i. For gravity pipelines in buried installation with cover depths less than 6m shall be 5000 N/m2.

ii. For gravity pipelines in buried installation with cover depth more than 6m shall be 10,000 N/m2

iii. For all pressure main shall be 10,000 N/m2 (SN10000).

iv. For all exposed pipe line shall be 10,000 N/m2 (SN10000).

b) Any variance due to the site condition such as native soil condition, installation, burial depths, deflection limits, buckling and vacuum requirements or others which necessitates increasing the stiffness (SN) value of GRP pipe shall be governed by the Manufacturer's design.

c) Pressure mains shall be designed as per the requirement of Table 15 of BS/DIN EN 14364.

d) GRP pipe length used in concrete bed and surround shall be 3.0m unless otherwise specified in the drawings.

e) All GRP pipes installed up to 10.0m cover depth shall be buried in granular bed and surround or as specified by the Manufacturer according to the ground conditions. For cover depths exceeding 10.0m, the pipe shall have concrete surround or Manufacturer to suggest suitable higher stiffness pipe.

18.2.2 Pipes and Fittings

18.2.2.1 Buried GRP

General

a) All GRP components shall be designed and fabricated by one manufacturer.

b) GRP pipes and fittings shall be manufactured in compliance with BS/DIN EN 14364 and fabricated to meet the minimum strength requirements.

c) Manufacture all pipes by an approved process utilizing a rotating mould or mandrel besides equipment which accurately control the quantities and placement of all resins, glass and aggregates.

d) Use resins, reinforcements, and aggregates to produce pipes and fittings when combined as a composite structure to satisfy the performance requirements of this section of the specification. Pipes and fittings must be