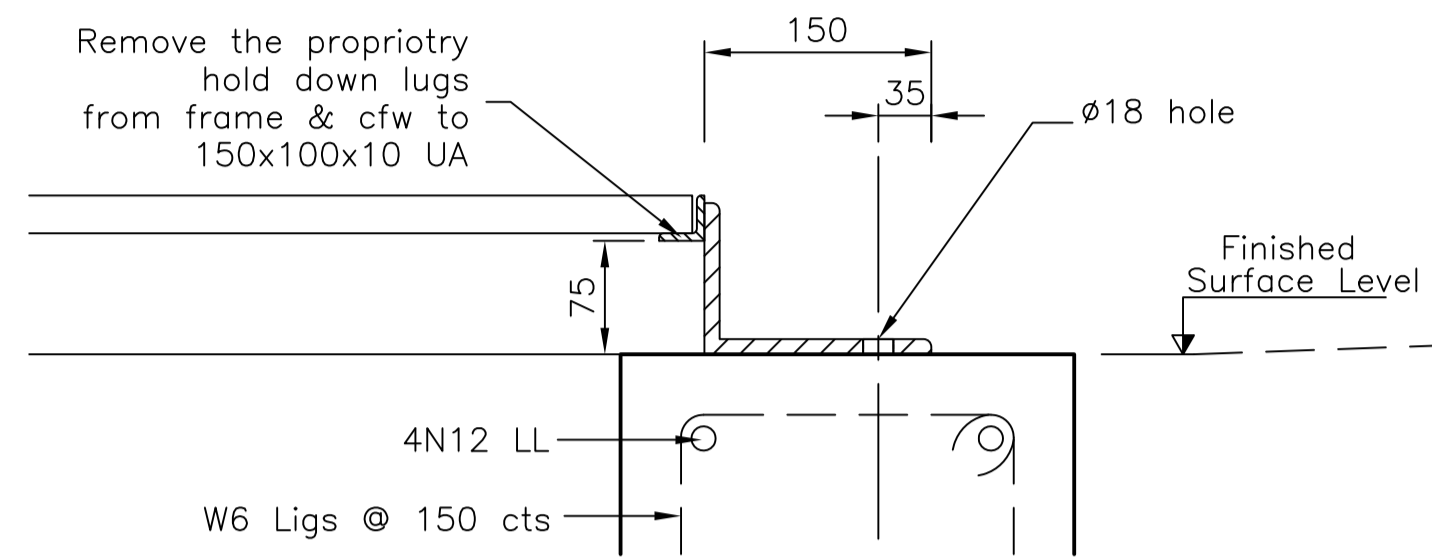
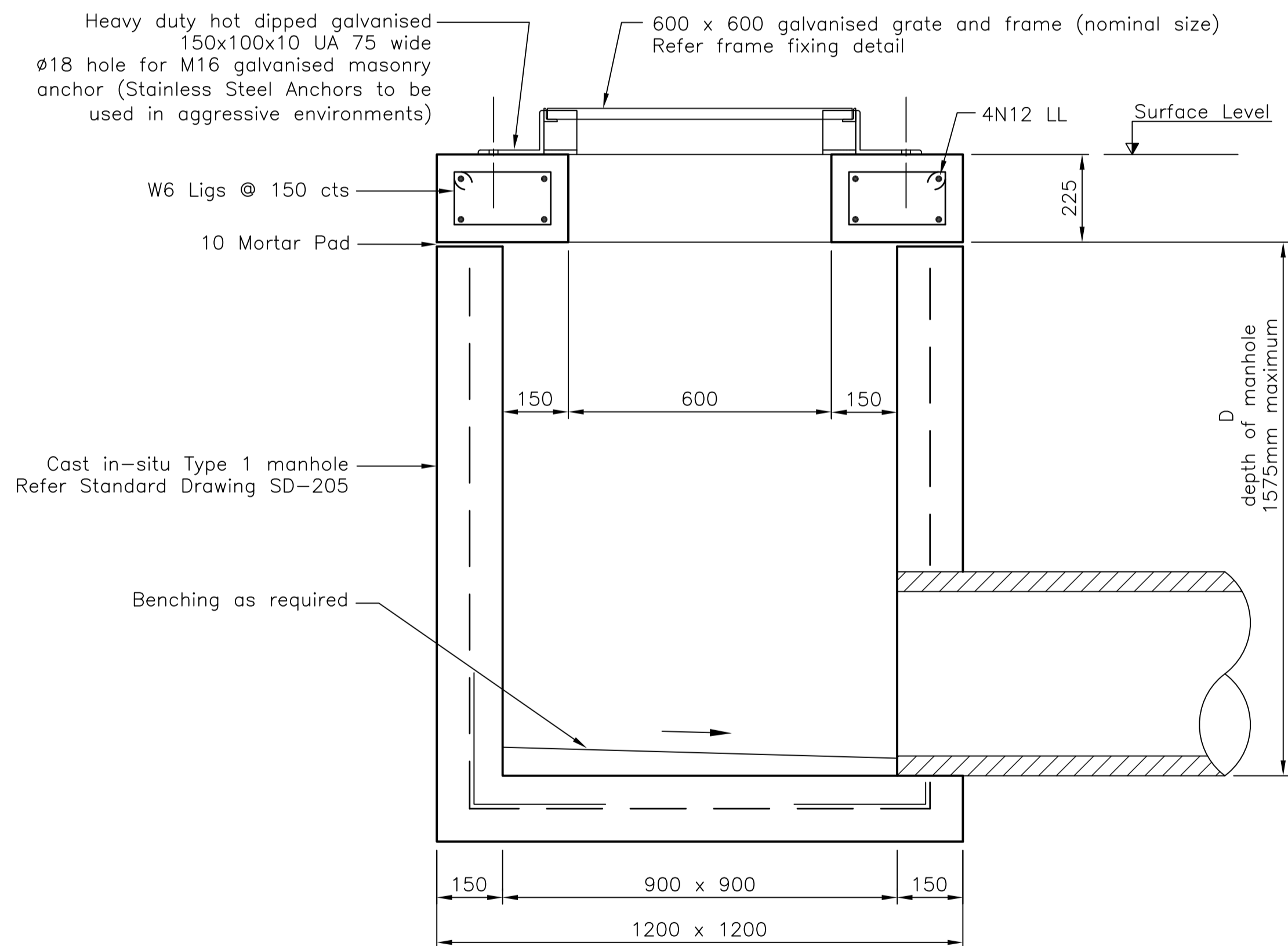


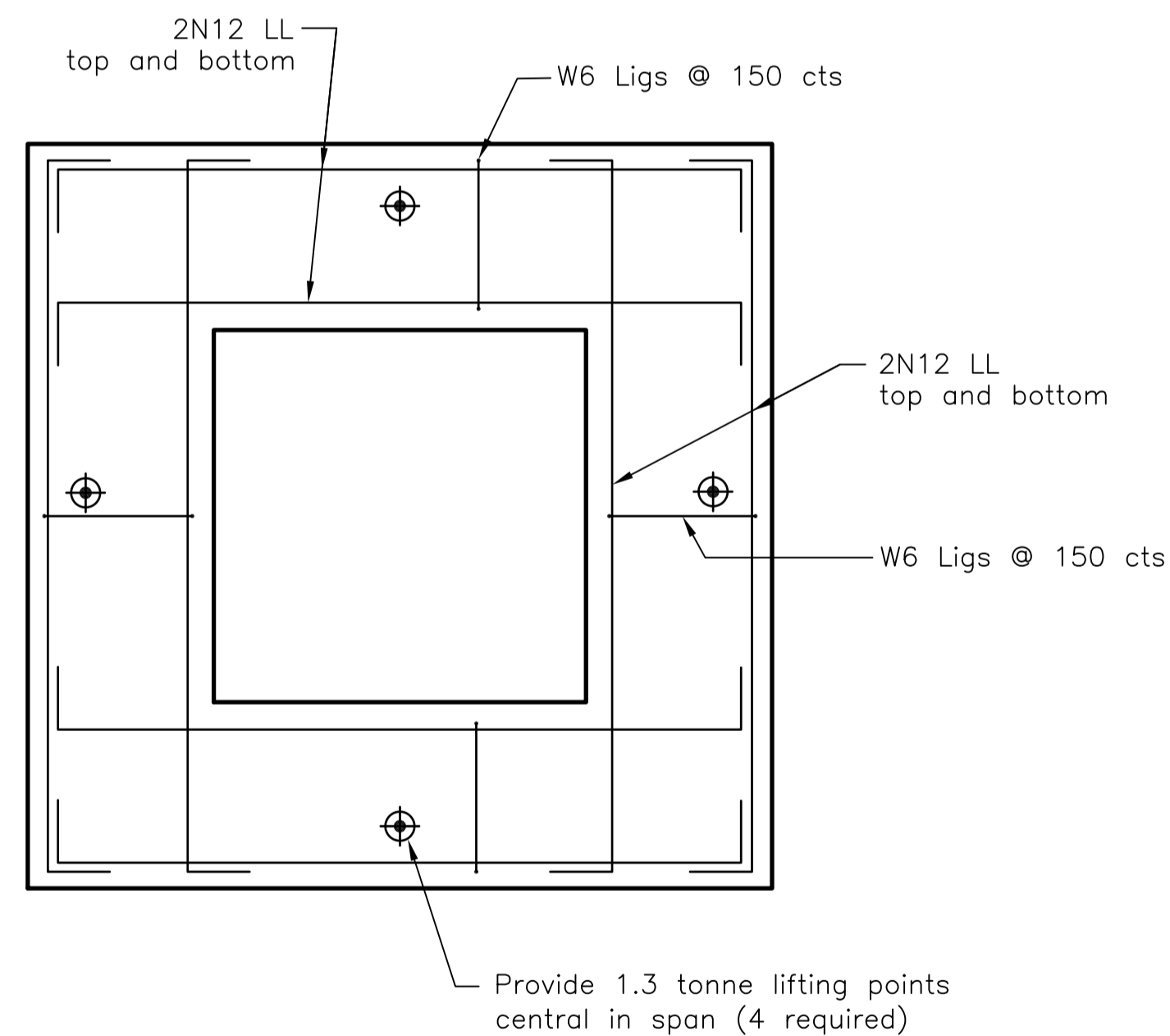
PLAN



FRAME FIXING DETAIL



SECTION A
SECTIONAL ELEVATION



PLAN
PRE-CASE SLAB TOP

GENERAL NOTES

1. All dimensions are in millimetres unless noted otherwise.
2. Refer Standard Drawing SD-205 for standard manhole details.
3. Exposure Classification B1. This drawing does not apply to exposure classifications more severe than B1.
4. Where manhole depth is greater than 3500mm and/or internal dimensions are greater than 1500mm, the manhole walls and slab top shall be independently designed by the Engineer.
5. Where the slab top opening is greater than 600mm x 600mm, the slab top shall be independently designed by the Engineer.
6. Refer to project drawings for location of manhole, design levels, grades of pipes, and grades of kerb and channel.

CONCRETE NOTES

1. All concrete to be in accordance with AS 1379 and AS 3600.
2. Concrete for walls and base:
N32 Standard
N50 Aggressive Environments
3. Concrete for precast slab top N32 min.
4. Formwork in accordance with AS 3610.
5. Design loads as per Austroads Bridge Code:
W7 wheel load
Dynamic factor 0.4
6. All concrete shall be vibrated as per requirements of Standards Australia.
7. Mass concrete benching shall be formed as directed by the Engineer.
8. Kerb and channel infill and transition sections to be constructed after completion of adjacent standard kerb and channel, manhole, top and troughs. Infill and transition sections to be formed as necessary to match faces and edges of completed work.

REINFORCEMENT NOTES

1. Fabric – grade 500 to AS 1304.
2. Bars – grade 500 to AS 1302.
3. Laps in reinforcement unless noted otherwise:
N12 – 300mm
N16 – 400mm
Fabric – overlap 2 transverse wires
4. Minimum cover to reinforcing steel:
50mm Standard
70mm Aggressive Environments
5. Cog length = 150mm
6. Wall reinforcing at pipe entries to be cut and/or bent around openings as approved by the Engineer.
7. All reinforcing steel to be held rigidly together, either by welding or tying, prior to placing concrete.
8. All wire to be hard drawn wire.
9. Starter bars in base slab shall be hot dipped galvanised.
10. Reinforcement in manholes shall not be replaced with fibre reinforced concrete.
11. Where depth of manhole D is less than or equal to 1500mm and the internal manhole dimensions are less than or equal to 750mm x 750mm, no reinforcement is required in walls and floor slab.

FRAMES AND GRATE NOTES

1. Frame grate and angles to be heavy duty hot dipped galvanised after fabrication.
2. All welds to be continuous fillet welds (cfw).
3. Grate and frame shall be approved proprietary product designed for pedestrian loading.

No.	DATE	DESCRIPTION	AP'D
A	06/07/2009	Original Issue	
REVISIONS			

NOTES :

Full Size A1
Not to scale

DRAWN:
Design Engineer Approved: Original signed by R. Coates
Date: 21/07/2009
Manager Approved: Original signed by B. Sue
Date: 21/07/2009



**RAISED GRATE
FIELD INLET MANHOLE**

**STANDARD
DRAWING
DRAINAGE**
SD-215 A