Subject:

Review of an after-the-fact Public Interest Determination (PID) request for an unpermitted "Widening Project within Pelican Creek," 1865-1935 South Banana River Drive, Merritt Island. District 2.

Fiscal Impact:

Approval could cost the County in excess of $250,000 for wetlands restoration, monitoring, and maintenance or up to $500,000 for State and Federal wetlands mitigation bank credits.

Dept/Office:

Natural Resource Management Department and Public Works Department

Requested Action:

Staff requests that the Board of County Commissioners consider the applicant's submittal and issue a finding of whether or not the proposed dredging activities meets the definition of Public Interest and Best Public Interest (as defined in both the Comprehensive Plan and the Brevard County Code) related to the request.

Summary Explanation and Background:

On June 24, 2024, Attorney Kimberly Bonder Rezanka, of Lacey Lyons Rezanka, on behalf of Mr. Aaron Reninger and Mr. Roger Xavier (Applicants), submitted a request for a PID for "Widening Project within Pelican Creek" (Project) (Submittal) (attached). The subject properties are located at 1865-1935 South Banana River Drive, Merritt Island (Tax Parcel IDs: 2524354, 2524350, 2535314, 30222327, and 2524353) (Project Area). Specific Project details were not provided, thus, the Brevard County Natural Resources Management Department (NRM) requested additional information. A Supplemental Engineering Assessment report (SEA) depicting a plan-view sketch showing the limits for the dredging, littoral shelf, and stormwater treatment swale was submitted on September 6, 2024 (attached). **A significant portion of the dredging proposed in the PID request has already occurred illegally, without the benefit of any approval or permit from the County or any other jurisdictional agency (e.g., Florida Department of Environmental Protection, U.S. Army Corps of Engineers).**

In June 2022, the Brevard County Public Works Department (Public Works) conducted routine maintenance activities (i.e., muck removal and tree and vegetation trimming) in the Pelican Creek Ditch both north and south of Old Causeway Road to improve drainage in the area. In response to a code violation complaint, in November 2022, NRM Enforcement Officer Mr. Jeff Cooke observed operators for Mr. Reninger conducting unpermitted dredging of the shoreline adjacent to the Applicants' properties. This dredging was conducted despite the fact that Mr. John Denninghoff, Public Works' former Director and current Assistant County Manager, denied Mr. Reninger's requests for the County to dredge the area(s) in question on at least two prior occasions, and informed Mr. Reninger of the permitting requirements for such an initiative. The activity

destroyed environmentally sensitive areas. Specifically, based on the wetland delineations identified in both Applicants' Brevard County single-family home building permits, mangrove wetlands and uplands were excavated in favor of the new surface water area for the Applicants' sole benefit.

The attached Staff Report presents the Applicants' Submittal and relevant Comprehensive Plan, Manatee Protection Plan, and Brevard County code criteria in more detail. The Staff Report questions the potential public benefits purported by the applicant. The Submittal claims engineering and environmental benefits. However, the submittal does not provide additional stormwater modeling or quantify or substantiate the potential improvements of the already completed and proposed dredging relevant to water quality, flood mitigation, seagrass production, and other stated demonstrable environmental, social, and economic benefits.

The dredging of mangrove wetlands and the widening/deepening of a drainage ditch are not consistent with the County's Comprehensive Plan, including the Conservation Element, nor is such activity permissible through Brevard County Code, Chapter 62, Article X, Divisions 3 (Surface Water Protection) and 4 (Wetland Protection). The aforementioned information along with the Applicants' Submittal are provided as information to assist the Board on determining whether the Submittal meets the definition of "Public Interest" and "Best Public Interest" (as defined in both the Comprehensive Plan and the Brevard County Code) related to the PID request.

Board Options:

1. Deny PID request. This will allow Brevard County to continue to work with FDEP on its own draft consent order without any prejudice and will enable the County to continue code enforcement action (s) against the Applicants to resolve the documented violations of the Brevard County Code in front of the Brevard County Code Enforcement Special Magistrate.

2. Approve PID as presented by the Applicants. This would allow further dredging subject to authorization by both the FDEP and US Army Corp of Engineers.

3. Approve PID for the allowance of maintenance dredging only with appropriate State and Federal permitting. This would require the restoration of any areas that were dredged outside of the historical ditch configuration without approval.

Clerk to the Board Instructions:

None

BREVARD County
BOARD OF COUNTY COMMISSIONERS

FLORIDA'S SPACE COAST

Kimberly Powell, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972
Kimberly.Powell@brevardclerk.us

November 13, 2024

MEMORANDUM

TO: Virginia Barker, Natural Resources Management Director

RE: Item H.1., Review of an after-the-fact Public Interest Determination (PID) Request for an Unpermitted "Widening Project within Pelican Creek," 1865-1935 South Banana River Drive, Merritt Island

The Board of County Commissioners, in regular session on November 12, 2024, reviewed and denied the after-the-fact PID request for an unpermitted widening project within Pelican Creek, 1865-1935 South Banana River Drive, Merritt Island.

Your continued cooperation is always appreciated.

Sincerely,
BOARD OF COUNTY COMMISSIONERS
RACHEL M. SADOFF, CLERK

Donna Scott

for: Kimberly Powell, Clerk to the Board

/ds

cc: County Attorney
Public Works
Finance
Budget

Natural Resources Management Department
2725 Judge Fran Jamieson Way
Building A, Room 219
Viera, Florida 32940

BOARD OF COUNTY COMMISSIONERS

Pelican Creek PID Staff Report

Overview

On June 24, 2024, Attorney Kimberly Bonder Rezanka, of Lacey Lyons Rezanka, on behalf of Mr. Aaron Reninger and Mr. Roger Xavier (Applicants), submitted a request for a Public Interest Determination (PID) for "Widening Project within Pelican Creek" (Project) (Submittal) (attached). The subject properties are located at 1865-1935 South Banana River Drive, Merritt Island (Tax Parcel IDs: 2524354, 2524350, 2535314, 30222327, and 2524353) (Project Area). The application contains analyses by Ms. Rezanka; Mr. Clayton Bennett, P.E., the engineer for the Project; and Ms. Lisa Toland, environmental consultant. However, specific Project details were not provided, thus, the Brevard County Natural Resources Management Department (NRM) requested additional information. A Supplemental Engineering Assessment report (SEA) depicting a plan-view sketch showing the limits for the dredging, littoral shelf, and stormwater treatment swale was submitted by Mr. Bennett on September 6, 2024 (attached). Note that much of the dredging proposed in the PID request has already occurred illegally, without the benefit of any approval or permit from the County or any other jurisdictional agency [e.g., Florida Department of Environmental Protection (FDEP), U.S. Army Corps of Engineers (ACOE)].

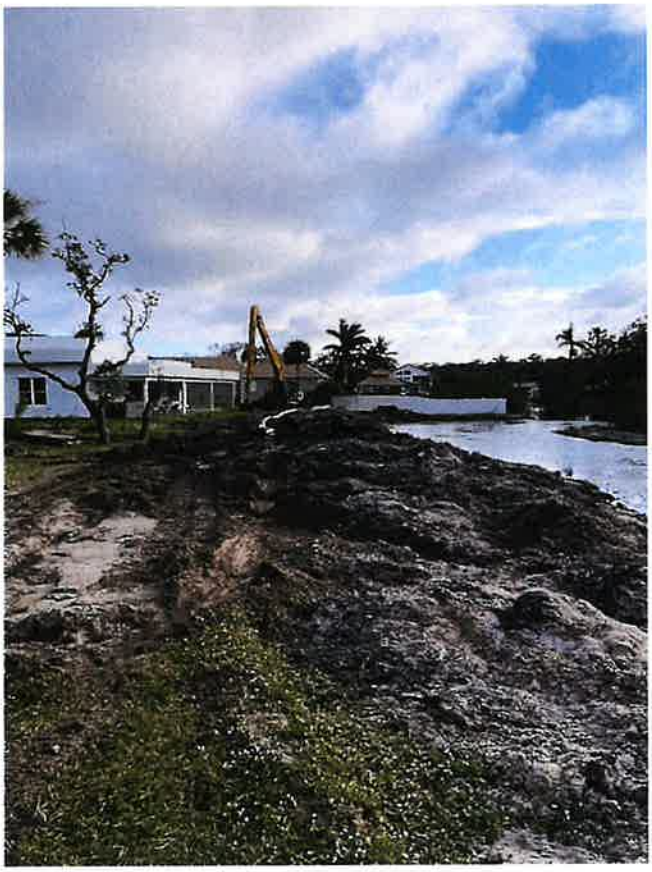
In June 2022, the Brevard County Public Works Department (Public Works) conducted routine maintenance activities (i.e., muck removal and tree and vegetation trimming) in the Pelican Creek Ditch both north and south of Old Causeway Road to improve drainage in the area. In November 2022, over Thanksgiving week, illegal and unpermitted dredging of the shoreline occurred adjacent to the Applicants' properties. In fact, between 2015 and 2017, the Public Works Department's former Director and current Assistant County Manager, Mr. John Denninghoff personally denied Mr. Reninger's requests for the County to dredge the area(s) in question on at least two prior occasions and informed him of the required permitting should he decide to undertake such an initiative. The dredging activity destroyed environmentally sensitive areas. Specifically, based on the wetland delineations identified in both Applicants' Brevard County single-family home Building permits, mangrove wetlands and uplands were excavated in favor of the new surface water area for the applicant's sole benefit.

Brevard County NRM Code Enforcement (NRM CE) received a complaint as the dredging was on-going at that time. The NRM CE Officer (CEO) Mr. Jeff Cooke investigated and documented active dredging of the Applicants' properties. The NRM CEO specifically noted:

- A track hoe and dredged muck and sandy soils piled along the west shoreline of the Project Area;
- Turbid waters; and
- A turbidity barrier boom piled up along the area of excavation.

The NRM CEO advised Mr. Reninger to cease any additional alterations in the area, and to install the turbidity barrier to help capture the copious volumes of debris and silt flowing downstream from the dredging activity into the Indian River Lagoon. As the NRM CEO left the area he noted that the boom had been installed across the newly expanded ditch and observed that, in defiance of his advice to Mr. Reninger, the track hoe dredging operation resumed and continued to excavate soil from the reported properties along the drainage ditch and pile it along the west property lines. Photographs were taken to support these observations; two of which are included below for the Board's consideration. Both photographs, looking south to the Indian River Lagoon outfall, were taken by the NRM CEO on November 23, 2022 (the day before Thanksgiving).

Photograph 1



Photograph 2

Importantly, it should be noted that this dredging activity was decidedly **not** conducted by, or at the direction of, Brevard County. Notices of Violation were issued to both Applicants by Brevard County. Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (ACOE) also have pending enforcement actions against the Applicants. Additionally, FDEP issued a Proposed Consent Order to Brevard County for alleged improper removal of mangroves deemed excessive for maintenance, which, at least a portion of, occurred in the Project Area dredged by the Applicants. The County strenuously disputes the current Draft Consent Order for Brevard County activities and, on October 15, 2024, requested that FDEP withdraw the consent order and/or bifurcate the two events. As of this writing, the dispute between FDEP and Brevard County has not been resolved. Mr. Reninger has falsely stated in written communication to FDEP that the County performed the dredging activity. The County has disputed that statement and stands prepared to vigorously refute the veracity of such allegations.

The PID Request is being sought by the Applicants to pursue after-the-fact local, State, and Federal permits, as applicable, to retain the existing dredged areas and conduct further dredging activities as discussed below. It is assumed that the Applicants will leverage this PID

determination to be better situated to obtain permits from State and/or Federal agencies that also have jurisdiction. The Applicants provide several reasons why the Board should find the Project to be in the public's interest. A summary of these purported benefits is provided below. However, the following considerations are of primary concern:

- Wetland impacts for the completed and proposed dredging are not consistent with the Brevard County Comprehensive Plan, Conservation Element, Objective 5, including Policy 5.2.E.8., or Brevard County Code, including Chapter 62, Article X, Division 4, entitled Wetlands Protection, Section 62-3694(e), which establishes allowable residential land uses within wetlands. The uses are limited to the structural building area requirements for the primary use, on-site sewage disposal system requirements, the 100-year flood elevation requirement for first floor elevations, required stormwater management and parking, and required access to the onsite structure.

  Additionally, Section 62-3695(a) prohibits all other development, except as provided in Section 62-3694, in functional wetlands, unless it pertains to access to the water or shoreline hardening as permitted in accordance with Chapter 62, Article X, Division 3, Surface Water Protection.

- Brevard County Comprehensive Plan, Conservation Element, Policy 3.3.G prohibits channelization, dredging and filling, and impoundment of natural waters of the State unless the activity is clearly in the public interest and does not adversely impact water quality, natural habitat, and adjacent shoreline uses. Chapter 62, Division 3, entitled Surface Water Protection, Section 62-3666(12) prohibits new navigation canals connected to the Indian River Lagoon. In addition, this Section provides, in pertinent part, that "[e]xisting ditches, drainage rights-of-way, drainage easements and stormwater facilities which connect to the Indian River Lagoon system shall not be widened or deepened to accommodate boat traffic, *except when in the best public interest*." (*emphasis added*). Section 62-3666(12) criteria, being more specific and restrictive, applies to the project.

  The dredging activity that is part of the Project impacts natural mangrove wetland habit and does not meet the definition of "Best Public Interest," as required and as defined in the Comprehensive Plan and Brevard County Code. Best Public Interest is defined as "public projects which clearly demonstrate a net benefit to the public, as determined by the Board of County Commissioners, and which adequately mitigate adverse environmental impacts." *See*, Section 62-3661, Brevard County Code; Comprehensive Plan, Chapter XVI, Glossary (December 2022). Furthermore, Public Interest is defined as "demonstrable environmental, social, and economic benefits which would accrue to the public at large as a result of a proposed action, and which would clearly exceed all demonstrable environmental, social, and economic costs of the proposed action. In determining the public interest in a request for use, sale, lease, or transfer of interest in sovereignty lands or severance of materials from sovereignty lands, the board shall

consider the ultimate project and purpose to be served by said use, sale, lease, or transfer of lands or materials." *See*, Section 62-3661, Brevard County Code; Comprehensive Plan, Chapter XVI, Glossary (December 2022).

The Brevard County Manatee Protection Plan (MPP) establishes certain guidelines and recommendations as it relates to the use of dredging to accommodate boat traffic. Specifically, "[t]he creation of new navigation canals or expansion (widening and/or deepening) of existing ditches, drainage right-of-ways [*sic*], drainage easements and stormwater facilities connected to the Indian River Lagoon to accommodate boat traffic shall be prohibited unless it is in the public interest . . . and does not adversely impact water quality or natural habitat, or unless the activity is an approved maintenance dredging [project] on existing public navigational channels and public canals, or an existing marina's maintenance dredging." MPP II.C.2.C. It prohibits dredging in or connected to Class II Waters, Outstanding Florida Waters (OFW), and Aquatic Preserves (AP) unless the activity is a Federal navigation project, in the best public interest, such as approved maintenance dredging of existing public or private navigational channels, or where dredging may improve water quality by removing accumulated silt or improving circulation, or for maintenance of existing structures and utility structures and utility crossings, or for shoreline hardening as allowed. The ditch in question is a waterway connected to the Banana River, which is a Class II Water, AP, and OFW.

Note that the Applicants' Submittal specifically cites the allowance of boat traffic in the new canal as a social benefit, where the historical use of the waterbody has been as a stormwater management ditch for this portion of Merritt Island. This is not consistent with above quoted Policy and code.

The Applicants' Submittal references a drainage study completed for Public Works in March 2021, entitled "Hanson Technical Memorandum, Newfound Harbor Drainage Study" (Study) (attached within the Submittal). The Study provided analysis and recommendations to improve surface drainage conditions within the study area of Newfound Harbor Drive from Worley Avenue to Monticello Avenue (~1.7 miles). Utilizing Interconnected Pond and Channel Routing (ICRP) hydrologic and hydraulic modeling software, multiple stormwater scenarios were analyzed using 37 nodes. Modelled improvements included upsizing of 11 culverts, and a combination of culvert upsizing and dredging of the existing channel.

The Study determined that upsizing all 11 cross-drains would provide faster drainage of flooded areas as the water level recedes and resolve trapped and standing water problems caused solely by poor drainage. The Study demonstrates that peak stage reductions are controlled by culvert sizing, and that **maintenance dredging of the entire study area would provide "only an average additional 0.02-foot** *(0.24 inches)* **stage reduction".** The Study does not support such a reduction benefit being created strictly for the Project Area where the Applicants have conducted and propose to conduct additional dredging activities. The downstream outfall node (just south of the Project Area) is influenced only by the water level of the Indian River Lagoon,

with no effect from upstream dredging. The Study reported, **"Dredging would likely result in additional permitting/wetland impacts as well, so it is not recommended as a drainage improvement to reduce flooding."** Additional discussion from the Applicants' Submittal is provided below.

While the Applicants' Submittal claims the Project could provide potential benefits (e.g., increased wind-driven turnover, flow rates, and flushing; removal of underwater blockages; reduced standing flood waters; lowering of tailwater conditions; reduction of the hydraulic grade; increase usage by fisheries; providing accessible shoreline habitat for aquatic nursery and fisheries functions; and increasing usage by manatees), it does not provide additional ICPR modeling or in any way quantify or substantiate the potential improvements of the already-completed and proposed dredging relevant to water quality, flood mitigation, seagrass production, and other stated demonstrable environmental, social, and economic benefits. Further, the Applicants' Submittal does not describe what "underwater blockages" exist in the ditch or account for the maintenance trimming that was previously completed by the County. The Applicants' Submittal indicates improved water quality from "possible restoration of wetland functionality" through the construction of littoral shelves, yet the historical natural mangrove wetlands located in the Project Area were impacted and excavated without county, State, or Federal approval by the Applicant(s) or at their direction, for their private benefit (recall, multiple prior requests for the County to perform the dredging were denied).

The Applicants' Submittal makes several references to the benefits of muck dredging related to water quality. Please note that Section 62-3668(9), Brevard County Code, allows maintenance dredging under certain circumstances with County approval. NRM is delegated by the Board to approve maintenance dredging projects. However, the already completed and proposed dredging activity identified in the Applicants' Submittal cannot be considered maintenance dredging. This information was provided to Mr. Reninger by Public Works and NRM CEO on multiple occasions. Instead, the privately funded, illegally performed dredging both deepened and widened the ditch well beyond its historical limits, transforming it into a navigable canal/channel. This is clearly not maintenance but rather new dredging.

Lastly, because of unresolved issues between the County and FDEP, approval of this PID could potentially put the County at significant financial risk for wetlands restoration/monitoring/maintenance and/or mitigation costs based on the Proposed Consent Order issued to the County. For example, the penalty against the County being proposed by FDEP could exceed $250,000 to comply with a requirement to conduct exotic and nuisance vegetation removal and restoration of the illegally excavated area, or up to $500,000 for State and Federal mitigation. Additionally, the Applicants' Submittal does not contemplate the long-term maintenance responsibilities of either Public Works or the Applicants relative to stormwater management of this Merritt Island drainage ditch.

Project Description

Pelican Creek is an historical manmade ditch that has been modified by people over decades. Various documents call Pelican Creek a "ditch," "drainage ditch," "outfall ditch," "drainage right-of-way," "mosquito district control canal," and "creek." The Project Area is located approximately 420 feet north of Pelican Creek's outfall into the Banana River, classified as a Class II Water, Outstanding Florida Water (OFW), and Aquatic Preserve (AP).

The Project is presented in the Applicants' Submittal and SEA. The Project includes areas already dredged by the Applicants and additional dredging of the existing non-navigable ditch, deepening it from a presumed depth of 2-3 feet to 5 feet from Old Causeway Road to Mr. Xavier's south property line. The Project proposes widening of a portion of the Project Area from ~25 feet wide to 60 feet wide along the east shoreline, creating a new canal for boat navigation. The Project also proposes wetland preservation where wetlands remain. Where mangrove wetlands were excavated, a new littoral shelf (". . . to be planted by others . . .", which is presumed to be the County based on the FDEP Proposed Consent Orders issued to the Applicants) and rear-lot swales capturing one-inch of runoff are proposed. As previously stated, the County disputes the FDEP's Proposed Consent Order and findings as it relates to the County and that case has yet to be resolved as of this writing.

The Applicants' Submittal and SEA reference a 1991 St. Johns River Management District (SJRWMD) Environmental Resource Permit (ERP No. 12-009-0056S) (attached) related to a 0.92-acre Pelican Creek dredging project that never commenced. The permit designated the existing land use as drainage ditch, saltmarsh wetlands, and uplands. The SJRWMD permit expired in 1996. The current Project proposes a modified version of the expired permit requirements and specifications. It is unknown if Brevard County ever received an application for these activities. Pertinent provisions of the County's Comprehensive Plan and Code of Ordinances, however, remain nearly the same as they were in 1996 when the ERP was issued.

Brevard County's original 1988 Comprehensive Plan established the residential density and allowable impacts within wetlands that is still reflected in the current version of the Comprehensive Plan and enacted in the land development regulations outlined in Chapter 62, Article X, Division 4, entitled Wetland Protection. The Comprehensive Plan also prohibits dredging and filling in of waters that are, or connected to, Class II waters, OFWs, or APs, unless the activity is clearly in the public interest, such as approved maintenance dredging on existing public navigational channels, where dredging may improve the water quality by removing accumulated silt, improving circulation, or maintenance of existing structures and utility crossings. The creation of new manmade canals was, and continues to be, prohibited. *See*, Section 62-3666(12), Brevard County Code.

These criteria are still reflected in Chapter 62, Division 3, entitled Surface Water Protection, except Section 62-3666(12) requires Best Public Interest for the widening and deepening of a drainage ditch:

New navigation canals connected to the Indian River Lagoon system are not permitted. ***Existing ditches, drainage rights-of-way, drainage easements and stormwater facilities which connect to the Indian River Lagoon system shall not be widened or deepened to accommodate boat traffic, except when in the best public interest.*** *New boat docks, boathouses and other related structures, or the expansion of these existing structures, shall not be allowed or permitted within or adjacent to existing ditches, drainage rights-of-way, drainage easements or stormwater facilities which connect to the Indian River Lagoon system. Maintenance of existing ditches, drainage rights-of-way, drainage easements or stormwater facilities which connect to the Indian River Lagoon system that have been* ***specifically designated for boat traffic on subdivision plats or site plans****, or which have been historically and effectively utilized for buoyant vessel navigation prior to the effective date of the ordinance from which this division is derived, shall be permitted upon review.*

Section 62-3661. Definitions:

Canal means a manmade linear waterway constructed through uplands and designed for navigation of vessels excluding those linear waterways whose primary purpose is conveyance of drainage.

Best public interest means public projects which clearly demonstrate a net benefit to the public, as determined by the board of county commissioners, and which adequately mitigate adverse environmental impacts.

The Brevard County MPP further addresses the Comprehensive Plan and Code requirements on dredging:

1. *The creation of new navigation canals or expansion (widening and/or deepening) of existing ditches, drainage right-of-ways, drainage easements and stormwater facilities connected to the Indian River Lagoon to accommodate boat traffic shall be prohibited unless it is in the public interest, as defined in the Glossary, and does not adversely impact water quality or natural habitat, or unless the activity is an approved maintenance dredging on existing public navigational channels and public canals, or an existing marina's maintenance dredging.*

2. *Dredging shall not be permitted in or connected to Class II Waters, OFW's, Aquatic Preserves, areas that contain ten percent (10%) seagrass or more, and conditionally approved shellfish harvesting waters unless the activity is a Federal navigation project, in the best public interest, such as approved maintenance dredging of existing public or private navigational channels, or*

where dredging may improve water quality by removing accumulated silt or improving circulation, or for maintenance of existing structures and utility structures and utility crossings, or for shoreline hardening as allowed by this division.

Applicants' PID Justification

The Applicants' Submittal and SEA present to the Board the following purported environmental, social, and economic benefits for your consideration. The following summarizes a compilation of benefits claimed by Ms. Rezanka, Mr. Bennett, and Ms. Toland:

Environmental Benefits

Improved Water Quality:

- Adequate dredging to remove accumulated muck and organic materials that have built up over time in the canal, which would help facilitate improved water quality.
- Decreased nutrient loading and dissolved oxygen levels within the canal and adjacent waters of the Banana River.
- Project is consistent with the first Goal of the Indian River Lagoon CCMP, which aims to attain and maintain sufficient quality water and sediment to support a healthy estuarine lagoon ecosystem.
- Both the littoral shelf and the stormwater treatment swales would improve water quality.
- The County's Fresh and Storm Water Discharge Action Plan states in FSD-6 that the County should "reduce the impacts of muck on the Indian River Lagoon."

Wetlands:

- Increased flushing that leads to improved water quality will likely afford the capability to help restore lost wetland function and restore pre-existing mangrove fringe.
- "Possible restoration of wetland functionality" is consistent with Comprehensive Plan Conservation Element, Objective 5 (no net loss of wetland function).
- If any activity related to the Project degrades or destroys an existing functional wetland, then the Applicants intend to repair and mitigate such loss as is required by Section 62-3695.

Manatee Protection:

- MPP recommends that access channels be dredged and maintained for the purpose of navigation and manatee mobility, unless it is proven to be detrimental to the public interest.
- MPP outlines the basic habitat for manatees should include a steady and easily obtainable food supply (primarily seagrass), quiet, sheltered areas for resting, breeding and calving, warm waters and the possibility of fresh drinking water.

- Built up siltation and depth limitations preclude manatees from accessing the protected in-shore waters of the canal. Increased usage by manatees by providing protected calving, nursing and loafing areas.
- Contributing to the County's desired goal of allowing for and creating hospitable habitats for manatees.

Seagrass Production and Restoration:

- The improvements to the canal that intend to be accomplished, including but not limited to the removal of underwater blockages, will afford seagrass beds the opportunity to rehabilitate and thrive.
- Improved water quality, increased flow, and increased flushing - additional seagrass beds will create a more conducive environment for shellfish harvesting.
- Improving water quality by removing silt and improving circulation.

Social Benefits

- The Project would provide flood mitigation by assisting in reducing standing flood waters covering surface areas during and after storm events, thus in turn providing relief to local landowners, public roadways, public right of ways, and historic uplands.
- The dredging of the canal would not only increase the cross-sectional flow area of the Pelican Creek but would also reduce the Manning's roughness coefficient "n", both of which would reduce the hydraulic grade in Pelican Creek.
- The Project will allow boat traffic in the canal, as has historically occurred.

Economic Benefits:

- Alleviate the existing strain on the Pelican Creek drainage system by lowering the tailwater conditions for the existing culverts under Old Causeway Road, which would in turn provide added longevity to the existing culverts if the proposed culvert replacement improvements were to be delayed or abandoned.
- Enlarging the cross-sectional area of the canal will allow for increased waterflow rates, which would accommodate Hanson's recommended Pelican Creek culvert upgrades with little to no impacts on surrounding landowners.
- By removing the underwater blockages that currently exist complimented by accessible shoreline habitats, this will allow for increased usage of fisheries and aquatic nurseries.

Hanson Technical Memorandum, Newfound Harbor Drainage Study, March 16, 2021

Study Excerpts:

Study Scope:

> "The purpose of this technical memorandum is to summarize the analysis and recommendations to improve drainage conditions within the study area of Newfound Harbor Drive (NFHD), located in Merritt Island, Florida. Drainage improvement concepts are based on strategies involving introducing/enhancing pipe collection systems to improve surface drainage. The analysis includes stormwater modeling to assess culvert capacity and staging performance for Pelican Creek, which serves as a primary outfall for this region of the island."

Existing Conditions:

> "...During tidal events higher than MHW, many areas likely will experience flooding regardless of any drainage improvements being implemented. Improvements proposed in this study will provide quicker drainage of the flooded area as the tide recedes and resolve trapped/standing water problems caused solely by poor drainage."

Proposed Improvements:

> "Because Pelican Creek is the primary connection to tide for the study area, it is the most critical piece of the proposed improvements. Hanson developed an ICPR4 stormwater model of Pelican Creek between Worley Avenue and Old Causeway Road to investigate the benefits of upsizing the eleven existing cross drains within the segment. **Based on the analysis, the proposed concept includes upsizing of all eleven cross drains to triple barrel 36-inch culverts. (emphasis added)** This will provide immediate benefits to adjacent areas and collection systems that discharge directly into the creek. These improvements can be divided into two phases: improvements to Pelican Creek north of the Banana River Lagoon Outfall and improvements to Pelican Creek south of the Banana River Lagoon Outfall.
>
> "The total proposed culvert replacement improvements provide an average 0.42-foot reduction in the peak stage for the 25-year, 24-hour SJRWMD design storm along the creek. Peak stage reductions provided by the Phase 1 Pelican Creek improvements average 0.27-foot, while the Phase 2 improvements' reductions average 0.19-foot. **Hanson also investigated the added benefit of dredging the canal segments and found that dredging provided only an average additional 0.02-foot stage reduction compared with only upsizing the culverts. Dredging would likely result in additional permitting/wetland impacts as well, so it is not recommended as a drainage improvement to reduce flooding. (emphasis added)** A node link diagram and summary table representing the creek stage

reductions associated with the culvert replacements and creek bed dredging are included on the following page."

Permitting:

"The proposed concepts are anticipated to qualify for either a permit exemption or general permit with SJRWMD as long as wetland impacts are not too high. Wetland impacts were not estimated for the concept alternatives. Early coordination with SJRWMD and DEP to confirm permitting requirements for any concept alternatives being advanced to final design."

Summary:

"Pelican Creek conveyance improvements will lower peak stages throughout the creek which will provide systemic improve reduction for drainage systems that discharge to the creek. The Angel Avenue and Fowler Drive improvements will add needed inlets to the lowest segment of NFHD within the study area. Based on the severity of the existing flooding impacts to residences as well as other factors such as costs and benefits, the projects were prioritized as follows:

Priority	Drainage System	Estimated Cost	Anticipated Benefit
1	Pelican Creek (Phase 1)	$751,610	High
2	Fowler Drive and NFHD	$474,769	High
3	Pelican Creek (Phase 2)	$822,370	High
4	Angel Avenue (Phase 1)	$363,101	Medium
5	Angel Avenue (Phase 2)	$225,243	High
6	Piney Woods Circle	$136,851	Medium
7	Orris Avenue	$174,451	Medium
8	Mili Avenue	$240,118	Low

Staff Discussion:

Study Methodology:

- The analysis includes ICPR4 stormwater modeling to assess culvert capacity and staging performance for Pelican Creek for the mean annual, 10-year, and 25-year 24-hour storms.
- Investigated the benefits of upsizing the 11 existing cross-drains and dredging.
- Two improvement phases for Pelican Creek:

- Phase 1 - Improvements north of the Banana River Lagoon Outfall (Banana River Marina)
- Phase 2 - Improvements south of the Banana River Lagoon Outfall down to Old Causeway Road. The Project Area is located immediately south of Phase 2.

- Multiple ICRP Stormwater scenarios were analyzed using 37 nodes:
  - Phase 1 only, Phase 2 only, culverts only, culverts & dredging, etc.

- The nodes in the Project Area are located on the upstream and downstream sides of the Old Causeway Road culvert (PC10US-EX and PC10DS-EX, respectively). The Indian River Lagoon outfall south of Old Causeway Road is identified as Node IRL-2-EX.

- The Study found that Phase 1 and Phase 2 dredging provided only an average additional 0.02 feet (0.24 inch) stage reduction. The Pelican Creek upstream node would see a 0.04 feet (0.48 inch) stage reduction. Dredging the entire study area has no influence at the downstream nodes (PC10DS-EX and IRL-2-EX).

- **"Hanson also investigated the added benefit of dredging the canal segments and found that dredging provided only an average additional 0.02-foot stage reduction compared with only upsizing the culverts. Dredging would likely result in additional permitting/wetland impacts as well, so it is not recommended as a drainage improvement to reduce flooding."**

The Applicant's Engineering Assessment focused on data analysis for the two nodes in the Project Area (the upstream and downstream sides of the Old Causeway Road culvert). The Applicants' Submittal states that the landowners south of Old Causeway Road will be negatively impacted by culvert upgrades as the peak stage on the south side will increase by 0.08 feet (0.96 inches) due to the increase flow. However, this stage increase would result from modifications to Phase 2 only (Pelican Creek from south of the Banana River Lagoon Outfall), not the entire Study area. Should only Phase 1 be completed, there would be a stage reduction of 0.02 feet (0.24 inches). Should Phase 1 and Phase 2 be completed, there would be a stage increase of 0.03 feet (0.36 inches). The cross-drain upgrades have not been completed and are not included in the Fiscal Year 2024-2025 Capital Improvements Program.

The Applicants' Submittal states that the proposed dredging will mitigate the negative impacts to the landowners south of Old Causeway by enlarging the cross-sectional and reduce the roughness coefficient of the canal, allowing the canal to convey the increased flow rates utilizing a hydraulic gradient equal to or less than the existing condition, thereby accommodating the proposed Pelican Creek culvert upgrades without negatively impacting landowners. Additionally, that the proposed dredging would be a benefit to the Pelican Creek drainage system by lowering the tailwater conditions for the existing culvert under Old Causeway Road. It also highlights the portion of the Study that identifies "Pelican Creek (Phase 2)" as the third of eight priorities, with a "high" anticipated benefit. However, "Pelican Creek (Phase 2)" includes culvert

improvements only and does not include any dredging. The Applicants' Submittal does not provide additional ICPR modeling or in any way quantify or substantiate the potential improvements of the already completed and proposed dredging relevant to flood mitigation.

Staff Conclusion

The dredging of mangrove wetlands and the widening/deepening of a drainage ditch are not consistent with the County's Comprehensive Plan, including the Conservation Element, nor is such activity permissible by Brevard County Code, including Chapter 62, Article X, Divisions 3 (Surface Water Protection) and 4 (Wetland Protection). Therefore, staff requests that the Board finds that the Applicants' Submittal does not meet the definitions of Public Interest or Best Public Interest (as defined in both the Comprehensive Plan and the Brevard County Code), and to deny the PID request.

Board Options

1. Deny PID request. This will allow Brevard County to continue to work with FDEP on its own draft consent order without any prejudice and will enable the County to continue code enforcement action(s) against the Applicants to resolve the documented violations of the Brevard County Code in front of the Brevard County Code Enforcement Special Magistrate.

2. Approve PID as presented by the Applicants.

3. Approve PID for the allowance of maintenance dredging only with appropriate State and Federal permitting. This would require the restoration of any areas that were dredged outside of the historical ditch configuration without approval.

Attachments: Request for a Public Interest Determination (PID) for "Widening Project within Pelican Creek," June 24, 2024 (Includes Hanson Technical Memorandum, Newfound Harbor Drainage Study, March 16, 2021)
Supplemental Engineering Assessment report (SEA), September 6, 2024
SJRWMD, Environmental Resource Permit No. 12-009-0056S, September 10, 1991

LACEY LYONS REZANKA
ATTORNEYS AT LAW

Stephen J. Lacey
Managing Member
Aaron D. Lyons
Managing Member
Kimberly B. Rezanka
Partner
Robyn W. Hattaway
Partner
Ethan B. Babb
Partner
Amanda R. Wilhelm
Associate Attorney
Caitlin A. Lewis
Associate Attorney
Taylor M. Lawson
Associate Attorney

June 24, 2024

Sent via email: Virgina.Barker@brevardfl.gov

Ms. Virginia Barker, Director
Brevard County Natural Resources Management Department
2725 Judge Fran Jamieson Way, Building A
Viera, Florida 32940

Re: Public Interest Determination: Widening Project within Pelican Creek
1865 through 1935 S. Banana River Drive, Merritt Island, Florida 32952
Tax Parcel IDs: 2524354, 2524350, 2535314, 30222327, & 2524353
Clients/Applicants: Aaron Reninger and Roger Xavier

Dear Ms. Barker,

Please accept this letter as a request for a Public Interest Determination (PID) for the above referenced Project. The proposed Project will provide environmental, social and economic benefits to the local community and public at large as defined in Brevard County Code Section 62-3661. The Project seeks to dredge and expand the existing drainage canal most commonly known as Pelican Creek. The canal is located at the southern end of the S. Banana River Drive, south of State Road 520 on Merritt Island. The Project location has the northern boundary beginning at Old Causeway Road running south 900 feet (900'), where Pelican Creek connects to the Banana River Aquatic Preserve. See aerial map enclosed as Exhibit "A".

The Project site serves as the primary drainage feature for the peninsula south of State Road 528 down to Horti Point, and between Newfound Harbor Drive and S. Banana River Drive. The canal takes the runoff from the upstream drainage basin southward to ultimately discharge into the Banana River. Due to increased flooding, Brevard County engaged Hanson Professional Services, Inc. ("Hanson") to conduct a drainage study, present findings and make recommendations for necessary drainage improvements. A Technical Memorandum (Project No.: 18L0216T03) was issued on March 16, 2021, by Hanson incorporating the County's express directives. See Technical Memorandum enclosed as Exhibit "B".

To prepare the necessary documents to submit for permitting for the Project, Bennett Engineering & Consulting has been hired to provide an engineering analysis of the existing conditions of the canal, analyze and evaluate the County's solicited study by Hanson, and provide a professional opinion on the requested Project's goal to dredge the canal to expand the width and depth. The assessment by Clayton Bennett, P.E., of Bennett Engineering & Consulting is enclosed as Exhibit "C". Toland Environmental Consulting (TEC) has also been hired to conduct an analysis of the environmental impacts and consequences of expanding the existing drainage canal; that analysis is enclosed as Exhibit "D".

To achieve the many public benefits of this Project outlined below, pursuant to Code Section 62-3666 (6, 9, and 12) the Applicants are seeking a permissible exception that allows for the widening and/or deepening of an existing canal. This is not a "new navigation canal" as Mr. Renninger has utilized this canal over the last seven (7) year with a variety of motor boats and kayaks. This Project is in the best public interest. Section 62-3661 defines best public interest to mean a project which clearly demonstrates a net benefit to the public, as determined by the Board of County Commissioners, and adequately mitigates adverse environmental impacts.

Below you will find information regarding the Project details, the foreseeable impacts, and an outline of the Project's positive public benefits.

Environmental Benefits:

- Improved Water Quality:
    - Adequate dredging would remove accumulated muck and organic materials that have built up over time in the canal, which would help facilitate improved water quality.
    - The Project will yield decreased nutrient loading and dissolved oxygen levels within the canal and adjacent waters of the Banana River.
    - The potential for improved water quality as a result of this Project is consistent with the first Goal of the Indian River Lagoon (IRL) Comprehensive Conservation and Management Plan, which aims to attain and maintain sufficient quality water and sediment to support a healthy estuarine lagoon ecosystem.
    - Further, the County's Fresh and Storm Water Discharge Action Plan states in FSD-6 that the County should "reduce the impacts of muck on the Indian River

Lagoon". The Project's results would generate this public benefit consistent with the County's IRL goals and objectives.

- Wetlands:
  - Increased flushing that leads to improved water quality will likely afford the capability to help restore lost wetland function and restore pre-existing mangrove fringe.
  - The environmental benefits the public stands to gain from the possible restoration of wetland functionality is consistent with Objective 5 in the County's Comprehensive Plan, which aims to preserve, protect, restore and replace wetlands to achieve a no net loss of function.
  - Further, if any activity related to the Project degrades or destroys an existing functional wetland, then the Applicants intend to repair and mitigate such loss as is required by Section 62-3695 of the County's Code.

- Manatee Protection:
  - The Brevard County Manatee Protection Plan approved by the Brevard County Board of Commissioners in January 2003 states it is recommended that access channels be dredged and maintained for the purpose of navigation and manatee mobility, unless it is proven to be detrimental to the public interest. (*See* Section II "Recommendations", Subsection J "Maintenance Dredging Projects", Pages 31-32)
  - Further, the Manatee Protection Plan outlines the basic habitat for manatees should include a steady and easily obtainable food supply (primarily seagrass), quiet, sheltered areas for resting, breeding and calving, warm waters and the possibility of fresh drinking water. (*See* Section III "Inventory and Analysis", Subsection A(7) "The Florida Manatee – Habitat Requirements", Page 54)
  - Manatees are known to frequent the residential canal basin south of the proposed Project site just adjacent from the Banana River. Due to built up siltation and depth limitations within the Project area, manatees have been precluded from accessing the protected inshore waters of the canal.

- The proposed Project's actions and subsequent benefits as outlined above and in the attached reports will result in a public benefit byway of contributing to the County's desired goal of allowing for and creating hospitable habitats for manatees.

- Seagrass Production and Restoration:
  - The lack of productive seagrass beds in the Banana River has created an environmental challenge for our County. The last productive year for seagrasses in the Project site area was 2009. The improvements to the canal that intend to be accomplished, including but not limited to the removal of underwater blockages, will afford seagrass beds the opportunity to rehabilitate and thrive.
  - The benefit of improved seagrass and other aquatic vegetation is consistent with the County's stated Water Quality/Seagrass Objective 2, Chapter X "Coastal Management Element" of the Comprehensive Plan as well as the objective set forth in the Seagrass Protection, Restoration and Management Action Plan.
  - As a subsequent benefit, with improved water quality, increased flow, and increased flushing, the additional seagrass beds will create a more conducive environment for shellfish harvesting. This resulting benefit would support Objective 3 "Fisheries" as stated in Chapter X "Coastal Management" of the County's Comprehensive Plan. Therefore, dredging would be permissible under Section 62-3668(9)(b) as it would serve the public interest by improving water quality by removing silt and improving circulation in the Projects outlined waterway.

Social Benefits:

- The Project would assist in reducing standing flood waters covering surface areas during and after storm events, thus in turn providing relief to local landowners, public roadways, public right of ways, and historic uplands.
- The Project will allow boat traffic in the canal, as has historically occurred.

Economic Benefits:

- Dredging of the canal south of Old Causeway Road would help alleviate the existing strain on the Pelican Creek drainage system by lowering the tailwater conditions for the existing culverts under Old Causeway Road, which would in turn provide added

longevity to the existing culverts if the proposed culvert replacement improvements were to be delayed or abandoned.

- Enlarging the cross-sectional area of the canal will allow for increased waterflow rates, which would accommodate Hanson's recommended Pelican Creek culvert upgrades with little to no impacts on surrounding landowners.
- By removing the underwater blockages that currently exist complimented by accessible shoreline habitats, this will allow for increased usage of fisheries and aquatic nurseries.

In conclusion, the proposed dredging Project clearly demonstrates a wide range of anticipated public benefits reaching from environmental, economic and social of which will all contribute to the mitigation of adverse environmental impacts. The dredging of the existing canal overall will allow for a higher functioning drainage canal, benefitting not only the residents within the neighboring area, but the public at large while accomplishing environmentally sound results.

The Applicants will work with all necessary federal, state, and local agencies to ensure environmental and land use regulations will be adhered to and all necessary permits obtained.

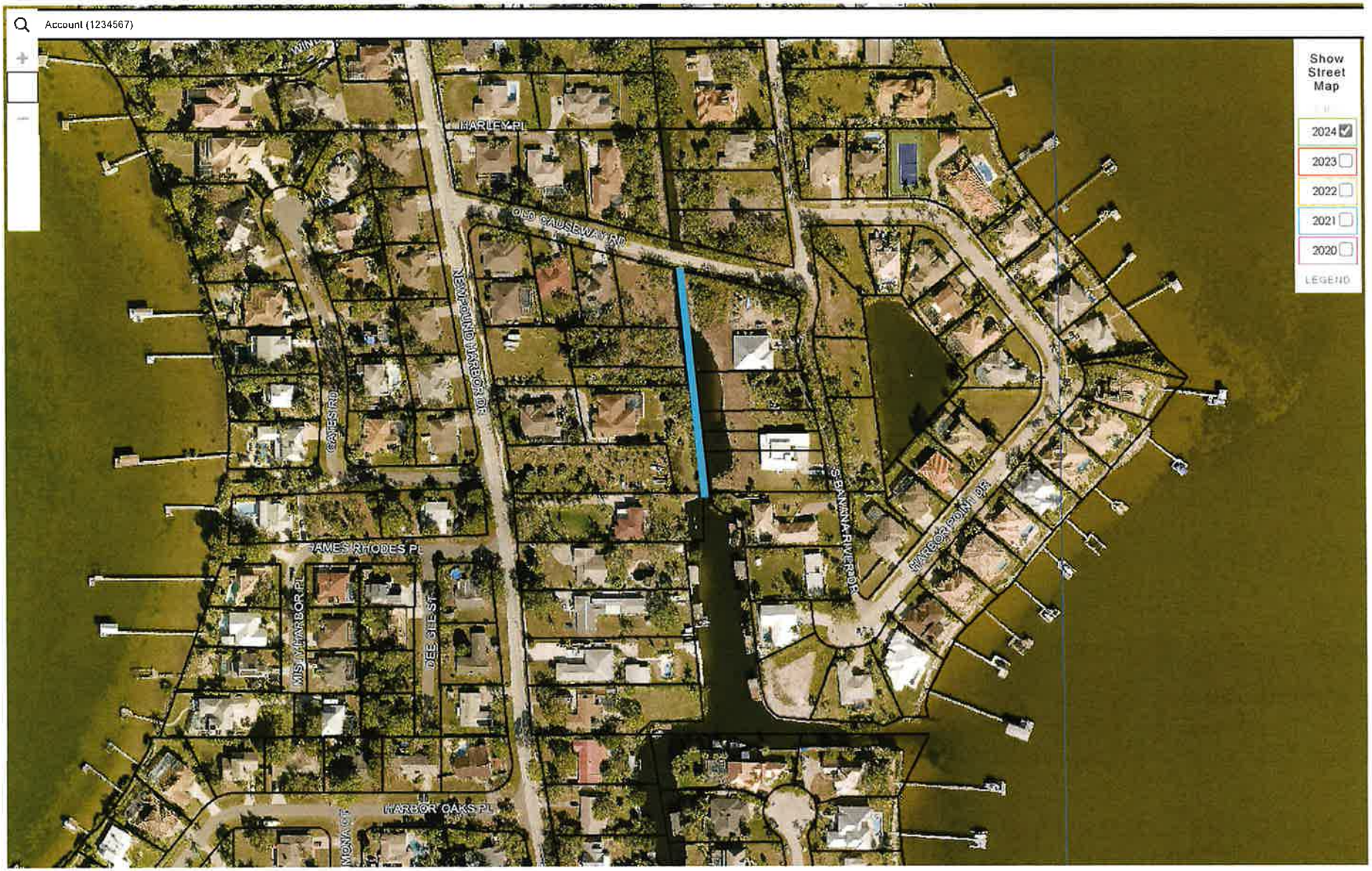
We are requesting this item be scheduled for consideration by the Board of County Commissioners at the soonest opportunity. Should you need any further information or have any questions or concerns, please feel free to contact me at (321) 608-0892 or by email.

Sincerely,

Kim Rezanka

Kimberly Bonder Rezanka

KBR/cal
enclosures
cc: Morris Richardson, County Attorney (via email)
Frank Abbate, County Manager (via email)
Tad Calkins, Growth Management Director (via email)
Darcie McGee, Natural Resources Management (via email)
Clayton Bennett, P.E. (via email)
Lisa Toland (via email)
Clients (via email)



NO DATA FOUND

HANSON
ENGINEERING | PLANNING | ALLIED SERVICES

PH 904-737-0090
HANSON-INC.COM

8075 Gate Parkway West
Jacksonville, FL 32216

TECHNICAL MEMORANDUM

Project: Newfound Harbor Drainage Study

Date: 3/16/2021

Subject: Draft Study Results/Recommendations

Project No.: 18L0216T03

Study Scope

The purpose of this technical memorandum is to summarize the analysis and recommendations to improve drainage conditions within the study area of Newfound Harbor Drive (NFHD), located in Merritt Island, Florida. Drainage improvement concepts are based on strategies involving introducing/enhancing pipe collection systems to improve surface drainage. The analysis includes stormwater modeling to assess culvert capacity and staging performance for Pelican Creek, which serves as a primary outfall for this region of the island.

Data Collection

Hanson has been provided or acquired the following data for use in this study:

1. Angel City Stormwater Quality Masterplan produced by Stormwater Solutions, Inc. dated 09/2012
2. GIS data for the existing stormwater and utility infrastructure
3. Survey data of the existing stormwater infrastructure
4. 2007 LiDAR DEM provided by NOAA Digital Coast download
5. Google Earth Historic Aerial Photographic Documentation
6. NOAA weather data

Study Area

Refer to the figure on the right and Appendix A for a depiction of the project area and basin boundaries for this drainage study. The study area boundary was based off field visits, coordination with the County, and resident complaints.

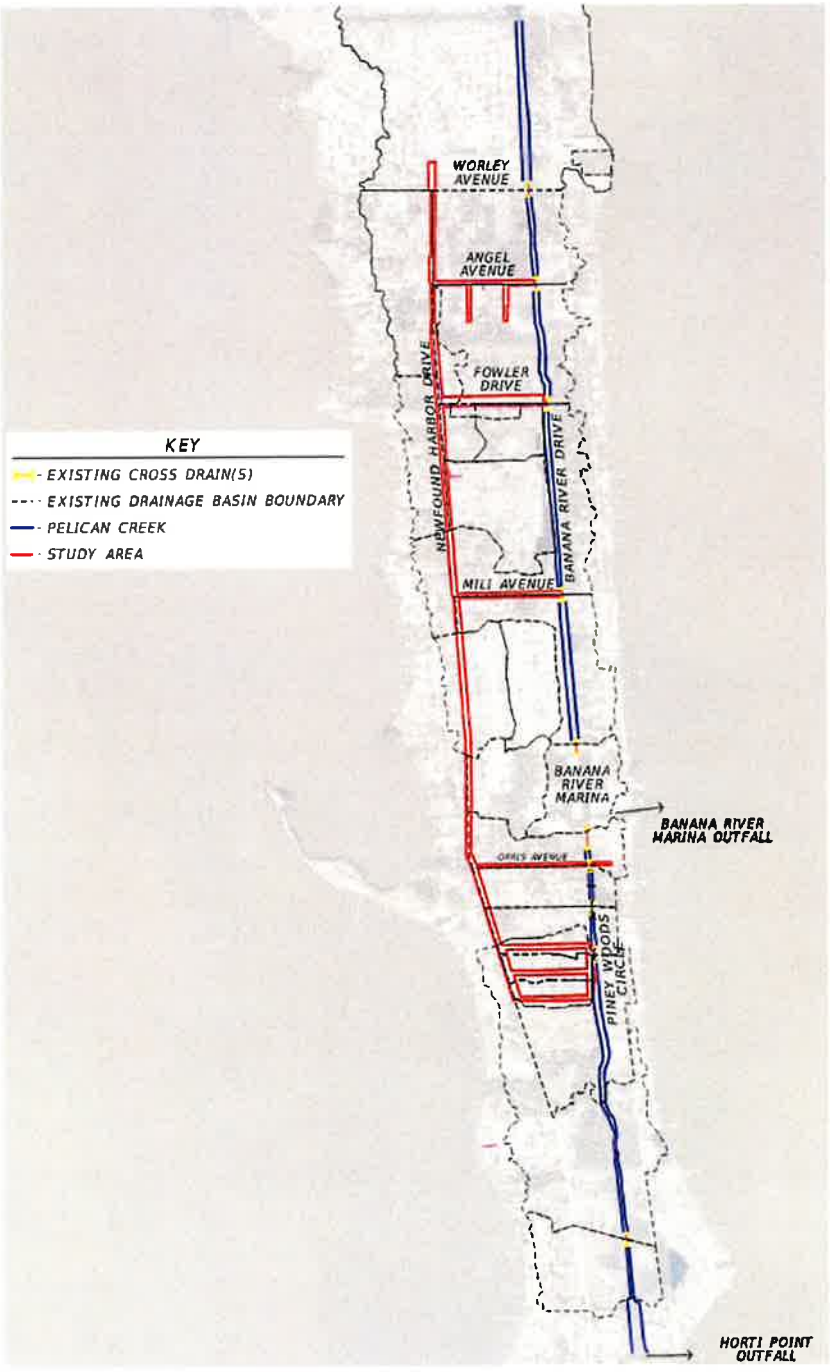


Exhibit "B"

Existing Conditions

Stormwater runoff in the study area generally drains toward Pelican Creek. The creek flows south through several culverts under the crossing roadways. Pelican Creek discharges into the Banana River at the Banana River Marina and Horti Point. LiDAR data along NFHD indicates that it generally drains to a low segment between Angel Avenue and Fowler Drive. NFHD is a flush shoulder roadway with little to no roadside ditch storage. The road does not have a dedicated collection system, but drainage inlets associated with side street collection systems accept flow from NFHD. In general, the study area has few existing drainage systems, with most of the existing systems in newer subdivisions adjacent to the study area. The exceptions are systems along Angel Avenue and Fowler Drive, each of which cover a small segment of NFHD.

Given the area's low elevations, Hanson reviewed the available tide data and found that several of these areas could be impacted regularly due to the creek's normal tide elevations. To illustrate this, the figure at left shows the trouble spots circled in yellow and areas inundated by the mean high tide elevation of 0.75-feet NAVD. Also shown for comparison is the FEMA 100-year base flood elevations, which range from 3 to 4 feet NAVD.

For reference, tide elevations for two large storm events were collected from the NOAA tide station at Port Canaveral (the closest active station). Those events and peak water levels were:

- 10/7/2016 - 5:48AM
  Peak Tide = 2.84' NAVD
  Total Rainfall 5.2" over 6 days

- 9/11/2017 - 3:18AM
  Peak Tide = 5.24' NAVD
  Total Rainfall 12" over 4 days

The tide station is in a location that would see a greater amount of hurricane storm surge than the study area due to its proximity to the coast and lack of any barrier island protection. Therefore, the peak tide elevations at the station are likely 2 to 3 feet higher than those seen at the Angel City peninsula.

These storm event dates were compared to available aerial imagery to identify areas of poor drainage and flooding to support the proposed improvements. Design and analysis of the systems was done for much lower intensity events (mean annual, 10-year, and 25-year-24-hour) and using the mean high-water elevation at the outfall locations.

During tidal events higher than MHW, many areas likely will experience flooding regardless of any drainage improvements being implemented. Improvements proposed in this study will provide quicker drainage of the flooded area as the tide recedes and resolve trapped/standing water problems caused solely by poor drainage.

Proposed Improvement Alternatives

Drainage improvement concepts were developed for the road and creek segments that comprise the study area. A summary of the concepts developed are provided for each segment.

Pelican Creek Segment

Description of Problem

Pelican Creek is the main conveyance for stormwater runoff between NFHD and Banana River Drive beginning at Merritt Island Causeway to Horti Point. Pelican Creek has two discharge locations into the Banana River – the Banana River Marina and Horti Point. Pelican Creek has been assumed, for modeling purposes, to flow north to south. Culvert configuration (sizes and inverts) along Pelican Creek is sporadic and does not reflect a consistent slope north or south. See **Appendix B** for sizes and locations of each existing culvert along Pelican Creek within the study area. Many culverts are suspected to be undersized, failing, or otherwise not functioning properly, causing overtopping of roads and high-water conditions upstream.

Proposed Improvements

Because Pelican Creek is the primary connection to tide for the study area, it is the most critical piece of the proposed improvements. Hanson developed an ICPR4 stormwater model of Pelican Creek Between Worley Avenue and Old Causeway Road to investigate the benefits of upsizing the eleven existing cross drains within the segment. Based on the analysis, the proposed concept includes upsizing of all eleven cross drains to triple barrel 36-inch culverts. This will provide immediate benefits to adjacent areas and collection systems that discharge directly into the creek. These improvements can be divided into two phases: improvements to Pelican Creek north of the Banana River Lagoon Outfall and improvements to Pelican Creek south of the Banana River Lagoon Outfall. Old Causeway Road part of Phase 2

The total proposed culvert replacement improvements provide an average 0.42-foot reduction in the peak stage for the 25-year, 24-hour SJRWMD design storm along the creek. Peak stage reductions provided by the Phase 1 Pelican Creek improvements average 0.27-foot, while the Phase 2 improvements' reductions average 0.19-foot. Hanson also investigated the added benefit of dredging the canal segments and found that dredging provided only an average additional 0.02-foot stage reduction compared with only upsizing the culverts. Dredging would likely result in additional permitting/wetland impacts as well, so it is not recommended as a drainage improvement to reduce flooding. A node link diagram and summary table representing the creek stage reductions associated with the culvert replacements and creek bed dredging are included on the following page.

Appendix B provides a more detailed plan view of the proposed improvements. Construction and engineering for are estimated to cost $751,610 for the Phase 1 improvements and $822,370 for the Phase 2 improvements. The Phase 1 Pelican Creek improvements provide a greater reduction in peak flood stages along the creek at a lower estimated cost so is recommended at a higher priority than the Phase 2 improvements. **Appendix C** provides an opinion of probable cost in 2021 dollars for these conceptual improvements based on FDOT Statewide Historical Cost data.

ICPR Stormwater Analysis Summary

Node Name	Storm Event	Pelican Creek Phase 1 Max Stage (ft)	Pelican Creek Phase 2 Max Stage (ft)	Only Proposed Culverts Max Stage (ft)	Proposed Culverts & Dredging Max Stage (ft)	Existing Max Stage (ft)	Culverts & Dredging vs Only Proposed Culverts Stage Change (ft)	Phase 1 vs Existing Stage Change	Phase 2 vs Existing Stage Change	Phases 1 & 2 vs Existing Stage Change (ft)
BR-1-EX	WMD25y24h	0.75	0.75	0.75	0.75	0.75	0.00	0.00	0.00	0.00
Fowler-01-EX	WMD25y24h	2.72	2.72	2.72	2.72	2.72	0.00	0.00	0.00	0.00
Fowler-02-EX	WMD25y24h	2.72	2.72	2.72	2.72	2.72	0.00	0.00	0.00	0.00
Fowler-03-EX	WMD25y24h	2.72	2.72	2.72	2.72	2.72	0.00	0.00	0.00	0.00
Fowler-04-EX	WMD25y24h	2.71	2.72	2.71	2.71	2.72	0.00	-0.01	0.00	-0.01
Fowler-05-EX	WMD25y24h	2.70	2.70	2.70	2.70	2.70	0.00	0.00	0.00	0.00
Fowler-06-EX	WMD25y24h	2.58	2.58	2.58	2.58	2.58	0.00	0.00	0.00	0.00
HarborPines-EX	WMD25y24h	1.92	2.55	1.92	1.93	2.56	0.01	-0.64	-0.01	-0.64
IRL-2-EX	WMD25y24h	0.75	0.75	0.75	0.75	0.75	0.00	0.00	0.00	0.00
MarinaOS-EX	WMD25y24h	2.12	2.12	2.12	2.12	2.12	0.00	0.00	0.00	0.00
Missileview-EX	WMD25y24h	1.52	1.24	1.22	1.17	1.56	-0.05	-0.04	-0.32	-0.34
Monterey-EX	WMD25y24h	1.52	1.24	1.23	1.17	1.57	-0.06	-0.05	-0.33	-0.34
Monticello-EX	WMD25y24h	1.52	1.24	1.23	1.17	1.57	-0.06	-0.05	-0.33	-0.34
PC-10DS-EX	WMD25y24h	0.78	0.88	0.83	0.83	0.80	0.00	-0.02	0.08	0.03
PC-10US-EX	WMD25y24h	1.52	1.22	1.20	1.16	1.57	-0.04	-0.05	-0.35	-0.37
PC-1DS-EX	WMD25y24h	2.45	2.75	2.45	2.44	2.75	-0.01	-0.30	0.00	-0.30
PC-1US-EX	WMD25y24h	2.52	2.75	2.52	2.52	2.75	0.00	-0.23	0.00	-0.23
PC-2DS-EX	WMD25y24h	2.39	2.73	2.39	2.37	2.74	-0.02	-0.35	-0.01	-0.35
PC-2US-EX	WMD25y24h	2.44	2.74	2.44	2.43	2.75	-0.01	-0.31	-0.01	-0.31
PC-3DS-EX	WMD25y24h	1.85	2.56	1.86	1.85	2.57	-0.01	-0.72	-0.01	-0.71
PC-3US-EX	WMD25y24h	2.37	2.72	2.38	2.37	2.73	-0.01	-0.36	-0.01	-0.35
PC-4DS-EX	WMD25y24h	1.77	2.54	1.78	1.81	2.54	0.03	-0.77	0.00	-0.76
PC-4US-EX	WMD25y24h	1.81	2.54	1.82	1.84	2.55	0.02	-0.74	-0.01	-0.73
PC-5US-EX	WMD25y24h	1.75	2.53	1.75	1.80	2.54	0.05	-0.79	-0.01	-0.79
PC-6DS-EX	WMD25y24h	1.35	0.94	0.94	0.94	1.48	0.00	-0.13	-0.54	-0.54
PC-7DS-EX	WMD25y24h	1.44	1.22	1.21	1.15	1.54	-0.06	-0.10	-0.32	-0.33
PC-7US-EX	WMD25y24h	1.35	0.94	0.94	0.94	1.48	0.00	-0.13	-0.54	-0.54
PC-8DS-EX	WMD25y24h	1.52	1.23	1.22	1.16	1.56	-0.06	-0.04	-0.33	-0.34
PC-8US-EX	WMD25y24h	1.44	1.22	1.21	1.15	1.54	-0.06	-0.10	-0.32	-0.33
PC-9DS-EX	WMD25y24h	1.52	1.23	1.22	1.16	1.57	-0.06	-0.05	-0.34	-0.35
PC-9US-EX	WMD25y24h	1.52	1.23	1.22	1.16	1.56	-0.06	-0.04	-0.33	-0.34
PC-XS-EX	WMD25y24h	1.52	1.24	1.22	1.16	1.57	-0.06	-0.05	-0.33	-0.35
PC-XS2-EX	WMD25y24h	1.52	1.24	1.22	1.16	1.57	-0.06	-0.05	-0.33	-0.35
PO-1-EX	WMD25y24h	1.82	2.55	1.83	1.85	2.56	0.02	-0.74	-0.01	-0.73
PO-2-EX	WMD25y24h	1.76	2.53	1.76	1.81	2.54	0.05	-0.78	-0.01	-0.78
SanJuan01-EX	WMD25y24h	4.85	4.87	4.85	4.85	4.87	0.00	-0.02	0.00	-0.02
SanJuan02-EX	WMD25y24h	4.39	4.48	4.39	4.40	4.48	0.01	-0.09	0.00	-0.09
					Average along Pelican Creek		-0.02	-0.27	-0.19	-0.42

Permitting

The proposed concepts are anticipated to qualify for either a permit exemption or general permit with SJRWMD as long as wetland impacts are not too high. Wetland impacts were not estimated for the concept alternatives. Early coordination with SJRWMD and DEP to confirm permitting requirements for any concept alternatives being advanced to final design.

Summary

Pelican Creek conveyance improvements will lower peak stages throughout the creek which will provide systemic improve reduction for drainage systems that discharge to the creek. The Angel Avenue and Fowler Drive improvements will add needed inlets to the lowest segment of NFHD within the study area. Based on the severity of the existing flooding impacts to residences as well as other factors such as costs and benefits, the projects were prioritized as follows:

Priority	Drainage System	Estimated Cost	Anticipated Benefit
1	Pelican Creek (Phase 1)	$751,610	High
2	Fowler Drive and NFHD	$474,769	High
3	Pelican Creek (Phase 2)	$822,370	High
4	Angel Avenue (Phase 1)	$363,101	Medium
5	Angel Avenue (Phase 2)	$225,243	High
6	Piney Woods Circle	$136,851	Medium
7	Orris Avenue	$174,451	Medium
8	Mili Avenue	$240,118	Low

Topographic survey and control maps or boundary survey are recommended for selected alternatives that the concepts and cost estimates can be refined. GIS parcel lines from the property appraiser's website were reviewed and considered during concept development. Boundary survey would allow confirmation of R/W impacts or easement needs related to the concepts. Based on boundary information, the concepts may be able to be modified to avoid/minimize R/W & easement requirements.

Attachments

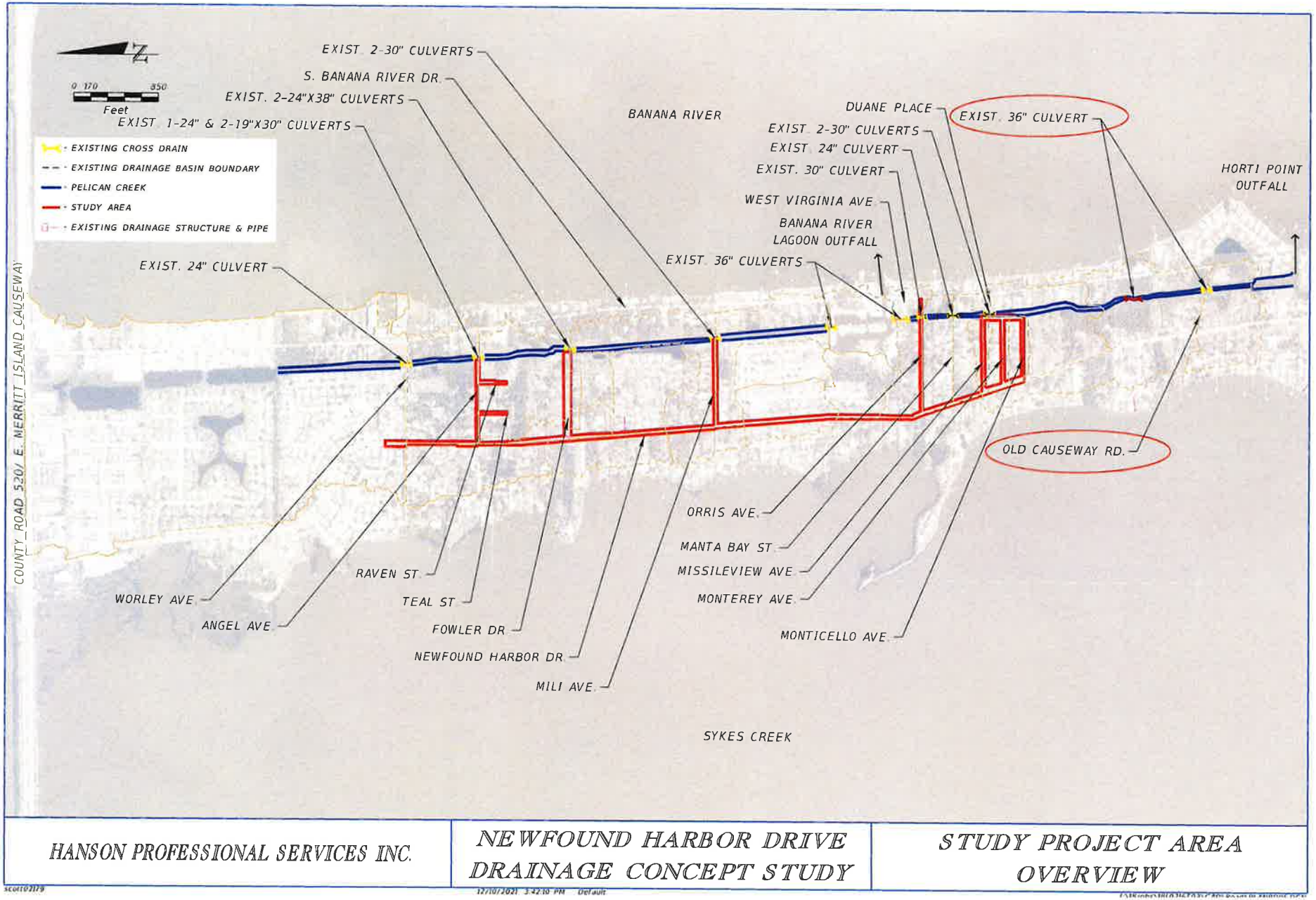
Appendix A: Study Project Area Overview

Appendix B: Concept Layouts

Appendix C: Engineer's Cost Estimates

APPENDIX A:

STUDY PROJECT AREA OVERVIEW



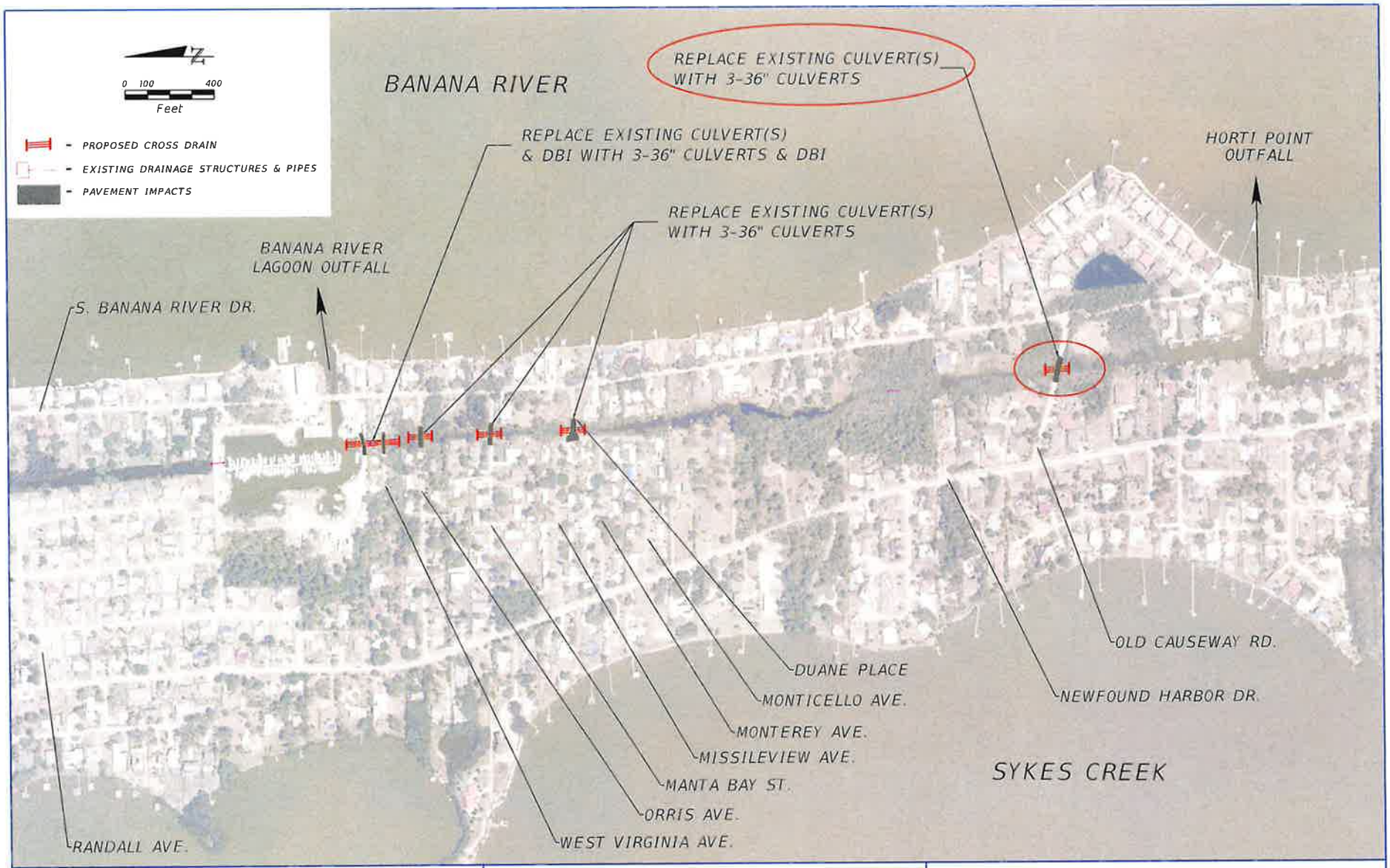
HANSON PROFESSIONAL SERVICES INC.	NEWFOUND HARBOR DRIVE DRAINAGE CONCEPT STUDY	STUDY PROJECT AREA OVERVIEW

scott0179

12/10/2021 3:42:10 PM Default

APPENDIX B:

CONCEPT EXHIBITS



HANSON PROFESSIONAL SERVICES INC.	NEWFOUND HARBOR DRIVE DRAINAGE CONCEPT STUDY	PELICAN CREEK (PHASE 2)

APPENDIX C:

ENGINEER'S COST ESTIMATE

Engineer's Cost Estimate
Brevard County Public Works
Newfound Harbor Drainage Study
System: Pelican Creek (Phase 2)

ITEM NO.	ITEM DESCRIPTION	QTY	UNIT	UNIT COST FDOT 12 MO AREA 8	UNIT COST FDOT 6 MO STATEWIDE	UNIT COST FDOT 12 MO STATEWIDE	UNIT COST	TOTAL COST
104-10-3	SEDIMENT BARRIER	1,400	LF	$1.86	$1.74	$1.80	$1.86	$2,604.00
104-11	FLOATING TURBIDITY BARRIER	800	LF	$6.34	$10.57	$10.08	$10.57	$8,456.00
110-1-1	CLEARING & GRUBBING	0.5	AC	$27,852.42	$16,410.92	$18,529.72	$27,852.42	$13,926.21
160-4	TYPE B STABILIZATION	1500	SY	$6.77	$5.37	$5.11	$6.77	$10,155.00
285-706	OPTIONAL BASE, BASE GROUP 06	1500	SY	$15.56	$15.90	$15.77	$15.90	$23,850.00
334-1-11	SUPERPAVE ASPHALTIC CONC, TRAFFIC A	130	TN	$105.38	$114.61	$115.16	$115.16	$14,970.80
430-175-136	PIPE CULVERT, OPT MATERIAL, ROUND, 36"S/CD	850	LF	$199.46	$215.16	$181.82	$215.16	$182,886.00
430-536-300	STRAIGHT CONCRETE ENDWALLS, 36", TRIPLE, 0 DEGREES, ROUND	10	EA	$16,701.99	$11,529.99	$17,307.39	$17,307.39	$173,073.90
425-1-521	INLETS, DT BOT, TYPE C,<10'	1	EA	$4,378.26	$4,203.58	$4,178.36	$4,378.26	$4,378.26
570-1-2	PERFORMANCE TURF, SOD	600	SY	$3.02	$3.29	$2.84	$3.29	$1,974.00
SUBTOTAL FOR BASE BID ITEMS								$436,270
101-1	MOBILIZATION (15%)	1	LS				$65,440.50	$65,440
102-1	MAINTENANCE OF TRAFFIC (10%)	1	LS				$43,627.00	$43,630
	CONTINGENCY (20%)	1	LS				$87,254.00	$87,250
SUBTOTAL FOR CONSTRUCTION COSTS								$632,590
	ENGINEERING AND CEI (30%)	1	LS				$189,777.00	$189,780
TOTAL FOR BASE BID ITEMS								$822,370

Note: Cost for existing utilities relocation not included.
Note: Brevard County Official Land Development Exhibits 1 and 3 used for paving details.
Note: Mobilization and maintenance of traffic is estimated to be higher due to the multiple site locations for these improvments.

Bennett Engineering & Consulting
Clayton Bennett, PE ~ Managing Member
4940 Ranchland Road Melbourne, FL 32934
Phone/Fax (321) 622-4462

April 9, 2024

Ms. Kimberly B. Rezanka
6013 Farcenda, PL, Suite 101
Melbourne, FL 32940

Re: 1865 & 1935 S. Banana River Drive, Merritt Island
Engineering Assessment
BEC No. 23.420

Dear Ms. Rezanka:

The following is a preliminary summary of the Bennett Engineering & Consulting, LLC analysis of the dredging of the existing drainage canal south of Old Causeway Road. The said drainage canal is known as Pelican Creek.

Pelican Creek serves as a primary drainage feature for most of the peninsula south of SR 528 to Horti Point, and between Newfound Harbor Drive and South Banana River Drive. The area has experienced flooding and Brevard County retained Hanson to perform a drainage study and make appropriate drainage improvement recommendations. Hanson issued a Technical Memorandum (project no. 18L0216T03) dated March 16, 2021, summarizing the findings and recommendations of the study. A copy of the said technical memorandum is provided as Exhibit "A".

In the technical memorandum, Hanson acknowledged that resident complaints were one consideration in establishing the project study area boundaries. Furthermore, Hanson noted that "*Because Pelican Creek is the primary connection to tide for the study area, it is the most critical piece of the proposed improvements.*"

The study found that the existing peak stage for Pelican Creek between Duane Place and Old Causeway Road for the 25-year/24-hour storm event to be 1.57-feet. The stormwater runoff from the said area of Pelican Creek then drains both north and south to discharge to tidal waters. By upgrading all the culverts within Pelican Creek to triple 36" diameter pipes, the peak stage within Pelican Creek between Duane Place and Old Causeway Road will be lowered from 1.57-feet down to approximately 1.2-feet, a reduction of almost 4.5-inches. A 4.5-inch reduction in the flood stage over very flat lands can have a significant reduction in the surface area covered by flood waters during a storm event, thus providing a benefit to many landowners as well as the public with lower flood waters within the public rights-of-way.

A concern with following the recommendation of Hanson to simply upgrade all the Pelican Creek culverts with triple 36-inch pipes is that the increased conveyance

Exhibit "C"

capacity of the new culverts could negatively affect downstream properties. For instance, the Pelican Creek peak stages at the south side of Old Causeway Road increases from 0.80-feet to 0.88-feet, if only the Phase 2 improvements are constructed. The said increase flood stage occurs because the flow rate within Pelican Creek south of Old Causeway Road has increased, which requires a steeper hydraulic gradient within Pelican Creek to handle the increase flow. Thus, under the said circumstances, while the landowners north of Old Causeway Road will benefit from the upgraded culverts, the landowners south of Old Causeway Road will be negatively impacted.

A means to mitigate the negative impacts to the landowners south of Old Causeway Road is to improve the conveyance system from Old Causeway Road south to tidal waters by dredging the existing canal. The dredging of the canal would both enlarge the canal cross-sectional area as well as reduce the roughness coefficient of the canal, thereby allowing the canal to convey the increased flow rates utilizing a hydraulic gradient equal to or less than the existing condition, thereby accommodating the proposed Pelican Creek culvert upgrades without negatively impacting landowners. Even if Brevard County does not move forward with implementing the culvert improvements proposed by Hanson, the dredging of the canal south of Old Causeway Road would still be a benefit to the Pelican Creek drainage system by lowering the tailwater conditions for the existing culvert under Old Causeway Road.

Not only would dredging the canal to an adequate width and depth address the negative impacts associated with the increased predicted flood stages determined by Hanson but would also remove the accumulation of muck and organic materials that have built up in the canal over time and which is a source of poor water quality.

In 1991, SJRWMD issued a permit number 12-009-0056S for the excavation of 10,800 cubic yards of material and placement of 2,400 cubic yards of fill material in waters of the state for the expansion of an existing residential canal, maintenance dredging of the entrance channel and the realignment of a roadway associated with the construction of the Harbor Point Subdivision. A copy of the said SJRWMD is enclosed as Exhibit "B".

The approved SJRWMD project included design elements such as rear lot water quality swales to collect and treat stormwater runoff from abutting residential lot before discharging into the canal, and a littoral shelf with wetland plantings that ran along the shoreline of the expanded residential canal. The said design elements could be incorporated into the proposed project to help bring the project into compliance with regulatory agencies.

Should you have any questions or need additional information, please contact me directly.

Bennett Engineering & Consulting, LLC.
Digitally signed by Clayton A Bennett
Date: 2024.04.09 14:31:37 -04'00'
Clayton A. Bennett, P.E.
Managing Member

April 11, 2024

Kimberly Rezanka, Partner
Lacey, Lyons & Rezanka
6013 Farcenda Place
Suite 101
Melbourne, FL 32940

RE: Analysis of the Net Environmental Benefit
Widening Project within Pelican Creek
1865 through 1935 S. Banana River Drive
Merritt Island, Florida 32952
Tax ID: 2524354, 2524350, 2535314, 3022327 & 2524353

Dear Ms. Rezanka:

The following is a summary of Toland Environmental Consulting's (TEC) analysis of the environmental consequences of expanding an existing drainage canal, known locally as Pelican Creek, which is connected to the Banana River Aquatic Preserve.

The project site is located at the southern end of South Banana River Drive, south of State Road 520 on Merritt Island, where, at the project location, a 900-foot section of a Pelican Creek connects to the Banana River Aquatic Preserve (Figure 1). The northern limit of this section of the Creek is Old Causeway Road (Figure 1). Pelican Creek serves as the primary drainage feature for the Newfound Harbor peninsula taking runoff from the upstream drainage basin and discharging it into the Banana River. A review of aerial imagery at the intersection of Old Causeway Road and the Creek reveals that the Creek was created prior to 1943 in what appears to have been upland Pine Flatwoods and Dry prairie habitats (Figures 2 & 3).

A review of historical permitting records maintained by the St. Johns River Water Management District (SJRWMD) (ERP # 33131-2, Legacy # 12-009-0056AS) indicates that in 1991, Pelican Creek was approximately twenty-five feet wide and two to three feet deep. Aerial imagery taken between January and February 2024 for the Brevard County Property Appraiser's Office indicates that the width of the canal remains approximately twenty-five feet.

Photograph 1: Brevard County Property Appraiser Eagle View of Project Area Following Hurricane Irma (09.15.2017)

Over time, fringing wetland communities were established on the historical upland shorelines adjacent to the Creek through the natural recruitment of a mixture of mangroves, native salt marsh vegetation, and exotic Brazilian pepper trees. Wetlands were created through the elevation of the groundwater table by the standing stormwater runoff in the undersized regional drainage feature and through the overflow of the undersized Creek onto adjacent uplands during large storm events (Photograph 1).

Figure 1: Regional Location Map

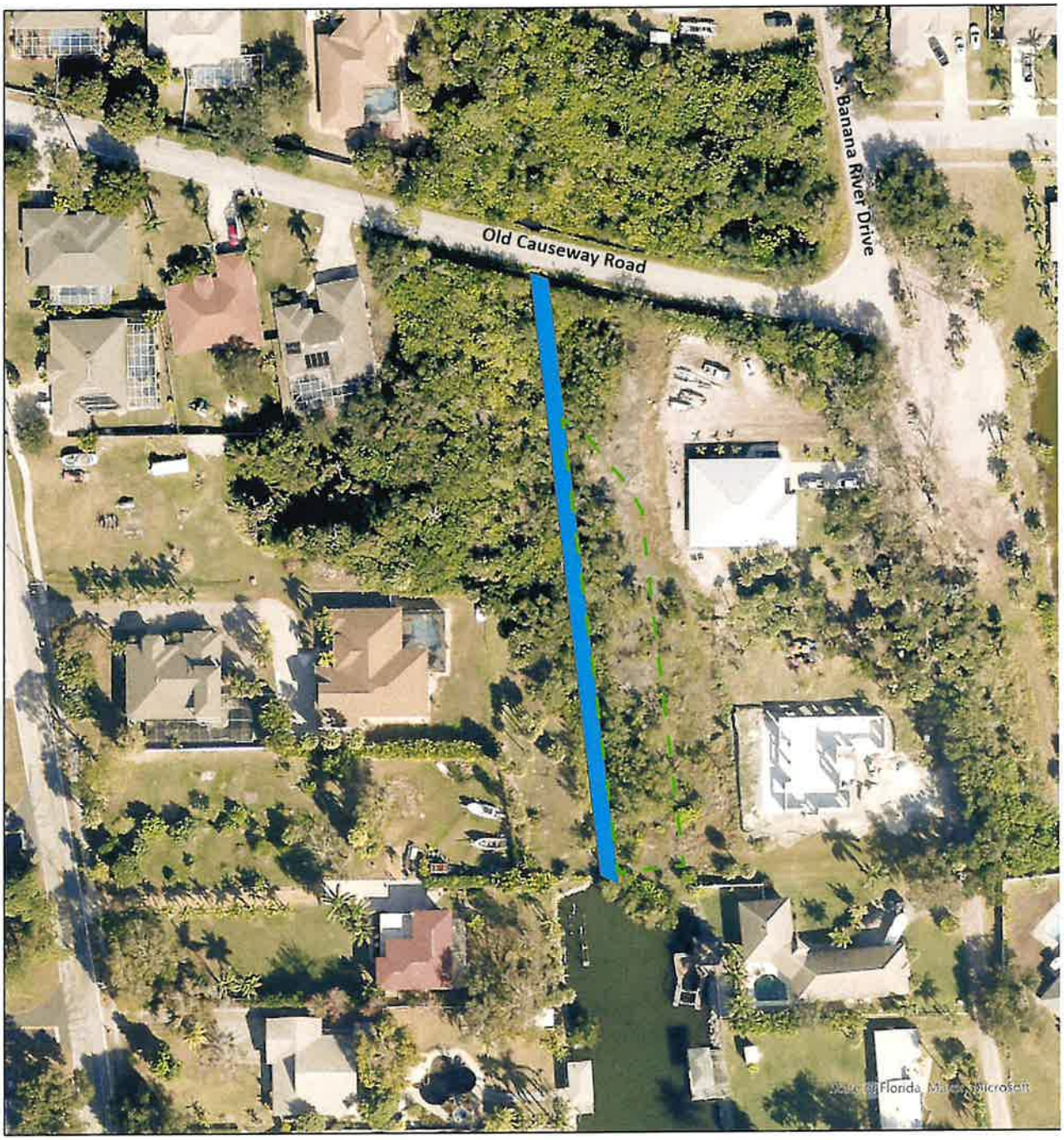


Figure prepared by TEC using 2021 FDOT Aerial Imagery

Figure 2: 1943 UF Aerial Image of Site

Figure 3: 1951 UF Aerial Image of Site

At peak stages, the Newfound Harbor area experiences significant flooding over large areas due to the relatively flat terrain in the area with floodwaters overflowing into public rights-of-way and historic upland areas (Photograph 2). Flooding is exacerbated at the project location as the project area is the southernmost point of the unaltered Creek that runs north/south through the Newfound Harbor peninsula before it discharges into a previously widened residential Class III canal directly connecting to the Banana River (Photograph 1). Hence, the project area receives significant volumes of upstream stormwater runoff while being limited to discharge this flow into the wider residential canal due to sedimentation and other factors. A full discussion of flooding issues withing this section of Pelican Creek is presented in an engineering analysis prepared by Bennett Engineering dated April 9, 2024. This bottleneck to stormwater flow makes the project area more susceptible to flooding during storm events, and more susceptible to expansion of shoreline wetlands over time as stormwater volumes increase with increasing development. The impact of the cumulative effects of this bottleneck is readily seen in photograph one, where flood elevations stage just beyond the width of the widened residential canal to the south (Photograph 1).

Photograph 2:
Localized Flooding

Based upon SJRWMD's project review files and data produced by the Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute, manatees are known to frequent the residential canal basin immediately south of the project site and the adjacent waters of the Banana River. However, depth limitations within this section of the project area caused by siltation preclude manatees from using these protected inshore waters adjacent to the project site. A stated goal of the Brevard County Manatee Protection plan is to improve water quality within canals to provide additional quiet habitat-sheltered from wind and weather so that manatees can calve and rest.

Tidal effects in this part of the lagoon system are negligible, and water levels vary primarily in response to wind-induced water level changes and stormwater input from the upstream drainage basin. Sediment accumulation further limits water exchange between the project site and Banana River. The absence of tidal influence and flow restrictions precludes periodic flushing of the existing drainage canal basin. Poor flushing results in poor water quality within the drainage canal and adjacent waters of the Banana River through increased nutrient loading and decreased dissolved oxygen (D.O.) levels. Localized fishkills following summer storm events were noted in the project review files of the SJRWMD (ERP # 33131-2).

Poor water quality is evidenced by fishkills, the lack of productive seagrass beds in this reach of the Banana River, and a reduction in productive shellfish harvesting. TEC reviewed seagrass maps prepared by the SJRWMD from 2007 to the present. 2009 was the last productive year for seagrasses in this reach of the Banana River when seagrass coverage was patchy along the shoreline and increased to continuous in offshore areas (Figure 4). 2009 was also the last year that the Shellfish Environmental Assessment Section of the Division of Aquaculture within the Florida Department of Agriculture & Consumer Services updated the environmental evaluation for this section of the Banana River and classified the area for shellfish harvesting (Figure 5). The waters at the intersection of the drainage canal/residential canal to the waters of the Banana River and immediately south were classified in 2009 as conditionally restricted and prohibited, respectively (Figure 5). To ensure consumer safety, conditionally restricted shellfish harvesting areas have background pollution levels that require temporary closures following further pollutant loading after storm events or may require additional purification of the harvested shellfish in clean water before consumers' sale or ingestion. Prohibited shellfish harvesting areas have background pollution levels that forbid the sale or indigestion of shellfish harvested from the area, even with purification, as product safety cannot be ensured (Figure 6). Following a series of super blooms of harmful algae, by 2013, all seagrasses were gone (Figure 7). Although other reaches of the lagoon have shown improvements in seagrass coverage, this area of the Banana River has failed to recover as of the 2021 seagrass survey (Figure 8).

Figure 4: SJRWMD 2009 Seagrass Coverage Map

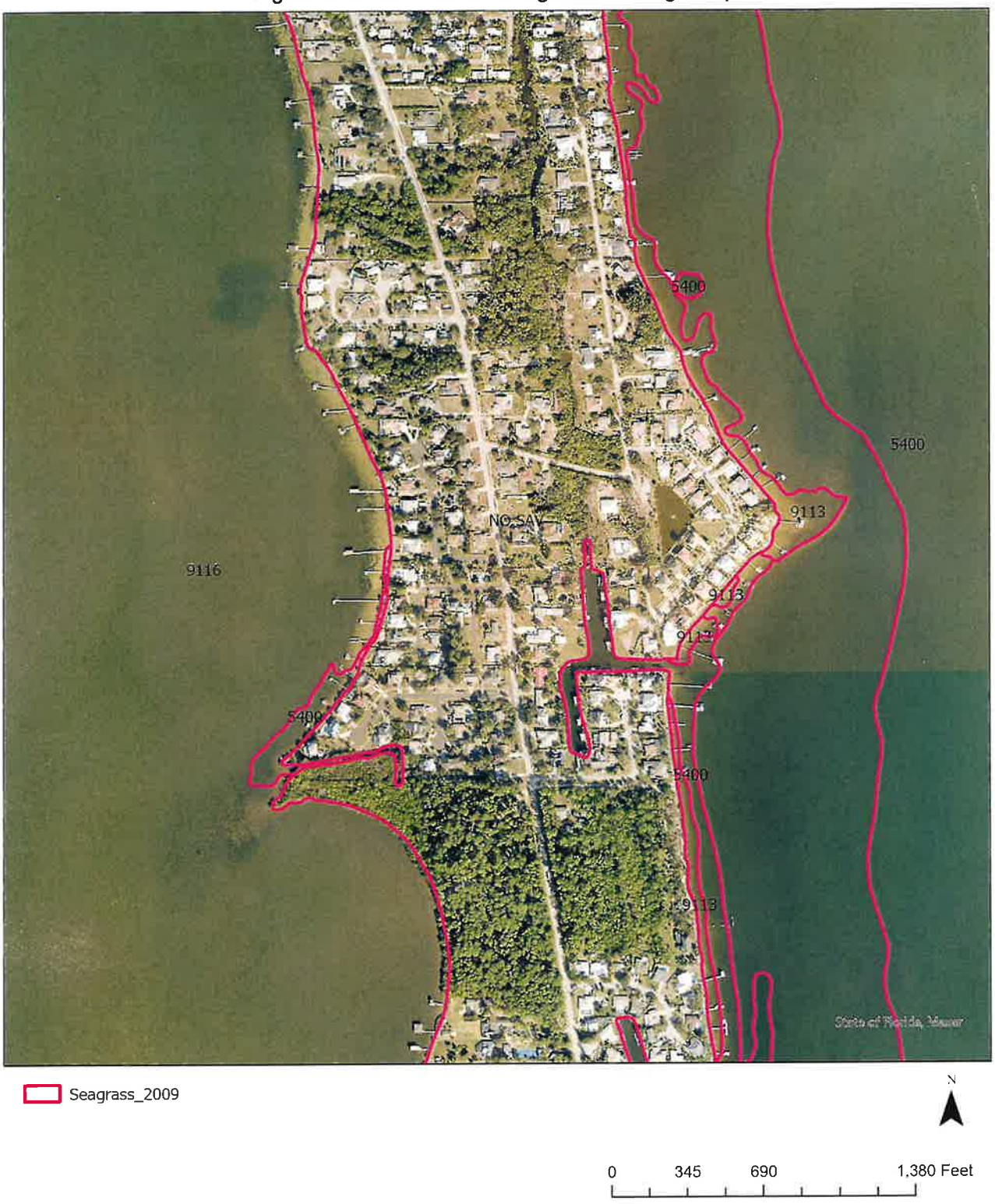


Figure prepared by TEC using 2021 FDOT Aerial Imagery

Figure 5: Florida Division of Aquaculture Shellfish Harvesting Map

SHELLFISH HARVESTING CLASSIFICATION AREA MAP #79 (Effective: December 28, 2009)
South Banana River (#79) Shellfish Harvesting Area in Brevard County Current status of this area

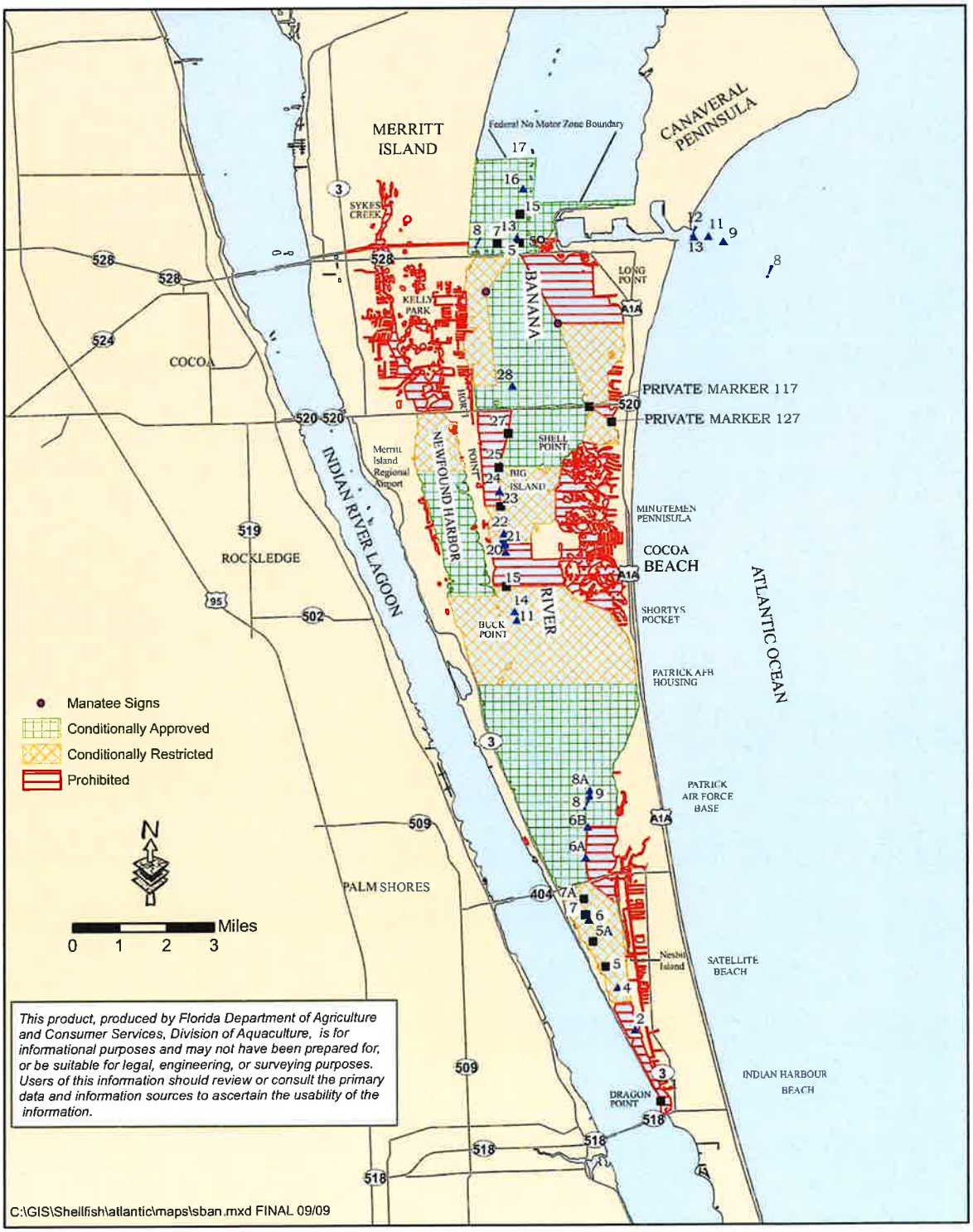


Figure 6: SJRWMD 2013 Seagrass Coverage Map

Figure prepared by TEC using 2021 FDOT Aerial Imagery

Figure 7: SJRWMD 2021 Seagrass Coverage Map

Figure prepared by TEC using 2021 FDOT Aerial Imagery

Overall, before any alterations, the upland-cut drainage canal at the project site provided minimal value to aquatic species, fisheries, and aquatic environments due to poor water exchange and water quality. Pelican Creek's primary ecological value is in the man-made fringe wetlands created through the channelization of regional stormwater runoff.

Improvements to local water quality through increased basin turnover, along with the ability to restore wetland functions previously created by manmade activities, were the basis for the SJRWMD and the ACOE to issue permits to expand 900-feet of Pelican Creek within the project area to align with the existing width and depth of the existing residential canal immediately to the south (1991 ERP #333131-2). Similarly, the applicant believes that removing existing siltation, increasing the water depth, increasing the creek width, aligning Pelican Creek with the residential canal, replacing any lost wetland function, and replacing the pre-existing mangrove fringe will increase wind-driven turnover, increase DO, decrease nutrient loading, decrease local flooding during large storm events, increase usage by fisheries by removing underwater blockages and providing accessible shoreline habitat for aquatic nursery and fisheries functions, and increasing usage by manatees by providing protected calving, nursing and loafing areas.

The applicant will obtain all necessary approvals from federal, state, and local agencies to ensure that all environmental and land use regulations are followed. These permits will require the applicant to demonstrate that the above-mentioned water quality improvement will occur post-development and that whatever wetland function is lost during construction will be replaced with similar wetland function within the same watershed basin.

Given the poor water quality in the area, evidenced by the lack of seagrasses and productive shellfish harvesting areas, the expansion of the drainage ditch, as originally permitted to match the existing residential canal to the south, will provide a net environmental benefit to the local area.

If you have any questions or require additional information about this environmental analysis, please call my office at 321-242-7173 or e-mail me teclisa@cfl.rr.com

Sincerely,

Lisa J. Toland

Lisa Toland, President

Bennett Engineering & Consulting
Clayton Bennett, PE ~ Managing Member
4940 Ranchland Road Melbourne, FL 32934
Phone/Fax (321) 622-4462

September 6, 2024

Ms. Kimberly B. Rezanka
6013 Farcenda, PL, Suite 101
Melbourne, FL 32940

Re: 1865 & 1935 S. Banana River Drive, Merritt Island
Engineering Assessment
BEC No. 23.420

Dear Ms. Rezanka:

As requested, we prepared a plan view sketch showing the limits for the dredging, littoral shelf, and stormwater treatment swale. Furthermore, using the best available data for Pelican Creek, the cross-sections prepared by Fleis Associates and submitted as part of the 1991, SJRWMD permit number 12-009-0056S were "redlined" to show the revised improvements.

The dredging of the canal would not only increase the cross-sectional flow area of the Pelican Creek but would also reduce the Manning's roughness coefficient "n", both of which would reduce the hydraulic grade in Pelican Creek.

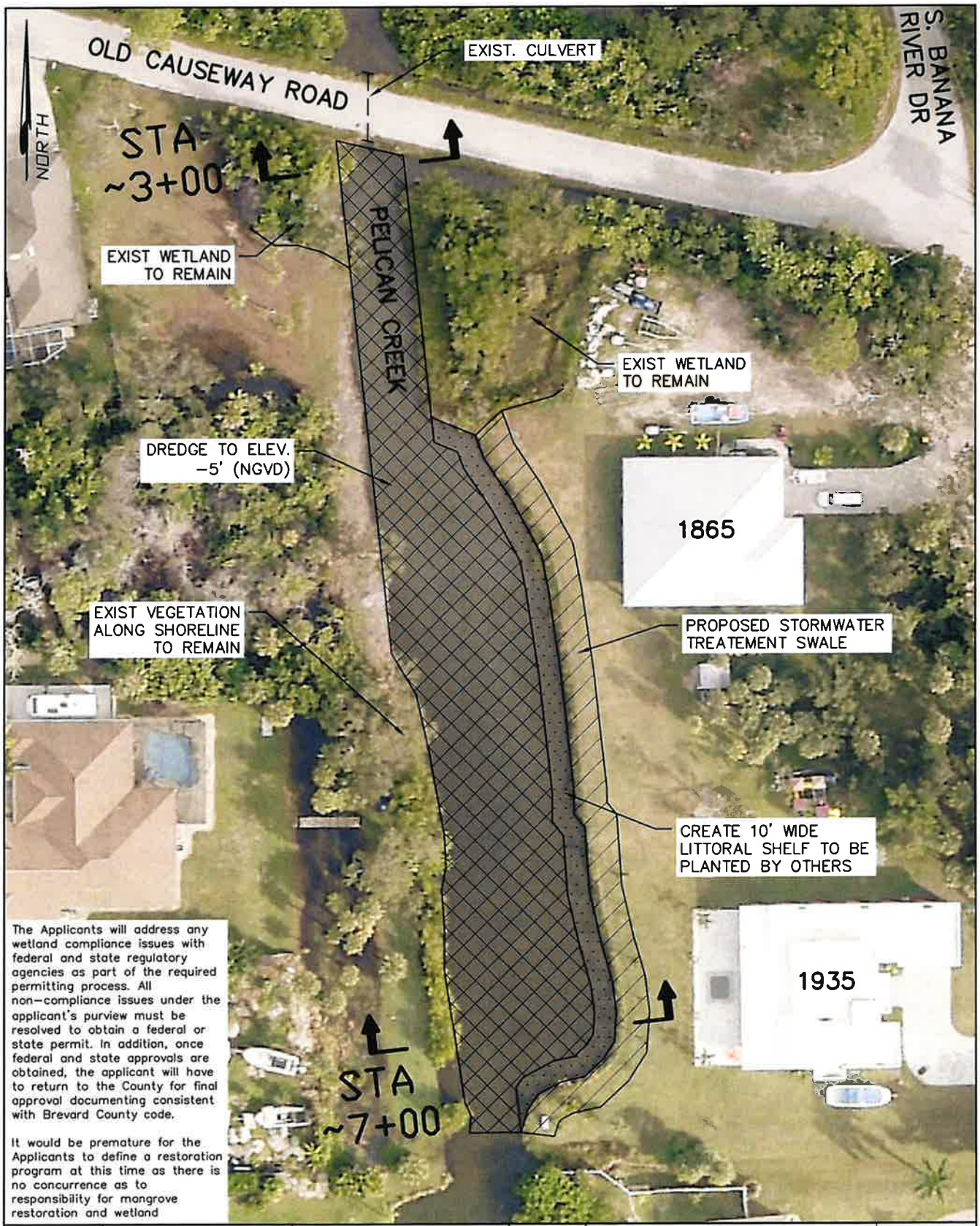
The littoral shelf would provide space for the planting of appropriate wetland vegetation along the shoreline, and the stormwater treatment swales be designed to capture and retain a minimum of 1-inch of runoff from the impervious area draining toward the shoreline. Both the littoral shelf and the stormwater treatment swales would improve water quality.

Should you have any questions or need additional information, please contact me directly.

Bennett Engineering & Consulting, LLC.

Digitally signed by Clayton A Bennett
Date: 2024.09.06 15:18:17 -04'00'

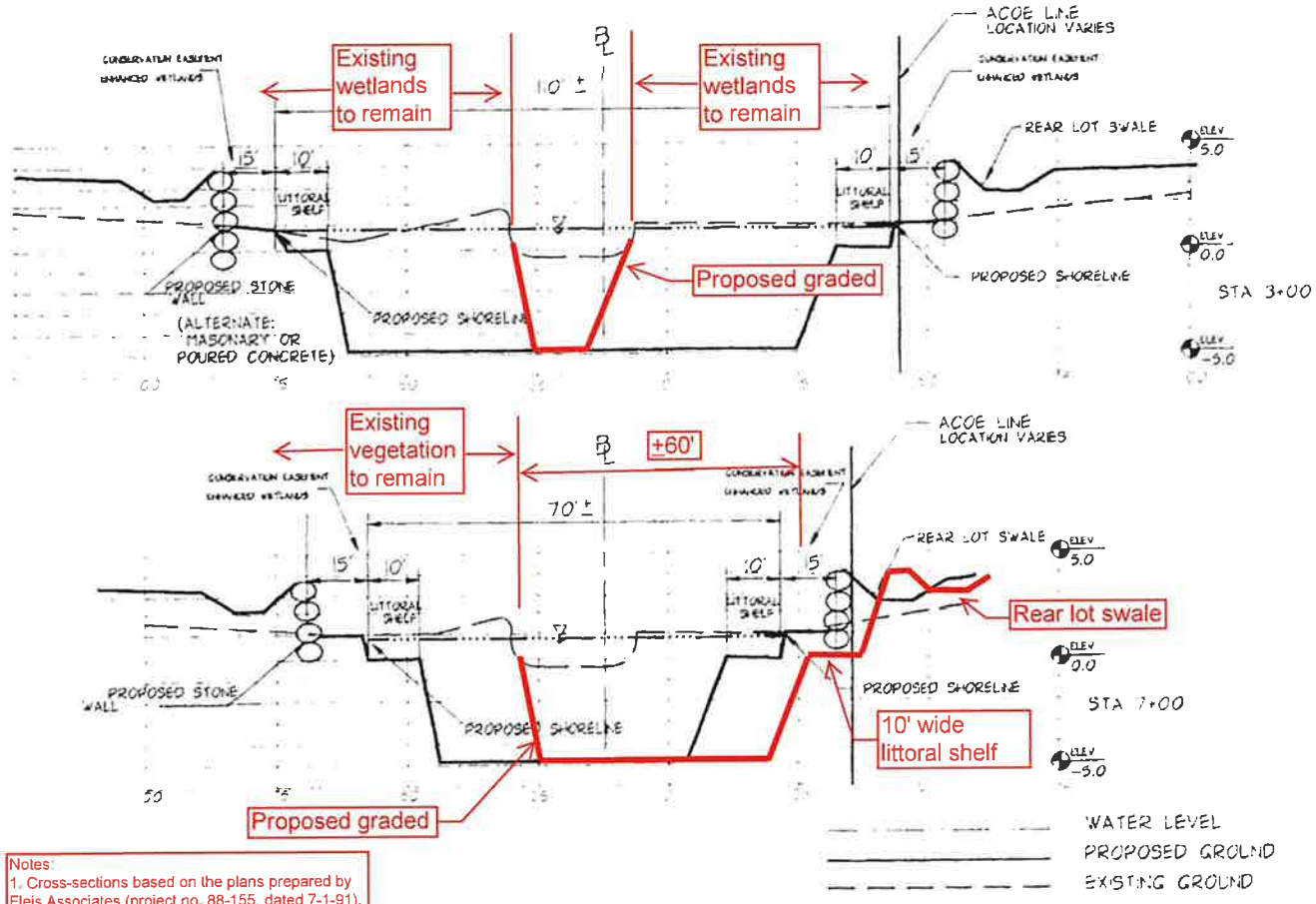
Clayton A. Bennett, P.E.
Managing Member



The Applicants will address any wetland compliance issues with federal and state regulatory agencies as part of the required permitting process. All non-compliance issues under the applicant's purview must be resolved to obtain a federal or state permit. In addition, once federal and state approvals are obtained, the applicant will have to return to the County for final approval documenting consistent with Brevard County code.

It would be premature for the Applicants to define a restoration program at this time as there is no concurrence as to responsibility for mangrove restoration and wetland

Bennett Engineering & Consulting BENNETT ENGINEERING & CONSULTING, LLC 4940 RANCHLAND ROAD MELBOURNE, FL 32934 (321) 622-4462 CA#28236	BEC NO: 23.420		1865 & 1935 BANANA RIVER DR MERRITT ISLAND PROPOSED IMPROVEMENTS	DRAWING NO.: 1
	DRAWN BY: CAB	08/27/24		
	DESIGNED BY: CAB	08/27/24		
	CHECKED BY: CAB	08/27/24		
	SCALE: 1"=60'			



Notes:
1. Cross-sections based on the plans prepared by Fleis Associates (project no. 88-155, dated 7-1-91).
2. Redlined comments prepared by Bennett Engineering & Consulting, LLC. for the dredging assocated with 1865 & 1935 S Banana River Dr.

HARBOR POINT

Permit with conditions 1728

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Henry Dean, Executive Director
John R. Wehle, Assistant Executive Director

POST OFFICE BOX 1429 PALATKA, FLORIDA 32178-1429
TELEPHONE 904/329-4500 SUNCOM 904/860-4500
FAX (EXECUTIVE/LEGAL) 329-4125 (PERMITTING) 329-4315 (ADMINISTRATION/FINANCE) 329-4508

FIELD STATIONS

618 E. South Street
Orlando, Florida 32801
407/894-5423

7775 Baymeadows Way
Suite 102
Jacksonville, Florida 32256
904/730-6270

PERMITTING:
305 East Drive
Melbourne, Florida 32904
407/984-4940

OPERATIONS:
2133 N. Wickham Road
Melbourne, Florida 32935-6109
407/254-1762

SEPTEMBER 10, 1991

GREG LOGGINS, TRUSTEE
355 EAST MERRITT ISLAND CAUSEWAY
MERRITT ISLAND, FL 32953

SUBJECT: WETLAND RESOURCE MANAGEMENT
PERMIT NUMBER 12-009-0056S

ENCLOSED IS YOUR PERMIT AS AUTHORIZED BY THE GOVERNING BOARD OF THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ON SEPTEMBER 10, 1991. THIS PERMIT WILL EXPIRE ON SEPTEMBER 10, 1996.

THIS PERMIT IS A LEGAL DOCUMENT AND SHOULD BE KEPT WITH YOUR OTHER IMPORTANT DOCUMENTS. THE ATTACHED COMPLETION REPORT SHOULD BE FILLED IN AND RETURNED TO THE PALATKA OFFICE WITHIN THIRTY DAYS AFTER THE WORK IS COMPLETED. BY SO DOING, YOU WILL ENABLE US TO SCHEDULE A PROMPT INSPECTION OF THE PERMITTED ACTIVITY.

PERMIT ISSUANCE DOES NOT RELIEVE YOU FROM THE RESPONSIBILITY OF OBTAINING PERMITS FROM ANY FEDERAL, STATE, AND/OR LOCAL AGENCIES ASSERTING CONCURRENT JURISDICTION FOR THIS WORK.

IN THE EVENT YOU SELL YOUR PROPERTY, THE PERMIT WILL BE TRANSFERRED TO THE NEW OWNER, IF WE ARE NOTIFIED BY YOU WITHIN NINETY DAYS OF THE SALE. PLEASE ASSIST US IN THIS MATTER SO AS TO MAINTAIN A VALID PERMIT FOR THE NEW PROPERTY OWNER.

THANK YOU FOR YOUR COOPERATION AND IF THIS OFFICE CAN BE OF ANY FURTHER ASSISTANCE TO YOU, PLEASE DO NOT HESITATE TO CONTACT US.

SINCERELY,

Lacy Livingston

LACY LIVINGSTON, DATA CONTROL TECHNICIAN
DIVISION OF RECORDS

ENCLOSURES: PERMIT WITH COMPLETION REPORT

CC: DISTRICT PERMIT FILE
VICKI CURTIS
CORPS OF ENGINEERS
DER
DER FIELD OFFICE

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
POST OFFICE BOX 1429
PALATKA, FLORIDA 32178-1429

PERMIT NO. 12-009-0056S DATE ISSUED SEPTEMBER 10, 1991

WETLAND RESOURCE MANAGEMENT

A PERMIT AUTHORIZING:

THE EXCAVATION OF 10,800 CUBIC YARDS OF MATERIAL AND PLACEMENT OF 2400 CUBIC YARDS OF FILL MATERIAL IN WATERS OF THE STATE FOR THE EXPANSION OF AN EXISTING RESIDENTIAL CANAL MAINTENANCE DREDGING OF THE ENTRANCE CHANNEL AND THE REALIGNMENT OF A ROADWAY ASSOCIATED WITH THE CONSTRUCTION OF THE HARBOR POINT SUBDIVISION.

LOCATION:

SECTIONS 07 & 08; TOWNSHIP 25 SOUTH; RANGE 37 EAST
BREVARD COUNTY

ISSUED TO:
(OWNER)

GREG LOGGINS, TRUSTEE
355 EAST MERRITT ISLAND CAUSEWAY
MERRITT ISLAND, FL 32953

PERMITTEE AGREES TO HOLD AND SAVE THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT AND ITS SUCCESSORS HARMLESS FROM ANY AND ALL DAMAGES, CLAIMS, OR LIABILITIES WHICH MAY ARISE FROM PERMIT ISSUANCE. SAID APPLICATION, INCLUDING ALL PLANS AND SPECIFICATIONS ATTACHED THERETO, IS BY REFERENCE MADE A PART HEREOF.

THIS PERMIT DOES NOT CONVEY TO PERMITTEE ANY PROPERTY RIGHTS NOR ANY RIGHTS OR PRIVILEGES OTHER THAN THOSE SPECIFIED HEREIN, NOR RELIEVE THE PERMITTEE FROM COMPLYING WITH ANY LAW, REGULATION OR REQUIREMENT AFFECTING THE RIGHTS OF OTHER BODIES OR AGENCIES. ALL STRUCTURES AND WORKS INSTALLED BY PERMITTEE HEREUNDER SHALL REMAIN THE PROPERTY OF THE PERMITTEE.

THIS PERMIT MAY BE REVOKED, MODIFIED OR TRANSFERRED AT ANY TIME PURSUANT TO THE APPROPRIATE PROVISIONS OF CHAPTER 373, FLORIDA STATUTES:

PERMIT IS CONDITIONED UPON:

SEE CONDITIONS ON ATTACHED "EXHIBIT A", DATED SEPTEMBER 10, 1991

AUTHORIZED BY: ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

DEPARTMENT OF RESOURCE MANAGEMENT

BY: _____
(DIRECTOR)
for JEFF ELLEDGE

GOVERNING BOARD

BY: _____
(ASSISTANT SECRETARY)
HENRY DEAN

"EXHIBIT A"

CONDITIONS FOR ISSUANCE OF PERMIT NUMBER 12-009-0056S

GREG LOGGINS, TRUSTEE

DATED SEPTEMBER 10, 1991

1. THE TERMS, CONDITIONS, REQUIREMENTS, LIMITATIONS, AND RESTRICTIONS SET FORTH IN THIS PERMIT, ARE "PERMIT CONDITIONS" AND ARE BINDING AND ENFORCEABLE PURSUANT TO SECTIONS 403.141, 403.727, OR 403.859 THROUGH 403.861, FLORIDA STATUTES. THE PERMITTEE IS PLACED ON NOTICE THAT THE DISTRICT WILL REVIEW THIS PERMIT PERIODICALLY AND MAY INITIATE ENFORCEMENT ACTION FOR ANY VIOLATION OF THESE PERMIT CONDITIONS.

2. THIS PERMIT IS VALID ONLY FOR THE SPECIFIC PROCESSES AND OPERATIONS APPLIED FOR AND INDICATED IN THE APPROVED DRAWINGS OR EXHIBITS. ANY UNAUTHORIZED DEVIATION FROM THE APPROVED DRAWINGS, EXHIBITS, SPECIFICATIONS, OR CONDITIONS OF THIS PERMIT MAY CONSTITUTE GROUNDS FOR REVOCATION AND ENFORCEMENT ACTION BY THE DISTRICT.

3. AS PROVIDED IN SUBSECTIONS 403.087(6), AND 403.722(5), FLORIDA STATUTES, THE ISSUANCE OF THIS PERMIT DOES NOT CONVEY ANY VESTED RIGHTS OR ANY EXCLUSIVE PRIVILEGES. NEITHER DOES IT AUTHORIZE ANY INJURY TO PUBLIC OR PRIVATE PROPERTY OR ANY INVASION OF PERSONAL RIGHTS, NOR ANY INFRINGEMENT OF FEDERAL, STATE, OR LOCAL LAWS OR REGULATIONS. THIS PERMIT IS NOT A WAIVER OF OR APPROVAL OF ANY OTHER DER OR DISTRICT PERMIT THAT MAY BE REQUIRED FOR OTHER ASPECTS OF THE TOTAL PROJECT WHICH ARE NOT ADDRESSED IN THIS PERMIT.

4. THIS PERMIT CONVEYS NO TITLE TO LAND OR WATER, DOES NOT CONSTITUTE STATE RECOGNITION OR ACKNOWLEDGEMENT OF TITLE, AND DOES NOT CONSTITUTE AUTHORITY FOR THE USE OF SUBMERGED LANDS UNLESS HEREIN PROVIDED AND THE NECESSARY TITLE OR LEASEHOLD INTERESTS HAVE BEEN OBTAINED FROM THE STATE. ONLY THE TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND MAY EXPRESS STATE OPINION AS TO TITLE.

5. THIS PERMIT DOES NOT RELIEVE THE PERMITTEE FROM LIABILITY FOR HARM OR INJURY TO HUMAN HEALTH OR WELFARE, ANIMAL, OR PLANT LIFE, OR PROPERTY CAUSED BY THE CONSTRUCTION OR OPERATION OF THIS PERMITTED SOURCE, OR FROM PENALTIES THEREFORE; NOR DOES IT ALLOW THE PERMITTEE TO CAUSE POLLUTION IN CONTRAVENTION OF FLORIDA STATUTES AND DEPARTMENT OF ENVIRONMENTAL REGULATION (DER) RULES, UNLESS SPECIFICALLY AUTHORIZED BY AN ORDER FROM THE DER OR DISTRICT.

6. THE PERMITTEE SHALL PROPERLY OPERATE AND MAINTAIN THE FACILITY AND SYSTEMS OF TREATMENT AND CONTROL (AND RELATED APPURTENANCES) THAT ARE INSTALLED AND USED BY THE PERMITTEE TO ACHIEVE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT, AS REQUIRED BY DEPARTMENT RULES. THIS PROVISION INCLUDES THE OPERATION OF BACKUP OR AUXILIARY FACILITIES OR SIMILAR SYSTEMS WHEN NECESSARY TO ACHIEVE COMPLIANCE WITH THE CONDITIONS OF THE PERMIT AND WHEN REQUIRED BY DEPARTMENT RULES.

7. THE PERMITTEE, BY ACCEPTING THIS PERMIT, SPECIFICALLY AGREES TO ALLOW AUTHORIZED DISTRICT PERSONNEL, UPON PRESENTATION OF CREDENTIALS OR OTHER DOCUMENTS AS MAY BE REQUIRED BY LAW AND AT REASONABLE TIMES, ACCESS TO THE PREMISES WHERE THE PERMITTED ACTIVITY IS LOCATED OR CONDUCTED TO:

   (A) HAVE ACCESS TO AND COPY ANY RECORDS THAT MUST BE KEPT UNDER CONDITIONS OF THE PERMIT;

   (B) INSPECT THE FACILITY, EQUIPMENT, PRACTICES, OR OPERATIONS REGULATED OR REQUIRED UNDER THIS PERMIT; AND

(C) SAMPLE OR MONITOR ANY SUBSTANCES OR PARAMETERS AT ANY LOCATION REASONABLE NECESSARY TO ASSURE COMPLIANCE WITH THIS PERMIT OR DEPARTMENT RULES.

REASONABLE TIME MAY DEPEND ON THE NATURE OF THE CONCERN BEING INVESTIGATED.

8. IF, FOR ANY REASON, THE PERMITTEE DOES NOT COMPLY WITH OR WILL BE UNABLE TO COMPLY WITH ANY CONDITION OR LIMITATION SPECIFIED IN THIS PERMIT, THE PERMITTEE SHALL IMMEDIATELY PROVIDE THE DISTRICT WITH THE FOLLOWING INFORMATION:

(A) A DESCRIPTION OF AND CAUSE OF NON-COMPLIANCE; AND

(B) THE PERIOD OF NONCOMPLIANCE, INCLUDING DATES AND TIMES; OR, IF NOT CORRECTED, THE ANTICIPATED TIME THE NON-COMPLIANCE IS EXPECTED TO CONTINUE, AND STEPS BEING TAKEN TO REDUCE, ELIMINATE, AND PREVENT RECURRENCE OF THE NON-COMPLIANCE.

THE PERMITTEE SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY RESULT AND MAY BE SUBJECT TO ENFORCEMENT ACTION BY THE DISTRICT FOR PENALTIES OR REVOCATION OF THIS PERMIT.

9. IN ACCEPTING THIS PERMIT, THE PERMITTEE UNDERSTANDS AND AGREES THAT ALL RECORDS, NOTES, MONITORING DATA AND OTHER INFORMATION RELATED TO THE CONSTRUCTION OR OPERATION OF THIS PERMITTED SOURCE, WHICH ARE SUBMITTED TO THE DISTRICT MAY BE USED BY THE DISTRICT AS EVIDENCE IN ANY ENFORCEMENT CASE INVOLVING THE PERMITTED SOURCE ARISING UNDER THE FLORIDA STATUTES OR DEPARTMENT RULES, EXCEPT WHERE SUCH USE IS PRESCRIBED BY SECTIONS 403.111 AND 403.73, FLORIDA STATUTES. SUCH EVIDENCE SHALL ONLY BE USED TO THE EXTENT IT IS CONSISTENT WITH THE FLORIDA RULES OF CIVIL PROCEDURE AND APPROPRIATE EVIDENTIARY RULES.

10. THE PERMITTEE AGREES TO COMPLY WITH CHANGES IN DER RULES AND FLORIDA STATUTES AFTER A REASONABLE TIME FOR COMPLIANCE, PROVIDED, HOWEVER, THE PERMITTEE DOES NOT WAIVE ANY OTHER RIGHTS GRANTED BY FLORIDA STATUTES OR DER RULES.

11. THIS PERMIT IS TRANSFERABLE ONLY UPON DISTRICT APPROVAL IN ACCORDANCE WITH RULES 17-4.120 AND 17-30.300, FLORIDA ADMINISTRATIVE CODE, AS APPLICABLE. THE PERMITTEE SHALL BE LIABLE FOR ANY NON-COMPLIANCE OF THE PERMITTED ACTIVITY UNTIL THE TRANSFER IS APPROVED BY THE DISTRICT.

12. THIS PERMIT OR A COPY THEREOF SHALL BE KEPT AT THE WORK SITE OF THE PERMITTED ACTIVITY.

13. THIS PERMIT ALSO CONSTITUTES:

(A) DETERMINATION OF BEST AVAILABLE CONTROL TECHNOLOGY (BACT),

(B) DETERMINATION OF PREVENTION OF SIGNIFICANT DETERIORATION (PSD),

(C) CERTIFICATION OF COMPLIANCE WITH STATE WATER QUALITY STANDARDS (SECTION 401, PL 92-500), AND

(D) COMPLIANCE WITH NEW SOURCE PERFORMANCE STANDARDS.

12-009-0056S

14. THE PERMITTEE SHALL COMPLY WITH THE FOLLOWING:

(A) UPON REQUEST, THE PERMITTEE SHALL FURNISH ALL RECORDS AND PLANS REQUIRED UNDER DER RULES. DURING ENFORCEMENT ACTIONS, THE RETENTION PERIOD FOR ALL RECORDS WILL BE EXTENDED AUTOMATICALLY UNLESS OTHERWISE STIPULATED BY THE DISTRICT.

(B) THE PERMITTEE SHALL HOLD AT THE FACILITY OR OTHER LOCATION DESIGNATED BY THIS PERMIT RECORDS OF ALL MONITORING INFORMATION (INCLUDING ALL CALIBRATION AND MAINTENANCE RECORDS AND ALL ORIGINAL STRIP CHART RECORDINGS FOR CONTINUOUS MONITORING INSTRUMENTATION) REQUIRED BY THE PERMIT, COPIES OF ALL REPORTS REQUIRED BY THIS PERMIT, AND RECORDS OF ALL DATA USED TO COMPLETE THE APPLICATION FOR THIS PERMIT. THESE MATERIALS SHALL BE RETAINED AT LEAST THREE YEARS FROM THE DATE OF THE SAMPLE, MEASUREMENT, REPORT OR APPLICATION UNLESS OTHERWISE SPECIFIED BY DEPARTMENT RULE.

(C) RECORDS OF MONITORING INFORMATION SHALL INCLUDE:

1. THE DATE, EXACT PLACE, AND TIME OF SAMPLING OR MEASUREMENTS;

2. THE PERSON RESPONSIBLE FOR PERFORMING THE SAMPLING OR MEASUREMENTS;

3. THE DATES ANALYSES WERE PERFORMED;

4. THE PERSON RESONSIBLE FOR PERFORMING THE ANALYSES;

5. THE ANALYTICAL TECHNIQUES OR METHODS USED; AND

6. THE RESULT OF SUCH ANALYSES.

15. WHEN REQUESTED BY THE DISTRICT, THE PERMITTEE SHALL WITHIN A REASONABLE TIME FURNISH ANY INFORMATION REQUIRED BY LAW WHICH IS NEEDED TO DETERMINE COMPLIANCE WITH THE PERMIT. IF THE PERMITTEE BECOMES AWARE THAT RELEVANT FACTS WERE NOT SUBMITTED OR WERE INCORRECT IN THE PERMIT APPLICATION OR IN ANY REPORT TO THE DISTRICT, SUCH FACTS OR INFORMATION SHALL BE CORRECTED PROMPTLY.

16. ALL CORRESPONDENCE, SUBMITTALS AND NOTIFICATIONS REQUIRED BY THE FOLLOWING PERMIT CONDITIONS MUST BE SUBMITTED TO THE MELBOURNE DISTRICT OFFICE AT 305 EAST DRIVE, MELBOURNE, FL 32904.

17. THIS PERMIT FOR CONSTRUCTION WILL EXPIRE 5 YEARS FROM THE DATE OF ISSUANCE.

18. THE PROJECT MUST COMPLY WITH APPLICABLE STATE WATER QUALITY STANDARDS, INCLUDING:

A. 17-302.500 - MINIMUM CRITERIA FOR ALL SURFACE WATERS AT ALL PLACES AND AT ALL TIMES;

B. 17-302.510 - SURFACE WATERS: GENERAL CRITERIA, AND

C. 17-302.560 - CLASS III WATERS: RECREATION - PROPAGATION AND MAINTENANCE OF A HEALTHY, WELL-BALANCED POPULATION OF FISH AND WILDLIFE.

19. THE PERMITTEE SHALL TAKE ALL MEASURES NECESSARY TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATERBODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE PERMITTEE MUST REMOVE THE BARRIERS. AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS IN CHAPTER 17-302, FLORIDA ADMINISTRATIVE CODE.

20. GRASS SEED AND MULCH OR SOD MUST BE INSTALLED AND MAINTAINED ON EXPOSED SLOPES WITHIN 48 HOURS OF COMPLETING FINAL GRADE, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES INTO WATERS OF THE STATE.

21. AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF THE WORK AUTHORIZED BY THIS PERMIT, THE PERMITTEE MUST PROVIDE TWO COPIES OF WRITTEN NOTIFICATION OF THE SCHEDULED DATE OF COMMENCEMENT TO THE APPROPRIATE DISTRICT OFFICE.

22. THE WATERS OF THE STATE WETLAND LINES SHOWN ON THE ATTACHED PLANS ARE ONLY BINDING UPON THE DISTRICT AND THE DER IN THOSE SPECIFIC LOCATIONS WHERE DREDGING OR FILLING ACTIVITY IS AUTHORIZED BY THIS PERMIT. THOSE PORTIONS OF THE WETLAND LINE WHICH EXTEND BEYOND THE SCOPE OF WORK AUTHORIZED BY THIS PERMIT ARE FOR REFERENCE ONLY AND SHALL NOT BE RELIED UPON FOR FUTURE COMPLIANCE WITH SECTION 403.913 F.S., OR ANY OTHER PROVISION OF LAW OR RULE.

23. ALL CONTRACTORS MUST BE PROVIDED A COPY OF THE PERMIT CONDITIONS BEFORE CONSTRUCTION BEGINS.

24. THE PERMITTEE IS HEREBY ADVISED THAT PURSUANT TO SECTION 403.922, FLORIDA STATUTES, NO PERSON SHALL COMMENCE ANY EXCAVATION, 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 (BOARD TRUSTEES) OR THE DEPARTMENT OF NATURAL RESOURCES UNDER CHAPTER 253, F.S., UNTIL SUCH PERSON HAS RECEIVED FROM THE BOARD OF TRUSTEES THE REQUIRED LEASE, LICENSE, EASEMENT, OR OTHER FORM OF CONSENT AUTHORIZING THE PROPOSED ACTIVITY. PURSUANT TO CHAPTER 18-14, FLORIDA ADMINISTRATIVE CODE, IF SUCH WORK IS DONE WITHOUT CONSENT, OR IF A PERSON OTHERWISE WILLFULLY DAMAGES STATE LAND OR WILLFULLY DAMAGES OR REMOVES PRODUCTS OF STATE LAND IN VIOLATION OF STATE OR FEDERAL LAW, THE BOARD OF TRUSTEES MAY LEVY ADMINISTRATIVE FINES OF UP TO $10,000 PER OFFENSE.

25. IF HISTORICAL OR ARCHAEOLOGICAL ARTIFACTS ARE DISCOVERED AT ANY TIME WITHIN THE PROJECT SITE, THE PERMITTEE MUST IMMEDIATELY HALT CONSTRUCTION AND NOTIFY THE APPROPRIATE DISTRICT OFFICE, AND THE DIVISION OF HISTORICAL RESOURCES, R.A. GRAY BUILDING, TALLAHASSEE, FLORIDA 32399-0250.

26. ALL WORK WITHIN WATERS OF THE STATE MUST BE IN ACCORDANCE WITH THE PLANS STAMPED AS FINAL BY THE DISTRICT.

27. THE PERMITTEE MUST:

    A. INSTRUCT ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE POTENTIAL PRESENCE OF MANATEES AND THE NEED TO AVOID COLLISIONS WITH MANATEES.

    B. 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 OF 1978. THE PERMITTEE AND/OR CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY MANATEE HARMED, HARASSED, OR KILLED AS A RESULT OF CONSTRUCTION ACTIVITIES.

C. ENSURE THAT SILTATION BARRIERS ARE 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 EXIT FROM ESSENTIAL HABITAT.

D. ENSURE THAT ALL VESSELS ASSOCIATED WITH THE PROJECT OPERATE AT "NO WAKE/IDLE" SPEEDS AT ALL TIMES WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR FOOT CLEARANCE FROM THE BOTTOM AND THAT VESSELS FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.

E. INSTALL A MINIMUM OF TWO 3' X 4' TEMPORARY CONSTRUCTION MANATEE SIGNS ("MANATEE HABITAT-IDLE SPEED IN CONSTRUCTION AREAS") PRIOR TO CONSTRUCTION AT PROMINENT LOCATIONS WITHIN THE CONSTRUCTION AREA/FACILITY. ONE CONSTRUCTION SIGN MUST BE LOCATED PROMINENTLY ADJACENT TO THE CONSTRUCTION PERMIT(S). THE OTHER SIGN MUST BE INSTALLED IN A LOCATION PROMINENTLY VISIBLE TO WATER RELATED CONSTRUCTION CREWS. PHOTOS OF SIGNS IN PLACE MUST BE SENT TO THE FLORIDA DEPARTMENT OF NATURAL RESOURCES (FDNR) MARINE MAMMALS SECTION, 100 EIGHTH AVENUE, S.E., ST. PETERSBURG, FLORIDA 33701-5095, PRIOR TO THE INITIATION OF CONSTRUCTION. TEMPORARY CONSTRUCTION SIGNS WILL BE REMOVED BY THE PERMITTEE UPON COMPLETION OF CONSTRUCTION.

F. ENSURE THAT ALL CONSTRUCTION ACTIVITIES IN OPEN WATER CEASE UPON THE SIGHTING OF A MANATEE(S) WITHIN 100 YARDS OF THE PROJECT AREA. CONSTRUCTION ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS DEPARTED THE PROJECT AREA. G.ANY COLLISION WITH AND/OR INJURY TO A MANATEE IS REPORTED IMMEDIATELY TO THE "MANATEE HOTLINE" (1-800-DIAL FMP) AND TO THE U.S. FISH AND WILDLIFE SERVICE, JACKSONVILLE FIELD OFFICE (904-791-2580).

H. THE CONTRACTOR MAINTAINS A LOG DETAILING SIGHTINGS, COLLISIONS, OR INJURIES TO MANATEES SHOULD THEY OCCUR DURING THE CONTRACT PERIOD.

I. FOLLOWING PROJECT COMPLETION, A REPORT SUMMARIZING THE ABOVE INCIDENTS AND SIGHTINGS IS TO BE SUBMITTED TO THE FDNR (ADDRESS IN "E" ABOVE) AND TO THE U.S. FISH AND WILDLIFE SERVICE, 3100 UNIVERSITY BOULEVARD, SOUTH, SUITE 120, JACKSONVILLE, FLORIDA 32216.

28. ALL WETLAND AREAS OR WATER BODIES THAT ARE OUTSIDE OF THE SPECIFIC LIMITS OF CONSTRUCTION AUTHORIZED BY THIS PERMIT MUST BE PROTECTED FROM EROSION, SILTATION, SCOURING OR EXCESS TURBIDITY, AND DEWATERING.

29. THE PERMITTEE MUST SUBMIT TWO COPIES OF AN AS-BUILT SURVEY OF THE WETLAND CREATION AREAS CERTIFIED BY A REGISTERED SURVEYOR OR PROFESSIONAL ENGINEER SHOWING DIMENSIONS, GRADES, GROUND ELEVATIONS, AND WATER SURFACE ELEVATIONS. THE AS-BUILT MUST BE SUBMITTED WITH THE FIRST MONITORING REPORT.

30. WITHIN THE WETLAND CREATION AREAS, NON-NATIVE VEGETATION, CATTAILS (TYPHA SPP.) AND PRIMROSE WILLOW (LUDWIGA PERUVIANNA), MUST BE CONTROLLED BY HAND CLEARING OR OTHER METHODS APPROVED BY THE DISTRICT SO THAT THEY CONSTITUTE NO MORE THAN 10% OF THE AREAL COVER IN EACH STRATUM.

31. THE WETLAND CREATION AREAS MUST BE PLANTED PRIOR TO ANY OF THE FOLLOWING EVENTS (WHICHEVER OCCURS FIRST): ISSUANCE OF THE FIRST CERTIFICATE OF OCCUPANCY; USE OF THE INFRASTRUCTURE FOR ITS INTENDED USE; OR TRANSFER OF RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF THE SYSTEM TO A LOCAL GOVERNMENT OR OTHER RESPONSIBLE ENTITY.

32. WITHIN 30 DAYS OF COMPLETION OF INITIAL PLANTING, THE PERMITTEE MUST SUBMIT TO THE DISTRICT FOR REVIEW AND APPROVAL A PLAN DETAILING THE SITE-SPECIFIC METHODS TO BE USED FOR MONITORING THE WETLAND CREATION AREAS SO THAT ACHIEVEMENT OF SUCCESS CRITERIA CAN BE CLEARLY DEMONSTRATED. THE PLAN INCLUDE SUCH INFORMATION AS THE SIZE, LOCATION AND NUMBER OF MONITORING QUADRANTS, THE LOCATION AND NUMBER OF PHOTOGRAPHIC STATIONS, AND OTHER PERTINENT FACTORS TO DEMONSTRATE ACHIEVEMENT OF SUCCESS CRITERIA.

33. THE PERMITTEE MUST FURNISH THE DISTRICT WITH MONITORING REPORTS FOR THE WETLAND CREATION AREA(S) DESCRIBING:

A. PERCENT SURVIVAL AND DIVERSITY OF PLANTED SPECIES WITHIN EACH STRATUM;

B. RECRUITMENT DENSITY AND COMPOSITION WITHIN EACH STRATUM;

C. RECORDED GROWTH VIA ESTABLISHED PARAMETERS FOR PLANTED TREES AND SHRUBS;

D. PERCENT COVER OF HERBACEOUS SPECIES; E. SURFACE WATER ELEVATION REFERENCED TO N.G.V.D.; AND

F. WILDLIFE UTILIZATION.

THE DATA MUST BE COLLECTED AND SUBMITTED SEMI-ANNUALLY, ONCE DURING THE WET SEASON (AUGUST-SEPTEMBER) AND ONCE DURING THE DRY SEASON (MARCH-APRIL) FOR A TOTAL PERIOD OF 3 YEARS FOLLOWING INITIAL PLANTING. REPORTS TO THE DISTRICT MUST ALSO INCLUDE PHOTOGRAPHS, DESCRIPTIONS OF PROBLEMS ENCOUNTERED, AND SOLUTIONS UNDERTAKEN.

34. SUCCESSFUL ESTABLISHMENT OF THE WETLAND CREATION AREA WILL HAVE OCCURRED WHEN:

A. AT LEAST 80 PERCENT OF THE PLANTED INDIVIDUALS IN EACH STRATUM HAVE SURVIVED AND ARE SHOWING SIGNS OF NORMAL ANNUAL GROWTH, BASED UPON STANDARD GROWTH PARAMETERS SUCH AS HEIGHT AND BASE DIAMETER, OR CANOPY CIRCUMFERENCE;

B. AT LEAST 80 PERCENT COVER BY APPROPRIATE WETLAND HERBACEOUS SPECIES HAS BEEN OBTAINED; AND

C. THE ABOVE CRITERIA HAS BEEN ACHIEVED BY THE END OF A 3 YEAR PERIOD FOLLOWING INITIAL PLANTING.

35. IF SUCCESSFUL ESTABLISHMENT HAS NOT OCCURRED AS STATED ABOVE, THE PERMITTEE MUST APPLY TO THE DISTRICT FOR A PERMIT MODIFICATION NO LATER THAN 30 DAYS FOLLOWING THE TERMINATION OF THE 3 YEAR MONITORING PERIOD. THE APPLICATION MUST INCLUDE A NARRATIVE DESCRIBING THE TYPE AND CAUSES OF FAILURE AND CONTAIN A COMPLETE SET OF PLANS FOR THE REDESIGN AND/OR REPLACEMENT PLANTING OF THE WETLAND CREATION AREA SO THAT THE SUCCESS CRITERIA WILL BE ACHIEVED. WITHIN 30 DAYS OF DISTRICT APPROVAL AND ISSUANCE OF THE PERMIT MODIFICATION, THE PERMITTEE MUST IMPLEMENT THE REDESIGN AND/OR REPLACEMENT PLANTING. FOLLOWING COMPLETION OF SUCH WORK, SUCCESS CRITERIA AS STATED ABOVE OR MODIFIED BY SUBSEQUENT PERMIT MUST AGAIN BE ACHIEVED. IN ADDITION, THE MONITORING REQUIRED BY THESE CONDITIONS MUST BE CONDUCTED.

36. WITHIN 30 DAYS OF ANY MONITORING EVENT THAT INDICATES 50% OR GREATER MORTALITY OF PLANTED WETLAND SPECIES IN ANY STRATUM WITHIN THE MITIGATION AREA, THE APPLICANT MUST SUBMIT A REMEDIATION PROGRAM FOR DISTRICT STAFF REVIEW AND APPROVAL.

37. PRIOR TO INITIATING ANY CONSTRUCTION, THE PERMITTEE MUST RECORD A CONSERVATION EASEMENT ON THE REAL PROPERTY PURSUANT TO SECTION 704.06, F.S., PROHIBITING ALL CONSTRUCTION INCLUDING CLEARING, DREDGING, OR FILLING, EXCEPT THAT WHICH IS SPECIFICALLY AUTHORIZED BY THIS PERMIT WITHIN THE WETLAND CREATION, WETLAND ENHANCEMENT, AND UPLAND CONSERVATION AREAS AS DELINEATED ON THE FINAL PLANS AS APPROVED BY THE DISTRICT. THE EASEMENT MUST CONTAIN PROVISIONS AS SET FORTH IN PARAGRAPHS 1(A)-(H) OF SECTION 704.06, F.S., AS WELL AS PROVISIONS INDICATING THAT THEY MAY BE ENFORCED BY THE DISTRICT AND MAY NOT BE AMENDED WITHOUT DISTRICT APPROVAL. WITHIN 30 DAYS OF THE DATE OF ISSUANCE OF THIS PERMIT AND PRIOR TO RECORDING, SAID EASEMENT MUST BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.

    WITHIN 30 DAYS OF RECEIPT OF DISTRICT APPROVAL, THE PERMITTEE MUST PROVIDE THE DISTRICT WITH A CERTIFIED COPY OF THE RECORDED EASEMENT SHOWING THE DATE IT WAS RECORDED AND THE OFFICIAL RECORDS BOOK AND PAGE NUMBER.

38. THE PERMITTEE MUST ESTABLISH AND CLEARLY POST AN IDLE SPEED ZONE WITHIN THE ENTIRE ON-SITE CANAL. THE PERMITTEE MUST ALSO INSTALL MANATEE INFORMATION SIGNS WITHIN THE CANAL AND OFF-SITE CHANNEL MARKERS EXTENDING APPROXIMATELY 300' TO 400' EASTWARD OF THE PROJECT SITE. THE PERMITTEE MUST INSTALL AT LEAST ONE MANATEE EDUCATIONAL/INFORMATIONAL DISPLAY IN A LOCATION WHICH IS ACCESSIBLE TO ALL RESIDENTS. THE SIZE, TYPE, AND CONTENT OF ALL SIGNS MARKERS, AND EXHIBITS IS STANDARD AND SHOULD BE COORDINATED WITH THE FLORIDA DEPARTMENT OF NATURAL RESOURCES.

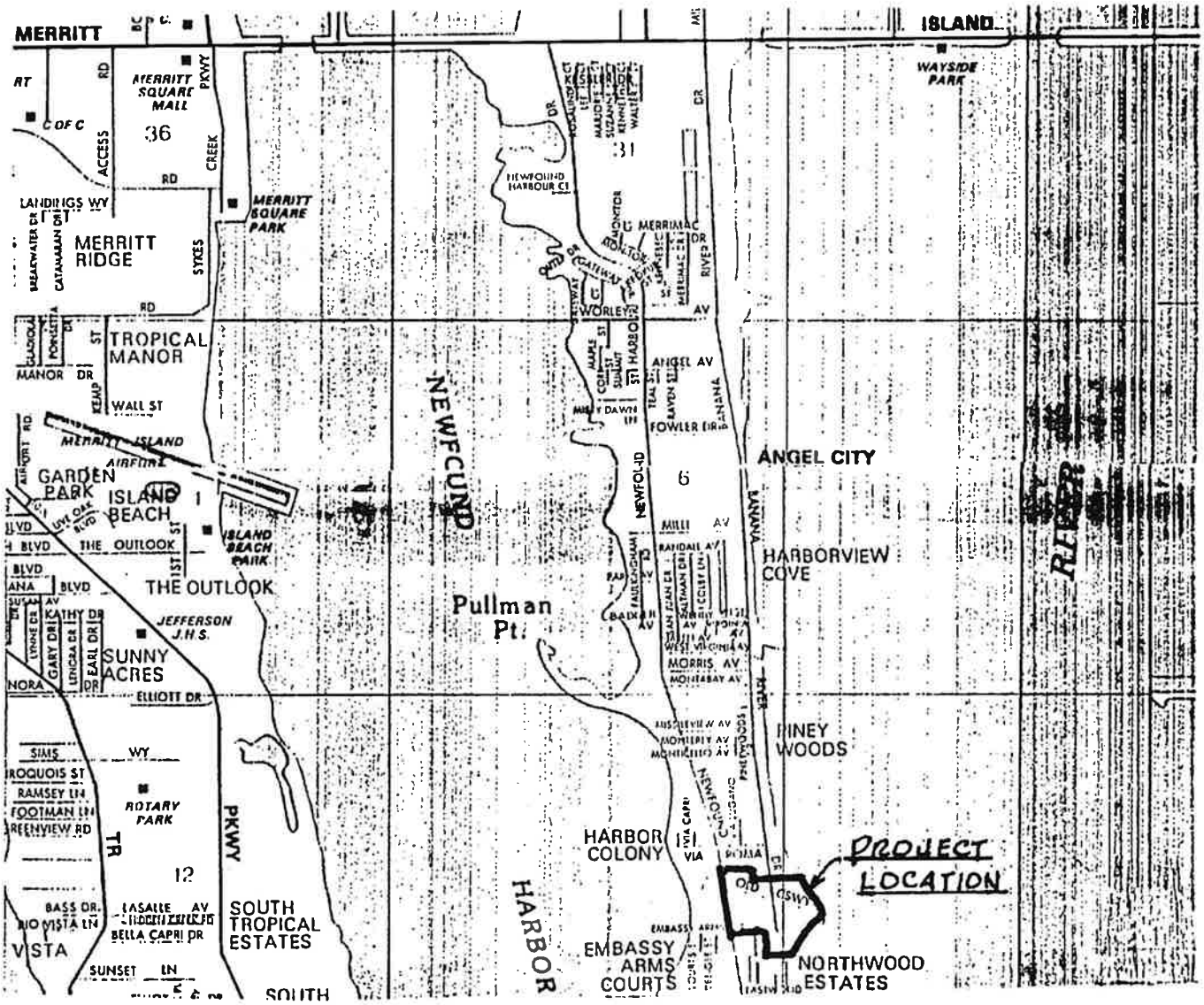
39. THE PERMITTEE MUST FOLLOW THE "WETLAND CONSTRUCTION PHASING SEQUENCE" PER FIGURE 18-A (REVISED APRIL 17, 1991) OF THE FINAL APPROVED PLANS.

40. PRIOR TO BEGINNING ANY CONSTRUCTION OF THE PROJECT, THE PERMITTEE MUST ORGANIZE AND ATTEND A PRE-CONSTRUCTION MEETING WITH DISTRICT STAFF, THE PROJECT ENGINEER, AND ALL SELECTED CONTRACTORS.

41. THE 30-INCH-DIAMETER FLUSHING CULVERT MUST BE MAINTAINED AS NECESSARY TO KEEP IT FREE FROM ACCUMULATED SEDIMENTS SO AS TO NOT REDUCE ITS HYDRAULIC CAPACITY.

42. THE PERMITTEE MUST MONITOR TURBIDITY OUTSIDE THE AREA ENCLOSED BY THE TURBIDITY BARRIER DURING THE ENTIRE DURATION OF CONSTRUCTION. THE PERMITTEE MUST ESTABLISH TURBIDITY MONITORING STATIONS IMMEDIATELY ADJACENT (EASTWARD) TO THE CONSTRUCTION AREA AND AT A POINT AT LEAST 200 FEET NORTH OF THE TURBIDITY BARRIER WITHIN THE BANANA RIVER LAGOON. TURBIDITY MUST BE MONITORED ON A DAILY BASIS DURING CONSTRUCTION AND MUST BE CONTINUED AFTER COMPLETION OF CONSTRUCTION UNTIL TURBIDITY LEVELS WITHIN THE TURBIDITY BARRIER ARE EQUAL TO THE LEVEL AS RECORDED AT THE STATION LOCATED OUTSIDE OF THE BARRIER FOR A PERIOD OF 7 CONSECUTIVE DAYS.

43. TURBIDITY LEVELS MUST BE MEASURED BETWEEN THE HOURS OF 12:00 P.M. AND 5:00 P.M. DAILY. TURBIDITY, AS MEASURED ADJACENT TO THE TURBIDITY BARRIER, MUST NOT EXCEED 29 NTU'S ABOVE BACKGROUND DURING CONSTRUCTION. IF THE TURBIDITY DOES EXCEED THIS LEVEL, THE PERMITTEE MUST DISCONTINUE CONSTRUCTION ACTIVITY UNTIL THE DISTRICT'S MELBOURNE OFFICE HAS BEEN CONTACTED AND REMEDIAL MEASURES HAVE BEEN TAKEN. ALL REMEDIAL MEASURES MUST BE APPROVED BY THE DISTRICT PRIOR TO IMPLEMENTATION. WEEKLY REPORTS OF TURBIDITY MONITORING MUST BE SENT TO THE DISTRICT'S MELBOURNE OFFICE.



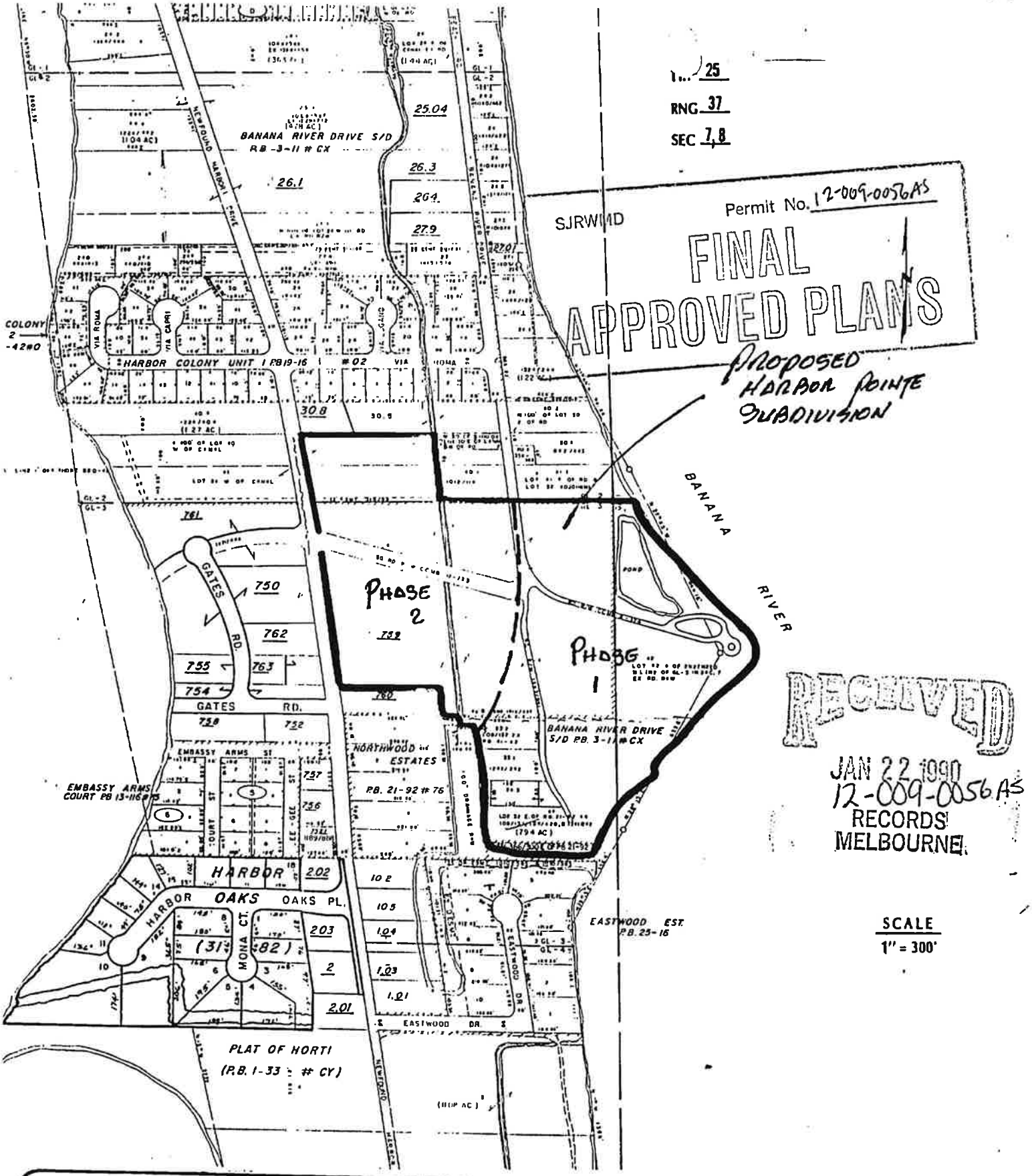
SJRWMD Permit No. 12-009-0056 AS

FINAL APPROVED PLANS

FLEIS ASSOCIATES, INC.
1090 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD M. FLEIS
P.E. NO. 0030832

HARBOR POINTE
PROJECT LOCATION

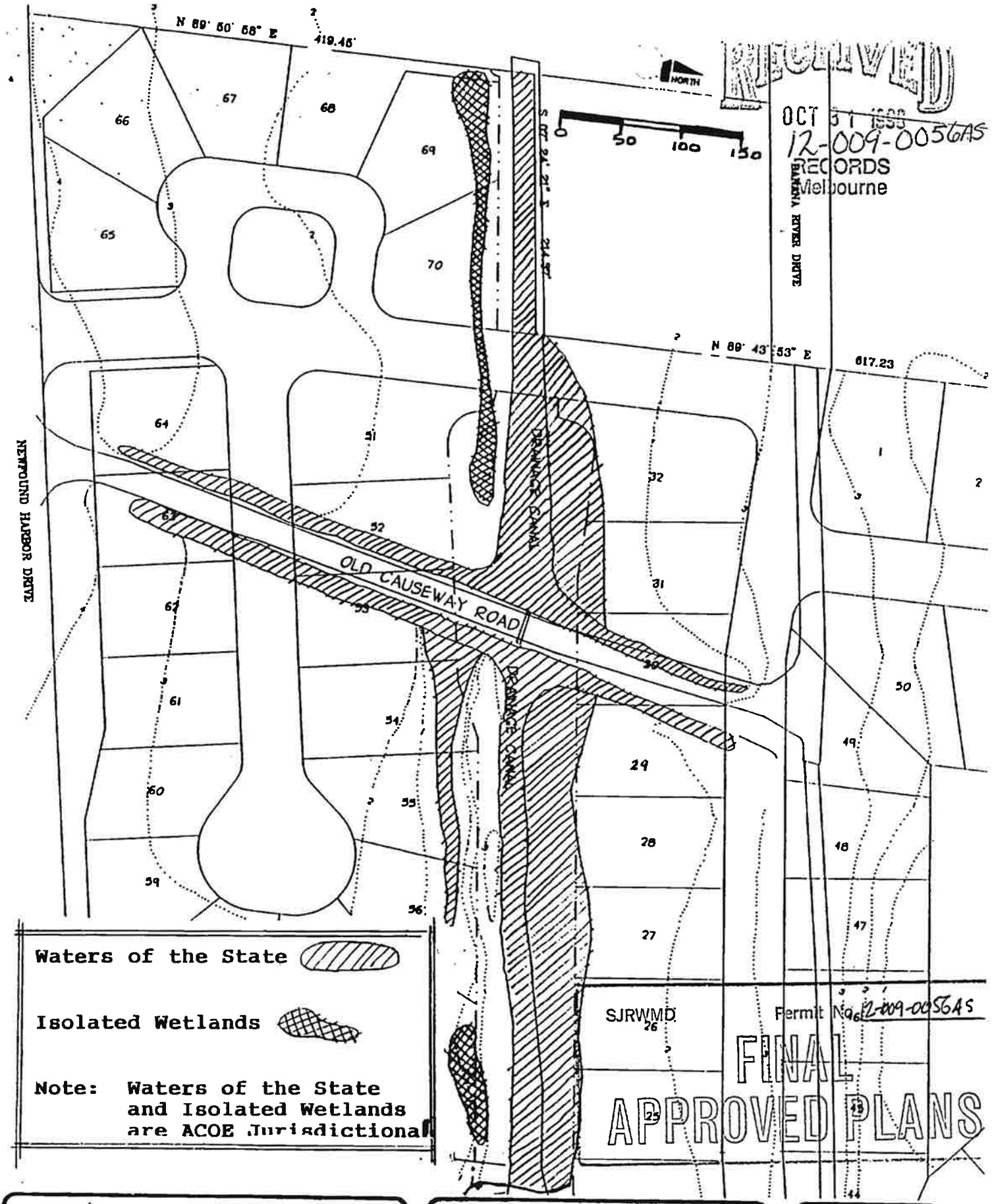
88.150
Figure 1
SHEET OF



FLEIS ASSOCIATES, INC.
1090 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD M. FLEIS
P.E. NO. 0030932

HARBOR POINTE
PHASING PLAN

88.150
Figure
2
SHEET OF



Waters of the State

Isolated Wetlands

Note: Waters of the State and Isolated Wetlands are ACOE Jurisdictional

RECEIVED
OCT 31 1990
12-009-0056AS
REGULATORY RECORDS
Melbourne

SJRWMD

Permit No. 12-009-0056AS

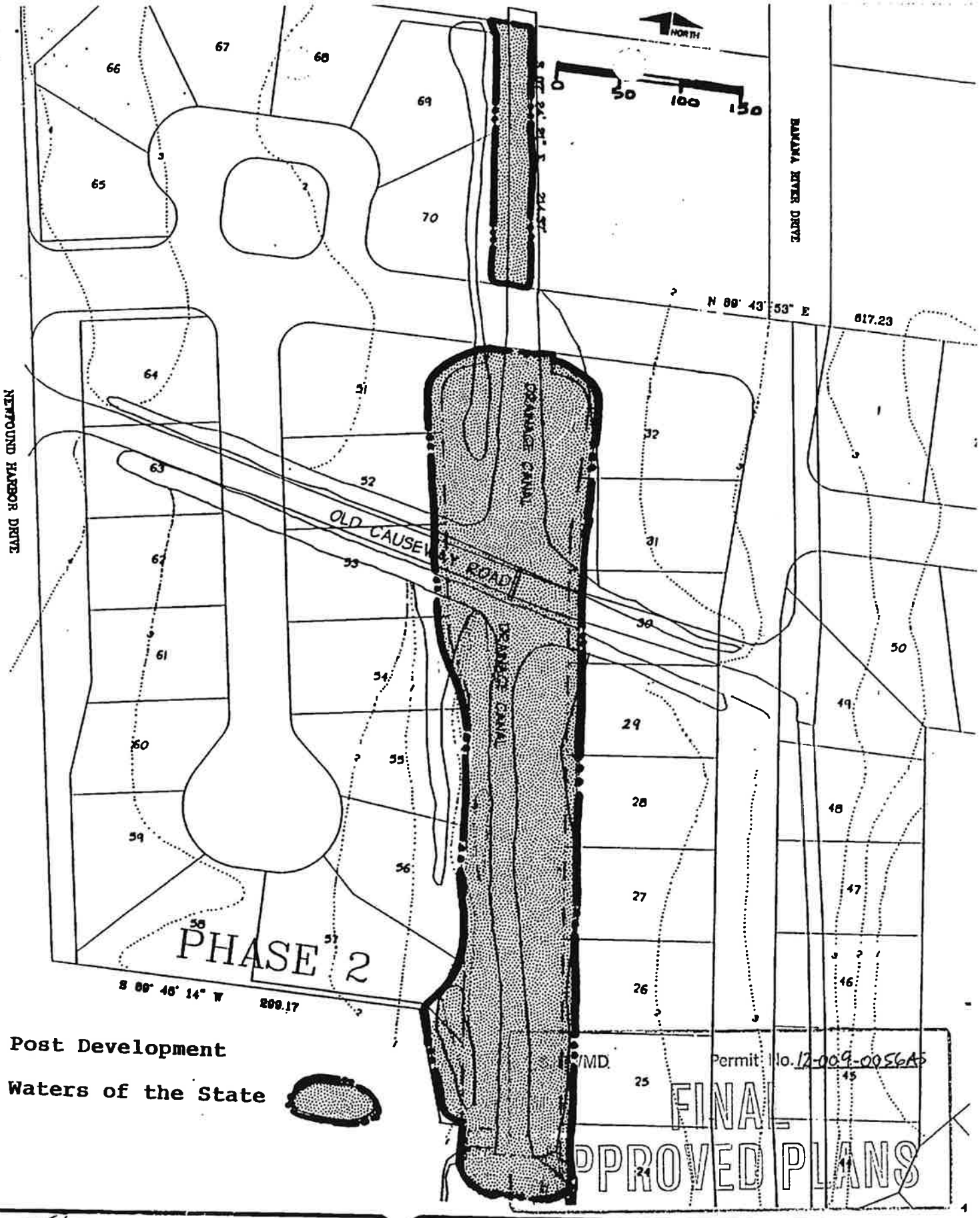
FINAL APPROVED PLANS

FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1090 HIGHWAY A1A, SUITE 808
SATELLITE BEACH, FLORIDA 32937
(407) 777-3701

10/31/90

Harbor Point Phase 2
Location of Jurisdictional Wetlands

88.153
Fig. 12
10-25-90 Re



FLEIS ASSOCIATES

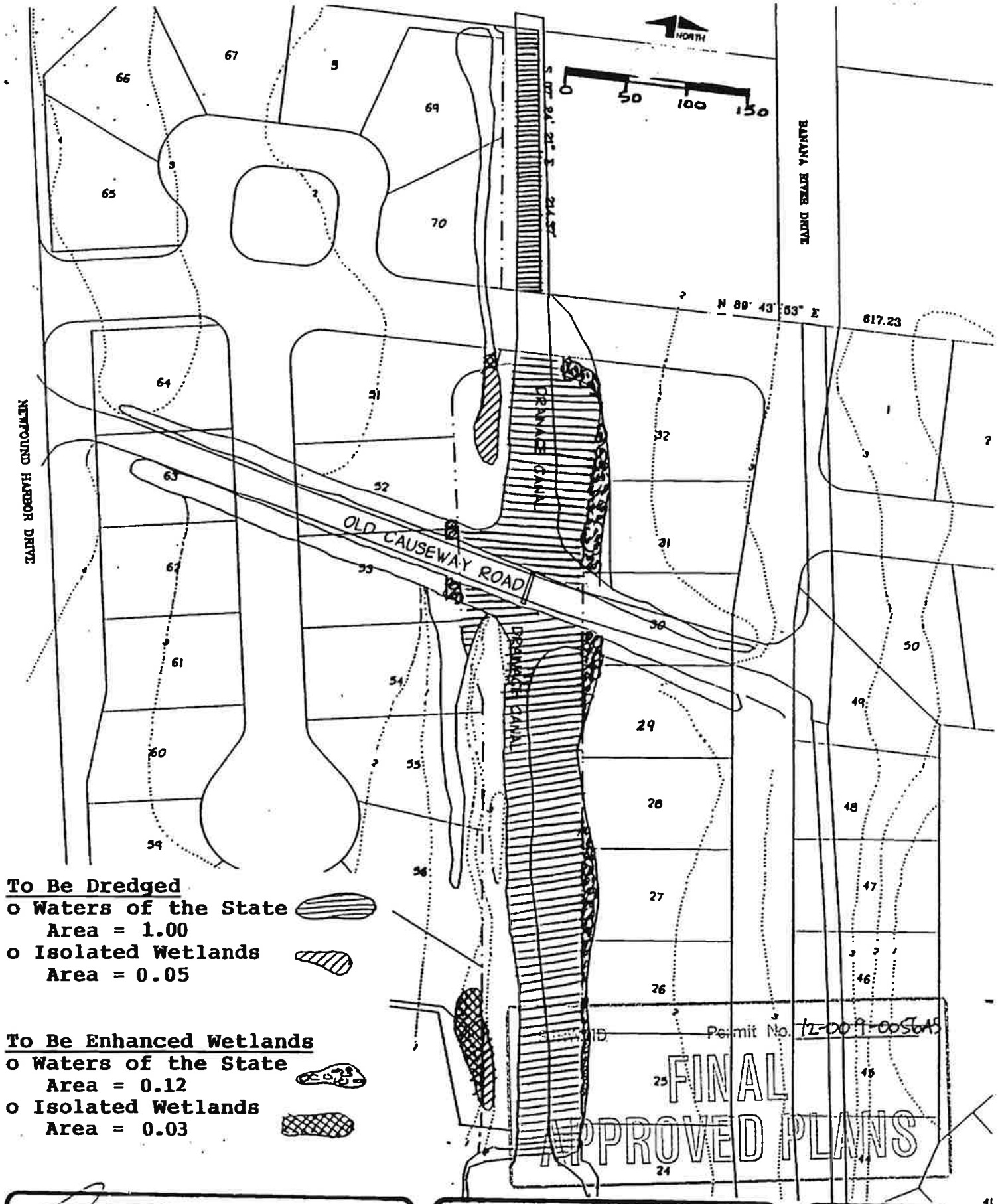
SOUTHEAST BANK BUILDING
1000 HIGHWAY A1A, SUITE 300
SATELLITE BEACH, FLORIDA 32937
(407) 777-1701

10/31/90

HARBOR POINT PHASE 2

PROPOSED CANAL & WETLANDS

88.153
12-A
10-25-90
REV.
SHEET OF



To Be Dredged

o Waters of the State
Area = 1.00

o Isolated Wetlands
Area = 0.05

To Be Enhanced Wetlands

o Waters of the State
Area = 0.12

o Isolated Wetlands
Area = 0.03

Permit No. 12-0071-0058AM

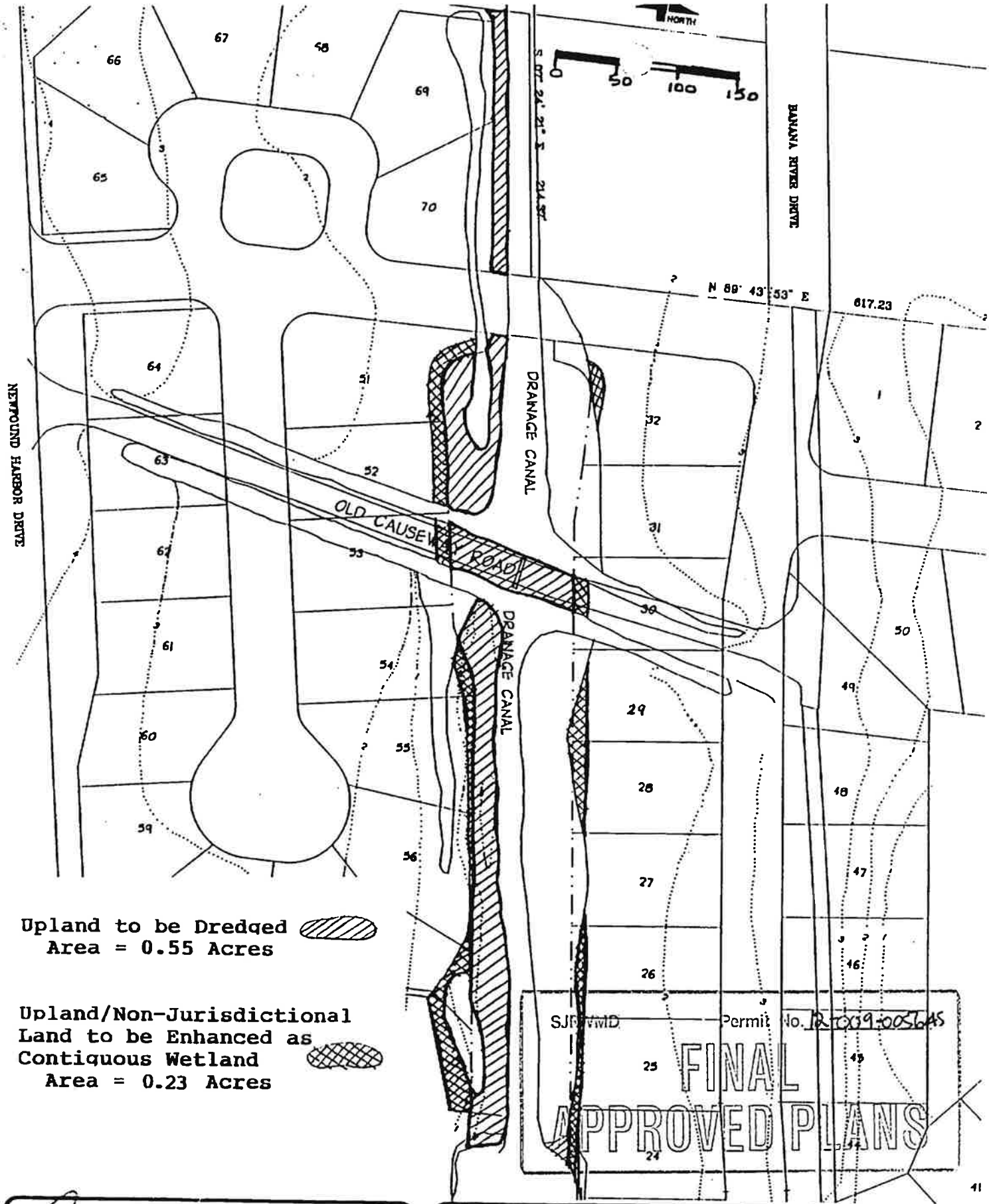
FINAL APPROVED PLANS

FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1080 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
ENGINEERS / PLANNERS / SURVEYORS

10/31/90

Harbor Point Phase 2
Wetlands

88.153
Fig. 13
10-25-90 Rev
SHEET OF



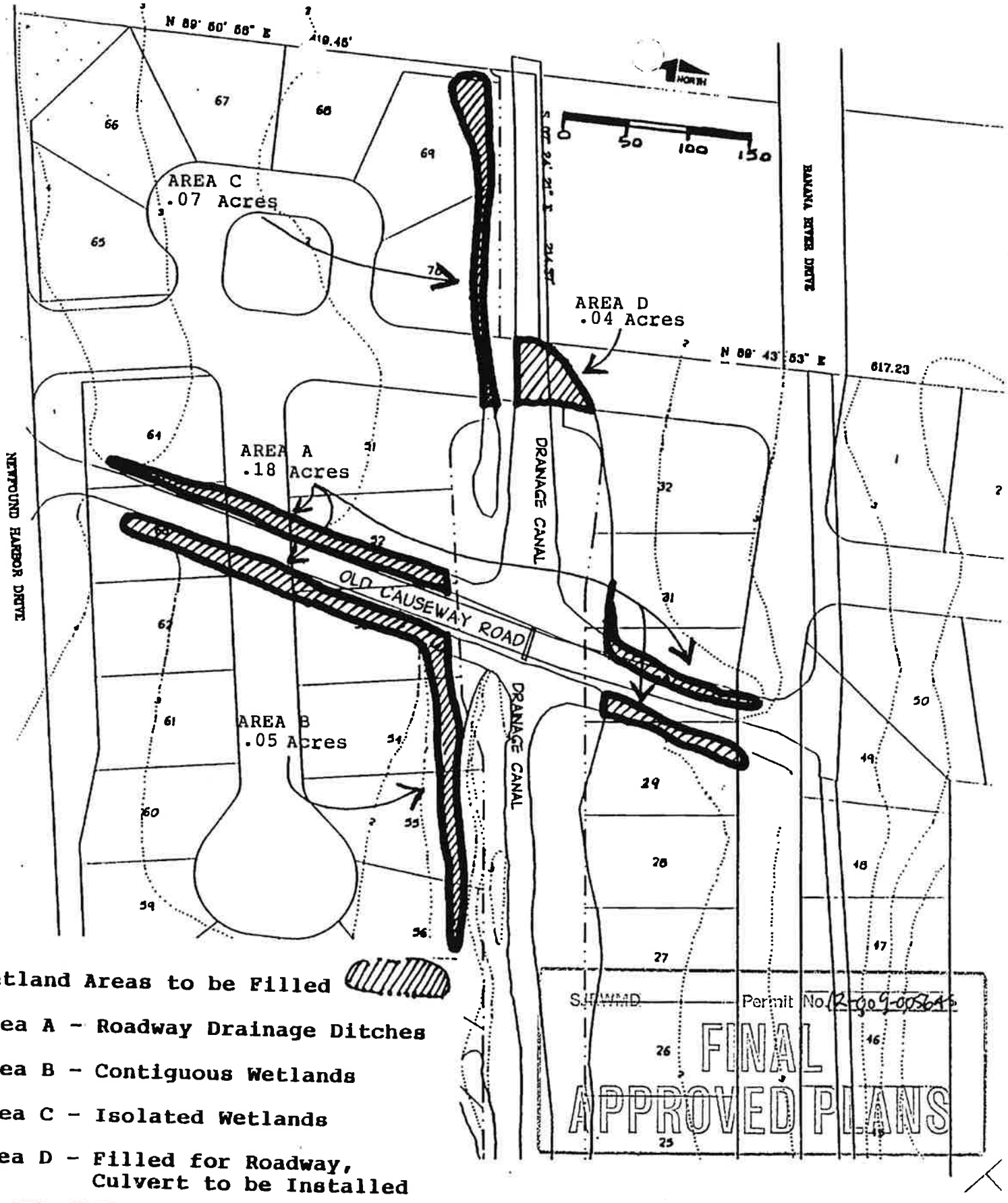
FLEIS ASSOCIATES
ENGINEERS / PLANNERS / DEVELOPERS
SOUTHEAST BANK BUILDING
2080 HIGHWAY A1A, SUITE 300
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701

10/31/90

Harbor Point Phase 2
Dredge Areas

88.153
Fig. 13A
10-25-90 Rev

SHEET OF



Wetland Areas to be Filled

Area A - Roadway Drainage Ditches

Area B - Contiguous Wetlands

Area C - Isolated Wetlands

Area D - Filled for Roadway, Culvert to be Installed

FLEIS ASSOCIATES

SOUTHEAST BANK BUILDING
1000 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701

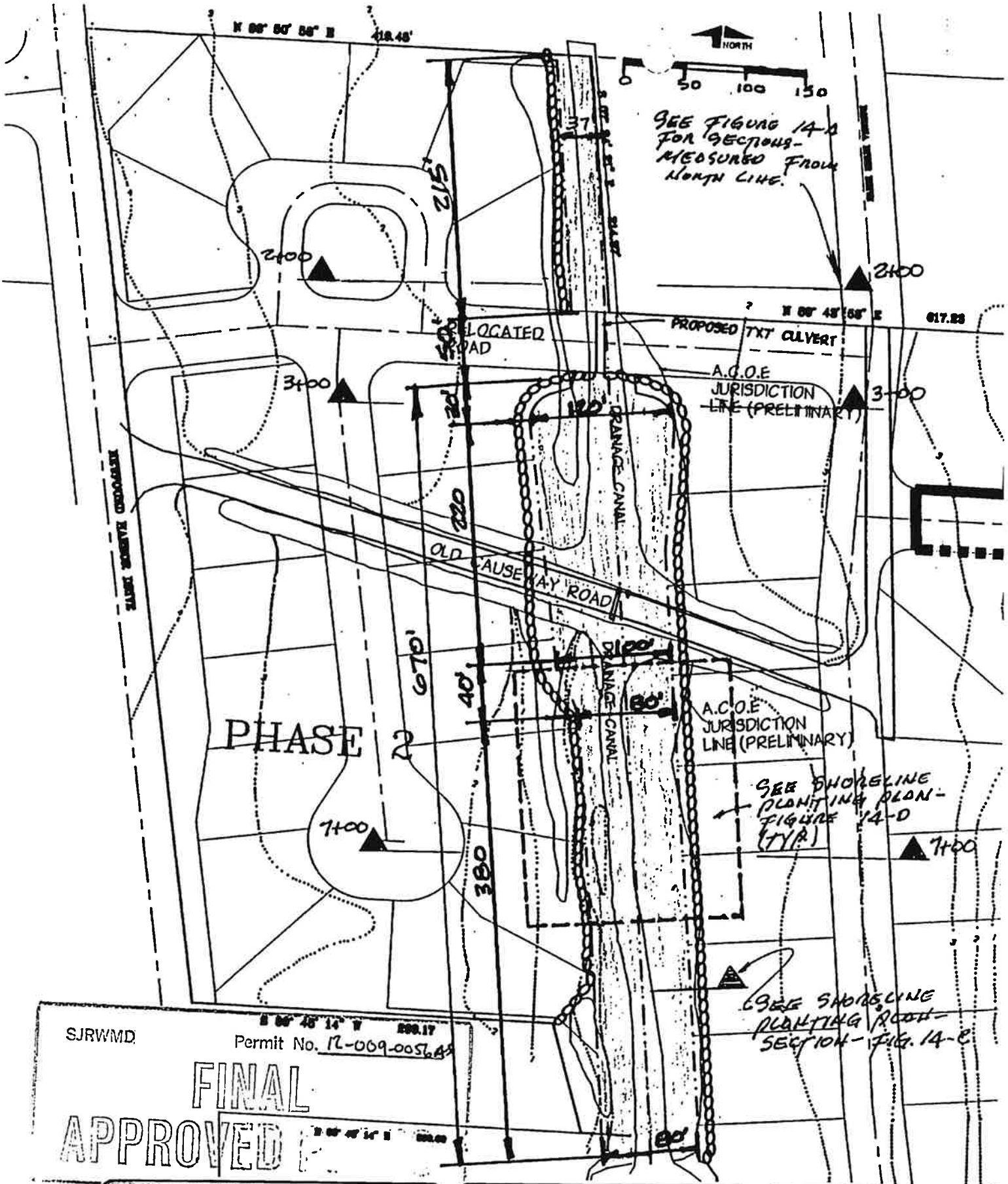
ENGINEERS / PLANNERS / DEVELOPERS

10/31/90

HARBOR POINT PHASE 2

WETLAND AREAS TO BE FILLED

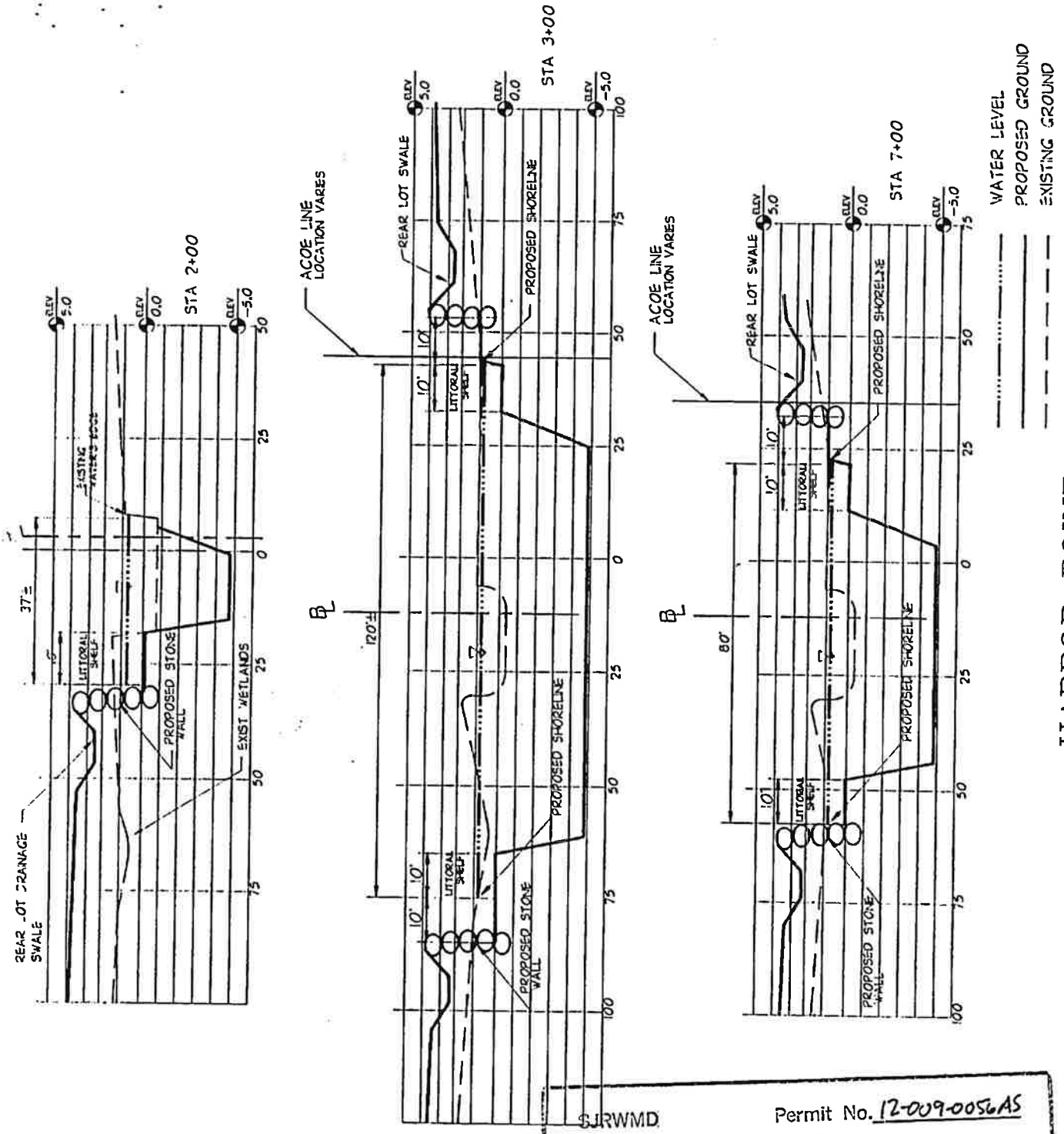
88.153
13-B
10-25-90
REV.
SHEET OF



FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1080 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD M. FLEIS
P.E. NO. 0030832
10/31/90

Harbor Point Phase 2
Proposed Canal
Dimensions

88.153
Fig. 14
9-7-90
10-25-90 Rev.



HARBOR POINT

SJRWMD Permit No. 12-009-0056AS

FINAL APPROVED PLANS

FLEIS ASSOCIATES

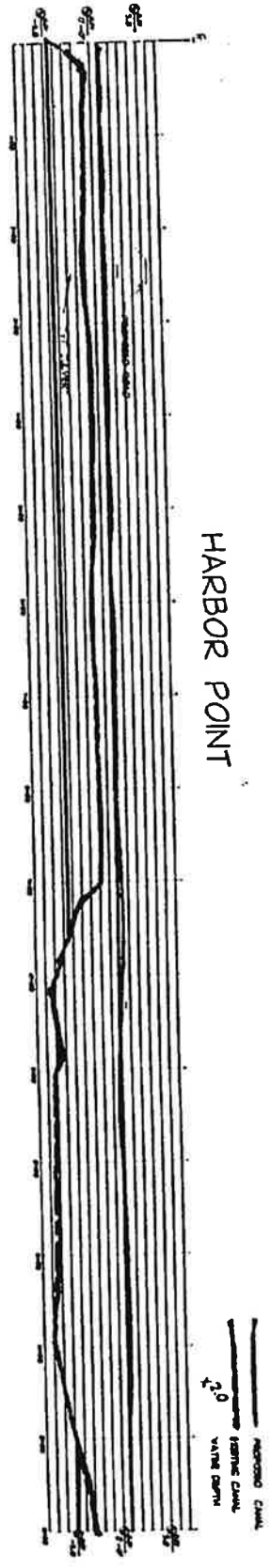
SOUTHEAST BANK BUILDING
1000 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701

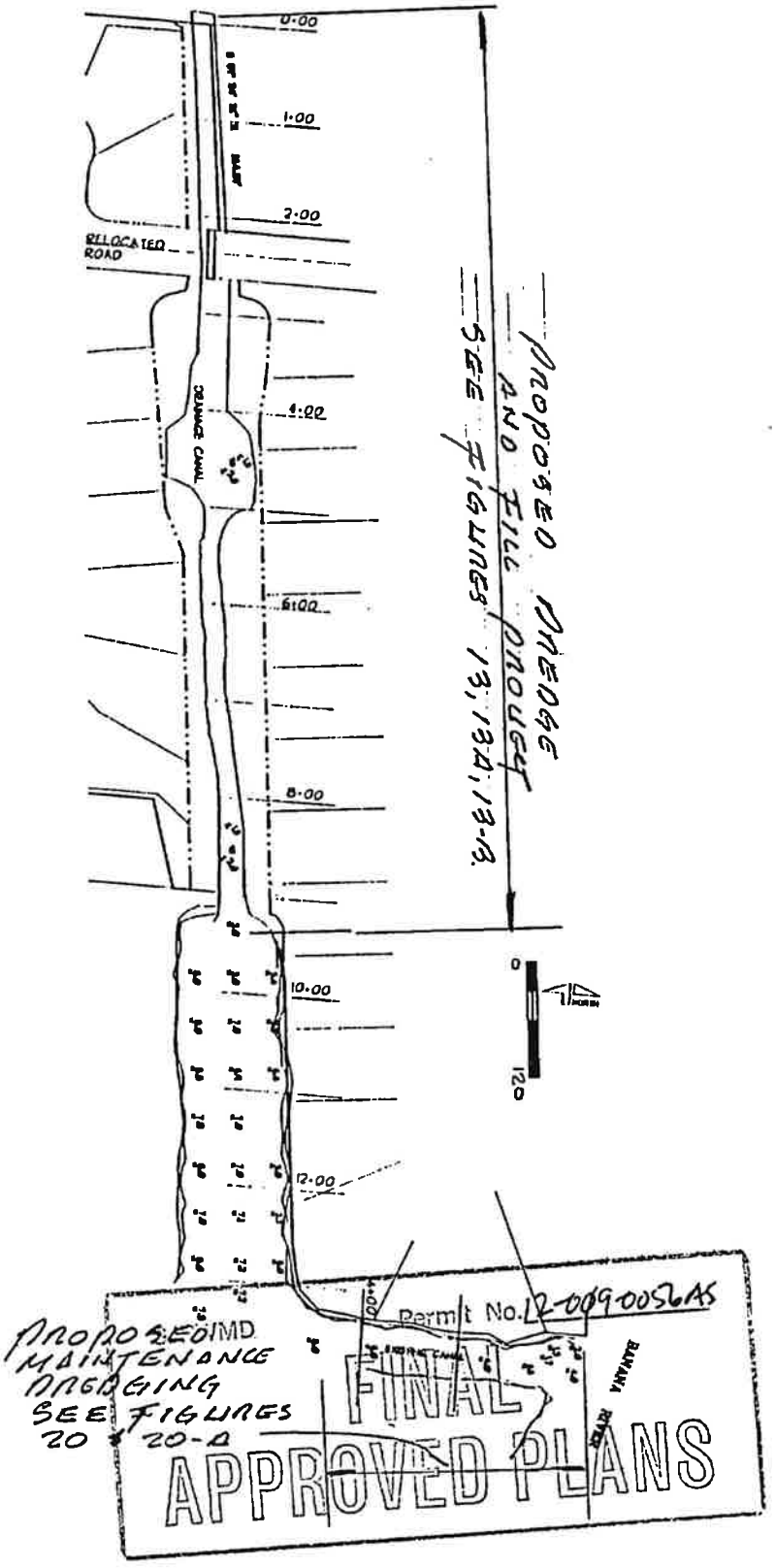
EDWARD M. FLEIS
P.E. NO. 0030932

9.11.90

Harbor Point Phase 2
Cross-section

88.153
Fig. 14-A
9-7-90



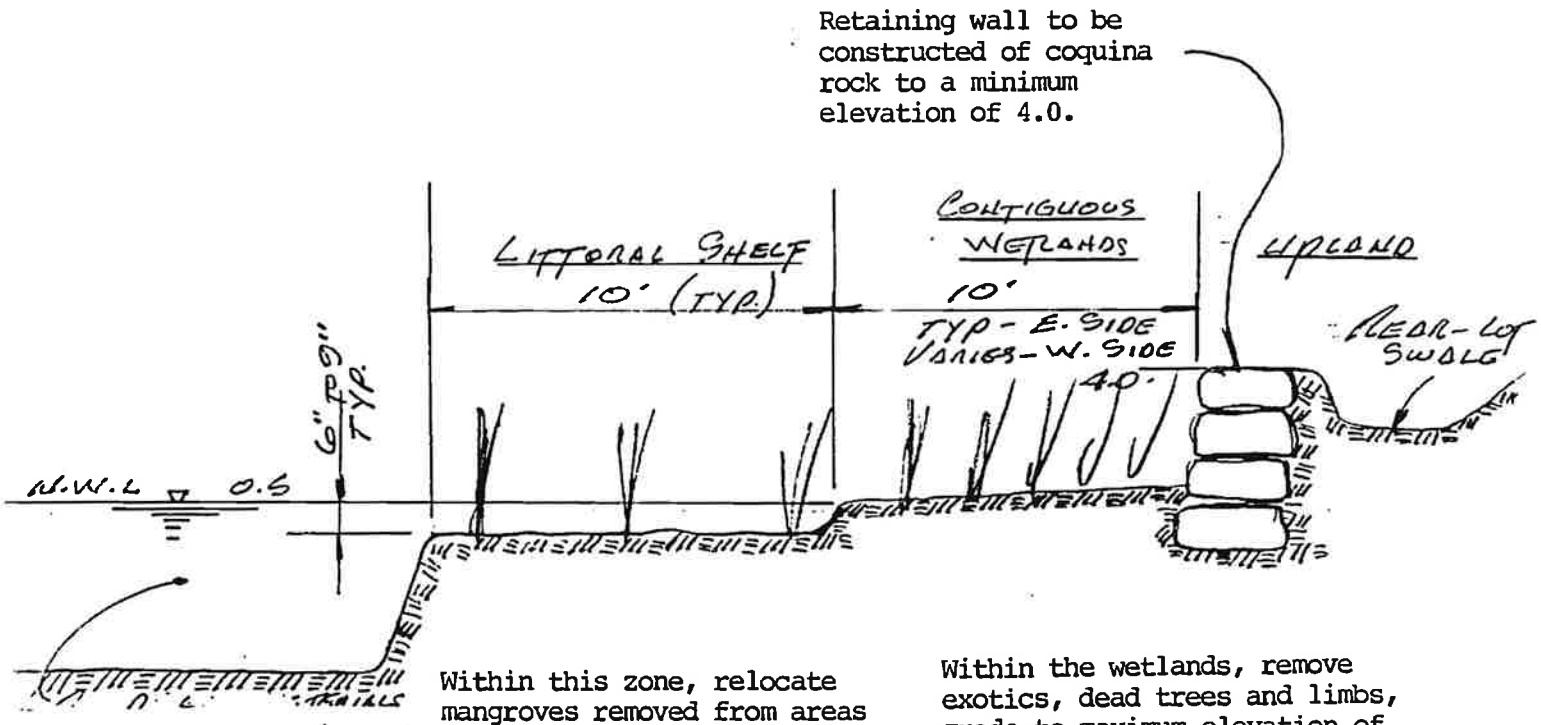


FLEIS ASSOCIATES, INC.
1090 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD M. FLEIS
P.E. NO. 0030832
10/31/90

Harbor Point Phase 2

Profile of Canal

88.153
Fig. 14-B
9-7-90
10-25-90Rev



Dredged material to be placed upland.

Within this zone, relocate mangroves removed from areas to be dredged. Plant Avicennia germinans and Spartina alterniflora. (See 14-D)

Within the wetlands, remove exotics, dead trees and limbs, grade to maximum elevation of 1.5, transplant Leather Ferns, and plant Avicennia germinans and Spartina alterniflora.

SJRWMD Permit No. 12-009-0056AS

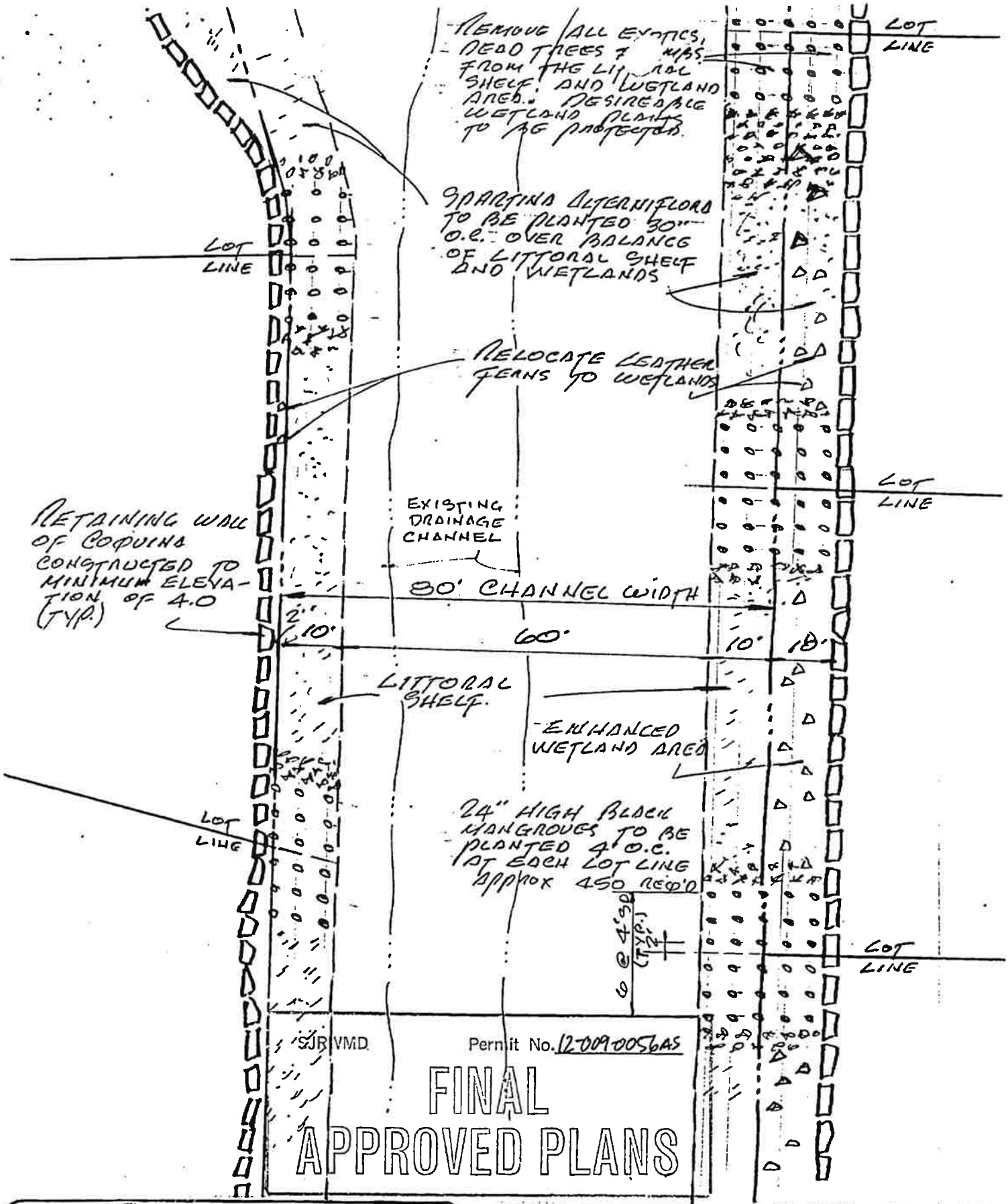
FINAL

Section APPROVED PLANS

FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1000 HIGHWAY A1A, SUITE 208
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD M. FLEIS
P.E. NO. 0030832
9.11.90

Harbor Point Phase 2
Shoreline Planting
Plan - Section

88.153
Fig. 14-C
9-7-90



FLEIS ASSOCIATES, INC.
1090 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD E. FLEIS
P.E. NO. 0030832

HARBOR POINT .PHASE 2
SHORELINE PLANTING PLAN

88.153
FIG. 14-D
9-7-90
SHEET 323

Pre and Post Development
Wetland Inventory

SJRWMD Permit No. 4209005645

FINAL
APPROVED PLANS

Pre Development Inventory of Wetlands

Phase 2 - (Canals & Wetlands)

1. Waters of the State		
Existing Canal		0.47 Acres
Drainage Canals Parallel to Road		0.25 Acres
Contiguous Wetlands East of Canal		0.58 Acres
Contiguous Wetlands West of Canal		0.09 Acres
		1.39 Acres
2. Isolated Wetlands		
West of Canal		0.15 Acres
	TOTAL	1.54 Acres

Phase 2 - (Proposed Construction)

1. To be Dredged	
Waters of the State	1.00 Acres
Isolated Wetlands	0.05 Acres
Upland	0.55 Acres
	1.60 Acres
2. To be Enhanced as Contiguous Wetlands	
Waters of the State	0.12 Acres
Isolated Wetlands	0.03 Acres
Adjacent Non-Jurisdictional Land	0.23 Acres
	0.38 Acres
3. Wetlands to be Filled	
Area A - Drainage Canals	0.18 Acres
Area B - Contiguous Wetlands West of Canal	0.05 Acres
Area C - Isolated Wetlands West of Canal	0.07 Acres
Area D - Relocated Roadway	0.04 Acres
	0.34 Acres

Post Development Inventory of Wetlands

Area of Canal	1.60 Acres
Area of Contiguous Wetlands	0.38 Acres
Total Waters of the State	1.98 Acres

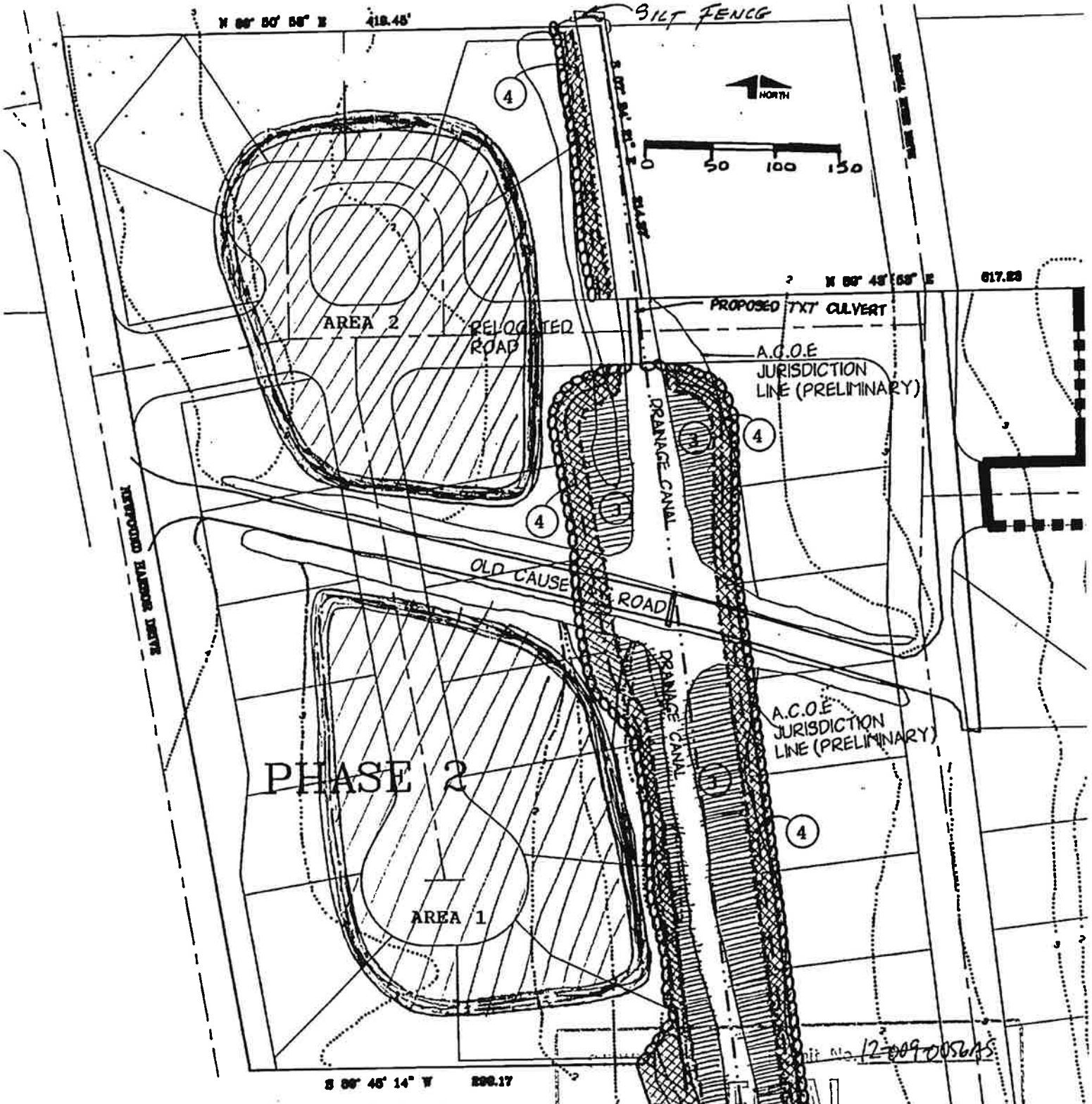
Note: Area of the Canal includes 0.36 acres of planted littoral shelf.

FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1080 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701
EDWARD M. FLEIS
P.E. NO. 0030832
10/31/90
ENGINEERS / PLANNERS / DEVELOPERS

HARBOR POINT PHASE 2

Pre and Post Development

88.153
FIG. 15
9-7-90
10-25-90 Rev.
SHEET OF



Areas 1 and 2 - Upland Fill Areas

Area 3 - Area Between Existing Canal and Edge of Littoral Shelf

Area 4 - Littoral Shelf and Contiguous Wetland Area

Permit No. 12-009-00545

SILT FENCES

FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1060 HIGHWAY A1A, SUITE 200
SATELLITE BEACH, FLORIDA 32937
(407) 777-2701

EDWARD M. FLEIS
P.E. NO. 0030632
10/31/90

Harbor Point Phase 2
Construction Areas

88.153
Fig. 18
9-7-90
10-25-90 Rev.

WETLAND CONSTRUCTION PHASING SEQUENCE

1) Install silt fences at locations shown on Figure 18. Erosion and sedimentation control measures are to be consistent with the requirements of the St. Johns River Water Management District. Best Measurement Practice for Construction.

2) Remove fish from area of existing canal between earth dikes by netting. All netted fish to be relocated to existing canal south of the construction area.

3) Clear and grub fill areas 1 and 2 except for selected trees. Cleared materials are to be stockpiled and burned or hauled to a suitable disposal area. Clear and grub the areas designated 3 where the depth of water of the proposed canal is greater than 12 inches. Protect and salvage leather ferns and mangroves for transplanting. Selectively clear the littoral zone and the contiguous wetlands (Area 4) of all dead trees and limbs and exotics.

4) Remove any organic soils from areas designated 1, 2, and 3 and stockpile in designated areas.

5) Construct earth dikes around areas 1 and 2 to minimum elevation 4.5.

6) Dredge to final cross section the entire proposed canal area, except the area of the existing roadbed of Old Causeway Road. Dredged material to be pumped to areas 1 and 2 which are contained within the earth dikes. Dredging may also be accomplished by backhoe or clamshell and the material transported by truck.

7) Transplant leather ferns to wetland area between new shoreline and ACOE Jurisdictional Line and mangroves into the littoral shelf.

8) Install retaining wall upland of the new wetlands boundary.

9) After the dredged material has drained, the roadbed and remaining filled areas are to be graded. Install sanitary sewer, water, drainage, and road improvement within proposed street system.

10) Abandon existing watermain in Old Causeway Road by physical disconnection from the existing system. Asphalt and base to be pulverized, removed, and recycled as base for relocated roadway.

11) Excavate existing Old Causeway Road roadbed within proposed canal by backhoe to finish grades.

12) Remove silt fences.

13) Complete planting of mangrove and wetland plants within designated submerged shoreline and contiguous wetland area.

SJRWMD Permit No. 12-009-0056AS

FINAL APPROVED PLANS

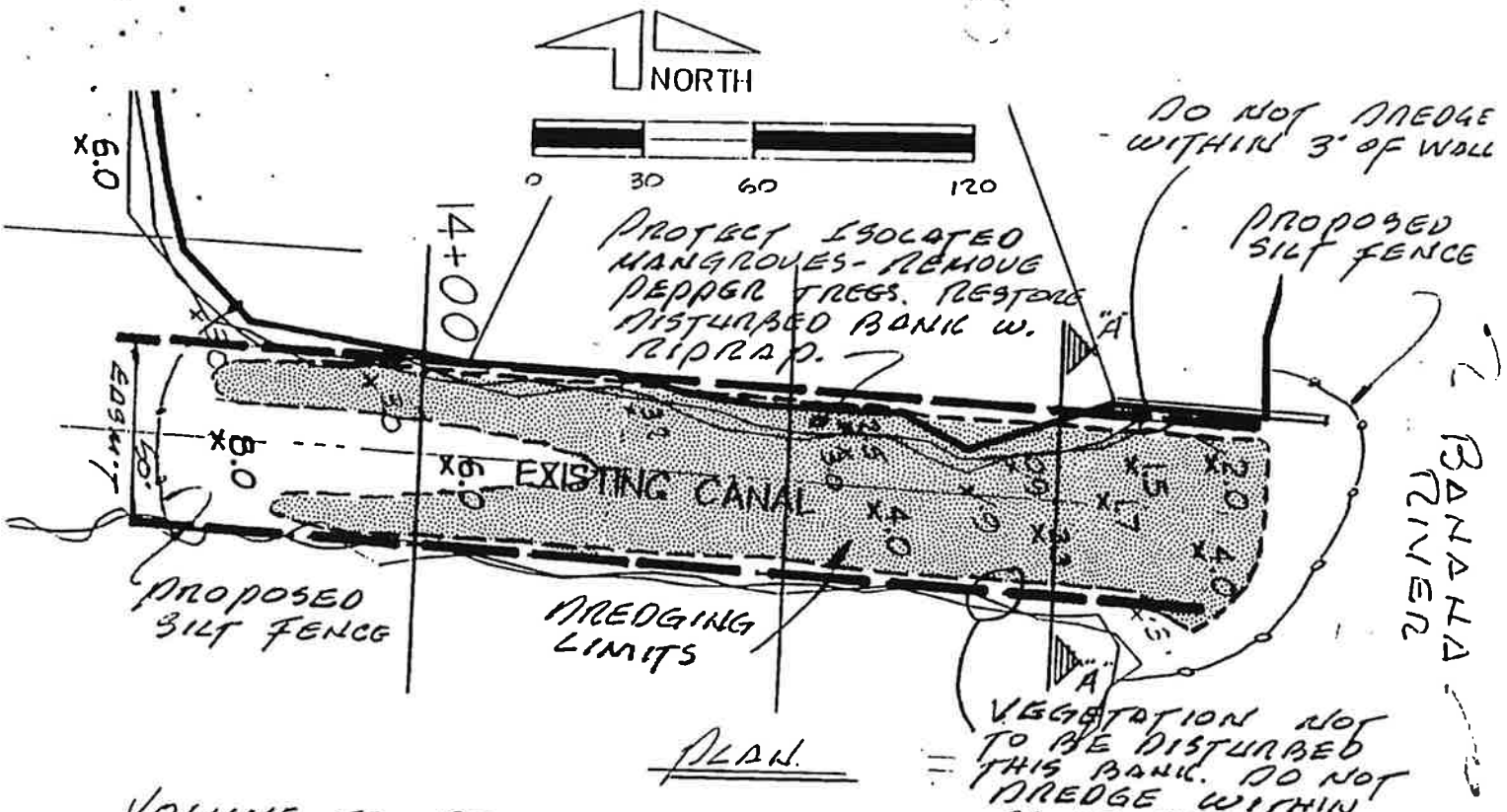
FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1080 HIGHWAY A1A, SUITE 208
SATELLITE BEACH, FLORIDA 32937
(407) 777-3701

10/31/90

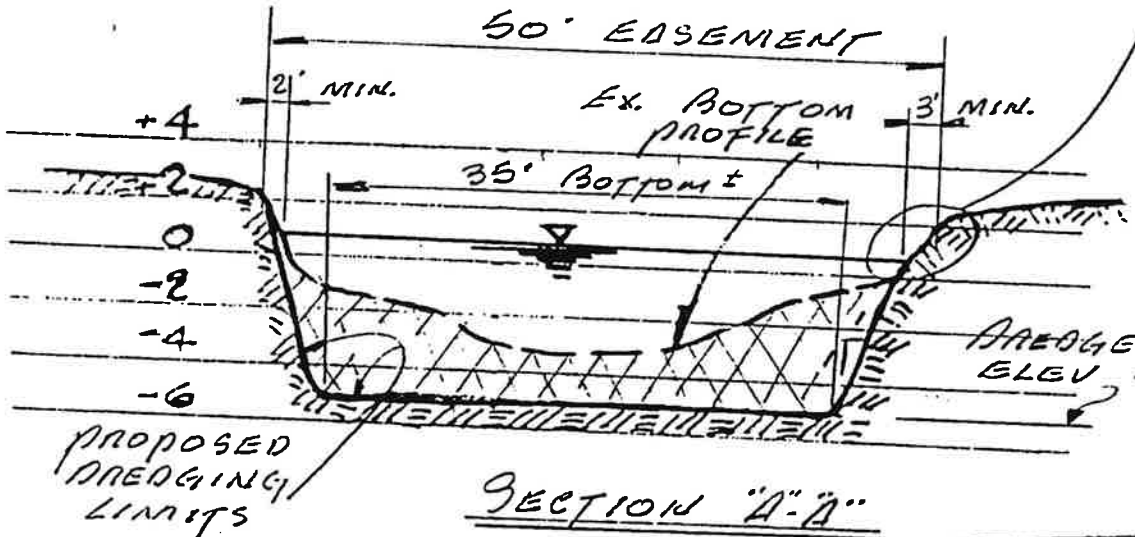
HARBOR POINT PHASE 2

Wetland Construction Phasing Sequence

88.153
Fig. 18-A
9-7-90
10-25-90 Rev.



VOLUME TO BE EXCAVATED - EST. @ 1,700 CU. YDS.



SJRWMD Permit No. 12-009-0056-AS

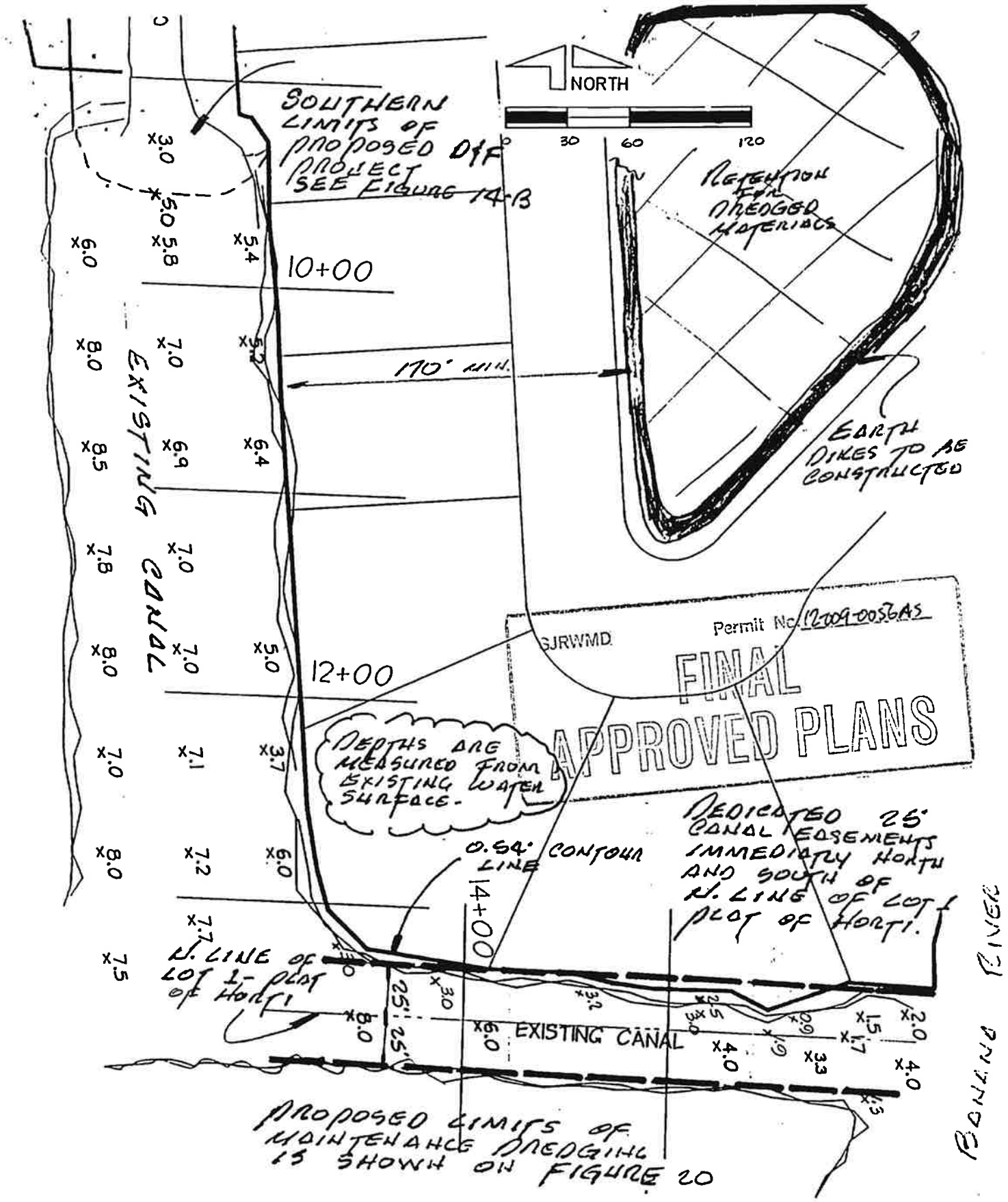
FINAL APPROVED PLANS

FLEIS ASSOCIATES
SOUTHEAST BANK BUILDING
1080 HIGHWAY A1A, SUITE 208
SATELLITE BEACH, FLORIDA 32937
(407) 777-8701

10.31.90

HARBOR POINT PHASE 2
Maintenance Dredging
Plan-and-Section

88-153
Fig. 20
10-25-90



FLEIS ASSOCIATES SOUTHEAST BANK BUILDING 1080 HIGHWAY A1A, SUITE 200 SATELLITE BEACH, FLORIDA 32937 (407) 777-2701 10/31/90	HARBOR POINT PHASE 2 "Maintenance" Dredging Depths of Existing Canal	88.153 Fig. 20-A 10-25-90

Notice of Hearing

Published in Brevard County on November 1, 2024

Location

Brevard County, Florida

Notice Text

THE BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS WILL HOLD A PUBLIC HEARING ON TUES., NOVEMBER 12, 2024, 9:00 AM, AT THE BREVARD CO. GOVT. CENTER COMMISSION CHAMBERS, 2725 JUDGE FRAN JAMIESON WAY, BLDG. C., VIERA, FL 32940 TO CONSIDER A PUBLIC INTEREST DETERMINATION REQUEST BY ATTORNEY KIMBERLY BONDER REZANKA, OF LACEY LYONS REZANKA, ON BEHALF OF MR. AARON RENINGER AND MR. ROGER XAVIER FOR WIDENING PROJECT WITHIN PELICAN CREEK, 1865-1935 S BANANA RIVER DR, MERRITT ISLAND. THE APPLICANTS REQUEST APPROVAL FOR AFTER-THE-FACT AND ADDITIONAL NEW DREDGING OF PELICAN CREEK FROM OLD CAUSEWAY RD TO THE SOUTH PROPERTY LINE OF 1935 S BANANA RIVER DR MERRITT ISLAND. (TAX ACCOUNT NOs. 2524354, 2524350, 2535314, 2524353, & 3022327). FOR MORE INFORMATION, PLEASE CONTACT THE NATURAL RESOURCES MANAGEMENT DEPT AT 321-633-2016. IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND SECTION 286.26, FLORIDA STATUTES, PERSONS WITH DISABILITIES NEEDING SPECIAL ACCOMODATIONS TO PARTICIPATE IN THIS PROCEEDING SHOULD CONTACT THE COUNTY MANAGER S OFFICE NO LATER THAN 48 HOURS PRIOR TO MEETING AT 321-633-2001 FOR ASSISTANCE .

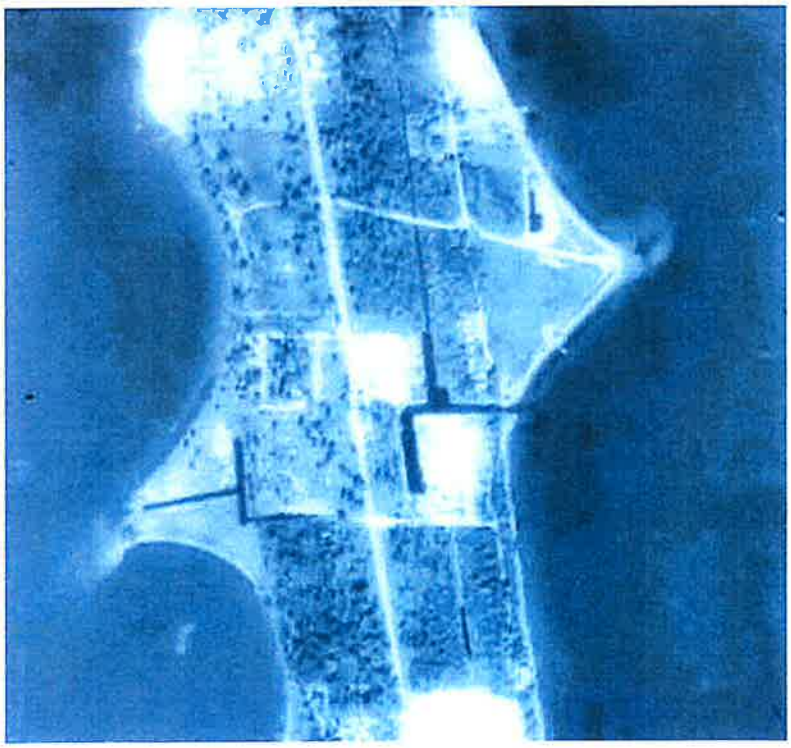
H, I,

Kim R.

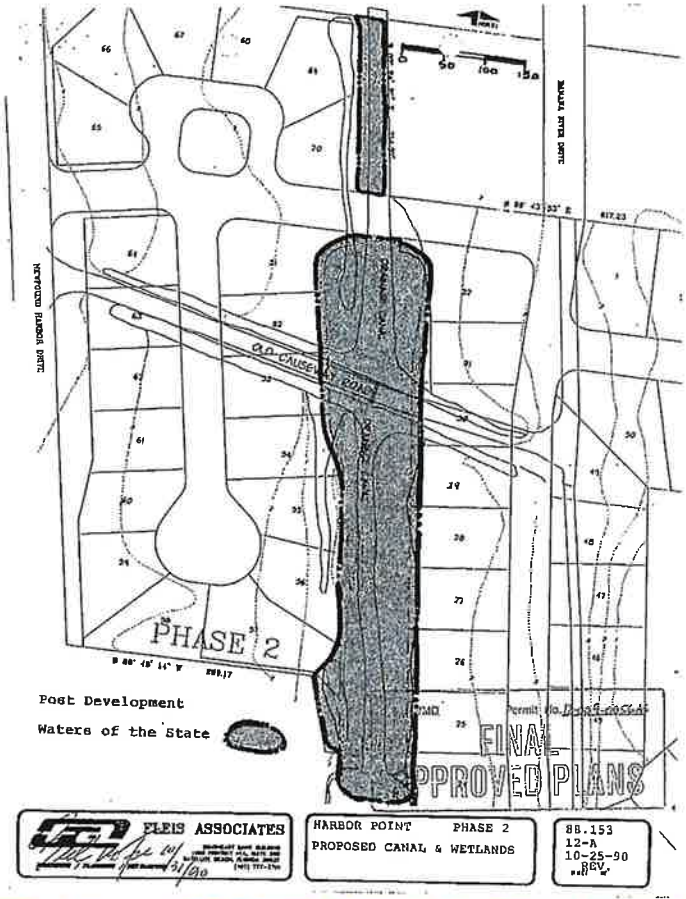
Public Interest Determination. South Banana River Drive.
November 12, 2024

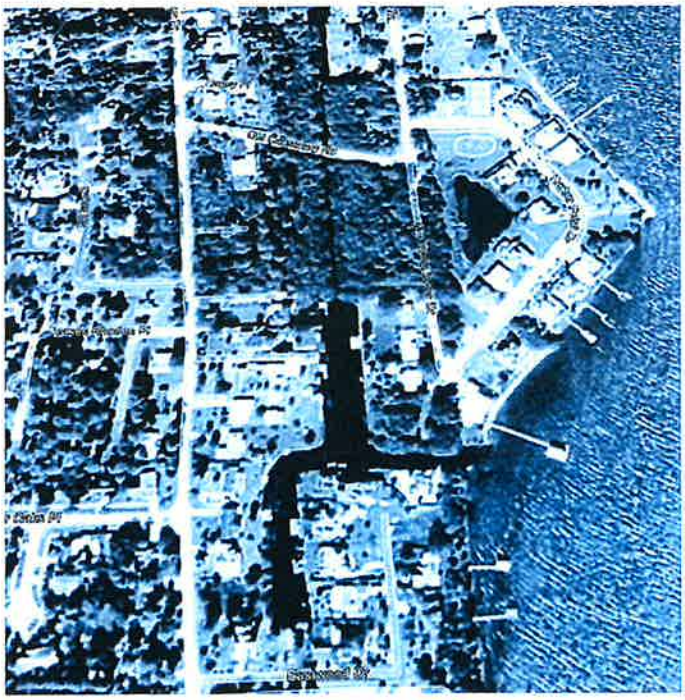
- Pelican Creek Upland Cut Canal Created Between 1943 and 1951.

- Created Wetlands Adjacent to the Dredged Canal Which Recruited with Mangroves.
- By 1969 Southern Section of the Canal was Initially Dredged & Channel Connected



- In 1991, SJRWMD Issued Permit To Greg Loggins for Harbor Point Phase I and Phase II Authorizing Dredging To Extend Width of Canal to be Consistent with Existing Canal Dredged to the South by 1969.





- Phase I of the permit was completed while Phase II was not.

PELICAN CREEK OUTFALL LOOKING SOUTH FROM ORRIS AVE

TUESDAY 6/14/22 - FPL RAISED THE POWERLINES AND KAISER ENTERED THE OLD CAUSEWAY OUTFALL AND MULCHED VEGETATION INSIDE THE OUTFALL FROM OLD CAUSEWAY RD, SOUTH 400'±. ALSO MULCHED 10' ± ALONG THE EAST AND WEST BANK. REMOVAL OF MULCHED VEGETATION INSIDE THE OUTFALL AND APPROXIMATELY TWO (2) INCHES OF MUCK WERE LAID ON THE TOP OF THE BANK

OLD CAUSEWAY RD - OLD CAUSEWAY OUTFALL LOOKING SOUTH BEFORE MAINTENANCE ACTIVITY - UNKNOWN DATE

Canal Maintenance Photos & Dates.

May 27, 2021

Emails between county commissioners and Jason Kelly are exchanged in regard to having the canal dredged and cleaned out.

Aug 23, 2021

Excerpt from email :

The cleaning and maintenance of these ditches is a top priority for Road and Bridge and we are working towards getting them back to a maintainable level. I appreciate your patience and we hope to see the keiser in your area in January. If you have any further questions, please feel free to contact our office at 321-455-1389.

Jason Kelly
Brevard County Public Works
Road & Bridge Maintenance
Landscape Operations
Office: 321-264-5084

June 14, 2022 County Shows up with machine behind house and starts work.

June 16, 2022

Before and After Photos of Brevard County ; Dredging had not been done yet.

Notice:

Wood Structure in both photos. Also Reference the house is across the pond and and the same in both photos.

After Photo:

June 17, 2022
Dredging material put over grass area. See Next photo for Grass picture. Also refrence Palm tree stump that is used in many county photos.

Exhibit A

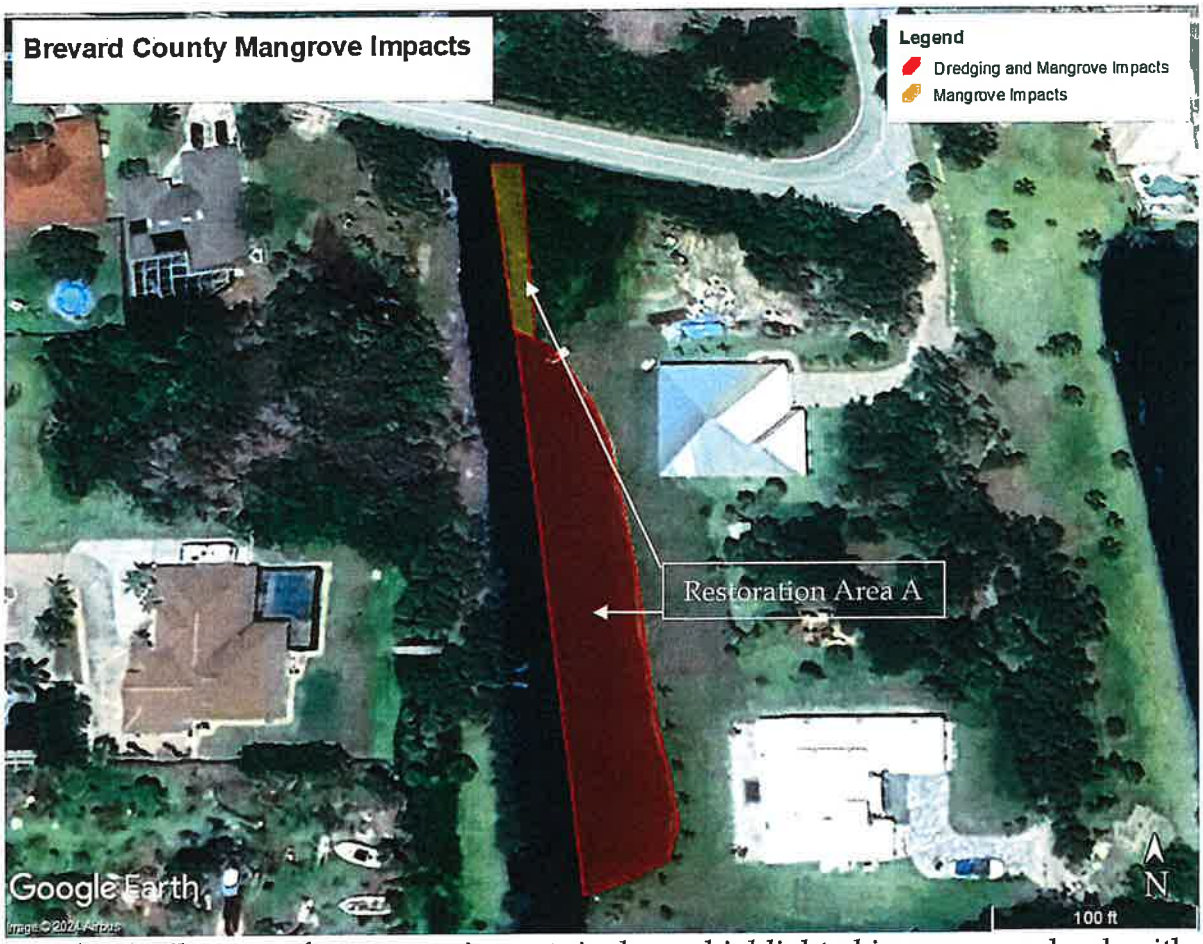


Exhibit A: The area of mangrove impacts is shown highlighted in orange and red, with Restoration Area A consisting of both areas. The red area shows where additional dredging, conducted by Simone and Rogerio Xavier and Aaron Reninger occurred.

Exhibit B

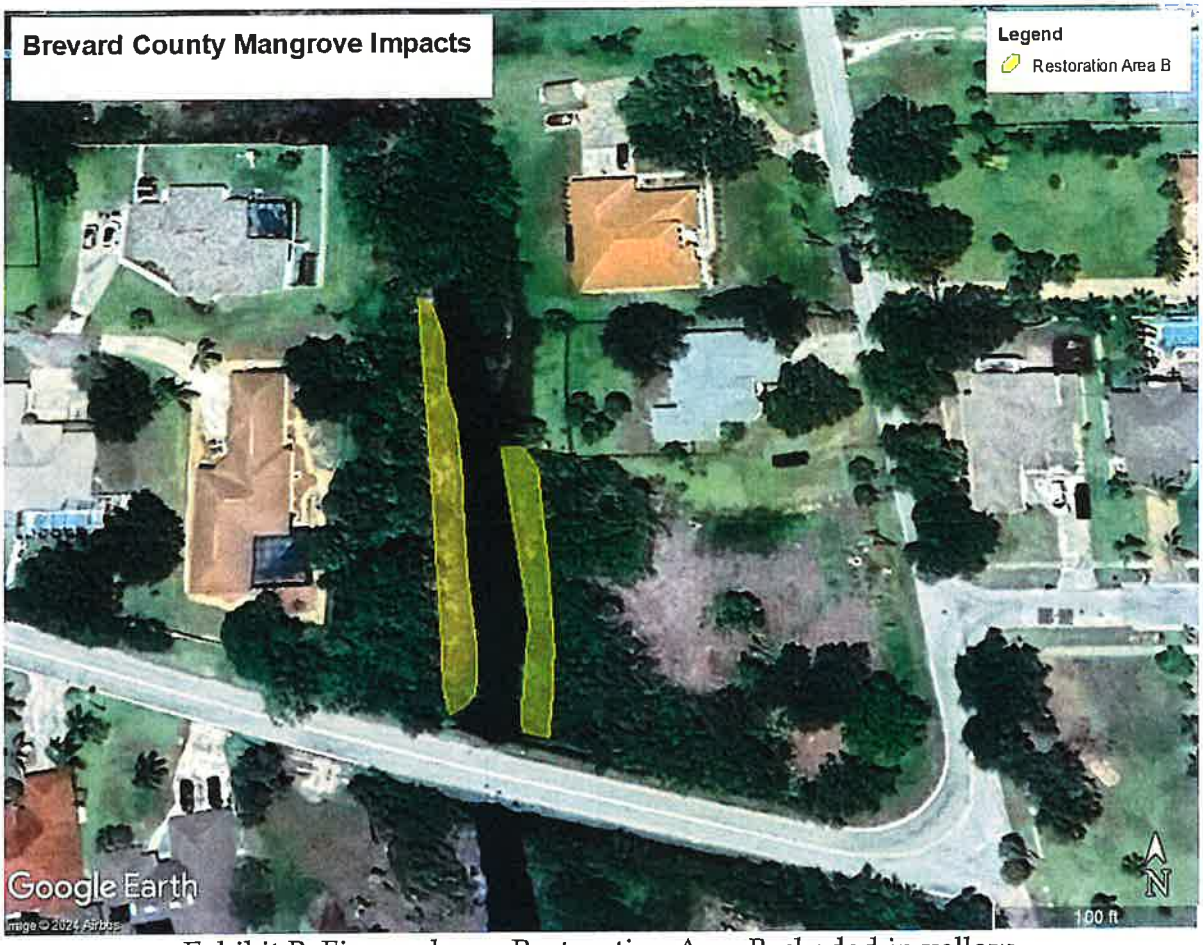


Exhibit B: Figure shows Restoration Area B, shaded in yellow.

Exhibit A

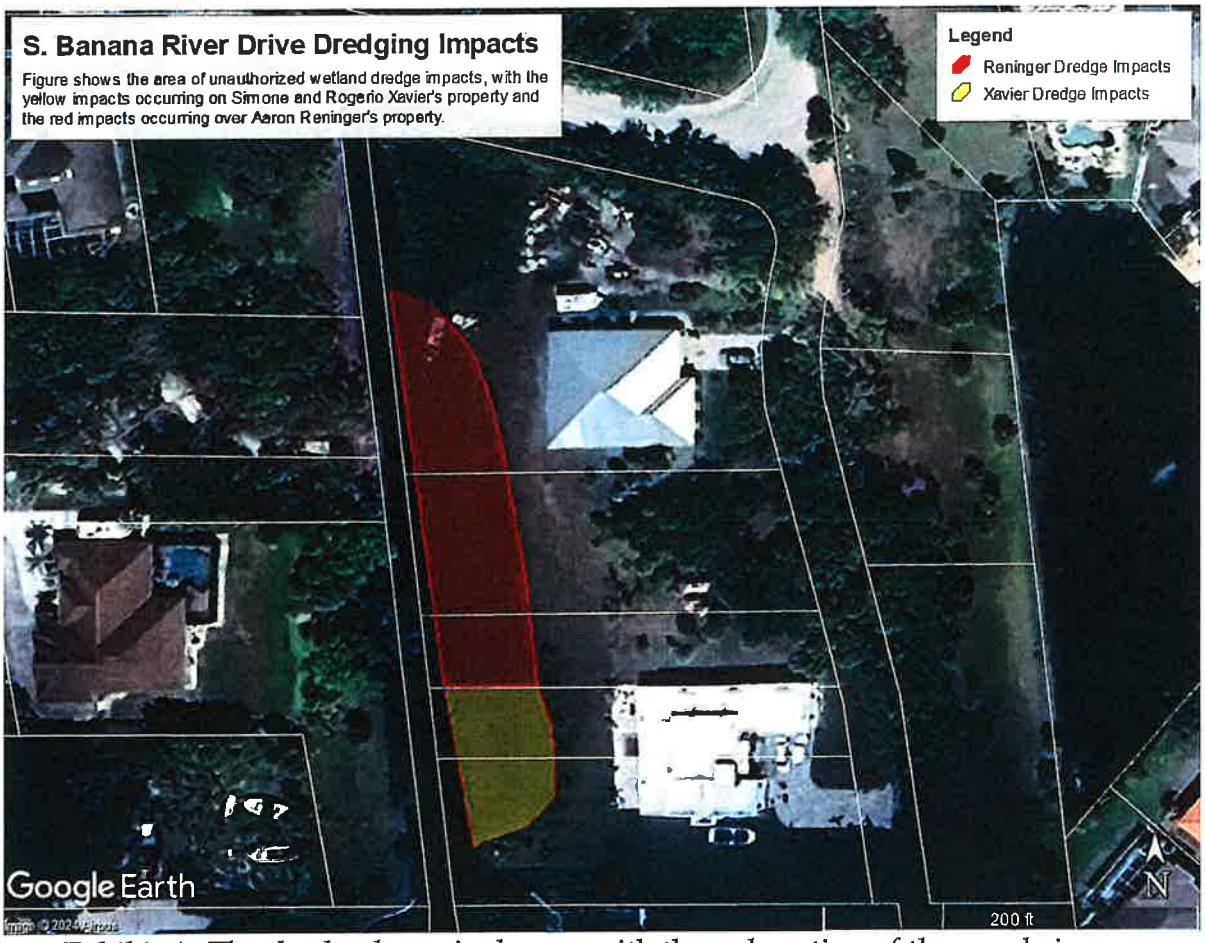
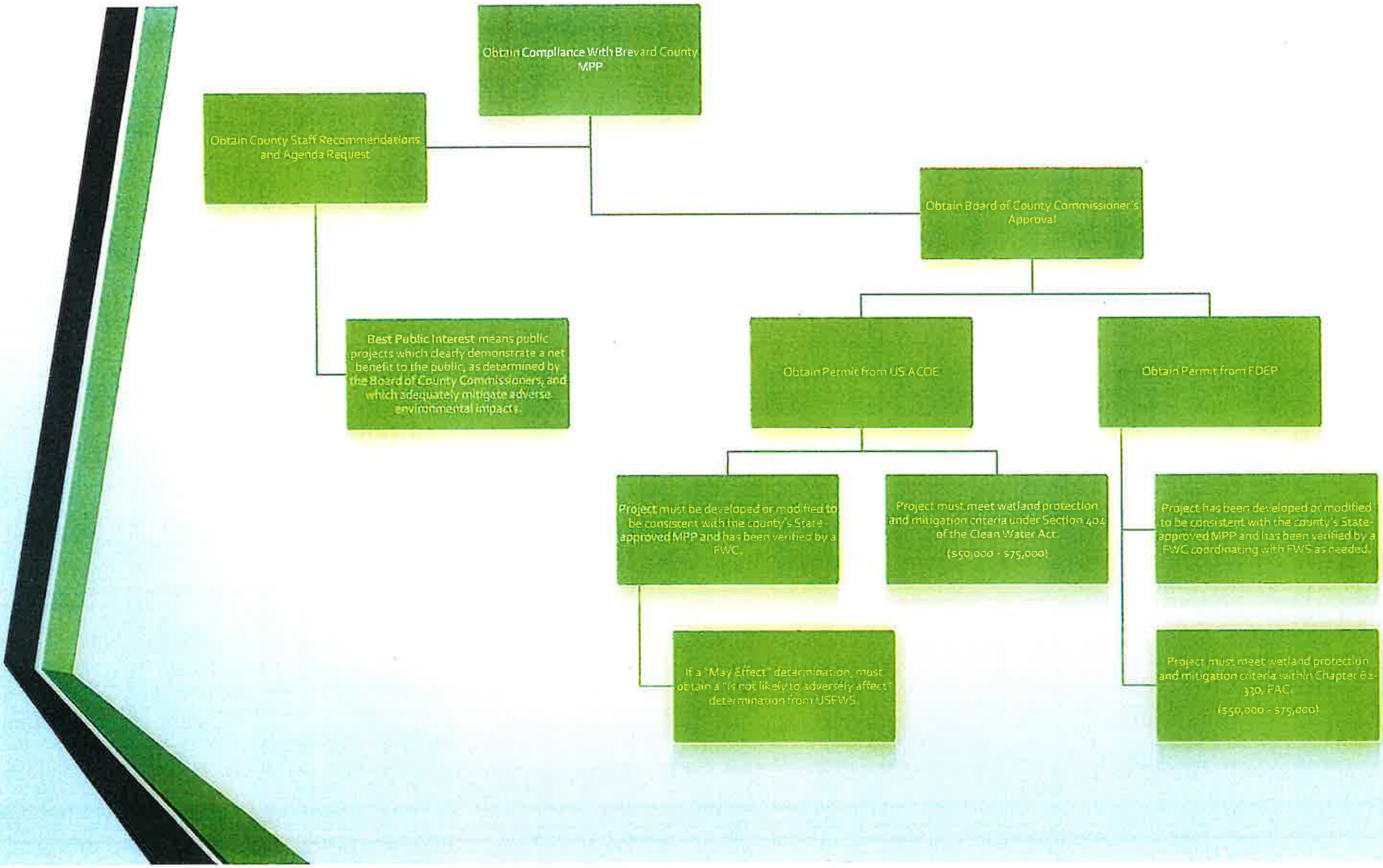


Exhibit A: The dredged area is shown, with the red portion of the area being on property owned by Aaron Reninger and the yellow portion of the area being on property owned by Simone and Rogerio Xavier. Respondents are responsible for pursuing authorization and/or restoring the yellow shaded area.


Obtain Compliance With Brevard County MPP
Obtain County Staff Recommendations and Agenda Request
Best Public Interest means public projects which clearly demonstrate a net benefit to the public, as determined by the Board of County Commissioners, and which adequately mitigate adverse environmental impacts.
Obtain Board of County Commissioner's Approval
Obtain Permit from US ACOE
Project must be developed or modified to be consistent with the county's State-approved MPP and has been verified by a FWC.
If a "May Effect" determination, must obtain a "is not likely to adversely affect" determination from USFWS
Project must meet wetland protection and mitigation criteria under Section 404 of the Clean Water Act.
($50,000 - $75,000)
Obtain Permit from FDEP
Project has been developed or modified to be consistent with the county's State-approved MPP and has been verified by a FWC coordinating with FWS as needed.
Project must meet wetland protection and mitigation criteria within Chapter 62-330, FAC.
($50,000 - $75,000)

H.I.

X