THE CITY OF DAYTONA BEACH

HALIFAX HARBOR MARINA SEAWALL RESTORATION

INVITATION TO BID No. 19473
PROJECT SPECIFIC CONSTRUCTION SERVICES
NIGP COMMODITY CODE 91223, 91430, 95935

THE CITY OF DAYTONA BEACH
PUBLIC WORKS DEPARTMENT – TECHNICAL SERVICES DIVISION
P.O. BOX 2451
DAYTONA BEACH, FLA. 32115

ISSUE DATE: April 30, 2019

Bidders who wish to continue being notified of upcoming bid opportunities make sure they have registered at: PURCHASING.CODB.US Make sure you have registered for the Commodity Code listed above to receive updates for this solicitation.

INVITATION TO BID – PROJECT SPECIFIC CONSTRUCTION SERVICES

The City of Daytona Beach will receive bids for **the "HALIFAX HARBOR MARINA SEAWALL RESTORATION", Invitation to Bid No. 19473,** at the City of Daytona Beach Purchasing Division, City Hall Room 146, 301 S. Ridgewood Ave., Daytona Beach, Florida 32114, until **2:00 p.m., on May 31, 2019**, at which time bids will be opened publicly and read aloud. Bids received after said time will be returned unopened.

Sealed bids must be addressed to:

Joanne Flick, Purchasing Agent
The City of Daytona Beach Purchasing Division
301 S. Ridgewood Ave., Room 146
Daytona Beach, Fl., 32114

with "Sealed Bid for HALIFAX HARBOR MARINA SEAWALL RESTORATION , ITB No**.** 19473**"** plainly written on the outside of the envelope.

The work generally consists of approximately 290 linear feet of the marina shoreline near the Fuel Dock and Pump Out Station. Proposed stabilization of the shoreline consists of removing and disposing of the existing stacked stone and concrete bags and replacing them with 290 feet of vinyl seawall finished with a concrete cap. There will be multiple utility seawall penetrations to be accommodated and disturbed areas to be backfilled and sodded. Project Magnitude $400,000-$450,000.

Bid Documents may be obtained as pdf files on-line at http://purchasing.codb.us. There is no charge for downloading Bid Documents. The Bid Documents and all other Contract Documents, including Drawings and Technical Specifications if applicable, are also on file at the Daytona Beach Purchasing Division, 301 S. Ridgewood Avenue, Room 146, Daytona Beach, Florida, 32114. A complete set of these Documents may be obtained upon payment of $75, NON-REFUNDABLE. Checks must be made payable to the City of Daytona Beach, Florida. All inquiries and checks pertaining to this project which are mailed should be directed to Post Office Box 2451, Daytona Beach, Florida 32115-2451.

Each bid must be accompanied by **Bid Security** in an amount not less than 10% of the total bid.

A NON-MANDATORY PRE-PROPOSAL CONFERENCE will be held at the Daytona Beach Public Works, 950 Bellevue Avenue #500, Daytona Beach, Florida 32114, on May 8, 2019 at 10:00 AM. Interested contractors are *urged* to attend.

The successful contractor will be required to furnish separate 100% Performance and Payment Bonds unless the Contract price is less than $100,000.

The City reserves the right to reject any and all bids, or any portion of any bid, or to waive any informalities in the bidding.

Bids may be held by the City for a period not to exceed 60 days from the date of opening of bids for the purpose of reviewing the bid and investigating the qualifications of bidders prior to awarding the contract.

By: KIRK ZIMMERMAN, CPPB-BUYER
CITY OF DAYTONA BEACH
Issue Date: April 30, 2019

INSTRUCTIONS TO BIDDERS – PROJECT SPECIFIC CONSTRUCTION SERVICES

THESE INSTRUCTIONS ARE STANDARD FOR ALL BID SOLICITATIONS FOR PROJECT SPECIFIC CONSTRUCTION SERVICES ISSUED BY THE CITY OF DAYTONA BEACH. THE CITY MAY DELETE, SUPERSEDE, OR MODIFY ANY OF THESE STANDARD INSTRUCTIONS FOR A PARTICULAR SOLICITATION BY USE OF SPECIAL INSTRUCTION SHEETS.

1. BID DOCUMENTS. The Bid Documents consist of the Invitation to Bid; these Instructions; Special Instructions, if any; the Bid Proposal Letter, the Bid Schedule and all other Forms to be completed, signed, and submitted by the Bidder; and all additional documents required to be completed and submitted by the Bidder as part of the Bid.

In making copies of Bid Documents available, the City does so only for the purpose of obtaining Bids and does not confer a license or grant to use the Bid Documents for any other purpose.

2. COMPLETING THE BID. In order for the Bid to be considered complete:

A. The Bid Proposal Letter, the Bid Schedule, and all other required Forms must be completed. All blank spaces must be filled with dark ink or via typing. All corrections and erasures must be initialed by the party submitting the Bid on behalf of the Bidder.

B. All information/documentation that is required to be submitted by this solicitation must be provided in the manner indicated.

C. The Bidder is requested to submit only the Bid Proposal Letter and other Forms, documents, and information specifically required. Any extraneous documents or information submitted by the Bidder will be discarded. The Bidder be asked to sign a written contract only if the City awards a contract to Bidder.

D. Unless Special Instructions are included in this solicitation specifically allowing for partial or lot-by-lot bids where the Bid Schedule only calls for unit prices, the Bidder must provide quotes for all unit prices and extended unit prices (if any) as set forth in the Bid Schedule. If this solicitation allows for partial or lot-by-lot bids, the Bidder must comply with the Special Instructions in completing filling out the unit prices and extended unit prices set forth in the Bid Schedule.

E. The Bid Price (including unit prices and extended prices if applicable), must be stated in numerals.

F. If this solicitation requires unit prices and there is a conflict between the unit prices and the extended totals, the unit price will take precedence. Likewise, discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

G. The Bidder must not submit alternative bids unless this solicitation specifically authorizes alternate bids. If this solicitation specifically allows the submission of alternate bids, the Bidder must submit the standard and the alternative bid in order to be considered responsive.

H. The Bid may not contain qualifications or exceptions of any kinds.

I. All other submittal requirements stated herein must be met.

3. SIGNING THE BID. The Bid Proposal Letter, the Bid Schedule and all other Forms and documents requiring Bidder's signature must contain the original signature of an individual authorized to bind the Bidder. The signature must be located in the space(s) marked for the Bidder's signature. In addition, the person signing the Bid must also sign all of the other Forms to be submitted.

Electronic signatures will not be accepted.

4. REQUESTS FOR INTERPRETATIONS. If the Bidder is in doubt as to the meaning of any of the Bid Documents or other Contract Documents included in this solicitation, the Bidder may submit a written request to the City for an interpretation, care of the Purchasing Agent at the address set forth in the Invitation for delivery of the completed bid. Such requests must be received 10 days prior to bid opening in order to be considered. The City is not obligated to respond to such requests. Any clarification or interpretation issued by the City in the form of a written addendum will be deemed to be a part of the Bid Documents.

No oral clarification or interpretation will be binding.

5. ADDENDA TO BID DOCUMENTS. Prior to bid opening, the City may on the City's own initiative or in response to a request for clarification, furnish addenda for additions or alterations to these Instructions, the Bid Documents, and to any or any Drawings, Specifications, or other Contract Documents previously supplied by the City. In addition, the City may by addenda extend the date scheduled for Bid Opening.

The Purchasing Agent will make reasonable efforts to notify all potential bidders of the issuance of an Addendum. The Purchasing Agent will also post Addenda on the Purchasing Division's web page, http://purchasing.codb.us.

However, the Bidder is solely responsible for ensuring that the Bid submitted reflects all such Addenda.

6. BID SECURITY. The Bidder must submit Bid Security equal to 10% of the Bid. The Bid Security will be in the form of a bid bond; or any of the following alternate forms: cashier's check, certified check, money order, notes at par value, U.S. Currency, or U.S. Government Bond. Any Bid Security provided must be in original form; copies are unacceptable. The City has the right to retain the bid security as liquidated damages should the Successful Bidder fail to comply with the terms of the bid. The City will return the bid security to unsuccessful Bidders after the contract award.

Any bid bond provided must be in a form approved or provided by the City, and must be accompanied by sufficient evidence of the issuing agent's authority. The surety company executing the bond must be authorized to do business in the State of Florida. If the bid bond is in an amount greater than $5,000.00 the surety company executing the bond is listed by the United States Treasury Department as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount.

7. BID ENVELOPE. The Bid, including the Bid Proposal Letter, all other required Bid documents, and required bid security, must be returned in an opaque, sealed envelope. The envelope must display the name and address of the Bidder, the bid number and name of the bid/contract as set forth on the Invitation to Bid, and the date and time scheduled for bid opening. The envelope must be addressed to:

Purchasing Agent
City of Daytona Beach
Room 146
301 S. Ridgewood Avenue
Daytona Beach, FL 32114

8. SUBMISSION OF BID. The Bidder must submit the Bid by mail or hand delivery at or prior to the time fixed for bid opening in the Invitation for Bids A bid submitted after the time fixed for bid opening will not be accepted. The Bid must be delivered to the Purchasing Agent at the address above. A bid submitted to any other location will not be considered. Telephonic, electronic, and faxed bids will not be considered.

9. AMENDMENT AND WITHDRAWAL OF BID. The Bidder may amend or withdraw the Bid at any time prior to bid opening, but only with prior written notice to the Purchasing Agent, submitted in the same manner as the Bid. The notice must be signed by a properly authorized agent of the Bidder.

Mere negligence on the part of the Bidder in preparing the Bid does not constitute a right to withdraw the Bid subsequent to bid opening.

Amendments may be made only through the submission of a complete Bid along with a written statement, signed by the same person who signed the Bid, that the submission is intended to fully replace the Bidder's earlier submission. The City is not required to honor an amendment that fails to comply with this Paragraph 9.

10. DISQUALIFICATION OF BIDDERS.

A. **Only One Bid Permitted:** The Bidder may submit only one Bid. If the Bidder submits more than one bid for the work involved, all bid proposals submitted from the Bidder will be rejected.

B. **Collusion:** If the City determines that collusion exists among bidders, the City will reject the bids of all participants in the collusion.

C. **Scrutinized Companies List:** If the Bidder is found to have submitted a false certification as provided by F.S. Section 238.175(5), or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, the City will have the option to immediately terminate this Contract.

11. BID OPENING. Bid opening will be scheduled at the location and on the date and time specified by the Invitation for Bid, or by any applicable Bid Addenda that the City may issue. At bid opening, the City will open and record the Bid so long as it is proper and has been timely submitted. In recording the Bid the City will state the name of the Bidder and the Bid Price.

The Bidder is solely responsibility to ensure that the Bid is time and date stamped by the Purchasing Agent prior to bid opening. Late bids will be rejected and returned unopened.

The Bidder may be present at bid opening but is not required to be present.

12. BID AS OFFER; FIRM PRICING; NO GUARANTEES AS TO QUANTITIES ORDERED. In submitting the Bid, the Bidder certifies that the Bidder is making a firm offer that will remain open for 60 days following Bid Opening unless properly and timely withdrawn by the Bidder prior to Bid Opening in conformance with these Instructions unless the City, in the City's sole discretion, rejects the Bid after Bid Opening. Extensions of time beyond the 60 day-period will only be by agreement of the City, the Successful Bidder, and the surety for the Successful Bidder.

In addition, if this solicitation requests submission of unit prices: (i) all unit prices will be deemed to be held firm for the duration of the Contract, including any extension thereof, unless specifically authorized by the Contract Documents; and (ii) quantities stated are an estimate only and no guarantee is given or implied as to quantities that will actually be required during the contract period.

13. FEDERAL TAXES. The bid price will be exclusive of all federal taxes. If the Bidder believes that certain other taxes are properly payable by the City, the Bidder may list such taxes separately in each case directly below the respective item bid price. Tax exemption certificates will be furnished upon request.

14. BID PRICE INCLUSIVE OF COSTS. The Bid Price is inclusive of all of the Bidder's direct and indirect costs of performing the Work.

15. BIDS AND PUBLIC RECORDS. Sealed bids received by the City pursuant to this solicitation will be temporarily exempt from disclosure in accordance with Florida's Public Records Laws. Thereafter, bids will be open for inspection by any person pursuant to Public Records Law.

If the Bidder believes that the Bid or any portion thereof is permanently exempt from disclosure under the public records laws, the Bidder must state the grounds for this position in CAPITAL LETTERS on a cover sheet accompanying the sealed bid. The Bidder will be contacted prior to the opening of the Bid and a determination will be made as to whether or not it is exempt prior to opening. If a determination is made that it is not exempt from disclosure, the Bidder may in writing request the return of the sealed bid.

16. BID OPENING RESULTS. The Bidder may secure information pertaining to bid opening results on the Purchasing Division webpage under the "Closed Solicitations" link, by visiting the Purchasing Division Office Monday through Friday between 8:00 am and 3:00 pm, or by emailing a request to purchasing@codb.us. Copies of bid tabulation sheets will be furnished upon request and receipt of a valid email address or self-addressed stamped envelope.

17. BIDDER CAPABILITY/REFERENCES. Prior to contract award, the City may require Bidder to show that Bidder has the necessary facilities, equipment, ability, and financial resources to perform the work specified in a satisfactory manner and within the time specified.

In addition, the City may require Bidder to demonstrate that Bidder has experience in work of the same or similar nature as the work required herein, and to provide references satisfactory to the City.

18. REVIEW; BASIS OF AWARD. Bids will be reviewed in accordance with the procedures set forth in these Instructions to Bidders and the applicable provisions of the Purchasing Code, Chapter 30 of the Daytona Beach Code of Ordinances. Any contract awarded pursuant to this solicitation will be made on the basis of the criteria for award of bids provided in the Purchasing Code.

A link to the Code of Ordinances is available on the City's web site, www.codb.us.

19. LOCAL PREFERENCE. The Purchasing Code, Chapter 30, Code of the City of Daytona Beach provides for a preference to local vendors whenever the application of such a preference is reasonable in light of the dollar-value of proposals received in relation to such expenditures.

As used in City Code, the term, "local vendor" means a person or business entity which has maintained a permanent place of business with full-time employees within the city limits of the City of Daytona Beach for a minimum of six months prior to the date bids or proposals were received for the purchase or contract at issue, which generally provides from such permanent place of business the kinds of goods or services solicited, and which at the time of the solicitation fully complies with state and local laws, including City zoning and licensing ordinances.

Pursuant to City Code, if the lowest responsive bid is submitted by a non-local vendor, and a bid submitted by a local vendor is within 10% of the lowest bid, then these two vendors will each have the opportunity to submit a best and final bid equal to or lower than the amount of the lowest bid within five working days after bid opening. The bid will be awarded to the bidder submitting the lowest responsive bid or final bid. In case of a tie between a local vendor and a non-local vendor, the bid will be awarded to the local vendor.

If the Bidder intends to qualify as a local vendor, the Bidder must complete and sign the Local Vendor affidavit and submit it as part of the Bid. A Bidder who fails to property complete and sign this affidavit or submit it with the Bid, will not further considered for local preference.

If the Bidder submits a properly completed Local Vendor affidavit as part of its Bid, the City reserves the right to verify that the Bidder meets the definition of Local Vendor, including by requiring the Bidder to supply additional documentation. In all instances, the City will be the final arbiter as to whether the Bidder qualifies for local preference.

With certain exceptions, application of local preference is discretionary. For more information on how the Local Preference may apply, see the Purchasing Code.

20. IDENTICAL TIE BIDS. If there are two or more low responsive bids from responsible bidders that are identical in price and other evaluation criteria, the tie will be awarded to the following in order of preference: a) the bidder qualifying for local preference under Code 30-86; b) the bidder in compliance with the drug free workplace certification requirements set forth in Florida Statutes 287.087; or c) the most responsible bidder as defined under the City Code 30-82 (9)(c).

21. RIGHT TO ACCEPT OR REJECT BIDS. The City will reject bids which contain modifications, qualifications, or exceptions, or which are incomplete, unbalanced, conditional, obscure, or which contain additions not requested, or irregularities of any kind, or which do not comply in every respect with these Instructions to Bidders and the Contract Documents, unless the City in its sole discretion determines that the non-compliance is minor.

The City does not bind itself to accept the minimum bid stated herein, but reserves the right to accept any bid, which in the judgment of the City will best serve the needs and interests of the City.

22. CRA MAY AWARD PURCHASE ORDERS ISSUED PURSUANT TO CONTRACT. In the case of a continuing/term supply or service contract awarded pursuant to this solicitation, if the funds to be used to pay for a portion of the supply or service are from redevelopment trust funds, the Community Redevelopment Agency (CRA) is authorized to issue the purchase order corresponding to the supply or service instead of the City.

23. CITY'S PROJECT-SPECIFIC CONSTRUCTION CONTRACT FORM. The City's contract form for project specific construction projects, which is included in this solicitation, contains additional terms and conditions, including indemnification and insurance requirements, completion deadlines, and liquidated damages, that the Bidder should review prior to submitting the Bid. The City reserves the right to make minor changes to the form contract prior to execution by the successful bidder to correct errors, make other minor formatting changes, or for legal sufficiency. The City will provide the successful bidder the final contract for execution.

24. LICENSES. At time of Bid submittal, the Bidder must hold the required licensure to be the prime contractor for all work to be performed under this solicitation. Any subcontractors or sub-consultants whom the Bidder proposes to use to perform work under this solicitation must also hold the required licensure at the time of Bid submittal. Required licensure must be maintained in full force and effect during the contract term.

25. BIDDER RESPONSIBILITY FOR PREPARATION COSTS. Neither the City nor the City's officers or agents will be liable for the costs incurred by the Bidder in reviewing or responding to this solicitation.

26. POST-AWARD SUBMITTAL REQUIREMENTS. Within 15 business days after the City's issuance of a notice of award, the Successful Bidder must submit each of the following:

A. A fully-executed contract, using the form provided with or referenced by the notice of intent to award.

B. Proof of insurance, in accordance with the requirements of the Contract. See the Contract form for more information regarding insurance requirements.

C. Performance Security, as further described below, in an amount equal to 100% of the Contract Price.

The award is subject to cancellation and the bid security subject to forfeiture if this deadline is not met.

27. PERFORMANCE SECURITY. Performance Security is required unless contract is less than $100,000.00. Payment and performance bonds may be submitted; or an alternative form of security as specified in Florida Statutes § 255.05(7) may be provided upon the City's prior written approval.

If the Successful Bidder elects to use payment and performance bonds for required Performance Security, the Successful Bidder will use forms provided by the City. Copies of the City's current form bonds will be provided with the Notice of Award. Completed bonds must be originals, not copies, with raised corporate seals included where applicable. The bonds must be accompanied by sufficient evidence of the authority of the issuing agent, including a certified copy of the power of attorney of the person signing the bond on the surety's behalf. The surety company executing the bonds must be must be rated "A" or better by A.M. Best Key Rating Guide, authorized to do business in the State of Florida, and must be listed by the United States Treasury Department Treasury Fiscal Service, Bureau of Government Financial Operations, Federal Register, Part V, latest revision, entitled: "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies," as being approved for writing bonds for federal projects on its current list in an amount not less than the required bond amount.

END OF INSTRUCTIONS TO BIDDERS SECTION

SUBMITTAL CHECKLIST

The following items will be submitted with the Bid Proposal Letter. Each blank on the form will be filled out. Use NA (not applicable) rather than leaving blank.

Item(s) Required with Submittal	
	BID PROPOSAL LETTER
	BID SCHEDULE
	NONCOLLUSION AFFIDAVIT OF PRIME BIDDER
	DRUG-FREE WORKPLACE CERTIFICATION
	AFFIDAVIT ON PUBLIC ENTITY CRIMES
	LOCAL VENDOR AFFIDAVIT (*only if filing for local preference)*
	MINORITY AND WOMEN OWNED BUSINESS ENTERPRISES CERTIFICATION FORM
	MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE OFFICER CERTIFICATION FORM
	Bid Security (10% for all construction bids)
Label the outer most package with the following: Bid Number Date of the Opening Contractor Name and Address	
Item(s) Required after Bid Submittal	
Certificate of Insurance indicating the coverages outlined in this solicitation, including naming the City as additional insured *(requested when Notice of Intent to Award is Issued)*	
Contract signed by Authorized Representative of the Vendor *(completed contract sent with Notice of Intent to Award)*	
Payment & Performance Bonds to be returned as instructed within 15 days after the Notice of Award is issued *(P & P Bonds acceptable to the City will be sent with Notice of Award)*	

BID PROPOSAL LETTER - ITB NO.: 19473

TO THE MAYOR AND COMMISSIONERS
THE CITY OF DAYTONA BEACH, A FLORIDA MUNICIPAL CORPORATION

Dear Mayor and Commissioners:

This Bid is submitted by _____
(insert Bidder's full legal name; include D/B/A if applicable)

Business Address: _____
(include P.O. Box/street address, city, state and zip code)

Business Phone: _____ Business Fax: _____
(include area code) *(include area code)*

Business Email: _____
(leave blank if n/a)

The undersigned, as BIDDER or BIDDER's authorized representative, hereby declares and affirms each of the following:

1. That BIDDER has had the opportunity to examine the project site(s) and is fully informed in regard to all conditions pertaining to the site(s).

2. That BIDDER is fully informed regarding local conditions where the work will be required.

3. That BIDDER has thoroughly examined all Contract Documents, including Plans and Specifications as applicable, relative to the work to be performed, and that BIDDER is sufficiently knowledgeable of the work to be performed.

4. That BIDDER hereby agrees to furnish all labor, materials, and equipment to do the work in strict accordance with the Contract Documents for the price(s) stated in the attached Bid Schedule.

5. That, subject to the terms and conditions stated in the Contract Documents, BIDDER will perform the work in accordance with the completion date(s) specified in the Contract Documents, and will pay liquidated damages in the amounts specified in the Contract Documents for BIDDER's failure to comply with the completion date(s).

6. That BIDDER agrees to indemnify and hold harmless the CITY any other interests as set forth in the Contract Documents.

7. That insofar as the attached Bid Schedule includes extended unit prices, the use of extended unit quantities will not be construed to be a guarantee that the CITY will purchase such quantities if a contract is awarded; and that, subject to the terms and conditions of the Contract, BIDDER will be entitled to payment only based on the units constructed, installed, or otherwise placed in service.

8. That BIDDER has received the following Addenda (*leave blank if inapplicable*):

No. _____ Dated: _____ No. _____ Dated: _____

No. _____ Dated: _____ No. _____ Dated: _____

(*list any additional Addenda by number and date)*: _____

_____

_____

9. That, if within the time period specified in the bid solicitation, BIDDER fails to execute the form Contract, provide proof of insurance, and submit (if required) Performance Security, the bid award will be subject to cancellation and the Bid Security provided with this Bid will be subject to forfeiture.

10. That all information provided by BIDDER as part of this Proposal is truthful to the best of BIDDER's knowledge.

11. That BIDDER is *(mark the appropriate box and include the additional information, as applicable)*:

[ ] An individual person/sole proprietor

[ ] A Florida corporation/ limited liability company

[ ] A foreign corporation/limited liability company authorized to do business in Florida*

_____ *(specify state of incorporation/formation)*

[ ] A Florida limited partnership

[ ] A foreign limited partnership authorized to do business in Florida*

_____ *(specify state of incorporation / formation)*

[ ] A general partnership**

[ ] A joint venture***

[ ] Other _____ (specify, including type of entity)

** Attach proof of formation/registry from State of Florida.*

*** Provide on separate, signed sheets(s) of paper, full legal name and address of the partnership; and names of all general partners.*

**** Provide on separate signed sheet(s) of paper the full legal names of all persons/firms comprising the joint venture.*

BID PROPOSAL LETTER -- ITB NO.: 19473, CONT.

12. That BIDDER has completed and attached all required attachments with this Bid Proposal, including Bid Schedule, Non-Collusion Affidavit, Drug Free Workplace Certification, MWBE Certifications, and Public Entity Crimes Affidavit.

In signing below, I certify that I am the above-named BIDDER or a person duly authorized by BIDDER to bind BIDDER to these terms and conditions.

By: _____
(*Signature*)

Printed Name: _____

Title: _____

Date signed: _____

Email: _____

BID SCHEDULE - ITB NO. 19473
HALIFAX HARBOR MARINA SEAWALL RESTORATION

ITEM #	DESCRIPTION	QTY	UNIT	UNIT PRICE	PRICE
1	Mobilization	1	LS		$
2	Demolition & Disposal of Existing Seawall	1	LS		$
3	Prevention Control & Abatement of Erosion & Water Pollution	1	LS		$
4	Seawall*	290	LF		$
	*Seawall bid to include all items and materials necessary to install the seawall to design including cost for utility pass throughs, seawall cap to be bid as separate line item				
5	Seawall Concrete Cap (includes form)	290	LF		$
6	Structural Backfill	115	TN		$
7	Sod	1,415	SF		$
				TOTAL	$

LS= Lump Sum, SF= Square Foot, LF= Linear Feet, TN= Ton

Submitted by:

Contact Name: (signature)	Contact Name: (printed)
Vendor Name:	Phone:
Address:	Email:

NONCOLLUSION AFFIDAVIT OF PRIME BIDDER

STATE OF_____)
COUNTY OF_____)

_____, being first duly sworn deposes and says that:

(1) He is _____ of _____, the Bidder that has submitted the attached Bid;

(2) He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid;

(3) Such Bid is genuine and is not a collusive or sham bid;

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Daytona Beach, FL (Local Public Agency) or any person interested in the proposed Contract;

(5) The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

By: _____
(Signature)
Name Typed: _____
Title: _____
Bidder: _____

Subscribed and sworn to before me

This _____ day of _____, 20____

_____
(Signature of Notary Public)
My commission expires: _____

DRUG-FREE WORKPLACE CERTIFICATION

IDENTICAL TIE BIDS: - If there are two or more low responsive bids from responsible bidders that are identical in price and other evaluation criteria, the tie will be awarded to the following in order of preference: a) the bidder qualifying for local preference under Code 30-86; b) the bidder in compliance with the drug free workplace certification requirements set forth in Florida Statutes 287.087; or c) the most responsible bidder as defined under the City Code 30-82 (9)(c).

In order to have a drug-free workplace program, a business will:

(1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

(2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.

(3) Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in section (1), above.

(4) In the statement specified in section (1), above, notify the employees that, as a condition of working on the commodities or contractual services that are underbid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or *nolo contendre* to, any violation occurring in the workplace no later than five days after such conviction.

(5) Impose sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

(6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

By: _____
(Signature)

Title: _____
(leave blank if sole proprietor)

Date: _____

AFFIDAVIT ON PUBLIC ENTITY CRIMES

(SWORN STATEMENT PURSUANT TO SECTION 287.133(3) (a), FLORIDA STATUTES)

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS.

This sworn statement is submitted to the City of Daytona Beach

by_____
(insert individual's printed name and title)

for _____ whose business address
(insert name of Bidder)

is _____

I. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or of the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

II. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

III. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:

1. A predecessor or successor of a person convicted of a public entity crime; or

2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

IV. I understand that a "person" as defined in Paragraph 287.133(1)(e), **Florida Statutes**, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

V. Based on information and belief, THE STATEMENT WHICH I HAVE MARKED BELOW is true in relation to the entity submitting this sworn statement *(Place initial of check mark next to applicable statement*):

___ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1,1989.

___ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

___ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Officer of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (Attach a copy of the final order)

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

_____ _____
(Signature) (Date)

STATE OF _____)
COUNTY OF _____)

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

_____ who, after first being sworn by me, affixed his/her signature
(Name of individual signing)

in the space provided above on this _____day of _____, 20_____.

Attest:_____
(Notary Public)

My commission expires:_____

(Notary Seal)

LOCAL VENDOR AFFIDAVIT

Complete and submit this form ONLY if you qualify for local preference as provided in the City of Daytona Beach Purchasing Code.

A copy of the Bidder's Daytona Beach Business Tax Receipt must be submitted with this Affidavit.

NAME OF BIDDER: _____

LOCAL BUSINESS ADDRESS *(street address being used to claim Local Preference, including. zip code):*

_____

The undersigned certifies under penalty of perjury each of the following:

The Local Business Address has continuously been used as a Permanent Place of Business with at least one full-time employee since _____.
(Insert date)

The Local Business Address has consistently offered or provided the goods or services being solicited by the City of Daytona Beach during the time referenced above.

The Local Business Address has not been established with the sole purpose of obtaining the advantages that may be granted pursuant to the Local Preference provisions of the City of Daytona Beach Purchasing Code.

_____
Signature *(Must be same person as person signing the Bid Proposal*

_____
Print Name/Title

Subscribed and sworn to before me

This _____ day of _____, 20____

_____
(Signature of Notary Public)
My commission expires: _____

The City of Daytona Beach reserves authority to require a copy of the corporate charter, corporate income tax filing return, and any other documents(s) to evaluate the Bidder's Local Preference claim.

MINORITY AND WOMEN OWNED BUSINESS ENTERPRISES CERTIFICATION FORM

The Bidder hereby certifies that in accordance with applicable provisions of the Daytona Beach Purchasing Code, Chapter 30, Daytona Beach Code of Ordinances, a good faith effort has been made to contact the following minority and women owned business enterprises:

_____

_____

_____

_____

_____

(Use separate sheet if additional space is needed. If separate sheet is used, include a reference to this form, and sign and date the sheet).

SIGNATURE: _____

NAME TYPED: _____

TITLE: _____

The Bidder further certifies that of the minority and women owned business enterprises contacted, he was unable through a good faith effort to obtain any minority or women owned business enterprise to work on this project.

SIGNATURE: _____

NAME TYPED: _____

TITLE: _____

MINORITY AND WOMEN OWNED BUSINESS ENTERPRISE OFFICER CERTIFICATION FORM

I, _____,
Name of Executive Officer
certify that _____
Name of MBE Officer

has been named Minority and Women Owned Business Enterprise Officer for

_____

_____ ☐ Company ☐ Corporation

Date: _____

By:_____

Name Typed: _____

Title:_____

Address: _____

_____

PROJECT-SPECIFIC CONSTRUCTION CONTRACT
ITB 19473

THE PARTIES TO THIS CONTRACT are the City of Daytona Beach, a Florida municipal corporation, hereinafter the "CITY" or "OWNER," and >, a >, hereinafter the "CONTRACTOR."

WITNESSETH, that the CONTRACTOR and the CITY agree as follows, for the mutual valuable consideration provided herein:

ARTICLE I. SCOPE OF WORK

The CONTRACTOR will, at its sole cost and expense, provide, perform, and complete the construction project commonly known as "HALIFAX HARBOR MARINA SEAWALL RESTORATION" and more fully described in the Contract Documents, hereinafter the "Work".

ARTICLE II. CONTRACT DOCUMENTS

The Contract Documents are further described in the General Conditions, and if applicable the Supplemental General Conditions. In addition, the Plans, dated January 2019 and referenced herein are the plans or drawings prepared by DRMP (the "Engineer/Architect" or "E/A"), provided or made available with the CITY's Invitation to Bid, as amended by any addenda to the bid documents, are a part of the Contract Documents. These Plans are not physically attached hereto but are incorporated herein by reference. CONTRACTOR acknowledges receipt of all such Plans.

The Contract Documents are intended to include all information necessary for CONTRACTOR's proper prosecution and timely completion of the Work. CONTRACTOR will prosecute the Work as necessary to produce the results indicated by the Contract Documents. The Contract Documents are complementary, and what is required by one will be as binding as if required by all.

ARTICLE III. COMMENCEMENT AND COMPLETION

The CITY and the CONTRACTOR mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents. To that end, the CONTRACTOR will commence the Work not later than the Commencement Date set forth in the General Conditions, and will diligently and continuously prosecute the Work at such a rate, and with sufficient forces as will allow the CONTRACTOR to achieve Substantial Completion within **90** days after the Commencement Date and Final Completion within **30** days after Substantial Completion, subject only to any adjustments in the Contract Time that may be authorized by Change Orders properly issued in accordance with the Contract Documents. In executing this Contract, CONTRACTOR affirms that the time set for completion is reasonable.

The CITY will suffer financial loss if Final Completion of the Work is not achieved within the Contract Time. Accordingly, and in lieu of actual damages or proof thereof, if CONTRACTOR fails to meet these deadlines, CONTRACTOR will be liable to the CITY for liquidated damages as follows:

> In the amount of **$1099** for each and every day of unexcused delay in achieving Substantial Completion; and

In the amount of **$549.50** for each and every day of unexcused delay from the date that Substantial Completion is achieved until Final Completion is achieved.

The CITY will have the right to offset such liquidated damages against any remaining portion of the Contract Price due CONTRACTOR, but will not be limited to the offset if it is insufficient. If the unpaid balance of the Contract Price is less than the amount of the Liquidated Damages, the CONTRACTOR or its Surety must pay the deficiency to the CITY upon demand.

ARTICLE IV. CONTRACT PRICE

Subject to any adjustments that may be authorized pursuant to this Contract, the Contract Price due the CONTRACTOR is $>_____ for work completed and accepted in accordance with the Contract Documents. The Contract Price represents the CONTRACTOR's sole compensation from the CITY for prosecution of the Work. The Contract Price will be paid in a series of Progress Payments and a Final Payment, and is subject to retainage, as further described in the Contract Documents.

ARTICLE V. PERFORMANCE SECURITY

CONTRACTOR must provide a payment bond and a performance bond, or alternate form of Performance Security in an amount equal to 100% of the Contract Price if the contract price exceeds $100,000.00.

Additional requirements associated with the provision of Performance Security, including requirements to increase the amount provided, are set forth in the General Conditions and, if applicable, the Supplemental General Conditions.

ARTICLE VI. INDEMNIFICATION

A.

The Contractor shall indemnify and hold harmless the City of Daytona Beach, its officers and employees, from liabilities, damages, losses, and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the Contractor and persons employed or utilized by the Contractor in the performance of the construction contract. This indemnification agreement is separate and apart from, and in no way limited by, any insurance provided pursuant to this agreement or otherwise.

B. CONTRACTOR indemnifies the CITY against any claim of supplier's or subcontractor's lien (in cases where such payment is not already guaranteed by payment bond). If any claim or lien remains unsatisfied after all payments are made, CONTRACTOR must refund to the CITY all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

C. For purposes of the obligations stated in this Article, references to the CITY include the CITY's officers, employees, and agents.

D. CONTRACTOR's obligations under this Article are made without regard to the availability of insurance of the CITY or the Engineer/Architect.

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ARTICLE VII. INSURANCE

A. Required Insurance.

CONTRACTOR will purchase and maintain, at its own expense, the following types and amounts of insurance, primary and non-contributory with the CITY's own insurance, in form and companies satisfactory to the CITY:

1. **Workers' Compensation Insurance** (including appropriate Federal Acts)– As required by Florida Statutes, Chapter 440, Workers' Compensation Insurance, for all employees of CONTRACTOR employed at the project site or in any way connected with the Work.

The insurance required by this provision will comply fully with the Florida Workers' Compensation Law and include Employers' Liability Insurance with limits of not less than $500,000 per accident. Any associated or subsidiary company involved in the service must be named in the Workers' Compensation coverage.

Liability insurance – Including Commercial General Liability coverage for operations, independent contractors, products-completed operations, broad form property damage, collapse and underground, and personal injury on an "occurrence" basis, insuring the CONTRACTOR and any other interests, including but not limited to any associated or subsidiary companies involved in the Work; and **Automobile Liability coverage** insuring claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle used by CONTRACTOR at the project site or in any way connected with the Work.

The limit of liability will be a combined single limit for bodily injury and property damage of no less than $1,000,000 per occurrence. If insurance is provided with a general aggregate, the aggregate will be in an amount of no less than $2,000,000. The Risk Manager may authorize lower liability limits for the automobile policy only, at the Risk Manager's sole discretion.

THE COMMERCIAL GENERAL LIABILITY INSURANCE POLICY WILL NAME THE CITY AS AN ADDITIONAL INSURED. CONTRACTOR'S Commercial General Liability insurance policy shall provide coverage to CONTRACTOR, and CITY when required to be named as an additional insured either by endorsement or pursuant to a blanket additional insured endorsement, for those sources of liability which would be covered by the latest edition of the standard Commercial General Liability Coverage Form (ISO Form CG 00 01) without the attachment of any endorsements excluding or limiting coverage for Products/Completed Operations, Independent Contractors, Property of CITY in Contractor's Care, Custody or Control or Property of CITY on which contracted operations are being performed, Explosion, Collapse or Underground hazards (XCU Coverage, Contractual Liability or Separation of Insureds). When CITY is added as additional insured by endorsement, ISO Endorsements CG 20 10 and CG 20 37 or their equivalent shall be used to provide such Additional Insured status that is at least as broad as ISO form CG 20 10 11 85.

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3. **Watercraft Protection & Indemnity** in the amount of $1,000,000 CSL (Combined Signal Limit of liability coverage **if contractor is using watercraft during construction process**)

Unless specifically waived hereafter in writing by the Risk Manager, CONTRACTOR agrees that the insurer will waive its rights of subrogation, if any, against the CITY on of the above-listed types of required insurance coverage.

B. Subcontractors' Insurance. Each of CONTRACTOR's subcontractors will be required to provide insurance in substantially similar form to the insurance required of CONTRACTOR above based on the services they will provide to the project.

C. Proof of Insurance. CONTRACTOR will furnish proof of insurance acceptable to the CITY prior to or at the time of execution of this Contract. CONTRACTOR will not commence Work until all required insurance has been approved by the CITY. CONTRACTOR will furnish evidence of all required insurance in the form of certificates of insurance which will clearly outline all hazards covered as itemized above, the amounts of insurance applicable to each hazard and the expiration dates.

Upon request of the Risk Manager, CONTRACTOR will also provide the CITY copies of the insurance contracts referenced by the certificates.

D. Cancellation and Replacement. CONTRACTOR will file replacement certificates 30 days prior to expiration or termination of any required insurance occurring prior to expiration or termination of this Contract. If such insurance terminates without CONTRACTOR's prior knowledge, immediately upon becoming aware of such termination CONTRACTOR will provide notice to the City's Risk Manager at P.O. Box 2451, Daytona Beach, Florida 32115-2451.

The CITY reserves the right to suspend any or all of the Work until such insurance has been replaced, or to obtain replacement insurance at CONTRACTOR's sole cost.

E. Termination of Insurance. CONTRACTOR will not cancel any required insurance coverage until the work is completed, accepted by the CITY and CONTRACTOR has received written notification from the Risk Manager that CONTRACTOR is authorized to cancel the insurance and the effective date of such authorization. The Risk Manager will provide such written notification at the request of CONTRACTOR if the request is made no earlier than two weeks before the work is to be completed.

The liabilities of CONTRACTOR under this Contract will survive and not be terminated, reduced, or otherwise limited by any expiration, limitation, exclusion or termination of insurance coverage. Neither approval nor failure to disapprove insurance furnished by the contractor will relieve the CONTRACTOR or its sub-contractors from responsibility to provide insurance as required by the contract.

ARTICLE VIII. NOTICES

A. Where the Contract Documents authorize or require the CITY to provide notice to CONTRACTOR, notice may be provided by delivery by hand to CONTRACTOR's designated Superintendent at the Project Site, or in the absence or unavailability of the Superintendent to any

other person on the Project Site who holds himself of herself out as managing the Work on behalf of CONTRACTOR, or in lieu of either of these, by written notice to the address provided below.

B. Where the Contract Documents authorize or require CONTRACTOR to provide notice to the CITY, notice may be provided only by written notice to the address provided below.

C. Written notice is valid only if sent by certified United States mail, return receipt requested, facsimile with confirmation receipt required, or by recognized courier such as Federal Express with confirmation receipt requested. All such notices will be deemed to have been duly given and provided on (i) the date of receipt, (ii) upon receipt or refusal of delivery if transmitted by registered or certified mail, return receipt requested, or (iii) the first business day after the date of deposit, if transmitted by reputable overnight courier service, whichever occurs first. Written notices will be sent to the following persons:

If to the CITY:	If to the CONTRACTOR:
Attn: Frank Van Pelt	Attn: >
Technical Services Director	
The City of Daytona Beach	>
950 Bellevue Ave., #600	>[**insert street address, not PO Box**]
Daytona Beach, FL 32114	>
Fax: 386-671-8620	Fax:

provided, however, that either Party may by written notice change the address designated for receipt of written and faxed notices.

ARTICLE IX. DISPUTE RESOLUTION

If a dispute exists concerning this Contract, the Parties agree to use the following procedure prior to pursuing any judicial remedies.

A. **Negotiations Required**. A Party will request in writing that a meeting be held between representatives of each Party within 14 days of the request or such later date that the Parties may agree to. Each Party will attend and will include, at a minimum, a senior level decision maker (an owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization. The purpose of this meeting is to negotiate the matters constituting the dispute in good faith. The Parties may mutually agree in writing to waive this step and proceed directly to mediation as described below.

B. **Non-Binding Mediation**. Mediation is a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them. Within 30 days after the procedure described above proves unsuccessful or the Parties mutually waive the procedure, the Parties will submit to a non-binding mediation. The mediation, at a minimum, will provide for (i) conducting an on-site investigation, if appropriate, by the mediator for fact gathering purposes, (ii) a meeting of all Parties for the exchange of points of view and (iii) separate meetings between the mediator and each Party to the dispute for the formulation of resolution alternatives. The Parties will select a mediator trained in mediation skills and certified to mediate by the Florida Bar, to assist with resolution of the dispute. The Parties will act in good faith in the selection of the mediator and give consideration to qualified individuals nominated to act as mediator. Nothing in this Contract prevents the Parties from relying on the skills of a person who also is trained in the subject matter of the dispute or a contract interpretation expert. Each Party will attend and will include, at a minimum, a senior level decision maker (an

owner, officer, or employee of each organization) empowered to negotiate on behalf of their organization.

If the Parties fail to reach a resolution of the dispute through mediation, then the Parties are released to pursue any judicial remedies available to them.

ARTICLE X. GENERAL PROVISIONS

A. This Contract will be governed by the laws of the state of Florida without regard to any choice of law principles that could result in application of the laws of any other jurisdiction. Venue for any legal action or proceeding arising out of this Contract is exclusively in the federal or state courts in and for Volusia County, Florida. The Parties hereby waive any right to stay or dismiss any action or proceeding brought under or in connection with this Contract that is brought before the above-referenced courts on the basis of *forum non-conveniens*.

B. In case of litigation arising out of this Contract where the meaning of one or more provisions is at issue, the CITY will not be penalized by virtue of its having drafted this Contract. CONTRACTOR has carefully reviewed and had the opportunity to seek advice of legal counsel prior to executing this Contract.

C. The CITY and CONTRACTOR agree that they have knowingly waived the right to trial by jury and have instead agreed that, in the event of any litigation arising out of or connected to this Contract, to proceed with a trial before the court, unless both parties subsequently agree otherwise in writing.

D. In performing the services provided for herein, CONTRACTOR is an independent contractor and not an employee of the CITY.

E. The waiver of any provision of this Contract will not be deemed to be a waiver of any other provision of this Contract. No waiver of any provision of this Contract will be deemed to constitute a continuing waiver unless expressly provided in writing, nor will a waiver of any default be deemed a waiver of any subsequent defaults of the same type. The failure at any time to enforce this Contract, whether the default is known or not, does not constitute a waiver or estoppel of the right to do so.

F. All terms and conditions of this Contract which contemplate a period of time beyond completion or termination, will survive such completion or termination and not be merged therein or otherwise terminated.

G. If any word, phrase, clause, sentence or provision of the Contract, or the application of same to any person or set of circumstances is for any reason held to be unconstitutional, invalid or unenforceable, that finding will only effect such word, phrase, clause, sentence or provision, and such finding will not affect the remaining portions of this Contract; this being the intent of the Parties in entering into the Contract; and all provisions of the Contract are declared to be severable for this purpose.

H. The undersigned representative of CONTRACTOR affirms that in executing this Contract on behalf of CONTRACTOR, he or she is fully authorized to bind CONTRACTOR to the terms and conditions herein set forth.

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I. No CITY officer, employee, or independent consultant who is involved in the development, evaluation, or decision-making process of the performance of any solicitation will have a financial interest, direct or indirect, in the Contract resulting from that solicitation. Any violation of this provision, with the knowledge, expressed or implied, of CONTRACTOR will render the Contract voidable by the CITY.

J. This Contract represents the entire and integrated agreement between the CITY and CONTRACTOR with respect to the subject matter hereof and supersedes all prior negotiations, representations or agreements, either written or oral.

IN WITNESS WHEREOF, the Parties have executed this Contract on the dates written below.

THE CITY OF DAYTONA BEACH

By: _____
Derrick L. Henry, Mayor

Attest: _____
Letitia LaMagna, City Clerk

Date: _____

Approved as to legal form:

By: _____
Robert Jagger, City Attorney

>CONTRACTOR

By: _____
Printed Name: _____
Title: _____

Date: _____

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GENERAL CONDITIONS

ARTICLE 1 – DEFINITIONS AND TERMS

1.1 Defined Terms.

Whenever used in the Contract the following terms have the meanings indicated, which are applicable to both the singular and plural thereof

"50-Percent Completion" means the point at which the OWNER has expended 50% of the Adjusted Contract Price.

"*Adjusted Contract Price*" means the Contract Price as set forth in the Contract, as previously adjusted by valid Change Order.

"*Bid*" means the offer of the Bidder.

"*Bid Schedule*" means the Bid Schedule submitted by CONTRACTOR with the Bid; unless CONTRACTOR was the sole responsive bidder and the Parties have negotiated final pricing as part of the bid solicitation process pursuant to the Purchasing Code, in which instance the term means the Revised Bid Schedule included within the Contract Documents.

"*Change Instrument*" means a Field Directive or a Change Order.

"*Change Order*" means a written directive issued by the OWNER authorizing an adjustment in the Contract Price, the Contract Time, the scope of Work, or any other material term or condition of the Contract. When approved by the City Commission, a change order may be in the form of a formal amendment to this Contract.

"*City Code*" means the City of Daytona Beach Code of Ordinances.

"City Commission" or "Commission" means the City of Daytona Beach City Commission.

"*City Manager*" means the City Manager for the City.

"*Commencement Date*" means the date established in the Notice to Proceed upon which the Contract Time begins to run; or if no such date is provided in the Notice to Proceed, the date of the Notice to Proceed.

"Construction Contract form" means that part of the titled as "Project-Specific Construction Contract" or something similar, and signed by the Parties.

"Contract" includes all Contract Documents.

"Contract Administrator" means the individual specifically authorized to administer the Contract on the OWNER's behalf; provided, however that in all instances the City Manager may act as the Contract Administrator.

"*Contract Price*" means the total compensation due to CONTRACTOR for the Work to be performed under the contract, subject only to those adjustments provided in the Contract Documents.

"*Contract Time*" means the total period of time stated in the Contract between the Commencement Date and the deadline for Final Completion, subject only to those adjustments provided in the Contract Documents.

"*Critical Path*" means the longest series of tasks that runs consecutively from the beginning to the end of the Project, as determined by duration and workflow sequence. This longest path sets the managerial standard for how quickly the Project can be completed, given appropriate resources.

"*Day*" or "*Days*" means calendar days unless otherwise specifically noted in the Contract Documents.

"*Defective Work*" or "*Nonconforming Work*" means Work that:

(i) Does not conform to the requirements of the Contract;

(ii) Does not meet the requirements of any inspection, test, or approval as referred to in the Contract or as required by law;

(iii) Contains defects;

(iv) Represents a substitute for that required by the Technical Provisions, unless properly approved and authorized as provided in the Contract; or

(v) Has been damaged or destroyed prior to Final Completion.

"*Effective Date*" means the date on which this Contract is approved by City Commission.

"*E/A*" (*also*, "*Engineer/Architect*", "*Architect*, or "*Engineer*" as applicable) generally means the professional licensed architect or engineer who develops the criteria and concept for the Project, performs the analysis, and is responsible for the preparation of the Technical Provisions and Plans. The E/A may be the OWNER's in-house staff or a consultant retained by the OWNER. No contractual relationship is created by this Contract between CONTRACTOR and the E/A.

"*Equipment*" means the machinery and equipment, together with the necessary supplies for upkeep and maintenance thereof, and all other tools and apparatus necessary for the construction and acceptable completion of the Work.

"*Field Directive*" means a written order prepared and signed by the OWNER, not involving a change in Contract Price or Contract Time, directing a minor change in the Work where a Change Order is not required.

"*Final Completion*" means acceptance of the Work by the OWNER as evidenced by its signature upon the Certificate of Final Completion.

"Force Account" means a method for payment of additional Work that is based on CONTRACTOR's labor, equipment and materials costs with consideration for overhead and profit.

"*Force Majeure Event*" means conditions or other circumstances, such as acts of God, that: (i) were not foreseen, and could not have been reasonably foreseen, by CONTRACTOR or the OWNER, (ii) are beyond the control of CONTRACTOR and the OWNER, and (iii) materially hinder or interfere with the ability of CONTRACTOR to prosecute the Work; provided, however, that no such condition or circumstance will be a Force Majeure event if it is the result of CONTRACTOR's fault, negligence, or material breach of this Contract. Examples of Force Majeure events include wars, floods, strikes and labor disputes, unusual delay in transportation, epidemics abroad, earthquakes, and severe adverse weather conditions not reasonably anticipated.

"*Hazardous Materials*" has the meaning as provided by law.

"*Legal Requirements*" means, collectively, all applicable federal, state, and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work. The term includes the City Code and other CITY ordinances and regulations.

"*Materials*" means goods or substances to be incorporated in the Work under the Contract.

"*Milestone*" means a significant event specified in the Contract Documents relating to an intermediate completion date or time prior to Final Completion of the Work.

"*OWNER*" means the City of Daytona Beach; or, if the form Contract so provides, the Community Redevelopment Agency for the CITY. All references within the Technical Provisions to the "CITY" (whether or not capitalized) are intended to refer to the "OWNER" unless logic dictates otherwise.

"*Plans*" means the plan documents prepared by the E/A and identified in the Table of Contents or otherwise incorporated into the Contract, including reproductions thereof, showing the location, character, dimensions, and details of the Work. The term may also be referred to herein as "drawings," "contract drawings," "contract plans," or similar terms; but not "shop drawings."

"*Project*" means the subject of the Work and its intended result.

"*Project Site*" or "*Site*" means the land or premises on which the Project is located, and in addition any land and areas identified in and permitted for use by CONTRACTOR by the Contract, subject to conditions that may apply such as for rights-of-way, permits, and easements.

"*The Prompt Payment Act*" means the Local Government Prompt Payment Act, F.S. § 218.70 et seq. (2014), as hereafter amended.

"*Purchasing Code*" means the provisions of Chapter 30 of the City Code.

"*Referenced Standards*" includes standards, standard details, specifications, manuals, regulations or codes of any technical society, organization or association, or of any governmental or quasi-governmental authority referred to in the Contract to describe the nature or quality of any of the Work, whether such reference be specific or by implication, and means the latest standard, standard detail, specification, manual, regulation or code in effect at the time of Bid opening, except as may be otherwise specifically stated in the Contract.

"*Resident Project Representative*" means, where the E/A is a private firm or person under contract with the CITY to act as the E/A, the authorized representative of E/A assigned to the Project Site; and in all other instances, the Contract Administrator.

"*Risk Manager*" means the Risk Manager for the CITY or designee; provided however, that the City Manager may act on behalf of the Risk Manager.

"*Schedule of Values*" means the written breakdown of the Contract Price by Construction Specification Institute divisions or by other format acceptable to the OWNER, prepared by CONTRACTOR for OWNER's review and approval.

"*Shop Drawings*" means all drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR as required by this Contract.

"*Site-Related Reports*" means any environmental, geotechnical, subsoil, and related reports relating to conditions at the Project Site which were used or made available for the OWNER's or E/A's use in creating the Plans.

"*Specifications*" means the Technical Provisions and Plans.

"*Stored Material*s" means delivered materials or equipment that are located at the Project Site, or with the OWNER's approval at another location, and that have not yet been incorporated into the Work.

"*Subcontractor*" means a person or firm that under a direct contract with CONTRACTOR to perform a portion of the Work, and also unless logic dictates otherwise, sub-subcontractors and persons or firms doing work through such sub-subcontractors.

"*Substantial Completion*" means the completion of the Work, or an agreed upon portion of the Work, so as to allow the OWNER to occupy and use the Project or a portion thereof for its intended purposes.

"S*ub-subcontractor*" means a person or firm who has a direct or indirect contract at any tier with a subcontractor to perform a portion of the Work.

"*Supplemental General Conditions*" means that part of the Contract labeled as such and identified in the Table of Contents or otherwise incorporated into the Contract, that amends and supplements these General Conditions.

"*Supplier"* means a person or firm having a contract with CONTRACTOR or with any subcontractor of any tier to furnish materials to be incorporated in the Work.

"*Technical Provisions*" means those provisions of the Contract containing or referencing required technical specifications and standards. The term includes all such technical specifications and standards of other governmental jurisdictions, or professional association where referenced in the Contract, including any exceptions thereto regardless of whether these are attached to or enumerated within the Contract.

Whenever this Contract refers to but does not include a specific Technical Provision, the reference will be deemed to be to the version of the referenced Technical Provision included in the applicable CITY engineering or utility standard unless logic dictates otherwise.

"*Unilateral Change Instrument*" means a Change Instrument issued by the OWNER and not executed by CONTRACTOR.

"*Unit Price Schedule*" means the Bid Schedule.

"*Working Hours*" means 7:00 am through 6:00 pm, Monday through Friday excluding holidays designated by the CITY.

1.2 Abbreviations. The following abbreviations, when used in the Contract, represent the full text shown.

AAN	American Association of Nurserymen, Inc.
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGC	The Associated General Contractors of America, Inc.
AGMA	American Gear Manufacturers Association
AIA	American Institute of Architects.
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute, Inc.
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gauge
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
DIPRA	Ductile Iron Pipe Research Association
EASA	Electrical Apparatus Service Association
EPA	Environmental Protection Agency of the United States Government
FDHR	Florida Division of Historical Resources
FEMA	Federal Emergency Management Agency
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FSS	Federal Specifications and Standards

IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IFAS	Institute of Food and Agricultural Sciences
IMSA	International Municipal Signal Association
IPCEA	Insulated Power Cable Engineers Association
ISA	International Society of Arboriculture
ISO	International Organization for Standards
MPO	Volusia County Metropolitan Planning Organization
MSTCSD	Minimum Specifications for Traffic Control Signals and Devices
MUTCD	Manual on Uniform Traffic Control Devices
NACE	National Association of Corrosion Engineers
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NIST	National Institute for Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NSPE	National Society of Professional Engineers
OSHA	Occupational Safety and Health Administration
SAE	Society of Automotive Engineers
SJWRMD	St. Johns River Water Management District
SI	International System of Units
SSPC	Society of Protective Coatings
UL	Underwriters' Laboratories
USACOE	United States Army Corps of Engineers
USGS	United States Geological Service

Each of the above abbreviations, when followed by a number or letter designation, or combination of numbers and letters, designates a specification, test method, or other code or recommendation of the particular authority or organization shown. Where the above-referenced abbreviations refer to a written standard, specifications, test method, or other code, the reference will be deemed to be the edition of the code promulgated at the time of Bid opening.

1.3 Use of Terms.

1.3.1 Singular and Plural. The OWNER, E/A, CONTRACTOR, subcontractor, sub-subcontractor, supplier, other contractors, surety, insurer and others may be referred to in the Contract Documents as if singular in number. In the event that more than one person or entity occupies the position referred to and unless otherwise indicated, the term is interpreted to include all such persons or entities.

1.3.2 Technical Terms and Trade Usage. Terms in the Contract which have well-known technical or construction industry meanings and are not otherwise defined are used in accordance with such recognized meanings unless the context clearly indicates otherwise.

ARTICLE 2 –ORGANIZATION AND INTENT OF CONTRACT

2.1 Interpreting the Contract.

2.1.1 Order of Precedence. In cases of conflict or discrepancy among Contract Documents, interpretations will generally be based on the following order of precedence, ranked from highest to lowest priority:

.1 Change Orders;

.2 The Construction Contract form;

.3 Supplemental General Conditions, if any;

.4 General Conditions;

.5 Technical Provisions;

.6 Plans (figured dimensions will govern over scaled dimensions);

.7 The Invitation to Bid and General and Supplemental Instructions to Bidders, including Addenda thereto;

.8 The Bid Schedule;

.9 All other documents required to be submitted and submitted as part of CONTRACTOR's Bid Proposal; and

.10 All other Contract Documents that are neither listed above nor expressly incorporated into one of the foregoing Contract Documents;

with the understanding that a common sense approach will be used as necessary so that the Contract Documents produce the intended response.

2.1.2 Contract Documents Complementary. The Contract Documents are complementary, and what is required by one is as binding as if required by all. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, are of like effect as if shown or mentioned in both.

2.1.3 Intent to Require Completed Project. The intent of the Contract Documents is to require that CONTRACTOR provide all materials and labor, including tools, equipment and supervision, necessary for the proper execution and completion of the Work as a functioning whole or required for a completed Project.

2.1.4 Work Required if Reasonably Inferable. Performance by CONTRACTOR is required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results. Where no explicit quality or standards for materials or workmanship are established for the Work, the Work is to be of good quality for the intended use and consistent with the quality of surrounding Work which conforms to the requirements of the Contract Documents and to the standards for construction of the Project generally.

2.1.5 Organization of Drawings and Specifications. Organization of the Drawings around professional disciplines such as civil, architectural, structural, plumbing, mechanical, and electrical, and of the Specifications into divisions, sections, and articles, does not control CONTRACTOR in dividing the Work among sub-contractors or in establishing the extent of Work to be performed by any trade or excuse CONTRACTOR of its obligation to properly allocate and provide for the performance of all Work under the Contract.

2.1.6 Documents Excluded from the Contract. The Contract Documents do not include the Site-Related Reports referenced herein or other documents issued or provided to CONTRACTOR for the information of CONTRACTOR or for reference purposes and which are not specifically incorporated in the Contract Documents.

2.1.7 Titles, Headings, and Capitalization. The titles and headings of the various sections and subsections of these General Conditions and other Contract Documents are intended only as a matter of reference and convenience and in no way define, limit, or prescribe the scope or intent of the Contract Documents. The use, or inadvertent failure to use, capitalization of terms used in the Contract Documents is not intended to define or limit the meaning of the term.

2.1.8 Other Interpretive Rules.

2.1.8.1 Provisions of the Contract Documents that use the active voice-imperative mood writing style are directions to CONTRACTOR and are intended as commands. In such instance, the subject "the Bidder" or "CONTRACTOR" is understood.

2.1.8.2 Provisions of the Contract Documents that use the passive voice writing style are also directions to CONTRACTOR and intended as commands unless logic clearly dictates otherwise.

2.1.8.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

2.2 Referenced Standards.

2.2.1 Standards Incorporated. All Referenced Standards are incorporated into the Contract as fully as if printed and bound with the Specifications, but only to the limited extent that such standards are applicable to the Work.

2.2.2 Availability of Referenced Standards. CONTRACTOR is responsible for obtaining and having available at the Project Site a copy of each Referenced Standard insofar as it is applicable to the Work.

2.2.3 Precedence of Contract Documents Over Referenced Standards. No provision of a Referenced Standard is effective to change (i) the procedures established in the Contract Documents or by any applicable laws or regulations, or (ii) the duties and responsibilities of the OWNER, E/A or CONTRACTOR from those set forth in the Contract Documents; nor is any provision of a Referenced Standard effective to assign to the OWNER or the E/A any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the Contract.

ARTICLE 3 - PRELIMINARY MATTERS

3.1 Pre-Contract Submittals. The OWNER reserves the right to require certain Submittals before executing the Contract. Submittals required before execution of the Contract include, but are not limited to Insurance certificates acceptable to the OWNER as provided in the Contract and any other submittals required by the Bid Documents.

3.2 Project Information. Within ten days after the Effective Date, the OWNER will furnish CONTRACTOR free of charge, two signed, sealed, hard copies and one electronic copy of the Plans in AutoCAD and the Technical Provisions in PDF format, and one copy of each of the Site Related Reports, if any. All Site Related Reports are given to CONTRACTOR for information only, are not warranted as to accuracy, and are not a part of the Contract Documents. CONTRACTOR will not be entitled to rely on the accuracy or the completeness of any information contained in these Reports in performing the Work required herein, or in seeking claims for Contract Price or Contract Time adjustments. It is the CONTRACTOR's responsibility to determine and verify all information provided by OWNER including, but not limited to grades and elevations.

3.3 CONTRACTOR's Review of Contract Documents and Site Related Reports. Before undertaking a project, CONTRACTOR will carefully study the Contract Documents and any Site Related Reports provided by OWNER, to check and verify pertinent figures shown thereon compares accurately to all applicable field measurements. CONTRACTOR will promptly report in writing to the Contract Administrator any conflict, error, ambiguity, or discrepancy that CONTRACTOR discovers and will obtain a written interpretation or clarification from the Contract Administrator before proceeding with any Work affected thereby. CONTRACTOR will be liable to the OWNER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents or Site Related Reports of which CONTRACTOR knew or reasonably should have known.

3.4 Pre-Construction Submittals.

3.4.1 CONTRACTOR will prepare and submit all required pre-construction submittals within 15 Days after the Effective Date, except where the Contract Administrator extends time for submittal in writing. The submittals will include each of the following:

3.4.1.1 A proposed Progress Schedule, developed using Microsoft Project software unless otherwise approved by the Contract Administrator. The Progress Schedule will (i) indicate the times (number of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract, (ii) identify the Critical Path for completing the Work, (iii) identify when all subcontractors will be utilized,

and (iv) take into consideration any Working Hours limitations. The Progress Schedule will contain sufficient detail to indicate that CONTRACTOR has identified all required Work elements and tasks, has provided for a sufficient and proper workforce and integration of subcontractor, has provided sufficient resources and has considered the proper sequencing of the Work required to result in a successful Project that can be completed in accordance with any Milestones and within required completion deadlines.

3.4.1.2 A proposed Schedule of Values, except where the Contract Price is based solely on Unit Prices set forth in the Bid Schedule. The Schedule of Values will be prepared in such a manner that each item of Work is shown as one or more line items on AIA Document G703, Continuation Sheet (latest ed.) or such other form as the OWNER may prescribe, and will contain such detail and be supported by such data as to allow the OWNER and the E/A to substantiate accuracy. Upon approval by the OWNER, the Schedule of Values will be used as the basis for reviewing progress payment requests. After the OWNER has approved the initial Schedule, CONTRACTOR will revise and resubmit for the OWNER's approval, amended Schedules of Values as necessary to reflect adjustments in the Contract Price resulting from approved Change Orders. A schedule of values may be required if a substantial portion of the contract price is a lump sum bid item.

3.4.1.3 An organizational chart showing the principals and management personnel who will be involved with the Work, including each one's responsibilities for the Work.

3.4.1.4 Preliminary Shop Drawings. Shop Drawings will be neat, legible, and drawn to scale. CONTRACTOR will specifically identify any proposed deviations from dimensions, details, and other requirements as provided by the Plans and specifications. When submitting Shop Drawings, CONTRACTOR will also provide a written narrative explanation itemizing each proposed deviation from the Specifications or other Contract requirements. No such deviations will be deemed to be accepted unless they are specifically approved in accordance with the procedures for substitutes and Change Orders.

3.4.1.5 To the extent not set forth in the Contract, a letter designating the Superintendent and, if such designation is required by the Supplemental General Conditions, the Project Manager.

3.4.1.6 A letter designating CONTRACTOR's safety representative, who will be responsible for general safety and excavation safety measures along with certifications or other documentation of the safety representative's qualifications.

3.4.1.7 If applicable, an excavation safety system plan.

3.4.1.8 If applicable, a plan illustrating proposed locations of temporary facilities.

3.4.1.9 A completed Non-Use of Asbestos Affidavit (prior to construction).

3.4.1.10 A map of proposed "haul routes" for delivery of materials and transportation of equipment to the Project Site.

3.4.1.11 A letter designating the Florida Registered Professional Land Surveyor for layout of the Work, if the Work requires the services of a surveyor.

3.4.1.12 Any other documents as required by the OWNER, consistent with the terms of the Contract.

The Supplemental General Conditions (if any) or the Technical Provisions may amplify, waive, or otherwise amend requirements for the above-referenced submittals.

3.4.2 The OWNER will have the right to accept or reject each of the required submittals. The OWNER will provide CONTRACTOR written notice as to any submittals that are rejected, in which instance CONTRACTOR will promptly resubmit them. Alternatively in such instance, the OWNER will have the right but not the obligation to schedule a preconstruction meeting; provided that the preconstruction meeting is scheduled no later than 30 days

after the Effective Date, and the OWNER may delay issuance of the Notice to Proceed until the OWNER and CONTRACTOR have held the meeting.

3.4.3 The OWNER's acceptance of the above-referenced submittals will be deemed to be general only relating solely to their sufficiency and compliance with the intent of the Contract. Such acceptance does not constitute the OWNER's adoption, affirmation, or direction of CONTRACTOR's means and methods, and does not constitute a Change Instrument. OWNER's acceptance of the Progress Schedule will not impose on the OWNER, responsibility or liability for the sequencing, scheduling, or progress of the Work, and will not relieve CONTRACTOR from CONTRACTOR's responsibility for complying with the terms and conditions of this Contract. CONTRACTOR will at all times remain responsible for the factual accuracy of all such submittals.

3.5 Notice to Proceed. No work will proceed until the OWNER has issued a written notice to proceed. The OWNER will issue a Notice to Proceed within 60 days after the Effective Date, provided that CONTRACTOR has submitted all required documents, including insurance and, where applicable Performance Security. The OWNER in its sole discretion may delay issuing the Notice if CONTRACTOR has not completed its preconstruction submittals within that time; or with CONTRACTOR's written concurrence for any other or no reason.

3.6 Limitations on Custody and Use of Plans. CONTRACTOR will not re-use the Plans and Technical Provisions, including modifications thereto, on any other project or for any other client. CONTRACTOR may not own or claim a copyright in the Site-Related Reports, or the Plans or any other Contract Documents. With the exception of the signed Contract Documents, all sets of the above-referenced documents are the property of the OWNER, and will be returned to the OWNER on request or at the completion of the Work prior to issuance of Final Payment.

3.7 Availability of Lands. The OWNER will provide access to the Project Site, secure any easements necessary therefore, and notify CONTRACTOR of any restrictions in such access. The OWNER may identify in the Contract Documents encumbrances or restrictions not of general application which are known by the OWNER and specifically related to use of the Site, but which are not of public record. CONTRACTOR will comply with such encumbrances and restrictions in performing the Work. Permanent easements for the completed facility or for changes in existing facilities will be obtained and paid for by the OWNER, unless otherwise provided in the Contract Documents.

ARTICLE 4 – OWNER'S RESPONSIBILITIES

4.1 Contract Administrator. The Contract Administrator is authorized to administer the Contract on behalf of the OWNER, commencing on the Effective Date and terminating on the date CONTRACTOR performance is completed (including final payment) or terminated.

4.1.1 The Contract Administrator's authority is limited as follows:

- **.1** Provide direction to CONTRACTOR to ensure satisfactory and complete performance;
- **.2** Issue Field Directives;
- **.3** Monitor and inspect CONTRACTOR performance to ensure acceptable timeliness and quality;
- **.4** Maintain necessary documentation and records regarding CONTRACTOR performance and other pertinent matters;
- **.5** Furnish timely written notice of CONTRACTOR performance failures to the City Manager and to the City Attorney, as appropriate;
- **.6** Determine acceptance or rejection of CONTRACTOR's performance;
- **.7** Approve or reject applications for payment, other than application for final payment;
- **.8** Furnish necessary reports to the City Manager;
- **.9** Recommend Change Instruments or stop work orders to the City Manager; and

.10 Recommend termination of Contract or work authorizations for default or convenience to the City Manager.

4.1.2 The authority of the Contract Administrator is limited to the functions set forth above. In particular, the Contract Administrator is NOT authorized to make determinations (as opposed to recommendations) that:

.1 Alter or modify Contracts;

.2 Terminate or cancel Contracts;

.3 Approve, as opposed to recommend, Change Orders or Contract Amendments;

.4 **Except as expressly provided herein,** interpret ambiguities in Contract language; or

.5 Approve final applications for payment; or

.6 Waive the OWNER's contract rights.

4.2 City Manager. The City Manager has all of the authority of the Contract Administrator. The City Manager has authority to approve final applications for payment except where approval also requires approval of a change order that is not within the City Manager's authority, below. In addition, the City Manager is authorized to issue (i) Change Orders increasing Contract Price or Contract Time as provided in the Purchasing Code or as specifically authorized by the City Commission; (ii) Change Orders reducing Contract Price or Contract Time; and (iii) stop work orders where reasonably necessary to preserve property or prevent injury.

4.3 Authority Reserved in City Commission. All administrative authority not specifically conferred upon the Contract Administrator or City Manager is reserved to the City Commission. Modifications to the Contract required to be approved by the Commission may be in the form of Change Orders or formal amendments, as appropriate.

4.4 General Obligation to Avoid Delays. Information or services under the OWNER's control will be furnished by the OWNER with reasonable promptness to avoid delay in orderly progress of the Work. The OWNER will have a reasonable amount of time to investigate site conditions, review submittals, analyze requests for changes, and to make other decisions in the orderly administration of the Contract. CONTRACTOR will notify the OWNER in writing, if the time for the investigation, review, analysis of any submittals, required for changes or otherwise required for the OWNER's decision, impacts in any way the Critical Path of the current approved Progress Schedule.

4.5 Owner-Provided Inspectors. The OWNER will provide persons to perform OWNER-required inspections.

ARTICLE 5 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS

CONTRACTOR will obtain any additional temporary construction facilities, stockpiling or storage sites not otherwise provided. CONTRACTOR will be responsible for providing at his own expense and without liability to the OWNER, any additional land and access thereto that may be required for temporary construction facilities, or for storage of materials. CONTRACTOR will be required to obtain approval of any private property owner for such additional lands and access unless specifically provided otherwise in the Contract Documents.

5.1 Subsurface and Physical Conditions.

5.1.1 CONTRACTOR affirms that CONTRACTOR has carefully examined the Plans and the Site-Related Reports, if any. CONTRACTOR acknowledges that the Site-Related Reports are ***not*** a guarantee of specific site conditions which may vary between boring locations, and that the Project Site is unwarranted.

5.1.2 CONTRACTOR affirms that prior to executing this Contract, CONTRACTOR has had the opportunity to become familiar with the Project Site and the local conditions under which the Project is to be constructed and operated, and to undertake its own geotechnical studies to the extent that CONTRACTOR deems appropriate. CONTRACTOR will not be entitled to any additional time or compensation as a result of any conditions at the Project Site which would have been disclosed to CONTRACTOR by a site visit or by undertaking its own geotechnical studies.

5.1.3 CONTRACTOR will provide the OWNER written notice as soon as reasonably possible, but no later than three days, if unforeseen conditions are encountered at the Project Site which are subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents, or unknown physical conditions of an unusual nature that differ materially from those normally encountered in the type of work being performed under this Contract. CONTRACTOR may not disturb the conditions until the OWNER conducts an investigation. The OWNER will promptly investigate such conditions.

5.1.3.1 If it is determined that such conditions differ materially and cause an increase or decrease in CONTRACTOR's cost of or time required for performance of any part of the Work, the Contract Administrator will recommend an equitable adjustment in the Contract Price or Contract Time, or both. If it is determined that such conditions are not materially different from those indicated in the Contract Documents, the Contract Administrator will notify CONTRACTOR in writing of such findings and the Contract will not be adjusted.

5.1.3.2 CONTRACTOR will be liable to the OWNER for failure to report any such conflict, error, ambiguity, or discrepancy of which CONTRACTOR knew or reasonably should have known, and for CONTRACTOR's failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents within said three-day period, and for any increases in Project costs, or damages accruing, in association with CONTRACTOR's disturbance of the conditions pending OWNER's investigation.

5.1.4 Notwithstanding any other provision of this Contract, CONTRACTOR is solely responsible for the location and protection of any and all public utility lines and utility customer service lines in the Work area. "Public utility lines" means the utility distribution and supply system, and "utility customer service lines" means the utility lines connecting customers to the utility distribution and collection system. Generally, existing utility customer service line connections are not shown on the Plans. CONTRACTOR will notify "One Call" and exercise due care to locate, mark, uncover and otherwise protect all such lines in the construction zone and any of CONTRACTOR's work or storage areas. CONTRACTOR's responsibility for the location and protection of utilities is primary and non-delegable. CONTRACTOR will indemnify or reimburse such expenses or costs (including fines that may be levied against the OWNER) that may result from unauthorized or accidental damage to all public lines and utility customer service lines in the work area. The OWNER reserves the right to repair any damage CONTRACTOR causes to such utilities at CONTRACTOR's expense. If a public or customer service line is damaged by CONTRACTOR, CONTRACTOR will give verbal notice within one hour and written notice within 24 hours, to the OWNER and to the utility representatives identified on the Plans.

5.1.5 CONTRACTOR will take reasonable precaution to avoid disturbing primitive records and antiquities of archaeological, paleontological or historical significance. No objects of this nature will be disturbed without written permission of the OWNER and the FDHR. When such objects are uncovered unexpectedly, CONTRACTOR will stop all Work in close proximity and notify the OWNER and the FDHR of their presence and will not disturb them until written permission and permit to do so is granted. All primitive rights and antiquities uncovered on the OWNER's property will remain property of FDHR conforming to applicable provisions of Florida Statutes. If the OWNER, in consultation with the FDHR, determines that exploration or excavation of primitive records or antiquities on Project Site is necessary to avoid loss, CONTRACTOR will perform salvage work attendant to preservation. If the Work stoppage or salvage work causes an increase in CONTRACTOR's cost of, or time required for, performance of the Work, the Contract Price or Contract Time will be equitably adjusted subject to compliance with the provisions herein for Changes and Delays.

5.2 Protection of Reference Points. Unless otherwise specified, the OWNER will furnish a base line and a suitable number of bench marks adjacent to the work. From the information provided by the OWNER, CONTRACTOR will develop and make all detailed surveys, stakes, lines, and elevations, as CONTRACTOR deems necessary. CONTRACTOR will carefully protect and preserve benchmarks, reference points, and stakes. If these benchmarks, reference points, or stakes are disturbed or destroyed due to CONTRACTOR's failure to comply with the above-referenced requirement, CONTRACTOR will bear the cost of expenses of relocating and replacing them, including the costs of a Registered Professional Land Surveyor if the OWNER determines the same to be necessary.

5.3 Hazardous Materials.

5.3.1 To the extent provided by applicable law, the OWNER will be responsible for any pre-existing hazardous material uncovered or revealed at the Project Site which was not shown, indicated or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work.

5.3.1.1 CONTRACTOR will immediately stop Work in the affected area and will take all necessary precautions to avoid further disturbance of the materials. CONTRACTOR will also will immediately notify the OWNER and, if required by applicable law or regulations, all government or quasi-government entities with jurisdiction over the Project or Project Site.

5.3.1.2 Upon receiving notice of the presence of suspected Hazardous Materials, the OWNER will take the necessary measures required to ensure that the Hazardous Materials are remediated or rendered harmless. Such necessary measures will include the OWNER retaining qualified independent experts to (i) ascertain whether Hazardous Materials have actually been encountered, and, if they have been encountered, (ii) prescribe the remedial measures that the OWNER will take either to remove the Hazardous Materials or render the Hazardous Materials harmless.

5.3.1.3 CONTRACTOR will be obligated to resume Work at the affected area of the Project only after the OWNER provides written certification that (i) the Hazardous Materials have been removed or rendered harmless and (ii) all necessary approvals have been obtained from all government and quasi-government entities having jurisdiction over the Project or Site. CONTRACTOR will be responsible for continuing the Work in the unaffected portion of the Project and the Project Site.

5.3.1.4 CONTRACTOR will be entitled, in accordance with these General Conditions, to an adjustment in its Contract Price or Contract Time(s) to the extent CONTRACTOR's cost or time of performance have been adversely impacted by the presence of Hazardous Materials.

5.3.2 CONTRACTOR will maintain at the Project Site, available to the OWNER, appropriate information pertaining to all Hazardous Materials brought to the Project Site by CONTRACTOR or any subcontractor, and as may be required by the Supplemental General Conditions, if any. CONTRACTOR will ensure that all such materials are properly labeled or identified, and will properly store, handle and use them at all times. In accordance with federal Hazard Communication Standard (29 CFR § 1910.1200) and all other applicable Legal Requirements, manufacturers and distributors are required to label each Hazardous Material or chemical container, and to provide Material Safety Data sheets to the purchaser. CONTRACTOR will comply with these laws and will provide the OWNER with copies of all relevant documents, including Material Safety Data sheets prior to performance or services or contemporaneous with delivery of goods. CONTRACTOR will provide and designate appropriate and secure areas for their storage and will notify the OWNER of their presence and location at Project Site. CONTRACTOR will not store Hazardous Materials at the Project Site in excess of those reasonably needed for CONTRACTOR's prosecution of the Work, and will properly remove or dispose of all Hazardous Materials, including combustible waste, as soon as possible after completion of the operations in which they are utilized.

5.3.3 No asbestos-containing materials will be incorporated into the Work or brought on Project Site without prior approval of the OWNER. CONTRACTOR will not knowingly use, specify, request or approve for use any asbestos containing materials or lead-based paint without the OWNER's written approval. When a specific product is specified, CONTRACTOR will endeavor to verify that the product does not include asbestos containing material.

5.3.4 CONTRACTOR will be solely responsible for use, storage and remediation of any Hazardous Materials brought to Project Site by CONTRACTOR, subcontractors, sub-subcontractors, suppliers, and anyone else for whom CONTRACTOR is responsible. CONTRACTOR will indemnify, defend and hold harmless the OWNER and the OWNER's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those Hazardous Materials introduced to Project Site by CONTRACTOR, subcontractors, sub-subcontractors, suppliers, or anyone for whose acts they may be liable.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.1 General Responsibilities.

6.1.1 Scope of Work. CONTRACTOR will provide, perform, and complete all necessary work, labor, services, transportation, equipment, materials, apparatus, machinery, tools, fuels, gas, electric, water, waste disposal, information, data and other means and items necessary to accomplish the Project at the Work Site, including measures for sediment control, storm water management, and waste disposal, in compliance with this Contract. CONTRACTOR is required to perform all Work specified in the Contract Documents and reasonably inferable from these Documents as being necessary to produce the intended results.

6.1.2 Quality. All materials and Work will be of good quality for the intended use and consistent with the quality of surrounding Work, and will conform to the requirements of the Contract Documents and to the standards for construction of the Project generally. All materials will be new.

6.1.3 Construction Means and Methods. CONTRACTOR will provide continuous on-site supervision and direction of the Work using CONTRACTOR's best efforts. CONTRACTOR will have control over construction means, methods, techniques, sequences, and procedures, unless the Contract Documents give other specific instructions concerning these matters, and is solely responsible therefore.

6.1.4 Discipline at the Project Site. CONTRACTOR will enforce strict discipline and good order among CONTRACTOR's employees and other persons for whose Work CONTRACTOR is responsible, including CONTRACTOR's employees, subcontractors, sub-subcontractors, and suppliers, and the agents and employees of any of them.

6.1.5 Responsibility for Subordinates. CONTRACTOR is responsible for the acts and omissions of all persons performing portions of the Work at the Project Site, including but not limited to CONTRACTOR's employees, subcontractors, sub-subcontractors, and suppliers, and the agents and employees of any of them.

6.1.6 Assignment, Scheduling and Coordination. CONTRACTOR is solely responsible for and has control over assigning, scheduling and coordinating all portions of the work under the Contract performed by CONTRACTOR's own forces and by its subcontractors, sub-subcontractors, and suppliers, in accordance with the approved Progress Schedule, unless the Contract Documents give other specific instructions concerning these matters.

6.1.7 Obligations Not Relieved. CONTRACTOR is not relieved of its obligations to perform the Work in accordance with the Contract Documents, by the activities or duties of the OWNER or the E/A in the administration of the Contract or of construction, or by tests, inspections, or approvals required or performed by persons other than CONTRACTOR.

6.1.8 Ongoing Duty to Report Problems with Contract Documents. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between any Contract Document and any Legal Requirement or of any such standard, specification, manual, or code or instructions of any manufacturer or supplier, CONTRACTOR will within three days of such discovery report it to the OWNER in writing, and CONTRACTOR will not proceed with the Work affected thereby until a Change Order has been issued. CONTRACTOR will be liable to the OWNER for failure to report any such conflict, error, ambiguity, or discrepancy of which CONTRACTOR knew or reasonably should have known. CONTRACTOR will be liable to the OWNER for CONTRACTOR's failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents within said three-day period.

6.1.9 Inspection of Work. CONTRACTOR will make frequent inspections during the progress of the Work to confirm that work previously performed by CONTRACTOR is in compliance with the requirements of this Contract, and that any portion of Work previously performed by CONTRACTOR or by others is in proper condition to receive subsequent Work.

6.2 Diligent Prosecution. CONTRACTOR will at all times be responsible for the diligent prosecution of the Work so as to complete the Work within the Contract Time.

6.2.1 CONTRACTOR will have an affirmative obligation to rearrange Milestones, notwithstanding the manner in which they are scheduled in the current approved Progress Schedule, as circumstances may require. If in order to meet this obligation CONTRACTOR rearranges the order of Work in a manner that materially departs from the current approved Progress Schedule, CONTRACTOR will within 3 days thereafter provide notice to the OWNER, who may require CONTRACTOR to submit a revised Progress Schedule reflecting the rearrangement. No revised Progress Schedule extending the Contract Time will be approved without the issuance of a Change Order in compliance with the Contract Documents.

6.2.2 CONTRACTOR will carry on the Work and adhere to the current approved Progress Schedule, including during all disputes or disagreements with the OWNER. No Work will be delayed or postponed pending resolution of any disputes or disagreements, except as the OWNER and CONTRACTOR may otherwise agree through a Change Order or Contract amendment.

6.3 Supervision and Superintendence.

6.3.1 CONTRACTOR will supervise the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

6.3.2 CONTRACTOR will have an English-speaking, competent Superintendent on the Work at all times that work is in progress. The Superintendent will be CONTRACTOR's representative on the Work and will have the authority to act on the behalf of CONTRACTOR. All communications given to the Superintendent will be as binding as if given to CONTRACTOR, even where written notice is otherwise required. Either CONTRACTOR or the Superintendent will provide a cellular telephone number and an emergency and home telephone number at which one or the other may be reached if necessary when Work is not in progress. The Superintendent will be an employee of CONTRACTOR, unless waived in writing by the OWNER. If CONTRACTOR proposes a management structure with a Project Manager supervising, directing, and managing construction of the work in addition to or in substitution of a Superintendent, the requirements of these Construction Documents with respect to the Superintendent will likewise apply to any such Project Manager.

6.3.2.1 CONTRACTOR will present the resume of the proposed Superintendent to the OWNER showing evidence of experience and successful superintendence and direction of work of a similar scale and complexity. The OWNER may reject the proposed Superintendent if the OWNER determines that the proposed Superintendent does not have sufficient experience in line with the Work, in which instance CONTRACTOR will propose a different Superintendent for OWNER approval.

6.3.2.2 CONTRACTOR will not replace the Superintendent without written notice to the OWNER. If CONTRACTOR deems it necessary to replace the Superintendent, CONTRACTOR will provide the necessary information for approval, as stated above, on the proposed new Superintendent.

6.3.2.3 CONTRACTOR may designate a qualified substitute Superintendent if the designated Superintendent is temporarily away from the Work, subject to OWNER approval.

6.3.2.4 CONTRACTOR will replace the Superintendent upon the OWNER's request, if the Superintendent is unable to perform to the OWNER's satisfaction.

6.4 Labor, Materials, and Equipment.

6.4.1 CONTRACTOR will employ only orderly and competent workers, skillful in performance of the type of Work required under this Contract. CONTRACTOR will prohibit the use and possess any alcoholic or other intoxicating beverages, illegal drugs, or controlled substances while on the job or on the OWNER's property. Subject to the applicable provisions of Florida law, neither CONTRACTOR, nor subcontractors, suppliers, or other agents of CONTRACTOR, may use or possess any firearms or other weapons while on the job or on the OWNER's property. If the OWNER notifies CONTRACTOR that any officer, employee, subcontractor, supplier, or other agent

is incompetent, disorderly, abusive, or disobedient, has knowingly or repeatedly violated safety regulations, has possessed any firearms in contravention of the applicable provisions of Florida law, or has possessed or was under the influence of alcohol or drugs on the job, CONTRACTOR will immediately remove that person from performing Contract Work, and may not employ that person again on the Work without the OWNER's prior written consent. CONTRACTOR will at all times maintain good discipline and order on- and off-Project Site in all matters pertaining to the Project. CONTRACTOR will pay workers no less than the wage rates established by law, and maintain weekly payroll reports as evidence thereof.

6.4.2 CONTRACTOR will not use any preexisting facilities of the OWNER without the specific written consent of the OWNER, except as indicated in the Contract Documents. CONTRACTOR is solely responsible for temporary facilities and services provided or utilized by CONTRACTOR and will remove those not required to remain at the completion of the Work or any portion thereof, will promptly correct any damage caused by the erection, use or removal of temporary facilities; and will restore the Project Site and any adjacent areas to their original condition or that required by the Contract Documents upon completion of the Work.

6.4.3 CONTRACTOR will store, handle, install, and test all materials in accordance with the manufacturer's or suppliers' most recent instructions and recommendations. CONTRACTOR will promptly notify the OWNER if these instructions and recommendations are in conflict with any provision of the Contract Documents.

6.4.4 All materials and equipment will be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with instructions of the applicable manufacturer and supplier, except as otherwise provided in the Contract Documents. The Contract Administrator or E/A may require CONTRACTOR to furnish one or more of the following:

6.4.4.1 Satisfactory evidence (i.e., reports of required tests, manufacturer's certificates of compliance with material requirements, mill reports, etc.) as to the kind and quality of materials and equipment.

6.4.4.2 Samples of required equipment and materials prior to having such equipment and materials delivered to the Project Site. Each sample submitted by CONTRACTOR will carry a label giving the name of CONTRACTOR, the Project, and the name of the producer. The accompanying certificate or letter from CONTRACTOR will state that the sample complies with the contract requirements, will give the name and brand of the product, its place of origin, the name and address of the producer and all specifications or other detailed information which will assist the OWNER in reviewing the sample promptly. It will also include the statement that all materials or equipment furnished for use in the Project will comply with the samples or certified statements. In addition, the accompanying certificate will include a written narrative explanation itemizing the extent to which the sample deviates from the Specifications or other Contract requirements.

6.4.5 The OWNER will not be required to consider delays in the Work caused by delivery of non-complying materials or equipment, or by late or improper submission test reports or manufacturer's certificates for OWNER approval, as just cause for an extension of the Contract Time. The OWNER's acceptance of any test report, certificate, or sample will be general only and will not constitute a waiver of the OWNER's right to demand full compliance with Contract requirements, nor relieve CONTRACTOR from ensuring full compliance with the Contract.

6.4.6 CONTRACTOR will assign to the OWNER, any rights CONTRACTOR may have to bring antitrust suits against suppliers for overcharges on materials incorporated in the Project growing out of illegal price fixing agreements. CONTRACTOR will cooperate with the OWNER should the OWNER wish to prosecute suits against suppliers for illegal price fixing.

6.4.7. Upon CONTRACTOR's request and the Contract Administrator's written approval, CONTRACTOR may locate stored materials off-site, so long as they are in a bonded and insured facility, accessible to the OWNER, and are clearly marked as OWNER's property.

6.4.8 Title to materials delivered to the Project Site or stored off-site will not be deemed to pass to the OWNER until the OWNER accepts such title by paying for same. The OWNER will be entitled but is not required to request title documentation. Risk of loss will not pass to the OWNER until title passes.

6.5 Concerning Subcontractors, Suppliers, and Others.

6.5.1 CONTRACTOR will retain direct control of and give direct attention to the fulfillment of this Contract. CONTRACTOR agrees not to assign this Contract, by power of attorney or otherwise, without the OWNER's prior written consent.

6.5.2 Unless the Supplemental General Conditions provide otherwise, CONTRACTOR will not subcontract the performance of the entire Project or the supervision and direction of the Work without the OWNER's prior written consent. CONTRACTOR will not employ any subcontractor or other person or organization, whether initially or as a substitute, against whom the OWNER may have reasonable objection. The OWNER will communicate such objections by written notice. CONTRACTOR will not substitute any subcontractor that has been accepted by the OWNER, unless the OWNER first accepts the substitute in writing.

6.5.3 CONTRACTOR will enter into written agreements with all subcontractors and suppliers which specifically bind the subcontractors and suppliers to the applicable terms and conditions of the Contract Documents for the OWNER's benefit. The OWNER reserves the right to specify that certain requirements will be adhered to by all subcontractors and sub-subcontractors as indicated in other portions of the Contract Documents, in which instance these requirements will be made a part of the written agreement between CONTRACTOR and each subcontractor. CONTRACTOR's standard subcontract form is subject to the OWNER's review and approval. Within five working days of the OWNER's request for subcontractor contract documents, CONTRACTOR will provide them to the OWNER.

6.5.4 CONTRACTOR will be fully responsible to the OWNER for all acts and omissions of the subcontractors, suppliers, and other persons and organizations performing or furnishing any of the Work under contract with CONTRACTOR and under contract with CONTRACTOR's subcontractors or suppliers, just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents will create for the benefit of any such subcontractor or other person or organization any contractual relationship between the OWNER and any such subcontractor or other person or organization, nor will it create any obligation on the part of the OWNER or E/A to pay or to see to the payment of any moneys due any such subcontractor or other person or organization except as may otherwise be required by Legal Requirements.

6.5.5 CONTRACTOR will be solely responsible for efficiently scheduling and coordinating the Work of subcontractors and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR in order to avoid any delays or inefficiencies in the prosecution of the Work. CONTRACTOR will require all subcontractors and such other persons and organizations performing or furnishing any of the Work to communicate with the OWNER through CONTRACTOR.

6.5.6 The divisions and sections of the Technical Provisions and the identification of any Plans will not control CONTRACTOR in dividing or delineating the Work to be performed by any specific trade.

6.5.7 CONTRACTOR will pay each subcontractor their appropriate share of payments made to CONTRACTOR not later than ten days of CONTRACTOR's receipt of payment from the OWNER.

6.5.8 To the extent allowed by Florida law, the OWNER will be deemed to be a third party beneficiary to each subcontract and may, if the OWNER elects, following a termination of CONTRACTOR, require that the subcontractor(s) perform all or a portion of unperformed duties and obligations under its subcontract(s) for the benefit of the OWNER, rather than CONTRACTOR; however, if the OWNER requires any such performance by a subcontractor for the OWNER's direct benefit, then the OWNER will be bound and obligated to pay such subcontractor the reasonable value for all Work performed by such subcontractor to the date of the termination of CONTRACTOR, less previous payments, and for all Work performed thereafter. If the OWNER elects to invoke the OWNER's right under this Section, the OWNER will provide notice of such election to CONTRACTOR and the affected subcontractor(s).

6.6 Patent Fees and Royalties.

6.6.1 CONTRACTOR will be responsible at all times for compliance with applicable patents and copyrights encompassing, in whole or in part, any design, device, material, or process utilized, directly or indirectly, in the performance of the Work or the formulation or presentation of its Bid.

6.6.2 CONTRACTOR will pay all royalties and license fees and will provide, prior to commencement of Work hereunder and at all times during the performance of same, for lawful use of any design, device, material or process covered by letters, patent or copyright by suitable legal agreement with the patentee, copyright holder, or their duly authorized representative whether or not the OWNER specifies a particular design, device, material, or process.

6.6.3 CONTRACTOR will defend all suits or claims for infringement of any patent or copyright and will save the OWNER harmless from any loss or liability, direct or indirect, arising with respect to CONTRACTOR's process in the formulation of its Bid or the performance of the Work or otherwise arising in connection therewith. The OWNER reserves the right to provide its own defense to any suit or claim of infringement of any patent or copyright in which event CONTRACTOR will indemnify and save harmless the OWNER from all costs and expenses of such defense as well as satisfaction of all judgments entered against the OWNER.

6.6.4 The OWNER will have the right to stop the Work or terminate this Contract at any time if CONTRACTOR fails to disclose to the OWNER that CONTRACTOR's work methodology includes the use of any infringing design, device, material, or process.

6.7 Permits, Fees. CONTRACTOR will secure and pay for at CONTRACTOR's expense, all permits and licenses of a temporary nature that are required for the prosecution of the Work; provided, however, that the OWNER will reimburse CONTRACTOR for any CITY-required permits unless specified otherwise in the Supplemental General Conditions.

Unless the Supplemental General Conditions provide otherwise, the OWNER will obtain licenses and easements for permanent structures and or permanent changes in existing facilities.

6.8 Construction Operations.

6.8.1 CONTRACTOR will confine operations at the Project Site to those areas permitted by all Legal Requirements, and will not unreasonably encumber the Project Site with materials and equipment. CONTRACTOR will assume full responsibility for any damage to any portion of the Project Site, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. If an adjacent property owner or occupant files a claim because of or in connection with the performance of the Work, CONTRACTOR will promptly settle the claim by negotiation or as otherwise provided by law. CONTRACTOR will indemnify, defend and hold harmless the OWNER and anyone directly or indirectly employed by the OWNER, from and against all claims, costs, losses, and damages (including court costs and reasonable attorney's fees) arising out of or resulting from any claim or action, legal or equitable, brought by any such the owner or occupant against the OWNER, E/A or any other party indemnified hereunder to the extent caused by or based upon performance of the Work or failure to perform the Work.

6.8.2 CONTRACTOR will establish the exterior lines and elevations of all buildings and structures to be erected on the Project Site, and lines and grades of site work such as roads, utilities, and site grading, based on reference points, the location of existing structures and improvements, or benchmarks identified in the site surveys provided by the OWNER. CONTRACTOR will provide a professional certification by a professional engineer or land surveyor as to the actual location of building lines prior to constructing any foundations. CONTRACTOR will establish the building grades, lines, and levels, and column, wall, and partition lines required by subcontractors in laying out the Work. At the completion of the Work, CONTRACTOR will provide another professional certification by a registered engineer or land surveyor as to the location of completed improvements in relation to property lines, building lines, easements, and other boundaries.

6.8.3 CONTRACTOR will not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor will CONTRACTOR subject any part of the Work, the Project Site, or adjacent property to stresses or pressures that will endanger it.

6.8.4 All Work will be performed solely during Working Hours, unless (i) more restrictive hours are required by CITY ordinances or other Legal Requirements governing CONTRACTOR's performance of the Work, or (ii) the Contract Administrator approves expanded Working Hours in writing, such as in the event of emergencies, in which instance the Contract Administrator's approval may be terminated at any time and for any reason without recourse to CONTRACTOR. The OWNER has the right to impose further restrictions on working hours reasonably related to the use of occupied facilities. No delays resulting from compliance with applicable Legal Requirements may form the basis for any claim by CONTRACTOR for delay damages or additional compensation or for any extensions of the Contract Time; any delays arising from restrictions related to the use of occupied facilities are non-compensable and any claims for extensions of the Contract Time relating to them will be filed in accord with Article 11 or the same will be conclusively deemed to have been waived. CONTRACTOR will not permit Work outside of Working Hours without the written consent of the OWNER; such consent, if given, may be conditioned upon payment by CONTRACTOR of the OWNER's additional costs and fees incurred in monitoring such off-hours Work. CONTRACTOR will notify the OWNER as soon as possible if Work will be performed outside such times in the interest of the safety and protection of persons or property at the Project Site or adjacent thereto, or in the event of an emergency. In no event will CONTRACTOR permit Work to be performed at the Project Site without the presence of CONTRACTOR's Superintendent and person responsible for the protection of persons and property at the Project Site and compliance with all Legal Requirements, if different from the Superintendent.

6.8.5 Temporary Utilities. CONTRACTOR, at its own expense, will:

6.8.5.1 Furnish all temporary heat, cooling ventilation, and humidity control including all required apparatus and fuel as may be necessary to protect the Work fully, both during its execution and until Final Completion and acceptance. CONTRACTOR will not use any method of heating, cooling, ventilation, or humidity control of the building unless approved by the OWNER in advance.

6.8.5.2 Provide all temporary on-Site water service required to perform the Work, to assure safety at the Site, and as otherwise required. All temporary services will be removed by CONTRACTOR.

6.8.5.3 Furnish all temporary electric service required to perform the Work, to assure safety at the Site, and as otherwise required.

6.8.5.4 CONTRACTOR will provide and maintain in a neat, sanitary condition such accommodations for the use of CONTRACTOR's employees, subcontractors, and others for whom CONTRACTOR may be responsible, as may be necessary to comply with Legal Requirements, and will commit no public nuisance.

6.8.6 Site Maintenance. During the progress of the Work and on a daily basis, CONTRACTOR will keep the Project Site free from accumulation of waste materials, rubbish, and other debris resulting from the Work. If CONTRACTOR fails to do so in a manner reasonably satisfactory to the OWNER within 48 hours after notice or as otherwise required by the Contract Documents, the OWNER may clean the Project Site and back charge CONTRACTOR for all costs associated with the cleaning. At Substantial Completion, CONTRACTOR will leave the Project Site clean, including but not limited to the cleaning of manholes, inlets, and gravity underground piping systems, and ready for the OWNER's occupancy, and will at this point also remove all temporary buildings, waste, trash, debris, and surplus materials. At Final Completion, CONTRACTOR will remove all tools, appliances, construction equipment, and machinery, in addition to the above-referenced materials, and leave the Project Site clean and ready for OWNER's occupancy. This requirement will not apply to property used for permanent disposal of rubbish or waste materials in accordance with permission for such disposal granted to CONTRACTOR by the OWNER. CONTRACTOR will, at a minimum, restore to original condition all property not designated for alteration by the Contact Documents. If CONTRACTOR fails to clean up at the completion of the Work, the OWNER may do so and the cost thereof will be charged against CONTRACTOR.

6.8.7 Risk of Performance. If CONTRACTOR performs any work involving an apparent error, inconsistency, ambiguity, construction impracticality, omission, or violation of Legal Requirements in the Contract Documents of which CONTRACTOR is aware, or which could reasonably have been discovered by the review required by CONTRACTOR by this Contract, without prompt written notice to the OWNER and the E/A and request

for correction, clarification or additional information, as appropriate, CONTRACTOR does so at its own risk and expense and all claims relating thereafter are specifically waived.

6.9 Legal Requirements.

6.9.1 CONTRACTOR will diligently and promptly call for locates required, in accordance with Sunshine State One Call of Florida requirements.

6.9.2 CONTRACTOR will give all other notices and comply with all other Legal Requirements, including arranging for and obtaining any required inspections, tests, approvals or certifications from any public body having jurisdiction over the Work or any part thereof. Except where these Legal Requirements provide otherwise, neither the OWNER nor the E/A will be responsible for monitoring CONTRACTOR's compliance with any Legal Requirements.

6.9.3 Maintaining clean water, air, and earth or improving thereon will be regarded as of prime importance. CONTRACTOR will plan and execute its operations in compliance with all applicable Legal Requirements concerning control and abatement of water pollution and prevention and control of air pollution, including where applicable the terms and conditions of the CITY's current National Pollutant Discharge Elimination System (NPDES) permit.

6.10 Taxes.

6.10.1 CONTRACTOR will pay only those sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the State of Florida in the performance of this Contract.

6.10.2 The OWNER is an exempt organization as defined by Florida Statutes and is therefore exempt from payment of sales and use taxes.

6.11 Maintenance of Records and Documents.

6.11.1 CONTRACTOR will maintain at the Site, available to the OWNER for reference during the progress of the Work, a copy of the current approved Progress Schedule and any approved revisions thereto. CONTRACTOR will keep current records of and mark on a copy of the current approved Progress Schedule the actual commencement date, progress, and completion date of each scheduled activity indicated on the Progress Schedule.

6.11.2 CONTRACTOR will maintain in a safe place at the Project Site, or other location acceptable to the OWNER, one record copy of all Drawings, Specifications, Addenda, Change Instruments and written interpretations and clarifications issued pursuant to this Contract (collectively, "Record Documents") in good order and annotated to show all changes made during construction. The Record Documents and all final samples and final Shop Drawings will be available to the OWNER and E/A for reference during performance of the Work. Upon Substantial Completion of the Work, CONTRACTOR will deliver these Record Documents, and final samples and Shop Drawings, to the OWNER.

6.11.3 To the extent applicable, CONTRACTOR will comply with the requirements of Florida Statutes Section 119.0701, which include the following:

6.11.3.1 Keeping and maintaining public records that the CITY requires for performance of the service provided herein.

6.11.3.2 Upon the request of the City Clerk of the CITY, (i) providing the City Clerk with a copy of requested public records or (ii) allowing inspection or copying of the records, within a reasonable time after receipt of the CITY Clerk's request, at a cost that does not exceed the cost provided in Ch. 119, Florida Statutes, or as otherwise provided by law.

6.11.3.3 Ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law until completion of this Contract, and following such completion if CONTRACTOR fails to transfer such records to the CITY.

6.11.3.4 Upon completion of this Contract, keep and maintain public records required by the CITY to perform the service. CONTRACTOR will meet all applicable requirements for retaining public records. All records stored electronically must be provide to the CITY upon request from the CITY Clerk, in a format that is compatible with the CITY's information technology systems.

6.11.3.5 IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTRACTOR MUST CONTACT THE CITY CLERK, WHOSE CONTACT INFORMATION IS AS FOLLOWS:

(Phone)	386 671-8023
(Email)	clerk@codb.us
(Address)	301 S. Ridgewood Avenue Daytona Beach, FL 32114

6.11.4 Nothing herein will be deemed to waive CONTRACTOR's obligation to comply with Section 119.0701(3)(a), Florida Statutes, as amended by Chapter 2016-20, Laws of Florida (2016).

6.12 Safety and Protection.

6.12.1 CONTRACTOR will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Upon request, and prior to installation of measures, CONTRACTOR will submit a site security plan to the OWNER. By reviewing the plan or making recommendations or comments, the OWNER will not assume liability nor will CONTRACTOR be relieved of liability for damage, injury, or loss. CONTRACTOR will take all necessary precautions for the safety of and will provide the necessary protection to prevent damage, injury, and loss to:

6.12.1.1 The public;

6.12.1.2 All persons on the Project Site or who may be affected by the Work;

6.12.1.3 All the Work and materials and equipment to be incorporated therein, whether in storage on or off Project Site; and

6.12.1.4 Other personal property, fixtures and other items at the Project Site or adjacent thereto, including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.

6.12.2 CONTRACTOR will comply with the Occupational Safety and Health Administration's (OSHA) Excavation Safety Standard, 29 U.S.C § 651 et seq., 29 C.F.R. 1926.650 Sub Part P., and the Trench Safety Act, Section 553.60 et seq. In addition CONTRACTOR will comply with all other applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss, and will erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR will notify owners of adjacent property and of underground facilities, and utility owners when prosecution of the Work may affect them, and will cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in Subparagraphs 6.12.1.3 and 6.12.1.4, above, caused, directly or indirectly, in whole or in part, by CONTRACTOR, any subcontractor, or any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, will be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or

Specifications or to the acts or omissions of the OWNER, or E/A, or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the faults or negligence of CONTRACTOR or any subcontractor, supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and protection of the Work will continue until such time as all the Work is completed and the OWNER has issued a Certificate of Final Completion (except as otherwise expressly provided in connection with Substantial Completion). Without limitation, CONTRACTOR will comply with the following specific provisions:

6.12.3 CONTRACTOR will designate in writing a qualified and experienced safety representative at Project Site whose duties and responsibilities will be the prevention of accidents and the maintaining and supervising of safety precautions and programs. Upon request of the OWNER, CONTRACTOR will provide certifications or other documentation of the safety representative's qualifications.

6.12.4 CONTRACTOR will be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at Project Site in accordance with Legal Requirements.

6.12.5 CONTRACTOR will comply with the following requirements in emergencies:

6.12.5.1 In emergencies affecting the safety or protection of persons or the Work at Project Site or adjacent thereto, CONTRACTOR, without special instruction or authorization from the OWNER or E/A, is obligated to act reasonably to prevent threatened damage, injury or loss and to mitigate damage or loss to the Work. CONTRACTOR will give the OWNER telephone notification as soon as reasonably practical and a prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the express provisions of this Contract Documents have been caused thereby. If the OWNER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Change Order will be issued; otherwise the OWNER will not be responsible for CONTRACTOR's emergency action.

6.12.5.2 Authorized agents of CONTRACTOR will respond immediately to call-out at any time of any day or night when circumstances warrant the presence on Project Site of CONTRACTOR or his agent to protect the Work or adjacent property from damage, restriction or limitation or to take such action or measures pertaining to the Work as may be necessary to provide for the safety of the public. Should CONTRACTOR or CONTRACTOR's agent fail to respond and take action to alleviate such an emergency situation, the OWNER may direct other forces to take action as necessary to remedy the emergency condition, and the OWNER will deduct any cost of such remedial action from the funds due CONTRACTOR under this Contract.

6.12.5.3 If there is an accident involving injury to any individual or damage to any property on or near the Work, CONTRACTOR will provide to the Contract Administrator verbal notification within one hour and written notification within 24 hours of the event and will be responsible for recording the location of the event and the circumstances surrounding the event through photographs, interviewing witnesses, obtaining medical reports, police accident reports and other documentation that describes the event. CONTRACTOR will provide the OWNER copies of such documentation within 48 hours of the event.

6.12.5.4 CONTRACTOR will cooperate with the OWNER in any investigation of any such incident. CONTRACTOR will immediately report such incidents to any other governmental or quasi-governmental authorities having jurisdiction over safety-related matters as may be required by law.

6.13 Indemnification.

6.13.1 Any obligation of CONTRACTOR to indemnify or hold harmless under this Contract will not be limited in any way by any limitation on the amount or type of damages, or compensation or benefits payable by or for CONTRACTOR or any such subcontractor, supplier, or other person or organization for whom CONTRACTOR may be responsible under workers' compensation acts, disability benefit acts, or other employee benefit acts.

6.13.2 Any obligation of CONTRACTOR to indemnify and hold harmless under this Contract, will not extend to the liability of the OWNER, E/A, E/A's consultants, and their officers, directors, partners, employees or

agents, when caused primarily by negligent preparation of maps, drawings, surveys, designs or specifications upon which is placed the applicable state-authorized design professional seal of the OWNER, E/A, or OWNER's or E/A's consultant's, officers, directors, partners, employees or agents.

6.13.3 If CONTRACTOR fails to follow the OWNER's directives concerning use of Project Site, scheduling or course of construction, or engages in other conduct which proximately causes damage to property based on inverse condemnation or otherwise, then and in that event, CONTRACTOR will indemnify the OWNER against all costs resulting from such claims.

6.13.4 If CONTRACTOR unreasonably delays progress of the Work being done by others on Project Site so as to cause loss for which the OWNER becomes liable, then CONTRACTOR will indemnify the OWNER from and reimburse the OWNER for such loss.

6.14 Survival of Obligations. All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with this Contract, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Contract.

6.15 Losses from Natural Causes. Unless otherwise specified, all loss or damage to CONTRACTOR arising out of the nature of the Work to be done or from action of the elements, floods or from unforeseeable circumstances in prosecution of the Work or from unusual obstructions or difficulties which may be encountered in prosecution of the Work, will be sustained and borne by CONTRACTOR at its own cost and expense.

6.16. Notice of Claim. Should CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of OWNER or of any of OWNER's employees or agents or others for whose acts OWNER is liable, CONTRACTOR must file a claim within 30 calendar days of the event giving rise to such injury or damage. The provisions of this Section will not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

6.17 Financial Records.

6.17.1 For purposes of this Section 6.17, "financial records" means all records generated by or on behalf of CONTRACTOR and each Subcontractor and supplier of CONTRACTOR, whether paper, electronic, or other media, which are in any way related to performance of or compliance with this Contract, including, without limitation:

.1 Accounting records;

.2 Written policies and procedures;

.3 Subcontract files (including proposals of successful and unsuccessful Bidders, Bid recaps, etc.);

.4 Original estimates and estimating work sheets;

.5 Correspondence;

.6 Change Order files (including documentation covering negotiated settlements);

.7 Back charge logs and supporting documentation;

.8 General ledger entries detailing cash and trade discounts earned, insurance rebates and dividends;

.9 Lump sum agreements between CONTRACTOR and any Subcontractor or supplier;

.10 Records necessary to evaluate: Contract compliance, Change Order pricing, and any Claim submitted by CONTRACTOR or any of its payees; and

.11 Any other CONTRACTOR record that may substantiate any charge related to this Contract.

6.17.2 CONTRACTOR will allow the OWNER, and the OWNER's authorized representatives, to inspect, audit, and reproduce all Records generated by or on behalf of CONTRACTOR and each subcontractor and supplier, upon the OWNER's written request. Further, CONTRACTOR will allow the OWNER, and the OWNER's authorized representatives, to interview any of CONTRACTOR's employees, all Subcontractors, all suppliers, and all of their respective employees.

6.17.3 CONTRACTOR will retain all its Records, and require all its subcontractors and suppliers to retain their respective Records, during this Contract and for three years after final payment, until all audit and litigation matters that the OWNER has brought to the attention of CONTRACTOR are resolved, or as otherwise required by law, whichever is longer. The OWNER's right to inspect, audit, or reproduce Records, or interview employees of CONTRACTOR or its respective subcontractors or suppliers, exists during this Contract, and for three years after final payment, until all audit and litigation matters that the OWNER has brought to CONTRACTOR's attention are resolved, or as otherwise required by law, whichever is longer, and at no cost to the OWNER, either from CONTRACTOR or any of its subcontractors or suppliers that may furnish Records or make employees available for interviewing.

6.17.4 CONTRACTOR must provide sufficient and accessible facilities during its normal business hours for the OWNER to inspect, audit, or reproduce Records, or all three, and to interview any person about the Records.

6.17.5 CONTRACTOR must insert these requirements in each written contract between CONTRACTOR and any subcontractor or supplier and require each subcontractor and supplier to comply with these provisions.

ARTICLE 7 - OTHER WORK

7.1 Coordinating Other Work. The OWNER may perform other work related to the Project at Project Site by the OWNER's own forces, or let other contracts for the Project or Project Site, or have other work performed by utility owners. CONTRACTOR and the OWNER agree to and will use best efforts to cooperate and coordinate the Work with others performing work and other work related to the Project in order to avoid conflicts and delays in the Work. If CONTRACTOR believes that delay or additional cost is involved because of such action by the OWNER, CONTRACTOR may make a Claim as provided in Article 11.

7.2 Proper and Safe Access by Other Contractors. CONTRACTOR will afford other contractors and each utility owner (and the OWNER, if the OWNER is performing the additional work with the OWNER's employees) proper and safe access to the Project Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and will properly connect and coordinate the Work with theirs. CONTRACTOR will do all cutting, fitting, patching, and finishing of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR will not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the OWNER and the other contractors whose work will be affected. CONTRACTOR will promptly remedy damage wrongfully caused by CONTRACTOR to completed or partially completed construction or to property of the OWNER or separate contractors.

7.3 CONTRACTOR's Inspection and Reports. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR will inspect such other work and promptly report to the OWNER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in such other work.

7.4 Progress Schedules. The OWNER will provide for coordination of the activities of the OWNER's own forces, of each separate CITY contractor, and of any other utility owners performing work in relation to the Work of CONTRACTOR, who will cooperate with them. CONTRACTOR will participate with the OWNER any other contractors retained by the OWNER, in reviewing their construction progress schedules when directed to do so. On the basis of such review, CONTRACTOR will make any revisions to the current approved Progress Schedule deemed necessary after a joint review and mutual agreement. The agreed-upon progress schedules will then

constitute the progress schedules to be used by CONTRACTOR, the OWNER, and any other contractor retained by the OWNER until subsequently revised.

7.5 Improper Timing or Delays. Costs caused by delays or by improperly timed activities or defective construction will be borne by the party responsible therefore.

ARTICLE 8 – WARRANTIES

8.1 General Warranty.

CONTRACTOR warrants that the Work and all of its components will be free from defects and flaws in design, workmanship, and materials for the duration of the General Warranty Period described below; will strictly conform to the requirements of the Contract; and will be fit, sufficient and suitable for the purposes expressed in, or reasonably inferred from, the Contract. This general warranty is in addition to any other warranties expressed or implied by law, which are hereby reserved unto the OWNER.

8.1.1 General Warranty Period. The General Warranty Period will be one year from Substantial Completion, except for those items of equipment or those aspects of work placed in service or approved by the OWNER after Substantial Completion, in which instance the warranty for the particular equipment or aspect of work will be one year from the date of OWNER approval; provided, however, that the General Warranty Period for particular equipment placed in continuous service before Substantial Completion may start to run from an earlier date, if expressly provided in this Contract.

8.1.2 Duty to Correct. CONTRACTOR will correct any and all defects that defects in material or workmanship which may appear during the General Warranty Period, even if discovered after the General Warranty Period, by repairing (or replacing with new items or new materials, if necessary) any such defect at no cost to the OWNER, within a reasonable period of time, and to the OWNER's satisfaction.

8.1.3 General Warranty is Absolute. The only exceptions to the General Warranty will be defects or damage caused by abuse, modification or improper maintenance or operation by persons other than CONTRACTOR or CONTRACTOR's subcontractors, sub-subcontractors or suppliers; or normal wear and tear under normal usage. In all other respects the General Warranty will be absolute.

8.2 Special Warranties. CONTRACTOR will furnish all additional special warranties required by this Contract no later than Substantial Completion. The OWNER may require special warranties in connection with the approval of accepted equals and other substitute materials, equipment, methods, and procedures, and in connection with Work which is defective or nonconforming.

8.3. Limitation as to Certain Equipment. As to any equipment which the OWNER has reserved the sole right to have installed, the Warranties under this Article 8 will extend to ensure that the equipment is installed according to the Plans and Technical Provisions, and that any manufacturer or product warranties are conveyed to the OWNER; but in such instance CONTRACTOR will not be held liable for the operating performance of such equipment.

8.4 Relation to Specific Correction Provisions and Other Remedies. CONTRACTOR's general warranty and any additional or special warranties are not limited by CONTRACTOR's obligations to specifically correct Defective/Nonconforming Work, nor are they limited by any other remedies provided in the Contract Documents. CONTRACTOR will also be liable for any damage to property or persons (including death), including consequential and direct damages, relating to any breach of the General Warranty or any additional or special warranties required.

8.5 Third Party Warranties. CONTRACTOR will obtain and assign or transfer to the OWNER, all product warranties available from manufacturers or suppliers of materials to be used in the Project. CONTRACTOR will also obtain and assign or transfer to OWNER, any additional third party warranties as to materials or methods as specified in the Contract Documents. The OWNER's acceptance of any assigned warranties or guaranties will be a precondition to final payment and will not relieve CONTRACTOR of any of CONTRACTOR's guaranty or warranty obligations under this Contract.

ARTICLE 9 – E/A'S STATUS DURING CONSTRUCTION

9.1 Applicability. The provisions of this Article will apply only where the Contract Documents specifically authorize a consultant of the OWNER to act as the E/A to review and modify Technical Provisions, Plans, and other technical specifications associated with the Work. In all instances in which there is no such specific authorization, the provisions of this Article will have no effect, and any authorization or delegation within the Contract Documents to the E/A, will be deemed to be to the Contract Administrator. In addition, where the Contract Documents contain language specifically authorizing a consultant of the OWNER to act as E/A, the OWNER retains the right to assign or assume such authority upon written notice to CONTRACTOR.

9.2 The OWNER's Sole Benefit. The assignment, if any, of any authority, duties or responsibilities to the E/A under this Contract, or under any agreement between the OWNER and the E/A, or any undertaking, exercise or performance thereof by the E/A, is intended to be for the sole and exclusive benefit of the OWNER and not for the benefit of CONTRACTOR, subcontractor, supplier, or any other person or organization, or for any surety or employee or agent of any of them.

9.3. CONTRACTOR Remains Responsible. The E/A will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. The E/A is not responsible for any failure of CONTRACTOR to comply with laws and regulations applicable to the furnishing or performing the Work. The E/A is not responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with this Contract. Failure or omission of the E/A to discover, or object to or condemn any defective Work or material will not release CONTRACTOR from the obligation to properly and fully perform the Contract.

9.3.1 The E/A is not responsible for the acts or omissions of CONTRACTOR, or of any subcontractor, any supplier, or of any other person or organization performing or furnishing any of the Work.

9.3.2 If the OWNER and E/A agree, the E/A will review each Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and other documentation required to be delivered, but only to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, this Contract.

9.4 Applicability to E/A's Agents. The limitations upon authority and responsibility set forth in this Article 9 will also apply to the E/A's consultants, Resident Project Representative and assistants.

9.5 Visits to Project Site. If the OWNER and E/A agree, the E/A will make visits to the Project Site at intervals appropriate to the various stages of construction as E/A deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, the E/A will endeavor for the benefit of the OWNER to determine, in general, if the Work is proceeding in accordance with this Contract. The E/A will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The E/A's efforts will be directed toward providing for the OWNER a greater degree of confidence that the completed Work will conform generally to this Contract. On the basis of such visits and on-site observations, E/A will keep the OWNER informed of the progress of the Work and will endeavor to guard the OWNER against Defective Work. The E/A's visits and on-site observations are subject to all the limitations on the E/A's authority and responsibility set forth in this Article 9.

9.6 Resident Project Representative. If the OWNER and E/A agree, E/A will furnish a Resident Project Representative to assist the E/A in providing more continuous observation of the Work. The responsibilities and authority and limitations of any such Resident Project Representative and assistants will be as provided in this Article 9 and in the Supplemental General Conditions. The OWNER may designate another representative or agent to represent the OWNER at Project Site who is not the E/A, E/A's consultant, agent or employee.

9.7 Clarifications and Interpretations. The E/A may determine that written clarifications or interpretations of the requirements of the Technical Provisions (in the form of drawings or otherwise) are necessary. Such written clarifications or interpretations will be consistent with the intent of and reasonably inferable from the Contract Documents, will be issued with reasonable promptness by the OWNER and will be binding on the OWNER and CONTRACTOR. If the OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times, the OWNER or CONTRACTOR may make a Claim therefore as provided in these General Conditions.

9.8 Recommendations as to Defective Work. The E/A will recommend that the OWNER disapprove or reject Work which the E/A believes to be defective, or believes will not produce a completed Project that conforms to this Contract or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by this Contract.

ARTICLE 10 – ACCEPTED EQUALS AND SUBSTITUTIONS

10.1 Accepted Equals. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item, the specification or description is intended to require the item named, unless the Contract Documents, in specifying the name, specifically authorize the use of functionally equivalent item through the use of terms such as “as equal,” “or equal,” or “equivalent.” For purposes herein, an item is only “functionally equivalent” if it is available at the same or lower cost, and if it is sufficiently similar to the item specified, including as to durability, warranty, acquisition time, and availability, so that no change in related Work will be required, and no change in the useful life, maintenance, repair cost, or quality of the completed work is anticipated.

10.2 CONTRACTOR May Propose Substitutions. CONTRACTOR may propose a substitution for any item of material or equipment, and for any means, method, technique, sequence, or procedure of construction, specified in the Contract Documents. CONTRACTOR’s will propose such substitutes at CONTRACTOR’s sole cost and expense, and at CONTRACTOR’s sole risk as to disruptions to the Critical Path of the current approved Progress Schedule. CONTRACTOR will provide OWNER sufficient data and documentation to allow the OWNER to review the proposal.

10.3 OWNER’s Evaluation. The OWNER will be allowed a reasonable time within which to evaluate each proposal made by CONTRACTOR pursuant to this Section. The OWNER will be the sole judge of acceptability. No accepted equal or substitute will be ordered, installed, or utilized until the OWNER’s review is complete, which will be evidenced by a Change Instrument. The OWNER may require CONTRACTOR to furnish at CONTRACTOR’s expense a special performance guarantee or other surety bond with respect to any accepted equal or substitution or for any other delay or disruption to the Critical Path of the Project Schedule attributable to any such substitution. The OWNER will not be responsible for any delay due to review time for any proposed substitution, unless such an extension is due to CONTRACTOR, consistent with the requirements of this Contract for changes and delays. The OWNER will not be responsible for increased costs associated with the review or approval of a proposed substitution, unless the increase is required as provided in association with changes and delays. In any event, no such extension or increase will be deemed provided unless specified in the Change Instrument approving the substitution.

10.4 CONTRACTOR to Remain Responsible. The OWNER’s acceptance of a substitution will not relieve CONTRACTOR from primary responsibility and liability for the suitability and performance of any proposed substitute item or substituted method or procedure, and will not relieve CONTRACTOR from its primary responsibility and liability for curing Defective Work and performing warranty work, which CONTRACTOR will cure and perform, regardless of any claim CONTRACTOR may choose to advance against the OWNER or manufacturer.

ARTICLE 11 – DELAYS AND ADJUSTMENTS TO CONTRACT TIME AND CONTRACT PRICE

11.1 Delay. Delays are classified in one of the following categories:

11.1.1 An excusable delay is a delay caused by a Force Majeure event. An excusable delay may entitle CONTRACTOR to an extension of Contract Time but not an increase in Contract Price.

11.1.2 A compensable delay is a delay which is caused solely and exclusively by acts or omissions of the OWNER, excepting actions taken by the OWNER to protect the public health or safety or to conform to law. A compensable delay may entitle CONTRACTOR to both an extension of Contract Time and an increase in Contract Price.

11.1.3 An unexcused delay is any delay other than an excusable or compensable delay. An unexcused delay entitles CONTRACTOR to no adjustment to Contract Time or Contract Price.

11.2 Events Not Constituting a Delay. The following events will not be considered an excusable delay of any kind even though they are not anticipated by CONTRACTOR, not within CONTRACTOR's control, and are not reasonably foreseeable:

11.2.1 Events that pose no delay to items of Work on the Critical Path of the current approved Progress Schedule.

11.2.2 Events that would not prevent CONTRACTOR from achieving Final Completion before the expiration of the Contract Time, where CONTRACTOR may otherwise accelerate other items of Work without undue expense.

11.2.3 Weather, unless the weather is more severe than the adverse weather normally anticipated for the Project Site for the month in question, based on a generally accepted source of data such as the National Weather Service.

11.2.4 Events, including actions of the OWNER, that impact Critical Path activity, because the activity was previously delayed due to unexcused delays.

11.3 Notice of Delay Required. CONTRACTOR will provide written notice of any actual or prospective delay promptly, and in no event later than ten days after the occurrence of the event giving rise to such delay. CONTRACTOR will give the notice to both the E/A and the Contract Administrator within the specified time. In the case of a continuing delay, CONTRACTOR will provide an initial notice and a further notice at each progress meeting throughout the duration of the delay. The notice will contain all of the specific information required in the following Subsection.

11.4 Contents/Supporting Documents. CONTRACTOR's notice of delay will identify those portions of the current approved Progress Schedule affected by the delay and will include an estimate of the cost and probable effect of the delay, if any, on the progress of the Work. Supporting documentation will include, but is not limited to:

11.4.1 A written detailed statement of the reasons and causes for the delay;

11.4.2 Inclusive dates of the delay;

11.4.3 Specific trades and portions of the Work affected by the delay;

11.4.4 Status of Work affected before commencement of the delay;

11.4.5 Effect of the delay on available "float" time;

11.4.6 A Critical Path Method (CPM) analysis demonstrating that the delay has affected an activity then on the Critical Path at the time of the occurrence of the delay as shown on the most current approved Progress Schedule; and

11.4.7 If CONTRACTOR claims that the delay is an excusable delay or compensable delay, evidence that the delay was unforeseeable, beyond CONTRACTOR's control, and without the fault or negligence of CONTRACTOR or the negligence of anyone for whose acts CONTRACTOR is responsible including any subcontractor, sub-subcontractor or supplier; and in the case of a compensable delay, was caused solely and

exclusively by the acts or omissions of the OWNER (excepting actions taken by the OWNER to protect the public health or safety or to conform to law) or anyone for whose acts the OWNER is responsible, and which are unreasonable under the circumstances involved and not reasonably within the contemplation of the parties.

11.5 Failure to Comply with Notice Requirements. The notice required by this Article 11 operates as a condition precedent to the assertion of any claim for extension of Contract Time, increase in Contract Price, or damages by CONTRACTOR. If CONTRACTOR fails to give the OWNER timely written notice of a claim as required by this Article 11, CONTRACTOR will be deemed to have waived the claim, and the OWNER will have no further liability respecting the claim.

11.6 Review and Adjustment of Schedules. Upon receipt of a notice from CONTRACTOR of the occurrence of a delay complying with the requirements of this Article, the OWNER will review the current approved Progress Schedule to determine (i) whether the delay is in fact an excusable or compensable delay, and (ii) whether any adverse effects of the delay can be overcome by an adjustment in the Progress Schedule, including the application of any unused "float" time available in the Schedule. The OWNER may require CONTRACTOR to submit a more detailed Progress Schedule than previously required in order to permit the OWNER to evaluate the delay. Based on such review, CONTRACTOR will, if required by the OWNER, submit for the OWNER's approval a revised Progress Schedule, which minimizes the adverse effects of the delay.

11.7 Limitation on Adjustments Due to Delays Generally. No extension of the Contract Time or increase in the Contract Price will be allowed for an unexcused delay. No extension of the Contract Time or increase in the Contract Price will be made to the extent that performance is, was or would have been suspended, delayed or interrupted by another cause for which CONTRACTOR is responsible. No increase in the Contract Price will be made to the extent performance was or would have been suspended, delayed or interrupted by another cause for which the OWNER is not solely and exclusively responsible.

11.8 Additional Limitations on Adjustments to Contract Time Due to Delays. No extension of Contract Time will be provided where, notwithstanding a Force Majeure event or other claimed delay, CONTRACTOR may achieve Final Completion within the Contract Time through adjustments to the current approved Progress Schedule.

11.9 Additional Limitations on Adjustments to Contract Price Due to Delays. Any obligation on the part of the OWNER to pay CONTRACTOR for compensable delay is solely intended to reimburse CONTRACTOR for actual expense arising out of the compensable delay. No consequential damages will be allowed to CONTRACTOR in connection with any claimed delays. Damages for compensable delay will be determined by the Force Account method set forth in Subsection 13.3.2.

11.9.1 Standby equipment costs will not be allowed during periods when the equipment would have otherwise been idle. Standby equipment time will not exceed more than eight hours per day, 40 hours per week, and 176 hours per month. Standby equipment costs will be paid at 50 percent of the applicable Rental Rate Blue Book rates and calculated by dividing the monthly rate by 176, multiplying the result by the number of standby hours and multiplying that number by the regional adjustment factor and the rate adjustment factor contained in the Blue Book. Operating costs will not be allowed.

11.10 Liquidated Damages Due to CONTRACTOR's Delays. Liquidated Damages, if any, are set forth in the Contract form.

11.11 No Damages are Due to CONTRACTOR for Prevention of Early Completion. CONTRACTOR represents that its Bid includes all costs, overhead and profit which may be incurred throughout the Contract Time, including the period between Substantial and Final Completion. Accordingly, CONTRACTOR may not make any claim for delay damages based in whole or in part on the premise that CONTRACTOR would have completed the Work prior to the expiration of the Contract Time but for any claimed delay.

11.12 Acceleration to Avoid Delays. If CONTRACTOR's progress is not maintained in accordance with the current approved Progress Schedule, or the OWNER determines that CONTRACTOR is not diligently proceeding with the Work or has evidence reasonably indicating that CONTRACTOR will not be able to conform to the current approved Progress Schedule, CONTRACTOR will, promptly and at no additional cost to the OWNER, take all

measures necessary to accelerate its progress to overcome the delay and ensure that there will be no further delay in the progress of the Work and notify the OWNER thereof. Any extension of working hours requires approval of the OWNER, which will not be unreasonably withheld but may be subject to reasonable conditions including payment for additional or overtime services of the OWNER the Architect/Engineer and any other applicable consultants, testing or regulatory agency costs.

ARTICLE 12 – CHANGES

12.1 Materially Different Site Conditions. For purposes herein, "materially different site conditions" means conditions that are different from those indicated in the Contract Documents, that are unknown to CONTRACTOR, and that could not be reasonably anticipated based upon on the following: (i) typical soil or subsurface conditions for the area in which the Project Site is located; (ii) site visits CONTRACTOR made, or was encouraged or permitted to make by the Bid Documents, prior to Bid submission; or (iii) a careful review of any Site-Related Reports.

12.1.1 CONTRACTOR may be entitled to an increase in Contract Time for materially differing site conditions as an excusable delay as provided in Article 11, subject to the exclusions and conditions of that article including notice requirements.

12.1.2 CONTRACTOR may also be entitled to an increase in Contract Price for materially different site conditions, where these conditions will require additional labor or materials, or both, exceeding the amount estimated in the Schedule of Values or Bid Schedule, as applicable, by 5% or more, provided, that CONTRACTOR complies with the notice requirements in Section 12.3. In such instance, the basis for adjusting Contract Price is set forth in Section 13.3.

12.2 Materially Different Structural Conditions (Remodeling or Renovation Contracts). If this is a Contract for a remodeling or renovation of an existing structure and CONTRACTOR encounters materially different conditions in the structure (not as to the Site or subsurface conditions) from those indicated in the Contract Documents provided by the OWNER as part of the Bid or Proposal Documents, CONTRACTOR will give written notice thereof to the OWNER and the E/A promptly before conditions are disturbed and in no event later than ten days after first observing such conditions. Failure of CONTRACTOR either (i) to provide notice before disturbing the existing conditions or (ii) failure to give notice within ten days of first observing such conditions is conclusively deemed a waiver of any claim relating to such conditions.

12.2.1 Investigation and Determination. The E/A will promptly investigate any alleged differing conditions as to the structure (but not as to the Site or subsurface conditions) and provide a written report of its findings to the OWNER. If the OWNER finds that the conditions of the structure differ materially and require a change in the Work and cause an increase or decrease in CONTRACTOR's cost of, or time required for, performance of any part of the Work, the OWNER may make an adjustment in the amount payable to CONTRACTOR or the Contract Time, as applicable. If the OWNER determines that the conditions of the structure are not materially different or that no change in the terms of the Contract is justified, the OWNER will so notify CONTRACTOR in writing.

12.3 Constructive Changes and Disputed Adjustments.

12.3.1 Notice to the OWNER and E/A. CONTRACTOR will advise the OWNER and the E/A in writing promptly and in no event later than ten days after (i) issuance of any interpretation, clarification, instruction, direction or order whether orally or in writing from either the OWNER or the E/A, or (ii) the occurrence of any event or discovery of any condition (including any condition as provided in Section 12.1 and if applicable, 12.2), which CONTRACTOR believes or has reason to believe entitles CONTRACTOR to an increase in the amount payable to CONTRACTOR or an extension of the Contract Time; and except in the case of an emergency involving possible loss of life or bodily injury or significant property damage, the required written notice will be provided prior to proceeding with the Work. Failure of CONTRACTOR to provide such notice constitutes an acceptance of the interpretation, clarification, instruction, direction, order, event, or condition without adjustment to the Contract Price or the Contract Time and a conclusive waiver of any claim relating to the same. In order to be valid, a claim for an adjustment of Contract Price or Contract Time must contain the specific adjustment requested and must be supported by a detailed explanation of the basis for the claim. In addition to be valid, a claim for increase in

Contract Time must be supported by the documentation specified in Subsection 11.4, and a claim for an increase in the Contract Price must be documented and calculated as specified in Subsection 13.3.2. Failure of CONTRACTOR to object as and when specified in this Subsection is deemed an acceptance of interpretation, clarification, instruction, direction or order as issued and a waiver of any claim by CONTRACTOR to any adjustment to the Contract Price or the Contract Time.

12.3.2 Disputed Adjustments. All disputed adjustments under this Contract will be determined in accordance with the Contract, Article IX if, as conditions precedent thereto, CONTRACTOR has timely provided all notices and objections required under the terms of the Contract.

ARTICLE 13 - CHANGE INSTRUMENTS

13.1 Introduction.

13.1.1 The OWNER may issue a Change Instrument to require changes in the Work without invalidating the Contract.

13.1.1.1 A Field Directive may be issued to require minor changes in the Work that, in the OWNER's view, do not change the Scope of Work, present a delay, or require an adjustment to Contract Time or Contract Price. Examples of such situations where Field Directives may be appropriate are unanticipated field conditions or unavailability of specified materials and equipment.

13.1.1.2 All other changes to the Work will require the issuance of a Change Order issued in conformance with these General Conditions.

13.2 Change Order Required for Contract Time and Contract Price Adjustments. Adjustments to Contract Time or Contract Price will be granted only through a properly-issued Change Order.

13.3 Change Orders Adjusting Contract Price. All Change Orders adjusting Contract Price will be invalid unless approved in accordance with the authority provided by the Purchasing Code.

13.3.1 Basis for Contract Price Adjustment. Subject to any federal procurement standards that may apply if the Project is a federally funded project, in which case the standards will govern to the extent of conflict, a Change Order may provide for an adjustment in the Contract Price based only on one of the following methods:

.1 Unit Prices as stated in the Bid Schedule.

.2 A fixed not-to-exceed or lump sum agreed to by the OWNER and CONTRACTOR and stated in the Change Order, properly itemized and supported by sufficient substantiating data to permit evaluation which will be limited to estimated costs of labor, materials, supplies and equipment, rental cost of machinery and equipment, additional bond cost, plus a fixed fee for profit and overhead (which includes office overhead and site-specific overhead and general conditions) of 10% if the Work is performed by CONTRACTOR, or 5% if the Work is performed by a subcontractor or sub-subcontractor. The subcontractors' or sub-subcontractors' overhead and profit in turn will not exceed 10%. The total percentage of overhead and profit payable by the OWNER (to both CONTRACTOR and all sub tier subcontractors), regardless of the sub-tier which performs the work, will not exceed 15%.

.3 Actual costs, properly itemized, plus a profit factor, using the Force Account method set forth in Section 13.3.2.

.4 In the absence of an agreement between the OWNER and CONTRACTOR, the OWNER will determine the amount of the Contract Price Adjustment using any of the methods outlined in Subsections 13.3.1.1 – 13.3.1.3, above, whichever will result in the lowest cost to the OWNER.

.5 No cost will be included in a Change Order for time spent preparing the Change Order, nor will costs be included for an estimate of time to negotiate the Change Order costs for machinery, tools, or equipment.

13.3.2 Force Account Method for Contract Price Increases. Before using the Force Account method provided for herein, the OWNER and CONTRACTOR agree to negotiate a Change Order using the other methods identified in Subsection 13.3.1, above, as appropriate, to determine the adjustment in the Contract Price. If neither of these methods can be agreed upon before a change in the Work is commenced which will result in an adjustment in the Contract Price, then the change in the Work will be performed by a Change Order using the Force Account method, and payment will be made as follows:

13.3.2.1 For all personnel, CONTRACTOR will receive actual field cost wage rates for each hour that said personnel are actually engaged in such Work, as substantiated by its certified payroll, to which will be added an amount equal to 15% of the sum thereof as compensation for CONTRACTOR's and any effected subcontractor's total overhead and profit. No separate charge will be made by CONTRACTOR or its subcontractor(s) for organization or overhead expenses. CONTRACTOR will also receive an amount equal to 55% of the wages paid personnel, excluding the 15% compensation provided above, for CONTRACTOR's and any effected subcontractor's cost of premiums on liability insurance, workers' compensation insurance, social security and unemployment insurance. The actual cost of CONTRACTOR's bond(s) on the extra Work will be paid based on invoices from surety. No charge for superintendence will be made unless considered necessary and ordered by the OWNER.

13.3.2.2 CONTRACTOR will receive the actual cost, including freight charges, of the materials used and installed on such Work, to which costs will be added a sum equal to 20% thereof as compensation for CONTRACTOR's and any effected subcontractor's total overhead and profit. In case material invoices indicate a discount may be taken, the actual cost will be the invoice price minus the discount.

13.3.2.3 For machinery, trucks, power tools, or other similar equipment (the "equipment") agreed to be necessary by the OWNER and CONTRACTOR, the OWNER will allow CONTRACTOR the applicable daily, weekly or monthly rate as given in the latest edition of the "Rental Rate Blue Book" as published by EquipmentWatch (1-800-669-3282) for each hour that said equipment is in use on such work, which rate includes the cost of fuel, lubricants and repairs. The established equipment rates will be paid for each hour that the equipment is utilized in the Work. If the equipment is used intermittently during the Work, full payment for an eight-hour day will be made if the equipment is not idle more than four hours of the day. If the equipment is idle more than four hours in a day, then payment will be made only for the actual hours worked. No additional compensation will be allowed on the equipment for CONTRACTOR's or any affected subcontractor's overhead and profit. The OWNER may accept an actual rental invoice in lieu of the method of calculation set forth in this Paragraph for equipment rented exclusively for Force Account Work or for equipment not included in the Rental Rate Blue Book.

13.3.2.4 The compensation provided for herein, will be received by as payment in full for work done pursuant to the Change Order and will include use of small tools, and total overhead expense and profit. CONTRACTOR and the OWNER will compare records of work done by Change Order at the end of each day. Copies of these records will be made upon forms provided for this purpose by the OWNER and signed by both the OWNER and CONTRACTOR, with one copy being retained by the OWNER and one by CONTRACTOR. Refusal by CONTRACTOR to sign these records within two working days of presentation does not invalidate the accuracy of the record.

13.3.3 Additional Performance Security in Conjunction with Change Order. The CITY may require CONTRACTOR to increase or supplement previously-provided Performance Security to cover any additional costs of performing services required under a Change Order that increases Contract Price, commensurate with such additional cost. In such instance, any compensation due CONTRACTOR for CONTRACTOR's cost of providing such increase or supplement will be reflected in the Change Order or otherwise borne by CONTRACTOR.

13.4 Payment for Work Covered by Change Order. Additional monies due CONTRACTOR pursuant to a valid Change Order providing for an adjustment to the Contract Price, will be paid for in accordance with the

Progress Payment schedule established by the Contract, in which case payment will be subject to retainage requirements set forth in the Contract; or at the time of Final Payment.

13.5 Absence of Proposed Adjustments. If a Change Instrument is silent as to any adjustment to the Contract Price or the Contract Time, it will be conclusively presumed that none is intended and none will be allowed unless CONTRACTOR files an objection as and when specified in the following Subsection.

13.6 Action upon Receipt of Change Instrument. Upon receipt of a Change Instrument, CONTRACTOR will promptly proceed with the change in the Work involved.

13.6.1 CONTRACTOR will advise the OWNER in writing, promptly and in any event no later than ten days after issuance of the Unilateral Change Instrument, of CONTRACTOR's objection (i) to the amount or method, if any, provided for in the Change Instrument for adjustment to Contract Price or Contract Time, or (ii) to the absence of any adjustment to the Contract Price or Contract Time. In order to be valid, a claim for an adjustment of Contract Price or Contract Time, must contain the specific adjustment requested, must be supported by a detailed explanation of the basis for the claim. In addition, to be valid a claim for increase in Contract Time must be supported by the documentation specified in Subsection 11.4, and a claim for an increase in the Contract Price must be documented and calculated as specified in Subsection 13.3.1. Failure of CONTRACTOR to object as and when specified in this Subsection is deemed an acceptance of the Unilateral Change Order as issued and a waiver of any claim by CONTRACTOR to any adjustment to the Contract Price or the Contract Time.

13.7 Waiver of Claim. Except for emergencies involving possible loss of life or bodily injury or significant property damage, CONTRACTOR's commencement of the Work that is subject to a Change Instrument will constitute a complete waiver by CONTRACTOR as to such claim regardless of whether CONTRACTOR has within the ten-day period notified the OWNER of a claim consistent with the requirements of Subsection 13.6.1.

13.8 OWNER's Right to Use Third Parties for Additional Work. If the OWNER and CONTRACTOR are unable to negotiate the terms of a Change Order for the performance of additional Work, the OWNER may, at its election, perform such additional Work with its own forces or with another CONTRACTOR and such work will be considered "Other Work."

13.9 OWNER's Right to Accelerate Schedule. The OWNER reserves the right to issue a Change Instrument to accelerate the Work which may be subject to an appropriate adjustment, if any, in the Contract Price. If the OWNER requires an acceleration of the Project Schedule and no adjustment is made in the Contract Price, or if CONTRACTOR disagrees with any adjustment made, any claim an adjustment must comply with the requirements of Subsection 13.6.1 or be deemed to be conclusively waived.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTIONS, REMOVAL AND ACCEPTANCE OF DEFECTIVE WORK

14.1 Access to Work. The OWNER, including the Contract Administrator and other employees and agents, including E/A and E/A's consultants, independent testing laboratories, and governmental agencies having jurisdiction, will each have access to the Work at reasonable times for observing, inspecting and testing. CONTRACTOR will provide them proper and safe conditions for such access, and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

14.2 Tests and Inspections.

14.2.1 CONTRACTOR will give timely notice of readiness of the Work for all required inspections, tests or approvals, and will cooperate with inspection and testing personnel to facilitate required inspections or tests. All testing will be performed by the CONTRACTOR. Only verification testing will be performed by the CITY. CONTRACTOR is not required to enter test results into MAC.

14.2.2 The OWNER will employ and pay for services of an independent testing laboratory to perform all inspections, tests or approvals required by the Contract Documents except:

.1 For inspections, tests or approvals covered by Paragraph 14.2.3 below;

.2 That costs incurred with tests or inspections conducted pursuant to Paragraph 14.3.3 below will be paid as provided in Paragraph 14.3.3;

.3 For re-inspecting or re-testing Defective Work; and

.4 As otherwise specifically provided in the Contract Documents. All testing laboratories will meet the requirements of ASTM E-329.

14.2.3 If Legal Requirements specifically require any Work (or part thereof) to be inspected, tested, or approved by an employee or other representative of a governmental or related authority, CONTRACTOR will assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith and furnish the OWNER the required certificates of inspection or approval.

14.2.4 CONTRACTOR will also be responsible for arranging and obtaining and will pay all costs in connection with any inspections, tests or approvals required for the OWNER's and E/A's review of materials or equipment to be incorporated in the Work, or of materials, mix designs or equipment submitted for review prior to CONTRACTOR's purchase thereof for incorporation in the Work.

14.3 Uncovering Work.

14.3.1 If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of the Contract Administrator, or if any Work is covered contrary to the written request of the Contract Administrator, it will, if requested by the Contract Administrator, be uncovered and recovered at CONTRACTOR's expense.

14.3.2 Uncovering Work as provided in Paragraph 14.3.1 above, will be at CONTRACTOR's expense unless CONTRACTOR has given the OWNER timely notice of CONTRACTOR's intention to cover the same and the OWNER has not acted within five working days to such notice.

14.3.3 If the OWNER considers it necessary or advisable that covered Work be observed, inspected or tested, CONTRACTOR will uncover, expose or otherwise make available for observation, inspection or testing that portion of the Work in question, furnishing all necessary labor, material and equipment. If the OWNER determines that such Work is defective, CONTRACTOR will pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and the OWNER will be entitled to an appropriate decrease in the Contract Price, and may make a Claim therefore as provided in these General Conditions. However, if such Work is not found to be defective, CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and CONTRACTOR may make a Claim therefore as provided in these General Conditions.

14.4 The OWNER May Stop the Work.

14.4.1 If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to this Contract, the OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the OWNER to stop the Work will not give rise to any duty on the part of the OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

14.4.2 If CONTRACTOR fails to correct Defective Work or submit a satisfactory plan to take corrective action, with procedure and time schedule, the OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until cause for such order has been eliminated, or take any other action permitted by this Contract. A notice to stop the Work, based on defects, will not stop calendar or Working Days charged to the Project.

14.5 Correction or Removal of Defective Work. If required by the OWNER, CONTRACTOR will promptly, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or, if the Work has

been rejected by the OWNER, remove it from Project Site and replace it with Work that is not defective. CONTRACTOR will correct or remove and replace Defective Work, or submit a plan of action detailing how the deficiency will be corrected, within the time frame identified in the notice of Defective Work. CONTRACTOR will pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

14.6 Correction Required. If within the Warranty Period, or such longer period of time as may be prescribed by Legal Requirements or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work, including Work performed after the Substantial Completion date, is found to be defective, CONTRACTOR will promptly, without cost to the OWNER and in accordance with the OWNER's written instructions:

14.6.1 Correct such Defective Work, or, if it has been rejected by the OWNER, remove it from Project Site and replace it with Work that is not defective, and

14.6.2 Satisfactorily correct or remove and replace any damage to other Work or the work of others resulting from the Defective Work.

If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, the OWNER may have the Defective Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR. The warranty period will be deemed to be renewed and recommenced in connection with the completed items of Work requiring correction.

14.7 Coordination with OWNER. If correction of Defective Work will affect the function or use of the facility, CONTRACTOR will not proceed with correction of Defective Work without prior coordination and approval of the OWNER.

14.8 Acceptance of Defective Work. If, instead of requiring correction or removal and replacement of Defective Work, the OWNER decides to accept it, the OWNER may do so. CONTRACTOR will pay all claims, costs, losses and damages attributable to the OWNER's evaluation of and determination to accept such Defective Work. For purposes of this Section, the OWNER’s acceptance of sample materials or equipment will not be deemed to be acceptance of Defective Work. If any such acceptance occurs prior to recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents and compensating the OWNER for the diminished value of the Defective Work. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to the OWNER after a calculation by the OWNER of the diminution in value of the Defective Work.

14.9 The OWNER May Correct Defective Work. If CONTRACTOR fails within a reasonable time after written notice of the OWNER to correct Defective Work, or to remove and replace rejected Work, or if CONTRACTOR fails to perform the Work in accordance with this Contract, or if CONTRACTOR fails to comply with any other provision of this Contract, the OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. If, in the opinion of the Contract Administrator, significant progress has not been made during this seven-day period to correct the deficiency, the OWNER may exercise any actions necessary to remedy the deficiency. In exercising the rights and remedies under this paragraph, the OWNER will proceed expeditiously. In connection with such corrective and remedial action, the OWNER may exclude CONTRACTOR from all or part of Project Site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, and incorporate in the Work all materials and equipment stored at Project Site or for which the OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR will allow the OWNER, its agents and employees, the OWNER's other contractors, E/A and E/A's consultants access to Project Site to enable the OWNER to exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by the OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions to this Contract with respect to the Work. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's Defective Work. CONTRACTOR will not be allowed an

extension of the Contract Times (or Milestones), or claims of damage because of any delay in the performance of the Work attributable to the exercise by the OWNER of the OWNER's rights and remedies hereunder.

14.10 Testing and Inspections Outside of Working Hours. This Contract contemplates that all testing and inspections will be done during Working Hours as defined herein. Whenever the OWNER is required to test or inspect outside of Working Hours, on weekends, or during Holidays observed by the OWNER, the OWNER will be entitled to a reduction in the Contract Price to the extent of any overtime costs incurred by the OWNER, unless such testing or inspection is required to be performed at that time due to:

14.10.1 Emergency conditions that are not the fault of CONTRACTOR, and subcontractors, sub-subcontractors, suppliers, or other persons for whom CONTRACTOR is responsible;

14.10.2 A Force Majeure event, the OWNER's disruption, or other events which, pursuant to this Contract, would otherwise require an extension of the Contract Time.

14.11 CONTRACTOR Remains Responsible for the Work. The following will not be deemed to be a release of CONTRACTOR's obligation to perform the Work in accordance with this Contract:

14.11.1 Observations by the E/A;

14.11.2 The issuance of a Certificate of Substantial Completion or any payment by the OWNER to CONTRACTOR under this Contract;

14.11.3 Partial use or occupancy of the Work or any part thereof by the OWNER;

14.11.4 Any acceptance by the OWNER or any failure to do so;

14.11.5 Any review of a Shop Drawing or sample submittal;

14.11.6 Any inspection, test or approval by others; or

14.11.7 Any correction of Defective Work by the OWNER.

ARTICLE 15 – PROGRESS PAYMENTS, PARTIAL UTILIZATION AND FINAL COMPLETION

15.1 General Method of Payment. Payment of the Contract Price will be made in a series of Progress Payments and after Final Completion, a Final Payment, in accordance with this Article.

15.1.1 If CONTRACTOR has provided Payment and Performance Bonds, no payment will be made unless and until CONTRACTOR records the bonds and provides the OWNER certified copies of the recorded bonds in accordance with Florida Statutes Section 255.05(b).

15.2 Application for Payment. CONTRACTOR may submit to the OWNER, no more than once a month and no sooner than 30 days following commencement of the Work, an application for payment for those portions of the Work completed as of the date of the application. The OWNER may, by notice, designate a specific day of each month for submission of the application for payment. Each application for payment will be in a form acceptable to the OWNER, and will include the following documentation and information:

15.2.1 The current approved Progress Schedule;

15.2.2 If applicable, the Schedule of Values;

15.2.3 Unless CONTRACTOR has provided payment and performance bonds and recorded them in the public records as provided in Florida Statues Section 255.05, releases of liens from subcontractors or suppliers;

15.2.4 CONTRACTOR's written certification (i) as to the value of the Work completed, (ii) that partial or final waivers of lien have been received covering all such Work, (iii) and that all prior Progress Payments have been properly applied to the payment or reimbursement of the costs with respect to which they were paid;

15.2.5 If payment is requested on the basis of materials or equipment not incorporated in the Work but delivered and suitably stored at Project Site or at another location agreed to in writing, the application for payment by such bills of sale, data, and other procedures satisfactory to the OWNER substantiating the OWNER's title to such materials or equipment or otherwise protecting the OWNER's interest;

15.2.6 A completed Minority and Women-Owned Business Enterprise (MBE/WBE) Usage Report, using forms provided by the OWNER. CONTRACTOR will complete all blank spaces shown on these Report forms. If no amounts have been paid to MBE/WBE subcontractors, the completed form will so indicate; and

15.2.7 The consent of the surety, if any, to the requested payment.

Each application for payment will be deemed to be a warranty and guarantee by CONTRACTOR that title to all Work, materials and equipment covered by the application, whether incorporated in the Project or not, will pass to the OWNER free and clear of all liens no later than the time of payment to CONTRACTOR.

15.3 Review of Application for Payment. As soon as practicable after receipt of an application for Payment, and within the 20-day period following receipt of the application as provided by the Prompt Payment Act, the OWNER will approve, partially approve, or reject the application. The OWNER will provide written notice if payment is rejected or partially rejected, specifying the deficiency in the application for payment and the action necessary to make the request proper. In addition to rejecting payment of all or a portion of the application for failure to comply with submittal requirements referenced above, the OWNER will have the right to reject all or a portion of the application for any of the following reasons:

15.3.1 Defective Work not remedied;

15.3.2 Third party Claims filed or reasonable evidence indicating probable filing of such Claims;

15.3.3 Unless CONTRACTOR has provided payment and performance bonds and complied procedurally with Florida Statutes Section 255.05, failure of CONTRACTOR to make payments properly to subcontractor or for labor, materials or equipment;

15.3.4 Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Price;

15.3.5 Damage to the OWNER or another CONTRACTOR;

15.3.6 Reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;

15.3.7 Failure of CONTRACTOR to submit a Schedule of Values in accordance with the Contract Documents, if one is required;

15.3.8 Failure of CONTRACTOR to submit a submittal schedule in accordance with the Contract Documents;

15.3.9 Failure of CONTRACTOR to submit and update a Progress Schedule in accordance with the Contract Documents;

15.3.10 Failure of CONTRACTOR to maintain a record of changes on drawings and documents;

15.3.11 Failure of CONTRACTOR to maintain weekly payroll reports and, as applicable, provide copies of reports in a timely manner upon request of the OWNER;

15.3.12 CONTRACTOR's neglect or unsatisfactory prosecution of the Work, including failure to clean up; or

15.3.13 CONTRACTOR's failure to comply with the submittal requirements of Section 15.2, above, or with any other provision of this Contract.

If any portion of the application is rejected the OWNER will provide CONTRACTOR a written notice as to the reasons for rejection, within the time frame provided in the Prompt Payment Act. CONTRACTOR will then make the necessary corrections and re-submit the application or portion of application rejected.

15.4 Progress Payments. The OWNER will make payment on an approved or partially approved application, less amounts set aside for retainage within the deadlines provided by the Prompt Payment Act. If CONTRACTOR and the OWNER disagree on the basis or amount of the payment, or if CONTRACTOR is unwilling to make the necessary corrections or modifications and re-submit the Request as to those items rejected by the OWNER, then the OWNER may approve and process the Request by making such adjustments thereto as the OWNER deems appropriate so that CONTRACTOR receives without delay, payment of the amount determined by the OWNER to have been earned and owing to CONTRACTOR.

15.5 Amounts Withheld from Progress Payments. The OWNER will withhold an amount from each such approved progress payment, as follows:

15.5.1 If the Contract Price is $200,000 or more, the amount of retainage will be determined by the Prompt Payment Act, which as of the Effective Date provides for a 10% retainage until 50-Percent Completion, and a 5% retainage thereafter.

15.5.2 In all other instances, the amount of retainage will be ten percent for each progress payment.

Subject to any limitations that may be imposed by the Prompt Payment Act if applicable, the OWNER will hold all retainage until Final Payment. However, if the Work is near Substantial or Final Completion and delay occurs due to no fault or neglect of CONTRACTOR, the OWNER may pay a portion of the retained amount to CONTRACTOR. CONTRACTOR, at the OWNER's option, may be relieved of the obligation to complete the Work and thereupon, CONTRACTOR will receive payment of the balance due for the work completed and accepted, subject to the conditions applicable to OWNER's termination of work without cause.

15.6 Delayed Payments. Should the OWNER fail to make payment to CONTRACTOR of the amount approved for any application for payment within the time frames provided in the Prompt Payment Act, the OWNER will pay to CONTRACTOR, in addition to amount approved, interest thereon at the rate specified in the Act, from date due until fully paid, which will fully liquidate any injury to CONTRACTOR growing out of such delay in payment.

15.7 Substantial Completion.

15.7.1 When CONTRACTOR considers that the Work, or a portion thereof which the OWNER agrees to accept separately, is substantially complete, CONTRACTOR will notify the OWNER and request a determination as to whether the Work or designated portion thereof is substantially complete. If the OWNER does not consider the Work substantially complete, the OWNER will notify CONTRACTOR giving reasons therefore. After performing any required Work, CONTRACTOR will then submit another request for the OWNER to determine Substantial Completion. If the OWNER considers the Work substantially complete, the OWNER will prepare and deliver a certificate of Substantial Completion which will establish the date of Substantial Completion, will include a punch list of items to be completed or corrected before Final Payment, will establish the time within which CONTRACTOR will finish the punch list, and will establish responsibilities of the OWNER and CONTRACTOR for security, maintenance, heat, utilities, damage to the Work, warranty and insurance. Failure to include an item on the punch list does not alter the responsibility of CONTRACTOR to complete all Work in accordance with this Contract. The Work will not be deemed to be substantially or finally complete until any certificates of occupancy required to occupy the Project are issued. The OWNER and CONTRACTOR will both sign the certificate of Substantial Completion, to evince acceptance of the responsibilities assigned to them in such certificate.

15.8 Partial Utilization. The OWNER will have the option to use any portion of the Work prior to Substantial Completion of the Project where:

15.8.1 The Contract Documents specifically provide for such portion to be partially utilized prior to Substantial Completion; or

15.8.2 Upon the OWNER's request, if CONTRACTOR agrees and, upon joint inspection, the parties agree that the portion of the Work in question is Substantially Complete. In such instance, the OWNER will issue a certificate of Substantial Completion, attaching thereto a punch list of items to be completed or corrected before Final Payment and fixing the responsibility between the OWNER and CONTRACTOR for maintenance, heat and utilities as to that part of the Work.

The OWNER will have the right to exclude CONTRACTOR from any part of the Work which is so certified to be Substantially Complete but the OWNER will allow CONTRACTOR reasonable access to complete or correct items on the punch list.

15.9 Final Inspection and Final Completion. CONTRACTOR will provide the OWNER the Notice of Completion sufficiently in advance of the Completion Date to allow for scheduling of the final inspection and for completion or correction of all Punch List Work before the Completion Date. Upon receipt of CONTRACTOR's Notice of Completion, the OWNER will make a review of the Work and notify CONTRACTOR in writing of all Punch List Work, if any, to be completed or corrected. Following CONTRACTOR's completion or correction of all Punch List Work, the OWNER again review the Work and prepare and deliver to CONTRACTOR either a written notice of additional Punch List Work to be completed or corrected or a written Certificate of Final Completion, signifying final acceptance of the Work.

15.9.1 If the sole remaining unfinished item to complete the Work is the reestablishment of vegetation, at the OWNER's option the OWNER may issue a Certificate of Final Completion on the condition that CONTRACTOR executes a re-vegetation letter, with letter of credit or other guarantee in form and amount satisfactory to the OWNER, to ensure completion of this item. This Work will be accomplished within 120 days of the date of Final Completion of the Work. When permanent erosion control has been established, the OWNER will initiate an inspection for final acceptance of the erosion controls. If the re-vegetation is not completed within the 120 days, the OWNER, at its option, may complete the Work using the posted guarantee.

15.9.2 In all other instances, the OWNER will only be obligated to issue a Certificate of Final Completion accepting the Work as finally complete, when the whole and all parts thereof will have been completed to the satisfaction of the OWNER in full compliance with this Contract.

15.10 Final Application for Payment. As soon as practical after the OWNER's issuance of the Certificate of Final Completion, CONTRACTOR will submit to the OWNER a properly completed application for Final Payment in the form approved or provided by the OWNER. The application will include or attach the following:

15.10.1 Three complete manuals containing all maintenance and operating instructions, warranties, and other associated documents for equipment or other materials that have been installed or otherwise included in the Work;

15.10.2 Record documents (as provided in Paragraph 6.11.2 of these General Conditions);

15.10.3 Unless CONTRACTOR has provided payment and performance bonds and procedurally complied with Florida Statutes, Section 255.05:

15.10.3.1 Legally effective final releases or waivers of liens from CONTRACTOR, and from all subcontractors and sub-subcontractors which performed services for CONTRACTOR and all suppliers of material or equipment to CONTRACTOR;

15.10.3.2 An affidavit that all of CONTRACTOR's debts, and claims, including from all subcontractors, subcontractors, and suppliers in connection with the Work, have been paid or otherwise satisfied;

15.10.4 Complete and legally effective releases or waivers satisfactory to the OWNER of all claims other than claims of subcontractors, Sub-subcontractors, and suppliers, filed in association with the Work;

15.10.5 The consent of the surety, if any, to final payment;

15.10.6 Non-Use of Asbestos Affidavit (After Construction);

15.10.7 Certificate evidencing that required insurance will remain in force after final payment and through the warranty period; and

15.10.8 Any other documentation required pursuant to this Contract.

15.11 If Final Application is Rejected. If the OWNER rejects the request for Final Payment, the OWNER will provide CONTRACTOR written notice stating the reasons therefore within the time required by the Prompt Payment Act.

15.12 Final Payment; Waiver of Claims. Final Payment will be deemed to have taken place when CONTRACTOR or any of its representatives negotiates the OWNER's final payment check, whether labeled final or not, for cash or deposits check in any financial institution for its monetary return. The making and acceptance of Final Payment will constitute:

15.12.1 A waiver of claims by the OWNER against CONTRACTOR, except claims arising from unsettled claims, from Defective Work appearing after final inspection, from failure to comply with this Contract or the terms of any warranty specified therein, or from CONTRACTOR's continuing obligations under this Contract; and

15.12.2 A waiver of all claims by CONTRACTOR against the OWNER other than those which were made in writing through the date that the check for final payment was issued and which are unsettled.

15.13 Partial Final Payment in Extenuating Circumstances. If the OWNER determines that after CONTRACTOR has achieved Substantial Completion, Final Completion is materially delayed through no fault of CONTRACTOR, the OWNER may without terminating this Contract, make payment of balance due for that portion of the Work fully completed and accepted. Such payment will be made under the terms and conditions governing Final Payment, except that it will not constitute a waiver of claims by the OWNER, and will not cause a transfer of title or relieve CONTRACTOR for responsibility for the Substantially Completed Work.

ARTICLE 16 - SUSPENSION OF WORK AND TERMINATION

16.1 The OWNER May Suspend Work Without Cause. At any time and without cause, the OWNER may suspend the Work or any portion thereof for a period of not more than 90 days by written notice to CONTRACTOR which will fix the date on which the Work will be resumed. CONTRACTOR will resume the Work on the date so fixed. CONTRACTOR will be allowed an adjustment in the Contract Price or an extension of the Contract Time, or both, directly attributable to any such suspension if CONTRACTOR makes an approved Claim for such an adjustment as provided herein.

16.2 The OWNER May Terminate Without Cause. Upon seven days' notice to CONTRACTOR, the OWNER may, without cause and without prejudice to any right or remedy of the OWNER, elect to terminate the Contract. In such case, CONTRACTOR will be paid for completed and acceptable Work executed in accordance with this Contract prior to the date of termination, and if the Contract Price is **NOT** based on unit prices, the following:

16.2.1.1 Reasonable demobilization costs;

16.2.1.2 Reasonable anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity; and

16.2.1.3 All claims incurred in settlement of terminated contracts with subcontractor and others, including for anticipated profits on completed and accepted Work not previously paid and not included in separate pay items calculated to date of termination but not for anticipated profit on the entire Contract not previously paid, unabsorbed overhead, or lost opportunity. CONTRACTOR agrees to negotiate in good faith with subcontractors and others to mitigate the OWNER's cost.

16.3 The OWNER May Terminate With Cause.

16.3.1 Upon the occurrence of any one or more of the following events:

.1 If CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents

.2 If CONTRACTOR disregards or fails to comply with Legal Requirements;

.3 If CONTRACTOR disregards the authority of the Contract Administrator or the City Manager;

.4 If CONTRACTOR makes fraudulent statements;

.5 If CONTRACTOR fails to maintain a work force adequate to accomplish the Work within the Contract Time;

.6 If CONTRACTOR fails to make adequate progress and endangers successful completion of the Contract; or

.7 If CONTRACTOR otherwise materially breaches the Contract;

The OWNER may, after giving CONTRACTOR (and the surety, if any) seven days' notice terminate the Contract. The OWNER, at its option, may proceed with negotiation with surety for completion of the Work. Alternatively, the OWNER may under these circumstances exclude CONTRACTOR from the Project Site and take possession of the Work (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at Project Site or for which the OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as the OWNER may deem expedient. In such case CONTRACTOR will not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by the OWNER arising out of or resulting from completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses and damage exceed such unpaid balance, CONTRACTOR or surety will pay the difference to the OWNER. If a termination for cause is found to be wrongful, the termination will be converted to a termination without cause, and CONTRACTOR's remedy for wrongful termination is limited to the recovery of the payments permitted for termination without cause.

16.3.2 Where CONTRACTOR's services have been so terminated by the OWNER, the termination will not affect any rights or remedies of the OWNER against CONTRACTOR and surety then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by the OWNER will not release CONTRACTOR from liability.

16.4 CONTRACTOR May Stop Work or Terminate. If through no act or fault of CONTRACTOR, the Work is suspended for a period of more than 90 days by the OWNER or under an order of court or other public authority, or (except during disputes) the Contract Administrator fails to forward for processing any mutually acceptable Application for Payment within 30 days after it is submitted, or (except during disputes) the OWNER fails for 60 days after it is submitted to pay CONTRACTOR any sum finally determined by the OWNER to be due, then CONTRACTOR may, upon seven days' written notice to the OWNER, and provided the OWNER does not remedy such suspension or failure within that time, terminate the Agreement and recover from the OWNER payment on the same terms as if OWNER terminated without cause pursuant to this Contract. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if (except during disputes) the Contract Administrator has failed to forward for processing any mutually acceptable Application for Payment within 30 days after it is submitted, or (except during disputes) the OWNER has failed for 60 days after it is submitted to pay CONTRACTOR any sum finally determined by the OWNER to be due, CONTRACTOR may upon seven days' written notice to the OWNER stop the Work until payment of all such amounts due CONTRACTOR, including interest thereon. The provisions of

this Section are not intended to preclude CONTRACTOR from making a Claim for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this Section.

16.5 Discretionary Notice to Cure. In its complete discretion, the OWNER may, but is not required to, provide a Notice to Cure to CONTRACTOR and its surety to cure any of the conditions constituting a breach of Contract or an anticipatory breach of contract and, if required by the OWNER, to attend a meeting with the OWNER, regarding the Notice to Cure, the event of default or the anticipatory breach of contract. The Notice to Cure will set forth the time limit in which the cure is to be completed or commenced and diligently prosecuted. Upon receipt of any Notice to Cure, CONTRACTOR will prepare a report describing its program and measures to affect the cure of the event of default or anticipatory breach of contract within the time required by the Notice to Cure. The CONTRACTOR's report will be delivered to the OWNER at least three days prior to any requested meeting with the OWNER and surety.

16.6 Bankruptcy. If CONTRACTOR declares bankruptcy or is adjudged bankrupt or makes an assignment for the benefit of creditors or if a receiver is appointed for the benefit of creditors or if a receiver is appointed by reason of CONTRACTOR's insolvency, CONTRACTOR may be unable to perform this Contract in accordance with the Contract requirements. In such an event, the OWNER may demand CONTRACTOR or its successor in interest provide the OWNER with adequate assurance of CONTRACTOR's future performance in accordance with the terms and conditions of the Contract. If CONTRACTOR fails to provide adequate assurance of future performance to the OWNER's reasonable satisfaction within ten days of such a request, the OWNER may terminate the Contract for cause or without cause, as set forth above. If CONTRACTOR fails to provide timely adequate assurance of its performance and actual performance, the OWNER may prosecute the Work with its own forces or with other contractors on a time and material or other appropriate basis and the cost of which will be charged against the balance of the Contract Price otherwise due to CONTRACTOR.

16.7 Duty to Mitigate. If the OWNER terminates this Contract or suspends CONTRACTOR's work, CONTRACTOR agrees to and will take all reasonable actions to mitigate its damages and any and all claims which may be asserted against the OWNER.

16.8 Responsibility during Demobilization. While demobilizing, CONTRACTOR will take all necessary and reasonable actions to preserve and protect the Work, the Project Site and other property of the OWNER or others at the Project Site.

16.9 CONTRACTOR to Remove Equipment. In the case of termination of this Contract before completion for any cause whatsoever, CONTRACTOR, if notified to do so by the OWNER, will promptly remove any part or all of his equipment or supplies from the property of the OWNER; failing to, the OWNER will have the right to remove such equipment and supplies at the expense of CONTRACTOR.

16.10 CONTRACTOR to Clean Up Project Site. If either OWNER or CONTRACTOR terminates the Contract before Substantial or Final Completion, CONTRACTOR will leave the Project Site in a clean condition as if Final Completion had been achieved, unless OWNER directs otherwise; and if CONTRACTOR fails to comply clean up the Project Site as required, the OWNER may do so and the cost thereof will be charged against CONTRACTOR.

END OF GENERAL CONDITIONS SECTION

SUPPLEMENTAL GENERAL CONDITIONS

SGC1. ADDITIONAL NPDES REQUIREMENTS.

A. CONTRACTOR will at all times ensure certification and licensing from the Florida Department of Agriculture and Consumer Services (FDACS) of all of CONTRACTOR's personnel and subcontractors who apply pesticides or herbicides on City property or public right-of-way pursuant to the Contract. All such personnel and subcontractors who apply fertilizer will be trained and certified through the "Green Industry BMP Program" and FDACS; and will have a limited certification for urban landscape commercial fertilizer application under Section 482.1562, F.S

B. All commercial applicators of fertilizer will have and carry in their possession at all time when applying fertilizer, evidence of certifications by the Florida Department of Agricultural and Consumer Services ***and*** a Commercial Fertilizer Applicator License as per 5E-14.117(18) FAC.

C. All Contractors shall comply with the minimum requirements of the Urban Turf Fertilizer Rule RE-1.003(2) FAC.

D. Fertilizer used will meet Florida-friendly fertilizer requirements pursuant to Section 403.9337 F.S.

E. Fertilizer and Pesticide application must meet minimum requirements of the most recent edition of the Florida Friendly Best Management Practices for Protection of Water Resources by the Green Industries, 2008.

F. Fertilizer should not be applied within 10 feet of any inlet, curb and gutter, public street, pond, stream watercourse, lake, canal, or wetland as defined by the FDEP Chapter 62-340 FAC. Fertilizer may be applied within 3 ft. of a water body only if the applicator is equipped with a spreader deflector.

G. A 10-foot wide Low Maintenance Zone is required from any pond, stream, watercourse, canal, ditch, lakes wetland or from the top of a seawall. No mowed or cut vegetative material may be deposited in any water body. Care must be taken to prevent erosion of the surface soils in this Zone. Contractor shall set mechanical mowers to prevent the exposing of bare soil on pond slopes, ditches, wetlands, stream and lakes. This Zone shall be suitably vegetated at all times to ensure soil stability.

H. Fertilizers applied to turf shall be formulated and applied in accordance with requirements and direction provided by Rule 5E-1.003(2) FAC, Labeling for Urban Turf Fertilizers.

I. In no case shall grass clipping, vegetative material, and /or vegetative debris be washed, swept or blown off into stormwater drains, curbs and gutters, ditches, conveyance, water bodies, wetlands or sidewalks or roadway. Any material that is accidentally so deposited shall be immediately removed to the maximum extent practicable.

J. The monthly invoices shall include

(1) A summary of the type and amount of fertilizer used at each location.

(2) A summary of the type and amount of any chemicals and /or pesticides used at each pond, ditch, roadway or park location.

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Project Overview

The City of Daytona Beach (City) owns and maintains Halifax Harbor Marina (marina) located at the end of Basin Street on the Halifax River. The marina is located in Section 39; Township 15 South; and Range 33 East, in Volusia County Florida.

The Halifax Harbor Marina is the first marina on Florida's East Coast designated to fly the Florida Department of Environmental Protection's "Clean Marina" flag. The existing shoreline protection consists of stacked stone and concrete bags. Over the years, the marina's shoreline protection measures have been damaged and are failing due to repeated storm events, undermining of landward backfill, and persistent wave action within the marina. The project area consists of approximately 290 linear feet of the marina shoreline near the Fuel Dock and Pump Out Station. Proposed stabilization of the shoreline consists of removing the existing stacked stone and concrete bags completely and replacing them with 290 feet of vinyl seawall finished with a concrete cap. The project has been designed to enhance the aesthetics of the marina and provide a long-term solution for the shoreline, while avoiding adverse environmental impacts.

Appendix B – Civil Plans

CONSTRUCTION PLANS

for

HALIFAX MARINA

SEAWALL RESTORATION

CITY of DAYTONA BEACH, FLORIDA

CITY PROJECT NUMBER 2018-033

VICINITY MAP

SCALE: 1" = 2000'

HALIFAX HARBOR MARINA, 450 BASIN STREET, DAYTONA BEACH, FLORIDA

CITY OF DAYTONA BEACH
P.O. BOX 2451
DAYTONA BEACH, FL. 32115

JIM NELSON, JR. P.E.
CITY ENGINEER

PROJECT SHEET INDEX

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C2.0 EXISTING CONDITIONS AND DEMOLITION PLAN
C3.0 SITE PLAN
C4.0 CONSTRUCTION DETAILS

SEAWALL DESIGN BY INGENIUM, INC.
SHEETS 1-9

NOTE:
ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

CONSULTANT CONTACTS:

SURVEY
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
ALLEN L. QUICKEL, P.S.M. 407-896-0594

CIVIL ENGINEERING
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
DONALD C. BIEGER JR., P.E. 407-896-0594

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS

941 LAKE BALDWIN LANE, ORLANDO, FL 32814

January, 2019

DRMP PROJECT NO. 18-0571.000

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW!
DIAL 811
811
Know what's below.
Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

REVISIONS

NO.	DATE	DESCRIPTION	BY	QC
1	03/07/2019	TURBITIDY BARRIER NOTE SHEET ADDED TO PLANS		

DESIGNED BY LAV
DRAWN BY DPC
CHECKED BY DCL
APPROVED BY DCB

COVER SHEET AND INDEX OF DRAWINGS

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
941 Lake Baldwin Lane - Orlando, Florida 32814
Phone:407.896.0594 Fax:407.896.4836 WWW.DRMP.COM
DRMP, Inc.

Donald C. Bieger Jr., P.E.
State of Florida # 60857

PROJECT NO.: 18-0571.000
SCALE: AS SHOWN
DATE: JANUARY, 2019
DRAWING: C1.0

P:\Projects18\18-0571.000_Seawall_Replacement_at_Halifax_Harbor_Ma\General-Civil\Design\Plans\0100_Cover.dwg Plotted: Apr 17, 2019 – 1:14pm by lvalentine

GENERAL NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL WORK SHALL BE PERFORMED CONSISTENT WITH THE FOLLOWING SPECIFICATIONS:

- CITY OF DAYTONA BEACH
- FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
- ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

2. THIS DESIGN HAS BEEN BASED UPON GROUND-RUN TOPOGRAPHIC SURVEYS BY DRMP INC. GEOTECHNICAL EVALUATION HAS BEEN PERFORMED BY GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC., THE E.O.R. MAKES NO ASSURANCES REGARDING THE ACCURACY OF EITHER SUCH EVALUATION. STRUCTURE SHEETPILE DESIGNED BY INGENIUM, INC.

3. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE, INCLUDING ALL SURFACE AND SUBSURFACE CONDITIONS, THE WORK REQUIRED AND ALL OTHER CONDITIONS THAT MAY AFFECT THE SUCCESSFUL COMPLETION OF THE JOB PRIOR TO COMMENCEMENT OF WORK.

4. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND PERMIT CONDITIONS BEARING ON THE CONDUCT OF THE WORK, AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER, IN WRITING, AND ANY NECESSARY CHANGES SHALL BE ADJUSTED, AS PROVIDED IN THE AGREEMENT FOR CHANGES IN THE WORK.

5. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER AND THE ENGINEER FOR THE ACTS AND OMISSIONS OF CONTRACTOR'S EMPLOYEES AND ALL HIS SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH GOVERNMENTAL DEPARTMENTS, PUBLIC UTILITIES, PUBLIC CARRIERS, SERVICE COMPANIES, AND CORPORATIONS OWNING OR CONTROLLING ROADWAYS, RAILWAYS, WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, AND TELEGRAPH FACILITIES SUCH AS PAVEMENTS, TRACKS, PIPING, WIRES, CABLES, CONDUITS, POLES, GUYS, OR OTHER SIMILAR FACILITIES, INCLUDING INCIDENTAL STRUCTURES CONNECTED THEREWITH THAT ARE ENCOUNTERED IN THE WORK IN ORDER THAT SUCH ITEMS MAY BE PROPERLY SUPPORTED, PROTECTED OR LOCATED.

7. UNLESS OTHERWISE SPECIFIED IN THE GENERAL CONDITIONS, ALL CONSTRUCTION IS TO BE GOVERNED BY THE PLANS, APPLICABLE PERMITS, AND SPECIFICATIONS HEREIN, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING AND SAFETY CODES, LAWS AND ORDINANCES.

8. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC OR UTILITY RIGHT-OF-WAY, CONTRACTOR SHALL OBTAIN AUTHORIZATION AND PERMIT FROM JURISDICTION RESPONSIBLE FOR SUCH RIGHT-OF-WAY. CONTRACTOR SHALL CALL SUN STATE ONE TO LOCATE ALL UTILITIES. IN ADDITION, CONTRACTOR SHALL OBTAIN GAS I.D. NUMBER FROM LOCAL GAS COMPANY AND NOTIFY UNDERGROUND UTILITIES, NOTIFICATION CENTER AT 1-800-432-4770 AT LEAST 72 HOURS PRIOR TO START OF WORK.

9. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL DEVELOP AND IMPLEMENT A TRAFFIC CONTROL PLAN CONSISTENT WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, AND SUBMIT TO THE ENGINEER FOR APPROVAL.

10. IN THE EVENT THE CONTRACTOR DISCOVERS ANY ERRORS OR OMISSIONS IN THE PLANS HE SHALL IMMEDIATELY NOTIFY THE OWNER OR OWNER'S AGENT.

11. CONTRACTOR SHALL PRESERVE AND PROTECT ALL PERMANENT REFERENCE MONUMENTS, PERMANENT CONTROL POINTS, PERMANENT BENCH MARKS AND PROPERTY CORNERS. IN THE EVENT THE MONUMENTS, POINTS OR MARKERS ARE DISTURBED THE CONTRACTOR SHALL EMPLOY A FLORIDA REGISTERED LAND SURVEYOR TO RESET OR REPLACE THEM.

12. THE OWNER, OWNER'S AGENT AND INSPECTORS OF APPLICABLE GOVERNMENT JURISDICTIONS, SHALL AT ALL TIMES HAVE ACCESS TO THE WORK WHEREVER AND WHENEVER IT IS IN PREPARATION OR PROGRESS; AND THE CONTRACTOR SHALL PROVIDE PROPER FACILITIES FOR SUCH ACCESS AND FOR THE INSPECTION.

13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL REASONABLE AND PRUDENT PRECAUTIONS TO INSURE THAT ALL COMPLETED WORK, MATERIALS AND EQUIPMENT STORED ON SITE ARE SAFE AND SECURED FROM UNAUTHORIZED ACCESS OR USE. SUCH PRECAUTIONS MAY INCLUDE INSTALLATION OF SIGNS, FENCES, OR POSTING OF SECURITY GUARDS.

14. CONTRACTOR SHALL, AT ALL TIMES, UTILIZE ALL NORMALLY ACCEPTED AND REASONABLY EXPECTED SAFETY PRACTICES AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND GUIDELINES PERTAINING TO SAFE UTILIZATION OF EQUIPMENT OR MATERIALS AS PUBLISHED BY MANUFACTURER.

15. PRIOR TO INITIATING ANY EXCAVATION (INCLUDING BUT NOT LIMITED TO TUNNELS, DITCHES, STORM WATER PONDS, CANALS, ARTIFICIAL LAKES) CONTRACTOR SHALL INSTALL FENCES AND TAKE ALL OTHER REASONABLE AND PRUDENT STEPS TO ENSURE THAT ACCESS TO EXCAVATION BY UNAUTHORIZED PERSONNEL IS PREVENTED.

16. CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE PROVISIONS OF THE FLORIDA STATE TRENCH SAFETY ACT.

17.1 THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO:

A. ALL EMPLOYEES ON THE WORK AND ALL OTHER PERSONS WHO MAY BE AFFECTED THEREBY;

B. ALL THE WORK AND ALL MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE, UNDER THE CARE, CUSTODY OR CONTROL OF THE CONTRACTOR OR ANY OF ITS SUBCONTRACTORS;

C. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAY, STRUCTURES AND UTILITIES NOT DESIGNATED FOR DEMOLITION IN THE COURSE OF CONSTRUCTION.

17.2 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC, QUASI PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR FOR THEIR PROTECTION AGAINST DAMAGE, INJURY OR LOSS, OR DESIGNED TO PROTECT THE ENVIRONMENT. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING CONDITIONS AND PROGRESS OF THE WORK, ALL REASONABLE SAFEGUARDS FOR SAFETY AND PROTECTION, INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS, PROMULGATING SAFETY REGULATIONS AND NOTIFYING OWNERS AND USERS OF ADJACENT UTILITIES OF THE EXISTENCE OF HAZARDS AND OF THE SAFETY REGULATIONS.

17.3 ALL DAMAGE OR LOSS TO ANY PROPERTY REFERRED TO IN CLAUSES 17.1(B) AND 17.1(C) CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, A SUBCONTRACTOR, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL BE REMEDIED BY THE CONTRACTOR, EXCEPT DAMAGE OR LOSS PROPERLY ATTRIBUTABLE SOLELY TO THE ACTS OR OMISSIONS OF THE OWNER, OR THE ENGINEER OR ANYONE EMPLOYED BY THEM, OR FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, AND NOT PROPERLY ATTRIBUTABLE IN WHOLE OR IN PART, TO THE FAULT OR NEGLIGENCE OF THE CONTRACTOR.

17.4 UNTIL FINAL ACCEPTANCE OF THE WORK BY OWNER, THE CONTRACTOR SHALL HAVE THE CHARGE AND CARE OF AND SHALL BEAR THE RISK OF INJURY OR DAMAGE, LOSS OR EXPENSE TO ANY PART THEREOF, OR TO ANY MATERIALS STORED ON SITE, BY THE ACTION OF THE ELEMENTS OR FROM ANY OTHER CAUSE WHETHER ARISING FROM THE EXECUTION OR NON-EXECUTION OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD ALL INJURIES OR DAMAGES TO ANY PORTION OF THE WORK OCCASIONED BY ANY OF THE ABOVE CAUSES BEFORE FINAL ACCEPTANCE AND SHALL BEAR THE EXPENSES THEREOF.

17.5 THOSE PARTS OF WORK IN PLACE WHICH ARE SUBJECT TO DAMAGE BECAUSE OF OPERATIONS BEING CARRIED ON OR ADJACENT THERETO SHALL BE COVERED, BOARDED UP OR SUBSTANTIALLY ENCLOSED WITH ADEQUATE PROTECTION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.

17.6 ADEQUATE TRAFFIC CONTROL, BARRICADES AND FLAGMAN SERVICES SHALL BE FURNISHED AND MAINTAINED BY THE CONTRACTOR AT ALL POINTS WHERE CONVEYING EQUIPMENT ENGAGED ON THE WORK REGULARLY ENTERS ONTO OR CROSSES TRAFFIC-CARRYING ROADS, PARKING LOT, AND PARKING AREA.

18.1 THE CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE FEDERAL OCCUPATIONAL HEALTH AND SAFETY ACT OF 1970 AND ALL RULES AND REGULATIONS NOW OR HEREAFTER IN EFFECT UNDER SAID ACT, AND THE CONTRACTOR FURTHER AGREES TO COMPLY WITH ANY AND ALL APPLICABLE STATE LAWS AND REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH.

19. ALL WORK PERFORMED UNDER THE CONTRACT, AND ALL EQUIPMENT, APPLIANCES, TOOLS AND LIKE ITEMS USED IN THE WORK SHALL CONFORM TO APPLICABLE SAFETY CODES AND REGULATIONS OF ANY PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION. IN THE EVENT OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT INTERPRETATION OR REGULATION SHALL GOVERN.

20. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT AN EROSION CONTROL PLAN TO MINIMIZE EROSION AND INSURE FUNCTIONING OF STORMWATER MANAGEMENT SYSTEM UPON COMPLETION OF CONSTRUCTION.

21.1 CONTRACTOR AND ITS SUBCONTRACTORS SHALL USE, HANDLE, TRANSPORT, AND DISPOSE OF ALL HAZARDOUS MATERIALS IN COMPLIANCE WITH ALL PRESENT FEDERAL, STATE AND LOCAL ENVIRONMENTAL, HEALTH OR SAFETY LAW, INCLUDING, BUT NOT LIMITED TO, ALL SUCH STATUTES, REGULATIONS, RULES, ORDINANCES, CODES, AND RULES OF COMMON LAW.

21.2 CONTRACTOR FURTHER AGREES THAT CONTRACTOR AND ITS SUBCONTRACTORS SHALL NOT CAUSE THE DISCHARGE, RELEASE OR DISPOSAL OF ANY HAZARDOUS MATERIAL CREATED BY ITS WORK ON OR ABOUT THE JOB SITE. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL NOTIFY FDEP AND THE CITY OF DAYTONA WITHIN 20 MINUTES OF DISCOVERY OF SPILL. FDEP SHALL BE NOTIFIED USING THE STATE WATCH OFFICE 1-800-320-0519 REPORTING LINE. CONTRACTOR SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECT OF SUCH SPILL ON PERSONS OR PROPERTY.

21.3 CONTRACTOR AND ITS SUBCONTRACTORS SHALL, UPON COMPLETION OF PERFORMANCE OF ALL DUTIES UNDER THIS CONTRACT, REMOVE ALL SUPPLIES, MATERIALS, AND WASTE CONTAINING AND HAZARDOUS MATERIAL FROM THE JOB SITE. CONTRACTOR SHALL BEAR FULL FINANCIAL RESPONSIBILITY, AS BETWEEN THE PARTIES OF THIS CONTRACT, FOR THE COMPLIANCE OF CONTRACTOR AND ITS SUBCONTRACTORS WITH THE PROVISIONS OF PARAGRAPH 21.7.

21.4 CONTRACTOR AGREES TO INDEMNIFY, DEFEND, PROTECT AND HOLD THE OWNER HARMLESS FROM AND AGAINST ANY CLAIMS INCLUDING, WITHOUT LIMITATION, ACTUAL ATTORNEY'S FEES AND ANY COSTS OF INVESTIGATION, SOILS TESTING, GOVERNMENTAL APPROVALS, REMEDIATION AND CLEANUP ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FAILURE OF CONTRACTOR OR ITS SUBCONTRACTORS, OR THEIR AGENTS, EMPLOYEES, OFFICERS, OR REPRESENTATIVES, TO COMPLY WITH THE GENERAL NOTES 20.1-20.8.

21.5 SHOULD CONTRACTOR OR ITS SUBCONTRACTORS DISCHARGE, RELEASE OR DISPOSE OF ANY HAZARDOUS MATERIAL ON OR ABOUT THE JOB SITE IN VIOLATION OF THIS PARAGRAPH, CONTRACTOR SHALL INFORM OWNER IN WRITING WITHIN 48 HOURS.

21.6 IN THE EVENT CONTRACTOR OR ITS SUBCONTRACTORS ENCOUNTER ON THE PREMISES ANY PIPELINE, UNDERGROUND STORAGE TANK OR OTHER CONTAINER, OF ANY KIND, THAT MAY CONTAIN A HAZARDOUS MATERIAL, OR ENCOUNTER MATERIAL REASONABLY BELIEVED TO BE A HAZARDOUS MATERIAL, CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THE AREA AFFECTED AND REPORT THE CONDITION TO OWNER IN WRITING AND VERBALLY WITHIN 20 MINUTES.

21.7 IF CONTRACTOR OR ITS SUBCONTRACTORS DO NOT COMPLY WITH THE REQUIREMENTS OF THIS PARAGRAPH, OWNER MAY, BUT IS NOT OBLIGATED TO, GIVE WRITTEN NOTICE OF VIOLATION TO CONTRACTOR. SHOULD CONTRACTOR OR ITS SUBCONTRACTORS FAIL TO COMPLY WITH THE REQUIREMENTS OF THE PARAGRAPH WITHIN TWENTY-FOUR (24) HOURS FROM THE TIME OWNER ISSUES SUCH WRITTEN NOTICE OF NONCOMPLIANCE OR WITHIN THE TIME OF AN ABATEMENT PERIOD SPECIFIED BY ANY GOVERNMENTAL AGENCY, WHICHEVER PERIOD IS SHORTER, CONTRACTOR SHALL BE IN MATERIAL DEFAULT OF THIS CONTRACT.

21.8 "HAZARDOUS MATERIAL" MEANS ANY SUBSTANCE: (A) THE PRESENCE OF WHICH REQUIRES INVESTIGATION OR REMEDIATION UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, ORDINANCE, RULE, CODE, ORDER, ACTION, POLICY OR COMMON LAW, OR (B) WHICH IS OR BECOMES DEFINED AS A "HAZARDOUS WASTE," "HAZARDOUS SUBSTANCE," POLLUTANT OR CONTAMINANT UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, RULE OR ORDINANCE OR AMENDMENTS THERETO INCLUDING, WITHOUT LIMITATION, THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (42 U.S.C. SECTIONS 9601 ET SEQ.) AND/OR THE RESOURCE CONSERVATION AND RECOVERY ACT (42 U.S.C. SECTIONS 6901 ET SEQ.), OR (C) WHICH IS TOXIC, EXPLOSIVE, CORROSIVE, FLAMMABLE, INFECTIOUS, RADIOACTIVE, CARCINOGENIC, MUTAGENIC, OR OTHERWISE HAZARDOUS AND IS REGULATED BY ANY GOVERNMENTAL AUTHORITY, AGENCY, DEPARTMENT, COMMISSION, BOARD, AGENCY OR INSTRUMENTALITY OF THE UNITED STATES, THE STATE IN WHICH THE PREMISES ARE LOCATED OR ANY POLITICAL SUBDIVISION THEREOF, OR (D) THE PRESENCE OF WHICH ON THE PREMISES CAUSES OR THREATENS TO CAUSE A NUISANCE UPON THE PREMISES OR TO ADJACENT PROPERTIES OR POSES OR THREATENS TO POSE A HAZARD TO THE HEALTH OR SAFETY OF PERSONS ON OR ABOUT THE PREMISES, OR (E) WHICH CONTAINS GASOLINE, DIESEL FUEL OR OTHER PETROLEUM HYDROCARBONS, OR (F) WHICH CONTAINS POLYCHLORINATED BIPHENYLS (PCBS), ASBESTOS, LEAD OR UREA FORMALDEHYDE FOAM INSULATION.

22. THE EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AS TO SIZE, LOCATION, AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING PROTECTED SPECIES CONSTRUCTION CONDITIONS:

A. THE CONTRACTOR SHALL INSTRUCT ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE POTENTIAL PRESENCE OF THESE SPECIES AND THE NEED TO AVOID COLLISIONS WITH SEA TURTLES AND SMALLTOOTH SAWFISH. ALL CONSTRUCTION PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF THESE SPECIES.

B. THE CONTRACTOR SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING SEA TURTLES OR SMALLTOOTH SAWFISH, WHICH ARE PROTECTED UNDER THE ENDANGERED SPECIES ACT OF 1973.

C. SILTATION BARRIERS SHALL BE MADE OF MATERIAL IN WHICH A SEA TURTLE OR SMALLTOOTH SAWFISH CANNOT BECOME ENTANGLED, BE PROPERLY SECURED, AND BE REGULARLY MONITORED TO AVOID PROTECTED SPECIES ENTRAPMENT. BARRIERS MAY NOT BLOCK SEA TURTLE OR SMALLTOOTH SAWFISH ENTRY TO OR EXIT FROM DESIGNATED CRITICAL HABITAT WITHOUT PRIOR AGREEMENT FROM THE NATIONAL MARINE FISHERIES SERVICE'S PROTECTED RESOURCES DIVISION, ST. PETERSBURG, FLORIDA.

D. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "NO WAKE/IDLE" SPEEDS AT ALL TIMES WHILE IN THE CONSTRUCTION AREA AND WHILE IN WATER DEPTHS WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL PREFERENTIALLY FOLLOW DEEP-WATER ROUTES (E.G., MARKED CHANNELS) WHENEVER POSSIBLE.

E. IF A SEA TURTLE OR SMALLTOOTH SAWFISH IS SEEN WITHIN 100 YARDS OF THE ACTIVE DAILY CONSTRUCTION/DREDGING OPERATION OR VESSEL MOVEMENT, ALL APPROPRIATE PRECAUTIONS SHALL BE IMPLEMENTED TO ENSURE ITS PROTECTION. THESE PRECAUTIONS SHALL INCLUDE CESSATION OF OPERATION OF ANY MOVING EQUIPMENT CLOSER THAN 50 FEET OF A SEA TURTLE OR SMALLTOOTH SAWFISH. OPERATION OF ANY MECHANICAL CONSTRUCTION EQUIPMENT SHALL CEASE IMMEDIATELY IF A SEA TURTLE OR SMALLTOOTH SAWFISH IS SEEN WITHIN A 50-FT RADIUS OF THE EQUIPMENT. ACTIVITIES MAY NOT RESUME UNTIL THE PROTECTED SPECIES HAS DEPARTED THE PROJECT AREA OF ITS OWN VOLITION.

F. ANY COLLISION WITH AND/OR INJURY TO A SEA TURTLE OR SMALLTOOTH SAWFISH SHALL BE REPORTED IMMEDIATELY TO THE NATIONAL MARINE FISHERIES SERVICE'S PROTECTED RESOURCES DIVISION (727-824-5312) AND THE LOCAL AUTHORIZED SEA TURTLE STRANDING/RESCUE ORGANIZATION.

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CONDITIONS INTENDED TO PROTECT MANATEES FROM DIRECT PROJECT EFFECTS:

A. ALL PERSONNEL ASSOCIATED WITH THE PROJECT SHALL BE INSTRUCTED ABOUT THE PRESENCE OF MANATEES AND MANATEE SPEED ZONES, AND THE NEED TO AVOID COLLISIONS WITH AND INJURY TO MANATEES. THE CONTRACTOR SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING MANATEES WHICH ARE PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT, THE ENDANGERED SPECIES ACT, AND THE FLORIDA MANATEE SANCTUARY ACT.

B. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "IDLE SPEED/NO WAKE" AT ALL TIMES WHILE IN THE IMMEDIATE AREA AND WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.

C. SILTATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.

D. ALL ON-SITE PROJECT PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF MANATEE(S). ALL IN-WATER OPERATIONS, INCLUDING VESSELS, MUST BE SHUTDOWN IF A MANATEE(S) COMES WITHIN 50 FEET OF THE OPERATION. ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS MOVED BEYOND THE 50-FOOT RADIUS OF THE PROJECT OPERATION, OR UNTIL 30 MINUTES ELAPSES IF THE MANATEE(S) HAS NOT REAPPEARED WITHIN 50 FEET OF THE OPERATION. ANIMALS MUST NOT BE HERDED AWAY OR HARASSED INTO LEAVING.

E. ANY COLLISION WITH OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) HOTLINE AT 1-888-404-3922. COLLISION AND/OR INJURY SHOULD ALSO BE REPORTED TO THE U.S. FISH AND WILDLIFE SERVICE IN JACKSONVILLE (1-904-731-3336) FOR NORTH FLORIDA OR IN VERO BEACH (1-772-562-3909) FOR SOUTH FLORIDA, AND EMAILED TO FWC AT:IMPERILEDSPECIES@MYFWC.COM.

F. TEMPORARY SIGNS CONCERNING MANATEES SHALL BE POSTED PRIOR TO AND DURING ALL IN-WATER PROJECT ACTIVITIES. ALL SIGNS ARE TO BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. TEMPORARY SIGNS THAT HAVE ALREADY BEEN APPROVED FOR THIS USE BY THE FWC MUST BE USED. ONE SIGN WHICH READS CAUTION: BOATERS MUST BE POSTED. A SECOND SIGN MEASURING AT LEAST 81 2" BY 11" EXPLAINING THE REQUIREMENTS FOR 'IDLE SPEED/NO WAKE" AND THE SHUT DOWN OF IN-WATER OPERATIONS MUST BE POSTED IN A LOCATION PROMINENTLY VISIBLE TO ALL PERSONNEL ENGAGED IN WATER-RELATED ACTIVITIES. THESE SIGNS CAN BE VIEWED AT:

HTTP://WWW.MYFWC.COM/WILDLIFEHABITATS/MANATEE_SIGN_VENDORS.HTM. QUESTIONS CONCERNING THESE SIGNS CAN BE FORWARDED TO THE EMAIL ADDRESS LISTED ABOVE.

CONSTRUCTION EQUIPMENT NOTES:

A. IF BARGE, PLATFORM OR ANY AMPHIBIOUS EQUIPMENT IS TO BE USED, CONTRACTOR IS RESPONSIBLE FOR PERFORMING BATHYMETRIC SURVEY TO DEMONSTRATE THAT THERE IS NAVIGABLE ACCESS AND SUFFICIENT ON-SITE WATER DEPTHS SUCH THAT NO IMPACTS TO SUBMERGED RESOURCES RESULT FROM CONSTRUCTION OPERATIONS PRIOR TO COMMENCING USE. EQUIPMENT IS TO BE FULLY RELOCATED AT LEAST ONCE WEEKLY TO ENSURE ADVERSE IMPACTS TO SUBMERGED RESOURCES ARE AVOIDED. A MINIMUM OF 4 FEET CLEARANCE WILL BE PROVIDED ON THE SIDE AND 1 FT. UNDERNEATH THE EQUIPMENT BETWEEN EXISTING GRADE AND SEAGRASS BEDS TO PREVENT ENTRAPMENT OF MANATEES.

NO.	DATE	DESCRIPTION	BY

REVISIONS

DESIGNED BY LAV
DRAWN BY DPC
CHECKED BY DCL
APPROVED BY DCB

GENERAL NOTES

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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DRMP, Inc.

Donald C. Bieger Jr., P.E.
State of Florida # 60857

PROJECT NO.: 18-0571.000
SCALE: NONE
DATE: JANUARY, 2019
DRAWING: C1.1

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TURBIDITY MONITORING PLAN:

THE CONSTRUCTION OF THIS PROJECT WILL REQUIRE IN-WATER SOIL DISTURBING ACTIVITIES, WHICH MUST MEET THE STATE'S WATER QUALITY ANTIDEGRADATION CRITERIA. THE HALIFAX RIVER IS DESIGNATED AS AN OUTSTANDING FLORIDA WATER (OFW). THE CONTRACTOR SHALL MEET THE FOLLOWING CONDITIONS:

EXISTING AMBIENT WATER QUALITY WITHIN THE CONSTRUCTION ZONE MAY BE DEGRADED TO ALLOW FOR IN-WATER CONSTRUCTION ACTIVITIES WITHIN THE OFW. TURBIDITY BARRIER PROTECTION MUST BE PROVIDED AND REMAIN IN PLACE UNTIL STABILIZATION AND RETURN OF THE NEPHELOMETRIC TURBIDITY UNITS (NTUs) INSIDE THE COMPLETED CONSTRUCTION ZONE NO LONGER EXCEED THE NATURAL BACKGROUND CONDITIONS WITHIN THE OFW. NO INCREASE IN TURBIDITY LEVELS ABOVE BACKGROUND IS ALLOWED OUTSIDE THE CONSTRUCTION ZONE.

1. WATER RELEASED FROM THE CONSTRUCTION AREA SHALL NOT HAVE TURBIDITY LEVELS THAT EXCEED ABOVE AMBIENT LEVELS OF THE SURROUNDING HALIFAX RIVER.

2. ALL CONSTRUCTION ACTIVITIES THAT HAVE A POTENTIAL TO CREATE TURBIDITY, SUCH AS IN-WATER SOIL DISTURBANCE, DREDGING, PILE DRIVING, AND FILLING SHALL REQUIRE MONITORING. SAMPLING SHALL COMMENCE FIVE DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, AND CONTINUE TWICE DAILY, WITH A MAXIMUM OF FOUR-HOUR INTERVALS, DURING ONGOING POTENTIAL TURBIDITY CREATING CONSTRUCTION ACTIVITIES. SIX SAMPLE LOCATIONS SHALL BE DETERMINED AROUND THE CONSTRUCTION SITE - THREE OUTSIDE THE FLOATING TURBIDITY BARRIER AND THREE WITHIN THE CONSTRUCTION AREA. THE SAMPLING WITHIN THE MONITORING AREA IS TO BEGIN UPON COMPLETION OF CONSTRUCTION, PRIOR TO REMOVAL OF EROSION CONTROL MEASURES. SAMPLING WITHIN THE MONITORING AREA IS TO CONTINUE UNTIL ALL SEDIMENT HAS SETTLED OUT OF THE WATER COLUMNS TO WITHIN ACCEPTABLE LIMITS.

3. SAMPLES WILL BE COLLECTED FROM SURFACE AND ONE FOOT ABOVE BOTTOM.

4. ALL SAMPLES WILL BE COLLECTED WITH A KEMMERER, VAN DORN OR SIMILAR GRAB SAMPLER WHICH IS DESIGNATED TO COLLECT IN SITU WATER SAMPLES. SAMPLES MUST BE ANALYZED FOR TURBIDITY AS THEY ARE COLLECTED. THE FOLLOWING INFORMATION MUST BE RECORDED FOR EACH SAMPLE TAKEN AND SUBMITTED IN A MONITORING REPORT:

   a. SITE NUMBER;

   b. COLLECTOR'S NAME AND AFFILIATION

   c. DATE AND TIME OF DAY WHEN SAMPLE WAS COLLECTED;

   d. SAMPLE COLLECTION DEPTH AND TOTAL DEPTH;

   e. ANTECEDENT WEATHER CONDITIONS, INCLUDING WIND DIRECTION AND VELOCITY;

   f. TIDAL STAGE AND/OR FLOW DIRECTION, IF APPLICABLE; AND

   g. SAMPLING RESULTS, THE NET DIFFERENCE BETWEEN COMPLIANCE AND BACKGROUND RESULTS, AND WHETHER THE TURBIDITY LEVEL IS IN COMPLIANCE.

6. IN ADDITION TO THE ABOVE MENTIONED, EACH MONITORING REPORT MUST INCLUDE THE FOLLOWING:

   a. A STATEMENT OF METHODOLOGY INCLUDING TYPES OF SAMPLING EQUIPMENT AND

   b. ANALYTICAL INSTRUMENTATION, PRESERVATION, AND HANDLING;

   c. PERMIT NUMBER; AND

   d. A MAP INDICATING NUMBERED LOCATIONS OF ALL SAMPLING SITES;

7. ALL TURBIDITY MONITORING REPORTS SHALL BE SUBMITTED TO THE CONTRACTING OFFICE WITHIN FOURTEEN (14) DAYS OF SAMPLE COLLECTION. THE CONTRACTING OFFICE WILL FORWARD THE TURBIDITY MONITORING REPORTS TO THE CITY OF DAYTONA.

8. THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING QA/QC REQUIREMENTS FOR EACH SAMPLE COLLECTED:

   a. ALL TURBIDITY ANALYSIS SHALL BE PERFORMED ON INSTRUMENTS THAT CAN PERFORM NEPHELOMETRIC MEASUREMENTS;

   b. THE INSTRUMENT MUST BE CALIBRATED EACH MORNING AND EACH TIME THE INSTRUMENT IS TURNED ON, AND RECALIBRATED EVERY FOUR HOURS THEREAFTER;

   c. CALIBRATIONS MUST BE PERFORMED AGAINST A BLANK, AND AT LEAST ONE FORMALIN OR GEL-TYPE STANDARD. THE STANDARD VALUE SHOULD BE IN THE SAME RANGE AS THE SAMPLE READINGS.

   d. ALL CALIBRATION PROCEDURES MUST BE RECORDED IN A PERMANENT LOG BOOK, AND COPIES MUST BE SUBMITTED WITH THE DATA; AND,

   e. DATE AND TIME OF COLLECTION, DATE AND TIME OF ANALYSES, WARM-UP TIME, AND THE NAME OF THE ANALYST MUST BE INCLUDED IN THE LOG.

9. ALL IN-WATER SOIL DISTURBING CONSTRUCTION ACTIVITIES SHALL CEASE IMMEDIATELY WHENEVER WATER QUALITY SAMPLES EXCEED THRESHOLDS SPECIFIED IN ITEM #1 OUTSIDE OF THE CONSTRUCTION PROJECTS FLOATING TURBIDITY BARRIERS. THE VIOLATION SHALL BE REPORTED TO CONTRACTION OFFICER WITHIN 4 HOURS OF THE VIOLATION. THE VIOLATION REPORT SHALL INCLUDE THE DESCRIPTION OF THE CORRECTIVE ACTIONS BEING TAKEN OR PROPOSED TO BE TAKEN.

10. WHEN A TURBIDITY VIOLATION IS FOUND, IN-WATER SOIL DISTURBING CONSTRUCTION OPERATIONS MAY NOT RESUME UNTIL A COMPLIANCE INSPECTION BY CONTRACTING OFFICER HAS BEEN CONDUCTED AND A SET OF SAMPLES HAS BEEN TAKEN WHICH DEMONSTRATE THAT THE WATER QUALITY STANDARDS DESIGNATED ABOVE ARE BEING ACHIEVED. THE CONTRACTOR SHALL MODIFY THE WORK PROCEDURES THAT WERE RESPONSIBLE FOR THE VIOLATION SUCH AS REDUCING THE IN WATER CONSTRUCTION ACTIVITY AND/OR INSTALLING ADDITIONAL BMPs OR REPAIRING ANY NON-FUNCTIONING TURBIDITY CONTAINMENT DEVICES.

11. INTERIM SAMPLES TAKEN FOLLOWING THE VIOLATION SHALL BE TAKEN IN THE SAME MANNER AS THE ROUTINE MONITORING AND AT THE SAME LOCATIONS. IF SAMPLES DEMONSTRATE THE WATER QUALITY STANDARDS SPECIFIED FOR TURBIDITY SPECIFIED ABOVE ARE STILL BEING VIOLATED, SAMPLING SHALL CONTINUE UNTIL TWO (2) MONITORING EVENTS CONDUCTED AT LEAST ONE HOUR APART THAT INTERIM SAMPLE TURBIDITY READINGS DEMONSTRATE THAT WATER QUALITY STANDARDS ARE BEING ACHIEVED.

12. ALL TURBIDITY AND EROSION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED AT THE BEGINNING AND END OF EACH WORK DAY.

13. BEFORE REMOVAL OF THE TURBIDITY CONTROL MEASURES, THE TURBIDITY LEVELS WITHIN THE AREA SURROUNDED BY THE TURBIDITY CONTROL MEASURES MUST BE SAMPLED TO ENSURE NO RELEASE OF TURBID WATER ONCE THE TURBIDITY CONTROL MEASURES ARE REMOVED. THIS SAMPLE DATA MUST BE INCLUDED WITHIN THE WEEKLY TURBIDITY DATA REPORT.

REVISIONS

NO.	DATE	DESCRIPTION	BY
1	03/07/2019	NEW SHEET ADDED TO PLANS	QC

DESIGNED BY LAV
DRAWN BY DPC
CHECKED BY DCL
APPROVED BY DCB

TURBIDITY BARRIER NOTES

CONSTRUCTION PLANS FOR
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CITY OF DAYTONA BEACH, FLORIDA

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PROJECT NO.: 18-0571.000
SCALE: NONE
DATE: JANUARY, 2019
DRAWING: C1.2

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SECTION A-A (TYPICAL)
PROPOSED
SCALE 1"=10'

NO.	DATE	DESCRIPTION	BY

REVISIONS

DESIGNED BY LAV
DRAWN BY DPC
CHECKED BY DCL
APPROVED BY DCB

EXISTING CONDITIONS
AND
DEMOLITION PLAN

CONSTRUCTION PLANS FOR
HALIFAX MARINA
SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

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PROJECT NO.: 18-0571.000
SCALE: 1" = 10'
DATE: JANUARY, 2019
DRAWING: C2.0

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SECTION B-B (TYPICAL)
PROPOSED
SCALE 1"=10'

REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	03/07/2019	REMOVE PROPOSED SABAL PALMS FROM SHEET	QC

DESIGNED BY	LAV
DRAWN BY	DPC
CHECKED BY	DCL
APPROVED BY	DCB

SITE PLAN

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

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PROJECT NO.: 18-0571.000
SCALE: 1" = 10'
DATE: JANUARY, 2019
DRAWING: C3.0

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STAKED SILT FENCE DETAIL

NOT TO SCALE

D_1 =5' Std. (Single Panel For Depths 5' or Less).
D_2 =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 Are Specifically
Called For In The Plans Or As Determined By The Engineer.

NOTICE:
COMPONENTS OF TYPES I AND II 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 TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIER DETAIL

NOT TO SCALE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	LAV
DRAWN BY	DPC
CHECKED BY	DCL
APPROVED BY	DCB

CONSTRUCTION DETAILS

CONSTRUCTION PLANS FOR
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CITY OF DAYTONA BEACH, FLORIDA

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PROJECT NO.: 18-0571.000
SCALE: AS SHOWN
DATE: JANUARY, 2019
DRAWING: C4.0

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Appendix C – Seawall Design

General Design & Construction Notes:

Material:

General Design:
1.) All materials shall be as noted unless local codes provide a stricter guideline i.e. greater strength, durability, etc. It is the contractor's responsibility to understand and comply with these codes.
2.) No pipe penetration (drainage, utilities, etc.) information has been provided. If penetration throught the sheet piles is required contractor is to submit a detail for review.

Sheet Pile:
1.) Sheet pile material shall be ESP 8.5 as provided by Everlast Synthetic Products, LLC.
2.) This design is based on the specific properties of Everlast synthetic sheet piling which are proprietary to Everlast Synthetic Products, LLC 1000 Wyngate Parkway, Suite 100, Woodstock, GA 30189. Any substitution of the specified product will invalidate this design. This drawing is being furnished for use on this specific project only. Any party accepting this document does so in confidence and agrees that it shall not be duplicated whole or in part, nor disclosed to others without the consent of Everlast Synthetic Products, LLC.

Steel:
1.) All steel fasteners and tie-rods shall be hot dip galvanized per ASTM A-153 with 20 ounces of zinc per square foot or be stainless steel (grade 304 or 316).
2,) If bolts not stainless steel, exposed regions to be field treated with bitumastic coating.
3.) Washers (ogee, fender or New York dock) shall have a minimum outer diameter of four times the rod/bolt diameter. Beveled washers shall be used for tie-rods installed at an incline.
4.) All reinforcing steel to have a minimum yield strength of 60 ksi.

Dimensional Timber & Piles:
1.) All dimensional timber to be SYP No. 2 grade or better.
2.) Stagger joints of front and rear timber wales.
3.) All timber to meet or exceed AWPA standards (UC5C) for preservative treatment as applicable.

Concrete:
1.) Concrete to have a 28-day compressive strength of 5,000 psi.
2.) Concrete mix to have a max. w/c ratio of 0.5.
3.) Concrete to be vibrated to minimize air voids.

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Roswell, GA 30075
678.315.1751
CA#: 30632

Scale: NTS

Date: 2/20/19

Project:
Preliminary Seawall Design
Halifax Harbor Marina
450 Basin Street
Dayton Beach, FL

Revisions

Sheet 1 of 9

Preliminary, NOT FOR CONSTRUCTION

Certified only with seal, signature, and date

Backfill:
1.) Backfill material is to be free-draining sand or gravel (SP, SW, GP or GW) per ASTM D-2487 and compacted a minimum of 95% per ASTM D-698.
2.) If a fine grained, non-cohesive soil (fine sands, "sugar sand", etc.) is to be used a geotextile is to be placed between sheet pile and soil before backfill installation.

Geotextile (Required only if using backfill as noted in Backfill note #2):
1.) Geotextile used behind sheet pile shall be Mirafi 140N or equal.

Design:

1.) Design was done with a soils investigation.
2.) Design is based on soil properties as noted in typical sections.
3.) If actual soil or site conditions differ from that noted in drawings, the engineer shall be notified immediately for a possible redesign.
4.) Design does not account for presence of underground springs, wells or excessive water from site runoff. If these conditions exist the engineer shall be notified immediately for the need of a redesign.

Installation:

General Installation:
1.) Installation to be conducted according to all applicable OSHA and local codes. It is the contractors responsibility to understand and comply with these codes.

Geotechnical:
1.) Ingenium recommends that all projects have geotechnical investigation (borings and report) prior to installation.
2.) At a minimum, the contractor shall probe along the alignment of the sheet pile (approx. every 5') to determine the potential of any soil variation or obstructions.

Sheet Pile:
1.) Sheet piles shall be vibrated or driven. No jetting of sheet piles will be allowed without written approval from the engineer.
2.) Sheet pile shall penetrate to depth shown in the plans.
3.) After driving sheet pile and attaching wale, saw piling off at a true plane indicated on the plans. Final elevations are to be within one (1) inch of established elevation.
4.) Return walls to be provided at ends of all bulkheads to provide flanking protection.

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Concrete Cap/Wale:

1.) $\frac{3}{4}$" Expansion joint is to be located at approx. 50ft.
2.) Two contraction joints are to be evenly spaced each side of expansion joint.
3.) All reinforcing steel to have a minimum cover of 3".

Documentation:

1.) Contractor shall provide written documentation after the end of the work day certifying all piles (sheet & timber) have been driven to the required depths. If any piles are unable to be driven to the required depths, contractor shall notify the owner and engineer immediately.

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NOTE:

All designs are governed by general notes (Sheet 1, 2 & 3) unless expressly stated on this page.

Soil Design Parameters:

Loose Fine Sand (TOW to 13ft Depth)

φ = 28° γ = 100 pcf γ' = 46 pcf C = 0 psf

Dense Coarse Sand (13ft Depth & Below)

φ = 34° γ = 115 pcf γ' = 56 pcf C = 0 psf

Note: If actual site conditions differ from those stated above, ESP shall be notified immediately for a possible redesign.

Typical Section (View A-A)

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Plan View (View B-B)

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Concrete Deadman Detail

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Expansion Joint - Plan View

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ESP 8.5

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ESP 8.5 VINYL SHEET PILE (Technical Data Sheet)

Strength Rating (M)	Lbs-Ft/Ft	8,503	Modulus of Elasticity (E)	psi	380,000
Allowable Shear (V)	Lbs/Ft	3,470	Co-Extruded		Yes
Thickness (t)	inches	0.46	Section Depth	inches	10
Section Modulus (Z)	in^3/ft	31	Section Width	inches	18
Moment of Inertia (I)	in^4/ft	155.0	UV Stabilized		Yes
Ultimate Tensile Stress	psi	6,300	Standard	sheets/	12 &
Creep Limited stress	psi	4,000	Packaging	bundle	6

*Color shown in gray.

After Hurricane Frances destroyed the old concrete wall, the Tampa Bay contractor chose the EverLast 8.5 Series for the new seawall.

The values shown are nominal and may vary. The information found in this document is believed to be true and accurate. No warranties of any kind are made as to the suitability of ESP sheet piling for particular applications or results obtained therefrom. Consult with a professional engineer and/or contractor as to the suitability of this product for your particular application.

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sales@everlastseawalls.com | www.everlastseawalls.com

Everlast ESP 8.5 Seawall Specification

(Note: Italics mean engineer must choose one of the material options presented as a primer. Additional evaluation and detailing will likely be required to determine the fitness for use of the various products presented.)

1.0 Materials

1.1 ESP 8.5 Vinyl Sheet Piling

Sheet pile profile shall be manufactured with an interlocking feature that ensures adjacent panels maintain alignment. The sheeting shall be co-extruded with a virgin capstock and high quality regrind substrate. The sheet pile shall be free from visible cracks and other injurious defects. The manufacturer's extrusion facility shall have at least 10 years experience with the manufacturing of vinyl sheet piling and 25 years experience with the manufacturing of other PVC parts. An acceptable supplier of the vinyl sheet piling is Everlast Synthetic Products, LLC, 1000 Wyngate Parkway, Suite 100, Woodstock, GA 30189, 800-687-0036.

1.1.1 Properties of Vinyl Sheet Pile Part shall have the following minimum properties unless otherwise noted:

• Color	Unspecified	----------
• Specific Gravity	1.43	ASTM D-792
• Cell Class	1-321234-22	ASTM D-4216 [A]
• Tensile Yield	6,300 psi	ASTM D-638
• Tensile Modulus	380,000 psi	ASTM D-638
• Creep Stress	5,000 psi (<4.2% strain) 4,000 psi (<3.0% strain)	ASTM D-5262 [B]
• Interface Direct Shear	20° (SM Soil)	ASTM D-5321 [C]
• Interlock Flow Rate	8.73×10^{-5} (47 psf) [D] 4.64×10^{-4} (375 psf) [D]	GRI Certified Lab [E]
• Dynamic Modulus	332,136 psi (32°F) 266,144 psi (100°F)	ASTM D-4065 [F]
• Profile Width	18 inches (max. width)	Interlock to Interlock
• Profile Depth	10 inches (max. depth)	Outside to outside flange
• I (moment of inertia)	155.0 in^4 /ft	----------
• Z (section modulus)	31.0 in^3/ft	----------
• R_g (radius of gyration)	10.5 in (major axis) 4.0 in (minor axis)	Paired
• Thickness	0.46 inches	----------
• Weight	5.86 lbs/SF	----------

[A] Cell class for entire finished part shall be verified by an independent, A2LA certified 3rd party laboratory.
[B] Supplier shall provide a minimum of 10,000 hrs. of creep data on finished vinyl sheet pile part with a sample thickness of 0.25 inches from a 3rd party, Geosynthetics Research Institute (GRI) certified laboratory.
[C] Supplier shall provide interface direct shear data on a finished sheet pile part from a 3rd party, GRI certified laboratory.
[D] Units for interlock flow rate are in cubic feet per second / ft. of interlock / LF of wall.
[E] Supplier shall provide interlock flow rate data from a 3rd party, GRI certified laboratory.
[F] Supplier shall provide dynamic modulus data from a 3rd party, ISO certified laboratory.

1.2 Wales – wales for support of composite sheet piling shall be one of the following:

- *4x6 FRP Tubes as noted on plans*
- *Double Steel Channel as noted on the plans*
- *SYP Timber as noted on plans*
- *Reinforced Concrete as noted on plans*

1.3 Cap – top cap for support of composite sheet piling shall be one of the following:

- *FRP Cap as noted on plans*
- *Coated Steel Cap as noted on plans*
- *SYP Timber as noted on plans*
- *CIP Concrete as noted on plans*
- *Aluminum Cap as noted on plans*

1.4 Tie-Back System – anchors used to tieback the seawall shall be as noted on the drawings. Otherwise, the following anchor types are acceptable:

- *SYP Timber piles and drag*
- *Manta Ray or Platipus Earth Anchors*
- *A.B. Chance Earth Anchors*
- *Reinforced Concrete Deadmen*
- *Everlast vinyl sheet piling with FRP tube stiffener as noted on plans*

1.5 Tie Rods and Miscellaneous Hardware

All steel not entirely encased in concrete shall be either all stainless steel (SS304 or SS316) or all hot dip galvanized (A153) steel (A36 or 572). This includes tie rods, all-threads, couplers, washers, nuts, carriage bolts and lag screws. No mixing of steel types will be allowed. If tie-rods will be hot-dip-galvinized, first four (4) feet of the tie-rod (end closest to the water) shall be field coated with coal tar epoxy or other approved bitumastic coating.

1.6 Backfill

- Backfill material placed behind the sheeting shall be free-draining and restricted to GW, GP, SW or SP per ASTM D2487.
- Other backfill materials may be used if approved by the engineer or if otherwise noted on plans.

2.0 Delivery and Storage

Upon delivery of materials to site, contractor shall visually inspect all materials for defects or damage. If serious defect or damage is detected, contractor shall notify engineer immediately. Store bundled sheet piling on a relatively level surface with a slight pitch to allow water to drain. Contractor should not break bundled sheets until ready for immediate installation.

3.0 Submittals

Contractor is to provide submittals as noted in 3.1 and 3.3 with initial bid package. Bid packages without the indicated submittals will be rejected.

3.1 Complete descriptions of sheet piling driving equipment including hammers, extractors, protection caps and other installation appurtenances.

3.2 Material Certification – Prior to shipment, manufacturer shall provide Letter of Certification from a registered professional engineer assuring that the sheet pile meets requirements set forth in Section 1.1 & 1.1.1.

3.3 Contractor is responsible for obtaining sheet pile test data as described in section 1.1 (footnotes A, B, C, D, E & F) for submittal.

4.0 Installation

4.1 Install driving guide, template or wale system to aid in driving a straight and plumb wall. A "two level" template as well as front and rear wale/bracing system is strongly suggested for tough and/or deep driving situations.

4.2 Drive sheet piling (preferably in pairs) by "Driving in Steps" or "Gang Driving". Direction of installation should be with the male side of the sheet when possible. Steel punch, mandrel, helmet or drive shoes may be required if driving through hard soil strata or obstructions. Water jet by displacement of soil shall not be used unless approved by the engineer in writing. Water may be introduced to induce lubrication and liquefaction during installation. It is very important that the contractor drives sheets to required embedment depth. Under no circumstances shall the contractor cut-off or install shorter sheets without written authorization from engineer or the owner. Adequate precautions shall be taken to ensure that piles are driven plumb. Sheet piling shall not be driven more than 1/8 inch per foot out of plumb in the plane of the wall, nor more than 1/16 inch per foot "out" of plumb perpendicular to the plane of the wall, nor more than 1/4 inch per foot "in" of plumb perpendicular to the plane of the wall.

4.3 Piles driven out of interlock with adjacent piles or otherwise damaged shall be removed and replaced by new piles at the contractor's expense.

4.4 Install wales, tie rods and deadmen as noted on the project plans.

4.5 Install drainage system and weep holes (if required).

4.6 Backfill behind sheet pile in level compacted lifts (12" max. lift thickness). Compaction of backfill shall be 95% based on ASTM D698. Testing of compaction

shall be taken a minimum of 4' behind the wall. Maintain heavy equipment at least four feet from back of sheeting.

5.0 Payment

Payment for vinyl sheet pile wall shall be based on linear foot of bulkhead acceptably installed. Payment shall be full compensation for supply and installation of sheet pile, wales, cap, hardware, tie rods, anchoring system and backfill.

Client: DRMP
Site: Daytona, FL
Attn: Lauren Valentine

Title: Halifax Harbor Marina
Designer: C.Hazenberg, P.E.
Page: 1
Date: 2.4.19

Sheet: ESP 8.5
Works: Permanent
Pressure: Rankine
Analysis: Net Pressure
Toe: Fixed Earth Support

	Maximum	d (ft)
□	2618.5 ftlb/ft	5.64
◇	847.4 lb/ft	10.30
●	1.0 in	6.11

Preliminary. Not for Construction.

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Input Data

Depth Of Excavation = 6.00ft
Surcharge = 100.0psf

Depth Of Active Water = 4.00ft
Depth Of Passive Water = 6.00ft
Slope (passive) = 18.0degrees

Water Density = 64.02pcf
Minimum Fluid Density = 31.82pcf

Soil Profile — Active Side

Depth (ft)	Soil Name	γ (pcf)	γ' (pcf)	C (psf)	C_a (psf)	ϕ (°)	δ (°)	K_a	K_{ac}	K_p	K_{pc}
0.00	Loose Fine Sand	100.00	46.00	0.0	0.0	28.0	0.0	0.36	0.00	2.77	0.00
13.00	Dense Coarse Sand	115.00	56.00	0.0	0.0	34.0	10.0	0.26	0.00	4.64	0.00

Soil Profile — Passive Side

Depth (ft)	Soil Name	γ (pcf)	γ' (pcf)	C (psf)	C_a (psf)	ϕ (°)	δ (°)	K_a	K_{ac}	K_p	K_{pc}
0.00	Loose Fine Sand	100.00	46.00	0.0	0.0	28.0	0.0	0.44	0.00	2.08	0.00
13.00	Dense Coarse Sand	115.00	56.00	0.0	0.0	34.0	10.0	0.31	0.00	3.89	0.00

Solution

Sheet

Sheet Name	E (psi)	I (in^4/ft)	f (psi)	Z (in^3/ft)	Allowed M_{max} (ftlb/ft)	b (in)	A (in^2/ft)	W (lb/ft)	Upstand (ft)	Toe (ft)	Length (ft)
ESP 8.5	3.8E+05	155.00	3305.0	31.00	8537.9	17.99	10.00	8.9	0.00	10.59	16.59

Load Model: Area Distribution

Supports

d (ft)	Type	Load (lb/ft)
0.50	Waler	836.6

Maxima

	Maximum	Depth (ft)
Pressure	341.1 psf	6.00
Bending Moment	2618.5 ftlb/ft	5.64
Deflection	1.0 in	6.11
Shear Force	847.4 lb/ft	10.30

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	Maximum	d (ft)
○	341.1 psf	6.00
□	2618.5 ftlb/ft	5.64
◇	847.4 lb/ft	10.30
●	1.0 in	6.11

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depth (ft)	P (psf)	M (ftlb/ft)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb/ft)	D (in)	F (lb/ft)	depth (ft)	P (psf)	M (ftlb/ft)	D (in)	F (lb/ft)
0.00	36.0	-0.1	0.0	0.5	5.57	306.7	-2617.8	1.0	-19.7	11.14	-65.2	685.4	0.3	820.9
0.11	36.0	0.1	0.0	4.7	5.68	315.6	-2618.3	1.0	14.8	11.25	-75.0	786.8	0.3	812.3
0.23	44.0	0.9	0.0	9.3	5.80	324.5	-2614.9	1.0	50.3	11.36	-83.7	876.0	0.3	803.5
0.34	48.4	2.3	0.0	15.1	5.91	333.4	-2607.7	1.0	86.7	11.48	-92.5	964.2	0.3	793.9
0.45	52.4	4.3	0.0	20.7	6.02	338.4	-2594.6	1.0	128.8	11.59	-101.2	1051.2	0.3	783.2
0.57	56.4	-50.4	0.0	-809.8	6.14	328.5	-2578.6	1.0	165.5	11.71	-111.0	1147.7	0.2	770.1
0.68	60.4	-139.6	0.1	-803.3	6.25	319.8	-2558.6	1.0	201.3	11.82	-119.7	1232.1	0.2	757.4
0.80	64.9	-239.2	0.1	-795.5	6.36	311.1	-2534.7	1.0	236.2	11.93	-128.5	1315.0	0.2	743.7
0.91	68.9	-326.8	0.1	-788.1	6.48	302.4	-2507.0	1.0	270.0	12.05	-137.2	1396.3	0.2	729.1
1.02	72.8	-413.6	0.1	-780.2	6.59	292.6	-2471.5	1.0	307.0	12.16	-145.9	1476.0	0.2	713.5
1.14	76.8	-499.5	0.2	-771.9	6.70	283.8	-2436.0	1.0	338.8	12.27	-155.7	1563.5	0.1	694.8
1.25	80.8	-584.5	0.2	-763.1	6.82	275.1	-2397.2	1.0	369.6	12.39	-164.5	1639.3	0.1	677.1
1.36	85.3	-678.9	0.2	-752.8	6.93	266.4	-2354.9	1.0	399.5	12.50	-173.2	1713.1	0.1	658.5
1.48	89.3	-761.7	0.3	-743.1	7.05	256.6	-2303.6	1.0	432.0	12.61	-181.9	1784.8	0.1	638.9
1.59	93.2	-843.4	0.3	-733.0	7.16	247.8	-2254.6	1.0	459.8	12.73	-191.7	1862.8	0.1	615.8
1.70	97.2	-924.0	0.3	-722.4	7.27	239.1	-2202.5	1.0	486.7	12.84	-200.5	1929.7	0.1	594.1
1.82	101.7	-1013.2	0.4	-710.0	7.39	230.4	-2147.6	0.9	512.6	12.96	-209.2	1994.2	0.1	571.5
1.93	105.7	-1091.2	0.4	-698.5	7.50	221.7	-2089.8	0.9	537.6	13.07	-900.4	2055.7	0.0	519.9
2.05	109.7	-1167.9	0.4	-686.6	7.61	211.8	-2021.6	0.9	564.5	13.18	-922.8	2108.2	0.0	419.2
2.16	113.7	-1243.2	0.5	-674.2	7.73	203.1	-1958.2	0.9	587.3	13.30	-948.1	2153.9	0.0	302.9
2.27	117.6	-1317.2	0.5	-661.4	7.84	194.4	-1892.4	0.9	609.3	13.41	-970.6	2182.2	0.0	197.0
2.39	122.1	-1398.6	0.5	-646.4	7.96	185.7	-1824.2	0.9	630.2	13.52	-993.1	2198.7	0.0	88.5
2.50	126.1	-1469.5	0.5	-632.7	8.07	175.8	-1744.7	0.9	652.7	13.64	-1015.6	2202.7	0.0	-8.3
2.61	130.1	-1538.8	0.6	-618.5	8.18	167.1	-1671.8	0.9	671.6	13.75	-1040.9	2187.8	0.0	-43.6
2.73	134.1	-1606.5	0.6	-603.8	8.30	158.4	-1596.8	0.8	689.5	13.86	-1063.4	2156.9	0.0	-72.4
2.84	138.0	-1672.6	0.6	-588.8	8.41	149.7	-1519.9	0.8	706.5	13.98	-1085.9	2110.8	0.0	-98.6
2.95	142.5	-1744.9	0.6	-571.3	8.52	140.9	-1441.2	0.8	722.5	14.09	-1108.4	2051.0	0.0	-122.4
3.07	146.5	-1807.3	0.7	-555.3	8.64	131.1	-1350.6	0.8	739.4	14.21	-1130.8	1978.8	0.0	-143.7
3.18	150.5	-1867.9	0.7	-538.8	8.75	122.4	-1268.4	0.8	753.3	14.32	-1156.1	1884.3	0.0	-164.7
3.30	154.1	-1926.7	0.7	-521.9	8.86	113.7	-1184.7	0.8	766.3	14.43	-1178.6	1790.2	0.0	-180.7
3.41	158.9	-1990.6	0.7	-502.4	8.98	105.0	-1099.5	0.7	778.3	14.55	-1201.1	1687.9	0.0	-194.2
3.52	162.9	-2045.3	0.8	-484.6	9.09	95.1	-1002.2	0.7	790.7	14.66	-1223.6	1578.8	0.0	-205.3
3.64	166.9	-2098.0	0.8	-466.3	9.21	86.4	-914.5	0.7	800.7	14.77	-1246.1	1464.2	0.0	-213.8
3.75	170.9	-2148.7	0.8	-447.6	9.32	77.7	-825.8	0.7	809.7	14.89	-1271.4	1330.5	0.0	-220.5
3.86	174.9	-2197.3	0.8	-428.4	9.43	69.0	-736.0	0.7	817.8	15.00	-1293.9	1208.9	0.0	-223.7
3.98	179.4	-2249.4	0.8	-406.4	9.55	60.2	-645.5	0.6	824.9	15.11	-1316.3	1086.1	0.0	-224.5
4.09	187.5	-2293.3	0.9	-386.1	9.66	50.4	-542.7	0.6	831.7	15.23	-1338.8	963.5	0.0	-222.8
4.20	196.4	-2335.0	0.9	-364.8	9.77	41.7	-450.7	0.6	836.7	15.34	-1364.1	827.4	0.0	-217.9
4.32	205.3	-2374.3	0.9	-342.5	9.89	33.0	-358.2	0.6	840.8	15.46	-1386.6	709.7	0.0	-210.9
4.43	215.3	-2415.5	0.9	-316.2	10.00	24.2	-265.3	0.6	843.9	15.57	-1409.1	596.3	0.0	-201.4
4.55	224.2	-2449.3	0.9	-291.9	10.11	14.4	-160.5	0.5	846.2	15.68	-1431.6	488.8	0.0	-189.5
4.66	233.2	-2480.4	0.9	-266.5	10.23	5.7	-67.1	0.5	847.3	15.80	-1454.1	388.4	0.0	-175.0
4.77	242.1	-2508.6	0.9	-240.2	10.34	-3.0	26.4	0.5	847.4	15.91	-1479.4	285.7	0.0	-155.8
4.89	251.0	-2533.8	0.9	-212.8	10.46	-11.8	119.8	0.5	846.6	16.02	-1501.8	205.0	0.0	-136.0
5.00	261.0	-2558.6	1.0	-180.9	10.57	-20.5	213.2	0.4	844.9	16.14	-1524.3	135.8	0.0	-113.8
5.11	269.9	-2577.2	1.0	-151.5	10.68	-30.3	317.9	0.4	841.8	16.25	-1546.8	79.3	0.0	-89.1
5.23	278.8	-2592.5	1.0	-121.1	10.80	-39.0	410.5	0.4	838.0	16.36	-1572.1	32.7	0.0	-58.3
5.34	287.7	-2604.3	1.0	-89.7	10.91	-47.8	502.8	0.4	833.3	16.48	-1594.6	7.8	0.0	-28.3
5.45	297.8	-2613.5	1.0	-53.2	11.02	-56.5	594.4	0.4	827.6	16.59	-1614.3	0.0	0.0	0.0

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d = 0.50 ft
F = 836.6 lb/ft

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Waler/brace inadequately specified.
(Define L, E and I.)

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Design Report

1. The standard surcharge is 100.0psf. The Piling Handbook recommends a minimum surcharge of 200.0psf.

2. Maximum bending moment = 2618.5ftlb/ft and f = 3305.0psi. MINIMUM required sheet section modulus is: Z = 9.51in³/ft (= M/f). Sheet section modulus in this design is Z = 31.00in³/ft, and is satisfactory.

3. Frame primary axis bending moments checked. Users should manually check the axial load capacities and the effects of combined axial and bending stresses to confirm frames are suitable.

4. FOS = 8.20 (Net Pressure)
   This is the factor of safety against rotation about the lowest frame.
   The FOS can be changed using 'Defined FOS' or 'Manual' in the 'Wall' page.

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Appendix D – Permits

FLORIDA DEPARTMENT OF
Environmental Protection

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Permittee:
City of Daytona Beach
Attn: Jim Nelson
950 Bellevue Ave
Daytona Beach, FL 32114
Nelsonjames@CODB.us

Agent:
Rachel Peters
941 Lake Baldwin Ln
Orlando, FL 32814
rpeters@drmp.com

Halifax Harbor Marina- Riprap Removal and Seawall Installation

Consolidated Environmental Resource Permit and Sovereignty Submerged Lands Authorization

State-owned Submerged Lands Authorization – Granted

U.S. Army Corps of Engineers Authorization – Separate Corps Authorization Required

Permit No.: ERP 0237571-001-EI
Lease No.: 640262474

Permit Issuance Date: March 12, 2019
Permit Construction Phase Expiration Date: March 12, 2024

FLORIDA DEPARTMENT OF
Environmental Protection

Central District
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Orlando, Florida 32803-3767

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

Consolidated Environmental Resource Permit and Sovereignty Submerged Lands Authorization

Permittee: City of Daytona Beach
Attn: Jim Nelson

Permit No: 0237571-001-EI

PROJECT LOCATION

The activities authorized by this permit and sovereignty submerged lands authorization are located at Halifax Harbor Marina, 450 Basin Street, Daytona Beach, FL 32114, in Section 39, Township 15 South, Range 33 East, in Volusia County.

PROJECT DESCRIPTION

The permittee is authorized to remove existing rip-rap consisting of stacked stone and concrete bags and install a new 290-foot vinyl seawall with a concrete cap and safety handrail along the Mean High-Water Line of the Halifax River, a Class III Florida Waterbody. Authorized activities are depicted on the attached exhibits.

AUTHORIZATIONS

City of Daytona Beach- Halifax Harbor Marina- Riprap Removal and Seawall Installation

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

The activity is located on sovereignty submerged lands owned by the State of Florida. It therefore also requires authorization from the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Section 253.77, F.S..

As staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees) under Sections 253.002, F.S., the Department has determined that the activity qualifies for and requires a Letter of Consent, as long as the work performed is located within the boundaries as described and is consistent with the terms and conditions herein.

During the term of this Letter of Consent you shall maintain satisfactory evidence of sufficient upland interest as required by paragraph 18-21.004(3)(b), Florida Administrative Code. If such interest is terminated or the Board of Trustees determines that such interest did not exist on the date of issuance of this Letter of Consent, this Letter of Consent may be terminated by the Board of Trustees at its sole option. If the Board of Trustees terminates this Letter of Consent, you agree not to assert a claim or defense against the Board of Trustees arising out of this Letter of Consent.

Federal Authorization

Your proposed activity as outlined on your application and attached drawings **does not qualify** for Federal authorization pursuant to the State Programmatic General Permit and a **SEPARATE permit** or authorization **shall be required** from the Corps. You must apply separately to the Corps using the federal application form (ENG 4345). More information about Corps permitting may be found online in the Jacksonville District Regulatory Division Sourcebook. **Failure to obtain Corps authorization prior to construction could subject you to federal enforcement action by that agency.**

Authority for review - an agreement with the USACOE entitled "Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection, or Duly Authorized Designee, State Programmatic General Permit", Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Coastal Zone Management

Issuance of this authorization also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

Water Quality Certification

This permit also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

Other Authorizations

You are advised that authorizations or permits for this activity may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

PERMIT & SOVEREIGNTY SUBMERGED LANDS CONDITIONS
The activities described herein must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The Special Consent Conditions**
- **The General Conditions for Sovereignty Submerged Lands Authorization**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. If you are using a contractor, the contractor also should read and understand these conditions and drawings prior to beginning any activity. Failure to comply with these conditions, including any mitigation requirements, shall be grounds for the Department to revoke the permit and authorization and to take appropriate enforcement action. Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit and sovereignty submerged lands authorization, as described.

SPECIFIC CONDITIONS - PRIOR TO ANY CONSTRUCTION

1. A floating turbidity apron/curtain shall be installed around the entire project site prior to construction and shall remain in place until construction is completed and turbidity within the work area has returned to background levels. The turbidity barrier shall be inspected at least daily to ensure that it is functioning properly.

SPECIFIC CONDITIONS – CONSTRUCTION ACTIVITIES

2. Best management practices (primarily turbidity screens and floating turbidity barriers) for erosion and turbidity control shall be implemented and maintained at all times during construction and operation of the permitted activity to prevent siltation and turbid discharges in excess of State water standards pursuant to Chapter 62-302, F.A.C. The permittee shall be responsible for ensuring that erosion and turbidity control devices and procedures are inspected and maintained daily during all phases of construction authorized by this permit until all areas that were disturbed during construction are sufficiently stabilized to prevent erosion, siltation, and turbid discharges.

3. Upon final completion of the project and upon reasonable assurance that the project is no longer a potential turbidity source, the permittee will be responsible for the removal of the turbidity barriers. The turbidity control devices shall be removed no later than one year from completion of the project. All turbidity control devices shall be disposed of in an upland disposal area.

4. There shall be no stock piling of tools, materials (i.e., lumber, pilings, debris, etc.) within wetlands, along the shoreline, the littoral zone, or waters of the state unless specifically approved in this permit.

5. There shall not be any excess lumber, scrap wood, trash, garbage, etc. within the wetlands and waters of the State.

6. This permit does not authorize the construction of any additional structures/fill not illustrated on the permit drawings.

7. Construction equipment shall not be repaired or refueled in wetlands or elsewhere within waters of the state.

8. The permittee shall report any damage to the Department within 24 hours that occurs to the wetlands/littoral zone area as a result of construction. If any damage occurs to wetlands or surface waters as a result of any construction activities, the permittee shall be required to restore the wetland area by regrading the damaged areas back to the natural reconstruction elevations and planting vegetation of the size, densities and species that exist in the adjacent areas pursuant to a consent order. The restoration shall be completed within 30 days of completion of the construction and shall be done to the satisfaction of the Department.

9. Any disturbed areas of the shoreline shall be stabilized immediately (within 48 hours) following completion the project.

10. Any fill material used shall be clean material and shall not be contaminated with vegetation, garbage, trash, tires, hazardous, toxic waste or other materials that are not suitable for road construction within water of the State as so determined by the Department.

SPECIFIC CONDITIONS - MANATEE

11. The Standard Manatee Construction Conditions for In-water Work (2011) must be followed for all in-water activity.

    The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

    a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

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

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shut down if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

GENERAL CONDITIONS FOR INDIVIDUAL PERMITS

The following general conditions are binding on all individual permits issued under Chapter 62-330, F.A.C., except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate project-specific conditions.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and

adjacent lands. Such practices shall be in accordance with the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007)*, and the *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008)*, which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," [October 1, 2013], which is incorporated by reference in paragraph 62-330.350(1)(d), F.A.C., indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.

5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex – "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or
b. For all other activities – "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
   a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
   b. Convey to the permittee or create in the permittee any interest in real property;
   c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
   d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
    a. Immediately if any previously submitted information is discovered to be inaccurate; and
    b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

SPECIAL CONSENT CONDITIONS

1. The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.

2. Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.

3. Applicant binds itself and its successors and assigns to abide by the provisions and conditions set forth in the authorization. If the applicant or its successors or assigns fails or refuses to comply with the provisions and conditions of the authorization, the authorization may be terminated by the Board of Trustees after written notice to the applicant or its successors or assigns. Upon receipt of such notice, the applicant or its successors or assigns will have thirty (30) days in which to correct the violations. Failure to correct the violations within this period will result in the automatic revocation of this authorization.

4. All costs incurred by the Board of Trustees in enforcing the terms and conditions of the authorization will be paid by the applicant. Any notice required by law will be made by certified mail at the address shown on page one of the authorization. The applicant will notify the Board of Trustees in writing of any change of address at least ten days before the change becomes effective.

5. This authorization does not allow any activity prohibited in a conservation easement or restrictive covenant that prohibits the activity.

GENERAL CONDITIONS FOR SOVEREIGNTY SUBMERGED LANDS AUTHORIZATION

Any use of sovereignty submerged lands is subject to the following general conditions are binding upon the applicant and are enforceable under Chapter 253, F.S.

1. Sovereignty submerged lands may be used only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use will constitute a violation. Violation of the authorization will result in suspension or revocation of the applicant's use of the sovereignty submerged lands unless cured to the satisfaction of the Board of Trustees.

2. Authorization under Rule 18-21.005, F.A.C., conveys no title to sovereignty submerged lands or water column, nor does it constitute recognition or acknowledgment of any other person's title to such land or water.

3. Authorizations under Rule 18-21.005, F.A.C., may be modified, suspended or revoked in accordance with its terms or the remedies provided in Sections 253.04, F.S. and Chapter 18-14, F.A.C.

4. Structures or activities will be constructed and used to avoid or minimize adverse impacts to resources.

5. Construction, use, or operation of the structure or activity will not adversely affect any species which is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C.

6. Structures or activities will not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity will be modified in accordance with the court's decision.

7. Structures or activities will not create a navigational hazard.

8. Structures will be maintained in a functional condition and will be repaired or removed if they become dilapidated to such an extent that they are no longer functional.

9. Structures or activities will be constructed, operated, and maintained solely for water dependent purposes.

10. The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.

11. Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.

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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.

<u>Petition for Administrative Hearing</u>
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 14 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 14 days of publication of the notice or within 14 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 14 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
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.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____
Nathan Hess
Permitting and Waste Cleanup Program
Program Administrator
Florida Department of Environmental Protection

Attachments:
Project Drawings, 10 pages
Construction Commencement Notice/Form 62-330.350(1)
As-built Certification and Request for Conversion to Operational Phase/ Form 62-330.310(1)
Request for Transfer to the Perpetual Operation Entity/Form 62-330.310(2)

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Copies furnished to:
Volusia County**,** enviropermit@co.volusia.fl.us
Amanda Johannes, FDEP, Amanda.Johannes@FloridaDEP.gov

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

_____	March 12, 2019
Clerk	**Date**

5. There shall not be any excess lumber, scrap wood, trash, garbage, etc. within the wetlands and waters of the State.

6. This permit does not authorize the construction of any additional structures/fill not illustrated on the permit drawings.

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   d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
    a. Immediately if any previously submitted information is discovered to be inaccurate; and
    b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

SPECIAL CONSENT CONDITIONS

1. The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.

2. Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.

3. Applicant binds itself and its successors and assigns to abide by the provisions and conditions set forth in the authorization. If the applicant or its successors or assigns fails or refuses to comply with the provisions and conditions of the authorization, the authorization may be terminated by the Board of Trustees after written notice to the applicant or its successors or assigns. Upon receipt of such notice, the applicant or its successors or assigns will have thirty (30) days in which to correct the violations. Failure to correct the violations within this period will result in the automatic revocation of this authorization.

4. All costs incurred by the Board of Trustees in enforcing the terms and conditions of the authorization will be paid by the applicant. Any notice required by law will be made by certified mail at the address shown on page one of the authorization. The applicant will notify the Board of Trustees in writing of any change of address at least ten days before the change becomes effective.

5. This authorization does not allow any activity prohibited in a conservation easement or restrictive covenant that prohibits the activity.

GENERAL CONDITIONS FOR SOVEREIGNTY SUBMERGED LANDS AUTHORIZATION

Any use of sovereignty submerged lands is subject to the following general conditions are binding upon the applicant and are enforceable under Chapter 253, F.S.

1. Sovereignty submerged lands may be used only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use will constitute a violation. Violation of the authorization will result in suspension or revocation of the applicant's use of the sovereignty submerged lands unless cured to the satisfaction of the Board of Trustees.

2. Authorization under Rule 18-21.005, F.A.C., conveys no title to sovereignty submerged lands or water column, nor does it constitute recognition or acknowledgment of any other person's title to such land or water.

3. Authorizations under Rule 18-21.005, F.A.C., may be modified, suspended or revoked in accordance with its terms or the remedies provided in Sections 253.04, F.S. and Chapter 18-14, F.A.C.

4. Structures or activities will be constructed and used to avoid or minimize adverse impacts to resources.

5. Construction, use, or operation of the structure or activity will not adversely affect any species which is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004, and 68A-27.005, F.A.C.

6. Structures or activities will not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity will be modified in accordance with the court's decision.

7. Structures or activities will not create a navigational hazard.

8. Structures will be maintained in a functional condition and will be repaired or removed if they become dilapidated to such an extent that they are no longer functional.

9. Structures or activities will be constructed, operated, and maintained solely for water dependent purposes.

10. The applicant agrees to indemnify, defend and hold harmless the Board of Trustees and the State of Florida from all claims, actions, lawsuits and demands in any form arising out of the authorization to use sovereignty submerged lands or the applicant's use and construction of structures on sovereignty submerged lands. This duty to indemnify and hold harmless will include any and all liabilities that are associated with the structure or activity including special assessments or taxes that are now or in the future assessed against the structure or activity during the period of the authorization.

11. Failure by the Board of Trustees to enforce any violation of a provision of the authorization or waiver by the Board of Trustees of any provision of the authorization will not invalidate the provision not enforced or waived, nor will the failure to enforce or a waiver prevent the Board of Trustees from enforcing the unenforced or waived provision in the event of a violation of that provision.

12. Applicant binds itself and its successors and assigns to abide by the provisions and conditions set forth in the authorization. If the applicant or its successors or assigns fails or refuses to comply with the provisions and conditions of the authorization, the authorization may be terminated by the Board of Trustees after written notice to the applicant or its successors or assigns. Upon receipt of such notice, the applicant or its successors or assigns will have thirty (30) days in which to correct the violations. Failure to correct the violations within this period will result in the automatic revocation of this authorization.

13. All costs incurred by the Board of Trustees in enforcing the terms and conditions of the authorization will be paid by the applicant. Any notice required by law will be made by certified mail at the address shown on page one of the authorization. The applicant will notify the Board of Trustees in writing of any change of address at least ten days before the change becomes effective.

14. This authorization does not allow any activity prohibited in a conservation easement or restrictive covenant that prohibits the activity.

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.

<u>Petition for Administrative Hearing</u>
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 14 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 14 days of publication of the notice or within 14 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 14 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
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.

Executed in Orlando, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

_____
Nathan Hess
Permitting and Waste Cleanup Program
Program Administrator
Florida Department of Environmental Protection

Attachments:
Project Drawings, 10 pages
Construction Commencement Notice/Form 62-330.350(1)
As-built Certification and Request for Conversion to Operational Phase/ Form 62-330.310(1)
Request for Transfer to the Perpetual Operation Entity/Form 62-330.310(2)

CERTIFICATE OF SERVICE
The undersigned duly designated deputy clerk hereby certifies that this permit and all copies were sent on the filing date below to the following listed persons:

Copies furnished to:
Volusia County**,** enviropermit@co.volusia.fl.us
Amanda Johannes, FDEP, Amanda.Johannes@FloridaDEP.gov

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

_____	March 12, 2019
Clerk	**Date**

CONSTRUCTION PLANS
for
HALIFAX MARINA
SEAWALL RESTORATION

CITY of DAYTONA BEACH, FLORIDA

CITY PROJECT NUMBER 2018-033

VICINITY MAP
SCALE: 1" = 2000'

HALIFAX HARBOR MARINA, 450 BASIN STREET, DAYTONA BEACH, FLORIDA

CITY OF DAYTONA BEACH
P.O. BOX 2451
DAYTONA BEACH, FL. 32115

JIM NELSON, JR. P.E.
CITY ENGINEER

PROJECT SHEET INDEX

C1.0 COVER SHEET AND INDEX OF DRAWINGS
C1.1 GENERAL NOTES
C2.0 EXISTING CONDITIONS AND DEMOLITION PLAN
C3.0 SITE PLAN
C4.0 CONSTRUCTION DETAILS

NOTE:
ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

CONSULTANT CONTACTS:

SURVEY
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
ALLEN L. QUICKEL, P.S.M. 407-896-0594

CIVIL ENGINEERING
DRMP, INC.
941 LAKE BALDWIN LANE
ORLANDO, FL 32814
DONALD C. BIEGER JR., P.E. 407-896-0594

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS

941 LAKE BALDWIN LANE, ORLANDO, FL 32814

January, 2019

DRMP PROJECT NO. 18-0571.000

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW!
DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

REVISIONS

NO.	DATE	DESCRIPTION	BY

DESIGNED BY LAW
DRAWN BY DPC
CHECKED BY DCL
APPROVED BY DCB

COVER SHEET AND INDEX OF DRAWINGS

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
941 Lake Baldwin Lane, Orlando, Florida 32814
Phone:407.896.0594 Fax:407.896.4836 www.drmp.com

DRMP, Inc.

DONALD C. BIEGER, JR. LICENSE No. 60857 STATE OF FLORIDA PROFESSIONAL ENGINEER
Donald C. Bieger, Jr., P.E.
State of Florida # 60857

PROJECT NO.: 18-0571.000
SCALE: AS SHOWN
DATE: JANUARY, 2019
DRAWING: C1.0

P:\Projects18\18-0571.000_Seawall_Replacement_at_Halifax_Harbor_Ma\General-Civil\Design\Plans\0100_Cover.dwg Plotted: Feb 11, 2019 – 8:25am by lvalentine

GENERAL NOTES

1. UNLESS OTHERWISE SPECIFIED, ALL WORK SHALL BE PERFORMED CONSISTENT WITH THE FOLLOWING SPECIFICATIONS:

- CITY OF DAYTONA BEACH
- FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
- ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

2. THIS DESIGN HAS BEEN BASED UPON GROUND-RUN TOPOGRAPHIC SURVEYS BY DRMP INC. GEOTECHNICAL EVALUATION HAS BEEN PERFORMED BY GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS INC. MAKES NO ASSURANCES REGARDING THE ACCURACY OF EITHER SUCH EVALUATION. STRUCTURE SHEETPILE DESIGNED BY EVERLAST, A PROPRIETARY SHEET PILING SYSTEM.

3. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE SITE, INCLUDING ALL SURFACE AND SUBSURFACE CONDITIONS, THE WORK REQUIRED AND ALL OTHER CONDITIONS THAT MAY AFFECT THE SUCCESSFUL COMPLETION OF THE JOB PRIOR TO COMMENCEMENT OF WORK.

4. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND PERMIT CONDITIONS BEARING ON THE CONDUCT OF THE WORK, AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER, IN WRITING, AND ANY NECESSARY CHANGES SHALL BE ADJUSTED, AS PROVIDED IN THE AGREEMENT FOR CHANGES IN THE WORK.

5. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER AND THE ENGINEER FOR THE ACTS AND OMISSIONS OF CONTRACTOR'S EMPLOYEES AND ALL HIS SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES AND OTHER PERSONS PERFORMING ANY OF THE WORK UNDER A CONTRACT WITH THE CONTRACTOR.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS WITH GOVERNMENTAL DEPARTMENTS, PUBLIC UTILITIES, PUBLIC CARRIERS, SERVICE COMPANIES, AND CORPORATIONS OWNING OR CONTROLLING ROADWAYS, RAILWAYS, WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, AND TELEGRAPH FACILITIES SUCH AS PAVEMENTS, TRACKS, PIPING, WIRES, CABLES, CONDUITS, POLES, GUYS, OR OTHER SIMILAR FACILITIES, INCLUDING INCIDENTAL STRUCTURES CONNECTED THEREWITH THAT ARE ENCOUNTERED IN THE WORK IN ORDER THAT SUCH ITEMS MAY BE PROPERLY SUPPORTED, PROTECTED OR LOCATED.

7. UNLESS OTHERWISE SPECIFIED IN THE GENERAL CONDITIONS, ALL CONSTRUCTION IS TO BE GOVERNED BY THE PLANS, APPLICABLE PERMITS, AND SPECIFICATIONS HEREIN, AND ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING AND SAFETY CODES, LAWS AND ORDINANCES.

8. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC OR UTILITY RIGHT-OF-WAY, CONTRACTOR SHALL OBTAIN AUTHORIZATION AND PERMIT FROM JURISDICTION RESPONSIBLE FOR SUCH RIGHT-OF-WAY. CONTRACTOR SHALL CALL SUN STATE ONE TO LOCATE ALL UTILITIES. IN ADDITION, CONTRACTOR SHALL OBTAIN GAS I.D. NUMBER FROM LOCAL GAS COMPANY AND NOTIFY UNDERGROUND UTILITIES, NOTIFICATION CENTER AT 1-800-432-4770 AT LEAST 72 HOURS PRIOR TO START OF WORK.

9. PRIOR TO PERFORMING ANY WORK WITHIN ANY PUBLIC RIGHT-OF-WAY, CONTRACTOR SHALL DEVELOP AND IMPLEMENT A TRAFFIC CONTROL PLAN CONSISTENT WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" PUBLISHED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION, AND SUBMIT TO THE ENGINEER FOR APPROVAL.

10. IN THE EVENT THE CONTRACTOR DISCOVERS ANY ERRORS OR OMISSIONS IN THE PLANS HE SHALL IMMEDIATELY NOTIFY THE OWNER OR OWNER'S AGENT.

11. CONTRACTOR SHALL PRESERVE AND PROTECT ALL PERMANENT REFERENCE MONUMENTS, PERMANENT CONTROL POINTS, PERMANENT BENCH MARKS AND PROPERTY CORNERS. IN THE EVENT THE MONUMENTS, POINTS OR MARKERS ARE DISTURBED THE CONTRACTOR SHALL EMPLOY A FLORIDA REGISTERED LAND SURVEYOR TO RESET OR REPLACE THEM.

12. THE OWNER, OWNER'S AGENT AND INSPECTORS OF APPLICABLE GOVERNMENT JURISDICTIONS, SHALL AT ALL TIMES HAVE ACCESS TO THE WORK WHEREVER AND WHENEVER IT IS IN PREPARATION OR PROGRESS; AND THE CONTRACTOR SHALL PROVIDE PROPER FACILITIES FOR SUCH ACCESS AND FOR THE INSPECTION.

13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ALL REASONABLE AND PRUDENT PRECAUTIONS TO INSURE THAT ALL COMPLETED WORK, MATERIALS AND EQUIPMENT STORED ON SITE ARE SAFE AND SECURED FROM UNAUTHORIZED ACCESS OR USE. SUCH PRECAUTIONS MAY INCLUDE INSTALLATION OF SIGNS, FENCES, OR POSTING OF SECURITY GUARDS.

14. CONTRACTOR SHALL, AT ALL TIMES, UTILIZE ALL NORMALLY ACCEPTED AND REASONABLY EXPECTED SAFETY PRACTICES AND COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND GUIDELINES PERTAINING TO SAFE UTILIZATION OF EQUIPMENT OR MATERIALS AS PUBLISHED BY MANUFACTURER.

15. PRIOR TO INITIATING ANY EXCAVATION (INCLUDING BUT NOT LIMITED TO TUNNELS, DITCHES, STORM WATER PONDS, CANALS, ARTIFICIAL LAKES) CONTRACTOR SHALL INSTALL FENCES AND TAKE ALL OTHER REASONABLE AND PRUDENT STEPS TO INSURE THAT ACCESS TO EXCAVATION BY UNAUTHORIZED PERSONNEL IS PREVENTED.

16. CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE PROVISIONS OF THE FLORIDA STATE TRENCH SAFETY ACT.

17.1 THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS FOR THE SAFETY OF, AND SHALL PROVIDE ALL REASONABLE PROTECTION TO PREVENT DAMAGE, INJURY OR LOSS TO:

A. ALL EMPLOYEES ON THE WORK AND ALL OTHER PERSONS WHO MAY BE AFFECTED THEREBY;

B. ALL THE WORK AND ALL MATERIALS AND EQUIPMENT TO BE INCORPORATED THEREIN, WHETHER IN STORAGE ON OR OFF THE SITE, UNDER THE CARE, CUSTODY OR CONTROL OF THE CONTRACTOR OR ANY OF ITS SUBCONTRACTORS;

C. OTHER PROPERTY AT THE SITE OR ADJACENT THERETO, INCLUDING TREES, SHRUBS, LAWNS, WALKS, PAVEMENTS, ROADWAY, STRUCTURES AND UTILITIES NOT DESIGNATED FOR DEMOLITION IN THE COURSE OF CONSTRUCTION.

17.2 THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY CODES AND WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC, QUASI PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY OR FOR THEIR PROTECTION AGAINST DAMAGE, INJURY OR LOSS, OR DESIGNED TO PROTECT THE ENVIRONMENT. THE CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY EXISTING CONDITIONS AND PROGRESS OF THE WORK, ALL REASONABLE SAFEGUARDS FOR SAFETY AND PROTECTION, INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS, PROMULGATING SAFETY REGULATIONS AND NOTIFYING OWNERS AND USERS OF ADJACENT UTILITIES OF THE EXISTENCE OF HAZARDS AND OF THE SAFETY REGULATIONS.

17.3 ALL DAMAGE OR LOSS TO ANY PROPERTY REFERRED TO IN CLAUSES 17.1(B) AND 17.1(C) CAUSED IN WHOLE OR IN PART BY THE CONTRACTOR, A SUBCONTRACTOR, OR BY ANYONE FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, SHALL BE REMEDIED BY THE CONTRACTOR, EXCEPT DAMAGE OR LOSS PROPERLY ATTRIBUTABLE SOLELY TO THE ACTS OR OMISSIONS OF THE OWNER, OR THE ENGINEER OR ANYONE EMPLOYED BY THEM, OR FOR WHOSE ACTS ANY OF THEM MAY BE LIABLE, AND NOT PROPERLY ATTRIBUTABLE IN WHOLE OR IN PART, TO THE FAULT OR NEGLIGENCE OF THE CONTRACTOR.

17.4 UNTIL FINAL ACCEPTANCE OF THE WORK BY OWNER, THE CONTRACTOR SHALL HAVE THE CHARGE AND CARE OF AND SHALL BEAR THE RISK OF INJURY OR DAMAGE, LOSS OR EXPENSE TO ANY PART THEREOF, OR TO ANY MATERIALS STORED ON SITE, BY THE ACTION OF THE ELEMENTS OR FROM ANY OTHER CAUSE WHETHER ARISING FROM THE EXECUTION OR NON-EXECUTION OF THE WORK. THE CONTRACTOR SHALL REBUILD, REPAIR, RESTORE AND MAKE GOOD ALL INJURIES OR DAMAGES TO ANY PORTION OF THE WORK OCCASIONED BY ANY OF THE ABOVE CAUSES BEFORE FINAL ACCEPTANCE AND SHALL BEAR THE EXPENSES THEREOF.

17.5 THOSE PARTS OF WORK IN PLACE WHICH ARE SUBJECT TO DAMAGE BECAUSE OF OPERATIONS BEING CARRIED ON ADJACENT THERETO SHALL BE COVERED, BOARDED UP OR SUBSTANTIALLY ENCLOSED WITH ADEQUATE PROTECTION BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.

17.6 ADEQUATE TRAFFIC CONTROL, BARRICADES AND FLAGMAN SERVICES SHALL BE FURNISHED AND MAINTAINED BY THE CONTRACTOR AT ALL POINTS WHERE CONVEYING EQUIPMENT ENGAGED ON THE WORK REGULARLY ENTERS ONTO OR CROSSES TRAFFIC-CARRYING ROADS, PARKING LOT, AND PARKING AREA.

18.1 THE CONTRACTOR SHALL COMPLY IN EVERY RESPECT WITH THE FEDERAL OCCUPATIONAL HEALTH AND SAFETY ACT OF 1970 AND ALL RULES AND REGULATIONS NOW OR HEREAFTER IN EFFECT UNDER SAID ACT, AND THE CONTRACTOR FURTHER AGREES TO COMPLY WITH ANY AND ALL APPLICABLE STATE LAWS AND REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH.

18.2 THE CONTRACTOR SHALL PROTECT AND KEEP OWNER (INCLUDING THEIR AGENTS AND EMPLOYEES) FREE AND HARMLESS FROM ANY AND ALL LIABILITY, PUBLIC OR PRIVATE, PENALTIES, CONTRACTUAL OR OTHERWISE, LOSSES, DAMAGES, COSTS, ATTORNEY'S FEES, EXPENSES, CAUSES OF ACTION, CLAIMS OR JUDGMENTS RESULTING FROM THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AS AMENDED OR ANY RULE OR REGULATION PROMULGATED THEREUNDER OR OF ANY STATE LAWS OR REGULATIONS PERTAINING TO JOB SAFETY AND HEALTH ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF WORK OR WORK TO BE PERFORMED UNDER THIS CONTRACT, AND CONTRACTOR SHALL INDEMNIFY OWNER FROM ANY SUCH CLAIMS, PENALTIES, SUITS OR ACTIONS, PUBLIC OR PRIVATE, ADMINISTRATIVE OR JUDICIAL, INCLUDING ATTORNEY'S FEES PAID OR INCURRED BY OR ON BEHALF OF OWNER, JOINTLY OR SEVERALLY, AND/OR THEIR AGENTS AND EMPLOYEES. THE CONTRACTOR FURTHER AGREES, IN THE EVENT OF A CLAIMED VIOLATION OF ANY FEDERAL OR STATE SAFETY AND HEALTH LAW OR REGULATION ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PERFORMANCE OF WORK OR WORK TO BE PERFORMED UNDER THIS CONTRACT, OWNER MAY IMMEDIATELY TAKE WHATEVER ACTION IS DEEMED NECESSARY BY OWNER TO REMEDY THE CLAIMED VIOLATION. ANY AND ALL COSTS OR EXPENSES PAID OR INCURRED BY OWNER IN TAKING SUCH ACTION SHALL BE BORNE BY CONTRACTOR, AND CONTRACTOR AGREES TO PROTECT, HOLD HARMLESS AND INDEMNIFY OWNER AGAINST ANY AND ALL SUCH COSTS OR EXPENSES.

19. ALL WORK PERFORMED UNDER THE CONTRACT, AND ALL EQUIPMENT, APPLIANCES, TOOLS AND LIKE ITEMS USED IN THE WORK SHALL CONFORM TO APPLICABLE SAFETY CODES AND REGULATIONS OF ANY PUBLIC OR OTHER AUTHORITY HAVING JURISDICTION. IN THE EVENT OF CONFLICTING REQUIREMENTS, THE MORE STRINGENT INTERPRETATION OR REGULATION SHALL GOVERN.

20. THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT AN EROSION CONTROL PLAN TO MINIMIZE EROSION AND INSURE FUNCTIONING OF STORMWATER MANAGEMENT SYSTEM UPON COMPLETION OF CONSTRUCTION.

21.1 CONTRACTOR AND ITS SUBCONTRACTORS SHALL USE, HANDLE, TRANSPORT, AND DISPOSE OF ALL HAZARDOUS MATERIALS IN COMPLIANCE WITH ALL PRESENT FEDERAL, STATE AND LOCAL ENVIRONMENTAL, HEALTH OR SAFETY LAW, INCLUDING, BUT NOT LIMITED TO, ALL SUCH STATUTES, REGULATIONS, RULES, ORDINANCES, CODES, AND RULES OF COMMON LAW.

21.2 CONTRACTOR FURTHER AGREES THAT CONTRACTOR AND ITS SUBCONTRACTORS SHALL NOT CAUSE THE DISCHARGE, RELEASE OR DISPOSAL OF ANY HAZARDOUS MATERIAL CREATED BY ITS WORK ON OR ABOUT THE JOB SITE. IN THE EVENT OF ANY SPILL, RELEASE OR ANY OTHER REPORTABLE OCCURRENCE, CONTRACTOR SHALL NOTIFY FDEP AND THE CITY OF DAYTONA WITHIN 20 MINUTES OF DISCOVERY OF SPILL. FDEP SHALL BE NOTIFIED USING THE STATE WATCH OFFICE 1-800-320-0519 REPORTING LINE. CONTRACTOR SHALL TAKE SUCH ACTION AS MAY BE NECESSARY TO MINIMIZE THE DELETERIOUS EFFECT OF SUCH SPILL ON PERSONS OR PROPERTY.

21.3 CONTRACTOR AND ITS SUBCONTRACTORS SHALL, UPON COMPLETION OF PERFORMANCE OF ALL DUTIES UNDER THIS CONTRACT, REMOVE ALL SUPPLIES, MATERIALS, AND WASTE CONTAINING AND HAZARDOUS MATERIAL FROM THE JOB SITE. CONTRACTOR SHALL BEAR FULL FINANCIAL RESPONSIBILITY, AS BETWEEN THE PARTIES OF THIS CONTRACT, FOR THE COMPLIANCE OF CONTRACTOR AND ITS SUBCONTRACTORS WITH THE PROVISIONS OF PARAGRAPH 21.7.

21.4 CONTRACTOR AGREES TO INDEMNIFY, DEFEND, PROTECT AND HOLD THE OWNER HARMLESS FROM AND AGAINST ANY CLAIMS INCLUDING, WITHOUT LIMITATION, ACTUAL ATTORNEY'S FEES AND ANY COSTS OF INVESTIGATION, SOILS TESTING, GOVERNMENTAL APPROVALS, REMEDIATION AND CLEANUP ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE FAILURE OF CONTRACTOR OR ITS SUBCONTRACTORS, OR THEIR AGENTS, EMPLOYEES, OFFICERS, OR REPRESENTATIVES, TO COMPLY WITH THE GENERAL NOTES 20.1-20.8.

21.5 SHOULD CONTRACTOR OR ITS SUBCONTRACTORS DISCHARGE, RELEASE OR DISPOSE OF ANY HAZARDOUS MATERIAL ON OR ABOUT THE JOB SITE IN VIOLATION OF THIS PARAGRAPH, CONTRACTOR SHALL INFORM OWNER IN WRITING WITHIN 48 HOURS.

21.6 IN THE EVENT CONTRACTOR OR ITS SUBCONTRACTORS ENCOUNTER ON THE PREMISES ANY PIPELINE, UNDERGROUND STORAGE TANK OR OTHER CONTAINER, OF ANY KIND, THAT MAY CONTAIN A HAZARDOUS MATERIAL, OR ENCOUNTER MATERIAL REASONABLY BELIEVED TO BE A HAZARDOUS MATERIAL, CONTRACTOR SHALL IMMEDIATELY STOP WORK IN THE AREA AFFECTED AND REPORT THE CONDITION TO OWNER IN WRITING AND VERBALLY WITHIN 20 MINUTES.

21.7 IF CONTRACTOR OR ITS SUBCONTRACTORS DO NOT COMPLY WITH THE REQUIREMENTS OF THIS PARAGRAPH, OWNER MAY, BUT IS NOT OBLIGATED TO, GIVE WRITTEN NOTICE OF VIOLATION TO CONTRACTOR. SHOULD CONTRACTOR OR ITS SUBCONTRACTORS FAIL TO COMPLY WITH THE REQUIREMENTS OF THE PARAGRAPH WITHIN TWENTY-FOUR (24) HOURS FROM THE TIME OWNER ISSUES SUCH WRITTEN NOTICE OF NONCOMPLIANCE OR WITHIN THE TIME OF AN ABATEMENT PERIOD SPECIFIED BY ANY GOVERNMENTAL AGENCY, WHICHEVER PERIOD IS SHORTER, CONTRACTOR SHALL BE IN MATERIAL DEFAULT OF THIS CONTRACT.

21.8 "HAZARDOUS MATERIAL" MEANS ANY SUBSTANCE: (A) THE PRESENCE OF WHICH REQUIRES INVESTIGATION OR REMEDIATION UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, ORDINANCE, RULE, CODE, ORDER, ACTION, POLICY OR COMMON LAW, OR (B) WHICH IS OR BECOMES DEFINED AS A "HAZARDOUS WASTE," "HAZARDOUS SUBSTANCE," POLLUTANT OR CONTAMINANT UNDER ANY PRESENT FEDERAL, STATE OR LOCAL STATUTE, REGULATION, RULE OR ORDINANCE OR AMENDMENTS THERETO INCLUDING, WITHOUT LIMITATION, THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (42 U.S.C. SECTIONS 9601 ET SEQ.) AND/OR THE RESOURCE CONSERVATION AND RECOVERY ACT (42 U.S.C. SECTIONS 6901 ET SEQ.), OR (C) WHICH IS TOXIC, EXPLOSIVE, CORROSIVE, FLAMMABLE, INFECTIOUS, RADIOACTIVE, CARCINOGENIC, MUTAGENIC, OR OTHERWISE HAZARDOUS AND IS REGULATED BY ANY GOVERNMENTAL AUTHORITY, AGENCY, DEPARTMENT, COMMISSION, BOARD, AGENCY OR INSTRUMENTALITY OF THE UNITED STATES, THE STATE IN WHICH THE PREMISES ARE LOCATED OR ANY POLITICAL SUBDIVISION THEREOF, OR (D) THE PRESENCE OF WHICH ON THE PREMISES CAUSES OR THREATENS TO CAUSE A NUISANCE UPON THE PREMISES OR TO ADJACENT PROPERTIES OR POSES OR THREATENS TO POSE A HAZARD TO THE HEALTH OR SAFETY OF PERSONS ON OR ABOUT THE PREMISES, OR (E) WHICH CONTAINS GASOLINE, DIESEL FUEL OR OTHER PETROLEUM HYDROCARBONS, OR (F) WHICH CONTAINS POLYCHLORINATED BIPHENYLS (PCBS), ASBESTOS, LEAD OR UREA FORMALDEHYDE FOAM INSULATION.

22. THE EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING UTILITIES AS TO SIZE, LOCATION, AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING PROTECTED SPECIES CONSTRUCTION CONDITIONS:

A. THE CONTRACTOR SHALL INSTRUCT ALL PERSONNEL ASSOCIATED WITH THE PROJECT OF THE POTENTIAL PRESENCE OF THESE SPECIES AND THE NEED TO AVOID COLLISIONS WITH SEA TURTLES AND SMALLTOOTH SAWFISH. ALL CONSTRUCTION PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF THESE SPECIES.

B. THE CONTRACTOR SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING SEA TURTLES OR SMALLTOOTH SAWFISH, WHICH ARE PROTECTED UNDER THE ENDANGERED SPECIES ACT OF 1973.

C. SILTATION BARRIERS SHALL BE MADE OF MATERIAL IN WHICH A SEA TURTLE OR SMALLTOOTH SAWFISH CANNOT BECOME ENTANGLED, BE PROPERLY SECURED, AND BE REGULARLY MONITORED TO AVOID PROTECTED SPECIES ENTRAPMENT. BARRIERS MAY NOT BLOCK SEA TURTLE OR SMALLTOOTH SAWFISH ENTRY TO OR EXIT FROM DESIGNATED CRITICAL HABITAT WITHOUT PRIOR AGREEMENT FROM THE NATIONAL MARINE FISHERIES SERVICE'S PROTECTED RESOURCES DIVISION, ST. PETERSBURG, FLORIDA.

D. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "NO WAKE/IDLE" SPEEDS AT ALL TIMES WHILE IN THE CONSTRUCTION AREA AND WHILE IN WATER DEPTHS WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL PREFERENTIALLY FOLLOW DEEP-WATER ROUTES (E.G., MARKED CHANNELS) WHENEVER POSSIBLE.

E. IF A SEA TURTLE OR SMALLTOOTH SAWFISH IS SEEN WITHIN 100 YARDS OF THE ACTIVE DAILY CONSTRUCTION/DREDGING OPERATION OR VESSEL MOVEMENT, ALL APPROPRIATE PRECAUTIONS SHALL BE IMPLEMENTED TO ENSURE ITS PROTECTION. THESE PRECAUTIONS SHALL INCLUDE CESSATION OF OPERATION OF ANY MOVING EQUIPMENT CLOSER THAN 50 FEET OF A SEA TURTLE OR SMALLTOOTH SAWFISH. OPERATION OF ANY MECHANICAL CONSTRUCTION EQUIPMENT SHALL CEASE IMMEDIATELY IF A SEA TURTLE OR SMALLTOOTH SAWFISH IS SEEN WITHIN A 50-FT RADIUS OF THE EQUIPMENT. ACTIVITIES MAY NOT RESUME UNTIL THE PROTECTED SPECIES HAS DEPARTED THE PROJECT AREA OF ITS OWN VOLITION.

F. ANY COLLISION WITH AND/OR INJURY TO A SEA TURTLE OR SMALLTOOTH SAWFISH SHALL BE REPORTED IMMEDIATELY TO THE NATIONAL MARINE FISHERIES SERVICE'S PROTECTED RESOURCES DIVISION (727-824-5312) AND THE LOCAL AUTHORIZED SEA TURTLE STRANDING/RESCUE ORGANIZATION.

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK:

THE CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CONDITIONS INTENDED TO PROTECT MANATEES FROM DIRECT PROJECT EFFECTS:

A. ALL PERSONNEL ASSOCIATED WITH THE PROJECT SHALL BE INSTRUCTED ABOUT THE PRESENCE OF MANATEES AND MANATEE SPEED ZONES, AND THE NEED TO AVOID COLLISIONS WITH AND INJURY TO MANATEES. THE CONTRACTOR SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING MANATEES WHICH ARE PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT, THE ENDANGERED SPECIES ACT, AND THE FLORIDA MANATEE SANCTUARY ACT.

B. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "IDLE SPEED/NO WAKE" AT ALL TIMES WHILE IN THE IMMEDIATE AREA AND WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.

C. SILTATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.

D. ALL ON-SITE PROJECT PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF MANATEE(S). ALL IN-WATER OPERATIONS, INCLUDING VESSELS, MUST BE SHUTDOWN IF A MANATEE(S) COMES WITHIN 50 FEET OF THE OPERATION. ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS MOVED BEYOND THE 50-FOOT RADIUS OF THE PROJECT OPERATION, OR UNTIL 30 MINUTES ELAPSES IF THE MANATEE(S) HAS NOT REAPPEARED WITHIN 50 FEET OF THE OPERATION. ANIMALS MUST NOT BE HERDED AWAY OR HARASSED INTO LEAVING.

E. ANY COLLISION WITH OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) HOTLINE AT 1-888-404-3922. COLLISION AND/OR INJURY SHOULD ALSO BE REPORTED TO THE U.S. FISH AND WILDLIFE SERVICE IN JACKSONVILLE (1-904-731-3336) FOR NORTH FLORIDA OR IN VERO BEACH (1-772-562-3909) FOR SOUTH FLORIDA, AND EMAILED TO FWC AT:IMPERILEDSPECIES@MYFWC.COM.

F. TEMPORARY SIGNS CONCERNING MANATEES SHALL BE POSTED PRIOR TO AND DURING ALL IN-WATER PROJECT ACTIVITIES. ALL SIGNS ARE TO BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. TEMPORARY SIGNS THAT HAVE ALREADY BEEN APPROVED FOR THIS USE BY THE FWC MUST BE USED. ONE SIGN WHICH READS CAUTION: BOATERS MUST BE POSTED. A SECOND SIGN MEASURING AT LEAST 81 2" BY 11" EXPLAINING THE REQUIREMENTS FOR 'IDLE SPEED/NO WAKE" AND THE SHUT DOWN OF IN-WATER OPERATIONS MUST BE POSTED IN A LOCATION PROMINENTLY VISIBLE TO ALL PERSONNEL ENGAGED IN WATER-RELATED ACTIVITIES. THESE SIGNS CAN BE VIEWED AT:

HTTP://WWW.MYFWC.COM/WILDLIFEHABITATS/MANATEE_SIGN_VENDORS.HTM. QUESTIONS CONCERNING THESE SIGNS CAN BE FORWARDED TO THE EMAIL ADDRESS LISTED ABOVE.

CONSTRUCTION EQUIPMENT NOTES:

A. IF BARGE, PLATFORM OR ANY AMPHIBIOUS EQUIPMENT IS TO BE USED, CONTRACTOR IS RESPONSIBLE FOR PERFORMING BATHYMETRIC SURVEY TO DEMONSTRATE THAT THERE IS NAVIGABLE ACCESS AND SUFFICIENT ON-SITE WATER DEPTHS SUCH THAT NO IMPACTS TO SUBMERGED RESOURCES RESULT FROM CONSTRUCTION OPERATIONS PRIOR TO COMMENCING USE. EQUIPMENT IS TO BE FULLY RELOCATED AT LEAST ONCE WEEKLY TO ENSURE ADVERSE IMPACTS TO SUBMERGED RESOURCES ARE AVOIDED. A MINIMUM OF 4 FEET CLEARANCE WILL BE PROVIDED ON THE SIDE AND 1 FT. UNDERNEATH THE EQUIPMENT BETWEEN EXISTING GRADE AND SEAGRASS BEDS TO PREVENT ENTRAPMENT OF MANATEES.

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY LAV
DRAWN BY DPC
CHECKED BY DCL
APPROVED BY DCB

GENERAL NOTES

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING — DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
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DRMP, Inc.

DONALD C. BIGGER, JR. LICENSE No. 61857 STATE OF FLORIDA PROFESSIONAL ENGINEER
Donald C. Bigger
State of Florida License No. 61857

PROJECT NO.: 18-0571.000
SCALE: NONE
DATE: JANUARY, 2019
DRAWING: C1.1

P:\Projects18\18-0571.000_Seawall_Replacement_at_Halifax_Harbor_Mar\General-Civil\Design\Plans\0101_Notes.dwg Plotted: Feb 11, 2019 - 8:25am by kvalentine

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

APPROVED
Mean High Water
Survey File 1675
by ____ date ____

NOTE:
ALL TREES 6 INCHES AND ABOVE ARE LOCATED EXCEPT CABBAGE PALMS.

MEAN HIGH WATER SURVEY NOTES:

(1) THE MEAN HIGH WATER SURVEY DEPICTED HEREON COMPLIES WITH CHAPTER 177, PART II FLORIDA STATUTES AND CHAPTER 18-5 FLORIDA ADMINISTRATIVE CODE AND IS RECORDED IN THE PUBLIC REPOSITORY OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, MEAN HIGH WATER SURVEY FILE 1675.
(2) MEAN HIGH WATER ELEVATION 1.24 FEET, NGVD 1929 BASED ON THE EXTENSION OF TIDAL DATUM FROM MEAN HIGH WATER SURVEY FILE NUMBER 1529.

SURVEYORS NOTES

1. NOTICE: THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN ON THIS PLAT OF SURVEY/SKETCH OF DESCRIPTION THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. THIS SURVEY/ SKETCH OF DESCRIPTION PREPARED WITHOUT BENEFIT OF AN ABSTRACT.
DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
BEARING STRUCTURE BASED ON RECORD PLAT OF MARINA POINT CONDOMINIUM, PHASE I, MAP BOOK 38, PAGES 117–127 WITH THE BEARING ON THE EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET BEING S 31°18'02" E.
4. UNDERGROUND FOUNDATIONS, IF ANY, NOT LOCATED.
5. ELEVATIONS REFER TO N.G.V.D. OF 1929, PER U.S.C.& G.S. BENCHMARK ACOE IWV 9 HAVING A PUBLISHED ELEVATION OF 4.261 FEET.
6. "NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER".
7. DESCRIPTION PREPARED BY SLIGER & ASSOCIATES, INC.
8. REVISED PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION COMMENTS APRIL 28, 1997.

VICINITY MAP
SCALE 1"= 2000'
RE: USGS QUAD DAYTONA BEACH

DESCRIPTION:

BEGIN AT THE INTERSECTION OF THE EASTERLY PROJECTION OF THE NORTH LINE OF LOT 3, BLOCK 1, HODGEMAN'S DAYTONA, MAP BOOK 2, PAGE 82, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, AND THE EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET, A 70 FOOT RIGHT OF WAY AS SHOWN ON NORA V. HAYNES SUBDIVISION, MAP BOOK 2, PAGE 176, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA;
THENCE N53°42'15"E, A DISTANCE OF 69.60, TO THE MEAN HIGH WATER LINE OF THE WEST SHORE OF THE HALIFAX RIVER;
THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING TWENTY-TWO COURSES AND DISTANCES;
(1) N71°50'48"E, A DISTANCE OF 96.90 FEET,
(2) N66°01'02"E, A DISTANCE OF 23.96 FEET,
(3) N61°27'04"E, A DISTANCE OF 54.03 FEET,
(4) N52°26'36"E, A DISTANCE OF 25.54 FEET,
(5) N40°22'08"E, A DISTANCE OF 26.37 FEET,
(6) N36°58'48"E, A DISTANCE OF 54.08 FEET,
(7) N52°06'36"E, A DISTANCE OF 17.49 FEET,
(8) N56°42'37"E, A DISTANCE OF 70.56 FEET,
(9) N37°55'53"E, A DISTANCE OF 11.46 FEET,
(10) N44°55'41"E, A DISTANCE OF 39.57 FEET,
(11) N44°01'24"E, A DISTANCE OF 54.80 FEET,
(12) N70°38'11"E, A DISTANCE OF 44.95 FEET,
(13) N68°14'09"E, A DISTANCE OF 52.02 FEET,
(14) N65°17'04"E, A DISTANCE OF 19.86 FEET,
(15) N80°42'41"E, A DISTANCE OF 58.14 FEET,
(16) N74°07'47"E, A DISTANCE OF 35.02 FEET,
(17) N70°03'02"E, A DISTANCE OF 68.41 FEET,
(18) N68°44'16"E, A DISTANCE OF 76.78 FEET,
(19) N74°05'08"E, A DISTANCE OF 148.70 FEET,
(20) N71°57'23"E, A DISTANCE OF 103.46 FEET,
(21) N66°56'50"E, A DISTANCE OF 22.25 FEET,
(22) N71°56'57"E, A DISTANCE OF 43.01 FEET, TO THE PROLONGATION OF THE WESTERLY LINE OF THE PARCEL DESCRIBED ON OFFICIAL RECORDS BOOK 3799, PAGE 150, OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA

THENCE DEPARTING SAID MEAN HIGH WATER LINE, ALONG THE BOUNDARY OF, AND THE PROLONGATION OF SAID WESTERLY LINE OF SAID PARCEL THE FOLLOWING THREE COURSES AND DISTANCES:
(1) S21°14'27"E, A DISTANCE OF 99.21;
(2) N68°45'32"E, A DISTANCE OF 221.40 FEET;
(3) N72°33'22"E, A DISTANCE OF 5.00 FEET, TO THE SOUTHERLY BOUNDARY OF MARINA POINT CONDOMINIUM, PHASE 1, MAP BOOK 38, PAGE 117, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA;
THENCE ALONG SAID SOUTHERLY BOUNDARY THE FOLLOWING TWO COURSES AND DISTANCES:
(1) N72°33'22"E, A DISTANCE OF 223.51 FEET;
(2) N80°29'15"E, A DISTANCE OF 250.84 FEET, TO THE SAID MEAN HIGH WATER LINE OF THE HALIFAX RIVER;
THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING FIFTEEN COURSES AND DISTANCES;
(1) S02°30'15"W, A DISTANCE OF 34.48 FEET,
(2) S11°05'43"E, A DISTANCE OF 45.98 FEET,
(3) S17°34'24"W, A DISTANCE OF 29.45 FEET,
(4) S31°12'40"E, A DISTANCE OF 38.14 FEET,
(5) S52°29'44"W, A DISTANCE OF 18.53 FEET,
(6) S72°49'31"W, A DISTANCE OF 38.34 FEET,
(7) S57°22'48"W, A DISTANCE OF 40.03 FEET,
(8) S51°35'23"W, A DISTANCE OF 26.92 FEET,
(9) S65°12'12"W, A DISTANCE OF 75.74 FEET,
(10) S60°29'02"W, A DISTANCE OF 59.57 FEET,
(11) S79°56'27"W, A DISTANCE OF 66.77 FEET,
(12) S53°37'31"W, A DISTANCE OF 26.05 FEET,
(13) N89°51'29"W, A DISTANCE OF 80.39 FEET,
(14) S44°43'47"W, A DISTANCE OF 18.45 FEET,
(15) S43°14'04"W, A DISTANCE OF 215.94 FEET,
THENCE DEPARTING SAID MEAN HIGH WATER LINE N34°19'27"W, A DISTANCE OF 95.37 FEET,
THENCE N15°03'48"W, A DISTANCE OF 59.05 FEET;
THENCE N21°14'27"W, A DISTANCE OF 82.03 FEET;
THENCE S71°15'13"W, A DISTANCE OF 30.01 FEET;
THENCE S74°13'46"W, A DISTANCE OF 32.00 FEET;
THENCE S70°43'46"W, A DISTANCE OF 36.66 FEET;
THENCE S89°06'18"W, A DISTANCE OF 37.12 FEET;
THENCE S73°08'54"W, A DISTANCE OF 44.20 FEET;
THENCE S71°01'57"W, A DISTANCE OF 115.29 FEET;
THENCE N71°42'13"W, A DISTANCE OF 38.81 FEET;
THENCE S58°01'24"W, A DISTANCE OF 24.18 FEET;
THENCE N66°58'11"W, A DISTANCE OF 12.61 FEET;
THENCE S72°37'07"W, A DISTANCE OF 77.52 FEET, TO THE SAID MEAN HIGH WATER LINE;
THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING FIFTEEN COURSES AND DISTANCES:
(1) N71°08'14"W, A DISTANCE OF 29.92 FEET,
(2) S63°03'33"W, A DISTANCE OF 199.55 FEET,
(3) N37°34'39"W, A DISTANCE OF 70.26 FEET,
(4) S61°03'46"W, A DISTANCE OF 63.42 FEET,
(5) N57°21'51"W, A DISTANCE OF 13.77 FEET,
(6) N71°48'23"W, A DISTANCE OF 8.68 FEET,
(7) N83°41'42"W, A DISTANCE OF 9.90 FEET,
(8) S80°51'48"W, A DISTANCE OF 10.71 FEET,
(9) S71°46'44"W, A DISTANCE OF 19.24 FEET,
(10) S65°36'23"W, A DISTANCE OF 84.76 FEET,
(11) S21°36'24"E, A DISTANCE OF 8.64 FEET,
(12) S83°46'55"W, A DISTANCE OF 79.57 FEET,
(13) S68°32'04"W, A DISTANCE OF 77.56 FEET,
(14) S67°36'05"W, A DISTANCE OF 108.49 FEET,
(15) N64°45'03"E, A DISTANCE OF 49.45 FEET, TO SAID EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET;
THENCE ALONG SAID EASTERLY RIGHT OF WAY LINE, N31°18'02"W, A DISTANCE OF 85.77 FEET, TO THE POINT OF BEGINNING.
CONTAINING 6.73 ACRES, MORE OF LESS.

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
FP&L CO.	FLORIDA POWER & LIGHT COMPANY
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

	ELECTRIC BOX
	SIGN
	TREE
	FIRE HYDRANT
	WATER METER
	GUY ANCHOR
	UTILITY POLE
	IRON ROD WITH CAP
	IRON PIPE
	CONCRETE MONUMENT
	PERMANENT REFERENCE MONUMENT
	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
WV	WATER VALVE
0.00 x	EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

MEAN HIGH WATER, BOUNDARY, TOPOGRAPHIC SURVEY

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=60' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 1 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
FINAL SURVEY	:				
RECERTIFICATION SURVEY	:				

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

GUS A. SLIGER, P.L.S. NO. 3254
STEPHEN B. SLIGER, P.L.S. NO. 3794
J.E. ZAPERT, P.L.S. NO. 4046
STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWINGS\96DWGS\9634457 Wed Apr 30 10:31:59 1997 MBR

SHEET 2

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
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LEGEND

	ELECTRIC BOX
	SIGN
	TREE
	FIRE HYDRANT
	WATER METER
	GUY ANCHOR
	UTILITY POLE
	IRON ROD WITH CAP
	IRON PIPE
	CONCRETE MONUMENT
	PERMANENT REFERENCE MONUMENT
	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
	WATER VALVE
0.00 ×	EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
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(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 PAGE(S): 1-14 26-40 SHEET 2 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	– 96-3457	– JM,BU	-- TS	– JZ
BOUNDARY SURVEY	: 11/21/1996	– 96-3457	– JM,BU	-- TS	– JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	– 96-3457	– JM,BU	-- TS	– JZ
FOUNDATION SURVEY	:	–	–	--	–
FINAL SURVEY	:	–	–	--	–
RECERTIFICATION SURVEY	:	–	–	--	–

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

GUS A. SLIGER, P.L.S. NO. 3254
STEPHEN B. SLIGER, P.L.S. NO. 3794
J.E. ZAPERT, P.L.S. NO. 4046
STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWINGS\96DWGS\963457 Wed Apr 30 10:08:11 1997 MBH

1675

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
FP&L CO.	FLORIDA POWER & LIGHT COMPANY
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

	ELECTRIC BOX
	SIGN
	TREE
	FIRE HYDRANT
	WATER METER
	GUY ANCHOR
	UTILITY POLE
●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
	WATER VALVE
0.00 ×	EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 / 792 PAGE(S): 1-14 / 26-40 SHEET 3 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
FINAL SURVEY	:				
RECERTIFICATION SURVEY	:				

SURVEYOR'S CERTIFICATE

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LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWINGS\96DWGS\963457 Wed Apr 30 10:12:02 1997 NBR

SHEET 4

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS		LEGEND
RCP	REINFORCED CONCRETE PIPE	ELECTRIC BOX
FM	FORCE MAIN	SIGN
UE	UNDERGROUND ELECTRIC	TREE
OE	OVERHEAD ELECTRIC	FIRE HYDRANT
WL	WATER LINE	WATER METER
TL	TELEPHONE LINE	GUY ANCHOR
GL	GAS LINE	UTILITY POLE
CMP	CORRUGATED METAL PIPE	IRON ROD WITH CAP
R/W	RIGHT OF WAY	IRON PIPE
℄	CENTERLINE	CONCRETE MONUMENT
Δ	CENTRAL ANGLE	PERMANENT REFERENCE MONUMENT
R	RADIUS	PERMANENT CONTROL POINT
L	ARC LENGTH	RADIAL LINE
CB	CHORD BEARING	NON-RADIAL LINE
FP&L CO.	FLORIDA POWER & LIGHT COMPANY	WATER VALVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM	EXISTING ELEVATION
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY	

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 4 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY					
FINAL SURVEY					
RECERTIFICATION SURVEY					

SURVEYOR'S CERTIFICATE

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STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWINGS\SRDWGS\SS3457 Wed Apr 30 10:18:24 1997 NBR

1675

SHEET 5

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
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L	ARC LENGTH
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FP&L CO.	FLORIDA POWER & LIGHT COMPANY
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

- ELECTRIC BOX
- SIGN
- TREE
- FIRE HYDRANT
- WATER METER
- GUY ANCHOR
- UTILITY POLE
- IRON ROD WITH CAP
- IRON PIPE
- CONCRETE MONUMENT
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- PERMANENT CONTROL POINT
- (R) RADIAL LINE
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- WATER VALVE
- 0.00 × EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

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FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 / 792 PAGE(S): 1–14 / 26–40 SHEET 5 OF 5

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TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
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J:\DRAWINGS\96DWGS\963457 Wed Apr 30 10:06:07 1997 MBR

P:\Projects18\18-0571.000_Seawall_Replacement_at_Halifax_Harbor_Ma\General-Civil\Design\Plans\0200_Exist.dwg Plotted: Feb 11, 2019 - 8:25am by ivalentine

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	LAV
DRAWN BY	DPC
CHECKED BY	DCL
APPROVED BY	DCB

EXISTING CONDITIONS AND DEMOLITION PLAN

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

DRMP
ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
Certificate of Authorization No. 2648
941 Lake Baldwin Lane - Orlando, Florida 32814
Phone:407.896.0594 Fax:407.896.4836 www.DRMP.COM
DRMP, Inc.

DONALD C. BIGGER, JR.
LICENSE NO. 60857
STATE OF FLORIDA
PROFESSIONAL ENGINEER
Donald C. Bigger, Jr. P.E.
State of Florida # 60857

PROJECT NO.: 18-0571.000
SCALE: 1" = 10'
DATE: JANUARY, 2019
DRAWING: **C2.0**

P:\Projects18\18-0571.000_Seawall_Replacement_at_Halifax_Harbor_Mo\General-Civil\Design\Plans\0350_Plan.dwg Plotted: Feb 11, 2019 - 8:25am by Valentine

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	LAV
DRAWN BY	DPC
CHECKED BY	DCL
APPROVED BY	DCB

SITE PLAN

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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Phone:407.896.0594 Fax:407.896.4836 www.DRMP.COM
DRMP, Inc.

STATE OF FLORIDA PROFESSIONAL ENGINEER DONALD C. BEEGER, JR. LICENSE No. 60857

Donald C. Beeger, Jr. P.E.
State of Florida # 60857

PROJECT NO.: 18-0571.000
SCALE: 1" = 10'
DATE: JANUARY, 2019
DRAWING: C3.0

STAKED SILT FENCE DETAIL

NOT TO SCALE

D_1 =5' Std. (Single Panel For Depths 5' or Less).
D_2 =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 Are Specifically
Called For In The Plans Or As Determined By The Engineer.

NOTICE:
COMPONENTS OF TYPES I AND II 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 TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIER DETAIL

NOT TO SCALE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

DESIGNED BY	LAV
DRAWN BY	DPC
CHECKED BY	DCL
APPROVED BY	DCB

CONSTRUCTION DETAILS

CONSTRUCTION PLANS FOR
HALIFAX MARINA SEAWALL
CITY OF DAYTONA BEACH, FLORIDA

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE

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DRMP, Inc.

PROFESSIONAL ENGINEER DONALD C. BIGGER JR. LICENSE No. 60857 STATE OF FLORIDA

Donald C. Bigger Jr., P.E.
State of Florida # 60857

PROJECT NO.:	18-0571.000
SCALE:	AS SHOWN
DATE:	JANUARY, 2019
DRAWING:	C4.0

P:\Projects18\18-0571.000_Seawall_Replacement_at_Halifax_Harbor_Mk\General-Civil\Design\Plans\0400_DET.dwg Plotted: Feb 11, 2019 – 8:26am by lvalentine

CONSTRUCTION COMMENCEMENT NOTICE

Instructions: In accordance with Chapter 62-330.350(1)(d), F.A.C., complete and submit this form at least 48 hours prior to commencement of activity authorized by permit.

Permit No. _____ Application No. _____

Project Name _____ Phase _____

Construction of the system authorized by the above referenced Environmental Resource Permit and Application, is expected to commence on _____ , 20 _____ and will have an estimated completion date of _____ , 20 _____

PLEASE NOTE: If the actual construction commencement date is not known within 30 days of issuance of the permit, District staff should be so notified in writing. As soon as a construction commencement date is known, the permittee shall submit a completed construction commencement notice form.

Permittee's or Authorized Agent's Signature	Company	
Print Name	Title	Date
E-mail		Phone Number

As-Built Certification
And Request for Conversion to Operation Phase

Instructions: Complete and submit this page within 30 days of completion of the entire project, or any independent portion of the project, as required by the permit conditions. The operation phase of the permit is effective when the construction certification for the entire permit/application is approved by the Agency. If the final operation and maintenance entity is not the permittee, the permittee shall operate the project, system, works, or other activities temporarily until such time as the transfer to the operation entity is finalized (use Form 62-330.310(2)).

Permit No: Application No: Permittee:

Project Name: Phase or Independent Portion (if applicable):

I HEREBY CERTIFY THAT (please check only one box):

☐ To the best of my knowledge, information, and belief, construction of the project has been completed in substantial conformance with the plans specifications and conditions permitted by the Agency. Any minor deviations will not prevent the project from functioning in compliance with the requirements of Chapter 62-330, F.A.C. Attached are documents to demonstrate satisfaction of the outstanding permit conditions, other than long term monitoring and inspection requirements.

☐ Construction of the project was NOT completed in substantial conformance with the plans and specifications permitted by the Agency. Any deviations or independent phasing will not prevent the project from functioning in compliance with the requirements of Chapter 62-330, F.A.C. (Contact the permitting agency to determine whether a modification of the permit will be required in accordance with Rule 62-330.315, F.A.C.) Attached is a description of substantial deviations, a set of as-built drawings, and documents to demonstrate satisfaction of the outstanding permit conditions, other than long term monitoring and inspection requirements.

☐ Construction of the project was NOT completed in substantial conformance with the plans and specifications permitted by the Agency. There are substantial deviations that prevent the project from functioning in compliance with the requirements of Chapter 62-330, F.A.C. I acknowledge that corrections to the project and/or a modification of the permit will likely be required, and that conversion to the operation phase cannot be approved at this time. As-built or record drawings reflecting the substantial deviations are attached.

For activities that require certification by a registered professional*:*

By: _____ (Print Name) (Fla. Lic. or Reg. No.)
Signature

(Company Name) (Company Address)

(Telephone Number) (Email Address)

AFFIX SEAL

(Date)

For activities that do not require certification by a registered professional:

By: _____ (Print Name)
Signature

(Company Name) (Company Address)

Drawings and Information Checklist

Following is a list of information that is to be verified and/or submitted by the Registered Professional or Permittee:

1. All surveyed dimensions and elevations shall be certified by a registered Surveyor or Mapper under Chapter 472, F.S.

2. The registered professional's certification shall be based upon on-site observation of construction (scheduled and conducted by the registered professional of record or by a project representative under direct supervision) and review of as-built drawings, with field measurements and verification as needed, for the purpose of determining if the work was completed in accordance with original permitted construction plans, specifications, and conditions.

3. If submitted, the as-built drawings are to be based on the permitted construction drawings revised to reflect any substantial deviations made during construction. Both the original design and constructed condition must be clearly shown. The plans need to be clearly labeled as "as-built" or "record" drawings that clearly highlight (such as through "red lines" or "clouds") any substantial deviations made during construction. As required by law, all surveyed dimensions and elevations required shall be verified and signed, dated, and sealed by an appropriate registered professional. The following information, at a minimum, shall be verified on the as-built drawings, and supplemental documents if needed:

    a. Discharge structures - Locations, dimensions and elevations of all, including weirs, orifices, gates, pumps, pipes, and oil and grease skimmers;
    b. Detention/Retention Area(s) – Identification number, size in acres, side slopes (h:v), dimensions, elevations, contours, or cross-sections of all, sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems,
    c. Side bank and underdrain filters, or exfiltration trenches - locations, dimensions, and elevations of all, including clean-outs, pipes, connections to control structures, and points of discharge to receiving waters;
    d. System grading - dimensions, elevations, contours, final grades, or cross-sections to determine contributing drainage areas, flow directions, and conveyance of runoff to the system discharge point(s);
    e. Conveyance - dimensions, elevations, contours, final grades, or cross-sections of systems utilized to divert off-site runoff around or through the new system;
    f. Benchmark(s) - location and description (minimum of one per major water control structure);
    g. Datum- All elevations should be referenced to a vertical datum clearly identified on the plans, preferably the same datum used in the permit plans.

4. Wetland mitigation or restoration areas - Show the plan view of all areas, depicting a spatial distribution of plantings conducted by zone (if plantings are required by permit), with a list showing all species planted in each zone, numbers of each species, sizes, date(s) planted, and identification of source of material; also provide the dimensions, elevations, contours, and representative cross-sections depicting the construction.

5. A map depicting the phase or independent portion of the project being certified, if all components of the project authorized in the permit are not being certified at this time.

6. Any additional information or outstanding submittals required by permit conditions or to document permit compliance, other than long-term monitoring or inspection requirements.

Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity

Instructions: Complete this form to transfer ~~to~~ the permit to the operation and maintenance entity. This form can be completed concurrently with, or within 30 days of approval of, the As-Built Certification and Request for Conversion to Operation Phase (Form 62-330.310(1)). Please include all documentation required under Section 12.2.1(b) of Applicant's Handbook Volume I (see checklist below). **Failure to submit the appropriate final documents will result in the permittee remaining liable for operation and maintenance of the permitted activities.**

Permit No.: Application No(s):

Project Name: Phase (if applicable):

A. Request to Transfer: The permittee requests that the permit be transferred to the legal entity responsible for operation and maintenance (O&M).

By: _____ _____

Signature of Permittee — Name and Title

_____ _____

Company Name — Company Address

_____ _____

Phone/email address — City, State, Zip

B. Agreement for System Operation and Maintenance Responsibility: The below-named legal entity agrees to operate and maintain the works or activities in compliance with all permit conditions and provisions of Chapter 62-330, Florida Administrative Code (F.A.C.) and Applicant's Handbook Volumes I and II.

The operation and maintenance entity does not need to sign this form if it is the same entity that was approved for operation and maintenance in the issued permit.

Authorization for any proposed modification to the permitted activities shall be applied for and obtained prior to conducting such modification.

By: _____ _____

Signature of Representative of O&M Entity — Name of Entity for O&M

_____ _____

Name and Title — Address

_____ _____

Email Address — City, State, Zip

_____ _____

Phone — Date

Enclosed are the following documents, as applicable:

- ☐ Copy of recorded transfer of title to the operating entity for the common areas on which the stormwater management system is located (unless dedicated by plat)
- ☐ Copy of all recorded plats
- ☐ Copy of recorded declaration of covenants and restrictions, amendments, and associated exhibits
- ☐ Copy of filed articles of incorporation (if filed before 1995)
- ☐ ~~A~~ Completed documentation that the operating entity meets the requirements of Section 12.3 of Environmental Resource Permit Applicant's Handbook Volume I. (Note: this is optional, but aids in processing of this request)

DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 4970
JACKSONVILLE, FL 32232-0019

REPLY TO ATTENTION OF

March 14, 2019

CESAJ-RD
SAJ-2006-04695 (NW-BAB)

City of Daytona Beach
950 Bellevue Ave.
Daytona Beach, FL 32114

Dear Mr. Nelson:

Your application for a Department of the Army permit received on February 10, 2019, has been assigned number SAJ-2006-04695. A review of the information and drawings provided indicates that the proposed work would result in the replacement of 290 linear feet of existing seawall shoreline stabilization with a vinyl seawall. The project is located at the Halifax Harbor Marina, Halifax River, Daytona Beach, Volusia County, FL in Section 39, Township 15 South, Range 33 East.

Your project, as depicted on the enclosed drawings, is authorized by Nationwide Permit (NWP) Number 3. In addition, project specific conditions have been enclosed. This verification is valid until **March 18, 2022**. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Please access the U.S. Army Corps of Engineers' (Corps) Jacksonville District's Regulatory Internet page to access Internet links to view the Final Nationwide Permits, Federal Register Vol. 82, dated January 6, 2017, specifically pages 1983 to 2008, and the table of Regional Conditions. The Internet page address is:

http://www.saj.usace.army.mil/Missions/Regulatory.aspx

Please be aware this Internet address is case sensitive and should be entered as it appears above. Once there you will need to click on “Source Book”; and, then click on “Nationwide Permits.” These files contain the description of the Nationwide Permit authorization, the Nationwide Permit general conditions, and the regional conditions, which apply specifically to this verification for NWP 3. Enclosed is a list of the General Conditions, which apply to all Department of the Army authorizations. You must comply with all of the special and general conditions and any project specific condition of this authorization or you may be subject to enforcement action. In the event you have not completed construction of your project within the specified time limit, a separate application or re-verification may be required.

The following special conditions are included with this verification:

1. **Reporting Address:** All reports, documentation and correspondence required by the conditions of this permit shall be submitted to the following address:
    a. For standard mail: Mail the completed form to the Regulatory Division, Special Projects and Enforcement Branch, PO Box 4970, Jacksonville, Florida 32232.
    b. For electronic mail: SAJ-RD-Enforcement@usace.army.mil (not to exceed 10 MB). The Permittee shall reference this permit number, SAJ-2006-04695, on all submittals.

2. **Commencement Notification:** Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.

3. **Self-Certification:** Within 60 days of completion of the work authorized by this permit, the Permittee shall complete the attached "Self-Certification Statement of Compliance" form (Attached) and submit it to the Corps. In the event that the completed work deviates in any manner from the authorized work, the Permittee shall describe the deviations between the work authorized by this permit and the work as constructed on the "Self-Certification Statement of Compliance" form. The description of any deviations on the "Self-Certification Statement of Compliance" form does not constitute approval of any deviations by the Corps.

4. **Cultural Resources/Historic Properties**:
    a. No structure or work shall adversely affect impact or disturb properties listed in the *National Register of Historic Places* (NRHP) or those eligible for inclusion in the NRHP.
    b. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps within the same business day (8 hours). The Corps shall then notify the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.

c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the above Special Condition; and if deemed necessary by the SHPO, THPO(s), or Corps, in accordance with 36 CFR 800 or 33 CFR 325, Appendix C (5). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume on non-federal lands without written authorization from the SHPO for finds under his or her jurisdiction, and from the Corps.
d. In the unlikely event that unmarked human remains are identified on non-federal lands, they will be treated in accordance with Section 872.05 Florida Statutes. All work and ground disturbing activities within a 100-meter diameter of the unmarked human remains shall immediately cease and the Permittee shall immediately notify the medical examiner, Corps, and State Archeologist within the same business day (8-hours). The Corps shall then notify the appropriate SHPO and THPO(s). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume without written authorization from the State Archeologist and from the Corps.

2. National Marine Fisheries Service's Jacksonville District's Programmatic Biological Opinion (JAXBO) Project Design Criteria (PDC) Conditions: The Permittee shall comply with the following PDCs and special conditions to ensure the project does not have an adverse impact on listed species protected under Section 7 of the Endangered Species Act.
a. Project Design Criteria (PDCs) for In-Water Activities: The Permittee shall comply with the National Marine Fisheries Service's "PDCs for in-Water Activities" dated November 20, 2017, provided as an attachment to this permit.
b. Daylight Hours: All activities must be completed during daylight hours.
c. Listed Species Observers: All construction personnel are responsible for observing water-related activities to detect the presence of listed species and avoid them. Daylight Hours: All activities must be completed during daylight hours.

3. Turbidity controls: Prior to the initiation of any of the work authorizes by this permit the Permittee shall install turbidity barriers with weighted skirts that extend to within one (1) foot of the bottom around all work areas that are in, or adjacent to, surface waters. Turbidity barriers shall be made of material which listed species cannot become entangled (i.e., reinforced impermeable polycarbonate vinyl fabric [PVC]), and shall be monitored to ensure listed species are not entangled or trapped in the project areas. The turbidity barriers shall remain in place and be maintained

until the authorized work has been completed and all suspended and erodible materials have been stabilized. Turbidity barriers shall be removed upon stabilization of the work areas.

4. Sea Turtle and Smalltooth Sawfish Conditions: The Permittee shall comply with National Marine Fish Service's "Sea Turtle and Smalltooth Sawfish Construction Conditions" dated March 23, 2006, and provided as an attachment to this permit.

5. Manatee Conditions: The Permittee shall comply with the "Standard Manatee Conditions for In-Water Work – 2011" provided in attachments.

6. Regulatory Agency Changes: Should the Permittee propose or any other regulatory agency require changes to the work authorized or obligated by this permit, the Permittee is advised that a modification to this permit instrument is required prior to initiation of those changes. It is the Permittee's responsibility to request a modification of this permit from the Cocoa Permits Section.

If you are unable to access the internet or require a hardcopy of any of the conditions, limitations, or expiration date for the above referenced permit, please contact me by telephone at 321-504-3771 ext. 26. Thank you for your cooperation with our permit program. The Corps Jacksonville District Regulatory Division is committed to improving service to our customers.

Sincerely,

Beverly Barta
Project Manager

Enclosures
cc: Applicant: City of Daytona Beach, Jim Nelson nelsonjames@codb.us
Agent: DRMP, Rachel Peters rpeters@drmp.com
bcc: CESAJ-RD-PE

GENERAL CONDITIONS
33 CFR PART 320-330

1. The time limit for completing the work authorized ends on the **March 18, 2022**.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow a representative from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

DEPARTMENT OF THE ARMY PERMIT TRANSFER REQUEST

PERMIT NUMBER: SAJ-2006-04695 (NW-3)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. Although the construction period for works authorized by Department of the Army permits is finite, the permit itself, with its limitations, does not expire.

To validate the transfer of this permit and the associated responsibilities associated with compliance with its terms and conditions, have the transferee sign and date below and mail to the U.S. Army Corps of Engineers, Enforcement Section, Post Office Box 4970, Jacksonville, FL 32232-0019 or by electronic mail at saj-rd-enforcement@usace.army.mil.

_____
(TRANSFEREE-SIGNATURE)

_____
(DATE)

_____
(NAME-PRINTED)

_____
(MAILING ADDRESS)

_____
(CITY, STATE, ZIP CODE)

_____
(SUBDIVISION)

_____ _____
(LOT) **(BLOCK)**

_____
(STREET ADDRESS)

SELF-CERTIFICATION STATEMENT OF COMPLIANCE

Permit Number: NW-3 SAJ-RD
Application Number: SAJ-2006-04695

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

_____

_____

Telephone Number: _____

Location of the Work: _____

_____

Date Work Started: Date Work Completed:

PROPERTY IS INACCESSIBLE WITHOUT PRIOR NOTIFICATION: YES _____ NO_____

TO SCHEDULE AN INSPECTION PLEASE CONTACT _____

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

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

Describe Mitigation completed (if applicable):

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

****

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

_____
Signature of Permittee

_____
Date

P:\Projects18\18-0571.000 Seawall Replacement at Halifax Harbor Ma\Permits\24-17-Exhibits\mxd\Location Map rp.mxd

DRMP, Inc.
941 Lake Baldwin Ln.
Orlando, FL 32814
www.drmp.com
Phone: 407-896-0594
Fax: 407-896-4836

Halifax Harbor Marina Seawall Replacement

STR: 39 | 15S | 33E

Volusia County, FL

Project Location Map

Figure 1

Date: December 2018

DRAWN BY: R. Roberts

PROJECT NUMBER: 18-0571.000

CITY OF DAYTONA BEACH
ITB 19473-HALIFAX HARBOR MARINA SEAWALL RESTORATION

DATA SOURCE:
ESRI USGS Topographic Map
Project Area - DRMP 2018

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

APPROVED
Mean High Water
Survey File 1675
by ____ date ____

NOTE:
ALL TREES 6 INCHES AND ABOVE ARE LOCATED EXCEPT CABBAGE PALMS.

MEAN HIGH WATER SURVEY NOTES:

(1) THE MEAN HIGH WATER SURVEY DEPICTED HEREON COMPLIES WITH CHAPTER 177, PART II FLORIDA STATUTES AND CHAPTER 18-5 FLORIDA ADMINISTRATIVE CODE AND IS RECORDED IN THE PUBLIC REPOSITORY OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, MEAN HIGH WATER SURVEY FILE 1675.
(2) MEAN HIGH WATER ELEVATION 1.24 FEET, NGVD 1929 BASED ON THE EXTENSION OF TIDAL DATUM FROM MEAN HIGH WATER SURVEY FILE NUMBER 1529.

SURVEYORS NOTES

1. NOTICE: THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN ON THIS PLAT OF SURVEY/SKETCH OF DESCRIPTION THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. THIS SURVEY/ SKETCH OF DESCRIPTION PREPARED WITHOUT BENEFIT OF AN ABSTRACT.
DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
BEARING STRUCTURE BASED ON RECORD PLAT OF MARINA POINT CONDOMINIUM, PHASE I, MAP BOOK 38, PAGES 117-127 WITH THE BEARING ON THE EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET BEING S 31°18'02" E.
4. UNDERGROUND FOUNDATIONS, IF ANY, NOT LOCATED.
5. ELEVATIONS REFER TO N.G.V.D. OF 1929, PER U.S.C.& G.S. BENCHMARK ACOE IWV 9 HAVING A PUBLISHED ELEVATION OF 4.261 FEET.
6. "NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER".
7. DESCRIPTION PREPARED BY SLIGER & ASSOCIATES, INC.
8. REVISED PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION COMMENTS APRIL 28, 1997.

VICINITY MAP
SCALE 1"= 2000'
RE: USGS QUAD DAYTONA BEACH

DESCRIPTION:

BEGIN AT THE INTERSECTION OF THE EASTERLY PROJECTION OF THE NORTH LINE OF LOT 3, BLOCK 1, HODGEMAN'S DAYTONA, MAP BOOK 2, PAGE 82, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA, AND THE EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET, A 70 FOOT RIGHT OF WAY AS SHOWN ON NORA V. HAYNES SUBDIVISION, MAP BOOK 2, PAGE 176, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA;
THENCE N53°42'15"E, A DISTANCE OF 69.60, TO THE MEAN HIGH WATER LINE OF THE WEST SHORE OF THE HALIFAX RIVER;
THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING TWENTY-TWO COURSES AND DISTANCES;
(1) N71°50'48"E, A DISTANCE OF 96.90 FEET,
(2) N66°01'02"E, A DISTANCE OF 239.86 FEET,
(3) N61°27'04"E, A DISTANCE OF 54.03 FEET,
(4) N52°28'36"E, A DISTANCE OF 25.54 FEET,
(5) N40°22'08"E, A DISTANCE OF 26.37 FEET,
(6) N36°58'48"E, A DISTANCE OF 54.08 FEET,
(7) N52°06'36"E, A DISTANCE OF 17.49 FEET,
(8) N56°42'37"E, A DISTANCE OF 70.56 FEET,
(9) N37°55'53"E, A DISTANCE OF 11.48 FEET,
(10) N44°55'41"E, A DISTANCE OF 39.57 FEET,
(11) N44°01'24"E, A DISTANCE OF 54.80 FEET,
(12) N70°38'11"E, A DISTANCE OF 44.95 FEET,
(13) N68°14'09"E, A DISTANCE OF 52.02 FEET,
(14) N65°17'04"E, A DISTANCE OF 19.88 FEET,
(15) N80°42'41"E, A DISTANCE OF 58.14 FEET,
(16) N74°07'47"E, A DISTANCE OF 35.02 FEET,
(17) N70°03'02"E, A DISTANCE OF 68.41 FEET,
(18) N68°44'16"E, A DISTANCE OF 76.78 FEET,
(19) N74°05'08"E, A DISTANCE OF 148.70 FEET,
(20) N71°57'23"E, A DISTANCE OF 103.46 FEET,
(21) N66°56'50"E, A DISTANCE OF 22.25 FEET,
(22) N71°56'57"E, A DISTANCE OF 43.01 FEET, TO THE PROLONGATION OF THE WESTERLY LINE OF THE PARCEL DESCRIBED ON OFFICIAL RECORDS BOOK 3799, PAGE 150, OFFICIAL RECORDS OF VOLUSIA COUNTY, FLORIDA
THENCE DEPARTING SAID MEAN HIGH WATER LINE, ALONG THE BOUNDARY OF, AND THE PROLONGATION OF SAID WESTERLY LINE OF SAID PARCEL THE FOLLOWING THREE COURSES AND DISTANCES:
(1) S21°14'27"E, A DISTANCE OF 99.21;
(2) N68°45'32"E, A DISTANCE OF 221.40 FEET;
(3) N72°33'22"E, A DISTANCE OF 5.00 FEET, TO THE SOUTHERLY BOUNDARY OF MARINA POINT CONDOMINIUM, PHASE 1, MAP BOOK 38, PAGE 117, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA;
THENCE ALONG SAID SOUTHERLY BOUNDARY THE FOLLOWING TWO COURSES AND DISTANCES:
(1) N72°33'22"E, A DISTANCE OF 223.51 FEET;
(2) N80°29'15"E, A DISTANCE OF 250.84 FEET, TO THE SAID MEAN HIGH WATER LINE OF THE HALIFAX RIVER;
THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING FIFTEEN COURSES AND DISTANCES;
(1) S02°30'15"W, A DISTANCE OF 34.48 FEET,
(2) S11°05'43"E, A DISTANCE OF 45.98 FEET,
(3) S17°34'24"W, A DISTANCE OF 29.45 FEET,
(4) S31°12'40"E, A DISTANCE OF 36.14 FEET,
(5) S52°29'44"W, A DISTANCE OF 18.53 FEET,
(6) S72°49'31"W, A DISTANCE OF 38.34 FEET,
(7) S57°22'48"W, A DISTANCE OF 40.03 FEET,
(8) S51°35'23"W, A DISTANCE OF 26.92 FEET,
(9) S65°12'12"W, A DISTANCE OF 75.74 FEET,
(10) S60°29'02"W, A DISTANCE OF 59.57 FEET,
(11) S79°56'27"W, A DISTANCE OF 66.77 FEET,
(12) S53°37'31"W, A DISTANCE OF 26.05 FEET,
(13) N89°51'29"W, A DISTANCE OF 80.39 FEET,
(14) S44°43'47"W, A DISTANCE OF 18.45 FEET,
(15) S43°14'04"W, A DISTANCE OF 215.94 FEET,
THENCE DEPARTING SAID MEAN HIGH WATER LINE N34°19'27"W, A DISTANCE OF 95.37 FEET,
THENCE N15°03'48"W, A DISTANCE OF 59.05 FEET;
THENCE N21°14'27"W, A DISTANCE OF 82.03 FEET;
THENCE S71°15'13"W, A DISTANCE OF 30.01 FEET;
THENCE S74°13'46"W, A DISTANCE OF 32.00 FEET;
THENCE S70°43'46"W, A DISTANCE OF 36.66 FEET;
THENCE S69°06'18"W, A DISTANCE OF 37.12 FEET;
THENCE S73°08'54"W, A DISTANCE OF 44.20 FEET;
THENCE S71°01'57"W, A DISTANCE OF 115.29 FEET;
THENCE N71°42'13"W, A DISTANCE OF 38.81 FEET;
THENCE S58°01'24"W, A DISTANCE OF 24.18 FEET;
THENCE N66°58'11"W, A DISTANCE OF 12.61 FEET;
THENCE S72°37'07"W, A DISTANCE OF 77.52 FEET, TO THE SAID MEAN HIGH WATER LINE;
THENCE ALONG SAID MEAN HIGH WATER LINE THE FOLLOWING FIFTEEN COURSES AND DISTANCES:
(1) N71°08'14"W, A DISTANCE OF 29.92 FEET,
(2) S63°03'33"W, A DISTANCE OF 199.55 FEET,
(3) N37°34'39"W, A DISTANCE OF 70.26 FEET,
(4) S61°03'46"W, A DISTANCE OF 63.42 FEET,
(5) N57°21'51"W, A DISTANCE OF 13.77 FEET,
(6) N71°48'23"W, A DISTANCE OF 8.68 FEET,
(7) N83°41'42"W, A DISTANCE OF 9.90 FEET,
(8) S80°51'48"W, A DISTANCE OF 10.71 FEET,
(9) S71°48'44"W, A DISTANCE OF 19.24 FEET,
(10) S65°36'23"W, A DISTANCE OF 84.76 FEET,
(11) S21°36'24"E, A DISTANCE OF 8.64 FEET,
(12) S63°49'55"W, A DISTANCE OF 79.57 FEET,
(13) S68°32'04"W, A DISTANCE OF 77.56 FEET,
(14) S67°36'05"W, A DISTANCE OF 106.49 FEET,
(15) N64°45'03"E, A DISTANCE OF 49.45 FEET, TO SAID EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET;
THENCE ALONG SAID EASTERLY RIGHT OF WAY LINE, N31°18'02"W, A DISTANCE OF 85.77 FEET, TO THE POINT OF BEGINNING.
CONTAINING 6.73 ACRES, MORE OF LESS.

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
FP&L CO.	FLORIDA POWER & LIGHT COMPANY
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

	ELECTRIC BOX
	SIGN
	TREE
	FIRE HYDRANT
	WATER METER
	GUY ANCHOR
	UTILITY POLE
	IRON ROD WITH CAP
	IRON PIPE
	CONCRETE MONUMENT
	PERMANENT REFERENCE MONUMENT
	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
WV	WATER VALVE
0.00 x	EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

MEAN HIGH WATER, BOUNDARY, TOPOGRAPHIC SURVEY

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=60' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 1 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
FINAL SURVEY	:				
RECERTIFICATION SURVEY	:				

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

GUS A. SLIGER, P.L.S. NO. 3254
STEPHEN B. SLIGER, P.L.S. NO. 3794
J.E. ZAPERT, P.L.S. NO. 4046
STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWINGS\BCDWGS\B63457 Wed Apr 30 10:31:59 1997 NBR

SHEET 2

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
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△	CENTRAL ANGLE
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N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

- ELECTRIC BOX
- SIGN
- TREE
- FIRE HYDRANT
- WATER METER
- GUY ANCHOR
- UTILITY POLE
- IRON ROD WITH CAP
- IRON PIPE
- CONCRETE MONUMENT
- PERMANENT REFERENCE MONUMENT
- PERMANENT CONTROL POINT
- (R) RADIAL LINE
- (NR) NON-RADIAL LINE
- WATER VALVE
- 0.00 × EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789, 792 PAGE(S): 1-14, 26-40 SHEET 2 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
FINAL SURVEY	:				
RECERTIFICATION SURVEY	:				

SURVEYOR'S CERTIFICATE

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VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

1675

SL91

J:\DRAWINGS\96DWGS\963457 Wed Apr 30 10:08:11 1997 MBR

SHEET 3

SEE SHEET 1 FOR DESCRIPTION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
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ABBREVIATIONS

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(R)	RADIAL LINE
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WV	WATER VALVE
0.00 x	EXISTING ELEVATION

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 3 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
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RECERTIFICATION SURVEY	:				

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STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWTNGS\BSDWGS\963457 Wed Apr 30 10:12:02 1997 MBR

SHEET 4

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
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0.00 ×	EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.
PROFESSIONAL LAND SURVEYORS
3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789, 792 PAGE(S): 1-14, 26-40 SHEET 4 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY					
FINAL SURVEY					
RECERTIFICATION SURVEY					

SURVEYOR'S CERTIFICATE

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STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

1675

J:\DRAWINGS\DBDWGS\3B3457 Wed Apr 30 10:18:24 1997 MDR

SHEET 5

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

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SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

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PORT ORANGE, FL. 32127
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FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 5 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
FINAL SURVEY	:				
RECERTIFICATION SURVEY	:				

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

GUS A. SLIGER, P.L.S. NO. 3254
STEPHEN B. SLIGER, P.L.S. NO. 3794
J.E. ZAPERT, P.L.S. NO. 4046
STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

J:\DRAWINGS\9SDWGS\9634S7 Wed Apr 30 10:06:07 1997 NBR

U.S. Army Corps of Engineers Jacksonville District's Programmatic Biological Opinion (JaxBO) Project Design Criteria (PDCs) for In-Water Activities

November 20, 2017

1) **(AP.7.) Education and Observation**: The permittee must ensure that all personnel associated with the project are instructed about the potential presence of species protected under the ESA and the Marine Mammal Protection Act (MMPA). All on-site project personnel are responsible for observing water-related activities for the presence of protected species. All personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing ESA-listed species or marine mammals. To determine which species may be found in the project area, please review the relevant Protected Species List at: http://sero.nmfs.noaa.gov/protected_resources/section_7/threatened_endangered/index.html

2) **(AP.8.) Reporting** of interactions with protected species:
   a) Any collision(s) with and/or injury to any sea turtle, sawfish, whale, or sturgeon occurring during the construction of a project, shall be reported immediately to NMFS's Protected Resources Division (PRD) at (1-727-824-5312) or by email to takereport.nmfsser@noaa.gov and SAJ-RD-Enforcement@usace.army.mil.
   b) Smalltooth sawfish: Report sightings to 1-844-SAWFISH or email Sawfish@MyFWC.com
   c) Sturgeon: Report dead sturgeon to 1-844-STURG 911 (1-844-788-7491) or email nmfs.ser.sturgeonnetwork@noaa.gov
   d) Sea turtles and marine mammals: Report stranded, injured, or dead animals to 1-877-WHALE HELP (1-877-942-5343).
   e) North Atlantic right whale: Report injured, dead, or entangled right whales to the USCG via VHF Channel 16.

3) **(AP.9.) Vessel Traffic and Construction Equipment**: All vessel operators must watch for and avoid collision with species protected under the ESA and MMPA. Vessel operators must avoid potential interactions with protected species and operate in accordance with the following protective measures:

   a) *Construction Equipment*:
      i) All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while operating in water depths where the draft of the vessel provides less than a 4-foot (ft) clearance from the bottom, and in all depths after a protected species has been observed in and has departed the area.
      ii) All vessels will follow marked channels and/or routes using the maximum water depth whenever possible.
      iii) Operation of any mechanical construction equipment, including vessels, shall cease immediately if a listed species is observed within a 50-ft radius of

construction equipment and shall not resume until the species has departed the area of its own volition.

iv) If the detection of species is not possible during certain weather conditions (e.g., fog, rain, wind), then in-water operations will cease until weather conditions improve and detection is again feasible.

b) *All Vessels*:

i) Sea turtles: Maintain a minimum distance of 150 ft.

ii) North Atlantic right whale: Maintain a minimum 1,500-ft distance (500 yards).

iii) Vessels 65 ft. in length or longer must comply with the Right Whale Ship Strike Reduction Rule (50 CFR 224.105) which includes reducing speeds to 10 knots or less in Seasonal Management Areas (http://www.fisheries.noaa.gov/pr/shipstrike/).

iv) Mariners shall check various communication media for general information regarding avoiding ship strikes and specific information regarding right whale sightings in the area. These include NOAA weather radio, USCG NAVTEX broadcasts, and Notices to Mariners.

v) Marine mammals (i.e., dolphins, whales [other than North Atlantic right whales], and porpoises): Maintain a minimum distance of 300 ft.

vi) When these animals are sighted while the vessel is underway (e.g., bow-riding), attempt to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until they have left the area.

vii) Reduce speed to 10 knots or less when mother/calf pairs or groups of marine mammals are observed, when safety permits.

4) **(AP.10.) Turbidity Control Measures during Construction:** Turbidity must be monitored and controlled. Prior to initiating any of the work covered under this Opinion, the Permittee shall install turbidity curtains as described below. In some instances, the use of turbidity curtains may be waived by the USACE project manager if the project is deemed too minimal to generate turbidity (e.g., certain ATON installation, scientific survey device placement, marine debris removal) or if the current is too strong for the curtains to stay in place. Turbidity curtains specifications:

a) Install floating turbidity barriers with weighted skirts that extend to within 1 ft of the bottom around all work areas that are in, or adjacent to, surface waters.

b) Use these turbidity barriers throughout construction to control erosion and siltation and ensure that turbidity levels within the project area do not exceed background conditions.

c) Position turbidity barriers in a way that does not block species' entry to or exit from designated critical habitat.

d) Monitor and maintain turbidity barriers in place until the authorized work has been completed and the water quality in the project area has returned to background conditions.

e) In the range of ESA-listed corals (St. Lucie Inlet, Martin County south to the Dry Tortugas and the U.S. Caribbean) and Johnson's seagrass (Turkey Creek/Palm

Bay south to central Biscayne Bay in the lagoon systems on the east coast of Florida):

i) Projects that include upland earth moving (e.g., grading to install a building or parking lot associated with a dock and seawall project), must install sediment control barriers to prevent any upland sediments from reaching estuarine or marine waters.
ii) The turbidity curtain requirement cannot be waived for any project that moves or removes sediment (e.g., dredging, auger to create a pile, trenching to install a cableline). If turbidity curtains are not feasible in an area based on site conditions such as water current, high wave action, or stormy conditions, the project must undergo individual Section 7 consultation and is not covered under this Programmatic Opinion.

5) **(AP.11.) Entanglement:** All turbidity curtains and other in-water equipment must be properly secured with materials that reduce the risk of entanglement of marine species (described below). Turbidity curtains likewise must be made of materials that reduce the risk of entanglement of marine species.

a) In-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) must be stiff, taut, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, must be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line is allowed in the water.
b) Turbidity curtains and other in-water equipment must be placed in a manner that does not entrap species within the construction area or block access for them to navigate around the construction area.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

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

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

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

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:

Wildlife Alert:

1888-404-FWCC (3922)

cell *FWC or #FWC

North Atlantic Right Whale Information Form

Federal Regulations Governing the Approach to North Atlantic Right Whales

1. Federal regulations governing the approach to North Atlantic right whales can be found at 50 CFR 224.103(c). It is illegal to approach and remain within 500 yards of right whales; 500 yards is equal to the distance of 5 football fields.

   Prohibitions on approaching right whales are as follows (Excerpts from 50 CFR 224.103(c), available at www.ecfr.gov): Unless otherwise lawfully allowed or unless doing so would create an imminent and serious threat to a person or vessel, it is unlawful to:
   - *(i) Approach (including by interception) within 500 yards (460 m) of a right whale by vessel*
   - *(ii) Fail to undertake required right whale avoidance measures. If underway, a vessel must steer a course away from the right whale and immediately leave the area at a slow safe speed.*

2. Updates can be downloaded from:
   a. http://www.nmfs.noaa.gov/pr/species/mammals/cetaceans/rightwhale_northatlantic.htm, or
   b. www.ecfr.gov

Appendix E – Existing Conditions

ELECTRICAL RISER
EQUIPMENT ROOM #3 N.T.S.

NOTES TELEPHONE AND TV:

1. CALL SOUTHERN BELL TELEPHONE, 257-7950 TO SCHEDULE SERVICE REQUIRED DATE.
2. ONE HALF INCH PVC CONDUIT TO POWER GROUND ROD OR TO VISABLE CWP 1/2" OR GREATER IF BONDED TO POWER GROUND.
3. TURN TV CONDUIT UP 3' ABOVE GRADE ON EXISTING BUILDING THEN CONTINUE TO TV TIE-IN POINT. SEE DRAWINGS.
4. VERIFY EXACT TERMINATION LOCATION WITH SOUTHERN BELL TELEPHONE, 257-7950.
5. LEAVE PULL WIRE OR SUBSTANTIAL PULL STRING IN ALL EMPTY CONDUITS.
6. PROVIDE 2" ENTRY FOR TELEPHONE AND FOR TELEVISION INTO TEL/TV PULL BOXES ON PIER "A" AND "H".
7. COORDINATE BURIAL LOCATION OF CONDUIT. BURY ELECTRICAL ON OPPOSITE SIDE OF SIDEWALK FROM TEL/TV WHERE POSSIBLE.

CATV SCHEMATIC N.T.S.

SEE SPECIFICATIONS FOR MATERIAL LIST AND INSTALLATION DETAILS.

TELEPHONE/TV RISER DIAGRAM N.T.S.

4L 120/208-3Ø-150 MLO

CIRCUIT	LOAD	KVA	POLES	TRIP	WIRE	COND
1	LIGHTS	2.8	2	20	10	3/4
2		1.5				
3		2.0				
4		2.2				
5		2.4				
6		2.0				
7		2.0				
8		2.2				
9		2.6				
10		2.6				
11		2.8				
12		1.6				
13	SPARE					
14	LIGHTS	2.6				
15		2.6				
16	SPACE					
17	SPACE					
18						
19						

3B

PANEL 3B 300 A. 120/208 3Ø 4 WIRE Y MCB 42,000AIC

CIRCUIT	LOAD	POLES	TRIP	WIRE	COND
1	LIGHTS (EXTERIOR) VIA PHOTO CONTROL	1	20	12	3/4
2	LIGHTS	1			
3	LIGHTS	1			
4	WASHING MACHINE	1			
5	DRYER	2	30	10	
6	RECEPTACLES	1	20	12	
7	RECEPTACLES	1			
8	RECEPTACLES	1			
9	RECEPTACLES	1			
10	WATER HEATER	2	30	10	
11	PNL-4L	3	150	4 1/2	2
12-13	TELEPHONE	1	20	12	1/2
14	TELEVISION	1	20	12	1/2
15-16	LIGHTS VIA PE	1	20	10	3/4
17	FIXED PIER I, J, K VIA PE	1	20	10	3/4

PUBLIC TELEPHONE CONDUIT DETAIL
N.T.S.

NOTE:
1. TWO TELEPHONES TO BE LOCATED @ THE HARBOR MASTER COMPLEX ON THE NORTH WALL OF THE BREEZEWAY.
2. TWO TELEPHONES TO BE LOCATED @ THE SATELLITE RESTROOM ON THE SOUTH WALL OF THE BREEZEWAY.

SANITARY PUMP-OUT PLAN

EAST LAVATORY #3 N.T.S.

LEGEND

P.C.	POWER CENTER
S.P.	SINGLE POWER POST
D.P.	DBL. POWER POST
L	LOCKER BOX W/ HOSE BIBB
F.C. / F.P.	FIRE CABINET FIRE PULL
H.C.	HOSE CONNECTION
	PILE, GUIDE & PILE
	SPRING PILE
T	TRASH CONTAINER
	EMERG. LADDER

NO.	DATE	REVISIONS	BY

CHARLES E. BURKETT & ASSOCIATES, INC.
CONSULTING ENGINEERS
309 OAKRIDGE BOULEVARD, SUITE E. • P.O. BOX 2689
DAYTONA BEACH, FLORIDA 32015 • (904) 258-1338

HALIFAX HARBOR MARINA
HARBOR MASTER COMPLEX
CITY OF DAYTONA BEACH VOLUSIA COUNTY, FLORIDA

SANITARY & UTILITIES

CITY OF DAYTONA BEACH
HALIFAX HARBOR MARINA

DESIGN	MJP	SCALE 1"=20'	PROJECT NO. 272
DRAWN	RG		
CHECKED	MJP	DATE	SHEET NO. 22

Water line located on the east end of the seawall.

Moving west along seawall, flexible hose in the water is the sewer line leading to the dock. Second pvc pipe in the water is electrical. Other white pipes sticking out of the top of the wall were installed for a French drain that runs along the top of the seawall.

Moving west along seawall, flexible hose is for fire. Unsure about other pipes. Possibly abandoned electrical?

Moving west to end of wall are electrical connections.

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)
1 inch = 60 ft.

APPROVED
Mean High Water
Survey File 1675
by ____ date ____

NOTE:
ALL TREES 6 INCHES AND ABOVE ARE LOCATED EXCEPT CABBAGE PALMS.

MEAN HIGH WATER SURVEY NOTES:

(1) THE MEAN HIGH WATER SURVEY DEPICTED HEREON COMPLIES WITH CHAPTER 177, PART II FLORIDA STATUTES AND CHAPTER 18-5 FLORIDA ADMINISTRATIVE CODE AND IS RECORDED IN THE PUBLIC REPOSITORY OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, MEAN HIGH WATER SURVEY FILE 1675.
(2) MEAN HIGH WATER ELEVATION 1.24 FEET, NGVD 1929 BASED ON THE EXTENSION OF TIDAL DATUM FROM MEAN HIGH WATER SURVEY FILE NUMBER 1529.

SURVEYORS NOTES

1. NOTICE: THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN ON THIS PLAT OF SURVEY/SKETCH OF DESCRIPTION THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. THIS SURVEY/ SKETCH OF DESCRIPTION PREPARED WITHOUT BENEFIT OF AN ABSTRACT.
DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
BEARING STRUCTURE BASED ON RECORD PLAT OF MARINA POINT CONDOMINIUM, PHASE I, MAP BOOK 38, PAGES 117-127 WITH THE BEARING ON THE EASTERLY RIGHT OF WAY LINE OF SOUTH BEACH STREET BEING S 31°18'02" E.
4. UNDERGROUND FOUNDATIONS, IF ANY, NOT LOCATED.
5. ELEVATIONS REFER TO N.G.V.D. OF 1929, PER U.S.C.& G.S. BENCHMARK ACOE IWV 9 HAVING A PUBLISHED ELEVATION OF 4.261 FEET.
6. "NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER".
7. DESCRIPTION PREPARED BY SLIGER & ASSOCIATES, INC.
8. REVISED PER FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION COMMENTS APRIL 28, 1997.

SUBJECT AREA
Daytona Beach Shores
Daytona Beach
Maritana Hospital
Daytona Beach Community College
Daytona Beach Municipal Airport
Port Orange
Ponce Inlet
Port Orange Bridge
Filtration Plant
Radio Tower (WJXL)
Radio Tower (WBOD)
Daybeacons
Pilings
Sand
Light
City Hall
Public Library
Cypress Gardens
Tomoka State Park
Tomoka Golf Course
Tomoka Oaks Golf Course
Sugar Mill Gardens
Spruce Creek
Tomoka River
Halifax River
Atlantic Ocean
Port Orange Bridge
S. Nova Road
Dunlawton Ave.
Taylorville Road
Clyde Morris Blvd.
Ridgewood Ave.
Beach St.
Atlantic Ave.
Ocean Shore Blvd.
Peninsula Dr.
Riverside Dr.
Sunset Dr.
Sea Breeze Blvd.
Ocean Ave.
Ocean Dr.
Oceanwalk Dr.
Ocean Grove Dr.
Ocean Palm Dr.
Ocean Sands Dr.
Ocean Trace Dr.
Ocean Walk Dr.
Ocean Wave Dr.
Ocean Way
Oceanwalk Dr.
Oceanwalk Dr.
Oceanwalk Dr.

SHEET 2

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
△	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
FP&L CO.	FLORIDA POWER & LIGHT COMPANY
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

- ELECTRIC BOX
- SIGN
- TREE
- FIRE HYDRANT
- WATER METER
- GUY ANCHOR
- UTILITY POLE
- IRON ROD WITH CAP
- IRON PIPE
- CONCRETE MONUMENT
- PERMANENT REFERENCE MONUMENT
- PERMANENT CONTROL POINT
- (R) RADIAL LINE
- (NR) NON-RADIAL LINE
- WATER VALVE
- 0.00 × EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789, 792 PAGE(S): 1-14, 26-40 SHEET 2 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
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J:\DRAWINGS\96DWGS\963457 Wed Apr 30 10:08:11 1997 MBR

SHEET 3

SEE SHEET 1 FOR DESCRIPTION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
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LEGEND

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	SIGN
	TREE
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0.00 x	EXISTING ELEVATION

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 3 OF 5

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J:\DRAWTNGS\BSDWGS\963457 Wed Apr 30 10:12:02 1997 MBR

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RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
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R/W	RIGHT OF WAY
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(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 4 OF 5

TYPE OF SURVEY	DATE	JOB NUMBER	PARTY CHIEF	DRAWN BY	CHECKED BY
MEAN HIGH WATER	: 11/21/1996	96-3457	JM,BU	TS	JZ
BOUNDARY SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
TOPOGRAPHIC SURVEY	: 11/21/1996	96-3457	JM,BU	TS	JZ
FOUNDATION SURVEY	:				
FINAL SURVEY	:				
RECERTIFICATION SURVEY	:				

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS PLAT MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

GUS A. SLIGER, P.L.S. NO. 3254
STEPHEN B. SLIGER, P.L.S. NO. 3794
J.E. ZAPERT, P.L.S. NO. 4046
STEVEN T. KRUGER, P.L.S. NO. 4722
LICENSED BUSINESS NO. 3019
VALID WITH SIGNATURE & EMBOSSED SEAL ONLY

1675

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SHEET 5

SEE SHEET 1 FOR DESCRIPTION

ABBREVIATIONS

RCP	REINFORCED CONCRETE PIPE
FM	FORCE MAIN
UE	UNDERGROUND ELECTRIC
OE	OVERHEAD ELECTRIC
WL	WATER LINE
TL	TELEPHONE LINE
GL	GAS LINE
CMP	CORRUGATED METAL PIPE
R/W	RIGHT OF WAY
℄	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
FP&L CO.	FLORIDA POWER & LIGHT COMPANY
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY

LEGEND

- ELECTRIC BOX
- SIGN
- TREE
- FIRE HYDRANT
- WATER METER
- GUY ANCHOR
- UTILITY POLE
- IRON ROD WITH CAP
- IRON PIPE
- CONCRETE MONUMENT
- PERMANENT REFERENCE MONUMENT
- PERMANENT CONTROL POINT
- (R) RADIAL LINE
- (NR) NON-RADIAL LINE
- WATER VALVE
- 0.00 EXISTING ELEVATION

SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

3921 SOUTH NOVA ROAD
PORT ORANGE, FL. 32127
(904) 761-5385

FOR: ISLAND OF MARINA POINT HARBOR

SCALE: 1"=20' FIELD BOOK: 789 792 PAGE(S): 1-14 26-40 SHEET 5 OF 5

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J:\DRAWINGS\9SDWGS\9634457 Wed Apr 30 10:06:07 1997 NBR

Appendix F – Geotechnical Evaluations

Report of Geotechnical Engineering Investigation

DAYTONA BEACH MARINA SEAWALL REPLACEMENT

Daytona Beach, Florida

GEC Project No. 4323G

January 8, 2019

DRMP
941 Lake Baldwin Lane
Orlando, Florida 32814

Attention: Mr. Don Bieger, P.E.

Subject: Report of Geotechnical Engineering Investigation
DAYTONA BEACH MARINA SEAWALL REPLACEMENT
Daytona Beach, Florida
GEC Project No. 4323G

Dear Mr. Bieger:

Geotechnical and Environmental Consultants, Inc. (GEC) is pleased to present this Report of Geotechnical Engineering Investigation for the above-referenced project. This investigation was performed in general accordance with our Proposal No. 9490G1 dated October 22, 2018.

The purpose of this investigation was to explore soil and groundwater conditions at the project site and to use the information obtained to provide geotechnical engineering recommendations for site preparation, and design and construction of the proposed sheetpile wall improvements. This report describes our exploration procedures, exhibits the data obtained and presents our conclusions and recommendations regarding the geotechnical engineering aspects of the project.

GEC appreciates the opportunity to be of service to you on this project and trusts that the information contained herein is sufficient for your current needs. Should you have any questions concerning the contents of this report, or if we may be of further assistance, please contact us.

Very truly yours,

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.
919 Lake Baldwin Lane
Orlando, Florida 32814
Certificate of Authorization No. 5882

Jose R. Benitez Jr., E.I.
Engineer Intern

Christopher P. Meyer, P.E.
Geotechnical Services Manager
Florida License No. 49328

This Report has been digitally signed and sealed by Christopher P. Meyer, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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Table 6: Summary of Recommended Soil Parameters for Design
Table 7: Sheet Pile Wall Design Recommendations

Sheet Pile Wall Analyses

1.0 SITE AND PROJECT DESCRIPTION

The project site is located in the southeastern portion of the Halifax Harbor Marina in Daytona Beach, Florida. The marina is located on a peninsula extending east and south into the Halifax River. The project area is the existing seawall located to the south and west of the existing marina office building near the southern end of Basin Street.

We understand that project plans include the replacement of the section of existing interlocking stone seawall located on the southwestern corner of the Halifax Harbor Marina peninsula to the southwest of the existing roundabout with a vinyl sheet pile wall.

The approximate location of the project site is depicted on an excerpt from the USGS Quadrangle and NRCS Soil Survey Maps shown on **Figure 1** in the **Appendix**. Based on review of the USGS Daytona Beach, Florida Quadrangle map reproduced in **Figure 1** and review of the project topographic survey data the ground surface elevation is approximately +5 feet NGVD.

2.0 NRCS SOIL SURVEY

The Natural Resources Conservation Service (NRCS) Soil Survey of Volusia County, Florida was reviewed for near-surface soil and groundwater information within the vicinity of the project site. The NRCS Soil Survey map of the site vicinity is shown on **Figure 1** in the **Appendix**. The NRCS soils near the project site are summarized on the following table:

Table 1
NRCS Soil Survey Classifications

Unit No.	Soil Name	Depth (inches)	Soil Description	Unified Classification Symbol	Seasonal High Groundwater Depth Range (feet)	Hydrologic Group
68	Turnbull variant sand	0 - 42	Sand	SP-SM	1.0 - 3.0	A/D
		42 - 48	Mucky clay	CH		
		48 - 52	Sand	SP-SM		
		52 - 57	Muck	PT		
		57 - 80	Stratified clay to loamy sand to sand	MH, CH		

According to the NRCS Soil Survey, the predominant soil type at the project site is Turnbull variant sand. This soil type consists of mixed sandy and shelly material dredged from the Intracoastal Waterway. The underlying material is organic layers and layers of clayey and sandy estuarine deposits. The NRCS Soil Survey predicts seasonal high groundwater levels for this soil type to range from 1 to 3 feet below the existing ground surface.

Information contained in the NRCS Soil Survey is very general and may be outdated. Therefore, it may not be reflective of actual soil and groundwater conditions, particularly if recent development in the site vicinity has modified soil conditions or surface/subsurface drainage. The information obtained from the soil borings provides a better characterization of actual site conditions.

3.0 USGS POTENTIOMETRIC MAP DATA

…the potentiometric surface of the Floridan Aquifer… in the vicinity of the subject site ranges from approximately +5 to +10 feet NGVD.

Based on review of the FDEP map entitled "Upper Floridan Aquifer Potentiometric Surface", dated September 2016, the potentiometric level of the Floridan aquifer in the vicinity of the subject site ranges from approximately +5 to +10 feet NGVD. Since the existing ground surface elevations at the site are about +5 feet NGVD, artesian flow conditions may be encountered if the confining layer is penetrated at this site. Artesian conditions were not encountered in any of our 25-foot deep soil borings.

4.0 SUBSURFACE EXPLORATION

In addition to consulting the sources of information previously discussed for regional and site-specific soils data, GEC conducted a subsurface exploration to evaluate soil and groundwater conditions. GEC explored subsurface conditions at the project sites by performing the following 3 Standard Penetration Test (SPT) borings to a depth of 25 feet in the area of the proposed improvements.

The SPT borings were not surveyed in the field, but were established in the field using project plans and measuring in the field by taping distances from existing site features and should be considered approximate. Although these locations are, therefore, given only approximately, the methods used to locate them are, in GEC's opinion, sufficient to meet the intent of this study. The approximate locations of the borings performed for this study are shown on **Figure 2** in the **Appendix**.

4.1 SPT Borings

SPT borings were drilled in general accordance with ASTM Procedure D-1586. The boreholes were advanced by the rotary wash method with bentonite-based mud used as the circulating fluid to stabilize the borehole. GEC's field crew obtained SPT samples continuously in the borings to a depth of 10 feet and at 5-foot depth intervals thereafter. However, the borings were hand augered to depths of 6 feet to clear underground utilities in the area. A GEC engineering technician monitored the drilling operation, and collected, examined and visually classified each sample. He then packaged representative portions of each sample for transport to our laboratory for further examination and laboratory testing. The boreholes were grout sealed upon completion.

4.2 Manual Auger Borings

Our engineering technician performed standard barrel manual auger borings in general accordance with ASTM D-4700, by manually turning a 3-inch diameter, 6-inch long sampler into the soil until it was full. He then retrieved the sampler and visually examined and classified the soil. This procedure was repeated until the desired termination depth was achieved. A field manual auger boring log was completed by the technician that described the soils penetrated, recorded depth to groundwater, if encountered, and described other details of the boring, methods used, and selected other site conditions at the time of drilling. Our technician collected representative samples for further visual examination and classification in our laboratory.

4.3 Groundwater Measurement

A GEC engineering technician measured the depth to groundwater in the boreholes at the time of drilling and again after approximately 1 hour. Once the groundwater measurement was recorded, the boreholes were then grout-sealed to prevailing ground surface.

5.0 LABORATORY TESTING

Selected soil samples retrieved from the borings were tested in accordance with Florida Standard Testing Methods (FM) and AASHTO testing methods. Florida Standard Testing Methods are adaptations of recognized standard methods, e.g., ASTM and AASHTO, which have been modified to accommodate Florida's geological conditions. The GEC laboratory has been reviewed and certified by the Army Corps of Engineers (COE) and the Construction Materials Engineering Council (CMEC). The laboratory testing program for this project is summarized in the following table:

Table 2
Summary of Laboratory Testing Program

Type of Test	Number of Tests
Percent Fines (AASHTO T 88)	4
Atterberg Limits (AASHTO T 89/90)	1
Natural Moisture Content (AASHTO T 265)	1
Organic Content (FM 1 - T267)	1
Corrosion Series (FM 5-550/551/552/553)	2

The results of our laboratory testing are presented adjacent to the soil boring profiles on the SPT Boring Results sheet (**Figure 3**) in the **Appendix**.

GEC performed corrosion series tests that included pH, sulfates, chlorides and resistivity in general accordance with FM 5-550 through FM 5-553. The results of the corrosion series testing are included in **Table 5** in the **Appendix.**

6.0 DESCRIPTION OF SUBSURFACE CONDITIONS

The results of our borings are presented on the SPT Boring Results sheet in the **Appendix**. The soils encountered in the SPT borings were classified in accordance with the Unified Soil Classification System (USCS) (SP-SM, SM, etc.). Soils were described using the ASTM soil descriptions (e.g., sand with silt). We based our classifications on visual examination and the limited laboratory testing performed.

The boring logs results indicate subsurface conditions only at the specific boring locations at the time of our field exploration. Subsurface conditions, including groundwater and water levels, at other locations of the project site may differ from conditions we encountered at the boring locations. Moreover, conditions at the boring locations can change over time. Groundwater and the adjacent surface water levels fluctuate, and soil conditions can be altered by earthmoving operations.

The depths and thicknesses of the subsurface strata indicated on the boring logs were interpolated between samples obtained at different depths in the borings. The actual transition between soil layers may be different than indicated. *These stratification lines were used for our analytical purposes and actual earthwork quantities measured during construction should be expected to vary from quantities calculated based on the information in this report.*

6.1 Soil Boring Results

The following tables summarize the general subsurface profiles encountered at the SPT boring locations:

Table 3
Generalized Subsurface Profile

Approximate Layer Depth (feet)	General Soil Description	Typical Range of N-Values (blows/foot)
0 to 13	Very loose to loose fine sand with varying silt content (SP, SP-SM, SM) with trace to some shell. **SPT-1 encountered a layer of organic fat clay with sand (OH) from 2 to 4 feet deep.**	1 to 5
13 to 25	Dense to very dense fine sand (SP) with some to mostly shell	20 to 104

The results of the SPT borings are presented on **Figure 3** in the **Appendix**.

6.2 Groundwater Levels

The groundwater level in the SPT boreholes was measured 1 hour after the date drilled. The groundwater was measured at a depth of 5 feet below existing ground surface at the site.

Groundwater levels can vary seasonally and with changes in subsurface conditions between boring locations. Alterations in surface and/or subsurface drainage brought about by site development can also affect groundwater levels. Change in the water elevation in the Intracoastal Waterway will also affect groundwater levels. *Therefore, groundwater depths measured at different times or at different locations on the site can be expected to vary from those measured by GEC during this investigation.*

For purposes of this report, estimated seasonal high groundwater levels are defined as groundwater levels that are anticipated at the end of the wet season during a "normal rainfall" year under pre-development site conditions. We define a "normal rainfall" year as a year in which rainfall quantity and distribution were at or near historical averages.

> We estimate seasonal high groundwater elevations will be approximately 2 feet below existing ground...

> …groundwater levels… are directly dependent on… the Intracoastal Waterway…

We estimate that the seasonal high groundwater table will be approximately 2 feet below existing ground at the boring locations. However, it is noted that groundwater levels at our boring locations are directly dependent on the water elevation in the Intracoastal Waterway, and may differ from our estimates during extreme storm or drought conditions. Our estimated seasonal high groundwater levels are presented on the SPT Boring Results sheet (**Figure 3**) in the **Appendix**.

7.0 CONCLUSIONS AND DESIGN RECOMMENDATIONS

The conclusions and recommendations contained in this report are based in part on the data obtained from a limited number of soil samples and the groundwater measurements obtained from widely-spaced borings. The sampling methods used indicate subsurface conditions only at the specific boring locations where samples were obtained, only at the time they were obtained, and only to the depths penetrated. *Borings cannot be relied upon to accurately reflect the variations that usually exist between boring locations and these variations may not become evident until construction.*

If variations from the subsurface conditions described in this report do become evident during construction or if the project characteristics described in this report change, GEC should be retained to reevaluate this report's conclusions and recommendations in light of such changes.

We also recommend that GEC be allowed to review the construction plans prior to bidding so that we can verify that our recommendations were properly interpreted.

7.1 Sheet Pile Wall

We understand that sheet pile retaining walls are to be utilized to replace the existing interlocking stone seawall. GEC utilized the computer program WCWALSHT to perform sheet pile wall analyses based on anticipated proposed geometry and subsurface conditions encountered at our soil boring locations. Our analyses used ground surface elevations of +5 feet behind the wall and -2 feet in front of the wall (mudline).

Sheet pile wall analyses were performed in general accordance with LRFD requirements for determining maximum moment and deflection and for determining minimum wall embedment. The following design parameters were utilized in wall calculations:

- Maximum Wall Moment and Deflection (LRFD Design Guidelines)
    - Passive Safety Factor = 1.33 (ϕ_p = 0.75)
    - Active Safety Factor = 1.0
    - Surcharge Load Factor = 1.0
- Minimum Wall Embedment (LRFD Design Guidelines)
    - Passive Safety Factor = 1.33 (ϕ_p = 0.75)
    - Active Safety Factor = 1.0
    - Surcharge Load Factor = 1.0
    - 20% Length Increase
- Design Assumptions
    - Maximum of 3-foot hydraulic head difference from face of wall to back of wall

GEC utilized the computer model, STEDwin, to analyze the overall global stability of the sheet pile wall geometry using soil parameters developed from our borings and site topographic data. The calculated minimum factors of safety for overall stability exceeded the minimum requirement of 1.5.

Soil parameters utilized in our wall analyses are summarized in **Table 6** in the **Appendix**. The results of our sheet pile wall analyses and recommended wall design parameters are included in **Table 7** in the **Appendix**. In addition, our sheet pile wall calculations are included in the **Appendix**. The maximum moment and maximum scaled deflection shown in **Table 7** can be used to determine what size and type sheetpile wall can be used. We have assumed a maximum 1-inch horizontal deflection at the top of the seawall is allowable.

We recommend the following note be included in the plans.

"Dense to very fine sand (SP) with some to mostly shell was generally encountered from a depth of 15 to 25 feet deep in our borings. This dense to very dense soil layer may require special equipment and/or procedures (i.e.; preforming, punching, etc.) to facilitate sheetpile installation. If preforming is conducted, it shall be performed such that dense soil layers are penetrated and loosened but soil is not extracted and an open excavation is not created."

Weep holes should be placed above the normal high water elevation and should be evenly spaced on 4-foot centers to prevent build-up of hydrostatic pressure behind the sheet pile walls. Place filter fabric at all weep holes to prevent soil loss.

7.2 Lateral Earth Pressure

This section is for use in design of any buried structures. These recommendations are applicable for excavations that will penetrate the surficial sandy soils classified as SP, SP-SM, and SM on the boring logs included with this report.

Lateral earth pressures for design of below grade and/or earth retaining structures can be calculated using a hydrostatic pressure distribution from an equivalent fluid having varying densities for various conditions. These values assume sandy soil (SP, SP-SM, SM) with an angle of internal friction of about 30 degrees and a moist unit weight of 105 pcf and a saturated unit weight of 110 pcf. The table below summarizes the recommended equivalent fluid densities for active, passive and at-rest conditions and drained or undrained conditions. The actual lateral earth pressure will be a function of both the soil unit weight (submerged or moist) and the depth below ground surface.

Table 4
Lateral Earth Pressure

Lateral Earth Pressure Condition	Equivalent Fluid Density Undrained (pcf)	Equivalent Fluid Density Drained (pcf)
Active	78	35
Passive	143*	315
At-rest	86	53

*Note - This value is a recommended conservative Equivalent Fluid Density that does not include the unit weight of water.

Undrained conditions assume that full water pressure can develop behind the structure, in addition to the retained earth pressure. Drained conditions assume hydrostatic (water) pressure cannot develop due to positive drainage behind the structure, and includes only the moist soil earth pressure. The designer should use the appropriate condition and factor of safety based on the specific design and groundwater conditions.

8.0 CONSTRUCTION ISSUES

The following sections of this report include comments on issues related to the geotechnical aspects of the proposed construction. *These recommendations are not intended to dictate construction methods or sequences.* Instead, they are furnished as an aid to design professionals and to identify important construction issues related to foundation and earthwork plans and specifications. These recommendations may also be useful to personnel who observe construction activity.

Prospective contractors for this project should evaluate potential construction problems on the basis of their review of the contract documents, their own knowledge and experience in the local area, and on the basis of similar projects in other localities, taking into account their own proposed methods and procedures.

8.1 General Site Preparation

Our recommendations regarding routine site preparation of the structure areas can be summarized as follows:

- Remove all concrete, asphalt, sheet piling, vegetation and organic topsoil, major root systems, buried utilities, sprinkler systems and other deleterious materials from beneath and to a minimum of 5 feet beyond the proposed structure limits.

- Standard clearing, grubbing, and topsoil stripping procedures should be appropriate for this site.

- Perform temporary dewatering as required to achieve proper site preparation, fill placement and compaction.

8.2 Fill Selection, Placement and Compaction

Soils encountered in the borings appear suitable for use as structural fill. We recommend that all fill be selected, placed and compacted as follows:

Use fill material comprised of non-plastic sands with less than about 10% fines content.

- Use fill material comprised of non-plastic sands with less than about 10% fines content. The fill should not contain any significant amount of organic substances (less than 5% by weight) and should be substantially free from roots or other organic or deleterious materials.

- Our borings encountered sands with varying silt content (SP, SP-SM) which appear suitable for use as fill. Sands excavated above the water table may have to be wetted to attain the moisture content needed to achieve the required degree of compaction.

- Place fill in level lifts no thicker than 12 inches. Thinner lifts may be needed to achieve compaction in the silty sands.
- Compact fill to a minimum of 95% of the soil's modified Proctor maximum dry density as determined by ASTM Specification D-1557 for each lift of fill placed.

- Allow an Engineering Technician, working under the direction of a registered Geotechnical Engineer, to perform in-place density tests to verify that the recommended degree of compaction has been achieved.

- Provide fill slopes no steeper than 2 horizontal to 1 vertical.

- Compact fill placed in utility trenches to the specifications stated above. However, in restricted working areas, compact fill with lightweight, hand-guided compaction equipment and limit lift thicknesses to a maximum of 6 inches.

- All excavations including utility trenches, should comply with the recommendations included in the **Temporary Excavations** section of this report.

8.3 Temporary Excavations

The owner and the contractor should be familiar with local, state and federal safety regulations, including current Occupational Safety and Health Association (OSHA) excavation and trench safety standards. Construction site safety is the responsibility of the contractor. The contractor should also be responsible for the means, methods, techniques, sequences, and operations of the construction.

The contractor should be aware that slope height, slope inclination, and excavation depths (including utility trench excavations) should not exceed those specified in local, state, or federal safety regulations; e.g., OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926. *OSHA regulations are strictly enforced and, if not followed, the owner, contractor, earthwork subcontractor or utility subcontractor could be liable for substantial penalties.*

The soil encountered in the borings performed by GEC at this site is primarily sand with varying amounts of silt. We anticipate that OSHA will classify these materials as Type C. OSHA recommends a maximum temporary slope inclination of 1.5 horizontal to 1 vertical for this soil type. Soils encountered in the construction excavations may vary significantly across the site. Our

soil classifications are based on the materials encountered in widely-spaced borings. The contractor should verify that similar conditions exist throughout the proposed excavation area. If different subsurface conditions are encountered at the time of construction, GEC should be contacted immediately to evaluate the conditions encountered.

8.4 Noise and Vibration Monitoring

…GEC recommends a preconstruction survey of the adjacent structures be performed.

Existing structures may be affected by vibrations caused by the sheet pile installation and construction of the proposed improvements. To evaluate the existing conditions of the structures, GEC recommends a preconstruction survey of the adjacent structures be performed. This includes documenting and photographing existing cracks and irregularities and obtaining floor elevations at each structure. Prior to the installation of the sheet pile, vibration monitors should be installed. In addition, any cracks observed during the preconstruction survey should be outfitted with crack monitors. The crack monitors should be observed at regular intervals during the entire sheet pile installation. If movement is observed at any of the monitoring devices or vibrations exceed acceptable limits, all operations should stop and the geotechnical engineer should be notified immediately.

9.0 USE OF THIS REPORT

GEC has prepared this report for the exclusive use of our client, DRMP, and the City of Daytona Beach and for specific application to our client's project. GEC will not be held responsible for any third party's interpretation or use of this report's subsurface data or engineering analysis without our written authorization.

The sole purpose of the borings performed by GEC at this site was to obtain indications of subsurface conditions as part of a geotechnical exploration program. GEC has not evaluated the site for the potential presence of contaminated soil or groundwater, nor have we subjected any soil samples to analysis for contaminants.

GEC has strived to provide the services described in this report in a manner consistent with that level of care and skill ordinarily exercised by members of our profession currently practicing in Central Florida. No other representation is made or implied in this document.

The conclusions or recommendations of this report should be disregarded if the nature, design, or location of the facilities is changed. If such changes are contemplated, GEC should be retained to review the new plans to assess the applicability of this report in light of proposed changes.

APPENDIX

USGS QUADRANGLE AND NRCS SOIL SURVEY MAPS

N W E S

0 1,000 2,000
Feet

Geotechnical and Environmental Consultants, Inc.
919 Lake Baldwin Lane
Orlando, FL 32814
PH (407) 898-1818 FAX (407) 898-1837
Certificate of Authorization No. 00005882

GEC

CHRISTOPHER P. MATTHEWS, PE 49348

PROJECT NO.	4323G
DATE	1/3/2019
DRAWN BY	SKR
CHECKED BY	VRS
CHECKED BY	CPM

USGS QUADRANGLE AND NRCS SOIL SURVEY MAPS

DAYTONA BEACH MARINA SEAWALL REPLACEMENT

FIGURE NO. 1

COPYRIGHT DAYTONA BEACH

BORING LOCATION PLAN

0 25 50

Approx. Scale (ft.)

North

LEGEND

APPROXIMATE SPT BORING LOCATION

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.
919 Lake Baldwin Lane
Orlando, FL. 32814
T 407-898-1818 F 407-898-1837
Certificate of Authorization No. 5882
CHRISTOPHER D. MEYER - P.E. No. 49528

GEC

PROJECT NO.	4323G
DATE	1-3-19
DRAWN BY	SKR
CHECKED BY	VRS
CHECKED BY	CPM

BORING LOCATION PLAN

DAYTONA BEACH MARINA SEAWALL REPLACEMENT

FIGURE NO. **2**

Scale 1/3/2019 2:16:25 PM J:\Jobs - Drafting\4323G Daytona Beach Marina Seawall\4323(

SOIL BORING RESULTS

LEGEND

N	STANDARD PENETRATION RESISTANCE, BLOWS PER FOOT
HA	HAND AUGERED FOR UTILITY CLEARANCE
▽ 2.0	ESTIMATED SEASONAL HIGH GROUNDWATER DEPTH (FT.)
▼ 5.0	ENCOUNTERED GROUNDWATER DEPTH (FT.) ON DAY DRILLED
BT	BORING TERMINATED AT DEPTH INDICATED
-200=	PERCENT PASSING NO. 200 U.S. STANDARD SIEVE
MC=	PERCENT NATURAL MOISTURE CONTENT
LL=	LIQUID LIMIT
PI=	PLASTICITY INDEX
OC=	PERCENT ORGANIC CONTENT

SAND
SAND AND CLAY
SAND AND SILT
SAND AND SHELL

GENERAL NOTES

SUBSURFACE CONDITIONS SHOWN ON THE BORINGS REPRESENT THE CONDITIONS ENCOUNTERED AT THE BORING LOCATIONS. ACTUAL CONDITIONS BETWEEN THE BORINGS MAY VARY FROM THOSE SHOWN. UNIFIED SOIL CLASSIFICATIONS SHOWN ON THE BORINGS ARE BASED ON VISUAL EXAMINATION AND THE LABORATORY TESTING SHOWN.

STANDARD PENETRATION TEST BORINGS WERE PERFORMED IN ACCORDANCE WITH ASTM D-1586. STANDARD PENETRATION RESISTANCES ARE SHOWN ON THE BORINGS AT THE TEST DEPTHS IN IN BLOWS PER FOOT UNLESS OTHERWISE NOTED.

THE BORING LOCATIONS WERE NOT SURVEYED. BORING LOCATIONS WERE ESTABLISHED IN THE FIELD BY MEASURING DISTANCES FROM EXISTING STRUCTURES.

SPLIT SPOON SAMPLER:
INSIDE DIAMETER: 1.375 IN.
OUTSIDE DIAMETER: 2.0 IN.
AVERAGE HAMMER DROP: 30 IN.
HAMMER WEIGHT: 140 LBS.
HAMMER TYPE: MANUAL

CORRELATION OF STANDARD PENETRATION RESISTANCE WITH RELATIVE DENSITY AND CONSISTENCY OF SOIL

GRANULAR SOILS	MANUAL HAMMER (SAFETY) N VALUE (blows per foot)	RELATIVE DENSITY
SANDS	0-4	VERY LOOSE
	4-10	LOOSE
	10-30	MEDIUM DENSE
	30-50	DENSE
	OVER 50	VERY DENSE

NON-GRANULAR SOILS	MANUAL HAMMER (SAFETY) N VALUE (blows per foot)	CONSISTENCY
SILTS, CLAYS, MUCK, PEAT	0-2	VERY SOFT
	2-4	SOFT
	4-8	FIRM
	8-15	STIFF
	15-30	VERY STIFF
	OVER 30	HARD

GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS, INC.
919 Lake Baldwin Lane
Orlando, FL 32814
T 407-898-1818 F 407-898-1837
Certificate of Authorization No. 5882
CHRISTOPHER P. MEYER PE NO. 49328

GEC

PROJECT NO.	4323G
DATE	1/3/2019
DRAWN BY	SKR
CHECKED BY	VRS
CHECKED BY	CPM

SPT BORING RESULTS

DAYTONA BEACH MARINA SEAWALL REPLACEMENT

FIGURE NO. 3

SUMMARY OF
CORROSION SERIES TEST RESULTS

Boring No.	Unified Class.	Sample Depth (ft)	pH	Minimum Resistivity (ohm-cm)	Chlorides (ppm)	Sulfates (ppm)	Substructural Environmental Classification	
							Concrete	Steel
SPT-2	SP	0 - 6	8.1	11000	15	18	Slightly Aggressive	Slightly Aggressive
SPT-3	SP	0 - 6	8.8	49500	201	30	Slightly Aggressive	Slightly Aggressive

SUMMARY OF RECOMMENDED SOIL PARAMETERS FOR DESIGN

Boring No.	Depth (ft)	Soil Parameters						Water Levels		Sheet Pile Design Parameters
		Description	Friction Angle (deg)	Cohesion (psf)	Adhesion (psf)	Moist Unit Weight (pcf)	Saturated Unit Weight (pcf)	Encountered Ground Water Elevation (NAVD88)	Estimated Seasonal High Ground Water Elevation (NAVD88)	Angle of Wall Friction (deg)
SPT-1, 2, 3	0 - 13	Loose sand	28	0	0	100	105	+0.5	+3.5	14
	13 - 25	Medium dense	34	0	0	115	120			17

SHEET PILE WALL DESIGN RECOMMENDATIONS

Sheet Pile Wall Data							Design Geometry			
Maximum Unsupported Wall Height (ft)	Design Wall Tip Elevation (ft NAVD 88)	[3]Minimum Wall Tip Elevation (ft NAVD 88)	Maximum Bending Moment (kip-ft)	[2]Maximum Scaled Deflection (kip-in^3*10^6)	Maximum Top of Wall Deflection (inches)	Minimum Required Moment of Inertia (in^4/ft)	[1]Soil Elevation (ft NAVD88)		Water Elevation (ft NAVD88)	
							Front of Wall	Back of Wall	Front of Wall	Back of Wall
7.5	-17.0	-12.5	23.2	5.77	1.0	199	-2.0	+5.5	+0.5	+3.5

1. Soil elevations vary along wall alignment. Listed elevation is critical design case.
2. Divide maximum scaled deflection by Modulus of Elasticity (in^2-lbs) times the moment of inertia (in^4) to obtain deflection in inches.
3. Varability in the sheet pile tip elevation is anticipated based on variability in the elevation of the dense soil layer on site. At a minimum sheet pile should be installed to the listed minimum installation depth where dense soil conditions limit ins

SHEET PILE WALL ANALYSES

sheetpile output 3

PROGRAM CWALSHT-DESIGN/ANALYSIS OF ANCHORED OR CANTILEVER SHEET PILE WALLS
BY CLASSICAL METHODS

DATE: 27-DECEMBER-2018 TIME: 8:13:34

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****************
*  INPUT DATA  *
****************

 I.--HEADING
'DAYTONA BEACH MARINA SEAWALL

II.--CONTROL
   CANTILEVER WALL DESIGN
   FACTOR OF SAFETY FOR ACTIVE PRESSURES  = 1.00
   FACTOR OF SAFETY FOR PASSIVE PRESSURES = 1.33

III.--WALL DATA
   ELEVATION AT TOP OF WALL    = 5.50 FT.

IV.--SURFACE POINT DATA

     IV.A.--RIGHTSIDE
        DIST. FROM     ELEVATION
        WALL (FT)         (FT)
             0.00         5.50
            20.00         5.50

     IV.B.--LEFTSIDE
        DIST. FROM     ELEVATION
        WALL (FT)         (FT)
             0.00        -2.00
            20.00        -2.00

 V.--SOIL LAYER DATA

    V.A.--RIGHTSIDE
        LEVEL 2 FACTOR OF SAFETY FOR ACTIVE PRESSURE  = DEFAULT
        LEVEL 2 FACTOR OF SAFETY FOR PASSIVE PRESSURE = DEFAULT

            ANGLE OF        ANGLE OF                        <-SAFETY->
 SAT.   MOIST INTERNAL  COH-    WALL    ADH-    <--BOTTOM-->  <-FACTOR->
WGHT.   WGHT. FRICTION  ESION  FRICTION ESION   ELEV.  SLOPE  ACT. PASS.
(PCF)   (PCF)   (DEG)   (PSF)   (DEG)   (PSF)   (FT)  (FT/FT)
105.00 100.00   28.00    0.00   14.00    0.00  -8.00   0.00   DEF  DEF
120.00 115.00   34.00    0.00   17.00    0.00                  DEF  DEF

    V.B.--LEFTSIDE
        LEVEL 2 FACTOR OF SAFETY FOR ACTIVE PRESSURE  = DEFAULT
        LEVEL 2 FACTOR OF SAFETY FOR PASSIVE PRESSURE = DEFAULT

            ANGLE OF        ANGLE OF                        <-SAFETY->
 SAT.   MOIST INTERNAL  COH-    WALL    ADH-    <--BOTTOM-->  <-FACTOR->
WGHT.   WGHT. FRICTION  ESION  FRICTION ESION   ELEV.  SLOPE  ACT. PASS.
(PCF)   (PCF)   (DEG)   (PSF)   (DEG)   (PSF)   (FT)  (FT/FT)
105.00 100.00   28.00    0.00   14.00    0.00  -8.00   0.00   DEF  DEF
120.00 115.00   34.00    0.00   17.00    0.00                  DEF  DEF

VI.--WATER DATA
   UNIT WEIGHT         = 62.40 (PCF)
   RIGHTSIDE ELEVATION = 3.50 (FT)
   LEFTSIDE ELEVATION  = 0.50 (FT)
   NO SEEPAGE
```

Page 1

VII.--VERTICAL SURCHARGE LOADS

VII.A.--VERTICAL LINE LOADS
NONE

VII.B.--VERTICAL UNIFORM LOADS

LEFTSIDE (PSF)	RIGHTSIDE (PSF)
0.00	250.00

VII.C.--VERTICAL STRIP LOADS
NONE

VII.D.--VERTICAL RAMP LOADS
NONE

VII.E.--VERTICAL TRIANGULAR LOADS
NONE

VII.F.--VERTICAL VARIABLE LOADS
NONE

VIII.--HORIZONTAL LOADS
NONE

PROGRAM CWALSHT-DESIGN/ANALYSIS OF ANCHORED OR CANTILEVER SHEET PILE WALLS
BY CLASSICAL METHODS

DATE: 27-DECEMBER-2018 TIME: 8:14:03

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**************************
*   SOIL PRESSURES FOR   *
* CANTILEVER WALL DESIGN *
**************************
```

I.--HEADING
'DAYTONA BEACH MARINA SEAWALL

II.--SOIL PRESSURES

RIGHTSIDE SOIL PRESSURES DETERMINED BY FIXED SURFACE WEDGE METHOD.

LEFTSIDE SOIL PRESSURES DETERMINED BY FIXED SURFACE WEDGE METHOD.

ELEV. (FT)	NET WATER (PSF)	<---LEFTSIDE---> PASSIVE (PSF)	ACTIVE (PSF)	<------NET------> (SOIL + WATER) ACTIVE (PSF)	PASSIVE (PSF)	<--RIGHTSIDE---> ACTIVE (PSF)	PASSIVE (PSF)
5.5	0.0	0.0	0.0	81.6	799.9	81.6	799.9
4.5	0.0	0.0	0.0	109.9	1055.4	109.9	1055.4
3.5	0.0	0.0	0.0	136.7	1312.4	136.7	1312.4
2.5	62.4	0.0	0.0	217.1	1547.9	154.7	1485.5
1.5	124.8	0.0	0.0	292.9	1739.4	168.1	1614.6
0.5	187.2	0.0	0.0	368.6	1929.6	181.4	1742.4
-0.5	187.2	0.0	0.0	382.0	2058.0	194.8	1870.8

-1.5	187.2	0.0	0.0	395.4	2186.5	208.2	1999.3
-2.0	187.2	0.0	0.0	402.1	2250.7	214.9	2063.5
-2.5	187.2	64.2	6.7	344.5	2308.3	221.6	2127.8
-3.0	187.2	128.5	13.4	287.0	2365.8	228.2	2192.0
-3.5	187.2	192.7	20.1	229.4	2423.4	234.9	2256.2
-4.5	187.2	321.2	33.4	114.3	2538.5	248.3	2384.7
-5.5	187.2	448.8	46.7	0.0	2652.8	261.6	2512.3
-5.5	187.2	449.6	46.8	-0.7	2653.5	261.7	2513.2
-6.5	187.2	570.1	60.2	-109.1	2702.9	273.8	2575.9
-7.5	187.2	818.1	73.6	-321.1	3857.2	309.9	3743.6
-8.0	187.2	1021.2	76.0	-521.8	4724.3	312.2	4613.1
-8.5	187.2	1169.7	75.4	-703.8	4693.3	278.7	4581.5
-9.5	187.2	1375.2	83.5	-940.2	4216.9	247.7	4113.2
-10.5	187.2	1619.2	98.0	-1167.2	4489.6	264.8	4400.4
-11.5	187.2	1862.0	112.1	-1395.8	4720.7	278.9	4645.6
-12.5	187.2	2105.1	126.1	-1624.8	4951.6	293.1	4890.6
-13.5	187.2	2348.4	140.2	-1854.1	5182.5	307.2	5135.4
-14.5	187.2	2592.0	154.2	-2083.5	5413.2	321.3	5380.2
-15.5	187.2	2835.6	168.2	-2313.0	5643.9	335.4	5624.9
-16.5	187.2	3079.3	182.2	-2542.7	5874.4	349.4	5869.5
-17.5	187.2	3323.1	196.3	-2772.4	6105.0	363.5	6114.0
-18.5	187.2	3567.0	210.3	-3002.2	6335.5	377.6	6358.5
-19.5	187.2	3810.9	224.3	-3232.1	6565.9	391.6	6603.0
-20.5	187.2	4054.8	238.3	-3461.9	6796.3	405.7	6847.4
-21.5	187.2	4298.8	252.3	-3691.9	7026.7	419.7	7091.8
-22.5	187.2	4542.7	266.3	-3921.8	7257.0	433.7	7336.1
-23.5	187.2	4786.7	280.3	-4151.8	7487.3	447.8	7580.5
-24.5	187.2	5030.7	294.3	-4381.7	7717.7	461.8	7824.8
-25.5	187.2	5274.8	308.4	-4611.7	7947.9	475.8	8069.1
-26.5	187.2	5518.8	322.4	-4841.7	8178.2	489.9	8313.4
-27.5	187.2	5762.9	336.4	-5071.8	8408.5	503.9	8557.6
-28.5	187.2	6006.9	350.4	-5301.8	8638.7	517.9	8801.9
-29.5	187.2	6251.0	364.4	-5531.8	8869.0	531.9	9046.1
-30.5	187.2	6495.0	378.4	-5761.9	9099.2	546.0	9290.4
-31.5	187.2	6739.1	392.4	-5991.9	9329.4	560.0	9534.6
-32.5	187.2	6983.2	406.4	-6222.0	9559.6	574.0	9778.8

PROGRAM CWALSHT-DESIGN/ANALYSIS OF ANCHORED OR CANTILEVER SHEET PILE WALLS
BY CLASSICAL METHODS

DATE: 27-DECEMBER-2018 TIME: 8:15:05

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****************************
*  SUMMARY OF RESULTS FOR  *
*  CANTILEVER WALL DESIGN  *
****************************
```

I.--HEADING
'DAYTONA BEACH MARINA SEAWALL

II.--SUMMARY

RIGHTSIDE SOIL PRESSURES DETERMINED BY FIXED SURFACE WEDGE METHOD.

LEFTSIDE SOIL PRESSURES DETERMINED BY FIXED SURFACE WEDGE METHOD.

sheetpile output 3

```
WALL BOTTOM ELEV. (FT)      :      -16.99
      PENETRATION (FT)      :       14.99

MAX. BEND. MOMENT (LB-FT)   :  2.3198E+04
      AT ELEVATION (FT)     :      -10.49

MAX. SCALED DEFL. (LB-IN^3):  5.7693E+09
      AT ELEVATION (FT)     :        5.50

          NOTE:  DIVIDE SCALED DEFLECTION MODULUS OF
                 ELASTICITY IN PSI TIMES PILE MOMENT
                 OF INERTIA IN IN^4 TO OBTAIN DEFLECTION
                 IN INCHES.
```

PROGRAM CWALSHT-DESIGN/ANALYSIS OF ANCHORED OR CANTILEVER SHEET PILE WALLS
BY CLASSICAL METHODS

DATE: 27-DECEMBER-2018 TIME: 8:15:05

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****************************
* COMPLETE OF RESULTS FOR  *
*  CANTILEVER WALL DESIGN  *
****************************
```

I.--HEADING
'DAYTONA BEACH MARINA SEAWALL

II.--RESULTS

ELEVATION (FT)	BENDING MOMENT (LB-FT)	SHEAR (LB)	SCALED DEFLECTION (LB-IN^3)	NET PRESSURE (PSF)
5.50	0.0000E+00	0.	5.7693E+09	81.59
4.50	4.5515E+01	96.	5.3695E+09	109.90
3.50	2.0067E+02	219.	4.9698E+09	136.65
2.50	5.0142E+02	396.	4.5705E+09	217.07
1.50	1.0185E+03	651.	4.1720E+09	292.92
0.50	1.8284E+03	982.	3.7754E+09	368.63
-0.50	2.9966E+03	1357.	3.3820E+09	382.00
-1.50	4.5468E+03	1746.	2.9938E+09	395.38
-2.00	5.4694E+03	1945.	2.8025E+09	402.07
-2.50	6.4897E+03	2132.	2.6135E+09	344.52
-3.00	7.5962E+03	2290.	2.4274E+09	286.98
-3.50	8.7745E+03	2419.	2.2445E+09	229.44
-4.50	1.1289E+04	2591.	1.8907E+09	114.35
-5.49	1.3900E+04	2647.	1.5585E+09	0.00
-5.50	1.3917E+04	2647.	1.5564E+09	-0.74
-6.50	1.6546E+04	2592.	1.2462E+09	-109.12
-7.50	1.9049E+04	2377.	9.6452E+08	-321.06
-8.00	2.0189E+04	2167.	8.3576E+08	-521.83
-8.50	2.1199E+04	1860.	7.1572E+08	-703.85
-9.50	2.2668E+04	1038.	5.0345E+08	-940.24
-10.50	2.3198E+04	-16.	3.3022E+08	-1167.23
-11.50	2.2561E+04	-1297.	1.9690E+08	-1395.83
-12.50	2.0528E+04	-2807.	1.0237E+08	-1624.82
-13.50	1.6870E+04	-4547.	4.3083E+07	-1854.05
-14.12	1.3713E+04	-5731.	2.1493E+07	-1995.18
-14.50	1.1386E+04	-6293.	1.2676E+07	-925.48
-15.50	5.0938E+03	-5829.	1.8151E+06	1854.14

-16.50	6.5566E+02	-2585.	2.3093E+04	4633.76
-16.99	0.0000E+00	0.	0.0000E+00	5986.64

NOTE: DIVIDE SCALED DEFLECTION MODULUS OF ELASTICITY IN PSI TIMES PILE MOMENT OF INERTIA IN IN^4 TO OBTAIN DEFLECTION IN INCHES.

III.--WATER AND SOIL PRESSURES

		<----------SOIL PRESSURES---------->			
	WATER	<----LEFTSIDE----->		<---RIGHTSIDE---->	
ELEVATION (FT)	PRESSURE (PSF)	PASSIVE (PSF)	ACTIVE (PSF)	ACTIVE (PSF)	PASSIVE (PSF)
5.50	0.	0.	0.	82.	800.
4.50	0.	0.	0.	110.	1055.
3.50	0.	0.	0.	137.	1312.
2.50	62.	0.	0.	155.	1485.
1.50	125.	0.	0.	168.	1615.
0.50	187.	0.	0.	181.	1742.
-0.50	187.	0.	0.	195.	1871.
-1.50	187.	0.	0.	208.	1999.
-2.00	187.	0.	0.	215.	2064.
-2.50	187.	64.	7.	222.	2128.
-3.00	187.	128.	13.	228.	2192.
-3.50	187.	193.	20.	235.	2256.
-4.50	187.	321.	33.	248.	2385.
-5.49	187.	449.	47.	262.	2512.
-5.50	187.	450.	47.	262.	2513.
-6.50	187.	570.	60.	274.	2576.
-7.50	187.	818.	74.	310.	3744.
-8.00	187.	1021.	76.	312.	4613.
-8.50	187.	1170.	75.	279.	4582.
-9.50	187.	1375.	84.	248.	4113.
-10.50	187.	1619.	98.	265.	4400.
-11.50	187.	1862.	112.	279.	4646.
-12.50	187.	2105.	126.	293.	4891.
-13.50	187.	2348.	140.	307.	5135.
-14.12	187.	2498.	149.	316.	5286.
-14.50	187.	2592.	154.	321.	5380.
-15.50	187.	2836.	168.	335.	5625.
-16.50	187.	3079.	182.	349.	5869.
-16.99	187.	3323.	196.	364.	6114.
-18.50	187.	3567.	210.	378.	6359.

Daytona Beach Marina Seawall ReplacementJ4323G

w:\projects\j4323g daytona bch marina seawall drmp\geotechnical\4 reports\analysis\global stability.pl2 Run By: Jose Benitez 12/27/2018 09:25AM

STABL6H FSmin=4.24

Safety Factors Are Calculated By The Modified Bishop Method

STED