

GENERAL

- a) All engineering drawings shall be read in conjunction with relevant architectural and other consultant's documents.
- b) If there are discrepancies, ambiguities or confusion arising from the documents, the matter shall be referred to the supervisor for correction or clarification before work is commenced.
- c) Materials & workmanship shall be in accordance with relevant and current SAA codes and BCA requirements.

FOUNDATIONS

- d) Excavations shall be accurate to shape and profile, dewatered and free from loose earth and stones.
- b) Should unsuitable material (soft, wet, organic or unstable) be encountered at the prescribed depths during excavation, obtain instructions from the superintendent before carrying out additional excavations.
- c) Slab panels and Tanks are to be founded on natural soil or controlled fill with an allowable bearing pressure not less than 100kPa.
- d) Where fill is required under a concrete element to achieve a desired bearing pressure, it shall be placed in accordance with AS1289.

LOADING

All loading has been in accordance with AS1170
 DEAD LOADING (AS1170.1)
 LIVE LOADING (AS1170.1)

CONCRETE

- a) All concrete & workmanship shall be in accordance with AS3600.
- b) Ready-Mix concrete complying with AS1379, shall be used for any structural elements and slabs. Dockets shall be provided to ensure the time taken from the introduction of water until the concrete is completely discharged shall not be more than 1.0 hour.
- c) No additional water is to be added to the already mixed concrete, without the consent of the Engineer.
- d) Fresh concrete is to be properly compacted by a mechanical immersion vibrator.
- e) Builder to provide & supply results of project control testing in accordance Sec 20.7 AS3600.
- f) Beams depths do not include thickness of surface finishes.
- g) Concrete sizes do not include thickness of surface finishes.
- e) Concrete shrinkage to be a max 700 microstrain @ 56 days. To AS1012 Pt 13
- f) No holes, chases or embedment of pipes other than those shown on the structural drawings shall be made in concrete members without Engineers approval.
- g) Construction joints where not shown shall be located to the approval of the Engineer.
- h) Concrete to be placed and all exposed surfaces treated with a commercial curing compound, in accordance with AS3799. Curing operations shall begin on slabs as soon after concrete has displayed initial set, but no more than 2 hours after finishing, and on Columns and Walls after forms have been removed.
- i) All Formwork and Scaffolding is to comply with the requirements of AS3610 and AS1576 respectively. The design shall be the responsibility of the builder.
- j) Concrete surfaces when stripped shall be true to the shapes and locations shown on the Drawings, free of bony or porous areas and excessive depressions or projections, and within a tolerance of +/- 5mm when tested with a 3m long straight edge.

REINFORCEMENT

- a) Steel Reinforcement shall comply with the requirements of AS3600.
- b) Use reinforcing bars complying with AS1302, steel-reinforcing wire complying with AS1303, and welded wire fabric complying with AS1304.

Element	Ductility	Type	Configuration	Strength	Example
Bar	N-normal	Deformed	S-square	500	N12
Mesh	L-low	Deformed	R-rectangle	500	SL82

- c) Fix reinforcement to comply with AS3600 with clear cover as shown on the drawings or from table below.

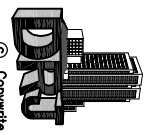
Element	F'c	Internal	External	FRL
Slab	N25	25	40	

- d) Adequately support reinforcement to maintain correct position by supporting on plastic chairs and securely tied using 1.25mm Dia. Annealed wire at all intersections. Where bending is required by the Drawings, restrict the diameter of the bends to the requirements of AS3600. Bend reinforcement cold with the exception of bars of grade 230S, which may be bent at temperatures up to 850oC. Do not re-bend bars within 20 diameters of original bend. Do not galvanize reinforcement to be bent.

CONCRETE TANKS

1. All Concrete work & workmanship to be in accordance with AS3600
2. Ready-Mix concrete shall comply with AS1379
3. Characteristic compressive strength of concrete at 28days shall be 40MPa
4. Fresh Concrete shall be properly compacted by mechanical vibration
5. For tanks on ground, remove grass, topsoil, vegetative and organic matter & found on Natural Soil with 100KPa bearing capacity
6. Exposure classification of B1 has been used in design. where greater than or equal to 1km from coastal environment.
7. For tanks in ground, soils are to be non-aggressive with only the presence of fresh water permitted.
8. Tanks to be backfilled with a stabsing concrete 10 sand to 1 cement mix with a slurry consistency.
9. Tanks are not designed to support lateral loading other than that applied by natural material.
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10. Lids are designed to carry 7.5kpa vehicle loading along with an extra 2.0KPa applied loading

client	Versatile Tanks	
project	Proposed Cover Slab	
drawn	date	
D.R.L.	14/04/07	



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