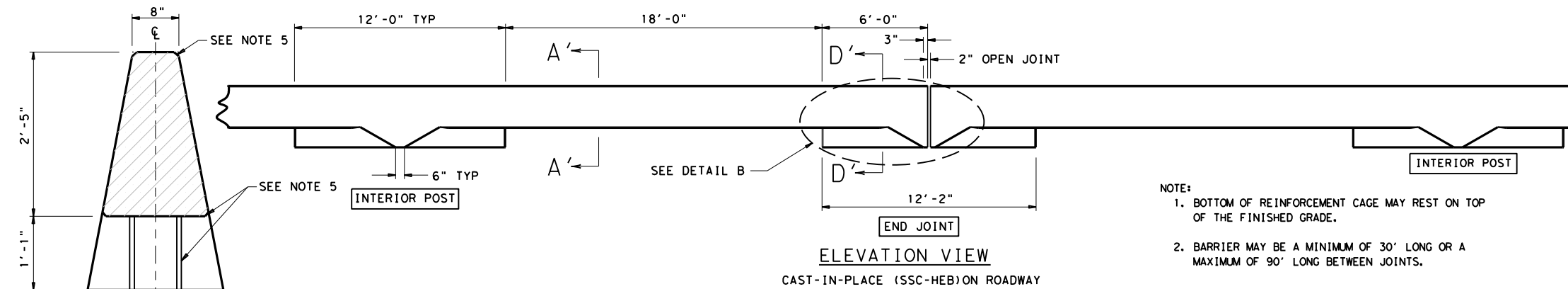


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FILE:

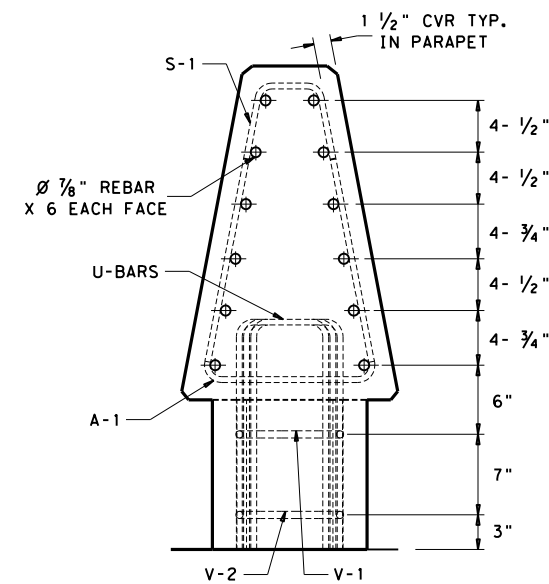


- NOTE:**
1. BOTTOM OF REINFORCEMENT CAGE MAY REST ON TOP OF THE FINISHED GRADE.
  2. BARRIER MAY BE A MINIMUM OF 30' LONG OR A MAXIMUM OF 90' LONG BETWEEN JOINTS.

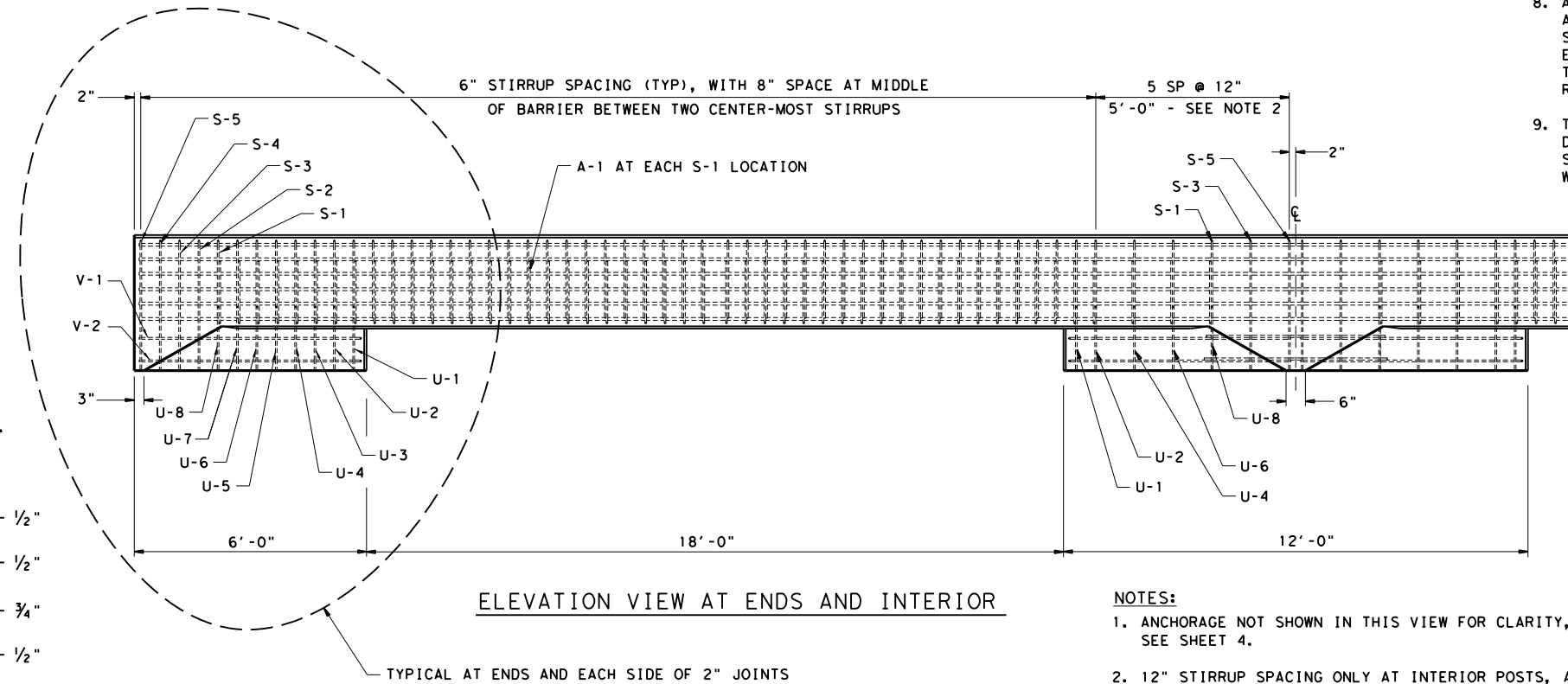
**GENERAL NOTES**

1. CONCRETE SHALL BE CLASS C. UNLESS OTHERWISE SPECIFIED IN THE PLANS. CONCRETE STRENGTH IS 3600 PSI.
2. THESE DETAILS COVER BARRIER PER ITEM 514, "PERMANENT CONCRETE TRAFFIC BARRIER".
3. THE ANCHORAGE SHOWN IS CONSIDERED SUBSIDIARY TO THE BID ITEM.
4. CAST-IN-PLACE BARRIER MAY BE SLIP FORMED. BRACING MAY BE TIED OR TACK WELDED TO THE REINFORCEMENT CAGE TO PROVIDE CAGE STABILITY. DO NOT WELD TO ANCHORAGE.
5. 1" CHAMFER ( $\frac{3}{4}$ " EACH WAY) ON EDGES OF PARAPET AND CORNERS OF POSTS WHERE INDICATED.
6. SOME REBAR NOT SHOWN FOR CLARITY.
7. ALL REBAR IS GRADE 60 AND SHALL CONFORM TO ASTM A615. REBAR DIMENSIONS IN ELEVATION AND SECTION VIEW ARE TO CENTER UNLESS OTHERWISE INDICATED BY "CVR" (COVER). LAP LENGTH FOR  $\frac{7}{8}$ " DIAMETER BARS IS 52".
8. ANCHORAGE: THE STANDARD ANCHORAGE SYSTEM, AND OPTIONAL EPOXY ANCHORAGE ARE SHOWN ON SHT. 4. THE OPTIONAL EPOXY ANCHORAGE SYSTEM SHALL USE A HILTI HIT-RE-500 V3 EPOXY OR APPROVED EQUIVALENT. FOLLOW THE MANUFACTURER'S DIRECTIONS FOR INSTALLING THE EPOXYED ANCHOR BARS. ALL ANCHORAGE SHOWN IS THE MINIMUM REQUIRED, AND CONSIDERED SUBSIDIARY TO THE BID ITEM.
9. THIS BARRIER SYSTEM HAS AN ESTIMATED 6 INCHES OF MAXIMUM DYNAMIC DEFLECTION FOR MASH TL-4 IMPACT CONDITIONS FOR THE SHORTEST SEGMENT LENGTH OF 30 FT. LONGER SEGMENT LENGTHS WILL HAVE LESS DEFLECTION.

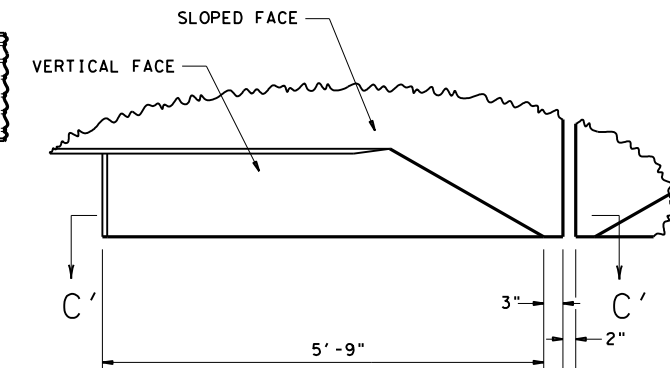
**SECTION A'-A'**  
CAST-IN-PLACE (CIP) BARRIER  
BARRIER IS SYMMETRICAL ABOUT THE CENTER LINE



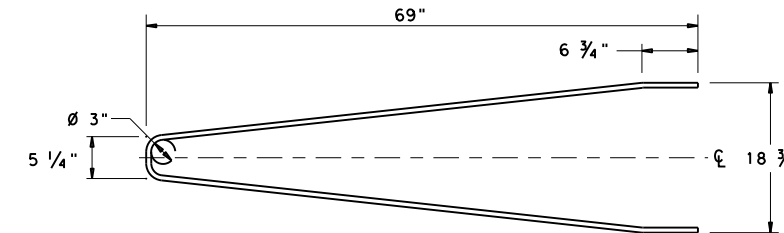
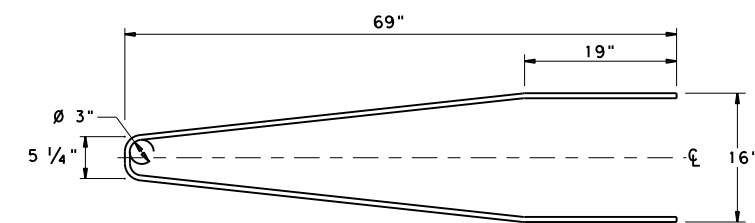
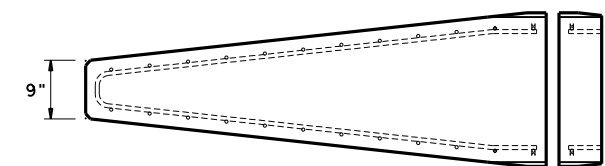
**SECTION D'-D'**



- NOTES:**
1. ANCHORAGE NOT SHOWN IN THIS VIEW FOR CLARITY, SEE SHEET 4.
  2. 12" STIRRUP SPACING ONLY AT INTERIOR POSTS, AS SHOWN. 6" STIRRUP SPACING IS REQUIRED AT ALL END POSTS AND EACH SIDE OF ALL 2" JOINTS.



**SECTION C'-C'**



SHEET 1 OF 4

		<b>Design Division Standard</b>	
<b>SINGLE SLOPE CONCRETE HYDRAULICALLY EFFICIENT BARRIER (HEB)</b> <b>CAST-IN-PLACE (RIGID PAVEMENT)</b> <b>TL-4 MASH COMPLIANT</b> <b>SSCHEB-21</b>			
FILE: sscheb21.dgn	DN: TXDOT	CK: KM	DW: AG
©TXDOT: FEBRUARY 2021	CONT	SECT	JOB
REVISIONS		HIGHWAY	
DIST	COUNTY	SHEET NO.	

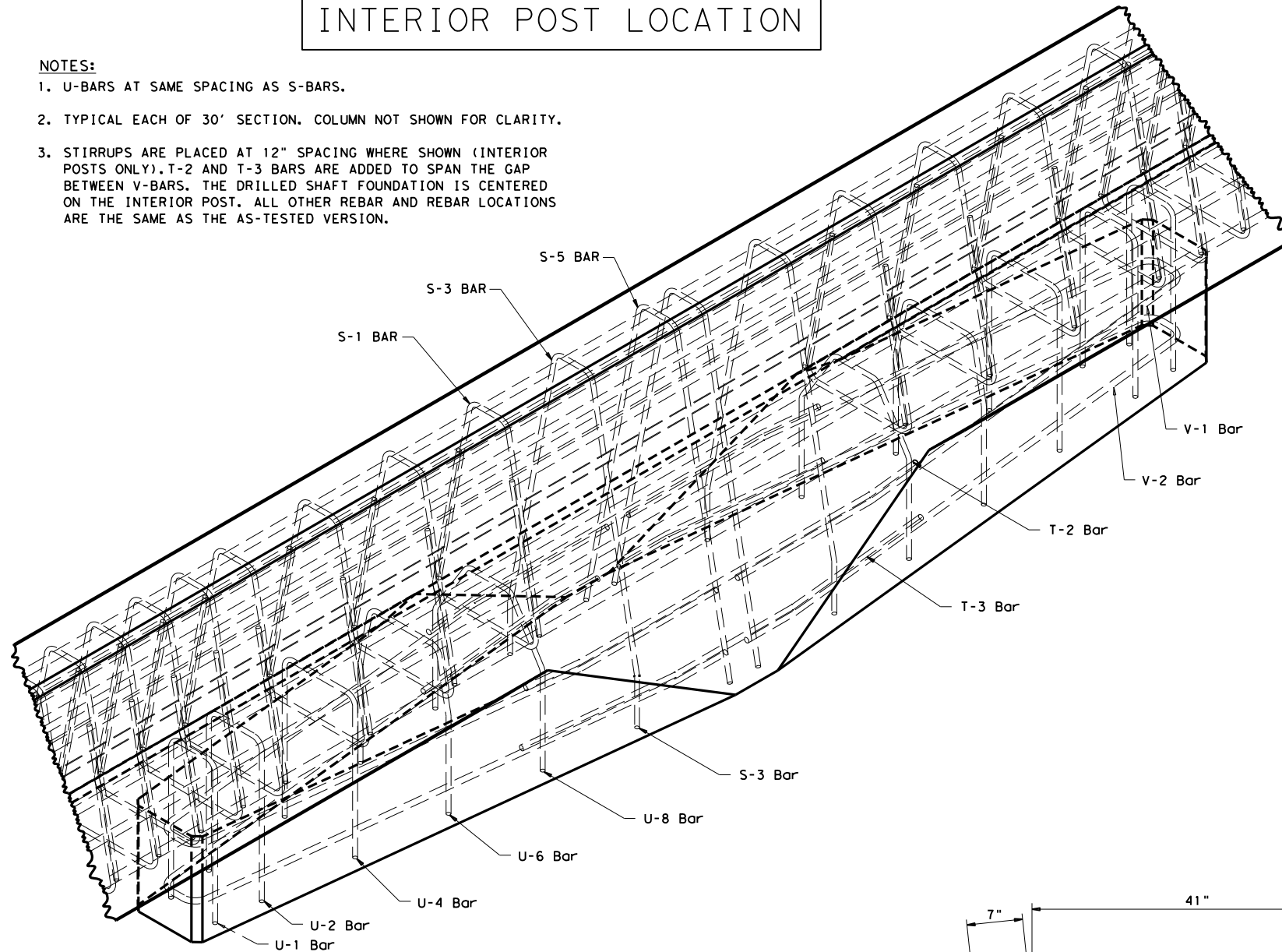
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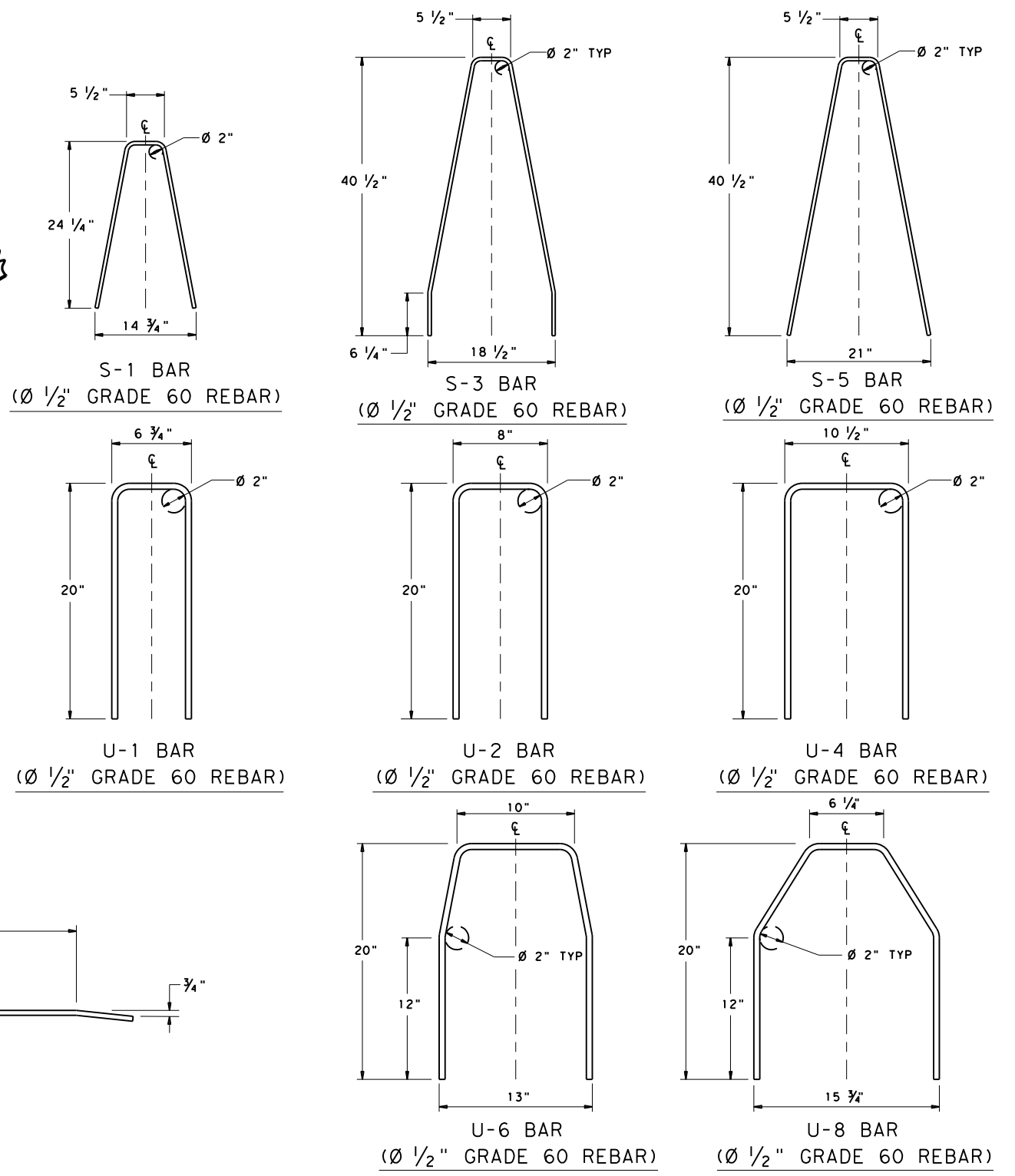
# INTERIOR POST LOCATION

**NOTES:**

1. U-BARS AT SAME SPACING AS S-BARS.
2. TYPICAL EACH OF 30' SECTION. COLUMN NOT SHOWN FOR CLARITY.
3. STIRRUPS ARE PLACED AT 12" SPACING WHERE SHOWN (INTERIOR POSTS ONLY). T-2 AND T-3 BARS ARE ADDED TO SPAN THE GAP BETWEEN V-BARS. THE DRILLED SHAFT FOUNDATION IS CENTERED ON THE INTERIOR POST. ALL OTHER REBAR AND REBAR LOCATIONS ARE THE SAME AS THE AS-TESTED VERSION.



**DETAIL C: ISOMETRIC VIEW AT INTERIOR POST**  
 ANCHORAGE NOT SHOWN FOR CLARITY

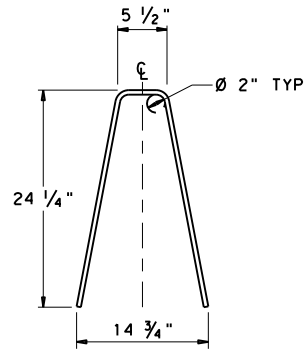


SHEET 2 OF 4

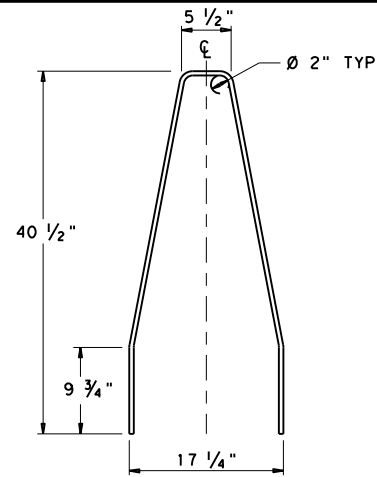
		Design Division Standard			
SINGLE SLOPE CONCRETE HYDRAULICALLY EFFICIENT BARRIER (HEB) CAST-IN-PLACE (RIGID PAVEMENT) TL-4 MASH COMPLIANT <b>SSCHEB-21</b>					
FILE:	sscheb21.dgn	DN:TXDOT	CK:KM	DW:AG	CK:KM
©TXDOT:	FEBRUARY 2021	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY	SHEET NO.	

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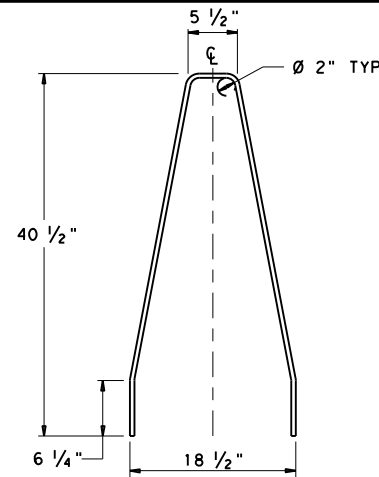
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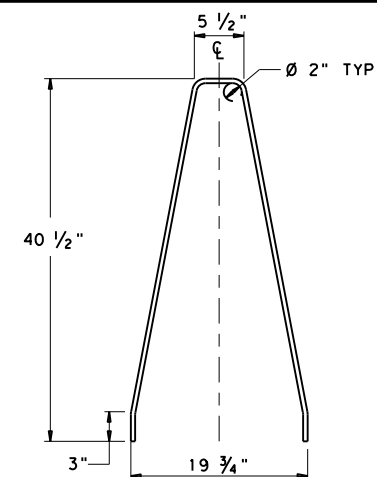
S-1 BAR  
(Ø 1/2" GRADE 60 REBAR)



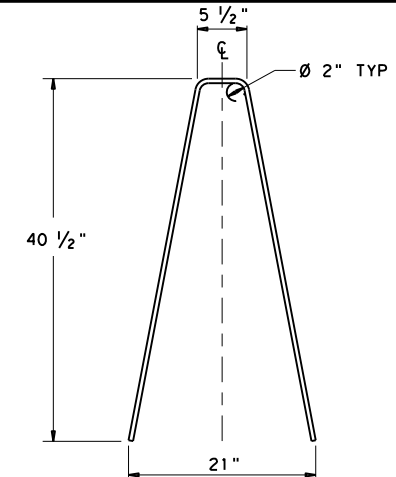
S-2 BAR  
(Ø 1/2" GRADE 60 REBAR)



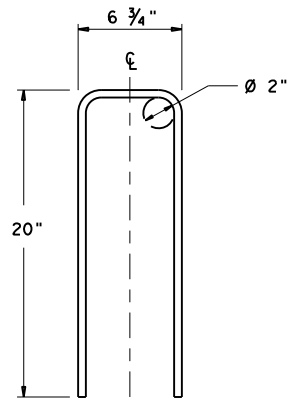
S-3 BAR  
(Ø 1/2" GRADE 60 REBAR)



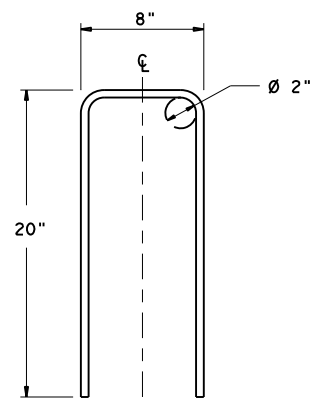
S-4 BAR  
(Ø 1/2" GRADE 60 REBAR)



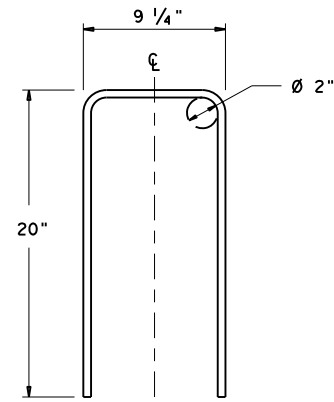
S-5 BAR  
(Ø 1/2" GRADE 60 REBAR)



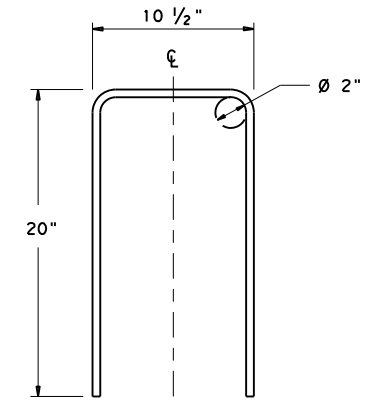
U-1 BAR  
(Ø 1/2" GRADE 60 REBAR)



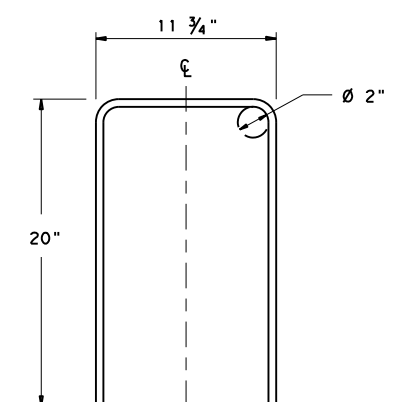
U-2 BAR  
(Ø 1/2" GRADE 60 REBAR)



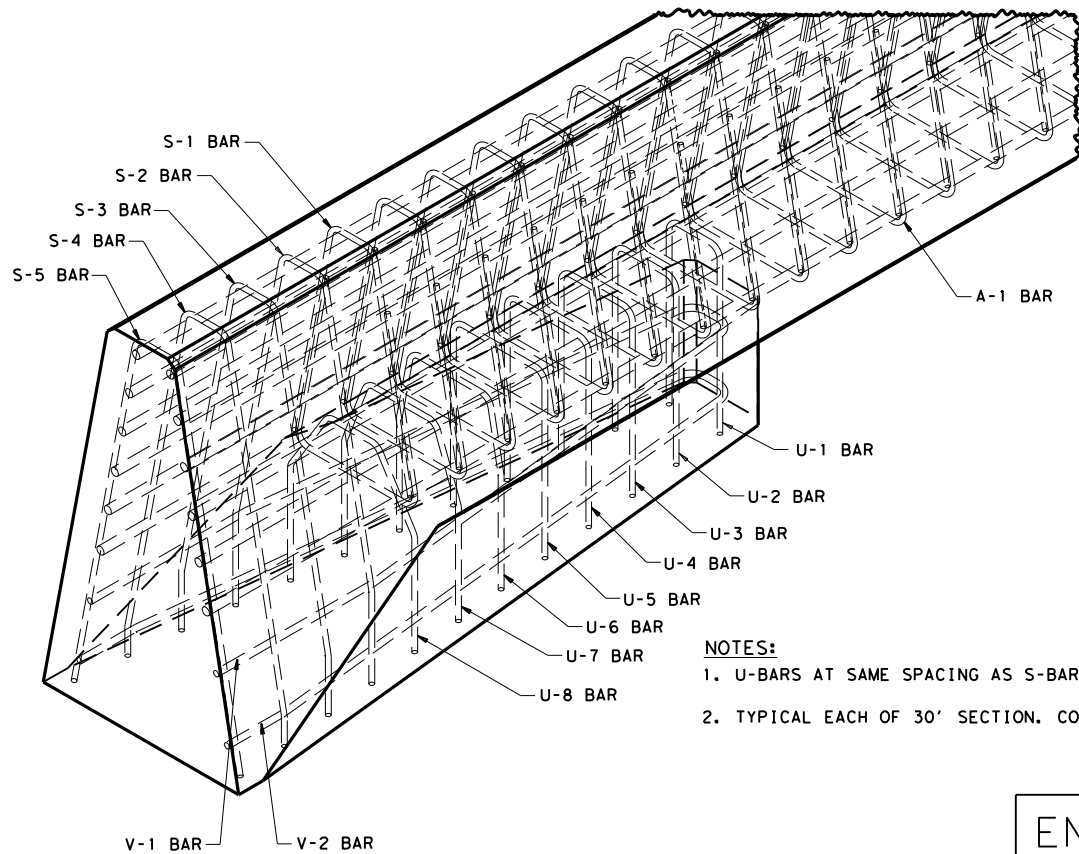
U-3 BAR  
(Ø 1/2" GRADE 60 REBAR)



U-4 BAR  
(Ø 1/2" GRADE 60 REBAR)



U-5 BAR  
(Ø 1/2" GRADE 60 REBAR)

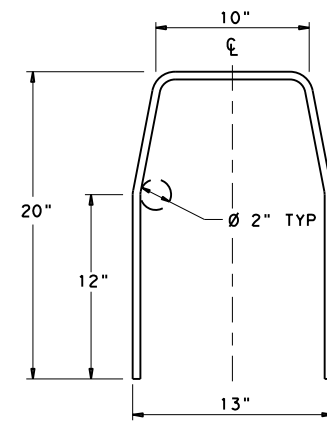


DETAIL C: ISO VIEW AT END

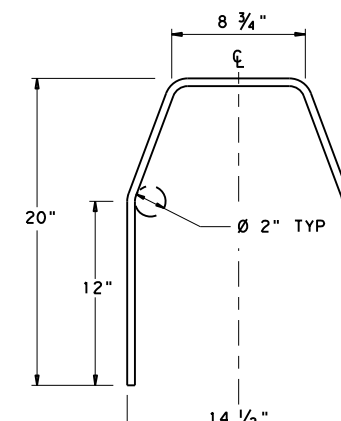
**NOTES:**

1. U-BARS AT SAME SPACING AS S-BARS.
2. TYPICAL EACH OF 30' SECTION. COLUMN NOT SHOWN FOR CLARITY.

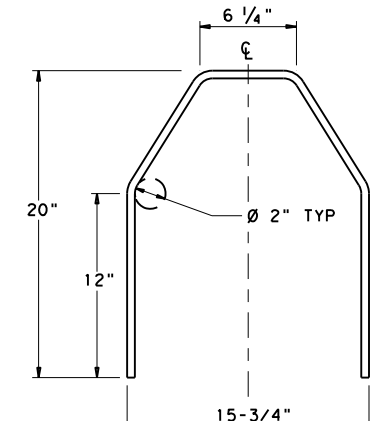
END POST LOCATION



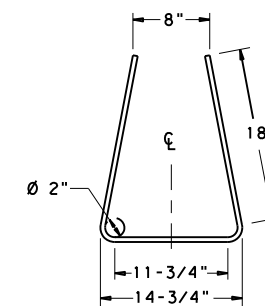
U-6 BAR  
(Ø 1/2" GRADE 60 REBAR)



U-7 BAR  
(Ø 1/2" GRADE 60 REBAR)



U-8 BAR  
(Ø 1/2" GRADE 60 REBAR)



A-1 BAR (Ø 1/2" GRADE 60 REBAR)

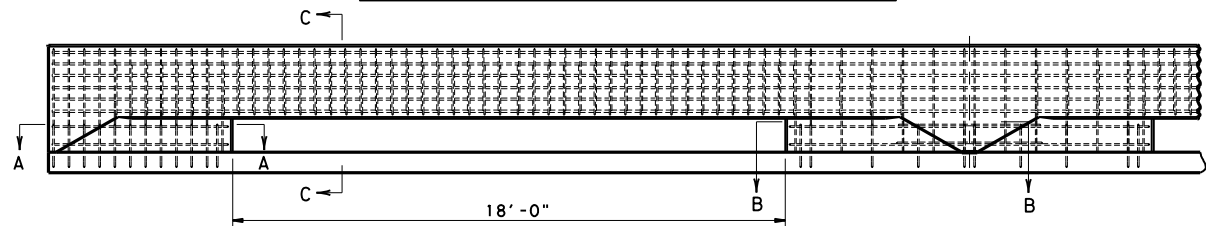
SHEET 3 OF 4

		Design Division Standard	
<b>SINGLE SLOPE CONCRETE HYDRAULICALLY EFFICIENT BARRIER (HEB) CAST-IN-PLACE (RIGID PAVEMENT) TL-4 MASH COMPLIANT</b>			
<b>SSCHEB-21</b>			
FILE: sscheb21.dgn	DN: TXDOT	CK: KM	DW: AG
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REVISIONS			
DIST	COUNTY	SHEET NO.	

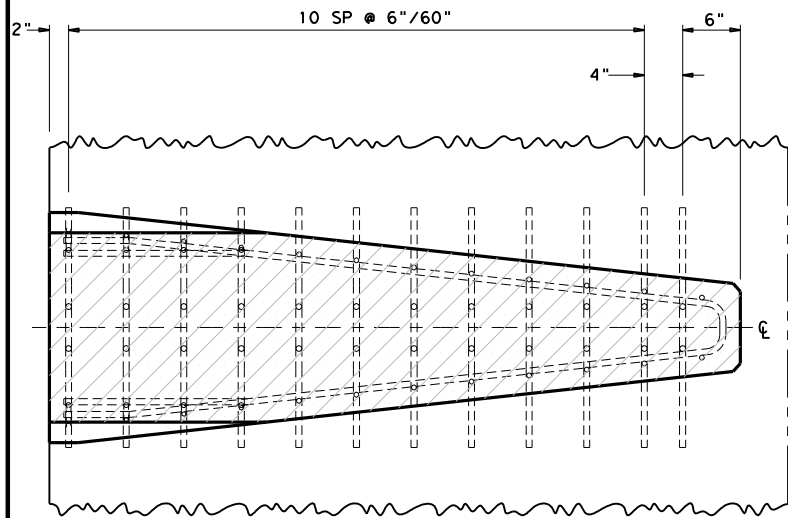
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FILE:

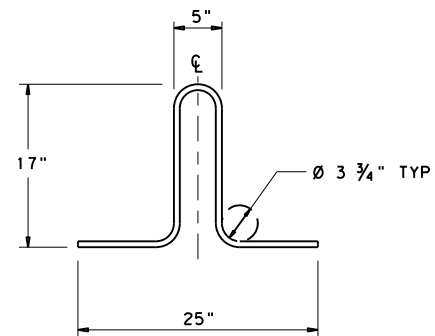
## STANDARD ANCHORAGE



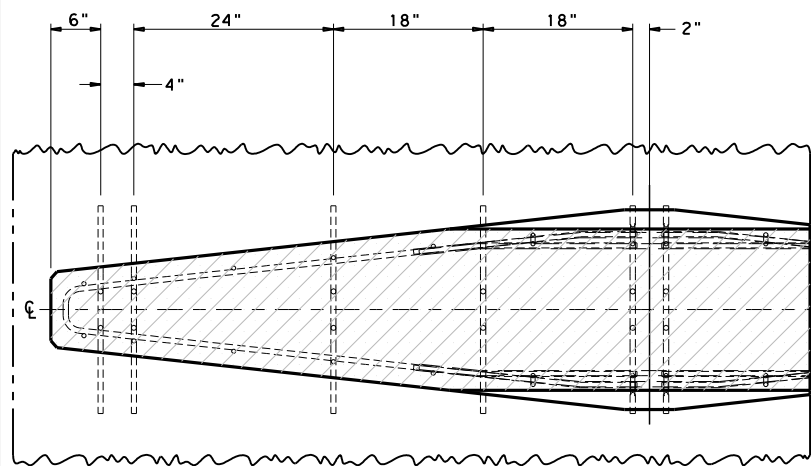
**ELEVATION VIEW**  
CAST-IN-PLACE ANCHORS



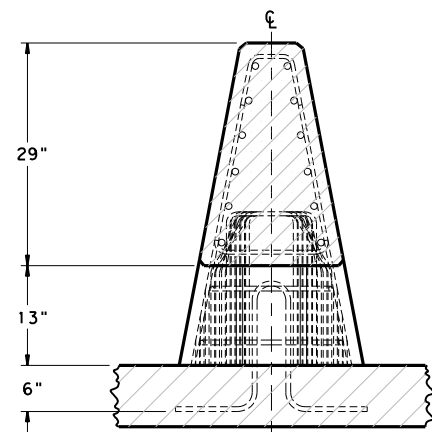
**SECTION A-A**  
TYPICAL END POST



**ANCHOR BAR**  
3/8" REBAR



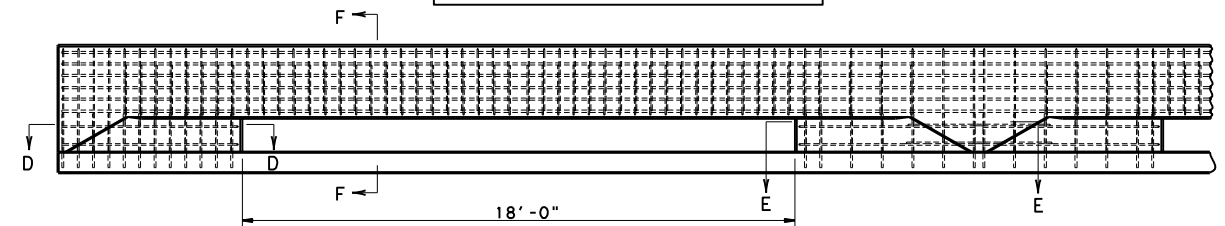
**SECTION B-B**  
TYPICAL INTERIOR POST



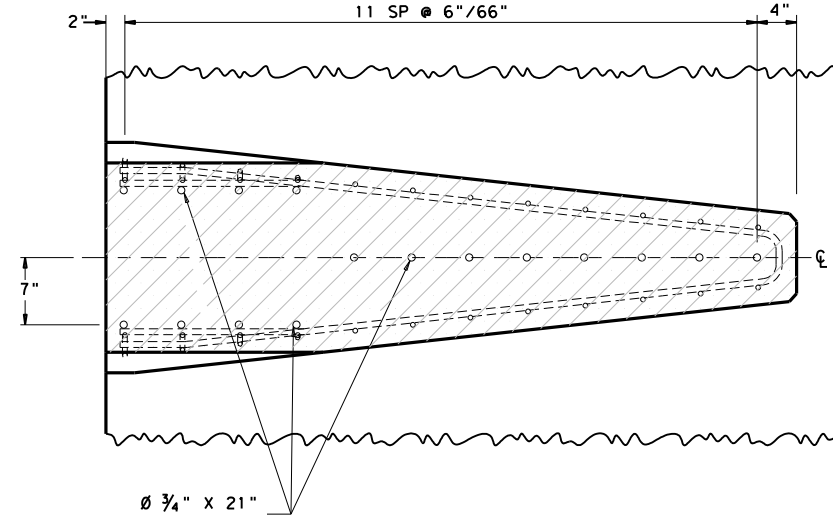
**SECTION C-C**

## ANCHOR DETAILS

## EPOXY OPTION

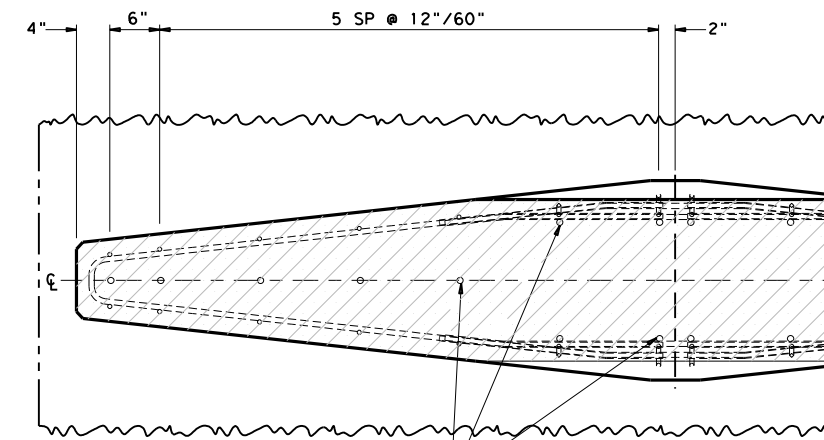


**ELEVATION VIEW**  
EPOXY ANCHORS



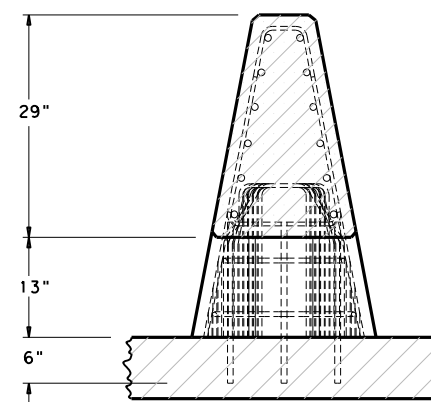
**SECTION D-D**  
TYPICAL END POST

Ø 3/4" x 21"  
REBAR X 16



Ø 3/4" x 21"  
REBAR X 18

**SECTION E-E**  
TYPICAL INTERIOR POST



**SECTION F-F**

SHEET 4 OF 4

Texas Department of Transportation		<i>Design Division Standard</i>		
SINGLE SLOPE CONCRETE HYDRAULICALLY EFFICIENT BARRIER (HEB) CAST-IN-PLACE (RIGID PAVEMENT) TL-4 MASH COMPLIANT <b>SSCHEB-21</b>				
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