LAND ACQ. & MGMT.
COMMITTEE MEETING
January 13, 2012

PRELIMINARY AGENDA

FLORIDA INLAND NAVIGATION DISTRICT's
Land Acquisition & Management Committee Meeting

Following the Board Meeting
Friday, January 13, 2012

Hilton St. Augustine Historic Bayfront Hotel
32 Avenida Menendez, St. Augustine
St. Johns County, Florida.

Committee Members
Chair Spencer Crowley
Commissioners Bruce Barkett, Carl Blow, Tyler Chappell & Aaron Bowman

Item 1. **Call to Order.**

Chair Crowley will call the meeting to order.

Item 2. **Roll Call.**

Assistant Executive Director Mark Crosley will call the roll.

Item 3. **Additions or Deletions.**

Any additions or deletions to the meeting agenda will be announced.

RECOMMEND - Approval of a final agenda.

Item 4. **MSA 727B-Alsdorf Park Improvements Feasibility Study, Broward County.**

The District owns MSA 727B and leases the property to the City of Pompano Beach for use as a boat ramp/park known as Alsdorf Park. The District has designated MSA 727B as a Long Term Transfer Site for the management of maintenance dredge materials from Dredging Reach 2 of the ICW in Broward County. This reach has a minimal 50 year dredging requirement of 5,421 cyds.

Alsdorf Park is one of the busiest salt water boat ramps in Broward County. Therefore, the City and the County commissioned a feasibility study to improve water access at the site. The study recommends 2 alternatives which increase the number of boat ramp lanes, the number and size of the trailer parking spaces, and adds a staging dock for boats to increase ramp efficiency.

[item continued on next page]

Item 4 Continued. **Alsdorf Park Improvements Feasibility Study, Broward County.**

Pursuant to our lease with the City, any alterations to the property have to be approved by the District. Staff is not opposed to these proposed changes but recommends that any additional trailer parking spaces, which are proposed in our future materials management area, not be paved so that any future impact to them from our operations is less costly to repair.

(see back up pages 3 - 75)

RECOMMEND Approval of Alsdorf Park Improvements Feasibility Study Alternatives 1 and 2 subject to any new parking areas not being paved.

Item 5. **DMMA BV-24 Exchange with Brevard County.**

Since 1998 the District has been working with Brevard County and the Nature Conservancy to exchange all or a portion DMMA BV-24 to the county for a portion of their land to the south. The District's property is home to 3 scrub jay families and is located within the Valkaria Scrub Jay Refugia which is one of the largest concentrations of scrub jays in Florida. The County would like to protect these jays by exchanging some of their lands which were previously altered.

The District has approved this exchange several times but it has not proceeded because 3rd party lands were needed in the exchange. This last exchange proposal eliminates the 3rd party lands and only involves the District and the County. Three new alternatives were laid out by the District's engineers and staff recommends Alternative 3 which provides us with the site capacity that we need but only protects 2 scrub jay families.

(see back up pages 76 - 79)

RECOMMEND Approval of the an exchange of lands with Brevard County in accordance with Alternative 3 and subject to the District's due diligence and a final exchange agreement being approved and executed.

Item 6. **Additional Staff Comments and Additional Agenda Items.**

Item 7. **Commissioners Comments.**

Item 8. **Adjournment.**

Alsdorf Park Improvements Feasibility Study

Final Report
October 2011

City of Pompano Beach, Florida

CORZO CASTELLA CARBALLO THOMPSON SALMAN

3996 NW 9th Avenue
Fort Lauderdale, FL 33309
Voice: (954)565-2113
Fax: (954)567-4079

The Chappell Group

714 East McNab Road
Pompano Beach, FL 33060
Voice: (954) 782-1908
Fax: (954) 782-1108

C3TS Job No.: 1628-13

Table of Content:

Appendices

Project Introduction

Alsdorf Park is a recreational facility operated by the City of Pompano Beach Parks and Recreation Department with a primary focus on boating activities. The park property is 9.84 Acres and is located at 2901 NE 14 ST directly on the Intracoastal Waterway (ICWW). The City currently operates boat ramps at this location with the space for six simultaneous boat launchings. The ramps feed into a side canal with direct access to the ICWW. The site is equipped for 80 parking spaces for vehicles with boat trailers as well as 89 passenger vehicles without trailers.

The park property is owned by the Florida Inland Navigation District (FIND) and is leased to the City for their use. FIND reserves the right to utilize the park as a transfer point for dredge material to be off loaded from barges for stockpiling and trucking.

The City of Pompano Beach has commissioned this feasibility study regarding possible improvements to Alsdorf Park. The goal of the improvements would be to improve boater access at this popular public boat ramp. Alsdorf Park is currently one of the busiest boating oriented parks in Broward County and has suffered from overcrowding with a variety of associated problems. This feasibility study will investigate the current limitations of the park and will seek ways to improve the capacity of the facilities to effectively serve a greater number of patrons.

This feasibility study will be conceptual in nature to explore multiple options for the proposed improvements. The study will consider the following factors:

- Physical viability of space limitations and other constraints
- Potential configurations for ramps, parking and vehicular flow.
- Potential costs

Existing Conditions

The Alsdorf Park property is 9.84 Acres and is located at 2901 NE 14 ST in Pompano Beach Florida directly on the Intracoastal Waterway (ICWW).

The park has three double-wide ramps with the space for six simultaneous boat launchings. The ramps open into a side canal with direct access to the ICWW. The site is equipped for 80 parking spaces for vehicles with boat trailers. The boat trailer spaces vary in size but are approximately 11 feet wide by 53 feet long. However, they are angled at approximately 58 degrees so the effective length of the typical space is about 47 feet long without having vehicle corners extend into the drive aisles. The spaces are serviced by drive aisles that vary from 23.5' to 25' wide.

The site is also served by 89 parking spaces for passenger vehicles without trailers. Eighty-three (83) regular spaces plus two (2) handicap spaces are in the southern lot that runs east-west along 14th street. The remaining four (4) regular spaces and two (2) handicap spaces are located along the northern sea wall to the east of the ramps.

The park has marginal docks along the northern seawall between the ramps and to either side. A side driveway is set aside as a boat wash facility. The park also has restroom facilities and a playground as well as miscellaneous picnic facilities.

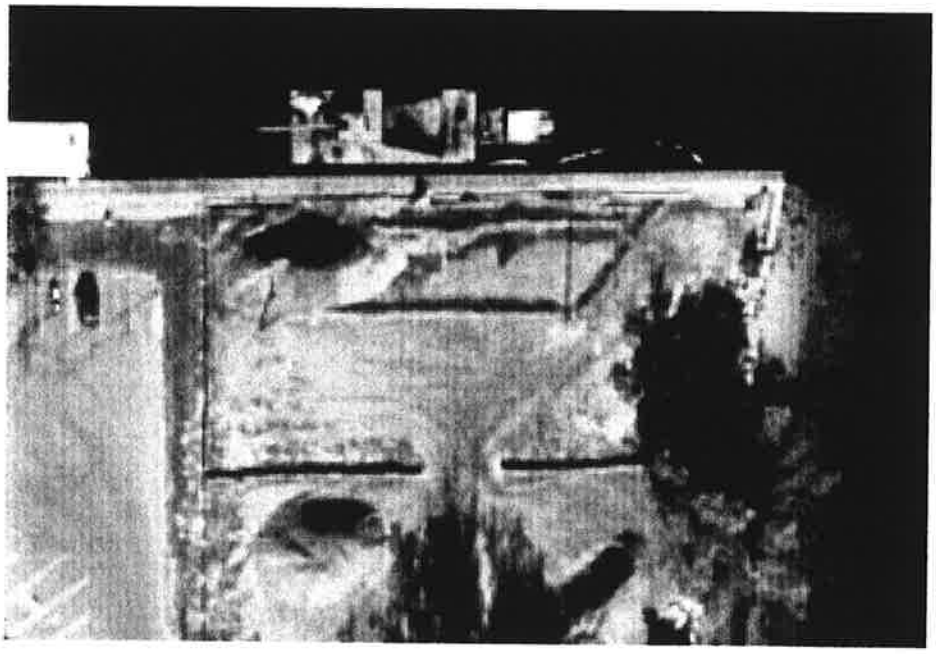
In addition to being utilized as a public boat ramp facility, the park is used as a staging area for various municipal services. The northwest corner of the site has docking facilities for the Broward County Sheriff's Office Marine Patrol Unit as well as the Florida Fish and Wildlife Conservation patrol boats. The BSO Marine unit also has office space at the park within the restroom building. The City also uses some of the dock space for canal maintenance barges with a lift to place boats in the water. The Coast Guard Auxiliary operates out of the park and is in the process of adding a modular building as a base of operations.

The Northeast corner of the site is an open green area that is set aside for the use of FIND as a spoil site for dredging material that is being stockpiled and trucked away. The remainder of the site has moderate tree growth with sodded ground cover. The tree canopy is a mixture of native species, palms, banyan trees and Australian Pines.

Following is a series of photographs depicting existing conditions:

Photograph 1 - Aerial view of Alsdorf Park

Photograph 2 - Aerial view of boat ramps



Photograph 3 - Aerial view of periodic dredge material operation

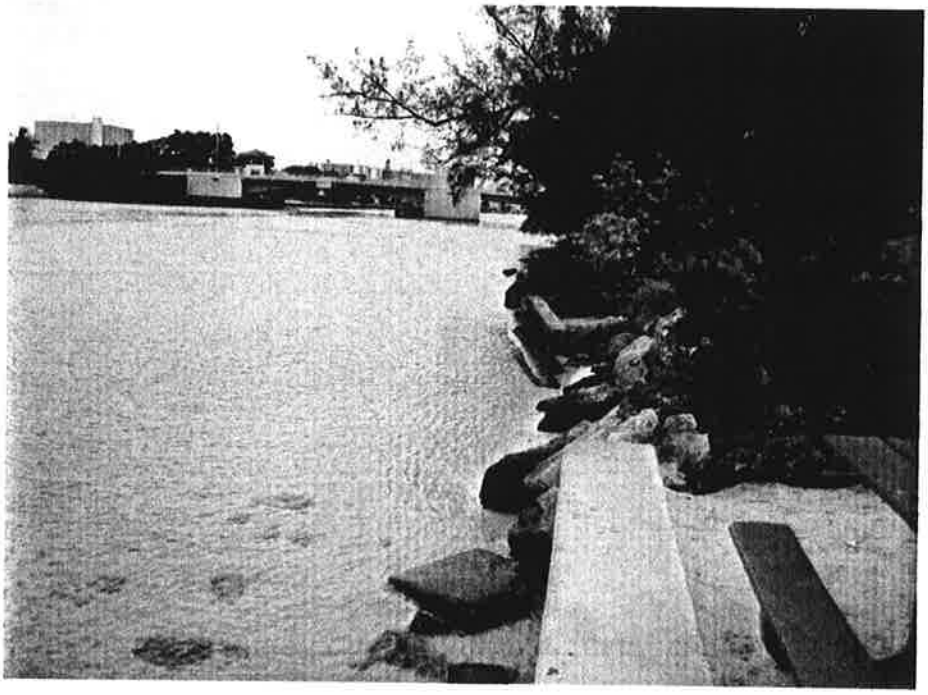
Photograph 4 - Dock along north seawall

Photograph 5 - View of ramps from east

Photograph 7 - View of ramp from seawall

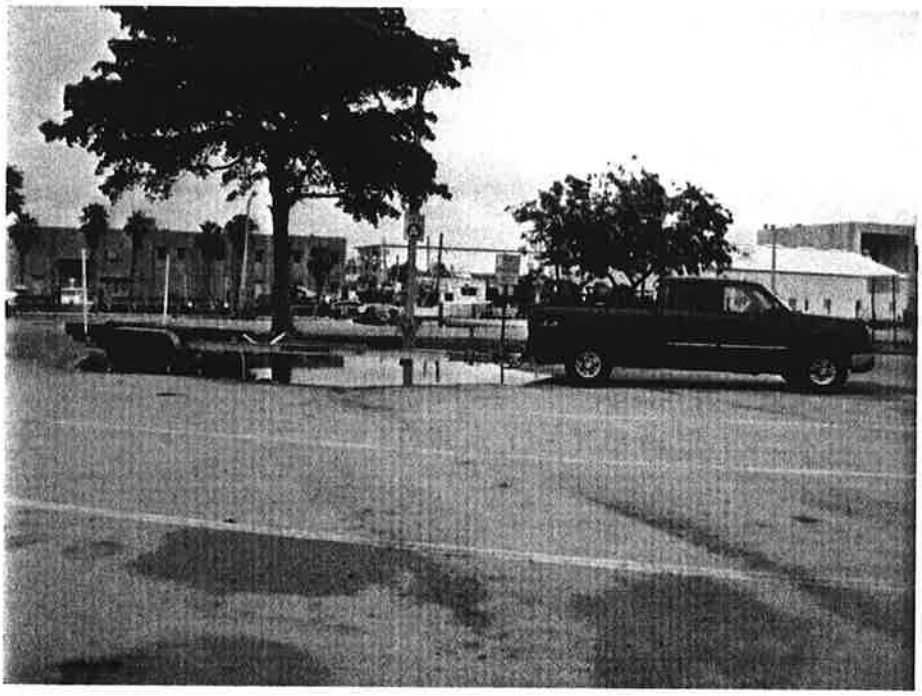
Photograph 6 - View of ramp in use

Photograph 9 - Open area to east of main lot



Photograph 8 - Shoreline along east park boundary

Photograph 10 - Passenger vehicle parking area



Photograph 11 - Boat trailer parking area

Photograph 12 - Entry drive from north

Photograph 13 - Boat wash area

Identification of Deficiencies

The Alsdorf Park boat ramps are an extremely popular facility due to a number of factors including convenience, proximity to the Hillsboro Inlet, cost and lack of other nearby facilities. As a result, the facility can get very busy on weekends and holidays. The park often reaches capacity resulting in various problems. Illegal parking is an on-going concern as the available trailer parking spaces get completely full. Congestion in the usage of the ramps also has been reported to cause conflict between the park patrons.

In order to improve the capacity of the park to serve more people, it is necessary to identify the deficiencies that set the limitations of the current facilities. Total available usage of the ramps are controlled by several factors with the following limitations:

- **Available Trailer Parking Quantity**

This deficiency is commonly reported as the primary problem in limiting the number of available launchings. It is reported that the spaces regularly fill to capacity and further limit any legal use of the ramp. Due to the methodology of the existing parking system, the boaters often don't find out that the spaces are full until their boats are already in the water. This results in numerous individuals parking illegally along the edges of the drive aisles and perimeter of the lot. In addition to illegal parking, the problem has resulted in conflict between patrons as the users attempt to secure the last remaining spots.

- **Available Trailer Parking Size**

It is also reported that the parking spaces are relatively small for some vehicle/trailer combinations. The indications are that longer spaces would be helpful to

accommodate the larger boats that are utilizing the site at this time. There was also an indication that the spaces were relatively narrow for the largest vehicles.

- **Available Ramp Quantity**

The park currently contains three ramp segments with each of the ramps wide enough to support two simultaneous launchings. It has been requested that the number of ramps be increased to allow for more concurrent usage to avoid back-ups during the busiest mornings and evenings on busy weekends and holidays

- **Available Ramp Configuration**

The configuration of the existing ramps has been a cause for concern for several reasons. For one, the ramps are slightly steeper than would be desirable. This is especially a problem when the ramps get wet and coated with slippery debris. There is also a relatively sharp break at the top of ramp that causes trailers to drag. Also, the ramp is relatively short at the bottom during low tide. As a result, trailers are sometimes backed off of the end of the ramp causing vehicles to be dragged into the water.

The configuration of the ramps is adequate to accommodate boats that are up to approximately 28' in length. However, the industry has experienced a surge in boat size causing the ramp to be utilized by boats 30' and up. These larger boats have more difficulty with the configuration resulting in many of the issues mentioned.

- **Available Staging Area**

One factor in the speed with which a ramp can be used is the availability of a nearby dock to be used as a staging area. If available, the boat can temporarily tie up during the time it takes to park or retrieve a trailer. This avoids tying up the ramp during this

time period and minimizes the time per boat that the ramp is used. Alsdorf Park has limited dock space available to provide this function. Furthermore, efforts to increase the number of ramps will tend to decrease the available dock space.

It should also be noted that there are other users competing for this available dock space. Theoretically, boaters from other input points could use the park facilities such as the restrooms or picnic tables. However, this is most likely to take place during the parts of the day that the ramps are the least busy. Some of the dock space has until recently been taken up with a vessel utilized by the Coast Guard Auxiliary. It is anticipated that this will not be needed going into future based on the new facilities that are being built for them. Finally, part of the dock space is occasionally taken up by the dredging operations required by FIND. These operations are rare but they will affect a significant amount of the dock space when performed. In any event, it should be noted that all of these competing uses for the dock space can reduce the staging area available and could result in the slowdown of throughput on the ramps.

- **Site Traffic Circulation**

There have been reports that patrons become disorganized when there are a number of people waiting to use the ramps. The current layout of the site allows for incoming patrons to approach the ramps down any of the drive aisles. This does not facilitate an orderly procedure for taking turns in using the ramps. There are indications that the site circulation could be improved if all incoming vehicles were directed along a common path to allow for orderly stacking.

- **Stormwater and Permitting Considerations**

The topography of the site is currently set where a large portion of the main boat parking area slopes from the south to the north. As a result, a large portion of the stormwater runoff from the site drains directly into the open water at the ramps. This

condition is in violation of current drainage standards and would not be allowed in new construction. The site is currently grandfathered in with existing conditions. However, there are limitations to the level of improvements that can be performed without bringing the site in to full compliance.

A meeting was held with the head of Surface Water Management Review at the Broward County Development and Environmental Regulation Division. The meeting discussed the various options for improving the park and the relative level of stormwater upgrades that would be required. The level of stormwater improvements required will be determined by whether the project is determined to be a Minor or Major Redevelopment. The threshold for a Major Development is defined as follows from the Broward County Code:

> **Major redevelopment** means construction activities which involve the demolition or removal of the principal structure on a site of more than fifty (50) percent of the impervious surface of a developed area on a site. Major redevelopment also means minor redevelopment with the cumulative expansion of developed area greater than or equal to twenty-five (25) percent of the existing developed area of a site or greater than or equal to two (2) acres over a period of ten (10) years.

If the project does not cross the threshold of the Major redevelopment, then the existing portions of the site will be able to remain as is. Only the added features of the site will need to meet current standards. If the project does become a Major Development, then the entire site will need to be brought up to code. This would require significant redevelopment to reorient drainage flows to capture and treat initial runoff prior to discharge.

A Surface Water Permit from the Broward County Development and Environmental Regulation Division will be required in either event. An Environmental Resource Permit from the South Florida Water Management District will also be required. Broward County typically processes the ERP on behalf of the SFWMD under a delegation agreement. The only distinction in this case will be if the ERP requires

Florida Department of Environmental Protection approvals due to disturbance of protected species.

It should also be noted that the park includes a boat wash that currently does not drain well and overflows to the surface water. The boat wash should be upgraded to provide treatment and disposal of wash water in accordance with current requirements.

- **Environmental Issues**

A full Environmental field investigation and report has been conducted by The Chappell Group in conjunction with this feasibility study. The study found the existence of protected species of Johnson Seagrass along the eastern border of the park along the Intracoastal Waterway. Patches of paddle grass were found along the canal to the east of the existing boat ramps. Several mangroves were identified along the eastern shoreline along the ICWW as well.

The Environment Report is attached as Appendix B.

- **Non-trailer parking**

With 89 total spaces, there appears to be excess parking for non-trailer passenger vehicles. The playground and picnic tables may attract a few non-boaters but the standard vehicular traffic is primarily for guests of boaters meeting at the boat ramp. In general, it is widely reported that there is substantial excess parking for standard vehicles.

- **Ownership**

Any considerations for improvements must consider the ownership circumstances of the park. The Florida Inland Navigation District (FIND) owns the property as a

transfer station for spoil material from their dredging operations. Since the need for dredging is sporadic, FIND allows the City to operate the property as a park under a lease agreement.

As part of the agreement, FIND reserves the right to utilize the property as needed for their dredging operations. Traditionally, this has been limited to the green area in the northwest corner of the park.

The ownership question raises two major issues for the feasibility of the project. First, the proposed improvements must be acceptable within the terms of the lease and will need to be approved by FIND.

Second, the level of funding needed to improve the park must be considered relative to the length of the lease. Large sums of money should only be considered if the terms of the lease are long enough to ensure that the public will get the value out of the project. However, it is our understanding that FIND typically prefers shorter term leases that would not be conducive to substantial investments in the leased property.

- **Canal Congestion**

It should be noted that the boat ramps empty into a narrow man-made canal that is heavily utilized. Vessels moored on the opposite bank as well as though traffic from the west provides some congestion in this section of canal. Recent development of a stack-and-store boat storage facility to the west will only increase the boat traffic along this corridor. This congestion could be a factor when the capacity of the Alsdorf ramps is increased.

- **General Maintenance Needs**

In addition to the improvements being considered, other minor maintenance issues should be considered.

Overall, the park is in reasonably good shape. A project to rehabilitate the asphalt was performed in 2007. In this project, the asphalt pavement was completely reconstructed in front of the boat ramps and in the boat wash drive. The remainder of the asphalt was patched, repaired and overlaid throughout the parking areas. The reconstructed asphalt is holding up well with the exception of a few bird baths that were unavoidable due to the topography of the asphalt that remained under the overlay.

Aside from the paved areas, curb and gutters were also largely repaired in the 2007 rehabilitation project and there are only some areas that need additional work.

The unpaved area to the west of the restroom building functions as a parking area and boat yard for the BSO and FWC personnel. It has been discussed that this area should be paved for better working conditions and to avoid erosion into the open water. Whether or not this area can be included will depend on the discussion relating to stormwater permitting earlier in this chapter. It is possible that this area could put the project over the limit of major redevelopment.

Also in the BSO compound, the sea wall shows evidence of minor leaking from behind the panel joints at the piles. This is resulting in pot holes in the pavement. There are also issues with the deterioration of the wood piling associated with the BSO and FWC docks. They are showing signs of necking at the water line and need to be repaired. If possible, it would be recommended that these minor upgrades be included in the improvements to avoid additional damage in the future.

Proposed Improvements

In order to increase the capacity of the park, a number of potential improvements were investigated. Each improvement will be explored independently to determine advantages and disadvantages. Options that are determined to be viable will be advanced into overall alternatives for redevelopment of the park.

Parking Improvement Options

- **Extended Parking Area**

The first option for improving parking is to extend the parking area pavement to the east for the addition of a full row of trailer spaces. This would increase the available spaces by 15-16 which would be a 20% increase provided there were no reductions required otherwise in the site. This is the most straightforward approach because it utilizes the established layout and circulation of the existing park.

The complication for this approach is the ownership and usage of the park property by FIND. As previously indicated, FIND uses the north east corner of the park as a transfer and storage facility for spoil material from dredging operations. As a result, there is a question as to whether the space is available for expansion. However, a representative of FIND has indicated that paving of the area would not adversely affect the usage of the area for its purposes. As long as the City understands that this area will still sometimes be taken away for FIND use, then the proposed expansion should be allowed. The only limitation to the paved area set aside for FIND use will be the need to keep it clear of vegetation and obstructions such as curbing. This may run contrary to Planning and Zoning which will want landscaped islands in the new pavement area, therefore, a waiver will likely be necessary.

In determining the layout of the parking, the issue of parking space size needs to be considered. There have been indications that the existing parking spaces are too

small for some vehicle/trailer combinations. However, increasing the dimensions may impact the quantities that can be provided. As a compromise, one alternative may be to provide oversized spaces in the expanded parking area while maintaining the size in the existing parking lot. At the very least, the spaces in the western three bays should be kept the same as existing because those spaced are defined by landscaped islands. Any attempt to reconfigure these spaces will result in relocation of trees, lights, parking meters and other elements within the islands.

The increased pavement area should fall well under the threshold of allowable new pavement and therefore should not be considered a Major Redevelopment. In any event, drainage requirements will need to be met for the new portions of the pavement.

The additional parking will impact a number of trees in the expanded pavement area. However the trees to be impacted appear to be exclusively Australian Pines which are an invasive exotic species that can be removed. Additional landscape shade trees will need to be planted to replace tree canopy and to provide additional screening to neighboring properties.

- **Reconfigured Passenger Vehicle Parking**

A second option for creating additional trailer parking is to convert some of the excess passenger car parking for vehicles towing trailers. The space available for this is in the middle aisle of the southern parking lot. At this location, there is a bay of back-to-back diagonal parking spaces. Eliminating the median will provide long diagonal spaces similar to those found in the main parking area. However, the current parking lot is set up for one way traffic and the pull-through nature of the diagonal trailer spaces requires two-way traffic. Therefore the entire parking lot will need to be converted and restriped. If the regular spaces are restriped to perpendicular spaces at 18' in length, the overall dimensions of the pavement can remain the same while still allowing trailer spaces that are similar in size to the

existing ones in the main existing parking area. However, use of 18' spaces would require a waiver of the City parking requirements. Utilizing a 20' space would require a 4' expansion of pavement along the northern boundary of the lot.

This new configuration still allows for 50 regular passenger car spaces in the lot while adding as many as 13 additional trailer parking spaces. The limitation on the number of trailer spaces will depend on whether trees within the central landscape island can be removed for the parking. If the trees are required to remain, islands can still be added reducing the number of new spaces to 10 or 11.

The disadvantage of this approach is that the spaces will be more remote and will be intermingled with regular parking. However, they will only be used in an overflow capacity during busy time periods.

Boat Ramp Improvement Options

- **Combine Existing Boat Ramps**

The first option for increasing the number of boat ramps was to condense the number of ramps within the existing foot print. The current configuration has three double wide ramps separated by two upland peninsulas. The proposal is to remove the peninsulas and create one continuous ramp across those areas. The result would be a single ultra-wide ramp that could be separated by narrow finger piers. This layout would allow for four double wide ramps that are wider that the current ramps. Since this option would include recasting of the ramp sections themselves, it would be recommended to slightly increase the length at the top and bottom of the ramp to alleviate ongoing usage issues. The extension at the upper part would allow for a flatter section to improve vehicle operations.

The advantages of this approach would be a very efficient layout that relied on the current space allocation while increasing the ramp availability by 25%..

However, the disadvantages are that the increase in ramps within the existing space would greatly increase issues of circulation and maneuverability. In addition to the greater number of vehicles operating within the same space, there would also be the complicating factor that the ramps would no longer line up with the drive aisles of the parking lanes. As a result, this proposed alternative would need to be accompanied with a modification to the parking that would provide additional circulation room to alleviate congestion and allow for adequate pull-out distance.

Another issue with this approach is that it eliminates marginal dock staging area in the immediate vicinity of the ramps. This would counteract some of the efficiencies gained since each ramp space would tend to be occupied for longer periods of time due to trailer parking and retrieval delays.

An additional disadvantage of this approach is that it provides limited improvements to accommodate larger vessels.

- **Additional Boat Ramps**

The second proposed alternative would leave the existing ramps in place and construct a fourth double wide ramp to the east of the existing facilities. To accommodate the larger boats, this ramp would be wider, longer and flatter that the existing ramps.

Several advantages to this approach are that it provides the additional ramps over a larger area allowing for less congestion and conflict. The additional double ramp can also be aligned with a parking aisle resulting in a longer straight pull out.

The main advantage of this approach is that it allows the ramp to be constructed in such a way to best accommodate larger boats. In this scenario, the existing ramps would remain to accommodate the smaller vessels. The question is whether 25% of the capacity will be enough to accommodate the larger boats. Specific usage data

was beyond the scope of this report but indications seem to be that a quarter of the capacity for larger vessels would be sufficient. If there was a concern that the larger ramps would be over-utilized, then a separate improvement could be planned for the existing ramps to make marginal improvements to their slope and length.

The disadvantage to this approach is that it provides additional complications to the traffic flow issues on the site. There will be a need to inform and educate the users to prioritize the newer ramps for the larger boats.

Another issue with this approach is that it eliminates marginal dock staging area in the vicinity east of the existing ramps. However, loss of some dock space is inevitable. This option does maintain a better distribution of staging areas in closer proximity to each of the ramps.

- **Full Reconstruction**

A full reconstruction of all of the ramps could be considered if it were deemed necessary for the long term benefit of the park. This would only be necessary if the existing ramps were deemed deficient or obsolete. While deficiencies have been noted, the ramps seem in good condition and seem adequate for servicing the smaller boat traffic. If the existing ramps could be supplemented with additional ramps and/or marginally improved for better service, then the complete replacement would seem unwarranted.

However, a complete replacement could be considered as part of a larger effort to redevelop the park. If it were determined that the capabilities of the park could be vastly improved by a complete reorganization of the park layout, then the reconstruction of all of the ramps would have to be considered.

This option would allow for the best opportunity to set the location and configuration of the ramps to maximize usage. However, it would be by far the most expensive option to accomplish the stated objective of increasing capacity.

Increased Dock Space Options

The entire north perimeter of the park is completely built-out with dock space which will be reduced with the construction of any additional ramps. The only available space for new docks is to the east along the Intracoastal Waterway. Ideally, dock space along this perimeter would be a continuous dock right along a sea wall. However, that configuration is not easily achieved at this location for several reasons relating to environmental regulations and permitting.

First of all, the shoreline along the east side of the park is shallow and slopes off towards the center of the IWCC. The preferred configuration of a marginal dock would require a sea wall and some combination of dredge and fill to create a dock with a usable depth. This is problematic due to a contiguous bed of Johnson's Seagrass running along the shoreline as well as several isolated mangrove plants that would require extensive mitigation of impacts.

An alternative dock configuration was considered that would avoid most of the impacts of the immediately attached dock configuration. The proposed dock would run parallel to the shore but be placed beyond the sea grass bed. Isolated perpendicular segments would tie back into the shore at locations that would have the least environmentally impacted footprint. On the outer edge, the extent of dockage is limited by the clearance requirement of the IWCC. Utilizing this space, it is possible to create over 500 linear feet of additional dock space.

This additional space will provide more staging area for the ramps but could also provide additional recreational activities for other patrons not utilizing the ramps. This includes boaters from other input points that might be looking for a restroom or recreational facilities. It may also be considered an added benefit for non-boaters to have greater access to the water.

Additional Improvement Options

- **Improved Circulation**

As previously reported, additional routing and control of the site traffic could improve operations and reduce conflicts between patrons. The goal would be to direct all incoming traffic along a single approach to the ramps so that the patrons could take turns using the ramps while being lined up in an orderly fashion. The most inexpensive way to approach this process would be for signage giving additional direction. However, this would likely be of limited effectiveness without a legal enforcement mechanism. A better approach would be to provide physical barriers such as curbs and raised islands that would direct traffic along the preferred path.

The only way to do this within the existing layout of the main parking area would be to prohibit certain turning movements. While this would have the tendency to control flow of circulation, it would actually increase the overall traffic as patrons would be required to continually loop around the site due to the prohibited turning movements. And since these traffic controls would be fixed elements, the additional looping movements would be required even when the ramps were not busy. The net result would provide some improvement but would likely frustrate users.

A better approach would be to provide additional pavement so that the incoming traffic could be channeled on its initial approach but all other circulation traffic remained the same. This would require additional pavement to extend the entry drive so that all entering vehicles were funneled to a selected drive aisle down the eastern side of the site. This would improve circulation moderately but would require additional pavement that would push into desirable trees and landscaping.

Based on the logistical difficulties of improving the circulation through physical controls, it was determined that the minor problems reported did not warrant the complications. Simple signage will be proposed to help coordinate the patrons to the best degree possible.

Master Improvement Alternatives

The various improvements discussed above will be combined into alternatives for overall redevelopment of the park. The three alternatives represent three differing levels of investment to the park. The alternatives vary from making minimal improvements up to a large scale reconstruction of the park. To a large degree, the individual improvements discussed above are interchangeable and individual improvements can be added and subtracted as desirable. For the sake of discussion, we will explore the following alternatives:

- **Alternate 1**

Alternative 1 represents a minimal investment into the park to address the stated goals of increasing the number of ramps and parking spaces. The alternative utilizes the two most direct methodologies to provide expansions. The number of ramps is increased from six to eight by reconstructing the peninsulas within the footprint of the existing ramps. The parking is expanded with an additional bay to the east. For this alternative, the proposed trailer spaces similar in size to the existing trailer parking.

In order to account for maneuverability issues at the ramps, the landscape islands at this location are shifted to the south to create more space. The result is a net gain of 12 trailer spaces for a gain of 15%

- **Alternate 2**

Alternative 2 represents a mid-level investment into the park to address the stated goals as well as some of the other deficiencies that might be hampering the park's efficiency and value.

The number of ramps is increased from six to eight by leaving the existing ramps in place and constructing an additional double ramp with a capacity for larger vessels. The parking is also expanded to the east but in this case the additional parking is

oversized to accommodate the larger vessels. The larger spaces are increase by an additional foot of width and 8 feet in length for an effective size of 12'x55'. It should be noted that the additional size means that 15 rather than 16 spots will fit within the expanded parking area. This alternate also includes the reconfiguration of the southern parking lot to further increase the number of trailer spaces available

In order to account for maneuverability issues at the new larger ramp, the landscape islands at this location are shifted to the south to create more space.

The resulting improvements increase the ramp capacity by 25% while also adding a net of 22 trailer spaces for an increase of 27%. In addition to the increase quantities, this alternate also accommodates larger vessels with 2 larger ramps and 15 oversized trailer spaces.

In this alternative, we are also proposing the increased dock space along the Intracoastal Waterway that will improve the efficiency of the ramps with more staging area for boats. We have included a portion of the available space within this proposal while showing the remainder as future expansion.

In addition to these primary improvements, we are also recommending other miscellaneous improvements throughout the site.

- Pave the work yard adjacent to the BSO office
- Make miscellaneous repairs to seawall and dock piling
- Upgrade boat washing station to current standards
- Install ice vending machine (pending approval of FIND due to lease limitations for commercial activities)

- **Alternate 3**

Alternative 3 represents a large scale investment to completely redevelop the park to incorporate upgraded capacities with all modern facilities. This alternative would be based on a new master plan vision for the facility that would not be bound to the existing configuration. This would allow for more flexibility in altering the layout to address the issues and to better utilize the space available. Following are some of the options considered within a complete redevelopment alternative.

- The ramps would be all newly constructed to provide maximum usability, size, spacing and configuration. The base design would include 8 ramps with the room for expansion if necessary.
- Parking would have been expanded to include larger numbers of trailer spaces. It was even considered to include a parking structure to maximize the space available. Traditional parking structures would be incompatible with trailer towing vehicles but this design assumed a single flat open topped deck that would be accessed by a single long ramp. This would allow for two level parking that could conceivably increase the capacity of the site considerably. However, inefficiencies with column layouts and ramp footprints significantly reduced the conceivable parking densities that were possible at great costs.
- The new master plan would envision new site circulation that reduced the potential for conflict. The new entry driveway would funnel vehicles directly to the ramp area so that users could stack in an orderly fashion while waiting to use the ramps. The parking area would be separated from this entry drive to avoid traffic congestion.
- A newly envisioned park would get an upgraded restroom facility and operations building. In this process, the BSO and other official operations at the site should get new office space incorporated into the structure.
- The site area set aside for dredge operations would still need to be set aside. However, the adjacent area was envisioned as a waterfront pavilion

that could serve as headquarters for fishing tournaments or corporate picnics.

In considering a total redevelopment of the property, it must be noted that the project would be limited by a complete adherence to all current state, federal and local requirements. Full compliance with drainage ordinances would require a significant upgrade to the drainage facilities. Planning and Zoning requirements would require limitations on setbacks, green space and landscaping that would impact the available space for expansion. Finally, the environmental considerations for the reconstruction related to the seagrass, dedge and fill, tree removal etc. would all have to be taken into account for the feasibility of a proposed master plan.

When all of the improvements were considered, it was determined that the ultimate redevelopment would provide a modern and efficient new facility. However, the actual benefits towards the stated goals of increasing the number of ramps and number of trailer parking spaces would not be significantly better than the less expensive options.

It should also be noted that in the current funding environment, it would be extraordinarily difficult to fully fund a large scale project as a single phase. Ultimately, such a long term vision would most likely need to be phased in some way to make the project financially viable. This need for phasing would cause severe limitations in implementing a new master plan as it would be necessary to work around elements that needed to remain until a future phase. Ultimately, building a single phase of a longer term multi-phase redevelopment might even leave the park under-developed in the near term while waiting for future funding to complete the ultimate project. As a result, the partial development of a big-picture master plan might be counterproductive to the immediate desire to improve the parks capacity.

More importantly, the issue of park ownership is critical under this alternative for several reasons. For one thing, the FIND requirements to maintain the spoil transfer

station would place significant restrictions on the ability to radically reconfigure the site. Secondly, FIND would need to approve the modifications and might be reluctant to include large scale change, especially those that pertained to new permanent above ground structures. Finally, the wholesale redevelopment of the park would be a substantial investment that would require a long time to recover the life-cycle value of the investment. Since the property is leased, this sort of timeline is only compatible with leases in excess of 50 years or longer. The fact that the City does not own the property makes it difficult to justify improvements of this magnitude.

As a result of these limitations, the alternative for complete redevelopment of the park was determined to be not feasible and was eliminated from additional consideration. The other two options for investing in the park through improvements to the existing facilities were carried forward to plan development and cost estimating for further determination of viability. A Master Plan for Alternates 1 and 2 can be found in Appendix C.

Cost Estimates and Funding

The costs for the proposed improvements were estimated and included in an analysis of the probable budget for the project. The Engineer's Opinion of Probable Costs analysis can be found in Appendix D.

As part of the project feasibility study, an investigation was undertaken to identify potential grant sources for funding. The analysis is attached as Appendix E.

Recommendations and Conclusion

After reviewing the aforementioned alternatives, the following is our recommendation for the execution of improvements to the Alsdorf Park Boat Ramps.

An option for complete redevelopment of the park was rejected based on limitations with ownership, funding, phasing and permitting. That left two alternatives for improvements that added capacity by expanding or modifying the existing park elements. Alternative 1 represents a minimal investment to accomplish the stated goals of increasing boat ramp and trailer capacity with discreet improvements to those particular elements. Alternative 2 is a mid-level investment that adds capacity with several isolated improvements and seeks to address additional deficiencies within the park.

- Alternative 1 – Adds ramp space with a reconfiguration of the elements within the footprint of the existing ramps and adds trailer parking with an expansion of pavement to the east. This alternative increases ramp space by 25% and trailer parking spaces by 15%. It is estimated that this alternative can be implemented for a total project cost of $647,640.

- Alternative 2 – Adds ramp space with a new double ramp facility to the east of the existing ramps. This alternative adds trailer parking with an expansion of pavement to the east as well as a reconfiguration of the southern parking area. This alternative also adds dock space to serve as additional staging area for the ramps as well as for the recreational use of other patrons. This alternative increases ramp space by 25% and trailer parking spaces by 27%. It is estimated that this alternative can be implemented for a total project cost of $829,395.

It should be noted that the individual components within the alternates are interchangeable and separable. For instance, a dock of some length can be added to Alternative 1or conversely removed from Alternative 2. Various pieces of these improvements can be mixed and matched to find the combination that best meets the City's needs and funding availability.

In the final analysis, we recommend Alternative 2 as the option that best meets the stated goals of improving the number of boat ramps and the number of parking spaces while at the same time addressing other capacity and maintenance issues within the park.

Appendix A
Project Location

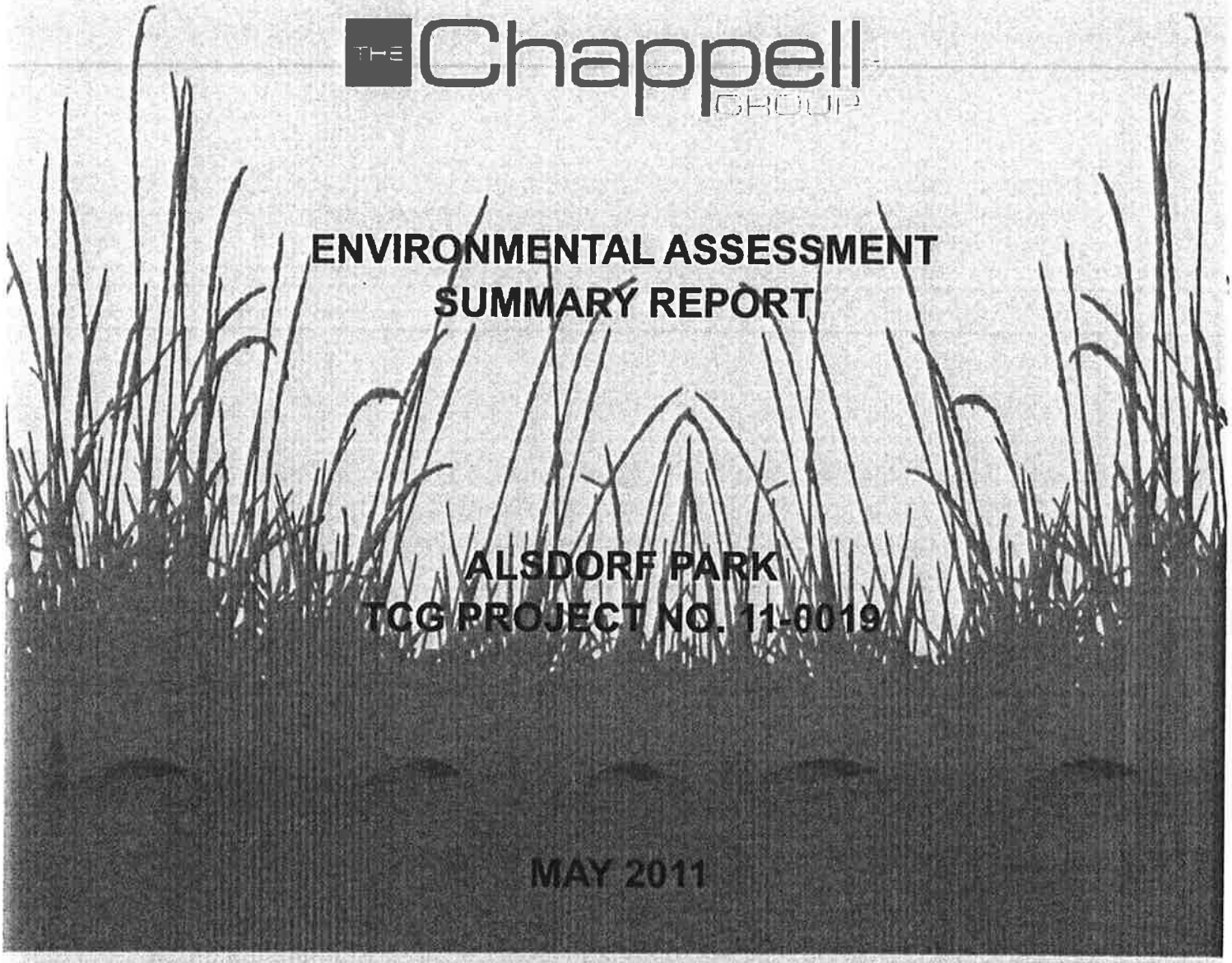
CORZO CASTELLA CARBALLO THOMPSON SALMAN, P.A.
ENGINEERS · ARCHITECTS · PLANNERS
3996 N.W. 9th Avenue
Ft. Lauderdale, Florida 33309
FT. LAUDERDALE (954) 565-2113 FLORIDA (800)-448-0227
FL REGISTRATIONS: EB0005022 AAC002142

ALSDORF PARK
Project Location

E-1

Appendix B
Environmental Report

THE Chappell GROUP



ENVIRONMENTAL ASSESSMENT SUMMARY REPORT

ALSDORF PARK
TCG PROJECT NO. 11-0019

MAY 2011

PREPARED FOR:

C3TS
21301 POWERLINE ROAD, SUITE 311
BOCA RATON, FL 33433

714 East McNab Road. Pompano Beach, FL 33060 *tel.* 954. 782.1908 *fax.* 954.782.1108 www.thechappellgroup.com

Environmental Consultants | Marina & Wetland Permitting | Phase I ESAs | Mitigation Design & Monitoring | T & E Species Surveys

I. Introduction

The proposed project site is a municipal park property located at 2901 NE 14 Street in Section 30, Township 48, Range 43, in the City of Pompano Beach, Broward County, Florida (Figure 1). The project site is located along a man-made canal and the Intracoastal Waterway (ICWW).

These waters are tidal waters with the nearest direct connection to the Atlantic Ocean approximately 0.8 miles to the northeast at the Hillsboro Beach Inlet. As the project site is located along a man-made canal and ICWW, the incoming tidal waters (flood) at the site move to the south and west while the outgoing waters move to the north and east (ebb).

The project site is an existing park which contains an existing seawall along the canal with three (3) existing boat ramps and an unconsolidated shoreline along the ICWW. As part of the City's request to provide a conceptual design for park improvements to Alsdorf Park, The Chappell Group, Inc. (TCG) reviewed existing benthic and environmental conditions onsite. As such, due to environmental permitting issues related to the construction of marine facilities, the investigation of the presence and location of marine seagrass within the submerged bottoms is warranted.

II. Purpose

The purpose of this environmental assessment summary report is to; identify and locate any seagrass species (*Halophilia decipiens, Halophilia johnsonii, Thalassia testudinum, Halodule wrightii, Ruppia maritima,* etc.) or other benthic resources that may be present within the property boundaries of the subject site, determine the existing depths and access constraints to the park and proposed boat ramps within the canal and ICWW, and to determine the extent, if any of wetlands, mangroves or other protected tidal species along the unconsolidated shoreline on the east side of the property.

III. Method

The field work for the benthic resource survey, bathymetric survey, and the wetland/mangrove delineation was conducted on May 6, 2011 by qualified biologists from the Chappell Group, Inc.

The work for the benthic resource survey was performed at high tide (outgoing) by qualified biologists. Line transects were conducted parallel to the seawall within the canal and parallel to the unconsolidated shoreline within the ICWW. The survey area was approximately 820' within the adjacent canal and 640' within the ICWW, and extended ± 40' waterward of the existing seawall and unconsolidated shoreline. Each diver conducted three (3) line transects along the length of the

714 East McNab Road . Pompano Beach, FL 33060 *tel.* 954.782.1908 *fax.* 954.782.1108 www.thechappellgroup.com

property to ensure complete coverage of the survey area (Figure 2). The biologists traversed each line along the bottom of the ICWW and canal to determine the presence of any seagrass species and/or other submerged benthic resources. In addition to the line transects, each diver conducted a meandering transect within the ICWW and canal to ensure complete visual coverage and that no additional benthic resources were present adjacent to the subject site. Due to limited visibility (<7'), spacing between transects was limited to 10-12' to ensure complete coverage of the survey area.

Prior to the benthic survey, TCG staff conducted both the bathymetric survey and wetland/mangrove delineation. The bathymetric survey was conducted at high tide with twenty-two (22) transects taken at approximate 50' intervals within the ICWW and canal. The depths were collected at approximate 5' intervals along each transect utilizing a hand held depth finder and later converted to reference the mean low water line (MLWL) (Figure 3). The work for the wetland/mangrove delineation included the on-site delineation and flagging of any mangrove species (Figure 4).

IV. Findings

The benthic community of the subject site consisted of sand, silt, rock, and rock rubble (Appendix A). Two (2) species of seagrass, paddle grass (*Halophilia decipiens*) and Johnson's seagrass (*Halophilia johnsonii*), were observed within the survey area. The majority of the *H. johnsonii* was found along the unconsolidated shoreline along the ICWW. Coverage of *H. johnsonii* in these areas ranged from 5-10% 15-20' from the MHWL within the ICWW, while the coverage generally increased to 10-25% 20-40' from the MHWL within the ICWW. *H. johnsonii* was also observed in scattered, small patches (≤1 ft^2) along the canal within the existing Florida Fish and Wildlife Conservation Commission (FFWCC) and Broward County Sheriff's Office (BSO) slips in the northwestern portion of the survey area. The observed *H decipiens* was observed within the canal with varying coverages. The majority of the *H decipiens* was observed in the northeast portions of the survey area toward the ICWW. These areas were observed to have 10-25% coverage, while the several smaller patches (1-5 ft^2) within the canal were observed to have 5-10% coverage.

Depths within the survey area varied from 0.9' to -7.6' NGVD'. The shallowest depths were found along the unconsolidated shoreline within the ICWW, where depths ranged from +0.9' NGVD to 6.0' NGVD. The deepest depths were found along the existing seawall and docks, within the canal, where depths ranged from -2.1' NGVD to 7.6' NGVD. Depths with the ICWW and canal generally increased towards the center of the waterways with deeper areas within the individual launch ramps.

714 East McNab Road . Pompano Beach, FL 33060 *tel.* 954.782.1908 *fax.* 954.782.1108 www.thechappellgroup.com
Environmental Consultants | Marina & Wetland Permitting | Phase I ESAs | Mitigation Design & Monitoring | T&E Species Surveys

As the shoreline along the canal contains an existing seawall and docks, no wetland vegetation or mangroves were observed. However, as the shoreline along the ICWW is unprotected and vegetated, several mangroves were located (Appendix B). Two (2) species of mangrove, red mangrove (*Rhizophora mangle*) and white mangrove (*Laguncularia racemosa*), were observed along the shoreline. Of the six (6) mangroves observed, three (3) were red mangroves and three (3) were white mangroves. The located mangroves were flagged with survey tape and labeled from 1-6. These mangroves ranged from approximately 8 to 30' tall with canopy spread ranging from approximately 8' to 35' in diameter. The remainder of the site is previously filed uplands/parking lot and contains no other wetland vegetation.

Numerous species of fish and marine plants were also observed during the survey. The species of fish observed during the survey included checkered puffer (*Sphoeroides splengeri*), sergeant major (*Abudefduf saxatilis*), porkfish (*Anisotremus virginicus*), barracuda (*Sphyraena barracuda*), mottled mojarra (*Eucinostomus lefroyi*), and juvenile grunt (*Haemulon* sp.). Marine plants observed were limited to green finger algae (*Caulerpa* sp.) and fuzzy finger algae (*Dasycladus vermicularis*). In addition, observed marine crustaceans and birds were limited to orangeclaw hermit crab (*Calcinus tibicen*) and black-crowned night heron (*Nycticorax nycticorax*).

V. Conclusions

Due to the presense of seagrass and/or benthic resources within the survey area, modifications to the project may be necessary to minimize impacts to seagrass. Permit issuance may entail a similar investigation by Broward County Environmental Protection & Growth Management Department (EPGMD), the Florida Department of Environmental Protection (FDEP) and United States Army Corps of Engineers (USACOE). The Chappell Group, Inc. can assist the City in processing the necessary permit approvals once a design has been finalized.

714 East McNab Road . Pompano Beach, FL 33060 *tel.* 954.782.1908 *fax.* 954.782.1108 www.thechappellgroup.com
Environmental Consultants | Marina & Wetland Permitting | Phase I ESAs | Mitigation Design & Monitoring | T&E Species Surveys

This report is submitted in partial completion of the regulatory requirements anticipated to be required in the processing of the applicable environmental permits for the proposed project. This report and the information contained herein is based on the existing site conditions observed at the time of the survey inspection. Please note that while not anticipated, site conditions, including the presence, absence, location and/or coverage of seagrass or other benthic resources within the project vicinity is subject to change based on varying environmental conditions. Should you have any questions or comments regarding the report or the information contained herein, please do not hesitate to contact the undersigned at your convenience.

Sincerely,

THE CHAPPELL GROUP INC.

Patrick Murphy
Project Biologist

Tyler Chappell
Vice President

714 East McNab Road . Pompano Beach, FL 33060 *tel.* 954.782.1908 *fax.* 954.782.1108 www.thechappellgroup.com
Environmental Consultants | Marina & Wetland Permitting | Phase I ESAs | Mitigation Design & Monitoring | T&E Species Surveys

FIGURE 1

LOCATION MAP

LEGEND:

SITE

THE Chappell GROUP INC. 714 East Mcnab Road Pompano Beach, Florida 33060 tel 954 782 1908 fax 954 782 1108 www.thechappellgroup.com	• Environmental Consultants • Marine & Wetland Permitting • Mitigation Design & Monitoring • T&E Species Surveys • Phase I ESAs	ALSDORF PARK PREPARED FOR: C3TS	FIGURE 1 - LOCATION MAP Date: 4-29-11 | Sheet: 1 | of: 1 Proj No.: 11-0019

FIGURE 2

SEAGRASS AERIAL EXHIBIT

LEGEND:

- SURVEY AREA
- SURVEY TRANSECT
- PADDLE GRASS (*Halophilia decipiens*) - 5-10% Coverage
- JOHNSON'S SEAGRASS (*Halophilia johnsonii*) - 5-10% Coverage
- PADDLE GRASS (*Halophilia decipiens*) - 10-25% Coverage
- JOHNSON'S SEAGRASS (*Halophilia johnsonii*) - 10-25% Coverage

The Chappell Group, Inc.
714 East McNab Road
Pompano Beach, Florida 33060
tel 954 782 1908
fax 954 782 1108 www.thechappellgroup.com

- Environmental Consultants
- Marine & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

ALSDORF PARK

PREPARED FOR:
C3TS

FIGURE 2 - SEAGRASS EXHIBIT

Date:	Sheet:	of:
4-29-11	1	1
Proj No.: 11-0019		

FIGURE 3

BATHYMETRIC SURVEY EXHIBIT

NOTES:
1. MHWL = 1.87' NGVD MLWL = -0.52' NGVD
2. DEPTHS REFERENCE MLWL

THE Chappell GROUP INC.
714 East McNab Road
Pompano Beach, Florida 33060
tel. 954.782.1909
fax. 954.782.1108
www.thechappellgroup.com

- Environmental Consultants
- Marina & Wetland Permitting
- Mitigation Design & Monitoring
- T&E Species Surveys
- Phase I ESAs

ALSDORF PARK

PREPARED FOR:
C3TS

FIGURE 3 - BATHYMETRIC SURVEY

Date:	Sheet:	of:
4/29/11	1	1
Proj No.: 11-0019		

FIGURE 4

WETLAND/MANGROVE LOCATION EXHIBIT

EXISTING MANGROVES TABLE

ID #	SPECIES	CANOPY SPREAD	HEIGHT
1	*Laguncularia racemosa*	±10 diameter	± 15 ft.
2	*Rhizophora mangle*	±35 diameter	± 30 ft.
3	*Laguncularia racemosa*	±15 diameter	± 8 ft.
4	*Rhizophora mangle*	±8 diameter	± 5 ft.
5	*Laguncularia racemosa*	±35 diameter	± 25 ft.
6	*Rhizophora mangle*	±3 diameter	± 3 ft.

THE Chappell GROUP INC.
714 East McNab Road
Pompano Beach, Florida 33060
tel. 954.782.1908
fax. 954.782.1108
www.thechappellgroup.com

- *Environmental Consultants*
- *Marina & Wetland Permitting*
- *Mitigation Design & Monitoring*
- *T&E Species Surveys*
- *Phase I ESAs*

ALSDORF PARK

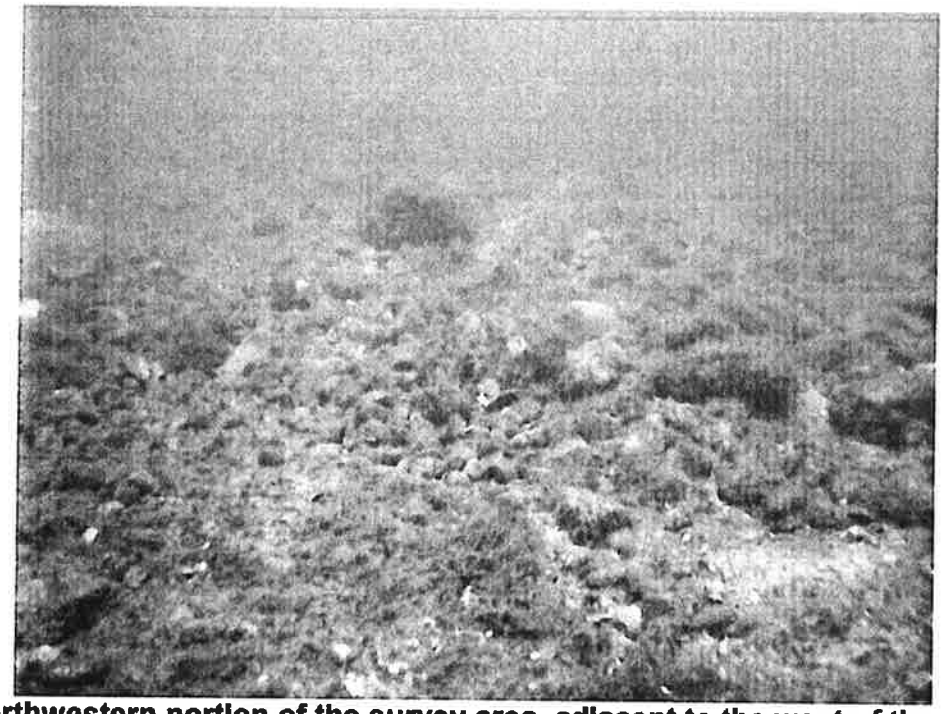
PREPARED FOR:
C3TS

FIGURE 4 - WETLAND/MANGROVE LOCATION EXHIBIT

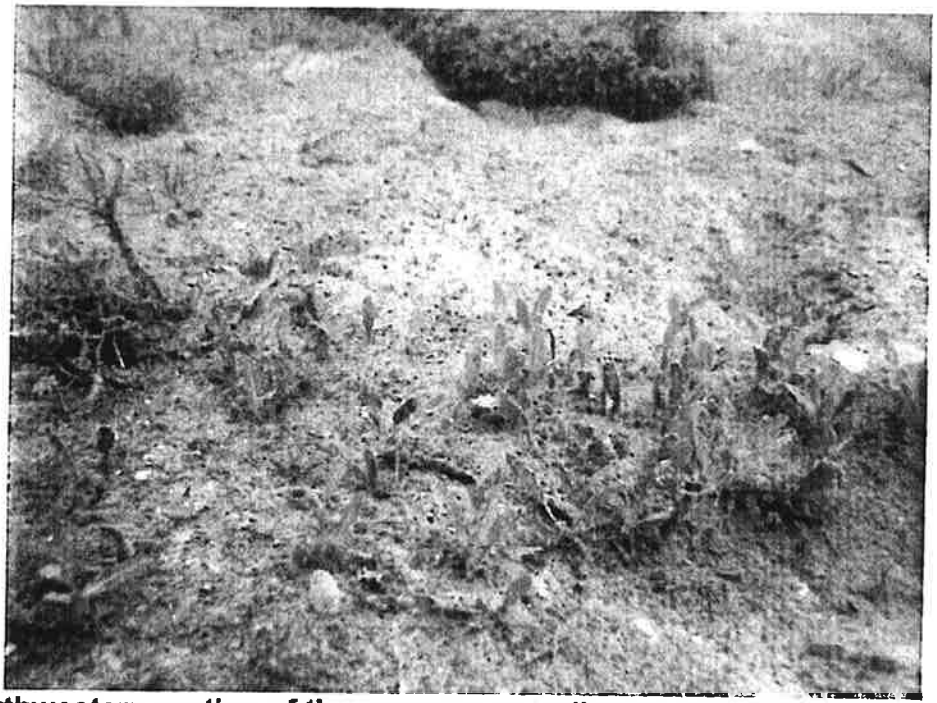
Date:	Sheet:	of:
5/06/11	1	1
Proj No.: 11-0019		

APPENDIX A

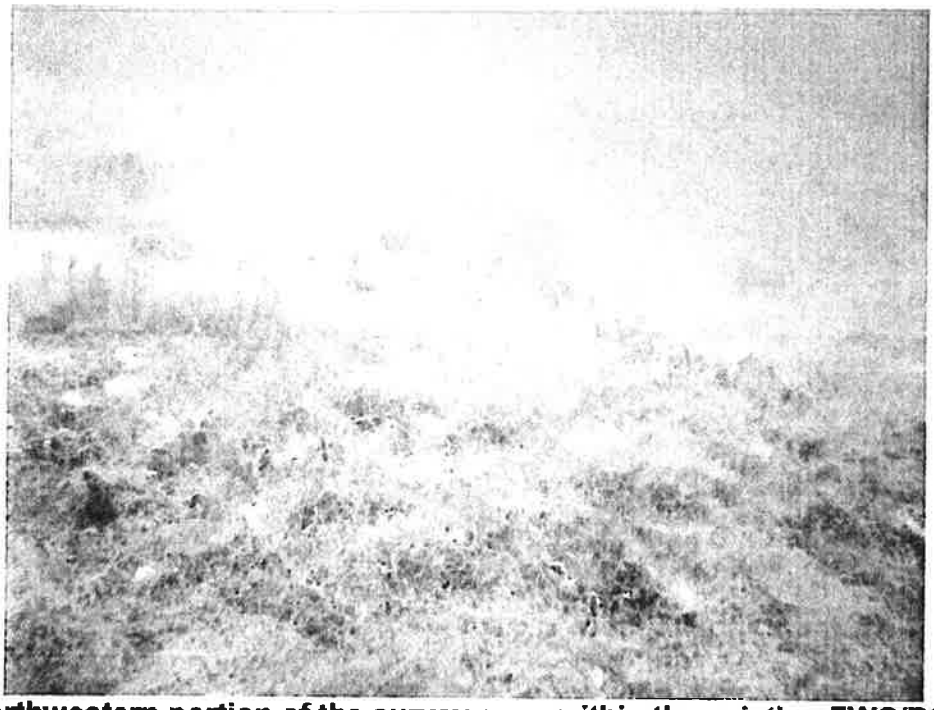
BENTHIC SURVEY PHOTOGRAPHS



1. **Northwestern portion of the survey area, adjacent to the west of the westernmost boat ramp ±10 from the existing seawall.**

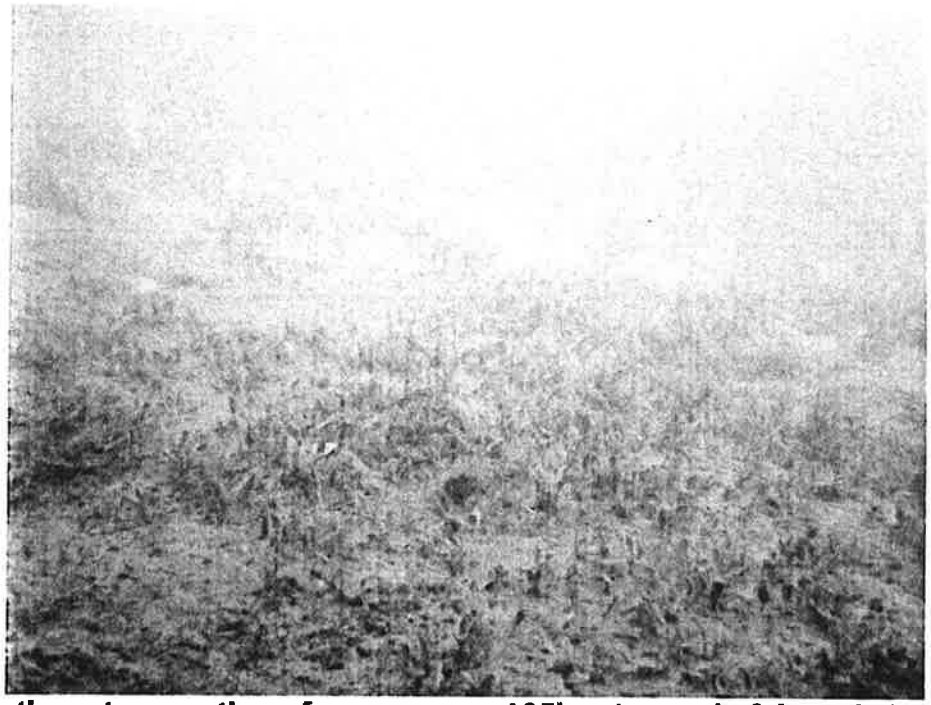


2. **Northwestern portion of the survey area, adjacent to the east of the FWC/BSO finger piers, ±30 from the existing seawall. Note paddle grass (*Halophilia decipiens*).**



3. **Northwestern portion of the survey area, within the existing FWC/BSO boat slips ±10 from the existing seawall. Note scattered Johnson's seagrass (*Halophilia johnsonii*) within mat algae.**

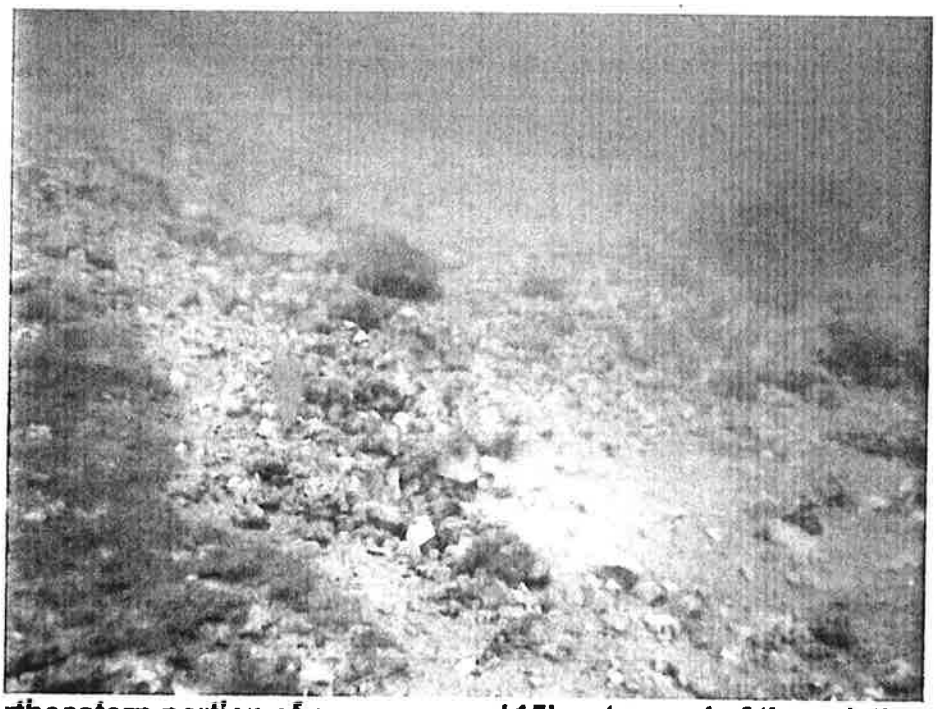
4. **Northwestern portion of the survey area, waterward of the existing FWC/BSO boat slips ±35 from the existing seawall.**



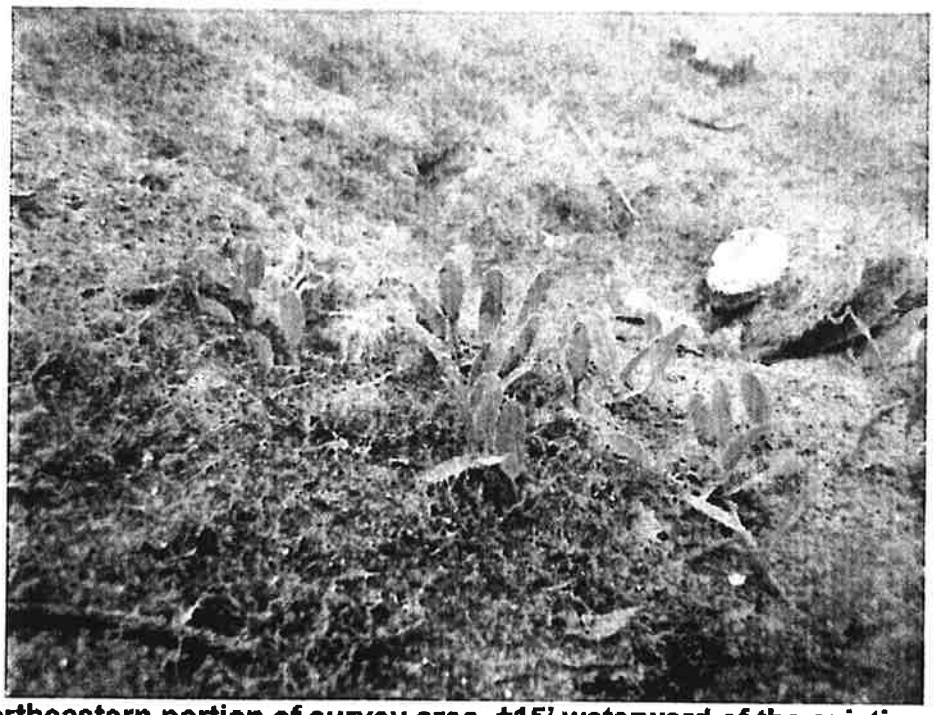
5. **Northwestern portion of survey area, ±35' waterward of the existing marginal dock. Note coverage of paddle grass.**

6. **Adjacent to the westernmost boat ramp, facing east along the canal and existing marginal dock.**

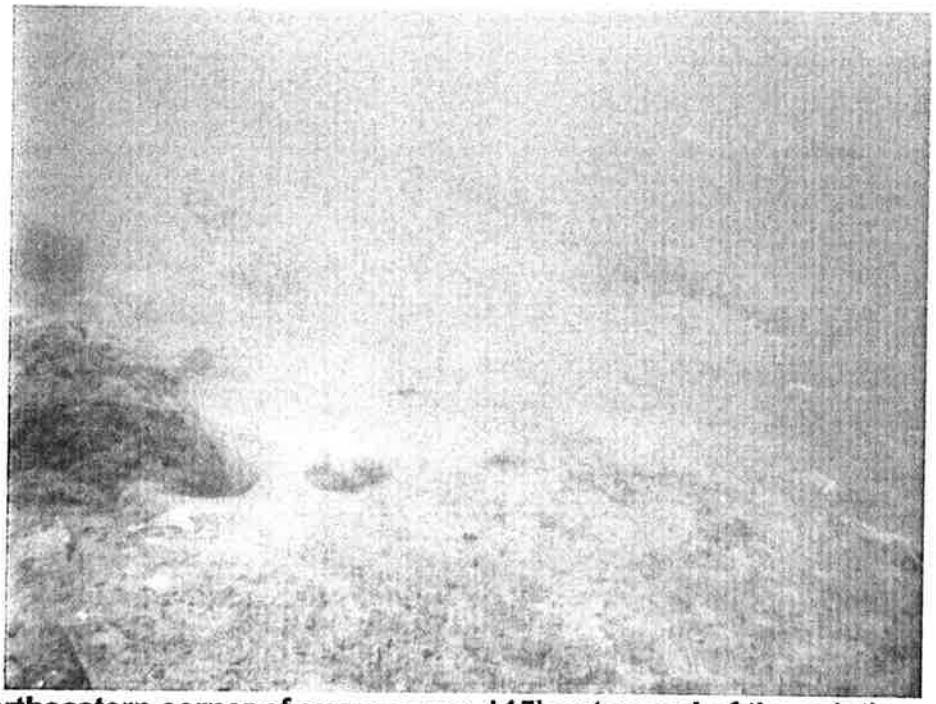
7. **Northern portion of survey area, adjacent to the easternmost boat ramp ±10' waterward of the existing marginal dock. Note rock and silt substrate.**



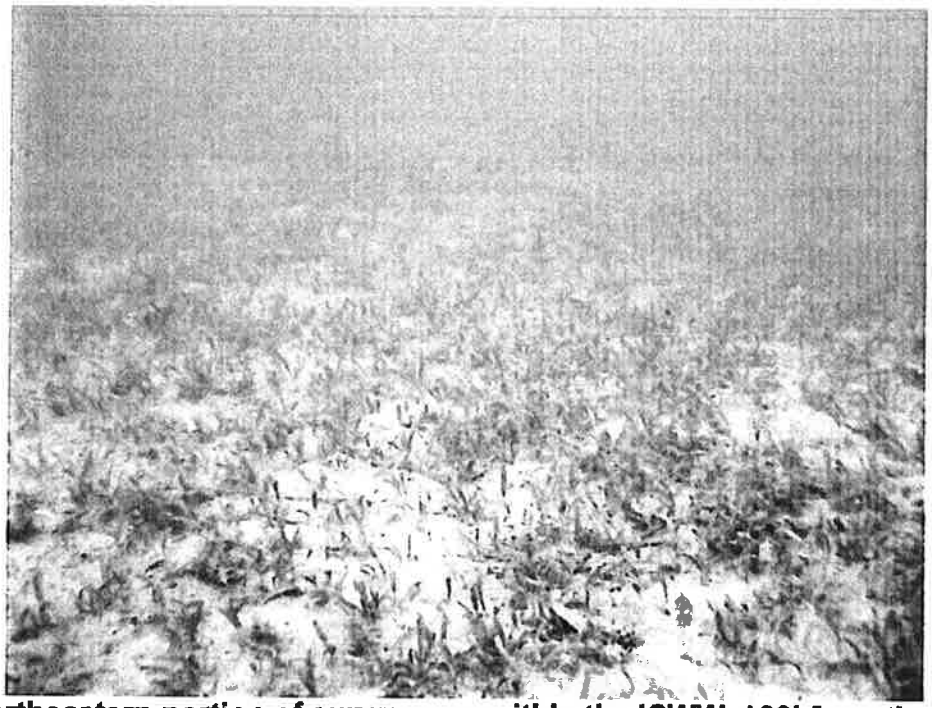
8. **Northeastern portion of survey area, ±15' waterward of the existing marginal dock. Note rock and silt substrate.**



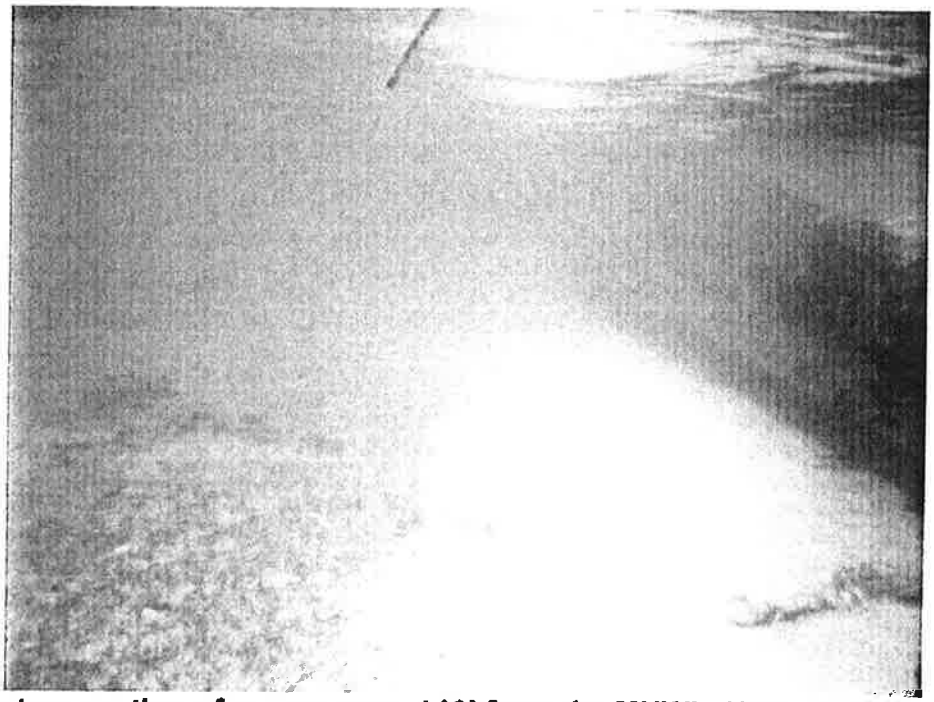
9. **Northeastern portion of survey area, ±15' waterward of the existing marginal dock. Note patch of paddle seagrass.**



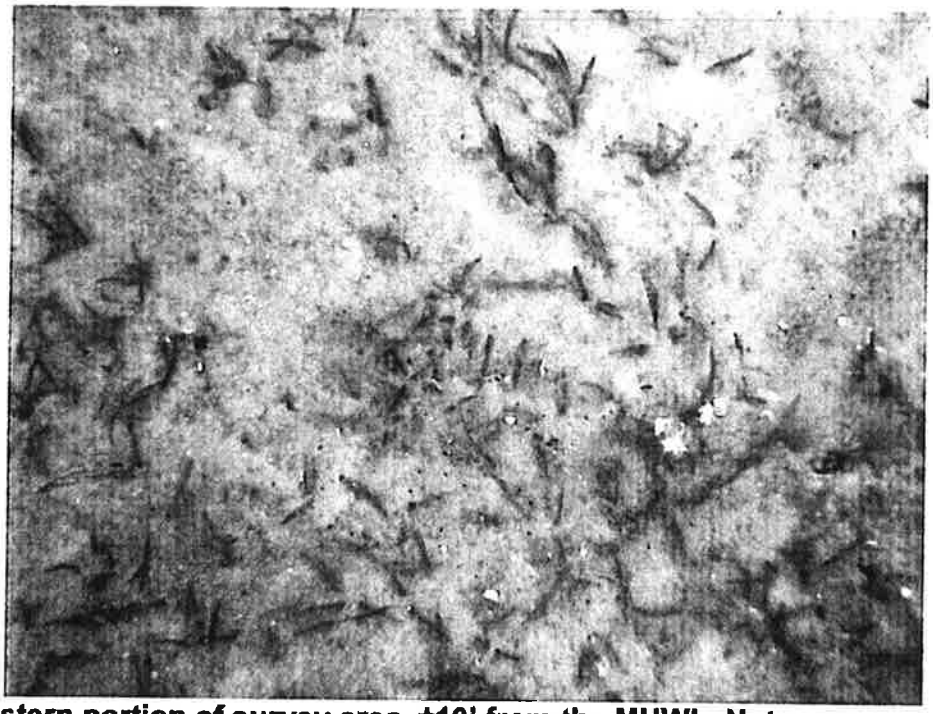
10. **Northeastern corner of survey area, ±15' waterward of the existing seawall. Note sand and silt substrate.**



11. Northeastern portion of survey area within the ICWW, ±30' from the MHWL. Note coverage of Johnson's seagrass.



12. Eastern portion of survey area, ±10' from the MHWL. Note proximity of Johnson's seagrass to existing rubble riprap.



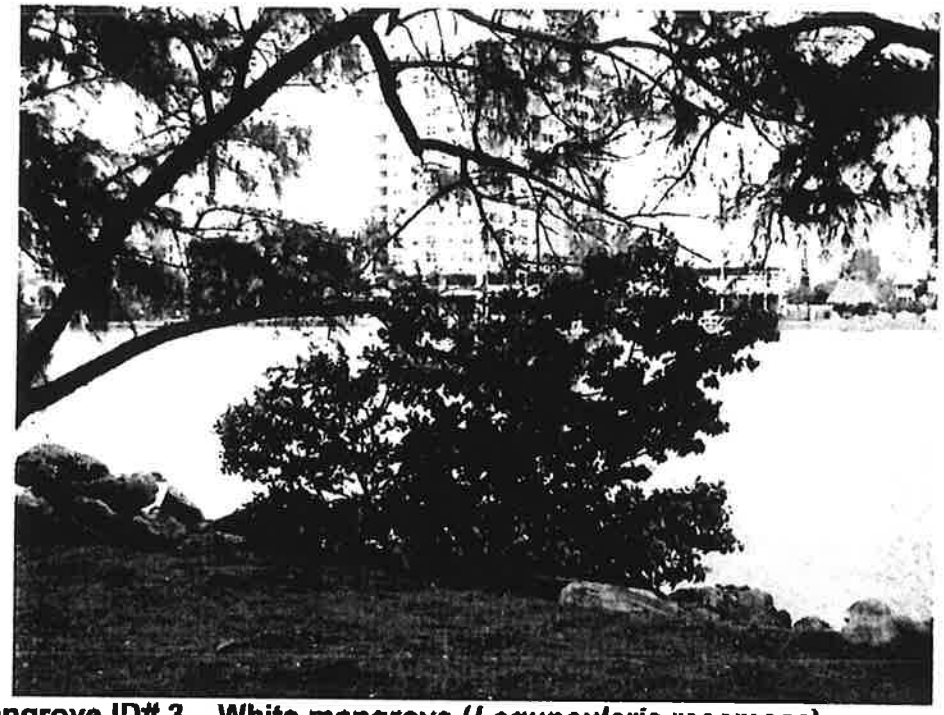
13. **Eastern portion of survey area, ±10' from the MHWL. Note new Johnson's seagrass.**

APPENDIX B

UPLAND SITE PHOTOGRAPHS

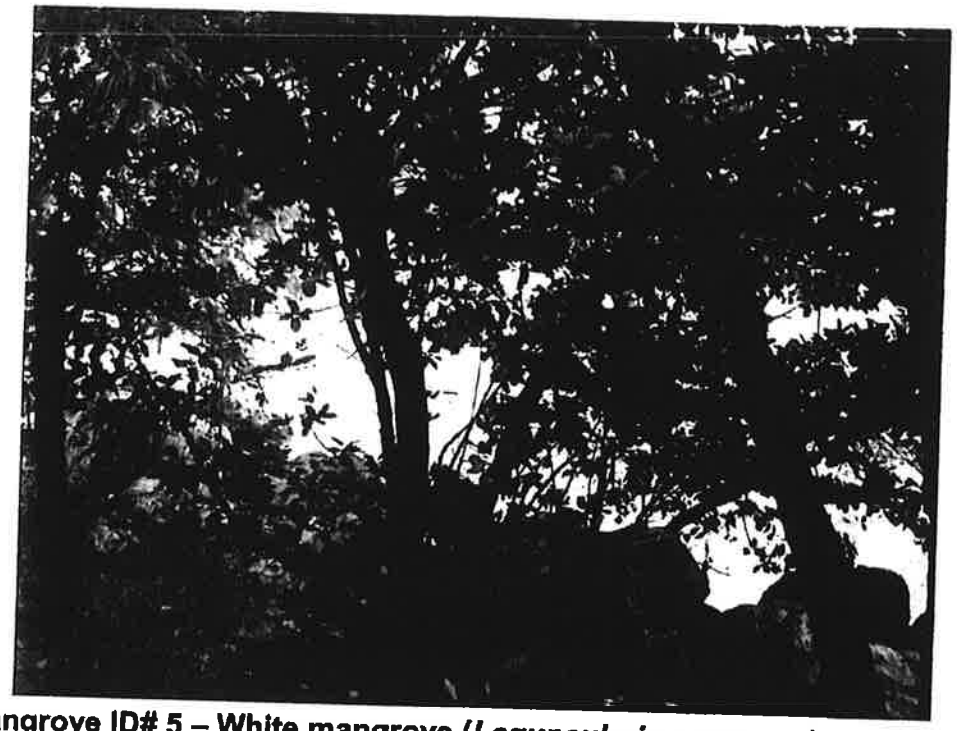
1. **Mangrove ID# 1 – White mangrove (*Laguncularia racemosa*).**

2. **Mangrove ID# 2 – Red mangrove (*Rhizophora mangle*).**

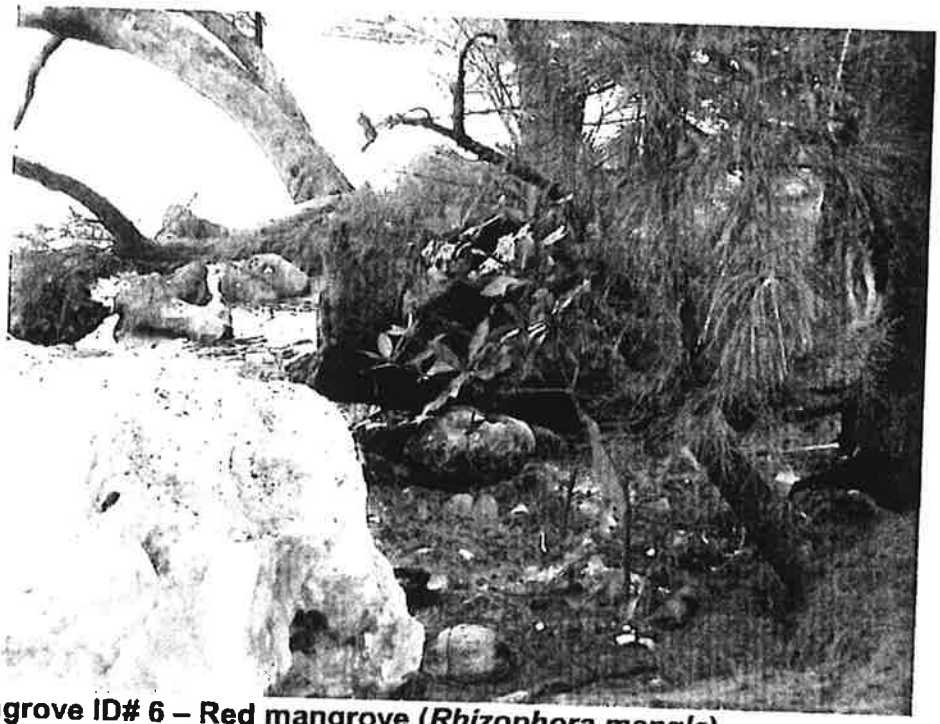


3. **Mangrove ID# 3 – White mangrove (*Laguncularia racemosa*).**

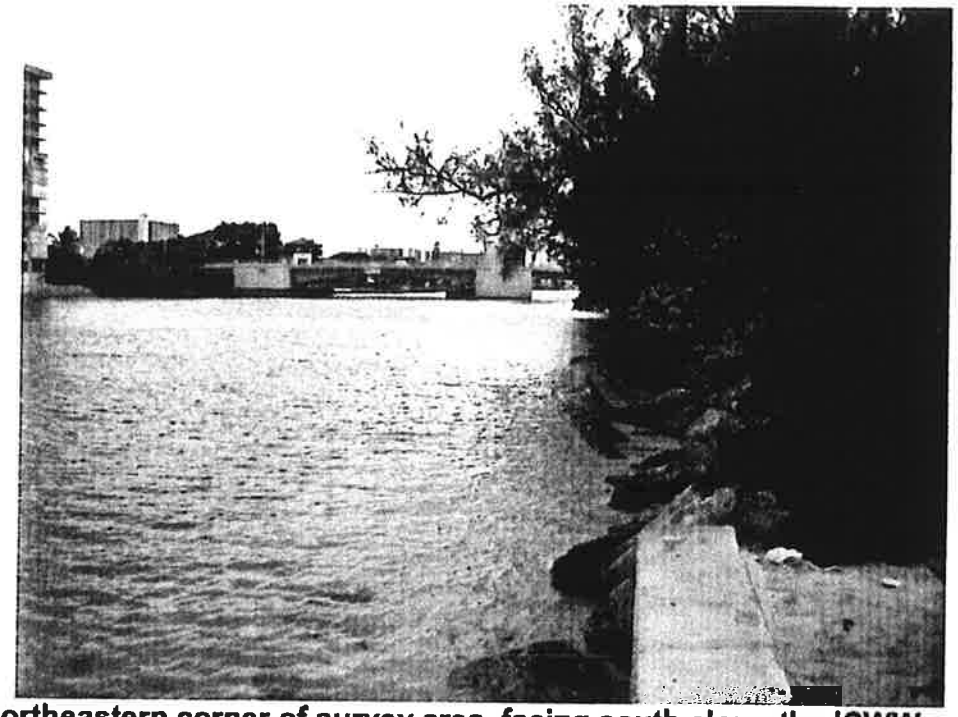
4. **Mangrove ID# 4 – Red mangrove (*Rhizophora mangle*).**



5. **Mangrove ID# 5 – White mangrove (*Laguncularia racemosa*).**



6. **Mangrove ID# 6 – Red mangrove (*Rhizophora mangle*).**

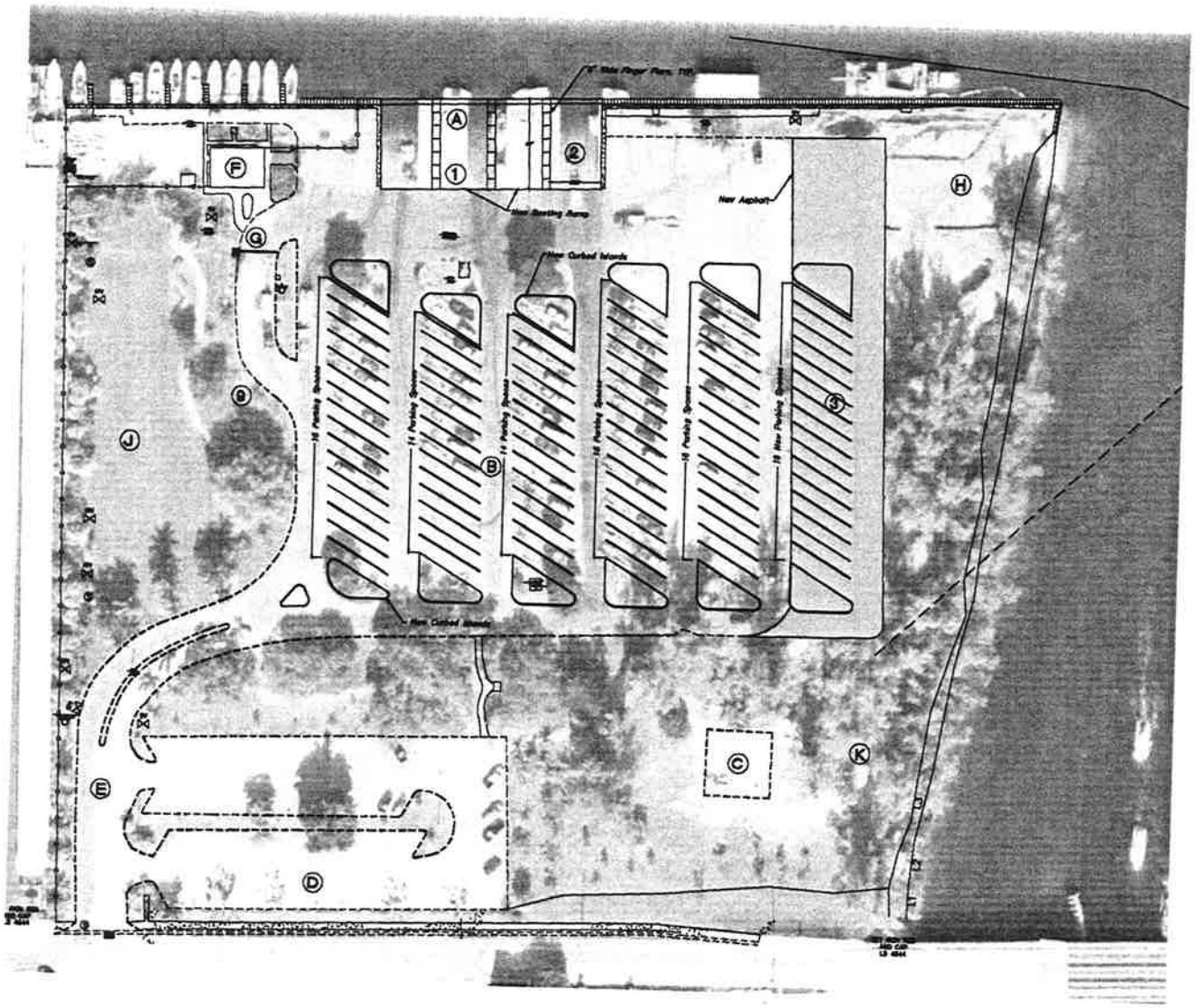


7. **Northeastern corner of survey area, facing south along the ICWW.**

8. **Northeastern corner of survey area, facing west along the canal.**

9. Northwestern corner of survey area, facing east along the canal.

Appendix C
Alternate Plans



0 20 40 80

LEGEND

PROPOSED IMPROVEMENTS

1. Peninsulas Removed
2. New Finger Piers
3. Expanded Parking Lot

EXISTING ELEMENTS

- (A) Existing Ramps
- (B) Existing Trailer Parking
- (C) Playground
- (D) Passenger Car Parking
- (E) Entry Roadway
- (F) Restroom/ BSO Building
- (G) Boat Wash
- (H) FIND Spoil Transfer Area
- (J) Open Green Area
- (K) Miscellaneous Picnic Area

Architects
Engineers
Planners
3996 N.W. 9th Avenue
Ft. Lauderdale, FL 33309
AAC002142 EB0026022
Jeffrey S. Crews, PE

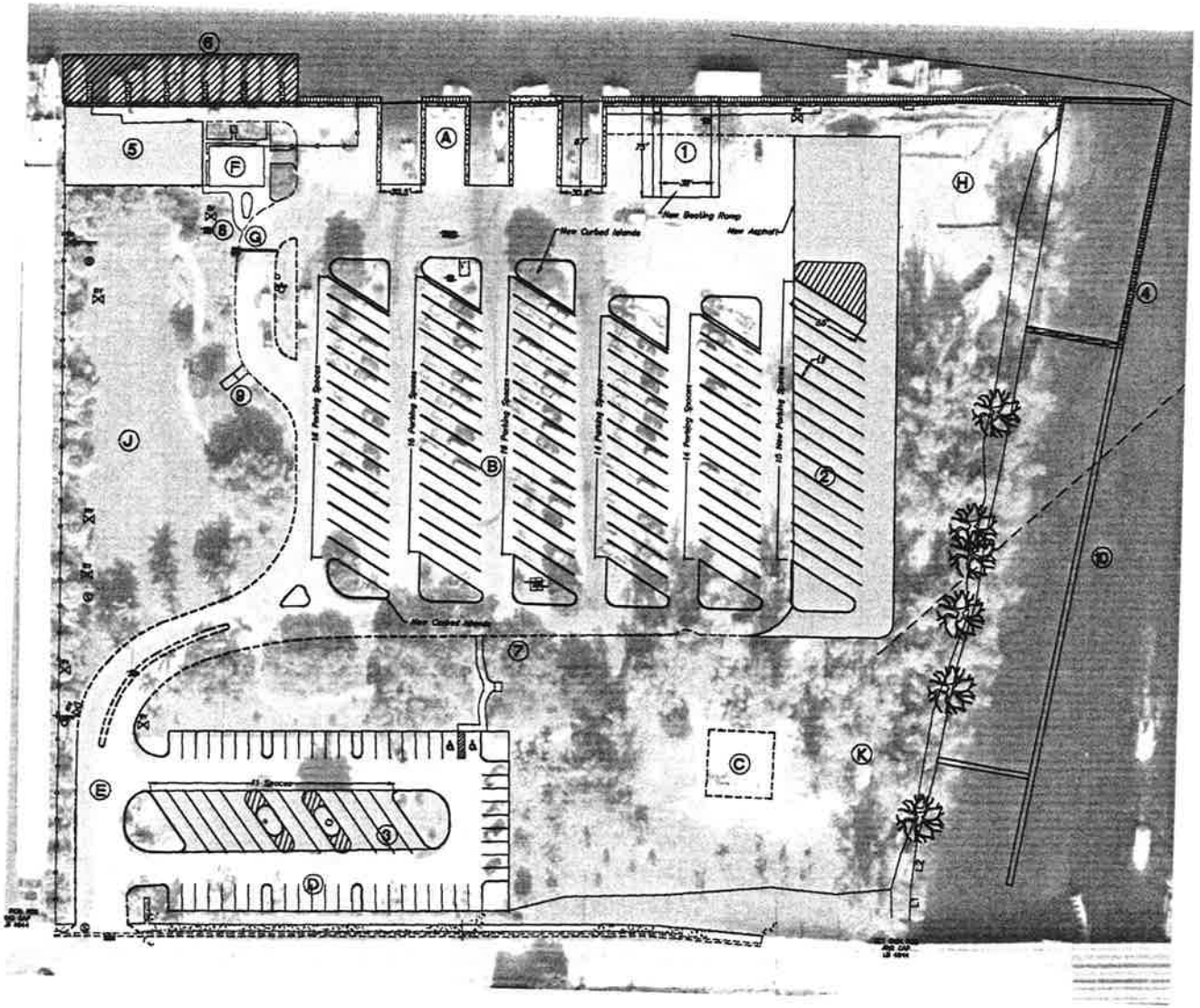
ALSDORF PARK FEASIBILITY STUDY

2901 NORTHEAST 14th STREET
POMPANO BEACH, FLORIDA

JOB NUMBER 1628-013
FILE No.
DRAWN M.O.A
REVIEWED J.S.C.
CHECKED J.S.C.
DATE : 08-24-11
ISSUE/REVISIONS

SHEET TITLE
ALTERNATE 1

SHEET NUMBER
C-1



0 20 40 80

LEGEND

PROPOSED IMPROVEMENTS

1. New Double Ramp
2. Expanded Parking Area
3. Conversion To Trailer Parking
4. New Dock
5. Pave BSO Boat Land
6. Repair Seawall + Piling
7. Improved Directional Signage
8. Upgrade Boat Wash
9. Ice Vending Machine
10. Future Dock Expansion

EXISTING ELEMENTS

- (A) Existing Ramps
- (B) Existing Trailer Parking
- (C) Playground
- (D) Passenger Car Parking
- (E) Entry Roadway
- (F) Restroom / BSO Building
- (G) Boat Wash
- (H) FIND Spoil Transfer Area
- (J) Open Green Area
- (K) Miscellaneous Picnic Area

GMC
Architects
Engineers
Planners
3996 N.W. 9th Avenue
Ft. Lauderdale, Fl. 33309
AAC0002143 EB0005022
Jeffrey S. Crews, PE

ALSDORF PARK FEASIBILITY STUDY

2901 NORTHEAST 14th STREET
POMPANO BEACH, FLORIDA

JOB NUMBER 1628-013
FILE No.
DRAWN M.O.A
REVIEWED J.S.C.
CHECKED J.S.C.
DATE 08-24-11
ISSUE/REVISIONS

SHEET TITLE
ALTERNATE 2
SHEET NUMBER
C-1

Appendix D
Cost Estimate

Alsdorf Park Improvements

Preliminary Construction Cost Estimate

Prepared By: Jeff Crews, P.E.

C3TS Project No. 1628-13
Date: 10/06/2011

	Description	Unit	Alternate 1 Quantity	Alternate 1 Unit Cost	Alternate 1 Total	Alternate 2 Quantity	Alternate 2 Unit Cost	Alternate 2 Total	Remarks
1.0	**Demolition**								
1.1	Clear and Grubbing	Acre	1	$ 2,500.00	$ 2,500.00	1	$ 2,500.00	$ 2,500.00	
1.2	Seawall Demo	LF	450	$ 50.00	$ 22,500.00	50	$ 100.00	$ 5,000.00	
1.3	Tree Removal	Each	12	$ 500.00	$ 6,000.00	12	$ 500.00	$ 6,000.00	
1.4	Excavate Boat Ramps	CY	600	$ 5.00	$ 3,000.00	600	$ 5.00	$ 3,000.00	
			1.0	Subtotal	$ 34,000.00	0.0	Subtotal	$ 16,500.00	
2.0	**Amenities**								
2.1	New Ramp Seawalls	LF	0	$ 625.00	$ -	150	$ 625.00	$ 93,750.00	
2.2	New Ramp Slab	SF	11,550	$ 25.00	$ 288,750.00	2,850	$ 25.00	$ 71,250.00	
2.3	New Boat Wash	LS	0	$ 25,000.00	$ -	1	$ 25,000.00	$ 25,000.00	
2.4	New Dock at ICWW	LF	0	$ 265.00	$ -	350	$ 265.00	$ 92,750.00	
2.5	New Ice Vending Machine(See Note 1)	LS	0	$ 2,500.00	$ -	1	$ 2,500.00	$ 2,500.00	Assumes an outside vendor
2.6	Miscellaneous Repairs	LS	0	$ 20,000.00	$ -	1	$ 20,000.00	$ 20,000.00	
2.7	Signage	LS	0	$ 8,000.00	$ -	1	$ 8,000.00	$ 8,000.00	
			2.0	Subtotal	$ 288,750.00	0.0	Subtotal	$ 313,250.00	
3.0	**Pavements**								
3.1	Expanded New Pavement	SY	3,300	$ 25.00	$ 82,500.00	4,500	$ 25.00	$ 112,500.00	
3.2	Rework Pavement Car Parking	SY	0	$ 15.00	$ -	4,000	$ 15.00	$ 60,000.00	
3.3	Pave BSO Boat Yard	SY	0	$ 25.00	$ -	550	$ 25.00	$ 13,750.00	
3.4	Curbing	LF	200	$ 20.00	$ 4,000.00	1,600	$ 20.00	$ 32,000.00	
3.5	Walkways	SF	0	$ 5.00	$ -	500	$ 5.00	$ 2,500.00	
3.6	Striping	LS	1	$ 5,000.00	$ 5,000.00	1	$ 5,000.00	$ 5,000.00	
3.7	Sealcoat Existing to remain	LS	1	$ 15,000.00	$ 15,000.00	1	$ 15,000.00	$ 15,000.00	
			3.0	Subtotal	$ 106,500.00	0.0	Subtotal	$ 240,750.00	
4.0	**Utilities**								
4.1	Services for Ice/Boat Wash	LS	0	$ 3,000.00	$ -	1	$ 3,000.00	$ 3,000.00	
4.2	Parking Lot Lighting Revisions	LS	1	$ 20,000.00	$ 20,000.00	1	$ 20,000.00	$ 20,000.00	
4.3	Drainage Improvements	LS	1	$ 30,000.00	$ 30,000.00	1	$ 30,000.00	$ 30,000.00	
			4.0	Subtotal	$ 50,000.00	0.0	Subtotal	$ 53,000.00	
5.0	**Landscaping**								
5.1	Tree Relocation	EA	10	$ 500.00	$ 5,000.00	10	$ 500.00	$ 5,000.00	
5.2	Trees and Plantings	LS	1	$ 25,000.00	$ 25,000.00	1	$ 25,000.00	$ 25,000.00	
5.3	St Augustine Sod	SF	3,000	$ 0.25	$ 750.00	3,000	$ 0.25	$ 750.00	
5.4	Irrigation Modifications	LS	1	$ 4,000.00	$ 4,000.00	1	$ 4,000.00	$ 4,000.00	
			5.0	Subtotal	$ 34,750.00	5.0	Subtotal	$ 34,750.00	
	SUBTOTAL				$ 514,000			$ 658,250	
6.0	**General Conditions**								
6.1	Design/Survey/Geotech	LS	9.5%	$ 48,830.00	$ 48,830.00	9.5%	$ 62,533.75	$ 62,533.75	
6.2	Permit Fees	LS	2.0%	$ 10,280.00	$ 10,280.00	2.0%	$ 13,165.00	$ 13,165.00	
6.3	Mobilization	LS	3.0%	$ 15,420.00	$ 15,420.00	3.0%	$ 19,747.50	$ 19,747.50	
6.4	Bonds	LS	1.5%	$ 7,710.00	$ 7,710.00	1.5%	$ 9,873.75	$ 9,873.75	
6.5	Contingency	LS	10.0%	$ 51,400.00	$ 51,400.00	10.0%	$ 65,825.00	$ 65,825.00	
			6.0	Subtotal	$ 133,640.00	6.0	Subtotal	$ 171,145.00	
	TOTAL				$ 647,640			$ 829,395	

Appendix E
Grant Analysis

Parks, Recreation & Outdoor/Nature-Related Grant Funding

The City of Pompano Beach is eligible to apply to a variety of county, state, and federal grant programs that fund activities related to parks and recreation as well as the preservation of the natural environment. Key details of each of the grant programs are highlighted in the accompanying spreadsheet. Generally speaking, these grant programs provide funding to help municipal governments address one or more of the following goals:

- Acquisition of land for preservation or recreation
- Construction of park facilities
- Protection of natural resources
- Performance of environmental campaigns and/or environmental studies

Programs that fund the **acquisition of land** for conservation or recreation purposes include the following:

- Florida Recreation Development Assistance
- Forest Legacy
- Greenways and Trails
- Land and Water Conservation Fund
- Parks and Open Space Florida Forever
- Stan Mayfield Working Waterfronts

Programs that fund the **construction of park facilities** include the following:

- Beach Erosion Control
- Boating Infrastructure
- Broward Boating Improvement
- Clean Vessel Act
- Coastal Management
- Florida Boating Improvement
- Florida Inland Navigation District
- Florida Recreation Development Assistance
- Recreational Trails
- Transportation Enhancement
- Waterfronts Florida

Programs that fund the **protection of natural resources** such as upland habitats, shorelines, and artificial reefs, among other assets, include the following:

- Beach Erosion Control
- Bird Habitat Conservation
- Coastal Management
- Derelict Vessel Removal
- Florida Inland Navigation District

- Marine Artificial Reef Development
- Nonpoint Source Management 319 Grant
- Urban and Community Forestry
- Waterfronts Florida

Finally, programs that fund the **performance of environmental campaigns and/or environmental studies** include the following:

- Beach Erosion Control
- Boating Safety and Education
- Coastal Management
- Enhanced Marine Law Enforcement
- Florida Boating Improvement
- Florida Inland Navigation District
- Marine Artificial Reef Development
- Waterfronts Florida

PARKS, RECREATION & OUTDOOR/NATURE-RELATED GRANT FUNDING

Name of Program	Focus of Funding	Grantor	Max. # Applics./ Yr	Max. Grant $ Request	Max. # Active Projects	Match Reqts	Applic. Avail.	Applic. Due Date	Website
Beach Erosion Control	restore beaches; construct dunes; conduct environmental studies	FL Dept. of Environmental Protection	N/A	N/A	N/A	50%	May	July	www.dep.state.fl.us/beaches/programs/bcherosn.htm
Bird Habitat Conservation	protect, restore & enhance wetlands & upland habitats to benefit migratory birds	US Fish & Wildlife Service	N/A	N/A	N/A	N/A	year-round	several	http://www.fws.gov/birdhabitat/index.shtm
Boating Infrastructure Grant Program	develop/restore tie-up facilities for boats 26 ft or longer	FL Fish & Wildlife Conservation Commission	N/A	N/A	N/A	25%	May	Aug.	http://myfwc.com/boating/boating-grant-programs/bigp/
Boating Safety & Education Program	improve boater knowledge of boating regulations and safe boating	FL Fish & Wildlife Conservation Commission	N/A	$25K	1	N/A but improves score	TBA	TBA	www.myfwc.com/boating/boating-grant-grant-programs/safety-and-education
Broward Boating Improvement Program	construct boat ramps and other recreational boating-related facilities	Broward County	N/A	N/A	N/A	sliding scale	Aug.	Sept.	http://www.broward.org/PARKS/GETINVOLVED/Pages/MarineAdvisoryCommittee.aspx
Clean Vessel Act Program	install or repair pump-out or waste-dump reception facilities	FL Dept. of Environmental Protection	N/A	$30K for stationary pumpouts. $50K for pumpout vessels	N/A	25%	year-round	ongoing	www.dep.state.fl.us/law/Grants/CVA/default.htm
Coastal Management Program	protect & manage FL's coastal resources; conduct vulnerability assessments; develop coastal public lands	FL Dept. of Environmental Protection	1	$60K	2	50%	Aug.	Oct.	http://www.dep.state.fl.us/cmp/grants/fcpmgrants.htm
Derelict Vessel Removal	remove abandoned vessels from FL waters	FL Fish & Wildlife Conservation Commission	not funded during the current year						http://www.dnr.wa.gov/recreationeducation/topics/derelictvessels/pages/aqr_derelict_vessel_removal_program.aspx
Enhanced Marine Law Enforcement	enhance marine law enforcement & improve boating safety	Broward County	N/A	N/A	N/A	sliding scale	Aug.	Sept.	http://www.broward.org/PARKS/GETINVOLVED/Pages/MarineAdvisoryCommittee.aspx

PARKS, RECREATION & OUTDOOR/NATURE-RELATED GRANT FUNDING

Name of Program	Focus of Funding	Grantor	Max. # Applics./ Yr	Max. Grant $ Request	Max. # Active Projects	Match Reqts	Applic. Avail.	Applic. Due Date	Website
FL Boating Improvement Program	enhance boating access & boating-related activities (eg build or repair boat ramps, lifts, piers & docks; conduct boating education)	FL Fish & Wildlife Conservation Commission	N/A	N/A	N/A	N/A but improves score	Jan.	March	http://myfwc.com/boating/boating-grant-programs/fbip/
FL Inland Navigation District	dredge navigation channels; construct boat ramps & fishing/viewing piers; conduct environmental education; stabilize shorelines	FL Inland Navigation (Taxing) District	N/A	N/A	N/A	25 - 50%	Jan.	April	www.aicw.org
FL Recreation Development Assistance Program	acquire or develop park land	FL Dept. of Environmental Protection	2	$200K per application	3	sliding scale: 0%-50% depending on request	July	Sept.	www.dep.state.fl.us/parks/oirs
Forest Legacy	acquire land to preserve FL's forests	FL Division of Forestry	N/A	N/A	N/A	25%	year-round	year-round	http://www.fl-dof.com/forest_management/forestlegacy_index.html
Greenways & Trails	acquire land	FL Dept. of Environmental Protection	N/A	N/A	N/A	N/A	TBA	TBA	www.dep.state.fl.us/gwt/community
Land & Water Conservation Fund	acquire or develop park land	FL Dept. of Environmental Protection	1	varies; usually $150-200K	2	50%	Oct.	Feb.	www.dep.state.fl.us/parks/oirs
Marine Artificial Reef Dev. Program	build and/or monitor artificial reefs	FL Fish & Wildlife Conservation Commission	N/A	$60K	N/A	N/A but improves score	Jan.	March	www.myfwc.com/marine/ar/index.asp
Nonpoint Source Management 319 Grant Program	improve water quality to reduce nonpoint sources of pollution	FL Dept. of Environmental Protection	N/A	N/A	N/A	40%	March	May	www.dep.state.fl.us/water/nonpoint/319h.htm

PARKS, RECREATION & OUTDOOR/NATURE-RELATED GRANT FUNDING

Name of Program	Focus of Funding	Grantor	Max. # Applics./ Yr	Max. Grant $ Request	Max. # Active Projects	Match Reqts	Applic. Avail.	Applic. Due Date	Website
Urban & Community Forestry	develop urban forests (through tree plantings, creation of tree ordinances and/or tree management plans)	FL Dept of Agriculture	N/A	$20K	1	50%	Jan.	March	http://www.fl-dof.com/forest_management/cfa_urban_grants.html
Waterfronts FL Program	revitalize working waterfronts: env. & cultural resource protection, retention of viable traditional waterfront economies, hazard mitigation, public access to working waterfronts	FL Dept of Community Affairs	1	$50K	1	50%	TBA	TBA	http://www.dca.state.fl.us/fdcp/DCP/waterfronts/index.cfm
Water Quality Restoration Grant	reduce urban nonpoint source pollution discharged to impaired waters	FL Dept of Environmental Protection	N/A	N/A	N/A	50%	year-round	year-round	http://www.dep.state.fl.us/water/watersheds/tmdl_grant.htm

Subject: RE: BV-24_Preliminary Site Redesign
From: "Ashbury, Jenny" <jenny.ashbury@brevardparks.com>
Date: 9/30/2011 4:23 PM
To: "David Roach" <droach@aicw.org>

David,

We presented the design to our Selection and Management Committee at yesterday's meeting. The Committee would still like to see the exchange happen.

They were concerned that the size of the basin has increased and that more scrub habitat will be impacted.

- They asked if there was any way that the basin could be shifted any further south on to EEL property that is mostly wetlands to be able to reduce the amount of impact to the scrub habitat that is currently in the basin design?
- The remaining property that is currently owned by "FIND" that is on the north and west sides of the basin design....would this property be transferred to EEL for conservation as part of the exchange?
- The Committee didn't see an issue with FIND being able to utilize EEL property for mitigation impacts, if the exchange occurs, but those details would have to be worked out by SJRWMD and USFWS

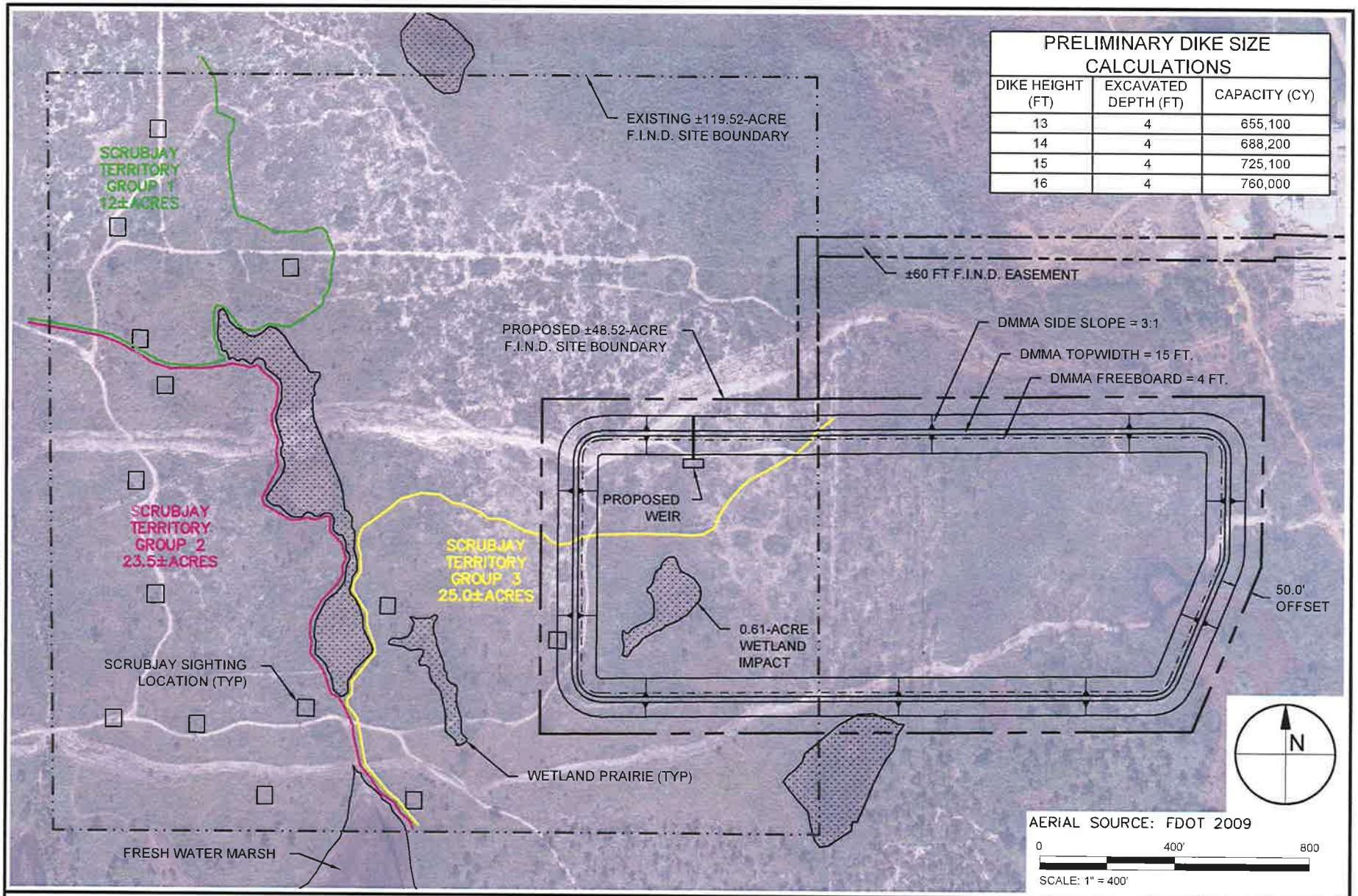
Thanks
Jenny

Jenny Ashbury
EEL Land Acquisition Coordinator
Brevard County Environmentally Endangered Lands Program
91 East Drive
Melbourne, FL 32904
321-255-4466- Extension 37- Office
321-255-4499- Fax
321-266-7531- Cell
jenny.ashbury@brevardparks.com

From: David Roach [mailto:droach@aicw.org]
Sent: Tuesday, September 27, 2011 3:01 PM
To: Ashbury, Jenny
Subject: Re: BV-24_Preliminary Site Redesign

Our original design was for 1.053M cyds. Our most recent channel surveys show the need for the 1.138M volume. The Graham design may have been around 900K cyds.

On 9/27/2011 12:44 PM, Ashbury, Jenny wrote:
Ok, just wanted to make sure because when we calculated the acreage in GIS from the last configuration with

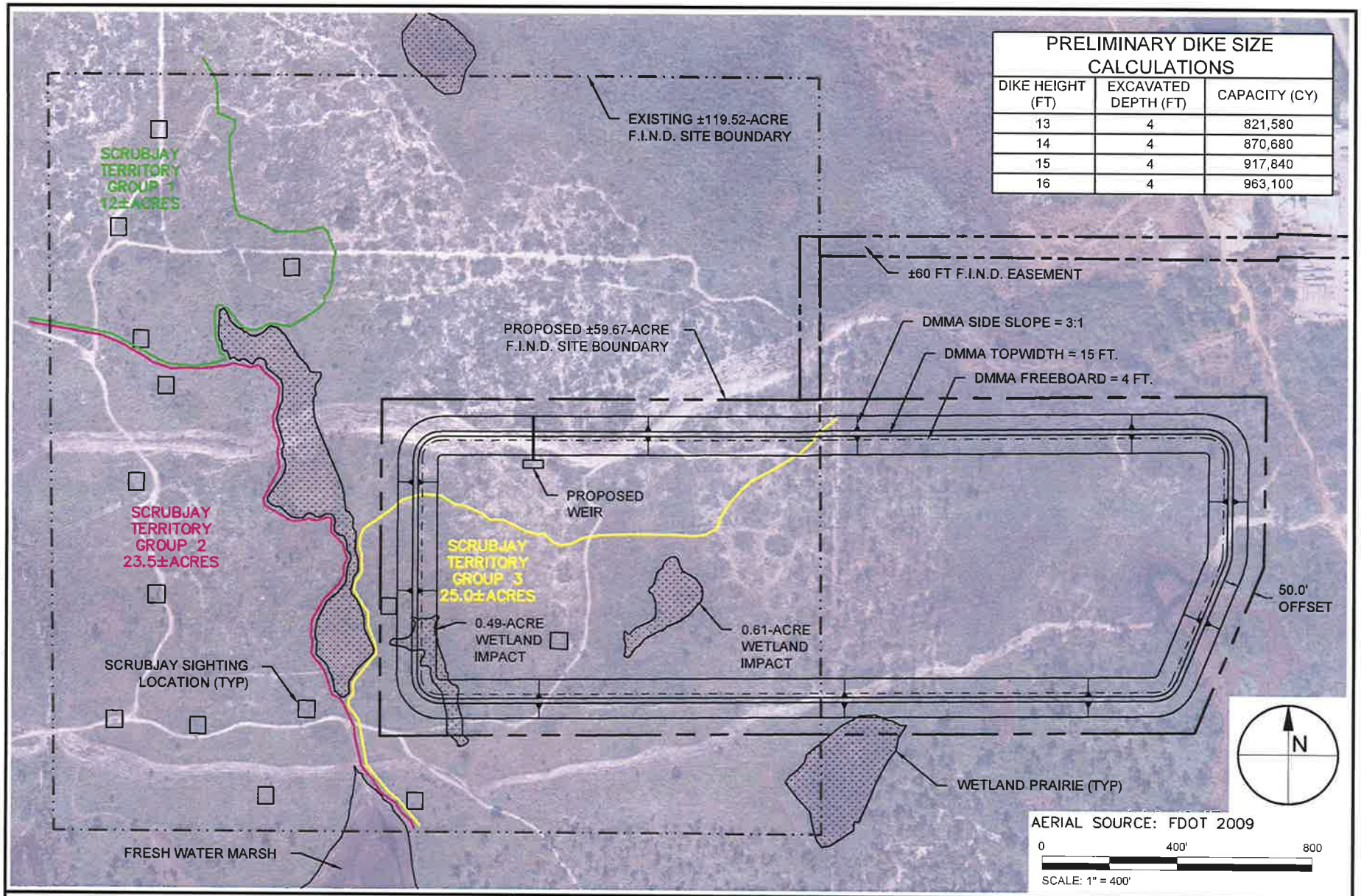


CATHY SHELL X:\SYS\PROJECTS\C2002-016 FIND GENERAL SERVICES\FIGURES\C2002-016 SITE ALT1.DWG 9/22/2011 3:46:35 PM

TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD.
BLDG. 300, SUITE 300
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 1
REVISED SITE DESIGN: ALTERNATIVE 1
PRELIMINARY DIKE SIZE CALCULATIONS
BV-24 DREDGED MATERIAL MANAGEMENT AREA
BREVARD COUNTY, FL

PROJECT	C2002-016
DRAWN BY	CAS
SHEET	1 of 3
DATE	SEPT 2011



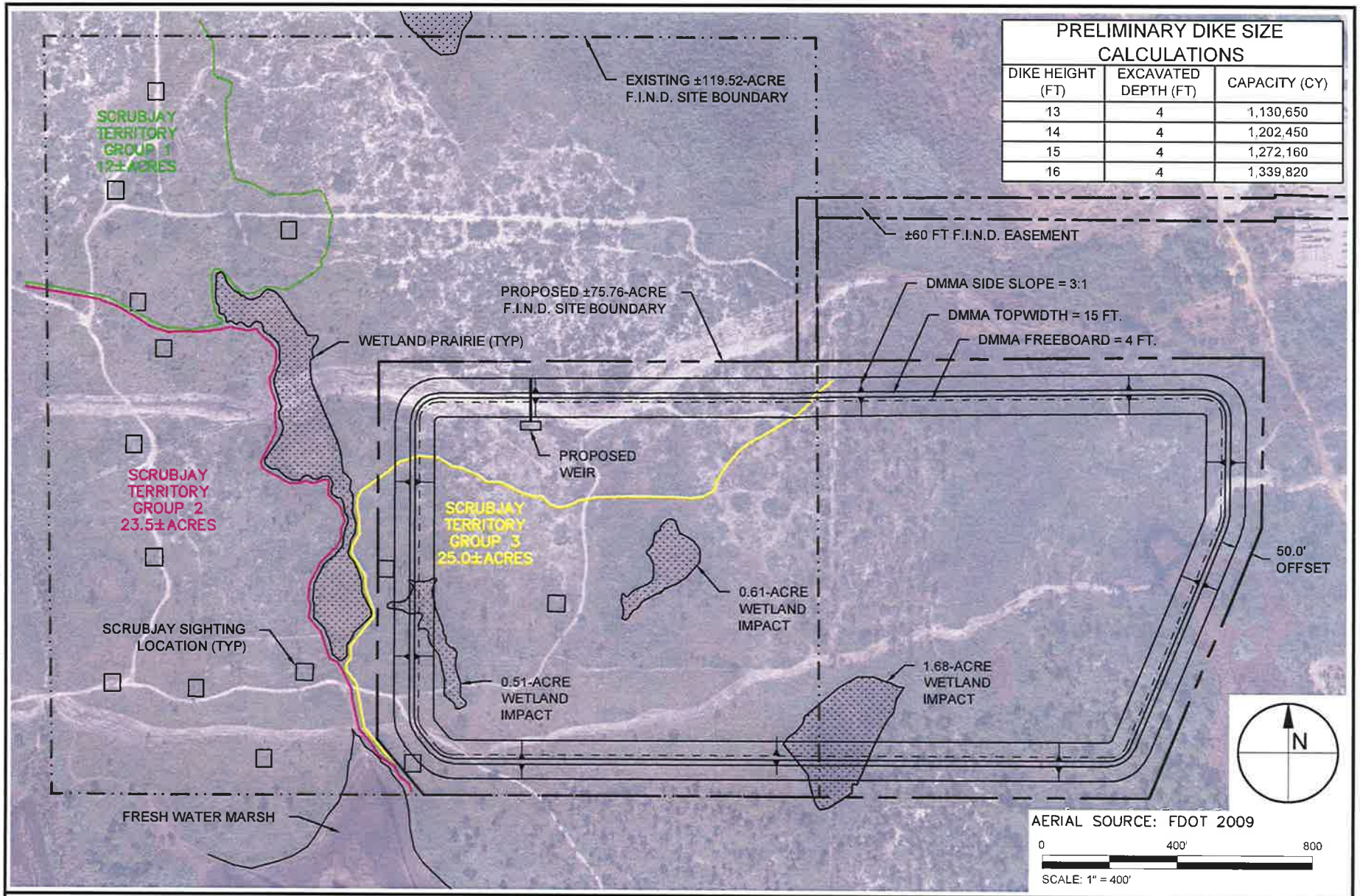
PRELIMINARY DIKE SIZE CALCULATIONS		
DIKE HEIGHT (FT)	EXCAVATED DEPTH (FT)	CAPACITY (CY)
13	4	821,580
14	4	870,680
15	4	917,840
16	4	963,100

CATHY SHELL X:\SYS\PROJECTS\C2002-016 FIND GENERAL SERVICES\FIGURES\C2002-016 SITE ALT2.DWG 9/22/2011 3:45:40 PM

TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD.
BLDG. 300, SUITE 300
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 2
REVISED SITE DESIGN: ALTERNATIVE 2
PRELIMINARY DIKE SIZE CALCULATIONS
BV-24 DREDGED MATERIAL MANAGEMENT AREA
BREVARD COUNTY, FL

PROJECT	C2002-016
DRAWN BY	CAS
SHEET	2 of 3
DATE	SEPT 2011



PRELIMINARY DIKE SIZE CALCULATIONS		
DIKE HEIGHT (FT)	EXCAVATED DEPTH (FT)	CAPACITY (CY)
13	4	1,130,650
14	4	1,202,450
15	4	1,272,160
16	4	1,339,820

TAYLOR ENGINEERING INC.
10151 DEERWOOD PARK BLVD.
BLDG. 300, SUITE 300
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION # 4815

FIGURE 3
REVISED SITE DESIGN: ALTERNATIVE 3
PRELIMINARY DIKE SIZE CALCULATIONS
BV-24 DREDGED MATERIAL MANAGEMENT AREA
BREVARD COUNTY, FL

PROJECT	C2002-016
DRAWN BY	CAS
SHEET	3 of 3
DATE	SEPT 2011

CATHY SHELL X:\SYS\PROJECTS\C2002-016 FIND GENERAL SERVICES\FIGURES\C2002-016 SITE ALT3.DWG 9/22/2011 3:45:45 PM