

## **LANDSCAPING(WORK DIRECTED).**

**(REV 3-9-18) (1-22)**

The following new Section is added at the end of Section 571:

### **SECTION 580 LANDSCAPING (BY WORK DOCUMENT)**

#### **580-1 Description.**

For each Work Document, install and establish landscaping as indicated in the Contract Documents.

For each Work Document, the allowable Contract Time is two separate phases called Installation Period and Establishment Period. The Installation Period precedes the Establishment Period and is the allowable Contract Time, for the Work Document, minus the one-year Establishment Period.

Failure to complete the installation and establishment of the landscaping within allowable Contract Time, as defined in the Work Document, will result in liquidated damages being assessed and withheld in accordance with 8-10.

For each Work Document, regardless of the duration of the time used for the Installation Period, the duration of the Establishment Period will be one year.

#### **580-2 Materials.**

**580-2.1. Grade Standards and Conformity with Type and Species:** Provide plant materials purchased from Florida based Nurseryman 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."

Florida commercial nursery stock is defined as plants propagated or grown at a Florida commercial nursery or imported to a Florida commercial nursery, made available for sale to the public, and included as inventory for fee. Nursery stock purchased from outside Florida and shipped directly to the project site is not Florida commercial nursery stock. Prior to installation, provide written certification that all nursery stock meets the requirements of this Section and provide nursery invoices for all nursery stock.

Unless otherwise specified, the minimum grade for plant material is Florida No. 1. Plant material 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 for the work document including contact information and location. The Engineer and Contractor may visit the nursery sites to inspect representative samples and lock tag the example plants material.

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.

Sabal palms (Sabal palmetto) specified as being “Regenerated Palms” as shown on the Plant Schedules must be minimum Florida no. 1 grade unless noted otherwise. The root ball width must 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 must be whitish-yellow in color, have tapered ends and be present on all sides of the root ball.

To qualify as “Regenerate Palms,” sabal palms must 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. Regenerated palms must have a minimum of three fully expanded new fronds that have not been pruned. Fully expanded new fronds must 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.

**580-2.2 Inspection and Transporting:** Move nursery stock in accordance with all Federal and State regulations. For each shipment of nursery stock, provide a General Nursery Stock Inspection Certificate as required in Chapter 5B-2, F.A.C.

**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 Worksite Landscape Supervisor.**

Provide a Worksite Landscape Supervisor to directly oversee all landscape installation and establishment. The Worksite Landscape Supervisor must be a Certified Landscape Technician or Certified Landscape Contractor in accordance with the Florida Nursery Growers and Landscape Association (FNGLA) located at the following URL address: <https://www.fn gla.org/professional-development/certifications/>, or a State of Florida Registered Landscape Architect. Provide verification at the pre-work conference.

### **580-4 Installation.**

**580-4.1 Delivery:** All materials must be available for inspection before installation.

**580-4.2 Layout:** The location of plants as shown on the Work 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.

Mark proposed mowing limits, planting beds and individual locations of trees, palms, and plants as shown in the Contract Documents for the Engineer’s review, prior to excavation or planting.

Make no changes to the layout, materials or any variations of materials from the Work Document without the Engineer’s approval.

**580-4.3 Soil Drainage:** Planting holes and beds must drain sufficiently. Notify the Engineer of drainage or percolation problems before plant installation.

**580-4.4 Planting:** Meet the requirements of the Work Document.

**580-4.5 Maintenance:** At a minimum, maintain plant materials to the equivalent visible structural quality and healthy characteristics of Florida No. 1.

**580-4.6 Site Repair and Restoration:** Repair and restore existing areas disturbed by installation or maintenance activities. Where new turf is required to restore and repair disturbed areas, meet the requirements of Section 570.

**580-4.7 Disposal of Surplus Materials and Debris:** Remove from the jobsite any surplus material unless otherwise directed by the Engineer. Surplus is defined as material not needed after installation of landscaping per Work Document. Upon commencement of landscaping installation, remove daily all debris from landscape locations described in the Work Document.

**580-4.8 Reporting:** Certify monthly on a form provided by the Department, "Landscape -Monthly Inspection Form" (No. 700-011-10) that the plants have been installed and are being maintained in accordance with the Work Document.

**580-4.9 Establishment Plan:** Not less than 45 days before 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 of plant material and incidental landscaping as described in 580-5. Acceptance of the Establishment Plan is not a release from responsibility of the establishment and maintenance as required in the Work Document.

**580-4.10 Installation Completion:** Notify the Engineer no less than seven calendar days in advance of completion. 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 Work Document.

## **580-5 Establishment.**

**580-5. 1 Establishment Period:** For each Work Document, the establishment period is defined as the entire one year after installation of plant material and incidental landscaping. The establishment period will begin upon acceptance by the Engineer of the Establishment Plan and the complete installation of the plant material and incidental landscaping.

During the establishment period, at a minimum:

1. Maintain plant material quality to sustain all structural and healthy characteristics per Work Document.
2. Maintain the soil moisture at field capacity. Field capacity will be determined from a 4-inch deep excavation where the soil must hold together and form a hand clump.
3. Maintain a 3-inch mulch cover.
4. Remove undesirable vegetation and eradicate Florida Exotic Plant Pest Council Category One invasive plant species within the area specified in the Work Document. This includes from walls and within fences.
5. Prune to remove crossing, deflecting and circling roots, crossing, dead, damaged and co-dominant branching, for sign visibility, and for safe sight distance. An ISA certified arborist is to direct pruning operations. Follow ANSI A300 Part 1 and the Contract Documents.
6. Maintain plant beds as depicted in the Work Document.
7. Remove litter and debris.
8. Operate and maintain the irrigation system when installed as part of the Work Document.
9. Remove staking and guying from established plants.
10. Continue mowing and litter pick up of the turf areas as depicted and specified in the Work Document.

**580-5.2 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 Work Document.

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. At a minimum, include the following in the inspection report:

1. Date of inspection
2. Location of inspection
3. Condition of plants - identify by species, location, and number of plants that are no longer the specified minimum grade.
4. Condition of plant beds and adjoining areas including mulch, turf, edges of planting beds, weeds, and staking and guying.
5. Soil moisture level
6. Condition of mulch cover
7. Pruning requirements
8. Weed control
9. Accompanying photographs
10. Condition and operation of the irrigation system, if applicable
11. Contractor's response, action, and schedule
12. Other comments

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

#### **580-6 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 Work Document. Replacement size must match the size of the adjacent grown-in plant material of the same species and that may be larger than the initially installed size.

The establishment period for replacement plant materials will be remaining establishment period or 90 days after the 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.

#### **580-7 Failure to Perform.**

For each Work Document, upon receipt of the monthly inspection form, the quarterly inspection report, or after inspection by the Engineer, a daily deduction of 0.0333% of the Work Document amount will be assessed and forfeited if full compliance with 580-5 is not achieved. The daily deduction will continue until full compliance is achieved to the Engineer's satisfaction.

#### **580-8 Method of Measurement.**

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

## **580-9 Basis of Payment.**

**580-9.1 General:** Price and payment will be full compensation for all work and materials specified in this Section. Seventy-six percent of the total Work Document amount will be paid during the installation period for work completed and accepted. Up to twenty-four percent of the total Work Document amount will be paid in accordance with 580-7 during the establishment period.

**580-9.2 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 Work Document will be the basis for determining monthly payments.

For each Work Document, prepare a monthly progress invoice for work completed during the installation period for each Work Document. 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:

1. Contract Number, Financial Project Identification Number, Work Document Number, Invoice Number, Invoice Date and the period that the invoice represents.
2. The basis for arriving at the amount of the progress invoice including approximate quantities of work completed on each Work Document, less payments previously made and less an amount previously forfeited.

**580-9.3 Payment during the Establishment Period:** For each Work Document, upon acceptance of the Landscape Monthly Inspection Form from the Contractor as described in 580-5.2 and approval of the Engineer, payment during the establishment period will be made in 12 equal monthly payments, less any deductions assessed in accordance with 580-7.

**580-9.4 Payment:** Payment will be made under the pay items shown in the bid price proposal.