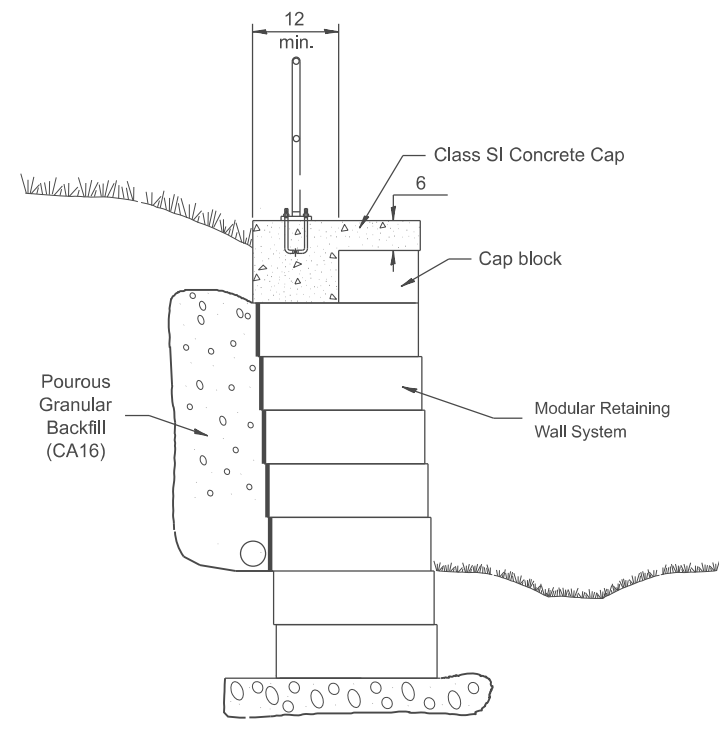
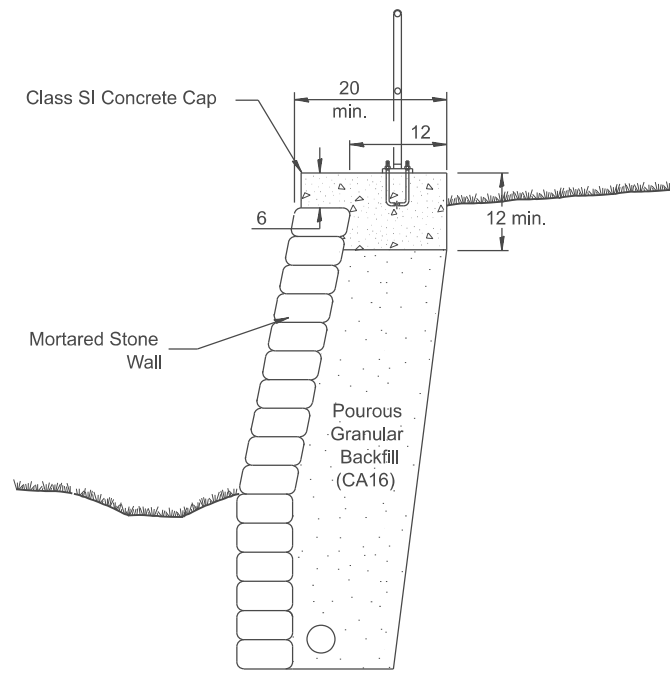


DESIGNER NOTE:  
 1. TO BE USED WITH CADD DRAWINGS: "MORTARED STONE WALL", AND/OR "MODULAR RETAINING WALL".  
 2. INCLUDE DISTRICT SPECIAL PROVISION. THE UNIT PRICE FOR PIPE HANDRAIL INCLUDES THE CONCRETE CAP, EXPANSION DEVICES, ETC.

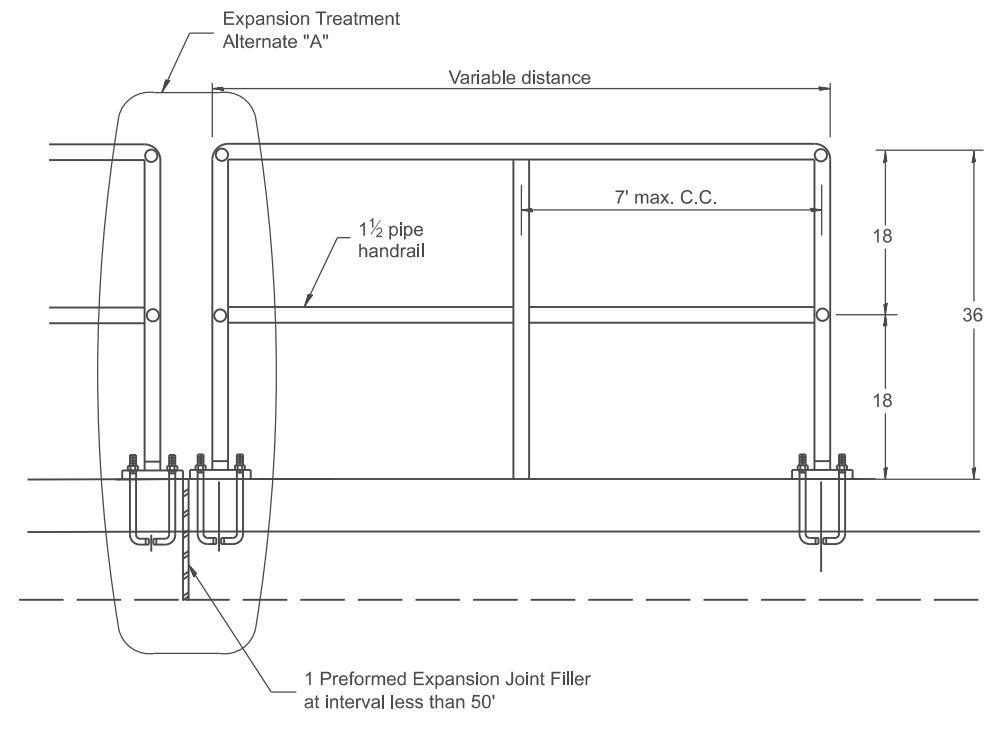
MODEL: SHT\_PLAN  
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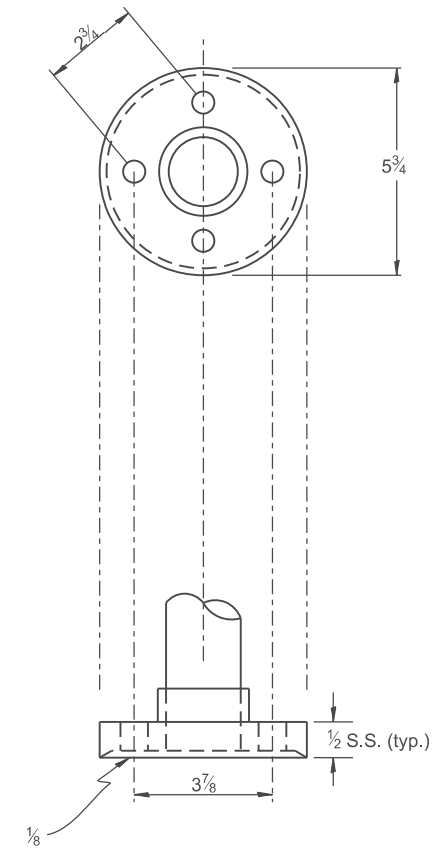
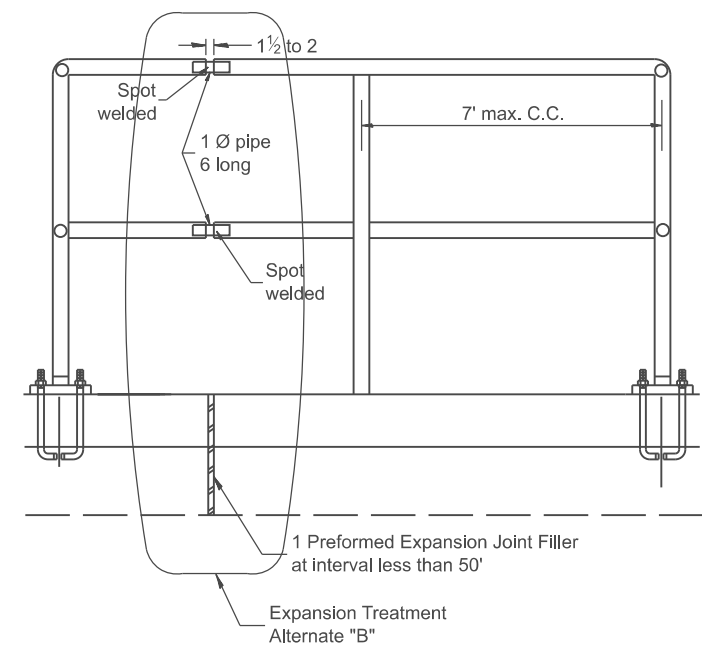
**INSTALLATION AT  
 MODULAR RETAINING WALL**



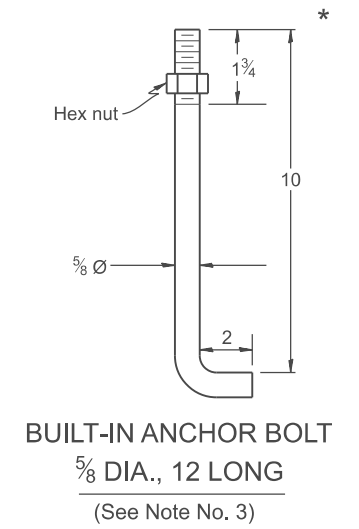
**INSTALLATION AT  
 MORTARED STONE WALL**



**PIPE HANDRAIL**



**CAST IRON OR STRUCTURAL  
 STEEL FITTING**



**BUILT-IN ANCHOR BOLT**  
 5/8 DIA., 12 LONG  
 (See Note No. 3)

**GENERAL NOTES**

- Article 509.04 of the Standard Specifications shall apply.
- Connection of railing to posts shall be made by continuous welding or with using standard pipe fitting.
- An equivalent epoxy anchor stud can be used in place of anchor shown. Anchor bolt holes shall be 5 deep x 3/4 Ø to be pre-drilled with an electric hammer drill to a depth of 1 prior to use of a pneumatic drill for the remaining 4. A two component encapsulated epoxy such as "Parabond" or an equivalent shall be used. Installation shall be according to Manufacturer's recommendations.
- The pipe handrail shall be galvanized by the hot dip process.
- It is Contractor's option to choose the expansion treatment "A" or "B". The spot welded area shall be painted to the satisfaction of the Engineer. This work shall be included in the contract unit price for Pipe Handrail.

All dimensions are in inches unless otherwise noted.

USER NAME = Eric.Thomas	DESIGNED -	REVISED -
	DRAWN -	REVISED -
	CHECKED -	REVISED -
PLOT DATE = 12/7/2022	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DETAIL OF PIPE HANDRAIL FOR MORTARED STONE WALL AND  
 MODULAR RETAINING WALL**

SCALE: NOT TO SCALE SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DISTRICT 4 DETAIL NO. 510101		CONTRACT NO.		
ILLINOIS FED. AID PROJECT				