SPECIAL SPECIFICATION

1036

Transplanting Palm Trees

1. **Description.** Transplant designated palm trees within the limits of the project and as hereinafter specified in this Item.

2. **Materials.**

   A. **Soil Conditioner or Root Stimulator.** Provide a soil conditioner or root stimulator consisting of an approved transplant inoculant product.

   B. **Sandy Loam Backfill.** Provide sandy loam backfill that is typical of the area with no noxious weeds, grasses, sticks, roots, or stones present and is consistent in texture. (Maximum lump size is 1 in.).

3. **Construction Methods.**

   A. **Equipment.** Use machinery that is in good condition with minimum tolerances between cutting blades. Ensure blades are true to their designed spade and free of bends which could interfere with its operation. Mount the tree spade on a suitable, stable machine capable of supporting the mass of dug materials and heavy enough to force the blades into the soil to the proper depth. Dig pits to receive machine transplanted palm trees with machines of like size and manufacture to that used to dig the intended palm tree.

   B. **General.**

      1. If a tree spade is used, move the palm trees with a minimum of a 90 in. mechanical tree spade or as approved.

      2. Ensure palms that are hand dug have generally circular root balls, with a minimum diameter of 35 in. and a minimum depth of 35 in.

      3. Strip 3 or 4 lower fronds of the palm tree heads and use them to support the terminal bud by wrapping them with jute twine. Secure the remaining fronds to the bound bud. Set palms with the terminal bud plumb in the locations indicated on the plans. Set palms at least 6 in. to 12 in. deeper than the topmost surface of the ball after planting. Form a soil watering ring at the outside edge of the plant pit with a minimum depth of eight 8 in. in the event that some palms have curved trunks that will require additional support. Use 4 in. or larger peeled posts as the main supports and 2 in. x 4 in. pressure treated blocks to secure peeled posts to the palm. Secure nail blocks to the trunk with nylon straps or metal bands. Do not drive nails directly into the trunks of the palms.
4. Assume responsibility for locating underground utilities for transplant operation.

5. Assume responsibility for watering and maintaining the palm trees for 90 days.

6. Keep the project areas cleaned of debris and maintain it in a neat and presentable condition. Fill, grade, and repair any damaged work areas on the project site to the satisfaction of the Engineer. Exercise caution to prevent damage to any utilities, structures, fences, gates, or other facilities.

C. Digging, Transporting and Planting.

1. Center palm trees in the machine when using a tree spade. Exercise caution to prevent damage to the palm branches and trunks while backing onto or driving away from the palm tree.

2. Cut roots protruding from the digging spades flush with the root ball before planting.

3. Equip trucks transporting the palm trees with an automatic transmission.

4. Dig and transplant palm trees within 48 hours.

D. Sandy Loam Backfilling.

1. Backfill palm trees with sandy loam topsoil.

2. Water the backfill after each twelve 12 in. layer.

3. Construct a water basin around each palm tree. Ensure the basin is not more than 12 in. beyond the edge of the palm tree pit and the maximum height shall be 8 in. On slopes, grade the areas around the palm tree to provide an adequate basin.

E. Root Stimulator.

1. Ensure palm trees are root stimulated with a transplant inoculant or approved equal, mixed as per label instructions.

2. Apply root stimulator at the time of planting.

F. Mulching.

1. Apply 4 in. to 6 in. of mulch within the water basin. Use shredded pine bark mulch. Ensure the texture corresponds to the Type I, Class B classification of the federal specification Q-P-166E, with particles ranging in size from 1/2 in. to 1 in., with a minimum of finer particles and dust. Ensure mulch is free of sticks, stones, clay, or other foreign matter.

2. Complete mulching within 48 hours after planting.

G. Maintaining Trees. After the initial transplanting period, maintain the palm trees for a period of 90 calendar days. The maintenance includes but is not limited to the following::
1. Mow, trim, and remove as necessary, weeds and grass within the planted area including the palm tree basin.

2. Water transplanted palm trees (45 cycles) during the 90 day maintenance period. Water each palm tree a minimum of 60 gal. each cycle.

3. Repair water basins as necessary.

4. **Measurement.** This Item will be measured as each palm tree transplanted to the locations shown on the plans and as specified.

5. **Payment.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement", will be paid for at the unit price bid for "Transplanting Palm Trees". This price is full compensation for furnishing and operating equipment; and for labor, tools, materials, and incidentals necessary to satisfactorily perform the work including the 90 day maintenance period.