



## SAND AS A BEDDING MATERIAL

Sand has been used as a bedding material in parts of the country for many years and has been presumed to be the ideal bedding material. However, the trench condition will determine the effectiveness of sand bedding. It should be noted that regardless of the trench condition or bedding class, the **maximum load factor for sand bedding is 1.5.**

Sand is suitable as a bedding material in a total sand or rapidly draining soil environment. However, sand is unsuitable for bedding where high and rapidly changing water tables are present or when higher load factors are required. Sand may be unsuitable in trenches through hard clay soils or rock.

Water or mechanical means may be used to obtain the required compaction. When water is used for compaction, there must be assurance that the trench drains rapidly to allow the sand to consolidate. In trenches that do not drain rapidly, mechanical compaction must be used.

Care must be taken to develop a firm foundation prior to pipe installation.

### SUMMARY

#### 1. Trench Condition – Total Sand or Rapidly Draining Soil Environment

- A. Sand is a suitable bedding material.
- B. Water or mechanical means shall be used to obtain the required compaction.
- C. If sand is selected as a bedding material, the maximum load factor is 1.5.

#### 2. Trench Condition – Hard Clay Soils or Rock

- A. Sand is unsuitable for bedding where a high and/or rapidly changing water table is present.
- B. Sand may be unsuitable in trenches through hard clay soils or rock. If sand is selected as a bedding material, mechanical compaction at optimum moisture content must be used.
- C. If sand is selected as a bedding material, the maximum load factor is 1.5.