

The critical root zone (CRZ) is an area around a tree that is regulated for the purpose of protecting the roots and trunk of a protected tree or a specimen tree, both during and after construction. It is a circular area using a radius measured from the center of the tree. The radius is calculated as one (1) foot of radius for each one (1) inch of diameter at breast height (4.5 feet above grade). For any fraction of a foot over a whole foot, the diameter at breast height will be rounded up to the next whole number. Example: a tree has a diameter at breast height of twenty-one and one-quarter (21 1/4) inches; the CRZ is a circle, centered on the center of the tree, with a radius of twenty-two (22) feet.

In no event shall the CRZ be less than an area measured five (5) feet radially from the center of the tree at its base unless expressly determined by the civil/mechanical planner that a smaller specified CRZ may be established. A tree with design shall be required as appropriate in cases when the placement of fill threatens the visibility of a protected tree or specimen tree to be preserved.

During periods of development and construction, the areas within the drip-line of preserved trees shall be maintained at their original grade with pervious landscape material. Within these areas, there shall be no trenching or cutting of roots; no fill, compaction or removal of soil; and, no use of concrete, paint, chemicals or other foreign substances.

All hurricanes must be maintained intact for the duration of construction.

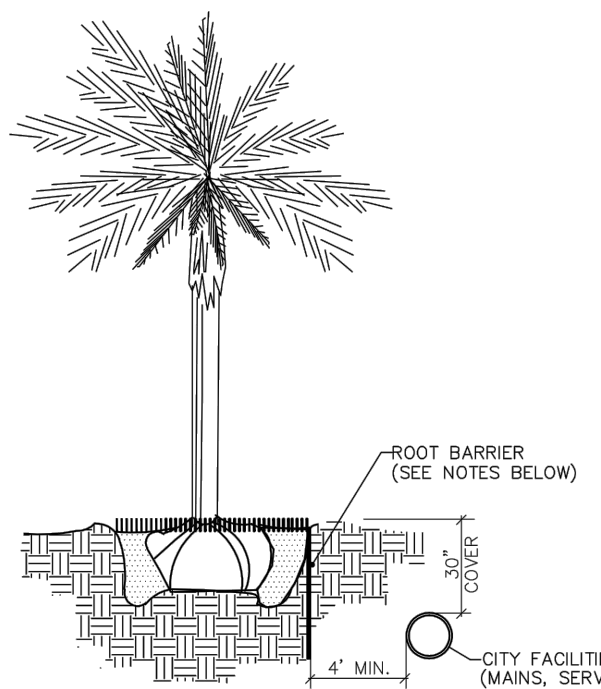
In areas where an existing earth/landscape island is to be removed, the barricade shall be installed at the back of curb and the curbing, asphalt, compacted sub-base and any other items shall be carefully removed, by hand if possible and once removed, the barricades shall be installed at the CRZ location or the drip line of the tree for the duration of the construction.

Existing Tree Protection Barricade Detail

Not to Scale

Tree Replacement Note

All trees which are to be preserved and do not survive shall be replaced by a tree of equal size or an equivalent number of trees based on trunk diameter (DBH).



NOTES:

- ALL ROOT BARRIERS SHALL BE 4" MINIMUM FROM ALL CITY FACILITIES.
- THE INSTALLATION OF ROOT BARRIERS SHALL BE COORDINATED WITH CITY AND INSPECTED BY CITY PRIOR TO BACKFILLING. ALL ROOT BARRIERS SHALL EXTEND UP TO FINISHED GRADE.
- ROOT BARRIERS SHALL BE MINIMUM 36" DEEP. APPROVED PRODUCTS INCLUDE "DEEP ROOT" AND "ROOT SOLUTIONS". FLEXIBLE BARRIERS SHALL BE 36" PANELS MANUFACTURED BY BISHARRIER.
- ALL ROOT BARRIERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

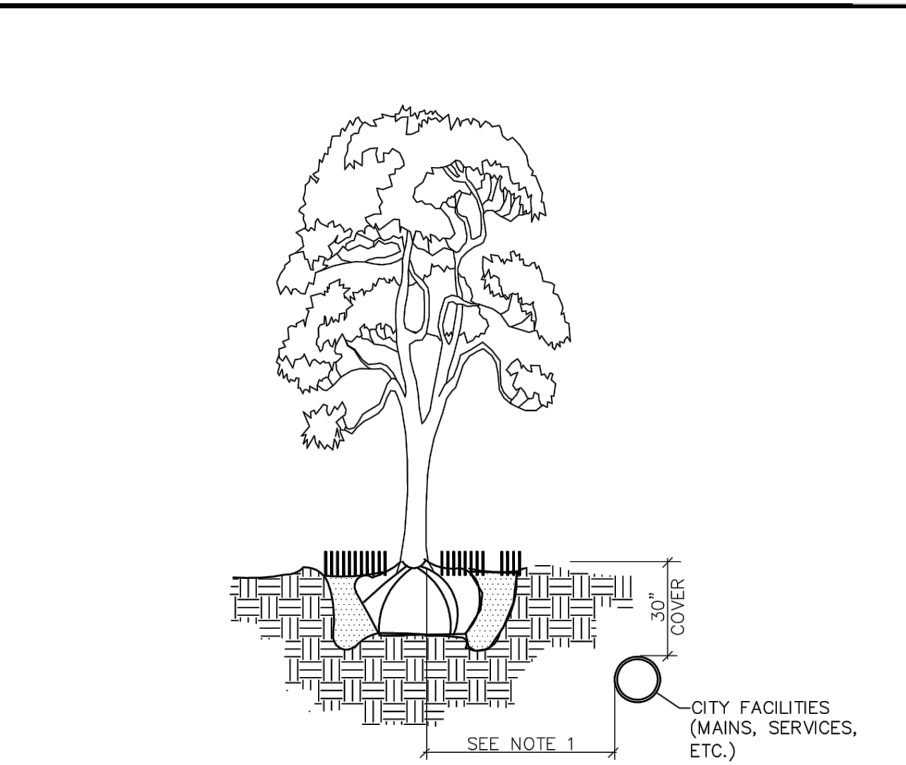
NOT TO SCALE



CITY OF DELRAY BEACH
ENVIRONMENTAL SERVICES DEPARTMENT
340 SOUTH DELRAY AVENUE, DELRAY BEACH, FLORIDA 33486

TYPICAL TREE WITH ROOT BARRIER
LD 1.1

DATE: 11-28-2024



NOTES:

- THIS DISTANCE SHALL BE 10" MINIMUM FROM ALL CITY FACILITIES IF NO ROOT BARRIER IS USED.

NOT TO SCALE



CITY OF DELRAY BEACH
ENVIRONMENTAL SERVICES DEPARTMENT
340 SOUTH DELRAY AVENUE, DELRAY BEACH, FLORIDA 33486

TYPICAL TREE WITHOUT ROOT BARRIER
LD 1.2

DATE: 11-28-2024

LANDSCAPE NOTES

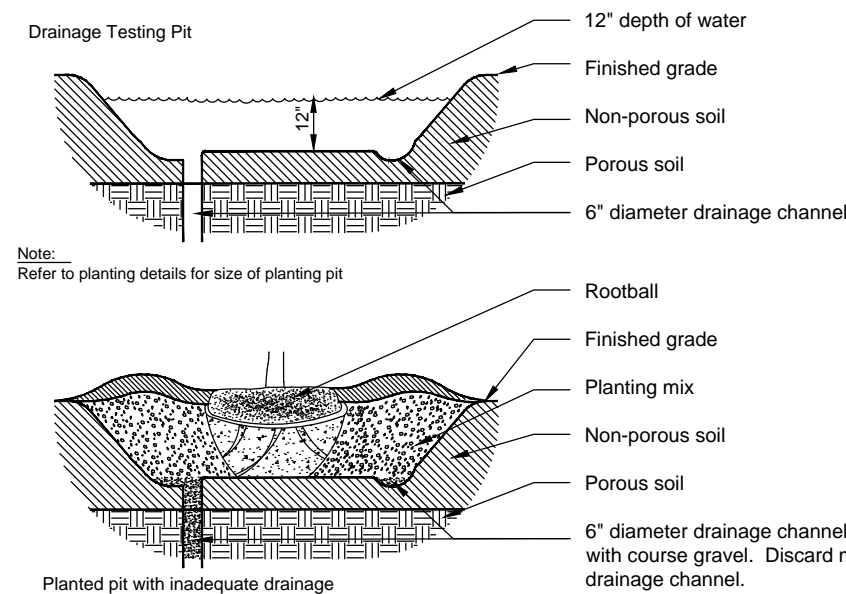
- All tree and plant material to be Florida No. 1 or better, as classified in "Grades and Standards for Nursery Plants", Part 1 and Part II, State of Florida, Dept. of Agriculture, Tallahassee. All plants not listed in "Grades and Standards for Nursery Plants" shall conform to a Florida No. 1 as to: (1) health and vitality, (2) condition of foliage, (3) root system, (4) freedom from pest or mechanical damage, (5) heavily branched and densely foliated according to the accepted normal shape of the species.
- Underplanting or substitution of one species or cultivar for another species is a breach of contract and will be "Rejected" at the time of final landscape inspection unless approved by Landscape Architect.
- Project Warranty: All plant material shall be warranted for a period of one (1) year after date of substantial completion against defects, including death and unsatisfactory growth, except for defects resulting from abuse or damage by others or unusual phenomena or incidents which are beyond the contractor's control.
- Any and all conditions which the contractor feels will be detrimental to the success of the planting shall be brought to the owner or representative's attention.
- The contractor shall verify the location of underground utilities prior to commencing work on any project area.
- Mulch planting areas with 3" layer of approved organic heat treated Melaleuca, Eucalyptus, or Enviromulch. Cypress Mulch is **NOT ACCEPTABLE**. Planting beds to receive mulch throughout entire bed area. Mulch shall be kept a minimum of six (6) inches from the trunk of any tree.
- All plants to be set to ultimate grade. No filling will be permitted around trunks or stems. Mulch to be kept a minimum of 2" away from trunks and stems.
- Planting trees and shrubs: Excavate hole per planting detail. When plant is set, place additional backfill consisting of a 50% mixture of Peat humus and natural soil around the base and sides of ball, and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Water again after placing final layer of backfill and before installing mulch.
- Guy and stake trees in 3 directions with galvanized wire, through flexible hose chafing guards, with wooden stake anchors immediately after planting. (See Detail)
- Trees and shrubs shall be fertilized with a complete natural organic fertilizer with a ratio of approximately 3:1:2 or 3:1:3 (e.g. one labeled 12-4-8). Similar analysis such as 16-4-8 (4:1:2) can also be used. Fertilizers that are slow release, controlled release, sulphur coated or with nitrogen as IBDU or ureaformaldehyde have extended release period. Thirty to fifty percent of the nitrogen should be water insoluble or slow release.

Palms should receive a complete granular fertilizer formulated for palms ("Palm Special") at a rate of 5 to 8 lbs. per palm.

Agriform 20-10-15 twenty-one gram planting tablets may be substituted for granular fertilizer. If utilized, the following rates shall be utilized: Position plant in hole. Backfill halfway up the rootball. Place tablet(s) beside rootball about 1" from root tips. Do not place tablet(s) in bottom of hole.

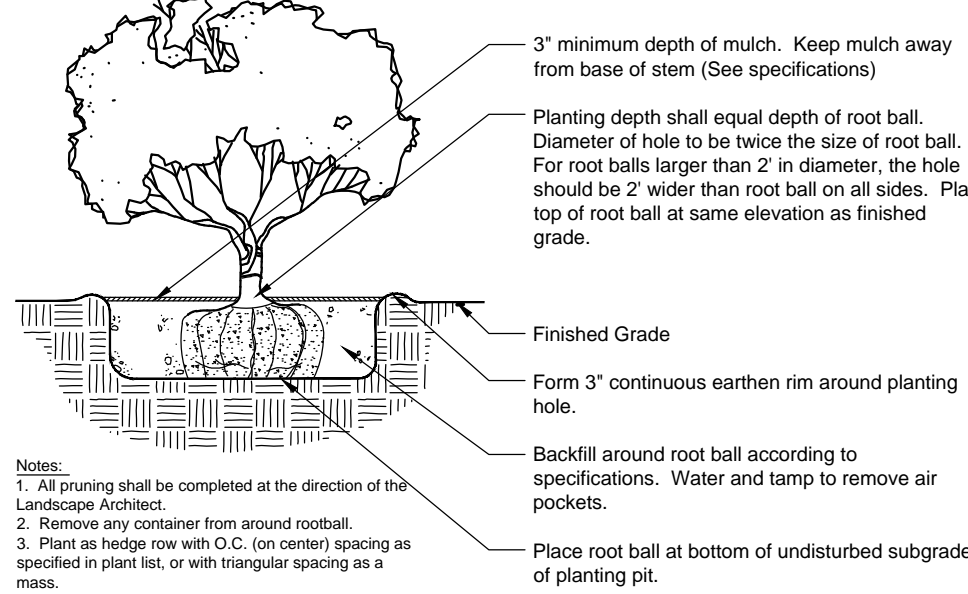
- 1 Gallon = 1 Tablet
3 Gallon = 2 Tablets
25 Gallon & B&B Trees = 2 per 1" caliper

- Maintain trees, shrubs, and other plants by watering, cultivating, and weeding as required for healthy growth. Restore planting saucers and mulch. Tighten and repair stake and guying and reset trees and shrubs to proper grade or vertical position as required. Spray as necessary to keep trees and shrubs free of insects and disease. The contractor shall begin maintenance immediately after planting and shall continue maintenance through final acceptance when Certificate of Occupancy is issued to the General Contractor by the governing agency and project is released by the General Contractor to Client.
- Prune trees and shrubs only to remove damaged branches.
- Planting Lawns: Provide clean, strongly rooted, uniformly sized strips of Stenotaphrum secundatum - St. Augustine "Florim" sod (unless otherwise noted in Plant List), machine striped not more than 24 hours prior to laying. Grade and roll prepared lawn surface. Water thoroughly but not to create muddy soil conditions. Lay sod strips with tight joints, roll or tamp lightly, and water thoroughly.
- Maintain positive drainage, no planting is to block drainage.
- Drainage Testing
Prior to planting of trees, palms, and specimen material, each planting pit shall be tested in the following manner to verify adequate drainage.
 - Dig each planting pit to the minimum specified size.
 - Fill the planting pit with (12") twelve inches of water.
 - If the water level in the planting pit drops (4") four or more inches within (4) four hours, the drainage is sufficient and a drainage channel is not required. If the water level drops less than (4") four inches within the (4) four hour period, then a drainage channel is required.
 - When a drainage channel is required, the drainage channel must extend down through the non porous soil and into porous soil. (See Drainage Testing Detail)
 - Discard all material removed from the drainage channel.
 - When backfilling the planting pit, add coarse gravel to the drainage channel. Also, care must be taken to keep the consistency of the soil mix the same throughout the planting pit.
- All fertilizers shall meet any governing agencies (local / County, etc.) ordinances and/or requirements.



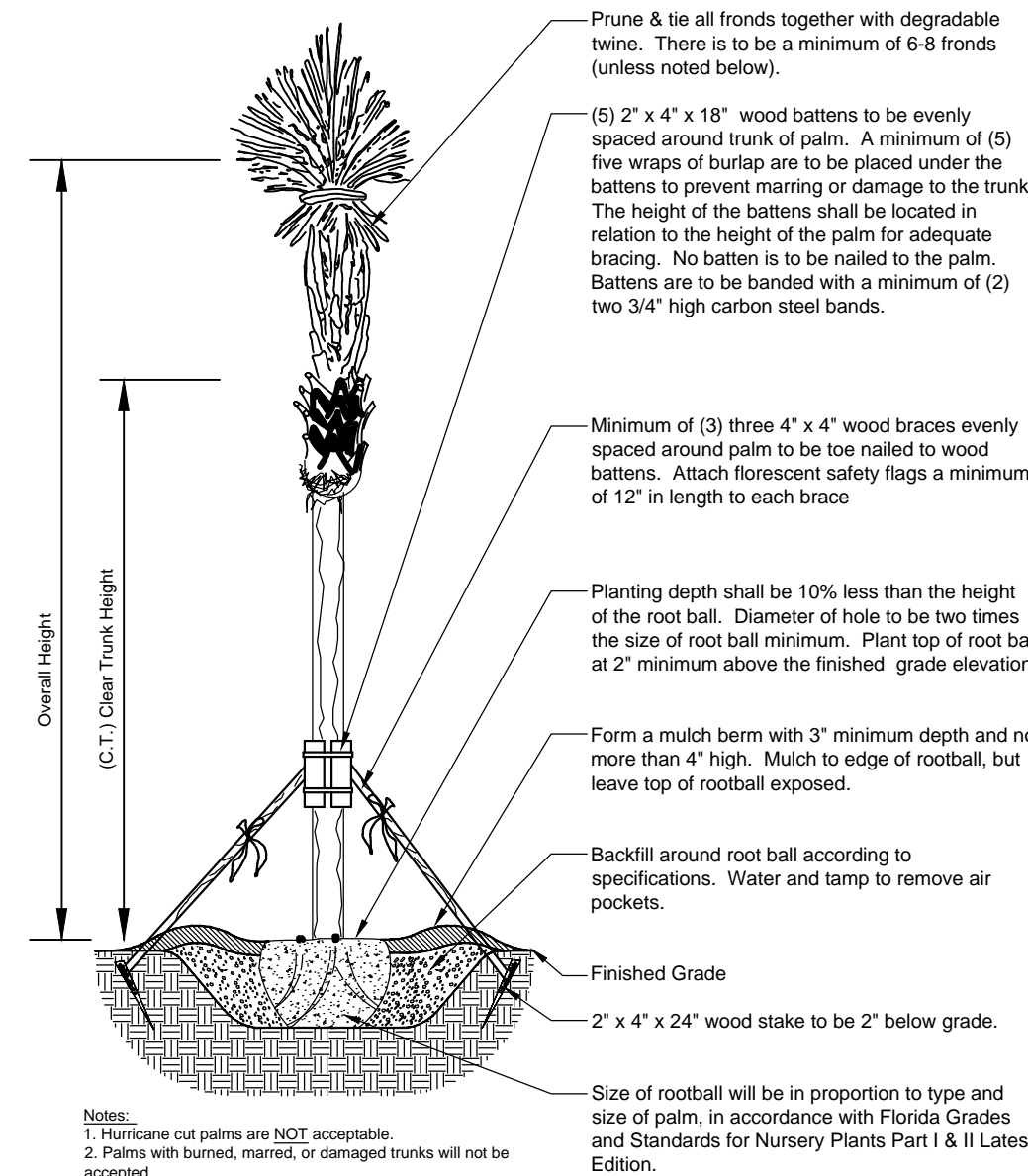
Drainage Testing Detail

Not to Scale



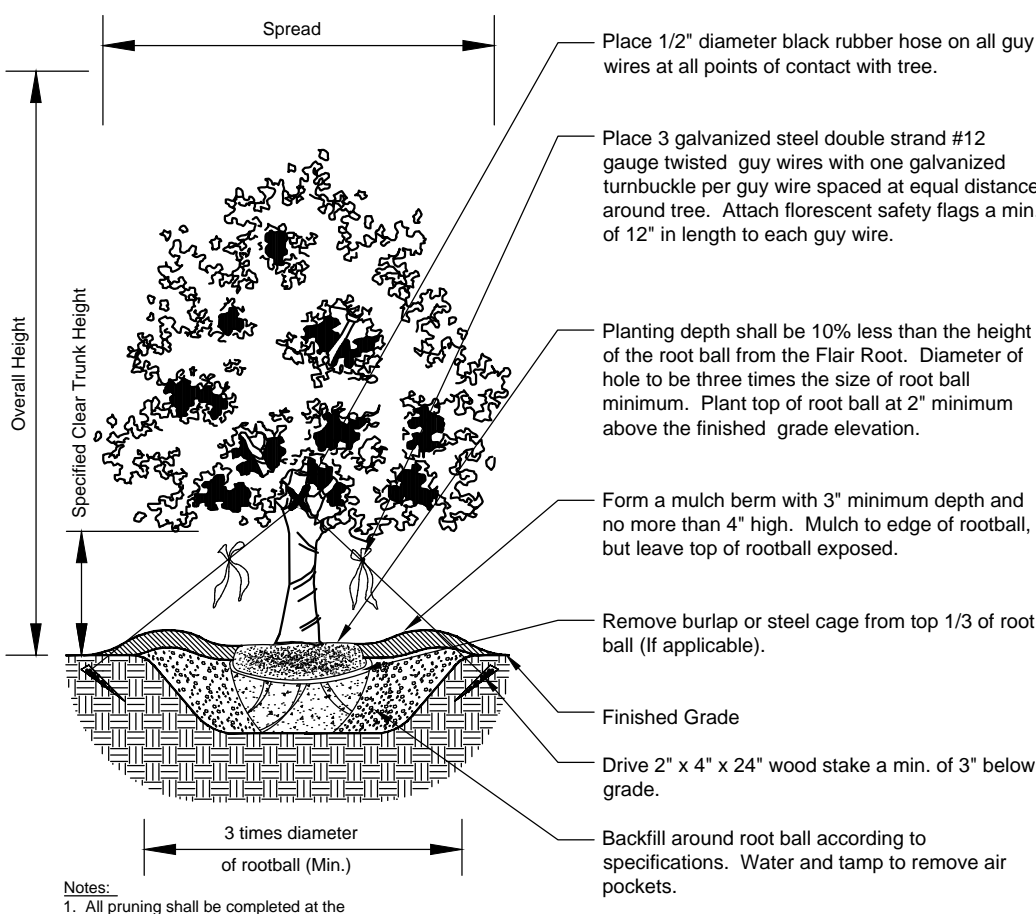
Shrub Detail

Not to Scale



Palm Planting Detail

Not to Scale



Tree Planting Detail

Not to Scale

EXISTING TREE & PALM DATA

	UNDER 3"	4"-8"	OVER 8"
TOTAL EXISTING TREES = 60	1,010"	3	7
TOTAL EXISTING TREES TO REMAIN = 6	77"	2	50
TOTAL EXISTING TREES TO BE REMOVED = 54 - 3 TREES UNDER 3" = 51	924"	5 (36")	46 (888")
TOTAL EXISTING TREES TO BE REMOVED THAT ARE CARROTWOODS = 20	407"	1(2")	19 (405")
TOTAL EXISTING TREES TO BE REMOVED LESS CARROTWOODS = 31	517"	5 (36")	26 (481")
TOTAL TREE MITIGATION IN INCHES REQUIRED = 517"			
TOTAL TREES PLANTED WITH 3" CAL = 150			
TOTAL TREES PLANTED WITH 1" CAL = 8			
TOTAL INCHES PLANTED = 458"			
TOTAL MITIGATION INCHES REQUIRED = 59" (517" - 458" = 59")			
TOTAL TREES BEING REMOVED THAT ARE BELOW 50% (RATED 4-6) = 18 (209")			
NO MITIGATION IS REQUIRED BECAUSE THE AMOUNT OF TREES RATED BELOW 50% EXCEEDS THE MITIGATION REQUIREMENT OF 59".			
TOTAL EXISTING PALMS = 45			
TOTAL EXISTING PALMS TO REMAIN = 21			
TOTAL EXISTING PALMS TO BE RELOCATED = 1			
TOTAL PALMS DEAD = 2			
TOTAL PALMS TO BE REMOVED = 21			
TOTAL PALMS TO BE PLANTED = 68			

LANDSCAPE DATA

TOTAL SITE AREA:
TOTAL SITE AREA = 273,553 S.F. / 6.28 ACRES

INTERIOR GREEN SPACE:
TOTAL PAVEMENT AREA = 141,466 S.F.
REQUIRED INTERIOR GREEN SPACE (10%) = 14,147 S.F.
PROVIDED = 33,136 S.F. (23%)
TOTAL INTERIOR TREES REQUIRED (1/125 S.F.) = 113 TREES
PROVIDED = 113 TREES (79 TREES + 34 PALMS)
MAXIMUM USE OF PALMS IN INTERIOR GREEN SPACE AREA = 25%
MAXIMUM ALLOWED = 113 TREES X 25% = 28 X 3:1 = 84 PALMS @ 3:1
PROVIDED = 34 PALMS
19 PALMS @ 1:1 + 45 PALMS @ 3:1 (15) = 34 PALMS

USE OF PALMS:
MAXIMUM USE OF PALMS = 50%
REQUIRED = NO MORE THAN 50% OF
REQUIRED TREES SHALL BE PALMS
TOTAL TREES REQUIRED = 200
TOTAL PALMS PROVIDED = 80
15 EXISTING+3+3+3+10+46= 80/200 = 40%

WEST LANDSCAPE BUFFER:
LENGTH = 575'
AREA REQUIRED: 5' X 575' = 2,875 S.F.
AREA PROVIDED: 13,773 S.F.

TREES:
REQUIRED = 1 TREE / 30 L.F.
575' / 30' = 19 TREES
PROVIDED = 19 TREES
19 ROYAL PALMS @ 1:1

SHRUBS:
REQUIRED = 575 / 2 = 288
PROVIDED = 288

EAST LANDSCAPE BUFFER:
LENGTH = 575'
AREA REQUIRED: 5' X 575' = 2,875 S.F.
AREA PROVIDED: 14,445 S.F.

TREES:
REQUIRED = 1 TREE / 25 L.F.
575' / 25' = 23 TREES
PROVIDED = 23 TREES

SHRUBS:
REQUIRED = 575 / 2 = 288
PROVIDED = 288

NOTES:
1. DESIGNED TO MEET REQUIREMENTS OF FPL 'PLANT THE RIGHT TREE IN THE RIGHT PLACE'.

NORTH LANDSCAPE BUFFER:
LENGTH = 520'
AREA REQUIRED: 5' X 420' = 2,100 S.F.
AREA PROVIDED: 4,198 S.F.

TREES:
SEE NOTE #1 BELOW
REQUIRED = 1 TREE / 30 L.F.
420' / 30' = 14 TREES
PROVIDED = 14 TREES

SHRUBS:
REQUIRED = 420 / 2 = 210
PROVIDED = 210

BUILDING FACADE (PRIMARY FRONTAGE):
LENGTH = 234'
REQUIRED = 1 TREE / 25' = 9 TREES
PROVIDED = 9 TREES

TREES:
REQUIRED = 1 TREE / 25 L.F.
575' / 25' = 23 TREES
PROVIDED = 23 TREES

SHRUBS:
REQUIRED = 575 / 2 = 288
PROVIDED = 288

TOTAL TREES:
REQUIRED = 200
PROVIDED = 220
15 EXISTING ROYALS + 159 PLANTED
TREES + 19 PALMS @ 1:1 + 27 PALMS @ 3:1 (9) = 220 TREES

TREE SPECIES MIX:
MINIMUM TREE SPECIES MIX WHEN
OVER 41 TREES ARE REQUIRED = 5
REQUIRED = 5
PROVIDED = 6

NATIVE SHRUBS:
MINIMUM USE OF NATIVE SHRUBS = 25%
TOTAL SHRUBS REQUIRED = 4,105
TOTAL NATIVE SHRUBS PROVIDED = 2,839 / 4,105 = 69%.

SOUTH LANDSCAPE BUFFER:
LENGTH = 532'
AREA REQUIRED: 5' X 532' = 2,660 S.F.
AREA PROVIDED: 5,153 S.F.

TREES:
SEE NOTE #1 BELOW
REQUIRED = 1 TREE / 30 L.F.
532' / 30' = 18 TREES
PROVIDED = 18 TREES

SHRUBS:
REQUIRED = 532 / 2 = 266
PROVIDED = 266

PARKING LOT ISLANDS:
TOTAL ISLANDS = 41

TREES:
REQUIRED = 1 TREE PER ISLAND
PROVIDED = 1 TREE PER ISLAND

SHRUBS:
REQUIRED = 75 S.F. / ISLAND
PROVIDED = 75 S.F. MINIMUM / ISLAND

TOTAL SOD AREA:
TOTAL OPEN SPACE AREA = 60,652
REQUIRED = 70% MAXIMUM USE OF SOD
60,652 X 70% = 42,456
PROVIDED = 42,398 S.F.

Conceptual Design Group, Inc.

Landscape Architecture - Site Planning

900 East Ocean Boulevard, Suite 130d
Stuart, Florida 34994
(772) 344-2340
L.C. 26000198

These drawings are the property of the landscape architect and are not to be used for other projects except by written permission from the landscape architect. Report any discrepancies immediately to the landscape architect.



Bowman CONSULTING

Bowman Consulting Group, Ltd.
401 E. Las Olas Blvd
Suite 1400
FL Lauderdale, FL 33301
Phone: (954) 712-7482
www.bowmanconsulting.com
© Bowman Consulting Group, Ltd.

LANDSCAPE PLAN DELRAY BEACH FORD 2501 SOUTH FEDERAL HIGHWAY DELRAY BEACH, FLORIDA 33483

PALM BEACH COUNTY

CITY OF DELRAY BEACH

PROJECTNO
CITY PROJECT NUMBER

Seal :
SIGNATURE AND SEAL
Landscape Architect

Prepared, Reviewed & Supervised By:
Conceptual Design Group, Inc.
900 East Ocean Boulevard, Suite 130d,
Stuart, Florida 34994
(772) 344-2340 L.C. 26000198

Name : Jeffrey W. Smith, R.L.A.
License # : LA0007635

PLAN STATUS	
12-23-2016	11-21-16 City Comments
1-17-2017	12-29-16 City Comments
8-11-2017	New Building & Layout
9-27-2017	New Building & Layout
1-19-2018	City Comments & New Base
2-6-2018	New Base
2-26-2019	New Base
3-20-2019	City Comments & New Base

DATE	DESCRIPTION	
JWS	JS	JWS
DESIGN	DRAWN	CHKD
SCALE	H:	V:
JOB NO.	CDG 16-1003 BOWMAN 010463-01-001	
DATE :	11/8/2016	
FILE No.		