

**ITEM 04615.0205 M - TRANSPLANTING, 0 to 75 mm DBH**

**ITEM 04615.0206 M - TRANSPLANTING, over 75 to 150 mm DBH**

**ITEM 04615.0207 M - TRANSPLANTING, over 150 to 300 mm DBH**

**DESCRIPTION:**

This work shall consist of digging existing plants with a tree digging machine at designated locations and transplanting them to locations shown on the plans and/or where directed by the Engineer and shall include all transplanting operations necessary to complete the work as specified.

**MATERIALS:**

A. Plants

Plants shall be existing plants.

B. Planting Materials

Topsoil, 713-01

Organic Material, 713-15

Fertilizer, 713-03, Type No. 8 (Bonemeal) and Type No. 3 (10-6-4)

Mulch, wood chips 713-05

Water, shall be as specified under 712-01

Antidesiccants, 713-08

C. Miscellaneous planting materials for protection of trees:

Guy stakes, 10-12 gauge wire, turn buckles, hose, cardboard trunk protection sleeves.

**CONSTRUCTION DETAILS:**

A. Employ the use of a mechanized tree digging machine capable of digging a transplant plug size as follows:

<b><u>Trunk Diameter (DBH)</u></b>	<b><u>Minimum Diameter Transplant Plug</u></b>
0 to 75 mm	0.8 m
75 to 150 mm	1.5 m
150 mm to 300 mm	2.1 m

B. Transplanting Season

1. Deciduous trees shall be transplanted between October 1 and May 31, whenever temperature is above freezing and soil is in workable condition, or as approved by the Engineer.
2. Evergreen trees shall be transplanted between April 1 and May 31 before the start of new growth, between September 1 and October 31 or as approved by the Engineer.

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C. Prior to Transplanting

1. Prune. Remove all dead wood and remove approximately 1/3 of the live wood of deciduous plants or as directed by the Engineer, maintaining the natural habit of the plant. Cut no leaders.
2. Trunk Protection. Prior to transplanting cover trunk completely with a cardboard sleeve or other approved material from the ground line to the height of the first branch. Secure cover in place by use of fiberglass tape or other approved methods and materials.
3. Planting Layout. The locations of transplants shall be staked by the Contractor for approval by the Engineer before any trees or plant pits are dug.
4. The Contractor shall give notice to the Engineer at least 48 hours in advance of transplanting unless otherwise approved.
5. Prepare transplant mix in the following proportions:
  - a. Topsoil - five parts.
  - b. Organic Material- five parts.
  - c. Bonemeal - one part.Thoroughly mix ingredients.

D. Transplanting.

1. Transplant Hole Excavation. Dig transplant hole prior to digging tree. Position mechanized tree digging machine over proposed location of tree. Level machine to produce a vertical hole. Extend blades completely down to obtain and remove a maximum size plug. Transplant hole should match size of transplant plug.
2. Preparation of Tree to be Transplanted. Tie up lower branches of plant as necessary prior to digging to avoid damage to the tree. Position the tree digging machine so the tree trunk is centrally located in the unit prior to digging the tree. Mark or indicate the tree's relative position to south.
3. Tree Excavation. Hold the tree in a fixed position within the spades during the digging operation. If difficulty is experienced in moving trees with a deep tap root system, use a spade extension.
4. Transporting Tree. Additional tying, trunk protection, etc. may be required to prevent damage while transporting.
5. Setting Tree. Sufficient transplant mix together with enough water to form a slurry shall be placed in tree pits prior to setting the trees so when the ball is lowered, mixture will be forced up to completely surround the ball and fill the gap between tree-ball and ground. Position tree in the same direction relative to south. Trees shall be set in a vertical position.

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6. Surface Finish. After setting plant, fill gap around the ball with more transplant mix. Flood the gap with water, working around the entire ball with a spade to eliminate air pockets. Cut the grass around trunk flush with the top of ball and form a compacted saucer as indicated in detail. Grade soil to form a basin on lower side of slope plantings to catch and retain water.
7. Guying. Guy trees as indicated immediately following transplanting. Guy from ground line up to 1/3 total height of tree (see detail). Trees less than 75 mm in diameter and less than 3 meters high do not need to be guyed. Remove cardboard trunk protection sleeve.
8. Mulching. Spread wood chips over finished surface of each plant pit to a depth of 75 mm. Top dress all saucers with 10-6-4 fertilizer spread evenly at the rate of 0.8 kg per square meter of plant pit surface.
9. Care of Planting. As specified in Section 611-3.05. Water plants thoroughly after mulching and at two week intervals up to and throughout the Period of Establishment from May 1 to October 31. Apply 45 liters of water per square meter of finished plant pit surface area per watering.
10. Period of Establishment. As per Section 611-3.06 with the exception that no replacement will be required. The period of establishment shall commence when all transplanting has been completed and accepted by the Engineer and shall continue for a period of two years or for the duration of the contract, whichever is greater. Remove all dead wood at the end of the Period of Establishment. Transplanted trees that are dead or in a badly impaired condition, as determined by the Engineer, shall be grubbed and disposed of as directed by the Engineer. The disturbed area shall be brought back to meet existing grades and seeded as specified in Section 610 - Turf Establishment.

**METHOD OF MEASUREMENT:**

Transplanting will be measured as the number of plants which are counted in place as having been completed and accepted.

**BASIS OF PAYMENT:**

Transplanting will be paid for at the unit price bid for each plant which has been acceptably planted. Payment shall constitute full compensation for all labor, equipment, materials and incidentals, including watering, necessary to complete and establish the work as specified except as follows: Water and watering plants will be paid for under the pay item for Watering Plants and Sod when this item is specified in the contract, except that no payment will be made for water used in the initial planting operation or during the Period of Establishment.