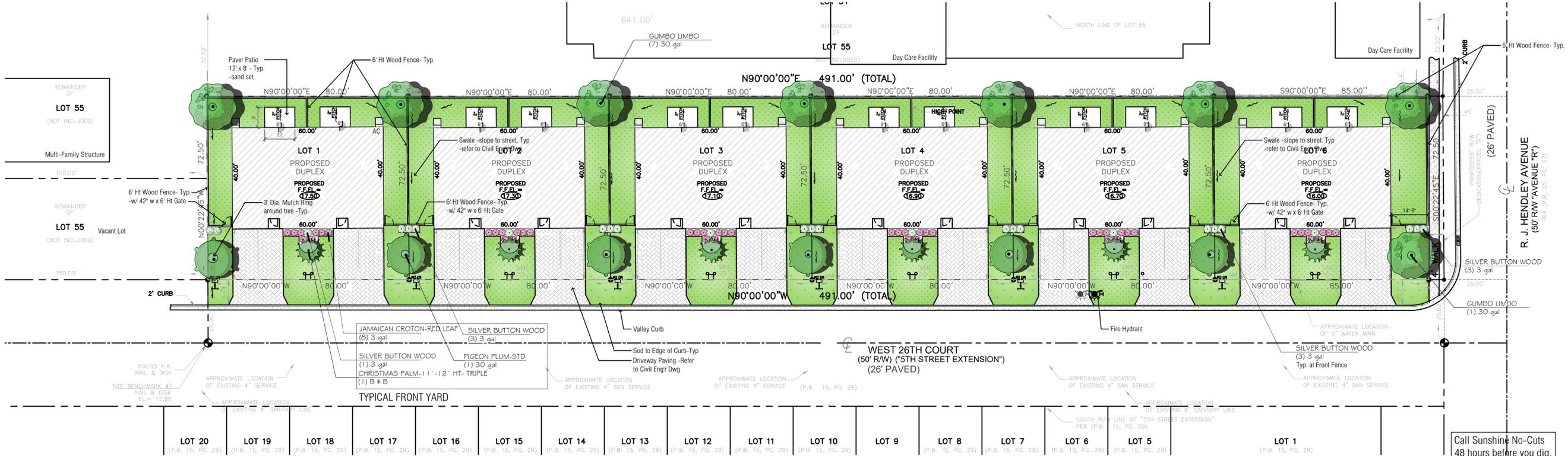




Site Plan Permit #
5-10-21
 Issue
 5-10-21 For Site Plan Approval



Call Sunshine No-Cuts
 48 hours before you dig.
 1-800-432-4770

PLANT SCHEDULE LANDSCAPE

| NATIVE TREES | QTY | BOTANICAL / COMMON NAME | CONT | SIZE | TRUNK | COMMENT | REMARKS |
|------------------|--------|---|--------|------------------|-------------|---------------|---------|
| BUR 545 | 8 | Bursera simaruba / Gumbo Limbo | 30 gal | 12" ht x 4" spd | Standard | Red Bark only | |
| COC DI2 | 6 | Coccoloba diversifolia / Pigeon Plum-Std | 30 gal | 12" ht x 4" spd | single | | |
| PALM TREES | QTY | BOTANICAL / COMMON NAME | CONT | SIZE | TRUNK | COMMENT | REMARKS |
| VEI MER | 6 | Veitchia merrilli / Manila Palm-11'-12" Ht- Triple | B 4 B | 11'-12" Ht | Triple stem | | |
| NATIVE SHRUBS | QTY | BOTANICAL / COMMON NAME | CONT | SIZE | SPACING | REMARKS | |
| CON 5E3 | 18 | Conocarpus erectus sericeus / Silver Button Wood | 3 gal | 24" ht x 18" spd | 24" oc | | |
| TROPICAL ACCENTS | QTY | BOTANICAL / COMMON NAME | CONT | SIZE | SPACING | REMARKS | |
| FSE ATR | 48 | Pseuderanthemum atropurpureum / Jamaican Croton | 3 gal | 24" ht x 18" spd | Per Plan | | |
| SOD/SEED | QTY | BOTANICAL / COMMON NAME | CONT | SIZE | SPACING | REMARKS | |
| STE AUG | 16,126 | Stenotaphrum secundatum "Floratam" / Floratam St. Augustine Sod | | | 12" o.c. | | |

LANDSCAPE CALCULATIONS

| | | | | |
|-------------------------|--------------|----------|-----------------|----------|
| GROSS LOT AREA | 35,163 SQ FT | REQUIRED | 14 TREES | 14 TREES |
| TREES 1 PER 2500 SQ FT | | PROVIDED | +6 PALMS | +6 PALMS |
| SHRUBS 6 PER FRONT YARD | 6 (36) | | | |
| NATIVE TREE SPECIES | 50% | | 100% (14 OF 14) | |
| NATIVE SHRUB SPECIES | 50% | | 66% (4 OF 6) | |

SITE INFORMATION

| | |
|-------------------------------|----------------------|
| GROSS LOT AREA | 35,163 SQ FT |
| IMPERVIOUS AREA-BUILDINGS | 14,400 SQ FT (40.9%) |
| IMPERVIOUS AREA-PATIOS,DRIVES | 6036 SQ FT (17.2%) |
| PERVIOUS AREA | 14,727 SQ FT (41.9%) |

CURRENT ZONING RM-15
 PROPOSED USE SINGLE FAMILY/ DUPLEX

CONSULTANT INFORMATION:
 These Plans shall be read and installed in conjunction with the following Consultant's Information.

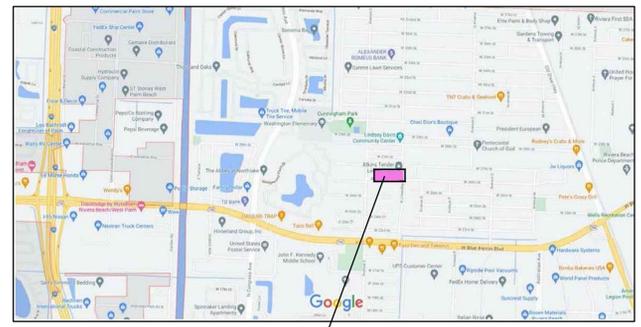
SURVEY AND SITE PLAN:
 MILLER LAND SURVEYING, INC.
 1121 LAKE AVENUE
 LAKE WORTH, FL, 33460
 PH: 561-586-2669

PAVING DRAINAGE AND UTILITIES:
 CIVIL ENGINEERING CONSULTING, INC.
 8195 WHITE ROCK CIRCLE
 BOYNTON BEACH, FL 33436
 PH: 561-847-0398

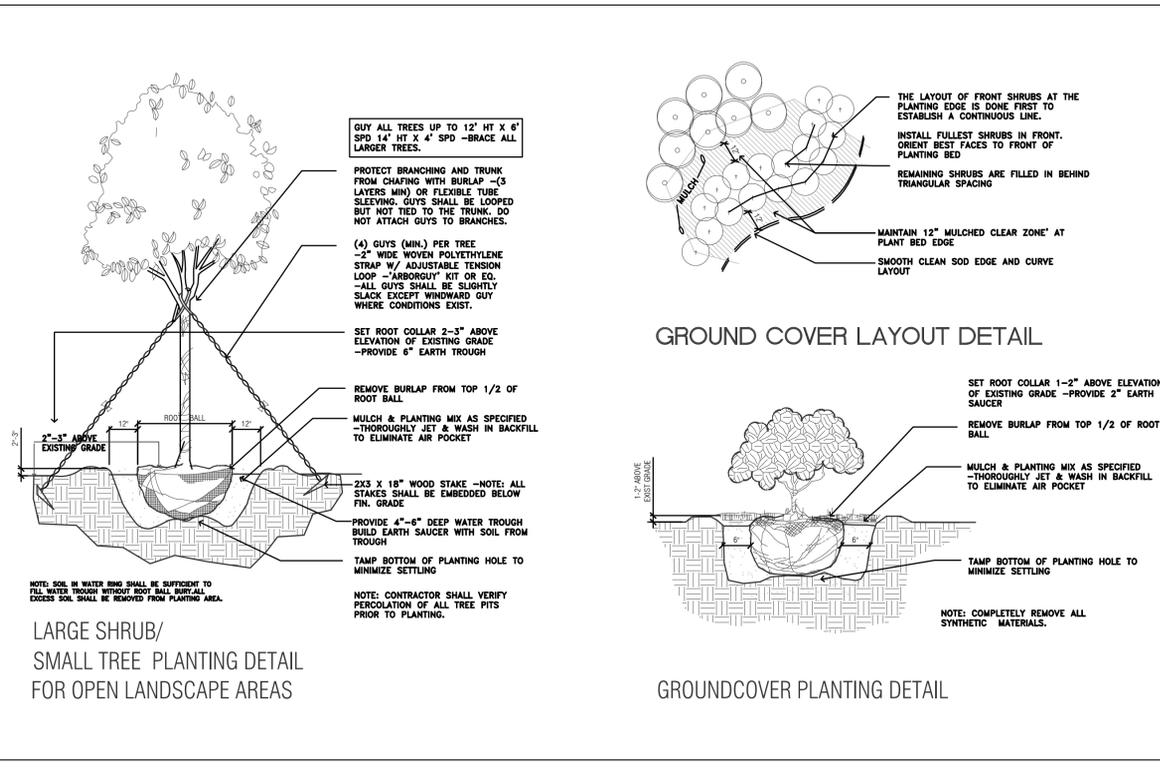
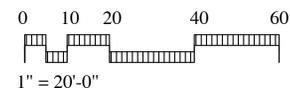
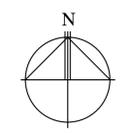
BUILDING DESIGN:
 GOARCH ENGINEERING INC.
 1824 RICHARD LN
 PALM SPRINGS, FL, 33406
 PH: 561-294-6929

LANDSCAPE NOTES

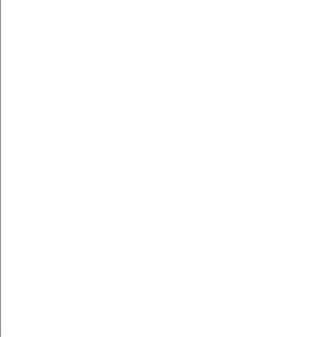
- All landscaping shall be provided and installed in accordance with all applicable codes and Town requirements.
- Verify locations of all utilities prior to digging.
- All plant materials shall be Florida #1 or better.
- All new landscape beds shall receive at least 2" of mulch. Remove excess soils 3" below finished paved surface to retain mulch.
- Plant materials shall be field adjusted to avoid conflicts with street lights, drainage and utilities.
- All landscape areas shall receive 100% coverage from an automatic irrigation system. Sprinkler system shall be designed in accordance with Section 20-124 to 126 of Riviera Beach Utilities Section and Article VIII - Florida Friendly Landscaping. For Each Unit - Provide an automatic time clock controller, rain-sensing switch, and backflow preventer connected to a potable domestic source as required by Code. If spray heads are installed, water shall not spray on structures equipment or pavements.
- All trees and palms taller than 8' ht and less than 12' ht, shall be secured with (3) ArborGuy straps immediately upon installation.
- All trees and palms taller than 12' ht shall receive a min. of (4) 2x4 braces secured to the trunk and ground.
- All landscape areas shall be shaped to collect, retain and percolate or drain rainwater away from pavements and the building. Any grades shown in this plan are Conceptual. Refer to Civil Engineer Dwg for grades and drainage plan.
- Fertilize all material with a balanced, 6-6-6 (NPK) organic fertilizer, Milorganite or eq
- Trim and clean-up all existing tree and shrub material.
- Remove all excess material and debris from the site and dispose in proper manner.



PROJECT LOCATION



Amendment Stamps



Zoning Stamps

Application No:
 Application Name: Fontaine Subdivision
 Resolution No. N/A

Exhibit No.
 Superseded Exhibit:
 Date Approved:
 Project Manager:

Fontaine Subdivision
 West 26th Court
 NW Corner @ R.J. Hendley Ave
 Riviera Beach, Florida

Landscape Plan
L-1.0
 of 2 SHEETS

1.0 GENERAL:

1.1 DESCRIPTION OF WORK:

A. Extent of landscape development work is shown on the Drawings and in the related Schedules.

B. The work consists of furnishing all plants, materials, equipment, necessary specialties and labor required for the installation of plant and other materials as shown on the Drawings and/or in the Specifications.

C. Excavation, filling and grading required to establish elevations shown on the Drawings are not specified in this Section. Refer to earthwork Section.

1.2 REFERENCE PUBLICATIONS:

The following standards form a part of the Specifications:

- A. Florida Department of Agriculture "Grades and Standards for Nursery Plants", most recent edition.
B. American Joint Committee on Horticultural Nomenclature "Standardized Plant Names Dictionary"
C. The American Standard for Nursery Stock" (2004 edition).
D. American National Standards Institute-ANSI
E. Florida Friendly Best Management Practices for Protection of Water Resources by Green Industries, Florida Dept of Environmental Protection, Rev Dec 2008
F. IFAS -Institute of Food and Agricultural Sciences, University of Florida. http://hort.ufl.edu/woody/index.shtml

1.3 INSTALLER - CONTRACTOR QUALIFICATIONS:

A. The "Contractor" shall be State licensed and regularly engaged in the installation of living plant materials. The Contractor shall be controlled and directed by a landscape foreman professionally trained and well versed in landscape installation, plant materials, reading blueprints and coordination between the job and nursery and shall be able to communicate with the Owner and the Landscape Architect.

B. The Contractor shall be licensed and shall carry any necessary insurance and shall protect the Landscape Architect and Owner against all liabilities, claims or demands for injuries or damage to any person or property growing out of the performance of the work under this contract. All workers shall be covered by Workmen's Compensation Insurance.

1.4 SUBMITTALS: Refer to schedule of submittals.

1.5 COORDINATION:

A. Coordinate and cooperate with other trades and contractors to enable the work to proceed as rapidly and efficiently as possible.

B. Irrigation work shall normally precede plant installation Install trees, large B&B material, shrub and ground cover plants before lawns are installed.

C. Commencement of Work: Landscape Contractor shall notify Landscape Architect at least 7 days in advance of scheduled commencement of work. The Landscape Contractor shall review plans and/or field layouts with Landscape Architect at least 2 days prior to installation or on the site as needed.

1.6 INSPECTION OF SITE:

A. Prior to the award of the contract, the Contractor shall acquaint himself with all site conditions. Should utilities or other improvements not shown on the Drawings be found during excavations, Contractor shall promptly notify the Landscape Architect or Owner for instructions as to further action. Failure to do so will make Contractor liable for any and all damage arising from his operations subsequent to discovery of such utilities not shown on Drawings.

1.7 PROTECTION OF EXISTING PLANTS AND SITE CONDITIONS:

A. The Contractor shall provide, install and maintain the necessary precautions to protect all persons and property, including the general public from harm or injury due to the work.

B. The Contractor shall take precautions to protect existing site conditions. Should damage be incurred, the Contractor shall repair the damage to return the object or area to its original condition at no additional charge.

C. Utility Locates - Regardless of utilities that may or may not be shown on the drawings, the Contractor shall be responsible to have utilities located in the area of work before the work commences. The Contractor shall also verify and coordinate with any requirements or clearances to plant materials that may be required by any Utility company.

1.8 CHANGES IN THE WORK:

A. The Owner reserves the right to substitute, add or delete any material or work as the work progresses. Adjustment to the Contract Sum shall be approved by the Owner by a written Change Order, prior to execution. The Owner shall be responsible for the cost of any material or work added or deleted and all plant materials delivered to the job site prior to installation.

When unit prices have been established, they shall prevail for all Contract Additions. For Contract Reductions, the Owner shall receive full credit, based on unit pricing, if changes are implemented prior to delivery of plant materials. If Owner changes are made after installation, Owner shall receive a credit for labor to install plants, less costs associated with purchase and delivery. The Landscape Architect assumes no financial or material responsibility for any changes made by, or on behalf of the Owner.

1.9 OWNERS OBSERVATION:

A. The Landscape Architect or Owner assumes no responsibility for the Contractor's means and methods of construction beyond the contract beyond the observation to ensure, to the Owner's satisfaction, that the Design Intent in the Drawings and Specifications are being properly interpreted. This observation and checking will not relieve the Contractor of any responsibility for the performance of his work in accordance with the Drawings and the Specifications (including proper planting practices or other material or performance deficiencies).

B. The Landscape Architect and Owner reserve the right to reject any portion of the work, material or workmanship which does not conform to the Contract Documents and Standard set forth herein. Rejected work shall be removed and/or corrected by the Contractor, at his own expense, at the earliest possible time and prior to final payment.

1.10 PROJECT FINEMENT:

A. Familiarization with Overall Project Requirements: The Landscape Contractor (LC) shall review and comply with Section 1000- GENERAL CONDITIONS as set forth for this project. The Landscape Contractor (LC) shall review and become familiar with the Design and Overall Intent of the proposed Work related to the Contractor's Work including but not limited to: Civil engineering and Drainage Plans, Architectural layouts, project/ area access, contractor equipment access, existing and proposed utility locations, Irrigation Plans, Outdoor Lighting Plans, Paving Plans, Project Sequence and Timing plans, Town/HOA/ neighborhood requirements, etc.

B. Obstructions: The Contractor shall exercise care in digging and other work so as not to damage existing work, including underground pipes, sprinklers, control cables and hydrants of watering systems. Should such overhead or underground obstruction be encountered while performing the work, the Landscape Architect shall be consulted for consideration for alternate locations of plants to clear such obstructions. The Contractor shall be responsible for the immediate repair of any damage caused by his work.

C. After notice to proceed, the Contractor shall complete landscape work in a timely manner, as portions of site become available. Actual planting shall be performed only when weather and soil conditions are suitable in accordance with locally accepted practice.

D. Contractor shall coordinate landscape and planting work with other trades, such as, the irrigation (sprinkler) installer, electrician, lighting installer, paving installer, and soil installer. Landscape installer shall coordinate to ensure that no plantings will interfere with the proper functioning of the sprinkler system. The Contractor shall point out to the irrigation installer situations where minor adjustment or relocation or addition of sprinkler heads may be most beneficial for the planting as a whole. The Location of specimen plant materials, trees, palms and shrubs shall prevail over irrigation head placement.

A. At the discretion of the Owner, early acceptance of the work may be obtained for progress payment or when the time between commencement of the work and substantial completion exceeds 90 days (at no fault of the contractor). Early acceptance shall be contingent upon a satisfactory inspection of the completed landscape work by the Landscape Architect and/or the Owner.

B. Substantial Completion of the Work is the point in construction when the Work is sufficiently complete; in accordance with the Contract Documents all related clean-up has been performed; and the Landscape Architect's provide an opinion that the Owner can utilize the work as intended.

C. Final Completion is the completion of all work included in the Contract Documents except the Contractor's responsibility correct the work to the satisfaction of the Landscape Architect. The Warranty Period and Maintenance period shall commence upon Final Acceptance.

1.12 WARRANTY PERIOD and CORRECTION OF THE WORK:

A. For a period of twelve months from the date of acceptance, all new plant materials and accepted grass shall be alive and healthy, upright and in satisfactory growth for each specific kind of plant. There shall be no signs of nutrient deficiency, disease or insect infestations.

B. Plants which are rejected shall be replaced or corrected within two weeks of rejection. Replacement material shall be the same species, size and quality as called for in the Contract. A new correction of the work period of twelve (12) months shall begin upon replacement and acceptance by the Landscape Architect of all replacement plants, this includes plants which are discovered at any time to have been planted on an improper depth.

D. The installer shall repair damage to other plants or lawns that occurs during the plant replacement process at no cost to the Owner.

E. Plants which have been approved and subsequently die or are damaged by without wind storm traffic, vandalism, or demonstrable failure of the Owner to maintain after Substantial Completion of the Work is not covered in this correction of the work provision

2.0 PRODUCTS

2.1 MATERIALS LIST:

A. Plant species and size shall conform with the Plant List and information noted on the Drawings.

B. The quantities given in the Plant List are intended for the convenience and as a guide for the buyer and does not relieve the bidder of his responsibility to do a comprehensive plant take off from the Drawings. Information on the drawings control.

2.2 PLANT MATERIALS:

A. All plant material shall be nursery grown unless otherwise noted. Plants shall be graded Florida No. 1 or better and shall be sized as outlined under Grades & Standards for Nursery Plants, State Plant Board of Florida. Coconut Palms shall be grown from certified seed.

B. Collected material when specified or approved shall be in good health, free from disease, insect or weed infestation, testing may be required at the discretion of the Landscape Architect and/or the Owner and shall be provided at no additional cost.

C. Plants materials must equal or exceed the measurements specified in the plant list, which are the minimum acceptance sizes. Those plants specified as specimens are to be approved by the Landscape Architect before being brought to the site. Unless otherwise noted on the drawings, these plants shall be Florida Firm.

D. Height of plant materials shall be measured from the top of the ball to the top of the plant with branches (or fronds) in normal position. The width shall be measured across the normal spread of the branches (or fronds). In cluster type plants the main trunk shall meet the height requirement and all other trunks shall be 3/4 or more of the required height unless otherwise noted on the drawings. Where symmetry is required, match plants used as nearly as possible to the satisfaction of the Landscape Architect.

E. Plants that meet the height requirements, specified, but do not have the normal balance of height and spread typical for the respective plant, shall not be accepted.

F. Abbreviations on the Drawings are as follows:

- B&B - Indicates field grown plant "balled and burlapped".
Call - indicates the caliper or diameter as measured 6" (152.4 mm) above the soil line. For trunks larger than 4" (101.6 mm) diameter, the caliper measurement shall be determined at 12" above the soil line.
CT - indicates clear trunk measurement from top of ball to first branching.
CW - indicates clear wood, in palms the distance from the soil line to the lowest living frond leaf base.
DBH - indicates the caliper or diameter measured 4 feet (1.22 meters) above the soil line.
GW - indicates green palms, mature trunk from the ground to the base of the soil crown shaft.
OA - indicates overall height from top of ball to the top of current season's growth in the open frond in normal position in palms.
Spd - indicates spread or the average distance across the average diameter of the plant branching structure.

G. Root packaging and Containers: Plant materials in containers shall have a well established root system and shall not be root bound. All plant materials not in containers shall be balled and burlapped and dug with a firm nylon ball of earth. Balls shall be firmly wrapped with burlap or similar biodegradable materials and bound with twine, cord or wire mesh. The minimum ball diameter will be in accordance with "Grades & Standards for Nursery Plants". No plant shall be accepted if the root ball has been cracked or broken. All containers shall be labeled with the plant name and quantity. Plants which cannot be planted immediately on delivery shall be kept moist and protected from drying winds and sun.

H. Container Grown Plants: Plants grown in containers will be accepted as "B&B", providing that all other specified requirements are met. Container grown plants shall meet plant sizes as specified on the plant list and on the Drawings and shall not be governed by container sizes. Minimum root balls of container grown material shall be no more than 25% less proportionately than that stated in latest edition of Florida "Grades & Standards" for nursery plants. These plants shall have been grown in the container for a maximum of two years prior to installation and shall exhibit a fully developed root system throughout when removed from the container. There shall be no girdling or circling roots exceeding 50% of the pot circumference.

I. Substitution: Plant substitution requests by the Contractor will be considered by the Landscape Architect only upon submission of proof that the plant is not obtainable in the type and size specified. Should the specified plant indeed not be available, the Landscape Architect shall determine the nearest equivalent replacement in an obtainable size and variety. The unit price of the substitute item shall not exceed the bid item replaced, without approval of the Owner.

2.3 PLANTING SOIL:

A. Planting soil shall be free draining, sandy loam and shall contain a 5% minimum and a 15% maximum amount of decomposed organic matter. Planting soil shall be free of clay, stones, plants, roots, and other foreign materials which might be a hindrance to planting operations or be detrimental to good plant growth. It shall have a pH between 6.0 and 7.0. Soil shall be delivered in a loose friable condition and applied in accordance with the planting specifications.

2.4 PEAT:

A. Peat shall be horticultural peat composed of not less than 60% decomposed organic matter by weight, on an oven dried basis. Peat shall be delivered to the site in a workable condition free from lumps.

2.5 WATER:

A. Clean Water for planting will be available at the site and shall be provided by the Owner unless special provision is determined in the Contract Documents.

B. Contractor shall determine the source and suitability of the Owner's water. In the event the water source is not suitable, the Owner shall be given written notice of such at least two weeks prior to the commencement of Work.

2.6 SOIL TESTING

A. Landscape Contractor shall provide testing of existing soils on Site for all soil types, including imported soils, in the planting area. No less than 2 representative samples shall be submitted to and tested by an independent professional testing lab for analysis and fertility recommendations.
B. Soil Testing Lab - Call for info, testing services, fees and import permit. Micro-Macro International 183 Paradise Blvd, Suite 108 Athens, Georgia 30607 Ph 706-548-4557 Fax 706-548-4891 Website: www.mmlilabs.com

2.7 COMMERCIAL FERTILIZER and PLANTING AMENDMENTS

A. Fertilizer and fertilization rates for the project shall be provided and applied based on the results of the soil test. Follow all Manufacturer's Label Rates and application recommendations.

B. Commercial fertilizer shall be slow-release organic formulation containing nitrogen, phosphorus and potassium, not to exceed an analysis of 6-6-6. Nitrogen shall be not less than 50% water insoluble, inorganic nitrogen and shall not be derived from the sodium form of nitrate. Iron shall be in the chelated form, not be less than 2% and magnesium shall not be less than 2%. Fertilizers shall be delivered to the site unopened in original containers, each bearing the manufacturer's ingredients and guaranteed analysis. Submit a copy of the Manufacturer's guaranteed analysis and proof of delivery to the Landscape Architect. Any fertilizer that becomes coked or otherwise damaged is unacceptable.

2.8 MISCELLANEOUS LANDSCAPE MATERIALS:

A. Mulch: Shredded hardwood mulch -grade "A" -verify color. Mulch shall not contain chunks larger than 1 inch (25.4 mm) in diameter, branches, stones or other foreign material that will prevent its eventual decay.

Alternate Mulches: Pine Bark Nuggets - Jumbo size - Pine Straw

B. Gravel Mulch: Provide samples of all gravels to Landscape Architect for approval prior to ordering. Gravel shall be used only where specifically indicated on the plans of the size and type shown. Unless otherwise specified it shall be water-worn, hard, durable gravel, washed free of loam, sand, clay and other foreign substances. It shall be a minimum of 2" (44.2 mm) deep and shall be contained with curable stone. It shall be a maximum of 1-1/2" (38.1 mm), a minimum of 3/4" (19 mm) and of a readily-available natural gravel color range.

C. Braces, Batens and Stokes Provide braces, batens, stakes and deadman of treated wood or treated lumber, free of knot holes and other defects. Braces shall be pressure-treated 2x lumber (4x lumber where appropriate) and shall be secured to batens and stakes with a min of (2) -16D, 1/4" head galv. forming nails. Batens and stakes shall be secured with 3/4" stainless steel or galvanized banding. Stakes shall be pressure-treated 2x lumber and shall be driven to within 2" of the surrounding grade. All exposed ground-stakes shall be painted with a high-visibility, contrasting, fluorescent paint until substantial completion. Braces and stakes shall be repainted a dark walnut brown stain unless otherwise noted. Stakes and braces shall be placed within mulch beds oriented away from walking areas.

D. Guys and Anchors: Provide one of the following: 1) wire guys shall be two-strand, twisted, pliable galvanized iron wire not lighter than 12 gauge. Provide new hose cut to required lengths to protect tree trunks from damage by wires. Hose shall be not less than 1/2" (12.7 mm) dia; 2) woven Polyethylene Webbing shall be minimum of 2" (50.8 mm) wide and secured with adjustable knots. Stakes per Sec C. above.

E. Soil Mix For Annual or seasonal color beds: 2 parts top soil, 1 part fine pine bark mulch (1/2" (12.7 mm) pieces), 1 part coarse sand and 50 pounds (1,866 kg) composted cow manure per cubic yard (7,645 cubic meters), mix in 1/2" (12.7 mm) Osmocone fertilizer and micro-organisms of label rates, see 2.7C.

F. Planter Soil Mixture: A loose, friable blend consisting of: 1 part coarse sand, 2 parts peat humus or bogged topsoil and 3 parts pine bark; Mix in Osmocone fertilizer and micro-organisms of label rates, see 2.7C.

G. Protection During Planting: Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, padding, wood batens or other approved methods. H. Plants that show symptoms of bark compression, girdling or bark slippage or other damage are unacceptable.

I. Special Treatment and Handling

1. Sabal Palms - aka Cabbage Palms shall be "hurricane cut" in the field prior to transport. Clear trunk shall be as specified after the minimum of fronds have been removed. Cabbage Palms shall be taken from moist, "black" growing areas. All burn marks on Cabbage Palm trunks shall be removed.

2. Collected or Field Gue Specimen Palms - All field dug palms, (except- Adonidia, Coccox, Phoenix, Washingtonia, Ptychosperma, Hypophoe species) palms shall root pruned for 2 months in advance of being lifted and moved. All palms shall be watered for 1 week prior to digging in the field. Heads shall have the lower 50% of fronds removed or as otherwise determined by the Supplier. Heads shall be securely tied and secured before transporting. Heads shall remain tied up until new root growth is visible or as otherwise determined by the Supplier. All Palms shall have heads tied and braced during shipping and handling. Canary Date Palms shall have heads securely stabilized with 4x4 bud splints before transporting.

Notify the Landscape Architect and Owner for directions if site conditions requires the addition of soil over existing roots or where construction or utilities below ground or overhead are encountered, or where changes have been made in the construction - DO NOT PROCEED - Any necessary adjustments will be directed by the Landscape Architect.

B. Clearances: Shrubs and hedge material shall be planted a minimum of 30" (0.75 m) away from wall or other obstruction including parking stalls. Groundcover (1 gal or less) material (except sod) shall be planted 16" (10.41 m) away from pavement or edging unless otherwise noted. Vines shall be attached with copper wire in lead anchors to walls. Make minor adjustments as may be required.

C. All planting holes shall have straight, vertical sides and flat horizontal bottoms. The diameter of a hole shall not be less than twice the diameter of the root ball or 24 inches (609.6 mm) greater than the root ball; whichever is smaller. The depth of a hole shall not be deeper than the root ball. The bottoms of planting holes shall be tamped to minimize settling.

D. Contractor shall confirm that all planting holes are free draining and percolate water. In the event that hardpan, compacted soils, clay or rock are encountered, immediately notify Landscape Architect to determine remedial measures.

E. Backfill and Soil Amendments -All backfill shall be clean, fine, granular material unless otherwise specified. Backfill shall be clean, fine, granular washed, soil-free sand. Clumpy or rocky soils shall be screened or replaced with appropriate material prior to backfilling. Refer to soil report recommendation for material type and quantity. Backfilling shall be accomplished with water. Backfill shall be added at the manufacturers recommended rates (see 2.7d). The following minimum rates of soil mix apply: one-half cubic yard per tree and one cubic yard per fifty shrubs.

F. All plants shall be handled and installed in accordance with the Construction Documents and best appropriate horticultural practice. Trees and shrubs, except as otherwise specified, shall be set in the proper size of planting pit as specified above so that the top surface of the Root Collar or root ball will be 1"-2" above the final grade. Verify adequate percolation of the planting holes. Set plants straight and plumb unless otherwise noted. Select trees, palms and acents shall be leaved, oriented or faced as determined by Landscape Architect or as shown on the drawings.

G. Balled and burlapped plants are set with the bottom 1/3 of the planting pit backfilled with existing site soil. Remove burlap, rope, wires, etc from the trunk and from the top surface of the balls, but do not remove burlap from underneath. All remaining wrapping material shall be biodegradable and no material shall be exposed and visible at the time of planting. Plants with 1"-2" above the final grade. Verify adequate percolation of the planting holes. Set plants straight and plumb unless otherwise noted. Select trees, palms and acents shall be leaved, oriented or faced as determined by Landscape Architect or as shown on the drawings.

H. Container Grown Plants: Container grown plants shall, when delivered, have sufficient root growth to hold earth from being removed from the container and shall not be root bound. Plant pits for container materials shall be formed flat on the bottom to avoid air pockets at the bottom of root balls. Containers shall be removed carefully to prevent damage to plant or root system.

I. Remediation of Root defects - The Contractor shall inspect all plant material for root defects including but not limited to: root-bound containers; circling roots; girdling roots; sub grade, embedded root collars; adventitious roots; etc. All Root Collars shall be exposed and visible at the time of planting. Plants with two (2) or more girdling roots; plants from root-bound containers; or plants with circling roots greater than 75% of the pot circumference shall be rejected and replaced at the Contractor's expense.

Plants with minor root defects shall be trimmed with clean, sanitized, sharp tools according to proper horticultural practice prior to planting. Plants that are well watered prior to, and after, root trimming procedures. Plants that die as a result of root pruning are considered excessively defective and shall be replaced at Contractor's expense.

External Circling Roots - shear off outer 1"-2" of rootball circumference. Internal Circling Roots - radial cuts to interrupt circle, remove 2" min section of root ball.

Girdling Roots - Cut and remove the 2" min section of the girdling root at the surface. Root Knots - trim or remove.

For more information - refer to University of Florida- IFAS Webstar. IFAS Webstar: http://hort.ufl.edu/woody/index.shtml For Root management - Refer to http://hort.ufl.edu/woody/index.shtml

J. Setting Trees and Shrubs: Unless otherwise specified, all trees and shrubs shall be planted in pits, centered to such depths that the finished grade level of the Root Collar, after settlement, shall be the same as, or slightly above, that at which the plant was originally grown. They shall be planted upright and faced to give the best appearance or relationship to adjacent structures. The Contractor shall be responsible for re-set all plant materials where root collars are found below finish grade at their own expense.

Along slopes, a soil terrace shall be formed so that the top of the Root Collar is level with existing grade on the up-slope side. No burlap shall be pulled out from under the balls. Tree boxes, platforms, wire, lifting loops and surplus binding from top and sides of the balls, shall be removed. Some wire or binding may remain if light and necessary for rootball integrity. Any broken and frayed roots shall be cut off cleanly. Backfill soil shall be placed and tamped thoroughly and shall be compacted in layers. Backfilling shall be done on top of root balls will be permitted. After the backfill settles, additional soil shall be filled in to the level of the finished grade allowing for 2" (44.1 mm) of mulch. Form a shallow saucer around each plant by digging a trough of soil along the edge of the plant pit. This trough shall be 3"-4" (75 mm) deep. Specimen Trees and Palms shall be equipped with supplemental irrigation (bubblers).

K. Setting Palms: All palms shall be planted in sand thoroughly washed in during planting operations and with a shallow saucer depression left at the soil line for future watering.

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L. Backfilling: When the plant pit has been excavated as specified above and the plant has been set, the pit shall be backfilled with clean soil mix. All backfill shall be watered thoroughly to settle and consolidate soil and eliminate voids. Provide a shall trough around the outside of the rootball for water retention. Tops of all rootballs shall be left exposed and free of soil backfill materials. Do not distribute any excess soil in any existing planted bed.

M. Pruning: Remove dead and broken branches from all plant material. Thin out internal branching and prune to retain typical growth habit of individual species with as much height and spread as is practicable. Make all pruning cuts with a sharp instrument next to branch collar in such a manner as to ensure elimination of stubs. "Headback" or "Hat Hack" cuts, right angle to line of growth, will not be permitted.

N. Guying and Staking: Guy or stake all trees, including palms, immediately after planting. Trees less than 1 1/2" (38.1 mm) in caliper shall be staked with vertical wood or metal stakes along the trunk. Stakes shall be driven through the root ball and embed 12" min. into sub-grade. Attach tree trunk to the stake with 3/4" width elastic pruning tape. Double wrap trunk to avoid chaffing. Tie firmly, but not tightly to the stake. Stake shall be cut off at least 12" below the top of the plant.

Trees 1 1/2" (38.1 mm) in caliper and greater but less than 12" OA -shall be guyed in 3 directions with double strands of No. 12 galvanized wire (or rated woven polyethylene webbing) attached to approved stakes or anchors driven flush with grade. When securing wires to trees, cover all wires which may come in contact with any part of tree with new rubber hose. Place guys and braces not less than 1/3 of the height of tree above finished grade and above substantial limbs 1 inch (25.4 mm) in diameter or more. Ground Stakes shall be clearly marked with high contrast fluorescent paint.

Trees over 12' OA -shall be braced with new lumber per staking detail. Provide staked where noted. Ground Stakes shall be clearly marked with high contrast fluorescent paint.

O. Staking and Bracing: When staking palms and broadleaf trees, no nails or other fasteners shall directly penetrate the trunks. Wood batens: 12 inches -16" min.(304-406 mm) min. length; separated from trunk by burlap; attached to the trunk of the trees with galvanized or stainless steel metal banding. Stakes and braces shall be clearly marked and can only be nailed to the wooden batens. Alternate methods of guying or staking may be employed with the prior approval of the Landscape Architect. Ground Stakes shall be clearly marked with high contrast fluorescent paint.

P. Mulching: All trees and shrub beds shall be mulched immediately after acceptance of the planting bed by the Landscape Architect. Mulch shall be applied to a 3 inch (76.2 mm) depth, with a mulch as specified. Prevent wind displacement of mulch by thoroughly watering down. Do not apply any mulch against stems and trunks of plants.

Q. Annual or seasonal color beds: Remove 8" to 10" (254 mm) of soil and replace with planting soil mixture consisting of Annual Planting Soil Mix per Section 2.8.F. Install annuals in fresh mix.

R. Planters: Includes Free-standing pots and built-in architectural planters. Verify waterproofing and drainage to suitable outfall. Place filtration/ separation fabric over 4" drain gravel in the bottom of the pot. Add planting soil mix per Section 2.8.F. Place soil around plant materials in lightly compacted layers at an elevation 2 inches (50.8 mm) below top of planters allowing for natural settlement. Recommend 6"-8" min depth of soil below rootball.

S. Disposal of Excess Excavated Soil: Excess excavated soil, raked debris and rocks shall be removed and disposed by the Contractor to a suitable and legal disposal location off-site of the Owner's property, at no additional expense to the Owner.

T. Relocation of Existing Material: Landscape contractor shall root prune trees which are to be relocated in accordance with approved horticultural practices. The relocated plant shall have foliage reduced and be provided with supplemental irrigation to the remaining leaf surface. Coordinate with Landscape Architect for relocation requirements.

A. The Contractor's maintenance shall include watering, pruning, spraying, weeding, mowing, insect treatment, disease treatment, micro organisms applications and other necessary maintenance operations to create a healthy, vigorous landscape.

B. The Contractor assumes responsibility for all maintenance during the construction period, beginning immediately after each item is planted and to continue until final inspection and acceptance. Areas completed under "Early the beginning of the maintenance period" shall be maintained for a period of an additional 90 days or until final acceptance of the work which ever occurs first.

C. The Contractor shall replace unhealthy, damaged or dead plants promptly. Contractor shall be responsible for costs to provide access to unacceptable plant identified during the Contract period.

D. The Contractor shall inspect plants at least once a week and perform maintenance promptly. Keep planting saucers and beds free of weeds, grass, and other undesirable vegetation growth.

3.2 PROTECTION OF PLANTS:

C. Handling - All containerized plants shall be handled by their pot or container with proper support given to other parts of the plant to prevent damage. Trees and Palms shall only be handled with padded slings rated for 10x the weight of the carried load. Trunks shall be wrapped at least 2X prior to cinch loop. No chain, rope or unpadded webbing shall be used to handle trees and palms.

D. Protection During Transporting: All plant material shall be protected from physical injury during transport. Provide all of knot handles, stakes, craft paper wrapping and sleeves to secure and protect the roots, stems and foliage of plant materials during shipment. All plants transported by open trucks or sea-containers shall be adequately covered to prevent windburn, drying or damage to plants.

E. Protection After Delivery: Plants which cannot be planted immediately on delivery to the site shall be kept moist at all times and provided protection from the drying of wind and sun. All plants shall be kept moist as necessary until planted. Storage period shall not exceed 72 hours. In plants cannot be installed within 48 hours, they shall be "heeled-in" earth trench rows and maintained in healthy, moist condition until final installation.

F. Protection of Palms (If Applicable): Only a minimum of fronds shall be removed from the crown of the palm trees to facilitate moving and handling. The remaining fronds shall be tied and braced if required.

G. Protection During Planting: Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or bark slippage by means of burlap, padding, wood batens or other approved methods.

H. Plants that show symptoms of bark compression, girdling or bark slippage or other damage are unacceptable.

I. Special Treatment and Handling

1. Sabal Palms - aka Cabbage Palms shall be "hurricane cut" in the field prior to transport. Clear trunk shall be as specified after the minimum of fronds have been removed. Cabbage Palms shall be taken from moist, "black" growing areas. All burn marks on Cabbage Palm trunks shall be removed.

2. Collected or Field Gue Specimen Palms - All field dug palms, (except- Adonidia, Coccox, Phoenix, Washingtonia, Ptychosperma, Hypophoe species) palms shall root pruned for 2 months in advance of being lifted and moved. All palms shall be watered for 1 week prior to digging in the field. Heads shall have the lower 50% of fronds removed or as otherwise determined by the Supplier. Heads shall be securely tied and secured before transporting. Heads shall remain tied up until new root growth is visible or as otherwise determined by the Supplier. All Palms shall have heads tied and braced during shipping and handling. Canary Date Palms shall have heads securely stabilized with 4x4 bud splints before transporting.

Notify the Landscape Architect and Owner for directions if site conditions requires the addition of soil over existing roots or where construction or utilities below ground or overhead are encountered, or where changes have been made in the construction - DO NOT PROCEED - Any necessary adjustments will be directed by the Landscape Architect.

3.3 PLANTING OPERATIONS:

A. Layout: The location for plants and outlines of areas to be planted are indicated on the Drawings. All plant locations shall be laid out, painted or flagged in the field by the Contractor, to the satisfaction of the Landscape Architect before planting operations commence. In general, all trees, palms and accent plants shall be laid out, planted and approved by the Landscape Architect prior to the layout of shrubs and ground covers.

B. Clearances: Shrubs and hedge material shall be planted a minimum of 30" (0.75 m) away from wall or other obstruction including parking stalls. Groundcover (1 gal or less) material (except sod) shall be planted 16" (10.41 m) away from pavement or edging unless otherwise noted. Vines shall be attached with copper wire in lead anchors to walls. Make minor adjustments as may be required.

C. All planting holes shall have straight, vertical sides and flat horizontal bottoms. The diameter of a hole shall not be less than twice the diameter of the root ball or 24 inches (609.6 mm) greater than the root ball; whichever is smaller. The depth of a hole shall not be deeper than the root ball. The bottoms of planting holes shall be tamped to minimize settling.

D. Contractor shall confirm that all planting holes are free draining and percolate