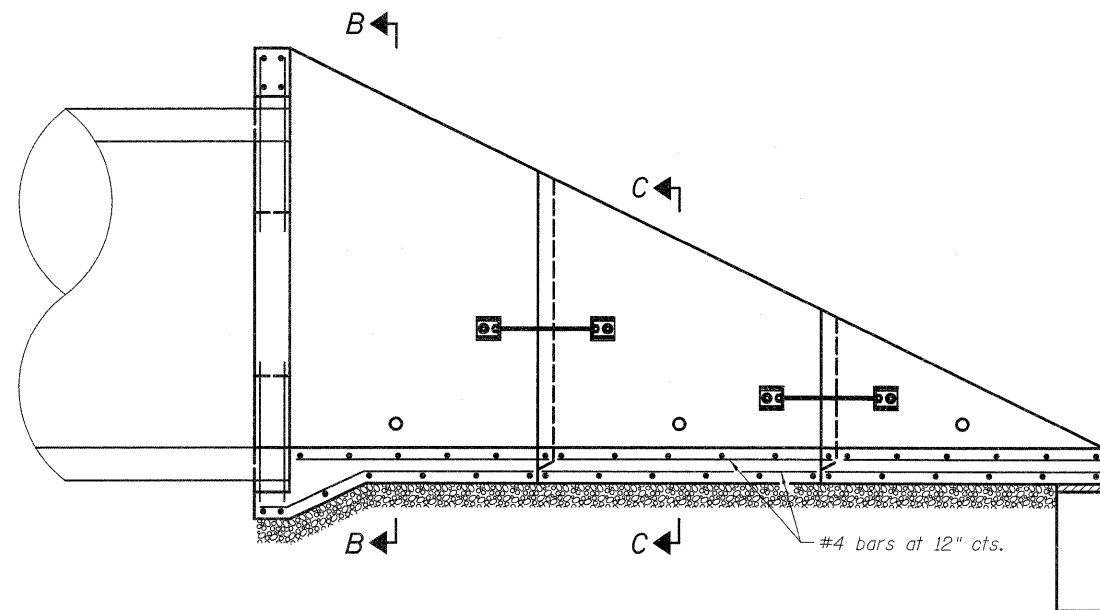
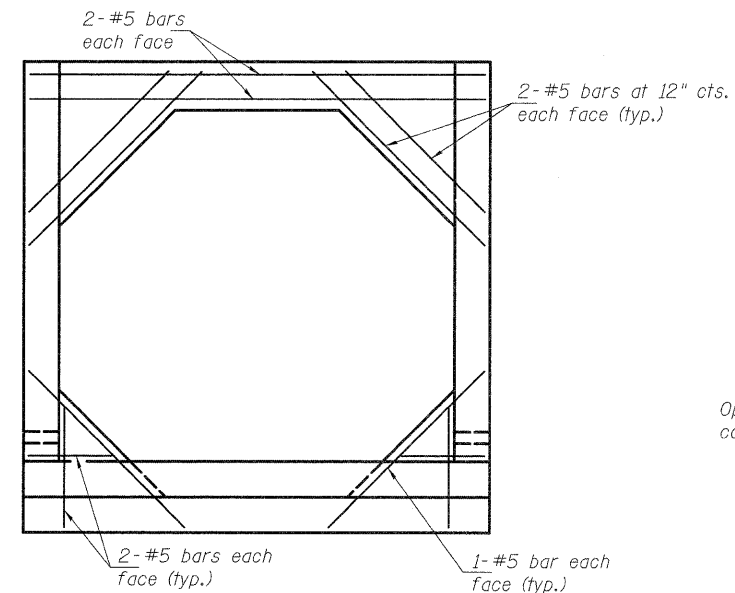


**DIMENSION**

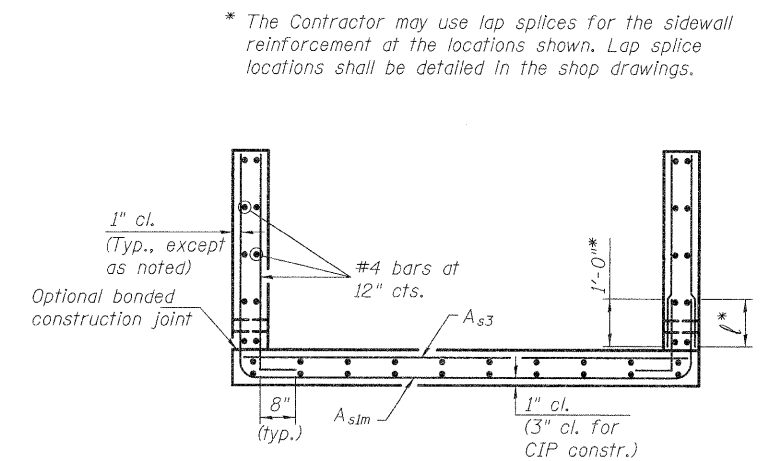
#4 bar = 1'-5"  
 #5 bar = 1'-9"  
 #6 bar = 2'-1"



**LONGITUDINAL SECTION**  
 (Showing bottom slab and backwall reinforcement.)



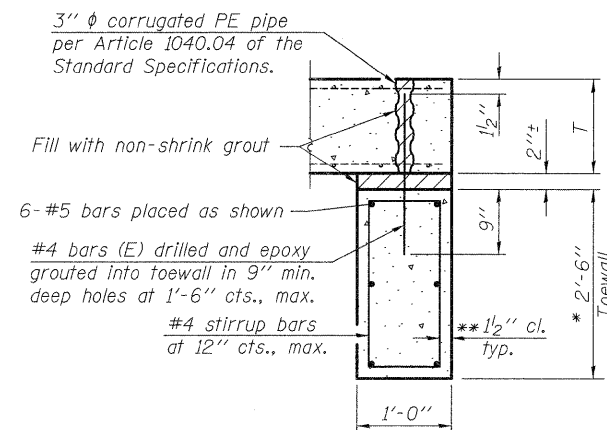
**SECTION B-B**  
 (Showing backwall reinforcement only.)  
 (Pipe omitted for clarity.)



**SECTION C-C**

**REINFORCEMENT SCHEDULE**

Pipe I.D.	A <sub>s1m</sub>		A <sub>s3</sub>	
	Bar Size	Bar Spacing	Bar Size	Bar Spacing
42"	4	12"	4	12"
48"	4	8"	4	12"
54"	5	8"	4	12"
60"	5	8"	4	12"
66"	5	8"	4	12"
72"	5	8"	4	12"
78"	6	8"	4	12"
84"	6	8"	4	12"



**SECTION D-D**

**TOEWALL CONSTRUCTION SEQUENCE**

1. Perform excavation and construct toewall.
2. Backfill accordingly and place bedding for precast culvert end sections.
3. Set precast culvert end sections in place.
4. Drill and epoxy grout reinforcement in toewall according to Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.

6-28-11

(Sheet 2 of 3)

\* 221,213 & 220  
 \*\* ROCK ISLAND & MERCER COUNTY

FILE NAME =	USER NAME =	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PRECAST CULVERT END SECTIONS WITH PIPE GRATES</b>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED -	REVISED -			*	(19,20)RS-2	**	231	60	
	PLOT DATE =	DRAWN -	REVISED -			CONTRACT NO. 64D72					
		CHECKED -	REVISED -			ILLINOIS FED. AID PROJECT					

SHEET NO. 1 OF 3 SHEETS