



- NOTES:**
- THESE DETAILS REPRESENT A MINIMUM REQUIREMENT AND MAY BE VARIED, SUBJECT TO APPROVAL, TO SUIT PROJECT REQUIREMENTS. THEY ARE EXPECTED TO BE INCORPORATED AS TYPICAL DETAILS WHICH SHALL BE CHECKED AND APPROVED AS PART OF THE PROJECT DRAWING SET.
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
  2. MINIMUM CONCRETE COVER TO REINFORCEMENT TO BE AS FOLLOWS :  
BASE SLAB AND WALL (EXTERNAL) = 75mm  
BASE SLAB AND WALL (INTERNAL) = 50mm  
ROOF SLAB = 50mm
  3. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615.
  4. ALL LAPS SHALL BE IN ACCORDANCE WITH ACI 318.
  5. REINFORCEMENT TO BE DISPLACED ON SITE TO AVOID SMALL DIAMETER PIPEWORK.
  6. THE MANHOLES ARE DESIGNED USING FULL GROUND WATER LEVEL CONDITION WITH 1.1 FACTOR OF SAFETY FOR FLOATATION.
  7. FOUNDATION DESIGN IS BASED ON ALLOWABLE BEARING PRESSURE OF 100 kN/m<sup>2</sup> AND SOIL SUBGRADE MODULUS OF 8000 kN/m<sup>3</sup>.
  8. DEWATERING OPERATIONS SHALL BE PROVIDED DURING CONSTRUCTION AND MAY ONLY BE TERMINATED AFTER ROOF SLAB HAS BEEN CASTED.
  9. ALL BELOW GROUND CONCRETE TO BE TANKED REFER . TO STANDARD DRAWING No. 801.
  10. ALL REINFORCEMENT TO BE EPOXY COATED.

**LEGEND:**

--- BOTTOM / FAR FACE BAR

**REINFORCEMENT**

TOTAL No. OF BARS  
TYPE OF STEEL  
BAR DIAMETER

12 T16 24-150 EF  
BAR LOCATION/S\*  
CENTRES OF BARS  
BAR MARK

**\* BAR LOCATIONS**

T TOP  
B BOTTOM  
NF NEAR FACE

FF FAR FACE  
EF EACH FACE  
EW EACH WAY

**REFERENCE DRAWINGS AND DOCUMENTS**

204 - STANDARD DRAWING G.A. OF SHALLOW STORM WATER MANHOLE ON PIPELINES 1500mm TO 3000mm DIA.

No.	REVISIONS	APP'D	DATE
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**TITLE**

STANDARD DRAWINGS  
STORM WATER WORKS

**DRAWING TITLE**

STANDARD REINFORCEMENT  
DETAILS FOR SHALLOW STORM  
WATER MANHOLE ON PIPELINES  
1500 - 3000mm DIA.

DRAWN	-	SCALE	1:25
CHECKED	-	DATE	-
APPROVED	-	SIZE	A1
PROJECT No.	-	DWG. No.	1013