LANDSCAPE SPECIFICATIONS
PART 1 - GENERAL

1.1 SCOPE
A. Contractor shall provide all labor, materials, equipment, supervision, and related work necessary to complete the landscape work in accordance with the intent of the landscape plans, schedules and these specifications. The extent of work is shown on the drawings which are a part of this document.

1.2 CONTRACTOR QUALIFICATIONS
A. Landscape installation work to be performed by a Contractor Certified by the Florida Nurserymen, Growers and Landscape Association (FNGLA) as a Certified Landscape Contractor. Any pruning to be supervised by an Arborist, certified by the International Society of Arboriculture (ISA) and licensed in County where work is performed.

1.3 INVESTIGATION OF UTILITIES
A. Prior to beginning work, the Contractor shall be responsible to locate existing underground utilities. Check with all utility companies and Sunshine State, call (811).

1.4 SUBSTITUTIONS
A. Only materials specified will be accepted, unless approved in writing by the Landscape Architect in advance.

1.5 PLANT SIZES
A. All plant sizes shall equal or exceed the minimum sizes as specified in the plant list. When plant sizes are specified as a range of size, installed materials shall average the mean of the range specified. Plants shall be measured following pruning, with branches in normal position. All necessary pruning shall be done at the time of planting.

1.6 PLANT QUALITY
A. All plant material shall be equal to or better than Florida No. 1 as classified by "Grades and Standards for Nursery Plants" by the Division of Plant Industry, Florida Department of Agriculture. They shall have a growth habit that is normal for the species; healthy, vigorous, free from insects, disease and injury.

B. The Owner or Landscape Architect reserves the right to refuse any plant material which does not conform to the intent of the written specifications or design.

C. CIRCLING ROOTS FOUND ON CONTAINER-GROWN MATERIAL WILL NOT BE ACCEPTED UNLESS REMEDIAL ROOT PRUNING, APPROVED BY THE LANDSCAPE ARCHITECT IS DONE BEFORE PLANTING.

1.7 PLANT QUANTITY
A. The plant quantities shown on the plant list are to be used only as an aid to bidders. In the case of discrepancy between the plant list and the plan, the quantity on the plan shall override the plant list.

1.8 UNIT PRICES
A. The successful bidder shall furnish to the Owner and the Landscape Architect, a unit price breakdown for all materials. The Owner may, at his discretion, add to or delete from the materials utilizing the unit price breakdown submitted to and accepted by the Owner.

1.9 SUBMITTALS
A. Fertilizer: The Contractor shall submit to the Owner and Landscape Architect documentation that all the fertilizer used for the project is of the analysis specified and placed at the rates specified in section 2.2 FERTILIZER.

B. Planting soil: The Contractor shall submit a sample of the planting soil (approximately 1 cu. Ft.) for approval by the Landscape Architect prior to delivery to the site.

1.10 CLEAN-UP & MAINTENANCE OF TRAFFIC
A. Follow procedures in FDOT Index 600 for maintenance of traffic during construction.

B. At the end of each work day, the Contractor shall remove debris and shall barricade the un-filled holes in a manner appropriate in the path of pedestrians and motorists.

C. Upon completion of the work or any major portion of the work or as directed by the Landscape Architect, all debris and surplus material from his work shall be removed from the job site.

1.11 MAINTENANCE PRIOR TO ACCEPTANCE
A. The Contractor is responsible to maintain the plantings until they are accepted under the provisions of 1.12 "ACCEPTANCE OF INSTALLATION".

1. Plants: Begin maintenance immediately following the final plant installation operation for each plant and continue until all plant installation is complete and accepted. Maintenance shall include watering all plants, weeding, mulching, pest and disease control, tightening and repairing of guys, repair of braces, removal of dead growth, resetting of plants to proper grade or up-right position, restoration of plant saucer, litter pick-up in plant beds and other necessary operations to assure specified minimum grade of Florida No. 1.

2. Turf Areas: Begin maintenance of turf immediately following the placement of sod and continue until sod installation is complete and accepted. Maintenance shall include but not be limited to, watering, leveling, mowing, weed and pest control, fungus and disease control and other necessary operations as determined by the Landscape Architect and good nursery practice.

3. Re-setting or straightening trees and palms:
The Contractor shall re-set and/or straighten trees and palms as required at no additional cost to the Owner unless caused by sustained winds of 75 mph or more. Then, the coss of the operations may be charged to the owner. Re-set trees within 48 hours.

1.12 ACCEPTANCE OF INSTALLATION
A. Inspection: Inspection of the work, to determine completion of contract work, exclusive of the possible replacement of plants and turf, will be made by the Landscape Architect at the conclusion of the maintenance period. Written notice requesting such an inspection and submitted by the Contractor at least ten (10) days prior to the anticipated date.

1.13 GUARANTEE
A. Guarantee all plants for a period of one year (CCD). Guarantee shall commence from the date of written acceptance. Plant material which is on the site and scheduled to be relocated is not covered by the guarantee except in the case of Contractor's negligence or work that has been done in an unworkman-like manner. The Contractor is not responsible for loss due to acts of god, (i.e.) sustained winds of 75 mph or more, floods, frost, lightning, vandalism or theft.

1.14 REPLACEMENT
A. Replacement shall be made during the guarantee period as directed by the Landscape Architect within ten (10) days from time of notification. For all replacement plant material, the guarantee period shall extend for an additional forty-five (45) days beyond the original guarantee period. The Contractor shall be responsible to provide water to the replacement plants in sufficient quantity to aid in their establishment. At the end of the guarantee period, inspection will be made by the Landscape Architect, upon written notice requesting such inspection and submitted by the Contractor at least five (5) days before the anticipated date. Replacement plants must meet the requirements of Florida No. 1 at time of inspection. Remove from the site all plants that are dead or in a state of unsatisfactory growth, as determined by the Landscape Architect. Replace these and any plants missing due to the Contractor's negligence as soon as conditions permit.

1. Materials and Operations: All replacement plants shall be of the same kind and size as indicated on the plant list. The Contractor shall supply and plant the plants as specified under planting operations.

2. Cost of Replacements: A sum sufficient to cover the estimated cost of possible replacements, including material and labor will be retained by the Owner and paid to the Contractor after all replacements have been satisfactorily made and approved by the Landscape Architect.

PART 2 - MATERIALS

2.1 PLANTING SOIL
A. Planting soil for trees, shrubs and ground covers shall be of the composition noted on the plans, measured by volume.

B. Soil for Sodded Areas: shall be coarse lawn sand.

2.2 FERTILIZER
A. Fertilizer for trees, palms, shrubs, and groundcovers shall be as follows: LESCO Palm Special 13-3-13 or equal, Sulfur coated with iron and other minor elements and maximum of 2% chlorine, or brand with equal analysis. The fertilizer shall be uniform in composition, dry and free flowing and shall be delivered to the site in the original unopened containers, bearing the manufacturer's guaranteed analysis. Fertilizer for sod and seeded areas shall be 8-6-8, 50% organically derived nitrogen, or equal.

2.3 WATER
A. The Contractor shall provide potable water on site, available from the start of planting. The Contractor is responsible to ascertain the location and accessibility of the water source. The Contractor is responsible to provide the means of distribution (i.e. water truck, hoses, etc.) for distribution of water to the planting areas.

2.4 MULCH
A. Mulch shall be as specified on the Plant List.

2.5 ROOT BARRIER MATERIAL
A. Root barrier material shall be 24' deep polypropolylene panels by DeepRoot or approved equal.

B. Install per details in the plans.

PART 3 - INSTALLATION PROCEDURES

3.1 LAYOUT
A. Verify location of all underground utilities and obstructions prior to excavation.

3.2 HERBICIDE TREATMENT
A. In all areas infected with weed and/or grass growth, a systemic herbicide shall be applied per manufacturer's rates. When it has been established where work will be done, the systemic herbicide shall be applied in accordance with manufacturer's labeling to kill all noxious growth. Contractor shall schedule his work to allow more than one application to obtain at least 95% kill of undesirable growth. If necessary, Contractor shall conduct a test to establish suitability of product and applicator to be used on this project, prior to execution of the full application.

3.3 PLANT PIT EXCAVATION AND BACKFILLING
A. Trees: See the Planting and Bracing Details and notes.

B. All planting holes shall be hand dug where machine dug holes may adversely affect utilities or improvements.

C. Shrubs and Groundcover: Shrubs and groundcover shall be planted in a soil bed as described in the notes and details. Space shrubs and provide setback from curb and pavements as shown in the plans.

D. Watering of field-grown plants: Thoroughly puddle in water to remove any air pockets in the plant hole.

3.4 WATERING
A. The Contractor is responsible to provide the water for all new plants and transplants and means of distribution (i.e. hand watering or water truck) during the maintenance period and extending into the period after acceptance until the full schedule as listed below is complete. Water for trees and other large field grown plants shall be supplemented by hand or water truck, in addition to the irrigation system, (if one is provided). Contractor can adjust watering schedule during heavy rain season upon approval of the Landscape Architect.

AMOUNT OF WATER PER APPLICATION
For trees up to 5 inch caliper - 5 gallons
From 5 to 8 inch caliper - 25 gallons
9 inch and up caliper - 50 gallons

FREQUENCY OF WATER
Daily for the first week
3 times per week for weeks 2 - 5
2 times per week for weeks 6 - 8
1 time per week for weeks 9 - 12

B. Water in plants by thoroughly soaking of the entire root ball immediately after planting. For large trees and shrubs, add water while backfilling hole to eliminate any air pockets in the soil around the root ball.

C. Water shrubs, sod and groundcover a minimum of once daily for a week or until an irrigation system is fully operational. If no irrigation system is to be installed, the Contractor shall be responsible for watering the shrub, sod, and groundcover for the time specified above, after installation of each section of the planting installed.

3.5 FERTILIZING
A. Add fertilizer on top of the surface of shrubs beds and tree and palms root balls two (2) months after installation. Fertilize sod within two (2) days after installing after planting of each segment of the job. Fertilizer shall be applied after soil has been well moistened. Fertilizer shall be washed off of plant leaves and stems immediately after application. Apply at the following rates:

1. Trees and Large Shrubs: One (1) pound per inch of trunk diameter, spread evenly over the root ball area.

2. Shrubs: One half (1/2) handful per shrub, spread evenly over the root ball area.

3. Groundcover: Twelve (12) pounds per 100 sq. ft. of bed area.

4. Sod: Twelve (12) pounds per 1,000 sq. ft. Wash fertilizer off blades immediately after spreading.

3.6 MULCHING
A. Spread mulch two (2) inches thick uniformly over the entire surface of shrubs and groundcover beds, depth measured after settling, unless otherwise specified in the plans. Provide 36" diameter bed of mulch, measured from outer edge of the trunk, for all trees and palms planted in sod areas. Keep mulch away from contact with the trunk. Create a 6" high ring of mulch at the outer edge of tree and palm holes.

3.7 GUYING AND BRACING
A. See the details bound herewith or made part of the plans.

3.8 SODDING
A. Provide a blanket of lawn sand as described in the notes in these plans. Prior to planting, remove stones, sticks, etc. from the sub-soil surface. Excavate existing non-conforming soil as required so that the finish grade of sod is flush with adjacent pavement or top of curb as well as adjacent sod in the case of sod patching.

B. Place sod on moistened soil, with edges tightly butted, in staggered rows at right angles to slopes. The sod shall be rolled with a 500 pound hand roller immediately after placing.

C. Keep edge of sod bed a minimum of 18" away from groundcover beds and 24" away from edge of shrub beds and 36" from trees, measured from the edge of plant or tree trunk.

D. Sod shall be watered immediately after installation to uniformly wet the soil to at least two inches below the bottom of sod strips.

E. Apply fertilizer to the sod as specified in Section 3.5.

F. Excavate and remove excess soil so top of sod is flush w/top of curb or adjacent pavement, or adjacent existing sod.

PLANT BED PREPARATION NOTES

1. In all areas where new sod and shrub and groundcover masses are to be planted, kill all existing weeds by treating with systemic herbicide prior to beginning soil preparation.

2. In all shrub and groundcover beds, excavate and backfill soil as described in "Plant List(s)". If no specific preparation is noted, prepare soil as described below for either condition, over the entire area to be planted:

Condition A:
If any compacted road base or asphalt or rocky soil is encountered, remove compacted material entirely to allow an 18" depth of planting soil per plant list unless otherwise stated. Backfill the entire area of the shrub and groundcover beds with 18" planting soil (as specified in Plans) to within 2 inches of the adjacent pavement or top of curb. Remove all debris and rocks and pebbles larger than 2 inches in size and level the grade before planting.

Condition B:
Where no compacted soil is encountered, thoroughly mix 6 inches of planting soil per plant list into the existing soil to a depth of 18 inches unless otherwise stated. If required, excavate and remove the existing soil to lower the grade, so that the prepared mix is finished to a minimum of 2 inches below top of curb or adjacent walkway. Remove all debris and rocks and pebbles larger than 2 inches in size and level the grade before planting.

For all sod areas, spread a 2" deep layer of lawn sand prior to sodding. Remove all debris and rocks and pebbles larger than 2 inchs in size and level the grade before sodding. Remove, if required, existing soil so that top of sod is flush with and adjacent top of curb or pavement.

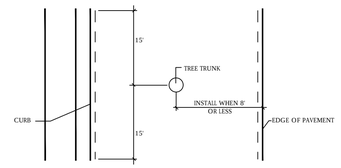
For Trees and shrubs larger than 7 gallon, Add Diehard" transplant innoculant supplied by Horticultural Alliance, Inc. (800-628-6373) or equal. Mix into top 8-10 inches of planting hole, making sure it is contact with the root ball. Add at a rate specified by manufacturer (typically 4oz. per 1 inches of trunk caliper or 7 gallon can).

SPACING OF PLANTS (SEE PLANT SPACING DETAIL)

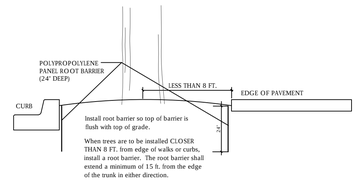
1. Plants shall be planted sufficiently away from edges of pavements or curbs, to allow for growth toward the edges of the bed.

PROTECTION OF PLANTS

1. The Contractor shall be responsible to protect existing trees and shrubs in and adjacent to the area of work. Erect barriers as necessary to keep equipment and materials, any toxic material, away from the canopy drip line of trees and shrubs. DO NOT PILE SOIL OR DEBRIS AGAINST TREE TRUNKS OR DEPOSIT NOXIOUS BUILDING SUPPLIES OR CHEMICALS WITHIN THE DRIP LINE.



PLAN VIEW



ROOT BARRIER INSTALLATION DETAIL

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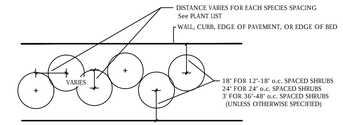
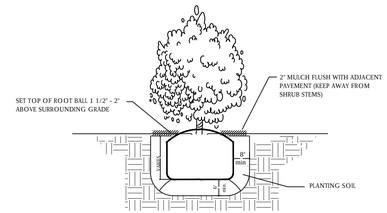


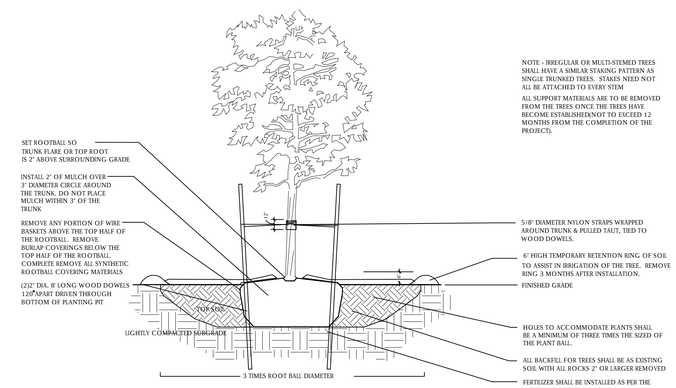
SHRUB SPACING DIAGRAM

N.T.S.



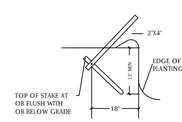
SHRUB INSTALLATION DETAIL

N.T.S.



PLANTING & BRACING DETAIL
UNDER 3 1/2" CALIPER

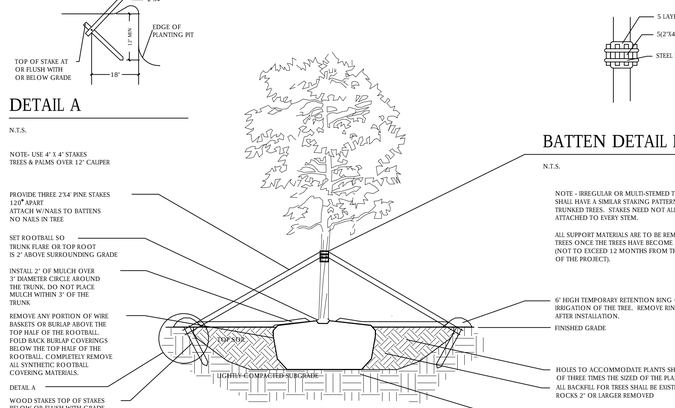
N.T.S.



DETAIL A

N.T.S.

NOTE- USE 4" X 4" STAKES TREES & PALMS OVER 12" CALIPER



BATTEN DETAIL B

N.T.S.

PLANTING & BRACING DETAIL
OVER 3 1/2" CALIPER

N.T.S.

2

PLANT LIST

KEY	PLANT NAME	QTY.	UT.	SIZE
TREES				
EUFO	Eugenia foetida ...Spanish Stopper	7	ea.	8' tall x 4' spread, lifted to tree form, 3 trunks max, 2" Totalling 2" DBH
FIDE	Filicium deciepiens ...Japanese Fern Tree	5	ea.	12' tall x 5' spread, 2" DBH
PIDI	Pimenta dioca ..Allspice	3	ea.	12' tall x 6' spread, 2" DBH
SHRUBS				
KEY	PLANT NAME	QTY.	UT.	SIZE
COER	Conocarpus erectus ...Green Buttonwood	33	ea.	60" x 36"
CTRS	Cordyline fruiticosa "Red Sister" ...Red Sister Hawaiian Ti Plant	10	ea.	36" x 30", 2-3 PPP
FUGI	Furcraea gigantea ...Giant False Agave	3	ea.	3' x 3'
LOCH	Loropetalum chinense "Rubrum" ...Chinese Fringe Flower	26	ea.	18"x18"
PSBA	Psychotria bahamensis ...Wild Coffee	127	ea.	24" x 24"
MUCA	Muhlenbergia capillaris ...Muhly Grass	121	ea.	3 gal cans
TRDA	Tripsacum dactyloides ...Fakahatchee Grass	11	ea.	3 gal cans
GROUNDCOVERS				
KEY	PLANT NAME	QTY.	UT.	SIZE
ARGL	Aragrostis glabra ..Perennial Peanut	445	ea.	1 gallon cans
PIMI	Pilea microphylla ...Artillery Fern	78	ea.	1 gal cans
MISCELLANEOUS				
BAMA	Bambusa malingensis ...Seabreeze Bamboo	5	ea.	12' Tall Overall Multi
MISCELLANEOUS				
	Planting Soil 70% Silica Sand 20% Everglades Muck 10% Shredded Pinebark	as req.	c.y.	
	Shredded Melaleuca Mulch	as req.	c.y.	2" layer in all shrub beds
	Gravel Polish Black Mexican River Stone 2"-3" aggregate size 3" deep over filter fabric	1.65	c.y.	

CITY OF MIAMI BEACH
LANDSCAPE LEGEND

INFORMATION REQUIRED TO BE PERMANENTLY AFFIXED TO PLANS

Zoning District RM-1 Lot Area 0.30 Square Feet 13,274

	OPEN SPACE	REQUIRED/ ALLOWED	PROVIDED
A.	Square feet of required Open Space as indicated on site plan: Lot Area = 13,274 s.f.x 20 % = 2,654 s.f.	2,654	3,543
B.	Square feet of parking lot open space required as indicated on site		
	Number of parking spaces _ x 10 s.f. parking space =	0	0
C.	Total square feet of landscaped open space required: A+B=	2,654	3,543
	LAWN AREA CALCULATION		
A.	Square feet of landscaped open space required	2,654	3,543
B.	Maximum lawn area (sod) permitted= 30 % x 796 s.f.	796	0
	TREES		
A.	Number of trees required per lot or net lot acre, less existing number of trees meeting minimum requirements = 28 trees / acre (28 x 0.30 acres = 9 trees - number of existing trees (0) = 9 new trees	9	10
B.	% Natives required: Number of trees provided x 30% =	3	10
C.	% Low maintenance / drought and salt tolerant required: Number of trees provided x 50%=	5	10
D.	Street Trees (maximum average spacing of 20' o.c.) 98 (driveway subtracted) linear feet along street divided by 20'= 5 trees	5	5 (2 Exist)
E.	Street tree species allowed directly beneath power lines: (maximum average spacing of 20' o.c.):	0	0
	0 linear feet along street divided by 20'= 0 trees		
	SHRUBS		
A.	Number of shrubs required: Sum of lot and street trees required x	168	298
B.	% Native shrubs required: Number of shrubs provided x 50%=	84	259
	LARGE SHRUBS OR SMALL TREES		
A.	Number of large shrubs or small trees required: Number of required shrubs x 10%=	17	33
B.	% Native large shrubs or small trees required: Number of large shrubs or small trees provided x 50%=	9	33

N

PLANTING DETAILS AND SPECIFICATIONS

1 LA1-03

46'-8" 23'-4" 11'-8" 0

SCALE: 3/32" = 1'-0"

GSLA DESIGN
GARDNER + SEMLER
LANDSCAPE ARCHITECTURE
WWW.GSLADESIGN.COM

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MIAMI, FL 33015
P 305.392.1016 F 305.392.1019
CORP. ID #0000266

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ELEVEN44
1144 NE MARSEILLE DR.
MIAMI BEACH, FL 33141

REV.		
1	03.15.2021	SITE PLAN CHANGES
2	04.12.2021	SITE PLAN CHANGES

TITLE: PLANTING DETAILS AND SPECIFICATIONS

REGISTERED LANDSCAPE ARCHITECT KENNETH ERIC GARDNER LA 0001569 STATE OF FLORIDA

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

Digitally signed by Kenneth Eric Gardner
Date: 2021.04.13 10:30:17 -04'00'

Ken Gardner FL LA #1569
Kiehl Semler FL LA #6667205

DATE: 12.30.2020

SCALE: as noted

SHEET: LA1-03