6.3 DRAINAGE AND OTHER MISCELLANEOUS STRUCTURES

6.3.1 Description

This work shall consist of the construction of all kinds of manholes, catch basins, drainage channels, pipe end walls, head walls and other miscellaneous structures in brickwork or of the required class or classes of concrete, with or without reinforcement constructed in accordance with these Specifications and to the lines, levels, grades and dimensions shown on the Drawings or as required by the Engineer. The work shall also include excavation, bedding and backfilling with suitable material in accordance with the Drawings and these Specifications.

6.3.2 Materials

Concrete shall conform to the requirements of Section 5.1. The concrete shall be Class 25 unless otherwise indicated on the Drawings.

Reinforcement, where required shall conform to the requirements of Section 5.2.

Brickwork shall conform to the requirements of Section 5.5.

6.3.3 Construction Methods

6.3.3.1 General

Construction methods given under Sections 2.5, 5.1, 5.2 and 5.5 shall apply to this item unless otherwise described.

6.3.3.2 Manholes and Catch Basins

Manholes shall be completed before the adjacent roadway surfacing is placed. They shall not be constructed in Embankment areas, until the earthworks have reached sub grade level.

Frames for gratings and covers for manholes and catch basins shall be properly secured as indicated in the Drawings so as to be held rigidly in place to proper grade and alignment. Rocking gratings and covers will not be accepted.

Inlet and outlet pipe of manholes shall be set or cut flush with the inside faces of the walls of such structures and shall extend a sufficient distance beyond the outside faces of the walls to provide ample room for making proper connections. The joint around the pipe in the structure wall shall be completely and neatly closed with mortar, or other material as may be specified, so as to make it watertight.

6.3.3.3 Concrete Side Ditch and U-Drain

Concrete Side ditches and U-drains shall be constructed to the dimensions and details shown on the Drawings.

6.3.3.4 Headwalls to Culvert Pipes

All headwalls to culvert pipes shall be formed in brickwork to the dimensions and details shown on the Drawings.
6.3.4 Measurement

Manholes, catch basins drains and Headwalls to culvert pipes will be measured for payment by number of each type as indicated in the Bill of Quantities, completed and accepted in place.

Excavation, side support if necessary, sand bedding, lean concrete inlet pipes, grate bars, slide gates, covers and gratings, ladder rungs, service pipes and house connection pipes will be considered incidental to the construction of the manhole and not measured as such.

Concrete side ditches and U-drains will be measured for payment by number of linear metres completed and accepted in place. Excavation, bedding, formwork, joints, covers etc. will not be measured separately.

6.3.5 Payment

This work measured as provided above will be paid for at the Contract unit price for each particular item, such price and payment constituting full compensation for all material, labour, tools, equipment and incidentals necessary to complete the work.

The complete work includes all work associated with the structure as indicated on the Drawings or in these Specifications.

Pay items shall be:

6/3/1 Manhole (Diameter as stated in the Bill of Quantities) Number

6/3/2 Catch Basin (Diameter as stated in the Bill of Quantities) Number

6/3/3 Concrete Side Ditch / U-Drain (As detailed on the Drawings) Linear Metre

6/3/4 Brick Headwall to Culvert Pipe (Pipe Diameter as stated in the Bill of Quantities) Number