

APPLICANT

2014L-491-0001

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 1st day of April 2014 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 1st day April year written and approved.

City of Hallandale Beach
a municipal corporation.

BY:



City Manager


City Attorney

3/21/14
Date

State of Florida
Department of Transportation

BY:


Transportation Development


District General Counsel

3/31/2014
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)

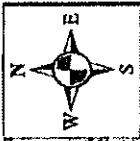
II. INCLUSIVE LIMITS OF LANDSCAPE IMPROVEMENTS MAINTENANCE FOR THIS ROADWAY STATE ROAD 858 (Hallandale Beach Boulevard):

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



END MP 2.726

SW 10TH TERRACE

ANSIN BOULEVARD

HALLANDALE BEACH BOULEVARD

BEGIN MP 2.586

I-95



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

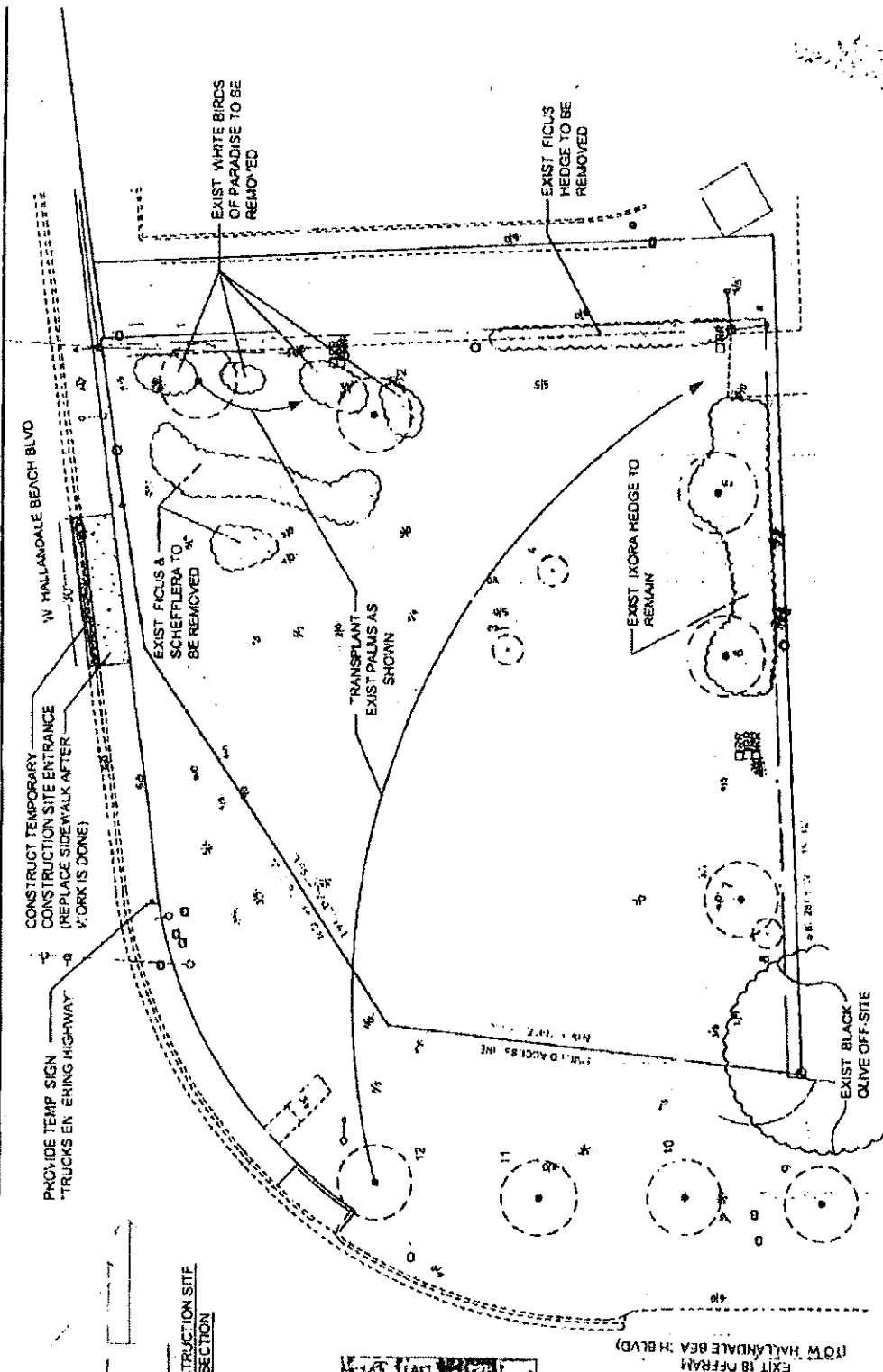
LANDSCAPE IMPROVEMENT PLANS

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

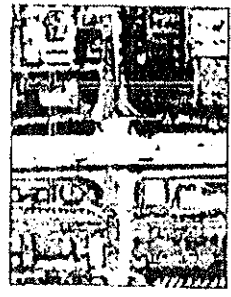
Please see attached plans prepared by: Rosenberg Gardener Design

**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**

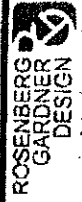


TEMPORARY CONSTRUCTION SITE ENTRANCE SECTION



REFERENCE PLAN

NOTES:
Install Temporary signs as per FDOT design standards 600 & 602



ROSENBERG
GARDNER
DESIGN

Existing Traffic Distribution Plan
(South Side)

HALLANDALE LRS POND RECONFIGURATION

FILE NO. 100-100-100-100

DATE	10/1/00
BY	10/1/00
CHECKED	10/1/00
APPROVED	10/1/00

EXISTING TREE DISPOSITION LIST

EXISTING TREE DISPOSITION LIST						
KEY	BOTANICAL NAME	COMMON NAME	SIZE			DISPOSITION
			HT (ft)	SPD (in)	DBH (in)	
1	PLUM TREE	PLUM TREE	12	12	12	
2	PLUM TREE	PLUM TREE	12	12	12	
3	PLUM TREE	PLUM TREE	12	12	12	
4	PLUM TREE	PLUM TREE	12	12	12	
5	PLUM TREE	PLUM TREE	12	12	12	
6	PLUM TREE	PLUM TREE	12	12	12	
7	PLUM TREE	PLUM TREE	12	12	12	
8	PLUM TREE	PLUM TREE	12	12	12	
9	PLUM TREE	PLUM TREE	12	12	12	
10	PLUM TREE	PLUM TREE	12	12	12	
11	PLUM TREE	PLUM TREE	12	12	12	
12	PLUM TREE	PLUM TREE	12	12	12	
13	PLUM TREE	PLUM TREE	12	12	12	
14	PLUM TREE	PLUM TREE	12	12	12	
15	PLUM TREE	PLUM TREE	12	12	12	
16	PLUM TREE	PLUM TREE	12	12	12	
17	PLUM TREE	PLUM TREE	12	12	12	
18	PLUM TREE	PLUM TREE	12	12	12	
19	PLUM TREE	PLUM TREE	12	12	12	
20	PLUM TREE	PLUM TREE	12	12	12	
21	PLUM TREE	PLUM TREE	12	12	12	
22	PLUM TREE	PLUM TREE	12	12	12	
23	PLUM TREE	PLUM TREE	12	12	12	
24	PLUM TREE	PLUM TREE	12	12	12	
25	PLUM TREE	PLUM TREE	12	12	12	
26	PLUM TREE	PLUM TREE	12	12	12	
27	PLUM TREE	PLUM TREE	12	12	12	
28	PLUM TREE	PLUM TREE	12	12	12	
29	PLUM TREE	PLUM TREE	12	12	12	
30	PLUM TREE	PLUM TREE	12	12	12	
31	PLUM TREE	PLUM TREE	12	12	12	
32	PLUM TREE	PLUM TREE	12	12	12	
33	PLUM TREE	PLUM TREE	12	12	12	
34	PLUM TREE	PLUM TREE	12	12	12	
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41	PLUM TREE	PLUM TREE	12	12	12	
42	PLUM TREE	PLUM TREE	12	12	12	
43	PLUM TREE	PLUM TREE	12	12	12	
44	PLUM TREE	PLUM TREE	12	12	12	
45	PLUM TREE	PLUM TREE	12	12	12	
46	PLUM TREE	PLUM TREE	12	12	12	
47	PLUM TREE	PLUM TREE	12	12	12	
48	PLUM TREE	PLUM TREE	12	12	12	
49	PLUM TREE	PLUM TREE	12	12	12	
50	PLUM TREE	PLUM TREE	12	12	12	

NOTE:

THIS LIST IS A SUMMARY OF THE DATA PROVIDED BY THE CLIENT.



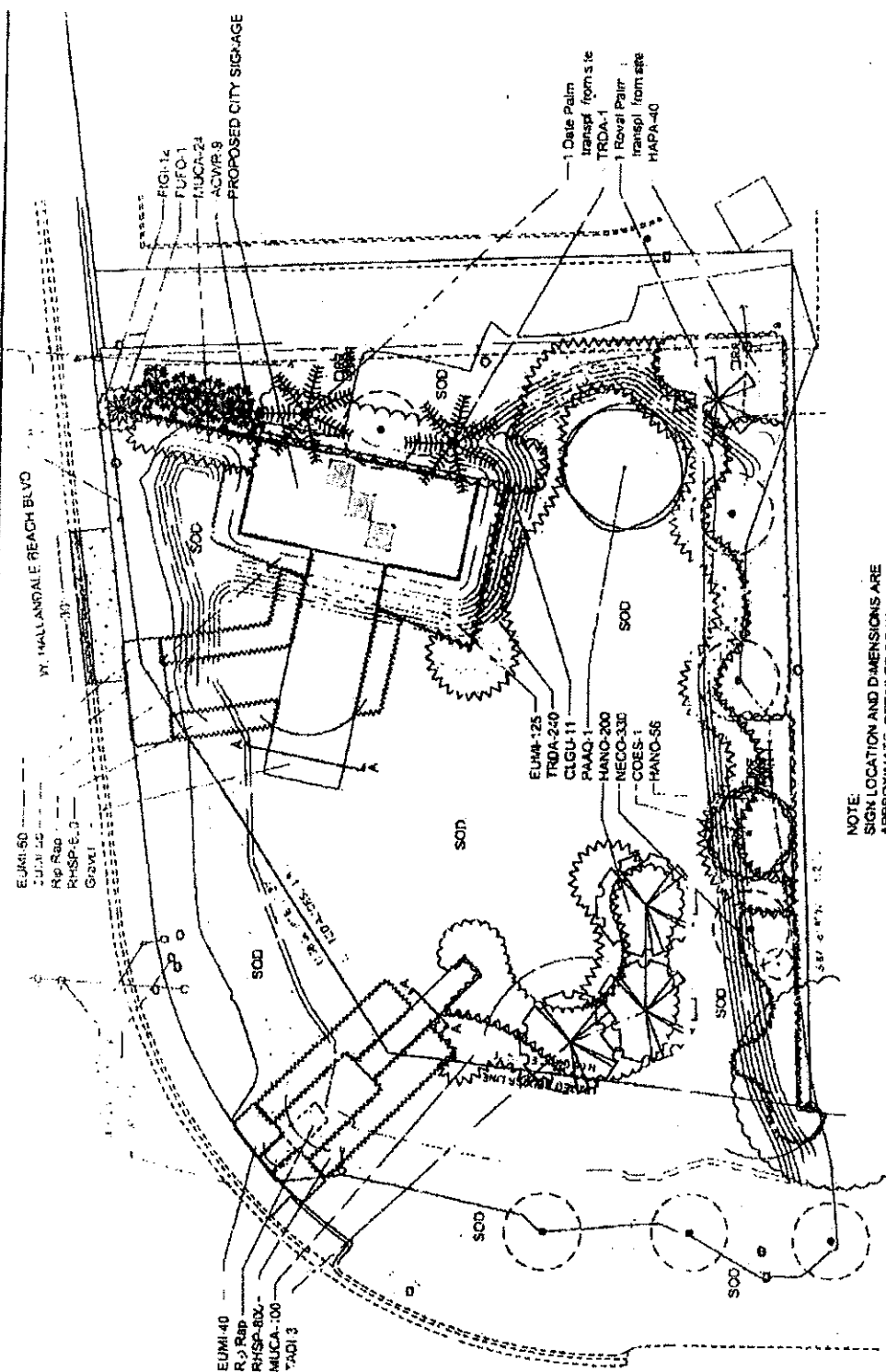
ROSENBERG
GARDNER
DESIGN

Existing Tree Disposition List

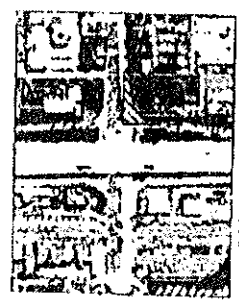
HALLANDALE I-95 POND RECONFIGURATION

NO. 100-10000-000

LAZ



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



REFERENCE PLAN

EXIT 18 OFFRAMP (TO W HALLANDALE BEACH BLVD)

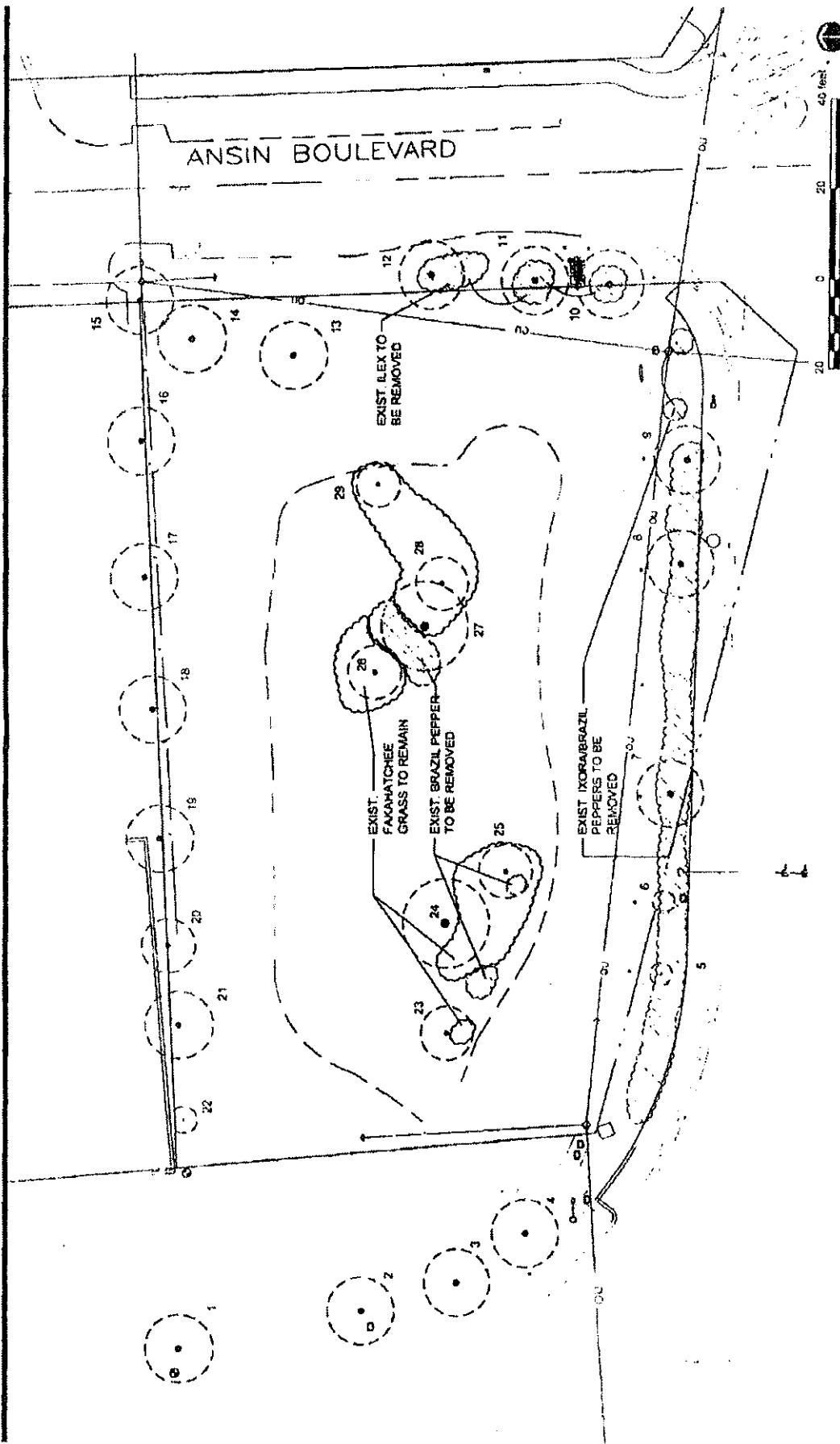
ROSENBERG
GARDNER
DESIGN

Planting Plan
(South Side)

HALLANDALE 195 POND RECONFIGURATION

West of Hwy 1

LA-3



ROSENBERG
GARDNER
DESIGN

Existing Tree Disposal on Plan
(North Side)

HALLANDALE BEACH BOULEVARD SWALES

DATE: 08.20.17

BY: J. B. 10/17

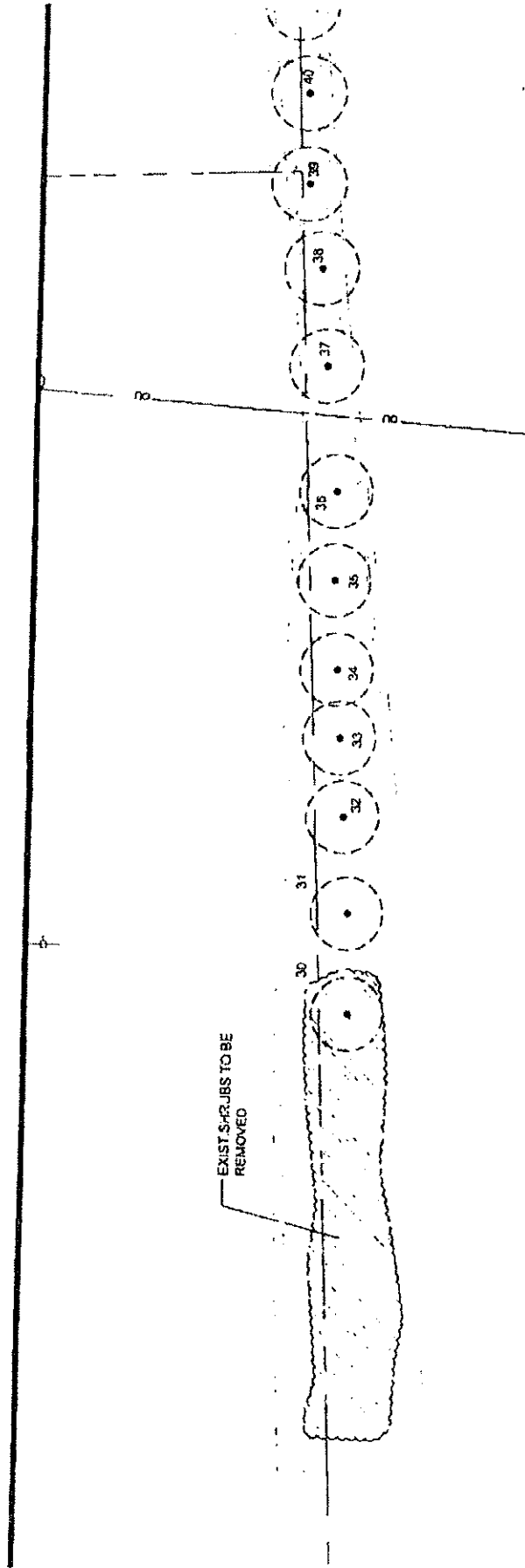
PROJECT: 17-001

CLIENT: 17-001

LOCATION: 17-001

DATE: 08.20.17

BY: J. B. 10/17



**ROSENBERG
GARDNER
DESIGN**

Existing Tree Disposition Plan
(Jordan)

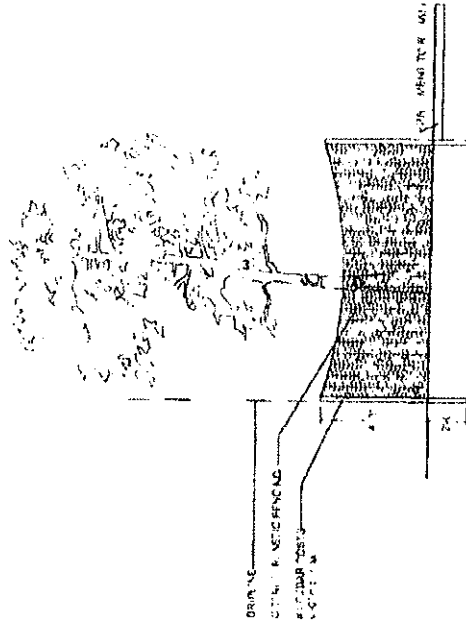
0 20 40 feet

HALLANDALE BEACH BOULEVARD SWALES

Plan Date: 11/14/14
Sheet: 1 of 1

11.14
LAT 12

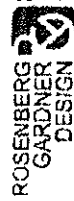
EXISTING TREE DISPOSITION LIST					
KEY	BOTANICAL NAME	COMMON NAME	SIZE	DISPOSITION	
			HT (ft) DBH (in)	REMAIN	REMOVE
1	FRAXINUS	ASH	3 10	X	
2	QUERCUS	OAK	4 12		X
3	QUERCUS	OAK	4 12		X
4	QUERCUS	OAK	4 12		X
5	QUERCUS	OAK	4 12		X
6	QUERCUS	OAK	4 12		X
7	QUERCUS	OAK	4 12		X
8	QUERCUS	OAK	4 12		X
9	QUERCUS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



ALL OTHER PLANTINGS SHALL BE DONE IN ACCORDANCE WITH THE CITY OF LOS ANGELES PLANTING SPECIFICATIONS. THE CITY OF LOS ANGELES SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE TREE TRUNKS AND THE BARRIER SHALL BE PLACED AT THE BASE OF THE TREE TRUNKS. THE CITY OF LOS ANGELES SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE TREE TRUNKS AND THE BARRIER SHALL BE PLACED AT THE BASE OF THE TREE TRUNKS.

TREE PROTECTION DETAIL

1.2.5

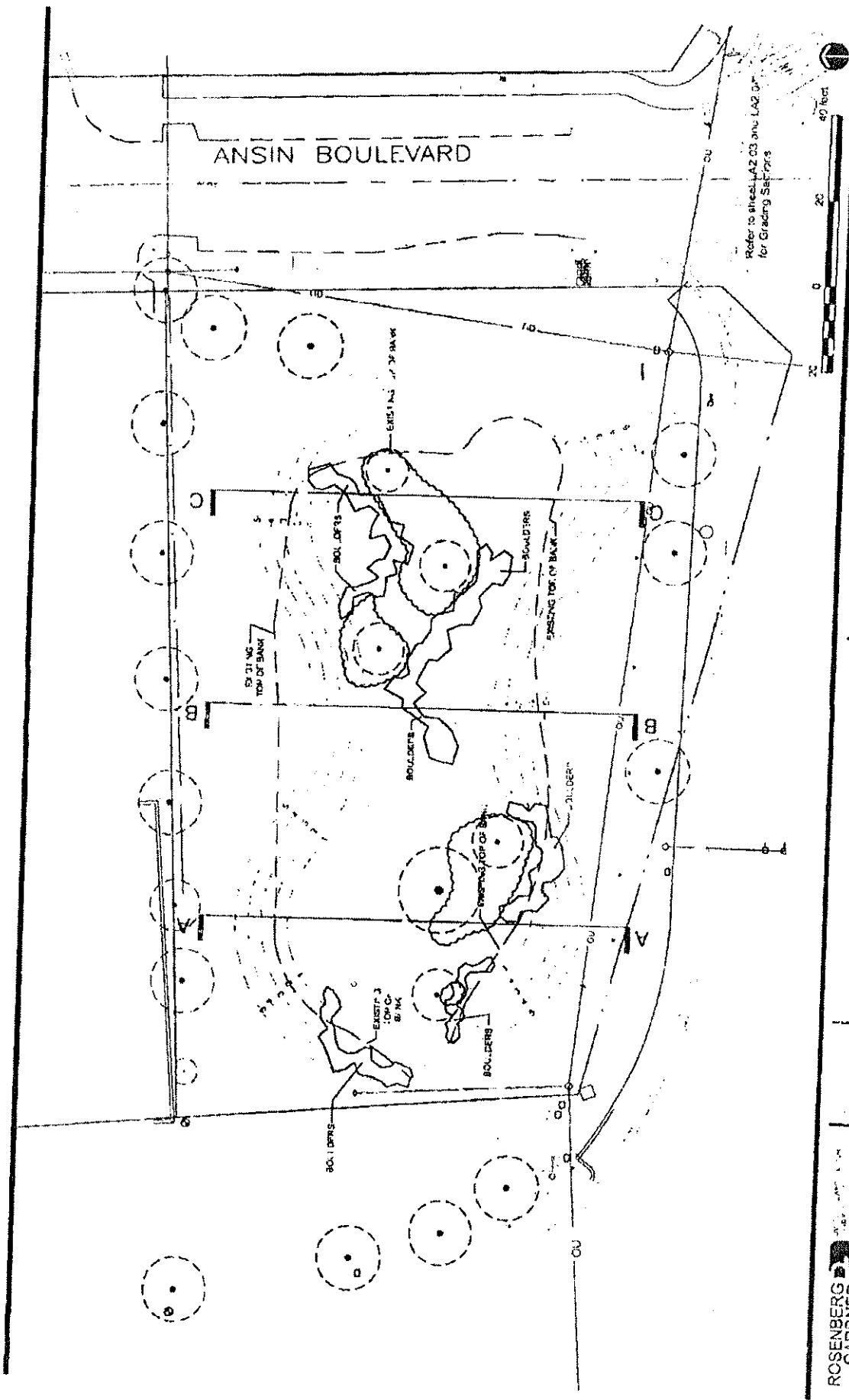


Existing Tree Only with in List

HALLANDALE BEACH BOULEVARD SWALES

File No. 10-19

DATE: 10/1/19
BY: LK103

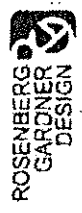
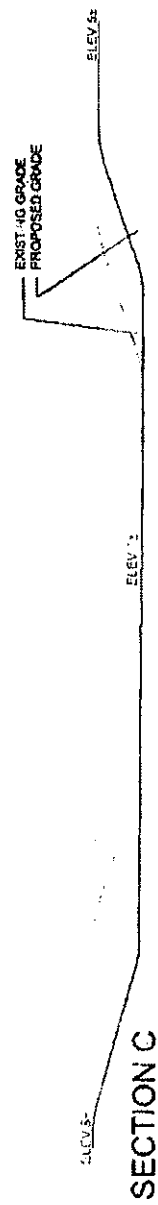
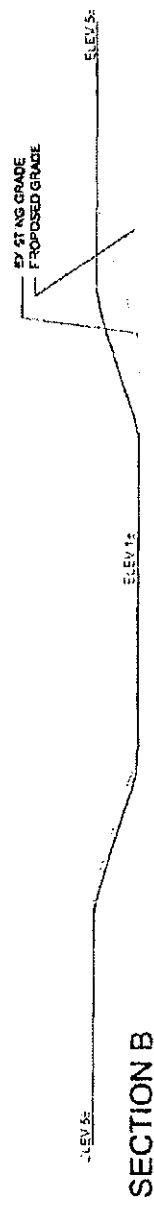
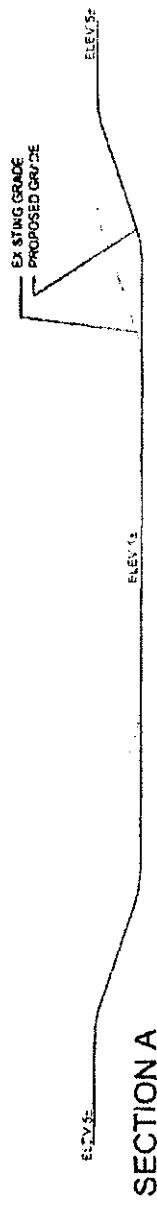


LAZ 01	1.10
LAZ 02	1.10
LAZ 03	1.10
LAZ 04	1.10
LAZ 05	1.10
LAZ 06	1.10
LAZ 07	1.10
LAZ 08	1.10
LAZ 09	1.10
LAZ 10	1.10

HALLENDALE BEACH BOULEVARD SVALES

Grading Plan
(North Side)



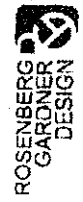
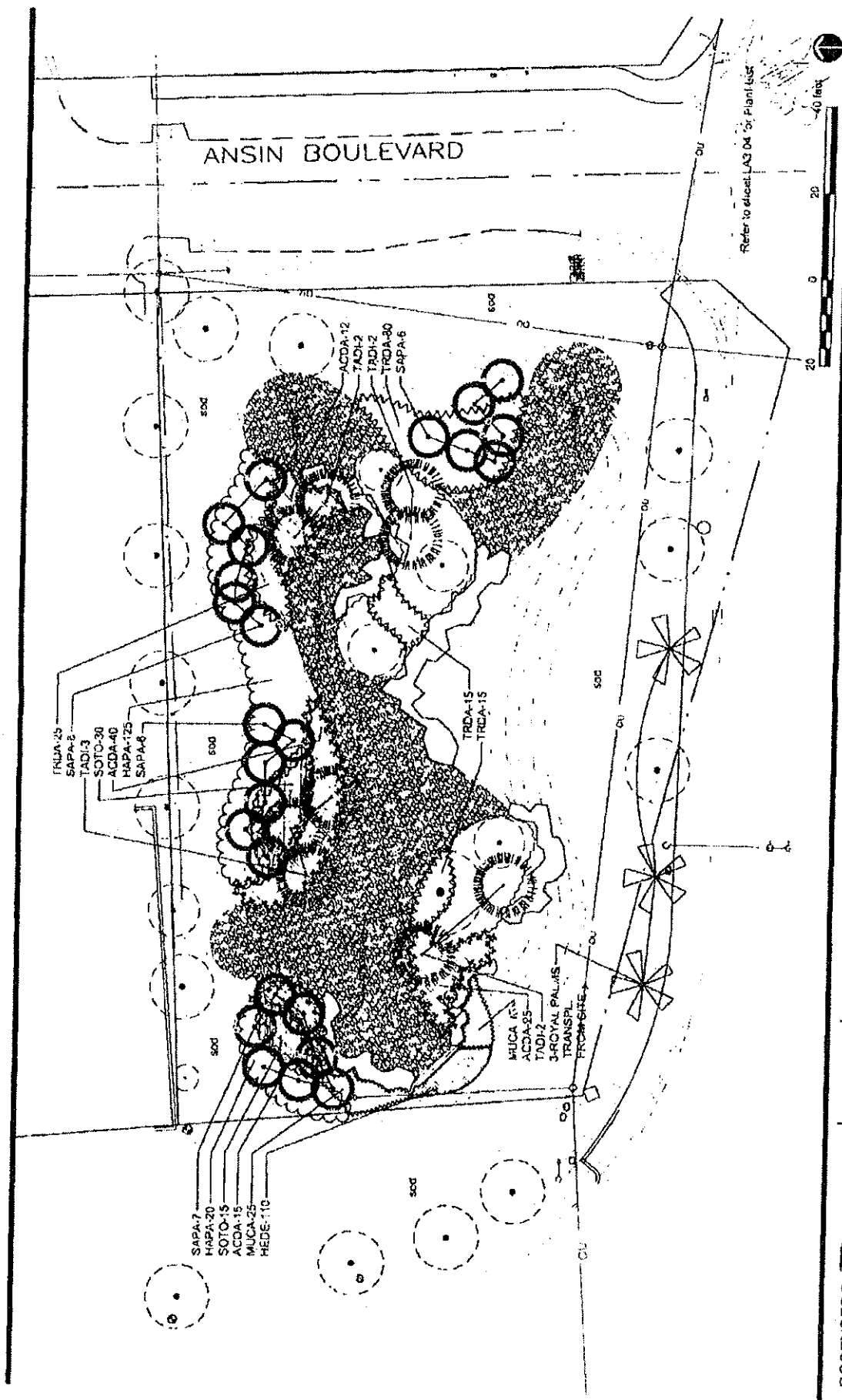


Grading Sections

HALLANDALE BEACH BOULEVARD SWALES

344 S. BEACH RD.

DATE: 01.11.10
DRAWN: LAZ.02

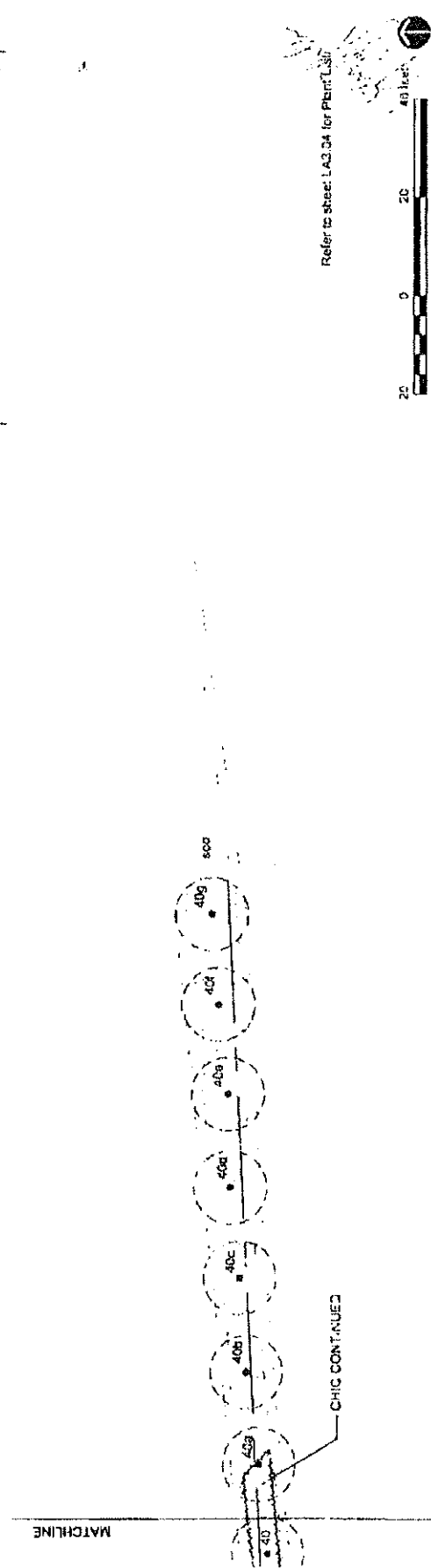
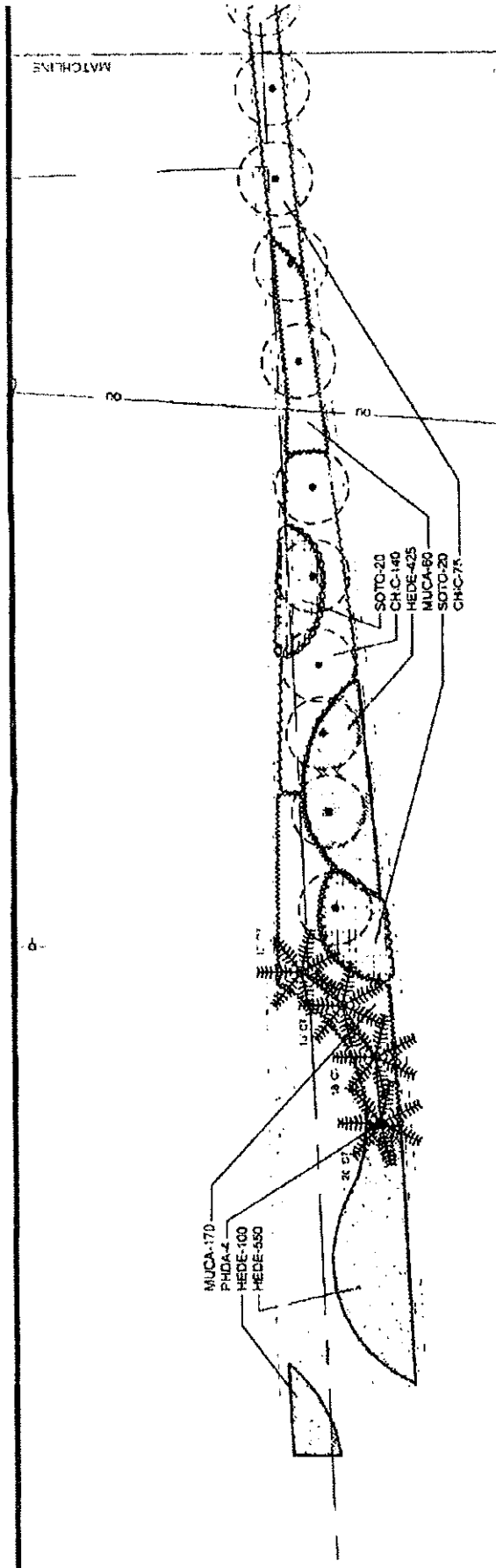


Existing Plan
(North Side)

HALLANDALE BEACH BOULEVARD SWALES

12. 11.12.2014

LA3 D4	LA3 D5	LA3 D6	LA3 D7	LA3 D8
LA3 D9	LA3 D10	LA3 D11	LA3 D12	LA3 D13
LA3 D14	LA3 D15	LA3 D16	LA3 D17	LA3 D18
LA3 D19	LA3 D20	LA3 D21	LA3 D22	LA3 D23
LA3 D24	LA3 D25	LA3 D26	LA3 D27	LA3 D28
LA3 D29	LA3 D30	LA3 D31	LA3 D32	LA3 D33
LA3 D34	LA3 D35	LA3 D36	LA3 D37	LA3 D38
LA3 D39	LA3 D40	LA3 D41	LA3 D42	LA3 D43
LA3 D44	LA3 D45	LA3 D46	LA3 D47	LA3 D48
LA3 D49	LA3 D50	LA3 D51	LA3 D52	LA3 D53
LA3 D54	LA3 D55	LA3 D56	LA3 D57	LA3 D58
LA3 D59	LA3 D60	LA3 D61	LA3 D62	LA3 D63
LA3 D64	LA3 D65	LA3 D66	LA3 D67	LA3 D68
LA3 D69	LA3 D70	LA3 D71	LA3 D72	LA3 D73
LA3 D74	LA3 D75	LA3 D76	LA3 D77	LA3 D78
LA3 D79	LA3 D80	LA3 D81	LA3 D82	LA3 D83
LA3 D84	LA3 D85	LA3 D86	LA3 D87	LA3 D88
LA3 D89	LA3 D90	LA3 D91	LA3 D92	LA3 D93
LA3 D94	LA3 D95	LA3 D96	LA3 D97	LA3 D98
LA3 D99	LA3 D100	LA3 D101	LA3 D102	LA3 D103



Refer to sheet LA3.04 for Plant List



DATE	11/12/11
BY	LA3.02
CHECKED	
APPROVED	

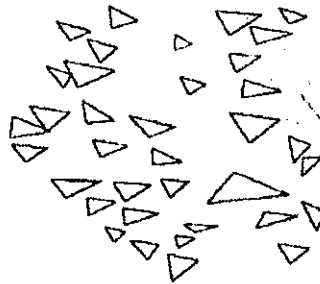
HALLANDALE BEACH BOULEVARD SWALES

Final Plan
(Median)

DATE	11/12/11
BY	LA3.02
CHECKED	
APPROVED	



PLANT LIST			
KEY	PLANT NAME	QTY.	UT. SIZE
ACCA	Acrostichum danianum	92	ea 3 gallon cans 36" o.c.
LEUB	Leather Fern		
CHC	Chrysanthemum	215	ea 3 gallon cans 36" o.c.
COCP	Coccoloba		
HAJA	Hamelia patens	145	ea 3 gallon cans 36" o.c.
FEDE	Ficus deltoidea	1185	ea 1 gallon cans 12" o.c.
CUSS	Curtis Sutherland		
MYCA	Myrica carolinensis	270	ea 3 gallon cans 36" o.c.
PHOA	Phoenix dactyloides	4	ea 1 1/2 CT. 1018 CT. 1218
ALDO	Alseodora palm	25	ea 1 1/2 CT. 1018 CT. 1218
SABA	Sabal palm		
SOTO	Sophora tomentosa	25	ea 3 gallon cans 36" o.c.
NECLA	Nerium oleander	19	ea 14 tall x 6 spread 5' ea
TRCA	Trichocereus	135	ea 3 gallon cans 36" o.c.
STAG	Stargazer	25	ea 3 gallon cans 36" o.c.
GRAV	Gravel		
PLANTING SOIL	Planting Soil	25	ea 3 gallon cans 36" o.c.
80" ST 1/2 SAND	80" ST 1/2 SAND		
20" EXPOSED MUD	20" EXPOSED MUD		
SHRUBBED 1" SUEDE FUCH	SHRUBBED 1" SUEDE FUCH		



DETAIL A

N.T.S.

NOTE: 1. ALL PLANTING MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION BY THE ARCHITECT. 2. ALL PLANTING MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION BY THE ARCHITECT. 3. ALL PLANTING MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION BY THE ARCHITECT.

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NOTE: 1. ALL PLANTING MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION BY THE ARCHITECT. 2. ALL PLANTING MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION BY THE ARCHITECT. 3. ALL PLANTING MATERIALS SHALL BE OF THE HIGHEST QUALITY AND SHALL BE SUBJECT TO INSPECTION BY THE ARCHITECT.

PLANTING & BRACING DETAIL UNDER 3 1/2" CALIPER

N.T.S.

ROSENBERG GARDNER DESIGN

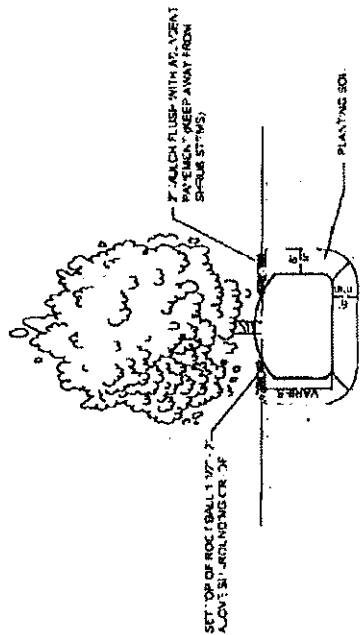
PLANTING & BRACING DETAIL

HALLANDALE BEACH BOULEVARD SWALES

NEW YORK - BR 1/1/18

DATE: 1/1/18

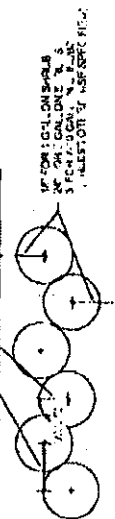
BY: [Signature]



SHRUB INSTALLATION DETAIL

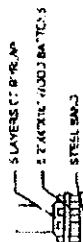
N.T.S.

2" JALUCH FLUSH WITH ADJACENT
PAVEMENT - KEEP AWAY FROM
SHRUB STEMS



SHRUB SPACING DIAGRAM

N.T.S.



BATTEN DETAIL B

N.T.S.

NOTE - REGULAR OR ULTRA-DEEP TREES
SHALL HAVE A 3" JALUCH FLUSH WITH ADJACENT
PAVEMENT - KEEP AWAY FROM SHRUB STEMS
ATTACHED TO PLANTING SOIL

ALL CROWN WATER AS 1" UP TO BE REMOVED FROM THE
TREE SOIL - THE 1" JALUCH FLUSH WITH ADJACENT
PAVEMENT - KEEP AWAY FROM SHRUB STEMS
ATTACHED TO PLANTING SOIL

2" JALUCH FLUSH WITH ADJACENT
PAVEMENT - KEEP AWAY FROM
SHRUB STEMS

PLANTING SOIL

SET TOP OF ROOT BALL 1" UP - 2"
ALONG SET-POINTING CR OF

2" JALUCH FLUSH WITH ADJACENT
PAVEMENT - KEEP AWAY FROM
SHRUB STEMS

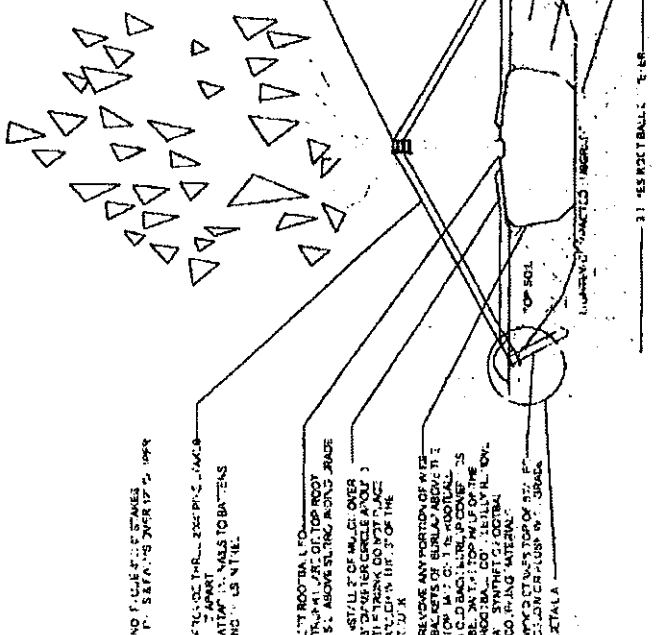
PLANTING SOIL

SET TOP OF ROOT BALL 1" UP - 2"
ALONG SET-POINTING CR OF

2" JALUCH FLUSH WITH ADJACENT
PAVEMENT - KEEP AWAY FROM
SHRUB STEMS

PLANTING SOIL

SET TOP OF ROOT BALL 1" UP - 2"
ALONG SET-POINTING CR OF



PLANTING & BRACING DETAIL OVER 3 1/2" CALIPER

N.T.S.



Planting Details

HALLANDALE BEACH BOULEVARD SWALES

1" = 1' SCALE

1" = 1' SCALE

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

*This information is for informational purposes only and is not intended to be used as a contract document. The information is subject to change without notice. The information is not intended to be used as a contract document.

Plant Replacement:

Hardscape (Specialty Surfacing):

Hardscape (Non-Standard Travelway Surfacing):

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*.

Hardscape (Landscape Accent Lighting)

Maintenance of Traffic Control

Staphylococcus aureus (ATCC 12228) and Bacillus subtilis (ATCC 6051) were used as test strains. The strains were grown in 100 ml of tryptic soy broth (TSB) (Difco) at 37°C for 24 h. The bacterial suspensions were adjusted to a concentration of 10^8 CFU/ml. The suspensions were then inoculated into 100 ml of TSB containing 0.05% of the surfactant. The suspensions were incubated at 37°C for 24 h. The bacterial suspensions were then adjusted to a concentration of 10^8 CFU/ml. The suspensions were then inoculated into 100 ml of TSB containing 0.05% of the surfactant. The suspensions were incubated at 37°C for 24 h. The bacterial suspensions were then adjusted to a concentration of 10^8 CFU/ml. The suspensions were then inoculated into 100 ml of TSB containing 0.05% of the surfactant. The suspensions were incubated at 37°C for 24 h.

REFERENCES

This reference list is provided as a courtesy. The list may not contain the most current websites. The most current references must be accessed for up to date information.

Accessible Sidewalk Videos (ADA)

<http://www.access-board.gov/news/sidewalk-videos.htm>

Americans with Disabilities Act (ADA) (ADAAG)

http://www.ada.gov/2010ADAstandards_index.htm

American National Standard Institute, *ANSI A300, (Part 1) for Tree Care Operations – Trees, Shrub, and Other Woody Plant Maintenance – Standard Practices (Pruning)*, available for purchase

www.isa-arbor.com

Florida Department of Agriculture and Consumer Services, Division of Plant Industry, *Florida Grades and Standards for Nursery Plants*, available for purchase

<http://www.doacs.state.fl.us/pi/pubs.html>

Florida Department of Community Affairs (DCA), *Florida Board of Building Codes & Standards, 2010 Florida Building Code, Chapter 11 Florida Accessibility Code for Building Construction Part A*

http://www2.iccsafe.org/states/florida_codes/

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 544 Landscape Installation*

<http://www.dot.state.fl.us/rddesign/DS/14/IDx/00544.pdf>

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 546 Sight Distance at Intersections*

<http://www.dot.state.fl.us/rddesign/DS/14/IDx/00546.pdf>

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 600 Traffic Control through Work Zones*

<http://www.dot.state.fl.us/rddesign/DS/14/IDx/00600.pdf>

Florida Department of Transportation, *FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on the State Highway System, Index 700 Roadside Offsets*

<http://www.dot.state.fl.us/rddesign/DS/14/IDx/00700.pdf>

Florida Department of Transportation, *FDOT Plans Preparation Manual (PPM) Vol. 1 Chapter 2.11 Horizontal Clearance*

Table 2.11.5 Horizontal Clearance to Trees

Table 2.11.11 Recoverable Terrain

<http://www.dot.state.fl.us/rddesign/PPMManual/2013RPPM.shtm>

Source: Florida Department of Transportation, *FDOT Plans Preparation Manual (PPM) Vol. 1 Chapter 2.11 Horizontal Clearance*, Table 2.11.5 Horizontal Clearance to Trees, Table 2.11.11 Recoverable Terrain, 2013. Available at: <http://www.dot.state.fl.us/rddesign/PPMManual/2013RPPM.shtm>

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/pdffiles/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