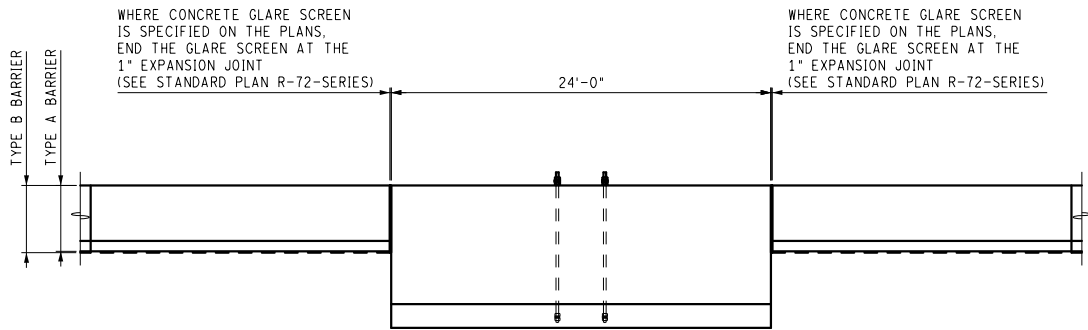
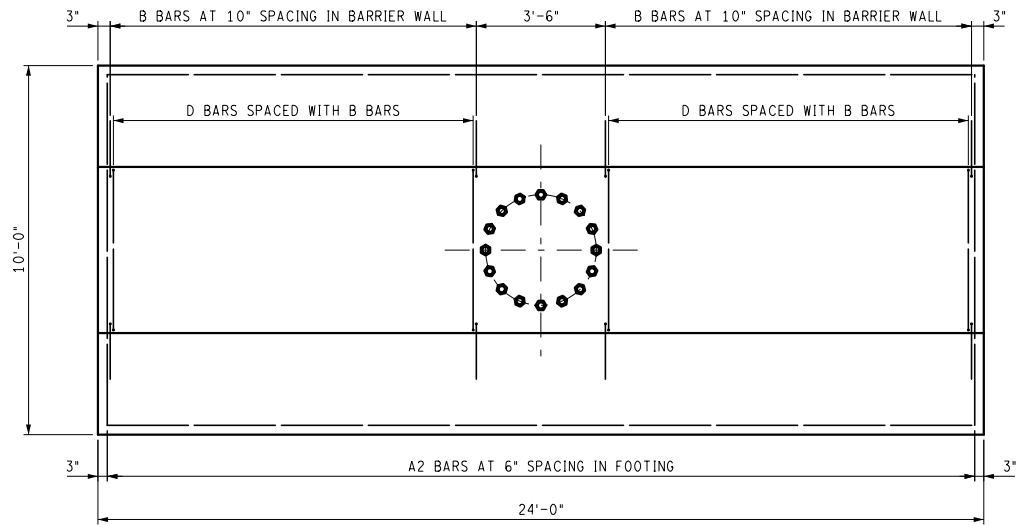


PLAN

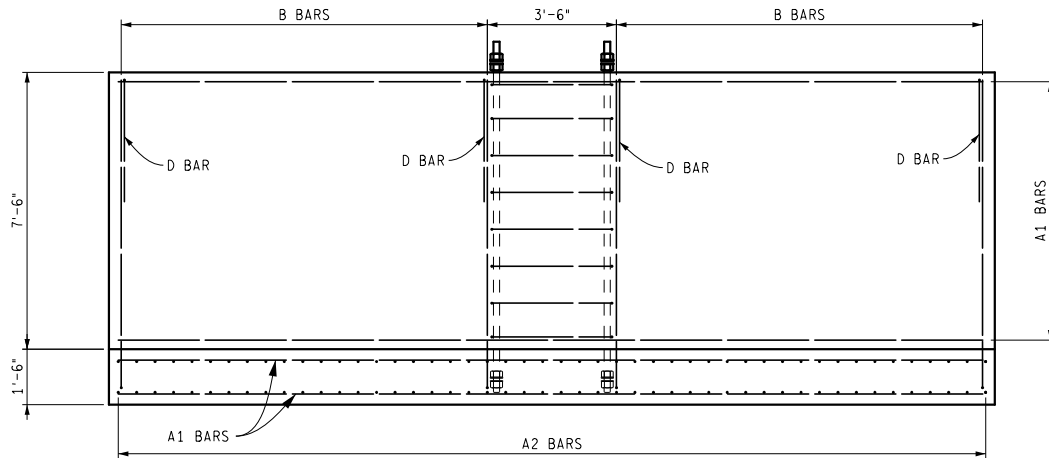


ELEVATION

	DEPARTMENT DIRECTOR Paul C. Ajegba	MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN FOR	
	PREPARED BY: DESIGN DIVISION	APPROVED BY: _____ DIRECTOR, BUREAU OF FIELD SERVICES	SPREAD FOOTING FOUNDATION FOR TRUSS TYPE E
DRAWN BY: DB	APPROVED BY: _____ DIRECTOR, BUREAU OF DEVELOPMENT	06/03/2021 PLAN DATE	SIGN-365-A
CHECKED BY: AU		F.H.W.A. APPROVAL	SHEET 1 OF 8



PLAN  
SHOWING STEEL REINFORCEMENT



ELEVATION  
SHOWING STEEL REINFORCEMENT

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN

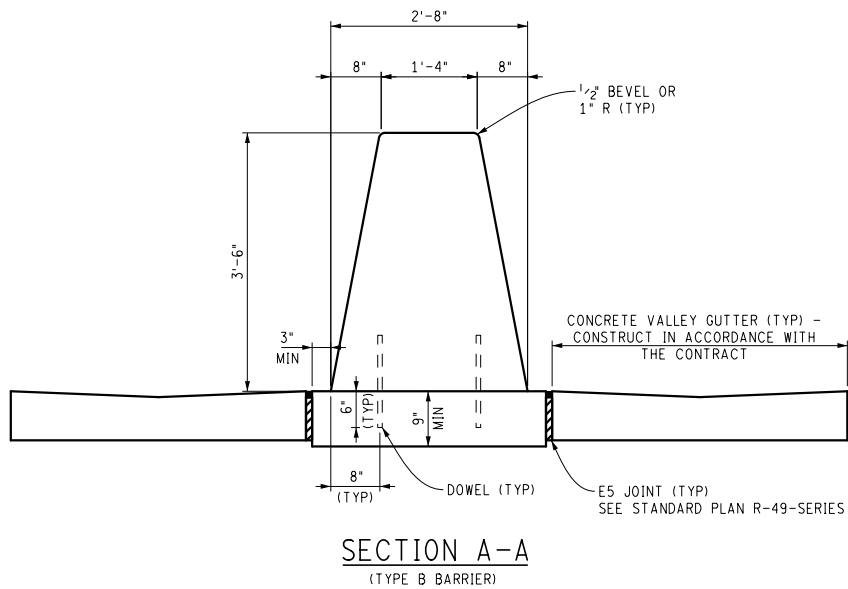
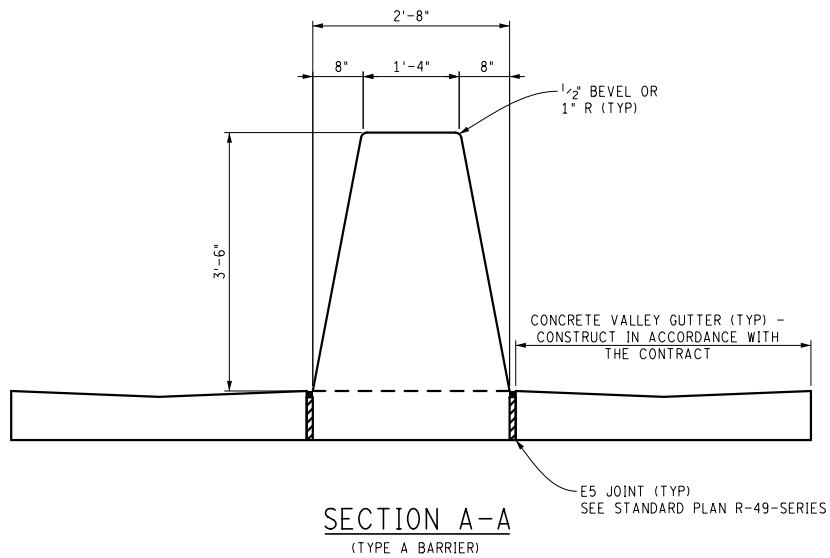
F.H.W.A. APPROVAL

06/03/2021  
PLAN DATE

SIGN-365-A

SHEET  
2 OF 8

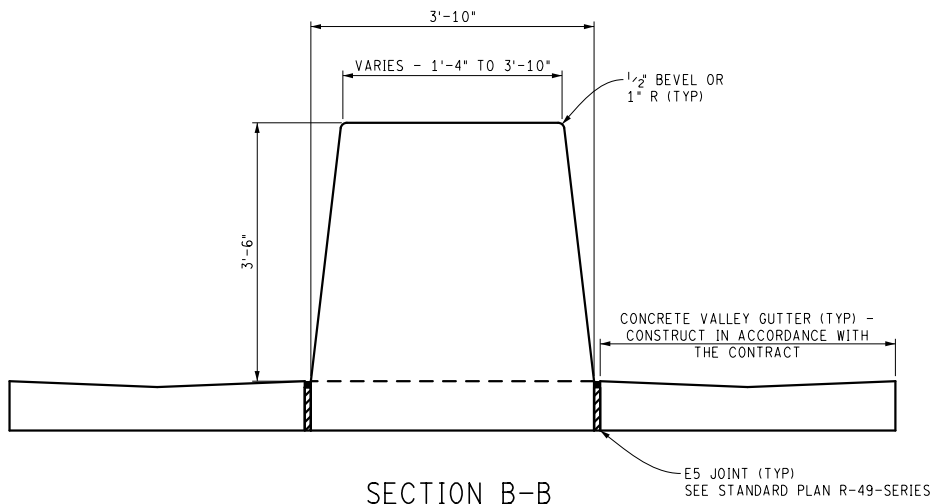
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MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	06/03/2021 PLAN DATE	SIGN-365-A	SHEET 3 OF 8
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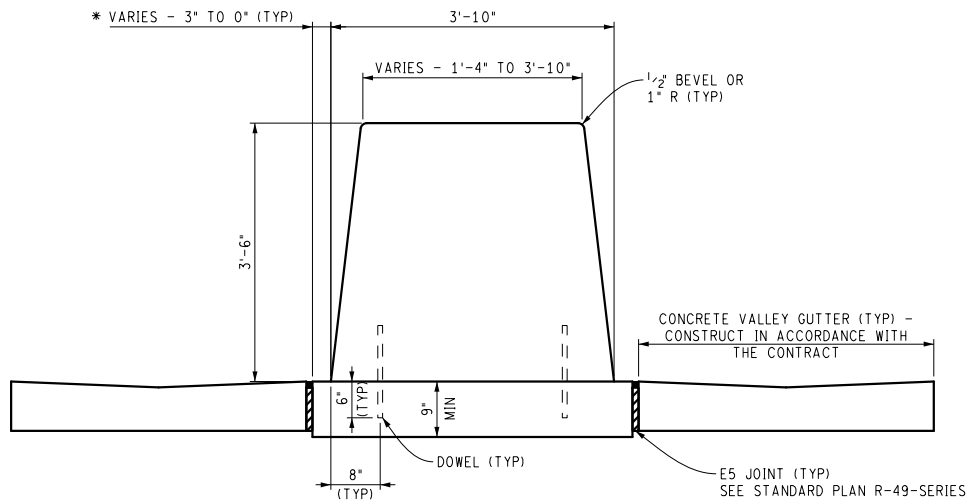
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**SECTION B-B**

(TYPE A BARRIER)  
UNIFORMLY TRANSITION THE BARRIER FACES FROM SINGLE SLOPE SHAPE TO VERTICAL WALL

\* UNIFORMLY TRANSITION E5 JOINT FROM 3" OUTSIDE THE FACE OF THE CONCRETE BARRIER, DOUBLE FACE TO FLUSH WITH THE VERTICAL WALL BARRIER SECTION OVER THE LENGTH OF THE TRANSITION SECTION



**SECTION B-B**

(TYPE B BARRIER)  
UNIFORMLY TRANSITION THE BARRIER FACES FROM SINGLE SLOPE SHAPE TO VERTICAL WALL

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN

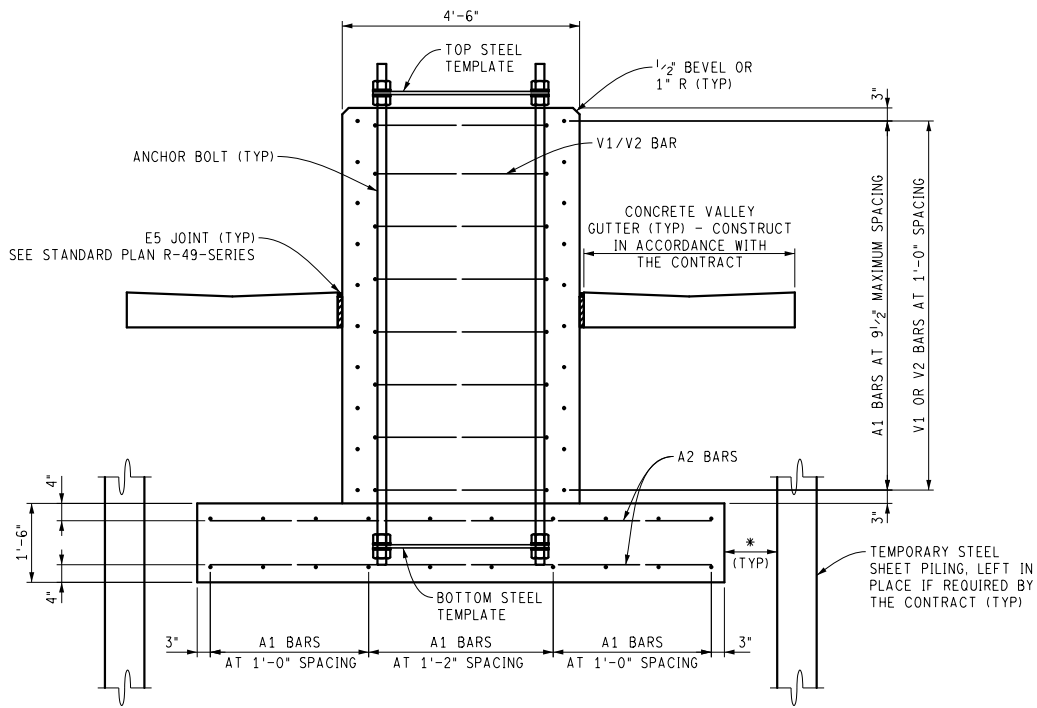
F.H.W.A. APPROVAL

06/03/2021  
PLAN DATE

SIGN-365-A

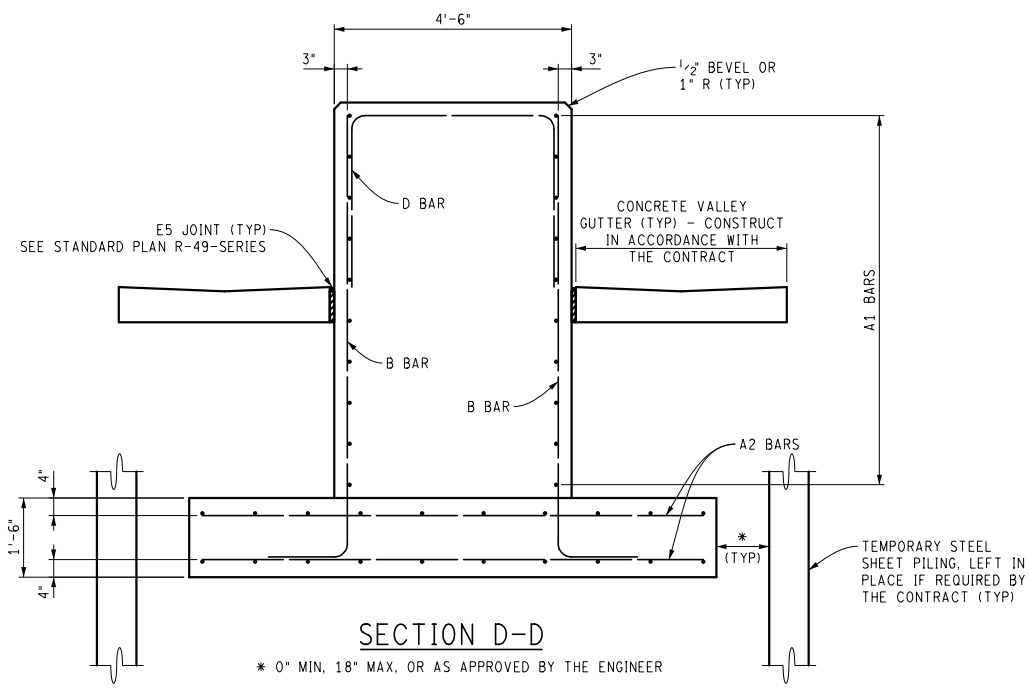
SHEET  
4 OF 8

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SECTION C-C

\* 0" MIN, 18" MAX, OR AS APPROVED BY THE ENGINEER



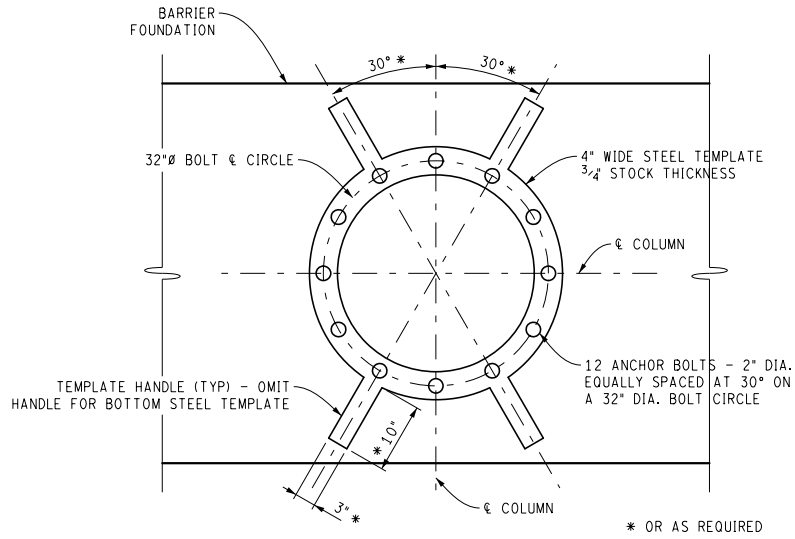
SECTION D-D

\* 0" MIN, 18" MAX, OR AS APPROVED BY THE ENGINEER

NOT TO SCALE

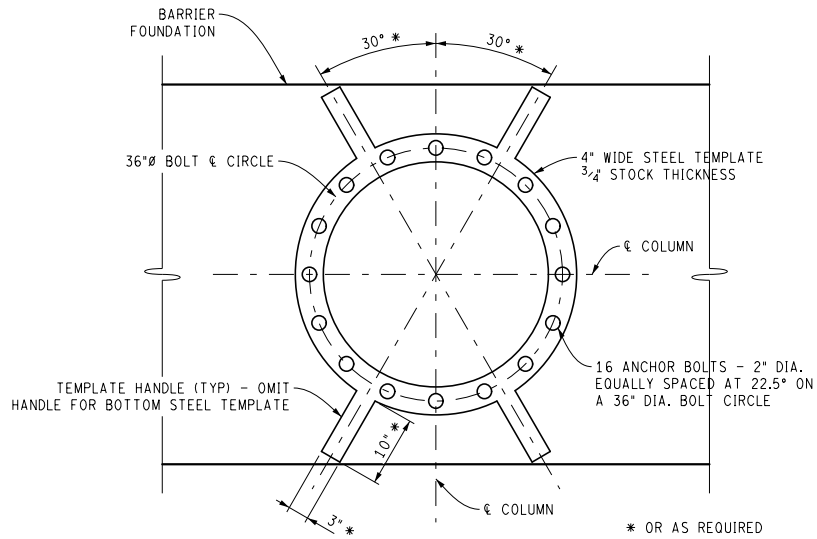
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	06/03/2021 PLAN DATE	SIGN-365-A	SHEET 5 OF 8
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PLAN VIEW TEMPLATE FOR TYPE E TRUSS 50' - 105'

NOTE: OMIT TEMPLATE HANDLES ON BOTTOM STEEL TEMPLATES.



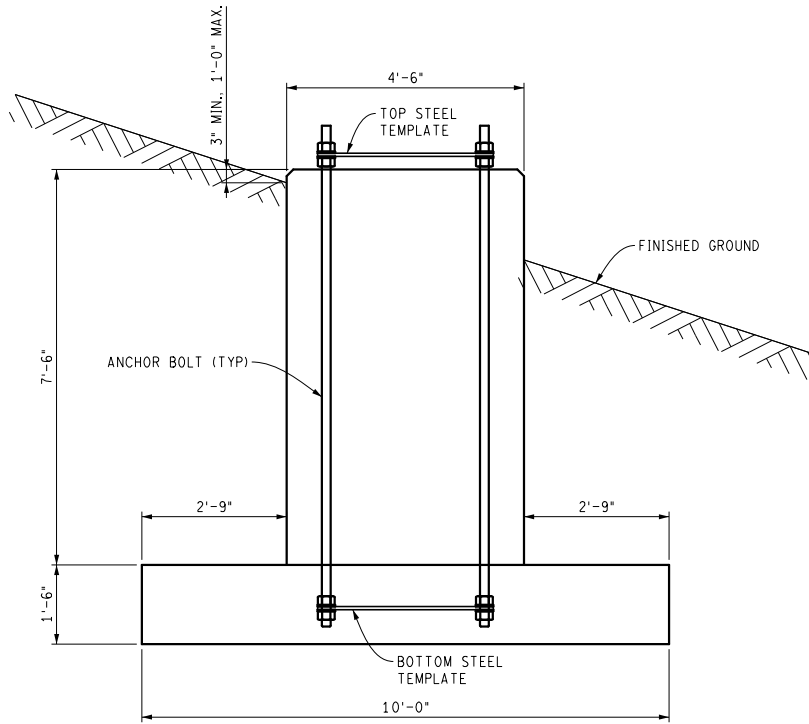
PLAN VIEW TEMPLATE FOR TYPE E TRUSS 110' - 140'

NOTE: OMIT TEMPLATE HANDLES ON BOTTOM STEEL TEMPLATES.

NOT TO SCALE

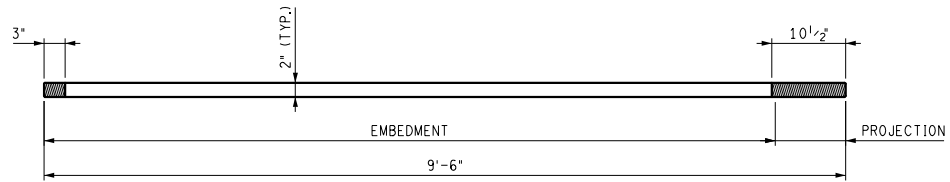
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**CROSS SECTION AT SHOULDER**

NOTE: SEE SECTION C-C AND D-D FOR ADDITIONAL INFORMATION.



**ANCHOR BOLT DETAIL**

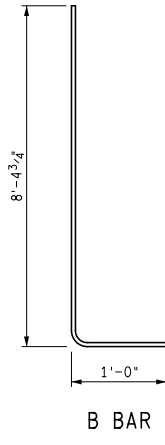
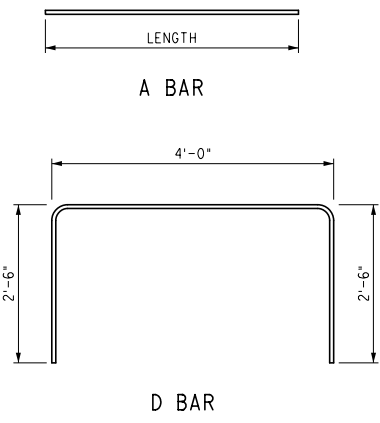
ANCHOR BOLT TABLE		
STRUCTURE TYPE	PROJECTION	NUMBER REQ'D
50' TO 105' TYPE E TRUSS	10"	12
110' TO 140' TYPE E TRUSS	10"	16

NUTS: 4 PER ANCHOR BOLT  
 WASHERS: 4 PER ANCHOR BOLT

NOT TO SCALE

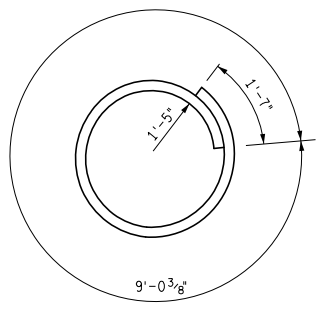
MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	06/03/2021 PLAN DATE	SIGN-365-A	SHEET 7 OF 8
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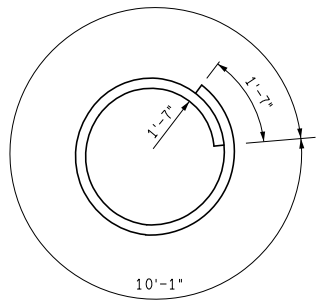


STEEL REINFORCEMENT (EPOXY COATED)				
BAR	BAR SIZE	LENGTH	NUMBER REQUIRED	WEIGHT (LBS)
A1	#5	23'-6"	40	981
A2	#5	9'-6"	96	952
B	#6	9'-4 3/4"	52	734
D	#6	9'-0"	26	352
V1	#4	10'-7 3/8"	8	57
V2	#4	11'-8"	8	63

CONCRETE QUANTITIES	
FOOTING	13.4 CYD
VERTICAL WALL SECTION	30.0 CYD
TRANSITION SECTIONS (TYPE A)	19.4 CYD
TRANSITION SECTIONS (TYPE B)	20.1 CYD



V1 BAR  
NOTE: USE WITH 32" DIA. BOLT CIRCLE.



V2 BAR  
NOTE: USE WITH 36" DIA. BOLT CIRCLE.

**NOTES:**

THE DESIGN OF THIS FOUNDATION IS BASED ON THE STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS, 6th EDITION (2013) WITH 2019 INTERIM REVISIONS.

THE FOUNDATION DESIGN IS BASED ON A MAXIMUM AVERAGE FOUNDATION PRESSURE OF 2500 PSF.

USE OF THESE DETAILS IS ONLY PERMITTED FOR FINISHED GRADES OF 1:3 OR FLATTER.

FOR SLOPES OF 1:6 OR FLATTER, DO NOT USE THIS FOOTING ON COHESIVE SOIL THAT HAS AN ULTIMATE SHEAR STRENGTH ( $S_{uc}$ ) OF LESS THAN 1250 PSF.

FOR SLOPES BETWEEN 1:3 TO 1:6, DO NOT USE THIS FOOTING ON COHESIVE SOIL THAT HAS AN ULTIMATE SHEAR STRENGTH ( $S_{uc}$ ) OF LESS THAN 1750 PSF.

DO NOT USE THIS FOOTING ON GRANULAR SOIL WITH STANDARD PENETRATION TEST N-VALUES LESS THAN 5.

IF STEEL SHEET PILING IS REQUIRED FOR CONSTRUCTION OF THE FOUNDATION, THEN STEEL SHEET PILING, TEMP. LEFT IN PLACE WILL BE PAID FOR SEPARATELY. THE STEEL SHEET PILING MUST BE LEFT IN PLACE AND CUT OFF 1' BELOW FINISHED GROUND.

A 3 1/2' SUBFOOTING MAY BE REQUIRED IF THE WATER TABLE IS HIGH OR WATER SEEPAGE INTO THE FOUNDATION EXCAVATION IS EXPECTED. THE CONCRETE FOR THE SUBFOOTING WILL BE PAID FOR SEPARATELY USING THE APPROPRIATE PAY ITEMS.

THE TEMPLATES AND ANCHOR BOLT CAGE MUST BE APPROVED BY MDOT PRIOR TO SHIPPING.

DIAMETER OF BOLT HOLES IN TEMPLATES SHALL BE 1/16" LARGER THAN ANCHOR BOLT DIAMETER.

DO NOT HAMMER ON ANCHOR BOLTS OR TEMPLATES.

AFTER THE TOP STEEL TEMPLATE IS REMOVED, THREAD NUTS ON TO BOLT FLUSH WITH THE BOLT END TO PROTECT THREADS UNTIL TRUSS IS ERECTED.

NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	_____	06/03/2021	SIGN-365-A	SHEET 8 OF 8
	F.H.W.A. APPROVAL	PLAN DATE		

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