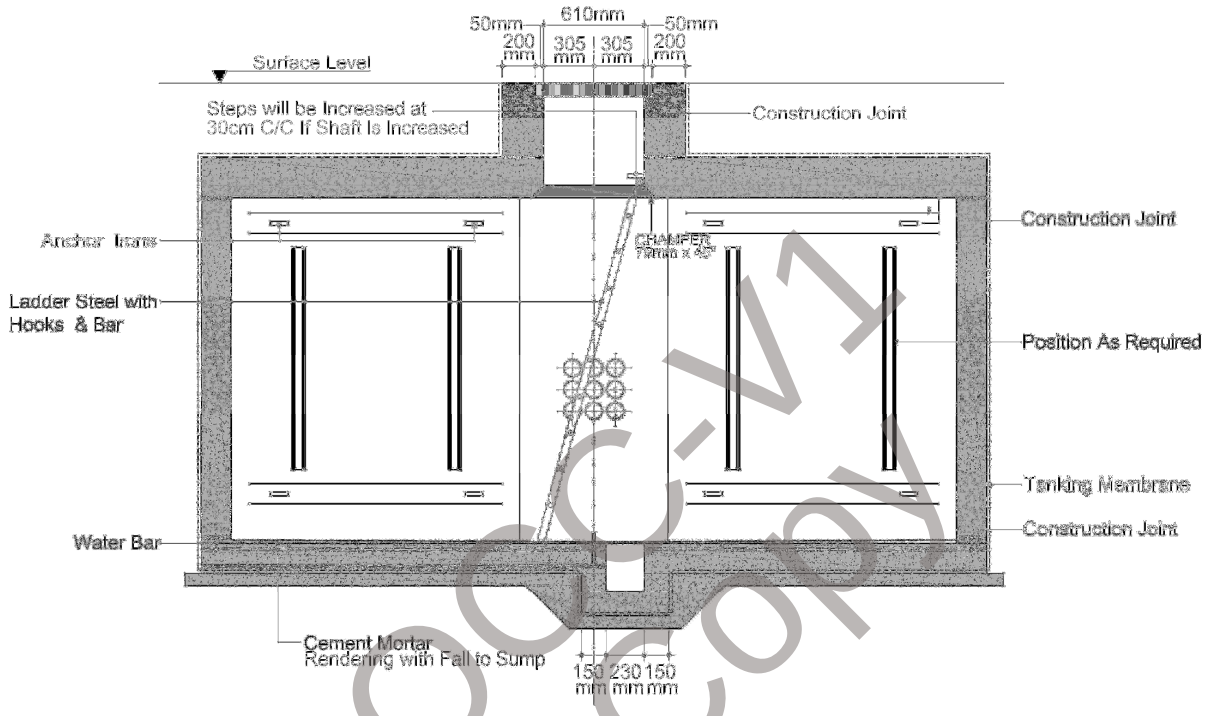
**Figure 21: Typical Section of a Telecom Manhole**






## 4.4.9 Fibre Optic Cable

The fibre optic cables (FOC) are constructed of very thin strands/threads of glass or plastic that can carry large amounts of digital information for long distances using light instead of electronic pulses. FOC carry more data at one time than traditional copper wires. FOC are used to carry signals for broadband, TV and voice data.

Department of Transport (DoT) considers in its projects the FO line requirement for the Traffic Control System (TCS), the (IITS, Abu Dhabi Police, UAE Armed Forces (Signal Corps), NECMA for the FE system.

The segregation of FOC is based on the type of usage and level of security required. The high security FOC are dedicated for Signal Corps, Falcon Eye System, and Abu Dhabi Police. Whereas, regular FOC, are allocated for DoT Traffic Control System and Intelligent Traffic System lines, and other related communication lines. The high security FOC are always separated from the regular FOC.

The corridor width for a typical FOC will range from 0.7m to 1.2m, however in certain cases on main roads a dedicated corridor of 5.0m may be requested by Signal Corps to allow private access of armed vehicles for maintenance purposes. The cables for any of FOC corridor can be laid in ducts at a depth of 0.3m to1.0m. The FOC shall be laid outside of the paved area for ease of maintenance.