

**SECTION 02912  
SOIL PLACEMENT AND PREPARATION**

**PART 1 - GENERAL**

**1.1 WORK INCLUDED**

- .1 Furnish all labour, materials, and equipment necessary for the preparation and placement of the growing medium, drainage course, filter fabric, and clean-outs as shown.

**1.2 RELATED WORK**

- .1 02300 Earthwork
- .1 02928 Sodding
- .1 02930 Plants and Planting

**1.3 SITE INSPECTION**

- .1 Examine existing subgrade conditions and signify acceptance in writing to the Architect.
- .2 Ascertain the size and location of all existing services and subgrades prior to the work.
- .3 Immediately repair damage resulting from failure to exercise such precautions at no cost to the Owner.

**1.4 TESTING**

- .1 The Contractor is responsible for testing the topsoil. The test shall determine the analysis and quantity of the fertilizer, lime (if required) an/or other additives to be used to bring it to a satisfactory chemical and physical condition. Before adjusting the topsoil as required by the soils testing, submit soils analysis to the Architect for approval.

**1.5 PRODUCT HANDLING**

- .1 All materials shall be handled and adequately protected to prevent damage.
- .2 Store fertilizer and chemical ingredients in the manufacturer's original containers.

**1.6 STORAGE OF FINISHED GROWING MEDIUM**

- .1 Store growing medium in a dry area and protected from contamination, damage, and the elements.

**1.7 INSPECTION**

- .1 Notify the Architect at least forty-eight (48) hours prior to soil placement to inspect topsoil.

**PART 2 - PRODUCTS**

**2.1 MATERIALS**

- .1 Topsoil Supply and Delivery:
  - .a Topsoil shall be delivered between the hours of 8:00 a.m. to 5:00 p.m. Monday through Friday.
  - .b All loads of topsoil dumped at the specified site will be inspected by the Architect, who can refuse to accept delivery of material if topsoil does not conform to the following specifications, as well as those aforementioned.
  - .c All growing medium shall conform to Table 6-2 "Properties of Growing Medium for Level 1 "Well Groomed Areas" in the BC Landscape Standard, 2001 ed. This applies as well to all "on-slab" applications.
- .2 Sand: Sand shall be hard, granular sharp, sand in accordance with CSA A82.50-M1976, well washed and free of impurities, chemical or organic matter.

- .3 Peat Moss: Decomposed fibrous or cellular stems and leaves of species of Sphagnum Mosses consisting of a minimum of 90% organic matter by dry weight basis, finely ground to enable mixing with other components; 100% by volume of the particle sizes to pass a #4 sieve with a minimum of 97.5% passing a #8 sieve.
- .4 Pumice: A ground, porous volcanic rock, dark brown to black in colour.
- .5 Perlite: A white silica derivative.
- .6 Manure and Compost:
  - .a Manure shall be well rotted farm animal manure or mushroom manure, rotted to the extent that the material is crumbly. Manure shall be free from weeds seeds, rocks, sticks, rubble and containing not more than 40% (forty percent) sawdust, straw or shavings. Total carbon to nitrogen ratio in the resulting growing medium shall not exceed 40:1.
  - b Commercial compost shall be free from all weed seeds, coliform, pathogens and chemical or toxic contaminates. Physical contaminates such as rocks, plastic, metal or glass shall be less than 0.5%. Total carbon to nitrogen ration in the resulting growing medium shall not exceed 40:1
  - .c Compost for horticultural uses shall not contain municipal sewage sludge.
- .7 Fertilizer and Chemical Ingredients: List average p.p.m. of primary nutrients, where applicable, finely ground, granular or water soluble form to permit their uniform distribution throughout the mix.
  - .a Nitrogen Fertilizer: 50% of total nitrogen derived from a natural organic material in a slow release form.
  - .b Bonemeal: Finely ground commercial raw bonemeal with minimum of 4% nitrogen and minimum of 20% phosphoric acid.
  - .c Nutricote (by Agrico): 16-10-10.
- .8 Drainage and Filter:
  - .a Drain rock: 19mm - 25mm diameter round rock washed free of all fines and organic materials or approved drain mat where depth
  - .b Percolation shall be such that no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.

### **PART 3 - EXECUTION**

#### **3.1 SCREENING**

- .1 Screen topsoil to remove stones greater than 25 mm in diameter, lumps, live plants and their roots, sticks, and other extraneous matter prior to delivery to site.
- .2 The Contractor shall be responsible for controlling the dust that results from the screening operation.
- .3 Excess debris produced during the screening process shall be legally disposed of off-site.

#### **3.2 SOIL AMENDMENT**

- .1 Combine and mix the screened topsoil with the soil amendments recommended by the soils test to produce the growing medium.

#### **3.3 PLACEMENT ON GRADE**

- .1 Cultivate entire subgrade to a depth of 12 in. immediately prior to placement of the growing medium.
- .2 No growing medium shall be loaded, transported or spread when it is so wet or frozen.
- .3 Place the growing medium to the following depths:

- .a Ground cover areas: 9 in.
  - .b Shrub areas: 18 in.(20 in on slab)
  - .c Trees: 24 in.
  - .d Lawns: 6 in
- .4 The depth of topsoil indicated shall mean the depth of topsoil after settlement. Allow soil to settle or lightly roll such that it is firm against deep footprints. Growing medium shall not be compacted more than necessary to meet this requirement.
- .5 Fine grade growing medium to finished grades shown eliminating rough spots and low areas to ensure positive drainage. Prepare loose, friable beds by means of discing and subsequent raking.
- 3.4 CLEAN UP**
- .1 During progress of the Work and at completion, keep all surrounding areas clean and free from debris. Clean adjacent structures and appurtenances of dust, dirt, and debris caused by operations. Return adjacent areas to condition existing before operations began.

END OF SECTION