

SECTION NO: 86200000
S.R. NO.(S): 858
COUNTY: Broward
FM NO.(S): 431960-1-58-01

**DISTRICT FOUR (4) AMENDMENT NUMBER TWO (2)
TO STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LANDSCAPE INCLUSIVE MEMORANDUM OF AGREEMENT**

This is Amendment Number Two (2) to the Agreement dated **March 29, 2013**, made and entered into this _____ day of _____ 20__ by and between the State of Florida Department of Transportation hereinafter called the "DEPARTMENT" and the **City of Hallandale Beach**, a municipal subdivision of the State of Florida, hereinafter called the "AGENCY".

WHEREAS, the parties entered into the Inclusive Maintenance of Agreement dated **March 29, 2013** for the purpose of maintaining the landscape improvements by the AGENCY on various State Road(s) including **State Road 858 (Hallandale Beach Boulevard)** and

WHEREAS, the DEPARTMENT and the AGENCY have agreed to add additional landscape improvements to be installed on **State Road 858 (Hallandale Beach Boulevard)** in accordance with the above referenced Agreement;

NOW THEREFORE, for and in consideration of mutual benefits that flow each to the other, the parties covenant and agree as follows:

1. Pursuant to **Exhibit "A"** of the Inclusive Agreement for State Road 858 (Hallandale Beach Boulevard) dated **March 29, 2013** the limits are increased for State Road 858 (Hallandale Beach Boulevard) from (M.P. 2.586) (Median east of State Road 9/I-95) to M.P. 5.429 (State Road A1A).
2. Pursuant to paragraph 4 of the Inclusive Agreement for State Road 858 (Hallandale Beach Boulevard) dated **March 29, 2013** the **AGENCY** has decided to construct additional landscape improvements or to modify an improvement located as indicated in **Exhibit "A"** State Road 858 (Hallandale Beach Boulevard) from I-95 Ramp (M.P. 2.586) to East of N.W. 10th Terrace (M.P. 2.726) in accordance with the plans attached as **Exhibit "B"**.
3. The **AGENCY** shall agree to maintain the landscape improvements in the Inclusive Agreement described above and as provided in accordance with the Maintenance Plan, attached as **Exhibit "C"**.
4. The **AGENCY** agrees to enter into a contract to have installed said landscape improvements for an amount as indicated in **Exhibit "D"** not to exceed **\$160,216.40**.

Except as modified by this amendment, all terms and conditions of the Agreement shall remain in full force and effect.

Exhibits

Exhibit A - LANDSCAPE IMPROVEMENTS LIMITS & MAINTENANCE BOUNDARIES

Exhibit B - LANDSCAPE IMPROVEMENT PLANS

Exhibit C - MAINTENANCE PLAN FOR LANDSCAPE IMPROVEMENTS

Exhibit D - APPROXIMATE COST FOR LANDSCAPE IMPROVEMENTS

In Witness whereof, the parties hereto have executed with this Amendment effective the ____ day _____ year written and approved.

City of Hallandale Beach
a municipal corporation.

State of Florida
Department of Transportation

BY:

BY:

City Manager

Transportation Development

City Attorney Date

District General Counsel Date

SECTION NO: 86200000
S.R. NO.(S): 858
COUNTY: Broward
FM NO.(S): 431960-1-58-01

EXHIBIT A

LANDSCAPE IMPROVEMENTS LIMITS AND MAINTENANCE BOUNDARIES

I. LANDSCAPE IMPROVEMENTS PROJECT LOCATION:

State Road 858 (Hallandale Beach Boulevard) from I-95 Ramp (M.P. 2.586) to East of N.W. 10th Terrace (M.P. 2.726)

II. INCLUSIVE LIMITS OF LANDSCAPE IMPROVEMENTS MAINTENANCE FOR THIS ROADWAY STATE ROAD 858 (Hallandale Beach Boulevard):

State Road 858 (Hallandale Beach Boulevard) from (M.P. 2.586) (Median East of SR 9/I-95) to (M.P. 5.429) (SR A1A)

III. LANDSCAPE IMPROVEMENTS MAINTENANCE MAP FOR THIS ROADWAY PROJECT:

(All maintenance boundaries of original agreement apply)

Please See Attached



LANDSCAPE MAINTENANCE MAP HALLANDALE BEACH/I-95

LEGEND

 **FDOT RIGHT OF WAY**
(Approximate, based on property appraiser)

 Maintenance Area

SECTION NO: 86200000
S.R. NO.(S): 858
COUNTY: Broward
FM NO.(S): 431960-1-58-01

EXHIBIT B

LANDSCAPE IMPROVEMENT PLANS

The Agency agrees to install the Project in accordance with the plans and specifications attached hereto and incorporated herein.

Please see attached plans prepared by: Rosenberg Gardener Design

Dated: December 16, 2013
Sheets LA 1 - 4

January 14, 2014
Sheets LA 1.01, LA 1.02 & LA 1.03
LA 2.01 & 2.02
LA 3.01 - 3.04

EXISTING TREE DISPOSITION LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE			DISPOSITION	
			HT (ft.)	SPD (ft.)	DBH (in.)	REMAIN	REMOVE/TRANSFER
1	Prunella	Medicinal Herb	10	12	8		X
2	Prunella	Medicinal Herb	10	12	8	X	
3	Prunella	Medicinal Herb	10	12	8		X
4	Prunella	Medicinal Herb	10	12	8		X
5	Prunella	Medicinal Herb	10	12	8		X
6	Prunella	Medicinal Herb	10	12	8		X
7	Prunella	Medicinal Herb	10	12	8		X
8	Prunella	Medicinal Herb	10	12	8		X
9	Prunella	Medicinal Herb	10	12	8		X
10	Prunella	Medicinal Herb	10	12	8		X
11	Prunella	Medicinal Herb	10	12	8		X
12	Prunella	Medicinal Herb	10	12	8		X

NOTE:

1. All trees to be removed or transferred shall be removed or transferred within 90 days of the start of construction.

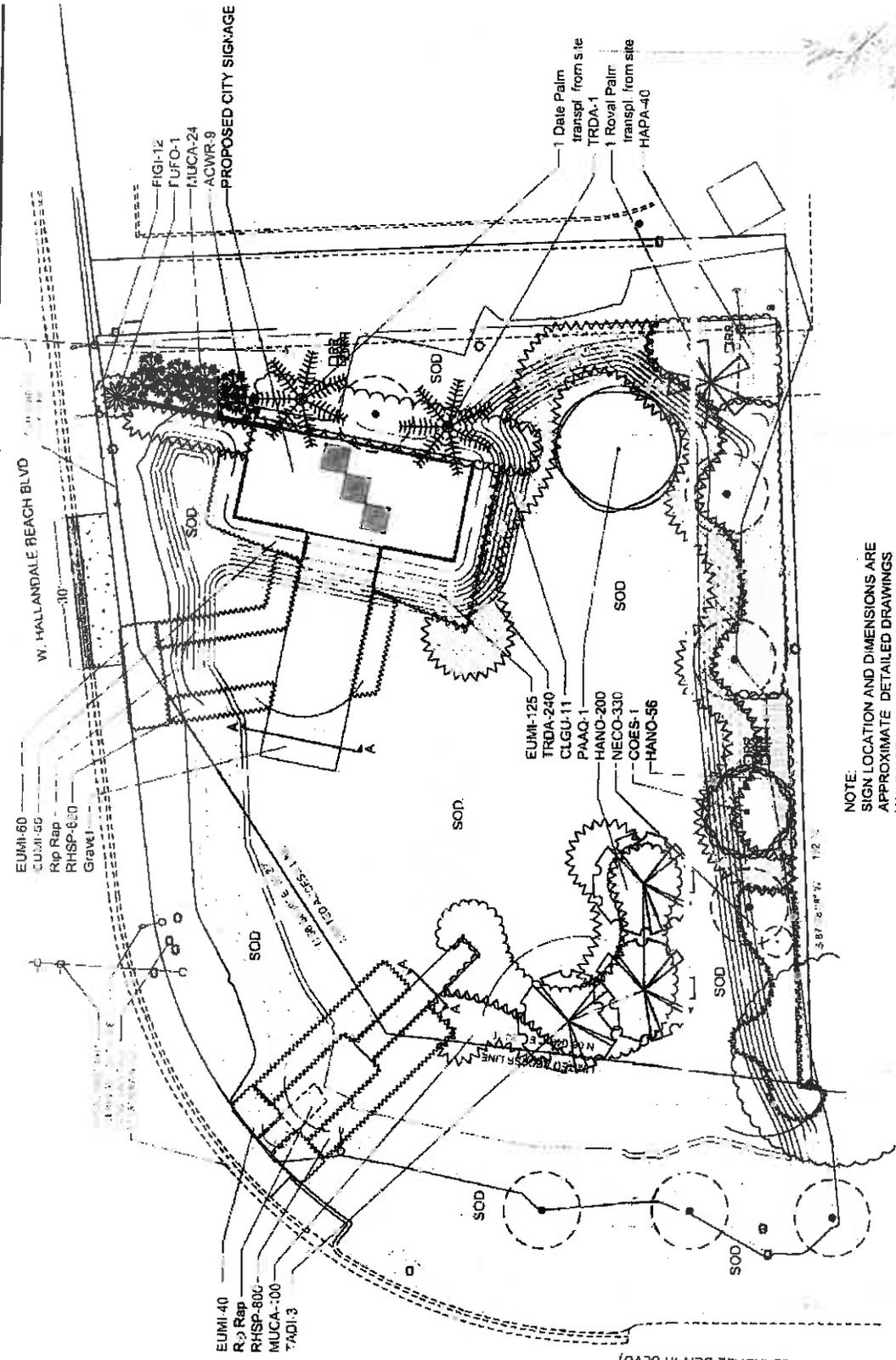


Existing Tree Disposition List

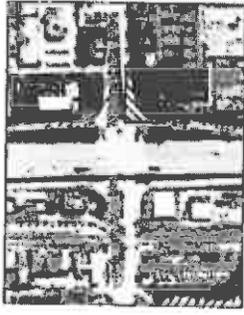
HALLANDALE I-95 POND RECONFIGURATION

Hollandaise Project File

DATE	FILED



NOTE:
SIGN LOCATION AND DIMENSIONS ARE APPROXIMATE DETAILED DRAWINGS HAVE NOT YET BEEN DEVELOPED.



REFERENCE PLAN

ROSENBERG
GARDNER
DESIGN

Planting Plan
(South Side)

HALLANDALE I-95 POND RECONFIGURATION

Revised: 8/20/2011

DATE	11/15
BY	LA-3

PLANT LIST			
KEY	PLANT NAME	QTY.	UT. SIZE
ACTR	Acacia saligna	9	ea 10' tall, 3" cal. 1/2" dia
CLGU	Clusia grandifolia	11	ea 16' tall, 5" c.c.
COES	Conocarpus strictus	1	ea 2' tall x 6" spread, 3" trunk
EUPT	Euphorbia tirucalli	280	ea 3 gal on cans, 18" o.c.
FIG.	Ficus microcarpa	12	ea 3 gallon cans, 24" o.c.
FUFO	Furcraea foetida	1	ea 30" x 30"
FALG	False Agave	256	ea 3 gallon cans, 24" o.c.
HAPA	Hamelia patens	40	ea 3 gallon cans, 36" o.c.
MUCA	Muntingia calabura	124	ea 3 gallon cans, 24" o.c.
NECO	Nepenthes cordifolia	330	ea 1 gal on cans, 24" o.c.
PAAQ	Pachira aquatica	1	ea 14" tall x 6" spread, 3" cal.
PHDA	Phoenix dactyloides	1	ea 30" tall OA class 3 cut, innerch adjacent, 1 string mesh height
RHSP	Rhoeo spathacea	1490	ea 1 gal on cans, 8" o.c.
TADI	Taxodium distichum	3	ea 14" tall x 6" spread, 3" cal.
TRDA	Triplaris dactyloides	240	ea 3 gal on cans, 36" o.c.
SOL	Solidago	14850	ea 3" diam on 3" x 6" fabric 12"
TRAV	Traveler	8	ea 3" diam on 3" x 6" fabric 12"
			12" aggregate size, white or light tan color, submit sample for approval
			12"-30" odite
Rip Rap	Blowers		
	Planning Soil	45 cu yd	
	80% Silica Sand		
	20% Everglades Muck		
	Shredded Mulch	as req.	3 y.

SUMMARY OF QUANTITIES				
FOOT	PAY ITEM #	ITEM DESCRIPTION	QTY.	UT.
101-1	101-1	10' x 24" on	1	-S
120-1	120-1	Regular Excavation	5.5	C.Y.
323-1	323-1	Curb, Sidewalk & Driveway	20	LS
110-1	110-1	Sealing and Grubbing	1	LS
360-1	360-1	Landscaping Sods, Plants	1	LS
1050-1	1050-1	Utility Pipe, 3" PE Water Serv, 2' x 4' x 3'	34	LF

PLANTING NOTES:

1. All plants to be installed in accordance with the specifications and notes on the drawings. The Contractor shall be responsible for obtaining all necessary permits and approvals for the installation of plants. The Contractor shall be responsible for the maintenance of the plants during the construction period. The Contractor shall be responsible for the removal of any plants that are damaged or destroyed during the construction period. The Contractor shall be responsible for the replacement of any plants that are damaged or destroyed during the construction period. The Contractor shall be responsible for the maintenance of the plants during the construction period. The Contractor shall be responsible for the removal of any plants that are damaged or destroyed during the construction period. The Contractor shall be responsible for the replacement of any plants that are damaged or destroyed during the construction period.

AMOUNT OF WATER PER APP. LISTED:

1. Plants up to 5' tall: 5 gal on.

2. Plants 5' to 10' tall: 10 gal on.

3. Plants 10' to 15' tall: 15 gal on.

4. Plants 15' to 20' tall: 20 gal on.

FREQUENCY OF WATER:

1. Plants up to 5' tall: 1 time per week.

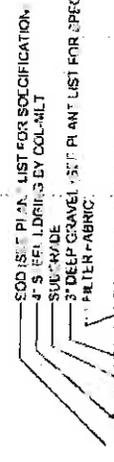
2. Plants 5' to 10' tall: 2 times per week.

3. Plants 10' to 15' tall: 3 times per week.

4. Plants 15' to 20' tall: 4 times per week.

5. Water in plants by gravity shall be applied to the plants daily for a period of 14 days after installation. The Contractor shall be responsible for the maintenance of the plants during the construction period. The Contractor shall be responsible for the removal of any plants that are damaged or destroyed during the construction period. The Contractor shall be responsible for the replacement of any plants that are damaged or destroyed during the construction period.

6. Water in plants by gravity shall be applied to the plants daily for a period of 14 days after installation. The Contractor shall be responsible for the maintenance of the plants during the construction period. The Contractor shall be responsible for the removal of any plants that are damaged or destroyed during the construction period. The Contractor shall be responsible for the replacement of any plants that are damaged or destroyed during the construction period.



SECTION A - GRAVEL GRAVEL BED

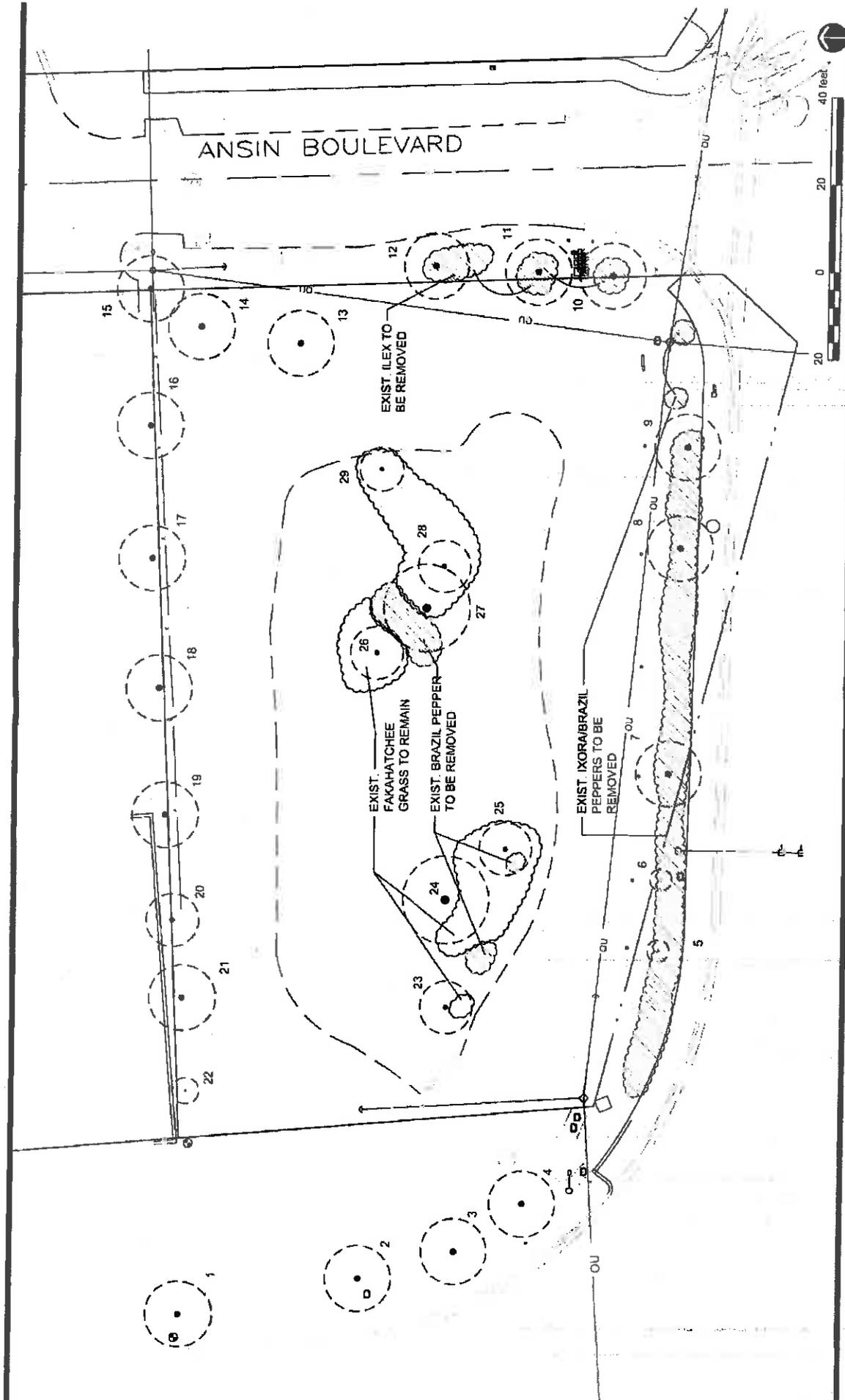


Plant List and Planting Details

HALLANDALE 195 POND RECONFIGURATION

Florida State - Florida

DATE	11/12
BY	LAJ



DATE	01.13.14
BY	174.27
CHECKED	
SCALE	1"=10'
PROJECT	LA1.01

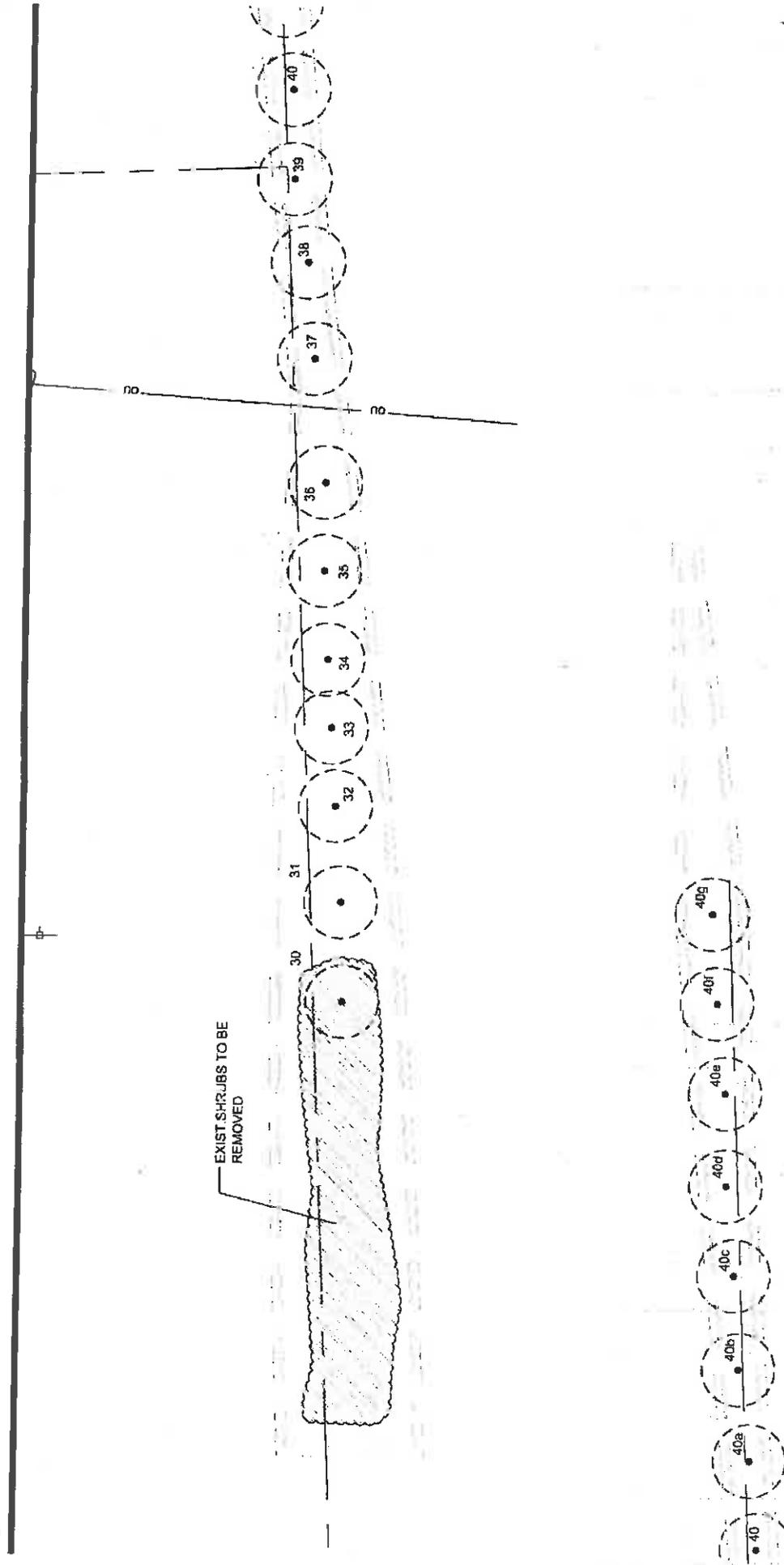
HALLANDALE BEACH BOULEVARD SWALES

Hallandale Beach, FL map

Existing Tree Disposal Plan
(North Side)

DATE	
BY	
CHECKED	
SCALE	
PROJECT	

ROSENBERG
GARDNER
DESIGN



**ROSENBERG
GARDNER
DESIGN**

10000
10000
10000

3
0
ONE

Existing Tree Disposition
(if different)

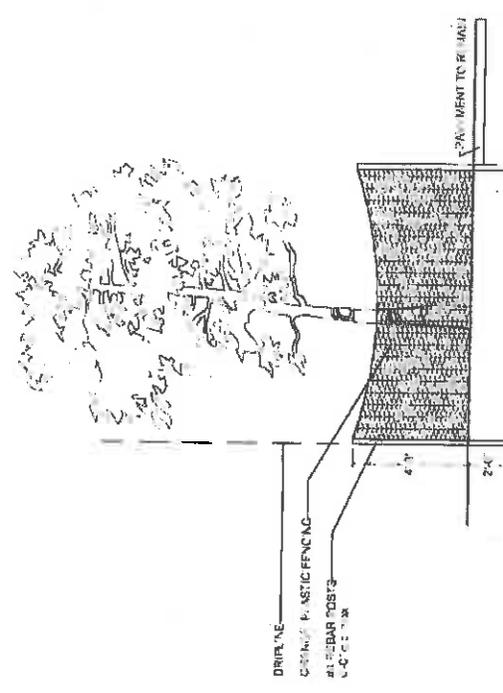
HALLANDALE BEACH BOULEVARD SWALES

1. Project No.
2. Date
3. Scale

13.12
LAT J2

EXISTING TREE DISPOSITION LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE		DISPOSITION			
			HT. (ft.)	SPD (in.)	DBH (in.)	REMAIN	REMOVE	TRANSP.
1	Red Maple	Red Maple	30	16	13	X		
2	Red Maple	Red Maple	25	14	18	X		
3	Red Maple	Red Maple	25	14	18	X		
4	Red Maple	Red Maple	25	14	18	X		
5	Red Maple	Red Maple	25	14	18	X		
6	Red Maple	Red Maple	25	14	18	X		
7	Red Maple	Red Maple	25	14	18	X		
8	Red Maple	Red Maple	25	14	18	X		
9	Red Maple	Red Maple	25	14	18	X		
10	Red Maple	Red Maple	25	14	18	X		
11	Red Maple	Red Maple	25	14	18	X		
12	Red Maple	Red Maple	25	14	18	X		
13	Red Maple	Red Maple	25	14	18	X		
14	Red Maple	Red Maple	25	14	18	X		
15	Red Maple	Red Maple	25	14	18	X		
16	Red Maple	Red Maple	25	14	18	X		
17	Red Maple	Red Maple	25	14	18	X		
18	Red Maple	Red Maple	25	14	18	X		
19	Red Maple	Red Maple	25	14	18	X		
20	Red Maple	Red Maple	25	14	18	X		
21	Red Maple	Red Maple	25	14	18	X		
22	Red Maple	Red Maple	25	14	18	X		
23	Red Maple	Red Maple	25	14	18	X		
24	Red Maple	Red Maple	25	14	18	X		
25	Red Maple	Red Maple	25	14	18	X		
26	Red Maple	Red Maple	25	14	18	X		
27	Red Maple	Red Maple	25	14	18	X		
28	Red Maple	Red Maple	25	14	18	X		
29	Red Maple	Red Maple	25	14	18	X		
30	Red Maple	Red Maple	25	14	18	X		
31	Red Maple	Red Maple	25	14	18	X		
32	Red Maple	Red Maple	25	14	18	X		
33	Red Maple	Red Maple	25	14	18	X		
34	Red Maple	Red Maple	25	14	18	X		
35	Red Maple	Red Maple	25	14	18	X		
36	Red Maple	Red Maple	25	14	18	X		
37	Red Maple	Red Maple	25	14	18	X		
38	Red Maple	Red Maple	25	14	18	X		
39	Red Maple	Red Maple	25	14	18	X		
40	Red Maple	Red Maple	25	14	18	X		
41	Red Maple	Red Maple	25	14	18	X		
42	Red Maple	Red Maple	25	14	18	X		
43	Red Maple	Red Maple	25	14	18	X		
44	Red Maple	Red Maple	25	14	18	X		
45	Red Maple	Red Maple	25	14	18	X		
46	Red Maple	Red Maple	25	14	18	X		
47	Red Maple	Red Maple	25	14	18	X		
48	Red Maple	Red Maple	25	14	18	X		
49	Red Maple	Red Maple	25	14	18	X		
50	Red Maple	Red Maple	25	14	18	X		



PLACE DRINK PLASTIC FENCING (BY TENSILE COAST PER APPROVAL) AROUND INDIVIDUAL TREES AND TREE CLUSTERS TO PROTECT THEM FROM COLLISION WITH TRAFFIC. BARRIERS SHALL BE PLACED AT THE EDGE OF THE CURBLINE OF THE TREE CLUMP OR AS FAR FROM THE TREE AS POSSIBLE WHERE THE CANOPY OVERHANGS PAVED SURFACE. THE BARRIER SHALL BE MOUNTED TO AN UPRIGHT POST AT 24" ON CENTER.

TREE PROTECTION DETAIL

FIG. 5

EXISTING TREE DISPOSITION LIST

HALLANDALE BEACH BOULEVARD SWALES

Plan No. Bsc-09

DATE: _____

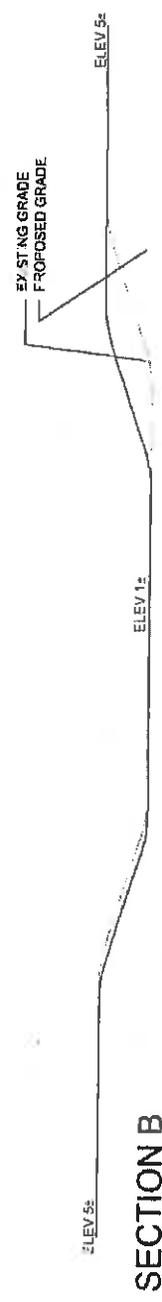
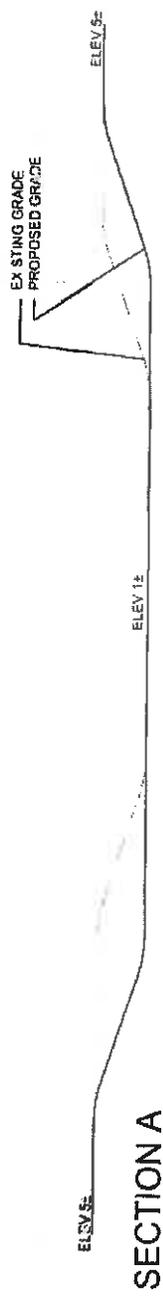
SCALE: _____

DATE: _____

SCALE: _____

DATE: _____

SCALE: _____



DATE: 11/15/11
SCALE: AS SHOWN

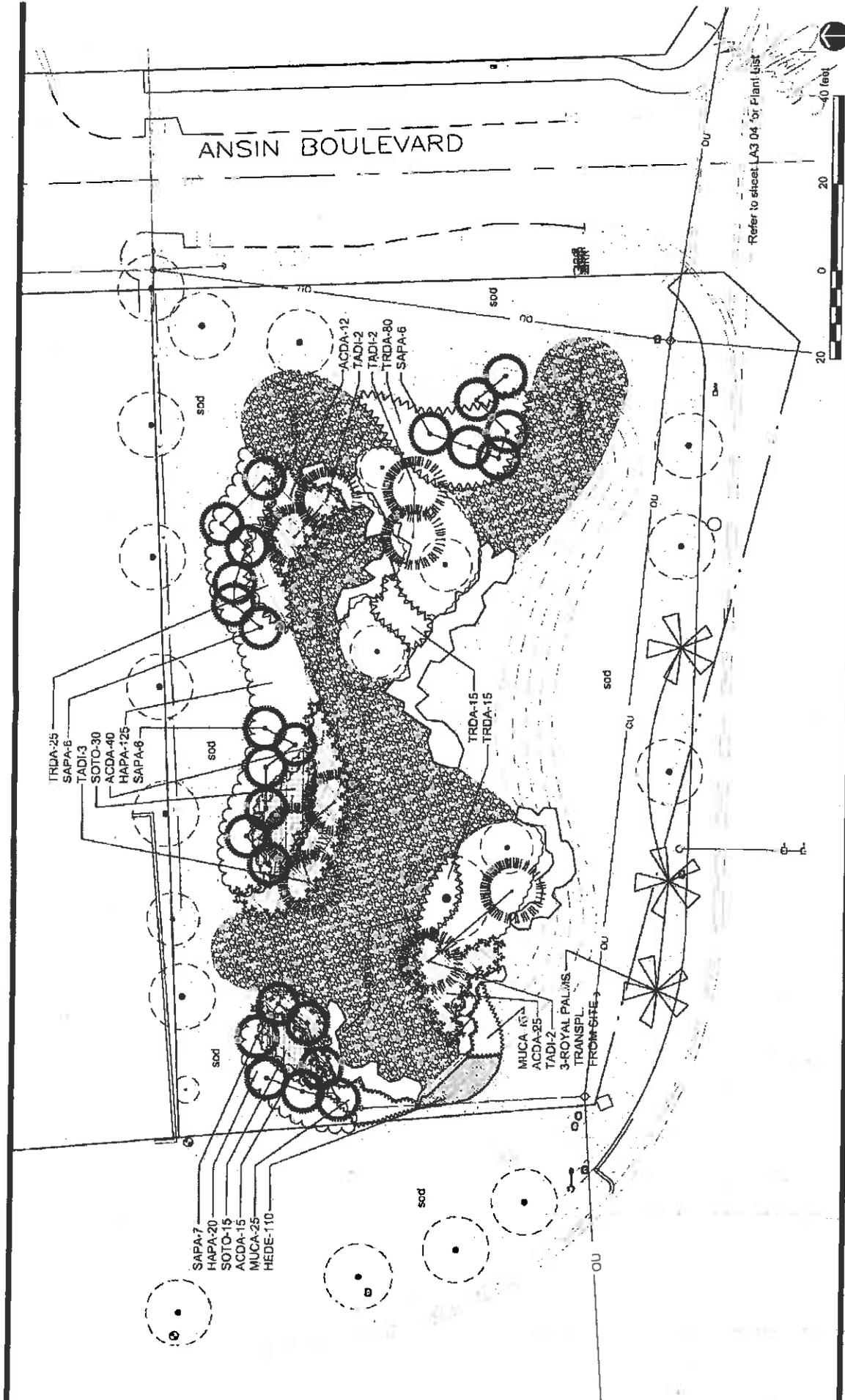
Cross Sections

HALLANDALE BEACH BOULEVARD SWALES

Hallandale Beach, Florida

DATE	11/15/11
SCALE	AS SHOWN
PROJECT	HALLANDALE BEACH BOULEVARD SWALES
DRAWN BY	LAZ.02

[Handwritten signature]



DATE	3/11/14
PROJECT	LA3.07
SCALE	LA3.01
DESIGNED BY	
CHECKED BY	
APPROVED BY	

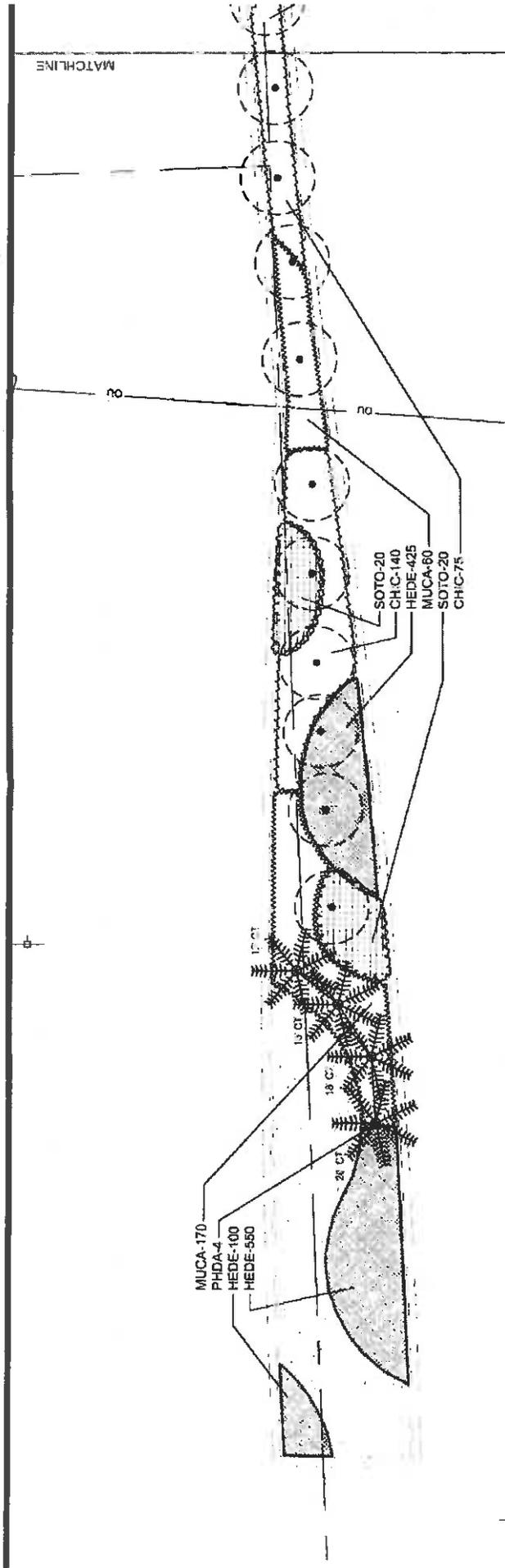
HALLANDALE BEACH BOULEVARD SWALES

4300 Hallandale Beach Blvd

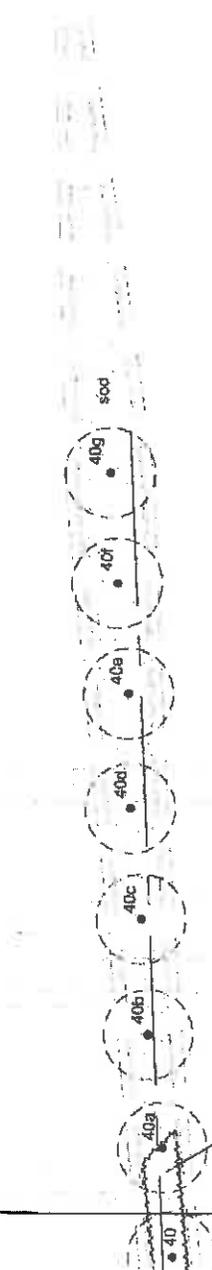
Finishing Plan
(North-South)

NO.	DATE	DESCRIPTION
1	3/11/14	ISSUED FOR PERMIT





MATCHLINE



CHIC CONTINUED

Refer to sheet LA3.04 for Plant List



DATE	01.23.11
BY	LA3.02
PROJECT	HALLANDALE BEACH BOULEVARD SWALES
LOCATION	HALLANDALE BEACH BOULEVARD SWALES
SCALE	AS SHOWN

HALLANDALE BEACH BOULEVARD SWALES

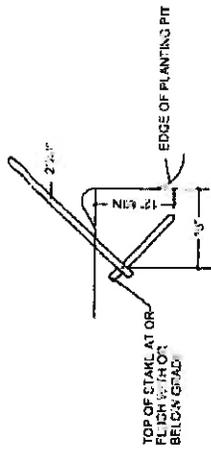
HALLANDALE BEACH BOULEVARD SWALES

Planting Plan (Median)

DATE	01.23.11
BY	LA3.02



PLANT LIST			
KEY	PLANT NAME	QTY.	UT. SIZE
ACDA	Acrostichum danieri-bilum Leather Fern	92	ea 3 gallon cans, 36" o.c.
CHC	Chrysobalanus icaco	215	ea 3 gallon cans, 24" o.c.
HAPA	Coccoloba Hamelia patens Firebush	145	ea 3 gallon cans, 36" o.c.
HEDE	Hedyotis decussata Dune Sunflower	1185	ea 1 gallon cans, 12" o.c.
MUCA	Muhlenbergia capillaris Munby Grass	270	ea 3 gallon cans, 24" o.c.
PHDA	Phoenix dactylopera 'Medjool'	4	ea 1 @ 12 CT, 1 @ 18 CT, 1 @ 8 CT, 1 @ 10 CT, classic cut
SAPA	Medjool Date Palm Sabal palmetto Sabal Palm	25	ea 8 @ 24" tall OA, 8 @ 30" tall OA humsane cut
SOTO	Sophora tomentosa Nectarace Pod	85	ea 3 gallon cans, 36" o.c.
TADI	Toxicaria distichum Bald Cypress	9	ea 14" tall x 6" spread, 5" cal
TRDA	Tripsacum dactyloides Fakahatchee Grass	135	ea 3 gallon cans, 30" o.c.
sod	St. Augustine Floratum Gravel	as req.	5' solid sod 1.4" - 2" aggregate size, write or fig. for color, submit sample for approval
boulders	Boulders Planting Soil 80% Stone Sand 20% Evergrades Muck Shredded Manure/Clutch	as req.	5' c.y. c.y. c.y. c.y.



DETAIL A

N.T.S.

NOTE: IRREGULAR OR MULTISTEMMED TREES SHALL HAVE A SIMILAR STAKING PATTERN AS SHOWN IN THIS DETAIL. TREES NEED NOT BE ATTACHED TO EVERY STEY.

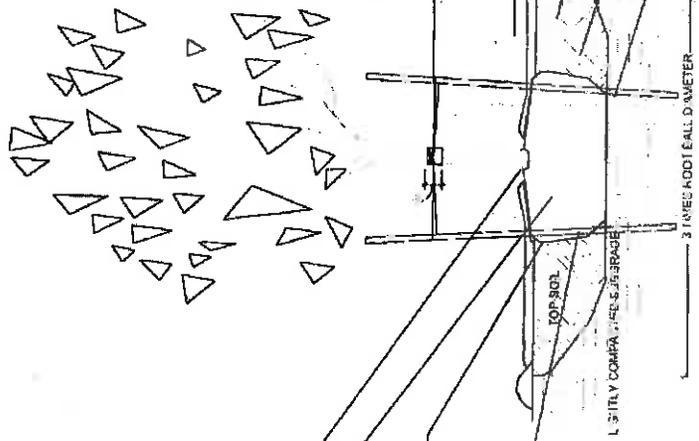
ALL SUPPORT MATERIALS TO BE REMOVED FROM THE TREES PRIOR TO THE TREE BEING BLOWN STABLE. STAKING TO BE REMOVED WITHIN 3 MONTHS AFTER THE COMPLETION OF THE PROJECT.

NOTE: ANCHOR NYLON STRAPS TO BE WRAPPED AROUND TRUNK & PULLED ADJUSTED TO TIGHTEN DOWN.

8" HIGH TEMPORARY DIRT MOUND TO BE ASS'Y TO THE GATKIN OF THE TREE. REMOVE DIRT 3 MONTHS AFTER INSTALLATION OF NYLON STRAP.

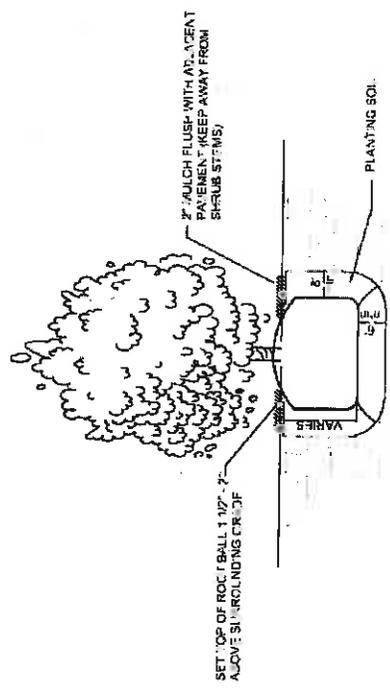
NOTE: TO ACCOMMODATE PLANTING SHALL BE 1/2" ABOVE TOP OF TREE. THE 5' C.D. SHALL BE 1/2" ABOVE.

ALL BACKFILL FOR TREES SHALL BE AS SPECIFIED IN THE SPECIFICATIONS. ALL ROCKS 2" OR LARGER REMOVED FROM THE SPECIFIED POSITION.



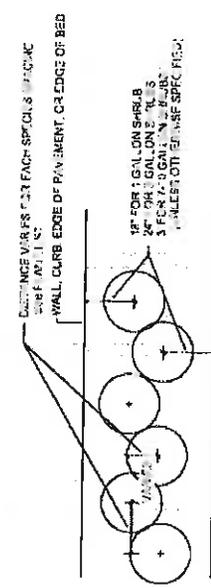
PLANTING & BRACING DETAIL UNDER 3 1/2" CALIPER

N.T.S.



SHRUB INSTALLATION DETAIL

N.T.S.



SHRUB SPACING DIAGRAM

N.T.S.



BATTEN DETAIL B

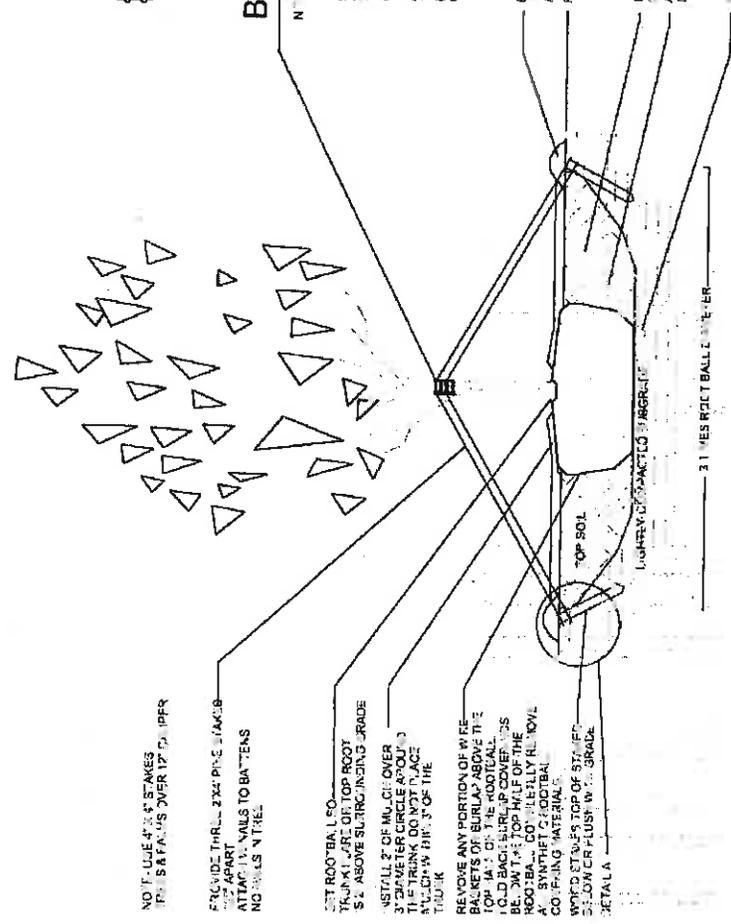
N.T.S.

NOTE: IRREGULAR OR MULTISTEMMED TREES SHALL HAVE 4\"/>

6\"/>

HOLES TO ACCOMMODATE PLANTS SHALL BE A MINIMUM OF THREE TIMES THE SIZE OF THE PLANT ROOT BALL. ALL BACKFILL FOR TREES SHALL BE EXISTING SOIL WITH ALL ROCKS 2\"/>

3\"/>



PLANTING & BRACING DETAIL OVER 3 1/2\"/>

N.T.S.

SET ROOT BALL TO TOP OF SURROUNDING GRADE. ATTACH 1\"/>

REMOVE ANY PORTION OF WIRE BASKETS OF BURLAP ABOVE THE TOP 1\"/>

WPCD ET AL'S TOP OF STAFF/5\"/>

ROSENBERG GARDNER DESIGN

Planting Details

HALLANDALE BEACH BOULEVARD SWALES

10/20/2018 10:34 AM T.S. LA3/04

SECTION NO: 86200000
S.R. NO.(S): 858
COUNTY: Broward
FM NO.(S): 431960-1-58-01

EXHIBIT C

MAINTENANCE PLAN FOR LANDSCAPE IMPROVEMENTS

This Exhibit forms an integral part of the DISTRICT FOUR (4) Amendment to the HIGHWAY MAINTENANCE MEMORANDUM OF AGREEMENT between the State of Florida, Department of Transportation and the AGENCY.

Dated: February 18, 2014

MAINTENANCE PLAN

Landscape Improvements

Project State Road No(s): State Road 858 (Hallandale Beach Boulevard) from I-95 Ramp (M.P. 2.586) to East of N.W. 10th Terrace (M.P. 2.726)
FM No(s): 431960-1-58-01
Maintaining Agency: City of Hallandale Beach
RLA of Record: Rosenberg Gardner Design
Date: February 18, 2014

I. General Maintenance Requirements and Recommendations:

The purpose of a plan for the landscape improvements maintenance practices is to allow the plant material on your project to thrive in a safe and vigorous manner while fulfilling their intended purpose and conserving our natural resources. Plantings and all other landscape improvements shall be maintained to avoid potential roadway hazards and to provide required clear visibility, accessibility, clearance, and setbacks as set forth by Florida Department of Transportation (FDOT) governing standards and specifications: *FDOT Design Standards, FDOT Plans Preparation Manual Vol. 1, Chapter 2.11* and *FDOT Standard Specifications for Road and Bridge Construction*, as amended by contract documents, and all other requirements set forth by the District 4 Operations Maintenance Engineer. The initial portion of the Maintenance Plan describes general maintenance requirements and recommendations. The concluding section provides recommendations prepared by the Registered Landscape Architect of Record specific to the attached approved plans.

Watering Requirements:

Watering is a critical concern for not only the maintenance of healthy plant material but also for observing water conservation practices. The amount of water to apply at any one time varies with the weather, drainage conditions and water holding capacity of the soil. For plant materials that have been established, it is imperative that any mandated water restrictions be fully conformed to on FDOT roadways.

Proper watering techniques should provide even and thorough water dispersal to wet the entire root zone, but not saturate the soil or over-spray onto travel lanes.

Irrigation System:

The Agency shall ensure there are no roadway overspray or irrigation activities during daytime hours (most notably "rush hour" traffic periods). It is imperative the irrigation controller is properly set to run early enough that the watering process will be entirely completed before high traffic periods, while adhering to mandated water restrictions. To ensure water conservation, the Agency shall monitor the system for water leaks and the rain sensors to ensure they are functioning properly so that the system shuts down when there is sufficient rainfall.

Integrated Plant Management:

An assessment of each planting area's soil is recommended to periodically determine the nutrient levels needed to sustain healthy, vigorous plant growth.

Palms, shrubs, trees and turf areas shall be fertilized in such a manner and frequency to ensure that the plant material remains healthy and vigorously growing. Establishment of an integrated pest management program is encouraged to ensure healthy plants, which are free of disease and pests.

Mulching:

Mulch planting beds in such a manner as to prevent weed growth, retain moisture to the plants, protect against soil erosion and nutrient loss, maintain a more uniform soil temperature, and improve the appearance of the planting beds. Avoid mulch mounded up on the trunks of trees, palms, and the base of shrubs to encourage air movement in this area which aids in lowering disease susceptibility. Cypress mulch is prohibited on state right of way.

Pruning:

All pruning, and the associated safety criteria, shall be performed according to American National Standard Institute (ANSI) A300 standards and shall be supervised by an International Society of Arboriculture (ISA) Certified Arborist. Pruning shall be carried out with the health and natural growth of plant materials in mind, to specific pruning heights maintaining clear visibility for motorists, and provide vertical clearance for pedestrian, bicyclist, and truck traffic where applicable. Visibility windows must be maintained free of view obstructions, and all trees and palms must be maintained to prevent potential roadway and pedestrian hazards, all palms are to be kept fruit free. The specific pruning heights are determined by understanding the designer's intent when selecting and placing the plants. The intended mature maintained height and spread of plants are noted on the plans (See Exhibit B.) and see Part II. Specific Requirements and Recommendations for guidelines. The understory plant materials selected for use within the restricted planting areas (Limits of Clear Sight) are to be maintained at a height in compliance with *FDOT Design Standards Index 546; Page 6 of 6, Window Detail*. Vertical tree heights must meet *FDOT Maintenance Rating Program (MRP)* standards.

Staking and Guying:

All staking materials, except for replacements, are to be removed by the completion of FDOT warranty period or at one year (whichever comes first). Any subsequent staking and guying activities by the Agency must adhere to *FDOT Design Standards* guidelines (See Index 544). The Agency shall closely monitor staking and guying attachment materials so that they are securely fastened to avoid potential roadway hazards.

Turf Mowing:

All grassed areas are to be mowed and trimmed with sufficient frequency to maintain a deep, healthy root system while providing a neat and clean appearance to the urban landscape. All turf efforts, mowing, curb/sidewalk edging and turf condition, must at a minimum, meet *FDOT Maintenance Rating Program (MRP)*.

Litter Control:

The project site shall remain as litter free as practicable. It is recommended to recycle this litter to avoid unnecessary waste by its reuse. Litter removal efforts must meet *FDOT Maintenance Rating Program (MRP)* standards.

Weeding/Herbicide:

All planting areas shall be maintained as weed free as practicable by enlisting integrated pest management practices in areas specified on the plans and maintaining proper

mulch levels. Extreme care is recommended if using a chemical herbicide to avoid overspray onto plant materials. It is the applicator's responsibility to restore any damage, resulting from overspray to the plantings, per the approved plans.

Plant Replacement:

Plant replacement shall be the same species and specification as the approved plan. Move and replace all plant materials that may conflict with utility relocations and service. Only plants graded Florida #1 or better, per the *Florida Department of Agriculture and Consumer Services, Grades and Standards for Nursery Plants* are permitted on FDOT roadways. Should it become necessary to change the species, a general use permit is required from FDOT for approval by the FDOT District Landscape Architect.

Hardscape (Specialty Surfacing):

All tree grates and specialty surfacing (if applicable) shall be maintained in such a manner as to prevent any potential tripping hazards and protect damage to the pavers and tree grates. Final surface tolerance from grade elevations shall, at a minimum, meet the most current *Interlocking Concrete Pavement Institute (ICPI), Guide Specifications for Pavers on an Aggregate Base, Section 23 14 13 Interlocking Concrete Pavers, Part 3.05*. If the specialty surfacing or tree grates become damaged, they shall be replaced with the same type and specification as the approved plan.

Hardscape (Non-Standard Travelway Surfacing):

It shall be the responsibility of the AGENCY to restore an unacceptable ride condition of the roadway, including asphalt pavement (if applicable), caused or contributed by the installation or failure of non-standard surfacing, and/or the header curb, on the Department of Transportation right-of-way within the limits of this Agreement. Pavement restoration areas or "patches" will have a minimum length of 10-ft, measured from the edge of the header curb, and a width to cover full lanes for each lane affected by the restoration.

Pavement restoration will be performed in accordance with the most current edition of the *FDOT Standard Specifications for Road and Bridge Construction*, and the *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System*.

It shall be the responsibility of the AGENCY to maintain all signs located within a non-standard surfacing area. Such maintenance to be provided by the AGENCY shall include repair and replacement of the sign panel, post, and base.

Hardscape (Landscape Accent Lighting)

Landscape accent lighting shall be maintained in such a manner as to prolong the life of the lighting fixture and prevent potential safety hazards. If the lighting fixtures and their system become damaged, they shall be replaced with the same type and specification as the approved plan. Landscape lighting shall meet requirements for the sea turtle nesting and hatching.

Maintenance of Traffic Control

Reference the FDOT website regarding the selection of the proper traffic control requirements to be provided during routine maintenance and / or new installations of this DOT roadway.

Vegetation Management at Outdoor Advertising (ODA)

To avoid conflicts with permitted outdoor advertising, please reference the State of Florida website regarding the vegetation management of outdoor advertising. This website provides a portal to search the FDOT Outdoor Advertising Inventory Management System Database. The database contains an inventory of outdoor advertising structures, permits and other related information maintained by the Department.

Also, reference the *Florida Highway Beautification Program* website link for "Vegetation Management at ODA signs" "Florida Statutes" and "Florida Administrative Code" related to vegetation management at outdoor advertising sign, permit applications for vegetation management and determining mitigation value of roadside vegetation.

II. Specific Project Site Maintenance Requirements and Recommendations:

The Hallandale Beach Boulevard landscape sites (adjacent to the east side of I-95) are intended to serve several purposes:

1. To provide an aesthetic gateway to Hallandale Beach, for travelers exiting from I-95.
2. To compliment (and not obstruct) proposed new gateway signage for the City (to be placed within the South Pond site)
3. To provide an ecological enhancement to the area by use of native species and by avoiding the need for supplemental irrigation
4. To provide a visual screen of adjacent commercial properties from I-95 and Hallandale Beach Boulevard (to the west of the planting sites)

In support of these purposes, the site is intended to be maintained in accordance with all standard FDOT criteria, and in addition:

- Areas landscaped with gravel should be maintained free of weeds and all (non-planted) herbaceous growth
- Boulders should be kept clear of weeds/high grass growth along their edges by use of string trimmers (trimmers with metal or hard plastic cutting blades are discouraged as they will lead to damage of the boulders long-term)
- Boulders (and gravel rocks) do not require any special treatment to prevent or remove epiphytic growth such as algae or moss
- The firebush (*Hamelia patens*), paurotis palm (*Acoelorrhaphe wrightii*) and small leaf clusia (*Clusia guttifera*) shrubs are intended to serve as a dense visual screen of the abutting properties. As such, these shrubs should be pruned at minimum annually after planting, despite not having reached their maximum height, in order to develop dense branching patterns low within their crowns. Routine pruning should also be conducted so as to retain lower branches and maintain interior foliage to the extent possible, though techniques such as oblique pruning (pruning where the base of the plant is wider than the top).
- Fakahatchee grass (*Tripsacum dactyloides*) and muhly grass (*muhlenbergia capillaris*) should be cut in winter to near (within six inches) of the ground, and cut grass blades removed off-site, in order to provide for best aesthetics (less dead grass within the clump, more intact clump) during spring growth.

Florida Department of Transportation, *FDOT Standard Specifications for Road and Bridge Construction, Section 580 Landscape Installation*
<http://www.dot.state.fl.us/specificationsoffice/Implemented/SpecBooks/default.shtm>

Florida Department of Transportation, Landscape Architecture Website
www.MyFloridaBeautiful.com

Florida Department of Transportation, *Maintenance Rating Program Handbook*
<http://www.dot.state.fl.us/statemaintenanceoffice/MRPHandbook2012Draftweditfinal.pdf>

Florida Department of Transportation Outdoor Advertising Database
<http://www2.dot.state.fl.us/rightofway/>

Florida Exotic Pest Plant Council Invasive Plant Lists
<http://www.fleppc.org/list/list.htm>

Florida Irrigation Society
<http://www.fisstate.org>

Florida Power and Light (FPL), *Plant the Right Tree in the Right Place*
http://www.fpl.com/residential/trees/right_tree_right_place.shtml

Guide to Roadside Mowing and Guide to Turf Management, available for purchase
<http://infonet.dot.state.fl.us/SupportServicesOffice/plist.htm>

Interlocking Concrete Pavement Institute (ICPI)
<http://www.icpi.org/>

International Society of Arboriculture (ISA)
www.isa-arbor.com

UF IFAS: *Selecting Tropical and Subtropical Tree Species for Wind Resistance*
<http://edis.ifas.ufl.edu/pdf/FR/FR17500.pdf>

U.S. Department of Transportation, Federal Highway Administration, *Manual on Uniform Traffic Control Devices*
<http://www.mutcd.fhwa.dot.gov>

SECTION NO: 86200000
S.R. NO.(S): 858
COUNTY: Broward
FM NO.(S): 431960-1-58-01

EXHIBIT D

APPROXIMATE COST FOR LANDSCAPE IMPROVEMENTS

This Exhibit forms an integral part of the DISTRICT FOUR (4) Amendment to the HIGHWAY MAINTENANCE MEMORANDUM OF AGREEMENT between the State of Florida, Department of Transportation and the AGENCY.

Anticipated Terms of a Separate Agreement

I.	FDOT PARTICIPATION: Via Separate Agreement	\$ 48,000.00
	AGENCY PARTICIPATION:	\$112,216.40
II.	APPROXIMATE LANDSCAPE IMPROVEMENT COST: Amounts are approximate	<u>\$160,216.40</u>

Please see attached

OPINION OF CONSTRUCTION COST

S.R. 858/Hallandale Beach Blvd. from I-95 to east of NW 10th Terrace

FM# 431960-1-58-01

Date: 02/18/14

ITEM DESCRIPTION	QTY	UNIT	TOTAL COST
Mobilization	1	LS	\$ 1,000.00
Regular Excavation	666	CY	\$ 10,256.40
Concrete Sidewalk and Driveway	20	SY	\$ 862.00
Clearing and Grubbing	1	LS	\$ 3,500.00
Landscape Plants	1	LS	\$ 143,918.00
Utility Pipe, F&I, PE, Water/Sewer 2"-4.9"	34	LF	\$ 680.00
		TOTAL	\$ 160,216.40