The work under this item shall conform to the relevant provisions of Subsection 751 of the MassDOT Standard Specifications and the following:

## **DESCRIPTION**

The work shall include producing and placing planting soil mix for tree trenches in accordance with these specifications and in close conformity with the lines and grades shown on the Plans or established by the Engineer.

The work includes excavation of existing soil, provision and amendment of loam and compost as required to produce planting soil mix, provision of soil additives required to adjust for pH requirements of specific plants, and placing, grading, and compacting of blended planting soil mix.

NOTE: Backfill mixture for proposed plant material located outside tree trenches will be considered <u>incidental</u> to the respective plant material pay items as described in Subsection 771 of the MassDOT Standard Specifications.

#### <u>MATERIALS</u>

Planting soil mix shall be a thorough blend of one-part loam borrow, one-part organic material and two-parts existing subsoil.

Loam borrow shall conform to M1.05.0: Loam.

Organic material shall be manufactured compost and shall conform to M1.06.0.

Mixed material shall be pH tested by the Contractor in the presence of the Engineer, and adjusted according to particular planting applications, using lime or sulfur as required. For plants that require an acid soil, such as ericaceous plants and broad-leaved evergreens, planting soil shall have a true pH of 4.5 to 5.5. Planting soil for all other plants shall have a true pH value of 6.0 to 6.5. Proposed soil amendments shall be submitted to the Engineer for approval prior to application.

#### CONSTRUCTION METHODS

Areas to receive plants shall be excavated as shown on the Plans. The sides and bottom of the excavated areas shall be scarified to prevent glazed soils.

All stones, undesirable growth, and debris larger than 2 inches in diameter shall be removed and disposed of by the Contractor outside the location.

When directed by the Engineer, unsuitable subsoil (such as debris of every nature, trash, asphalt, cement concrete, rock, and wood) shall be removed and legally disposed offsite by the Contractor at no additional cost.

Prepare planting soil mix by blending existing subsoil with loam borrow, manufactured compost, and soil additives as specified above to depths as shown on the Plans.

Surplus quantities of existing subsoil shall be removed and legally disposed offsite by the Contractor at no additional cost.

The Contractor shall notify the Engineer when areas to receive planting soil mix are ready for inspection and approval. Placement of planting soil mix shall not begin until the Engineer has approved the excavated area that the planting soil mix is to be placed within.

Planting soil mix shall not be handled or placed when the subgrade or the planting soil mix is frozen or saturated, i.e. when squeezed sample shows any sign of free moisture.

The Engineer shall approve the use of the Contractor's equipment. Any equipment or procedures that are likely to damage or over-compact underlying structure or materials shall be rejected.

Planting soil mix shall be placed in lifts not to exceed 6 inches. The maximum dry densities shall be achieved as follows:

### Within lawn and planting areas

All fills to within 18" of finished sub-grade
Top 18" to finished grade
88-90%

In lawn and planting areas, compaction requirements for sub-grade and fill shall be considered minimums and maximums within the density percentages specified, and any over-compaction which would be detrimental to lawn or planting objectives shall be corrected by tilling or other means and recompacting to the specified limits at no additional cost.

Grade stakes shall be set to check finished grades. Deviation from lines and grades that are greater than 1 inch shall not be permitted.

The Contractor shall supply additional planting soil mix as necessary so that following finish of the grading and compaction operations, the placed planting soil mix shall conform to the depth required.

Finish grades shall exhibit no abrupt changes and shall blend in evenly with the undisturbed grade of the ground at the limits of work.

During hauling operations, the roadway surfaces shall be kept clean and any dirt which may be brought upon the surface shall be removed promptly and thoroughly before it becomes compacted by traffic. If necessary, the wheels of all vehicles used for hauling shall be cleaned frequently and kept clean to avoid bringing any dirt upon the surface. The Contractor shall take all reasonable precautions to avoid injury to existing or planted growth.

#### METHOD OF MEASUREMENT

Planting Soil will be measured for payment by the cubic yard, after compaction to the depth specified on the Plans or as directed by the Engineer, complete in place.

# **BASIS OF PAYMENT**

Planting Soil will be paid for at the Contract unit price per cubic yard, which price shall include all labor, materials, equipment, and incidental costs required to complete the work. No separate payment will be made for provision and amendment of loam and compost as required to produce planting soil, provision of soil additives required to adjust for pH requirements of specific plants, and placing, grading, and compacting of blended planting soil, but all costs in connection therewith shall be included in the Contract unit price bid.

In the event that supplemental soils are required due to the discovery of unsuitable materials, the Contractor shall reuse surplus material from other project excavation. If these materials are not available, the Contractor will inform the Engineer of the need to bring in ordinary borrow. No separate payment will be made for ordinary borrow, but all costs in connection therewith shall be included in the Contract unit price bid.

Excavation will be paid for separately under Item 120.1, Unclassified Excavation.