**SHELL MOUND BOAT RAMP DREDGING**

**LEVY COUNTY BOARD OF COUNTY COMMISSIONERS**

**LEVY COUNTY, FLORIDA**

# BIDDING/CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS

**JANUARY 2026**

**20850**

WRIGHT-PIERCE
Engineering a Better Environment

**LEVY COUNTY BOARD OF COUNTY COMMISSIONERS**

**LEVY COUNTY, FLORIDA**

# BIDDING/CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS

**FOR**

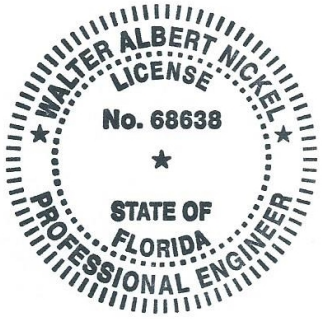
# SHELL MOUND BOAT RAMP DREDGING

**JANUARY 2026**

**Prepared By:**

**Wright-Pierce**
**601 South Lake Destiny Road, Suite 290**
**Maitland, FL 32751**
**407-906-1776**

SPECIFICATIONS CERTIFICATION

| | |
|---|---|
| **PROJECT SPECIFICATIONS – GENERAL & CIVIL**<br>DIVISIONS 0, 1 AND 2 |  <br>THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY WALTER ALBERT NICKEL, PE ON THE DATE ADJACENT TO THE SEAL.<br><br>PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. |
| | **Walter A. Nickel, PE**<br>**FL PE # 68638** |

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LEVY COUNTY BOARD OF COUNTY COMMISSIONERS
P.O. BOX 310
310 SCHOOL STREET
BRONSON, FL 32621
PHONE: (352) 486-5218

COVER PAGE
ITB_2025_025 – SHELL MOUND BOAT RAMP DREDGING

ADVERTISEMENT PUBLISH DATE: Wednesday, February 4, 2026
NON-MANDATORY PRE-BID CONFERENCE: Thursday, February 12, 2026 at 11:00 AM at 318 Mongo Street, Room C, Bronson, FL 32621
DEADLINE FOR QUESTIONS: Monday, February 16, 2026 at 2:00 PM EST
ADDENDUM ISSUED - RESPONSE TO QUESTIONS: Monday, February 23, 2026 at 2:00 PM EST
DUE DATE: Monday, March 2, 2026 at 2:00 PM EST
BID OPENING: Tuesday, March 3, 2026 at 10:00 AM EST at 318 Mongo Street, Room C, Bronson, FL 32621

SUMMARY OF SCOPE: Levy County is seeking construction services from a Certified General Contractor to install approximately 670 linear feet of maintenance dredging of a channel at the Shell Mound Boat Ramp including dewatering and off-site disposal of dredged material. The work is at the Shell Mound boat ramp owned by the County and generally located off SW 78th Pl, Cedar Key, Florida as depicted in the Contract Drawings.

SUBMITTAL OF BID: Levy County only accepts electronic submittals through "E-Bidding" on the OpenGov platform www.OpenGov.com. To submit a bid in response to this solicitation the bidder must be registered with OpenGov. For questions relating to this Bid, contact Lisa Makar, Office Manager at Makar.Lisa@LevyCounty.org

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# PART 1 – SCOPE OF WORK AND PROJECT REQUIREMENTS

1. SCOPE OF WORK: Levy County is seeking construction services from a Certified General Contractor to install approximately 670 linear feet of maintenance dredging of a channel at the Shell Mound Boat Ramp including dewatering and off-site disposal of dredged material. The work is at the Shell Mound boat ramp owned by the County and generally located off SW 78th Pl, Cedar Key, Florida as depicted in the Contract Drawings.

2. KEY CONTRACT TIMES:
    a. Contract Execution: Contractor must sign within 15 calendar days of the Notice of Award issued by the County.
    b. Notice to Proceed: County will issue within 30 calendar days of the Effective Date of the Contract.
    c. Completion Date: The work must be substantially complete with 180 calendar days of the date stated in the Notice to Proceed.
    d. Liquidated Damages: Liquidated Damages shall be paid at a rate of $500 for each calendar day that expires after the Completion Date, until the work is substantially complete.

3. BID GUARANTEE: The Bid shall be accompanied by a 5% Bid Guarantee which shall be in the form of a Bid Bond, Certified or Cashier's Check or Bank Draft (no cash, company, or personal checks will be accepted) made payable to the Levy County Board of County Commissioners. The purpose is to guarantee that the Bidder will not withdraw its bid for a period of 90 days after the Bid Opening. It shall also guarantee that the successful bidder will execute the Contract. In the event of withdrawal of bid or failure to timely execute the Contract, the bidder may be deemed in default and liable to the County for the full amount of the default. The Bid Guarantee will be released upon execution of the Contract.

4. INSURANCE REQUIREMENTS: Certificates of Insurance must be provided as proof that Bidder has policies in effect with coverages and limits as follows:
    a. Worker's Compensation: Coverage is to apply for all employees for statutory limits in compliance with the applicable state and federal laws. The policy must include Employers' Liability with a limit of $500,000 each accident, $500,000 each employee, $500,000 policy limit for disease.
    b. Commercial General Liability – Occurrence Form Required: Contractor shall maintain commercial general liability (CGL) insurance with a limit of not less than $500,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to this location/project in the amount of $1,000,000. Products and completed operations aggregate shall be $1,000,000. CGL insurance shall be written on an occurrence form and shall include bodily injury and property damage liability for premises, operations, independent contractors, produces and completed operations, contractual liability, broad form property damage and property damage resulting from explosion, collapse or underground (x, c, u) exposures, personal injury and advertising injury. Damage to rented premises shall be included at a minimum of $100,000.
    c. Commercial Automobile Liability Insurance: Contractor shall maintain automobile liability insurance with a limit of not less than $1,000,000 each accident for bodily injury and property damage liability. Such insurance shall cover liability arising out of any auto (including owned, hired and non-owned autos). This policy shall be endorsed to provide contractual liability coverage.

5. CONTRACTOR QUALIFICATIONS: Bidder must hold a current, active license issued by the State of Florida Department of Business and Professional Regulation (DBPR) as a Certified Building Contractor or a Certified General Contractor pursuant to Chapter 489, Part I, Florida Statutes. In addition, any proposed sub-contractors must hold a current, active Florida license for any specialty work performed to complete this project. Copies of all DBPR licenses shall be submitted to Levy County with the bid and failure to do so may result in the bid being deemed non-responsive.

6. PAYMENT AND PERFORMANCE BOND OR OTHER FORM OF SECURITY: At the time of execution of the Contract with the County, the Contractor shall provide a combination Payment and Performance Bond issued by an insurer authorized to do business in the State of Florida as a surety and the Bond must be in the form required by Section 255.05, Florida Statutes. Alternatively, the Contractor may provide one of the alternative forms of security authorized by Section 255.05(7), Florida Statutes. Any security provided shall be in the amount of 100% of the Bid Amount.

7. USE OF SUBCONTRACTORS: If Bidder intends to subcontract any services or work, the names of the subcontractors and any additional relevant information requested by the County, must be provided to County for review. The County reserves the right to approve or reject any subcontractor or subconsultant and to evaluate/inspect any subcontractors in order to determine the ability of the subcontractor or subconsultant. The County's approval of a subcontractor or subconsultant shall not be unreasonably withheld. The Contractor is encourages to seek minority and women business enterprises for participation in subcontracting opportunities.

END OF PART 1

# PART 2 – INTENT AND GENERAL INFORMATION

Thank you for your interest in working with Levy County. General information regarding this bid process is provided below:

1. INTENT: It is the intent of Levy County ("County") to award a contract to the lowest responsive responsible bidder who meets, or exceeds, all requirements set forth in the provisions of this Invitation to Bid ("ITB"). Bidder may be required to supply information in writing at the request and discretion of the County prior to award of bids, in order to verify the above requirements.

2. QUESTIONS, EXCEPTIONS TO FORM OF CONTRACT AND ADDENDA: There shall not be any contact between a potential bidder/bidder or their representative(s) and any member of County Staff or County Commissioners regarding this Project or ITB.

   The County will not respond to verbal (in person or phone) questions regarding this ITB. Bidder must submit written questions (via email, mail or hand delivery) to the Office Manager at P.O. Box 310 or 310 School Street, Bronson, Florida 32621; email: MAKAR-LISA@LEVYCOUNTY.ORG.

   Any bidder who requires/requests revision(s) to the Form of Contract (contained in Part 3 of this ITB) must submit a completed Contract Exception Form (contained in Part 3 of this ITB.) The County is under no obligation to grant any exceptions and bids that are contingent on exceptions to Contract being granted will not be accepted. If an exception is rejected by the County during the question portion of this ITB process and the bidder subsequently submits a bid, the bidder is deemed to have waived their request for a Contract exception.

   All questions and Contract Exception Forms must be received by the County prior to the deadline for questions in order to receive a response. The County will respond to each question and each completed Contract Exception Form and will issue written addenda for any supplemental instructions or clarifications to the ITB or the Contract. All addenda will be sent to all bidders who received the ITB from the County and will also be posted on OpenGov. Each bidder must acknowledge receipt of addenda as part of its bid and is presumed to have read and be thoroughly familiar with the provisions of this ITB and its addenda.

3. HOW TO SUBMIT A BID: The County only accepts electronic submittals through OpenGov platform. In order to submit a bid, the bidder must be registered with OpenGov. The bidder's complete bid must be uploaded in pdf format unless the ITB specifically states otherwise. Any bid submitted after the due date and time will not be accepted by the OpenGov platform and will not be considered. The County is not responsible for any delays in delivery or uploading of a bid caused by any issues a bidder may experience in attempts to upload on the OpenGov platform or caused by any other occurrence. A bidder should give sufficient time to address any delivery or uploading issues when it schedules the submittal of its bid.

4. HOW TO ASSEMBLE YOUR BID: Bids shall be submitted on the Forms ("Bid Forms") supplied by the County in this ITB. Any erasures or other corrections in the bid forms must be explained or noted over the signature of the bidder. Bid Forms containing any conditions, omissions, erasures, alterations, or irregularities of any kind, whether explained or noted or not, may be rejected by the County.

   The documents listed on the Bid Signature Form must accompany any bid submitted. A bid submitted without the required documents may result in the County deeming the bid non-responsive. The County reserves the right to request additional information from any bidder prior to award.

5. WITHDRAWAL OF BIDS: Modifications to or withdrawal of a bid may be made up until the Bid Due Date. Modifications and withdrawals must be documented in the OpenGov platform in order to be recognized by the

County. Error or negligence on the part of the bidder in preparing the bid confers no right for withdrawal of the bid after it has been opened.

6. CRITERIA FOR AWARD: Award of a contract (in the Form of Contract contained in the Contract Documents) shall be to the overall lowest responsive, responsible bidder whose bid meets or exceeds the requirements set forth in this ITB. The bidder who is awarded and enters into a contract with the County is referred to as "Contractor."

   The County reserves the right to reject the bid of any bidder who has previously failed to perform properly, or on time, contracts of similar nature; or who is not in a position to satisfactorily perform the contract. If, after the due date and time, the lowest bidder is deemed non-responsible by the County, such bidder shall receive written notice from the County of this determination. The bidder shall have five (5) days from the date of this notice to dispute the determination and to provide to County any additional information it deems relevant regarding bidder's responsibility. The County shall make a final determination regarding the bidder's responsibility at the time of award of the contract.

   The County reserves the right to accept or reject any and/or all bids, to waive irregularities and technicalities, and to request resubmission of bids. In addition, the County reserves the right to accept all or any part of the bid and to increase or decrease quantities to meet additional or reduce requirements of the County. Any sole response received may be rejected by the County depending on available competition and timely needs of the County.

7. ARITHMETIC DISCREPANCIES: For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bid forms submitted by the bidder:
   a. Obviously misplaced decimal points will be corrected.
   b. In case of discrepancy between unit price and extended price, the unit price will govern.
   c. Apparent errors in addition of lump sum and extended prices will be corrected.

8. BID PREPARATION & SUBMITTAL EXPENSES: The County is not responsible for any expense incurred by a bidder in reviewing, evaluating, preparing, or submitting a bid. Bidders are solely responsible for the entire expense of responding to this ITB.

9. ALL-INCLUSIVE COST: The bid amount shall include all costs necessary to complete the delivery of products or provide the services described in this Invitation to Bid.

10. BID OPENING; BID SUBMITTALS: In accordance with Section 255.0518, Florida Statutes, the bids will be opened at a public meeting, and the name of each bidder and the price submitted in the bid will be announced at that meeting. However, in accordance with Section 119.071(1)(b)2, Florida Statutes, the sealed bids, proposals, or replies received by an agency pursuant to a competitive solicitation are exempt from Section 119.07(1), Fla. Stat., and s. 24(a), Art. I of the State Constitution, until such time as the agency provides notice of an intended decision or until 30 days after opening the bids, proposals, or final replies, whichever is earlier.

11. CODE OF ETHICS: With respect to this bid, if any bidder violates or is a party to a violation of the State of Florida Code of Ethics for Public Officers and Employees, Chapter 112, Part III, Florida Statutes, such bidder may be disqualified from furnishing the goods or services for which the bid is submitted and shall be further disqualified from submitting any future bids for goods or services for County.

END OF PART 2

# PART 3 – REQUIRED AND OPTIONAL FORMS

(Forms on Following Pages)

# STATEMENT OF NON-SUBMITTAL

Levy County
Board of County Commissioners
P.O. BOX 310
Bronson, FL 32621
(352) 486-5218

If you do not intend to submit a response to the Invitation to Bid, please return this form to the above address or email it to Makar.Lisa@LevyCounty.org . If this statement is not completed and returned, your company may be deleted from the Levy County list for this service.

We the undersigned have declined to submit a response on INVITATION TO BID 2025 _025 – SHELL MOUND BOAT RAMP DREDGING for the following reason(s):

- ☐ Insufficient time to respond to the Invitation to Bid
- ☐ We do not offer this service
- ☐ Our schedule would not permit us to perform
- ☐ Unable to meet bond/insurance requirements
- ☐ Unable to meet bid specifications or scope of anticipated services
- ☐ Specifications are unclear (explain below)
- ☐ Remove us from your vendors' list for this service
- ☐ Other (specify below)

Remarks: _____

Company Name: _____

Contact Person: _____

Signature: _____

Telephone: _____

Date: _____

Email: _____

# BID SIGNATURE FORM

ITB_2025_025 – SHELL MOUND BOAT RAMP DREDGING

The undersigned ("Authorized Signatory") confirms each of the following statements on behalf of the bidder:

- They are authorized to submit this bid and to bind the bidder to the terms and conditions of this ITB.
- They have read the entire ITB package and any other documentation related to the ITB, including specifically any bid addenda issued by the County; have visited the location of the Work and/or have made any inquires they deem necessary to determine conditions prior to submission of this bid.
- This bid is submitted with full knowledge and understanding of the terms and conditions of this ITB
- The total bid provided in the signed "Bid Form for Construction Contract" includes all labor, materials and equipment necessary to perform the Work in accordance with all requirements of this ITB and the total bid price is guaranteed for a period of ninety (90) days following the Bid Opening Date.

The bidder agrees to complete the work within 180 calendar days of the date stated in the Notice to Proceed.

The bid submitted includes all of the following signed forms and required documents:

☐ BID FORM FOR CONSTRUCTION CONTRACT (Section 00410 in the Contract Documents)
☐ SWORN STATEMENT ON PUBLIC ENTITY CRIME FORM
☐ NON-COLLUSION AFFIDAVIT FORM
☐ DRUG-FREE WORKPLACE FORM (Note: this form is optional, but may be used to break a tie bid)
☐ CONFLICT OF INTEREST DISCLOSURE STATEMENT FORM
☐ BID BOND
☐ CERTIFICATES OF INSURANCE – AS PROOF OF INSURANCE COVERAGES REQUIRED
☐ EVIDENCE THAT THE BIDDER IS QUALIFIED TO TRANSACT BUSINESS IN THE STATE OF FLORIDA
☐ COPIES OF ANY CURRENT LICENSES OR CERTIFICATIONS REQUIRED
☐ LIST OF SUBCONTRACTORS, IF ANY.

Is Bidder a small or minority business, women's business enterprise, or labor surplus area firm? ☐ Yes ☐ No

Name of Bidder: _____
If bidder is an entity, list type: _____
Bidder Street Address: _____
City, State, Zip: _____

Name of Authorized Signatory: _____
Email Address: _____ Telephone: _____
Signature: _____ Date: _____

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

# SWORN STATEMENT ON PUBLIC ENTITY CRIME

Sworn Statement Pursuant to Section 287.133(3)(a), Florida Statutes

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

1. This sworn statement is submitted to _____

   By _____
   (Print this individuals name and title)

   For _____

   (Print name of entity submitting statements)

   Whose business address is _____

   and if applicable whose Federal Employer Identification Number (FEIN) is _____.

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

   _____.

2. I understand that a "public entity crime" as defined in paragraph 287.133(1)(a), Florida Statutes, mean violation of any state or federal law by a person with respect to and directly related to the transactions of business with any public entity or with an agency or political subdivision of any other state or with the United States including, but not limited to any bid or contract for goods or services to be provided to any public entity or any agency or political subdivision of any other state or the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
3. I understand that "convicted" or "convection" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or conviction of a public entity crime, with or without adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a Jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means:
   a. A predecessor or successor of a person convicted of public entity crime; or
   b. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
5. I understand that a "person" as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in a relation to the entity submitting this sworn statement. (Please indicate which statement applies).

   ☐ Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or any affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months.

   ☐ The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months AND (Please indicate which additional statement applies).

   ☐ The entity submitting the sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime within the past 36 months. However, there has been a subsequent proceeding before a Hearing Officers of the State of Florida, Division of Administrative Hearings and the Final Order by the Hearing Officer determined that it was not in the public interest place the entity submitting this sworn statement on the convicted vendor list. (Attached is a copy of the final order).

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

_____

(Signature)

State of _____

County of _____

Sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 20____, by _____ (name), as _____ (title) for _____ (name of bidder) Personally known ☐ OR Produced Identification ☐ _____ (type of identification).

_____

(Signature) Notary Public (SEAL)

_____

(Printed, typed or stamped commissioned name of notary public)

My Commission expires _____

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

# NON-COLLUSION AFFIDAVIT

I, _____ of the County of _____

According to law on my oath, and under penalty of perjury, depose and say that:

1. I am _____ of the firm of_____ providing that I executed the said bid with full authority to do so.
2. This response has been arrived at independently without collusion, consultation, communication or agreement for the purpose of restricting competition, as to any matter relating to qualifications or responses of any other responder to induce any other person, partnership or corporation to submit, or not to submit, a response for the purpose of restricting competition;
3. The statements contained in this affidavit are true and correct, and made with full knowledge that Levy County relies upon the truth of the statements contained in this affidavit in awarding contracts for any services resulting from this ITB for said project.

_____ _____

(Signature of Proposer Representative) (Date)

State of _____

County of _____

Sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____, 20____, by _____ (name), as _____ (title) for _____ (name of bidder) Personally known ☐ OR Produced Identification ☐ _____ (type of identification).

_____

(Signature) Notary Public (SEAL)

_____

(Printed, typed or stamped commissioned name of notary public)

My Commission expires _____

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

# DRUG-FREE WORKPLACE FORM

The undersigned Bidder in accordance with Section 287.087, Florida Statutes hereby certifies that the Bidder _____ (name of firm or individual) does:

1. Publish a statement notifying employees that the unlawful manufacture, distributions, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United State or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Name of Bidder: _____

Signature: _____

Title: _____

Date: _____

THIS DOCUMENT IS OPTIONAL, BUT MAY BE USED TO BREAK A TIE BID, SO IT IS RECOMMENDED TO BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

# CONFLICT OF INTEREST DISCLOSURE STATEMENT

The award hereunder is subject to the provisions of Chapter 112, Florida Statutes. All bidders must disclose with their bids whether any officer, director, employee or agent is also an officer or an employee of the Board of County Commissioners. All bidders must disclose whether any officer, partner, director or proprietor is the spouse or child of one of the members of the Board of County Commissioners. All bidders must disclose the name of any County officer or employee who owns, directly or indirectly, an interest of five percent (5%) or more in the firm or any of its branches or affiliates. All bidders must also disclose the name of any employee, agent lobbyist, previous employee of the Board, or other person, who has received or will receive compensation of any kind in connection with the response to this ITB. All bidders are also required to include a disclosure statement of any potential conflict of interest that the bidder may have due to other clients, contracts, or interest associated with the performance of services under this ITB and any resulting agreement. Use additional sheets if necessary.

Names of Officer, Director, Employee or Agent that is also an Employee of the Board:

_____ _____

Names of Officer, Partner, Director or Proprietor who is spouse or child of Board Member:

_____ _____

Names of County Officer or Employee that owns five percent (5%) or more in Bidders Firm:

_____ _____

Names of applicable person(s) who have received compensation:

_____ _____

Description of potential conflict(s) with other clients, contracts or interests:

_____

_____

_____

_____

None of the above applicable: ☐

Signature: _____ Printed Name: _____

Bidder Name: _____

Date: _____

THIS DOCUMENT MUST BE COMPLETED AND RETURNED WITH YOUR SUBMITTAL

# CONTRACT EXCEPTION FORM

Any bidder who requires/requests revision(s) to the Form of Contract (contained in Part 3 of this ITB) must submit this completed Contract Exception Form during the Question portion of the ITB process. The County is under no obligation to grant any exceptions and any bid submitted that is contingent on exceptions to the Contract being granted will not be accepted. If an exception is rejected by the County and the bidder subsequently submits a bid, the bidder is deemed to have waived their request for a Contract exception.

| Request for Revision to Form of Contract |
|---|
| Identify the specific Contract provision(s) that Bidder takes exception to: |
| |
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| |
| Explain the specific revision(s) that are being requested (such as, delete the provision or modify it to state…) |
| |
| |
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| |
| |
| |
| |
| |

Signature: _____ Printed Name: _____

Bidder Name: _____

Date: _____

IF BIDDER HAS ANY QUESTIONS, THIS FORM MUST BE COMPLETED AND TURNED IN DURING THE QUESTION PERIOD

# PART 4 – CONTRACT DOCUMENTS FOR THE SHELL MOUND BOAT RAMP DREDGING

The following documents will be uploaded as separate files on OpenGov:

“Bidding/Contract Documents and Technical Specifications” dated January 2026 prepared by Wright-Pierce

“Contract Drawings for Shell Mound Boat Ramp Dredging” dated January 2026 prepared by Wright-Pierce

# SECTION 00100

## ADVERTISEMENT FOR BIDS

LEVY COUNTY BOARD OF COUNTY COMMISSIONERS (BOCC), FL
SHELL MOUND BOAT RAMP IMPROVEMENTS

### General Notice

Levy County Board of Commissioners (Owner) is requesting Bids for the construction of the following Project:

SHELL MOUND BOAT RAMP IMPROVEMENTS

Bids for the construction of the Project will be received by the Levy County Procurement Department at 310 School Street, Bronson, FL 32621 via the "E-Bidding" portal of www.OpenGov.com, until Monday, March 2, 2026 at 2:00 PM EST. Bids will be publicly opened and read on Tuesday, March 3, 2026 at 10:00 AM at 318 Mongo Street, Room C, Bronson, FL 32621.

The Project includes the following Work:

Approximately 670 linear feet of maintenance dredging of a channel at the Shell Mound Boat Ramp. Dewatering and off-site disposal of dredged material.

### Obtaining the Bidding Documents

The Issuing Office is Levy County. Information and Bidding Documents for the Project can be found at the following designated website: www.OpenGov.com

To be considered a responsive Bidder, the Bidder shall have obtained at least one set of Bidding Documents from the Issuing Office using the name that is to appear on the Bid Form. The designated website will be updated periodically with addenda, lists of plan holders, reports, and other information relevant to submitting a Bid for the Project. All official notifications, addenda, and other Bidding Documents will be offered only through the designated website. Neither Owner nor Engineer will be responsible for Bidding Documents, including addenda, if any, obtained from sources other than the designated website. It is the Bidder's responsibility to check the designated website for addenda.

### Pre-bid Conference

A pre-bid conference for the Project will be held on Thursday February 12, 2026 at 11:00 AM at the Levy County Procurement Department at 318 Mongo Street, Room C, Bronson, FL 32621. Attendance at the pre-bid conference is encouraged but not required. A site visit will follow the meeting.

### Advertisement and Bidding Schedule

| | |
|---|---|
| Advertisement | Wednesday, February 4, 2026 |
| Prebid Meeting | Thursday, February 12, 2026 at 11:00AM EST |
| Deadline for Questions | Monday, February 16, 2026 at 2:00PM EST |
| Issue Bid Addendum(s) | Monday, February 23, 2026 at 2:00PM EST |
| Due Date | Monday, March 2, 2026 at 2:00PM EST |
| Bid Opening | Tuesday, March 3, 2026 at 10:00AM EST |

END OF SECTION

EJCDC® C-111, Advertisement for Bids for Construction Contract.
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# SECTION 00200

# INSTRUCTIONS TO BIDDERS FOR CONSTRUCTION CONTRACT

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## ARTICLE 1—DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions.

1.02 Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders.

## ARTICLE 2—BIDDING DOCUMENTS

2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.

2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.

2.03 Owner has established a Bidding Documents Website as indicated in the Advertisement or invitation to bid. Owner recommends that Bidder register as a plan holder with the Issuing Office at such website, and obtain a complete set of the Bidding Documents from such website. Bidders may rely that sets of Bidding Documents obtained from the Bidding Documents Website are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.

2.04 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may distribute the Bidding Documents, or make them available for examination. Those prospective bidders that obtain an electronic (digital) copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Bidding Documents Website or Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda from a plan room.

2.05 *Electronic Documents*

A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.

1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf). It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner


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and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.

B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

3.01 Deleted.

3.02 Deleted.

3.03 *Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:*

A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.

B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.

C. Bidder's state or other contractor license number, if applicable.

D. Subcontractor and Supplier qualification information.

E. Other required information regarding qualifications.

3.04 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.05 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4—PRE-BID CONFERENCE

4.01 A non-mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or invitation to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference; however, attendance at this conference is not required to submit a Bid.

4.02 Information presented at the pre-Bid conference does not alter the Contract Documents. Owner will issue Addenda to make any changes to the Contract Documents that result from


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discussions at the pre-Bid conference. Information presented, and statements made at the pre-bid conference will not be binding or legally effective unless incorporated in an Addendum.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

5.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

5.02 *Existing Site Conditions*

A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*

1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:

a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

5.03 *Other Site-related Documents*

A. No other Site-related documents are available.

5.04 *Site Visit and Testing by Bidders*

A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.

B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.

C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional


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examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.

D. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.

E. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 *Owner's Safety Program*

A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.06 *Other Work at the Site*

A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.

B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.

7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing. Contact information and submittal procedures for such questions are as follows:

A. Michael K. Hoffman, Wright-Pierce at (407) 720-5712 or michael.hoffman@wright-pierce.com


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7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than five working days prior to the date for opening of Bids may not be answered. Addenda will be issued not later than five working days before the bid opening. Bidders are responsible for determining that they have received all Addenda issued.

7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5% percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents. Bid security must be at least 5% of the Bidder's maximum Bid price.

8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.

8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.

9.02 Deleted.

9.03 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.


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ARTICLE 10—SUBSTITUTE AND "OR EQUAL" ITEMS

10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

11.01 A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents or in the Specifications. If a prospective Bidder objects to retaining any such Subcontractor or Supplier and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

11.02 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work within five days after Bid opening:

A. Dredging (if not self-performed)

B. Dewatering (if not self-performed)

C. Stormwater Pollution Prevention (if not self-performed)

D. Maintenance of Traffic (if not self-performed)

11.03 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection

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prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

ARTICLE 12—PREPARATION OF BID

12.01 The Bid Form is included with the Bidding Documents.

A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.

12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.

12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.

12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.

12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.

12.06 A Bid by an individual must show the Bidder's name and official address.

12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.

12.08 All names must be printed in ink below the signatures.

12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.

12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.

12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.

12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach


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such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 *Lump Sum with Unit Prices and Alternates*

A. Bidders must submit a Bid on a lump sum basis for each lump sum item, and on a unit price basis for each unit price item of Work listed in the Bid Form for the base Bid and include a separate price for each alternate described in the Bidding Documents and as provided for in the Bid Form. The price for each alternate will be the amount added to or deleted from the base Bid if Owner selects the alternate.

B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

D. The total of all unit price "Bid Prices" and all lump sum items will be used by Owner for Bid comparison purposes.

13.02 *Allowances*

A. For cash allowances the Bid price must include such amounts as the Bidder deems proper for Contractor's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 13.02.B of the General Conditions.

ARTICLE 14—SUBMITTAL OF BID

14.01 Deleted.

14.02 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

15.01 An unopened Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted


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prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.

15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.

ARTICLE 16—OPENING OF BIDS

16.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.

18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.

18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.

18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.

18.05 *Evaluation of Bids*

A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

B. Deleted.

C. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.

D. Deleted.

E. Deleted.

18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers


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proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.

18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 19—BONDS AND INSURANCE

19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.

19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

ARTICLE 20—SIGNING OF AGREEMENT

20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 10 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 21—SALES AND USE TAXES

21.01 Deleted.

ARTICLE 22—NOT USED

ARTICLE 23—DELETION OF ITEMS

23.01 Owner reserves the right to reduce project scope by the elimination of Bid items, reduction of quantities on unit price Bid items, or deleting elements of lump sum Bid items. No adjustment to other Bid items prices will be permitted. In the case of reduction of quantities on unit price items, the unit price will not be adjusted. Such adjustments to project scope will be determined prior to award of the Contract and will be negotiated with the apparent Successful Bidder only. If such negotiations are not satisfactory to Owner, Owner will reject all Bids

END OF SECTION

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# SECTION 00410

# BID FORM FOR CONSTRUCTION CONTRACT

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Levy County Board of County Commissioners for the Shell Mound Boat Ramp Improvements.

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. List of Proposed Subcontractors;

C. List of Proposed Suppliers;

D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids;

E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids;

F. Required Bidder Qualification Statement with supporting data;

G. A tabulation of Subcontractors, Suppliers and other persons and organizations required to be identified in this Bid.

ARTICLE 3—BASIS OF BID—LUMP SUM BID AND UNIT PRICES

3.01 Base Bid Items

A. Bidder will complete the Work in accordance with the Contract Documents for the following lump sum, unit price and allowance items.

B. Bidder acknowledges that:

1. Each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and

2. Estimated quantities are not guaranteed and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents (estimated "*").

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| Item No. | Description | Unit | Quantity | Bid Unit Price | Bid Amount |
|---|---|---|---|---|---|
| 1 | Mobilization/Demobilization | Lump Sum | 1 | - | $ |
| 2 | Traffic Control | Lump Sum | 1 | - | $ |
| 3 | Sediment Barrier | Lump Sum | 1 | | $ |
| 4 | Floating Turbidity Barrier | Lump Sum | 1 | | $ |
| 5 | Soil Tracking Prevention Device | Lump Sum | 1 | | $ |
| 6 | Riprap, Rubble, Ditch Lining | Ton | 80 | | |
| 7 | Clearing and Grubbing | Lump Sum | 1 | - | $ |
| 8 | Hydraulic Dredging | Cubic Yard | 4400 | | $ |
| 9 | Dewatering of Dredged Material | Lump Sum | 1 | - | $ |
| 10 | Disposal of Dredged Material | Ton | 4000 | | $ |
| 11 | Performance Turf, Sod | Square Yards | 2500 | | $ |
| 12 | Remove and Replace Service Connections (W/WW/ELEC) | Lump Sum | 1 | - | $ |
| Total Base Bid | | | | | $ |

ARTICLE 4—DELETED

ARTICLE 5—DELETED

ARTICLE 6—TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Deleted.

6.03 Deleted.

6.04 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7—BIDDER'S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

7.01 *Bid Acceptance Period*

A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

7.02 *Instructions to Bidders*

A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.


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7.03 *Receipt of Addenda*

A. Bidder hereby acknowledges receipt of the following Addenda:

| Addendum Number | Addendum Date |
|---|---|
| | |
| | |
| | |

ARTICLE 8—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

8.01 *Bidder's Representations*

A. In submitting this Bid, Bidder represents the following:

1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work, including all American Iron and Steel requirements.
4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder's (Contractor's) safety precautions and programs.
7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies

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between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

8.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.

2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.

3. Bidder has not solicited or induced any individual or entity to refrain from bidding.

4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 8.02.A:

a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.

b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.

c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.

d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.


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BIDDER hereby submits this Bid as set forth above:

Bidder:

_____
*(typed or printed name of organization)*

By: _____
*(individual's signature)*

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Date: _____
*(typed or printed)*

*If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.*

Attest: _____
*(individual's signature)*

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Date: _____
*(typed or printed)*

Address for giving notices:

_____

_____

Bidder's Contact:

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Phone: _____

Email: _____

Address:

_____

_____

_____

Bidder's Contractor License No.: (if applicable) _____

END OF SECTION

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# SECTION 00430

## BID BOND (PENAL SUM FORM)

| | |
|---|---|
| Bidder<br>Name: [Full formal name of Bidder]<br>Address *(principal place of business)*:<br>[Address of Bidder's principal place of business] | Surety<br>Name: [Full formal name of Surety]<br>Address *(principal place of business)*:<br>[Address of Surety's principal place of business] |
| Owner<br>Name: Levy County BOCC<br>Address *(principal place of business)*:<br>310 School Street, PO Box 310, Bronson, FL 32621 | Bid<br>Project *(name and location)*:<br>Shell Mound Boat Ramp Improvements, Cedar Key, Florida<br><br>Bid Due Date: [Enter date bid is due] |
| Bond<br>Penal Sum: [Amount]<br>Date of Bond: [Date] | |

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

| Bidder | Surety |
|---|---|
| _____<br>*(Full formal name of Bidder)* | _____<br>*(Full formal name of Surety) (corporate seal)* |
| By: _____<br>*(Signature)* | By: _____<br>*(Signature) (Attach Power of Attorney)* |
| Name: _____<br>*(Printed or typed)* | Name: _____<br>*(Printed or typed)* |
| Title: _____ | Title: _____ |
| Attest: _____<br>*(Signature)* | Attest: _____<br>*(Signature)* |
| Name: _____<br>*(Printed or typed)* | Name: _____<br>*(Printed or typed)* |
| Title: | Title: |

*Notes: (1) Note: Addresses are to be used for giving any required notice. (2) 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 will be Owner's sole and exclusive remedy upon default of Bidder.


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2. Default of Bidder occurs 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 will 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 does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action will 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 will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder must 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 Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will 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 will 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 governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

END OF SECTION

EJCDC® C-430, Bid Bond (Penal Sum Form).
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# SECTION 00510

## NOTICE OF AWARD

Date of Issuance:
Owner: Levy County Board of County Commissioners — Owner's Project No.:
Engineer: Wright-Pierce — Engineer's Project No.: 20850
Project: Shell Mound Boat Ramp Improvements
Contract Name: Shell Mound Boat Ramp Improvements
Bidder:
Bidder's Address:

You are notified that Owner has accepted your Bid dated _____ for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

Approximately 670 linear feet of maintenance dredging of a channel at the Shell Mound Boat Ramp. Dewatering and off-site disposal of dredged material.

The Contract Price of the awarded Contract is $_____. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

[Number of copies sent] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

☐ Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [number of copies sent] counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): [Describe other conditions that require Successful Bidder's compliance]

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 10 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner: Levy County Board of County Commissioners
By *(signature)*: _____
Name *(printed)*: _____
Title: _____

Copy: Engineer

END OF SECTION

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# SECTION 00520

## AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

This Agreement is by and between Levy County, Florida ("Owner") and [name of contracting entity] ("Contractor").

Terms used in this Agreement have the meanings stated in the General Conditions and the Supplementary Conditions.

Owner and Contractor hereby agree as follows:

ARTICLE 1—WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Approximately 600 linear feet of maintenance dredging of a channel at the Shell Mound Boat Ramp. Dewatering and off-site disposal of dredged material.

ARTICLE 2—THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows:

Shell Mound Boat Ramp Dredging

ARTICLE 3—ENGINEER

3.01 The Owner has retained the engineering firm ("Engineer") to act as Owner's representative, assume all duties and responsibilities of Engineer, and have the rights and authority assigned to Engineer in the Contract.

3.02 The part of the Project that pertains to the Work has been designed by Wright-Pierce.

ARTICLE 4—CONTRACT TIMES

4.01 *Time is of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Days*

A. The Work will be substantially complete within 180 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 45 days after the date when the Contract Times commence to run.

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ARTICLE 5—CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents, the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.

ARTICLE 6—PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on the basis of Contractor's Applications for Payment on or about the last day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

a. 95 percent of the value of the Work completed (with the balance being retainage).b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work, Owner shall pay the remainder of the Contract Price in accordance with Paragraph 15.06 of the General Conditions.

1. Deleted.

6.04 *Consent of Surety*

A. Owner will not make final payment, or return or release retainage at Substantial Completion or any other time, unless Contractor submits written consent of the surety to such payment, return, or release.

6.05 *Interest*

A. All amounts not paid when due will bear interest at the rate of prime plus 2 percent per annum.

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ARTICLE 7—CONTRACT DOCUMENTS

7.01 *Contents*

A. The Contract Documents consist of all of the following:

1. This Agreement.
2. Bonds:
    a. Performance bond (together with power of attorney).
    b. Payment bond (together with power of attorney).
3. General Conditions.
4. Supplementary Conditions.
5. Specifications as listed in the table of contents of the project manual (copy of list attached).
6. Drawings (not attached but incorporated by reference) consisting of 13 sheets with each sheet bearing the following general title:

    SHELL MOUND BOAT RAMP DREDGING
7. Addenda (numbers [number] to [number], inclusive).
8. Exhibits to this Agreement (enumerated as follows):
    a. Contractor's Bid
    b. [list exhibits]
9. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
    a. Notice to Proceed.
    b. Work Change Directives.
    c. Change Orders.
    d. Field Orders.
    e. Warranty Bond, if any.

B. The Contract Documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 7.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the Contract.

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ARTICLE 8—REPRESENTATIONS, CERTIFICATIONS, AND STIPULATIONS

8.01 *Contractor's Representations*

A. In order to induce Owner to enter into this Contract, Contractor makes the following representations:

1. Contractor has examined and carefully studied the Contract Documents, including Addenda.

2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Contractor is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.

4. Contractor has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.

5. Contractor has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.

6. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (c) Contractor's safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

8. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

9. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

10. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

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11. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

8.02 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.02:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

8.03 *Standard General Conditions*

A. Owner stipulates that if the General Conditions that are made a part of this Contract are EJCDC® C700, Standard General Conditions for the Construction Contract (2018), published by the Engineers Joint Contract Documents Committee, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.-

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IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on [indicate date on which Contract becomes effective] (which is the Effective Date of the Contract).

Owner:

_____
*(typed or printed name of organization)*

By: _____
*(individual's signature)*

Date: _____
*(date signed)*

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Attest: _____
*(individual's signature)*

Title: _____
*(typed or printed)*

Address for giving notices:

_____

_____

_____

Designated Representative:

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Address:

_____

_____

_____

Phone: _____

Email: _____

*(If [Type of Entity] is a corporation, attach evidence of authority to sign. If [Type of Entity] is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

Contractor:

_____
*(typed or printed name of organization)*

By: _____
*(individual's signature)*

Date: _____
*(date signed)*

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

*(If [Type of Entity] is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest: _____
*(individual's signature)*

Title: _____
*(typed or printed)*

Address for giving notices:

_____

_____

_____

Designated Representative:

Name: _____
*(typed or printed)*

Title: _____
*(typed or printed)*

Address:

_____

_____

_____

Phone: _____

Email: _____

License No.: _____
*(where applicable)*

State: _____

END OF SECTION

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# SECTION 00550

## NOTICE TO PROCEED

| | | | |
|---|---|---|---|
| Owner: | _____ | Owner's Project No.: | _____ |
| Engineer: | _____ | Engineer's Project No.: | _____ |
| Contractor: | _____ | Contractor's Project No.: | _____ |
| Project: | _____ | | |
| Contract Name: | _____ | | |
| Effective Date of Contract: | _____ | | |

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [date Contract Times are to start] pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement: [Select one of the following two alternatives, insert dates or number of days, and delete the other alternative.]

The date by which Substantial Completion must be achieved is [date for Substantial Completion, from Agreement], and the date by which readiness for final payment must be achieved is [date for readiness, from Agreement].

[or]

The number of days to achieve Substantial Completion is [number of days, from Agreement] from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of [date, calculated from commencement date above]; and the number of days to achieve readiness for final payment is [number of days, from Agreement] from the commencement date of the Contract Times, resulting in a date for readiness for final payment of [date, calculated from commencement date above].

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

| | |
|---|---|
| Owner: | Levy County Board of County Commissioners |
| By *(signature)*: | _____ |
| Name *(printed)*: | _____ |
| Title: | _____ |
| Date Issued: | _____ |

Copy: Engineer

END OF SECTION

EJCDC® C-550, Notice to Proceed.
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# SECTION 00610

# PERFORMANCE BOND

1. Performance bond shall be provided by the Contractor in accordance with the attached Florida Statute 255.05 Bond of Contractor Constructing Public Buildings.

END OF SECTION

EJCDC® C-610, Performance Bond.
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# SECTION 00615

# PAYMENT BOND

| | |
|---|---|
| Contractor<br>Name: [Full formal name of Contractor]<br>Address *(principal place of business)*:<br>[Address of Contractor's principal place of business] | Surety<br>Name: [Full formal name of Surety]<br>Address *(principal place of business)*:<br>[Address of Surety's principal place of business] |
| Owner<br>Name: [Full formal name of Owner]<br>Mailing address *(principal place of business)*:<br>[Address of Owner's principal place of business] | Contract<br>Description *(name and location)*:<br>[Owner's project/contract name, and location of the project]<br>Contract Price: [Amount, from Contract]<br>Effective Date of Contract: [Date, from Contract] |

Bond

Bond Amount: [Amount]

Date of Bond: [Date]

*(Date of Bond cannot be earlier than Effective Date of Contract)*

Modifications to this Bond form:

☐ None ☐ See Paragraph 18

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

| Contractor as Principal | Surety |
|---|---|
| _____<br>*(Full formal name of Contractor)* | _____<br>*(Full formal name of Surety) (corporate seal)* |
| By: _____<br>*(Signature)* | By: _____<br>*(Signature)(Attach Power of Attorney)* |
| Name: _____<br>*(Printed or typed)* | Name: _____<br>*(Printed or typed)* |
| Title: _____ | Title: _____ |
| Attest: _____<br>*(Signature)* | Attest: _____<br>*(Signature)* |
| Name: _____<br>*(Printed or typed)* | Name: _____<br>*(Printed or typed)* |
| 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 is considered plural where applicable.*

EJCDC® C-615, Payment Bond.
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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 will 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 will 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 will 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.


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8. The Surety's total obligation will 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 will 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 will 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 satisfying 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 will 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 will be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will 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 will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will 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:

        16.1.1. The name of the Claimant;

        16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

        16.1.3. 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;

        16.1.4. A brief description of the labor, materials, or equipment furnished;


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16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

16.1.7. The total amount of previous payments received by the Claimant; and

16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

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 is 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 will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

18. Modifications to this Bond are as follows: [Describe modification or enter "None"]

END OF SECTION


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# APPLICATION FOR PAYMENT

Prepared By

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ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

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Contractor's Application for Payment

| | | | |
|---|---|---|---|
| Owner: | | Owner's Project No.: | |
| Engineer: | | Engineer's Project No.: | |
| Contractor: | | Contractor's Project No.: | |
| Project: | | | |
| Contract: | | | |
| Application No.: | | Application Date: | |
| Application Period: | From | to | |

| | | | | | |
|---|---|---|---|---|---|
| 1. Original Contract Price | | | | | $ - |
| 2. Net change by Change Orders | | | | | $ - |
| 3. Current Contract Price (Line 1 + Line 2) | | | | | $ - |
| 4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total) | | | | | $ - |
| 5. Retainage | | | | | |
| a. | | X | $ - | Work Completed | $ - |
| b. | | X | $ - | Stored Materials | $ - |
| c. Total Retainage (Line 5.a + Line 5.b) | | | | | $ - |
| 6. Amount eligible to date (Line 4 - Line 5.c) | | | | | $ - |
| 7. Less previous payments (Line 6 from prior application) | | | | | |
| 8. Amount due this application | | | | | $ - |
| 9. Balance to finish, including retainage (Line 3 - Line 4) | | | | | $ - |

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:
(1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
(2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and
(3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

| | | | |
|---|---|---|---|
| Contractor: | | | |
| Signature: | | Date: | |

| | | | |
|---|---|---|---|
| Recommended by Engineer | | Approved by Owner | |
| By: | | By: | |
| Title: | | Title: | |
| Date: | | Date: | |
| Approved by Funding Agency | | | |
| By: | | By: | |
| Title: | | Title: | |
| Date: | | Date: | |


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Progress Estimate - Lump Sum Work

Contractor's Application for Payment

Owner: _____ Owner's Project No.: _____

Engineer: _____ Engineer's Project No.: _____

Contractor: _____ Contractor's Project No.: _____

Project: _____

Contract: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

| A | B | C | D | E | F | G | H | I |
|---|---|---|---|---|---|---|---|---|
| | | | Work Completed | | | | | |
| Item No. | Description | Scheduled Value ($) | (D + E) From Previous Application ($) | This Period ($) | Materials Currently Stored (not in D or E) ($) | Work Completed and Materials Stored to Date (D + E + F) ($) | % of Scheduled Value (G / C) (%) | Balance to Finish (C - G) ($) |
| Original Contract | | | | | | | | |
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| | Original Contract Totals | $ - | $ - | $ - | $ - | $ - | | $ - |



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Progress Estimate - Lump Sum Work

Contractor's Application for Payment

Owner: _____ Owner's Project No.: _____

Engineer: _____ Engineer's Project No.: _____

Contractor: _____ Contractor's Project No.: _____

Project: _____

Contract: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

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| | | | Work Completed | | | | | |
| Item No. | Description | Scheduled Value ($) | (D + E) From Previous Application ($) | This Period ($) | Materials Currently Stored (not in D or E) ($) | Work Completed and Materials Stored to Date (D + E + F) ($) | % of Scheduled Value (G / C) (%) | Balance to Finish (C - G) ($) |
| Change Orders | | | | | | | | |
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| Original Contract and Change Orders | | | | | | | | |
| | Project Totals | $ - | $ - | $ - | $ - | $ - | | $ - |



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Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: _____ Owner's Project No.: _____

Engineer: _____ Engineer's Project No.: _____

Contractor: _____ Contractor's Project No.: _____

Project: _____

Contract: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

| A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Contract Information | | | | Work Completed | | | | | |
| Bid Item No. | Description | Item Quantity | Units | Unit Price ($) | Value of Bid Item (C X E) ($) | Estimated Quantity Incorporated in the Work | Value of Work Completed to Date (E X G) ($) | Materials Currently Stored (not in G) ($) | Work Completed and Materials Stored to Date (H + I) ($) | % of Value of Item (J / F) (%) | Balance to Finish (F - J) ($) |
| Original Contract | | | | | | | | | | | |
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| Original Contract Totals | | | | | $ - | | $ - | $ - | $ - | | $ - |



EJCDC C-620 Contractor's Application for Payment
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Progress Estimate - Unit Price Work

Contractor's Application for Payment

Owner: _____ Owner's Project No.: _____

Engineer: _____ Engineer's Project No.: _____

Contractor: _____ Contractor's Project No.: _____

Project: _____

Contract: _____

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

| A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Contract Information | | | | Work Completed | | | | | |
| Bid Item No. | Description | Item Quantity | Units | Unit Price ($) | Value of Bid Item (C X E) ($) | Estimated Quantity Incorporated in the Work | Value of Work Completed to Date (E X G) ($) | Materials Currently Stored (not in G) ($) | Work Completed and Materials Stored to Date (H + I) ($) | % of Value of Item (J / F) (%) | Balance to Finish (F - J) ($) |
| Change Orders | | | | | | | | | | | |
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| Original Contract and Change Orders | | | | | | | | | | | |
| | | | | Project Totals | $ - | | $ - | $ - | $ - | | $ - |



EJCDC C-620 Contractor's Application for Payment
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Owner:
Engineer:
Contractor:
Project:
Contract:

Owner's Project No.:
Engineer's Project No.:
Contractor's Project No.:

Application No.: Application Period: From to Application Date:

| A | B | C | D | E | F | G | H | I | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Materials Stored | | | Incorporated in Work | | | |
| Item No. (Lump Sum Tab) or Bid Item No. (Unit Price Tab) | Supplier Invoice No. | Submittal No. (with Specification Section No.) | Description of Materials or Equipment Stored | Storage Location | Application No. When Materials Placed in Storage | Previous Amount Stored ($) | Amount Stored this Period ($) | Amount Stored to Date (G+H) ($) | Amount Previously Incorporated in the Work ($) | Amount Incorporated in the Work this Period ($) | Total Amount Incorporated in the Work (J+K) ($) | Materials Remaining in Storage (I-L) ($) |
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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

## ARTICLE 1—DEFINITIONS AND TERMINOLOGY

### 1.01 Defined Terms

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. Addenda—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. Agreement—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. Application for Payment—The document prepared by Contractor, in a form acceptable to Engineer, to request progress or final payments, and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. Bid—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. Bidder—An individual or entity that submits a Bid to Owner.

6. Bidding Documents—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. Bidding Requirements—The Advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. Change Order—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. Change Proposal—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. Claim

    a. A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment of Contract Price or Contract Times; contesting an initial decision by Engineer concerning the


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requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract.

b. A demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal, or seeking resolution of a contractual issue that Engineer has declined to address.

c. A demand or assertion by Owner or Contractor, duly submitted in compliance with the procedural requirements set forth herein, made pursuant to Paragraph 12.01.A.4, concerning disputes arising after Engineer has issued a recommendation of final payment.

d. A demand for money or services by a third party is not a Claim.

11. Constituent of Concern—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), lead-based paint (as defined by the HUD/EPA standard), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to Laws and Regulations regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. Contract—The entire and integrated written contract between Owner and Contractor concerning the Work.

13. Contract Documents—Those items so designated in the Agreement, and which together comprise the Contract.

14. Contract Price—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents.

15. Contract Times—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. Contractor—The individual or entity with which Owner has contracted for performance of the Work.

17. Cost of the Work—See Paragraph 13.01 for definition.

18. Drawings—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. Effective Date of the Contract—The date, indicated in the Agreement, on which the Contract becomes effective.

20. Electronic Document—Any Project-related correspondence, attachments to correspondence, data, documents, drawings, information, or graphics, including but not limited to Shop Drawings and other Submittals, that are in an electronic or digital format.

21. Electronic Means—Electronic mail (email), upload/download from a secure Project website, or other communications methods that allow: (a) the transmission or communication of Electronic Documents; (b) the documentation of transmissions, including sending and receipt; (c) printing of the transmitted Electronic Document by the


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recipient; (d) the storage and archiving of the Electronic Document by sender and recipient; and (e) the use by recipient of the Electronic Document for purposes permitted by this Contract. Electronic Means does not include the use of text messaging, or of Facebook, Twitter, Instagram, or similar social media services for transmission of Electronic Documents.

22. Engineer—The individual or entity named as such in the Agreement.

23. Field Order—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

24. Hazardous Environmental Condition—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto.

    a. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated into the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, is not a Hazardous Environmental Condition.

    b. The presence of Constituents of Concern that are to be removed or remediated as part of the Work is not a Hazardous Environmental Condition.

    c. The presence of Constituents of Concern as part of the routine, anticipated, and obvious working conditions at the Site, is not a Hazardous Environmental Condition.

25. Laws and Regulations; Laws or Regulations—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and binding decrees, resolutions, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. Liens—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

27. Milestone—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date, or by a time prior to Substantial Completion of all the Work.

28. Notice of Award—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

29. Notice to Proceed—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

30. Owner—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

31. Progress Schedule—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising Contractor's plan to accomplish the Work within the Contract Times.

32. Project—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.


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33. Resident Project Representative—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative (RPR) includes any assistants or field staff of Resident Project Representative.

34. Samples—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

35. Schedule of Submittals—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals.

36. Schedule of Values—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

37. Shop Drawings—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

38. Site—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands or areas furnished by Owner which are designated for the use of Contractor.

39. Specifications—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.

40. Subcontractor—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

41. Submittal—A written or graphic document, prepared by or for Contractor, which the Contract Documents require Contractor to submit to Engineer, or that is indicated as a Submittal in the Schedule of Submittals accepted by Engineer. Submittals may include Shop Drawings and Samples; schedules; product data; Owner-delegated designs; sustainable design information; information on special procedures; testing plans; results of tests and evaluations, source quality-control testing and inspections, and field or Site quality-control testing and inspections; warranties and certifications; Suppliers' instructions and reports; records of delivery of spare parts and tools; operations and maintenance data; Project photographic documentation; record documents; and other such documents required by the Contract Documents. Submittals, whether or not approved or accepted by Engineer, are not Contract Documents. Change Proposals, Change Orders, Claims, notices, Applications for Payment, and requests for interpretation or clarification are not Submittals.

42. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion of such Work.


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43. Successful Bidder—The Bidder to which the Owner makes an award of contract.

44. Supplementary Conditions—The part of the Contract that amends or supplements these General Conditions.

45. Supplier—A manufacturer, fabricator, supplier, distributor, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

46. Technical Data

    a. Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (1) existing subsurface conditions at or adjacent to the Site, or existing physical conditions at or adjacent to the Site including existing surface or subsurface structures (except Underground Facilities) or (2) Hazardous Environmental Conditions at the Site.

    b. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then Technical Data is defined, with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06, as the data contained in boring logs, recorded measurements of subsurface water levels, assessments of the condition of subsurface facilities, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical, environmental, or other Site or facilities conditions report prepared for the Project and made available to Contractor.

    c. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data, and instead Underground Facilities are shown or indicated on the Drawings.

47. Underground Facilities—All active or not-in-service underground lines, pipelines, conduits, ducts, encasements, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or systems at the Site, including but not limited to those facilities or systems that produce, transmit, distribute, or convey telephone or other communications, cable television, fiber optic transmissions, power, electricity, light, heat, gases, oil, crude oil products, liquid petroleum products, water, steam, waste, wastewater, storm water, other liquids or chemicals, or traffic or other control systems. An abandoned facility or system is not an Underground Facility.

48. Unit Price Work—Work to be paid for on the basis of unit prices.

49. Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

50. Work Change Directive—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.


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1.02 Terminology

A. The words and terms discussed in Paragraphs 1.02.B, C, D, and E are not defined terms that require initial capital letters, but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. Intent of Certain Terms or Adjectives: The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. Day: The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. Defective: The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

1. does not conform to the Contract Documents;

2. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

3. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or Paragraph 15.04).

E. Furnish, Install, Perform, Provide

1. The word "furnish," when used in connection with services, materials, or equipment, means to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, means to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, means to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.


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F. Contract Price or Contract Times: References to a change in "Contract Price or Contract Times" or "Contract Times or Contract Price" or similar, indicate that such change applies to (1) Contract Price, (2) Contract Times, or (3) both Contract Price and Contract Times, as warranted, even if the term "or both" is not expressed.

G. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2—PRELIMINARY MATTERS

2.01 Delivery of Performance and Payment Bonds; Evidence of Insurance

A. Performance and Payment Bonds: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner the performance bond and payment bond (if the Contract requires Contractor to furnish such bonds).

B. Evidence of Contractor's Insurance: When Contractor delivers the signed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each additional insured (as identified in the Contract), the certificates, endorsements, and other evidence of insurance required to be provided by Contractor in accordance with Article 6, except to the extent the Supplementary Conditions expressly establish other dates for delivery of specific insurance policies.

C. Evidence of Owner's Insurance: After receipt of the signed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each additional insured (as identified in the Contract), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 Copies of Documents

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 Before Starting Construction

A. Preliminary Schedules: Within 10 days after the Effective Date of the Contract (or as otherwise required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work


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into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 Preconstruction Conference; Designation of Authorized Representatives

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work, and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other Submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 Acceptance of Schedules

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review the schedules submitted in accordance with Paragraph 2.03.A. No progress payment will be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

4. If a schedule is not acceptable, Contractor will have an additional 10 days to revise and resubmit the schedule.

2.06 Electronic Transmittals

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may send, and shall accept, Electronic Documents transmitted by Electronic Means.

B. If the Contract does not establish protocols for Electronic Means, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. Subject to any governing protocols for Electronic Means, when transmitting Electronic Documents by Electronic Means, the transmitting party makes no representations as to long-term compatibility, usability, or readability of the Electronic Documents resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the Electronic Documents.


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ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 Intent

A. The Contract Documents are complementary; what is required by one Contract Document is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic versions of the Contract Documents (including any printed copies derived from such electronic versions) and the printed record version, the printed record version will govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

F. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation will be deemed stricken, and all remaining provisions will continue to be valid and binding upon Owner and Contractor, which agree that the Contract Documents will be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

G. Nothing in the Contract Documents creates:

1. any contractual relationship between Owner or Engineer and any Subcontractor, Supplier, or other individual or entity performing or furnishing any of the Work, for the benefit of such Subcontractor, Supplier, or other individual or entity; or

2. any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity, except as may otherwise be required by Laws and Regulations.

3.02 Reference Standards

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, means the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, and no instruction of a Supplier, will be effective to change the duties or responsibilities of Owner, Contractor, or Engineer from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner or Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility


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inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

1. Contractor's Verification of Figures and Field Measurements: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

2. Contractor's Review of Contract Documents: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Requirements of the Contract Documents

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer in writing all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work.


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B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly notify Owner and Contractor in writing that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 Reuse of Documents

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media versions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein precludes Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.01 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the 30th day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the 60th day after the day of Bid opening or the 30th day after the Effective Date of the Contract, whichever date is earlier.

4.02 Starting the Work

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work may be done at the Site prior to such date.

4.03 Reference Points

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the


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established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 Progress Schedule

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times must be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work will be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 Delays in Contractor's Progress

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Such an adjustment will be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. Abnormal weather conditions;

3. Acts or failures to act of third-party utility owners or other third-party entities (other than those third-party utility owners or other third-party entities performing other work at or adjacent to the Site as arranged by or under contract with Owner, as contemplated in Article 8); and

4. Acts of war or terrorism.


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D. Contractor's entitlement to an adjustment of Contract Times or Contract Price is limited as follows:

1. Contractor's entitlement to an adjustment of the Contract Times is conditioned on the delay, disruption, or interference adversely affecting an activity on the critical path to completion of the Work, as of the time of the delay, disruption, or interference.

2. Contractor shall not be entitled to an adjustment in Contract Price for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor. Such a concurrent delay by Contractor shall not preclude an adjustment of Contract Times to which Contractor is otherwise entitled.

3. Adjustments of Contract Times or Contract Price are subject to the provisions of Article 11.

E. Each Contractor request or Change Proposal seeking an increase in Contract Times or Contract Price must be supplemented by supporting data that sets forth in detail the following:

1. The circumstances that form the basis for the requested adjustment;

2. The date upon which each cause of delay, disruption, or interference began to affect the progress of the Work;

3. The date upon which each cause of delay, disruption, or interference ceased to affect the progress of the Work;

4. The number of days' increase in Contract Times claimed as a consequence of each such cause of delay, disruption, or interference; and

5. The impact on Contract Price, in accordance with the provisions of Paragraph 11.07.

Contractor shall also furnish such additional supporting documentation as Owner or Engineer may require including, where appropriate, a revised progress schedule indicating all the activities affected by the delay, disruption, or interference, and an explanation of the effect of the delay, disruption, or interference on the critical path to completion of the Work.

F. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5, together with the provisions of Paragraphs 4.05.D and 4.05.E.

G. Paragraph 8.03 addresses delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

## ARTICLE 5—SITE; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

### 5.01 Availability of Lands

A. Owner shall furnish the Site. Owner shall notify Contractor in writing of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.


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B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas, or to improvements, structures, utilities, or similar facilities located at such adjacent lands or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.13, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or in a court of competent jurisdiction; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. Removal of Debris During Performance of the Work: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris will conform to applicable Laws and Regulations.

C. Cleaning: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment


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and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. Loading of Structures: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 Subsurface and Physical Conditions

A. Reports and Drawings: The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data;

2. Those drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data; and

3. Technical Data contained in such reports and drawings.

B. Underground Facilities: Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05, and not in the drawings referred to in Paragraph 5.03.A. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

C. Reliance by Contractor on Technical Data: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b.

D. Limitations of Other Data and Documents: Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings;

3. the contents of other Site-related documents made available to Contractor, such as record drawings from other projects at or adjacent to the Site, or Owner's archival documents concerning the Site; or

4. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.


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5.04 Differing Subsurface or Physical Conditions

A. Notice by Contractor: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate;

2. is of such a nature as to require a change in the Drawings or Specifications;

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. Engineer's Review: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine whether it is necessary for Owner to obtain additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. Owner's Statement to Contractor Regarding Site Condition: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. Early Resumption of Work: If at any time Engineer determines that Work in connection with the subsurface or physical condition in question may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the condition in question has been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

E. Possible Price and Times Adjustments

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in


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Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

c. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise;

b. The existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

F. Underground Facilities; Hazardous Environmental Conditions: Paragraph 5.05 governs rights and responsibilities regarding the presence or location of Underground Facilities. Paragraph 5.06 governs rights and responsibilities regarding Hazardous Environmental Conditions. The provisions of Paragraphs 5.03 and 5.04 are not applicable to the presence or location of Underground Facilities, or to Hazardous Environmental Conditions.

5.05 Underground Facilities

A. Contractor's Responsibilities: Unless it is otherwise expressly provided in the Supplementary Conditions, the cost of all of the following are included in the Contract Price, and Contractor shall have full responsibility for:

1. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

2. complying with applicable state and local utility damage prevention Laws and Regulations;


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3. verifying the actual location of those Underground Facilities shown or indicated in the Contract Documents as being within the area affected by the Work, by exposing such Underground Facilities during the course of construction;

4. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

5. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. Notice by Contractor: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated on the Drawings, or was not shown or indicated on the Drawings with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing regarding such Underground Facility.

C. Engineer's Review: Engineer will:

1. promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated on the Drawings, or was not shown or indicated with reasonable accuracy;

2. identify and communicate with the owner of the Underground Facility; prepare recommendations to Owner (and if necessary issue any preliminary instructions to Contractor) regarding the Contractor's resumption of Work in connection with the Underground Facility in question;

3. obtain any pertinent cost or schedule information from Contractor; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and

4. advise Owner in writing of Engineer's findings, conclusions, and recommendations.

During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. Owner's Statement to Contractor Regarding Underground Facility: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. Early Resumption of Work: If at any time Engineer determines that Work in connection with the Underground Facility may resume prior to completion of Engineer's review or Owner's issuance of its statement to Contractor, because the Underground Facility in question and conditions affected by its presence have been adequately documented, and analyzed on a preliminary basis, then the Engineer may at its discretion instruct Contractor to resume such Work.

F. Possible Price and Times Adjustments

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, to the extent that any existing Underground Facility at the Site that was not shown


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or indicated on the Drawings, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

b. Contractor's entitlement to an adjustment of the Contract Times is subject to the provisions of Paragraphs 4.05.D and 4.05.E; and

c. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, then any such adjustment will be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

4. The information and data shown or indicated on the Drawings with respect to existing Underground Facilities at the Site is based on information and data (a) furnished by the owners of such Underground Facilities, or by others, (b) obtained from available records, or (c) gathered in an investigation conducted in accordance with the current edition of ASCE 38, Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data, by the American Society of Civil Engineers. If such information or data is incorrect or incomplete, Contractor's remedies are limited to those set forth in this Paragraph 5.05.F.

5.06 Hazardous Environmental Conditions at Site

A. Reports and Drawings: The Supplementary Conditions identify:

1. those reports known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site;

2. drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

3. Technical Data contained in such reports and drawings.

B. Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data as defined in Paragraph 1.01.A.46.b. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures


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of construction to be employed by Contractor, and safety precautions and programs incident thereto;

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, as a result of such Work stoppage, such special conditions under which Work is agreed to be resumed by Contractor, or any costs or expenses incurred in response to the Hazardous Environmental Condition, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off. Entitlement to any such adjustment is subject to the provisions of Paragraphs 4.05.D, 4.05.E, 11.07, and 11.08.

H. If, after receipt of such written notice, Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special


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conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court, arbitration, or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.I obligates Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J obligates Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 6—BONDS AND INSURANCE

### 6.01 Performance, Payment, and Other Bonds

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of Contractor's obligations under the Contract. These bonds must remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the terms of a prescribed bond form, the Supplementary Conditions, or other provisions of the Contract.

B. Contractor shall also furnish such other bonds (if any) as are required by the Supplementary Conditions or other provisions of the Contract.

C. All bonds must be in the form included in the Bidding Documents or otherwise specified by Owner prior to execution of the Contract, except as provided otherwise by Laws or


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Regulations, and must be issued and signed by a surety named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Department Circular 570 (as amended and supplemented) by the Bureau of the Fiscal Service, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority must show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

D. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue bonds in the required amounts.

E. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer in writing and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which must comply with the bond and surety requirements above.

F. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

G. Upon request to Owner from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Owner shall provide a copy of the payment bond to such person or entity.

H. Upon request to Contractor from any Subcontractor, Supplier, or other person or entity claiming to have furnished labor, services, materials, or equipment used in the performance of the Work, Contractor shall provide a copy of the payment bond to such person or entity.

6.02 Insurance—General Provisions

A. Owner and Contractor shall obtain and maintain insurance as required in this article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized in the state or jurisdiction in which the Project is located to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Alternative forms of insurance coverage, including but not limited to self-insurance and "Occupational Accident and Excess Employer's Indemnity Policies," are not sufficient to meet the insurance requirements of this Contract, unless expressly allowed in the Supplementary Conditions.

D. Contractor shall deliver to Owner, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Contractor has obtained and is maintaining the policies and coverages required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, full disclosure of all relevant exclusions, and evidence of insurance required to be purchased and maintained by


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Subcontractors or Suppliers. In any documentation furnished under this provision, Contractor, Subcontractors, and Suppliers may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those applicable to this Contract.

E. Owner shall deliver to Contractor, with copies to each additional insured identified in the Contract, certificates of insurance and endorsements establishing that Owner has obtained and is maintaining the policies and coverages required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies, documentation of applicable self-insured retentions (if allowed) and deductibles, and full disclosure of all relevant exclusions. In any documentation furnished under this provision, Owner may block out (redact) (1) any confidential premium or pricing information and (2) any wording specific to a project or jurisdiction other than those relevant to this Contract.

F. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, will not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

G. In addition to the liability insurance required to be provided by Contractor, the Owner, at Owner's option, may purchase and maintain Owner's own liability insurance. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

H. Contractor shall require:

1. Subcontractors to purchase and maintain worker's compensation, commercial general liability, and other insurance that is appropriate for their participation in the Project, and to name as additional insureds Owner and Engineer (and any other individuals or entities identified in the Supplementary Conditions as additional insureds on Contractor's liability policies) on each Subcontractor's commercial general liability insurance policy; and

2. Suppliers to purchase and maintain insurance that is appropriate for their participation in the Project.

I. If either party does not purchase or maintain the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

J. If Contractor has failed to obtain and maintain required insurance, Contractor's entitlement to enter or remain at the Site will end immediately, and Owner may impose an appropriate set-off against payment for any associated costs (including but not limited to the cost of purchasing necessary insurance coverage), and exercise Owner's termination rights under Article 16.

K. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect (but is in no way obligated) to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price will be adjusted accordingly.


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L. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests. Contractor is responsible for determining whether such coverage and limits are adequate to protect its interests, and for obtaining and maintaining any additional insurance that Contractor deems necessary.

M. The insurance and insurance limits required herein will not be deemed as a limitation on Contractor's liability, or that of its Subcontractors or Suppliers, under the indemnities granted to Owner and other individuals and entities in the Contract or otherwise.

N. All the policies of insurance required to be purchased and maintained under this Contract will contain a provision or endorsement that the coverage afforded will not be canceled, or renewal refused, until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured and Engineer.

6.03 Contractor's Insurance

A. Required Insurance: Contractor shall purchase and maintain Worker's Compensation, Commercial General Liability, and other insurance pursuant to the specific requirements of the Supplementary Conditions.

B. General Provisions: The policies of insurance required by this Paragraph 6.03 as supplemented must:

1. include at least the specific coverages required;

2. be written for not less than the limits provided, or those required by Laws or Regulations, whichever is greater;

3. remain in effect at least until the Work is complete (as set forth in Paragraph 15.06.D), and longer if expressly required elsewhere in this Contract, and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract;

4. apply with respect to the performance of the Work, whether such performance is by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable; and

5. include all necessary endorsements to support the stated requirements.

C. Additional Insureds: The Contractor's commercial general liability, automobile liability, employer's liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies, if required by this Contract, must:

1. include and list as additional insureds Owner and Engineer, and any individuals or entities identified as additional insureds in the Supplementary Conditions;

2. include coverage for the respective officers, directors, members, partners, employees, and consultants of all such additional insureds;

3. afford primary coverage to these additional insureds for all claims covered thereby (including as applicable those arising from both ongoing and completed operations);


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4. not seek contribution from insurance maintained by the additional insured; and

5. as to commercial general liability insurance, apply to additional insureds with respect to liability caused in whole or in part by Contractor's acts or omissions, or the acts and omissions of those working on Contractor's behalf, in the performance of Contractor's operations.

6.04 Builder's Risk and Other Property Insurance

A. Builder's Risk: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the Work's full insurable replacement cost (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). The specific requirements applicable to the builder's risk insurance are set forth in the Supplementary Conditions.

B. Property Insurance for Facilities of Owner Where Work Will Occur: Owner is responsible for obtaining and maintaining property insurance covering each existing structure, building, or facility in which any part of the Work will occur, or to which any part of the Work will attach or be adjoined. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, providing coverage consistent with that required for the builder's risk insurance, and will be maintained until the Work is complete, as set forth in Paragraph 15.06.D.

C. Property Insurance for Substantially Complete Facilities: Promptly after Substantial Completion, and before actual occupancy or use of the substantially completed Work, Owner will obtain property insurance for such substantially completed Work, and maintain such property insurance at least until the Work is complete, as set forth in Paragraph 15.06.D. Such property insurance will be written on a special perils (all-risk) form, on a replacement cost basis, and provide coverage consistent with that required for the builder's risk insurance. The builder's risk insurance may terminate upon written confirmation of Owner's procurement of such property insurance.

D. Partial Occupancy or Use by Owner: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide advance notice of such occupancy or use to the builder's risk insurer, and obtain an endorsement consenting to the continuation of coverage prior to commencing such partial occupancy or use.

E. Insurance of Other Property; Additional Insurance: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, then the entity or individual owning such property item will be responsible for insuring it. If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.04, it may do so at Contractor's expense.

6.05 Property Losses; Subrogation

A. The builder's risk insurance policy purchased and maintained in accordance with Paragraph 6.04 (or an installation floater policy if authorized by the Supplementary Conditions), will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against


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Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors.

1. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils, risks, or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all individuals or entities identified in the Supplementary Conditions as builder's risk or installation floater insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused.
2. None of the above waivers extends to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Any property insurance policy maintained by Owner covering any loss, damage, or consequential loss to Owner's existing structures, buildings, or facilities in which any part of the Work will occur, or to which any part of the Work will attach or adjoin; to adjacent structures, buildings, or facilities of Owner; or to part or all of the completed or substantially completed Work, during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06, will contain provisions to the effect that in the event of payment of any loss or damage the insurer will have no rights of recovery against any insureds thereunder, or against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them, and that the insured is allowed to waive the insurer's rights of subrogation in a written contract executed prior to the loss, damage, or consequential loss.

1. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from fire or any of the perils, risks, or causes of loss covered by such policies.

C. The waivers in this Paragraph 6.05 include the waiver of rights due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other insured peril, risk, or cause of loss.

D. Contractor shall be responsible for assuring that each Subcontract contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from fire or other peril, risk, or cause of loss covered by builder's risk insurance, installation floater, and any other property insurance applicable to the Work.


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6.06 Receipt and Application of Property Insurance Proceeds

A. Any insured loss under the builder's risk and other policies of property insurance required by Paragraph 6.04 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.04 shall maintain such proceeds in a segregated account, and distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, Contractor shall repair or replace the damaged Work, using allocated insurance proceeds.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.01 Contractor's Means and Methods of Construction

A. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. If the Contract Documents note, or Contractor determines, that professional engineering or other design services are needed to carry out Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures, or for Site safety, then Contractor shall cause such services to be provided by a properly licensed design professional, at Contractor's expense. Such services are not Owner-delegated professional design services under this Contract, and neither Owner nor Engineer has any responsibility with respect to (1) Contractor's determination of the need for such services, (2) the qualifications or licensing of the design professionals retained or employed by Contractor, (3) the performance of such services, or (4) any errors, omissions, or defects in such services.

7.02 Supervision and Superintendence

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who will not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.03 Labor; Working Hours

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall maintain good discipline and order at the Site.


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B. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of Contractor's employees; of Suppliers and Subcontractors, and their employees; and of any other individuals or entities performing or furnishing any of the Work, just as Contractor is responsible for Contractor's own acts and omissions.

C. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site will be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.04 Services, Materials, and Equipment

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work must be new and of good quality, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications will expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment must be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.05 "Or Equals"

A. Contractor's Request; Governing Criteria: Whenever an item of equipment or material is specified or described in the Contract Documents by using the names of one or more proprietary items or specific Suppliers, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material, or items from other proposed Suppliers, under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of equipment or material proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer will deem it an "or equal" item. For the purposes of this paragraph, a proposed item of equipment or material will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that the proposed item:

1) is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;


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2) will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) has a proven record of performance and availability of responsive service; and

4) is not objectionable to Owner.

b. Contractor certifies that, if the proposed item is approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) the item will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. Contractor's Expense: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. Engineer's Evaluation and Determination: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal," which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. Effect of Engineer's Determination: Neither approval nor denial of an "or-equal" request will result in any change in Contract Price. The Engineer's denial of an "or-equal" request will be final and binding, and may not be reversed through an appeal under any provision of the Contract.

E. Treatment as a Substitution Request: If Engineer determines that an item of equipment or material proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the item a proposed substitute pursuant to Paragraph 7.06.

7.06 Substitutes

A. Contractor's Request; Governing Criteria: Unless the specification or description of an item of equipment or material required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of equipment or material under the circumstances described below. To the extent possible such requests must be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of equipment or material from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.06.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.


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3. Contractor shall make written application to Engineer for review of a proposed substitute item of equipment or material that Contractor seeks to furnish or use. The application:

    a. will certify that the proposed substitute item will:

        1) perform adequately the functions and achieve the results called for by the general design;

        2) be similar in substance to the item specified; and

        3) be suited to the same use as the item specified.

    b. will state:

        1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times;

        2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

        3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

    c. will identify:

        1) all variations of the proposed substitute item from the item specified; and

        2) available engineering, sales, maintenance, repair, and replacement services.

    d. will contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. Engineer's Evaluation and Determination: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. Special Guarantee: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. Reimbursement of Engineer's Cost: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.


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E. Contractor's Expense: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. Effect of Engineer's Determination: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request will be final and binding, and may not be reversed through an appeal under any provision of the Contract. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.06.D, by timely submittal of a Change Proposal.

7.07 Concerning Subcontractors and Suppliers

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner. The Contractor's retention of a Subcontractor or Supplier for the performance of parts of the Work will not relieve Contractor's obligation to Owner to perform and complete the Work in accordance with the Contract Documents.

B. Contractor shall retain specific Subcontractors and Suppliers for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor or Supplier to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within 5 days.

E. Owner may require the replacement of any Subcontractor or Supplier. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors or Suppliers for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor or Supplier so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor or Supplier.

F. If Owner requires the replacement of any Subcontractor or Supplier retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor or Supplier, whether initially or as a replacement, will constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.


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H. On a monthly basis, Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors and Suppliers.

J. The divisions and sections of the Specifications and the identifications of any Drawings do not control Contractor in dividing the Work among Subcontractors or Suppliers, or in delineating the Work to be performed by any specific trade.

K. All Work performed for Contractor by a Subcontractor or Supplier must be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract for the benefit of Owner and Engineer.

L. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor for Work performed for Contractor by the Subcontractor or Supplier.

M. Contractor shall restrict all Subcontractors and Suppliers from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed in this Contract.

7.08 Patent Fees and Royalties

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If an invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights will be disclosed in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the


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Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.09 Permits

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits, licenses, and certificates of occupancy. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

7.10 Taxes

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.11 Laws and Regulations

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It is not Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this does not relieve Contractor of its obligations under Paragraph 3.03.

C. Owner or Contractor may give written notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such written notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.12 Record Documents

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available


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to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.13 Safety and Protection

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations.

B. Contractor shall designate a qualified and experienced safety representative whose duties and responsibilities are the prevention of Work-related accidents and the maintenance and supervision of safety precautions and programs.

C. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

D. All damage, injury, or loss to any property referred to in Paragraph 7.13.C.2 or 7.13.C.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

E. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.

F. Contractor shall notify Owner; the owners of adjacent property; the owners of Underground Facilities and other utilities (if the identity of such owners is known to Contractor); and other contractors and utility owners performing work at or adjacent to the Site, in writing, when Contractor knows that prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

G. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. Any Owner's safety programs that are applicable to the Work are identified or included in the Supplementary Conditions or Specifications.


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H. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

I. Contractor's duties and responsibilities for safety and protection will continue until all the Work is completed, Engineer has issued a written notice to Owner and Contractor in accordance with Paragraph 15.06.C that the Work is acceptable, and Contractor has left the Site (except as otherwise expressly provided in connection with Substantial Completion).

J. Contractor's duties and responsibilities for safety and protection will resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.14 Hazard Communication Programs

A. Contractor shall be responsible for coordinating any exchange of safety data sheets (formerly known as material safety data sheets) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused by an emergency, or are required as a result of Contractor's response to an emergency. If Engineer determines that a change in the Contract Documents is required because of an emergency or Contractor's response, a Work Change Directive or Change Order will be issued.

7.16 Submittals

A. Shop Drawing and Sample Requirements

1. Before submitting a Shop Drawing or Sample, Contractor shall:

a. review and coordinate the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determine and verify:

1) all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect to the Submittal;

2) the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

3) all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto;

c. confirm that the Submittal is complete with respect to all related data included in the Submittal.


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2. Each Shop Drawing or Sample must bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that Submittal, and that Contractor approves the Submittal.

3. With each Shop Drawing or Sample, Contractor shall give Engineer specific written notice of any variations that the Submittal may have from the requirements of the Contract Documents. This notice must be set forth in a written communication separate from the Submittal; and, in addition, in the case of a Shop Drawing by a specific notation made on the Shop Drawing itself.

B. Submittal Procedures for Shop Drawings and Samples: Contractor shall label and submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals.

1. Shop Drawings

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings must be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide, and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.C.

2. Samples

a. Contractor shall submit the number of Samples required in the Specifications.

b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the Submittal for the limited purposes required by Paragraph 7.16.C.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Engineer's Review of Shop Drawings and Samples

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the accepted Schedule of Submittals. Engineer's review and approval will be only to determine if the items covered by the Submittals will, after installation or incorporation in the Work, comply with the requirements of the Contract Documents, and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction, or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.


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4. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order or other appropriate Contract modification.

5. Engineer's review and approval of a Shop Drawing or Sample will not relieve Contractor from responsibility for complying with the requirements of Paragraphs 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, will not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance, or approval of a Shop Drawing or Sample will result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.C.4.

D. Resubmittal Procedures for Shop Drawings and Samples

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous Submittals.

2. Contractor shall furnish required Shop Drawing and Sample submittals with sufficient information and accuracy to obtain required approval of an item with no more than two resubmittals. Engineer will record Engineer's time for reviewing a third or subsequent resubmittal of a Shop Drawing or Sample, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved Shop Drawing or Sample, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

E. Submittals Other than Shop Drawings, Samples, and Owner-Delegated Designs

1. The following provisions apply to all Submittals other than Shop Drawings, Samples, and Owner-delegated designs:

   a. Contractor shall submit all such Submittals to the Engineer in accordance with the Schedule of Submittals and pursuant to the applicable terms of the Contract Documents.

   b. Engineer will provide timely review of all such Submittals in accordance with the Schedule of Submittals and return such Submittals with a notation of either Accepted or Not Accepted. Any such Submittal that is not returned within the time established in the Schedule of Submittals will be deemed accepted.


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c. Engineer's review will be only to determine if the Submittal is acceptable under the requirements of the Contract Documents as to general form and content of the Submittal.

d. If any such Submittal is not accepted, Contractor shall confer with Engineer regarding the reason for the non-acceptance, and resubmit an acceptable document.

2. Procedures for the submittal and acceptance of the Progress Schedule, the Schedule of Submittals, and the Schedule of Values are set forth in Paragraphs 2.03. 2.04, and 2.05.

F. Owner-delegated Designs: Submittals pursuant to Owner-delegated designs are governed by the provisions of Paragraph 7.19.

7.17 Contractor's General Warranty and Guarantee

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer is entitled to rely on Contractor's warranty and guarantee.

B. Owner's rights under this warranty and guarantee are in addition to, and are not limited by, Owner's rights under the correction period provisions of Paragraph 15.08. The time in which Owner may enforce its warranty and guarantee rights under this Paragraph 7.17 is limited only by applicable Laws and Regulations restricting actions to enforce such rights; provided, however, that after the end of the correction period under Paragraph 15.08:

1. Owner shall give Contractor written notice of any defective Work within 60 days of the discovery that such Work is defective; and

2. Such notice will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the notice.

C. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, or improper modification, maintenance, or operation, by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

D. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents, a release of Contractor's obligation to perform the Work in accordance with the Contract Documents, or a release of Owner's warranty and guarantee rights under this Paragraph 7.17:

1. Observations by Engineer;

2. Recommendation by Engineer or payment by Owner of any progress or final payment;

3. The issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. Use or occupancy of the Work or any part thereof by Owner;

5. Any review and approval of a Shop Drawing or Sample submittal;


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6. The issuance of a notice of acceptability by Engineer;
7. The end of the correction period established in Paragraph 15.08;
8. Any inspection, test, or approval by others; or
9. Any correction of defective Work by Owner.

E. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract will govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 Indemnification

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, from losses, damages, costs, and judgments (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising from third-party claims or actions relating to or resulting from the performance or furnishing of the Work, provided that any such claim, action, loss, cost, judgment or damage is attributable to bodily injury, sickness, disease, or death, or to damage to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom, but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A will not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

7.19 Delegation of Professional Design Services

A. Owner may require Contractor to provide professional design services for a portion of the Work by express delegation in the Contract Documents. Such delegation will specify the performance and design criteria that such services must satisfy, and the Submittals that Contractor must furnish to Engineer with respect to the Owner-delegated design.

B. Contractor shall cause such Owner-delegated professional design services to be provided pursuant to the professional standard of care by a properly licensed design professional, whose signature and seal must appear on all drawings, calculations, specifications, certifications, and Submittals prepared by such design professional. Such design professional must issue all certifications of design required by Laws and Regulations.


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C. If a Shop Drawing or other Submittal related to the Owner-delegated design is prepared by Contractor, a Subcontractor, or others for submittal to Engineer, then such Shop Drawing or other Submittal must bear the written approval of Contractor's design professional when submitted by Contractor to Engineer.

D. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, and approvals performed or provided by the design professionals retained or employed by Contractor under an Owner-delegated design, subject to the professional standard of care and the performance and design criteria stated in the Contract Documents.

E. Pursuant to this Paragraph 7.19, Engineer's review, approval, and other determinations regarding design drawings, calculations, specifications, certifications, and other Submittals furnished by Contractor pursuant to an Owner-delegated design will be only for the following limited purposes:

1. Checking for conformance with the requirements of this Paragraph 7.19;

2. Confirming that Contractor (through its design professionals) has used the performance and design criteria specified in the Contract Documents; and

3. Establishing that the design furnished by Contractor is consistent with the design concept expressed in the Contract Documents.

F. Contractor shall not be responsible for the adequacy of performance or design criteria specified by Owner or Engineer.

G. Contractor is not required to provide professional services in violation of applicable Laws and Regulations.

## ARTICLE 8—OTHER WORK AT THE SITE

### 8.01 Other Work

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any third-party utility work that Owner has arranged to take place at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford proper and safe access to the Site to each contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work.

D. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate


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with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.

E. If the proper execution or results of any part of Contractor's Work depends upon work performed by others, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

F. The provisions of this article are not applicable to work that is performed by third-party utilities or other third-party entities without a contract with Owner, or that is performed without having been arranged by Owner. If such work occurs, then any related delay, disruption, or interference incurred by Contractor is governed by the provisions of Paragraph 4.05.C.3.

8.02 Coordination

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. The identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. An itemization of the specific matters to be covered by such authority and responsibility; and

3. The extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 Legal Relationships

A. If, in the course of performing other work for Owner at or adjacent to the Site, the Owner's employees, any other contractor working for Owner, or any utility owner that Owner has arranged to perform work, causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment will take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract, and any remedies available to Contractor under Laws or Regulations concerning utility action or inaction. When applicable, any such equitable adjustment in Contract Price


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will be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times or Contract Price is subject to the provisions of Paragraphs 4.05.D and 4.05.E.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

1. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this Paragraph 8.03.B.

2. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due Contractor.

C. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

## ARTICLE 9—OWNER'S RESPONSIBILITIES

### 9.01 Communications to Contractor

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

### 9.02 Replacement of Engineer

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents will be that of the former Engineer.

### 9.03 Furnish Data

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.


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9.04 Pay When Due

A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 Lands and Easements; Reports, Tests, and Drawings

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 Insurance

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 Change Orders

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 Inspections, Tests, and Approvals

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 Limitations on Owner's Responsibilities

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 Undisclosed Hazardous Environmental Condition

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 Evidence of Financial Arrangements

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract (including obligations under proposed changes in the Work).

9.12 Safety Programs

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.


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## ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.01 Owner's Representative

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 Visits to Site

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe, as an experienced and qualified design professional, the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.07. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 Resident Project Representative

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in the Supplementary Conditions and in Paragraph 10.07.

B. If Owner designates an individual or entity who is not Engineer's consultant, agent, or employee to represent Owner at the Site, then the responsibilities and authority of such individual or entity will be as provided in the Supplementary Conditions.

10.04 Engineer's Authority

A. Engineer has the authority to reject Work in accordance with Article 14.

B. Engineer's authority as to Submittals is set forth in Paragraph 7.16.

C. Engineer's authority as to design drawings, calculations, specifications, certifications and other Submittals from Contractor in response to Owner's delegation (if any) to Contractor of professional design services, is set forth in Paragraph 7.19.

D. Engineer's authority as to changes in the Work is set forth in Article 11.


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E. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.05 Determinations for Unit Price Work

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.06 Decisions on Requirements of Contract Documents and Acceptability of Work

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.07 Limitations on Engineer's Authority and Responsibilities

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, will create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation, and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Contractor under Paragraph 15.06.A, will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.07 also apply to the Resident Project Representative, if any.

10.08 Compliance with Safety Program

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs of which Engineer has been informed.


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ARTICLE 11—CHANGES TO THE CONTRACT

11.01 Amending and Supplementing the Contract

A. The Contract may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

B. If an amendment or supplement to the Contract includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order.

C. All changes to the Contract that involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, must be supported by Engineer's recommendation. Owner and Contractor may amend other terms and conditions of the Contract without the recommendation of the Engineer.

11.02 Change Orders

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. Changes in Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. Changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. Changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.05, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters; and

4. Changes that embody the substance of any final and binding results under: Paragraph 11.03.B, resolving the impact of a Work Change Directive; Paragraph 11.09, concerning Change Proposals; Article 12, Claims; Paragraph 13.02.D, final adjustments resulting from allowances; Paragraph 13.03.D, final adjustments relating to determination of quantities for Unit Price Work; and similar provisions.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of Paragraph 11.02.A, it will be deemed to be of full force and effect, as if fully executed.

11.03 Work Change Directives

A. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.07 regarding change of Contract Price.


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B. If Owner has issued a Work Change Directive and:

1. Contractor believes that an adjustment in Contract Times or Contract Price is necessary, then Contractor shall submit any Change Proposal seeking such an adjustment no later than 30 days after the completion of the Work set out in the Work Change Directive.

2. Owner believes that an adjustment in Contract Times or Contract Price is necessary, then Owner shall submit any Claim seeking such an adjustment no later than 60 days after issuance of the Work Change Directive.

11.04 Field Orders

A. Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly.

B. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.05 Owner-Authorized Changes in the Work

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Changes involving the design (as set forth in the Drawings, Specifications, or otherwise) or other engineering or technical matters will be supported by Engineer's recommendation.

B. Such changes in the Work may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work must be performed under the applicable conditions of the Contract Documents.

C. Nothing in this Paragraph 11.05 obligates Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.06 Unauthorized Changes in the Work

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.C.2.

11.07 Change of Contract Price

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment of Contract Price must comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:


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1. Where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03);

2. Where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.07.C.2); or

3. Where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.07.C).

C. Contractor's Fee: When applicable, the Contractor's fee for overhead and profit will be determined as follows:

1. A mutually acceptable fixed fee; or

2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. For costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee will be 15 percent;

b. For costs incurred under Paragraph 13.01.B.3, the Contractor's fee will be 5 percent;

c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.07.C.2.a and 11.07.C.2.b is that the Contractor's fee will be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of 5 percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted Work the maximum total fee to be paid by Owner will be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the Work;

d. No fee will be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. The amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in Cost of the Work will be the amount of the actual net decrease in Cost of the Work and a deduction of an additional amount equal to 5 percent of such actual net decrease in Cost of the Work; and

f. When both additions and credits are involved in any one change or Change Proposal, the adjustment in Contractor's fee will be computed by determining the sum of the costs in each of the cost categories in Paragraph 13.01.B (specifically, payroll costs, Paragraph 13.01.B.1; incorporated materials and equipment costs, Paragraph 13.01.B.2; Subcontract costs, Paragraph 13.01.B.3; special consultants costs, Paragraph 13.01.B.4; and other costs, Paragraph 13.01.B.5) and applying to each such cost category sum the appropriate fee from Paragraphs 11.07.C.2.a through 11.07.C.2.e, inclusive.


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11.08 Change of Contract Times

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times must comply with the provisions of Paragraph 11.09. Any Claim for an adjustment in the Contract Times must comply with the provisions of Article 12.

B. Delay, disruption, and interference in the Work, and any related changes in Contract Times, are addressed in and governed by Paragraph 4.05.

11.09 Change Proposals

A. Purpose and Content: Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; contest an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; challenge a set-off against payment due; or seek other relief under the Contract. The Change Proposal will specify any proposed change in Contract Times or Contract Price, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents. Each Change Proposal will address only one issue, or a set of closely related issues.

B. Change Proposal Procedures

1. Submittal: Contractor shall submit each Change Proposal to Engineer within 30 days after the start of the event giving rise thereto, or after such initial decision.

2. Supporting Data: The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal.

   a. Change Proposals based on or related to delay, interruption, or interference must comply with the provisions of Paragraphs 4.05.D and 4.05.E.

   b. Change proposals related to a change of Contract Price must include full and detailed accounts of materials incorporated into the Work and labor and equipment used for the subject Work.

   The supporting data must be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event.

3. Engineer's Initial Review: Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal. If in its discretion Engineer concludes that additional supporting data is needed before conducting a full review and making a decision regarding the Change Proposal, then Engineer may request that Contractor submit such additional supporting data by a date specified by Engineer, prior to Engineer beginning its full review of the Change Proposal.

4. Engineer's Full Review and Action on the Change Proposal: Upon receipt of Contractor's supporting data (including any additional data requested by Engineer), Engineer will conduct a full review of each Change Proposal and, within 30 days after such receipt of the Contractor's supporting data, either approve the Change Proposal in whole, deny it in whole, or approve it in part and deny it in part. Such actions must be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change


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Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

5. Binding Decision: Engineer's decision is final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

C. Resolution of Certain Change Proposals: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties in writing that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice will be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

D. Post-Completion: Contractor shall not submit any Change Proposals after Engineer issues a written recommendation of final payment pursuant to Paragraph 15.06.B.

11.10 Notification to Surety

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 12—CLAIMS

12.01 Claims

A. Claims Process: The following disputes between Owner and Contractor are subject to the Claims process set forth in this article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents;

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters; and

4. Subject to the waiver provisions of Paragraph 15.07, any dispute arising after Engineer has issued a written recommendation of final payment pursuant to Paragraph 15.06.B.

B. Submittal of Claim: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim rests with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge


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and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. Review and Resolution: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim will be stated in writing and submitted to the other party, with a copy to Engineer.

D. Mediation

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate will stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process will resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process will resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. Partial Approval: If the party receiving a Claim approves the Claim in part and denies it in part, such action will be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. Denial of Claim: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim will be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. Final and Binding Results: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim will be incorporated in a Change Order or other written document to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

## ARTICLE 13—COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

### 13.01 Cost of the Work

A. Purposes for Determination of Cost of the Work: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or


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2. When needed to determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. Costs Included: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work will be in amounts no higher than those commonly incurred in the locality of the Project, will not include any of the costs itemized in Paragraph 13.01.C, and will include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor in advance of the subject Work. Such employees include, without limitation, superintendents, foremen, safety managers, safety representatives, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work will be apportioned on the basis of their time spent on the Work. Payroll costs include, but are not limited to, salaries and wages plus the cost of fringe benefits, which include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, will be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts will accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment will accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, which will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee will be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed or retained for services specifically related to the Work.

5. Other costs consisting of the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, which are


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consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

1) In establishing included costs for materials such as scaffolding, plating, or sheeting, consideration will be given to the actual or the estimated life of the material for use on other projects; or rental rates may be established on the basis of purchase or salvage value of such items, whichever is less. Contractor will not be eligible for compensation for such items in an amount that exceeds the purchase cost of such item.

c. Construction Equipment Rental

1) Rentals of all construction equipment and machinery, and the parts thereof, in accordance with rental agreements approved by Owner as to price (including any surcharge or special rates applicable to overtime use of the construction equipment or machinery), and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs will be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts must cease when the use thereof is no longer necessary for the Work.

2) Costs for equipment and machinery owned by Contractor or a Contractor-related entity will be paid at a rate shown for such equipment in the equipment rental rate book specified in the Supplementary Conditions. An hourly rate will be computed by dividing the monthly rates by 176. These computed rates will include all operating costs.

3) With respect to Work that is the result of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price ("changed Work"), included costs will be based on the time the equipment or machinery is in use on the changed Work and the costs of transportation, loading, unloading, assembly, dismantling, and removal when directly attributable to the changed Work. The cost of any such equipment or machinery, or parts thereof, must cease to accrue when the use thereof is no longer necessary for the changed Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of builder's risk or other property insurance established in accordance with Paragraph 6.04), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses will be included in the Cost of the Work for the purpose of determining Contractor's fee.


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g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. Costs Excluded: The term Cost of the Work does not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. The cost of purchasing, renting, or furnishing small tools and hand tools.

3. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

4. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

5. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

6. Expenses incurred in preparing and advancing Claims.

7. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. Contractor's Fee

1. When the Work as a whole is performed on the basis of cost-plus-a-fee, then:

a. Contractor's fee for the Work set forth in the Contract Documents as of the Effective Date of the Contract will be determined as set forth in the Agreement.

b. for any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work, Contractor's fee will be determined as follows:

1) When the fee for the Work as a whole is a percentage of the Cost of the Work, the fee will automatically adjust as the Cost of the Work changes.

2) When the fee for the Work as a whole is a fixed fee, the fee for any additions or deletions will be determined in accordance with Paragraph 11.07.C.2.

2. When the Work as a whole is performed on the basis of a stipulated sum, or any other basis other than cost-plus-a-fee, then Contractor's fee for any Work covered by a Change


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Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price on the basis of Cost of the Work will be determined in accordance with Paragraph 11.07.C.2.

E. Documentation and Audit: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor and pertinent Subcontractors will establish and maintain records of the costs in accordance with generally accepted accounting practices. Subject to prior written notice, Owner will be afforded reasonable access, during normal business hours, to all Contractor's accounts, records, books, correspondence, instructions, drawings, receipts, vouchers, memoranda, and similar data relating to the Cost of the Work and Contractor's fee. Contractor shall preserve all such documents for a period of three years after the final payment by Owner. Pertinent Subcontractors will afford such access to Owner, and preserve such documents, to the same extent required of Contractor.

13.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. Cash Allowances: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment for any of the foregoing will be valid.

C. Owner's Contingency Allowance: Contractor agrees that an Owner's contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor for Work covered by allowances, and the Contract Price will be correspondingly adjusted.

13.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision


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thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, and the final adjustment of Contract Price will be set forth in a Change Order, subject to the provisions of the following paragraph.

E. Adjustments in Unit Price

1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:

a. the quantity of the item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.

2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

## ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

### 14.01 Access to Work

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply with such procedures and programs as applicable.

### 14.02 Tests, Inspections, and Approvals

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work will be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.


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D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests will be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering will be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 Defective Work

A. Contractor's Obligation: It is Contractor's obligation to assure that the Work is not defective.

B. Engineer's Authority: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. Notice of Defects: Prompt written notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. Correction, or Removal and Replacement: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. Preservation of Warranties: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. Costs and Damages: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs,


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losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 Acceptance of Defective Work

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work will be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 Uncovering Work

A. Engineer has the authority to require additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 Owner May Stop the Work

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work,


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or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work will not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 Owner May Correct Defective Work

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace defective Work as required by Engineer, then Owner may, after 7 days' written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15—PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 Progress Payments

A. Basis for Progress Payments: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments for Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents.

2. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment must also be accompanied by: (a) a bill of sale, invoice, copies of subcontract or purchase order payments, or other documentation


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establishing full payment by Contractor for the materials and equipment; (b) at Owner's request, documentation warranting that Owner has received the materials and equipment free and clear of all Liens; and (c) evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

3. Beginning with the second Application for Payment, each Application must include an affidavit of Contractor stating that all previous progress payments received by Contractor have been applied to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

4. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. Review of Applications

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.


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4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

    a. to supervise, direct, or control the Work;

    b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto;

    c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work;

    d. to make any examination to ascertain how or for what purposes Contractor has used the money paid by Owner; or

    e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

    a. the Work is defective, requiring correction or replacement;

    b. the Contract Price has been reduced by Change Orders;

    c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

    d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

    e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. Payment Becomes Due

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. Reductions in Payment by Owner

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

    a. Claims have been made against Owner based on Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages resulting from Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;


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b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. The Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. The Contract Price has been reduced by Change Orders;

i. An event has occurred that would constitute a default by Contractor and therefore justify a termination for cause;

j. Liquidated or other damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens; or

l. Other items entitle Owner to a set-off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed will be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld will be treated as an amount due as determined by Paragraph 15.01.D.1 and subject to interest as provided in the Agreement.

15.02 Contractor's Warranty of Title

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than 7 days after the time of payment by Owner.

15.03 Substantial Completion

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time


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submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which will fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have 7 days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 Partial Use or Occupancy

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without


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significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time, Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through 15.03.E for that part of the Work.
2. At any time, Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.04 regarding builder's risk or other property insurance.

15.05 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 Final Payment

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.12), and other documents, Contractor may make application for final payment.
2. The final Application for Payment must be accompanied (except as previously delivered) by:
    a. all documentation called for in the Contract Documents;
    b. consent of the surety, if any, to final payment;
    c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.


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d. a list of all duly pending Change Proposals and Claims; and

e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. Engineer's Review of Final Application and Recommendation of Payment: If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within 10 days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the final Application for Payment to Owner for payment. Such recommendation will account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Notice of Acceptability: In support of its recommendation of payment of the final Application for Payment, Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to stated limitations in the notice and to the provisions of Paragraph 15.07.

D. Completion of Work: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment and issuance of notice of the acceptability of the Work.

E. Final Payment Becomes Due: Upon receipt from Engineer of the final Application for Payment and accompanying documentation, Owner shall set off against the amount recommended by Engineer for final payment any further sum to which Owner is entitled, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions of this Contract with respect to progress payments. Owner shall pay the resulting balance due to Contractor within 30 days of Owner's receipt of the final Application for Payment from Engineer.

15.07 Waiver of Claims

A. By making final payment, Owner waives its claim or right to liquidated damages or other damages for late completion by Contractor, except as set forth in an outstanding Claim,


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appeal under the provisions of Article 17, set-off, or express reservation of rights by Owner. Owner reserves all other claims or rights after final payment.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted as a Claim, or appealed under the provisions of Article 17.

15.08 Correction Period

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the Supplementary Conditions or the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;

2. correct such defective Work;

3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by Owner, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.

B. Owner shall give any such notice of defect within 60 days of the discovery that such Work or repairs is defective. If such notice is given within such 60 days but after the end of the correction period, the notice will be deemed a notice of defective Work under Paragraph 7.17.B.

C. If, after receipt of a notice of defect within 60 days and within the correction period, Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others). Contractor's failure to pay such costs, losses, and damages within 10 days of invoice from Owner will be deemed the start of an event giving rise to a Claim under Paragraph 12.01.B, such that any related Claim must be brought within 30 days of the failure to pay.

D. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

E. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.


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F. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph are not to be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

16.01 Owner May Suspend Work

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times directly attributable to any such suspension. Any Change Proposal seeking such adjustments must be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 Owner May Terminate for Cause

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment, or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) 10 days' written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) written notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within 7 days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects,


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attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond will govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 Owner May Terminate for Convenience

A. Upon 7 days' written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid for any loss of anticipated profits or revenue, post-termination overhead costs, or other economic loss arising out of or resulting from such termination.

16.04 Contractor May Stop Work or Terminate

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon 7 days' written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, 7 days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The


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provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## ARTICLE 17—FINAL RESOLUTION OF DISPUTES

### 17.01 Methods and Procedures

A. Disputes Subject to Final Resolution: The following disputed matters are subject to final resolution under the provisions of this article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full, pursuant to Article 12; and
2. Disputes between Owner and Contractor concerning the Work, or obligations under the Contract Documents, that arise after final payment has been made.

B. Final Resolution of Disputes: For any dispute subject to resolution under this article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions;
2. agree with the other party to submit the dispute to another dispute resolution process; or
3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

## ARTICLE 18—MISCELLANEOUS

### 18.01 Giving Notice

A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business;
2. by registered or certified mail, postage prepaid, to the recipient's place of business; or
3. by e-mail to the recipient, with the words "Formal Notice" or similar in the e-mail's subject line.

### 18.02 Computation of Times

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.


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18.03 Cumulative Remedies

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 Limitation of Damages

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 No Waiver

A. A party's non-enforcement of any provision will not constitute a waiver of that provision, nor will it affect the enforceability of that provision or of the remainder of this Contract.

18.06 Survival of Obligations

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

18.07 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 Assignment of Contract

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party to this Contract of any rights under or interests in the Contract will be binding on the other party without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract.

18.09 Successors and Assigns

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

18.10 Headings

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.


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# SUPPLEMENTARY CONDITIONS OF THE CONSTRUCTION CONTRACT

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, “Paragraph SC-4.05.”

CONTENTS OF SUPPLEMENTARY CONDITIONS


| Section No. | Section Title | Page No. |
|---|---|---|
| SC-1 to SC-18 | Supplementary Conditions<br>Amendments to General Conditions | 00800-1 |


ARTICLE 1—DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

SC-1.01.A.3 APPLICATION FOR PAYMENT

Add the following language to the end of Paragraph 1.01.A.3:

> The Application for Payment form to be used on this Project is EJCDC No. C-620 or similar approved format. The Agency must approve all Applications for Payment before payment is made.

SC-1.01.A.8 CHANGE ORDER

Add the following language to the end of Paragraph 1.01.A.8:

> The Change Order form to be used on this Project is EJCDC No. C-941. Agency approval is required before Change Orders are effective.

SC-1.01 A.30 OWNER

Add the following to the end of Paragraph 1.01.A.30 of the General Conditions:

Owner is referred to as Grantee in certain sections of these Contract Documents. Owner and Grantee are one and the same.


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SC-1.01 A.50 WORK CHANGE DIRECTIVE

Add the following language at the end of the last sentence of Paragraph 1.01.A.50

The Work Change Directive form to be used on this Project is EJCDC C-940 (2018). A Work Change Directive cannot change Contract Price or Contract Times without a subsequent Change Order.

SC-1.01 A.53 NON-RESIDENT CONTRACTOR

Add the following paragraph immediately after Paragraph 1.01.A.52 of the General Conditions, which is to read as follows:

53. Non-Resident Contractor -

a. A person who is not a resident in the State where the proposed construction is to be located, or

b. Any partnership that has no member thereof resident in the State where the proposed construction is to be located.

c. Any corporation established under laws other than those of the State in which the proposed construction is located.

ARTICLE 2—PRELIMINARY MATTERS

2.02 *Copies of Documents*

SC-2.02 Delete Paragraph 2.02.A. in its entirety and replace with the following paragraph:

Owner shall furnish to Contractor 4 printed copies of the Contract Documents (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional copies will be furnished upon request at the cost of reproduction.

SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:

A. Owner shall furnish to Contractor 4 printed copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

2.06 *Electronic Transmittals*

SC-2.06 Delete Paragraphs 2.06.B and 2.06.C in their entirety and insert the following in their place:

B. *Electronic Documents Protocol:* The parties shall conform to the following provisions in Paragraphs 2.06.B and 2.06.C, together referred to as the Electronic Documents Protocol ("EDP" or "Protocol") for exchange of electronic transmittals.

1. *Basic Requirements*

a. To the fullest extent practical, the parties agree to and will transmit and accept Electronic Documents in an electronic or digital format using the procedures described in this Protocol. Use of the Electronic Documents and any information contained therein is subject to the requirements of this Protocol and other provisions of the Contract.


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b. The contents of the information in any Electronic Document will be the responsibility of the transmitting party.

c. Electronic Documents as exchanged by this Protocol may be used in the same manner as the printed versions of the same documents that are exchanged using non-electronic format and methods, subject to the same governing requirements, limitations, and restrictions, set forth in the Contract Documents.

d. Except as otherwise explicitly stated herein, the terms of this Protocol will be incorporated into any other agreement or subcontract between a party and any third party for any portion of the Work on the Project, or any Project-related services, where that third party is, either directly or indirectly, required to exchange Electronic Documents with a party or with Engineer. Nothing herein will modify the requirements of the Contract regarding communications between and among the parties and their subcontractors and consultants.

e. When transmitting Electronic Documents, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the receiving party's use of software application packages, operating systems, or computer hardware differing from those established in this Protocol.

f. Nothing herein negates any obligation 1) in the Contract to create, provide, or maintain an original printed record version of Drawings and Specifications, signed and sealed according to applicable Laws and Regulations; 2) to comply with any applicable Law or Regulation governing the signing and sealing of design documents or the signing and electronic transmission of any other documents; or 3) to comply with the notice requirements of Paragraph 18.01 of the General Conditions.

2. *System Infrastructure for Electronic Document Exchange*

a. Each party will provide hardware, operating system(s) software, internet, e-mail, and large file transfer functions ("System Infrastructure") at its own cost and sufficient for complying with the EDP requirements. With the exception of minimum standards set forth in this EDP, and any explicit system requirements specified by attachment to this EDP, it is the obligation of each party to determine, for itself, its own System Infrastructure.

1) The maximum size of an email attachment for exchange of Electronic Documents under this EDP is 10 MB. Attachments larger than that may be exchanged using large file transfer functions or physical media.

2) Each Party assumes full and complete responsibility for any and all of its own costs, delays, deficiencies, and errors associated with converting, translating, updating, verifying, licensing, or otherwise enabling its System Infrastructure, including operating systems and software, for use with respect to this EDP.

b. Each party is responsible for its own system operations, security, back-up, archiving, audits, printing resources, and other Information Technology ("IT") for maintaining operations of its System Infrastructure during the Project, including coordination with the party's individual(s) or entity responsible for managing its


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System Infrastructure and capable of addressing routine communications and other IT issues affecting the exchange of Electronic Documents.

c. Each party will operate and maintain industry-standard, industry-accepted, ISO-standard, commercial-grade security software and systems that are intended to protect the other party from: software viruses and other malicious software like worms, trojans, adware; data breaches; loss of confidentiality; and other threats in the transmission to or storage of information from the other parties, including transmission of Electronic Documents by physical media such as CD/DVD/flash drive/hard drive. To the extent that a party maintains and operates such security software and systems, it shall not be liable to the other party for any breach of system security.

d. In the case of disputes, conflicts, or modifications to the EDP required to address issues affecting System Infrastructure, the parties shall cooperatively resolve the issues; but, failing resolution, the Owner is authorized to make and require reasonable and necessary changes to the EDP to effectuate its original intent. If the changes cause additional cost or time to Contractor, not reasonably anticipated under the original EDP, Contractor may seek an adjustment in price or time under the appropriate process in the Contract.

e. Each party is responsible for its own back-up and archive of documents sent and received during the term of the contract under this EDP, unless this EDP establishes a Project document archive, either as part of a mandatory Project website or other communications protocol, upon which the parties may rely for document archiving during the specified term of operation of such Project document archive. Further, each party remains solely responsible for its own post-Project back-up and archive of Project documents after the term of the Contract, or after termination of the Project document archive, if one is established, for as long as required by the Contract and as each party deems necessary for its own purposes.

f. If a receiving party receives an obviously corrupted, damaged, or unreadable Electronic Document, the receiving party will advise the sending party of the incomplete transmission.

g. The parties will bring any non-conforming Electronic Documents into compliance with the EDP. The parties will attempt to complete a successful transmission of the Electronic Document or use an alternative delivery method to complete the communication.

C. *Software Requirements for Electronic Document Exchange; Limitations*

1. Each party will acquire the software and software licenses necessary to create and transmit Electronic Documents and to read and to use any Electronic Documents received from the other party (and if relevant from third parties), using the software formats required in this section of the EDP.

a. Prior to using any updated version of the software required in this section for sending Electronic Documents to the other party, the originating party will first notify and receive concurrence from the other party for use of the updated version or adjust its transmission to comply with this EDP.


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2. The parties agree not to intentionally edit, reverse engineer, decrypt, remove security or encryption features, or convert to another format for modification purposes any Electronic Document or information contained therein that was transmitted in a software data format, including Portable Document Format (PDF), intended by sender not to be modified, unless the receiving party obtains the permission of the sending party or is citing or quoting excerpts of the Electronic Document for Project purposes.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

No changes in this Article.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

4.05 *Delays in Contractor's Progress*

SC-4.05 Amend Paragraph 4.05.C by adding the following subparagraphs:

5. *Weather-Related Delays*

a. If "abnormal weather conditions" as set forth in Paragraph 4.05.C.2 of the General Conditions are the basis for a request for an equitable adjustment in the Contract Times, such request must be documented by data substantiating each of the following: 1) that weather conditions were abnormal for the period of time in which the delay occurred, 2) that such weather conditions could not have been reasonably anticipated, and 3) that such weather conditions had an adverse effect on the Work as scheduled. Extreme or unusual weather that is typical for a given region, elevation, or season should not be considered abnormal weather conditions. Requests for time extensions due to abnormal weather conditions will be submitted to the Engineer within five days of the end of the abnormal weather condition event. It is the responsibility of the Contractor to provide the information listed in SC 4.05.C.5.b.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

| Report Title | Date of Report | Technical Data |
|---|---|---|
| Summary Report-Final, Shell Mound Soil Sampling and Lab testing Services, Cedar Key, Florida | May 2022 | Soil Sampling |


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| Report Title | Date of Report | Technical Data |
|---|---|---|
| Supplemental Report, Shell Mound Soil Sampling and Lab testing Services, Cedar Key, Florida | May 2023 | Soil Sampling |
| | | |

F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely:

| Drawings Title | Date of Drawings | Technical Data |
|---|---|---|
| None | | |
| | | |
| | | |

G. Contractor may request copies from Engineer of reports and drawings identified in SC-5.03.E and SC-5.03.F that were not included with the Bidding Documents.

5.06 *Hazardous Environmental Conditions*

SC-5.06 Add the following new paragraphs immediately after Paragraph 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

| Report Title | Date of Report | Technical Data |
|---|---|---|
| Summary Report-Final, Shell Mound Soil Sampling and Lab testing Services, Cedar Key, Florida | May 2022 | Soil Sampling |
| Supplemental Report, Shell Mound Soil Sampling and Lab testing Services, Cedar Key, Florida | May 2023 | Soil Sampling |
| | | |

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely: [If there are no such drawings, so indicate in the table]

| Drawings Title | Date of Drawings | Technical Data |
|---|---|---|
| None | | |
| | | |
| | | |

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*


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SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of Florida Statute 255.05. Bond of Contractor Constructing Public Buildings; Form; Action by Claimants.

2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2010, 2013, or 2018 edition).

6.03 *Contractor's Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: Engineer's Consultants, as specifically identified in Article 1

E. *Workers' Compensation and Employer's Liability:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

| Workers' Compensation and Related Policies | Policy limits of not less than: |
|---|---|
| Workers' Compensation | |
| State | Statutory |
| Applicable Federal (e.g., Longshoreman's) | Statutory |
| Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable | Statutory |
| Jones Act (if applicable) | |
| Bodily injury by accident—each accident | $500,000 |
| Bodily injury by disease—aggregate | $1,000,000 |
| Employer's Liability | |
| Each accident | $500,000 |
| Each employee | $500,000 |
| Policy limit | $1,000,000 |
| Stop-gap Liability Coverage | |
| For work performed in monopolistic states, stop-gap liability coverage must be endorsed to either the worker's compensation or commercial general liability policy with a minimum limit of: | $0 |

F. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:


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1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
2. damages insured by reasonably available personal injury liability coverage, and
3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

G. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage.
    a. Such insurance must be maintained for three years after final payment.
    b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
4. Underground, explosion, and collapse coverage.
5. Personal injury coverage.
6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:

1. Any modification of the standard definition of "insured contract" (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
2. Any exclusion for water intrusion or water damage.
3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
4. Any exclusion of coverage relating to earth subsidence or movement.
5. Any exclusion for the insured's vicarious liability, strict liability, or statutory liability (other than worker's compensation).


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6. Any limitation or exclusion based on the nature of Contractor's work.

7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.

I. *Commercial General Liability—Minimum Policy Limits*

| Commercial General Liability | Policy limits of not less than: |
|---|---|
| General Aggregate | $2,000,000 |
| Products—Completed Operations Aggregate | $1,000,000 |
| Personal and Advertising Injury | $1,000,000 |
| Bodily Injury and Property Damage—Each Occurrence | $1,000,000 |

J. *Automobile Liability:* Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

| Automobile Liability | Policy limits of not less than: |
|---|---|
| Bodily Injury | |
| Each Person | $1,000,000 |
| Each Accident | $1,000,000 |
| Property Damage | |
| Each Accident | $1,000,000 |
| [or] | |
| Combined Single Limit | |
| Combined Single Limit (Bodily Injury and Property Damage) | $1,000,000 |

*6.6 Receipt and Application of Property Insurance Proceeds*

Delete Article 6.06 in its entirety.

ARTICLE 7—CONTRACTOR'S RESPONSIBILITIES

7.03 *Labor; Working Hours*

SC-7.03 Add the following new subparagraphs immediately after Paragraph 7.03.C:

1. Owner's legal holidays are State mandated holidays plus President's Day, Good Friday, Day Before Thanksgiving (close at Noon), Thanksgiving Day after, Day Before Christmas eve (Close at Noon), Christmas Eve, New Years.

SC-7.09 *Permits*

Add the following subparagraph immediately after Paragraph 7.09.A:1. Local permit fees for permits required from Levy County will be waived.


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Add the following paragraph immediately after Paragraph 7.09.A:

B. The following permits/approvals have been or will be obtained by the Owner. Copies of the permit approvals are in the Appendices of the Bidding Documents. Full copies of the permit applications and approvals will be on file at the Owner's Offices. It is the responsibility of the Contractor to be familiar with and comply with the applicable provisions of each permit as they apply to the work:

*1. FDEP Environmental Resource Permit No 38-0425518-001 EI*

*2. USACE Nationwide Permit 35, Maintenance Dredging of Existing Basins*

ARTICLE 8—OTHER WORK AT THE SITE

*No changes in this Article.*

ARTICLE 9—OWNER'S RESPONSIBILITIES

*No changes in this Article.*

ARTICLE 10—ENGINEER'S STATUS DURING CONSTRUCTION

10.03 *Resident Project Representative*

SC-10.03 Add the following new subparagraph immediately after Paragraph 10.03.A:

1. On this Project, by agreement with the Owner, the Engineer will not furnish a Resident Project Representative to represent Engineer at the Site or assist Engineer in observing the progress and quality of the Work.

ARTICLE 11—CHANGES TO THE CONTRACT

*No changes in this Article.*

ARTICLE 12—CLAIMS

*No changes in this Article*.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.01 *Cost of the Work*

SC-13.01 Supplement Paragraph 13.01.B.5.c.(2) by adding the following sentence:

The equipment rental shall be consistent with what is customary for such equipment in the area of the Project.


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SC-13.01 Supplement Paragraph 13.01.C.2 by adding the following definition of small tools and hand tools:

a. For purposes of this paragraph, "small tools and hand tools" means any tool or equipment whose current price if it were purchased new at retail would be less than $500.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

*No changes in this Article.*

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

SC-15.01 PROGRESS PAYMENTS

SC-15.01 Add the following language at the end of Paragraph 15.01.B.4:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage or invest the retainage for the benefit of the Contractor.

SC-15.01 Add new paragraph immediately after Paragraph 15.01.B.4:

5. The Application for Payment form to be used on this Project is EJCDC C-620.

SC-15.02 CONTRACTOR'S WARRANTY OF TITLE

Amend Paragraph 15.02.A by striking out the following text: "7 days after".

SC-15.03 SUBSTANTIAL COMPLETION

SC-15.03 Add the following to the end of the Paragraph 15.03.C:

1. Substantial Completion shall only be granted for the Milestones identified in the Agreement.

SC-15.03 Add the following new subparagraph to Paragraph 15.03.B:

2. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, will be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under this Article 15.


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ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

*No changes in this Article*.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

ARTICLE 18—MISCELLANEOUS

*No changes in this Article.*

ARTICLE 19—FEDERAL REQUIREMENTS

*This Article has not been added.*

END OF SECTION


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# SECTION 00920

## CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:
Engineer:
Contractor:
Project:
Contract Name:

Owner's Project No.:
Engineer's Project No.:
Contractor's Project No.:

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: [Enter date, as determined by Engineer]

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: ☐ None ☐ As follows:

[List amendments to Owner's Responsibilities]

Amendments to Contractor's Responsibilities: ☐ None ☐ As follows:

[List amendments to Contractor's Responsibilities]

The following documents are attached to and made a part of this Certificate:

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By *(signature)*: _____
Name *(printed)*: _____
Title: _____

END OF SECTION

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SECTION 00935

NOTICE OF ACCEPTABILITY OF WORK

Owner: Owner's Project No.:
Engineer: Engineer's Project No.:
Contractor: Contractor's Project No.:
Project:
Contract Name:
Notice Date: Effective Date of the Construction Contract:

The Engineer hereby gives notice to the Owner and Contractor that Engineer recommends final payment to Contractor, and that the Work furnished and performed by Contractor under the Construction Contract is acceptable, expressly subject to the provisions of the Construction Contract's Contract Documents ("Contract Documents") and of the Agreement between Owner and Engineer for Professional Services dated [date of professional services agreement] ("Owner-Engineer Agreement"). This Notice of Acceptability of Work (Notice) is made expressly subject to the following terms and conditions to which all who receive and rely on said Notice agree:

1. This Notice has been prepared with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice has been prepared to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's Work) under the Owner-Engineer Agreement, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Owner-Engineer Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents, or to otherwise comply with the Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Engineer

By *(signature)*: _____
Name *(printed)*: _____
Title: _____

END OF SECTION

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SECTION 00936

CONSENT OF SURETY TO FINAL PAYMENT

To: _____ (Owner)
_____
_____

From: _____ (Contractor)
_____
_____

CONTRACT TITLE: _____
BOND NUMBER: _____

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the _____ (Surety Company) on the bond of the Contractor hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the Surety Company of any of its obligations to the Owner as set forth in the said Surety Company's Bond.

IN WITNESS WHEREOF, the Surety Company has hereunto set its hand this _____ day of _____, 20___.

_____
Surety Company Name

_____
Signature of Authorized Representative

_____
Printed Name and Title

Attest: (Seal)

Note: Power of Attorney should be attached in instances where same applies.

END OF SECTION

# SECTION 00937

## CONTRACTOR'S AFFIDAVIT

STATE OF _____

COUNTY OF _____

Before me, the undersigned, a _____
(Notary Public, Justice of Peace, Alderman)

in and for said County and State personally appeared, _____
(Individual, Partner or duly

_____ who being duly sworn according to law
(Authorized Representative of Corporate Contractor)

deposes and says that the cost of all the Work, and outstanding claims and indebtedness of whatever nature arising out of the performance of the contract between

_____
(Owner)

and _____ of _____
(Contractor)

dated _____ for the construction of the _____
(Agreement Date) (Project)

_____ and necessary appurtenant installations have been paid in full.

_____
(Individual, Partner, or duly authorized representative of corporate contractor)

Sworn to and subscribed before me
This _____ day of _____, 20___

END OF SECTION

# SECTION 00938

## CONTRACTOR'S RELEASE

KNOW ALL PERSONS BY THESE PRESENTS that _____ (Contractor)
of _____, County of _____ and State of _____

do hereby acknowledge that _____ (Contractor) has this day had, and received of and from _____ (Owner) the sum of One Dollar and other valuable considerations in full and complete satisfaction and payment of all sums of money owed, payable and belonging to _____ (Contractor) by any means whatsoever, for on account of a Contract Agreement between _____ (Owner) and _____ (Contractor) dated _____ (Agreement Date) for _____ (Project)

NOW, THEREFORE, the said _____ (Contractor)

(for myself, my heirs, executors and administrators) (for itself, its successors and assigns) do/does, by these presents remise, release, quit-claim and forever discharge _____ (Owner), of and from all claims and demands, arising from or in connection with the said contract dated _____ (Agreement Date), and of and from all, and all manner of action and actions, cause and causes of action and actions, suits, debts, dues, duties, sum and sums of money, accounts, reckonings, bonds, bills, specialties, covenants, contracts, agreements, promises, variances, damages, judgments, extents, executions, claims and demand, whatsoever in law or equity, or otherwise, against _____ (Owner) its successors and assigns, which (I, my heirs, executors, or administrators) (it, its successors and assigns) ever had, now have or which (I, my heirs, executors, or administrators) (it, its successors and assigns) hereafter can, shall or may have, for, upon or by reason of any matter, cause, or thing whatsoever; from the beginning of recorded time to the date of these presents.

IN WITNESS WHEREOF, _____
(Contractor)

has caused these presents to be duly executed this _____ day of _____ 20_____

Signed, Sealed and Delivered in the presence of:

_____ _____(seal)
(Individual -Contractor)

---

_____(seal)
(Partnership - Contractor)

_____ By _____(seal)
(Partner)

---

Attested:

_____
(Corporation)

_____ By _____
(Secretary) (President or Vice President)

(Corp. Seal)

END OF SECTION

SECTION 00939

WAIVER OF LIEN - MATERIALS AND LABOR

STATE OF _____
COUNTY OF _____

To: _____ (Owner)
_____
_____

WHEREAS, _____ (the undersigned) have been employed by _____ (Contractor) on the _____ (Project Name) to furnish the following:
_____
_____
_____ (description of material and services).

NOW THEREFORE, the undersigned, for good and valuable considerations do hereby waive and release any and all lien, or right of lien, or claim to lien on said above project and premises under the Law, in relation to Mechanics' Liens Law, on account of labor and materials, or both, furnished by the undersigned to or on account of the said contract for the said project and premises only so far as that portion of work which has been included in our requisition dated _____ and all prior requisitions.

THIS WAIVER AND RELEASE is being made to the undersigned in the amount of $ _____ which sum the undersigned certifies to be the balance due the undersigned for all labor, materials or both, furnished by the undersigned to or on account of the said contract as included on Contractor's requisition dated _____.

GIVEN UNDER our hand and seal, this _____ day of _____, 20 __.

By: _____
Manufacturer, Supplier or Subcontractor Name

_____
Signature of Authorized Representative

_____
Printed Name and Title

END OF SECTION

SECTION 00940

WORK CHANGE DIRECTIVE NO.: [Number of Work Change Directive]

| | |
|---|---|
| Owner: | Owner's Project No.: |
| Engineer: | Engineer's Project No.: |
| Contractor: | Contractor's Project No.: |
| Project: | |
| Contract Name: | |
| Date Issued: | Effective Date of Work Change Directive: |

Contractor is directed to proceed promptly with the following change(s):

Description:

[Description of the change to the Work]

Attachments:

[List documents related to the change to the Work]

Purpose for the Work Change Directive:

[Describe the purpose for the change to the Work]

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to: [Check one or both of the following]

☐ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: $ _____ [increase] [decrease] [not yet estimated].

Contract Time: _____ days [increase] [decrease] [not yet estimated].

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

| | Recommended by Engineer | Authorized by Owner |
|---|---|---|
| By: | | |
| Title: | | |
| Date: | | |

END OF SECTION

EJCDC® C-940, Work Change Directive.
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SECTION 00941

CHANGE ORDER NO.: [Number of Change Order]

Owner: Owner's Project No.:
Engineer: Engineer's Project No.:
Contractor: Contractor's Project No.:
Project:
Contract Name:
Date Issued: Effective Date of Change Order:

The Contract is modified as follows upon execution of this Change Order:

Description:

[Description of the change]

Attachments:

[List documents related to the change]

| Change in Contract Price | Change in Contract Times [as days or dates] |
|---|---|
| Original Contract Price:<br>$ | Original Contract Times:<br>Substantial Completion:<br>Ready for final payment: |
| [Increase] [Decrease] from previously approved Change Orders No. 1 to No. [Number of previous CO]:<br>$ | [Increase] [Decrease] from previously approved Change Orders No.1 to No. [Number of previous CO]:<br>Substantial Completion:<br>Ready for final payment: |
| Contract Price prior to this Change Order:<br>$ | Contract Times prior to this Change Order:<br>Substantial Completion:<br>Ready for final payment: |
| [Increase] [Decrease] this Change Order:<br>$ | [Increase] [Decrease] this Change Order:<br>Substantial Completion:<br>Ready for final payment: |
| Contract Price incorporating this Change Order:<br>$ | Contract Times with all approved Change Orders:<br>Substantial Completion:<br>Ready for final payment: |

| Recommended by Engineer (if required) | Accepted by Contractor |
|---|---|
| By: | |
| Title: | |
| Date: | |
| **Authorized by Owner** | **Approved by Funding Agency (if applicable)** |
| By: | |
| Title: | |
| Date: | |

END OF SECTION


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SECTION 00942

FIELD ORDER NO.: [Number of Field Order]

| | |
|---|---|
| Owner: | Owner's Project No.: |
| Engineer: | Engineer's Project No.: |
| Contractor: | Contractor's Project No.: |
| Project: | |
| Contract Name: | |
| Date Issued: | Effective Date of Field Order: |

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s):

Drawing(s) / Details (s):

Description:

[Description of the change to the Work]

Attachments:

[List documents supporting change]

Issued by Engineer

By: _____

Title: _____

Date: _____

END OF SECTION


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# SECTION 01010B

# SUMMARY OF WORK

## PART 1 - GENERAL

### 1.1 DESCRIPTION:

A. Location: The Work locations include, but are not limited to, the following locations within Levy County.
   1. Shell Mound Campground
   2. Channel leading to the Shell Mound Boat Ramp
   3. SW 8th Place Right-of-Way

B. Work Included: The Work includes, but is not limited to, the following:
   1. Maintenance Dredging.
   2. Dewatering of Dredged Material.
   3. Disposal of Dredged Material.
   4. All related site work including maintenance of traffic, erosion control, and sodding.
   5. Other miscellaneous work shown in the Specifications for a complete and operational system.

C. Removals, Relocations and Rearrangements
   1. Examine the existing site for the work of all trades which will influence the cost of the work under the bid. This work shall include removals, relocations and rearrangements of existing utility systems at the campground that will continue to be utilized as part of the finished project. The Contractor is responsible for all coordination in this regard.
   2. Provide in the bid a sufficient amount to include all removals, relocations, rearrangements and reconnections herein specified, necessary or required.
   3. Provide in the bid a sufficient amount to include all temporary facilities required to maintain utility service to the campground outside the limits of construction during the construction period. The cost shall include the cost for all labor, tools, equipment and materials necessary.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

## PART 2 - PRODUCTS – NOT APPLICABLE

## PART 3 - EXECUTION

### 3.1 MAINTAIN EXISTING WORKS

A. Continuous Operations Criteria:
   1. The Contractor shall conduct operations in such a manner and sequence which shall neither result in a disruption of, nor interfere with, the functional workings

of any existing utilities within the campgrounds outside the limits of construction.

2. The Contractor shall furnish, install and operate any piping, equipment and appurtenances necessary to provide the temporary services/facilities required during construction including.
3. The Owner will maintain all existing utilities not modified or impacted by the project within the limits of construction. The Contractor shall notify and coordinate with the Owner whenever Contractor's temporary facilities or construction will interface with existing utilities.
4. The Contractor shall be responsible for the operation and maintenance of all new and temporary facilities until such time as the new facilities are accepted by the Owner.

3.2 CONSTRUCTION SEQUENCE – NOT APPLICABLE

3.3 SITE ACCESS LIMITATIONS – NOT APPLICABLE

3.4 SCHEDULE LIMITATIONS AND WORK RESTRICTIONS/ REQUIREMENTS

A. Work Hours:
   1. Monday through Friday, 8:00am-5:00pm
B. Temporary Facilities Plan:
   1. Deleted.
C. Maintain Services:
   1. Maintain all existing sewer, water, and electric services.
D. Traffic Control Plan:
   1. A project-specific Traffic Control Plan shall be submitted prior to the Pre-Construction Meeting (refer to Section 01570). The Traffic Control Plan shall identify traffic management requirements for each distinct component of the project.
E. Proposed Road Closures:
   1. Deleted.
F. Special Excavation Requirements:
   1. Deleted.
G. Soil and Groundwater Contamination:
   1. The dredged material is contaminated with arsenic, however, it is not considered hazardous material.
H. Special Coordination Requirements:
   1. Deleted.
I. Tree Cutting/Clearing:
   1. No trees shall be removed unless approval from the Owner is provided.

END OF SECTION

# SECTION 01050

# COORDINATION

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Contractor is required to work in close proximity to Owner's existing facilities. The Contractor, under this Contract, will be responsible for coordinating construction activities with Owner to ensure that services, facilities, and safe working conditions are maintained.

B. Other Construction Contractors will be interfacing with this Contract and working within the work area and in the vicinity of this Contract. The Contractor, under this contract, shall act as Construction Coordinator and shall coordinate construction activities with other Contractors working for Owner.

C. Any damage to existing structures, equipment and property, accepted equipment or structures, and property or work in progress by others; as a result of the Contractor's or their subcontractor's operations shall be made good by the Contractor at no additional cost to the Owner.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 COORDINATION WITH OTHERS

A. Shell Mound Campground (Levy County)

1. Contractor shall coordinate access, egress, detours and traffic control, if required, at the site with the campgrounds manager. The Contractor shall notify the campground manager at least 24 hours in advance of any street closings or detours.
2. Contractor shall coordinate all work on site with the campground manager.

B. Power Company:

1. The Contractor shall be responsible for coordinating all work around power company facilities with the power company and shall bear all costs of inspection requirements, temporary facilities relocation and other requirements.

C. The Contractor shall provide the Owner a construction schedule indicating the times to perform the work required. The Contractor shall update the schedule when required and give the Owner and campground manager one week notice before the start of any work.

D. As needed and as determined by two or more parties, coordination meetings shall be held between the Contractor, Owner, and the Engineer. This meeting shall cover the following:

1. Work to be completed
2. Project Schedule
3. Outstanding RFIs and Clarifications
4. Change Orders and Field Orders

5. Discussion/Resolution of any old issues
6. New issues discussion
7. Contractor’s Safety and Health Plan Updates

1.4 CONTRACTOR'S USE OF PREMISES

A. Contractor shall have use of the premises within the limits shown on the Drawings and as defined in the General Conditions for the performance of the Work.
B. Contractor shall maintain access and utilities to the Campground outside the limits of constructions.
C. Contractor shall coordinate delivery schedules, site access, and other construction-related activities with any other contractors that may be hired by the Owner during the course of construction.
D. Contractor shall assume full responsibility for security of all of their, and their subcontractors, materials and equipment stored on the site.
E. If directed by the Owner, Contractor shall move any stored items which interfere with operations of Owner.
F. Obtain and pay for use of additional storage or work areas if needed to perform the Work.
G. Contractor shall not have access to Owners lunch room, toilet or locker room facilities at any time and shall provide all necessary facilities in accordance with Specification Section 01500.

END OF SECTION

# SECTION 01070

# ABBREVIATIONS & SYMBOLS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Where any of the following abbreviations are used in these Specifications, they shall have the meaning set forth opposite each.

| | |
|---|---|
| AASHTO | American Association of State Highway & Transportation Officials |
| AC | Alternating Current |
| ACI | American Concrete Institute |
| ACP | Asbestos Cement Pipe |
| AGA | American Gas Association |
| AIC | Ampere Interrupting Capacity |
| AGMA | American Gear Manufacturers Association |
| AIEE(IEEE) | American Institute of Electrical Engineers (Institute of Electrical and Electronics Engineers, Inc.) |
| AISC | American Institute of Steel Construction |
| AMP | Ampere 125-16 |
| Amer. Std. | American Standard for Cast Iron Pipe Flanges and Flanged Fittings, Class l25 (ASA Bl6 ll960) |
| ANSI | American National Standards Institute |
| API | American Petroleum Institute |
| ASA | American Standards Association |
| ASCE | American Society of Civil Engineers |
| ASHRAE | American Society of Heating, Refrigerating and Air Conditioning Engineers |
| ASME | American Society of Mechanical Engineers |
| ASTM | American Society for Testing and Materials |
| AWG | American or Brown and Sharpe Wire Gage |
| AWWA | American Water Works Association |
| CCTV | Closed Circuit Television |
| CF | Cubic Foot |
| CFM | Cubic Foot Per Minute |
| CFS | Cubic Foot Per Second |
| CI | Cast Iron |
| CIPP | Cured-in-Place Pipe |
| CIPRA | Cast Iron Pipe Research Association |
| CSI | Construction Specifications Institute |
| CY | Cubic Yard |
| DC | Direct Current |
| DEP | Department of Environmental Protection |
| DI (DIP) | Ductile Iron (Pipe) |
| DOT | Department of Transportation |
| EDR | Equivalent Directional Radiation |

| | |
|---|---|
| EPA | U.S. Environmental Protection Agency |
| FPS | Feet Per Second |
| FT | Feet |
| GAL | Gallons |
| GPD | Gallons Per Day |
| GPM | Gallons Per Minute |
| HP | Horsepower |
| IBR | Institute of Boiler and Radiator Manufacturers |
| IN | Inches |
| ISA | Instrument Society of America |
| KVA | Kilovolt-ampere |
| KW | Kilowatt |
| LB | Pound |
| MACP | Manhole Assessment and Certification Program |
| MAX | Maximum |
| MGD | Million Gallons Per Day |
| MIN | Minimum |
| NACE | National Association of Corrosion Engineers |
| NASSCO | National Association of Sewer Service Companies |
| NBS | National Bureau of Standards |
| NEC | National Electrical Code, Latest Edition |
| NEMA | National Electrical Manufacturers Association |
| NEWWA | New England Water Works Association |
| NPT | National Pipe Thread |
| OS&Y | Outside Screw and Yoke |
| PCA | Portland Cement Association |
| PPM | Parts Per Million |
| PSI | Pounds Per Square Inch |
| PSIG | Pounds Per Square Inch Gage |
| PVC | Polyvinyl Chloride |
| RPM | Revolutions Per Minute |
| RUS | Rural Utility Service |
| SF | Square Foot |
| STL. W.G. | U.S. Steel Wire, Washburn and Moen, American Steel and Wire Cos., or Roebling Gage |
| SY | Square yard |
| TDH | Total Dynamic Head |
| USAS | Standards of the United States of America Standards Institute (formerly American Standards Association) |
| USS GAGE | United States Standard Gage |
| VC | Vitrified Clay |
| WSP | Working Steam Pressure |
| Fed. Spec. | Federal Specifications issued by the Federal Supply Service of the General Service Administration, Washington, D.C. |

END OF SECTION

# SECTION 01150B

# MEASUREMENT AND PAYMENT

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. For lump sum items, payment shall be made to the contractor in accordance with an accepted progress schedule and schedule of values on the basis of actual work completed.

B. For unit-price items, payment shall be based on the actual amount of work accepted and for the actual amount of materials in place, as shown by final measurements.

1. All units of measurement shall be standard United States convention as applied to the specific items of work by tradition and as interpreted by the Engineer.
2. Contractor shall provide Engineer and Owner with copies of receipts from landfills receiving dredged material indicating the tonnage delivered.
3. After the work is completed and before final payment is made, the Engineer will make final measurements to determine the quantities of various items of work accepted as the basis for final settlement.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 SCOPE OF PAYMENT

A. Payments to the Contractor will be made for the actual quantities of the Contract items performed and accepted in accordance with the Contract Documents. Upon completion of construction, if these actual quantities show either an increase or decrease from the quantities given in the Proposal Form, the Contract Unit Prices will still prevail.

B. The Contractor shall accept in compensation, as herein provided, in full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced by the Contract; also for all loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work and until its final acceptance by the Engineer, and for all risks of every description connected with the prosecution of the work, except as provided herein, also for all expenses incurred in consequence of the suspension of the Work as herein authorized.

C. The payment of any partial estimate or of any retained percentage except by and under the approved final invoice, in no way shall affect the obligation of the Contractor to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

1.4 PAYMENT FOR INCREASED OR DECREASED QUANTITIES

A. When alterations in the quantities of work not requiring supplemental agreements, as hereinbefore provided for, are ordered and performed, the Contractor shall accept payment in full at the Contract price for the actual quantities of work done. No allowance will be made for anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as stipulated in such agreements.

1.5 OMITTED ITEMS

A. Should any items contained in the bid form be found unnecessary for the proper completion of the work contracted, the Engineer may eliminate such items from the Contract, and such action shall in no way invalidate the Contract, and no allowance will be made for items so eliminated in making final payment to the Contractor.

1.6 PARTIAL PAYMENTS

A. Partial payments shall be made monthly as the work progresses. Partial payments shall be made subject to the provisions of the Supplemental and General Conditions. Contractor's Partial Payment Requests shall be submitted in two parts; one part for Fish and Wildlife Conservation Commission grant eligible quantities and one part for non-eligible quantities. The breakdown of quantities will be determined by the Engineer.

1.7 PAYMENT FOR MATERIAL DELIVERED

A. When requested by the Contractor and at the discretion of the Owner, payment may be made for all or part of the value of acceptable, non-perishable materials and equipment which are to be incorporated into bid items, have not been used and have been delivered to the construction site, or placed in storage places acceptable to the Owner. Payment shall be subject to the provisions of the General and Supplemental Conditions.

B. No payment shall be made upon fuels, supplies, lumber, false work, or other materials, or on temporary structures of any kind which are not a permanent part of the Contract.

1.8 FINAL PAYMENT

A. After final measurements are made by the Engineer, the Contractor will prepare a final quantity invoice of the amount of the Work performed and the value of such Work. Owner shall make final payments of the sum found due less retainages subject to provisions of the General and Supplemental Conditions.

1.9 INCIDENTAL WORK

A. Incidental work items for which separate payment will not be made includes, but is not limited to, the following items:
   1. Pre-Construction photographs or videos.
   2. Project Record Documents
   3. As-Built Survey
   4. Signs
   5. Clean-up and restoration of property.
   6. Restoration of fences and other structures.

7. Cooperation and coordination with other Contractors and utility companies including related inspection costs and other costs (Refer to Section 01050).
8. Utility crossings and relocations, unless otherwise paid for.
9. Temporary utility services to buildings, as required to maintain service during construction.
10. Minor Items--such as relocation of sign posts, mail boxes, curbs, etc., damaged as a result of construction activities.
11. Trench boxes, steel and/or wood sheeting as required, including that left in place.
12. Temporary Construction Dewatering as necessary.
13. Dust control.
14. Construction schedules, bonds, insurance, shop drawings, warranties, guarantees, certifications and other submittals required by the Contract Documents.
15. Temporary construction necessary for construction sequencing and other facilities not permanently incorporated into the work.
16. Weather protection.
17. Permits not otherwise paid for or provided by the Owner.
18. Visits to the project site or elsewhere by personnel or agents of the Contractor.
19. Contract administration and insurance.
20. Temporary resetting or replacement of existing street and traffic signs and temporary traffic signals where necessary.
21. Raising and lowering of existing frames and covers of buried utilities to grade unless payment is otherwise provided for.
22. Removing and resetting of existing steps, guard rails, fences, walls and non-paved brick or paver walkways disturbed during construction, other than those identified on the Drawings to be replaced.
23. Protection of existing block and stone retaining walls unless otherwise identified to be removed, relocated or modified in the Drawings.
24. Locating and verifying the locations of water and sewer services within the limits of work.
25. Completion of the Storm Water Pollution Prevention Plan as well as required inspections, monitoring and reporting.

1.10 DESCRIPTION OF PAY ITEMS

A. The following sections describe the measurement of and payment for the work to be done under the respective items listed in the Bid Form.

B. Each unit or lump-sum price stated in the Bid Form shall constitute full compensation, as herein specified, for each item of the work completed.

(01) – Mobilization/Demobilization

A. Method of Measurement: Lump sum. Total of bid item shall not exceed 5% of Total Amount of the Bid.

B. Basis of Payment: Mobilization/demobilization costs are those costs of initiating and ending the contract. Payment for mobilization/demobilization shall be a lump sum at the price as stated in the Bid Form. Seventy-Five percent (75%) of the lump sum will be payable when the Contractor is operational on the site and the remaining 25% of the lump sum will be payable when the Contractor leaves the site following the completion of all contract work. For purposes of payment on this item, "Operational" shall mean the Contractor has provided all required and properly executed bonds and insurance certificates and the owner has approved the following: Construction Schedule, Erosion Control Plan, Traffic Control Plan, Temporary Facilities, and Pre-Construction photographs/videos. Only one lump sum payment divided into the two partial payments described herein shall be made to cover all mobilization/demobilization costs throughout the entire contract.

(02) – Traffic Control

A. Method of Measurement: Traffic regulation and control will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: Payment for traffic regulation and control shall constitute full compensation for all traffic regulation and control efforts and including all labor, materials, equipment, signage and supervision required to provide comprehensive and professional traffic regulation and control at all project locations. The lump sum shall be paid in partial payments over the course of the project, where the percentage paid is equal to the percentage of completion of the entire Contract.

(03) – Sediment Barrier

A. Method of Measurement: Sediment barrier will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: The contract unit price for sediment barrier shall be full compensation for all labor, materials, tools, and equipment necessary to install, maintain, and remove the sediment barrier in accordance with the Stormwater Pollution Prevention Plan.

(04) – Floating Turbidity Barrier

A. Method of Measurement: Floating turbidity barrier will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: The contract unit price for floating turbidity barrier shall be full compensation for all labor, materials, tools, and equipment necessary to install, maintain, and remove the floating turbidity barrier in accordance with the Stormwater Pollution Prevention Plan.

(05) – Soil Tracking Prevention Device

A. Method of Measurement: Soil tracking prevention device will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: The contract unit price for soil tracking prevention device shall be full compensation for all labor, materials, tools, and equipment necessary to install, maintain, and remove the soil tracking prevention device in accordance with the Stormwater Pollution Prevention Plan.

(06) – Riprap, Rubble, Ditch Lining

A. Method of Measurement: Riprap, Rubble, Ditch Lining measured for payment shall be the tonnage of riprap, rubble, ditch lining installed during construction.

B. Basis of Payment: The contract unit price for Riprap, Rubble, Ditch Lining shall be full compensation for all labor, materials, tools, and equipment necessary to install, maintain, and remove the rip rap, rubble, ditch lining in accordance with the Contract Drawings. Contract unit price shall also be full compensation for the dressing and shaping the existing fills (or subgrade) for placing riprap. Contract unit price shall also be full compensation for all hauling, excavation, and backfill for the Riprap, Rubble, Ditch Lining.

(07) – Clearing and Grubbing

A. Method of Measurement: Clearing and grubbing will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: Payment for clearing and grubbing shall constitute full compensation for all clearing and grubbing required for construction of the dewatering system, including all necessary hauling, furnishing equipment, equipment operation, furnishing any areas required for disposal of debris, and leveling of terrain.

(08) – Hydraulic Dredging

A. Method of Measurement: Hydraulic dredging measured for payment shall be the number of cubic yards of sediment removed. This quantity shall be determined by comparing the existing grade determined by the topographic survey and the finished grade determined by an As-Built Survey.

B. Basis of Payment: The contract unit price for hydraulic dredging shall be full compensation for all labor, materials, tools, and equipment necessary to dredge the channel.

(09) – Dewatering of Dredged Material

A. Method of Measurement: Dewatering of dredged material will paid for at the Lump Sum unit prices as stated in the Bid Schedule.

B. Basis of Payment: Payment for dewatering of dredged material shall constitute full compensation for all labor, materials, tools, and equipment necessary to successfully dewater the dredged material to the level acceptable by the receiving landfill(s).

(10) – Disposal of Dredged Material

A. Method of Measurement: Disposal of dredged material measured for payment shall be the number of tons of sediment transported and disposed at an accepting landfill. This quantity shall be determined by tipping receipts provided by the accepting landfill(s).

B. Basis of Payment: Payment for disposal of dredged material shall constitute full compensation for all labor, materials, tools, and equipment necessary to successfully transport and dispose the dredged material at an accepting landfill(s).

(11) – Performance Turf, Sod

A. Method of Measurement: Performance Turf, Sod will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: Payment for performance turf, sod shall constitute full compensation for all labor, materials, tools, and equipment necessary to successfully establish sod on the cleared and grubbed area once the dewatering system is removed.

(12) – Remove and Replace Service Connections (W/WW/ELEC)

A. Method of Measurement: Remove and replace service connections (W/WW/ELEC) will be paid for at the Lump Sum unit price as stated in the Bid Schedule.

B. Basis of Payment: Payment for remove and replace service connections (W/WW/ELEC) shall constitute full compensation for all labor, materials, tools, and equipment necessary to remove/safe existing service connections that would be impacted by the dewatering system and to replace said service connections in-kind once dredging, dewatering, and disposal operations have ceased.

END OF SECTION

# SECTION 01200

# PROJECT MEETINGS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included: To enable orderly review during progress of the work, and to provide for systematic discussion of problems, the Engineer will conduct project meetings throughout the construction period.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 QUALITY ASSURANCE

A. Persons designated by the Contractor to attend and participate in the project meetings shall have all required authority to commit the Contractor to solutions agreed upon in the project meetings.

### 1.4 SUBMITTALS

A. Agenda items: To the maximum extent practicable, advise the Engineer at least 24 hours in advance of project meetings regarding all items to be added to the agenda.

B. Minutes: The Engineer will compile minutes of each project meeting and will furnish a copy to the Contractor. The Contractor may make and distribute such other copies as they wish.

## PART 2 - PRODUCTS

(No products are required in this Section.)

## PART 3 - EXECUTION

### 3.1 MEETING SCHEDULE

A. Except as noted below for Preconstruction Meeting, project meetings will be held monthly. Coordinate as necessary to establish mutually acceptable schedule for meetings.

### 3.2 MEETING LOCATION

A. Meetings will be held at the job site, unless the Owner and/or Engineer determine that virtual meetings are applicable and appropriate for any reason (e.g., COVID, Safety and Health Plan, etc.).

1. If meetings are required by Owner/Engineer to be held virtually, Engineer will host the meetings via Microsoft Teams. All required meeting attendees are responsible for providing hardware necessary to view, share, be heard and hear content of the meeting.

3.3 PRECONSTRUCTION MEETING

A. Preconstruction meeting will be scheduled within twenty days after the Effective Date of the Agreement, but before the Contractor starts work at the site. Provide attendance by authorized representatives of the Contractor and all major subcontractors. The Engineer will advise other interested parties and request their attendance.

B. Minimum agenda: Distribute data on, and discuss:
   1. Identification of key project personnel for Owner, Engineer, Contractor, funding/regulatory Agencies.
   2. Responsibilities of Owner, Engineer, Resident Project Representative, Contractor.
   3. Channels and procedures for communications.
   4. Construction schedule, including sequence of critical work.
   5. Easements, permits.
   6. Contract Documents, including distribution of required copies of original documents and revisions.
   7. Processing of Shop Drawings and other data submitted to the Engineer for review.
   8. Processing of field decisions and Change Orders.
   9. Rules and regulations governing performance of the Work, including funding/regulatory Agency requirements.
   10. Procedures for safety and first aid, security, quality control, housekeeping, and other related matters.

3.4 PROJECT MEETINGS

A. Attendance: To the maximum extent practicable, assign the same person or persons to represent the Contractor at project meetings throughout progress of the Work. The Superintendent shall attend. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspects of the Work are involved.

B. Minimum agenda:
   1. Review, revise as necessary, and approved minutes of previous meeting.
   2. Review progress of the Work since last meeting, including status of submittals for approval.
   3. Review schedule of work to be accomplished prior to next meeting.
   4. Discuss monthly partial payment request.
   5. Review status of change order requests and Work Directive Changes.
   6. Identify problems which impede planned progress.
   7. Develop corrective measures and procedures to regain planned schedule.
   8. Complete other current business.

END OF SECTION

# SECTION 01310

# CONSTRUCTION SCHEDULES

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included: Within ten (10) days after the effective date of the Agreement between Owner and Contractor submit to the Engineer an estimated progress schedule as specified herein.

B. Form of Schedules:
   1. Narrative: Completely describe the construction methods to be employed.

C. Content of Schedules:
   1. Provide complete sequence of construction by activity:
      a. Shop Drawings, Project Data and Samples:
         i. Submittal dates.
         ii. Dates reviewed copies will be required.
      b. Decision dates for:
         i. Products specified by allowances.
      c. Estimated product procurement and delivery dates.
      d. Dates for beginning and completion of each element of construction.
   2. Identify work of separate phases and logically grouped activities.
   3. Show the projected percentage of completion for each item of work as of the first day of each month.
   4. Provide separate sub-schedules, if requested by the Engineer, showing submittals, review times, procurement schedules, and delivery dates.
   5. Schedule sheets shall be printed in color on 24”x36” paper, unless a smaller size paper is allowed by the Engineer.

D. Updating:
   1. Show all work activities including those already complete.
   2. Show all changes occurring since previous submission.
   3. Indicate progress of each activity, show completion dates.
   4. Include:
      a. Major changes in scope.
      b. Activities modified since previous updating.
      c. Revised projections due to changes.
      d. Other identifiable changes.
   5. Provide narrative report, including:
      a. Discussion of problem areas, including current and anticipated delay factors.
      b. Corrective action taken or proposed.
      c. Description of revisions that may affect schedules.
      d. Description of activities to be performed in the next 6-week period.
      e. Updated list of key shop drawings, project data and samples to be submitted in the next 6-week period.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

1.3 SUBMITTALS

A. Submit updated schedules with each progress payment request.
B. Submit 4 copies of initial and updated schedules to the Engineer.

END OF SECTION

# SECTION 01320

# SAFETY AND HEALTH PLAN

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:

1. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work, as outlined herein and in the General and Special Conditions of the Contract Documents. Within 10 days after the effective date of the Agreement between Owner and Contractor, submit to the Engineer a Safety and Health Plan as specified herein. Refer to submittals section below.
2. Contractor shall comply with all applicable Laws and Regulations related to the safety of persons or property, or for the protection of persons or property from damage, injury, illness, or loss; and shall erect and maintain all necessary safeguards for such safety and protection.
3. Contractor shall designate a qualified and experienced safety representative (OSHA defined "Competent Person") at the site whose duties and responsibilities shall be the prevention of accidents and maintaining and supervising of safety precautions and programs, including a "Job Hazards Analysis".
4. The Contractor shall be solely responsible to provide all labor, equipment, and utilities sufficient to ensure no construction noise, particulates, or odors, are allowed to accumulate to levels which adversely affect health or work in, or near the construction area.

B. Content of Safety and Health Plan:

1. Prepare complete safety and health plan in accordance with the requirements of CFR Title 29 Part 1926 - Safety and Health Regulations for Construction.
   a. Provide documentation that Contractor's hazardous communication program is up to date.
   b. Provide documentation that Contractor's safety training is up to date.
   c. Prepare a project specific Safety and Health Plan addressing construction safety and protection, including but not limited to excavations, fall protection, egress, as well as provisions for construction in hazardous environmental conditions, confined space entry, electrically-classified spaces, chemical storage/handling, biological hazards, etc., at the project site.
2. Safety provisions for confined space entry shall follow the requirements of CFR Title 29 Part 1926, Subpart AA – Confined Spaces in Construction and will be incorporated into the Safety and Health Plan.
   a. The Contractor shall be responsible for all aspects of construction site safety including development of appropriate confined space entry procedures. The plan shall include, but not necessarily be limited to, the following:

i. Definitions
ii. Confined Space Evaluations
iii. Equipment Selection
iv. Confined Space Entry Training Documentation
v. Permit Required Confined Space Entry Requirements
vi. Testing (Monitoring) and Ventilation
vii. Confined Space Entry Permit Form
viii. Rescue and Emergency Procedures
ix. Emergency Contact Information

b. The Contractor shall inform the Owner and Engineer's representative whenever work will be performed in a confined space and the permit space program that the Contractor will follow.

c. The Contractor shall inform the Owner and Engineer's representative of any hazards confronted or created during entry operations, either through a briefing or during the entry operation.

d. The Contractor will coordinate entry operations with the Owner when both Owner personnel and Contractor personnel will be working in or near permit spaces.

e. The Owner, Engineer, their representatives, independent testing laboratories and government agencies, when inspecting the site, shall be supplied by the Contractor proper safety equipment when entry into a confined space is required.

C. Updating:

1. Contractor shall be responsible for updating the Safety and Health Plan as appropriate throughout the course of the construction period.

1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

1.3 SUBMITTALS

A. Submit the Contractor's site-specific Safety and Health Plan to the Engineer, in accordance with Section 01340. Submit hardcopy submittals, if required.

B. Submit updated Safety and Health Plans as necessary during the course of the project.

C. The Safety and Health Plan is provided “for information only” to inform the Owner, Engineer and Resident Project Representative of the project specific safety program requirements; however, if the Safety and Health Plan incomplete (e.g., missing elements relevant to the project work), inadequate (e.g., outdated qualifications) or not project-specific, it will be returned “revise and resubmit”. Delays related to an incomplete Safety and Health Plan are the responsibility of the Contractor.

D. The Contractor will overview the plan with the Owner (and staff), Engineer (and Resident Project Representative) prior to work beginning at the project site, and subsequently when/if the safety plan is updated.

E. Contractor's most current Safety and Health Plan shall be available at the construction site throughout the construction project.

1.4 ON-SITE COORDINATION MEETINGS

A. Contractor shall review key aspects of Safety and Health Plan at the Pre-Construction Meeting, and subsequent on-site safety informational meeting.

B. Contractor shall report to Engineer and Owner at each progress meeting concerning compliance with the Safety and Health Plan for the most recent construction period and new considerations and requirements for the upcoming period.

C. Contractor shall hold weekly on-site coordination meetings with Resident Project Representative and Owner to ensure that Owner's staff is aware of key Safety and Health Plan requirements of the current phase of construction.

END OF SECTION

# SECTION 01340

# SUBMITTALS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Submit all shop drawings, operations and maintenance manuals, Manufacturers' certificates, project data, and samples required by the Specifications.

B. General Submittals Requirements: This project shall utilize:
   1. Submittals – Electronic via Email/FTP with Hard Copy for Record
      a. The Contractor shall submit to the Engineer an electronic submittal of shop drawings and O&M Manuals in portable document format (PDF) transmitted via email or file transfer protocol (FTP). The Engineer shall return an electronic PDF of the submittal review comments to the Contractor for distribution to subcontractors, suppliers and manufacturers. The electronic submittals shall serve as the electronic record of the project.
      b. In addition, completed shop drawings and completed operations and maintenance (O&M) manuals shall be provided in hard copy (paper) format, for the record, in accordance with the following requirements.
         i. Shop drawings and O&M manuals shall be considered "completed" once an action code of "0" or "1" has been attained, as specified below, unless otherwise directed by the Engineer.
         ii. Once completed, the Contractor shall provide three hard copy sets (for Owner, Engineer and Resident Project Representative, respectively).
         iii. Hard copy submittals shall be updated on a monthly basis, for those submittals completed during the preceding month.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 SHOP DRAWINGS

A. Shop Drawings are required for each and every element of the work.

B. Shop Drawings are generally defined as all fabrication and erection drawings, diagrams, brochures, schedules, bills of material, manufacturers data, spare parts lists, and other data prepared by the Contractor, their subcontractors, suppliers, or manufacturers which illustrate the manufacturer, fabrication, construction, and installation of the work, or a portion thereof.

C. The Contractor shall provide a completed Contractor Submittal Certification Form (copy provided for Contractor's use at the end of this Specification Section) which shall be attached to every copy of every shop drawing and signed by the Contractor and Manufacturer (where applicable). Shop Drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish or shop coat, grease fittings, etc., depending on the subject of the drawing. When it is customary to do so, when the dimensions are of particular importance, or when so specified, the drawings shall be certified by the manufacturer or fabricator as correct for the work.

1. Each shop drawing submittal shall include a complete copy of the relevant specification section markup up to reflect “compliance” or “deviation” on an item-by-item basis.

D. Shop Drawings shall be submitted as a complete package by specification section, unless otherwise reviewed and approved by the Engineer. It is the intent that all information, materials and samples associated with each specification section be included as a single submittal for the Engineer's review. Any deviation from this requirement, shall be requested in writing with an anticipated shop drawing breakdown/schedule prior to any associated submittal. An exception to this requirement are shop drawings for reinforcing steel, miscellaneous metals and structural steel, which shall be submitted separately for each structure unless otherwise permitted by the Engineer.

E. The Contractor shall be responsible for the prompt and timely submittal of all shop and working drawings so that there shall be no delay to the work due to the absence of such drawings.

F. No material or equipment shall be purchased or fabricated especially for the Contract until the required shop and working drawings have been submitted as hereinabove provided and reviewed for conformance to the Contract requirements. All such materials and equipment and the work involved in their installation or incorporation into the Work shall then be as shown in and represented by said drawings.

G. Until the necessary review has been made, the Contractor shall not proceed with any portion of the work (such as the construction of foundations), the design or details of which are dependent upon the design or details of work, materials, equipment or other features for which review is required.

H. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from their subcontractors and returning reviewed drawings to them. Shop drawings shall be formatted to standard paper sizes to enable the Owner to maintain a permanent record of the submissions. Approved standard sizes shall be: (a) 24 inches by 36 inches; (b) 11 inches by 17 inches, and (c) 11 inches by 8-1/2 inches. Provision shall be made in preparing the shop drawings to provide a binding margin on the left hand side of the sheet. Shop drawings submitted other than as specified herein may be returned for resubmittal without being reviewed.

I. Only drawings which have been checked and corrected by the fabricator should be submitted to the Contractor by their subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to confirm that the subject matter thereof conforms to the Drawings and Specifications in all respects. All drawings which are correct shall be marked with the date, checker's name, and indication of the Contractor's approval, and then shall be submitted to the Engineer.

J. If a shop drawing shows any deviation from the Contract requirements, the Contractor shall make specific mention of the deviations in the transmittal. Shop Drawings that contain significant deviations that are not brought to the attention of the Engineer may be subject to rejection.

K. Should the Contractor submit equipment that requires modifications to the structures, piping, electrical conduit, wires and appurtenances, layout, etc., detailed on the Drawings, Contractor shall also submit details of the proposed modifications. If such equipment and modifications are accepted, the Contractor, at no additional cost to the Owner, shall do all work necessary to make such modifications.

L. A maximum of two submissions of each Shop Drawing will be reviewed, checked, and commented upon without charge to the Contractor. Any additional submissions which are ordered by the Engineer to fulfill the stipulations of the Drawings and Specifications, and which are required by virtue of the Contractor's neglect or failure to comply with the requirements of the Drawings and Specifications, or to make those modifications and/or corrections ordered by the Engineer in the review of the first two submissions of each Shop Drawing, will be reviewed and checked as deemed necessary by the Engineer, and the cost of such review and checking, as determined by the Owner, and based upon Engineer's documentation of time and rates established for additional services in the Owner-Engineer Agreement for this Project, may be deducted from the Contractor to make all modifications and/or corrections as may be required by the Engineer in an accurate, complete, and timely fashion. Resubmittals for the sole purpose of providing written responses to review comments will not be considered a resubmittal counting towards the two submission limit.

M. Shop Drawings that include drawings or other material that is illegible or too small may be returned without review.

1.4 SUBMISSION REQUIREMENTS

A. Accompany submittals with a transmittal cover sheet, containing:
   1. Date.
   2. Project title and number.
   3. Contractor's name and address.
   4. The sequential shop drawing number for each shop drawing, project data and sample submitted shall be:
      a. Specification Section number followed by a dash and then a sequential number beginning with 01 (e.g., 16000-01).
      b. Under limited situations when additional different pieces of equipment are submitted under the same specification section, those submittals shall be numbered sequentially (e.g. 05500-01, 05500-02, 05500-03, etc.).
      c. Resubmittals shall include an alphabetic suffix after the corresponding sequential number (e.g., 16000-01A).
      d. O&M submittals shall be numbered with the Specification Section number followed by a dash, the letters “OM”, another dash, and then a sequential number beginning with 01 (e.g. 16000-OM-01). Resubmittals of O&Ms shall include an alphabetic suffix after the corresponding sequential number (e.g. 16000-OM-01A).
   5. Notification of deviations from Contract Documents.
   6. Other pertinent data.

B. A completed Contractor Submittal Certification Form shall be attached to each hardcopy and electronic PDF of each shop drawing and must include:
   1. Project name

2. Specification Section and sequential number with alphabet suffix for resubmittal
3. Description
4. Identification of deviations from Contract Documents.
5. Contractor's stamp, initialed or signed, certifying review of the submittal, verification of field measurements and compliance with Contract Documents.
6. Where specified or when requested by the Engineer, manufacturer's certification that equipment, accessories and shop painting meet or exceed the Specification requirements.
7. Where specified, manufacturer's guarantee.

C. Additional Requirements for Electronic Submittals:
1. Each individual shop drawing or O&M submittal shall be contained in one PDF.
2. The first page of the PDF shall be the Contractor Submittal Certification Form as described above.
3. The electronic PDF shall be **exactly** as submitted in the hardcopy.
4. The electronic PDF shall include an electronic table of contents that is bookmarked for each section of the submittal.
5. The electronic PDF shall be configured such that is fully searchable.
6. PDF versions of 24x36 drawings shall be converted to 24 x 36 PDFs so as not to lose the clarity of the original drawing.
7. Electronic PDF submittals that are not submitted in accordance with the requirements stated above will not be reviewed by the Engineer.
8. Electronic submittals shall be transmitted via the protocol established in Part 1 above.

1.5 RESUBMISSION REQUIREMENTS

A. Revise initial submittals as required and resubmit as specified for initial submittal.

B. Indicate on submittals any changes which have been made other than those required by Engineer. All renumbering of shop drawings, relabeling of individual pieces or assemblies or relocating of pieces or assemblies to other Drawings within the submittal shall be clearly brought to the attention of the Engineer. If relabeling of individual pieces or assemblies has taken place, the labels from the previous submittal shall be indicated to assist in comparing the original and resubmitted shop drawing.

C. All resubmittals shall include a summary of the previous submittal review comments with the vendors' written response as to how the previous comments were addressed.

1.6 ENGINEER'S REVIEW

A. The review of shop and working drawings hereunder will be general only, and nothing contained in this specification shall relieve, diminish or alter in any respect the responsibilities of the Contractor under the Contract Documents and in particular, the specific responsibility of the Contractor for details of design and dimensions necessary for proper fitting and construction of the work as required by the Contract and for achieving the result and performance specified thereunder.

B. The Engineer's review comments will be summarized on a Submittal Review Form, which includes an action code. A description of each action code is provided below.

1. No Exceptions Taken (Status 0 on shop drawing log). The shop drawing complies with the Contract Document requirements. No changes or further information are required. Where appropriate, the submittal review form will be used to alert the Contractor, Owner and Field personnel of remaining items within that specification section that still needs to be submitted.
2. Make Corrections Indicated (Status 1 on shop drawing log). The shop drawing complies with the Contract Document requirements except for minor changes, as indicated. Engineer requires that all comments will be addressed by the Contractor, unless otherwise notified in writing prior to execution of the relevant work.
3. Conditional to Remarks (Status 2 on shop drawing log). The shop drawing potentially complies with the Contract Document requirements, contingent upon satisfactory resolution of review comments. Remarks will explicitly list what information needs to be resubmitted. Resubmittal from the Contractor should include a cover letter or summary which indicates how each review comment has been addressed. **This action code will not be used, or will be sparingly used, for electronic submittals.**
4. Revise and Resubmit (Status 3 on shop drawing log). The shop drawing does not comply with the Contract Document requirement as submitted, but may with changes indicated and/or submission of additional information. The entire package must be resubmitted with the necessary information and a cover letter which indicates how each review comment has been addressed and where to find the information in the resubmittal.
5. Rejected (Status 4 on shop drawing log). The shop drawing does not comply with the Contract Document requirements, for the reasons indicated in the remarks, and is unacceptable.
6. For Information Only (Status 5 on shop drawing log). The shop drawing review was for information only.
7. In Review (Status 6 on shop drawing log). The shop drawing is currently under review.

# CONTRACTOR SUBMITTAL CERTIFICATION FORM

PROJECT: _____ CONTRACTOR'S PROJ. NO: _____

CONTRACTOR: _____ ENGINEER'S PROJ. NO: _____

ENGINEER: _____

SHOP DRAWING NUMBER: _____ (SPECIFICATION SECTION OR DRAWING NO:) - _____ (SEQUENTIAL NUMBER (& ALPHA SUFFIX FOR RESUBMITTAL))

DESCRIPTION: _____

MANUFACTURER: _____

The above referenced submittal has been reviewed by the undersigned and I/we certify that the material and/or equipment meets or exceeds the project specification requirements with

☐ NO DEVIATIONS

or

☐ A COMPLETE LIST OF DEVIATIONS AS FOLLOWS:

_____
_____
_____
_____

By: _____ Contractor

By: _____ Manufacturer

Date: _____

Date: _____

a Any deviations not brought to the attention of the Engineer for review and concurrence shall be the responsibility of the Contractor to correct, if so directed.
b Required on all submittals
c When required by specifications Page ___ of ___

| General Contractor's Stamp |
| --- |
| |

## OPERATIONS AND MAINTENANCE MANUAL CERTIFICATION FORM

PROJECT: _____ CONTRACTOR'S PROJ. NO: _____

CONTRACTOR: _____ ENGINEER'S PROJ. NO: _____

ENGINEER: _____

O&M NUMBER: _____ (SPECIFICATION SECTION OR DRAWING NO:) - OM- _____ (SEQUENTIAL NUMBER (& ALPHA SUFFIX FOR RESUBMITTAL))

DESCRIPTION: _____

MANUFACTURER: _____

The above referenced operations and maintenance manual has been reviewed by the undersigned and I/we certify that the manual is customized as needed for this project, is suitable for mounting in a 3-ring binder, and contains the following items:

- ☐ Table of Contents
- ☐ Contractor and Manufacturer Contact Information
- ☐ Preventative Maintenance Schedule and Summary
- ☐ Removal and Replacement Instructions
- ☐ Lubrication Schedule
- ☐ Troubleshooting Information
- ☐ Warranty Information
- ☐ Rebuild Information for All Components
- ☐ Startup, Operation and Shutdown Procedures
- ☐ Normal and Emergency Operations
- ☐ Safety Procedures and Precautions
- ☐ Shop Drawings corrected to As-Built Conditions
- ☐ Personnel Training Requirements
- ☐ Project-Related Design Data
- ☐ Serial Numbers
- ☐ Maintenance and Repair Procedures
- ☐ Wiring and Control Diagrams
- ☐ Equipment Drawings & Schematics
- ☐ Equipment Performance Curves
- ☐ Parts and Service Contact Information
- ☐ Manufacturer's Contact Information
- ☐ Emergency Operations Plan
- ☐ List of All Component Part Numbers
- ☐ List of Spare Parts Supplied
- ☐ Testing Equipment & Special Tools
- ☐ Other System Specific Information

By: _____ Contractor[a] By: _____ Manufacturer[b]

Date: _____ Date: _____

[a] Contact information shall include name, address and telephone number.
[b] Required on all Operation and Maintenance Manuals.
[c] When required by Specifications. Page ___ of ___

| General Contractor's Stamp |
| --- |
| |

END OF SECTION

# SECTION 01370

# SCHEDULE OF VALUES

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:

1. Provide a detailed breakdown of the Contract Sum showing values allocated to each of the various parts of the Work, as specified herein and in other provisions of the Contract Documents.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 QUALITY ASSURANCE

A. Use required means to assure arithmetical accuracy of the sums described.

B. When so required by the Engineer, provide copies of the subcontracts or other data acceptable to the Engineer substantiating the sums described.

### 1.4 SUBMITTALS

A. The proposed schedule of values (hereinafter referred to as "SOV"), meeting the requirements outlined below, shall be submitted to the Engineer for review. The SOV shall be used as the basis for reviewing and approving payment requisitions along with determining percentages of work completed. No payment requisitions will be processed until the Engineer has taken no exceptions to the schedule of values.

B. The SOV shall consist of a detailed breakdown of all the work within the Contract Documents, as specified herein, and shall include a sufficient number of work items to serve as an accurate basis the General Contractor's Application for Payment. Each work item shall include its prorated share of overhead and profit and subcontractor markup. The breakdown shall provide the level of detail outlined below.

1. General Conditions:
   a. Includes all work indicated in all specifications within Division 0 and 1.
2. Civil and Site Work:
   a. Includes all work indicated on the Civil (C) Drawings and all specifications within Division 2.
3. If a work item, or series of work items, are separated into construction phases which will require phased payments, the SOV shall have separate line item values for each phase.

END OF SECTION

# SECTION 01380

# CONSTRUCTION PHOTOGRAPHS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Pre-Construction Record: Contractor shall take digital photographs and video to obtain a visual record of the project area prior to beginning any work at the project site.
   2. Construction Progress: Contractor shall take a minimum of 20 ground-based digital photographs at monthly intervals in order to obtain a visual record of the project area.
   3. Post-Construction Record: Contractor shall take a minimum of 10 ground-based digital photographs.
   4. Notify Engineer at least three (3) working days prior to photographing or videoing the project area so Engineer may, at their option, observe.

### 1.2 QUALITY

A. Pre-Construction Record: Quality shall be such that the condition of existing pavement, curbing, driveway entrances, sidewalks, walls, doors, equipment, piping, etc. can be readily determined. Pre-construction record photographs and videos shall be taken by the Contractor with the Engineer or RPR present.
B. Construction Progress: Quality shall be such that the progress of the work is satisfactorily documented. Construction progress photographs may be taken by a professional photographer or may be taken by the Contractor.
C. Post-Construction Record: Quality shall be such that the condition of pavement, curbing, driveway entrances, sidewalks, walls, doors, equipment, piping, etc. can be readily determined. Pre-construction record photographs and videos shall be taken by the Contractor with the Engineer or RPR present.
D. Electronic files shall be high resolution digital images in *.jpeg format and shall not be compressed or downsized. Electronic files shall not be less 2MB in size

### 1.3 SUBMITTALS

A. Pre-Construction Record:
   1. Submit pre-construction photographs/videos in accordance with Section 01340 prior to initiating any work on-site.
B. Post-Construction Record:
   1. Submit post-construction record photographs in accordance with Section 01340 prior to final payment requisition.
C. The quality of the photos and video are subject to approval by the Engineer.
D. Photographs and videos taken for the project and submitted are released to the Owner and Engineer for reproduction and use for records retention, governmental, commercial, and marketing purposes.

END OF SECTION

# SECTION 01400

# QUALITY CONTROL

## PART 1 - GENERAL

### 1.1 REQUIREMENTS INCLUDED

A. General Quality Control.
B. Workmanship.
C. Manufacturer's Instructions.
D. Manufacturer's Certificates.
E. Manufacturer's Field Services.
F. Testing Laboratory Services.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 QUALITY CONTROL

A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

### 1.4 WORKMANSHIP

A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
B. Perform work by persons qualified to produce workmanship of specified quality.
C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

### 1.5 MANUFACTURERS' INSTRUCTIONS

A. Comply with instructions in full detail, including each step in sequence. Should instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

### 1.6 MANUFACTURERS' CERTIFICATES

A. When required by individual Specifications Section, submit manufacturer's certificate that products meet or exceed specified requirements.

### 1.7 MANUFACTURERS' FIELD SERVICES

A. When specified in respective Specification Sections, require supplier and/or manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust and balance of equipment as applicable, and to make appropriate recommendations.
B. Representative shall submit written report to Engineer listing observations and recommendations.

1.8 TESTING LABORATORY SERVICES

A. Contractor will employ and pay for services of an Independent Testing Laboratory to perform inspections, tests, and other services wherever an Independent Testing Laboratory is required by individual specification sections.

B. Services will be performed in accordance with requirements of governing authorities and with specified standards.

C. Reports will present observations and test results and indicate compliance or non-compliance with specified standards and with Contract Documents. Independent Testing Laboratory will submit one copy of each report directly to each of the following: Engineer, Resident Project Representative, Contractor. Reports will be submitted within 5 days of obtaining test results. If test results indicate deficiencies, Independent Testing Laboratory shall telephone or email results to Engineer, Resident Project Representative and Contractor within 24 hours.

D. Contractor shall cooperate with Independent Testing Laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as requested.

E. Contractor shall coordinate all testing work and shall notify Engineer and Independent Testing Laboratory at least 24 hours prior to performing work requiring testing services.

F. Payment for Independent Testing Laboratory services shall be as follows:

1. General: Testing is the responsibility of the Contractor which will be considered an incidental item unless otherwise indicated in Section 01150, Measurement and Payment.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

# SECTION 01520

# SITE SECURITY

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. The Contractor shall:

1. Protect work premises from theft, vandalism, and unauthorized entry.
2. Maintain program throughout construction period.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

## PART 2 - PRODUCTS – NOT USED

## PART 3 - EXECUTION

### 3.1 ENTRY CONTROL

A. The Contractor shall:

1. Restrict entry of persons and vehicles into Project site.
2. Allow entry only to authorized persons with proper identification.
3. Coordinate entrance of persons, vehicles (including deliveries) in such a manner to not interfere with Owner's operations.

END OF SECTION

# SECTION 01562

# DUST CONTROL

## PART 1 - GENERAL

### 1.1 DESCRIPTIONS

A. Work Included:

1. Furnish and apply water on the road surfaces within the construction site, when required to control dust and when directed by the Engineer.
2. When dust control is not included as a separate item in the Contract, the work shall be considered incidental to the appropriate items of the Contract.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Water for Sprinkling:

B. Clean, free of salt, oil, and other injurious matter.

## PART 3 - EXECUTION

### 3.1 APPLICATION

A. Water:

1. Apply water by methods approved by the Engineer.
2. Use approved equipment including a tank with gauge equipped pump and spray bar.

END OF SECTION

# SECTION 01570

# TRAFFIC REGULATION

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Provide all materials and perform all work necessary to completely regulate traffic in the area of Work.
   2. Perform all work in such a manner as to provide safe passage at all times for the public and with a minimum of obstruction to traffic.
   3. Do not close roads or streets to passage of the public without the permission of the proper authorities.

B. Develop a project specific traffic control plan that meets the requirements of Manual of Uniform Traffic Control Devices (MUTCD) and any local and state requirements. Proposed Traffic Control Plan shall indicate signs/locations to be used. Traffic Control Plan submittal to the Engineer will be for general information only.

C. The Contractor's designated traffic control representative shall respond to all traffic safety complaints and be available to direct traffic control subcontractors the entire time work is occurring on site. If the designated representative is not on site for a period of time, another on site representative shall be designated by the Contractor for that period.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 SCHEDULING WORK

A. During the Project Pre-Construction Meeting one Contractor representative will be designated as the coordinator between the campground manager and subcontracted traffic control.

B. Revise the plan of work if it will create a traffic hazard or an unreasonably long detour.

## PART 2 - PRODUCTS

### 2.1 WARNING SIGNS AND BARRICADES

A. Traffic control (plans, methods and devices) shall be as outlined in Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) as published by U. S. Department of Transportation, and any local and state requirements.

B. Provide adequate warning signs, barricades, signal lights, flaggers/uniformed police officers, and take other necessary precautions for the safety of the public.

C. Provide and illuminate suitable warning signs to show where construction, barricades or detours exist.

D. Provide barricades of substantial construction and painted with a finish that increases visibility at night, as outlined in the MUTCD.

E. Keep signal lights illuminated at all barricades and obstructions from sunset to sunrise.
F. Contractor shall make periodic inspection throughout the day of the traffic control patterns, methods, signs and other devices to ensure that they are properly placed.

## PART 3 - EXECUTION

### 3.1 DETOURS

A. Provide, identify and maintain suitable detours when the project, or any part thereof, is closed to public travel.
B. When the closed part of the project is reopened, restore the detour area and any other disturbed areas to the original condition.

END OF SECTION

# SECTION 01600

# DELIVERY, STORAGE AND HANDLING

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. This Section specifies the general requirements for the delivery, handling, storage and protection for all items required in the construction of the work. An updated delivery and storage log is required with the monthly payment requisition prior to approval. An example log is included in this section.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 TRANSPORTATION AND DELIVERY

A. Transport and handle items in accordance with manufacturer's instructions.

B. Schedule delivery to reduce long term on-site storage prior to installation and/or operation. Under no circumstances shall equipment be delivered to the site more than 120 days prior to installation without written authorization from the Engineer.

C. Ship equipment, material and spare parts complete except where partial disassembly is required by transportation regulations or for the protection of components.

D. Pack spare parts in containers bearing labels clearly designating contents and pieces of equipment for which intended, including cross reference of the applicable contract specification section.

E. Deliver spare parts at the same time as pertaining equipment. Deliver spare parts to the Owner after completion of work.

F. Deliver products to the site in manufacturer's original sealed containers or other packing system, complete with instructions for handling, storing, unpacking, protecting and installing.

G. Instructions for handling, storing, unpacking, protecting and installing equipment shall be included in the Equipment O&M Manuals, which shall be submitted prior to the equipment being shipped to the site. This information shall be filed in a dedicated three ring binder(s) on-site, in the Contractor trailers, accessible to the Owner and Engineer. The binder(s) shall be clearly labeled, and include dividers for each specification section. The manufacturer-provided instructions for each equipment item shall be labeled with the specification number, equipment name, and equipment number. The instructions shall also be submitted to the Engineer.

H. Assume responsibility for equipment material and spare parts just before unloading from carrier at site.

I. All items delivered to site shall be unloaded and placed in a manner which will not hamper the Contractors normal construction operation or those of subcontractors and other contractors and will not interfere with the flow of necessary traffic.

J. Provide equipment and personnel to unload all items delivered to the site.

K. Promptly inspect shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others (i.e. Owner, other Contractors), perform inspection in the presence of the Engineer. Notify the Engineer in writing of any problems.

L. Pay all demurrage charges if failed to promptly unload items.

1.4 STORAGE AND PROTECTION

A. Store and protect products and equipment in accordance with the manufacturer's instructions, with seals and labels intact and legible. Storage instructions shall be studied by the Contractor and reviewed with the Engineer by them. Instructions shall be carefully followed and a written record of this kept by the Contractor for each product and pieces of equipment.

B. Arrange storage of products and equipment to permit access for inspection. Periodically, inspect to make sure products and equipment are undamaged and are maintained under specified conditions.

C. Provide protective maintenance during storage consisting of manually exercising equipment, inspecting mechanical surfaces for signs of corrosion or other damage, lubricating, applying any coatings as recommended by the equipment manufacturer necessary for its protection and all other precautions to assure proper protection of all equipment stored and for compliance with manufactures requirements related to warranties.

D. Store loose granular materials on a solid flat surface in a well-drained area. Prevent mixing with foreign matter.

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 DELIVERY, STORAGE, AND HANDLING MONTHLY LOG

A. An updated storage and delivery log is required with the monthly payment requisition prior to approval.

B. The monthly log shall include the specification section, equipment description, equipment tagging, submittal approval date, date of equipment delivery, date of O&M submittal, contractor start-up sign-off, certified equipment testing date, operator training date, spare parts turnover date, required maintenance (activity and date), and equipment turnover (Owner's witness and date).

**Section 01600 Delivery, Storage and Handling**

| Specification Section | Equipment Description | Equipment Tags | Submittal Approved | Date of Equipment Delivery[1] | Date of O&M Submittal | Equipment Start-Up[2] | | Certified Equipment Testing | Operator Training | Spare Parts Turnover | Required Maintenance by Contractor (activity & date) | Equipment Turnover | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Date | Witness | Date | Date | Date | | Owner's Witness | Date |
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1. If equipment is delivered and placed in storage, all steps for Stored Equipment shall be followed and tracked separately
2. Log weekly start-ups of installed equipment, performed by Contractor, until Equipment Turnover

END OF SECTION

# SECTION 01710

# PROJECT CLEANING

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:

1. Maintain premises and public properties free from accumulations of waste, debris, and rubbish, caused by operations.
2. At completion of work, remove waste materials, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces. Leave project clean and ready for use.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies: Conduct cleaning and disposal operations in accordance with all applicable local and state laws, ordinances, and code requirements.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Not used.

## PART 3 - EXECUTION

### 3.1 PERFORMANCE

A. Cleaning During Construction:

1. Execute cleaning operations to ensure that buildings, grounds, and public properties are maintained free from accumulations of waste materials and rubbish.
2. Entirely remove and dispose of material or debris during the progress of the work that has washed into or has been placed in watercourses, ditches, gutters, drains, catch basins, or elsewhere as a result of the Contractor's operations.
3. Wet down dry materials and rubbish to lay dust and prevent blowing dust.
4. At reasonable intervals during the progress of work, clean the site and dispose of waste materials, debris, and rubbish.
5. Handle materials in a controlled manner with as few handlings as possible. Do not drop or throw material from heights.

B. Control of Hazards:
   1. Store volatile wastes in covered metal containers, and remove from premises daily.
   2. Prevent accumulation of wastes which may create hazardous conditions.
   3. Provide adequate ventilation during use of volatile or noxious substances.

C. Disposal:
   1. Do not burn or bury rubbish and waste materials on project site.
   2. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
   3. Do not dispose of wastes into streams or waterways.

D. Final Cleaning:
   1. Employ experienced workers, or professional cleaners, for final cleaning.
   2. Broom clean paved surfaces.
   3. Rake clean non-paved surfaces of the project site.
   4. Restore to their original condition those portions of the site not designated for alterations by the Contract Documents.

END OF SECTION

# SECTION 01720

# PROJECT RECORD DOCUMENTS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:

1. Keep accurate record documents for all additions, demolition, changes of material or equipment (from that shown on the Drawings), variations in work, and any other additions or revisions to the Contract (via Change Order, Work Change Directive, Field Order or Clarification).

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 MAINTENANCE OF DOCUMENTS

A. Maintain at job site, one copy of:

1. Contract Drawings
2. Specifications
3. Addenda
4. Reviewed Shop Drawings
5. Change Orders
6. Any other modifications to the Contract
7. Field Test Reports

B. Store documents in files and racks specifically identified for Record Drawing use, that are apart from documents used for construction.

C. File documents in a logical manner indexed for easy reference.

D. Maintain documents in clean, dry, legible condition.

E. Do not use record documents for construction purposes.

F. Make documents available at all times for inspection by the Engineer and Owner, and by the end of the project, transmit these documents to the Engineer.

G. Failure to maintain current records, as specified herein, shall be grounds for withholding additional retainage from monthly partial payment requests.

### 1.4 RECORDING

A. Label each document "PROJECT RECORD" in large high printed letters.

B. Keep record documents current and do not permanently conceal any work until required information has been recorded.

C. General Field Recording Issues:

1. All swing ties shall be taken from existing, permanent features such as utility poles, corners of buildings and hydrants. Porches, sheds or other house additions shall be avoided as they could be torn down. A minimum of two swing ties shall be taken. Survey grade GPS coordinates are also acceptable.
2. Stations shall be recorded to the nearest foot.

3. Elevations shall be recorded to the nearest hundredth of a foot.

D. Project Record Drawings - Legibly mark Contract Drawings to record existing utilities and actual construction of all work, including but not limited to the following (where applicable):
   1. Existing Utilities
      a. Water mains and services, water main gate valves, sewer mains and services, storm drains, culverts, steam lines, gas lines, tanks and other existing utilities encountered during construction must be accurately located and shown on the Drawings. In congested areas supplemental drawings or enlargements may be required.
      b. Show any existing utilities encountered in plan and profile and properly labeled showing size, material and type of utility. Ties shall be shown on plan. Utility shall be drawn to scale in section (horizontally and vertically) and an elevation shall be called out to the nearest hundredth of a foot.
      c. When existing utility lines are broken and repaired, ties shall be taken to these locations.
      d. If existing water lines are replaced or relocated, document the area involved and pipe materials, size, etc. in a note, and with ties.
   2. Dredging
      a. Show centerline dredge profile and level spot elevations.
      b. Show dredge widths.
      c. On cross sections, show the dredge side slopes.
      d. Show any deviations from the design plans.

E. Specifications and Addenda - Legibly mark up each section to record:
   1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
   2. Changes made by Change Order, Field Order, or other method.

## 1.5 SUBMITTALS

A. At the completion of the project, and prior to the release of retainage, deliver record documents to the Engineer.
   1. Record drawings shall be provided as a bound paper set of computer generated drawings, an electronic file (pdf format) of the bound paper set, and electronic files in AutoCAD format. Ownership of the drawings and files shall pass to the Owner at the time of submittal.
   2. If the Contractor provides alternate or substitute equipment that requires revised arrangements from the Bidding Documents, the Contractor shall provide supplemental record drawings of these items in AutoCAD format.

B. Accompany submittal with transmittal letter, in duplicate, containing:
   1. Date, project title and number.
   2. Contractor's name and address.
   3. Title and number of each record document with certification that each document is completed and accurate.
   4. Signature of Contractor, or their authorized representative.

C. Failure to supply all information on the Project Record Drawings as specified in Part 1.3 may result in withholding final completion and in non-approval of final payments of the Contract. If Contract Time has elapsed, this shall be grounds for imposing liquidated damages.

1.6 QUALITY ASSURANCE

A. All horizontal and vertical dimensions, swing-ties, and elevations shall be accurate to within one-tenth of a foot, unless greater accuracy is specified elsewhere in the Specifications (e.g., concrete elevations, weir elevations, etc.).

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 MAINTAINING AND PROVIDING RECORDS

A. Records shall be kept current as the work progresses.

B. Records shall be made available for review by the Owner, Engineer, Resident Project Representative and/or Funding Agency(s) upon request.

C. Records shall be kept current as the work progresses. Failure to maintain current records, as specified herein, shall be grounds for withholding additional retainage from monthly partial payment requests. Failure to provide records shall also be grounds for withholding of final payment and, if beyond contract time, shall be grounds for imposing liquidated damages.

3.2 AS-BUILT SURVEY PERFORMANCE

A. From established survey control, and construction baseline as shown on the drawings, conduct surveys of the project area during construction as needed to obtain information of buried and above ground items. Surveys shall include information outlined in Section 1.3.

B. Actual dredge alignments; existing, new and relocated utility poles; all underground and overhead utility poles and lines within the project limits, including those installed on private property; all other new features and appurtenances and those existing features and appurtenances changed as a result of this project shall be included in the survey.

3.3 FORMAT FOR ELECTRONIC DELIVERABLES

A. AutoCAD digital survey data for the as-built survey shall include:

1. Copy of field notes and sketches of the survey.
2. Paper copy of description of layers.
3. Paper copy of base map.
4. Provide digital information on compact disk with paper copy printout; information shall be provided in .DWG format (AutoCAD 2011 or earlier). Data shall be provided in 3D format (northing, easting, elevation, or Y, X, Z).
5. Drawing scale: Minimum one inch = twenty feet.
6. Layering:
    a. Repetitive symbols made into blocks and defined on layer 0.
    b. All entities shall be drawn “by layer” as opposed to individual properties.

c. Use one linetype and one color per layer as opposed to numerous colors/linetypes on a single layer.
d. Preface each layer with the initials of the Survey company or Contractor (example, Survey Company: SC “layername”).
e. Database text annotation will be coordinated so the text will be right-reading.
f. Place text on separate layers.

END OF SECTION

# SECTION 02000

# REFERENCED FDOT SPECIFICATIONS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. This Section covers the Florida Department of Transportation (FDOT) standard specifications and details applicable to this project and are made part of these project document by reference herein.

### 1.2 SUBMITTALS

A. The Contractor shall submit shop drawings in accordance with Section 01340 Submittals

### 1.3 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Specification Section shall be the latest revision of any such document in effect at the bid time, unless otherwise noted. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. The July 2022 edition of the *FDOT Standard Specifications for Road and Bridge Construction* (Standard Specifications) and the *FY2022-23 Standard Plans Standards* shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:
   - 100, Construction Equipment – General Requirements.
   - 104, Prevention, Control and Abatement of Erosion and Water Pollution.
   - 105, Contractor Quality Control and General Requirements
   - 107, Litter Removal and Mowing

B. Where the referenced FDOT Specifications cite "the Department," this shall be modified to “the Owner and/or Engineer” by this contract.

C. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150A Measurement and Payment* and its included Bid Schedule.

D. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

### 1.4 WARRANTIES

A. Warranties shall be in accordance with the General Conditions and Supplementary Conditions.

## PART 2 - PRODUCTS

### 2.1 GENERAL

A. The July 2022 edition of the FDOT Standard Specifications for Road and Bridge Construction (Standard Specifications) and the FY 2022-23 Standard Plans shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:

- 104, Prevention, Control, and Abatement of Erosion and Water Pollution
- 530, Revetment Systems
- 570, Performance Turf

B. Where the referenced FDOT Specifications cite "the Department," this shall be modified to “the Owner and/or Engineer” by this contract.

C. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150A Measurement and Payment* and its included Bid Schedule.

D. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

## PART 3 - EXECUTION

### 3.1 GENERAL

A. The July 2022 edition of the FDOT Standard Specifications for Road and Bridge Construction (Standard Specifications) and Roadway and Traffic Design Standards shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:

- 104, Prevention, Control, and Abatement of Erosion and Water Pollution
- 530, Revetment Systems
- 570, Performance Turf

B. Exceptions

1. Where the referenced FDOT Specifications cite "the Department," this shall be modified to “the Owner and/or Engineer” by this Contract.
2. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150A Measurement and Payment* and its included Bid Schedule.
3. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

END OF SECTION

# SECTION 02001

# HYDRAULIC DREDGING

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Furnishing of all labor, materials, and equipment and the performance of work required to complete the dredging as shown on the Contract Drawings and as herein specified.
   2. Hydraulic dredging of a channel basin and the satisfactory pumping of dredged material into the dewatering system.
   3. Protection of tidal flats and uplands outside the limits of construction.
   4. The dredged materials consist of silty/clayey sand and sandy lean silty clay. See Geotechnical Reports in the Appendices for more information.

B. Related Work Specified Elsewhere:
   1. Dewatering of dredged material is specified in the appropriate sections in this division.
   2. Stormwater pollution prevention and temporary erosion control are specified in the FDOT referenced specifications.

### 1.2 SUBMITTALS

A. Prior to any dredging work, the Contractor shall submit the following for approval by the Engineer. No work shall begin without approval by the Engineer.
   1. Dredging Operation Plan including the following:
      a. Project team organization with duties, responsibilities, and authorities clearly defined.
      b. Order of work.
      c. Schedule.
      d. Quality Control procedures.
      e. Spill Containment Plan.
      f. Accident Prevention Program Plan: Written plan describing the Contractor's Accident Prevention Program.
   2. Pumping Plan including the following:
      a. Size, material, and layout of discharge line.
      b. Proposed pumping rate.
      c. Type of dredger head (Plain, cutter, auger, etc)
      d. Method and equipment to advance dredge through the channel.
      e. Method and equipment to prevent spillage of dredged material.
   3. Product brochures and technical specifications for the dredging platform, pump, and pipeline.
   4. All plans submitted shall meet the requirements of all attached permits and the construction plans.

B. Upon completion of the dredge, the Contractor shall submit a post-dredging survey to the Engineer. See Section 01720 for more information.

## PART 2 - PRODUCTS

### 2.1 DREDGING EQUIPMENT

A. Dredging shall be accomplished using a hydraulic dredge of suitable size and power for the work to be performed. The dredge shall be capable of dredging at the depths required. Selection of dredge equipment shall be coordinated with the design of the dewatering system.

B. All equipment shall be inspected regularly to ensure proper operation and to prevent spills and leakage. Regular maintenance must be performed throughout the project.

### 2.2 PIPING

A. Piping from the dredge to the dewatering system shall consist of high-density polyethylene pipe fused to provide leakproof joints. Strength and diameter of the pipe shall be sufficient to allow for the selected dredging rate and to maintain structural integrity.

B. Piping shall be maintained in good working order throughout the project.

## PART 3 - EXECUTION

### 3.1 GENERAL:

A. Submerged Dredge Pipelines shall meet the requirements of Reclamation Safety and Health Standards, Section 28: Watercraft and Dredging, 28.10.9.

B. Floating Pipelines shall meet the requirements of Reclamation Safety and Health Standards, Section 28: Watercraft and Dredging, 28.9.4 and 28.10.10.

C. Navigation lights shall be provided in accordance with Reclamation Safety and Health Standards, Section 28: Watercraft and Dredging, 28.9.3.

D. Personal Protective Equipment shall be provided in accordance with Reclamation Safety and Health Standards, Section 28: Watercraft and Dredging, 28.8.

E. Other safety equipment shall be provided in accordance with Reclamation Safety and Health Standards, Section 28: Watercraft and Dredging, 28.9

### 3.2 SAFETY:

A. All work shall be performed in conformance with all applicable laws and regulations.

B. Cables for pontoon platforms, if used, shall be suitably marked and delineated along their entire length.

C. The pipeline shall be anchored in place along its entire length in tidal waters at a distance sufficient to prevent pipeline movement during tidal and storm flows.

### 3.3 DREDGING

A. Contractor shall inform the Engineer and Owner of the date of dredging commencement at least two (2) weeks prior.

B. Contractor shall establish and maintain baselines and control, throughout the project duration, as approved by the Engineer, to maintain the work within the limits indicated by the Drawings.

C. Bedrock or hardpan layers shall not be removed.

D. Placement of dredging equipment shall be performed in a manner to protect existing salt marsh flora and fauna.

E. Care shall be taken in the execution of work to protect the existing boat ramp, dock, and other features in the vicinity of the work site. Damage caused by the work shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost to the County.

F. Miscellaneous material such as anchors, chains, and other non-soil material which are encountered in the course of dredging operations shall become the property of the Contractor and shall be disposed of in an appropriate manner off-site consistent with local, state, and federal regulations.

G. All operation of pontoons, work boats, or other similar vessels shall be performed in a manner to prevent impact to adjacent salt marsh areas. No anchoring or cabling is to be allowed within the adjacent salt marshes.

H. All fueling operations shall be done within containment systems designed to prevent spillage from entering the surrounding environment.

I. Contractor shall have full responsibility for all phases of the dredging and pumping operations.

## 3.4 PUMPING OF DREDGE MATERIAL

A. The dredged material shall be continuously piped from the dredge to the dewatering system through watertight pipelines. The piping layout shall include valves or fittings to allow the flexibility to switch from one dewatering system component to another or to pump to multiple components at once.

END OF SECTION

# SECTION 02050A

# DEMOLITION

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:

1. The Contractor shall furnish all labor, materials, tools, equipment and apparatus necessary and shall do all work required to complete the demolition, removal, and alterations of existing facilities as indicated on the Drawings, as herein specified, and/or as directed by the Engineer.
2. All equipment, piping, and other materials that are not to be relocated or to be returned to the Owner shall become the property of the Contractor and shall be disposed of by him, away from the site of the work and at his own expense.
3. All demolition or removal of existing structures, utilities, equipment, and appurtenances shall be accomplished without damaging the integrity of existing structures, equipment, and appurtenances to remain, to be salvaged for relocation or stored for future use.
4. Such items that are damaged shall be either repaired or replaced at the Contractor's expense to a condition at least equal to that which existed prior to the start of his work.
5. Unless otherwise indicated, all items labeled to be "removed", "demolished" or "remove/demolish" shall be removed and disposed of off site in accordance with all Local, State and Federal Regulations.
6. The Contractor shall not collect any samples of either Building Materials, Wastes, Soils, or any other site/project related materials, nor have the samples analyzed for any reason without prior written approval from the Owner or Engineer.
    a. All sampling requests are to be directed in written format to the Owner and Engineer.
    b. By collecting unauthorized samples, the Contractor shall assume any and all financial burden of the required corrective action.
    c. If a sample is collected and analyzed without prior written approval from the Owner or Engineer, the Contractor shall be responsible for any and all remediation required by any applicable regulatory authority arising from or related to the samples collected and analyzed, as the validity of the materials sampled, sample locations and sampling protocols utilized cannot be confirmed by the Owner's or Engineer's independent Consultant.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

1.3 JOB CONDITIONS

A. Condition of Structures:
   1. The Owner assumes no responsibility for the actual condition of structures to be demolished.
   2. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner as far as practicable. However, variations within the structures may occur due to Owner's removal and salvage operations prior to the start of demolition work (where applicable).

1.4 UTILITIES

A. Utility Locations:
   1. Utility locations shown on the plans are approximate only, based on information supplied by the utility companies.

B. Coordination with Utilities:
   1. The Contractor shall make all necessary arrangements and perform any necessary work to the satisfaction of affected utility companies and governmental divisions involved with the discontinuance or interruption of affected public utilities and services.

1.5 SUBMITTALS

A. Schedule - Demolition:
   1. Submit two (2) copies of proposed methods and operations of demolition to the Engineer for review prior to the start of work. Include in the schedule the coordination for shut-off, capping and continuation of utility services as required.
   2. Provide a detailed sequence of demolition and removal work to ensure the uninterrupted progress of the Owner's operations.

1.6 PROTECTIONS

A. Ensure the safe passage of persons around the area of demolition. Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons. Erect temporary, covered passageways as required by authorities having jurisdiction.

B. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement or collapse of structures to be demolished and adjacent facilities to remain.

1.7 DAMAGES

A. The Contractor shall promptly repair damages caused by demolition operations to adjacent facilities at no cost to the Owner.

PART 2 - PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.1 PERFORMANCE

A. Remove and dispose of non-salvageable material in accordance with all applicable local and state laws, ordinances and code requirements.

B. Dispose of material daily as it accumulates.

C. Carefully remove, store and protect from damage all materials to be salvaged.

D. Buildings and Adjacent Property:
   1. Protect all buildings and property adjacent to equipment to be removed from damage by erecting suitable barriers or by other suitable means.
   2. Leave such buildings in a permanently safe and satisfactory condition.

E. Maintaining Traffic:
   1. Ensure minimum interference with roads, streets, driveways, sidewalks and adjacent facilities.
   2. Do not close or obstruct streets, sidewalks, alleys or passageways without permission from authorities having jurisdiction.

F. Architectural, structural, mechanical, process and electrical demolition, removal and alteration are indicated in the corresponding sections.

G. Mechanical/Process Demolition:
   1. Mechanical/Process demolition in general shall consist of the dismantling and removal of existing piping, tanks, pumps, motors, equipment and other appurtenances as specified, and indicated on the Drawings.
   2. It shall also include, where necessary, the cutting of existing piping for the purpose of making connections thereto.
   3. Piping not indicated to be removed but which may interfere with construction shall be removed to the nearest solid support, capped and left in place. Where piping that is to be removed passes through the wall of existing structures, it shall be cut off and properly capped on each side of the wall.
   4. When piping is to be altered or removed underground, the remaining piping shall be properly capped or plugged.
   5. Abandoned underground piping shall be left in place unless it interferes with new structures or unless otherwise noted on the Drawings.

H. Salvage:
   1. Salvaged items shall be stored on site for the Owner in an acceptable location and manner.

I. Demolition Sequence:
   1. The demolition sequence is to conform the reviewed and approved project schedule, and restrictions outlined in Section 01310, Construction Schedules.

END OF SECTION

# SECTION 02110

# CLEARING AND GRUBBING

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Clearing and grubbing includes, but is not limited to, removal of trees, brush, stumps, wooded growth, grass, shrubs, poles, posts, signs, fences, culverts and other vegetation and minor structures; the protection of designated wooded growth; the storage and protection of minor structures and materials which are to be replaced; and the disposal of non-salvageable structures and materials, and necessary preliminary grading.

B. Limits of Work:
   1. Perform clearing and grubbing work within the areas required for construction, or as shown on the Drawings, to a depth of l2 inches below the existing grade.
   2. Perform additional clearing and grubbing work within areas and to depths which, in the opinion of the Engineer, interfere with excavation and/or construction, or are otherwise objectionable.

C. Work Not Included:
   1. Clearing and grubbing work performed for the convenience of the Contractor will not be considered for payment.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

### 1.3 QUALITY ASSURANCE

A. Requirements of Regulatory Agencies:
   1. Dispose of combustible material by burning only when permitted by and in accordance with all applicable local and state laws, ordinances and code requirements.

   Remove and dispose of non-salvageable structures and material in accordance with all applicable local and state laws, ordinances and code requirements.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Provide all materials required to complete the work.

B. All timber and wood shall become the property of the Contractor unless other agreements are made between the Owner and the Contractor.

C. Repair any damage to structures to the complete satisfaction of the Owner and Engineer.

## PART 3 - EXECUTION

### 3.1 PREPARATION

A. Carefully preserve and protect from injury all trees and/or shrubs not to be removed.

B. Right-of-way:

1. Where excavation is required on public or private rights-of-way containing trees, shrubs, other growth, or any structure or construction, obtain the Engineer's direction concerning the extent to which such obstacles can be cleared or stripped prior to performing the Work.
2. In all rights-of-way, remove only those particular growths or structures which are, in the opinion of the Engineer, essential for construction operations.
3. All other removals or damage shall be replaced or restored at the Contractor's expense.

### 3.2 PERFORMANCE

A. Clearing:

1. Remove and dispose of all trees, brush, slash, stubs, bushes, shrubs, plants, debris and obstructions within the area to be cleared, except any areas that may be designated as "Selective Clearing", and except as otherwise shown on the Drawings or as directed by the Engineer.
2. Remove all stumps unless otherwise directed by the Engineer.
3. Dispose of material to be removed daily as it accumulates.
4. Take special care to completely dispose of all elm trees and branches immediately after cutting either by burial in approved locations or, when permitted, by burning in areas well removed from standing elm growth.

B. Protection of Wooded Growth:

1. Fell trees toward the center of the area being cleared to protect trees and shrubs to be left standing.
2. Cut up, remove and dispose of trees unavoidably falling outside the area to be cleared.
3. Employ skilled workmen or tree surgeons to trim and repair all trees that are damaged but are to be left standing.

C. Selective Clearing:

1. When shown on the Drawings and when directed by the Engineer, perform selective clearing work to preserve natural tree cover.
2. Perform selective clearing work only under the direction and supervision of the Engineer.
3. Remove all dead and uprooted trees, brush, roots and other material which, in the opinion of the Engineer, are objectionable.
4. Cut flush with the ground and remove only those trees indicated by the Engineer.
5. Employ skilled workmen or tree surgeons to carefully trim all branches requiring cutting on trees to be left standing. Wood exposed as the result of removal of branches is to be left exposed to air and sunlight.
6. Bituminous paint shall not be used on wood exposed as a result of branch removal, excavation around roots, or damage to tree bark.

D. Grubbing:
   1. Perform grubbing work beneath new roads, driveways, walks, seeded areas and other areas and as directed by the Engineer.
   2. Grub out all sod, vegetation and other objectionable material to a minimum depth of l2 inches below the existing grade.
   3. Completely remove all stumps, including major root systems.

E. Disposal:
   1. Remove from the site and dispose of material not being burned.
   2. Provide an approved disposal area unless otherwise specified.

F. Burning:
   1. Dispose of combustible materials by burning, only if approved by local and state officials.
   2. Employ competent workmen to perform burning work in such a manner and at such locations that adjacent properties, trees and growth to remain, overhead cables, wires and utilities will not be jeopardized.
   3. Do not leave fires unguarded.
   4. Do not burn poison oak, poison ivy or other plants of similar nature.
   5. Do not use tires or other combustible waste material to augment burning.
   6. Burn combustible materials daily as the work progresses.
   7. The Contractor shall be responsible for all damage caused by burning and shall be responsible for obtaining all necessary permits for burning.

## 3.3 REPLACEMENT OF MATERIALS

A. Paving, Curbing and Miscellaneous Material:
   1. Remove all paving, subpaving, curbing, gutters, brick, paving block, granite curbing, flagging and minor structures that are over the area to be filled or excavated.
   2. Remove and replace bituminous asphaltic and portland cement concrete in accordance with the appropriate sections of these Specifications.
   3. Properly store and preserve all material to be replaced in a location approved by the Engineer.

B. Shrubs and Bushes:
   1. Remove, store, and replace ornamental shrubs and bushes to be preserved in accordance with accepted horticultural practices.

C. Topsoil:
   1. When applicable, carefully remove, store, and protect topsoil in accordance with the appropriate section of this division.

D. Responsibility:
   1. Replace, at no additional cost to the Owner, materials lost or damaged because of careless removal or neglectful or wasteful storage, disposal or use of these materials.

END OF SECTION

# SECTION 02115

# STRIPPING AND STOCKPILING TOPSOIL

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:

1. Segregate topsoil approved by the Engineer prior to excavation, trenching and grading operations and stockpile it for use in the work.

### 1.2 REQUIREMENTS SPECIFIED ELSEWHERE

A. Additional Requirements are specified elsewhere including, but not necessarily limited to, General Conditions, Supplementary Conditions, and Division 1.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Topsoil shall consist of friable loam of at least two percent decayed organic matter (humus), free of subsoil, and reasonably free of clay lumps, brush, roots, weeds, and other objectionable vegetation, stones and similar objects larger than one (1) inch in any dimension, litter and other materials unsuitable or harmful to plant growth. It shall contain no toxic materials.

B. The quality of the topsoil material to be used shall be subject to approval by the Engineer.

## PART 3 - EXECUTION

### 3.1 PERFORMANCE

A. Remove topsoil from the areas that are likely to be disturbed as a result of construction operations to a depth based on the soil profile, as approved by the Engineer.

B. Remove topsoil from all designated areas prior to the performance of normal excavation.

### 3.2 STORAGE

A. Transport topsoil and deposit in storage piles convenient to the areas which are subsequently to receive the application of topsoil.

B. Stockpile topsoil separate from other excavated materials in areas approved by the Engineer.

C. Take all necessary precautions to prevent other excavated material and objectionable material from becoming intermixed with the topsoil before, during and after stripping and stockpiling operations.

D. Neatly trim and grade stockpiles to provide drainage from surfaces and to prevent depressions where water may become impounded.

E. Construct temporary erosion control devices for all stockpiled material, subject to the Engineer's approval.

F. All loam stripped and stockpiled shall be immediately seeded with 70% Domestic/30% Perennial Rye Grass.

END OF SECTION

# SECTION 02401

# DEWATERING OF DREDGED MATERIAL

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Furnish, operate, and maintain a temporary dewatering system to dewater dredged material.
   2. Disposal of dredged materials.

B. Related Work Specified Elsewhere:
   1. Hydraulic dredging of the channel basin's sand/silt material is specified in the appropriate sections in this division.
   2. Stormwater pollution prevention and temporary erosion control are specified in the FDOT referenced specifications.

### 1.2 SUBMITTALS

A. Submit a dewatering plan meeting the requirements of all attached permits and the construction plans.
   1. Plan must address layout of dewatering system within the limits of work shown on the plans and how it is operated in conjunction with dredging operations.
   2. Provide information including but not limited to pumping rates, dewatering rates, discharge location and flowrate, effluent monitoring, and operation.
   3. Stormwater runoff analysis to demonstrate that the site can handle the effluent resulting from the dewatering system.

B. Submit product brochures, technical specifications, and O&M manuals of all dewatering products to be used.
   1. Products could include but are not limited to geomembranes, geotextile tubes, mechanical separators, or other similar dewatering equipment.

### 1.3 DESIGN

A. Location of the temporary dewatering system shall be within the limits of work delineated on the plans.

B. Dewatering system shall be of sufficient size and capacity necessary to fully contain the dredged material and allow the dredged material to sufficiently dry prior to off-site disposal.
   1. Sufficiently dry shall be defined as the absence of free liquids as determined by Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

C. Dewatering system shall exceed the capacity of the hydraulic dredge to avoid frequent stopping of the hydraulic dredge operations.

D. The dewatering system must allow water leaving the dewatering system to enter the adjacent surface waters in a non-erosive manner.

E. Quality of the water leaving the dewatering system shall comply with all attached permits.
F. Dewatering system shall not employ the use of flocculants.

1.4 PERMITTING
A. Contractor shall obtain a modification to the FDEP Environmental Resource Permit should the dewatering system substantially deviate from the permitted drawings.

## PART 2 - PRODUCTS

2.1 MATERIALS
A. Erosion Control Products: Refer to Section 02000 and Drawings for locations and details.
B. Geotextile Tubes:
1. Factory Seam Strength (ASTM D-4884): 400 lbs/in
2. Wide Width Tensile Strength (ASTM D-4595): 5,400 x 7,464 lbs/ft
3. Wide Width Elongation @ Break (ASTM D-4595): 20 x 18 %
4. Wide Width Tensile Strength @ 2% Strain (ASTM D-4595): 300 x 1,620 lbs/ft
5. Wide Width Tensile Strength @ 5% Strain (ASTM D-4595): 1,440 x 3,840 lbs/ft
6. Wide Width Tensile Strength @ 10% Strain (ASTM D-4595): 3,840 lbs/ft
7. CBR Puncture (ASTM D-6241): 3,000 lbs
8. Trapezoidal Tear (ASTM D-4533): 250 x 300 lbs
9. Apparent Opening Size (ASTM D-4751): 30 US Sieve
10. Permittivity (ASTM D-4491): 0.27 $Sec^{-1}$
11. Water Flow Rate (ASTM D-4491): 20gal/min/$ft^2$
12. Pore Size 0(50) (ASTM D-6767): 140 US Sieve
13. Pore Size 0(95) (ASTM D-6767): 40 US Sieve
14. UV Resistance @ 1,400 Hours (ASTM D-4355): 85%

## PART 3 - EXECUTION

3.1 PERFORMANCE
A. General:
1. Prior to any dredging, the temporary dewatering system, maintenance of traffic system, and all associated erosion control measures shall be in place.
2. All utilities (water, wastewater, and underground electric) service connections within the footprint of the temporary dewatering system shall be temporarily removed and capped or made safe in accordance with applicable codes.
3. All areas used for temporary storage and dewatering of the dredge material shall be lined with a UV stable HDPE 60 mil geomembrane.
B. Geotextile Tubes:
1. Geotextile tube rows should be unloaded with equipment that will not damage the materials. No hooks, tongs, or other sharp instruments shall be used to handle the tubes. Tubes should not be dragged along the ground. Tubes should be unrolled into position as recommended by the manufacturer.

2. Before geotextile tubes are laid down, the lay down area shall be prepared as follows:
    a. Removal of debris, rocks, exposed roots, and other material that could puncture the tube.
    b. Grade site so that grades perpendicular to geotextile tube length are no more than 0.5% grade.
    c. Line laydown area with UV stable HDPE 60 mil geomembrane.
    d. Place washed drainage rock across the laydown area.
3. Unroll and deploy the tube on top of the drainage media starting on the upper end of the dewatering site.
4. Geotextile tubes shall be secured as to prevent rolling or other movement during construction. Geotextile tubes shall not be stacked.
5. Attach dredging discharge line to the filling port(s) of the tube(s) with a secure and watertight connection before pumping. Do not exceed manufacturer's recommended volumes and/or heights of the tubes.
6. Once the material in the tube has dewatered sufficiently as previously described, tube may be cut open to remove the dewatered material.

C. Disposal of Water:
1. Dispose of water from dredged material by draining it back towards the erosion control practices protecting the marsh and waterbodies in a suitable manner to prevent sediment from reaching said marsh and waterbodies.
2. Construct temporary erosion and sediment control devices down-gradient of the dewatering system to provide additional sedimentation control, subject to the Engineer's approval.

D. Disposal of Dredged Sediment Material:
1. Once materials have sufficiently dried, load dredged material onto trucks and transport directly to the one of the following landfills:
    a. Heart of Florida Landfill, Lake Panasoffkee, FL 33538
2. Materials shall be covered while being transported to prevent materials from exiting the vehicle.

E. Restoration:
1. Upon project completion, the area used for temporary stockpile and dewatering shall be restored to its existing conditions. All construction materials shall be removed, the existing vegetation restored, and the temporarily removed utility (water and underground electric) components shall be restored to their original configuration and operation.
2. Contractor shall be responsible for any waste cleanup activities required due to the construction of the project.

END OF SECTION

# APPENDIX A
## USACE Permit

**DEPARTMENT OF THE ARMY**
**CORPS OF ENGINEERS, JACKSONVILLE DISTRICT**
**701 SAN MARCO BOULEVARD**
**JACKSONVILLE, FLORIDA 32207-8175**

May 26, 2023

Regulatory Division
West Branch
Tampa Permits Section
SAJ-2022-02574(NWP-BMC)

Matt Weldon
620 N. Hathaway Ave PO Box 248
Bronson Florida 32621
Sent via email: weldon-matt@levycounty.org

Dear Mr. Weldon:

The U.S. Army Corps of Engineers (Corps) has completed the review of your application for a Department of the Army permit received on August 24, 2022. Your application was assigned file number SAJ-2022-02574. A review of the information and drawings provided indicates that the proposed work would result in the maintenance dredging of 670 linear feet in a chanel with a 60-foot bank width and a 40-foot bottom width (0.96 acre, 4400 +/- cubic yards) to remove accumulated sediments to a maximum depth of approximately -5.0 feet below mean low water (MLW) (-5.5 NAVD88), and restore limited access for public recreational boating at the Shell Mound Park Campground Facility boat ramp. The activities subject to this permit are authorized pursuant to authorities under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403). The project is located in Black Point Swamp off of the Gulf of Mexico at 17650 SW 78 PL, in Section 1 Township 15 South, Range 12 East, Cedar Key, Levy County, Florida (29.210575, -83.06374).

Your project, as depicted on the enclosed drawings, is authorized by Nationwide Permit (NWP) 35 (Maintenance Dredging of Existing Basins). **This verification is valid until March 14, 2026.** In order for this NWP authorization to be valid, you must ensure that the work is performed in accordance with the Nationwide Permit General Conditions, the Jacksonville District Regional Conditions, and the General and Project-Specific Special Conditions listed below. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this NWP. You can access the U.S. Army Corps of Engineers' (Corps) Jacksonville District's Regulatory Source Book webpage for links to view NWP information at: https://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/. Please be aware this Internet address is case sensitive and should be entered as it appears above. Once

there, you will need to select “Nationwide Permits.” Among other things, this part of the Source Book contains links to the federal register containing the text of the pertinent NWP authorization and the associated NWP general conditions, as well as separate links to the regional conditions applicable to the pertinent NWP verification.

You must comply with all of the special and general conditions for NWP-35, including any project-specific conditions included in this letter and all conditions incorporated by reference as described above.

**General Conditions:**

1. The time limit for completing the work authorized ends on **March 14, 2026**.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity, or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort of if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit you must obtain the signature of the new owner on the attached transfer form and forward a copy to this office to validate the transfer of this authorization.

5. You must allow a representative from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Project Specific Special Conditions:**

The following project specific special conditions are included with this verification:

**Special Condition 1: Reporting Address:** The Permittee shall submit all reports, notifications, documentation, and correspondence required by the general and special conditions of this permit to either (not both) of the following addresses:

a. For electronic mail (preferred): SAJ-RD-Enforcement@usace.army.mil (not to exceed 15 MB).

b. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019.

The Permittee shall reference permit number, SAJ-2022-02574 (NWP-BMC) on all submittals.

**Special Condition 2:** Commencement Notification: Within 10 days from the date of initiating the work authorized by this permit, the Permittee shall submit a completed "Commencement Notification" form (Enclosure 3).

**Special Condition 3: As-Built Certification:** Within 60 days of completion of the work authorized by this permit, the Permittee shall submit as-built drawings of the authorized work and a completed "As-Built Certification by Professional Engineer or Surveyor" form (Enclosure 4) to the Corps. The as-built drawings shall be signed and sealed by a registered professional engineer or surveyor and include the following:

a. A plan view drawing of the location of the authorized work footprint, as shown on the permit drawings, with an overlay of the work as constructed. The plan view drawing should show all existing water management structures and the completed structures, dredge/fill activities, and wetland impacts.

b. A list of any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the attached "As-Built Certification by Professional Engineer" form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or "As-Built Certification by Professional Engineer" form does not constitute approval of any deviations by the Corps.

c. The Department of the Army permit number on all sheets submitted.

**Special Condition 4: Cultural Resources/Historic Properties:**

a. No structure or work shall adversely affect, impact, or disturb properties listed in the National Register of Historic Places (NRHP), or those eligible for inclusion in the NRHP.

b. If, during permitted activities, items that may have historic or archaeological origin are observed the Permittee shall immediately cease all activities adjacent to the discovery that may result in the destruction of these resources and shall prevent his/her employees from further removing, or otherwise damaging, such resources. The applicant shall notify both the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333 and the Corps, of the observations within the same business day (8 hours). Examples of submerged historical, archaeological, or cultural resources include shipwrecks, shipwreck debris fields (such as steam engine parts, or wood planks and beams), anchors, ballast rock, concreted iron objects, concentrations of coal, prehistoric watercraft (such as log "dugouts"), and other evidence of human activity. The materials may be deeply buried in sediment, resting in shallow sediments or above them, or protruding into water. The Corps shall coordinate with the Florida State Historic Preservation Officer (SHPO) to assess the significance of the discovery and devise appropriate actions. Project activities shall not resume without verbal and/or written authorization from the Corps.

c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the above Special Condition and, if deemed necessary by the SHPO or Corps, in accordance with 36 CFR 800 or 33 CFR 325, Appendix C (5). Based on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend, or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume on non-federal lands without written authorization from the SHPO for finds under his or her jurisdiction, and from the Corps.

d. In the unlikely event that unmarked human remains are identified on non-federal lands; they will be treated in accordance with Section 872.05 Florida Statutes. All work and ground disturbing activities within a 100-meter diameter of the unmarked human remains shall immediately cease and the Permittee shall immediately notify the medical examiner, Corps, and State Archaeologist within

the same business day (8-hours). The Corps shall then notify the appropriate SHPO. Based on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend, or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume without written authorization from the SHPO and from the Corps.

**Special Condition 5: Assurance of Navigation and Maintenance:** The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structures or work herein authorized, or if in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

**Special Condition 6: Manatee Conditions:** The Permittee shall comply with the "Standard Manatee Conditions for In-Water Work- 2011" (Enclosure 5).

**Special Condition 7: Jacksonville District Programmatic Biological Opinion (JAXBO):** Structures and activities authorized under this permit will be constructed and operated in accordance with all applicable PDCs contained in the JAXBO, based on the permitted activity. Failure to comply with applicable PDCs will constitute noncompliance with this permit. In addition, failure to comply with the applicable PDCs, where a take of listed species occurs, would constitute an unauthorized take. The NMFS is the appropriate authority to determine compliance with the Endangered Species Act. The most current version of JAXBO can be accessed at the Jacksonville District Regulatory Division website in the Endangered Species section of the Sourcebook located at: http://www.saj.usace.army.mil/Missions/Regulatory/SourceBook.aspx

JAXBO may be subject to revision at any time. The most recent version of these JAXBO conditions must be utilized during the design and construction of the permitted work.

**Special Condition 8: Dredged Material Disposal:** The Permittee shall place all dredged material in a self-contained, upland disposal site as detailed in (Enclosure 1), Drawing 5 of 13. The Permittee shall maintain the upland disposal site to prevent the discharge of dredged material and associated effluent into waters of the United States.

**Special Condition 9: Seasonal Dredging Restrictions:** As the project is located within Gulf sturgeon designated critical habitat, **no dredging may occur between September and March,** when Gulf sturgeon is likely to be present in these areas.

This letter of authorization does not include conditions that would prevent the 'take' of a state-listed fish or wildlife species. These species are protected under sec. 379.411, Florida Statutes, and listed under Rule 68A-27, Florida Administrative Code. With regard to fish and wildlife species designated as species of special concern or threatened by the State of Florida, you are responsible for coordinating directly with the Florida Fish and Wildlife Conservation Commission (FWC). You can visit the FWC license and permitting webpage (http://www.myfwc.com/license/wildlife/) for more information, including a list of those fish and wildlife species designated as species of special concern or threatened. The Florida Natural Areas Inventory (http://www.fnai.org/) also maintains updated lists, by county, of documented occurrences of those species.

This letter of authorization does not give absolute Federal authority to perform the work as specified on your application. The proposed work may be subject to local building restrictions mandated by the National Flood Insurance Program. You should contact your local office that issues building permits to determine if your site is located in a flood-prone area, and if you must comply with the local building requirements mandated by the National Flood Insurance Program.

This letter of authorization does not preclude the necessity to obtain any other Federal, State, or local permits, which may be required.

Thank you for your cooperation with our permit program. The Corps' Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to complete our automated Customer Service Survey at https://regulatory.ops.usace.army.mil/customer-service-survey/. Please be aware this Internet address is case sensitive and you will need to enter it exactly as it appears above. Your input is appreciated – favorable or otherwise.

Should you have any questions related to this NWP verification or have issues accessing the documents referenced in this letter, please contact Barbara M. Cory at the Tampa Permits Section at 10117 Princess Palm Ave., Suite 120, Tampa FL 33610, by telephone at (813) 697-2870, or by email at barbara.m.cory@usace.army.mil.

Sincerely,

Barbara M. Cory
Project Manager
Tampa Permits Section

Enclosures
ENCL1 Project Drawings (13 pages)
ENCL2 Nationwide Permit 35 & Regional Conditions
ENCL3 Commencement Notification Form
ENCL4 As Built- Certification Form
ENCL5 Manatee Construction Conditions
ENCL6 Transfer Form

Cc:
Agent email: michael.hoffman@wright-pierce.com

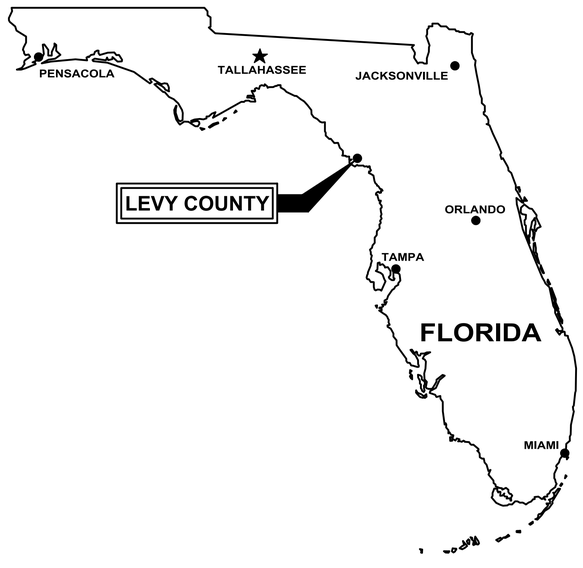
# COUNTY OF LEVY, FLORIDA

## CONTRACT DRAWINGS FOR

# SHELL MOUND BOAT RAMP DREDGING

## JULY 2022

## PERMIT




**DRAWING INDEX**


**GENERAL**

| | |
|---|---|
| --- | COVER SHEET |

**CIVIL**

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| C-1 | GENERAL NOTES, LEGEND, AND ABBREVIATIONS |
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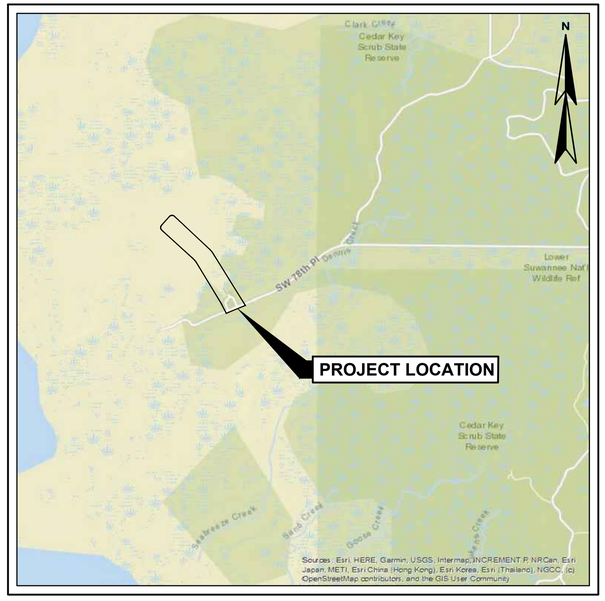



**LOCATION PLAN**
SCALE: NTS


WRIGHT-PIERCE
Engineering a Better Environment

800.422.1095 | www.wright-pierce.com


WP PROJECT No. 20850

SAJ-2022-02574 ENCLOSURE 1

LAST SAVED BY: REMOTECAD 7/27/2022 9:40 AM

## GENERAL NOTES

1. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE OWNER. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCD AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER PRIOR TO COMMENCING CONSTRUCTION. THE POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPECIFICATION SECTION 01570.
3. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).
4. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SPECIFICATION SECTION 01050.
5. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.
6. ALL EXISTING SEWER AND STORM DRAIN LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES OR CULVERTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW SEWER OR WHEN NOT SHOWN OR INDICATED.
7. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.

## EXISTING SITE CONDITIONS

1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. THE CONTRACTOR WILL REALIGN NEW PIPE LOCATIONS AS REQUIRED TO CONFORM TO EXISTING LINES AND AS APPROVED BY THE ENGINEER.
2. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

| ELECTRIC: | WATER/SEWER/DRAIN: |
|---|---|
| TBD (INSERT NAME) | LEVY COUNTY PARKS & RECREATION |
| TBD (INSERT ADDRESS) | 620 N. HATHAWAY AVE |
| TBD (ADDRESS CONT.) | P.O. BOX 248 |
| TBD (INSERT PHONE) | 352-486-5127 |

| TELEPHONE/CABLE: | DIG SAFE: |
|---|---|
| AT&T/ DISTRIBUTION | SUNSHINE 811 |
| 6628 LAKESIDE ROAD | 11 PLANTATION ROAD |
| WEST PALM BEACH, FL 33411 | DEBARY, FL 32713 |
| 561-683-2729 | 811 OR 800-432-4770 |

3. THERE ARE NO KNOWN HAZARDOUS ENVIRONMENTAL CONDITIONS WITHIN THE AREA OF WORK. REFER TO SPECIFICATION SECTION 00800-SC-5.06. IF THE PRESENCE OF HAZARDOUS ENVIRONMENTAL CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER IMMEDIATELY. ALL ACTIVITIES, HANDLING AND DISPOSAL OF HAZARDOUS ENVIRONMENTAL CONDITIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS.

## SITE DEMOLITION

1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING FACILITIES. REFER TO THE LAYOUT DRAWING FOR LIMITS OF WORK.
2. REFER TO SPECIFICATION SECTION 01010A, WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.
3. DEMOLISH/REMOVE EXISTING PIPING AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" MAY BE REMOVED IF THE CONTRACTOR SO CHOOSES. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED, AND THE NEW ENDS OF ABANDONED PIPE CAPPED OR PLUGGED WITH CONCRETE.
4. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. PLUG ENDS OF ABANDONED PIPE SEGMENTS WITH CONCRETE UNLESS SPECIAL CIRCUMSTANCES DICTATE PLUGGING ABANDONED PIPES WITH BLIND FLANGES, RESTRAINED MECHANICAL JOINT PLUGS, ETC. AS APPROPRIATE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION. COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE OWNER/ENGINEER. REFER TO SPECIFICATION SECTION 02050A
6. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING OPERATIONS.

## SITE CLEARING, GRUBBING AND GRADING

1. STRIPPING OF TOPSOIL SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02115. REFER TO THE LAYOUT AND GRADING DRAWINGS FOR LIMIT OF WORK AND STRIPPING.
2. CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS, BUT AT ALL TIMES WITHIN EXISTING ROAD RIGHTS_OF_WAY AND PROPERTY LINES ON STATE OR COUNTY_OWNED PROPERTY OR EASEMENTS. ALL CLEARING AND GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.
3. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.
4. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM. REFER TO THE CIVIL DETAIL DRAWINGS.
5. THE GEOTECHNICAL DATA REPORT FOR THE PROJECT SITE IS INCLUDED IN APPENDIX A AND IS DESCRIBED IN SPECIFICATION SECTION 00800 (SUPPLEMENTAL CONDITIONS).
6. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.
7. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.
8. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.
9. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.
10. ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE GRADED AND SODDED, UNLESS OTHERWISE NOTED. REFER TO SPECIFICATION SECTION 02485, SOD.

## CIVIL SITE LAYOUT

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
2. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF FL, AT NO ADDITIONAL COST TO THE OWNER.
4. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
5. ALL ELEVATIONS REFER TO THE NAVD88DATUM. ORIENTATION IS GRID NORTH ON THE NAD 1983 FLORIDA WEST ZONE, 2011 ADJUSTMENT, US SURVEY FEET COORDINATE SYSTEM. PROJECT BENCH MARK IS SHOWN ON THE DRAWINGS. AND IS DERIVED FROM NATIONAL GEODETIC SURVEY CONTROL STATION "AK 30 RESET" WITH AN ELEVATION OF 9.43 FEET. CONTRACTOR SHALL VERIFY BENCHMARK ELEVATIONS PRIOR TO USING IN CONSTRUCTION.
6. EXISTING CONDITIONS DEVELOPED FROM SURVEY DRAWING PREPARED BY SURVTECH SOLUTIONS, INC, DATED 3/16/2022.

## CIVIL SITE PIPING

1. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
2. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS AND DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH SPECIFICATION SECTION 02050.

## WATER GENERAL NOTES

1. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.
2. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED. AT NO ADDITIONAL COST TO THE OWNER THE CONTRACTOR SHALL REPAIR OR COORDINATE WITH THE RESPECTIVE UTILITY ON DAMAGE TO EXISTING UTILITIES.
3. EXISTING VALVES AND FITTINGS SALVAGED FOR REUSE SHALL BE STORED AT AN OWNER APPROVED LOCATION AND REMAIN PROPERTY OF THE OWNER.

## CIVIL ABBREVIATIONS

| | |
|---|---|
| & | AND |
| Ø, DIA | DIAMETER |
| #, NO | NUMBER |
| AC | ASBESTOS CEMENT |
| APP'D | APPROVED |
| BR | BRICK |
| BLDG | BUILDING |
| CB | CATCH BASIN |
| CEN | CENTER |
| CFS | CUBIC FEET PER SECOND |
| CI | CAST IRON |
| CIPP | CURED-IN-PLACE-PIPE |
| CL | CENTERLINE |
| CMP | CORRUGATED METAL PIPE |
| CO | CLEANOUT |
| CONC | CONCRETE |
| COR | CORNER |
| CY | CUBIC YARD |
| DEMO | DEMOLITION |
| DMH | DRAIN MANHOLE |
| DI | DUCTILE IRON |
| DR | DRAIN |
| DWG | DRAWING |
| EL | ELEVATION |
| EMH | ELECTRIC MANHOLE |
| FM | FORCE MAIN |
| FT | FEET |
| G | GAS |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HYD | HYDRANT |
| IN | INCH |
| INF | INFLUENT |
| INV | INVERT |
| LBS | POUNDS |
| LF | LINEAR FOOT |
| MAX | MAXIMUM |
| MH | MANHOLE |
| MIN | MINIMUM |
| MW | MONITORING WELL |
| N | NORTH |
| NGVD | NATIONAL GEODETIC VERTICAL DATUM |
| N/A | NOT AVAILABLE/APPLICABLE |
| NTS | NOT TO SCALE |
| OD | OUTSIDE DIAMETER |
| OUT | OUTFALL |
| PC | PERFORATED CLAY |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PS | PRIMARY SLUDGE |
| PT | POINT OF TANGENCY |
| PVC | POLYVINYL CHLORIDE |
| RCP | REINFORCED CONCRETE PIPE |
| RD | ROOF DRAIN |
| REQ'D | REQUIRED |
| S | SLOPE, SEWER |
| SD | STORM DRAIN |
| SF | SQUARE FEET |
| SMH | SANITARY SEWER MANHOLE |
| SQ | SQUARE |
| STA | STATION |
| T, XFMR | TRANSFORMER |
| TBM | TEMPORARY BENCH MARK |
| THK | THICKNESS |
| TOS | TOP OF STRUCTURE |
| TYP | TYPICAL |
| UD | UNDERDRAIN |
| UG | UNDERGROUND |
| UGE | UNDERGROUND ELECTRIC |
| VC | VITRIFIED CLAY |
| VF | VERTICAL FOOT |
| W/ | WITH |
| W | POTABLE WATER |

## LEGEND

| EXISTING | | PROPOSED |
|---|---|---|
| | PROPERTY/ROW LINE | |
| | SETBACK LINE | |
| | EASEMENT LINE | |
| | CENTERLINE | |
| | EDGE OF PAVEMENT | |
| | CURBING | |
| | EDGE OF GRAVEL | |
| | EDGE OF CONCRETE | |
| 122 | CONTOUR | 123 |
| | BUILDING | |
| | STONEWALL | |
| | TREELINE | |
| | CHAIN LINK FENCE | |
| | STOCKADE FENCE | |
| X X | BARB WIRE FENCE | X X |
| | RETAINING WALL | |
| | GUARDRAIL | |
| 8" | SEWER | 8"S |
| 4" FM | SEWER FORCE MAIN | 4"FM |
| 4" G | GAS | 4"G |
| 8" W | WATER | 8"W |
| 15" SD | STORM DRAIN | 15"SD |
| 6" UD | UNDERDRAIN | 6"UD |
| 12" CMP | CULVERT | 12" CMP |
| UGE UGE | UNDERGROUND ELECTRIC | UGE UGE |
| OHE OHE | OVERHEAD ELECTRIC | OHE OHE |
| UGT UGT | UNDERGROUND TELEPHONE | UGT UGT |
| CATV CATV | UNDERGROUND CABLE TV | CATV CATV |
| | IRON PIPE/REBAR | |
| | DRILLHOLE | |
| | MONUMENT | |
| | SURVEY CONTROL POINT | |
| 124.6 SMH | SPOT ELEVATION | 134.5 |
| SMH | SEWER MANHOLE | SMH |
| DMH | DRAINAGE MANHOLE | DMH |
| CB CB CB | CATCH BASIN | CB CB |
| EMH | ELECTRIC MANHOLE | EMH |
| TMH | TELEPHONE MANHOLE | TMH |
| | SHUTOFF VALVE | |
| | WATER SERVICE SHUTOFF | |
| | YARD HYDRANT | |
| | HYDRANT | |
| | GAS SERVICE SHUTOFF | |
| | GAS GATE VALVE | |
| | UTILITY POLE | |
| | UTILITY POLE W/ GUY | |
| | UTILITY POLE W/ LIGHT | |
| | LIGHT POLE | |
| | BOLLARD | |
| | FLAGPOLE | |
| | CONIFEROUS TREE | |
| | DECIDUOUS TREE | |
| | SHRUB | |
| | WETLAND FLAG | |
| | EDGE OF WATER | |
| | STREAM | |
| | EDGE OF WETLANDS | |
| | FLOODPLAIN | |
| | WETLANDS | |
| | DRAINAGE FLOW | |
| | DRAINAGE SWALE | |
| | PAVEMENT MARKINGS | |
| | SIGN | |
| MB | MAILBOX | |
| TP | TEMPORARY BENCH MARK | |
| B | TEST PIT | |
| P | TEST BORING | |
| MW | TEST PROBE | |
| | MONITORING WELL | |
| | LIMIT OF WORK | |
| | SILT FENCE | |
| | RIPRAP | |
| | RAILROAD | |
| | MATCHLINE | |
| | ROCK OUTCROP | |
| | HEAVY DUTY PAVEMENT | |
| | NORMAL DUTY PAVEMENT | |
| | WALKWAY PAVEMENT | |

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

WRIGHT-PIERCE
800.422.1095 | www.wright-pierce.com
3820 NORTHDALE BOULEVARD, SUITE 109A, TAMPA, FL 33624

COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

DRAWING
C-1

J:\ENGV\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-GENERALNOTES.DWG | 20850-CS-GeneralNotes | 12.5849 | ---- | 7/27/2022 1:06:04 PM | REMOTECAD

LAST SAVED BY: REMOTECAD 7/27/2022 10:12 AM

## EXISTING CONDITIONS

SCALE: 1"=40'

### EXISTING CONDITIONS NOTES

1. EXISTING CONDITIONS WAS PREPARED BASED ON THE SURVEY PROVIDED BY SURVTECH SOLUTIONS, INC. DATED 3/16/2022.
2. THE HORIZONTAL DATUM UTILIZED FOR THIS PROJECT IS NAD 1983 FLORIDA WEST ZONE, 2011 ADJUSTMENT, U.S. SURVEY FEET. SAID DATUM WAS ESTABLISHED BY UTILIZING THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN).
3. THE VERTICAL DATUM UTILIZED FOR THIS PROJECT IS NAVD 1988, U.S. SURVEY FEET. THE BENCHMARK UTILIZED WAS NATIONAL GEODETIC SURVEY (NGS) CONTROL STATION "AK 30 RESET" WITH AN ELEVATION OF 9.43 FEET.
4. ALL UTILITIES DEPICTED HEREON ARE FROM VISIBLE EVIDENCE ONLY. SUBSURFACE UTILITY LOCATOR SERVICE WAS NOT CONTACTED.
5. NO UNDERGROUND FOUNDATIONS OR FOOTERS WERE EXCAVATED OR LOCATED.

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED:
CAD COORD: D.METZ
CAD:
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

WRIGHT-PIERCE
800.422.1095 | www.wright-pierce.com
3820 NORTHDALE BOULEVARD, SUITE 109A, TAMPA, FL 33624

COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

EXISTING CONDITIONS

DRAWING
C-2

J:\ENGR\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-EXISTINGCONDITIONS.DWG | 20850-CS-ExistingConditions | 1:2.5843 | — | 7/27/2022 1:06:28 PM | REMOTECAD

LAST SAVED BY: REMOTECAD 7/27/2022 10:15 AM

J:\ENGR\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-DREDGINGGRADINGPLAN.DWG | 20850-CS-DredgingGradingPlan | 1:2.5849 | — | 7/27/2022 1:06:55 PM | REMOTECAD

END DREDGE
STA: 7+11

7+75

7+00

6+00

5+00

4+00

3+00

12+74

12+00

11+00

2+00

CHANNEL BOTTOM (EL. -5.5)

TOP OF BANK

BASELINE OF CONSTRUCTION (TYP)

LIMITS OF WORK

TURBIDITY BARRIER

WOOD DOCK

START DREDGE
STA: 10+20

EDGE OF WATER
02/01/22

10+00

1+00

CONCRETE BOAT RAMP

SILT FENCE (TYP)

50 FT X 60 FT DIA. GEOTEXTILE FILTER TUBES,
FOR REFERENCE ONLY (TYP)

START DREDGE
STA: 1+11

Parcel ID:0005800000
United States Of America
Washington, DC 20240

Parcel ID:0005800000
United States Of America
Washington, DC 20240

TBM #2
NORTHING: 1773801.2
EASTING: 317316.5
ELEVATION = 11.39
SET PK NAIL & DISK LABELED "SURVTECH TRAV. PT" IN ASPHALT PAVEMENT, ±43' SOUTHWEST OF A POWER POLE, ±60' SOUTHEAST OF A GRILL.

APPROXIMATE SUBJECT
PARCEL BOUNDARY

WOOD DOCK

ASPHALT PAVEMENT

4' WOOD BOARD FENCE

Parcel ID:0005900000
Levy County Board of Commission
PO Drawer 310
Bronson, FL 32621

SPIGOT

ELECTRIC METER

CONCRETE DUMPSTER PAD

PLAYGROUND

SWING SET

BENCH

BLDG #1

CONCRETE CLEANOUT

GRAVEL DRIVE

ELECTRICAL PANEL

HOG WIRE FENCE

CONCRETE

BLDG #2

WOOD RAMP

ASPHALT PAVEMENT

Parcel ID:0005800000
United States Of America
Washington, DC 20240

TBM #1
NORTHING: 1773694.8
EASTING: 317027.1
ELEVATION = 13.89
SET PK NAIL & DISK LABELED "SURVTECH TRAV. PT" IN ASPHALT PAVEMENT, ±29' SOUTHWEST OF A POWER POLE, ±20' NORTHWEST OF A GRILL.

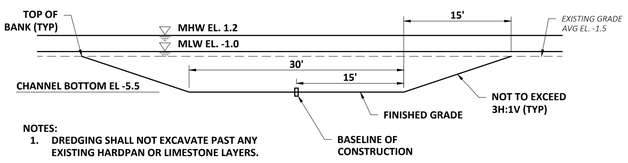
METAL TRAILER
FFE = 20.65

SW 78th Place

APPROXIMATE NORTH
ROW BOUNDARY OF SW
78TH PLACE

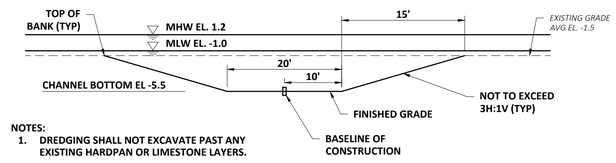
0 40 80

## DREDGING AND GRADING PLAN
SCALE: 1"=40'




NOTES:
1. DREDGING SHALL NOT EXCAVATE PAST ANY EXISTING HARDPAN OR LIMESTONE LAYERS.

## TYPICAL SECTION 1 - STA 2+40 TO 7+10
SCALE: NTS




NOTES:
1. DREDGING SHALL NOT EXCAVATE PAST ANY EXISTING HARDPAN OR LIMESTONE LAYERS.

## TYPICAL SECTION 2 - STA 10+37 TO 10+58
SCALE: NTS

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

DREDGING AND GRADING PLAN

DRAWING
C-3

LAST SAVED BY: MICHAEL.HOFFMAN 5/18/2023 8:30 AM

J:\ENGR\FL\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-STORMWATERPLAN.DWG | 20850-CS-StormwaterPlan | 1:2.5840 | — | 5/18/2023 8:30:54 AM | MICHAEL.HOFFMAN

7+75
7+00
6+00
5+00
4+00
3+00
2+00
1+00
12+74
12+00
11+00
10+00

LIMITS OF WORK
TURBIDITY BARRIER

WOOD DOCK
EDGE OF WATER
02/01/22
CONCRETE BOAT RAMP
SILT FENCE

Parcel ID:0005800000
United States Of America
Washington, DC 20240

TBM #2
NORTHING: 1773801.2
EASTING: 317316.5
ELEVATION = 11.39
SET PK NAIL & DISK LABELED "SURVTECH TRAV. PT" IN ASPHALT PAVEMENT, ±43' SOUTHWEST OF A POWER POLE, ±60' SOUTHEAST OF A GRILL.

Parcel ID:0005800000
United States Of America
Washington, DC 20240

APPROXIMATE SUBJECT PARCEL BOUNDARY

WOOD DOCK

TEMPORARY RIP RAP RUBBLE (DITCH LINING),
NO BEDDING STONE,
FDOT STANDARD SPECIFICATION 530,
REMOVE ONCE DEWATERING AND DISPOSAL ACTIVITIES HAVE CONCLUDED

ASPHALT PAVEMENT

4' WOOD BOARD FENCE

Parcel ID:0005900000
Levy County Board of Commission
PO Drawer 310
Bronson, FL 32621

SPIGOT
ELECTRIC METER
PLAYGROUND
CONCRETE DUMPSTER PAD
SWING SET
BENCH
BLDG #1
CONCRETE CLEANOUT
GRAVEL DRIVE
ELECTRICAL PANEL
HOG WIRE FENCE
CONCRETE
BLDG #2
WOOD RAMP
ASPHALT PAVEMENT
METAL TRAILER
FFE = 20.65

Parcel ID:0005800000
United States Of America
Washington, DC 20240

TBM #1
NORTHING: 1773698.8
EASTING: 317027.1
ELEVATION = 13.89
SET PK NAIL & DISK LABELED "SURVTECH TRAV. PT" IN ASPHALT PAVEMENT, ±29' SOUTHWEST OF A POWER POLE, ±20' NORTHWEST OF A GRILL.

SW 78th Place

APPROXIMATE NORTH ROW BOUNDARY OF SW 78TH PLACE

0 40 80

## STORMWATER POLLUTION PREVENTION PLAN

SCALE: 1"=40'

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION PLAN

DRAWING
C-10

LAST SAVED BY: REMOTECAD 7/27/2022 1:16 PM

## STORMWATER POLLUTION PREVENTION PLAN

SCALE: 1"=40'

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

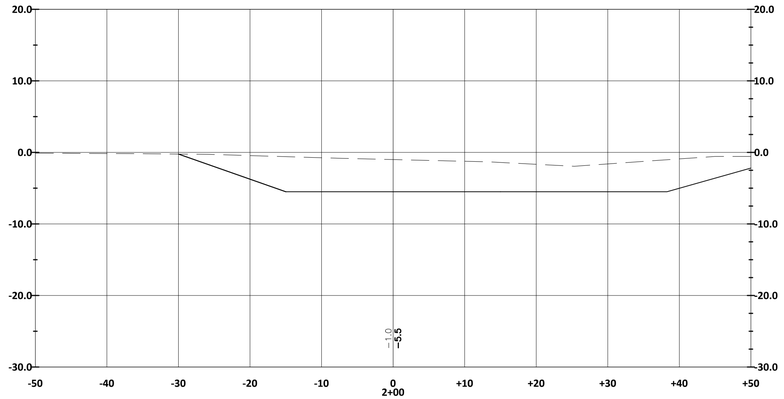
STORMWATER POLLUTION PREVENTION PLAN

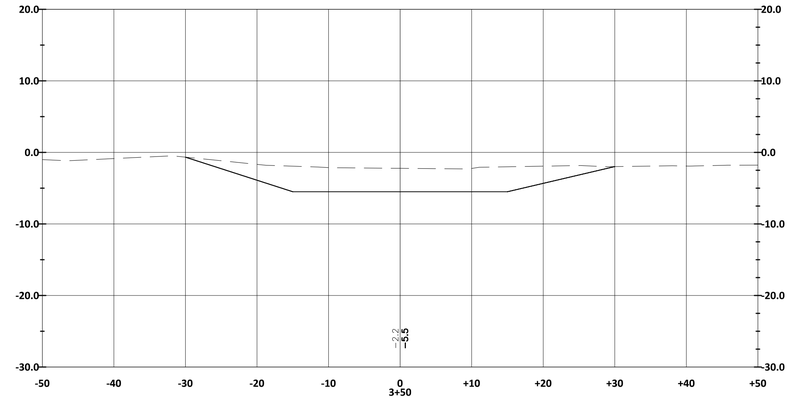
DRAWING
C-10

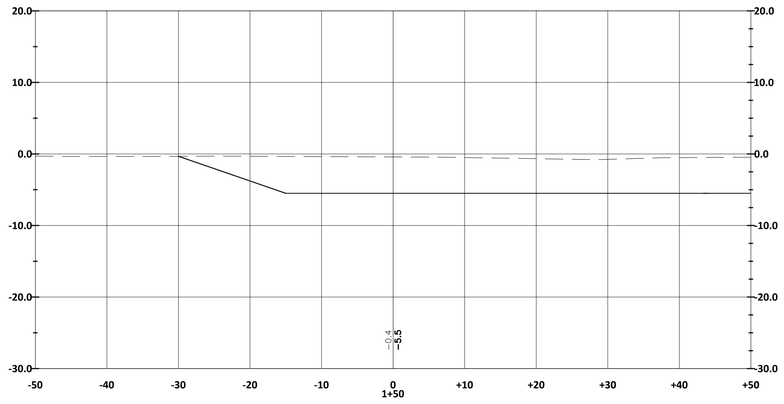
J:\ENGR\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-STORMWATERPLAN.DWG | 20850-CS-StormwaterPlan | 1:2.5840 | — | 7/27/2022 1:17:11 PM | REMOTECAD

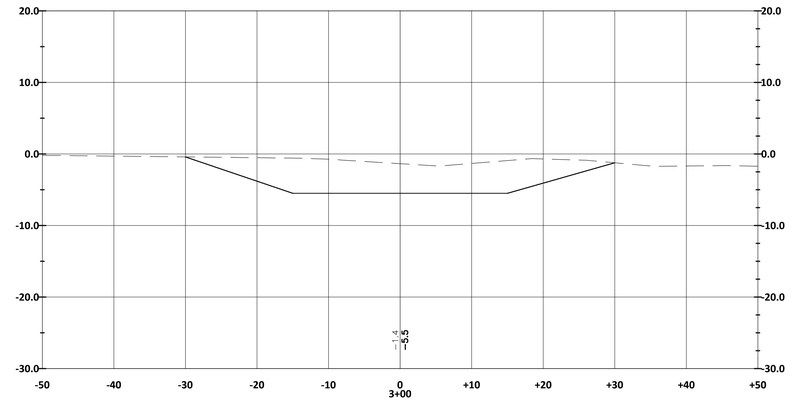
SAJ-2022-02574 ENCLOSURE 1

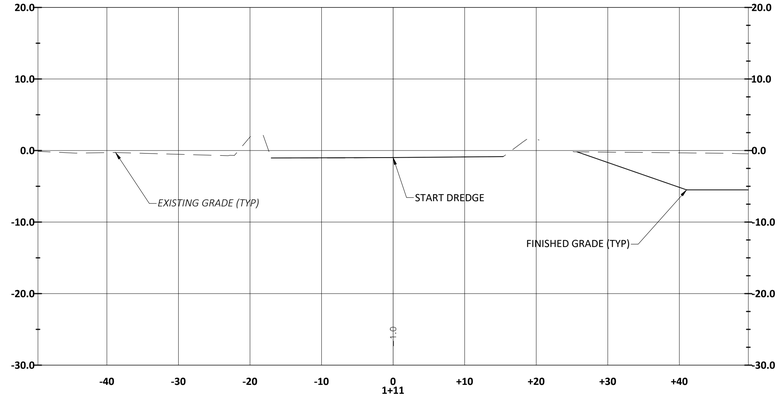
LAST SAVED BY: DANIEL.METZ 7/27/2022 9:44 AM

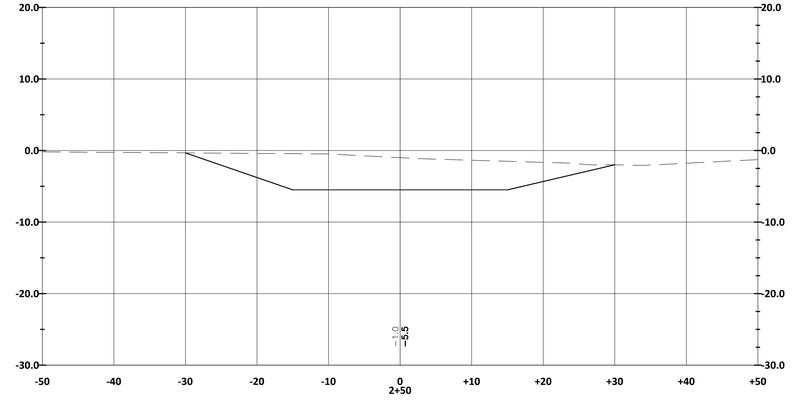



## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

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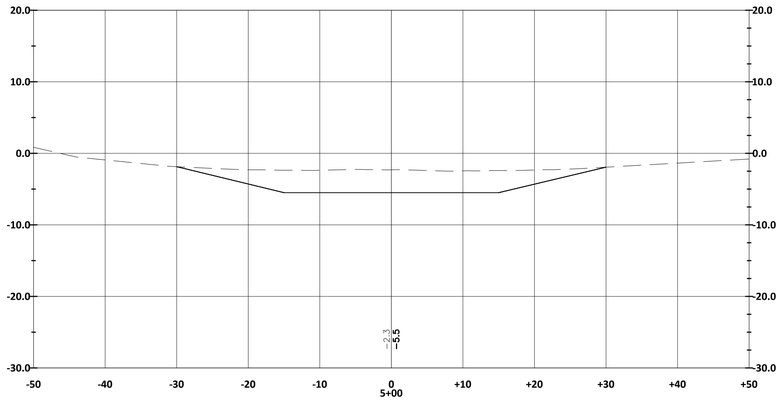
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

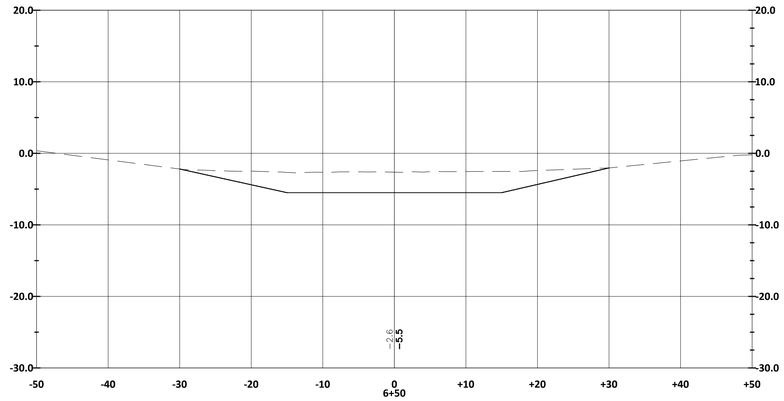
CROSS SECTIONS STA 1+00 TO STA 3+50

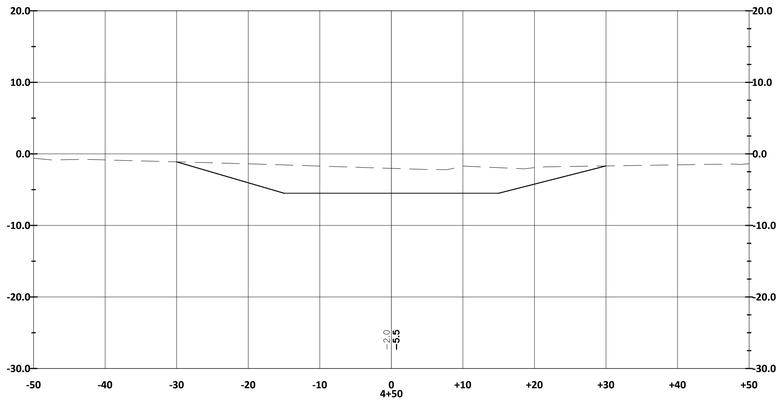
DRAWING
C-4

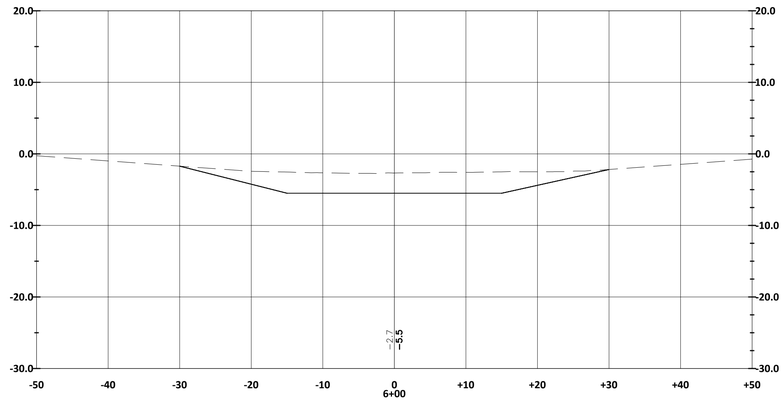
J:\ENGV\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-CROSSSECTIONS5.DWG | 20850-CS-CrossSections5 | 1:2.5849 | — | 7/27/2022 1:07:07 PM | REMOTECAD

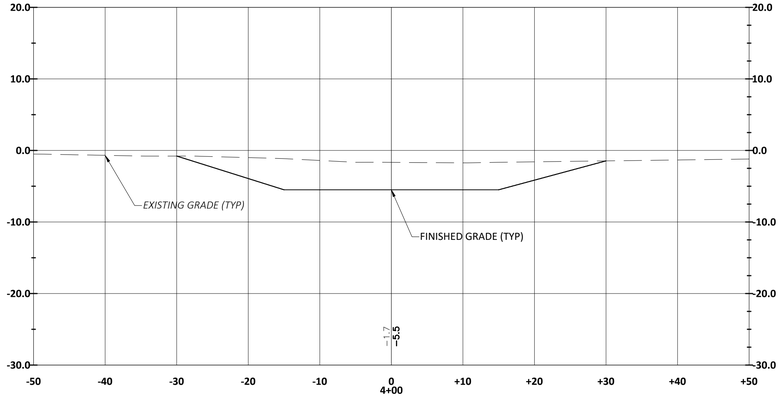
LAST SAVED BY: DANIEL.METZ 7/27/2022 9:44 AM

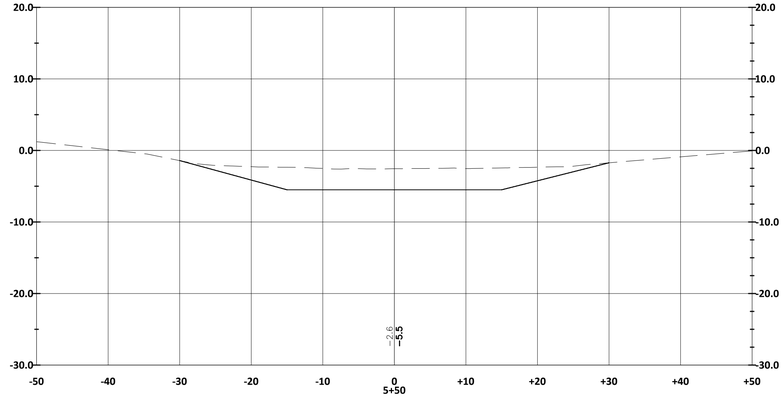



## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

| NO | REVISIONS | APP'D | DATE |
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| 1 | | | |
| 2 | | | |
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PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

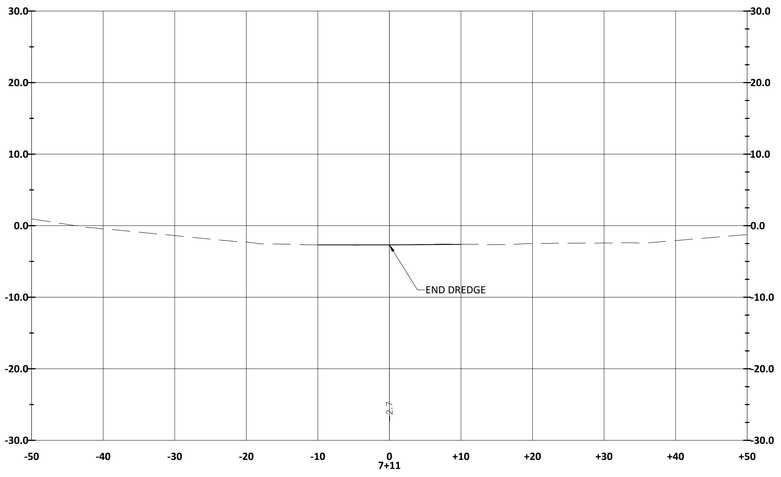
CROSS SECTIONS STA 4+00 TO STA 6+50

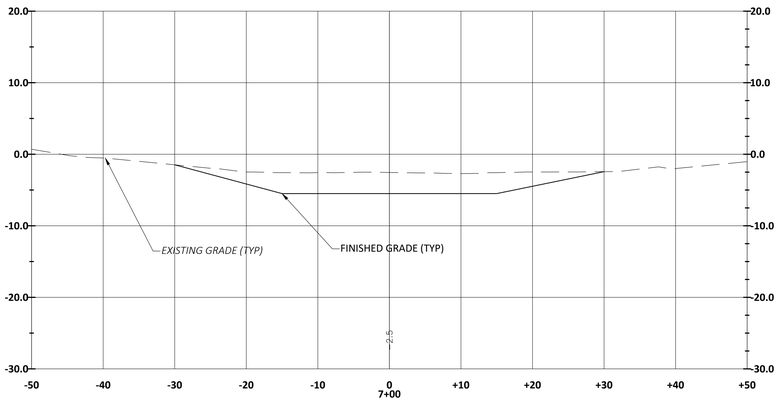
DRAWING
C-5

J:\ENGI\LEVY\COUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-CROSSSECTIONSII.DWG | 20850-CS-CrossSectionsII | 12.5849 | ---- | 7/27/2022 1:07:19 PM | REMOTECAD

SAJ-2022-02574 ENCLOSURE 1

LAST SAVED BY: DANIEL.METZ 7/27/2022 9:44 AM




## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

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| NO | REVISIONS | APP'D | DATE |
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PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

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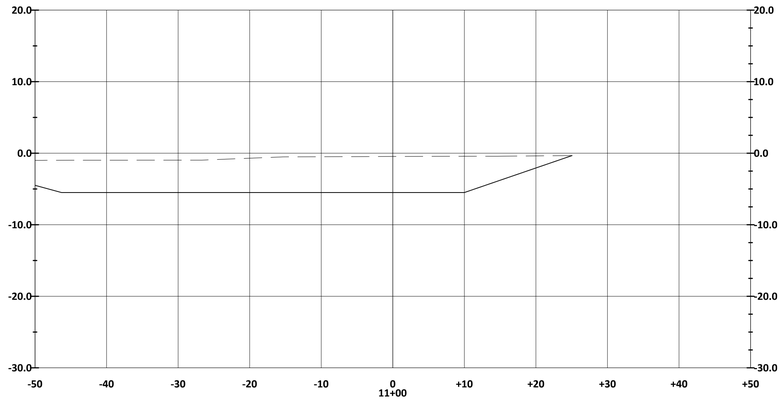
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

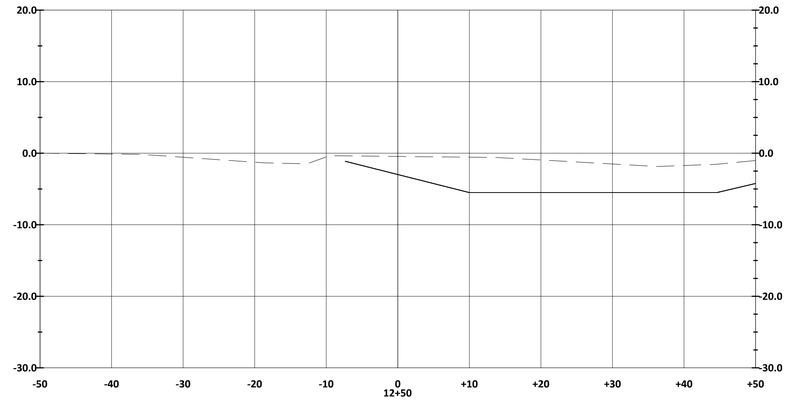
CROSS SECTIONS STA 7+00 TO STA 7+50

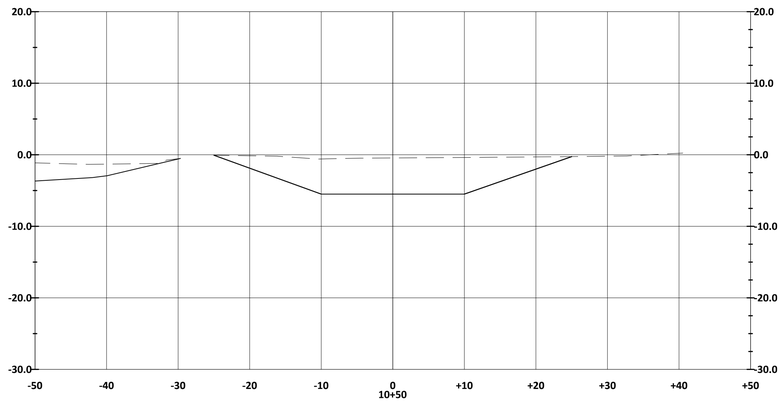
DRAWING
C-6

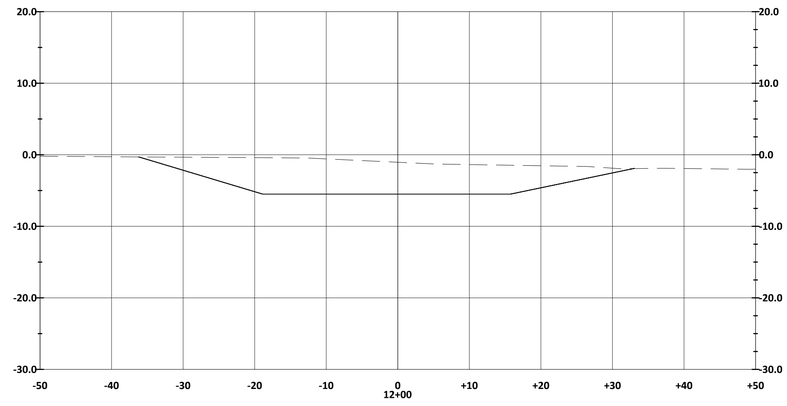
SAJ-2022-02574 ENCLOSURE 1

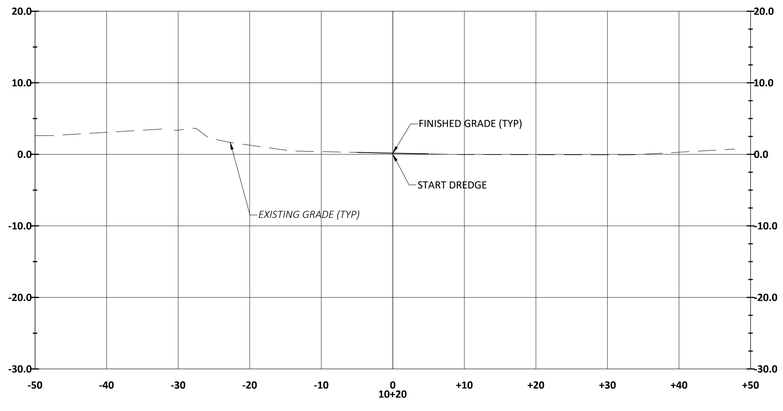
LAST SAVED BY: DANIEL.METZ 7/27/2022 9:44 AM

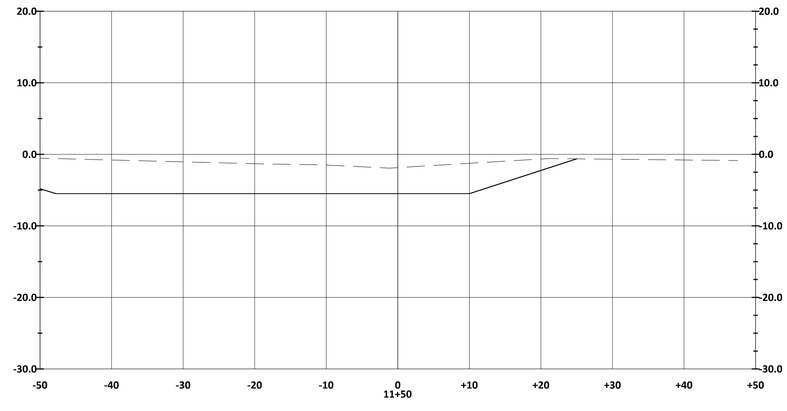



## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

CROSS SECTIONS STA 10+00 TO STA 12+50

DRAWING
C-7

J:\ENG\FL\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-CROSSSECTIONSIV.DWG | 20850-CS-CrossSectionsIV | 1:2.5849 | — | 7/27/2022 1:07:43 PM | REMOTECAD

SAJ-2022-02574 ENCLOSURE 1
SAJ-2022-02574 ENCLOSURE 1

LAST SAVED BY: REMOTECAD 7/27/2022 9:44 AM

## NARRATIVE

1. DESCRIPTION OF CONSTRUCTION ACTIVITY: CHANNEL MAINTENANCE DREDGING, DEWATERING OF DREDGED MATERIAL.

2. SITE AREA INFORMATION:
   TOTAL AREA OF THE LIMITS OF CONSTRUCTION = 1.9 AC
   TOTAL DISTURBANCE AREA = 1.6 AC
   DRAINAGE AREA CONTRIBUTING TO DEWATERING AREA = 1.7 AC
   DRAINAGE AREA CONTRIBUTING TO DEWATERING AREA DATA:
   RUNOFF COEFFICIENTS:
   BEFORE = 0.3
   DURING = 0.4 TO 0.5
   AFTER = 0.3

3. PROPOSED SEQUENCE OF LAND DISTURBING ACTIVITIES, INCLUDING SEQUENCE DURING THE CONSTRUCTION PROCESS IN WHICH THE MEASURES WILL BE INSTALLED. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR APPROVED BY THE ENGINEER. FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

   3.1. CONSTRUCT DEWATERING SYSTEM WITHIN THE DESIGNATED AREA AND ASSOCIATED PERIMETER CONTROLS.
   3.2. DREDGING OF CHANNEL AND DEWATERING OF DREDGED MATERIAL.
   3.3. OFFSITE DISPOSAL OF DREDGED MATERIAL.
   3.4. REPEAT 3.2 AND 3.3 UNTIL DREDGING IS COMPLETE.
   3.5. RESTORE DISTURBED UPLAND AREAS TO PRE-CONSTRUCTION CONDITION.

4. DESCRIPTION OF THE SOILS AND AN IDENTIFICATION OF THOSE THAT ARE HIGHLY ERODIBLE:
   37 - MYAKKA MUCK - MUCK AND SAND; POORLY DRAINED; SHALLOW WATER TABLE
   43 - TIDEWATER MUCK - MUCKY CLAY, SILTY CLAY, SANDY CLAY LOAM, LOAMY FINED SAND; VERY POORLY DRAINED; TIDAL

5. AFFECTED DRAINAGE AREAS AND MAJOR DISCHARGE POINTS:
   SHELL MOUND CAMPGROUND - NO MAJOR DISCHARGE POINT, DISPERSED FLOW ALONG BOUNDARIES

6. LATITUDE AND LONGITUDE OF EACH MAJOR DISCHARGE POINT:
   N/A, SEE PREVIOUS

7. NAMES OF RECEIVING WATER(S):
   GULF OF MEXICO (CEDAR KEY)

8. DESCRIPTION OF PROPOSED POLLUTION CONTROL MEASURES OR BMPS TO BE USED:
   a. NON-STRUCTURAL CONTROL PRACTICES:
   DREDGING ALIGNMENT CHOSEN TO MINIMIZE IMPACTS TO MARINE BIVALVES

   b. STRUCTURAL CONTROL PRACTICES:
   SILT FENCE, DEWATERING SYSTEM SUCH AS DEWATERING GEOTEXTILE TUBES

9. ESTIMATED CONSTRUCTION SCHEDULE:
   START DATE = TBD
   COMPLETION DATE = TBD
   STABILIZATION SCHEDULE
   INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES = X
   CONSTRUCTION OF DEWATERING SYSTEM = X
   DREDGING, DEWATERING, AND OFFSITE DISPOSAL OF DREDGED MATERIAL = X
   UPLANDS RESTORED TO PRE-CONSTRUCTION CONDITION = X

10. THE CONTRACTOR RESPONSIBLE FOR THE BMP IMPLEMENTATION, INSPECTION, AND MAINTENANCE:
    CONTRACTOR TO BE DETERMINED AT A LATER DATE THROUGH A PUBLIC BID PROCESS.

11. CALCULATIONS:
    N/A

12. CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. IN AN EFFORT TO ENSURE COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS REGARDING EROSION AND TURBIDITY CONTROLS:
    THE FOLLOWING PERMITS HAVE BEEN OBTAINED.
    PERMIT # X
    ACOE PERMIT # X
    ENVIRONMENTAL RESOURCE PERMIT # X

13. INVENTORY FOR POLLUTION PREVENTION PLAN:
    THE MATERIAL OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:
    CONCRETE, WOOD, FERTILIZERS, ASPHALT, MASONRY BLOCKS, PETROLEUM BASED PRODUCTS, TAR, ROOFING MATERIALS, CLEANING SOLVENTS, DETERGENTS, METAL STUDS, PAINTS

## RECORD REQUIREMENTS

THE CONTRACTOR SHALL, AT A MINIMUM, PERFORM AND DOCUMENT THE FOLLOWING RECORD KEEPING TASKS IN A REGULAR AND EXPEDIENT MANNER WHILE CONSTRUCTION ACTIVITIES ARE OCCURRING.

1. CONTRACTORS MUST RECORD THE FOLLOWING DATES:

   A) WHEN MAJOR GRADING ACTIVITIES OCCUR

   B) WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE

   C) WHEN STABILIZATION (I.E. EROSION CONTROL) MEASURES BEGIN

2. CONTRACTORS ARE TO PROVIDE QUALIFIED INSPECTORS WHO HAVE KNOWLEDGE AND EXPERIENCE IN THE PRINCIPLES AND PRACTICE OF SEDIMENT AND EROSION CONTROL AND CAN COMPLETE PROJECT SITE INSPECTIONS:

   A) AT LEAST ONCE EVERY SEVEN (7) DAYS

   B) WITHIN 24 HOURS AFTER THE END OF A STORM EVENT OF 0.50-INCHES OR MORE. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL.

   C) WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

3. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE, AND LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. COPIES OF THE INSPECTION REPORTS WILL BE SUBMITTED TO THE OWNER AND INCLUDE DOCUMENTATION OF REMEDIAL ACTION TO ADDRESS SYSTEM FAILURES. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

4. THE CONTRACTOR WILL PROVIDE THE OWNER A COPY OF THE NPDES PERMIT AND THE SWPPP.

## INSPECTION AND MAINTENANCE REQUIREMENTS

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS:

1. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
2. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.
3. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.
4. CONSTRUCTION ENTRANCES WILL BE INSPECTED FOR DEPTH OF CRUSHED STONE BED AND FILTER FABRIC CONDITION.
5. THE SEDIMENT BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.
6. DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.
7. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

## UPDATING REQUIREMENTS

1. THE STORMWATER POLLUTION PREVENTION PLANS (SWPPP) AND EROSION AND SEDIMENT CONTROL (E&SC) PLANS CONTAINED HEREIN PROVIDE ONLY THE INITIAL AND MINIMUM REQUIREMENTS, AND PROJECT SPECIFIC STRUCTURAL BMPS NECESSARY FOR THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MODIFY AND UPDATE THESE PLANS ACCORDING TO THEIR OPERATIONS ON SITE. IN ADDITION, THE CONTRACTOR SHALL REVISE THESE DOCUMENTS:
   a) WITHIN SEVEN CALENDAR DAYS FOLLOWING AN INSPECTION WHEN ADDITIONS AND/OR MODIFICATIONS TO BMPS ARE NECESSARY TO CORRECT OBSERVED PROBLEMS.
   b) WHENEVER A CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE AT THE CONSTRUCTION SITE HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE UNITED STATES NOT PREVIOUSLY ADDRESSED IN THE DOCUMENTS.
   c) WHENEVER DISCHARGES ARE CAUSING WATER QUALITY "EXCEEDANCES" (AN EPA TERM) OR THE BMPS ARE INEFFECTIVE (TO AN EXTENT PRACTICAL) IN MINIMIZING POLLUTANTS IN STORMWATER DISCHARGING FROM THE CONSTRUCTION SITE.

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DESIGNED: M.HOFMAN
CAD COORD: D.METZ
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SUBMISSION: 60% DESIGN

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION NOTES I

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## EROSION AND SEDIMENT CONTROL NOTES AND REQUIREMENTS

### GENERAL REQUIREMENTS

1. THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION CONTROL PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE, AND LOCAL LAWS. REFER TO THESE EROSION AND SEDIMENT STABILIZATION PRACTICES FOR THE CONTROLS THAT MAY BE IMPLEMENTED.

2. THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED HEREIN AND THOSE MEASURES SHOWN IN THE PLANS. IN ADDITION, THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED FOR COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL APPLY FOR AND COMPLY WITH A FLORIDA NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL OBTAIN WATER MANAGEMENT DISTRICT APPROVAL FOR DEWATERING PER FAC 40C22.

3. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYING FOR THE PERMIT FEE FOR THE NOTICE OF INTENT (NOI) AND THE NOTICE OF TERMINATION (NOT) FORMS.

4. TIMING OF CONTROLS/MEASURES. AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASINS WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND THE EARTH BERM/SWALES REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION CONTROL PLAN.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION CONTROL PLAN AND ADD ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL STATE AND LOCAL EROSION AND SEDIMENT CONTROL PLAN AND AS REQUIRED TO MEET THE SEDIMENT AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES, AND ALACHUA COUNTY CODE CHAPTER 77.

### EROSION AND SEDIMENT CONTROL - STABILIZATION PRACTICES

1. LOCATION OF STAKED SILT FENCE. STAKED SILT FENCE SHALL BE PLACED ALONG THE BOUNDARY OF FILL SLOPES, ALONG THE LIMITS OF CONSTRUCTION, AND AROUND ALL PROPOSED INLETS AND STRUCTURES. SILT FENCE SHALL BE USED AROUND ALL EXCAVATED MATERIAL IN THEIR TEMPORARY LOCATIONS DURING CONSTRUCTION.

2. LOCATION OF FLOATING TURBIDITY BARRIERS. FLOATING TURBIDITY BARRIERS SHALL BE PLACED DOWNSTREAM OF THE CULVERT REPLACEMENTS.
3. OFF-SITE VEHICLE TRACKING. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULIN. EXCESS DIRT ON THE ROAD SHALL BE REMOVED DAILY. AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE DAMPENED WITH WATER AS REQUIRED FOR DUST CONTROL.

4. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF EROSION AND SEDIMENT CONTROL DEVICES, AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES AFTER THE NOTICE OF TERMINATION. MAINTENANCE AND REPAIR REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION SHALL BE INCLUDED IN THE PROJECT COST.

5. DISTURBED, GRADED OR REGRADED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE, OR WITHIN 7 DAYS IF SUCH AREAS ARE TO REMAIN IDLE FOR MORE THAN 7 DAYS.

6. STRAW BALE BARRIER: STRAW BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2.0 ACRES.
   C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

7. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   a. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   b. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2.0 ACRES.

8. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

9. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL SPREADER IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.

10. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

11. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, ERODIBLE SOIL EXPOSED BY CLEARING GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 2.0 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREA WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

12. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 21 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS. SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPLETE WITH THE PERMANENT GRASSING.

13. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 7 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 150 MM LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH OR HYDROMULCHED.

14. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

15. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

16. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

17. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

18. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 6:1 SHALL BE SODDED.

19. WHERE SODDING IS CALLED FOR IN THE PLANS, SOD THAT IS PLACED ON SLOPES OF 3:1 OR GREATER SHALL BE PEGGED.

20. OFFSITE VEHICLE TRACKING: STABILIZED CONSTRUCTION ACCESS DRIVES SHALL BE CONSTRUCTED AT ALL POINTS ENTERING AND EXITING THE PROJECT SITE FROM PAVED ROADS. CONSTRUCTION ACCESS DRIVES SHALL HAVE A MINIMUM 6 INCH THICKNESS OF DURABLE ROCK OVER A FILTER FABRIC FREE OF TEARS AND FIRMLY SECURED. ACCESS DRIVES SHALL BE REMOVED AND RESTORED AT THE COMPLETION OF THE PROJECT.

### EROSION AND SEDIMENT CONTROL - WASTE AND MATERIAL CONTROLS

1. WASTE MATERIALS: ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED. LAND CLEARING DEBRIS CAN BE BURNED IN ACCORDANCE WITH STATE AND ALACHUA COUNTY CODE CHAPTER 263.

2. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

3. SANITARY WASTE: ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

4. PAVED AREAS ADJACENT TO ALL CONSTRUCTION ACCESS POINTS SHALL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP.

5. SPILL PREVENTION: THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.
   a. GOOD HOUSEKEEPING: THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.
   i. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
   ii. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   iii. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
   iv. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   v. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   vi. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
   vii. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

   b. HAZARDOUS MATERIALS: THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
   i. HAZARDOUS MATERIALS AND/OR TOXIC SUBSTANCES SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO THE EPA'S STANDARD PRACTICES, THE MANUFACTURER'S RECOMMENDATION OR IN ACCORDANCE WITH STATE AND LOCAL REQURIEMENTS.
   ii. THE CONTRACTOR SHALL MAINTAIN COPIES OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE ON THE PROJECT. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AND INTENDED FOR EQUIPMENT USE ON THE PROJECT AS A HAZARDOUS MATERIAL, SUCH PRODUCTS DO NOT NEED A MSDS SUBMITTAL.
   iii. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS.
   iv. MATERIALS WILL BE STORED IN ACCORDANCE WITH ALACHUA COUNTY CODE CHAPTER 353.
   v. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED AND AVAILABLE ON SITE.

   c. PRODUCT SPECIFIC PRACTICES: THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:
   i. PETROLEUM AND LUBRICANT PRODUCTS. ALL ONSITE VEHICLES AND EQUIPMENT (I.E. - DEWATERING PUMPS) WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. FLUID PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. CONTAINMENT BERMS WILL WE CONSTRUCTED AROUND ALL FUEL STORAGE TANKS USED FOR CONSTRUCTION. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
   ii. FERTILIZERS. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ALACHUA COUNTY CODE CHAPTER 78 ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
   iii. PAINTS. ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
   iv. CONCRETE TRUCKS. CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER TO DITCHES, PONDS OR OTHER WATERWAYS. WASHWATER SHALL BE COLLECTED IN A TEMPORARY SETTLING POND.

### EROSION AND SEDIMENT CONTROL - SPILL CONTROLS

1. SPILL CONTROL PRACTICES: IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
   A. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE METHODS AND POSTED LOCATION.

2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, OIL BLANKETS, GLOVES, GOGGLES, LIQUID ABSORBENT (I.E. KITTY LITTER OR EQUAL), SAND SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, BY THE CONTRACTOR.

3. THE SPILL AREA WILL BE KEPT WILL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

4. SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED IMMEDIATELY TO OWNER AND ENGINEER.

5. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

6. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE SHALL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL, WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP, THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

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DESIGNED: M.HOFMAN
CAD COORD: D.METZ
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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION NOTES II

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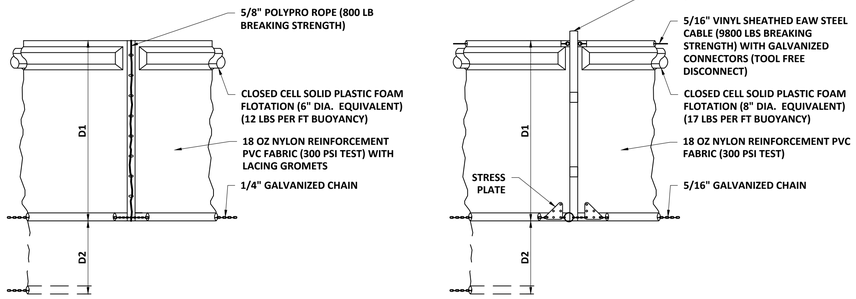



D1 =5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)

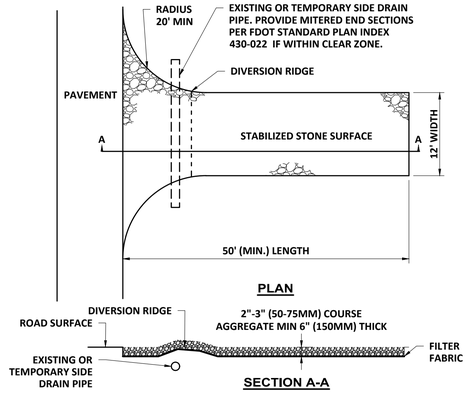
D2 =5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

## TYPICAL FLOATING TURBIDITY BARRIER DETAIL

SCALE: NTS

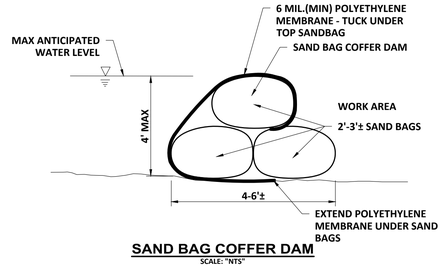



(TEMPORARY, TO BE REMOVED PRIOR TO FINAL SITE PAVING)

NOTE:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWINGS OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRISHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

## STABILIZED CONSTRUCTION ENTRANCE

SCALE: "NTS"




## SAND BAG COFFER DAM

SCALE: "NTS"




## JOINING SILT FENCE SECTIONS

SCALE: "NTS"




## SILT FENCE INSTALLATION DETAIL

SCALE: NTS

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: 60% DESIGN

WRIGHT-PIERCE
800.422.1095 | www.wright-pierce.com
3820 NORTHDALE BOULEVARD, SUITE 109A, TAMPA, FL 33624

COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION DETAILS

DRAWING
C-11

J:\ENGR\LEVYCOUNTY\20850-SHELLMOUNDBOATRAMP\DRAWINGS\CIV\20850-CS-STORMWATERDETAILS.DWG | 20850-CS-StormwaterDetails | L2.5849 | --- | 7/27/2022 1:08:41 PM | REMOTECAD

**Nationwide Permit 35 - Maintenance Dredging of Existing Basins**
Effective Date: February 25, 2022; Expiration Date: March 14, 2026
(NWP Final Notice, 86 FR 73522)

**Nationwide Permit 35 - Maintenance Dredging of Existing Basins**. The removal of accumulated sediment for maintenance of existing marina basins, access channels to marinas or boat slips, and boat slips to previously authorized depths or controlling depths for ingress/egress, whichever is less. All dredged material must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization. Proper sediment controls must be used for the disposal site. (Authority: Section 10)

**2021 Nationwide Permit General Conditions**

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. **Navigation.** (a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. **Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary

purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. **Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. **Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. **Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. **Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. **Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. **Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. **Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. **Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. **Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. **Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. **Removal of Temporary Structures and Fills.** Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. **Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. **Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. **Wild and Scenic Rivers.** (a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a “study river” for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. **Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. **Endangered Species.** (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification

that the proposed activity will have “no effect” on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word “harm” in the definition of “take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. **Migratory Birds and Bald and Golden Eagles.** The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine

what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. **Historic Properties.** (a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect

determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. **Discovery of Previously Unknown Remains and Artifacts.** Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. **Designated Critical Resource Waters.** Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters

or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. **Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may

determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. **Safety of Impoundment Structures.** To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. **Water Quality.** (a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. **Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. **Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. **Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. **Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

_____

(Transferee)

_____

(Date)

30. **Compliance Certification.** Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. **Activities Affecting Structures or Works Built by the United States.** If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a “USACE project”), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. **Pre-Construction Notification.** (a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all

of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and

any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees

must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state

natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

**2021 District Engineer's Decision**

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the

NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity-specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the

applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

**2021 Further Information**

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

**2021 Nationwide Permit Definitions**

**Best management practices (BMPs):** Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

**Compensatory mitigation:** The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

**Currently serviceable:** Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

**Direct effects:** Effects that are caused by the activity and occur at the same time and place.

**Discharge:** The term "discharge" means any discharge of dredged or fill material into waters of the United States.

**Ecological reference:** A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

**Enhancement:** The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

**Establishment (creation):** The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

**High Tide Line:** The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

**Historic Property:** Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

**Independent utility:** A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

**Indirect effects:** Effects that are caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.

**Loss of waters of the United States:** Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

**Navigable waters:** Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

**Non-tidal wetland:** A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

**Open water:** For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within

the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

**Ordinary High Water Mark:** The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

**Perennial stream:** A perennial stream has surface water flowing continuously year-round during a typical year.

**Practicable:** Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

**Pre-construction notification:** A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

**Preservation:** The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

**Re-establishment:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

**Rehabilitation:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

**Restoration:** The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

**Riffle and pool complex:** Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

**Riparian areas:** Riparian areas are lands next to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non-wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

**Shellfish seeding:** The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

**Single and complete linear project:** A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term “single and complete project” is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

**Single and complete non-linear project:** For non-linear projects, the term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of “independent utility”). Single and complete non-linear projects may not be “piecemealed” to avoid the limits in an NWP authorization.

**Stormwater management:** Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

**Stormwater management facilities:** Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

**Stream bed:** The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

**Stream channelization:** The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

**Structure:** An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

**Tidal wetland:** A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line.

**Tribal lands:** Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

**Tribal rights:** Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

**Vegetated shallows:** Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

**Waterbody:** For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

## ADDITIONAL INFORMATION

Information about the U.S. Army Corps of Engineers Regulatory Program, including nationwide permits, may also be accessed at http://www.swt.usace.army.mil/Missions/Regulatory.aspx or http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx

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

# FINAL REGIONAL CONDITIONS FOR THE 2021 NATIONWIDE PERMITS IN JACKSONVILLE DISTRICT (SAJ)

**Effective Date for Regional Conditions for 16 NWPs: March 15, 2021**
**Effective Date for Modified Regional Conditions for 16 NWPs: February 25, 2022**
**Effective Date for Regional Conditions for 41 NWPs: February 25, 2022**
**Expiration Date for Regional Conditions for All NWPs: March 14, 2026**

***This Regional Condition document supersedes all prior Regional Condition documents for the Jacksonville District.***

## A. BACKGROUND/APPLICABILITY.

1. The following regional conditions have been approved by the Division Engineer for the South Atlantic Division (SAD) for use in the Jacksonville District (SAJ) for the following Nationwide Permits (NWPs):

a. The NWPs published in the January 13, 2021 Federal Register (86 FR 2744) announcing the reissuance of twelve (12) existing NWPs (that is, NWPs 12, 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, and 52) and issuance of four (4) new NWPs (that is, NWPs 55, 56, 57, and 58), as well as the reissuance of NWP general conditions and definitions with some modifications. These 16 NWPs were effective on March 15, 2021 and will expire on March 14, 2026; and

b. The NWPs published in the December 27, 2021 Federal Register (86 FR 73522) announcing the reissuance of the remaining unmodified forty (40) existing NWPs (that is, NWPs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 41, 45, 46, 49, 53, and 54) and issuance of one (1) new NWP (that is, NWP 59). At this time, NWPs 26 and 47 are reserved. These 41 NWPs will be effective as of February 25, 2022 and will expire on March 14, 2026.

2. Status of Activities Under Prior NWPs and/or Regional Conditions.

a. 16 NWPs: The regional conditions that were effective on March 15, 2021 have been modified and are incorporated in this document. (There are three changes to the previous regional conditions. First, Regional Condition 45 (Tribal Rights and Authorities) has been added. Second, Regional Condition 2.b. has been modified to specify that the description of a project location shall include the latitude and longitude. Third, Regional Condition 36 has been modified by adding a superscript that refers to new text at F.3., which clarifies NWP 43's pre-construction notification requirements.) These modified regional conditions must

be applied on and after February 25, 2022, for the 16 NWPs **except** for the following scenarios:

(i) NWP verification letters for one or more of the 16 NWPs that were issued **prior** to February 25, 2022; or

(ii) NWP activities that did not require a pre-construction notification (PCN), are covered by one or more of the 16 NWPs, and have either commenced, are under contract to commence, or have been completed **prior** to February 25, 2022.

b. 40 NWPs: For information about whether an activity can continue under the 2017 versions of the 40 existing NWPs (for example, the status of prior permit verifications and pre-construction notifications) and, accordingly, the 2017 Regional Conditions, see the discussion in the Reissuance and Modification of Nationwide Permits at 86 FR 73522 in Section I.D. on page 73525 or contact the Jacksonville District Regulatory Office directly.

3. The following regional conditions will provide additional protection for the aquatic environment that is necessary to ensure that the NWPs authorize only those activities with no more than minimal adverse environmental effects.

4. As specified under NWP General Condition 27, Regional and Case-By-Case Conditions: The activity must comply with any regional conditions that may have been added by the Division Engineer (*see* 33 C.F.R. 330.4(e)) and with any case-specific conditions added by the Corps, or by Florida, Puerto Rico, U.S. Virgin Islands, Miccosukee Tribe of Indians of Florida or Seminole Tribe of Florida in their Section 401 Water Quality Certification, and by Florida, Puerto Rico or the U.S. Virgin Islands in their concurrence with the Corps' Coastal Zone Management Act consistency determination.

5. Superscripts refer to the corresponding number in Section F, Definitions and Acronyms.

6. The acronym "PCN" used throughout this document refers to Pre-Construction Notification as further defined in NWP General Condition 32.

a. In Florida, the *Nationwide Permit Pre-Construction Notification (PCN)* form (ENG Form 6082) should be used for NWP PCNs.

b. PCN for activities in the Antilles[4] shall be made through the Joint Permit Process using the most recent and valid *Application for Department of the Army Permit* (ENG Form 4345), and the form must indicate it is an NWP Pre-Construction Notification (PCN). The application must also contain the information described in General Condition 32. If the joint process changes before the expiration of these Regional Conditions, then follow the instructions in the announcement for such change.

## B. EXCLUDED WATERS AND/OR AREAS.

1. NWPs cannot be used in an exclusion area designated by Regional Condition 4.

2. Designated Critical Resource Waters.

a. Synopsis of NWP General Condition 22. Critical resource waters include NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may identify additional critical resource waters after notice and opportunity for public comment. Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, a PCN is required for any activity proposed by permittees in the designated critical resource waters, including wetlands adjacent to those waters.

b. In accordance with General Condition 22, designated critical resource waters in Florida are:

(i) Wetlands and other surface waters in National Estuarine Research Reserves, NOAA-managed National Marine Sanctuaries and marine monuments, Biscayne National Park and Everglades National Park;

(ii) State natural heritage sites, and the Marjorie Harris Carr Cross Florida Greenway State Recreation and Conservation Area; and

(iii) Wetlands and other surface waters in active designated State of Florida Areas of Critical State Concern, including the Green Swamp Area, the Big Cypress Area, and the Apalachicola Bay Area. See, for example, Fla. Stat. §§ 380.055, 380.0551 and 380.0555.

## C. REGIONAL CONDITIONS APPLICABLE TO ALL NWPs.

1. Endangered Species. In accordance with General Condition 18, a PCN must be submitted if any listed species or designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat. The following information is provided to assist prospective Permittees to fulfill their obligations under General Condition 18.

a. NMFS Species. There are numerous listed species throughout the estuarine and marine waters in Florida, Puerto Rico, and the U.S. Virgin Islands. Therefore, there is a high potential that one or more of these species or designated critical habitat will be in the vicinity of or affected by the activity. For species for which the NMFS has jurisdiction, web pages for each of the species describing their range, how they can be affected, and other information can be accessed at https://www.fisheries.noaa.gov/species-directory/threatened-endangered?title=&species_category=any&species_status=any&regions=1000001121&items_per_page=25&sort=. That information can be used, along with project and site-specific information, to determine whether a PCN is required by General Condition 18. NMFS species include, but are not limited to, the following:

sea turtles, smalltooth sawfish, Gulf sturgeon, shortnose sturgeon, and certain corals.

b. USFWS Species. The West Indian manatee, for which the USFWS has jurisdiction, is found in most estuarine and marine waters (as well as some inland freshwaters) in Florida, Puerto Rico and the U.S. Virgin Islands. The USFWS Information for Planning and Consultation (IPaC) web page (https://ecos.fws.gov/ipac/) should be used to identify the potential for the presence of and effect on listed species under the jurisdiction of the USFWS. Other tools for effect determination on federally listed species and designated critical habitat are available on ECOS at ecos.fws.gov. For Puerto Rico and the U.S. Virgin Islands, prospective Permittees are encouraged to review the local office's website at https://www.fws.gov/southeast/caribbean/ for any changes in species lists, status, additions or latest conservation measures that have not yet been incorporated into IPaC. The information from these various sources can be used, along with project and site-specific information, to determine whether a PCN is required by General Condition 18.

2. Historic Properties.

a. Florida. In addition to General Condition 20 (Historic Properties), in Florida, if a PCN is not required (or not voluntarily submitted), the prospective Permittee shall contact the Florida Master Site File (FMSF) to conduct an historic properties search. The prospective Permittee shall provide the FMSF with the project area and Section/Township/Range information by email to sitefile@dos.myflorida.com or contact the FMSF office at (850) 245-6440. If the FMSF identifies any historic property within 50 meters of the project area that is listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, the prospective Permittee shall submit a PCN to the Corps, including the information exchanged with the FMSF office, for further review and consultation. Submittal of a PCN is not required when the FMSF report for the property (or all properties if more than one) shows the Florida Department of State, Division of Historical Resources Compliance and Review Section (SHPO) Evaluation ('SHPO Eval' column) to be "Not Eligible" and also shows the property(ies) is/are not listed or proposed for listing on the National Register of Historic Places ('NR Status' column). However, in accordance with General Condition 20, a PCN is required if the prospective Permittee has knowledge of a historic property that is listed on, determined to be eligible for listing on, or potentially eligible for listing on the NRHP, including previously unidentified properties.

b. Seminole Tribe of Florida. In addition to General Condition 20 (Historic Properties), in Florida, for applications that do not require a PCN, the prospective Permittee shall contact the Seminole Tribe's Historic Preservation Compliance Office (THPO) to conduct an historic and cultural resources properties search. The prospective Permittee shall provide the THPO with the project area, to include the latitude and longitude of the project and Section/Township/Range information, to THPOCompliance@semtribe.com (include the uppercase letters

of the email address). If the THPO's search identifies any historic property or cultural resource within 50 meters of the project area that is listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, the prospective Permittee shall submit a PCN to the Corps, including the information exchanged with the THPO, for further review. Submittal of a PCN is not required when the THPO report for the property(ies) shows "Not Eligible" or "None" and also shows the property(ies) is/are not listed or proposed for listing on the National Register of Historic Places ("NR Status" column). However, in accordance with General Condition 20, a PCN is required if the prospective Permittee has knowledge of a historic property that is listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties.

3. Florida Prehistoric or Historic Artifacts. In addition to General Condition 21 (Discovery of Previously Unknown Remains and Artifacts), in Florida, if prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the Permittee shall cease all activities involving subsurface or ground disturbance within a 100 meter diameter of the discovery. The Permittee shall contact the Corps immediately and not later than within the same business day (eight hours). The Corps will contact the SHPO at (850)-245-6333 and the appropriate THPO(s) to assess the significance of the discovery. The Corps shall also follow the *Agreement Between the Jacksonville District, U.S. Army Corps of Engineers, and the Seminole Tribe of Florida Regarding Proposed Actions that may Adversely Affect American Indian Burial Resources*. This agreement emphasizes that the resolution of effects to Native American burial resources will be accomplished whereby avoidance is the first priority and minimization or mitigation is only considered as a last resort. Appropriate actions for the resolution of the adverse effects will be determined following initiation of these steps and under consultation with the SHPO and THPO(s). In addition, in the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the Permittee shall notify the medical examiner, in accordance with Section 872.05, Florida Statutes ("Unmarked human burials"), as well as the Corps and SHPO. On federal or tribal lands, or situations where the Archaeological Resources Protection Act of 1979 or Native American Graves Protection and Repatriation Act of 1990 applies, the Permittee shall notify the Corps who will notify the SHPO and THPO(s). Once activities have ceased as a result of any of the situations identified in this Regional Condition, they shall not resume without written authorization from the Corps.

(Note: Regional Condition 45 applies to all NWPs. It is located for administrative reasons (that is, numbering consistency) at the end of Section D.)

**D. REGIONAL CONDITIONS APPLICABLE TO SPECIFIC ACTIVITIES AND/OR SPECIFIC NWPs.**

(Note: The numbering in this section starts at 4 because it is a continuation of conditions based on numbering in Section C above).

4. In the Antilles, Marine Reserves, Marine Protected Areas or Parks.

   NWPs 1, 11 and 52. Excluded within the boundaries of Marine Reserves, Marine Protected Areas,[8] and Parks in the Antilles,[4] except when used within those areas by the local or federal agency responsible for the management of those areas.

5. Coral assemblages.[5]

   a. NWP 1. In the Jacksonville District placement of aids to navigation cannot cause adverse impacts to coral assemblages.[5]

   b. NWPs 7, 10, 11, 19, 22 and 28 in Antilles. Activities cannot cause adverse impacts to coral assemblages.[5]

   c. <reserved>.

   d. <reserved>.

   e. NWPs 4, 6, 9 and 23. PCN is required if within coral assemblages in depths less than 250 feet.

   f. NWPs 7, 14, 15, 16, 18, 52 and 54 in the Antilles. PCN is required for any activity within coral assemblages.[5]

   g. NWPs 3, 10, 28, 35, 48, 55 and 56. PCN is required for any activity within coral assemblages.[5]

   h. <reserved>.

6. PCN is required for several NWPs in the Antilles.

   NWPs 2, 13, 19, 25, 36. PCN is required for all activities under these NWPs in the Antilles.[4]

7. Activities affecting structures or works built by the United States. In accordance with General Condition 31, a PCN is required when the proposed activity will alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project.

   a. Synopsis of General Condition 31. A PCN is required when the proposed "activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. § 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized Civil Works project (a 'USACE project')."

   b. Additional Information on 33 U.S.C. § 408 requirements and procedures are at https://www.usace.army.mil/Missions/Civil-Works/Section408/. Descriptions of

activities that may require Corps review or permission under 33 U.S.C. § 408 are found in paragraph 9 of *Engineer Circular (EC) 1165-2-220*, which is available via that web page. Some examples are those: (1) within the right-of-way for a federal navigation project; (2) that do not meet the Setback Guidance for a federal navigation project; and (3) that cross (above or below) a USACE project levee, dike, dam or other water-retaining structure.

c. Corps project real estate. Any activity within Federal project lands, including within rights-of-way, may require the prospective Permittee to enter into a Consent to Easement or other real estate instrument with the Real Estate Division, U.S. Army Corps of Engineers, Jacksonville or Mobile District, as appropriate, prior to the commencement of any construction activity.

d. For NWP 3. For projects adjacent to a federal channel, if the previously authorized and serviceable structure was destroyed by an act of nature or other event, the project will be reviewed pursuant to the setback guidance in effect at the time of the PCN. It is possible that any authorized reconstruction will not be authorized to be rebuilt with the same dimensions or design as the original structure.

8. Florida Keys. PCN is required for all projects in the Florida Keys. Prospective Permittees must submit to the Jacksonville District a certification from NOAA Florida Keys National Marine Sanctuary (FKNMS), pursuant to 33 C.F.R. § 320.4(i), prior to verification by the Corps for any activities within the marine sanctuary.

9. Adjacent to Tribal lands.

a. NWPs 3, 18, 27, 40, 41 and 46. PCN is required when the property on which the proposed activity is occurring is adjacent to Tribal lands.

b. NWP 3, 18, 27, 40, 41 and 46. PCN is required for projects located in these waters. In vicinity of Brighton Reservation: Lake Istokpoga; Istokpoga Creek; Istokpoga Canal; Kissimmee River (C-38) from Istokpoga Creek to Lake Okeechobee. In vicinity of Big Cypress Reservation: Miami Canal from G373 south to S8. In vicinity of Hollywood Reservation: North New River Canal from West Hollywood Canal (C-42) east to South New River Canal (C-11); Dania Cutoff canal from South New River Canal (C-11) east to I-95. In vicinity of Fort Pierce Reservation: Ten Mile Creek from Okeechobee Road east to the I-95. In vicinity of Tampa Reservation: Palm River.

10. Culverts in the Antilles.

NWPs 3 and 14. For projects in the Antilles,[4] if bottomless culverts or single-span bridges are not feasible, culvert construction must comply with the *Guidance for Repair, Replacement, and Clean-up of structures in Streams and Waterways of Puerto Rico and US Virgin Islands*, which was provided by the USFWS and is available at https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/19722. If compliance is not practical for a particular location, the PCN must include the

reason(s) it was not practicable and describe how the activity will maintain necessary life cycle movements of aquatic life indigenous to the water body.

11. Gabions, sediment removal and heavy equipment.

NWPs 3 and 13. Projects in the Antilles must meet specific design criteria to address gabions, removal of accumulated sediments around bridges, and use of heavy equipment.[9]

12. Projects that capture and store water.

NWPs 3, 18, 27, 40, 41 and 46. Projects that capture and store water, such as Dispersed Water Management Projects, are excluded from this NWP.

13. Live Rock culture.

NWPs 4 and 48. Placement of materials for live rock culture and the harvesting of live rock are not activities authorized by these NWPs.

14. Submerged aquatic vegetation.[7,10]

a. NWPs 7, 14, 15, 16, 18, 19, 52 and 54 in the Antilles.[4] PCN is required for any activity occurring within submerged aquatic vegetation.[7,10]

b. NWPs 3, 10, 12, 22, 28, 35, 48, 55, 56, 57, and 58. PCN is required for any activity occurring within submerged aquatic vegetation.[7,10]

15. Tidal wetlands.

NWPs 3, 10, 12, 22, 28, 35, 48, 55, 56, 57, and 58. PCN is required for any activity occurring within tidal wetlands.

16. Hardbottom benthic habitat.

NWPs 52 and 54 in the Antilles.[4] PCN is required for any activity occurring within hardbottom benthic habitat.

17. Salt flats.

NWPs 7, 14, 15, 16, 18 and 19 in the Antilles. PCN is required in salt flats.

18. Forested wetlands.

a. NWPs 7, 14, 15, 16, 18, 19, 29, 39, 40, 42, 51 and 59 in the Antilles. PCN is required for any activity occurring within forested wetlands.

b. NWP 22. PCN is required in forested wetlands.

19. In the Florida Keys, any activity which will result in the discharge of greater than 0.25 acre of dredged or fill material.

NWPs 29, 39 and 59. For projects in the Florida Keys with discharges of dredged or fill material greater than 0.25 acre, the Corps will request comments from U.S. EPA Region 4.

20. Hopper dredging.

NWPs 19 and 35. Hopper dredging is not allowed under this NWP.

21. In the Antilles, any activity which will result in the discharge of greater than 0.25 acre of dredged or fill material.

NWPs 40, 51 and 59. In the Antilles, for projects that propose the discharge of greater than 0.25 acre of dredged or fill material, the Corps will request comments from the USFWS.

22. Sediment and erosion control plan.

NWPs 41, 44, 45, 46 and 53. The PCN shall include a sediment and erosion control plan.

23. Wind Energy Guidelines.

NWPs 51 and 52. The Corps will consider the information in the USFWS *Land-Based Wind Energy Guidelines* (at https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf) when reviewing a proposed project for compliance with General Condition 18 (Endangered Species).

24. NWP 2. In Florida, this NWP is limited to the installation and removal of individual, single family docks/piers/swim and observation platforms and/or mooring pilings, davits, and boat lifts at single-family residences.

25. NWP 2. All dock or pier construction over submerged aquatic vegetation,[7] marsh and/or mangroves shall comply with the joint U.S. Army Corps of Engineers'/National Marine Fisheries Service's *Construction Guidelines in Florida for Minor Piling-Supported Structures Constructed in or over Submerged Aquatic Vegetation (SAV), Marsh or Mangrove Habitat*, dated November 2017, available in the USACE Digital Library at https://usace.contentdm.oclc.org/digital/collection/p16021coll11/id/1930/ or subsequent updates available at https://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/.

26. NWP 2. Structures constructed on canals or channels shall not exceed more than 25% of the canal/channel width, excluding dense areas of shoreline vegetation, such as mangrove, as measured from the project location to the opposite shoreline (in order to maintain no less than 50% of the open-water portion of the waterbody for public use).

27. NWP 3. PCN is required for any work located in the coastal zone of the Antilles,[4] including the areas specified in F.1. and F.2. below for Puerto Rico[1] and U.S. Virgin Islands,[2] respectively. For Puerto Rico, the geographic area comprising its coastal zone is the area described in the Puerto Rico Coastal Zone Management Program.

28. NWP 3. PCN is required for all work within the La Parguera Natural Reserve and Culebra Island in Puerto Rico. Reconstruction of structures within the La Parguera Natural Reserve will not be allowed under this nationwide permit.

29. NWP 10. PCN is required for all activities in the Antilles.[4]

30. NWP 11. PCN is required for any structure proposed in or over submerged aquatic vegetation[7,10] and/or mangroves.

31. NWP 58. For water intake projects in Puerto Rico, the prospective Permittee must submit a PCN to the District Engineer prior to commencing the activity, in accordance with General Condition 32. The PCN must contain plans and drawings, a description of all waters of the U.S. impacted by the project, the maximum amount of water to be withdrawn in millions of gallons a day (MGDs), and the minimum in-stream flows on any given day in MGDs after water extraction.

32. NWPs 12, 57 and 58. Where the proposed subaqueous utility or transmission line is to be installed in, under, or over navigable waters of the United States, as defined in 33 C.F.R. § 329.4, at least two weeks prior to the start of the authorized work, the Permittee must notify the National Oceanic Atmospheric Administration (NOAA) and the Corps office in writing that the work is commencing, and again upon completion of the work. For pre-construction and post-construction notifications, the Permittee shall notify the District Engineer at the above letterhead address, attention Regulatory Division, and NOAA, at Department of Commerce, NOAA, Nautical Data Branch, N/CS26, Station 7317, 1315 East-West Highway, Silver Spring, MD 20910-3282. The post-construction notification shall be submitted within 60 days of completion of construction and shall include “as-built plans,” signed and sealed by a registered surveyor/engineer licensed in the State of Florida, Puerto Rico, or U.S. Virgin Islands, as appropriate, that certify the project is constructed as authorized, and must include an accurate (within plus or minus one (1) foot) depiction of the location and configuration of the completed activity in relation to the mean high water of the navigable water.

33. NWP 18. In the Antilles[4] PCN is required for all activities proposed in the areas defined in Section F below for Puerto Rico[1] and U.S. Virgin Islands.[2]

34. NWP 27. PCN is required for lake restoration projects proposing any type of in-lake disposal of dredged or fill material.

35. NWP 36. PCN is required in areas without existing access to navigation channels where the minimum water depth for ingress to or egress from the navigation channels is less than -3 feet at mean or ordinary low water.

36. NWP 43.[3] PCN is required prior to the start of all work in wetlands adjacent to Deer Point Lake and its tributaries in Bay County, Florida.

37. NWP 51. In Puerto Rico, prospective Permittees are encouraged to consider the USFWS Caribbean Ecological Services Field Office document *Wildlife and Habitat Risk Map for Utility-Scale Land-Based Wind Energy Projects*. The current version is at https://www.fws.gov/caribbean/es/documents/PR_Habitat_Risk_for_Wind_Energy_Version_4_22_15.pdf.

38. NWP 52. In the Antilles,[4] PCN must include a benthic survey,[10] which includes documentation on observed habitat types.

39. NWP 54. For projects that affect aquatic resources.

a. The completed project should result in a net gain in aquatic resource function;

b. The structure(s) shall be maintained as necessary in perpetuity in order to maintain the lift in function and value; and

c. In Florida, meet the applicable requirements established by the Florida Fish and Wildlife Conservation Commission if and as included in the State of Florida authorization.

40. NWP 54. Materials authorized for use under this NWP must consist mostly of natural material. Biodegradable breakwater stabilization materials, such as coir, may be used in place of plastic materials. However, in certain cases, plastic bags (Naltex) and plastic mats (UV stabilized) may be used. Concrete products (e.g., sprinkler weights) may be allowed to add to the "sufficient weight.“ Large-scale use of concrete as breakwater or substrate for oyster recruitment is prohibited. Certain metals (e.g., wire mesh) may be used for enclosing stone in gabions for breakwaters. Oyster mats should be used only in special cases (e.g., restoring dead margins of reefs, shoreward of and in association with bags in some cases, and held with cable ties and weights at all mat corners).

41. NWP 54. Sills may be constructed in a non-linear manner to mimic natural reefs.

42. NWP 54. Spacing or gaps between sill material shall be no greater than eight (8) inches to prevent entrapment of marine mammals or marine turtles.

43. NWP 54. Breaks in structures shall be placed at least every 75 feet and shall be five feet in width.

44. NWP 54. The PCN must include a benthic survey.[10]

45. Tribal Rights and Authorities. In accordance with General Condition 17, any activity authorized by any NWP cannot impact tribal rights. Furthermore, there may be requirements that are applicable to activities that are proposed to occur on Tribal lands. Permittees should consider the following information to facilitate their compliance with this General Condition and applicable requirements.

a. General Condition 17 (*Tribal Rights)* states, “No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.” The term “tribal rights” is defined as “[t]hose rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.” 86 FR at 2877 (definition of *Tribal rights* in section *F. Definitions* of the *Reissuance and Modification of Nationwide Permits*; Final Rule, 86 FR 2744 (January 13, 2021).

b. 33 C.F.R. § 330.4(b)(2) states, "NWPs do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorizations required by law." This principle applies equally to any other permits, approvals or authorizations required by law from the Miccosukee Tribe of Indians of Florida and Seminole Tribe of Florida.

**E. SECTION 401 WATER QUALITY CERTIFICATION (WQC) AND/OR COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION SUMMARY AND APPLICABLE CONDITIONS.**

1. State of Florida.

a. WQCs for NWPs 12, 29, 39, 40, 42, 43, 44, 48, 51, 55, 56, 57, and 58 were deemed invalid and were not accepted. The Corps has declined to rely on these WQCs. Therefore, in accordance with NWP General Condition 25, the prospective Permittee must obtain an individual WQC or a waiver for a proposed discharge into waters of the U.S. in order for activities to be authorized by these NWPs. To obtain state certification, prospective Permittees must follow applicable rules in 40 C.F.R. Part 121, *State Certification of Activities Requiring a Federal License or Permit*.

b. The Florida Department of Environmental Protection states:

> WQC is granted for NWPs 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 41, 45, 46, 49, 53, 54 and 59 provided the federal agency requires the following condition with any federal license or permit.
>
> CONDITION: To receive a grant or waiver of water quality certification pursuant 33 U.S.C. 1341, the project proponent must follow the applicable procedures in Rule 62-330.062, Florida Administrative Code.

Therefore, prior to undertaking any individual activity authorized by these NWPs that propose a discharge into waters of the U.S., prospective Permittees must successfully follow the procedures at 62-330.062, Florida Administrative Code, and have one of the following three scenarios apply: (a) an individual or conceptual approval permit is issued for the activity; (b) the activity meets all terms and conditions of a general permit (*see* 62-330.062(1)(b), Florida Administrative Code); or (c) state water quality certification is waived because the activity falls within one of the five scenarios set forth in 62-330.062(c), Florida Administrative Code.

c. WQC for NWP 8 is denied. Therefore, in accordance with NWP General Condition 25, the prospective Permittee must obtain an individual WQC or a waiver for activities authorized by this NWP that propose a discharge into waters of the U.S.

d. WQCs for NWPs 21, 50, and 52 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

e. CZMA consistency concurrence was received for NWPs 1, 2, 5, 7, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 25, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 51, 57 and 58 with the following condition included:

> Activities qualifying for this NWP must receive applicable Coastal Zone Management Act (CZM) consistency concurrence (CZCC) or waiver/exemption from the appropriate delegated authority. In Florida, under 33 C.F.R. § 325.2(b)(2), the Corps may presume CZCC concurrence for the exempted activities by operation of s. 380.23(7), F.S., and the rules of the F.A.C. adopted thereunder.

Therefore, the prospective Permittee must comply with this condition in order for the activity to be authorized by NWP 1, 2, 5, 7, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 25, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 51, 57 or 58.

f. For NWPs 3, 4, 6, 9, 10, 23, 27, 28, 48, 55 and 56, CZMA consistency concurrence was not received. Therefore, in accordance with NWP General Condition 26, “the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP.”

g. CZMA consistency concurrence was not received for NWPs 21, 49 and 50 since these activities (related to coal mining) are unlikely to occur in Florida. In accordance with NWP General Condition 26, “the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP.”

h. A CZMA consistency concurrence response has not been received for NWPs 24, 52, 53, 54, and 59. In accordance with NWP General Condition 26, “the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP.”

i. A CZMA consistency concurrence was denied for NWP 8. In accordance with NWP General Condition 26, “the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP.”

2. Miccosukee Tribe of Indians of Florida.

a. WQC for NWP 12 is granted with conditions but the conditions are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for an activity under NWP 12.

b. WQCs for NWPs 3, 4, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 48, 49, 50, 51, 52, 53, 55, 56, 57, 58 and 59 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

c. WQC for is granted with conditions for NWP 1. The condition is:

> Aids to navigation may not be placed on Tribal lands or waters without prior written permission from the Miccosukee Tribe.

Therefore, Permittees performing activities under the authority of NWP 1 must comply with this condition.

d. WQC is granted with conditions for NWP 2. The condition is:

> A structure may not be located on Tribal lands or in Tribal waters without prior written approval from the Miccosukee Tribe.

Therefore, Permittees performing activities under the authority of NWP 2 must comply with these conditions.

e. WQC is granted with conditions for NWP 5. The condition is:

> Scientific measurement devices may not be located on Tribal lands or waters without prior written approval from the Miccosukee Tribe.

Therefore, Permittees performing activities under the authority of NWP 5 must comply with this condition.

f. WQC is granted with conditions for NWP 6. The condition is:

> Seismic exploratory devices or exploratory activities may not be located on Tribal lands or waters without prior written approval of the Miccosukee Tribe. Additionally, the use of ground penetrating radar or isotope technology are not authorized on Tribal lands or waters without the prior written approval of the Miccosukee Tribe.

Therefore, Permittees performing activities under the authority of NWP 6 must comply with these conditions.

g. WQC is granted with conditions for NWP 46. The condition is:

> No discharges are authorized on Tribal lands or into Tribal waters without the prior written approval of the Miccosukee Tribe.

Therefore, Permittees performing activities under the authority of NWP 46 must comply with this condition.

h. WQC is granted with conditions for NWP 54. The condition is:

> Structures may not be located on Tribal lands or waters without prior written approval of the Miccosukee Tribe. Discharge material must be in accordance with the written approval of the Miccosukee Tribe.

Therefore, Permittees performing activities under the authority of NWP 54 must comply with these conditions.

3. Seminole Tribe of Florida.

a. WQCs for NWPs 4, 5, 6, 15, 16, 18, 19, 20, 22, 23, 25, 27, 30, 31, 32, 36, 37, 38, 40, 41, 42, 43, 44, 45, 48 and 53 are granted without conditions. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

b. WQC is granted with conditions for NWPs 3, 7, 13, 14, 17, 33, 46, and 59. The conditions are:

1. Applicants for this NWP shall utilize Best Management Practices, including but not limited to, proper installation of temporary erosion and sediment control measures (for example secured hay bales, silt and turbidity screens) to reduce turbidity and maintain transparency; and

2. Applicants for this NWP shall ensure that any fill placed in Tribal waters be clean fill that is free of solid waste, toxic, or hazardous contaminants.

Therefore, Permittees performing activities under the authority of these NWPs must comply with these conditions.

c. WQCs for NWPs 12, 29, 39, 51, 52, 57 and 58 have been granted with conditions but the conditions are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

d. WQCs for NWPs 21, 50, 55, and 56 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

e. WQCs for NWPs 34, 49 and 54 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

f. WQCs for NWPs 1, 2, 8, 9, 10, 11 and 24 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for their activity.

g. WQC is granted with conditions for NWP 28. The condition is:

Prior written approval from the Seminole Tribe is required before commencing an activity under this NWP.

Therefore, Permittees performing activities under the authority of NWP 28 must comply with this condition.

h. WQC is granted with conditions for NWP 35. The conditions are:

1. Maintenance dredging is authorized to a depth that is within ½ foot of the adjacent access or outlet channel bottom depth or the originally excavated depth, whichever is greater;

2. This permit does not authorize the removal of plugs or connections of any canal to navigable waters of the U.S.;

3. Documentation shall be provided showing the originally authorized depth or showing the current depth of the adjacent access or outlet channel bottom; and

4. Prior written approval from the Seminole Tribe is required before commencing an activity under this NWP.

Therefore, Permittees performing activities under the authority of NWP 35 must comply with these conditions.

4. Puerto Rico.

a. WQCs for NWPs 12, 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58 are waived. Therefore, there is no requirement for a prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for the activity.

b. NWPs 1, 2, 8, 9, 10, 11, 24, 28 and 35 do not require a WQC. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for the activity.

c. WQCs for NWPs 4, 5, 6, 20, 27, 30, 32, 37 and 38 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for the activity.

d. WQCs are granted with conditions for activities under NWPs 3, 7, 13, 14, 15, 16, 17, 18, 19, 22, 23, 25, 31, 33, 34, 36, 41, 45, 46, 49, 53, 54 and 59 **except for activities conducted in Outstanding National Resources Waters** as defined in Part 11.C of the Puerto Rico Department of Natural and Environmental Resources' (DNER's) *Anti-degradation Policy Implementation Procedure* (Attachment A of the *Puerto Rico Water Quality Standards Regulation* (PRWQSR)) (*see* paragraph 4.e. below). Prospective permittees must comply with the special conditions established in the attached General Water Quality Certificate (GWQC) that DNER issued for these NWPs for activities that are **not in Outstanding National Resources Waters**. Permittees performing activities under the authority of these NWPs must comply with the special conditions in the GWQC.

e. WQCs are denied for all activities under NWPs 3, 7, 13, 14, 15, 16, 17, 18, 19, 22, 23, 25, 31, 33, 34, 36, 41, 45, 46, 49, 53, 54 and 59 **if the activities are conducted in Outstanding National Resources Waters**. Therefore, in accordance with NWP General Condition 25, the prospective Permittee must obtain an individual WQC or a waiver for activities authorized by these NWPs if there will be a discharge into an Outstanding National Resources Water. Prospective Permittees must follow applicable rules in 40 C.F.R. Part 121, *State Certification of Activities Requiring a Federal License or Permit*.

f. CZMA consistency concurrence was not received for NWPs 29, 39, 40, 42, 44, 46 and 51. In accordance with NWP General Condition 26, "the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP." The Puerto Rico Planning Board states the following:

> Applicants of projects that qualify for USACE authorization through these NWPs must fill a Joint Permit Application to obtain a Federal Consistency Certificate with the PRCZCMP [Puerto Rico Coastal Zone Management Program]. The PR Planning Board will conduct a regular Federal Consistency review process in these cases and the submitted projects must demonstrate compliance with the state requirements. This Federal Consistency Certification does not exempt the project to comply with other federal or state requirements.

g. CZMA consistency concurrence was granted for NWPs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 41, 43, 45, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, and 59. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual CZMA consistency determination for an activity under these NWPs.

5. U.S. Virgin Islands.

a. WQCs for NWPs 12, 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58 are waived. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual WQC or waiver for an activity under these NWPs.

b. WQCs are denied for NWPs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 41, 45, 46, 49, 53, 54 and 59. Therefore, in accordance with NWP General Condition 25, the prospective Permittee must obtain an individual WQC or a waiver for activities authorized by these NWPs that propose a discharge into waters of the U.S. by following applicable rules in 40 C.F.R. Part 121, *State Certification of Activities Requiring a Federal License or Permit*.

c. CZMA consistency concurrence was presumed to be granted for NWPs 12, 21, 29, 39, 40, 42, 43, 44, 48, 50, 51, 52, 55, 56, 57, and 58. Therefore, there is no requirement for the prospective Permittee to obtain and submit to the Corps an individual CZMA consistency determination for an activity under these NWPs.

d. CZMA consistency concurrence was denied for NWPs 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 41, 45, 46, 49, 53, 54 and 59. In accordance with NWP General Condition 26, "the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP."

## F. DEFINITIONS AND ACRONYMS.

1. Puerto Rico: Culebra Island; the coastal zone of La Parguera from Punta Jorobado for a distance of approximately twenty kilometers west to Cabo Rojo; Cartagena Lagoon; Tortuguero Lagoons; Mona Island; Forest Reserve Area at Piñones and Torrecilla; Las Cabezas; El Yunque; Jobos Bay; Mar Negro; Río Mameyes; Las Cucharillas Marsh; Caño Tiburones; Rio Herrera/Miñi-Miñi/Mediania area; entire Municipality of Cabo Rojo; Caño Boquillas west of PR-2; Cayures Marsh in Aguada and its contiguous wetlands; the basin wetlands of Bajuras at Isabela, Camuy, and Carrizales in Arecibo; Prieta wetlands at Vega Alta; San Pedro wetlands in Dorado and Toa Alta; Cienaga Baja in Río Grande; wetlands associated with Herrera and Espiritu Santo Rivers; coastal wetlands of Santa Isabel; and all Commonwealth designated Natural Reserve areas. Also, areas along Martin Pena Channel and associated wetlands; Piñones State Forest wetlands; Torrecilla Alta Pterocarpus Forest, Loiza; El Faro (Cabezas de San Juan), Fajardo; wetlands in the Guanica State Forest; Humacao Swamp and Pterocarpus Forest; Caja de Muertos, Ponce; Jobos Bay, Salinas; Mar Negro, Salinas; Boqueron State Forest, Cabo Rojo; Dorado Pterocarpus Forest; Vieques Bioluminescent Bay; Laguna Tortuguero; Caño Tiburones; Espinar Swamp (Aguada-Aguadilla); Laguna Joyuda mangroves, Cabo Rojo; Pandura and Guardarraya Special Planning Area; and Ceiba State Forest.

2. U.S. Virgin Islands. St. Croix: Annally; Green Cay; Isaac Bay; Cramer's Park and East Point; Sandy Point; Salt River; Teague Bay Reef; Vagthus Point; Altonna Lagoon. St. John: all cays; Lagoon Point Newfound Bay; Chocolate Hole; Fish Bay. St. Thomas: Botany Bay and Sandy Bay; Coki Cliffs; Mangrove Lagoon (in its entirety); Bovoni wetland area; all cays; Cane Bay; Magens Bay; Mandahl Bay; Neltjeberg Bay and Stumpy Bay.

3. For NWP 43, for activities other than in wetlands adjacent to Deer Point Lake and its tributaries in Bay County, Florida, the notification requirements in NWP 43 apply with the clarification in the Notification section that maintenance activities do not require pre-construction notification if they are limited to restoring the original design capacities.

4. Antilles: For purposes of these regional conditions, the term "Antilles" means the geographic extents of both the Commonwealth of Puerto Rico and the Territory of the U.S. Virgin Islands.

5. The term "coral assemblage" includes coral reefs and hardbottom communities, which host species of corals listed under the Endangered Species Act, as well as other hard and soft coral communities.

6. <reserved>.

7. The term "submerged aquatic vegetation" means the occurrence of one or more species of seagrass, including, but not limited to, the following: turtle grass (*Thalassia testudinum*), manatee grass (*Syringodium filiforme*), shoal grass (*Halodule wrightii*), and dwarf seagrass (*Halophila spp*).

8. Marine Protected Area (MPA): In accordance with Executive Order 13158 (May 26, 2000), a marine protected area is defined as “any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein.”

9. Use of gabions for flood control, river channelization or bank stabilization shall not provide a permanent or long-term solution (DNER 2009, Guía Para el Manejo de Ríos en Puerto Rico). Gabions are subject to mesh failure, scour or undercutting, collapse and hydraulic impacts of the water itself. The use of gabions or reno mattress should not be used in coastal areas or large river systems. The removal of accumulated sediments and debris near bridges is limited to 50 feet upstream and downstream of the bridge. Heavy equipment shall work from existing upland areas (i.e., bridges, upland banks) whenever possible. If heavy equipment must be used within a channel, the removal of riparian vegetation is limited to the access and egress point. The elimination of riverine features, such as point bars and pools, is not authorized pursuant to these NWPs. Post construction, all temporary fords or crossings shall be removed; banks and channel shall be returned to pre-existing contours and depths. The stream banks shall be fully stabilized using stream bank restoration treatments.

10. The optimal window for benthic survey of submerged aquatic vegetation is during the period June 1 through September 30. The Jacksonville District’s Source Book should be accessed for guidance and information on benthic survey protocol, such as the NMFS *Submerged Aquatic Vegetation Survey Guidelines* (May 7, 2018).

11. More information on Living Shorelines can be obtained from the following website: http://www.dep.state.fl.us/northwest/ecosys/section/living_shorelines.htm. This website link is provided for information only and does not imply support for, or opposition to, living shorelines.

12. <reserved>.

13. Acronyms Used in Regional Conditions:

Corps: U.S. Army Corps of Engineers
EPA: U.S. Environmental Protection Agency
FDEP: Florida Department of Environmental Protection
NMFS: National Marine Fisheries Service
NOAA: National Oceanic and Atmospheric Administration
PCN: Pre-construction notification
USFWS: U.S. Fish and Wildlife Service

## G. DISTRICT POINT OF CONTACT.

Regulatory Division
Jacksonville District, U.S. Army Corps of Engineers
U.S. Mail: PO Box 4970, Jacksonville, FL 32232-0019

Physical: 701 San Marco Blvd, Jacksonville, FL 32207
General inquiry phone (904) 232-1177
General inquiry email: SAJ-RD@usace.army.mil
Inquiries will be routed to the current Project Manager for response.

**H. ATTACHMENT.**

Puerto Rico General Water Quality Certificate

**DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES**
**GENERAL WATER QUALITY CERTIFICATE**

This General Water Quality Certificate (GWQC) applies to any discharge resulting from activities authorized by Nationwide Permits (NWPs) number 3, 7, 13, 14, 15, 16, 17, 18, 19, 22, 23, 25, 31, 33, 34, 36, 41, 45, 46, 49, 53, 54 and 59 conducted in all waters except in Outstanding National Resources Waters (ONRWs) as defined in Part II.C of the Department of Natural and Environmental Resources (DNER) Anti-degradation Policy Implementation Procedure (Attachment A of the Puerto Rico Water Quality Standards Regulation (PRWQSR)).

Section 401 of the Federal Clean Water Act, as amended (33 U.S.C. 466 *et seq.*) (CWA), requires that prior any federal agency can issue a permit or license to conduct any activity that may result in the discharge of pollutants into waters of the United States, a WQC must be obtained from the state Agency with jurisdiction over water pollution control. In Puerto Rico, such agency is the DNER, pursuant to Law No. 416-2004, Public Environmental Policy Act and after the enactment of the "Reorganization Plan of the Department of Natural and Environmental Resources of 2018", Law No. 171-2018.

Pursuant to Section 401 (a)(1) of the CWA, after due consideration of the applicable provisions established in the PRWQSR, as amended, and in Sections 301, 302, 303, 306 and 307 of the CWA, it is certified that there is reasonable assurance, as determined by the DNER, that the potential discharges resulting from activities authorized by the aforementioned NWPs will comply with water quality requirements, as defined in 40 CFR Part 121.1(n), subject to compliance with the Special Conditions of this GWQC. The Special Conditions shall be incorporated into the corresponding NWPs to satisfy the provisions of Section 301 (b)(1)(C) of the CWA.

## A. SPECIAL CONDITIONS

The following Special Conditions are authorized by Article 9 of the Environmental Public Policy Act, Law No. 416-2004, as amended.

1. The DNER, by the issuance of this GWQC, does not relieve the permittee from its responsibility to obtain additional permits or authorizations from the DNER or other state and federal agencies, as required by law. The issuance of the GWQC shall not be construed as an authorization to conduct activities not specifically covered in the GWQC, which will cause water pollution as defined by the PRWQSR, as amended.

2. To be covered under this GWQC, the permittee for the NWP must complete and submit to the Points Sources Permits Division of the DNER, the form entitled Notice of Intent to be Covered by the General Water Quality Certificate for Applicable Cases of the U.S. Corps of Engineers Nationwide Permits, DNER Form GWQC-02 (Attachment 1). Such form shall be submitted electronically to the following address: fuentesprecisadas@jca.pr.gov.

3. The permittee must develop and implement a Pollution Prevention Plan that includes, but is not limited to, the following:

    a. measures to prevent and control the spills of pollutants, including all necessary measures to prevent residues of organic and inorganic substances, such as oils, fuels or other

chemical substances, from being carried away by runoff and gaining access to a water body;

b. countermeasures to be implemented in case of emergencies (breakage of sanitary lines, drinking water, gas, among others).

4. The permittee shall install, maintain, and operate all water pollution control equipment in such manner as to be in compliance with the Applicable Rules and Regulations. These Applicable Rules and Regulations include the water quality standards and all other requirements established by the PRWQSR or by other laws or regulations of Puerto Rico, concerning the conservation and protection of the natural resources that may affect the quality of the water resources.

5. The permittee shall take all necessary control measures to avoid violations of the water quality standards applicable to any water body that may be affected by the activity. These measures should include, but limited to, the following parameters:

- Color
- Dissolved Oxygen
- Oil and Grease
- pH
- Solids and Other Matter
- Surfactants as MBAS
- Suspended, Colloidal or Settleable Solids
- Taste or Odor Producing Substances
- Turbidity

6. The permittee must request and obtain the Consolidated General Permit or the General Permit for Other Works from the Permits Management Office (*Oficina de Gerencia de Permisos, OGPe*), in accordance with the Regulation for the Processing of General Permits (Regulation Number 7308) and the Regulation for the Control of Erosion and Prevention of Sedimentation (Regulation Number 5754), if applicable.

7. For activities that generate return waters, the permittee shall:

a. Within a term no greater than thirty (30) days after the date of the verification letter issued by the COE, the permittee must submit to the DNER a method for measure or estimate the flow of the return waters discharge (discharge 001). If a flow-measuring device is installed, it must be periodically calibrated and properly maintained. A record of calibration and maintenance shall be kept.

b. Within a term no greater than thirty (30) days after the date of the verification letter issued by COE, the permittee must submit for the evaluation and approval of the DNER, the location of the sampling point for discharge 001, which must be located immediately after the flow-measuring device.

c. The sampling point for discharge 001 shall be labeled with an 18 inches per 12 inches (minimum dimensions) sign that reads as follow:

<u>"Punto de Muestreo para la Descarga 001"</u>

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d. The permittee must implement a bi-weekly monitoring plan or when the flow occurs, for the following parameters as specified below:

| Effluent Characteristics | Monitoring Requirements<br>Measurements Frequency | Sample Type |
|---|---|---|
| Color (Pt-Co Units) | ϕ | Grab |
| Dissolved Oxygen (mg/L) | ϕ | Grab |
| Flow (MGD) | Continuous Recording or Estimated | |
| Oil and Grease (mg/L) | ϕ | Grab |
| pH (SU) | ϕ | Grab |
| Surfactants as MBAS (µg/L) | ϕ | Grab |
| Suspended, Colloidal or Settleable Solids (mL/L) | ϕ | Grab |
| Temperature (°C) | ϕ | Grab |
| Turbidity (NTU) | ϕ | Grab |

ϕ Bi-weekly or When Flow Occurs

e. The waters of Puerto Rico shall not contain any substance attributable to discharge 001, at such concentration which, either alone or as result of synergistic effects with other substances, is toxic or produces undesirable physiological responses in human, fish or other fauna or flora.

f. The discharge 001 shall not cause the presence of oil sheen in the receiving water body.

g. All sample collection, preservation, and analysis shall be carried out in accordance with the Title 40 of the Code of Federal Regulations (40 CFR), Part 136. A licensed chemist authorized to practice the profession in Puerto Rico shall certify all chemical analyses.

h. The permittee shall submit to the DNER a monthly report of the results of the sampling of discharge 001. The reports shall be submitted to the following address:

Department of Natural and Environmental Resources
Point Sources Permits Division
Water Quality Area
San José Industrial Park
1375 Ave. Ponce de León
San Juan, Puerto Rico 00926

8. For activities that include the extraction and/or dredging of material, the permittee shall keep a log for the material extracted during the activities authorized in the permit, where the following is detailed:

   a. approximate volume and weight;
   b. method by which it is removed and transported;
   c. final disposal of such material and location;
   d. person that performs the service;
   e. removed material and date.

   A copy of the Non-Hazardous Solid Waste Collection or Transportation Services Permit issued by the authorized official from the DNER must be attached to the log book.

9. For activities that include the extraction and/or dredging of material, the material extracted during the activities authorized in the permit shall be transported adequately in such way that access is not gained to any water body or soil. In the event of a spill of the extracted material on land or into a water body, the permittee shall notify the Point Sources Permits Division of the DNER's Water Quality Area in writing within a term no longer than twenty-four (24) hours after the spill to the following electronic address: bypass@jca.pr.gov. This notification shall include the following information:

   a. spill material,
   b. spill volume,
   c. measures taken to prevent the spill material to gain access to any water body or measures taken to clean and/or mitigate the impact of the spill material in the water body.

   This special condition does not relieve the permittee from its responsibility to obtain the corresponding permits from the DNER's Land Pollution Control Area and other state and federal agencies, if any.

**B. CITATION AND JUSTIFICATION FOR SPECIAL CONDITIONS (40 CFR 121.7(d)(2))**

| Special Condition | Statement explaining why the condition is necessary (40 CFR 121.7(d)(2)(i)) | Citation to federal or state law that authorizes the condition (40 CFR 121.7(d)(2)(ii)) |
|---|---|---|
| 1 | This special condition is necessary to establish the extent and coverage of the GWQC in compliance with the requirements of the PRWQSR and Law No. 416-2004. | • Rule 1306.1.B of the PRWQSR<br>• Law No. 416-2004 |
| 2 | This special condition is necessary to provide DNER with general information and description of the proposed activity to be covered by the GWQC. | • Law No. 416-2004 |
| 3 | This special condition is necessary to require the permittee to establish the Best Management Practice to prevent pollutants coming from the proposed | • Rule 1306.5 of the PRWQSR<br>• Law No. 416-2004 |

| Special Condition | Statement explaining why the condition is necessary (40 CFR 121.7(d)(2)(i)) | Citation to federal or state law that authorizes the condition (40 CFR 121.7(d)(2)(ii)) |
|---|---|---|
| | activities gaining access to the water body, in such manner that the permitted activity comply with the applicable water quality requirements established in the PRWQSR and Section 303 of the CWA. | |
| 4 | This special condition is necessary to require the permittee to establish control measures to prevent pollutants coming from the proposed activities gaining access to the water body, in such manner that the permitted activity comply with the applicable water quality requirements established in the PRWQSR and Section 303 of the CWA. | • Rule 1306.1.B.1 of the PRWQSR<br>• Rule 1306.6.A.1 of the PRWQSR<br>• Law No. 416-2004 |
| 5 | This special condition is necessary to require the permittee to establish control measures to prevent pollutants coming from the proposed activities gaining access to the water body, in such manner that the permitted activity comply with the applicable water quality requirements established in the PRWQSR and Section 303 of the CWA. | • Rule 1301 of the PRWQSR<br>• Rule 1303 of the PRWQSR<br>• Rule 1306.2 of the PRWQSR<br>• Law No. 416-2004 |
| 6 | This special condition is necessary to require the permittee to establish the Best Management Practice to prevent that solids and other pollutants coming from the proposed activities gaining access to the water body, in such manner that the permitted activity comply with the applicable water quality requirements established in the PRWQSR, Section 303 of the CWA and other state regulations promulgated pursuant to Law No. 416-2004, such as the Regulation for the Control of Erosion and Prevention of Sedimentation. | • Rule 1306.1.B.1 of the PRWQSR<br>• Regulation for the Control of Erosion and Prevention of Sedimentation<br>• Regulation for the Processing of General Permits<br>• Law No. 416-2004 |
| 7 | This special condition is necessary to establish source monitoring, record keeping, reporting, sampling, and testing methods requirements in the GWQC, to applicable discharges to comply with water quality requirements established in the PRWQSR. Also, this condition is necessary to prevent solid and other pollutants coming from the proposed activity to gain access to the water bodies in such amount that could cause violations to the applicable water quality standards and have adverse effects in the designated or existing uses of the receiving water body. | • Rule 1301 of the PRWQSR<br>• Rule 1303 of the PRWQSR<br>• Rule 1306.2 of the PRWQSR<br>• Law No. 416-2004 |
| 8 | This special condition is necessary to establish source monitoring, record keeping, reporting, sampling, and testing methods requirements in the GWQC, to applicable discharges to comply with water quality | • Rule 1306.1.B.1 of the PRWQSR |

| Special Condition | Statement explaining why the condition is necessary (40 CFR 121.7(d)(2)(i)) | Citation to federal or state law that authorizes the condition (40 CFR 121.7(d)(2)(ii)) |
|---|---|---|
| | requirements established in the PRWQSR. Also, this condition is necessary to prevent solid and other pollutants coming from the proposed activity to gain access to the water bodies in such amount that could cause violations to the applicable water quality standards and have adverse effects in the designated or existing uses of the receiving water body. | • Rule 1306.2 of the PRWQSR<br>• Law No. 416-2004 |
| 9 | This special condition is necessary to require the permittee to establish the Best Management Practice to prevent that solids and other pollutants coming from the proposed activities gaining access to the water body, in such manner that the permitted activity comply with the applicable water quality requirements established in the PRWQSR, and Law No. 416-2004. Also, this condition is necessary to establish record keeping and reporting requirements in the GWQC, to comply with water quality requirements established in the PRWQSR. | • Rule 1306.1 of the PRWQSR<br>• Rule 1306.2 of the PRWQSR<br>• Rule 1306.4 of the PRWQSR<br>• Law No. 416-2004 |

In San Juan, Puerto Rico, October 12, 2021.

Rafael A. Machargo Maldonado
Secretary

# GENERAL WATER QUALITY CERTIFICATE

## ATTACHMENT 1

**DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES**

**WATER QUALITY AREA**
**Point Sources Permits Division**

NOTICE OF INTENT TO BE COVERED BY THE GENERAL WATER QUALITY CERTIFICATE FOR APPLICABLE CASES OF THE U. S. CORPS OF ENGINEERS NATIONWIDE PERMITS

(NWPs 3, 7, 13, 14, 15, 16, 17, 18, 19, 22, 23, 25, 31, 33, 34, 36, 41, 45, 46, 49, 53, 54 and 59)

| I. COE PERMIT INFORMATION | | |
|---|---|---|
| COE Application Number | Latitude | Longitude |
| | | |

| II. AFFECTED WATER BODY |
|---|
| |

| III. NAME OF PROJECT |
|---|
| |

| IV. APPLICANT | |
|---|---|
| Name | |
| | |
| Title | Phone |
| | - - |

| V. APPLICANT MAILING ADDRESS | | |
|---|---|---|
| Street or P.O. Box | | |
| | | |
| City or Town | Zip Code | 4+ Optional |
| | | |

| VI. PROJECT LOCATION | | |
|---|---|---|
| Street, Route Number or Other Specific Identifier | | |
| | | |
| City or Town | Zip Code | 4+ Optional |
| | | |

| VII. PROVIDE A BRIEF DESCRIPTION AND PURPOSE OF THE PROJECT |
|---|
| |
| VIII. ENCLOSED CERTIFICATION OF COMPLIANCE WITH ARTICLE 4 (B)(3) OF LAW NO. 416 OF SEPTEMBER 22, 2004, AS AMENDED. |
| ☐ Yes ☐ No |
| IX. ENCLOSED LETTER FROM THE COE INDICATING THE TYPE OF NWP APPLICABLE TO THE PROJECT AND STATING THAT THE APPLICATION FOR A COE PERMIT IS COMPLETE. |
| ☐ Yes ☐ No |
| X. ENCLOSED EFFLUENT CHARACTERIZATION (ONLY FOR ACTIVITIES THAT GENERATE RETURN WATERS) |
| ☐ Yes ☐ No ☐ NA |
| XI. CERTIFICATION |
| I certify under penalty of perjury, under the laws of Puerto Rico that all information and the attachments submitted in this application are true, accurate and complete to the best of my knowledge and belief. Also, I certify that I have read the information submitted and understand all the Special Conditions that constitute the GWQC in order to comply with the applicable water quality requirements. |
| Name |
| |
| Official Title |
| |

| Signature | Date Signed | | | |
|---|---|---|---|---|
| | MM | DD | YY | |
| | | | | |

# COMMENCEMENT NOTIFICATION

*Within ten (10) days of initiating the authorized work, submit this form to via electronic mail to saj-rd-enforcement@usace.army.mil (preferred, not to exceed 15 MB)* ***or*** *by standard mail to U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019.*

1. **Department of the Army Permit Number**: SAJ-2022-02574(NWP-BMC)

2. **Permittee Information**:

   Name: _____

   Email: _____

   Address: _____

   _____

   Phone: _____

3. **Construction Start Date**: _____

4. **Contact to Schedule Inspection**:

   Name: _____

   Email: _____

   Phone: _____

_____
Signature of Permittee

_____
Printed Name of Permittee

_____
Date

# AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

*Submit this form and one set of as-built engineering drawings to the U.S. Army Corps of Engineers, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019. For electronic mail* saj-rd-enforcement@usace.army.mil *(not to exceed 15 MB).*

1. Department of the Army Permit Number: SAJ-2022-02574 (NWP-BMC)

2. Permittee Information:

Name: _____

Address: _____

_____

3. Project Site Identification (physical location/address):

_____

_____

_____

4. As-Built Certification: I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled, and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

_____ _____
Signature of Engineer Name (*Please type*)

_____ _____
(FL, PR, or VI) Reg. Number Company Name

_____ _____ _____
City State ZIP

(Affix Seal)

_____ _____
Date Telephone Number

Date Work Started:_____ Date Work Completed:_____

Identify any deviations from the approved permit drawings and/or special conditions (attach additional pages if necessary):

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

# STANDARD MANATEE CONDITIONS FOR IN-WATER WORK

2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

# CAUTION: MANATEE HABITAT

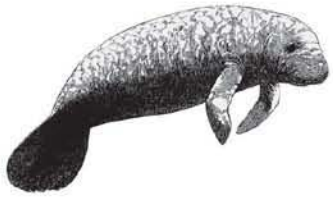
**All project vessels**

## IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

## SHUT DOWN

Report any collision with or injury to a manatee:



**Wildlife Alert:**

**1-888-404-FWCC(3922)**

cell *FWC or #FWC

**DEPARTMENT OF THE ARMY PERMIT TRANSFER REQUEST**

**DA PERMIT NUMBER: SAJ-2022-02574 (NWP-BMC)**

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. Although the construction period for works authorized by Department of the Army permits is finite, the permit itself, with its limitations, does not expire.

To validate the transfer of this permit and the associated responsibilities associated with compliance with its terms and conditions, have the transferee sign and date below and mail to the U.S. Army Corps of Engineers, Enforcement Section, Post Office Box 4970, Jacksonville, FL 32232-0019 or submit via electronic mail to: SAJ-RD-Enforcement@usace.army.mil (not to exceed 15 MB).

_____
**(TRANSFEREE-SIGNATURE)**

_____
**(DATE)**

_____
**(NAME-PRINTED)**

_____

_____
**(MAILING ADDRESS)**

_____
**(CITY, STATE, ZIP CODE)**

_____
**(SUBDIVISION)**

_____ _____
**(LOT)** **(BLOCK)**

_____
**(STREET ADDRESS)**

# APPENDIX B
**FDEP Permit**

# FLORIDA DEPARTMENT OF
# Environmental Protection

Northeast District
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

**Ron DeSantis**
Governor

**Jeanette Nuñez**
Lt. Governor

**Shawn Hamilton**
Secretary

**Permittee:**
Levy County Board of County Commissioners
C/O Matt Weldon
Director of Parks and Recreation
620 N Hathaway Avenue,
P.O. Box 248, Bronson Florida 32621
parksmc@levycounty.org

**Authorized Consultant:**
Walter Nickel
Wright-Pierce Company
601 S Lake Destiny Drive, Suite 290
Maitland, Florida 32751
Walter.nickel@wright-pierce.com

## Shell Mound Boat Ramp Dredge

## Environmental Resource Permit

## State-owned Submerged Lands Authorization – Not Applicable

## U.S. Army Corps of Engineers Authorization – Separate Corps Authorization Required

## Levy County
## Permit No.: 38-0425518-001 EI

## Permit Issuance Date: June 28, 2023
## Permit Construction Phase Expiration: June 28, 2028

# Environmental Resource Permit

**Permittee: Levy County**
**Permit No: 38-0425518-001-EI**

## PROJECT LOCATION

The activities authorized by this permit are located at 17650 SW 78 Place, parcel ID number 0005900000, Cedar Key, Florida 32625 and parcel ID number 0005800000, in Section 1, Township 15 South, Range 12 East, in Levy County, at Latitude 29°12'38.2924" / Longitude -83°3'50.2254".

## PROJECT DESCRIPTION

The permittee is authorized to dredge approximately 4,400 cubic yards of material over 0.96 acres within a previously dredged channel that leads from the Shell Mound Boat Ramp to the Big Bend Seagrasses Aquatic Preserve in Cedar Key Florida. Dredging is limited to -5.5 ft below sea level, and 4.5 feet below Mean Low Water, within the previously dredged areas shown on the attached drawings. **DREDGING SHALL NOT EXCAVATE PAST ANY EXISTING HARDPAN OR LIMESTONE BOTTOM LAYERS OF THE CHANNEL.**

Dredging will be conducted via hydraulic methods, and then moved to seven, 50 ft wide by 60 ft long Geotech sediment bags that will be placed in uplands along the east side of the access road to the boat ramp. Temporary riprap of aggregate stone will be placed beneath each sediment bag to help contain sediments that escape during dewatering. A silt fence and/or other controls will be constructed around the entire area to be dewatered to prevent runoff into the adjacent wetlands and surface waters.

Work will be completed in two phases with a total of 4,400 cubic yards of material being removed. Once the first 50 ft wide by 60 ft long Geotech sediment bags are dewatered and full, the bags will be opened, and the material will be removed to lined dump trucks that will transport the material to either New River or Heart of Florida Landfill. A second set of seven Geotech bags will be used during the final phase of dredging. The project falls adjacent to the Big Bend Seagrasses Aquatic Preserve, a Class II, Outstanding Florida Waterbody, and Shellfish Harvesting Area. Authorized activities are depicted on the attached exhibits.

## AUTHORIZATIONS

**Shell Mound Boat Ramp Dredge**

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

As staff to the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), the Department has determined the activity is not on submerged lands owned by the State of Florida. Therefore, your project is not subject to the requirements of Chapter 253, F.S., or Rule 18-21, 8-20, F.A.C.

Federal Authorization
Your proposed activity as outlined on your application and attached drawings **does not qualify** for Federal authorization pursuant to the State Programmatic General Permit and a **SEPARATE permit** or authorization **shall be required** from the Corps. You must apply separately to the Corps using the Application for Department of the Army Permit (ENG 4345) or alternative as allowed by Corps regulations. More information on Corps permitting may be found online in the Jacksonville District Regulatory Division Sourcebook:

(https://www.saj.usace.army.mil/Missions/Regulatory/Source-Book/).
Authority for review - an agreement with the USACOE entitled "Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection (or Duly Authorized Designee), State Programmatic General Permit", Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Coastal Zone Management
Issuance of this authorization also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

Water Quality Certification
This permit also constitutes a: water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

Other Authorizations
You are advised that authorizations or permits for this activity may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

**PERMIT CONDITIONS**
The activities described must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. If you are using a contractor, the contractor also should read and understand these conditions and drawings prior to beginning any activity. Failure to comply with these conditions, including any mitigation requirements, shall be grounds for the Department to revoke the permit and authorization and to take appropriate enforcement action. Operation of the

facility is not authorized except when determined to be in conformance with all applicable rules and this permit.

**SPECIFIC CONDITIONS – PRIOR TO ANY CONSTRUCTION**

1. Prior to commencement of work authorized by this permit, the permittee shall provide written notification of the date of the commencement and proposed schedule of construction to the Department of Environmental Protection, Northeast District, 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256.

**SPECIFIC CONDITIONS – CONSTRUCTION ACTIVITIES**

2. This permit does not authorize the removal of any vegetation within the jurisdictional area. No dredging, filling, or other construction activity, including the removal of tree stumps and/or vegetative root masses, shall be conducted within the wetlands other than that performed within the specifically authorized work corridor.

3. Outside the specific limits of construction authorized by this permit, any disturbance of or damage to wetlands shall be corrected by restoring pre-construction elevations as to maintain natural hydrology, drainage patterns, and planting vegetation of the same species, size, and density that exist in adjacent undisturbed wetland areas.

4. The project shall comply with applicable State Water Quality Standards at the locations directly outside the turbidity curtains surrounding the work area, namely:

- Surface Waters, Minimum Criteria, General Criteria – Rule 62-302, F.A.C.
  i. Class II Waters – Shellfish Propagation or Harvesting – Rule 62-302.400, F.A.C.

5. There shall be no storage or stockpiling of tools, equipment, materials (e.g., lumber, pilings, riprap, and debris) within wetlands, along the shoreline within the littoral zone, or elsewhere within waters of the state unless specifically approved in this permit. Any and all construction debris shall be removed from wetlands/waters of the state within 14 days of completion of the work authorized by this permit.

6. There shall be no discharge of construction debris into the waters of the state as conditioned by this permit enforceable under the Florida Litter Law 403.413, F.S., by all law enforcement officers.

7. "Riprap" shall consist of unconsolidated boulders, rocks, or clean concrete rubble with no exposed reinforcing rods or similar protrusions. The riprap shall be free of sediment, debris and toxins or otherwise deleterious substances. Riprap shall have a diameter of at least 12 inches to 3 feet.

8. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the immediate vicinity of the discovery. The applicant shall contact the Florida Department of State,

Division of Historical Resources, Compliance Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately, and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*

**SPECIFIC CONDITIONS – MANATEES**

9. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with, and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

10. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.

11. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers shall not impede manatee movement.

12. All on-site project personnel are responsible for observing water-related activities for the presence of manatees. All in-water operations, including vessels, shall be shut down if a manatee comes within 50 feet of the operation. Activities shall not resume until every manatee has moved beyond the 50-foot radius of the project operation, or until 30 minutes has elapsed wherein a manatee has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.

13. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772562-3909) for south Florida.

14. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. Please see the Florida Fish and Wildlife Conservation Commission website for information on how to obtain appropriate signs: http://www.myfwc.com/docs/WildlifeHabitats/Manatee_EducationalSign.pdf

15. The Permittee shall install one (1) permanent manatee educational sign at the entrance to the boat ramp, facing land. This sign shall be maintained for the life of the facility and installed no later than 30 days after construction commencement. Signs shall be replaced by the Permittee in

accordance with FWC guidance if outdated, damaged or faded. Information on how to obtain this sign can be found at the FWC's website: http://www.myfwc.com/wildlifehabitats/managed/manatee/education-for-marinas/, and questions regarding this requirement can be sent to ImperiledSpecies@MyFWC.com.

**SPECIFIC CONDITIONS - OTHER LISTED SPECIES**

16. This permit does not authorize the permittee to cause any adverse impact to or "take" of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or permittee associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of "take" and a list of fish and wildlife species. If listed species are observed onsite, Florida Fish and Wildlife Conservation Commission (FWC) staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a "take" permit cannot be issued. Requests for further information or review can be sent to ConservationPlanningServices@MyFWC.com.

17. If new information (e.g. listing of new species, new critical habitat, etc.) shows that the magnitude of impacts to federally listed species has the potential for adverse effects, the U.S. Fish and Wildlife Service (USFWS) will notify the Department. The Department will initiate coordination with the permittee and with the USFWS to determine what adverse impacts are likely and if additional minimization measures, reporting, or monitoring are required in order to be consistent with the Endangered Species Act, as deemed necessary by USFWS.

18. The Permittee shall report any injured, sick, or dead federally or state listed animal(s) discovered onsite to the Florida Fish and Wildlife Conservation Commission Wildlife Alert number at 888-404-FWCC (3922).

**SPECIFIC CONDITIONS – DREDGING**

19. **DREDGING SHALL NOT EXCAVATE PAST ANY EXISTING HARDPAN OR LIMESTONE BOTTOM LAYERS OF THE CHANNEL.**

20. Prior to the initiation of any work authorized by this permit, floating turbidity screens with weighted skirts shall be placed around the dredge area. The screens shall be maintained and shall remain in place for the duration of the project construction to ensure that turbidity levels outside the construction area do not exceed the state water quality standard. The permittee 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.

21. Dredging shall be limited to day light; no dredging activities are authorized to be conducted at night.

22. State water quality standards shall be met during dredging operation as well as transporting and managing of dredged material. Anytime that dredging activities cause high turbidity that exceeds the water quality standard, or if the dredged material management system is unable to clarify dredged material to meet state water quality standards at its return line, the dredging

operation shall be suspended until adequate control measures have been installed. The problems shall be reported to DEP Northeast District Office at (904) 256-1700 within 24 hours of the detection. Flocculants shall not be used unless approved by the Department.

23. Turbidity levels outside the construction area **shall not exceed 29 NTU's** above background levels.

24. All spoil material shall be properly contained within the upland spoil cell area as shown on the attached drawings. A silt fence and/or other controls must be installed around the entire area to be dewatered to prevent runoff into the adjacent wetlands and surface waters.

25. All Dredged material shall be taken to an approved upland disposal location. During transportation of material to and from the spoil cell area, the material and site will be managed in a manner that prevents return of the spoil material to wetlands, other surface waters and all utilized roadways.

26. Areas to be dredged shall be dredged in accordance with the attached permit drawings and **shall not exceed the areas and depths indicated on those drawings**. **Discharge of water or dredged material to waters of the State shall not be allowed during disposal or transport.**

**SPECIFIC CONDITIONS – MONITORING/REPORTING REQUIREMENTS**

27. Turbidity Monitoring. Water turbidity levels shall be monitored if a turbidity plume is observed outside the limits of the required turbidity control devices. Samples shall be taken every four hours, one foot above the bottom, mid-depth, and one-foot below the surface at monitoring stations located as follows:

a. Approximately 100 feet up-current of the work sites and clearly outside the influence of construction activities. (This shall serve as the natural background sample against which other turbidity readings shall be compared.)
b. Directly outside the turbidity curtains surrounding the work sites and within the densest portion of any visible turbidity plume. (This sample shall serve as the compliance sample.)

28. If monitoring reveals turbidity levels greater than or equal to the turbidity limits contained in **Specific Condition Number 23** of this permit, the permittee shall take the following measures:

a. Immediately cease all work contributing to the water quality violation. Work which may contribute to the violation shall not resume until corrective measures have been taken and turbidity levels have returned to acceptable levels; and

b. Stabilize the dredge area contributing to the violation. Modify work procedures responsible for the violation, install additional turbidity containment devices, repair non-functioning turbidity containment devices; and

c. Increase monitoring frequency to every 2 hours until turbidity levels are within acceptable limits as specified in Specific Condition 16. Interim samples collected following the violation (s) shall be collected in the same manner and locations as the routine monitoring.

Operations may not resume until the water quality standard for turbidity has dropped below 29 NTU's.

d. The violation(s) shall be immediately reported to the Department. The report shall include the description of the corrective actions being taken or proposed to be taken. The report shall be made to the Department as soon as normal business hours resume if violation(s) are noted after normal business hours, on holidays, or on weekends. A copy of the monitoring data sheets, which indicate violation(s), shall be forwarded immediately to the Department.

e. Failure to report violation(s) or to follow correct procedures before resuming work shall constitute grounds for permit revocation and may subject the permittee to formal enforcement action.

**SPECIFIC CONDITIONS – CONSTRUCTION COMPLETION**

29. The permittee shall submit a final report within 14 days of completion of each dredging event, which includes the following information:

a. The dates of commencement and completion of construction,
b. A description of the dredging and disposal locations, methods and equipment used,
c. Tables of turbidity data collected at the dredging, beach and nearshore disposal sites shall be as follows:

| Sample Location & Collection Date | Background Sample Value/Depth | Compliance Sample Value/Depth | Difference Between Background & Compliance Sample |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

d. A statement identifying violations of the turbidity standard which occurred during the event, the probable cause of the violation, and the corrective measure(s) taken to reduce turbidity.

30. Within 14 days of the completion of the dredging activity, a disposal manifest from a Class I Landfill must be submitted to the Department that documents the receipt of all dredged materials.

**GENERAL CONDITIONS FOR INDIVIDUAL PERMITS**
The following general conditions are binding on all individual permits issued under this chapter, except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate project-specific conditions.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under chapter 373, F.S.

2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation, June 2007), and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," (October 1, 2013), (http://www.flrules.org/Gateway/reference.asp?No=Ref-02505), incorporated by reference herein, indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C., and shall be submitted electronically or by mail to the Agency. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

5. Unless the permit is transferred under rule 62-330.340, F.A.C., or transferred to an operating entity under rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms, and conditions of the permit for the life of the project or activity.

6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
   a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex – "Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or
   b. For all other activities – "As-Built Certification and Request for Conversion to Operation Phase" [Form 62-330.310(1)].
   c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

7. If the final operation and maintenance entity is a third party:
   a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as-built certification, whichever comes first, the permittee shall submit, as

applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Florida Department of State, Division of Corporations, and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
b. Within 30 days of submittal of the as-built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

9. This permit does not:
a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in chapter 62-330, F.A.C.;
b. Convey to the permittee or create in the permittee any interest in real property;
c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

12. The permittee shall notify the Agency in writing:
a. Immediately if any previously submitted information is discovered to be inaccurate; and
b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, stone tools, dugout canoes, metal implements, historic building materials, or any other physical remains that

could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section (DHR), at (850)245-6333, as well as the appropriate permitting agency office. Project activities shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and the proper authorities notified in accordance with section 872.05, F.S. For project activities subject to prior consultation with the DHR and as an alternative to the above requirements, the permittee may follow procedures for unanticipated discoveries as set forth within a cultural resources assessment survey determined complete and sufficient by DHR and included as a specific permit condition herein.

15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under rule 62-330.201, F.A.C., provides otherwise.

16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under chapter 62-330, F.A.C., or cause violations of state water quality standards.

17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

19. In addition to those general conditions in subsection (1), above, the Agency shall impose any additional project-specific special conditions necessary to assure the permitted activities will not be harmful to the water resources, as set forth in rules 62-330.301 and 62-330.302, F.A.C., Volumes I and II, as applicable, and the rules incorporated by reference in this chapter.

**NOTICE OF RIGHTS**

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

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rules 28-106.201 and 28-106.301, F.A.C., a petition for an administrative hearing must contain the following information:

(a) The name and address of each agency affected and each agency's file or identification number, if known;
(b) The name, address, any e-mail address, any facsimile number, and telephone number of the petitioner, if the petitioner is not represented by an attorney or a qualified representative; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination;
(c) A statement of when and how the petitioner received notice of the agency decision;
(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

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

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant and persons entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. You cannot justifiably rely on the finality of this decision unless notice of this decision and the right of substantially affected persons to challenge this decision has been duly published or otherwise provided to all persons substantially affected by the decision. While you are not required to publish notice of this action, you may elect to do so pursuant Rule 62-110.106(10)(a).

The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C. If you do not publish notice of this action, this waiver will not apply to persons who have not received written notice of this action.

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

Mediation
Mediation is not available in this proceeding.

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

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

Executed in Jacksonville, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

For:
Katie Sula Miller
Permitting Program Administrator

KSM:tg
**Attachments:**
Standard Manatee Construction Conditions 2011
Sea Turtle and Smalltooth Sawfish Construction Conditions
Project Plans, 21 Pages
Construction Commencement Notice/Form 62-330.350(1)
As-built Certification and Request for Conversion to Operational Phase/ Form 62-330.310(1)
Request to Transfer Permit/Form 62-330.340(1)
Operation and Maintenance Inspection Certification/Form 62-330.311(1)

Permit Expiration: June 28, 2028

**Copies furnished to:**
Andrew Gude, US Fish and Wildlife Service, Andrew_gude@fws.gov
Michael Hoffman, Wright-Pierce, Michael.hoffman@wright-pierce.com
Katie Sula Miller, FDEP NED
Shannon Taylor, FDEP NED
Paul Duff, FDEP NED
Tianna Goodhart, FDEP NED

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this permit, including all copies, were mailed before the close of business on June 28, 2023, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on June 28, 2023, under 120.52(7) of the Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

June 28, 2023
Date

**STANDARD MANATEE CONDITIONS FOR IN-WATER WORK**
2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.

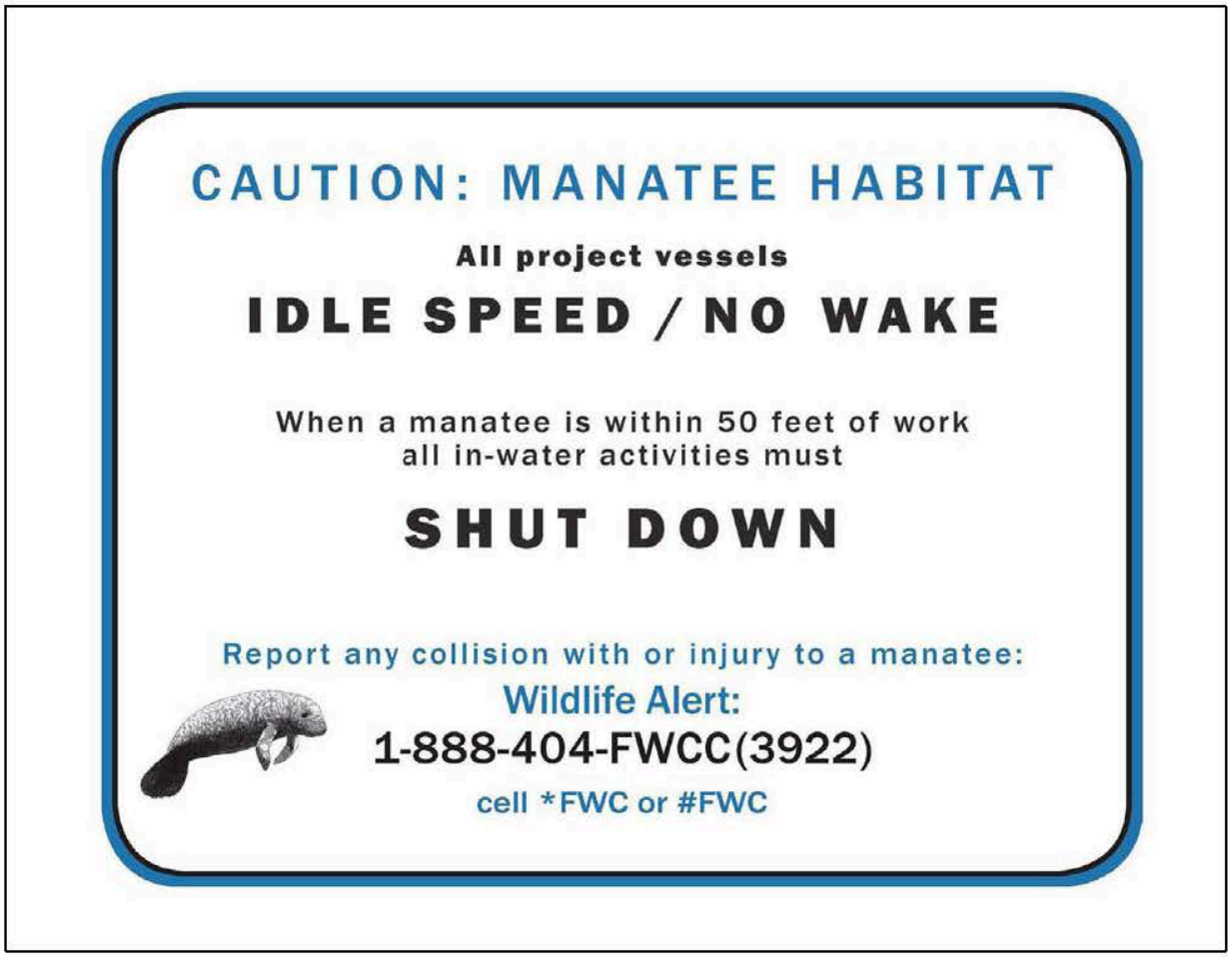
b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.

c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.

d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.

e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com

f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.


CAUTION: MANATEE HABITAT
All project vessels
IDLE SPEED / NO WAKE
When a manatee is within 50 feet of work
all in-water activities must
SHUT DOWN
Report any collision with or injury to a manatee:
Wildlife Alert:
1-888-404-FWCC(3922)
cell *FWC or #FWC

Permit Expiration: June 28, 2028

**UNITED STATES DEPARTMENT OF COMMERCE**
**National Oceanic and Atmospheric Administration**
**NATIONAL MARINE FISHERIES SERVICE**
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

## SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.

b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.

c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.

d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.

e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.

f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.

g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006
O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc

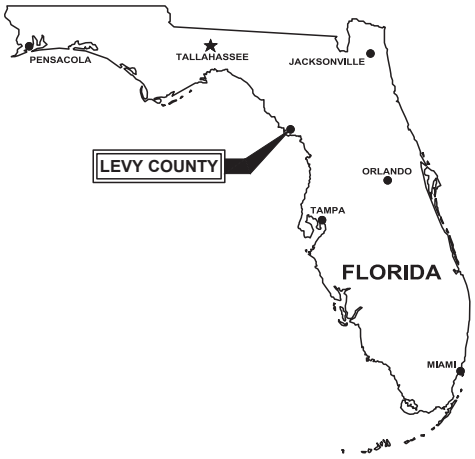
# COUNTY OF LEVY, FLORIDA

## CONTRACT DRAWINGS FOR

# SHELL MOUND BOAT RAMP DREDGING

## MAY 2023

## PERMIT

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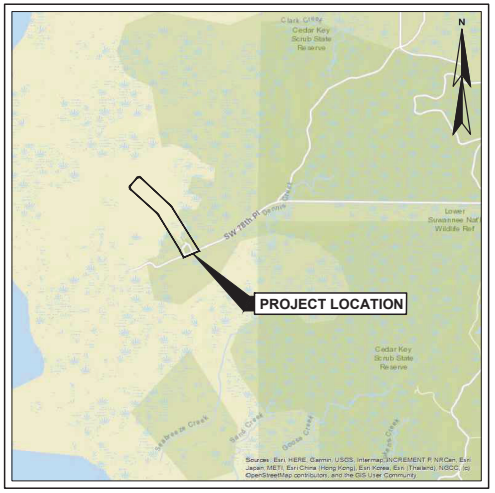


**LOCATION PLAN**
SCALE: NTS


WRIGHT-PIERCE
Engineering a Better Environment

800.422.1095 | www.wright-pierce.com


WP PROJECT No. 20850

## GENERAL NOTES

1. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING THE PERMITS LISTED IN THE SUPPLEMENTARY OR SPECIAL CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK PRIOR TO BIDDING AND ABIDE BY THOSE PROVISIONS DURING CONSTRUCTION. COPIES OF ALL OBTAINED PERMITS ARE AVAILABLE FOR REVIEW FROM THE OWNER. ALL OTHER PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TRAFFIC FLOW AT ALL TIMES. CONTRACTOR SHALL INSTALL AND MAINTAIN TRAFFIC CONTROL SIGNS IN ACCORDANCE WITH THE MUTCD AND ALL STATE AND LOCAL REGULATIONS. THE CONTRACTOR IS REQUIRED TO SUBMIT A TRAFFIC CONTROL PLAN TO THE OWNER PRIOR TO COMMENCING CONSTRUCTION. THE POLICE DEPARTMENT AND FIRE DEPARTMENT ARE TO BE NOTIFIED AT LEAST 24-HOURS IN ADVANCE OF ANY STREET CLOSING OR DETOUR. REFER TO SPECIFICATION SECTION 01570.

3. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

4. CONTRACTOR SHALL COMPLY WITH THE COORDINATION REQUIREMENTS AND RELATED COSTS, IF ANY, AS SPECIFIED IN SPECIFICATION SECTION 01050.

5. CONTRACTOR SHALL NOTE THAT, IN GENERAL, ALL EXISTING CONDITION INFORMATION ON THE DRAWINGS ARE SHOWN WITH A LIGHTER LINE WEIGHT AND WITH A SLANTED TYPE TEXT.

6. ALL EXISTING SEWER AND STORM DRAIN LINES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE. ANY EXISTING SEWERS, STORM DRAIN LINES OR CULVERTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, EXCEPT WHEN IN DIRECT CONFLICT WITH THE NEW SEWER OR WHEN NOT SHOWN OR INDICATED.

7. IN THOSE INSTANCES WHERE POWER OR TELEPHONE POLE SUPPORT IS REQUIRED, THE CONTRACTOR SHALL PROVIDE A MINIMUM 48-HOUR NOTICE TO THE RESPECTIVE UTILITY POLE OWNER. NO ADDITIONAL PAYMENT WILL BE PROVIDED FOR TEMPORARY BRACING OF UTILITIES.

## EXISTING SITE CONDITIONS

1. THE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES, AS SHOWN ON THE DRAWINGS, ARE APPROXIMATE AND MAY NOT BE COMPLETE. NO GUARANTEE IS MADE THAT UTILITIES OR STRUCTURES WILL BE ENCOUNTERED WHERE SHOWN, OR THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. ALL LOCATIONS AND SIZES OF EXISTING UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD WITH TEST PITS AS REQUIRED PRIOR TO BEGINNING CONSTRUCTION OF NEW FACILITIES OR PIPING THAT MAY BE AFFECTED. THE CONTRACTOR WILL REALIGN NEW PIPE LOCATIONS AS REQUIRED TO CONFORM TO EXISTING LINES AND AS APPROVED BY THE ENGINEER.

2. BELOW GRADE UTILITY INFORMATION IS BASED ON INFORMATION PROVIDED BY EACH UTILITY. LOCATION OF PUBLIC UTILITIES SHOWN IS ONLY APPROXIMATE AND MAY NOT BE COMPLETE. PRIVATE UNDERGROUND UTILITIES SUCH AS, BUT NOT LIMITED TO, SEWER LINES, WATER LINES AND BURIED ELECTRICAL SERVICE ENTRANCES ARE NOT SHOWN. THE CONTRACTOR SHALL ASCERTAIN THE LOCATION AND SIZE OF EXISTING UTILITIES IN THE FIELD WITH THE RESPECTIVE UTILITY COMPANY REPRESENTATIVE PRIOR TO COMMENCING WORK. REFER TO SPECIFICATION SECTION 01050. ADDITIONAL TEST PITS, BEYOND THOSE SHOWN, MAY BE REQUIRED. UTILITY CONTACTS ARE AS FOLLOWS:

| ELECTRIC: | WATER/SEWER/DRAIN: |
|---|---|
| TBD (INSERT NAME) | LEVY COUNTY PARKS & RECREATION |
| TBD (INSERT ADDRESS) | 620 N. HATHAWAY AVE |
| TBD (ADDRESS CONT.) | P.O. BOX 248 |
| TBD (INSERT PHONE) | 352-486-5127 |

| TELEPHONE/CABLE: | DIG SAFE: |
|---|---|
| AT&T/ DISTRIBUTION | SUNSHINE 811 |
| 6628 LAKESIDE ROAD | 11 PLANTATION ROAD |
| WEST PALM BEACH, FL 33411 | DEBARY, FL 32713 |
| 561-683-2729 | 811 OR 800-432-4770 |

3. THERE ARE NO KNOWN HAZARDOUS ENVIRONMENTAL CONDITIONS WITHIN THE AREA OF WORK. REFER TO SPECIFICATION SECTION 00800-SC-5.06. IF THE PRESENCE OF HAZARDOUS ENVIRONMENTAL CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER IMMEDIATELY. ALL ACTIVITIES, HANDLING AND DISPOSAL OF HAZARDOUS ENVIRONMENTAL CONDITIONS AND MATERIALS SHALL BE IN ACCORDANCE WITH OSHA, FEDERAL, STATE, AND LOCAL REGULATIONS.

## SITE DEMOLITION

1. REFER TO THE EXISTING SITE PLAN, FOR ADDITIONAL INFORMATION REGARDING EXISTING FACILITIES. REFER TO THE LAYOUT DRAWING FOR LIMITS OF WORK.

2. REFER TO SPECIFICATION SECTION 01010A, WHICH CONTAINS INFORMATION ON CONSTRAINTS OF CONSTRUCTION SEQUENCING.

3. DEMOLISH/REMOVE EXISTING PIPING AS REQUIRED FOR CONSTRUCTION OF NEW FACILITIES. ALL PIPING, EQUIPMENT AND MATERIALS TO BE DEMOLISHED AND/OR REMOVED FROM SERVICE SHALL BE COORDINATED WITH THE OWNER AND ENGINEER BEFORE COMMENCING THAT WORK. EXISTING PIPING THAT NEEDS TO BE REMOVED TO CONSTRUCT THE NEW FACILITIES, BUT IS TO REMAIN, SHALL BE REINSTALLED/REPLACED AS NEEDED. EXISTING PIPES AND CONDUIT DESIGNATED AS "ABANDONED" MAY BE REMOVED IF THE CONTRACTOR SO CHOOSES. IF ABANDONED PIPE CONFLICTS WITH NEW SITE PIPING OR FACILITIES, THEN A PORTION OF THE ABANDONED PIPE SHALL BE REMOVED, AND THE NEW ENDS OF ABANDONED PIPE CAPPED OR PLUGGED WITH CONCRETE.

4. SEVERING OF EXISTING UTILITIES FOR ABANDONMENT, OR REMOVAL OF A SEGMENT FROM SERVICE, SHALL BE PERFORMED IN SUCH A MANNER AS TO ALLOW THE REMAINING ACTIVE SEGMENT TO CONTINUE IN ITS INTENDED SERVICE. CAP ACTIVE SEGMENTS WITH APPROPRIATE FITTINGS, JOINT RESTRAINT, ETC. TO ENSURE THEIR INTEGRITY. PLUG ENDS OF ABANDONED PIPE SEGMENTS WITH CONCRETE UNLESS SPECIAL CIRCUMSTANCES DICTATE PLUGGING ABANDONED PIPES WITH BLIND FLANGES, RESTRAINED MECHANICAL JOINT PLUGS, ETC. AS APPROPRIATE.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ALL DEMOLISHED PIPING, EQUIPMENT AND MATERIALS. DISPOSAL SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS. THE OWNER RESERVES THE RIGHT TO RETAIN ANY SUCH PIPING, EQUIPMENT AND MATERIALS DESIGNATED FOR DEMOLITION. SUCH MATERIALS TO BE RETAINED SHALL BE PROPERLY STORED IN AN ON-SITE LOCATION. COORDINATE LOCATION AND MATERIALS TO BE SALVAGED WITH THE OWNER/ENGINEER. REFER TO SPECIFICATION SECTION 02050A

6. THE CONTRACTOR SHALL KEEP A RECORD OF DEMOLITION AS PART OF THE PROJECT RECORD DOCUMENTS IN ACCORDANCE WITH SPECIFICATION SECTION 01720.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE DISPOSAL OF FLOWS RESULTING FROM PRECIPITATION AND GROUNDWATER DEWATERING OPERATIONS.

## SITE CLEARING, GRUBBING AND GRADING

1. STRIPPING OF TOPSOIL SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02115. REFER TO THE LAYOUT AND GRADING DRAWINGS FOR LIMIT OF WORK AND STRIPPING.

2. CONTRACTOR SHALL MINIMIZE CLEARING OPERATIONS. CLEARING AND GRUBBING SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02110. CLEARING LIMITS SHALL BE AS INDICATED ON THE DRAWINGS, BUT AT ALL TIMES WITHIN EXISTING ROAD RIGHTS_OF_WAY AND PROPERTY LINES ON STATE OR COUNTY_OWNED PROPERTY OR EASEMENTS. ALL CLEARING AND GRUBBING MATERIAL SHALL BE THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT A SITE PROVIDED BY THE CONTRACTOR IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS.

3. CONTRACTOR SHALL PROVIDE PROPER EROSION CONTROL AND DRAINAGE MEASURES IN ALL AREAS OF WORK, AND CONFINE SOIL SEDIMENT TO WITHIN THE LIMITS OF EXCAVATION AND GRADING. PRIOR TO BEGINNING EXCAVATION WORK, EROSION CONTROL FENCE SHALL BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE ACTUAL LIMITS OF GRUBBING AND/OR GRADING, AND AS SHOWN ON THE DRAWINGS. EROSION CONTROL MEASURES SHOWN ON THE DRAWINGS ARE A MINIMUM, CONTRACTOR SHALL TAKE ALL OTHER NECESSARY MEASURES. EROSION CONTROL FENCE SHALL ALSO BE INSTALLED AT THE DOWN GRADIENT PERIMETER OF THE TOPSOIL STOCKPILES. ALL DISTURBED EARTH SURFACES SHALL BE STABILIZED IN THE SHORTEST PRACTICAL TIME AND TEMPORARY EROSION CONTROL DEVICES SHALL BE EMPLOYED UNTIL SUCH TIME AS ADEQUATE SOIL STABILIZATION HAS BEEN ACHIEVED. TEMPORARY STORAGE OF EXCAVATED MATERIAL SHALL BE STABILIZED IN A MANNER THAT WILL MINIMIZE EROSION. ALL INSTALLED EROSION CONTROL FACILITIES SHALL BE REMOVED AT THE END OF THE PROJECT. REFER TO SPECIFICATION SECTION 02270.

4. ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY HAY BALE FILTERS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL COLLECTED SEDIMENT, AND THAT WHICH COLLECTS IN THE STORM DRAIN SYSTEM. REFER TO THE CIVIL DETAIL DRAWINGS.

5. THE GEOTECHNICAL DATA REPORT FOR THE PROJECT SITE IS INCLUDED IN APPENDIX A AND IS DESCRIBED IN SPECIFICATION SECTION 00800 (SUPPLEMENTAL CONDITIONS).

6. CONTRACTOR SHALL CONTROL DUST ON THE CONSTRUCTION SITE TO A REASONABLE LIMIT, AS DETERMINED BY THE ENGINEER, AND AS OUTLINED IN SPECIFICATION SECTION 01562.

7. CONTRACTOR SHALL NOT TRACK OR SPILL EARTH, DEBRIS OR OTHER CONSTRUCTION MATERIAL ON PUBLIC OR PRIVATE STREETS AND PLANT DRIVES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE ASSOCIATED CLEAN UP.

8. THE CONTRACTOR SHALL NOT HAVE ANY RIGHT OF PROPERTY IN ANY MATERIALS TAKEN FROM ANY EXCAVATION. SUITABLE EXCAVATED MATERIAL MAY BE INCORPORATED IN THE PROJECT, WITH EXCESS MATERIAL DISPOSED OF AT A LOCATION PROVIDED BY THE CONTRACTOR. THESE PROVISIONS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF OBLIGATIONS TO PROPERLY DISPOSE OF AND REPLACE ANY MATERIAL DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR BACKFILLING. THE CONTRACTOR SHALL DISPOSE OF UNSUITABLE AND EXCESS MATERIAL IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CONTRACT DOCUMENTS.

9. CONTRACTOR SHALL REMOVE AND REPLACE, OR REPAIR, ALL CURBS, SIDEWALKS, PAVEMENT AND OTHER ITEMS DAMAGED BY CONSTRUCTION ACTIVITIES TO AT LEAST THEIR ORIGINAL CONDITION, TO THE SATISFACTION OF THE OWNER AND ENGINEER.

10. ALL NON-ROADWAY AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE GRADED AND SODDED, UNLESS OTHERWISE NOTED. REFER TO SPECIFICATION SECTION 02485, SOD.

## CIVIL SITE LAYOUT

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THIS PROVIDED LAYOUT INFORMATION THROUGHOUT THE COURSE OF CONSTRUCTION. REPORT ANY LAYOUT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.

2. THE LOCATIONS AND LIMITS OF ALL ON-SITE WORK AND STORAGE AREAS SHALL BE REVIEWED/COORDINATED WITH, AND ACCEPTABLE TO, THE OWNER AND ENGINEER. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO THESE AREAS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ESTABLISHING AND RESETTING ALL EXISTING PROPERTY MONUMENTATION DISTURBED BY CONSTRUCTION. THIS WORK SHALL BE DONE BY A LAND SURVEYOR REGISTERED IN THE STATE OF FL, AT NO ADDITIONAL COST TO THE OWNER.

4. WRITTEN DIMENSIONS SHALL PREVAIL. DO NOT SCALE DISTANCES FROM THE DRAWINGS. REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.

5. ALL ELEVATIONS REFER TO THE NAVD88DATUM. ORIENTATION IS GRID NORTH ON THE NAD 1983 FLORIDA WEST ZONE, 2011 ADJUSTMENT, US SURVEY FEET COORDINATE SYSTEM. PROJECT BENCH MARK IS SHOWN ON THE DRAWINGS. AND IS DERIVED FROM NATIONAL GEODETIC SURVEY CONTROL STATION "AK 30 RESET" WITH AN ELEVATION OF 9.43 FEET. CONTRACTOR SHALL VERIFY BENCHMARK ELEVATIONS PRIOR TO USING IN CONSTRUCTION.

6. EXISTING CONDITIONS DEVELOPED FROM SURVEY DRAWING PREPARED BY SURVTECH SOLUTIONS, INC, DATED 3/16/2022.

## CIVIL SITE PIPING

1. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.

2. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED ON THE CIVIL EXISTING CONDITIONS AND DEMOLITION PLAN. ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH SPECIFICATION SECTION 02050.

## WATER GENERAL NOTES

1. WHERE NEW PIPING IS TO BE CONNECTED TO EXISTING PIPING, THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ADAPTERS, FITTINGS, AND ADDITIONAL PIPE AS REQUIRED TO COMPLETE THE CONNECTION. CONTRACTOR SHALL VERIFY LOCATION, ELEVATION, ORIENTATION AND MATERIAL OF CONSTRUCTION. TEST PITS SHALL BE USED AS REQUIRED.

2. ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO REMAIN IN SERVICE UNLESS OTHERWISE NOTED. AT NO ADDITIONAL COST TO THE OWNER THE CONTRACTOR SHALL REPAIR OR COORDINATE WITH THE RESPECTIVE UTILITY ON DAMAGE TO EXISTING UTILITIES.

3. EXISTING VALVES AND FITTINGS SALVAGED FOR REUSE SHALL BE STORED AT AN OWNER APPROVED LOCATION AND REMAIN PROPERTY OF THE OWNER.

## CIVIL ABBREVIATIONS

| | |
|---|---|
| & | AND |
| Ø, DIA | DIAMETER |
| #, NO | NUMBER |
| AC | ASBESTOS CEMENT |
| APP'D | APPROVED |
| BR | BRICK |
| BLDG | BUILDING |
| CB | CATCH BASIN |
| CEN | CENTER |
| CFS | CUBIC FEET PER SECOND |
| CI | CAST IRON |
| CIPP | CURED-IN-PLACE-PIPE |
| CL | CENTERLINE |
| CMP | CORRUGATED METAL PIPE |
| CO | CLEANOUT |
| CONC | CONCRETE |
| COR | CORNER |
| CY | CUBIC YARD |
| DEMO | DEMOLITION |
| DMH | DRAIN MANHOLE |
| DI | DUCTILE IRON |
| DR | DRAIN |
| DWG | DRAWING |
| EL | ELEVATION |
| EMH | ELECTRIC MANHOLE |
| FM | FORCE MAIN |
| FT | FEET |
| G | GAS |
| HDPE | HIGH DENSITY POLYETHYLENE |
| HYD | HYDRANT |
| IN | INCH |
| INF | INFLUENT |
| INV | INVERT |
| LBS | POUNDS |
| LF | LINEAR FOOT |
| MAX | MAXIMUM |
| MH | MANHOLE |
| MIN | MINIMUM |
| MW | MONITORING WELL |
| N | NORTH |
| NGVD | NATIONAL GEODETIC VERTICAL DATUM |
| N/A | NOT AVAILABLE/APPLICABLE |
| NTS | NOT TO SCALE |
| OD | OUTSIDE DIAMETER |
| OUT | OUTFALL |
| PC | PERFORATED CLAY |
| PSF | POUNDS PER SQUARE FOOT |
| PSI | POUNDS PER SQUARE INCH |
| PS | PRIMARY SLUDGE |
| PT | POINT OF TANGENCY |
| PVC | POLYVINYL CHLORIDE |
| RCP | REINFORCED CONCRETE PIPE |
| RD | ROOF DRAIN |
| REQ'D | REQUIRED |
| S | SLOPE, SEWER |
| SD | STORM DRAIN |
| SF | SQUARE FEET |
| SMH | SANITARY SEWER MANHOLE |
| SQ | SQUARE |
| STA | STATION |
| T_XFMR | TRANSFORMER |
| TBM | TEMPORARY BENCH MARK |
| THK | THICKNESS |
| TOS | TOP OF STRUCTURE |
| TYP | TYPICAL |
| UD | UNDERDRAIN |
| UG | UNDERGROUND |
| UGE | UNDERGROUND ELECTRIC |
| VC | VITRIFIED CLAY |
| VF | VERTICAL FOOT |
| W/ | WITH |
| W | POTABLE WATER |

## LEGEND

| EXISTING | PROPOSED |
|---|---|
| | PROPERTY/ROW LINE |
| | SETBACK LINE |
| | EASEMENT LINE |
| | CENTERLINE |
| | EDGE OF PAVEMENT |
| | CURBING |
| | EDGE OF GRAVEL |
| | EDGE OF CONCRETE |
| 122 | CONTOUR 123 |
| | BUILDING |
| | STONEWALL |
| | TREELINE |
| | CHAIN LINK FENCE |
| | STOCKADE FENCE |
| | BARB WIRE FENCE |
| | RETAINING WALL |
| | GUARDRAIL |
| 8" | SEWER 8"S |
| 4" | SEWER FORCE MAIN 4"FM |
| 4" | GAS 4"G |
| 8" | WATER 8"W |
| 15" | STORM DRAIN 15"SD |
| 6" | UNDERDRAIN 6"UD |
| 12" CMP | CULVERT 12" CMP |
| | UNDERGROUND ELECTRIC |
| | OVERHEAD ELECTRIC |
| | UNDERGROUND TELEPHONE |
| | UNDERGROUND CABLE TV |
| | IRON PIPE/REBAR |
| | DRILLHOLE |
| | MONUMENT |
| | SURVEY CONTROL POINT |
| 124.6 | SPOT ELEVATION 134.5 |
| SMH | SEWER MANHOLE SMH |
| DMH | DRAINAGE MANHOLE DMH |
| CB CB CB | CATCH BASIN CB CB |
| EMH | ELECTRIC MANHOLE EMH |
| TMH | TELEPHONE MANHOLE TMH |
| | SHUTOFF VALVE |
| | WATER SERVICE SHUTOFF |
| | YARD HYDRANT |
| | HYDRANT |
| | GAS SERVICE SHUTOFF |
| | GAS GATE VALVE |
| | UTILITY POLE |
| | UTILITY POLE W/ GUY |
| | UTILITY POLE W/ LIGHT |
| | LIGHT POLE |
| | BOLLARD |
| | FLAGPOLE |
| | CONIFEROUS TREE |
| | DECIDUOUS TREE |
| | SHRUB |
| | WETLAND FLAG |
| | EDGE OF WATER |
| | STREAM |
| | EDGE OF WETLANDS |
| | FLOODPLAIN |
| | WETLANDS |
| | DRAINAGE FLOW |
| | DRAINAGE SWALE |
| | PAVEMENT MARKINGS |
| | SIGN |
| MB | MAILBOX |
| | TEMPORARY BENCH MARK |
| TP | TEST PIT |
| B | TEST BORING |
| P | TEST PROBE |
| MW | MONITORING WELL |
| | LIMIT OF WORK |
| | SILT FENCE |
| | RIPRAP |
| | RAILROAD |
| | MATCHLINE |
| | ROCK OUTCROP |
| | HEAVY DUTY PAVEMENT |
| | NORMAL DUTY PAVEMENT |
| | WALKWAY PAVEMENT |

| NO | REVISIONS | APP'D | DATE |
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PROJECT NO: 20850
DESIGNED: A.HOFFMAN
DRAWN: A.HOFFMAN
CHECKED: D.METZ
CAD: D.METZ
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT


WRIGHT-PIERCE
800.422.1095 | www.wright-pierce.com
3820 NORTHSIDE BOULEVARD, SUITE 100A, TAMPA, FL 33624


COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

DRAWING
C-1


LAST SAVED BY: R.EMOTEKO 7/27/2022 9:40 AM
J:\LEVY\LEVYCOUNTY\20850 SHELL MOUND\DATA\MAP\DRAWINGS\CIVIL\20850-CS-GENERALNOTES.DWG | 20850-CS-General Notes | 1:1.3849 | — | 5/17/2023 3:43:19 PM | MICHAEL.HOFFMAN

## EXISTING CONDITIONS

SCALE: 1"=40'

### EXISTING CONDITIONS NOTES

1. EXISTING CONDITIONS WAS PREPARED BASED ON THE SURVEY PROVIDED BY SURVTECH SOLUTIONS, INC. DATED 3/16/2022.
2. THE HORIZONTAL DATUM UTILIZED FOR THIS PROJECT IS NAD 1983 FLORIDA WEST ZONE, 2011 ADJUSTMENT, U.S. SURVEY FEET. SAID DATUM WAS ESTABLISHED BY UTILIZING THE FLORIDA PERMANENT REFERENCE NETWORK (FPRN).
3. THE VERTICAL DATUM UTILIZED FOR THIS PROJECT IS NAVD 1988, U.S. SURVEY FEET. THE BENCHMARK UTILIZED WAS NATIONAL GEODETIC SURVEY (NGS) CONTROL STATION "AK 30 RESET" WITH AN ELEVATION OF 9.43 FEET.
4. ALL UTILITIES DEPICTED HEREON ARE FROM VISIBLE EVIDENCE ONLY. SUBSURFACE UTILITY LOCATOR SERVICE WAS NOT CONTACTED.
5. NO UNDERGROUND FOUNDATIONS OR FOOTERS WERE EXCAVATED OR LOCATED.

| NO | REVISIONS | APP'D | DATE |
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| 1 | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |

PROJECT NO: 28550
DESIGNED:
CAD/COORD: D.METZ
CAD:
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT


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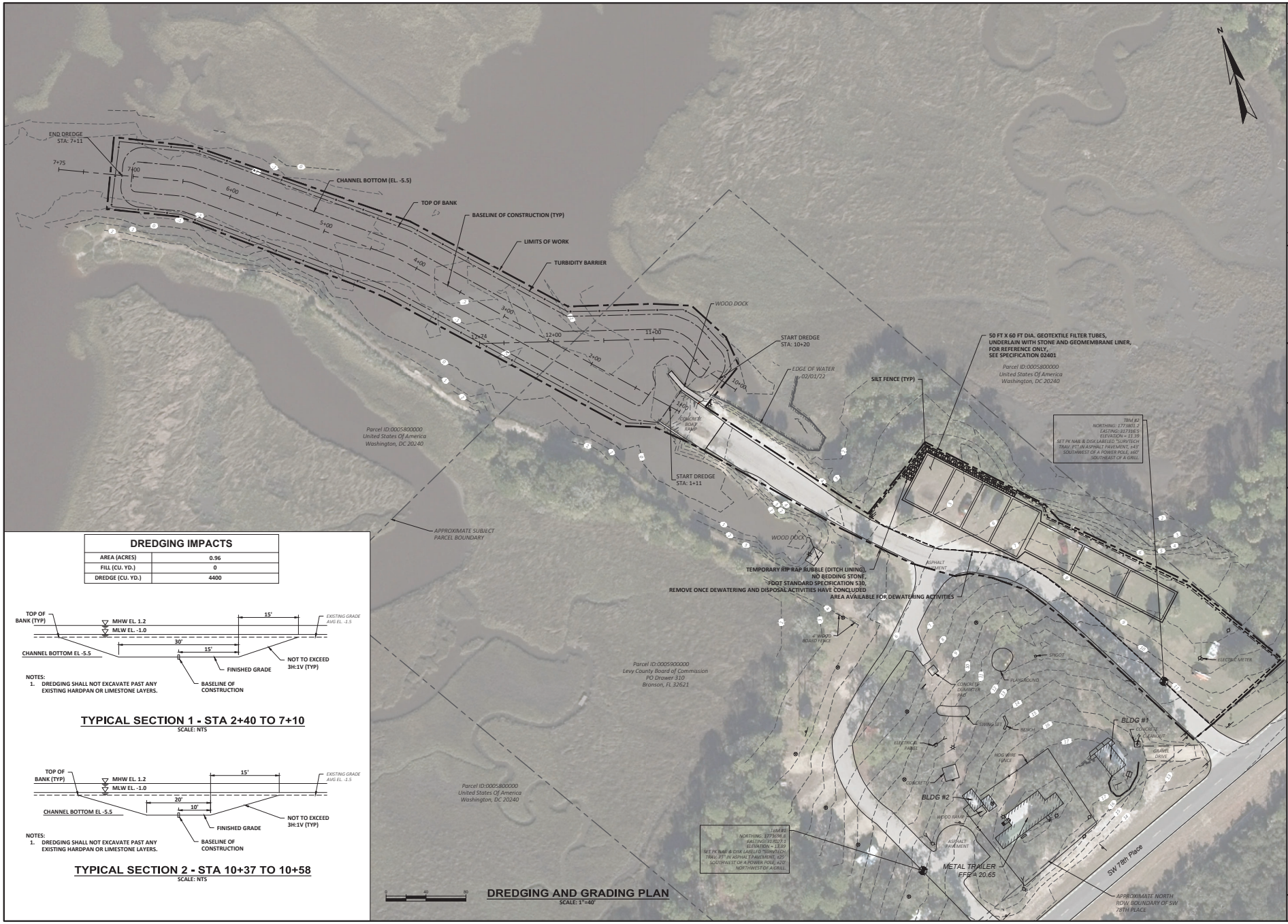
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

EXISTING CONDITIONS

DRAWING
C-2


LAST SAVED BY: REMOTEAD 7/27/2022 1:16 PM
J:\NEW\FL\LEVYCOUNTY\28550 SHELL MOUND BOATRAMP\DRAWINGS\CIVIL\28550-C5 EXISTINGCONDITIONS.DWG | 28550-C5 ExistingConditions | 1:2.5849 | — | 5/17/2022 3:43:37 PM | MICHAEL.HOFFMAN




## DREDGING AND GRADING PLAN
SCALE: 1"=40'

| DREDGING IMPACTS | |
|---|---|
| AREA (ACRES) | 0.96 |
| FILL (CU. YD.) | 0 |
| DREDGE (CU. YD.) | 4400 |




NOTES:
1. DREDGING SHALL NOT EXCAVATE PAST ANY EXISTING HARDPAN OR LIMESTONE LAYERS.

### TYPICAL SECTION 1 - STA 2+40 TO 7+10
SCALE: NTS




NOTES:
1. DREDGING SHALL NOT EXCAVATE PAST ANY EXISTING HARDPAN OR LIMESTONE LAYERS.

### TYPICAL SECTION 2 - STA 10+37 TO 10+58
SCALE: NTS

| | |
|---|---|
| PROJECT NO: | 28569 |
| DESIGNED: | M.HOFFMAN |
| DRAWN: | D.METZ |
| CHECKED: | D.METZ |
| DATE: | |
| APPROVED: | |
| DATE: | |
| SUBMISSION: | PERMIT |

| NO | REVISIONS | APP'D | DATE |
|---|---|---|---|
| | | | |

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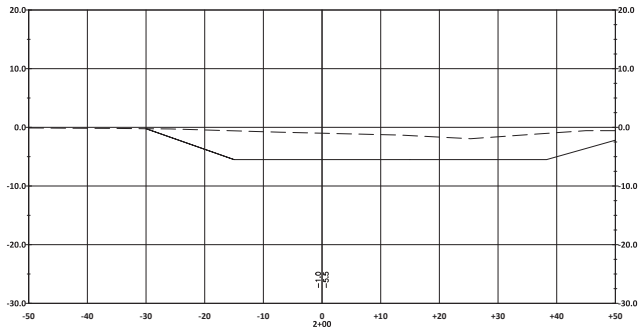
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

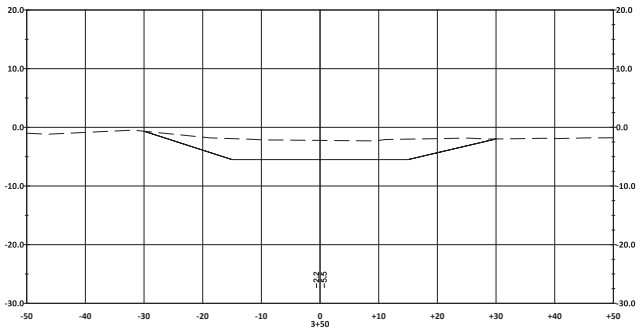
DREDGING AND GRADING PLAN

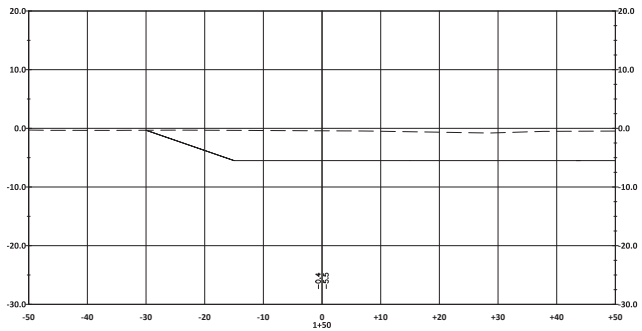
DRAWING
C-3

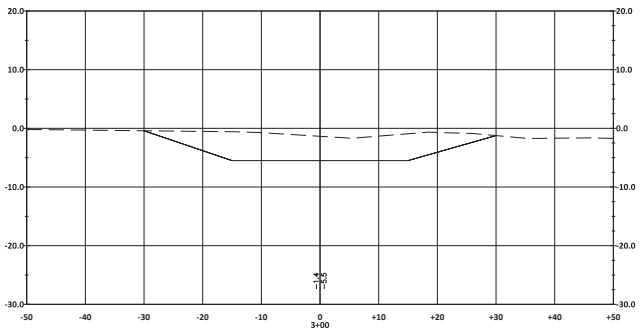
LAST SAVED BY MICHAEL.HOFFMAN 6/28/2023 8:30 AM
J:\ENGR\LEVYCOUNTY\28569 SHELL MOUND BOATRAMP\DRAWINGS\CIVIL\28569-C5-DredgingGradingPlan.DWG | 28569-C5-DredgingGradingPlan | 1:1.5849 | — | 6/28/2023 8:30:24 AM | MICHAEL.HOFFMAN

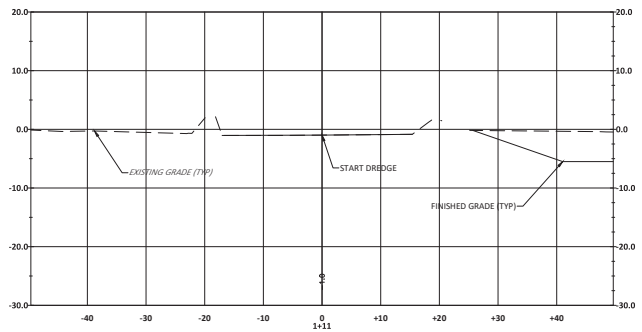
LAST SAVED BY: DANIEL.METZ 7/27/2023 9:44 AM

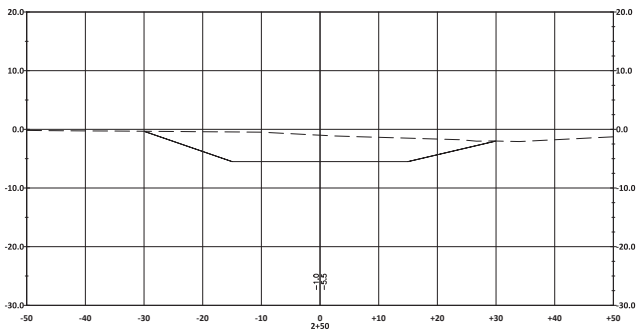



## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

| NO | REVISIONS | APP'D | DATE |
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PROJECT NO: 28850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD:
CHECKED: D.METZ
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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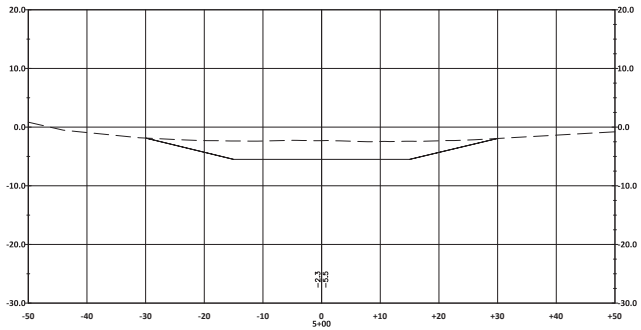
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

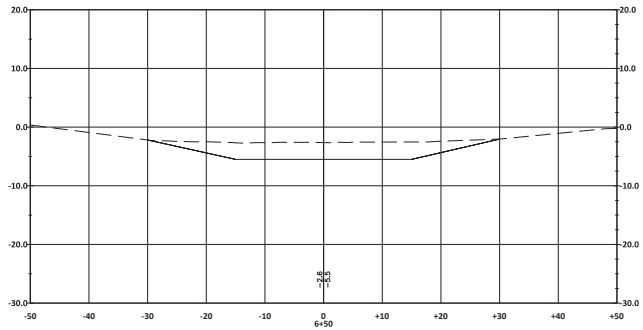
CROSS SECTIONS STA 1+00 TO STA 3+50

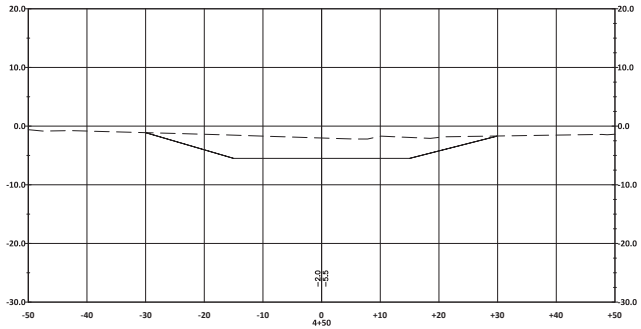
DRAWING
C-4

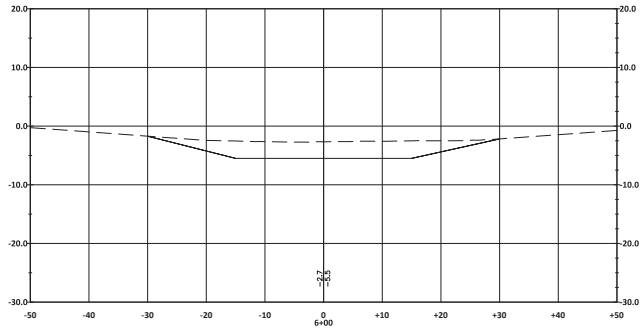
J:\E\WR\FL\LEVYCOUNTY.28850 SHELL MOUND\BOATRAMP\DRAWINGS\CIVIL\28850 CS CROSSSECTIONS.DWG | 28850-CS.CrossSectional | 12.1849 | — | 5/17/2023 3:43:54 PM | MICHAEL.HOFFMAN

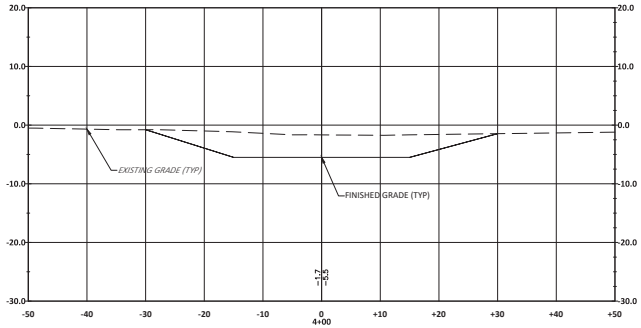
LAST SAVED BY: DANIEL.METZ 7/27/2022 9:44 AM

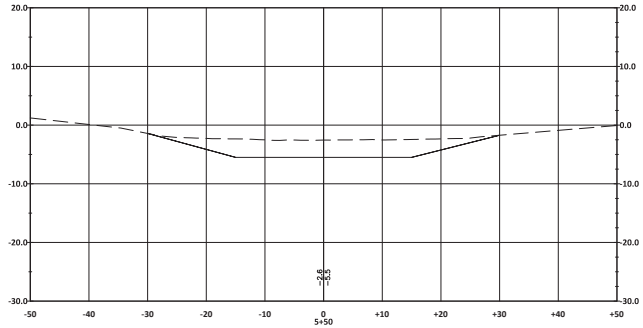



## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

| NO | REVISIONS | APP'D | DATE |
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| 5 | | | |

PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD/COORD: D.METZ
CAD:
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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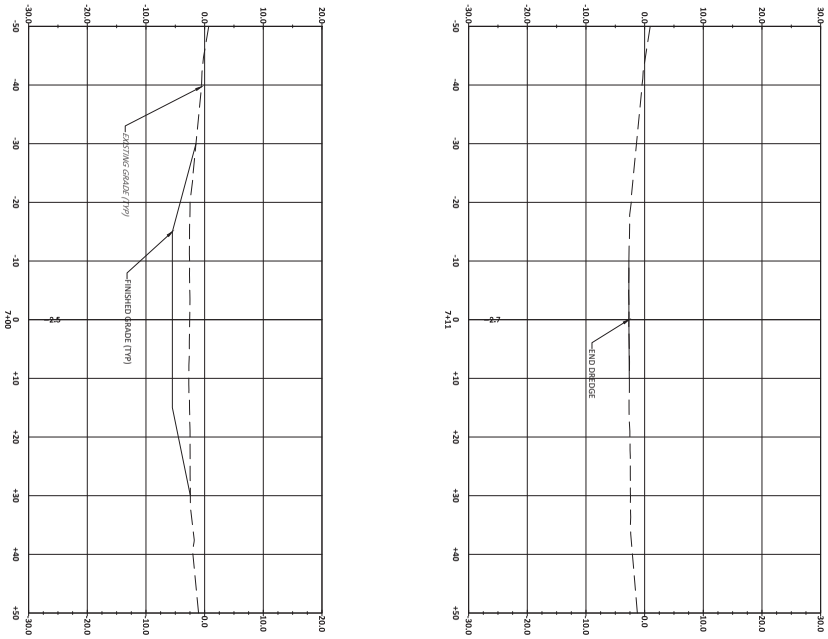
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

CROSS SECTIONS STA 4+00 TO STA 6+50

DRAWING
C-5

J:\ENGR\LEVYCOUNTY\20850 SHELL MOUND\BOATRAMP\DRAWINGS\CIVIL\20850 CS CROSSSECTIONS.DWG | 20850.CS Cross Sections | 1:2.5848 | — | 5/17/2023 3:44:03 PM | MICHAEL.HOFFMAN

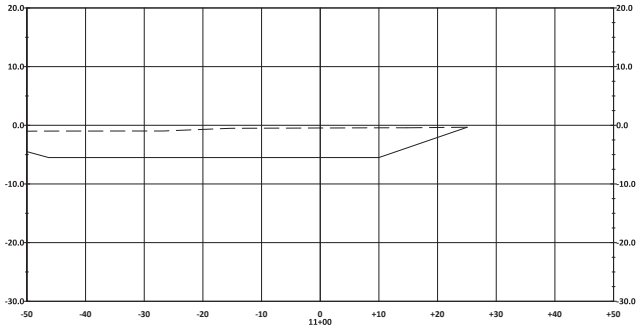


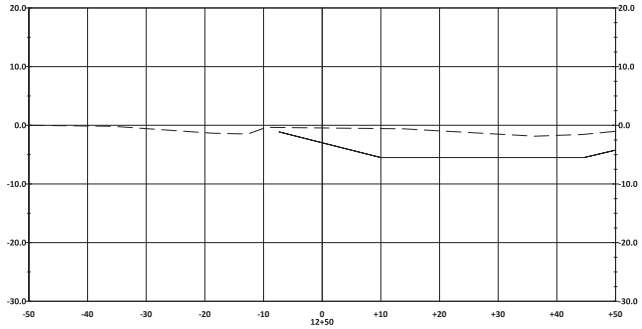

## CROSS SECTIONS

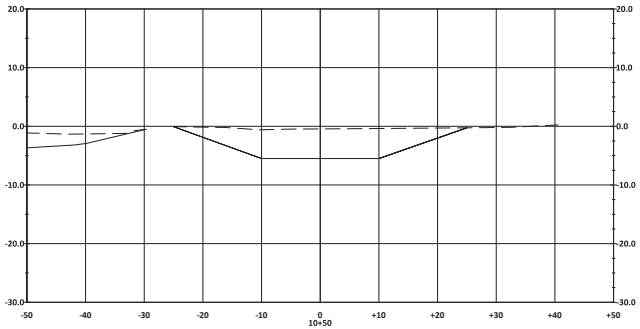
SCALES
VERT: 1"=20'
HORIZ: 1"=20'

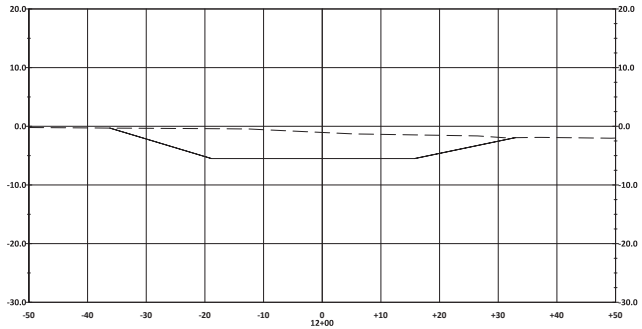
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DRAWING C-6 | COUNTY OF LEVY, FLORIDA<br>SHELL MOUND<br>BOAT RAMP IMPROVEMENTS<br>CROSS SECTIONS STA 7+00 TO STA 7+50 | WRIGHT-PIERCE<br>800.422.1095 \| www.wright-pierce.com<br>3820 NORTHDALE BOULEVARD, SUITE 109A, TAMPA, FL 33624 | | | PROJECT NO: 20850<br>DESIGNED: M.HOFFMAN<br>CAD COORD: D.METZ<br>CAD: D.METZ<br>CHECKED:<br>DATE:<br>APPROVED:<br>DATE:<br>SUBMISSION: PERMIT | NO | REVISIONS / APP'D / DATE |

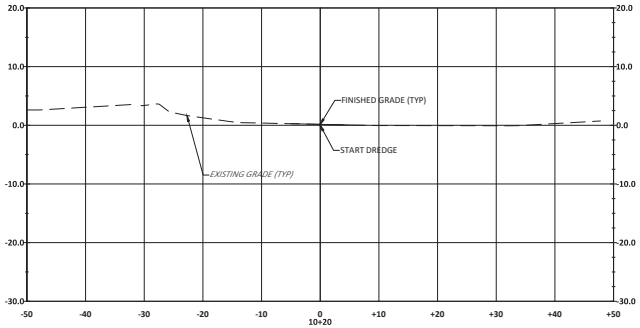
LAST SAVED BY: DANIEL.METZ 7/27/2023 9:44 AM

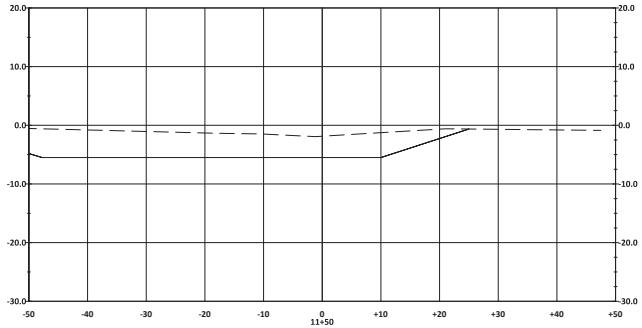



## CROSS SECTIONS

SCALES
VERT:1"=20'
HORIZ:1"=20'

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PROJECT NO: 20859
DESIGNED: A.HOFFMAN
QA/QC CHKD: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

WRIGHT-PIERCE
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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

CROSS SECTIONS STA 10+00 TO STA 12+50

DRAWING
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## NARRATIVE

1. DESCRIPTION OF CONSTRUCTION ACTIVITY: CHANNEL MAINTENANCE DREDGING, DEWATERING OF DREDGED MATERIAL.

2. SITE AREA INFORMATION:
   TOTAL AREA OF THE LIMITS OF CONSTRUCTION = 1.9 AC
   TOTAL DISTURBANCE AREA = 1.6 AC
   DRAINAGE AREA CONTRIBUTING TO DEWATERING AREA = 1.7 AC
   DRAINAGE AREA CONTRIBUTING TO DEWATERING AREA DATA:
   RUNOFF COEFFICIENTS:
   BEFORE = 0.3
   DURING = 0.4 TO 0.5
   AFTER = 0.3

3. PROPOSED SEQUENCE OF LAND DISTURBING ACTIVITIES, INCLUDING SEQUENCE DURING THE CONSTRUCTION PROCESS IN WHICH THE MEASURES WILL BE INSTALLED. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR APPROVED BY THE ENGINEER. FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

   3.1. CONSTRUCT DEWATERING SYSTEM WITHIN THE DESIGNATED AREA AND ASSOCIATED PERIMETER CONTROLS.
   3.2. DREDGING OF CHANNEL AND DEWATERING OF DREDGED MATERIAL.
   3.3. OFFSITE DISPOSAL OF DREDGED MATERIAL.
   3.4. REPEAT 3.2 AND 3.3 UNTIL DREDGING IS COMPLETE.
   3.5. RESTORE DISTURBED UPLAND AREAS TO PRE-CONSTRUCTION CONDITION.

4. DESCRIPTION OF THE SOILS AND AN IDENTIFICATION OF THOSE THAT ARE HIGHLY ERODIBLE:
   37 - MYAKKA MUCK - MUCK AND SAND; POORLY DRAINED; SHALLOW WATER TABLE
   43 - TIDEWATER MUCK - MUCKY CLAY, SILTY CLAY, SANDY CLAY LOAM, LOAMY FINED SAND; VERY POORLY DRAINED; TIDAL

5. AFFECTED DRAINAGE AREAS AND MAJOR DISCHARGE POINTS:
   SHELL MOUND CAMPGROUND - NO MAJOR DISCHARGE POINT, DISPERSED FLOW ALONG BOUNDARIES

6. LATITUDE AND LONGITUDE OF EACH MAJOR DISCHARGE POINT:
   N/A, SEE PREVIOUS

7. NAMES OF RECEIVING WATER(S):
   GULF OF MEXICO (CEDAR KEY)

8. DESCRIPTION OF PROPOSED POLLUTION CONTROL MEASURES OR BMPS TO BE USED:
   a. NON-STRUCTURAL CONTROL PRACTICES:
      DREDGING ALIGNMENT CHOSEN TO MINIMIZE IMPACTS TO MARINE BIVALVES

   b. STRUCTURAL CONTROL PRACTICES:
      SILT FENCE, DEWATERING SYSTEM SUCH AS DEWATERING GEOTEXTILE TUBES

9. ESTIMATED CONSTRUCTION SCHEDULE:
   START DATE = TBD
   COMPLETION DATE = TBD
   STABILIZATION SCHEDULE
   INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES = X
   CONSTRUCTION OF DEWATERING SYSTEM = X
   DREDGING, DEWATERING, AND OFFSITE DISPOSAL OF DREDGED MATERIAL = X
   UPLANDS RESTORED TO PRE-CONSTRUCTION CONDITION = X

10. THE CONTRACTOR RESPONSIBLE FOR THE BMP IMPLEMENTATION, INSPECTION, AND MAINTENANCE:
    CONTRACTOR TO BE DETERMINED AT A LATER DATE THROUGH A PUBLIC BID PROCESS.

11. CALCULATIONS:
    N/A

12. CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. IN AN EFFORT TO ENSURE COMPLIANCE WITH FEDERAL, STATE, AND LOCAL LAWS REGARDING EROSION AND TURBIDITY CONTROLS:
    THE FOLLOWING PERMITS HAVE BEEN OBTAINED.
    PERMIT # X
    ACOE PERMIT # X
    ENVIRONMENTAL RESOURCE PERMIT # X

13. INVENTORY FOR POLLUTION PREVENTION PLAN:
    THE MATERIAL OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:
    CONCRETE, WOOD, FERTILIZERS, ASPHALT, MASONRY BLOCKS, PETROLEUM BASED PRODUCTS, TAR, ROOFING MATERIALS, CLEANING SOLVENTS, DETERGENTS, METAL STUDS, PAINTS

## RECORD REQUIREMENTS

THE CONTRACTOR SHALL, AT A MINIMUM, PERFORM AND DOCUMENT THE FOLLOWING RECORD KEEPING TASKS IN A REGULAR AND EXPEDIENT MANNER WHILE CONSTRUCTION ACTIVITIES ARE OCCURRING.

1. CONTRACTORS MUST RECORD THE FOLLOWING DATES:

   A) WHEN MAJOR GRADING ACTIVITIES OCCUR

   B) WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE

   C) WHEN STABILIZATION (I.E. EROSION CONTROL) MEASURES BEGIN

2. CONTRACTORS ARE TO PROVIDE QUALIFIED INSPECTORS WHO HAVE KNOWLEDGE AND EXPERIENCE IN THE PRINCIPLES AND PRACTICE OF SEDIMENT AND EROSION CONTROL AND CAN COMPLETE PROJECT SITE INSPECTIONS:

   A) AT LEAST ONCE EVERY SEVEN (7) DAYS

   B) WITHIN 24 HOURS AFTER THE END OF A STORM EVENT OF 0.50-INCHES OR MORE. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAUGES AND RECORD THE DAILY RAINFALL.

   C) WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

3. A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE, AND LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. COPIES OF THE INSPECTION REPORTS WILL BE SUBMITTED TO THE OWNER AND INCLUDE DOCUMENTATION OF REMEDIAL ACTION TO ADDRESS SYSTEM FAILURES. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

4. THE CONTRACTOR WILL PROVIDE THE OWNER A COPY OF THE NPDES PERMIT AND THE SWPPP.

## INSPECTION AND MAINTENANCE REQUIREMENTS

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES
THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS:

1. ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
2. BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

3. SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

4. CONSTRUCTION ENTRANCES WILL BE INSPECTED FOR DEPTH OF CRUSHED STONE BED AND FILTER FABRIC CONDITION.

5. THE SEDIMENT BASINS WILL BE INSPECTED FOR DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.

6. DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

7. TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

## UPDATING REQUIREMENTS

1. THE STORMWATER POLLUTION PREVENTION PLANS (SWPPP) AND EROSION AND SEDIMENT CONTROL (E&SC) PLANS CONTAINED HEREIN PROVIDE ONLY THE INITIAL AND MINIMUM REQUIREMENTS, AND PROJECT SPECIFIC STRUCTURAL BMPS NECESSARY FOR THIS PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MODIFY AND UPDATE THESE PLANS ACCORDING TO THEIR OPERATIONS ON SITE. IN ADDITION, THE CONTRACTOR SHALL REVISE THESE DOCUMENTS:
   a) WITHIN SEVEN CALENDAR DAYS FOLLOWING AN INSPECTION WHEN ADDITIONS AND/OR MODIFICATIONS TO BMPS ARE NECESSARY TO CORRECT OBSERVED PROBLEMS.
   b) WHENEVER A CHANGE IN THE DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE AT THE CONSTRUCTION SITE HAS A SIGNIFICANT EFFECT ON THE DISCHARGE OF POLLUTANTS TO THE WATERS OF THE UNITED STATES NOT PREVIOUSLY ADDRESSED IN THE DOCUMENTS.
   c) WHENEVER DISCHARGES ARE CAUSING WATER QUALITY "EXCEEDANCES" (AN EPA TERM) OR THE BMPS ARE INEFFECTIVE (TO AN EXTENT PRACTICAL) IN MINIMIZING POLLUTANTS IN STORMWATER DISCHARGING FROM THE CONSTRUCTION SITE.

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PROJECT NO: 20850
DESIGNED: M.HORNHAN
CAD/COORD: D.METZ
CAD:
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STROMWATER POLLUTION PREVENTION NOTES I

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LAST SAVED BY: RIMOREAD 7/27/2023 9:44 AM
J:\ENGR\LEVYCOUNTY\20850 SHELL MOUND\BOATRAMP\DRAWINGS\CIVIL\20850-CS-STORMWATERNOTES.DWG | 20850-CS-Stormwaterlayout | 1:2.5849 | — | 5/17/2023 3:44:24 PM | MICHAEL.HORNHAN

## EROSION AND SEDIMENT CONTROL NOTES AND REQUIREMENTS

### GENERAL REQUIREMENTS

1. THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. AN EROSION CONTROL PLAN HAS BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE, AND LOCAL LAWS. REFER TO THESE EROSION AND SEDIMENT STABILIZATION PRACTICES FOR THE CONTROLS THAT MAY BE IMPLEMENTED.

2. THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED HEREIN AND THOSE MEASURES SHOWN IN THE PLANS. IN ADDITION, THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED FOR COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL APPLY FOR AND COMPLY WITH A FLORIDA NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL OBTAIN WATER MANAGEMENT DISTRICT APPROVAL FOR DEWATERING PER FAC 40C22.

3. THE CONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND PAYING FOR THE PERMIT FEE FOR THE NOTICE OF INTENT (NOI) AND THE NOTICE OF TERMINATION (NOT) FORMS.

4. TIMING OF CONTROLS/MEASURES. AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND HAY BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASINS WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASINS AND THE EARTH BERM/SWALES REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE EROSION CONTROL PLAN.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT THE EROSION AND TURBIDITY CONTROLS AS SHOWN ON THE SEDIMENT AND EROSION CONTROL PLAN. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE CONTROLS ARE PROPERLY INSTALLED, MAINTAINED AND FUNCTIONING PROPERLY TO PREVENT TURBID OR POLLUTED WATER FROM LEAVING THE PROJECT SITE. THE CONTRACTOR WILL ADJUST THE EROSION CONTROL PLAN AND ADD ADDED, ADDITIONAL CONTROL MEASURES, AS REQUIRED, TO ENSURE THE SITE MEETS ALL FEDERAL STATE AND LOCAL EROSION AND SEDIMENT CONTROL PLAN AND AS REQUIRED TO MEET THE SEDIMENT AND TURBIDITY REQUIREMENTS IMPOSED ON THE PROJECT SITE BY THE REGULATORY AGENCIES, AND ALACHUA COUNTY CODE CHAPTER 77.

### EROSION AND SEDIMENT CONTROL - STABILIZATION PRACTICES

1. LOCATION OF STAKED SILT FENCE. STAKED SILT FENCE SHALL BE PLACED ALONG THE BOUNDARY OF FILL SLOPES, ALONG THE LIMITS OF CONSTRUCTION, AND AROUND ALL PROPOSED INLETS AND STRUCTURES. SILT FENCE SHALL BE USED AROUND ALL EXCAVATED MATERIAL IN THEIR TEMPORARY LOCATIONS DURING CONSTRUCTION.

2. LOCATION OF FLOATING TURBIDITY BARRIERS. FLOATING TURBIDITY BARRIERS SHALL BE PLACED DOWNSTREAM OF THE CULVERT REPLACEMENTS.

3. OFF-SITE VEHICLE TRACKING. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULIN. EXCESS DIRT ON THE ROAD SHALL BE REMOVED DAILY. AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE DAMPENED WITH WATER AS REQUIRED FOR DUST CONTROL.

4. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE AND REPAIRS OF EROSION AND SEDIMENT CONTROL DEVICES, AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES AFTER THE NOTICE OF TERMINATION. MAINTENANCE AND REPAIR REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION SHALL BE INCLUDED IN THE PROJECT COST.

5. DISTURBED, GRADED OR REGRADED AREAS SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE, OR WITHIN 7 DAYS IF SUCH AREAS ARE TO REMAIN IDLE FOR MORE THAN 7 DAYS.

6. STRAW BALE BARRIER: STRAW BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   - A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   - B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2.0 ACRES.
   - C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
   - D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF STRAW BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

7. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:
   - a. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.
   - b. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2.0 ACRES.

8. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

9. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL SPREADER IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.

10. STOCKPILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

11. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, ERODIBLE SOIL EXPOSED BY CLEARING BRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 2.0 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREA WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

12. TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 21 DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS. SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPLETE WITH THE PERMANENT GRASSING.

13. TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 7 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 150 MM LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH OR HYDROMULCHED.

14. TEMPORARY GRASSING: THE SEEDED OR SEEDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

15. TEMPORARY REGRASSING: IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

16. MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

17. PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

18. PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 6:1 SHALL BE SODDED.

19. WHERE SODDING IS CALLED FOR IN THE PLANS, SOD THAT IS PLACED ON SLOPES OF 3:1 OR GREATER SHALL BE PEGGED.

20. OFFSITE VEHICLE TRACKING: STABILIZED CONSTRUCTION ACCESS DRIVES SHALL BE CONSTRUCTED AT ALL POINTS ENTERING AND EXITING THE PROJECT SITE FROM PAVED ROADS. CONSTRUCTION ACCESS DRIVES SHALL HAVE A MINIMUM 6 INCH THICKNESS OF DURABLE ROCK OVER A FILTER FABRIC FREE OF TEARS AND FIRMLY SECURED. ACCESS DRIVES SHALL BE REMOVED AND RESTORED AT THE COMPLETION OF THE PROJECT.

### EROSION AND SEDIMENT CONTROL - WASTE AND MATERIAL CONTROLS

1. WASTE MATERIALS: ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED. LAND CLEARING DEBRIS CAN BE BURNED IN ACCORDANCE WITH STATE AND ALACHUA COUNTY CODE CHAPTER 263.

2. HAZARDOUS WASTE: ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

3. SANITARY WASTE: ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

4. PAVED AREAS ADJACENT TO ALL CONSTRUCTION ACCESS POINTS SHALL BE SWEPT DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARP.

5. SPILL PREVENTION: THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF.
   - a. GOOD HOUSEKEEPING: THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.
   - i. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
   - ii. ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   - iii. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
   - iv. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   - v. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   - vi. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
   - vii. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.
   - b. HAZARDOUS MATERIALS: THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.
   - i. HAZARDOUS MATERIALS AND/OR TOXIC SUBSTANCES SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO THE EPA'S STANDARD PRACTICES, THE MANUFACTURER'S RECOMMENDATION OR IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
   - ii. THE CONTRACTOR SHALL MAINTAIN COPIES OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE ON THE PROJECT. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AND INTENDED FOR EQUIPMENT USE ON THE PROJECT AS A HAZARDOUS MATERIAL, SUCH PRODUCTS DO NOT NEED A MSDS SUBMITTAL.
   - iii. PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS.
   - iv. MATERIALS WILL BE STORED IN ACCORDANCE WITH ALACHUA COUNTY CODE CHAPTER 353.
   - v. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED AND AVAILABLE ON SITE.
   - c. PRODUCT SPECIFIC PRACTICES: THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:
   - i. PETROLEUM AND LUBRICANT PRODUCTS. ALL ONSITE VEHICLES AND EQUIPMENT (I.E. - DEWATERING PUMPS) WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. FLUID PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. CONTAINMENT BERMS WILL WE CONSTRUCTED AROUND ALL FUEL STORAGE TANKS USED FOR CONSTRUCTION. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
   - ii. FERTILIZERS. FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ALACHUA COUNTY CODE CHAPTER 78 ONCE APPLIED, FERTILIZER WILL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
   - iii. PAINTS. ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
   - iv. CONCRETE TRUCKS. CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER TO DITCHES, PONDS OR OTHER WATERWAYS. WASHWATER SHALL BE COLLECTED IN A TEMPORARY SETTLING POND.

### EROSION AND SEDIMENT CONTROL - SPILL CONTROLS

1. SPILL CONTROL PRACTICES: IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
   - A. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE METHODS AND POSTED LOCATION.

2. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, OIL BLANKETS, GLOVES, GOGGLES, LIQUID ABSORBENT (I.E. KITTY LITTER OR EQUAL), SAND SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY, BY THE CONTRACTOR.

3. THE SPILL AREA WILL BE KEPT WILL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

4. SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED IMMEDIATELY TO OWNER AND ENGINEER.

5. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

6. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE SHALL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL, WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS SHALL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP, THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

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PROJECT NO: 20850
DESIGNED: M.VANDYMAN
CAD/COORD: D.METZ
CAD:
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

WRIGHT-PIERCE
800.422.1095 | www.wright-pierce.com
3820 NORTHSIDE BOULEVARD, SUITE 100, TAMPA, FL 33624

COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION NOTES II

DRAWING
C-9

LAST SAVED BY: DANIEL.METZ 7/27/2023 9:44 AM
J:\ENGR\LEVYCOUNTY\20850 SHELL MOUND\DATA\MAP\DRAWINGS\CIVIL\20850-CS-STORMWATERNOTES II.DWG | 20850-CS-StormwaterNotesII | 1:1.5849 | — | 7/27/2023 9:43:07 PM | MICHAEL.VANDYMAN

## STORMWATER POLLUTION PREVENTION PLAN

SCALE: 1"=40'

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PROJECT NO: 20850
DESIGNED: M.HOFFMAN
CAD COORD: D.METZ
CAD:
CHECKED: D.METZ
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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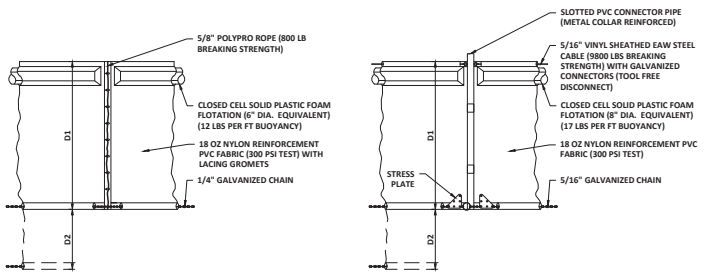
COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION PLAN

DRAWING
C-10

LAST SAVED BY MICHAEL.HOFFMAN 5/18/2023 8:35 AM
J:\ENGR\LEVYCOUNTY\20850 SHELL MOUND BOATRAMP\DRAWINGS\CIVIL\20850-C5 STORMWATERPLAN.DWG | 20850-C5 Stormwaterplan | 12.5 kB | — | 5/18/2023 8:30:54 AM | MICHAEL.HOFFMAN




D1 =5' STD (SINGLE PANEL FOR DEPTHS 5' OR LESS)

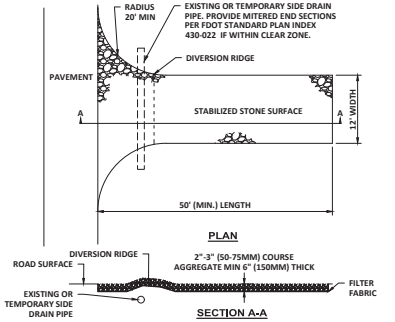
D2 =5' STD (ADDITIONAL PANEL FOR DEPTHS 5')

CURTAIN TO REACH BOTTOM UP TO DEPTHS OF 10 FEET. TWO (2) PANELS TO BE USED FOR DEPTHS GREATER THAN 10 FEET UNLESS SPECIAL DEPTH CURTAINS SPECIFICALLY CALL FOR IN THE PLANS OR AS DETERMINED BY THE ENGINEER.

NOTICE: COMPONENTS OF TYPES 1 AND 2 MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES 1 AND 2 SHALL BE AS APPROVED BY THE ENGINEER.

## TYPICAL FLOATING TURBIDITY BARRIER DETAIL

SCALE: NTS



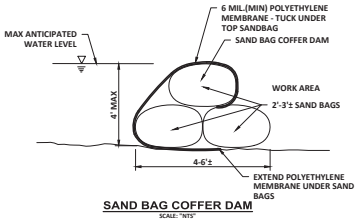

(TEMPORARY, TO BE REMOVED PRIOR TO FINAL SITE PAVING)

NOTE:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWINGS OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIIZED WITH CRISHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

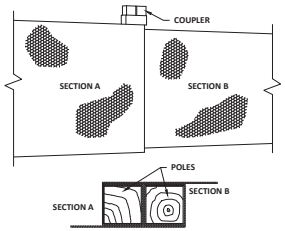
## STABILIZED CONSTRUCTION ENTRANCE

SCALE: "NTS"



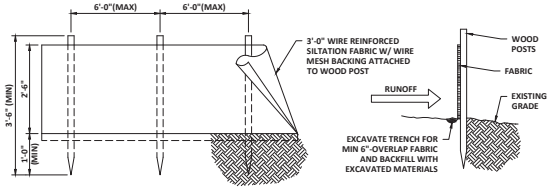

## SAND BAG COFFER DAM

SCALE: "NTS"




## JOINING SILT FENCE SECTIONS

SCALE: "NTS"




## SILT FENCE INSTALLATION DETAIL

SCALE: NTS

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PROJECT NO: 20850
DESIGNED: A.HOFFMAN
CAD/COORD: D.METZ
CAD:
CHECKED: D.METZ
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

STORMWATER POLLUTION PREVENTION DETAILS

DRAWING
C-11

LAST SAVED BY: RMOTES ON: 7/27/2023 3:40 AM
J:\ENGR\LEVYCOUNTY\20850 SHELL MOUND\BOATRAMP\DRAWINGS\CIVIL\20850-CS-STORMWATERDETAILS.DWG | 20850-CS-StormwaterDetails | 1:1.5849 | — | 5/17/2023 3:44:56 PM | MICHAEL.HOFFMAN

**TRAFFIC MAINTENANCE PLAN**
SCALE: 1"=60'

**MAINTENANCE OF TRAFFIC NOTES:**

1. PROVIDE NOTICE TO OWNER 5 BUSINESS DAYS BEFORE TRAFFIC CONTROL PLAN IS INITIATED
2. COMMENCE TRAFFIC CONTROL PLAN IMPLEMENTATION BEFORE OR STARTING THE DAY WORK BEGINS ON THE PROJECT.
3. CONTRACTOR MAY PROPOSE AN ALTERNATIVE TRAFFIC CONTROL PLAN TO THE PLAN PRESENTED. OWNER RESERVES THE RIGHT TO REJECT ANY ALTERNATIVE TRAFFIC CONTROL PLAN.
4. CONTRACTOR TO PROVIDE A WORK SITE TRAFFIC SUPERVISOR WHO IS RESPONSIBLE FOR INITIATING, INSTALLING, AND MAINTAINING ALL TEMPORARY TRAFFIC CONTROL DEVICES AS DESCRIBED ABOVE AND IN THE PLANS.
5. CONDUCT OPERATIONS IN SUCH A MANNER THAT NO UNDUE HAZARD RESULTS FROM THE EXECUTION OF THE TRAFFIC CONTROL PLAN. PROCEDURES AND POLICIES DESCRIBED HEREIN IN NO WAY ACTS AS A WAIVER OF ANY TERMS OF THE LIABILITY OF THE CONTRACTOR OR HIS/HER SURETY.

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PROJECT NO: 20869
DESIGNED: M.HOFFMAN
CALCULATED: D.METZ
CAD: D.METZ
CHECKED:
DATE:
APPROVED:
DATE:
SUBMISSION: PERMIT

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COUNTY OF LEVY, FLORIDA
SHELL MOUND
BOAT RAMP IMPROVEMENTS

TRAFFIC MAINTENANCE PLAN

DRAWING
C-12

J:\ENGR\LEVYCOUNTY\20869 SHELL MOUND BOATRAMP\DRAWINGS\CIVIL\20869-G-TRAFFICPLAN.DWG | 20869-G5-TrafficPlan | 1:1584.9 | — | 5/17/2023 3:45:09 PM | MICHAEL.HOFFMAN

LAST SAVED BY: RBMOTECKI- 7/27/2022 8:44 AM

# SECTION 02000

# REFERENCED FDOT SPECIFICATIONS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. This Section covers the Florida Department of Transportation (FDOT) standard specifications and details applicable to this project and are made part of these project document by reference herein.

### 1.2 SUBMITTALS

The Contractor shall submit shop drawings in accordance with Section 01340 Submittals

### 1.3 REFERENCE STANDARDS

Reference standards and recommended practices referred to in this Specification Section shall be the latest revision of any such document in effect at the bid time, unless otherwise noted. The following documents are a part of this Section. Where this Section differs from these documents, the requirements of this Section shall apply.

A. The July 2022 edition of the *FDOT Standard Specifications for Road and Bridge Construction* (Standard Specifications) and the *FY2022-23 Standard Plans Standards* shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:
   - 100, Construction Equipment – General Requirements.
   - 104, Prevention, Control and Abatement of Erosion and Water Pollution.
   - 105, Contractor Quality Control and General Requirements

B. Where the referenced FDOT Specifications cite "the Department," this shall be modified to “the Owner and/or Engineer” by this contract.

C. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150A Measurement and Payment* and its included Bid Schedule.

D. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

### 1.4 WARRANTIES

A. Warranties shall be in accordance with the General Conditions and Supplementary Conditions.

## PART 2 - PRODUCTS

### 2.1 GENERAL

A. The July 2022 edition of the FDOT Standard Specifications for Road and Bridge

Construction (Standard Specifications) and the FY 2022-23 Standard Plans shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:

- 104, Prevention, Control, and Abatement of Erosion and Water Pollution
- 530, Revetment Systems
- 570, Performance Turf

B. Where the referenced FDOT Specifications cite "the Department," this shall be modified to “the Owner and/or Engineer” by this contract.

C. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150A Measurement and Payment* and its included Bid Schedule.

D. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

## PART 3 - EXECUTION

### 3.1 GENERAL

A. The July 2022 edition of the FDOT Standard Specifications for Road and Bridge Construction (Standard Specifications) and Roadway and Traffic Design Standards shall be referred to for construction, workmanship, and quality control as specified with exceptions as noted in this Section. The referenced FDOT Standard Specifications that apply to this project include the following sections along with the sections referenced within these sections:

- 104, Prevention, Control, and Abatement of Erosion and Water Pollution
- 530, Revetment Systems
- 570, Performance Turf

B. Exceptions

1. Where the referenced FDOT Specifications cite "the Department," this shall be modified to “the Owner and/or Engineer” by this Contract.
2. Payment for this project is in accordance with *Section 00410 Bid Form for Construction Contract and Section 01150A Measurement and Payment* and its included Bid Schedule.
3. Additional requirements superseding the applicable portions of the above FDOT Standard Specifications are provided in the subsequent sections of these Technical Specifications.

END OF SECTION

# SECTION 02XXX

# HYDRAULIC DREDGING

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Furnishing of all labor, materials, and equipment and the performance of work required to complete the dredging as shown on the Contract Drawings and as herein specified.
   2. Hydraulic dredging of a channel basin and the satisfactory pumping of dredged material into the dewatering system.
   3. Protection of tidal flats and uplands outside the limits of construction.
   4. The dredged materials consist of silty/clayey sand and sandy lean silty clay. See the Geotechnical Report in Section XXXXX for more information.

B. Related Work Specified Elsewhere:
   1. Dewatering of dredged material is specified in the appropriate sections in this division.
   2. Stormwater pollution prevention and temporary erosion control are specified in the FDOT referenced specifications.

### 1.2 SUBMITTALS

A. Prior to any dredging work, the Contractor shall submit the following for approval by the Engineer. No work shall begin without approval by the Engineer.
   1. Dredging Operation Plan including the following:
      a. Project team organization with duties, responsibilities, and authorities clearly defined.
      b. Order of work.
      c. Schedule.
      d. Quality Control procedures.
      e. Spill Containment Plan.
      f. Accident Prevention Program Plan: Written plan describing the Contractor's Accident Prevention Program.
   2. Pumping Plan including the following:
      a. Size, material, and layout of discharge line.
      b. Proposed pumping rate.
      c. Type of dredger head (Plain, cutter, auger, etc)
      d. Method and equipment to advance dredge through the channel.
      e. Method and equipment to prevent spillage of dredged material.
   3. Product brochures and technical specifications for the dredging platform, pump, and pipeline.

## PART 2 - PRODUCTS

### 2.1 DREDGING EQUIPMENT

A. Dredging shall be accomplished using a hydraulic dredge of suitable size and power for the work to be performed. The dredge shall be capable of dredging at the depths required. Selection of dredge equipment shall be coordinated with the design of the dewatering system.

B. All equipment shall be inspected regularly to ensure proper operation and to prevent spills and leakage. Regular maintenance must be performed throughout the project.

### 2.2 PIPING

A. Piping from the dredge to the dewatering system shall consist of high-density polyethylene pipe fused to provide leakproof joints. Strength and diameter of the pipe shall be sufficient to allow for the selected dredging rate and to maintain structural integrity.

B. Piping shall be maintained in good working order throughout the project.

## PART 3 - EXECUTION

### 3.1 SAFETY:

A. All work shall be performed in conformance with all applicable laws and regulations.

B. Cables for pontoon platforms, if used, shall be suitably marked and delineated along their entire length.

C. The pipeline shall be anchored in place along its entire length in tidal waters at a distance sufficient to prevent pipeline movement during tidal and storm flows.

### 3.2 DREDGING

A. Contractor shall inform the Engineer and Owner of the date of dredging commencement at least two (2) weeks prior.

B. Contractor shall establish and maintain baselines and control, throughout the project duration, as approved by the Engineer, to maintain the work within the limits indicated by the Drawings.

C. Bedrock or hardpan layers shall not be removed.

D. Placement of dredging equipment shall be performed in a manner to protect existing salt marsh flora and fauna.

E. Care shall be taken in the execution of work to protect the existing boat ramp, dock, and other features in the vicinity of the work site. Damage caused by the work shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost to the County.

F. Miscellaneous material such as anchors, chains, and other non-soil material which are encountered in the course of dredging operations shall become the property of the Contractor and shall be disposed of in an appropriate manner off-site consistent with local, state, and federal regulations.

G. All operation of pontoons, work boats, or other similar vessels shall be performed in a manner to prevent impact to adjacent salt marsh areas. No anchoring or cabling is to be allowed within the adjacent salt marshes.

H. All fueling operations shall be done within containment systems designed to prevent

spillage from entering the surrounding environment.

I. Contractor shall have full responsibility for all phases of the dredging and pumping operations.

## 3.3 PUMPING OF DREDGE MATERIAL

A. The dredged material shall be continuously pipe from the dredge to the dewatering system through watertight pipelines. The piping layout shall include valves or fittings to allow the flexibility to switch from one dewatering system component to another or to pump to multiple components at once.

END OF SECTION

# SECTION 02401

# DEWATERING OF DREDGED MATERIAL

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work Included:
   1. Furnish, operate, and maintain a temporary dewatering system to dewater dredged material.
   2. Disposal of dredged materials.

B. Related Work Specified Elsewhere:
   1. Hydraulic dredging of the channel basin's sand/silt material is specified in the appropriate sections in this division.
   2. Stormwater pollution prevention and temporary erosion control are specified in the FDOT referenced specifications.

### 1.2 SUBMITTALS

A. Submit a dewatering plan meeting the requirements of all attached permits and the construction plans.
   1. Plan must address layout of dewatering system within the limits of work shown on the plans and how it is operated in conjunction with dredging operations.
   2. Provide information including but not limited to pumping rates, dewatering rates, discharge location and flowrate, effluent monitoring, and operation.

B. Submit product brochures, technical specifications, and O&M manuals of all dewatering products to be used.
   1. Products could include but are not limited to geomembranes, geotextile tubes, mechanical separators, or other similar dewatering equipment.

### 1.3 DESIGN

A. Location of the temporary dewatering system shall be within the limits of work delineated on the plans.

B. Dewatering system shall be of sufficient size and capacity necessary to fully contain the dredged material and allow the dredged material to sufficiently dry prior to off-site disposal.
   1. Sufficiently dry shall be defined as the absence of free liquids as determined by Method 9095B (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

C. Dewatering system shall exceed the capacity of the hydraulic dredge to avoid frequent stopping of the hydraulic dredge operations.

D. The dewatering system must allow water leaving the dewatering system to enter the adjacent surface waters in a non-erosive manner.

E. Quality of the water leaving the dewatering system shall comply with all attached permits.

F. Dewatering system shall not employ the use of flocculants.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Erosion Control Products: Refer to Section 02000 and Drawings for locations and details.

B. Geotextile Tubes:
   1. Factory Seam Strength (ASTM D-4884): 400 lbs/in
   2. Wide Width Tensile Strength (ASTM D-4595): 5,400 x 7,464 lbs/ft
   3. Wide Width Elongation @ Break (ASTM D-4595): 20 x 18 %
   4. Wide Width Tensile Strength @ 2% Strain (ASTM D-4595): 300 x 1,620 lbs/ft
   5. Wide Width Tensile Strength @ 5% Strain (ASTM D-4595): 1,440 x 3,840 lbs/ft
   6. Wide Width Tensile Strength @ 10% Strain (ASTM D-4595): 3,840 lbs/ft
   7. CBR Puncture (ASTM D-6241): 3,000 lbs
   8. Trapezoidal Tear (ASTM D-4533): 250 x 300 lbs
   9. Apparent Opening Size (ASTM D-4751): 30 US Sieve
   10. Permittivity (ASTM D-4491): 0.27 $Sec^{-1}$
   11. Water Flow Rate (ASTM D-4491): 20gal/min/$ft^2$
   12. Pore Size 0(50) (ASTM D-6767): 140 US Sieve
   13. Pore Size 0(95) (ASTM D-6767): 40 US Sieve
   14. UV Resistance @ 1,400 Hours (ASTM D-4355): 85%

## PART 3 - EXECUTION

### 3.1 PERFORMANCE

A. General:
   1. Prior to any dredging, the temporary dewatering system, maintenance of traffic system, and all associated erosion control measures shall be in place.
   2. All utilities (water, wastewater, and underground electric) service connections within the footprint of the temporary dewatering system shall be temporarily removed and capped or made safe in accordance with applicable codes.
   3. All areas used for temporary storage and dewatering of the dredge material shall be lined with a UV stable HDPE 60 mil geomembrane.

B. Geotextile Tubes:
   1. Geotextile tube rows should be unloaded with equipment that will not damage the materials. No hooks, tongs, or other sharp instruments shall be used to handle the tubes. Tubes should not be dragged along the ground. Tubes should be unrolled into position as recommended by the manufacturer.
   2. Before geotextile tubes are laid down, the lay down area shall be prepared as follows:
      a. Removal of debris, rocks, exposed roots, and other material that could puncture the tube.
      b. Grade site so that grades perpendicular to geotextile tube length are no more than 0.5% grade.
      c. Line laydown area with UV stable HDPE 60 mil geomembrane.

d. Place washed drainage rock across the laydown area.

3. Unroll and deploy the tube on top of the drainage media starting on the upper end of the dewatering site.
4. Geotextile tubes shall be secured as to prevent rolling or other movement during construction. Geotextile tubes shall not be stacked.
5. Attach dredging discharge line to the filling port(s) of the tube(s) with a secure and watertight connection before pumping. Do not exceed manufacturer's recommended volumes and/or heights of the tubes.
6. Once the material in the tube has dewatered sufficiently as previously described, tube may be cut open to remove the dewatered material.

C. Disposal of Water:
1. Dispose of water from dredged material by draining it back towards the erosion control practices protecting the marsh and waterbodies in a suitable manner to prevent sediment from reaching said marsh and waterbodies.
2. Construct temporary erosion and sediment control devices down-gradient of the dewatering system to provide additional sedimentation control, subject to the Engineer's approval.

D. Disposal of Dredged Sediment Material:
1. Once materials have sufficiently dried, load dredged material onto trucks and transport directly to the one of the following landfills:
   a. New River Landfill, Raiford, FL 32083
   b. Heart of Florida Landfill, Lake Panasoffkee, FL 33538
2. Materials shall be covered while being transported to prevent materials from exiting the vehicle.

E. Restoration:
1. Upon project completion, the area used for temporary stockpile and dewatering shall be restored to its existing conditions. All construction materials shall be removed, the existing vegetation restored, and the temporarily removed utility (water and underground electric) components shall be restored to their original configuration and operation.
2. Contractor shall be responsible for any waste cleanup activities required due to the construction of the project.

END OF SECTION

# CONSTRUCTION COMMENCEMENT NOTICE

**Instructions**: In accordance with Chapter 62-330.350(1)(d), F.A.C., complete and submit this form at least 48 hours prior to commencement of activity authorized by permit.

Permit No. _____ Application No. _____

Project Name _____ Phase _____

Construction of the system authorized by the above referenced Environmental Resource Permit and Application, is expected to commence on _____ , 20 _____ and will have an estimated completion date of _____ , 20 _____

**PLEASE NOTE:** If the actual construction commencement date is not known within 30 days of issuance of the permit, District staff should be so notified in writing. As soon as a construction commencement date is known, the permittee shall submit a completed construction commencement notice form.

Permittee's or Authorized Agent's Signature _____ Company _____

Print Name _____ Title _____ Date _____

E-mail _____ Phone Number _____

Reset Form Save & Print

# As-Built Certification
# And Request for Conversion to Operation Phase

Instructions: Complete and submit this page within 30 days of completion of the entire project, or any independent portion of the project, as required by the permit conditions. The operation phase of the permit is effective when the construction certification for the entire permit/application is approved by the Agency. If the final operation and maintenance entity is not the permittee, the permittee shall operate the project, system, works, or other activities temporarily until such time as the transfer to the operation entity is finalized (use Form 62-330.310(2)).

Permit No: Application No: Permittee:

Project Name: Phase or Independent Portion (if applicable):

I HEREBY CERTIFY THAT (please check only one box):

☐ To the best of my knowledge, information, and belief, construction of the project has been completed in substantial conformance with the plans specifications and conditions permitted by the Agency. Any minor deviations will not prevent the project from functioning in compliance with the requirements of Chapter 62-330, F.A.C. Attached are documents to demonstrate satisfaction of the outstanding permit conditions, other than long term monitoring and inspection requirements.

☐ Construction of the project was NOT completed in substantial conformance with the plans and specifications permitted by the Agency. Any deviations or independent phasing will not prevent the project from functioning in compliance with the requirements of Chapter 62-330, F.A.C. (Contact the permitting agency to determine whether a modification of the permit will be required in accordance with Rule 62-330.315, F.A.C.) Attached is a description of substantial deviations, a set of as-built drawings, and documents to demonstrate satisfaction of the outstanding permit conditions, other than long term monitoring and inspection requirements.

☐ Construction of the project was NOT completed in substantial conformance with the plans and specifications permitted by the Agency. There are substantial deviations that prevent the project from functioning in compliance with the requirements of Chapter 62-330, F.A.C. I acknowledge that corrections to the project and/or a modification of the permit will likely be required, and that conversion to the operation phase cannot be approved at this time. As-built or record drawings reflecting the substantial deviations are attached.

**For activities that require certification by a registered professional*:***

By: _____ (Print Name) (Fla. Lic. or Reg. No.)
Signature

(Company Name) (Company Address)

(Telephone Number) (Email Address)

AFFIX SEAL

(Date)

**For activities that do not require certification by a registered professional:**

By: _____ (Print Name)
Signature

(Company Name) (Company Address)

(Telephone Number) (Email Address) (Date)

## Drawings and Information Checklist

**Following is a list of information that is to be verified and/or submitted by the Registered Professional or Permittee:**

1. All surveyed dimensions and elevations shall be certified by a registered Surveyor or Mapper under Chapter 472, F.S.

2. The registered professional's certification shall be based upon on-site observation of construction (scheduled and conducted by the registered professional of record or by a project representative under direct supervision) and review of as-built drawings, with field measurements and verification as needed, for the purpose of determining if the work was completed in accordance with original permitted construction plans, specifications, and conditions.

3. If submitted, the as-built drawings are to be based on the permitted construction drawings revised to reflect any substantial deviations made during construction. Both the original design and constructed condition must be clearly shown. The plans need to be clearly labeled as "as-built" or "record" drawings that clearly highlight (such as through "red lines" or "clouds") any substantial deviations made during construction. As required by law, all surveyed dimensions and elevations required shall be verified and signed, dated, and sealed by an appropriate registered professional. The following information, at a minimum, shall be verified on the as-built drawings, and supplemental documents if needed:

    a. Discharge structures - Locations, dimensions and elevations of all, including weirs, orifices, gates, pumps, pipes, and oil and grease skimmers;
    b. Detention/Retention Area(s) – Identification number, size in acres, side slopes (h:v), dimensions, elevations, contours, or cross-sections of all, sufficient to determine stage-storage relationships of the storage area and the permanent pool depth and volume below the control elevation for normally wet systems,
    c. Side bank and underdrain filters, or exfiltration trenches - locations, dimensions, and elevations of all, including clean-outs, pipes, connections to control structures, and points of discharge to receiving waters;
    d. System grading - dimensions, elevations, contours, final grades, or cross-sections to determine contributing drainage areas, flow directions, and conveyance of runoff to the system discharge point(s);
    e. Conveyance - dimensions, elevations, contours, final grades, or cross-sections of systems utilized to divert off-site runoff around or through the new system;
    f. Benchmark(s) - location and description (minimum of one per major water control structure);
    g. Datum- All elevations should be referenced to a vertical datum clearly identified on the plans, preferably the same datum used in the permit plans.

4. Wetland mitigation or restoration areas - Show the plan view of all areas, depicting a spatial distribution of plantings conducted by zone (if plantings are required by permit), with a list showing all species planted in each zone, numbers of each species, sizes, date(s) planted, and identification of source of material; also provide the dimensions, elevations, contours, and representative cross-sections depicting the construction.

5. A map depicting the phase or independent portion of the project being certified, if all components of the project authorized in the permit are not being certified at this time.

6. Any additional information or outstanding submittals required by permit conditions or to document permit compliance, other than long-term monitoring or inspection requirements.

# REQUEST TO TRANSFER PERMIT

Instructions: Submit this form to the Agency within 30 days after any transfer of ownership or control of the real property where the permitted activity is located.

Note: Use of this form is not required when a valid permit is in the operation and maintenance phase. In such case, the owner must notify the Agency in writing within 30 days of a change in ownership or control of the entire real property, project, or activity covered by the permit. The notification may be letter, e-mail, or using this form, sent to the office that issued the permit. A processing fee is not required for this notice. The permit shall automatically transfer to the new owner or person in control, except in cases of abandonment, revocation, or modification of a permit as provided in Sections 373.426 and 373.429, F.S. (2012). If a permittee fails to provide written notice to the Agency within 30 days of the change in ownership or control, or if the change does not include the entire real property or activity covered by the permit, then the transfer must be requested using this form.

Permit No.: _____ Application No(s).: _____ Date Issued: _____

Identification or Name of Surface Water Management System: _____

Phase of Surface Water Management System (if applicable): _____

***PART 1: PROPOSED PERMIT HOLDER***

The undersigned hereby notifies the Agency that I have acquired ownership or control of the land on which the permitted system is located through the sale or other legal transfer of the land. By signing below, I hereby certify that I have sufficient real property interest or control in the land in accordance with subsection 4.2.3 (d) of Applicant's Handbook Volume I; attached is a copy of my title, easement, or other demonstration of ownership or control in the land, including any revised plats, as recorded in the Public Records. I request that the permit be modified to reflect that I agree to be the new permittee. By so doing, I acknowledge that I have examined the permit terms, conditions, and drawings, and agree to accept all rights and obligations as permittee, including agreeing to be liable for compliance with all of the permit terms and conditions, and to be liable for any corrective actions required as a result of any violations of the permit after approval of this modification by the Permitting Agency. Also attached are copies of any recorded restrictive covenants, articles of incorporation, and certificate of incorporation that may have been changed as a result of my assuming ownership or control of the lands. As necessary, I agree to furnish the Agency with demonstration that I have the ability to provide for the operation and maintenance of the system for the duration of the permit in accordance with subsection 12.3 of Applicant's Handbook Volume I.

Name of Proposed Permit Holder: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ Fax: _____ E-mail: _____

Signature of Proposed Permittee _____ Date _____

Title (if any) _____

***PART 2: RESPONSIBLE REGISTERED PROFESSIONAL***

Name of Registered Professional who will be responsible for system inspections and reporting as required by Chapter 62-330, F.A.C. (if applicable): _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: _____ Fax: _____ E-mail: _____

Enclosures:
☐ Copy of recorded transfer of title for surface water management system
☐ Copy of plat(s)
☐ Copy of recorded restrictive covenants, articles of incorporation, and certificate of incorporation
☐ Other

# OPERATION AND MAINTENANCE INSPECTION CERTIFICATION

Instructions: Submit this form to the Agency within 30 days of completion of the inspection after any failure of a stormwater management system or deviation from the permit. This form may also be used to document inspections required under Section 12.4 of Applicant's Handbook Volume I, however submittal to the Agency is not required unless requested by the Agency.

Permit No.: _____ Application No.: _____ Date Issued: _____

Identification or Name of Stormwater Management System: _____

Phase of Stormwater Management System (if applicable): _____

Inspection Date: _____

Inspection results: (check all that apply)

☐ The undersigned hereby certifies that the works or activities are functioning in substantial conformance with the permit. This certification is based upon on-site observation of the system conducted by me or my designee under my direct supervision and my review of as-built plans.

☐ The following maintenance was conducted since the last inspection (attach additional pages if needed):

_____

☐ The undersigned hereby certifies that I or my designee under my direct supervision has inspected this surface water management system and the system does not appear to be functioning in substantial conformance with the permit. I am aware that maintenance or alteration is required to bring the system into substantial compliance with the terms and conditions of the permit. As appropriate, I have informed the owner of the following:

(a) The system does not appear to be functioning properly;
(b) That maintenance or repair is required to bring the system into compliance; and
(c) If maintenance or repair measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed subsequent to approval by the agency below.

The following components of the system do not appear to be functioning properly (attach additional pages if needed):

_____

**Any components of the constructed system that are not in substantial conformance with the permitted system shall require a written request to modify the permit in accordance with the provisions of Rule 62-330.315, F.A.C. If such modification request is not approved by the agency below, the components of the system that are not in conformance with the permit are subject to enforcement action under Sections 373.119, .129, .136, and .430, F.S.**

Name of Inspector: _____ Florida Registration Number: _____

Company Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Fax: _____ Email: _____

_____ _____

Signature of Inspector Date

## Report Reviewed by Permittee:

Name of Permittee: _____

_____ _____

Signature of Permittee Date

_____

Title (if any)

# APPENDIX C
## Geotechnical Report

Madrid CPWG

# Summary Report - Final

## Shell Mound Soil Sampling and Lab Testing Services
## Cedar Key, Florida

Prepared for:

***Wright Pierce***

Prepared by:

***MADRID ENGINEERING GROUP, INC., dba MADRID CPWG***
2030 State Road 60 East
Bartow, FL 33830
863-533-9007

**Project No. 14758**
May 2022

MADRID CPWG
2030 State Road 60 E
Bartow FL 33830-4268
Ph: (863) 533-9007
Fax: (863) 533-8997

May 6, 2022

Wright Pierce
11 Bowdoin Mill Island, Suite 140
Topsham, Maine 04086
Attn: Lucas Anthony, PE

**Re: Madrid Project No. 14758**
**Summary Report - Final**
**Shell Mound Soil Sampling and Lab Testing Services**
**Cedar Key, Florida**

Dear Mr. Anthony:

Madrid Engineering Group, Inc., dba Madrid CPWG, (Madrid) is pleased to submit this Summary Report summarizing the results of our soil sampling and lab testing services completed for the above referenced project. The work was completed in general accordance with the authorized scope of work in our cost estimate proposal dated March 25, 2021 and authorized by Wright Pierce with a signed agreement dated January 17, 2022. The report provides a description of the sampling process and a description and characterization of subsoil stratigraphy, soil profiles, and laboratory testing summary results.

We appreciate the opportunity to be of service to you on this project and look forward to working with you on future projects. If you have any questions, please do not hesitate to contact us.

Sincerely,
***Madrid Engineering Group, Inc. (EB 6509)***

JOHN EDWARD DELASHAW LICENSE No. 48154 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/6/22

John E. Delashaw, P.E.
Principal
Florida P.E. No. 48154

**Attachment**: Summary Report - Final

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# 1.0 INTRODUCTION AND PROJECT DESCRIPTION

## 1.1 General

Madrid Engineering Group, Inc., dba Madrid CPWG, (Madrid) is pleased to submit this report summarizing the results from our sediment sampling and lab testing services to support the dredging plan by Wright Pierce for a boat launching facility in Cedar Key, Florida. Our conclusions and recommendations are based on the results of our field exploration, laboratory testing, and appropriate engineering analyses. The location of sediment sampling was provided by Wright Pierce.

## 1.2 Site Location and Description

The subject site is located approximately 5.5 miles north of the City of Cedar Key as shown on **Figure 1,** Site Location Map. Specifically, the property is located in Sections 36, Township 14 South, Range 12 East in Levy County, Florida. The subject project area is currently used as boat launching station. The general topography of the area is presented in **Figure 2**, USGS Topographic Map. The NRCS/USDA Soils Map is presented in **Figure 3** for reference.

## 1.3 Purpose and Scope of Work

The purpose of the exploration was to collect sediment samples for both geotechnical and environmental characterization and then provide support to the design and permitting services being completed by Wright Pierce for this dredging project. Sampling within the channel was completed from a pontoon boat used to navigate the shallow waters as well as over the shallow sediments. The scope of work included field sampling, depth measurements and laboratory testing programs as detailed in this report.

# 2.0 FIELD SAMPLING

## 2.1 General

The field sampling was conducted on March 25, 2022 and consisted of performing soil sampling at three (3) locations to depths ranging from 1.5 to 5.5 feet below mudline. An engineering technician familiar with soil classification and field evaluations placed them in the sealed containers, and returned them to Madrid's laboratory for further examination, testing, and classification. The sampling locations were located in the field using a hand-held GPS. The approximate sampling locations are shown on **Figure 4, Sampling Location Plan**.

At each sampling location, the first completed task was to measure the clear water depth and probe to determine the bottom of the soft sediment interval. A composite bulk sample of the shallower sediments from all three sampling sites consisting of a total of approximately 4.5 gallons was collected. A piston-tube sampler was used to collect

samples at the target 1-foot intervals. Please refer to **Section 2.2 Sampling** for an overview of the sampling process. A total of 15 sediment samples were collected for testing.

## 2.2 Sampling

### 2.2.1 Geotechnical Sampling

Madrid collected sediment samples at three (3) locations - at the north (Sample Location 3), middle (Sample Location 2), and south (Sample Location 1) areas of the proposed dredging area. Discrete sediment samples were collected using piston tube samplers at target depths of 1, 2, 3, 4 and 5 feet below the top of sediment, and were tested for moisture content, organic content, and percent passing the No. 200 sieve. A total of 15 piston tube samples were collected. It is noted that refusal on hard material was encountered at 4.5 feet at Location 1 and at less than 2 feet at Location 3. Samples were collected at smaller intervals at Location 3 to provide more samples for testing.

A bulk sample (5-gallon bucket) of sediment and a bulk (5-gallon) water sample were collected for hydrometer testing. There remains extra sample volume for testing if other testing is desired.

### 2.2.1 Environmental Sampling

Madrid collected three (3) grab samples of sediment from the planned channel dredge cut. Each sediment sample was collected with a piston tube sampler that was standard-cleaned prior to use in accordance with FDEP-SOP-001/01, FS 3000 (Soil), and FC 1000 (cleaning and decontamination) dated January 2017. Sediment samples were transferred into standard-cleaned bowls and photographed prior to placement in laboratory-supplied containers. Each sediment sample was presented to a NELAP-certified analytical laboratory for analysis of:

- Total Recoverable Petroleum Hydrocarbons using Florida PRO
- Volatile Organic Compounds using EPA Method 8260
- Polynuclear Aromatic Hydrocarbons using EPA Method 8270, and
- Total RCRA Metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag) by ICP.

## 2.3 Water Depth Soundings

During the sampling event, the owner requested that water depth data be collected from the sampling locations. A total of 3 soundings were collected from three probing locations. The water depths at north (Sample Location 3), middle (Sample Location 2), and south (Sample Location 1) sounding position was measured to be 1 foot, 1.5 feet, and 1 foot, respectively.

# 3.0 SUBSURFACE CONDITIONS AND LABORATORY TESTING

## 3.1 Subsurface Soil Conditions

In general, the materials encountered are silty/clayey sand with varying organic content within the sample probing depth limits; except at sample location 2 where inorganic sandy lean silty clay was encountered at the base of the sampling interval between 18 inches to 20 inches-depth below mudline. The general soil profiles described above are based on our interpretation of subsurface conditions encountered at the sampling locations only. Boundaries between soil layers are approximate and for illustration purposes only. Variations in soil conditions in both horizontal and vertical directions different from those presented are likely to exist between sampling locations.

## 3.2 Laboratory Test Results

### 3.2.1 General

Soil samples collected from the field sampling program were returned to our laboratory for further examination and testing to confirm field classifications and help evaluate engineering properties of the materials encountered. Laboratory testing of selected representative samples, or representative composite samples, was performed in general accordance with ASTM standards. Laboratory tests for moisture content (ASTM D2216), percent passing the U.S. No. 200 sieve (ASTM D1140), Organic Content Test (ASTM D2974), and Hydrometer tests (ASTM D422), were performed on selected samples to verify the soil classifications and measure clay properties needed for Wright Pierce to perform the subsequent evaluations.

### 3.2.2 Moisture Content and Percent Passing U.S. No. 200 Sieve

Moisture Content and Percent Passing the U.S. No. 200 Sieve results are included in **Appendix A**. The test result indicates the moisture content of the sediment samples varied between 25 % and 130.6%. The percent 200 on the tested samples varied between 18.6 to 61.2% indicating the tested soils were mostly silty/clayey sand.

### 3.2.3 Organic Content Test

Organic content tests are performed to determine the percent organic matter within soil and sediment. Fifteen (15) organic content tests were performed on the collected sediment samples per ASTM Method D2974. The test results indicate the organic content of the tested soils varied between 0.1 to 13.6% and averaged 3.4%; all but one were below 5%; indicating the soils were primarily inorganic with one highly organic sample.

### 3.2.4 Hydrometer Test

Two (2) Hydrometer Tests were performed on composite samples in general accordance with ASTM D 422 and on the basis of 100 percent of the sample passing the

No. 10 sieve. The composite samples were prepared by collecting the bottom 1/3 from sample S-1, then bottom 1/3 for sample S-2 and remaining 1/3 from sample S-3. The samples were prepared by collecting a target of approximately 50 grams (dry weight) of soil from the pre-made composite samples and performing the tests per ASTM D 422. In one of the hydrometer tests, the water collected from the site was used instead of distilled water. After the test, the material was washed through the No. 200 sieve. See **Appendix A** for specific test results. The fine fraction (material less than 0.075 mm) is comprised predominantly of silt-sized particles with little clay fines (smaller than 0.002 mm).

### 3.2.5 Porosity

Porosity is the ratio of the volume of voids to the total volume of a soil sample. Higher the porosity, the lesser the solid content will be in a soil sample. Based on the specific gravity of soil solids as 2.70 and assuming the soil samples are fully saturated, the porosity of the soil samples was estimated from moisture content data. The moisture content in the soil samples varied between 25% and 131%; correspondingly, the porosity of the tested soils ranged from about 40% to 78%, respectively.

### 3.2.6 Environmental Testing

Madrid collected three (3) grab samples of sediment from the planned channel dredge cut. Each sediment sample was collected with a piston tube sampler that were standard-cleaned prior to use in accordance with FDEP-SOP-001/01, FS 3000 (Soil), and FC 1000 (cleaning and decontamination) dated January 2017. Sediment samples were transferred into standard-cleaned bowls and presented to a NELAP-certified analytical laboratory for analysis, the result of which are attached in **Appendix B**.

The three sediment samples, designated as S-1, S-2, and S-3, were submitted to Advanced Environmental Laboratories, Inc. for analyses using Method 8260 for volatile organic compounds, Method 8270 for polycyclic aromatic hydrocarbons, Method FL-PRO for total recoverable petroleum hydrocarbons, Method 6010 for RCRA metals, and Method 7471A for Mercury.

Laboratory analytical results confirmed the presence of ten compounds in concentrations above the Method Detection Limit (MDL). These compounds include Acetone, Carbon Dioxide, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenze, and six metals (Table 1).

The only compound detected in concentrations exceeding the FDEP-established Soil Cleanup Target Level (SCTL), listed in Table III, Chapter 62-777, Florida Administrative Code (FAC), was Arsenic. The metal was detected in each of the three

sediment samples above the 2.1 mg/kg SCTL for residential, but below the 12 mg/kg SCTL for commercial/industrial.

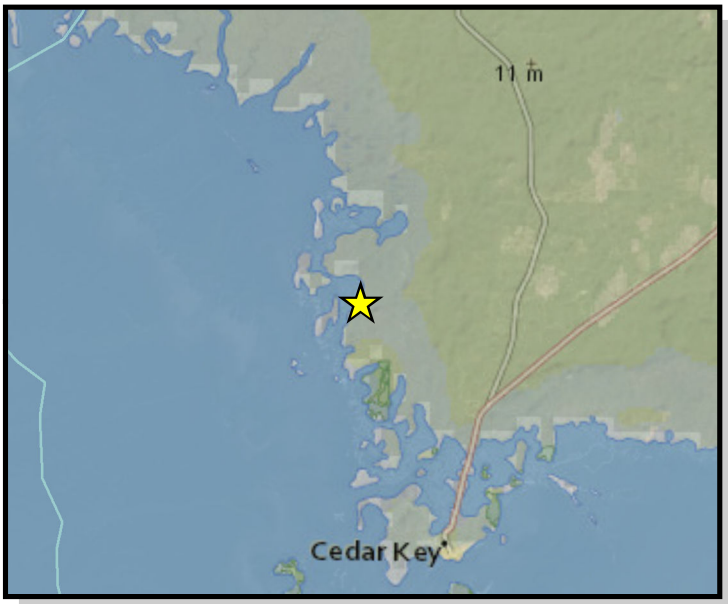
### 3.3 Results Summary and Conclusion

The sediments sampled consist primarily of inorganic silty to clayey fine sand and not as high of average fines content than one might expect. There was at least one sample of silty clay of those samples collected. The hydrometer testing on composite samples indicates that the fine fraction of the samples consists predominantly of silt-sized particles with little clay. The samples “feel” like there is more clay than the testing reveals.

The presence of Arsenic is common in sediments that were deposited within a marine environment, particularly where limestone and shell are present. If the dredged material is removed from the site, proper disposal will be required. The levels of contaminants are low and will not require classification as hazardous but cannot be used as an off-site fill of any type. The dredged spoil is recommended to be disposed to a nearby landfill. Based on the estimated yardage to be removed and locating the nearest landfill facility that will accept the material, we recommend find a transport company that can haul the dredge spoil. It will need waste manifests for each load, and the receiving facility will need a character profile analysis based on their permit requirements. Sometimes more detail type of analyses may be required than what have been performed already for the project.

## 4.0 LIMITATIONS

This report has been prepared for Wright Pierce to support the dredging project at the boat launch facility. This report is intended for use by the designers of this project; it is not a specification document and is not intended for use as a part of the specifications. Varying degrees of non-uniformity of the horizontal and vertical soil conditions are likely to exist between sampling locations. The study reported herein has been conducted in accordance with the generally accepted standards, principles and practices in the geotechnical engineering profession. No other warranty, expressed or implied, is made. Madrid is not responsible for the independent conclusions, opinions, and/or recommendations made by others based on the field investigation and laboratory testing data presented in this report. This study does not include an evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface.



Sources: GIS Information (ESRI)

MADRID CPWG
2030 State Road 60 East
Bartow, Florida 33830
863 533-9007 Fax: 863 533-8997
EB-0006509

Wright Pierce

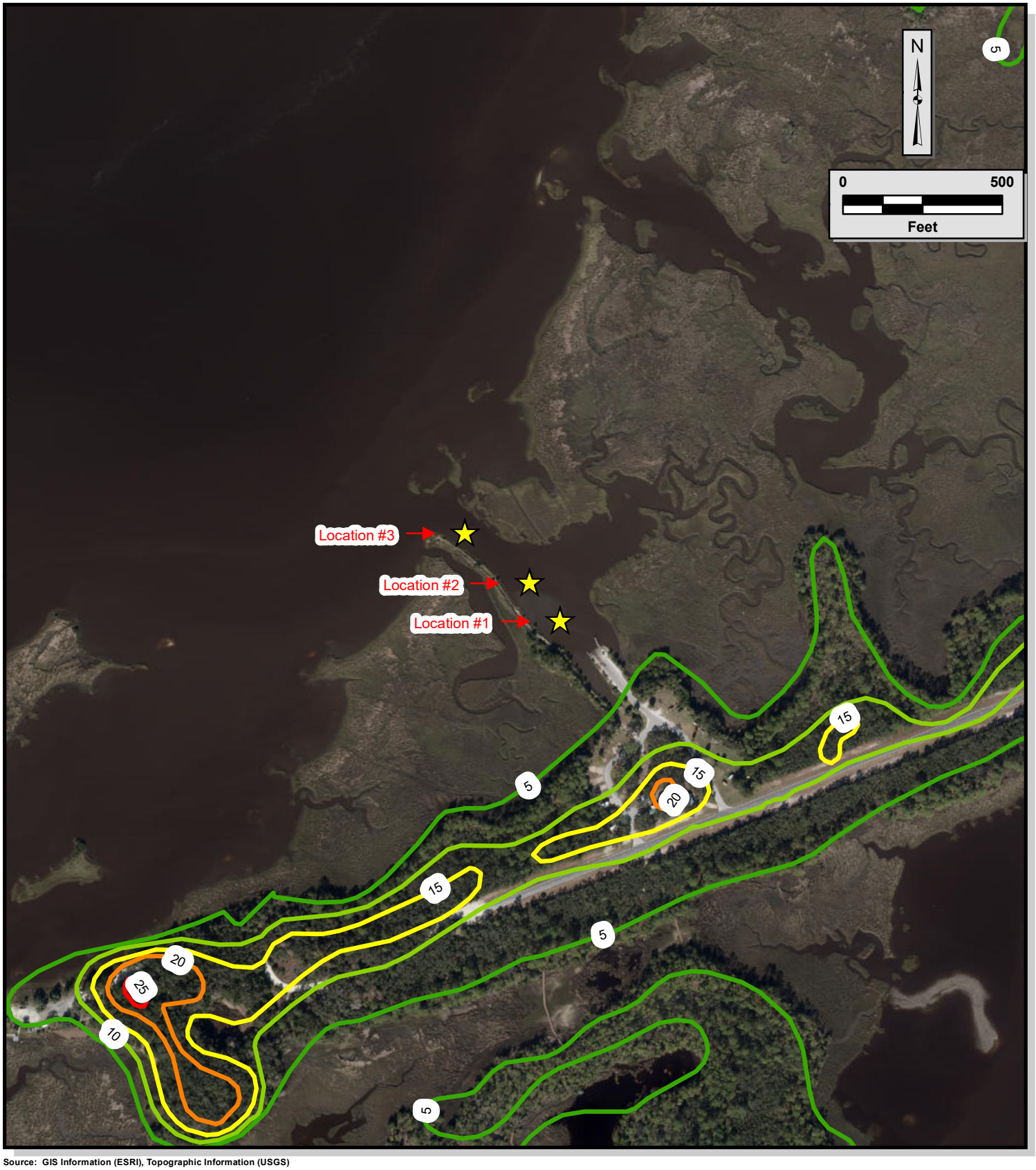
**FIGURE 1**
**Site Location Map**
**Shell Mound Engineering Support**
**Cedar Key, Florida**

Project Number:
14758

Notes:

Drawn By: DS

Checked By: DeS




Source: GIS Information (ESRI), Topographic Information (USGS)

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Bartow, Florida 33830
863 533-9007 Fax: 863 533-8997
EB-0006509

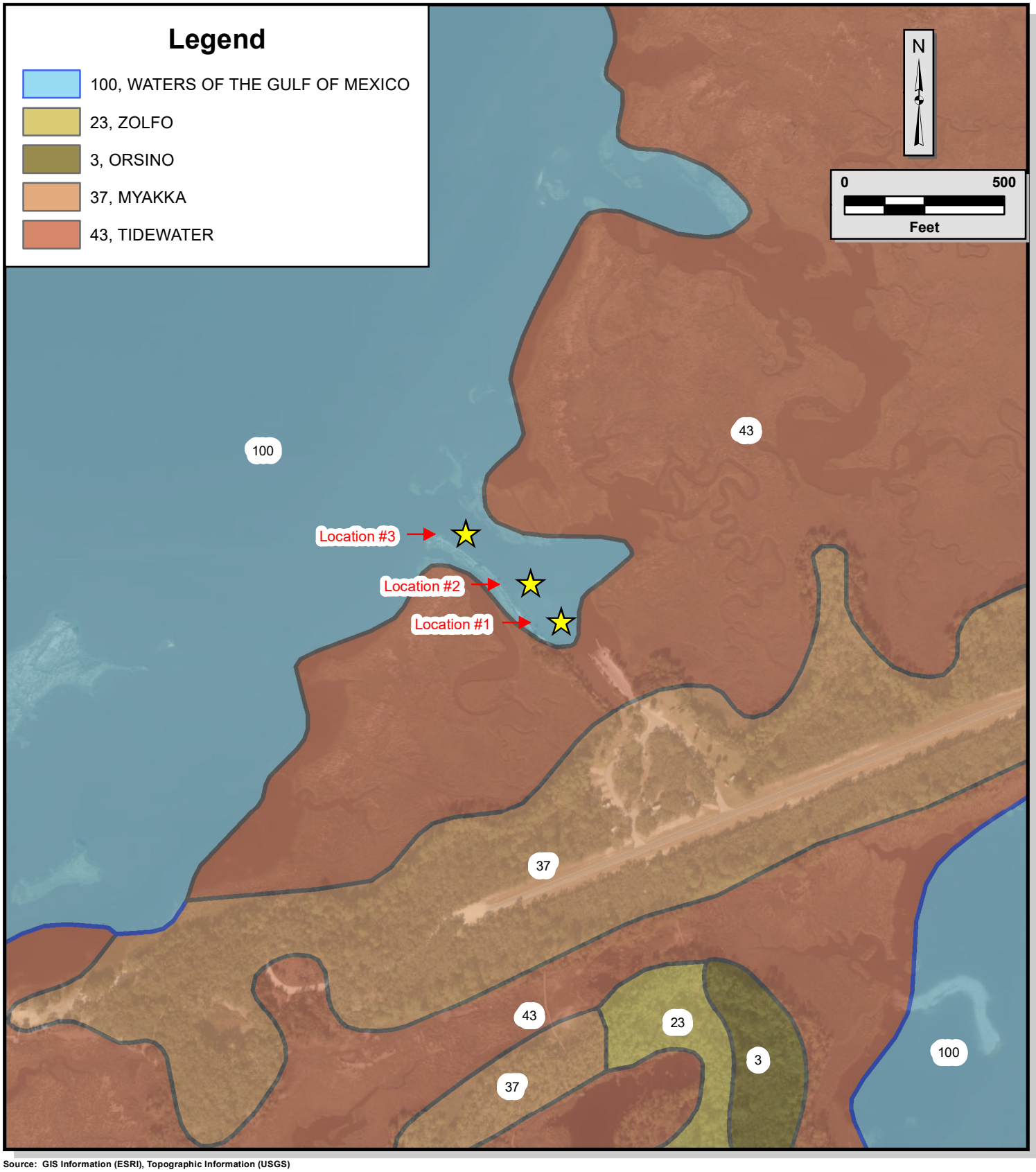
Wright Pierce

**FIGURE 2**
**USGS Topographic Map**
**Shell Mound Engineering Support**
**Cedar Key, Florida**

Project Number:
14758

Drawn By: DS

Checked By: DeS




Source: GIS Information (ESRI), Topographic Information (USGS)


**MADRID CPWG**
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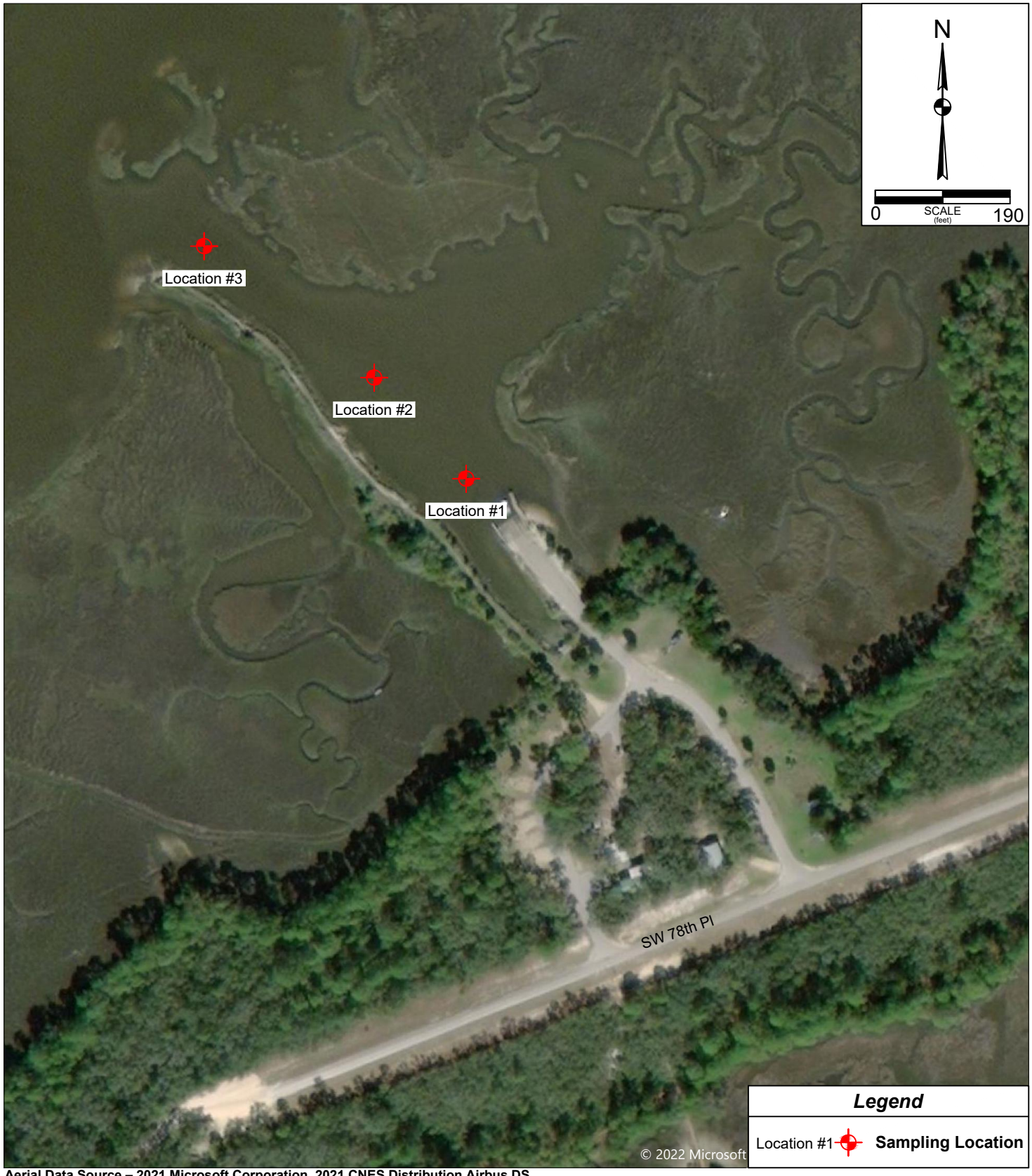
EB-0006509


**Wright Pierce**

**FIGURE 3**
**NRCS/USDA Soils Map**
**Shell Mound Engineering Support**
**Cedar Key, Florida**

| Drawn By: DS | Checked By: DeS | Project Number: 14758 |
|---|---|---|




Aerial Data Source – 2021 Microsoft Corporation, 2021 CNES Distribution Airbus DS.


**MADRID CPWG**
2030 State Road 60 East
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863 533-9007 Fax: 863 533-8997
EB-0006509


**Wright Pierce**

**FIGURE #4**
**Sampling Location Plan**
**Shell Mound Engineering**
**Cedar Key, Florida**

**Project Number:**
**14758**

| Notes: Base map provided by Client. | Drawn By: DS | Checked By: DeS |
|---|---|---|

**Photo 1: Extracting Split Spoon Sample at Sampling Location 1**

**Photo 2: Collecting Split Spoon Sample at Sampling Location 3**

**Photo 3: Environmental Sample at Sampling Location 1**

**Photo 4: Environmental Sample at Sampling Location 2**

**Photo 5: Environmental Sample at Sampling Location 3**

# Appendix A

2030 State Road 60 East
Bartow, Florida 33830
(863)533-9007

# ASTM D1140 MOISTURE / PERCENT < No. 200 SIEVE

**Project Number:** 14758
**Project Name:** Shell Mound Dredging
**Project Location:** Cedar Key, FL
**Client:** Madrid CPWG

**Date Tested:** 4/3/2022
**Tested By:** BJN

| Sample | Cont. Name | $W_C+S_W$ (g) | $W_C+S_D$ (g) | $W_C$ (g) | Solids Content (%) | Moisture Content (%) | $W_C+S_R$ (g) | <#200 (%) |
|---|---|---|---|---|---|---|---|---|
| S-1 0-1' | 200 | 96.68 | 61.49 | 8.12 | 60.3% | 65.9% | 46.89 | 27.4% |
| S-1 1-2' | 201 | 140.70 | 94.08 | 8.15 | 64.8% | 54.3% | 78.10 | 18.6% |
| S-1 2-3' | 202 | 102.77 | 57.28 | 8.20 | 51.9% | 92.7% | 45.42 | 24.2% |
| S-1 3-4' | 208 | 105.45 | 62.91 | 8.15 | 56.3% | 77.7% | 42.94 | 36.5% |
| S-1 4-4.5' | 209 | 73.52 | 54.54 | 8.19 | 70.9% | 40.9% | 34.33 | 43.6% |
| S-2 0-1' | 210 | 135.68 | 83.62 | 8.14 | 59.2% | 69.0% | 67.21 | 21.7% |
| S-2 1-2' | 211 | 107.39 | 64.87 | 8.10 | 57.2% | 74.9% | 48.67 | 28.5% |
| S-2 2-3' | 212 | 98.13 | 47.51 | 8.10 | 43.8% | 128.4% | 35.47 | 30.6% |
| S-2 3-4' | 213 | 119.64 | 60.59 | 8.07 | 47.1% | 112.4% | 42.49 | 34.5% |
| S-2 4-5' | 203 | 109.42 | 60.89 | 8.15 | 52.1% | 92.0% | 44.17 | 31.7% |
| S-2 5-5.5' | 205 | 123.83 | 88.96 | 8.18 | 69.8% | 43.2% | 62.89 | 32.3% |
| S-3 0-6"' | 207 | 100.32 | 50.37 | 8.17 | 45.8% | 118.4% | 36.99 | 31.7% |
| S-3 6"-12"' | 217 | 90.21 | 53.04 | 8.09 | 54.7% | 82.7% | 42.14 | 24.2% |
| S-3 12"-18"' | 219 | 138.63 | 64.76 | 8.19 | 43.4% | 130.6% | 47.56 | 30.4% |
| S-3 18"-20"' | 221 | 58.91 | 48.78 | 8.31 | 80.0% | 25.0% | 24.00 | 61.2% |
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$W_C$ = Weight of Container
$S_W$ = Weight of Wet Sample
$S_D$ = Weight of Dry Sample
$S_R$ = Weight of Sample Retained

$$\text{Solids Content } (\%) = \frac{S_D}{S_W} * 100$$

$$\text{Moisture Content } (\%) = \frac{W_{H_2O}}{S_D} * 100$$

$$< \#200 \text{ Sieve } (\%) = \frac{(S_D - S_R)}{S_D} * 100$$

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Bartow, Florida 33830
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# AASHTO T267 ORGANIC CONTENT

**Project Number:** 14758
**Project Name:** Shell Mound Dredging
**Project Location:** Cedar Key, FL
**Client:** Madrid CPWG

**Date Tested:** 4/3/2022
**Technician:** BJN

| Sample | Container Name | $W_C+S_W$ (g) | $W_C+S_D$ (g) | $W_C$ (g) | Solids Content (%) | Moisture Content (%) | Furnace Container Name | $W_{fC}+S_D$ (g) | $W_{fC}+S_{FD}$ (g) | $W_{fC}$ (g) | Organic Content (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S-1 0-1' | 111 | 96.06 | 66.24 | 8.18 | 66.1% | 51.4% | 2 | 113.07 | 111.35 | 55.23 | 3.0% |
| S-1 1-2' | 121 | 102.39 | 66.72 | 8.17 | 62.1% | 60.9% | 4 | 114.45 | 113.20 | 56.00 | 2.1% |
| S-1 2-3' | 117 | 67.29 | 34.41 | 8.17 | 44.4% | 125.3% | LT | 47.14 | 46.20 | 22.01 | 3.7% |
| S-1 3-4' | 92 | 93.43 | 51.01 | 8.18 | 50.2% | 99.0% | 6 | 98.18 | 97.66 | 57.19 | 1.3% |
| S-1 4-4.5' | 102 | 50.55 | 38.54 | 8.16 | 71.7% | 39.5% | LB | 52.10 | 51.71 | 21.91 | 1.3% |
| S-2 0-1' | 534 | 84.33 | 35.28 | 7.72 | 36.0% | 178.0% | 10 | 103.26 | 102.22 | 55.79 | 2.2% |
| S-2 1-2' | 0 | 91.12 | 54.85 | 8.17 | 56.3% | 77.7% | 57 | 102.63 | 101.40 | 56.09 | 2.6% |
| S-2 2-3' | J | 63.95 | 30.77 | 8.18 | 40.5% | 146.9% | LT | 44.45 | 41.38 | 21.92 | 13.6% |
| S-2 3-4' | X | 87.18 | 53.11 | 8.10 | 56.9% | 75.7% | 57 | 100.58 | 99.44 | 56.07 | 2.6% |
| S-2 4-5' | 204 | 104.58 | 58.55 | 8.14 | 52.3% | 91.3% | 10 | 104.53 | 102.83 | 55.77 | 3.5% |
| S-2 5-5.5' | 206 | 78.02 | 56.69 | 8.16 | 69.5% | 44.0% | 6 | 105.67 | 104.37 | 57.18 | 2.7% |
| S-3 0-6"' | 216 | 80.22 | 37.69 | 8.12 | 41.0% | 143.8% | 4 | 85.37 | 83.97 | 55.99 | 4.8% |
| S-3 6"-12"' | 218 | 92.42 | 59.43 | 8.13 | 60.9% | 64.3% | 2 | 106.44 | 104.89 | 55.20 | 3.0% |
| S-3 12"-18"' | 220 | 115.33 | 35.81 | 8.33 | 25.7% | 289.4% | 4 | 103.12 | 100.89 | 56.01 | 4.7% |
| S-3 18"-20"' | 222 | 26.40 | 22.08 | 8.16 | 76.3% | 31.0% | 2 | 69.14 | 69.13 | 55.23 | 0.1% |
| | | | | | | | | | | | |
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Average Organic Content (%): 3.4%

$W_C$ = Weight of Container
$S_W$ = Weight of Wet Sample
$S_D$ = Weight of Dry Sample
$W_{fC}$ = Weight of Furnace Container
$S_{FD}$ = Weight of Furnace Dried Sample

$$\text{Solids Content (\%)} = \frac{S_D}{S_W} * 100$$

$$\text{Moisture Content (\%)} = \frac{(S_W - S_D)}{S_D} * 100$$

$$\text{Organic Content (\%)} = \frac{(S_D - S_{FD})}{S_D} * 100$$

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| | | | |
|---|---|---|---|
| **Client:** | **HDR** | **Date sampled:** | **NA** |
| **Project ID:** | **15055** | **Location Sampled:** | **Shell mound** |
| **Boring ID:** | **S1, S2, S3 Distilled Water** | **Date tested:** | **25-Apr** |
| **Depth:** | | **Technician:** | **H2RJB** |
| **Description:** | **Bay Bottom** | **Test method:** | **ASTM D422** |

## Hydrometer Analysis + Sieve Analysis

**1 - Original Sample**

| | | |
|---|---|---|
| Air dried sample mass - Retained No. 10 Sieve (g) = | 501.9 | check minimum weight |
| Air dried sample mass - Passing No. 10 Sieve (g) = | 456.3 | |
| Total sample mass (Note: Passing No. 10 corrected for HM) = | 953.1 | |
| Percent Retained on No. 10 sieve | 52.7 | |

**2 - Hygroscopic Moisture (Passing No. 10)**

| | | |
|---|---|---|
| Air dried sample mass (g) = | 58.86 | nearest 0.01 g |
| Oven dried sample mass (g) = | 58.20 | nearest 0.01 g |
| Hygroscopic moisture (%) = | 1.134 | |

**3 - Specific Gravity of Soil (Passing No. 10) using AASHTO T100**

| | | | |
|---|---|---|---|
| Mass of Pycnometer Wf (g) = | 165.12 | Temp of Water in Pyc (°C) nearest ° = | 24 |
| Mass of Pyc. and Water Wa (g) = | 663.30 | Relative Density of Water = | 0.9973286 |

| | | |
|---|---|---|
| Temperature of soil and water (°C) = | 25 | nearest whole degree |
| Relative Density of Water = | 0.9970770 | at temp of test |
| Mass of Pyc. and Water Wa (g) = | 663.17 | corrected for temp of water in pycnometer with soil |
| OD Mass of soil sample Wo (g) = | 58.20 | |
| Mass of Pyc, water, soil Wb (g) = | 697.90 | |
| Specific gravity at 25 | 2.479 | Wo/[Wo+(Wa-Wb)] |
| Correction factor K = | 0.9989 | |
| Specific gravity of Soil at 20°C = | 2.477 | |

**4 - Sieve Analysis of fraction retained on No. 10 sieve**

Air dried sample mass - Retained No. 10 Sieve (g) to be sieved = 45.60

| Sieve (mm) | Sieve Size | Weight Retained | Percent Retained | Cum. % Retained | % Passing of sieved sample | % Passing by total weight |
|---|---|---|---|---|---|---|
| 75 | 3-in | | 0.0 | 0.0 | 100.0 | 100.0 |
| 50 | 2-in | | 0.0 | 0.0 | 100.0 | 100.0 |
| 25 | 1-in | | 0.0 | 0.0 | 100.0 | 100.0 |
| 9.5 | 3/8-in | 2.8 | 6.2 | 6.2 | 93.8 | 96.7 |
| 4.75 | #4 | 11.2 | 24.5 | 30.7 | 69.3 | 83.8 |

**5 - Hydrometer Composite Correction** Use Hydrometer 152H (g/l)

Dispersing agent = 40 g of sodium hexametaphosphate per liter of DI or distilled water

Composite Correction Calibration:

| Composite Correction | Temp (°C) |
|---|---|
| 5.0 | 25.0 |
| 5.2 | 24.5 |
| | |
| | |

| Hydrometer ID: | 130541 |
|---|---|

Composite Correction = **-0.400** × Temp + **15.000**

$R^2$ = 100.00% CAT 63C-4 SN# 1009

Read hydrometer at top of meniscus to nearest 0.5 g/l

**6 - Hydrometer Analysis of Passing No. 10 sieve**

| | |
|---|---|
| Air dried sample mass - Passing No. 10 Sieve (g) used for Hydrometer = | 111.13 |
| Oven dried sample mass - Passing No. 10 Sieve (g) used for Hydrometer = | 109.88 |

Constant "a" for SG (from Table 1, ASTM D422)= 1.04

| Time (min) | Actual Time (min) | Actual Reading Hydrometer | Temp (°C) | Composite Correction | Hydrometer after Correction |
|---|---|---|---|---|---|
| 2 | 5 | 33 | 25.0 | 5.00 | 28.00 |
| 5 | 5 | 31 | 25.0 | 5.00 | 26.00 |
| 15 | 15 | 26 | 25.0 | 5.00 | 21.00 |
| 30 | 30 | 21 | 25.0 | 5.00 | 16.00 |
| 60 | 60 | 16 | 25.0 | 5.00 | 11.00 |
| 250 | 250 | 14 | 24.5 | 5.20 | 8.80 |
| 1440 | 1440 | 12 | 24.5 | 5.20 | 6.80 |
| 2880 | 2880 | 11 | 24.5 | 5.20 | 5.80 |

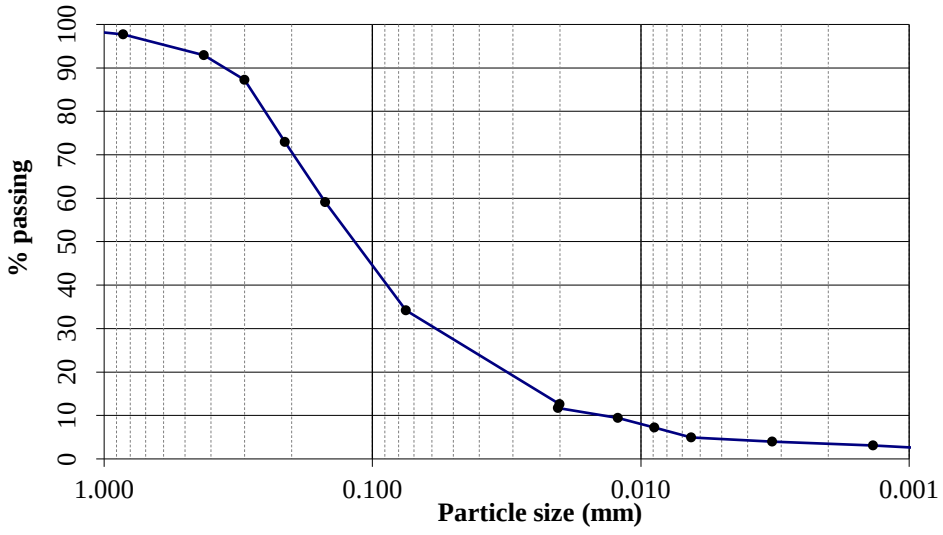
Note that effective depth is based on "Actual Hydrometer Reading"

| Time (min) | Actual Time (min) | Percent in suspension | Effective Depth L (mm) | K | Maximum Grain Diameter (mm) |
|---|---|---|---|---|---|
| 2 | 5 | 26.6 | 108.83 | 0.004300 | 0.0201 |
| 5 | 5 | 24.7 | 112.11 | 0.004300 | 0.0204 |
| 15 | 15 | 20.0 | 120.31 | 0.004300 | 0.0122 |
| 30 | 30 | 15.2 | 128.51 | 0.004300 | 0.0089 |
| 60 | 60 | 10.5 | 136.71 | 0.004300 | 0.0065 |
| 250 | 250 | 8.4 | 139.99 | 0.004325 | 0.0032 |
| 1440 | 1440 | 6.5 | 143.27 | 0.004325 | 0.0014 |
| 2880 | 2880 | 5.5 | 144.91 | 0.004325 | 0.0010 |

**7. Wash suspension on No. 200 and oven dry it ⇒** Oven dry mass (g) = 72.83

| Sieve (mm) | Sieve Size | Cum. Weight Retained | Cum. % Retained | % Passing |
|---|---|---|---|---|
| 0.425 | #40 | 7.74 | 7.0 | 93.0 |
| 0.075 | #200 | 72.83 | 66.3 | 33.7 |

| Sieve (mm) | % Passing |
|---|---|
| 2.000 | 100.0 |
| 0.850 | 97.7 |
| 0.425 | 93.0 |
| 0.300 | 87.3 |
| 0.212 | 73.0 |
| 0.150 | 59.1 |
| 0.075 | 34.2 |
| 0.0201 | 12.6 |
| 0.0204 | 11.7 |
| 0.0122 | 9.4 |
| 0.0089 | 7.2 |
| 0.0065 | 4.9 |
| 0.0032 | 4.0 |
| 0.0014 | 3.1 |
| 0.0010 | 2.6 |



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| | | | |
|---|---|---|---|
| **Client:** | **HDR** | **Date sampled:** | **NA** |
| **Project ID:** | **15055** | **Location Sampled:** | **Shell Mound** |
| **Boring ID:** | **S1, S2, S3 Gulf Water** | **Date tested:** | **25-Apr** |
| **Depth:** | | **Technician:** | **H2RJB** |
| **Description:** | **Bay Bottom** | **Test method:** | **ASTM D422** |

## Hydrometer Analysis + Sieve Analysis

### 1 - Original Sample

| | | |
|---|---|---|
| Air dried sample mass - Retained No. 10 Sieve (g) = | 501.9 | check minimum weight |
| Air dried sample mass - Passing No. 10 Sieve (g) = | 456.3 | |
| Total sample mass (Note: Passing No. 10 corrected for HM) = | 953.3 | |
| Percent Retained on No. 10 sieve | 52.6 | |

### 2 - Hygroscopic Moisture (Passing No. 10)

| | | |
|---|---|---|
| Air dried sample mass (g) = | 69.66 | nearest 0.01 g |
| Oven dried sample mass (g) = | 68.91 | nearest 0.01 g |
| Hygroscopic moisture (%) = | 1.088 | |

### 3 - Specific Gravity of Soil (Passing No. 10) using AASHTO T100

| | | | |
|---|---|---|---|
| Mass of Pycnometer Wf (g) = | 160.78 | Temp of Water in Pyc (°C) nearest ° = | 24 |
| Mass of Pyc. and Water Wa (g) = | 667.20 | Relative Density of Water = | 0.9973286 |

| | | |
|---|---|---|
| Temperature of soil and water (°C) = | 25 | nearest whole degree |
| Relative Density of Water = | 0.9970770 | at temp of test |
| Mass of Pyc. and Water Wa (g) = | 667.07 | corrected for temp of water in pycnometer with soil |
| OD Mass of soil sample Wo (g) = | 68.91 | |
| Mass of Pyc, water, soil Wb (g) = | 707.58 | |
| Specific gravity at 25 | 2.426 | Wo/[Wo+(Wa-Wb)] |
| Correction factor K = | 0.9989 | |
| Specific gravity of Soil at 20°C = | 2.424 | |

### 4 - Sieve Analysis of fraction retained on No. 10 sieve

Air dried sample mass - Retained No. 10 Sieve (g) to be sieved = 45.60

| Sieve (mm) | Sieve Size | Weight Retained | Percent Retained | Cum. % Retained | % Passing of sieved sample | % Passing by total weight |
|---|---|---|---|---|---|---|
| 75 | 3-in | | 0.0 | 0.0 | 100.0 | 100.0 |
| 50 | 2-in | | 0.0 | 0.0 | 100.0 | 100.0 |
| 25 | 1-in | | 0.0 | 0.0 | 100.0 | 100.0 |
| 9.5 | 3/8-in | 2.8 | 6.2 | 6.2 | 93.8 | 96.7 |
| 4.75 | #4 | 11.2 | 24.5 | 30.7 | 69.3 | 83.8 |

### 5 - Hydrometer Composite Correction

Use Hydrometer 152H (g/l)

Dispersing agent = 40 g of sodium hexametaphosphate per liter of DI or distilled water

Composite Correction Calibration:

| Composite Correction | Temp (°C) |
|---|---|
| 28.8 | 25.0 |
| 28.9 | 24.5 |
| | |
| | |

| Hydrometer ID: | 130541 |
|---|---|

Composite Correction = **-0.200** × Temp + **33.800**

$R^2$ = 100.00% CAT 63C-4 SN# 1009

Read hydrometer at top of meniscus to nearest 0.5 g/l

**6 - Hydrometer Analysis of Passing No. 10 sieve**

| | |
|---|---|
| Air dried sample mass - Passing No. 10 Sieve (g) used for Hydrometer = | 148.36 |
| Oven dried sample mass - Passing No. 10 Sieve (g) used for Hydrometer = | 146.76 |

Constant "a" for SG (from Table 1, ASTM D422)= 1.06

| Time (min) | Actual Time (min) | Actual Reading Hydrometer | Temp (°C) | Composite Correction | Hydrometer after Correction |
|---|---|---|---|---|---|
| 2 | 2 | 60 | 25.0 | 28.80 | 31.20 |
| 5 | 5 | 56 | 25.0 | 28.80 | 27.20 |
| 15 | 15 | 43 | 25.0 | 28.80 | 14.20 |
| 30 | 30 | 34 | 25.0 | 28.80 | 5.20 |
| 60 | 60 | 34 | 25.0 | 28.80 | 5.20 |
| 250 | 250 | 34 | 24.5 | 28.90 | 5.10 |
| 1440 | 1440 | 34 | 24.5 | 28.90 | 5.10 |
| 2880 | 2880 | 34 | 24.5 | 28.90 | 5.10 |

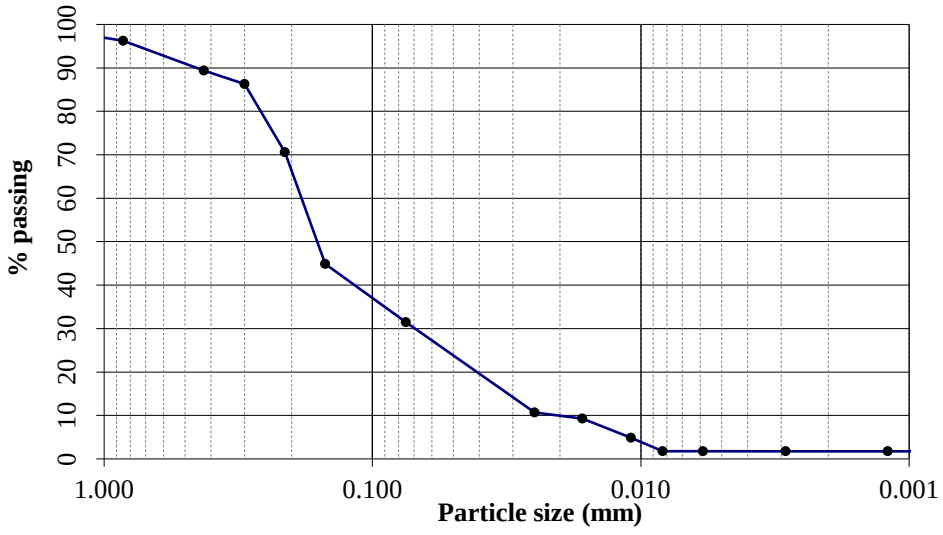
Note that effective depth is based on "Actual Hydrometer Reading"

| Time (min) | Actual Time (min) | Percent in suspension | Effective Depth L (mm) | K | Maximum Grain Diameter (mm) |
|---|---|---|---|---|---|
| 2 | 2 | 22.5 | 64.55 | 0.004380 | 0.0249 |
| 5 | 5 | 19.6 | 71.11 | 0.004380 | 0.0165 |
| 15 | 15 | 10.3 | 92.43 | 0.004380 | 0.0109 |
| 30 | 30 | 3.8 | 107.19 | 0.004380 | 0.0083 |
| 60 | 60 | 3.8 | 107.19 | 0.004380 | 0.0059 |
| 250 | 250 | 3.7 | 107.19 | 0.004404 | 0.0029 |
| 1440 | 1440 | 3.7 | 107.19 | 0.004404 | 0.0012 |
| 2880 | 2880 | 3.7 | 107.19 | 0.004404 | 0.0008 |

**7. Wash suspension on No. 200 and oven dry it ⇒** Oven dry mass (g) = 107.63

| Sieve (mm) | Sieve Size | Cum. Weight Retained | Cum. % Retained | % Passing |
|---|---|---|---|---|
| 0.425 | #40 | 15.60 | 10.6 | 89.4 |
| 0.075 | #200 | 101.36 | 69.1 | 30.9 |

| Sieve (mm) | % Passing |
|---|---|
| 2.000 | 100.0 |
| 0.850 | 96.2 |
| 0.425 | 89.4 |
| 0.300 | 86.3 |
| 0.212 | 70.6 |
| 0.150 | 44.9 |
| 0.075 | 31.4 |
| 0.0249 | 10.7 |
| 0.0165 | 9.3 |
| 0.0109 | 4.9 |
| 0.0083 | 1.8 |
| 0.0059 | 1.8 |
| 0.0029 | 1.7 |
| 0.0012 | 1.7 |
| 0.0008 | 1.7 |



# Appendix B

## Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

| | |
|---|---|
| Facility/Site Name | Shell Mound |
| Location | |
| Facility/Site ID No. | |
| Soil Sample No. | S-1 |
| Sample Date | 3/25/2022 11:00 |
| Location | |
| Depth (ft) | |

Instructions: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value.
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value.
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value.
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value.
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.0019 | 1.0 | 0.0019 |
| Benzo(a)anthracene | 0.00225 | 0.1 | 0.0002 |
| Benzo(b)fluoranthene | 0.0018 | 0.1 | 0.0002 |
| Benzo(k)fluoranthene | 0.0027 | 0.01 | 0.0000 |
| Chrysene | 0.00335 | 0.001 | 0.0000 |

| | | | |
|---|---|---|---|
| Dibenz(a,h)anthracene | 0.0019 | 1.0 | 0.0019 |
| Indeno(1,2,3-cd)pyrene | 0.0027 | 0.1 | 0.0003 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

| | |
|---|---|
| **Total Benzo(a)pyrene Equivalents =** | 0.0 |

**The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| **Summary Criteria for Table Entries** | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | PQL | M | 1/2 reported value |

## Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

| | |
|---|---|
| Facility/Site Name | Shell Mound |
| Location | |
| Facility/Site ID No. | |
| Soil Sample No. | S-2 |
| Sample Date | 3/25/2022 11:46 |
| Location | |
| Depth (ft) | |

Instructions: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value.
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value.
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value.
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value.
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.00215 | 1.0 | 0.0022 |
| Benzo(a)anthracene | 0.00255 | 0.1 | 0.0003 |
| Benzo(b)fluoranthene | 0.002 | 0.1 | 0.0002 |
| Benzo(k)fluoranthene | 0.003 | 0.01 | 0.0000 |
| Chrysene | 0.0037 | 0.001 | 0.0000 |

| | | | |
|---|---|---|---|
| Dibenz(a,h)anthracene | 0.0021 | 1.0 | 0.0021 |
| Indeno(1,2,3-cd)pyrene | 0.003 | 0.1 | 0.0003 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

| | |
|---|---|
| **Total Benzo(a)pyrene Equivalents =** | 0.0 |

**The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| **Summary Criteria for Table Entries** | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | PQL | M | 1/2 reported value |

## Benzo(a)pyrene Conversion Table

For Direct Exposure Soil Cleanup Target Levels

| | |
|---|---|
| Facility/Site Name | Shell Mound |
| Location | |
| Facility/Site ID No. | |
| Soil Sample No. | S-3 |
| Sample Date | 3/25/2022 12:30 |
| Location | |
| Depth (ft) | |

Instructions: Calculate Total Benzo(a)pyrene Equivalents if at least one of the carcinogenic PAHs is detected in the sample at a concentration equal to or higher than the Method Detection Limit (MDL), whether quantified with certainty (the concentration reported has no qualifier) or estimated (the concentration reported has a "J", "T" or "I" qualifier). Enter the contaminant concentrations (in mg/kg) for all seven carcinogenic PAHs in the yellow boxes using the following criteria (and see table below):

1. If quantified with certainty, or estimated and has the "J" qualifier, enter the reported value.
2. If not detected at the MDL (the concentration reported is the MDL followed by the "U" qualifier) enter 1/2 of the reported value.
3. If detected at a concentration lower than the MDL and the concentration is estimated (has the "T" qualifier) enter the estimated value.
4. If detected at a concentration equal to or higher than the MDL but lower than the Practical Quantitation Limit (PQL) and the concentration is estimated (has the "I" qualifier) enter the estimated value.
5. If detected at a concentration equal to or higher than the MDL but lower than the PQL and it is not estimated (the concentration reported is the PQL followed by the "M" qualifier) enter 1/2 of the reported value.

| Contaminant | Concentration (mg/kg) | Toxic Equivalency Factor | Benzo(a)pyrene Equivalents |
|---|---|---|---|
| Benzo(a)pyrene | 0.0015 | 1.0 | 0.0015 |
| Benzo(a)anthracene | 0.0018 | 0.1 | 0.0002 |
| Benzo(b)fluoranthene | 0.0014 | 0.1 | 0.0001 |
| Benzo(k)fluoranthene | 0.0021 | 0.01 | 0.0000 |
| Chrysene | 0.00265 | 0.001 | 0.0000 |

| | | | |
|---|---|---|---|
| Dibenz(a,h)anthracene | 0.0015 | 1.0 | 0.0015 |
| Indeno(1,2,3-cd)pyrene | 0.00215 | 0.1 | 0.0002 |

DE Residential = 0.1 mg/kg; DE Industrial = 0.7 mg/kg

| | |
|---|---|
| **Total Benzo(a)pyrene Equivalents =** | 0.0 |

**The concentration shown does not exceed the Residential Direct Exposure SCTL of 0.1 mg/kg.**

**The concentration shown does not exceed the Industrial Direct Exposure SCTL of 0.7 mg/kg.**

| **Summary Criteria for Table Entries** | | | |
|---|---|---|---|
| **Detection** | **Concentration Reported** | **Data Qualifier** | **Enter** |
| Various | Quantified with certainty | None | reported value |
| Various | Estimated | J | reported (estimated) value |
| ND at MDL | MDL | U | 1/2 reported value |
| < MDL | Estimated | T | reported (estimated) value |
| ≥ MDL but < PQL | Estimated | I | reported (estimated) value |
| ≥ MDL but < PQL | PQL | M | 1/2 reported value |

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**FINAL**

**Workorder:** Shell Mound (T2206116)

April 05, 2022

Mike Graves
Madrid Engineering

RE: Workorder: T2206116 Shell Mound

Dear Mike Graves:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday March 25, 2022. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported |
|---|---|---|---|---|---|---|
| T2206116001 | S-1 | SO | FL-PRO | 03/25/2022 11:00 | 03/25/2022 16:00 | 1 |
| T2206116001 | S-1 | SO | SM 2540G | 03/25/2022 11:00 | 03/25/2022 16:00 | 1 |
| T2206116001 | S-1 | SO | SW-846 6010 | 03/25/2022 11:00 | 03/25/2022 16:00 | 7 |
| T2206116001 | S-1 | SO | SW-846 7471A | 03/25/2022 11:00 | 03/25/2022 16:00 | 1 |
| T2206116001 | S-1 | SO | SW-846 8260B | 03/25/2022 11:00 | 03/25/2022 16:00 | 68 |
| T2206116001 | S-1 | SO | SW-846 8270C (SIM) | 03/25/2022 11:00 | 03/25/2022 16:00 | 18 |
| T2206116002 | S-2 | SO | FL-PRO | 03/25/2022 11:46 | 03/25/2022 16:00 | 1 |
| T2206116002 | S-2 | SO | SM 2540G | 03/25/2022 11:46 | 03/25/2022 16:00 | 1 |
| T2206116002 | S-2 | SO | SW-846 6010 | 03/25/2022 11:46 | 03/25/2022 16:00 | 7 |
| T2206116002 | S-2 | SO | SW-846 7471A | 03/25/2022 11:46 | 03/25/2022 16:00 | 1 |
| T2206116002 | S-2 | SO | SW-846 8260B | 03/25/2022 11:46 | 03/25/2022 16:00 | 68 |
| T2206116002 | S-2 | SO | SW-846 8270C (SIM) | 03/25/2022 11:46 | 03/25/2022 16:00 | 18 |
| T2206116003 | S-3 | SO | FL-PRO | 03/25/2022 12:30 | 03/25/2022 16:00 | 1 |
| T2206116003 | S-3 | SO | SM 2540G | 03/25/2022 12:30 | 03/25/2022 16:00 | 1 |
| T2206116003 | S-3 | SO | SW-846 6010 | 03/25/2022 12:30 | 03/25/2022 16:00 | 7 |
| T2206116003 | S-3 | SO | SW-846 7471A | 03/25/2022 12:30 | 03/25/2022 16:00 | 1 |
| T2206116003 | S-3 | SO | SW-846 8260B | 03/25/2022 12:30 | 03/25/2022 16:00 | 68 |
| T2206116003 | S-3 | SO | SW-846 8270C (SIM) | 03/25/2022 12:30 | 03/25/2022 16:00 | 18 |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |

### Lab Qualifiers

| | |
|---|---|
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116001 **Date Collected:** 03/25/2022 11:00 **Matrix:** Soil
**Sample ID:** S-1 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS (SW-846 3050B/SW-846 6010)** | | | | | | | | |
| Arsenic | **6.2** | mg/Kg | 0.60 | 0.30 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| Barium | **4.8** | mg/Kg | 0.60 | 0.30 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| Cadmium | **0.72** | mg/Kg | 0.12 | 0.060 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| Chromium | **19** | mg/Kg | 0.60 | 0.48 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| Lead | **5.8** | mg/Kg | 0.60 | 0.30 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| Selenium | 2.4 U | mg/Kg | 6.0 | 2.4 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| Silver | 0.48 U | mg/Kg | 0.60 | 0.48 | 1 | 03/31/2022 15:00 | 04/01/2022 17:52 | T |
| **METALS (SW-846 7471A)** | | | | | | | | |
| Mercury | 0.0070 U | mg/Kg | 0.015 | 0.0070 | 2 | 04/04/2022 10:00 | 04/04/2022 12:49 | T |
| **SEMIVOLATILES (FL-PRO)** | | | | | | | | |
| TPH | **12 I** | mg/Kg | 32 | 11 | 1 | 03/30/2022 15:15 | 04/01/2022 00:44 | T |
| **SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))** | | | | | | | | |
| 1-Methylnaphthalene | 0.0036 U | mg/Kg | 0.019 | 0.0036 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| 2-Methylnaphthalene | 0.0046 U | mg/Kg | 0.019 | 0.0046 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Acenaphthene | 0.0034 U | mg/Kg | 0.019 | 0.0034 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Acenaphthylene | 0.0041 U | mg/Kg | 0.019 | 0.0041 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Anthracene | 0.0057 U | mg/Kg | 0.019 | 0.0057 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Benzo[a]anthracene | 0.0045 U | mg/Kg | 0.019 | 0.0045 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Benzo[a]pyrene | 0.0038 U | mg/Kg | 0.019 | 0.0038 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Benzo[b]fluoranthene | 0.0036 U | mg/Kg | 0.019 | 0.0036 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Benzo[g,h,i]perylene | 0.0044 U | mg/Kg | 0.019 | 0.0044 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Benzo[k]fluoranthene | 0.0054 U | mg/Kg | 0.019 | 0.0054 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Chrysene | 0.0067 U | mg/Kg | 0.019 | 0.0067 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Dibenzo[a,h]anthracene | 0.0038 U | mg/Kg | 0.019 | 0.0038 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Fluoranthene | 0.0063 U | mg/Kg | 0.019 | 0.0063 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Fluorene | 0.0049 U | mg/Kg | 0.019 | 0.0049 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Indeno(1,2,3-cd)pyrene | 0.0054 U | mg/Kg | 0.019 | 0.0054 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116001 **Date Collected:** 03/25/2022 11:00 **Matrix:** Soil
**Sample ID:** S-1 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 0.0039 U | mg/Kg | 0.019 | 0.0039 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Phenanthrene | 0.0049 U | mg/Kg | 0.019 | 0.0049 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| Pyrene | 0.0053 U | mg/Kg | 0.019 | 0.0053 | 1 | 03/30/2022 15:15 | 04/01/2022 07:03 | T |
| **(SM 2540G)** | | | | | | | | |
| Percent Moisture | **58** | % | 0.001 | 0.0010 | 1 | 03/29/2022 08:00 | 03/29/2022 08:00 | T |
| **VOLATILES (SW-846 5035/SW-846 8260B)** | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.0023 U | mg/Kg | 0.0072 | 0.0023 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,1,1-Trichloroethane | 0.0017 U | mg/Kg | 0.0072 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,1,2,2-Tetrachloroethane | 0.0012 U | mg/Kg | 0.0072 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,1,2-Trichloroethane | 0.0012 U | mg/Kg | 0.0072 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,1-Dichloroethane | 0.0017 U | mg/Kg | 0.0072 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,1-Dichloroethylene | 0.0017 U | mg/Kg | 0.0072 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,1-Dichloropropene | 0.0012 U | mg/Kg | 0.0072 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2,3-Trichlorobenzene | 0.0019 U | mg/Kg | 0.0072 | 0.0019 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2,3-Trichloropropane | 0.0040 U | mg/Kg | 0.0072 | 0.0040 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2,4-Trichlorobenzene | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2,4-Trimethylbenzene | 0.0021 U | mg/Kg | 0.0072 | 0.0021 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2-Dibromo-3-Chloropropane | 0.0031 U | mg/Kg | 0.0072 | 0.0031 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2-Dichlorobenzene | 0.0011 U | mg/Kg | 0.0072 | 0.0011 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2-Dichloroethane | 0.0019 U | mg/Kg | 0.0072 | 0.0019 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,2-Dichloropropane | 0.0013 U | mg/Kg | 0.0072 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,3,5-Trimethylbenzene | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,3-Dichlorobenzene | 0.0013 U | mg/Kg | 0.0072 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,3-Dichloropropane | 0.0010 U | mg/Kg | 0.0072 | 0.0010 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 1,4-Dichlorobenzene | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 2,2-Dichloropropane | 0.0028 U | mg/Kg | 0.0072 | 0.0028 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 2-Butanone (MEK) | **0.0038 I** | mg/Kg | 0.0072 | 0.0024 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116001 **Date Collected:** 03/25/2022 11:00 **Matrix:** Soil
**Sample ID:** S-1 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| 2-Chloroethyl Vinyl Ether | 0.0062 U | mg/Kg | 0.0072 | 0.0062 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 2-Chlorotoluene | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 2-Hexanone | 0.0037 U | mg/Kg | 0.0072 | 0.0037 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 4-Chlorotoluene | 0.0018 U | mg/Kg | 0.0072 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| 4-Methyl-2-pentanone (MIBK) | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Acetone | **0.073** | mg/Kg | 0.0072 | 0.0052 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Acrolein (Propenal) | 0.015 U | mg/Kg | 0.036 | 0.015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Acrylonitrile | 0.0012 U | mg/Kg | 0.0072 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Benzene | 0.0012 U | mg/Kg | 0.0072 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Bromobenzene | 0.0013 U | mg/Kg | 0.0072 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Bromochloromethane | 0.0015 U | mg/Kg | 0.0072 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Bromodichloromethane | 0.0013 U | mg/Kg | 0.0072 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Bromoform | 0.0048 U | mg/Kg | 0.0072 | 0.0048 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Bromomethane | 0.0030 U | mg/Kg | 0.0072 | 0.0030 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Carbon Disulfide | **0.056** | mg/Kg | 0.0072 | 0.0020 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Carbon Tetrachloride | 0.0020 U | mg/Kg | 0.0072 | 0.0020 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Chlorobenzene | 0.0011 U | mg/Kg | 0.0072 | 0.0011 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Chloroethane | 0.0036 U | mg/Kg | 0.0072 | 0.0036 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Chloroform | 0.0015 U | mg/Kg | 0.0072 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Chloromethane | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Dibromochloromethane | 0.0041 U | mg/Kg | 0.0072 | 0.0041 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Dibromomethane | 0.0014 U | mg/Kg | 0.0072 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Dichlorodifluoromethane | 0.0024 U | mg/Kg | 0.0072 | 0.0024 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Ethylbenzene | 0.00085 U | mg/Kg | 0.0072 | 0.00085 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Ethylene Dibromide (EDB) | 0.0012 U | mg/Kg | 0.0072 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Hexachlorobutadiene | 0.0037 U | mg/Kg | 0.0072 | 0.0037 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Iodomethane (Methyl Iodide) | 0.0050 U | mg/Kg | 0.0072 | 0.0050 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116001 **Date Collected:** 03/25/2022 11:00 **Matrix:** Soil
**Sample ID:** S-1 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.0015 U | mg/Kg | 0.0072 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Methyl tert-butyl Ether (MTBE) | 0.0023 U | mg/Kg | 0.0072 | 0.0023 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Methylene Chloride | 0.0096 U | mg/Kg | 0.012 | 0.0096 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Naphthalene | 0.0033 U | mg/Kg | 0.0072 | 0.0033 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Styrene | 0.00095 U | mg/Kg | 0.0072 | 0.00095 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Tetrachloroethylene (PCE) | 0.0014 U | mg/Kg | 0.0072 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Toluene | 0.00088 U | mg/Kg | 0.0072 | 0.00088 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Trichloroethene | 0.0018 U | mg/Kg | 0.0072 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Trichlorofluoromethane | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Vinyl Acetate | 0.0035 U | mg/Kg | 0.0072 | 0.0035 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Vinyl Chloride | 0.0014 U | mg/Kg | 0.0072 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| Xylene (Total) | 0.0031 U | mg/Kg | 0.014 | 0.0031 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| cis-1,2-Dichloroethylene | 0.0014 U | mg/Kg | 0.0072 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| cis-1,3-Dichloropropene | 0.0051 U | mg/Kg | 0.0072 | 0.0051 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| n-Butylbenzene | 0.0019 U | mg/Kg | 0.0072 | 0.0019 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| n-propylbenzene | 0.0017 U | mg/Kg | 0.0072 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| sec-butylbenzene | 0.0016 U | mg/Kg | 0.0072 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| tert-butylbenzene | 0.0022 U | mg/Kg | 0.0072 | 0.0022 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| trans-1,2-Dichloroethylene | 0.0014 U | mg/Kg | 0.0072 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |
| trans-1,3-Dichloropropylene | 0.0044 U | mg/Kg | 0.0072 | 0.0044 | 1 | 03/31/2022 00:36 | 03/31/2022 11:07 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/Kg | 50 | 64 | 128 | 69 - 134 | T |
| Toluene-d8 (S) | ug/Kg | 50 | 48 | 96 | 72 - 122 | T |
| Bromofluorobenzene (S) | ug/Kg | 50 | 61 | 122 | 79 - 126 | T |
| 2-Fluorobiphenyl (S) | mg/Kg | 0.40 | 0.27 | 68 | 37 - 127 | T |
| Nitrobenzene-d5 (S) | mg/Kg | 0.40 | 0.29 | 74 | 33 - 134 | T |
| p-Terphenyl-d14 (S) | mg/Kg | 0.40 | 0.33 | 82 | 42 - 141 | T |
| Nonatricontane-C39 (S) | mg/Kg | 5.90 | 5.40 | 92 | 36 - 132 | T |
| o-Terphenyl (S) | mg/Kg | 2 | 1.50 | 77 | 66 - 136 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116002 **Date Collected:** 03/25/2022 11:46 **Matrix:** Soil
**Sample ID:** S-2 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS (SW-846 3050B/SW-846 6010)** | | | | | | | | |
| Arsenic | **7.3** | mg/Kg | 0.63 | 0.31 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| Barium | **7.0** | mg/Kg | 0.63 | 0.31 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| Cadmium | **0.92** | mg/Kg | 0.13 | 0.063 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| Chromium | **25** | mg/Kg | 0.63 | 0.50 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| Lead | **7.1** | mg/Kg | 0.63 | 0.31 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| Selenium | 2.5 U | mg/Kg | 6.3 | 2.5 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| Silver | 0.50 U | mg/Kg | 0.63 | 0.50 | 1 | 03/31/2022 15:00 | 04/01/2022 17:54 | T |
| **METALS (SW-846 7471A)** | | | | | | | | |
| Mercury | **0.041** | mg/Kg | 0.016 | 0.0079 | 2 | 04/04/2022 10:00 | 04/04/2022 12:51 | T |
| **SEMIVOLATILES (FL-PRO)** | | | | | | | | |
| TPH | **13 I** | mg/Kg | 36 | 13 | 1 | 03/31/2022 15:00 | 04/02/2022 03:36 | T |
| **SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))** | | | | | | | | |
| 1-Methylnaphthalene | 0.0040 U | mg/Kg | 0.021 | 0.0040 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| 2-Methylnaphthalene | 0.0051 U | mg/Kg | 0.021 | 0.0051 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Acenaphthene | 0.0038 U | mg/Kg | 0.021 | 0.0038 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Acenaphthylene | 0.0045 U | mg/Kg | 0.021 | 0.0045 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Anthracene | 0.0064 U | mg/Kg | 0.021 | 0.0064 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Benzo[a]anthracene | 0.0051 U | mg/Kg | 0.021 | 0.0051 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Benzo[a]pyrene | 0.0043 U | mg/Kg | 0.021 | 0.0043 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Benzo[b]fluoranthene | 0.0040 U | mg/Kg | 0.021 | 0.0040 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Benzo[g,h,i]perylene | 0.0049 U | mg/Kg | 0.021 | 0.0049 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Benzo[k]fluoranthene | 0.0060 U | mg/Kg | 0.021 | 0.0060 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Chrysene | 0.0074 U | mg/Kg | 0.021 | 0.0074 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Dibenzo[a,h]anthracene | 0.0042 U | mg/Kg | 0.021 | 0.0042 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Fluoranthene | 0.0071 U | mg/Kg | 0.021 | 0.0071 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Fluorene | 0.0055 U | mg/Kg | 0.021 | 0.0055 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Indeno(1,2,3-cd)pyrene | 0.0060 U | mg/Kg | 0.021 | 0.0060 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116002 **Date Collected:** 03/25/2022 11:46 **Matrix:** Soil
**Sample ID:** S-2 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 0.0043 U | mg/Kg | 0.021 | 0.0043 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Phenanthrene | 0.0055 U | mg/Kg | 0.021 | 0.0055 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| Pyrene | 0.0060 U | mg/Kg | 0.021 | 0.0060 | 1 | 03/31/2022 15:00 | 04/02/2022 01:00 | T |
| **(SM 2540G)** | | | | | | | | |
| Percent Moisture | **62** | % | 0.001 | 0.0010 | 1 | 03/29/2022 08:00 | 03/29/2022 08:00 | T |
| **VOLATILES (SW-846 5035/SW-846 8260B)** | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.0025 U | mg/Kg | 0.0079 | 0.0025 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,1,1-Trichloroethane | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,1,2,2-Tetrachloroethane | 0.0013 U | mg/Kg | 0.0079 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,1,2-Trichloroethane | 0.0013 U | mg/Kg | 0.0079 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,1-Dichloroethane | 0.0019 U | mg/Kg | 0.0079 | 0.0019 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,1-Dichloroethylene | 0.0019 U | mg/Kg | 0.0079 | 0.0019 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,1-Dichloropropene | 0.0013 U | mg/Kg | 0.0079 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2,3-Trichlorobenzene | 0.0021 U | mg/Kg | 0.0079 | 0.0021 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2,3-Trichloropropane | 0.0044 U | mg/Kg | 0.0079 | 0.0044 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2,4-Trichlorobenzene | 0.0017 U | mg/Kg | 0.0079 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2,4-Trimethylbenzene | 0.0023 U | mg/Kg | 0.0079 | 0.0023 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2-Dibromo-3-Chloropropane | 0.0034 U | mg/Kg | 0.0079 | 0.0034 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2-Dichlorobenzene | 0.0013 U | mg/Kg | 0.0079 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2-Dichloroethane | 0.0021 U | mg/Kg | 0.0079 | 0.0021 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,2-Dichloropropane | 0.0014 U | mg/Kg | 0.0079 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,3,5-Trimethylbenzene | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,3-Dichlorobenzene | 0.0015 U | mg/Kg | 0.0079 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,3-Dichloropropane | 0.0011 U | mg/Kg | 0.0079 | 0.0011 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 1,4-Dichlorobenzene | 0.0017 U | mg/Kg | 0.0079 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 2,2-Dichloropropane | 0.0031 U | mg/Kg | 0.0079 | 0.0031 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 2-Butanone (MEK) | 0.0027 U | mg/Kg | 0.0079 | 0.0027 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116002 **Date Collected:** 03/25/2022 11:46 **Matrix:** Soil
**Sample ID:** S-2 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| 2-Chloroethyl Vinyl Ether | 0.0069 U | mg/Kg | 0.0079 | 0.0069 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 2-Chlorotoluene | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 2-Hexanone | 0.0041 U | mg/Kg | 0.0079 | 0.0041 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 4-Chlorotoluene | 0.0020 U | mg/Kg | 0.0079 | 0.0020 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| 4-Methyl-2-pentanone (MIBK) | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Acetone | **0.28** | mg/Kg | 0.0079 | 0.0058 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Acrolein (Propenal) | 0.016 U | mg/Kg | 0.040 | 0.016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Acrylonitrile | 0.0014 U | mg/Kg | 0.0079 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Benzene | 0.0013 U | mg/Kg | 0.0079 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Bromobenzene | 0.0015 U | mg/Kg | 0.0079 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Bromochloromethane | 0.0017 U | mg/Kg | 0.0079 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Bromodichloromethane | 0.0014 U | mg/Kg | 0.0079 | 0.0014 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Bromoform | 0.0053 U | mg/Kg | 0.0079 | 0.0053 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Bromomethane | 0.0033 U | mg/Kg | 0.0079 | 0.0033 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Carbon Disulfide | **0.038** | mg/Kg | 0.0079 | 0.0023 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Carbon Tetrachloride | 0.0022 U | mg/Kg | 0.0079 | 0.0022 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Chlorobenzene | 0.0012 U | mg/Kg | 0.0079 | 0.0012 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Chloroethane | 0.0039 U | mg/Kg | 0.0079 | 0.0039 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Chloroform | 0.0016 U | mg/Kg | 0.0079 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Chloromethane | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Dibromochloromethane | 0.0045 U | mg/Kg | 0.0079 | 0.0045 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Dibromomethane | 0.0016 U | mg/Kg | 0.0079 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Dichlorodifluoromethane | 0.0027 U | mg/Kg | 0.0079 | 0.0027 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Ethylbenzene | 0.00094 U | mg/Kg | 0.0079 | 0.00094 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Ethylene Dibromide (EDB) | 0.0013 U | mg/Kg | 0.0079 | 0.0013 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Hexachlorobutadiene | 0.0041 U | mg/Kg | 0.0079 | 0.0041 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Iodomethane (Methyl Iodide) | 0.0055 U | mg/Kg | 0.0079 | 0.0055 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116002 **Date Collected:** 03/25/2022 11:46 **Matrix:** Soil
**Sample ID:** S-2 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Isopropylbenzene | 0.0017 U | mg/Kg | 0.0079 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Methyl tert-butyl Ether (MTBE) | 0.0026 U | mg/Kg | 0.0079 | 0.0026 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Methylene Chloride | 0.011 U | mg/Kg | 0.013 | 0.011 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Naphthalene | 0.0037 U | mg/Kg | 0.0079 | 0.0037 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Styrene | 0.0010 U | mg/Kg | 0.0079 | 0.0010 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Tetrachloroethylene (PCE) | 0.0015 U | mg/Kg | 0.0079 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Toluene | 0.00098 U | mg/Kg | 0.0079 | 0.00098 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Trichloroethene | 0.0019 U | mg/Kg | 0.0079 | 0.0019 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Trichlorofluoromethane | 0.0017 U | mg/Kg | 0.0079 | 0.0017 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Vinyl Acetate | 0.0039 U | mg/Kg | 0.0079 | 0.0039 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Vinyl Chloride | 0.0015 U | mg/Kg | 0.0079 | 0.0015 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| Xylene (Total) | 0.0034 U | mg/Kg | 0.016 | 0.0034 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| cis-1,2-Dichloroethylene | 0.0016 U | mg/Kg | 0.0079 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| cis-1,3-Dichloropropene | 0.0056 U | mg/Kg | 0.0079 | 0.0056 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| n-Butylbenzene | 0.0022 U | mg/Kg | 0.0079 | 0.0022 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| n-propylbenzene | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| sec-butylbenzene | 0.0018 U | mg/Kg | 0.0079 | 0.0018 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| tert-butylbenzene | 0.0024 U | mg/Kg | 0.0079 | 0.0024 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| trans-1,2-Dichloroethylene | 0.0016 U | mg/Kg | 0.0079 | 0.0016 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |
| trans-1,3-Dichloropropylene | 0.0049 U | mg/Kg | 0.0079 | 0.0049 | 1 | 03/31/2022 00:36 | 03/31/2022 11:34 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/Kg | 50 | 64 | 128 | 69 - 134 | T |
| Toluene-d8 (S) | ug/Kg | 50 | 48 | 96 | 72 - 122 | T |
| Bromofluorobenzene (S) | ug/Kg | 50 | 61 | 122 | 79 - 126 | T |
| 2-Fluorobiphenyl (S) | mg/Kg | 0.40 | 0.20 | 51 | 37 - 127 | T |
| Nitrobenzene-d5 (S) | mg/Kg | 0.40 | 0.20 | 49 | 33 - 134 | T |
| p-Terphenyl-d14 (S) | mg/Kg | 0.40 | 0.24 | 59 | 42 - 141 | T |
| Nonatricontane-C39 (S) | mg/Kg | 6 | 5.10 | 86 | 36 - 132 | T |
| o-Terphenyl (S) | mg/Kg | 2 | 1.60 | 79 | 66 - 136 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116003 **Date Collected:** 03/25/2022 12:30 **Matrix:** Soil
**Sample ID:** S-3 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS (SW-846 3050B/SW-846 6010)** | | | | | | | | |
| Arsenic | **5.4** | mg/Kg | 0.47 | 0.23 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| Barium | **3.7** | mg/Kg | 0.47 | 0.23 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| Cadmium | **0.55** | mg/Kg | 0.093 | 0.047 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| Chromium | **14** | mg/Kg | 0.47 | 0.37 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| Lead | **4.3** | mg/Kg | 0.47 | 0.23 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| Selenium | 1.9 U | mg/Kg | 4.7 | 1.9 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| Silver | 0.37 U | mg/Kg | 0.47 | 0.37 | 1 | 03/31/2022 15:00 | 04/01/2022 17:57 | T |
| **METALS (SW-846 7471A)** | | | | | | | | |
| Mercury | **0.027** | mg/Kg | 0.011 | 0.0054 | 2 | 04/04/2022 10:00 | 04/04/2022 12:54 | T |
| **SEMIVOLATILES (FL-PRO)** | | | | | | | | |
| TPH | **17 I** | mg/Kg | 25 | 8.9 | 1 | 04/04/2022 09:15 | 04/04/2022 22:00 | T |
| **SEMIVOLATILES (SW-846 3550B/SW-846 8270C (SIM))** | | | | | | | | |
| 1-Methylnaphthalene | 0.0028 U | mg/Kg | 0.015 | 0.0028 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| 2-Methylnaphthalene | 0.0036 U | mg/Kg | 0.015 | 0.0036 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Acenaphthene | 0.0027 U | mg/Kg | 0.015 | 0.0027 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Acenaphthylene | 0.0032 U | mg/Kg | 0.015 | 0.0032 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Anthracene | 0.0045 U | mg/Kg | 0.015 | 0.0045 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Benzo[a]anthracene | 0.0036 U | mg/Kg | 0.015 | 0.0036 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Benzo[a]pyrene | 0.0030 U | mg/Kg | 0.015 | 0.0030 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Benzo[b]fluoranthene | 0.0028 U | mg/Kg | 0.015 | 0.0028 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Benzo[g,h,i]perylene | 0.0034 U | mg/Kg | 0.015 | 0.0034 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Benzo[k]fluoranthene | 0.0042 U | mg/Kg | 0.015 | 0.0042 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Chrysene | 0.0053 U | mg/Kg | 0.015 | 0.0053 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Dibenzo[a,h]anthracene | 0.0030 U | mg/Kg | 0.015 | 0.0030 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Fluoranthene | 0.0050 U | mg/Kg | 0.015 | 0.0050 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Fluorene | 0.0039 U | mg/Kg | 0.015 | 0.0039 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Indeno(1,2,3-cd)pyrene | 0.0043 U | mg/Kg | 0.015 | 0.0043 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116003 **Date Collected:** 03/25/2022 12:30 **Matrix:** Soil
**Sample ID:** S-3 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Naphthalene | 0.0030 U | mg/Kg | 0.015 | 0.0030 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Phenanthrene | 0.0039 U | mg/Kg | 0.015 | 0.0039 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| Pyrene | 0.0042 U | mg/Kg | 0.015 | 0.0042 | 1 | 04/04/2022 09:15 | 04/04/2022 19:38 | T |
| **(SM 2540G)** | | | | | | | | |
| Percent Moisture | **47** | % | 0.001 | 0.0010 | 1 | 03/29/2022 08:00 | 03/29/2022 08:00 | T |
| **VOLATILES (SW-846 5035/SW-846 8260B)** | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 0.0018 U | mg/Kg | 0.0056 | 0.0018 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,1,1-Trichloroethane | 0.0013 U | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,1,2,2-Tetrachloroethane | 0.00096 U | mg/Kg | 0.0056 | 0.00096 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,1,2-Trichloroethane | 0.00091 U | mg/Kg | 0.0056 | 0.00091 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,1-Dichloroethane | 0.0013 U | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,1-Dichloroethylene | 0.0014 U | mg/Kg | 0.0056 | 0.0014 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,1-Dichloropropene | 0.00091 U | mg/Kg | 0.0056 | 0.00091 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2,3-Trichlorobenzene | 0.0015 U | mg/Kg | 0.0056 | 0.0015 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2,3-Trichloropropane | 0.0031 U | mg/Kg | 0.0056 | 0.0031 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2,4-Trichlorobenzene | 0.0012 U | mg/Kg | 0.0056 | 0.0012 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2,4-Trimethylbenzene | **0.013** | mg/Kg | 0.0056 | 0.0017 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2-Dibromo-3-Chloropropane | 0.0024 U | mg/Kg | 0.0056 | 0.0024 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2-Dichlorobenzene | 0.00089 U | mg/Kg | 0.0056 | 0.00089 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2-Dichloroethane | 0.0015 U | mg/Kg | 0.0056 | 0.0015 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,2-Dichloropropane | 0.0010 U | mg/Kg | 0.0056 | 0.0010 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,3,5-Trimethylbenzene | **0.0058** | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,3-Dichlorobenzene | 0.0010 U | mg/Kg | 0.0056 | 0.0010 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,3-Dichloropropane | 0.00080 U | mg/Kg | 0.0056 | 0.00080 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 1,4-Dichlorobenzene | 0.0012 U | mg/Kg | 0.0056 | 0.0012 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 2,2-Dichloropropane | 0.0022 U | mg/Kg | 0.0056 | 0.0022 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116003 **Date Collected:** 03/25/2022 12:30 **Matrix:** Soil
**Sample ID:** S-3 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| 2-Butanone (MEK) | 0.0019 U | mg/Kg | 0.0056 | 0.0019 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 2-Chloroethyl Vinyl Ether | 0.0049 U | mg/Kg | 0.0056 | 0.0049 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 2-Chlorotoluene | 0.0013 U | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 2-Hexanone | 0.0029 U | mg/Kg | 0.0056 | 0.0029 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 4-Chlorotoluene | 0.0014 U | mg/Kg | 0.0056 | 0.0014 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| 4-Methyl-2-pentanone (MIBK) | 0.0013 U | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Acetone | 0.0041 U | mg/Kg | 0.0056 | 0.0041 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Acrolein (Propenal) | 0.012 U | mg/Kg | 0.028 | 0.012 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Acrylonitrile | 0.00098 U | mg/Kg | 0.0056 | 0.00098 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Benzene | 0.00093 U | mg/Kg | 0.0056 | 0.00093 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Bromobenzene | 0.0010 U | mg/Kg | 0.0056 | 0.0010 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Bromochloromethane | 0.0012 U | mg/Kg | 0.0056 | 0.0012 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Bromodichloromethane | 0.00099 U | mg/Kg | 0.0056 | 0.00099 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Bromoform | 0.0038 U | mg/Kg | 0.0056 | 0.0038 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Bromomethane | 0.0023 U | mg/Kg | 0.0056 | 0.0023 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Carbon Disulfide | **0.0096** | mg/Kg | 0.0056 | 0.0016 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Carbon Tetrachloride | 0.0016 U | mg/Kg | 0.0056 | 0.0016 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Chlorobenzene | 0.00084 U | mg/Kg | 0.0056 | 0.00084 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Chloroethane | 0.0028 U | mg/Kg | 0.0056 | 0.0028 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Chloroform | 0.0011 U | mg/Kg | 0.0056 | 0.0011 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Chloromethane | 0.0013 U | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Dibromochloromethane | 0.0032 U | mg/Kg | 0.0056 | 0.0032 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Dibromomethane | 0.0011 U | mg/Kg | 0.0056 | 0.0011 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Dichlorodifluoromethane | 0.0019 U | mg/Kg | 0.0056 | 0.0019 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Ethylbenzene | 0.00067 U | mg/Kg | 0.0056 | 0.00067 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Ethylene Dibromide (EDB) | 0.00093 U | mg/Kg | 0.0056 | 0.00093 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

**Lab ID:** T2206116003 **Date Collected:** 03/25/2022 12:30 **Matrix:** Soil
**Sample ID:** S-3 **Date Received:** 03/25/2022 16:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Hexachlorobutadiene | 0.0029 U | mg/Kg | 0.0056 | 0.0029 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Iodomethane (Methyl Iodide) | 0.0039 U | mg/Kg | 0.0056 | 0.0039 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Isopropylbenzene | 0.0012 U | mg/Kg | 0.0056 | 0.0012 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Methyl tert-butyl Ether (MTBE) | 0.0018 U | mg/Kg | 0.0056 | 0.0018 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Methylene Chloride | 0.0076 U | mg/Kg | 0.0094 | 0.0076 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Naphthalene | 0.0026 U | mg/Kg | 0.0056 | 0.0026 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Styrene | 0.00075 U | mg/Kg | 0.0056 | 0.00075 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Tetrachloroethylene (PCE) | 0.0011 U | mg/Kg | 0.0056 | 0.0011 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Toluene | 0.00069 U | mg/Kg | 0.0056 | 0.00069 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Trichloroethene | 0.0014 U | mg/Kg | 0.0056 | 0.0014 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Trichlorofluoromethane | 0.0012 U | mg/Kg | 0.0056 | 0.0012 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Vinyl Acetate | 0.0027 U | mg/Kg | 0.0056 | 0.0027 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Vinyl Chloride | 0.0011 U | mg/Kg | 0.0056 | 0.0011 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| Xylene (Total) | 0.0024 U | mg/Kg | 0.011 | 0.0024 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| cis-1,2-Dichloroethylene | 0.0011 U | mg/Kg | 0.0056 | 0.0011 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| cis-1,3-Dichloropropene | 0.0040 U | mg/Kg | 0.0056 | 0.0040 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| n-Butylbenzene | **0.0017 I** | mg/Kg | 0.0056 | 0.0015 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| n-propylbenzene | **0.0026 I** | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| sec-butylbenzene | 0.0013 U | mg/Kg | 0.0056 | 0.0013 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| tert-butylbenzene | 0.0017 U | mg/Kg | 0.0056 | 0.0017 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| trans-1,2-Dichloroethylene | 0.0011 U | mg/Kg | 0.0056 | 0.0011 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |
| trans-1,3-Dichloropropylene | 0.0034 U | mg/Kg | 0.0056 | 0.0034 | 1 | 04/04/2022 01:26 | 04/05/2022 05:39 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## Analytical Results

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/Kg | 50 | 55 | 110 | 69 - 134 | T |
| Toluene-d8 (S) | ug/Kg | 50 | 46 | 93 | 72 - 122 | T |
| Bromofluorobenzene (S) | ug/Kg | 50 | 57 | 115 | 79 - 126 | T |
| 2-Fluorobiphenyl (S) | mg/Kg | 0.39 | 0.27 | 69 | 37 - 127 | T |
| Nitrobenzene-d5 (S) | mg/Kg | 0.39 | 0.23 | 59 | 33 - 134 | T |
| p-Terphenyl-d14 (S) | mg/Kg | 0.39 | 0.34 | 87 | 42 - 141 | T |
| Nonatricontane-C39 (S) | mg/Kg | 5.90 | 4.40 | 75 | 36 - 132 | T |
| o-Terphenyl (S) | mg/Kg | 2 | 1.60 | 79 | 66 - 136 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** CVAt/1570
**Preparation Method:** SW-846 7471A
**Associated Lab IDs:** T2206116001, T2206116002, T2206116003
**Analysis Method:** SW-846 7471A

**Method Blank(4261614)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Mercury | 0.0014 U | mg/Kg | 0.0030 | 0.0014 | T |

**Lab Control Sample (4261615)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Mercury | mg/Kg | 0.03 | .03 | 107 | 80 - 120 | T |

**Matrix Spike (4261616); Matrix Spike Duplicate (4261617); Parent Lab Sample (A2202622003)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | mg/Kg | 0.0290 | .01 | **-80** | 80 - 120 | .01 | **-84** | 12 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** GCSt/2155
**Preparation Method:** FL-PRO
**Associated Lab IDs:** T2206116001
**Analysis Method:** FL-PRO

**Method Blank(4257564)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| TPH | 4.8 U | mg/Kg | 14 | 4.8 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 3.30 | 55 | 36 - 132 | |
| o-Terphenyl (S) | mg/L | 2 | 1.60 | 81 | 66 - 136 | |

**Lab Control Sample (4257565)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| TPH | mg/Kg | 34 | 27 | 80 | 49 - 128 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 4.60 | 77 | 36 - 132 | |
| o-Terphenyl (S) | mg/L | 2 | 1.60 | 80 | 66 - 136 | |

**Matrix Spike (4257566); Matrix Spike Duplicate (4257567); Parent Lab Sample (T2206137004)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | mg/Kg | 34 | 45 | 52 | 49 - 128 | 48 | 63 | 8 | 25 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 4.40 | 74 | 36 - 132 | 4.90 | 83 | 11 | 25 | |
| o-Terphenyl (S) | mg/L | 2 | 1.40 | 70 | 66 - 136 | 1.60 | 82 | 15 | 25 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** GCSt/2157
**Preparation Method:** FL-PRO
**Associated Lab IDs:** T2206116002
**Analysis Method:** FL-PRO

**Method Blank(4259161)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| TPH | 4.8 U | mg/Kg | 14 | 4.8 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 4.80 | 79 | 36 - 132 | |
| o-Terphenyl (S) | mg/L | 2 | 1.90 | 97 | 66 - 136 | |

**Lab Control Sample (4259162)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| TPH | mg/Kg | 34 | 30 | 88 | 49 - 128 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 5.70 | 95 | 36 - 132 | |
| o-Terphenyl (S) | mg/L | 2 | 1.90 | 96 | 66 - 136 | |

**Matrix Spike (4259163); Matrix Spike Duplicate (4259164); Parent Lab Sample (G2202577003)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| TPH | mg/Kg | 34 | 86 | 105 | 49 - 128 | 92 | 126 | 7 | 25 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 4.90 | 82 | 36 - 132 | 5.20 | 87 | 5 | 25 | |
| o-Terphenyl (S) | mg/L | 2 | 1.90 | 97 | 66 - 136 | 1.70 | 86 | 13 | 25 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** GCSt/2163
**Preparation Method:** FL-PRO
**Associated Lab IDs:** T2206116003
**Analysis Method:** FL-PRO

**Method Blank(4260992)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| TPH | 4.8 U | mg/Kg | 14 | 4.8 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 5.90 | 98 | 36 - 132 | |
| o-Terphenyl (S) | mg/L | 2 | 1.80 | 92 | 66 - 136 | |

**Lab Control Sample (4260993)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| TPH | mg/Kg | 34 | 23 | 68 | 49 - 128 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 4.40 | 73 | 36 - 132 | |
| o-Terphenyl (S) | mg/L | 2 | 1.40 | 69 | 66 - 136 | |

**Matrix Spike (4260994); Matrix Spike Duplicate (4260995); Parent Lab Sample (T2206406005)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| **TPH** | mg/Kg | 34 | 170 | **165** | 49 - 128 | 170 | **161** | 1 | 25 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Nonatricontane-C39 (S) | mg/L | 6 | 4.70 | 80 | 36 - 132 | 4.30 | 72 | 10 | 25 | |
| o-Terphenyl (S) | mg/L | 2 | 1.60 | 78 | 66 - 136 | 1.50 | 75 | 4 | 25 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** ICPt/2538
**Preparation Method:** SW-846 3050B
**Associated Lab IDs:** T2206116001, T2206116002, T2206116003
**Analysis Method:** SW-846 6010

**Method Blank(4260191)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Silver | 0.20 U | mg/Kg | 0.25 | 0.20 | T |
| Arsenic | 0.12 U | mg/Kg | 0.25 | 0.12 | T |
| Barium | 0.12 U | mg/Kg | 0.25 | 0.12 | T |
| Cadmium | 0.025 U | mg/Kg | 0.050 | 0.025 | T |
| Chromium | 0.20 U | mg/Kg | 0.25 | 0.20 | T |
| Lead | 0.12 U | mg/Kg | 0.25 | 0.12 | T |
| Selenium | 1.0 U | mg/Kg | 2.5 | 1.0 | T |

**Lab Control Sample (4260192)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Arsenic | mg/Kg | 25 | 26 | 102 | 80 - 120 | T |
| Barium | mg/Kg | 25 | 27 | 107 | 80 - 120 | T |
| Cadmium | mg/Kg | 2.50 | 2.6 | 103 | 80 - 120 | T |
| Chromium | mg/Kg | 25 | 26 | 106 | 80 - 120 | T |
| Lead | mg/Kg | 25 | 26 | 105 | 80 - 120 | T |
| Selenium | mg/Kg | 25 | 25 | 101 | 80 - 120 | T |

**Matrix Spike (4260193); Matrix Spike Duplicate (4260194); Parent Lab Sample (A2202689004)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Silver | mg/Kg | 2.40 | 1.8 | 75 | 75 - 125 | 1.8 | 76 | 1 | 20 | T |
| Arsenic | mg/Kg | 24 | 23 | 82 | 75 - 125 | 22 | 81 | 2 | 20 | T |
| Barium | mg/Kg | 24 | 30 | 82 | 75 - 125 | 30 | 82 | 1 | 20 | T |
| **Cadmium** | mg/Kg | 2.40 | 2 | **72** | 75 - 125 | 1.9 | **72** | 1 | 20 | T |
| Chromium | mg/Kg | 24 | 28 | 84 | 75 - 125 | 28 | 83 | 1 | 20 | T |
| **Lead** | mg/Kg | 24 | 19 | **68** | 75 - 125 | 18 | **68** | 1 | 20 | T |
| Selenium | mg/Kg | 24 | 19 | 79 | 75 - 125 | 19 | 79 | 0 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** MSSt/1771
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116001
**Analysis Method:** SW-846 8270C (SIM)

**Method Blank(4257585)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Naphthalene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| 2-Methylnaphthalene | 0.0020 U | mg/Kg | 0.0080 | 0.0020 | T |
| 1-Methylnaphthalene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Acenaphthylene | 0.0017 U | mg/Kg | 0.0080 | 0.0017 | T |
| Acenaphthene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Fluorene | 0.0021 U | mg/Kg | 0.0080 | 0.0021 | T |
| Phenanthrene | 0.0021 U | mg/Kg | 0.0080 | 0.0021 | T |
| Anthracene | 0.0024 U | mg/Kg | 0.0080 | 0.0024 | T |
| Fluoranthene | 0.0027 U | mg/Kg | 0.0080 | 0.0027 | T |
| Pyrene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Benzo[a]anthracene | 0.0019 U | mg/Kg | 0.0080 | 0.0019 | T |
| Chrysene | 0.0028 U | mg/Kg | 0.0080 | 0.0028 | T |
| Benzo[b]fluoranthene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Benzo[k]fluoranthene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Benzo[a]pyrene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| Indeno(1,2,3-cd)pyrene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Dibenzo[a,h]anthracene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| Benzo[g,h,i]perylene | 0.0019 U | mg/Kg | 0.0080 | 0.0019 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.25 | 63 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.26 | 64 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.26 | 64 | 42 - 141 | |

**Lab Control Sample (4257586)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Naphthalene | mg/Kg | 0.20 | .16 | 81 | 38 - 120 | T |
| 2-Methylnaphthalene | mg/Kg | 0.20 | .17 | 87 | 39 - 120 | T |
| 1-Methylnaphthalene | mg/Kg | 0.20 | .18 | 88 | 43 - 120 | T |
| Acenaphthylene | mg/Kg | 0.20 | .16 | 79 | 39 - 118 | T |
| Acenaphthene | mg/Kg | 0.20 | .18 | 88 | 44 - 117 | T |
| Fluorene | mg/Kg | 0.20 | .19 | 93 | 47 - 121 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSSt/1771
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116001

**Analysis Method:** SW-846 8270C (SIM)

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Phenanthrene | mg/Kg | 0.20 | .18 | 88 | 49 - 122 | T |
| Anthracene | mg/Kg | 0.20 | .18 | 91 | 50 - 123 | T |
| Fluoranthene | mg/Kg | 0.20 | .19 | 93 | 51 - 126 | T |
| Pyrene | mg/Kg | 0.20 | .18 | 89 | 51 - 127 | T |
| Benzo[a]anthracene | mg/Kg | 0.20 | .17 | 86 | 52 - 126 | T |
| Chrysene | mg/Kg | 0.20 | .18 | 88 | 52 - 128 | T |
| Benzo[b]fluoranthene | mg/Kg | 0.20 | .18 | 92 | 43 - 132 | T |
| Benzo[k]fluoranthene | mg/Kg | 0.20 | .16 | 82 | 46 - 133 | T |
| Benzo[a]pyrene | mg/Kg | 0.20 | .18 | 92 | 42 - 129 | T |
| Indeno(1,2,3-cd)pyrene | mg/Kg | 0.20 | .17 | 87 | 39 - 135 | T |
| Dibenzo[a,h]anthracene | mg/Kg | 0.20 | .19 | 94 | 40 - 139 | T |
| Benzo[g,h,i]perylene | mg/Kg | 0.20 | .19 | 93 | 41 - 133 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.33 | 84 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.36 | 89 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.35 | 87 | 42 - 141 | |

**Matrix Spike (4257587); Matrix Spike Duplicate (4257588); Parent Lab Sample (T2206137004)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | mg/Kg | 0.20 | .14 | 65 | 38 - 120 | .14 | 66 | 1 | 30 | T |
| 2-Methylnaphthalene | mg/Kg | 0.20 | .15 | 76 | 39 - 120 | .15 | 77 | 0 | 30 | T |
| 1-Methylnaphthalene | mg/Kg | 0.20 | .16 | 78 | 43 - 120 | .16 | 78 | 0 | 30 | T |
| Acenaphthylene | mg/Kg | 0.20 | .16 | 77 | 39 - 118 | .16 | 77 | 0 | 30 | T |
| Acenaphthene | mg/Kg | 0.20 | .16 | 80 | 44 - 117 | .16 | 81 | 2 | 30 | T |
| Fluorene | mg/Kg | 0.20 | .16 | 83 | 47 - 121 | .17 | 84 | 1 | 30 | T |
| Phenanthrene | mg/Kg | 0.20 | .16 | 78 | 49 - 122 | .16 | 78 | 0 | 30 | T |
| Anthracene | mg/Kg | 0.20 | .18 | 88 | 50 - 123 | .18 | 87 | 1 | 30 | T |
| Fluoranthene | mg/Kg | 0.20 | .18 | 83 | 51 - 126 | .18 | 81 | 2 | 30 | T |
| Pyrene | mg/Kg | 0.20 | .18 | 80 | 51 - 127 | .18 | 78 | 3 | 30 | T |
| Benzo[a]anthracene | mg/Kg | 0.20 | .16 | 77 | 52 - 126 | .16 | 78 | 0 | 30 | T |
| Chrysene | mg/Kg | 0.20 | .17 | 76 | 52 - 128 | .16 | 76 | 1 | 30 | T |
| Benzo[b]fluoranthene | mg/Kg | 0.20 | .18 | 79 | 43 - 132 | .17 | 77 | 1 | 30 | T |
| Benzo[k]fluoranthene | mg/Kg | 0.20 | .15 | 72 | 46 - 133 | .15 | 72 | 1 | 30 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSSt/1771
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116001

**Analysis Method:** SW-846 8270C (SIM)

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]pyrene | mg/Kg | 0.20 | .18 | 82 | 42 - 129 | .17 | 81 | 1 | 30 | T |
| Indeno(1,2,3-cd)pyrene | mg/Kg | 0.20 | .16 | 75 | 39 - 135 | .16 | 74 | 2 | 30 | T |
| Dibenzo[a,h]anthracene | mg/Kg | 0.20 | .17 | 83 | 40 - 139 | .17 | 85 | 3 | 30 | T |
| Benzo[g,h,i]perylene | mg/Kg | 0.20 | .17 | 80 | 41 - 133 | .17 | 78 | 2 | 30 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.28 | 71 | 37 - 127 | 0.29 | 72 | 2 | 30 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.30 | 77 | 33 - 134 | 0.31 | 77 | 0 | 30 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.30 | 77 | 42 - 141 | 0.31 | 78 | 2 | 30 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** MSSt/1772
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116002
**Analysis Method:** SW-846 8270C (SIM)

**Method Blank(4259184)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Naphthalene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| 2-Methylnaphthalene | 0.0020 U | mg/Kg | 0.0080 | 0.0020 | T |
| 1-Methylnaphthalene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Acenaphthylene | 0.0017 U | mg/Kg | 0.0080 | 0.0017 | T |
| Acenaphthene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Fluorene | 0.0021 U | mg/Kg | 0.0080 | 0.0021 | T |
| Phenanthrene | 0.0021 U | mg/Kg | 0.0080 | 0.0021 | T |
| Anthracene | 0.0024 U | mg/Kg | 0.0080 | 0.0024 | T |
| Fluoranthene | 0.0027 U | mg/Kg | 0.0080 | 0.0027 | T |
| Pyrene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Benzo[a]anthracene | 0.0019 U | mg/Kg | 0.0080 | 0.0019 | T |
| Chrysene | 0.0028 U | mg/Kg | 0.0080 | 0.0028 | T |
| Benzo[b]fluoranthene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Benzo[k]fluoranthene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Benzo[a]pyrene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| Indeno(1,2,3-cd)pyrene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Dibenzo[a,h]anthracene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| Benzo[g,h,i]perylene | 0.0019 U | mg/Kg | 0.0080 | 0.0019 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.24 | 61 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.24 | 59 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.27 | 68 | 42 - 141 | |

**Lab Control Sample (4259185)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Naphthalene | mg/Kg | 0.20 | .13 | 66 | 38 - 120 | T |
| 2-Methylnaphthalene | mg/Kg | 0.20 | .13 | 67 | 39 - 120 | T |
| 1-Methylnaphthalene | mg/Kg | 0.20 | .12 | 62 | 43 - 120 | T |
| Acenaphthylene | mg/Kg | 0.20 | .13 | 65 | 39 - 118 | T |
| Acenaphthene | mg/Kg | 0.20 | .14 | 70 | 44 - 117 | T |
| Fluorene | mg/Kg | 0.20 | .13 | 67 | 47 - 121 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSSt/1772
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116002

**Analysis Method:** SW-846 8270C (SIM)

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Phenanthrene | mg/Kg | 0.20 | .15 | 73 | 49 - 122 | T |
| Anthracene | mg/Kg | 0.20 | .15 | 76 | 50 - 123 | T |
| Fluoranthene | mg/Kg | 0.20 | .15 | 77 | 51 - 126 | T |
| Pyrene | mg/Kg | 0.20 | .14 | 70 | 51 - 127 | T |
| Benzo[a]anthracene | mg/Kg | 0.20 | .12 | 59 | 52 - 126 | T |
| Chrysene | mg/Kg | 0.20 | .14 | 68 | 52 - 128 | T |
| Benzo[b]fluoranthene | mg/Kg | 0.20 | .13 | 63 | 43 - 132 | T |
| Benzo[k]fluoranthene | mg/Kg | 0.20 | .14 | 69 | 46 - 133 | T |
| Benzo[a]pyrene | mg/Kg | 0.20 | .14 | 68 | 42 - 129 | T |
| Indeno(1,2,3-cd)pyrene | mg/Kg | 0.20 | .17 | 85 | 39 - 135 | T |
| Dibenzo[a,h]anthracene | mg/Kg | 0.20 | .14 | 68 | 40 - 139 | T |
| Benzo[g,h,i]perylene | mg/Kg | 0.20 | .14 | 68 | 41 - 133 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.26 | 65 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.24 | 61 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.28 | 70 | 42 - 141 | |

**Matrix Spike (4259186); Matrix Spike Duplicate (4259187); Parent Lab Sample (G2202577002)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | mg/Kg | 0.20 | .12 | 53 | 38 - 120 | .14 | 63 | 14 | 30 | T |
| 2-Methylnaphthalene | mg/Kg | 0.20 | .13 | 56 | 39 - 120 | .15 | 68 | 16 | 30 | T |
| 1-Methylnaphthalene | mg/Kg | 0.20 | .11 | 53 | 43 - 120 | .13 | 62 | 15 | 30 | T |
| Acenaphthylene | mg/Kg | 0.20 | .12 | 59 | 39 - 118 | .14 | 70 | 15 | 30 | T |
| Acenaphthene | mg/Kg | 0.20 | .12 | 62 | 44 - 117 | .14 | 71 | 14 | 30 | T |
| Fluorene | mg/Kg | 0.20 | .12 | 62 | 47 - 121 | .14 | 71 | 12 | 30 | T |
| Phenanthrene | mg/Kg | 0.20 | .17 | 70 | 49 - 122 | .18 | 77 | 7 | 30 | T |
| Anthracene | mg/Kg | 0.20 | .15 | 74 | 50 - 123 | .17 | 85 | 12 | 30 | T |
| Fluoranthene | mg/Kg | 0.20 | .19 | 82 | 51 - 126 | .19 | 83 | 1 | 30 | T |
| Pyrene | mg/Kg | 0.20 | .17 | 69 | 51 - 127 | .18 | 74 | 6 | 30 | T |
| Benzo[a]anthracene | mg/Kg | 0.20 | .13 | 60 | 52 - 126 | .14 | 66 | 8 | 30 | T |
| Chrysene | mg/Kg | 0.20 | .15 | 65 | 52 - 128 | .16 | 72 | 8 | 30 | T |
| Benzo[b]fluoranthene | mg/Kg | 0.20 | .14 | 65 | 43 - 132 | .15 | 72 | 8 | 30 | T |
| Benzo[k]fluoranthene | mg/Kg | 0.20 | .13 | 63 | 46 - 133 | .14 | 71 | 11 | 30 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSSt/1772
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116002

**Analysis Method:** SW-846 8270C (SIM)

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]pyrene | mg/Kg | 0.20 | .14 | 65 | 42 - 129 | .16 | 73 | 10 | 30 | T |
| Indeno(1,2,3-cd)pyrene | mg/Kg | 0.20 | .14 | 66 | 39 - 135 | .16 | 74 | 11 | 30 | T |
| Dibenzo[a,h]anthracene | mg/Kg | 0.20 | .13 | 65 | 40 - 139 | .15 | 74 | 12 | 30 | T |
| Benzo[g,h,i]perylene | mg/Kg | 0.20 | .15 | 62 | 41 - 133 | .16 | 71 | 11 | 30 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.23 | 57 | 37 - 127 | 0.26 | 67 | 15 | 30 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.20 | 50 | 33 - 134 | 0.23 | 57 | 12 | 30 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.25 | 64 | 42 - 141 | 0.30 | 75 | 16 | 30 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** MSSt/1777
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116003
**Analysis Method:** SW-846 8270C (SIM)

**Method Blank(4260982)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Naphthalene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| 2-Methylnaphthalene | 0.0020 U | mg/Kg | 0.0080 | 0.0020 | T |
| 1-Methylnaphthalene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Acenaphthylene | 0.0017 U | mg/Kg | 0.0080 | 0.0017 | T |
| Acenaphthene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Fluorene | 0.0021 U | mg/Kg | 0.0080 | 0.0021 | T |
| Phenanthrene | 0.0021 U | mg/Kg | 0.0080 | 0.0021 | T |
| Anthracene | 0.0024 U | mg/Kg | 0.0080 | 0.0024 | T |
| Fluoranthene | 0.0027 U | mg/Kg | 0.0080 | 0.0027 | T |
| Pyrene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Benzo[a]anthracene | 0.0019 U | mg/Kg | 0.0080 | 0.0019 | T |
| Chrysene | 0.0028 U | mg/Kg | 0.0080 | 0.0028 | T |
| Benzo[b]fluoranthene | 0.0015 U | mg/Kg | 0.0080 | 0.0015 | T |
| Benzo[k]fluoranthene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Benzo[a]pyrene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| Indeno(1,2,3-cd)pyrene | 0.0023 U | mg/Kg | 0.0080 | 0.0023 | T |
| Dibenzo[a,h]anthracene | 0.0016 U | mg/Kg | 0.0080 | 0.0016 | T |
| Benzo[g,h,i]perylene | 0.0019 U | mg/Kg | 0.0080 | 0.0019 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.32 | 80 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.28 | 70 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.35 | 89 | 42 - 141 | |

**Lab Control Sample (4260983)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Naphthalene | mg/Kg | 0.20 | .15 | 75 | 38 - 120 | T |
| 2-Methylnaphthalene | mg/Kg | 0.20 | .15 | 77 | 39 - 120 | T |
| 1-Methylnaphthalene | mg/Kg | 0.20 | .14 | 71 | 43 - 120 | T |
| Acenaphthylene | mg/Kg | 0.20 | .16 | 80 | 39 - 118 | T |
| Acenaphthene | mg/Kg | 0.20 | .16 | 80 | 44 - 117 | T |
| Fluorene | mg/Kg | 0.20 | .16 | 82 | 47 - 121 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSSt/1777
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116003

**Analysis Method:** SW-846 8270C (SIM)

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Phenanthrene | mg/Kg | 0.20 | .19 | 95 | 49 - 122 | T |
| Anthracene | mg/Kg | 0.20 | .2 | 99 | 50 - 123 | T |
| Fluoranthene | mg/Kg | 0.20 | .2 | 99 | 51 - 126 | T |
| Pyrene | mg/Kg | 0.20 | .18 | 90 | 51 - 127 | T |
| Benzo[a]anthracene | mg/Kg | 0.20 | .15 | 75 | 52 - 126 | T |
| Chrysene | mg/Kg | 0.20 | .17 | 85 | 52 - 128 | T |
| Benzo[b]fluoranthene | mg/Kg | 0.20 | .17 | 83 | 43 - 132 | T |
| Benzo[k]fluoranthene | mg/Kg | 0.20 | .17 | 86 | 46 - 133 | T |
| Benzo[a]pyrene | mg/Kg | 0.20 | .17 | 85 | 42 - 129 | T |
| Indeno(1,2,3-cd)pyrene | mg/Kg | 0.20 | .19 | 94 | 39 - 135 | T |
| Dibenzo[a,h]anthracene | mg/Kg | 0.20 | .18 | 92 | 40 - 139 | T |
| Benzo[g,h,i]perylene | mg/Kg | 0.20 | .19 | 96 | 41 - 133 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.32 | 80 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.28 | 71 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.36 | 89 | 42 - 141 | |

**Matrix Spike (4260984); Parent Lab Sample (G2202606006)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Naphthalene | mg/Kg | 0.20 | .13 | 64 | 38 - 120 | T |
| 2-Methylnaphthalene | mg/Kg | 0.20 | .13 | 67 | 39 - 120 | T |
| 1-Methylnaphthalene | mg/Kg | 0.20 | .12 | 63 | 43 - 120 | T |
| Acenaphthylene | mg/Kg | 0.20 | .17 | 70 | 39 - 118 | T |
| Acenaphthene | mg/Kg | 0.20 | .14 | 73 | 44 - 117 | T |
| Fluorene | mg/Kg | 0.20 | .14 | 72 | 47 - 121 | T |
| Phenanthrene | mg/Kg | 0.20 | .18 | 81 | 49 - 122 | T |
| Anthracene | mg/Kg | 0.20 | .19 | 81 | 50 - 123 | T |
| Fluoranthene | mg/Kg | 0.20 | .25 | 79 | 51 - 126 | T |
| Pyrene | mg/Kg | 0.20 | .27 | 73 | 51 - 127 | T |
| Benzo[a]anthracene | mg/Kg | 0.20 | .19 | 61 | 52 - 126 | T |
| Chrysene | mg/Kg | 0.20 | .23 | 76 | 52 - 128 | T |
| Benzo[b]fluoranthene | mg/Kg | 0.20 | .37 | 73 | 43 - 132 | T |
| Benzo[k]fluoranthene | mg/Kg | 0.20 | .2 | 66 | 46 - 133 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSSt/1777
**Preparation Method:** SW-846 3550B
**Associated Lab IDs:** T2206116003

**Analysis Method:** SW-846 8270C (SIM)

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Benzo[a]pyrene | mg/Kg | 0.20 | .26 | 68 | 42 - 129 | T |
| Indeno(1,2,3-cd)pyrene | mg/Kg | 0.20 | .26 | 72 | 39 - 135 | T |
| Dibenzo[a,h]anthracene | mg/Kg | 0.20 | .16 | 69 | 40 - 139 | T |
| Benzo[g,h,i]perylene | mg/Kg | 0.20 | .24 | 71 | 41 - 133 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Fluorobiphenyl (S) | mg/L | 0.40 | 0.28 | 71 | 37 - 127 | |
| Nitrobenzene-d5 (S) | mg/L | 0.40 | 0.23 | 58 | 33 - 134 | |
| p-Terphenyl-d14 (S) | mg/L | 0.40 | 0.29 | 74 | 42 - 141 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002
**Analysis Method:** SW-846 8260B

**Method Blank(4260677)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | 0.0010 U | mg/Kg | 0.0030 | 0.0010 | T |
| Chloromethane | 0.00069 U | mg/Kg | 0.0030 | 0.00069 | T |
| Vinyl Chloride | 0.00058 U | mg/Kg | 0.0030 | 0.00058 | T |
| Bromomethane | 0.0012 U | mg/Kg | 0.0030 | 0.0012 | T |
| Chloroethane | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| Trichlorofluoromethane | 0.00066 U | mg/Kg | 0.0030 | 0.00066 | T |
| Acrolein (Propenal) | 0.0062 U | mg/Kg | 0.015 | 0.0062 | T |
| Acetone | 0.0022 U | mg/Kg | 0.0030 | 0.0022 | T |
| 1,1-Dichloroethylene | 0.00073 U | mg/Kg | 0.0030 | 0.00073 | T |
| Iodomethane (Methyl Iodide) | 0.0021 U | mg/Kg | 0.0030 | 0.0021 | T |
| Acrylonitrile | 0.00052 U | mg/Kg | 0.0030 | 0.00052 | T |
| Methylene Chloride | 0.0040 U | mg/Kg | 0.0050 | 0.0040 | T |
| Carbon Disulfide | 0.00086 U | mg/Kg | 0.0030 | 0.00086 | T |
| trans-1,2-Dichloroethylene | 0.00061 U | mg/Kg | 0.0030 | 0.00061 | T |
| Methyl tert-butyl Ether (MTBE) | 0.00098 U | mg/Kg | 0.0030 | 0.00098 | T |
| 1,1-Dichloroethane | 0.00070 U | mg/Kg | 0.0030 | 0.00070 | T |
| Vinyl Acetate | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| 2-Butanone (MEK) | 0.0010 U | mg/Kg | 0.0030 | 0.0010 | T |
| cis-1,2-Dichloroethylene | 0.00059 U | mg/Kg | 0.0030 | 0.00059 | T |
| Bromochloromethane | 0.00064 U | mg/Kg | 0.0030 | 0.00064 | T |
| Chloroform | 0.00061 U | mg/Kg | 0.0030 | 0.00061 | T |
| 2,2-Dichloropropane | 0.0012 U | mg/Kg | 0.0030 | 0.0012 | T |
| 1,2-Dichloroethane | 0.00078 U | mg/Kg | 0.0030 | 0.00078 | T |
| 1,1,1-Trichloroethane | 0.00070 U | mg/Kg | 0.0030 | 0.00070 | T |
| 1,1-Dichloropropene | 0.00049 U | mg/Kg | 0.0030 | 0.00049 | T |
| Carbon Tetrachloride | 0.00084 U | mg/Kg | 0.0030 | 0.00084 | T |
| Benzene | 0.00050 U | mg/Kg | 0.0030 | 0.00050 | T |
| Dibromomethane | 0.00060 U | mg/Kg | 0.0030 | 0.00060 | T |
| 1,2-Dichloropropane | 0.00054 U | mg/Kg | 0.0030 | 0.00054 | T |
| Trichloroethene | 0.00074 U | mg/Kg | 0.0030 | 0.00074 | T |
| Bromodichloromethane | 0.00053 U | mg/Kg | 0.0030 | 0.00053 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002

**Analysis Method:** SW-846 8260B

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| 2-Chloroethyl Vinyl Ether | 0.0026 U | mg/Kg | 0.0030 | 0.0026 | T |
| cis-1,3-Dichloropropene | 0.0021 U | mg/Kg | 0.0030 | 0.0021 | T |
| 4-Methyl-2-pentanone (MIBK) | 0.00068 U | mg/Kg | 0.0030 | 0.00068 | T |
| trans-1,3-Dichloropropylene | 0.0018 U | mg/Kg | 0.0030 | 0.0018 | T |
| 1,1,2-Trichloroethane | 0.00049 U | mg/Kg | 0.0030 | 0.00049 | T |
| Toluene | 0.00037 U | mg/Kg | 0.0030 | 0.00037 | T |
| 1,3-Dichloropropane | 0.00043 U | mg/Kg | 0.0030 | 0.00043 | T |
| 2-Hexanone | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| Dibromochloromethane | 0.0017 U | mg/Kg | 0.0030 | 0.0017 | T |
| Ethylene Dibromide (EDB) | 0.00050 U | mg/Kg | 0.0030 | 0.00050 | T |
| Tetrachloroethylene (PCE) | 0.00057 U | mg/Kg | 0.0030 | 0.00057 | T |
| 1,1,1,2-Tetrachloroethane | 0.00096 U | mg/Kg | 0.0030 | 0.00096 | T |
| Chlorobenzene | 0.00044 U | mg/Kg | 0.0030 | 0.00044 | T |
| Ethylbenzene | 0.00036 U | mg/Kg | 0.0030 | 0.00036 | T |
| Bromoform | 0.0020 U | mg/Kg | 0.0030 | 0.0020 | T |
| Styrene | 0.00040 U | mg/Kg | 0.0030 | 0.00040 | T |
| 1,1,2,2-Tetrachloroethane | 0.00051 U | mg/Kg | 0.0030 | 0.00051 | T |
| 1,2,3-Trichloropropane | 0.0017 U | mg/Kg | 0.0030 | 0.0017 | T |
| Isopropylbenzene | 0.00063 U | mg/Kg | 0.0030 | 0.00063 | T |
| Bromobenzene | 0.00056 U | mg/Kg | 0.0030 | 0.00056 | T |
| n-propylbenzene | 0.00070 U | mg/Kg | 0.0030 | 0.00070 | T |
| 2-Chlorotoluene | 0.00067 U | mg/Kg | 0.0030 | 0.00067 | T |
| 4-Chlorotoluene | 0.00074 U | mg/Kg | 0.0030 | 0.00074 | T |
| 1,3,5-Trimethylbenzene | 0.00067 U | mg/Kg | 0.0030 | 0.00067 | T |
| tert-butylbenzene | 0.00091 U | mg/Kg | 0.0030 | 0.00091 | T |
| 1,2,4-Trimethylbenzene | 0.00088 U | mg/Kg | 0.0030 | 0.00088 | T |
| sec-butylbenzene | 0.00067 U | mg/Kg | 0.0030 | 0.00067 | T |
| 1,3-Dichlorobenzene | 0.00055 U | mg/Kg | 0.0030 | 0.00055 | T |
| 1,4-Dichlorobenzene | 0.00066 U | mg/Kg | 0.0030 | 0.00066 | T |
| 1,2-Dichlorobenzene | 0.00048 U | mg/Kg | 0.0030 | 0.00048 | T |
| n-Butylbenzene | 0.00082 U | mg/Kg | 0.0030 | 0.00082 | T |
| 1,2-Dibromo-3-Chloropropane | 0.0013 U | mg/Kg | 0.0030 | 0.0013 | T |
| 1,2,4-Trichlorobenzene | 0.00065 U | mg/Kg | 0.0030 | 0.00065 | T |
| Naphthalene | 0.0014 U | mg/Kg | 0.0030 | 0.0014 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002

**Analysis Method:** SW-846 8260B

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Hexachlorobutadiene | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| 1,2,3-Trichlorobenzene | 0.00080 U | mg/Kg | 0.0030 | 0.00080 | T |
| Xylene (Total) | 0.0013 U | mg/Kg | 0.0060 | 0.0013 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 58 | 117 | 69 - 134 | |
| Bromofluorobenzene (S) | ug/L | 50 | 57 | 113 | 79 - 126 | |
| Toluene-d8 (S) | ug/L | 50 | 47 | 94 | 72 - 122 | |

**Lab Control Sample (4260678); Lab Control Sample Duplicate (4260679)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | mg/Kg | 0.02 | .02 | 79 | | .02 | 76 | 5 | | T |
| Chloromethane | mg/Kg | 0.02 | .02 | 93 | | .02 | 90 | 3 | | T |
| Vinyl Chloride | mg/Kg | 0.02 | .02 | 99 | 70 - 130 | .02 | 95 | 4 | 20 | T |
| Bromomethane | mg/Kg | 0.02 | .02 | 98 | | .02 | 100 | 2 | | T |
| Chloroethane | mg/Kg | 0.02 | .02 | 102 | | .02 | 97 | 5 | | T |
| Trichlorofluoromethane | mg/Kg | 0.02 | .02 | 91 | | .02 | 89 | 3 | | T |
| Acetone | mg/Kg | 0.02 | .02 | 80 | | .01 | 69 | 15 | | T |
| 1,1-Dichloroethylene | mg/Kg | 0.02 | .02 | 92 | 70 - 130 | .02 | 83 | 10 | 20 | T |
| Methylene Chloride | mg/Kg | 0.02 | .02 | 103 | | .02 | 91 | 12 | | T |
| Carbon Disulfide | mg/Kg | 0.02 | .02 | 90 | | .02 | 82 | 9 | | T |
| trans-1,2-Dichloroethylene | mg/Kg | 0.02 | .02 | 91 | | .02 | 82 | 10 | | T |
| Methyl tert-butyl Ether (MT | mg/Kg | 0.02 | .02 | 86 | 70 - 130 | .02 | 76 | 13 | 20 | T |
| 1,1-Dichloroethane | mg/Kg | 0.02 | .02 | 91 | | .02 | 82 | 11 | | T |
| 2-Butanone (MEK) | mg/Kg | 0.02 | .02 | 89 | | .02 | 75 | 16 | | T |
| cis-1,2-Dichloroethylene | mg/Kg | 0.02 | .02 | 93 | 70 - 130 | .02 | 82 | 12 | 20 | T |
| Chloroform | mg/Kg | 0.02 | .02 | 94 | 70 - 130 | .02 | 85 | 11 | 20 | T |
| 1,2-Dichloroethane | mg/Kg | 0.02 | .02 | 103 | | .02 | 90 | 13 | | T |
| 1,1,1-Trichloroethane | mg/Kg | 0.02 | .02 | 94 | | .02 | 84 | 12 | | T |
| Carbon Tetrachloride | mg/Kg | 0.02 | .02 | 100 | | .02 | 90 | 10 | | T |
| Benzene | mg/Kg | 0.02 | .02 | 88 | 70 - 130 | .02 | 79 | 11 | 20 | T |
| 1,2-Dichloropropane | mg/Kg | 0.02 | .02 | 89 | | .02 | 80 | 10 | | T |
| Trichloroethene | mg/Kg | 0.02 | .02 | 87 | 70 - 130 | .02 | 77 | 12 | 20 | T |
| Bromodichloromethane | mg/Kg | 0.02 | .02 | 98 | | .02 | 89 | 10 | | T |



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**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002

**Analysis Method:** SW-846 8260B

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | mg/Kg | 0.02 | .02 | 91 | | .02 | 82 | 11 | | T |
| 4-Methyl-2-pentanone (MIB | mg/Kg | 0.02 | .02 | 92 | | .02 | 78 | 16 | | T |
| trans-1,3-Dichloropropylene | mg/Kg | 0.02 | .02 | 95 | | .02 | 84 | 11 | | T |
| 1,1,2-Trichloroethane | mg/Kg | 0.02 | .02 | 88 | | .02 | 80 | 10 | | T |
| Toluene | mg/Kg | 0.02 | .02 | 107 | 70 - 130 | .02 | 105 | 2 | 20 | T |
| 2-Hexanone | mg/Kg | 0.02 | .02 | 112 | | .02 | 105 | 6 | | T |
| Dibromochloromethane | mg/Kg | 0.02 | .02 | 114 | | .02 | 112 | 2 | | T |
| Ethylene Dibromide (EDB) | mg/Kg | 0.02 | .02 | 113 | | .02 | 111 | 2 | | T |
| Tetrachloroethylene (PCE) | mg/Kg | 0.02 | .02 | 98 | 70 - 130 | .02 | 97 | 0 | 20 | T |
| Chlorobenzene | mg/Kg | 0.02 | .02 | 102 | 70 - 130 | .02 | 100 | 2 | 20 | T |
| Ethylbenzene | mg/Kg | 0.02 | .02 | 105 | 70 - 130 | .02 | 102 | 3 | 20 | T |
| Bromoform | mg/Kg | 0.02 | .02 | 105 | | .02 | 104 | 1 | | T |
| Styrene | mg/Kg | 0.02 | .02 | 105 | | .02 | 104 | 0 | | T |
| 1,1,2,2-Tetrachloroethane | mg/Kg | 0.02 | .02 | 119 | | .02 | 113 | 4 | | T |
| Isopropylbenzene | mg/Kg | 0.02 | .02 | 99 | | .02 | 98 | 1 | | T |
| 1,3-Dichlorobenzene | mg/Kg | 0.02 | .02 | 94 | 70 - 130 | .02 | 95 | 2 | 20 | T |
| 1,4-Dichlorobenzene | mg/Kg | 0.02 | .02 | 94 | | .02 | 93 | 1 | | T |
| 1,2-Dichlorobenzene | mg/Kg | 0.02 | .02 | 94 | 70 - 130 | .02 | 95 | 1 | 20 | T |
| 1,2-Dibromo-3-Chloropropa | mg/Kg | 0.02 | .02 | 97 | | .02 | 94 | 3 | | T |
| 1,2,4-Trichlorobenzene | mg/Kg | 0.02 | .02 | 79 | | .02 | 80 | 2 | | T |
| Xylene (Total) | mg/Kg | 0.06 | .06 | 105 | 70 - 130 | .06 | 104 | 2 | 20 | T |
| 1,1-Dichloropropene | mg/Kg | 0.02 | .02 | 91 | | .02 | 81 | 12 | | T |
| 1,1,1,2-Tetrachloroethane | mg/Kg | 0.02 | .02 | 116 | | .02 | 116 | 0 | | T |
| 1,2,3-Trichlorobenzene | mg/Kg | 0.02 | .02 | 84 | | .02 | 86 | 2 | | T |
| 1,2,3-Trichloropropane | mg/Kg | 0.02 | .02 | 119 | | .02 | 114 | 4 | | T |
| 1,2,4-Trimethylbenzene | mg/Kg | 0.02 | .02 | 84 | 70 - 130 | .02 | 83 | 1 | 20 | T |
| 1,3,5-Trimethylbenzene | mg/Kg | 0.02 | .02 | 98 | | .02 | 97 | 1 | | T |
| 1,3-Dichloropropane | mg/Kg | 0.02 | .02 | 115 | | .02 | 112 | 3 | | T |
| 2,2-Dichloropropane | mg/Kg | 0.02 | .02 | 95 | | .02 | 86 | 11 | | T |
| 2-Chloroethyl Vinyl Ether | mg/Kg | 0.02 | 0 | 0 | | 0 | 0 | 0 | | T |
| 2-Chlorotoluene | mg/Kg | 0.02 | .02 | 101 | | .02 | 100 | 2 | | T |
| 4-Chlorotoluene | mg/Kg | 0.02 | .02 | 102 | | .02 | 102 | 0 | | T |
| Acrolein (Propenal) | mg/Kg | 0.10 | .09 | 85 | | .07 | 70 | 19 | | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002

**Analysis Method:** SW-846 8260B

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | mg/Kg | 0.02 | .02 | 111 | | .02 | 109 | 2 | | T |
| Dibromomethane | mg/Kg | 0.02 | .02 | 98 | | .02 | 86 | 13 | | T |
| Hexachlorobutadiene | mg/Kg | 0.02 | .02 | 81 | | .02 | 81 | 0 | | T |
| Naphthalene | mg/Kg | 0.02 | .01 | 60 | | .01 | 61 | 1 | | T |
| n-Butylbenzene | mg/Kg | 0.02 | .02 | 90 | | .02 | 90 | 0 | | T |
| n-propylbenzene | mg/Kg | 0.02 | .02 | 97 | | .02 | 96 | 2 | | T |
| sec-butylbenzene | mg/Kg | 0.02 | .02 | 96 | | .02 | 96 | 0 | | T |
| Vinyl Acetate | mg/Kg | 0.02 | .02 | 97 | | .02 | 85 | 13 | | T |
| Acrylonitrile | mg/Kg | 0.02 | .02 | 94 | | .02 | 80 | 16 | | T |
| Iodomethane (Methyl Iodid | mg/Kg | 0.02 | .02 | 76 | | .02 | 73 | 3 | | T |
| tert-butylbenzene | mg/Kg | 0.02 | .02 | 95 | | .02 | 93 | 2 | | T |
| Bromochloromethane | mg/Kg | 0.02 | .02 | 100 | | .02 | 88 | 13 | | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 44 | 89 | 69 - 134 | 40 | 79 | 11 | | |
| Bromofluorobenzene (S) | ug/L | 50 | 53 | 106 | 79 - 126 | 53 | 106 | 0 | | |
| Toluene-d8 (S) | ug/L | 50 | 47 | 94 | 72 - 122 | 47 | 93 | 1 | | |

**Matrix Spike (4260680); Parent Lab Sample (T2206116001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | mg/Kg | 0.02 | .02 | 77 | | T |
| Chloromethane | mg/Kg | 0.02 | .02 | 93 | | T |
| Vinyl Chloride | mg/Kg | 0.02 | .02 | 96 | 70 - 130 | T |
| Bromomethane | mg/Kg | 0.02 | .02 | 102 | | T |
| Chloroethane | mg/Kg | 0.02 | .02 | 99 | | T |
| Trichlorofluoromethane | mg/Kg | 0.02 | .02 | 90 | | T |
| Acetone | mg/Kg | 0.02 | .01 | -83 | | T |
| 1,1-Dichloroethylene | mg/Kg | 0.02 | .02 | 82 | 70 - 130 | T |
| Methylene Chloride | mg/Kg | 0.02 | .02 | 101 | | T |
| Carbon Disulfide | mg/Kg | 0.02 | .02 | -37 | | T |
| trans-1,2-Dichloroethylene | mg/Kg | 0.02 | .02 | 80 | | T |
| Methyl tert-butyl Ether (MTBE) | mg/Kg | 0.02 | .02 | 76 | 70 - 130 | T |
| 1,1-Dichloroethane | mg/Kg | 0.02 | .02 | 82 | | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002

**Analysis Method:** SW-846 8260B

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2-Butanone (MEK) | mg/Kg | 0.02 | .02 | 69 | | T |
| cis-1,2-Dichloroethylene | mg/Kg | 0.02 | .02 | 81 | 70 - 130 | T |
| Chloroform | mg/Kg | 0.02 | .02 | 84 | 70 - 130 | T |
| 1,2-Dichloroethane | mg/Kg | 0.02 | .02 | 90 | | T |
| 1,1,1-Trichloroethane | mg/Kg | 0.02 | .02 | 85 | | T |
| Carbon Tetrachloride | mg/Kg | 0.02 | .02 | 90 | | T |
| Benzene | mg/Kg | 0.02 | .02 | 76 | 70 - 130 | T |
| 1,2-Dichloropropane | mg/Kg | 0.02 | .02 | 79 | | T |
| Trichloroethene | mg/Kg | 0.02 | .02 | 77 | 70 - 130 | T |
| Bromodichloromethane | mg/Kg | 0.02 | .02 | 89 | | T |
| cis-1,3-Dichloropropene | mg/Kg | 0.02 | .02 | 82 | | T |
| 4-Methyl-2-pentanone (MIBK) | mg/Kg | 0.02 | .02 | 80 | | T |
| trans-1,3-Dichloropropylene | mg/Kg | 0.02 | .02 | 86 | | T |
| 1,1,2-Trichloroethane | mg/Kg | 0.02 | .02 | 81 | | T |
| Toluene | mg/Kg | 0.02 | .02 | 107 | 70 - 130 | T |
| 2-Hexanone | mg/Kg | 0.02 | .02 | 113 | | T |
| Dibromochloromethane | mg/Kg | 0.02 | .02 | 118 | | T |
| Ethylene Dibromide (EDB) | mg/Kg | 0.02 | .02 | 114 | | T |
| Tetrachloroethylene (PCE) | mg/Kg | 0.02 | .02 | 99 | 70 - 130 | T |
| Chlorobenzene | mg/Kg | 0.02 | .02 | 104 | 70 - 130 | T |
| Ethylbenzene | mg/Kg | 0.02 | .02 | 106 | 70 - 130 | T |
| Bromoform | mg/Kg | 0.02 | .02 | 111 | | T |
| Styrene | mg/Kg | 0.02 | .02 | 108 | | T |
| 1,1,2,2-Tetrachloroethane | mg/Kg | 0.02 | .02 | 120 | | T |
| Isopropylbenzene | mg/Kg | 0.02 | .02 | 99 | | T |
| 1,3-Dichlorobenzene | mg/Kg | 0.02 | .02 | 95 | 70 - 130 | T |
| 1,4-Dichlorobenzene | mg/Kg | 0.02 | .02 | 93 | | T |
| 1,2-Dichlorobenzene | mg/Kg | 0.02 | .02 | 97 | 70 - 130 | T |
| 1,2-Dibromo-3-Chloropropane | mg/Kg | 0.02 | .02 | 97 | | T |
| 1,2,4-Trichlorobenzene | mg/Kg | 0.02 | .02 | 84 | | T |
| Xylene (Total) | mg/Kg | 0.06 | .07 | 108 | 70 - 130 | T |
| 1,1-Dichloropropene | mg/Kg | 0.02 | .02 | 80 | | T |
| 1,1,1,2-Tetrachloroethane | mg/Kg | 0.02 | .02 | 119 | | T |
| 1,2,3-Trichlorobenzene | mg/Kg | 0.02 | .02 | 90 | | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3900
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116001, T2206116002

**Analysis Method:** SW-846 8260B

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2,3-Trichloropropane | mg/Kg | 0.02 | .02 | 121 | | T |
| 1,2,4-Trimethylbenzene | mg/Kg | 0.02 | .02 | 84 | 70 - 130 | T |
| 1,3,5-Trimethylbenzene | mg/Kg | 0.02 | .02 | 98 | | T |
| 1,3-Dichloropropane | mg/Kg | 0.02 | .02 | 117 | | T |
| 2,2-Dichloropropane | mg/Kg | 0.02 | .02 | 84 | | T |
| 2-Chloroethyl Vinyl Ether | mg/Kg | 0.02 | 0 | 0 | | T |
| 2-Chlorotoluene | mg/Kg | 0.02 | .02 | 101 | | T |
| 4-Chlorotoluene | mg/Kg | 0.02 | .02 | 103 | | T |
| Acrolein (Propenal) | mg/Kg | 0.10 | .07 | 71 | | T |
| Bromobenzene | mg/Kg | 0.02 | .02 | 112 | | T |
| Dibromomethane | mg/Kg | 0.02 | .02 | 86 | | T |
| Hexachlorobutadiene | mg/Kg | 0.02 | .02 | 85 | | T |
| Naphthalene | mg/Kg | 0.02 | .01 | 66 | | T |
| n-Butylbenzene | mg/Kg | 0.02 | .02 | 92 | | T |
| n-propylbenzene | mg/Kg | 0.02 | .02 | 97 | | T |
| sec-butylbenzene | mg/Kg | 0.02 | .02 | 98 | | T |
| Vinyl Acetate | mg/Kg | 0.02 | .02 | 85 | | T |
| Acrylonitrile | mg/Kg | 0.02 | .02 | 82 | | T |
| Iodomethane (Methyl Iodide) | mg/Kg | 0.02 | .01 | 72 | | T |
| tert-butylbenzene | mg/Kg | 0.02 | .02 | 95 | | T |
| Bromochloromethane | mg/Kg | 0.02 | .02 | 88 | | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 38 | 76 | 69 - 134 | |
| Bromofluorobenzene (S) | ug/L | 50 | 53 | 105 | 79 - 126 | |
| Toluene-d8 (S) | ug/L | 50 | 47 | 94 | 72 - 122 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Results

**QC Batch:** MSVt/3936
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116003
**Analysis Method:** SW-846 8260B

**Method Blank(4264201)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Dichlorodifluoromethane | 0.0010 U | mg/Kg | 0.0030 | 0.0010 | T |
| Chloromethane | 0.00069 U | mg/Kg | 0.0030 | 0.00069 | T |
| Vinyl Chloride | 0.00058 U | mg/Kg | 0.0030 | 0.00058 | T |
| Bromomethane | 0.0012 U | mg/Kg | 0.0030 | 0.0012 | T |
| Chloroethane | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| Trichlorofluoromethane | 0.00066 U | mg/Kg | 0.0030 | 0.00066 | T |
| Acrolein (Propenal) | 0.0062 U | mg/Kg | 0.015 | 0.0062 | T |
| Acetone | 0.0022 U | mg/Kg | 0.0030 | 0.0022 | T |
| 1,1-Dichloroethylene | 0.00073 U | mg/Kg | 0.0030 | 0.00073 | T |
| Iodomethane (Methyl Iodide) | 0.0021 U | mg/Kg | 0.0030 | 0.0021 | T |
| Acrylonitrile | 0.00052 U | mg/Kg | 0.0030 | 0.00052 | T |
| Methylene Chloride | 0.0040 U | mg/Kg | 0.0050 | 0.0040 | T |
| Carbon Disulfide | 0.00086 U | mg/Kg | 0.0030 | 0.00086 | T |
| trans-1,2-Dichloroethylene | 0.00061 U | mg/Kg | 0.0030 | 0.00061 | T |
| Methyl tert-butyl Ether (MTBE) | 0.00098 U | mg/Kg | 0.0030 | 0.00098 | T |
| 1,1-Dichloroethane | 0.00070 U | mg/Kg | 0.0030 | 0.00070 | T |
| Vinyl Acetate | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| 2-Butanone (MEK) | 0.0010 U | mg/Kg | 0.0030 | 0.0010 | T |
| cis-1,2-Dichloroethylene | 0.00059 U | mg/Kg | 0.0030 | 0.00059 | T |
| Bromochloromethane | 0.00064 U | mg/Kg | 0.0030 | 0.00064 | T |
| Chloroform | 0.00061 U | mg/Kg | 0.0030 | 0.00061 | T |
| 2,2-Dichloropropane | 0.0012 U | mg/Kg | 0.0030 | 0.0012 | T |
| 1,2-Dichloroethane | 0.00078 U | mg/Kg | 0.0030 | 0.00078 | T |
| 1,1,1-Trichloroethane | 0.00070 U | mg/Kg | 0.0030 | 0.00070 | T |
| 1,1-Dichloropropene | 0.00049 U | mg/Kg | 0.0030 | 0.00049 | T |
| Carbon Tetrachloride | 0.00084 U | mg/Kg | 0.0030 | 0.00084 | T |
| Benzene | 0.00050 U | mg/Kg | 0.0030 | 0.00050 | T |
| Dibromomethane | 0.00060 U | mg/Kg | 0.0030 | 0.00060 | T |
| 1,2-Dichloropropane | 0.00054 U | mg/Kg | 0.0030 | 0.00054 | T |
| Trichloroethene | 0.00074 U | mg/Kg | 0.0030 | 0.00074 | T |
| Bromodichloromethane | 0.00053 U | mg/Kg | 0.0030 | 0.00053 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3936
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116003

**Analysis Method:** SW-846 8260B

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| 2-Chloroethyl Vinyl Ether | 0.0026 U | mg/Kg | 0.0030 | 0.0026 | T |
| cis-1,3-Dichloropropene | 0.0021 U | mg/Kg | 0.0030 | 0.0021 | T |
| 4-Methyl-2-pentanone (MIBK) | 0.00068 U | mg/Kg | 0.0030 | 0.00068 | T |
| trans-1,3-Dichloropropylene | 0.0018 U | mg/Kg | 0.0030 | 0.0018 | T |
| 1,1,2-Trichloroethane | 0.00049 U | mg/Kg | 0.0030 | 0.00049 | T |
| Toluene | 0.00037 U | mg/Kg | 0.0030 | 0.00037 | T |
| 1,3-Dichloropropane | 0.00043 U | mg/Kg | 0.0030 | 0.00043 | T |
| 2-Hexanone | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| Dibromochloromethane | 0.0017 U | mg/Kg | 0.0030 | 0.0017 | T |
| Ethylene Dibromide (EDB) | 0.00050 U | mg/Kg | 0.0030 | 0.00050 | T |
| Tetrachloroethylene (PCE) | 0.00057 U | mg/Kg | 0.0030 | 0.00057 | T |
| 1,1,1,2-Tetrachloroethane | 0.00096 U | mg/Kg | 0.0030 | 0.00096 | T |
| Chlorobenzene | 0.00044 U | mg/Kg | 0.0030 | 0.00044 | T |
| Ethylbenzene | 0.00036 U | mg/Kg | 0.0030 | 0.00036 | T |
| Bromoform | 0.0020 U | mg/Kg | 0.0030 | 0.0020 | T |
| Styrene | 0.00040 U | mg/Kg | 0.0030 | 0.00040 | T |
| 1,1,2,2-Tetrachloroethane | 0.00051 U | mg/Kg | 0.0030 | 0.00051 | T |
| 1,2,3-Trichloropropane | 0.0017 U | mg/Kg | 0.0030 | 0.0017 | T |
| Isopropylbenzene | 0.00063 U | mg/Kg | 0.0030 | 0.00063 | T |
| Bromobenzene | 0.00056 U | mg/Kg | 0.0030 | 0.00056 | T |
| n-propylbenzene | 0.00070 U | mg/Kg | 0.0030 | 0.00070 | T |
| 2-Chlorotoluene | 0.00067 U | mg/Kg | 0.0030 | 0.00067 | T |
| 4-Chlorotoluene | 0.00074 U | mg/Kg | 0.0030 | 0.00074 | T |
| 1,3,5-Trimethylbenzene | 0.00067 U | mg/Kg | 0.0030 | 0.00067 | T |
| tert-butylbenzene | 0.00091 U | mg/Kg | 0.0030 | 0.00091 | T |
| 1,2,4-Trimethylbenzene | 0.00088 U | mg/Kg | 0.0030 | 0.00088 | T |
| sec-butylbenzene | 0.00067 U | mg/Kg | 0.0030 | 0.00067 | T |
| 1,3-Dichlorobenzene | 0.00055 U | mg/Kg | 0.0030 | 0.00055 | T |
| 1,4-Dichlorobenzene | 0.00066 U | mg/Kg | 0.0030 | 0.00066 | T |
| 1,2-Dichlorobenzene | 0.00048 U | mg/Kg | 0.0030 | 0.00048 | T |
| n-Butylbenzene | 0.00082 U | mg/Kg | 0.0030 | 0.00082 | T |
| 1,2-Dibromo-3-Chloropropane | 0.0013 U | mg/Kg | 0.0030 | 0.0013 | T |
| 1,2,4-Trichlorobenzene | 0.00065 U | mg/Kg | 0.0030 | 0.00065 | T |
| Naphthalene | 0.0014 U | mg/Kg | 0.0030 | 0.0014 | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3936
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116003

**Analysis Method:** SW-846 8260B

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Hexachlorobutadiene | 0.0015 U | mg/Kg | 0.0030 | 0.0015 | T |
| 1,2,3-Trichlorobenzene | 0.00080 U | mg/Kg | 0.0030 | 0.00080 | T |
| Xylene (Total) | 0.0013 U | mg/Kg | 0.0060 | 0.0013 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 57 | 114 | 69 - 134 | |
| Bromofluorobenzene (S) | ug/L | 50 | 56 | 111 | 79 - 126 | |
| Toluene-d8 (S) | ug/L | 50 | 46 | 92 | 72 - 122 | |

**Lab Control Sample (4264202); Lab Control Sample Duplicate (4264203)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | mg/Kg | 0.02 | .01 | 43 | | .01 | 47 | 9 | | T |
| Chloromethane | mg/Kg | 0.02 | .01 | 62 | | .02 | 74 | 18 | | T |
| Vinyl Chloride | mg/Kg | 0.02 | .02 | 73 | 70 - 130 | .02 | 84 | 14 | 20 | T |
| Bromomethane | mg/Kg | 0.02 | .01 | 71 | | .02 | 77 | 9 | | T |
| Chloroethane | mg/Kg | 0.02 | .02 | 89 | | .02 | 101 | 12 | | T |
| Trichlorofluoromethane | mg/Kg | 0.02 | .02 | 89 | | .02 | 103 | 14 | | T |
| Acetone | mg/Kg | 0.02 | .02 | 115 | | .03 | 136 | 16 | | T |
| 1,1-Dichloroethylene | mg/Kg | 0.02 | .02 | 106 | 70 - 130 | .02 | 115 | 9 | 20 | T |
| Methylene Chloride | mg/Kg | 0.02 | .03 | 129 | | .03 | 138 | 6 | | T |
| Carbon Disulfide | mg/Kg | 0.02 | .02 | 100 | | .02 | 108 | 8 | | T |
| trans-1,2-Dichloroethylene | mg/Kg | 0.02 | .02 | 106 | | .02 | 116 | 9 | | T |
| Methyl tert-butyl Ether (MT | mg/Kg | 0.02 | .02 | 115 | 70 - 130 | .03 | 123 | 7 | 20 | T |
| 1,1-Dichloroethane | mg/Kg | 0.02 | .02 | 111 | | .02 | 120 | 8 | | T |
| 2-Butanone (MEK) | mg/Kg | 0.02 | .02 | 113 | | .02 | 121 | 7 | | T |
| cis-1,2-Dichloroethylene | mg/Kg | 0.02 | .02 | 113 | 70 - 130 | .02 | 121 | 7 | 20 | T |
| Chloroform | mg/Kg | 0.02 | .02 | 118 | 70 - 130 | .03 | 129 | 9 | 20 | T |
| 1,2-Dichloroethane | mg/Kg | 0.02 | .02 | 121 | | .03 | 131 | 8 | | T |
| 1,1,1-Trichloroethane | mg/Kg | 0.02 | .02 | 116 | | .03 | 124 | 6 | | T |
| Carbon Tetrachloride | mg/Kg | 0.02 | .02 | 118 | | .03 | 128 | 8 | | T |
| Benzene | mg/Kg | 0.02 | .02 | 111 | 70 - 130 | .02 | 117 | 6 | 20 | T |
| 1,2-Dichloropropane | mg/Kg | 0.02 | .02 | 112 | | .02 | 120 | 7 | | T |
| Trichloroethene | mg/Kg | 0.02 | .02 | 109 | 70 - 130 | .02 | 119 | 9 | 20 | T |
| Bromodichloromethane | mg/Kg | 0.02 | .03 | 124 | | .03 | 134 | 8 | | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3936
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116003

**Analysis Method:** SW-846 8260B

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| cis-1,3-Dichloropropene | mg/Kg | 0.02 | .02 | 115 | | .03 | 125 | 8 | | T |
| 4-Methyl-2-pentanone (MIB | mg/Kg | 0.02 | .02 | 119 | | .03 | 128 | 7 | | T |
| trans-1,3-Dichloropropylene | mg/Kg | 0.02 | .02 | 120 | | .03 | 131 | 8 | | T |
| 1,1,2-Trichloroethane | mg/Kg | 0.02 | .02 | 117 | | .03 | 128 | 9 | | T |
| Toluene | mg/Kg | 0.02 | .02 | 90 | 70 - 130 | .02 | 94 | 5 | 20 | T |
| 2-Hexanone | mg/Kg | 0.02 | .02 | 99 | | .02 | 105 | 6 | | T |
| Dibromochloromethane | mg/Kg | 0.02 | .02 | 99 | | .02 | 103 | 5 | | T |
| Ethylene Dibromide (EDB) | mg/Kg | 0.02 | .02 | 98 | | .02 | 102 | 4 | | T |
| Tetrachloroethylene (PCE) | mg/Kg | 0.02 | .02 | 82 | 70 - 130 | .02 | 85 | 4 | 20 | T |
| Chlorobenzene | mg/Kg | 0.02 | .02 | 86 | 70 - 130 | .02 | 91 | 5 | 20 | T |
| Ethylbenzene | mg/Kg | 0.02 | .02 | 89 | 70 - 130 | .02 | 94 | 6 | 20 | T |
| Bromoform | mg/Kg | 0.02 | .02 | 97 | | .02 | 103 | 6 | | T |
| Styrene | mg/Kg | 0.02 | .02 | 88 | | .02 | 95 | 7 | | T |
| 1,1,2,2-Tetrachloroethane | mg/Kg | 0.02 | .02 | 108 | | .02 | 112 | 3 | | T |
| Isopropylbenzene | mg/Kg | 0.02 | .02 | 82 | | .02 | 88 | 7 | | T |
| 1,3-Dichlorobenzene | mg/Kg | 0.02 | .02 | 76 | 70 - 130 | .02 | 82 | 7 | 20 | T |
| 1,4-Dichlorobenzene | mg/Kg | 0.02 | .02 | 75 | | .02 | 83 | 9 | | T |
| 1,2-Dichlorobenzene | mg/Kg | 0.02 | .02 | 79 | 70 - 130 | .02 | 86 | 9 | 20 | T |
| 1,2-Dibromo-3-Chloropropa | mg/Kg | 0.02 | .02 | 92 | | .02 | 100 | 8 | | T |
| 1,2,4-Trichlorobenzene | mg/Kg | 0.02 | .01 | 68 | | .02 | 78 | 14 | | T |
| Xylene (Total) | mg/Kg | 0.06 | .05 | 90 | 70 - 130 | .06 | 96 | 6 | 20 | T |
| 1,1-Dichloropropene | mg/Kg | 0.02 | .02 | 110 | | .02 | 119 | 8 | | T |
| 1,1,1,2-Tetrachloroethane | mg/Kg | 0.02 | .02 | 100 | | .02 | 106 | 6 | | T |
| 1,2,3-Trichlorobenzene | mg/Kg | 0.02 | .02 | 76 | | .02 | 84 | 10 | | T |
| 1,2,3-Trichloropropane | mg/Kg | 0.02 | .02 | 105 | | .02 | 112 | 6 | | T |
| 1,2,4-Trimethylbenzene | mg/Kg | 0.02 | .01 | 71 | 70 - 130 | .01 | 71 | 0 | 20 | T |
| 1,3,5-Trimethylbenzene | mg/Kg | 0.02 | .02 | 80 | | .02 | 86 | 8 | | T |
| 1,3-Dichloropropane | mg/Kg | 0.02 | .02 | 100 | | .02 | 105 | 5 | | T |
| 2,2-Dichloropropane | mg/Kg | 0.02 | .02 | 114 | | .03 | 123 | 7 | | T |
| 2-Chloroethyl Vinyl Ether | mg/Kg | 0.02 | 0 | 0 | | 0 | 0 | 0 | | T |
| 2-Chlorotoluene | mg/Kg | 0.02 | .02 | 85 | | .02 | 90 | 6 | | T |
| 4-Chlorotoluene | mg/Kg | 0.02 | .02 | 85 | | .02 | 92 | 7 | | T |
| Acrolein (Propenal) | mg/Kg | 0.10 | .09 | 91 | | .1 | 104 | 13 | | T |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

**QC Batch:** MSVt/3936
**Preparation Method:** SW-846 5035
**Associated Lab IDs:** T2206116003

**Analysis Method:** SW-846 8260B

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Bromobenzene | mg/Kg | 0.02 | .02 | 93 | | .02 | 99 | 6 | | T |
| Dibromomethane | mg/Kg | 0.02 | .02 | 120 | | .03 | 128 | 7 | | T |
| Hexachlorobutadiene | mg/Kg | 0.02 | .01 | 69 | | .02 | 79 | 13 | | T |
| Naphthalene | mg/Kg | 0.02 | .01 | 52 | | .01 | 65 | 23 | | T |
| n-Butylbenzene | mg/Kg | 0.02 | .02 | 75 | | .02 | 83 | 9 | | T |
| n-propylbenzene | mg/Kg | 0.02 | .02 | 80 | | .02 | 85 | 7 | | T |
| sec-butylbenzene | mg/Kg | 0.02 | .02 | 80 | | .02 | 86 | 7 | | T |
| Vinyl Acetate | mg/Kg | 0.02 | .02 | 112 | | .02 | 112 | 0 | | T |
| Acrylonitrile | mg/Kg | 0.02 | .02 | 116 | | .03 | 129 | 10 | | T |
| Iodomethane (Methyl Iodid | mg/Kg | 0.02 | .01 | 48 | | .01 | 69 | 37 | | T |
| tert-butylbenzene | mg/Kg | 0.02 | .02 | 78 | | .02 | 85 | 9 | | T |
| Bromochloromethane | mg/Kg | 0.02 | .02 | 119 | | .03 | 127 | 6 | | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 58 | 116 | 69 - 134 | 59 | 117 | 1 | | |
| Bromofluorobenzene (S) | ug/L | 50 | 53 | 106 | 79 - 126 | 53 | 106 | 0 | | |
| Toluene-d8 (S) | ug/L | 50 | 45 | 90 | 72 - 122 | 44 | 89 | 1 | | |

**Matrix Spike (4264204); Parent Lab Sample (G2202638001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Methyl tert-butyl Ether (MTBE) | mg/Kg | 0.02 | .02 | 115 | 70 - 130 | T |
| Benzene | mg/Kg | 0.02 | .02 | 110 | 70 - 130 | T |
| Toluene | mg/Kg | 0.02 | .02 | 89 | 70 - 130 | T |
| Ethylbenzene | mg/Kg | 0.02 | .02 | 91 | 70 - 130 | T |
| Xylene (Total) | mg/Kg | 0.06 | .06 | 88 | 70 - 130 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 57 | 114 | 69 - 134 | |
| Bromofluorobenzene (S) | ug/L | 50 | 54 | 108 | 79 - 126 | |
| Toluene-d8 (S) | ug/L | 50 | 46 | 91 | 72 - 122 | |



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**FINAL**

**Workorder:** Shell Mound (T2206116)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **CVAt/1570 - SW-846 7471A** | | | |
| T2206116001 | S-1 | DGMt/3577 | SW-846 7471A |
| T2206116002 | S-2 | DGMt/3577 | SW-846 7471A |
| T2206116003 | S-3 | DGMt/3577 | SW-846 7471A |
| **GCSt/2155 - FL-PRO** | | | |
| T2206116001 | S-1 | EXTt/2626 | FL-PRO |
| **GCSt/2157 - FL-PRO** | | | |
| T2206116002 | S-2 | EXTt/2630 | FL-PRO |
| **GCSt/2163 - FL-PRO** | | | |
| T2206116003 | S-3 | EXTt/2637 | FL-PRO |
| **ICPt/2538 - SW-846 6010** | | | |
| T2206116001 | S-1 | DGMt/3572 | SW-846 3050B |
| T2206116002 | S-2 | DGMt/3572 | SW-846 3050B |
| T2206116003 | S-3 | DGMt/3572 | SW-846 3050B |
| **MSSt/1771 - SW-846 8270C (SIM)** | | | |
| T2206116001 | S-1 | EXTt/2627 | SW-846 3550B |
| **MSSt/1772 - SW-846 8270C (SIM)** | | | |
| T2206116002 | S-2 | EXTt/2631 | SW-846 3550B |
| **MSSt/1777 - SW-846 8270C (SIM)** | | | |
| T2206116003 | S-3 | EXTt/2636 | SW-846 3550B |
| **MSVt/3900 - SW-846 8260B** | | | |
| T2206116001 | S-1 | MSVt/3899 | SW-846 5035 |
| T2206116002 | S-2 | MSVt/3899 | SW-846 5035 |
| **MSVt/3936 - SW-846 8260B** | | | |
| T2206116003 | S-3 | MSVt/3935 | SW-846 5035 |
| **WCAt/11197 - SM 2540G** | | | |
| T2206116001 | S-1 | | |
| T2206116002 | S-2 | | |
| T2206116003 | S-3 | | |



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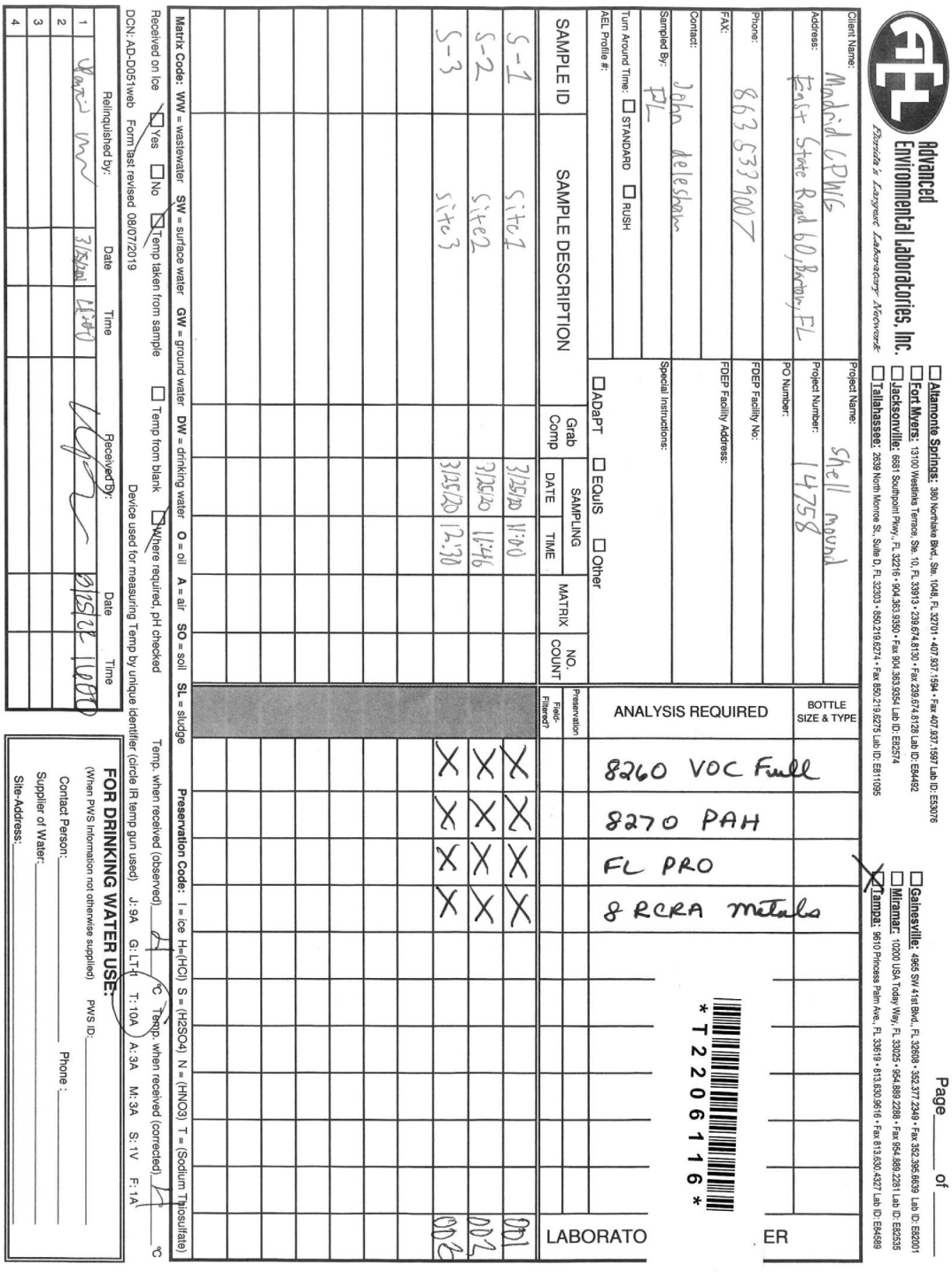
**FINAL**

**Workorder:** Shell Mound (T2206116)



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Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Fax 813.630.4327 Lab ID: E84589

Page ____ of ____

Client Name: Madrid CPMG
Address: East State Road 60, Bartow, FL
Phone: 863 537 9007
FAX:
Contact: John Beleshan
Sampled By: PL
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name: Shell mound
Project Number: 14758
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:

☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab / Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | Field-Filtered? | Preservation | ANALYSIS REQUIRED | BOTTLE SIZE & TYPE | LABORATORY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| S-1 | Site1 | | 3/25/20 | 11:00 | | | | | 8260 VOC Full | | 001 |
| S-2 | Site2 | | 3/25/20 | 11:46 | | | | | 8270 PAH | | 002 |
| S-3 | Site3 | | 3/25/20 | 12:30 | | | | | FL PRO | | 003 |
| | | | | | | | | | 8 RCRA metals | | |

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge
Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked
Temp. when received (observed) ____ °C Temp. when received (corrected) ____ °C
Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-( T: 10A A: 3A M: 3A S: 1V F: 1A

DCN: AD-D051web Form last revised 08/07/2019

| | Relinquished by: | Date | Time | Received By: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | Mark Mc | 3/25/20 | 13:40 | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS information not otherwise supplied) PWS ID: ____
Contact Person: ____ Phone: ____
Supplier of Water: ____
Site Address: ____



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# TABLE _: SOIL ANALYTICAL SUMMARY - VOAs, TRPHs and Metals

**Facility ID#: Shell Mound**

See notes at end of table.

| Sample | | | | OVA | Laboratory Analyses | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring/ Well No. | Date Collected | Depth to Water (ft) | Sample Interval (fbls) | Net OVA Reading (ppm) | Benzene (mg/kg) | Ethyl-benzene (mg/kg) | Toluene (mg/kg) | Total Xylenes (mg/kg) | MTBE (mg/kg) | TRPHs (mg/kg) | Arsenic (mg/kg) | Cad-mium (mg/kg) | Chro-mium (mg/kg) | Lead (mg/kg) | Comments |
| S-1 | 3/25/2022 11:00 | | | | 0.0012 U | 0.00085 U | 0.00088 U | 0.0031 U | 0.0023 U | 12 I | **6.2** | 0.72 | 19 | 5.8 | |
| S-2 | 3/25/2022 11:46 | | | | 0.0013 U | 0.00094 U | 0.00098 U | 0.0034 U | 0.0026 U | 13 I | **7.3** | 0.92 | 25 | 7.1 | |
| S-3 | 3/25/2022 12:30 | | | | 0.00093 U | 0.00067 U | 0.00069 U | 0.0024 U | 0.0018 U | 17 I | **5.4** | 0.55 | 14 | 4.3 | |
| Leachability Based on Groundwater Criteria (mg/kg) | | | | | 0.007 | 0.6 | 0.5 | 0.2 | 0.09 | 340 | * | 7.5 | 38 | * | |
| Direct Exposure Residential (mg/kg) | | | | | 1.2 | 1,500 | 7,500 | 130 | 4,400 | 460 | 2.1 | 82 | 210 | 400 | |

Notes: NA = Not Available.

NS = Not Sampled.

* = Leachability value may be determined using TCLP.

If an analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

# TABLE _: SOIL ANALYTICAL SUMMARY - Non-Carcinogenic PAHs

**Facility ID#:** Shell Mound **Facility Name:**

See notes at end of table.

| Sample | | | | OVA | Laboratory Analyses | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring/ Well No. | Date Collected | Depth to Water (ft) | Sample Interval (fbls) | Net OVA Reading (ppm) | Naph-thalene (mg/kg) | 1-Methyl-naph-thalene (mg/kg) | 2-Methyl-naph-thalene (mg/kg) | Acen-aph-thene (mg/kg) | Acen-aph-thylene (mg/kg) | Anthra-cene (mg/kg) | Benzo (g,h,i) pery-lene (mg/kg) | Fluoran-thene (mg/kg) | Fluor-ene (mg/kg) | Phenan-threne (mg/kg) | Pyrene (mg/kg) | Comments |
| S-1 | 3/25/2022 11:00 | | | | 0.0039 U | 0.0036 U | 0.0046 U | 0.0034 U | 0.0041 U | 0.0057 U | 0.0044 U | 0.0063 U | 0.0049 U | 0.0049 U | 0.0053 U | |
| S-2 | 3/25/2022 11:46 | | | | 0.0043 U | 0.0040 U | 0.0051 U | 0.0038 U | 0.0045 U | 0.0064 U | 0.0049 U | 0.0071 U | 0.0055 U | 0.0055 U | 0.0060 U | |
| S-3 | 3/25/2022 12:30 | | | | 0.0030 U | 0.0028 U | 0.0036 U | 0.0027 U | 0.0032 U | 0.0045 U | 0.0034 U | 0.0050 U | 0.0039 U | 0.0039 U | 0.0042 U | |
| Leachability Based on Groundwater Criteria (mg/kg) | | | | | 1.2 | 3.1 | 8.5 | 2.1 | 27 | 2,500 | 32,000 | 1,200 | 160 | 250 | 880 | |
| Direct Exposure Residential (mg/kg) | | | | | 55 | 200 | 210 | 2,400 | 1,800 | 21,000 | 2,500 | 3,200 | 2,600 | 2,200 | 2,400 | |

Notes: NA = Not Available.
NS = Not Sampled.

If analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

# TABLE _: SOIL ANALYTICAL SUMMARY - Carcinogenic PAHs

**Facility ID#:** Shell Mound **Facility Name:**

See notes at end of table.

| Sample | | | | OVA | Laboratory Analyses | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Boring/ Well No. | Date Collected | Depth to Water (ft) | Sample Interval (fbls) | Net OVA Reading (ppm) | Benzo (a) pyrene (mg/kg) | Benzo (a) anthra-cene (mg/kg) | Benzo (b) fluoran-thene (mg/kg) | Benzo (k) fluoran-thene (mg/kg) | Chry-sene (mg/kg) | Dibenz (a,h) anthra-cene (mg/kg) | Indeno (1,2,3-cd) pyrene (mg/kg) | Benzo (a) pyrene equivalent (mg/kg) | Comments |
| S-1 | 3/25/2022 11:00 | | | | 0.0038 U | 0.0045 U | 0.0036 U | 0.0054 U | 0.0067 U | 0.0038 U | 0.0054 U | | |
| S-2 | 3/25/2022 11:46 | | | | 0.0043 U | 0.0051 U | 0.0040 U | 0.0060 U | 0.0074 U | 0.0042 U | 0.0060 U | | |
| S-3 | 3/25/2022 12:30 | | | | 0.0030 U | 0.0036 U | 0.0028 U | 0.0042 U | 0.0053 U | 0.0030 U | 0.0043 U | | |
| Leachability Based on Groundwater Criteria (mg/kg) | | | | | 8 | 0.8 | 2.4 | 24 | 77 | 0.7 | 6.6 | ** | |
| Direct Exposure Residential (mg/kg) | | | | | 0.1 | # | # | # | # | # | # | 0.1 | |

Notes: NA = Not Available.

NS = Not Sampled.

** = Leachability value not applicable.

# = Direct Exposure value not applicable except as part of the Benzo(a)pyrene equivalent.

If analyte is not detected, report the method detection limit [i.e., 0.01 U or ND(0.01); BDL or <0.01 are not acceptable].

# TABLE __: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - VOCs and Metals

**Facility ID#:** **Facility Name:** See notes at end of table.

| Sample | | Benzene | Toluene | Ethyl-benzene | Total Xylenes | Total VOAs | MTBE | EDB | 1,2-Di-chloro-ethane | Total Arsenic | Total Cad-mium | Total Chro-mium | Total Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location | Date | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | |

# TABLE __: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - PAHs and TRPHs

**Facility ID#:** **Facility Name:** **See notes at end of table.**

| Sample | | TRPHs | Naph-thalene | 1-Methyl-naph-thalene | 2-Methyl-naph-thalene | Acen-aph-thene | Acen-aph-thylene | Anthra-cene | Benzo (g,h,i) pery-lene | Fluoran-thene | Fluor-ene | Phenan-threne | Pyrene | Benzo (a) pyrene | Benzo (a) anthra-cene | Benzo (b) fluoran-thene | Benzo (k) fluoran-thene | Chry-sene | Dibenz (a,h) anthra-cene | Indeno (1,2,3-cd) pyrene |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Location | Date | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

# TABLE __: GROUNDWATER MONITORING WELL ANALYTICAL SUMMARY - ^Other Contaminants not listed in Chapter 62-770, F.A.C.

**Facility ID#:** **Facility Name:** **See notes at end of table.**

| Sample | | 1,2,4-Tri-methyl-benzene | 1,3,5-Tri-methyl-benzene | tert-Butyl alcohol | ETBE | TAME | DIPE | Ethanol | Cumene (Isopropyl benzene) | [other] | [other] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Location | Date | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) | (µg/L) |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | |

ft, bls = feet below land surface
ug/l = micrograms per liter
ug/kg = micrograms per kilogram
mg/l = milligrams per liter
mg/kg = milligrams per kilogram
uhmos = micromohs per cubic centimeter
NTUs = Nepehlometric Turbidity Units
CAS# = Chemical Abstract Number

[SPLP /] GCTL = Groundwater Cleanup Target Level (Table I, Chapter 62-777 FAC) *
GLYPQ = Groundwater Low Yield Poor Quality Criteria (Table I, Chapter 62-777 FAC) *
NADC = Natural Attenuation Default Concentration (Table V, 62-777 FAC) *

[TCLP /] RES = TCLP Criteria on TCLP pages / Residential Criteria on Soil pages *
COM = Commercial/Industrial Criteria *
LGW = Groundwater Leachability Criteria *

* = Regulatory limits that must be calculated based on other analysis or time accrual are flagged by SELECT AEL by utilizing a "0" limit. This causes results for such analytes to register as an exceedance to draw your attention.

| Water / SPLP Formatting | |
|---|---|
| TEXT | = Exceeds [SPLP /] GCTL (1) |
| TEXT | = Exceeds GLYPQ (4) |
| TEXT | = Exceeds NADC (5) |

| Soil / TCLP Formatting | |
|---|---|
| TEXT | = Exceeds [TCLP /] RES (1) |
| TEXT | = Exceeds COM (2) |
| TEXT | = Exceeds LGW (3) |

U = Result was less than the Method Detection Limit (MDL).
I = Result was greater than or equal to the Method Detection Limit (MDL) but below the Practical Quantitation Limit (PQL).

| Site Name | | | Lab Sample ID | | | | T2206116001 | | | T2206116002 | | | T2206116003 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Location | | | Sample Number | | | | S-1 | | | S-2 | | | S-3 | | |
| Project Manager | | | Date/ Time Sampled | | | | 3/25/2022 11:00 | | | 3/25/2022 11:46 | | | 3/25/2022 12:30 | | |
| Checked By | | | Sample Interval (ft,bls) | | | | | | | | | | | | |
| Analyte | CAS # | Method | Units | RES (1) | COM (2) | LGW (3) | Result | Qual | Exceeds | Result | Qual | Exceeds | Result | Qual | Exceeds |
| 1,1,1,2-TETRACHLOROETHANE | 630-20-6 | EPA 8260 | mg/kg | 2.9 | 4.3 | 0.01 | 0.0023 | U | | 0.0025 | U | | 0.0018 | U | |
| 1,1,1-TRICHLOROETHANE | 71-55-6 | EPA 8260 | mg/kg | 730 | 3900 | 1.9 | 0.0017 | U | | 0.0018 | U | | 0.0013 | U | |
| 1,1,2,2-TETRACHLOROETHANE | 79-34-5 | EPA 8260 | mg/kg | 0.7 | 1.2 | 0.001 | 0.0012 | U | 3 | 0.0013 | U | 3 | 0.00096 | U | |
| 1,1,2-TRICHLOROETHANE | 79-00-5 | EPA 8260 | mg/kg | 1.4 | 2 | 0.03 | 0.0012 | U | | 0.0013 | U | | 0.00091 | U | |
| 1,1-DICHLOROETHANE | 75-34-3 | EPA 8260 | mg/kg | 390 | 2100 | 0.4 | 0.0017 | U | | 0.0019 | U | | 0.0013 | U | |
| 1,1-DICHLOROETHENE | 75-35-4 | EPA 8260 | mg/kg | 95 | 510 | 0.06 | 0.0017 | U | | 0.0019 | U | | 0.0014 | U | |
| 1,1-DICHLOROPROPENE | 563-58-6 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0012 | U | | 0.0013 | U | | 0.00091 | U | |
| 1,2,3-TRICHLOROBENZENE | 87-61-6 | EPA 8260 | mg/kg | 650 | 8200 | 4.6 | 0.0019 | U | | 0.0021 | U | | 0.0015 | U | |
| 1,2,3-TRICHLOROPROPANE | 96-18-4 | EPA 8260 | mg/kg | 0.06 | 0.1 | 0.0001 | 0.004 | U | 3 | 0.0044 | U | 3 | 0.0031 | U | 3 |
| 1,2,4-TRICHLOROBENZENE | 120-82-1 | EPA 8260 | mg/kg | 660 | 8500 | 5.3 | 0.0016 | U | | 0.0017 | U | | 0.0012 | U | |
| 1,2,4-TRIMETHYLBENZENE | 95-63-6 | EPA 8260 | mg/kg | 18 | 95 | 0.3 | 0.0021 | U | | 0.0023 | U | | 0.013 | | |
| 1,2-DIBROMO-3-CHLOROPROPANE | 96-12-8 | EPA 8260 | mg/kg | 0.7 | 3.8 | 0.001 | 0.0031 | U | 3 | 0.0034 | U | 3 | 0.0024 | U | 3 |
| 1,2-DIBROMOETHANE (EDB) | 106-93-4 | EPA 8260 | mg/kg | 0.1 | 0.2 | 0.0001 | 0.0012 | U | 3 | 0.0013 | U | 3 | 0.00093 | U | 3 |
| 1,2-DICHLOROBENZENE | 95-50-1 | EPA 8260 | mg/kg | 880 | 5000 | 17 | 0.0011 | U | | 0.0013 | U | | 0.00089 | U | |
| 1,2-DICHLOROETHANE | 107-06-2 | EPA 8260 | mg/kg | 0.5 | 0.7 | 0.01 | 0.0019 | U | | 0.0021 | U | | 0.0015 | U | |
| 1,2-DICHLOROPROPANE | 78-87-5 | EPA 8260 | mg/kg | 0.6 | 0.9 | 0.03 | 0.0013 | U | | 0.0014 | U | | 0.001 | U | |
| 1,3,5-TRIMETHYLBENZENE | 108-67-8 | EPA 8260 | mg/kg | 15 | 80 | 0.3 | 0.0016 | U | | 0.0018 | U | | 0.0058 | | |
| 1,3-DICHLOROBENZENE | 541-73-1 | EPA 8260 | mg/kg | 380 | 2200 | 7 | 0.0013 | U | | 0.0015 | U | | 0.001 | U | |
| 1,3-DICHLOROPROPANE | 142-28-9 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.001 | U | | 0.0011 | U | | 0.0008 | U | |
| 1,4-DICHLOROBENZENE | 106-46-7 | EPA 8260 | mg/kg | 6.4 | 9.9 | 2.2 | 0.0016 | U | | 0.0017 | U | | 0.0012 | U | |
| 2,2-DICHLOROPROPANE | 594-20-7 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0028 | U | | 0.0031 | U | | 0.0022 | U | |
| 2-CHLOROETHYL VINYL ETHER | 110-75-8 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0062 | U | | 0.0069 | U | | 0.0049 | U | |
| 2-CHLOROTOLUENE | 95-49-8 | EPA 8260 | mg/kg | 200 | 1200 | 2.8 | 0.0016 | U | | 0.0018 | U | | 0.0013 | U | |
| 2-HEXANONE | 591-78-6 | EPA 8260 | mg/kg | 24 | 130 | 1.4 | 0.0037 | U | | 0.0041 | U | | 0.0029 | U | |
| 4-CHLOROTOLUENE | 106-43-4 | EPA 8260 | mg/kg | 170 | 990 | 2.5 | 0.0018 | U | | 0.002 | U | | 0.0014 | U | |
| ACETONE | 67-64-1 | EPA 8260 | mg/kg | 11000 | 68000 | 25 | 0.073 | | | 0.28 | | | 0.0041 | U | |
| ACROLEIN | 107-02-8 | EPA 8260 | mg/kg | 0.05 | 0.3 | 0.01 | 0.015 | U | 3 | 0.016 | U | 3 | 0.012 | U | 3 |
| ACRYLONITRILE | 107-13-1 | EPA 8260 | mg/kg | 0.3 | 0.6 | 0.0003 | 0.0012 | U | 3 | 0.0014 | U | 3 | 0.00098 | U | 3 |
| BENZENE | 71-43-2 | EPA 8260 | mg/kg | 1.2 | 1.7 | 0.007 | 0.0012 | U | | 0.0013 | U | | 0.00093 | U | |
| BROMOBENZENE | 108-86-1 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0013 | U | | 0.0015 | U | | 0.001 | U | |
| BROMOCHLOROMETHANE | 74-97-5 | EPA 8260 | mg/kg | 95 | 530 | 0.6 | 0.0015 | U | | 0.0017 | U | | 0.0012 | U | |
| BROMODICHLOROMETHANE | 75-27-4 | EPA 8260 | mg/kg | 1.5 | 2.2 | 0.004 | 0.0013 | U | | 0.0014 | U | | 0.00099 | U | |
| BROMOFORM | 75-25-2 | EPA 8260 | mg/kg | 48 | 93 | 0.03 | 0.0048 | U | | 0.0053 | U | | 0.0038 | U | |
| BROMOMETHANE | 74-83-9 | EPA 8260 | mg/kg | 3.1 | 16 | 0.05 | 0.003 | U | | 0.0033 | U | | 0.0023 | U | |
| CARBON DISULFIDE | 75-15-0 | EPA 8260 | mg/kg | 270 | 1500 | 5.6 | 0.056 | | | 0.038 | | | 0.0096 | | |
| CARBON TETRACHLORIDE | 56-23-5 | EPA 8260 | mg/kg | 0.5 | 0.7 | 0.04 | 0.002 | U | | 0.0022 | U | | 0.0016 | U | |
| CHLOROBENZENE | 108-90-7 | EPA 8260 | mg/kg | 120 | 650 | 1.3 | 0.0011 | U | | 0.0012 | U | | 0.00084 | U | |
| CHLOROETHANE | 75-00-3 | EPA 8260 | mg/kg | 3.9 | 5.4 | 0.06 | 0.0036 | U | | 0.0039 | U | | 0.0028 | U | |
| CHLOROFORM | 67-66-3 | EPA 8260 | mg/kg | 0.4 | 0.6 | 0.4 | 0.0015 | U | | 0.0016 | U | | 0.0011 | U | |
| CHLOROMETHANE | 74-87-3 | EPA 8260 | mg/kg | 4 | 5.7 | 0.01 | 0.0016 | U | | 0.0018 | U | | 0.0013 | U | |
| cis-1,2-DICHLOROETHENE | 156-59-2 | EPA 8260 | mg/kg | 33 | 180 | 0.4 | 0.0014 | U | | 0.0016 | U | | 0.0011 | U | |
| cis-1,3-DICHLOROPROPENE | 10061-01-5 | EPA 8260 | mg/kg | 1.4 | 2.2 | 0.002 | 0.0051 | U | 3 | 0.0056 | U | 3 | 0.004 | U | 3 |
| DIBROMOCHLOROMETHANE | 124-48-1 | EPA 8260 | mg/kg | 1.5 | 2.3 | 0.003 | 0.0041 | U | 3 | 0.0045 | U | 3 | 0.0032 | U | 3 |
| DIBROMOMETHANE | 74-95-3 | EPA 8260 | mg/kg | 96 | 550 | 0.3 | 0.0014 | U | | 0.0016 | U | | 0.0011 | U | |
| DICHLORODIFLUOROMETHANE | 75-71-8 | EPA 8260 | mg/kg | 77 | 410 | 44 | 0.0024 | U | | 0.0027 | U | | 0.0019 | U | |
| ETHYLBENZENE | 100-41-4 | EPA 8260 | mg/kg | 1500 | 9200 | 0.6 | 0.00085 | U | | 0.00094 | U | | 0.00067 | U | |
| HEXACHLOROBUTADIENE | 87-68-3 | EPA 8260 | mg/kg | 6.2 | 13 | 1 | 0.0037 | U | | 0.0041 | U | | 0.0029 | U | |
| IODOMETHANE (METHYL IODIDE) | 74-88-4 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.005 | U | | 0.0055 | U | | 0.0039 | U | |
| ISOPROPYLBENZENE (CUMENE) | 98-82-8 | EPA 8260 | mg/kg | 220 | 1200 | 0.2 | 0.0015 | U | | 0.0017 | U | | 0.0012 | U | |
| METHYL ETHYL KETONE (2-BUTANONE) | 78-93-3 | EPA 8260 | mg/kg | 16000 | 110000 | 17 | 0.0038 | I | | 0.0027 | U | | 0.0019 | U | |
| METHYL ISOBUTYL KETONE | 108-10-1 | EPA 8260 | mg/kg | 4300 | 44000 | 2.6 | 0.0016 | U | | 0.0018 | U | | 0.0013 | U | |
| METHYL tert-BUTYL ETHER | 1634-04-4 | EPA 8260 | mg/kg | 4400 | 24000 | 0.09 | 0.0023 | U | | 0.0026 | U | | 0.0018 | U | |
| METHYLENE CHLORIDE | 75-09-2 | EPA 8260 | mg/kg | 17 | 26 | 0.02 | 0.0096 | U | | 0.011 | U | | 0.0076 | U | |
| n-BUTYLBENZENE | 104-51-8 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0019 | U | | 0.0022 | U | | 0.0017 | I | |
| n-PROPYLBENZENE | 103-65-1 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0017 | U | | 0.0018 | U | | 0.0026 | I | |
| NAPHTHALENE | 91-20-3 | EPA 8260 | mg/kg | 55 | 300 | 1.2 | 0.0033 | U | | 0.0037 | U | | 0.0026 | U | |
| sec-BUTYLBENZENE | 135-98-8 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0016 | U | | 0.0018 | U | | 0.0013 | U | |
| STYRENE | 100-42-5 | EPA 8260 | mg/kg | 3600 | 23000 | 3.6 | 0.00095 | U | | 0.001 | U | | 0.00075 | U | |
| tert-BUTYLBENZENE | 98-06-6 | EPA 8260 | mg/kg | N/A | N/A | N/A | 0.0022 | U | | 0.0024 | U | | 0.0017 | U | |
| TETRACHLOROETHENE | 127-18-4 | EPA 8260 | mg/kg | 8.8 | 18 | 0.03 | 0.0014 | U | | 0.0015 | U | | 0.0011 | U | |
| TOLUENE | 108-88-3 | EPA 8260 | mg/kg | 7500 | 60000 | 0.5 | 0.00088 | U | | 0.00098 | U | | 0.00069 | U | |
| trans-1,2-DICHLOROETHENE | 156-60-5 | EPA 8260 | mg/kg | 53 | 290 | 0.7 | 0.0014 | U | | 0.0016 | U | | 0.0011 | U | |
| trans-1,3-DICHLOROPROPENE | 10061-02-6 | EPA 8260 | mg/kg | 1.4 | 2.2 | 0.002 | 0.0044 | U | 3 | 0.0049 | U | 3 | 0.0034 | U | 3 |
| TRICHLOROETHYLENE | 79-01-6 | EPA 8260 | mg/kg | 6.4 | 9.3 | 0.03 | 0.0018 | U | | 0.0019 | U | | 0.0014 | U | |
| TRICHLOROFLUOROMETHANE | 75-69-4 | EPA 8260 | mg/kg | 270 | 1500 | 33 | 0.0016 | U | | 0.0017 | U | | 0.0012 | U | |
| VINYL ACETATE | 108-05-4 | EPA 8260 | mg/kg | 320 | 1700 | 0.4 | 0.0035 | U | | 0.0039 | U | | 0.0027 | U | |
| VINYL CHLORIDE | 75-01-4 | EPA 8260 | mg/kg | 0.2 | 0.8 | 0.007 | 0.0014 | U | | 0.0015 | U | | 0.0011 | U | |
| Xylenes- Total | 1330-20-7 | EPA 8260 | mg/kg | 130 | 700 | 0.2 | 0.0031 | U | | 0.0034 | U | | 0.0024 | U | |

| Site Name | | | Lab Sample ID | | | | T2206116001 | | | T2206116002 | | | T2206116003 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Location | | | Sample Number | | | | S-1 | | | S-2 | | | S-3 | | |
| Project Manager | | | Date/ Time Sampled | | | | 3/25/2022 11:00 | | | 3/25/2022 11:46 | | | 3/25/2022 12:30 | | |
| Checked By | | | Sample Interval (ft,bls) | | | | | | | | | | | | |
| Analyte | CAS # | Method | Units | RES (1) | COM (2) | LGW (3) | Result | Qual | Exceeds | Result | Qual | Exceeds | Result | Qual | Exceeds |
| BENZO(a)ANTHRACENE | 56-55-3 | EPA 8270/PAH Low Level | mg/kg | N/A | N/A | 0.8 | 0.0045 | U | | 0.0051 | U | | 0.0036 | U | |
| BENZO(a)PYRENE | 50-32-8 | EPA 8270/PAH Low Level | mg/kg | 0.1 | 0.7 | 8 | 0.0038 | U | | 0.0043 | U | | 0.003 | U | |
| BENZO(b)FLUORANTHENE | 205-99-2 | EPA 8270/PAH Low Level | mg/kg | N/A | N/A | 2.4 | 0.0036 | U | | 0.004 | U | | 0.0028 | U | |
| BENZO(k)FLUORANTHENE | 207-08-9 | EPA 8270/PAH Low Level | mg/kg | N/A | N/A | 24 | 0.0054 | U | | 0.006 | U | | 0.0042 | U | |
| CHRYSENE | 218-01-9 | EPA 8270/PAH Low Level | mg/kg | N/A | N/A | 77 | 0.0067 | U | | 0.0074 | U | | 0.0053 | U | |
| DIBENZ(a,h)ANTHRACENE | 53-70-3 | EPA 8270/PAH Low Level | mg/kg | N/A | N/A | 0.7 | 0.0038 | U | | 0.0042 | U | | 0.003 | U | |
| INDENO(1,2,3-c,d)PYRENE | 193-39-5 | EPA 8270/PAH Low Level | mg/kg | N/A | N/A | 6.6 | 0.0054 | U | | 0.006 | U | | 0.0043 | U | |
| Total Benzo(a)pyrene Equivalents | Total B(a)P | Calculation | mg/kg | 0.1 | 0.7 | | 0.0045 | | | 0.005 | | | 0.0036 | | |

| Site Name | | | Lab Sample ID | | | | T2206116001 | | | T2206116002 | | | T2206116003 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Location | | | Sample Number | | | | S-1 | | | S-2 | | | S-3 | | |
| Project Manager | | | Date/ Time Sampled | | | | 3/25/2022 11:00 | | | 3/25/2022 11:46 | | | 3/25/2022 12:30 | | |
| Checked By | | | Sample Interval (ft,bls) | | | | | | | | | | | | |
| Analyte | CAS # | Method | Units | RES (1) | COM (2) | LGW (3) | Result | Qual | Exceeds | Result | Qual | Exceeds | Result | Qual | Exceeds |
| 1-METHYLNAPHTHALENE | 90-12-0 | EPA 8270/PAH Low Level | mg/kg | 200 | 1800 | 3.1 | 0.0036 | U | | 0.004 | U | | 0.0028 | U | |
| 2-METHYLNAPHTHALENE | 91-57-6 | EPA 8270/PAH Low Level | mg/kg | 210 | 2100 | 8.5 | 0.0046 | U | | 0.0051 | U | | 0.0036 | U | |
| ACENAPHTHENE | 83-32-9 | EPA 8270/PAH Low Level | mg/kg | 2400 | 20000 | 2.1 | 0.0034 | U | | 0.0038 | U | | 0.0027 | U | |
| ACENAPHTHYLENE | 208-96-8 | EPA 8270/PAH Low Level | mg/kg | 1800 | 20000 | 27 | 0.0041 | U | | 0.0045 | U | | 0.0032 | U | |
| ANTHRACENE | 120-12-7 | EPA 8270/PAH Low Level | mg/kg | 21000 | 300000 | 2500 | 0.0057 | U | | 0.0064 | U | | 0.0045 | U | |
| BENZO(g,h,i)PERYLENE | 191-24-2 | EPA 8270/PAH Low Level | mg/kg | 2500 | 52000 | 32000 | 0.0044 | U | | 0.0049 | U | | 0.0034 | U | |
| FLUORANTHENE | 206-44-0 | EPA 8270/PAH Low Level | mg/kg | 3200 | 59000 | 1200 | 0.0063 | U | | 0.0071 | U | | 0.005 | U | |
| FLUORENE | 86-73-7 | EPA 8270/PAH Low Level | mg/kg | 2600 | 33000 | 160 | 0.0049 | U | | 0.0055 | U | | 0.0039 | U | |
| NAPHTHALENE | 91-20-3 | EPA 8270/PAH Low Level | mg/kg | 55 | 300 | 1.2 | 0.0039 | U | | 0.0043 | U | | 0.003 | U | |
| PHENANTHRENE | 85-01-8 | EPA 8270/PAH Low Level | mg/kg | 2200 | 36000 | 250 | 0.0049 | U | | 0.0055 | U | | 0.0039 | U | |
| PYRENE | 129-00-0 | EPA 8270/PAH Low Level | mg/kg | 2400 | 45000 | 880 | 0.0053 | U | | 0.006 | U | | 0.0042 | U | |

| Site Name | | | Lab Sample ID | | | | T2206116001 | | | T2206116002 | | | T2206116003 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Location | | | Sample Number | | | | S-1 | | | S-2 | | | S-3 | | |
| Project Manager | | | Date/ Time Sampled | | | | 3/25/2022 11:00 | | | 3/25/2022 11:46 | | | 3/25/2022 12:30 | | |
| Checked By | | | Sample Interval (ft,bls) | | | | | | | | | | | | |
| Analyte | CAS # | Method | Units | RES (1) | COM (2) | LGW (3) | Result | Qual | Exceeds | Result | Qual | Exceeds | Result | Qual | Exceeds |
| FL-PRO | TRPH | FDEP FL-PRO | mg/kg | 460 | 2700 | 340 | 12 | I | | 13 | I | | 17 | I | |

| Site Name | | | Lab Sample ID | | | | T2206116001 | | | T2206116002 | | | T2206116003 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Site Location | | | Sample Number | | | | S-1 | | | S-2 | | | S-3 | | |
| Project Manager | | | Date/ Time Sampled | | | | 3/25/2022 11:00 | | | 3/25/2022 11:46 | | | 3/25/2022 12:30 | | |
| Checked By | | | Sample Interval (ft,bls) | | | | | | | | | | | | |
| Analyte | CAS # | Method | Units | RES (1) | COM (2) | LGW (3) | Result | Qual | Exceeds | Result | Qual | Exceeds | Result | Qual | Exceeds |
| ARSENIC | 7440-38-2 | EPA 6010 | mg/kg | 2.1 | 12 | N/A | 6.2 | | 1 | 7.3 | | 1 | 5.4 | | 1 |
| BARIUM | 7440-39-3 | EPA 6010 | mg/kg | 120 | 130000 | 1600 | 4.8 | | | 7 | | | 3.7 | | |
| CADMIUM | 7440-43-9 | EPA 6010 | mg/kg | 82 | 1700 | 7.5 | 0.72 | | | 0.92 | | | 0.55 | | |
| CHROMIUM | 7440-47-3 | EPA 6010 | mg/kg | 210 | 470 | 38 | 19 | | | 25 | | | 14 | | |
| LEAD | 7439-92-1 | EPA 6010 | mg/kg | 400 | 1400 | N/A | 5.8 | | | 7.1 | | | 4.3 | | |
| MERCURY | 7439-97-6 | EPA 7471 | mg/kg | 3 | 17 | 2.1 | 0.007 | U | | 0.041 | | | 0.027 | | |
| SELENIUM | 7782-49-2 | EPA 6010 | mg/kg | 440 | 11000 | 5.2 | 2.4 | U | | 2.5 | U | | 1.9 | U | |
| SILVER | 7440-22-4 | EPA 6010 | mg/kg | 410 | 8200 | 17 | 0.48 | U | | 0.5 | U | | 0.37 | U | |

# APPENDIX D
## Supplementary Geotechnical Report

Madrid CPWG

# Supplemental Report

## Shell Mound Soil Sampling and Lab Testing Services
## Cedar Key, Florida

Prepared for:

***Wright Pierce***

Prepared by:

***MADRID ENGINEERING GROUP, INC., dba MADRID CPWG***
2030 State Road 60 East
Bartow, FL 33830
863-533-9007

**Project No. 14758.01**
May 2023

*MADRID CPWG*
*2030 State Road 60 E*
*Bartow FL 33830-4268*
*Ph: (863) 533-9007*
*Fax: (863) 533-8997*

May 5, 2023

Wright Pierce
11 Bowdoin Mill Island, Suite 140
Topsham, Maine 04086
Attn: Lucas Anthony, PE

**Re: Madrid Project No. 14758.01**
**Supplemental Report**
**Shell Mound Soil Sampling and Lab Testing Services**
**Cedar Key, Florida**

Dear Mr. Anthony:

Madrid Engineering Group, Inc., dba Madrid CPWG, (Madrid) is pleased to submit this Supplemental Report summarizing the results of the additional soil sampling and lab testing services completed for the above referenced project. The work was completed in general accordance with the authorized scope of work in our cost estimate proposal dated November 16, 2022 and authorized by Wright Pierce with a signed agreement dated March 1, 2023. This report supplements the previous sampling and testing report dated May 6, 2022 and provides a description of the sampling process and a description and characterization of subsoil stratigraphy, soil profiles, and laboratory testing summary results.

We appreciate the opportunity to be of service to you on this project and look forward to working with you on future projects. If you have any questions, please do not hesitate to contact us.

Sincerely,
***Madrid Engineering Group, Inc. (EB 6509)***

JOHN EDWARD DELASHAW LICENSE No. 48154 STATE OF FLORIDA PROFESSIONAL ENGINEER
5/5/23

John E. Delashaw, P.E.
Principal
Florida P.E. No. 48154

**Attachment**: Supplemental Report

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Figure 3 NRCS/USDA Soils Map
Figure 4 Sampling Location Plan

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Appendix A Environmental Laboratory Test Results

# 1.0 INTRODUCTION AND PROJECT DESCRIPTION

## 1.1 General

Madrid Engineering Group, Inc., dba Madrid CPWG, (Madrid) is pleased to submit this supplemental report summarizing the results from our sediment sampling and lab testing services to support the dredging plan by Wright Pierce for a boat launching facility in Cedar Key, Florida. This report supplements the original sampling and testing data as previously detailed in our original report dated May 2022. Our conclusions and recommendations are based on the results of our field exploration, laboratory testing, and appropriate engineering analyses. The location of sediment sampling was provided by Wright Pierce.

## 1.2 Site Location and Description

The subject site is located approximately 5.5 miles north of the City of Cedar Key as shown on **Figure 1,** Site Location Map. Specifically, the property is located in Sections 36, Township 14 South, Range 12 East in Levy County, Florida. The subject project area is currently used as boat launching station. The general topography of the area is presented in **Figure 2**, USGS Topographic Map. The NRCS/USDA Soils Map is presented in **Figure 3** for reference.

## 1.3 Purpose and Scope of Work

The purpose of the exploration was to collect additional sediment samples for more specialized environmental characterization. Sampling within the channel was completed from a boat used to navigate the shallow waters as well as over the shallow sediments. The scope of work included field sampling and laboratory testing programs as detailed in this report.

# 2.0 FIELD SAMPLING

## 2.1 General

The field sampling was conducted on March 23, 2023 and again on April 13, 2023 and consisted of performing soil sampling at LOCATION 2 of the previous three locations to depths ranging from about 0.5 to 2 feet below mudline. An engineering technician placed soil and water samples in sealed and preserved environmental containers for shipment in coolers with dry ice to the specialty environmental laboratories for further examination and testing. The sampling site was located in the field using a hand-held GPS unit. The approximate original sampling locations are shown on **Figure 4, Sampling Location Plan** and the 2023 samples were collected from LOCATION 2. A second sampling event was required after the shipping company inexplicably discarded the first samples during transit.

## 2.2 Environmental Sampling

One (1) marine surface water sample, designated as W-1, was collected from the planned channel dredge cut location on April 4, 2023, for FDEP-specified laboratory analyses. The sample was collected from former sampling point LOCATION #2 using a decontaminated bailer tube in accordance with FDEP-SOP-001/01, FS 2100 (Surface Water Sampling), and FC 1000 (Field Decontamination) dated April 16, 2018. The sample was collected between approximately one and two feet below the shallow water surface midway to the total depth of the water column. The collected sample was transferred directly into laboratory-supplied containers.

Madrid collected two grab samples of the planned channel dredge cut (sediment) from two adjacent sites at sampling LOCATION 2. This was used to created one (1) composite sediment sample, designated as SED-1. This sample was collected from the planned channel dredge cut on April 4, 2023, for FDEP-specified laboratory analyses. The sample was collected using a piston tube sampler decontaminated prior to use in accordance with FDEP-SOP-001/01, FS 4000 (Sediment Sampling), and FC 1000 (Field Decontamination) dated April 16, 2018. Sediments comprising sample SED-1 were photographed prior to placement in laboratory-supplied containers.

The surface water and sediment samples were placed on wet ice in a plastic cooler and delivered to Advanced Environmental Laboratories, a NELAP-certified analytical laboratory for Toxicity Characteristic Leachate Procedure (TCLP) analyses using the following methods:

- Method 8081 - Chlorinated Pesticides
- Method 8151 - Chlorinated Herbicides
- Method 8260D - Volatile Organic Compounds
- Method 8270C - Semi-volatile Organic Compounds
- Method 6010 - RCRA Metals
- Method 7470A - Mercury

Another laboratory, EcoAnalysts, Inc. in Moscow, ID prepared a large portion of the sediment samples using the elutriate method and the site collected waters. This was performed to simulate disturbances from dredging actions. Those samples were analyzed for arsenic using EPA Method 6010.

# 3.0 SUBSURFACE CONDITIONS AND LABORATORY TESTING

## 3.1 Subsurface Soil Conditions

More details as to the physical characteristics of the sediment are in the original May 2022 report. In general, the materials encountered are silty/clayey sand with varying organic content within the sample probing depth limits. The samples “feel” like there is more clay than the testing reveals.

## 3.2 Environmental Testing Results

Laboratory analyses for the marine surface water sample W-1 identified only one (1) compound present above the Method Detection Limit (MDL). The compound Barium was reported at 0.084 I mg/L. No cleanup criteria has been established by the FDEP for leachable Barium in marine surface water per Table I, Chapter 62-777, Florida Administrative Code (FAC).

Laboratory analyses for sediment sample SED-1 confirmed the presence of three (3) compounds in concentrations above the Method Detection Limit (MDL). These compounds include 1,4-Dichlorobenzene (0.013 mg/L), Benzene (0.0086 I mg/L), and Barium (0.061 I mg/L). None of the three (3) compounds exceed the FDEP-established Soil Cleanup Target Level (SCTL) based on leachable marine surface water criteria listed in Table II, Chapter 62-777, F.A.C.

A summary of the laboratory analytical results is presented on **Table 3.2**. Copies of the laboratory analytical reports and chain of custody are included in **Appendix A**.

**Table 3.2 – Laboratory Analytical Summary**

| Sample | | Barium | Benzene | 1,4-Dichloro-benzene |
|---|---|---|---|---|
| Location | Date | (mg/L) | (mg/L) | (mg/L) |
| W-1 | 4/4/2023 | 0.084 I | 0.00028 U | 0.00036 U |
| SED-1 | 4/4/2023 | 0.061 I | 0.0086 I | 0.013 |
| SWCTL | | NA | * | 3.0 |
| SCTL | | NA | 0.5 | 27 |

**Notes:**

SWCTL = Marine Surface Water Leachability Cleanup Target Level specified in Table I of Chapter 62-777, F.A.C.

SCTL = Sediment Leachability Cleanup Target Level Specified in Table II of Chapter 62-777, F.A.C,

I = Concentration Between the Method Detection Limit and the Practical Quantatative Value

U: Concentration Below Method Detection Limit

* As Provided in Chapter 62-302, F.A.C. Based on Water Classification

### 3.3 Results Summary and Conclusion

Laboratory analytical results identified no parameters of concern above the FDEP established cleanup target levels within the sediment sample or marine surface water sample collected from the planned channel dredge cut.

## 4.0 LIMITATIONS

This supplemental report has been prepared for Wright Pierce to support the dredging project at the boat launch facility. This report is intended for use by the designers of this project; it is not a specification document and is not intended for use as a part of the specifications. Varying degrees of non-uniformity of the horizontal and vertical soil conditions are likely to exist between sampling locations. The study reported herein has been conducted in accordance with the generally accepted standards, principles and practices in the geotechnical engineering profession. No other warranty, expressed or implied, is made. Madrid is not responsible for the independent conclusions, opinions, and/or recommendations made by others based on the field investigation and laboratory testing data presented in this report. This study does not include an evaluation of the environmental (ecological or hazardous/toxic material related) condition of the site and subsurface.

Sources: GIS Information (ESRI)

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**Wright Pierce**

**FIGURE 1**
**Site Location Map**
**Shell Mound Engineering Support**
**Cedar Key, Florida**

Notes:

Drawn By: DS

Checked By: DeS

Project Number:
**14758.01**

Source: GIS Information (ESRI), Topographic Information (USGS)

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EB-0006509

**Wright Pierce**

**FIGURE 2**
**USGS Topographic Map**
**Shell Mound Engineering Support**
**Cedar Key, Florida**

| Drawn By: DS | Checked By: DeS | Project Number: 14758.01 |
|---|---|---|

Source: GIS Information (ESRI), Topographic Information (USGS)


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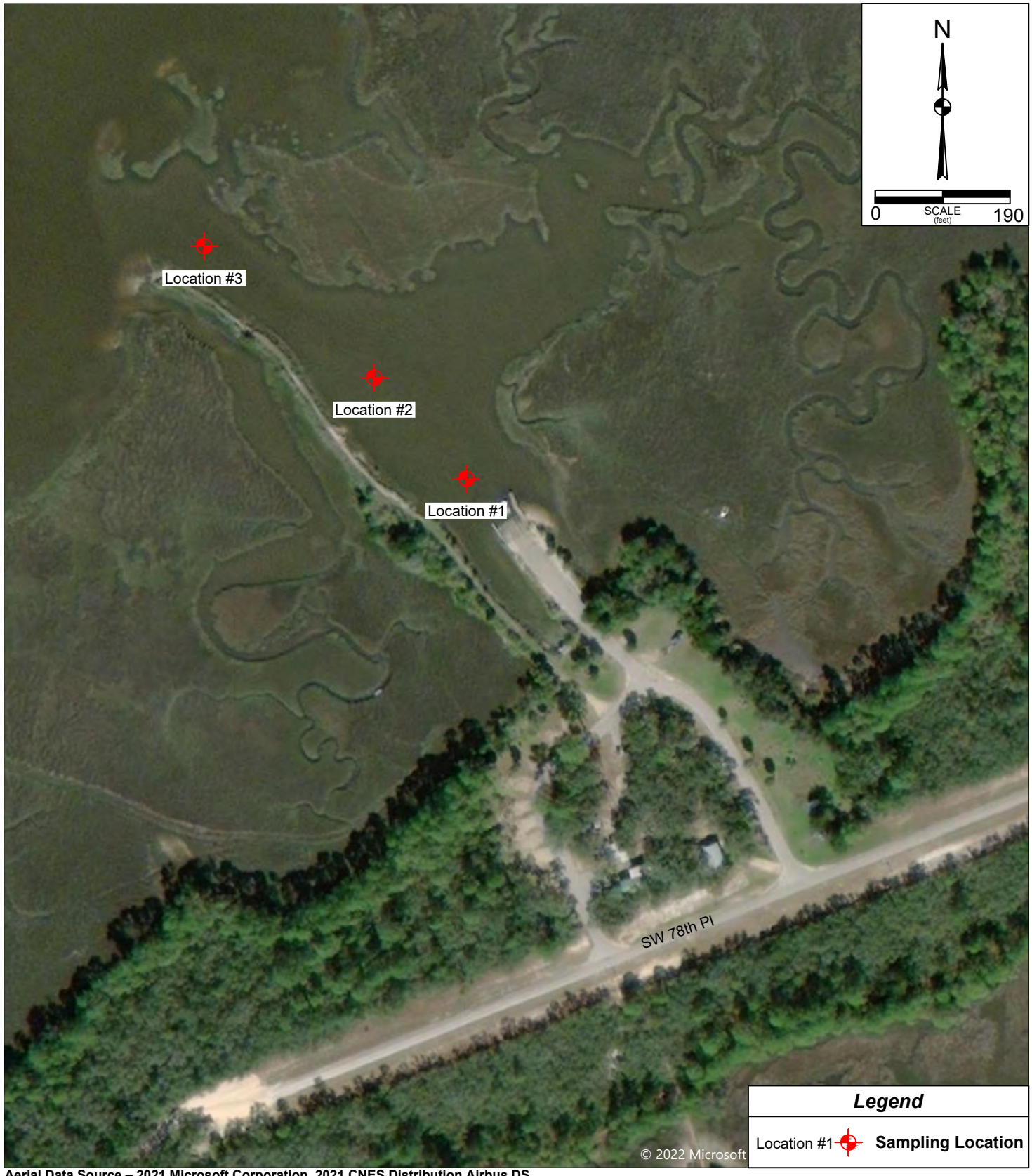
**FIGURE 3**
**NRCS/USDA Soils Map**
**Shell Mound Engineering Support**
**Cedar Key, Florida**

| Drawn By: DS | Checked By: DeS | Project Number: 14758.01 |
|---|---|---|




Aerial Data Source – 2021 Microsoft Corporation, 2021 CNES Distribution Airbus DS.


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**FIGURE #4**
**Sampling Location Plan**
**Shell Mound Engineering**
**Cedar Key, Florida**

**Project Number:**
**14758.01**

| Notes: Base map provided by Client. | Drawn By: DS | Checked By: DeS |
|---|---|---|

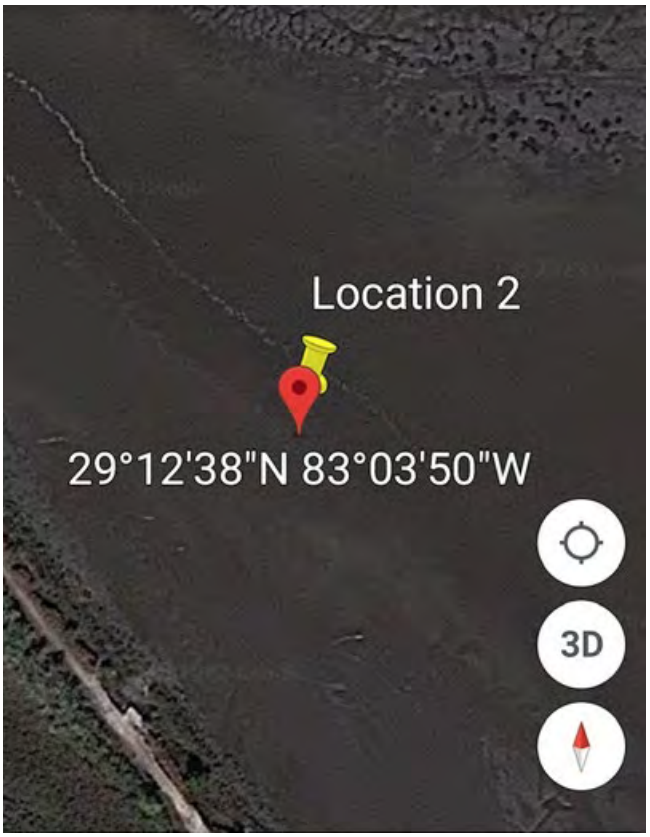


**Photo 1 Sampling Location**

**Photo 2: Collected Samples**

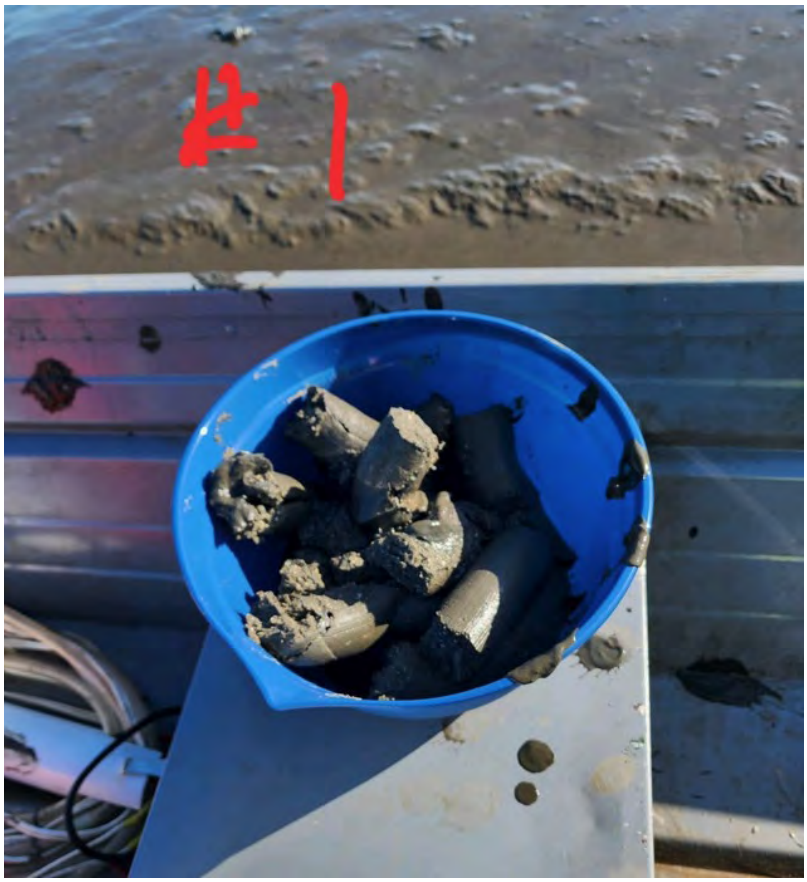


**Photo 3: Sample 1**

**Photo 4: Sample 2**

# Appendix A

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**FINAL**

**Workorder:** Shell Mound (T2306953)

April 24, 2023

Mike Graves
Madrid Engineering

RE: Workorder: T2306953 Shell Mound

Dear Mike Graves:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday April 6, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com



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**Workorder:** Shell Mound (T2306953)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| T2306953001 | SED-1 | SO | EPA 8081 | 04/04/2023 11:48 | 04/06/2023 12:00 | 7 | Dry |
| T2306953001 | SED-1 | SO | SW-846 6010 | 04/04/2023 11:48 | 04/06/2023 12:00 | 7 | Dry |
| T2306953001 | SED-1 | SO | SW-846 7470A | 04/04/2023 11:48 | 04/06/2023 12:00 | 1 | Dry |
| T2306953001 | SED-1 | SO | SW-846 8260D | 04/04/2023 11:48 | 04/06/2023 12:00 | 11 | Dry |
| T2306953001 | SED-1 | SO | SW-846 8270C | 04/04/2023 11:48 | 04/06/2023 12:00 | 12 | Dry |
| T2306953002 | W-1 | WA | EPA 8081 | 04/04/2023 10:44 | 04/06/2023 12:00 | 7 | NA |
| T2306953002 | W-1 | WA | SW-846 6010 | 04/04/2023 10:44 | 04/06/2023 12:00 | 7 | NA |
| T2306953002 | W-1 | WA | SW-846 7470A | 04/04/2023 10:44 | 04/06/2023 12:00 | 1 | NA |
| T2306953002 | W-1 | WA | SW-846 8260D | 04/04/2023 10:44 | 04/06/2023 12:00 | 11 | NA |
| T2306953002 | W-1 | WA | SW-846 8270C | 04/04/2023 10:44 | 04/06/2023 12:00 | 12 | NA |
| T2306953003 | SED-1 | SO | EPA 8151 | 04/04/2023 11:48 | 04/06/2023 12:00 | 2 | Dry |
| T2306953004 | W-1 | WA | EPA 8151 | 04/04/2023 10:44 | 04/06/2023 12:00 | 2 | NA |



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**Workorder:** Shell Mound (T2306953)

## Workorder Summary

### Batch Comments

**CVAt/1919 - HG Analysis,CVAA,Aqueous**

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries of Mercury for T2306991001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action is required.

**ICPt/3625 - ICP 6010B Analysis**

The matrix spike (MS) and Matrix Spike Duplicate (MSD) recoveries of Lead and Antimony for T2306122001 were outside control criteria. Recoveries in the Laboratory Control Sample (LCS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action is required.

**MSSt/2416 - 8270/625 Analysis,Water**

The control criteria for 2-Fluorophenol, Phenol-d6, 2-Fluorobiphenyl, and/or 2,4,6-Tribromophenol in T2306953001, T2306953002, and the matrix spike (470552) are not applicable. As recorded in the extraction logbook, the samples formed emulsions in the solvent layer during the extraction. Such emulsions are known to negatively affect surrogate yields. The affected surrogates were qualified to indicate matrix interference.

**MSVt/6348 - 8260D Analysis,Water**

TCLP soil samples were analyzed at the lowest dilution. In accordance with AEL protocol, all TCLP soils require a minimal dilution of 10X prior to analysis due to the complex matrices produced during the preparation method.

### Task Comments

**T2306953003 (SED-1) - GCSj/4679 - 8151A Analysis,Water**

The recovery of the surrogate 2,4-Dichlorophenylacetic Acid in T2306953003 exceeded the lower control criteria. The TCLP fluid is known to negatively affect the surrogate recovery. The affected surrogate has been qualified to indicate matrix interference.

**T2306953004 (W-1) - GCSj/4679 - 8151A Analysis,Water**

The recovery of the surrogate 2,4-Dichlorophenylacetic Acid in T2306953004 exceeded the lower control criteria. The TCLP fluid is known to negatively affect the surrogate recovery. The affected surrogate has been qualified to indicate matrix interference.

### Analysis Results Comments

**T2306953001 (SED-1) - 2-Fluorophenol**

J4|Estimated Result

**T2306953001 (SED-1) - Phenol-d6**

J4|Estimated Result

**T2306953002 (W-1) - 2,4,6-Tribromophenol**

J4|Estimated Result

**T2306953002 (W-1) - 2-Fluorobiphenyl**

J4|Estimated Result

**T2306953002 (W-1) - 2-Fluorophenol**

J4|Estimated Result

**T2306953002 (W-1) - Phenol-d6**

J4|Estimated Result

**T2306953003 (SED-1) - 2,4-Dichlorophenylacetic acid**

J4|Estimated Result



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**Workorder:** Shell Mound (T2306953)

## Workorder Summary

### Analysis Results Comments

**T2306953004 (W-1) - 2,4-Dichlorophenylacetic acid**

J4|Estimated Result



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**Workorder:** Shell Mound (T2306953)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| Q | Missed Hold Time |

### Lab Qualifiers

| | |
|---|---|
| J | DOH Certification #E82574 (FL NELAC) AEL-Jacksonville<br>DOD-ELAP Certification #L21-470 (ISO/IEC 17025:2017) AEL-Jacksonville |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

**Lab ID:** T2306953001 **Date Collected:** 04/04/2023 11:48 **Matrix:** Soil
**Sample ID:** SED-1 **Date Received:** 04/06/2023 12:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS, TCLP (SW-846 3010A/SW-846 6010)** | | | | | | | | |
| Arsenic | 0.080 U | mg/L | 0.10 | 0.080 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| Barium | **0.061 I** | mg/L | 0.10 | 0.030 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| Cadmium | 0.010 U | mg/L | 0.020 | 0.010 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| Chromium | 0.050 U | mg/L | 0.10 | 0.050 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| Lead | 0.030 U | mg/L | 0.10 | 0.030 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| Selenium | 0.20 U | mg/L | 1.0 | 0.20 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| Silver | 0.080 U | mg/L | 0.10 | 0.080 | 1 | 04/11/2023 13:30 | 04/12/2023 11:41 | T |
| **METALS, TCLP (SW-846 7470A)** | | | | | | | | |
| Mercury | 0.000057 U | mg/L | 0.00050 | 0.000057 | 1 | 04/13/2023 14:06 | 04/13/2023 17:35 | T |
| **SEMIVOLATILES, TCLP (SW-846 3510C/EPA 8081)** | | | | | | | | |
| Chlordane (technical) | 0.0077 U | mg/L | 0.010 | 0.0077 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| Endrin | 0.00020 U | mg/L | 0.0010 | 0.00020 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| Heptachlor | 0.00040 U | mg/L | 0.0010 | 0.00040 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| Heptachlor Epoxide | 0.00031 U | mg/L | 0.0010 | 0.00031 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| Methoxychlor | 0.00028 U | mg/L | 0.0010 | 0.00028 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| Toxaphene | 0.0086 U | mg/L | 0.010 | 0.0086 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| gamma-BHC (Lindane) | 0.00022 U | mg/L | 0.0010 | 0.00022 | 1 | 04/17/2023 09:40 | 04/21/2023 17:00 | T |
| **SEMIVOLATILES, TCLP (SW-846 3510C/SW-846 8270C)** | | | | | | | | |
| 1,4-Dichlorobenzene | 0.040 U | mg/L | 0.10 | 0.040 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| 2,4,5-Trichlorophenol | 0.027 U | mg/L | 0.10 | 0.027 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| 2,4,6-Trichlorophenol | 0.029 U | mg/L | 0.10 | 0.029 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| 2,4-Dinitrotoluene (2,4-DNT) | 0.037 U | mg/L | 0.10 | 0.037 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| 2-Methylphenol (o-Cresol) | 0.029 U | mg/L | 0.10 | 0.029 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| 3+4-Methylphenol(mp-Cresol) | 0.020 U | mg/L | 0.20 | 0.020 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| Hexachlorobenzene | 0.020 U | mg/L | 0.10 | 0.020 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

**Lab ID:** T2306953001 **Date Collected:** 04/04/2023 11:48 **Matrix:** Soil
**Sample ID:** SED-1 **Date Received:** 04/06/2023 12:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Hexachlorobutadiene | 0.025 U | mg/L | 0.10 | 0.025 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| Hexachloroethane | 0.025 U | mg/L | 0.10 | 0.025 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| Nitrobenzene | 0.023 U | mg/L | 0.10 | 0.023 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| Pentachlorophenol | 0.019 U | mg/L | 0.10 | 0.019 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| Pyridine | 0.025 U | mg/L | 0.10 | 0.025 | 1 | 04/13/2023 15:25 | 04/14/2023 20:51 | T |
| **VOLATILES, TCLP (SW-846 5030B/SW-846 8260D)** | | | | | | | | |
| 1,1-Dichloroethylene | 0.0041 U | mg/L | 0.010 | 0.0041 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| 1,2-Dichloroethane | 0.0040 U | mg/L | 0.010 | 0.0040 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| 1,4-Dichlorobenzene | **0.013** | mg/L | 0.010 | 0.0036 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| 2-Butanone (MEK) | 0.0033 U | mg/L | 0.010 | 0.0033 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Benzene | **0.0086 I** | mg/L | 0.010 | 0.0028 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Carbon Tetrachloride | 0.0041 U | mg/L | 0.010 | 0.0041 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Chlorobenzene | 0.0038 U | mg/L | 0.010 | 0.0038 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Chloroform | 0.0037 U | mg/L | 0.010 | 0.0037 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Tetrachloroethylene (PCE) | 0.0045 U | mg/L | 0.010 | 0.0045 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Trichloroethene | 0.0032 U | mg/L | 0.010 | 0.0032 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |
| Vinyl Chloride | 0.0044 U | mg/L | 0.010 | 0.0044 | 10 | 04/10/2023 21:43 | 04/11/2023 02:23 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Decachlorobiphenyl (S) | mg/L | 0.01 | 0.0095 | 95 | 63 - 130 | T |
| Tetrachloro-m-xylene (S) | mg/L | 0.02 | 0.0180 | 88 | 42 - 129 | T |
| 2,4,6-Tribromophenol (S) | mg/L | 1 | 0.54 | 54 | 39 - 132 | T |
| **Phenol-d6 (S)** | mg/L | 1 | 0.14 | **14** | 33 - 122 | T |
| 2-Fluorobiphenyl (S) | mg/L | 1 | 0.57 | 57 | 44 - 115 | T |
| **2-Fluorophenol (S)** | mg/L | 1 | 0.16 | **16** | 35 - 115 | T |
| Nitrobenzene-d5 (S) | mg/L | 1 | 0.53 | 53 | 37 - 122 | T |
| p-Terphenyl-d14 (S) | mg/L | 1 | 1 | 102 | 54 - 127 | T |
| 1,2-Dichloroethane-d4 (S) | mg/L | 0.50 | 0.50 | 100 | 70 - 128 | T |
| Toluene-d8 (S) | mg/L | 0.50 | 0.49 | 98 | 77 - 119 | T |
| Bromofluorobenzene (S) | mg/L | 0.50 | 0.51 | 102 | 86 - 123 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

**Lab ID:** T2306953002 **Date Collected:** 04/04/2023 10:44 **Matrix:** Water
**Sample ID:** W-1 **Date Received:** 04/06/2023 12:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS, TCLP (SW-846 3010A/SW-846 6010)** | | | | | | | | |
| Arsenic | 0.080 U | mg/L | 0.10 | 0.080 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| Barium | **0.084 I** | mg/L | 0.10 | 0.030 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| Cadmium | 0.010 U | mg/L | 0.020 | 0.010 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| Chromium | 0.050 U | mg/L | 0.10 | 0.050 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| Lead | 0.030 U | mg/L | 0.10 | 0.030 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| Selenium | 0.20 U | mg/L | 1.0 | 0.20 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| Silver | 0.080 U | mg/L | 0.10 | 0.080 | 1 | 04/11/2023 13:30 | 04/12/2023 11:44 | T |
| **METALS, TCLP (SW-846 7470A)** | | | | | | | | |
| Mercury | 0.000057 U | mg/L | 0.00050 | 0.000057 | 1 | 04/13/2023 14:06 | 04/13/2023 17:38 | T |
| **SEMIVOLATILES, TCLP (SW-846 3510C/EPA 8081)** | | | | | | | | |
| Chlordane (technical) | 0.0077 U | mg/L | 0.010 | 0.0077 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| Endrin | 0.00020 U | mg/L | 0.0010 | 0.00020 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| Heptachlor | 0.00040 U | mg/L | 0.0010 | 0.00040 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| Heptachlor Epoxide | 0.00031 U | mg/L | 0.0010 | 0.00031 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| Methoxychlor | 0.00028 U | mg/L | 0.0010 | 0.00028 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| Toxaphene | 0.0086 U | mg/L | 0.010 | 0.0086 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| gamma-BHC (Lindane) | 0.00022 U | mg/L | 0.0010 | 0.00022 | 1 | 04/17/2023 09:40 | 04/21/2023 17:16 | T |
| **SEMIVOLATILES, TCLP (SW-846 3510C/SW-846 8270C)** | | | | | | | | |
| 1,4-Dichlorobenzene | 0.026 U | mg/L | 0.10 | 0.026 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| 2,4,5-Trichlorophenol | 0.0071 U | mg/L | 0.10 | 0.0071 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| 2,4,6-Trichlorophenol | 0.026 U | mg/L | 0.10 | 0.026 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| 2,4-Dinitrotoluene (2,4-DNT) | 0.046 U | mg/L | 0.10 | 0.046 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| 2-Methylphenol (o-Cresol) | 0.026 U | mg/L | 0.10 | 0.026 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| 3+4-Methylphenol(mp-Cresol) | 0.021 U | mg/L | 0.10 | 0.021 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| Hexachlorobenzene | 0.0083 U | mg/L | 0.10 | 0.0083 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

**Lab ID:** T2306953002 **Date Collected:** 04/04/2023 10:44 **Matrix:** Water
**Sample ID:** W-1 **Date Received:** 04/06/2023 12:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| Hexachlorobutadiene | 0.0067 U | mg/L | 0.10 | 0.0067 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| Hexachloroethane | 0.036 U | mg/L | 0.10 | 0.036 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| Nitrobenzene | 0.023 U | mg/L | 0.10 | 0.023 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| Pentachlorophenol | 0.011 U | mg/L | 0.10 | 0.011 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| Pyridine | 0.037 U | mg/L | 0.10 | 0.037 | 1 | 04/13/2023 15:25 | 04/14/2023 21:28 | T |
| **VOLATILES, TCLP (SW-846 5030B/SW-846 8260D)** | | | | | | | | |
| 1,1-Dichloroethylene | 0.00041 U | mg/L | 0.0010 | 0.00041 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| 1,2-Dichloroethane | 0.00040 U | mg/L | 0.0010 | 0.00040 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| 1,4-Dichlorobenzene | 0.00036 U | mg/L | 0.0010 | 0.00036 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| 2-Butanone (MEK) | 0.00033 U | mg/L | 0.0010 | 0.00033 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Benzene | 0.00028 U | mg/L | 0.0010 | 0.00028 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Carbon Tetrachloride | 0.00041 U | mg/L | 0.0010 | 0.00041 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Chlorobenzene | 0.00038 U | mg/L | 0.0010 | 0.00038 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Chloroform | 0.00037 U | mg/L | 0.0010 | 0.00037 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Tetrachloroethylene (PCE) | 0.00045 U | mg/L | 0.0010 | 0.00045 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Trichloroethene | 0.00032 U | mg/L | 0.0010 | 0.00032 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |
| Vinyl Chloride | 0.00044 U | mg/L | 0.0010 | 0.00044 | 1 | 04/19/2023 00:00 | 04/19/2023 05:20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

### Analysis Results Comments

**1,1-Dichloroethylene**
Q|Missed Hold Time

**1,2-Dichloroethane**
Q|Missed Hold Time

**1,4-Dichlorobenzene**
Q|Missed Hold Time

**2-Butanone (MEK)**
Q|Missed Hold Time

**Benzene**
Q|Missed Hold Time

**Carbon Tetrachloride**
Q|Missed Hold Time

**Chlorobenzene**
Q|Missed Hold Time

**Chloroform**
Q|Missed Hold Time

**Tetrachloroethylene (PCE)**
Q|Missed Hold Time

**Trichloroethene**
Q|Missed Hold Time

**Vinyl Chloride**
Q|Missed Hold Time

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Decachlorobiphenyl (S) | mg/L | 0.01 | 0.0094 | 94 | 48 - 137 | T^ |
| Tetrachloro-m-xylene (S) | mg/L | 0.02 | 0.0140 | 70 | 44 - 124 | T^ |
| **2,4,6-Tribromophenol (S)** | mg/L | 1 | 0.33 | **33** | 48 - 147 | T |
| **Phenol-d6 (S)** | mg/L | 1 | 0.15 | **15** | 24 - 120 | T |
| **2-Fluorobiphenyl (S)** | mg/L | 1 | 0.36 | **36** | 42 - 138 | T |
| **2-Fluorophenol (S)** | mg/L | 1 | 0.18 | **18** | 31 - 134 | T |
| Nitrobenzene-d5 (S) | mg/L | 1 | 0.42 | 42 | 38 - 139 | T |
| p-Terphenyl-d14 (S) | mg/L | 1 | 0.89 | 89 | 61 - 154 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | mg/L | 0.05 | 0.0490 | 98 | 70 - 128 | T |
| Toluene-d8 (S) | mg/L | 0.05 | 0.0440 | 88 | 77 - 119 | T |
| Bromofluorobenzene (S) | mg/L | 0.05 | 0.0580 | 116 | 86 - 123 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

**Lab ID:** T2306953003 **Date Collected:** 04/04/2023 11:48 **Matrix:** Soil
**Sample ID:** SED-1 **Date Received:** 04/06/2023 12:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **SEMIVOLATILES, TCLP (8151/EPA 8151)** | | | | | | | | |
| 2,4-D | 6.2 U | ug/L | 20 | 6.2 | 1 | 04/13/2023 12:00 | 04/18/2023 18:42 | J |
| Silvex (2,4,5-TP) | 2.5 U | ug/L | 10 | 2.5 | 1 | 04/13/2023 12:00 | 04/18/2023 18:42 | J |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| **2,4-Dichlorophenylacetic acid (S)** | ug/L | 250 | 47 | **19** | 46 - 122 | J |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## Analytical Results

**Lab ID:** T2306953004 **Date Collected:** 04/04/2023 10:44 **Matrix:** Water
**Sample ID:** W-1 **Date Received:** 04/06/2023 12:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **SEMIVOLATILES, TCLP (8151/EPA 8151)** | | | | | | | | |
| 2,4-D | 5.0 U | ug/L | 20 | 5.0 | 1 | 04/13/2023 12:00 | 04/18/2023 19:16 | J |
| Silvex (2,4,5-TP) | 2.5 U | ug/L | 10 | 2.5 | 1 | 04/13/2023 12:00 | 04/18/2023 19:16 | J |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| **2,4-Dichlorophenylacetic acid (S)** | ug/L | 250 | 56 | **22** | 41 - 122 | J^ |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** CVAt/1919
**Preparation Method:** SW-846 7470A
**Associated Lab IDs:** T2306953001, T2306953002
**Analysis Method:** SW-846 7470A

**Method Blank(4750593)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Mercury | 0.000011 U | mg/L | 0.00010 | 0.000011 | T |

**Lab Control Sample (4750594)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Mercury | mg/L | 0.0010 | .00092 | 92 | 80 - 120 | T |

**Matrix Spike (4750595); Matrix Spike Duplicate (4750596); Parent Lab Sample (T2306991001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mercury** | mg/L | 0.0010 | -.00002 | **-3** | 80 - 120 | -.000025 | **-3** | -1 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** GCSj/4679
**Preparation Method:** 8151
**Associated Lab IDs:** T2306953003, T2306953004
**Analysis Method:** EPA 8151

**Method Blank(4751831)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| 2,4-D | 2.0 U | ug/L | 8.0 | 2.0 | J |
| Silvex (2,4,5-TP) | 1.0 U | ug/L | 4.0 | 1.0 | J |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2,4-Dichlorophenylacetic acid (S) | mg/L | 0.10 | 0.0960 | 96 | 41 - 122 | J^ |

**Lab Control Sample (4751832); Lab Control Sample Duplicate (4751833); Parent Lab Sample (T2306953003, T2306953004)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-D | ug/L | 24 | 17 | 70 | 45 - 152 | 15 | 62 | 12 | 30 | J |
| Silvex (2,4,5-TP) | ug/L | 8 | 7.3 | 91 | 51 - 134 | 6.9 | 86 | 5 | 30 | J |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dichlorophenylacetic acid (S | mg/L | 0.10 | 0.11 | 106 | 41 - 122 | 0.10 | 104 | 1 | 30 | J^ |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** GCSt/3277
**Preparation Method:** SW-846 3510C
**Associated Lab IDs:** T2306953001, T2306953002
**Analysis Method:** EPA 8081

**Method Blank(4754370)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Chlordane (technical) | 0.00038 U | mg/L | 0.00050 | 0.00038 | T |
| Endrin | 0.0000098 U | mg/L | 0.000050 | 0.0000098 | T |
| Heptachlor | 0.000020 U | mg/L | 0.000050 | 0.000020 | T |
| Heptachlor Epoxide | 0.000015 U | mg/L | 0.000050 | 0.000015 | T |
| Methoxychlor | 0.000014 U | mg/L | 0.000050 | 0.000014 | T |
| Toxaphene | 0.00043 U | mg/L | 0.00050 | 0.00043 | T |
| gamma-BHC (Lindane) | 0.000011 U | mg/L | 0.000050 | 0.000011 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Decachlorobiphenyl (S) | mg/L | 0.0005 | 0.0004 | 81 | 48 - 137 | T^ |
| Tetrachloro-m-xylene (S) | mg/L | 0.0010 | 0.000660 | 66 | 44 - 124 | T^ |

**Lab Control Sample (4754371); Lab Control Sample Duplicate (4754372); Parent Lab Sample (T2306953001, T2306953002)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Endrin | mg/L | 0.0001 | .000088 | 88 | 60 - 138 | .000088 | 88 | 0 | 30 | T |
| Heptachlor | mg/L | 0.0001 | .000059 | 59 | 54 - 130 | .000077 | 77 | 27 | 30 | T |
| Heptachlor Epoxide | mg/L | 0.0001 | .000089 | 89 | 61 - 133 | .000084 | 84 | 6 | 30 | T |
| Methoxychlor | mg/L | 0.0001 | .000091 | 91 | 54 - 145 | .000091 | 91 | 1 | 30 | T |
| gamma-BHC (Lindane) | mg/L | 0.0001 | .000073 | 73 | 59 - 134 | .000077 | 77 | 5 | 30 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Decachlorobiphenyl (S) | mg/L | 0.0005 | 0.00039 | 78 | 48 - 137 | 0.00044 | 89 | 14 | | T^ |
| Tetrachloro-m-xylene (S) | mg/L | 0.0010 | 0.00064 | 64 | 44 - 124 | 0.00077 | 77 | 18 | | T^ |

**Matrix Spike (4754373); Parent Lab Sample (T2306953002)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Endrin | mg/L | 0.0020 | .0021 | 107 | 60 - 138 | T |
| Heptachlor | mg/L | 0.0020 | .0015 | 77 | 54 - 130 | T |
| Heptachlor Epoxide | mg/L | 0.0020 | .0019 | 95 | 61 - 133 | T |
| Methoxychlor | mg/L | 0.0020 | .0023 | 114 | 54 - 145 | T |
| gamma-BHC (Lindane) | mg/L | 0.0020 | .0016 | 80 | 59 - 134 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

**QC Batch:** GCSt/3277
**Preparation Method:** SW-846 3510C
**Associated Lab IDs:** T2306953001, T2306953002

**Analysis Method:** EPA 8081

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Decachlorobiphenyl (S) | mg/L | 0.01 | 0.0120 | 120 | 48 - 137 | T^ |
| Tetrachloro-m-xylene (S) | mg/L | 0.02 | 0.0130 | 63 | 44 - 124 | T^ |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** ICPt/3625
**Preparation Method:** SW-846 3010A
**Associated Lab IDs:** T2306953001, T2306953002
**Analysis Method:** SW-846 6010

**Method Blank(4746611)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Arsenic | 0.0080 U | mg/L | 0.010 | 0.0080 | T |
| Barium | 0.0030 U | mg/L | 0.010 | 0.0030 | T |
| Cadmium | 0.0010 U | mg/L | 0.0020 | 0.0010 | T |
| Chromium | 0.0050 U | mg/L | 0.010 | 0.0050 | T |
| Lead | 0.0030 U | mg/L | 0.010 | 0.0030 | T |
| Selenium | 0.020 U | mg/L | 0.10 | 0.020 | T |
| Silver | 0.0080 U | mg/L | 0.010 | 0.0080 | T |

**Lab Control Sample (4746612)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Arsenic | mg/L | 1 | .87 | 87 | 80 - 120 | T |
| Barium | mg/L | 1 | .93 | 93 | 80 - 120 | T |
| Cadmium | mg/L | 0.10 | .094 | 94 | 80 - 120 | T |
| Chromium | mg/L | 1 | .94 | 94 | 80 - 120 | T |
| Lead | mg/L | 1 | .92 | 92 | 80 - 120 | T |
| Selenium | mg/L | 1 | .87 | 87 | 80 - 120 | T |
| Silver | mg/L | 0.10 | .086 | 86 | 80 - 120 | T |

**Matrix Spike (4746613); Matrix Spike Duplicate (4746614); Parent Lab Sample (T2306122001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | mg/L | 1 | 1.1 | 83 | 75 - 125 | 1.1 | 83 | 0 | 20 | T |
| Barium | mg/L | 1 | 1.1 | 87 | 75 - 125 | 1.1 | 87 | 1 | 20 | T |
| Cadmium | mg/L | 0.10 | .11 | 92 | 75 - 125 | .11 | 92 | 0 | 20 | T |
| Chromium | mg/L | 1 | 1.1 | 111 | 75 - 125 | 1.1 | 111 | 0 | 20 | T |
| **Lead** | mg/L | 1 | 18 | **-14400** | 75 - 125 | 18 | **-14400** | 0 | 20 | T |
| Selenium | mg/L | 1 | 1.1 | 108 | 75 - 125 | 1.1 | 108 | 1 | 20 | T |
| Silver | mg/L | 0.10 | .083 | 83 | 75 - 125 | .083 | 83 | 0 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** MSSt/2416
**Preparation Method:** SW-846 3510C
**Associated Lab IDs:** T2306953001, T2306953002
**Analysis Method:** SW-846 8270C

**Method Blank(4750549)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 0.0020 U | mg/L | 0.0050 | 0.0020 | T |
| 2,4,5-Trichlorophenol | 0.0013 U | mg/L | 0.0050 | 0.0013 | T |
| 2,4,6-Trichlorophenol | 0.0014 U | mg/L | 0.0050 | 0.0014 | T |
| 2,4-Dinitrotoluene (2,4-DNT) | 0.0018 U | mg/L | 0.0050 | 0.0018 | T |
| 2-Methylphenol (o-Cresol) | 0.0015 U | mg/L | 0.0050 | 0.0015 | T |
| 3+4-Methylphenol(mp-Cresol) | 0.0010 U | mg/L | 0.010 | 0.0010 | T |
| Hexachlorobenzene | 0.00099 U | mg/L | 0.0050 | 0.00099 | T |
| Hexachlorobutadiene | 0.0013 U | mg/L | 0.0050 | 0.0013 | T |
| Hexachloroethane | 0.0012 U | mg/L | 0.0050 | 0.0012 | T |
| Nitrobenzene | 0.0011 U | mg/L | 0.0050 | 0.0011 | T |
| Pentachlorophenol | 0.00095 U | mg/L | 0.0050 | 0.00095 | T |
| Pyridine | 0.0013 U | mg/L | 0.0050 | 0.0013 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2,4,6-Tribromophenol (S) | mg/L | 0.05 | 0.0370 | 73 | 48 - 147 | T |
| 2-Fluorobiphenyl (S) | mg/L | 0.05 | 0.0390 | 77 | 42 - 138 | T |
| 2-Fluorophenol (S) | mg/L | 0.05 | 0.0390 | 78 | 31 - 134 | T |
| Nitrobenzene-d5 (S) | mg/L | 0.05 | 0.0390 | 78 | 38 - 139 | T |
| Phenol-d6 (S) | mg/L | 0.05 | 0.0410 | 82 | 24 - 120 | T |
| p-Terphenyl-d14 (S) | mg/L | 0.05 | 0.0470 | 94 | 61 - 154 | T |

**Lab Control Sample (4750550); Lab Control Sample Duplicate (4750551); Parent Lab Sample (T2306953001, T2306953002)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | mg/L | 0.04 | .023 | 58 | 29 - 112 | .024 | 59 | 2 | 20 | T |
| 2,4,5-Trichlorophenol | mg/L | 0.04 | .039 | 98 | | .036 | 91 | 7 | | T |
| 2,4,6-Trichlorophenol | mg/L | 0.04 | .036 | 89 | 50 - 125 | .036 | 91 | 2 | 20 | T |
| 2,4-Dinitrotoluene (2,4-DNT | mg/L | 0.04 | .038 | 95 | 57 - 128 | .036 | 89 | 6 | 20 | T |
| 2-Methylphenol (o-Cresol) | mg/L | 0.04 | .023 | 58 | | .022 | 56 | 4 | | T |
| 3+4-Methylphenol(mp-Cres | mg/L | 0.04 | .024 | 60 | | .02 | 49 | 19 | | T |
| Hexachlorobenzene | mg/L | 0.04 | .038 | 95 | 53 - 125 | .037 | 92 | 3 | 20 | T |
| Hexachlorobutadiene | mg/L | 0.04 | .026 | 65 | 22 - 124 | .026 | 65 | 0 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

**QC Batch:** MSSt/2416
**Preparation Method:** SW-846 3510C
**Associated Lab IDs:** T2306953001, T2306953002

**Analysis Method:** SW-846 8270C

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Hexachloroethane | mg/L | 0.04 | .023 | 56 | 21 - 115 | .022 | 55 | 2 | 20 | T |
| Nitrobenzene | mg/L | 0.04 | .028 | 70 | 45 - 121 | .028 | 70 | 0 | 20 | T |
| Pentachlorophenol | mg/L | 0.04 | .036 | 90 | 35 - 138 | .035 | 89 | 1 | 20 | T |
| Pyridine | mg/L | 0.04 | .0092 | 23 | | .0091 | 23 | 1 | | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,6-Tribromophenol (S) | mg/L | 0.05 | 0.0450 | 91 | 48 - 147 | 0.0470 | 93 | 2 | | T |
| 2-Fluorobiphenyl (S) | mg/L | 0.05 | 0.0340 | 68 | 42 - 138 | 0.0350 | 70 | 2 | | T |
| 2-Fluorophenol (S) | mg/L | 0.05 | 0.0160 | 32 | 31 - 134 | 0.0150 | 31 | 3 | | T |
| Nitrobenzene-d5 (S) | mg/L | 0.05 | 0.0330 | 66 | 38 - 139 | 0.0320 | 65 | 3 | | T |
| Phenol-d6 (S) | mg/L | 0.05 | 0.0120 | 25 | 24 - 120 | 0.0130 | 26 | 4 | | T |
| p-Terphenyl-d14 (S) | mg/L | 0.05 | 0.0490 | 98 | 61 - 154 | 0.05 | 100 | 3 | | T |

**Matrix Spike (4750552); Parent Lab Sample (T2306953002)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | mg/L | 0.80 | .37 | 46 | 29 - 112 | T |
| 2,4,5-Trichlorophenol | mg/L | 0.80 | .64 | 80 | | T |
| 2,4,6-Trichlorophenol | mg/L | 0.80 | .61 | 76 | 50 - 125 | T |
| 2,4-Dinitrotoluene (2,4-DNT) | mg/L | 0.80 | .64 | 80 | 57 - 128 | T |
| 2-Methylphenol (o-Cresol) | mg/L | 0.80 | .39 | 49 | | T |
| 3+4-Methylphenol(mp-Cresol) | mg/L | 0.80 | .39 | 48 | | T |
| Hexachlorobenzene | mg/L | 0.80 | .61 | 76 | 53 - 125 | T |
| Hexachlorobutadiene | mg/L | 0.80 | .43 | 54 | 22 - 124 | T |
| Hexachloroethane | mg/L | 0.80 | .36 | 45 | 21 - 115 | T |
| Nitrobenzene | mg/L | 0.80 | .46 | 58 | 45 - 121 | T |
| Pentachlorophenol | mg/L | 0.80 | .36 | 45 | 35 - 138 | T |
| Pyridine | mg/L | 0.80 | .16 | 20 | | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 2,4,6-Tribromophenol (S) | mg/L | 1 | 0.81 | 81 | 48 - 147 | T |
| 2-Fluorobiphenyl (S) | mg/L | 1 | 0.56 | 56 | 42 - 138 | T |
| **2-Fluorophenol (S)** | mg/L | 1 | 0.27 | **27** | 31 - 134 | T |
| Nitrobenzene-d5 (S) | mg/L | 1 | 0.55 | 55 | 38 - 139 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

**QC Batch:** MSSt/2416
**Preparation Method:** SW-846 3510C
**Associated Lab IDs:** T2306953001, T2306953002

**Analysis Method:** SW-846 8270C

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| **Phenol-d6 (S)** | mg/L | 1 | 0.20 | **20** | 24 - 120 | T |
| p-Terphenyl-d14 (S) | mg/L | 1 | 0.90 | 90 | 61 - 154 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** MSVt/6348
**Preparation Method:** SW-846 5030B
**Associated Lab IDs:** T2306953001
**Analysis Method:** SW-846 8260D

**Method Blank(4757426)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| 1,1-Dichloroethylene | 0.00041 U | mg/L | 0.0010 | 0.00041 | T |
| 1,2-Dichloroethane | 0.00040 U | mg/L | 0.0010 | 0.00040 | T |
| 1,4-Dichlorobenzene | 0.00036 U | mg/L | 0.0010 | 0.00036 | T |
| 2-Butanone (MEK) | 0.00033 U | mg/L | 0.0010 | 0.00033 | T |
| Benzene | 0.00028 U | mg/L | 0.0010 | 0.00028 | T |
| Carbon Tetrachloride | 0.00041 U | mg/L | 0.0010 | 0.00041 | T |
| Chlorobenzene | 0.00038 U | mg/L | 0.0010 | 0.00038 | T |
| Chloroform | 0.00037 U | mg/L | 0.0010 | 0.00037 | T |
| Tetrachloroethylene (PCE) | 0.00045 U | mg/L | 0.0010 | 0.00045 | T |
| Trichloroethene | 0.00032 U | mg/L | 0.0010 | 0.00032 | T |
| Vinyl Chloride | 0.00044 U | mg/L | 0.0010 | 0.00044 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 53 | 105 | 70 - 128 | T |
| Bromofluorobenzene (S) | ug/L | 50 | 52 | 105 | 86 - 123 | T |
| Toluene-d8 (S) | ug/L | 50 | 49 | 98 | 77 - 119 | T |

**Lab Control Sample (4757427); Lab Control Sample Duplicate (4757428); Parent Lab Sample (T2306953001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethylene | mg/L | 0.02 | .02 | 102 | 71 - 131 | .02 | 98 | 4 | 20 | T |
| 1,2-Dichloroethane | mg/L | 0.02 | .021 | 104 | 73 - 128 | .02 | 99 | 5 | 20 | T |
| 1,4-Dichlorobenzene | mg/L | 0.02 | .02 | 101 | 79 - 118 | .019 | 95 | 6 | 20 | T |
| 2-Butanone (MEK) | mg/L | 0.02 | .022 | 108 | 56 - 143 | .022 | 111 | 3 | 20 | T |
| Benzene | mg/L | 0.02 | .02 | 98 | 79 - 120 | .019 | 93 | 5 | 20 | T |
| Carbon Tetrachloride | mg/L | 0.02 | .019 | 95 | 72 - 136 | .019 | 93 | 1 | 20 | T |
| Chlorobenzene | mg/L | 0.02 | .02 | 102 | 82 - 118 | .02 | 98 | 4 | 20 | T |
| Chloroform | mg/L | 0.02 | .02 | 101 | 79 - 124 | .019 | 96 | 5 | 20 | T |
| Tetrachloroethylene (PCE) | mg/L | 0.02 | .021 | 106 | 74 - 129 | .02 | 102 | 3 | 20 | T |
| Trichloroethene | mg/L | 0.02 | .02 | 102 | 79 - 123 | .02 | 98 | 4 | 20 | T |
| Vinyl Chloride | mg/L | 0.02 | .019 | 95 | 58 - 137 | .018 | 92 | 3 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

**QC Batch:** MSVt/6348
**Preparation Method:** SW-846 5030B
**Associated Lab IDs:** T2306953001

**Analysis Method:** SW-846 8260D

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 50 | 99 | 70 - 128 | 50 | 101 | 2 | | T |
| Bromofluorobenzene (S) | ug/L | 50 | 45 | 89 | 86 - 123 | 46 | 92 | 3 | | T |
| Toluene-d8 (S) | ug/L | 50 | 50 | 100 | 77 - 119 | 49 | 98 | 2 | | T |

**Matrix Spike (4757429); Parent Lab Sample (T2306953001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethylene | mg/L | 0.02 | .02 | 102 | 71 - 131 | T |
| 1,2-Dichloroethane | mg/L | 0.02 | .022 | 108 | 73 - 128 | T |
| 1,4-Dichlorobenzene | mg/L | 0.02 | .03 | 84 | 79 - 118 | T |
| 2-Butanone (MEK) | mg/L | 0.02 | .021 | 104 | 56 - 143 | T |
| Benzene | mg/L | 0.02 | .03 | 105 | 79 - 120 | T |
| Carbon Tetrachloride | mg/L | 0.02 | .02 | 101 | 72 - 136 | T |
| Chlorobenzene | mg/L | 0.02 | .021 | 104 | 82 - 118 | T |
| Chloroform | mg/L | 0.02 | .02 | 101 | 79 - 124 | T |
| Tetrachloroethylene (PCE) | mg/L | 0.02 | .022 | 109 | 74 - 129 | T |
| Trichloroethene | mg/L | 0.02 | .021 | 105 | 79 - 123 | T |
| Vinyl Chloride | mg/L | 0.02 | .02 | 100 | 58 - 137 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 51 | 102 | 70 - 128 | T |
| Bromofluorobenzene (S) | ug/L | 50 | 44 | 87 | 86 - 123 | T |
| Toluene-d8 (S) | ug/L | 50 | 50 | 99 | 77 - 119 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Results

**QC Batch:** MSVt/6374
**Preparation Method:** SW-846 5030B
**Associated Lab IDs:** T2306953002
**Analysis Method:** SW-846 8260D

**Method Blank(4760000)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| 1,1-Dichloroethylene | 0.00041 U | mg/L | 0.0010 | 0.00041 | T |
| 1,2-Dichloroethane | 0.00040 U | mg/L | 0.0010 | 0.00040 | T |
| 1,4-Dichlorobenzene | 0.00036 U | mg/L | 0.0010 | 0.00036 | T |
| 2-Butanone (MEK) | 0.00033 U | mg/L | 0.0010 | 0.00033 | T |
| Benzene | 0.00028 U | mg/L | 0.0010 | 0.00028 | T |
| Carbon Tetrachloride | 0.00041 U | mg/L | 0.0010 | 0.00041 | T |
| Chlorobenzene | 0.00038 U | mg/L | 0.0010 | 0.00038 | T |
| Chloroform | 0.00037 U | mg/L | 0.0010 | 0.00037 | T |
| Tetrachloroethylene (PCE) | 0.00045 U | mg/L | 0.0010 | 0.00045 | T |
| Trichloroethene | 0.00032 U | mg/L | 0.0010 | 0.00032 | T |
| Vinyl Chloride | 0.00044 U | mg/L | 0.0010 | 0.00044 | T |

### Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 52 | 104 | 70 - 128 | T |
| Bromofluorobenzene (S) | ug/L | 50 | 55 | 109 | 86 - 123 | T |
| Toluene-d8 (S) | ug/L | 50 | 43 | 86 | 77 - 119 | T |

**Lab Control Sample (4760001); Lab Control Sample Duplicate (4760002); Parent Lab Sample (T2306953002)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethylene | mg/L | 0.02 | .019 | 97 | 71 - 131 | .019 | 97 | 0 | 20 | T |
| 1,2-Dichloroethane | mg/L | 0.02 | .019 | 96 | 73 - 128 | .019 | 97 | 1 | 20 | T |
| 1,4-Dichlorobenzene | mg/L | 0.02 | .018 | 90 | 79 - 118 | .02 | 98 | 8 | 20 | T |
| 2-Butanone (MEK) | mg/L | 0.02 | .021 | 103 | 56 - 143 | .021 | 104 | 2 | 20 | T |
| Benzene | mg/L | 0.02 | .021 | 106 | 79 - 120 | .021 | 107 | 1 | 20 | T |
| Carbon Tetrachloride | mg/L | 0.02 | .016 | 82 | 72 - 136 | .016 | 82 | 0 | 20 | T |
| Chlorobenzene | mg/L | 0.02 | .017 | 87 | 82 - 118 | .017 | 85 | 2 | 20 | T |
| Chloroform | mg/L | 0.02 | .02 | 99 | 79 - 124 | .02 | 100 | 1 | 20 | T |
| Tetrachloroethylene (PCE) | mg/L | 0.02 | .016 | 78 | 74 - 129 | .016 | 78 | 1 | 20 | T |
| Trichloroethene | mg/L | 0.02 | .019 | 96 | 79 - 123 | .02 | 98 | 2 | 20 | T |
| Vinyl Chloride | mg/L | 0.02 | .021 | 106 | 58 - 137 | .021 | 105 | 1 | 20 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

**QC Batch:** MSVt/6374
**Preparation Method:** SW-846 5030B
**Associated Lab IDs:** T2306953002

**Analysis Method:** SW-846 8260D

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 58 | 115 | 70 - 128 | 58 | 116 | 1 | | T |
| Bromofluorobenzene (S) | ug/L | 50 | 59 | 119 | 86 - 123 | 47 | 93 | 24 | | T |
| Toluene-d8 (S) | ug/L | 50 | 45 | 91 | 77 - 119 | 56 | 112 | 20 | | T |

**Matrix Spike (4760003); Parent Lab Sample (T2307755001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethylene | mg/L | 0.02 | .021 | 105 | 71 - 131 | T |
| 1,2-Dichloroethane | mg/L | 0.02 | .021 | 107 | 73 - 128 | T |
| 1,4-Dichlorobenzene | mg/L | 0.02 | .018 | 92 | 79 - 118 | T |
| Carbon Tetrachloride | mg/L | 0.02 | .017 | 86 | 72 - 136 | T |
| Chlorobenzene | mg/L | 0.02 | .019 | 95 | 82 - 118 | T |
| Chloroform | mg/L | 0.02 | .022 | 110 | 79 - 124 | T |
| Tetrachloroethylene (PCE) | mg/L | 0.02 | .016 | 79 | 74 - 129 | T |
| Trichloroethene | mg/L | 0.02 | .021 | 103 | 79 - 123 | T |
| Vinyl Chloride | mg/L | 0.02 | .023 | 113 | 10 - 150 | T |

## Surrogates

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 (S) | ug/L | 50 | 59 | 117 | 70 - 128 | T |
| Bromofluorobenzene (S) | ug/L | 50 | 57 | 115 | 86 - 123 | T |
| Toluene-d8 (S) | ug/L | 50 | 42 | 85 | 77 - 119 | T |



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**FINAL**

**Workorder:** Shell Mound (T2306953)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **CVAt/1919 - SW-846 7470A** | | | |
| T2306953001 | SED-1 | DGMt/5876 | SW-846 7470A |
| T2306953002 | W-1 | DGMt/5876 | SW-846 7470A |
| **GCSj/4679 - EPA 8151** | | | |
| T2306953003 | SED-1 | EXTj/6207 | 8151 |
| T2306953004 | W-1 | EXTj/6207 | 8151 |
| **GCSt/3277 - EPA 8081** | | | |
| T2306953001 | SED-1 | EXTt/4077 | SW-846 3510C |
| T2306953002 | W-1 | EXTt/4077 | SW-846 3510C |
| **ICPt/3625 - SW-846 6010** | | | |
| T2306953001 | SED-1 | DGMt/5863 | SW-846 3010A |
| T2306953002 | W-1 | DGMt/5863 | SW-846 3010A |
| **MSSt/2416 - SW-846 8270C** | | | |
| T2306953001 | SED-1 | EXTt/4065 | SW-846 3510C |
| T2306953002 | W-1 | EXTt/4065 | SW-846 3510C |
| **MSVt/6348 - SW-846 8260D** | | | |
| T2306953001 | SED-1 | MSVt/6347 | SW-846 5030B |
| **MSVt/6374 - SW-846 8260D** | | | |
| T2306953002 | W-1 | MSVt/6373 | SW-846 5030B |



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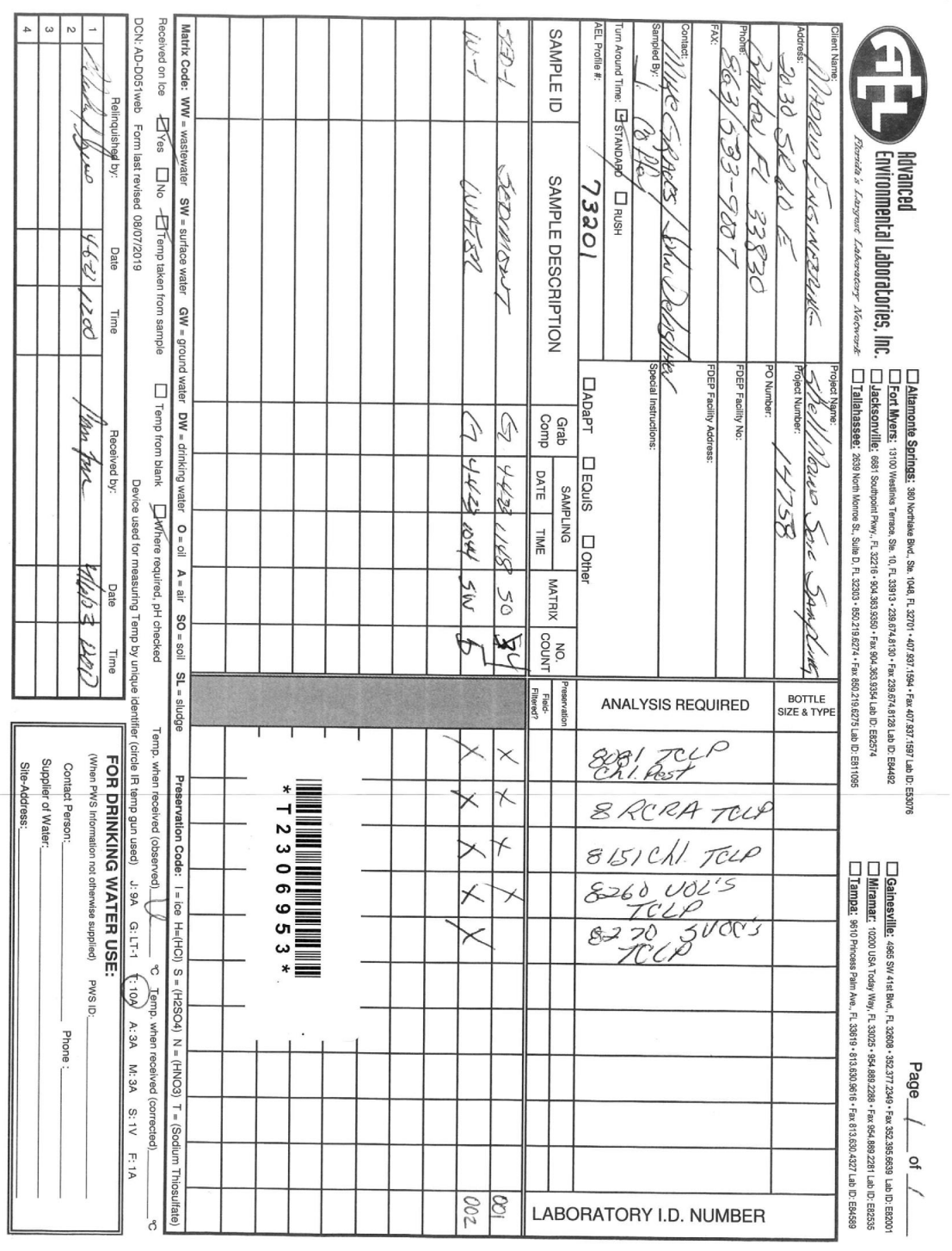
**FINAL**

**Workorder:** Shell Mound (T2306953)



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**FINAL**

**Workorder:** Madrid DRET (T2307757)

May 02, 2023

Mike Graves
Madrid Engineering

RE: Workorder: T2307757 Madrid DRET

Dear Mike Graves:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday April 19, 2023. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sheila Wilcox, Assistant Lab Manager
SWilcox@aellab.com



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**FINAL**

**Workorder:** Madrid DRET (T2307757)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| T2307757001 | Location B | WA | SW-846 6010 | 04/17/2023 16:38 | 04/19/2023 10:00 | 1 | NA |
| T2307757002 | Location B 2 | WA | SW-846 6010 | 04/17/2023 16:40 | 04/19/2023 10:00 | 1 | NA |



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**FINAL**

**Workorder:** Madrid DRET (T2307757)

## Workorder Summary

### Batch Comments

**ICPt/3662 - ICP 6010B Analysis**

The matrix spike duplicate (MSD) recovery of Aluminum for T2307262001 was outside control criteria. Recoveries in the Laboratory Control Sample (LCS) and Matrix Spike (MS) were acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential high bias in this matrix. No further corrective action is required.



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Fax: (813) 630-4327

**FINAL**

**Workorder:** Madrid DRET (T2307757)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |

### Lab Qualifiers

| | |
|---|---|
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**Workorder:** Madrid DRET (T2307757)

## Analytical Results

**Lab ID:** T2307757001 **Date Collected:** 04/17/2023 16:38 **Matrix:** Water
**Sample ID:** Location B **Date Received:** 04/19/2023 10:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS (SW-846 3010A/SW-846 6010)** | | | | | | | | |
| Arsenic | 0.0080 U | mg/L | 0.010 | 0.0080 | 1 | 04/26/2023 12:30 | 04/27/2023 14:16 | T |



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**Workorder:** Madrid DRET (T2307757)

## Analytical Results

**Lab ID:** T2307757002 **Date Collected:** 04/17/2023 16:40 **Matrix:** Water
**Sample ID:** Location B 2 **Date Received:** 04/19/2023 10:00

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **METALS (SW-846 3010A/SW-846 6010)** | | | | | | | | |
| Arsenic | 0.0080 U | mg/L | 0.010 | 0.0080 | 1 | 04/26/2023 12:30 | 04/27/2023 14:18 | T |



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**Workorder:** Madrid DRET (T2307757)

## QC Results

**QC Batch:** ICPt/3662
**Preparation Method:** SW-846 3010A
**Associated Lab IDs:** T2307757001, T2307757002
**Analysis Method:** SW-846 6010

**Method Blank(4767704)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Arsenic | 0.0080 U | mg/L | 0.010 | 0.0080 | T |

**Lab Control Sample (4767705)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Arsenic | mg/L | 1 | .94 | 94 | 80 - 120 | T |

**Matrix Spike (4767706); Matrix Spike Duplicate (4767707); Original (T2307262001); Parent Lab Sample (T2307262001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | mg/L | 1 | 1.1 | 106 | 75 - 125 | 1.1 | 105 | 1 | 20 | T |



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**Workorder:** Madrid DRET (T2307757)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **ICPt/3662 - SW-846 6010** | | | |
| T2307757001 | Location B | DGMt/5932 | SW-846 3010A |
| T2307757002 | Location B 2 | DGMt/5932 | SW-846 3010A |



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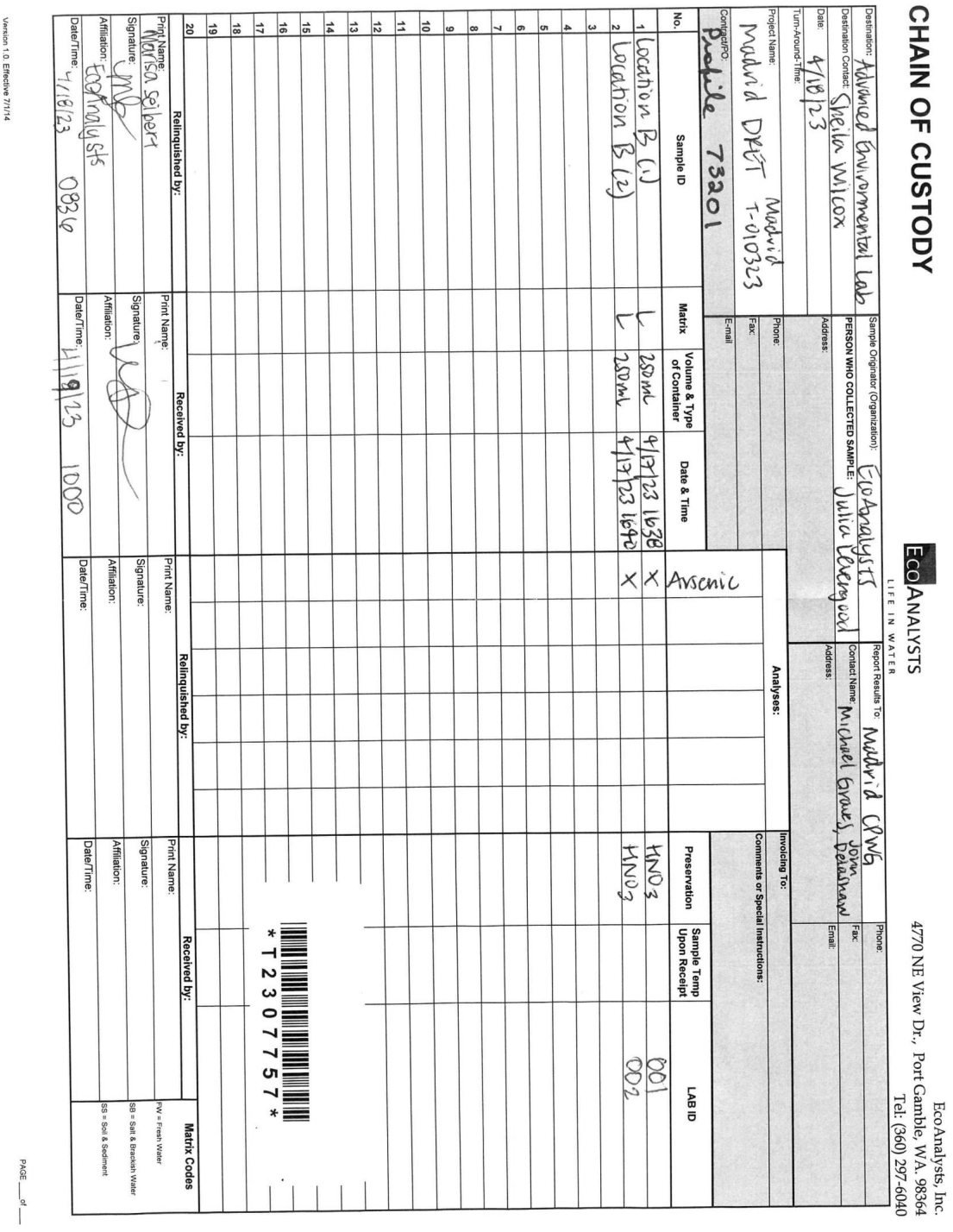

CHAIN OF CUSTODY

EcoAnalysts
LIFE IN WATER

EcoAnalysts, Inc.
4470 NE View Dr., Port Gamble, WA. 98364
Tel: (360) 297-6040

Destination: Advanced Environmental Lab
Destination Contact: Sheila Wilcox
Date: 4/18/23
Turn-Around-Time:
Project Name: Madrid DRET Madrid T-010323
Contract/PO: Profile 73201

Sample Originator (Organization): EcoAnalysts
PERSON WHO COLLECTED SAMPLE: Julia Beveridge
Address:
Phone:
Fax:
E-mail:

Report Results To: Madrid CRWS
Contact Name: Michael Graves, John Belashaw
Address:
Phone:
Fax:
Email:

Invoicing To:

Comments or Special Instructions:

| No. | Sample ID | Matrix | Volume & Type of Container | Date & Time | Analyses: | Preservation | Sample Temp Upon Receipt | LAB ID |
|---|---|---|---|---|---|---|---|---|
| 1 | Location B (1) | L | 250mL | 4/17/23 1638 | X Arsenic | HNO3 | | 001 |
| 2 | Location B (2) | L | 250mL | 4/17/23 1642 | X | HNO3 | | 002 |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | | | | |
| 8 | | | | | | | | |
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| 14 | | | | | | | | |
| 15 | | | | | | | | |
| 16 | | | | | | | | |
| 17 | | | | | | | | |
| 18 | | | | | | | | |
| 19 | | | | | | | | |
| 20 | | | | | | | | |

| Relinquished by: | Received by: | Relinquished by: | Received by: |
|---|---|---|---|
| Print Name: Marisa Seibert | Print Name: | Print Name: | Print Name: |
| Signature: | Signature: | Signature: | Signature: |
| Affiliation: EcoAnalysts | Affiliation: | Affiliation: | Affiliation: |
| Date/Time: 4/18/23 0834 | Date/Time: 4/19/23 1000 | Date/Time: | Date/Time: |

Matrix Codes
PW = Fresh Water
SB = Salt & Brackish Water
SS = Soil & Sediment

*T230775 7*

Version 1.0, Effective 7/1/14

PAGE ___ of ___



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# APPENDIX E
## County Performance Bond

West's Florida Statutes Annotated
Title XVIII. Public Lands and Property (Chapters 253-278)
Chapter 255. Public Property and Publicly Owned Buildings (Refs & Annos)

West's F.S.A. § 255.05

# 255.05. Bond of contractor constructing public buildings; form; action by claimants

Currentness

(1) A person entering into a formal contract with the state or any county, city, or political subdivision thereof, or other public authority or private entity, for the construction of a public building, for the prosecution and completion of a public work, or for repairs upon a public building or public work shall be required, before commencing the work or before recommencing the work after a default or abandonment, to execute and record in the public records of the county where the improvement is located, a payment and performance bond with a surety insurer authorized to do business in this state as surety. A public entity may not require a contractor to secure a surety bond under this section from a specific agent or bonding company.

(a) The bond must state on its front page:

1. The name, principal business address, and phone number of the contractor, the surety, the owner of the property being improved, and, if different from the owner, the contracting public entity.

2. The contract number assigned by the contracting public entity.

3. The bond number assigned by the surety.

4. A description of the project sufficient to identify it, such as a legal description or the street address of the property being improved, and a general description of the improvement.

(b) Before commencing the work or before recommencing the work after a default or abandonment, the contractor shall provide to the public entity a certified copy of the recorded bond. Notwithstanding the terms of the contract or any other law governing prompt payment for construction services, the public entity may not make a payment to the contractor until the contractor has complied with this paragraph. This paragraph applies to contracts entered into on or after October 1, 2012.

(c) The bond shall be conditioned upon the contractor's performance of the construction work in the time and manner prescribed in the contract and promptly making payments to all persons defined in s. 713.01 who furnish labor, services, or materials for the prosecution of the work provided for in the contract. A claimant may apply to the governmental entity having charge of the work for copies of the contract and bond and shall thereupon be furnished with a copy of the contract and the recorded bond. The claimant shall have a cause of action against the contractor and surety for the amount due him or her, including unpaid finance charges due under the claimant's contract. Such action may not involve the public authority in any expense.

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(d) When the work is done for the state and the contract is for $100,000 or less, no payment and performance bond shall be required. At the discretion of the official or board awarding such contract when such work is done for any county, city, political subdivision, or public authority, a person entering into such a contract that is for $200,000 or less may be exempted from executing the payment and performance bond. When such work is done for the state, the Secretary of Management Services may delegate to state agencies the authority to exempt any person entering into such a contract amounting to more than $100,000 but less than $200,000 from executing the payment and performance bond. If an exemption is granted, the officer or official is not personally liable to persons suffering loss because of granting such exemption. The Department of Management Services shall maintain information on the number of requests by state agencies for delegation of authority to waive the bond requirements by agency and project number and whether any request for delegation was denied and the justification for the denial.

(e) Any provision in a payment bond issued on or after October 1, 2012, furnished for public work contracts as provided by this subsection which further restricts the classes of persons protected by the bond, which restricts the venue of any proceeding relating to such bond, which limits or expands the effective duration of the bond, or which adds conditions precedent to the enforcement of a claim against the bond beyond those provided in this section is unenforceable.

(f) The Department of Management Services shall adopt rules with respect to all contracts for $200,000 or less, to provide:

1. Procedures for retaining up to 5 percent of each request for payment submitted by a contractor and procedures for determining disbursements from the amount retained on a pro rata basis to laborers, materialmen, and subcontractors, as defined in s. 713.01.

2. Procedures for requiring certification from laborers, materialmen, and subcontractors, as defined in s. 713.01, before final payment to the contractor that such laborers, materialmen, and subcontractors have no claims against the contractor resulting from the completion of the work provided for in the contract.

The state is not liable to any laborer, materialman, or subcontractor for any amounts greater than the pro rata share as determined under this section.

(g) 1. The amount of the bond shall equal the contract price, except that for a contract in excess of $250 million, if the state, county, municipality, political subdivision, or other public entity finds that a bond in the amount of the contract price is not reasonably available, the public owner shall set the amount of the bond at the largest amount reasonably available, but not less than $250 million.

2. For construction-management or design-build contracts, if the public owner does not include in the bond amount the cost of design or other nonconstruction services, the bond may not be conditioned on performance of such services or payment to persons furnishing such services. Notwithstanding paragraphs (c) and (e), such a bond may exclude persons furnishing such services from the classes of persons protected by the bond.

(2)(a) 1. If a claimant is no longer furnishing labor, services, or materials on a project, a contractor or the contractor's agent or attorney may elect to shorten the time within which an action to enforce any claim against a payment bond must be commenced by recording in the clerk's office a notice in substantially the following form:

NOTICE OF CONTEST OF CLAIM
AGAINST PAYMENT BOND

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To: ... (Name and address of claimant) ...

You are notified that the undersigned contests your notice of nonpayment, dated.....,, ....., and served on the undersigned on ....., ....., and that the time within which you may file suit to enforce your claim is limited to 60 days after the date of service of this notice.

DATED on ....., .....

Signed: ... (Contractor or Attorney) ...

The claim of a claimant upon whom such notice is served and who fails to institute a suit to enforce his or her claim against the payment bond within 60 days after service of such notice is extinguished automatically. The contractor or the contractor's attorney shall serve a copy of the notice of contest on the claimant at the address shown in the notice of nonpayment or most recent amendment thereto and shall certify to such service on the face of the notice and record the notice. After the clerk records the notice with the certificate of service, the clerk shall serve, in accordance with s. 713.18, a copy of such recorded notice on the claimant and the contractor or the contractor's attorney. The clerk of the court shall charge fees for such services as provided by law.

2. A claimant, except a laborer, who is not in privity with the contractor shall, before commencing or not later than 45 days after commencing to furnish labor, services, or materials for the prosecution of the work, serve the contractor with a written notice that he or she intends to look to the bond for protection. If the payment bond is not recorded before the commencement of work or before the recommencement of work after a default or abandonment as required by subsection (1), the claimant may serve the contractor with such written notice up to 45 days after the date that the claimant is served with a copy of the bond. A claimant who is not in privity with the contractor and who has not received payment for furnishing his or her labor, services, or materials shall serve a written notice of nonpayment on the contractor and a copy of the notice of nonpayment on the surety. The notice of nonpayment must be under oath and served during the progress of the work or thereafter but may not be served earlier than 45 days after the first furnishing of labor, services, or materials by the claimant or later than 90 days after the final furnishing of the labor, services, or materials by the claimant or, with respect to rental equipment, later than 90 days after the date that the rental equipment was last on the site of the improvement and available for use. Any notice of nonpayment served by a claimant who is not in privity with the contractor which includes sums for retainage must specify the portion of the amount claimed for retainage. An action for the labor, services, or materials may not be instituted against the contractor or the surety unless the notice to the contractor and notice of nonpayment have been served, if required by this section. Notices required or permitted under this section must be served in accordance with s. 713.18. A claimant may not waive in advance his or her right to bring an action under the bond against the surety. In any action brought to enforce a claim against a payment bond under this section, the prevailing party is entitled to recover a reasonable fee for the services of his or her attorney for trial and appeal or for arbitration, in an amount to be determined by the court or arbitrator, which fee must be taxed as part of the prevailing party's costs, as allowed in equitable actions. The time periods for service of a notice of nonpayment or for bringing an action against a contractor or a surety are measured from the last day of furnishing labor, services, or materials by the claimant and may not be measured by other standards, such as the issuance of a certificate of occupancy or the issuance of a certificate of substantial completion. The negligent inclusion or omission of any information in the notice of nonpayment that has not prejudiced the contractor or surety does not constitute a default that operates to defeat an otherwise valid bond claim. A claimant who serves a fraudulent notice of nonpayment forfeits his or her rights under the bond. A notice of nonpayment is fraudulent if the claimant has willfully exaggerated the amount unpaid, willfully included a claim for work not performed or materials not furnished for the subject improvement, or prepared the notice with such willful and gross negligence as to amount to a willful exaggeration. However, a minor mistake or error in a notice of nonpayment, or a good faith dispute as to the amount unpaid, does not constitute a willful exaggeration that operates to defeat an otherwise valid claim against the bond. The service of a fraudulent notice of nonpayment is a complete defense to the claimant's claim against the bond. The notice of nonpayment under this subparagraph must include the following information, current as of the date of the notice, and must be in substantially the following form:

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NOTICE OF NONPAYMENT

To: ... (Name of contractor and address) ...

... (Name of surety and address) ...

The undersigned claimant notifies you that:

1. Claimant has furnished ... (describe labor, services, or materials) ... for the improvement of the real property identified as ... (property description).... The corresponding amount unpaid to date is $...., of which $.... is unpaid retainage.

2. Claimant has been paid to date the amount of $... for previously furnishing ... (describe labor, services, or materials) ... for this improvement.

3. Claimant expects to furnish ... (describe labor, services, or materials) ... for this improvement in the future (if known), and the corresponding amount expected to become due is $.... (if known).

I declare that I have read the foregoing Notice of Nonpayment and that the facts stated in it are true to the best of my knowledge and belief.

DATED on ....., .....

... (Signature and address of claimant) ...
STATE OF FLORIDA

COUNTY OF .....

The foregoing instrument was sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or sworn to (or affirmed) by ☐ online notarization this .... day of ...., ... (year) ..., by ... (name of signatory) ....

... (Signature of Notary Public--State of Florida) ...

... (Print, Type, or Stamp Commissioned Name of Notary Public) ...

Personally Known ..... OR Produced Identification .....

Type of Identification Produced

(b) When a person is required to execute a waiver of his or her right to make a claim against the payment bond in exchange for, or to induce payment of, a progress payment, the waiver may be in substantially the following form:

**WAIVER OF RIGHT TO CLAIM AGAINST THE PAYMENT BOND**

**(PROGRESS PAYMENT)**

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The undersigned, in consideration of the sum of $___, hereby waives its right to claim against the payment bond for labor, services, or materials furnished through (insert date) to (insert the name of your customer) on the job of (insert the name of the owner) , for improvements to the following described project:

**(description of project)**

This waiver does not cover any retention or any labor, services, or materials furnished after the date specified.

DATED ON _____, ___.

(Claimant)
By:_____

(c) When a person is required to execute a waiver of his or her right to make a claim against the payment bond, in exchange for, or to induce payment of, the final payment, the waiver may be in substantially the following form:

**WAIVER OF RIGHT TO CLAIM AGAINST THE PAYMENT BOND (FINAL PAYMENT)**

The undersigned, in consideration of the final payment in the amount of $___, hereby waives its right to claim against the payment bond for labor, services, or materials furnished to (insert the name of your customer) on the job of (insert the name of the owner) , for improvements to the following described project:

**(description of project)**

DATED ON _____, ___.

(Claimant)
By:_____

(d) A person may not require a claimant to furnish a waiver that is different from the forms in paragraphs (b) and (c).

(e) A claimant who executes a waiver in exchange for a check may condition the waiver on payment of the check.

(f) A waiver that is not substantially similar to the forms in this subsection is enforceable in accordance with its terms.

(3) The bond required in subsection (1) may be in substantially the following form:

**PUBLIC CONSTRUCTION BOND**

Bond No. (enter bond number)
BY THIS BOND, We ____, as Principal and ____, a corporation, as Surety, are bound to ____, herein called Owner, in the sum of $____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

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1. Performs the contract dated ____, ____, between Principal and Owner for construction of ____, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and

2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and

3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and

4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON ____, ____.

(Name of Principal)
By (As Attorney in Fact)
(Name of Surety)

(4) The payment bond provisions of all bonds required by subsection (1) shall be construed and deemed statutory payment bonds furnished pursuant to this section and such bonds shall not under any circumstances be converted into common law bonds.

(5) In addition to the provisions of chapter 47, any action authorized under this section may be brought in the county in which the public building or public work is being constructed or repaired. This subsection shall not apply to an action instituted prior to May 17, 1977.

(6) All payment bond forms used by a public owner and all payment bonds executed pursuant to this section by a surety shall make reference to this section by number, shall contain reference to the notice and time limitation provisions in subsections (2) and (10), and shall comply with the requirements of paragraph (1)(a).

(7) In lieu of the bond required by this section, a contractor may file with the state, county, city, or other political authority an alternative form of security in the form of cash; a money order; a certified check; a cashier's check; or a domestic corporate bond, note, or debenture as authorized in s. 625.317. Any such alternative form of security is for the same purpose and subject to the same conditions as those applicable to the bond required by this section. The appropriate state, county, city, or other political subdivision shall determine the required value of an alternative form of security.

(8) When a contractor has furnished a payment bond pursuant to this section, he or she may, when the state, county, municipality, political subdivision, or other public authority makes any payment to the contractor or directly to a claimant, serve a written demand on any claimant who is not in privity with the contractor for a written statement under oath of his or her account showing the nature of the labor or services performed and to be performed, if any; the materials furnished; the materials to be furnished, if known; the amount paid on account to date; the amount due; and the amount to become due, if known, as of the date of the statement by the claimant. Any such demand to a claimant who is not in privity with the contractor must be

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served on the claimant at the address and to the attention of any person who is designated to receive the demand in the notice to contractor served by the claimant. The failure or refusal to furnish the statement does not deprive the claimant of his or her rights under the bond if the demand is not served at the address of the claimant or directed to the attention of the person designated to receive the demand in the notice to contractor. The failure to furnish the statement within 30 days after the demand, or the furnishing of a false or fraudulent statement, deprives the claimant who fails to furnish the statement, or who furnishes the false or fraudulent statement, of his or her rights under the bond. If the contractor serves more than one demand for statement of account on a claimant and none of the information regarding the account has changed since the claimant's last response to a demand, the failure or refusal to furnish such statement does not deprive the claimant of his or her rights under the bond. The negligent inclusion or omission of any information deprives the claimant of his or her rights under the bond to the extent that the contractor can demonstrate prejudice from such act or omission by the claimant. The failure to furnish a response to a demand for statement of account does not affect the validity of any claim on the bond being enforced in a lawsuit filed before the date the demand for statement of account is received by the claimant.

(9) On any public works project for which the public authority requires a performance and payment bond, suits at law and in equity may be brought and maintained by and against the public authority on any contract claim arising from breach of an express provision or an implied covenant of a written agreement or a written directive issued by the public authority pursuant to the written agreement. In any such suit, the public authority and the contractor shall have all of the same rights and obligations as a private person under a like contract except that no liability may be based on an oral modification of either the written contract or written directive. Nothing herein shall be construed to waive the sovereign immunity of the state and its political subdivisions from equitable claims and equitable remedies. The provisions of this subsection shall apply only to contracts entered into on or after July 1, 1999.

(10) An action, except an action for recovery of retainage, must be instituted against the contractor or the surety on the payment bond or the payment provisions of a combined payment and performance bond within 1 year after the performance of the labor or completion of delivery of the materials or supplies. An action for recovery of retainage must be instituted against the contractor or the surety within 1 year after the performance of the labor or completion of delivery of the materials or supplies; however, such an action may not be instituted until one of the following conditions is satisfied:

(a) The public entity has paid out the claimant's retainage to the contractor, and the time provided under s. 218.735 or s. 255.073(3) for payment of that retainage to the claimant has expired;

(b) The claimant has completed all work required under its contract and 70 days have passed since the contractor sent its final payment request to the public entity; or

(c) At least 160 days have passed since reaching substantial completion of the construction services purchased, as defined in the contract, or if not defined in the contract, since reaching beneficial occupancy or use of the project.

(d) The claimant has asked the contractor, in writing, for any of the following information and the contractor has failed to respond to the claimant's request, in writing, within 10 days after receipt of the request:

1. Whether the project has reached substantial completion, as that term is defined in the contract, or if not defined in the contract, if beneficial occupancy or use of the project has occurred.

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2. Whether the contractor has received payment of the claimant's retainage, and if so, the date the retainage was received by the contractor.

3. Whether the contractor has sent its final payment request to the public entity, and if so, the date on which the final payment request was sent.

If none of the conditions described in paragraph (a), paragraph (b), paragraph (c), or paragraph (d) is satisfied and an action for recovery of retainage cannot be instituted within the 1-year limitation period set forth in this subsection, this limitation period shall be extended until 120 days after one of these conditions is satisfied.

(11) When a contractor furnishes and records a payment and performance bond for a public works project in accordance with this section and provides the public authority with a written consent from the surety regarding the project or payment in question, the public authority may not condition its payment to the contractor on the production of a release, waiver, or like documentation from a claimant demonstrating that the claimant does not have an outstanding claim against the contractor, the surety, the payment bond, or the public authority for payments due on labor, services, or materials furnished on the public works project. The surety may, in a writing served on the public authority, revoke its consent or direct that the public authority withhold a specified amount from a payment, which shall be effective upon receipt. This subsection applies to contracts entered into on or after October 1, 2012.

(12) Unless otherwise provided in this section, service of any document must be made in accordance with s. 713.18.

**Credits**

Added by Laws 1915, c. 6867, § 1; Rev.Gen.St.1920, § 3533; Laws 1925, c. 10035, § 1; Comp.Gen.Laws 1927, § 5397; Laws 1959, c. 59-491, § 1; Laws 1963, c. 63-437, § 1; Laws 1971, c. 71-47, § 1; Laws 1977, c. 77-40, §§ 1, 2; Laws 1977, c. 77-78, § 1; Laws 1977, c. 77-81, § 1; Laws 1980, c. 80-32, § 1; Laws 1980, c. 80-54, § 1; Laws 1982, c. 82-196, § 1; Laws 1984, c. 84-288, § 2; Laws 1985, c. 85-130, § 2; Laws 1988, c. 88-397, § 2; Laws 1990, c. 90-109, § 21. Amended by Laws 1991, c. 91-162, § 4, eff. May 28, 1991; Laws 1992, c. 92-279, § 176, eff. July 1, 1992; Laws 1992, c. 92-286, § 2, eff. Oct. 1, 1992; Laws 1993, c. 93-96, § 1, eff. April 25, 1993; Laws 1994, c. 94-322, § 5, eff. May 31, 1994; Laws 1995, c. 95-148, § 849, eff. July 10, 1995; Laws 1995, c. 95-196, § 25, eff. June 8, 1995; Laws 1997, c. 97-219, § 1, eff. Oct. 1, 1997; Laws 1998, c. 98-135, § 1, eff. July 1, 1998; Laws 1999, c. 99-6, § 20, eff. June 29, 1999; Laws 1999, c. 99-13, § 33, eff. June 29, 1999; Laws 1999, c. 99-345, § 4, eff. July 1, 1999; Laws 1999, c. 99-386, § 2, eff. June 18, 1999; Laws 2001, c. 2001-118, § 2, eff. May 31, 2001; Laws 2001, c. 2001-211, § 3, eff. July 1, 2001; Laws 2005, c. 2005-218, § 1, eff. June 14, 2005; Laws 2005, c. 2005-227, § 1, eff. Oct. 1, 2005; Laws 2005, c. 2005-230, § 13, eff. Oct. 1, 2005; Laws 2007, c. 2007-159, § 1, eff. July 1, 2007; Laws 2007, c. 2007-221, § 1, eff. July 1, 2007; Laws 2012, c. 2012-211, § 2, eff. Oct. 1, 2012; Laws 2019, c. 2019-94, § 1, eff. Oct. 1, 2019; Laws 2020, c. 2020-173, § 2, eff. Oct. 1, 2020; Laws 2023, c. 2023-226, § 1, eff. Oct. 1, 2023.

West's F. S. A. § 255.05, FL ST § 255.05
Current with laws, joint and concurrent resolutions and memorials in effect from the 2025 Special Session C and through May 2, 2025, of the 2025 first regular session.

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