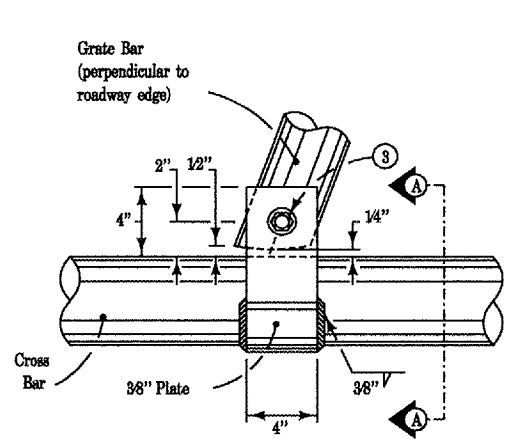
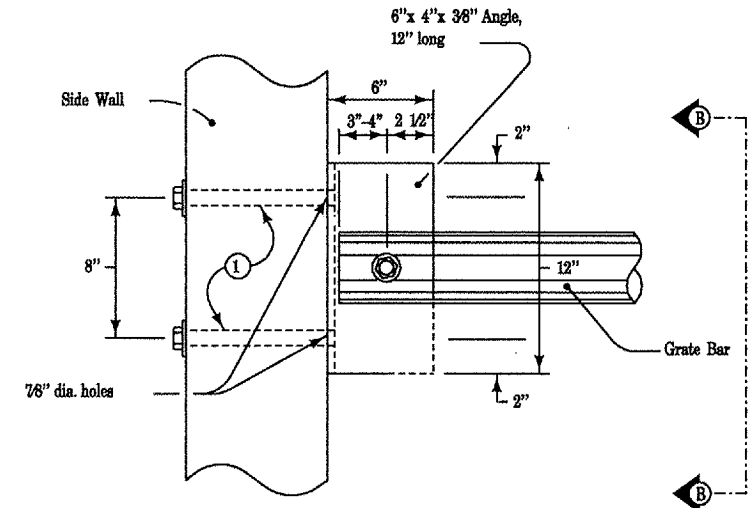


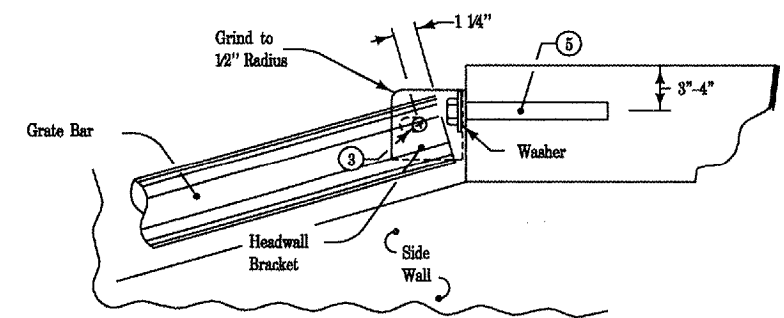
F.A.P. RY.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	1108B/BR/BR-1	McDonough	80	27
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



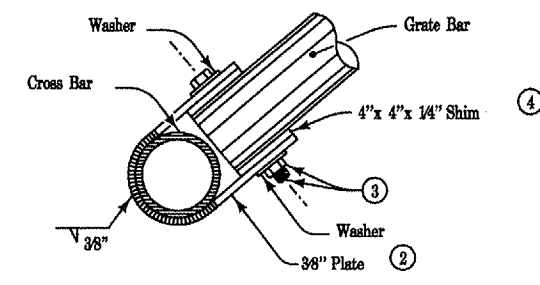
DETAIL 'A'  
TOP VIEW



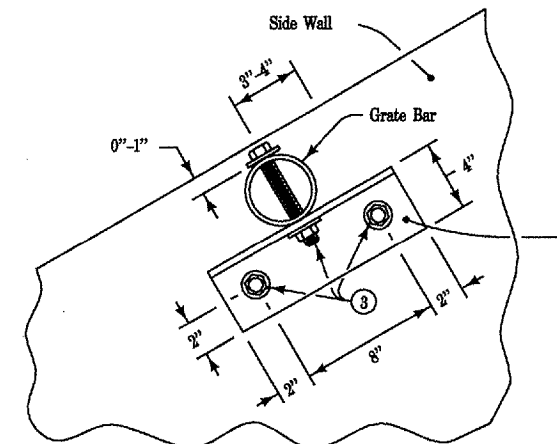
DETAIL 'B'  
TOP VIEW



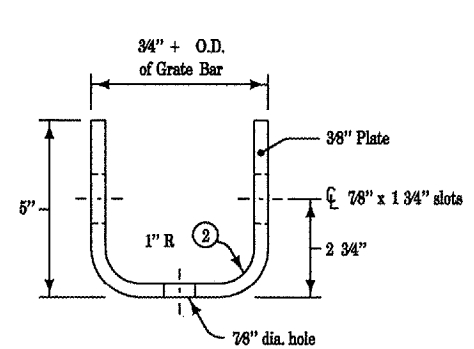
SECTION C-C  
(From Detail Sheet Typical Plan)



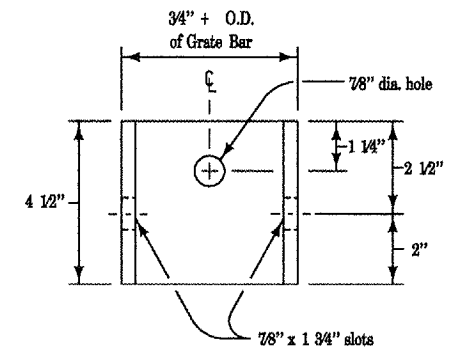
SECTION A-A



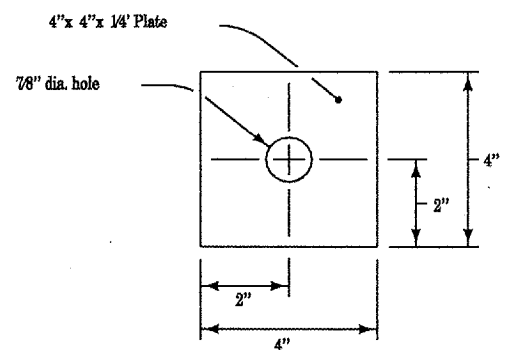
SECTION B-B



HEADWALL BRACKET  
TOP VIEW



HEADWALL BRACKET  
FRONT VIEW



SHIM DETAIL

- 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 3/4 inch bolt, lock nut and washers. All holes shall be 7/8 inch diameter.
- ④ Shim thickness equal to difference in diameters of Grate Bar and Cross Bar.
- ⑤ 3/4 X 5 inch anchor bolt with lock washers.

Length of Span	Nominal Pipe Size	O.D. Size
0'-12'	3.0"	3.5"
12'-16'	3.5"	4.0"
16'-20'	4.0"	4.5"

NAME	DATE
dml	7/10/97

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**Grating for Box Culvert**  
**Location 1**  
 SCALE: VERT. \_\_\_\_\_  
 HORIZ. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 DRAWN BY Icd07  
 CHECKED BY \_\_\_\_\_