

**City of Isle of Palms, South Carolina**  
**Request for Bids (RFB) 2019-05**  
**Isle of Palms Marina Bulkhead Recoating**

In compliance with the City's Procurement Ordinance, the City of Isle of Palms, South Carolina is seeking bids for cleaning and recoating of the existing steel bulkhead at the Isle of Palms Marina per the plans and specifications included in this RFB. The request will be bid and awarded pursuant to the City's procurement ordinance. The City reserves the right to reject any and all bids and to waive irregularities.

- I. Description of Project
- II. Bid Process
- III. Submission Requirements
- IV. Bid Evaluation

**I. Description of the Project**

Existing Site Conditions

The existing steel sheetpile bulkhead (~775 linear feet in length) was installed approximately 10 years ago and includes coated (coal tar epoxy) steel Z-style sheetpiles, steel C-channel waler, steel/concrete cap, weep hole fixtures, utility passes, railing brackets, and typical miscellaneous hardware and accessories.

The bulkhead is exposed to tidal saltwater fluctuations and the existing structure exhibits significant areas of marine growth along lower elevations and corrosion and other types of surface/coating degradation along higher bulkhead elevations at and above the Mean High Water Line (+5.0 ft above Mean Low Water [MLW]).

The bulkhead is adjacent to:

- Isle of Palms Marina (including pile supported floating docks, pile supported fixed assess piers, gangways, utilities, and typical marina operation activities).
- Isle of Palms Marina boat ramp.
- Dewees Island Marina boat ramp.
- Morgan Creek Grill.
- Parking, pedestrian sidewalks, and other upland areas.
- Areas of marsh.

Bidders shall visit the site to observe and satisfy themselves with existing project conditions in preparation of their bids.

General Scope

The successful Bidder shall provide all equipment, labor, materials, supervision, warranties, bonding, insurances, and other items necessary for the work as detailed in this RFB and the attached plans and specifications.

Timing of work around tides will be required. Project must minimize the extent and duration of interruption to normal operations of adjacent facilities.

In general, the work includes:

1. Appropriate cleaning/surface preparation of the existing steel bulkhead elements as described above. Cleaning and surface preparation include solvent cleaning, waterjet cleaning, and hand and power tool cleaning as required to properly prepare the surface for the specified coating.
2. Application of a new coating of appropriate marine grade epoxy coating system over the cleaned/prepared elements of the bulkhead structure (Z-style sheetpiles, steel cap, brackets, etc.). This coating system shall include joint sealant and patch filler as required and detailed in the plans and specifications.
3. Appropriate environmental controls required to complete the work under Federal and State law and the attached plans and specifications. In general, these may include methods and/or apparatus to capture and dispose of all harmful debris (e.g. paint chips, rust, solvents, etc.) from cleaning and surface preparation efforts as well as similar measures taken during coating operations.
4. Testing and inspection services by a qualified (i.e. NACE or SSPC certified) individual or firm to provide documented quality control and assurance that all surface preparation and coating are in accordance with industry standards, the project plans and specifications, and manufacturer's recommendations. This may be done directly by the Bidder or by a third party.

The work shall be limited to the contracted work zone(s).

The "upper" work zone includes all steel bulkhead elements from the top of the steel structure (elevation +9.2' MLW) to the elevation above the existing steel C-channel waler (~elevation +4.6' MLW), including the steel cap and railing supports. Buried sections of wall are not included.

- The "lower" work zone includes all bulkhead elements below the upper work zone down to the MLW Line (0.0' MLW) elevation. The C-channel waler is part of this lower work zone.

Bid Items and Alternates

Table 1. Base Bid – Upper Work Zone

Item	Description	Unit	Total Cost
1	Cleaning and Surface Preparation (Waterjet Cleaning, Hand/Power Tooling, Solvent Cleaning, and other appropriate measures)	LS	
2	Coating System (materials, applied, and accepted)	LS	
3	Environmental Control	LS	
4	Testing and Inspection	LS	

**Total Base Bid**

Table 2. Bid Alternate 1 – Lower Work Zone

Item	Description	Unit	Total Cost
1	Cleaning and Surface Preparation (Waterjet Cleaning, Hand/Power Tooling, Solvent Cleaning, and other appropriate measures)	LS	
2	Coating System (materials, applied, and accepted)	LS	
3	Environmental Control	LS	
4	Testing and Inspection	LS	

**Total Bid Alternate 1**

The City of Isle of Palms welcomes Bidder proposed unsolicited alternatives. All Bidders should include prices for the Base Bid and Bid Alternate 1 in their Bids. All bids shall also include itemized costs of performance and payment bonds. The City reserves the right to remove individual bid items at its discretion during contracting.

Project Timeline

Bids Due..... May 23, 2019  
Anticipated Contracting and Notice to Proceed By..... May 31, 2019  
Project Completion By..... June 30, 2019

**II. Bid Process**

Bids should be submitted to the following:

Desirée Fragoso  
Interim City Administrator  
City of Isle of Palms  
1207 Palm Boulevard Post Office Box 508  
Isle of Palms, South Carolina 29451

**Pre-Bid Meeting:** An optional pre-bid meeting will be held at the project location on **Monday, May 13, 2019 at 10:00am.**

**Deadline for Questions:** The deadline for questions is **Thursday, May 16, 2019 at 5:00pm** Bidders should send questions regarding this Request for Bids to Desirée Fragoso, Interim City Administrator, in writing or email to [desireef@iop.net](mailto:desireef@iop.net) . Questions received before this deadline will be answered via addendum posted on the City’s website at <http://www.iop.net/requests-for-bids-proposals> . Questions received after this deadline may not be answered.

If an addendum is issued, bidders must acknowledge receipt of the addendum with their bids.

**Deadline for Submissions:** The deadline for submission of bids is **Thursday, May 23, 2019 at 2:00pm** Bids must be received at 1207 Palm Boulevard, Isle of Palms, South Carolina 29451 in a sealed envelope, where they will be opened and read aloud. Sealed envelopes must be clearly marked **RFB 2019-05 Isle of Palms Marina Bulkhead Recoating** and include one (1) hard copy and one (1) electronic copy saved to USB Flash Drive. The City accepts no responsibility for electronic submissions, and it will be the responsibility of the bidders to verify receipt by the City.

Bids may be delivered by hand or by mail, but no bid shall be considered which is not actually received by the City at the place, date and time appointed by the City and the City shall not be responsible for any failure, misdirection, delay or error resulting from the selection by any bidder of any particular means of delivery of bids.

Bidders acknowledge and agree that the City will not be liable for any costs, expenses, losses, damages (including damages for loss of anticipated profit) or liabilities incurred by the respondent or any member of the respondent’s organization as a result of, or arising out of, submitting a bid, negotiating changes to such bid, or due to the City’s acceptance or non- acceptance of the bid or the rejection of any and all bids. Respondents are responsible for submission of accurate, adequate and clear descriptions of the information requests. Neither issuance of the RFB, preparation and submission of a response, nor the subsequent receipt and evaluation of any response by the City of Isle of Palms will commit the City to

award a contract to any respondent even if all the requirements in the RFB have been met.

Respondents must have or be able to procure an Isle of Palms Business License.

If the Bidder is a corporation, state the correct corporate name and State of incorporation. If Bidder is a partnership, state names and addresses of partners. If Bidder is a trust or other legal entity, state correct names and addresses of trustees or names and address of those legally authorized to bid and enter into contracts.

By signing its bid, Bidder certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the City upon request any documentation required to establish either: (a) the applicability of Title 8, Chapter 14 to Contractor and any subcontractors or sub-subcontractors; or (b) the compliance with Title 8, Chapter 14 by Contractor and any subcontractors or sub-subcontractors. Pursuant to Section 8- 14-60, 'A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both.' Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14.

Firms considering submission under this RFB will be expected to have read and be prepared to enter into the attached contract, which is a part of this RFB.

### **III. Submission Requirements**

Each proposal shall include the following information as applicable to be considered complete:

1. Bidder's qualifications and any certifications.
2. Project experience and previous client reference contact information for similar completed projects.
3. Subcontractor information.
4. Bidder's proposed work plan and schedule.
5. Bidder's cost proposal which will be in the form of Tables 1 and 2 in this RFB.
6. Any warranty information the Bidder can provide applicable to the coating project.
7. Bid bond.

### **IV. Proposal Evaluation**

The primary intent with regards to the procurement of these services is to obtain what the City would consider to be the best package of product and service. Recommendation of award for contract will be made based not only on price, which is an important factor, but also on quality, qualifications, technical expertise, and ability to execute the work.

Respondents will be further evaluated on their overall proposal submittal, price competitiveness, experience, qualifications, references, schedule, and work plan that demonstrates surface preparation, application, and quality control and assurance to provide a long-lasting protective coating system. The City of Isle of Palms reserves the right to reject, in whole or in part, any proposal submitted which, in the judgment of the City, would not be in its best interest. The City also reserves the right to waive minor deficiencies or reject all proposals.

## BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

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BIDDER (*Name and Address*):

SURETY (*Name, and Address of Principal Place of Business*):

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name— Include Location*):

BOND

Bond Number:

Date:

Penal sum \_\_\_\_\_ \$ \_\_\_\_\_  
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

**BIDDER**

**SURETY**

\_\_\_\_\_  
Bidder's Name and Corporate Seal (Seal)

\_\_\_\_\_  
Surety's Name and Corporate Seal (Seal)

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature (Attach Power of Attorney)

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

*Note: Addresses are to be used for giving any required notice.*

*Provide execution by any additional parties, such as joint venturers, if necessary.*

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
  - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
  - 3.2 All Bids are rejected by Owner, or
  - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

## PERFORMANCE BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

### CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):*

### BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form:  None  See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_  
Contractor's Name and Corporate Seal *(seal)*

\_\_\_\_\_  
Surety's Name and Corporate Seal *(seal)*

By: \_\_\_\_\_  
Signature

By: \_\_\_\_\_  
Signature *(attach power of attorney)*

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

Attest: \_\_\_\_\_  
Signature

Attest: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.**

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the

Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than



the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

#### 14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including

allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

## PAYMENT BOND

CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

### CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location)*:

### BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:

Modifications to this Bond Form:  None  See Paragraph 18

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Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

### CONTRACTOR AS PRINCIPAL

### SURETY

\_\_\_\_\_ *(seal)*

Contractor's Name and Corporate Seal

\_\_\_\_\_ *(seal)*

Surety's Name and Corporate Seal

By: \_\_\_\_\_

Signature

By: \_\_\_\_\_

Signature *(attach power of attorney)*

\_\_\_\_\_

Print Name

\_\_\_\_\_

Print Name

\_\_\_\_\_

Title

\_\_\_\_\_

Title

Attest: \_\_\_\_\_

Signature

Attest: \_\_\_\_\_

Signature

\_\_\_\_\_

Title

\_\_\_\_\_

Title

**Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.**

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
  - 5.1 Claimants who do not have a direct contract with the Contractor,
    - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
    - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
  - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
  - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
  - 7.2 Pay or arrange for payment of any undisputed amounts.
  - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
  - 16.1 **Claim:** A written statement by the Claimant including at a minimum:
    1. The name of the Claimant;
    2. The name of the person for whom the labor was done, or materials or equipment furnished;
    3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
    4. A brief description of the labor, materials, or equipment furnished;
    5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
    6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
    7. The total amount of previous payments received by the Claimant; and
  - 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
  - 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
  - 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
  - 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:
  8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

STATE OF SOUTH CAROLINA    )     AGREEMENT FOR MARINA BULKHEAD  
COUNTY OF CHARLESTON     )     COATING SERVICES

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 2019, by and between the City of Isle of Palms, S.C. (“City”) and \_\_\_\_\_ (“Contractor”).

WHEREAS, City desires to engage the services of Contractor to provide certain professional services to assist with the development of bulkhead construction and coating (the “Project”); and

WHEREAS, Contractor agrees to perform the services pursuant to the terms and conditions hereinafter set forth.

THEREFORE, in consideration of the mutual covenants and promises set forth herein, City and Contractor agree as follows:

1.     Scope of Services

A. Bulkhead rehabilitation project as described in the Request for Production attached as Exhibit II.

B. In providing services under this Agreement, the Contractor shall perform in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar circumstances at the same time and in the same or similar locality. Upon notice to the Contractor and by mutual agreement between the parties, the Contractor will, without additional compensation, correct those services not meeting such a standard. Contractor agrees to comply with all applicable federal, state and local laws, rules and regulations regarding all services performed by Contractor pursuant to

this Agreement.

2. Contract Price. For all services to be performed by Contractor on the Project, City agrees to pay to Contractor upon completion of each Task as detailed Exhibit I, which includes labor fees and anticipated expenses.

3. Time of Performance. Contractor understands the time sensitivity of the Project and agrees to complete the services on the Project in a timely manner. Provided, however, that if performance by the Contractor is delayed for reasons or causes beyond the control of Contractor (including but not limited to, acts of God, weather conditions, site conditions, labor or material shortages, delays caused by City, and casualty losses) the Project completion date shall be extended accordingly.

4. Change Orders. The City has the right to require alterations or changes (“Change Orders”) to the Project and in such case Contractor agrees to make such alterations or changes; provided, however, that the details and additional cost or credit of such Change Order must be agreed to by the City and Contractor in writing prior to the commencement of the Change Order.

5. Permits, Fees and Licenses. Contractor agrees to apply for, obtain and pay for all governmental permits, fees and licenses necessary for the Contractor’s performance and completion of the services under the Project (including, but not limited to, a City business license). This does not include Permit fees required for permitting.

6. Indemnification and Insurance.

A. Contractor agrees to hold harmless and indemnify City and its officers, agents and employees from and against any loss or damage, including all reasonable attorney’s fees and expenses, incurred as a result of any and all claims, demands, causes of action, suits,

judgments, fines or penalties (including but not limited to all fees and expenses incurred as a result of death or injury to persons or for loss of or damage to property) caused by Contractor's performance of the services under this Agreement. In the event of any such claims made or suits filed, City agrees to give Contractor written notice thereof, and Contractor shall have the right to defend or settle the same to the extent of its interests hereunder.

B. Contractor shall procure, and maintain in effect during the term of this Agreement, insurance coverage in amounts and on terms not less than set forth below:

- 1) General Liability: Comprehensive general liability insurance coverage on the services under the Project in an amount not less than \$1,000,000.00 per person, \$2,000,000.00 per claim, and \$250,000.00 per claim for property damage;
- 2) Automobile Liability: Automobile liability insurance for bodily injury, including death, and property damage in the amount of \$1,000,000.00 each occurrence;
- 3) Professional Liability: Professional liability insurance for damages incurred by reason of any negligent act, error or omission committed or alleged to have been committed by Contract in the amount of \$1,000,000.00 per claim and in the aggregate; and
- 4) Workers' Compensation: Contractor agrees to maintain workers' compensation coverage on its employees as required by the State of South Carolina workers' compensation laws.

All insurance coverage required hereunder shall be with companies approved in advance by City, who shall be named as an additional insured on all such policies. Proof of such insurance shall be provided to City prior to commencement of any work by Contractor. Each policy shall contain a requirement that, in the event of change or cancellation, 30 days'

prior written notice must be given to City.

C. Contractor agrees that any subcontracts for this Project shall be approved in advance in writing by City; shall provide that City is an intended third-party beneficiary of the subcontract; shall require that all subcontractor work be performed in accordance with the requirements of this Agreement, including all indemnification and insurance requirements set forth in this Section 6; and shall provide that City is named as an additional insured on all such insurance policies. Proof of subcontractor's insurance shall be provided to City prior to commencement of any work by subcontractor.

7. Bond Requirements. The Contractor may be required to provide a Bid Bond, Payment Bond and/or Performance Bond to perform under the terms of this Agreement.

8. Breach. In the event that either party breaches any provision of this Agreement, and the same continues for a period of seven (7) days after receipt of written notice thereof, then the non-breaching party may exercise any and all remedies at law or in equity regarding the breach of this Agreement. Without prejudice to any other rights or remedies available for the said breach, the non-breaching party may terminate this Agreement and cease further performance under this Agreement.

9. Site Investigation. Contractor acknowledges that Contractor has inspected the Service areas and has determined the nature of the work and the difficulties and facilities attending performance of the work, and all other matters which Contractor contemplates may in any way affect the work under this Agreement.

10. Notices. All notices, consents, and approvals required by any provision of this Agreement shall be in writing and shall be deemed to be properly given and received when personally delivered to the representatives of each party or when deposited in the



United States mail, registered or certified, with return receipt requested, postage prepaid, and addressed to:

City of Isle of Palms:

Representative: Desirée Fragoso, Interim City Administrator

Address: PO Box 508, Isle of Palms, SC 29451

(Contractor):

Representative:

Address:

11. Mediation. Any claim, dispute, or controversy arising under or in connection with this Agreement shall be subject to mediation as a condition precedent to litigation. A request for mediation shall be made in writing, delivered to the other party to the Agreement, and filed with the proposed mediator. Mediation shall be conducted in Charleston County, South Carolina. The mediator shall be a member of the South Carolina Bar and shall be selected by mutual consent and agreement of the parties. If a party fails to object to the mediator proposed by the party requesting mediation within 30 days of the initial request for mediation, the mediator shall be deemed selected as proposed. If the parties fail to agree upon a mutually acceptable mediator within 60 days of the initial request for mediation, the mediator shall be selected from the official roster of active certified mediators in Charleston County, as provided by the South Carolina Supreme Court's Commission on Alternative Dispute Resolution and Board of Arbitrator and Mediator Certification, by choosing in alphabetical order the first available circuit court mediator from the roster. The parties shall equally divide the mediator's fee and any filing fees. Agreements reached in mediation shall be enforceable as settlement agreements in any court of competent jurisdiction. Nothing

contained herein shall preclude either party from seeking enforcement of the terms of mediation pursuant to this Paragraph through a court of competent jurisdiction, and the prevailing party shall also be entitled to reimbursement by the losing party for all reasonable fees and costs, including attorney's fees, incurred in the proceedings seeking enforcement.

12. Entire Agreement; Amendments. This Agreement constitutes the entire Agreement between the parties and supersedes and nullifies all prior or contemporaneous agreements or representations by either party which are not expressly stated in this agreement. Neither party is relying upon any representation not expressly contained herein. This Agreement may be amended only by a written agreement signed by each party.

13. Effect of Waiver or Consent. A waiver or consent, express or implied, to or of any breach or default by a party in the performance of its obligations under this Agreement is not a consent or waiver to or of any other breach or default in the performance by that party of the same or any other obligations of that party with respect to this Agreement. Failure on the part of a party to complain of any act of the other party or to declare a party in default with respect to this Agreement, irrespective of how long that failure continues, does not constitute a waiver by that party of its rights with respect to that default until the applicable statute-of-limitation period has run.

14. Governing Law; Severability. This Agreement is governed by and shall be Construed and interpreted in accordance with the laws of the State of South Carolina, excluding any conflict-of-laws rule or principle that might refer the governance or the construction of this Agreement to the law of another jurisdiction. If any provision of this Agreement is held invalid or unenforceable to any extent by a court of competent jurisdiction, the remainder of this Agreement is not affected thereby and that provision shall be enforced to the greatest

extent permitted by law.

15. Binding Agreement. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

16. Subcontracting and Assignment. Contractor agrees not to enter into any subcontracts, leases, agreements, or assignments pertaining to this Agreement or any interest or right herein, either voluntarily or by operation of law, without prior written approval of City.

17. Section Headings. The headings of Sections or paragraphs used in this Agreement have been inserted for convenience only and are not to be used in determining the contents contained herein.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals, by and through the undersigned officers, as of the date stated above.

WITNESS:

The City of Isle of Palms, S.C.

\_\_\_\_\_

By:\_\_\_\_\_

Title:\_\_\_\_\_

\_\_\_\_\_

(as to City)

\_\_\_\_\_ (Contractor)

By:\_\_\_\_\_

Title:\_\_\_\_\_

\_\_\_\_\_

(as to Contractor)

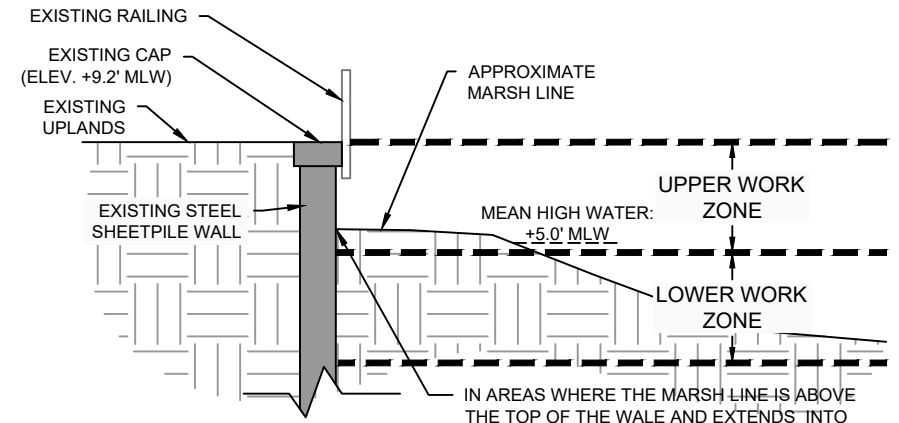
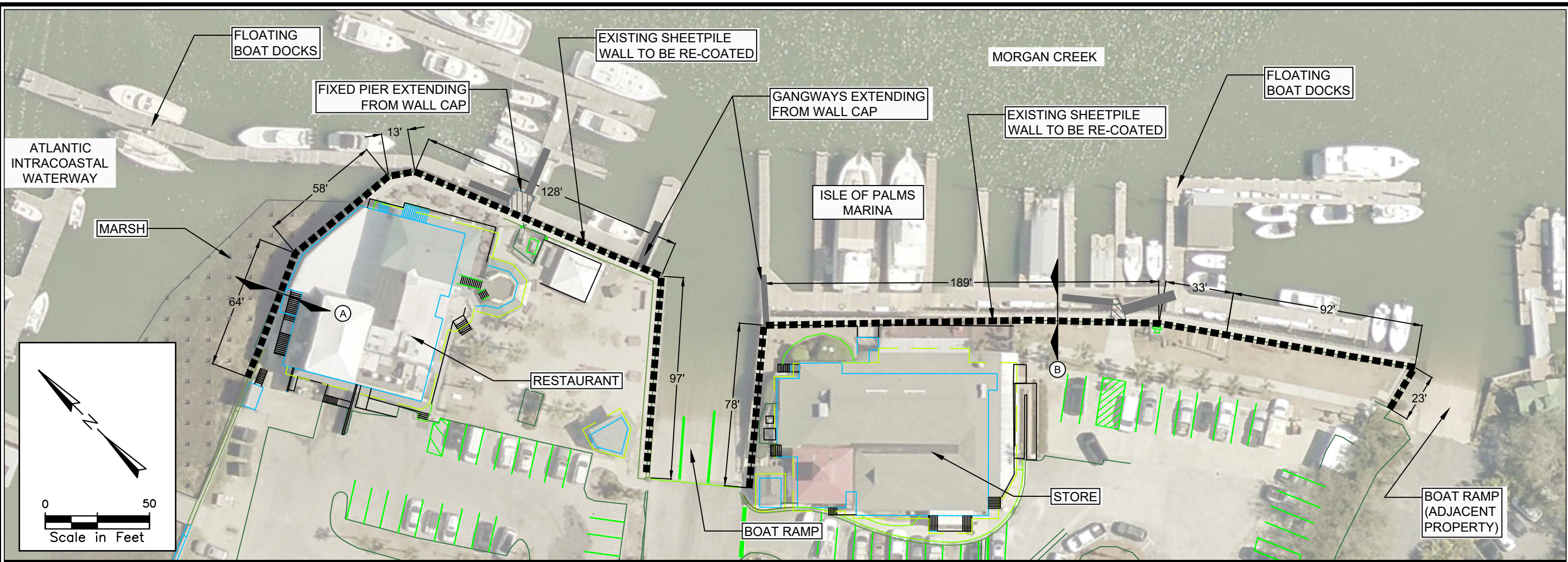
EXHIBIT I

(Attached Contract's Proposal, dated \_\_\_\_\_)

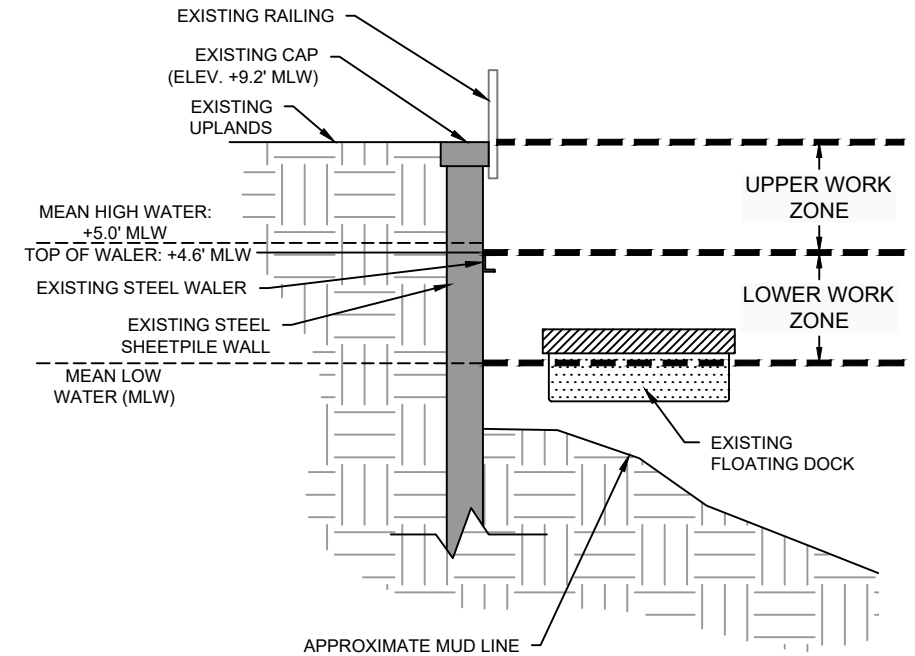
EXHIBIT II

(Attached Request for Production, dated \_\_\_\_\_)

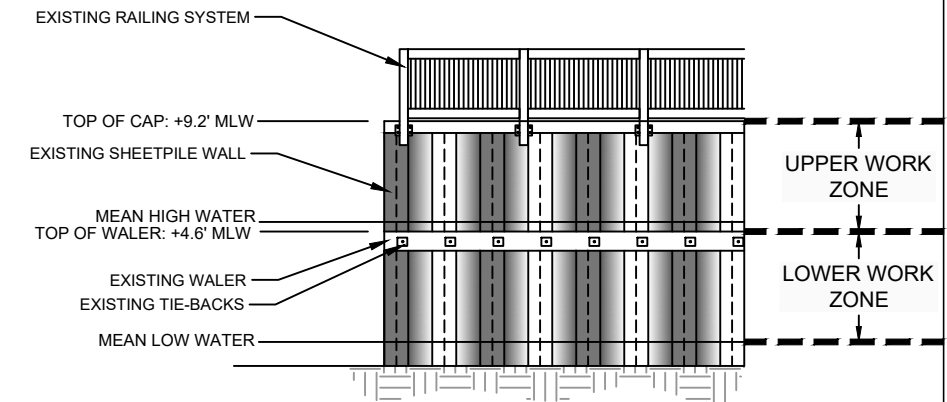
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 NOTE: THESE DRAWINGS AND DESIGNS ARE STRICTLY CONFIDENTIAL AND PROTECTED BY INTERNATIONAL COPYRIGHT LAW. DETAILS MUST NOT BE DISCLOSED, REPRODUCED OR COMMUNICATED TO A 3rd PARTY IN ANY FORM OR MANNER WITHOUT THE PRIOR WRITTEN APPROVAL OF APPLIED TECHNOLOGY & MANAGEMENT.



**TYPICAL BULKHEAD SECTION (A)**  
(ALONG MARSH)



**TYPICAL BULKHEAD SECTION (B)**  
(ALONG WATERFRONT)



**TYPICAL BULKHEAD ELEVATION VIEW (C)**

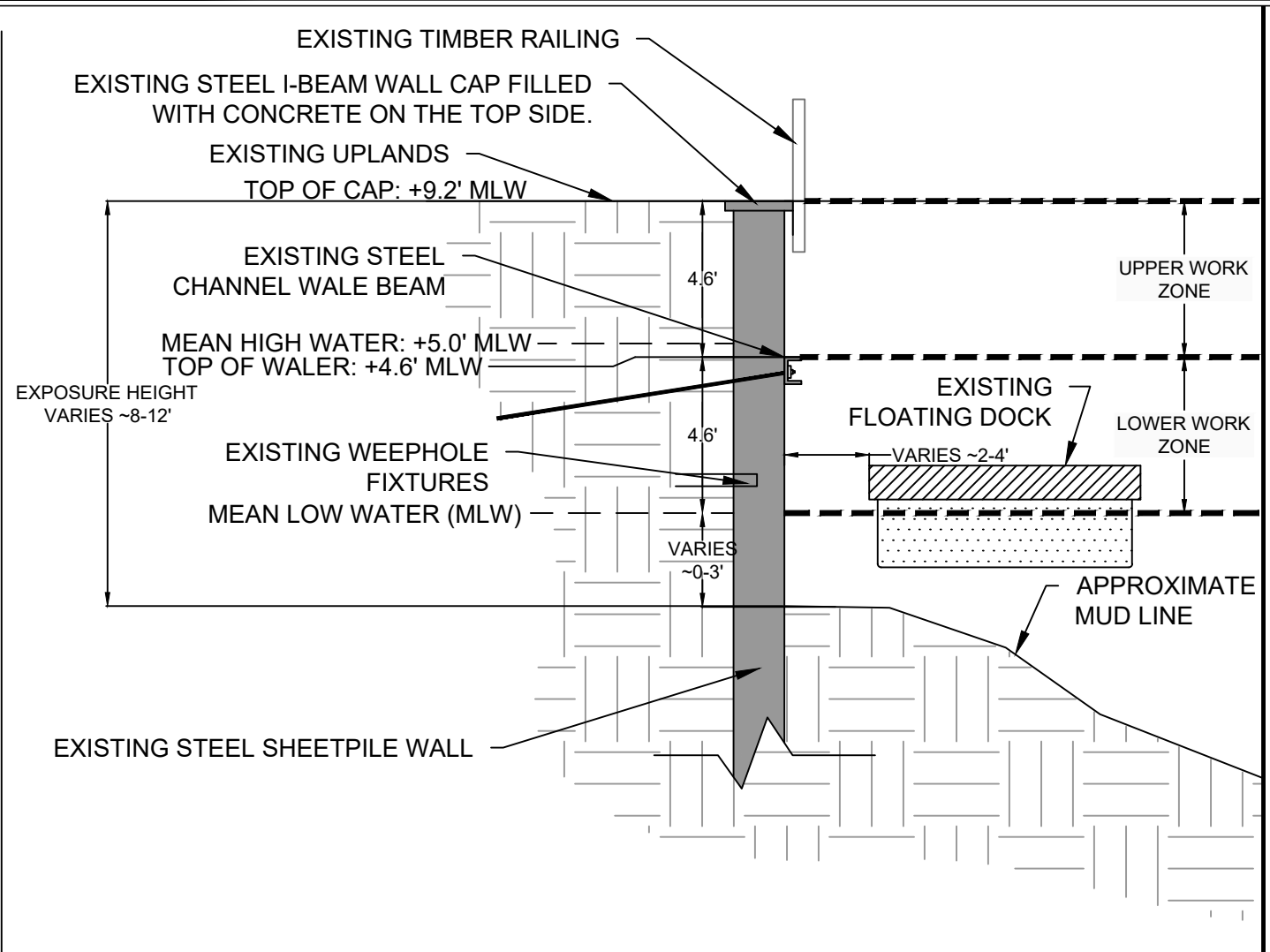
- NOTES:**
1. TYPICAL SECTIONS ARE FOR REPRESENTATIVE PURPOSES ONLY.
  2. CONTRACTOR SHOULD REVIEW SITE CONDITIONS THOROUGHLY BEFORE BIDDING.
  3. AERIAL DATED 2017 AND WAS SOURCED FROM CHARLESTON COUNTY.

CHECKED BY: HH	DRAWN BY: MM	SHEET NO: 1
JOB NO: 19-3354	DATE: 06-MAY-2019	SCALE: 1"=50'
REVISIONS		

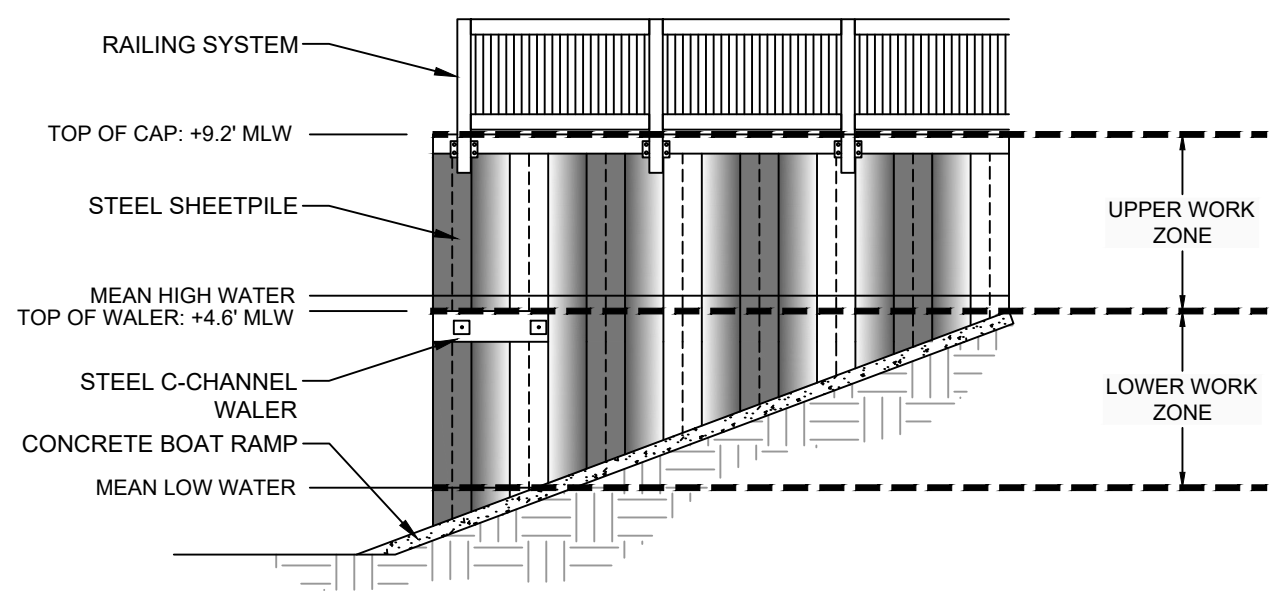
**SITE PLAN**  
 Project: Isle of Palms Marina  
 Bulkhead Re-coat  
 Owner: City of Isle of Palms  
 Location: 50 41st Ave., Isle of Palms, SC

941 Houston Northcutt Blvd, Suite 201  
 Mt Pleasant, SC 29464  
 (843) 414-1040  
 Certificate of Authorization #00395

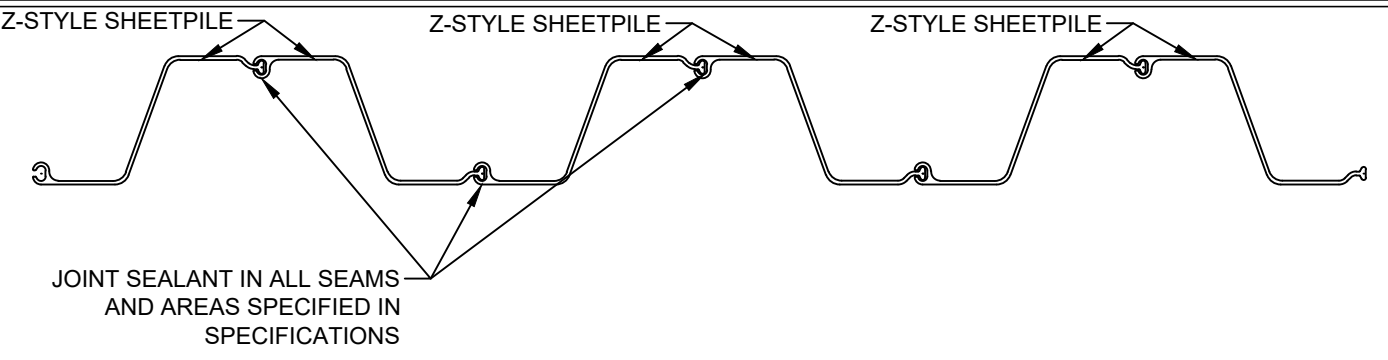
O:\Projects\18-3287 IOP Marina Permitting & Design\DWG\18-3287-WALL EXHIBIT\_REV01.dwg 2 5/6/19  
 NOTE: THESE DRAWINGS AND DESIGNS ARE STRICTLY CONFIDENTIAL AND PROTECTED BY INTERNATIONAL COPYRIGHT LAW. DETAILS MUST NOT BE DISCLOSED, REPRODUCED OR COMMUNICATED TO A 3rd PARTY IN ANY FORM OR MANNER WITHOUT THE PRIOR WRITTEN APPROVAL OF APPLIED TECHNOLOGY & MANAGEMENT.



**TYPICAL ORIGINAL DESIGN SHEETPILE SECTION (D)**



**TYPICAL PROFILE AT BOAT RAMP (E)**



**TYPICAL PLAN VIEW OF SHEETPILES (F)**

**PART 1 GENERAL**

1. SCOPE OF WORK
  - A. WORK INCLUDES CLEANING, SURFACE PREPARATION, AND APPLICATION OF THE COATING SYSTEM TO THE EXISTING STEEL BULKHEAD STRUCTURE WHICH INCLUDES ALL STEEL FIXTURES AND ASSOCIATED ELEMENTS.
  - B. WORK SHALL BE COMPLETED IN THE CONTRACTED WORK ZONE(S).
  - C. THE WORK INCLUDES ALL ENVIRONMENTAL CONTROL DETAILED IN THE APPROVED ENVIRONMENTAL CONTROL PLAN.
  - D. THE WORK INCLUDES ALL TESTING AND INSPECTION DETAILED IN THE APPROVED TESTING AND INSPECTION - QUALITY CONTROL AND ASSURANCE PLAN.
  - E. THE "UPPER" WORK ZONE INCLUDES ALL STEEL BULKHEAD ELEMENTS FROM THE TOP OF THE STEEL STRUCTURE (ELEVATION +9.2' MLW) TO THE ELEVATION ABOVE THE EXISTING STEEL C-CHANNEL WALER (-ELEVATION +4.6' MLW), INCLUDING THE STEEL CAP AND RAILING SUPPORTS.
  - F. THE "LOWER" WORK ZONE INCLUDES ALL BULKHEAD ELEMENTS BELOW THE UPPER WORK ZONE DOWN TO THE MLW LINE (0.0' MLW) ELEVATION.
2. MISCELLANEOUS
  - A. TIMING OF WORK AROUND TIDES WILL BE REQUIRED.
  - B. PROJECT MUST MINIMIZE THE EXTENT AND DURATION OF INTERRUPTION TO NORMAL OPERATIONS OF ADJACENT FACILITIES.
  - C. REFER TO TECHNICAL SPECIFICATIONS FOR PROJECT DETAILS.

**PART 2 MATERIALS**

1. JOINT SEALANT MATERIALS
  - A. ASTM C920, TYPE M, GRADE NS, CLASS 25, USE NT, I, M, G, A, O. MUST BE MANUFACTURED OR SUPPORTED BY THE COATING SYSTEM MANUFACTURER. OR APPROVED EQUIVALENT.
2. FILLER AND PATCH MATERIALS
  - A. FILLER MATERIAL FOR SMALL VOIDS BEHIND THE BULKHEAD SHALL BE EXPANDING HYDROPHOBIC POLYURETHANE FOAM IN AEROSOL CAN. CONTRACTOR SHALL SUBMIT PROPOSED MATERIAL FOR APPROVAL BEFORE USE.
  - B. PATCH MATERIAL FOR SMALL REPAIR AREAS IN THE STEEL BULKHEAD SHALL BE AN EPOXY PUTTY OR FAIRING COMPOUND APPROPRIATE FOR PROJECT USE IN THE MARINE ENVIRONMENT AND COMPATIBLE WITH ALL EXISTING AND PROPOSED MATERIALS. FLEXIBLE GRID OR MESH MATERIAL MAY BE UTILIZED TO ASSIST IN PATCH REPAIR AREAS. CONTRACTOR SHALL SUBMIT PROPOSED MATERIALS FOR APPROVAL BEFORE USE.
3. COATING MATERIALS
  - A. INTERZONE 954, MANUFACTURED BY INTERNATIONAL (AN AKZONOBEL BRAND). INTERZONE 954 IS A TWO-COMPONENT, LOW VOC, HIGH SOLIDS, MODIFIED EPOXY BARRIER COATING DESIGNED FOR MAINTENANCE APPLICATIONS IN THE MARINE SPLASH ZONE ENVIRONMENT. OR APPROVED EQUIVALENT.

**PART 3 EXECUTION**

1. CLEANING AND SURFACE PREPARATION
  - A. SURFACE PREPARATIONS SHALL BE UNDERTAKEN IN THE ORDER MOST APPROPRIATE FOR THE PROPER CLEANING AND PREPARATION OF THE SURFACE PRIOR TO COATING APPLICATION.
  - B. CLEANING AND SURFACE PREPARATION MUST ACCOUNT FOR TIDAL FLUCTUATIONS, WEATHER, AND OTHER ENVIRONMENTAL AND SURFACE CONDITIONS (E.G. CHLORIDES) THAT MAY IMPACT THE COATING APPLICATION.
  - C. SOLVENT CLEANING: SSPC SP 1. REMOVAL OF OIL, GREASE, DIRT, SOIL, SALTS, AND CONTAMINANTS BY CLEANING WITH SOLVENT, VAPOR, ALKALI, EMULSION OR STEAM.
  - D. WATERJET CLEANING: SSPC SP/NACE WJ-#. CLEAN BULKHEAD ELEMENTS IN ACCORDANCE WITH CONTRACTED WATERJET CLEANING METHOD SPECIFICATION.
  - E. HAND AND POWER TOOL CLEANING: SSPC SP 2 AND 3. CLEAN BULKHEAD ELEMENTS IN ACCORDANCE WITH SSPC SPECIFICATIONS TO ENSURE ALL AREAS OF CORROSION, COATING DAMAGE, OR ANY OTHER DETERIORATION IS PROPERLY PREPARED TO RECEIVE COATING SYSTEM APPLICATION.
  - F. IF CONTINUOUS AREAS OF CORROSION AND COATING DAMAGE EXTEND FROM THE CONTRACTED WORK ZONE TO ADJACENT AREAS OUTSIDE THE WORK ZONE, THE AREAS OF CONTINUOUS CORROSION OUTSIDE THE WORK ZONE SHALL BE CLEANED, PREPARED, AND COATED IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE DRAWINGS.
  - G. IF, DURING THE COURSE OF THE WORK, THE INTEGRITY OF THE EXISTING COATING IN AREAS OUTSIDE THE CONTRACTED WORK ZONE IS COMPROMISED BY THE WORK IN ANY WAY, THAT AREA SHALL BE CLEANED, PREPARED, AND COATED IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE DRAWINGS.
  - H. ENSURE ALL CORNERS, EDGES, SEAMS, WELDS, BRACKETS, AND OTHER UNIQUE SURFACES AND HARD TO REACH AREAS ARE PROPERLY PREPARED AND CLEANED.

- I. ENSURE THE SEAM BETWEEN THE CONCRETE TOPPING CAP AND STEEL BULKHEAD CAP IS CLEANED AND PREPARED FOR APPROPRIATE JOINT FILLER.
- J. FEATHERING OF SURFACE PREPARATION AND CLEANING MAY BE REQUIRED ALONG THE INTERFACE OF THE WORK ZONE SURFACE AND ADJACENT AREAS OUTSIDE OF THE WORK ZONE TO PROVIDE AN APPROPRIATE TRANSITION FOR COATING APPLICATION.
- K. CLEANING AND SURFACE PREPARATION MUST ACCOUNT FOR TIDAL FLUCTUATIONS, WEATHER, AND OTHER ENVIRONMENTAL AND SURFACE CONDITIONS (E.G. CHLORIDES) THAT MAY IMPACT THE COATING APPLICATION.
- L. SAMPLE AREAS - CLEANING OF MARINE GROWTH BELOW THE UPPER WORK ZONE ELEVATIONS (IN THE EVENT ONLY THE UPPER WORK ZONE IS CONTRACTED)
  - 1.1.1. THREE (3) LOCATIONS OF MARINE GROWTH ALONG THE WALL SHALL BE RANDOMLY SELECTED BY THE COATING SPECIALIST(S)/INSPECTOR(S) AND 1FT X 1FT SQUARE AREAS OF SHEETPILE SHALL BE SCRAPED FREE OF THICK MARINE GROWTH TO REVEAL THE EXISTING COATING.
  - 1.1.2. COATING SPECIALIST(S)/INSPECTOR(S) WILL OBSERVE, DOCUMENT, AND INSPECT THE CONDITION OF THE EXISTING COATING AND PROVIDE OWNER WITH ASSESSMENT OF CONDITION AND ANY RECOMMENDATIONS REGARDING COATING OUTSIDE OF WORK ZONE ELEVATIONS.
2. APPLICATION OF COATING SYSTEM
  - A. FILLER AND PATCH REPAIRS
    - 2.1.1. FILLER AND/OR PATCH REPAIRS ARE REQUIRED IN ANY AREA OF CORROSION OR DETERIORATION EXCEEDING THE MAXIMUM GAP LIMIT OF THE SPECIFIED JOINT SEALANT.
    - 2.1.2. FILLER AND PATCH REPAIRS ARE ANTICIPATED AT UTILITY CONDUIT AND SIMILAR CUTOUTS AND VOID AREAS IN THE BULKHEAD STRUCTURE WITHIN THE WORK ZONE.
    - 2.1.3. FILLER AND PATCH REPAIR PROCEDURE
      - a. FOAM FILLER SHALL BE APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS TO FILL ANY LARGE VOIDS BEHIND THE BULKHEAD EXPOSED SURFACE.
      - b. FOAM FILLER SHALL BE ALLOWED TO CURE, THEN CUT FLUSH WITH THE BULKHEAD SURFACE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS
      - c. EPOXY PATCH MATERIAL SHALL BE APPLIED OVER THE FOAM FILLER AND ADJACENT SOUND STEEL ACCORDING TO MANUFACTURER'S RECOMMENDATIONS TO PROVIDE A CONTINUOUS, SOUND, AND IMPERMEABLE REPAIR IN THE BULKHEAD STRUCTURE SUFFICIENT FOR RECEIVING THE COATING APPLICATION AND PROVIDING CORROSION PROTECTION. FLEXIBLE GRIDS OR MESH PATCHES OF APPROPRIATE MATERIAL MAY BE USED TO ASSIST IN THE EPOXY PATCH REPAIR.
  - B. JOINT SEALANT
    - 1.1.1. JOINT SEALANT SHALL BE APPLIED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS TO ALL EXTERIOR JOINTS, SEAMS, AND INTERFACES IN THE WORK ZONE, INCLUDING BUT NOT LIMITED TO:
      - a. CONCRETE TOPPING CAP AND STEEL BULKHEAD CAP INTERFACE
      - b. PERIMETER OF FAYING AND BEARING SURFACES
      - c. SEAMS/JOINTS BETWEEN STEEL SHEETPILE Z-SECTIONS, KING PILES, AND ALL OTHER SEAMS IN THE WORK ZONE
      - d. JOINTS IN MEMBERS BETWEEN INTERMITTENT WELDS
      - e. JOINTS BETWEEN LIFTING HOLE CUTOUTS AND WELDED BACKER-PLATES
      - f. ALL OPENINGS SMALLER THAN THE MAXIMUM GAP WIDTH RECOMMENDED BY JOINT SEALER MANUFACTURER
      - g. JOINTS ALONG BRACKETRY AND OTHER DEVICES
      - h. PERIMETERS OF PATCH REPAIR AREAS AS NEEDED
  - C. COATING
    - 1.1.1. COATING MATERIAL SHALL BE PROPORTIONED, MIXED, APPLIED (IN COATS, AS APPLICABLE), AND CURED IN ACCORDANCE WITH ALL MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE INDICATED IN THESE SPECIFICATIONS OR APPROVED BY THE OWNER IN WRITING.
    - 1.1.2. APPLY STRIP COATING OVER JOINT SEALANT, PATCH REPAIRS, AND OTHER AREAS IN ACCORDANCE WITH COATING MATERIAL MANUFACTURER'S RECOMMENDATIONS.
    - 1.1.3. REPAIR OF DEFECTS: REPAIR DETECTED COATING HOLIDAYS, THIN AREAS, AND EXPOSED AREAS DAMAGED SURFACE TREATMENT AND APPLICATION OF ADDITIONAL COATING OR BY MANUFACTURER'S RECOMMENDATIONS.
3. SURFACES TO BE COATED
  - A. ALL STEEL SHEET PILES, H-PILES, BULKHEAD CAPS, BRACKETS, AND MISCELLANEOUS STEEL AND FIXTURES SHALL BE CLEANED, PREPARED, AND COATED.
4. FINAL CLEANUP
  - A. FOLLOWING COMPLETION OF THE WORK, REMOVE DEBRIS, EQUIPMENT, AND MATERIALS FROM THE SITE. DISPOSE OF ALL DEBRIS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. REMOVE TEMPORARY CONNECTIONS TO WATER AND ELECTRICAL SERVICES. RESTORE EXISTING FACILITIES IN AND AROUND THE WORK AREAS TO THEIR ORIGINAL CONDITION.

CHECKED BY: HH	DRAWN BY: MM	SHEET NO: 2
JOB NO: 19-3354	DATE: 06-MAY-2019	SCALE: N/A

REVISIONS		

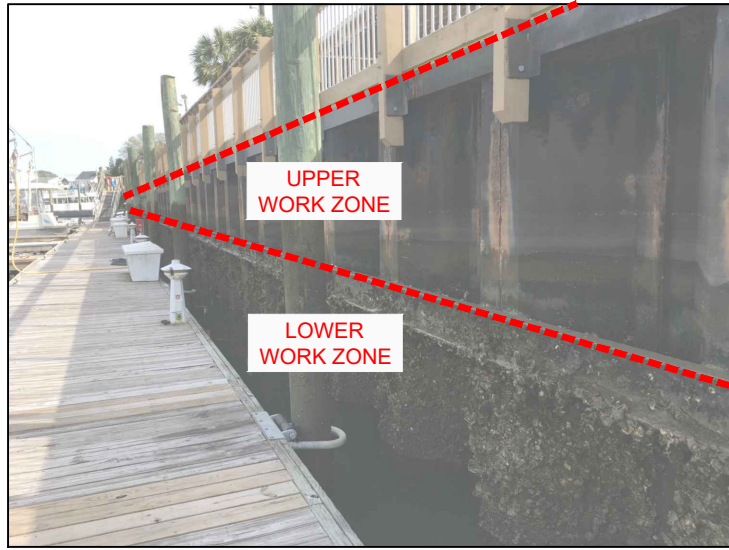
**TYPICAL DETAILS**  
 Project: Isle of Palms Marina Bulkhead Re-coat  
 Owner: Cit of Isle of Palms  
 Location: 50 41st Ave., Isle of Palms, SC

941 Houston Northcut Blvd, Suite 201  
 Mt Pleasant, SC 29464  
 (843) 414-1040  
 Certificate of Authorization #00395

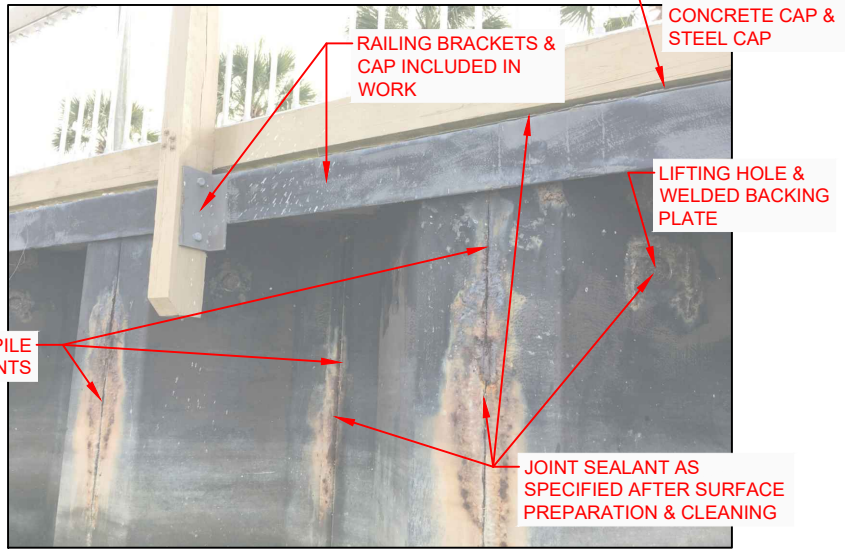
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 NOTE: THESE DRAWINGS AND DESIGNS ARE STRICTLY CONFIDENTIAL AND PROTECTED BY INTERNATIONAL COPYRIGHT LAW. DETAILS MUST NOT BE DISCLOSED, REPRODUCED OR COMMUNICATED TO A 3rd PARTY IN ANY FORM OR MANNER WITHOUT THE PRIOR WRITTEN APPROVAL OF APPLIED TECHNOLOGY & MANAGEMENT.



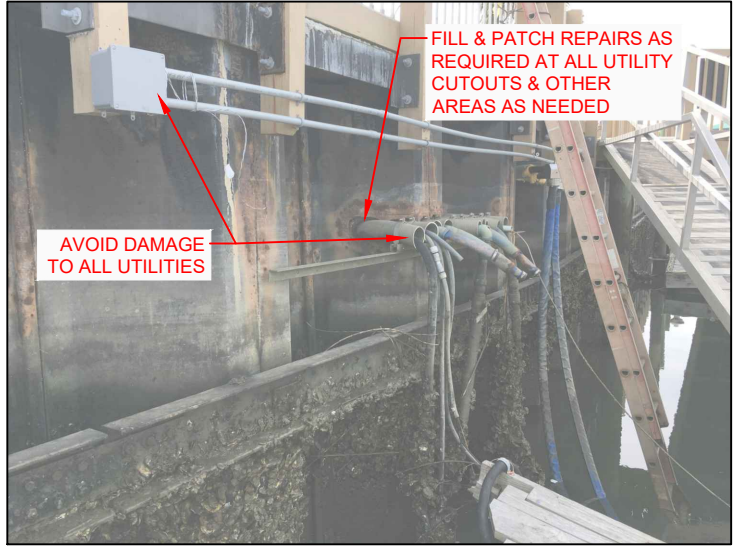
PHOTOGRAPH 1



PHOTOGRAPH 2



PHOTOGRAPH 3



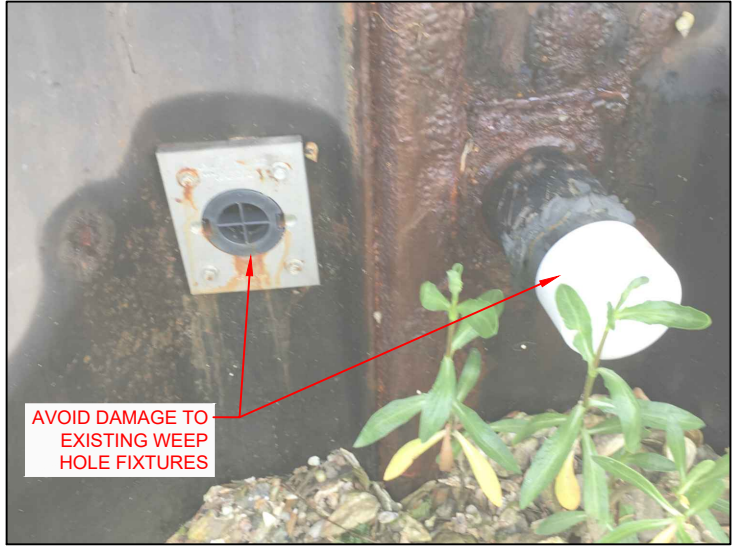
PHOTOGRAPH 4



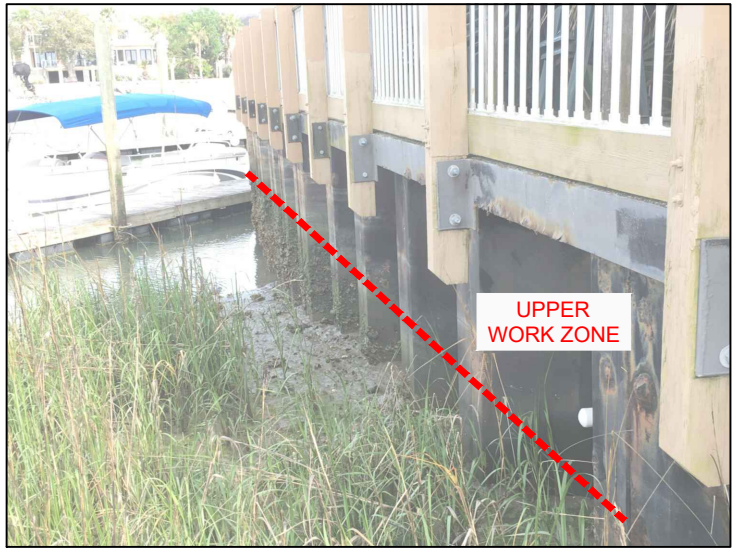
PHOTOGRAPH 5



PHOTOGRAPH 6



PHOTOGRAPH 7



PHOTOGRAPH 8



PHOTOGRAPH 9

REVISIONS	JOB NO:	19-3354	CHECKED BY:	HH
	DATE:	06-MAY-2019	DRAWN BY:	MM
	SCALE:	N/A	SHEET NO.:	3

TYPICAL SITE PHOTOGRAPHS DATED APRIL 8, 2019  
 Project: Isle of Palms Marina Bulkhead Re-coat  
 Owner: Cit of Isle of Palms  
 Location: 50 41st Ave., Isle of Palms, SC



941 Houston Northcutt Blvd, Suite 201  
 Mt Pleasant, SC 29464  
 (843) 414-1040  
 Certificate of Authorization #00395

**SECTION 09 97 13.26  
MAINTENANCE COATING OF STEEL WATERFRONT STRUCTURES**

**PART 1 - GENERAL**

**1.1 WORK INCLUDED**

- A. This section specifies cleaning, surface preparation, and application of the coating system to the existing steel bulkhead structure as shown on the Contract Drawings and described herein. The work includes all environmental control, testing, and inspection associated with the work. Contractor shall provide all labor, personnel, materials, apparatus, equipment, instrumentation and all associated work to complete the project as specified.
- B. Existing steel bulkhead elements within the contracted work zone(s) as indicated on the Drawings are included in the work.

**1.2 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 and refer to the latest editions of each.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings

AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM)

ASTM A36/A36M	Standard Specification for Carbon Structural Steel
ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM C920	Standard Specification for Elastomeric Joint Sealants
ASTM D1475	Standard Test Method for Density of Liquid Coatings, Inks, and Related Products
ASTM D1640	Drying, Curing, or Film Formation of Organic Coatings at Room Temperature
ASTM D1654	Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments
ASTM D2240	Standard Test Method for Rubber Property - Durometer Hardness
ASTM D2369	Volatile Content of Coatings
ASTM D2370	Tensile Properties of Organic Coatings
ASTM D2698	Standard Test Method for Determination of the Pigment Content of Solvent-Reducible Paints by High-Speed Centrifuging
ASTM D2794	Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
ASTM D2805	Standard Test Method for Hiding Power of Paints by Reflectometry
ASTM D3276	Standard Guide for Painting Inspectors (Metal Substrates)
ASTM D3278	Flash Point of Liquids by Small Scale Closed-Cup Apparatus
ASTM D3335	Low Concentrations of Lead, Cadmium, and Cobalt in Paint by Atomic Absorption Spectroscopy
ASTM D3718	Low Concentrations of Chromium in Paint by Atomic Absorption Spectroscopy
ASTM D3925	Sampling Liquid Paints and Related Pigmented Coatings
ASTM D3960	Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings



ASTM D4060	Abrasion Resistance of Organic Coatings by the Taber Abraser
ASTM D4285	Indicating Oil or Water in Compressed Air
ASTM D4400	Sag Resistance of Paints Using a Multinotch Applicator
ASTM D4541	Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
ASTM D4940	Standard Test Method for Conductimetric Analysis of Water-Soluble Ionic Contamination of Blast Cleaning Abrasives
ASTM D512	Chloride Ion in Water
ASTM D522	Mandrel Bend Test of Attached Organic Coatings
ASTM D523	Standard Test Method for Specular Gloss
ASTM D56	Standard Test Method for Flash Point by Tag Closed Cup Tester
ASTM D575	Rubber Properties in Compression
ASTM D610	Evaluating Degree of Rusting on Painted Steel Surfaces
ASTM D6944	Standard Practice for Determining the Resistance of Cured Coatings to Thermal Cycling
ASTM D7091	Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nondestructive Coatings Applied to Non-Ferrous Metals
ASTM D714	Standard Test Method for Evaluating Degree of Blistering of Paints
ASTM D7588	Standard Guide for FT-IR Fingerprinting of a Non-Aqueous Liquid Paint as Supplied in the Manufacturer's Container
ASTM D93	Standard Test Methods for Flash-Point by Pensky-Martens Closed Cup Tester

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1	Structural Welding Code
AWS QC1	AWS Certification of Welding Inspectors

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO 9001	Quality Management Systems- Requirements
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SOCIETY FOR PROTECTIVE COATINGS (SSPC) / NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE)

SSPC Guide 6	Guide for Containing Surface Preparation Debris Generated during Paint Removal Operations
SSPC Guide 10	Guide to Specifying Coatings Conforming to Volatile Organic Compound (VOC) Content Requirements
SSPC Guide 12	Guide for Illumination of Industrial Painting Projects
SSPC Guide 15	Field Methods for Extraction and Analysis of Soluble Salts on Steel and Other Nonporous Substrates
SSPC QP 1	Standard Procedure for Evaluating Painting Contractors (Field Application to Complex Industrial Structures)
SSPC QP 2	Standard for Evaluating Painting Contractors (Removal of Hazardous Coatings from Industrial/Marine Structures)
SSPC QP 5	Standard Procedure for Evaluating the Qualifications of Coating and Lining Inspection Companies
SSPC QS 1	Standard Procedure for Evaluating a Contractor's Advanced Quality Management System

SSPC SP 1	Solvent Cleaning
SSPC SP 2	Hand Tool Cleaning
SSPC SP 3	Power Tool Cleaning
SSPC SP 5/NACE No. 1	White Metal Blast Cleaning
SSPC SP 6/NACE No.3	Commercial Blast Cleaning
SSPC SP 7/NACE No.4	Brush-Off Blast Cleaning
SSPC SP 10/NACE No. 2	Near-White Blast Cleaning
SSPC-SP/NACE WJ-1	Waterjet Cleaning of Metals -- Clean to Bare Substrate
SSPC-SP/NACE WJ-2	Waterjet Cleaning of Metals -- Very Thorough Cleaning
SSPC-SP/NACE WJ-3	Waterjet Cleaning of Metals -- Thorough Cleaning
SSPC-SP/NACE WJ-4	Waterjet Cleaning of Metals -- Light Cleaning
SSPC SP COM	Surface Preparation Commentary for Steel and Concrete Substrates
SSPC PA 1	Shop, Field, and Maintenance Coating of Metals
SSPC PA 2	Procedure for Determining Conformance to Dry Coating Thickness Requirements
SSPC VIS 4/NACE VIS 7	Guide and Reference Photographs for Steel Surfaces Prepared By Water Jetting

#### RELATED SPECIFICATIONS

Specifications from product manufacturers.

### 1.3 SUBMITTALS

#### A. Testing and Inspection - Quality Control and Assurance Plan

1. Contractor shall submit for approval before commencement of work a Quality Control and Assurance Plan that describes appropriate inspections, tests, protocols, and similar efforts to be conducted to control and assure quality of the work. Tests and inspections should utilize, to the extent applicable and practical, appropriate SSPC and ASTM specifications as guidance for testing and inspection protocols. The quality control and assurance plan should include, at a minimum:
  - a. Name and qualifications/certifications of Coating Specialist(s)/Inspector(s)
  - b. Test and inspection methods and procedures for quality control and assurance of surface preparation and coating application
  - c. Corrective action requirements and procedures for rejected work.
  - d. Certified test records and inspection documents, including instrument readings and measurements recorded during coating thickness and holiday testing.

#### B. Work Plan

1. Contractor shall submit for approval, a Work Plan that describes the proposed work, including:
  - a. Equipment, instruments, and apparatus used to perform the work.
  - b. Access and staging requirements
  - c. Order and methods of the work, including discussion on tidal elevation changes
  - d. Work area locations/zones, moving work areas
  - e. Impacts to normal operations of adjacent facilities
  - f. Detailed work schedule

- g. Safety measures to be taken to guard the health and safety of Contractor's laborers and equipment operators and for pedestrians and general public that will be in the vicinity of the work.

C. Environmental Control Plan

1. Contractor shall submit for approval, an Environmental Control Plan that describes the proposed environmental control efforts, including:
  - a. Proposed measures, equipment, and apparatus used to properly capture, control, and dispose of harmful waste substances and debris produced and used during the cleaning and surface preparation.
  - b. Proposed measures, equipment, and apparatus used to ensure coating system materials are applied only to appropriate surfaces and excess material is captured, controlled, and disposed of properly.

D. Manufacturer's Product Data Sheets, Materials Safety Data Sheets, and Certification

1. Contractor shall submit coating system materials manufacturer's printed technical data sheets for products intended for use. Data sheets shall fully describe material as to its intended use, make-up, compatibility, recommended surface preparation and application conditions, primers, material mixing and application (including recommended dry mil thickness), precautions, safety and maintenance cleaning directions.

E. Warranty Information

1. A one (1) year warranty which commences on the date of acceptance for all workmanship and materials shall be provided. Failure of coating system due to material or workmanship during the warranty period shall be repaired by the Contractor who shall absorb all costs related to the repair of the coating. All coating failures shall be repaired. The costs of any repair services shall be the Contractor's responsibility.
2. Any additional material manufacturer's warranties shall be provided and transferred to the Owner.

1.4 PROTECTION OF WORK

The Contractor shall be responsible for any and all damage to his Work or the work of others during the time his Work is in progress.

1.5 RIGHT OF REJECTION

The Owner shall have the right to reject all material or Work that is unsatisfactory, and require the replacement of either or both at the expense of the Contractor.

1.6 JOB CONFERENCE

Prior to commencing Work, a pre-job conference shall be held for the purpose of reviewing and clarifying the requirements of the project.

1.7 MEASUREMENT AND PAYMENT

- A. Cleaning and Surface Preparation will be measured on a lump sum basis, paid for at the Contract Lump Sum Price, and shall include all direct and incidental labor, materials, operations and other items required to complete the accepted work.

- B. Coating will be measured on a lump sum basis, paid for at the Contract Lump Sum Price, and shall include all direct and incidental labor, materials, operations and other items required to complete the accepted work.
- C. Environmental Control will be measured on a lump sum basis, paid for at the Contract Lump Sum Price, and shall include all direct and incidental labor, materials, operations and other items required to complete the accepted work.
- D. Testing and Inspection will be measured on a lump sum basis, paid for at the Contract Lump Sum Price, and shall include all direct and incidental labor, materials, operations and other items required to complete the accepted work.

## PART 2 - PRODUCTS

### 2.1 GENERAL

- A. Surfaces to receive coating materials as shall be coated in conformance with the applicable coating systems specified herein. All materials specified by name and/or manufacturer or selected for use under these Specifications, shall be delivered unopened at the job site in their original containers. Coating materials shall be as specified herein or approved equivalent. So far as possible, all joint sealant and coating materials shall be provided by a single source supplier.
- B. Materials shall be sealed in containers that plainly show the designated name, formula or specification number, batch number, color, date of manufacture and/or expiration, manufacturer's directions, and name of manufacturer, all of which shall be plainly legible at the time of use. Pigmented coatings shall be furnished in containers not larger than five (5) gallons.
- C. Only compatible materials shall be used in the work.
- D. Coating material color shall be black or other color approved by the Owner.

### 2.3 COATING SYSTEM MATERIALS

#### A. JOINT SEALANT MATERIALS

- 1. ASTM C920, Type M, Grade NS, Class 25, Use NT, I, M, G, A, O. Must be manufactured or supported by the coating system manufacturer. Or approved equivalent.

#### B. FILLER AND PATCH MATERIALS

- 1. Filler material for backing of small voids in the bulkhead metal shall be expanding hydrophobic polyurethane foam in aerosol can. Contractor shall submit proposed material for approval before use.
- 2. Patch material for small repair areas in the steel bulkhead shall be an epoxy putty or fairing compound appropriate for project use in the marine environment and compatible with all existing and proposed materials. Flexible grid or mesh material may be utilized to assist in patch repair areas. Contractor shall submit proposed materials for approval before use.

#### C. COATING MATERIALS

- 1. Interzone 954, manufactured by International (an AkzoNobel brand). Interzone 954 is a two-component, low VOC, high solids, modified epoxy barrier coating designed for

maintenance applications in the marine splash zone environment. Or Owner approved equivalent.

#### 2.4 DELIVERY, STORAGE AND HANDLING

Deliver, handle, and store items according to manufacturer's recommendations and all Federal, State, and Local laws. All damaged items determined by the Engineer as being unsuitable shall be replaced by the Contractor at his expense.

#### 2.5 SAFETY AND HEALTH PRECAUTIONS

Materials listed in this section and encountered during the project may be toxic and require special health and safety precautions. Follow all safety procedures as recommended by manufacturers and applicable specifications and laws.

### PART 3 - EXECUTION

#### 3.1 GENERAL

#### 3.2 ENVIRONMENTAL CONTROL

A. Contractor shall implement environmental control measures as detailed in the approved Environmental Control Plan, manufacturer's recommendations, and in accordance with all Federal, State, and Local laws.

#### 3.3 CLEANING AND SURFACE PREPARATION

A. Surface preparations shall be undertaken in the order most appropriate for the proper cleaning and preparation of the surface prior to coating application.

B. Cleaning and surface preparation must account for tidal fluctuations, weather, and other environmental and surface conditions (e.g. chlorides) that may impact the coating application.

C. Solvent Cleaning: SSPC SP 1. Removal of oil, grease, dirt, soil, salts, and contaminants by cleaning with solvent, vapor, alkali, emulsion or steam.

D. Waterjet Cleaning: SSPC SP/NACE WJ-#. Clean bulkhead elements in accordance with contracted waterjet cleaning method specification.

E. Hand and Power Tool Cleaning: SSPC SP 2 and 3. Clean bulkhead elements in accordance with SSPC specifications to ensure all areas of corrosion, coating damage, or any other deterioration is properly prepared to receive coating system application.

F. If continuous areas of corrosion and coating damage extend from the contracted work zone to adjacent areas outside the work zone, the Contractor shall notify the Owner. If approved, these areas of continuous corrosion outside the work zone shall be cleaned, prepared, and coated in accordance with these specifications and the drawings.

G. If, during the course of the work, the integrity of the existing coating in areas outside the contracted work zone is compromised by the work in any way, the Contractor shall notify the Owner and that area shall be cleaned, prepared, and coated in accordance with these specifications and the drawings.

H. Ensure all corners, edges, seams, welds, brackets, and other unique surfaces and hard to reach areas are properly prepared and cleaned.

- I. Ensure the seam between the concrete topping cap and steel bulkhead cap is cleaned and prepared for appropriate joint filler.
- J. Feathering of surface preparation and cleaning may be required along the interface of the work zone surface and adjacent areas outside of the work zone to provide an appropriate transition for coating application.
- K. Sample Areas - Cleaning of Marine Growth Below the Upper Work Zone Elevations (in the event only the upper work zone is contracted)
  - 1. Three (3) locations of marine growth along the wall shall be randomly selected by the coating specialist(s)/inspector(s) and 1ft x 1ft square areas of sheetpile shall be scraped free of thick marine growth to reveal the existing coating.
  - 2. Coating specialist(s)/inspector(s) will observe, document, and inspect the condition of the existing coating and provide Owner with assessment of condition and any recommendations regarding coating outside of work zone elevations.

### 3.4 APPLICATION OF COATING SYSTEM

#### A. Filler and Patch Repairs

- 1. Filler and/or patch repairs are required in any area of corrosion or deterioration exceeding the maximum gap limit of the specified joint sealant.
- 2. Filler and patch repairs are anticipated at utility conduit and similar cutouts and void areas in the bulkhead structure within the work zone.
- 3. Filler and Patch Repair Procedure
  - a. Foam filler shall be applied according to manufacturer's recommendations to fill any large voids behind the bulkhead exposed surface.
  - b. Foam filler shall be allowed to cure, then cut flush with the bulkhead surface according to manufacturer's recommendations.
  - c. Epoxy patch material shall be applied over the foam filler and adjacent sound steel according to manufacturer's recommendations to provide a continuous, sound, and impermeable repair in the bulkhead structure sufficient for receiving the coating application and providing corrosion protection. Flexible grids or mesh patches of appropriate material may be used to assist in the epoxy patch repair.

#### B. Joint Sealant

- 1. Joint sealant shall be applied in accordance with manufacturer recommendations to all exterior joints, seams, and interfaces in the work zone, including but not limited to:
  - a. Concrete topping cap and steel bulkhead cap interface
  - b. Perimeter of faying and bearing surfaces
  - c. Seams/joints between steel sheetpile Z-sections, tie back connections, and all other seams in the work zone
  - d. Joints in members between intermittent welds

- e. Joints between lifting hole cutouts and welded backer-plates
- f. All openings smaller than the maximum gap width recommended by joint sealer manufacturer
- g. Joints along bracketry and other devices
- h. Perimeters of patch repair areas as needed

C. Coating

- 1. Coating material shall be proportioned, mixed, applied (in coats, as applicable), and cured in accordance with all manufacturers recommendations unless otherwise indicated in these specifications or approved by the Owner in writing.
- 2. Apply strip coating over joint sealant, patch repairs, and other areas in accordance with coating material manufacturer's recommendations.
- 3. Repair of Defects: Repair detected coating holidays, thin areas, and exposed areas damaged surface treatment and application of additional coating or by manufacturer's recommendations.

3.6 SURFACES TO BE COATED

- A. Steel sheet piles, bulkhead caps, railing and utility brackets, and miscellaneous steel and fixtures as indicated in Drawings and in these specifications.

3.6 TESTING AND INSPECTION

- A. Testing and inspections shall be performed by the qualified coating specialist(s)/inspector(s) in accordance with the approved Testing and Inspection – Quality Control and Assurance Plan.
- B. Holiday Testing: Test for holidays in coating system. If in the opinion of the qualified coating specialist/inspector, the initial test results are satisfactory then amount of test may be reduced. Use a holiday detector in accordance with manufacturer's instructions. After repair of holidays by surface treatment and application of additional coating or by manufacturer's recommendation, retest with holiday detector.
- C. Dry Film Thickness: After repair of holidays, measure dry film thickness using a magnetic dry film thickness gage in accordance with ASTM D 1186 and ASTM E 376. Re-measure after an additional coat is applied, if required to meet minimum thickness requirements.

3.7 FINAL CLEANUP

- A. Following completion of the work, remove debris, equipment, and materials from the site. Dispose of all debris in accordance with Federal, State, and Local laws and regulations. Remove temporary connections to water and electrical services. Restore existing facilities in and around the work areas to their original condition.

END OF SECTION