



# FLORIDA DEPARTMENT OF Environmental Protection

South District Branch Office  
2796 Overseas Highway, Suite 221  
Marathon, FL 33050  
SouthDistrict@FloridaDEP.gov

**Ron DeSantis**  
Governor

**Jeanette Nuñez**  
Lt. Governor

**Noah Valenstein**  
Secretary

2/18/2019

Richard C. Walker  
Walker Marina  
c/o Philip Frank  
Terramar Environmental Services, Inc.  
1241 Crane Boulevard  
Sugarloaf Key, Florida 33042  
[Terramar.env@gmail.com](mailto:Terramar.env@gmail.com)

File No.: 0216963-005 EM, Monroe County  
Modification of Permit No: 0216963-004 EI

Dear Mr. Frank:

Your request to modify the Permit No. 44-0216963-004 has been received and reviewed by Department staff.

The proposed permit modification is to:

Modify the special conditions to allow liveaboards at the facility, update the marina management plan, and fix minor errors and inconsistencies.

After review by staff, the proposed modification is not expected to adversely affect water quality and will not be contrary to the public interest.

Modifications to the permit are shown as follows: deletions are struck through (i.e. ~~abc~~) and additions are underlined (i.e. abc).

## PROJECT DESCRIPTION

The permittee is authorized to construct a 12,154 square foot, ~~75~~ 74 slip docking facility within a privately-owned basin, a Class III Florida Waterbody. Authorized activities are depicted on the attached exhibits.

## SPECIFIC CONDITIONS – OPERATION AND MAINTENANCE ACTIVITIES

- ~~No liveaboards shall be allowed to dock at the marina for the life of the facility.~~  
Liveaboards shall be allowed to dock at the facility.

11. The Permittee shall be responsible for the correction of any erosion, shoaling or water quality problems that result from the operation of the facility. ~~To prevent these~~
13. ~~A fixed pump-out system shall be maintained in working order and be available to all slip users during the life of the facility. The system shall be sized to accommodate the largest vessels expected at the facility. Prior to construction, the Permittee shall provide a design of the system, and shall describe how waste material will be disposed. If material is to be placed within a holding tank on the Permittee's property, the Permittee shall submit a valid contract with a licensed hauler. If the waste material is to be ultimately received by a sewage treatment facility, the Permittee shall submit documentation that the facility will accept the material. Construction of the facility shall not commence until these items have been received and approved by the Department.~~

Each slip shall have a connection to a hard-lined pump-out system which shall be maintained in working order and be available to all slip users throughout the life of the facility. A liveaboard shall not be allowed to dock at a slip without a direct sewage pump-out device. The system shall be connected to the City of Key West Sanitary Sewer System.

Sewage pump-out facilities shall be installed at the locations shown on the attached permit drawings prior to or simultaneously with completion of construction activities. Employees of the docking facility shall be trained in the proper use and maintenance of the sewage pump-out system. The permittee shall ensure marina personnel, who have been trained to operate the sewage pump-out facilities are available to assist boaters in operating the facilities during standard business hours (at a minimum) for the life of the facility. The sewage pump-out facility shall be in working order prior to any slip occupancy and be maintained in accordance with the requirements of this condition for the life of the facility.

Signage (minimum of 2 feet by 3 feet) shall be installed at the facility informing slip occupants of the prohibition of dumping marine sewage, gray water, bilge water, or other materials into the water. The signs shall read:

“All Vessel Discharges, Including Gray Water and Discharges From Marine Sanitation Devices, Are Strictly Prohibited at This Facility. Slip Occupants Must Use the Provided Pump-outs and Shoreside Facilities”

Each user/lessee/owner of a liveaboard slip shall be given a demonstration by trained personnel on how to use the sewage pump-out device, shall be given written instructions on how to use the device, and shall be informed the sewage pump-out device must be used whenever the user/lessee/owner wishes to empty the boat's head while moored at the slip. In addition, each user/lessee/owner shall sign a statement (which may be included in the use/rental agreement for the slip) which states the user/lessee/owner:

- a. Agrees to use the sewage pump-out device to empty the boat's head when moored at the marina;

- b. Has received a demonstration on how to use the sewage pump-out device; and
- c. Has been given written instructions on how to use the sewage pump-out device.
- d. The requirements in this paragraph shall be met within four (4) days of the liveaboard slips becoming occupied by a new user/lessee/owner.

Since the proposed modification(s) along with the above amended permit conditions and monitoring requirements are not expected to result in any adverse environmental impact and water quality degradation, the permit is hereby modified as requested. By copy of this letter and the attached drawings, we are notifying all necessary parties of the modification.

**This letter does not alter the permit other than as described above. This letter and referenced enclosures must be attached to the original permit. A copy of the original permit can be obtained here:**

**[https://depedsms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&\[guid=23.294995.1\]&\[profile=Permitting\\_Authorization\]](https://depedsms.dep.state.fl.us:443/Oculus/servlet/shell?command=getEntity&[guid=23.294995.1]&[profile=Permitting_Authorization])**

## **NOTICE OF RIGHTS**

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

### Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rule 28-106.201, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any email address, any facsimile number, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;

- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

#### Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

#### Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

#### Mediation

Mediation is not available in this proceeding.

#### FLAWAC Review

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when this order is filed with the Clerk of the Department.

**Judicial Review**

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Thank you for applying to the Submerged Lands and Environmental Resource Permit Program. If you have any questions regarding this matter, please contact Travis Ferguson by telephone at (305) 289-7075 or by e-mail at [Travis.Ferguson@floridadep.gov](mailto:Travis.Ferguson@floridadep.gov). When referring to this project, please reference the file number listed above.

Executed in Orlando, Florida

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



Jon M. Iglehart  
Director of District Management  
South District

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this document, including all copies, were sent to the addressee and to the following listed persons:

U.S. Army Corps of Engineers, Miami  
Monroe County Property Appraiser, [rshaw@mcpafl.org](mailto:rshaw@mcpafl.org)  
Robin Jung, FWC, Fish & Wildlife Research Institute

**FILING AND ACKNOWLEDGMENT**

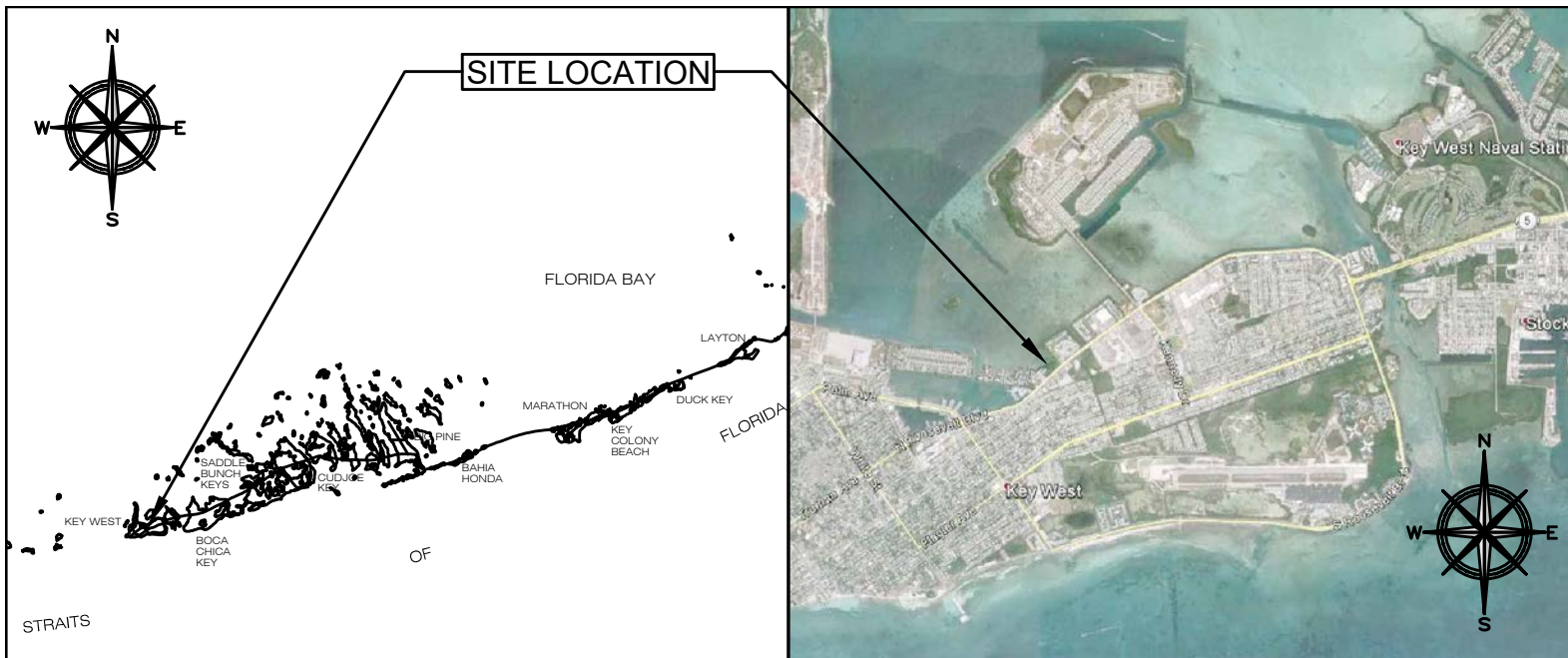
FILED, on this date, pursuant to Section 120.52(7), F.S., with the designated Department clerk, receipt of which is hereby acknowledged.

  
Clerk

February 18, 2019  
Date

**Enclosures:**

16 Project Drawings  
1 New Project Drawing  
Walker Marina Facilities Management Plan December 2018



## SITE DATA

RE: 00002280-000100

SECTION/TOWNSHIP/RANGE; 33 / 67S / 25E

LEGAL DESCRIPTION: KW PARCEL OF LAND AND BAY BOTTOM LYING NLY OF N ROOSEVELT BLVD (4.62 AC) G-44/161-162 OR1366-2453/54 OR1440-476/77 OR1440-478/79T/C OR1566-801/82C OR1566-807/09C OR1676-806/07 OR2302-207E OR2471-1632/60F/J

LAT: 24° 33' 49.1" N LON: 81° 46' 35.8" W

## DESIGN DATA

THE WORK DEPICTED HEREIN WAS DESIGNED TO MEET THE REQUIREMENTS OF THE 2017 FLORIDA BUILDING CODE AND THE LATEST EDITIONS OF THE FLORIDA MODEL ENERGY CODE, FIRE CODE, LIFE SAFETY CODE, AND THE NATIONAL ELECTRIC CODE.

THE FOLLOWING LOADINGS WERE USED:  
WIND LOAD: 180 MPH; ASCE 7-10

## INDEX OF DRAWINGS

SHEET C-1.0 - SITE LOCATION AND DATA  
SHEET C-2.0 - EXISTING CONDITIONS PLAN  
SHEET C-3.0 - SITE PLAN EXPANDED VIEW  
SHEET C-3.1 - SITE PLAN  
SHEET C-3.2 - SITE PLAN (CONTD)  
SHEET C-4.0 - EROSION CONTROL PLAN  
SHEET C-4.1 - EROSION CONTROL DETAILS  
SHEET C-5.0 - DETAILS

## GENERAL NOTES

1. THESE PLANS ARE FOR THE CONSTRUCTION AT THE LOCATION SO DESIGNATED HEREIN.
2. THE CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT AND SUPERVISION NECESSARY TO PROVIDE THE WORK COMPLETE AND READY FOR USE.
3. THERE SHALL BE NO DEVIATION FROM THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD.
4. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH EXISTING CONDITIONS BEFORE BID. CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS OF THE WORK SITE AND REPORT ANY DISCREPANCIES, DIFFERENCES OR CONDITIONS THAT ARE UNSATISFACTORY OR UNSAFE.
5. NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY DISCREPANCIES, DIFFERENCES, UNSATISFACTORY OR UNSAFE CONDITIONS. ANY MODIFICATIONS OR CHANGES MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER AND ENGINEER OF RECORD SHALL NOT BE ALLOWED. ANY REWORK, RESTORATION OR OTHER IMPACT AS A RESULT OF NOT OBTAINING SUCH PRIOR APPROVAL WILL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR COMPENSATION FROM THE OWNER.
6. THE CONTRACTOR SHALL PROVIDE FOR THE SAFETY, PREVENTION OF INJURY OR OTHER LOSS AT THE JOB TO ALL PERSONS EMPLOYED IN THE WORK, PERSONS VISITING THE WORK AND THE GENERAL PUBLIC. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE PREVENTION OF DAMAGE, DUE TO THE WORK, TO MATERIALS OR EQUIPMENT AND OTHER PROPERTY AT THE SITE OR ADJACENT THERETO.
7. NO RESEARCH AS TO THE PRESENCE OF UNDERGROUND UTILITIES HAS BEEN INCLUDED ON OR PERFORMED FOR THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING SUNSHINE UTILITY LOCATE SERVICE PRIOR TO ANY CONSTRUCTION WITHIN ANY PUBLIC RIGHT-OF-WAY OR OTHER AREAS WHERE UNDERGROUND UTILITIES MAY BE PRESENT (I.E. IN AND AROUND UTILITY EASEMENTS, ETC.).
8. THE GENERAL CONTRACTOR SHALL PROVIDE AN ON-SITE DUMPSTER IN A LOCATION COORDINATED WITH THE OWNER FOR THE DISPOSAL OF REMOVED MATERIAL AND CONSTRUCTION DEBRIS. THE DUMPSTER SHALL BE EMPTIED AT APPROPRIATE INTERVALS TO PREVENT OVERFLOW AND UNSIGHTLY CONDITIONS.
9. THE CONTRACTOR SHALL PERFORM ALL WORK IN STRICT CONFORMANCE WITH THE PLANS, 2010 FLORIDA BUILDING CODE, LOCAL CODES AND ORDINANCES, MANUFACTURER RECOMMENDATIONS AND ACCEPTABLE TRADE PRACTICES. ANY CONFLICT BETWEEN THESE REQUIREMENTS AND THE MOST STRINGENT REQUIREMENTS SHALL GOVERN THE WORK.
10. SHOP DRAWINGS OF ALL PREFABRICATED STRUCTURAL FLOOR AND ROOF SYSTEMS AND MECHANICAL SYSTEMS SHALL BEAR THE SEAL OF A FLORIDA PROFESSIONAL ENGINEER AS REQUIRED BY THE 2010 FLORIDA BUILDING CODE AND SHALL BE SUBMITTED TO THE ENGINEER OF RECORD BY THE CONTRACTOR FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
11. THE CONTRACTOR SHALL NOT SCALE DRAWINGS. ANY INFORMATION THAT THE CONTRACTOR CANNOT OBTAIN FROM DIMENSIONS, DETAIL OR SCHEDULE SHALL BE OBTAINED FROM THE ENGINEER OF RECORD.
12. THE CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES TO PREVENT ANY CONFLICTS.
13. THE CONTRACTOR SHALL FURNISH ALL SUBCONTRACTORS WITH A COMPLETE SET OF PLANS. ALL CHANGES SHALL BE NOTED ON THE DRAWINGS AND (2) COMPLETE AS-BUILT SETS SHALL BE DELIVERED TO THE OWNER AFTER COMPLETION OF WORK.

## DIRECTIONS

1. TAKE U.S. HIGHWAY 1 SOUTH INTO KEY WEST.
2. TURN RIGHT ONTO NORTH ROOSEVELT BLVD/U.S. HIGHWAY 1, AT APPROXIMATELY MILE MARKER 3.9.
3. TURN RIGHT ONTO PROPERTY, AFTER APPROXIMATELY 1.8 MILES.

## ADJOINING PROPERTY OWNERS MAILING ADDRESS

TO THE EAST:  
ROOSEVELT ANNEX HOMEOWNER'S ASSOCIATION INC, C/O KEYS ENTERPRISE  
5505 N ATLANTIC AVE, STE 207  
COCOA BEACH, FL 32931-5116

TO THE WEST:  
KEY WEST LIONS CLUB  
2405 N ROOSEVELT BLVD  
KEY WEST, FL 33040-3837

Received  
Electronically  
December 20, 2018  
South District



## SCOPE OF WORK

- CONSTRUCT A NEW MARINA PILE-SUPPORTED DOCK WITH A CAPACITY OF 74 WET BOAT SLIPS.
- REPAVE AN EXISTING PARKING LOT.
- INSTALL AN EXFILTRATION TRENCH STORMWATER DRAINAGE SYSTEM.

**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

**C-1.0  
SITE LOCATION  
AND SITE DATA**

Project No:

Scale:  
AS NOTED

CAD File:  
Walker Marina (12-18-18)  
R1

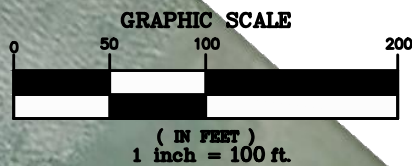
Date:  
05/05/2015

### Revisions:

1. Remove Mooring Pile Symbols (06-11-15)
2. Permit Revision (10-18-18)
3. FDEP Comments (12-18-18)

**Meridian Engineering LLC**  
201 Front Street, Suite 203  
Key West, Florida 33040  
AUTHORIZATION #29401  
ph:305-293-3263 fax:293-4899

**NOT VALID FOR CONSTRUCTION UNLESS  
SIGNED AND SEALED IN THIS BLOCK**  
RICHARD J. MILELLI  
PE #58315



NOT VALID FOR CONSTRUCTION UNLESS  
SIGNED AND SEALED IN THIS BLOCK

RICHARD J. MILELLI  
PE #58315

Revisions:

1. Remove Mooring Pile Symbols (06-11-15)
2. Permit Revisions (10-18-18)

Meridian Engineering LLC

01 Front Street, Suite 203  
Key West, Florida 33040  
AUTHORIZATION #29401  
ph:305-293-3263 fax:293-4899

Project No:	Scale: AS NOTED
-------------	--------------------

Date: \_\_\_\_\_

Date. 05/05/2015

Walker Marina (10-15-18)  
R1WALKER  
MARINA

**2407-2409 N. ROOSEVELT BLVD**  
**KEY WEST, FLORIDA 33040**

C-2.0  
EXISTING CONDITIONS  
PLAN

SITE DATA

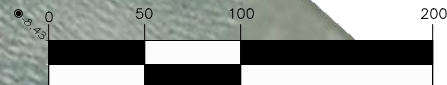
TOTAL MARINA PROPERTY AREA	5.117 Acres (222,918 SF)
TOTAL SUBMERGED LAND AREA	4.425 Acres (192,769 SF)

NOTES:

- UPLAND SURVEY INFORMATION PROVIDED BY REESE & WHITE LAND SURVEYING, INC. ON MARCH 7, 2013.
- MARINA BASIN SURVEY INFORMATION PROVIDED BY FLORIDA KEYS LAND SURVEYING, INC. IN MARCH 2015.
- EXISTING ELEVATIONS ARE SHOW AS X.XX AND ARE REFERENCED TO DATUM NGVD 29.



GRAPHIC SCALE



( IN FEET )  
1 inch = 100 ft.



COVERED ENTRY  
TO BE REMOVED

PROPERTY  
LINE

EDGE OF MANGROVES

- 9 L&H, 61-48, 1-2 S&G -
- 2 S&G - C: 8C77
- 74 TOTAL BOAT SLIPS

NO MOORING AREA

45' LIVE ABOARD VESSEL W/  
3' MAX DRAFT (TYP)

NO MOORING AREA

NO MOORING AREA

NEW DOCKS

STORMWATER  
COLLECTION  
SYSTEM

MARINA PARKING  
AREA

ONE STORY GL

EDGE OF  
MANGROVES

NO MOORING AREA

NEW DOCKS

SOLID WASTE COLLECTION AREA

PROPERTY  
LINE

EDGE OF MANGROVES

MOORING PILES BETWEEN  
FINGER PIERS, 4.5"  
ALUMINUM PILE WITH 5"  
SQUARE VINYL COVERING

EMERGENCY EGRESS WALKWAY IS  
LOCATED AT AN EXISTING FDOT  
STORMWATER OUTFALL, NO  
MANGROVES WILL BE DISTURBED

FIRE & ADA ACCESS

GATED PUBLIC  
EMERGENCY EGRESS  
WALKWAY

### SITE DATA

TOTAL MARINA PROPERTY	5.117 ACRES (222,918 SF)
PROPOSED NO. OF WET BOAT SLIPS	74
IMPACTS	
PILE SUPPORTED DOCKS OVER SUBMERGED LANDS	0.282 ACRES (12,305 SF)
NO. OF PERIMETER 4½ ALUMINUM PILES	35
TOTAL NO. 4½ ALUMINUM PILES	696

**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33940

**C-3.0  
SITE PLAN  
EXPANDED VIEW**

Revisions:

1. Remove Mooring Pile Symbols (06-11-15)
2. Live Aboard Revision (10-18-19)

**Meridian Engineering LLC**

201 Front Street, Suite 203  
Key West, Florida 33040  
AUTHORIZATION #29401  
ph:305-293-3263 fax:293-4999

Project No: Scale:  
AS NOTED

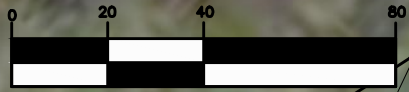
CAD File:  
Walker Marina (10-15-18)  
R1

Date:

05/03/2015

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SIGNED AND SEALED IN THIS BLOCK  
**RICHARD J. MILELLI**  
PE #68315

# GRAPHIC SCALE



( IN FEET )  
1 inch = 40 ft.



TWO STORY ELEVATED

ONE STORY BUILDING  
EXISTING

NEW BOATING  
EDUCATIONAL  
SIGNS

NEW FDC

PERIMETER  
DOCK (TYP)

DOCK LIGHTING  
PEDESTAL (TYP)

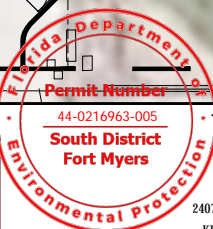
ALUMINUM PILING (TYP)

FIRE CONTROL  
PEDESTAL (TYP)

EDGE OF  
MANGROVE

GL

NEW FENCED IN  
SOLID WASTE  
HANDLING



Received  
Electronically  
December 20, 2018  
South District



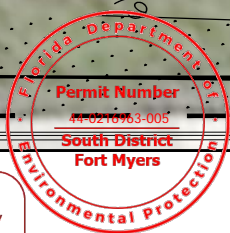
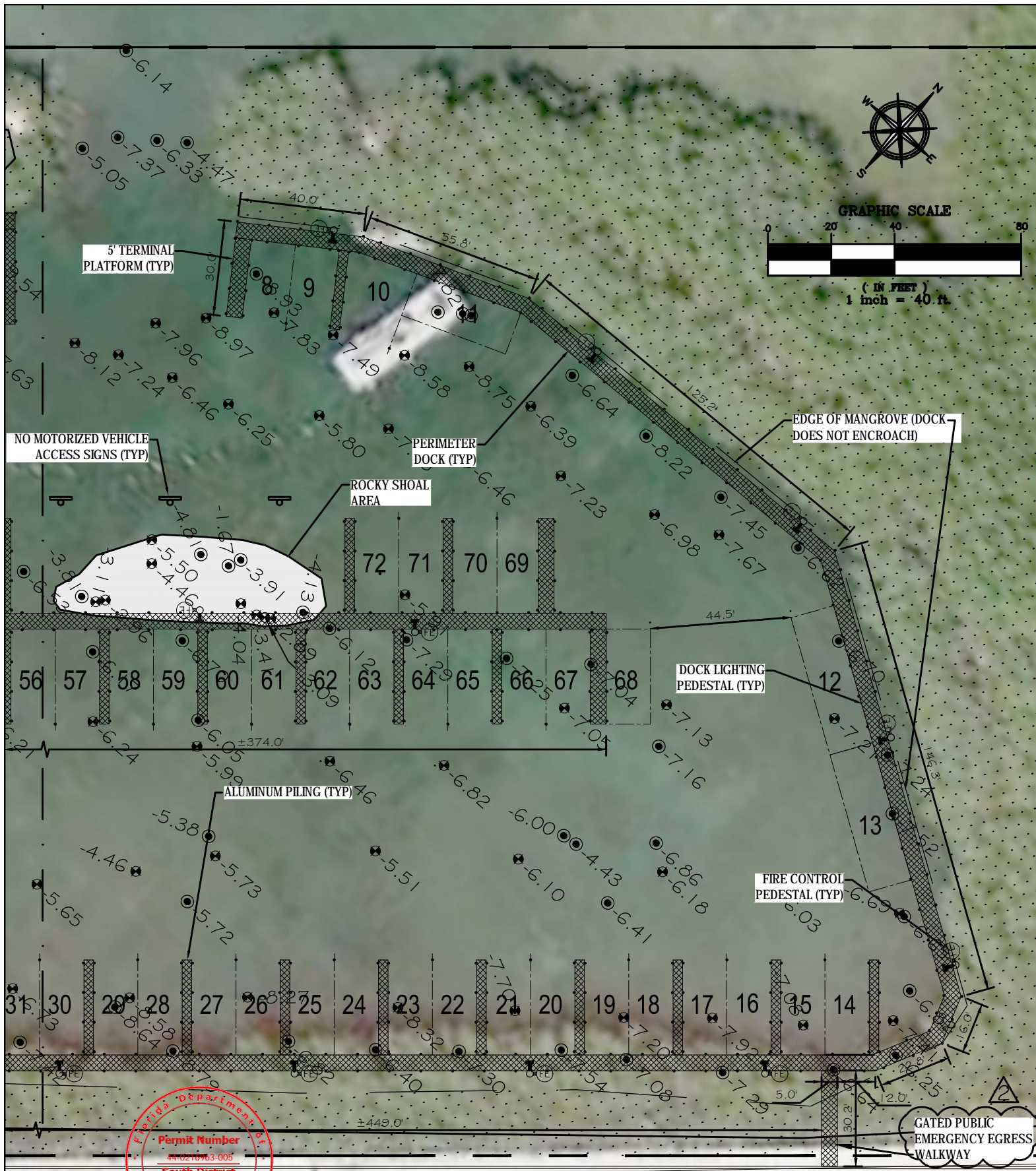
## C-3.1 SITE PLAN

**WALKER  
MARINA**  
2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

Project No:	Scale: AS NOTED
CAD File: Walker Marina (10-15-18) R1	Date: 05/05/2015

Revisions:
1. Remove Mooring Pile Symbols (06-11-15)
2. Live Aboard Revision (10-18-18)
Meridian Engineering LLC 201 Front Street, Suite 203 Key West, Florida 33040 AUTHORIZATION #29401 ph:305-293-3263 fax:293-4899

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PE #58315



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Electronically  
December 20, 2018  
South District

**WALKER  
MARINA**  
2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

**C-3.2  
SITE PLAN  
(CONT'D)**

Project No:	Scale: AS NOTED
CAD File: Walker Marina (10-15-18) R1	Date: 05/05/2015

**Meridian Engineering LLC**  
201 Front Street, Suite 203  
Key West, Florida 33040  
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PE #58315

GRAPHIC SCALE



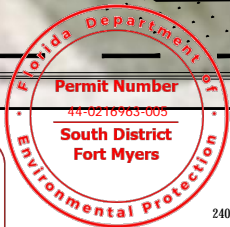
( IN FEET )  
1 inch = 40 ft.

TWO STORY ELEVATED

ONE STORY BUILDING  
EXISTING

TURBIDITY BARRIER

SILT FENCE (TYP)



**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

Received  
Electronically  
December 20, 2018  
South District



**C-4.0  
EROSION CONTROL  
PLAN**

Project No:

Scale:

AS NOTED

CAD File:

Walker Marina (10-15-18)  
R1

Date:

05/05/2015

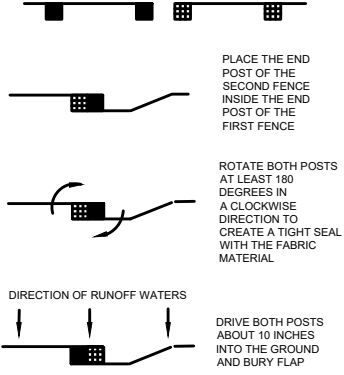
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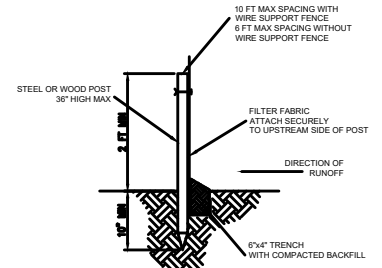
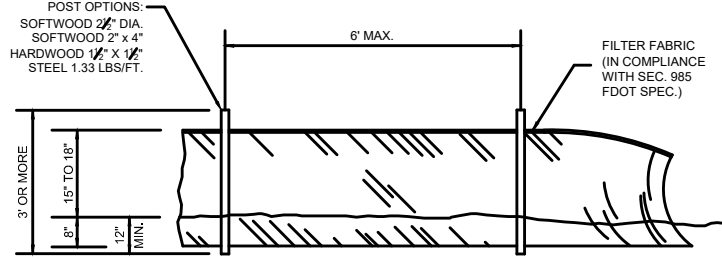
**Meridian Engineering LLC**  
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SIGNED AND SEALED IN THIS BLOCK**  
RICHARD J. MILELLI  
PE #58315

### ATTACHING TWO SILT FENCES



NOTE:  
CONTRACTOR TO INSPECT SILT FENCE  
DAILY AND REPAIR IMMEDIATELY IF  
DAMAGED.



**SILT FENCE DETAIL**  
TRENCH WITH NATIVE BACKFILL  
NTS



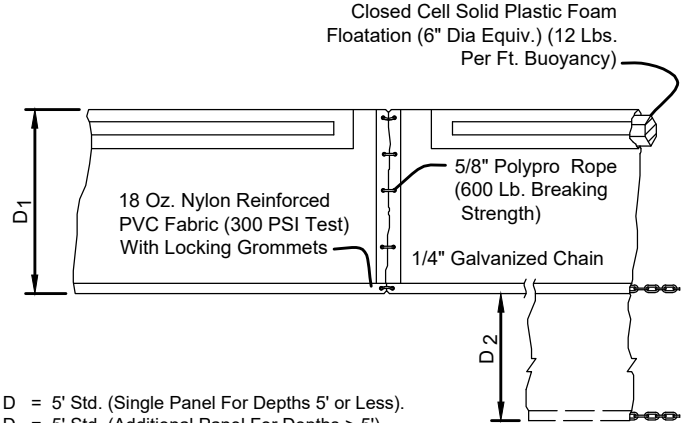
### FABRIC SILT FENCE DETAILS

NTS  
FDOT INDEX NO. 102  
TWO SECTIONS OF SILT FENCE SHALL BE JOINED AS SHOWN ON DETAIL TO LEFT.

- NOTES:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
  2. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE TO OFFSITE SEDIMENTATION AND CAN BE PERMANENTLY STABILIZED.

### FLOATING TURBIDITY BARRIER GENERAL NOTES:

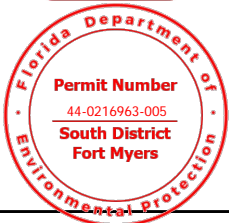
1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF DEPTH.
2. NUMBER AND SPACING OF ANCHORS DEPENDENT ON CURRENT VELOCITIES.
3. DEPLOYMENT OF BARRIER AROUND TREE LOCATIONS MAY VARY TO ACCOMMODATE CONSTRUCTION GUIDELINES.
4. FOR ADDITIONAL INFORMATION SEE SECTION 104 OF THE FDOT STANDARD SPECIFICATIONS.



D = 5' Std. (Single Panel For Depths 5' or Less).  
D = 5' Std. (Additional Panel For Depths > 5').  
Curtain To Reach Bottom Up To Depths Of 10 Feet.  
Two (2) Panels To Be Used For Depths Greater Than  
10 Feet Unless Special Depth Curtains Specifically Called  
For In The Plans Or As Determined By The Engineer.

**TYPE I BARRIER**  
FDOT INDEX NO. 103  
Not To Scale

NOTICE: COMPONENTS OF TYPE I MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPE I SHALL BE AS APPROVED BY THE ENGINEER.



### TURBIDITY BARRIER DETAIL

NTS

**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

#### Revisions:

1. Remove Mooring Pile Symbols (06-11-15)
2. Live Aboard Revision (10-18-18)

Meridian Engineering LLC  
201 Front Street, Suite 203  
Key West, Florida 33040  
AUTHORIZATION #29401  
ph:305-293-3263 fax:293-4899

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PE #58315

**C-4.1  
EROSION CONTROL  
DETAILS**

Project No:  
Scale:  
AS NOTED

CAD File:  
Walker Marina (10-15-18)  
R1

Date:  
05/05/2015

FIBERGLASS GRATING WITH MINIMUM OF 43%  
LIGHT TRANSMITTANCE MATERIAL (LTM) GRATED  
MATERIAL, FIBERGRATE OR EQUIVALENT

2x10 PT WOOD STRINGER

SS HURRICANE STRAP BETWEEN EACH  
STRINGER & BENT (TYPICAL) (SIMPSON  
H2.5 - SECURED WITH SS 8d x 1½ NAILS)

(2) ½" SS BOLT, NUT & WASHER THRU BENTS  
& PILE @ CONNECTION POINT (TYPICAL)

2x10 PT WOOD BENT EACH  
SIDE OF PILE PAIRS (TYPICAL)

NEW 4½" DIA. ROUND ALUMINUM PILE W/  
5" VINYL SQUARE SHEATHING (TYPICAL)

½" WHITE NYLON ROPE ATTACHED TO PILES  
WITH ¾" SS EYE BOLT, NUTS, & WASHERS  
¾" INSIDE EYE DIAMETER (TYPICAL).  
INSTALL ONLY ALONG OUTSIDE EDGE OF  
PERIMETER DOCK (VEGETATION SIDE).

**NOTE:**  
NYLON ROPE RAILINGS ARE NOT TO  
BE INSTALLED ON TERMINAL DOCKS.

**A PERIMETER / TERMINAL DOCK SECTION (TYP)**  
NTS

FIBERGLASS GRATING WITH MINIMUM OF 43%  
LIGHT TRANSMITTANCE MATERIAL (LTM) GRATED  
MATERIAL, FIBERGRATE OR EQUIVALENT

2x10 PT WOOD STRINGER

SS HURRICANE STRAP BETWEEN EACH  
STRINGER & BENT (TYPICAL) (SIMPSON  
H2.5 - SECURED WITH SS 8d x 1½ NAILS)

(2) ½" SS BOLT, NUT & WASHER THRU BENTS  
& PILE @ CONNECTION POINT (TYPICAL)

2x10 PT WOOD BENT EACH  
SIDE OF PILE PAIRS (TYPICAL)

NEW 4½" DIA. ROUND ALUMINUM PILE W/  
5" VINYL SQUARE SHEATHING (TYPICAL)

K 5 @ K 5 M 9 @ J ) " ( - : : H

A < K 9 @ J " S " ( - : : H

A @ K 9 @ J " H L S " S " ( - : : H

BAY BOTTOM AVG.  
9 @ J " " H L S " S " ( - : : H

**B FINGER PIER SECTION (TYP)**  
NTS

Received  
Electronically  
December 20, 2018  
South District



ELEVATIONS ARE  
REFERENCED IN NGVD 29

**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

**Revisions:**

1. Remove Mooring Pile Symbols (06-11-15)
2. Live Aboard Revision (10-18-18)

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AUTHORIZATION #29401  
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**C-5.0  
DETAILS**

Project No:

Scale:

AS NOTED

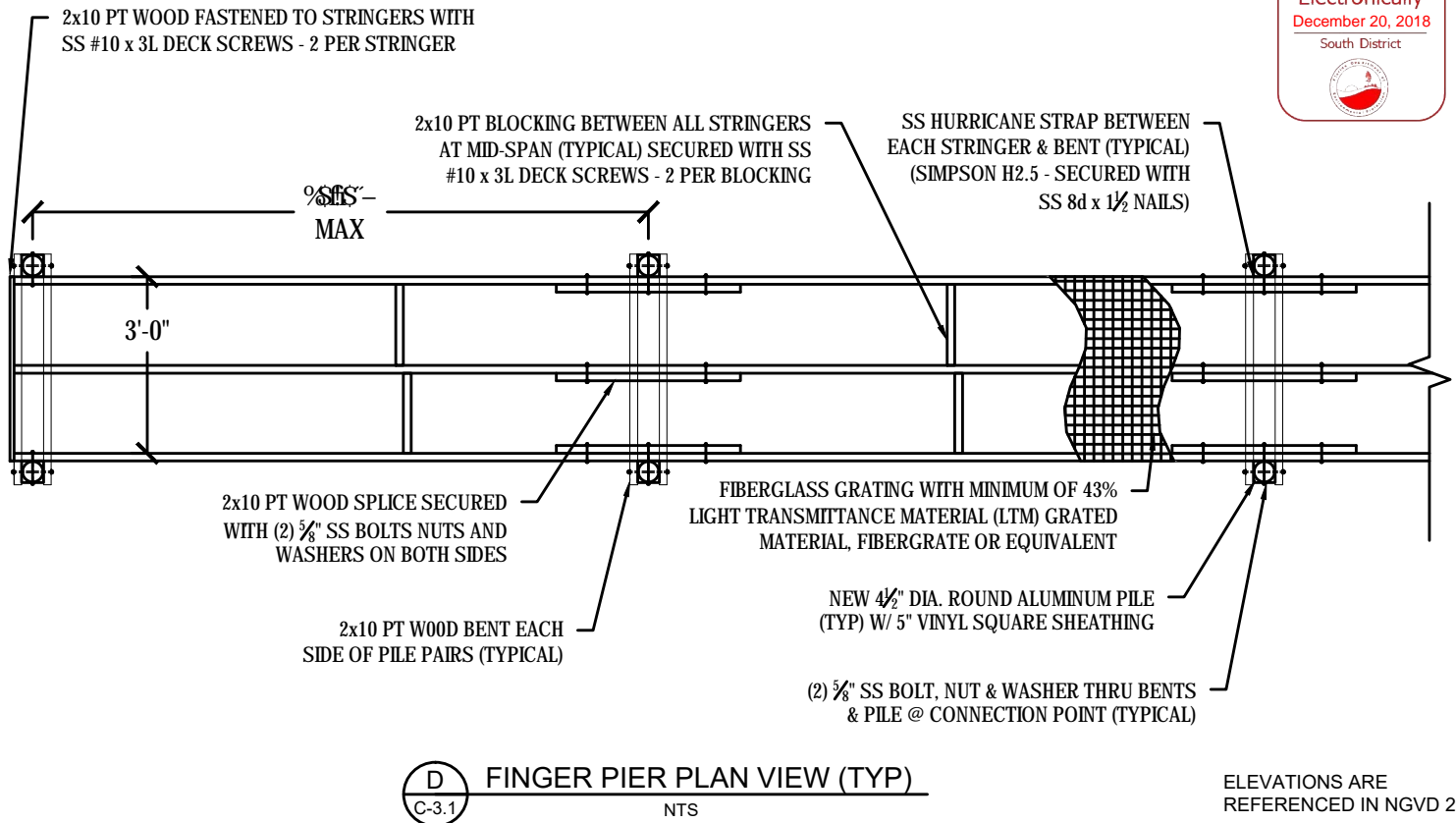
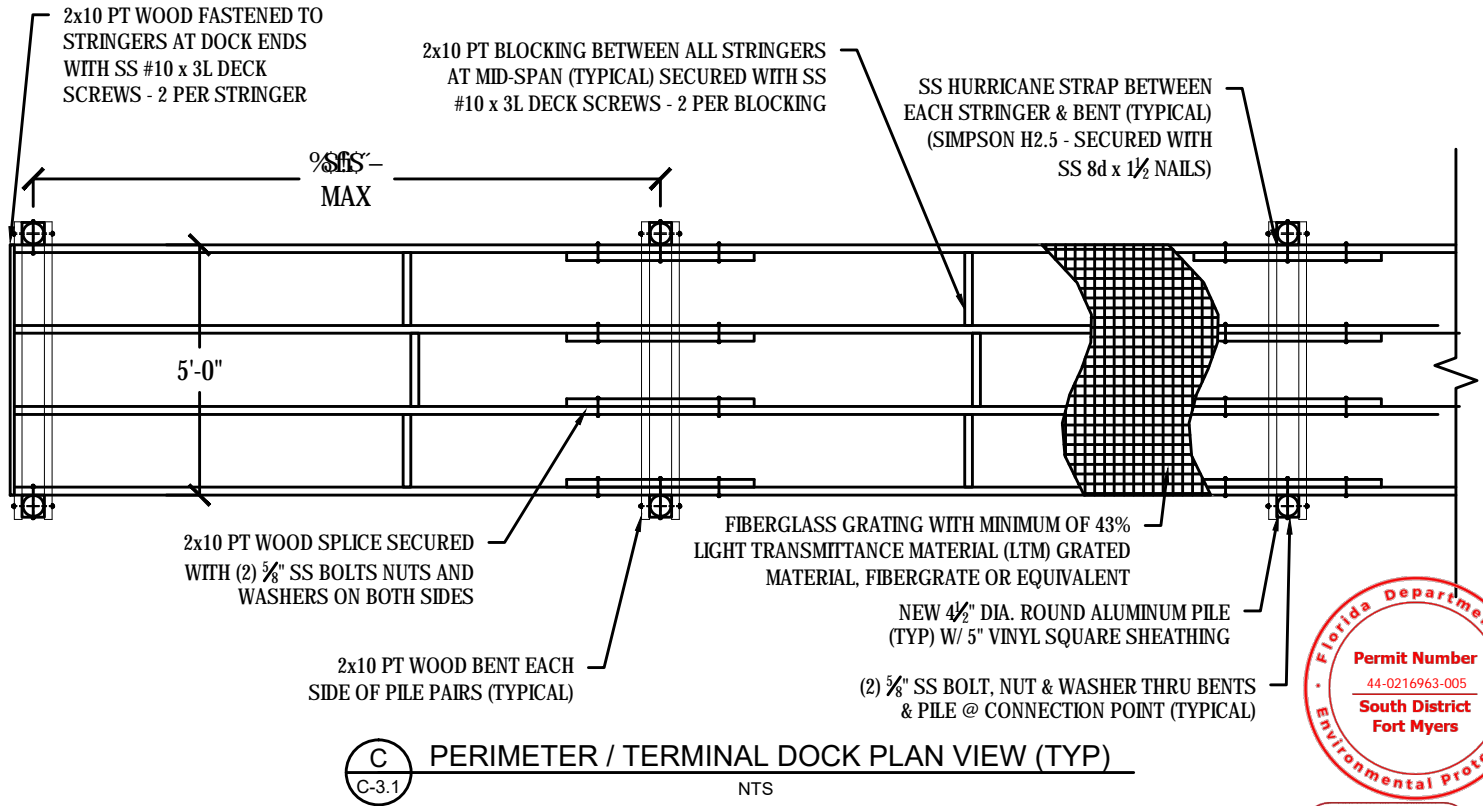
CAD File:

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R1

Date:

05/05/2015

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ELEVATIONS ARE REFERENCED IN NGVD 29

## WALKER MARINA

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

C-5.1  
DETAILS  
(CONT'D)

Project No:  
Scale:  
AS NOTED

CAD File:  
Walker Marina (10-15-18)  
R1

Date:  
05/05/2015

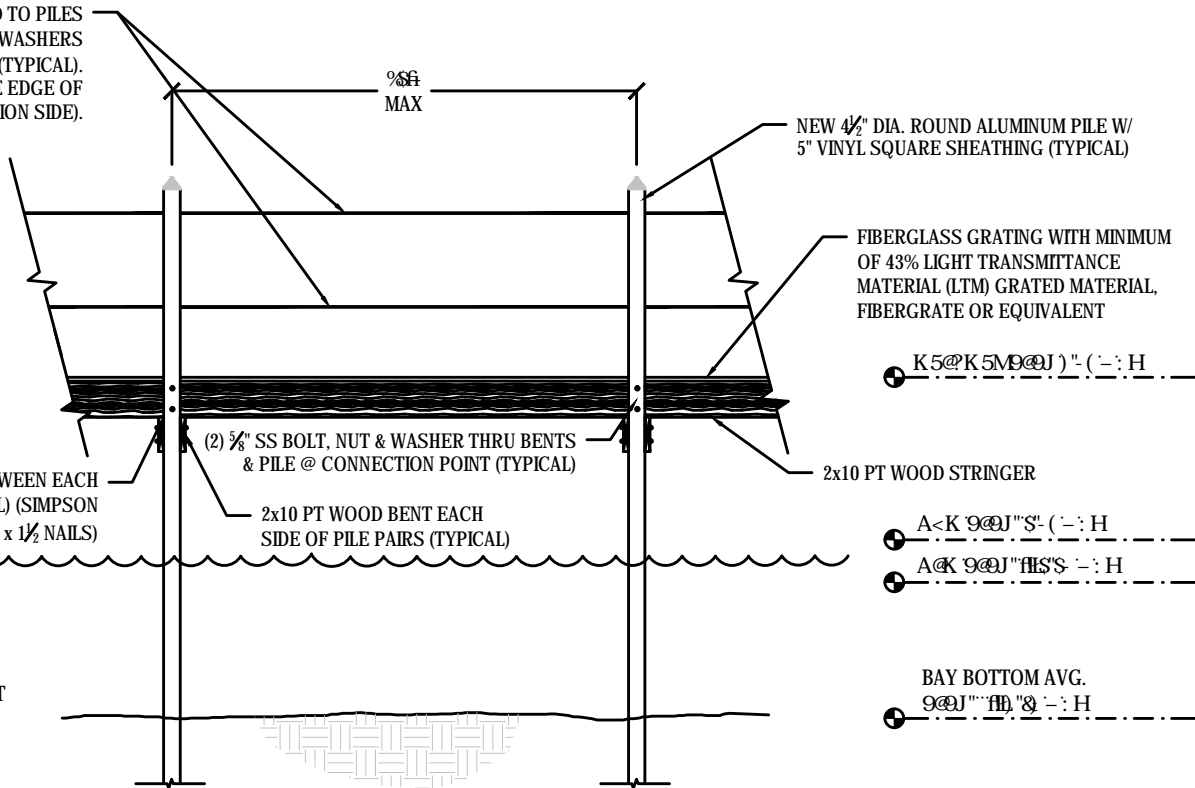
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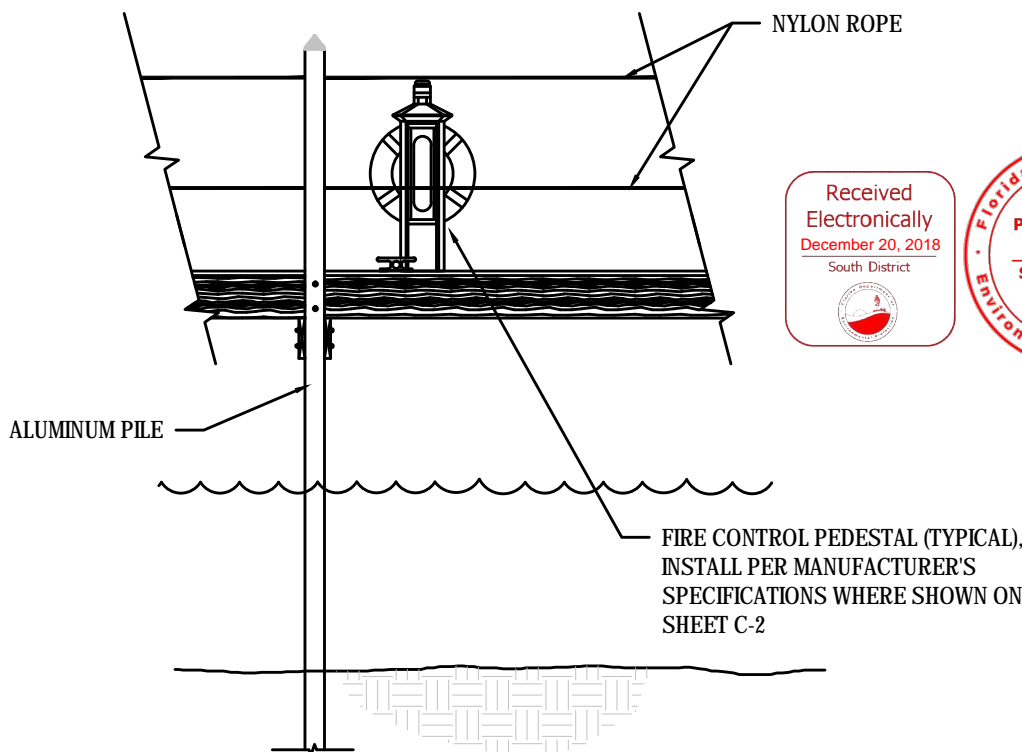
5/8" WHITE NYLON ROPE ATTACHED TO PILES WITH 3/8" SS EYE BOLT, NUTS, & WASHERS 3/4" INSIDE EYE DIAMETER (TYPICAL). INSTALL ONLY ALONG OUTSIDE EDGE OF PERIMETER DOCK (VEGETATION SIDE).



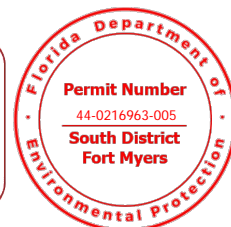
NOTE:  
NYLON ROPE RAILINGS ARE NOT TO BE INSTALLED ON TERMINAL DOCKS.

**E** PERIMETER / TERMINAL DOCK ELEVATION VIEW (TYP)  
C-3.1 NTS

ELEVATIONS ARE REFERENCED IN NGVD 29



**F** FIRE CONTROL PEDESTAL SECTION (TYP)  
C-3.1 NTS



**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

Revisions:

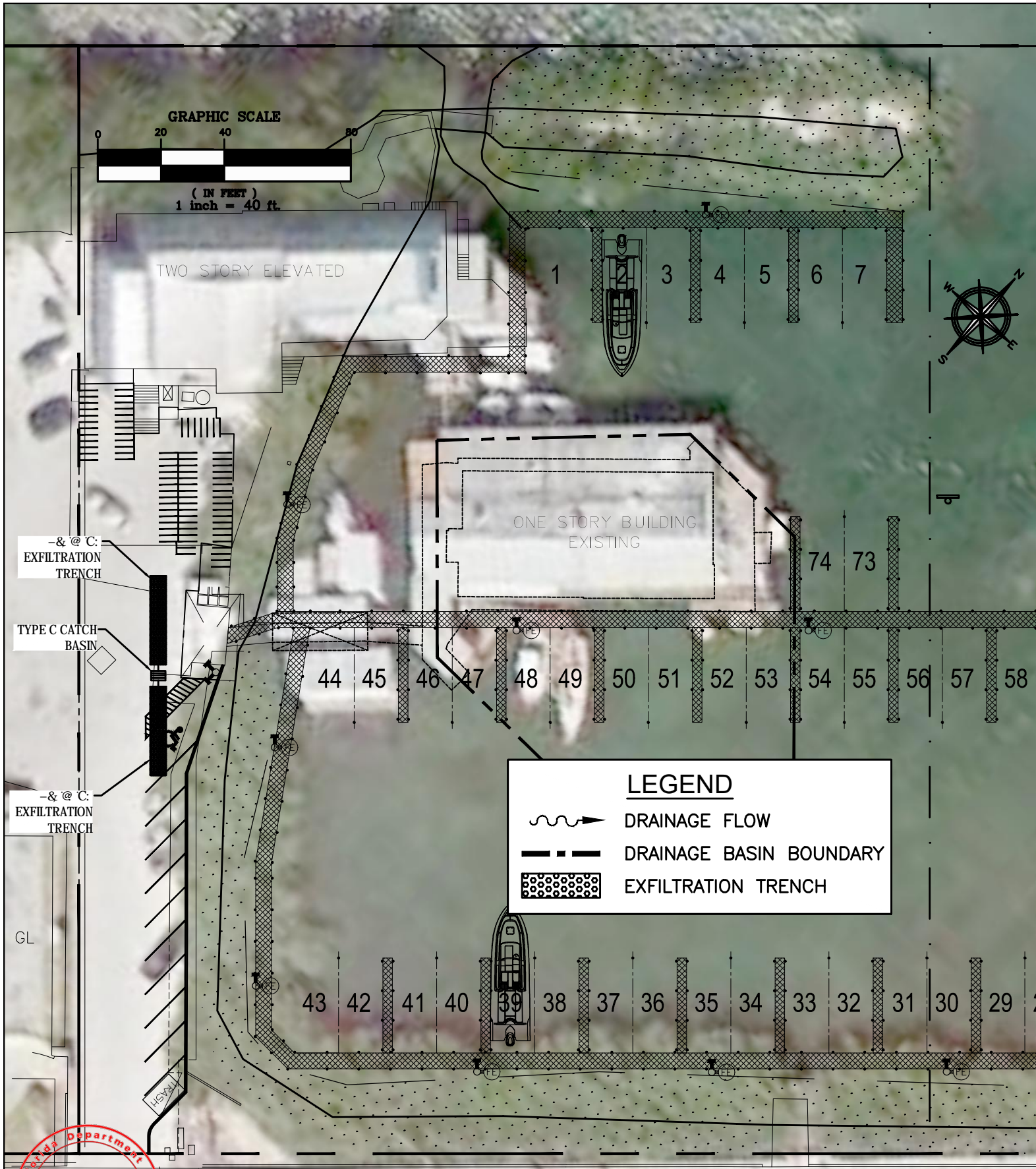
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**C-5.2  
DETAILS  
(CONT'D)**

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CAD File: Walker Marina (10-15-18) R1	Date: 05/05/2015



## WALKER MARINA

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

### C-6.0 MARINA WATER QUALITY IMPROVEMENT PLAN

Project No:  
CAD File:  
Walker Marina (10-15-18)  
R1

Scale:  
AS NOTED  
Date:  
05/05/2015

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# DRAINAGE CALCULATIONS

## WATER QUALITY

PROJECT AREA = 0.20 Ac  
PERVIOUS = 0.000 Ac  
IMPERVIOUS = 0.20 Ac

ONE INCH OF RUNOFF FROM DRAINAGE BASIN =

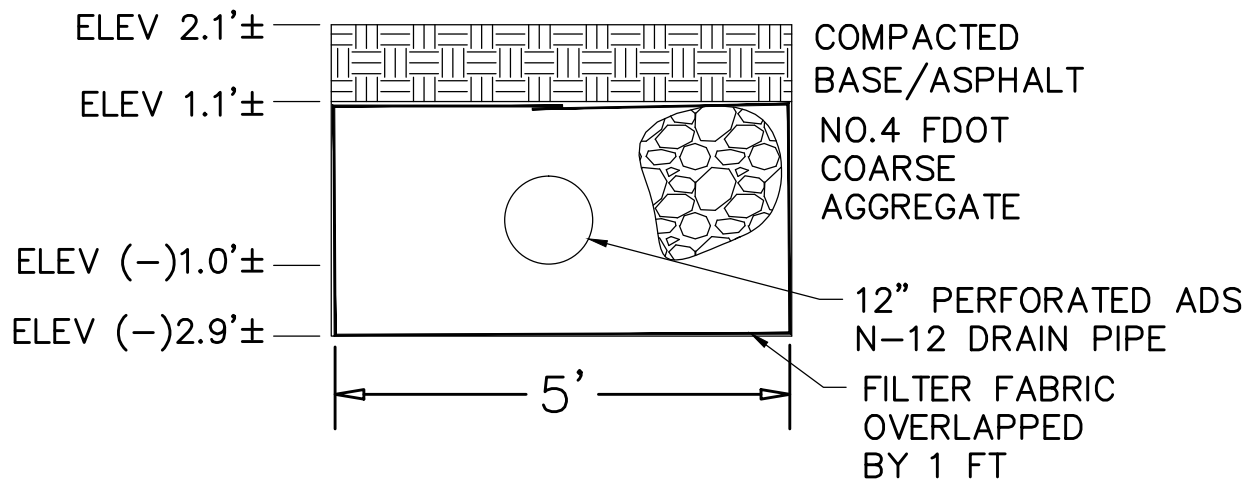
0.20 Ac-In

## EXFILTRATION TRENCH PROVIDED

EXFILTRATION TRENCH VOLUME CALCULATED USING SFWMD  
EQUATION (PG F-10 OF THE ERP INFORMATION MANUAL)  
VARIABLES  $K=0.0001$ ;  $H=2'$ ;  $W=5'$ ;  $D_u=1'$ ;  $D_s=4'$

VOLUME = 0.20 Ac-in

TRENCH LENGTH = 56 FT



## EXFILTRATION TRENCH

NTS

### NOTES:

1. FILTER FABRIC SHALL BE MARAFI FILTERWEAVE 300 OR ENGINEER APPROVED EQUIVALENT. FILTER FABRIC SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
2. ELEVATION DERIVED FROM SURVEY.



## WALKER MARINA

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

C-6.1  
MARINA WATER QUALITY  
IMPROVEMENT DETAILS

Project No:

Scale:

AS NOTED

CAD File:

Walker Marina (10-15-18)  
R1

Date:

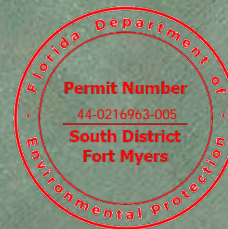
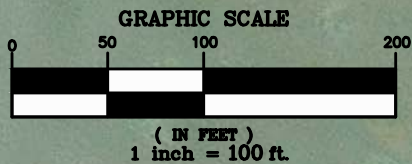
05/05/2015

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PE #58315



RED TRIANGULAR DAYBOARD SIGN  
LAT &(')\*((-&š  
LONG , %+++\*%š

R  
"1"

GREEN SQUARE DAYBOARD SIGN  
LAT &(')\*(+%š  
LONG , %+++ ' %š

G  
"2"



RED TRIANGULAR DAYBOARD SIGN  
LAT &(')\*(\$%š  
LONG , %++\* - +&š

R  
"3"

GREEN SQUARE DAYBOARD SIGN  
LAT &(')\*(\$\*+š  
LONG , %++\* - š

G  
"4"

## WALKER MARINA

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

### C-7.0 CHANNEL MARKING PLAN

Project No:

Scale:

AS NOTED

CAD File:

Walker Marina (10-15-18)  
R1

Date:

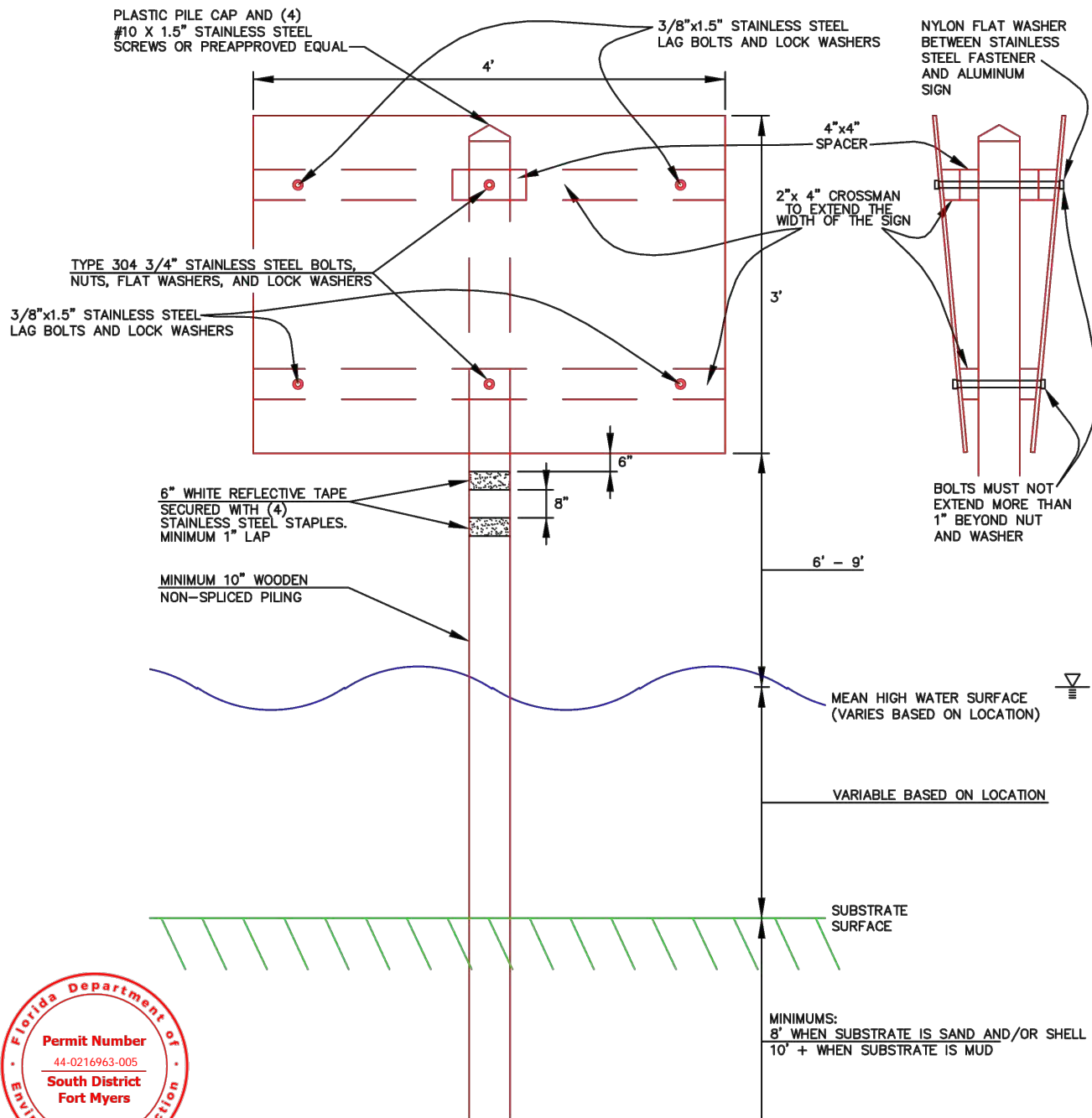
05/05/2015

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- NOTE:**
1. ALL PILINGS MUST BE PRESSURE TREATED LUMBER (2.50 CCA FOR SALTWATER APPLICATIONS; 0.80 CCA, 0.80 ACQ, OR 1.0 ACZA FOR FRESHWATER APPLICATIONS).
  2. ALL FRAMING FOR SIGNBOARD MUST BE PRESSURE TREATED LUMBER (0.60 CCA, 0.60 ACQ, OR 0.60 ACZA FOR SALTWATER APPLICATIONS; 0.40 CCA, 0.40 ACQ, 0.40 ACZA, 0.21 CA OR 0.41 CBA FOR FRESHWATER APPLICATIONS).
  3. BOLT HOLES BORED 1/8" LARGER THAN DIAMETER OF BOLT. ALL FASTENERS MUST BE VANDAL PROOFED.
  4. THE CONTRACTOR SHALL NOT IMPACT THE MESSAGE AREA OR REFLECTIVE SURFACES OF THE SIGN WHEN DRILLING HOLES IN THE SIGNS, OR SPLIT THE ENDS OF THE CROSSING TIMBERS
  5. PLASTIC PILE CAP SHALL BE EQUAL TO THE TOP EDGE OF THE SIGN ( $\pm 6"$ ) AND SHALL FIT PILING NATURALLY WITHOUT HAVING TO MODIFY CAP IN ANY WAY.
  6. SIGN(S) MUST BE CENTERED ON SINGLE PILE.



## SINGLE PILE WATERWAY MARKER DETAIL

NTS

**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

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**C-7.1  
CHANNEL MARKER  
DETAILS**

Project No: \_\_\_\_\_ Scale: AS NOTED  
CAD File: Walker Marina (10-15-18) Date: 05/05/2015  
R1

# GENERAL USE PORT AND STARBOARD MARKS

**System:** General Use.

**Function:** Laterally significant port and starboard marks.

**Nominal Range:** 1 nm.

**Additional Data:** For three numerals on a 3SG, use 8-inch characters at a height of 14 inches from the base. For three numerals on a 4TR, use 8-inch characters at a height of 12 inches.

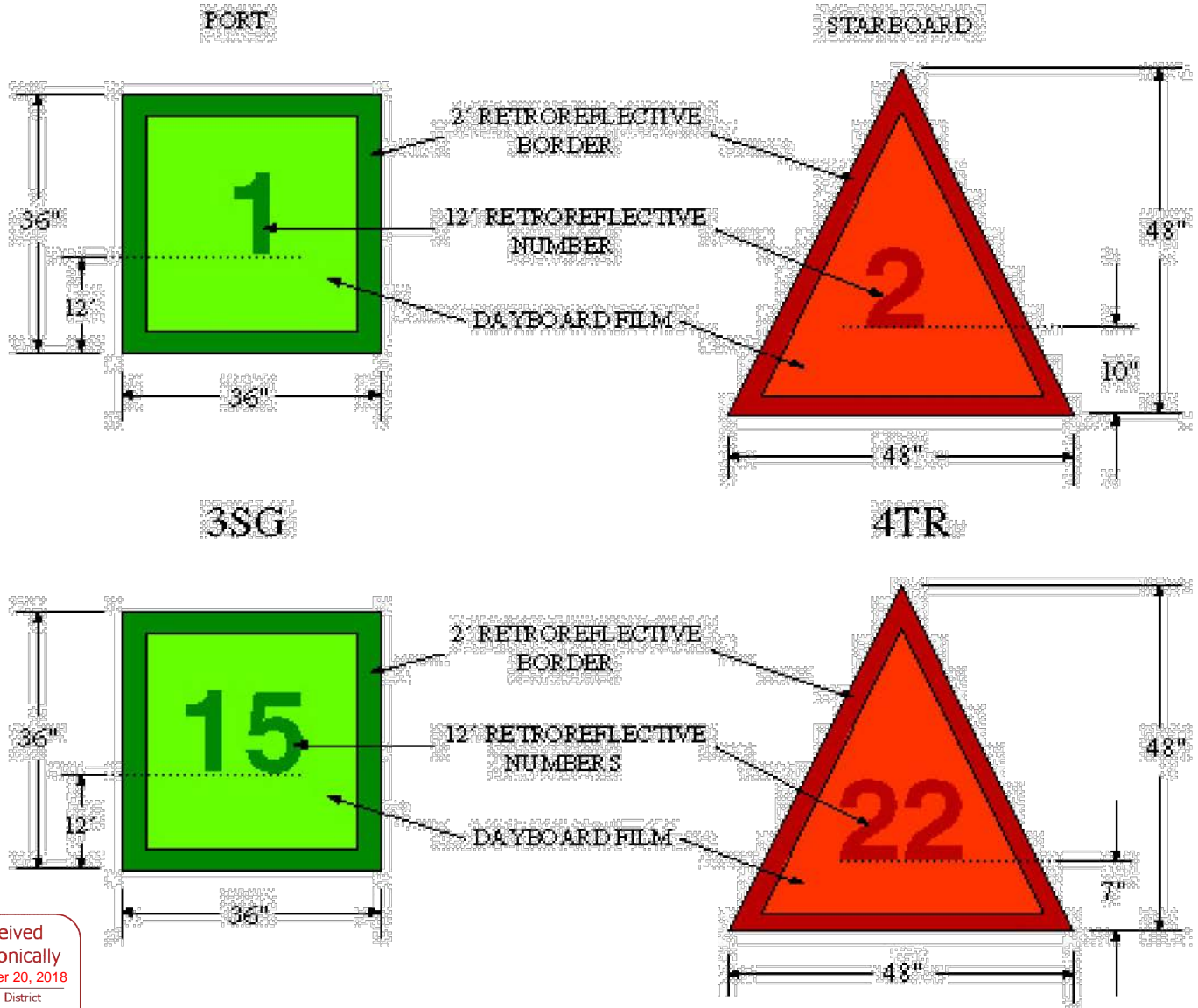
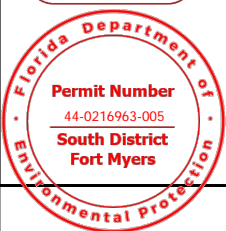


Figure 5-4. General Use port and starboard marks.

Data Sheet 5-E(1). General Use port and starboard marks (nominal range, 1 nm).

(H) DAYBOARD MARKING DETAILS  
C-3.0 NTS



**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

**C-7.2  
CHANNEL MARKER  
DETAILS (CONT'D)**

Project No:  
Scale:  
AS NOTED  
CAD File:  
Walker Marina (10-15-18)  
R1  
Date:  
05/05/2015

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PE #58315

**GENERAL NOTES:**

1. CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS PRIOR TO COMMENCING WORK. THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, THE ARMY CORPS OF ENGINEERS, & LOCAL REGULATIONS SHALL GOVERN ALL WORK.
2. WORK SHOWN ON DRAWINGS IS DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (LATEST EDITION). CONTRACTOR SHALL FOLLOW ALL APPLICABLE PROVISIONS FOR ALL PHASES OF CONSTRUCTION.
3. THE PROPOSED STRUCTURE(S) IS DESIGNED FOR A LIVE LOAD OF 40 PSF. WIND LOADS ARE DESIGNED PER THE FLORIDA BUILDING CODE.
4. CONTRACTOR SHALL ADHERE TO THE STANDARD MANATEE CONSTRUCTION CONDITIONS (LATEST EDITION). IF NEEDED, THE CONTRACTOR CAN CONTACT THE ARMY CORPS OF ENGINEERS OR THE ENGINEER TO OBTAIN A COPY OF THE STANDARD MANATEE CONSTRUCTION CONDITIONS.
5. BEST MANAGEMENT PRACTICES, INCLUDING THE USE OF TURBIDITY BARRIERS, ARE REQUIRED TO ISOLATE THE CONSTRUCTION AREA FROM THE ADJACENT WATERS. CONTRACTOR SHALL INSTALL TURBIDITY BARRIERS AROUND THE IMMEDIATE PROJECT AREA PRIOR TO CONSTRUCTION. THE TURBIDITY BARRIERS SHALL REMAIN IN PLACE UNTIL WATER QUALITY CONDITIONS RETURN TO PRE-CONSTRUCTION CONDITIONS. WATER QUALITY MONITORING SHALL ADHERE TO STATE REGULATIONS.
6. ELECTRIC & WATER (DESIGN PROVIDED BY OTHERS UNLESS SHOWN) SHALL BE PROVIDED. CONTRACTOR SHALL COORDINATE FINAL LOCATION OF ALL PROPOSED UTILITIES WITH OWNER PRIOR TO CONSTRUCTION.
7. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS & WATER DEPTHS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK.
8. THE STRUCTURAL INTEGRITY OF THE COMPLETED STRUCTURE DEPENDS OF INTERACTION OF VARIOUS CONNECTED COMPONENTS. PROVIDE ADEQUATE BRACING, SHORING, AND OTHER TEMPORARY SUPPORTS AS REQUIRED TO SAFELY COMPLETE THE WORK.
9. EXERCISE EXTREME CARE AND CAUTION WHEN EXCAVATING AND FILLING ADJACENT TO EXISTING STRUCTURES. UNDER NO CIRCUMSTANCES SHALL THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURES BE IMPAIRED IN ANY WAY BY CONSTRUCTION OPERATIONS AND PROCEDURES. DO NOT EXCAVATE OR DISTURB SOIL ADJACENT TO OR BENEATH EXISTING FOOTINGS.
10. CONTRACTOR SHALL COORDINATE INSTALLATION OF CLEATS, LADDERS, PILE CAPS, AND OTHER DOCK ACCESSORIES WITH OWNER PRIOR TO CONSTRUCTION. ALL DOCK ACCESSORIES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. STAINLESS STEEL HARDWARE SHALL BE USED FOR ALL CONNECTIONS TO DOCK.

**ALUMINUM PILES:**

1. PILES SHALL BE 6061-T6 MARINE GRADE 4.5" O.D. SCHEDULE 40 ALUMINUM PIN PILE WITH 5" VINYL SLEEVE.
2. A STRAIGHT LINE DRAWN FROM THE CENTER OF THE BUTT TO THE CENTER OF THE TIP SHALL NOT, AT ANY POINT, FALL FURTHER AWAY FROM THE CENTER OF THE PILE THAN A DISTANCE EQUAL TO 1% OF THE LENGTH OF THE PILE.
3. PILES SHALL PENETRATE THROUGH FIRM ROCK A MINIMUM OF 3 FT.
4. PILES SHALL BE SPACED AT A MAXIMUM OF 10 FT O.C. UNLESS OTHERWISE SHOWN.
5. DO NOT DRIVE PILES WITHIN 20 FT OF NEW CONCRETE WITH LESS THAN SEVEN DAYS OF CURING TIME.
6. CONTRACTOR SHALL INVESTIGATE ANY SUDDEN DECREASE IN DRIVING RESISTANCE FOR POSSIBLE BREAKAGE OF THE PILE. IF SUDDEN DECREASE IN DRIVING RESISTANCE CANNOT BE CORRELATED TO BORING DATA OR SOME INCIDENT IN THE DRIVING, AND IF THE PILE CANNOT BE INSPECTED, SUCH DECREASE IN DRIVING RESISTANCE MAY BE CAUSE FOR REJECTION OF THE PILE.
7. RE-DRIVE ANY PILE WHICH IS RAISED DURING DRIVING OF ADJACENT PILES, TO THE ORIGINAL TIP ELEVATION.
8. HEIGHT OF PILES SHALL BE FIELD DETERMINED BY OWNER. CUT OFF PILES AT TOP ELEVATION AS DIRECTED BY OWNER. REPLACE OR REPAIR PILES WHICH ARE DAMAGED WHEN CUT OFF.
9. PILES SHALL DEViate FROM PLUMB AND ANGLE OF BATTER NO MORE THAN 1/4" INCH PER FOOT OF PILE LENGTH, BUT NOT MORE THAN 6 INCHES OVERALL. PILES SHALL NOT DEViate FROM LOCATION OF PILE TOP MORE THAN 6 INCHES.
10. REMOVE CUTOFF SECTIONS OF PILES FROM THE SITE AND DISPOSE OF LEGALLY ACCORDING TO LOCAL AND STATE REGULATIONS.

**LUMBER, DECKING, & FASTENERS:**

STRINGERS - 2 x 10

BENTS - 2 x 10

DECKING (WALKWAY & PLATFORMS) - SEAGRATE RM1415 BY SEASAFE (800-326-8842), ECOGRATE BY FIBERGRATE (866-245-3361 x1352), OR APPROVED EQUAL. DOCK GRATING SHALL MEET MINIMUM REQUIREMENT OF 43% LIGHT TRANSMITTANCE MATERIAL (LTM) GRATED MATERIAL. ATTACH FIBERGLASS GRATING PER MANUFACTURER'S SPECIFICATIONS

1. ALL BENTS AND STRINGERS SHALL BE SOUTHERN PINE NO. 2 OR DOUGLAS FIR NO. 2. LUMBER SHALL BE PRESSURE TREATED PER AWPA UC4B SPECIFICATIONS. MINIMUM RETENTION OF CCA SHALL BE 0.60 POUNDS / CUBIC FOOT.
2. ALL DECKING SHALL BE SOUTHERN PINE NO. 1 OR DOUGLAS FIR NO. 1 WITH ROUNDED EDGES. LUMBER SHALL BE PRESSURE TREATED. MINIMUM RETENTION OF ACQ SHALL BE 0.40 POUNDS / CUBIC FOOT.
3. ATTACH DECKING TO EACH STRINGER WITH TWO #10 3" STAINLESS STEEL DECK SCREWS OR TWO 16d STAINLESS STEEL NAILS AT EACH CONNECTION POINT.
4. ATTACH BENTS TO PILING WITH ONE 3/4" STAINLESS STEEL BOLT, WASHERS, AND NUT AT EACH CONNECTION POINT. BORE HOLES SHALL BE 1/8" GREATER IN DIAMETER THAN THE BOLT. UPON COMPLETION OF THE INSTALLATION, CHECK ALL NUTS FOR TIGHTNESS.
5. ATTACH STRINGER TO BENT WITH STAINLESS STEEL SIMPSON STRONG-TIE HURRICANE STRAP OR APPROVED EQUAL. ALL CONNECTIONS SHALL BE HEAVY DUTY TYPE FOR MARINE ENVIRONMENT APPLICATIONS.
6. LAY THE PLANKS WITH THE BEST SIDE UP AND WITH ADJACENT EDGES IN CONTACT UNLESS OTHER SPACING IS SPECIFIED.
7. PERFORM COUNTERSINKING WHEREVER THE HEADS OF SCREWS OR BOLTS WOULD OTHERWISE INTERFERE WITH THE ASSEMBLY OF THE WORK.



**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

**Revisions:**

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2. Live Aboard Revision (10-18-18)

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**C-8.0  
CONSTRUCTION  
NOTES**

Project No:

Scale:

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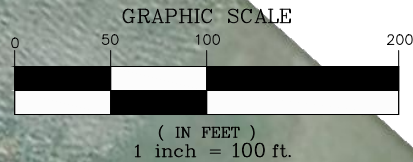
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December 20, 2018  
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PE #68315

Revisions:

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2. Live Aboard Revision (10-18-18)
3. FDEP Comments (12-18-18)

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CAD File: Walker Marina (12-18-18)  
R1

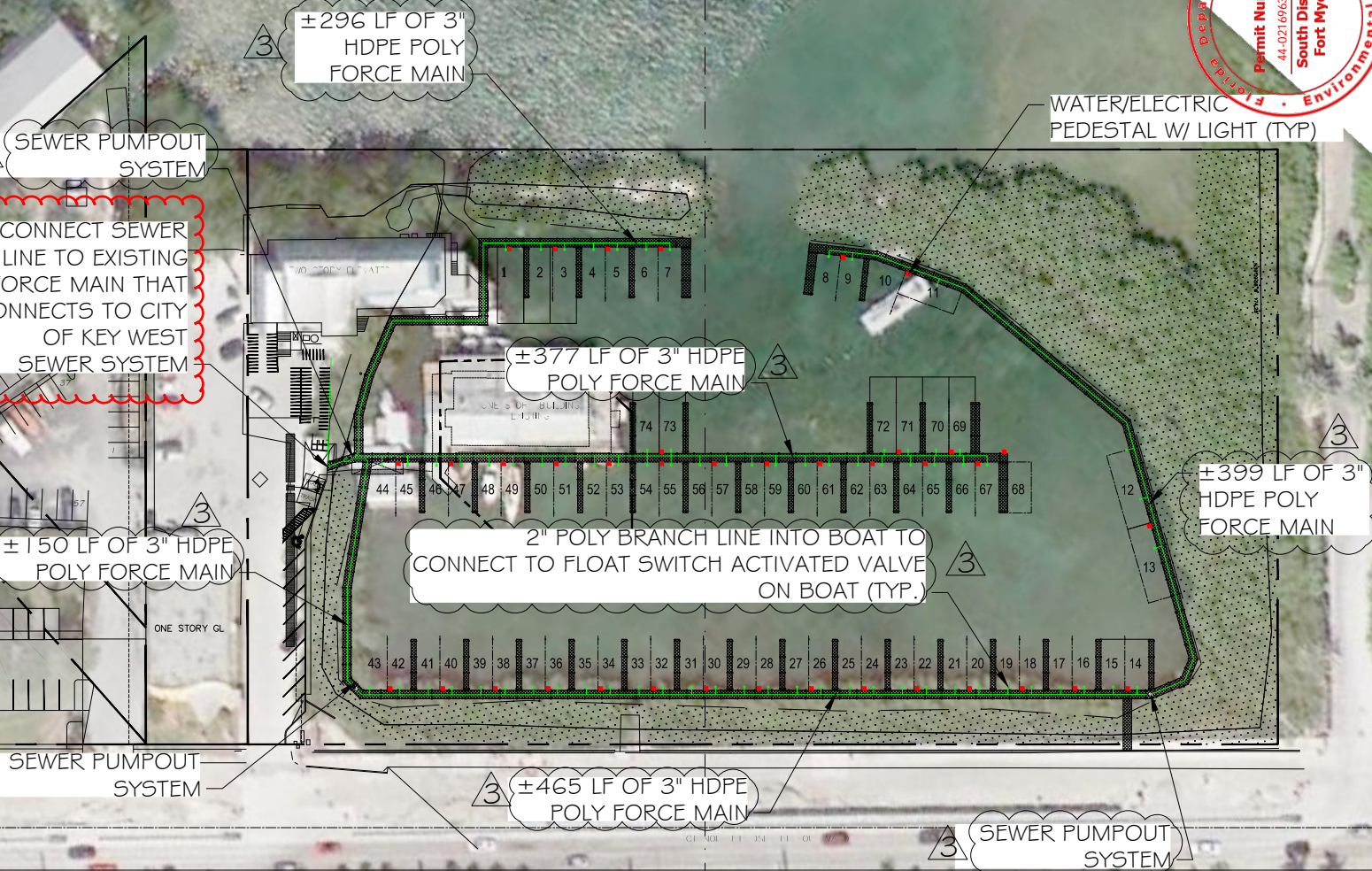
**WALKER  
MARINA**

2407-2409 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

**C-9.0  
UTILITY PLAN  
EXPANDED VIEW**

NOTES:

- ALL PLUMBING TO BE HARDLINED INTO EACH INDIVIDUAL SLIP USING HEAT FUSED HDPE POLY FORCE MAIN.
- HARDLINED SEWER SYSTEM WILL BE CONNECTED TO THE CITY OF KEY WEST SANITARY SEWER SYSTEM PER CITY OF KEY WEST UTILITIES DEPARTMENT COORDINATION LETTER DATED 11/29/2018.



# **Marina Facilities Management Plan**

## **Walker Marina**

**Prepared for:**

**Dr. Richard Walker  
2407 North Roosevelt Boulevard  
Key West, FL 33040**

**Prepared by:**

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**December 19, 2018**

## Table of Contents

I. INTRODUCTION.....	3
II. EDUCATION PROGRAM.....	3
III. ENFORCEMENT .....	5
IV. MODIFICATIONS.....	6
V. PETROLEUM SPILLS .....	6
VI. BILGE WATER .....	7
VII. ENGINE REPAIR AND MAINTENANCE.....	7
VIII. BOAT CLEANING.....	8
IX. ORGANIC ACCUMULATIONS: Biological Oxygen Demand (BOD).....	8
X. SEWAGE PUMPOUT .....	9
XI. Project Information.....	10

## I. INTRODUCTION

Dr. Richard C. Walker owns a boat basin, and the submerged lands therein, which is located in Key West, Florida, at 2407 North Roosevelt Boulevard. Within the boat basin will be a docking facility which will be exclusively provide wet-slips for live-aboard vessels. Vessels using the facility will be restricted to a maximum length of 45-feet and a maximum draft of 3.0-feet. The vessel restrictions will avoid and/or minimize impacts to marine benthic resources. It is anticipated that many vessels using the facility will be smaller than the maximum size.

The docking facility will include standard utilities and a vacuum wastewater collection system that is connected to the Key West sanitary wastewater sewer system. The facility will not have fuel sales or vessel maintenance facilities.

This facility management plan provides best management practices ("BMPs") for the operation of the facility regarding areas of operation which may affect water quality in the boat basin. Additionally, this plan provides an education program targeted toward the users of the facility, as well as an educational sign plan to provide information regarding the Florida Keys National Marine Sanctuary and manatees.

## II. EDUCATION PROGRAM

In order to implement long-term solutions to upgrading environmental conditions at the docking facility, a series of strategies and actions will be developed. This education program will involve the users of the facility with focus on their role in the long-term health of the docking facility, water quality, and the surrounding area. This continuing program will be implemented in the form of an orientation session for users of the facility, in a manner that will ultimately educate them and offer "ownership" in the program.

The education program will include, but is not limited to, the following:

- An overview of the FDEP permit conditions and regulations governing water quality and habitat protection at the docking facility and surrounding area.
- An explanation of the consequences of bottom cleaning in the basin, especially related to bottom paint.
- Explain the value of using environmentally-friendly cleaning methods and products and eliminate the use of hard abrasives or chemical treatments.
- Explanation of the value of floating debris collection and recycling efforts.

- Information and the long-term impacts of fuel spilling into the water.
- Explain methods to reduce or eliminate oil content in bilge water.
- Provide information regarding proper handling and disposal of used oil products.
- Inform all boaters regarding sanitary sewer use and system requirements.
- Demonstrate the proper disposal of hazardous wastes such as paint, old gasoline, left over chemicals, out of date flares and paint chips.
- Discuss compliance concerns, non-compliance trends and provide refresher discussions on areas of consistent non-compliance.
- Review all elements of the education program and discuss modifications that would make implementation of this management plan more effective.

Education - Conduct annual workshops for staff regarding implementation, compliance and monitoring of this management plan. Tailor the education program to include methods and procedures for executing the BMPs listed in this management plan.

In addition, educational signs relating to the Florida Keys National Marine Sanctuary and “Florida Friendly Boating” will be installed as shown on the attached sign plan (Exhibit 1). The purpose of the signs is to educate boaters regarding the Sanctuary and to raise awareness to remind boaters to watch out for manatees, sea turtles, and other marine wildlife.

#### **Marina Staff and Personnel Education:**

The Marina’s annual training workshops for personnel, contracted services and employees include implementation, compliance and monitoring of the Operations and Maintenance Plan. The topics discussed during training include:

- An overview of the Florida Department of Environmental Protection (FDEP), Army Corps of Engineers and all other applicable agencies, permit conditions and regulations governing water quality and habitat protection in the Marina and surrounding area.
- An explanation of the potential sources of contaminants from vessels and how they affect water quality.
- A synopsis of the County’s recycling program, to include designated areas for disposal, proper techniques regarding handling of batteries over the water surface and the docks. Batteries shall be taken off the Marina property by the vessel owner or contractor to be disposed of in an appropriate manner.
- The prohibition on the use of hard abrasives or chemical treatment.

- An explanation of the value of floating debris collection and recycling efforts.
- Information on the correct procedures for fuel spill containment.
- An explanation of methods to reduce or eliminate oil content in bilge water.
- Information regarding proper handling and disposal of used oil products.
- An explanation of the value of using environmentally friendly cleaning methods and products.
- Instruction on the proper disposal procedure for hazardous wastes such as old gasoline left over chemicals, out of date flares, etc.
- Discussion of compliance concerns, non-compliance trends and provide refresher discussions on areas of consistent non-compliance.
- Review of all elements of the education program and discuss modifications that would make implementation of the Plan more effective.
- Overview of the personal safety practices of the Marina.
- Implementation of operation practices to maintain an environmentally friendly marina.
- Education of Marina Staff on the best means to manage on site fire protection. The Key West Fire Department provides educational guidance to the Marina and has a fire boat berthed at the adjacent City Marina.

### III. ENFORCEMENT

**RESPONSIBILITY** -It will be the responsibility of Dr. Richard C. Walker, or any successor in title, to protect and maintain water quality standards at the docking facility. It shall be the responsibility of Dr. Walker to identify pollution sources from within the facility that may result in water quality violations and to take appropriate actions to prevent such occurrences.

**NOTIFICATION** -It shall be Dr. Walker's responsibility to monitor all boaters using the facility. Upon observation of any non-compliance with the provisions of this Management Plan, Dr. Walker shall serve a written and/or verbal "Caution" statement to the boater, informing him of the infraction. A second infraction shall result in a written "Warning" notice, informing the boater of a second infraction. A third infraction will result in the immediate termination of the slip agreement and the boater will be given one hour to remove the vessel from the facility. Infractions do not have to be identical and separate notices of violations are cumulative. All Caution, Warning and termination Notices shall be documented in a Daily Log, including the reason for the infraction.

**VIOLATIONS** – Dr. Walker reserves the right to identify any offender causing a violation within the facility, and to name said offender in any enforcement action taken by any regulatory agency. Dr. Walker acknowledges that he has the duty to monitor the docking facility patrons to ensure their compliance with this Management Plan and with the conditions and requirements.

## IV. MODIFICATIONS

It is the intent of both the FDEP and Dr. Walker to monitor, assess and implement changes to this Management Plan as necessary to comply with all FDEP Permits and state water quality standards. Changes to the Management Plan can be implemented through a request to FDEP, and after a final decision has been reached and a written agreement between Dr. Walker and the FDEP has been made.

## V. PETROLEUM SPILLS

Issue: Petroleum spills cause pollution, damage the marine environment and are costly to clean up. Lack of proper containment and a fuel spill response plan can critically delay containing a discharge.

GOAL: Avoid all petroleum spills at the facility.

### BEST MANAGEMENT PRACTICES:

- No fueling shall occur at the docking facility. However, spills may still occur. Spills, no matter how small, need to be cleaned properly.
- Fuel spill containers with absorbent pads and containment bags will be located in an accessible locker at a central location on the dock for immediate access by boaters. The locker will be clearly marked for visibility and assure the container remains unlocked and accessible. Provide education and new product updates to employees and patrons when available/appropriate.
- All spills shall be reported to the facility manager immediately.
- In the case of a spill or discharge of a hazardous substance this Marina contracts with Coffin Marine Services for emergency response. Coffin Marine Services is USCG approved for spill containment and remediation.
- Coffin Marine Services and the Marina Operations Manager are the First Responders to all fuel and oil spills within the Marina's waterways.
- The Clean-up Contractor for major spills is Coffin Marine Services; Coffin Marine Services and Marina personnel accomplish all other minor clean-up and proper disposal.
- The Marina Operations Manager generates a Fuel Spill Incident Report and is responsible for reporting all fuel spills to the following agencies: State of Florida (State Warning Point, 800-320-0519), U.S. Coast Guard (National Response Center, 800-424-8802), U.S. Coastguard (Marine Safety Office Marathon, Florida, (305-743-1945) and Florida Fish and Wildlife Conservation Commission (305-289-2320).

## **Solid Waste Disposal**

The facility provides solid waste receptacles for the disposal of general refuse generated by the boaters. These receptacles are located in the upland adjacent to parking lot and have closing lids to eliminate spillage that could enter the waterway. For large bulk waste boaters are to use the large dumpsters located in the parking lot of the at the facility.

## **VI. BILGE WATER**

**Issue:** Oil and grease from the operation and maintenance of inboard engines are sources of petroleum in bilges. Discharged bilge water is a source of pollution in marinas.

**GOAL:** Minimize the occurrences of contaminated bilge water and discharges.

### **BEST MANAGEMENT PRACTICES:**

1. The docking facility prohibits the discharge of bilge water materials. If your bilge is full, please report to a local marina for proper cleaning and disposal.
2. Educate guest boaters on the importance of maintaining bilge water-free of oils and associated greases. Encourage boaters to conduct inspections of engine components and to repair leaks and eliminate spillage.
3. Encourage use of absorbent pads to maintain bilges oil-free. Encourage the use of drip pans with absorbent pads while draining oil from the bilge. Encourage boaters to keep all engines well- tuned; regularly check seals, gaskets, hoses and connections for leaks and drips.
4. "Flag" and immediately report observations of petroleum products to owners of vessels from which the discharge originates. Require immediate inspection of the bilge by the owner to determine if oil is leaking into the bilge. Provide contacts of names and numbers for a secure vessel to transport saturated pads to a suitable upland disposal site. If the boat owners are absent, the boat will be surrounded by containment booms and the owner notified of the problem. All cleanup will be at the expense of the boat owner. A limited supply of pads should be kept in the fuel spill container for sale to the boat owners.

## **VII. ENGINE REPAIR AND MAINTENANCE**

**ISSUE:** Engine service and repair operations generate waste which, when handled incorrectly, can cause human hazards, endanger the environment and be costly to clean up.

**GOAL:** Avoid in-water vessel or engine repair at the facility.

**BEST MANAGEMENT PRACTICES:** In-water maintenance is prohibited at the docking facility. Maintenance shall be confined to the inner/dry portion of the vessel. No upland boat repairs or maintenance allowed. Please have your boat serviced at a local authorized marina.

## VIII. BOAT CLEANING

**ISSUE:** Hard abrasives, such as stainless steel wool or similar cleaning pads, may drive chromium treatments into the water column during cleaning of boat bright work. Use of various soaps, detergents and cleaners are detrimental to the environment and degrade water quality. Excess nutrients can degrade water quality by promoting nuisance aquatic plant growth and reducing dissolved oxygen levels needed for aquatic life. Products used to wash boat hulls and decks often contain toxic ingredients such as ammonia, sodium hypochlorite, chlorinated solvents, petroleum distillates or lye. Additionally, scrubbing antifouling paints can release toxic metals into the water, which may also contaminate marina bottom sediments. The removal of contaminated sediments can be very costly.

**GOAL:** For both in-water and out-of-water boat cleaning, use cleaning methods that prevent or contain the release of pollutants to surface waters.

1. When possible, the boat is to be removed from the water and cleaned in an approved boat washing area, there are some local marinas that offer this service (both boat removal service and cleaning service).
2. In-water pressure washing for boat cleaning is prohibited at the facility.
3. The facility requires the use of approved biodegradable boat cleaning materials for deck cleaning and encourages you to use only the amount necessary to clean the boat, as well as using the minimum amount of water. No pressure washing of boats is allowed.
4. The dock facility manager shall monitor for boat cleaning at the docking facility daily and provide non-compliant boaters with information from the Management Plan, including emphasis for non-compliant boaters.

## IX. ORGANIC ACCUMULATIONS: Biological Oxygen Demand (BOD)

**ISSUE:** Sea grasses, leaf litter, and other organic detritus and manmade products can float into the boat basin and settle to the bottom. The decomposing process extracts oxygen from the

water column, driving dissolved oxygen to lower levels, possibly below state water quality standards.

**BEST MANAGEMENT PRACTICES:** The facility manager shall be responsible for the collection of floating debris from the marina on an as-needed basis. Organic materials will be deposited in an upland composting pile or designated vegetation disposal container isolated from water of the state and manmade products will be recycled.

## X. SEWAGE PUMPOUT

**ISSUE:** Overboard discharges of domestic sewage from marine heads or holding tanks, including gray water from showers and sinks, contribute significantly to water quality degradation and introduce dangerous pathogens into the water. Poorly maintained pumpouts, pumpouts in inaccessible locations, and waste dump receptacles limit pumpout use and encourage the improper disposal of sanitary wastes.

**GOAL:** Avoid an event whereby wastewater effluent is discharged into waters within the facility. Ensure that all vessels connected to the hard-line connected wastewater collection system are secure and properly functioning. Require the proper use of sewage pumpout facilities by boaters. Ensure that sewage pumpout facilities and waste dump receptacles are maintained and in good operational and sanitary condition to encourage their use.

**BEST MANAGEMENT PRACTICES:** All vessels moored in the facility will be connected to the hard-line connected wastewater collection system in the marina by marina staff. Individual vessel owners will not be permitted to make connections; only trained marina staff will make system to vessel connections. The connections to the boat slips are via a heat fused HDPE poly force main pipe system that is connected to the City of Key West sanitary sewer collection system. This configuration eliminated holding tanks and over-water pumpout connections that pose a hazard to the marine environment.

The docking facility strictly prohibits the discharge of pumpout materials into area waters. Any discharge into the boat basin is a violation of the Management Plan and shall constitute a violation and require enforcement action. The facility manager may have the boat owner's right to dock at the facility revoked and the owner may have to pay a fine and/or penalty assessed by the State. The boat owner will be responsible for all cost associated with the cleanup operations, including the costs of cleanup supplies, equipment, and labor costs. Further, the boat owner will be responsible for paying any attorney fees or consultant fees incurred by the docking facility as a result of the sewage discharge. All facility staff will be trained regarding the potential for a sewage spill and measures that need to be taken in the event of one occurring.

## WASTEWATER SPILL CONTINGENCY PLAN:

In the unlikely event of a wastewater spill from a vessel or the collection system, the following measures will be implemented:

- On-site floating boom will be deployed immediately by marina staff;
- Coffin Marine, the facility emergency response contractor, will be notified immediately and deployed to the site;
- Spill containment and clean-up will be implemented;
- The City of Key West Utilities Department and the Florida Department of Health will be notified of the event and all remediation efforts immediately;

## XI. Project Information

### Facility Information

Facility Name	Richard C. Walker Marina ("Walker Marina")
Physical Address	2407 North Roosevelt Boulevard, Key West, Florida 33040
Mailing Address	2407 North Roosevelt Boulevard, Key West, Florida 33040
Phone Number	(305) 294-1068

### Navigational Information

Latitude: 24° 33' 49.10"	Longitude: 81° 46' 35.80"	NOAA CHART # 11441
Reported Depth: Varies -4 to -6 feet MLW	Approach: -4 to -6 feet MLW	Tidal Range: 1.0 foot

**Marina Facilities**

Total # of slips	# of slips on sovereignty submerged lands	# of slips on private submerged lands	# of slips open to the public	# of live aboard slips
74	0	74	74	74

Dock Type	Fixed
Sewage pump-out	Vacuum sanitary sewer connected to the Key West municipal sewer system
Dockside Power	120 V municipal supply

**Docking Facility Boat Slip Restrictions**

Boat Slip #	Type of Vessel	Vessel Length	Vessel Draft
1-74	power boats or sail boats	45' (max)	3.0' (max)

## Exhibit 1 – Sign Plan



SITE DATA

TOTAL MARINA PROPERTY AREA	4.869 Acres (212,100 SF)
PROPOSED NO. OF WET BOAT SLIPS	74
IMPAIRMENTS	
PILE SUPPORTED DOCK OVER SUBMERGED LANDS	0.247 Acres (10,741 SF)
NO. OF 4 1/2 INCH ALUMINUM PILES	594

WALKER  
MARINA

2407 N. ROOSEVELT BLVD  
KEY WEST, FLORIDA 33040

C-3.0  
SITE PLAN  
EXPANDED VIEW

Project No:	Scale: AS NOTED
CAD File: Walker ACOE (10-22-14)	Date: 10/22/2014

Revisions:

Meridian Engineering LLC  
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Key West, Florida 33040  
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NOT VALID FOR CONSTRUCTION UNLESS  
SIGNED AND SEALED IN THIS BLOCK  
RICHARD J. MILELLI  
PE #58315



# Florida Keys

## NATIONAL MARINE SANCTUARY

For more information on specific regulations visit <http://floridakys.nmss.gov> or a local marine retailer.



## Keys' Treasures

Coral reefs contain more varieties of life than any other marine environment. They exist as part of a complex ecosystem that includes mangroves, hardbottoms, and seagrasses found in the shallow waters of the Keys and Florida Bay.



For centuries, thousands of ships have wrecked along the Keys' coral reefs. Together they tell the story of the rich maritime history of the Florida Keys. Like the natural resources, the cultural resources are also protected.



## KNOW YOUR BUOYS!



### Yellow Buoy

- They "float" and are a warning to boats to take care.
- Mark the "no anchor" areas, that are the "no anchor" areas.
- Mark the "no anchor" areas, that are the "no anchor" areas.
- Mark the "no anchor" areas, that are the "no anchor" areas.

### CONOZCA SUS BOYAS!

- De color amarillo, señalan las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".



### Red Buoy

- They "float" and are a warning to boats to take care.
- Mark the "no anchor" areas, that are the "no anchor" areas.
- Mark the "no anchor" areas, that are the "no anchor" areas.
- Mark the "no anchor" areas, that are the "no anchor" areas.

### Boyas de color rojo

- De color rojo, señalan las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".



### Green Buoy

- They "float" and are a warning to boats to take care.
- Mark the "no anchor" areas, that are the "no anchor" areas.
- Mark the "no anchor" areas, that are the "no anchor" areas.
- Mark the "no anchor" areas, that are the "no anchor" areas.

### Boyas de color verde

- De color verde, señalan las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".
- Marcan las zonas de "no anclar", que son las zonas de "no anclar".



## WHAT YOU DO (OR DON'T DO) CAN MAKE A DIFFERENCE

- Use proper boating practices. Do not discharge sewage.
- When taking, leave the vegetation.
- Do not stand on or near coral reefs.
- If possible, use a rubber water shoe.
- Do not use a power drill.

- Carry out all trash. Do not throw it overboard.
- Wear your seat belt.
- Wear your life jacket.
- If you are in a boat, please do not drink and drive.



## LO QUE USTED HAGA O DEJE DE HACER PUEDE MARCAR LA DIFERENCIA

- Utilice las prácticas de navegación correctas. No descargue aguas residuales.
- Cuando tome, deje la vegetación.
- No se ponga sobre o cerca de los arrecifes.
- Si es posible, use zapatos de agua de goma.
- No use una sierra de mano.

- Lleve todo el basura. No la tire al mar.
- Use su cinturón de seguridad.