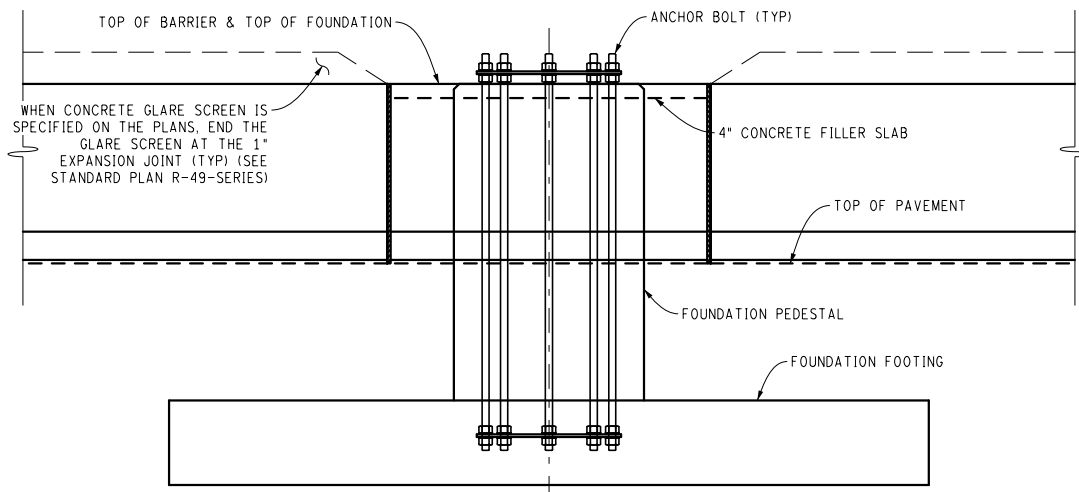


PLAN VIEW



ELEVATION VIEW

**NOTES:**

WHEN THE FOUNDATION IS LOCATED WITHIN THE MEDIAN BARRIER, USE STANDARD PLAN R-49-SERIES FOR ADDITIONAL BARRIER DETAILS NOT SHOWN.

LOCATE THE TOP OF FOUNDATION PEDESTAL AT THE TOP OF BARRIER.



PREPARED BY  
DESIGN DIVISION

DRAWN BY: DB

CHECKED BY: AU

DEPARTMENT DIRECTOR  
Paul C. Ajegba

APPROVED BY: \_\_\_\_\_  
DIRECTOR, BUREAU OF FIELD SERVICES

APPROVED BY: \_\_\_\_\_  
DIRECTOR, BUREAU OF DEVELOPMENT

MICHIGAN DEPARTMENT OF TRANSPORTATION  
BUREAU OF DEVELOPMENT STANDARD PLAN FOR

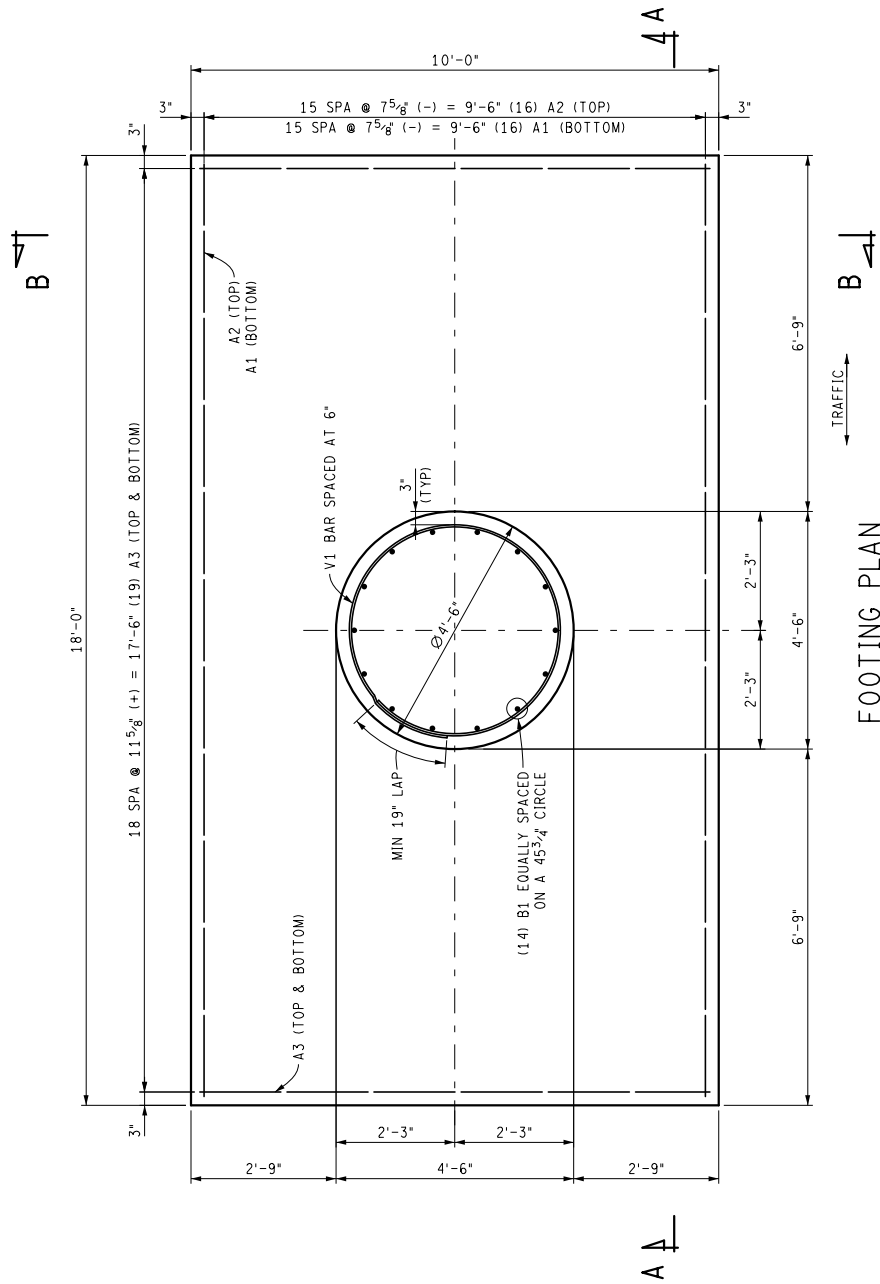
SPREAD FOOTING FOUNDATION  
FOR CANTILEVER TYPE J

F.H.W.A. APPROVAL

06/03/2021  
PLAN DATE

SIGN-375-A

SHEET  
1 OF 6



FOOTING PLAN

NOT TO SCALE

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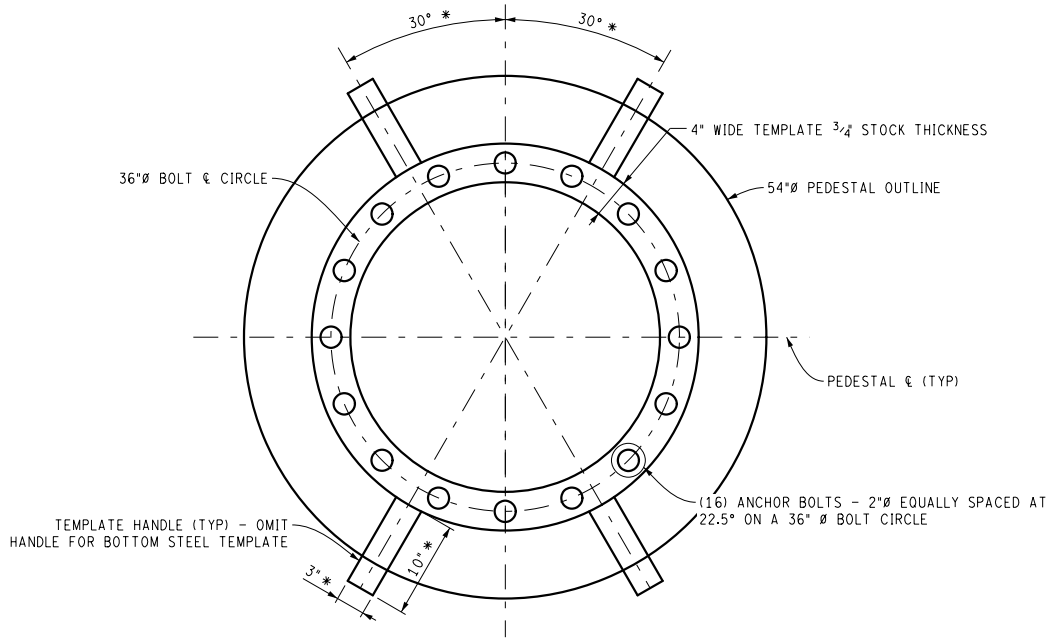
F.H.W.A. APPROVAL

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PLAN DATE

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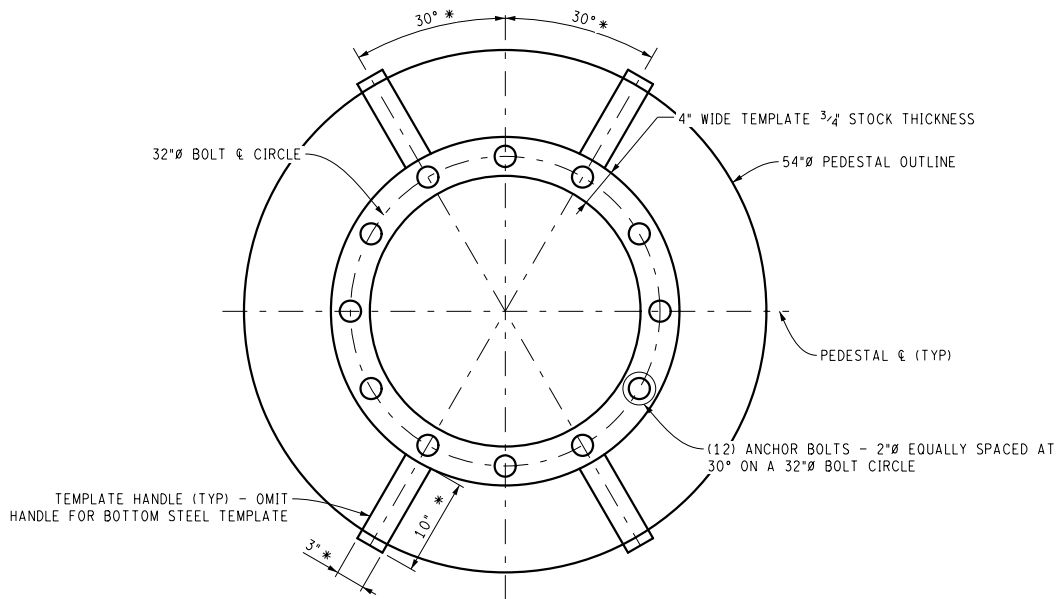
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**PLAN VIEW 1**

(FOR USE WITH 35 FT AND 40 FT CANTILEVER ARMS)  
 \* OR AS REQUIRED BY THE ENGINEER.  
 NOTE: OMIT TEMPLATE HANDLES ON BOTTOM STEEL TEMPLATES.



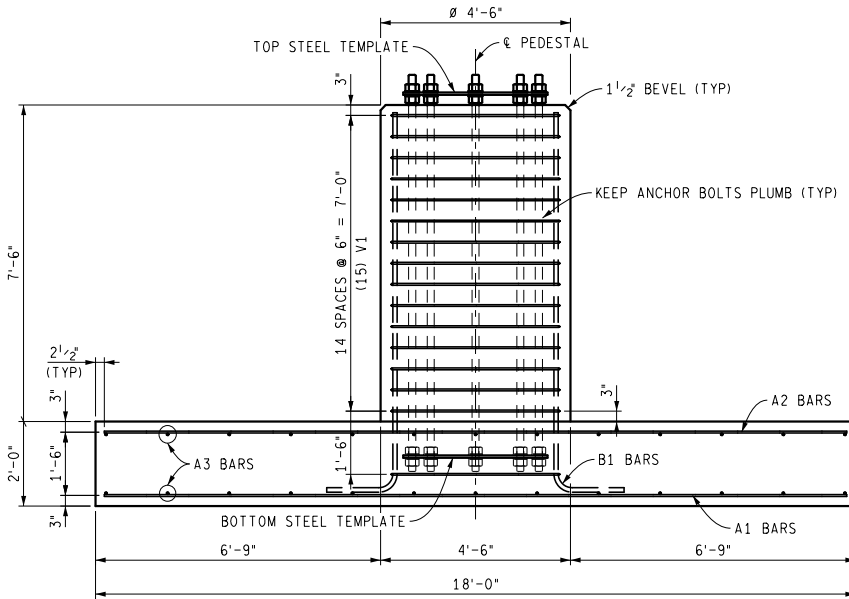
**PLAN VIEW 2**

(FOR USE WITH 20 FT THROUGH 30 FT CANTILEVER ARMS OR  
 WITH 35 FT AND 40 FT CANTILEVER ARMS WITH  
 REDUCED SIGN AREA SHOWN IN SIGN-350-SERIES.)  
 \* OR AS REQUIRED BY THE ENGINEER.  
 NOTE: OMIT TEMPLATE HANDLES ON BOTTOM STEEL TEMPLATES.

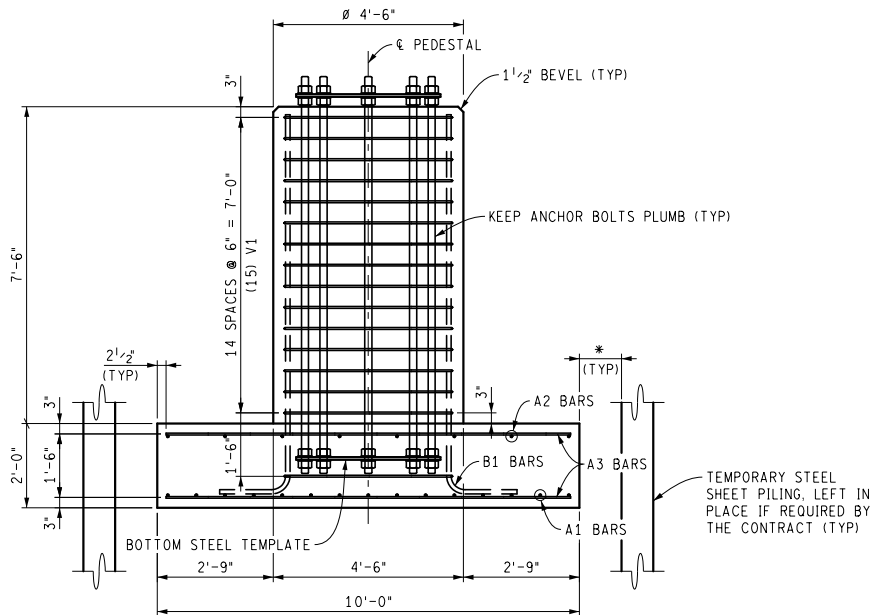
NOT TO SCALE

MICHIGAN DEPARTMENT OF TRANSPORTATION BUREAU OF DEVELOPMENT STANDARD PLAN	F.H.W.A. APPROVAL	06/03/2021 PLAN DATE	SIGN-375-A SHEET 3 OF 6
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SECTION A-A



SECTION B-B

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

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BUREAU OF DEVELOPMENT STANDARD PLAN

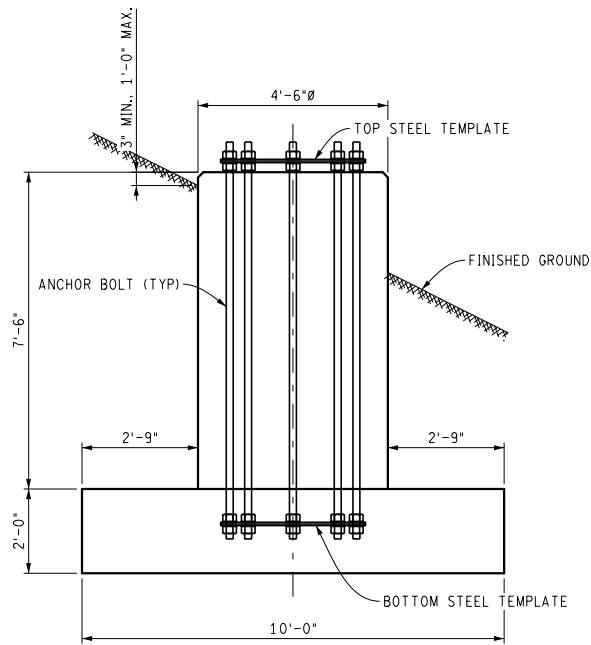
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PLAN DATE

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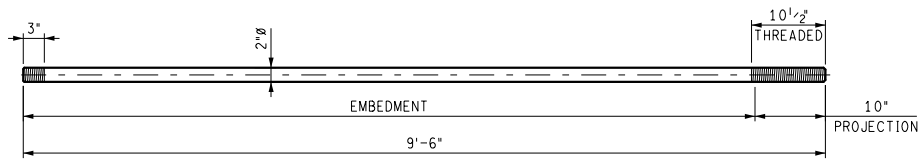
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**CROSS SECTION AT SHOULDER**

NOTE: SEE SECTION A-A AND B-B FOR ADDITIONAL INFORMATION



**ANCHOR BOLT DETAIL**

ANCHOR BOLT TABLE	
STRUCTURE TYPE	NUMBER REQ'D
20 FT TO 30 FT TYPE J CANTILEVERS	12 EA
35 FT TO 40 FT TYPE J CANTILEVERS	16 EA

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

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BUREAU OF DEVELOPMENT STANDARD PLAN

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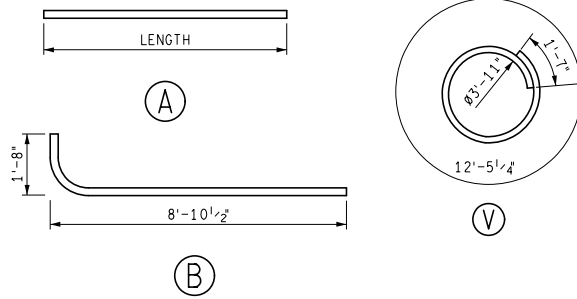
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STEEL REINFORCEMENT (EPOXY COATED)				
BAR	BAR SIZE	LENGTH	NUMBER REQUIRED	WEIGHT (LBS)
A1	#8	17'-6"	16	748
A2	#5	17'-6"	16	292
A3	#5	9'-6"	38	377
B1	#10	10'-6 <sup>1</sup> / <sub>2</sub> "	14	635
V1	#4	14'-0 <sup>1</sup> / <sub>4</sub> "	16	150



CONCRETE QUANTITIES	
FOOTING	13.4 CYD
PEDESTAL	4.5 CYD

### 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<sup>1</sup>/<sub>2</sub>' 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 MDT PRIOR TO SHIPPING.

DIAMETER OF BOLT HOLES IN TEMPLATES SHALL BE <sup>1</sup>/<sub>16</sub>" 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

F.H.W.A. APPROVAL

06/03/2021

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6 OF 6

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