

SPECIAL PROVISION

**REVISIONS TO STANDARD SPECIFICATION 626 –
PLANTING**

626-1 DESCRIPTION

626-1.01 Scope

This section is revised as follows:

- a. This work shall consist of furnishing and planting or removal and transplanting of trees and palms, pruning o existing trees, shrubs, vines and other ground cover plants in accordance with these specification and the details and locations shown on the plans or established by the Engineer.
- b. This work shall consist of furnishing and planting the Vetiver grass (*Chrysopogon Zizanioides*) for the application of soil and slope stabilization methods, soil erosion control measures or landscaping. This work shall be in accordance with these specification and details and locations shown on the plans or established by the Engineer. The work also may include the application of a temporary erosion control blanket for the purpose of the Vetiver grass establishment and protection.

626-2 MATERIALS

626-2.01 Materials for this work shall meet the requirements of the following articles of Specification 713 - Roadside Improvement Materials.

Add the following material:

Temporary Erosion Control Blanket..... 712-7

626-2.03 Source of Plants

This section is revised as follows:

- a. All plant materials should originate in Puerto Rico from locally available seed and cutting sources (including Vieques, Culebra and Isla de Mona). Exceptions to this requirement need to the approved by the Puerto Rico Highway and Transportation Authority (PRHTA) or Department of Natural Environmental Resources (DNER).

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b. All plant material to be imported shall comply with importation dispositions of the US Department of Agriculture and the Department of Agriculture of the Commonwealth of Puerto Rico.

Add the following paragraph:

c. The origin of the Vetiver (*Chrysopogon Zizanioides*) must be certified by the supplier as being of the "Sierra" variety, adapted to Puerto Rico and which is a native variety in the South of India, guaranteed non-fertile, and coming from a producer certified by The Vetiver Network International (TVNI). The plants must be free of insects or disease, and must be developed in a substrate (growing mix) that does not contain natural soil, sand, or contaminants. The plants are planted in seedlings (plugs) of a diameter of 2.0 to 2.5 inches (0.050 to 0.063 meter) at the top and 4.75 to 5.0 inches (0.121 to 0.127 meter) in depth. The seedlings will have a minimal development of two active stems cut of 10 to 12 inches (0.254 to 0.304 meter) high and not less than 4 inches (0.102 meter) long thick root system.

626-3 CONSTRUCTION REQUIREMENTS

626-3.05 Excavation for Plant Holes and Beds

Add the following paragraphs:

- e. For Vetiver Grass (Excavation for Plant Pits)
1. The method of planting shall comply with the recommendations of the Vetiver System as specified by The Vetiver Network International (TVNI).
 2. Prior to excavating for plant pits, the area shall conform to the lines and grades shown on the plans. All sod, weed roots and other objectionable material unsuitable for backfill shall be immediately removed from the site and disposed of by the Contractor in a manner satisfactory to the Engineer.
 3. The size of pits diameter in earth excavation shall be 1.5 seeding diameter approximately.

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4. The minimum pit depth of 5 inches (0.127 meter). is required, so long as such depth provides to the plants 1/2 inch (0.013 meter) of embedment from ground surface to the top of the plug.

626-3.08 Setting Plants

This section is revised as follows:

- a. All plants shall be set approximately plumb and at the same level or depth at which they were grown in the nursery.
- b. Balled and burlapped plants shall be carefully placed in the prepared planting holes upright at the required depth so as to rest in a firm upright position. Plants shall be handled and moved only by the ball. Backfill soil shall then be filled in around the plant ball to half the depth of the ball, then tamped and thoroughly watered. Earth saucers or water basins shall then be provided and the plant thoroughly watered.
- c. Container grown stock which has become "pot-bound" or for which the top system is out of proportion (larger) to the size of the container will not be acceptable. The stock shall not be removed from the container until just before planting, and all due care shall be exercised to prevent root system damage.

Add the following paragraphs:

- d. For Vetiver Grass
 1. The plants will be planted at a maximum separation distance of 6 inches (0.152 meter) center-to-center in continuous rows to the contour of the terrain (elevation constant).
 2. The separation between the Vetiver System rows shall be a maximum vertical distance of 4 feet (1.22 meter) for conservation and stabilization of land.

626-3.09 Fertilizing

This section is revised as follows:

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a. A complete controlled release fertilizer will be used for planted material, at a rate 2 to 4 lbs. of Nitrogen (N) per 1000 square feet. The analysis of the complete fertilizer will be 18-8-12 or other with high N percent. The fertilizer will be broadcast prior to the application of mulch.

Add the following paragraph:

b. Upon completion of the planting, a granular, slow-release, commercial fertilizer formulated for grasses or lawns shall be provided and applied at the Manufacturer's recommended rate above the pit area of individual plants. These fertilizers will have a formulation high in Nitrogen (N) some of which dissolves progressively over time (slow-release). Fertilizer shall be spread on the surface of the soil in the space from the center of the plug to a distance of two inches above the plug. In the absence of natural rain, watering shall be provided immediately after the fertilizer has been dispersed.

626-3.15 Plant Establishment Period and Replacements

Add the following paragraphs:

g. For Vetiver Grass

1. The acceptability of the plant material furnished and planted as specified shall be determined at the end of a period of establishment of 90 calendar days during which the contractor shall employ all possible means to preserve the plants in a healthy growing condition.

2. When the planting is included as part of a highway construction contract, the Contractor's responsibility for the care of the plants, including the replacements when required, shall extend until the completion and acceptance of the construction project or 90-day establishment period, whichever is longer.

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626-4 METHOD OF MEASUREMENT

Add the following paragraph:

626-4.09 The transplanting of existing clusters of Areca palms as indicated in the plans and contract documents, will be measured for payment as a lump sum item complete with all the required components, including any material, equipment, and tools, and the requirements as specified in Article 626-3.16 above.

626-5 BASIS OF PAYMENT

626-5.02 Payment for plant materials will be made as the work progresses as follow:

Add the following paragraphs:

d. For Vetiver Grass

1. Seventy five percent (75%) of the contract unit price for each plant will be paid after the initial planting and fertilizing is completed provided the work is accepted.

2. The remaining twenty five percent (25%) due the Contractor for each plant will be made at the end of the plant establishment period and the plants have been acceptably maintained and are in place, completed and accepted.

626-5.03 Payment will be made under:

Add the following pay item:

<u>Pay Item</u>	<u>Pay Unit</u>
Transplanting Areca Palm Cluster	Lump Sum