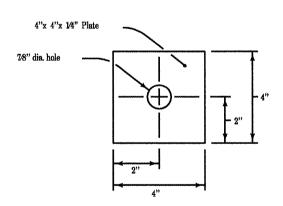


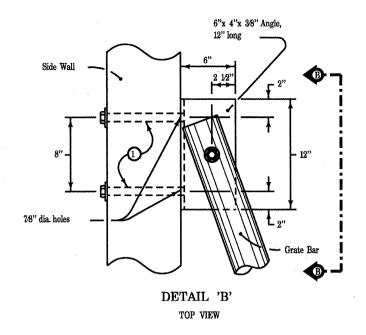
TOP VIEW

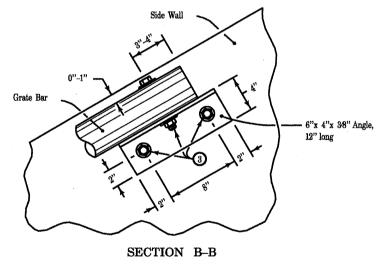
SECTION A-A



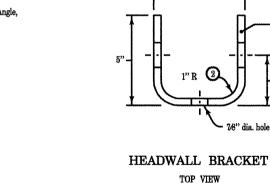
SHIM DETAIL

For additional information see Detail Sheet 1 Safety Grate Treatment.



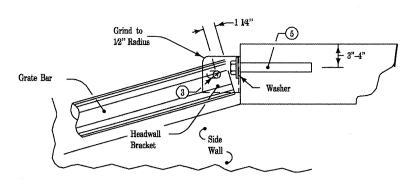






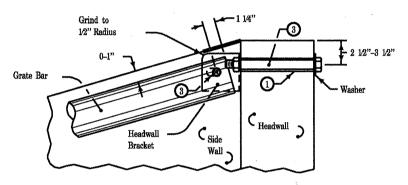
3/4" + O.D.

of Grate Bar



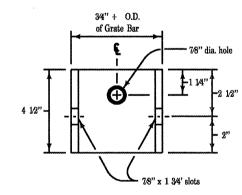
FOR PRECAST END SECTION SECTION C-C

(From Detail Sheet 1 Typical Plan)



FOR CIP END SECTION SECTION C-C

(From Detail Sheet 1 Typical Plan)



HEADWALL BRACKET FRONT VIEW

- 1 Holes are to be made with equipment designed to cut through concrete and reinforcing steel. All holes shall be 7/8 inch diameter.
- 2 All bending of plates or strips shall be accomplished without cracking material.
- 3/4 inch bolt, lock nut and washers. All holes shall be 7/8 inch diameter.
- Shim thickness equal to difference in diameters of Grate Bar and Cross Bar.
- 3/4 X 5 inch anchor bolt with lock washers.

FILE NAME =	USER NAME = brucebm	DESIGNED -	REVISED -		GRATING FOR BOX CULVERT						FAP64	SEC	TION	COUNTY	TOTAL SHEET
S:\GEN\DRAFT\STD&PLNS\Squad1\! Safety G	ete\grate std.dgn	DRAWN -	REVISED -	STATE OF ILLINOIS	WITH WING WALLS					IL29	(10,12)RS-6:1	IRS-4;(10B)BR	PEORIA	186 158	
	PLOT SCALE = 2100.0000 ' / IN. PLOT DATE = 10/20/2008	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	SCALE: SHEET NO. OF SHEETS STA. TO STA.						FED ROAD DIST, NO. TILLINOIS FED. AID PROJECT				