER COMMUNICATIONS	--	--	--	--	--

BASIS OF EXISTING RIGHT-OF-WAY FOR CTH B WAS BASED ON THE CENTERLINE OF EXISTING PAVEMENT AND WIS STATUTE 82.31(2).

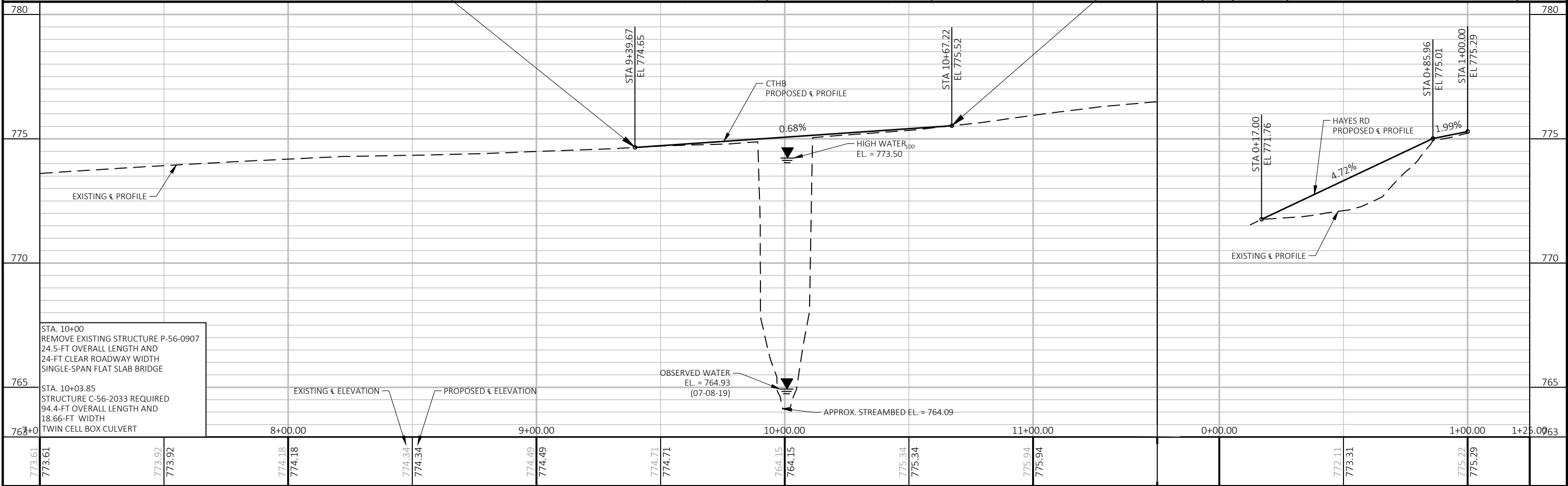
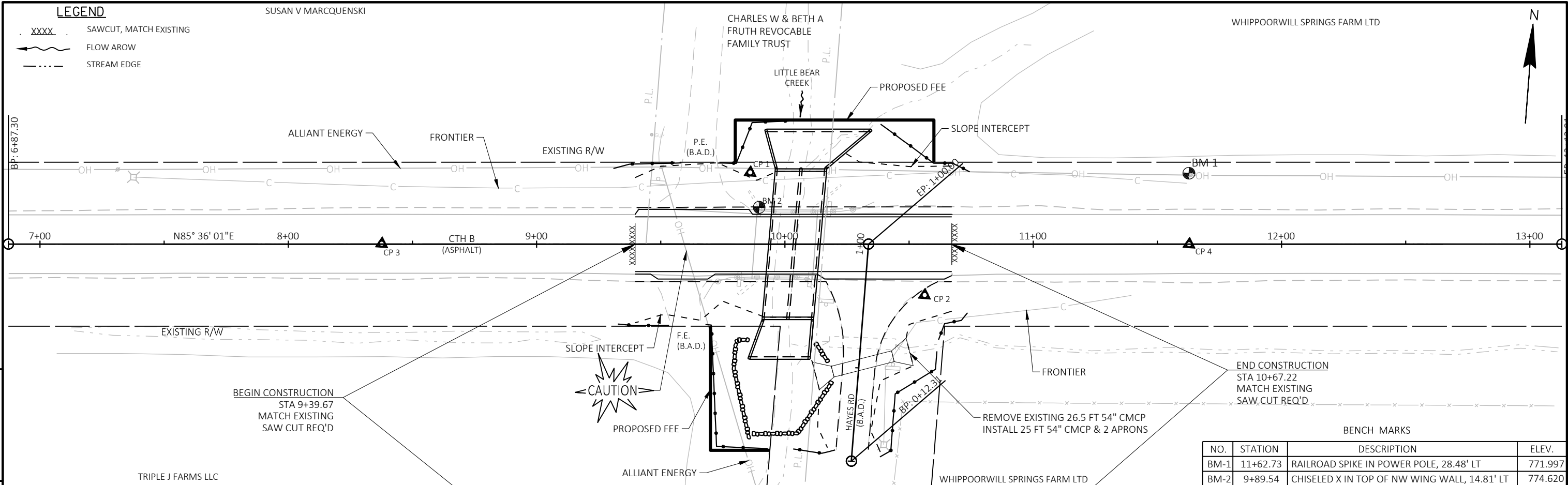
R/W POINT COORDINATES

POINT NUMBER	Y	X	POINT NUMBER	Y	X
100	157,768.87	541,604.32	104	157,702.30	541,599.41
101	157,785.82	541,603.01	105	157,652.45	541,603.24
102	157,791.96	541,682.78	106	157,654.29	541,627.16
103	157,775.01	541,684.08	107	157,704.46	541,627.48

R/W COURSE TABLE

COURSE	BEARING	DISTANCE	COURSE	BEARING	DISTANCE
100-101	N4°23'59"W	17.00'	104-105	S4°23'59"E	50.00'
101-102	N85°36'01"E	80.00'	105-106	N85°36'01"E	23.98'
102-103	S4°23'59"E	17.00'	106-107	N0°22'20"E	50.17'

REVISION DATE 06/24/20	DATE 06/11/2020	SCALE, FEET 02040	HWY: CTH B	STATE R/W PROJECT NUMBER 5963-00-02	PLAT SHEET 4.02	
			GRID FACTOR N/A	COUNTY: SAUK	CONSTRUCTION PROJECT NUMBER 5963-00-72	PS&E SHEET

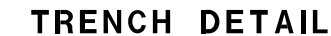


Standard Detail Drawing List

08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
12A03-10	NAME PLATE (STRUCTURES)
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
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES



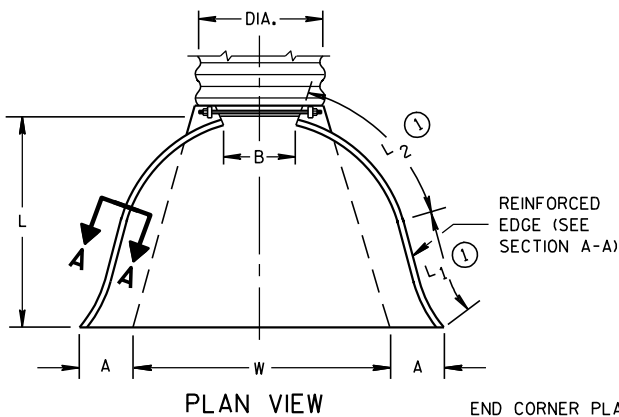
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS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



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

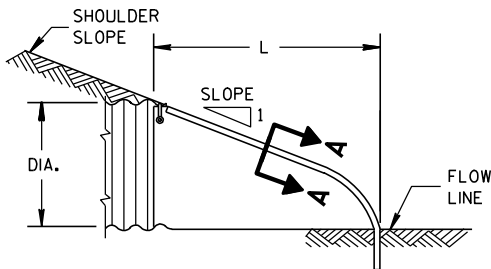
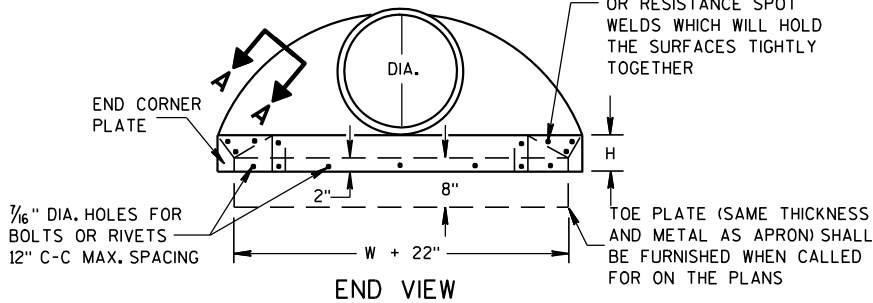
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



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

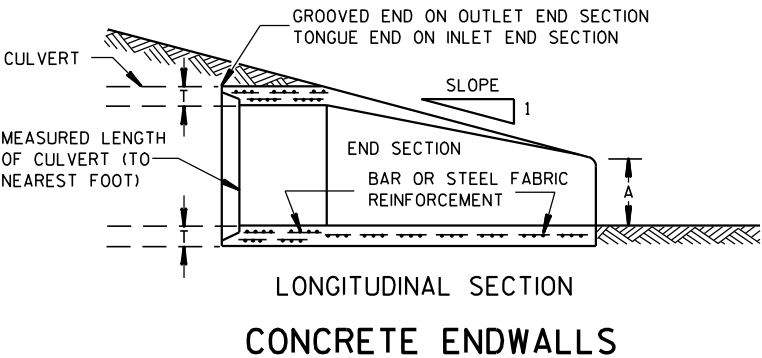
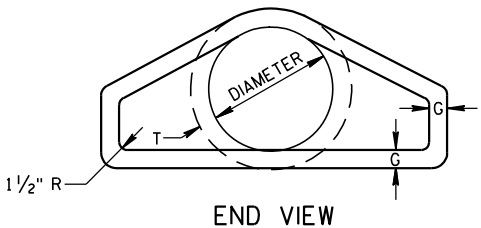
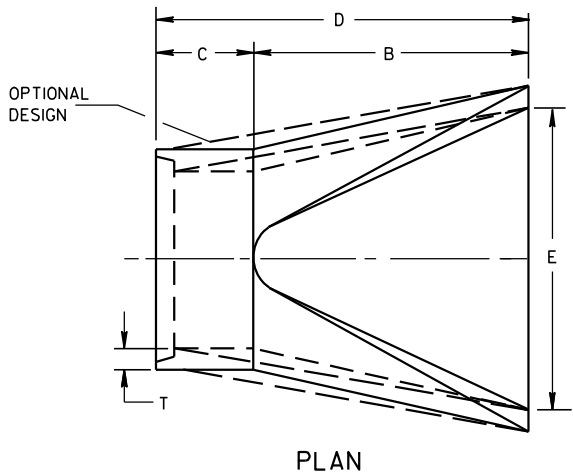
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



SIDE ELEVATION
METAL ENDWALLS

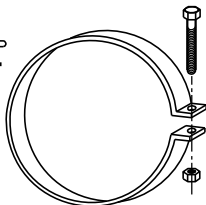
REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

* MINIMUM
** MAXIMUM

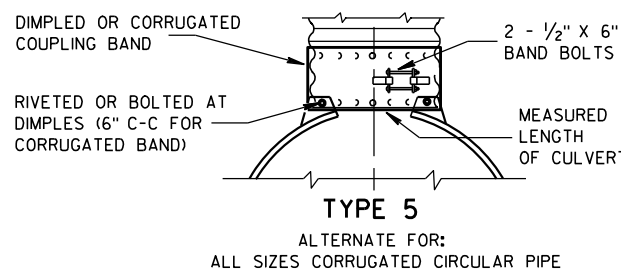
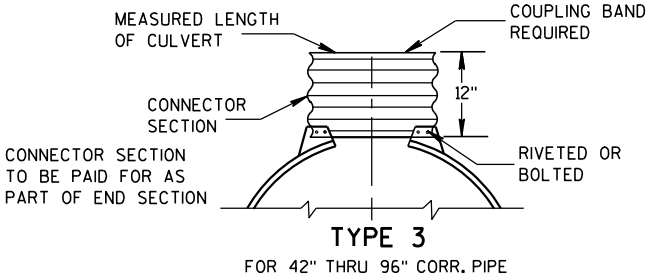
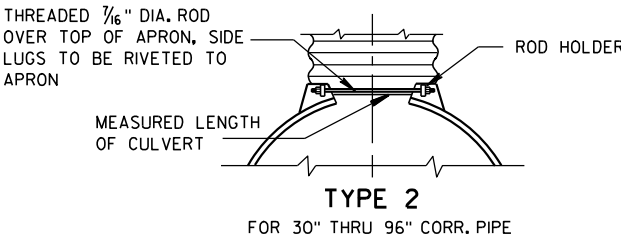
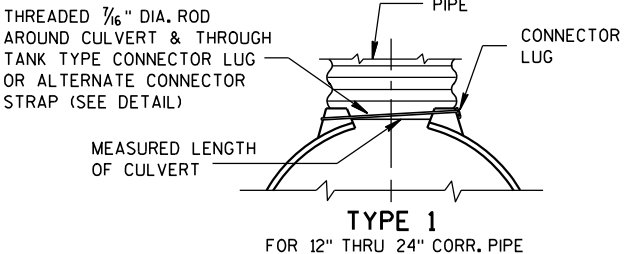


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



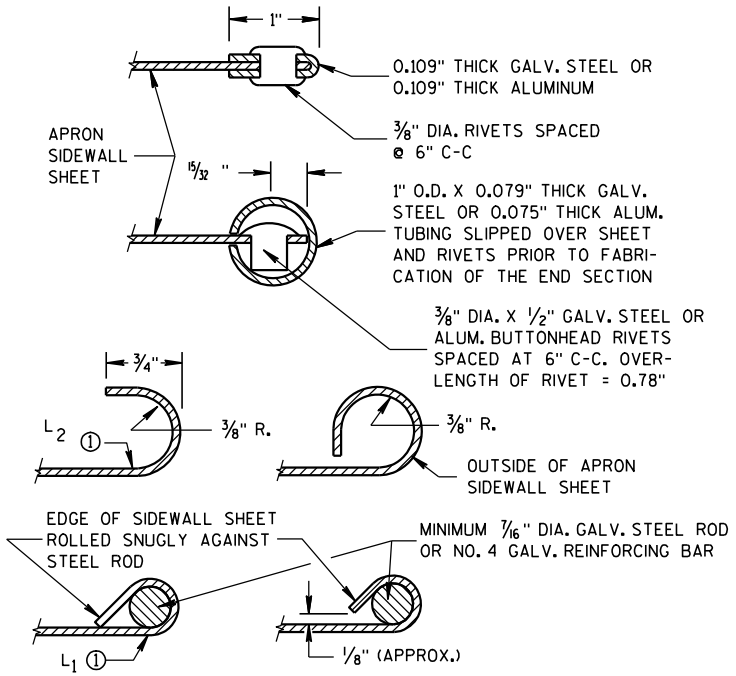
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

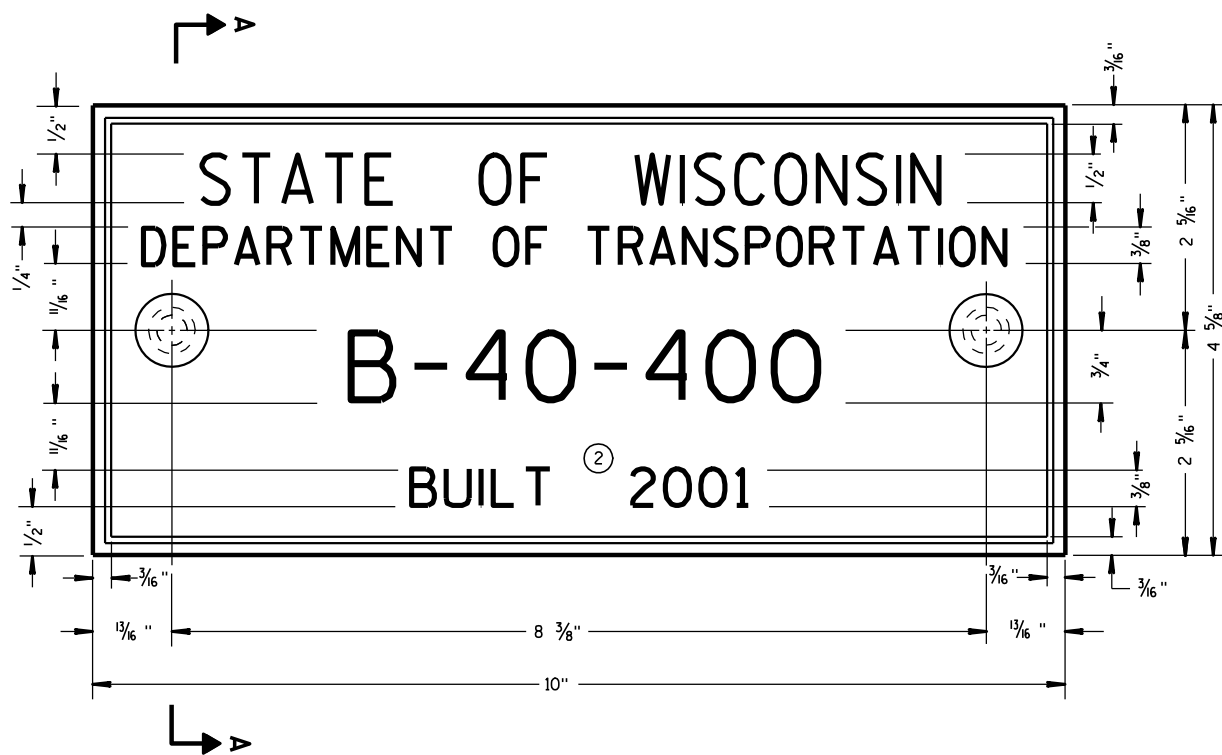
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

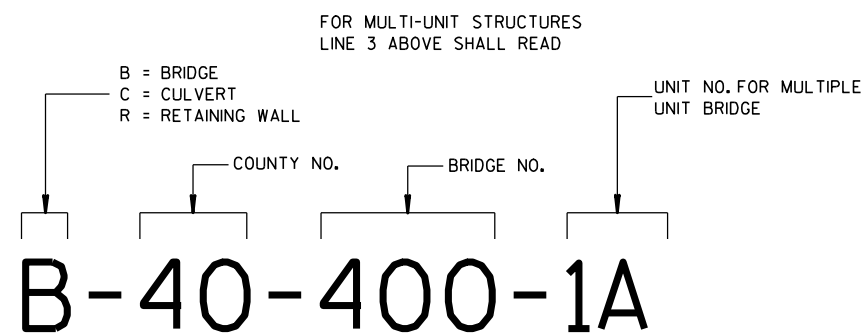
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



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



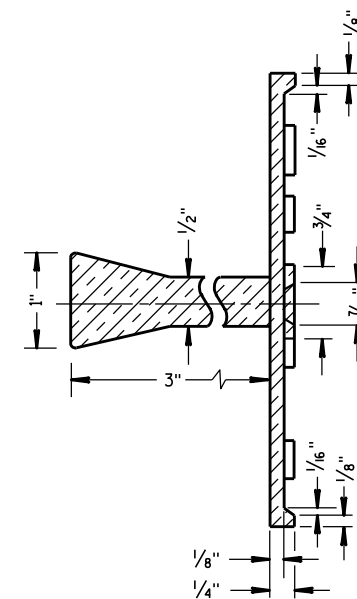
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

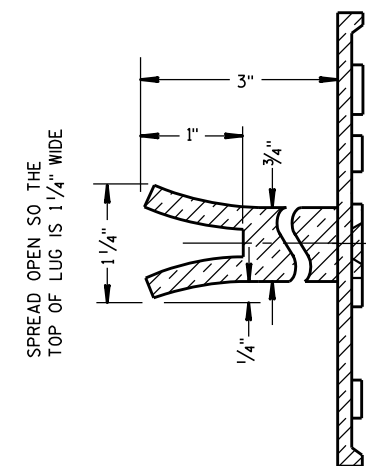
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

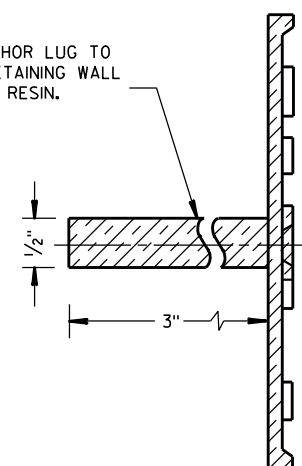


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

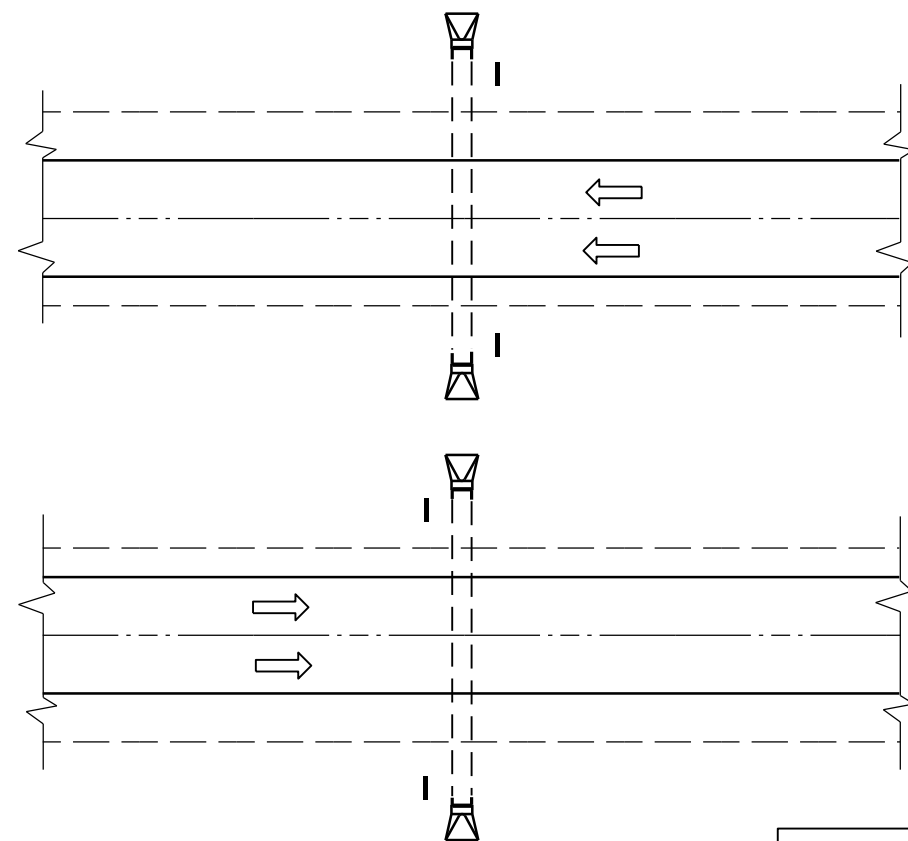
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

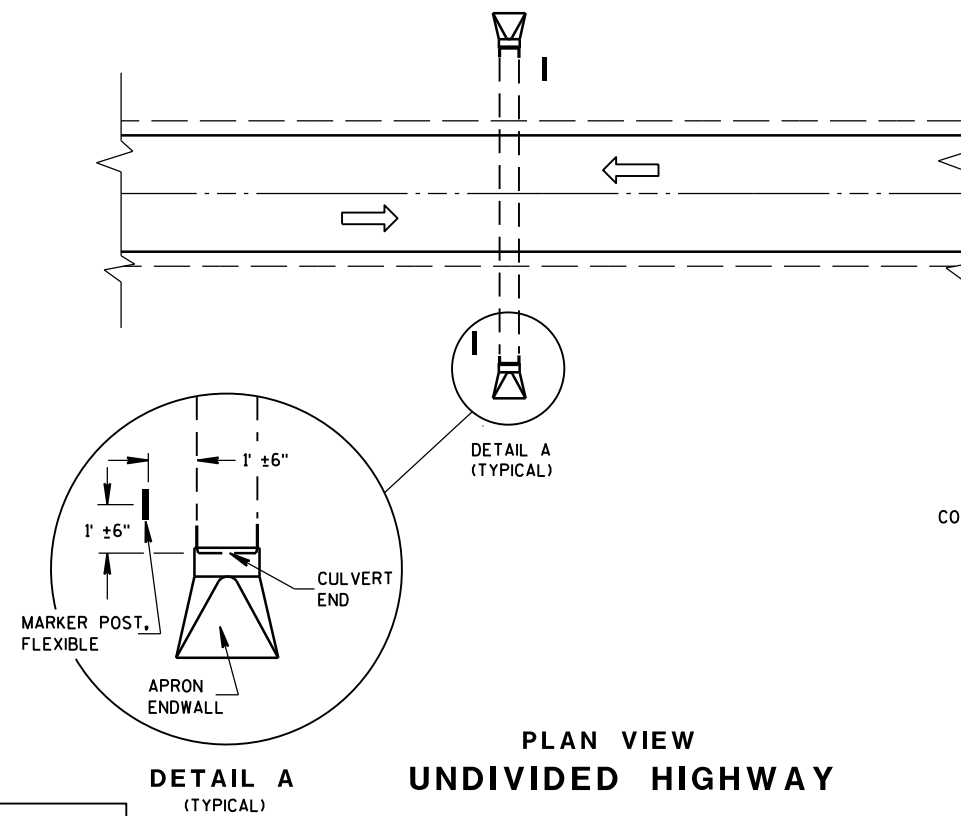
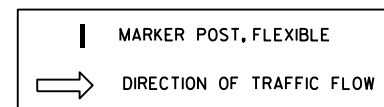
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

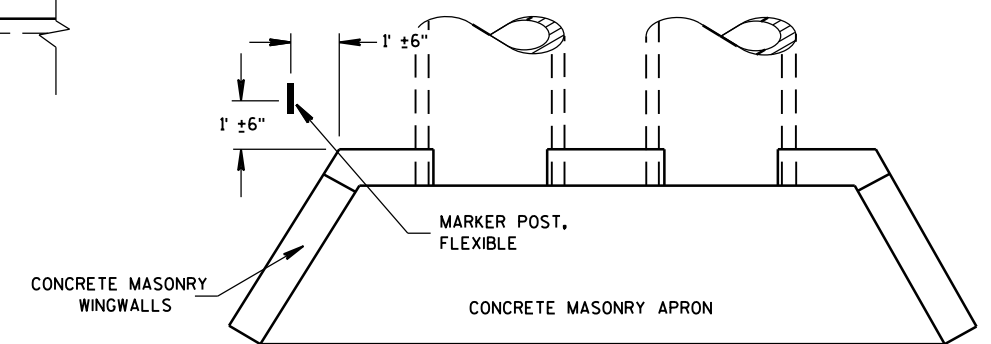


PLAN VIEW
UNDIVIDED HIGHWAY

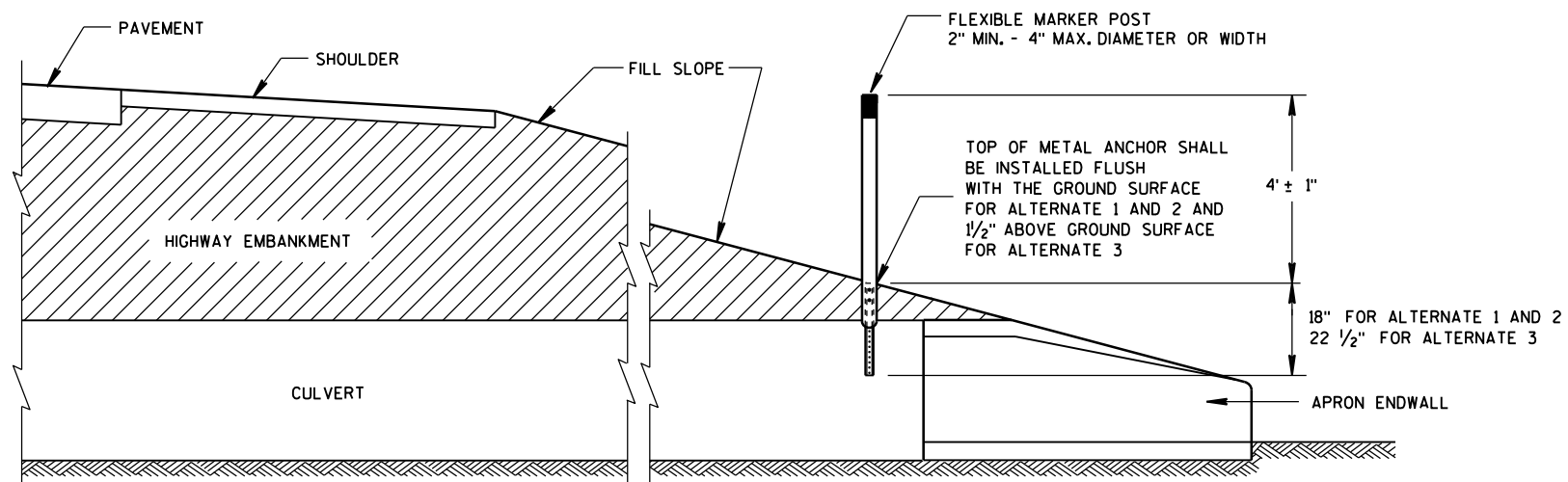
FLEXIBLE MARKER POST LOCATION

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.



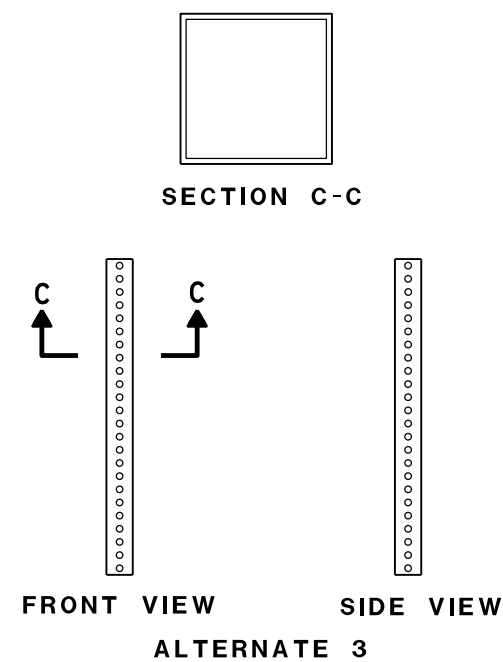
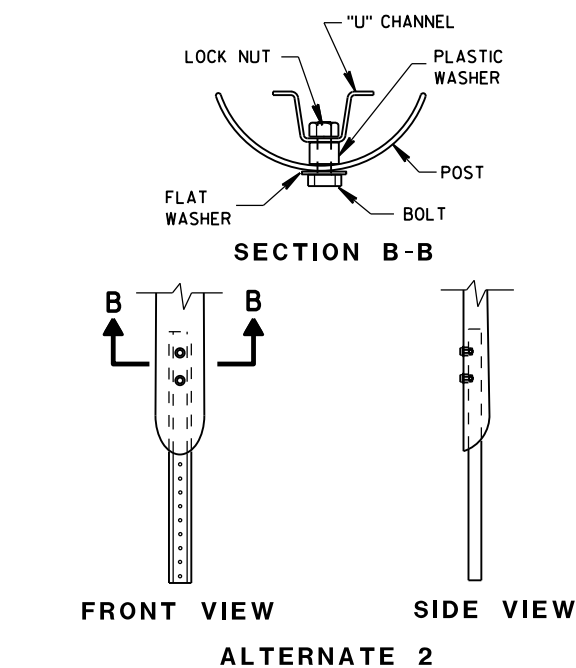
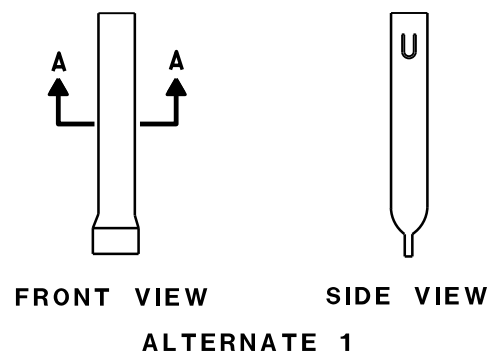
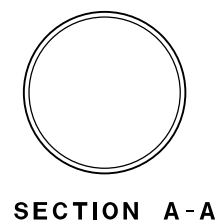
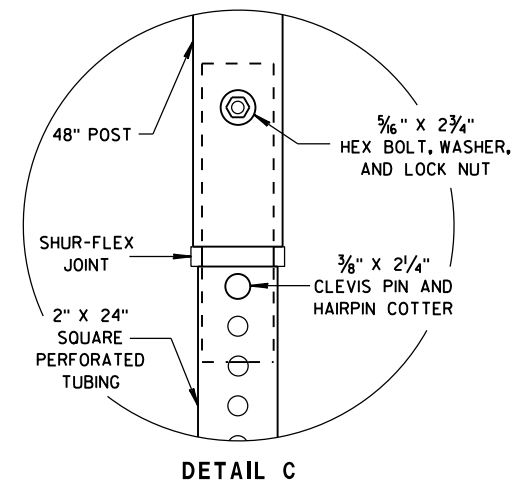
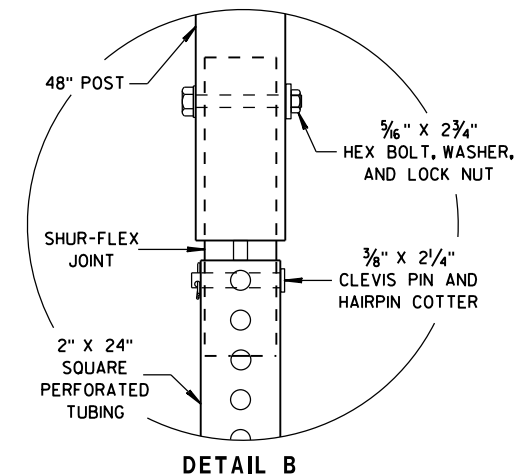
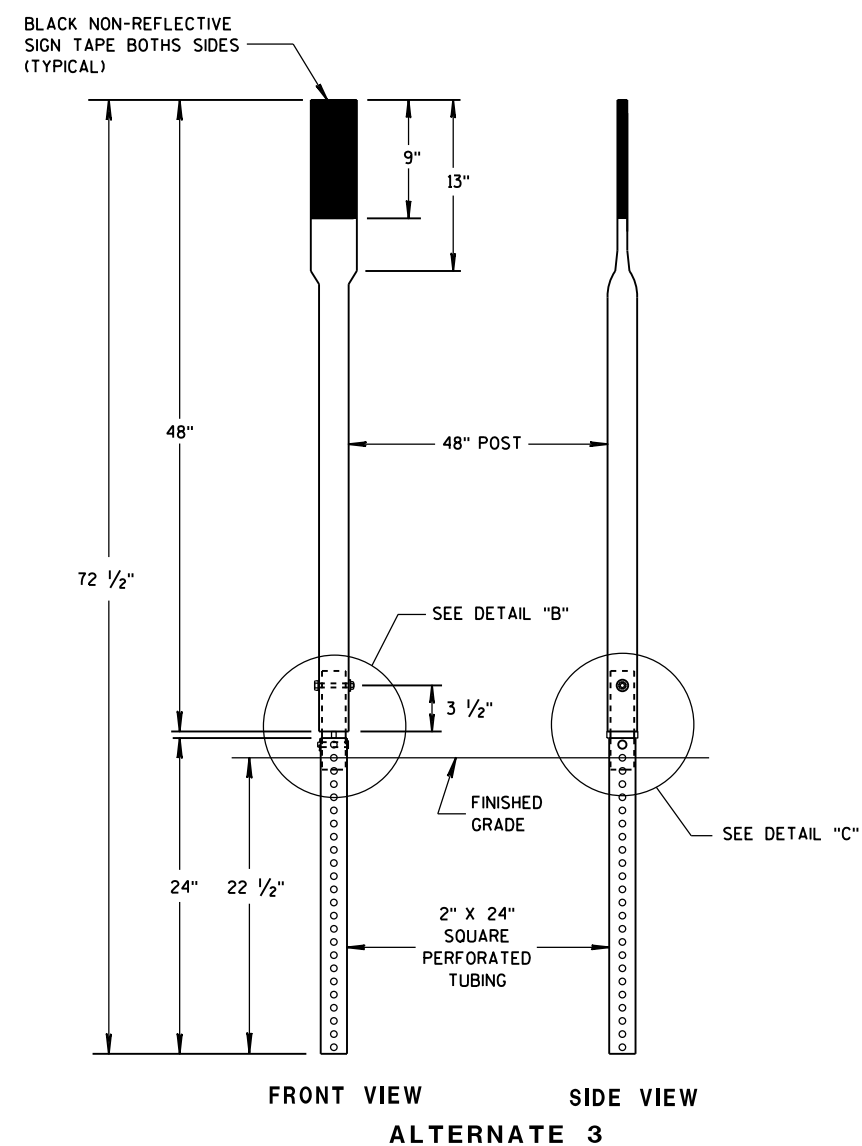
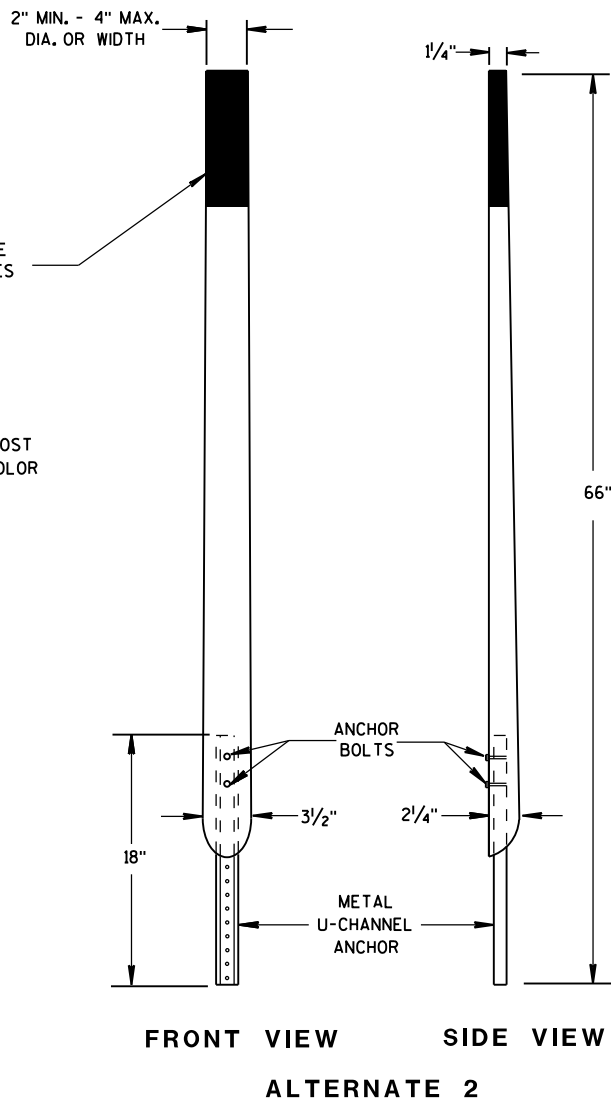
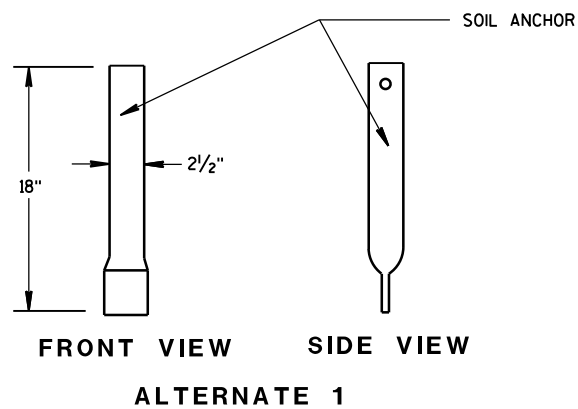
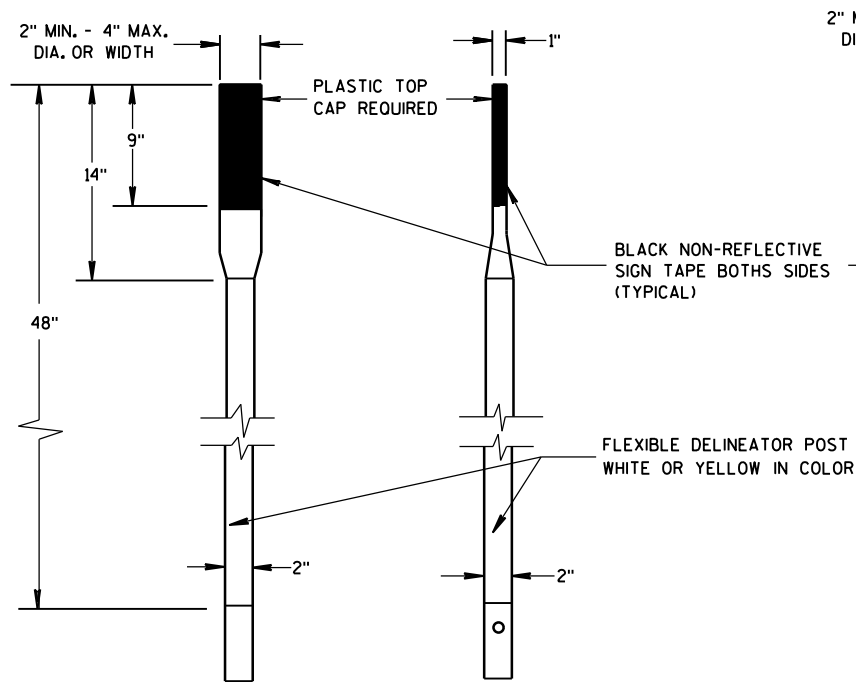
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

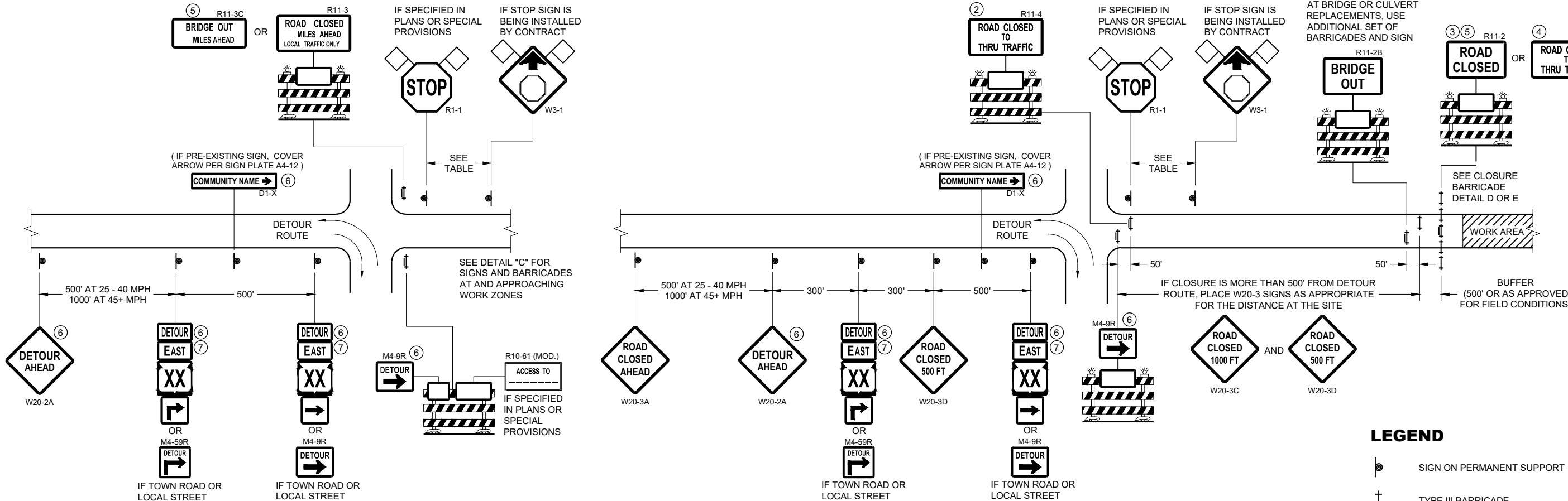


FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



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	M1 - 4
XX	M1 - 6
COUNTY X	M1 - 5A
OR	M05 - 1
OR	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

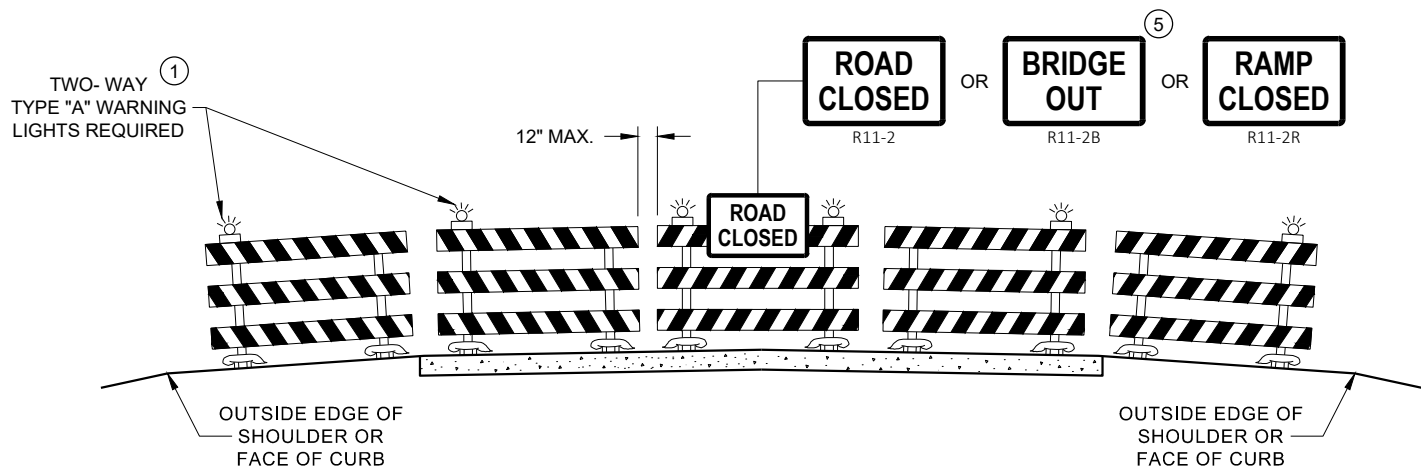
SEE SDD 15C2-SHEET "b" FOR GENERAL NOTES AND FOOTNOTES ① THROUGH ⑦

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

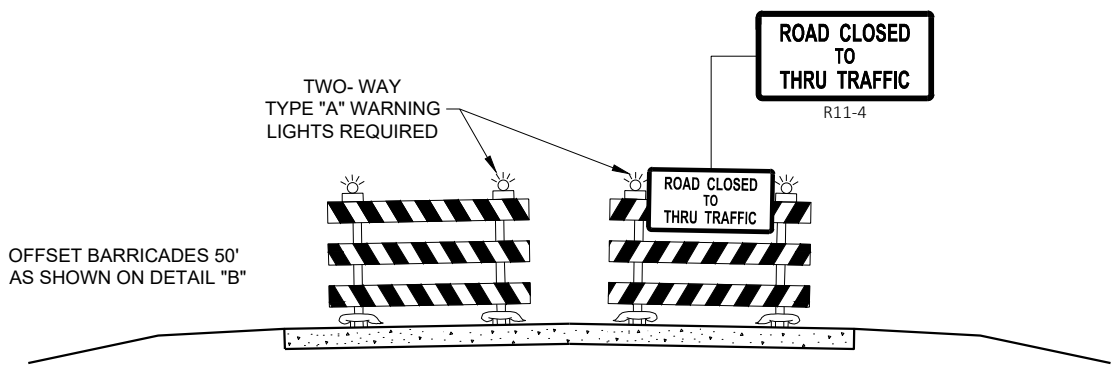
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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"

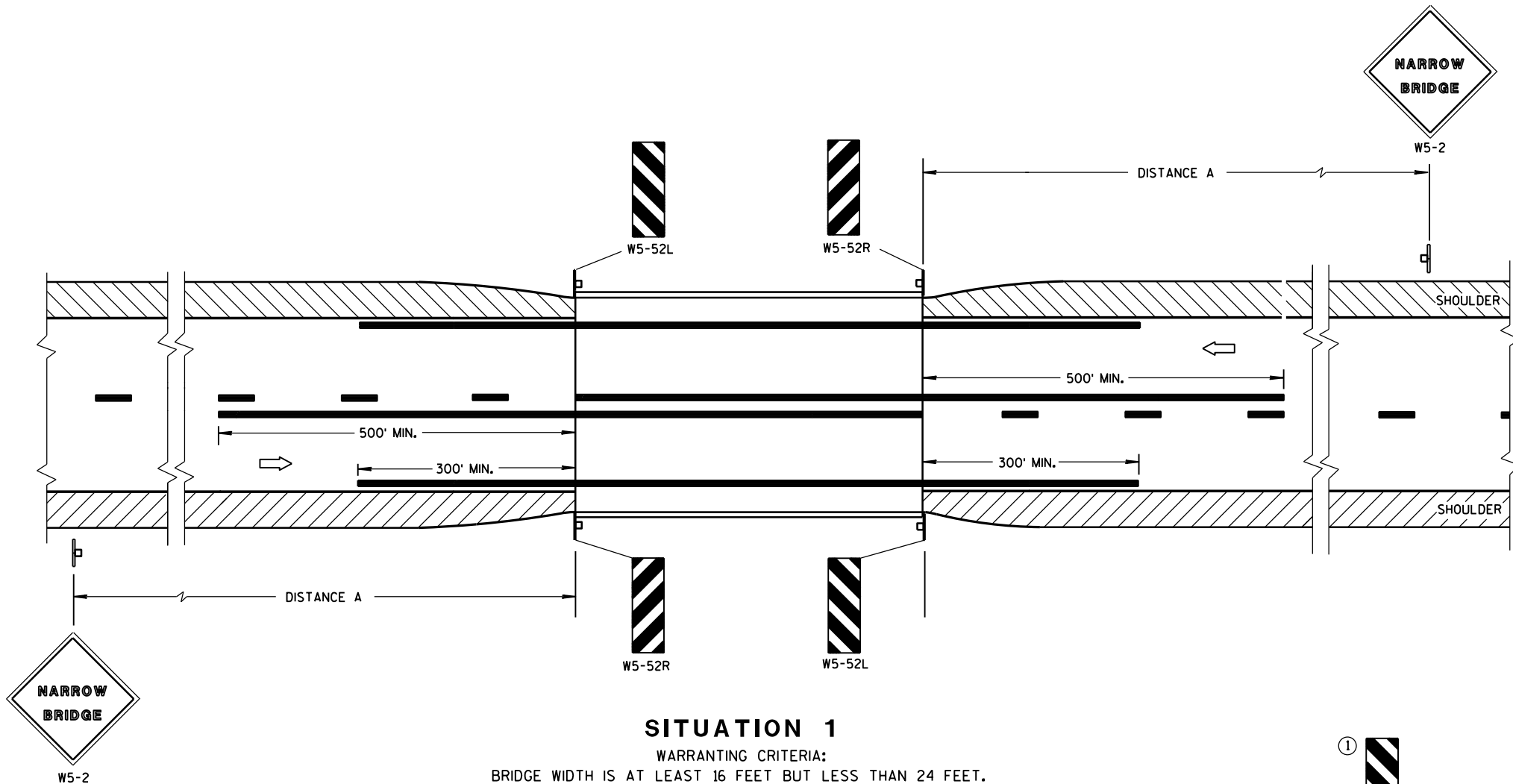
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

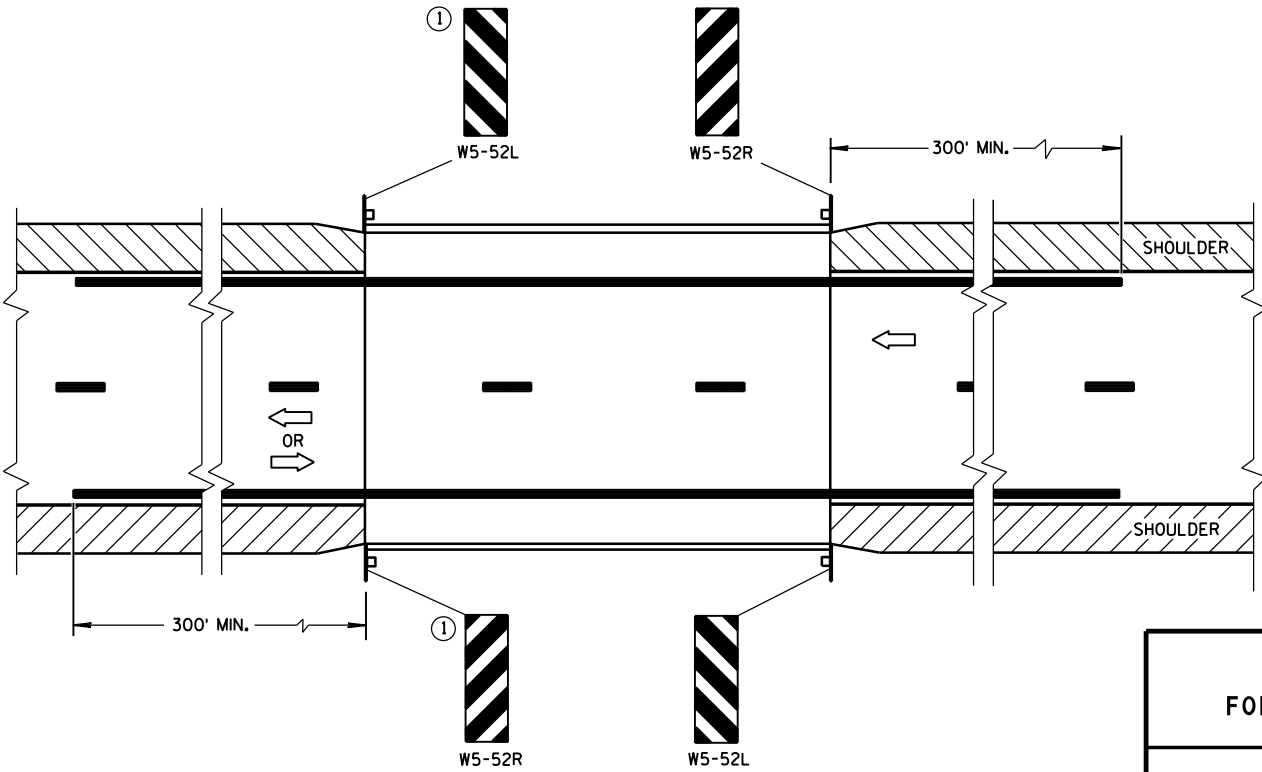


SITUATION 1

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

DISTANCE TABLE

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



SITUATION 2

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

GENERAL NOTES

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

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

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

① OMIT ON ONE-WAY TRAVELLED WAYS.

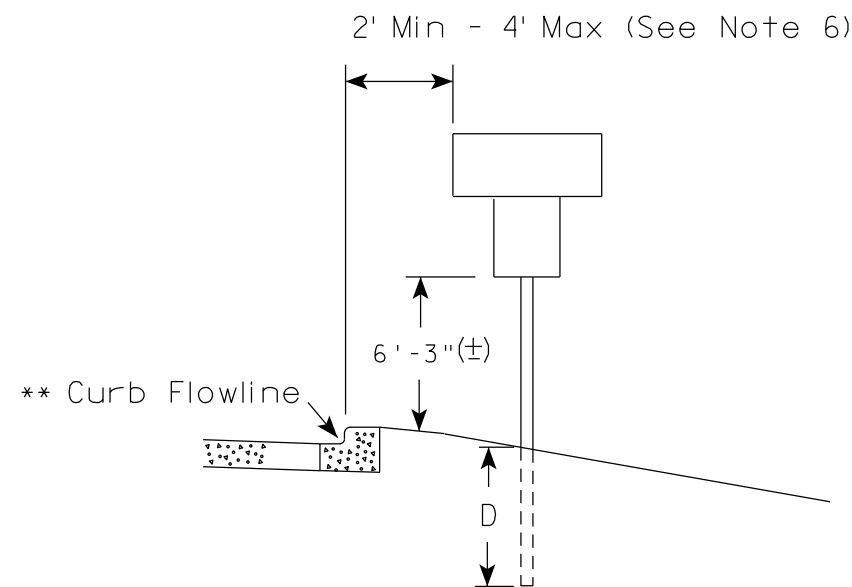
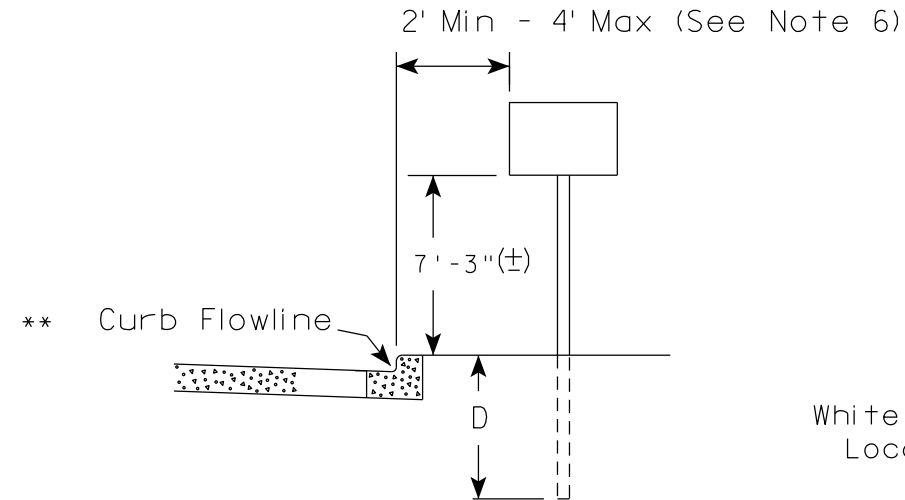
➡ DIRECTION OF TRAFFIC

**SIGNING & MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

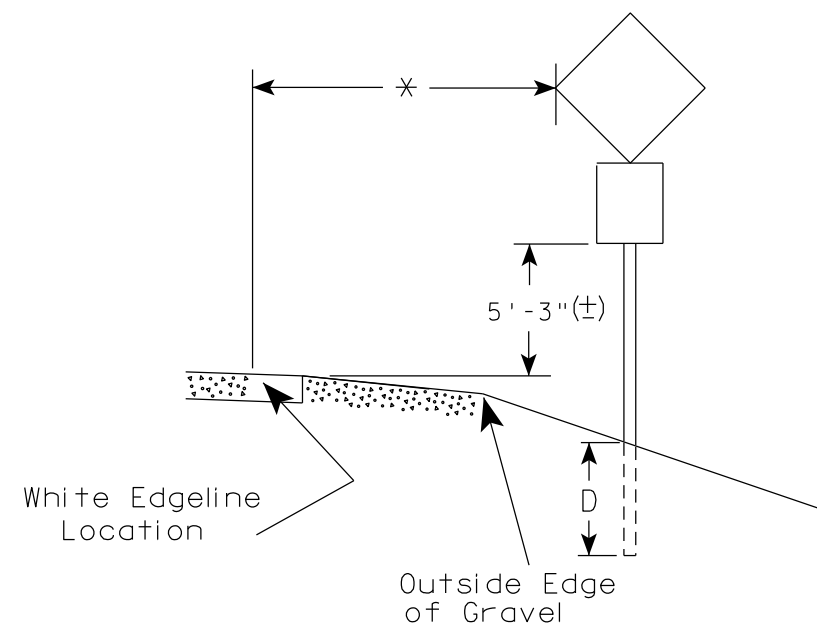
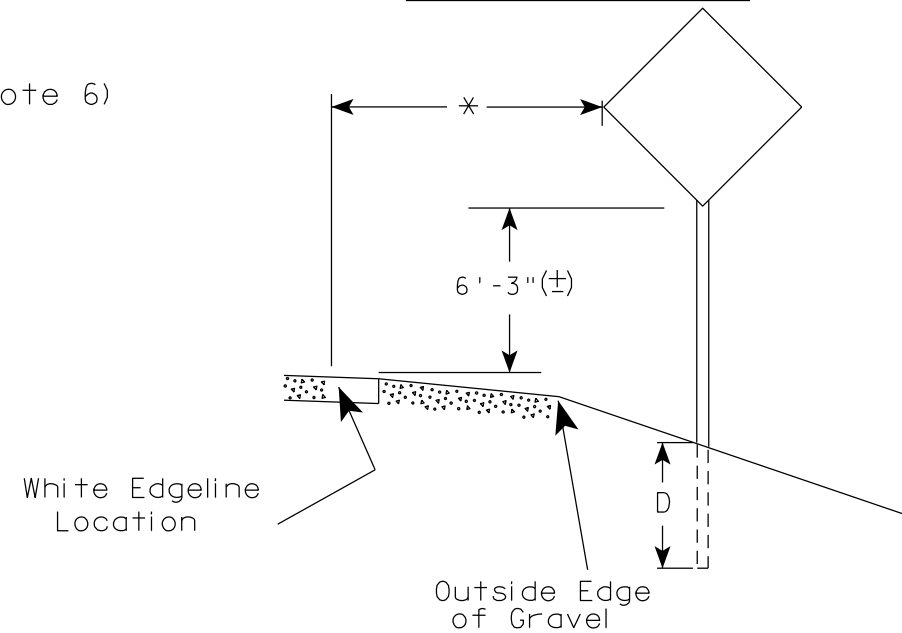
APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

URBAN AREA



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

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

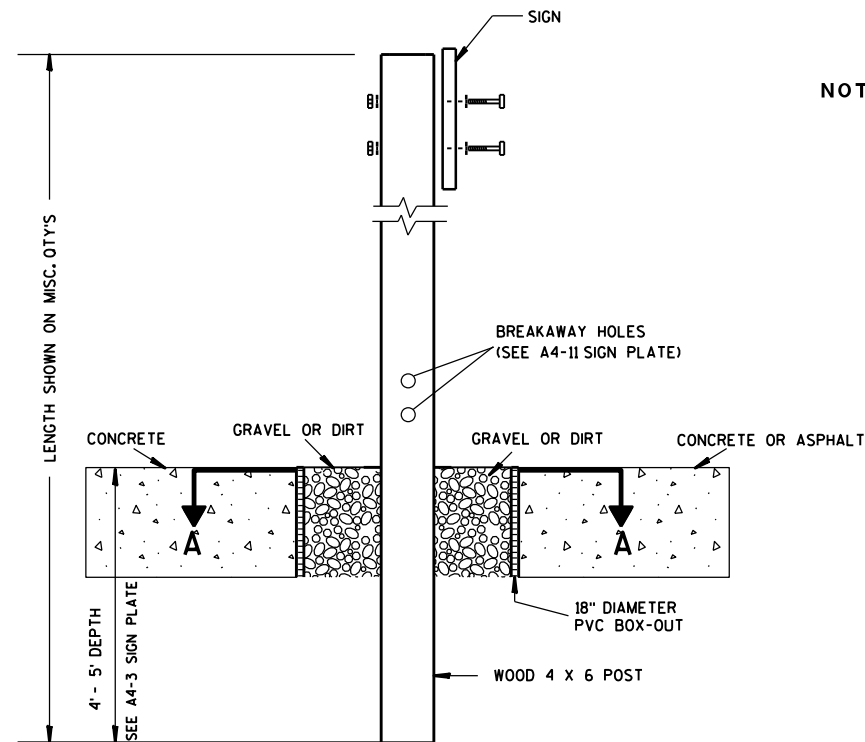
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel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

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

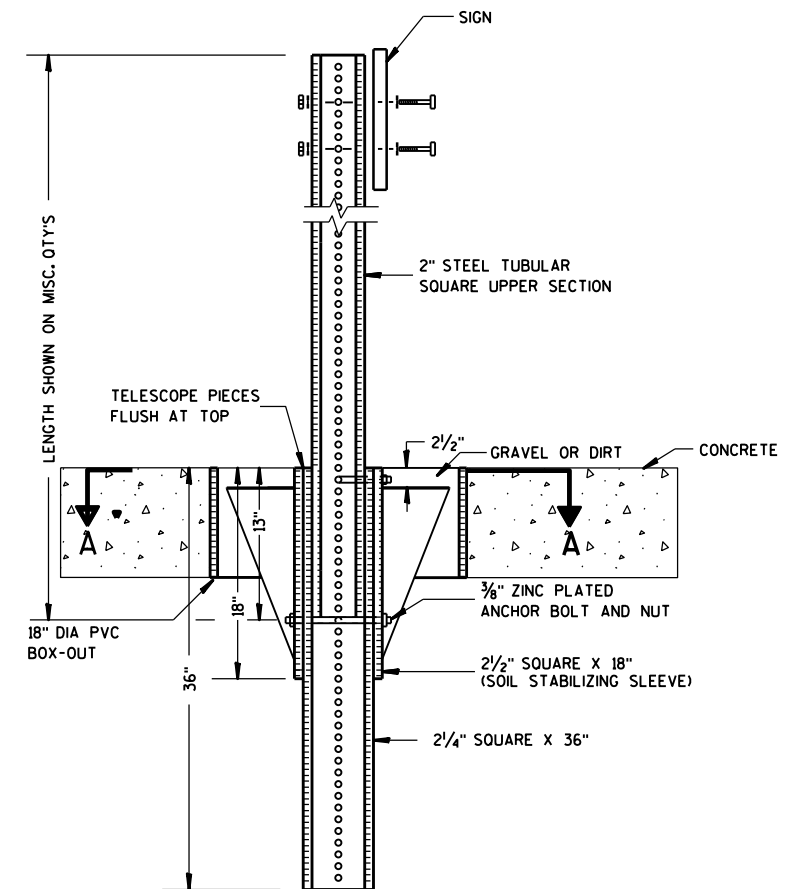
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

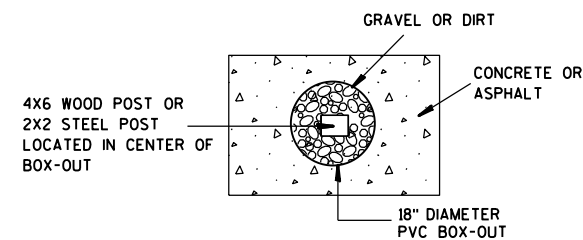
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

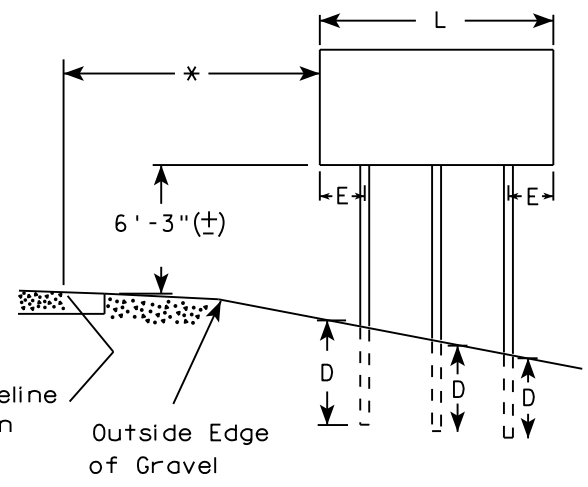
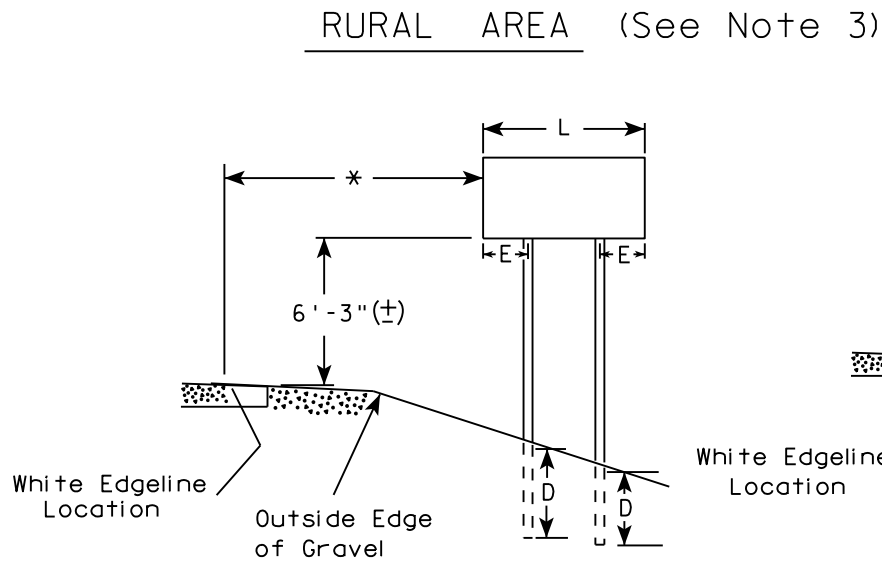
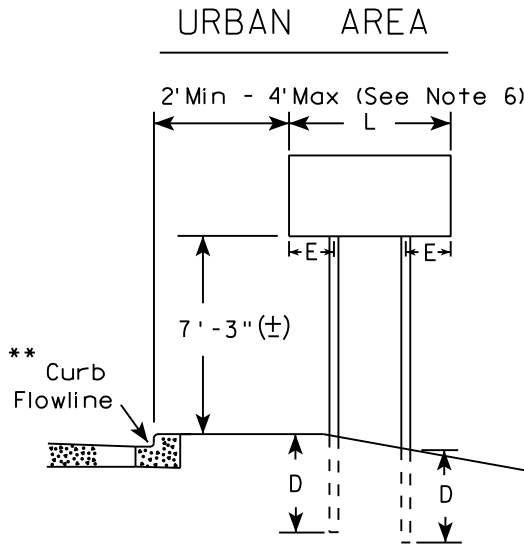
PROJECT NO:

HWY:

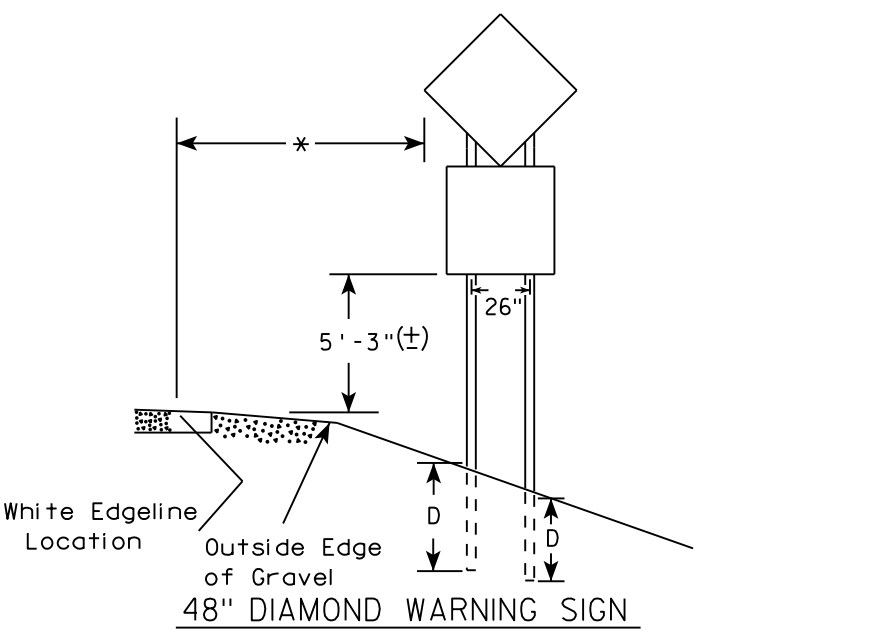
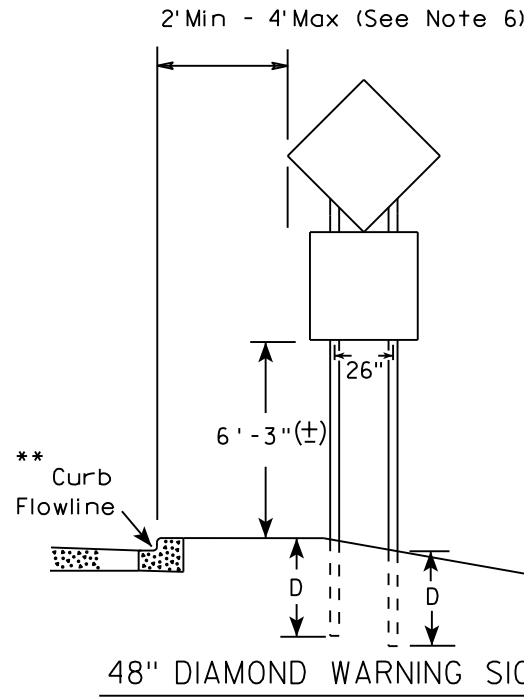
COUNTY:

SHEET NO:

E



- GENERAL NOTES
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. J-Assemblies are considered to be one sign for mounting height.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).



- * 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.
- ** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.
- *** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

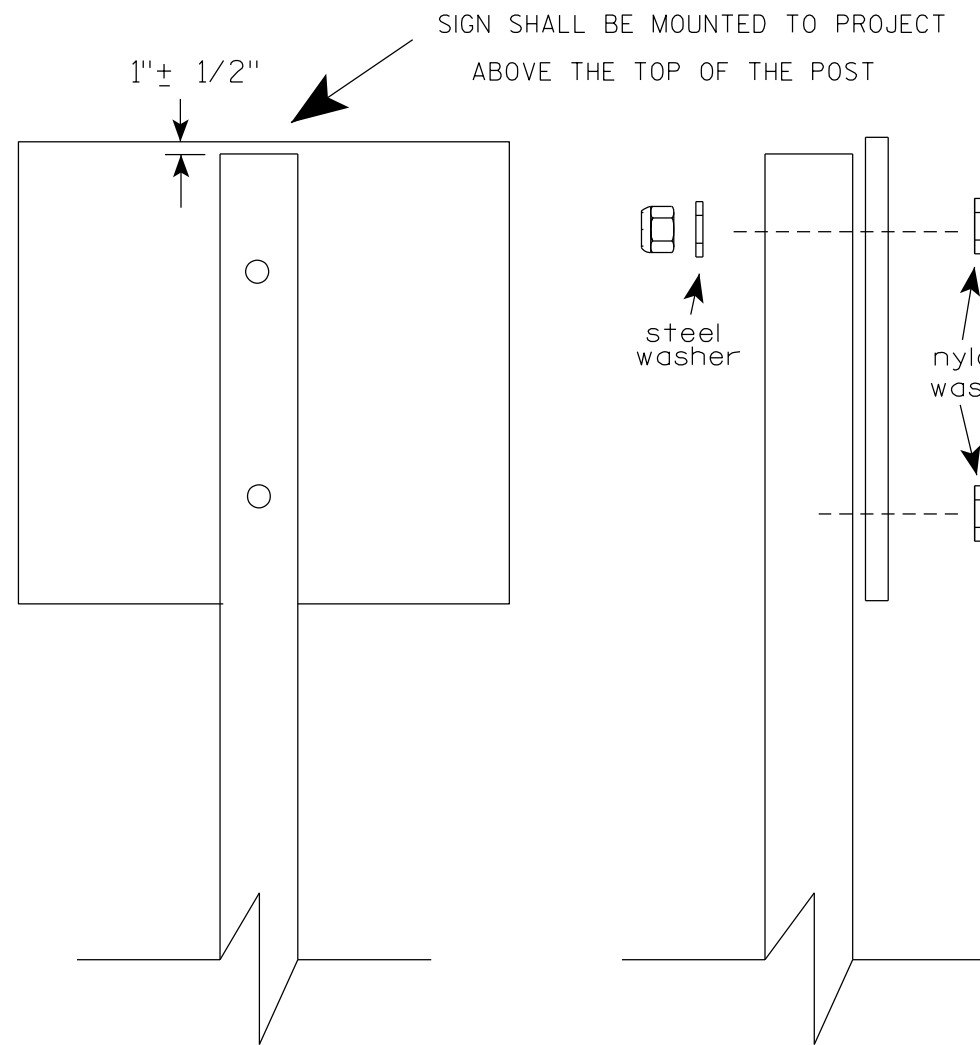
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15



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

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

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

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH

1"

$\frac{1}{8}"$

ALL HOLES $\frac{7}{16}"$
SPACED 1" C-C
ALL FOUR SIDES

4" x 10" x 10 GA. — 
STEEL PLATE (CUT
AS SHOWN) WELDED
TO ALL FOUR CORNERS
OF TELESPAR TUBE

**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**

LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 2" STEEL TUBULAR SQUARE UPPER SECTION
 ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
 $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
 2" GRAVEL OR DIRT
 $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
 2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 2" SQUARE X 36"
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

LENGTH SHOWN ON MISC. QTY'S
 81"
 81"
 SIGN
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 2" STEEL TUBULAR SQUARE UPPER SECTION
 ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES
 $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
 1"
 TELESCOPE PIECES FLUSH AT TOP
 18"
 12"
 36"
 A
 B
 C
 D
 E
 F
 G
 H
 I
 J
 K
 L
 M
 N
 O
 P
 Q
 R
 S
 T
 U
 V
 W
 X
 Y
 Z
 AA
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 AC
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 KX
 KY
 KZ
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 LC
 LD
 LE
 LF
 LG
 LH
 LI
 LJ
 LK
 LL
 LM
 LN
 LO
 LP
 LQ
 LR
 LS
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 LW
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 SV
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 SX
 SY
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 UL
 UM
 UN
 UO
 UP
 UQ
 UR
 US
 UT
 UY
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 VC
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 VM
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 VP
 VQ
 VR
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 XX
 XY
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 YC
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 BI
 BJ
 BK
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 BZ
 CA
 CB
 CC
 CD
 CE
 CF
 CG
 CH
 CI
 CJ
 CK
 CL
 CM
 CN
 CO
 CP
 CQ
 CR
 CS
 CT
 CU

3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT

DIRECTION OF TRAFFIC

SECTION A-A

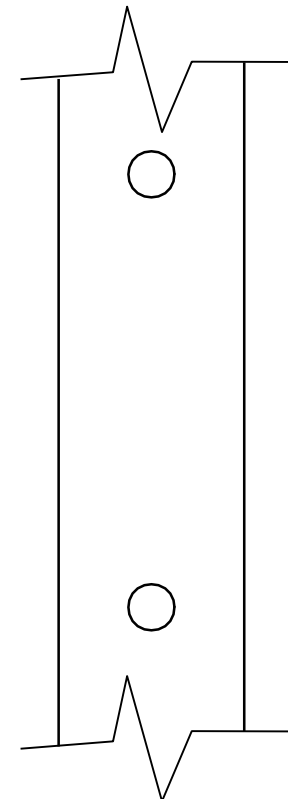
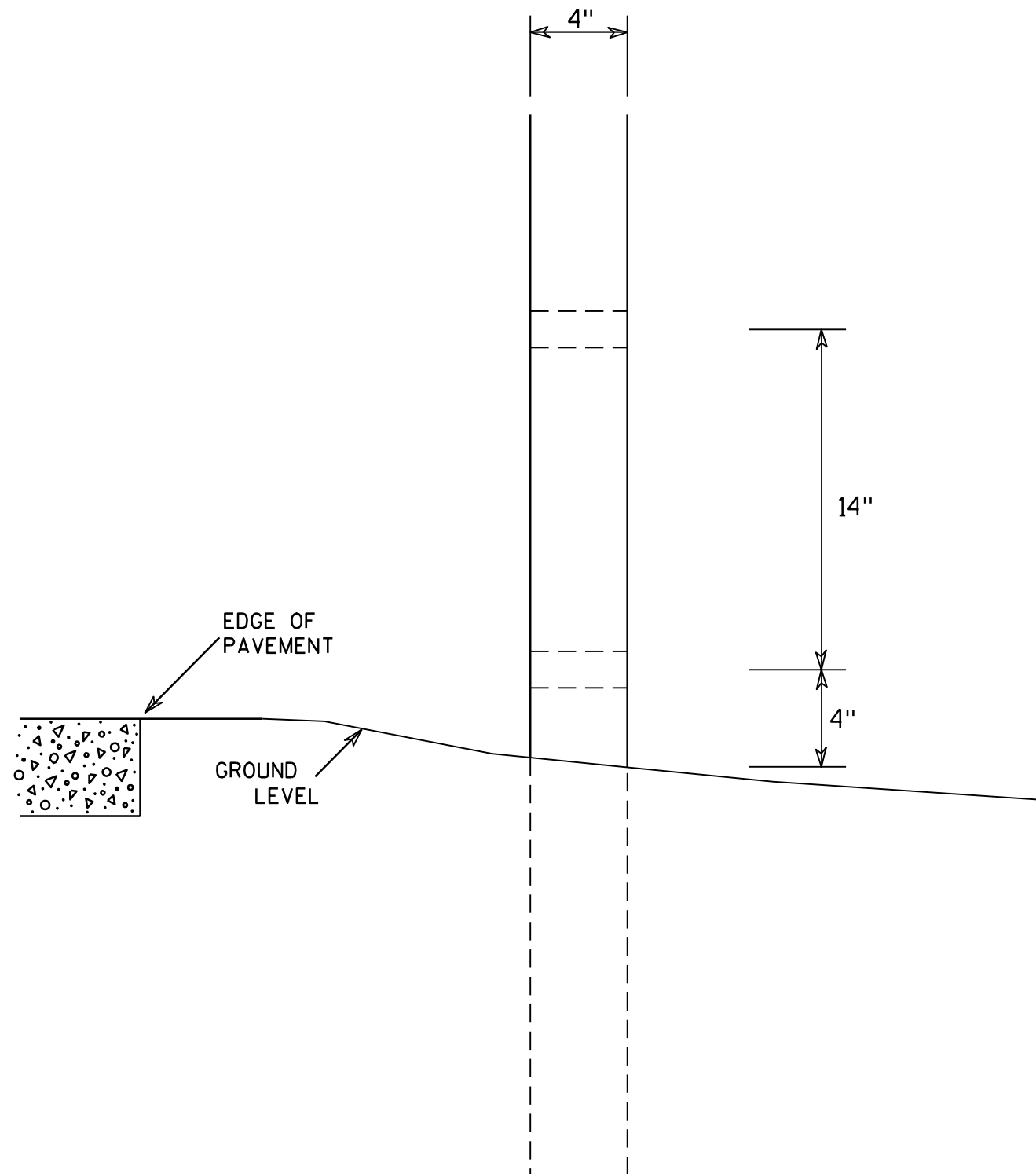
Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



SIDE VIEW

GENERAL NOTES

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

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

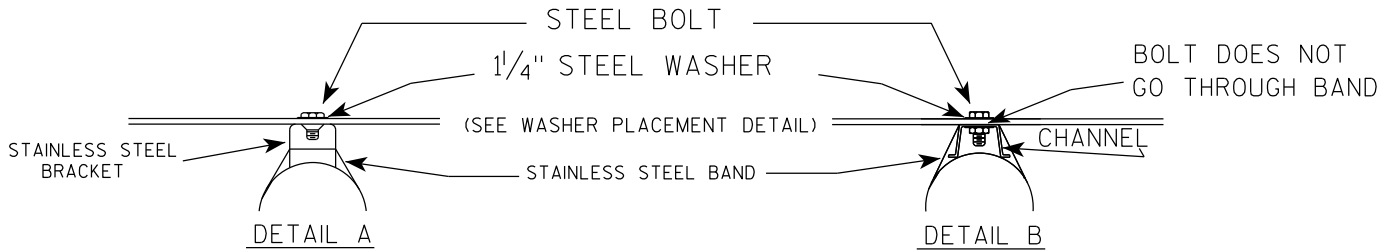
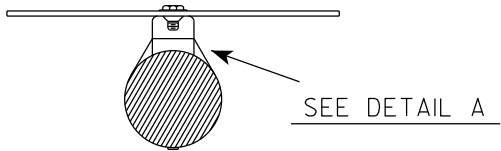
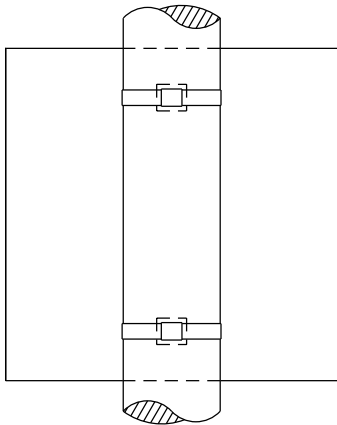
COUNTY:

SHEET NO:

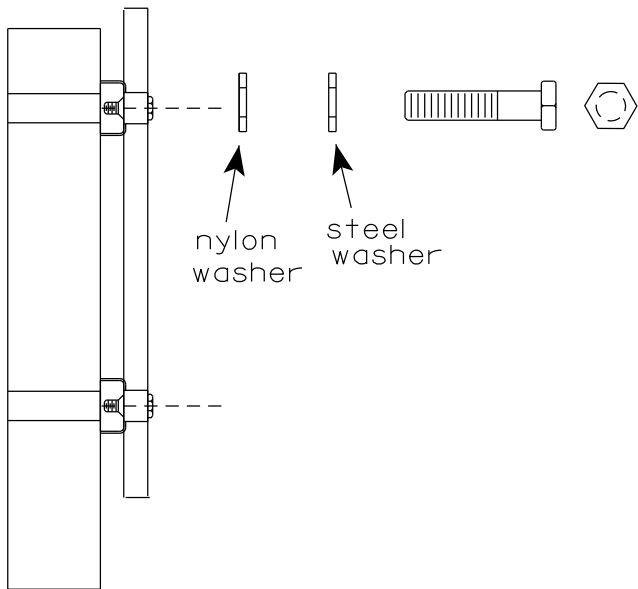
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

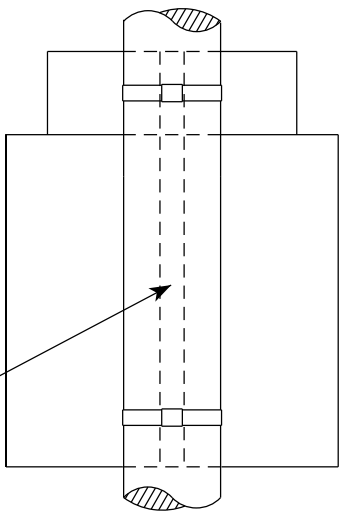


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

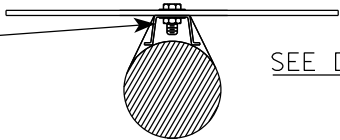
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



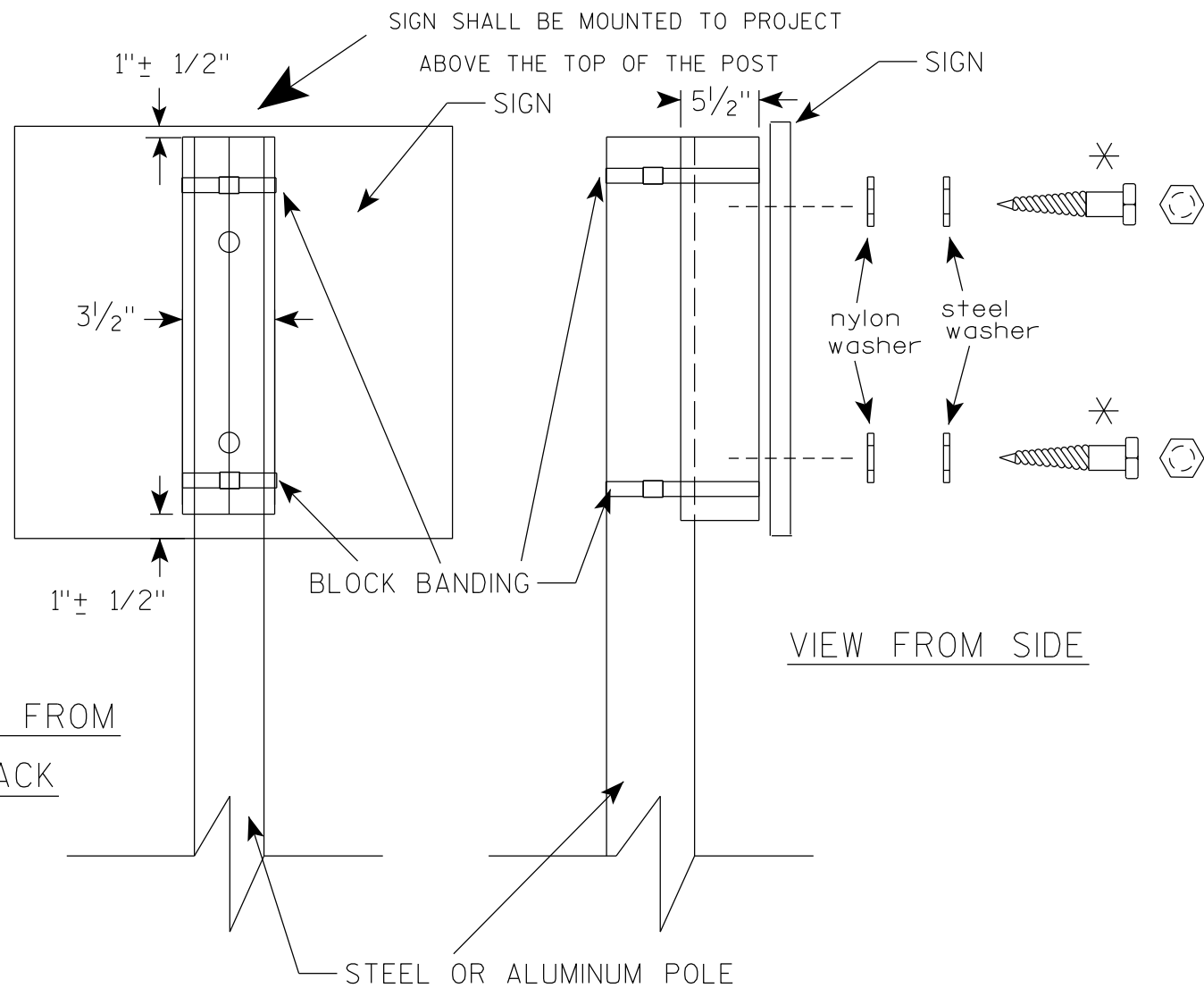
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

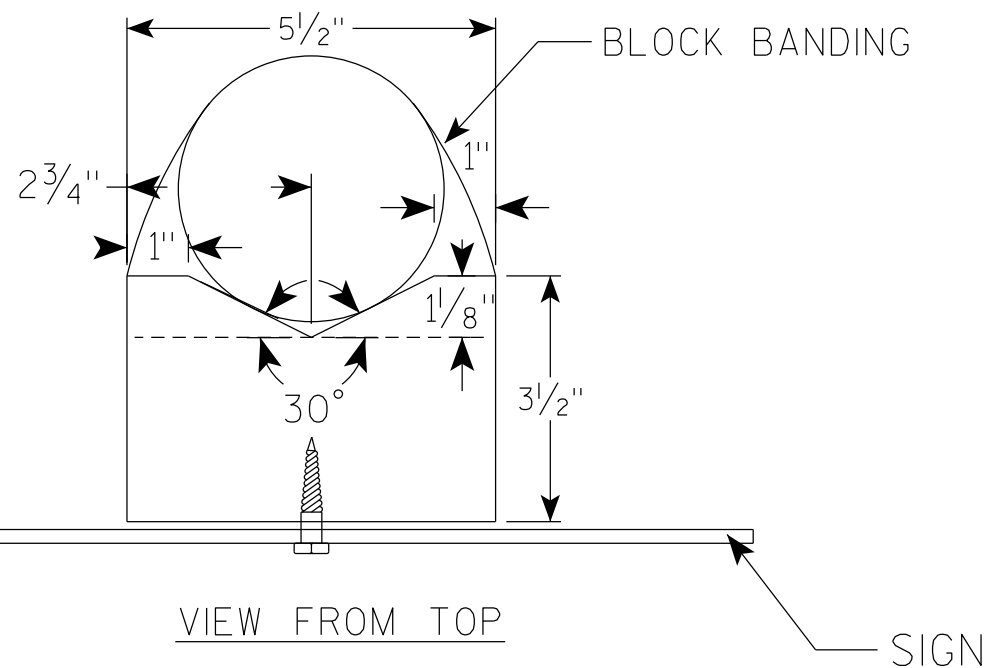
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM
BACK



VIEW FROM SIDE



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

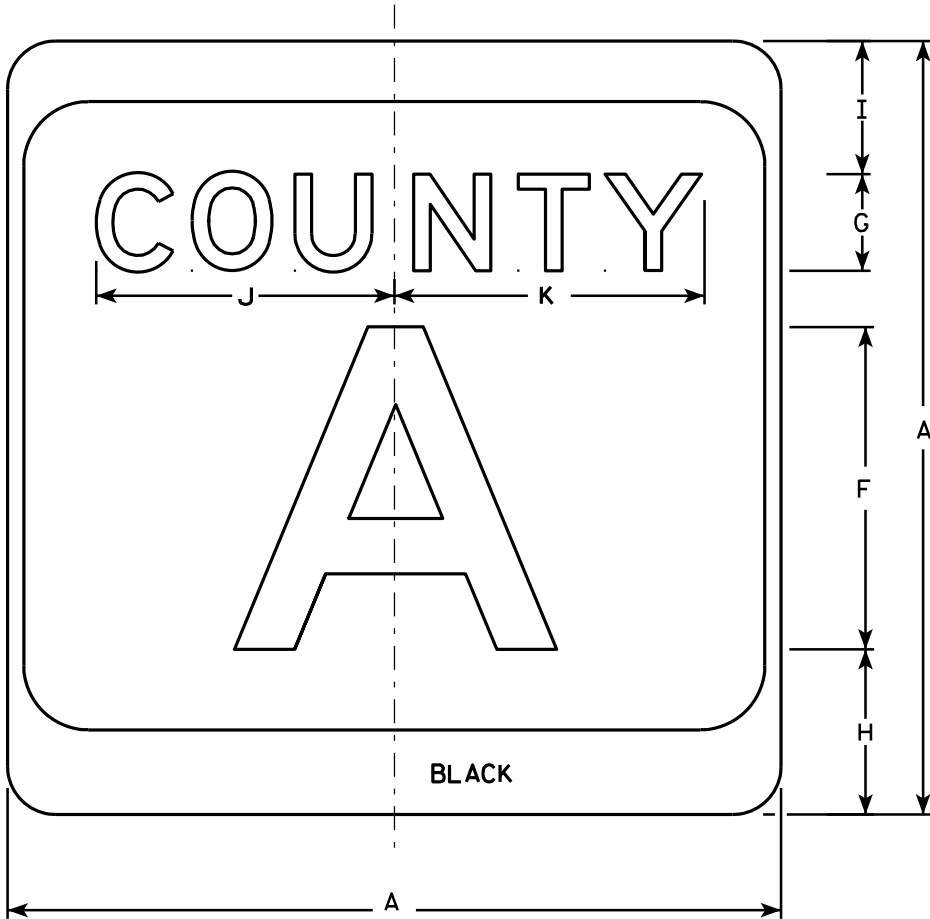
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

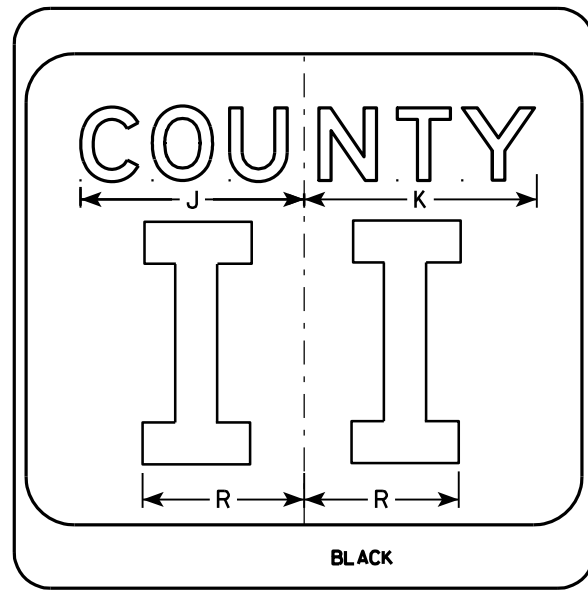
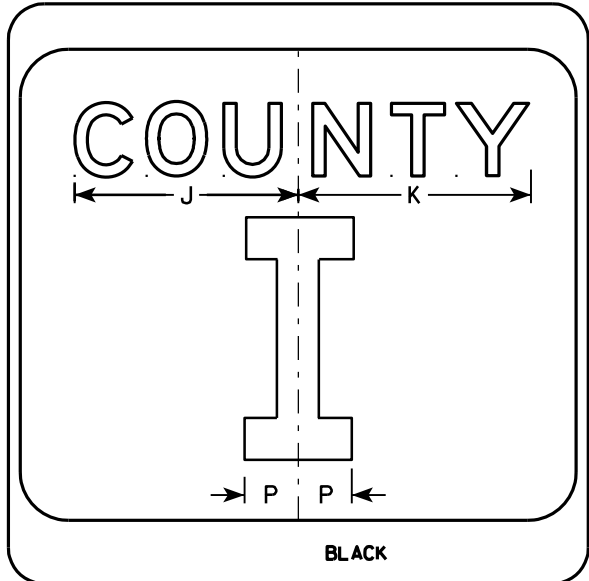
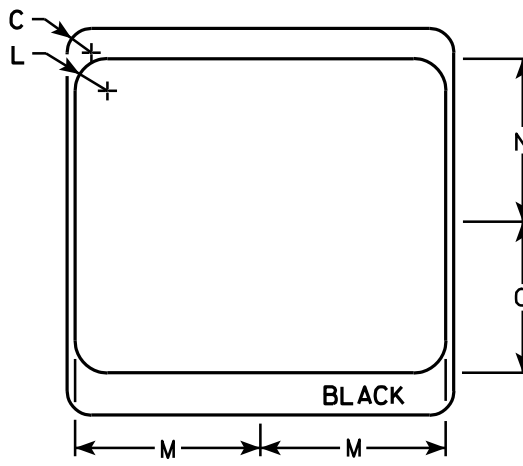
PROJECT NO:

SHEET NO:

E



M1-5A



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:

HWY:

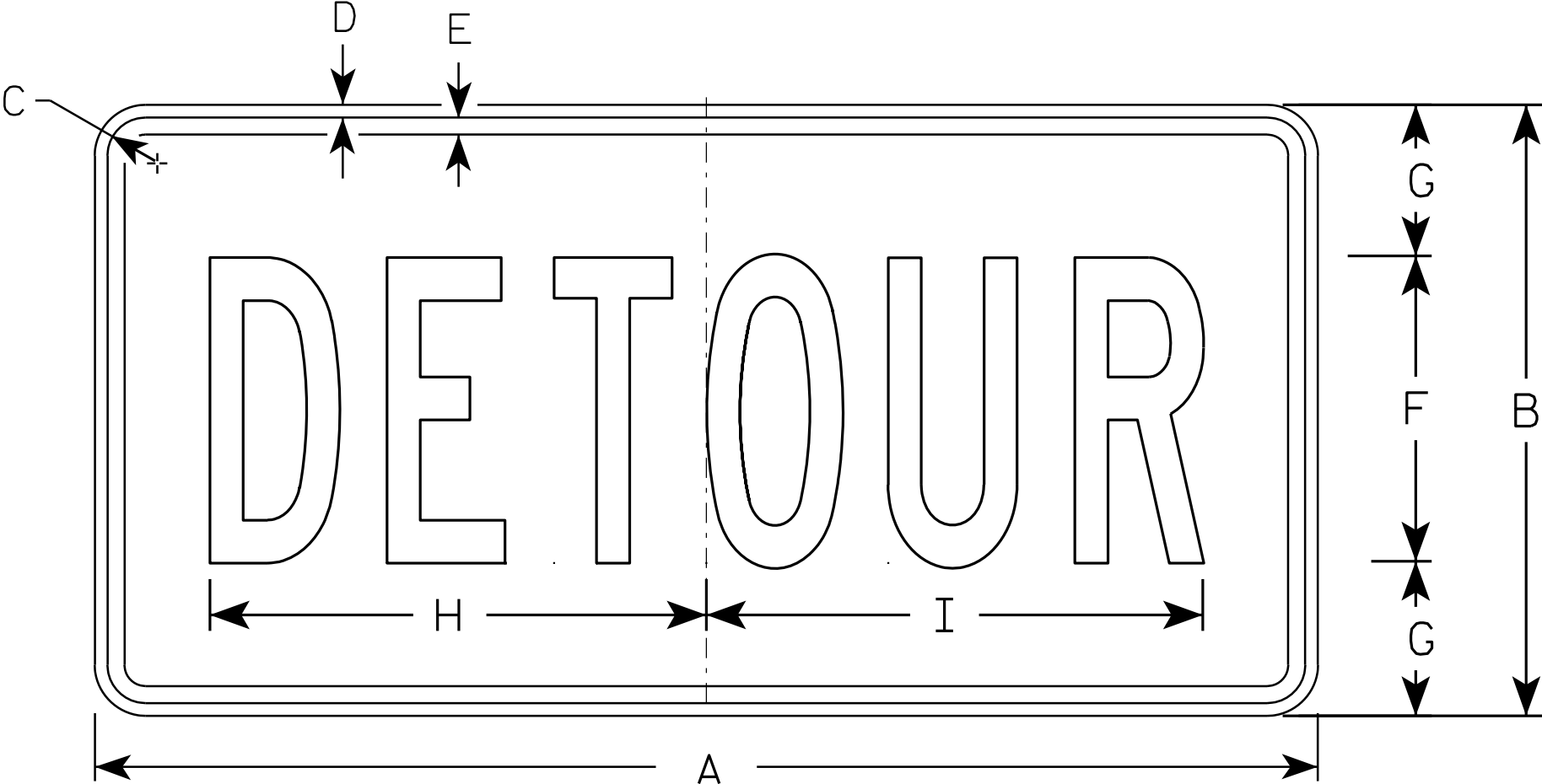
COUNTY:

SHEET NO:

E

NOTES

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



M4 - 8

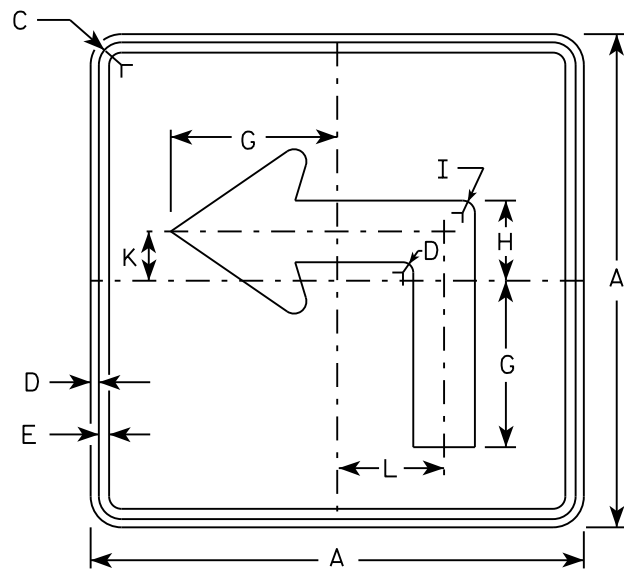
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

STANDARD SIGN
M4 - 8

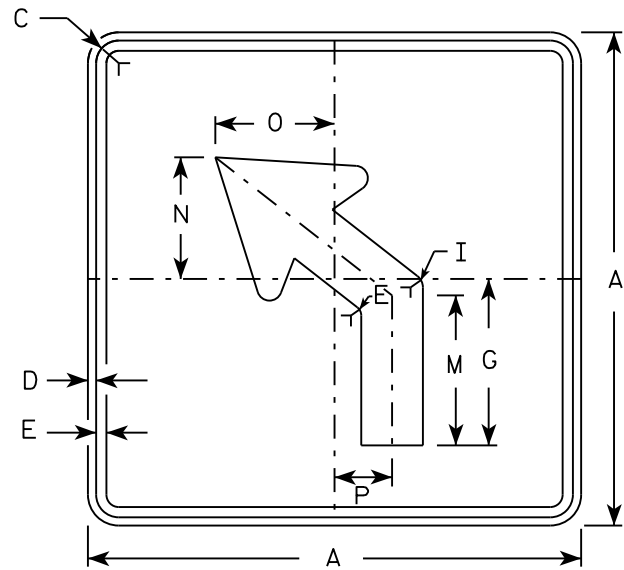
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

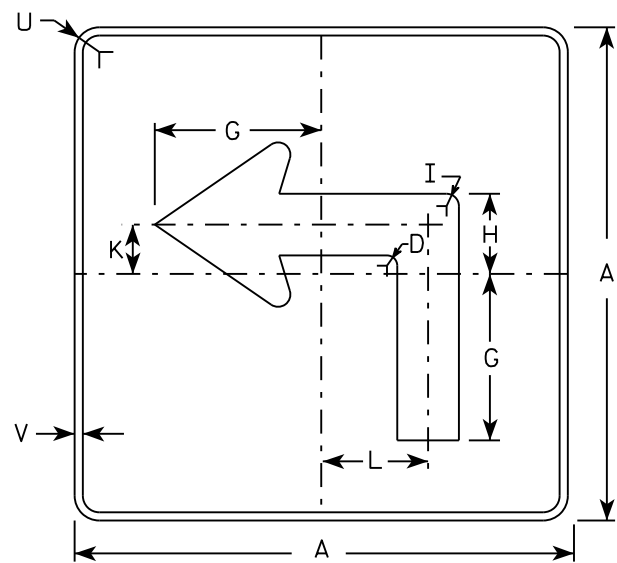
DATE 11/10/10 PLATE NO. M4-8.2



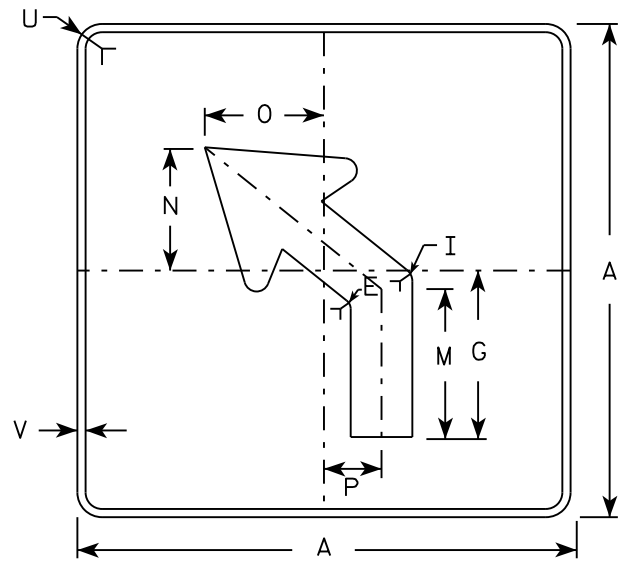
M5-1L
MM5-1L
M05-1L
MP5-1L



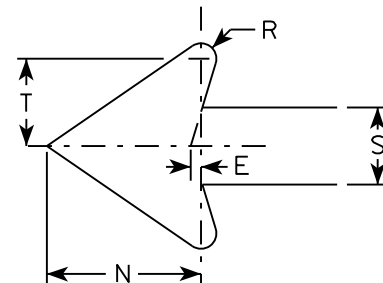
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

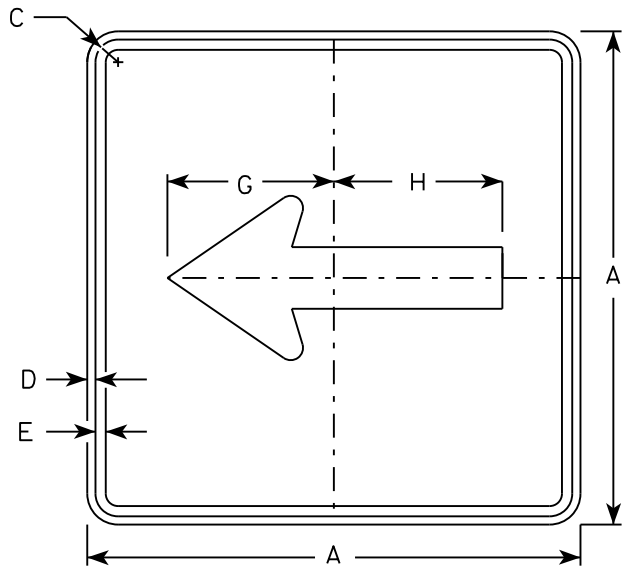
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

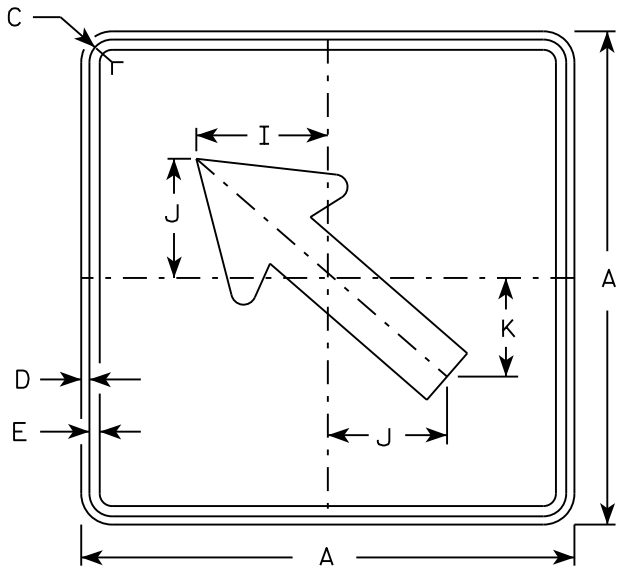
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

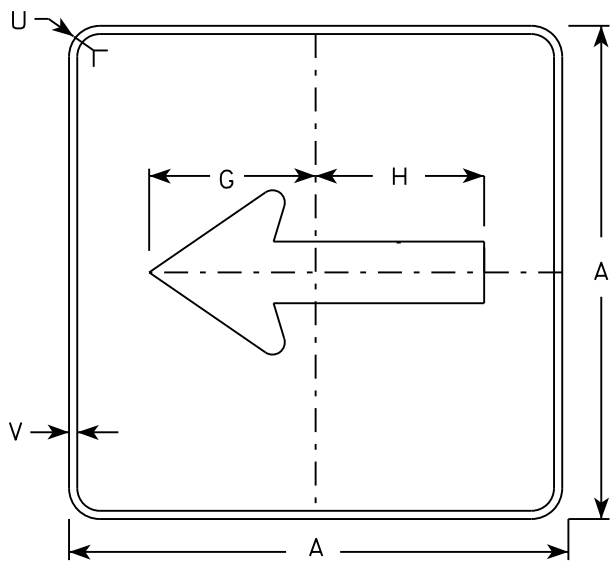
DATE 10/15/15 PLATE NO. M5-1.13



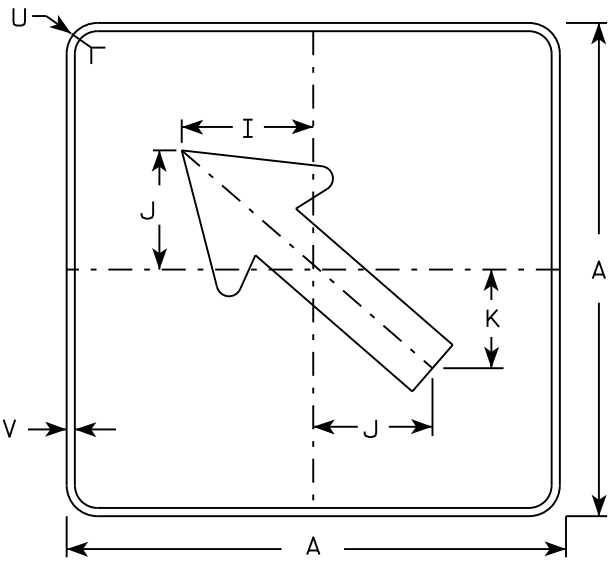
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



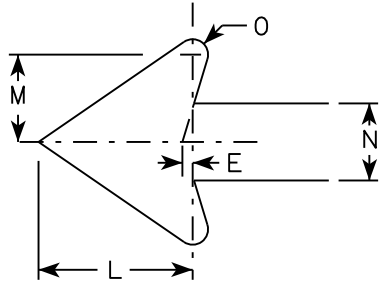
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

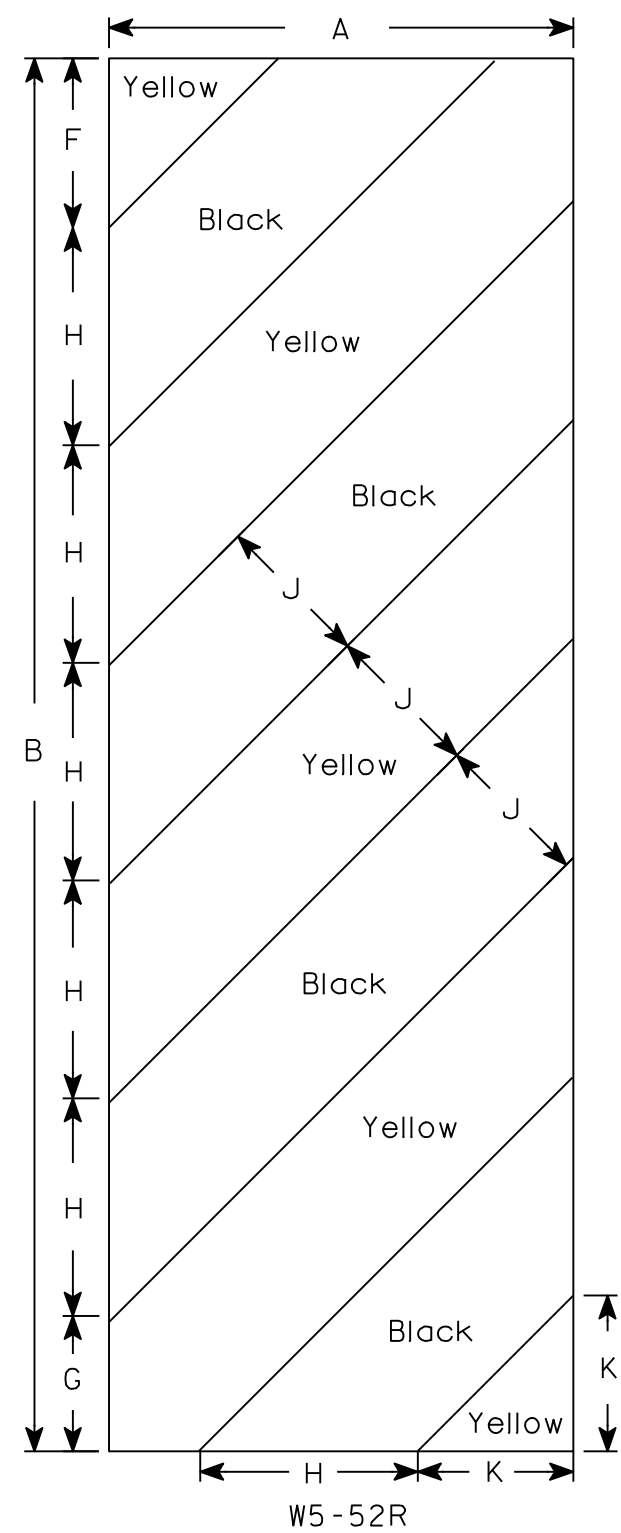
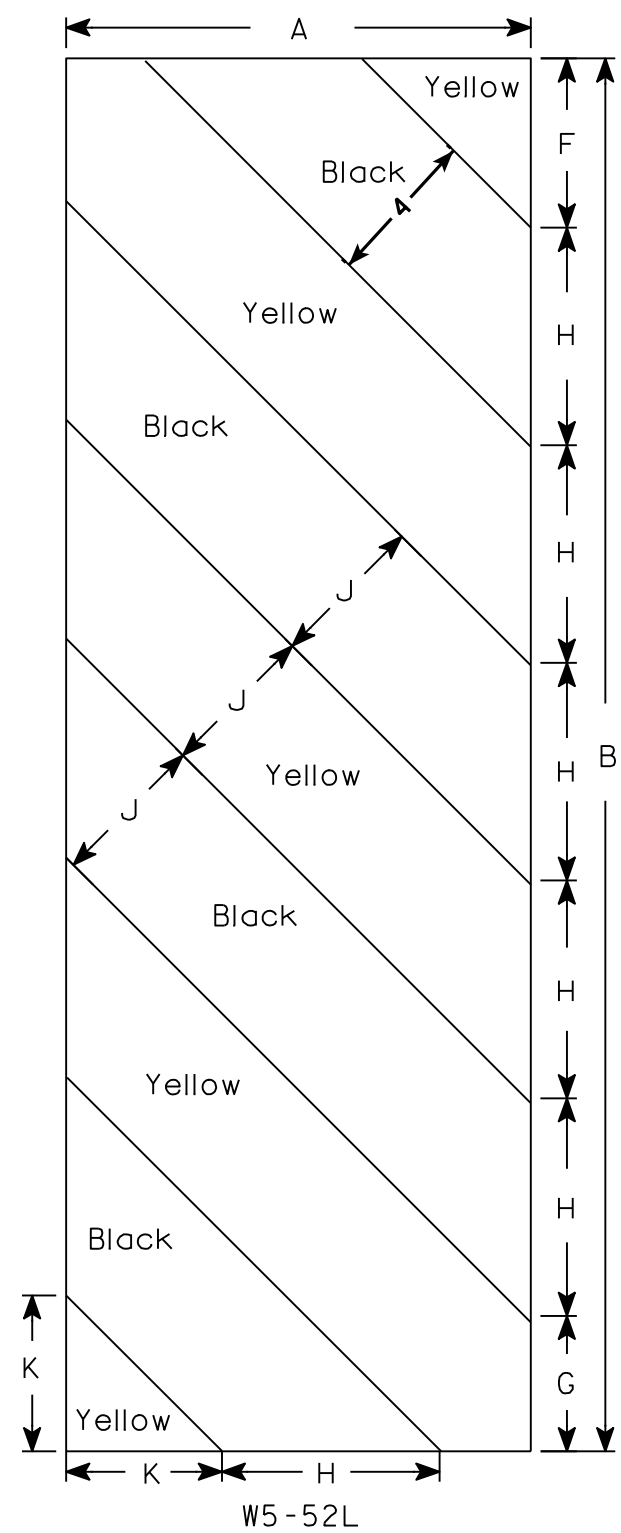
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

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

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

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

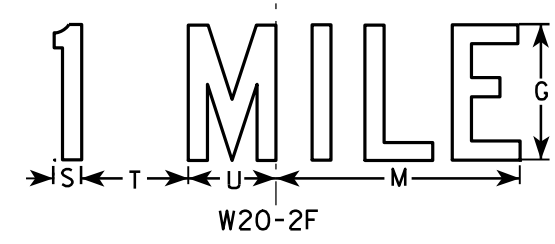
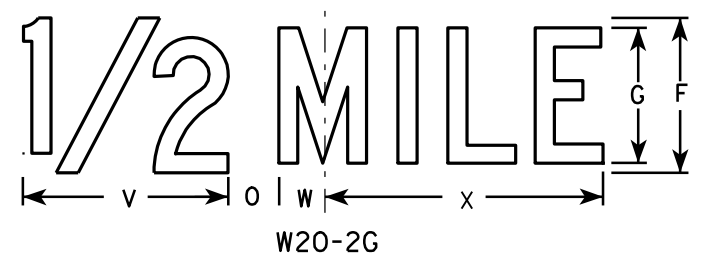
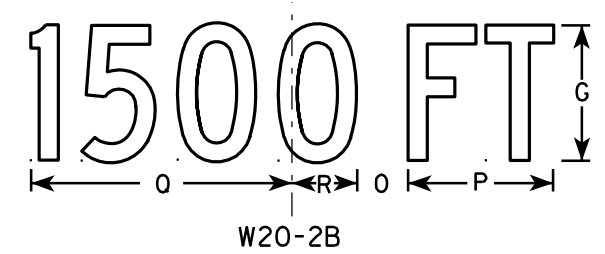
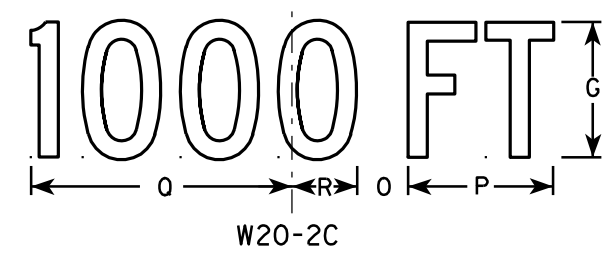
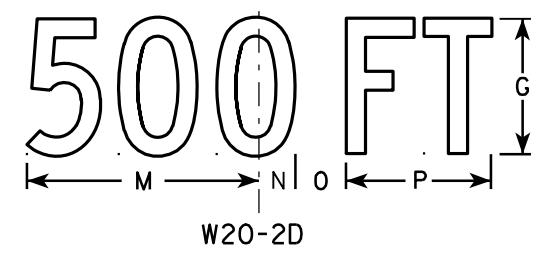
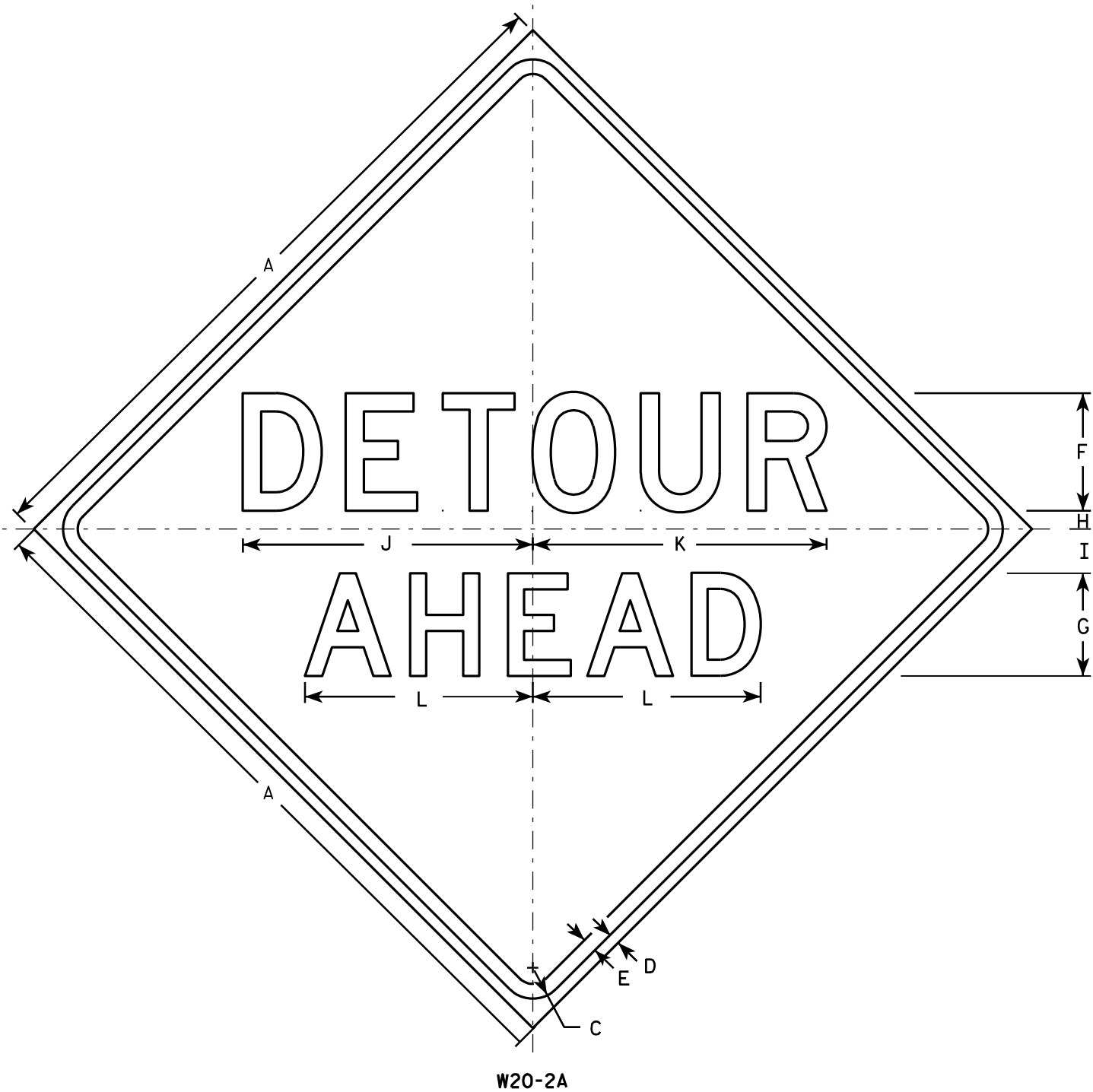
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

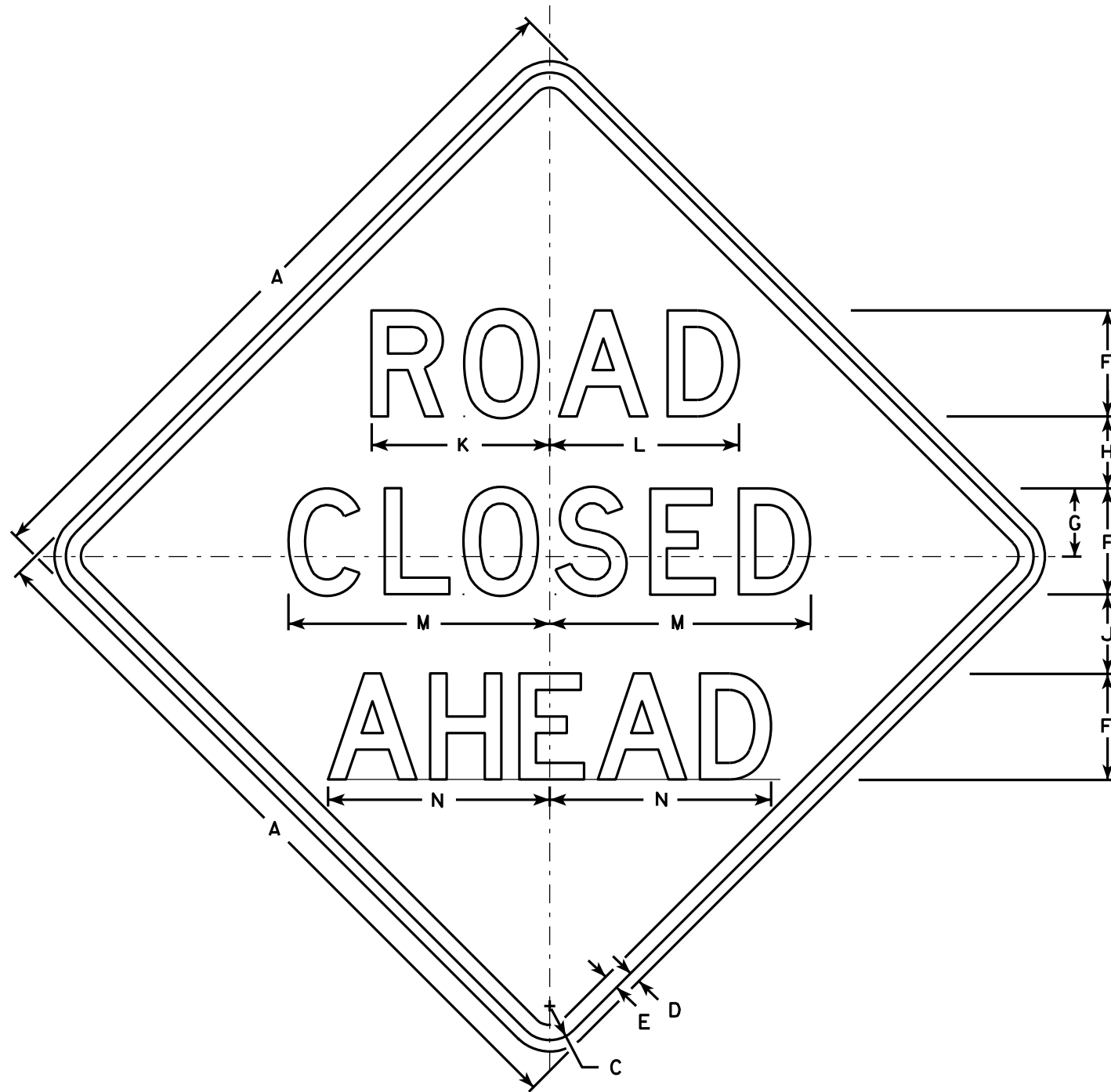
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W20-3A

500 FT

W20-3D

1000 FT

W20-3C

1500 FT

W20-3B

1/2 MILE

W20-3G

1 MILE

W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

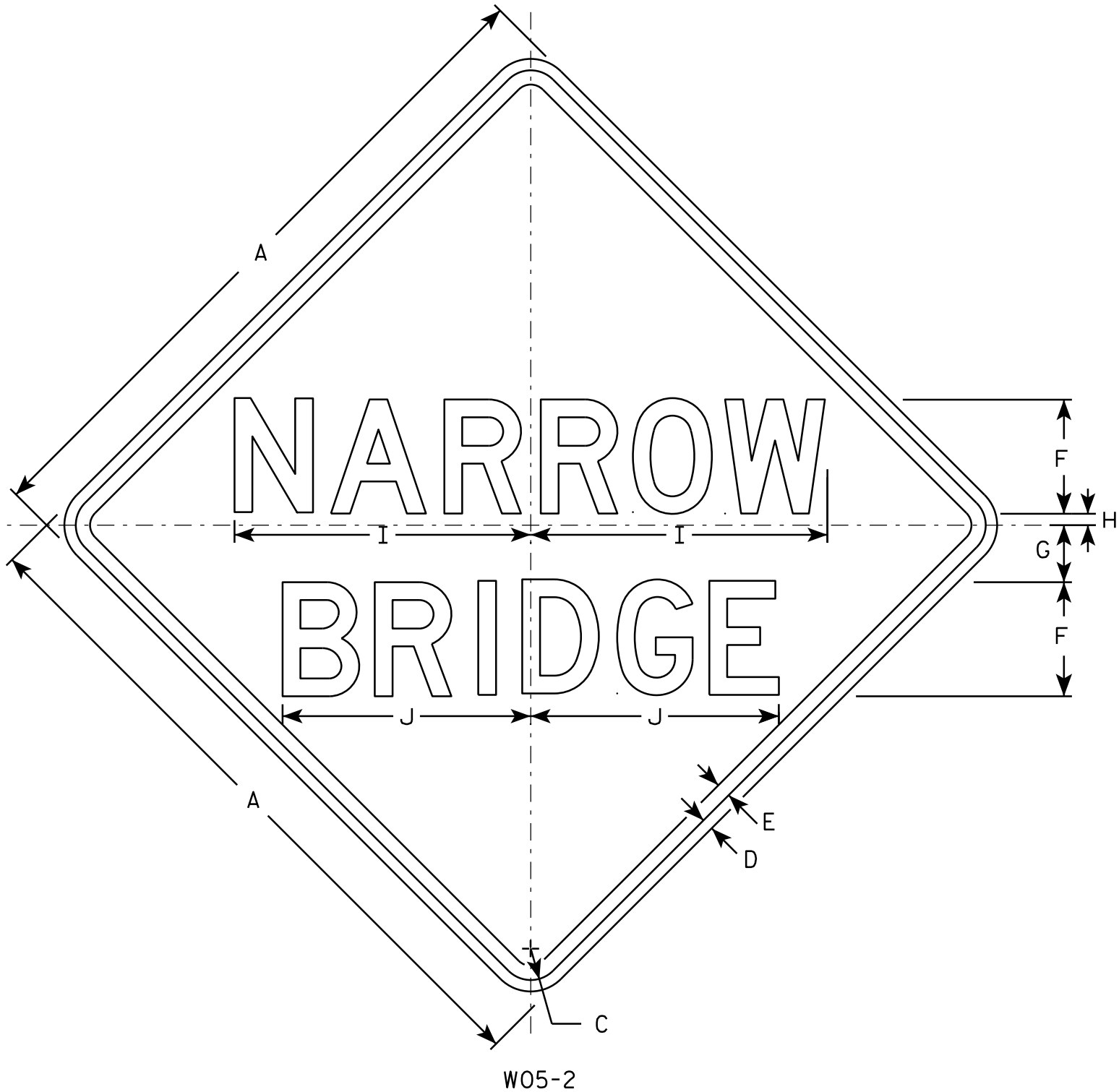
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3	3/4	15 5/8	13 1/8																	9.0
2S	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
2M	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
3	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
4	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0
5	48		2 1/4	3/4	1	8	4	3/4	20 3/4	17 3/8																	16.0

STANDARD SIGN
W05-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W05-2.1

DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
INVENTORY RATING FACTOR _____ RF=1.05
OPERATING RATING FACTOR _____ RF=1.35
WISCONSIN STANDARD PERMIT
VEHICLE RATING (WS.-SPV): _____ 255 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY _____ $f_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL _____ $f_y = 60,000$ P.S.I.
REINFORCEMENT _____

EARTH LOAD:

STRUCTURE IS DESIGNED FOR FILL HEIGHT RANGE OF 2'-6" TO 4'-0".

HYDRAULIC DATA:

Q_{100} _____ 1,300 C.F.S.
 Q_{100} (THRU BRIDGE) _____ 1,240 C.F.S.
 Q_{100} (ROAD) _____ 60 C.F.S.
DRAINAGE AREA _____ 5.3 SQ. MI.
WATER AREA @ Q_{100} _____ 95 SQ. FT.
VELOCITY _____ 13.04 F.P.S.
HIGH WATER 100 EL. _____ 772.86 FT.
SCOUR CRITICAL CODE _____ 8
 Q_2 _____ 240 C.F.S.
 Q_2 ELEVATION _____ 768.99 FT.
 Q_2 VELOCITY _____ 2.88 F.P.S.

NOTES

⑥ INDICATES WING NUMBER

* BUILD APRON AND END OF BOX LEVEL

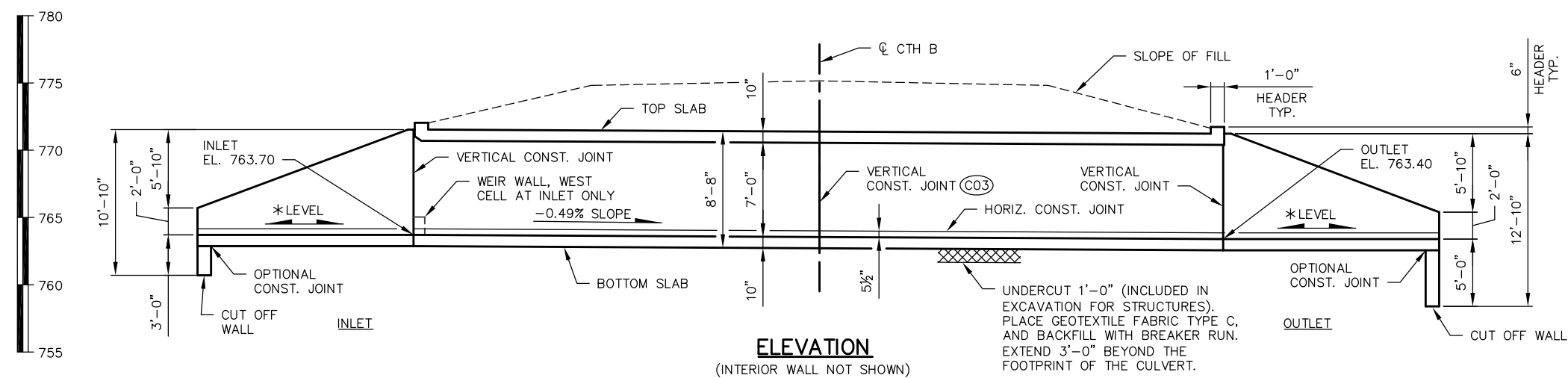
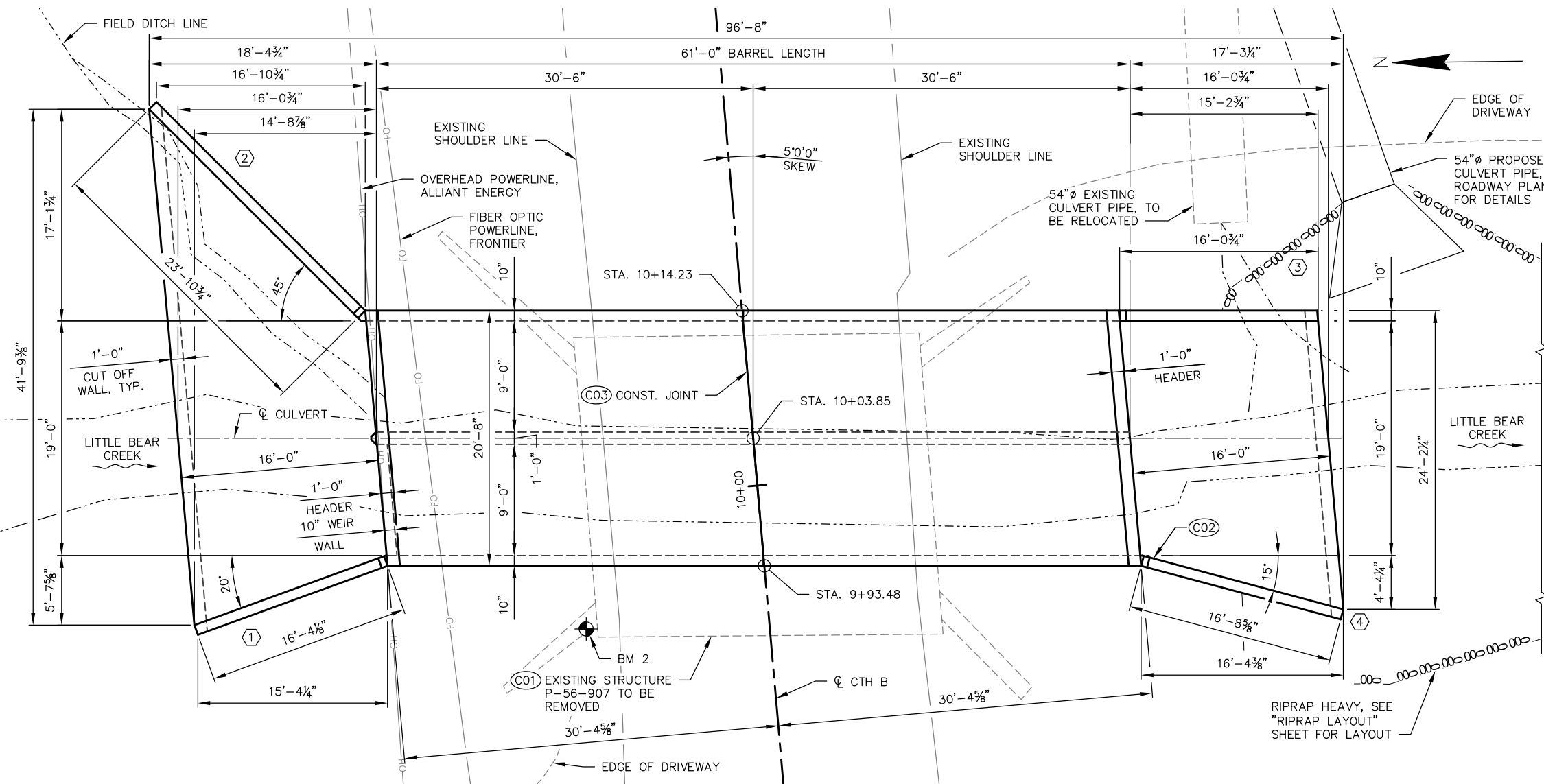
① REMOVE EXISTING STRUCTURE, STA. 10+00
SINGLE SPAN CONCRETE SLAB STRUCTURE
24'-6" LENGTH, 28'-0" WIDTH.

② NAME PLATE REQUIRED, SEE "BOX CULVERT
DETAILS" SHEET.

③ 18" MIN. WIDTH RUBBERIZED MEMBRANE
WATERPROOFING UP WALL & ACROSS TOP SLAB
AT VERTICAL CONSTRUCTION JOINT.

PLAN C-56-2033

(DOUBLE CELL BOX CULVERT)



BENCH MARKS

NO.	STATION/OFFSET	DESCRIPTION	ELEVATION
BM 1	11+62.73, 28.48' LT.	RAILROAD SPIKE IN POWER POLE	772.00
BM 2	9+89.54, 14.81' LT.	CHISELED X IN TOP OF NW WINGWALL	774.62

HORIZONTAL DATUM AND ADJUSTMENT: NAD 83 (2007)
VERTICAL DATUM AND ADJUSTMENT: NAVD 88 (2007)
COORDINATE REFERENCE SYSTEM: WCCS SAUK CO.

TRAFFIC DATA:

CTH B
A.A.D.T. (2021) _____ 875
A.A.D.T. (2041) _____ 965
DESIGN SPEED _____ 60 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION, GENERAL NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. TYPICAL SECTION THRU BOX CULVERT
5. BOX CULVERT PLAN VIEW
6. WING 1 & WING 2 DETAILS
7. WING 3 & WING 4 DETAILS
8. APRON PLANS
9. BOX CULVERT DETAILS
10. REINFORCEMENT
11. RIPRAP LAYOUT

BRIDGE OFFICE CONTACT
AARON BONK, P.E.
(608) 261-0261

CONSULTANT CONTACT
ANDY KNUTSON, P.E., S.E.
(608) 588-7866

NO.	DATE	REVISION	BY
WESTBROOK Associated Engineers, Inc.			
619 EAST HOXIE STREET P.O. BOX 429 SPRING GREEN, WI 53588 PHONE (608) 588-7866 FAX (608) 588-7954			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>[Signature]</i> SDR 08/25/20 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE C-56-2033			
CTH B OVER LITTLE BEAR CREEK			
COUNTY	SAUK	TOWN/CITY/VILLAGE	BEAR CREEK
DESIGN SPEC.	AASHTO LRFD DESIGN SPEC.		
DESIGNED BY	JDO	DESIGN CK'D.	CDS
DRAWN BY	JDO	PLANS CK'D.	ACK
GENERAL PLAN			SHEET 1 OF 11

C-56-2033 BORINGS

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
BORING 1	8/21/2019	157729.66	541608.62
BORING 2	8/21/2019	157745.67	541642.04
BORINGS COMPLETED BY: NUMMELIN TESTING SERVICES, INC.			
SUBSURFACE INVESTIGATION REPORT: NUMMELIN TESTING SERVICES, INC.			
ALL COORDINATES REFERENCED TO WCCS, SAUK COUNTY			

PLAN C-56-2033

NOTE

⬡ INDICATES WING NUMBER

STATE PROJECT NUMBER
5963-00-72

MATERIAL SYMBOLS

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

LEGEND OF BORING

(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)
(2) UNLESS OTHERWISE SPECIFIED, THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION
▽ AT TIME OF DRILLING
▼ END OF DRILLING
▼ AFTER DRILLING

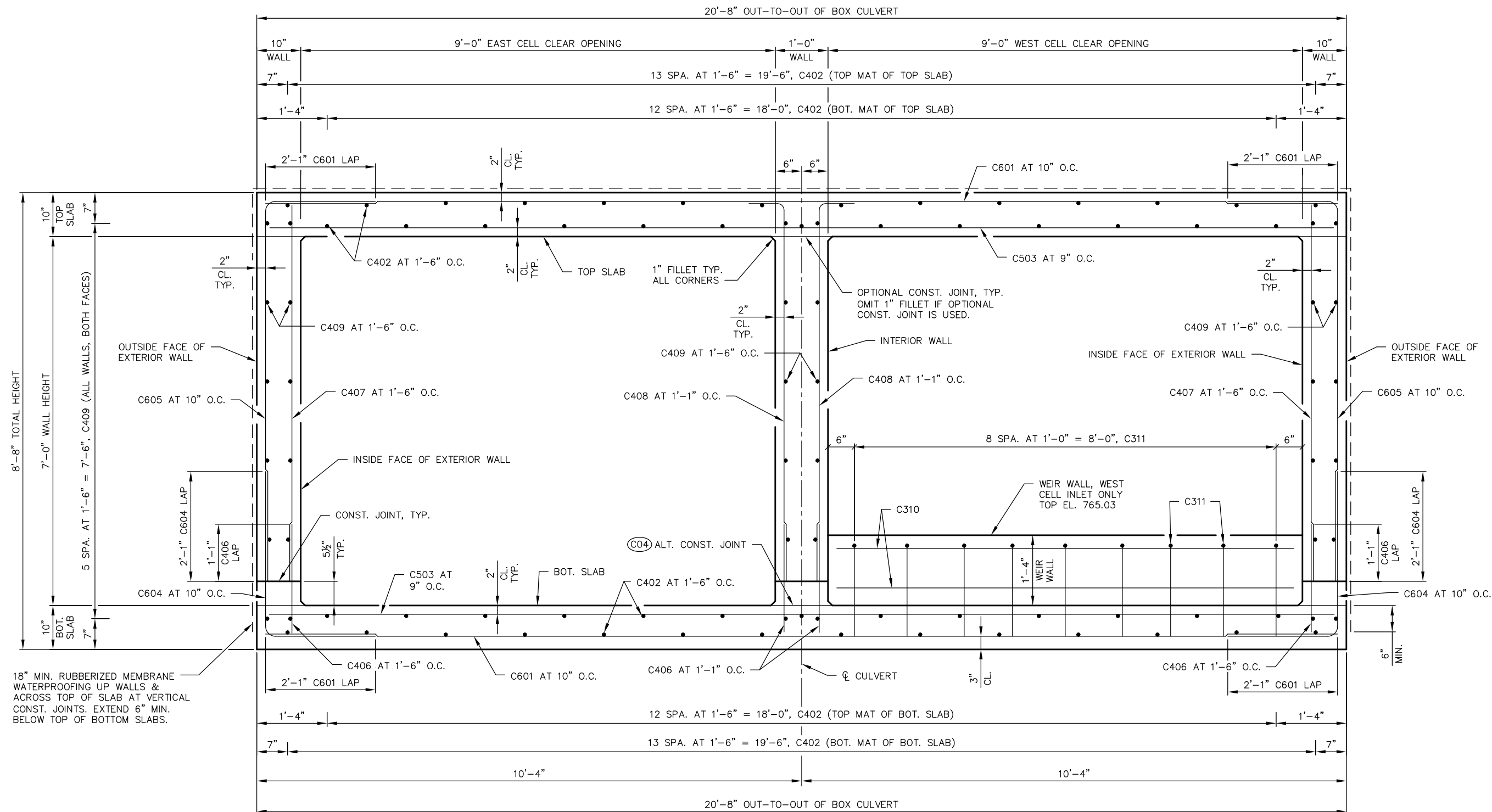
ABBREVIATIONS
F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY JDO		PLANS CK'D	ACK
SUBSURFACE EXPLORATION		SHEET 3 OF 11	

I.D. 5963-00-72 PLOT DATE: May 05, 2020

**NOTES**

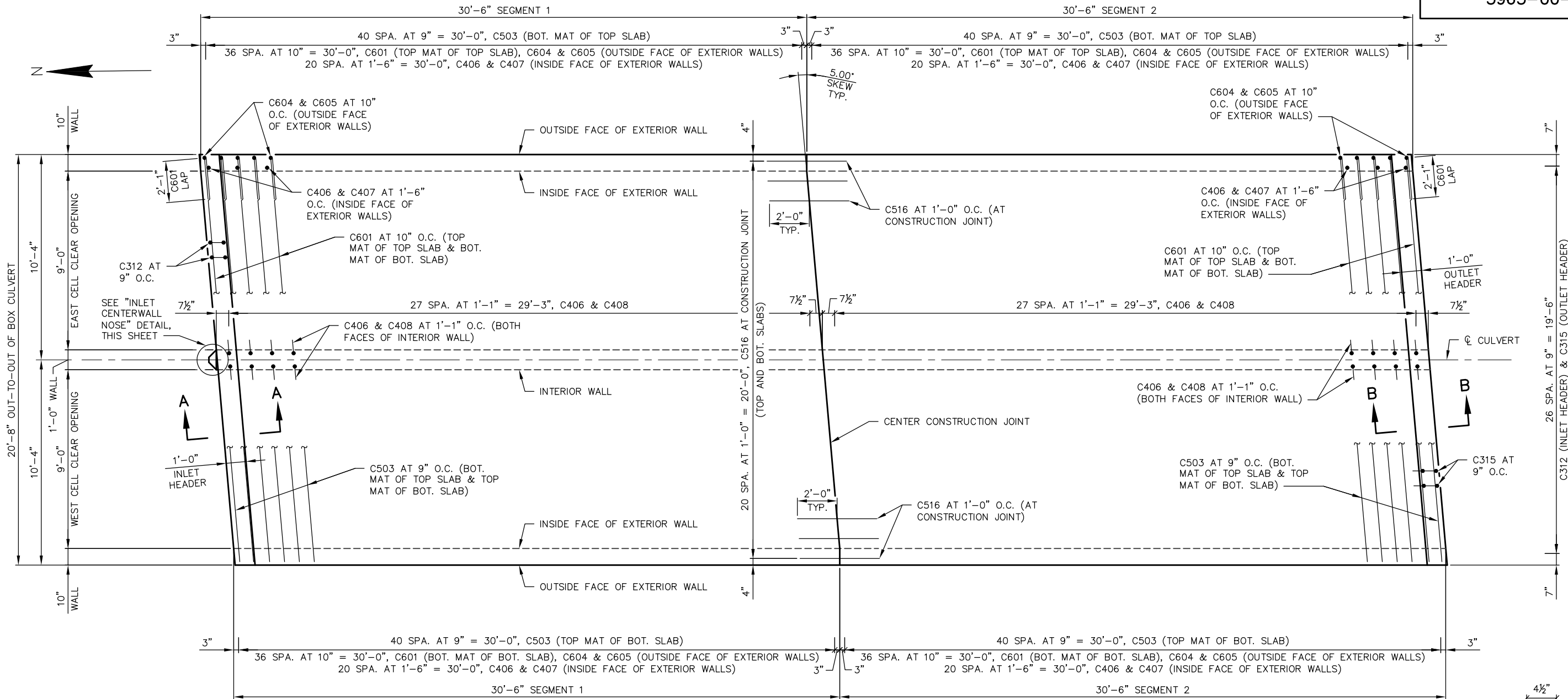
SEE "BOX CULVERT DETAILS" SHEET FOR SECTION THRU WEIR WALL.

(C04) OMIT 1" FILLET IF ALTERNATE CONSTRUCTION JOINT IS USED.

TYPICAL SECTION THRU BOX

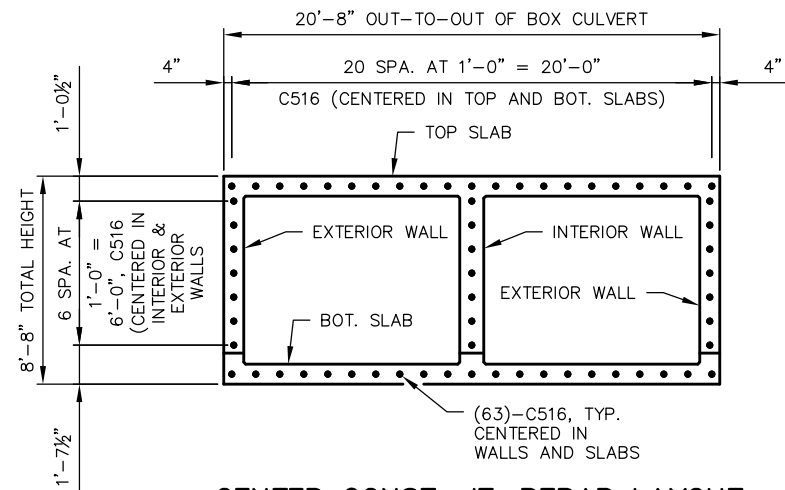
(NORMAL TO LITTLE BEAR CREEK, LOOKING SOUTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY	JDO	PLANS CK'D	ACK
TYPICAL SECTION THRU BOX CULVERT		SHEET 4 OF 11	

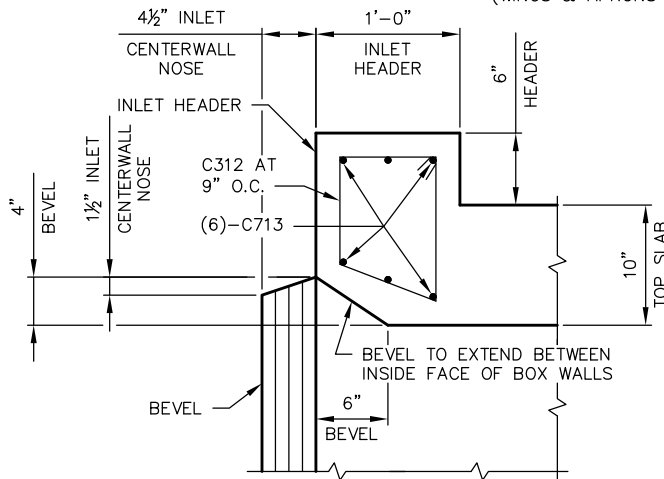


BOX CULVERT PLAN VIEW

(WINGS & APRONS NOT SHOWN FOR CLARITY)

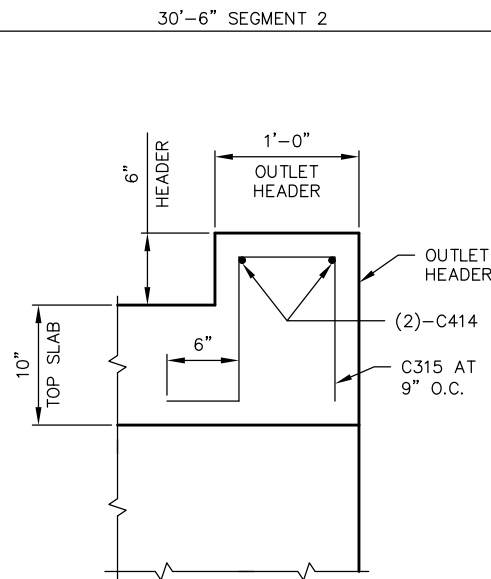


CENTER CONST. JT. REBAR LAYOUT



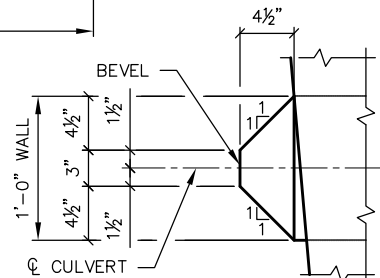
SECTION A-A

(INLET HEADER)



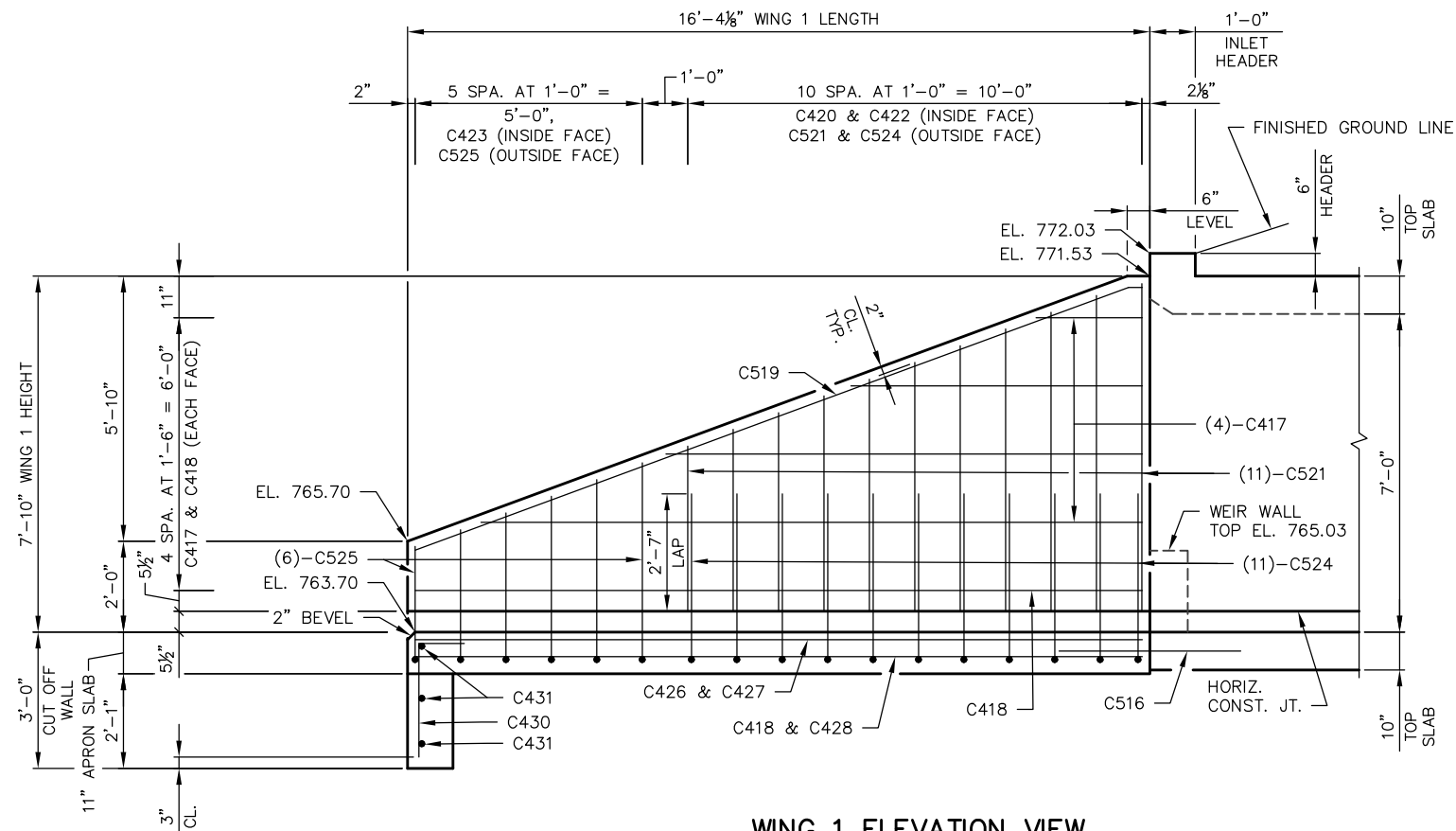
SECTION B-B

(OUTLET HEADER)

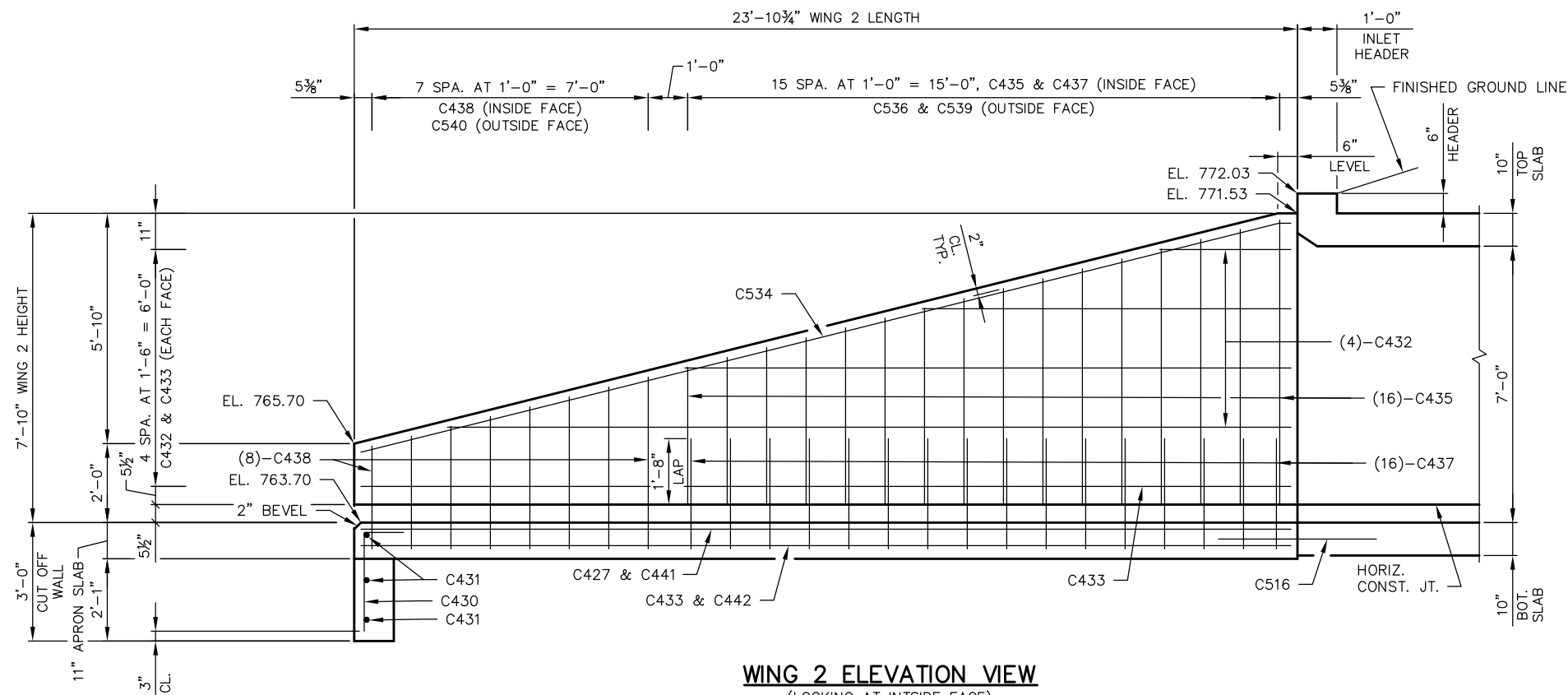


INLET CENTERWALL NOSE

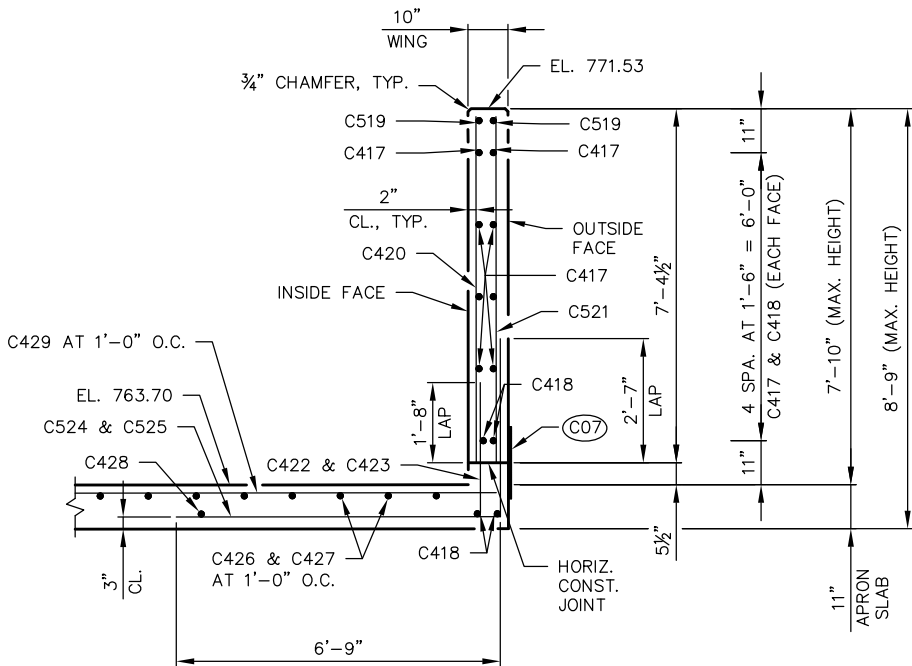
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY	JDO	PLANS CK'D	ACK
BOX CULVERT PLAN VIEW		SHEET 5 OF 11	



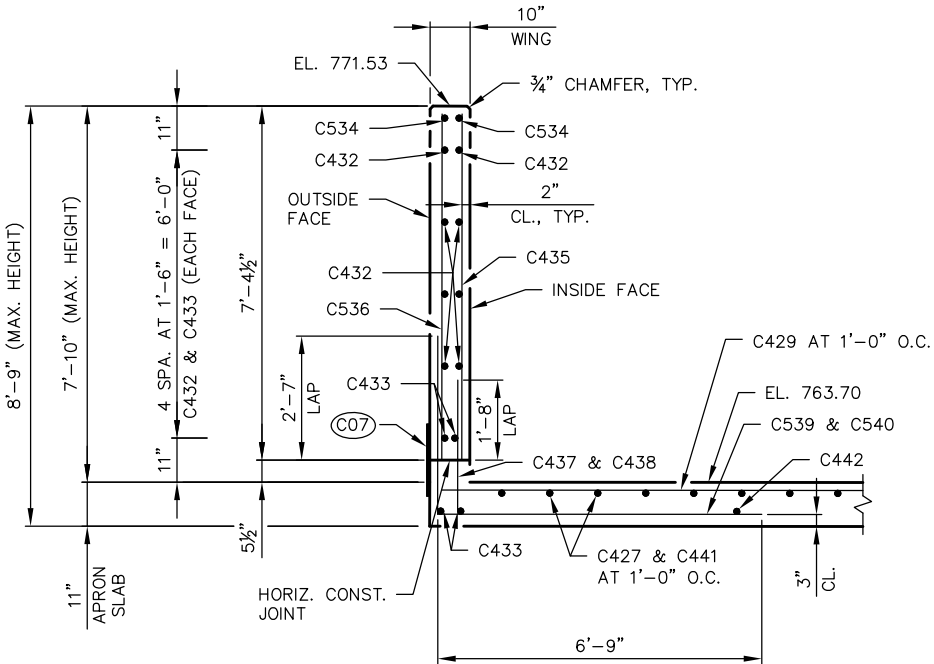
WING 1 ELEVATION VIEW
(LOOKING AT OUTSIDE FACE)



WING 2 ELEVATION VIEW
(LOOKING AT INSIDE FACE)



TYPICAL SECTION THRU WING 1
(LOOKING SOUTH)



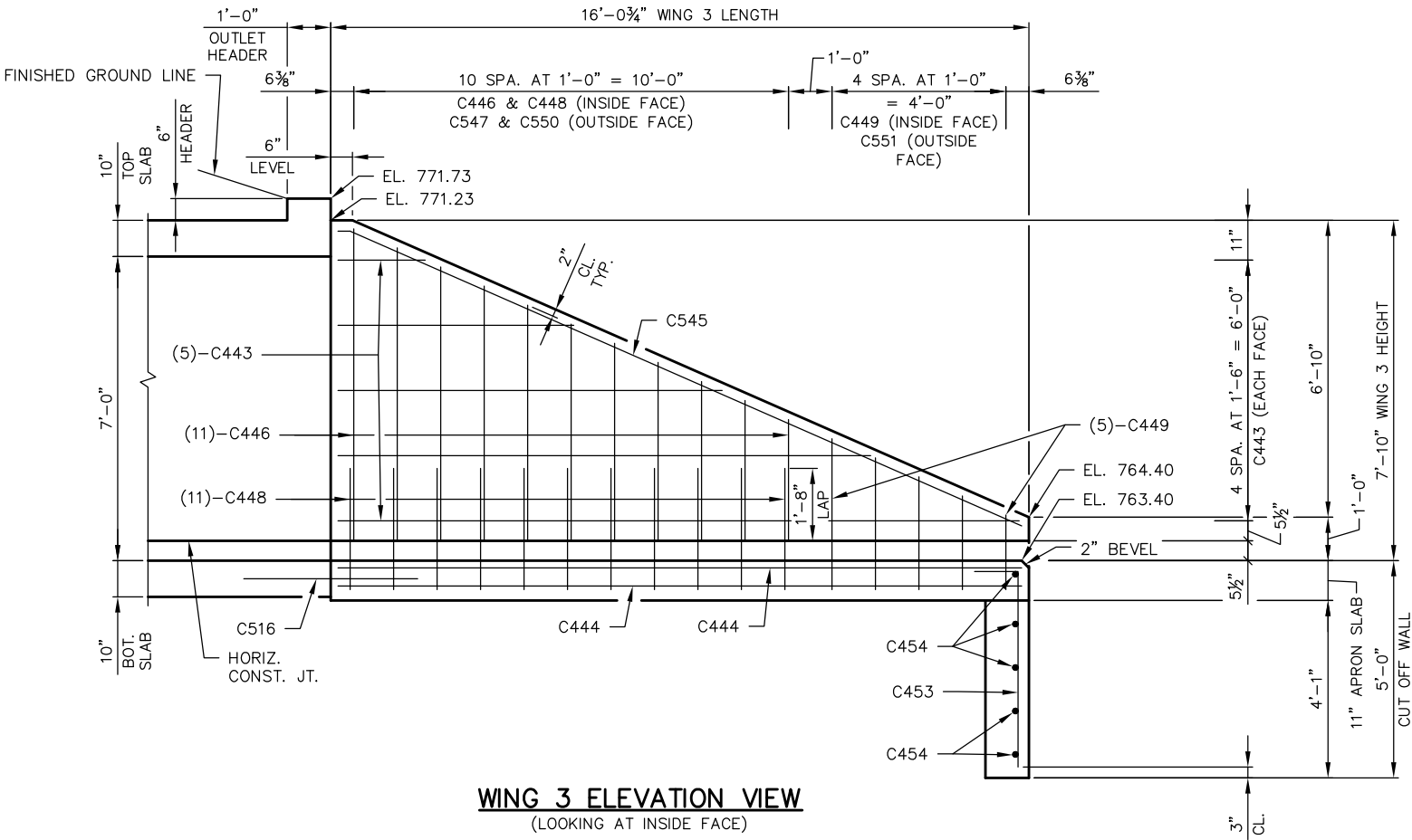
TYPICAL SECTION THRU WING 2
(LOOKING SOUTH)

NOTE

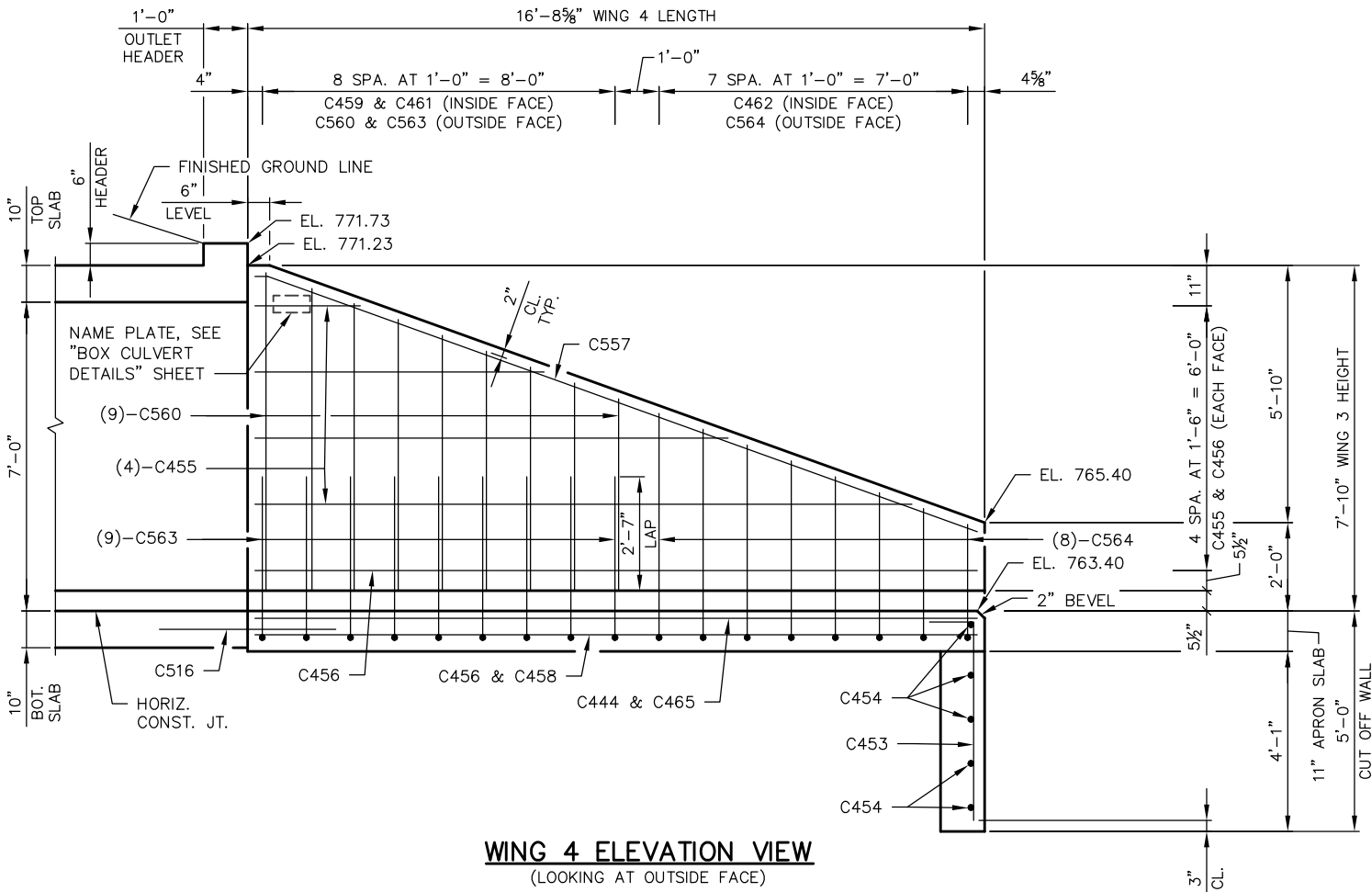
SEE "BOX CULVERT DETAILS" SHEET FOR "SECTION AT WEIR WALL".

(C07) 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZ. CONSTR. JT. IN WING.

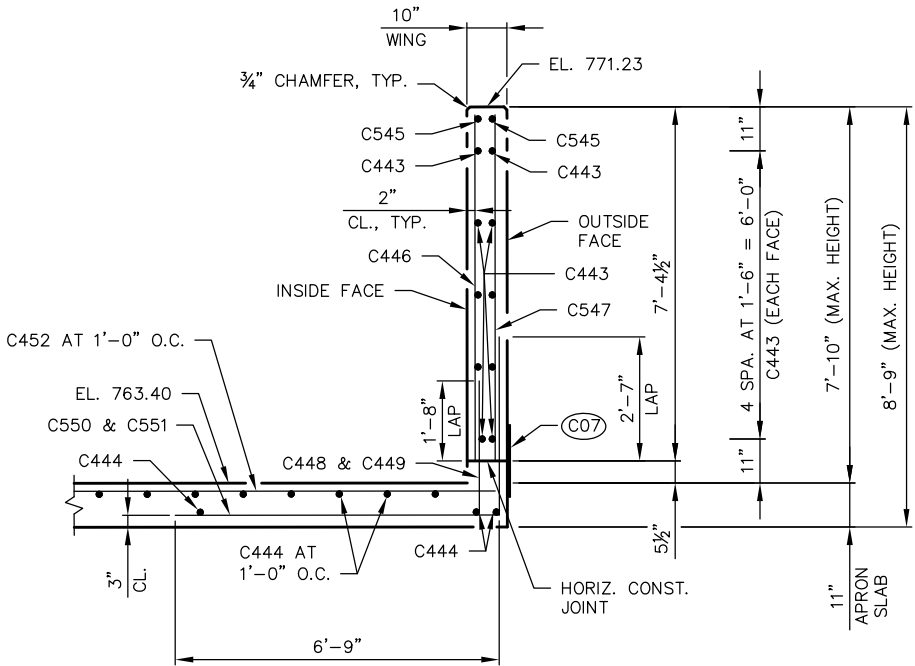
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY JDO		PLANS CK'D	ACK
WING 1 & WING 2 DETAILS			SHEET 6 OF 11



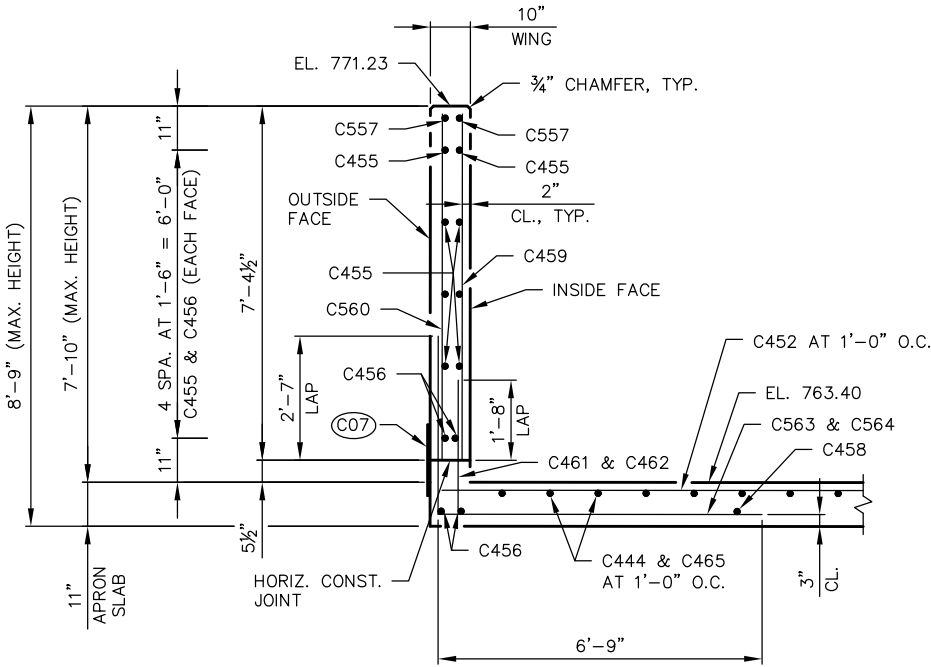
WING 3 ELEVATION VIEW
(LOOKING AT INSIDE FACE)



WING 4 ELEVATION VIEW
(LOOKING AT OUTSIDE FACE)



TYPICAL SECTION THRU WING 3
(LOOKING NORTH)



TYPICAL SECTION THRU WING 4
(LOOKING NORTH)

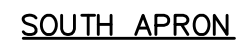
NOTE

(C07) 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING
ALONG HORIZ. CONST. JT. IN WING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY	JDO	PLANS CK'D	ACK
WING 3 & WING 4 DETAILS			SHEET 7 OF 11

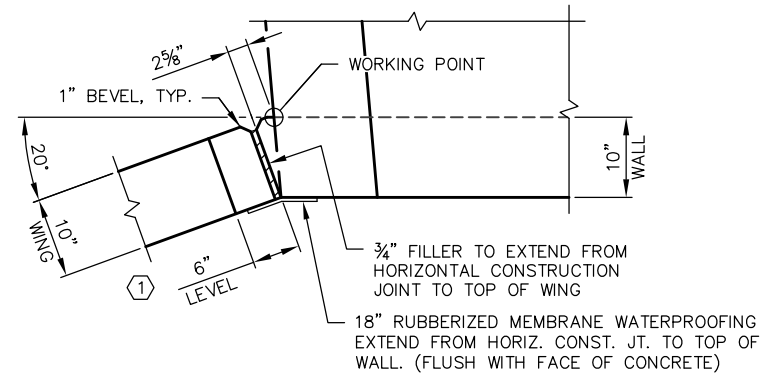


8

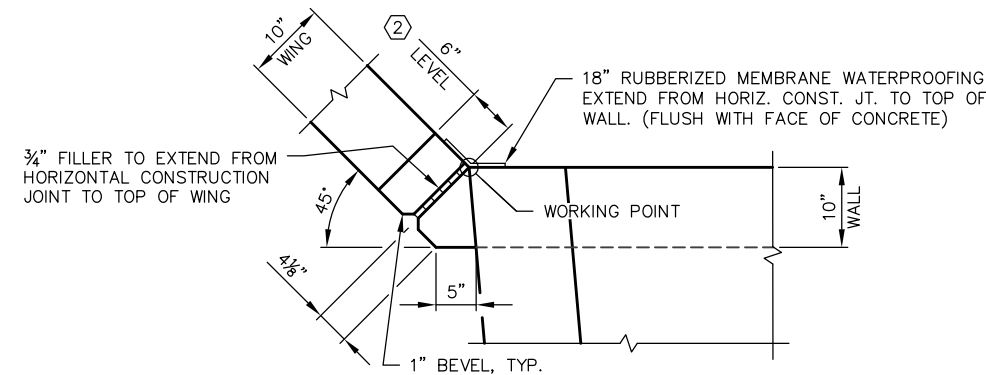


 INDICATES WING NUMBER

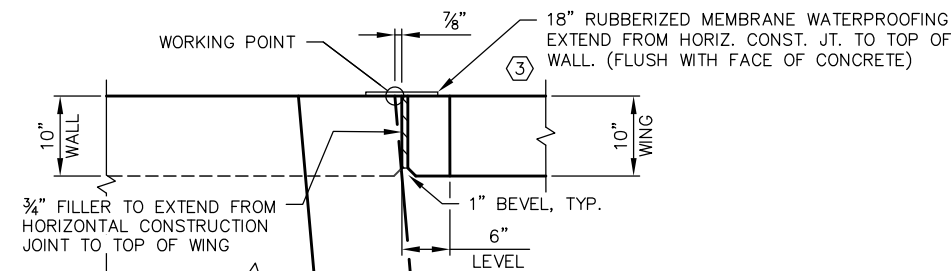
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY		JDO	PLANS CK'D ACK
APRON PLANS			SHEET 8 OF 11



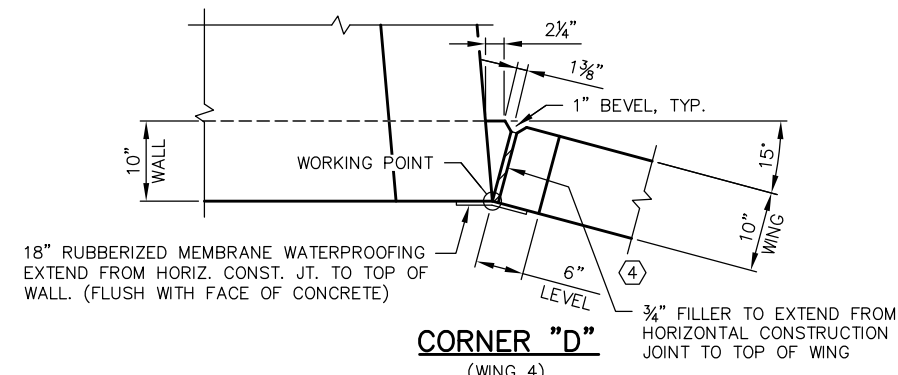
CORNER "A"
(WING 1)



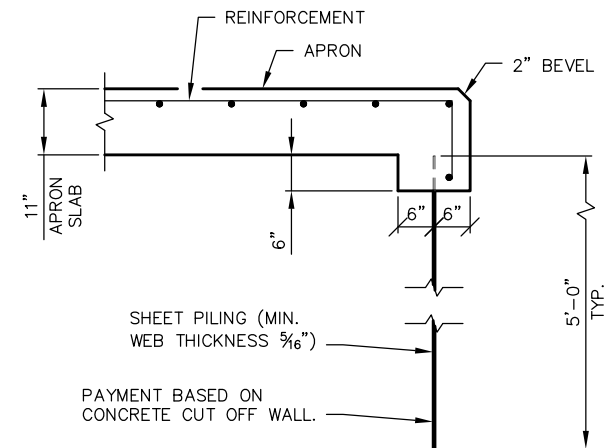
CORNER "B"
(WING 2)



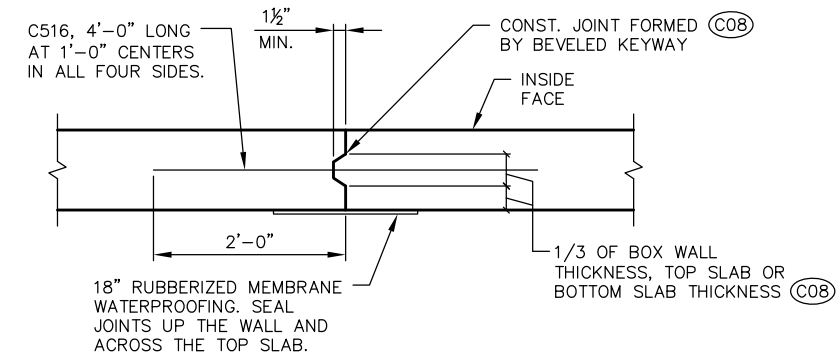
CORNER "C"
(WING 3)



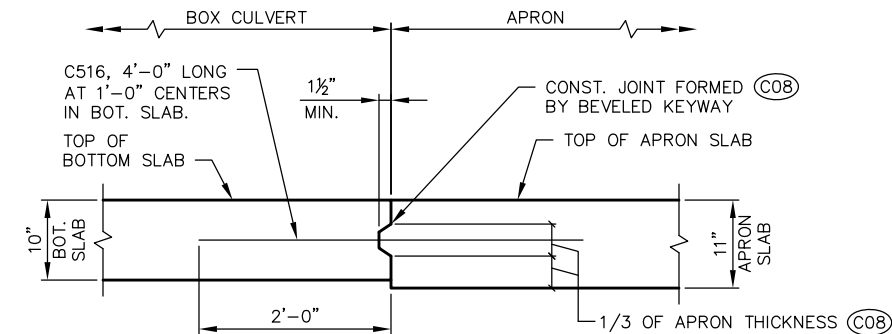
CORNER "D"
(WING 4)



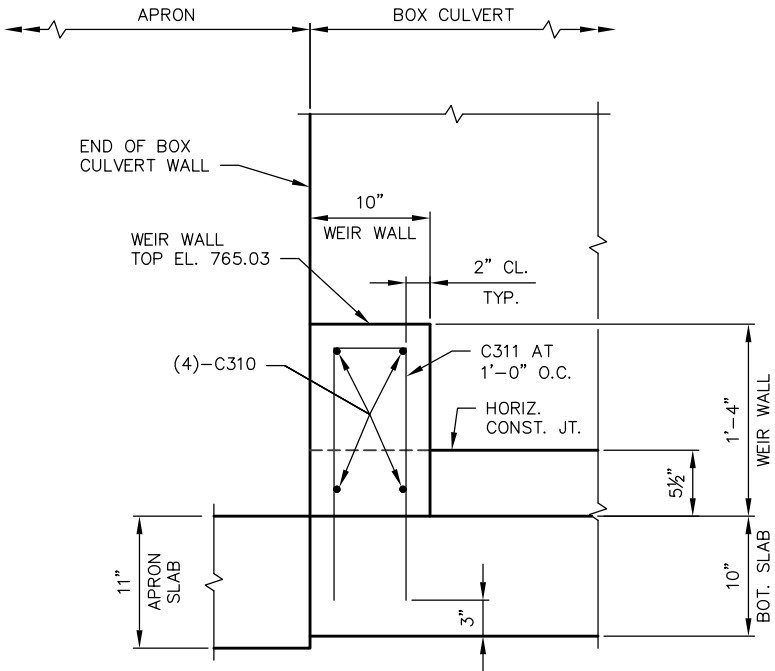
ALTERNATE CUTOFF WALL



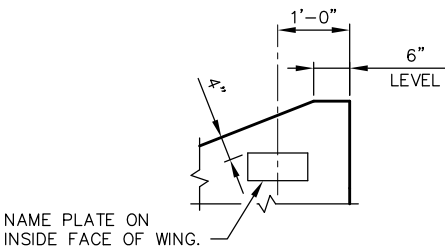
VERTICAL CONSTRUCTION JOINT



APRON CONNECTION DETAIL



SECTION AT WEIR WALL



NAME PLATE LAYOUT

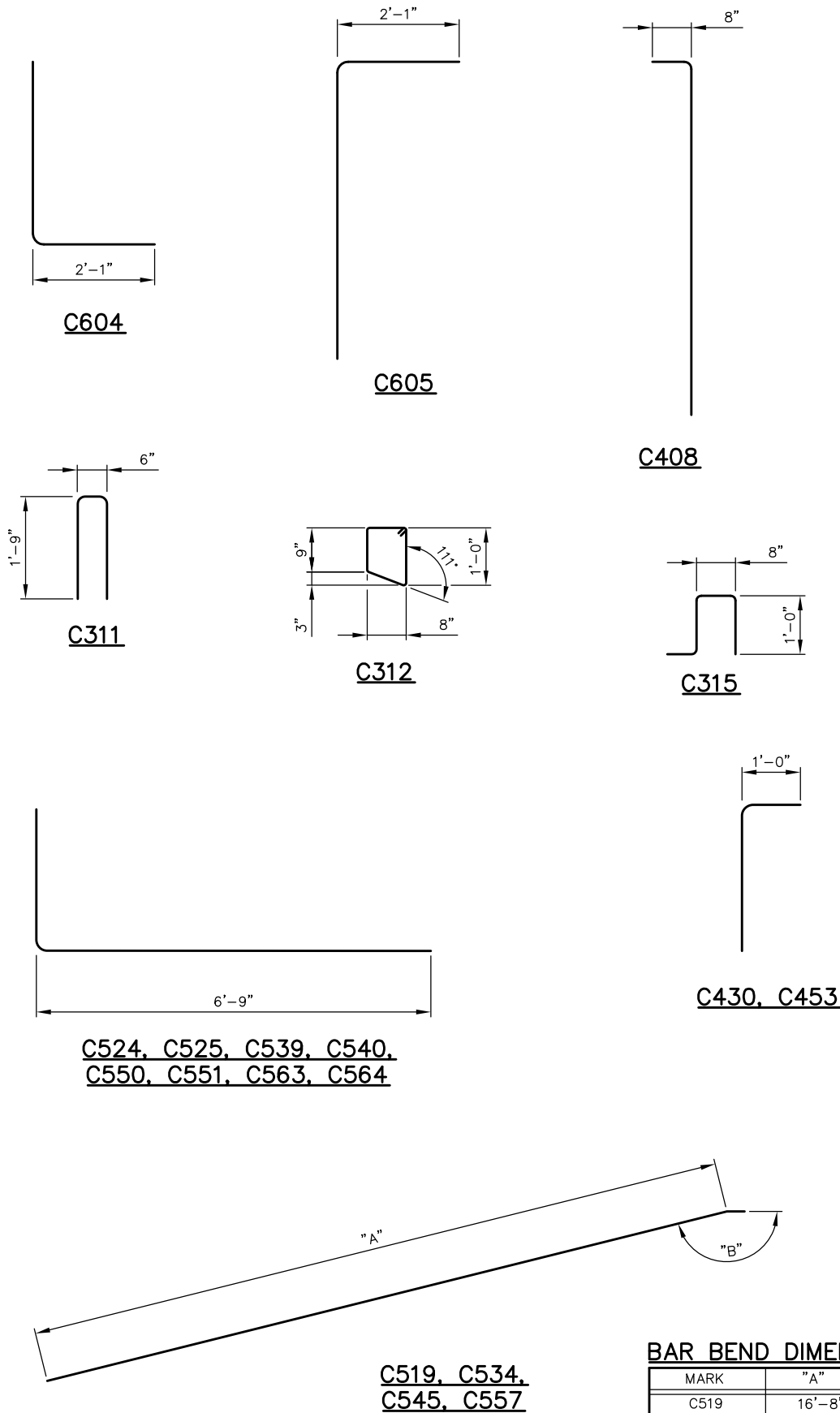
(LOCATED ON INSIDE FACE OF WING 4 ONLY)

NOTES

(C08) IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.

⬡ INDICATES WING NUMBER

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY JDO		PLANS CK'D	ACK
BOX CULVERT DETAILS		SHEET 9 OF 11	



BAR BEND DIMENSIONS		
MARK	"A"	"B"
C519	16'-8"	160'
C534	23'-11"	166'
C545	16'-10"	156'
C557	17'-1"	160'

BILL OF BARS
BOX CULVERT

COATED = 1,900 LBS.
UNCOATED = 18,470 LBS.

MARK	NUMBER		LENGTH	BENT	BAR SERIES	LOCATION
	COATED	UNCOATED				
C601		148	20'-5"			CULVERT BOT. SLAB & TOP SLAB TRANS.
C402		108	30'-2"			CULVERT BOT. SLAB & TOP SLAB LONGIT.
C503		164	20'-5"			CULVERT BOT. SLAB & TOP SLAB TRANS.
C604		148	5'-1"	X		CULVERT EXT. WALLS - OUTSIDE FACE VERT.
C605		148	9'-1"	X		CULVERT EXT. WALLS - OUTSIDE FACE VERT.
C406		196	2'-2"			CULVERT EXT. WALLS - INSIDE FACE & INT. WALL VERT.
C407		84	7'-2"			CULVERT EXT. WALLS - INSIDE FACE VERT.
C408		112	7'-9"	X		CULVERT INT. WALLS - BOTH FACES VERT.
C409		72	30'-2"			CULVERT WALLS - BOTH FACES LONGIT.
C310		4	8'-8"			WEIR WALL - EACH FACE HORIZ.
C311		9	3'-11"	X		WEIR WALL - STIRRUP VERT.
C312		27	3'-6"	X		CULVERT INLET HEADER STIRRUP VERT.
C713		6	20'-5"			CULVERT INLET HEADER TRANS.
C414		2	20'-5"			CULVERT OUTLET HEADER TRANS.
C315		27	3'-2"	X		CULVERT OUTLET HEADER STIRRUP VERT.
C516		105	4'-0"			CULVERT - AT CONST. JOINT & APRON CONNECT. HORIZ.
C417	8		8'-5"		▲	WING 1 - EACH FACE HORIZ.
C418	4		16'-1"			WING 1 - BOT. EACH FACE & APRON HORIZ.
C519	2		17'-0"	X		WING 1 - TOP EACH FACE HORIZ.
C420	11		5'-5"		▲	WING 1 - INSIDE FACE VERT.
C521	11		5'-5"		▲	WING 1 - OUTSIDE FACE VERT.
C422	11		2'-10"			WING 1 - INSIDE FACE VERT.
C423	6		3'-5"		▲	WING 1 - INSIDE FACE VERT.
C524	11		10'-5"	X		WING 1 - OUTSIDE FACE VERT.
C525	6		10'-1"	X	▲	WING 1 - OUTSIDE FACE VERT.
C426		5	8'-7"		▲	NORTH APRON - NEAR WING 1 LONGIT.
C427		21	15'-8"			NORTH APRON LONGIT.
C428		1	16'-2"			NORTH APRON LONGIT.
C429		17	31'-10"		▲	NORTH APRON TRANS.
C430		42	3'-6"	X		NORTH APRON - INTO CUT OFF WALL VERT.
C431		3	42'-7"			NORTH APRON - CUT OFF WALL TRANS.
C432	8		12'-4"		▲	WING 2 - EACH FACE HORIZ.
C433	4		23'-8"			WING 2 - BOT. EACH FACE & APRON HORIZ.
C534	2		24'-2"	X		WING 2 - TOP EACH FACE HORIZ.
C435	16		5'-4"		▲	WING 2 - INSIDE FACE VERT.
C536	16		5'-4"		▲	WING 2 - OUTSIDE FACE VERT.
C437	16		2'-10"			WING 2 - INSIDE FACE VERT.
C438	8		3'-6"		▲	WING 2 - INSIDE FACE VERT.
C539	16		10'-5"	X		WING 2 - OUTSIDE FACE VERT.
C540	8		10'-2"	X	▲	WING 2 - OUTSIDE FACE VERT.
C441		16	7'-11"		▲	NORTH APRON - NEAR WING 2 LONGIT.
C442		1	18'-5"			NORTH APRON LONGIT.
C443	10		8'-10"		▲	WING 3 - EACH FACE HORIZ.
C444		23	15'-8"			SOUTH APRON LONGIT.
C545	2		17'-1"	X		WING 3 - TOP EACH FACE HORIZ.
C446	11		5'-0"		▲	WING 3 - INSIDE FACE VERT.
C547	11		5'-0"		▲	WING 3 - OUTSIDE FACE VERT.
C448	11		2'-10"			WING 3 - INSIDE FACE VERT.
C449	5		2'-7"		▲	WING 3 - INSIDE FACE VERT.
C550	11		10'-5"	X		WING 3 - OUTSIDE FACE VERT.
C551	5		9'-3"	X	▲	WING 3 - OUTSIDE FACE VERT.
C452		16	22'-7"		▲	SOUTH APRON TRANS.
C453		24	5'-6"	X		SOUTH APRON - INTO CUT OFF WALL VERT.
C454		5	24'-3"			SOUTH APRON - CUT OFF WALL TRANS.
C455	8		8'-7"		▲	WING 4 - EACH FACE HORIZ.
C456	4		16'-4"			WING 4 - BOT. EACH FACE & APRON HORIZ.
C557	2		17'-4"	X		WING 4 - TOP EACH FACE HORIZ.
C458		1	16'-8"			SOUTH APRON LONGIT.
C459	9		5'-9"		▲	WING 4 - INSIDE FACE VERT.
C560	9		5'-9"		▲	WING 4 - OUTSIDE FACE VERT.
C461	9		2'-10"			WING 4 - INSIDE FACE VERT.
C462	8		3'-10"		▲	WING 4 - INSIDE FACE VERT.
C563	9		10'-5"	X		WING 4 - OUTSIDE FACE VERT.
C564	8		10'-5"	X	▲	WING 4 - OUTSIDE FACE VERT.
C465		4	8'-7"		▲	SOUTH APRON - NEAR WING 4 LONGIT.

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

ALL BAR BEND DIMENSIONS 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.

STATE PROJECT NUMBER

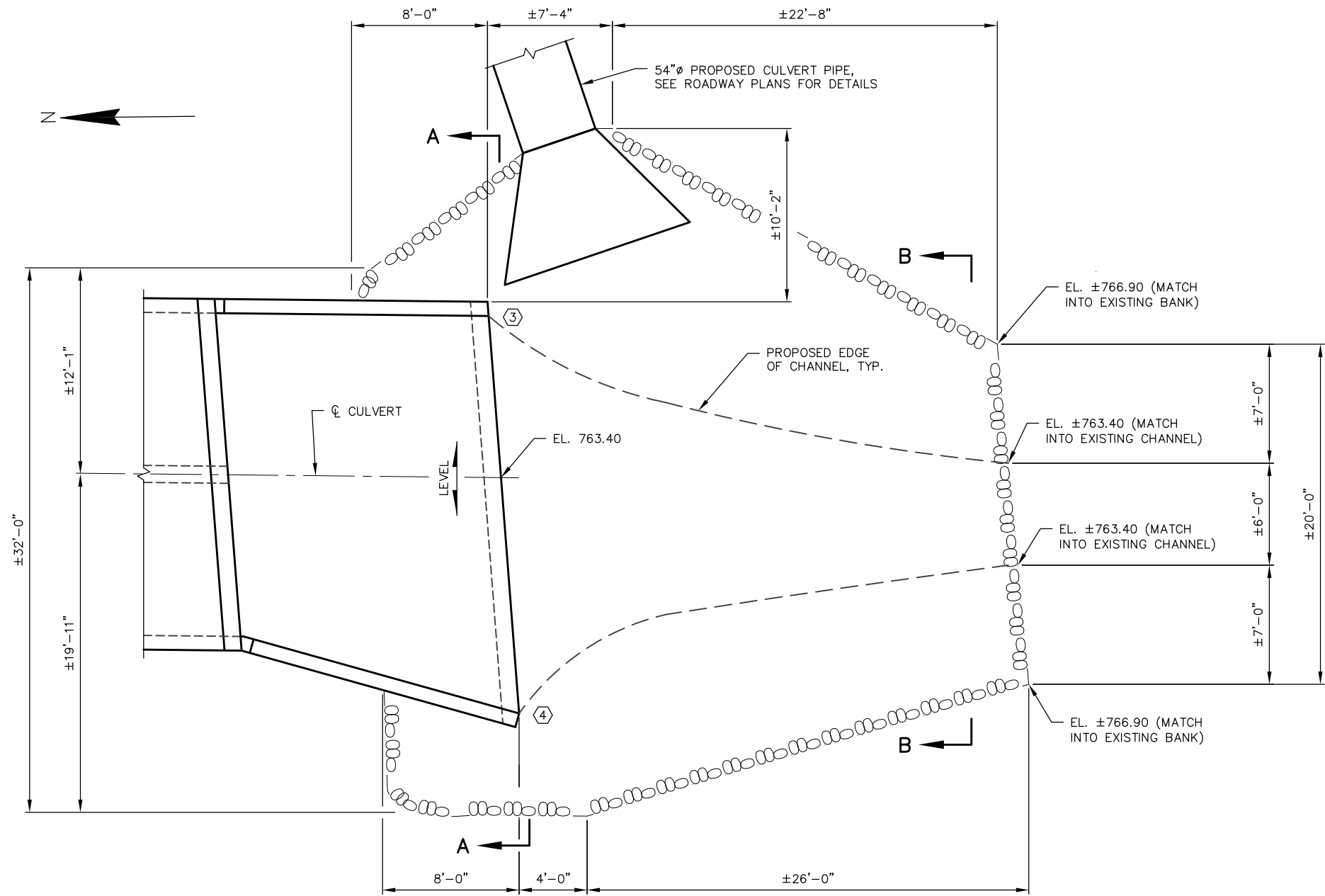
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BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
C417	2 SERIES OF 4	2'-4" TO 14'-6"
C420	1 SERIES OF 11	3'-7" TO 7'-2"
C521	1 SERIES OF 11	3'-7" TO 7'-2"
C423	1 SERIES OF 6	2'-6" TO 4'-4"
C525	1 SERIES OF 6	9'-2" TO 11'-0"
C426	1 SERIES OF 5	2'-10" TO 14'-3"
C429	1 SERIES OF 17	20'-10" TO 42'-9"
C432	2 SERIES OF 4	3'-3" TO 21'-4"
C435	1 SERIES OF 16	3'-5" TO 7'-2"
C536	1 SERIES OF 16	3'-5" TO 7'-2"
C438	1 SERIES OF 8	2'-7" TO 4'-4"
C540	1 SERIES OF 8	9'-3" TO 11'-0"
C441	1 SERIES OF 16	1'-1" TO 14'-9"
C443	2 SERIES OF 5	2'-0" TO 15'-8"
C446	1 SERIES OF 11	2'-9" TO 7'-2"
C547	1 SERIES OF 11	2'-9" TO 7'-2"
C449	1 SERIES OF 5	1'-8" TO 3'-5"
C551	1 SERIES OF 5	8'-4" TO 10'-1"
C452	1 SERIES OF 16	20'-6" TO 24'-8"
C455	2 SERIES OF 4	2'-4" TO 14'-10"
C459	1 SERIES OF 9	4'-4" TO 7'-2"
C560	1 SERIES OF 9	4'-4" TO 7'-2"
C462	1 SERIES OF 8	2'-7" TO 5'-1"
C564	1 SERIES OF 8	9'-2" TO 11'-8"
C465	1 SERIES OF 4	3'-1" TO 14'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY.

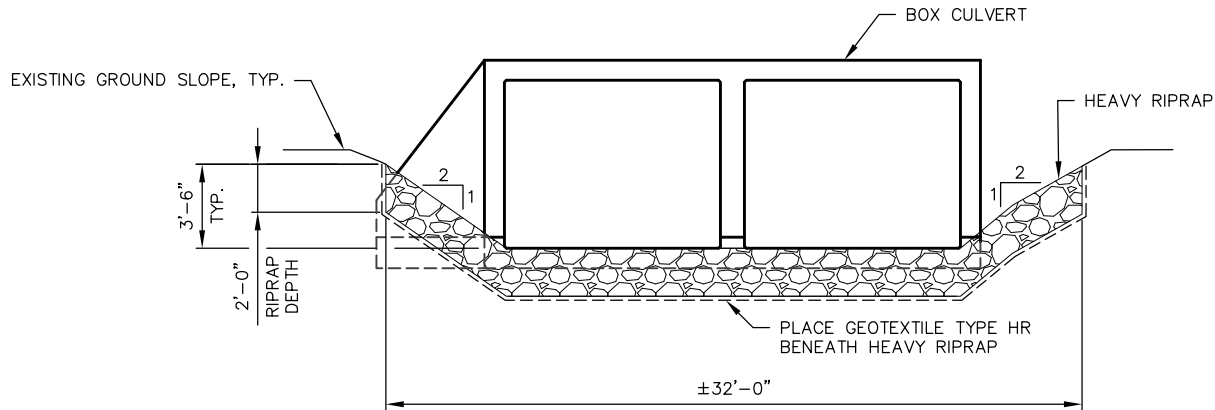
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY JDO		PLANS CK'D	ACK
REINFORCEMENT			SHEET 10 OF 11



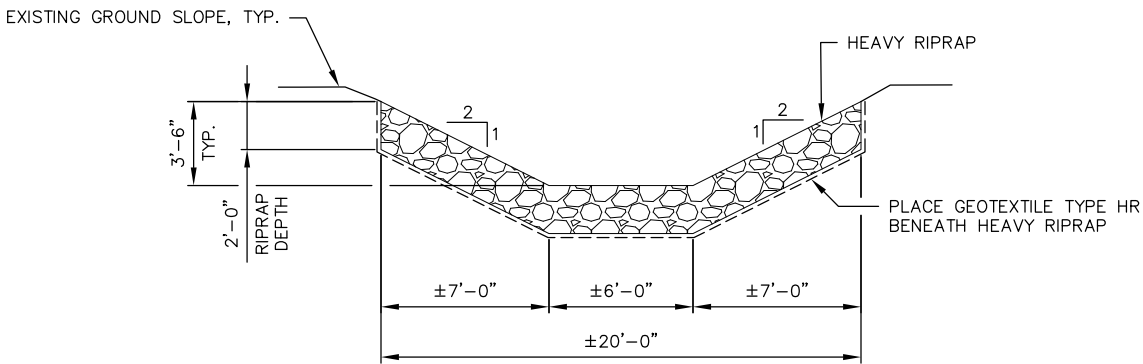
RIPRAP LAYOUT

NOTE

⬡ INDICATES WING NUMBER



SECTION A-A

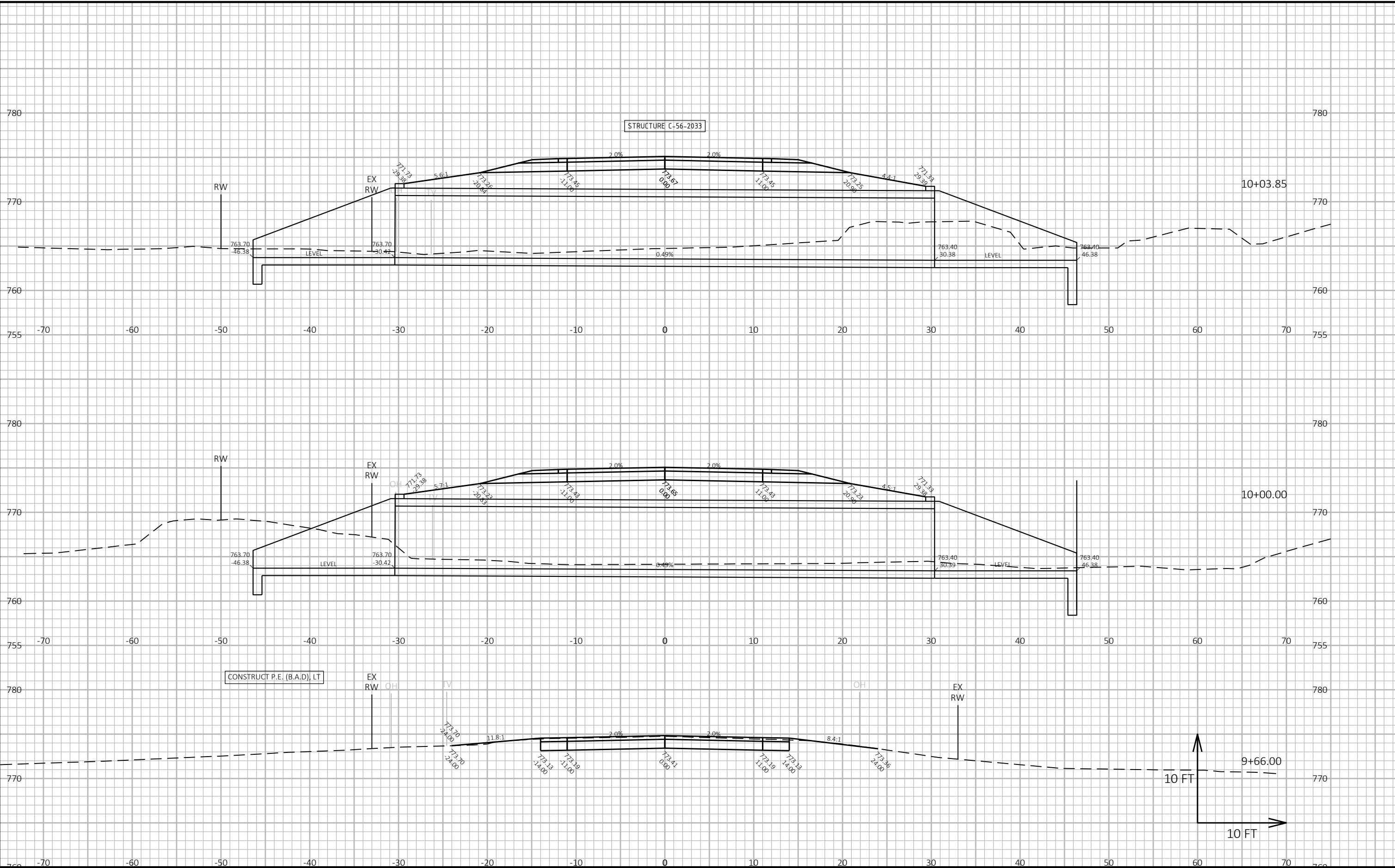


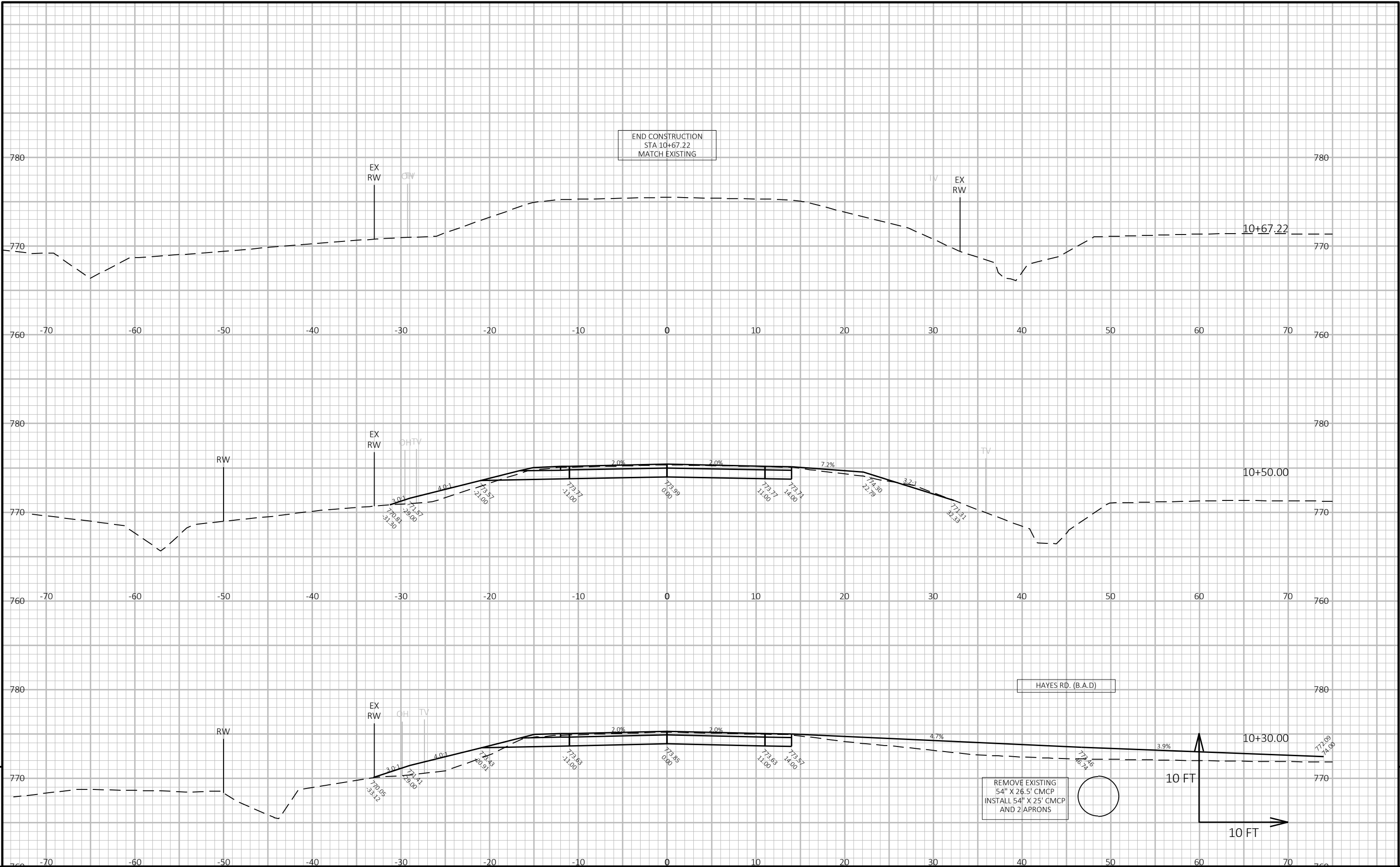
SECTION B-B

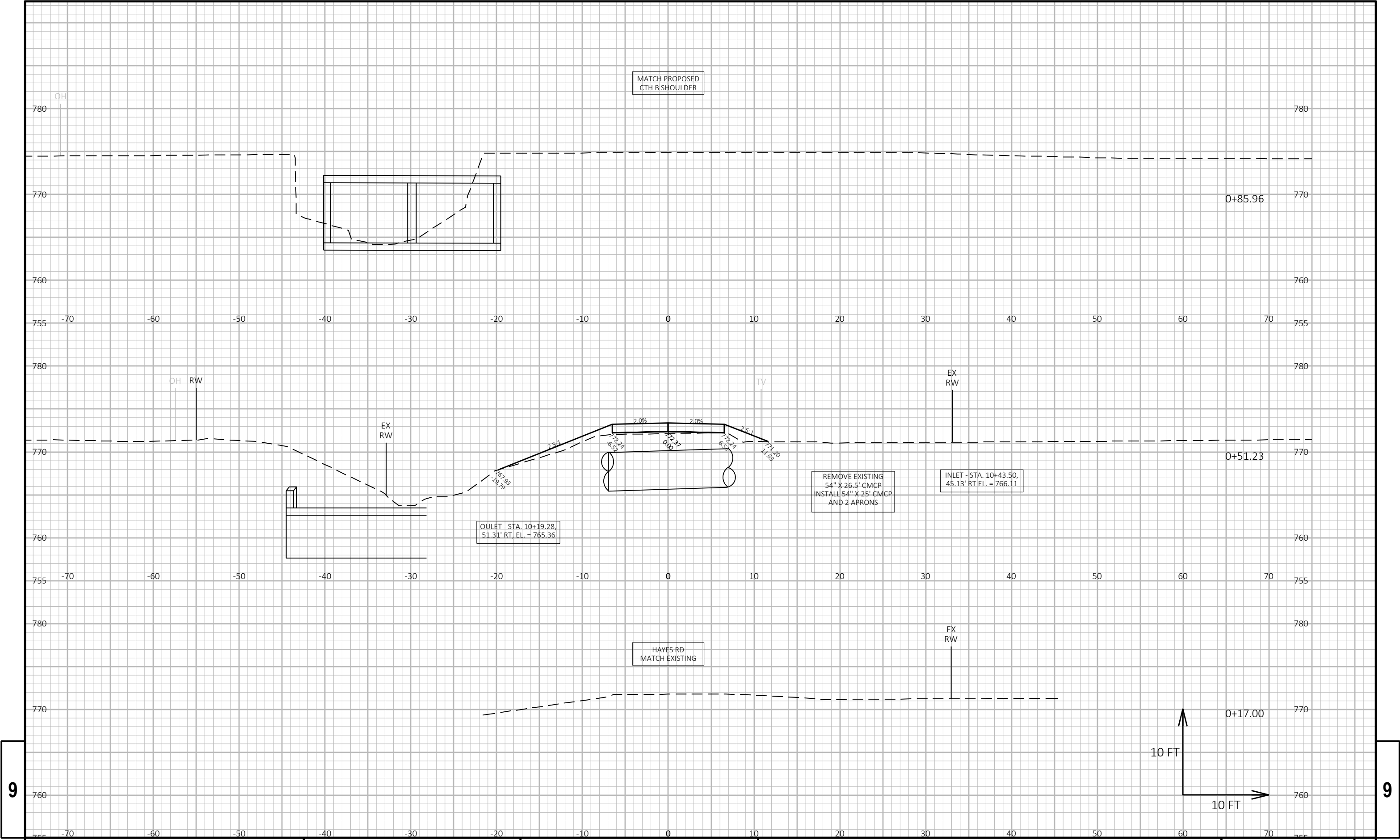
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE C-56-2033			
DRAWN BY JDO		PLANS CK'D	ACK
RIPRAP LAYOUT			SHEET 11 OF 11

STATION	AREA (SF)						Incremental Vol (CY) (Unadjusted)						Cum ulative Vol (CY)							Mass Ordinate
	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Expanded		Expanded Marsh	Expanded	Expanded EBS	Reduced Marsh	Reduced EBS	
													Cut	Fill	Backfill	Rock	Backfill	in Fill	In Fill	
													1.00	1.25	1.50	1.10	1.30	0.60	0.80	
	Note 1	Note 2	Note 3				Note 1	Note 2	Note 3				Note 1		Note 4		Note 5	Note 6	Note 7	Note 8
CTH B																				
09+39.67	0.00	16.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09+50.00	55.46	16.00	0.00	0	0	0	11	6	0	0	0	0	11	0	0	0	0	0	0	4
09+60.00	37.03	16.00	1.62	0	0	0	17	6	0	0	0	0	28	0	0	0	0	0	0	15
09+66.00	36.63	16.00	0.05	0	0	0	8	4	0	0	0	0	36	1	0	0	0	0	0	20
10+00.00	0.00	16.00	105.78	0	0	0	23	20	67	0	0	0	59	84	0	0	0	0	0	-61
10+03.85	0.00	16.00	107.10	0	0	0	0	2	15	0	0	0	59	103	0	0	0	0	0	-82
10+30.00	39.64	16.00	14.74	0	0	0	19	15	59	0	0	0	78	177	0	0	0	0	0	-152
10+50.00	40.91	16.00	11.17	0	0	0	30	12	10	0	0	0	108	189	0	0	0	0	0	-146
10+67.22	0.00	16.00	0.00	0	0	0	13	10	4	0	0	0	121	193	0	0	0	0	0	-148
Hayes Rd																				
00+17.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	121	193	0	0	0	0	0	-148
00+51.23	0.00	0.00	13.73	0	0	0	0	0	9	0	0	0	121	204	0	0	0	0	0	-158
00+85.96	0.00	0.00	0.00	0	0	0	0	0	9	0	0	0	121	215	0	0	0	0	0	-170
Column Totals							121	76	172	0	0	0								

1 - Cut	Cut includes Salvaged/Unusable Pavement material	
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections	
3 - Fill	Does not include Unusable Pavement Exc volume	
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 4 - Select one based on input dialog selection
5 - Expanded EBS	Will be backfilled with Granular Backfill (or Cut, or Borrow)	Note 5 - Select one based on input dialog selection
6 - Reduced Marsh in Fill	Reduced Marsh Excavation that can be used in Fill	Note 6 - If excavated Marsh can be used in Fill
7 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill	Note 7 - If excavated EBS can be used in Fill
8 - Mass Ordinate	If Marsh or EBS to be backfilled with Cut or Borrow: $[(\text{Cut} + \text{Marsh Exc} + \text{EBS}) - ((\text{Fill} - \text{Reduced Marsh in Fill}) - (\text{Reduced EBS in Fill}) - \text{Expanded Rock}) * \text{Fill Factor}]$	Note 8 - Select one based on mass haul input dialog selection. EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: $[(\text{Cut} + \text{EBS} + \text{Marsh Exc}) - ((\text{Fill} - (\text{Reduced Marsh in Fill}) - (\text{Reduced EBS in Fill}) - (\text{Expanded Rock})) * \text{Fill Factor})]$	EBS and Marsh Exc used outside 1:1 in fill slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Granular: $[(\text{Cut}) - ((\text{Fill} - \text{Expanded Rock}) * \text{Fill Factor})]$	Marsh and EBS are not usable outside the 1:1 slopes
8 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: $[(\text{Cut}) - ((\text{Fill} - \text{Expanded Rock}) * \text{Fill Factor})]$	Marsh and EBS are not usable outside the 1:1 slopes



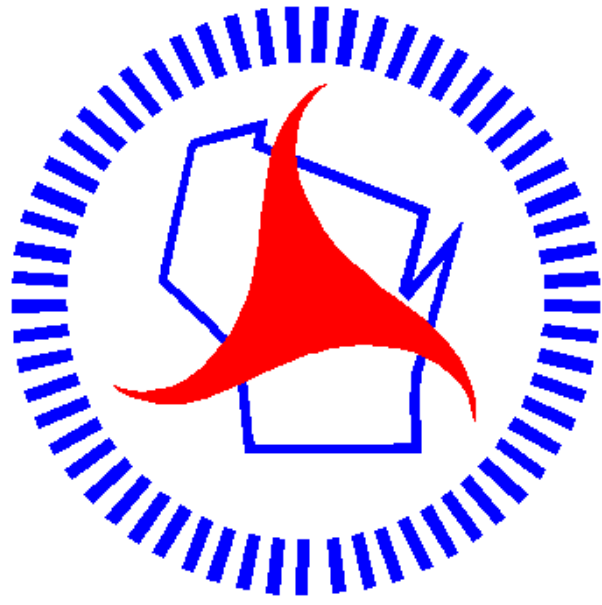




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Notes



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