

**LANDSCAPING
(REV 3-14-14) (4-14)**

SECTION 580 is deleted and the following substituted:

**SECTION 580
LANDSCAPING**

580-1 Description.

Furnish, install, establish and maintain landscaping as indicated in the Contract Documents.

A two year establishment period will begin when plants have been installed and accepted.

580-2 Materials.

580-2.1. Grade Standards and Conformity with Type and Species: Only use plant materials purchased from Florida commercial nursery stock that comply with all required inspection, grading standards, and plant regulations in accordance with the latest edition of the Florida Department of Agriculture’s “Grades and Standards for Nursery Plants.”

Unless otherwise specified, minimum grade for all plants is Florida No. 1. All plants must be the specified size and grade at the time of delivery to the site.

Use only plants that are true to type and species, free of fungal infection and disease, and ensure that the plants not specifically covered by Florida Department of Agriculture’s “Grades and Standards for Nursery Plants” conform in type and species with the standards and designations in general acceptance by Florida nurseries. Submit a list of nurseries where plants are tagged, including contact information and location. The Engineer and Contractor may visit the nursery sites to inspect representative samples of plant material and lock tag the example plants. Prior to planting, provide the Engineer with a certification from the supplying nursery that all plant materials have been purchased from Florida commercial nursery stock.

A minimum of two plants of each species on each shipment must be shipped with tags stating the botanical nomenclature and common name of the plant. Should discrepancies arise between botanical nomenclature and common name, the botanical name will take precedence.

Root Ball Sizes for Field Grown Palms			
Palm Type	Overall Height	Root Ball Radius from Trunk	Root Ball Depth
Sabal Palm*	N/A	Per Florida Grades & Standards	Per Florida Grades & Standards
Coconut Palm	N/A	Per Florida Grades & Standards	Per Florida Grades & Standards
Queen Palm	N/A	24”	24”
All Other Field Grown Palms	< 15’ OA	12”	18”
	15’ – 25’ OA	16”	24”
	26’ – 30’ OA	18”	30”

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	30'	24"	36"
<p>* Sabal palms (Sabal palmetto) specified as being “Regenerated Palms” as shown on the Plant Schedules shall be minimum Florida no. 1 grade unless noted otherwise. The root ball width shall be, at a minimum, equal to twice the diameter of the trunk as measured at the base. The root balls shall have new, regenerated, round-tipped roots that have emerged from the root initiation zone. Roots shall be whitish-yellow in color, have tapered ends and be present on all sides of the root ball.</p> <p>To qualify as “Regenerate Palms,” sabal palms shall have been placed in containers or be contained within “plastic fabric or film material”, or approved equal, after field harvesting and during the root regeneration period. They shall have a minimum of three fully expanded new fronds that have not been pruned. Fully expanded new fronds shall meet the minimum requirements to be considered “excellent leaves”, as defined by the glossary of terms in the latest edition of the Florida Department of Agriculture and Consumer Services Grades and Standards for Nursery Plants – Palms and Cycads.</p>			

580-2.2 Inspection and Transporting: Move nursery stock in accordance with all Federal and State regulations and accompany each shipment with the required inspection certificates. Submit inspection certificates to the Engineer.

580-2.3 Water: Meet the requirements of Section 983.

580-2.4 Mulch: Use of cypress mulch is prohibited.

580-2.5 Soil: Remove all unsuitable soil and debris to root ball depth. Replace soil meeting the requirements of Section 987.

580-3 Installation.

580-3.1 Installation Plan: Not less than 14 days prior to the scheduled installation, submit an Installation Plan to the Engineer for review and comment. Specifically describe the methods, activities, materials and schedule to achieve installation of plants as described in 580-3.

580-3.2 Delivery: All plant materials must be available for inspection prior to planting.

580-3.3 Layout: The location of plants as shown in the Contract document, are approximate. At no cost to the Department adjust final locations when directed by the Engineer to accommodate unforeseen field conditions or to comply with safety setbacks and requirements.

Prior to commencing any excavation or planting, mark proposed mowing limits, planting beds and individual locations of trees and palms as shown in the Contract Documents. Notify the Engineer when marking is complete.

Make no changes to the layout, materials or any variations of plant materials from the Contract Documents without the Engineer’s written approval.

580-3.4 Soil Drainage: All planting holes and beds must drain sufficiently prior to installing any plants. Immediately notify the Engineer of drainage or percolation problems before plant installation.

580-3.5 Planting: Meet the requirements of the Contract Documents.

580-3.6 Repair and Restoration: Repair and restore existing areas disturbed by installation, establishment or maintenance activities. Where new turf is required to restore and repair disturbed areas, meet the requirements of Section 570.

580-3.7 Disposal of Debris: Remove and dispose of all debris and excess material generated from the installation of plants at the end of each day’s work and in compliance with all Federal, State and Local laws and ordinances.

580-3.8 Reporting: Certify monthly on a form provided by the Department, “Landscape Monthly Inspection Form” that the plants have been installed and are being established and maintained in accordance with the Contract Documents.

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580-3.9 Establishment Plan: Not less than 45 days prior to the scheduled completion of the installation, submit an Establishment Plan to the Engineer for review and comment. Installation will be considered complete only when the Establishment Plan has been accepted by the Engineer. Specifically describe the methods, activities, materials and schedule to achieve establishment and inspection of plants and incidental landscaping as described in 580-4. Acceptance of the Establishment Plan is not a release from responsibility for the overall establishment and maintenance of the landscape area as required in the Contract Documents. Perform any ancillary activities that may be required to adequately establish and maintain the plants and landscape area.

580-3.10 Installation Completion: To allow time for scheduling inspection of installation, provide the Engineer with no less than seven calendar days advance notice of completion of installation of all plants. Upon completion of installation of plants and incidental landscaping, certify on a form provided by the Department, "Contractor Certification of Installation" that the landscaping has been installed and is being established in accordance with the Contract Documents.

580-4 Establishment.

580-4. 1 Establishment Period: The establishment period is defined as the entire two years after installation of all plants and incidental landscaping. The establishment period will begin upon acceptance by the Engineer of the Establishment Plan and the complete installation of the landscaping.

During the establishment period:

Keep all plants vigorous, undamaged, free of pests and disease, hydrated and nourished, supported to grow and maintain form and general appearance specified in the Contract documents and the Establishment Plan.

Keep all plants pruned to maintain plant health, clear visibility of signs, traffic signals, safe sight distance at intersections and driveways, safe and operational horizontal and vertical clearance from roadways, sidewalks, utilities, light poles, traffic control signals and devices, toll equipment and facilities, mechanical equipment, fences, walls and drainage structures, and to provide unobstructed access. Pruning shall conform to ANSI A300 Part 1 Standards. Pruning shall be performed by an International Society of Arboriculture (ISA) Certified Arborist or person with documentation of equivalent or greater expertise. Prior to performing pruning activities provide proof of the individual's active arborist certification or other credential to the Engineer for approval.

Keep the landscape areas as defined in the plans, including individual plant locations and planting beds, free of litter, debris, excess material and undesirable vegetation.

Keep landscape bed edges correctly located and trimmed, and the mulch groomed and replenished as specified in the Contract Documents.

Operate and maintain all components of any irrigation system when installed as part of the Contract.

Remove staking and guying from all fully established plants unless otherwise directed by the Engineer.

Continue any mowing and litter pick up of the turf areas as depicted and specified in the Contract Documents.

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580-4.2 Inspection and Reporting Requirements: During the establishment period, inspect and certify monthly on the Department's "Landscape Monthly Inspection Form" that the landscaping is being established per the Contract Documents.

In addition, at quarterly intervals, beginning within 90 days of the establishment period start date, provide a Registered Landscape Architect to perform inspections of the landscaping and document the findings in a signed and sealed report. Information in the inspection report shall include, as a minimum, the following:

Date of inspection

Description of project

Location of inspection

Weather conditions

Condition of plants - identify by species, location, and number of plants that are no longer the specified minimum grade.

Condition of plant beds and adjoining areas (including mulch, turf, edges of planting beds, weeds, and staking and guying),

Condition and operation of the irrigation system, if applicable

Contractor's response, action, and schedule

Other comments

Signature and seal of Landscape Architect

Submit the monthly inspection form and the quarterly inspection report to the Engineer within seven calendar days after performing the inspection.

580-5 Remedial Work.

Perform all necessary remedial work at no cost to the Department. Use replacement plants of the same species and planting medium as the plant being replaced and as specified in the Contract Documents. Replacement plant size must match the size of the adjacent grown-in plants of the same species and variety which may be larger than the initially installed size.

During the establishment period, the establishment time for replacement plants shall be the remaining establishment period or 90 days after date of replacement installation acceptance, whichever is greater.

Approval of remedial work does not relieve the Contractor from continuing responsibility under the provisions of this Section. At the end of the contract period when all contract requirements are met, the Engineer will release the Contractor from further remedial work.

580-6 Failure to Perform.

Upon receipt of the quarterly report or after inspection by the Engineer, a daily deduction of 0.0333% of the Contract amount may be assessed and forfeited if full compliance with 580-4 is not achieved. The daily deduction will continue until full compliance is achieved to the Engineer's satisfaction.

580-7 Method of Measurement.

The quantity to be paid will be the lump sum quantity for landscape installation and establishment.

580-8 Basis of Payment.

Price and payment will be full compensation for all work and materials specified in this Section. Seventy-six percent of the total contract amount will be paid during the installation

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period for work completed and accepted. Up to twenty-four percent of the total contract amount will be paid in accordance with 580-7 during the establishment period.

580-8.1 Payment during the Installation Period: Within 21 calendar days after contract award or at the pre-work meeting, whichever is earlier, prepare and submit a schedule of values to the Engineer for approval prior to invoicing. The schedule of values will be the basis for determining monthly payments.

Prepare a monthly progress invoice for work completed during the installation period and submit the progress invoice to the Engineer. The Engineer will pay for any item of work only when the progress invoice is approved. The invoice must consist of the following:

- a. Contract Number, Financial Project Identification Number, Invoice Number, Invoice Date and the period that the invoice represents.
- b. The basis for arriving at the amount of the progress invoice including approximate quantities of work completed, less payments previously made and less an amount previously forfeited.
- c. Contract Summary showing the percentage of dollar value of completed work based on the present Contract amount and the percentage of days used based on the present Contract Days.

580-8.2 Payment during the Establishment Period: Payment during the establishment period will be made in eight equal quarterly payments, less any reductions for unsatisfactory performance of remedial work, upon acceptance of the quarterly report from the Contractor as required in 580-4.2 and approval of the Engineer.

580-8.3 Payment: Payment will be made under:

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| 580- 1- 1 | Landscape Complete, Small Plants, lump sum. |
| 580- 1- 2 | Landscape Complete, Large Plants, lump sum. |