

LANDSCAPING

SECTION 250

PREPARATION OF TOPSOIL

Cultivation of topsoil

- 1** Prior to cultivation of topsoil, the subsoil shall be prepared to provide an uncompacted subsoil surface and to ensure free drainage.

Topsoil for areas to be grass seeded or turfed shall be cultivated to a depth of 75 mm, rolled with a light roller and raked by chain harrow or by hand to produce a fine and even seed bed. The Employer's Representative's acceptance of the tilth shall be obtained before seeding commences.

Before planting shrubs, trees or other plants the topsoil shall be forked through or mechanically cultivated to produce a suitable tilth or soil consistency to a depth of topsoil as shown on the Contract Drawings.

Stones or artificial hard material exceeding 25 mm size, rubbish, roots or other deleterious matter brought to the surface during cultivation shall be raked off and removed from the Site.

Cultivation shall not be carried out during inclement weather or when the topsoil is waterlogged, frozen, snow covered or otherwise unworkable.

(250.001)

Weed control

- 2** Areas specified to lie fallow between topsoiling and seeding shall be kept free of noxious and invasive weeds by use of systemic contact herbicides in accordance with Clause 250.003, or by hand weeding, taking special care to remove tap roots and other deep seated growth.

Fallow areas to be planted shall be kept weed free.

All weeds on the areas to be landscaped shall be kept down during execution of the landscaping works and throughout the Defects Correction Period.

(250.002)

Herbicides

- 3** Herbicides shall be approved by the Ministry of Agriculture, Fisheries and Food appropriate to the proposed use, and recommended by English Nature, the Countryside Council for Wales or the Scottish Natural Heritage appropriate to the location. Herbicides to be used in the vicinity of a body of water shall be recommended by the Environment Agency, Water Authority or Scottish Environment Protection Agency as applicable. The choice of herbicide shall take proper regard of any necessity to consider the selective, or the toxic nature of such herbicides.

Herbicides shall be stored in accordance with the manufacturers' instructions in tightly sealed and correctly labelled containers in a locked store, accessible only to authorised persons.

Herbicides shall be handled and applied in accordance with the manufacturers' instructions by persons qualified in accordance with statutory requirements relevant to their use, and trained to the appropriate National Proficiency Test Council Standard (N.P.T.C.) or similar and certified accordingly.

The minimum standard for persons using herbicides shall be N.P.T.C. Group 6A – Hand held applicators.

For vehicle mounted spraying the minimum standard shall be N.P.T.C. Group 2A.

Application of herbicides shall be confined to the areas specified and spillage or spray drift of the material on to the Railtrack staff, contractors, members of the public, crops, livestock, neighbouring property, Sites of Special Scientific Interest, conservation areas, or any watercourse shall be prevented. Herbicides shall not be applied in wet or windy conditions, nor stored, mixed or used in the vicinity of any watercourse or other body of water.

Upon completion of weed killing operations, all herbicide materials surplus to requirements and contaminated equipment shall be removed from the Site, and disposed off in accordance with the herbicide manufacturer's recommendations.

(250.003)

Fertiliser

- 4** Before the sowing of grass seed or in advance of the laying of any turfs, the topsoil after spreading shall be treated with fertiliser at a rate in accordance with the manufacturer's recommendations. The fertiliser shall be a compound containing not less than:

10% nitrogen
15% phosphoric acid
10% potash

or other similar composition, as may be acceptable to the Employer's Representative.

Fertilisers shall not be spread when the ground is saturated and run off will occur, when heavy rainfall is expected, in the vicinity of watercourses, or in a designated nitrate sensitive zone.

(250.004)

Soil ameliorants

- 5** Soil ameliorants shall be applied as specified, to prepared topsoil areas after cultivation. The soil ameliorants shall be separately and evenly applied, and thoroughly worked into the topsoil and shall conform to the following.

- (i) Manure:

All manure or compost used as an additive to the soil or as a mulch shall be procured from an agreed source.

Manure shall be cow manure, or other farmyard manure, with a minimum admixture of straw. Poultry and pig manure shall not be acceptable.

(ii) Compost:

Compost shall consist of decomposed herbaceous or deciduous vegetation conditioned for not less than two years, and shall be moderately moist but not water-logged and of a short texture. No compost shall be used which has a grass clipping content exceeding 25%.

Spent mushroom compost may be used as a mulch or as a topsoil admixture.

(iii) Sewage sludge:

Sewage sludge shall be dried and pelleted, and when spread in dry conditions, a light misting of water shall be applied.

The Employer's Representative shall be advised of the content of the soil ameliorants proposed to be used before the material is delivered to the Site.

(250.005)

SECTION 251

Performance specifications for grass seeding

6

GRASS SEEDING AND TURFING

A grass sward shall be established in accordance with good horticultural practice, and shall be maintained in accordance with Section 253: Maintenance of Landscaped Works.

The work and programme required to establish the grass sward shall be determined by the Contractor unless otherwise specified, and shall include but not be limited to the following:

- (i) site investigation,
- (ii) topsoil analysis,
- (iii) determination of the seed mix appropriate to the location and soil conditions,
- (iv) seed bed preparation,
- (v) fertiliser application before and after seeding,
- (vi) application of herbicides in accordance with Section 250: Preparation of Topsoil,
- (vii) seeding, including reseeding if necessary,
- (viii) watering,
- (ix) grass cutting,
- (x) making good areas of settlement, poor germination and vandalism.

Method statements detailing the work to be carried out, programme, methods, seed mix and other materials to be used shall be submitted to the Employer's Representative for acceptance.

At the end of the additional Period of Maintenance, the grass sward shall be well and evenly established, and shall consist of a dense cover of grass and other native species, free from invasive or noxious weeds, and shall be without discolouration, thin or bare patches, settlement, waterlogging or other defects.

(251.001)

Area to be seeded **7** The areas to be grass seeded shall be as shown on the Contract Drawings.

The seeded area will be used for /general amenity. /visual amenity and topsoil conservation. /visual amenity and wildlife conservation. /

(251.002)

Seed mix **8** The seed mix and rate of application for the grass sward shall be determined by the Contractor.

The seed mix /may include rye grass and other vigorous growing grasses. /shall not include rye grass and other vigorous growing grass. /shall not include rye grass, but shall include native wild flowers indigenous to the location. /

A seed merchant's certificate shall be supplied to the Employer's Representative with each consignment of grass seed, giving the name of the supplier, mixture proportions, the certified percentages of purity and guarantee of germination.

Where a tested seed mixture is to be used, a copy of the certification of purity and germination shall be provided.

Fresh consignments of seed shall be used for each sowing season.

(251.003)

Seed impregnated matting for earth walls **9** Seed impregnated matting for earth walls shall consist of 50% coirfibre and 50% straw and mulch material impregnated with a seed mix and rate of application determined by the Contractor in accordance with Clause 251.001.

(251.004)

Storage of grass seed **10** Grass seed shall be stored in a dry and vermin proof building. The storage time of seed shall not exceed 12 months.

(251.005)

Sowing **11** Seed shall be sown at rates of application determined by the Contractor in accordance with the seed merchant's recommendations for the particular seed mixture to provide an even distribution of seed.

The soil conditions for sowing, and period of sowing shall be determined by the Contractor.