

face is well compacted and sealed by a static or vibratory smooth-drum roller. The smooth top surface should have a slight fall, to assist water run-off. Work can be resumed very soon after it stops raining, possibly after a shallow layer of wet surface material has been removed.

The special problems of compaction during winter conditions are dealt with in Section 11.7.

## 10.6 Soil Volumes

Earth volumes can be defined under different conditions:

- In natural state (in place)
- Loose state (on trucks for example)
- After compaction

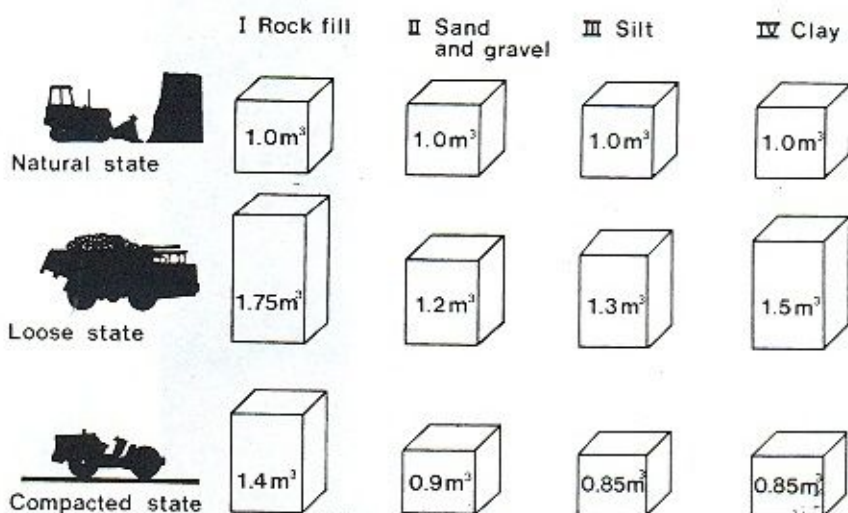


Fig. 10.9 Volumes of different types of fill materials in natural, loose and compacted state.

Average values of swelling and shrinkage for different types of soils are given in Fig. 10.9. Note, however, that the individual variations due to soil properties, water contents, etc., can be comparatively large.