

## SECTION 76

### COMPOST APPLICATION

#### 76.1 DESCRIPTION

##### A. General

This work shall consist of incorporating compost within the root zone to improve soil quality and plant growth. This specification applies to all types of turf establishment methods (including seeding, sprigging, sodding, and hydroseeding) and plantings (including trees, shrubs, vines, ground covers, and herbaceous plants). Compost use as a soil amendment shall only be required as directed by the Designer.

##### B. Related Work

Section 70	Seeding
Section 71	Fertilizing
Section 73	Sodding
Section 74	Planting Trees, Shrubs, and Vines
Section 75	Transplanting Trees and Shrubs

#### 76.2 MATERIALS

Compost shall be well decomposed, stable, weed free organic matter source. It shall be derived from agricultural, food, or industrial residuals; biosolids (treated sewage sludge); yard trimmings, or source-separated or mixed solid waste. The product shall contain no substances toxic to plants. For acid loving plants, provide only compost that has not received the addition of liming agents or ash by-products. Composts containing available nutrients, primarily nitrogen, are preferred, while the use of unstable or immature compost is not approved. Care should be given when using composts possessing a basic pH (>7) near acid loving plants.

#### 76.3 PRODUCT PARAMETERS

**Figure 1 Model Compost Specification for General Landscape Applications (soil amending)**

<b>Parameters</b>	<b>Reported as (units of measure)</b>	<b>General Range</b>
pH	pH units	5.0-8.5
Soluble Salt Concentration (electrical conductivity)	dS/m (mmhos/cm)	Maximum 10
Moisture Content	%, wet weight basis	30 - 60
Organic Matter Content	%, dry weight basis	30-65
Particle Size	% passing a selected mesh size, dry weight basis	98% pass through ¾" screen or smaller
Stability		

Carbon Dioxide Evolution Rate	Mg CO <sub>2</sub> -C per g OM per day	< 8
Maturity (Bioassay) Seed Emergence and Seeding Vigor	%, relative to positive control %, relative to positive control	Minimum 80% Minimum 80%
Physical Contaminants	%, dry weight basis	< 1
Chemical Contaminants	mg/kg (ppm)	Meet or exceed US EPA Class A standard, 40 CFR 503.13, Tables 1 and 3 levels
Biological Contaminants Select Pathogens Fecal Coliform Bacteria, or Salmonella	MPN per gram per dry weight MPN per 4 grams per dry weight	Meet or exceed US EPA Class A standard, 40 CFR 503.32(a) levels

## 76.4 CONSTRUCTION REQUIREMENTS

### A. Soil Analysis

Before any soil preparation procedures ensue, a soil analysis shall be completed by a reputable laboratory to determine any nutritional requirements, pH and organic matter adjustments necessary. Once determined, the soil shall be appropriately amended to a range suitable for the turf species to be established. A copy of the results of the soil analysis shall be provided to the Engineer.

### B. Turf Establishment

Compost shall be uniformly applied over the entire area at an average depth of 1 to 2 inches and incorporated to a minimum depth of 6 inches (for a 20% to 30% inclusion rate) using a rotary tiller or other appropriate equipment. The Designer shall specify the compost inclusion rate depending upon soil conditions and quality, plant tolerances, and manufacturer's recommendations. Pre-plant fertilizer and pH adjusting agents (e.g., lime and sulfur) may be applied before incorporation, as necessary. The use of stable, nutrient rich composts may reduce initial fertilizer requirements by the amount of available nutrients in the compost. Rake the soil surface smooth prior to seeding, sprigging, sodding, or hydroseeding. The soil surface shall be reasonably free of large clods, roots, stones greater than 2 inches, and other material which will interfere with planting and subsequent site maintenance. Water thoroughly after seeding, sprigging, or sodding.

### C. Planting Bed Establishment

Compost shall be uniformly applied over the entire area at an average depth of 1 to 2 inches. The Designer shall specify the compost inclusion rate depending upon soil

conditions and quality, plant tolerances, and manufacturer's recommendations. Incorporate uniformly to a minimum depth of 6 inches using a rotary tiller or other appropriate equipment. Lower compost application rates may be necessary for salt sensitive crops or where composts with higher salt levels are used. Pre-plant fertilizer and pH adjusting agents (e.g., lime and sulfur) may be applied before incorporation, as necessary. The use of stable, nutrient rich composts may reduce initial fertilizer requirements by the amount of available nutrients in the compost. Rake soil surface smooth prior to planting. The soil surface shall be reasonably free of large clods, roots, stones greater than 2 inches, and other material which will interfere with planting and subsequent site maintenance. Water thoroughly after planting.

#### **76.5 METHOD OF MEASUREMENT**

Compost will be measured by the ton.

#### **76.6 BASIS OF PAYMENT**

Compost application will be paid for at the contract unit price per ton, which will be full compensation for furnishing, hauling, and placing, and for materials, equipment, labor, tools, and incidentals necessary.