

SECTION 02950
TREES, PLANTS, AND GROUND COVER

PART 1 GENERAL

1.1 SECTION INCLUDES:

- A. Preparation of subsoil and topsoil.
- B. Topsoil bedding.
- C. New and Relocation of trees, plants, and ground cover.
- D. Mulch and fertilizer.
- E. Maintenance.
- F. Tree Pruning.

1.2 SCOPE

- A. The work shall consist of all labor, supplies, equipment and materials necessary to complete the planting of all trees, palms, shrubs and ground covers in the locations shown on the drawings, and all other work associated with and incidental to the landscape planting work as shown on the drawings and specified under this section.
- B. All plant materials and references in this section are not necessarily required on this project; only that indicated or required by drawings and specifications, apply.
- C. All plant material shall be of the specific size and quality as indicated on the drawings. Install, maintain and water in strict accordance with good horticultural practices.
- D. The Contractor is responsible for the complete removal of all existing plant material necessary to implement the construction plans.
- E. Unless otherwise noted, the Contractor is responsible for the replacement of any existing lawn or other landscape area, damaged during the construction process to original or better condition.
- F. The Contractor is responsible for the contract growing of all plant materials indicated on the drawings.

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Dogfennel, Cudweed, Hawksbeard, Dollarweed, Pepperweed, Beggarweeds, Sida, Oxalis, Pusley, Penneywort, Matchweed, and Punctureweed.

- B. Plants: Living trees, plants, and ground cover specified in this Section, and described in ANSI Z60.1.

1.5 SUBMITTALS

- A. Section 01700 - Contract Closeout: Procedures for submittals.
- B. Maintenance Data: Include cutting and trimming method; types, application frequency, and recommended coverage of fertilizer.
- C. Fertilizer
- D. Planting soil. Requests for substitutions from the specified product shall be accompanied by

underground installations or structures of any kind, and shall be responsible for any damage that occurs as a result of his work.

- D. Contractor shall adequately protect his work and all adjacent property as provided and required by law.
- E. Utilities noted on the plans are anticipated locations only. The utilities shown may not include all underground utilities on the site, and the locations indicated may not be as installed.

1.9 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Plant Materials: Certified by State Department of Agriculture.

1.10 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01600.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.
- C. Protect and maintain plant life until planted.
- D. Deliver plant life materials immediately prior to placement. Keep plants moist.

1.11 ENVIRONMENTAL REQUIREMENTS

- A. Do not install plant life when ambient temperatures may drop below 35° F.
- B. Do not install plants when wind velocity exceeds 30 mph.

1.12 COORDINATION

- A. Coordinate work under provisions of Section 01040.
- B. Install plant life after and coordinate with installation of underground irrigation system piping and watering heads.

1.13 WARRANTY

- A. Provide one-year warranty under provisions of Section 01700.
- B. Warranty: Include coverage for one continuous growing season; replace dead or unhealthy plants.
- C. Replacements: Plants of same size.

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- C. Contractor shall request inspection and receive approval prior to any sodding or mulching work occurs. All of the above items will be reviewed at a single inspection.
- D. Installation of the pre and post emergence herbicides shall be verified prior to beginning the mulching operation.

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plant itself. The diameter of the ball must be sufficient to encompass all of the fibrous and feeding root system necessary for the development of the plant.

- B. Container-Grown Plants: Plants that have become "pot bound" will not be acceptable. A container cutter shall be used unless the root ball system slips easily and unbroken from the container. Plants shall not be removed from the can until immediately before planting. Containerized trees with circling roots shall not be accepted.
- C. Collected Plants: Plant material that has not been taken from active nursery operations shall be dug with a root ball spread at least 1/3 greater than nursery grown plants and shall not be planted before inspection and acceptance at the site.
- D. Palms: All palm species except Sabal palmetto shall have roots adequately wrapped before transporting. All Sabal palms shall be slicks. Sabal palms shall have a hurricane cut. Sabal palms shall be installed on site at the earliest opportunity in the construction process. Palm trees showing signs of dieback or dead fronds will not be accepted. Sabal palms will not be accepted with burn marks. Any damaged palm tree will be rejected. All Sabal palms shall be from sandy soils. All Sabal palms shall be Florida Fancy. The balls of all Sabal palms shall be sufficiently large to support the head of the palm. The Contractor shall treat all palms as required to prevent infestation by the palmetto weevil.

2.7 FERTILIZER

- A. All fertilizer shall be a 18-4-12 mix with the approximate following formulation:

1. Total nitrogen	18.00%
2. Ammonia cal nitrogen	2.75%
3. Water soluble organic nitrogen	11.25%
4. Water insoluble nitrogen	4.00%
5. Available phosphoric acid	4.00%
6. Water soluble potash	12.00%
7. Chlorine - not more than	2.00%
8. Total water soluble magnesium	1.32%
9. Manganese	0.07%
10. Copper	0.03%
11. Zinc	0.07%
12. Iron	1.58%
- B. Fertilizer shall be delivered in unopened bags, each carrying the name of the manufacturer and the chemical makeup of the contents, conforming to all applicable governmental regulations, and in dry condition.

2.8 HERBICIDES:

- A. Post-emergence herbicide: The post-emergence herbicide shall be a foliar applied herbicide which will control a broad range of annual and perennial grass and broad leafed weeds plus applicable woody brush and tree species. Herbicide shall kill the entire weeds species, including the below the ground root or rhizome system. The herbicide shall have no residual soil activity. All herbicide is to be applied according to the manufacturer's recommendations.
- B. Preemergence Herbicide: The preemergence herbicide shall be a selective preemergence herbicide used for the control of annual grasses and broad-leafed weeds in turf and ornamentals. Herbicide shall control weeds by killing the young weed seedlings as they come into contact with the herbicide during germination. The herbicide shall be in granular form.

2.9 WATER STORING POLYMER

- A. The polymer shall be a super absorbent sodium based polymer with chemically identical particle sizes of .5 mm to 2.8 mm. The polymer shall be non-toxic. The polymer shall be incorporated into all planting soil at the rate recommended by the polymer manufacturer.

2.10 WATER

- A. All water is to be supplied and applied by the Contractor. All watering shall be by water truck until such time as the irrigation system is in operation.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that prepared subsoil and planters are ready to receive work prior to the irrigation system installation.

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- B. Shrub Holes: Shrub holes shall be roughly cylindrical in shape with the sides approximately vertical. All holes shall be deep enough to allow for a 2" layer of planting soil under the ball. Center the plants in the holes. Holes to accommodate shrub balls shall be 8" greater in diameter than the size of the ball of the plant supplied.
- C. Removal of Subsoil: Dispose of excess subsoil removed from planting excavations.
- D. The Contractor shall be responsible for the complete removal of all shell rock or other road bases that encroach more than 12" into the planting areas. Remove or roto-till all compacted soils as required to provide for good soil percolation. Fill all voids resulting from such excavations with clean, well draining planting soil.
- E. Locate plant holes to maintain a clear line of site, after planting, between 3' and 7' above finished grade. Locate plant holes so the separation between the hole centerline and the nearest building or structure is at least equal to the mature height of the plant.

3.6 SETTING OF PLANTS

- A. Plants shall rest on the prepared hole bottom and final grade around the plant shall conform to

- C. One gallon sized plants or ground covers: 10 pounds of the specified fertilizer per 1,000 square feet
- D. Do not apply fertilizer until plants have been installed and watered for a minimum of three days.
- E. Do not apply fertilizer within 4" of the trunk of any plant material.
- F. Water all plant materials immediately following fertilization.
- G. All fertilizer shall be applied prior to beginning the mulching operation.

3.10 STAKING AND GUYING

- A. The Contractor shall stake all trees and palms. The Contractor is responsible for the replacement or adjustment of all trees, palms or shrubs that fall or lean during the guarantee period, regardless of the reason for the plant material's displacement. The Contractor is responsible for any damage caused by the falling or leaning of trees. Perform all tree staking in a neat and workmanlike manner.
- B.

- A. The Contractor is responsible for complete maintenance of all landscaping until "Substantial Completion" of the project or final acceptance of the landscape and irrigation work by the Owner and the Architect, whichever is later. Maintenance shall include, but not be limited to:
1. Watering of all plant materials as required to provide good conditions for plant health and growth.
 2. Immediate eradication of all harmful plant insects (including ants) and diseases.
 3. Removal of all weeds from the planting beds within one week after their appearance.
 4. Pruning of all shrubs and trees as directed by the Owner or his designated representative.
 5. Fertilizing of all plant materials as required to provide good conditions for plant health and growth.
 6. Removal of all weeds from clay and warning track areas.

END OF SECTION