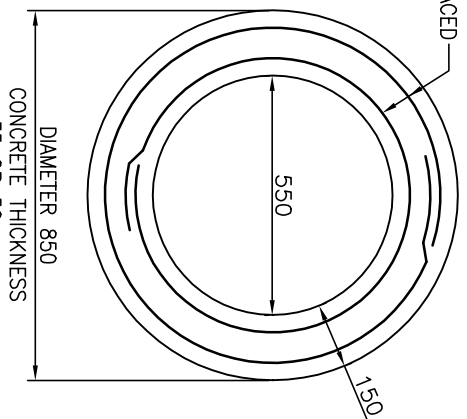


| BAR No.      | SHAPE | 'd' | OVERALL LENGTH | No. OFF | TOTAL LENGTH |
|--------------|-------|-----|----------------|---------|--------------|
| 1            |       |     | 937            | 1       | 1175         |
| 2            |       |     | 1125           | 1       | 1350         |
| 3            |       |     | 1225           | 1       | 1450         |
| 4            |       |     | 1125           | 2       | 2700         |
| 5            |       |     | 1000           | 2       | 2450         |
| 6            |       |     | 812            | 2       | 2100         |
| 7            |       |     | 700            | 2       | 2600         |
| 8            |       |     | 1200           | 1       | 4200         |
| <b>TOTAL</b> |       |     |                |         | <b>18025</b> |

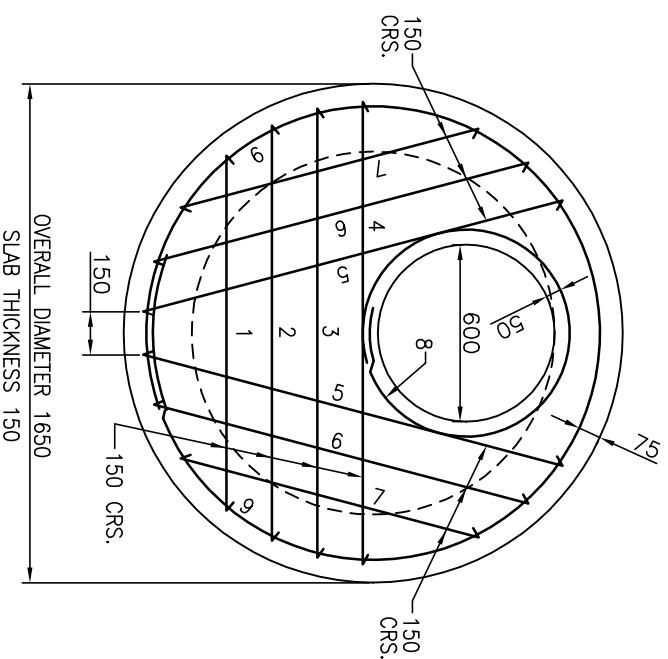
STEEL MASS : 18kg  
 CONCRETE : 0.2m<sup>3</sup>  
 TOTAL MASS : 430kg

**1350 DIA**  
**M.H. ROOF SLAB**  
**(FOR 1050 I.D. MANHOLES)**

2xR6 BARS PLACED CENTRALLY IN RING WITH 40 SIDE COVER



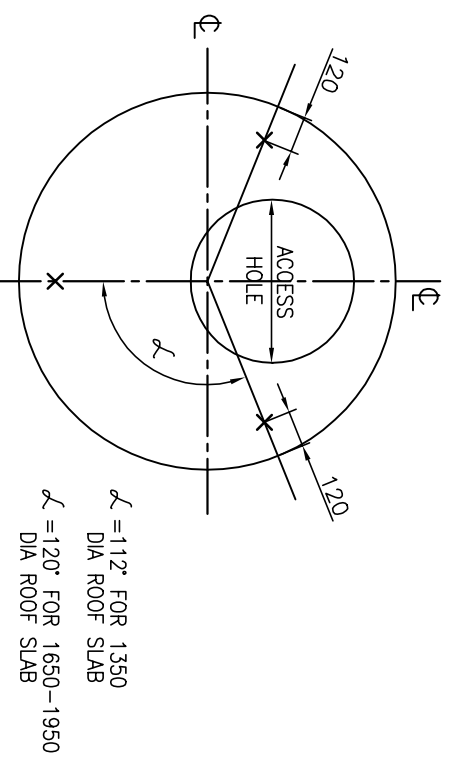
**MANHOLE RING**  
 FOR USE IN RAISING COVERS AND FRAMES OF EXISTING MANHOLES



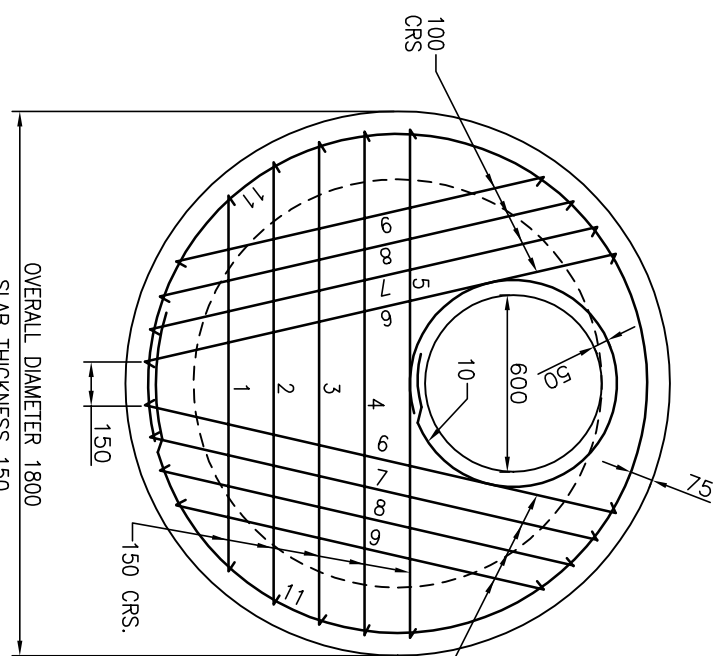
| BAR No.      | SHAPE | 'd' | OVERALL LENGTH | No. OFF | TOTAL LENGTH |
|--------------|-------|-----|----------------|---------|--------------|
| 1            |       |     | 1200           | 1       | 1425         |
| 2            |       |     | 1400           | 1       | 1625         |
| 3            |       |     | 1500           | 1       | 1725         |
| 4            |       |     | 1537           | 1       | 1775         |
| 5            |       |     | 1450           | 2       | 3350         |
| 6            |       |     | 1300           | 2       | 3050         |
| 7            |       |     | 1050           | 2       | 2550         |
| 8            |       |     | 700            | 2       | 2600         |
| 9            |       |     | 1500           | 1       | 5150         |
| <b>TOTAL</b> |       |     |                |         | <b>23250</b> |

STEEL MASS : 24kg  
 CONCRETE : 0.3m<sup>3</sup>  
 TOTAL MASS : 705kg

**1650 DIA**  
**M.H. ROOF SLAB**  
**(FOR 1200 I.D. MANHOLES)**



**LIFTING ANCHOR LOCATIONS**  
 (SEE NOTE No. 5)

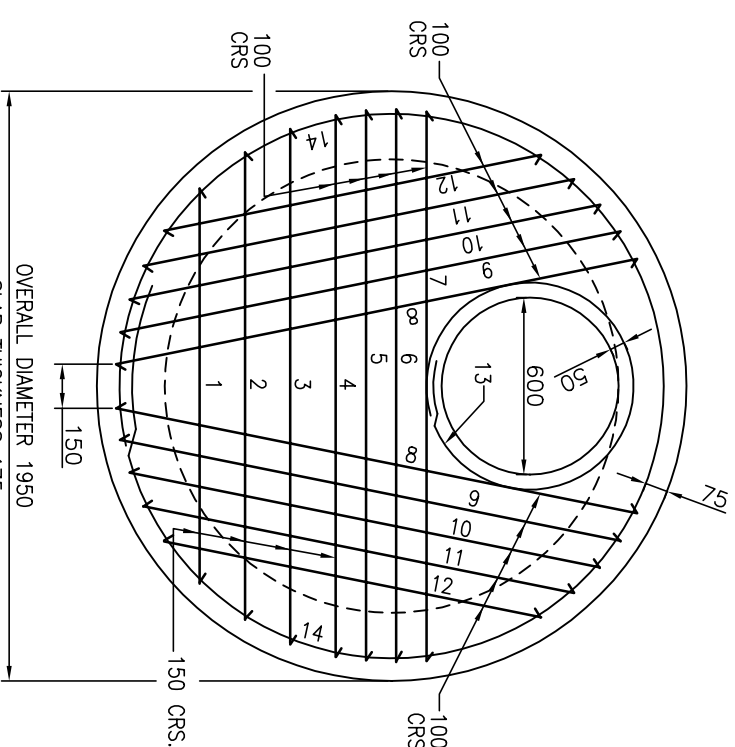


| BAR No.      | SHAPE | 'd' | OVERALL LENGTH | No. OFF | TOTAL LENGTH |
|--------------|-------|-----|----------------|---------|--------------|
| 1            |       |     | 1275           | 1       | 1500         |
| 2            |       |     | 1488           | 1       | 1725         |
| 3            |       |     | 1612           | 1       | 1850         |
| 4            |       |     | 1675           | 1       | 1900         |
| 5            |       |     | 1675           | 1       | 1900         |
| 6            |       |     | 1600           | 2       | 3650         |
| 7            |       |     | 1525           | 2       | 3500         |
| 8            |       |     | 1412           | 2       | 3300         |
| 9            |       |     | 1262           | 2       | 3000         |
| 10           |       |     | 700            | 2       | 2600         |
| 11           |       |     | 1650           | 1       | 5625         |
| <b>TOTAL</b> |       |     |                |         | <b>30550</b> |

STEEL MASS : 31kg  
 CONCRETE : 0.35m<sup>3</sup>  
 TOTAL MASS : 830kg

**1800 DIA**  
**M.H. ROOF SLAB**  
**(FOR 1350 I.D. MANHOLES)**

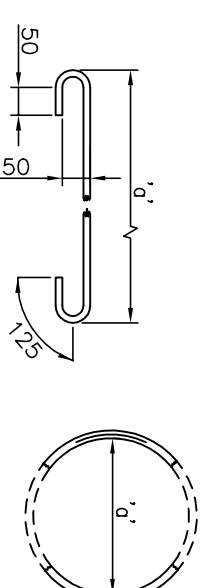
- NOTES:**
1. ALL BARS 12 DIA – STRUCTURAL GRADE (400Y) TO AS 1302.
  2. CONCRETE CLEAR COVER 30 (BOTTOM FACE).
  3. PRECAST CONCRETE TO BE GRADE N40 CONFORMING TO AS 3600.
  4. DESIGN LOADING AUSTRROADS W7.
  5. EACH LIFTING ANCHOR TO BE "SWIFTLIFT" OR EQUIVALENT. 1.3 TONNE, GALVANISED AND FITTED TO MANUFACTURERS SPECIFICATION.
  6. DIMENSIONS IN MILLIMETRES (UNO).



| BAR No.      | SHAPE | 'd' | OVERALL LENGTH | No. OFF | TOTAL LENGTH |
|--------------|-------|-----|----------------|---------|--------------|
| 1            |       |     | 1337           | 1       | 1575         |
| 2            |       |     | 1575           | 1       | 1800         |
| 3            |       |     | 1712           | 1       | 1950         |
| 4            |       |     | 1800           | 1       | 2025         |
| 5            |       |     | 1825           | 1       | 2050         |
| 6            |       |     | 1837           | 1       | 2075         |
| 7            |       |     | 1825           | 1       | 2050         |
| 8            |       |     | 1762           | 2       | 4000         |
| 9            |       |     | 1700           | 2       | 3850         |
| 10           |       |     | 1600           | 2       | 3650         |
| 11           |       |     | 1462           | 2       | 3400         |
| 12           |       |     | 1275           | 2       | 3000         |
| 13           |       |     | 700            | 2       | 2600         |
| 14           |       |     | 1800           | 1       | 6100         |
| <b>TOTAL</b> |       |     |                |         | <b>40125</b> |

STEEL MASS : 40kg  
 CONCRETE : 0.5m<sup>3</sup>  
 TOTAL MASS : 1015kg

**1950 DIA**  
**M.H. ROOF SLAB**  
**(FOR 1500 I.D. MANHOLES)**



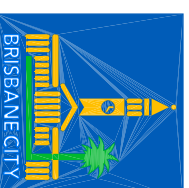
| ISSUE | AMENDMENT      | DRAWN DATE | CHKD DATE | APPRD DATE |
|-------|----------------|------------|-----------|------------|
| A     | ORIGINAL ISSUE | April '01  | May '01   | June '01   |

DESIGN AUTHORISED FOR ISSUE  
 B. BALL SIGNATURE ON ORIGINAL  
 DATED 29/6/01

DESIGN APPROVED  
 B. HANSEN SIGNATURE ON ORIGINAL  
 DATED 27/6/01

PRINCIPAL ASSET OFFICER ROADS & DRAINAGE

| DESIGN           | STD DWG GROUP      | DATE      |
|------------------|--------------------|-----------|
| DRAWN            | CITY DESIGN        | April '01 |
| CHECKED          | M. STEER           | May '01   |
| DRAWING FILENAME | UMS 322            |           |
| ASSOCIATED PLANS | SUPERSIDES WS 51-2 |           |



**BRISBANE CITY COUNCIL - URBAN MANAGEMENT DIVISION**

**MANHOLE ROOF SLAB**  
**1350 TO 1950 DIAMETER**

SCALE: NOT TO SCALE  
 DWG No: UMS 322  
 ORIGINAL SIZE: A3  
 REVISION: A