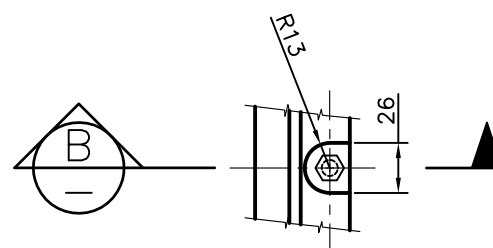


**RISER DETAILS**  
(REFER TO 35mm RISER FOR TYPICAL DIMENSIONS FOR ALL RISERS)

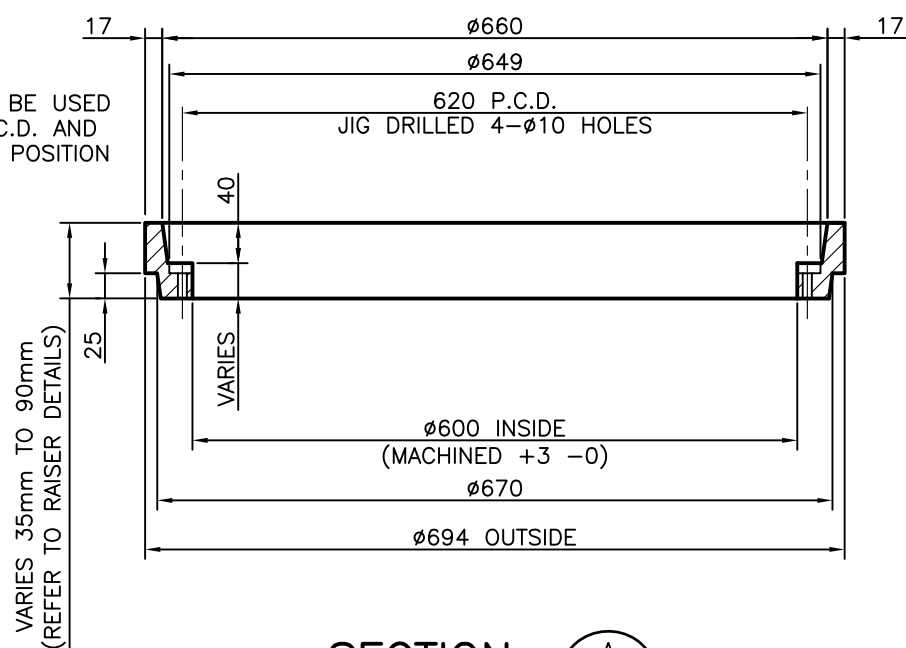


**PLAN OF BOLTING BOSS**

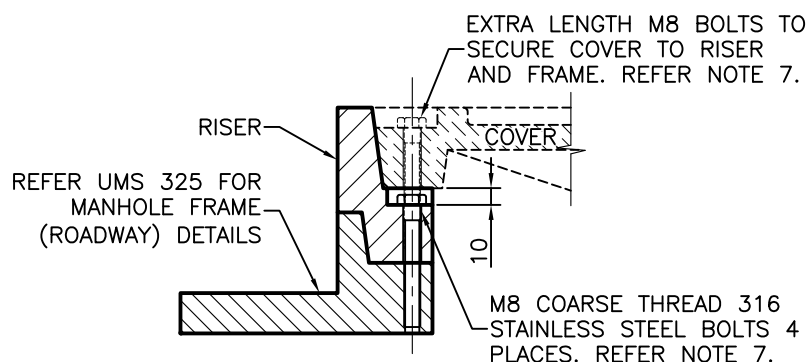
**NOTES:**

- ALL EDGES TO BE SQUARE.
- CASTING TO BE FREE OF BURRS AND PITS.
- MATERIAL**  
DUCTILE CAST IRON  
TENSILE STRENGTH: 600-3 (AS 1831)  
HARDNESS: 145-185 (HB)  
DESIGN LOAD = 210kN (AS 3996)  
MASS = VARIES
- TOLERANCES**  
CAST SIZE: ±1.00mm  
ANGLE PROFILE: ±0.25°  
MACHINED SIZE: ±0.125mm  
OVERALL DIAMETER OF COVER: +0mm-0.25mm  
DRY FILM THICKNESS (DFT) OF COATING: 50µm
- MACHINE SURFACE SYMBOL: 3.2✓
- ALL MACHINED SURFACES SHALL HAVE A COATING APPROVED AS FIT FOR THE PURPOSE OF PROVIDING A RUST PROOF, NON-STICK AND GAS/WATER PROOF JOINT. (HAVTEC-HS1 OR SIMILAR).
- FOUR (4) M8 COARSE THREAD STAINLESS STEEL BOLTS MUST BE SUPPLIED AND USED TO FIX RISER TO FRAME. WHERE COVER IS REQUIRED TO BE BOLTED DOWN, MIN. TWO EXTRA LENGTH BOLTS MUST BE USED TO SECURE COVER AND RAISER TO FRAME, WITH TWO REMAINING BOLTS SECURING RISER TO FRAME. REFER TABLE 1 FOR BOLT LENGTHS.
- REFER UMS 327 FOR COVER DETAIL.
- DIMENSIONS IN MILLIMETRES (UNO).

**NOTE:**  
GAUGE SHALL BE USED TO CHECK P.C.D. AND TAPPED HOLE POSITION



**SECTION A-A**  
SCALE NTS



**SECTION B-B**  
SCALE NTS

**TABLE 1: BOLT LENGTH**

RISER HEIGHT	BOLT LENGTH	
	FOR RISER ONLY	FOR RISER WITH COVER
35	60	100
60	90	130
75	110	150
90	115	160

**SPECIAL NOTE - ROADWAY USE**  
COVERS, FRAMES AND 35mm RISER RINGS (MIN.) TO BE SUPPLIED ASSEMBLED.  
(RISER MUST BE USED WITH FRAME WHEN USED WITH ROADWAY MANHOLE COVER)

ISSUE	AMENDMENT	DRAWN DATE	CHK'D DATE	APPR'D DATE
E	Notes 7 & 8 and Table 1 Added, Section 'B' Amend.	DJL 01/12	IC 2/4/12	GB 31/5/12
D	Special Note & Note 4, Section 'A' Amended	DJL 12/09	GM 03/10	GB 04/10
C	Special Note Added	DJL 02/09	GB 09/09	PC 9/09
B	SECTION A DIMENSIONS CORRECTED	DL 02/03	CD 02/03	BH 02/03
A	ORIGINAL ISSUE	April '01	May '01	June '01

DESIGN AUTHORISED FOR ISSUE B. BALL SIGNATURE ON ORIGINAL DATED 29/6/01	DESIGN	STD DWG GROUP	DATE	April '01
MANAGER ASSET SUPPORT - R.P.E.O: 3, 8, 5, 2	DRAWN	CITY DESIGN	DATE	April '01
DESIGN APPROVED B. HANSEN SIGNATURE ON ORIGINAL DATED 27/6/01	CHECKED	M. STEER	DATE	May '01
PRINCIPAL ASSET OFFICER ROADS & DRAINAGE	DRAWING FILENAME	UMS 326		
	ASSOCIATED PLANS	SUPERSEDES WS 51-7		



**BRISBANE CITY COUNCIL STANDARD DRAWING**

**RISER DETAILS (ROADWAY)**

SCALE	
NOT TO SCALE	
DWG No. UMS 326	
ORIGINAL SIZE	REVISION
A3	E