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CLERK OF THE BOARD
OF COUNTY COMMISSIONERS
MIAMI-DADE COUNTY, FLORIDA

Memorandum

MIAMI-DADE COUNTY

Date:	June 30, 2009
To:	Honorable Chairman Dennis C. Moss and Members, Board of County Commissioners
From:	George M. Burgess County Manager
Subject:	Ratification of Grant Application to the United States Army Corps of Engineers for the Oleta River/Highland Oaks Wetlands Restoration Project

Agenda Item No. 3(J)(1)(A)

Resolution No. R-786-09

Recommendation

It is recommended that the Board adopt the attached resolution ratifying the submission of a grant application to the United States Army Corps of Engineers in the amount of $1,430,000 for the Oleta River/Highland Oaks Wetlands Restoration Project. It is further recommended that the Board authorize the Mayor or the Mayor's designee to receive and expend grant funds, and execute contracts, agreements and amendments as required by program guidelines. Ratification of this application is necessary because the application deadline of May 12, 2009 did not allow time to submit a resolution to the Board prior to submitting the application.

Scope

The project is located in Highland Oaks Park at 20459 N. E. 24th Avenue in Commission District 4. The property is open to all residents and visitors of Miami-Dade County. The project impact is countywide.

Fiscal Impact/Funding Source

The grant will contribute $1,430,000 towards the estimated total project cost of $2,141,995. The grant match will be provided from the Department of Environmental Resource Management (DERM), Biscayne Bay Environmental Enhancement Trust Fund ($631,995) and the Safe Neighborhood Parks Bond Fund ($80,000).

Track Record/Monitor

The grant will be administered by Joyce Denny, Grants Administrator for Miami-Dade Park and Recreation Department. The Department has not previously received a grant from the U. S. Army Corps of Engineers.

Background

The proposed project will improve south Florida's coastal and freshwater wetlands including the restoration of additional habitat for diadromous fish such as pipefish and mullet through the removal of in-stream barriers to fish migration. The northern part of the Oleta River flows through Highland Oaks Park. It is the only remaining natural river in Miami-Dade County that can potentially provide the necessary low salinity environment to fulfill the life history habitat requirement for such important commercial and recreational fishery species.

Attachment

Alex Muñoz,
Assistant County Manager

MEMORANDUM

(Revised)

TO: Honorable Chairman Dennis C. Moss and Members, Board of County Commissioners

DATE: June 30, 2009

FROM: R. A. Cuevas, Jr. County Attorney

SUBJECT: Agenda Item No. 3(J)(1)(A)

Please note any items checked.

_____	**"4-Day Rule" ("3-Day Rule" for committees) applicable if raised**
_____	**6 weeks required between first reading and public hearing**
_____	**4 weeks notification to municipal officials required prior to public hearing**
_____	**Decreases revenues or increases expenditures without balancing budget**
_____	**Budget required**
_____	**Statement of fiscal impact required**
_____	**Bid waiver requiring County Mayor's written recommendation**
_____	**Ordinance creating a new board requires detailed County Manager's report for public hearing**
_____	**Housekeeping item (no policy decision required)**
✓	**No committee review**

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No. 3(J)(1)(A)
6-30-09

RESOLUTION NO. R-786-09

RESOLUTION RATIFYING SUBMISSION OF A GRANT APPLICATION TO UNITED STATES ARMY CORPS OF ENGINEERS FOR $1,430,000 IN GRANT FUNDING FOR OLETA RIVER/HIGHLAND OAKS WETLANDS RESTORATION PROJECT AND FURTHER AUTHORIZING THE COUNTY MAYOR OR MAYOR'S DESIGNEE TO RECEIVE AND EXPEND FUNDS, AND TO FILE AND EXECUTE CONTRACTS AND AMENDMENTS AS REQUIRED

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that this Board ratifies the submission of a grant application to the United States Army Corps of Engineers for $1,430,000 in grant funding for the Oleta River/Highland Oaks Wetlands Restoration project and further authorizes the County Mayor or Mayor's designee to execute such contracts and amendments as are required by program guidelines following approval by the County Attorney's Office; to receive and expend grant monies for the purposes described in the funding request; and to file and execute any necessary contracts and amendments to the agreement for and on behalf of Miami-Dade County, Florida.

The foregoing resolution was offered by Commissioner **Jose "Pepe" Diaz**, who moved its adoption. The motion was seconded by Commissioner **Rebeca Sosa** and upon being put to a vote, the vote was as follows:

Dennis C. Moss, Chairman	aye		
Jose "Pepe" Diaz, Vice-Chairman	aye		
Bruno A. Barreiro	absent	Audrey M. Edmonson	aye
Carlos A. Gimenez	aye	Sally A. Heyman	aye
Barbara J. Jordan	aye	Joe A. Martinez	absent
Dorrin D. Rolle	aye	Natacha Seijas	aye
Katy Sorenson	aye	Rebeca Sosa	aye
Sen. Javier D. Souto	absent		

The Chairperson thereupon declared the resolution duly passed and adopted this 30th day of June, 2009. This resolution shall become effective ten (10) days after the date of its adoption unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: DIANE COLLINS
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency.

Monica Rizo

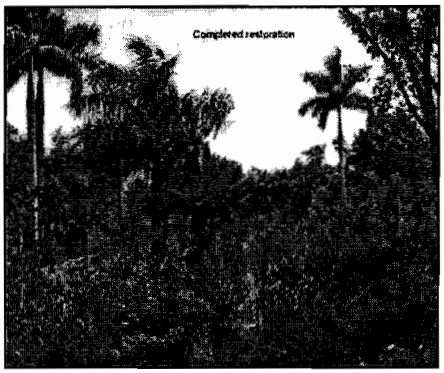
OLETA RIVER/HIGHLAND OAKS PARK WETLANDS RESTORATION PROJECT

U.S. ARMY CORPS OF ENGINEERS
ESTUARY RESTORATION ACT
TITLE I, PUBLIC LAW 106-457 (AS AMENDED)

PROJECT APPLICATION

SUBMITTED BY
MIAMI-DADE COUNTY
PARK AND RECREATION DEPARTMENT

MAY 12, 2009



Oleta River/Highland Oaks Park Wetlands Restoration Project

Miami-Dade County Park and Recreation Department
Estuary Restoration Act Project Application

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OMB APPROVAL NO. 0710-0014
Expires: 11/30/2011

U.S. Army Corps of Engineers

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Project Application

Agency Disclosure Notice

The public reporting burden for this information collection is estimated to average ten hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this data collection, including suggestions for reducing this burden, to the Department of Defense, Washington Headquarters Services, Executive Services Directorate, 155 Defense Pentagon, Washington DC, 20301-1155 and the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503, Attn.: Desk Officer for U.S. Army Corps of Engineers. PLEASE DO NOT SEND YOUR COMPLETED APPLICATION TO THESE ADDRESSES.

Respondents should be aware that not withstanding any other provision of law, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Please return your completed application form electronically to: *estuary.restoration@usace.army.mil*. Multiple email messages may be required to ensure successful receipt if the files exceed 4MB in size. Questions may also be sent to the same e-mail address. Hard copy submissions may be mailed or hand delivered to HQUSACE, ATTN: CECW-PB, 7701 Telegraph Road #3D72, Alexandria, VA 22315-3860.

Statement of Purpose

The U.S. Army Corps of Engineers is soliciting this information on behalf of the interagency Estuary Habitat Restoration Council. Completion of this application is voluntary but is required to be eligible to receive consideration for funding under the Estuary Habitat Restoration Program. We are asking for your name, title, telephone, and address to enable us to contact you if there are questions regarding your application, or there is the need for further information. This information will also be used for purposes of notification regarding funding decisions. Brief resumes of key staff that will be working on the proposed project are requested to demonstrate that the applicant has the capability to undertake its portion of project implementation and long term maintenance and monitoring. The information may also used by the four other Federal agencies (U.S. Fish and Wildlife Service, Environmental Protection Agency, National Oceanic and Atmospheric Administration, and Department of Agriculture) authorized to implement projects under this program. The information will only be used as necessary to implement the Estuary Habitat Restoration Program and will not be disseminated to the public. Not providing that information will affect our ability to select projects for funding.

OMB APPROVAL NO. 0710-0014
Expires: 11/30/2011

U.S. Army Corps of Engineers

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Date Prepared: April 14, 2009

PART I Summary information

1. **Project Name:** Oleta River/Highland Oaks Wetlands Restoration Project
2. **Project Location** *(e.g., city/county/state)*: Highland Oaks Park located at 20459 NE 24th Avenue, Miami, Florida 33180 in Miami-Dade County; Section 33, Township 51 South, and Range 42 East. Geographic coordinates for the center of the lake are: 25°58'04.24 North and 80° 09' 11.67 West.
3. **Non-Federal Sponsor's Organization Name**: Miami-Dade County Park and Recreation Department
4. **Non-Federal Sponsor's Point(s) of Contact:**

   a. Authorized Representative (the individual to whom official documents should be sent).

   Name: Joyce Denny
   Title: Grants Administrator
   Telephone Number: 305-755-7878
   E-mail Address: jdenny@miamidade.gov
   Mailing Address (including zip code)**:** Miami-Dade County Park and Recreation Dept, 275 NW 2nd Street, Miami, Florida, 33128

   b. The individual to be contacted with project specific questions

   Name: Karen Cheney
   Title: Landscape Architect 2
   Telephone Number: (305) 755-7922
   E-mail Address: karenc@miamidade.gov
   Mailing Address (including zip code)**:** Miami-Dade County Park and Recreation Dept, 275 NW 2nd Street, Miami, Florida, 33128

5. **Non-Federal Sponsor Type:** (*All proposals must originate from a non-Federal source)*

   _ State Agency X Local Government Agency _ Tribal Government
   _ Nonprofit _ Regional/Interstate Organization
   Other (*please specify)*:

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6. Project Abstract *(no more than 250 words)* *(label additional sheets with name of project, date, and Project Abstract):*

Miami-Dade County Park and Recreation Department (MDPR) in partnership with the Miami-Dade County Department of Environmental Resources Management (DERM) respectfully requests $1.3 million from the U.S. Army Corps of Engineers to facilitate the proposed **Oleta River/Highland Oaks Park Wetlands Restoration Project** at Highland Oaks Park in Miami-Dade County. MDPR owns and manages the land. The proposed project is fully permitted and anticipated to occur over an 18-month period with a 6-month bid and award process and a 12 month construction phase. The proposed project will improve south Florida's coastal and freshwater wetlands including the restoration of additional habitat for diadromous fish such as pipefish and mullet through the removal of in-stream migration barriers. The Oleta River is the only remaining natural river in Miami-Dade County that can potentially provide the necessary low salinity environment to fulfill the life history habitat requirement for such important commercial and recreational fishery species. The goal is to enhance the hydrology of the northernmost portion of the Oleta River. Successful completion of the project will allow the tributary to flush daily with tidal cycles at depths appropriate for diadromous fish. Objectives are to reconnect the tributary with the headwaters of the Oleta River and expand and enhance an existing native wetland habitat by removing invasive vegetation, planting and transplanting native vegetation, culvert replacement, maintenance dredging, and grading. Matching funds in the amount of $948,851 will be contributed to the project comprising approximately 40% of the total project cost of $2,378,851.

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7. Habitat Acreage

Please indicate the amount of acreage this project is expected to restore, for each applicable habitat type listed below. Do not count an area twice. Definitions of the Habitat Types may be found at **https://neri.noaa.gov/neri/glossary.html**.

Acreage	Habitat Type	Acreage	Habitat Type
_____	Submerged aquatic vegetation	_____	Beach
_____	Salt marsh	_____	Dune
5	Freshwater marsh	_____	Kelp
_____	Mangrove	_____	Coral reef
_____	Forested wetland	_____	Oyster reef/Shell bottom
_____	Riparian zone (non-wetland)	_____	Soft bottom/mud
_____	In-Stream	_____	Soft bottom/sand
_____	Upland	_____	Rocky shoreline
_____	Pond	_____	Maritime forest
_____	Water column	_____	Hard bottom
_____	Shrub swamp (non-mangrove)	_____	Other: _____ (please specify)

Total project acreage: 5

8. Funding and Partners

a. Estimated Total Project Cost (including post-construction monitoring costs but ***excluding*** long-term operation and maintenance costs): **$** 2,360,851

b. ERA funding request: $ 1,430,000

c. Total of Federal funds from other sources: $ 0

d. Non-Federal share from all non-Federal sources (state, local, non-profit, in-kind, and volunteer contributions): **$** 948,851

e. Budget: Provide a table that indicates the costs and sources of funding for the following categories of activities, as appropriate. Be sure to consider the Federal agency overhead and implementation costs when preparing the estimate. If the proposal is for more than one site, please provide this information for each site separately.

- Planning (all phases including permitting)
- Design
- Implementation/Construction
- Post Construction Monitoring
- Project administration and oversight
- Estimated value of the lands, easements and rights-of way required for the project.
- Estimated annual operation and maintenance costs

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Budget Categories	Total Project Costs
PROJECT ADMINISTRATION AND OVERSIGHT:	
Personnel	
Karen Cheney - Co-Project Manager @ .08 FTE (18 mos)	$10,968
Gary Milano - Co-Project Manager @ .15 FTE (18 mos)	$19,643
Jay Forni - Construction Manager 3 @ .05 FTE (18 mos)	$8,577
Dan Crawford - Construction Renovation Supervisor @ .60 FTE (18 mos)	$64,956
Alice Warren - Natural Areas Manager @ .50 FTE (18 mos)	$68,469
Total Personnel	$172,613
Fringe Benefits	
FICA (.062 x FTE Salary)	$10,702
MICA (.0145 x FTE Salary)	$2,503
Retirement (.0985 x FTE Salary)	$17,002
Group Life (.003024 x FTE Salary)	$522
Flex Dollars ($1,100/person x FTE)	$2,277
Health Plan ($8,000/person x FTE)	$16,560
5% Projected Annual Increase	$843
Total Fringe Benefits	$50,409
Contractual	
Consultant Construction Phase (Adm.)	$85,671
Army Corp of Engineer Overhead (estimated at 10% of $1.3 million federal request)	$130,000
Total Contractual	$215,671
TOTAL PROJECT ADMINISTRATION AND OVERSIGHT	**$438,694**
PLANNING:	
N/A all planning is done	$0
TOTAL PLANNING	**$0**
DESIGN:	
A/E Consultant Design Revisions	$8,000
A/E Consultant Resimbursable - Design	$3,500
Design (Soft Cost) Contingency	$800
Bid and Award Unit - MDPR Design & Construction Mgt. Section (DSM)	$6,000
TOTAL DESIGN	**$12,300**
IMPLEMENTATION/CONSTRUCTION:	
Sub-Total Construction Cost	$1,275,850
Construction Overhead/Profit	$178,619
Construction Contingency	$136,062
TOTAL IMPLEMENTATION/CONSTRUCTION	**$1,590,531**
POST CONSTRUCTION MONITORING:	
Post Construction Monitoring - NAM	$18,000

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POST CONSTRUCTION MONITORING	**$18,000**
ESTIMATED VALUE OF LAND:	
5 acres will be restored of 38 acres valued at $1,800,108	$236,856
ESTIMATED VALUE OF LAND	**$236,856**
ESTIMATED ANNUAL OPERATION AND MAINTENANCE COSTS:	
Post-Construction Maintenance for 5 Years	$82,470
TOTAL ESTIMATED ANNUAL OPERATION AND MAINTENANCE COSTS	**$82,470**
TOTAL PROJECT COSTS	**$2,378,851**
FEDERAL REQUEST	**$1,430,000**
APPLICANT MATCH	
Real Estate Value	$236,856
Safe Neighborhood Parks Bond (MDPR)	$80,000
Biscayne Bay Environmental Enhancement Trust Fund (DERM) - *contingent upon board approval and award*	$631,995
TOTAL APPLICANT MATCH	**$948,851**

PART II: PROPOSAL ELEMENTS

1. PROJECT DESCRIPTION

The Oleta River is the only natural river in Miami-Dade County (MDC) that has not been dammed for flood water control. The headwaters of the Oleta River are located within the proposed restoration site at Highland Oaks Park in Northeast MDC. Historic aerial photography indicates that this tributary once extended further west; however, Highland Oaks Park is now the last remaining segment of this natural tributary in MDC. The existing feature is approximately 8 meters across and connects at the northernmost section to a manmade lake. The overall length of the river within the park is approximately 1,100 meters. The tributary (stream) is sub-divided into a freshwater and slightly brackish water system by a nonfunctioning pipe culvert that facilitates water flow only during and after heavy rain events. As a result of this defunct culvert, the northern portion of the tributary, generally isolated from tidal flow, is experiencing a substantial build-up of sediments causing it to dry up for the majority of the year.

The overall goal is to enhance the hydrology of the northernmost portion of the Oleta River located at Highland Oaks Park. Successful completion of the project will allow the tributary to flush daily with tidal cycles at depths appropriate for diadromous fish. Objectives are to reconnect the tributary with the headwaters of the Oleta River and expand and enhance an existing native wetland habitat by removing invasive vegetation, planting and transplanting native vegetation, culvert replacement, maintenance dredging, and grading.

Proposed activities include: 1) removing approximately 5 acres of exotic vegetation; installing and assessing a new properly functioning 50 foot culvert; dredging or excavating accumulated sediments from stream bed to achieve a -2.5 NGVD elevation; widening the existing streambed; transplanting native vegetation, as needed, to facilitate dredging and water flow; facilitating supplemental planting of

native vegetation as needed; promoting environmental and project outreach and education via community volunteers for planting activities; and conducting success monitoring of the project. The project will restore a total of 5 acres of wetland habitat at the headwaters of the Oleta River.

The completed project will provide the only freshwater tributary connection to Biscayne Bay that does not incorporate some form of flood control structure. Anticipated outcomes (or benefits) from the restored connection to the Bay and surrounding wetland areas are:

- enhanced, and creation of additional, diadromous fish habitat within the tributary
- enhanced freshwater habitat for a variety of birdlife and reptiles
- increased public awareness of the community's natural resources and community stewardship of the natural environment
- enhancements to the commercial and recreational fishing industry by providing additional habitat for important vertebrate and invertebrate species

Many South Florida ecosystems have been damaged considerably by development of natural lands in response to rapid population growth. One result has been a loss of biodiversity and habitat for wildlife and plant species listed as threatened or endangered. The proposed project will improve south Florida's coastal and freshwater wetlands including the restoration of additional habitat for diadromous fish such as pipefish and mullet through the removal of in-stream migration barriers. The Oleta River is the only remaining natural river in MDC that can potentially provide the necessary low salinity environment to fulfill the life history habitat requirement for such important commercial and recreational fishery species.

Re-establishing the hydrology of the northern portion of the tributary and reconnecting it to the Oleta River will bring substantial benefits to existing flora and fauna within the area while also creating new habitat for diadromous fish utilizing these waters. Fish species documented to use the Oleta River at the neighboring Oleta River State Park and those likely to use the tributary upon restoration include:

sheephead (*Archosargus probatocephalus*), snook (*Centropomus undecimalis*), mojarra (*Gerres cinereus*), pinfish (*Lagodon rhomboids*), tarpon (*Megalops atlanticus*), striped mullet (*Mugil cephalus*), and pipefish (*Syngnathus scovelli*), all of which utilize both marine and brackish waters and two (2), pipefish and striped mullet, are diadromous species that are also found in freshwaters. A species of special concern (SSC) among this list is the snook. Both the tarpon and the mullet are recreationally significant. Endangered (E), threatened (T), and/or species of special concern (SSC) sighted at Oleta River State Park and likely to use wetland habitat at Highland Oaks Park include: gopher tortoise (*Gopherus polyphemus* - T); red rat snake (*Elaphe guttata* - SSC); osprey (*Pandion haliaetus* – SSC); reddish egret (*Egretta rufescens* – SSC); snowy egret (*Egretta thula* – SSC); and peregrine falcon (*Falco peregrines* – E). A complete list of animal sightings at Oleta River State Park is attached (Attachment 8).

All environmental permits have been obtained for the proposed project (Attachment 4). The proposed project comprises Phase 4 of a four (4) phase restoration project. Phases 1 and 2 are completed and represent separate mitigation projects not included in the approved permits for the project proposed. Work associated with Phase 3 has just begun and includes activities described within Reach 3 of the proposed project and applicable permits. To better describe the scope of work for the project, the stream bed was divided and categorized into four (4) Reaches beginning at the north project limits (please see attached site plan). The scope of work, as presented in permits, also includes a separate Lake Bank Section. Each Reach represents a separate phase of work within the overall restoration project of which only Reach 3 has recently begun for which funds in the amount of $409,600 have been expended. Descriptions and proposed activities for each Reach are provided below with target dates.

Reach 1: This section is located on the North end of the stream, where the stream begins at the lake and meanders west and south through an existing wetland marsh. The tributary bisects the wetland

and is generally a foot deeper and approximately 20-25 feet wide. Wetland elevations in this section typically range from +0.5 to +1.5 NGVD (National Geodetic Vertical Datum). Large, deeper areas within this section of the wetland currently support the exotic torpedo grass (*Panicum repens*) and the nuisance cattail (*Typha domingensis*), exotics typically found at elevations above +1.0 NGVD. Remaining areas with lower elevations are dominated by the native desirable spike rush (*Eleocharis cellulose*), typically found in at elevations ranging from +0.2 to +0.9 NGVD. Deeper areas support waterlilly (*Nymphaea odorata*) and other native aquatic vegetation. Proposed activities within Reach 1 include:

- Removal of invasive exotic species. This will be accomplished twofold: removal with heavy equipment and with herbicide (when in close proximity to natives) by trained licensed professionals. (Months 3-5)
- Excavating the tributary to an elevation of -2.5 NGVD using a clam shell bucket extended from the upland (*6-months*)
- Scraping down areas of higher elevations (>+.09 NGVD) within the wetland to +0.5 to achieve desired vegetative stratum (*6-months)*
- Upon completion of excavation, planting of natives such as black needle rush, marsh grass, leather ferns and spike rush installed on two (2) foot centers (*Months 9-12*).
- All contract planted material will have a one year survival guarantee, and all restored areas will be monitored for success for a period of five years. Genetic integrity will be stressed in the all contract documents. (Months 12-24)
- Maintenance of the restored site will be maintained in perpetuity by professional with Miami-Dade County Natural Areas Management staff. (12-ongoing)

Reach 2: This section, located just south of Reach 1, is virtually dry throughout the majority of the year. As a result of sedimentary, the tributary here has been reduced to a muck wetland, approximately 25 to 30 ft. in width, supporting native leather fern (*Acrostichum danaeifolium*) and arrowhead, and surrounded by large specimens of pond apple (*Annona glabra*). This section contains an overhead of desirable native vegetation.

Proposed activities within Reach 2 include:

- Removal of invasive exotic species. This will be accomplished twofold: removal with heavy equipment and with herbicide by trained licensed professionals (in close proximity to natives). (Months 3-5)

- Excavating the mucky wetland sediment down to -2.5 in order to continue elevation and shape of the excavated stream bed in Reach 1) (*Months 3-12*)

- Cutting down slopes to a 2.5:1 slope (*Months 2-9*)

- Making adjustments to project design plans, as needed, during construction to avoid impacts to large trees and other desirable native vegetation (*Months 3-9*)

- Utilizing a section dredge during the rainy season, or when area is inundated with water, to reduce impacts to overhead native species. (Alternative action involves using a clam bucket from upland and trimming pond apples to gain access). (*Months 3-9*)

- Transplanting native vegetative specimens to the adjacent wetlands until final elevation is reached (*Months 1-3*)

- Upon completion of excavation, planting of natives such as black needle rush, marsh grass, leather ferns and spike rush installed on two (2) foot centers (*Months 9-12*).

    - All contract planted material will have a one year survival guarantee, and all restored areas will be monitored for success for a period of five years. Genetic integrity will be stressed in the all contract documents. (Months 12-24)

    - Maintenance of the restored site will be maintained in perpetuity by professionals with Miami-Dade County Natural Areas Management staff. (Months 12-ongoing)

Reach 4: This section of the stream, located on the southeast end of Reach 3 and connecting with mitigation areas completed within Phase 2, is inundated during the entire year and is hydrologically connected to the Biscayne Bay. Overhead canopy is present throughout majority of this section. Native uplands and some hardwood hammock species exist on the north side of the stream bed. Proposed activities within Reach 4 include:

- Removal of invasive exotic species. This will be accomplished twofold: removal with heavy equipment and with herbicide (when in close proximity to natives) by trained licensed professionals (Months 3-5)

- Excavating sediments from the streambed to an elevation of -2.5 NGVD to match other excavated areas (*Months 3-9*)

- Transplanting (or replacing) portions of upland trees as necessary to facilitate construction activities (*Months 1-3*)

- Upon completion of excavation, planting of natives such as black needle rush, marsh grass, leather ferns and spike rush installed on two (2) foot centers (*Months 9-12*).

- All contract planted material will have a one year survival guarantee, and all restored areas will be monitored for success for a period of five years. Genetic integrity will be stressed in the all contract documents. (Months 12-24)

- Maintenance of the restored site will be maintained in perpetuity by professional with Miami-Dade County Natural Areas Management staff. (Months 12-perpetuity)

Lake Bank Section: This section is located at the western perimeter of the lake and is currently supporting large stands of invasive cattails at an elevat*ion greater* than +1.0. The lake is a man-made feature, created in the late 1980's. Proposed activities within this section include:

- Scraping down the section to an elevation of +.05 NGVD to support native vegetation and extend the littoral shelf of the lake (*Months 9-12*)
- Upon completion of scrape down, planting spike rush, giant bulrush, arrowhead, and soft rush (Juncus effuses) on 2 foot centers (*Months 9-12*)

Fill generated from the scrape down was originally planned to be staged/removed to a location adjacent to the project site. Upon careful consideration and extensive dialogue with engineers from Consulting Engineering & Science, Inc. it was determined that relocating the fill into the lake would result in greater ecological and wildlife benefits. The lake is approximately 20 feet deep and not sufficiently adept for wetland-dependent fish and animal species. Depositing all dredged material into the lake would substantially enhance the diadromous fish and freshwater wildlife habitat within the lake.

2. MONITORING PLAN

The following performance measures for the proposed project will be evaluated by project staff.

Output	**Performance Measure**
Removing approximately five (5) acres of exotic vegetation	As-built drawings
Assess functioning of newly installed 50 foot culvert	Stream miles made available to diadromous fish Types of fish sighted after project completion
Dredge or excavate accumulated sediments from stream bed to achieve an elevation goal of -2.5 NGVD	Volume of removed sediment (verified by as-built drawings) New elevation of stream (as-builts)
Expand width of existing streambed	# of feet expanded (as-builts)
Transplant native vegetation, as needed, to facilitate dredging and water flow	# of plants transplanted
Plant supplemental native vegetation along the edges of the stream bed and surrounding areas as needed	# of native plants planted
Promote environmental outreach by utilizing community volunteers for planting activities	# of volunteers # of plants planted by volunteers # of volunteer planting events
Conduct success monitoring of project after completion	Date of each monitoring event # of photo stations % of cover % of survivorship (minimal 80% goal)
Expanding recreational opportunities provided by restoration	Document changes in recreational angling use

A qualified biologist will actively monitor the site for the presence of endangered and threatened species. A monitoring and maintenance plan will be utilized by the Natural Areas Management NAM section within MDPR to maintain exotic/nuisance vegetation at a rate less that 5%, as conditioned by the DERM permit, and document the survivorship of planted materials and native recruitment. Plan implementation will occur semi-annually for the first year and annually for the following 4 years.

Success monitoring will be conducted for a five (5) year period by engineers from Consulting Engineering & Science, Inc. The success monitoring will consist of randomly located transects, utilizing the line intercept methodology, within 1 sq. m fixed grids, every 10 m along the transect lines. The following detailed observations will be recorded quarterly (or every three (3) months) at each

monitoring grid: species, and plant height. The following detailed information will be recorded along each transect: number of individuals planted, date of planting, number of plants surviving from the initial planting, explanations if survivorship is trending toward failure, and photographs from locations referenced in the baseline showing location and direction of the camera.

3. PROJECT READINESS

All required permits have been issued for the proposed project including approved permits from the South Florida Water Management District (No. 13-02329-P), U.S. Department of Defense Department of the Army (SAJ-2005-1549), and Miami-Dade County Department of Environmental Resources Management (No. CC04-053) (Attachment 4). All of the contract documents and construction documents have been finalized. Upon execution of the funding agreement, the contractor selection process (6-months) will be initiated. The construction contract will be bid and awarded with a 365 calendar day (1 year) construction contract period.

As previously mentioned, the proposed project comprises Phase 4 of a 4 phase restoration project. Phases 1 and 2 are completed and represent separate mitigation projects not included in the approved permits for the proposed project. Work associated with Phase 3 is included in the applicable permits and is already underway Construction activities for Phase 3 (Reach 3) began on 1/13/09 and are anticipated to be completed on 5/8/09. Costs in the amount of $409,600 associated with Phase 3 have already been expended.

Reach 3 (work currently underway): Work within this Reach, located on the east end of Reach 2 and the northwest end of Reach 4, has begun. Environmentally sensitive trees are not present in this section. Activities within Reach 3 include: Excavating 180 feet of upland to produce a 120-foot section of new stream bed and 60-foot section of box culvert; Excavating sediments in the existing stream bed continuing the shape and structure of the desired elevation of -2.5 NGVD; Installing a wooden fence

around the stream bed to provide safety precautions for children utilizing the adjacent playground; Replacing a non-functioning culvert with a new 50-foot culvert with an effective diameter of 72 ft; Utilizing a clam bucket to facilitate excavation; Relocating existing utility guy wires and water fountain (with minor plumbing); and planting spike rush and arrowhead on 1 foot centers along the edges of the stream bank.

4. RESTORATION PLANS

In MDC, 3 types of emergent wetland communities are being restored: mangrove forest, saltmarsh and fresh/brackish water wetlands. The proposed Oleta River/Highland Oaks Park Wetlands Restoration Project is representative of fresh/brackish water wetlands. The proposed project site is among the ten coastal wetlands restoration projects in Miami-Dade County, Florida prioritized in the Restoration of Coastal Wetlands in Southeastern Florida report prepared by the DERM Coastal Wetlands Restoration Program (*Publication reference: Milano,G.R. 1999b. Restoration of coastal wetlands in southeastern Florida.Wetland Journal 11(2): 15-24*). The project furthers the goal of DERM's Coastal Wetlands Restoration Program to restore, to the extent possible, native communities to levels of historical ecological functions. The project furthers the goal of the federal Estuary Habitat Restoration Strategy goal of restoring 1,000,000 acres of estuary habitat. It furthers the Florida Department of Environmental Protection's priorities of restoring and protecting the water quality in Florida's springs, lakes, rivers and coastal waters, conserving environmentally-sensitive lands, and providing citizens and visitors with recreational opportunities.

The importance of preserving open spaces with critical environmental and wildlife value, such as this one, is further reinforced by the Conservation, Aquifer Recharge and Drainage Element within Miami-Dade County's Comprehensive Development Master Plan. The policy directs the County to "work with the US Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission,

and other appropriate entities to describe and map wildlife populations and determine the wildlife habitat values for all remaining freshwater wetlands and environmentally sensitive natural forest communities (CON-9D"); and include the protection, conservation and/or restoration of wildlife habitats in County planning of future development of open spaces and wetland mitigation areas (CON-9F).

The restoration designs/plans for the proposed project was a collaborative effort between staff at Miami-Dade County's Department of Environmental Resources Management (led by Gary Milano) and Park and Recreation Department (led by Karen Cheney), and engineers from Consulting Engineering & Science, Inc. (led by John R. Guttman). The plan entails the use of proven, cost-effective restoration techniques.

5. OTHER INFORMATION

The Oleta River is the only natural river in Miami-Dade County that has not been dammed for flood water control. The headwaters of the Oleta River located within the proposed restoration site at Highland Oaks Park is now the last remaining segment of this natural tributary in Miami-Dade County. Conservation measures or techniques that promote best practices will be utilized throughout project implementation to ensure that no or minimal impacts are made to adjacent resources to the maximum extent practicable. These include: utilization of turbidity curtains, silt fences, and/or other erosion control devices; root pruning and transplanting; trimming; supplemental planting; ongoing monitoring and maintenance; and obtaining additional permits where necessary. Prior to depositing dredged material into the lake, silt fences will be installed to completely encapsulate the pit to ensure minimal impact to surrounding wetland habitat. Turbidity curtains will be installed in the pit surrounding the areas that will receive the dredged material. As per conditions set forth by the DERM permit, no work will commence until DERM staff has inspected and approved the installation. Prior to work commencement, an E.P.A NPDES permit will be applied for by the contractor utilizing a Storm Water

Pollution Prevention Plan. All removed and/or relocated mangroves will be flagged by the contractor, and then inspected and approved by staff from DERM's Coastal Resources Section. The County Archeologist will be present during critical times or when excavations begin in different areas. Findings that would create schedule conflicts are not anticipated.

Prior completed work done on the proposed restoration site, specifically Phase 1, 2, and 3, were primarily paid for by Safe Neighborhood Park bond funds, of which only approximately $80,000 remain. Biscayne Bay Environmental Trust Funds are anticipated to supplement the proposed project contingent upon ACOE funding and approval by the Miami-Dade County Board of County Commissioners. Trust funds are generally used for leveraging grant dollars and not to fully finance environmental projects.

6. STATUS OF TOTAL PROJECT FUNDING

Funds for the proposed project in the amount of $2.2 million were requested from NOAA under their Coastal and Marine Habitat Restoration Project Grants - Recovery Act program. Notice of award is anticipated to occur relatively soon (June 2009). Requested federal costs from NOAA not included in this proposal are additional personnel funds to meet the Recovery Act Job Retention and Job Creation objectives. Ongoing revenue declines for Miami-Dade County have halted continuation the proposed restoration project through County subsidy funds. Without NOAA or Estuary Restoration Act funding, the project will not proceed. Proposed restoration activities will definitely proceed whether funded through NOAA or the U.S. Army Corps of Engineers. Each federal funding source is not dependent on the other. Proposal submittals to both agencies were strategically aimed at maximizing funding probability for the proposed project.

7. RELATIONSHIP TO A LARGER PROJECT

The proposed project comprises Phase 4 of a four (4) phase restoration project. Phases 1 and 2 are completed and represent separate mitigation projects not included in the approved permits for the project proposed. Work associated with Phase 3 (also referred to as Reach 3) is underway and described in detail under the Project Readiness section. Construction activities for Phase 3 (Reach 3) began on 1/13/09 and are anticipated to be completed on 5/8/09. Costs in the amount of $409,600 associated with Phase 3 were already expended.

Previous mitigation work conducted during Phases 1 and 2 in the surrounding wetland areas (see map on Attachment 3 and photos on Attachment 6) at Highland Oaks Park will complement the restoration activities of this proposed project. During Phase 1, 2.4 acres of wetlands were restored along the river bank. An additional 3.2 acres were restored during Phase 2. Prior to mitigation, the site was primarily a disturbed tidal wetland dominated by the invasive exotic trees Australian pine (*Casurina equisetifolia*) and Brazilian pepper (*Schinus terebinthifolius*) located on the west bank of the river. The plan involved the clearing of exotic woody species, followed by excavation that transformed the property into a mixture of low marsh community and preserved islands of natural vegetation, as well as marginal transitional areas. 21,031 native specimens were planted within this new marsh community including: black needle rush (*Juncus roemerianus*), spike rush (*Eleocharis spp.*), lance-leaf arrowhead (*Sagitaria lancifolia*), and others. During construction and under the direction of the Department of Environmental Resources Management (DERM), a small, 600 sq ft deep cut to -2.0 ft NGVG was made to enhance the hydrologic flow between the Oleta River and the mitigation sites. With the obtainment of additional permit modifications, the channel cut through the natural river shoreline ridge was added, further enabling the goals of the proposed project to be successfully achieved.

ATTACHMENT 1

MIAMI-DADE COUNTY

Park and Recreation
275 NW 2nd Street
Miami, Florida 33128
T 305-755-7800

miamidade.gov

ADA Coordination
Agenda Coordination
Animal Services
Art in Public Places
Audit and Management Services
Aviation
Building
Building Code Compliance
Business Development
Capital Improvements
Citizens' Independent Transportation Trust
Commission on Ethics and Public Trust
Communications
Community Action Agency
Community & Economic Development
Community Relations
Consumer Services
Corrections & Rehabilitation
Cultural Affairs
Elections
Emergency Management
Employee Relations
Empowerment Trust
Enterprise Technology Services
Environmental Resources Management
Fair Employment Practices
Finance
Fire Rescue
General Services Administration
Historic Preservation
Homeless Trust
Housing Agency
Housing Finance Authority
Human Services
Independent Review Panel
International Trade Consortium
Juvenile Assessment Center
Medical Examiner
Metro-Miami Action Plan
Metropolitan Planning Organization
Park and Recreation
Planning and Zoning
Police
Procurement Management
Property Appraisal
Public Library System
Public Works
Safe Neighborhood Parks
Seaport
Solid Waste Management
Strategic Business Management
Team Metro
Transit
Task Force on Urban Economic Revitalization
Vizcaya Museum And Gardens
Water & Sewer

May 6, 2009

To Whom It May Concern:

RE: Oleta River/Highland Oaks Park Wetlands Restoration Project

We are pleased to submit an application for completion of our restoration of the Oleta River/Highland Oaks Park Wetlands to the U. S. Army Corps of Engineers. The project's purpose is to re-establish the hydrologic regime at the headwaters of the Oleta River located in Highland Oaks Park in Miami-Dade County, Florida.

This project is especially appropriate and important, as this will serve to restore the headwater region of a natural waterway, which maintains its natural course through an otherwise highly urbanized region. Upon completion of the restoration effort, the northern portion of the tributary would flush daily with the tidal cycles yet remain inundated at a depth suitable to be utilized by diadromous fish. The proposed project will be achieved by removing exotic vegetation, replacing a non functioning culvert (ongoing), dredging sediments, and expanding the widths of existing streambeds to enhance water flow, and grading existing areas to enhance native wetlands species.

MDPR strongly supports this project and provides assurance that adequate and skilled personnel are available to meet the project's work obligations including proposed in-kind operation, maintenance, and monitoring of the proposed project. Contingent on the award of this grant and approval from the Miami-Dade County Board of County Commissioners, Biscayne Bay Environmental Trust Funds will be used to provide a majority of the required monetary match. Other sources for matching funds will include the real estate value of the total 5 acres to be restored equivalent to $236,856 and the remaining $80,000 from the Safe Neighborhood Parks Bond funds already allocated to this project.

As public landowner and manager, MDPR provides its assurance of authority to complete work on the proposed restoration site lands, as authorized by the permitting entities, and to carry out items of local cooperation, including operation and maintenance.

Sincerely,

Jack Kardys
Director

MIAMI-DADE COUNTY
Delivering Excellence Every Day

ATTACHMENT 2

KEY PROJECT PERSONNEL BIOS

KAREN CHENEY, RLA
Co-Project Manager / Landscape Architect
Miami-Dade County Park and Recreation Department

Karen Cheney is a Registered Landscape Architect in the State of Florida (LA #6666828) whose employment with Miami-Dade County Park and Recreation Department begun in July 1993. Ms. Cheney received her Bachelor of Arts Degree from Longwood College in Farmville, Virginia and her Master of Landscape Architecture degree from Florida International University in Miami, Florida. She is a member of the American Society of Landscape Architects. She the Park and Natural Resources Interest Chair for the FRPA District VII Board – Park and Natural Resources Interest Chair from 1999-2001. She also served on the Landscape Architecture Program Advisory Board at the Florida International University School of Architecture from 2004 – 2007. She was the recipient of the ASLA Florida Chapter Award of Excellence for Virginia Key Beach Parks and Blueways in 2002.

In her position with MDPR, she has managed numerous Environmental Restoration projects including:

- Wetland Planting at Country Lake Park – design and project management
- Upland and Wetland Planting to support CERP XLER8 Project at Charles Deering Estate – design and project management
- Hydric Hammock at Matheson Hammock Park – design and project management
- Dune Restoration at Haulover Park – design and project management
- Freshwater Wetland Improvements at Biscayne Gardens Park – design and project management
- Lake Bank Stabilization at Country Club of Miami – design and project management
- Rockland Hammock at Camp Owaissa Bauer – design and project management
- Oleta River Restoration project(s) at Highland Oaks Park – project management

She also managed waterfront recreation projects with environmental components as follows:

- Beachfront Promenade at Haulover Park – Project Manager
- South Addition at Charles Deering Estate – Project Manager
- Bear Cut Boardwalk at Crandon Park – Project Manager

Mc. Cheney has lead project management and design efforts for the proposed project since its inception. Her qualifications and extensive knowledge-base of the proposed project makes her well suited as Project Director for the proposed project.

GARY R. MILANO
Co-Project Manager / Coastal Habitat Restoration Coordinator
Miami-Dade County Dept. of Environmental Resources Management (DERM)

Mr. Milano earned a Bachelor of Science (Zoology) Degree from the University of Florida, and a Master's Degree in Marine Biology and Coastal Zone Management, from Nova Southeastern University. Mr. Milano has published technical papers on coastal habitat restoration and marine fishery population dynamics.

Mr. Milano started his career with the South Carolina Department of Natural Resources working on a National Oceanic and Atmospheric Administration (NOAA) marine resources monitoring, assessment and prediction program, and went on to work as a fisheries biologist for the Florida Department of Natural Resources, Florida Marine Research Institute from 1974-1979.

Mr. Milano is presently the Coastal Habitat Restoration Coordinator for the Miami-Dade Department of Environmental Resources Management (DERM). He has successfully completed over 50 habitat restoration

efforts during his 28 years with DERM. He has coordinated the restoration of over 500 acres of wetlands, 150 acres of coastal strand and dune community, 150 acres of tropical hardwood hammock, and 22 islands in Biscayne Bay. His commitment and enthusiasm has enabled him to gather widespread government and public support, and participation from the community for his program.

JOHN R. GUTTMAN, P.E.
Principal Consultant Engineer
Consulting Engineering & Science, Inc.

Mr. John R. Guttman is the designated Consultant Engineer for the proposed project, as selected through an RFQ process. He is a Florida licensed Professional Engineer and Certified Environmental Inspector. He received a Bachelor of Science degree in Biology in 1967, a Bachelor of Science degree in Civil Engineering in 1971, and a Master of Science degree in Environmental Engineering in 1972, all from Marquette University in Milwaukee, WI.

Mr. Guttman has extensive experience in all areas of civil, coastal, environmental, sanitary and utility engineering. He has been responsible for studies, designs and preparation of construction documents for numerous water and wastewater collection, transmission and treatment systems including a wide variety of site development projects containing paving, grading and drainage improvements. He has been extensively involved in the planning, permitting, design and construction of a wide variety of both private and public coastal projects.

He also has extensive experience in biological and environmental investigations leading to the preparation of a wide variety of impact and assessments reports. He has planned and implemented detailed field investigations, site inventories and sampling programs for a variety of residential, commercial and industrial projects throughout south Florida. He has also prepared engineering and feasibility reports including hazardous waste assessments and obtained a variety of permits from local, State, and Federal agencies.

In addition to his administrative duties as an officer of the firm, Mr. Guttman personally oversees all environmental planning projects which the firm undertakes. He maintains a close personal working relationship with the staffs of all environmental permitting agencies to facilitate a strong and creditable presence in sensitive permitting matters.

He has been personally responsible for the preparation of over 20 Development of Regional Impact Reports (DRI's) and Environmental Impact and Assessment Reports (EIAR's) including over 100 environmental site assessments. For the past twenty years, he has been extensively involved in the planning, permitting and design of recreational facilities and marinas.

ALÍCE WARREN, PH.D.
Biologist/Natural Resources Manager
Natural Areas Management, Miami-Dade County Park and Recreation Department

Dr. Alice Warren has been a key contributor to the restoration of natural areas in Miami-Dade since she began her employment with Miami-Dade County Park and Recreation Department in 1993. She served as Natural Resources Manager and Environmental Education Coordinator at the Deering Estate at Cutler for nearly 16 years before transferring to the Natural Areas Management division in June 2008.

She received a Ph.D. in Biology from Florida International University in 2008. Both her Master of Arts degree in Geography (Natural Resources Management) and her Bachelor of Arts degree in Interdisciplinary Environmental Studies were earned from the University of Florida in the early 90's. She graduated summa cum laude from Manatee Community College in 1987 and received her Arborist Certification from the International Society of Arboriculture in 2001.

County projects to which she has contributed include: Chicken Key Bird Rookery – island restoration; Deering Estate Demonstration Coastal Saltmarsh creation; Cutler Slough / Deering Flow Way rehydration; Cutler weir installation; reconstruction of historic Keyhole Boat Turning Basin; relocation of large native trees (including 60' Royal palms); arboricultural care for plant resources and treatment for historic Tequesta burial mound Live oak (*Quercus virginiana*); Management Plan, Master Plan and Resource Treatment and Site Plan; and Deering Estate Interdisciplinary Web-based Middle School Curriculum.

Between 1992 and 1994, she served as Assistant Director of Programs with Caribbean Conservation Corporation in Gainesville, Florida, where she participated in the following projects: Green turtle research activities in Tortuguero, Costa Rica; Miskito Coast Protected Area Project in northeastern Nicaragua; and Paseo Pantera Project: western Caribbean. Between 1993 and 1996, she served as Ecotour Conductor with Explorations, Inc., in Bonita Beach, Florida, where she guided one to two week duration ecotours for small groups through natural resource zones of tropical regions of Costa Rica and the Peruvian Amazon.

JAY FORNI
Construction Manager 3
Construction Services Section, Miami-Dade County Park and Recreation Department

Mr. Jay Forni is a State Certified General Contractor, License Number CGC042092. The Construction Services Section facilitates construction management for construction projects. Mr. Forni has been involved in the management of a variety of projects such as new construction, building renovations, site improvements, athletic fields, sports courts, lighting projects, drainage projects, and environmentally sensitive projects (i.e. Hardy Matheson Park Roadway, Improvement Mitigation, Deering Weir at Cutler Creek, Chitohatchee Park Development, and Deering South Improvements at C-100 Canal). His employment duties include: Project Plan review and site visits, for constructability; Estimating project construction costs; Preparation of bidding documents and detailed scopes of work for all projects; Coordination and processing of RFI's during bidding and construction process; Coordination of all Preconstruction activities; Managing the construction process with consultants and contractors from beginning to completion; Change order review and processing throughout the project; Quality assurance from beginning of construction period through closeout; Contractor payments, requisitions, change orders, warranties, etc.

DANIEL F. CRAWFORD
Construction & Renovation Supervisor 1
Construction Services Section, Miami-Dade County Park & Recreation Department
Design and Construction Division

Daniel F. Crawford has been employed with the County for 35 years. Since then he has worked on numerous Natural Areas Management projects including, but not limited to: Highland Oaks Park Phase One Mitigation - Culvert Installation, Bank sloping & natural planting per architect & DERMS's specifications; Greynolds Park - Reclaiming leased land from tenant, providing parking area, access control fencing and establishing a landscaped area with up-land plants and those along the edge of the Oleta River; Haulover Park Handicap Access Routes through Natural Areas Dunes, i.e. eradicated acres of Scavole within Sand Dune Areas of Haulover Park; Charles Deering Estate Weir Construction Project - worked exclusively with Natural Areas Management within the Deering Estate Property (A Natural Forrest) managing the construction of a dam within the natural river bed that was excavated in 1899; and Natural Areas Management Clearing of 10 separate sites. He has serves as Project Manager to contract and clear exotic plants and trees from Natural Area's as directed by Natural Areas Management and manages contractors with Brontosaurus type of machinery to grind exotic plant material while working around tagged desirable plants & shrubs. In addition to the projects listed above, he has extensive knowledge of the Park system and the people who work within it. He holds the following licenses: Miami Dade County Construction Trades Qualifying Board: General Engineering # 19960001 1and Florida Department Of Agriculture and Consumer Services Public Applicator License Categories # 5A Aquatics & # 6 Right of Way.

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ATTACHMENT 2

JOHN M. RICISAK
Environmental Resources Project Supervisor
Miami-Dade County, Department of Environmental Resources Management (DERM)

Mr. Ricisak has supervised the compliance and enforcement program of DERM's Coastal Resources Section since 2000. His responsibilities include performing and/or coordinating inspections of both permitted and unauthorized activities (e.g. marine construction, dredge and fill, mangrove trimming / alteration, dewatering, etc.) occurring in tidal waters and coastal wetland areas of Miami-Dade County and initiating enforcement actions as necessary. He oversees DERM's derelict vessel removal program and is currently administering a $200,000.00 NOAA Community-Based Marine Debris Prevention and Removal grant project. His career with Miami-Dade County began in 1991 when he served DERM as a Pollution Control Inspector for more than 5 years. He has also served as a Biologist with DERM's Environmentally Endangered Lands (EEL) Program and as the County Archaeologist He received a Bachelor of Science degree in Anthropology in 1984 from Florida State University in Tallahassee, Florida. He later earned a Bachelor of Arts degree, with honors, in Environmental Studies in 1990 from the Florida International University in Miami, Florida. His certifications include: Hazardous Waste Operations and Emergency Response; Basic First Aid and CPR; DERM Code Enforcement Training; National Park Service S130 and S190 Wildland Fire Fighting; and Miami-Dade County Supervisory Training. He was awarded Employee of the Year in 1993 and again in 2003.

OLETA RIVER HEADWATERS RESTORATION

ATTACHMENT 3

MIAMI-DADE COUNTY

PROJECT VICINITY MAP

T-51S, R-42E,S-33

DRAWN BY: DMP	DATE: 03/26/2009
CHECKED BY:	SCALE: AS SHOWN

30-1

OVERVIEW OF OLETA RESTORATION PROJECTS AT HIGHLAND OAKS PARK

HIGHLAND OAKS PARK
20300 N.E. 24TH AVENUE
MIAMI, FLORIDA

NORTH

NO SCALE

LEGEND

COMPLETED RESTORATION SITES (5.6 acres +/-)

PHASE 4 RESTORATION SITES (2 acres +/-)

25

31

ATTACHMENT 3

My Home
Miami-Dade County, Florida

miamidade.gov

MIAMI-DADE

Property Information Map

Digital Orthophotography - 2007 0 296 ft

This map was created on 3/11/2009 3:32:29 PM for reference purposes only.

Web Site © 2002 Miami-Dade County. All rights reserved.

Close

Summary Details:

Folio No.:	30-1233-000-0070
Property:	20459 NE 24 AVE
Mailing Address:	MIAMI-DADE COUNTY PARKS AND RECREATION 275 NW 2 ST 4FL MIAMI FL 33128-1794

Property Information:

Primary Zone:	0100 SINGLE FAMILY RESIDENCE
CLUC:	0080 VACANT LAND-GOVERNMENTAL
Beds/Baths:	0/0
Floors:	0
Living Units:	0
Adj Sq Footage:	0
Lot Size:	38 ACRES
Year Built:	0
Legal Description:	33 51 42 37.568 AC M/L PT S1/2 OF NE1/4 & PT NE1/4 OF SE1/4 DESC BEG NW COR OF SE1/4 OF SW1/4 OF NE1/4 TH E1324.36FT S970FT M/L TO C/L OLETA RIVER SELY ALG SD C/L TO X WITH N

Sale Information:

Sale O/R:	
Sale Date:	0/0
Sale Amount:	$0

Assessment Information:

Year:	2008	2007
Land Value:	$1,800,108	$1,800,108
Building Value:	$0	$0
Market Value:	$1,800,108	$1,800,108
Assessed Value:	$1,800,108	$1,800,108

Taxable Value Information:

Year:	2008	2007
Taxing Authority:	Applied Exemption/ Taxable Value:	Applied Exemption/ Taxable Value:
Regional:	$1,800,108/ $0	$1,800,108/ $0
County:	$1,800,108/ $0	$1,800,108/ $0
School Board:	$1,800,108/ $0	$1,800,108/ $0

ATTACHMENT 3

32

ATTACHMENT 4

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
ENVIRONMENTAL RESOURCE
STANDARD GENERAL PERMIT NO. 13-02329-P
DATE ISSUED: June 9, 2004

Form #0941
08/95

PERMITTEE: MIAMI-DADE COUNTY PARK AND RECREATION
275 NW 2ND ST 5TH FL
MIAMI, FL 33128

PROJECT DESCRIPTION: Construction and operation of a 2.13 acre environmental restoration project known as Oleta River Headwaters Restoration.

PROJECT LOCATION: MIAMI-DADE COUNTY, SEC 33 TWP 51S RGE 42E

PERMIT DURATION: See Special Condition No:1. See attached Rule 40E-4.321, Florida Administrative Code.

This is to notify you of the District's agency action concerning Notice of Intent for Permit Application No. 040219-3, dated February 19, 2004. This action is taken pursuant to Rule 40E-1.603 and Chapter 40E-40 , Florida Administrative Code (F.A.C.).

Based on the information provided, District rules have been adhered to and an Environmental Resource General Permit is in effect for this project subject to:

1. Not receiving a filed request for a Chapter 120, Florida Statutes, administrative hearing.
2. the attached 19 General Conditions (See Pages : 2 - 4 of 6).
3. the attached 12 Special Conditions (See Pages : 5 - 6 of 6) and
4. the attached 17 Exhibit(s).

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights," we will assume that you concur with the District's action.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a "Notice of Rights" has been mailed to the Permittee (and the persons listed in the attached distribution list) no later than 5:00 p.m. on this 9th day of June, 2004, in accordance with Section 120.60(3), Florida Statutes.

BY: _____

Robert G. Robbins
Director - Natural Resource Management
Palm Beach Service Center

Certified mail number 7003 1010 0000 4434 3071

GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373, F.S.

2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by District staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

3. Activities approved by this permit shall be conducted in a manner which does not cause violations of State water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of State water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), incorporated by reference in Rule 40E-4.091, F.A.C. unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.

4. The permittee shall notify the District of the anticipated construction start date within 30 days of the date that this permit is issued. At least 48 hours prior to commencement of activity authorized by this permit, the permittee shall submit to the District an Environmental Resource Permit Construction Commencement Notice Form Number 0960 indicating the actual start date and the expected construction completion date.

5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the District on an annual basis utilizing an annual status report form. Status report forms shall be submitted the following June of each year.

6. Within 30 days after completion of construction of the permitted activity, the permitee shall submit a written statement of completion and certification by a professional engineer or other individual authorized by law, utilizing the supplied Environmental Resource/Surface Water Management Permit Construction Completion/Certification Form Number 0881A, or Environmental Resource/Surface Water Management Permit Construction Completion Certification - For Projects Permitted prior to October 3, 1995 Form No. 0881B, incorporated by reference in Rule 40E-1.659, F.A.C. The statement of completion and certification shall be based on onsite observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the District that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, and submitted a request for conversion of Environmental Resource Permit from Construction Phase to Operation Phase, Form No. 0920; the District determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the District in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications within the South Florida Water Management District, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and

GENERAL CONDITIONS

maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the District, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 40E-1.6107, F.A.C., the permittee shall be liable for compliance with the terms of the permit.

8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.

9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the District along with any other final operation and maintenance documents required by Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit applications within the South Florida Water Management District, prior to lot or units sales or prior to the completion of the system, whichever comes first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State, county or municipal entities. Final operation and maintenance documents must be received by the District when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the District in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.

11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C..

12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the State, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.

13. The permittee must obtain a Water Use permit prior to construction dewatering, unless the work qualifies for a general permit pursuant to Subsection 40E-20.302(3), F.A.C., also known as the "No Notice" Rule.

14. The permittee shall hold and save the District harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding, unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the District in writing within 30 days of any sale, conveyance, or other transfer of

GENERAL CONDITIONS

ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of Rules 40E-1.6105 and 40E-1.6107, F.A.C.. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.

17. Upon reasonable notice to the permittee, District authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.

18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate District service center.

19. The permittee shall immediately notify the District in writing of any previously submitted information that is later discovered to be inaccurate.

SPECIAL CONDITIONS

1. The construction phase of this permit shall expire on June 11, 2009.
2. Operation of the surface water management system shall be the responsibility of the permittee.
3. The permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the construction or operation of the surface water management system.
4. Measures shall be taken during construction to insure that sedimentation and/or turbidity violations do not occur in the receiving water. These measures shall include the installation and maintenance of erosion and turbidity control mechanisms such as hay bales, silt screens, etc. throughout the duration of construction activities to prevent the migration of any visible turbidity plume downstream of the construction activities.
5. The District reserves the right to require that additional water quality treatment methods be incorporated into the drainage system if such measures are shown to be necessary.
6. Facilities other than those stated herein shall not be constructed without an approved modification of this permit.
7. A stable, permanent and accessible elevation reference shall be established on or within one hundred (100) feet of all permitted discharge structures no later than the submission of the certification report. The location of the elevation reference must be noted on or with the certification report.
8. The permittee shall provide routine maintenance of all of the components of the surface water management system in order to remove all trapped sediments/debris. All materials shall be properly disposed of as required by law. Failure to properly maintain the system may result in adverse flooding conditions.
9. This permit is issued based on the applicant's submitted information which reasonably demonstrates that adverse water resource related impacts will not be caused by the completed permit activity. Should any adverse impacts caused by the completed surface water management system occur, the District will require the permittee to provide appropriate mitigation to the District or other impacted party. The District will require the permittee to modify the surface water management system, if necessary, to eliminate the cause of the adverse impacts.
10. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).

    The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.

    Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.

    All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

    If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

SPECIAL CONDITIONS

Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) in south Florida.

Temporary signs concerning manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the permittee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 81/2" by 11" which reads Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. The U.S. Fish and Wildlife Service should also be contacted in Jacksonville (1-904-232-2580) for north Florida or in Vero Beach (1-561-562-3909) for south Florida.

11. A maintenance program shall be implemented for the restored wetland areas on a regular basis to ensure the integrity and viability of those areas as permitted. Maintenance shall be conducted in perpetuity to ensure that Category 1 exotic vegetation (as defined by the Florida Exotic Pest Plant Council at the time of permit issuance) does not become established in this area.

12. The permittee shall perform regular maintenance of the restored river to ensure flushing to the adjacent wetlands.

ATTACHMENT 4

40E-4.321 Duration of Permits

(1) Unless revoked or otherwise modified the duration of an environmental resource permit issued under this chapter or Chapter 40E-40, F.A.C. is as follows:

(a) For a conceptual approval, two years from the date of issuance or the date specified as a condition of the permit, unless within that period an application for an individual or standard general permit is filed for any portion of the project. If an application for an environmental resource permit if filed, then the conceptual approval remains valid until final action is taken on the environmental resource permit application. If the application is granted, then the conceptual approval is valid for an additional two years from the date of issuance of the permit. Conceptual approvals which have no individual or standard general environmental resource permit applications filed for a period of two years shall expire automatically at the end of the two year period.

(b) For a conceptual approval filed concurrently with a development of regional impact(DRI) application for development approval (ADA) and a local government comprehensive plan amendment, the duration of the conceptual approval shall be two years from whichever one of the following occurs at the latest date:

1. the effective date of the local government's comprehensive plan amendment.
2. the effective date of the local government's development order.
3. the date on which the District issues the conceptual approval, or
4. the latest date of the resolution of any chapter 120.57, F.A.C., administrative proceeding or other legal appeals.

(c) For an individual or standard general environmental resource permit, five years from the date of issuance or such amount of time as made a condition of the permit.

(d) For a noticed general permit issued pursuant to chapter40-E-400, F.A.C., five years from the date the notice of intent to use the permit is provided to the District.

(2)(a) Unless prescribed by special permit condition, permits expire automatically according to the timeframes indicated in this rule. If application for extension if made in writing pursuant to subsection (3), the permit shall remain in full force and effect until:

1. the Governing Board takes action on an application for extension of an individual permit, or
2. staff takes action on an application for extension of a standard general permit.

(b) Installation of the project outfall structure shall not constitute a vesting of the permit.

(3) The permit extension shall be issued provided that a permittee files a written request with the District showing good cause prior to the expiration of the permit. For the purposes of this rule, good cause shall mean a set of extenuating circumstances outside of the control of the permittee. Requests for extensions, which shall include documentation of the extenuating circumstances and how they have delayed this project, will not be accepted more than 180 days prior to the expiration date.

(4) Substantial modifications to Conceptual Approvals will extend the duration of the Conceptual Approval for two years from the date of issuance of the modification. For the purposes of this section, the term "substantial modification" shall mean a modification which is reasonably expected to lead to substantially different water resource or environmental impacts which require a detailed review.

(5) Substantial modifications to individual or standard general environmental resource permits issued pursuant to a permit application extend the duration of the permit for three years from the date of issuance of the modification. Individual or standard general environmental resource permit modifications do not extend the duration of a conceptual approval.

(6) Permit modifications issued pursuant to subsection 40E-4.331(2)(b), F.A.C. (letter modifications) do not extend the duration of a permit.

(7) Failure to complete construction or alteration of the surface water management system and obtain operation phase approval from the District within the permit duration shall require a new permit authorization in order to continue construction unless a permit extension is granted.

Specific authority 373.044, 373.113 F.S. Law Implemented 373.413, 373.416, 373.419, 373.426 F.S. History-New 9-3-81, Amended 1-31-82, 12-1-82, Formerly 16K-4.07(4), Amended 7-1-86, 4/20/94, Amended 7-1-86, 4/20/94, 10-3-95

ATTACHMENT 4

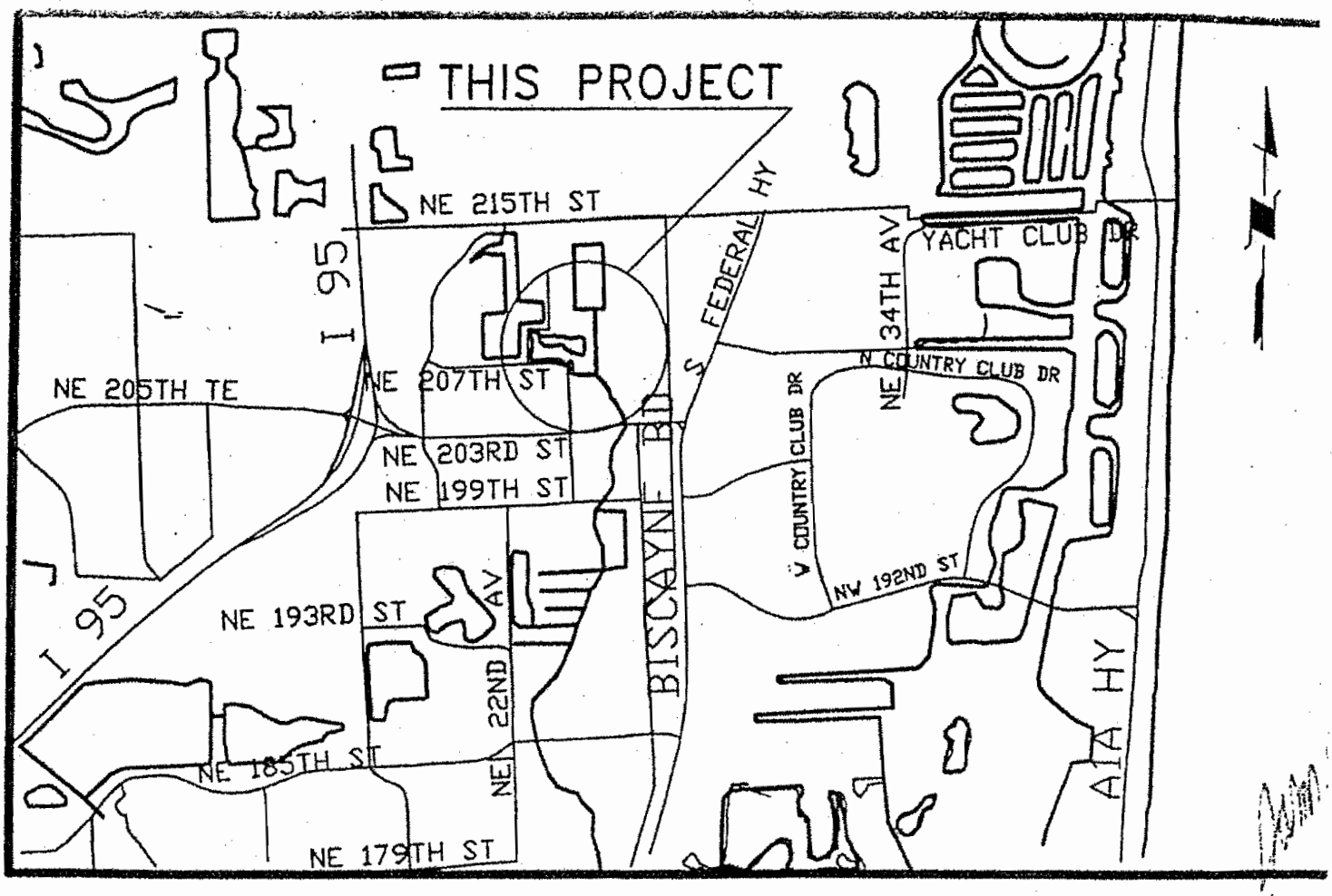
Included with this letter/permit is a brochure from the Florida Department of Environmental Protection (DEP) on Florida's National Pollutant Discharge Elimination System (NPDES) program for construction activities. As the brochure indicates, the U.S. Environmental Protection Agency authorized the DEP in October 2000 to implement the NPDES stormwater permitting program in Florida. The District is assisting DEP by distributing this information to entities which may be subject to regulation under the NPDES program. No response to the District is required.

A "Generic Permit for Stormwater Discharge from Construction Activities that Disturb Five or More Acres of Land" **is required for a construction activity which contributes stormwater discharges to surface waters of the State or into a municipal separate storm sewer system and disturbs five or more acres of land. A permit is required for less than five acres if the activity is part of a larger common plan of development or sale that will meet or exceed the five acre threshold.**

The permit required under DEP's NPDES stormwater permitting program is separate from the Environmental Resource Permit required by the District. Receiving a permit from the District does not exempt you from meeting the NPDES program requirements.

If you have any questions on the NPDES program, there are DEP phone numbers, mailing addresses and internet web page addresses in the brochure. The DEP web site, at www.dep.state.fl.us/water/stormwater/npdes/, provides information associated with the NPDES program including all regulations and forms cited in the brochure.

ATTACHMENT 4



VICINITY MAP

N.T.S.

EXHIBIT 1

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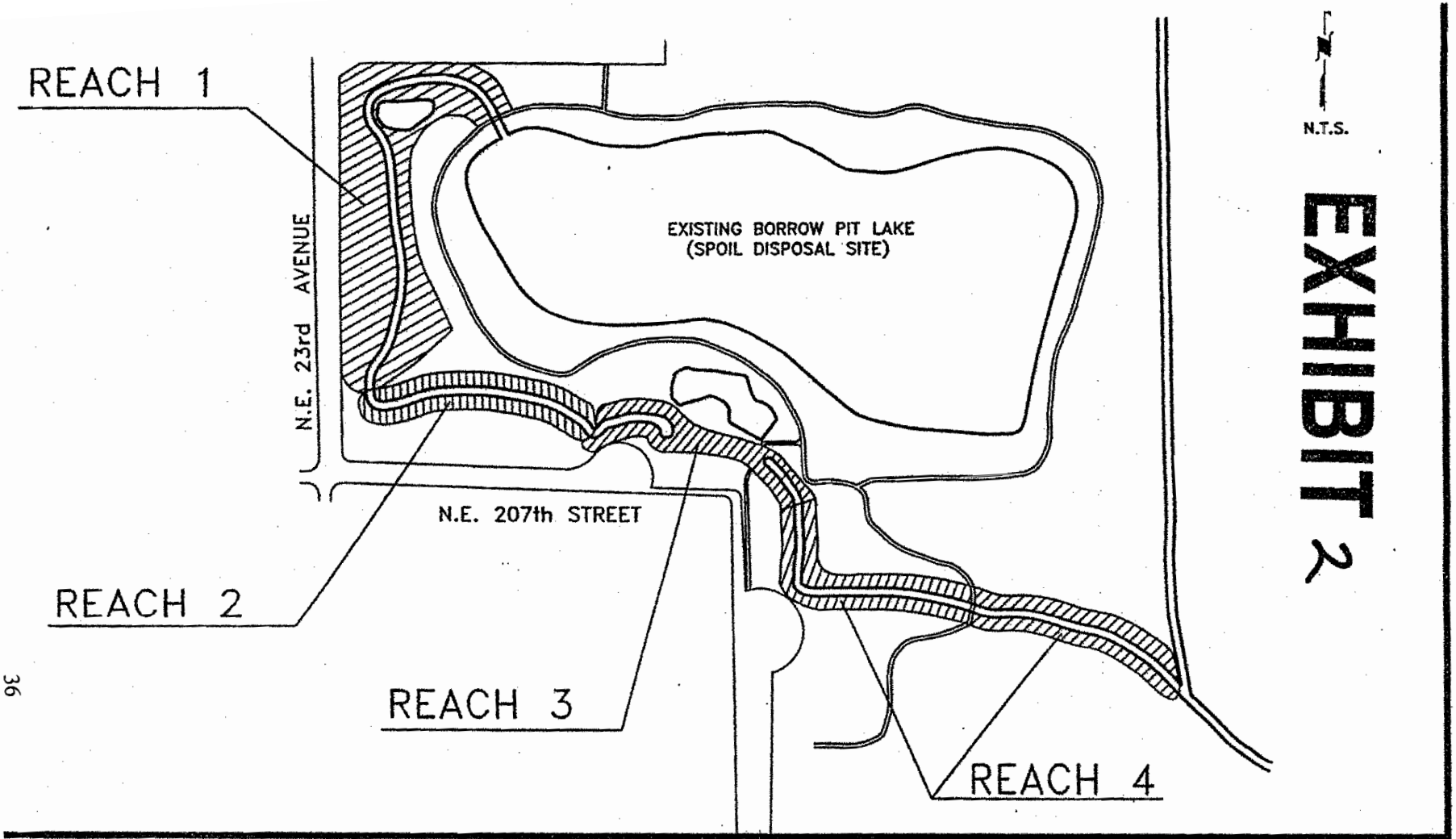
ATTACHMENT 4

EXHIBIT 2



PURPOSE: SITE PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
3925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/16/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 2 OF 17 DATE: 07-15-03

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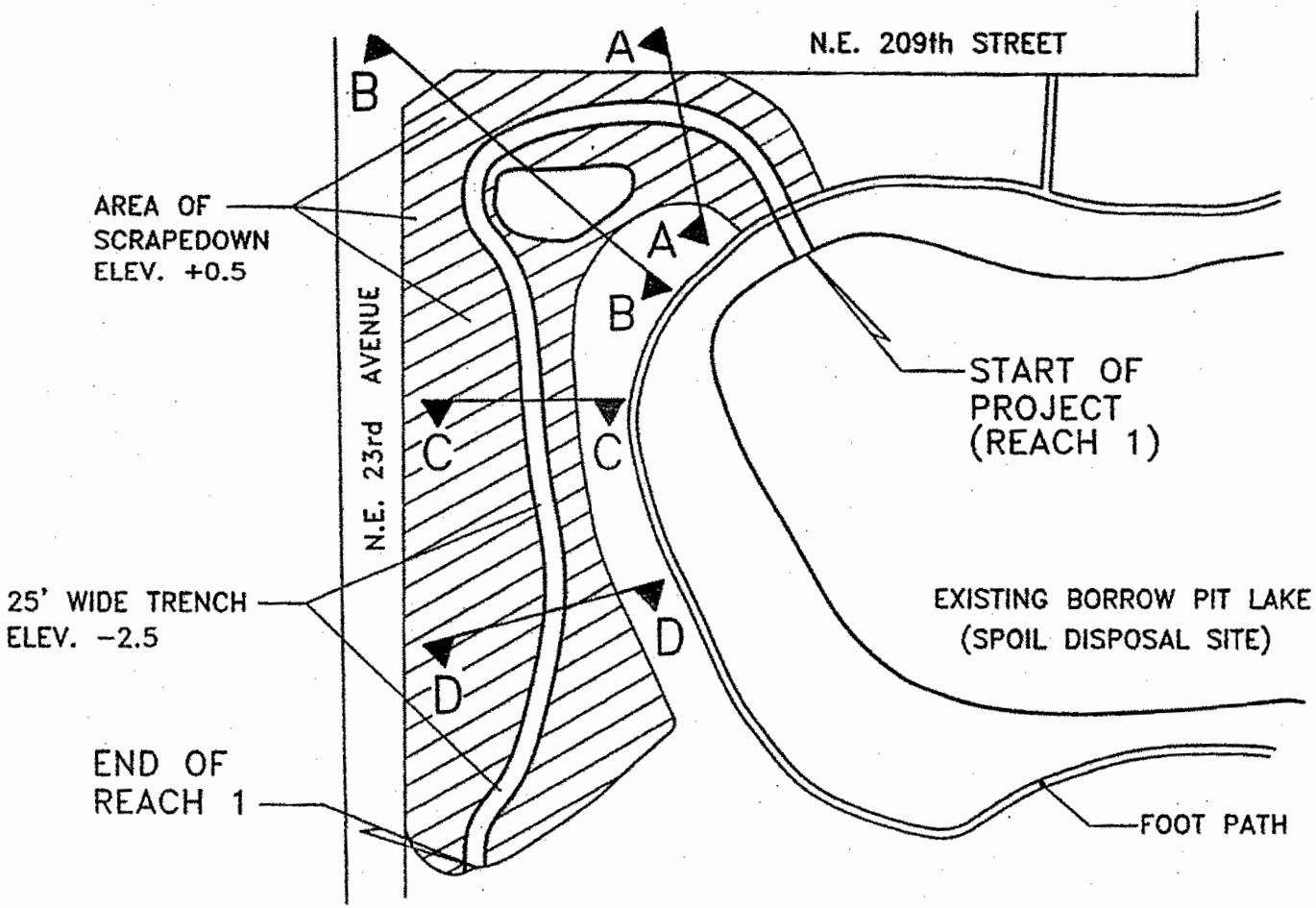
HIBIT 3



N.T.S.

PURPOSE: REACH 1 PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 3 OF 17 DATE: 07-15-03

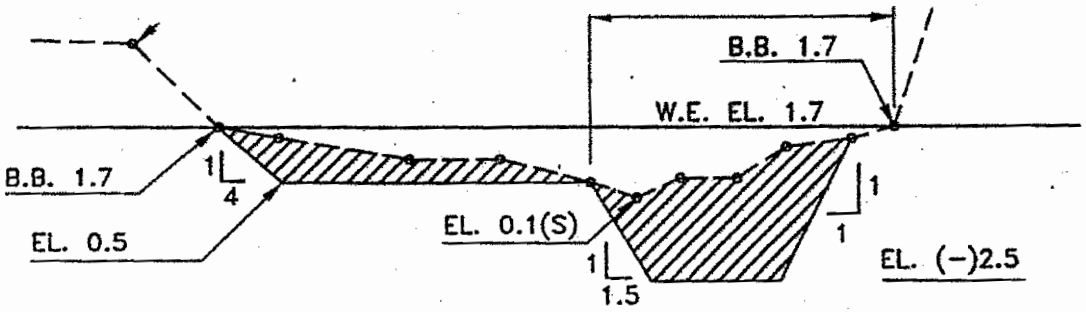
ATTACHMENT 4

37

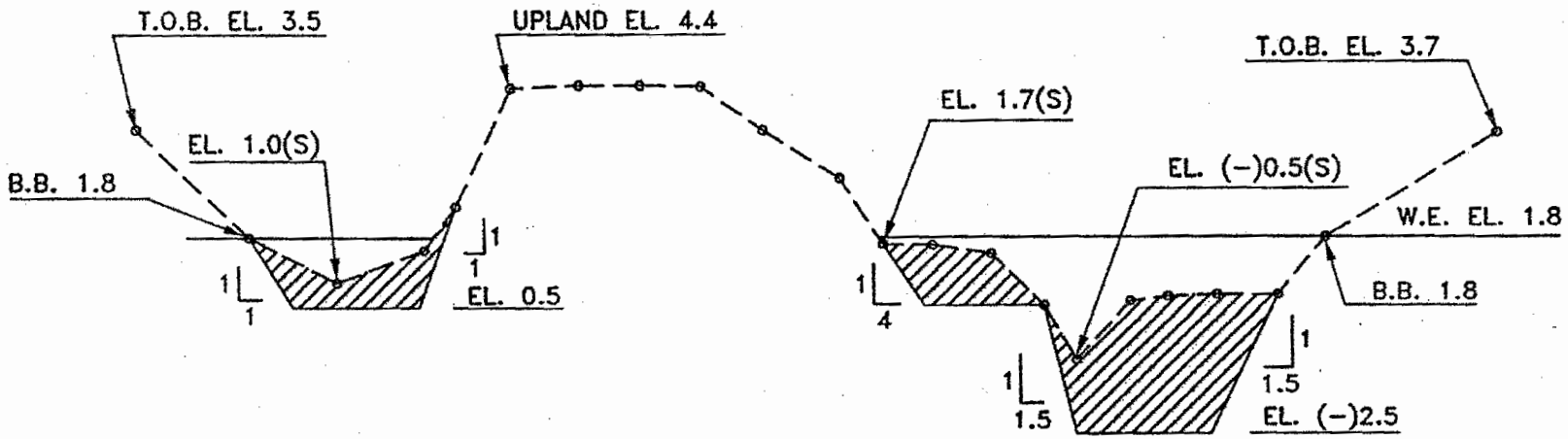
43

HIBIT 4

ATTACHMENT 4



CROSS SECTION A–A



CROSS SECTION B–B

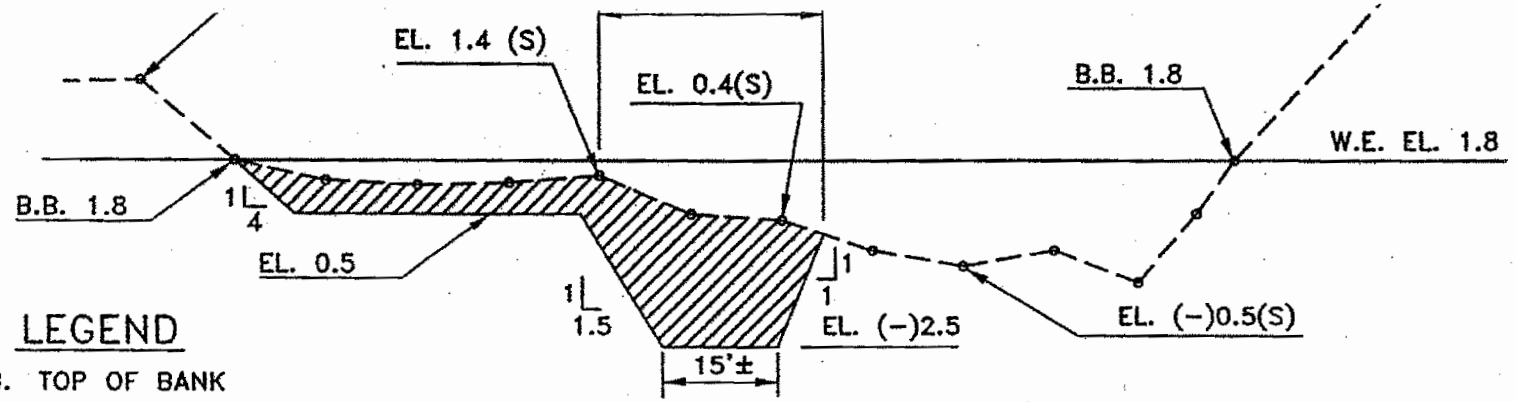
N.T.S.

PURPOSE: REACH 1 SECTIONS A–A & B–B
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/18/04

COUNTY OF MIAMI–DADE, STATE OF FLORIDA
APPLICATION BY:
Miami–Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 4 OF 17 DATE: 07–15–03

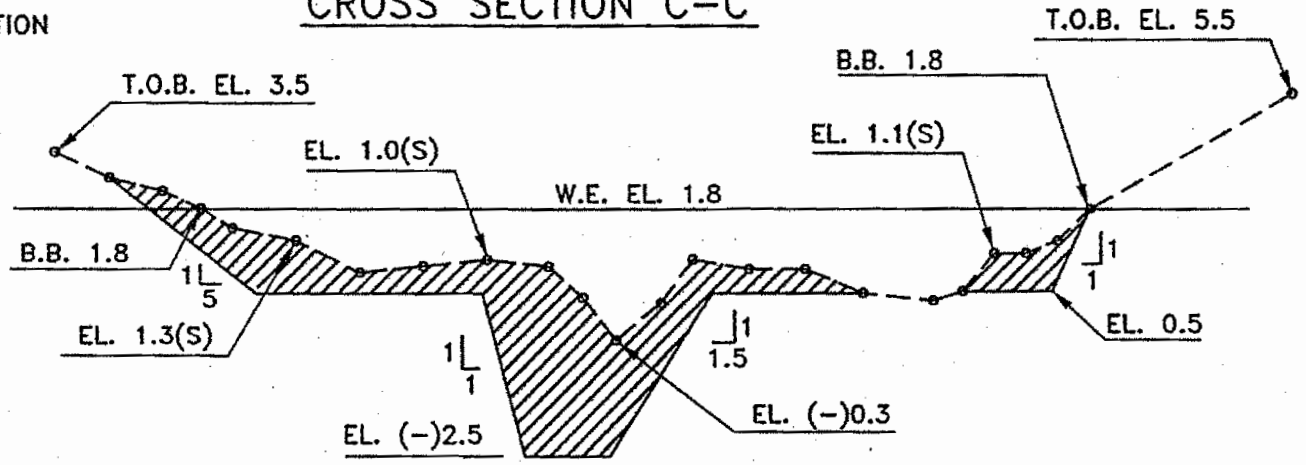
44



LEGEND

T.O.B. TOP OF BANK
B.B. BOTTOM OF BANK
S TOP OF SEDIMENT
W.E. WATER ELEVATION

CROSS SECTION C−C



CROSS SECTION D−D

N.T.S.

EXHIBIT 5

PURPOSE: REACH 1 SECTIONS C−C & D−D
DATUM: N.G.V.D.
PREPARED BY:
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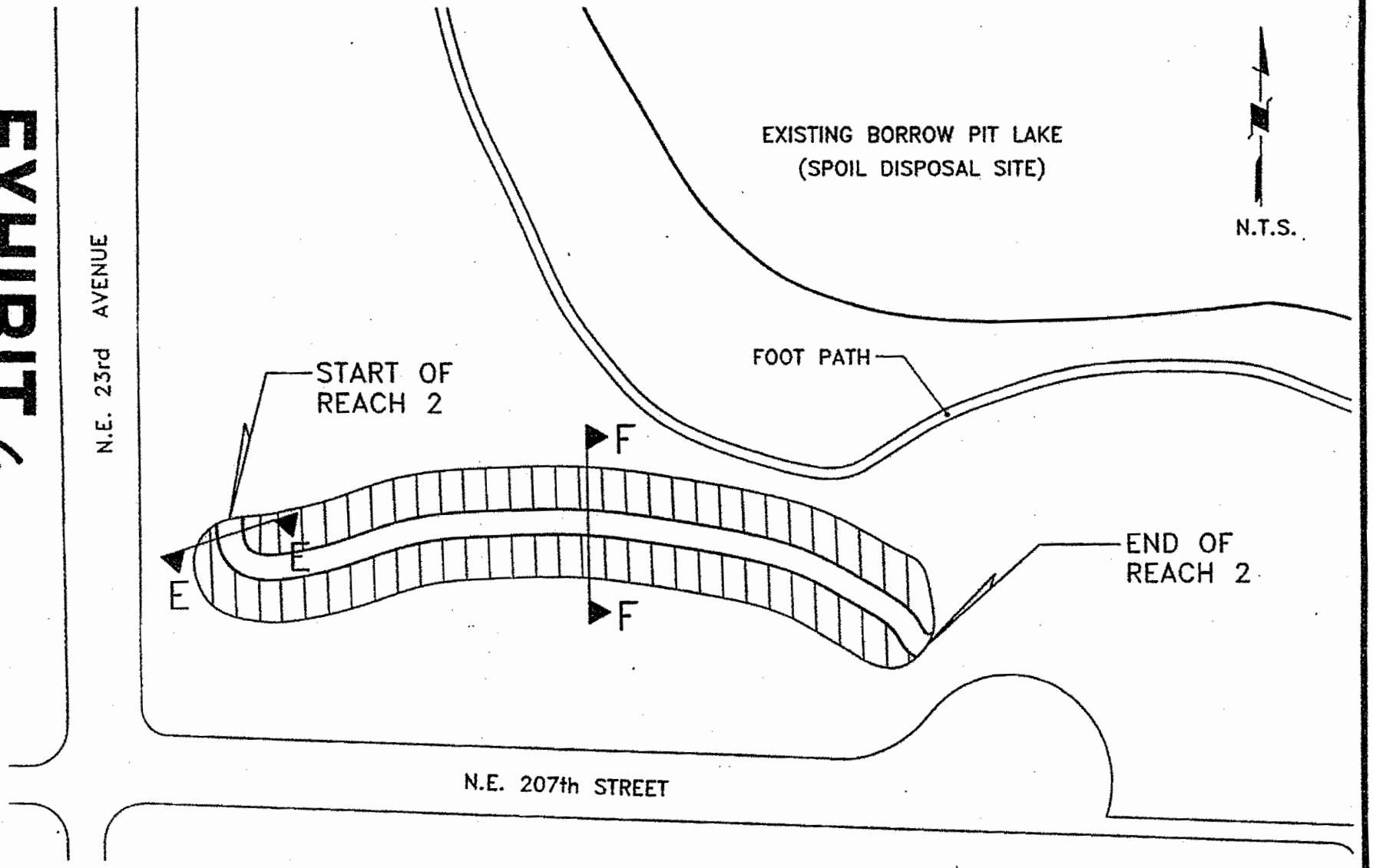
Miami, Florida 33176

2/18/04

COUNTY OF MIAMI−DADE, STATE OF FLORIDA
APPLICATION BY:
Miami−Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 5 OF 17 DATE: 07−15−03

ATTACHMENT 4

EXHIBIT 6

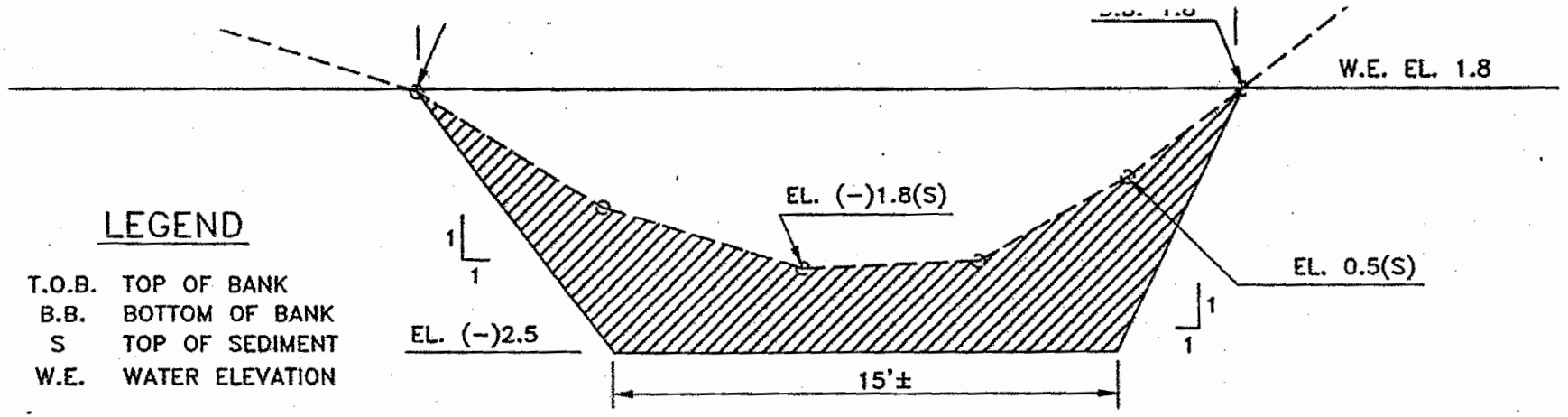


PURPOSE: REACH 2 PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/16/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 6 OF 17 DATE: 07-15-03

ATTACHMENT 4



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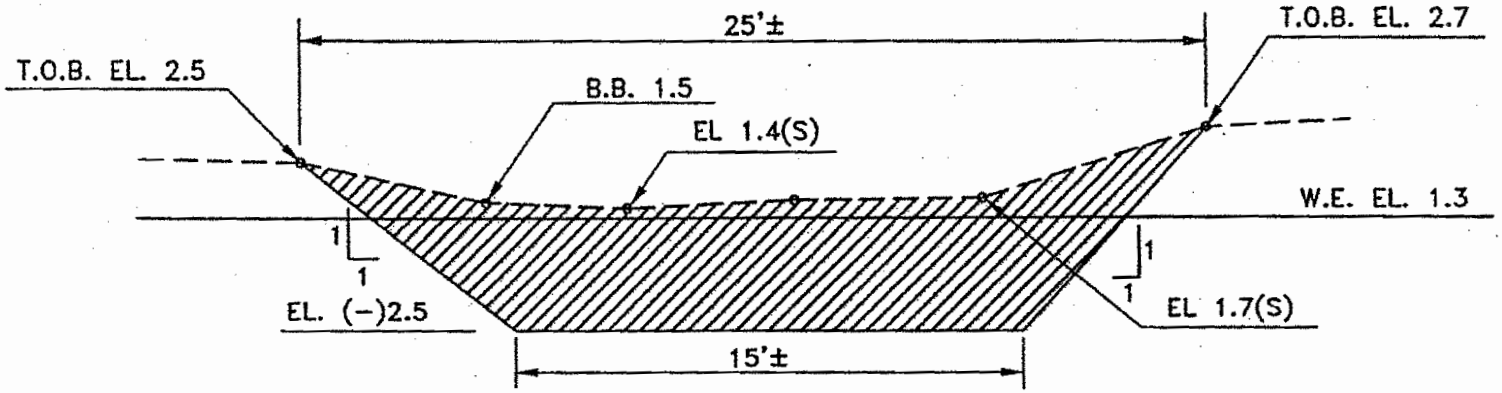

CROSS SECTION F−F

N.T.S.

LEGEND

T.O.B.	TOP OF BANK
B.B.	BOTTOM OF BANK
S	TOP OF SEDIMENT
W.E.	WATER ELEVATION

EXHIBIT 7

PURPOSE: REACH 2 SECTIONS E−E & F−F
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
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2/18/04

COUNTY OF MIAMI−DADE, STATE OF FLORIDA
APPLICATION BY:
Miami−Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 7 OF 17
DATE: 07−15−03

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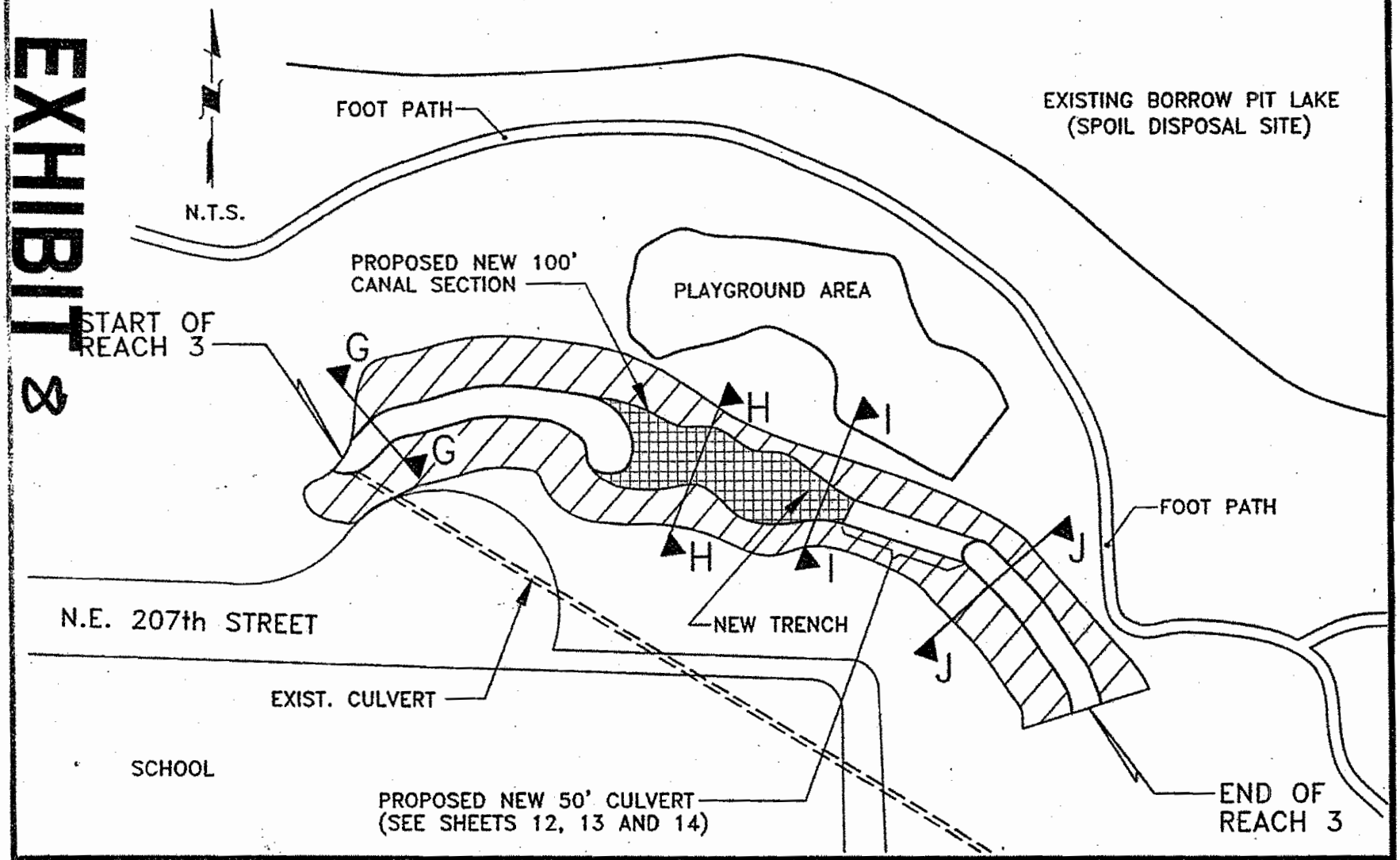
ATTACHMENT 4

EXHIBIT 8



PURPOSE: REACH 3 PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/16/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th floor
Miami, Florida 33130
SHEET 8 OF 17
DATE: 07-15-03

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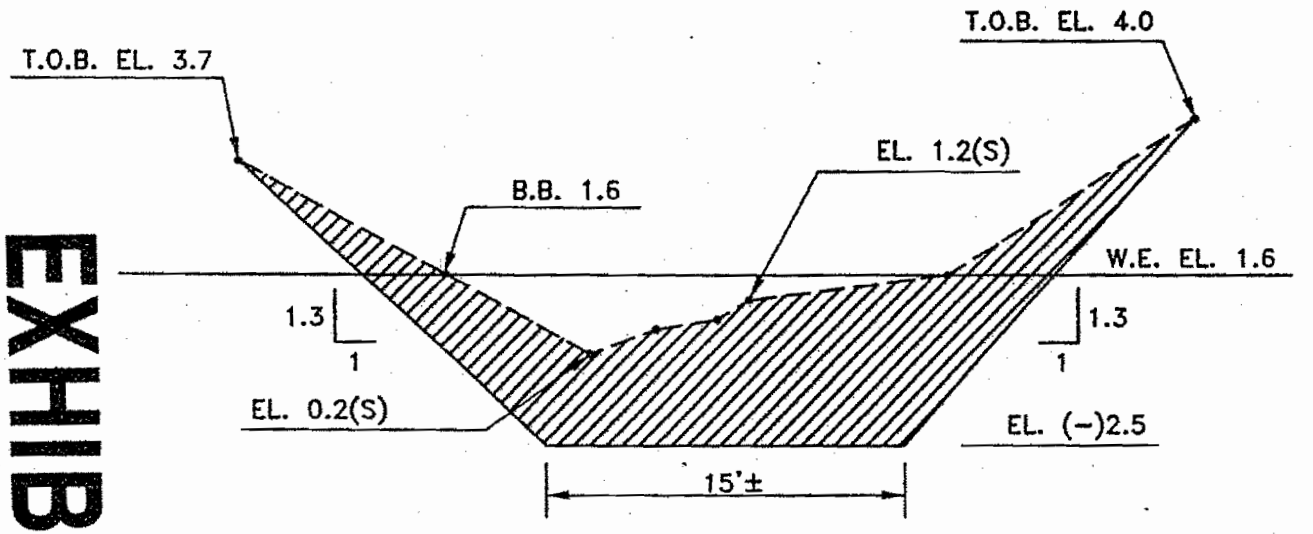
ATTACHMENT 4

EXHIBIT 9



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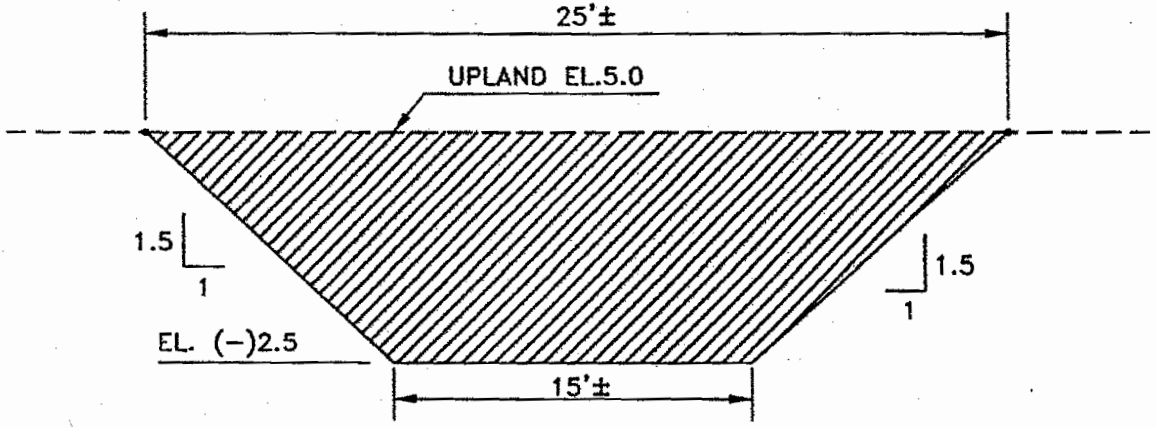


CROSS SECTION H-H

LEGEND

T.O.B.	TOP OF BANK
B.B.	BOTTOM OF BANK
S	TOP OF SEDIMENT
W.E.	WATER ELEVATION

N.T.S.

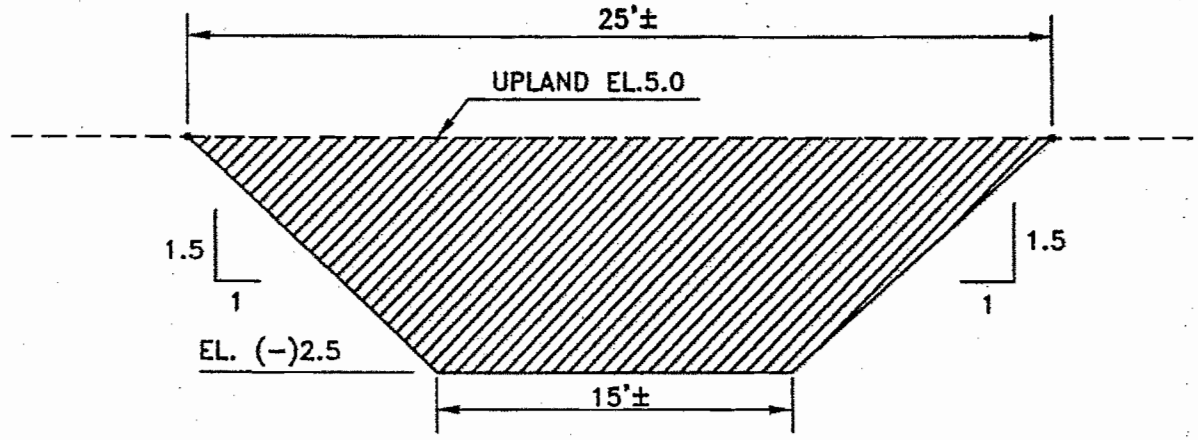
PURPOSE: REACH 3 SECTIONS G-G & H-H
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

John Guttman 2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 9 OF 17
DATE: 07-15-03

ATTACHMENT 4

EXHIBIT 10



CROSS SECTION I–I

LEGEND

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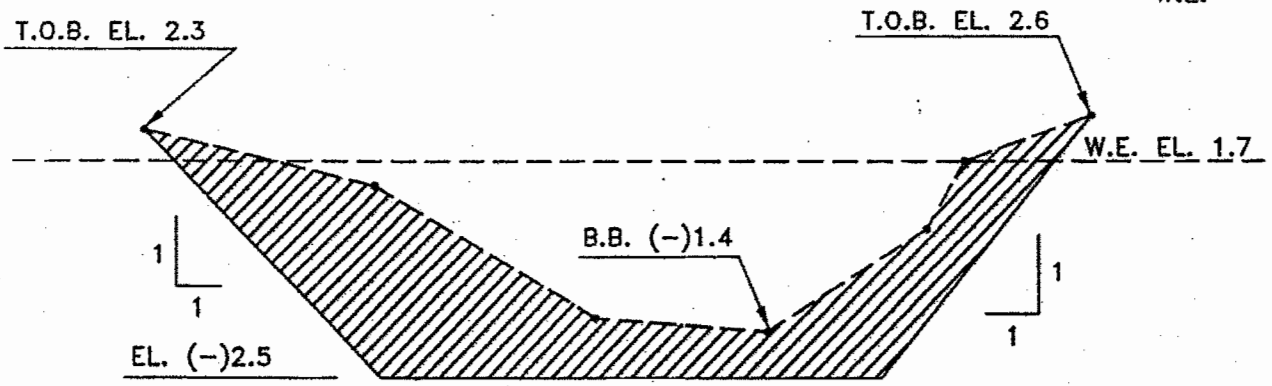
B.B.	BOTTOM OF BANK
S	TOP OF SEDIMENT
W.E.	WATER ELEVATION



CROSS SECTION J–J

N.T.S.

PURPOSE: REACH 3 SECTIONS I–I & J–J
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
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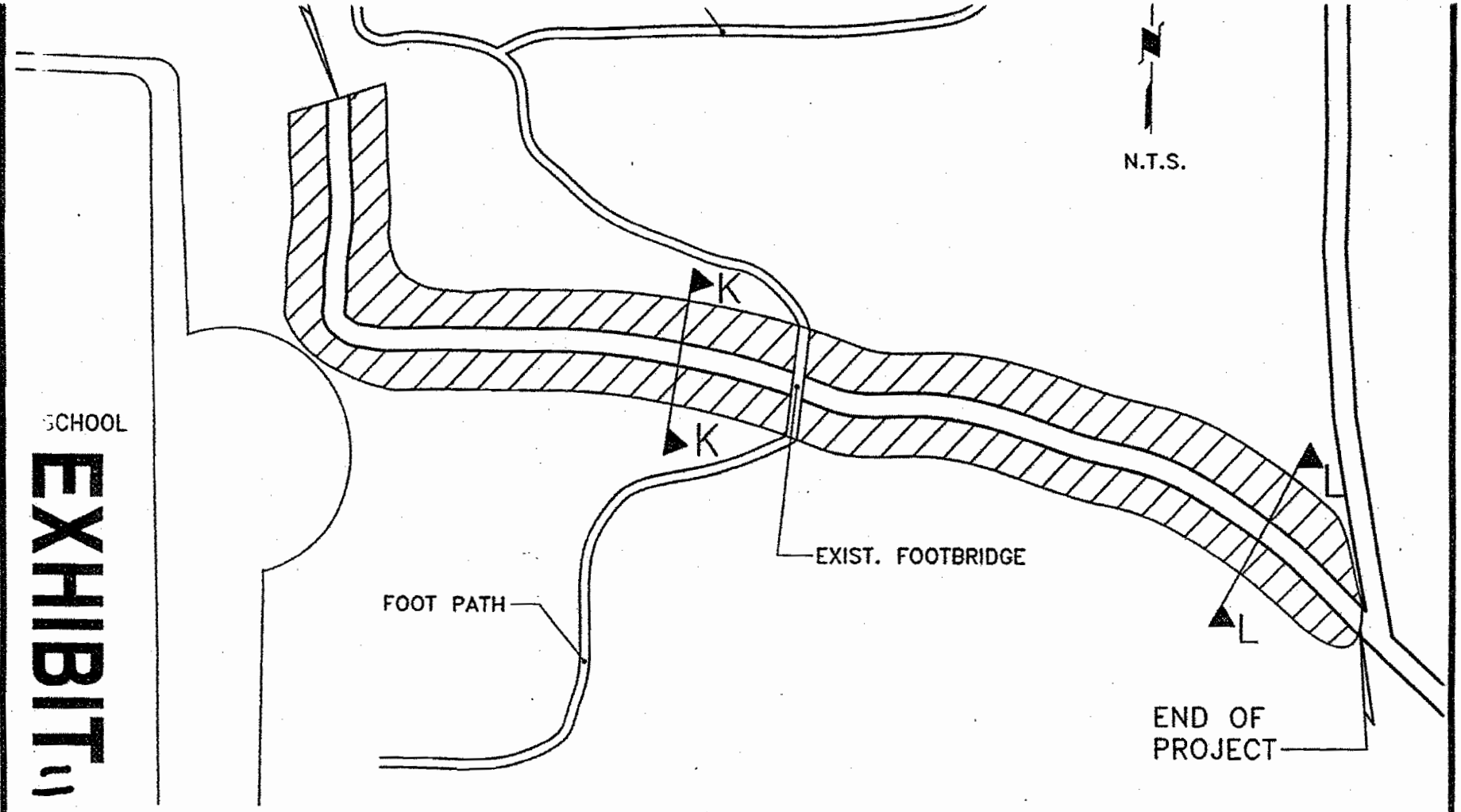
2/18/04

COUNTY OF MIAMI–DADE, STATE OF FLORIDA
APPLICATION BY:
Miami–Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 10 OF 17

DATE: 07–15–03

SD

ATTACHMENT 4



SCHOOL

EXHIBIT 11

PURPOSE: REACH 4 PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

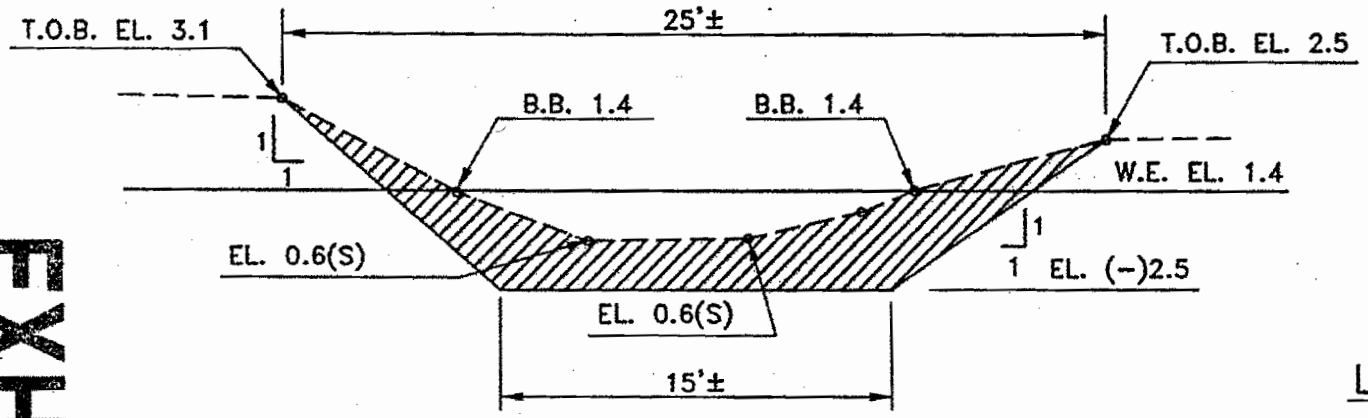
John Lettmon
2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 11 OF 17 DATE: 07-15-03

57

ATTACHMENT 4

EXHIBIT 12



CROSS SECTION K-K

LEGEND

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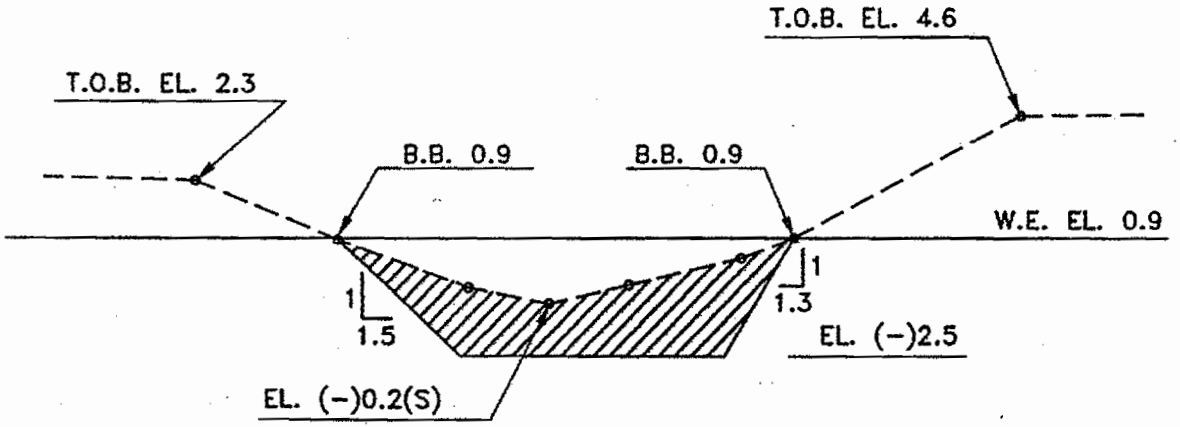
B.B.	BOTTOM OF BANK
S	TOP OF SEDIMENT
W.E.	WATER ELEVATION



CROSS SECTION L-L

N.T.S.

PURPOSE: REACH 4 SECTIONS K-K & L-L
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

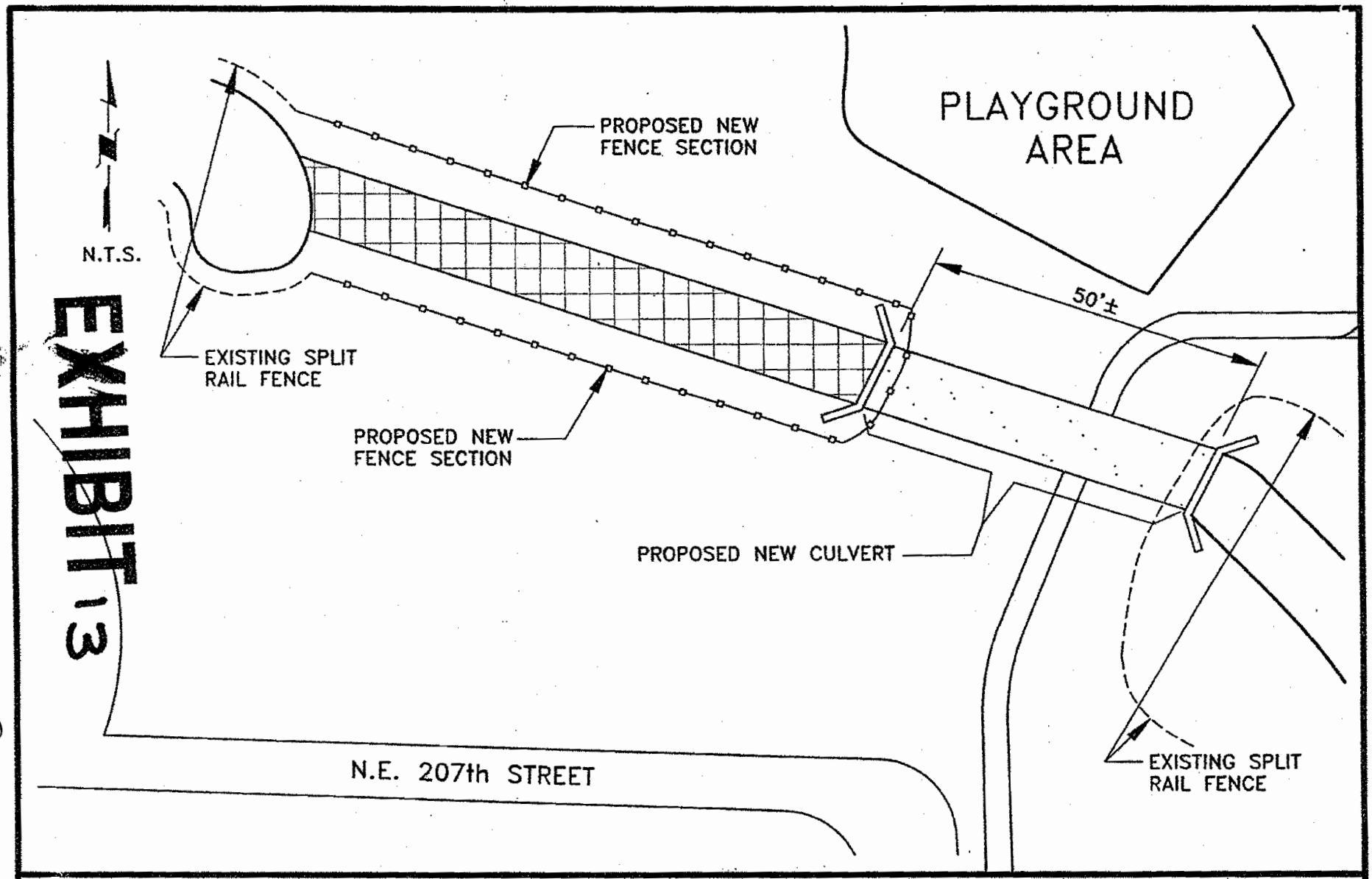
2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 12 OF 17

DATE: 07-15-03

S2

ATTACHMENT 4



PURPOSE: CULVERT PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

John Lattimore
2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th floor
Miami, Florida 33130
SHEET 13 OF 17
DATE: 07-15-03

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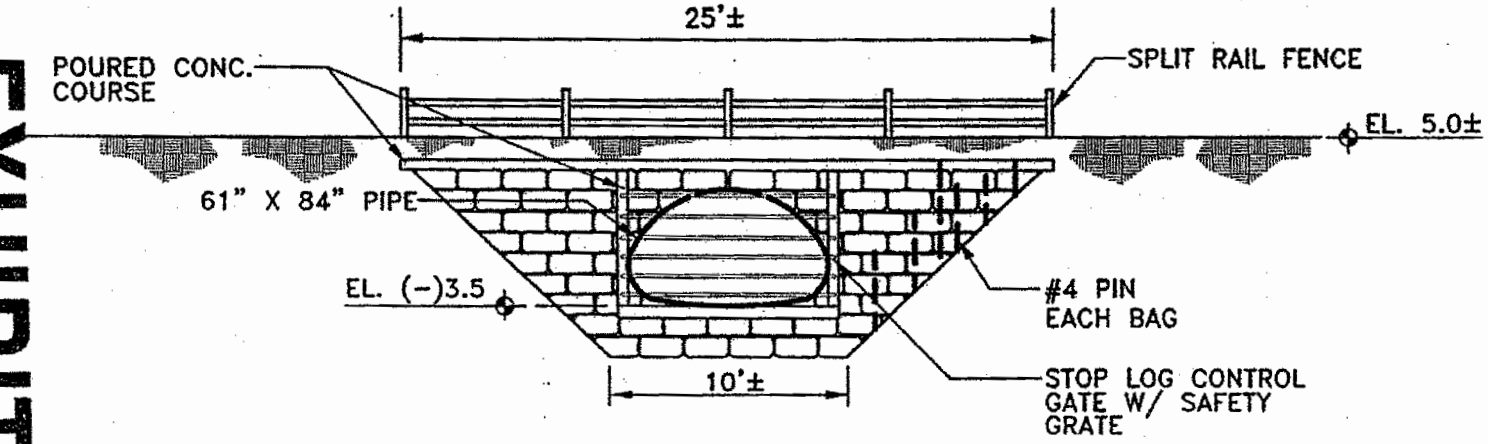
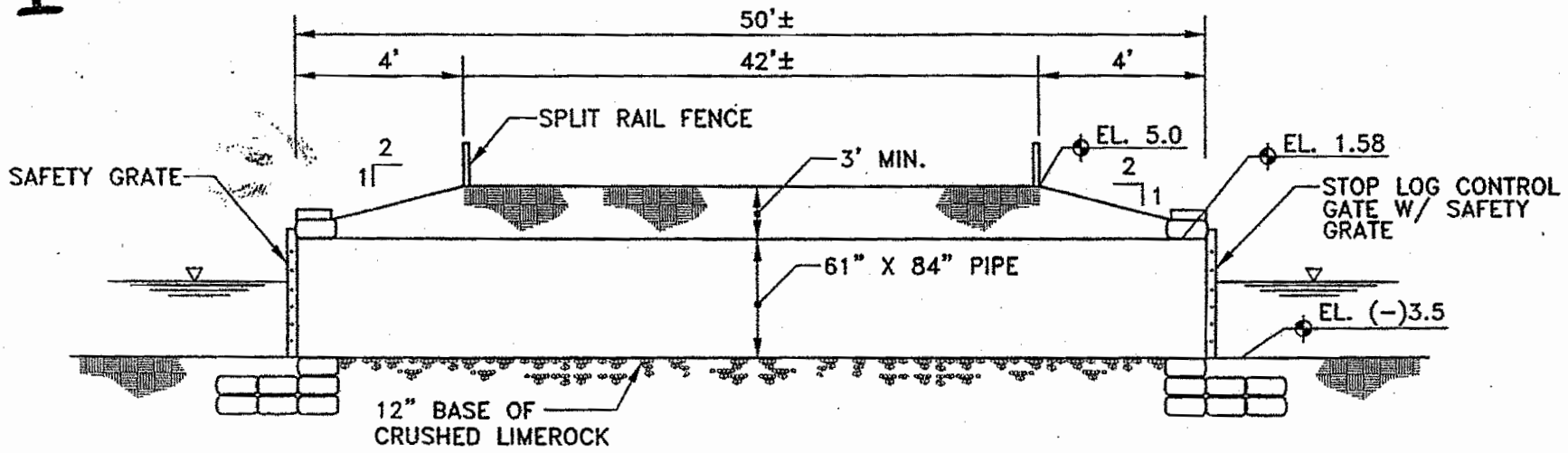
ATTACHMENT 4

EXHIBIT 14



END ELEVATION



LONGITUDINAL SECTION

N.T.S.

PURPOSE: PIPE CULVERT END ELEVATION & LONGITUDINAL SECTION
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

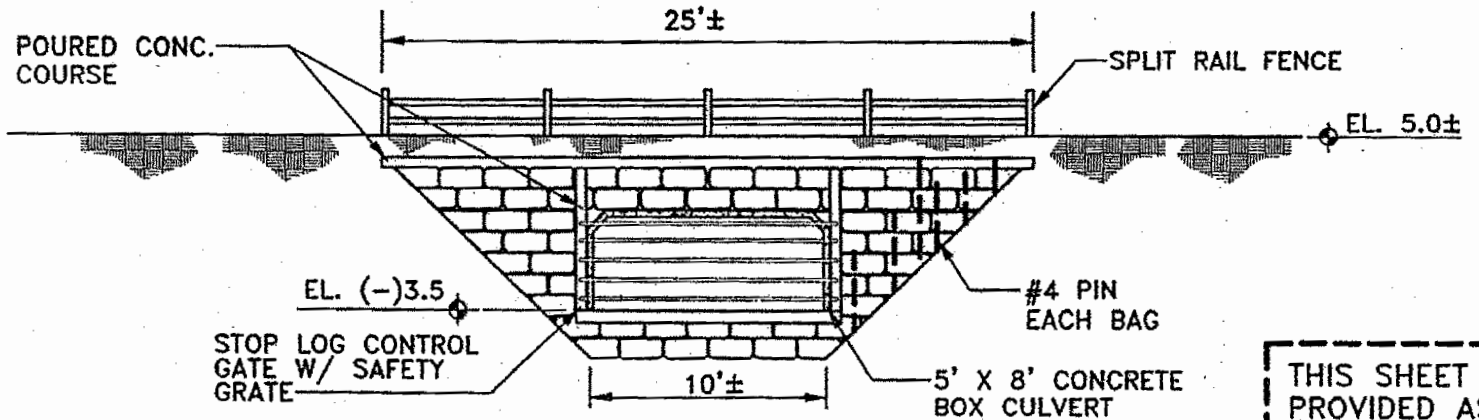
John Lehman
2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 14 OF 17
DATE: 07-15-03

54

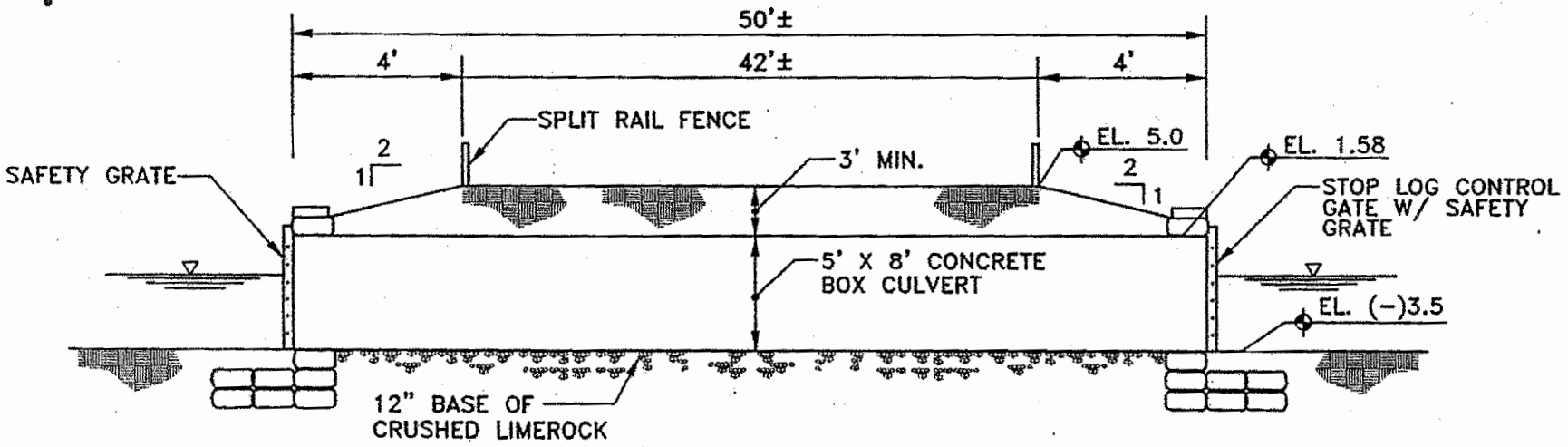
ATTACHMENT 4

EXHIBIT 5



THIS SHEET PROVIDED AS AN ALTERNATE

END ELEVATION



LONGITUDINAL SECTION

N.T.S.

PURPOSE: BOX CULVERT ALTERNATE
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/19/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 15 OF 17

DATE: 07-15-03

ATTACHMENT 4

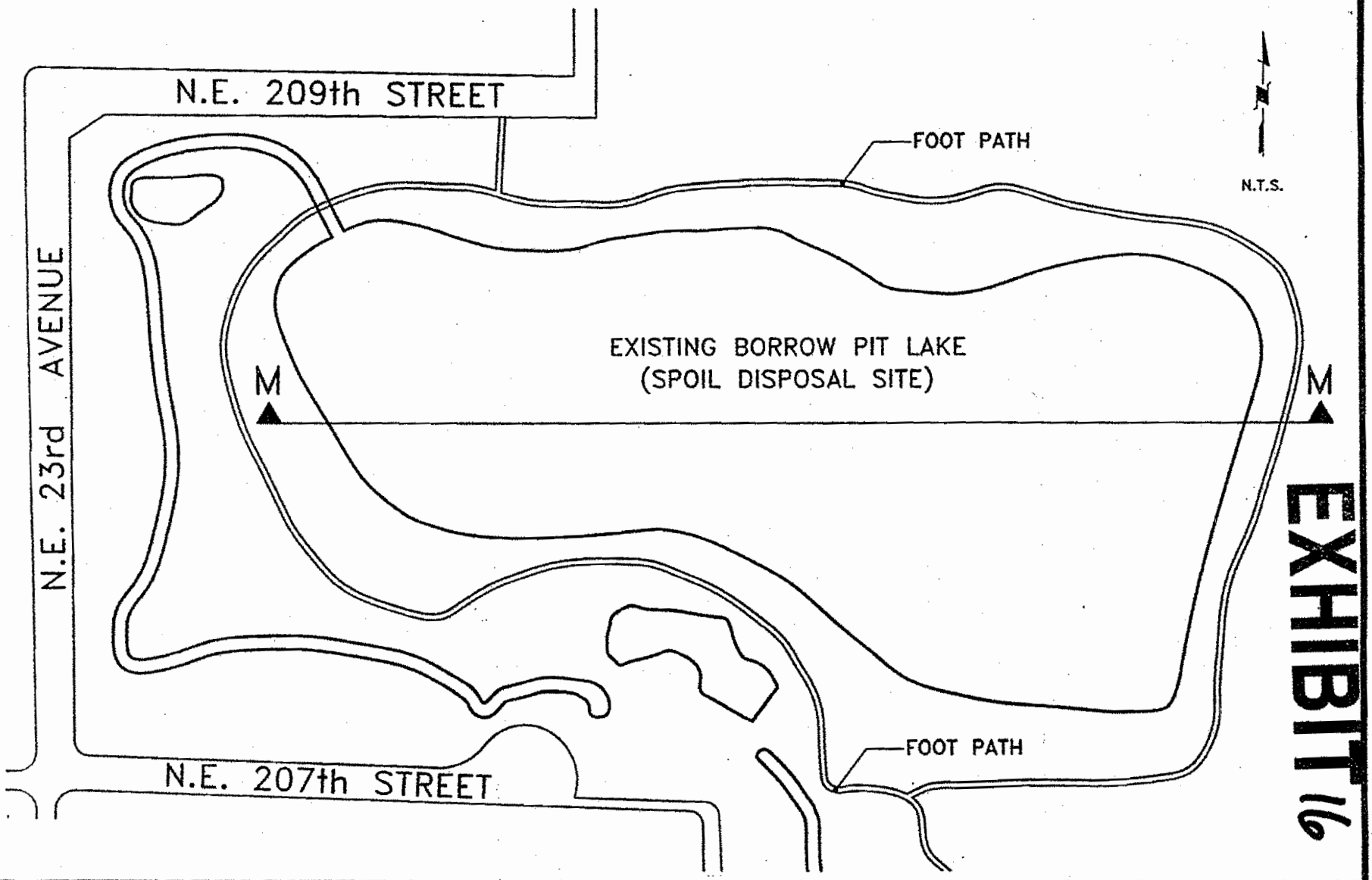


EXHIBIT 16

PURPOSE: LAKE SHORELINE PLAN
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 16 OF 17 DATE: 07-15-03

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S6

ATTACHMENT 4

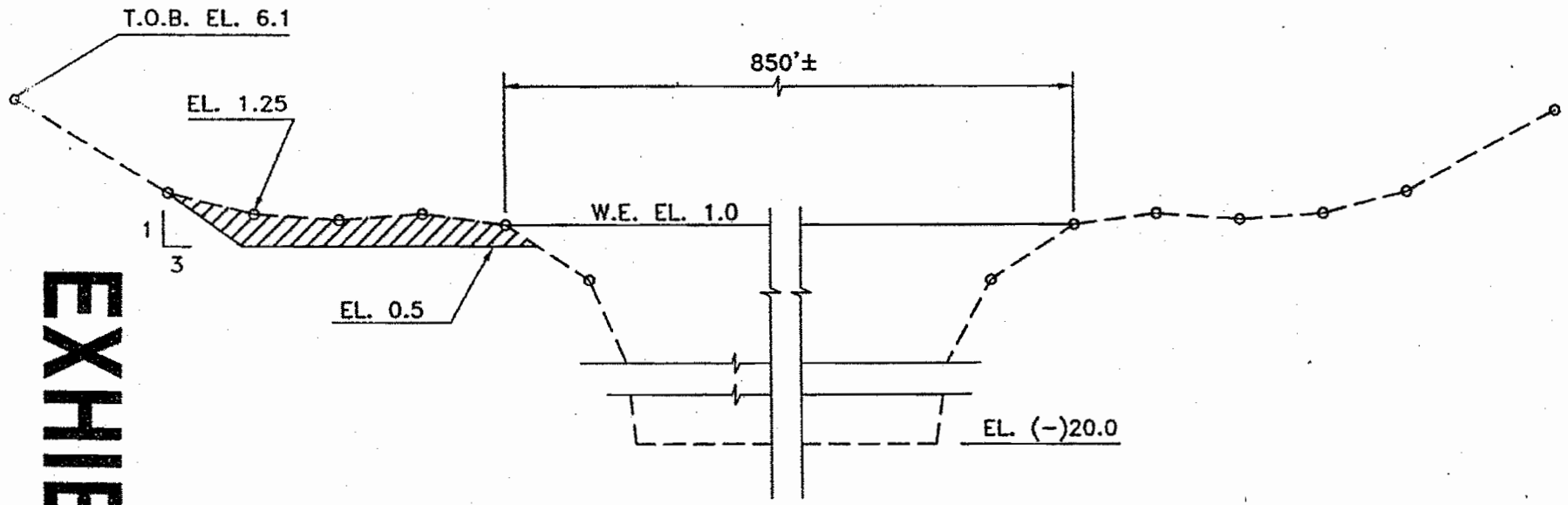

EXHIBIT 17

TYPICAL LAKE SHORELINE SECTION

N.T.S.

PURPOSE: TYPICAL SHORELINE LAKE SECTION
DATUM: N.G.V.D.
PREPARED BY:
Consulting Engineering & Science, Inc.
8925 S.W. 148th Street, Suite 100
Miami, Florida 33176

2/18/04

COUNTY OF MIAMI-DADE, STATE OF FLORIDA
APPLICATION BY:
Miami-Dade County DERM
33 S.W. 2nd Avenue, 10th Floor
Miami, Florida 33130
SHEET 17 OF 17 DATE: 07-15-03

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ATTACHMENT 4

STAFF REPORT DISTRIBUTION LIST

HEADWATERS OF THE OLETA RIVER ENVIRONMENTAL RESTORATION

Application No: 040219-3

Permit No: 13-02329-P

INTERNAL DISTRIBUTION

X Eduardo J. Lopez - 4220
X Ronald M. Peekstok - 4250
X Carlos A. DeRojas, P.E. - 4220
X Edward Cronyn - 4250
X ERC Environmental - 4230
X ERC Environmental - 4230
X H. Azizi - 4230
X H. Wheelock - 6820
X Miami-Dade Service Center - 6820
X Permit File

EXTERNAL DISTRIBUTION

X Permittee - Miami-Dade County Park And Recreation
X Adj Owner - Scho0l Board Of Miami-Dade County
X Agent - Miami-Dade County Department Of

GOVERNMENT AGENCIES

X Div of Recreation and Park - District 5 - FDEP
X Florida Fish & Wildlife Conservation Commission - Bureau of Protected Species Mgmt
X Miami-Dade County - DERM (Harvey Kottke, PE)
X Miami-Dade County - DERM (Manny Tobon, PE, PLS)
X Miami-Dade County Engineer Public Works Department

OTHER INTERESTED PARTIES

X Water Management Institute - Michael N. Vanatta

ATTACHMENT 4

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
4400 PGA Blvd, Suite 500
Palm Beach Gardens, FL 33410

REPLY TO
ATTENTION OF

AUG 0 2 2007

Palm Beach Gardens Regulatory Office
SAJ-2005-1549(NW-KLV)

Miami-Dade County Park and Recreation
Attn: Ms. Vivian Rodriguez
275 NW 2nd St., 5th Floor
Miami, FL 33128

Dear Ms. Rodriguez:

Your application for a Department of the Army permit received on February 9, 2005, has been assigned number SAJ-2005-1549(NW-KLV). A review of the information and drawings provided shows the proposed work is to perform the following activities: replacement of a nonfunctioning culvert, maintenance dredging of sediments within the stream bed, dredging of additional upland areas to expand the stream bed, and excavation of additional areas of adjacent wetlands to achieve a more desirable vegetative stratum. The project is located in the headwaters of the Oleta River at Highland Oaks Park, 20459 NE 24th Ave., Miami (Section 33, Township 51 S, Range 42 E) in Miami-Dade County, Florida.

Your project, as depicted on the enclosed drawings, is authorized by Nationwide Permit (NWP) Number 27. In addition, project specific conditions have been enclosed. This verification is valid until the NWP is modified, reissued, or revoked prior to August 1, 2009. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice if the NWPs are modified, reissued, or revoked. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Please access the U.S. Army Corps of Engineers' Jacksonville District's Regulatory web address at http://www.saj.usace.army.mil/permit/permitting/nwp.htm to access web links to view the Final Nationwide Permits, Federal Register Vol. 72, dated March 12, 2007, the Corrections to the Final Nationwide Permits, Federal Register 72, May 8, 2007, and the List of Regional Conditions. These files contain the description of the Nationwide Permit authorization, the Nationwide Permit

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general conditions, and the regional conditions, which apply specifically to this verification for NWP 27. Additionally, enclosed is a list of the six General Conditions, which apply to all Department of the Army authorizations. You must comply with all of the special and general conditions and any project specific condition of this authorization or you may be subject to enforcement action. In the event you have not completed construction of your project within the specified time limit, a separate application or re-verification may be required.

The following special conditions are included with this verification:

1. Within 60 days of completion of the work authorized, the attached "Self-Certification Statement of Compliance" must be completed and submitted to the U.S. Army Corps of Engineers. Mail the completed form to the Regulatory Division, Enforcement Section, Post Office Box 4970, Jacksonville, Florida 32232-0019.

2. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.

3. The permittee shall adhere to the attached standard manatee construction conditions.

This letter of authorization does not obviate the necessity to obtain any other Federal, State, or local permits, which may be required. In Florida, projects qualifying for this NWP must be authorized under Part IV of Chapter 373 by the Department of Environmental Protection, a water management district under §. 373.069, F.S., or a local government with delegated authority under §. 373.441, F.S., and receive Water Quality Certification (WQC) and Coastal Zone Consistency Concurrence (CZCC) (or a waiver), as well as any authorizations required by the State for the use of sovereignty submerged lands. You should check State-permitting requirements with the Florida Department of Environmental Protection or the appropriate water management district.

This letter does not give absolute Federal authority to perform the work as specified on your application. The proposed work may be subject to local building restrictions mandated by

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the National Flood Insurance Program. You should contact your local office that issues building permits to determine if your site is located in a flood-prone area, and if you must comply with the local building requirements mandated by the National Flood Insurance Program.

If you are unable to access the Internet or require a hardcopy of any of the conditions, limitations, or expiration date for the above referenced NWP, please contact Kelly Voloshin by telephone at 561-472-3526, by fax at 561-626-6971 or by email at Kelly.L.Voloshin@saj02.usace.army.mil.

Thank you for your cooperation with our permit program.

Sincerely,

for Myrna Lopez
Chief, South Section

Enclosures

Copies Furnished:

Miami-Dade County Department of Environmental Resources Management - Gary Milano
33 SW 2nd Ave., 10th Floor, Miami, FL 33130

CESAJ-RD-PE

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ATTACHMENT 4

SELF-CERTIFICATION STATEMENT OF COMPLIANCE

Permit Number: NW-27
Application Number: SAJ-2005-1549(NW-KLV)

Permittee's Name & Address (please print or type):_____

_____

_____

Telephone Number:_____

Location of the Work:_____

_____

Date Work Started:_____ Date Work Completed:_____

Description of the Work (e.g., bank stabilization, residential or commercial filling, docks, dredging, etc.):_____

_____

_____

Acreage or Square Feet of Impacts to Waters of the United States:
_____

Describe Mitigation completed (if applicable):_____

_____

_____

Describe any Deviations from Permit (attach drawing(s) depicting the deviations): _____

_____

_____

****

I certify that all work, and mitigation (if applicable) was done in accordance with the limitations and conditions as described in the permit. Any deviations as described above are depicted on the attached drawing(s).

_____
Signature of Permittee

_____
Date

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ATTACHMENT 4

MIAMI - DADE COUNTY DEPARTMENT OF ENVIRONMENTAL
RESOURCES MANAGEMENT (DERM)
33 SW 2nd Avenue, Suite 400
Miami, FL 33130
Phone: 305-372-6575 Fax: 305-372-6479

CLASS I COASTAL CONSTRUCTION PERMIT

***********THIS PERMIT MUST BE KEPT ON SITE***********
DURING ALL PHASES OF CONSTRUCTION

PERMIT NO. CC04-053

ISSUE DATE: January 9, 2008 **EXPIRATION DATE:** December 6, 2010

ISSUED BY: Jesus A. Delgado **SIGNATURE:**

PERMITEE NAME: Miami-Dade County Park and Recreation Department
c/o Jack Kardys, Director

PROJECT LOCATION: 20459 N.E. 24th Avenue
Aventura, Florida

WATERWAY: Oleta River

PROPOSED WORK

Restoration and reconnection of the headwaters of the Oleta River at Highland Oaks Park as follows:

a) Reach 1
- dredging of a streambed to an elevation of –2.5 feet NGVD
- scrape down of wetlands to an elevation of +0.5 feet NGVD in order to promote growth of wetland vegetation
- supplemental plantings of *Eleocharis sp., Scirpus californicus*, and *Sagittaria lancifolia* on 3-foot centers in the area of excavation

b) Reach 2
- dredging of a stream bed to an elevation of –2.5 feet NGVD
- cut slopes to a 1:1 slope

c) Reach 3
- dredging of 180 feet of upland to produce a 120-foot section of new stream bed and a 60-foot section of box culvert
- dredging of a stream bed to an elevation of –2.5 feet NGVD
- replacement of a non-functioning culvert with a new fifty 50-foot culvert
- supplemental plantings of *Eleocharis sp.* and *Sagittaria lancifolia* on 1-foot centers along the edges of the stream bank

d) Reach 4
- dredging of a stream bed to an elevation of –2.5 feet NGVD
- supplemental plantings of *Eleocharis sp.* and *Sagittaria lancifolia* on 1-foot centers along the edges of the stream bank

Attachment A: Project Description

ATTACHMENT 4

ENGINEER OF RECORD: John Guttman, P.E. #24061

PLANS ENTITLED: Construction Drawings for Mitigation at Highland Oaks Park for Miami-Dade County

DATE SIGNED AND SEALED: March 26, 2007

All work shall be performed in accordance with the above referenced plans bearing a "FINAL APPROVAL" stamp from DERM, and in accordance with the attached specific and general permit conditions.

PERMITEE (Name, Address, & Telephone)	CONTRACTOR (Name, Address, Telephone, & License #)
Miami-Dade County Park and Recreation Dept. c/o Jack Kardys, Director 275 N.W. 2nd Street – 5th Floor Miami, Florida 33128 Tel: 305-755-7910	TBD

PERFORMANCE BOND AMOUNT: N/A

MITIGATION BOND AMOUNT: N/A

TOTAL AMOUNT OF BONDS REQUIRED: N/A

BBEETF CONTRIBUTION AMOUNT: N/A

PRE-WORK CONFERENCE REQUIRED ☑ YES ☐ NO

TO ARRANGE A PRE-CONSTRUCTION CONFERENCE OR TO SCHEDULE A FINAL INSPECTION, PLEASE CONTACT THE DERM COASTAL RESOURCES SECTION AT (305) 372-6575, OR BY FACSIMILE AT (305) 372-6479

UNLESS OTHERWISE EXEMPTED BY THE DERM, RECORD DRAWINGS (AS-BUILTS PLANS) MAY BE REQUIRED TO BE SUBMITTED TO DERM WITHIN THIRTY (30) DAYS OF PROJECT COMPLETION.

APPLICATION FEE: $15,175.00 **PERMIT FEE:** $0.00

AGENCIES OTHER THAN DERM FROM WHICH APPROVAL MAY BE NECESSARY:

1. **Local Municipality (structural, zoning, building)**
2. **Miami-Dade County Building Department (if located in unincorporated Miami-Dade County)**
3. **South Florida Water Management District (SFWMD)**
4. **Florida Department of Environmental Protection (FDEP),**
5. **U.S. Army Corps of Engineers (ACOE)**

REVIEWED BY: Lisa Spadafora
Coastal Resources Section

It is the permitee's responsibility to ensure that all other regulatory or proprietary permits and/or authorizations are obtained prior to commencement of work.

ATTACHMENT 4

SPECIFIC CONDITIONS

1. The permittee and contractor are reminded and advised that based on the scope of work proposed in this permit, DERM is not authorized to verify the United States Army Corps of Engineers' (USACOE) SAJ42 general permit for this work. Therefore, the permittee and contractor must obtain a federal permit or exemption directly from the USACOE prior to commencement of work.

2. **The work authorized by this permit shall not commence until the name, address, telephone number, and license number of the contractor who will be performing the work has been submitted and written acceptance of the contractor by DERM has been issued.**

3. A DERM Class II Permit is required for the construction, installation and/or alteration of any outfall or overflow system in, on, under or upon any water body of Miami-Dade County, including but not limited to, canals, rivers, lakes, lagoons and/or all tidal water bodies. The contractor shall contact the Water Control Section of DERM at 305-372-6681 in order to ascertain whether a Class II Permit is required for the replacement of the existing culvert.

4. A DERM Tree Removal Permit may be required for any proposed removal or relocation of any trees. The contractor shall the Forest Resources Section of DERM at 305-372-6584 in order to ascertain whether a Tree Removal Permit is required.

5. A pre-work conference shall be held between the Contractor, a representative of the Miami-Dade Park and Recreation Department, and DERM prior to the commencement of work under this permit. Please contact John Ricisak of DERM's Coastal Resources Section in writing a minimum of 3 business days prior to the desired time of the pre-work conference.

6. Prior to the Pre-work Conference, the Permittee and Contractor shall place turbidity curtains along southern shoreline of the borrow lake to contain effluent. Said curtains shall remain in place throughout the entire construction period. Silt fences shall also be installed at the beginning of the riverbed to completely encapsulate the borrow lake. In order to ensure that the curtains and silt fences provide adequate containment, no work may commence on the project until the DERM staff has inspected these curtains and silt fences and approved their location. During this inspection, DERM may require realignment of the curtains and silt curtains to minimize avoidable impacts.

7. The proposed project is located in the vicinity of the Highland Oaks Archeological Site (DA-1036), therefore the applicant is required to obtain a Certification to Dig from the Miami-Dade County Office of Historic Preservation prior to the commencement of construction. Said Certification to Dig will include conditions requiring that an archaeological monitor be present during all work and that the Office of Historic Preservation be contacted in the vent that historic or archeological artifacts are discovered during the construction.

8. The permittee shall be responsible for maintaining the restored areas free of exotic invasive species (less than 5% exotic species).

9. All federal and state rules and regulations regarding the protection of threatened and endangered species shall be implemented if threatened or damaged species are observed within, or immediately adjacent to, the project area before or during construction. In addition, the qualified on-site biologist shall actively monitor the site for the presence of endangered and threatened species.

10. During construction operations, the contractor shall avoid and minimize impacts to adjacent or abutting mangrove trees to the maximum extent practicable.

11. Any mangroves that are to be removed and/or relocated shall be flagged by the contractor and shall be inspected and approved by DERM. Please contact John Ricisak of DERM's Coastal

Resources Section at 305-372-6581 at least 3 business days prior to the time of the desired inspection.

12. Trimming or alteration of mangroves, buttonwoods or other wetland vegetation is prohibited. Such work shall require additional Class I approval. John Ricisak of DERM's Coastal Resources Section shall be notified immediately at 305-372-6581 if any damage occurs to any mangroves, buttonwoods, or other wetland vegetation.

13. There shall be no staging of equipment, debris or other material within utility easements or in wetlands adjacent to the project site(s).

14. All soils removed during excavation and grading work shall be deposited into the adjacent borrow pit.

15. Prior to the final grading of the scrape down areas, the permittee and/or the contractor shall eradicate all exotic and nuisance vegetation within the 4 reaches using mechanical equipment. However, in areas where isolated mangrove stands and fringes exist, exotic and nuisance vegetation shall be treated with an appropriate herbicide and the stumps left in place to avoid any disturbance of wetland soils.

16. All vegetative debris generated from the removal of exotic and nuisance vegetation shall be disposed of at an appropriate upland disposal facility in accordance with all federal, state and local regulations. However, if the Permittee obtains a Burn Permit from the Miami-Dade County Fire Department and obtains prior approval from the FDEP, vegetative debris may be burned on site. A copy of the burn permit shall be provided to DERM prior to any burning.

17. All transitional slopes between the scraped down areas and adjacent uplands shall be graded as necessary and approved and shall be immediately stabilized to prevent erosion of fill into the restored wetlands.

GENERAL CONDITIONS

1. This permit must be kept on site during all phases of construction.

2. All work shall be performed in accordance with the above referenced plans and in accordance with the attached specific and general permit conditions. If a General Condition(s) conflicts with a Specific Condition(s) in this permit document, the Specific Condition shall be the controlling condition for work authorized by this permit.

3. This permit only authorizes the work described in page 1 under PROPOSED WORK. Any additional work in, on, over or upon tidal waters or coastal wetlands at the property shall require additional Class I approval.

4. Any deviation from the approved plans for this project shall be submitted in writing to, and approved by DERM prior to the commencement of this project. The contractor and the permittee shall take whatever remedial action is necessary to bring the project into compliance with the permit and approved plans upon determination by DERM that the structure is not in compliance with such.

5. DERM shall be notified no later than forty-eight (48) hours and no earlier than five (5) days prior to the commencement of the work authorized by this permit, unless otherwise noted herein. The permittee and/or contractor may notify DERM by calling (305) 372-6575 or by submitting the attached Notice of Commencement of Construction via hand delivery, U.S. Mail, or facsimile at (305) 372-6479.

6. Prior to performing any work, the contractor shall verify the location of all underground and overhead utility lines and verify that no utilities will be damaged by the work. Contact Sunshine State One-Call of Florida at 1-800-432-4770 or on the web at http://www.callsunshine.com/corp/before/submitting.html for locating underground utility lines.

7. The permittee and the contractor are hereby advised that under Florida law, no person shall commence any excavation, filling, construction, or other activity involving the use of sovereign or other lands of the State, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Florida Department of Environmental Protection (FDEP), until such person has received the required authorization for the proposed use from the Board of Trustees or FDEP. If such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to $10,000 per offense pursuant to the Florida Administrative Code.

8. All contractors performing work authorized by this permit shall hold an applicable certificate of competency and shall be licensed in Miami-Dade County and/or the State of Florida.

9. The contractor shall take all necessary precautions to prevent construction or demolition debris from falling into the water or adjacent wetlands. Any debris that falls into the water and/or wetlands shall be removed immediately. Construction and demolition debris shall be disposed of in accordance with all federal, state and local regulations.

10. Turbidity controls (such as, but not limited to, turbidity curtains) shall be implemented whenever visible plumes are present to ensure compliance with the water quality standards stipulated in Section 24-42(3), of the Code of Miami-Dade County. Turbidity controls shall be employed and maintained in the most effective manner possible to prevent turbidity from extending beyond the control mechanism in place.

11. Turbidity may not exceed twenty-nine (29) Nephelometric Turbidity Units (NTU's) above background beyond fifty (50) feet from the point of discharge. Turbidity levels shall be monitored continuously when turbidity plumes are visible beyond a fifty (50) foot radius of the point of discharge. If the turbidity levels exceed the above standard, all construction shall stop and additional turbidity controls shall be implemented. Work shall not resume until the contractor has implemented adequate turbidity control methods and has received authorization from DERM to recommence work. At DERM's discretion, turbidity samples may be required and shall be collected in accordance with Section 24-44.2(3), of the Code of Miami-Dade County, or as specified by DERM, and the results sent directly to the DERM Project Manager on a weekly basis.

12. If any work or activity associated with this project is to take place in navigable waters, the contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collision with manatees. All vessels associated with the project must operate at "No Wake/Idle Speed" at all times while in water where the draft of the vessel provides less than a four (4) foot clearance from the bottom. Additionally, all vessels will follow routes of deep water whenever possible. **All in-water construction activities shall cease upon the sighting of a manatee(s) within fifty (50) feet of the project area and will not resume until the manatee(s) has departed the project area.** Any collision with and/or injury to a manatee shall be reported immediately to the "Manatee Hotline" (1-888-404-FWCC), the U.S. Fish and Wildlife Service, Jacksonville Field Office (904) 791-2580, and DERM (305) 372-6854.

13. The contractor shall ensure that all watercraft associated with the construction shall operate within waters of sufficient depth so as to preclude bottom scouring or prop dredging and shall maintain a minimum of one (1) foot of water between the vessel bottom and submerged aquatic resources.

14. Pursuant to Section 24-48.10, of the Code of Miami-Dade County, the work or structures authorized under this permit shall be privately maintained by the applicant, his successors and assigns. Whenever, in the opinion of the Director of the DERM, said work or structures are not maintained in such a manner so as to prevent deterioration to the extent that they become a hazard to the public or to navigation, or create an obstruction of flow, or prevent access for drainage maintenance purposes, or may damage adjacent property, then the owner is required to perform any necessary remedial work.

15. Pursuant to Section 24-48.24, of the Code of Miami-Dade County, the installation or construction of non-water-dependent fixed structures (i.e. covered structures, canopies, helicopter pads, commercial signs, etc.) is prohibited in, on, over or upon any of the tidal waters of Miami-Dade County, constitutes a violation of this permit and may subject the permittee to enforcement action without further warning.

16. The time allotted to complete the work for which this permit has been issued shall be limited to the period stipulated on the permit unless the permittee requests an extension of time from the Department in writing at least thirty (30) days prior to the date of permit expiration. Applications for extensions of time that are not timely filed pursuant to Section 24-48.9(2)(b), of the Code of Miami-Dade County will be returned to the applicant.

17. An Application for Transfer of a Class I Permit may be filed with DERM at any time prior to the transfer of property ownership up to 120 days after the date of transfer of fee simple ownership of the property that is the subject of the permit. The Application for Transfer must be signed by both the transferee and transferor. Applications for Transfer shall be filed in the form prescribed by DERM and shall not be processed if the filed Application for Transfer is not fully complete in all respects pursuant to Section 24-48.18, of the Code of Miami-Dade County within 120 days of the date of transfer of property ownership.

18. If the project involves construction, replacement, or repair of a seawall, the new seawall cap shall be a minimum of six (6) inches above the final grade of the uplands immediately adjacent, and in order to prevent positive drainage of stormwater into the waterway, all uplands immediately adjacent to the new seawall shall be graded away from the waterway.

19. A performance and/or mitigation bond may be held to ensure compliance with the aforementioned conditions and the completion of any required mitigation. Failure to comply with any of these conditions may result in the revocation by Miami-Dade County of all or a portion of the bond without further notice.

ATTACHMENT 4

DEPARTMENT OF ENVIRONMENTAL
RESOURCES MANAGEMENT

33 SW 2ND AVE, Ste 400, Miami, FL 33130
Phone 305-372-6585 Fax 305-372-6479

NOTICE OF COMMENCEMENT OF CONSTRUCTION

PERMIT NO.: _____

PERMITTEE'S NAME: _____

PROJECT LOCATION: _____

PERMIT ISSUANCE DATE: _____

CONTRACTOR NAME: _____

PROPOSED DATE OF COMMENCEMENT: _____

ANTICIPATED DATE OF COMPLETION: _____

COMMENTS: _____

ATTACHMENT 4

ATTACHMENT A -Project Description

Headwaters of the Oleta River
Highland Oaks Park, Miami-Dade County

Introduction

The headwaters of the Oleta River are located within Highland Oaks Park in Northeast Miami-Dade County. Historic aerial photography indicates that this tributary once extended further west; however, Highland Oaks Park is now the last remaining segment of this natural water course. The existing tributary or stream bed is typically 25 feet across and connects at the northernmost section to a borrow pit (see Figure 1). The stream bed is currently sub-divided into a freshwater and slightly brackish water system by a non-functioning pipe culvert approximately 300 feet long. The pipe culvert only facilitates water flow downstream during/after large rain events thus isolating the northern section of the tributary from tidal flow. As a result of the defunct culvert, the northern portion of the tributary is experiencing a build-up of sediments which causes sections of the tributary to dry up for the majority of the year.

The objective of this project is to re-establish the hydrology to the northern portion of the tributary which would then flush daily with tidal cycles yet remain inundated at a depth suitable to be utilized by diadromous fish. The proposed project would be achieved by replacing a non functioning culvert, dredging sediments within the stream bed to facilitate water flow, and dredging of additional upland areas to expand the stream bed. In addition, we are also proposing to scrape-down additional areas within an adjacent wetland in order to achieve and support a more desirable vegetative stratum. All dredged material will be deposited in the adjacent borrow pit. In order to describe the project, the stream bed has been divided into four Reaches beginning at the north project limits (see Figure 2) including a separate Lake Shoreline Section. The Reaches and Shoreline Section also correspond to the permit sketches.

Reach 1

The stream begins at the borrow pit meandering west and south through an existing wetland marsh. The wetland elevations are typically range from +0.5 to +1.5 NGVD. There are large areas within this wetland that are currently at an elevation that support the exotic torpedo grass (*Panicum repens*) and the

ATTACHMENT 4

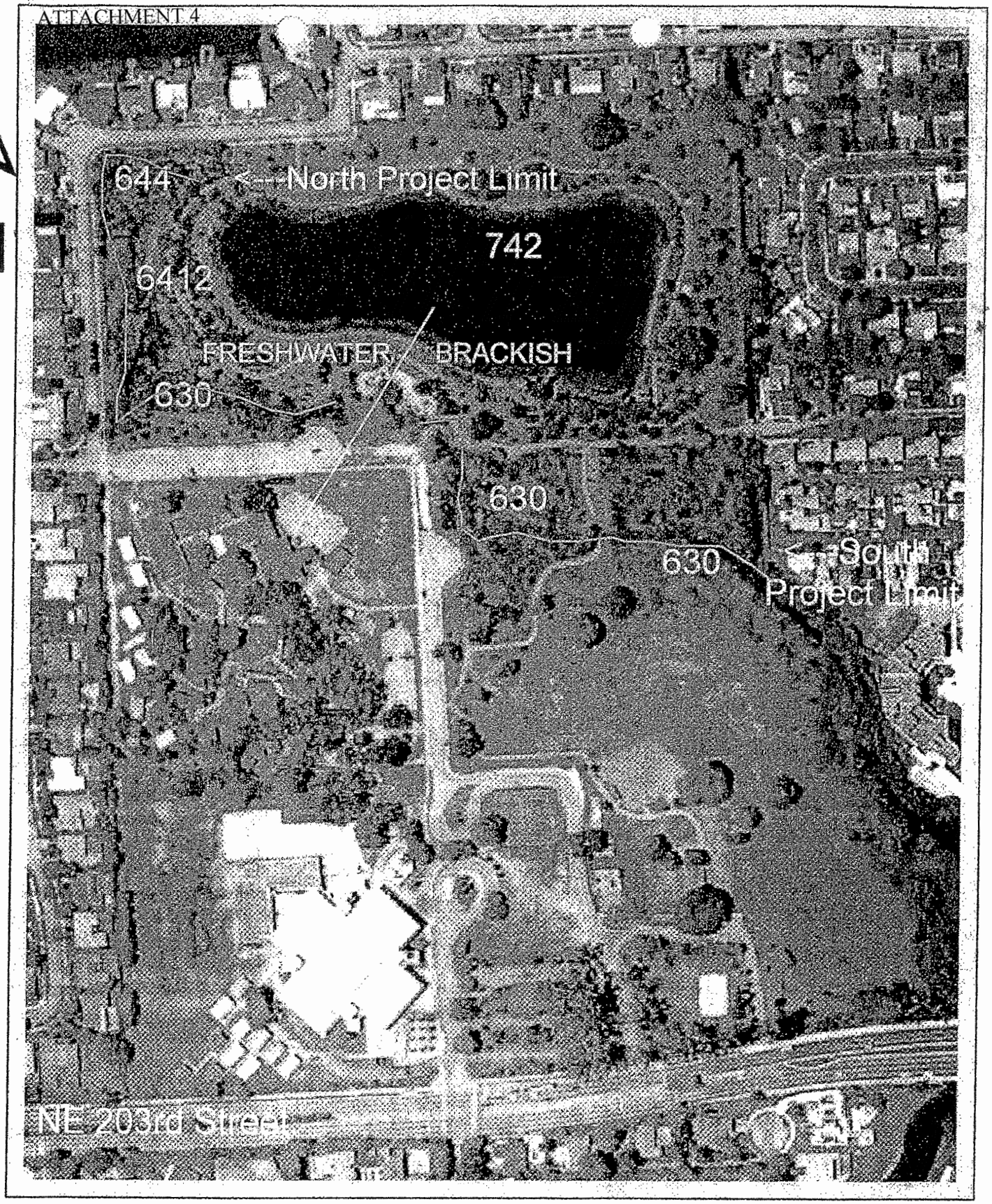

FIGURE 1. HIGHLAND OAKS PARK

PROJECT LOCATION and FLUCCS CODES

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ATTACHMENT A -Project Description Con't

nuisance cattail (*Typha domingensis*). These exotic/nuisance species are found typically at an elevation above +1.0. The remaining areas of lower elevation are dominated by the native, desirable spike rush (*Eleocharis cellulosa*) which is found at elevations ranging from +0.2 to +0.9. Smaller, deeper areas of inundation are supporting waterlily (*Nymphaea odorata*) as well as other native aquatic vegetation. The tributary bisects the wetland and is typically a foot deeper and approximately 20-25 feet wide.

Within this Reach, we propose to excavate the tributary to an elevation of -2.5 and scrape-down the areas of higher elevation (> +0.9) within the wetland to +0.5 in order in order to achieve the desired vegetative stratum. Excavation of this section would require a clam shell bucket extended from the upland. After excavation is complete, supplemental plantings would consist of spike rush, giant bull rush (*Scirpus californicus*), and arrowhead (*Sagittaria lancifolia*) installed on 3-foot centers.

Reach 2

This Reach is virtually dry during the majority of the year. Sedimentation has reduced the tributary to a muck wetland approximately 25 to 30 wide that is supporting leather fern (*Acrostichum danaeifolium*) and arrowhead. In addition, the remnant tributary is surrounded by large specimens of pond apple (*Annona glabra*).

Our intent within this Reach would be to excavate the mucky sediment down to -2.5 continuing the elevation and shape of the excavated stream bed in Section A. Please note that in order to achieve constant hydrology, the stream bed will have to be scraped-down to this elevation over the entire length of the project. Furthermore, the majority of the slopes will have to be cut to a 1:1 slope. Please note that adjustments will be made in the field during construction as needed to avoid impacts to large pond apple trees.

Since this area has an overhead canopy of native desirable vegetation, we propose to use a section dredge to reduce impacts

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ATTACHMENT A -Project Description Con't

to native species. The suction dredge will have to be utilized during the rainy season when this area is inundated with rainwater. If a suction dredge is not feasible, a claim bucket will have to be utilized from the adjacent upland and trimming of the pond apples will have to occur to gain access. In addition, vegetative specimens may have to be transplanted to the adjacent wetlands until a final elevation is reached whereas supplemental plantings of leather fern and arrowhead will be installed along edge of the stream bank on 1-foot centers.

Reach 3

This Reach entails the excavation of 180 feet of upland to produce a 120-foot section of new stream bed and a 60-foot section of box culvert as well as the excavation of sediments in the existing stream bed continuing the shape and structure of the excavation. The new section will be excavated to match the -2.5 footprint of the previous sections. Since this section abuts a children's playground, a wooden fence will be installed around the stream bed. A claim bucket will be utilized during this section as environmentally sensitive native trees are not present. Existing utility guy wires and small amounts of plumbing for a water fountain will also have to be relocated at this section. After the excavation is complete, the edges of the stream bank will be planted with spike rush and arrowhead on 1-foot centers

Reach 4

This portion of the stream bed is inundated during the entire year and is hydrologically connected to Biscayne Bay. Work within this Reach will entail the continued excavation of sediments from the stream bed to match the bottom elevation of -2.5. This section will be approached in a similar way as Section B as a majority of this section has overhead canopy of pond apples. This section has upland on the north side of the stream bed; however, much of this upland is planted with native hardwood hammock species. Portions of these trees may have to be transplanted temporarily or replaced after construction is completed. After the excavation is complete, the edges of the

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stream bank will be planted with spike rush and arrowhead on 1-foot centers.

Lake Shoreline Section

This area is located at the western perimeter of the burrow pit. This section is currently supporting large stands of cattails at an elevation greater than +1.0. We propose to scrape down this section to an elevation of +0.5 in order to support native vegetation and extend the littoral shelf of the burrow pit. After the scrape down is complete spike rush, giant bulrush, arrowhead, and soft rush (*Juncus effusus*) will be planted on 2-foot centers.

Conservation Measures

Turbidity curtains, silt fence and/or other erosion control devices will be utilized to promote best management practices. Prior to depositing material into the borrow pit, silt fence will be installed at the beginning of the river bed to completely encapsulate the pit. Turbidity curtains will be utilized in the pit surrounding the area that will receive the dredged material.

Transplanting of native desirable vegetation and trimming will occur in order to grant access to the canopy areas and excavate. A biologist will supervise construction crew in order to avoid unnecessary impacts to native vegetation. Supplemental planting of wetland vegetation will occur at the edges of the stream bed as well as the wetland marsh areas. A maintenance and monitoring plan will be utilized to suppress all exotic/nuisance species and document the survivorship of planted material as well as native recruitment. The monitoring & maintenance plan will occur semiannually the first year and annually for four years following.

In addition, an E.P.A. NPDES permit will be applied for by the contractor utilizing a Storm Water Pollution Prevention Plan.

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Summary

The project goal is the reestablishment of a hydrologic regime at the headwaters of the Oleta River. The proposed project would entail the replacement of a non functioning culvert, dredging of sediments within the stream bed, and dredging of additional upland areas to expand the stream bed. In addition, we are also proposing to scrape-down additional areas within an adjacent wetland in order to achieve a more desirable vegetative stratum. We understand that the areas we are working in are environmentally sensitive and that impacts to the areas will occur; however, the overall net benefit to the system will occur with restored hydrology. With the reestablishment of historic hydrology to the northern portion of the tributary, the headwaters of the Oleta River would then be utilized by diadromous fish converting the borrow pit and adjacent wetlands into an estuarine system. In addition, we hope the additional wetland areas that will be lowered to a more suitable elevation for native desirables will eventually become self sustaining.

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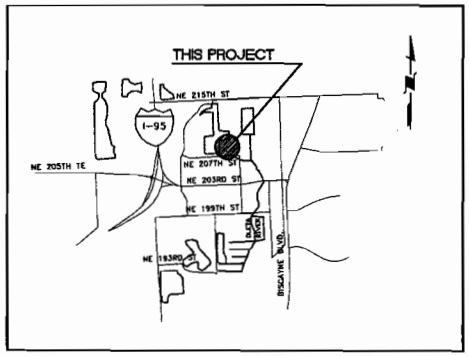
ATTACHMENT 4

CONSTRUCTION DRAWINGS FOR

MITIGATION AT HIGHLAND OAKS PARK

FOR

MIAMI-DADE COUNTY DERM



LOCATION MAP
N.T.S.

INDEX OF DRAWINGS

SHT. NO.	DWG. NO.	DESCRIPTION
1	---	COVER
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3	C-2	REACH 1 - PLANS, SECTIONS AND NOTES
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6	C-5	REACH 4 - PLANS, SECTIONS AND NOTES
7	C-6	CULVERT - PLAN, SECTIONS AND ELEVATIONS
8	C-7	LAKE SHORELINE - PLAN AND SECTION

PREPARED BY
CONSULTING ENGINEERING & SCIENCE, INC.
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MIAMI, FLORIDA 33176

PREPARED FOR
MIAMI-DADE COUNTY DERM
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10TH FLOOR
MIAMI, FLORIDA 33130

100% SUBMITTAL

71

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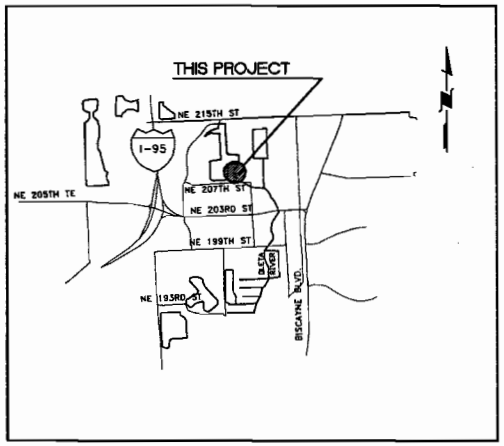

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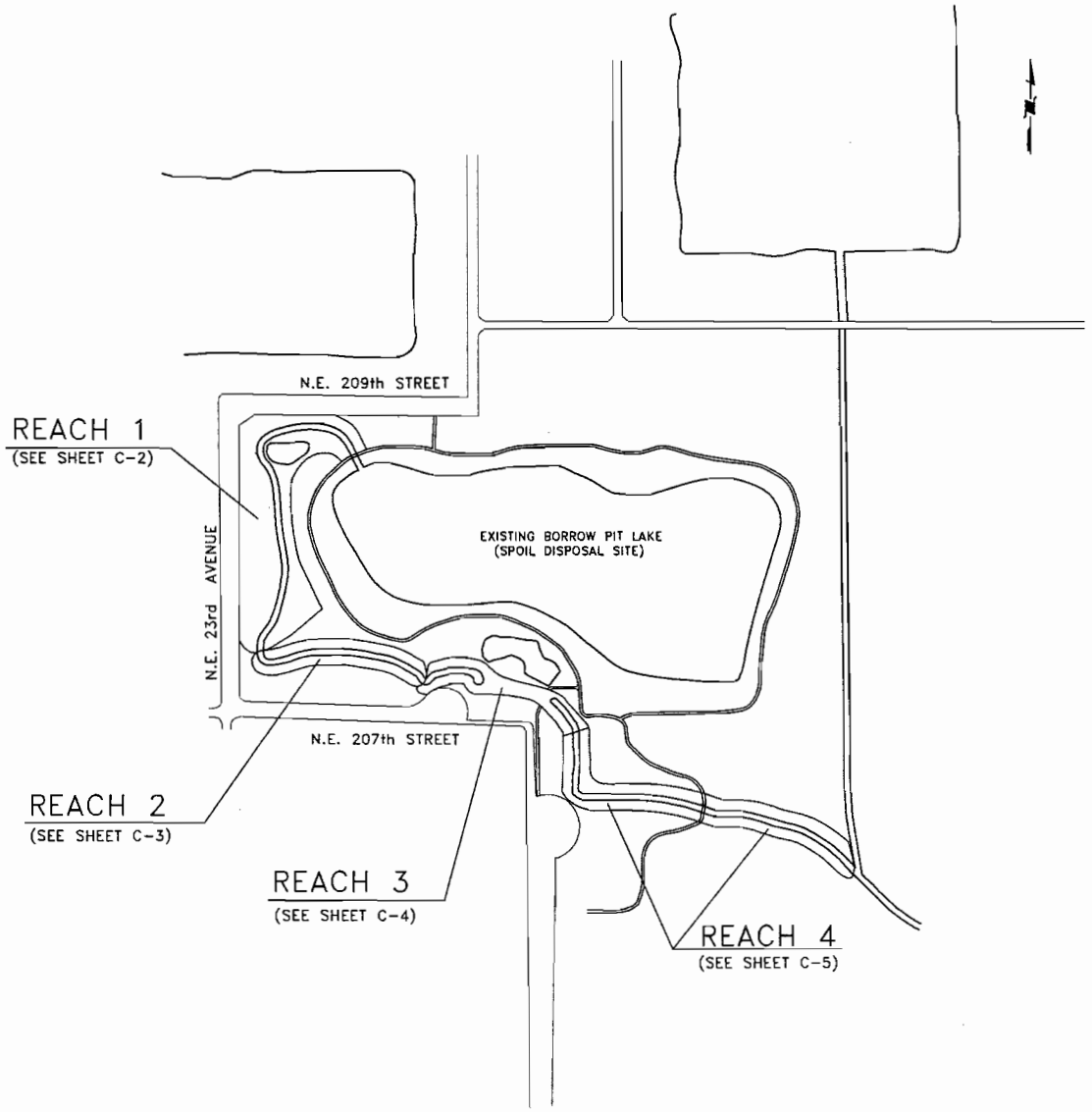
VICINITY MAP
N.T.S



OVERALL SITE PLAN
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MITIGATION AT HIGHLAND OAKS PARK

MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

OVERALL SITE PLAN AND NOTES

DRAWN BY:	R.W.M.
CHECKED BY:	J.R.G.
APPROVED BY:	J.R.G.
DATE:	02-24-06
PROJECT NO.:	0150

REVISIONS

SCALE: AS SHOWN
SHEET NUMBER:

C-1

2 OF 8

72

8L

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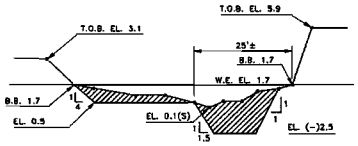

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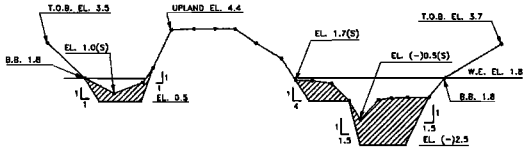

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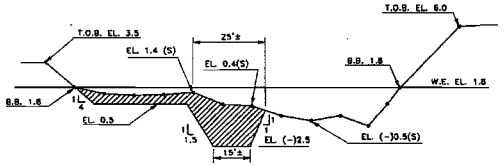

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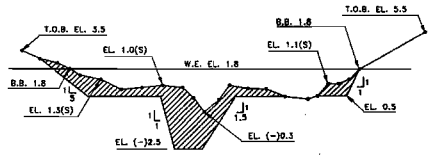
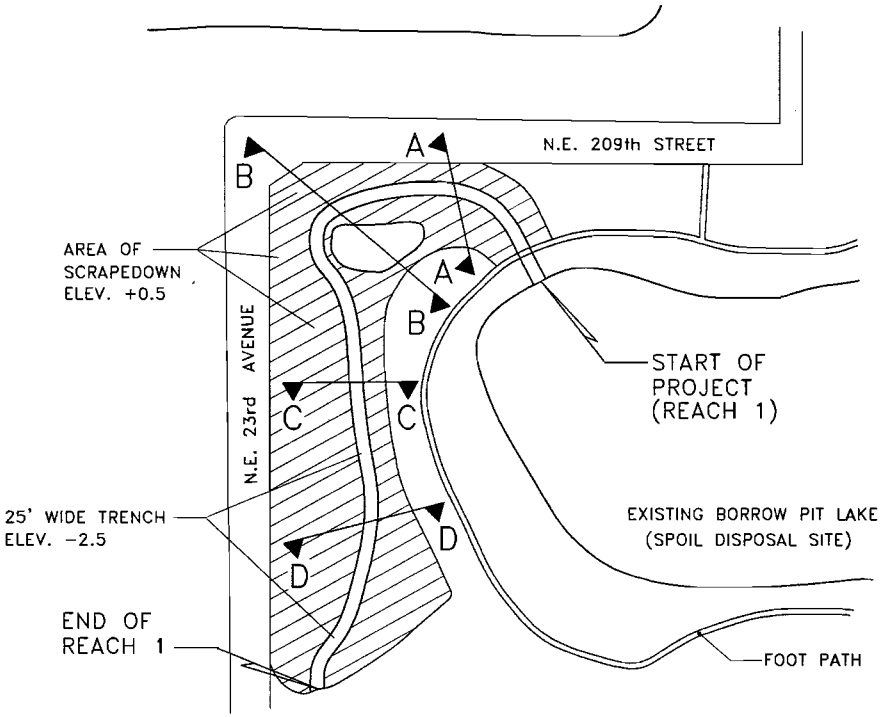


CROSS SECTION D-D

LEGEND

- EXCAVATION AREA
- T.O.B. TOP OF BANK
- B.B. BOTTOM OF BANK
- S TOP OF SEDIMENT
- W.E. WATER ELEVATION



REACH 1 SITE PLAN
N.T.S.

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7. BOUNDARY AND TOPOGRAPHIC DATA TAKEN FROM SURVEY PREPARED BY MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT DATED MAY 13, 2003.
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MITIGATION AT HIGHLAND OAKS PARK

MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

REACH 1 PLANS, SECTIONS AND NOTES

DRAWN BY:	E.W.M.
CHECKED BY:	J.E.G.
APPROVED BY:	J.E.G.
DATE:	02-24-06
PROJECT NO.:	0150

REVISIONS

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SHEET NUMBER:

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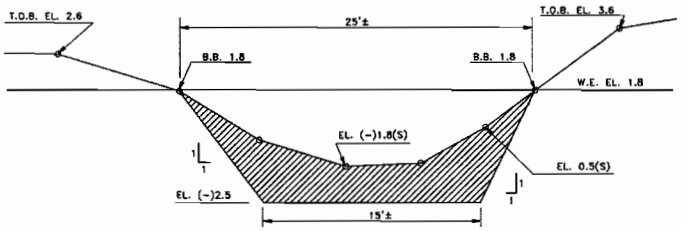
73

ATTACHMENT 4



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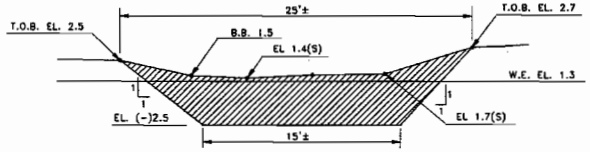

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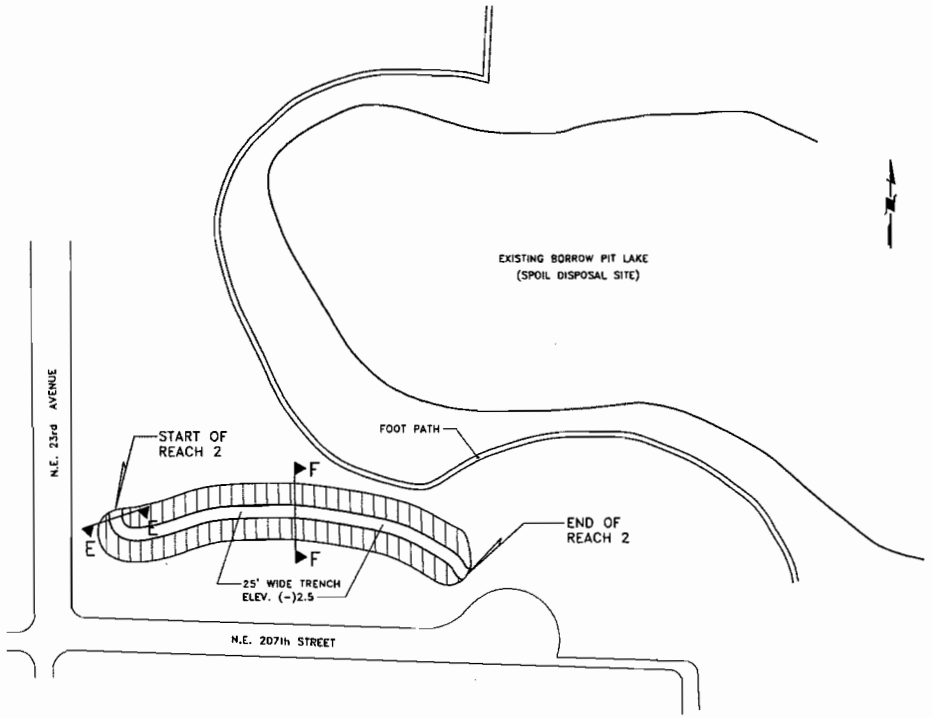

REACH 2 SITE PLAN
N.T.S.

LEGEND

- EXCAVATION AREA
- T.O.B. TOP OF BANK
- B.B. BOTTOM OF BANK
- S TOP OF SEDIMENT
- W.E. WATER ELEVATION

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MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

REACH 2
PLANS, SECTIONS AND NOTES

DRAWN BY:	R.W.M.
CHECKED BY:	J.R.G.
APPROVED BY:	J.R.G.
DATE:	02-24-06
PROJECT NO.:	0150

REVISIONS

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SHEET NUMBER:

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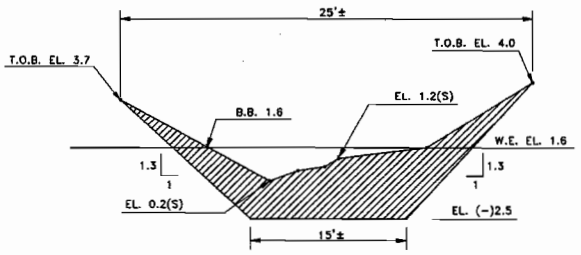
4 OF 6

74

08

ATTACHMENT 4



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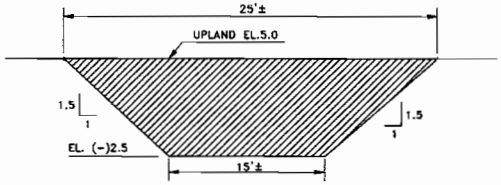

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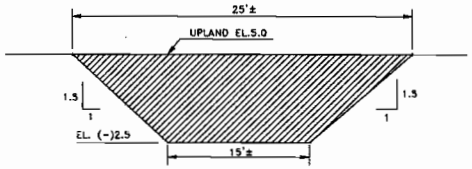

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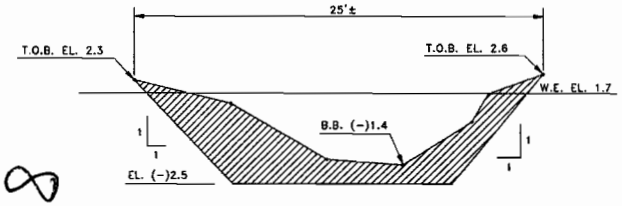
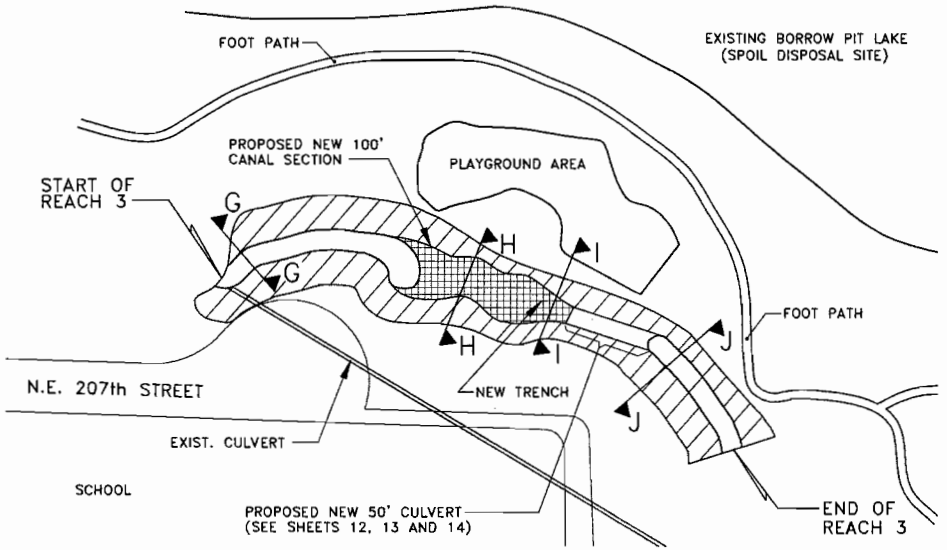


CROSS SECTION J-J

LEGEND

EXCAVATION AREA

T.O.B. TOP OF BANK
B.B. BOTTOM OF BANK
S TOP OF SEDIMENT
W.E. WATER ELEVATION



REACH 3 SITE PLAN
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MITIGATION AT HIGHLAND OAKS PARK

MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

REACH 3 PLANS, SECTIONS AND NOTES

DRAWN BY:	R.W.M.
CHECKED BY:	J.R.G.
APPROVED BY:	J.R.G.
DATE:	02-24-06
PROJECT NO.:	0150

REVISIONS

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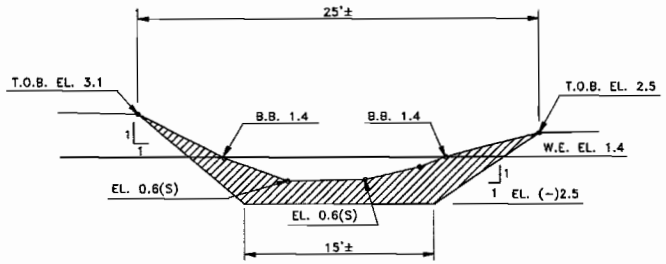
SHEET NUMBER:
C-4
5 OF 8

ATTACHMENT 4



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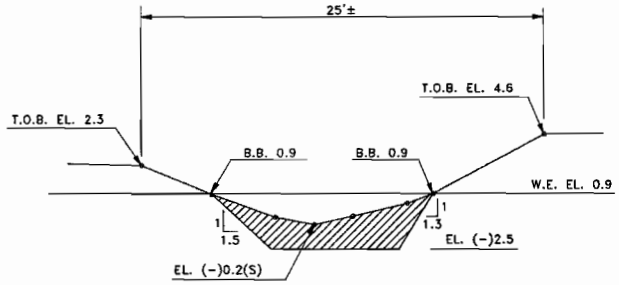

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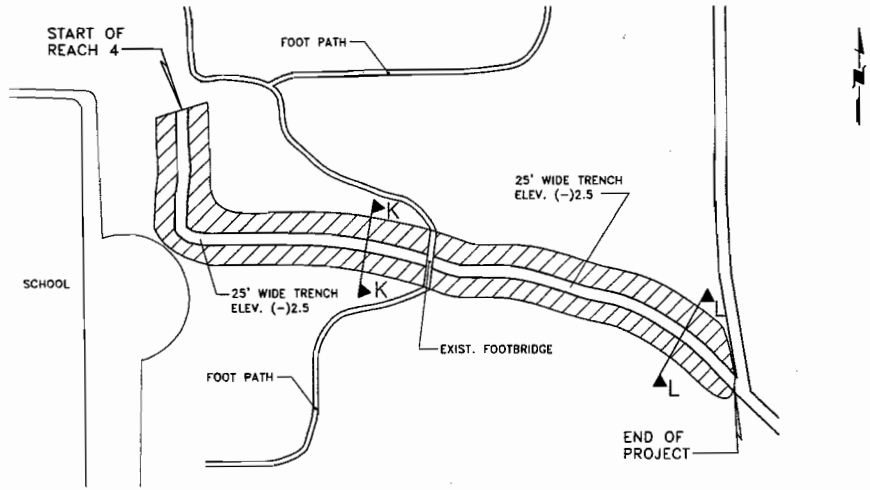

REACH 4 SITE PLAN
N.T.S.

GENERAL NOTES

1. ELEVATIONS SHOWN REFER TO THE NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.).
2. HORIZONTAL AND VERTICAL CONTROL SHALL BE PROVIDED BY THE OWNER'S SURVEYOR. LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
3. IT IS THE INTENT OF THESE DRAWINGS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. IT IS THE INTENT OF THESE PLANS AND THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH LOCAL, STATE, AND FEDERAL ENVIRONMENTAL PERMITS ISSUED FOR THIS PROJECT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH AND GOVERN HIMSELF BY ALL PROVISIONS OF THESE PERMITS.
5. EXISTING UTILITIES SHOWN ARE BASED ON INFORMATION SUPPLIED BY OTHERS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET WITH ALL APPLICABLE UTILITY COMPANIES TO VERIFY ALL UNDERGROUND FACILITIES PRIOR TO THE START OF CONSTRUCTION. ALL TRENCH EXCAVATION SHALL PROCEED WITH EXTREME CAUTION AT ALL TIMES. IN THE EVENT THAT EXISTING UTILITIES ARE DAMAGED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE ALL SUCH DAMAGE.
6. EXISTING GRADES WERE TAKEN FROM THE BEST AVAILABLE DATA AND MAY NOT ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH CURRENT SITE CONDITIONS, AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING WORK.
7. BOUNDARY AND TOPOGRAPHIC DATA TAKEN FROM SURVEY PREPARED BY MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT DATED MAY 13, 2003.
8. INSTALL SILT FENCE AT THE LIMITS OF WORK AS PER FDOT DESIGN STANDARD INDEX NO. 102.

LEGEND

EXCAVATION AREA

T.O.B. TOP OF BANK
B.B. BOTTOM OF BANK
S TOP OF SEDIMENT
W.E. WATER ELEVATION

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CES

CONSULTING ENGINEERING & SCIENCE, INC.
8925 S.W. 148th STREET SUITE 100
MIAMI, FLORIDA 33176 (305) 378-3335
EB-0003258

JOHN E. GUTTMAN
PE-24061 (CIVIL)

PRINTED

DATE	REMARK

MITIGATION AT HIGHLAND OAKS PARK

MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

REACH 4 PLANS, SECTIONS AND NOTES

DRAWN BY:	R.W.M.
CHECKED BY:	J.R.G.
APPROVED BY:	J.R.G.
DATE:	02-24-06
PROJECT NO.:	0150

REVISIONS

SCALE: AS SHOWN
SHEET NUMBER:
C-5
6 OF 8

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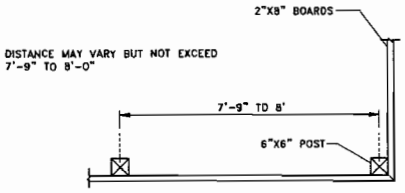
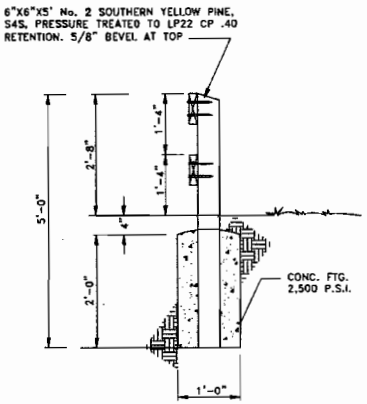
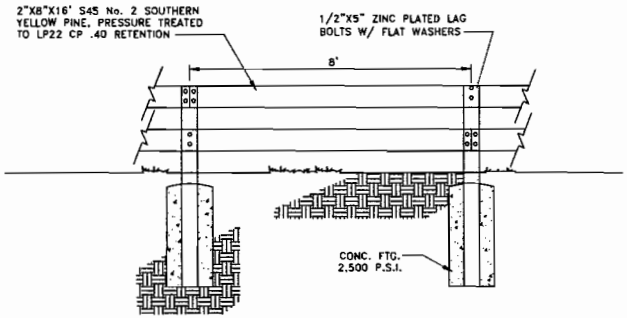
ATTACHMENT 4



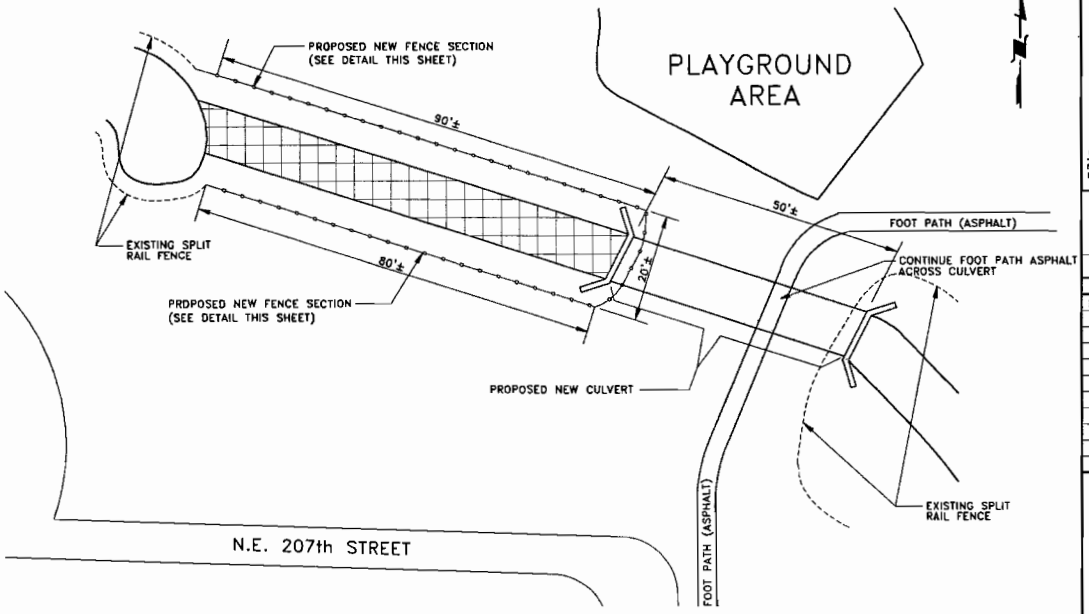
PLAN-CORNER (OR ANY CHANGE IN DIRECTION)
N.T.S.



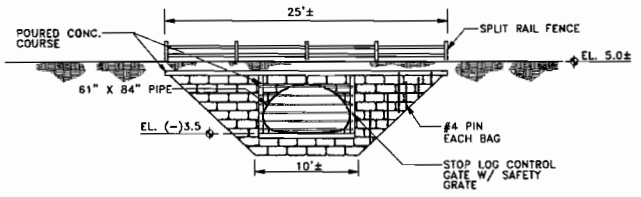
FENCE SECTION
N.T.S.



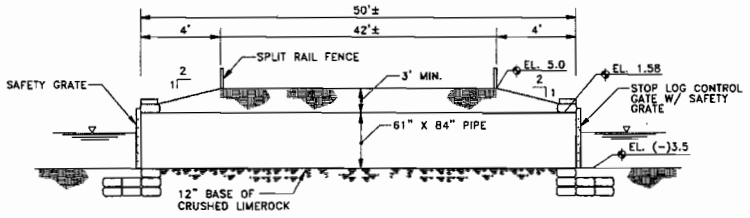
FENCE ELEVATION
N.T.S.



CULVERT PLAN
N.T.S.



END ELEVATION
N.T.S.



LONGITUDINAL SECTION
N.T.S.

77

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MIAMI, FLORIDA 33176 (305) 370-3535
EB-0003855

JOHN E. GUTTMAN
PE-54061 (CFTL)
PRINTED

DATE	REMARK

MITIGATION AT HIGHLAND OAKS PARK

MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

CULVERT PLAN, SECTIONS AND DETAILS

DRAWN BY:	R.W.M.
CHECKED BY:	J.R.G.
APPROVED BY:	J.R.G.
DATE:	02-24-06
PROJECT NO.:	0150

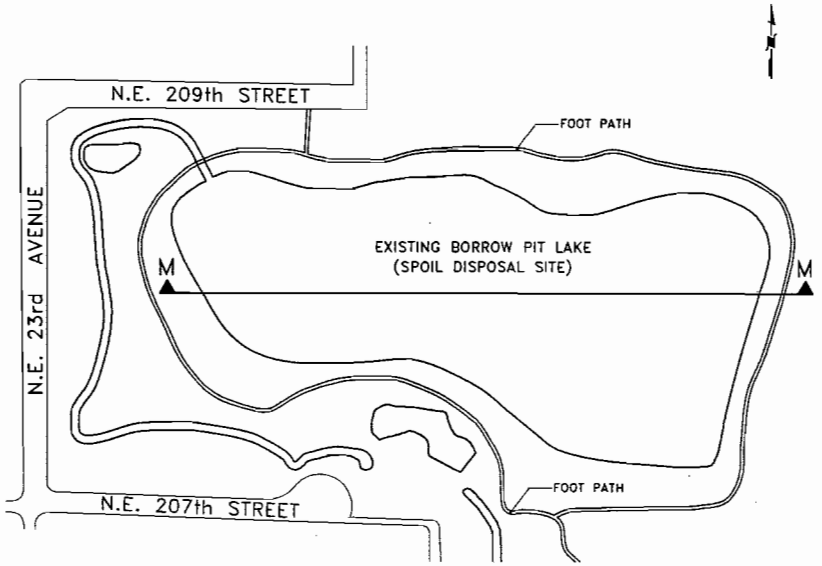
REVISIONS

7/10/07	ADD B&Z COMMENTS

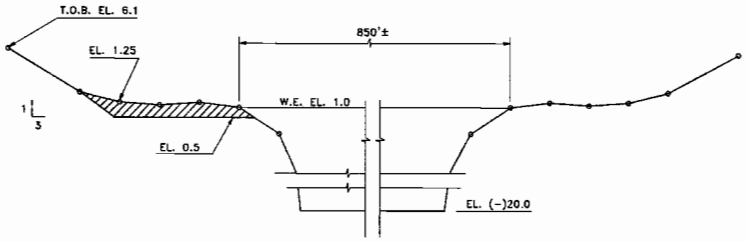
SCALE: AS SHOWN
SHEET NUMBER:

C-6

ATTACHMENT 4



LAKE SHORELINE PLAN



TYPICAL LAKE SHORELINE SECTION

CONSULTING ENGINEERING & SCIENCE, INC.
8950 S.W. 148th STREET SUITE 100
MIAMI, FLORIDA 33176 (305) 270-9535
EB-0003256

JOHN E. GUTTMAN
PE-34081 (CIVIL)

PRINTED

DATE	REMARK

MITIGATION AT HIGHLAND OAKS PARK

MIAMI-DADE COUNTY DERM
33 S.W. 2ND AVENUE
10TH FLOOR
MIAMI, FLORIDA 33130

LAKE SHORELINE PLAN AND SECTION

DRAWN BY:	R.W.M.
CHECKED BY:	J.E.G.
APPROVED BY:	J.E.G.
DATE:	02-24-08
PROJECT NO.:	0150

REVISIONS

SCALE: AS SHOWN
SHEET NUMBER:

C-7

8 OF 8

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ATTACHMENT 5

Estuary Restoration Act
Title I, Public Law 106-457 (as amended)
Project Application

5. **Non-Federal Sponsor Certification: Federal Laws and Excluded Activities**

I certify that the proposed project, if funded, will be carried out in accordance with all Federal statutes and regulations, included but not limited to the National Environmental Policy Act, the Endangered Species Act, National Historic Preservation Act, Title VI and VII of the Civil Rights Act of 1964, as amended, the Civil Rights Restoration Act of 1987, and other nondiscrimination statutes.

I further certify that the proposed project does not constitute mitigation required under any Federal or State law for adverse effects of an activity regulated or otherwise governed by Federal or State law, and does not constitute restoration for natural resource damages required under any Federal or State law.

George M. Burgess
Name of Non-Federal sponsor's representative

Non-Federal sponsor signature

Miami-Dade County
Organization

Title: County Manager

Date: 5-8-09

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ATTACHMENT 5

Memorandum

MIAMI-DADE COUNTY

Date: APR 2 1 2009

To: Kay Sullivan, Director
Clerk of the Board Division

From: George M. Burgess
County Manager

Subject: Administrative Order 2-3

This memo authorizes the following staff members to sign documents and agreements, which have been reviewed by the County Attorney as to form and legal sufficiency, and approved by official action of the Board of County Commissioners. In addition, these signatures will authorize submission of agenda items to the Office of Agenda Coordination.

Cynthia Curry
Senior Advisor

Alex Munoz
Assistant County Manager

Alina Tejeda Hudak
Assistant County Manager

Susanne M. Torriente
Assistant County Manager

Ysela Llort
Assistant County Manager

Irene Taylor-Woolen
Special Assistant, Social Services

Jennifer Glazer-Moon
Special Assistant/Director
Office of Strategic Business Management

Howard Piper
Special Assistant, Management &
Performance Assessment

c: Dianne Davis, Director, Office of Agenda Coordination
Liliana D. Fernandez, Assistant to the County Manager

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ATTACHMENT 6

OVERVIEW OF OLETA RESTORATION PROJECTS AT HIGHLAND OAKS PARK

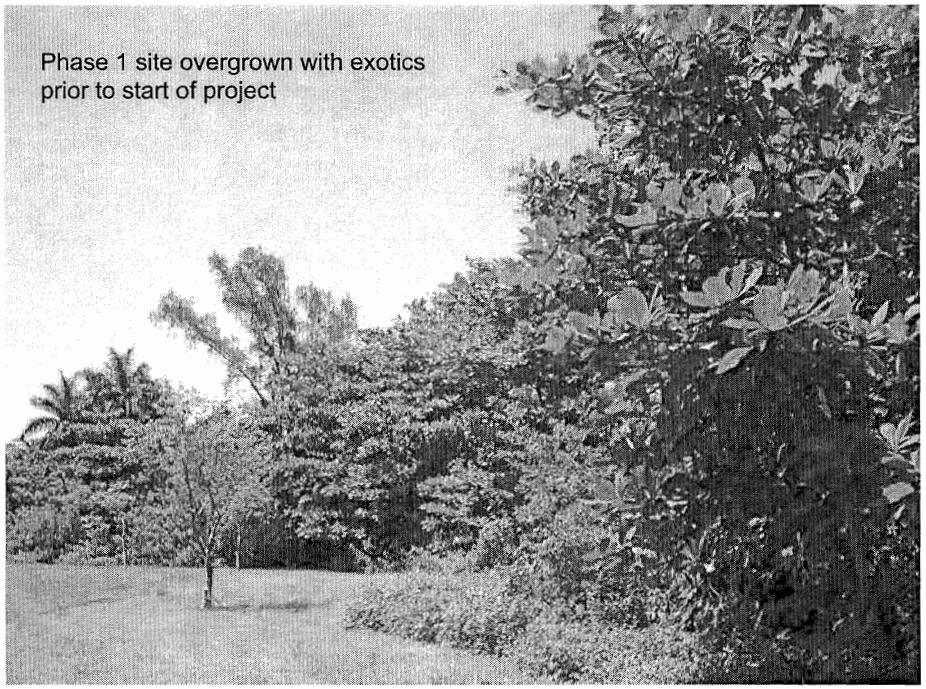
Phase 1

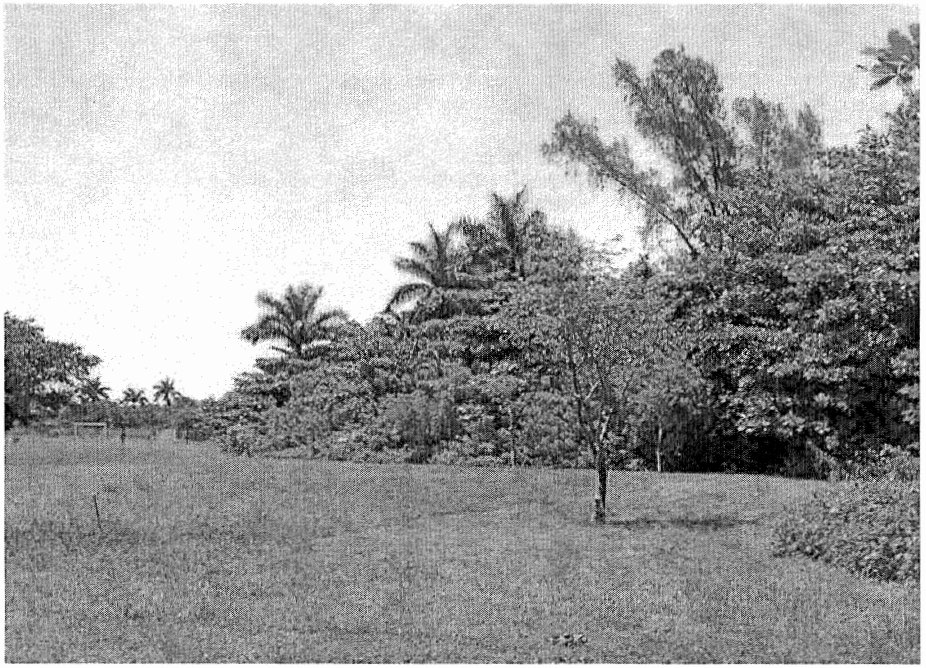
Phase 2

Phase 2

Phase 1

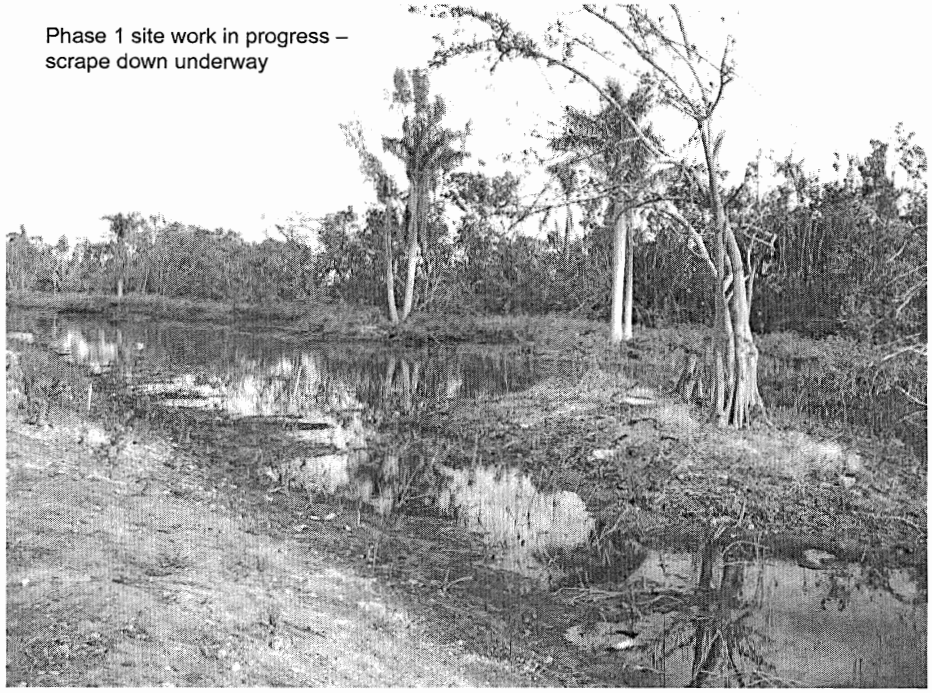
ATTACHMENT 6



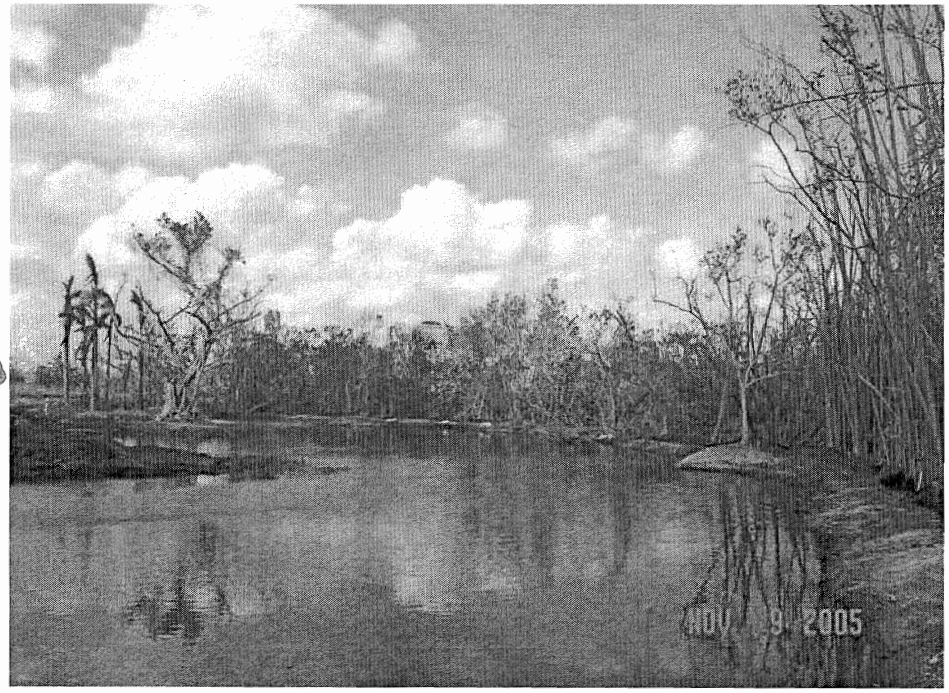


ATTACHMENT 6

Phase 1 site work in progress – scrape down underway



Phase 1 in 2008



Phase 1 in 2006

89

ATTACHMENT 6

Phase 2 scrape down underway - 2005

Phase 2 in 2008

Phase 2 before planting –
early 2006

Phase 2 in 2008

HIGHLAND OAKS -
OLETA RIVER HEADWATERS

SITE ENVIRONMENTAL EVALUATION:

Plant Community:	Freshwater wetland
Location:	NE 203 St. and 24th Ave.
Section, Twnp, Range:	33-51-42
Total Acres:	35.5
Natural Area Acres:	11.6

EVALUATION SUMMARY

Biological Criteria	
Connectedness:	High
Floral Richness:	Medium
Habitat Rarity:	High
Rare Plants:	Low
Wildlife Potential:	Medium
Vulnerability:	Medium

SITE DESCRIPTION

Highland Oaks Park, a Miami-Dade County park located at 20300 NE 24th Avenue contains a portion of and connects to the headwaters of the Oleta River. Historically this area was a forested river floodplain ecosystem that meandered east and southeast to Biscayne Bay. Unlike most rivers in Miami-Dade County, the Oleta is the last remaining natural waterway that has not been altered by the installation of water control structures, making it fully tidally connected.

This 35.5-acre site contains 11.6 acres of freshwater wetland habitat. Highland Oaks is connected via downstream water flow to Greynolds Park, East Greynolds Park and Oleta River State Park. The northern edge of the park is defined by NE 209th St. and nine residences directly abutting. The eastern border is adjacent residential properties and the Oleta River itself. To the south is NE 203rd Street and Ojus Community Center park, as well as NE 25th Avenue and NE 204th Street. On the western border is NE 23rd Avenue.

In the mid 1990s Miami-Dade County initiated restoration of the natural areas of Highland Oaks Park including intensive efforts to remove exotic pest plants, creation of a cypress swamp, and replanting of native vegetation. Exotic plants targeted for removal included Brazilian pepper (*Schinus terebinthifolius*), Australian pine (*Casuarina equisetifolia*), tropical almond (*Terminalia catappa*), castor bean (*Ricinus communis*) and shoebutton Ardisia (*Ardisia elliptica*). Reestablishment of these and additional exotics have continued to be a management problem.

BIOLOGICAL EVALUATION

Plant Community Types

Recreated and enhanced floodplain swamp habitat occurs on the northern four (4) acres of this site, and 7.6 acres of the southern natural areas are freshwater tidal swamp.

This site is divided into two biological units by site disturbance. Survey of the southern natural areas is not yet complete, but based on that performed on the southwestern riverbank. See attached Plant List.

1. Floodplain swamp and Lake edge:
   These four (4) westernmost acres of enhanced natural area have a canopy dominated by pond apple (*Annona glabra*), Dahoon holly (*Ilex cassine*), and swamp bay (*Persea palustris*) in the southernmost section (Reach 2) and these species plus willow (*Salix caroliniana*) and cypress (*Taxodium distichum*) in the remainder (Reach 1). Common understory species include leatherfern (*Acrostichum danaeifolium*), Cocoplum (*Chrysobalanus icaco*), wax myrtle (*Myrica cerifera*), and myrsine (*Rapanea punctata*).

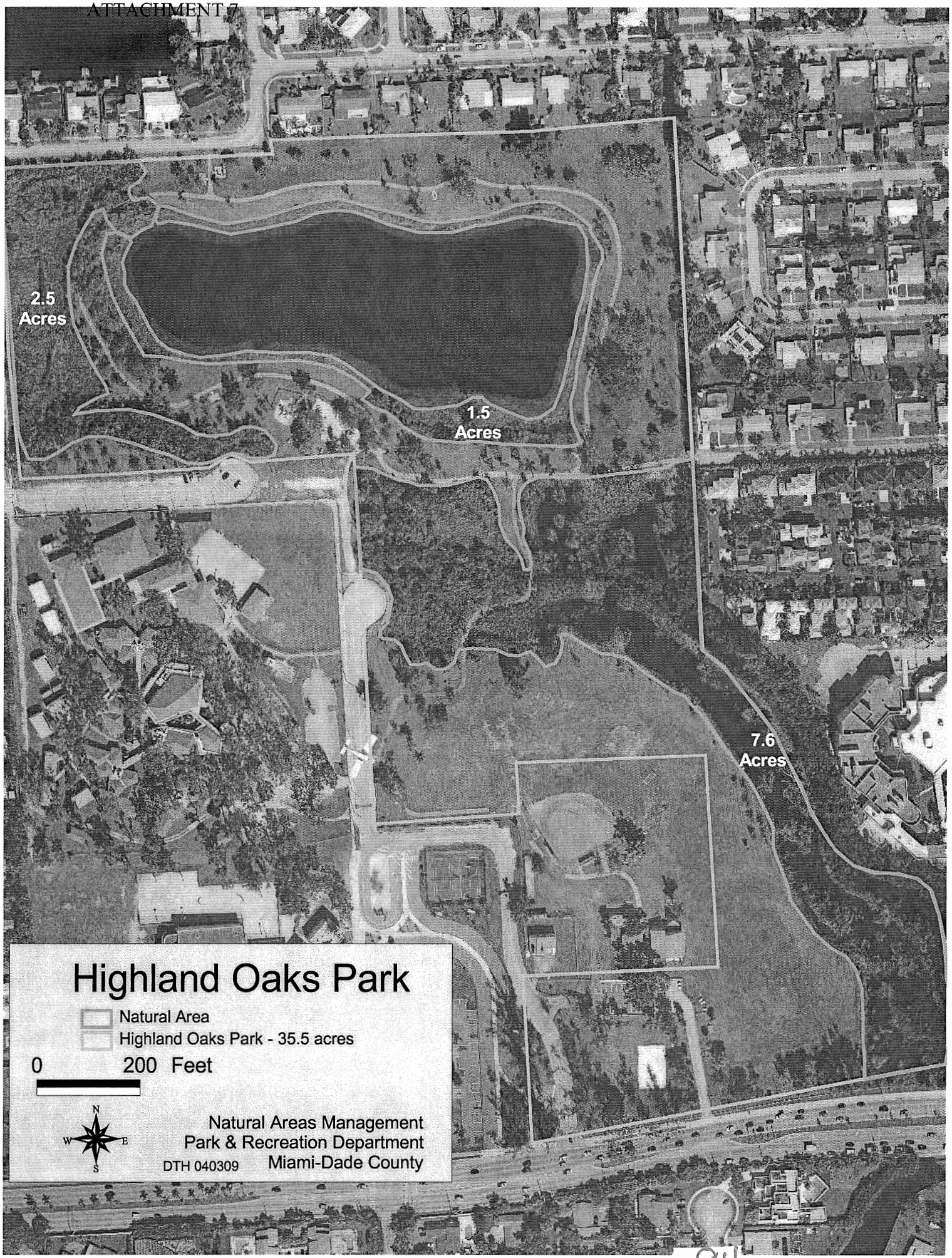
2. Freshwater tidal swamp:
   This area is approximately 7.6 acres in size, and as a result of planting in the 1990s is being recolonized by native species although most are less than 15 feet in height. Common species are cypress (*Taxodium distichum*), pond apple (*Annona glabra*), buttonwood (*Conocarpus erectus*), white mangrove (*Laguncularia racemosa*), and leatherferns (*Acrostichum danaeifolium*).

Wildlife and Landscape Ecology

This 11.6-acre site seems small, but its corridor-like layout and transitional composition are important for wildlife use, providing refuge, fresh water and food sources along a connective route conducive to migration as well as foraging. Oleta River State Park is an important downstream protected natural area where more than 60 species of wildlife have been documented (see attached list). These same species are expected to also use natural areas at Highland Oaks Park.

Highland Oaks Park
Oleta River Corridor
EEL Property
Parks Property
Oleta River
0
0.5
1 Miles
Natural Areas Management
Park & Recreation Department
Miami-Dade County
DTH 0400309
N
W
E
S
Greynolds Park
East East Greynolds
East Greynolds
Terama Tract
Tract C
Oleta River State Recreation Area

93


2.5
Acres
1.5
Acres
7.6
Acres
Highland Oaks Park
Natural Area
Highland Oaks Park - 35.5 acres
0 200 Feet
N
W
E
S
Natural Areas Management
Park & Recreation Department
DTH 040309 Miami-Dade County

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ATTACHMENT 7

HIGHLAND OAKS PARK
PLANT LIST

At the time of this update (March 2009) **144** taxa were reported.

Scientific Name:	Cultivated Status:	Designated Status:		
		Federal Protected Status†	State Protected Status†	IRC/ NAM
Acacia auriculiformis				X
Acer rubrum	Cultivated			N
Acrostichum danaeifolium				N
Amaranthus blitum				N
Ambrosia artemisiifolia				N
Ammannia latifolia				N
Ampelopsis arborea				N
Andropogon glomeratus var. pumilus				N
Annona glabra				N
Ardisia elliptica				X
Avicennia germinans				N
Baccharis halimifolia				N
Bacopa monnieri				N
Bidens alba var. radiata				N
Bischofia javanica				X
Boehmeria cylindrica				N
Bucida buceras				X
Bursera simaruba				N
Calyptocarpus vialis				N
Cardiospermum microcarpum				N
Casuarina equisetifolia				X
Catharanthus roseus				N
Centella asiatica				N
Cephalanthus occidentalis				N
Cestrum diurnum				X
Chamaesyce hirta				N
Chamaesyce hypericifolia				N
Chamaesyce prostrata				N
Chromolaena odorata				N
Chrysobalanus icaco				N
Cissus verticillata				N
Coccoloba diversifolia				N
Coccoloba uvifera				N
Conocarpus erectus	Cultivated			N
Conoclinium coelestinum				N
Crinum americanum	Cultivated			N
Crotalaria incana				N
Cupaniopsis anacardioides				X

Cyclospermum leptophyllum				N
Cynodon dactylon				N
Cyperus ligularis				N
Cyperus odoratus				N
Cyperus surinamensis				N
Dactyloctenium aegyptium				N
Desmodium tortuosum				N
Dichondra micrantha				N
Digitaria ciliaris				N
Drymaria cordata				N
Dypsis lutescens				X
Echinochloa walteri				N
Eleocharis geniculata	Cultivated			N
Eleocharis interstincta	Cultivated			N
Eleusine indica				N
Emilia fosbergii				N
Eragrostis ciliaris				N
Eugenia uniflora				X
Eupatorium capillifolium				N
Eustachys petraea				N
Ficus aurea				N
Ficus benghalensis	Cultivated Only			X
Fimbristylis cymosa				N
Fraxinus caroliniana	Cultivated			N
Fuirena breviseta	Cultivated			N
Ilex cassine	Cultivated			N
Ipomoea alba				N
Ipomoea indica var. acuminata				N
Laguncularia racemosa				N
Lantana camara				X
Lepidium virginicum				N
Ludwigia octovalvis				N
Magnolia virginiana	Cultivated			N
Mecardonia procumbens				N
Melaleuca quinquenervia	Cultivated			X
Melaleuca viminalis	Cultivated			X
Melanthera nivea				N
Melothria pendula				N
Mikania cordifolia				N
Mitreola petiolata				N
Morus rubra				N
Myrica cerifera	Cultivated			N
Ocotea coriacea				N
Oxalis corniculata				N
Panicum dichotomiflorum var. bartowense				N
Panicum hemitomon	Cultivated			N

Parietaria floridana				N
Parthenocissus quinquefolia				N
Paspalum setaceum				N
Paspalum urvillei				N
Pennisetum purpureum				N
Persea palustris				N
Phragmites australis				N
Phyla nodiflora				N
Phyllanthus amarus				N
Physalis walteri				N
Pluchea carolinensis				N
Pluchea odorata	Cultivated			N
Poinsettia cyathophora				N
Pongamia pinnata				X
Pontederia cordata	Cultivated			N
Portulaca oleracea				N
Psychotria nervosa				N
Psychotria sulzneri	Cultivated			N
Quercus virginiana	Cultivated			N
Rhizophora mangle				N
Rhynchospora colorata	Cultivated			N
Richardia grandiflora				N
Ricinus communis				X
Rivina humilis				N
Roystonea regia				N
Sabal palmetto				N
Sagittaria lancifolia	Cultivated			N
Salix caroliniana				N
Sambucus canadensis				N
Sarcostemma clausum				N
Saururus cernuus				N
Schefflera actinophylla				X
Schinus terebinthifolius				X
Senna pendula var. glabrata				X
Serenoa repens	Cultivated			N
Sida acuta				N
Sida rhombifolia				N
Sideroxylon foetidissimum				N
Solanum americanum				N
Spartina bakeri				N
Spermacoce assurgens				N
Spermacoce verticillata				N
Stenotaphrum secundatum				X
Syngonium podophyllum				X
Tabebuia heterophylla				X
Taxodium distichum	Cultivated			N

Terminalia catappa				X
Thelypteris kunthii				N
Thespesia populnea				X
Tillandsia fasciculata var. densispica				N
Tillandsia recurvata				N
Trema micranthum				N
Tridax procumbens				N
Typha domingensis				N
Urena lobata				X
Verbesina virginica				N
Vigna luteola				N
Vitis cinerea var. floridana				N
Wedelia trilobata				X
Zanthoxylum fagara				N

SOURCES

United States
USFWS Endangered Species Program. 2006. *All plants* (20 January 2006). US Fish and Wildlife Service.

Florida
Coile, N.C., and M.A. Garland. 2003. *Notes on Florida's endangered and threatened plants* (29 January 2005). Florida Department of Agriculture & Consumer Services, Division of Plant Industry.

†Code Protected Status

CE Commercially Exploited

E Endangered

T Threatened

(IRC / NAM)
N = Native
X = Exotic

REFERENCES

Institute for Regional Conservation. 2009. As accessed on 25 March 2009 at: http://regionalconservation.org/ircs/database/plants/ByConsArea.asp?SiteID=418&SN=Highland%20Oaks%20Park

Warren, A. and Hazelton, D. 2009. Observations of vascular plants at Highland Oaks Park, Miami-Dade County, Florida. 17 – 19 March 2009. Natural Areas Management, Miami-Dade County Park and Recreation Dept.

Woodmansee, S.W. 1999. Observations of vascular plants at Highland Oaks Park, Dade County, Florida. 31 March 1999. Institute for Regional Conservation. Miami, Florida.

USDA Plant Database. 2009. As accessed on 2 April 2009 at: http://plants.usda.gov/java/threat?txtparm=&category=sciname&familycategory=all&duration=all&growthhabit=all&wetland=all&statefed=all&stateSelect=US12&sort=sciname&submit.x=79&submit.y=8

ATTACHMENT 8

Oleta River State Park

Animals

Common Name	*Scientific Name*	Primary Habitat Codes (for all species)
	INVERTEBRATES	
Great land crab	*Cardisoma guanhumi*	64, 81
Fiddler crab	*Uca sp.*	64
Rock-boring urchin	*Echinometra lucunter*	65
Bleeding tooth	*Nerita peloronta*	65
Tessellated nerite	*Nerita tessellata*	65
Boring isopod	Sphaeroma terebrans	64, 65
	FISH	
Sheepshead	*Archosargus probatocephalus*	64, 65
Common snook	*Centropomus undecimalis*	64, 65
Southern stingray	*Dasyatis americana*	64, 65
Mosquitofish	*Gambusia holbrooki*	64, 65
Mojarra	*Gerres cinereus*	64, 65, 81
Pinfish	*Lagodon rhomboides*	64, 65, 81
Tarpon	*Megalops atlantica*	64, 65
Striped mullet	*Mugil cephalus*	64, 65, 81
Pipefish	*Syngnathus scovelli*	64, 65
	AMPHIBIANS	
Squirrel treefrog	*Hyla squirella*	7, 64, 81
	REPTILES	
Florida cottonmouth	*Agkistrodon piscivorus*	64, 81
Southern black racer	*Coluber constrictor*	7, 81
Southern ringneck snake	*Diadophis punctatus*	7, 81
Red rat, Corn snake	*Elaphe guttata*	81
Gopher tortoise	*Gopherus polyphemus*	7, 81
Mangrove water snake	*Nerodia fasciata compressicauda*	64
Red-eared turtle *	*Pseudemys scripta elegans*	64
Florida cooter	*Pseudemys floridana*	64, 65
Florida box turtle	*Terrapene carolina bauri*	7, 81
Florida softshell	*Trionyx ferox*	64
	BIRDS	
Sharp-shinned hawk	*Accipiter striatus velox*	7, 64, 81
Spotted sandpiper	*Actitis macularia*	1
Roseate spoonbill	*Ajaia ajaja*	64, 65
Anhinga	*Anhinga anhinga*	64, 65
Great blue heron	*Ardea herodias*	64, 65
American bittern	*Botaurus lentiginosus*	64
Cattle egret	*Bubulcus ibis*	64, 65, 81
Short-tailed hawk	*Buteo brachyurus*	7, 64, 81
Red-tailed hawk	*Buteo jamaicensis*	64, 7, 81
Red-shouldered hawk	*Buteo lineatus*	64, 7, 81
Green-backed heron	*Butorides striatus*	64, 65

* Non-native Species

ATTACHMENT 8

Oleta River State Park

Animals

Common Name	*Scientific Name*	Primary Habitat Codes (for all species)
Chuck-will's widow	*Caprimulgus carolinensis*	7, 81
Northern cardinal	*Cardinalis cardinalis*	7, 81
American goldfinch	*Carduelis tristis*	7, 81
Turkey vulture	*Cathartes aura*	All
Belted kingfisher	*Ceryle alcyon*	64
Killdeer	*Charadrius vociferus*	81
Common nighthawk	*Chordeiles minor*	7, 81
Northern harrier	*Circus cyaneus*	64, 7, 81
Mangrove cuckoo	*Coccyzus minor mynardi*	64
Ground dove *	*Columbina passerina*	All
Fish crow	*Corvus ossifragus*	64, 81
Sanderling	*Crocethia alba*	1
Blue jay	*Cyanocitta cristata*	7, 81
Black-throated blue warbler	*Dendroica caerulescens*	7, 64, 81
Yellow-throated warbler	*Dendroica dominica*	7, 64, 81
Gray catbird	*Dumetella carolinensis*	7, 81, 82
Little blue heron	*Egretta caerulea*	64, 65
Reddish egret	*Egretta rufescens*	64, 65
Snowy egret	*Egretta thula*	64, 65
Tricolored heron	*Egretta tricolor*	64, 65
American swallow-tailed kite	*Elanoides forficatus*	65
White ibis	*Eudocimus albus*	64, 65, 81
Peregrine falcon	*Falco peregrinus*	7, 64
American kestrel	*Falco sparverius*	64, 7, 81
Magnificent frigatebird	*Fregata magnificens rothschildi*	64, 65, 81
Common loon	*Gavia immer*	64, 65
Bald eagle	*Haliaeetus leucocephalus*	64, 65, 7, 81
Herring gull	*Larus argentatus*	1, 65
Laughing gull	*Larus atricilla*	1
Ring-billed gull	*Larus delawarensis*	1, 65
Red-bellied woodpecker	*Melanerpes carolinus*	7, 81
Red-breasted merganser	*Mergus serrator*	64, 65
Mockingbird	*Mimus polyglottos*	7, 81, 82
Wood Stork	*Mycteria americana*	64, 65
Yellow-crowned night heron	*Nyctanassa violacea*	64, 65
Osprey	*Pandion haliaetus*	64, 65, 7, 81
American white pelican	*Pelecanus erythrorhynchos*	64, 65, 81
Double-crested cormorant	*Phalacrocorax auritus*	64, 65, 81
Pied-billed grebe	*Podilymbus podiceps*	64, 65
Blue-gray gnatcatcher	*Polioptila caerulea*	64, 7, 81
Purple martin	*Progne subis*	81
Boat-tailed grackle	*Quiscalus major*	64, 81
Least tern	*Sterna albifrons*	1, 65
Common tern	*Sterna hirundo hirundo*	1, 65
Barred owl	*Strix varia*	7
Royal tern	*Thalasseus maximus*	1, 65
Black-whiskered vireo	*Vireo altiloquus*	64

* Non-native Species

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ATTACHMENT 8

Oleta River State Park

Animals

Common Name	*Scientific Name*	Primary Habitat Codes (for all species)
Mourning dove	*Zenaida macroura*	All
	MAMMALS	
Oppossum	*Didelphis marsupialis*	All
River otter	*Lutra canadensis*	64
Florida bobcat	*Lynx rufus*	64, 81
Raccoon	*Procyon lotor*	All
Eastern gray squirrel	*Sciurus carolinensis*	7, 81, 82
Spotted skunk	*Spilogale putorius*	7, 81
Marsh rabbit	*Sylvilagus palustris*	7, 81
West Indian manatee	*Trichechus manatus latirostris*	64, 65, 81
Atlantic bottlenose dolphin	*Tursiops truncatus*	64, 65, 81
Gray fox	*Urocyon cinereoargenteus*	7, 81

* Non-native Species