

that direct compaction of the sub-grade cannot be carried out as specified, unsuitable material shall be removed and replaced with granular sub-base.

The materials for the sub-base and road-base shall be laid in layers, each not exceeding 150 mm or being less than 75 mm. The total compacted thickness of the sub-base and road base shall not be less than the specified nominal thickness. The sub-base and base in roads shall have each a minimum thickness of 200 mm. Roads within the wastewater treatment plant site shall be at least 5 m wide.

10.1.2 Clearing and grubbing

Clearing and grubbing for road works shall be executed according to Section 5 of these Employer's Requirements.

10.1.3 Road formations

The road formation shall be the surface obtained after completion of any earthworks.

Formations, immediately before being covered with sub-base or road base material, shall be clean, free from mud and slurry and properly shaped and compacted to an even and uniform surface.

The preparation and surface treatment of formations shall be carried out after the reinstatement of any excavations for services.

Where unsuitable material naturally occurs at formation level, it shall be excavated as directed by the Engineer and it shall be removed from the Site. The resulting void shall be filled with a compacted granular sub-base material, in layers not exceeding 250 mm uncompacted depth.

The sub-grade shall be compacted so that the dry density of the upper 150 mm of the ground or fill is not less than 95% of the maximum dry density. Where the sub-grade is in natural ground, the compaction shall be carried out at or near the natural moisture content of the ground. Any irregularities or depressions that develop in the formation during compaction of the sub-grade shall be corrected by loosening the surface of these places and adding, removing or replacing material and re-compacting so that the surface is smooth and uniform. Any area of sub-grade that shall become muddy, broken-up or loosened due to weather conditions or otherwise damaged shall be corrected or prepared again by the Contractor as specified above.

10.1.4 Sub-base construction

Within 48 hours of completion of a road formation, granular sub-base material shall be spread and compacted to the required thickness. The sub-base shall be protected from deterioration due to ingress of water, the adverse effects of weather and the use of Contractor's equipment. Compaction shall be carried out in accordance with the following table: