INVITATION TO QUOTE No. 24-R084907RB HIGHLAND SHORES BOAT RAMP REPAIR JUNE 19, 2024

Manatee County BCC
Procurement Division
1112 Manatee Avenue West, 7th Floor, Suite 705
Bradenton, FL 34205

purchasing@mymanatee.org



ADVERTISEMENT INVITATION TO QUOTE No. 24-R084907RB HIGHLAND SHORES BOAT RAMP REPAIR

Manatee County, a political subdivision of the State of Florida (hereinafter referred to as County), will receive Quotes from individuals, corporations, partnerships, and other legal entities authorized to do business in the State of Florida (Bidders), to provide Highland Shores Boat Ramp Repair, as specified in this Invitation to Quote (ITQ).

DATE, TIME AND PLACE DUE:

The Due Date and Time for submission of Quotes in response to this ITQ is July 19, 2024, at 1:00 P.M. ET. Quotes must be delivered to the following location: Manatee County Administration Building, Procurement Division, 1112 Manatee Avenue West, 7th Floor, Suite 705, Bradenton, FL 34205 or emailed to Designated Procurement Contact shown below.

SOLICITATION INFORMATION CONFERENCE:

There will not be an Information Conference conducted for this solicitation.

DEADLINE FOR QUESTIONS AND CLARIFICATION REQUESTS:

The deadline to submit all questions, inquiries, or requests concerning interpretation, clarification or additional information pertaining to this ITQ to the Manatee County Procurement Division by **July 8, 2024.** Questions and inquiries should be submitted via email to the Designated Procurement Contact shown below.

Important: A prohibition of lobbying is in place. Review Section 8.13 carefully to avoid violation and possible sanctions.

DESIGNATED PROCUREMENT CONTACT:

Ryan Blackmer, Procurement Agent III

(941) 748-4501 ext 3074, Fax (941) 749-3034

Email: ryan.blackmer@mymanatee.org

Manatee County Financial Management Department

Procurement Division

AUTHORIZED FOR RELEASE:

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1.0 BACKGROUND AND CONTACT INFORMATION

The County issues this ITQ for Highland Shores Boat Ramp Repair. Companies and/or individuals that are qualified to provide the required goods/services (Bidders) are invited to submit a response (Quote) to this ITQ.

1.01 Background

Manatee County Natural Resources Department seeks to repair the existing boat ramp, seawall, marginal docks and construct new marginal dock. The Highland Shores Boat Ramp is located within the Manatee River, below the Braden River, a Class III Florida Waterbody.

2.0 DUE DILIGENCE

The County will conduct a due diligence review of all Quotes received to determine if the Bidder is responsible and responsive. To be responsive a Bidder must submit a Quote that conforms in all material respects to the requirements of this ITQ and contains all the information, fully completed attachments and forms, and other documentation required. Quotes that are deemed non-responsive will not be considered or evaluated.

To be responsible, a Bidder must meet the minimum qualification requirements as stated in Exhibit 2, Minimum Qualifications, and have the capability to perform the Scope of Work contained in this ITQ. Quotes submitted by Bidders that are deemed non-responsible will not be considered or evaluated. Bidder must submit the information and documentation requested in Exhibit 2, Minimum Qualifications, that confirms it meets the minimum qualification requirements as stated in Exhibit 2, Minimum Qualifications.

3.0 SCOPE

The successful Bidder shall furnish all equipment, labor, materials, supplies, licensing, transportation, and other components necessary to provide Highland Shores Boat Ramp Repair that meets the requirements of the County and as specified in Exhibit 1, Scope of Work.

4.0 ITQ SCHEDULE

Scheduled Item	Scheduled Date
Question and Clarification Deadline	July 8, 2024
Offer Response Due Date and Time	July 19, 2024 at 1:00 P.M. ET
Projected Award	August 2024

5.0 QUOTE AND SUBMISSION PROCESS

5.01 Ouote

Complete the Quote Form that details all costs associated with providing Highland Shores Boat Ramp Repair as specified herein.

5.02 Submission Process

Submit the Quote by the Quote Deadline stated above to the Procurement Division representative assigned to this solicitation via email at ryan.blackmer@mymanatee.org or deliver to the Manatee County Administration Building, Procurement Division, 1112 Manatee Avenue West, 7th Floor, Suite 705, Bradenton, FL 34205.

6.0 TERM/PAYMENT AND INVOICES

6.01 Term

The term of the agreement shall be upon completion of the Scope of Work. The Contractor shall be on-site and commence work within 90 calendar days after the issuance by the County of a written Notice to Proceed. Upon commencement, work shall be substantially completed within 75 consecutive calendar days and fully completed within 90 consecutive calendar days. Only one schedule for completion will be considered.

6.02 Terms and Conditions

A Purchase Order will be issued to the Successful Bidder and will incorporate the Terms and Conditions of this ITQ, Successful Bidder's Quote and any subsequent information requested from the Successful Bidder by the County. Should a conflict exist between the terms and conditions of this ITQ and the Purchase Order terms and conditions, the terms and conditions in the Purchase Order shall prevail.

6.03 Payment and Invoices

Payment will be made in accordance with Florida State Statutes and with a payment schedule approved by the County and the Successful Bidder. Invoices required by this ITQ will be to the County in a manner accepted by the County and will include at a minimum the invoice date, invoice amount, date, goods provided/services performed, and purchase order number.

6.04 Taxes

All taxes of any kind and character payable for the work done and materials furnished under the Purchase Order will be paid by the Successful Bidder. The laws of the State of Florida provide that sales tax and use taxes are payable by the Successful Bidder upon the tangible personal property incorporated in the work and such taxes will be paid by the Successful Bidder. County is exempt from all State sales taxes.

7.0 QUOTE REQUIREMENTS

7.01 ITQ Process

This ITQ will in no manner be construed as a commitment on the part of the County to award a Purchase Order. The County reserves the right to postpone or cancel this ITQ process; to negotiate, select or procure parts of services; to change or modify the ITQ schedule at any time; to award a Purchase Order to another Bidder if the Successful Bidder does not agree to the terms and conditions of this Purchase Order or if the Successful Bidder's performance does not meet the requirements in this ITQ; and to award a Purchase Order based to the lowest responsible, responsive

Bidder. The County reserves the right to recover damages from any Successful Bidder that does not perform after the award of such Purchase Order.

7.02 Rejection of Quotes

Quotes containing any omission, alterations of form, additions or conditions not requested, conditional or alternate Quotes, incomplete Quotes, will be considered irregular and may be rejected. The County reserves the right to waive any technicalities and formalities in this ITQ process or in the Quotes thereto and make the award in the best interest of the County. The County may, at its discretion, reject any or all Quotes.

7.03 Cost of Preparation

All costs associated with preparing and delivering the Quote will be borne entirely by the Bidder. The County will not compensate the Bidder for any expenses incurred by the Bidder as a result of this ITQ process.

7.04 Ouestions and Addenda

All questions concerning this ITQ must be submitted in writing to the Procurement Division prior to the Question Deadline as stated in the ITQ Schedule. It is the responsibility of the Bidder to verify the County received its question or inquiry concerning this ITQ. All questions and answers will be provided to each potential Bidder in the form of an addendum posted on the Procurement webpage of the County website.

7.05 Additional Information and Presentations

The County reserves the right to request additional information, if applicable, from select Bidders based on the needs of the County.

7.06 Government Entities

The County reserves the right to utilize applicable State of Florida contracts or other approved cooperative contracts for any items or services covered by this ITQ when it is in the best interest of the County.

Successful Bidder agrees to make available to all governmental agencies, authorities, departments, and municipalities the Quote prices submitted with the successful Quote should any governmental agency, authority, department, and municipality (collectively referred to as Public Entities) desire to buy under the Successful Quote.

The County will not be responsible for any transactions between the successful Bidder and Public Entities that may elect to utilize the successful Quote. All terms, prices and conditions of the successful Quote will apply between the Successful Bidder and Public Entities utilizing the successful Quote. As a condition of using the successful Quote, the Public Entity and Successful Bidder shall hold the County harmless from any claims or lawsuits that may arise. NOTE: Any quantities estimated in this ITQ are for the County requirements only.

7.07 Basis of Award

Award(s) will be made to the responsive, responsible Bidder having the lowest Quote. The County, at its sole discretion, may make multiple awards based upon groups, price, or other such criteria. When there is a discrepancy between the unit prices and any extended prices submitted by Bidder, the unit prices will prevail.

7.08 Tie Bids

Whenever the lowest Quote is submitted by two or more responsive, responsible Bidders and are equal with respect to price, quality, and/or service award of the Agreement shall be determined as follows:

- A. The Quote received from a local business, as defined below, shall be awarded the Agreement.
- B. If none or all of the equal Bidders are a local business, the award shall be determined in accordance with Florida Statute 287.07, Preference to businesses with drug-free workplace programs.
- C. If none or all of the equal Bidders have a drug-free workplace program, the award shall be determined by a chance drawing to be conducted by the Procurement Official in a publicly noticed meeting.

Local business is defined as a business legally authorized to engage in the sale of goods and/or services which, for at least six months prior to the announcement of the solicitation for quotes, has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas, or Sarasota County, and which has had at least one full-time employee at that location during the qualifying period.

8.0 ITO GENERAL TERMS AND CONDITIONS

8.01 Binding Offer

A Bidder's Quote will remain valid for a period of 60 days following the Quote Deadline and will be considered a binding offer to perform the required services and/or provide the required goods. The submission of a Quote will be taken as prima facie evidence that the Bidder has familiarized itself with the contents of this ITQ.

8.02 Insurance Requirements

Successful Bidder must maintain the insurance limits and coverages, as identified in Section 9.0, uninterrupted or amended through the term of the Purchase Order. In the event the Successful Bidder becomes in default of the insurance requirements the County reserves the right to take whatever actions deemed necessary to protect its interests. Required liability policies other than Workers' Compensation/Employer's Liability and Professional Liability, will provide that the County, members of the County's governing body, and the County officers, volunteers and employees are included as additional insured.

8.03 Public Entity Crimes

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Quote on a contract to provide any goods or services to a public entity; may not submit a Quote on a contract with a public entity for the construction or repair of a public building or public work; may not submit a Quote on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Florida Statute Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

8.04 Drug-Free Workplace Program Certification

In accordance with Section 287.087, Florida Statutes, whenever two or more Quotes are equal, preference will be given to the Quote received from a business that certifies it has implemented a drug-free workplace program, as detailed in Section 7.08. Bidder must complete and return Attachment E, Drug-Free Workplace Certification, with its Quote.

8.05 Convicted Vendor List

A Bidder cannot be listed on the Florida Department of Management Services, Convicted Vendor List, as defined in Section 287.133(3) (d), Florida Statutes. (www.dms.myflorida.com)

8.06 Collusion

More than one Quote from the same Bidder under the same or different names will not be considered. Joint Quotes will not be accepted. Reasonable grounds for believing that a Bidder is submitting more than one Quote will cause the rejection of all Quotes in which the Bidder is involved. Quotes will be rejected if there is reason for believing that collusion exists among Bidders and no participant in such collusion will be considered in any future solicitations for a period of six months following the Quote Deadline for this ITQ.

8.07 Public Disclosure

All documents and other materials or documents submitted by a Bidder in response to this ITQ will become the property of the County. The County is subject to the open records requirements of Florida State Statute Chapter 119, and as such, all materials submitted by the Bidder to the County are subject to public disclosure. The Bidder specifically waives any claims against the County related to the disclosure of any materials if made under a public records request.

8.08 Procurement Protest Policy

Failure to follow the procurement protest policy set out in the County policies constitutes a waiver of the Bidder's protest and resulting claims. A copy of the

procurement protest policy may be obtained on the Procurement webpage of the County website www.mymanatee.org.

8.09 Disclosure

Upon receipt, all inquiries and responses to inquiries related to this ITQ become "Public Records" and shall be subject to public disclosure consistent with Florida Statute, Chapter 119.

Quotes become subject to disclosure thirty (30) days after the opening or if a notice of intent to award decision is made earlier than this time as provided by Florida Statutes § 119.071(1)(b). No announcement or review of the Quotes shall be conducted at the public opening.

If County rejects all Quotes and concurrently notices its intent to reissue the solicitation, the rejected Quotes are exempt from public disclosure until such time the County provides notice of an intended decision concerning the reissued solicitation or until County withdraws the reissued solicitation. A Quote is not exempt for longer than twelve (12) months after the initial notice of rejection of all Quotes.

Pursuant to Florida Statute 119.0701, to the extent Successful Bidder is performing services on behalf of County, Successful Bidder must:

- A. Keep and maintain public records required by public agency to perform the service. That information and data it manages as part of the services may be public record in accordance with Chapter 119, Florida Statutes and Manatee County public record policies. Bidder agrees, prior to providing goods/services, it will implement policies and procedures, which are subject to approval by County, to maintain, produce, secure, and retain public records in accordance with applicable laws, regulations, and County policies including but not limited to Section 119.0701, Florida Statutes.
- B. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Florida Statutes, Chapter 119, or as otherwise provided by law.
- C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the Successful Bidder does not transfer the records to the public agency.
- D. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of contractor or keep and maintain public records

required by the public agency to perform the service. If the Successful Bidder transfers all public records to County upon completion of the contract, the Successful Bidder shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Successful Bidder keeps and maintains public records upon completion of the contract, the Successful Bidder shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to County, upon request from County's custodian of public records, in a format that is compatible with the information technology systems of County.

IF SUCCESSFUL BIDDER HAS THE **QUESTIONS** REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO ITS DUTY TO PROVIDE PUBLIC RECORDS RELATING TO ANY RESULTING CONTRACT, CONTACT COUNTY'S CUSTODIAN OF **PUBLIC** RECORDS (941)742-5845, AT: LACY.PRITCHARD@MYMANATEE.ORG, **ATTN:** RECORDS MANAGER, 1112 MANATEE AVENUE WEST, **BRADENTON, FL 34205.**

8.10 Trade Secrets

Manatee County is subject to Chapter 119, Florida Statutes. Therefore, all documents, materials, and data submitted as part of a Quote in response to an ITQ are governed by the disclosure, exemption and confidentiality provisions relating to public records in Florida Statutes.

Except for materials that are 'trade secrets' as defined by Chapter 812, Florida Statutes, ownership of all documents, materials and data submitted as part of a Quote in response to the ITQ shall belong exclusively to County.

To the extent that Bidder desires to maintain the confidentiality of materials that constitute trade secrets pursuant to Florida law, trade secret material submitted must be segregated from the portions of the Quote that are not declared as trade secret. In addition, Bidder shall cite, for each trade secret claimed, the Florida Statute number which supports the designation. Further, Bidder shall offer a brief written explanation as to why the cited Statute is applicable to the information claimed as trade secret. Additionally, Bidder shall provide a hard copy of its Quote that redacts all information designated as trade secret.

In conjunction with trade secret designation, Bidder acknowledges and agrees that:

A. Trade secret requests made after the opening will not be considered. However, County reserves the right to clarify the Bidders request for trade secret at any time; and

- B. County and its officials, employees, agents, and representatives are hereby granted full rights to access, view, consider, and discuss the information designated as trade secret throughout the evaluation process and until final execution of any awarded Purchase Order or contract; and
- C. That after notice from County that a public records request has been made pursuant to Bidder's Quote, the Bidder at its sole expense, shall be responsible for defending its determination that submitted material is a trade secret and is not subject to disclosure. Action by Bidder in response to notice from the County shall be taken immediately, but no later than 10 calendar days from the date of notification or Bidder will be deemed to have waived the trade secret designation of the materials.

Notwithstanding any other provision in this solicitation, designation of the entire Quote as 'trade secret', 'proprietary', or 'confidential' is not permitted and may result in a determination that the Quote is non-responsive.

8.11 Confidentiality of Security Related Records

- A. Pursuant to Florida Statutes § 119.071(3), the following records (hereinafter referred to collectively as "the Confidential Security Records") are confidential and exempt from the disclosure requirements of Florida Statutes § 119.07(1):
 - i. A Security System Plan or portion thereof for any property owned by or leased to County or any privately owned or leased property held by County.
 - ii. Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility, or other structure owned or operated by County.
 - iii. Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout or structural elements of an attractions and recreation facility, entertainment or resort complex, industrial complex, retail and service development, office development, or hotel or motel development in the possession of, submitted to County.
- B. Successful Bidder agrees that, as provided by Florida Statute, it shall not, as a result of a public records request, or for other reason disclose the contents of, or release or provide copies of the Confidential Security Records to any other party absent the express written authorization of County's Property Management Director or to comply with a court order requiring such release or disclosure. To the extent Successful Bidder receives a request for such records, it shall immediately contact the County's designated Contract administrator who shall coordinate County's response to the request.

8.12 E-Verify

Prior to the employment of any person under this contract, the Successful Bidder shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of (a) all persons employed during the contract term by the Successful Bidder to perform employment duties within Florida and (b) all persons, including subcontractors, assigned by the Successful Bidder to perform work pursuant to the contract with Manatee County. For more information on this process, please refer to United States Citizenship and Immigration Service site at: http://www.uscis.gov/.

Only those individuals determined eligible to work in the United States shall be employed under this contract.

By submission of a Quote in response to this ITQ, the successful Bidder commits that all employees and subcontractors will undergo e-verification before placement on this contract.

The successful Bidder shall maintain sole responsibility for the actions of its employees and subcontractors. For the life of the contract, all employees and new employees brought in after contract award shall be verified under the same requirement stated above.

8.13 Lobbying

After the issuance of any solicitation, no prospective Bidders, or their agents, representatives or persons acting at the request of such Bidders, shall contact, communicate with or discuss any matter relating in any way to the solicitation with any County officers, agents or employees, other than the Procurement Official or designee, unless otherwise directed by the Procurement Official or designee. This prohibition includes copying such persons on written communications (including email correspondence) but does not apply to presentations made to evaluation committees or at a County Commission meeting where the Commission is considering approval of a proposed Purchase Order. This requirement ends upon final execution of the Purchase Order or at the time the solicitation is cancelled. Violators of this prohibition will be subject to sanctions as provided in the Manatee County Code of Ordinances Section 2-26-31 and 2-26-32. Sanctions may include (a) written warning; (b) termination of contracts; and (c) debarment or suspension.

8.14 License and Permits

The successful Bidder shall be solely responsible for obtaining all necessary license and permit fees, including, but not limited to, all license fees, permit fees, impact fees, or inspection fees, and responsible for the costs of such fees. Successful Bidder is solely responsible for ensuring all work complies with all Federal, State, local, and Manatee County ordinances, orders, codes, laws, rules, regulations, directives, and guidelines.

8.15 Health Insurance Portability and Accountability Act (HIPPA)

Any person or entity that performs or assists the County with a function or activity involving the use or disclosure of "individually identifiable health information (IIHI) and/or Protected Health Information (PHI) shall comply with the Health Insurance Portability and Accountability Act (HIPAA) of 1996. HIPAA mandates for privacy, security, and electronic transfer standards include, but are not limited to:

- A. Use of information only for performing services required by the contract or as required by law;
- B. Use of appropriate safeguards to prevent non-permitted disclosures;
- C. Reporting to the County any non-permitted use or disclosure;
- D. Assurances that any agents and subcontractors agree to the same restrictions and conditions that apply to the Bidder and reasonable assurances that IIHI/PHI will be held confidential;
- E. Making PHI available to the customer;
- F. Making PHI available to the customer for review and amendment, and incorporating any amendments requested by the customer;
- G. Making PHI available to the County for an accounting of disclosures; and
- H. Making internal practices, books, and records related to PHI available to the County for compliance audits.

PHI shall maintain its protected status regardless of the form and method of transmission (paper records and/or electronic transfer of data). The selected Bidder must give its customers written notice of its privacy information practices, including specifically, a description of the types of uses and disclosures that would be made with protected health information.

8.16 Minority and/or Disadvantaged Business Enterprise

The State of Florida Office of Supplier Diversity provides the certification process and maintains the database of certified MBE/DBE firms. Additional information may be obtained at http://www.osd.dms.state.fl.us/iframe.htm or by calling (850) 487-0915.

8.17 Quantities

The estimated quantities in this ITQ are provided for tabulation and evaluation purposes only. No guarantee is expressed or implied as to the quantities or dollars that will be used during the Agreement period.

8.18 ePayables

The County offers an ePaybles program which allows payments to be made to suppliers via credit cards. If this payment option is selected by the successful Bidder, the Clerk will issue a unique credit card number to the successful Bidder. The card has a zero balance until payments have been authorized. After goods are delivered and/or services rendered, the successful Bidder must submit a proper invoice to the County. When the invoice payment is authorized, an email notification is sent to the successful Bidder notifying them of the amount that has been placed on the credit card for retrieval.

There is no cost by the County for participation in this program, however, there may be charges applied by the successful Bidder's credit card processing company. Bidders who are interested in this program may contact the County Clerk's Accounts Payable office.

9.0 INSURANCES

Work under the resulting Agreement cannot commence until all insurance coverages indicated herein have been obtained. The cost for insurance coverages is the sole responsibility of successful Bidder. The Successful Bidder shall obtain and submit to the Procurement Division within ten (10) calendar days from the date of notice of intent to award, proof the following minimum amounts of insurance on a standard ACORD form (inclusive of any amounts provided by an umbrella or excess policy):

REQUIRED INSURANCES

Automobile Liability Insurance Required Limits

Coverage must be afforded under a per occurrence policy form including coverage for all owned, hired and non-owned vehicles for bodily injury and property damage of not less than:

- \$1,000,000 Combined Single Limit; OR
- \$500,000 Bodily Injury and \$500,000 Property Damage
- \$10,000 Personal Injury Protection (No Fault)
- \$500,000 Hired, Non-Owned Liability
- \$10,000 Medical Payments

This policy shall contain severability of interests' provisions.

◯ Commercial General Liability Insurance Required Limits (per Occurrence form only; claims-made form is not acceptable)

Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name 'Manatee County, a political subdivision of the State of Florida' as an Additional Insured, and include limits not less than:

• \$1,000,000 Single Limit Per Occurrence

- \$2,000,000 Aggregate
- \$1,000,000 Products/Completed Operations Aggregate
- \$1,000,000 Personal and Advertising Injury Liability
- \$50,000 Fire Damage Liability
- \$10,000 Medical Expense, and
- \$1,000,000, Third Party Property Damage
- \$ Project Specific Aggregate (Required on projects valued at over \$10,000,000)

This policy shall contain severability of interests' provisions.

Employer's Liability Insurance

Coverage limits of not less than:

- \$100,000 Each Accident
- \$500,000 Disease Each Employee
- \$100,000 Disease Policy Limit

Worker's Compensation Insurance

◯ US Longshoremen & Harbor Workers Act

☑ Jones Act Coverage

Coverage limits of not less than:

- Statutory workers' compensation coverage shall apply for all employees in compliance with the laws and statutes of the State of Florida and the federal government
- If any operations are to be undertaken on or about navigable waters, coverage must be included for the US Longshoremen & Harbor Workers Act and Jones Act

Should 'leased employees' be retained for any part of the project or service, the employee leasing agency shall provide evidence of Workers' Compensation coverage and Employer's Liability coverage for all personnel on the worksite and in compliance with the above Workers' Compensation requirements. NOTE: Workers' Compensation coverage is a firm requirement. Elective exemptions are considered on a case-by-case basis and are approved in a very limited number of instances.

OTHER INSURANCES

BOND REQUIREMENTS
☐ Bid Bond
A Bid Bond in the amount of \$ or 5% of the total offer. Bid bond shall be submitted with the sealed response and shall include project name, location, and / or address and project number. In lieu of the bond, the bidder may file an alternative form of security in the amount of \$ or 5% of the total offer. in the form of a money order, a certified check, a cashier's check, or an irrevocable letter of credit issued to Manatee County. NOTE: A construction project over \$200,000 requires a Bid Bond in the amount of 5% of the total bid offer.
☐ Payment and Performance Bond
A Payment and Performance Bond shall be submitted by Successful Bidder for 100% of the award amount and shall be presented to Manatee County within ten (10) calendar days of issuance of the notice of intent to award. NOTE: A construction project over \$200,000 requires a Payment and Performance Bond.
☐ Aircraft Liability Insurance Required Limits Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name 'Manatee County a political subdivision of the State of Florida' as an Additional Insured, and include limits not less than:
 \$ Each Occurrence Property and Bodily Injury with no less than \$100,000 per passenger each occurrence or a 'smooth' limit \$ General Aggregate
Un-Manned Aircraft Liability Insurance (Drone) Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name 'Manatee County a political subdivision of the State of Florida' as an Additional Insured, and include limits not less than:
 \$ Each Occurrence Property and Bodily Injury; Coverage shall specifically include operation of Unmanned Aircraft Systems (UAS), including liability and property damage \$ General Aggregate
☐ Installation Floater Insurance When the contract or agreement does not include construction of, or additions to, above ground building or structures, but does involve the installation of machinery or equipment, Installation Floater Insurance shall be afforded under a per occurrence policy form, policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured, and include limits not less than:

• 100% of the completed value of such addition(s), building(s), or structure(s) | Professional Liability and/or Errors and Omissions (E&O) Liability Insurances Coverage shall be afforded under either an occurrence policy form or a claims-made policy form. If the coverage form is on a claims-made basis, then coverage must be maintained for a minimum of three years from termination of date of the contract. Limits must not be less than: \$ 1,000,000 Bodily Injury and Property Damage Each Occurrence • \$ 2,000,000 General Aggregate Builder's Risk Insurance When the contract or agreement includes the construction of roadways and/or the addition of a permanent structure or building, including the installation of machinery and/or equipment, Builder's Risk Insurance shall be afforded under a per occurrence policy form, policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured, and include limits not less than: • An amount equal to 100% of the completed value of the project, or the value of the equipment to be installed The policy shall not carry a self-insured retention/deductible greater than \$10,000 Coverage shall be for all risks and include, but not be limited to, storage and transport of materials, equipment, supplies of any kind whatsoever to be used on or incidental to the project, theft coverage, and Waiver of Occupancy Clause Endorsement, where applicable. Cyber Liability Insurance Coverage shall comply with Florida Statute 501.171, shall be afforded under a per occurrence policy form, policy shall be endorsed and name 'Manatee County, a political subdivision of the State of Florida' as an Additional Insured, and include limits not less than: Security Breach Liability Security Breach Expense Each Occurrence \$ Security Breach Expense Aggregate Replacement or Restoration of Electronic Data \$ **Extortion Threats** \$ Business Income and Extra Expense **Public Relations Expense** NOTE: Policy must not carry a self-insured retention/deductible greater than \$25,000. Hazardous Materials Insurance (As Noted Below) Hazardous materials include all materials and substances that are currently designated or defined as hazardous by the law or rules of regulation by the State of Florida or federal

government. All coverage shall be afforded under either an occurrence policy form or a

claims-made policy form, and the policy shall be endorsed and name 'Manatee County, a political subdivision of the State of Florida' as an Additional Insured. If the coverage form is on a claims-made basis, then coverage must be maintained for a minimum of three years from termination of date of the contract. Limits must not be less than:			
☐ <i>Pollution Liability</i> Amount equal to the value of the contract, subject to a \$1,000,000 minimum, for Bodily Injury and Property Damage to include sudden and gradual release, each claim and aggregate.			
Asbestos Liability (If handling within scope of Contract) Amount equal to the value of the contract, subject to a \$1,000,000 minimum, for Bodily Injury and Property Damage to include sudden and gradual release, each claim and aggregate.			
☐ <i>Disposal</i> When applicable, SUPPLIER shall designate the disposal site and furnish a Certificate of Insurance from the disposal facility for Environmental Impairment Liability Insurance covering liability.			
 Amount equal to the value of the contract, subject to a \$1,000,000 minimum, for Liability for Sudden and Accidental Occurrences, each claim and an aggregate Amount equal to the value of the contract, subject to a \$1,000,000 minimum, for Liability for Non-Sudden and Accidental Occurrences, each claim and an aggregate 			
Hazardous Waste Transportation Insurance SUPPLIER shall designate the hauler and have the hauler furnish a Certificate of Insurance for Automobile Liability insurance with Endorsement MCS-90 for liability arising out of the transportation of hazardous materials. EPA identification number shall be provided. All coverage shall be afforded under either an occurrence policy form or a claims-made policy form and the policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured. If the coverage form is on a claims-made basis, then coverage must be maintained for a minimum of three years from termination of date of the contract. Limits must not be less than:			
• Amount equal to the value of the contract, subject to a \$1,000,000 minimum, per accident			
Liquor Liability Insurance Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured, and include limits not less than:			
• 1,000,000 Each Occurrence and Aggregate			
☐ Garage Keeper's Liability Insurance			

Coverage shall be required if the maintenance, servicing, cleaning or repairing of any County motor vehicles is inherent or implied within the provision of the contract. Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured,

and include limits not less than: Property and asset coverage in the full replacement value of the lot or garage

Bailee's Customer Liability Insurance

Coverage shall be required for damage and/or destruction when County property is temporarily under the care or custody of a person or organization, including property that is on, or in transit to and from the person or organization's premises. Perils covered should include fire, lightning, theft, burglary, robbery, explosion, collision, flood, earthquake and damage or destruction during transportation by a carrier.

Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured, and include limits not less than:

Property and asset coverage in the full replacement value of the County asset(s) in the SUPPLIER'S care, custody and control

Hull and Watercraft Liability Insurance

Coverage shall be afforded under a per occurrence policy form, policy shall be endorsed and name "Manatee County, a political subdivision of the State of Florida" as an Additional Insured, and include limits not less than:

- Each Occurrence
- General Aggregate
- Fire Damage Liability
- \$10,000 Medical Expense, and
- Third Party Property Damage \$
- Project Specific Aggregate (Required on projects valued at over \$10,000,000)

Other [Specify]

INSURANCE REQUIREMENTS

THE POLICIES ARE TO CONTAIN, OR BE ENDORSED TO CONTAIN, THE FOLLOWING PROVISIONS:

Commercial General Liability and Automobile Liability Coverages

- A. "Manatee County, a Political Subdivision of the State of Florida," is to be named as an Additional Insured in respect to: Liability arising out of activities performed by or on behalf of the SUPPLIER, his agents, representatives, and employees; products and completed operations of the SUPPLIER; or automobiles owned, leased, hired or borrowed by the SUPPLIER. The coverage shall contain no special limitation(s) on the scope of protection afforded to the COUNTY, its officials, employees or volunteers. In addition to furnishing a Certificate of Insurance, the SUPPLIER shall provide the endorsement that evidences Manatee COUNTY being listed as an Additional Insured. This can be done in one of two ways: (1) an endorsement can be issued that specifically lists "Manatee County, a Political Subdivision of the State of Florida," as Additional Insured; or, (2) an endorsement can be issued that states that all Certificate Holders are Additional Insured with respect to the policy.
- B. The SUPPLIER'S insurance coverage shall be primary insurance with respect to the COUNTY, its officials, employees and volunteers. Any insurance or self-insurance maintained by the COUNTY, its officials, employees or volunteers shall be excess of SUPPLIER'S insurance and shall be non-contributory.
- C. The insurance policies must be on an occurrence form.

Workers' Compensation and Employers' Liability Coverages

The insurer shall agree to waive all rights of subrogation against the COUNTY, its officials, employees and volunteers for losses arising from work performed by the SUPPLIER for the COUNTY.

General Insurance Provisions Applicable to All Policies

- A. Prior to the execution of contract, or issuance of a Purchase Order, and then annually upon the anniversary date(s) of the insurance policy's renewal date(s) for as long as this contract remains in effect, SUPPLIER shall furnish the COUNTY with a Certificate(s) of Insurance (using an industry accepted certificate form, signed by the Issuer, with applicable endorsements, and containing the solicitation or contract number, and title or description) evidencing the coverage set forth above and naming "Manatee County, a Political Subdivision of the State of Florida" as an Additional Insured on the applicable coverage(s) set forth above.
- B. If the policy contains an aggregate limit, confirmation is needed in writing (letter, email, etc.) that the aggregate limit has not been eroded to procurement representative when supplying Certificate of Insurance. In addition, when requested in writing from

the COUNTY, SUPPLIER will provide the COUNTY with a certified copy of all applicable policies. The address where such certificates and certified policies shall be sent or delivered is as follows:

Manatee County, a Political Subdivision of the State of Florida Attn: Risk Management Division 1112 Manatee Avenue West, Suite 969 Bradenton, FL 34205

- C. The project's solicitation number and title shall be listed on each certificate.
- D. SUPPLIER shall provide thirty (30) days written notice to the Risk Manager of any cancellation, non-renewal, termination, material change, or reduction in coverage of any insurance policies to procurement representative including solicitation number and title with all notices.
- E. SUPPLIER agrees that should at any time SUPPLIER fail to meet or maintain the required insurance coverage(s) as set forth herein, the COUNTY may terminate this contract.
- F. The SUPPLIER waives all subrogation rights against COUNTY, a Political Subdivision of the State of Florida, for all losses or damages which occur during the contract and for any events occurring during the contract period, whether the suit is brought during the contract period or not.
- G. The SUPPLIER has sole responsibility for all insurance premiums and policy deductibles.
- H. It is the SUPPLIER'S responsibility to ensure that his agents, representatives and subcontractors comply with the insurance requirements set forth herein. SUPPLIER shall include his agents, representatives, and subcontractors working on the project or at the worksite as insured under its policies, or SUPPLIER shall furnish separate certificates and endorsements for each agent, representative, and subcontractor working on the project or at the worksite. All coverages for agents, representatives, and subcontractors shall be subject to all of the requirements set forth to the procurement representative.
- I. All required insurance policies must be written with a carrier having a minimum A.M. Best rating of A- FSC VII or better. In addition, the COUNTY has the right to review the SUPPLIER'S deductible or self-insured retention and to require that it be reduced or eliminated.
- J. SUPPLIER understands and agrees that the stipulated limits of coverage listed herein in this insurance section shall not be construed as a limitation of any potential liability to the COUNTY, or to others, and the COUNTY'S failure to request evidence of this

- insurance coverage shall not be construed as a waiver of SUPPLIER'S obligation to provide and maintain the insurance coverage specified.
- K. SUPPLIER understands and agrees that the COUNTY does not waive its immunity and nothing herein shall be interpreted as a waiver of the COUNTY'S rights, including the limitation of waiver of immunity, as set forth in Florida Statutes 768.28, or any other statutes, and the COUNTY expressly reserves these rights to the full extent allowed by law.
- L. No award shall be made until the Procurement Division has received the Certificate of Insurance in accordance with this section.

[Remainder of page intentionally left blank]

ATTACHMENTS

Bidder must complete and return all Attachments with its Quote.

ATTACHMENT A, ACKNOWLEDGMENT OF ADDENDA ITQ No. 24-R084907RB

The undersigned acknowledges receipt of the following addenda:

Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Addendum No	Date Received:		
Print or type Bidder's information below:			
Name of Bidder	Telephone Number		
Street Address	City/State/Zip		
Email Address	Website Address		
Print Name & Title of Authorized Of	ficer Signature of Authorized Official & Date		

ATTACHMENT B, BIDDER'S SIGNATURE FORM ITQ No. 24-R084907RB

The undersigned represents that:

- By signing the bid, that he/she has the authority and approval of the legal entity purporting to submit the bid and any additional documentation which may be required such as the Joint Venture Agreement or Joint Venture Affidavit, if applicable;
- All facts and responses set forth in the bid are true and correct;
- By submitting a bid and signing below, the Bidder agrees to all terms and conditions in this ITQ, which incorporates all addenda, appendices, exhibits, and attachments, in its entirety, and is prepared to sign the Contract as written. The Respondent understands that if it submits exceptions to the Contract in its Response, the Respondent's Response may be determined non-responsive; and
- The Bidder, which includes all companies included in a partnership or joint venture, is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

Print or type Bidder's information below:

Signature of Authorized Official/Date:
Printed Name of Authorized Signer:
Γitle of Authorized Signer:
Company Name:
FEIN Number:
Street Address:
City, State, Zip:
Email Address:
Гelephone:

1.	Bidding as:			
	individual	partnership	corporation	joint venture
2. If a partnership, list names and addresses of partners; if a corporation, list names directors, shareholders, and state of incorporation:				tion, list names of officers,
3.	Has Bidder had any	bankruptcy filings in t	he past five years?	
4.	Has Bidder been a party to any litigation in the past five years that would affect its ability provide the goods or services required? If yes, provide summary details. If no, provide statement to that effect.			
5.		contract terminated price here, and provide a con	-	the past five years? If so, one number.
6.	Does Bidder plan to whom.	o subcontract any part o	of the work? If so, des	cribe which portion(s) and
7.	What major equipm	nent does Bidder own to	accomplish the work?	(A listing may be attached)

ATTACHMENT C, PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION ITQ No. 24-R084907RB

SWORN STATEMENT PURSUANT TO SECTION 2-26 ARTICLE V, MANATEE COUNTY PROCUREMENT CODE

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 Manatee County by	
, , <u>-</u>	[print individual's name and title
For	-
[name of entity submitting sworn statement]	
whose business address is:	
and (if applicable) its Federal Employer Identification Num	ber (FEIN) is
If the entity has no FEIN, include the Social Security Numb	er of the individual signing this sworr
statement:	

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to County that it has not:

- (1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or
- (2) been convicted of an agreement or collusion among Bidders or prospective Bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or
- (3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Director, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or
- (4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or
- (5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such and entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors.

For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests amount family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction, shall prove the same with documentation satisfactory to Manatee County's Purchasing Official. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with Manatee County.

I UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE PROCUREMENT DIVISION OR THE COUNTY ADMINISTRATOR DETERMINES THAT SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.

[Signature of Bidder's Authorized Official]	
STATE OFCOUNTY OF	
Sworn to and subscribed before me thisday of	, 20
By	_ who is
Personally known OR Produced identification	
Type of identification]	
Notary Public Signature:	
[Print, type or stamp Commissioned nar	me of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

ATTACHMENT D, INSURANCE STATEMENT ITQ No. 24-R084907RB

THE UNDERSIGNED has read and understands the insurance requirements applicable to any contract resulting from this solicitation and shall provide the insurances required by this Attachment within ten (10) days from the date of Notice of Intent to Award.

Bidder Name:	Date:
Signature (Authorized Official):	
Printed Name/Title:	
Insurance Agency:	
Agent Name:	Agent Phone:

ATTACHMENT E, DRUG-FREE WORKPLACE CERTIFICATION ITO No. 24-R084907RB

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 t	he	Manatee	County	Board	of	County	Commissioner	s by
[prin	t individ	lual's name	anc	l title]									
for_													
[prin	t name o	of entity su	bmi	tting sworr	state	eme	ent] whose	business	addres	s is:			
and (if applic	cable) its Fo	eder	al Employ	er Ide	nti	fication N	umber (F	EIN) is	:			

If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement:

I understand that no person or entity shall be awarded or receive a county contract for public improvements, procurement of goods or services (including professional services) or a county lease, franchise, concession or management agreement, or shall receive a grant of county monies unless such person or entity has submitted a written certification to the County that it will provide a drug free workplace by:

- (1) providing a written statement to each employee notifying such employee that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance as defined by § 893.02(4), Florida Statutes, as the same may be amended from time to time, in the person's or entity's workplace is prohibited specifying the actions that will be taken against employees for violation of such prohibition. Such written statement shall inform employees about:
 - (i) the dangers of drug abuse in the workplace;
 - (ii) the person's or entity's policy of maintaining a drug free environment at all its workplaces, including but not limited to all locations where employees perform any task relating to any portion of such contract, business transaction or grant;
 - (iii) any available drug counseling, rehabilitation, and employee assistance programs; and
 - (iv) the penalties that may be imposed upon employees for drug abuse violations.
- (2) Requiring the employee to sign a copy of such written statement to acknowledge his or her receipt of same and advice as to the specifics of such policy. Such person or entity shall retain the statements signed by its employees. Such person or entity shall also post in a prominent place at all of its workplaces a written statement of its policy containing the foregoing elements (i) through (iv).
- (3) Notifying the employee in the statement required by subsection (1) that as a condition of employment the employee will:
 - (i) abide by the terms of the statement; and
 - (ii) notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such a conviction.

- (4) Notifying the County within ten (10) days after receiving notice under subsection (3) from an employee or otherwise receiving actual notice of such conviction.
- (5) Imposing appropriate personnel action against such employee up to and including termination; or requiring such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency.
- (6) Making a good faith effort to continue to maintain a drug free workplace through implementation of sections (1) through (5) stated above.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT:

- (1) Such person or entity has made false certification.
- (2) Such person or entity violates such certification by failing to carry out the requirements of sections (1), (2), (3), (4), (5), or (6) or subsection 3-101(7)(B); or
- (3) Such a number of employees of such person or entity have been convicted of violations occurring in the workplace as to indicate that such person or entity has failed to make a good faith effort to provide a drug free workplace as required by subsection 3-101(7)(B).

Signature]
STATE OF FLORIDA - COUNTY OF
Sworn to and subscribed before me this day of, 20 by
Personally known OR Produced identification
[Type of identification] My commission expires
Notary Public Signature
[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

ATTACHMENT F, CONFLICT OF INTEREST AFFIDAVIT ITQ No. 24-R084907RB

STATE OF
COUNTY OF
BEFORE ME, the undersigned authority, this day personally appeared [INSERT NAME]
, as [INSERT TITLE] of [INSERT
CONTRACTOR/CONSULTANT NAME], with full authority to bind
(hereinafter "CONTRACTOR/CONSULTANT"), who being first duly sworn, deposes and says that
CONTRACTOR/CONSULTANT:
(a) Is not currently engaged and will not become engaged in any obligations, undertakings or contract that will require CONTRACTOR/CONSULTANT to maintain an adversarial role against the County of that will impair or influence the advice, recommendations or quality of work provided to the County; and
(b) Has provided full disclosure of all potentially conflicting contractual relationships and ful disclosure of contractual relationships deemed to raise a question of conflict(s); and
(c) Has provided full disclosure of prior work history and qualifications that may be deemed to raise a possible question of conflict(s).
Affiant makes this Affidavit for the purpose of inducing Manatee County, a political subdivision of the
State of Florida, to enter into this Agreement No for
DATED this day of
CONTRACTOR/CONSULTANT Signature
The foregoing instrument was sworn to and acknowledged before me this day of
, 20, by [NAME]
of [CONTRACTOR/CONSULTANT]
He/She is personally known to me or has produced
[TYPE OF IDENTIFICATION] as identification.
Notary Signature Commission No

ATTACHMENT G ITQ NO. 24-R084907RB BID SCHEDULE HIGHLAND SHORES BOAT RAMP REPAIR

CEC File No. 20.204 May 24, 2024

1. MOBILIZATION AND DEMOBILIZATION **ITEM DESCRIPTION** QUAN. **UNIT UNIT PRICE TOTAL** Mobilization and \$ Demobilization 1 Job **SUBTOTAL ITEM 1** 2. **BOAT RAMP REPAIR UNIT PRICE ITEM DESCRIPTION QUAN. UNIT TOTAL** A. Realign Ramp Panel 5 1 Job \$_____ B. Vinyl Sheet Piles/ \$ _____ Cement Bags/Grout 1 Job Repair Ramp C. Panels 1 and 2 1 \$_____ Job **SUBTOTAL ITEM 2** 3. ARMORMAT SCOUR PROTECTION **UNIT PRICE ITEM DESCRIPTION** QUAN. UNIT **TOTAL** \$ _____ S.F. 256 Armormat **SUBTOTAL ITEM 3** \$_____

BID SCHEDULE HIGHLAND SHORES BOAT RAMP REPAIR PG 2

4.	MARGINA	L DOCK					
<u>ITEM</u>	DESCRIPTION	QUAN.	<u>UNIT</u>	UNIT PRICE	TOTAL		
	Marginal Dock	308	S.F.	\$	\$		
			SUB	FOTAL ITEM 4	\$		
5.	5. DOCK REPAIRS (OPTIONAL)						
<u>ITEM</u>	DESCRIPTION	QUAN.	<u>UNIT</u>	UNIT PRICE	TOTAL		
A.	Decking	500	S.F.	\$	\$		
B.	Hardware	1	Job	\$	\$		
			SUB	FOTAL ITEM 5	\$		
6.	6. MISCELLANEOUS IMPROVEMENTS						
<u>ITEM</u>	DESCRIPTION	QUAN.	<u>UNIT</u>	UNIT PRICE	TOTAL		
A.	Seawall Cap Beam Repair	1	Job	\$	\$		
B.	Bollard	2	Each	\$	\$		
C.	Mooring Pile	2	Each	\$	\$		
			SUB	FOTAL ITEM 6	\$		
7. ENVIRONMENTAL PROTECTION MEASURES							
<u>ITEM</u>	DESCRIPTION	QUAN.	<u>UNIT</u>	UNIT PRICE	TOTAL		
	Environmental Prote Measures	ction	Job	\$	\$		
			SUB	FOTAL ITEM 7	\$		

BID SCHEDULE HIGHLAND SHORES BOAT RAMP REPAIR PG 3

HIGHLAND SHORES BOAT RAMP REPAIR BID SUMMARY

BASE BID

1.	Mobilization and Demobilization	\$						
2.	Ramp Repair	\$						
3.	Armormat Scour Protection	\$						
4.	Marginal Dock	\$						
6.	Miscellaneous Improvements	\$						
7.	Environmental Protection Measures	\$						
	TOTAL BASE BID \$							
	OPTIONAL BID							
1.	Mobilization and Demobilization	\$						
2.	Ramp Repair	\$						
3.	Armormat Scour Protection	\$						
4.	Marginal Dock	\$						
5.	Dock Repairs	\$						
6.	Miscellaneous Improvements	\$						
7.	Environmental Protection Measures	\$						
Т	TOTAL OPTIONAL BID \$							

EXHIBIT 1, SCOPE OF SERVICES ITQ No. 24-R084907RB

HIGHLAND SHORES BOAT RAMP REPAIR CONSTRUCTION SPECIFICATIONS May 24, 2024

CS-1.0 SCOPE OF WORK

The WORK to be performed under the CONTRACT consists of furnishing all labor, equipment, supplies, materials, transportation, fuel, power and water, providing environmental protection, and performing all operations in connection with the Highland Shores Boat Ramp Repair Project.

The Highland Shores Boat Ramp property is located at 353 Shore Drive, Ellenton, Florida along the Manatee River in Section 18, Township 34 South, Range 18 East, Manatee County.

This WORK must be completed according to the CONTRACT documents within the time specified in the CONTRACT and within compliance with the conditions of the Federal, State, and local permits. The CONTRACTOR is solely responsible for all construction means, methods, techniques, procedures, lay out, and the sequence of the WORK except as set forth in section "Order of Work".

Prior to the submission of a bid form, bidders shall examine the documents, visit the sites, and fully inform themselves as to all existing conditions and limitations that affect the WORK to be performed under the CONTRACT. Bidders are required to examine each WORK Area and make determinations of quantities and plant equipment needed to perform the WORK. No consideration shall be given to any claims for additional payments based on the failure of the CONTRACTOR to inspect each WORK Area and assess plant equipment needs and accurately calculate the quantities necessary to perform the WORK. All bid forms shall be presumed to include all such existing conditions as may affect any WORK to be done on this Project. Failure to familiarize himself with such conditions will in no way relieve the successful bidder from the necessity of furnishing any materials or performing any WORK that may be required to complete the WORK in accordance with the CONTRACT Plans and these Specifications.

CS-2.0 BASIS OF AWARD

The basis of award will be the lowest base bid or the lowest optional bid, submitted by the most responsive, responsible bidder meeting all specifications and experience requirements. The COUNTY unconditionally reserves the right to award to the vendor whose prices, in its sole judgment, is the most realistic in terms of provision of the best services. Additionally, the COUNTY reserves the right to reject any and all bids at any time, unconditionally and without cause.

All items listed on the Bid Schedule at the units shown, values of which shall be inclusive of all plant, labor, equipment, supplies, and shall also include all other items of overhead, profit, labor, material and any other costs incident to perform and complete all WORK specified herein.

CS-3.0 WORK PLAN

CS-3.1 Work Plan

Prior to commencement of WORK the CONTRACTOR shall submit to the COUNTY and ENGINEER for approval, a WORK plan to cover all specified operations. The WORK plan shall include, but not be limited to, the means and methods to be employed to accomplish: construction access, staging, and restoration; upland site work; boat ramp repair; armormat scour protection installation; seawall cap beam repair; marginal dock construction and repairs; mooring pile installation; site restoration; turbidity controls; best management practices; storm emergency plan; health and safety plan; endangered species protection plans; environmental protection plan; pollution control plan; required shop drawings; and required manufacturers' specifications and certifications. The Work Plan shall also include the Progress Schedule, Schedule of Values, Construction Sequence, and Order of Work. The COUNTY and ENGINEER shall review the WORK Plan and the CONTRACTOR shall make necessary revisions prior to acceptance of the WORK Plan.

CS-4.0 CONSTRUCTION SEQUENCE

CS-4.1 Order of WORK

In general, the Order of WORK shall be as follows. Any changes in the Order of WORK must be submitted in writing and approved by the COUNTY and ENGINEER prior to initiation of the specific WORK activity.

- (1) Pre-construction submittals and notifications
- (2) Mobilize
- (3) Prepare construction access and staging areas
- (4) Install turbidity controls and best management practices
- (5) Stabilize existing structures
- (6) Repair boat ramp
- (7) Install armormat scour protection
- (8) Repair seawall
- (9) Repair existing marginal docks
- (10) Construct new marginal dock
- (11) Install mooring piles and bollards
- (12) Remove turbidity controls and related construction materials
- (13) Complete site restoration
- (14) Demobilize

CS-4.2 Time of Operations

The CONTRACTOR is allowed to conduct work activities during daylight hours Monday through Friday, excluding weekends and Holidays, at the CONTRACTOR's discretion, provided that the CONTRACTOR complies with all applicable labor laws. The CONTRACTOR may request in writing with minimum 5-day notice to the COUNTY to conduct work on weekends. The COUNTY will review each request individually.

CS-5.0 PAYMENT

CS-5.1 Mobilization and Demobilization

Payment for the cost of mobilization and demobilization including construction access and restoration of construction access and staging area is included in this CONTRACT. Payment for all appropriate costs in connection therewith or incidental thereto; which shall also include all other items of cost required by the CONTRACT for which a separate payment is not provided for herein. This WORK shall be included in the applicable CONTRACT lump sum price for Bid Item "Mobilization and Demobilization." Fifty percent (50%) of the lump sum price will be paid after the existing structures are stabilized and repair WORK begins. The remaining fifty percent (50%) will be included in the final payment for WORK under this CONTRACT.

In the event the COUNTY or ENGINEER considers that the amount in this item (50%), which represents mobilization, does not bear a reasonable relation to the cost of the WORK in this CONTRACT, the COUNTY may require the CONTRACTOR to produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of the COUNTY will result in payment of actual mobilization costs, as determined by the COUNTY and ENGINEER at the completion of mobilization, and payment of the remainder of this item in the final payment under this CONTRACT. The determination of the COUNTY and ENGINEER is not subject to appeal.

CS-5.2 Boat Ramp Repair

Payment shall be made for materials and WORK specified in connection with the site preparation, stabilization of existing structures, realigning the ramp panel, repair of ramp panels, and disposal of the construction debris at an approved off-site location; installation of vinyl sheet piling and grouting; and all other appropriate costs in connection therewith or incidental thereto. This WORK shall be included in the applicable CONTRACT unit pricing for Bid Item "Boat Ramp Repair."

CS-5.3 Armormat Scour Protection

Payment shall be made for materials and WORK specified in connection with the grading, installation of geotextile, bedding stone, armormat scour protection, and all other appropriate costs in connection therewith or incidental thereto. This WORK shall be included in the applicable CONTRACT unit price per square foot for Bid Item "Armormat Scour Protection."

CS-5.4 Marginal Dock

Payment shall be made for materials and WORK specified in connection with the construction of the marginal dock, and all other appropriate costs in connection therewith or incidental thereto. This WORK shall be included in the applicable CONTRACT unit price per square foot for Bid Item "Marginal Dock."

CS-5.5 Dock Repairs (Optional)

Payment shall be made for materials and WORK specified in connection with the repairs to the existing marginal docks including; replacement of the decking, installation/replacement of

hardware, tightening of existing fasteners, and all other appropriate costs in connection therewith or incidental thereto. This WORK shall be included in the applicable CONTRACT unit pricing for Bid Item "Dock Repairs."

CS-5.6 Miscellaneous Improvements

Payment shall be made for materials and WORK specified in connection with the stabilization of existing structures, repairing the seawall cap beam; installation of the bollards; installation of the mooring piles; and disposal of the construction debris at an approved off-site location; and all other appropriate costs in connection therewith or incidental thereto. This WORK shall be included in the applicable CONTRACT unit pricing for Bid Item "Miscellaneous Improvements."

CS-5.7 Environmental Protection Measures

Payment shall be made for materials and WORK specified in connection with installation and maintenance of turbidity and erosion controls; best management practices; turbidity monitoring; implementing state and federal endangered and threatened species protection conditions; implementing habitat and resource protection measures; environmental permit compliance; and all other appropriate costs in connection therewith or incidental thereto. This WORK shall be included in the applicable CONTRACT lump sum price for Bid Item "Environmental Protection Measures."

CS-6.0 WORK AREA

CS-6.1 Limits of Construction

Areas in the vicinity of the boat ramp contain sensitive environmental habitats. The CONTRACTOR shall avoid these habitats and is responsible for environmental protection. All WORK must be confined to the CONTRACTOR's WORK area. No plant or equipment may operate or transit outside the property boundary or WORK limits. All construction areas shall be restored to pre-construction conditions, or better, as part of demobilization. The CONTRACTOR shall preclude all public from entering the WORK Area.

Marine traffic in the vicinity of the boat ramp consists of commercial, pleasure, and small recreational vessels of all types and sizes, which can be accommodated by existing depths. The COUNTY shall not undertake to keep the navigation channels and waterways within and adjacent to the WORK area free from vessels or other obstructions. The CONTRACTOR shall be required to conduct the WORK in such manner as to maintain navigation in these channels. Upon completion of the WORK, the CONTRACTOR shall promptly remove their plant and equipment, including ranges, buoys, piles, and other marks placed by them under the CONTRACT in navigable waters or on shore.

The CONTRACTOR shall be responsible for all measurements that may be required for the execution of the WORK to the location and limit marks prescribed in the specifications or on the CONTRACT Plans, subject to such modifications as the COUNTY or ENGINEER may require to meet changed conditions or as a result of necessary modifications to the CONTRACT WORK.

CS-6.2 Security

The CONTRACTOR is permitted to exclude the public from his WORK area as necessary to perform the WORK and to operate in accordance with the General Conditions of the CONTRACT. Enforcement shall be the CONTRACTOR's responsibility at no additional cost to the COUNTY. The enforcement shall be coordinated with local enforcement agencies and will be subject to approval of the COUNTY.

CS-6.3 Construction Access

Construction access and staging shall be confined to the CONTRACTOR's WORK area. Procurement of any additional access routes for ingress and egress to the construction area shall be obtained by and at the expense of the CONTRACTOR. The CONTRACTOR shall confine his plant, equipment, materials, and operations of personnel to areas permitted by law, ordinances, permits and the requirements of the CONTRACT Documents, and shall not unreasonably encumber the premises with plant, equipment, and materials. The CONTRACTOR must control noise and must control wind-blown sand, silt and dust while using the accesses. The CONTRACTOR is responsible for preparation and restoration of the access areas. The CONTRACTOR is required to submit a construction access and staging plan including restoration measures prior to their usage. The costs for, but not limited to, earthwork, grading, signage, fencing, walls, guardrails, curbing, paving, stairways, and vegetation removal and reinstallation, along with removal and installation of any other facilities are included in the lump sum price for Bid Item "Mobilization and Demobilization". Disposal of any cleared vegetation, debris and rubbish shall be in a manner acceptable to the COUNTY and ENGINEER.

CS-6.4 Protection of Existing Facilities

During all phases of the WORK including but not limited to staging, construction access, construction, and site restoration, the CONTRACTOR shall implement best management practices to protect and stabilize the existing facilities within and adjacent to the WORK Area and to prevent damage thereto by the CONTRACTOR's operations. Where existing facilities are damaged, they shall be immediately repaired in conformance with the best construction standards of practice.

CS-6.5 Noise

The CONTRACTOR shall conduct their operations so as to comply with all Federal, State, and local laws pertaining to noise.

CS-6.6 Existing Utilities

It shall be the responsibility of the CONTRACTOR to acquaint themselves with the exact location of existing underground structures and utilities and to avoid conflict with all existing facilities. The CONTRACTOR shall be responsible for notifying, in writing and in advance of construction activities, the COUNTY and ENGINEER and all government and private agencies and entities that may have an area of responsibility, jurisdiction or involvement for any items of WORK being constructed, or who shall assume responsibility for the items after construction. This list of agencies and entities shall include, but is not limited to:

a. Florida Power and Light

- b. Sprint
- c. Comcast
- d. Manatee County Utilities

These agencies require a minimum of 48-hour written notice of activities within their jurisdiction. The CONTRACTOR shall also call Sunshine 811 before beginning any WORK at the WORK area.

Protection of all utilities shall be the responsibility of the CONTRACTOR who shall provide adequate protection to maintain proper service. The CONTRACTOR is to include within its line item bid prices, the costs to protect, and/or support, all underground utilities which may be in conflict with the construction of this Project. Attention is called to the Florida Underground Facility Damage Prevention and Safety Act, Chapter 556, Florida Statues. This act provides for a one-call center charged with helping prevent damage to underground utilities.

Any expense of utility repair or other damage caused by the CONTRACTOR's operations shall be borne by the CONTRACTOR. Where existing utilities are damaged, they shall be immediately repaired by the CONTRACTOR in accordance with the requirements of the government, private agencies, and entities that may have an area of responsibility, jurisdiction or involvement for the utilities. If the owner of the utility elects to make such repairs with his own forces, the CONTRACTOR shall make sure that specific arrangements are made to protect the COUNTY from all damages. Where such conflicts are unavoidable, every effort shall be made to construct the WORK so as to cause as little interference as possible with the services rendered by the structure disturbed.

CS-7.0 TRANSPORTATION FACILITIES

The CONTRACTOR shall make his own investigation of available roads or other means of conveyance for transportation, load limits for bridges, barges and roads, and other road or waterside conditions affecting the transportation of all equipment to the site.

CS-8.0 WATER, SEWER, AND ELECTRIC

The responsibility shall be upon the CONTRACTOR to provide and maintain, at his own expense, an adequate supply of water for his use for construction, and to install and maintain necessary supply connections and piping for same, and necessary portable sanitary facilities but only at such locations and in such manner as may be approved by the COUNTY and ENGINEER. In the event water is made available by the COUNTY, the CONTRACTOR shall, at his own expense, install a meter to determine the amount of water used by him and such water will be paid for by, or charged to, the CONTRACTOR at prevailing rates. All electric current required by the CONTRACTOR shall be furnished at his own expense. All temporary lines will be furnished, installed, connected, and maintained by the CONTRACTOR in a workmanlike manner satisfactory to the COUNTY and ENGINEER and shall be removed by the CONTRACTOR in like manner at his expense prior to completion of the construction and final acceptance.

CS-9.0 MISPLACED MATERIAL

Should the CONTRACTOR, during the progress of the WORK, loose, dump, throw overboard, sink, or misplace any material, plant, or equipment, which in the opinion of the COUNTY and ENGINEER may be dangerous to, or obstruct navigation, the CONTRACTOR shall recover and remove the same with the utmost dispatch. The CONTRACTOR shall give immediate notice, with description and location of such obstructions, to the U.S. Coast Guard, COUNTY and ENGINEER and when required, shall mark or buoy such obstructions until the same are removed. In the event of refusal, neglect, or delay in compliance with the above requirements, such obstructions may be removed by the COUNTY, and the cost of such removal may be deducted from any money due or to become due to the CONTRACTOR or may be recovered under CONTRACTOR's bond.

CS-10.0 VINYL SHEET PILES

CS-10.1 General

The WORK shall consist of furnishing, transporting, and installing vinyl sheet piles as shown on the CONTRACT Plans. The CONTRACTOR shall provide vinyl sheet piles to be used as forms for grouting along the edges of the boat ramp panels. Selection of vinyl shape to be determined by the CONTRACTOR.

CS-10.2 Site Preparation

All clearing or other site preparation within the vinyl sheet pile alignments shall be completed before the sheet piles are installed as shown on the CONTRACT Plans.

CS-10.3 Installation of Vinyl Sheet Piles

The CONTRACTOR shall provide equipment and other devices for installing sheet piles that conform to the recommendations of the manufacturer. The vinyl sheet piles shall be installed in such a manner as to insure lock engagement and integrity throughout the entire length of each sheet pile. The sheet piles shall be held in proper alignment during installation by means of assembling frames or other suitable temporary guide structures. Temporary guide structures shall be removed when they have served their purpose. The CONTRACTOR shall not attempt to drive sheet piles beyond the point of refusal, as indicated by excessive bouncing of the hammer or kicking of the sheet pile as concurred by the ENGINEER. The purpose of the sheet pile is to act as a form during grouting of the ramp structure. The CONTRACTOR may submit an alternate form material to the ENGINEER for review and approval.

CS-10.4 Cutting Off Sheet Piles

Prior to cutting off sheet piles, the CONTRACTOR shall obtain approval by the ENGINEER. The CONTRACTOR shall cut off the sheet pile at the specified elevations. The length of the sheet pile cut off shall be sufficient to permit the removal of all damaged material.

CS-10.5 Defective Sheet Piles

Defective or damaged sheet piles shall not be driven and any sheet pile ruptured in the interlock or otherwise damaged during installation shall be pulled and replaced.

CS-11.0 CONCRETE

CS-11.1 Description

Construct concrete structures and other concrete members, with the exception of incidental concrete construction (which are specified in other Sections). Refer to FDOT Section 450 for prestressed construction requirements additional to the requirements of this Section.

CS-11.2 Materials

Meet the following FDOT requirements:

Concrete	Sections 346 and 347
Reinforcing Steel	Section 415
Curing Materials	*Section 925
Epoxy Bonding Compounds	Section 926
Joint Materials	

^{*} The ENGINEER will allow clean sand and sawdust for certain curing, when and as specified.

Meet the following ASTM requirements:

Reinforcing SteelASTM A123 and A153

CS-11.3 Submittals

Furnish the following:

- 1. Complete data on the concrete mix in accordance with ASTM C94, Alternate 3.
- 2. Ready mix delivery tickets for each truck with the following information:
 - a. Name of concrete firm.
 - b. Serial number of ticket.
 - c. Date.
 - d. Truck number.
 - e. Specific class of concrete.
 - f. Amount of concrete.
 - g. Time loaded.
 - h. Water added.
 - i. Time unloaded.

CS-11.4 Concrete

- A. Ready-mixed meeting ASTM C-94 and these Specifications.
- B. Portland Cement: Type II with fly ash. Maximum water-cement ration of 0.58.
- C. Mix Design:
 - 1. Minimum Allowable 28-Day Compressive Field Strength: 3,000 psi when cured and tested in accordance with ASTM C-31 and C-39.
 - 2. Coarse Aggregate Size: #89. Other aggregate gradations must be submitted for review and approved in writing before use on the project.

- 3. Slump Range: 6.5 inches \pm 1.5 inches.
- 4. Air Entrainment: 4 percent by volume.
- D. Mixing: Minimum 70 and maximum 270 revolutions of mixing drum. Nonagitating equipment is not allowed. Concrete shall be placed within 1½ hours after the cement has been added to the mix.

CS-11.5 Falsework

CS-11.5.1 Plans

The CONTRACTOR shall furnish detailed plans for falsework for review and approval by the COUNTY and ENGINEER. The CONTRACTOR is responsible for results he obtains by using these plans.

CS-11.5.2 Design and Erection

Design and construct all falsework to provide the necessary rigidity and to support the loads without appreciable settlement or deformation. Use screw jacks or hardwood wedges to take up any settlement in the framework, either before or during the placing of concrete. If any weakness develops and the centering shows undue settlement or distortion, stop the work, remove any masonry affected, and strengthen the falsework before resuming work. Support falsework which cannot be founded on a satisfactory footing on piling. Space, drive, and remove the piling in an approved manner.

CS-11.5.3 Camber

Provide camber to correct for settlement and deflection of falsework.

CS-11.6 Forms

CS-11.6.1 General

Provide forms, either of wood or metal, as follows: (a) externally secured and braced where feasible; (b) substantial and unyielding; (c) of adequate strength to contain the concrete without bulging between supports and without apparent deviation from the neat lines, contours, and shapes shown in the plans. Design forms to withstand the additional forces of vibration without apparent deviation from the desired shape or position. Assemble forms to be mortar tight. If using lumber forms, construct them of dressed wood of uniform thickness. Use form liners on wooden forms where FDOT Class 3 surface finish is specified. Construct assembled forms to render a concrete surface of smooth, uniform finish. Make provisions to remove forms without injury to concrete surfaces. Remove blocks and bracing with the forms, and do not leave any portion of the forms in the concrete.

CS-11.6.2 Inspection and Approval

Do not place concrete in a form until the form has been inspected and approved by ENGINEER. Although the ENGINEER inspects and approves the forms, the CONTRACTOR is responsible for obtaining satisfactory concrete surfaces, free from warping, bulging, or other objectionable defects. Pay special attention to the ties and bracing. Where the forms appear to be

insufficiently braced or unsatisfactorily built, stop and correct defects to the satisfaction of the ENGINEER.

CS-11.6.3 Non-metallic Form Materials

Lumber: For all surfaces, use lumber that is not less than ¾ inches in thickness, dressed, and free of knot holes, loose knots, cracks, splits, warps, and other defects. Proportion the spacing of studs, joists, and wales to exclude warps and bulges and to produce true and accurate concrete surfaces. Only use structurally sound lumber.

Form Liners: Use form liners of durable, abrasion resistant materials that are unaffected by water. Use liners with a hard surface texture capable of rendering concrete surfaces of a smooth, uniform texture, without grain marks, patterns, or blemishes. Use form liner material of sufficient thickness to eliminate the reflection of irregularities, undesirable patterns, and marks from the forms to the surfaces. Replace liners as necessary to produce a consistent concrete surface texture. Use form liners in large sheets and with true, tight-fitted joints. Obtain the ENGINEER's approval of the layout of sheets. Do not use patch work and do not illogically locate the joints. Use liner material of the same stock throughout.

Plywood: The CONTRACTOR may use plywood of not less than 5/8 inches in thickness manufactured with waterproof glue or protected with an approved impervious coating. Do not use pieces with bulged plies or raveled, untrue edges.

CS-11.6.4 Special Requirements

Re-entrant Angles: Use chamfered forms for re-entrant angles, and use filleted forms for corners. Use chamfers and fillets that are 3/4 inch by 3/4 inch and are mill-dressed on all sides to uniform dimensions.

CS-11.6.5 Form Alignment, Bracing, and Ties

Construct forms in such manner that they may be adequately secured for alignment, shape, and grade. Use bracing systems, ties, and anchorages that are substantial and sufficient to ensure against apparent deviation from shape, alignment, and grade. Do not drive nails into existing concrete. Do not use bracing systems, ties, and anchorages which unnecessarily deface or mark, of have an injurious or undesirable effect on surfaces that will be a part of the finished surface.

If metal ties and anchorages are to remain in the concrete, construct them so as to permit the removal of metal to at least 2 inches beneath the finished surface of concrete. Use accessories for metal ties and anchorages that allow the removal of metal to the prescribed depth while leaving the smallest possible repairable cavity.

When using wire ties, cut them back from the finished surface of the concrete a minimum of 1 1/2 inches deep. Do not use internal ties of wire when forming surfaces exposed to view.

CS-11.6.6 Preparation and Cleaning

Meet the following requirements for the condition of forms at the time of beginning concrete casting:

- (a) Treat all forms with an approved form-release agent before placing concrete. Do not use material which adheres to or discolors the concrete.
- (b) Clean forms of all dirt, sawdust, shavings, and other debris.
- (c) Close and secure all inspection and clean-out holes.

CS-11.7 Placing Concrete

CS-11.7.1 Temperature Restrictions

CS-11.7.1.1 *Concreting in Cold Weather:* Do not place concrete when the temperature of the concrete at placement is below 7° C.

Meet the air temperature requirements for mixing and placing concrete in cold weather as specified in FDOT Sections 346 and 347.

The CONTRACTOR is responsible for all risks connected with the placing and curing of concrete. Although the ENGINEER may give him permission to place concrete, the CONTRACTOR is responsible for satisfactory results.

CS-11.7.1.2 *Concreting in Hot Weather:* Meet the temperature requirements and special measures for mixing and placing concrete in hot weather as specified in FDOT Section 346.

When the temperature of the concrete as placed exceeds 24° C, incorporate in the concrete mix a water-reducing retarder or water reducer if allowed by FDOT Section 346.

Spray deck slab forms and reinforcing steel with cool fresh water just prior to placing the concrete.

The CONTRACTOR is responsible for all risks connected with the placing and curing of concrete. Although the ENGINEER may give him permission to place concrete, the CONTRACTOR is responsible for satisfactory results. Should concrete the CONTRACTOR places prove unsatisfactory, the CONTRACTOR shall remove, dispose of, and replace the concrete at no expense to the COUNTY.

CS-11.7.2 Inspections before Placing Concrete

Do not place concrete until the depth and character of the foundation and the adequacy of the forms and falsework have been approved by the ENGINEER. Do not deposit any concrete until all reinforcement is in place and has been inspected and approved by the ENGINEER. The CONTRACTOR shall notify the COUNTY and ENGINEER a minimum of 48 hours prior to placing the concrete so that the ENGINEER may inspect the steel.

CS-11.7.3 General Requirements for Placing Concrete

Deposit concrete as nearly as possible in its final position. Do not deposit large quantities at one point and then run or work it along the forms. Take special care to fill each part of the forms, to work coarse aggregate back from the face, and to force concrete under and around reinforcing bars without displacing them.

Use a method and manner of placing concrete that avoids the possibility of segregation or separation of aggregates. If the ENGINEER determines that the quality of concrete as it reaches its final position is unsatisfactory, remove it and discontinue or adjust the method of placing until the ENGINEER determines that the quality of the concrete as placed is satisfactory.

Use metal or metal-lined open troughs or chutes. Where steep slopes are required, use chutes that are equipped with baffles or are in short lengths that reverse the direction of movement. Where placing operations would involve dripping the concrete freely more than 3 feet, deposit it through pipes, troughs, or chutes of sheet metal or other approved material. Keep all troughs, chutes, and pipes clean and free from coatings of hardened concrete by thoroughly flushing them with water after each run or more often if necessary.

CS-11.7.4 Placing Concrete by Pumping

In general, use concrete pumping equipment that is suitable in kind and adequate in capacity for the work proposed. Use a pump discharge line that has a minimum diameter of 2.5 inches. Use a pump and discharge lines that are constructed so that no aluminum surfaces are in contact with the concrete being pumped. Operate the pump to produce a continuous stream of concrete, without air pockets. When using cement slurry or similar material to lubricate the discharge line when pumping begins, collect such material at the point of discharge. The CONTRACTOR shall dispose of the collected slurry in areas provided by the CONTRACTOR. Control the pump discharge locations so that the placement locations of the various lots of concrete represented by strength test cylinders can be identified in the event the test cylinders indicate deficient strength. When concrete is placed by pumping, take all test samples of concrete at the end of the discharge line, except in accordance with the provisions of the FDOT Standard Operating Procedures for Quality Control Concrete.

CS-11.7.5 Consolidation

Consolidate the concrete by continuous working with a suitable tool in an acceptable manner, or by vibrating as set forth in CS-11.7.8. When not using vibrators, thoroughly work and compact all thin-section work with a steel slicing rod. Spade all faces and flush the mortar to the surface by continuous working with a concrete spading implement.

CS-11.7.6 Obstructions

In cases where, because of obstructions, difficulty is encountered in puddling the concrete adjacent to the forms, bring the mortar content of the mix into contact with the interior surfaces by vibrating the forms. Produce the vibrations by striking the outside surfaces of the forms with wooden mallets or by other satisfactory means. In placing concrete around steel shapes place it only on one side of the shape until it flushes up over the bottom flange of the shape on the opposite side, after which place it on both sides to completion. After the concrete has taken its initial set, exercise care to avoid jarring the forms or placing any strain on the ends of projecting reinforcing bars.

CS-11.7.7 Requirements for Successive Layers

Generally, place concrete in continuous horizontal layers, approximately 12 inches thick. In any given layer, follow each separate batch with the next so closely, place and consolidate each one before the preceding one has taken initial set, in order that there will be no plane of separation between the batches. Do not allow the time before placing the next successive layer to exceed 20 minutes, unless the ENGINEER determines that initial set has not yet occurred. Generally, leave each layer of concrete unfinished to secure efficient bonding with the overlying layer. Consolidate a succeeding layer placed before the underlying layer has become set in a manner that will avoid completely the tendency to produce a construction joint between the layers. To avoid visible joints as far as possible on exposed faces, finish the top surface of the concrete immediately adjacent to the forms of the exposed face, smoothing with a plaster mason's trowel. Form, by inset form work, horizontal layers so located as to produce a construction joint wherein a "featheredge" might be produced in the succeeding layer such that the succeeding layer will end in a body of concrete not less than 6 inches thick. Conduct the operation of depositing and consolidating the concrete so as to form a dense, impervious mass of uniform texture with smooth faces on exposed surfaces. Remove, dispose of, and replace defective concrete as directed by the ENGINEER and at no expense to the COUNTY.

CS-11.7.8 Vibration of Concrete

CS-11.7.8.1 Where Required: Consolidate all concrete except seal, culvert floors, steel pile jackets, and concrete for incidental construction by the use of mechanical vibrators.

CS-11.7.8.2 *Vibrators:* Provide adequate vibrators on the project that are approved by the ENGINEER before beginning concrete work. Generally, provide vibrators of the internal type. For thin sections, where the forms are especially designed to resist vibration, the CONTRACTOR may use external vibrators. Use a vibrating frequency that is not less than 4500 impulses per minute and is of sufficient intensity and duration to cause complete consolidation of the concrete. Do not continue vibration until it causes segregation of the materials. For vibrating thin, heavy reinforced sections, use heads of such size to secure proper vibration of the concrete without disturbance of either the reinforcing steel or the forms.

CS-11.7.8.3 *Number of Vibrators Required:* Use a sufficient number of vibrators to secure the compaction of each batch before the next batch is delivered, without delaying the delivery. In order to avoid delays due to breakdowns, provide at least one stand-by vibrator, with an appropriate power source.

CS-11.7.8.4 *Method of Vibration:* Use vibrators to consolidate properly placed concrete. Do not use them to move concrete about in the forms. Insert the vibrators in the surface of concrete at points spaced to ensure uniform vibration of the entire mass of the concrete. Insert the vibrator at points that are no further apart than the radius over which the vibrator is visibly effective. Allow the vibrator to sink into the concrete by its own weight, and allow it to penetrate into the underlying layer sufficiently so that the two layers are thoroughly consolidated together. After thoroughly consolidating the concrete, withdraw the vibrator slowly to avoid formation of holes.

CS-11.7.8.5 *Hand Spading:* When necessary in order to secure well-filled forms, free from aggregate pockets, honeycomb, bubbles, etc., spade the concrete by hand, along the surfaces of the forms and in all corners, following the vibration.

CS-11.8 Seals

CS-11.8.1 General

Wherever practicable, dewater all foundation excavations, and deposit the concrete in the dry as defined in FDOT Section 455-15.2. Where conditions are encountered which render it impracticable to dewater the foundation before placing concrete, the ENGINEER may authorize the construction of a concrete foundation seal of the required size. Then, dewater the foundation, and place the balance of the concrete in the dry.

When required to place a seal concrete, the CONTRACTOR is responsible for the satisfactory performance of the seal in providing a watertight excavation for placing structural concrete. The CONTRACTOR will provide and pay for the seal concrete as an aid to the construction of the structure. Repair seal concrete as necessary to perform its required function at no expense to the COUNTY.

CS-11.8.2 Method of Placing

Carefully place concrete deposited underwater in the space in which it is to remain by means of a tremie or other approved method. Do not disturb the concrete after depositing it. Deposit all seal concrete in one continuous placement. Do not place any concrete in running water and ensure that all formwork designed to retain concrete under water is watertight.

CS-11.8.3 Use of Tremie

Use a tremie consisting of a tube having a minimum inside diameter of 6 inches, constructed in sections having watertight joints. Do not allow any aluminum parts to have contact with the concrete. Ensure that the discharge end is entirely seated at all times and keep the tremie tube full to the bottom of the hopper. When dumping a batch into the hopper, keep the tremie slightly raised (but not out of the concrete at the bottom) until the batch discharges to the bottom of the hopper. Stop the flow by lowering the tremie. Support the tremie such as to permit the free movement of the discharge end over the entire top surface of the work and to permit its being lowered rapidly when necessary to choke off or retard the flow. Provide a continuous, uninterrupted flow until completing the work. Exercise special care to maintain still water at the point of deposit.

CS-11.8.4 Use of Bottom-dump Bucket

When placing the concrete by means of a bottom-dump bucket, lower the bucket gradually and carefully until it rests upon the concrete already placed. Raise the bucket very slowly during the discharge travel, the intent being to maintain, as nearly as possible, still water at the point of discharge and to avoid agitating the mixture. Do not use aluminum buckets.

CS-11.8.5 Time of Beginning Pumping

Do not commence pumping to dewater a sealed cofferdam until the seal has set sufficiently to withstand the hydrostatic pressure, and in no case earlier than 24 hours after placement of the concrete.

CS-11.9 Construction Joints

CS-11.9.1 Location

Make construction joints only at locations shown in the CONTRACT Plans or in the placement schedule, unless otherwise approved in writing.

CS-11.9.2 Preparations of Surfaces

Before depositing new concrete on or against concrete which has hardened, re-tighten the forms. Roughen the surface of the hardened concrete in a manner that will not leave loosened particles, aggregate, or damaged concrete at the surface. Thoroughly clean the surface of foreign matter and laitance, and saturate it with water.

CS-11.9.3 Placing Concrete

Continuously place concrete from joint to joint. Carefully finish the face edges of all joints which are exposed to view true to line and elevation.

CS-11.9.4 Joints in Sea Water or Brackish Water

For concrete placed in seawater or brackish water, do not place any construction joints between points 2 feet below extreme low tide and 2.5 feet above extreme high tide.

CS-11.10 Expansion Joints

CS-11.10.1 General

Construct expansion joints so as to permit absolute freedom of movement. Carefully remove all loose or thin shells of mortar likely to cause a spall with movement at a joint from all expansion joints as soon as possible.

CS-11.10.2 Filling Joints

Fill expansion joints with a preformed joint filler. Cut the filler to conform to the cross-section of the structure, and furnish it in as few pieces as practicable, using only a single piece in each curb section. Do not use small pieces that would tend to come loose.

CS-11.10.3 Sealing Joints

Prepare joints to be sealed and apply the sealer in accordance with approved manufacturer's directions.

CS-11.10.4 Anchor Bolts and Dowels

Set anchor bolts and dowels as provided in FDOT 460-30. Galvanize all anchor bolts as specified in FDOT 460-30.

CS-11.10.5 Epoxy Bonding Compounds

Where epoxy bonding compounds for bonding concrete are specified or required, apply the epoxy bonding materials only to clean, dry, structurally sound concrete surfaces. Provide surface preparation, application, and curing of epoxy bonding compound in strict accordance with the manufacturer's recommendations for each particular application. Data sheets for specified products are included as attachments at the end of these construction specifications.

CS-11.11 Finishing Concrete

CS-11.11.1 General Surface Finish (Required for All Surfaces)

After placing and consolidating the concrete, strike-off all exposed surfaces to the lines and grades indicated in the plans in a manner that will leave a surface of uniform texture free of undesirable surface. After removing excess mortar and concrete and while the concrete is still in a workable state, carefully tool all construction and expansion joints. Leave joint filler exposed for its full length with clean edges. Ensure that finished work in addition to that specified above is compatible and complementary to the class of surface finish required.

Immediately after removing forms from any exposed concrete surface, remove all fins and irregular projections flush with the surface. Clean, saturate with water, and carefully point with mortar all holes, material tie cavities, honeycomb, chips, and spalls.

In the event the CONTRACTOR obtains unsatisfactory surfaces, the CONTRACTOR shall repair them by methods approved by the COUNTY or the ENGINEER will reject the affected concrete. The CONTRACTOR shall repair any surface or remove rejected concrete at no expense to the COUNTY.

For pointing, use mortar that is a blended mixture of cement and fine aggregates, finished and composed of materials from the same source as used in the class of concrete being placed. To prevent shrinkage, allow the mortar to take its initial set, then rework and apply it without adding water. Carefully roughen and clean cavities to be filled with mortar to provide a mechanical bond. Exercise care during the roughening process to prevent additional defacement and damage to the formed surface.

CS-12.0 GEOTEXTILE

CS-12.1 General

The geotextile shall be a woven monofilament or multifilament pervious sheet of polymeric yarn, Winfab 2199, or approved equivalent. Fibers used in the manufacture of the geotextile fabric shall consist of long-chain synthetic polymers composed of at least 85 percent by weight polyolefins, polyesters, or polyamides. Stabilizers and/or inhibitors shall be added to the base polymer if necessary to make the filaments resistant to deterioration by ultraviolet light, oxidation, and heat exposure. Reclaimed or recycled fibers (post-consumer) or polymer shall not be added to the formulation. Geotextiles shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other (including the filaments or yarns at the edges of the fabric).

The geotextile shall be finished so that the filaments will retain their relative position with respect to each other. The edges of woven fabric shall be finished to prevent the outer material from pulling away from the fabric. The CONTRACTOR shall provide the manufacturer's certificate of compliance attesting that the geotextile meets the requirements of these specifications and the mill certificates stating the length and width of fabric contained on each roll to the COUNTY and ENGINEER prior to construction.

CS-12.2 Placing Geotextile

The CONTRACTOR shall prevent exposure of the geotextile to light until needed for construction. The geotextile laying and subsequent covering with succeeding courses shall proceed in such a manner as to limit exposure to light to a maximum period of 24 hours.

The surface to receive the geotextile shall be smooth, free from obstructions, depressions, and sharp objects. The CONTRACTOR shall notify the COUNTY and ENGINEER 72 hours prior to placing the geotextile so that the ENGINEER may observe the surface to receive the geotextile. The CONTRACTOR shall lay the geotextile so as to minimize the number of joints and seams, lay the geotextile loosely, but without creases, and provide at least three (3) feet overlap at joints.

The CONTRACTOR shall not operate machinery directly on the geotextile. When placing material over joints, the CONTRACTOR shall place the material in the direction from the overlying geotextile to the underlying geotextile. The CONTRACTOR shall prevent puncture, tear, or displacement of the geotextile and protect it from damage; and replace torn areas and holes by placing an overlay of geotextile having dimensions at least three (3) feet greater than the tear or hole.

CS-13.0 FILL

Clean backfill material shall be required to achieve the design elevations. The CONTRACTOR shall import clean fill material consisting of fine grained quartz sand to achieve the final grades and tolerances as specified on the CONTRACT Plans. The CONTRACTOR shall place and compact the fill as shown on the CONTRACT Plans.

In the event that additional cubic yards of clean backfill material are required to achieve the design elevations landward of the seawall, the CONTRACTOR shall import clean off-site fill material consisting of fine grained quartz sand to achieve the final grades and tolerances as specified on the construction plans. The material shall be free from dirt, clay balls, muck, roots, and organic matter and contain less than 15 percent by weight passing the No. 200 sieve. Sample shall be provided to COUNTY and ENGINEER for approval prior to placement.

Fill shall be placed in 6-inch lifts and compacted to a density of at least 95 percent of the maximum density as determined by AASHTO T-99.

CS-14.0 ARMORMAT SCOUR PROTECTION

CS-14.1 General

The CONTRACTOR shall prepare the channel bottom and install the armormat in accordance with the CONTRACT Plans and these Specifications.

CS-14.2 Cellular Concrete Blocks

CS-14.2.1 References

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 33 (1993) Concrete Aggregates

ASTM C 140 (1996) Sampling and Testing Concrete Masonry Unit

ASTM C 150 (1995; Rev. A) Portland Cement

ASTM C 207 (1991) Hydrated Lime for Masonry Purposes

ASTM C 595 (1994; Rev. A) Blended Hydraulic Cements

ASTM C 618 (1996) Coal Fly Ash and Raw or Calcined Natural Pozzolan for use as a Mineral Admixture in Portland Cement Concrete

ASTM C 4419(19950 Clear Permeability of Geotextiles by Permittivity

ASTM C 4632(1991) Grab Breaking Load and Elongation of Geotextiles

ASTM C 4651(1993) Isobutane Thermophysical Property Tables

ASTM C 4833(1996) Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products

ASTM C 5101(1996) Measuring the Soil-Geotextile System Clogging Potential by the Gradient Ratio

CS-14.2.2 Submittals

The CONTRACTOR shall submit the following information to the COUNTY and ENGINEER.

CS-14.2.2.1 Manufacturer's Catalog Data

Submit all manufacturer's performance research results and calculations in support of the cellular concrete mat system and geotextile proposed for use.

CS-14.2.2.2 Drawings

Submit all manufacturer's specifications, shop drawings for the fabrication of the mats, literature and any recommendations, if applicable, 14 days prior to assembly of the cellular mats.

CS-14.2.2.3 Certificates

Submit manufacturer's certificates of compliance for cellular concrete blocks/mats, revetment cable, and any revetment cable fittings and connectors prior to the start date of mat fabrication.

CS-14.2.3 Products

All cellular concrete mats shall be pre-manufactured as an assembly of concrete blocks, with specific hydraulic capacities, bound into mats by the use of revetment cables. Individual blocks in the cellular mats shall be staggered and interlocked for enhanced stability. The mats shall be constructed of closed cell blocks. Parallel strands of cable shall extend through ducts in each block in a manner which provides for longitudinal binding of the blocks within the mats. Each row of blocks shall be laterally offset by one-half block width from the adjacent row so that any given block is cabled to four other blocks (two in the row above and two in the row below).

The gross area of each individual block in direct contact with the protected subgrade shall be no less than one square foot. Each block shall incorporate interlocking surfaces that prevent lateral displacement of the blocks within the mats when they are lifted by the longitudinal revetment cables. The interlocking surfaces shall not protrude beyond the perimeter of the blocks to such an extent that they reduce the flexibility or articulation capability of the cellular mats or become damaged or broken when the mats are lifted during shipment or placement. Once the mats are in place, the interlocking surfaces shall prevent the lateral displacement of the blocks even if the cables should become damaged or removed. The mats must be able to flex a minimum of 45° in the downward direction.

The cables shall be inserted into the mats in such a manner to form lifting loops at one end of the mat and the corresponding cable ends shall be spliced together to form a lifting loop at the other end of the mat. The cellular concrete mats shall be placed on a filter fabric.

CS-14.2.4 Concrete Blocks

CS-14.2.4.1 Materials

Cementitious materials shall conform to the following ASTM specifications:

ASTM C 150, for Portland Cement

ASTM C 595, for Blended Hydraulic Cements

ASTM C 207, for Hydrated Lime Types

ASTM C 618, for Pozzolans

ASTM C 33, for Concrete Aggregates, except for grading requirements

CS-15.2.4.2 Physical Requirements

At the time of delivery to the WORK area, the units shall have a minimum compressive strength of 4,000 pounds per square inch and maximum water absorption of 12 pounds per cubic foot.

CS-14.2.4.3 Durability

The CONTRACTOR shall provide the manufacturer certification of proven field performance that the concrete units have adequate durability even if they are subjected to a freeze-thaw environment.

CS-14.2.4.4 Testing

The CONTRACTOR shall sample and test units in accordance with ASTM C 140.

CS-14.2.4.5 Visual Inspection

All units shall be sound and free of defects that would interfere with the proper placing of the unit or impair the strength or performance of the construction. Surface cracks incidental to the usual methods of handling in shipment and delivery shall not be deemed grounds for rejection.

Cracks exceeding 0.25 inch in width and or 1.0 inch in depth shall be deemed grounds for rejection.

Chipping resulting in a weight loss exceeding 10% of the average weight of the blocks shall be deemed grounds for rejection.

Blocks rejected shall be replaced or repaired with structural grout with the COUNTY and ENGINEER'S approval at the expense of the CONTRACTOR.

CS-14.2.4.6 Sampling and Testing

The COUNTY and ENGINEER shall be accorded access to facilities to inspect and sample the units at the place of manufacturer from lots ready for delivery.

CS-14.2.5 Revetment Cable and Fittings

CS-14.2.5.1 Polyester Revetment Cable and Fittings

The revetment cable shall be constructed of high tenacity, low elongating, continuous filament polyester fibers. The cable shall consist of a core construction comprised of parallel fibers contained within an outer jacket or cover. The weight of the parallel core shall be between 65% to 70% of the total weight of the cable. The revetment cable shall have the following physical characteristics.

Nominal	Approx. Avg.	Weight /	100 Feet
Cable Dia. – Circum.	Strength Lbs.	Min Lbs.	Max Lbs.
5/16" – 27mm	7,000	3.99	4.42
3/8" - 30mm	10,000	4.75	5.25
1/2" – 40mm	15,000	8.93	9.90

Elongated requirements specified below are based upon stabilized, new, dry cable. Stabilization refers to a process in which the cable is cycled fifty (50) times between a load corresponding to $200D^2$ and a load equal to 10%, 20% or 30% of the cable's approximate average breading strength. Relevant tolerance on these values is \pm 5%.

	% Breaking Strength		
	10%	20%	30%
Permanent Elongation (while working)	0.7	1.8	2.6
Elastic Elongation	0.6	1.4	2.2
Total Strength	1.3	3.2	4.8

The revetment cable shall exhibit good to excellent resistance to most concentrated acids, alkalis and solvents. The cable shall be impervious to rot, mildew and degradation associated with marine organisms. The materials used in the construction of the cable shall not be affected by continuous immersion in fresh or salt water.

Selection of cable and fittings shall be made by the CONTRACTOR in a manner that insures a safe design factor for mats being lifted from both ends, thereby forming a catenary. Consideration shall be taken for the bending of the cables around hooks or pins during lifting. Revetment cable splicing fittings shall be selected so that the resultant splice shall provide a minimum of 60% of the minimum rated cable strength. Fittings such as sleeves and stops shall be aluminum and washers shall be galvanized steel unless otherwise shown on the Contract Plans.

CS-14.2.5.2 Size of Cellular Concrete Mats

The cellular concrete blocks, cables and fittings shall be fabricated into mats with a minimum width of eight (8) feet or as approved by the COUNTY and ENGINEER. The CONTRACTOR shall size mats in a manner to minimize the number of mats required.

CS-14.2.6 Execution

CS-14.2.6.1 Foundation Preparation

CS-14.2.6.2 General

Areas on which filter fabric and cellular concrete blocks are to be placed shall be constructed to the lines and grades shown on the Contract Plans and to tolerances specified in the Contract Documents, and approved by the COUNTY and ENGINEER.

CS-14.2.6.3 Grading

The final grade shall be graded to a smooth plane surface to ensure that intimate contact is achieved between grade and the geotextile (filter fabric), and between the geotextile and the entire bottom surface of the cellular concrete blocks. All slope deformities, roots, grade stakes, and stones which project normal to the local slope face must be regraded or removed. No holes, "pockmarks", slope board teeth marked, footprints, or other voids greater than 1.0 inch in depth normal to the local slope face shall be permitted. No grooves or depressions greater than 0.5 inches in depth normal to the local slope face with a dimension exceeding 1.0 foot in any direction shall be permitted. Where such areas are evident, they shall be brought to grade by placing homogeneous material.

CS-14.2.6.4 Inspection

Immediately prior to placing the filter fabric and cellular concrete blocks, the prepared area shall be inspected by the COUNTY and ENGINEER. No fabric or blocks shall be placed thereon until that area has been approved.

CS-14.2.7 Placement of Cellular Concrete Blocks/Mats

CS-14.2.7.1 General

Cellular concrete block/mats shall be constructed within the specified lines and grades shown on the Contract Plans.

CS-14.2.7.2 Placement

The cellular concrete blocks shall be placed on the filter fabric in such a manner as to produce a smooth plane surface in intimate contact with the filter fabric. No individual block within the plane of placed cellular concrete blocks shall protrude more than 2.0 inches or as otherwise specified.

If assembled and placed as large mattresses, the cellular concrete mats shall be attached to a spreader bar or other approved device to aid in the lifting and placing of the mats in their proper position by the use of a crane or other approved equipment. The equipment used should have adequate capacity to place the mats without bumping, dragging, tearing or otherwise damaging the underlying fabric. The mats shall be placed side by side and/or end to end, so that the mats abut each other. Mat seams or openings between mats greater than six (6) inches shall be filled with grout. They may be placed either by hand or in large mattresses. Distinct changes in grade that result in a discontinuous revetment surface in the direction of flow shall require a grout seam at the grade change location so as to produce a continuous surface.

CS-15.0 TIMBER

CS-15.1 General

The CONTRACTOR shall construct the timber components in accordance with the CONTRACT Plans and these Specifications.

CS-15.1.1 Timber Treatment

The work specified in this Section is the treating of timber piling, timber posts, and structural timber. The method of treatment for all such timber materials shall be in accordance with American Association of State Highway and Transportation Officials (AASHTO) M 133, American Section of the International Association for Testing Materials (ASTM) D 25 and D 1143, or American Wood Protection Association (AWPA) Use Category Standard (UCS) – U1, with a use category of UC5C, exceptions and additions as specified herein.

CS-15.1.2 Penetration Requirements.

- (a) For Structural Timber: The penetration of the treatment shall be in accordance with the applicable AWPA standards, with the exceptions as specified herein.
- (b) For Round Piles and Posts: Any round pile or post, which does not show complete sapwood penetration will be rejected or shall be retreated to meet such penetration requirement.
- (c) Retreatment: The necessity for retreatment of structural timber, piling and posts shall be avoided as far as practicable and if it becomes apparent that due measures are not being taken to prevent such necessity, the acceptance of retreated materials may be withdrawn. When retreatment is necessary the maximum limits for temperature of steam or preservative, and for preservative pressure, which apply to the original treatment shall not be exceeded during the retreatment.
- (d) Handling Salt Treated Piling: In handling of piles that have been treated with chromated copper arsenate or ammoniacal copper arsenate, cable slings shall be used. Mechanical grabbers or pointed tools shall not be permitted. Rough or careless handing shall be avoided at all times.

CS-15.2 Wood Marine Piling

Identification of Treating Plants for Round Piling: The treating plant shall brand, or place a distinctive permanent mark, on each round pile, approximately 6 feet from the butt end, such that the plant responsible for the treatment can be readily determined at any time during the service life of the piling.

CS-15.2.1 Submittals

The CONTRACTOR shall submit the following Manufacturer's Catalog Data: driving equipment, driving helmet, pile shoes, and cushion block; and certificates: driving hammer and timber piles.

CS-15.2.2 Quality Assurance

The CONTRACTOR shall be responsible for the quality of treated wood products. The CONTRACTOR shall provide the COUNTY and ENGINEER with the inspection report of an independent inspection agency, approved by the COUNTY and ENGINEER that offers products that comply with applicable AWPA standards. The AWPA or the Quality Mark of an equivalent inspection organization on each pile will be accepted, in lieu of inspection reports, as evidence of compliance with applicable AWPA treatment standards. The CONTRACTOR shall store piles in accordance with AWPA.

CS-15.2.3 Products

The CONTRACTOR shall provide Douglas Fir or Southern Pine clean-peeled piles conforming to ASTM D 25. Minimum butt circumference measured at 3 feet from the butt shall be 31 inches. Piles shall be in one piece. Splices will not be permitted. Each treated pile shall be branded by the producer, in accordance with AWPA. The piles shall be treated by the full-cell pressure process in accordance with AWPA – U1 UC5C for marine piling with waterborne preservatives chromated copper arsenate (CCA) and a retention of 2.5 pounds per cubic foot. Sawn timber piles (posts) shall be treated with CCA and have a retention of 0.80 pounds per cubic foot.

CS-15.2.4 Installation

The CONTRACTOR shall inspect the piles when delivered and when in the leads immediately before driving. The piles shall be cut at cutoff grade with pneumatic tools by sawing or other approved method. Where required, the CONTRACTOR shall provide bolt holes that will ensure a driving fit.

CS-15.2.4.1 Driving Piles

When driving piles, the CONTRACTOR shall operate the hammer at the manufacturer's rated speed, drive the piles without interruption indicated tip elevation to reach a driving resistance and minimum depth of penetration in accordance with the manufacturer's schedule, drive piles with same hammer, cushion, or cap block, and using the same operating conditions as test piles. If, in driving, it is found that a pile is not of sufficient length to give the capacity specified, the CONTRACTOR shall notify the COUNTY and ENGINEER, who will determine the corrective procedure to be followed.

CS-15.2.4.2 Driving Equipment

The CONTRACTOR shall select and use a pile hammer of sufficient weight and energy to install the specified pile without damage into the soils as indicated, and place driving helmet, or cap and cushion block combination capable of protecting the head of the pile between tip of pile and the ram to prevent impact damage to pile. If the block is damaged, split, highly compressed, charred or burned, or has become spongy or deteriorated; the CONTRACTOR shall replace it with a new block. The helmet or block shall uniformly transmit energy to pile with a minimum loss of energy.

CS-15.2.4.3 Tolerances in Driving Bearing Piles

At the cutoff elevation, the butts shall be within 6 inches of the location indicated. Manipulation to move the pile into position shall be permitted only within the aforementioned tolerance to return the pile to the design location. However, the piles shall not be manipulated more than 1.5 percent of the exposed length above the ground mudline surface. A variation of not more than ½ inch per foot of pile length from the vertical for plumb piles shall be permitted. The CONTRACTOR shall remove and replace with new piles those damaged, misplaced, driven below the design cutoff, or driven out of alignment, or provide additional piles, driven as directed.

CS-15.2.4.4 Records

The CONTRACTOR shall keep a complete and accurate record of each pile driven indicating the pile location, deviations from design locations, diameter, original length, mudline elevation, tip elevation, cutoff elevation, penetration in blows per foot for entire length of penetration for test piles, penetration in blows per foot for the last five feet for job piles, hammer data including rate of operation, make, and size, and unusual pile behavior or circumstances experienced during driving such as redriving, heaving, weaving, obstructions, predrilling, and unanticipated interruptions. The CONTRACTOR shall provide the pile driving records to the COUNTY and ENGINEER a maximum of 24 hours after each day of pile driving.

CS-15.2.5 Jetting of Piles

The CONTRACTOR may use water jets in driving provided that jetting is discontinued when the pile tip is approximately five feet above the indicated pile tip elevation and the pile is driven the final five feet of penetration.

CS-15.2.6 Protection of Piles

The CONTRACTOR shall square the heads and tips of piles to the driving axis, laterally support the piles during driving, and not unduly restrain piles from rotation in the leads. Swinging leads shall not be permitted. Where pile orientation is essential, the CONTRACTOR shall take precautionary measures to maintain the orientation during driving. The CONTRACTOR shall handle, protect, and field treat piles in accordance with AWPA.

CS-15.2.7 Pile Inspection

When the COUNTY and ENGINEER'S inspections result in product rejection, the CONTRACTOR shall promptly segregate and remove the rejected material from the premises.

CS-15.3 Timberwork

CS-15.3.1 Submittals

The CONTRACTOR shall submit the inspection report of an independent inspection agency, for approval by the COUNTY and ENGINEER that offered products complying with applicable AWPA Standards.

The AWPA Quality mark or equivalent quality mark, on each piece will be accepted, in lieu of inspection reports, as evidence of compliance with applicable AWPA treatment standards.

The CONTRACTOR shall field inspect and submit a verification list to the COUNTY and ENGINEER of each treated timber member and each strapped bundle of treated lumber indicating the wording and lettering of the quality control markings, the species and the condition of the wood. The CONTRACTOR shall not incorporate materials damaged in transport from the manufacturer/supplier to the WORK area.

CS-15.3.2 Delivery and Storage

The CONTRACTOR shall open-stack untreated timber and lumber material on skids at least 12 inches aboveground, in a manner that will prevent warping and allow shedding of water; close-

stack treated timber and lumber material in a manner that will prevent long timbers or pre-framed material from sagging or becoming crooked; keep ground under and within five feet of such piles free of weeds, rubbish, and combustible materials; protect materials from weather; handle treated timber with ropes or chain slings without dropping, breaking outer fibers, bruising, or penetrating surface with tools; protect timber and hardware from damage; and shall not use cant dogs, peaveys, hooks, or pike poles.

CS-15.3.3 Materials

CS-15.3.3.1 Lumber and Timbers

The CONTRACTOR shall provide solid sawn lumber and timbers of stress-rated Southern Pine or Fir-Larch with a visual grade No. 1 or higher for all structural and nonstructural members to include knees, cross bracing, caps, clamps, stringers, stanchions, decking, and handrails.

Lumber and timber grade marks should be from a recognized association or independent inspection agency using the specific grading requirements of an association recognized as covering the species used. The association or independent inspection agency shall be certified by the Board of Review, American Lumber Standards Committee, to grade the species used.

Preservative treatment shall be with waterborne preservative in accordance with AWPA as follows:

Timbers	AWPA Use Category	Preservative	Retention (pcf)
Cross brace, knee, cap, and clamp	UC5C	Chromated Copper Arsenic (CCA)	2.5
Stringer and stanchion	UC4C	Chromated Copper Arsenic (CCA)	0.6
Decking and handrails	UC4C	Alkaline Copper Quaternary (ACQ)	0.6
		or Copper Azole (CA)	0.3

Each piece of treated timber or lumber shall be branded, by the manufacturer, in accordance with AWPA. The CONTRACTOR shall be responsible for the quality of treated wood products.

CS-15.3.3.2 Hardware

The CONTRACTOR shall provide bolts with necessary nuts and washers, timber connectors, drift pins, dowels, nails, screws, spikes, and other fastenings. The bolts and nuts shall conform to ASTM F593 and F594. The CONTRACTOR shall provide plate or cut washers where indicated; provide bolts with washers under nut and head; provide timber connectors and other metal fastenings of type and size shown; and provide 304 alloy stainless steel hardware unless specified otherwise on CONTRACT Plans. Railing and decking shall be fastened with 304 alloy stainless steel #10 star or square pan-head composite deck screws.

CS-15.3.4 Construction

The CONTRACTOR shall cut, bevel, and face timbers prior to plant preservative treatment and provide protective equipment for personnel fabricating, field treating, or handling materials treated with creosote or water-borne salts.

CS-15.3.4.1 Framing

The CONTRACTOR shall cut and frame lumber and timber so that joints will fit over contact surface, and secure timbers and piles in alignment. Open joints are unacceptable. Shimming is not allowed. The CONTRACTOR shall bore holes for drift pins and dowels with a bit 1/16 inch less in diameter than the pin or dowel, bore holes for truss rods or bolts with a bit 1/16 inch larger in diameter than rod or bolt, bore holes for lag screws in two parts, make lead hole for shank the same diameter as shank, make lead hole for the threaded portion approximately two-thirds of the shank diameter, bore holes in small timbers for bolt or wire spikes with a bit of the same diameter or smallest dimension of the spike to prevent splitting, and counterbore for countersinking wherever smooth faces are specified.

CS-15.3.4.2 Railing

The CONTRACTOR shall make the railing of a single thickness of the plank supported by posts. Unless otherwise indicated, the CONTRACTOR shall hang the rails with tight joints. The CONTRACTOR shall fasten each plank with at least two screws, provide screws at least 1½ inches greater than the thickness of the plank, place screws at least 1½ inches from edges of the plank, cut ends of planks parallel to center line of the post.

CS-15.3.4.3 Fastening

Vertical bolts shall have nuts on the lower end. Where bolts are used to fasten timber to timber, timber to concrete, or timber to steel, the CONTRACTOR shall bolt members together when they are installed and retighten immediately prior to final acceptance. The CONTRACTOR shall provide bolts having sufficient additional threading to provide at least 3/8 inch per foot thickness of timber for future retightening, provide timber connectors of types indicated, install split-ring and shear-plate connectors in pre-cut grooves of the dimensions as recommended by the manufacturer, force toothed-ring and spike-grid connectors and clamping plates into the contact surfaces of timbers joined by means of proper pressure tools, and at the joints, embed connectors of these types simultaneously and uniformly.

CS-15.3.4.4 Field Treatment

In accordance with AWPA, immediately after pile tops are cut off and prior to placement of the pile cap, the CONTRACTOR shall protect the pile top with two heavy applications of the same preservative used to treat the pile, or else water based copper naphthenate solutions containing a minimum of 2 percent copper metal may be used. The CONTRACTOR shall seal ends with a heavy application of silicone roof sealant or other approved sealer.

The CONTRACTOR shall field treat cuts, holes, bevels, notches, refacing and abrasions made in the field in treated piles or timbers with based copper naphthenate solution containing a minimum of 2 percent copper metal in accordance with AWPA; trim cuts and abrasions before field treatment; paint depressions or openings around bolt holes, joints, or gaps including recesses formed by counter boring with preservative treatment used for piles or timber.

CS-16.0 BEST MANAGEMENT PRACTICES

Activities shall be conducted in a manner, which does not cause violations of state water quality standards. The CONTRACTOR shall implement best management practices for erosion and pollution control to prevent violations of state water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within seven (7) days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. Thereafter the CONTRACTOR shall be responsible for the removal of the barriers. The CONTRACTOR shall correct any erosion or shoaling that causes adverse impacts to the water resources.

Best management practices for erosion and turbidity control, including but not limited to the use of staked hay bales, turbidity barriers, and silt screens, shall be used and maintained as necessary at all times during project construction. Turbidity control devices shall be maintained and shall remain in place for the duration of construction to ensure that turbidity levels outside the WORK area do not exceed 29 NTUs above background levels. The construction area shall be that area where active WORK is taking place and surrounded by turbidity control devices. The CONTRACTOR shall be responsible for ensuring that turbidity control devices are inspected daily and maintained in good working order so that there are no violations of state water quality standards outside of the turbidity screens.

The CONTRACTOR shall take measures to ensure that turbidity levels within waters of the State surrounding the project area do not exceed allowable levels. Such measures include, but are not limited to, working during a slack tide, working at a time when the tidal ranges are minimal/less frequent, and working when currents within the project area are at minimal intensity.

Stabilization measures shall be initiated for erosion and sediment control on disturbed areas as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceased.

The CONTRACTOR shall conduct his WORK in a manner to prevent damage to the submerged bottom (rutting, prop-scouring, and equipment sitting on the bottom) outside of the construction areas. WORK in the shallow water areas shall occur during high tides to prevent damage to the submerged bottom.

Disturbed portions of the site where construction activities have permanently ceased for at least 21 days shall be stabilized with permanent seed or other permanent stabilization methods no later than 14 days after the last construction activity. Seeding shall be the same as in temporary seeding.

CS-17.0 POLLUTION CONTROL

The CONTRACTOR shall control and conduct such operations and institute maintenance procedures to eliminate pollution of adjacent surface waters caused by either material runoff or discharges of any kind from the construction area (roof drains discharge excepted). No off-site discharge is allowed. The CONTRACTOR shall comply with the provisions of Chapters 253 and 403, Florida Statutes, regarding control of air and water pollution and with all rules and regulations of the Department of Environmental Protection. If non-compliance with the aforementioned Federal, State or Local laws or regulations occurs, the CONTRACTOR shall immediately inform the COUNTY and ENGINEER of proposed corrective action and take such action as may be approved. If the CONTRACTOR fails or refuses to comply promptly, the COUNTY, through the ENGINEER, may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the CONTRACTOR.

CS-18.0 ENVIRONMENTAL PROTECTION

CS-18.1 General

For the purpose of this specification, environmental protection is defined as the retention of the environment in its natural state to the greatest possible extent during project construction and to enhance the natural appearance in its final condition. Environmental protection requires consideration of air, water, and land, and involves noise, solid waste-management as well as other pollutants. In order to prevent any environmental pollution arising from the construction activities in the performance of this CONTRACT, the CONTRACTOR and his SUBCONTRACTORS shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

CS-18.1.1 Subcontractors

Compliance with the provisions of this section by SUBCONTRACTORS will be the responsibility of the CONTRACTOR.

CS-18.1.2 Landscape Protection

The environmental resources within the project boundaries and those affected outside the limits of permanent WORK under this CONTRACT shall be protected during the entire period of this CONTRACT. The CONTRACTOR shall confine his activities to areas defined by the CONTRACT plans and specifications.

Prior to the beginning of any construction, the CONTRACTOR shall identify all land resources to be preserved within the CONTRACTOR's WORK area. The CONTRACTOR shall not remove, cut, deface, injure, or destroy land resources, including trees, shrubs, vines, grasses, top soil, and land forms without special permission from the COUNTY and ENGINEER. Vegetation damaged beyond restoration shall be removed and disposed of by the CONTRACTOR in a manner approved by the COUNTY and ENGINEER. Vegetation or trees that are to be removed because of damage shall be replaced at the CONTRACTOR's expense by nursery-grown plants or trees of the same species or a species approved by the COUNTY and ENGINEER. The size and quality of nursery-grown plants or trees shall also be approved by the COUNTY and ENGINEER. No ropes, cables, or guys shall be fastened to or attached to any

trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the CONTRACTOR shall provide effective protection for land and vegetation resources at all times.

Prior to any construction the CONTRACTOR shall mark the areas that are not required to accomplish all WORK to be performed under this CONTRACT. Isolated areas within the general WORK area which are to be saved and protected shall also be marked or fenced. The CONTRACTOR shall protect from damage all existing vegetation designated to remain and protect roots from noxious materials in solution caused by run-off or spillage. No materials, trailers, or equipment shall be stored within the drip line of any protected tree. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The CONTRACTOR shall convey to his personnel the purpose of marking and/or protection of all necessary objects.

Trees and their roots, shrubs, vines, grasses, landforms, and other landscape features indicated and defined on the CONTRACT plans to be preserved shall be clearly identified and protected by fencing or any other approved techniques. The CONTRACTOR shall place tree protection fencing before excavation or grading is begun and maintain in place until construction is complete; remove branches of protected trees, if required, to clear for construction and extend pruning operation to restore the natural shape of the entire tree; cut branches or roots, if required, with sharp pruning instruments, (do not break or chop); and repair any damage to tree crowns or roots promptly after damage occurs.

CS-18.1.3 Location of Storage Facilities

The CONTRACTOR's storage areas required in the performance of the WORK shall be located upon existing cleared portions of the job site or areas to be cleared, and shall require written approval of the COUNTY and ENGINEER. The CONTRACTOR shall not store oil or fuel on-site, or equipment that is not required for the daily construction activities. A metal pan with sides a minimum of four (4) inches high shall be placed under the equipment or adjacent area during refueling. The pan shall have a capacity equal to the capacity of the gas cans used and catch any spills or leaks during the refueling activity. Fuel caught in the pan shall be contained and either transported off-site or used in the equipment. Under no condition shall the material be discharged on-site or into adjacent waters.

CS-18.1.4 Post-Construction Cleanup or Obliteration

The CONTRACTOR shall obliterate all signs of construction WORK areas, waste materials, or any other vestiges of construction as directed by COUNTY and ENGINEER. The area will be restored to near natural conditions.

CS-18.1.5 Spillage

Special measures shall be taken to prevent bilge pumpage or effluent, chemicals, fuels, oils, greases, bituminous materials, waste washing, herbicides and insecticides, and concrete drainage from entering public waters.

CS-18.1.6 Disposal

Disposal of any materials, wastes, effluent, trash, garbage, oil, grease, chemicals, etc., in areas adjacent to streams or other waters of the State shall not be permitted. If any waste material is dumped in unauthorized areas, the CONTRACTOR shall remove the material and restore the area to the original condition before being disturbed. If necessary, contaminated ground shall be excavated, disposed of as directed by the COUNTY, and replaced with suitable fill material, compacted and finished with topsoil and planted as required to re-establish vegetation.

CS-18.2 Manatees

In order to ensure that Manatees are not adversely affected by the construction activities, the CONTRACTOR shall abide by the STANDARD MANATEE CONSTRUCTION CONDITIONS contained within the Permits.

CS-18.3 In-Water Sea Turtle and Smalltooth Sawfish

In order to ensure that In-Water Sea Turtles and Smalltooth Sawfish are not adversely affected by the construction activities, the CONTRACTOR shall abide by the SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS contained within the Permits.

KAUFMAN PRODUCTS, INC

PRODUCT SPECIFICATIONS DATA

- Durocrete II VOFT
- SurePoxy HM
- SurePoxy HiBild
- SurePoxy LM Gel



PRODUCT INFORMATION **KAUFMAN PRODUCTS**

3811 CURTIS AVFNUF

BALTIMORE, MARYLAND 21226-1131

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CONCRETE **SUBSTRATE PREPARATION**

The correct surface preparation is the most critical part of any floor resurfacing, coating, bonded topping, or repair project. The desired adhesion to the substrate will not be obtained if the preparation does not leave the surface free of foreign matter, curing compounds, laitance, and weak surfaces. In addition, the surface must be roughened to a proper degree. Generally speaking, there should be a profile of at least 1/16"-1/8" between the low and high points of the concrete. Coarse aggregate should show. Please follow all aspects of the Guidelines #03732, selecting and Specifying Concrete Surface Preparation for Sealers, Coatings and Polymer Overlays from The International Concrete Repair Institute (ICRI). Included in our catalog is a chart, provided by ICRI, to help in surface preparation decision making.

All concrete has a layer of dense laitance at the surface, that will reduce the penetration and subsequent adhesion of sealers, adhesive, topping and membranes. Concrete surfaces must be clean and sound. Remove laitance and all foreign matter as per ASTM D-4258 and D-4259. Waterblasting followed by shotblasting is the preferred method of preparation to provide a fractured aggregate profile. Sandblasting or shotblasting are also satisfactory individually, both captive and not.

Acid etching, according to ASTM D-4260 with a 15-20% muriatic acid solution can be used as an alternative. Wash acid and loose mortar off with high pressure water until slush is removed. Test with litmus paper to be sure acid is removed entirely. Final rinse with 1% ammonia solution is beneficial for final rinsing after acid.

Grinding is not recommended because it makes the surface smooth, which is opposite to the surface profile we are trying to achieve.

If compressed air is used on the surface, it must be fitted with an oil trap to produce oil free air. Never use sweeping compounds prior to application of products to a floor. They contain oils and waxes, which will contaminate the surface.

Chipping tools often leave particles that have been broken or fractured but not dislodged. These should be removed by high-pressure water or sandblasting.

ACI 503 contains information about a test procedure to determine if the surface is properly prepared. It is recommended to use that procedure to determine if you are down to solid concrete.

Oil and grease soaked surfaces make for very poor adhesion. Even if degreasers and cleaners are used, they usually only remove the surface oil, at best. Subsurface oil will work its way to the top, in time and destroy the bond of the subsequently applied material. Never apply a topping or mortar over a joint.

Products brought to a feather-edge are inherently weaker than if they are done properly. In addition, some products cannot be brought to a featheredge. For this reason, we recommend that the concrete should be cut around the perimeter of the repair area with a concrete saw to provide a straight vertical butt joint of at least 1/4-1/2" deep at the edges.



PRODUCT INFORMATION

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Duracrete II VOFT

Description

Duracrete II VOFT is a single-component, rapid setting, vertical/overhead, cement based repair mortar for concrete. It consists of portland cement, lightweight aggregates, air entraining admixture, corrosion inhibitors and proprietary modifiers. When mixed with water, Duracrete II VOFT forms an extremely workable quick setting mortar that possesses high strengths with excellent adhesion and low permeability against carbon dioxide and chloride intrusion. The coefficient of thermal expansion is similar to concrete. The unique feature of Duracrete II VOFT is the tremendous resistance to freezethaw cycling and deicing chemicals such as calcium chloride and rock salt, which translates to a more permanent repair of concrete. Additionally, while Duracrete II VOFT is rapid setting, it also is user-friendly due to a working time of about 25 minutes, making it easy to mix and apply the entire unit before it takes an initial set.

Uses

Duracrete II VOFT is recommended for vertical and overhead concrete repairs of both interior and exterior surfaces, however it may also be used in horizontal applications if desired. Use for patching scaled and spalled concrete as well as resurfacing damaged and honeycombed surfaces. It is ideal for use on parking structures, bridges, retaining walls, ceilings, sloped surfaces, or anywhere concrete surfaces need repair, and especially areas that will be exposed to deicing chemicals. Use from 1/4" to 2" thick overhead and from 1/4" to 3-4" thick on vertical surfaces. Duracrete II VOFT may also be layered for deeper repairs.

Packaging /Yield

50 lb. bag, yielding .45 ft³ 50 lb. pail, yielding .45 ft³

Specification

ASTM C-928, Rapid Hardening (R2) *

Directions

Surface Preparation

The concrete substrate must be structurally sound, as well as clean and free of all contaminants and deleterious materials, such as grease, oil, form release agent, curing compounds, laitance, etc. The surface must be prepared to a minimum of a Concrete Surface Profile (CSP) of five, as per ICRI Guideline Number 03732. All oxidation must be removed from any exposed reinforcing steel.

Additionally, once prepared properly, the concrete surface must be saturated surface dry (SSD), unless using an epoxy bonding agent. For proper priming of the steel, use SurePoxy HM, SurePoxy HM Class B, or SurePoxy HMEPL.

Physical Properties - @ 75°F		
Vicat Set Times (ASTM C-191/AASHTO T-131) Initial, 25 mm 20-30 mins. Final, 25 mm 40-50 mins.		
Compressive Strength (ASTM C-109)	3 Hours 1 Day 7 Days 28 Days	2,500 3,500 6,500 8,500
Slant Shear Bond Stren (ASTM C-882)	gth 1 Day 7 Days	1,500 2,400
Bond Strength by Direct	Tension 28 Days	400
Tensile Strength (ASTM C-496)	28 Days	600
Flexural Strength (ASTM C-348)	1 Day 7 Days 28 Days	500 1,200 1,400
Length Change-Wet (ASTM C-157) Length Change-Dry (ASTM C-157)	+0.03 @ 14 Days +0.03 @ 28 Days -0.04 @ 14 Days -0.05 @ 28 Days	
Scaling Resistance (ASTM C-672, 50 cycles)		.68 lbs./ft²
Chloride Ion Permeabilit (ASTM C-1202, 360 minutes)	ty	Low
Freeze-Thaw Resistance Relative Dynamic Modulus (ASTM C-666, Procedure A)		96.5%
Modulus of Elasticity at 28 Days 3.2 x 10 ⁶		

Mixing

Pour approximately 2.65 quarts of clean water into a mixing container and then slowly add the dry powder. Mix mechanically with a ½" drill and mixing paddle for single bag mixes, or a mortar mixer for 3-5 minutes or until uniform. Do not ever add plasticizers, accelerators, retarders, or any other ingredients besides potable water, unless advised in writing by Kaufman Products.



PRODUCT INFORMATION **KAUFMAN PRODUCTS** INC.

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Application

Duracrete II VOFT must be scrubbed into the substrate, filling all pores and voids, to achieve the proper bond. Force material against edge of repair, working toward center, making certain to compact the material well especially around any exposed reinforcing bars. After filling repair, consolidate, then screed. Material may be applied in multiple lifts or at least ¼." When using multiple lifts in either vertical or overhead applications, be sure to score the top surface of each lift to produce a roughened surface for the next lift. Allow preceding lift to reach final set before placing fresh material. Each lift should be roughened and re-primed with a slurry coat. For structural bond strength, use SurePoxy HM, HM Class B, SurePoxy HM 24, SurePoxy HMEPL.

The temperature of the mix as well as the ambient temperatures of the area to be repaired will affect the working and set times of Duracrete II VOFT. If using when temperatures are greater than 85° F, we recommend the use of chilled water, and cooling the bags in an enclosed environment. During cold weather, (below 40°F) heat the area to be patched until warm to the touch. Also heat Duracrete II VOFT and use at least 80°F water or tent the area to retain heat during the initial set. Curing blankets may also help.

Curina

As per ACI recommendations for portland cement concrete, curing is beneficial. Duracrete II VOFT should be either moist cured with wet burlap, polyethylene, a fine mist of water, or a water-based compatible curing compound such as Krystal 15 Emulsion, Krystal 25 Emulsion, Krystal 30 Emulsion, or a Thinfilm Series product.

Do not apply subsequent lifts to a surface to which curing compound was applied. Protect freshly placed Duracrete II VOFT from the effects of sunlight, wind, rain, sleet, and snow.

Notes

Duracrete II VOFT meets all aspects of ASTM C-928, Rapid Hardening (R2) when used at 70 ±15 degrees Fahrenheit. However, Duracrete II VOFT is acceptable for use from 45 degrees Fahrenheit and rising.

Shelf Life

12 months from manufacture date, when stored unopened under recommended conditions. Store between 40 and 85°F and at low humidity. Keep containers tightly closed.

Precautions

Not recommended for use less than 1/4" thick. Do not feather-edge. Temperatures during application should be at least 45°F. Substrate should be damp during application. Read complete Safety Data Sheet and Concrete Substrate Preparation data sheet before using.

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions. curing conditions, application methods, and equipment.

Duracrete II VOFT





Duracrete II VOFT is a polymer modified, silica fume enhanced, single component, non-sagging concrete repair mortar for use on vertical and overhead surfaces from 1/8" up to 3" in a single lift. The FT Series of products from Kaufman represents the most sophisticated chemistry available to prevent damage to the repair mortar brought on by freeze-thaw cycling and exposure to deicing salts. Formulated specifically for long-lasting repairs, the unique chemistry in Duracrete II VOFT blocks water and contaminants from entering the pores. Easy to mix and apply, Duracrete II VOFT is the professional choice for applications where downtime must be kept to a minimum, such as bridge repairs, parking garage repairs, and industrial maintenance. Duracrete II VOFT not only meets ASTM C-928, but due to testing through AASHTO's NTPEP program it is now DOT approved throughout the United States for the most demanding infrastructure applications.

ADVANTAGES

- ⊘ Easy mixing Just Add Water

- ⊘ Meets ASTM C-928
- \odot High Compressive Strength

- ⊘ 1/8" Up To 3" in a Single Lift
- ⊗ Silica Fume Enhanced
- Produces a Smooth, Durable, and Attractive Finish
- ⊘ Creamy Mix Makes Placement Easy

PACKAGING

- ⊗ 50 lb. bags (.45 ft3)

USES

- Vertical and Overhead Repairs

- ⊗ Bridge Repairs
- **⊘** Sloped Surfaces

- ⊗ Balcony Repairs
- ⊗ Building Facades
- ⊘ Industrial Plants
- ⊘ Interior & Exterior

COMPLIANCES

⊗ ASTM C-928 (R2)

TEST METHODS	TEST RESULTS
Initial Set Time (ASTM C-191)	22-28 Minutes
Final Set Time (ASTM C-191)	40-50 Minutes
Bond Strength (ASTM C-882) 1 Day 7 Day	1,500 psi. 2,400 psi.
Compressive Strength (ASTM C-109) 2 Hours 1 Day 7 Days 28 Days	2,500 psi. 3,000 psi. 6,000 psi. 8,500 psi.
Length Change-Wet (ASTM C-157)	+0.05 @ 28 Days
Length Change-Dry (ASTM C-157)	-0.08 @ 28 Days
Freeze-Thaw Cycling (ASTM C-666, Procedure A)	96.5% @ 300 Cycles



PRODUCT INFORMATION

KAUFMAN PRODUCTS INC. 3811 CURTIS AVENUE BALTIMORE, MARYLAND 21226-1131 410-354-8600 800-637-6372

2,250 psi.

www.kaufmanproducts.net

SurePoxy HiBild

Description

SurePoxy HiBild is a two component, selfpriming, 100% solids, flexibilized epoxy coating. utilizing the inherent advantages of tough epoxy resins, cross-linked with aliphatic adducted hardeners. When combined, they form an integrally hardened protective coating, resistant to mild abrasion and chemicals. The special hardeners provide excellent adhesion to either dry or damp surfaces and make the coating completely insensitive to moisture after cure. HiBild is unique in that it does not blush or form other surface imperfections during cure. Only the highest quality, inert, alkali and light resistant pigments are used. If desired SurePoxy Mortar Aggregate may be integrally added for increased yield or broadcast on the surface for non-slip purposes.

Uses

SurePoxy HiBild provides a stress-relieved coating for concrete, masonry, and steel surfaces. It provides a high build chemical, abrasion, and water resistant, tile-like coating. The glossy finish resists industrial detergents and graffiti and is suitable for use both indoors or outdoors as a high build protective and water-proofing coating. Excellent for coating rebar before patching, to protect the steel from corrosion that might get into concrete. SurePoxy HiBild is resistant to salt and their ions.

Typical Properties - 75°F and 50% Relative Humidity

NVM	100%	
Mixing Ratio	1:1 by volume	
Viscosity (AST M D-1084)	13,000-14,000 cps.	
Shelf Life	1 year min.	
Pot Life	45-55 min.	
Tack Free	4-5 hours	
Initial Cure	8 hours	
Final Cure	7 days	
Dry Film Thickness	-	
(ASTM D-1005)	1 st Coat 8 mils	
Pot Life Tack Free Initial Cure Final Cure Dry Film Thickness	45-55 min. 4-5 hours 8 hours 7 days	

2nd Coat 8 mils

Ultimate Physical Characteristics

Sagging (ASTM D-4400) 10 mils
Flexibility (Fed. Spec. TT-P-115) No Cracking
Observed & No
Delamination

Tensile Strength @ 7 Days

(MSMT 609)

Chemical Resistance - immersion

Reagent	Exposure	Results
Acetic Acid 5%	1 month	SS
Acetic Acid 10%	1 month	S
Acetic Acid 50%	1 month	failed
Butyl Alcohol	1 month	S
Calcium Chloride 78%	1 month	U
Carbon Tetrachloride	1 month	S
Citric Acid 10%	1 month	U
Cotton Seed Oil	1 month	U
Detergent Solution	1 month	U
Ethyl Acetate	1 month	U
Ethylene Glycol	1 month	SS
Gasoline	1 month	S
Hydrochloric Acid 10%	1 day	S
Hydrogen Peroxide, 20%	6 1 month	S
Lard	1 month	U
Jet Fuel JP-4	1 month	S
Lactic Acid 3%	1 month	U
Lactic Acid 10%	1 month	S
Lactic Acid 50%	1 week	failed
Methyl Ethyl Ketone	1 month	failed
Methanol month	1 month	failed
MIBK	1 month	failed
Mineral Oil	1 day	failed
Phosphoric Acid 85%	1 month	S
Motor Oil	1 month	U
Sea Water	1 month	U
Sodium Hydroxide	1 month	U
Sulfuric Acid 20%	2 months	failed
Toluene	1 month	S
Water	1 month	U

Codes: S Satisfactory
SS Slightly Softened
U Unaffected

Satisfactory to spillage, but not to continuous immersion

VOC Content

0 grams/liter

Packaging

2 gallon unit 10 gallon unit 100 gallon unit

Colors

Light Gray (741) Medium Gray (742) Dark Gray (745) Red (744) Orange (743) Special colors available upon request

Directions

Surface Preparation

Satisfactory performance of SurePoxy HiBild is dependent upon the surface to which it will be applied. Only sound clean surfaces should be coated. All cracks, spalls, voids, pitting, and surface imperfections must be repaired prior to application. Concrete should be at least 28 days old (depending on curing and drying conditions) or substantially cured to the equivalent design strength prior to coating application. Remove oil, wax, curing compound, laitance, and other foreign matter prior to application to achieve adequate adhesion. The surface shall be uniformly roughened to a degree similar in appearance to coarse sandpaper -aggregate may show. Follow ICRI Guidelines to achieve a CSP of 2-4 prior to application. Steel -Sandblast to appropriate finish.

Expansion/control joints, joint sealants, floor drains and floor termination joints require special attention. SurePoxy HiBild will not usually adhere to sealant joints. Test first.

Stir each component and then combine into a clean container. Combining ratio is 1:1 by volume. Stir the mixture thoroughly with a paint mixer attached to a low speed (500 rpm.) drill for 2 minutes. Re-stir before using, after 5-8 minutes induction period.

Application

Apply with 3/8* - 7/16" nap roller, brush or spray Allow each coat to dry before applying the next coat, however, never wait more than 24 hours before recoating.

Coverage Rate

200 ft²/gallon 8 mils thick 400 ft²/gallon 4 mils thick

State specifications may require special coverage rates.

Note

To provide a non-slip surface, simply sprinkle an excess, approximately 1/3 lbs/ft² of SurePoxy Mortar Aggregate on the surface of the first coat while it is still wet. When it is dry, sweep off excess and apply second coat.

Precautions

For increased chemical and abrasion resistance, apply K Pro CRS on top of SurePoxy HiBild. This product is not designed to be submerged in chemicals for long periods, nor is it meant to be subjected to temperatures above 120°F. Avoid driving or parking rubber tire vehicles or using surface for storage until SurePoxy HiBild is thoroughly cured. SurePoxy HiBild forms a vapor barrier after cure. Do not apply to surfaces where vapor can condense under the coating. Store this product between 50-90°F. Condition the material to between 60-80° F, prior to use. Minimum substrate and air temperature for application is fifty degrees Fahrenheit. Concrete should be at least 28 days old (depending on curing and drying conditions) or substantially cured to the equivalent design strength prior to coating application. Due to ultraviolet light, all epoxy coatings will eventually develop a yellowish cast and lose some gloss in time. Read Safety Data Sheet before using. Please refer to the General Epoxy Instructions and Concrete Substrate Preparation technical reports for complete details on proper application.

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

SurePoxy HiBild





SurePoxy HiBild is a two-component, 100% solids, moisture-insensitive, flexibilized epoxy coating, utilizing the inherent advantages of tough epoxy resins, cross-linked with aliphatic adducted hardeners. When combined, they form an integrally hardened protective coating, resistant to mild abrasion and chemicals.

ADVANTAGES

- Packaged to Prevent Mixing Errors
- ⊘ Resistant to Hydrogen Sulfide Gas
- **⊘** USDA

- **⊗** LEED Credits

- ⊘ Chemically Resistant
- ⊗ Easy Mixing
- ⊗ Several Standard Colors Available

PACKAGING

- ∅ 10 gallon units

USES

- ⊗ Bridge Cap Coating

COMPLIANCES

- ⊘ City of Virginia Beach
- ⊘ Virginia EP 3T (Gray)

- ⊗ North Carolina Type 4B (Orange)
- ⊘ New Jersey 912.02.02 Epoxy

TEST METHODS	TEST RESULTS
Mix Ratio	2:1 by Volume
Pot Life	45-55 Minutes
Tack Free Time	4-5 Hours @ 72°F
Dry Film Thickness (ASTM D-1005)	1st Coat 8 mils 2nd Coat 8 mils
Sagging (ASTM D-4400)	10 mils
Flexibility (Fed Spec TT-P-115)	No Cracking Observed & No Delamination
Tensile Strength (ASTM D-638)	2,250 psi @ 7 Days



PRODUCT INFORMATION

KAUFMAN PRODUCTS INC. 3811 CURTIS AVENUE BALTIMORE 410-354 MARYLAND 800-6 21226-1131 www.kaufmanproducts.net

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GENERAL EPOXY INSTRUCTIONS FOR 100% SOLID SYSTEMS

Before attempting a job with a material of procedure that you are not familiar with, we recommend trying the product(s) and procedure in a small area to familiarize yourself with handling performance properties.

SURFACE PREPARATION

Correct surface preparation is the most critical part of any floor resurfacing, coating, bonded topping, or repair project. The desired adhesion to the substrate will not be obtained if the preparation does not leave the surface free of foreign matter, including curing compounds, and form release agents. Concrete surfaces must be clean and sound. The surface must be roughened to a proper degree. There should be a profile of at least 1/16" - 1/8" between the high and low points of the concrete prior to application of the epoxy resin system (coarse aggregates should show). We recommend strict adherence to International Concrete Repair Institute (ICRI) Guideline # 03732, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Ploymer Overlays (1997). This standard details the proper surface preparation and techniques for all types of concrete repair and coatings application.

All concrete has a layer of dense laitance at the surface, which will reduce the penetration and subsequent adhesion of sealers, adhesives, topping and membranes. Remove laitance and all foreign matter as per ASTM D-4258 and D-4259. Water blasting followed by shot blasting is the preferred method of preparation to provide a fractured aggregate profile. Sandblasting or shot blasting are also satisfactory, whether the used aggregate is captive or not.

Acid etching according to ASTM D-4260 with a 15-20% muriatic acid solution can be used as an alternate to the above. Wash acid and loose mortar off with high pressure water until the slush is removed. Test with litmus paper to be sure acid is removed entirely. Final rinse with a 1% solution of ammonia is beneficial to be sure any traces of the acid is neutralized.

Grinding is not recommended because it make the surface smooth, which is opposite to the surface profile we are trying to achieve.

If compressed air is used on the surface, it must be fitted with an oil trap to produce oil free air. Never use sweeping compounds prior to application of

products to a floor. They contain oils and waxes which will contaminate the surface. Chipping tools often leave particles that have been broken or fractured, but not dislodged. These particles should be removed by high pressure blasting.

The American Concrete Institute provides a wealth of information in 503R-93, *Use of Epoxy Compounds with Concrete*, specifically regarding non-destructive test methods for determining the suitability of the prepared concrete to receive the epoxy-resin sustem. This "Pipe-Cap" test is recommended in determining tif the concrete is solid and ready to receive the expox-resin system. Oil and grease soaked surfaces make for extremely poor adhesion. Even if degreasers and cleaners are used, they usually only remove the surface oil, at best. Subsurface oil will work its way to the top, in time and destroy the bond of the subsequently applied material. If a degreaser is utilized, please see the product data on K Pro CD, in the miscellaneous section of the catalog.

In addition, products brought to a featheredge are inherently weaker, than if they are done properly. Some products cannot be feather-edged at all. For this reason, we recommend that the concrete should be cut around the perimeter of the repair area with a concrete saw to provide a straight vertical butt joint of at least 1/4"-1/2" deep at the edges.

Concrete should be at least 28 days old or substantially cured to the equivalent design strength prior to application of epoxy products to avoid trapping water/moisture beneath it, and to mitigate any potential shrinkage cracks that might telegraph up through the epoxy coating or topping. If application is to occur prior to a full twenty-eight days of curing, plese call Kaufman Products directly to discuss your appliction. In many cases, such as precast and pre-stressed concrete, it is certainly fine, within a few days of stripping the concrete from the forms, to used epoxy compounds. For slabs on grade, it is imperative that the contractor makes sure that a vapor barrier is used and not punctured during the placement of the concrete. In addition, never apply a topping or mortar over a joint.

We also always recommend the use of a neat epoxy primer prior to application of epoxy mortars and go\routs. The mortar or grout musht be applied while the primer is tacky. If primer begins to dry, re-coat immediately with another coad of the primer.

TEMPERATURE

Specifications sheets for each product show the pot life, cure time, viscosity, etc. However, those specifications are given for a specific quantity of approximately 1 pint of neat material, and a specific temperature, 75°F for a

Class C and 50°F for a Class B material, as specified by the American Society of Testing Materials (ASTM) standard C-881, Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete. Our products comply with this specification and as such should only be used within the temperature range for which they are manufactured. If the epoxy system is used outside of the referenced temperatures, then the specifications in our literature may not be met.

If the product is used at the high end of the specification range, the pot life and cure time will be shortened. Likewise, if the temperature during application goes to the low end of the referenced temperature range, the pot life and cure time will be extended. Movements further away from the referenced temperature ranges will change these characteristics to a much greater extent.

The temperature for application of these materials is based on air and surface temperature of the substrate. If the temperature of the substrate is hot, it will accelerate the curing. Likewise, if the temperature is low, it will retard or stop the curing. We suggest heating or cooling the concrete and/or steel that will be in contact with the epoxy to bring it into the specification range.

QUANTITY

The batch size plays a large part in effecting performance. Large batch sizes will accelerate the set due to exothermic heat. Likewise small batches will take longer to set. This change in viscosity will dramatically change the handling characteristics of the product. Never mix large batches of epoxy liqud without adding enough of the appropriate aggregate to help dissipate the heat.

AGGREGATE

Selection of the proper aggregates for epoxy systems is both an art and science. We recommend SurePoxy Mortar Aggregate or K Pro HP Grout Aggregate for use in your mortar and grout systems. Use of common clay or masonry sands will not produce the results claimed in our literature.

In addition to being properly graded for the job intended, the aggregate must be properly washed and absolutely dry. The aggregate should be of a similar temperature as the epoxy system in which they will be mixed. The addition of aggregate to the epoxy-resin system will extend the pot life. Increasing amounts of aggregate will extend the pot life, increasingly. The aggregate may also be heated, during wintertime, to help with the epoxy set time. In short, the pot life and cure time of all epoxy systems are depependent on the temperature, aggregate added, and quantity used.

THINNING

These products are sold as high or 100% solids. Thinning is not normally recommended. however, some applictions may require its' use for unusual reasons. In those cases, we recommend the use of SurePoxy Thinner or MEK.

VERTICAL/OVERHEAD LOADS

When used as a vertical/overhead anchoring adhesive that will carry a sustained tension load, this product is intended only for short-term use. This product is manufactured to meet all aspects of ASTM C-881 which includes no performance standards with regard to creep and/or deformation. It is the responsibility of the engineer and/or contractor to determine the suitability of this product for the intended use.

STORAGE

Never store epoxy materials below 50° F. If they are stored in a very cold place, each component could separate and coagulate. Any product stored below this temperature should be brought to at least 90° F for several days, and then stirred well before use as this will ensure that the original characteristics are still accurate. Storage in air-conditioned or heated trailers, cold or hot water baths are recommended.

COLOR

All hardened epoxy products will change color after exposure to ultraviolet rays from sunlight. Some products may take longer than others, but they all will change. This color change usually gives the product a yellow or greenish cast. Even products used inside buildings will be affected by this color change, due to daylight coming inside.

NOTE

Material is a vapor barrier after cure. Do not apply over existing expansion joints or moving cracks. Some pigmented coating requires an induction period with restirring after 10 minutes. Check on their individual instructions. Read the complete Ssafety Data Sheet and Product Data Sheet prior to use. The NTSB has stated that epoxy products are suitable for short term loads only. Our product line should never be used in sustained tensile load adhesive anchoring applications where adhesive failure could result in a public safety risk. Consult a design professional prior to use.



PRODUCT INFORMATION **KAUFMAN PRODUCTS** AVENUE

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SurePoxy НМ

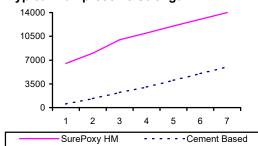
Description

SurePoxy HM is a 100% solids, two-component, and moisture-insensitive, epoxy resin system. It is an all purpose, very high strength rigid adhesive designed for structural bonding of dry and damp materials free of standing water. SurePoxy HM may be used with concrete, metals such as steel, wood, and other substrates.

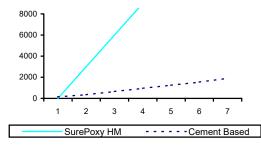
Uses

SurePoxy HM is especially suited for bonding of fresh plastic concrete to hardened concrete and steel. When mixed with SurePoxy Aggregate, it will produce a high strength grout to level base plates, or use as setting bed for precast concrete, granite or marble. When used neat, it is an excellent adhesive for grouting anchor bolts, pins, dowels, etc. SurePoxy HM can also be used to grout horizontal cracks in concrete and wood by gravity feed.

Typical Compressive Strength



Typical Tensile Strength



Physical Properties @ 75°F and 50% relative humidity

Uncured

Mixing Ratio 2:1 by volume A-straw, B-amber Color Mixed-amber Initial Viscosity 3000-3500 cps. (ASTM D-1084) (similar to heavy oil) Shelf Life 1 year

minimum

30-40 minutes Pot Life, neat 1 pint 1 gallon 18-20 minutes Tack-free (thin film)* 3.5 hours Final Cure 3 days *When applied promptly after mixing.

Cured

130°F **HDT**

(ASTM D-648)

Bond Strength 4,700 psi. @ 2 days 3,100 psi. @ 14 days (ASTM C-882) R۸

Shore D Hardness

(ASTM D-2240)

Compressive Strength 6,500 psi. @ 1 day 10,000 psi. @3 days 3:1 Mortar (ASTM D-695) 14,000 psi. @ 7 days 13,000 psi. @

Compressive Yield

7 days

(ASTM D-685) Compressive Modulus

400,000 psi. @ 7 days

(ASTM D-685)

7,800 psi. @ 7 days Tensile Strength & elongation 1.97% @ 7 days

(ASTM D-638)

Flexural Strength 15,000 psi. @ 7 days

(ASTM D-790)

Shrinkage, ASTM D-883 .002 0.07%

Water Absorption

(ASTM D-570)

All values approximate - will vary with temperature and humidity.

Specifications

ASTM C-881, Types I, II, IV & V, Grade 2, Class C AASHTO M-235, Types I, II, IV & V, Grade 2, Class C Virginia DOT, EP-4 USDA OK

Packaging

16.5 oz. cartridge 3 gallon unit 15 gallon unit

Storage Conditions

Store dry at 40-95°F. Condition material to 65-85°F before using. If used in temperatures below 60°F, both SurePoxy HM and the substrate must be pre-conditioned to a minimum of 60°F, and kept at that temperature until final cure.

Directions

Surface Preparation

Concrete - Satisfactory performance of SurePoxy HM is dependent upon the surface to which it will be applied. Only sound clean surfaces should be coated and concrete should be a minimum of 28 days old. Remove oil, wax, curing compound, laitance, and other foreign matter as per ASTM D-4258 and D-4259. Water-blasting followed by shotblasting is the preferred method of preparation. Also satisfactory are sandblasting or shot-blasting individually. Acid etching according to ASTM D-4260 with Kaufman Products Concrete Floor Etch or 15-20% solution of muriatic acid can be used as an alternative. Be sure to rinse thoroughly with clear water to remove all residue. The surface shall be uniformly roughened to a degree similar in appearance to Concrete Surface Profile (CSP) #5 or #6 textures as specified by ICRI, International Concrete Repair Institute.

Expansion/Control joints, joint sealants, floor drains and floor termination joints require special attention, and will not usually adhere to sealant joints. Test prior to use.

Proportioning/Mixing

The volumetric ratio of SurePoxy HM is 2:1 (A:B). To mix, proportion 2 parts A and 1 part B into a clean pail thoroughly for 3 minutes, with paddle or low-speed (400 to 600 rpm) drill until blend is uniform color.

Application

Bond fresh concrete to hardened concrete -Apply with brush or roller to substrate containing less 4% moisture. One gallon neat SurePoxy HM applied to prepared surface covers approximately 80 ft².

Place concrete while SurePoxy HM is still wet and sticky. If SurePoxy HM loses its tackiness, apply a fresh coat and proceed.

Anchor bolts, dowels, and pins in vertical holes on horizontal slabs- pour neat SurePoxy HM into dry or damp hole. Partially fill hole, then insert dry bolt. Work bolt up and down to compact grout. Secure bolt with template. With bolt in position, fill remainder of hole.

For embedment of bolts in overhead and vertical surfaces, use SurePoxy HM Gel or SurePoxy 117.

Grouting base plates - Add up to 2 parts by volume SurePoxy Aggregate to 1 part neat SurePoxy HM to produce a grout. Place grout under base plate in 1 1/2" lifts up to 1/4-3/8" below the underside of the plate. The remaining space should be filled with neat SurePoxy HM. Use sufficient neat SurePoxy HM to allow the level to rise slightly higher then the underside of the bearing plate.

Gravity feed cracks - Pour neat material into Vnotched crack. Fill completely. The underside of the crack should be sealed prior to filling.

Precautions

Do not thin SurePoxy HM. The contractor shall use the test method prescribed in ACI 503R to determine that the preparation produced a surface capable of providing tensile bond strength greater than 250 psi. Read Safety Data Sheet before using. SurePoxy HM forms a vapor barrier after cure. Please read General Epoxy Instructions for 100% Solid Systems for more complete information. Please refer to the General Epoxy Instructions for complete details on proper application during cold and hot weather.

The NTSB has stated that epoxy adhesive products are approved for short term loads only and should not be used in sustained tensile load adhesive anchoring applications where adhesive failure could result in a public safety risk. Consult a design professional prior to use.

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

SurePoxy HM





SurePoxy HM is a 100% solids, medium viscosity epoxy bonding agent that meets all aspects of ASTM C-881, Types I, II, IV, and V, Grade 2, and Class C. SurePoxy HM is ideal for bonding new concrete or repair mortars to old concrete.

ADVANTAGES

- Packaged to prevent mixing errors

- **⊗** Easy Mixing
- **⊘** USDA
- **⊘** US Army Corps of Engineers
- **⊘** LEED Credits
- ⊘ 100% Solids
- **⊘** Chemically Resistant

PACKAGING

- ⊘ ¾ gallon units
- *⊗* 3-gallon units

USES

- ⊗ Bonding Aged Concrete to New Concrete
- ⊗ Bonding Repair Mortars to Old Concrete
- ⊗ Bonding Aged Concrete to Aged Concrete

COMPLIANCES

- ⊘ ASTM C-881, Types I, II, IV, and V, Grade 2, Class C
- ⊗ AASHTO M-235, Types I, II, IV, and V, Grade 2, Class C

TEST METHODS	TEST RESULTS
Mix Ratio	2:1 by Volume
Pot Life	35-45 Minutes
Bond Strength (ASTM C-882) 2 Days 14 Days	4,700 psi. 3,100 psi
Compressive Strength (ASTM D-695) 1 Day 3 Days 7 Days	6,500 psi. 10,000 psi. 14,000 psi.
Tensile Strength (ASTM D-638) 7 Days	7,800 psi.



PRODUCT INFORMATION

KAUFMAN PRODUCTS INC. 3811 CURTIS AVENUE BALTIMORE, MARYLAND 21226-1131 410-354-8600 800-637-6372 www.kaufman products.net

SurePoxy LM GEL

Description

SurePoxy LM Gel is a 100% solids, low modulus, two component, moisture insensitive, multipurpose epoxy gel. SurePoxy LM Gel contains no oil extenders. The true benefit of SurePoxy LM Gel is that it may be placed in depths up to 2" in a single lift, which far and away surpasses the minimal ¼" non-sag requirement from ASTM. Additionally, SurePoxy LM Gel already has the aggregate extender added into the mixture, which saves time and expense on the jobsite.

Uses

SurePoxy LM Gel is primarily designed for vertical and overhead structural bonding, for bolt embedment, and sealing the ends of prestressed beams. Use wherever low modulus, non-sagging, gap filling adhesive is needed, such as bonding irregularly shaped structural materials, to seal cracks for injection grouting, as a pickproof sealant around windows, and bonding parking bumpers or barriers to concrete or asphalt.

Typical Properties - @ 75°F

Mixing Ratio 2:1 by volume Color A & B contrasting

colors Mixed- Gray

Viscosity Paste

Shelf Life 2 year minimum Pot life, neat 1 lb. 30-40 minutes

Final Cure 7 days

Ultimate Physical Characteristics

(After cure at 75°F and 50% relative humidity)

Compressive Yield Strength 4,200 psi. @ 1 day (ASTM D-695) 8,300 psi. @ 7 days Bond Strength 1,750 psi. @ 2 days (ASTM C-882, Moist Cure, Hardened 3,290 psi. @ 14 days

Concrete to Hardened Concrete)

Bond Strength 3,780 psi. @ 14 days (ASTM C-882, Freshly Mixed Concrete to Hardened Concrete)
Compressive Modulus 290,000 psi. @ 7 days

(ASTM D-695)

Tensile Strength 5,200 psi. @ 7 days & Elongation (ASTM D-638) 5-15% psi. @ 7 days

Shrinkage (ASTM D-2566) .004 in/in Absorption (ASTM D-570) .1% Heat Deflection .123°F

Temperature (ASTM D-648)

All values approximate - will vary with temperature and humidity.

Specifications

ASTM C-881 Types I and II, Grade 3, Class C AASHTO M-235, Types I and II, Grade 3, Class C Virginia Department of Transportation, EP-6 North Carolina Dept. of Transportation, List #1 USDA Approved

VOC

0 grams/Liter

Packaging

3 gallon unit 15 gallon unit

Storage Conditions

Store dry at 45-95°F. Condition material to 65-85°F before using.

Directions

Surface Preparation Concrete - Surface must be clean and sound. It may be dry or damp but free of standing water. Remove oil, wax, curing compound, laitance, and other foreign matter as per ASTM D-4258 and D-4259. Waterblasting followed by shotblasting is the preferred method of preparation to provide a fractured aggregate profile. Also satisfactory are sandblasting or shotblasting individually. Acid etching according to ASTM D-4260 with 15-20% muriatic acid solution can be used as an alternative, Wash acid and loose mortar off with high-pressure water until slush is removed. Test with litmus paper to be sure acid is removed. Final rinse with 1 % ammonia solution is beneficial. Steel - Sandblast to appropriate finish. Achieving a Concrete Surface Profile (CSP) of 4-6, as per International Concrete Repair Institute (ICRI) guidelines is ideal.

Proportioning/Mixing

The volumetric ratio of SurePoxy LM Gel is 2:1 (A:B). To mix, proportion 2 parts A and 1 part B into a clean pail. Mix thoroughly for 5 minutes with paddle on low speed (400-600 rpm) drill until blend is a uniform color. Normally use as supplied.

Place the prepared mortar in void, working the material into the prepared substrate, filling the cavity. Strike off level. Do not exceed lifts of 2 inches.

SurePoxy LM Gel



SurePoxy LM Gel is a 100% solids, low modulus, epoxy gel resin system that meets ASTM C-881, Types I and II, Grade 3, and Class C. SurePoxy LM Gel is ideal for bonding new concrete (or repair mortars) to old concrete or to adhere old concrete to existing concrete. SurePoxy LM Gel may be applied 2" deep in a single lift, which greatly speeds up the application process. This advantage gives SurePoxy LM Gel the decided edge against the competition.

ADVANTAGES

- ⊘ Meets ASTM C-881, Types I and II, Grade 3, Class C
- ⊗ Single Application Up To 2" Thick
- ⊘ Zero VOCs

- State Approved
- ⊘ USDA
- ⊘ 100% Solids

- ⊘ Solvent Free

PACKAGING

USES

- ⊘ Injection Port Setting Material

COMPLIANCES

- **⊘** DOT Approved
- NC DOT Type 1

TEST METHODS	TEST RESULTS
Mix Ratio	2:1 by Volume
Color	Gray
Bond Strength (ASIM C-882) 2 Days Moist Cure 14 Days Air Cured	1,750 psi. 3,290 psi.
Compressive Strength (ASTM D-695) 1 Day 7 Days	4,200psi. 8,300 psi.
Tensile Strength (ASTM D-638) 7 Days	5,200 psi.
Tensile Elongation (ASTM D-638)	10%

EXHIBIT 2, MINIMUM QUALIFICATIONS ITQ NUMBER 24-R084907RB

Bidders must submit the information and documentation requested that confirms Bidder meets the following minimum qualification requirement(s):

1. Must be registered with the State of Florida, Division of Corporations to do business in Florida.

No documentation is required. The County will verify registration.

2. Bidder must possess a current, valid General Contractors License issued by the Florida Department of Business and Professional Regulation.

Provide a copy of Bidder's General Contractors License issued by the Florida Department of Business and Professional Regulation.

3. The Bidder has provided boat ramp repairs for at least Three (3) client references since June 1, 2019, each of which included the following components: boat ramp construction, dock construction, and seawall repair with an epoxy product. References are required to respond to an email inquiry from the County.

Provide the following information for the Three (3) qualifying client references.

- a) Name of client
- b) Location (City/State)
- c) Client contact name
- d) Contact phone
- e) Contact email
- f) Service dates (Start/End)
- g) Components
- 4. Bidder has not been convicted of a public entity crime per Section 287.133, Florida Statutes or environmental law in the past five years.

Bidder must complete Attachment C and submit with its Quote attesting that it has not been convicted of a public entity crime or environmental law in the past five years. The County will verify.

5. Bidder is not on the Federal Convicted Vendor or Excluded Parties list (SAM/EPLS).

No documentation is required. The County will verify.

6. Bidder is not on the Florida Department of Management Services Suspended, Debarred, Convicted Vendor List.

No documentation is required. The County will verify.

7. If Bidder is submitting as a joint venture must file the required documents with the Florida Department of Business and Professional Regulation as required by Florida Statute Section 489.119, prior to the Due Date and Time.

If Bidder is a joint venture, provide a copy of Bidder's approved filing with the Florida Department of Business and Professional Regulation.

8. Bidder has no reported conflict of interests in relation to this ITQ.

If no conflicts of interests are present, Bidder must select below: () No

If there is a potential conflict of interest, on a separate page submit a statement to that affect and disclose the name of any officer, director or agent who is an employee of the County. Disclose the name of any County employee who owns, directly or indirectly, any interest in Bidder's firm or any of its branches.

END EXHIBIT 2

EXHIBIT 3, ARMY CORP OF ENGINEERS PERMIT LETTER

NOTE - This attachment is uploaded as a separate documents on the Procurement page of the County website with the solicitation document and available for download.

EXHIBIT 4, ARMY CORP OF ENGINEERS REVERIFICATION PERMIT LETTER



DEPARTMENT OF THE ARMY

CORPS OF ENGINEERS, JACKSONVILLE DISTRICT 701 SAN MARCO BOULEVARD JACKSONVILLE, FLORIDA 32207-8175

29 August 2022

Regulatory Division
West Branch
Tampa Permits Section
SAJ-2021-02516 (NW-JLC)

Charlie Hunsicker, Director Manatee County Parks and Natural Resources 5502 33rd Ave Drive West Bradenton, FL 34209 charlie.hunsicker@mymanatee.org

Dear Mr. Hunsicker:

You requested re-verification of a project that we previously verified on 17 November 2021. Our file number is SAJ-2021-02516. Your request for re-verification is for the aspect of the project involving the discharge of 19 cubic yards of fill material over 0.025 acre of canal bottom and the regrade of 12 cubic yards of sediment over 0.007 acre of canal bottom for the repair and reconfiguration of a boat ramp. The project will affect estuarine waters in a canal tributary to the Manatee River at the Highland Shores Boat Ramp facility, in Section 18, Township 34 South, Range 18 East, Ellenton, Manatee County, Florida. You stated in your request dated 16 March 2022 that there are no changes to the project.

Your project is authorized by Nationwide Permit (NWP) Number 36. This verification is valid until March 14, 2026. Some of the terms, conditions and regional conditions may have changed because our previous verification was based on the 2017 Federal Register and Regional Conditions. This letter is based on the project being performed in accordance with: the drawings attached to our previous letter; the terms and conditions found on pages 2867 to 2877, inclusive, of the January 13, 2021 Federal Register (86 FR 2744); the Regional Conditions dated February 25, 2022; and the entirety of our previous letter, including the general conditions, special conditions, and attachments (except for the expiration date and the references to the 2017 Federal Register and Regional Conditions).

If you are unable to access the internet or require a hardcopy of any of the above-referenced documents, please contact me by telephone at 813-769-7073.

Sincerely,

Adelyn Irlanda Project Manager

addyn M. Erlande

Cc:

Grady Timmins, P.E., Coastal Engineering Consultants, gtimmins@cecifl.com

EXHIBIT 5, CONSTRUCTION PLANS

NOTE - This attachment is uploaded as a separate documents on the Procurement page of the County website with the solicitation document and available for download.

EXHIBIT 6, SPECIAL PROVISIONS

HIGHLAND SHORES BOAT RAMP REPAIR SPECIAL PROVISIONS May 24, 2024

SP-1.0 TIME OF COMPLETION

The COUNTY is flexible with the on-site commencement date. The date of Notice to Proceed shall be mutually agreed upon by the CONTRACTOR and COUNTY. The CONTRACTOR shall be onsite and commence WORK within 90 calendar days after the issuance by the COUNTY of a written Notice to Proceed. Upon commencement, WORK shall be substantially complete within 75 consecutive calendar days and fully complete within 90 consecutive calendar days. The CONTRACTOR shall report anticipated ramp closure date to the COUNTY 14 days prior to expected closure. The maximum number of days the Highland Shores Boat Ramp may be closed is 28 consecutive calendar days.

SP-2.0 LAYOUT OF WORK

The CONTRACTOR shall be responsible for all survey, layout, and measurements that may be required for the execution of the WORK to the location and limit marks prescribed in the specifications or on the CONTRACT Plans, subject to such modifications as the COUNTY or ENGINEER may require to meet changed conditions or as a result of necessary modifications to the CONTRACT WORK. The COUNTY or ENGINEER may require that WORK be suspended at any time when the location and limit marks established by the CONTRACTOR are not reasonably adequate to permit checking of the WORK.

SP-3.0 VARIATIONS IN ESTIMATED QUANTITIES

Where the quantity of a pay item in this CONTRACT is an estimated quantity, and where the actual quantity of material placed by CONTRACTOR varies by more than twenty-five percent (25%) for each separate Bid Item, whether due to site conditions in the WORK area as determined by a preconstruction survey, or at the discretion of COUNTY, as set forth in the CONTRACT Documents, an equitable adjustment in the CONTRACT unit price may be made upon demand of either party. The equitable adjustment will be applied based upon increase or decrease in costs due solely to the variations above one hundred twenty-five percent (125%) or below seventy-five percent (75%) of the estimated quantity individually for each segment of WORK.

SP-4.0 CONTRACTOR'S RESPONSIBILITY AND DAILY REPORTS

The CONTRACTOR's resident superintendent, in addition to his responsibilities as set forth in the General Provisions, shall provide to the COUNTY, on a daily basis, "Daily Construction" Reports. These reports shall be completed and submitted to the COUNTY by 1:00 p.m. on the day after the WORK covered by the report.

In the event that the environmental monitoring reveals a violation of standards set forth in the Permit conditions and CONTRACT Documents, the CONTRACTOR shall describe the violation in SP-1

the daily report in the usual manner and notify the COUNTY immediately upon detection of the violation.

The CONTRACTOR has the sole responsibility for quality control and shall provide and maintain such an effective program. The CONTRACTOR shall have qualified personnel to provide and maintain control for continual dredging operations. The CONTRACTOR shall be solely responsible for providing survey equipment for layout of the WORK. The CONTRACTOR shall establish and implement a quality control program to inspect and test the CONTRACTOR's and any Subcontractor's equipment used in completing the WORK.

The CONTRACTOR shall attend monthly construction meetings with the COUNTY and ENGINEER to be held at the WORK area.

The CONTRACTOR shall furnish to the COUNTY within five (5) calendar days after receiving the "Notice to Proceed" a quality control plan outlining the procedures, instructions and reports that will be used. This document shall include, at a minimum, the following:

No WORK shall commence until the CONTRACTOR's quality control program is approved by the COUNTY. If, during the WORK process the quality control system is deemed by the COUNTY to be inadequate, the COUNTY may require corrective actions to rectify said deficiencies. The CONTRACTOR's quality control program shall be part of control supervision as field overhead costs and shall not be allowed to be submitted for separate payment.

The COUNTY may have a representative on site at different times to observe operations of CONTRACTOR. The presence of the COUNTY or a designated representative shall not relieve the CONTRACTOR of responsibility for the proper execution of the WORK in accordance with the specifications and permits applicable to the WORK.

SP-5.0 HEALTH AND SAFETY PLAN

The CONTRACTOR shall develop and maintain a written Health and Safety Plan which allows the WORK to be performed in compliance with all applicable laws, ordinances, rules, and regulations of any government agency having jurisdiction over the safety of personnel or property. This includes maintaining compliance with the Code of Federal Regulations, Title 29, Occupational Safety and Health Administration, all applicable Health and Safety Provisions of the State of Florida, and all applicable Health and Safety Provisions of EM 385-1-1 (2003) U.S. Army Corps of Engineers Safety and Health Requirements Manual.

The CONTRACTOR shall conduct a daily inspection program to assure that the requirements of the Health and Safety Plan are being fulfilled. Inspections shall include the nature of deficiencies observed, corrective action taken or to be taken, location of inspection, date, and signature of the person responsible for its contents. The results of the inspections shall be recorded in Daily Reports and kept at the WORK Area at all times. The COUNTY and ENGINEER are not responsible for the adequacy of the CONTRACTOR's Health and Safety Plan.

SP-6.0 ACCESS TO THE WORK

The CONTRACTOR shall provide access for the COUNTY and their representatives access to the WORK including but not limited to floating equipment for the purpose of observing construction activities and environmental monitoring tests. The CONTRACTOR shall furnish the use of their Plant and Equipment including but not limited to such boats, boatmen, laborers, and material forming a part of the ordinary equipment and crew as may be reasonably necessary in observing the WORK. Should the CONTRACTOR refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the COUNTY, and the cost thereof will be deducted from any amounts due or to become due the CONTRACTOR.

SP-7.0 PHYSICAL DATA

SP-7.1 Location

The Highland Shores Boat Ramp property is located at 353 Shore Drive, Ellenton, Florida along the Manatee River. The climate of the area is essentially subtropical. Temperatures below freezing are rare. The wet season in the project area is from May through October. The hurricane season is from June through November. Water levels in the project area are controlled by the locks to the east and west.

SP-7.2 Local Climatological Data

The following publications, which include information on waves, winds, and tides, are available from the named agencies.

- (a) <u>Gulf of Mexico Hindcast Wave Information, Wave Information Studies of U.S.</u> <u>Coastlines, WIS Report, Waterways Experiment Station, C.E.R.C. May 1989</u>. This report presents 20-year wave hindcast summaries at various stations located along the U.S. Gulf of Mexico shoreline. The report includes wave height, period, and direction tables for the 20-year period 1956-1975, summary wave and wind roses, summary tables of mean wave heights by month and year, largest wave heights by month and year, a statistical summary of wave data, and a table of extreme wave events.
- (b) East Coast of North and South America Tide Tables, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service. This publication provides daily tidal predictions at locations along the Atlantic and gulf coastlines of North and South America, including several locations on the Manatee County shoreline. It also provides mean and spring tide ranges and mean tide level. Some astronomical data such as time of sunrise, sunset, moonrise, and moonset is also included.
- (c) Hubertz, J.M., 1992: <u>User's Guide to the Wave Information Studies (WIS) Wave Model</u>, Version 2.0. WIS Report 27(AD A254 313), U.S. Army COUNTY Waterways Experiment Station, Vicksburg, MS.
- (d) Tracy, B. A. 2002: <u>Directional characteristics of the 1990-1999 Wave Information Studies Gulf of Mexico Hindcast</u>, Proceedings 7th International Workshop on Wave Hindcasting and Forecasting, SP-3

SP-8.0 OWNER AND ENGINEER'S APPROVAL OF WORK

By approving any payment, the COUNTY and ENGINEER shall not thereby be deemed to have represented that they made exhaustive or continuous on-site inspection to check the quality or the quantity of the WORK, or that they have reviewed the means, methods and techniques, sequences, and procedures of construction, or that they have made any examination to ascertain how or for what purpose the CONTRACTOR has used the money paid or to be paid to them on account of the Agreement price. The COUNTY and ENGINEER may have a representative on site at different times to observe operations of CONTRACTOR. The presence of the COUNTY and ENGINEER or its designated representative(s) shall not relieve the CONTRACTOR of responsibility for the proper execution of the WORK in accordance with the specifications or permits applicable to the WORK. In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of COUNTY shall be final and binding on all parties.

SP-9.0 HISTORIC AND ARCHEOLOGICAL RESOURCES

If, during the WORK, there are archeological/cultural materials unearthed (which shall include but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tool or metal implements, dugout canoes, arrow heads, or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the CONTRACTOR shall immediately stop all WORK in the vicinity and notify the State Archaeologist, USACE Regulatory Project Manager in Tampa, FDEP ERP Compliance Officer in Temple Terrace, and COUNTY to assess the significance of the discovery and devise appropriate actions, including salvage operations. If human remains are identified, they will be treated in accordance with Section 872, F.S. All WORK in the vicinity shall immediately cease, the CONTRACTOR shall notify the State Archaeologist, USACE Regulatory Project Manager in Tampa, FDEP ERP Compliance Officer in Temple Terrace, and COUNTY immediately and stop WORK until directed to restart. The WORK shall not resume without verbal and/or written authorization from the State Archaeologist or the USACE.

SP-10.0 SALVAGED EQUIPMENT AND MATERIALS

Salvaged materials, equipment or supplies are the property of the COUNTY, and shall be cleaned and stored as directed by the COUNTY. Should the COUNTY choose not to accept these materials, they shall be removed from the WORK Area as soon as practical by the CONTRACTOR. The CONTRACTOR shall dispose of surplus materials, which are not accepted by the COUNTY, in accordance with State and local laws in a legal manner at no additional cost to the COUNTY.

SP-11.0 PRIVATE PROPERTY

The CONTRACTOR shall not occupy private land outside of any easements or rights of way unless the CONTRACTOR obtains expressed consent by the property owner. In the event that the CONTRACTOR uses private property for any purpose without first having obtained the necessary

approvals from the property owner or provided the necessary agreement(s) to the COUNTY, the COUNTY will direct the CONTRACTOR in writing to immediately cease using such property. The COUNTY reserves the right to require that any agreement between the CONTRACTOR and the property owner for the use of private lands be furnished in writing.

At a minimum, the written agreement should contain the lot legal description and street address and the names, addresses, and telephone numbers for both the legal lot owner and the CONTRACTOR. The written agreement must also provide times for completion, erosion control measures, and how the CONTRACTOR will completely restore to the owner's satisfaction and how the owner will approve of the WORK. This written agreement shall be submitted to and approved by the COUNTY prior to construction.

The CONTRACTOR shall restore all damages to surface and underground facilities resulting from its construction operations to a condition equal to, or better than, the original condition. Prior to application for final payment, the CONTRACTOR shall provide documentation from the property owner of each piece of private property that was utilized by the CONTRACTOR, stating that each property owner is satisfied with the manner in which the CONTRACTOR has restored the property. Final payment or reduction in retainage shall not be paid until such documentation is received by the COUNTY.

SP-12.0 DIFFERING SITE CONDITIONS

The CONTRACTOR shall promptly, and before the conditions are disturbed, give written notice to the COUNTY and ENGINEER of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this CONTRACT, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in WORK of the character provided for in the CONTRACT.

The COUNTY and ENGINEER shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the CONTRACTOR's cost of, or the time required for, performing any part of the WORK under this CONTRACT, whether or not changed as a result of the conditions, an equitable adjustment of CONTRACT price or CONTRACT time or both may be made under this clause and the CONTRACT modified in writing accordingly. Under no circumstances, however, shall an adjustment in CONTRACT price be made for delay caused by materially differing or unknown site conditions.

No request by the CONTRACTOR for an equitable adjustment to the CONTRACT under this clause shall be allowed, unless the CONTRACTOR has given the written notice required. No request by the CONTRACTOR for an equitable adjustment to the CONTRACT for differing site conditions shall be allowed if made after final payment under this CONTRACT.

Should differing subsurface or physical condition be encountered, the CONTRACTOR will move to an alternate WORK area within the limits of the Project to continue the WORK. This discovery does not allow the CONTRACTOR to suspend WORK or may not justify an extension of CONTRACT Time. The CONTRACTOR is required to pursue the WORK in a continuous manner and is advised of the CONTRACT Time within the CONTRACT documents.

SP-13.0 OBSTRUCTION OF WATERWAYS

Marine traffic in the project area consists of commercial, pleasure, and small recreational vessels of all types and sizes, which can be accommodated by existing depths. The COUNTY shall not undertake to keep the navigation channels and waterways within and adjacent to the WORK area free from vessels or other obstructions. The CONTRACTOR shall be required to conduct the WORK in such manner as to maintain navigation in these channels. Upon completion of the WORK, the CONTRACTOR shall promptly remove their Plant and Equipment, including ranges, buoys, piles, and other marks placed by them under the CONTRACT in navigable waters or on shore.

SP-14.0 MARINE VESSELS AND MARINE ACTIVITIES

All marine vessels shall follow the Inland Navigation Rules which are contained in the following Federal Laws or Regulation: International Navigational Rules Act of 1977 (Public Law 95-75, 91 Stat. 308, or 33 U.S.C. 1601-1608), and, the Inland Navigation Rules Act of 1980 (Public Law 96-591, 94 Stat. 3415, 33 U.S.C. 2001-2038). These rules can be found on the Internet at www.navcen.uscg.gov/mwv/navrules/rotronline.htm. All marine vessels shall display the lights and day shapes required by Part C- Lights and Shapes of the Inland Navigation Rules. The location, type, color, and size of the lights and day shape shall be in accordance with Annex I - Positioning and Technical Details of Lights and Shapes. Any vessel engaged in dredging is considered a "Vessel Restricted in Her Ability to Maneuver" and shall display all the lights and shapes required in Rule 27: Vessel Not Under Control.

In order that radio communication may be made with passing vessels, the CONTRACTOR's marine vessels engaged in WORK under this CONTRACT shall monitor very high frequency (VHF) Channel #16 (156.8 MHz) at all times.

SP-15.0 CONTRACTOR MINIMUM QUALIFICATIONS

Proposing contractor shall have marine construction experience with docks, seawalls, and boat ramps in Florida of similar magnitude and complexity as the proposed work. Bidders shall provide a minimum of three (3) projects that were successfully completed; a minimum of one page per project, each project to have its own individual page. Experience must demonstrate boat ramp construction, dock construction and seawall repair with an epoxy product. Include the project name, owner's name, project start date, project initial budget, final budget, number of change orders, initial scheduled substantial completion date, actual substantial completion date, summary of work performed by your firm (not subcontracted), and reference for the project including contact name, phone number, and email.

EXHIBIT 7, DEPARTMENT OF ENVIRONMENTAL PROTECTION PERMIT

NOTE - This attachment is uploaded as a separate documents on the Procurement page of the County website with the solicitation document and available for download.

EXHIBIT 8, SAMPLE PO TERMS AND CONDITIONS

TERMS AND CONDITIONS

- 1. PURCHASE ORDER AND PART NUMBER. Manatee County's (Buyer) Purchase Order numbers must appear on all invoices and packing lists. Purchase Order numbers must show on all Bills of Lading, cartons, containers, etc.
- 2. PRICE. This order is not to be filled at a higher price than last charged or quoted unless so authorized in writing by Manatee County's Purchasing Division.
- 3. INSPECTION. All materials ordered are subject to inspection and test by Buyer. Buyer shall have the right to reject or to require correction of material found not to conform to this purchase order. At Buyer's option, rejected material will be held for Seller's instruction and at Seller's risk or returned at Seller's expense. Payment for material prior to inspection shall not constitute Buyer's acceptance.
- 4. ENTIRE CONTRACT. The terms and conditions stated herein shall constitute the entire contract between Buyer and Seller and no agreement or other understanding in any way modifying the same will be binding unless made in writing signed by a duly authorized representative of Buyer.
- 5. ACCEPTANCE. Acceptance is limited to the provisions set forth in this order including these terms and conditions and those on the face hereof or incorporated herein by reference. Seller's performance of any work or shipment of any materials covered by this order, without having received Buyer's express written assent to a modification of or addition to the terms hereof shall constitute Seller's acceptance of these terms despite any language to the contrary in Seller's quotation, acknowledgement, confirmation or other communication made in response to this order, and such action by Seller shall constitute a waiver of any such language. Buyer's silence or acceptance of any work performed or materials shipped shall in no event be deemed Buyer's acceptance of any terms contained in Seller's quotation, acknowledgement, confirmation or other communication received from Seller which are different from or in addition to the terms hereof.
- 6. DELIVERY. Time is of the essence in the filling of this order. No delays in shipment of material or rendition of services will be permitted except as authorized by Buyer in writing. Please notify Buyer at once of anticipated delay. Excessive or unusual transportation charges caused by Seller's inability to deliver by specified date and in specified quantities shall be charged back to Seller. Right is reserved to cancel this order if the foregoing is not compiled with. In the event of cancellation pursuant to this clause, Buyer may procure similar articles or services elsewhere or secure the manufacture and delivery of the articles by purchase order or otherwise, and Seller shall be liable to Buyer for any excess cost.
- 7 PACKING AND SHIPPING. All goods shall be packed, crated and braced to prevent damage or deterioration and classified on bills of lading in accordance with National Motor Freight or Uniform Freight Classification rules and regulations and carriers' tariffs. No charges shall be paid by Buyer for preparation, packing, crating, or cartage unless separately stated in the order. All shipments to be forwarded on one day to one address shall be consolidated and shipped to ensure lowest transportation charge. Buyer's count or weight shall be final and conclusive on shipments.
- 8. CHANGES AND CANCELLATION. Buyer may at any time by written order make changes in the materials or work ordered, including changes in drawings and specifications, or require additional work or materials. If such changes cause an increase or decrease in Seller's cost or in the time required for performance, an equitable adjustment shall be made and this order shall be modified in writing. Failure to agree to an adjustment shall not excuse the Seller from proceeding with this order as changed. Buyer reserves the right to cancel or suspend all or, from time to time, any undelivered or unexecuted portion of this order. Changes shall not be binding until agreed to in writing by Manatee County's Purchasing Division.
- 9. WARRANTY. In addition to any warranty implied by fact or law, Seller expressly warrants all items to be free from defects in design, workmanship and materials; to conform strictly to applicable specifications, drawings, approved samples, if any; and to be fit and sufficient for the purpose intended, and to be merchantable. Such warranties, together with all other service warranties of Seller, shall run to Buyer. All warranties shall survive inspection, test, acceptance of and payment by Buyer. In the event of breach of warranty, Buyer may, at its option, either return for credit or require prompt correction or replacement of the defective or nonconforming material to the satisfaction of the Buyer. In the event that Seller is unable to correct or replace the same, Buyer, at its elect, may correct or replace the same and Seller shall reimburse Buyer for the full cost of making such correction or replacement.
- 10. WARRANTY PRICE. Seller warrants that the Buyer shall not be billed at prices higher than stated on this Purchase Order unless authorized by a Purchase Order Change Notice issued and signed by Buyer. Seller represents that the price charged for the goods or services covered by this order, is the lowest price charged by the Seller to buyers of a class similar to Buyer under conditions similar to those specified in this order and the prices comply with applicable government regulations in effect at time of quotation, sale or delivery. Seller agrees that any price reduction made in items covered by this order subsequent to the placement of this order will be applicable to this order.
- 11. PATENTS AND DESIGN RIGHTS. Seller agrees to defend, protect and save Buyer harmless against all suits and from all damages, claims and demands for actual or alleged infringement of any patents by reason of any manufacture, use of materials covered by this order except insofar as any such suit, damage, claim or demand is directly attributable to such materials being manufactured by Seller according to Buyer's detailed design. Seller hereby agrees that if this order covers development work and any discoveries, inventions of patents result therefrom, the entire right, title and interest in and to such discoveries, inventions and patents shall belong exclusively to Buyer.
- 12. INDEMNIFICATION. Seller agrees to indemnify, defend and hold Buyer, its officers, employees and agents, harmless from any and all costs, losses, expenses, damages, claims, suits, or any liability whatsoever, including attorney's fees, resulting from injury, including death, to person or damage to property arising out of or in any manner connected with the performance of this order, whether arising out of, caused by or contributed to in whole or in part by the acts or omissions of Seller, or its subcontractors or their respective employees. Seller agrees to maintain, and require its subcontractors to maintain (1) public liability and property damage insurance in amounts satisfactory to Buyer, to cover the obligations set forth above, and (2) Workman's Compensation Insurance covering all employees engaged in the performance of this order. Seller shall furnish to Buyer certificates evidencing such insurance.
- 13. COMPLIANCE WITH LAWS AND REGULATIONS. Seller agrees that it will comply with all federal, state and local laws and regulations applicable to the production, sale and delivery of the goods or the furnishing of any labor or services called for by this order, and any provisions required thereby to be included herein shall be deemed to be incorporated herein by reference. Without limiting the generality of the foregoing: (a) There is incorporated herein by reference the contract provisions of paragraphs (1) through (7) of Section 202 of Executive Order 11246, as amended, provided that where necessary to make the context thereof applicable to this order the term "Contractor" shall mean Seller and the term "Contract" shall mean this order. (b) Seller certifies that the goods called for by this order have been or will be produced in compliance with the requirements of the Fair Labor Standards Act of 1938, as amended, and a certification evidencing such compliance shall be printed, stamped or typed on Seller's invoices.
- 14. OCCUPATIONAL SAFETY AND HEALTH. Seller represents that all goods and/or services sold or furnished to Buyer hereunder will comply with all applicable laws and governmental regulations relating to the occupational safety and health of employees, specifically including the Federal Occupational Safety and Health Act of 1970 and any rules, regulations, standards or order issued thereunder, (herein collectively called "Occupational Safety and Health Requirements") and Seller agrees to indemnify and hold harmless Buyer against any claims, losses, damages, fines, penalties, costs and expenses suffered or incurred by Buyer as a result of any violation of or noncompliance with any Occupational Safety and Health Requirements caused or contributed to by the failure of such goods and/or services to so comply. Seller agrees upon request to furnish to Buyer any and all information regarding the ingredients of goods sold or furnished to Buyer hereunder and to comply with any other reasonable request of Buyer made in connection with the application of any Occupational Safety and Health Requirements to Buyer, its employees and property.
- 15. MISCELL MINECUS: THIS BGGer and the performance by the Wattreeth Publisher 3/44/8078 Frued and governed by the law of the State of Filorida.