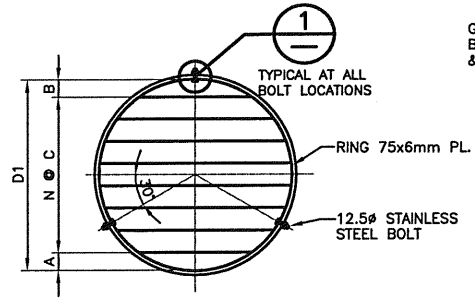
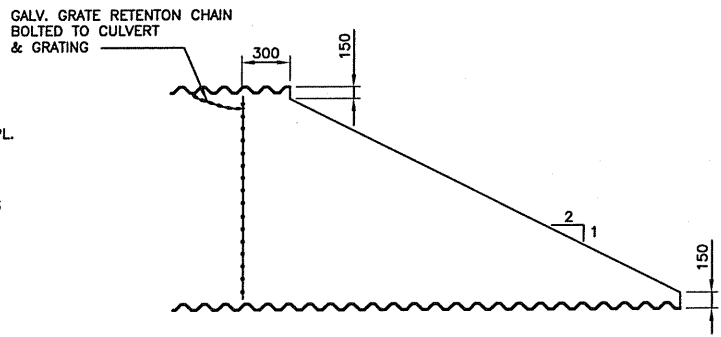


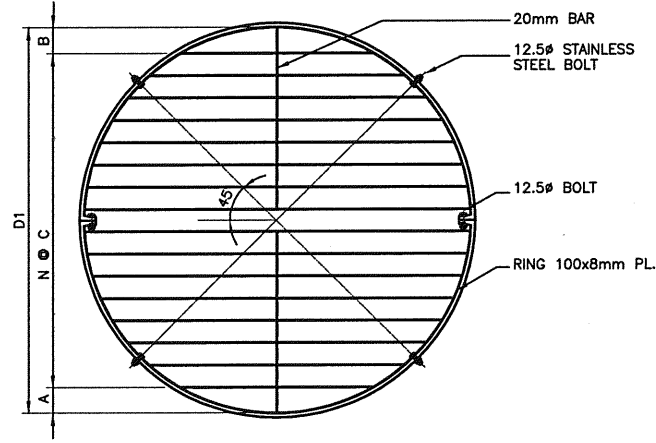
2005\05-0107-11\MAIN\DWGS\OUTFALL-WORKING-DWGS\BID-2-DETAILS-PILOT.DWG



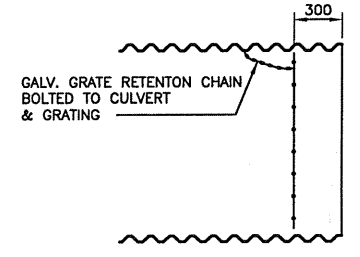
**GRATING TYPE 'X'**  
SCALE: N.T.S.



**END CONDITION '1'**  
SCALE: N.T.S.



**GRATING TYPE 'Y'**  
SCALE: N.T.S.

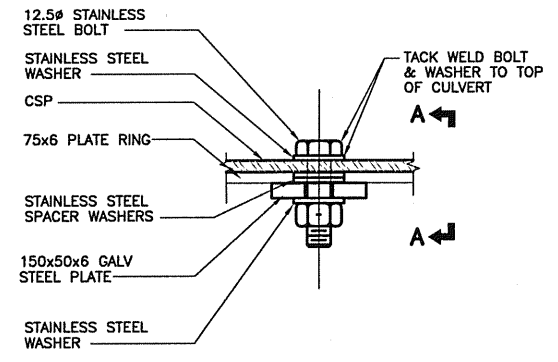


**END CONDITION '2'**  
SCALE: N.T.S.

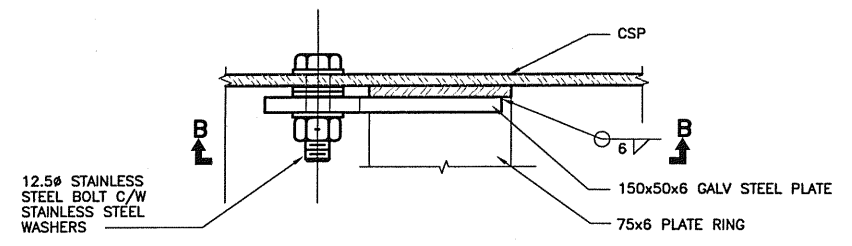
OUTFALL DEBRIS GRATING												
LOCATION	PIPE		END CONDITION	GRATING								WEIGHT (lbs)
	DIAMETER D	MATERIAL		DIAMETER D1	TYPE	BAR DIA.	A	B	C	N		
EASTWOOD DR (RR-108)	525	CSP	1	510±	X	20	125	125	130	2	24	

**NOTE:**  
 1. ALL PLATES AND BARS ARE CSA G40.21-300W.  
 2. ALL COMPONENTS ARE GALVANIZED.  
 3. ALL BOLTS TO BE TYPE 316 STAINLESS STEEL CONFORMING TO ASTM A320 GRADE BBM

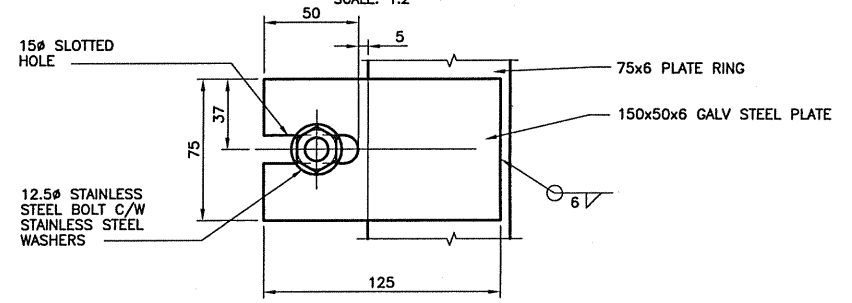
**STANDARD GRATING AND END CONDITION DETAILS**



**1 DETAIL**  
SCALE: 1:2



**SECTION A-A**  
SCALE: 1:2



**SECTION B-B**  
SCALE: 1:2

METRIC  
 WHOLE NUMBERS INDICATE MILLIMETRES  
 DECIMALIZED NUMBERS INDICATE METRES

**APEGM**  
 Certificate of Authorization  
 KGS Group  
 No. 245 Expiry: April 30, 2006

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE	DATE

**NOTE:**  
 LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.	DATE	BY

**KGS GROUP** CONSULTING ENGINEERS & PROJECT MANAGERS  
 WINNIPEG (204) 896-1209  
 THUNDER BAY (807) 345-2233

DESIGNED BY: RJH	CHECKED BY: RJH
DRAWN BY: DW	APPROVED BY: [Signature]
ISSUED FOR TENDER: 23/01/05 RJH	HOR. SCALE: AS NOTED
ISSUED FOR REVIEW: 18/01/05 RJH	VERTICAL: [ ]
NO. REVISIONS	DATE

DATE: 12/09/05

ENGINEER'S SEAL  
**R.J. HOUSTON**  
 Member 4385  
 CONSULTANT DRAWING NO. 05-107-11\_05

**THE CITY OF WINNIPEG**  
 WATER & WASTE DEPARTMENT

Winnipeg

**EASTWOOD OUTFALL**

**DEBRIS GRATE DETAILS**

SHEET 05 OF 06
CAD FILE DRAWING NUMBER 05-0107-11
CITY DRAWING NUMBER LD-3271