

CITY OF RIVIERA BEACH

CONTRACT SPECIFICATIONS

For

SINGER ISLAND – PALM BEACH ISLES BRIDGE IMPROVEMENT PROJECT

RIVIERA BEACH PROJECT #: 996-20-1



May 2020

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SINGER ISLAND – PALM BEACH ISLES BRIDGE IMPROVEMENTS

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**PART 1 –
GENERAL
REQUIREMENTS**

ADVERTISEMENT FOR BIDS

SINGER ISLAND – PALM BEACH ISLES BRIDGE IMPROVEMENTS

BID #996-20-1



Sealed proposals for furnishing at their expense all labor, supervisors, equipment, machinery, tools, materials, transportation, and other services necessary to replace the bridges in Palm Beach Isles subdivision on Singer Island in the City of Riviera Beach, Palm Beach County, Florida will be received until **11:00 a.m.(EST), Thursday, June 25th, 2020** at the office of the City Clerk, 600 West Blue Heron Boulevard, Riviera Beach, Florida. Bids will be opened and publicly read aloud in the Council Chambers on the specified date and time. No bids will be received after the time and date specified.

The project involves the permitting, and construction of bridges, associated roadway, sidewalk and utility relocation and upgrade in the City of Riviera Beach. The work includes, but is not limited to, the replacement of the existing bridges on Island Drive and Grand Bahama Lane in the Palm Beach Isles neighborhood on Singer Island. This is a general summary and is not intended to be a complete and all-inclusive description of the work items. Contractor shall review the construction plans, notes and details for more information. The bridges will be replaced in their current location, with minor widening to accommodate foot/bike traffic within a shoulder. The new bridges will have planters to match the existing bridges. The intent is for the bridges to closely resemble the existing condition. Work includes bridge construction, bulkheads, concrete, asphalt, utilities, drainage, and landscaping. Associated maintenance of traffic, temporary utility services, and environmental protections are also required.

The two existing bridges on Grand Bahama Lane are both approximately 17 feet in length (length of bridge deck) and approximately 31 feet in width two travel lanes (one in each direction). The four existing bridges on Island Drive are all approximately 17 feet in length (length of bridge deck) and approximately 20 feet in width. The existing Island Drive bridges include a single travel lane only. No sidewalks or bicycle facilities are located on the existing bridges. The new bridges will be similar and placed along the same alignment. The proposed typical section for the Grand Bahama bridges includes 10-foot lane widths in each direction, 4-foot shoulders with traffic barrier and a 4-foot planter/utility area; which equates to a widening of approximately 6 feet. The proposed typical section for the four Island Drive Bridges includes a 10-foot lane width, 4-foot shoulders and a 4-foot planter/utility area with a traffic barrier.

Access to the homes shall be provided at all times during construction. One lane (one way at a time) is required and the Contractor shall provide the associated Maintenance of Traffic. The

Contractor is responsible for public outreach to the neighborhood to communicate the project schedule and impacts. The existing water, sewer, gas, communication, electric, and cable tv lines shall be replaced with the bridges with no interruption of service. The new planters will also serve as a location for the utility pipelines.

The bridge construction shall follow FDOT standards and specifications with the exception of the traffic railings that will be Texas DOT Traffic Railing Type T221. The proposed replacement bridge abutments and proposed replacement bulkhead walls at Island Drive will be constructed in front of the existing abutments/ bulkhead walls. Bridge construction at both locations will involve removal of the deck of each bridge first to enable construction of the new abutments. The new abutments will consist of 18" square, prestressed concrete piles with precast concrete sheet panels and a cast-in-place concrete cap. Holes for the piles need to be pre-formed due to the presence of hard rock relatively close to the channel bed. A concrete cap will be cast over the piles and sheet panels to support the bridge deck. The bridge decks will consist of precast, prestressed concrete slab units. The deck units will be laterally post-tensioned to form a single bridge deck. The bridge decks will include a concrete topping to form the required profile of the riding surface, the traffic railings and planter walls.

Construction of the bulkhead walls at Island Drive will be very similar to the bridge abutments. Following the installation of the piles and sheet panels, deadman anchors will be installed at top of the piles to tie back the walls. Finally, the concrete cap will be cast over the piles and sheet panels. Elements of the existing bridge abutments and bulkhead walls will be left in place behind the new construction. The space between the existing and proposed walls will be filled with rock wrapped in filter fabric. The existing caps will be removed once the new piles and sheet panels are installed.

Precautions to avoid disturbing the seagrasses in the waterway are required by the US Army Corps of Engineers. Construction activities at Island Drive shall take place from the shoreline. At Grand Bahama Lane, a platform is allowed due to the lack of working space available from the shoreline. It is assumed that the contractor will construct a temporary work platform on the north side of the island between the two bridges. This is being included in the USACE permit for the project. If the contractor proposes other construction methods that will impact the submerged lands around the bridges, the contractor will need to address and seek approval for these methods with the USACE. The Contractor shall submit a Debris Containment Plan for review and approval by the City and the USACE. Modifications shall be approved by USACE prior to any work. No work may be performed prior to USACE permit issuance.

The following supplementary documents are included in the bid package:

1. Temporary Support Details
2. SFWMD Permit 50-100349-P
3. USACE Permit Sketches
4. USACE Nationwide Permits General Conditions
5. Standard Manatee Conditions for In-Water Work
6. NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions

The contractor shall be responsible for protection of all existing infrastructure in the development area. The contractor shall be responsible for restoration of pavement and sodding of all disturbed areas. The Contractor prior, during and at the completion of the demolition part of this work shall follow all the required notifications, protection, regulatory requirements and execution procedures described in Section 02050 of the Project Specifications.

Copies of Plans and Specifications and Contract Documents in electronic format (USB) may be obtained from the City Procurement Department, 2051 Dr. Martin Luther King Jr. Blvd. Suite #310 Riviera Beach, FL. 33404 upon receipt of a non-refundable deposit in the amount of twenty dollars (\$20.00) payable to the City of Riviera Beach. Payment shall be made at the Billing and Collections Department located at 600 West Blue Heron Boulevard, Riviera Beach. The work shall be constructed in accordance with the plans and specifications, included in the Contract Documents.

The Owner reserves the right to reject any or all bids, and the award, if award is made, will be made to the lowest responsible, responsive bidder.

Bids shall be:

1. Submitted on standard forms, which will be furnished with the Project Manual.

Bids must be submitted on all bid items;

2. Accompanied by a certified check (drawn in favor of the City) or by a Bid Bond in the amount of 5% of the total bid. No bid bond is required if the total bid price is less than \$100,000.00

3. Irrevocable after the time and date set for the opening of bids and for a period of 90 days thereafter, and submitted in sealed envelopes marked "Singer Island – Palm Beach Isles Bridge Improvements." In addition, the bidder's name and address shall be shown on the outside of the sealed envelope. If submitted by mail, the sealed envelope shall be enclosed in a separate mailing envelope.

The City of Riviera Beach reserves the right to waive informalities and to reject any or all bids.

CITY OF RIVIERA BEACH
PALM BEACH COUNTY, FLORIDA
Althea Pemsel, Director of Procurement

CITY OF RIVIERA BEACH

BID #996-20-1

**SINGER ISLAND – PALM BEACH
ISLES BRIDGE IMPROVEMENTS**



Event	Date
Date ITB Issued	May 20, 2020
Due date for bidder questions	June 5, 2020
Due date for bidder responses	June 12, 2020
ITB Due Date	June 25, 2020
Proposed CRB Award Date	July 15, 2020

BID CONTACT:

ALTHEA PEMSEL, DIRECTOR PROCUREMENT

APEMSEL@RIVIERABEACH.ORG

**NO PHONE INQUIRIES WILL BE ACCEPTED.
ALL CORRESPONDENCE SHALL BE DIRECTED
TO THE CITY CONTACT INDICATED ABOVE VIA
EMAIL OR FAX.**

SUBMIT BID TO:

City of Riviera Beach Office of the City Clerk
 600 West Blue Heron
 Riviera Beach, FL 33404
 (561) 845-4090

CITY OF RIVIERA BEACH
 PALM BEACH, FLORIDA

INVITATION FOR BID

Bidder Acknowledgment

- GENERAL CONDITIONS -

THESE INSTRUCTIONS ARE STANDARD FOR ALL CONTRACTS FOR COMMODITIES/SERVICES ISSUED BY THE CITY OF RIVIERA BEACH. THE CITY OF RIVIERA BEACH MAY DELETE, SUPERSEDE OR MODIFY ANY OF THESE STANDARD INSTRUCTIONS FOR A PARTICULAR CONTRACT BY INDICATING SUCH CHANGE IN THE SPECIAL INSTRUCTIONS TO BIDDERS OR IN THE BID SHEETS. BY ACCEPTANCE OF A PURCHASE ORDER ISSUED BY THE CITY, BIDDER AGREES THAT THE PROVISIONS INCLUDED WITHIN THIS INVITATION FOR BID SHALL PREVAIL OVER ANY CONFLICTING PROVISION WITHIN ANY STANDARD FORM CONTRACT OF THE BIDDER REGARDLESS OF ANY LANGUAGE IN BIDDER'S CONTRACT TO THE CONTRARY.

BIDDER ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED WITH YOUR BID

SEALED BIDS: This form must be executed and submitted with all bid sheets in a sealed envelope. (DO NOT INCLUDE MORE THAN ONE BID PER ENVELOPE). The face of the envelope shall contain the above address, the date and the time of bid opening, and bid number. Bids not submitted on attached bid form may be rejected. All bids are subjected to the conditions specified herein. Those that do not comply with these conditions are subject to rejection.

1. EXECUTION OF BID: Bid must contain an original signature of an individual authorized to bind the bidder. Bid must be typed or printed in ink. All corrections made by bidder to his bid must also be initialed. The bidder's name should also appear on each page of the bid sheet if required. Bids will not be accepted from firms in arrears to the City of Riviera Beach upon debt or contract nor from a defaulter upon obligations to the City of Riviera Beach. Bidder certifies by signing the bid that no principals or corporate officers of the firm were principals or corporate officers in any other firm, which may have been suspended or debarred from doing business with the City within the last three years, unless so noted in the bid documents.

2. TIE BIDS: In case of tie bids, the award will be made in the following preference:

**BIDDER WITHIN CITY LIMITS OF RIVIERA BEACH.
 BIDDER WITHIN PALM BEACH COUNTY.
 BIDDER WITHIN THE STATE OF FLORIDA.**

3. NO BID: If not submitting a bid, respond by returning this Bidder Acknowledgement form, marking it "NO BID", no later than the stated bid opening date and hour, and explain the reason in the space provided. Failure to respond without justification may be cause for removal of the bidder's name from the bid mailing list.

4. BID WITHDRAWAL: No bidder may withdraw his or her bid before the expiration of ninety (90) calendar days from the date of bid opening.

5. BID OPENING: Shall be public, on date, location and time specified on the bid form. The official time is the time clock located in the City Clerk's Office and will be accepted by all parties without reservation. It is the bidder's responsibility to assure that the bid is delivered on date, location and time specified on the bid form. Bids, which for any reason are not so delivered, will not be considered. Bid files and any bids after they are opened are exempt from public examination until an intended decision is announced or until 30 days from the opening, whichever is earlier (Florida Statutes Section 119.071) may be examined during normal working hours by appointment. Bid tabulations are available for inspection upon request. NOTE: Except as required by Florida statues, bids are exempt from release for certain periods of time after bid opening.

BID WILL BE DUE and may not be withdrawn within 90 calendar days after such date and time. **6/25/2020 11:00 A.M. (EST)**

BID TITLE: **SINGER ISLAND -PB ISLES BRIGES**

BID NO. **996-20-1**

BUYER: **Althea Pemsel (561) 845-4180**

DELIVERY DATE: **6/25/2020**

SEE SPECIAL INSTRUCTION

CASH DISCOUNT TERMS

**IF BID EXCEEDS \$100,000,
 BIDDER MUST PROVIDE
 BID BOND OR CASHIERS
 CHECK IN THE AMOUNT
 OF 5% OF BID OR BID
 WILL BE REJECTED**

\$ _____

TOTAL BID AMOUNT: \$ _____

FEDERAL EMPLOYER I.D. or SOCIAL SECURITY NUMBER

DUN & BRADSTREET NUMBER

BIDDER NAME

BIDDER MAILING ADDRESS/CITY/STATE/ZIP

AREA CODE TELEPHONE CONTACT PERSON
 NO.

FAX NO. INTERNET ADDRESS

 AUTHORIZED SIGNATURE (original in ink)

 TYPED NAME OF SIGNER

 TITLE

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same items/services, and is in all respects fair and without collusion or fraud, I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder. Further by signature of this form, pages 1 through 4 are acknowledged and accepted as well as any special instruction sheet(s) if applicable.

6. **ADDENDA TO BID:** The City reserves the right to amend this Bid prior to the Bid opening date indicated. Only written addenda will be binding. If, upon review, material errors in specifications are found, contact the Procurement Department immediately, prior to Bid opening date, to allow for review and subsequent clarification on the part of the City.

7. **ACCEPTANCE / REJECTION OF BIDS** The City of Riviera Beach reserves the right to accept or to reject any or all bids and to make the award to that bidder, who in the opinion of the City will be in the best interest of and/or the most advantageous to the City. The City of Riviera Beach also reserves the right to reject the bid of any vendor who has previously failed in the proper performance of an award to delivery on time contracts of a similar nature or who is not in the position to perform properly under this award.

The Contract will be awarded to the lowest, responsible and responsive bidder. The Procurement Director reserves the right to reject any and all bids and to waive any informality in bids received whenever such rejection or waiver is in the best interest of the City.

In determining responsibility, the following qualifications, in addition to price, will be considered in the evaluation of the bid:

- (a) The ability, capacity, and skill of the bidder to perform the service required.
- (b) Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference.
- (c) The character, integrity, reputation, judgment, experience and efficiency of the bidder.
- (d) The quality of performance of previous contracts or services.
- (e) The previous and existing compliance by the bidder with the laws and ordinances relating to the contract or service.
- (f) The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service.
- (g) The quality, availability, and adaptability of the supplies or services to the particular use required.
- (h) The ability of the bidder to provide future maintenance and service for the use of the subject of the contract.
- (i) Whether the bidder is in arrears to the City on a debt or contract or is a defaulter on surety to the City, or whether the bidder's taxes or assessments are delinquent.
- (j) Such other information as may be required or obtained.

8. **LEGAL REQUIREMENTS:** Federal, State, County and local laws, ordinances, rules and regulations that in any manner affect the items covered herein apply. Lack of knowledge by the bidder shall in no way be a cause for relief from responsibility.

The City of Riviera Beach is committed to assuring equal opportunity in the award of contracts and, therefore, complies with all laws prohibiting discrimination on the basis of race, color, religion, national origin, age, sex, sexual orientation, disability and marital status.

Minority Business Enterprise (MBE) indicates a business entity, which is owned and operated by a minority. In this instance, minority group members are citizens of the United States or lawfully admitted permanent residents who are Blacks, Hispanics, Women, Native Americans, Asian-Pacific, Asian-Indian, and eligible others as outlined in Procurement Ordinance Sec. 10-301. Minority owned businesses wishing to participate in the City procurement process may contact the Procurement Department for information and assistance.

In compliance with Florida Public Entity Crime Statute (Section 287.132, 133), the attached Public Entity Crime Form should be fully executed, notarized and submitted with bid response once per calendar

year. No award will be executed with any person or affiliate identified on the State of Florida Department of General Services "convicted vendor" list. This list is defined as consisting of persons and affiliates who are disqualified from public contracting and procurement process because they have been found guilty of a public entity crime. No public entity shall award any contract to, or transact any business in excess of the threshold amount provided in Section 287.017 without receipt of the statement.

In compliance with Florida Statute (Section 287.087) attached form "Drug Free Workplace Certification" should be fully executed and submitted with bid response in order to be considered for a preference whenever two (2) or more bids/proposals which are equal with respect to price, quality and service are received by the City.

The obligations of the City under this award are subject to the availability of funds lawfully appropriated for its purpose.

9. **PRICES, TERMS & PAYMENTS:** Firm prices shall be bid and include all handling, set up, shipping and inside delivery charges to the destination shown herein unless otherwise indicated.

(a) **The Bidder:** in submitting this bid certifies that the prices quoted herein are not higher than the prices at which the same commodity(s) or service(s) is sold in approximately similar quantities under similar terms and conditions to any purchaser whomsoever.

(b) **F.O.B.** - as specified in Special Instructions to bidder.

(c) **TIE BIDS:** The award on tie bids will be in accordance with the provisions of the Procurement Code.

(d) **TAXES:** City of Riviera Beach is exempt from Federal Excise and Florida Sales taxes on direct purchase of tangible property. Exemption numbers appear on purchase order. The Contractor shall pay all applicable sales, consumer, land use, or other similar taxed required by law. The Contractor is responsible for reviewing the pertinent State Statutes involving the sales tax and complying with all requirements.

(e) **DISCOUNTS:** Bidders may offer a cash discount for prompt payment. However, such discounts will not be considered in determining the lowest bid cost for bid evaluation purposes. Bidders should reflect any discounts to be considered in the bid evaluation in the unit prices bid.

(f) **MISTAKES:** Bidders are cautioned to examine all specifications, drawings, delivery instructions, unit prices, extensions and all other special conditions pertaining to the bid. Failure of the bidder to examine all pertinent documents shall not entitle the bidder to any relief from the conditions imposed in the contract. In case of mistakes in extension, the unit price shall govern. Multiplication or addition errors are deemed clerical errors and shall be corrected by the City.

(g) **ORDERING:** The City of Riviera Beach reserves the right to purchase commodities/services specified herein through contracts established by other governmental agencies or through separate procurement actions due to unique or special needs. If an urgent delivery is required, within a shorter period than the delivery time specified in the contract and if the seller is unable to comply therewith, the City of Riviera Beach reserves the right to obtain such delivery from others without penalty or prejudice to the City or to the seller.

10. **TERMINATION:**

(a) **FUND-OUT:** The City of Riviera Beach City Council shall be the final authority as to availability of funds and how such available funds are to be allotted and expended. In the event funds for this project/purchase are not made available or otherwise allocated the City may terminate in accordance with the contract.

11. **CONDITIONS AND PACKAGING:** Unless otherwise stated in the special instructions to bidders or the bid sheets, or specifically ordered from an accepted price list, deliveries must consist only of new and unused goods and shall be the current standards production model available at the time of the bid. The goods must be suitably packaged

for shipment by common carrier. Each container or multiple units or items otherwise packaged shall bear a label, imprint, stencil or other legible markings stating name of manufacturer or supplier, purchase order number and any other markings required by specifications, or other acceptable means of identifying vendor and purchase order number.

12. **SAFETY STANDARDS:** Unless otherwise stipulated in the bid, all manufacturing items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards there under. In compliance with Chapter 442, Florida Statutes, any toxic substance listed in Section 38F-41.03 of the Florida Administrative Code delivered from a contract resulting from this bid must be accompanied by a Material Safety Data Sheet (MSDS). A Material Safety Data Sheet (MSDS) should also be submitted to the City of Riviera Beach Risk Management Division, 600 W. Blue Heron Blvd., Riviera Beach, FL 33404. The MSDS must include the following information.

- (a) The chemical name and the common name of the toxic substance.
- (b) The hazards or other risks in the use of the toxic substance, including:
 1. The potential for fire, explosion, corrosively, and reactivity;
 2. The known acute and chronic Health effects of risks from exposure, including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance; and
 3. The primary routes of entry and symptoms of over-exposure.
- (c) The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of overexposure.
- (b) The emergency procedure for spills, fire, disposal, and first aid.
- (c) A description in lay terms of the known specific potential health risks posed by the toxic substance intended to alert any person reading this information.
- (d) The year and month, if available, that the information was compiled and the name, address, and emergency telephone number of the manufacturer responsible for preparing the information.

13. **ALTERNATIVES / APPROVED EQUAL / DEVIATIONS:**

Unless otherwise specified, the mention of a particular manufacturer's brand name or number in the specifications does not imply that this particular product is the only one that will be considered for purchase. This reference is intended solely to designate the type or quality of merchandise that will be acceptable. Alternate offers will be considered and must include descriptive literature and/or specifications.

The determination as to whether any alternate product or service is or is not equal shall be made by the City of Riviera Beach and such determination shall be final and binding upon all bidders.

Although the City of Riviera Beach provides for the consideration of alternate bids, the bid is to be awarded to the lowest responsible and responsive bidder.

The bidder shall be responsible for reading very carefully, and understanding completely, the requirements and the specifications of the items bid upon. Any deviation from specifications listed herein must be clearly indicated, otherwise it will be considered that items offered are in strict compliance with these specifications, and the successful bidder will be held responsible therefore, deviations must be explained in detail on an attached sheet(s) and itemized by number.

14. **SUBCONTRACTING:** If the vendor subcontracts any portion of a contract for any reason, must include, in writing, the name and address of the subcontractor, name of the person to be contacted including telephone number and extent of work to be performed. This information shall be submitted with bid response. The City of Riviera Beach

reserves the right to reject a bid of any bidder if the bid names a subcontractor who has previously failed in the proper performance of an award or failed to deliver on time contracts of a similar nature, or who is not in a position to perform properly under this award.

15. **INTERPRETATIONS:** Any questions concerning conditions and specifications of this bid shall be directed in writing to the Procurement Department before or by the final day and time for questions as indicated. No interpretation(s) shall be considered binding unless provided to all Bidders in writing by the Procurement Department.

16. **EEO STATEMENT:** The City of Riviera Beach is committed to assuring equal opportunity in the award of contracts and, therefore, complies with all laws prohibiting discrimination on the basis of race, color, religion, national origin, age and sex.

17. **BID TABULATION:** Bidders desiring a copy may request same by enclosing a self-addressed, stamped envelope with their bid.

18. **BID FORMS:** All bid proposals must be submitted on our standard Invitation to Bid form. Bid proposals on vendor quotation forms will not be accepted.

19. **POSTING OF BID TABULATIONS:** Bid tabulations will be posted within a period of 72 hours for review by interested parties, at the Procurement website @ www.rivierabch.com and at the Procurement Department at 2051 Dr. Martin Luther King Blvd., Riviera Beach, Florida. Failure to file a protest to the Procurement Director within the time prescribed in Section 16.5-241 of the City's Riviera Beach Code of Ordinances shall constitute a waiver of proceedings under the referenced City ordinance.

20. **SMALL BUSINESS ENTERPRISE PARTICIPATION GOAL – CITY OF RIVIERA BEACH ORDINANCE #4010:** It is the policy of the City of Riviera Beach that Small Business Enterprises (SBE) shall have the maximum opportunity to participate in the projects financed with City funds. Bidders are hereby informed that the City has established a requirement of a minimum of 15% participation of Small Business Enterprises in all City contracts. An effort should be made to hire SBE subcontractors, laborers, material men. (See Schedules 1&2).

21. **SELECTION PROCESS:** Notwithstanding any other provisions, preference shall be given in the selection process as follows:

- (a) If there is a tie in bid amounts between a Riviera Beach company and one from another city, the Riviera Beach Company will be awarded the bid.
- (b) If no Riviera Beach Company bids on a contract, preference will be given to Palm Beach County companies, the State of Florida and then out of state.

22. **BIDDERS RESPONSIBILITY:** Each bidder must, before submitting their bid, carefully examine and become familiar with this Invitation to Bid and all of its contents. Ignorance of the bid content and resulting contract will in no way relieve the Contractor of any of the obligations and responsibilities.

23. **BID PROTEST PROCEDURES:**

Right to protest.

Any actual or prospective bidder, offer, or contractor who is aggrieved in connection with the solicitation or award of a contract may protest to the city council. Protestors shall seek resolution of their complaints initially with the Director of Procurement, and secondly with the City Manager prior to protesting to the City Council. A protest with respect to an invitation for bids or request for proposals shall be submitted in writing prior to the opening of bids or the closing date of proposals, unless the aggrieved person did not know and could not have been reasonably expected to know of the facts giving rise to such protest prior to bid opening or the closing date for proposals. The protest shall be submitted within five calendar days after such aggrieved person knows or could have reasonably been expected to know of the facts giving rise thereto.

In the event of a timely protest under subsection (a) of this section, the Director of Procurement shall not proceed further with the solicitation or

award of the contract until all administrative remedies have been exhausted or until the City Manager makes a written determination that the award of a contract without delay is necessary to protect substantial interests of the city.

1. Written Protest. The written protest submitted to the Procurement Director must be accompanied by a filing fee in the form of a money order or cashier's check in the amount equal to \$500.00 or 2% of the value of the Bid/Proposal, whichever is greater up to a maximum of \$2,500.
2. Appeal to the City Manager. The written appeal to the City Manager must be accompanied by a filing fee in the form of a money order or cashier's check in the amount equal to \$500.00 or 2%, whichever is greater, up to a maximum of \$2,500.
3. Appeal to the City Council. The written request for an appeal to the City Council must be accompanied by a filing fee in the form of a money order or cashier's check in the amount equal to \$500.00, or 2% whichever is greater, up to a maximum of \$2,500.
4. Refund of Filing Fees. All costs resulting from a protest shall be borne by the Protestor. If a protest is upheld by either the Procurement Director or City Manager, as applicable, the filing fee shall be refunded to the Protestor less costs incurred by the City. If the protest is denied the filing fee shall be forfeited to the City in lieu of payment of costs incurred by the City.
24. **AWARDS: If a specific basis of award is not established in the instructions to bidders, specifications or special conditions of the Bid, the award shall be to the responsible bidder with the lowest responsive bid meeting the written specifications.** As the best interest of the City of Riviera Beach may require, the right is reserved to make award(s) by individual commodities/services, group of commodities/services, all or none or any combination thereof. When a group is specified, all items within the group must be bid. A bidder desiring to bid "No Charge" on an item in a group must so indicate; otherwise the bid for the group will be construed as incomplete and may be rejected. However, if bidders do not bid all items within a group, the City reserves the right to award on an item by item basis. When a group bid is indicated or variable quantities and the bid for the group shows evidence of unbalanced bid prices, such bid may be rejected.
25. **GOVERNMENTAL RESTRICTIONS:** In the event any governmental restrictions may be imposed which would necessitate alteration of the material quality, workmanship or performance of items offered on this bid prior to their delivery, it shall be the responsibility of the successful bidder to notify the City at once, indicating in letter the specific regulation which required an alteration. The City of Riviera Beach reserves the right to accept any such alteration, including any price adjustments occasioned thereby, or to cancel the contract at no further expense to the City.
26. **CONFLICT OF INTEREST:** The award hereunder is subject to provisions of State Statutes and City Ordinances. All bidders must disclose with their bid the name of any officer, director or agent who is also an employee of the City of Riviera Beach. Further, all bidders must disclose the name of any City employee who owns, directly or indirectly, interest of ten percent (10%) or more in the bidder's business.
27. **LEGAL REQUIREMENTS:** Applicable provisions of all Federal, State, County and local laws, and of all ordinance, rules and regulations including the Procurement Code of the City of Riviera Beach shall govern development, submittal and evaluation of bids received in response hereto and shall govern any and all claims and disputes which may arise between person(s) submitting a bid in response hereto and City of Riviera Beach by and through its officers, employees and authorized representative, or any other person natural or otherwise. Lack of knowledge by any bidder shall not constitute a recognizable defense against the legal effect thereof.
28. **NOTICE TO SELLER TO DELIVER:** No delivery shall become due or be acceptable without a written order or shipping instruction by the City, unless otherwise provided in the Contract. Such order will contain the quantity, time of delivery and other pertinent data. However, on items

urgently required, the Seller may be given telephone notice, to be confirmed by an order in writing.

29. **PURCHASE BY OTHER GOVERNMENTAL AGENCIES:** Each Governmental unit which avails itself of this contract will establish its own contract, place its own orders, issue its own purchase orders, be invoiced there from and make its own payments and issue its own exemption certificates as required by the bidder.

It is understood and agreed that the City of Riviera Beach is not a legally binding party to any contractual agreement made between any governmental unit and the bidder as a result of this bid.

30. **BID SECURITY AND PERFORMANCE BONDS**

Bid security shall be required for all competitive sealed bidding for construction contracts when the price is estimated by the Procurement Director to exceed \$100,000. Bid security shall be a bond provided by a surety company authorized to do business in the State, or the equivalent in case, or otherwise supplied in a form satisfactory to the City. Nothing herein shall prevent the requirement of such bonds on construction contracts under \$100,000 when then circumstances warrant in the opinion of the City Manager.

1. Performance bond satisfactory to the city, executed by a surety insurer authorized to do business in the State as a surety, in an amount equal to 100% of the price specified in the contract, conditioned that the contractor perform the contract in the time and manner prescribed in the contract; and

2. A payment bond satisfactory to the city, executed by a surety insurer authorized to do business in the state as a surety, in an amount equal to 100 percent of the price specified in the contract, conditioned that the contractor promptly make payments to all persons supplying labor, materials of supplies used directly or indirectly in the performance of the work provided for in the contract, and who are claimants as defined in F.S. § 255.05(1).

31. **AMOUNT OF BID SECURITY**

Bid security shall be required for all competitive sealed bidding for construction contracts when the price is estimated to exceed \$100,000.00. Bid security shall be a bond provided by a surety company authorized to do business in the State, or the equivalent in case, or otherwise supplied in a form satisfactory to the city. Nothing herein shall prevent the requirement of such bonds on construction contracts under \$100,000.00 when the circumstances warrant in the opinion of the City Manager.

Bid security shall be in an amount equal to at least five percent of the amount of the bid.

When the invitation for bids requires bid security, a bid shall be rejected in the event of non-compliance unless it is determined that the bid fails to comply only in a non-substantial manner with the security requirement.

32. **REJECTION OF BIDS FOR NONCOMPLIANCE WITH BID SECURITY REQUIREMENTS**

When the invitation for bid requires bid security, a bid shall be rejected in the event of non-compliance unless it is determined that the bid fails to comply only in a non-substantial manner with the security requirement.

33. **WARRANTY:** The successful bidder shall furnish factory warranty on all equipment furnished hereunder against defect in materials and /or warranty shall become effective on the date of delivery and acceptance by the City. Should any defects in materials or workmanship, except ordinary wear and tear appear during the above stated warranty period, the successful bidder shall repair or replace same at no cost to the City. **Warranties shall be indicated on the bid sheet or enclosed herewith.**

34. **TERMS AND CONDITIONS OF AGREEMENT:** An example of the agreement to be entered into with the successful bidder is available for review on the Procurement Department web page at www.rivierabch.com

35. **EXECUTION OF AGREEMENT:** The successful bidder shall, within ten (10) working days after notification of award by the City, enter into a contract with the City on forms as included within the Invitation to Bid documents for the performance of work awarded and shall simultaneously provide any required bonds, indemnities and insurance certificates. Failure to comply within the established deadline for submittal of required documents may be grounds for cancellation of the award and City keeping bid security.
36. **SPECIAL CONDITIONS:** Any and all special conditions that may vary from these standard conditions shall have precedence.
37. **ADDITIONAL INFORMATION:** The entire chapter of the City of Riviera Beach Procurement Code describing the aforementioned subject matter can be obtained from the Procurement Department. You may also view and/or download the Request for Proposals; Requests for Quotation; Request for Letters of Interest; structure of the Procurement Department; telephone directory; and How to do Business with the City of Riviera Beach on the internet at www.rivierabch.com

38. Florida's Public Records Act, Chapter 119, Florida Statutes

The Contractor shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the City as provided under section 119.011(2), Florida Statutes, specifically agrees to:

- (a) Keep and maintain public records required by the City to perform the service.
- (b) Upon request from the City's custodian of public records or designee, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Contract and following completion of this Contract if the Contractor does not transfer the records to the City.
- (d) Upon completion of this Contract, transfer, at no cost, to the City all public records in possession of the Contractor or keep and maintain public records required by the City to perform the service. If the Contractor transfers all public records to the City upon completion of the Contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the Contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City's custodian of public records or designee, in a format that is compatible with the information technology systems of the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS CITY CLERK OR DESIGNEE AT 600 West Blue Heron Blvd, Riviera Beach, FL. 33404. (561-845-4090 cityclerk@rivierabeach.org).

GENERAL INFORMATION TO BIDDERS

BID NO. 996-20-1

GENERAL CONDITIONS:

- A. All contracted services are to be performed in a professional manner, at a 100% level by qualified personnel.
- B. Prices submitted in regards to this bid shall include, but not be limited to all necessary manpower and equipment.

SPECIAL REQUIREMENTS:

- A. The contractor must be licensed to work in the State of Florida and Palm Beach County. Submit documentation of this with bid.
- B. Insurance is required as listed in this bid package. Provide copy of insurance with bid.
- C. The contractor shall direct its personnel in the execution of the work.

AWARD CRITERIA

The award shall be to the responsive and responsible lowest bidder meeting the written specifications and the minimum qualifications of experience, competency, and price.

FURTHER INFORMATION

Bidders requiring additional information as to the technical provisions or desiring to view the site shall contact the Procurement Department.

No change(s) and no interpretation(s) shall be considered binding unless provided to all bidders in writing by the Director of the Procurement.

CONDUCT OF EMPLOYEES

All employees of the contractor shall conduct themselves in a courteous and professional manner at all times. Abusive language or gestures shall not be tolerated and could be cause for removal from contract. Caution shall be exercised to assure that their operations do not cause any safety hazards to the general public. Whenever questions, complaints, etc., are directed to an employee of the contractor by the public, they are to acknowledge, record, and pass on to the City's Contact Person if unable to reply.

SUPERVISION AND INSPECTIONS

The Contractor shall have a competent and designated person in charge and outside for each crew at all times. The City shall inspect work at its discretion. If work is not performed to specifications outlined in this contract, the Contractor will have 72 hours to correct the deficiency, weather permitting. If deficiency is not corrected, liquidated damages will be accessed.

PERSONNEL

Personnel employed directly, or indirectly, by the Contractor who is incompetent, inept or unfit to perform the work shall be promptly removed from work covered under the contract. Failure of the Contractor to remove personnel who are incompetent, inept or unfit may result in the termination of the contract.

PROTECTION OF PROPERTY

The Contractor shall at all times guard against damage or loss to the property of the City or other owners and shall be held responsible for replacing or repairing any such loss or damage. The City may withhold payment or make such deductions as deemed necessary to insure reimbursement or replacement for loss or damage to property through negligence of the Contractor or agents.

The responsibility for all harm or damage to person or property arising out of, or on account of, work done under this Contract shall rest upon the Contractor and the Contractor shall save the City harmless from all claims made on account of such damage.

PAYMENT/PERFORMANCE BOND:

The successful bidder will be required to secure a payment and performance bond in the amount equal to 100% of the contract amount for any bid in excess of \$100,000.00.

The CONTRACTOR shall furnish bonds and maintain said bonds throughout the duration of the project as provided for in Florida Statutes Section 255.05, covering the faithful performance of the Contract and payment in strength as rated by Best's Key Rating Guide published by Alfred M. Best Company, Oldwick, New Jersey 08858. The bonds must be recorded in the official records of Palm Beach County prior to any work commencing.

INDEMNIFICATION

CONTRACTOR shall indemnify and save harmless and defend the CITY, its agents, servants, officers and employees from and against any and all claims, liabilities, losses, damages, and costs, including but not limited to reasonable attorney's fees, to the extent caused by the negligence, recklessness, omission or intentional wrongful misconduct of CONTRACTOR and persons employed or utilized by CONTRACTOR in the performance of this Agreement.

The CONTRACTOR further agrees to indemnify, save harmless and defend the City, its agents, servants, officers and employees from and against any claim, demand or cause of action of whatsoever kind or nature arising out of any conduct or misconduct of the CONTRACTOR not included in the paragraph above and for which the City, its agents, servants, officers, or employees are alleged to be liable. Nothing contained in this provision shall be construed or interpreted as consent by the City to be sued, nor as a waiver of sovereign immunity beyond the waiver provided in Section 768.28, Florida Statutes.

The indemnification provided above shall obligate the CONTRACTOR to defend at its own expense to and through appellate, supplemental or bankruptcy proceeding, or to provide for such defense, at CITY'S option, any and all claims of liability and all suits and actions which may be brought against the CITY whether performed by CONTRACTOR, or persons employed or utilized by CONTRACTOR.

PERMITS AND FEES

The Contractor shall procure and pay for all permits and licenses, charges and fees and give all notices necessary and incidental to the lawful prosecution of the work. The Contractor shall include the cost for all permits in the contractor's base bid.

Contractor shall possess and keep in force all licenses, business permits and other permits required to perform the services of this Agreement.

CONTRACT:

The Procurement Department shall issue a purchase order incorporating this Invitation to Bid and the Bid documents submitted by the bidder awarded the contract. Such purchase order together with the City standard contract for services shall constitute the contract.

The Contractor shall not assign, transfer or subcontract this contract in either whole, or in part, without prior written approval of the City.

The contract will be subject to immediate cancellation if services do not comply with the specifications or the terms and conditions as stated herein.

CONTRACT AMOUNT:

Prices quoted in the bid will be considered firm for each type work to be performed.

PAYMENT

Payment will be made by the City after services have been received, accepted and properly invoiced as indicated in the contract and/or purchase order. Invoices must state the purchase order number.

Payment for services shall be made only for work performed and requested of the Contractor and accepted by the City.

The City reserves the right to withhold payments for any work, which is not considered to be within the scope of the specifications of the contract. Continued failure to meet terms of the contract will result in the termination of contract.

INVOICING

Invoice shall be completely itemized and include the City Purchase Order Number and the CONTRACTOR Invoice Number.

CONE OF SILENCE

No entity filing a BID shall through their principal, attorneys, or agents, contact the City Council for the purposes of discussing any aspect of this ITB for any possible decision on the ITB; neither shall any such party approach third parties for the purposes of having those third parties have those types of discussions with the City Council.

Any action in violation of this provision shall be cause for disqualification from participation in this ITB.

NON-COLLUSION STATEMENT

By signing its Bid, the bidder certifies that its Bid is made independently and free from collusion. Bidder shall disclose below, to their best knowledge, any Riviera Beach officer or employee, or any relative of any such officer or employee as defined in Section 112.3135(1) (c), Florida Statutes, who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement. Any Riviera Beach officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement. For purposes hereof, a person has a material interest if he/she directly or indirectly owns more than five percent (5%) of the total assets or capital stock of any business entity; or if they otherwise stand to personally gain if the contract is awarded to this proposer.

Failure of a bidder to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

Proposer, if doing business under an assumed name, i.e., an Individual, Association, Partnership, Corporation, or otherwise, shall be registered with the Florida Department of State, Division of Corporations.

SMALL BUSINESS ENTERPRISE (SBE)

The City has a goal for Small Business Enterprises (SBE) participation of fifteen percent (15%) for City procurement of construction, professional services and other commodities

The City defines Small Business Enterprises as such, a business which has been certified by the State of Florida, The Palm Beach County Office of Small Business Assistance, or other County or State governmental agencies and is an independently owned and operated for profit business concern organized to engage in commercial transactions.

RIGHTS TO INVESTIGATE AND AUDIT: OFFICE OF THE INSPECTOR GENERAL

The Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of any awarded contract and in furtherance thereof may demand and obtain records and testimony from the contractor and its subcontractors and lower tier subcontractors. The bidder understands and agrees that in addition to all other remedies and consequences provided by law, the failure of the bidder or its subcontractors or lower tier subcontractors to fully cooperate with the Inspector General when requested may be deemed by the municipality to be a material breach of any contract entered into with the bidder as justification for termination.

SCOPE OF WORK

The City of Riviera Beach, Florida (City) is seeking sealed proposals from qualified proposers for the **Singer Island – Palm Beach Isles Bridge Improvements**.

The following services are required for the successful bidder:

1. The successful bidder (hereinafter referred to as the contractor) shall furnish, at their expense, all labor, supervisors, equipment, machinery, tools, materials, transportation, and other services necessary to fully remove and replace the bridges and supports within the Palm Beach Isles subdivision as indicated on the associated plans and specifications. **The contractor shall be responsible for all testing requirements as per FDOT Standards as well as the Utilities, Drainage and Bridge, Roadway Paving / Sidewalk re-construction as specified per the Plans. The contractor shall be responsible for protection of all existing infrastructure and the environment as required by the Army Corps permit and mitigation plan, enclosed.** The contractor shall be responsible for restoration of pavement, utilities, and sodding of all disturbed areas. The Contractor prior, during and at the completion of the demolition part of this work shall follow all the required notifications, protection, regulatory requirements and execution procedures described in Section 02050 of the Project Manual.
2. The contractor shall be responsible to ensure frequent pick-up of all refuse, rubbish, scrap materials, and debris that result from their operations so that work site presents a neat and orderly appearance at all times. All rubbish, scrap, etc., shall be transported from the premises. NO rubbish shall be deposited as fill on the work site. At completion of work, the contractor shall remove all work materials, tools, construction equipment, machinery, and surplus materials from the work site and shall leave project in ready to use condition.
3. The contractor shall provide a schedule for the required work and coordinate all required work with other occupancy and/or construction occurring on or in this area by others.
4. Safeguard of all equipment, tools, materials, etc., at the work site shall be the contractor's responsibility.
5. The contractor shall be responsible for the protection of all personnel against hazards and/or injuries due to their construction operations at the work site.
6. Contractor shall correct any and all damage caused by their operations to the City's satisfaction at no additional cost to the City.
7. The contractor shall have an English-speaking supervisor/representative on the work site at all times, who shall be thoroughly knowledgeable of all plans, specifications, and other contract documents and has the authority to act in the contractor's behalf.
8. The contractor shall be responsible for the appearance of all working personnel assigned to the projects (clean and appropriately dressed) at all times, and their compliance with City Policies and Rules prohibiting smoking and consumption of alcohol and illegal drugs while on City projects.
9. The contract time for this solicitation shall be for **365 calendar days** from issuance of Purchase Order / Notice to Proceed to Project Substantial Completion. The contractor work shall Finally Complete with an additional 30 calendar days from Substantial Completion. Total Calendar Days shall be **395 calendar** days unless specifically indicated in the origination of the requisition.

10. The Public Works Department has taken the liberty to utilize the standard bid documents and latest contract to initiate a draft of the necessary bid document and technical specifications. Please find enclosed the draft bid package.

BID OPENING DATE:

Bids will be received until **6/25/2020 11:00 A.M. (EST)** at the office of the City Clerk, **600 West Blue Heron, Riviera Beach, Florida**. Bids will be opened and publicly read aloud in the Council Chambers on the specified date and time. No bids will be accepted after the time and date specified. The bidder is required to examine carefully the Scope of Work and be thoroughly informed regarding any conditions and requirements that may in any manner affect the work to be performed under this bid, or affect the equipment, materials and labor required. Failure to do so will not be a basis for subsequent change orders.

INQUIRIES/QUESTIONS DEADLINE:

All inquiries shall be in written format and addressed to Althea Pemsel:

Procurement Department
2051 MLK Blvd., Suite 310
Riviera Beach, FL 33404
Fax: (561) 842-5105
Email: Apemsel@rivierabeach.org

The last day to submit questions concerning this ITB shall be **6/5/2019**. Questions received after this time will not be answered.

INSURANCE REQUIREMENTS

The successful firm or individual entering a resulting contract with the City shall provide, pay for and maintain in full force and affect at all times during the services to be performed insurance as set forth below:

<u>Type of Coverage</u>	<u>Amount of Coverage</u>
Commercial and General	\$1,000,000 per occurrence
Contractual, insurance broad form property, Independent contractor, personal injury)	\$1,000,000 per occurrence
Automobile (owned, non-owned, & hired)	\$3,000,000 annual aggregate
Worker's Compensation, as applicable	\$1,000,000 single limits
	\$1,000,000 per accident
	\$1,000,000 disease each employee
	\$1,000,000 disease policy limit
Including employer's liability insurance	\$1,000,000 per occurrence

The successful bidder must maintain in full force and effect, during the life of this engagement. Certificates of liability insurance, satisfactory to the City, shall be furnished to the City immediately upon commencement of any services, with complete copies of policies to be furnished upon the City's request. Such certificates of insurance will provide the City with thirty (30) days prior written notice of any cancellation or non-renewal.

The policies shall name the City as an additional insured, and proof of such coverage shall be furnished to the City by way of an endorsement to same or a certificate of insurance no later than ten days prior to the provision of services under the awarded contract and upon renewal of each policy each year the awarded contract remains in effect and for a period of one (1) year after the termination of the contract. All such insurance must be with an insurance carrier approved and authorized to do business in the State of Florida, and who must have a rating of no less than "excellent" by A.M. BEST, or as mutually agreed upon by the City and the successful Respondent. All such insurance policies may not be modified or terminated without the express written authorization of the City. The insurance requirements set forth herein may be modified by the City in its sole discretion in competitive negotiations.

Misrepresentation of any material fact, whether intentional or not, regarding the Bidders insurance coverage, policies or capabilities may be grounds for rejection of the proposal and rescission of any resulting. **Evidence of ability to obtain appropriate insurance coverage shall be provided in each bid.**

All policies shall be endorsed to provide sixty (60) days prior written notice of cancellation, non-renewal or reduction in coverage or limits to:

City of Riviera Beach
Attn: Stephen Gude, Risk Manager
2051 MLK Blvd.
Riviera Beach, FL 33404
Email: Sgude@rivierabeach.org

BID CHECKLIST

Bidders are expected to examine this bid form, attached drawings, specifications, if any, and all instructions. Failure to do so will be at the Bidder's risk.

All prices and notations must be in ink or typewritten. No erasure permitted. Mistakes may be crossed out and corrections typed adjacent and must be initialed and dated in ink by the person signing the bid. All bids must be signed with the firm name and by a responsible officer or employee. Obligations assumed by such signature must be fulfilled.

Each bidder shall furnish the information required on the bid form and each accompanying sheet thereof on which he or she makes an entry.

Unit price for each unit bid shall be shown. A total shall be entered in the amount column for each bid. In case of discrepancy between a unit price and extended price, the unit prices represented will presume to be correct.

Although the City generally awards based on a "lump sum" basis to the bidder submitting the lowest, most responsive and responsible total bid as shown on the Invitation to Bid cover page, the City may choose to award on a "per group" or "per item" basis. Therefore, bidders must submit with their bids, all pricing pages on the forms provided clearly indicating which items are bid and which are not. Failure to submit these pages will render such bid non-responsive.

Bid Check List:

Bidders are cautioned to please check their bid very carefully, using the following checklist:

- _____ Bidder's Certification Page Signed and Notarized
- _____ Invitation to Bid Cost Proposal, including Unit Price and Total price completed. Total Amount of Bid Entered on Invitation to Bid Cover Sheet.
- _____ Similar Project Form
- _____ All required forms
- _____ Bid Envelope prepared as specified
- _____ It is the bidder's responsibility to contact the Procurement Department prior to submitting a bid to ascertain if any addenda have been issued, to obtain such addenda and return executed addenda with the bid.



**CITY OF RIVIERA BEACH
PROCUREMENT DEPARTMENT**

**2051 MLK JR. BLVD., SUITE #310
Riviera Beach, Florida 33404
Phone (561) 845-4180**

PLAN HOLDER INFORMATION SHEET

PLEASE COMPLETE AND EMAIL THIS DOCUMENT TO RLITTLE@RIVIERABEACH.ORG IN THE
PROCUREMENT DEPARTMENT. YOUR INFORMATION WILL BE ADDED TO THE CURRENT PLAN
HOLDER LIST AND HELP TO INSURE RECEIPT OF CHANGES OR ADDITIONAL INFORMATION.

BID #996-20-1

Contact Person _____

Business Name _____

Business Address _____

Business City, State, Zip _____

Email Address: _____

Business Phone # _____ Business Fax # _____

ATTACHMENT “A”

REQUIRED FORMS

IN ADDITION TO THE INVITATION TO BID COVER PAGE, THE FORMS LISTED BELOW ARE TO BE COMPLETED AND SUBMITTED WITH YOUR BID.

- 1) ***BIDDER’S CERTIFICATION***
- 2) ***BID COST PROPOSAL SHEET***
- 3) ***SIMILAR PROJECT FORM***
- 4) ***BID BOND***
- 5) ***STATEMENT FROM SURETY***
- 6) ***ADDENDUM PAGE***
- 7) ***REFERENCES***
- 8) ***DRUG FREE WORKPLACE***
- 9) ***PUBLIC ENTITY CRIMES STATEMENT***
- 10) ***SCHEDULE 1 – PARTICIPATION FOR SMALL BUSINESS ENTERPRISES***
- 11) ***SCHEDULE 2 – LETTER OF INTENT TO PERFORM AS A SMALL BUSINESS SUB-CONTRACTORS***
- 12) ***SCHEDULE 3- LOCAL BUSINESS PARTICIPATION***
- 13) ***SCHEDULE 4- LETTER OF INTENT TO PERFORM AS A LOCAL BUSINESS***
- 14) ***STATEMENT OF NO BID***

NOTE: PLEASE ENSURE THAT ALL OF THESE DOCUMENTS ARE COMPLETED AND SUBMITTED WITH YOUR BID IN ACCORDANCE WITH THE INSTRUCTION SHEET ON THE PRECEDING PAGE. FAILURE TO DO SO MAY RESULT IN YOUR BID NOT BEING CONSIDERED FOR AWARD.

IT IS THE BIDDER’S RESPONSIBILITY TO CONTACT THE PROCUREMENT DEPARTMENT PRIOR TO SUBMITTING A BID TO ASCERTAIN IF ANY ADDENDA HAVE BEEN ISSUED, TO OBTAIN ANY AND ALL SUCH ADDENDA AND RETURN EXECUTED ADDENDA WITH THIS BID.

BIDDER'S CERTIFICATION

I have carefully examined the Invitation to Bid, Instructions to Bidders, General and/or Special Conditions, Specifications, Bid Proposal and any other documents accompanying or made a part of this invitation.

I hereby propose to furnish the goods or services specified in the Invitation to Bid at the prices or rates quoted in my bid. I agree that my bid will remain firm for a period of up to ninety (90) days in order to allow the City adequate time to evaluate the bids. Furthermore, I agree to abide by all conditions of the bid.

I certify that all information contained in this bid is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to submit this bid on behalf of the vendor / contractor as its act and deed and that the vendor / contractor is ready, willing and able to perform if awarded the bid.

I further certify that this bid is made without prior understanding, agreement, connection, discussion, or collusion with any person, firm or corporation submitting a bid for the same product or service; no officer, employee or agent of the CITY OF RIVIERA BEACH or of any other bidder interested in said bid; and that the undersigned executed this Bidder's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

NAME OF BUSINESS

E-MAIL ADDRESS

BY:

SIGNATURE OF AUTHORIZED OFFICER

Sworn to and subscribed before me this _____
day of _____, 20__.

PRINTED NAME AND TITLE

SIGNATURE OF NOTARY

MAILING ADDRESS

MY COMMISSION EXPIRES: _____

CITY, STATE, ZIP CODE

PERSONALLY KNOWN _____

TELEPHONE NUMBER

OR PRODUCED IDENTIFICATION

FAX NUMBER

TYPE: _____

BID COST PROPOSAL SHEET #1

(To Be Completed by the Bidder)

(Exhibit B)

INVITATION FOR BID # 996-20-1

**SINGER ISLAND – PALM BEACH ISLES
BRIDGE IMPROVEMENTS**

ALL BIDS SHALL REMAIN VALID FOR NINETY (90) DAYS AFTER BID OPENING

Company: _____

Address: _____

Contact: _____

Signature of Authorized Officers: _____

SIGNATURE


DATE

SIMILAR PROJECT FORM

Location: Security Guard	SAMPLE	XXX MY STREET, SOMEWHERE, FL 99999
Owner Contact Information:-----		
Owner Name:	Someone Brown	
Phone Number:	555-555-5555	
Email Address:	someonebrown@email.com	

Sign Location:
Owner Contact Information:-----
Owner Name:
Phone Number:
Email Address:

...
Picture of Awning Covers



BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____

As Principal, hereinafter called the Principal, and _____

A corporation duly organized under the laws of the State of Florida as Surety, hereinafter called the Surety, are held and firmly bound unto City of Riviera Beach, 600 W. Blue Heron Blvd, Riviera Beach, FL 33404

As Obligee, hereinafter called the Obligee, in the sum of _____

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has submitted a bid for

_____ (Project)

NOW, THEREFORE, if the Obligee shall accept the bid of the principal and the Principal shall enter into a Contract with Obligee in accordance with the terms of such bid, and give such insurance and bond or bonds as may be specified in the IFB or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this _____ day of _____, 20_.

Witnesses:

Principal _____ (seal)

By: _____
(Title)

For: _____
(Surety) (Seal)

By: _____

STATEMENT FROM SURETY

Attach a letter of intent from a surety company indicating the applicant's ability to be bonded for projects up to \$1,000,000. The surety company must be licensed to do business in the State of Florida, must have an A.M. best rating of "A", and a required financial size of "VII". Firms selected shall maintain, during the life of the contract, workman's compensation, architect's commercial liability coverage, and automobile liability for company vehicles.

Note: The City reserves the right to use all information provided in determining responsibility of vendor, as well as any other information the City may obtain through any means that bears on the issue of responsibility.

ADDENDUM PAGE

The undersigned acknowledges receipt of the following addenda to the Invitation to Bid (indicate number and date of each):

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS THE BID PRICES IS CONSIDERED A MAJOR IRREGULARITY AND WILL BE CAUSE FOR REJECTION OF THE BID.

COMPANY

SIGNATURE

TITLE

REFERENCES

Bidder shall submit as a part of the proposal package four (4) business references with the name of the business, address, contact person, and telephone number. **(At least two (2) references must be a local, county, state, or federal entity.)**

Additionally, contractors should submit a copy of their professional license as required by paragraph 37 of the General Terms and Conditions of the ITB.

Name: _____ Name: _____

Address: _____ Address: _____

Tel. No.: _____ Tel. No.: _____

Fax No.: _____ Fax No.: _____

Email: _____ Email: _____

Contact: _____ Contact: _____

Name: _____ Name: _____

Address: _____ Address: _____

Tel. No.: _____ Tel. No.: _____

Fax No _____ Fax No.: _____

Email: _____ Email: _____

Contact: _____ Contact: _____

FAILURE TO SUBMIT WITH BID PACKAGE WILL MAKE BIDDER NON RESPONSIVE

DRUG FREE WORKPLACE

Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids, which are equal with respect to price, quality, and service, are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors has a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse 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 gratuity 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 States 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 form complies fully with the above requirements.

THIS CERTIFICATION is submitted by _____ the
(INDIVIDUAL'S NAME)

_____ Of _____
(TITLE/POSITION WITH COMPANY/VENDOR) (NAME OF COMPANY/VENDOR)

who does hereby certify that said Company/Vendor has implemented a drug free workplace program which meets the requirements of Section 287.087, Florida Statutes, which are identified in numbers (1) through (6) above.

SIGNATURE

DATE

CITY OF RIVIERA BEACH

NOTIFICATION OF PUBLIC ENTITY CRIMES LAW

Pursuant to Section 287.133, Florida Statutes (1995), you are hereby notified that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 [F.S.] for CATEGORY TWO [\$35,000.00] for a period of 36 months from the date of being placed on the convicted vendor list.

Acknowledged by:

Firm Name

Signature

Name & Title (Print or Type)

SCHEDULE 1_

PARTICIPATION FOR SBE CONTRACTORS/PROPOSERS

BID/RFP TITLE: _____

BID NUMBER: _____

NAME OF PRIME BIDDER: _____

BID OPENING DATE: _____

CONTACT PERSON: _____ TELEPHONE NO. _____

DEPARTMENT: _____

CONTRACT AMOUNT – SBE

	<u>NAME, ADDRESS & TELEPHONE NUMBER OF SBE CONTRACTOR</u>	<u>TYPE & DESCRIPTION OF WORK TO BE PERFORMED</u>	<u>CERTIFICATION</u>
1.	_____ _____ _____	_____ _____ _____	PALM BEACH COUNTY _____ STATE _____ OTHER _____
2.	_____ _____ _____	_____ _____ _____	PALM BEACH COUNTY _____ STATE _____ OTHER _____
3.	_____ _____ _____	_____ _____ _____	PALM BEACH COUNTY _____ STATE _____ OTHER _____
4.	_____ _____ _____	_____ _____ _____	PALM BEACH COUNTY _____ STATE _____ OTHER _____
5.	_____ _____ _____	_____ _____ _____	PALM BEACH COUNTY _____ STATE _____ OTHER _____

TO BE COMPLETED BY PRIME BIDDER:

BID/RFP PRICE: \$ _____

TOTAL % PARTICIPATION: _____

SCHEDULE 2

BID NUMBER: _____

LIAISON: _____

LETTER OF INTENT TO PERFORM AS A SMALL BUSINESS ENTERPRISE

TO: _____
(NAME OF PRIME BIDDER)

The undersigned intends to perform work in connection with the above BID as (Check one):

_____ **an individual** _____ **a corporation** _____ **a partnership** _____ **a joint venture**

_____ The undersigned is certified as a SBE.

The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

as the following price: \$ _____.
(Amount must match subcontractor's quote)

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

<u>Items</u>	<u>Projected Commencement Date</u>	<u>Projected Completion Date</u>
--------------	--	--------------------------------------

_____ % of the dollar value of the subcontract will be sublet and/or awarded to non-minority contractors and/or non-minority suppliers. The undersigned will enter into a formal agreement for the work with you, conditioned upon your execution of a contract with the City of Riviera Beach.

(NAME OF SMALL BUSINESS ENTERPRISE CONTRACTOR)

DATE: _____

BY: _____
(SIGNATURE OF SMALL BUSINESS ENTERPRISE CONTRACTOR)

SCHEDULE 3

PARTICIPATION FOR LOCAL BUSINESSES AS SUB-CONTRACTOR AT LEAST 25%

BID TITLE: _____

BID NUMBER: _____

NAME OF PRIME BIDDER: _____

BID OPENING DATE: _____

CONTACT PERSON: _____

TELEPHONE NO.: _____

DEPARTMENT: _____

CONTRACT AMOUNT – LOCAL BUSINESSES

	<u>NAME, ADDRESS & TELEPHONE NUMBER OF LOCAL CONTRACTOR</u>	<u>TYPE & DESCRIPTION OF WORK TO BE PERFORMED</u>	<u>% TO BE PERFORMED BY LOCAL BUSINESS</u>	<u>ESTIMATED DOLLAR VALUE</u>
1.	_____ _____ _____	_____ _____ _____	% _____	\$ _____
2.	_____ _____ _____	_____ _____ _____	% _____	\$ _____
3.	_____ _____ _____	_____ _____ _____	% _____	\$ _____
4.	_____ _____ _____	_____ _____ _____	% _____	\$ _____
5.	_____ _____ _____	_____ _____ _____	% _____	\$ _____
		TOTAL:	% _____	\$ _____

TO BE COMPLETED BY PRIME BIDDER:

BID PRICE: \$ _____

TOTAL % PARTICIPATION: _____

SCHEDULE 4

BID NUMBER: _____

LIAISON: _____

LETTER OF INTENT TO PERFORM AS A LOCAL BUSINESS

TO: _____
(NAME OF PRIME BIDDER)

The undersigned intends to perform work in connection with the above BID as (Check one):

_____ **an individual** _____ **a corporation** _____ **a partnership** _____ **a joint venture**

_____ The undersigned is a qualified Local Business.

The undersigned is prepared to perform the following described work in connection with the above project (specify in detail particular work items or parts thereof to be performed):

as the following price: \$ _____.
(Amount must match subcontractor's quote)

You have projected the following commencement date of such work, and the undersigned is projecting completion of such work as follows:

<u>Items</u>	<u>Projected Commencement Date</u>	<u>Projected Completion Date</u>
--------------	--	--------------------------------------

_____ % of the dollar value of the subcontract will be sublet and/or awarded to local contractors and/or local suppliers. The undersigned will enter into a formal agreement for the work with you, conditioned upon your execution of a contract with the City of Riviera Beach.

(NAME OF LOCAL CONTRACTOR)

DATE: _____

BY: _____
(SIGNATURE OF LOCAL CONTRACTOR)

STATEMENT OF NO BID

BID NO. #996-20-1

If you are not bidding on this service/commodity, please complete this form and return to City of Riviera Beach Procurement Department, 2051 Dr. Martin Luther King Blvd. Suite #310 Riviera Beach, Florida 33404.

Failure to respond may result in deletion of vendor's name from the qualified bidder's list for the City of Riviera Beach.

COMPANY NAME: _____

MINORITY OWNED BUSINESSES

ADDRESS: _____

- BLACK
- HISPANIC
- WOMEN

TELEPHONE: _____

SIGNATURE: _____

DATE: _____

We the undersigned have declined to bid on your Bid No. _____ for
_____ because of the following reasons:
(Service/Commodity)

_____ SPECIFICATIONS TOO "TIGHT", i.e., GEARED TOWARD BRAND OR
MANUFACTURER ONLY (EXPLAIN BELOW)

_____ INSUFFICIENT TIME TO RESPOND TO THE INVITATION TO BID

_____ WE DO NOT OFFER THIS PRODUCT OR AN EQUIVALENT

_____ OUR PRODUCT SCHEDULE WOULD NOT PERMIT US TO PERFORM

_____ UNABLE TO MEET SPECIFICATIONS

_____ SPECIFICATIONS UNCLEAR (EXPLAIN BELOW)

_____ OTHER (SPECIFY BELOW)

REMARKS:

CONTRACT PERFORMANCE BOND

BY THIS BOND, we, _____, as Principal and _____, a Corporation, as Surety, whose address is _____, are bound to The City of Riviera Beach, a political Subdivision of the State of Florida, by and through its CITY COUNCIL, hereinafter called the CITY, for 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:

1. Performs the Contract dated _____, 2020 between Principal and the CITY, Contract No. _____, the Contract being made a part of this bond by reference, in the time and in the manner prescribed in the Contract and;
2. Pays the CITY all loss, damages, expenses, costs, and attorney's fees, including appellate proceedings, the CITY sustains because of a default by Principal under the Contract and;
3. 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. Whenever Principal shall be, and declared by the CITY to be in default under the Contract, the CITY having performed CITY'S obligations thereunder, the Surety may promptly remedy the default or shall promptly:

- (1) Complete the Contract in accordance with its terms and conditions; or
- (2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, or, if the CITY elects, upon determination by the CITY and the Surety jointly of the lowest responsible bidder, arrange for a contract between such bidder and the CITY, and make available as the work progresses (even though there should be a default or a succession of defaults under the Contract or Contracts of completion arranged under this Paragraph) sufficient funds to pay the costs of completion, less the balance of the Contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract price" as used in this paragraph, shall mean the total amount payable by the CITY to Principal under the Contract and any amendments thereto, less the amount properly paid by the CITY to Principal.

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. Any increase in the total contract amount as authorized by the CITY shall accordingly increase the Surety's obligation by the same dollar amount of said increase. The Principal shall be responsible for notification to Surety of all such changes.

Surety expressly acknowledges its obligations and liabilities for liquidated damages suffered by the CITY under the provisions of the Contract Documents.

See subsection (2) of Section 255.05, Florida Statutes as amended for the notice and time limitations for claimants.

Dated on _____, 2020

PRINCIPAL:

By: _____
Signature

Attest as to the signature of Principal

Title

Title

(SEAL)

Address: _____

SURETY:

By: _____
Signature

Attest as the signature of Surety

Title

Title

(SEAL)

Address: _____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners must execute bond.

IMPORTANT: Surety companies executing bonds **must** appear and remain on the U.S. Treasury Department's most current list (Federal Register), during construction, guarantee and warranty periods, and be authorized to transact business in the State of Florida.

CONTRACT PAYMENT BOND

BY THIS BOND, WE, _____, as Principal and _____, a Corporation, as Surety, whose address is _____, are bound to the City of Riviera Beach, a political Subdivision of the State of Florida, by and through its CITY COUNCIL, hereinafter called The CITY, 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:

1. Promptly makes payment to all claimants and lienors supplying Principal with labor, materials and suppliers, used directly or indirectly by Principal in the prosecution of the work provided for in the Contract dated _____, 2020, between Principal and the CITY for construction of **Singer Island – Palm Beach Isles Bridge Improvements Contract No. _____996-20-1**, the Contract being made a part of this bond by reference, in the time and in the manner prescribed in the Contract, and;
2. Pays the CITY all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, the CITY sustains because of a default by Principal under the Contract;

then this bond is void; otherwise it remains in full force.

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. Any increase in the total contract amount as authorized by the CITY shall accordingly increase the Surety's obligation by the same dollar amount of said increase. The Principal shall be responsible for notification to Surety of all such changes.

See Section 713.23, Florida Statutes as amended for the notice and time limitations for claimants.

Dated on _____, 2020

PRINCIPAL:

By: _____
Signature

Attest as to the signature of Principal

Title

Title

(SEAL)

Address: _____

SURETY:

By: _____
Signature

Attest as the signature of Surety

Title

Title

(SEAL)

Address: _____

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners must execute bond.

IMPORTANT: Surety companies executing bonds **must** appear and remain on the U.S. Treasury Department's most current list (Federal Register), during construction, guarantee and warranty periods, and be authorized to transact business in the State of Florida.

FINAL RELEASE OF LIEN

State of _____

County of _____, being first duly sworn deposes and says as follows:

1. That he is _____ of the _____, (Name of Corporation) a _____ Corporation which is named in the Performance and Payment Bonds dated the _____ day of _____ 2019, between said corporation as the **CONTRACTOR** and the City of Riviera Beach, Florida; as the **OWNER**, for the construction of Fire Station 88 Apparatus Cover for Riviera Beach.

Said Affiant is duly authorized to make this Affidavit as, or on behalf of said Contractor as hereinabove indicated and does hereby give statement under oath in compliance with and pursuant to Section 713-01 Florida Statutes/latest amendment.

2. That the work called for the above and foregoing Contract has been completed and that all creditors contracting directly with or directly employed contractors, materialmen and suppliers, and all other creditors performing or furnishing any work, labor or materials upon said Contract work, and that there are no unpaid creditors in connection therewith.

Affiant

STATE OF _____

COUNTY OF _____

Sworn to and subscribed before me this _____ day of _____ 2019, by _____, who is personally know to me or who produced the following identification _____.

Notary Public
Printed Name: _____

My Commission Expires:

EXHIBIT A

EXAMPLE CONSTRUCTION CONTRACT

**CITY OF RIVIERA BEACH
CONTRACT FOR CONSTRUCTION**

This Contract is made as of this _____ day of _____, 2020 by and between the CITY OF RIVIERA BEACH, a municipal corporation existing under the laws of the State of Florida, hereinafter referred to as the CITY, and **XXXX CONSTRUCTION**, a corporation authorized to do business in the State of Florida, hereinafter referred to as the CONTRACTOR, whose Federal I.D. number is **XX-XXXXXX**.

In consideration of the mutual promises contained herein, the CITY and the CONTRACTOR agree as follows:

ARTICLE 1 - SERVICES

The CONTRACTOR's responsibility under this Contract is to provide construction services for **Singer Island – Palm Beach Isles Bridge Improvements**, as more specifically set forth in the Scope of Work detailed in Exhibit "A", attached hereto and made a part hereof.

The CITY's representative/liaison during the performance of this Contract shall be **Terrence N. Bailey, P. E.**, telephone no. 561-845-4080, email address tbailey@rivierabeach.org.

ARTICLE 2 - SCHEDULE

- A. **Time of Completion** - Construction work must begin within ten (10) calendar days from the date of receipt of official notice to proceed; provided the CITY has received proof of insurance as set forth in Article 11 and a Performance and Payment Bond as set forth in Article 31 in a form satisfactory to the CITY. Construction work shall be carried on at a rate to ensure its full completion within **three hundred ninety-five (395)** calendar days from the date of official notice to proceed, the rate of progress and time of completion being essential conditions of this Contract.

- B. **Deduction for not completing on time** - If the contract work is not fully complete according to the terms of this Contract within the limits herein stipulated, the CONTRACTOR shall pay the CITY, not as a penalty, but as liquidated damages, a sum equal to **one thousand dollars (\$1000.00)** for each day elapsing between the expiration of such time limit and the date of full completion, providing, however, that the time limits herein stated are subject to extension without payment of damages, as provided in Article 17, herein. It is agreed that these liquidated damages are a good faith and reasonable pre-estimate of CITY's actual damages due to delay by CONTRACTOR because it is difficult, if not impossible, to accurately estimate the actual damages suffered by CITY due to any such delay.

- C. **Reports** - Reports and other items shall be delivered or completed in accordance with the detailed schedule set forth in Exhibit "A."

ARTICLE 3 - PAYMENTS TO CONTRACTOR

- A. Generally - The CITY agrees to compensate the CONTRACTOR in accordance with the fee proposal set forth in Exhibit "B". The total and cumulative amount of this Contract shall not exceed **XXX Hundred XXX Thousand Dollars (\$XXX,000.00)**. The CITY shall not reimburse the CONTRACTOR for any travel costs incurred as a direct result of the CONTRACTOR providing deliverables to the CITY in pursuance of the scope of work contained in Exhibit A, without specific, prior written approval of the CITY.
- B. Progress Invoices - No later than the 20th day of every month, the CONTRACTOR shall prepare and submit, on a form approved by the CITY's representative, a detailed estimate and invoice of work which has been completed from the start of the job up to and including the last day of the preceding month, together with such supporting evidence of the expenditures as required by this Contract. The CONTRACTOR shall also submit with each invoice an updated revised work schedule. The CONTRACTOR shall include in the Progress Invoice a Warranty of Title indicating that as of the date of Progress Invoice that all work, materials, and equipment covered by the Progress Invoice passes to the City at the time of payment of the Progress Invoice and that all laborers, materialmen, and subcontractors have been paid in full for all work, materials, and equipment covered by the Progress Invoice and also provide Partial Releases of Lien and/or Partial Releases of Payment Bond from all laborers, materialmen, and subcontractors as to such work, materials, and equipment covered by the Progress Invoice. CITY has no obligation to pay any Progress Invoice until both a Warranty of Title and Partial Releases of Lien and/or Partial Releases of Payment Bond are provided to CITY.
- C. Progress Payments – Progress Invoices received from the CONTRACTOR pursuant to this Contract will be reviewed and approved by the CITY representative within ten days of receipt of the invoice, indicating that services have been rendered in conformity with the Contract unless the CITY requires clarification or a correction of the invoice. The invoices will be sent to the Finance Department for payment. The CITY will pay to the CONTRACTOR ninety percent (90%) of the value based on the CONTRACTOR's estimate and invoice, as approved by the CITY representative. Invoices will normally be paid within thirty (30) days following the CITY representative's approval.
- D. Payment of Expenses - All requests for payment of expenses eligible for reimbursement under the terms of this Contract, if any, shall include copies of said receipts, invoices, or other documentation acceptable to the Finance Department. Such documentation shall be sufficient to establish that the expense was actually incurred and necessary in the performance of the scope of work described in this Contract. Long distance telephone calls shall identify the person(s) called, purpose of call, time and costs. Mileage charges shall identify the destination, number of miles, rate, and purpose of travel. Duplication charges shall describe the documents, purpose of duplicating, and rate charged. Any travel, per diem, mileage, meals, or lodging expenses which may be reimbursable under the terms of this Contract, if any, will be paid in accordance with the rates and conditions set forth in Section 112.061, Florida Statutes.

E. Final Invoice - In order for both parties herein to close their books and records, the CONTRACTOR will clearly state "Final Invoice" on the CONTRACTOR's final/last billing to the CITY. This certifies that all services have been properly performed and all charges and costs have been invoiced to the CITY. Since this account will thereupon be closed, any and other further charges if not properly included on this Final Invoice are waived by the CONTRACTOR and the CITY shall have no obligations for any other costs or expenses thereafter. Further, the CONTRACTOR shall include in the Final Invoice a Warranty of Title indicating that that all work, materials, and equipment covered by this Contract passes to the City at the time of payment of the Final Invoice and that all laborers, materialmen, and subcontractors have been paid in full for all work, materials, and equipment covered by this Contract and also provide Final Releases of Lien and/or Final Releases of Payment Bond from all laborers, materialmen, and subcontractors as to such work, materials, and equipment covered by the Contract. CITY has no obligation to pay the Final Invoice until both a Warranty of Title and Final Releases of Lien and/or Final Release of Payment Bond are provided to CITY.

ARTICLE 4 - TRUTH-IN-NEGOTIATION CERTIFICATE

Signature of this Contract by the CONTRACTOR shall also act as the execution of a truth-in-negotiation certificate certifying that the wage rates, over-head charges, and other costs used to determine the compensation provided for in this Contract are accurate, complete and current as of the date of the Contract and no higher than those charged to the CONTRACTOR'S most favored customer for the same or substantially similar service.

The said rates and costs shall be adjusted to exclude any significant sums should the CITY determine that the rates and costs were increased due to inaccurate, incomplete or non current wage rates or due to inaccurate representations of fees paid to outside contractors. The CITY shall exercise its rights under this Article 4 within three (3) years following final payment.

ARTICLE 5 - TERMINATION

This Contract may be canceled by the CONTRACTOR upon thirty (30) days prior written notice to the CITY'S representative in the event of substantial failure by the CITY to perform in accordance with the terms of this Contract through no fault of the CONTRACTOR; provided the CITY fails to cure same within that thirty (30) day period. This Contract may also be terminated, in whole or in part, by the CITY, with or without cause, immediately upon written notice to the CONTRACTOR. Unless the CONTRACTOR is in breach of this Contract, the CONTRACTOR shall be paid for services rendered to the CITY'S satisfaction through the date of termination. After receipt of a Termination Notice and except as otherwise directed by the CITY, the CONTRACTOR shall:

- A. Stop work on the date and to the extent specified.
- B. Terminate and settle all orders and subcontracts relating to the performance of the terminated work.
- C. Transfer all work in process, completed work, and other materials related to the terminated work to the CITY.
- D. Continue and complete all parts of the work that have not been terminated.

ARTICLE 6 - PERSONNEL

The CONTRACTOR represents that it has, or will secure at its own expense, all necessary personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the CITY.

All of the services required hereunder shall be performed by the CONTRACTOR or under its supervision, and all personnel engaged in performing the services shall be fully qualified and licensed and, if required, authorized or permitted under state and local law to perform such services.

Any changes or substitutions in the CONTRACTOR's key personnel, as may be listed in Exhibit "A", must be made known to the CITY's representative and written approval, at CITY's sole discretion, must be granted by the CITY's representative before said change or substitution can become effective.

The CONTRACTOR warrants that all services shall be performed by skilled, properly licensed, and competent personnel to the highest professional standards in their respective field(s).

The CONTRACTOR agrees that it is fully responsible to the CITY for the acts and omissions of subcontractors and of persons either directly or indirectly employed by the CONTRACTOR. Nothing contained herein shall create any contractual relationship between any subcontractor and the CITY.

All of the CONTRACTOR's personnel (and all Subcontractors) while on CITY premises will comply with all CITY requirements governing conduct, safety and security.

ARTICLE 7 - SUBCONTRACTING

The CITY reserves, at its sole discretion and for any reason, the right to accept the use of a subcontractor or to reject the selection of a particular subcontractor by CONTRACTOR and to inspect all facilities and approve all qualifications of any subcontractor in order to make a determination as to the capability of the subcontractor to perform properly under this Contract. However, in any event the CONTRACTOR shall be responsible for performing 50% of the work, at a minimum, by its own forces and equipment. Any changes or substitutions in the CONTRACTOR's subcontractors must be made known to the CITY's representative and written approval must be granted by the CITY's representative before said change or substitution can become effective. The CONTRACTOR is encouraged to seek minority and women business enterprises for participation in subcontracting opportunities. Further,

If a subcontractor fails to perform or make progress, as required by this Contract, and it is necessary to replace the subcontractor to complete the work in a timely fashion, the CONTRACTOR shall promptly do so, subject to acceptance, in writing and at the CITY's sole discretion, of the new subcontractor by the CITY. The CITY shall not unreasonably deny the request. However, the CONTRACTOR must demonstrate that the subcontractor being replaced is unable to perform the work, is performing the work poorly or untimely, or is unable to meet the requirements of the contract with the CITY. The CITY will not address issues related to the CONTRACTOR's

specific agreement with the subcontractor including issues of pricing.

If subcontractor(s) are used, the CONTRACTOR shall use only licensed and insured subcontractor(s), and shall require any subcontractor, as may be applicable, to provide a payment and performance bond. All subcontractors shall be required to promptly make payments to any person who, directly or indirectly, provides services or supplies under this Contract.

The CONTRACTOR shall be responsible for the performance of all subcontractors.

ARTICLE 8 – SBE PARTICIPATION

Consistent with the City’s procurement code, Small Business Enterprises (SBE) shall have the opportunity to participate in this project. CONTRACTOR is hereby informed that the CITY has established a goal of 15% participation of SBE. Contractor is obligated to demonstrate and document a good faith effort toward the attainment of the 15% SBE participation as a condition of this contract. The CONTRACTOR agrees to maintain all relevant records and information necessary to document compliance with the Ordinance, and agrees to allow the CITY to inspect such records and provide such records to the CITY upon request.

ARTICLE 9 - FEDERAL AND STATE TAX

The CITY is exempt from payment of Florida State Sales and Use Taxes. The CITY will sign an exemption certificate submitted by the CONTRACTOR. The CONTRACTOR shall not be exempted from paying sales tax to its suppliers for materials used to fulfill contractual obligations with the CITY, nor is the CONTRACTOR authorized to use the CITY’S Tax Exemption Number in securing such materials.

The CONTRACTOR shall be responsible for payment of its own and its share of its employees' payroll, payroll taxes, and benefits with respect to this Contract.

ARTICLE 10 - AVAILABILITY OF FUNDS

The CITY's performance and obligation to pay under this Contract is contingent upon an annual appropriation for its purpose by the CITY OF RIVIERA BEACH CITY COUNCIL.

ARTICLE 11 - INSURANCE

A. Prior to execution of this Contract by the CITY, the CONTRACTOR shall provide certificates evidencing insurance coverages as required hereunder. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Florida. The Certificates shall clearly indicate that the CONTRACTOR has obtained insurance of the type, amount, and classification as required for strict compliance with this ARTICLE and that no material change or cancellation of the insurance shall be effective without thirty (30) days prior written notice to the CITY's representative.

Compliance with the foregoing requirements shall not relieve the CONTRACTOR of its liability and obligations under this Contract.

B. The CONTRACTOR shall maintain during the term of this Contract, standard Professional Liability Insurance in the minimum amount of \$1,000,000.00 per occurrence (if applicable).

C. The CONTRACTOR shall maintain, during the life of this Contract, commercial general liability, including contractual liability, insurance in the amount of \$1,000,000.00 per occurrence to protect the CONTRACTOR from claims for damages for bodily and personal injury, including wrongful death, as well as from claims of property damages which may arise from any operations under this Contract, whether such operations be by the CONTRACTOR or by anyone, directly or indirectly, employed by or contracting with the CONTRACTOR.

D. The CONTRACTOR shall maintain, during the life of this Contract, comprehensive automobile liability insurance in the minimum amount of \$500,000.00 combined single limit for bodily injury and property damages liability to protect the CONTRACTOR from claims for damages for bodily and personal injury, including death, as well as from claims for property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles including, but not limited to, leased and rented automobiles, whether such operations be by the CONTRACTOR or by anyone, directly or indirectly, employed by the CONTRACTOR.

E. The parties to this Contract shall carry Workers' Compensation Insurance and Employer's Liability Insurance for all employees as required by Florida Statutes. In the event that a party does not carry Workers' Compensation Insurance and chooses not to obtain same, then such party shall, in accordance with Section 440.05, Florida Statutes, apply for and obtain an exemption authorized by the Department of Insurance and shall provide a copy of such exemption to the CITY.

F. All insurance, other than Professional Liability and Workers' Compensation, to be maintained by the CONTRACTOR shall specifically include the CITY as an "Additional Insured." Further, if CITY is being reimbursed in whole or in part for the cost of the work contemplated by the Contract by any third party, including but not limited to, any County, State, or Federal agency, CONTRACTOR, at CITY's request, will also list any such third party as an "Additional Insured" on all insurance.

ARTICLE 12 - INDEMNIFICATION

To the extent allowed by law, including section 725.06(2), Florida Statutes, the CONTRACTOR shall indemnify and hold harmless the CITY, its agents, officers, and employees from and against any and all claims, liability, losses, and/or causes of action which may arise from any negligent act, recklessness, or intentional wrongful conduct or omission of the CONTRACTOR, its agents, officers, or employees in the performance of services under this Contract, including, but not limited to, to all attorneys' fees and costs incurred by CITY.

The CONTRACTOR further agrees to indemnify and hold harmless the CITY, its agents, officers and employees from and against any claim, demand or cause of action of whatsoever kind or nature arising out of any conduct or misconduct of the CONTRACTOR not included in the paragraph above and for which the CITY, its agents,

officers, or employees are alleged to be liable, including, but not limited to, to all attorneys' fees and costs incurred by CITY.

CONTRACTOR shall pay all claims, losses, liens, fines, settlements or judgments of any nature whatsoever in connection with the foregoing indemnifications including, but not limited to, all costs, expert witness fees, reasonable attorney's fees, and court and/or arbitration costs. These indemnifications shall survive the term of this Contract or any renewal thereof.

Nothing contained in this Article shall be construed or interpreted as consent by the CITY to be sued, nor as a waiver of sovereign immunity beyond the waiver provided in Section 768.28, Florida Statutes.

ARTICLE 13 - SUCCESSORS AND ASSIGNS

The CITY and the CONTRACTOR each binds itself and its partners, successors, executors, administrators and assigns to the other party of this Contract and to the partners, successors, executors, administrators and assigns of such other party, in respect to all covenants of this Contract. Neither the CITY nor the CONTRACTOR shall assign, sublet, convey or transfer its interest in this Contract without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of the CITY which may be a party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the CITY and the CONTRACTOR.

ARTICLE 14 – DISPUTE RESOLUTION, VENUE, AND REMEDIES

All claims arising out of this Contract or its breach shall be submitted first to mediation in accordance with the local rules for mediation in Palm Beach County, Florida. The parties shall share the mediator's fee equally. The mediation shall be held in Palm Beach County, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

This Contract shall be governed by the laws of the State of Florida. Any and all legal action necessary to enforce the Contract will be held in Palm Beach County, Florida. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

ARTICLE 15-REMEDIES

No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

ARTICLE 16 - CONFLICT OF INTEREST

The CONTRACTOR represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance or services required hereunder, as provided for in Florida Statutes, Section 112.311. The CONTRACTOR further represents that no person having any such conflicting interest shall be employed for said performance.

The CONTRACTOR shall promptly notify the CITY's representative, in writing, by certified mail, of all potential conflicts of interest for any prospective business association, interest or other circumstance which may influence or appear to influence the CONTRACTOR's judgment or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONTRACTOR may undertake and request an opinion of the CITY as to whether the association, interest or circumstance would, in the opinion of the CITY, constitute a conflict of interest if entered into by the CONTRACTOR. The CITY agrees to notify the CONTRACTOR of its opinion by certified mail within thirty (30) days of receipt of notification by the CONTRACTOR. If, in the opinion of the CITY, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONTRACTOR, the CITY shall so state in the notification and the CONTRACTOR shall, at its option, enter into said association, interest or circumstance and it shall be deemed not in conflict of interest with respect to services provided to the CITY by the CONTRACTOR under the terms of this Contract.

ARTICLE 17 – DELAYS AND EXTENSION OF TIME

The CONTRACTOR shall not be considered in default by reason of a delay in timely performance if such delay and failure arises out of causes reasonably beyond the control of the CONTRACTOR or its subcontractors and without their fault or negligence. Such causes include, but are not limited to: acts of God; natural or public health emergencies; labor disputes; freight embargoes; and abnormally severe and unusual weather conditions. Upon the CONTRACTOR's request, the CITY shall consider the facts and extent of any such delay and failure to timely perform the work for reason beyond the control of the CONTRACTOR and, if the CONTRACTOR's delay and failure to timely perform was without it or its subcontractors' fault or negligence, as determined by the CITY in its sole discretion, the time of completion shall be extended for any reasonable time that the CITY, in its sole discretion, may decide; subject to the CITY's rights to change, terminate, or stop any or all of the work at any time.

If the CONTRACTOR is delayed at any time in the progress of the work by any act or neglect of the CITY or its employees, or by any other contractor employed by the CITY, or by changes ordered by the CITY or in an unusual delay in transportation, unavoidable casualties, or any causes beyond the CONTRACTOR'S control, or by delay authorized by the CITY pending negotiation or by any cause which the CITY, in its sole discretion, shall decide justifies the delay, then the time of completion shall be extended for any reasonable time the CITY, in its sole discretion, may decide.

No extension of time shall be made for any delay occurring more than seven (7) days before a claim therefore is made in writing to the CITY. In the case of continuing cause of delay, only one (1) claim is necessary.

If no schedule or other agreement sets forth the dates by which drawing(s) shall be furnished, then no claims for

delay shall be allowed because of failure to furnish such drawing(s), until two (2) weeks after demand for the drawings and not then unless said claim is reasonable.

The CONTRACTOR's sole remedy for a delay in completion of the work for any reason will be an extension of time to complete the work and CONTRACTOR specifically waives any right to seek any monetary damages or losses for a delay in completion of the work, including, but not limited to, waiving any right to seek monetary amounts for lost profits, additional overhead, salaries, lost productivity, efficiency losses, or any other alleged monetary losses which may be allegedly suffered by CONTRACTOR due to a delay in completion of the work.

ARTICLE 18 - INDEBTEDNESS

The CONTRACTOR shall not pledge the CITY's credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgment, lien, or any form of indebtedness. The CONTRACTOR further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Contract.

ARTICLE 19 - DISCLOSURE AND OWNERSHIP OF DOCUMENTS

The CONTRACTOR shall deliver to the CITY's representative for approval and acceptance, and before being eligible for final payment of any amounts due, all documents and materials prepared by and for the CITY under this Contract.

All written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the CITY or at its expense will be kept confidential by the CONTRACTOR and will not be disclosed to any other party, directly or indirectly, without the CITY's prior written consent unless required by a lawful order. All drawings, maps, sketches, programs, data base, reports and other data developed, or purchased, under this Contract for or at the CITY's expense shall be and remain the CITY's property and may be reproduced and reused at the discretion of the CITY.

The CONTRACTOR shall comply with Florida's Public Records Act, Chapter 119, Florida Statutes, and, if determined to be acting on behalf of the CITY as provided under section 119.011(2), Florida Statutes, specifically agrees to:

- (a) Keep and maintain public records required by the CITY to perform the service.
- (b) Upon request from the CITY's custodian of public records or designee, provide the CITY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of this Contract and following completion of this Contract if the CONTRACTOR does not transfer the records to the CITY.

(d) Upon completion of this Contract, transfer, at no cost, to the CITY all public records in possession of the CONTRACTOR or keep and maintain public records required by the CITY to perform the service. If the CONTRACTOR transfers all public records to the CITY upon completion of the Contract, the CONTRACTOR shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONTRACTOR keeps and maintains public records upon completion of the Contract, the CONTRACTOR shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the CITY, upon request from the CITY's custodian of public records or designee, in a format that is compatible with the information technology systems of the CITY.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS OR DESIGNEE AT: 600 WEST BLUE HERON BLVD., RIVIERA BEACH, FL, 33404, Tel. (561)845-4090, crobinson@rivierabeach.org.

ARTICLE 20 - INDEPENDENT CONTRACTOR RELATIONSHIP

The CONTRACTOR is, and shall be, in the performance of all work, services and activities under this Contract, an Independent Contractor, and not an employee, agent, or servant of the CITY. All persons engaged in any of the work or services performed pursuant to this Contract shall at all times, and in all places, be subject to the CONTRACTOR's sole direction, supervision, and control. The CONTRACTOR shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the CONTRACTOR's relationship and the relationship of its employees to the CITY shall be that of an Independent Contractor and not as employees or agents of the CITY.

The CONTRACTOR does not have the power or authority to bind the CITY in any promise, agreement or representation other than as specifically provided for in this Contract.

ARTICLE 21 - CONTINGENT FEES

The CONTRACTOR warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONTRACTOR to solicit or secure this Contract and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONTRACTOR, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this Contract.

ARTICLE 22 - ACCESS AND AUDITS

The CONTRACTOR shall maintain adequate records to justify all charges, expenses, and costs incurred in estimating and performing the work for at least three (3) years after completion of this Contract. The CITY shall have access to such books, records, and documents as required in this Article for the purpose of inspection or audit during normal business hours, at the CONTRACTOR's place of business.

ARTICLE 23 - NONDISCRIMINATION

The CONTRACTOR warrants and represents that all of its employees are treated equally during employment without regard to race, color, religion, disability, sex, age, national origin, ancestry, political affiliation, marital status, handicap, or sexual orientation. Further, CONTRACTOR shall not discriminate or permit discrimination against any employee or an applicant for employment on the basis of race, color, sex, religion, political affiliation, natural origin, ancestry, marital status, sexual orientation or handicap.

ARTICLE 24 - ENFORCEMENT COSTS

All parties shall be responsible for their own attorneys fees, court costs and expenses if any legal action or other proceeding is brought for any dispute, disagreement, or issue of construction or interpretation arising hereunder whether relating to the Contract's execution, validity, the obligations provided therein, or performance of this Contract, or because of an alleged breach, default or misrepresentation in connection with any provisions of this Contract.

ARTICLE 25 – LICENSES, APPROVALS AND PERMITS

The CONTRACTOR hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business, and that it will at all times conduct its business activities in a reputable manner. This includes, but is not limited to, maintaining all licenses and performing all the duties required under Section 489.128, Florida Statutes. Proof of such licenses and approvals shall be submitted to the CITY's representative upon request.

The CONTRACTOR shall be solely responsible for obtaining, paying for, and complying with all necessary permits, licenses, approvals and authorizations required for any work done pursuant to this Contract from any federal, state, regional, county or city agency.

ARTICLE 26 - SEVERABILITY

If any term or provision of this Contract, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this Contract, or the application of such terms or provisions, to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Contract shall be deemed valid and enforceable to the extent permitted by law.

ARTICLE 27 - PUBLIC ENTITY CRIMES

As provided in Sections 287.132-133, Florida Statutes, by entering into this Contract or performing any work in furtherance hereof, the CONTRACTOR certifies that it, its affiliates, suppliers, subcontractors and contractors who will perform hereunder, have not been placed on the convicted vendor list maintained by the State of Florida Department of Management Services within the 36 months immediately preceding the date hereof. This notice is required by F.S. 287.133(3)(a).

ARTICLE 28 - MODIFICATIONS OF WORK

The CITY reserves the right to make changes in the Scope of Work, including alterations, reductions therein or additions thereto. Upon receipt by the CONTRACTOR of the CITY’s notification of a contemplated change, the CONTRACTOR shall, in writing: (1) provide a detailed estimate for the increase or decrease in cost due to the contemplated change; (2) notify the CITY of any estimated change in the completion date; and, (3) advise the CITY if the contemplated change shall affect the CONTRACTOR’s ability to meet the completion dates or schedules of this Contract.

If the CITY so instructs in writing, the CONTRACTOR shall suspend work on that portion of the Scope of Work affected by a contemplated change, pending the CITY’s decision to proceed with the change.

If the CITY elects to make the change, the CITY shall initiate a Contract Amendment and the CONTRACTOR shall not commence work on any such change until such written amendment is signed by the CONTRACTOR and approved and executed by the CITY’s designated representative and approved by the CITY COUNCIL FOR THE CITY OF RIVIERA BEACH should said change require COUNCIL approval.

ARTICLE 29 - NOTICE

All notices required in this Contract shall be sent by certified mail, return receipt requested, and if sent to the CITY shall be mailed to:

**TERRENCE N. BAILEY, INTERIM DIRECTOR OF PUBLIC WORKS
1481 15TH STREET
RIVIERA BEACH, FL 33404**

and if sent to the CONTRACTOR shall be mailed to:

**XXXXXXXXXX CONSTRUCTION
XXXXXXXXXX, PRESIDENT
XXX XXXX PARKWAY, UNIT XX
WEST PALM BEACH, FL 33411**

ARTICLE 30 - ENTIRETY OF CONTRACTUAL AGREEMENT

The CITY and the CONTRACTOR agree that this Contract and any attachments hereto or other documents as referenced in the Contract sets forth the entire agreement between the parties, that there are no promises or understandings other than those stated herein, and this Contract supersedes all prior oral and written agreements between the parties hereto with respect to the subject matter hereof. None of the provisions, terms and conditions contained in this Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto in accordance with Article 28 - Modifications of Work.

ARTICLE 31 - SPECIAL CONDITIONS

All materials and supplies provided by CONTRACTOR shall be in strict accordance with the plans and specifications approved by the CITY.

The CONTRACTOR shall furnish bonds and maintain said bonds throughout the duration of the project as provided for in Florida Statutes section 255.01 Et. Seq., covering the faithful performance of the Contract and payment of all obligations arising thereunder. The bonds shall be secured by the CONTRACTOR from a surety company licensed in the State of Florida with an “A-“ rating or better in management and a “10” rating or better in strength as rated by Best’s Key Rating Guide published by Alfred M. Best Company, Oldwick, New Jersey 08858.

The CONTRACTOR shall be required to provide Surety Bonds in the amount of one hundred percent (100%) of the Contract amount. The required premiums shall be paid for by the CONTRACTOR.

In addition to the above-minimum qualifications, the surety company must meet at least one of the following additional qualifications:

- A. The surety company shall hold a current certificate or authority as an acceptable surety of federal bonds in accordance with the United States Department of Treasury Circular 570, Current Revision. The surety company shall provide the CITY with satisfactory evidence that such excess risk has been protected in an acceptable manner.
- B. The surety company shall have at least the following minimum ratings in the latest revision of Best’s Key Rating Guide: Best’s Policy Holders Ratings –A- (minimum); Best Financial Category – Class 1.
- C. For projects that do not exceed \$500,000, the CITY will accept bonds in accordance with section 287.0935, Florida Statutes.
- D. If the surety is declared bankrupt, becomes insolvent, its right to do business in the State of Florida is terminated or it ceases to meet the requirements set forth above, the CONTRACTOR shall within ten (10) working days after notification by the CITY substitute another bond and surety company, at no cost to the CITY, meeting the above requirements.

ARTICLE 32 – INSPECTION OF WORK

The CITY’s representative and the CITY’s Engineer shall at all times have access to work wherever it is, in preparation or progress, and the CONTRACTOR shall provide proper facilities for such access and for inspection.

If the specifications, the CITY, the Engineer’s instructions, laws, ordinances or any public authority requires any work to be specially tested or approved, the CONTRACTOR shall give the CITY Representative and CITY Engineer timely notice of its readiness for inspection. If any such work should be covered up by CONTRACTOR and CITY Representative or CITY Engineer desires to inspect or re-inspect such work for any reason, at the sole discretion of CITY Representative or CITY Engineer, such work must be uncovered for examination, at the CONTRACTOR’s expense.

ARTICLE 33– WARRANTY/GUARANTY

All materials and equipment to be furnished and/or installed by the CONTRACTOR under this Contract as it relates to the **Project XXXXXX** shall be guaranteed by the Manufacturer, if any, for a period of years as specified by the manufacturer under normal manufacturer warranties from the date of final acceptance thereof against defective materials, design and workmanship. The CONTRACTOR shall guarantee all of its work, including but not limited to all work related to construction of the **Project XXXXXX** and all related amenities for a period of 1 year. Upon receipt of notice from the CITY of failure of any part covered under such warranty/guaranty period, the affected part, parts, or materials shall be replaced promptly with new parts or materials by the CONTRACTOR or Manufacturer at no expense to the CITY. In the event the CONTRACTOR fails to make the necessary repairs or replacements within thirty (30) days after notification by the CITY, the CITY may accomplish the work at the expense of the CONTRACTOR.

The CONTRACTOR shall provide the CITY with a written warranty of its work and with a copy of the manufacturer's warranty as it relates to the materials and parts used to **Project XXXXXX**.

ARTICLE 34 – PROTECTION OF WORK AND PROPERTY

The CONTRACTOR shall continuously maintain adequate protection of all work from damage, and shall protect such work and the CITY's property from injury or loss arising during the term of the Contract. Except for any such damage, injury, or loss which may be directly due to errors caused by the CITY or employees of the CITY, the CONTRACTOR shall adequately protect adjacent property, as provided by the law, and shall provide guard fences, lights, and any other necessary materials to carry out such protection.

Until acceptance of the work by the CITY, the CITY's property shall be under the charge and care of the CONTRACTOR and the CONTRACTOR shall take every necessary precaution against injury or damage to the work by the action of the elements or from any other cause whatsoever, and the CONTRACTOR shall repair, restore and make good, without additional charge any work occasioned by any of the above causes before its completion and acceptance by the CITY.

ARTICLE 35 – TIME

The parties agree that time is of the essence in all respects under this Contract and failure by a party to complete performance within the time specified, or within a reasonable time if no time is specified herein or in the exhibits, shall, at the option of the other party without liability, in addition to any other rights or remedies, relieve the other party of any obligation to accept such performance.

ARTICLE 36 - TERMINOLOGY AND CAPTIONS

All pronouns, singular, plural, masculine, feminine or neuter, shall mean and include the person, entity, firm or corporation to which they relate as the context may require. Wherever the context may require, the singular shall mean and include the plural and the plural shall mean and include the singular. The term "Contract" as used herein, as well as the terms "herein", "hereof", "hereunder", "hereinafter" and the like mean this Contract in its entirety and all exhibits, amendments and addenda attached hereto and made a part hereof. The captions and paragraph headings are for reference and convenience only and do not enter into or become a part of the context of this Contract, nor shall such headings affect the meaning or interpretation of this Contract.

ARTICLE 37 - WAIVER

Failure of the CITY to enforce or exercise any right(s) under this Contract shall not be deemed a waiver of the CITY's right to enforce or exercise said right(s) at any time thereafter.

ARTICLE 38 - PREPARATION

CITY and CONTRACTOR acknowledge that each has had the benefit of counsel or the ability to retain counsel and full and free access to counsel in connection with the negotiation and execution of Contract, that each has consulted or could have consulted with counsel in connection with this Contract, and that each has had the opportunity, prior to execution, to read this Contract and fully understand all of its provisions. Should any provision in this Contract require judicial or quasi-judicial interpretation it is agreed that a Court or other dispute resolution forum interpreting or enforcing the same shall not apply a presumption that the terms hereof shall be more strictly construed against any party by reason of the rule construction that a document is to be construed more strictly against the party who itself or through its agent has prepared the same. CITY and CONTRACTOR agree that this Contract is the product and result of a joint effort.

ARTICLE 39 - MATERIALITY

All provisions of the Contract shall be deemed material. In the event CONTRACTOR fails to comply with any of the provisions contained in this Contract or exhibits, amendments and addenda attached hereto, said failure shall be deemed a material breach of this Contract and CITY may at its option and without notice terminate this Contract.

ARTICLE 40 - REPRESENTATIONS/BINDING AUTHORITY

CONTRACTOR has full power, authority and legal right to execute and deliver this Contract and perform all of its obligations under this Contract. By signing this Contract, XXXXXXXX, **PRESIDENT** hereby represents to the CITY that he/she has the authority and full legal power to execute this Contract and any and all documents necessary to effectuate and implement the terms of this Contract on behalf of the party for whom he or she is signing and to bind and obligate such party with respect to all provisions contained in this Contract.

ARTICLE 41 - EXHIBITS

Each exhibit referred to in this Contract forms an essential part of this Contract. The exhibits, if not physically attached, should be treated as part of this Contract and are incorporated herein by reference.

ARTICLE 42 - CONTRACT DOCUMENTS AND CONTROLLING PROVISIONS

This Contract consists of this contract, bid documents and construction design plans. The CONTRACTOR agrees to be bound by all the terms and conditions set forth in this Contract and design plans. To the extent that there exists a conflict between this Contract and design plans, the terms, conditions, covenants, and/or provisions of this Contract shall prevail. Wherever possible, the provisions of such documents shall be construed in such a manner as to avoid conflicts between provisions of the various documents.

ARTICLE 43 - LEGAL EFFECT

This Contract shall not become binding and effective until approved, in writing, by both CITY's designated representative and the CITY COUNCIL OF THE CITY OF RIVIERA BEACH.

ARTICLE 44 - NOTICE OF COMPLAINTS OR SUITS

Each party will promptly notify the other of any complaint, claim, suit or cause of action threatened or commenced against it which arises out of or relates, in any manner, to the performance of this Contract. Each party agrees to cooperate with the other in any investigation either may conduct, the defense of any claim or suit in which either party is named, and shall do nothing to impair or invalidate any applicable insurance coverage.

ARTICLE 45 – SURVIVABILITY

Any provision of this Contract which is of a continuing nature or imposes an obligation which extends beyond the term of this Contract shall survive its expiration or earlier termination.

ARTICLE 46 - DEFAULT

Notwithstanding anything contained in this Contract to the contrary, the parties agree that, by way of inclusion and not limitation, the occurrence of any of the following shall be deemed a material event of default and shall be grounds for termination:

- A. The filing of a lien or claim of any kind by any subcontractor or third tier subcontractor including, but not limited to materialmen, suppliers, or laborers, upon any property, right of way, easement, other interest in land or right to use such land within the territorial boundaries of the CITY which lien is not satisfied, discharged or contested in a court of law within thirty (30) days from the date of notice to the CONTRACTOR;
- B. The filing of any claim, including, but not limited to, a claim against any Payment Bond by any

subcontractor or third tier subcontractor including, but not limited to materialmen, suppliers, or laborers, concerning the failure of the CONTRACTOR to pay any such subcontractor or third tier subcontractor including, but not limited to materialmen, suppliers, or laborers, for any work performed or materials supplied pursuant to this Contract;

- C. The filing of any judgment lien against the assets of CONTRACTOR related to the performance of this Contract which is not satisfied, discharged or contested in a court of law within thirty (30) days from the date of notice to the CONTRACTOR; or
- D. The filing of a petition by or against the CONTRACTOR for relief under the Bankruptcy Code, or for its reorganization or for the appointment of a receiver or trustee of the CONTRACTOR or the CONTRACTOR's property; or an assignment by CONTRACTOR for the benefit of creditors; or the taking possession of the property of the CONTRACTOR by any governmental officer or agency pursuant to statutory authority for the dissolution or liquidation of the CONTRACTOR; or if a temporary or permanent receiver or trustee shall be appointed for the CONTRACTOR or for the CONTRACTOR's property and such temporary or permanent receiver or Trustee shall not be discharged within thirty (30) days from the date of appointment.

The CONTRACTOR shall provide written notice to the CITY of the occurrence of any event of default within ten (10) days of CONTRACTOR's notice of any such default.

ARTICLE 47 - WAIVER OF SUBROGATION

CONTRACTOR hereby waives any and all rights to Subrogation against the CITY, its officers, employees and agents for each required policy. When required by the insurer, or should a policy condition not permit an insured to enter into a pre-loss agreement to waive subrogation without an endorsement, then the CONTRACTOR shall agree to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which a condition to the policy specifically prohibits such an endorsement, or voids coverage should the CONTRACTOR enter into such an agreement on a pre-loss basis.

ARTICLE 48 - RIGHT TO REVIEW

The CITY, by and through its Risk Management Department, in cooperation with the contracting/monitoring department, reserves the right to review, reject or accept any required policies of insurance, including limits, coverages, or endorsements, therein from time to time throughout the term of this Contract. The CITY reserves the right, but not the obligation, to review and reject any insurer providing coverage because of poor financial condition or failure to operate legally.

ARTICLE 49 – SUBRECIPIENT REQUIREMENTS

CONTRACTOR agrees and recognizes that CITY may be seeking reimbursement in whole or in part for the cost of the work contemplated by this Contract from a third party, including but not limited to, various County, State, and Federal agencies or subdivisions. The reimbursement sought by CITY may be dependent upon, among other items, CONTRACTOR's compliance with the terms and conditions of this Contract and the furnishing of Subrecipient Requirement information by CONTRACTOR to CITY. CONTRACTOR agrees to fully cooperate with CITY in any requests of CITY to fulfill CITY's Subrecipient Requirements and to otherwise obtain the sought after reimbursement. CONTRACTOR agrees and recognizes that the failure to comply with all the terms and conditions of this Contract and the furnishing of Subrecipient Requirement information to CITY by CONTRACTOR may result in the CITY failing to obtain the sought after reimbursement in whole or in part for the cost of the work contemplated by this Contract and that such failure by the CONTRACTOR shall constitute a material default under this Contract.

ARTICLE 50 – WAIVER OF TRIAL BY JURY

IN THE EVENT OF LITIGATION ARISING FROM THIS CONTRACT, CITY AND CONTRACTOR KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHT TO A TRIAL BY JURY. CITY AND CONTRACTOR HEREBY ACKNOWLEDGE THAT THIS WAIVER PROVISION IS A MATERIAL INDUCEMENT FOR EACH PARTY AGREEING TO ENTER INTO THIS CONTRACT.

IN WITNESS WHEREOF, the parties unto this Contract have set their hand and seal on the day and year above written.

CITY OF RIVIERA BEACH

XXXX DEMOLITION

BY: _____
RONNIE L. FELDER,
MAYOR

BY: _____
XXXXXXXXXXXX,
PRESIDENT

ATTEST:

BY: _____
CLAUDENE L. ANTHONY
CERTIFIED MUNICIPAL CLERK
CITY CLERK

APPROVED AS TO TERMS AND
CONDITIONS

BY: _____
TERRENCE N. BAILEY, PE
DEPARTMENT DIRECTOR

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

BY: _____
DAWN S. WYNN
CITY ATTORNEY

Date: _____

EXHIBIT “A”

SCOPE OF WORK

The project involves the permitting, and construction of bridges, associated roadway, sidewalk and utility relocation and upgrade in the City of Riviera Beach. The work includes, but is not limited to, the replacement of the existing bridges on Island Drive and Grand Bahama Lane in the Palm Beach Isles neighborhood on Singer Island. This is a general summary and is not intended to be a complete and all-inclusive description of the work items. Contractor shall review the construction plans, notes and details for more information. The bridges will be replaced in their current location, with minor widening to accommodate foot/bike traffic within a shoulder. The new bridges will have planters to match the existing bridges. The intent is for the bridges to closely resemble the existing condition. Work includes bridge construction, bulkheads, concrete, asphalt, utilities, drainage, and landscaping. Associated maintenance of traffic, temporary utility services, and environmental protections are also required.

The two existing bridges on Grand Bahama Lane are both approximately 17 feet in length (length of bridge deck) and approximately 31 feet in width two travel lanes (one in each direction. The four existing bridges on Island Drive are all approximately 17 feet in length (length of bridge deck) and approximately 20 feet in width. The existing Island Drive bridges include a single travel lane only. No sidewalks or bicycle facilities are located on the existing bridges. The new bridges will be similar and placed along the same alignment. The proposed typical section for the Grand Bahama bridges includes 10-foot lane widths in each direction, 4-foot shoulders with traffic barrier and a 4-foot planter/utility area; which equates to a widening of approximately 6 feet. The proposed typical section for the four Island Drive Bridges includes a 10-foot lane width, 4-foot shoulders and a 4-foot planter/utility area with a traffic barrier.

Access to the homes shall be provided at all times during construction. One lane (one way at a time) is required and the Contractor shall provide the associated Maintenance of Traffic. The Contractor is responsible for public outreach to the neighborhood to communicate the project schedule and impacts. The existing water, sewer, gas, communication, electric, and cable tv lines shall be replaced with the bridges with no interruption of service. The new planters will also serve as a location for the utility pipelines.

The bridge construction shall follow FDOT standards and specifications with the exception of the traffic railings that will be Texas DOT Traffic Railing Type T221. The proposed replacement bridge abutments and proposed replacement bulkhead walls at Island Drive will be constructed in front of the existing abutments/ bulkhead walls. Bridge construction at both locations will involve removal of the deck of each bridge first to enable construction of the new abutments. The new abutments will consist of 18” square, prestressed concrete piles with precast concrete sheet panels and a cast-in-place concrete cap. Holes for the piles need to be pre-formed due to the presence of hard rock relatively close to the channel bed. A concrete cap will be cast over the piles and sheet panels to support the bridge deck. The bridge decks will consist of precast, pre-stressed concrete slab units. The deck units will be laterally post-tensioned to form a single bridge deck. The bridge decks will include a concrete topping to form the required profile of the riding surface, the traffic railings and planter walls.

Construction of the bulkhead walls at Island Drive will be very similar to the bridge abutments. Following the installation of the piles and sheet panels, deadman anchors will be installed at top of the piles to tie back the walls. Finally, the concrete cap will be cast over the piles and sheet panels. Elements of the existing bridge abutments and bulkhead walls will be left in place behind the new construction. The space between the existing and proposed walls will be filled with rock wrapped in filter fabric. The existing caps will be removed once the new piles and sheet panels are installed.

Precautions to avoid disturbing the seagrasses in the waterway are required by the US Army Corps of Engineers. Construction activities at Island Drive shall take place from the shoreline. At Grand Bahama Lane, a platform is allowed due to the lack of working space available from the shoreline. It is assumed that the contractor will construct a temporary work platform on the north side of the island between the two bridges. This is being included in the USACE permit for the project. If the contractor proposes other construction methods that will impact the submerged lands around the bridges, the contractor will need to address and seek approval for these methods with the USACE. The Contractor shall submit a Debris Containment Plan for review and approval by the City and the USACE. Modifications shall be approved by USACE prior to any work. No work may be performed prior to USACE permit issuance. The Contractor prior, during and at the completion of the demolition part of this work shall follow all the required notifications, protection, regulatory requirements and execution procedures described in Section 02050 of the Project Manual.

The Work Schedule is integral part of Exhibit A, in accordance with Article 2 (C).

Reports and other required documentation shall be delivered timely and completed in accordance with Sections 1015, 1310, 1720, 1740 and other, and such submittal requirements are integral part of Exhibit A.

EXHIBIT “B”

SCHEDULE OF PAYMENTS

The Scope of Work to be completed by CONTRACTOR as defined in Exhibit “A” is based on 90% completion and compensation for the work tasks stated herein and shall be paid in accordance with Article 3 and the following Schedule of Values, which is attached herein and which forms a part of Exhibit B.

EXHIBIT B

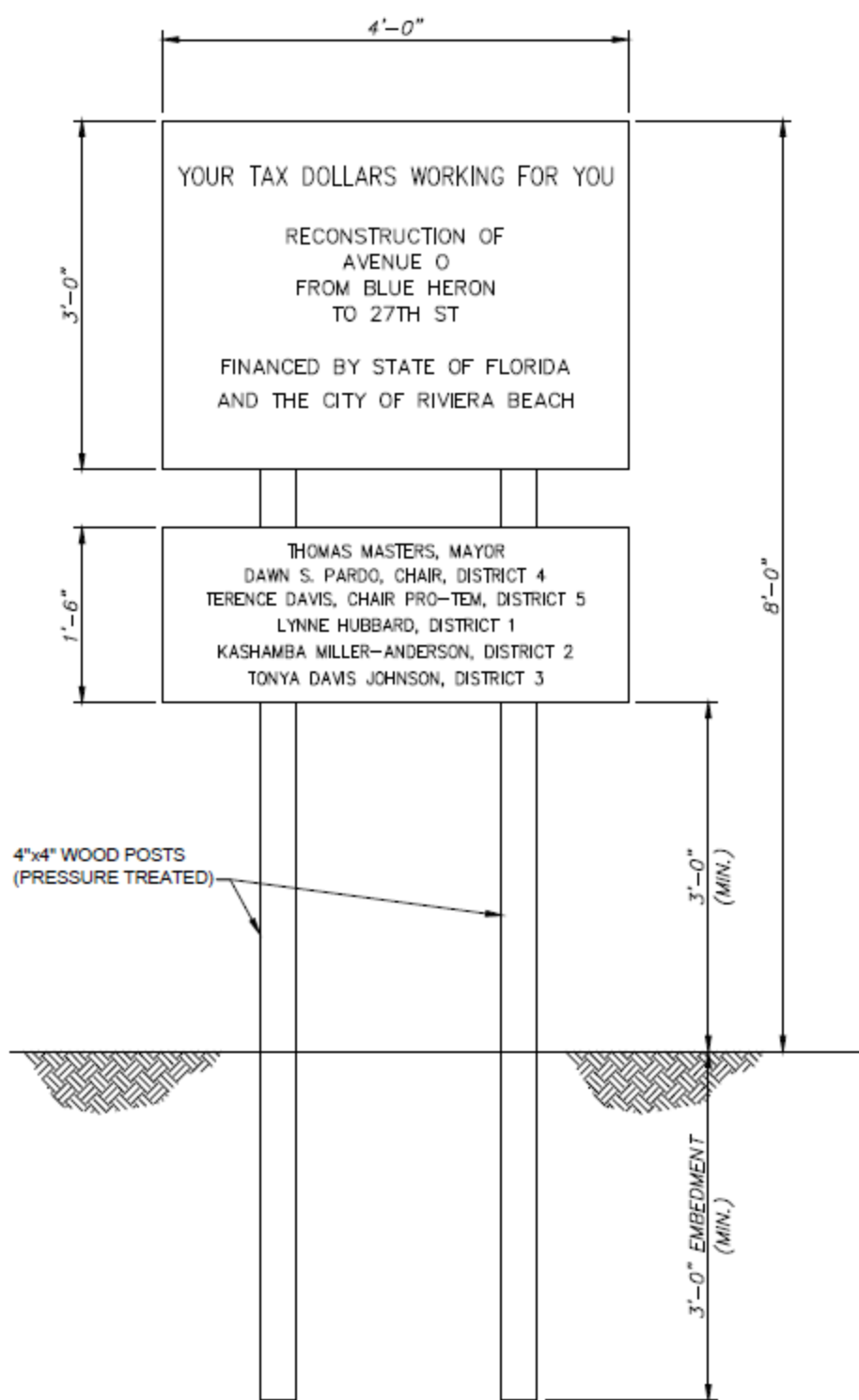
BID TAB

City of Riviera Beach
PALM BEACH ISLES BRIDGE IMPROVEMENT PROJECT
BID No. 996-20-1
EXHIBIT B

Item No.	Description	Quantity		Unit Price	Total
		Location	Total	Unit	\$
Overhead Items					
1	Bonds and Insurance	ALL	1	LS	
2	Mobilization	ALL	1	LS	
3	Maintenance of Traffic	ALL	1	LS	
4	Permit Fees	ALL	1	AL	\$35,000.00
5	Professional Audio/Visual of Construction Site	ALL	1	LS	
6	Project Identification Sign	ALL	2	EA	
7	Survey and Record Drawings (Layout/As Builts)	ALL	1	LS	
SUBTOTAL OVERHEAD ITEMS:					\$
Proposed Roadway and Bridge Improvements					
8	MAINTENANCE OF TRAFFIC (PLAN, PERMIT, DEVICES, TEMPORARY PAVEMENT, TEMPORARY BRIDGE RAILINGS, TEMPORARY SIGNAL, FLAGGERS, POLICE, ETC)	ISLAND DR SOUTH / EASTBOUND	1	LS	
9	MAINTENANCE OF TRAFFIC (PLAN, PERMIT, DEVICES, TEMPORARY PAVEMENT, TEMPORARY BRIDGE RAILINGS, TEMPORARY SIGNAL, FLAGGERS, POLICE, ETC)	ISLAND DR NORTH / WESTBOUND	1	LS	
10	MAINTENANCE OF TRAFFIC (PLAN, PERMIT, DEVICES, TEMPORARY PAVEMENT, TEMPORARY BRIDGE RAILINGS, TEMPORARY SIGNAL, FLAGGERS, POLICE, ETC)	GRAND BAHAMA LN	1	LS	
11	SWPPP ELEMENTS, NPDES, ENVIRONMENTAL PROTECTIONS, AND OTHER PERMIT COMPLIANCE	ISLAND DR	1	LS	
12	SWPPP ELEMENTS, NPDES, ENVIRONMENTAL PROTECTIONS, AND OTHER PERMIT COMPLIANCE	GRAND BAHAMA LN	1	LS	
13	REMOVAL OF EXISTING STRUCTURES/BRIDGE	ISLAND DR SOUTH / EASTBOUND	1	LS	
14	REMOVAL OF EXISTING STRUCTURES/BRIDGE	ISLAND DR NORTH / WESTBOUND	1	LS	
15	REMOVAL OF EXISTING BULKHEAD WALLS	ISLAND DR	1	LS	
16	REMOVAL OF EXISTING STRUCTURES/BRIDGE	GRAND BAHAMA LN	1	LS	
17	BRIDGES (EXCAVATION, EMBANKMENT, CONCRETE, DIAPHRAGMS, REINFORCING STEEL, PILES, SLABS, BARRIER WALLS, PLANTER WALLS, BULKHEADS, ETC)	ISLAND DR SOUTH / EASTBOUND	1	LS	
18	BRIDGES (EXCAVATION, EMBANKMENT, CONCRETE, DIAPHRAGMS, REINFORCING STEEL, PILES, SLABS, BARRIER WALLS, PLANTER WALLS, BULKHEADS, ETC)	ISLAND DR NORTH / WESTBOUND	1	LS	
19	BULKHEAD WALLS	ISLAND DR	1	LS	
20	BRIDGES (EXCAVATION, EMBANKMENT, CONCRETE, DIAPHRAGMS, REINFORCING STEEL, PILES, SLABS, BARRIER WALLS, PLANTER WALLS, BULKHEADS, ETC)	GRAND BAHAMA LN	1	LS	
21	APPROACH SLABS AND LANDSCAPE WALLS (CONCRETE, STEEL, TRAFFIC RAILING, PLANTER WALLS, ETC)	ISLAND DR SOUTH / EASTBOUND	1	LS	
22	APPROACH SLABS AND LANDSCAPE WALLS (CONCRETE, STEEL, TRAFFIC RAILING, PLANTER WALLS, ETC)	ISLAND DR NORTH / WESTBOUND	1	LS	
23	APPROACH SLABS AND LANDSCAPE WALLS (CONCRETE, STEEL, TRAFFIC RAILING, PLANTER WALLS, ETC)	GRAND BAHAMA LN	1	LS	
24	PAVEMENT AND SWALE (ASPHALT OR CONCRETE, CURB, GUTTER, BASE, SUBGRADE ETC)	ISLAND DR SOUTH / EASTBOUND	1	LS	
25	PAVEMENT AND SWALE (ASPHALT OR CONCRETE, CURB, GUTTER, BASE, SUBGRADE ETC)	ISLAND DR NORTH / WESTBOUND	1	LS	
26	PAVEMENT AND SWALE (ASPHALT OR CONCRETE, CURB, GUTTER, BASE, SUBGRADE ETC)	GRAND BAHAMA LN	1	LS	
27	UTILITIES (WATER MAIN, FORCE MAIN, VALVES, FITTINGS, CONNECTIONS, TESTING, UTILITY COORDINATION, LOCATES, RELOCATIONS, TEMPORARY SERVICE, SUPPORTS, ETC)	ISLAND DR SOUTH / EASTBOUND	1	LS	

City of Riviera Beach
PALM BEACH ISLES BRIDGE IMPROVEMENT PROJECT
BID No. 996-20-1
EXHIBIT B

Item No.	Description		Quantity		Unit Price	Total
28	UTILITIES (WATER MAIN, FORCE MAIN, VALVES, FITTINGS, CONNECTIONS, TESTING, UTILITY COORDINATION, LOCATES, RELOCATIONS, TEMPORARY SERVICE, SUPPORTS, ETC)	ISLAND DR NORTH / WESTBOUND	1	LS		
29	UTILITIES (WATER MAIN, FORCE MAIN, VALVES, FITTINGS, CONNECTIONS, TESTING, UTILITY COORDINATION, LOCATES, RELOCATIONS, TEMPORARY SERVICE, SUPPORTS, ETC)	GRAND BAHAMA LN	1	LS		
30	DRAINAGE (INLET, PIPE, EXFILTRATION TRENCH, TRENCH SAFETY, ETC)	GRAND BAHAMA LN	1	LS		
31	LANDSCAPING AND IRRIGATION (REMOVE/RELOCATE LOCATE EXISTING TREES, GRADE SWALES, SOD, FERTILIZER, MULCH, SOIL, WATER, MAINTENANCE, ETC.)	ISLAND DR SOUTH / EASTBOUND	1	LS		
32	LANDSCAPING AND IRRIGATION (REMOVE/RELOCATE LOCATE EXISTING TREES, GRADE SWALES, SOD, FERTILIZER, MULCH, SOIL, WATER, MAINTENANCE, ETC.)	ISLAND DR NORTH / WESTBOUND	1	LS		
33	LANDSCAPING AND IRRIGATION (REMOVE/RELOCATE LOCATE EXISTING TREES, GRADE SWALES, SOD, FERTILIZER, MULCH, SOIL, WATER, MAINTENANCE, ETC.)	GRAND BAHAMA LN	1	LS		
SUBTOTAL LUMP SUM ITEMS:					\$	
Contingency Items						
34	ADDITIONAL INSTALLED BRIDGE PILE LENGTH ABOVE 40 LF	ISLAND DR	100	LF		
35	ADDITIONAL INSTALLED BULKHEAD WALL PILE LENGTH ABOVE 40 LF	ISLAND DR	100	LF		
36	ADDITIONAL INSTALLED BRIDGE PILE LENGTH ABOVE 40 LF	GRAND BAHAMA LN	100	LF		
37	LANDSCAPING ALLOWANCE (USED ONLY AT THE CITY'S DISCRESSION)	ALL	1	AL	\$35,000.00	\$35,000.00
SUBTOTAL CONTINGENCY ITEMS:					\$	
GRAND TOTAL BID (OVERHEAD, BRIDGE, CONTINGENCY)					\$	



PROJECT IDENTIFICATION SIGN

NTS

EXHIBIT C

PERMITS



South Florida Water Management District
Environmental Resource General Permit No. 50-100349-P
Date Issued: June 15, 2018

Permittee: City Of Riviera Beach
1481 W 15th Street
Riviera Beach, FL 33404

Project: Singer Island Bridges Replacement Project

Location: Palm Beach County, See Exhibit 1

Application No. 180604-615

Description: Seawall restoration and replacement of six low-level residential bridges located on Singer Island (two bridges on Grand Bahama Lane and four bridges on Island Drive), in accordance with Exhibits 1 and 2.

Rule: **62-330.443, F.A.C.:** General Permit to the Florida Department of Transportation, Counties, and Municipalities for Minor Bridge Alteration, Placement, Replacement, Removal, Maintenance, and Operation

Expiration: June 15, 2023

Your application to use a General Environmental Resource Permit has been approved. This action is taken based on Chapter 373, Part IV, of Florida Statutes (F.S.) and the rules in Chapter 62-330, Florida Administrative Code (F.A.C.). Please read this entire agency action thoroughly and understand its contents.

This permit is subject to:

- Not receiving a filed request for a Chapter 120, F.S., administrative hearing.
- The attached General Conditions for Environmental Resource General Permits.
- The attached Specific Conditions.
- All referenced Exhibits.

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

Certificate of Service

I hereby certify that this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the distribution list) on June 15, 2018 , in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (www.sfwmd.gov/ePermitting).

A handwritten signature in black ink, appearing to read "Carlos de Rojas".

Carlos de Rojas, P.E.
Section Leader

General Conditions for All General Permits, 62-330.405, F.A.C.

1. The general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit and shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. The general permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any construction, alteration, operation, maintenance, removal or abandonment authorized by this permit; and it does not authorize any violation of any other applicable federal, state, local, or special district laws (including, but not limited to, those governing the "take" of listed species).
3. This general permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the general permit.
4. The general permit does not relieve the permittee from liability and penalties when the permitted activity causes harm or injury to: human health or welfare; animal, plant or aquatic life; or property. It does not allow the permittee to cause pollution that violates state water quality standards.
5. Section 253.77, F.S., provides that a person may not commence any excavation, construction, or other activity involving the use of state-owned or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required consent, lease, easement, or other form of authorization authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on state-owned lands.
6. The authorization to conduct activities under a general permit may be modified, suspended or revoked in accordance with Chapter 120, F.S., and Section 373.429, F.S.
7. The general permit is not transferable to a new third party. To be used by a different permittee, a new notice to use a general permit must be submitted in accordance with rule 62-330.402, F.A.C. Activities constructed in accordance with the terms and conditions of a general permit are automatically authorized to be operated and maintained by the permittee and subsequent owners in accordance with subsection 62-330.340(1), F.A.C. Any person holding the general permit, persons working under the general permit, and owners of land while work is conducted under the general permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to sale, conveyance, or other transfer of ownership or control of the permitted project, activity, or the real property at which the permitted project or activity is located.
8. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the permitted system to ensure conformity with the plans and specifications approved by the general permit.
9. The permittee shall maintain any permitted project or activity in accordance with the plans submitted to the Agency and authorized in this general permit.

10. A permittee's right to conduct a specific activity under this general permit is authorized for a duration of five years.
11. 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 implemented and maintained immediately prior to, during, and after construction as needed to stabilize all disturbed areas, including other measures specified in the permit to prevent adverse impacts to the water resources and adjacent lands. Erosion and sediment control measures shall be installed and maintained 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), available at <https://www.flrules.org/Gateway/reference.asp?No=Ref-04227>, and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), available at http://publicfiles.dep.state.fl.us/DEAR/Stormwater_Training_Docs/erosion-inspectors-manual.pdf.
12. Unless otherwise specified in the general permit, temporary vehicular access within wetlands during construction shall be performed using vehicles generating minimum ground pressure to minimize rutting and other environmental impacts. Within forested wetlands, the permittee shall choose alignments that minimize the destruction of mature wetland trees to the greatest extent practicable. When needed to prevent rutting or soil compaction, access vehicles shall be operated on wooden, composite, metal, or other non-earthen construction mats. In all cases, access in wetlands shall comply with the following:
 - (a) Access within forested wetlands shall not include the cutting or clearing of any native wetland tree having a diameter four inches or greater at breast height;
 - (b) The maximum width of the construction access area shall be limited to 15 feet;
 - (c) All mats shall be removed as soon as practicable after equipment has completed passage through, or work has been completed, at any location along the alignment of the project, but in no case longer than seven days after equipment has completed work or passage through that location; and
 - (d) Areas disturbed for access shall be restored to natural grades immediately after the maintenance or repair is completed.
13. Barges or other work vessels used to conduct in-water activities shall be operated in a manner that prevents unauthorized dredging, water quality violations, and damage to submerged aquatic communities.
14. The construction, alteration, or use of the authorized project shall not adversely impede navigation or create a navigational hazard in the water body.
15. Except where specifically authorized in the general permit, activities must not:
 - (a) Impound or obstruct existing water flow, cause adverse impacts to existing surface water storage and conveyance capabilities, or otherwise cause adverse water quantity or flooding impacts to receiving water and adjacent lands; or
 - (b) Cause an adverse impact to the maintenance of surface or ground water levels or surface water flows established pursuant to section 373.042, F.S., or a Works of the District established pursuant to section 373.086, F.S.
16. 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.

17. The activity must be capable, based on generally accepted engineering and scientific principles, of being performed and of functioning as proposed, and must comply with any applicable District special basin and geographic area criteria.
18. The permittee shall comply with the following when performing work within waters accessible to federally- or state-listed aquatic species, such as manatees, marine turtles, smalltooth sawfish, and Gulf sturgeon:
 - (a) All vessels associated with the project shall operate at "Idle Speed/No Wake" at all times while in the work area and where the draft of the vessels provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
 - (b) All deployed siltation or turbidity barriers shall be properly secured, monitored, and maintained to prevent entanglement or entrapment of listed species.
 - (c) All in-water activities, including vessel operation, must be shut down if a listed species comes within 50 feet of the work area. Activities shall not resume until the animal(s) has moved beyond a 50-foot radius of the in-water work, or until 30 minutes elapses since the last sighting within 50 feet. Animals must not be herded away or harassed into leaving. All onsite project personnel are responsible for observing water-related activities for the presence of listed species.
 - (d) Any listed species that is killed or injured by work associated with activities performed shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1(888)404-3922 and ImperiledSpecies@myFWC.com.
 - (e) Whenever there is a spill or frac-out of drilling fluid into waters accessible to the above species during a directional drilling operation, the FWC shall be notified at ImperiledSpecies@myfwc.com with details of the event within 24 hours following detection of the spill or frac-out.
19. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any activity authorized by the general permit.
20. The permittee shall immediately notify the Agency in writing of any submitted information that is discovered to be inaccurate.

Specific Conditions for General Permits, 62-330.443, F.A.C.

1. (a) No dredging of access or work channels is authorized by this general permit.
 - (b) Temporary fill roads shall not be constructed waterward of mean high water or ordinary high water.
 - (c) All fill placed in wetlands, other than fill on which a bridge or approach is constructed, shall be regraded to the original wetland elevations and revegetated with native wetland species endemic to adjoining, undisturbed wetlands, within seven days of completion of construction. Within "clear zones," revegetation shall be with native herbaceous species endemic to adjoining, undisturbed wetlands. During the five-year period following the initial planting or restoration of the site, these areas shall be maintained to ensure planted or naturally recruited native wetland species are surviving and growing, and that the areal coverage of exotic and invasive species constitutes less than 10% areal coverage;
 - (d) Hydraulic openings of bridges shall be sufficient to prevent downstream scour, increased downstream water velocities, and increased flood elevations on the property of others.
 - (e) Minimum horizontal and vertical navigational clearances on bridges over navigable waters of the United States shall be established in accordance with procedures outlined in Chapter 2 the U.S. Coast Guard Bridge Administration Manual, COMDTINST M16590.5C, (March 26, 2004), and in no circumstance shall placement or replacement of a bridge result in a reduction of horizontal and vertical navigational clearances.
 - (f) Replacement or modification of a bridge that includes changes in the configuration of the bridge and fill areas due to changes in materials, construction techniques, or meeting current construction codes or safety standards are authorized under this permit. Any connecting road expansion or alteration associated with such replacement or modification must be authorized by a separate general or individual permit under Chapter 62-330, F.A.C., as applicable, before the start of construction.
 - (g) This general permit does not authorize replacement or modification of bridges or approaches that involve the construction of additional lanes, except that any single-lane bridge may be widened to two travel lanes, provided the bridge widening does not exceed that reasonably necessary to match the existing travel lane alignment of a two-lane road.
1. (a) No dredging of access or work channels is authorized by this general permit;
 - (b) Temporary fill roads shall not be constructed waterward of mean high water or ordinary high water;
 - (c) All fill placed in wetlands, other than fill on which a bridge or approach is constructed, shall be regraded to the original wetland elevations and revegetated with native wetland species endemic to adjoining, undisturbed wetlands, within seven days of completion of construction. Within "clear zones," revegetation shall be with native herbaceous species endemic to adjoining, undisturbed wetlands. During the five-year period following the initial planting or restoration of the site, these areas shall be maintained to ensure planted or naturally recruited native wetland species are surviving and growing, and that the areal coverage of exotic and invasive species constitutes less than 10% areal coverage;
 - (d) Hydraulic openings of bridges shall be sufficient to prevent downstream scour, increased downstream water velocities, and increased flood elevations on the property of others;
 - (e) Minimum horizontal and vertical navigational clearances on bridges over navigable waters of

the United States shall be established in accordance with procedures outlined in Chapter 2 of the U.S. Coast Guard Bridge Administration Manual, COMDTINST M16590.5C, (March 26, 2004), and in no circumstance shall placement or replacement of a bridge result in a reduction of horizontal and vertical navigational clearances;

(f) Replacement or modification of a bridge that includes changes in the configuration of the bridge and fill areas due to changes in materials, construction techniques, or meeting current construction codes or safety standards are authorized under this permit. Any connecting road expansion or alteration associated with such replacement or modification must be authorized by a separate general or individual permit under chapter 62-330, F.A.C., as applicable, before the start of construction; and

(g) This general permit does not authorize the construction of additional travel lanes for motorized vehicles, except that any single-lane bridge may be widened to two travel lanes, provided the bridge widening does not exceed that reasonably necessary to match the existing travel lane alignment of a two-lane road. This permit does not authorize new corridors or roadway connections where there is no existing structure over wetlands or waterways.

Distribution List

Dana Gillette, Erdman Anthony

Simon Coleman, Alan Gerwig & Associates, Inc

Jenna Santangelo, Cecos

Div of Recreation and Park - District 5

Lake Worth Drainage District

Palm Beach County - Environmental Resource Management

Palm Beach County - Environmental Resource Management

Palm Beach County Engineer

US Army Corps of Engineers - Permit Section

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) and searching under this application number 180604-615.

[Exhibit 1 - Location Map](#)

[Exhibit 2 - Project Plans](#)

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

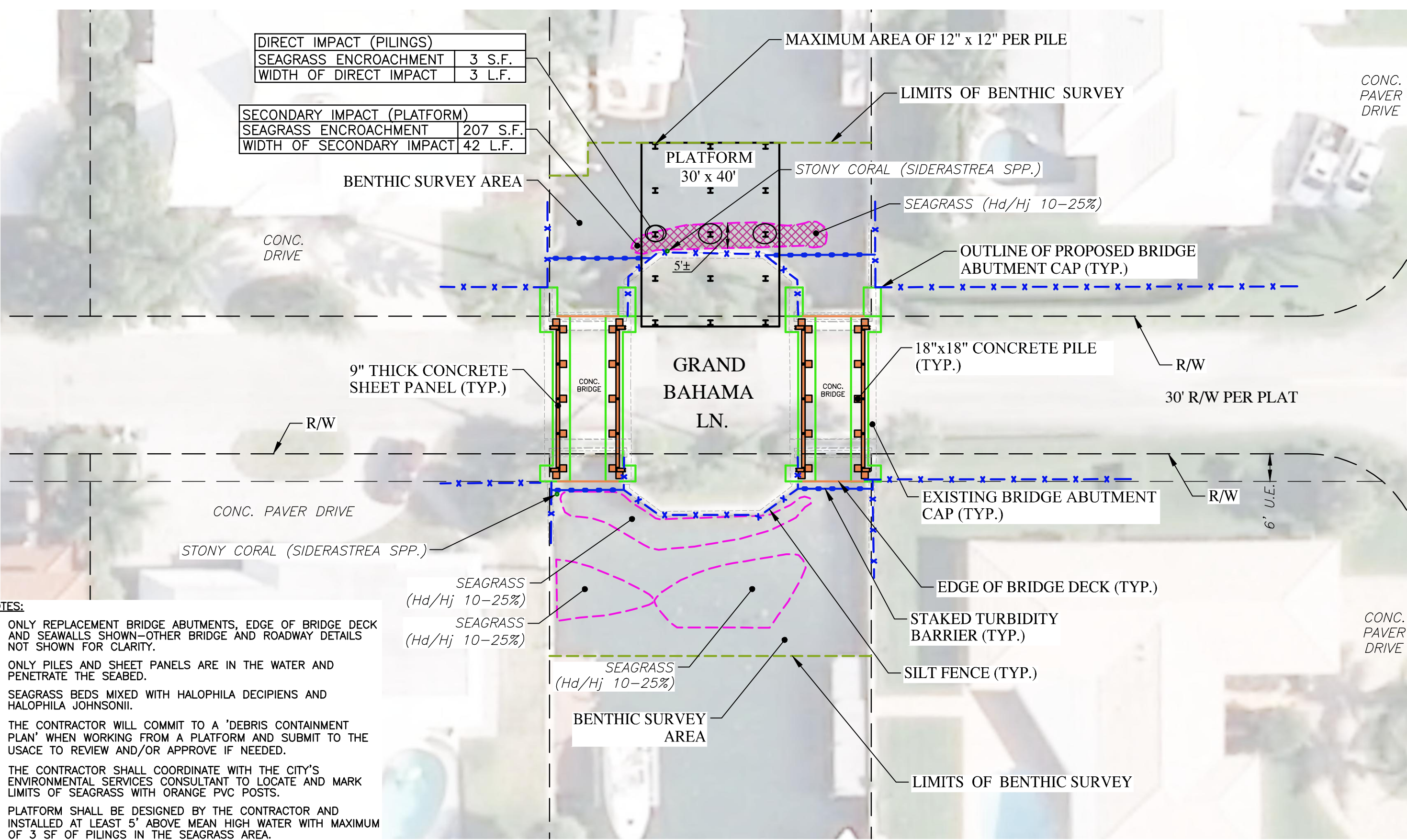
The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

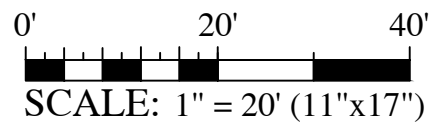
DIRECT IMPACT (PILINGS)	
SEAGRASS ENCROACHMENT	3 S.F.
WIDTH OF DIRECT IMPACT	3 L.F.

SECONDARY IMPACT (PLATFORM)	
SEAGRASS ENCROACHMENT	207 S.F.
WIDTH OF SECONDARY IMPACT	42 L.F.



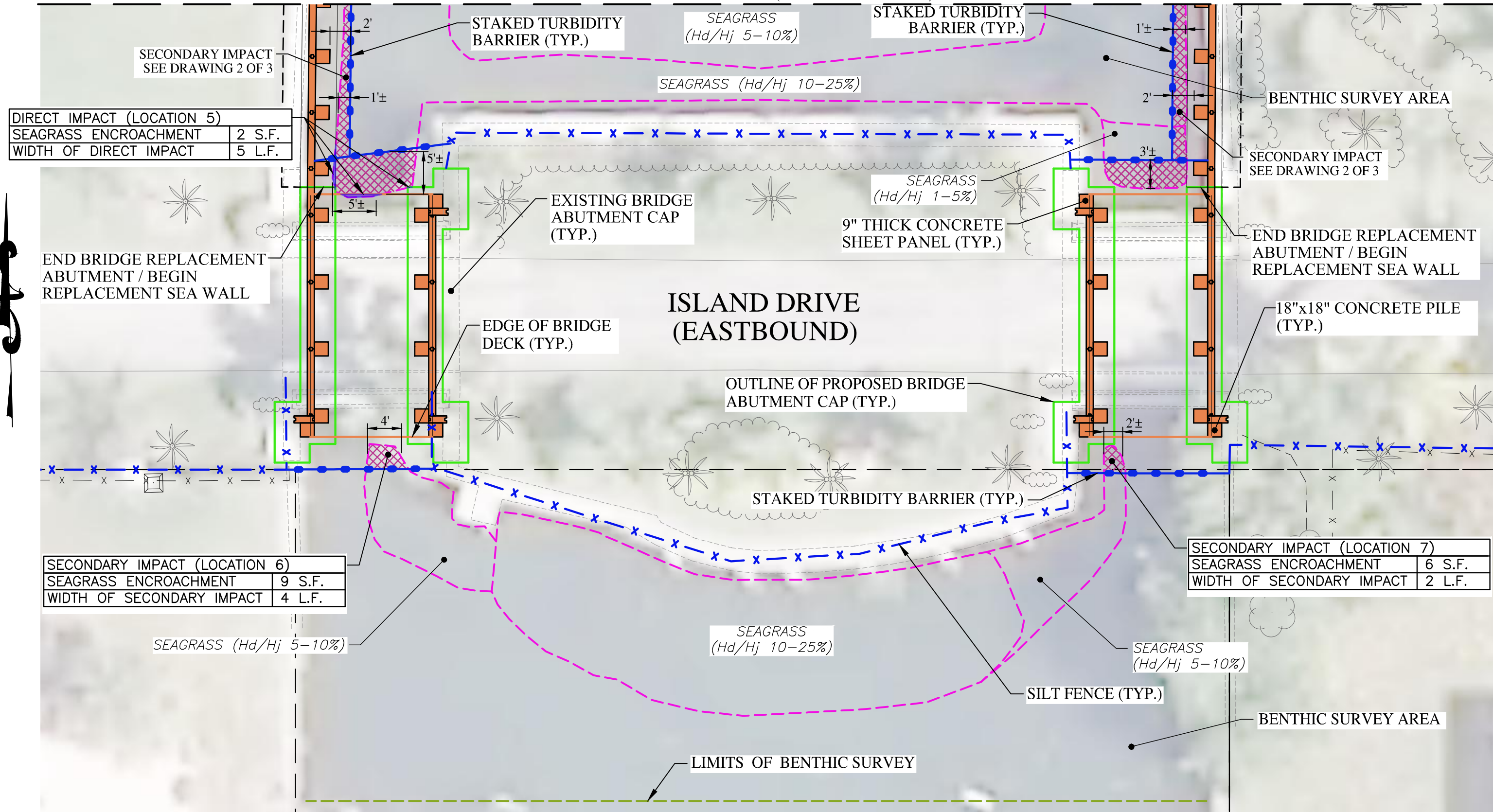
NOTES:

1. ONLY REPLACEMENT BRIDGE ABUTMENTS, EDGE OF BRIDGE DECK AND SEAWALLS SHOWN—OTHER BRIDGE AND ROADWAY DETAILS NOT SHOWN FOR CLARITY.
2. ONLY PILES AND SHEET PANELS ARE IN THE WATER AND PENETRATE THE SEABED.
3. SEAGRASS BEDS MIXED WITH HALOPHILA DECIPIENS AND HALOPHILA JOHNSONII.
4. THE CONTRACTOR WILL COMMIT TO A 'DEBRIS CONTAINMENT PLAN' WHEN WORKING FROM A PLATFORM AND SUBMIT TO THE USACE TO REVIEW AND/OR APPROVE IF NEEDED.
5. THE CONTRACTOR SHALL COORDINATE WITH THE CITY'S ENVIRONMENTAL SERVICES CONSULTANT TO LOCATE AND MARK LIMITS OF SEAGRASS WITH ORANGE PVC POSTS.
6. PLATFORM SHALL BE DESIGNED BY THE CONTRACTOR AND INSTALLED AT LEAST 5' ABOVE MEAN HIGH WATER WITH MAXIMUM OF 3 SF OF PILINGS IN THE SEAGRASS AREA.



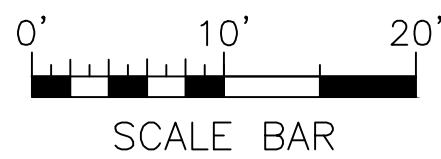
GRAND BAHAMA LN. PLAN

MATCH LINE (SEE DRAWING 2 OF 3)

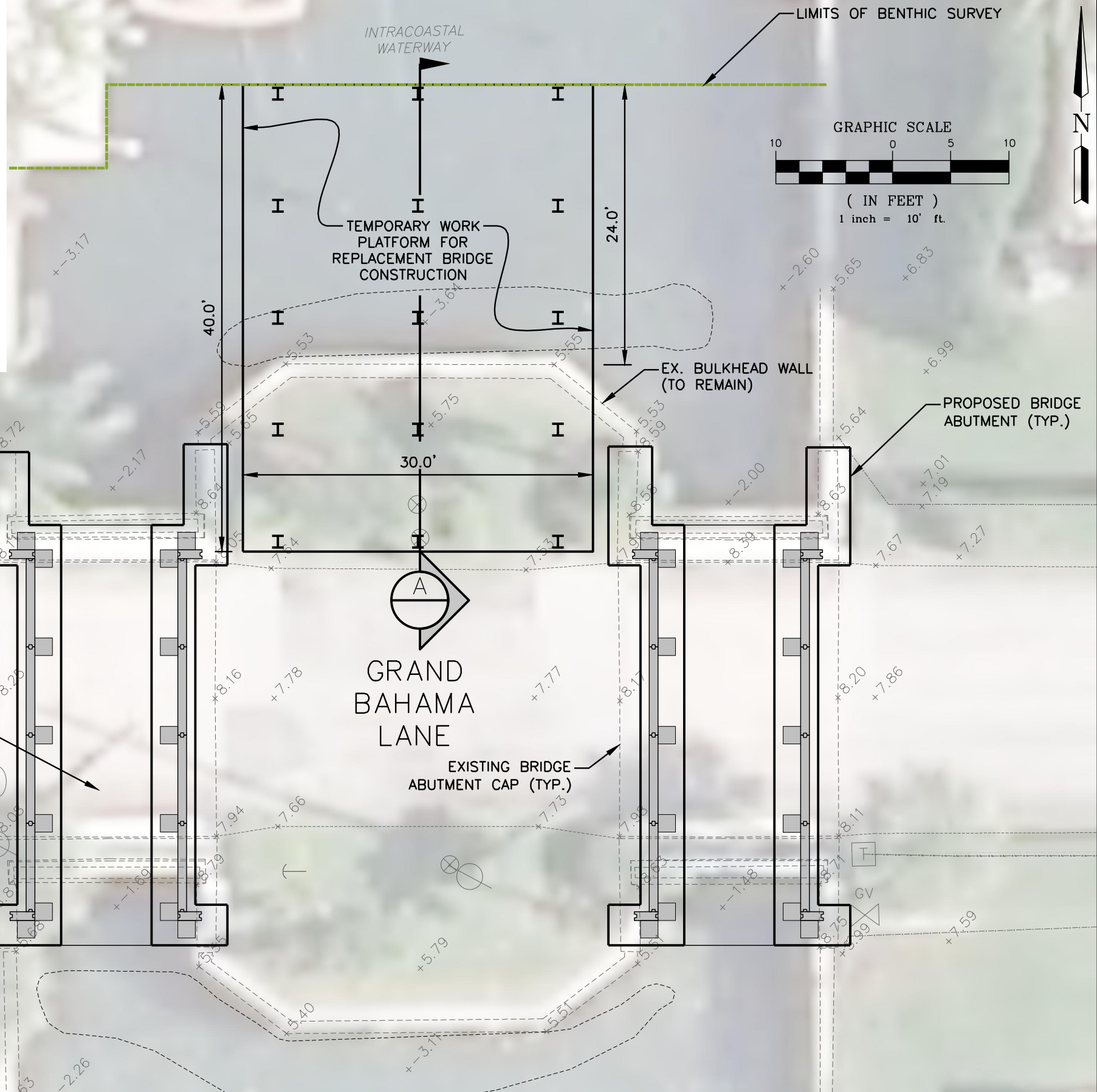
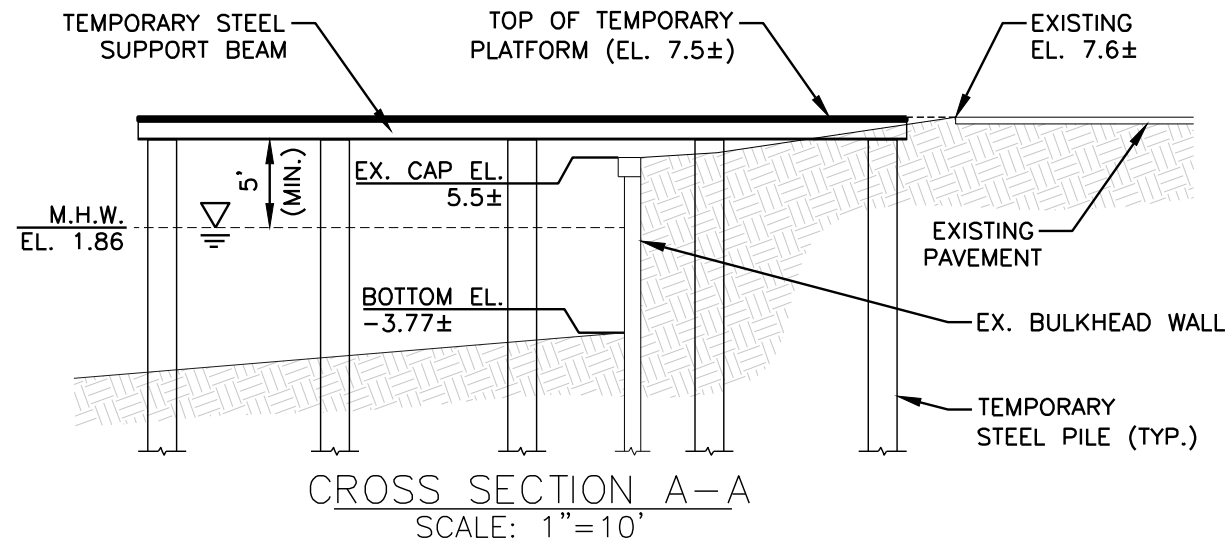


NOTES:

- ONLY REPLACEMENT BRIDGE ABUTMENTS, EDGE OF BRIDGE DECK AND SEAWALLS SHOWN—OTHER BRIDGE AND ROADWAY DETAILS NOT SHOWN FOR CLARITY.
- ONLY PILES AND SHEET PANELS ARE IN THE WATER AND PENETRATE THE SEABED.
- SEAGRASS BEDS MIXED WITH HALOPHILA DECIPIENS AND HALOPHILA JOHNSONII.
- THE CONTRACTOR WILL COMMIT TO A 'DEBRIS CONTAINMENT PLAN' WHEN WORKING FROM A BARGE AND SUBMIT TO THE USACE TO REVIEW AND/OR APPROVE IF NEEDED.
- THE CONTRACTOR SHALL COORDINATE WITH THE CITY'S ENVIRONMENTAL SERVICES CONSULTANT TO LOCATE AND MARK LIMITS OF SEAGRASS WITH ORANGE PVC POSTS.



ISLAND DRIVE PLAN



Subject GRAND BANAMA LANE BRIDGES
SINGER ISLAND

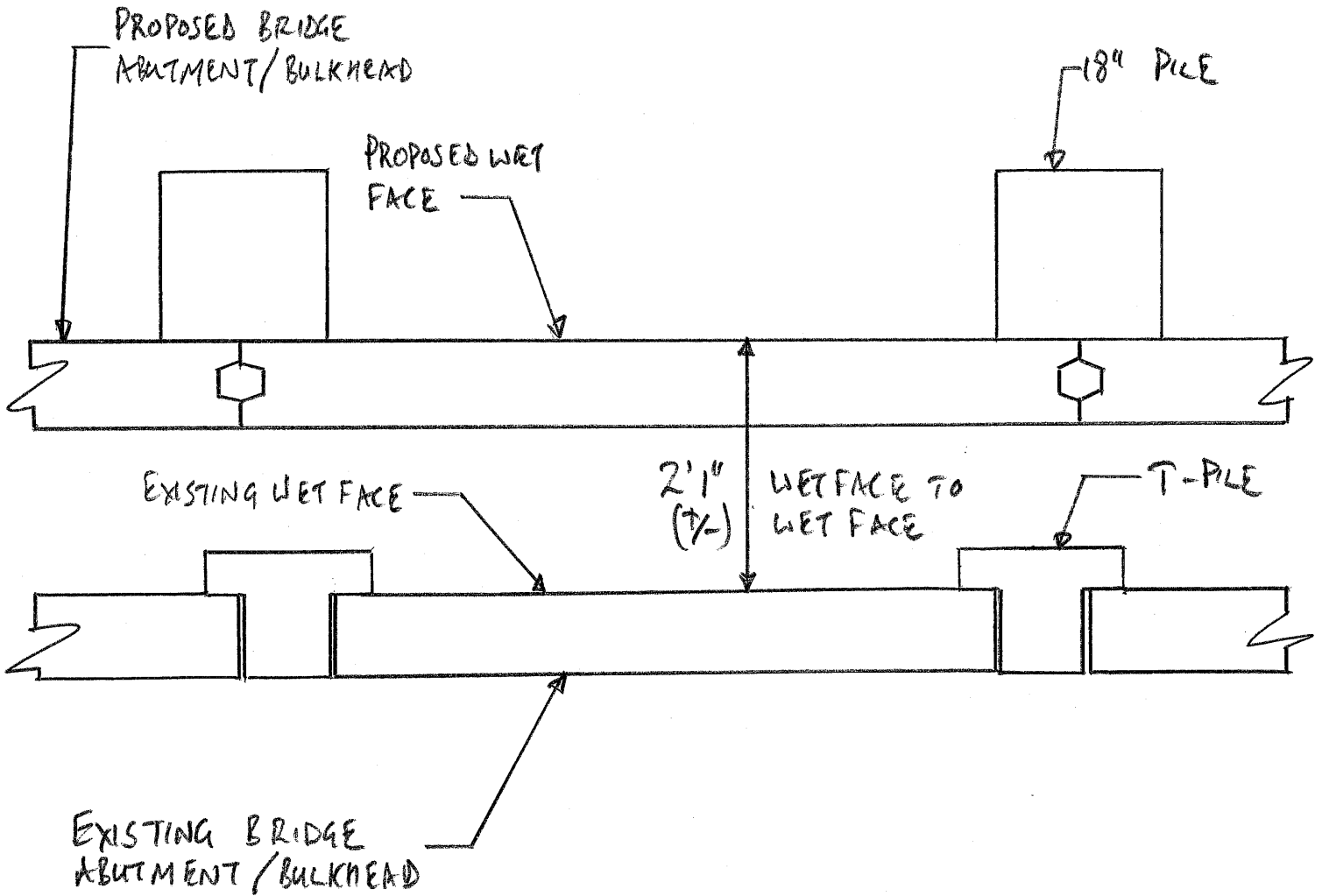
By SAC Date 3/8/19 Ckd. _____

Ref. No. 17-027 Sheet 1 of 1

Alan Gerwig & Associates, Inc.

Consulting Engineers
12798 W. Forest Hill Boulevard
Suite 201
Wellington, FL 33414

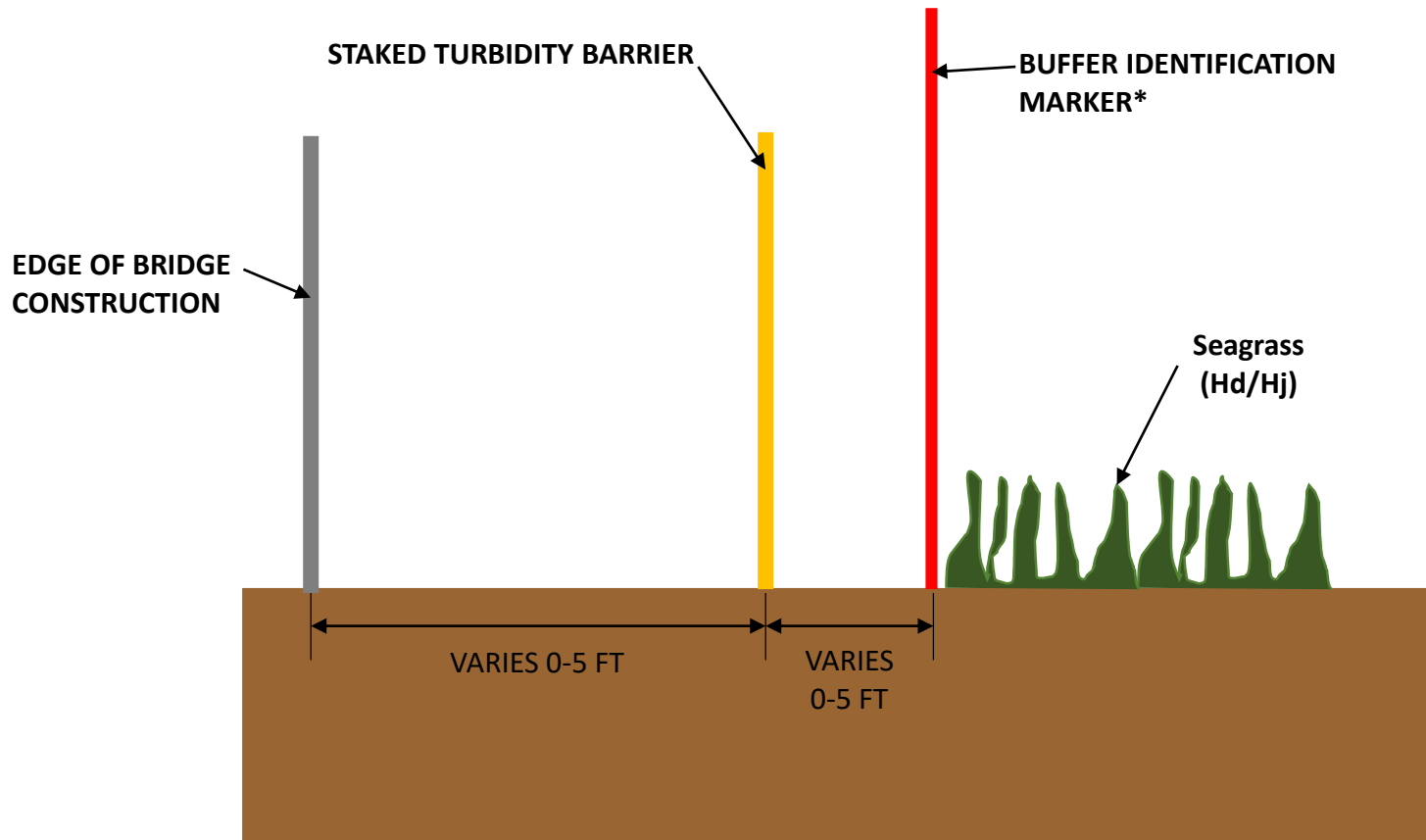
CA # 7969
Phone: (561) 792-9000
Fax: (561) 792-9901
mail@aga-engineering.com



BRIDGE ABUTMENT/BULKHEAD CAPS NOT SHOWN FOR CLARITY

SINGER ISLAND BRIDGE REPLACEMENT PROJECT

TYPICAL CROSS SECTION FOR SEAGRASS PROTECTION ADJACENT TO BRIDGE CONSTRUCTION



* If staked turbidity barrier is installed directly adjacent to seagrass bed, buffer identification marker may not be required.



2017 Nationwide Permits, General Conditions, District Engineer's Decision, Further Information, and Definitions¹

A. Index of Nationwide Permits, General Conditions, District Engineer's Decision, Further Information, and Definitions

Nationwide Permits

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2. Structures in Artificial Canals
3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
5. Scientific Measurement Devices
6. Survey Activities
7. Outfall Structures and Associated Intake Structures
8. Oil and Gas Structures on the Outer Continental Shelf
9. Structures in Fleeting and Anchorage Areas
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11. Temporary Recreational Structures
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15. U.S. Coast Guard Approved Bridges
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30. Moist Soil Management for Wildlife
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32. Completed Enforcement Actions
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¹ The 2017 Nationwide Permits, General Conditions, District Engineer's Decision, Further Information, and Definitions were published in the *Federal Register* on January 6, 2017 (82 FR 1860).

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52. Water-Based Renewable Energy Generation Pilot Projects
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B. Nationwide Permits

1. Aids to Navigation. The placement of aids to navigation and regulatory markers that are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66). (Authority: Section 10 of the Rivers and Harbors Act of 1899 (Section 10))

2. Structures in Artificial Canals. Structures constructed in artificial canals within principally residential developments where the connection of the canal to a navigable water of the United States has been previously authorized (see 33 CFR 322.5(g)). (Authority: Section 10)

3. Maintenance. (a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This NWP also authorizes the removal of previously authorized structures or fills. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project. This NWP also authorizes the removal of accumulated sediment and debris within, and in the immediate vicinity of, the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.). The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. This 200 foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials 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.

(c) This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After conducting the maintenance activity, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Authorities: Section 10 of the Rivers and Harbors Act of 1899 and section 404 of the Clean Water Act (Sections 10 and 404))

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act section 404(f) exemption for maintenance.

4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities. Fish and wildlife harvesting devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This NWP does not authorize artificial reefs or impoundments and semi-impoundments of waters of the United States for the culture or

holding of motile species such as lobster, or the use of covered oyster trays or clam racks. (Authorities: Sections 10 and 404)

5. Scientific Measurement Devices. Devices, whose purpose is to measure and record scientific data, such as staff gages, tide and current gages, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Small weirs and flumes constructed primarily to record water quantity and velocity are also authorized provided the discharge is limited to 25 cubic yards. Upon completion of the use of the device to measure and record scientific data, the measuring device and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.) must be removed to the maximum extent practicable and the site restored to pre-construction elevations. (Authorities: Sections 10 and 404)

6. Survey Activities. Survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory-type bore holes, exploratory trenching, soil surveys, sampling, sample plots or transects for wetland delineations, and historic resources surveys. For the purposes of this NWP, the term “exploratory trenching” means mechanical land clearing of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material. The area in which the exploratory trench is dug must be restored to its pre-construction elevation upon completion of the work and must not drain a water of the United States. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. This NWP authorizes the construction of temporary pads, provided the discharge does not exceed 1/10-acre in waters of the U.S. Discharges and structures associated with the recovery of historic resources are not authorized by this NWP. Drilling and the discharge of excavated material from test wells for oil and gas exploration are not authorized by this NWP; the plugging of such wells is authorized. Fill placed for roads and other similar activities is not authorized by this NWP. The NWP does not authorize any permanent structures. The discharge of drilling mud and cuttings may require a permit under section 402 of the Clean Water Act. (Authorities: Sections 10 and 404)

7. Outfall Structures and Associated Intake Structures. Activities related to the construction or modification of outfall structures and associated intake structures, where the effluent from the outfall is authorized, conditionally authorized, or specifically exempted by, or otherwise in compliance with regulations issued under the National Pollutant Discharge Elimination System Program (section 402 of the Clean Water Act). The construction of intake structures is not authorized by this NWP, unless they are directly associated with an authorized outfall structure.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

8. Oil and Gas Structures on the Outer Continental Shelf. Structures for the exploration, production, and transportation of oil, gas, and minerals on the outer continental shelf within areas leased for such purposes by the Department of the Interior, Bureau of Ocean Energy Management. Such structures shall not be placed within the limits of any designated shipping safety fairway or traffic separation scheme, except temporary anchors that comply with the fairway regulations in 33 CFR 322.5(l). The district engineer will review such proposals to ensure compliance with the provisions of the fairway regulations in 33 CFR 322.5(l). Any Corps review under this NWP will be limited to the effects on navigation and national security in accordance with 33 CFR 322.5(f), as well as 33 CFR 322.5(l) and 33 CFR part 334. Such structures will not be placed in established danger zones or restricted areas as designated in 33 CFR part 334, nor will such structures be permitted in EPA or Corps-designated dredged material disposal areas.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 10)

9. Structures in Fleeting and Anchorage Areas. Structures, buoys, floats, and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels where such areas have been established for that purpose. (Authority: Section 10)

10. Mooring Buoys. Non-commercial, single-boat, mooring buoys. (Authority: Section 10)

11. Temporary Recreational Structures. Temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as water skiing competitions and boat races or seasonal use, provided that such structures are removed within 30 days after use has been discontinued. At Corps of Engineers reservoirs, the reservoir managers must approve each buoy or marker individually. (Authority: Section 10)

12. Utility Line Activities. Activities required for the construction, maintenance, repair, and removal of utility lines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A “utility line” is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose, and any cable, line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication. The term “utility line” does not include activities that drain a water of

the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a power line or utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead utility line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead utility line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (See 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if any of the following criteria are met: (1) the activity involves mechanized land clearing in a forested wetland for the utility line right-of-way; (2) a section 10 permit is required; (3) the utility line in waters of the United States, excluding overhead lines, exceeds 500 feet; (4) the utility line is placed within a jurisdictional area (i.e., water of the United States), and it runs parallel to or along a stream bed that is within that jurisdictional area; (5) discharges that result in the loss of greater than 1/10-acre of waters of the United States; (6) permanent access roads are constructed above grade in waters of the United States for a distance of more than 500 feet; or (7) permanent access roads are constructed in waters of the United States with impervious materials. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the utility line is constructed or installed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d).

Note 3: Utility lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 6: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 7: For overhead utility lines authorized by this NWP, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 8: For NWP 12 activities that require pre-construction notification, the PCN must include 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 that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

13. Bank Stabilization. Bank stabilization activities necessary for erosion control or prevention, such as vegetative stabilization, bioengineering, sills, rip rap, revetment, gabion baskets, stream barbs, and bulkheads, or combinations of bank stabilization techniques, provided the activity meets all of the following criteria:

(a) No material is placed in excess of the minimum needed for erosion protection;

(b) The activity is no more than 500 feet in length along the bank, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects (an exception is for bulkheads – the district engineer cannot issue a waiver for a bulkhead that is greater than 1,000 feet in length along the bank);

(c) The activity will not exceed an average of one cubic yard per running foot, as measured along the length of the treated bank, below the plane of the ordinary high water mark or the high tide line, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

(d) The activity does not involve discharges of dredged or fill material into special aquatic sites, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

(e) No material is of a type, or is placed in any location, or in any manner, that will impair surface water flow into or out of any waters of the United States;

(f) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored native trees and treetops may be used in low energy areas);

(g) Native plants appropriate for current site conditions, including salinity, must be used for bioengineering or vegetative bank stabilization;

(h) The activity is not a stream channelization activity; and

(i) The activity must be properly maintained, which may require repairing it after severe storms or erosion events. This NWP authorizes those maintenance and repair activities if they require authorization.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the bank stabilization activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the bank stabilization activity: (1) involves discharges into special aquatic sites; or (2) is in excess of 500 feet in length; or (3) will involve the discharge of greater than an average of one cubic yard per running foot as measured along the length of the treated bank, below the plane of the ordinary high water mark or the high tide line. (See general condition 32.) (Authorities: Sections 10 and 404)

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include 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 that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to

ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

15. U.S. Coast Guard Approved Bridges. Discharges of dredged or fill material incidental to the construction of a bridge across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills, provided the construction of the bridge structure has been authorized by the U.S. Coast Guard under section 9 of the Rivers and Harbors Act of 1899 or other applicable laws. Causeways and approach fills are not included in this NWP and will require a separate section 404 permit. (Authority: Section 404 of the Clean Water Act (Section 404))

16. Return Water From Upland Contained Disposal Areas. Return water from an upland contained dredged material disposal area. The return water from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d), even though the disposal itself occurs in an area that has no waters of the United States and does not require a section 404 permit. This NWP satisfies the technical requirement for a section 404 permit for the return water where the quality of the return water is controlled by the state through the section 401 certification procedures. The dredging activity may require a section 404 permit (33 CFR 323.2(d)), and will require a section 10 permit if located in navigable waters of the United States. (Authority: Section 404)

17. Hydropower Projects. Discharges of dredged or fill material associated with hydropower projects having: (a) Less than 5000 kW of total generating capacity at existing reservoirs, where the project, including the fill, is licensed by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act of 1920, as amended; or (b) a licensing exemption granted by the FERC pursuant to section 408 of the Energy Security Act of 1980 (16 U.S.C. 2705 and 2708) and section 30 of the Federal Power Act, as amended.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

18. Minor Discharges. Minor discharges of dredged or fill material into all waters of the United States, provided the activity meets all of the following criteria:

(a) The quantity of discharged material and the volume of area excavated do not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line;

(b) The discharge will not cause the loss of more than 1/10-acre of waters of the United States; and

(c) The discharge is not placed for the purpose of a stream diversion.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the discharge or the volume of area excavated exceeds 10 cubic yards below the plane of the ordinary high water mark or the high tide line, or (2) the discharge is in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

19. Minor Dredging. Dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the United States (i.e., section 10 waters). This NWP does not authorize the dredging or degradation through siltation of coral reefs, sites that support submerged aquatic vegetation (including sites where submerged aquatic vegetation is documented to exist but may not be present in a given year), anadromous fish spawning areas, or wetlands, or the connection of canals or other artificial waterways to navigable waters of the United States (see 33 CFR 322.5(g)). 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. (Authorities: Sections 10 and 404)

20. Response Operations for Oil or Hazardous Substances. Activities conducted in response to a discharge or release of oil or hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR part 300) including containment, cleanup, and mitigation efforts, provided that the activities are done under either: (1) the Spill Control and Countermeasure Plan required by 40 CFR 112.3; (2) the direction or oversight of the federal on-scene coordinator designated by 40 CFR part 300; or (3) any approved existing state, regional or local contingency plan provided that the Regional Response Team (if one exists in the area) concurs with the proposed response efforts. This NWP also authorizes activities required for the cleanup of oil releases in waters of the United States from electrical equipment that are governed by EPA's polychlorinated biphenyl spill response regulations at 40 CFR part 761. This NWP also authorizes the use of temporary structures and fills in waters of the U.S. for spill response training exercises. (Authorities: Sections 10 and 404)

21. Surface Coal Mining Activities. Discharges of dredged or fill material into waters of the United States associated with surface coal mining and reclamation operations, provided the following criteria are met:

(a) The activities are already authorized, or are currently being processed by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977 or as part of an integrated permit processing procedure by the Department of the Interior, Office of Surface Mining Reclamation and Enforcement;

(b) The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal individual and cumulative adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional

wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into tidal waters or non-tidal wetlands adjacent to tidal waters; and

(c) The discharge is not associated with the construction of valley fills. A “valley fill” is a fill structure that is typically constructed within valleys associated with steep, mountainous terrain, associated with surface coal mining activities.

Notification: The permittee must submit a pre-construction notification to the district engineer and receive written authorization prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

22. Removal of Vessels. Temporary structures or minor discharges of dredged or fill material required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation. This NWP does not authorize maintenance dredging, shoal removal, or riverbank snagging.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the vessel is listed or eligible for listing in the National Register of Historic Places; or (2) the activity is conducted in a special aquatic site, including coral reefs and wetlands. (See general condition 32.) If condition 1 above is triggered, the permittee cannot commence the activity until informed by the district engineer that compliance with the “Historic Properties” general condition is completed. (Authorities: Sections 10 and 404)

Note 1: If a removed vessel is disposed of in waters of the United States, a permit from the U.S. EPA may be required (see 40 CFR 229.3). If a Department of the Army permit is required for vessel disposal in waters of the United States, separate authorization will be required.

Note 2: Compliance with general condition 18, Endangered Species, and general condition 20, Historic Properties, is required for all NWPs. The concern with historic properties is emphasized in the notification requirements for this NWP because of the possibility that shipwrecks may be historic properties.

23. Approved Categorical Exclusions. Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where:

(a) That agency or department has determined, pursuant to the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity is categorically excluded from the requirement to prepare an environmental impact statement or environmental assessment analysis, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment; and

(b) The Office of the Chief of Engineers (Attn: CECW-CO) has concurred with that agency's or department's determination that the activity is categorically excluded and approved the activity for authorization under NWP 23.

The Office of the Chief of Engineers may require additional conditions, including pre-construction notification, for authorization of an agency's categorical exclusions under this NWP.

Notification: Certain categorical exclusions approved for authorization under this NWP require the permittee to submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). The activities that require pre-construction notification are listed in the appropriate Regulatory Guidance Letters. (Authorities: Sections 10 and 404)

Note: The agency or department may submit an application for an activity believed to be categorically excluded to the Office of the Chief of Engineers (Attn: CECW-CO). Prior to approval for authorization under this NWP of any agency's activity, the Office of the Chief of Engineers will solicit public comment. As of the date of issuance of this NWP, agencies with approved categorical exclusions are: the Bureau of Reclamation, Federal Highway Administration, and U.S. Coast Guard. Activities approved for authorization under this NWP as of the date of this notice are found in Corps Regulatory Guidance Letter 05-07, which is available at:

<https://usace.contentdm.oclc.org/utis/getfile/collection/pl6021coll9/id/1272> Any future approved categorical exclusions will be announced in Regulatory Guidance Letters and posted on this same web site.

24. Indian Tribe or State Administered Section 404 Programs. Any activity permitted by a state or Indian Tribe administering its own section 404 permit program pursuant to 33 U.S.C. 1344(g)-(l) is permitted pursuant to section 10 of the Rivers and Harbors Act of 1899. (Authority: Section 10)

Note 1: As of the date of the promulgation of this NWP, only New Jersey and Michigan administer their own section 404 permit programs.

Note 2: Those activities that do not involve an Indian Tribe or State section 404 permit are not included in this NWP, but certain structures will be exempted by Section 154 of Pub. L. 94-587, 90 Stat. 2917 (33 U.S.C. 591) (see 33 CFR 322.4(b)).

25. Structural Discharges. Discharges of material such as concrete, sand, rock, etc., into tightly sealed forms or cells where the material will be used as a structural member for standard pile supported structures, such as bridges, transmission line footings, and walkways, or for general navigation, such as mooring cells, including the excavation of bottom material from within the form prior to the discharge of concrete, sand, rock, etc. This NWP does not authorize filled structural members that would support buildings, building pads, homes, house pads, parking areas, storage areas and

other such structures. The structure itself may require a separate section 10 permit if located in navigable waters of the United States. (Authority: Section 404)

26. [Reserved]

27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities. Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To be authorized by this NWP, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. An ecological reference may be based on the characteristics of an intact aquatic habitat or riparian area of the same type that exists in the region. An ecological reference may be based on a conceptual model developed from regional ecological knowledge of the target aquatic habitat type or riparian area.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to: the removal of accumulated sediments; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms, are removed; the installation of current deflectors; the enhancement, rehabilitation, or re-establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to enhance, rehabilitate, or re-establish stream meanders; the removal of stream barriers, such as undersized culverts, fords, and grade control structures; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to restore or enhance wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams, on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., the conversion of a stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit, and is authorized in these circumstances even if the discharge occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource

functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting. For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) The binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 32), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

(2) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(3) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Authorities: Sections 10 and 404)

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

28. Modifications of Existing Marinas. Reconfiguration of existing docking facilities within an authorized marina area. No dredging, additional slips, dock spaces, or

expansion of any kind within waters of the United States is authorized by this NWP.
(Authority: Section 10)

29. Residential Developments. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. This NWP authorizes the construction of building foundations and building pads and attendant features that are necessary for the use of the residence or residential development. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development).

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre.

Subdivisions: For residential subdivisions, the aggregate total loss of waters of United States authorized by this NWP cannot exceed 1/2-acre. This includes any loss of waters of the United States associated with development of individual subdivision lots.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.)
(Authorities: Sections 10 and 404)

30. Moist Soil Management for Wildlife. Discharges of dredged or fill material into non-tidal waters of the United States and maintenance activities that are associated with moist soil management for wildlife for the purpose of continuing ongoing, site-specific, wildlife management activities where soil manipulation is used to manage habitat and feeding areas for wildlife. Such activities include, but are not limited to, plowing or discing to impede succession, preparing seed beds, or establishing fire breaks. Sufficient riparian areas must be maintained adjacent to all open water bodies, including streams, to preclude water quality degradation due to erosion and sedimentation. This NWP does not authorize the construction of new dikes, roads, water control structures, or similar features associated with the management areas. The activity must not result in a net loss of aquatic resource functions and services. This NWP does not authorize the conversion of wetlands to uplands, impoundments, or other open water bodies.
(Authority: Section 404)

Note: The repair, maintenance, or replacement of existing water control structures or the repair or maintenance of dikes may be authorized by NWP 3. Some such activities

may qualify for an exemption under section 404(f) of the Clean Water Act (see 33 CFR 323.4).

31. Maintenance of Existing Flood Control Facilities. Discharges of dredged or fill material resulting from activities associated with the maintenance of existing flood control facilities, including debris basins, retention/detention basins, levees, and channels that: (i) were previously authorized by the Corps by individual permit, general permit, or 33 CFR 330.3, or did not require a permit at the time they were constructed, or (ii) were constructed by the Corps and transferred to a non-Federal sponsor for operation and maintenance. Activities authorized by this NWP are limited to those resulting from maintenance activities that are conducted within the “maintenance baseline,” as described in the definition below. Discharges of dredged or fill materials associated with maintenance activities in flood control facilities in any watercourse that have previously been determined to be within the maintenance baseline are authorized under this NWP. To the extent that a Corps permit is required, this NWP authorizes the removal of vegetation from levees associated with the flood control project. This NWP does not authorize the removal of sediment and associated vegetation from natural water courses except when these activities have been included in the maintenance baseline. All dredged and excavated 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.

Maintenance Baseline: The maintenance baseline is a description of the physical characteristics (e.g., depth, width, length, location, configuration, or design flood capacity, etc.) of a flood control project within which maintenance activities are normally authorized by NWP 31, subject to any case-specific conditions required by the district engineer. The district engineer will approve the maintenance baseline based on the approved or constructed capacity of the flood control facility, whichever is smaller, including any areas where there are no constructed channels but which are part of the facility. The prospective permittee will provide documentation of the physical characteristics of the flood control facility (which will normally consist of as-built or approved drawings) and documentation of the approved and constructed design capacities of the flood control facility. If no evidence of the constructed capacity exists, the approved capacity will be used. The documentation will also include best management practices to ensure that the adverse environmental impacts caused by the maintenance activities are no more than minimal, especially in maintenance areas where there are no constructed channels. (The Corps may request maintenance records in areas where there has not been recent maintenance.) Revocation or modification of the final determination of the maintenance baseline can only be done in accordance with 33 CFR 330.5. Except in emergencies as described below, this NWP cannot be used until the district engineer approves the maintenance baseline and determines the need for mitigation and any regional or activity-specific conditions. Once determined, the maintenance baseline will remain valid for any subsequent reissuance of this NWP. This NWP does not authorize maintenance of a flood control facility that has been abandoned. A flood control facility will be considered abandoned if it has operated at a significantly reduced capacity without needed maintenance being accomplished in a timely manner. A flood control

facility will not be considered abandoned if the prospective permittee is in the process of obtaining other authorizations or approvals required for maintenance activities and is experiencing delays in obtaining those authorizations or approvals.

Mitigation: The district engineer will determine any required mitigation one-time only for impacts associated with maintenance work at the same time that the maintenance baseline is approved. Such one-time mitigation will be required when necessary to ensure that adverse environmental effects are no more than minimal, both individually and cumulatively. Such mitigation will only be required once for any specific reach of a flood control project. However, if one-time mitigation is required for impacts associated with maintenance activities, the district engineer will not delay needed maintenance, provided the district engineer and the permittee establish a schedule for identification, approval, development, construction and completion of any such required mitigation. Once the one-time mitigation described above has been completed, or a determination made that mitigation is not required, no further mitigation will be required for maintenance activities within the maintenance baseline (see Note, below). In determining appropriate mitigation, the district engineer will give special consideration to natural water courses that have been included in the maintenance baseline and require mitigation and/or best management practices as appropriate.

Emergency Situations: In emergency situations, this NWP may be used to authorize maintenance activities in flood control facilities for which no maintenance baseline has been approved. Emergency situations are those which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if action is not taken before a maintenance baseline can be approved. In such situations, the determination of mitigation requirements, if any, may be deferred until the emergency has been resolved. Once the emergency has ended, a maintenance baseline must be established expeditiously, and mitigation, including mitigation for maintenance conducted during the emergency, must be required as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer before any maintenance work is conducted (see general condition 32). The pre-construction notification may be for activity-specific maintenance or for maintenance of the entire flood control facility by submitting a five-year (or less) maintenance plan. The pre-construction notification must include a description of the maintenance baseline and the disposal site for dredged or excavated material.
(Authorities: Sections 10 and 404)

Note: If the maintenance baseline was approved by the district engineer under a prior version of NWP 31, and the district engineer imposed the one-time compensatory mitigation requirement on maintenance for a specific reach of a flood control project authorized by that prior version of NWP 31, during the period this version of NWP 31 is in effect (March 19, 2017, to March 18, 2022) the district engineer will not require additional compensatory mitigation for maintenance activities authorized by this NWP in that specific reach of the flood control project.

32. Completed Enforcement Actions. Any structure, work, or discharge of dredged or fill material remaining in place or undertaken for mitigation, restoration, or environmental benefit in compliance with either:

(i) The terms of a final written Corps non-judicial settlement agreement resolving a violation of Section 404 of the Clean Water Act and/or section 10 of the Rivers and Harbors Act of 1899; or the terms of an EPA 309(a) order on consent resolving a violation of section 404 of the Clean Water Act, provided that:

(a) The activities authorized by this NWP cannot adversely affect more than 5 acres of non-tidal waters or 1 acre of tidal waters;

(b) The settlement agreement provides for environmental benefits, to an equal or greater degree, than the environmental detriments caused by the unauthorized activity that is authorized by this NWP; and

(c) The district engineer issues a verification letter authorizing the activity subject to the terms and conditions of this NWP and the settlement agreement, including a specified completion date; or

(ii) The terms of a final Federal court decision, consent decree, or settlement agreement resulting from an enforcement action brought by the United States under section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899; or

(iii) The terms of a final court decision, consent decree, settlement agreement, or non-judicial settlement agreement resulting from a natural resource damage claim brought by a trustee or trustees for natural resources (as defined by the National Contingency Plan at 40 CFR subpart G) under Section 311 of the Clean Water Act, Section 107 of the Comprehensive Environmental Response, Compensation and Liability Act, Section 312 of the National Marine Sanctuaries Act, section 1002 of the Oil Pollution Act of 1990, or the Park System Resource Protection Act at 16 U.S.C. 19jj, to the extent that a Corps permit is required.

Compliance is a condition of the NWP itself; non-compliance of the terms and conditions of an NWP 32 authorization may result in an additional enforcement action (e.g., a Class I civil administrative penalty). Any authorization under this NWP is automatically revoked if the permittee does not comply with the terms of this NWP or the terms of the court decision, consent decree, or judicial/non-judicial settlement agreement. This NWP does not apply to any activities occurring after the date of the decision, decree, or agreement that are not for the purpose of mitigation, restoration, or environmental benefit. Before reaching any settlement agreement, the Corps will ensure compliance with the provisions of 33 CFR part 326 and 33 CFR 330.6(d)(2) and (e). (Authorities: Sections 10 and 404)

33. Temporary Construction, Access, and Dewatering. Temporary structures, work, and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of construction sites, provided that the associated primary activity is authorized by the Corps of Engineers or the U.S. Coast Guard. This NWP also authorizes temporary structures, work, and discharges, including cofferdams, necessary for construction activities not otherwise subject to the Corps or U.S. Coast Guard permit requirements. Appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. Fill must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. The use of dredged material may be allowed if the district engineer determines that it will not cause more than minimal adverse environmental effects. Following completion of construction, temporary fill must be entirely removed to an area that has no waters of the United States, dredged material must be returned to its original location, and the affected areas must be restored to pre-construction elevations. The affected areas must also be revegetated, as appropriate. This permit does not authorize the use of cofferdams to dewater wetlands or other aquatic areas to change their use. Structures left in place after construction is completed require a separate section 10 permit if located in navigable waters of the United States. (See 33 CFR part 322.)

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the activity is conducted in navigable waters of the United States (i.e., section 10 waters) (see general condition 32). The pre-construction notification must include a restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions. (Authorities: Sections 10 and 404)

34. Cranberry Production Activities. Discharges of dredged or fill material for dikes, berms, pumps, water control structures or leveling of cranberry beds associated with expansion, enhancement, or modification activities at existing cranberry production operations. The cumulative total acreage of disturbance per cranberry production operation, including but not limited to, filling, flooding, ditching, or clearing, must not exceed 10 acres of waters of the United States, including wetlands. The activity must not result in a net loss of wetland acreage. This NWP does not authorize any discharge of dredged or fill material related to other cranberry production activities such as warehouses, processing facilities, or parking areas. For the purposes of this NWP, the cumulative total of 10 acres will be measured over the period that this NWP is valid.

Notification: The permittee must submit a pre-construction notification to the district engineer once during the period that this NWP is valid, and the NWP will then authorize discharges of dredge or fill material at an existing operation for the permit term, provided the 10-acre limit is not exceeded. (See general condition 32.) (Authority: Section 404)

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)

36. Boat Ramps. Activities required for the construction of boat ramps, provided the activity meets all of the following criteria:

(a) The discharge into waters of the United States does not exceed 50 cubic yards of concrete, rock, crushed stone or gravel into forms, or in the form of pre-cast concrete planks or slabs, unless the district engineer waives the 50 cubic yard limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

(b) The boat ramp does not exceed 20 feet in width, unless the district engineer waives this criterion by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects;

(c) The base material is crushed stone, gravel or other suitable material;

(d) The excavation is limited to the area necessary for site preparation and all excavated material is removed to an area that has no waters of the United States; and,

(e) No material is placed in special aquatic sites, including wetlands.

The use of unsuitable material that is structurally unstable is not authorized. If dredging in navigable waters of the United States is necessary to provide access to the boat ramp, the dredging must be authorized by another NWP, a regional general permit, or an individual permit.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) The discharge into waters of the United States exceeds 50 cubic yards, or (2) the boat ramp exceeds 20 feet in width. (See general condition 32.) (Authorities: Sections 10 and 404)

37. Emergency Watershed Protection and Rehabilitation. Work done by or funded by:

(a) The Natural Resources Conservation Service for a situation requiring immediate action under its emergency Watershed Protection Program (7 CFR part 624);

(b) The U.S. Forest Service under its Burned-Area Emergency Rehabilitation Handbook (FSH 2509.13);

(c) The Department of the Interior for wildland fire management burned area emergency stabilization and rehabilitation (DOI Manual part 620, Ch. 3);

(d) The Office of Surface Mining, or states with approved programs, for abandoned mine land reclamation activities under Title IV of the Surface Mining Control and Reclamation Act (30 CFR subchapter R), where the activity does not involve coal extraction; or

(e) The Farm Service Agency under its Emergency Conservation Program (7 CFR part 701).

In general, the prospective permittee should wait until the district engineer issues an NWP verification or 45 calendar days have passed before proceeding with the watershed protection and rehabilitation activity. However, in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur, the emergency watershed protection and rehabilitation activity may proceed immediately and the district engineer will consider the information in the pre-construction notification and any comments received as a result of agency coordination to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

Notification: Except in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). (Authorities: Sections 10 and 404)

38. Cleanup of Hazardous and Toxic Waste. Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

39. Commercial and Institutional Developments. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of commercial and institutional building foundations and building pads and attendant features that are necessary for the use and maintenance of the structures. Attendant features may include, but are not limited to, roads, parking lots, garages, yards, utility lines, storm water management facilities, wastewater treatment facilities, and recreation facilities such as playgrounds and playing fields. Examples of commercial developments

include retail stores, industrial facilities, restaurants, business parks, and shopping centers. Examples of institutional developments include schools, fire stations, government office buildings, judicial buildings, public works buildings, libraries, hospitals, and places of worship. The construction of new golf courses and new ski areas is not authorized by this NWP.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.)
Authorities: Sections 10 and 404)

Note: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

40. Agricultural Activities. Discharges of dredged or fill material into non-tidal waters of the United States for agricultural activities, including the construction of building pads for farm buildings. Authorized activities include the installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches constructed in waters of the United States; and similar activities.

This NWP also authorizes the construction of farm ponds in non-tidal waters of the United States, excluding perennial streams, provided the farm pond is used solely for agricultural purposes. This NWP does not authorize the construction of aquaculture ponds.

This NWP also authorizes discharges of dredged or fill material into non-tidal waters of the United States to relocate existing serviceable drainage ditches constructed in non-tidal streams.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the

NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

Note: Some discharges for agricultural activities may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4). This NWP authorizes the construction of farm ponds that do not qualify for the Clean Water Act section 404(f)(1)(C) exemption because of the recapture provision at section 404(f)(2).

41. Reshaping Existing Drainage Ditches. Discharges of dredged or fill material into non-tidal waters of the United States, excluding non-tidal wetlands adjacent to tidal waters, to modify the cross-sectional configuration of currently serviceable drainage ditches constructed in waters of the United States, for the purpose of improving water quality by regrading the drainage ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, and increase uptake of nutrients and other substances by vegetation. The reshaping of the ditch cannot increase drainage capacity beyond the original as-built capacity nor can it expand the area drained by the ditch as originally constructed (i.e., the capacity of the ditch must be the same as originally constructed and it cannot drain additional wetlands or other waters of the United States). Compensatory mitigation is not required because the work is designed to improve water quality.

This NWP does not authorize the relocation of drainage ditches constructed in waters of the United States; the location of the centerline of the reshaped drainage ditch must be approximately the same as the location of the centerline of the original drainage ditch. This NWP does not authorize stream channelization or stream relocation projects. (Authority: Section 404)

42. Recreational Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of recreational facilities. Examples of recreational facilities that may be authorized by this NWP include playing fields (e.g., football fields, baseball fields), basketball courts, tennis courts, hiking trails, bike paths, golf courses, ski areas, horse paths, nature centers, and campgrounds (excluding recreational vehicle parks). This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity, but it does not authorize the construction of hotels, restaurants, racetracks, stadiums, arenas, or similar facilities.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the

NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

43. Stormwater Management Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction of stormwater management facilities, including stormwater detention basins and retention basins and other stormwater management facilities; the construction of water control structures, outfall structures and emergency spillways; the construction of low impact development integrated management features such as bioretention facilities (e.g., rain gardens), vegetated filter strips, grassed swales, and infiltration trenches; and the construction of pollutant reduction green infrastructure features designed to reduce inputs of sediments, nutrients, and other pollutants into waters to meet reduction targets established under Total Daily Maximum Loads set under the Clean Water Act.

This NWP authorizes, to the extent that a section 404 permit is required, discharges of dredged or fill material into non-tidal waters of the United States for the maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features. The maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features that are not waters of the United States does not require a section 404 permit.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges of dredged or fill material for the construction of new stormwater management facilities in perennial streams.

Notification: For discharges into non-tidal waters of the United States for the construction of new stormwater management facilities or pollutant reduction green infrastructure features, or the expansion of existing stormwater management facilities or pollutant reduction green infrastructure features, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) Maintenance activities do not require pre-construction notification if they are limited to restoring the original design capacities of the stormwater management facility or pollutant reduction green infrastructure feature. (Authority: Section 404)

44. Mining Activities. Discharges of dredged or fill material into non-tidal waters of the United States for mining activities, except for coal mining activities, provided the activity meets all of the following criteria:

(a) For mining activities involving discharges of dredged or fill material into non-tidal wetlands, the discharge must not cause the loss of greater than 1/2-acre of non-tidal wetlands;

(b) For mining activities involving discharges of dredged or fill material in non-tidal open waters (e.g., rivers, streams, lakes, and ponds) the mined area, including permanent and temporary impacts due to discharges of dredged or fill material into jurisdictional waters, must not exceed 1/2-acre; and

(c) The acreage loss under paragraph (a) plus the acreage impact under paragraph (b) does not exceed 1/2-acre.

The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects.

The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre.

This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction-notification to the district engineer prior to commencing the activity. (See general condition 32.) If reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre-construction notification. (Authorities: Sections 10 and 404)

45. Repair of Uplands Damaged by Discrete Events. This NWP authorizes discharges of dredged or fill material, including dredging or excavation, into all waters of the United States for activities associated with the restoration of upland areas damaged by storms, floods, or other discrete events. This NWP authorizes bank stabilization to protect the restored uplands. The restoration of the damaged areas, including any bank stabilization, must not exceed the contours, or ordinary high water mark, that existed before the damage occurred. The district engineer retains the right to determine the extent of the pre-existing conditions and the extent of any restoration work authorized by this NWP. The work must commence, or be under contract to commence, within two years of the date of damage, unless this condition is waived in writing by the district engineer. This NWP cannot be used to reclaim lands lost to normal erosion processes over an extended period.

This NWP does not authorize beach restoration or nourishment.

Minor dredging is limited to the amount necessary to restore the damaged upland area and should not significantly alter the pre-existing bottom contours of the waterbody.

Notification: The permittee must submit a pre-construction notification to the district engineer (see general condition 32) within 12 months of the date of the damage; for major storms, floods, or other discrete events, the district engineer may waive the 12-month limit for submitting a pre-construction notification if the permittee can demonstrate funding, contract, or other similar delays. The pre-construction notification must include documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration. (Authorities: Sections 10 and 404)

Note: The uplands themselves that are lost as a result of a storm, flood, or other discrete event can be replaced without a section 404 permit, if the uplands are restored to the ordinary high water mark (in non-tidal waters) or high tide line (in tidal waters). (See also 33 CFR 328.5.) This NWP authorizes discharges of dredged or fill material into waters of the United States associated with the restoration of uplands.

46. Discharges in Ditches. Discharges of dredged or fill material into non-tidal ditches that are: (1) constructed in uplands, (2) receive water from an area determined to be a water of the United States prior to the construction of the ditch, (3) divert water to an area determined to be a water of the United States prior to the construction of the ditch, and (4) determined to be waters of the United States. The discharge must not cause the loss of greater than one acre of waters of the United States.

This NWP does not authorize discharges of dredged or fill material into ditches constructed in streams or other waters of the United States, or in streams that have been relocated in uplands. This NWP does not authorize discharges of dredged or fill material that increase the capacity of the ditch and drain those areas determined to be waters of the United States prior to construction of the ditch.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

47. [Reserved]

48. Commercial Shellfish Aquaculture Activities. Discharges of dredged or fill material into waters of the United States or structures or work in navigable waters of the United States necessary for new and continuing commercial shellfish aquaculture operations in authorized project areas. For the purposes of this NWP, the project area is the area in which the operator is authorized to conduct commercial shellfish aquaculture activities, as identified through a lease or permit issued by an appropriate state or local government agency, a treaty, or any easement, lease, deed, contract, or other legally binding agreement that establishes an enforceable property interest for the operator. A

“new commercial shellfish aquaculture operation” is an operation in a project area where commercial shellfish aquaculture activities have not been conducted during the past 100 years.

This NWP authorizes the installation of buoys, floats, racks, trays, nets, lines, tubes, containers, and other structures into navigable waters of the United States. This NWP also authorizes discharges of dredged or fill material into waters of the United States necessary for shellfish seeding, rearing, cultivating, transplanting, and harvesting activities. Rafts and other floating structures must be securely anchored and clearly marked.

This NWP does not authorize:

(a) The cultivation of a nonindigenous species unless that species has been previously cultivated in the waterbody;

(b) The cultivation of an aquatic nuisance species as defined in the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990;

(c) Attendant features such as docks, piers, boat ramps, stockpiles, or staging areas, or the deposition of shell material back into waters of the United States as waste; or

(d) Activities that directly affect more than 1/2-acre of submerged aquatic vegetation beds in project areas that have not been used for commercial shellfish aquaculture activities during the past 100 years.

Notification: The permittee must submit a pre-construction notification to the district engineer if: (1) the activity will include a species that has never been cultivated in the waterbody; or (2) the activity occurs in a project area that has not been used for commercial shellfish aquaculture activities during the past 100 years. If the operator will be conducting commercial shellfish aquaculture activities in multiple contiguous project areas, he or she can either submit one PCN for those contiguous project areas or submit a separate PCN for each project area. (See general condition 32.)

In addition to the information required by paragraph (b) of general condition 32, the pre-construction notification must also include the following information: (1) a map showing the boundaries of the project area(s), with latitude and longitude coordinates for each corner of each project area; (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; (3) whether canopy predator nets will be used; (4) whether suspended cultivation techniques will be used; and (5) general water depths in the project area(s) (a detailed survey is not required). No more than one pre-construction notification per project area or group of contiguous project areas should be submitted for the commercial shellfish operation during the effective period of this NWP. The pre-construction notification should describe all species and culture activities the operator expects to undertake in the project area or group of contiguous project areas during the effective period of this NWP. If an operator intends to undertake

unanticipated changes to the commercial shellfish aquaculture operation during the effective period of this NWP, and those changes require Department of the Army authorization, the operator must contact the district engineer to request a modification of the NWP verification; a new pre-construction notification does not need to be submitted. (Authorities: Sections 10 and 404)

Note 1: The permittee should notify the applicable U.S. Coast Guard office regarding the project.

Note 2: To prevent introduction of aquatic nuisance species, no material that has been taken from a different waterbody may be reused in the current project area, unless it has been treated in accordance with the applicable regional aquatic nuisance species management plan.

Note 3: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defines “aquatic nuisance species” as “a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters.”

49. Coal Remining Activities. Discharges of dredged or fill material into non-tidal waters of the United States associated with the remining and reclamation of lands that were previously mined for coal. The activities must already be authorized, or they must currently be in process as part of an integrated permit processing procedure, by the Department of the Interior Office of Surface Mining Reclamation and Enforcement, or by states with approved programs under Title IV or Title V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). Areas previously mined include reclaimed mine sites, abandoned mine land areas, or lands under bond forfeiture contracts.

As part of the project, the permittee may conduct new coal mining activities in conjunction with the remining activities when he or she clearly demonstrates to the district engineer that the overall mining plan will result in a net increase in aquatic resource functions. The Corps will consider the SMCRA agency’s decision regarding the amount of currently undisturbed adjacent lands needed to facilitate the remining and reclamation of the previously mined area. The total area disturbed by new mining must not exceed 40 percent of the total acreage covered by both the remined area and the additional area necessary to carry out the reclamation of the previously mined area.

Notification: The permittee must submit a pre-construction notification and a document describing how the overall mining plan will result in a net increase in aquatic resource functions to the district engineer and receive written authorization prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

50. Underground Coal Mining Activities. Discharges of dredged or fill material into non-tidal waters of the United States associated with underground coal mining and reclamation operations provided the activities are authorized, or are currently being

processed as part of an integrated permit processing procedure, by the Department of the Interior, Office of Surface Mining Reclamation and Enforcement, or by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters. This NWP does not authorize coal preparation and processing activities outside of the mine site.

Notification: The permittee must submit a pre-construction notification to the district engineer and receive written authorization prior to commencing the activity. (See general condition 32.) If reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre-construction notification. (Authorities: Sections 10 and 404)

Note: Coal preparation and processing activities outside of the mine site may be authorized by NWP 21.

51. Land-Based Renewable Energy Generation Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction, expansion, or modification of land-based renewable energy production facilities, including attendant features. Such facilities include infrastructure to collect solar (concentrating solar power and photovoltaic), wind, biomass, or geothermal energy. Attendant features may include, but are not limited to roads, parking lots, and stormwater management facilities within the land-based renewable energy generation facility.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. The discharge must not cause the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre. This NWP does not authorize discharges into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the discharge results in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Utility lines constructed to transfer the energy from the land-based renewable energy generation facility to a distribution system, regional grid, or other facility are generally considered to be linear projects and each separate and distant crossing of a waterbody is eligible for treatment as a separate single and complete linear project. Those utility lines may be authorized by NWP 12 or another Department of the Army authorization.

Note 2: If the only activities associated with the construction, expansion, or modification of a land-based renewable energy generation facility that require Department of the Army authorization are discharges of dredged or fill material into waters of the United States to construct, maintain, repair, and/or remove utility lines and/or road crossings, then NWP 12 and/or NWP 14 shall be used if those activities meet the terms and conditions of NWPs 12 and 14, including any applicable regional conditions and any case-specific conditions imposed by the district engineer.

Note 3: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

52. Water-Based Renewable Energy Generation Pilot Projects. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States for the construction, expansion, modification, or removal of water-based wind, water-based solar, wave energy, or hydrokinetic renewable energy generation pilot projects and their attendant features. Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, roads, parking lots, and stormwater management facilities.

For the purposes of this NWP, the term “pilot project” means an experimental project where the water-based renewable energy generation units will be monitored to collect information on their performance and environmental effects at the project site.

The discharge must not cause the loss of greater than 1/2-acre of waters of the United States, including the loss of more than 300 linear feet of stream bed, unless for intermittent and ephemeral stream beds the district engineer waives the 300 linear foot limit by making a written determination concluding that the discharge will result in no more than minimal adverse environmental effects. The loss of stream bed plus any other losses of jurisdictional wetlands and waters caused by the NWP activity cannot exceed 1/2-acre.

The placement of a transmission line on the bed of a navigable water of the United States from the renewable energy generation unit(s) to a land-based collection and distribution facility is considered a structure under Section 10 of the Rivers and Harbors Act of 1899 (see 33 CFR 322.2(b)), and the placement of the transmission line on the bed of a navigable water of the United States is not a loss of waters of the United States for the purposes of applying the 1/2-acre or 300 linear foot limits.

For each single and complete project, no more than 10 generation units (e.g., wind turbines, wave energy devices, or hydrokinetic devices) are authorized. For floating solar panels in navigable waters of the United States, each single and complete project cannot exceed 1/2-acre in water surface area covered by the floating solar panels.

This NWP does not authorize activities in coral reefs. Structures in an anchorage area established by the U.S. Coast Guard must comply with the requirements in 33 CFR 322.5(l)(2). Structures may not be placed in established danger zones or restricted areas designated in 33 CFR part 334, Federal navigation channels, shipping safety fairways or traffic separation schemes established by the U.S. Coast Guard (see 33 CFR 322.5(l)(1)), or EPA or Corps designated open water dredged material disposal areas.

Upon completion of the pilot project, the generation units, transmission lines, and other structures or fills associated with the pilot project must be removed to the maximum extent practicable unless they are authorized by a separate Department of the Army authorization, such as another NWP, an individual permit, or a regional general permit. Completion of the pilot project will be identified as the date of expiration of the Federal Energy Regulatory Commission (FERC) license, or the expiration date of the NWP authorization if no FERC license is required.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.)

Authorities: Sections 10 and 404)

Note 1: Utility lines constructed to transfer the energy from the land-based collection facility to a distribution system, regional grid, or other facility are generally considered to be linear projects and each separate and distant crossing of a waterbody is eligible for treatment as a separate single and complete linear project. Those utility lines may be authorized by NWP 12 or another Department of the Army authorization.

Note 2: An activity that is located on an existing locally or federally maintained U.S. Army Corps of Engineers project requires separate approval from the Chief of Engineers or District Engineer under 33 U.S.C. 408.

Note 3: If the pilot project generation units, including any transmission lines, are placed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, copies of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration, National Ocean Service, for charting the generation units and associated transmission line(s) to protect navigation.

Note 4: Hydrokinetic renewable energy generation projects that require authorization by the Federal Energy Regulatory Commission under the Federal Power Act of 1920 do not require separate authorization from the Corps under section 10 of the Rivers and Harbors Act of 1899.

Note 5: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

53. Removal of Low-Head Dams. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States associated with the removal of low-head dams.

For the purposes of this NWP, the term “low-head dam” is defined as a dam built across a stream to pass flows from upstream over all, or nearly all, of the width of the dam crest on a continual and uncontrolled basis. (During a drought, there might not be water flowing over the dam crest.) In general, a low-head dam does not have a separate spillway or spillway gates but it may have an uncontrolled spillway. The dam crest is the top of the dam from left abutment to right abutment, and if present, an uncontrolled spillway. A low-head dam provides little storage function.

The removed low-head dam structure 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.

Because the removal of the low-head dam will result in a net increase in ecological functions and services provided by the stream, as a general rule compensatory mitigation is not required for activities authorized by this NWP. However, the district engineer may determine for a particular low-head dam removal activity that compensatory mitigation is necessary to ensure the authorized activity results in no more than minimal adverse environmental effects.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.)
Authorities: Sections 10 and 404)

Note: This NWP does not authorize discharges of dredged or fill material into waters of the United States or structures or work in navigable waters to restore the stream in the vicinity of the low-head dam, including the former impoundment area. Nationwide permit 27 or other Department of the Army permits may authorize such activities. This NWP does not authorize discharges of dredged or fill material into waters of the United States or structures or work in navigable waters to stabilize stream banks. Bank stabilization activities may be authorized by NWP 13 or other Department of the Army permits.

54. Living Shorelines. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States for the construction and maintenance of living shorelines to stabilize banks and shores in coastal waters, which includes the Great Lakes, along shores with small fetch and gentle slopes that are subject to low- to mid-energy waves. A living shoreline has a footprint that is

made up mostly of native material. It incorporates vegetation or other living, natural “soft” elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) for added protection and stability. Living shorelines should maintain the natural continuity of the land-water interface, and retain or enhance shoreline ecological processes. Living shorelines must have a substantial biological component, either tidal or lacustrine fringe wetlands or oyster or mussel reef structures. The following conditions must be met:

(a) The structures and fill area, including sand fills, sills, breakwaters, or reefs, cannot 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, unless the district engineer waives this criterion by making a written determination concluding that the activity will result in no more than minimal adverse environmental effects;

(b) The activity is no more than 500 feet in length along the bank, unless the district engineer waives this criterion by making a written determination concluding that the activity will result in no more than minimal adverse environmental effects;

(c) Coir logs, coir mats, stone, native oyster shell, native wood debris, and other structural materials must be adequately anchored, of sufficient weight, or installed in a manner that prevents relocation in most wave action or water flow conditions, except for extremely severe storms;

(d) For living shorelines consisting of tidal or lacustrine fringe wetlands, native plants appropriate for current site conditions, including salinity, must be used if the site is planted by the permittee;

(e) Discharges of dredged or fill material into waters of the United States, and oyster or mussel reef structures in navigable waters, must be the minimum necessary for the establishment and maintenance of the living shoreline;

(f) If sills, breakwaters, or other structures must be constructed to protect fringe wetlands for the living shoreline, those structures must be the minimum size necessary to protect those fringe wetlands;

(g) The activity must be designed, constructed, and maintained so that it has no more than minimal adverse effects on water movement between the waterbody and the shore and the movement of aquatic organisms between the waterbody and the shore; and

(h) The living shoreline must be properly maintained, which may require periodic repair of sills, breakwaters, or reefs, or replacing sand fills after severe storms or erosion events. Vegetation may be replanted to maintain the living shoreline. This NWP authorizes those maintenance and repair activities, including any minor deviations necessary to address changing environmental conditions.

This NWP does not authorize beach nourishment or land reclamation activities.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the construction of the living shoreline. (See general condition 32.) The pre-construction notification must include a delineation of special aquatic sites (see paragraph (b)(4) of general condition 32). Pre-construction notification is not required for maintenance and repair activities for living shorelines unless required by applicable NWP general conditions or regional conditions. (Authorities: Sections 10 and 404)

Note: In waters outside of coastal waters, nature-based bank stabilization techniques, such as bioengineering and vegetative stabilization, may be authorized by NWP 13.

C. 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 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 NWP 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 Fills. 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. The permittee 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 NWP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.

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 the critical habitat of such species. No activity is authorized under any NWP which “may affect” a listed species or critical habitat, unless ESA section 7 consultation addressing the effects of the proposed activity has been completed. Direct effects are the immediate effects on listed species and critical habitat caused by the NWP activity. Indirect effects are those effects on listed species and critical habitat that are caused by the NWP activity and are later in time, but still are reasonably certain to occur.

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. 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 designated critical habitat might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat, 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 designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that might be affected by the proposed activity or that utilize the designated critical habitat 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. In cases where the non-Federal applicant has identified listed species or critical habitat 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 critical habitat, or until ESA section 7 consultation 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 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 their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting appropriate local office of the U.S. Fish and Wildlife Service to determine applicable measures to reduce impacts 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) In cases where the district engineer determines that the activity may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, 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. 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, which may include background research, consultation, oral history interviews, sample field investigation, and 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. Where the non-Federal applicant has identified historic properties on which the activity might have the potential to cause effects and 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.

(d) 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. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you 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, and 52 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 in the designated critical resource waters including wetlands adjacent to those

waters. The district engineer may authorize activities under these NWP's only after it is determined 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) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation to ensure that the activity results in no more than 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. Restored riparian areas should consist of native species. 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 NWP, 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)).

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

(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 NWP. 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 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. Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe 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)). 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 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 prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not 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.

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(1)(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 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 is not authorized by NWP until the appropriate Corps office issues the section 408 permission 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. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. 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) 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. For single and complete linear projects, 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. 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, intermittent, and ephemeral 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 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 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 PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat 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 activity that requires 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 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 the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is an NWP PCN and must include all of the applicable information required in paragraphs (b)(1) through (10) of this general condition. 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 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities that require pre-construction notification and will result in the loss of greater than 300 linear feet of stream bed; (iii) 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 (iv) 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 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.

D. 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 individual crossings of waters of the United States 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 authorized by NWP. If an applicant requests a waiver of the 300 linear foot limit on impacts to streams or of an otherwise applicable limit, as provided for in NWPs 13, 21, 29, 36, 39, 40, 42, 43, 44, 50, 51, 52, 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. For those NWPs that have a waivable 300 linear foot limit for losses of intermittent and ephemeral stream bed and a 1/2-acre limit (i.e., NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52), the loss of intermittent and ephemeral stream bed, plus any other losses of jurisdictional waters and wetlands, cannot exceed 1/2-acre.

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 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, 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 (e.g., streams). 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 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, or to evaluate PCNs for activities authorized by NWPs 21, 49, and 50), 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.

E. 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).

F. 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.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

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.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

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. 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 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. The loss of stream bed includes the acres or linear feet of stream bed that are filled or excavated as a result of the regulated activity. 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: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

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.

Protected tribal resources: Those natural resources and properties of traditional or customary religious or cultural importance, either on or off Indian lands, retained by, or reserved by or for, Indian tribes through treaties, statutes, judicial decisions, or executive orders, including tribal trust resources.

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 coarse 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 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 NWP's, a waterbody is a jurisdictional 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)). Examples of "waterbodies" include streams, rivers, lakes, ponds, and wetlands.

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 in Vero Beach (1-772-562-3909) for south Florida, and emailed to FWC at ImperiledSpecies@myFWC.com.
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the 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 8½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at http://www.myfwc.com/WILDLIFEHABITATS/manatee_sign_vendors.htm. Questions concerning these signs can be forwarded to the email address listed above.

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





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

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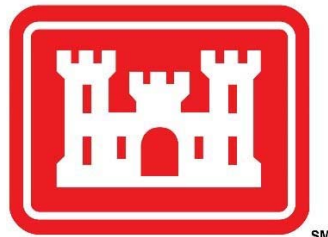
Revised May 2020

SINGER ISLAND BRIDGE REPLACEMENT PROJECT

12 STEP MITIGATION PLAN

SAJ-2017-03174 (NW-JKA)

Prepared for the
U.S. Army Corp of Engineers



SINGER ISLAND BRIDGE REPLACEMENT PROJECT
SAJ-2017-03174 (NW-JKA)

PALM BEACH COUNTY
12 STEP MITIGATION PLAN

Submitted December 2018

Revised May 2020

1. Objective of Mitigation Project

The objective of this mitigation project is to improve water quality within tidal canals crossing underneath four bridges at Island Drive and two bridges at Grand Bahama Lane on Singer Island within the City of Riviera Beach, Florida through the addition of a stormwater management system. This mitigation project is intended to provide compensation for unavoidable loss of seagrass habitat due to construction associated with the Singer Island Bridge Replacement Project (“Project”), at those two locations. The project is located in Section 22, Township 42 South, and Range 43 East. A total of 31 square feet (sq. ft.) of direct impacts and 444 sq. ft. of indirect impacts are anticipated for seagrasses at both bridges. Impacts are summarized in **Table 1** below.

Currently, a stormwater management system does not exist at Island Drive or Grand Bahama Lane. The stormwater runoff at both bridges discharges directly into the waterways without any retention or pretreatment, allowing pollutants to directly enter the waters. The proposed stormwater management system involves the construction of a dry retention system, including grassed stormwater swales on islands between the bridges at Island Drive and Grand Bahama Lane and the construction of an exfiltration trench at Grand Bahama Lane. **Attachment 1** depicts the locations of the proposed drainage and stormwater management system (called out in red). The stormwater treatment at these locations will improve water quality discharging into the tidal canals by capturing the first inch of runoff from the impervious (paved) area. These treatment methods are acceptable, and exceed, the South Florida Water Management District (SFWMD) volumetric criteria to reduce stormwater runoff, including reduction of Total Suspended Solids (TSS) and nutrients. Nutrients identified for this project included Total Nitrogen (TN) and Total Phosphorus (TP). In sum, the proposed stormwater system will provide 147% of treatment over the SFWMD minimum volumetric standard criteria and will reduce approximately 32.28 pounds/year (lb./yr.) of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP from entering the waterway. See Step 8 for additional information and calculations.

The water quality improvements related to the addition of the proposed stormwater management system are expected to positively affect the ecological functions of seagrass and benthic communities in the vicinity of the bridges by decreasing pollutant/sediment runoff, increasing light penetration, and decreasing turbidity, thereby maintaining existing seagrasses and encouraging natural recruitment of seagrasses due to improved habitat conditions. Light availability and inorganic nutrients can affect the biochemical processes of seagrasses and are considered major factors in controlling seagrass growth (Lee et al, 2007), therefore reduction of TSS, TN, and TP can improve seagrass habitats. Water quality will be improved within the proposed mitigation area, which can positively affect the watershed’s overall water quality by reducing TSS, TN, and TP through the proposed stormwater management system.

Riviera Beach, City of/ Singer Island Bridges Replacement/Palm Beach

SAJ-2017-0374

Request for Additional Information Response

Table 1. Locations of Seawall Replacement, length of wall, fill, and seagrass impacts. Revised 4/02/19												
Location (street/ bridge location/seawall location) *see aerials attached		Latitude	Longitude	Length of wall (Linear Feet)	# of Pilings	New Wall's Distance from existing (feet /inches)	Fill to be placed behind the wall (sq ft)	Total fill including 9" thick concrete sheet panels and 18" square concrete piles (sq ft)	Seagrass impacts in square feet (Direct/Secondary)		Distance from Stony Coral (feet)	
									Direct	Secondary	North	South
1	Island Drive/ Northwest/ west	26.7944280°	-80.035316°	25.25	5	2' 1"	52.6	63.9	12	27	N/A	N/A
1A	Island Drive/ Bulkhead west	26.794328°	-80.035319°	40.00	8	2' 1"	83.3	99.1	3	97	N/A	N/A
2	Island Drive/ Northwest/ east	26.794418°	-80.035263°	23.00	6	2' 1"	47.9	61.4	0	0	N/A	N/A
3	Island Drive/ Northeast/ west	26.794409°	-80.035061°	23.00	6	2' 1"	47.9	61.4	1	3	N/A	N/A
4	Island Drive/ Northeast/ east	26.794405°	-80.035013°	25.25	5	2' 1"	52.6	63.9	0	0	N/A	N/A
4A	Island Drive/ Bulkhead east	26.794319°	-80.035019°	40.00	8	2' 1"	83.3	99.1	10	95	N/A	N/A
5	Island Drive/ Southwest/ west	26.794235°	-80.035325°	25.25	5	2' 1"	52.6	63.9	2	0	N/A	N/A
6	Island Drive/ Southwest/ east	26.794237°	-80.035275°	23.00	6	2' 1"	47.9	61.4	0	9	N/A	N/A
7	Island Drive/ Southeast/ west	26.794222°	-80.035069°	23.00	6	2' 1"	47.9	61.4	0	6	N/A	N/A
8	Island Drive/ Southeast/east	26.794224°	-80.035018°	25.25	5	2' 1"	52.6	63.9	0	0	N/A	N/A
Island Drive Total				273.00	60	--	568.6	699.4	28	237	N/A	N/A
9	Grand Bahama Ln/ West/ west	26.794557°	-80.040091°	31.75	7	2' 1"	66.1	81.9	0	0	40.1	21.6
10	Grand Bahama Ln/ West/ east	26.794562°	-80.040042°	31.75	7	2' 1"	66.1	81.9	0	0	31.7	29.8
11	Grand Bahama Ln/ East/ west	26.794558°	-80.039933°	31.75	7	2' 1"	66.1	81.9	0	0	40.3	58.3
12	Grand Bahama Ln/ East/ east	26.794549°	-80.039877°	31.75	7	2' 1"	66.1	81.9	0	0	58.7	74.7
--	Grand Bahama Temp Platform/ Pilings	26.794639°	-80.039877°	N/A	6	N/A	N/A	3.0	3	207	0	0
Grand Bahama Total				127.00	34	--	264.4	330.6	3	207	--	--
Combined Total				400.00	94	--	833.0	1,030.0	31	444	--	--

Singer Island

Island Drive Locations

Island Dr

#1

#2

#3

#4

#1A

#4A

#5

#6

#7

#8

Google Earth

© 2018 Google



100 ft

Singer Island

Grand Bahama Locations



Grand Bahama Ln

#9

#10

#11

#12

Google Earth

© 2018 Google

100 ft



2. Site Selection

The design of the stormwater improvements and the specific location of the treatment swales are based on the maximum potential for water quality improvements at the bridges. The swales and exfiltration trench are considered dry retention, which was chosen because dry retention reduces more pollutants and sediments from entering the system when compared to detention systems. This is because the dry retention system meets SFWMD criteria and by design, must capture and provide treatment for the runoff generated by the first 1-inch of rainfall, which will not be discharged into the waterway. The stormwater improvements' locations were selected because they provide immediate water quality treatment to runoff prior to discharge into surface waters; thereby, maximizing the water quality benefit. These drainage improvements are located directly landward of the seagrass at both the Island Drive and Grand Bahama Lane bridges. Therefore, improved water quality, post-development, will directly benefit the adjacent waters and adjacent seagrass communities. The location of the proposed stormwater improvements are shown in **Attachment 1** (called out in red) and the location of the proposed Mitigation/Benefit Areas and adjacent seagrass locations are shown in **Attachment 2**.

As previously stated, the proposed mitigation includes the addition of grassed swales on the islands between bridges at Island Drive and Grand Bahama Lane, and the addition of an exfiltration trench at Grand Bahama Lane, all of which will benefit the surrounding inter-connected waters by reducing pollutants, approximately 32.28 lb./yr. of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP, that enter the waterway. Water quality improvements will occur through installation of new features (swales and exfiltration trench) that provide treatment of stormwater runoff, and sediment capture. As previously stated, stormwater runoff at both Island Drive and Grand Bahama Lane directly discharge into surface waters without any retention or pretreatment. The proposed stormwater improvements are located in areas that provide the maximum surface water management benefit.

3. Site Protection Instrument

The bridges, swales, trench, and adjacent roads are located within the City of Riviera Beach's existing public right-of-way. Therefore, the proposed swales and exfiltration trench will receive long-term protection. The City will maintain the swales and exfiltration trench, see Steps 7 and 9 for maintenance details.

4. Baseline Information.

Existing conditions:

Stormwater runoff discharges directly into the waterways without any retention or pretreatment. Based on a benthic resource survey conducted at the project site on July 27, 2017, the submerged substrate at the Grand Bahama Lane Bridges was sandy with patches of seagrass, algae, and orange encrusting sponges. The submerged substrate at Island Drive Bridges consisted of a muck layer overlaying silty sand closer to the bridges; transitioning to silty sand further from the bridges. Visibility was low during the time of the survey (~ 1 ft.) and the seagrass species observed at the survey site included Johnson's seagrass (*Halophila johnsonii*) and paddle grass (*Halophila decipiens*). Percent coverage of seagrass beds varied from 1-5%, 5-10%, and 10-25% (see **Attachment 2**, Mitigation/Benefit Areas Map for existing seagrass percent coverage). A Uniform

Mitigation Assessment Method (UMAM) analysis of the existing conditions was prepared based on the results of our field/seagrass reviews. Part II of the UMAM analysis describes site conditions based on three criteria: Location and Landscape, Water Environment, and Community Structure (for this project the Community Structure was a benthic community). The existing conditions description for each category, per location, are provided in the text below and comprehensive UMAM data sheets and calculations are provided in **Attachment 3**.

Island Drive:

Location and Landscape Support: The assessment area (AA) is a residential canal which was dredged in the 1960's when the area was developed. It is located 0.56 mile east of the Lake Worth Lagoon and Intracoastal Waterway. The immediate surrounding area consists of roadways, residences, seawalls, docks, and landscaped lawns, limiting available habitat. Wildlife use and access to and from the AA is limited due to the distance the AA is located from the Lagoon. The AA is better suited for transient visitors rather than resident fauna species. Specifically, at certain times of the year, there will be minimal flushing since it is located at the end of the canal. Land uses outside of the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal.

Water Environment: Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather, and other climatic effects. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading, as evidenced by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 ft., due to turbid conditions. There is currently no pretreatment prior to sediments and/or pollutants entering the system.

Community Structure: In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (*Halophila decipiens*) and Johnson's seagrass (*Halophila johnsonii*), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap, and seawall). Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish.

Grand Bahama Lane:

Location and Landscape: The assessment area (AA) is a residential canal which was dredged in the 1960's when the area was developed. Wildlife access to and from the AA is limited by barriers, specifically at low tide when the substrate is exposed under the bridges. Land uses outside of the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal, located 0.23 miles west of the Intracoastal Waterway/Lake Worth Lagoon.

Water Environment: Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather, and other climatic effects. At low

tide, portions of the benthic substrate are exposed, preventing flow and flushing from 1-2 times per day. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading, as evidenced by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 ft., due to turbid conditions. There is currently no pretreatment prior to pollutants entering the system.

Community Structure: In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (*Halophila decipiens*) and Johnson's seagrass (*Halophila johnsonii*), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap, and seawall) at all bridges with limited flow during low tide due to exposed substrate. Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish. Two stony corals were observed at Grand Bahama Lane Bridges, on the west side.

Drainage area:

As mentioned in the Water Environment section for each location, stormwater entering the tidal waters is not retained or treated; allowing pollutants, approximately 32.28 lb./yr. of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP, to directly enter the adjacent tidal waters. The pollutant load within the stormwater is influenced by the existing paved roadways which span the bridges. The proposed system will route stormwater runoff from the bridges to swales on the islands between the bridges and to the exfiltration trench at Grand Bahama Lane. The swales are grassed and will be graded to be shaped as shallow depressions so that the first flush of runoff is collected in these swales to be percolated into the grass and never enter the waterway (retention). At Grand Bahama Lane, where space is limited, an inlet/sump is also proposed with a short length of exfiltration trench (a perforated pipe placed in a gravel trench) with no outfall, therefore will be retained. Post-project, no runoff from the bridges will flow directly into the adjacent waterway. No piped outfalls from the bridges, swales, or exfiltration trench are proposed. The first inch of runoff from the bridges at Island Drive will pass through grassy swales. The drainage area on Island Drive and Grand Bahama Lane includes approximately 0.136 acres and 0.034 acres of impervious area, respectively, for a total of 0.17 acres. Refer to **Attachment 4** for drainage maps showing the impervious areas (in red).

5. Determination of Credits

To offset unavoidable direct and indirect impacts associated with the bridge replacements, an onsite mitigation plan was developed. This plan proposes to offset the direct and secondary impacts by incorporating new drainage features that enable the system to capture the first inch of stormwater runoff, thereby providing retention and treatment prior to discharge into adjacent tidal waters and reduce approximately 32.28 lb./yr. of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP from entering the waterway. The mitigation/benefit areas encompass approximately 25 feet north and south of the landscaped areas at the bridges and between the bridges at Island Drive, for a total

of 0.206 acres at Island Drive and 25 feet north and south of the landscaped areas at the bridges at Grand Bahama Lane, for a total of 0.094 acres. The locations and acreages of these areas are shown in **Attachment 2**.

To determine if the proposed benefit areas offset the direct and indirect impacts associated with this project, a UMAM analysis was conducted incorporating the existing conditions’ UMAM scores and the proposed UMAM scores as a result of the proposed mitigation. The scores are summarized in **Tables 2** and **3** below. To summarize those tables, the direct impacts assumed a total loss of the seagrass resources and the indirect impact assumed a temporary decrease in the Water Environment score by one point and a two-point decrease in the Community Structure score of each location. The indirect impacts include seagrass beds within the staked turbidity barriers and construction zones at both bridges as well as the temporary platform proposed at Grand Bahama Lane. The location of the temporary platform is depicted in **Attachment 5**. These areas will cause sedimentation and turbidity within the water column, reducing light availability and overall water quality, and the platform will shade the benthic substrate for up to six months. However these impacts are considered secondary, as they are temporary, i.e. when work stops the materials in the water column will settle and tidal exchange will clear the area and when the platform is removed, light availability in this area will return. Therefore the temporary impacts will not remain post project. The functional loss was calculated for each location by multiplying the UMAM score by the respective direct and indirect acreages (see **Table 2**).

Table 2.UMAM Assessment Functional Loss*

Impact Location	Location Landscape and Support		Water Environment		Community Structure		Delta	Assessment Area (acres)	Function al Loss
	current	w/ project	current	w/ project	current	w/ project			
Island Drive-direct	5	0	4	0	4	0	0.43	0.00064	0.0003
Island Drive-indirect	5	5	4	3	4	2	0.10	0.00544	0.00054
Grand Bahama Lane- direct	5	0	4	0	4	0	0.43	0.00007	0.00003
Grand Bahama Lane- indirect	5	5	4	3	4	2	0.10	0.0048	0.00048
Total Functional Loss									0.00135

*Discussed and agreed upon with the USACE on 4/20/2020.

UMAM scores were calculated to determine the functional gains anticipated by the proposed mitigation/benefit areas. A “with project” UMAM score per category was determined and then compared to the existing conditions scores per category. Based on the proposed project, a one point increase in the Water Environment score in the “with” project condition is anticipated within the proposed mitigation/benefit area at each location. Per coordination with the USACE, a time-

lag factor of 1.0696 and a risk factor of 1.25 were included in the relative functional gain (RFG) calculations. The mitigation/benefit areas’ functional gain (FG) was calculated by multiplying the RFG value by the acreage of the respective mitigation/benefit area. For the proposed mitigation/benefit area to appropriately offset the direct and secondary impacts, the FG must be equal to, or greater than, the sum of the direct and indirect FL. See **Table 3** for the results of the RFG and FG calculations.

Table 3. UMAM Assessment Functional Gain*

Mitigation Site Location	Location Landscape and Support		Water Environment		Community Structure		Delta	Mitigation Area (acres)	Time Lag	Risk	Relative Functional Gain (RFG)	Functional Gain
	Current	w/ project	Current	w/ project	Current	w/ project						
Island Drive	5	5	4	5	4	4	0.04	0.206	1.0696	1.25	0.03	0.006
Grand Bahama Lane	5	5	4	5	4	4	0.07	0.096	1.0696	1.25	0.03	0.003
Total Functional Gain												0.009

*Discussed and agreed upon with the USACE on 4/20/2020.

Note: The total FG exceeds the FL for both Island Drive and Grand Bahama Lane’s direct and secondary impacts; thereby offsetting those impacts. See the Mitigation Determination Formulas in **Attachment 3** for the calculations.

6. Mitigation Work Plan

An onsite mitigation option was evaluated, because seagrass mitigation banks or in-lieu fee programs are currently not available. The most effective mitigation option available to offset direct and indirect impacts involve improvements to the stormwater management system as untreated stormwater runoff currently discharges directly into tidal waters. The proposed water quality improvements involve the construction of a dry retention system, including grassed stormwater swales on the islands between the bridges at Island Drive and Grand Bahama Lane as well as the construction of an exfiltration trench on Grand Bahama Lane. These improvements will capture the first inch of stormwater runoff, removing approximately 32.28 lb./yr. of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP. Dry retention was chosen as the first inch is captured and will not enter the waterway, therefore reducing more pollutants and sediments into the system when compared to a detention system. The exfiltration trench is required due to insufficient right-of-way for multiple swales at Grand Bahama Lane. The proposed bridges include barrier walls that will

prevent runoff from entering the waterways. The runoff will be directed to either side of the bridge where it is collected in a valley gutter and overflows into the swales and/or exfiltration trench. See **Attachment 1** for the locations of the proposed drainage features. These treatment methods are acceptable, and exceed, SFWMD criteria, see Step 8 for details.

Minimal direct (0.0007 acre; 31 sq. ft.) and indirect (0.0101 ac; 444 sq. ft.) seagrass impacts will occur as a result of the bridge replacements at both locations. Mitigation for the seagrass impacts at Island Drive and Grand Bahama Lane will be accomplished with the proposed stormwater improvements that benefit approximately 0.206-acre area of tidal waters adjacent to Island Drive and 0.096-acre adjacent to Grand Bahama Lane. Water quality within these mitigation/benefit areas will be improved within the waterway between both the westbound and eastbound Island Drive bridges, and 25-feet north and south of the landscaped areas on Island Drive and 25-feet north and south of the landscaped areas at the Grand Bahama Lane bridges (see **Attachment 2**, Mitigation Area Map). This treatment will reduce pollutants and dissolve sediments, approximately 32.28 lb./yr. of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP, thus increasing light penetration into the waterbody, enhancing seagrass growth. Implementation of this project will benefit the remaining seagrasses within our survey limit from additional treatment provided by the improved surface water management system. Areas within the project site that do not contain seagrass beds or other sensitive marine resources are considered potential habitat for a variety of marine resources that should also benefit should the adjacent water quality improve. As stated above, the total direct and indirect impacts equal 0.0007 acre; 31 sq. ft. and 0.0101 acre; 444 sq. ft., respectively, so the overall benefit of improved water quality will offset the minimal seagrass impact incurred as a result of this project.

The items below describe the construction methodologies for the swales and exfiltration trenches associated with this project.

Exfiltration Trench Construction Sequence at Grand Bahama Lane

1. Install and maintain proper Erosion and Sediment Control Measures during construction.
2. Protect infiltration trench area from compaction prior to installation.
3. Excavate trench bottom to a uniform, level uncompacted subgrade free from rocks and debris. Avoid compaction of the subgrade.
4. Place nonwoven geotextile along the bottom and sides of trench. Nonwoven geotextile rolls should overlap within the trench. Fold back and secure excess geotextile during stone placement.
5. Place uniformly graded, clean-washed aggregate in 8-inch lifts, lightly compacting between lifts.
6. Install continuously perforated pipe as indicated on plans. Backfill with uniformly graded, clean-washed aggregate in lifts, lightly compacting between lifts.
7. Fold and secure nonwoven geotextile over infiltration trench, with minimum overlap as shown on the plans.
8. Place 6-inch lift of approved topsoil over the trench, as indicated on plans.

9. Seed and stabilize topsoil.
10. Do not remove inlet protection or other erosion and sediment control measures until site is fully stabilized.
11. After installation, maintain erosion control measure to prevent sediment laden water from entering inlets and pipes.
12. After construction is complete and slope stabilization is achieved, the erosion control measures will be removed.
13. Any sediment that enters inlets during construction is to be removed within 24 hours.

Grassed Swale Construction Sequence at Island Drive and Grand Bahama Lane

1. Begin construction of vegetated swale only when the upgradient temporary erosion and sediment control measures have been installed.
2. Rough grade the vegetated swale. Avoid excessive compaction and/or land disturbance. Excavation equipment should operate from the side of the swale and never at the swale bottom.
3. The area should be disked prior to final grading of topsoil.
4. Fine grade the swale as accurate grading is crucial.
5. Install sod and provide temporary irrigation until growth is established.

7. Maintenance Plan

The proposed stormwater management facilities are located within the City of Riviera Beach's right-of-way. The City maintains ownership of these facilities and maintenance will be performed to ensure their continued functioning. The grassed swales at both bridges will be maintained 39 (+/-) times per year and this effort will include collection and removal of debris/garbage and mowing. Fertilizers are not used on City swales and are not proposed. The exfiltration trench will be inspected once every two years. This inspection will include the removal via vacuuming of built-up siltation and debris that has settled in the sump and could restrict flow or decrease performance of the system. All features (grassed swales and exfiltration trench) will be inspected and maintained following significant storm events i.e. tropical storms and hurricanes.

8. Performance Standards

The performance measure for this mitigation plan is improved water quality which exceeds the existing conditions. The stormwater system design standards are based on SFWMD's drainage criteria. The State of Florida established standards for water quality as codified in Florida Statue Chapter 373 and Florida Administrative Code Section 62-330. Those standards require water quality treatment for the first flush of runoff by either detention (capturing and slowly releasing the stormwater) or retention (capturing and never releasing the stormwater). For this project, 1 inch of runoff from the paved surfaces was calculated and compared to the volume of stored stormwater that is being provided. The project is providing 147% of the required volume, as shown below in **Table 4**. The SFWMD issued a General permit for the project which can be found in **Attachment 6**.

The first inch of runoff is considered to contain the most contaminants and therefore, the proposed

100% retention of the first flush is being met for the water quality for this project. Specifically, as discussed in *Evaluation of Current Stormwater Design Criteria with the State of Florida*, prepared for the Florida Department of Environmental protection (FDEP) by Harvey Harper (2007), these systems are designed to achieve at least an 80% reduction of the average annual load of pollutants, which would cause or contribute to violations of state water quality standards. Both the proposed swales and exfiltration trench are categorized as a retention stormwater systems. As per above, the design parameter for retention is treatment volume and the accepted criteria is to capture runoff from the first 1-inch of rainfall. These criteria are based on a volumetric standard, which are summarized in **Table 4** below.

Table 4. Provided Stormwater Treatment based on SFWMD Drainage Criteria

Pre development volume provided	0 Cubic feet
Total volume provided	551 Cubic Feet
Total volume desired (1" of runoff from paved areas, per SFWMD minimum criteria)	375 Cubic feet
Percent of treatment provided (over the minimum criteria)	Percent of treatment provided (over the minimum criteria) 147%

Three-hundred seventy-five (375) cubic feet of runoff must be captured from the first inch to comply with SFWMD water quality standards, at a minimum. The proposed drainage system for this project will provide 551 cubic feet of capture from the swales and exfiltration trench alone, therefore providing 147% treatment above the minimum water quality standard.

Also using formulas derived from the Harper (2007) study, the nutrient load for runoff produced from the existing roadway was calculated to be 32.28 pounds/year (lb./yr.) of TSS, 1.78 lb./yr. of TN, and 0.28 lb./yr. of TP. See **Table 5** below for summary of calculations and **Appendix 7** for detailed calculations and references.

Table 5. Predicted Total Suspended Solids, Total Nitrogen, and Total Phosphorus from Single-family Residential Neighborhoods in Florida.

Hydric Soil Group ¹	Area	EMC TSS ² (mg/L)	EMC TN ² (mg/L)	EMC TP ² (mg/L)	ROC ³	Rainfall ⁴ (inches)	Drainage Area (Acres)	Runoff ⁵ (ac-ft/yr)	TSS ⁶ (lbs/yr)	TN ⁶ (lb/yr)	TP ⁶ (lb/yr)
D	Single-family Residence	37.5	2.07	0.327	0.375	56.92	0.17	0.302	32.28	1.78	0.28

¹⁻⁶ See Appendix 7 for references and calculations

As previously stated, the City of Riviera Beach intends to maintain the drainage improvements as part of their roadway maintenance program. Therefore, installation and maintenance of the drainage features (swales, exfiltration trench) will maintain the improved water quality into the future. Therefore the performance measure of improved water quality will be met.

9. Monitoring Requirements

Stormwater System:

Monitoring for the drainage improvements will include incidental observations of sediment within the exfiltration trench and mowing/cleaning of the swales, per the City's maintenance program. Routine maintenance ensures the improved water quality received from these new features is sustained. The City will maintain the swales 39 (+/-) times per year which will include collection and removal of trash and debris and mowing. Fertilizers are not used on City swales and are not proposed. Additional maintenance will be performed following significant storm events (i.e. tropical storms and hurricanes) to remove debris. The City will maintain the exfiltration trench once every two years by vacuuming the trench to remove sand and other debris that has settled in the trench and vacuuming the inlet/sump related to the exfiltration trench twice per year.

Seagrass:

Seagrass monitoring adjacent to the project area is also proposed. A pre-construction baseline survey will be conducted to establish a basis for comparison of seagrass post-project. During the pre-construction survey, PVC pipes (or similar) will be installed at the edge of the seagrass beds to demarcate their location to ensure the Contractor and all personnel are aware of seagrass locations. Following the proposed bridge construction and installation of the drainage system, a post-construction survey will then be conducted to determine the extent of direct and indirect impacts due to construction.

Annual seagrass surveys will then be conducted following the post-construction survey to determine success of the water quality improvements related to the proposed stormwater system for up to five (5) years within the seagrass growing season (June 1st – September 30th), to capture an accurate representation of the seagrass community. The annual surveys will record seagrass percent cover, spatial extent, and species observed within the survey boundaries. The reports will include a benthic resource/seagrass map of the monitored condition and a written description comparing those results to the pre-construction survey. Recommendations for corrective action will be included in the annual report, if applicable. Should seagrasses' extent or percent cover remain equal to or greater than pre-construction survey results by Year 3, a written request for early monitoring closeout will be submitted to the USACE. If conditions are not met by Year 3 monitoring will continue into Years 4 and 5, also during the growing season.

10. Long-term Management Plan

The City will maintain the swales and exfiltration trench as part of its bridge and roadway maintenance program. Therefore, they will receive long-term management. The maintenance efforts described above will be performed in perpetuity. The maintenance intervals described in the Maintenance Plan and Monitoring Plan (Steps 7 and 9) will be adjusted by the City, should the condition of the swales and exfiltration trench not meet standards. These efforts will be funded through the City's annual budget for Public Works Maintenance, more details are described below

in Step 12.

11. Adaptive Management Plan

In an effort to ensure the long-term viability of the proposed mitigation, the results of the mitigation effort will be assessed during each monitoring period to determine if any management practices, measures or actions are needed for the proposed system, such as the addition of baffle boxes at two inlets, north and south of Island Drive, for example. Trends and/or changes to the constructed mitigation system will be identified within the monitoring reports, along with any recommendations on measures design to ensure the long-term success of the system.

12. Financial Assurances

All costs will be addressed by the City through its annual budget for Public Works Maintenance, which is collected from the following sources: taxes, licenses, fees, permits, charges for services, State of Florida, lease proceeds, fines, grants, and interest. Tax revenues are 69% of the budget and include ad valorem, fuel, public service utility, and local business taxes. The anticipated construction, maintenance, and monitoring costs are shown below in **Tables 6, 7, and 8.**

Table 6. Estimated Construction Costs of the Swales and Exfiltration Trench

Description	Quantity		Unit Price	Total
	Total	Unit		
Earthwork	80	CY	\$10	\$800
Exfiltration Trench (Include 18" Slotted HDPE)	5	LF	\$150	\$750
DBI Type E (Include Top Slab & Grate)	1	EA	\$6,500	\$6,500
Remove/Relocate Existing Trees	1	LS	\$5,000	\$5,000
Sod	1,445	SY	\$5	\$7,225
Planting, Soil, Water, Irrigation System	1	LS	\$20,000	\$20,000
Total:				\$40,275

Table 7. Estimated Annual Maintenance Costs of the Swale and Exfiltration Trench

Maintenance Activity	Cost per Visit	Visits per year	Total Annual Cost
Mowing and Surface Debris Removal	\$100	39	\$3,900
Exfiltration Trench Vacuuming	\$200	0.5	\$100
Inlet/Sump Vacuuming (1 structure)	\$100	2	\$200
Total Annual Cost			\$4,200

Table 8. Estimated Seagrass Monitoring Costs

Seagrass Monitoring Activity	Item Cost	Cost (maximum)
Pre- & Post- Construction Seagrass Survey	\$13,500	\$13,500
Annual Seagrass Monitoring	\$8,160/ year	\$40,800*
Total Cost		\$54,300

*for 5 years of monitoring

References:

Harper, H. H., Baker, D. M., 2007. *Evaluation of Current Stormwater Design Criteria within the State of Florida*. Florida Department of Environmental Protection.

Lee, K., S.R. Park, Y.K. Kim., 2007. *Effects of irradiance, temperature, and nutrients on growth dynamics of seagrasses: a review*. Journal of Experimental Marine Biology and Ecology 350: 144-175.

Singer Island Bridge Replacement Project

Palm Beach County

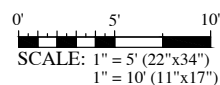
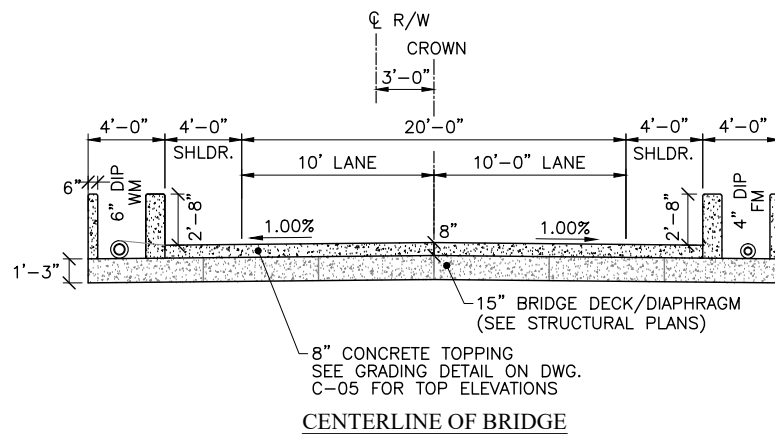
SAJ-2017-03174

12 Step Mitigation Plan

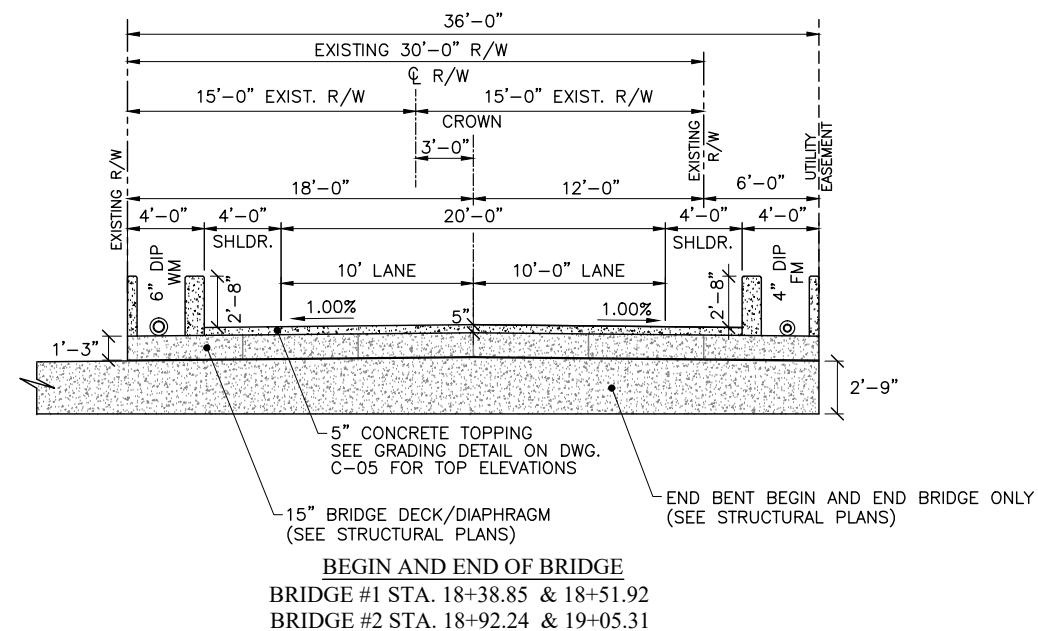
Revised May 2020

Attachment 1

Stormwater Management System Plans



GRAND BAHAMA LN. BRIDGE SECTIONS
 PROPOSED 36' RIGHT OF WAY
 EXISTING 30' RIGHT-OF-WAY



Designed: _____
 Drawn: _____
 Checked: _____

No.	Revisions	Date	By

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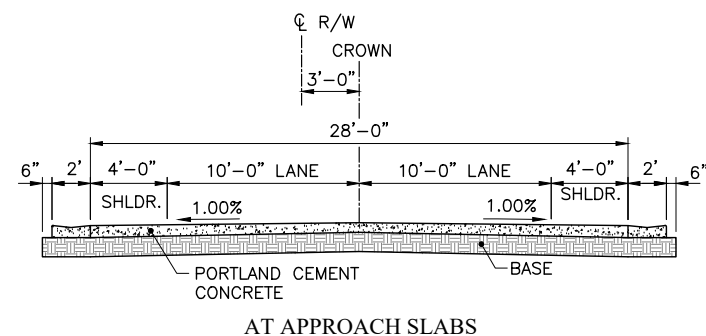
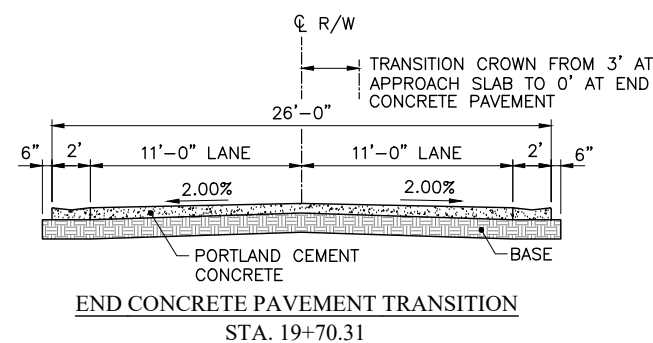
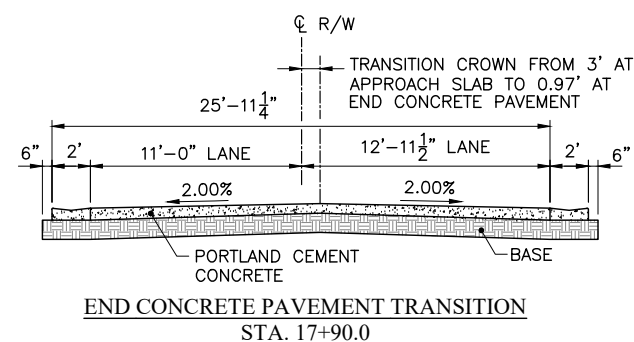
PROJ. # 60265.03

ERDMAN ANTHONY
 5405 OKEECHOBEE BOULEVARD, SUITE 200
 WEST PALM BEACH, FLORIDA 33417
 TELEPHONE: 561-797-7323
 FAX: 561-797-7334

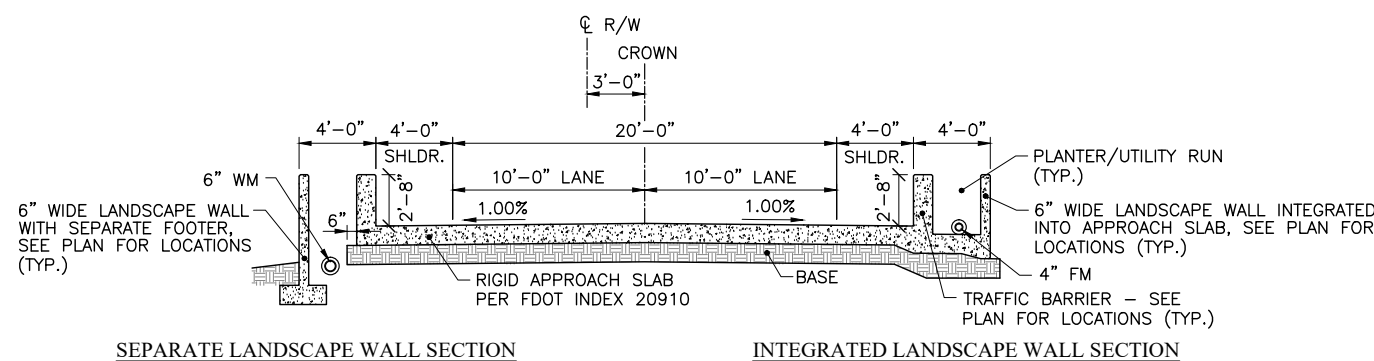
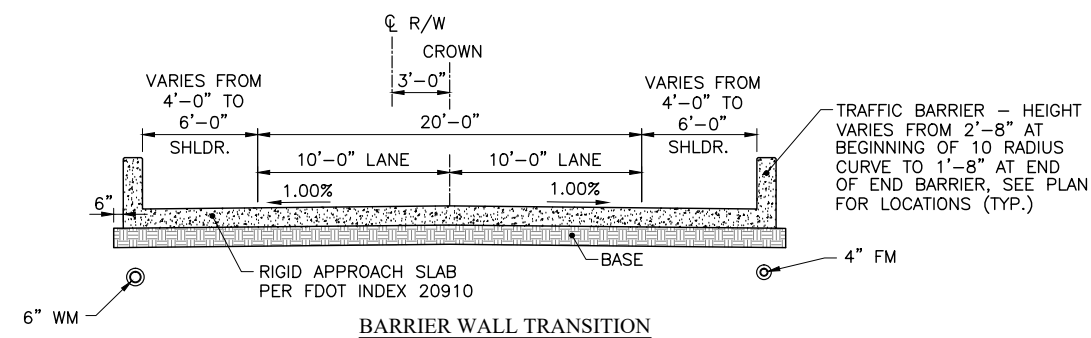
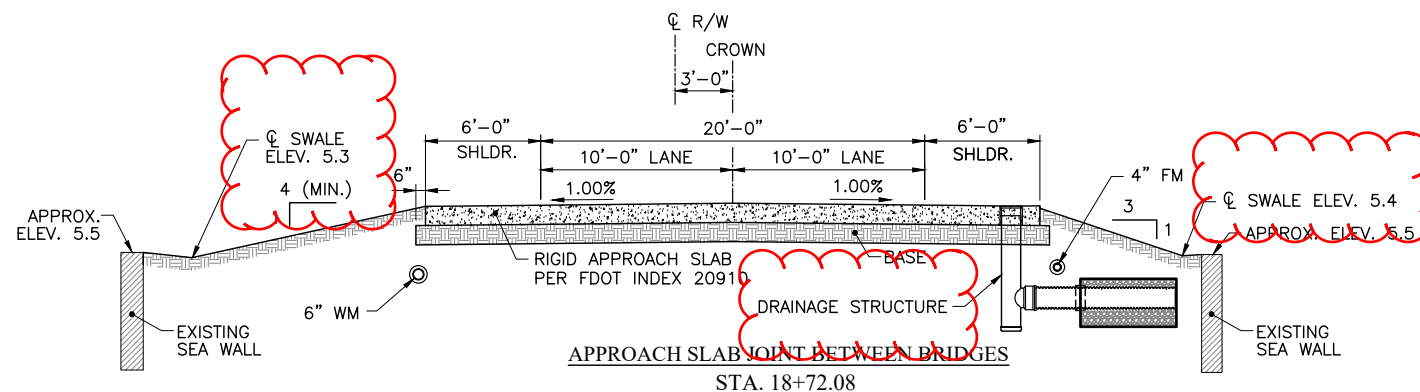
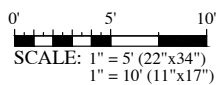
CITY OF RIVIERA BEACH,
 FLORIDA, PALM BEACH ISLES
 PALM BEACH ISLES BRIDGES
 GRAND BAHAMA LANE
 TYPICAL SECTIONS

DANA I GILLETTE
 FL PE 41913

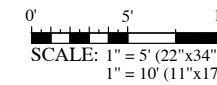
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G-09
 Sheet ___ of ___



GRAND BAHAMA LN. CONCRETE PAVEMENT TRANSITION
 PROPOSED 36' RIGHT OF WAY
 EXISTING 30' RIGHT-OF-WAY



GRAND BAHAMA LN. APPROACH SLAB SECTIONS
 PROPOSED 36' RIGHT OF WAY
 EXISTING 30' RIGHT-OF-WAY





Designed: _____
 Drawn: _____
 Checked: _____

By: _____
 Date: _____

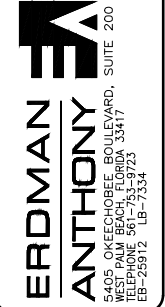
Revisions

No. _____
 Date _____

No. _____
 Date _____

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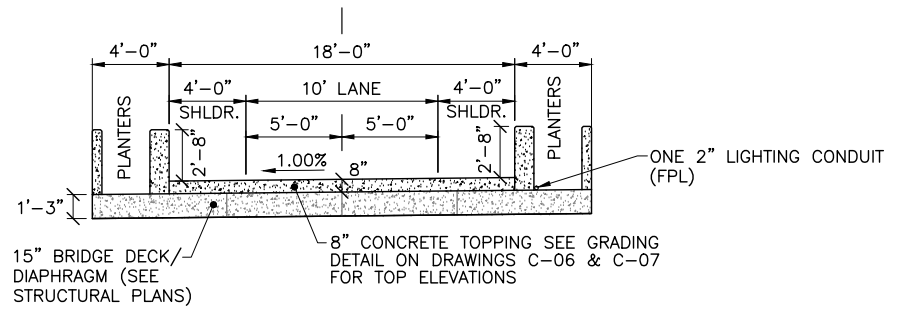
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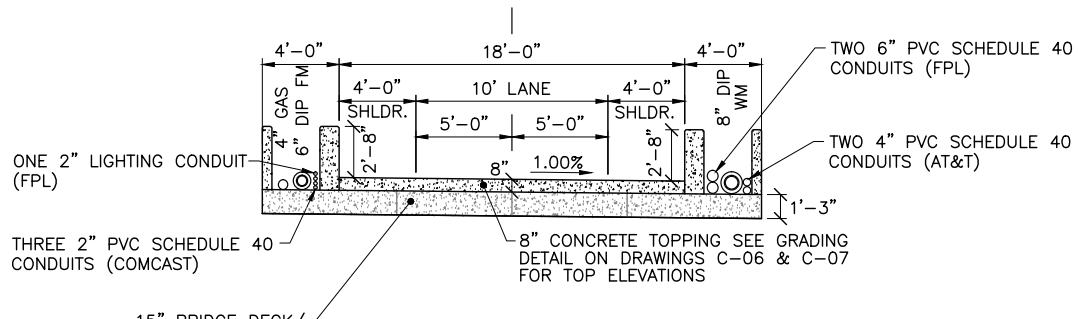
CITY OF RIVIERA BEACH,
 FLORIDA, PALM BEACH ISLES
 PALM BEACH ISLES BRIDGES
 ISLAND DRIVE
 TYPICAL SECTIONS

DANA I GILLETTE
 FL PE 41913

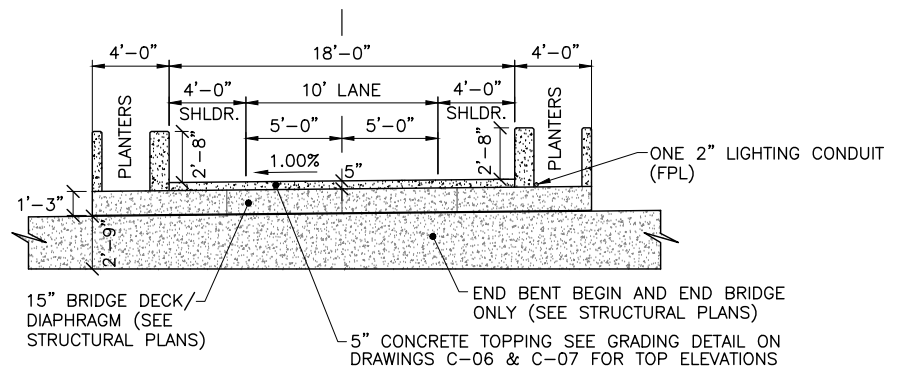
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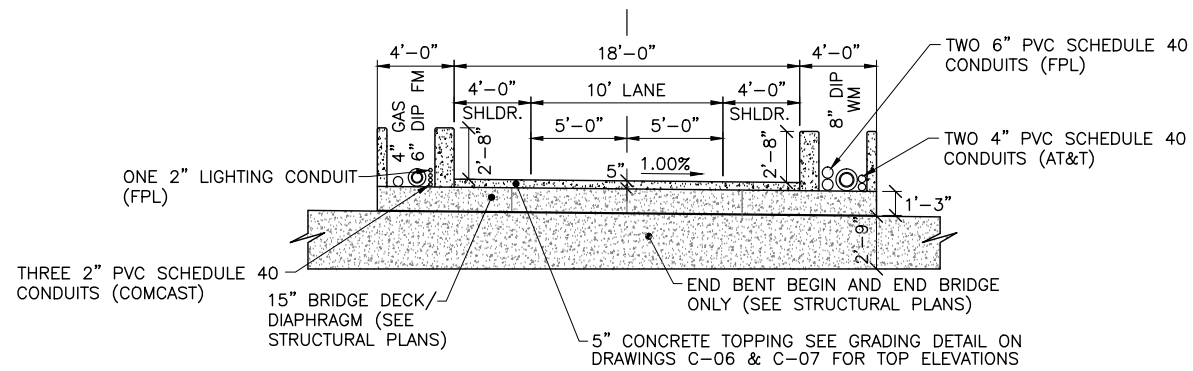
CENTERLINE OF BRIDGE
 BRIDGE #3 STA. 11+38.085
 BRIDGE #4 STA. 12+21.355



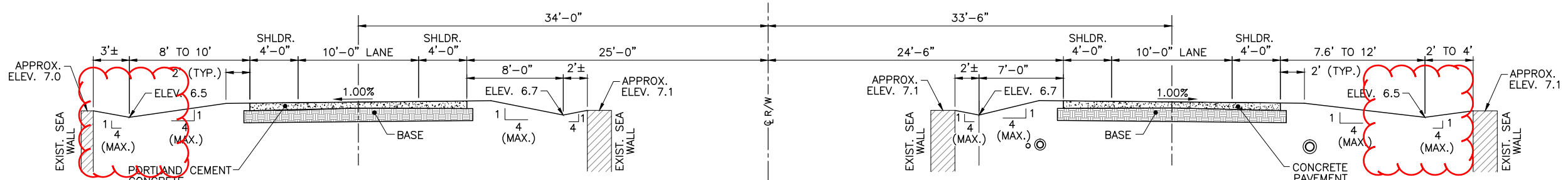
CENTERLINE OF BRIDGE
 BRIDGE #5 STA. 11+37.645
 BRIDGE #6 STA. 12+21.065



BEGIN & END BRIDGE
 BRIDGE #3 STA. 11+31.55 & 11+44.62
 BRIDGE #4 STA. 12+14.82 & 12+27.89



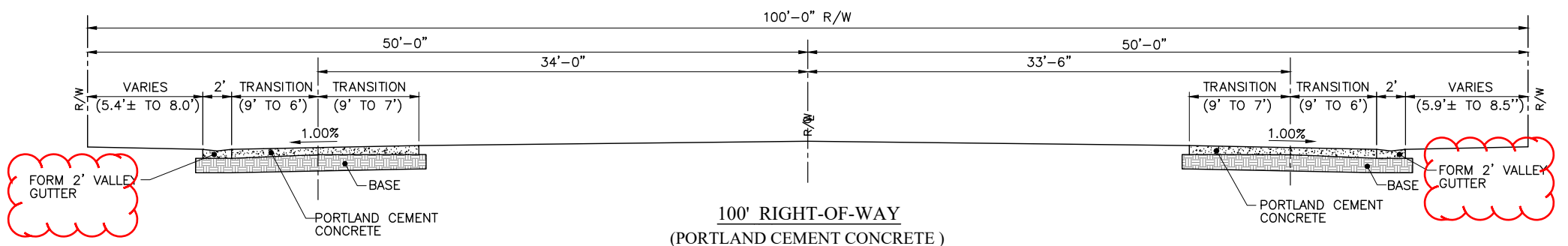
BEGIN & END BRIDGE
 BRIDGE #5 STA. 11+31.11 & 11+44.18
 BRIDGE #6 STA. 12+14.53 & 12+27.60



ENTRANCE LANE LOW SPOT
 (STA. 11+79.72 OFFSET 34.00' LT.)

OVER CANAL
 (BETWEEN BRIDGE APPROACH SLABS)
 (STA. 11+59± TO STA. 12+00±)

EXIT LANE LOW SPOT
 (STA. 11+79.36 OFFSET 33.50' RT.)



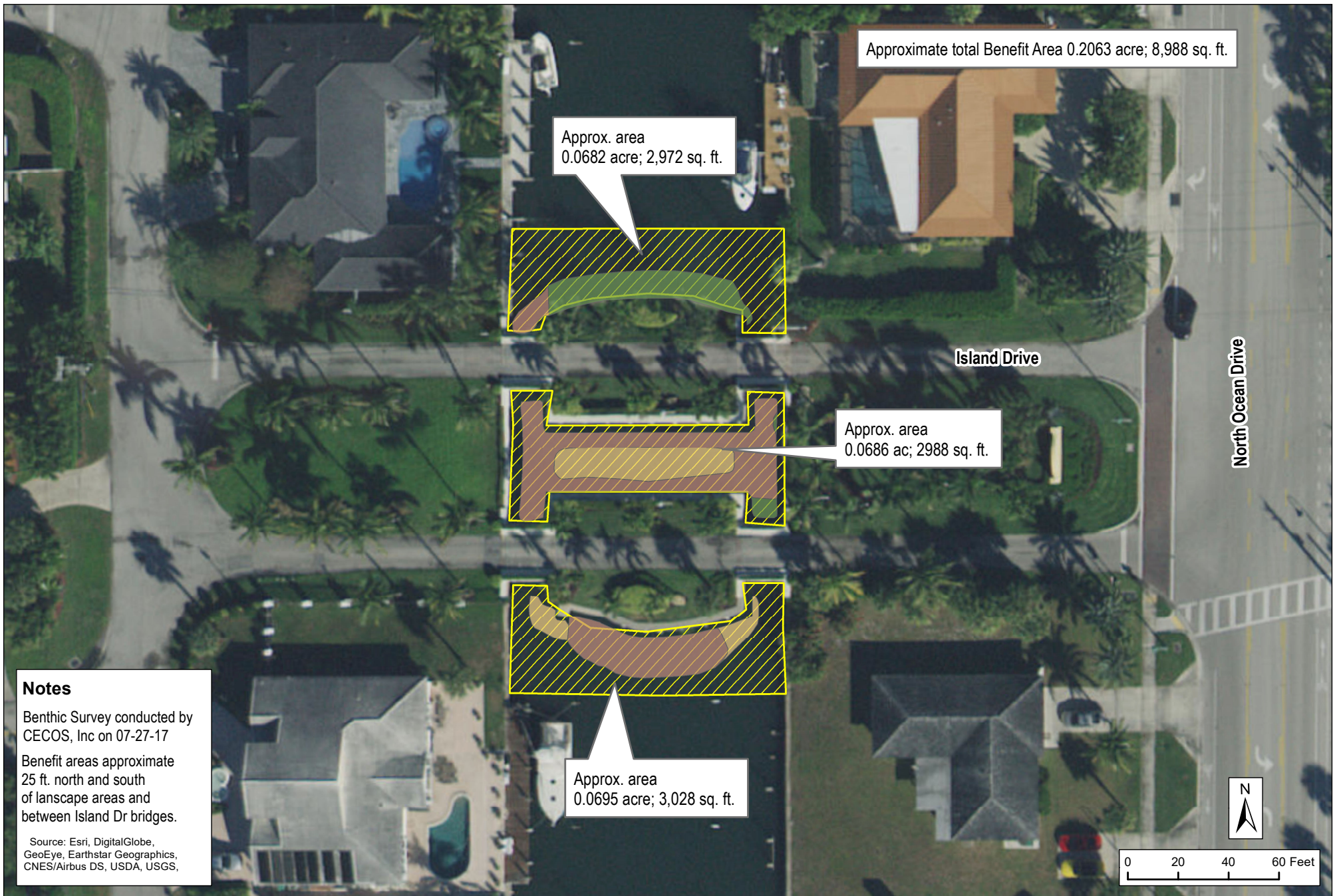
ENTRANCE LANE TRANSITION
 (STA. 10+90.55 TO 11+16.55)
 (STA. 12+42.89 TO 12+68.89)

100' RIGHT-OF-WAY
 (PORTLAND CEMENT CONCRETE)

EXIT LANE TRANSITION
 (STA. 10+90.11 TO 11+16.11)
 (STA. 12+42.60 TO 12+68.60)

Attachment 2

Mitigation/Benefit Area Map



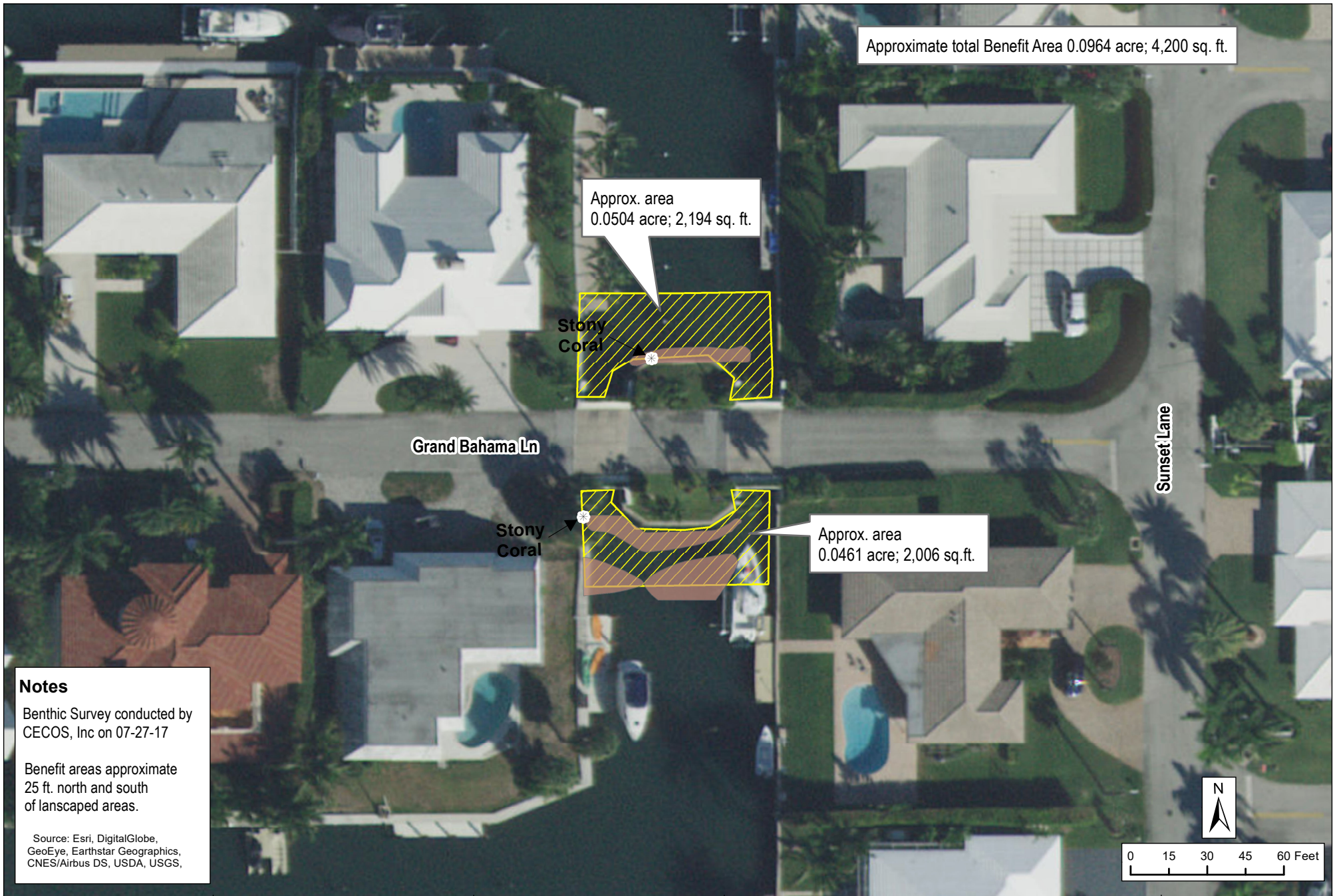
**Singer Island
 Bridge Replacement**

**Mitigation Area Map
 Island Drive**

Seagrass Percentage Cover (Approx.)

- Hd/Hj 1-5%
- Hd/Hj 5-10%
- Hd/Hj 10-25%
- Benefit Areas (Approx.)

Attachment 2a



Notes

Benthic Survey conducted by CECOS, Inc on 07-27-17

Benefit areas approximate 25 ft. north and south of landscaped areas.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,



**Singer Island
Bridge Replacement**

**Mitigation Area Map
Grand Bahama Lane**

Seagrass Percentage Cover (Approx.)

- Hd/Hj 1-5%
- Hd/Hj 5-10%
- Hd/Hj 10-25%
- Benefit Areas (Approx.)

Attachment 2b

Attachment 3

UMAM Functional Assessment & Mitigation Determination Formulas

Mitigation Determination Formulas

Revised Mitigation Plan – 4/20/2020

(See Section 62-345.600(3), F.A.C.)

For each impact assessment area:

$$\text{(FL) Functional Loss} = \text{Impact Delta} * \text{Impact Acres}$$

$$\text{Island Drive Direct FL} = 0.43 * 0.00064 \text{ ac} = 0.0003$$

$$\text{Island Drive Secondary FL} = 0.10 * 0.00544 \text{ ac} = 0.00054$$

$$\text{Island Drive FL Total} = 0.0003 + 0.00054 = \underline{0.00084}$$

$$\text{Grand Bahama Direct FL} = 0.43 * 0.00007 \text{ ac} = 0.00003$$

$$\text{Grand Bahama Secondary FL} = 0.10 * 0.0048 \text{ ac} = 0.00048$$

$$\text{Grand Bahama FL Total} = 0.00003 + 0.00048 = \underline{0.00051}$$

For each mitigation assessment area:

$$\text{(RFG) Relative Functional Gain} = \text{Mitigation Delta} / ((\text{t-factor}) * (\text{risk}))$$

$$\text{Island Drive Mitigation RFG} = 0.04 / (1.0696 * 1.25) = 0.03$$

$$\text{Grand Bahama Mitigation RFG} = 0.04 / (1.0696 * 1.25) = 0.03$$

If acreage of mitigation proposed is known:

$$\text{(FG) Functional Gain} = \text{Relative Functional Gain} * \text{Mitigation Area}$$

$$\text{Island Drive Mitigation FG} = 0.03 * 0.206 \text{ ac (based on Benefit Area from RAI 12/14/18)} = \underline{0.006}$$

$$\text{Grand Bahama Mitigation FG} = 0.03 * 0.096 \text{ ac (based on Benefit Area from RAI 12/14/18)} = \underline{0.003}$$

The Benefit Area assumes water quality will be improved within the waterway between both the westbound and eastbound Island Drive bridges, and approximately 25 ft. north and south of the grassed islands. The benefit area for Grand Bahama assumes an approximate 25 ft. benefit area north and south of the grassed swales.

For each bridge **Functional Gain** is greater than **Functional Loss**

$$\text{Island Drive} - \text{FG } 0.006 > \text{FL } 0.00084$$

$$\text{Grand Bahama} - \text{FG } 0.003 > \text{FL } 0.00051$$

$$\text{Total} - \text{FG } 0.009 > \text{FL } 0.00135$$

**PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)**

Site/Project Name Singer Island Bridge Replacement Project		Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Grand Bahama Bridges - Direct Impact
FLUCCs code 510 Streams and Waterways / 9113 - Seagrass, Patchy	Further classification (optional) N/A	Impact or Mitigation Site? Direct Impact	Assessment Area Size 0.00007 ac (3 sq ft.)
Basin/Watershed Name/Number Lake Worth Lagoon (Northern Segment) - Water Body ID 3226E1	Affected Waterbody (Class) 3M	Special Classification (i.e. OFW, AP, other local/state/federal designation of importance) None	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. The AA is approximately 0.23 miles west of the Intracoastal Waterway/Lake Worth Lagoon.			
Assessment area description Water depths within the survey area range from 4-8 feet. Due to turbidity, visibility was poor at the time of surveys, at approximately 1 foot. Sparse/discontinuous mix of Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>) were observed with densities ranging 1-5%, 5-10%, and 10-25% near the bridges. Algae cover was observed within the AA. The bridge currently provides access to a completely developed residential community with private boats, residential docks, and seawalls within the waterways. During low tide, the bottom can become exposed under the bridge, eliminating flow during that time. Reference community: Lake Worth Cove, approximately 2 miles north of the AA: Per the Lake Worth Lagoon's Management Plan this is a healthy seagrass communities supporting all seven seagrass species within a sheltered area and located within J.D. MacArthur Beach State Park. The cove is surrounded by undeveloped, natural communities and protected from high water velocities. The AA is not similar to the reference community.			
Significant nearby features The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. No mangroves or other native habitat are present along the shorelines; the AA is surrounded by residential development, private boats and residential docks. Reference community: Lake Worth Cove, approximately 2 miles north of the AA and located with J.D. MacArthur Beach State Park.		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique. Typical dredged canal associated with island construction. Bridges were built over 50 years ago and cross over man made canals.	
Functions Reference community-Lake Worth Cove: Seagrasses perform a variety of functions within ecosystems, and have both economic and ecological value. Seagrass habitats offer food, shelter, and essential nursery areas to commercial and recreationally important fishery species, and numerous invertebrates. Additionally, seagrasses provide both habitat and protection. Seagrass beds also help diminish the effects of storm waves and strong currents, providing protection to fish and invertebrates, while also preventing the scouring and erosion of unconsolidated sediments. The AA provides only patchy seagrass coverage, algae coverage and no adjacent mangrove/forested habitat. It is not similar to the reference community.		Mitigation for previous permit/other historic use None.	
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) A variety of fishes from the grouper/snapper complex, grunts, snook and spadefish. Numerous marine invertebrates including corals, sponges, worms, crustaceans and molluscs.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Johnson's seagrass (<i>Halophila johnsonii</i>) (T) present; West Indian manatee (<i>Trichechus manatus latirostris</i>) (E); Smalltooth sawfish (<i>Pristis pectinata</i>) (E), wildlife use anticipated to be transient as habitat is not present to support resident use.	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Oysters, sponges, soft corals, algae (<i>Calurpa</i> spp.), puffer fish, sheepshead, hermit crabs, arrow crabs, wrasse, cocoa damsel (juvenile), southern stingray, tunicates, feather dusters, and jellyfish were observed during surveys,			
Additional relevant factors: AA is located within an urban landscape where stormwater runoff from the bridges discharges directly into surface waters.			
Assessment conducted by: CECOS and USACE		Assessment date(s): Field work: 7/27/2017; Revised: 4/2/19, 4/20/2020	

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Singer Island Bridge Replacement Project	Application Number SAJ-2017-03174	Assessment Area Name or Number Grand Bahama Bridges - Direct Impact
Impact or Mitigation Impact - 0.00007 ac (3 sq ft.) Direct Impact	Assessment conducted by: CECOS and USACE	Assessment date: 4/20/2020

Scoring Guidance
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current		with	<p><u>Existing Condition:</u> The AA was scored a 5, which means that in comparison to the ideal location, the location of the assessment area limits the opportunity to perform beneficial functions to 50% of the optimal ecological value. Wildlife access to and from the AA is limited by barriers, specifically at Low Tide when the substrate is exposed. Land uses outside the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal, located 0.23 miles west of the Intracoastal Waterway/Lake Worth Lagoon.</p> <p><u>With Project:</u> The score will be "0", due to the direct impact of the project and resources will not remain post project.</p>
	5	0		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current		with	<p><u>Existing Condition:</u> A score of (4) means that the hydrology and water quality supports the functions and provides benefits to fish and wildlife at 40% of the optimal capacity for the assessment area. Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather and other climatic effects. At low tide portions of the benthic substrate are exposed, preventing flow and flushing from 1-2 times per day. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading as evidence by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 foot, due to turbid conditions. There is currently no pre-treatment prior to pollutants entering the system.</p> <p><u>With Project:</u> The score will be "0", due to the direct project impact and resources will not remain post project.</p>
	4	0		
.500(6)(c)Community structure	w/o pres or current		with	<p><u>Existing Condition:</u> A score of (4) means that, relative to ideal habitat, the benthic communities of the assessment area provide functions to 40% of the optimal level. In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap and seawall) at all bridges with limited flow during low tide due to exposed substrate. Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish. Two stony corals were observed at Grand Bahama Bridges, on the west side.</p> <p><u>With Project:</u> The score will be "0", due to the project's direct impact and resources will not remain post project.</p>
	4	0		

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.43	0.000

If preservation as mitigation,
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
FL = delta x acres = 0.00003

Delta = [with-current]
0.43

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

**PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)**

Site/Project Name Singer Island Bridge Replacement Project		Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Grand Bahama Bridges - Secondary Impact
FLUCCs code 510 Streams and Waterways / 9113 - Seagrass, Patchy	Further classification (optional) N/A	Impact or Mitigation Site? Secondary Impact	Assessment Area Size 0.0048 ac (207 sq ft.)
Basin/Watershed Name/Number Lake Worth Lagoon (Northern Segment) - Water Body ID 3226E1	Affected Waterbody (Class) 3M	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. The AA is approximately 0.23 miles west of the Intracoastal Waterway/Lake Worth Lagoon.			
Assessment area description Water depths within the survey area range from 4-8 feet. Due to turbidity, visibility was poor at the time of surveys, at approximately 1 foot. Sparse/discontinuous mix of Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>) were observed with densities ranging 1-5%, 5-10%, and 10-25% near the bridges. Algae cover was observed within the AA. The bridge currently provides access to a completely developed residential community with private boats, residential docks, and seawalls within the waterways. During low tide, the bottom can become exposed under the bridge, eliminating flow within the waterway at that time. Reference community: Lake Worth Cove, approximately 2 miles north of the AA: Per the Lake Worth Lagoon's Management Plan this is a healthy seagrass communities supporting all seven seagrass species within a sheltered area and located within J.D. MacArthur Beach State Park. The cove is surrounded by undeveloped, natural communities and protected from high water velocities. The AA is not similar to the reference community.			
Significant nearby features The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. No mangroves or other native habitat are present along the shorelines; the AA is surrounded by residential development, private boats and residential docks. Reference community: Lake Worth Cove, approximately 2 miles north of the AA and located with J.D. MacArthur Beach State Park.	Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique. Typical dredged canal associated with island construction. Bridges were built over 50 years ago and cross over man made canals.		
Functions Reference community-Lake Worth Cove: Seagrasses perform a variety of functions within ecosystems, and have both economic and ecological value. Seagrass habitats offer food, shelter, and essential nursery areas to commercial and recreationally important fishery species, and numerous invertebrates. Additionally, seagrasses provide both habitat and protection. Seagrass beds also help diminish the effects of storm waves and strong currents, providing protection to fish and invertebrates, while also preventing the scouring and erosion of unconsolidated sediments. The AA provides only patchy seagrass coverage, algae coverage and no adjacent mangrove/forested habitat. It is not similar to the reference community.	Mitigation for previous permit/other historic use None.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) A variety of fishes from the grouper/snapper complex, grunts, snook and spadefish. Numerous marine invertebrates including corals, sponges, worms, crustaceans and molluscs.	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Johnson's seagrass (<i>Halophila johnsonii</i>) (T) present; West Indian manatee (<i>Trichechus manatus latirostris</i>) (E); Smalltooth sawfish (<i>Pristis pectinata</i>) (E), wildlife use anticipated to be transient as habitat is not present to support resident use.		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Oysters, sponges, soft corals, algae (<i>Caluerna</i> spp.), puffer fish, sheepshead, hermit crabs, arrow crabs, wrasse, cocoa damsel (juvenile), southern stingray, tunicates, feather dusters, and jellyfish were observed during surveys,			
Additional relevant factors: AA is located within an urban landscape where stormwater runoff from the bridges discharges directly into surface waters.			
Assessment conducted by: CECOS and USACE		Assessment date(s): Field work: 7/27/2017; Revised 4/2/19, 4/20/2020	

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Singer Island Bridge Replacement Project	Application Number SAJ-2017-03174	Assessment Area Name or Number Grand Bahama Bridges - Secondary Impact
Impact or Mitigation Impact - 0.0048 ac (207 sq ft.) Secondary Impact	Assessment conducted by: CECOS and USACE	Assessment date: 4/20/2020

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	w/o pres or current		with	<p><u>Existing Condition:</u> The AA was scored a 5, which means that in comparison to the ideal location, the location of the assessment area limits the opportunity to perform beneficial functions to 50% of the optimal ecological value. Wildlife access to and from the AA is limited by barriers, specifically at Low Tide when the substrate is exposed. Land uses outside the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal, located 0.23 miles west of the Intracoastal Waterway/Lake Worth Lagoon.</p> <p><u>With Project:</u> The secondary impacts will not alter the location and landscape of the project area, therefore the "with project" score remains the same.</p>
	5	5		
.500(6)(b)Water Environment (n/a for uplands)	w/o pres or current		with	<p><u>Existing Condition:</u> A score of (4) means that the hydrology and water quality supports the functions and provides benefits to fish and wildlife at 40% of the optimal capacity for the assessment area. Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather and other climatic effects. At low tide portions of the benthic substrate are exposed, preventing flow and flushing from 1-2 times per day. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading as evidence by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 foot, due to turbid conditions. There is currently no pre-treatment prior to pollutants entering the system.</p> <p><u>With Project:</u> The "with project" score is reduced to a "3" to reflect the temporary condition during construction, but not reduced to "0" as resources will remain post-project.</p>
	4	3		
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	w/o pres or current		with	<p><u>Existing Condition:</u> A score of (4) means that, relative to ideal habitat, the benthic communities of the assessment area provide functions to 40% of the optimal level. In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap and seawall) at all bridges with limited flow during low tide due to exposed substrate. Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish. Two stony corals were observed at Grand Bahama Bridges, on the west side.</p> <p><u>With Project:</u> Secondary impacts, associated with this project feature include the construction of an elevated platform, which will shade the benthic substrate for up to 6 months and could greatly reduce the amount of seagrass. Seagrass is expected to recruit back once construction is over. Therefore the "with project" score is reduced to a "2" to reflect the temporary condition during construction, but not reduced to "0" as resource will remain post-project.</p>
	4	2		

Score = sum of above scores/30 (if uplands, divide by 20)
current
or w/o pres
with
0.43
0.33

If preservation as mitigation,
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
FL = delta x acres = 0.00048

Delta = [with-current]
0.10

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

**PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)**

Site/Project Name Singer Island Bridge Replacement Project		Application Number SAJ-2017-03174 (NW-JKA)		Assessment Area Name or Number Grand Bahama Bridges - Direct and Secondary Impact Mitigation	
FLUCCs code 510 Streams and Waterways / 9113 - Seagrass, Patchy		Further classification (optional) N/A		Impact or Mitigation Site? Mitigation	
Assessment Area Size 0.096 acre (based on benefit area)		Basin/Watershed Name/Number Lake Worth Lagoon (Northern Segment) - Water Body ID 3226E1		Affected Waterbody (Class) 3M	
		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None			
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean.					
Assessment area description Water depths within the survey area range from 4-8 feet. Due to turbidity, visibility was poor at the time of surveys, at approximately 1 foot. Sparse/discontinuous mix of Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>) were observed with densities ranging 1-5%, 5-10%, and 10-25% near the bridges. Algae cover was observed within the AA. The bridge currently provides access to a completely developed residential community with private boats, residential docks, and seawalls within the waterways. During low tide, the bottom can become exposed under the bridge, eliminating flow within the waterway at that time. Improvements to water quality and transparency are anticipated with impervious area treatment for the two bridges at Grand Bahama Lane. Reference community: Lake Worth Cove, approximately 2 miles north of the AA: Per the Lake Worth Lagoon's Management Plan this is a healthy seagrass communities supporting all seven seagrass species within a sheltered area and located within J.D. MacArthur Beach State Park. The cove is surrounded by undeveloped, natural communities and protected from high water velocities. The AA is not similar to the reference community.					
Significant nearby features The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. No mangroves or other native habitat are present along the shorelines; the AA is surrounded by residential development, private boats and residential docks. Reference community: Lake Worth Cove, approximately 2 miles north of the AA and located with J.D. MacArthur Beach State Park.			Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique. Typical dredged canal associated with island construction. Bridges were built over 50 years ago and cross man made canals.		
Functions Reference community-Lake Worth Cove: Seagrasses perform a variety of functions within ecosystems, and have both economic and ecological value. Seagrass habitats offer food, shelter, and essential nursery areas to commercial and recreationally important fishery species, and numerous invertebrates. Additionally, seagrasses provide both habitat and protection. Seagrass beds also help diminish the effects of storm waves and strong currents, providing protection to fish and invertebrates, while also preventing the scouring and erosion of unconsolidated sediments. The AA provides only patchy seagrass coverage, algae coverage and no adjacent mangrove/forested habitat. It is not similar to the reference community.			Mitigation for previous permit/other historic use None.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) A variety of fishes from the grouper/snapper complex, grunts, snook and spadefish. Numerous marine invertebrates including corals, sponges, worms, crustaceans and molluscs.			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Johnson's seagrass (<i>Halophila johnsonii</i>) (T) present; West Indian manatee (<i>Trichechus manatus latirostris</i>) (E); Smalltooth sawfish (<i>Pristis pectinata</i>) (E), wildlife use anticipated to be transient as habitat is not present to support resident use.		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Oysters, sponges, soft corals, algae (<i>Calurpa</i> spp.), puffer fish, sheepshead, hermit crabs, arrow crabs, wrasse, cocoa damsel (juvenile), southern stingray, tunicates, feather dusters, and jellyfish were observed during surveys,					
Additional relevant factors: Proposed mitigation involves construction of a stormwater management system (swales and exfiltration trench) capable of providing 0.096 acre of benefit vs the existing condition where no water quality treatment is provided.					
Assessment conducted by: CECOS and USACE			Assessment date(s): Field Work:7/27/2017; Revised: 4/2/19, 4/20/2020		

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Singer Island Bridge Replacement Project	Application Number SAJ-2017-03174	Assessment Area Name or Number Grand Bahama Bridges - Direct & Secondary Impact Mitigation
Impact or Mitigation Mitigation - 0.096 acre (based on benefit area)	Assessment conducted by: CECOS and USACE	Assessment date: 4/20/2020

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	Existing Condition: The AA was scored a 5, which means that in comparison to the ideal location, the location of the assessment area limits the opportunity to perform beneficial functions to 50% of the optimal ecological value. Wildlife access to and from the AA is limited by barriers, specifically at Low Tide when the substrate is exposed. Land uses outside the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal, located 0.23 miles west of the Intracoastal Waterway/Lake Worth Lagoon.	
	W/o pres or current	with
	5	5
.500(6)(b)Water Environment (n/a for uplands)	Existing Condition: A score of (4) means that the hydrology and water quality supports the functions and provides benefits to fish and wildlife at 40% of the optimal capacity for the assessment area. Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather and other climatic effects. At low tide portions of the benthic substrate are exposed, preventing flow and flushing from 1-2 times per day. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading as evidence by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 foot, due to turbid conditions. There is currently no pre-treatment prior to pollutants entering the system.	
	W/o pres or current	with
	4	5
.500(6)(c)Community structure	Existing Condition: A score of (4) means that, relative to ideal habitat, the benthic communities of the assessment area provide functions to 40% of the optimal level. In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap and seawall) at all bridges with limited flow during low tide due to exposed substrate. Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish. Two stony corals were observed at Grand Bahama Bridges, on the west side.	
	W/o pres or current	with
1. Vegetation and/or 2. Benthic Community	4	4

Score = sum of above scores/30 (if uplands, divide by 20)	
current	with
0.43	0.47

If preservation as mitigation,
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
FL = delta x acres = N/A

Delta = [with-current]
0.04

If mitigation
Time lag (t-factor) = 1.0696
Risk factor = 1.25

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.03

Total FL (Direct 0.00003 + Secondary 0.00048) = - 0.00051

Total FG (Mitigation) = RFG (0.03) * 0.096 = 0.003

FG (0.003) exceeds the FL (0.00051) - Grand Bahama

**PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)**

Site/Project Name Singer Island Bridge Replacement Project		Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Island Drive Bridges - Direct Impact
FLUCCs code 510 Streams and Waterways / 9113 - Seagrass, Patchy	Further classification (optional) N/A	Impact or Mitigation Site? Direct Impact	Assessment Area Size 0.00064 ac (28 sq ft.)
Basin/Watershed Name/Number Lake Worth Lagoon (Northern Segment) - Water Body ID 3226E1	Affected Waterbody (Class) 3M	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. The AA is approximately 0.56 miles west of the Intracoastal Waterway.			
Assessment area description The water depths within the survey area range from 4-8 feet. Due to turbidity, visibility was poor at the time of surveys, approximately 1 foot. Sparse/discontinuous mix of Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>) were observed with densities ranging 1-5%, 5-10%, and 10-25% near the bridges. Algae cover was observed within the AA. The bridge currently provides access to a completely developed residential community with private boats, residential docks, and seawalls within the waterways. The AA is subject to greater nutrient loading from the adjacent development/residences. Reference community: Lake Worth Cove, approximately 2 miles north of the AA: Per the Lake Worth Lagoon's Management Plan this is a healthy seagrass communities supporting all seven seagrass species within a sheltered area and located within J.D. MacArthur Beach State Park. The cove is surrounded by undeveloped, natural communities and protected from high water velocities. The AA is not similar to the reference community.			
Significant nearby features The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. No mangroves or other native habitat are present along the shorelines; the AA is surrounded by residential development, private boats and residential docks. Reference community: Lake Worth Cove, approximately 2 miles north of the AA and located with J.D. MacArthur Beach State Park.	Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique. Typical dredged canal associated with island construction. Bridges were built over 50 years ago and cross man made canals.		
Functions Reference community-Lake Worth Cove: Seagrasses perform a variety of functions within ecosystems, and have both economic and ecological value. Seagrass habitats offer food, shelter, and essential nursery areas to commercial and recreationally important fishery species, and numerous invertebrates. Additionally, seagrasses provide both habitat and protection. Seagrass beds also help diminish the effects of storm waves and strong currents, providing protection to fish and invertebrates, while also preventing the scouring and erosion of unconsolidated sediments. The AA provides patchy seagrass coverage, algae coverage and no adjacent mangrove/forested habitat. It is not similar to the reference community.	Mitigation for previous permit/other historic use None.		
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) A variety of fishes from the grouper/snapper complex, grunts, snook and spadefish. Numerous marine invertebrates including corals, sponges, worms, crustaceans and molluscs.	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Johnson's seagrass (<i>Halophila johnsonii</i>) (T) present; West Indian manatee (<i>Trichechus manatus latirostris</i>) (E); Smalltooth sawfish (<i>Pristis pectinata</i>) (E), wildlife use anticipated to be transient as habitat is not present to support resident use.		
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Oysters, sponges, soft corals, algae (<i>Caluerpa</i> spp.), puffer fish, sheepshead, hermit crabs, arrow crabs, wrasse, cocoa damsel (juvenile), southern stingray, tunicates, feather dusters, and jellyfish were observed during surveys,			
Additional relevant factors: AA is located in an urban landscape currently receiving untreated stormwater runoff.			
Assessment conducted by: CECOS and USACE		Assessment date(s): Field work:7/27/2017; Revised: 4/2/19, 4/20/2020	

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Singer Island Bridge Replacement Project	Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Island Drive Bridges - Direct Impact
Impact or Mitigation Impact - 0.00064 ac (28 sq ft.) Direct Impact	Assessment conducted by: CECOS and USACE	Assessment date: 4/20/2020

Scoring Guidance
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support	<u>Existing Condition:</u> The AA was scored a 5, which means that in comparison to the ideal location, the location of the assessment area limits the opportunity to perform beneficial functions to 50% of the optimal ecological value, because it is located 0.56 miles east of the Lake Worth Lagoon and the immediate surrounding area is limited by the locations of roadways, residences, seawalls, docks and landscaped lawns. Wildlife use and access to and from the AA is limited due distance the AA is located from the Lagoon. The AA is better suited for transient visitors rather than resident fauna species. Specifically at certain times of year, there will be minimal flushing since it is located at the end of a canal. Land uses outside the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal.	
	<u>With Project:</u> The "with project" score will be "0", due to the direct impact of the project and resources will not remain post project.	
w/o pres or current	with	
5	0	
.500(6)(b)Water Environment (n/a for uplands)	<u>Existing Condition:</u> A score of (4) means that the hydrology and water quality supports the functions and provides benefits to fish and wildlife at 40% of the optimal capacity for the assessment area. Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather and other climatic effects. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading as evidence by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 foot, due to turbid conditions. There is currently no pre-treatment prior to pollutants entering the system.	
	<u>With Project:</u> The "with project" score will be "0", due to the direct project impact, and resources will not remain post project.	
w/o pres or current	with	
4	0	
.500(6)(c)Community structure	<u>Existing Current:</u> A score of (4) means that, relative to ideal habitat, the benthic communities of the assessment area provide functions to 40% of the optimal level. In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, featherdusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap and seawall) at all bridges. Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish.	
	<u>With Project:</u> The "with project" score will be "0", due to the project's direct impact and resources will not remain post project.	
w/o pres or current	with	
4	0	

Score = sum of above scores/30 (if uplands, divide by 20)	
current	
w/o pres	with
0.43	0

If preservation as mitigation,
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
FL = delta x acres = 0.0003

Delta = [with-current]
0.43

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

**PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)**

Site/Project Name Singer Island Bridge Replacement Project		Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Island Drive Bridges - Secondary Impact
FLUCCs code 510 Streams and Waterways / 9113 - Seagrass, Patchy	Further classification (optional) N/A	Impact or Mitigation Site? Secondary Impact	Assessment Area Size 0.00544 ac (237 sq ft.)
Basin/Watershed Name/Number Lake Worth Lagoon (Northern Segment) - Water Body ID 3226E1	Affected Waterbody (Class) 3M	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. The AA is approximately 0.56 miles west of the Intracoastal Waterway/Lake Worth Lagoon.			
Assessment area description The water depths within the survey area range from 4-8 feet. Due to turbidity, visibility was poor at the time of surveys, approximately 1 foot. Sparse/discontinuous mix of Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>) were observed with densities ranging 1-5%, 5-10%, and 10-25% near the bridges. Algae cover was observed within the AA. The bridge currently provides access to a completely developed residential community with private boats, residential docks, and seawalls within the waterways. The AA is subject to greater nutrient loading from the adjacent development/residences. Reference community: Lake Worth Cove, approximately 2 miles north of the AA: Per the Lake Worth Lagoon's Management Plan this is a healthy seagrass communities supporting all seven seagrass species within a sheltered area and located within J.D. MacArthur Beach State Park. The cove is surrounded by undeveloped, natural communities and protected from high water velocities. The AA is not similar to the reference community.			
Significant nearby features The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. No mangroves or other native habitat are present along the shorelines; the AA is surrounded by residential development, private boats and residential docks. Reference community: Lake Worth Cove, approximately 2 miles north of the AA and located with J.D. MacArthur Beach State Park.		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique. Typical dredged canal associated with island construction. Bridges were built over 50 years ago and cross over man made canals.	
Functions Reference community-Lake Worth Cove: Seagrasses perform a variety of functions within ecosystems, and have both economic and ecological value. Seagrass habitats offer food, shelter, and essential nursery areas to commercial and recreationally important fishery species, and numerous invertebrates. Additionally, seagrasses provide both habitat and protection. Seagrass beds also help diminish the effects of storm waves and strong currents, providing protection to fish and invertebrates, while also preventing the scouring and erosion of unconsolidated sediments. The AA provides patchy seagrass coverage, algae coverage and no adjacent mangrove/forested habitat. It is not similar to the reference community.		Mitigation for previous permit/other historic use None.	
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) A variety of fishes from the grouper/snapper complex, grunts, snook and spadefish. Numerous marine invertebrates including corals, sponges, worms, crustaceans and molluscs.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Johnson's seagrass (<i>Halophila johnsonii</i>) (T) present; West Indian manatee (<i>Trichechus manatus latirostris</i>) (E); Smalltooth sawfish (<i>Pristis pectinata</i>) (E), wildlife use anticipated to be transient as habitat is not present to support resident use.	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Oysters, sponges, soft corals, algae (<i>Caluerva</i> spp.), puffer fish, sheepshead, hermit crabs, arrow crabs, wrasse, cocoa damsel (juvenile), southern stingray, tunicates, feather dusters, and jellyfish were observed during surveys,			
Additional relevant factors: AA is located in an urban landscape currently receiving untreated stormwater runoff.			
Assessment conducted by: CECOS and USACE		Assessment date(s): Field Work:7/27/2017; Revised: 4/2/19, 4/20/2020	

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Singer Island Bridge Replacement Project	Application Number SAJ-2017-03174	Assessment Area Name or Number Island Drive Bridges - Secondary Impact
Impact or Mitigation Impact - 0.00544 ac (237 sq ft.) Secondary Impact	Assessment conducted by: CECOS and USACE	Assessment date: 4/20/2020

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current	with	Existing Condition: The AA was scored a 5, which means that in comparison to the ideal location, the location of the assessment area limits the opportunity to perform beneficial functions to 50% of the optimal ecological value, because it is located 0.56 miles east of the Lake Worth Lagoon and the immediate surrounding area is limited by the locations of roadways, residences, seawalls, docks and landscaped lawns. Wildlife use and access to and from the AA is limited due distance the AA is located from the Lagoon. The AA is better suited for transient visitors rather than resident fauna species. Specifically at certain times of year, there will be minimal flushing since it is located at the end of a canal. Land uses outside the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal. With Project: The secondary impacts will not alter the location and landscape of the project area, therefore the "with project" score remains the same.
	5	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current	with	Existing Condition: A score of (4) means that the hydrology and water quality supports the functions and provides benefits to fish and wildlife at 40% of the optimal capacity for the assessment area. Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather and other climatic effects. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading as evidence by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 foot, due to turbid conditions. There is currently no pre-treatment prior to pollutants entering the system. With Project: Secondary impacts include seagrass beds within the staked turbidity barriers and construction zones. During construction, these areas will cause sedimentation and turbidity within the water column, reducing light availability and overall water quality. The secondary impacts will not remain post project, therefore resources will remain post-project. The "with project" score is reduced to a "3" to reflect the temporary condition during construction, but not reduced to "0" as resources will remain post-project.
	4	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current	with	Existing Condition: A score of (4) means that, relative to ideal habitat, the benthic communities of the assessment area provide functions to 40% of the optimal level. In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (Halophila decipiens) and Johnson's seagrass (Halophila johnsonii), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap and seawall) at all bridges. Marine wildlife noted during the survey included puffers, sheepshead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish. With Project: Secondary impacts, as described in the Water Environment category, may reduce the existing seagrass. However these impacts are considered secondary, as they are temporary, expecting to last approximately 8 months. These secondary impacts will not remain post project, therefore the "with project" score is reduced to a "2" to reflect the temporary condition during construction, but not reduced to "0" as resource will remain post-project.
	4	

Score = sum of above scores/30 (if uplands, divide by 20)	
current	with
0.43	0.33

If preservation as mitigation,
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
FL = delta x acres = 0.00054

Delta = [with-current]
0.10

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

**PART I – Qualitative Description
(See Section 62-345.400, F.A.C.)**

Site/Project Name Singer Island Bridge Replacement Project		Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Island Drive Bridges - Direct and Secondary Impact Mitigation
FLUCCs code 510 Streams and Waterways / 9113 - Seagrass, Patchy	Further classification (optional) N/A	Impact or Mitigation Site? Mitigation	Assessment Area Size 0.206 acre (based on Benefit Area)
Basin/Watershed Name/Number Lake Worth Lagoon (Northern Segment) - Water Body ID 3226E1	Affected Waterbody (Class) 3M	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance) None	
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. The AA is approximately 0.56 miles west of the Intracoastal Waterway/Lake Worth Lagoon.			
Assessment area description The water depths within the survey area range from 4-8 feet. Due to turbidity, visibility was poor at the time of surveys, approximately 1 foot. Sparse/discontinuous mix of Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>) were observed with densities ranging 1-5%, 5-10%, and 10-25% near the bridges. Algae cover was observed within the AA. The bridge currently provides access to a completely developed residential community with private boats, residential docks, and seawalls within the waterways. The AA is subject to greater nutrient loading from adjacent development/residences. Improvements to water quality and transparency are anticipated with impervious area treatment for all for bridges at Island Drive. Reference community: Lake Worth Cove, approximately 2 miles north of the AA: Per the Lake Worth Lagoon's Management Plan this is a healthy seagrass communities supporting all seven seagrass species within a sheltered area and located within J.D. MacArthur Beach State Park. The cove is surrounded by undeveloped, natural communities and protected from high water velocities. The AA is not similar to the reference community.			
Significant nearby features The bridges cross unnamed tidal canals which are tributaries of the Atlantic Intracoastal Waterway/Lake Worth Lagoon, at approximately mile 1017. The Palm Beach Inlet is approximately 1.5 miles south of the bridges where it connects to the Atlantic Ocean. No mangroves or other native habitat are present along the shorelines; the AA is surrounded by residential development, private boats and residential docks. Reference community: Lake Worth Cove, approximately 2 miles north of the AA and located with J.D. MacArthur Beach State Park.		Uniqueness (considering the relative rarity in relation to the regional landscape.) Not unique. Typical dredged canal associated with island construction. Bridges were built over 50 years ago and cross man made canals.	
Functions Reference community-Lake Worth Cove: Seagrasses perform a variety of functions within ecosystems, and have both economic and ecological value. Seagrass habitats offer food, shelter, and essential nursery areas to commercial and recreationally important fishery species, and numerous invertebrates. Additionally, seagrasses provide both habitat and protection. Seagrass beds also help diminish the effects of storm waves and strong currents, providing protection to fish and invertebrates, while also preventing the scouring and erosion of unconsolidated sediments. The AA provides patchy seagrass coverage, algae coverage and no adjacent mangrove/forested habitat. It is not similar to the reference community.		Mitigation for previous permit/other historic use None.	
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) A variety of fishes from the grouper/snapper complex, grunts, snook and spadefish. Numerous marine invertebrates including corals, sponges, worms, crustaceans and molluscs.		Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area) Johnson's seagrass (<i>Halophila johnsonii</i>) (T) present; West Indian manatee (<i>Trichechus manatus latirostris</i>) (E); Smalltooth sawfish (<i>Pristis pectinata</i>) (E), wildlife use anticipated to be transient as habitat is not present to support resident use	
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests, etc.): Oysters, sponges, soft corals, algae (<i>Caluërpa</i> spp.), puffer fish, sheepshead, hermit crabs, arrow crabs, wrasse, cocoa damsel (juvenile), southern stingray, tunicates, feather dusters, and jellyfish were observed during surveys,			
Additional relevant factors: Proposed mitigation involves construction of a stormwater managemen system (swales) capable of benefitting 0.206 acres through treatment of stormwater runoff (vs. the exisiting condition where no water quality treatment is provided).			
Assessment conducted by: CECOS and USACE		Assessment date(s): Field work: 7/27/2017; Revised: 4/2/19, 4/20/2020	

PART II – Quantification of Assessment Area (impact or mitigation)
(See Sections 62-345.500 and .600, F.A.C.)

Site/Project Name Singer Island Bridge Replacement Project	Application Number SAJ-2017-03174 (NW-JKA)	Assessment Area Name or Number Island Drive Bridges - Direct and Secondary Impact Mitigation
Impact or Mitigation Mitigation - 0.206 acre (Based on Benefit Area)	Assessment conducted by: CECOS and USACE	Assessment date: 4/20/2020

Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support w/o pres or current	with	<p><u>Existing Condition:</u> The AA was scored a 5, which means that in comparison to the ideal location, the location of the assessment area limits the opportunity to perform beneficial functions to 50% of the optimal ecological value, because it is located 0.56 miles east of the Lake Worth Lagoon and the immediate surrounding area is limited by the locations of roadways, residences, seawalls, docks and landscaped lawns. Wildlife use and access to and from the AA is limited due distance the AA is located from the Lagoon. The AA is better suited for transient visitors rather than resident fauna species. Specifically at certain times of year, there will be minimal flushing since it is located at the end of a canal. Land uses outside the assessment area have moderate impacts to fish and wildlife and downstream benefits, as the AA is located within a residential canal.</p> <p><u>With Project:</u> The "with mitigation" score will remain unchanged, because the mitigation site is also located at the project site and does not change. Therefore, the location and landscape remains the same in the "with mitigation" condition.</p>
	5	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current	with	<p><u>Existing Condition:</u> A score of (4) means that the hydrology and water quality supports the functions and provides benefits to fish and wildlife at 40% of the optimal capacity for the assessment area. Water levels and flows are moderately higher or lower than appropriate, considering seasonal variation, tidal cycle, antecedent weather and other climatic effects. The poor water quality at this location is likely due to the developed nature of the project area. The area has increased nutrient loading as evidence by the observed algal growth within the assessment area. Visibility at the time of the benthic assessment was poor, about 1 foot, due to turbid conditions. There is currently no pre-treatment prior to pollutants entering the system.</p> <p><u>With Project:</u> Post-project, water quality within the AA will be improved by the construction of a two grassed swales which will retains the first inch of stormwater runoff, thereby improving the water quality discharging into surface waters. Within five years of the construction of the stormwater improvements, the assessment area is expected to improve, therefore the "with mitigation" score will increase to a "5".</p>
	4	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or current	with	<p><u>Existing Condition:</u> A score of (4) means that, relative to ideal habitat, the benthic communities of the assessment area provide functions to 40% of the optimal level. In the existing submerged aquatic plant communities, there is a moderate degree of siltation and algal growth, which was observed during the July 27, 2017 benthic survey. There is limited diversity in the types of flora present, with only two species of seagrass, Paddle grass (<i>Halophila decipiens</i>) and Johnson's seagrass (<i>Halophila johnsonii</i>), which was patchy and discontinuous. The AA contains barren bottom and rock-rubble with moderate to high coverage of algae (red and brown). Some oysters, mollusks, feather dusters, and encrusting sponges were observed attached to hard substrate (such as bridge columns, rip-rap and seawall) at all bridges. Marine wildlife noted during the survey included puffers, sheephead, hermit crab, arrow crab, wrasse, cocoa damselfish (juvenile), southern stingray, tunicates, feather dusters, and jellyfish.</p> <p><u>With Project:</u> The "with mitigation" score will remain unchanged, as the proposed mitigation improvements are associated with water quality.</p>
	4	

Score = sum of above scores/30 (if uplands, divide by 20)	
current or w/o pres	with
0.43	0.47

If preservation as mitigation,
Preservation adjustment factor = N/A
Adjusted mitigation delta = N/A

For impact assessment areas
FL = delta x acres = N/A

Delta = [with-current]
0.04

If mitigation
Time lag (t-factor) = 1.0696
Risk factor = 1.25

For mitigation assessment areas
RFG = delta/(t-factor x risk) = 0.03

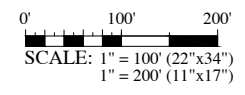
Total FL (Direct 0.0003 + Secondary 0.00054) = 0.00084

Total FG (Mitigation) = RFG (0.03) * 0.206 = 0.006

FG (0.006) exceeds the FL (0.00084) - Island Drive

Attachment 4

Drainage/Impervious Areas Maps



Drainage Area (Acre)	Drainage Structure Number	Type Structure	Grate/ Rim * Elevation	Invert 1	Invert 2	Invert 3	Invert 4	Sump Elev.	Street Centerline	Station	Offset	From Drainage Structure Number	To Drainage Structure Number	Proposed Pipe Length** (feet)	Pipe Size (in.)	Type Pipe	Exfiltration Trench (feet)	Existing Pipe To Remain Length
0.55	DS-79	D	4.77	0.89 W	0.89 E	-2.99 S		-4.99	CORAL WAY	101+45.00	12.00 Lt	DS-79	DS-83	45	18	HDPE		
0.24	DS-80	D	5.39	1.40 SE				-0.60	CORAL WAY	99+99.93	35.00 Lt	DS-80	DS-82	37	18	HDPE		
0.18	DS-81	D	5.39	-2.36 NE				-4.36	CORAL WAY	99+99.80	35.00 Rt	DS-81	DS-82	55	18	HDPE		
	DS-82	MH	5.28	1.05 E	1.34 NW	-2.45 SW		-4.45	CORAL WAY	100+29.03	11.96 Lt	DS-82	DS-83	71	18	HDPE	55	
0.18	DS-83	CS#5	4.93	1.05 N	0.82 E	1.05 W		-1.18	CORAL WAY	100+99.99	12.00 Lt	DS-83	OUTFALL #5	6	15	CMP		134' CMP
0.04	DS-84	V	5.26	-1.69 W				-3.69	CORAL WAY	123+26.68	12.00 Rt	DS-84	DS-85	24	18	HDPE		
0.06	DS-85	D	5.26	-1.60 SW	-1.73 E	1.02 N		-3.73	CORAL WAY	123+26.68	12.00 Lt	DS-85	DS-86	46	18	HDPE		
0.05	DS-86	D	5.06	-2.07 SW	-1.67 NE			-4.07	CORAL WAY	122+70.10	12.00 Lt	DS-86	DS-88	49	18	HDPE		
0.80	DS-87	V	4.84	-0.31 N				-2.31	CORAL WAY	122+10.00	12.00 Rt	DS-87	DS-88	24	18	HDPE		
0.85	DS-88	D	4.84	-2.29 W	-2.15 NE	-0.35 S		-4.29	CORAL WAY	122+10.00	12.00 Lt	DS-88	DS-90	278	18	HDPE		
0.24	DS-89	V	5.91	-3.24 N				-5.24	CORAL WAY	119+32.00	12.00 Rt	DS-89	DS-90	24	18	HDPE		
0.40	DS-90	D	5.91	1.47 W	-2.71 E	-3.28 S		-5.28	CORAL WAY	119+32.00	12.00 Lt	DS-90	DS-92	392	18	HDPE	376	
0.75	DS-91	V	5.35	-0.15 N				-2.15	CORAL WAY	115+40.00	12.00 Rt	DS-91	DS-92	24	18	HDPE		
1.25	DS-92	D	5.35	1.24 W	1.47 E	-0.19 S		-2.19	CORAL WAY	115+40.00	12.00 Lt	DS-92	DS-93	394	18	HDPE	378	
0.72	DS-93	D	5.12	-0.15 S	1.24 E			-2.15	CORAL WAY	111+45.46	12.00 Lt	DS-93	DS-94	24	18	HDPE		
0.43	DS-94	D	5.12	0.91 W	-0.19 N			-2.19	CORAL WAY	111+45.46	12.00 Rt	DS-94	DS-96	110	18	HDPE		
0.52	DS-95	D	4.70	0.82 E	-0.57 N			-2.57	CORAL WAY	110+05.00	12.00 Rt	DS-95	DS-96	31	18	HDPE		
0.20	DS-96	CS#6	4.79	0.91 S	0.75 E	0.77 W		-1.25	CORAL WAY	110+36.38	12.00 Rt	DS-96	OUTFALL #6	8	15	CMP		128' CMP
0.95	DS-97	V	5.50	-3.62 S				-5.62	DOLPHIN RD	14+90.00	12.00 Lt	DS-97	DS-98	24	18	HDPE		
0.95	DS-98	D	5.50	1.62 E	-3.66 N	1.62 W		-5.66	DOLPHIN RD	14+90.00	12.00 Rt	DS-98	DS-100	328	18	HDPE	312	
0.48	DS-99	V	5.58	-2.11 S				-4.11	DOLPHIN RD	18+18.00	12.00 Lt	DS-99	DS-100	24	18	HDPE		
0.48	DS-100	D	5.58	0.64 E	1.62 W	-2.15 N		-4.15	DOLPHIN RD	18+18.00	12.00 Rt	DS-100	DS-102	332	18	HDPE	316	
0.95	DS-101	V	4.52	-1.11 S				-3.11	DOLPHIN RD	21+50.00	12.00 Lt	DS-101	DS-102	24	18	HDPE		
1.01	DS-102	D	4.52	0.64 E	0.64 W	-1.15 N		-3.15	DOLPHIN RD	21+50.00	12.00 Rt	DS-102	DS-104	55	18	HDPE		
0.36	DS-103	D	5.32	-0.87 S	-0.19 N			-2.87	CORAL WAY	125+60.00	12.00 Lt	DS-103	DS-104	64	18	HDPE		
	DS-104	MH	4.97	1.02 S	0.56 W	-0.97 N		-2.97	DOLPHIN RD	22+05.00	17.95 Rt	DS-104	DS-105	45	18	HDPE		
0.23	DS-105	D	4.90	-0.96 E	0.95 N	1.02 S		-2.96	CORAL WAY	124+51.50	12.00 Lt	DS-105	DS-106	24	18	HDPE		
0.25	DS-106	CS#7	4.90	1.02 E	-1.00 W			-3.00	CORAL WAY	124+51.50	12.00 Rt	DS-106	OUTFALL #7	7	15	HDPE		114' HDPE

NOTES: * Rim elevations shown are taken at the center of rim. Grate elevations shown are taken at edge of pavement aligned with centerline of grate.
 ** Pipe length is measured from centerline of structure to centerline of structure.

ADDITIONAL CONNECTIONS						
From Drainage Structure Number	To Drainage Structure Number	Proposed Pipe Length** (feet)	Pipe Size (in.)	Type Pipe	Exfiltration Trench (feet)	Existing Pipe To Remain Length
DS-11	DS-38	40	18	HDPE		
DS-26	DS-51	110	18	HDPE		
DS-39	DS-07	24	18	HDPE		
DS-69	DS-01	78	18	HDPE		
DS-73	DS-95	21	18	HDPE		
DS-98	DS-66	250	18	HDPE	234	
DS-103	DS-50	97	18	HDPE		
DS-105	DS-85	125	18	HDPE	109	

Attachment 4 - Drainage Area Map
 (in red)
 Island Drive = 0.034 + 0.034 + 0.034 + 0.034 = 0.136 ac
 Grand Bahama = 0.017 + 0.017 = 0.034 ac
 Total = 0.136 + 0.034 = 0.17 ac



Designed: _____
 Drawn: _____
 Checked: _____

No.	Date	By	Revision

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PROJ. # 60265.01
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 TELEPHONE: 561-757-9223
 FAX: 561-757-9234

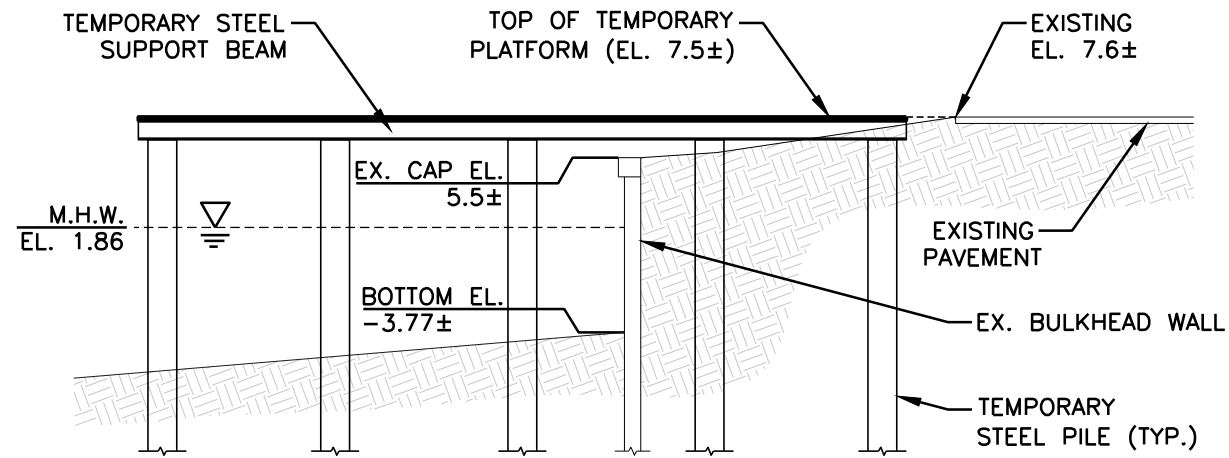
CITY OF RIVIERA BEACH
 FLORIDA
 PALM BEACH ISLES
DRAINAGE MAP
 -CONTINUED-

DANA I GILLETTE
 FL PE 41913

Drawing Reference Number
C0-02
 Sheet 44 of 212

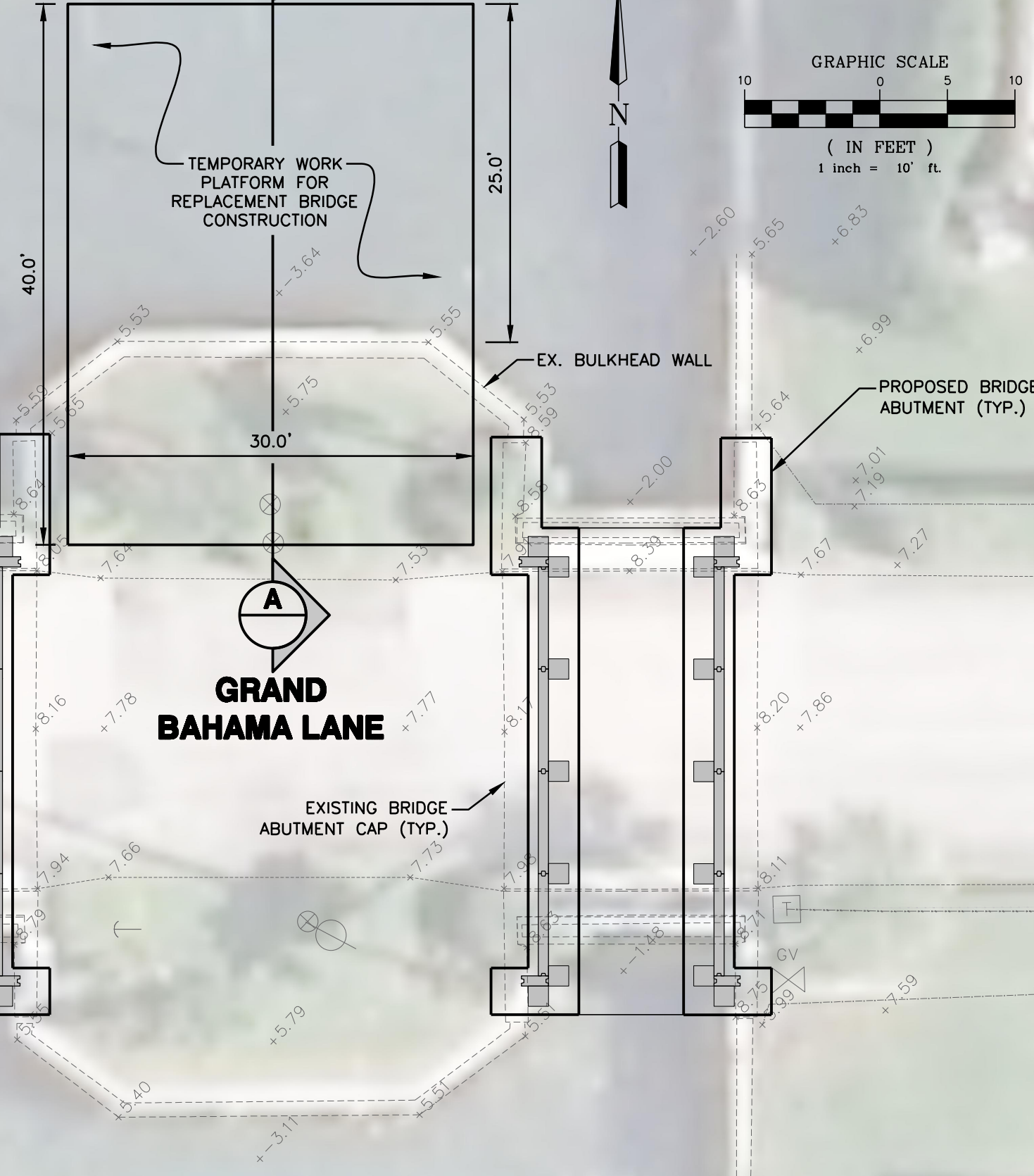
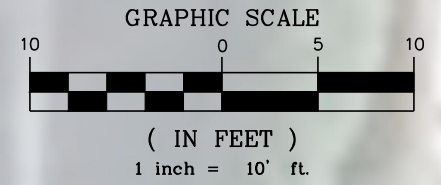
Attachment 5

Temporary Work Platform



CROSS SECTION A-A
SCALE: 1"=10'

INTRACOASTAL WATERWAY



PLAN VIEW
SCALE: 1"=10'

GRAND BAHAMA LANE BRIDGES
PALM BEACH SHORES, FL
TEMPORARY WORK PLATFORM
CONCEPTUAL PLAN AND SECTION

Attachment 6

South Florida Water Management District General Permit



South Florida Water Management District
Environmental Resource General Permit No. 50-100349-P
Date Issued: June 15, 2018

Permittee: City Of Riviera Beach
1481 W 15th Street
Riviera Beach, FL 33404

Project: Singer Island Bridges Replacement Project

Location: Palm Beach County, See Exhibit 1

Application No. 180604-615

Description: Seawall restoration and replacement of six low-level residential bridges located on Singer Island (two bridges on Grand Bahama Lane and four bridges on Island Drive), in accordance with Exhibits 1 and 2.

Rule: **62-330.443, F.A.C.:** General Permit to the Florida Department of Transportation, Counties, and Municipalities for Minor Bridge Alteration, Placement, Replacement, Removal, Maintenance, and Operation

Expiration: June 15, 2023

Your application to use a General Environmental Resource Permit has been approved. This action is taken based on Chapter 373, Part IV, of Florida Statutes (F.S.) and the rules in Chapter 62-330, Florida Administrative Code (F.A.C.). Please read this entire agency action thoroughly and understand its contents.

This permit is subject to:

- Not receiving a filed request for a Chapter 120, F.S., administrative hearing.
- The attached General Conditions for Environmental Resource General Permits.
- The attached Specific Conditions.
- All referenced Exhibits.

Should you object to these conditions, please refer to the attached "Notice of Rights" which addresses the procedures to be followed if you desire a public hearing or other review of the proposed agency action. Please contact this office if you have any questions concerning this matter. If we do not hear from you in accordance with the "Notice of Rights", we will assume that you concur with the District's action.

Certificate of Service

I hereby certify that this written notice has been mailed or electronically transmitted to the Permittee (and the persons listed in the distribution list) on June 15, 2018 , in accordance with Section 120.60(3), F.S. Notice was also electronically posted on this date through a link on the home page of the District's website (www.sfwmd.gov/ePermitting).

A handwritten signature in black ink, appearing to read "Carlos de Rojas".

Carlos de Rojas, P.E.
Section Leader

General Conditions for All General Permits, 62-330.405, F.A.C.

1. The general permit is valid only for the specific activity indicated. Any deviation from the specified activity and the conditions for undertaking that activity shall constitute a violation of the permit and shall subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. The general permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any construction, alteration, operation, maintenance, removal or abandonment authorized by this permit; and it does not authorize any violation of any other applicable federal, state, local, or special district laws (including, but not limited to, those governing the “take” of listed species).
3. This general permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the general permit.
4. The general permit does not relieve the permittee from liability and penalties when the permitted activity causes harm or injury to: human health or welfare; animal, plant or aquatic life; or property. It does not allow the permittee to cause pollution that violates state water quality standards.
5. Section 253.77, F.S., provides that a person may not commence any excavation, construction, or other activity involving the use of state-owned or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required consent, lease, easement, or other form of authorization authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on state-owned lands.
6. The authorization to conduct activities under a general permit may be modified, suspended or revoked in accordance with Chapter 120, F.S., and Section 373.429, F.S.
7. The general permit is not transferable to a new third party. To be used by a different permittee, a new notice to use a general permit must be submitted in accordance with rule 62-330.402, F.A.C. Activities constructed in accordance with the terms and conditions of a general permit are automatically authorized to be operated and maintained by the permittee and subsequent owners in accordance with subsection 62-330.340(1), F.A.C. Any person holding the general permit, persons working under the general permit, and owners of land while work is conducted under the general permit shall remain liable for any corrective actions that may be required as a result of any permit violations prior to sale, conveyance, or other transfer of ownership or control of the permitted project, activity, or the real property at which the permitted project or activity is located.
8. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the permitted system to ensure conformity with the plans and specifications approved by the general permit.
9. The permittee shall maintain any permitted project or activity in accordance with the plans submitted to the Agency and authorized in this general permit.

10. A permittee's right to conduct a specific activity under this general permit is authorized for a duration of five years.
11. 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 implemented and maintained immediately prior to, during, and after construction as needed to stabilize all disturbed areas, including other measures specified in the permit to prevent adverse impacts to the water resources and adjacent lands. Erosion and sediment control measures shall be installed and maintained 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), available at <https://www.flrules.org/Gateway/reference.asp?No=Ref-04227>, and the Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008), available at http://publicfiles.dep.state.fl.us/DEAR/Stormwater_Training_Docs/erosion-inspectors-manual.pdf.
12. Unless otherwise specified in the general permit, temporary vehicular access within wetlands during construction shall be performed using vehicles generating minimum ground pressure to minimize rutting and other environmental impacts. Within forested wetlands, the permittee shall choose alignments that minimize the destruction of mature wetland trees to the greatest extent practicable. When needed to prevent rutting or soil compaction, access vehicles shall be operated on wooden, composite, metal, or other non-earthen construction mats. In all cases, access in wetlands shall comply with the following:
 - (a) Access within forested wetlands shall not include the cutting or clearing of any native wetland tree having a diameter four inches or greater at breast height;
 - (b) The maximum width of the construction access area shall be limited to 15 feet;
 - (c) All mats shall be removed as soon as practicable after equipment has completed passage through, or work has been completed, at any location along the alignment of the project, but in no case longer than seven days after equipment has completed work or passage through that location; and
 - (d) Areas disturbed for access shall be restored to natural grades immediately after the maintenance or repair is completed.
13. Barges or other work vessels used to conduct in-water activities shall be operated in a manner that prevents unauthorized dredging, water quality violations, and damage to submerged aquatic communities.
14. The construction, alteration, or use of the authorized project shall not adversely impede navigation or create a navigational hazard in the water body.
15. Except where specifically authorized in the general permit, activities must not:
 - (a) Impound or obstruct existing water flow, cause adverse impacts to existing surface water storage and conveyance capabilities, or otherwise cause adverse water quantity or flooding impacts to receiving water and adjacent lands; or
 - (b) Cause an adverse impact to the maintenance of surface or ground water levels or surface water flows established pursuant to section 373.042, F.S., or a Works of the District established pursuant to section 373.086, F.S.
16. 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.

17. The activity must be capable, based on generally accepted engineering and scientific principles, of being performed and of functioning as proposed, and must comply with any applicable District special basin and geographic area criteria.
18. The permittee shall comply with the following when performing work within waters accessible to federally- or state-listed aquatic species, such as manatees, marine turtles, smalltooth sawfish, and Gulf sturgeon:
 - (a) All vessels associated with the project shall operate at "Idle Speed/No Wake" at all times while in the work area and where the draft of the vessels provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
 - (b) All deployed siltation or turbidity barriers shall be properly secured, monitored, and maintained to prevent entanglement or entrapment of listed species.
 - (c) All in-water activities, including vessel operation, must be shut down if a listed species comes within 50 feet of the work area. Activities shall not resume until the animal(s) has moved beyond a 50-foot radius of the in-water work, or until 30 minutes elapses since the last sighting within 50 feet. Animals must not be herded away or harassed into leaving. All onsite project personnel are responsible for observing water-related activities for the presence of listed species.
 - (d) Any listed species that is killed or injured by work associated with activities performed shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1(888)404-3922 and ImperiledSpecies@myFWC.com.
 - (e) Whenever there is a spill or frac-out of drilling fluid into waters accessible to the above species during a directional drilling operation, the FWC shall be notified at ImperiledSpecies@myfwc.com with details of the event within 24 hours following detection of the spill or frac-out.
19. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any activity authorized by the general permit.
20. The permittee shall immediately notify the Agency in writing of any submitted information that is discovered to be inaccurate.

Specific Conditions for General Permits, 62-330.443, F.A.C.

1. (a) No dredging of access or work channels is authorized by this general permit.
 - (b) Temporary fill roads shall not be constructed waterward of mean high water or ordinary high water.
 - (c) All fill placed in wetlands, other than fill on which a bridge or approach is constructed, shall be regraded to the original wetland elevations and revegetated with native wetland species endemic to adjoining, undisturbed wetlands, within seven days of completion of construction. Within "clear zones," revegetation shall be with native herbaceous species endemic to adjoining, undisturbed wetlands. During the five-year period following the initial planting or restoration of the site, these areas shall be maintained to ensure planted or naturally recruited native wetland species are surviving and growing, and that the areal coverage of exotic and invasive species constitutes less than 10% areal coverage;
 - (d) Hydraulic openings of bridges shall be sufficient to prevent downstream scour, increased downstream water velocities, and increased flood elevations on the property of others.
 - (e) Minimum horizontal and vertical navigational clearances on bridges over navigable waters of the United States shall be established in accordance with procedures outlined in Chapter 2 the U.S. Coast Guard Bridge Administration Manual, COMDTINST M16590.5C, (March 26, 2004), and in no circumstance shall placement or replacement of a bridge result in a reduction of horizontal and vertical navigational clearances.
 - (f) Replacement or modification of a bridge that includes changes in the configuration of the bridge and fill areas due to changes in materials, construction techniques, or meeting current construction codes or safety standards are authorized under this permit. Any connecting road expansion or alteration associated with such replacement or modification must be authorized by a separate general or individual permit under Chapter 62-330, F.A.C., as applicable, before the start of construction.
 - (g) This general permit does not authorize replacement or modification of bridges or approaches that involve the construction of additional lanes, except that any single-lane bridge may be widened to two travel lanes, provided the bridge widening does not exceed that reasonably necessary to match the existing travel lane alignment of a two-lane road.
1. (a) No dredging of access or work channels is authorized by this general permit;
 - (b) Temporary fill roads shall not be constructed waterward of mean high water or ordinary high water;
 - (c) All fill placed in wetlands, other than fill on which a bridge or approach is constructed, shall be regraded to the original wetland elevations and revegetated with native wetland species endemic to adjoining, undisturbed wetlands, within seven days of completion of construction. Within "clear zones," revegetation shall be with native herbaceous species endemic to adjoining, undisturbed wetlands. During the five-year period following the initial planting or restoration of the site, these areas shall be maintained to ensure planted or naturally recruited native wetland species are surviving and growing, and that the areal coverage of exotic and invasive species constitutes less than 10% areal coverage;
 - (d) Hydraulic openings of bridges shall be sufficient to prevent downstream scour, increased downstream water velocities, and increased flood elevations on the property of others;
 - (e) Minimum horizontal and vertical navigational clearances on bridges over navigable waters of

the United States shall be established in accordance with procedures outlined in Chapter 2 of the U.S. Coast Guard Bridge Administration Manual, COMDTINST M16590.5C, (March 26, 2004), and in no circumstance shall placement or replacement of a bridge result in a reduction of horizontal and vertical navigational clearances;

(f) Replacement or modification of a bridge that includes changes in the configuration of the bridge and fill areas due to changes in materials, construction techniques, or meeting current construction codes or safety standards are authorized under this permit. Any connecting road expansion or alteration associated with such replacement or modification must be authorized by a separate general or individual permit under chapter 62-330, F.A.C., as applicable, before the start of construction; and

(g) This general permit does not authorize the construction of additional travel lanes for motorized vehicles, except that any single-lane bridge may be widened to two travel lanes, provided the bridge widening does not exceed that reasonably necessary to match the existing travel lane alignment of a two-lane road. This permit does not authorize new corridors or roadway connections where there is no existing structure over wetlands or waterways.

Distribution List

Dana Gillette, Erdman Anthony

Simon Coleman, Alan Gerwig & Associates, Inc

Jenna Santangelo, Cecos

Div of Recreation and Park - District 5

Lake Worth Drainage District

Palm Beach County - Environmental Resource Management

Palm Beach County - Environmental Resource Management

Palm Beach County Engineer

US Army Corps of Engineers - Permit Section

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) and searching under this application number 180604-615.

[Exhibit 1 - Location Map](#)

[Exhibit 2 - Project Plans](#)

NOTICE OF RIGHTS

As required by Sections 120.569 and 120.60(3), Fla. Stat., the following is notice of the opportunities which may be available for administrative hearing or judicial review when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Not all of the legal proceedings detailed below may be an applicable or appropriate remedy. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (SFWMD or District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Fla. Stat. Persons seeking a hearing on a SFWMD decision which affects or may affect their substantial interests shall file a petition for hearing with the Office of the District Clerk of the SFWMD, in accordance with the filing instructions set forth herein, within 21 days of receipt of written notice of the decision, unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Fla. Stat.; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Fla. Stat. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, or posting that the SFWMD has or intends to take final agency action, or publication of notice that the SFWMD has or intends to take final agency action. Any person who receives written notice of a SFWMD decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action which materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional Rule 28-106.111, Fla. Admin. Code, point of entry.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Fla. Stat., shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The SFWMD may, for good cause, grant the request. Requests for extension of time must be filed with the SFWMD prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and that the SFWMD and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk of the SFWMD. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at SFWMD headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a petition to the SFWMD's security desk does not constitute filing. It will be necessary to request that the SFWMD's security officer contact the Office of the District Clerk. An employee of the SFWMD's Clerk's office will receive and file the petition.
- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document. A party who files a document by e-mail shall (1) represent that the original physically signed document will be retained by that party for the duration of the proceeding and of any subsequent appeal or subsequent proceeding in that cause and that the party shall produce it upon the request of other parties; and (2) be responsible for any delay, disruption, or interruption of the electronic signals and accepts the full risk that the document may not be properly filed.

INITIATION OF ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Fla. Stat., and Rules 28-106.201 and 28-106.301, Fla. Admin. Code, initiation of an administrative hearing shall be made by written petition to the SFWMD in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, SFWMD file number or any other SFWMD identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner and petitioner's representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the SFWMD's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the SFWMD's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the SFWMD's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the SFWMD to take with respect to the SFWMD's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Fla. Stat., and Rules 28-106.111 and 28-106.401–.405, Fla. Admin. Code. The SFWMD is not proposing mediation for this agency action under Section 120.573, Fla. Stat., at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Fla. Stat., and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final SFWMD action may seek judicial review of the SFWMD's final decision by filing a notice of appeal with the Office of the District Clerk of the SFWMD in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the clerk of the appropriate district court of appeal.

Attachment 7

Predicted Pollutant Loading References and Calculations

**Predicted Total Suspended Solids, Total Nitrogen,
and Total Phosphorus Formulas**

Revised Mitigation Plan – May 2020

References:

USDA Websoil Survey

Harper, H. H., Baker, D. M., 2007. *Evaluation of Current Stormwater Design Criteria within the State of Florida*. Florida Department of Environmental Protection.

Hydric Soil Group ¹	Area	EMC TSS ² (mg/L)	EMC TN ² (mg/L)	EMC TP ² (mg/L)	ROC ³	Rainfall ⁴ (inches)	Drainage Area (Acres)	Runoff ⁵ (ac-ft/yr)	TSS ⁶ (lbs/yr)	TN ⁶ (lb/yr)	TP ⁶ (lb/yr)
D	Single-family Residence	37.5	2.07	0.327	0.375	56.92	0.17	0.302	32.28	1.78	0.28

¹Per USDA Websoil Survey, hydrologic soil group A/D, however D applies for low lying area in this calculation.

²Event Mean Concentrations (EMC). Overall Mean Values derived from: Harper (2007), Table 4-17.

³Runoff Coefficient (ROC) or C Value. Cluster 5 Meteorological Zone – Broward, Martin, Miami-Dade, & Palm Beach derived from: Harper (2007), Table 4-24.

⁴Mean Annual Rainfall. Derived from: Harper (2007), Table 3-1.

⁵Runoff = Annual Runoff Volume (ac-ft) = Area (acres) x Mean Annual Rainfall (inches) x ROC x 1 ft/ 12 in

Area (0.17 ac) x Mean Annual Rainfall (56.92 in) x ROC (0.375) x (1 ft/12 in) = 0.302 ac-ft/yr

Conversion factor - mg/l to lb/ac-ft (mass/volume of water) Area - 1 ac-ft - 43,560

Volume - 1 liter = 0.03531 cu ft mass - 1 lb = 453,592 mg

$$\frac{(1 \text{ mg}) (1 \text{ lb}) (43,560 \text{ cu ft}) (1 \text{ liter})}{(\text{liter}) (435,592 \text{ mg}) (\text{ac-ft}) (0.035 \text{ cu ft})} = 2.85 \text{ lb/ac-ft}$$

$${}^6\text{Pollutant load in lb/yr} = \frac{\text{EMC} \times \text{Conversion factor (2.85 lb/ac-ft)} \times \text{Runoff (0.302 ac-ft/yr)}}{(\text{mg/l})}$$

$$\frac{\text{TSS (37.5 mg/l)} \times (2.85 \text{ lb/ac-ft}) \times 0.302 \text{ ac-ft/yr}}{(\text{mg/l})} = 32.28 \text{ lb/yr}$$

$$\frac{\text{TN (2.07 mg/l)} \times (2.85 \text{ lb/ac-ft}) \times 0.302 \text{ ac-ft/yr}}{(\text{mg/l})} = 1.78 \text{ lb/yr}$$

$$\frac{\text{TP (0.327 mg/l)} \times (2.85 \text{ lb/ac-ft}) \times 0.302 \text{ ac-ft/yr}}{(\text{mg/l})} = 0.28 \text{ lb/yr}$$

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ATTACHMENT 1 – Pavement Core Report from Geotechnical Investigation

SECTION 01000

SPECIAL PROVISIONS

1.01 NOTICES

- A. In conformance with the requirements of the General Conditions all notices or other documents or papers required to be delivered by the Contractor to the Owner.

1.02 COORDINATION OF DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS

- A. In case of discrepancy, computed dimensions shall govern over scaled dimensions; supplemental specifications shall govern over Standard Specifications; and Special Conditions shall govern over Drawings, Supplemental and Standard Specifications.

1.03 LAYING OUT THE WORK

- A. The Contractor shall be responsible for establishing all lines and grades together with all reference points as required by the various trades. All layout work shall be done using competent and experienced personnel under the supervision of a Land Surveyor registered in the State of Florida.
- B. The Contractor shall provide all labor, instruments and stakes, templates, and other materials necessary for marking and maintaining all lines and grades. The lines and grades shall be subject to any field modification the Owner or Engineer may decide necessary.
- C. No separate cost item is provided for laying out the work, the cost of which is considered incidental to the work and shall be included in the unit prices for items in the Proposal.
- D. The Contractor shall safeguard all existing and known Property corners, monuments and marks adjacent to but not related to the work and shall bear the cost of re-establishing them if disturbed or destroyed. He shall also safeguard all points, stakes, grade marks, monuments and bench marks made or established on the work, bear the cost of re-establishing them if disturbed and bear the cost of rectifying work improperly installed due to not maintaining or protecting or to removing without authorization such established points, stakes and marks.

1.04 PERMITS AND LICENSES

- A. Before starting work, the Contractor shall obtain and pay for all required licenses and permits.

1.05 CONTRACTOR'S OFFICE

- A. The Contractor shall provide and maintain an office with telephone facilities where he or a responsible representative of his organization may be reached at any time while work is in progress.

1.06 USE OF EXPLOSIVES

- A. No blasting shall be performed.

1.07 USE OF PUBLIC STREETS

- A. The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other traffic. Any earth or other excavated material spilled from trucks shall be removed immediately by the Contractor and the streets cleaned to the satisfaction of the Owner.

1.08 CARE OF TREES, SHRUBS AND GRASS

- A. The Contractor shall be fully responsible for maintaining in good condition all cultivated grass plots, trees and shrubs. Where maintained shrubbery, grass strips or area must be removed or destroyed incident to the construction operation, the Contractor shall, after completion of the work, replace or restore to the original condition all destroyed or damaged shrubbery or grass areas. Tree limbs which interfere with equipment operation and are approved for pruning shall be neatly trimmed and the tree cut coated with a tree paint.

1.09 OBSTRUCTIONS

- A. All water pipes, storm drains, force mains, gas or other piping, telephone or power cables or conduits, and all other obstructions, whether or not shown, shall be temporarily removed from or supported across pipeline excavations. Before disconnecting any pipes or cables, the Contractor shall obtain permission from the owner, or shall make suitable arrangements for their disconnection by the owner. The Contractor shall be responsible for any damage to any such pipes, conduits or cables, and shall restore them to service promptly as soon as the work has progressed past the point involved. Approximate locations of known water, sanitary, drainage, power and telephone installations along route of new pipelines or in vicinity of the work are shown, but must be verified in the field by the Contractor. The Contractor shall uncover these pipes, ducts, cables, etc., carefully, by hand, to verify location and depth of cover. Any discrepancies or differences found shall be brought to the attention of the Owner in order that necessary changes may be made. These conditions are supplemental to general requirements elsewhere in these specifications. Where fences, walls or other man-made obstructions exist illegally in the public right-of-way, the Owner will have them removed upon adequate prior notice by the Contractor.

1.10 DAMAGE TO EXISTING STRUCTURES AND UTILITIES

- A. The Contractor shall be responsible for and make good all damage to pavement beyond the limits of this Contract, to buildings, telephone or other cables, water pipes, sanitary pipes, or other structures which may be encountered, whether or not shown on the Drawings. Pavement restorations shall follow Owner standards.
- B. Information shown on the Drawings as to the location of existing utilities has been prepared from the most reliable data available to the Engineer. This information is not guaranteed, however, and it shall be this Contractor's responsibility to determine the location, character and depth of any existing utilities. He shall assist the utility companies, by every means possible to determine said locations. Extreme caution shall be exercised to eliminate possibility of damage to utilities resulting from his activities.

1.11 NOTIFICATION TO UTILITY COMPANIES

- A. The excavators shall comply with Florida Statute 553.851 regarding notification of existing gas and oil pipeline company owners and shall also notify "SUNSHINE STATE" at 1- (800) - 432-4770 at least forty-eight (48) hours prior to excavating. Evidence of such notice shall be furnished to the Owner prior to excavating.

1.12 TESTS

- A. The Contractor will pay for all required tests, including those proving satisfactory operation of equipment, pressure/leakage tests and disinfection. Materials tests will be compaction and soil density tests, limerock quality tests, concrete quality tests (cylinder breaks). Water required for pressure/leakage tests shall be furnished by the Contractor.

1.13 RECORD DRAWINGS

- A. During the entire construction operation, the Contractor shall maintain records of all deviations from the Drawings and Specifications and shall prepare therefrom "record" drawings showing correctly and accurately the locations of all improvements to reflect the work as it was actually constructed. Final acceptance of the project will be withheld until delivery of the set of "record" drawings is made to the Owner.

1.14 SUBSURFACE INVESTIGATION

- A. The Contractor shall be responsible for having determined to his satisfaction, prior to the submission of his bid, the nature and location of the work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the ground water conditions, the character of equipment and facilities needed preliminary to and during the execution of the work, the general and local conditions and all other matters which can in any way affect the work under this contract. The prices established for the work to be done will reflect all costs pertaining to the work. Any claims for extras based on substrata or ground water table conditions will not be allowed.

1.15 SUSPENSION OF WORK

- A. Should the Owner be prevented or enjoined from proceeding with work either before or after the start of construction because of any litigation or other reason beyond the control of the Owner, the Contractor shall not be entitled to make or assert claim for damage by reason of said delay; but time for completion of the work will be extended to such reasonable time as the Owner may determine to compensate for time lost by such delay, with such determination to be set forth in writing.

1.16 PAYMENT FOR UTILITIES

- A. The Contractor shall obtain the necessary utility service by making application for the service and paying such fees and charges required by the utility companies, including construction water meters, if required.

1.17 MAINTENANCE OF TRAFFIC

- A. General:
 - 1. The Contractor shall be responsible for the proper maintenance control and detour of traffic in the area of construction, during the course of construction. All traffic control and maintenance procedures shall be in accordance with the requirements of either the Florida Department of Transportation or the City of Riviera Beach.
 - 2. Traffic shall be maintained at all times where practical and as more particularly specified hereinafter. No traffic shall be detoured without prior knowledge and approval of the respective traffic control agency having jurisdiction. The Contractor shall notify such agencies 48 hours in advance of such time he proposes to detour

traffic.

3. The Contractor shall keep all law enforcement, fire protection and ambulance agencies informed, in advance, of his construction schedules, and shall notify all such agencies, 48 hours in advance, in the event of detour of any roadway.
4. All traffic control signs and devices, barricades, flashers, flambeaus and similar devices shall be furnished and maintained by the Contractor.
5. Excavated or other material stored adjacent to or partially upon a roadway pavement shall be adequately marked for traffic and pedestrian safety at all times. Necessary access to adjacent property shall be provided at all times.
6. The work shall be conducted in a manner to cause the least possible interruption to traffic. Where traffic must cross excavations, the Contractor shall provide suitable bridges at street intersections and driveways.

B. Traffic Lanes:

1. At least one lane of traffic shall be maintained at all times; coordination is required with the Owner and all applicable governmental agencies, within their respective area of jurisdiction.
2. In the event the Contractor must detour or close off residential street traffic, he shall submit a plan (or field sketch) for approval depicting a method of providing one way operation or run-around detour route to the respective traffic agency having jurisdiction a minimum of five days prior to any street closing.

1.18 BARRICADES AND PROTECTION OF WORK

- A. The Contractor shall protect his work throughout its length by the erection of suitable barricades and handrails, where required. He shall further indicate this work at night by the maintenance of suitable lights or flares, especially along or across through-fares. Wherever it is necessary to cross a public walk, he shall provide suitable safe walkways with handrailings. He shall also comply with all laws or ordinances covering the protection of such work and the safety measures to be employed therein. The Contractor shall carry out his work so as not to deny access to private property. All utility access manholes, valves, fire hydrants and letter boxes shall be kept accessible at all times.
- B. No trenches or holes near walkways, in roadways or road shoulders are to be left open during night hours without the permission of the Owner.

1.19 STATE WATER QUALITY STANDARDS

- A. Submit a temporary erosion and pollution control plan. Plan shall detail means and methods proposed to prevent violation of state water quality standards. Plan shall include placement of turbidity barriers and a turbidity monitoring plan in accordance with the guidelines described in Chapter 6 of the Florida Land Development Manual: A Guide to Sound Land & Water Management (Dept. of Environmental Regulation 1988). Refer to Rule 40E 4.091 FAC.
- B. Turbidity barriers and plan shall remain active until all work is completed.
- C. Remove barriers and other equipment upon completion of the project.

END OF SECTION

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 LOCATION OF WORK

- A. Work is located in Riviera Beach along Avenue M from W 23rd St to W 27th St.

1.02 WORK TO BE PERFORMED

- A. The Work to be performed under this Contract shall consist of providing equipment, materials, supplies, and manufactured articles; and for furnishing transportation and services, including fuel, power, water, and essential communications; and for the performance of labor, work, or other operations in strict accordance with the Contract Documents.
- B. Wherever the Contract Documents address a third party, i.e., subcontractor, manufacturer, vendor, etc., it is to be considered as the Contractor through the third party.
- C. Wherever a reference to number of days is noted, it shall mean calendar days.

1.03 GENERAL DESCRIPTION OF CONTRACT

- A. Mill and Resurface Roadway pavement.
- B. Remove & Replace Concrete Sidewalks.
- C. Concrete curbing.
- D. Driveway Restoration.
- E. Pavement Marking and Signage.
- F. Install Watermain and Appurtenances.
- G. Install Cured-In-Place Sewer Lining.
- H. Other work as shown on the Construction Plans.

1.04 SEQUENCE OF CONSTRUCTION

- A. Following receipt of Notice-to-Proceed with the Work, the Contractor shall notify the Engineer and the Owner at least five days before he is ready to start actual construction to allow the Owner time to make arrangements for inspection of the Work.
- B. Work under the Contract shall be scheduled and performed in such a manner as to result in the least possible disruption to the operation of the systems. Work shall be performed in such a manner that will protect the utilities. No compensation will be paid for damages to utilities due to phasing of work.
- C. Submit a sequence of construction schedule for the entire project.

1.05 ABANDONMENT AND REMOVAL OF EXISTING FACILITIES

- A. Remove utilities shown on drawings. Provide by-pass pump and/or system re-routing as required.
- B. Salvage equipment if shown on Drawings.

1.06 REHABILITATION

- A. Right of Ways will be affected by work necessary to complete this Contract. The Contractor shall be responsible to restore those areas affected by its construction activities.
- B. Disposal of Debris: All debris, materials, piping, and miscellaneous waste products from the Work described in the section shall be removed from the project as soon as possible. They shall be disposed of in accordance with applicable federal, state, and local regulations. The Contractor is responsible for determining these regulations and shall bear all costs or retain any profit associated with disposal of these items.

1.07 CONTRACTOR USE OF PROJECT SITE

- A. The Contractor's use of the project site shall be limited to its construction operations, including on-site storage of materials, on-site fabrication facilities, and field offices, as noted on the Contract Drawings.

1.08 OWNER USE OF THE PROJECT SITE

- A. The Owner may utilize all or part of the existing facilities during the entire period of construction for the conduct of the Owner's normal operations. The Contractor shall cooperate with the Owner to minimize interference with the Contractor's operations and to facilitate the Owner's operations.

1.09 COORDINATION WITH OTHER CONTRACTS

- A. Coordinate work with that of other Contractors on site.

1.10 PARTIAL UTILIZATION OF THE WORK BY THE OWNER

- A. The Contractor is hereby advised that the Owner may accept the responsibility for the maintenance and protection of a specific portion of the Project if utilized prior to Completion. However, the Contractor shall retain full responsibility for satisfactory completion of the project.

1.12 PERMITS

- A. It shall be the Contractor's responsibility to secure all permits required to complete the work under this contract, except permits obtained by the Owner.
- B. No separate or direct payment will be made to the Contractor for permits and inspection requirements, but all such costs shall be included in the bid proposal. The Owner will furnish signed and sealed sets of Contract Documents for permit use as required.

1.13 FIELD ENGINEERING

- A. The Contractor shall employ a Land Surveyor registered in the State of Florida and acceptable to the Engineer. The Contractor shall locate and protect survey control and reference points.
- B. Provide Field Engineering Services: Establish elevations, lines, and levels, utilizing recognized engineering survey practices.
- C. Submit a copy of registered site drawing and certificate signed by the Land Surveyor that the elevations and locations of the Work are in conformance with the Contract Documents.

1.14 DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURES, PIPING AND UTILITIES

- A. Where the dimensions and locations of existing structures, piping, and utilities are of critical importance in the installation or connection of new work, the Contractor shall verify such dimensions and locations in the field before the fabrication of any materials or equipment which is dependent on the correctness of such information.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01015

GENERAL REQUIREMENTS

PART 1 – GENERAL

1.01 RELATED REQUIREMENTS

- A. General provisions of Contract, including General Terms and Conditions.
- B. Requirements for determining completed Work - Section 01025.

1.02 PROJECT DESCRIPTION

- A. Work is located in Riviera Beach along Avenue M from W 23rd St to W 27th St.

1.03 CONTRACTOR USE OF PREMISES

- A. Contractor shall have use of the project site for construction operations. The Contractor's use of the premises is limited only by the Owner's right to perform construction operations with its own forces or to employ separate contractors on portions of the project.
- B. The Contractor shall be responsible for coordinating his daily activities in conjunction with any Contractors presently working within the vicinity of this project.
- C. Confine operations to areas within rights-of-way and easements.
- D. Keep existing driveways and entrances serving the premises clear and available to the Owner and the Owner's employees at all times.
 - 1. Do not use these areas for parking or storage of materials.
 - 2. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
- E. Do not dispose of organic and hazardous material on site, either by burial or by burning.

1.04 ENVIRONMENTAL PROTECTION

- A. Provide protection, operate temporary facilities and conduct construction in ways and by methods that comply with environmental regulations, and minimize the possibility that air, waterways and subsoil might be contaminated or polluted, or that other undesirable effects might result.

1.05 SUBMITTALS

- A. General: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

- B. Progress Schedule: Fully developed, horizontal bar chart type Contractor's construction schedule. Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue updated schedules monthly.
 - 1. Each station shall be a separate activity
- C. Daily Construction Report: Record of construction activities, on-site work force and equipment including progress and events at the site; submit two (2) copies to the Engineer at weekly intervals.
- D. Shop Drawings: Newly prepared information, drawn to accurate scale. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not acceptable.
 - 1. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings.
 - 2. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.
- E. Product Data: Collect into a single submittal for each element of construction or system. Includes printed information such as manufacture's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves.
- F. Samples: Full size, fully fabricated samples cured and finished as specified and physically identical with the material or product proposed.
- G. Submit shop drawings/product data for each item to be incorporated in the project.

1.06 QUALITY CONTROL

- A. The Contractor shall provide inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities, except where they are specifically indicated to be the Owner's responsibility, or are provided by another identified entity.
 - 1. Costs for these services shall be included in the Contract Sum.
 - 2. The Owner will engage and pay for the services of an independent agency to perform inspections and tests specified as the Owner's responsibility.
- B. The Contractor is responsible for and shall pay costs of retesting when required by Engineer or Owner and of additional testing needed or required by the Contractor.
- C. The Contractor shall pay costs for additional trips to the project by the agency when scheduled times for tests and inspections are canceled and agency is not notified sufficiently in advance of cancellation to avoid the trip.

1.07 MATERIAL AND EQUIPMENT

- A. Substitutions: After Bidding period, up to 30 days after date of Notice to Proceed, the Engineer will consider written requests from Contractor for proposed substitutions of products. Subsequent requests will only be considered when proof is given to the Engineer of product unavailability or other condition beyond control of the Contractor. Submit a separate request for each proposed substitution; two (2) copies each on the Substitution Request (SR) available from the Engineer.

1. Do not order or install substitute products without written acceptance from the Engineer.
 2. Do not imply or indicate substitutions on shop drawings or product data submittals without a separate formal request.
 3. Engineer will determine acceptability of substitution.
 4. Only one request for substitution for each product will be considered. If not accepted, Contractor shall provide specified product.
- B. Product selection is governed by the Contract Documents and governing regulations, not by previous project experience.
1. Where a single or multiple products or manufacturers are named, provide one of the products indicated or submit a request for substitution for any product or manufacturer not named.
 2. Where the Specifications only require compliance with performance requirements, an imposed code, standard or regulation, select a product that complies with the requirements, standards, codes or regulations specified.
 3. Manufacturers named in a Specification section are those manufacturers considered capable of manufacturing products conforming to the specified requirements. The naming of a particular manufacturer does not imply acceptance or approval of just any standard product of that manufacturer.
 4. The Owner reserves the right to remove or have removed any installation material which is not approved by the Engineer. The total cost for such replacement shall be borne by the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE

- A. Payment for various items of the Bid Schedule, as further specified herein, shall include all compensation to be received by the CONTRACTOR for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor operations and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the WORK all in accordance with requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenances needed to complete the items of work.
- B. Payment for the various items of the Bid Schedule shall constitute full compensation for CONTRACTOR's superintendent at the job site full-time during construction, for constructing all roadway and sidewalk features, furnishing and installing all pipe and structures complete in place; including protecting and replacing if necessary existing monuments, control points, found iron rods, including all earthwork, trench excavation as shown on the Drawings, removal and disposal of waste, unsuitable and excess material, furnishing and installing pipe bedding material, all backfill and compaction of native material, and dewatering as required; the restoration of interfering portions of existing service and utility lines that are not included in other bid items and shown on the Drawings, cleanup; and restoration of all improvements incidental to construction for which there are no other bid items; including but not limited to, existing sprinkler systems, and all other work not included in other bid items.
- C. Payment shall also include providing the necessary equipment and labor power to pothole and verify depths and locations of existing utilities sufficiently ahead of construction to avoid conflicts with the design alignment and grade of structures, culverts, storm drains. Conflicts with utilities shown on the Drawings which result from the Contractor's negligence to pothole sufficiently ahead of construction (a minimum of two days ahead of construction of the pipeline or as approved by the ENGINEER) shall be resolved by the Contractor at no additional cost to the CITY.
- D. Payment for all bid items shall constitute full compensation for the complete installation of each bid item including but not limited to excavation, dewatering, backfill and compaction. The work shall include for all bid items to be completed, tested and ready for acceptance by the appropriate government agency.
- E. Support of utilities during construction shall be included in the line item cost for work that is adjacent to the utility. This includes pole support, pipe support, overhead wire protection, protection of above and below ground pedestals, boxes, and transformers, and all other appurtenances related to the existing utilities. CONTRACTOR is responsible for coordinating with the utility agencies.

1.02 MOBILIZATION

- A. Payment will include bonds and insurance. Payment will be made at the lump sum price named in the Bid Schedule.

- B. Payment for mobilization will be made at the lump sum price named in the Bid Schedule and will include bonds and insurance. Payment for mobilization will be made in equal monthly amounts during the duration of the original contract time. Mobilization is limited to 10% of the Total Bid Price.

1.03 MAINTENANCE OF TRAFFIC

- A. See Section 01570 "Traffic Regulation" and all other references to traffic control and maintenance in this document and any regulatory requirements.
- B. Payment for maintenance of traffic will be made at the lump sum price named in the Bid Schedule. Payment for maintenance of traffic will be made in equal monthly amounts during the duration of the contract time. Maintenance of Traffic is limited to 5% of the Total Bid Price.

1.04 SURVEY (LAYOUT AND AS-BUILT) RECORD DRAWINGS

- A. Payment for survey associated with project layout and as-built record drawings will be made at the lump sum price named in the Bid Schedule.
- B. As-built record drawings are limited to the lump sum price named in the Bid Schedule.

1.05 PERMIT FEE

- A. Measurement for payment for permit fees will be based upon the actual permit fees required by the CONTRACTOR from the various agencies having jurisdiction for construction of the project, all in accordance with the Contract Documents. The allowance for permit fee amounts shown on the bid schedule is an estimate of permit fees required for the project and is a cost pass through item. The permit fees are based on allowances and CITY will reconcile the actual cost with the CONTRACTOR by change order. The CONTRACTOR shall produce documentation upon request verifying actual cost. Only permit fees substantiated and approved by the ENGINEER will be paid as part of this bid item.
- B. Payment for permit fees will be made as reimbursement for actual cost of permitting.

1.06 REMOVE CONCRETE SIDEWALK (4-INCH)

- A. Measurement for payment to remove and dispose of existing sidewalk will be based upon the actual number of square yards of such sidewalk actually removed and disposed of, all in accordance with the Contract Documents.
- B. Payment for removing and disposing of existing sidewalk will be made at the unit price per square yard of sidewalk named in the Bid Schedule which price shall constitute full compensation for the excavation, saw cut, removal and disposal of driveway. Any damages to property or features outside the limits of the sidewalk will be restored by the CONTRACTOR at no additional cost.

1.07 REMOVE CONCRETE DRIVEWAY APRON AND SIDEWALK (6-INCH)

- A. Measurement for payment to remove and dispose of existing driveway and associated 6-inch thick sidewalk within the public right-of-way will be based upon the actual number of square yards of such driveway actually removed and disposed of, all in accordance with the Contract Documents and as approved by the CITY or CITY's representative.
- B. Payment for removing and disposing of existing driveway will be made at the unit price per square yard of sidewalk named in the Bid Schedule which price shall constitute full compensation for the excavation, saw cut, removal and disposal of driveway. Any damages to

property or features outside the limits of the driveway will be restored by the CONTRACTOR at no additional cost.

1.08 REMOVE CONCRETE DRIVEWAY AND SIDEWALK - PRIVATE PROPERTY CONTINGENCY (6-INCH)

- A. Measurement for payment to remove and dispose of existing driveway and associated sidewalk outside of the public right-of-way will be based upon the actual number of square yards of such driveway actually removed and disposed of, all in accordance with the Contract Documents and with approvals by the CITY or CITY's representative.
- B. Payment for removing and disposing of existing driveway apron will be made at the unit price per square yard of driveway outside of the public right of way named in the Bid Schedule which price shall constitute full compensation for the excavation, saw cut, removal and disposal. Any damages to property or features outside the limits of the sidewalk will be restored by the CONTRACTOR at no additional cost.

1.09 REMOVE EXISTING CURB AND GUTTER

- A. Measurement for payment to remove and dispose of existing curb and gutter will be based upon the actual linear feet removed and disposed of, all in accordance with the Contract Documents.
- B. Payment for removal and disposal will be made at the unit price per linear foot of curb and gutter named in the Bid Schedule which price shall constitute full compensation for the excavation, removal and disposal.

1.10 FURNISH AND INSTALL DETECTABLE WARNING MAT

- A. Measurement for payment for furnishing a detectable warning mat in locations of an existing ADA compliant curb ramp will be based upon the actual number, each, of such ADA detectable warning surfaces furnished and installed, all in accordance with requirements of the Contract Documents, whether they be constructed of pavers or plate materials as specified in the plans.
- B. Payment for furnishing and installing detectable warning surfaces for existing ADA ramps will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the complete installation of the detectable warnings. Concrete construction is excluded from this item.

1.11 CONSTRUCT CONCRETE ADA CURB RAMP (VARIOUS CONFIGURATIONS)

- A. Measurement for payment for forming and constructing an ADA accessible curb ramp, including detectable warning mat, that connects the existing sidewalk to the street will be based upon the actual number, each, constructed, all in accordance with requirements of the Contract Documents.
- B. Payment for constructing ADA ramps will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the complete construction of the ramp, installing detectable warning mat, and restoring any adjacent property or facilities impacted. In the case of new ramp construction, payment for a new ADA ramp shall include the cost of the associated detectable warning mat and no separate payment shall be made for the detectable warning mat materials or labor.

1.12 CONSTRUCT CONCRETE SIDEWALK (4-INCH)

- A. Measurement and payment for furnishing and installing concrete sidewalk at 4-inch thickness

will be based upon the actual number of square yards of such sidewalks constructed as shown in the drawings, all in accordance with the requirements of the Contract Documents.

- B. Payment for furnishing and installing sidewalks will be made at the unit price per square yard and thickness and type named in the Bid Schedule and detailed on the drawings which price shall constitute full compensation for completing said work, including earthwork, construction of the concrete sidewalk to thickness specified in the plans, furnishing and setting for expansion joint material, disposal of excess material, restoration/replacement of sod disturbed on private property to equal condition as existing, restoration of driveways disturbed due to sidewalk forms, and the appurtenant items for which separate payment is not specifically included in the Bid Schedule. Readjusting water meter boxes that need to be raised or lowered to meet sidewalk elevation will also be included in compensation for the installation of sidewalk (any meter box relocation which does not include plumbing services will be included in the price of sidewalk installation). No additional compensation will be granted for bumping out sidewalks or sloping sidewalks as required by Contract Documents.
- A. No payment will be made for construction of sidewalks outside the limits shown on the drawings or not approved by the ENGINEER. Sidewalks must be approved and accepted by the CITY to be eligible for payment.

1.13 CONSTRUCT CONCRETE DRIVEWAY APRON (6-INCH)

- A. Measurement for payment for construction of concrete driveways will be based upon the actual number of square yards of such driveways and aprons constructed as shown in the drawings, all in accordance with the requirements of the Contract Documents.
- B. Payment for construction of driveways will be made at the unit price per square yard named in the Bid Schedule which price shall constitute full compensation for completing said work, including grading, construction of the concrete driveway to 6" deep, furnishing and setting for expansion joint material, disposal of excess material, and the appurtenant items for which separate payment is not specifically included in the Bid Schedule.
- C. Extent of driveway restoration shown in plans is estimated based on measured slopes. Contractor shall only replace material as required to meet driveway slope requirements. If, in the Contractor's opinion, additional restoration is required than what is shown on the plans, Contractor shall get approval from ENGINEER prior to work. No payment will be made for construction of driveways and aprons outside the limits shown on the drawings or not approved by the ENGINEER. Driveway must be approved and accepted by the CITY to be eligible for payment.

1.14 CONSTRUCT CONCRETE DRIVEWAY PRIVATE PROPERTY CONTINGENCY (6-INCH)

- A. Measurement for payment for construction of concrete driveways outside of the public right-of-way will be based upon the actual number of square yards of such driveways constructed, in accordance with the requirements of the Contract Documents. The limits identified on the drawings are approximate. Actual limits will be dependent onsite conditions, primarily the existing slopes that require adjustment for conformance with ADA accessibility requirements.
- B. Payment for construction of driveways will be made at the unit price per square yard named in the Bid Schedule which price shall constitute full compensation for completing said work, including grading, construction of the concrete driveway to 6" deep, furnishing and setting for expansion joint material, disposal of excess material, and the appurtenant items for which separate payment is not specifically included in the Bid Schedule.
- C. Extent of driveway restoration shown in plans is estimated based on measured slopes. Contractor shall only replace material as required to meet driveway slope requirements. If, in the Contractor's opinion, additional restoration is required than what is shown on the plans,

Contractor shall get approval from ENGINEER prior to work. No payment will be made for construction of driveways and aprons outside the limits shown on the drawings or not approved by the ENGINEER. Driveway must be approved and accepted by the CITY to be eligible for payment.

1.15 CONSTRUCT ASPHALT DRIVEWAY

- A. Measurement for payment for construction of asphalt driveways will be based upon the actual number of square yards of such driveways constructed, in accordance with the requirements of the Contract Documents. The limits identified on the drawings are approximate. Actual limits will be dependent onsite conditions, primarily the existing slopes that require adjustment for conformance with ADA accessibility requirements.
- B. Payment for construction of driveways will be made at the unit price per square yard named in the Bid Schedule which price shall constitute full compensation for completing said work, including removal of existing material, grading, construction of the asphalt driveway to with limerock and asphalt thicknesses to match or exceed the existing condition, furnishing all related materials, disposal of excess material, and the appurtenant items for which separate payment is not specifically included in the Bid Schedule.
- C. Extent of driveway restoration shown in plans is estimated based on measured slopes. Contractor shall only replace material as required to meet driveway slope requirements. If, in the Contractor's opinion, additional restoration is required than what is shown on the plans, Contractor shall get approval from ENGINEER prior to work. No payment will be made for construction of driveways and aprons outside the limits shown on the drawings or not approved by the ENGINEER. Driveway must be approved and accepted by the CITY to be eligible for payment.

1.16 CONSTRUCT PAVER DRIVEWAY

- A. Measurement for payment for construction of paver driveways will be based upon the actual number of square yards of such driveways constructed, in accordance with the requirements of the Contract Documents. The limits identified on the drawings are approximate. Actual limits will be dependent onsite conditions, primarily the existing slopes that require adjustment for conformance with ADA accessibility requirements.
- B. Payment for construction of driveways will be made at the unit price per square yard named in the Bid Schedule which price shall constitute full compensation for completing said work, including removal of existing material, grading, compaction of base material and construction of the paver driveway to match or exceed the existing driveway construction methods and materials, furnishing all related materials, disposal of excess material, and the appurtenant items for which separate payment is not specifically included in the Bid Schedule.
- C. Extent of driveway restoration shown in plans is estimated based on measured slopes. Contractor shall only replace material as required to meet driveway slope requirements. If, in the Contractor's opinion, additional restoration is required than what is shown on the plans, Contractor shall get approval from ENGINEER prior to work. No payment will be made for construction of driveways and aprons outside the limits shown on the drawings or not approved by the ENGINEER. Driveway must be approved and accepted by the CITY to be eligible for payment.

1.17 CONSTRUCT TYPE F CURB AND GUTTER

- A. Measurement for payment for furnishing and installing Type F curb will be based upon the number of linear feet of such curb actually constructed as determined by measurement along the centerline of the curb in place, all in accordance with the requirements of the Contract Documents.

- B. Payment for furnishing and installing curbing will be made at the unit price per linear foot curb named in the Bid Schedule, which shall constitute full compensation for complete installation including, grading, 4" rock curb pad, forming, saw cutting of pavement and cleanup of all areas disturbed by this construction.

1.18 CONSTRUCT VALLEY GUTTER

- A. Measurement for payment for furnishing and installing valley gutter or drop curb will be based upon the number of linear feet of such curb actually constructed as determined by measurement along the centerline of the curb in place, all in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing valley gutter or drop curb will be made at the unit price per linear foot curb named in the Bid Schedule, which shall constitute full compensation for complete installation including, grading, 4" rock curb pad, forming, saw cutting of pavement and cleanup of all areas disturbed by this construction.

1.19 MILL AND RESURFACE EXISTING ASPHALT (1-INCH)

- A. Measurement for payment for milling and resurfacing existing pavement will be based on the number of square yards of such pavement actually milled to a depth of 1-inch and followed by tack coat and Type S-3 asphalt placed and compacted to a finished depth of 1-inch, as detailed in the drawings, all in accordance with the requirements of the Contract Documents.
- B. Payment for milling existing asphalt pavement and resurfacing with 1-inch of Type S-3 asphalt will be made at the unit price per square yard of such as named in the Bid Schedule which price shall constitute full compensation for milling, removal and disposal of asphalt, removal of reflective pavement markers, any temporary striping necessary between the milling and resurfacing phase, tack coat, resurfacing and restoration. No separate payment shall be made for temporary asphalt placed during construction. Any damage by the CONTRACTOR to existing curbs that are to remain are to be repaired by the CONTRACTOR at no cost to the CLIENT.

1.20 BASE REPAIR OR OVERBUILD ASPHALT PAVEMENT SECTION

- A. Measurement for payment for base repair or overbuild of asphalt pavement will be based on the number of square yards of such pavement removed and limerock reworked or pavement and limerock removed and asphalt pavement overbuilt to eliminate base failure and match existing grade with finished pavement surface, as detailed in the drawings, all in accordance with the requirements of the Contract Documents.
- B. Payment for base repair or overbuilding with asphalt pavement will be made at the unit price per square yard of such as named in the Bid Schedule which price shall constitute full compensation for milling, removal and disposal of asphalt, removal and disposal of limerock, furnishing new or re-working of existing limerock, removal of reflective pavement markers, any temporary striping necessary between the milling and resurfacing phase, tack coat, pavement or overbuild and restoration. Any damage by the CONTRACTOR to existing curbs that are to remain are to be repaired by the CONTRACTOR at no cost to the CLIENT.

1.21 FULL DEPTH RESTORATION

- A. Measurement for payment for full depth restoration will be based on the number of square yards performed. Full depth restoration will include restoration of the road surface over the trenches associated with water main installation. Full depth restoration shall include in the unit price per square yard asphalt demolition and removal, 12" stabilized sub-grade, 8" limerock, 1.5" Type S-1 asphalt and 1" Type S-3 asphalt, as shown in the City standard detail for Pavement and Base Repair.

- B. Unit price shall not include work associated with the installation of the watermain and backfill to the bottom of the road subgrade which is included in Item 1.45.
- 1.22 FURNISH AND INSTALL 24" WHITE STOP BAR
- A. Measurement for payment for furnishing and placing pavement markings including layout and removal of existing striping will be based upon the number of linear feet of 24-inch wide white marking actually constructed as determined by measurement along the centerline of the pavement markings in place, all in accordance with the requirements of the Contract Documents.
 - B. Payment for furnishing and placing 24-inch wide white marking including layout, temporary marking and removal of existing striping if necessary, will be made at the unit price per linear foot of pavement markings named in the Bid Schedule, which price shall constitute payment for all associated materials and effort.
- 1.23 FURNISH AND INSTALL 12" WHITE EXTERIOR CROSSWALK STRIPES
- A. Measurement for payment for furnishing and placing pavement markings including layout and removal of existing striping will be based upon the number of linear feet of 12-inch wide white marking actually constructed as determined by measurement along the centerline of the pavement markings in place, all in accordance with the requirements of the Contract Documents.
 - B. Payment for furnishing and placing 12-inch wide white marking including layout, temporary marking and removal of existing striping if necessary, will be made at the unit price per linear foot of pavement markings named in the Bid Schedule, which price shall constitute payment for all associated materials and effort.
- 1.24 FURNISH AND INSTALL 6" SOLID DOUBLE YELLOW STRIPES
- A. Measurement for payment for furnishing and placing pavement markings including layout and removal of existing striping will be based upon the number of linear feet of double yellow stripes, with each stripe being 6-inches wide, actually constructed as determined by measurement along the centerline of the double yellow marking in place, all in accordance with the requirements of the Contract Documents.
 - B. Payment for furnishing and placing both of the double wide yellow stripes that are each 6-inches wide, shall including layout, temporary striping and removal of existing striping if necessary and will be made at the unit price per linear foot of double striping named in the Bid Schedule, which price shall constitute payment for all associated materials and effort. Reflective pavement markers shall be counted in this item.
- 1.25 FURNISH AND INSTALL SOLID WHITE STRIPING FOR SPEED HUMP PER DETAIL
- A. Measurement for payment for furnishing and placing pavement symbols associated with the speed hump will be based paid per each speed hump location, all in accordance with the requirements of the Contract Documents.
 - B. Payment for furnishing and placing pavement symbols associated with the speed hump will be made at the unit price, each, of markings named in the Bid Schedule. Payment for pavement symbols shall constitute full payment for all such symbols required.
- 1.26 RELOCATE EXISTING UTILITY POLE
- A. Measurement for payment to remove and relocate an existing utility pole from the location

impeding pedestrian facilities to a location identified and approved in coordination with the CITY or CITY's representative will be based upon actual quantity, each, of such utility poles relocated, all in accordance with the requirements of the Contract Documents.

- B. Payment for relocating utility poles will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the associated materials and effort. Any property or facilities damaged by the CONTRACTOR will be replaced by the CONTRACTOR at no cost to the CITY.

1.27 RELOCATE EXISTING CHAIN LINK FENCE (UP TO 6-FT IN HEIGHT)

- A. Measurement for payment to remove and relocate an existing chain link fence from the location impeding pedestrian facilities to a location identified and approved in coordination with the CITY or CITY's representative will be based upon actual quantity, linear feet, of such chain link fence relocated, all in accordance with the requirements of the Contract Documents.
- B. Payment for relocating chain link fence will be made at the unit price, linear feet, named in the Bid Schedule which price shall constitute full compensation for the associated materials and effort. Any property or facilities damaged by the CONTRACTOR will be replaced by the CONTRACTOR at no cost to the CITY.

1.28 RELOCATE EXISTING DECORATIVE FENCE (WITH CONCRETE BLOCK POSTS)

- A. Measurement for payment to remove and relocate an existing decorative fence with concrete block posts from the location impeding pedestrian facilities to a location identified and approved in coordination with the CITY or CITY's representative will be based upon actual quantity, linear feet, of such chain link fence relocated, all in accordance with the requirements of the Contract Documents.
- B. Payment for relocating decorative fence will be made at the unit price, linear feet, named in the Bid Schedule which price shall constitute full compensation for the associated materials and effort. Any property or facilities damaged by the CONTRACTOR will be replaced by the CONTRACTOR at no cost to the CITY.

1.29 RELOCATE MAILBOX

- A. Measurement for payment to remove and permanently relocate an existing mailbox from the location impeding pedestrian facilities to a location identified and approved in coordination with the CITY or CITY's representative will be based upon actual quantity, each, of such mailbox relocated, all in accordance with the requirements of the Contract Documents.
- B. Payment for relocating a mailbox will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the associated materials and effort. This payment will only be applicable for mailboxes that are permanently relocated. Temporary relocations will not be compensated. Any property or facilities damaged by the CONTRACTOR will be replaced by the CONTRACTOR at no cost to the CITY.

1.30 RELOCATE LANDSCAPE FEATURE (HEDGES)

- A. Measurement for payment to remove and relocate an existing hedge from the location impeding pedestrian facilities to a location identified and approved in coordination with the CITY or CITY's representative will be based upon actual quantity, each, of such hedge relocated, all in accordance with the requirements of the Contract Documents.
- B. Payment for relocating a hedge will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the associated materials and effort. Any property or facilities damaged by the CONTRACTOR will be replaced by the CONTRACTOR at

no cost to the CITY.

1.31 FURNISH AND INSTALL ST. AUGUSTINE SOD

- A. Measurement for payment to furnish and install St. Augustine sod will be based upon actual quantity, square yards, of such sod furnished and installed, all in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing the St. Augustine sod will be made at the unit price, square yards, named in the Bid Schedule which price shall constitute full compensation for the necessary grading and placement of sod as well as coordination with the homeowner to insure irrigation is in place to sustain the placed sod.

1.32 REMOVE AND RE-INSTALL EXISTING SIGNS

- A. Measurement for payment to remove and re-install traffic signs will be based upon actual quantity, each, of such signs removed and re-installed, all in accordance with the requirements of the Contract Documents.
- B. Payment for removing and re-installing the traffic signs will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the removal of existing sign and the re-installation of the new sign including sign post. The sign post is considered an in-sequential cost from the actual sign installation. Signs damaged by the CONTRACTOR will be replaced by the CONTRACTOR at no cost to the City.

1.33 FURNISH AND INSTALL TRAFFIC SIGNS

- A. Measurement for payment to furnish and install the traffic signs will be based upon actual quantity, each, of such signs furnished and installed, all in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing the traffic signs will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the removal of existing sign being replaced (when applicable) and the completed installation of the new sign including sign post. Sign post is considered an in-sequential cost from the actual sign installation. Signs damaged by the CONTRACTOR will be replaced by the CONTRACTOR at no cost to the City.

1.34 FURNISH AND INSTALL C-900 PVC AND HDPE SDR 11 WATERMAIN PIPE VIA OPEN CUT

- A. Measurement for payment for furnishing and installing C-900 PVC and HDPE SDR 11 water main pipe via open cut will be based upon the number of linear feet of such pipe installed as determined along the centerline of the pipe, according to coordinates As-Built, all in accordance with the requirements of the Contract Documents.
- B. Payment for furnishing and installing PVC C-900 water main pipe will be made at the unit price per linear foot of such pipe installed including restraints and all clearing and grubbing, pipe cleaning, cutting, unloading, sheeting, excavation, utility pole protection, root barrier installation, temporary relocation and restoration of existing fences, trench protection and trench safety, replacement of sewer laterals in conflict with alignment, dewatering, bedding (including rock), laying, backfilling, compaction, pressure testing and flushing and filling as named in the Bid Schedule. Payment does not include Full Depth Restoration of earthwork from the subgrade through the asphalt payment. Full Depth Restoration will be paid for as described in Item 1.25 above.
- C. Tracer wire is included in the cost of water main pipe.

1.35 FURNISH AND INSTALL WATER SERVICES

- A. Measurement for payment furnishing and installing water service will be based upon the actual number, each, of water service and meter boxes furnished and installed as well as relocating existing meter (if applicable) all in accordance with requirements of the Contract Documents. This includes the tapping of the new water main and providing saddle, corporation ball valve and service piping to the meter box (including service piping inside casing under pavement where necessary), key angle meter stop, stainless steel inserts, spring washers on saddles, setting the new meter boxes and relocating existing water meters. The CONTRACTOR is responsible for completing all private side service connections and for the restoration of any disturbed surface features including, but not limited to clearing and grubbing, saw cut and removal of asphalt, remove of lime rock and subbase, trench excavation, dewatering, backfilling, fencing, driveways, walkways, mailboxes, decorations, irrigation and landscaping inside and outside of the public right-of-way to their original condition or better.
- B. Water Services to be installed under existing pavement shall be installed via missile bore.
- C. CONTRACTOR shall be responsible for locating existing water service. CONTRACTOR to coordinate with the City.
- D. Each double water service is counted as one unit.

1.36 FURNISH AND INSTALL PRESSURE MAIN FITTINGS

- A. Measurement for payment to furnish and install fittings, unless specifically listed separately in the bid schedule, shall be based upon actual quantity, in tons, for such fittings, including but not limited to crosses, reducing crosses, tees, side outlet tees, reducing tees, laterals, reducing laterals, bends and elbows of all angles and radius, reducing bends and elbows, concentric and eccentric reducers, offsets, wyes, true wyes, sleeves, plugs, caps, restraining glands and gaskets, base bends, base tees, reducing flanges, couplings for dissimilar materials or sizes, furnished all in accordance with the Contract Documents. Pipe restraints will not be counted in this item, they shall be included in the cost of the pipe.
- B. Payment for furnishing and installing fittings complete and in place shall be at the unit bid price each, named in the Bid Schedule and shall include furnishing, storing, transporting and installing the fittings.

1.37 FURNISH AND INSTALL GATE VALVE

- A. Measurement for payment to furnish and install gate valves will be based upon actual quantity, each, of gate valves furnished and installed, all in accordance with the requirements of the Contract Documents. Test valves or temporary valves will not be compensated for under this line item.
- B. Payment for furnishing and installing gate valves will be made at the unit price each, named in the Bid Schedule which price shall constitute full compensation for the completed installation of the gate valve, including valve box, extension to surface, 3" brass ID disk and restraining glands.
- C. If the contractor elects to use double valves for connections to the existing system, there will be no additional compensation for valves under this line item. Only valves that are on the plans will be paid under this line item.

1.38 FURNISH AND INSTALL AIR RELEASE VALVE

- A. Measurement for payment to furnish and install air release valves will be based upon the actual quantity, each, of such valves furnished and installed, all in accordance with the requirements of the Contract Documents, Test valves will not be compensated for under this item.
- B. Payment for furnishing and installing air release valves will be made at the unit price each, named in the Bid Schedule which price shall constitute full compensation for the completed installation of the valve, including valve manhole, extension to the surface, coordination to shut down existing water main, and all restoration including backfilling and compaction up to the limerock base.

1.39 CONNECTION TO EXISTING WATER MAIN

- A. Measurement and payment for performing all connections of new water main to existing water main pipe will be based on the actual quantity, each, of such connections made all in accordance with the Contract Documents and drawings.
- B. Payment for connecting to existing water main shall be made at the unit price, each, named in the Bid Schedule which shall constitute full compensation for all coordination, materials (regardless of water main size) and labor needed to complete connections at each end of proposed main which shall include additional valves and/or double valve systems exclusively for the purpose of water main connections, fittings, sleeves, spool pieces, 2-inch polyurethane pipes or less for connections, corporation stops, cutting, removal and disposal of existing piping and fittings to prepare for connection and filling and flushing of main. All coordination needed for water main shut offs shall be responsibility of the CONTRACTOR and is included in the scope of this item.

1.40 GROUT AND ABANDON EXISTING WATER MAIN

- A. Measurement for payment to grout and abandon existing pipe shall be based upon the total linear feet of pipe abandoned, all in accordance with the requirements of the Contract Documents.
- B. Payment for placing existing pipe out of service will be made at the unit price per linear foot of such pipe actually grouted and abandoned as named in the Bid Schedule. Payment shall constitute full compensation for the grouting (if necessary), plugging, capping and abandoning of such pipe, including pumping out and disposing of existing water, removing and disposing of existing valves and valve boxes, backfilling trench and all restoration work.

1.41 FURNISH AND INSTALL TAPPING SLEEVE AND VALVE

- A. Measurement for payment to furnish and install tapping sleeve and valve will be based upon the actual quantity, each, of such connections made in accordance with the Contract Documents.
- B. Payment for furnishing and installing tapping sleeve and valve shall be made at the unit price, each, named in the Bid Schedule which shall constitute full compensation for all materials (regardless of water main size) and labor needed to complete connection which shall include but it is not limited to valves, fittings, spool pieces, corporation stops, concrete collars, pipe restraints, removal and disposal of existing piping and fittings to prepare for connection, testing, dewatering and filling and flushing of main. Taps for water service lines shall not be included in this line item, they will be included in the line item for "Furnish and Install Water Service". Connection to existing water main shall be included in this line item and will not be included in line item for "Connect to Existing Water Main."

1.42 FURNISH AND INSTALL SAMPLE POINTS

- A. Measurement for payment for furnishing and installing sample points will be based upon the actual number, each, of such sample points furnished and installed, all in accordance with requirements of the Contract Documents.
- B. Payment for furnishing and installing sample points will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the complete installation of sample point and removal and disposal after sampling is complete.

1.43 FURNISH AND INSTALL CURED-IN-PLACE SEWER LINING

- A. Measurement and payment for cured-in-place (CIP) sewer lining shall be based upon the total linear feet of sewer lining installed in accordance with the requirements of the Contract Documents.
- B. Payment for placing CIP sewer lining will be made at the unit price per linear foot of 6 mm lining actually installed as named in the Bid Schedule. Payment shall constitute full compensation for the TV inspections, cleaning, sewer lateral connections and sewer lining installed. Costs for design calculations, shop drawings or other submittal information required per the technical specifications shall be included in the unit price.

1.44 SEWER PIPE REPAIR

- A. Measurement and payment for sewer pipe repair shall be based upon the total linear feet of sewer pipe actually repaired in accordance with the requirements of the Contract Documents. Locations of sewer pipe repairs are not identified in the plans but, rather, will be identified based on the results of the TV inspections performed during the work associated with installation of the CIP sewer lining. Sewer deficiencies identified during the inspections shall be communicated immediately to the CITY for coordination and no repairs shall be made without the prior approval of the CITY.

1.45 ADJUSTING EXISTING WATER VALVES

- A. Measurement and payment for adjusting valves will be based upon the actual number of valves adjusted, all in accordance with the Contract Documents.
- B. Payment for adjusting or modifying valves will be made at the unit price, each, named in the Bid Schedule which price shall constitute full compensation for the completed adjustment of the valve, including pipe, excavation, dewatering, any form and amount of shoring, utility pole protection, backfill, compaction, testing, and restoration. Payment will include adjustment or modifying valves once, set to the final grade. No additional compensation will be granted for intermediate or temporary adjustments.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01025

SECTION 01039

COORDINATION AND MEETINGS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Coordination and project conditions
- B. Field engineering
- C. Preconstruction meeting
- D. Progress meetings

1.02 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment. Coordinate work with Owner operations.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work which are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs. Obtain Owner acceptance of conduit runs and alignments prior to installation.
- D. In finished areas, except as otherwise indicated, conceal pipes, ducts, and wiring within the construction. Coordinate locations of fixtures and outlets with finish elements.
- E. Coordinate completion and clean-up of Work of separate sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
- F. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.03 FIELD ENGINEERING

- A. Employ a Land Surveyor registered in the State of Florida and acceptable to Engineer.
- B. Contractor shall protect survey control and reference points.
- C. Control datum for survey is that established by Owner provided survey.
- D. Verify set-backs and easements; confirm drawing dimensions and elevations.

- E. Establish elevations, lines, and levels, utilizing recognized engineering survey practices.
- F. Submit a copy of site drawing and certificate signed and sealed by the Land Surveyor that the elevations and locations of the Work are in conformance with the Contract Documents.

1.04 PRE-CONSTRUCTION MEETING

- A. Engineer will schedule a meeting after Notice of Award.
- B. Attendance Required: Owner, Engineer, Contractor, Contractor Superintendent, and major sub-contractors.
- C. Agenda:
 - 1. Execution of Owner-Contractor Agreement
 - 2. Submission of executed bonds and insurance certificates
 - 3. Distribution of Contract Documents
 - 4. Submission of list of Subcontractors, list of Products, schedule of values, and progress schedule
 - 5. Designation of personnel representing the parties in Contract, Utilities, and the Engineer
 - 6. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 7. Scheduling, sequence of work
 - 8. Use of premises by Owner and Contractor
 - 9. Owner's requirements and partial occupancy
 - 10. Construction facilities and controls provided by Owner.
 - 11. Temporary utilities provided by Owner.
 - 12. Security and housekeeping procedures
 - 13. Application for payment procedures
 - 14. Procedures for testing
 - 15. Requirements for start-up of equipment
 - 16. Inspection and acceptance of equipment put into service during construction period.
- D. Record minutes and distribute copies within five days after meeting to participants and those affected by decisions made, with two copies to Engineer.

1.05 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum bimonthly intervals.
- B. Make arrangements for meetings, prepare agenda with copies for participants, and preside at meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Owner, Engineer, as appropriate to agenda topics for each meeting.
- D. Agenda:

1. Review minutes of previous meetings.
 2. Review of Work progress.
 3. Field observations, problems, and decisions
 4. Identification of problems which impede planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review of off-site fabrication and delivery schedules.
 7. Maintenance of progress schedule
 8. Corrective measures to regain projected schedules
 9. Planned progress during succeeding work period
 10. Coordination of projected progress
 11. Maintenance of quality and work standards
 12. Effect of proposed changes on progress schedule and coordination
 13. Other business relating to Work
- E. Record minutes and distribute copies within three days after meeting to participants, and those affected by decisions made.

PART 2 – PRODUCTS - (Not Used)

PART 3 – EXECUTION - (Not Used)

END OF SECTION

SECTION 01045

CUTTING AND PATCHING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Division 1 Specification sections, apply to the work specified in this Section.

1.02 REQUIREMENTS INCLUDED

- A. All necessary cutting, coring, drilling, grouting, and patching to fit together the several parts of the work will be done by the Contractor, except as may be specifically noted otherwise under any particular section of the specifications.
- B. Definition: Cutting and Patching includes cutting into existing construction to provide for the installation or performance of other work and subsequent fitting and patching required to restore surfaces to their original condition. Cutting and Patching is performed to uncover work for access or inspection, to obtain samples for testing, to permit alterations to be performed or for other similar purposes.

1.03 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural work in a way that would result in a reduction of load-carrying capacity or of a load-deflection ratio.
- B. Visual Requirements: Do not cut and patch work, in a way that would result in reducing the strength of structures. Do not cut and patch work in a manner that would result in substantial visual evidence. Remove and replace work judged by the Owner to be cut and patched in a visually unsatisfactory manner.

1.04 SUBMITTALS

- A. Procedure for Cutting and Patching: Where prior approval of cutting and patching is required, submit procedures for this work well in advance of the time work will be performed and request approval to proceed. Include the following information, as applicable, in the submittal:
 - 1. Describe nature of the work and how it is to be performed, indicating why cutting and patching cannot be avoided. Describe anticipated results of the work operation and visual changes as well as other significant elements.
 - 2. List products to be used and firms that will perform work.
 - 3. Give dates when work is expected to be performed.
- B. Approval by Owner to proceed with cutting and patching work does not waive the Owner's right to later require complete removal and replacement of work found to be cut and patched in an unsatisfactory manner.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Except as otherwise indicated, or as directed by the Owner, use materials for cutting and patching that are identical to existing materials. If identical materials are not available, or cannot be used, use materials that match existing adjacent surfaces to the fullest extent possible. Use material for cutting and patching that will result in equal-or-better performance characteristics.

PART 3 EXECUTION

3.01 INSPECTION

- A. Before cutting, examine the surfaces to be cut and patched and the conditions under which the work is to be performed. If unsafe or otherwise unsatisfactory conditions are encountered, take corrective action before proceeding with the work.
- B. Before the start of cutting work, meet at the work site with all parties involved in cutting the patching. Review areas of potential interference and conflict between the various trades. Coordinate layout of the work and resolve potential conflicts before proceeding with the work.

3.02 PREPARATION

- A. Temporary Support: To prevent failure, provide temporary support of work to be cut.
- B. Protection: Protect other work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for that part of the project that may be exposed during cutting and patching operations.
 - 1. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

3.03 PERFORMANCE

- A. Employ skilled workman to perform cutting and patching work. Except as otherwise indicated or as approved by the Owner, proceed with cutting and patching at the earliest feasible time and complete work without delay.
- B. Cut the work using methods that are least likely to damage work to be retained or adjoining work.
 - 1. In general, where cutting is required use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.

- C. Patching: Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.
 - 1. Where feasible, inspect and test patched areas to demonstrate integrity of work.
 - 2. Restore exposed finishes of patched areas and where adjoining work in a manner which will eliminate evidence of patching and refinishing.
- D. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection. For an assembly, refinish entire unit.
- E. Damaged Surfaces: Patch or replace any portion of an existing finished surface which is found to be damaged, lifted, discolored, or shows other imperfections, with matching material.

3.04 TRANSITION FROM EXISTING TO NEW WORK

- A. When new work abuts or finishes flush with existing work, make a smooth and workmanlike transition. Patched work shall match existing adjacent work in texture and appearance unless otherwise noted so that the patch or transition is invisible at a distance of five feet.
- B. When finished surfaces are cut in such a way that a smooth transition with new work is not possible, terminate existing surface in a neat manner along a straight line at a natural line of division, and provide trim appropriate to finished surface.

3.05 CLEANING

- A. Thoroughly clean area and spaces where work is performed or used as access to work. Remove completely paint, mortar, oils, putty and items of similar nature.

END OF SECTION

SECTION 01050
FIELD ENGINEERING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Provide and pay for field engineering services required for Project as follows:
 - 1. Land Surveying work required to lay out the work and for execution of the structures.
 - 2. Civil, structural or other professional engineering services specified, or required to execute the Contractor's construction methods.
- B. The Contractor shall retain the services of a registered land surveyor licensed in the State of Florida to identify existing control points and property line corner stakes indicated on the Drawings, as required. Verify all existing structure locations and all proposed building corner locations, tank locations and equipment locations.

1.02 RELATED WORK

- A. Section 01010: Summary of Work.
- B. Section 01720: Project Record Documents.

1.03 QUALIFICATIONS OF PROFESSIONAL

- A. Qualified Engineer or Registered Land Surveyor, acceptable to the Owner and the Engineer.
- B. Registered Professional Engineer of the specialty required for the specific service on the Project, currently licensed in the State of Florida.

1.04 SURVEY REFERENCE POINTS

- A. Horizontal and vertical control points for the Project are to be established by the Contractor.
- B. Locate and protect control points prior to starting work, and preserve all permanent reference points during construction.
 - 1. Make no changes or relocations without prior written notice to the Engineer.
 - 2. Report to the Engineer when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace project control points which may be lost or destroyed.
 - a. Establish replacements based on original survey control.

1.05 PROJECT SURVEY REQUIREMENTS

- A. Establish a minimum of five temporary bench marks on site, referenced to data by survey control points.
 - 1. Record locations, with horizontal and vertical data, on Project Record Documents.
 - 2. Two bench marks shall be at ends of project.

- B. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means:
 - 1. Site Improvements
 - a. Stakes for grading, fill and topsoil placement.
 - b. Utility slopes and invert elevations.
 - 2. Batter boards for structures.
 - 3. Building foundation, column locations and floor levels.
 - 4. Controlling lines and levels required for mechanical and electrical trades.
- C. From time to time, verify layouts by same methods.

1.06 RECORDS

- A. Maintain a complete, accurate log for all control and survey work as it progresses.
- B. At the end of the project, submit certified as-built information at the same scale as the Engineer's line drawings indicating elevations and stations of the project at 100 foot increments and at rapid changes in grade. Provide as-built drawings for all portions of the project that have been completed and for which payment is requested.
- C. Contractor prior to commencement of work shall obtain cross sections at maximum 100 foot intervals for length of proposed improvements.

1.07 SUBMITTALS

- A. Submit name and address of registered land surveyor to the Engineer.
- B. On request of the Engineer, submit documentation to verify accuracy of field engineering work.
- C. Submit certificate signed by registered engineer or surveyor certifying that elevations and locations of improvements.
- D. Submit drawings showing locations of all structures constructed. This drawing shall be included with the project record documents.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION

SECTION 01090

REFERENCES

PART 1 - GENERAL

1.01 GENERAL

- A. **Applicable Publications:** Whenever in these specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the drawings shall be waived because of any portion of, or omission from, said standards or requirements.
- B. **Specialists, Assignments:** In certain instances, specification text requires (or implies) that specific work is to be assigned to specialists or expert entities, who must be engaged for the performance of that work. Such assignments shall be recognized as special requirements over which the Contractor has no choice or option. These assignments shall not be interpreted so as to conflict with the enforcement of building codes and similar regulations governing the Work; also they are not intended to interfere with local union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of work is recognized as “expert” for the indicated construction processes or operations. The final responsibility for fulfillment of the entire set of contract requirements remains with the Contractor.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Without limiting the generality of other requirements of the specifications, all work specified herein shall conform to or exceed the requirements of the following documents to the extent that the provisions of such documents are not in conflict with the requirements of these Specifications nor the applicable codes.
- B. References herein to “Building Code” or FBC shall mean the Florida Building Code, current edition. The latest edition of the code as approved and used at the local agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.
- C. In case of conflicts between codes, reference standards, drawings and other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarifications and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.
- D. **Applicable Standard Specifications:** The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portion of those referenced codes, standards, and specifications listed herein; except, that wherever references to “Standard Specifications” are made, the provisions therein for measurement and payment shall not apply.
- E. References herein to “OSHA Regulations for Construction” shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

- F. References herein to “OSHA Standards” shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments hereto.

1.03 TRADE NAMES AND ALTERNATIVES

- A. For convenience in designation in the Contract Documents, materials to be incorporated in the Work may be designated under a trade name or the name of a manufacturer and its catalog information. The use of alternative material which is equal in quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:
 - 1. The burden of proof as to the quality and suitability of such alternative equipment, products, or other materials shall be upon the Contractor.
 - 2. The Engineer will be the sole judge as to the comparative quality and suitability of such alternative equipment, products, or other materials and its decisions shall be final.
- B. Whenever in the Contract Documents the name and address of the manufacturer or distributor is given for a product or other material, or if any other source of a product or material is indicated therefore, such information is given for the convenience of the Contractor only, and no limit, restriction, or direction is indicated or intended thereby, nor is the accuracy or reliability of such information guaranteed. It shall be the responsibility of the Contractor to determine the accurate identity and location of any such manufacturer, distributor, or other source of any product or material called for in the Contract Document.
- C. The Contractor may offer any material, process, or equipment which it considers equivalent to that indicated. Unless otherwise authorized in writing by the Engineer, the substantiation of offers of equivalency must be submitted within 60 days after execution of the Agreement. The Contractor, at its sole expense, shall furnish data concerning items it has offered as equivalent to those specified. The Contractor shall have the material as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the items will fulfill its intended function. Installation and use of a substitute item shall not be made until accepted by the Engineer. If a substitute offered by the Contractor is found not equal to the specified material, the Contractor shall furnish and install the specified material.
- D. The Contractor’s attention is further directed to the requirement that failure to submit data substantiating a request for the substitution of an “or equal” item within said 60-day period after the execution of the Agreement, shall be deemed to mean that the Contractor intends to furnish one of the specific brand-named products named in the specification, and the Contractor does hereby waive all rights to offer or use substitute products in each such case. Wherever a proposed substitute product has not been submitted within said 60-day period, or wherever the submission of a proposed substitute product fails to meet the requirements of the specifications and an acceptable resubmittal is not received by the Engineer within said 60-day period, the Contractor shall furnish only one of the products originally-named in the Contract Document.

1.04 ABBREVIATION

- A. Wherever in these specifications references are made to standards, specifications, or other published data of the various national, regional, or local organizations, such organizations may be referred to by their acronyms or abbreviation only. As a guide to the user of these specifications, the following acronyms and abbreviations which may appear in these specifications shall have the meanings indicated herein.

1.05 ABBREVIATIONS AND ACRONYMS

AAMA	Architectural Aluminum Manufacturer's Association
AAR	Association of American Railroads
AASHTO	American Association of the State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
ACPPA	American Concrete Pressure Pipe Association
AFBMA	Anti-Friction Bearing Manufacturer's Association, Inc.
AGA	American Gas Association
AGC	American General Contractors
AGMA	American Gear Manufacturer's Association
AHAM	Association of Home Appliance Manufacturers
AI	The Asphalt Institute
AIA	American Institute of Architects
AISC	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association
ANS	American Nuclear Society
ANSI	American National Standards Institute, Inc.
APA	American Plywood Association
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASA	Acoustical Society of America
ASAE	American Society of Agricultural Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers
ASPE	American Society of Plumbing Engineers
ASQC	American Society for Quality Control
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWPA	American Wood Preserves Association
AWPI	American Wood Preserves Institute
AWS	American Welding Society
AWWA	American Water Works Association
BBC	Basic Building Code, Building Officials and Code Administrators International
BHMA	Builders Hardware Manufacturers Association
CBM	Certified Ballast Manufacturers
CEMA	Conveyors Equipment Manufacturers Association
CGA	Compressed Gas Association
CLPCA	California Lathing and Plastering Contractors Association
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
DCDMA	Diamond Core Drill Manufacturers Association
DIPRA	Ductile Iron Pipe Research Association
EIA	Electronic Industries Association
ETL	Electrical Test Laboratories
HI	Hydraulic Institute

ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society
IME	Institute of Makers of Explosives
IP	Institute of Petroleum (London)
IPC	Institute of Printed Circuits
IPCEA	Insulated Power Cable Engineers Association
ISA	Instrument Society of America
ISO	International Organization for Standardization
ITE	Institute of Traffic Engineers
MBMA	Metal Building Manufacturers Association
MPTA	Mechanical Power Transmission Association
MTI	Marine Testing Institute
NAAM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NCCLS	National Committee for Clinical Laboratory Standards
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NGLI	National Grease Lubricating Institute
NMA	National Microfilm Association
NRCA	National Roofing Contractors Association
NWMA	National Woodwork Manufacturers Association
NWWA	National Water Well Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PDI	Portland and Drainage Institute
RIS	Redwood Inspection Service
RVIA	Recreational Vehicle Industry Association
RWMA	Resistance Welder Manufacturers Association
SAE	Society of Automotive Engineers
SAMA	Scientific Apparatus Makers Association
SBC	Southern Building Code Congress International, Inc. (SBCCI)
SIS	Swedish Standards Association
SJI	Steel Joint Institute
SMA	Screen manufacturers Association
SMACCNA	Sheet Metal and Air Conditioning Contractors National Association
SPR	Simplified Practice Recommendation
SSBC	Southern Standard Building Code, Southern Building Code Congress
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications of Public Works Construction
TAPPI	Technical Association of the Pulp and Paper Industry
TFI	The Fertilizer Institute
UBC	Uniform Building Code
UL	Underwriters Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WCRSI	Western Concrete Reinforcing Steel Institute
WIC	Woodwork Institute of California
WPCF	Water Pollution Control Federation
WRI	Wire Reinforcement Institute, Inc.
WWPA	Western Wood Products Association

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01152

APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to the Engineer in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.

1.02 RELATED REQUIREMENTS

- A. Agreement between Owner and Contractor consisting of an approved payment schedule by the Owner.
- B. Conditions of the Contract: Progress Payments, Retainages, Final Payment and Record Documents.

1.03 FORMAT AND DATA REQUIRED

- A. Submit applications types on forms approved by the Owner, Application for Payment, with itemized data typed on 8 ½ inch x 11 inch white paper and continuation sheets.

1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Application Form:
 - 1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
 - 2. Fill in summary of dollar values to agree with respective totals indicated on continuation sheets.
 - 3. Execute certification with signature of a responsible officer of Contract firm.
- B. Continuation Sheets:
 - 1. Fill in total list of scheduled component items of work, with item number and scheduled dollar value for each item.
 - 2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
 - a. Round off values to nearest dollar, or as specified.
 - 3. List each Change Order Number, and description, as for an original component item or work.
 - a. List by Change Order Number, and description, as for an original component item or work.

1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner or the Engineer substantiating data, Contractor shall submit suitable information, with cover letter identifying:
 - 1. Project
 - 2. Application number and date
 - 3. Detailed list of enclosures
 - 4. For stored products:
 - a. Item number and identification as shown on application.
 - b. Description of specific material.

- B. Submit one copy of data cover letter for each copy of application.
- C. As a prerequisite for payment, Contractor is to submit a "Surety Acknowledgment of Payment Request" letter showing amount of progress payment which the Contractor is requesting.
- D. The Contractor shall maintain an updated set of drawings to be used as a record drawings in accordance with Section 01720. As a prerequisite for monthly progress payments, the Contractor shall exhibit the updated record drawings for review by the Engineer.

1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

- A. Fill in Application form as specified for progress payments.
- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700 – Contract Closeout.

1.07 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to the Engineer at the times stipulated in the Agreement.
- B. Number: Five copies of each Application.
- B. When the Engineer and Owner find Application properly completed and correct, Owner will process the Application in accordance with the Agreement.

PART 2 – PRODUCTS

(NOT USED).

PART 3 – EXECUTION

(NOT USED).

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly after Award of the Contract and within ten days after the effective date of the Agreement, prepare and submit to the Engineer estimated construction progress schedules for the work, with subschedules of related activities which are essential to its progress.
- B. Submit revised progress schedules on a monthly basis.
- C. No partial payments shall be approved by the Engineer until there is an approved construction progress schedule on hand.
- D. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor's schedule.

1.02 RELATED REQUIREMENTS

- A. Project Conditions of the Contract
- B. Section 01010: Summary of Work
- C. Section 01039: Coordination and Meetings
- D. Section 01340: Submittals and Substitutions

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of a horizontal bar chart.
 - 1. Provide separate horizontal bar for each trade or operation within each structure or item.
 - 2. Horizontal time scale: In weeks from start of construction and identify the first work day of each month.
 - 3. Scale and spacing: To allow space for notations and future revisions.
 - 4. Minimum sheet size: 11-inches x 17-inches.
- B. Format of listings: The chronological order of the start of each item of work for each structure.
- C. Identification of listings: By major specification section numbers as applicable and structure.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:
 - 1. Show the complete sequence of construction by activity.
 - 2. Show the dates for the beginning of, and completion of, each major element of construction in no more that a two week increment scale. Specifically list, but not limited to:

- a. Site Clearing
 - b. Site Utilities
 - c. Subcontractor Work
 - d. Equipment Installations
 - e. Finishings
 - f. Paintings
 - g. Testing
 - h. Receipt of Spare Parts
 - i. Site Work
 - j. Record Drawings
 - k. Restoration
- 3. Show projected percentage of completion for each item, as of the first of each month.
 - 4. Show projected dollar cash flow requirements for each month of construction.
- B. Submittals Schedule for Shop Drawings, and Samples in accordance with Section 01340. Show:
 - 1. The dates for Contractor's submittals.
 - 2. The dates submittals will be required for owner furnished products, if applicable.
 - 3. The dates approved submittals will be required from the Engineer.
 - C. A list of all long lead items (equipment, materials, etc).

1.05 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedule:
 - 1. Major changes in scope.
 - 2. Activities modified since previous submission.
 - 3. Revised projections of progress and completion.
 - 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
 - 1. Problem areas, anticipated delays, and the impact on the schedule.
 - 2. Corrective actions recommended, and its effect.
 - 3. The effect of changes on schedules of other prime contractors.

1.06 SUBMISSIONS

- A. Submit initial schedules to the Engineer within 10-days after the effective date of the Agreement.
 - 1. The Engineer will review schedules and return review copy within 21-days after receipt.
 - 2. If required, resubmit within 7-days after return of review copy.
- B. Submit 5-copies of revised monthly progress schedules with that month's application for payment.

1.07 DISTRIBUTION

- A. Distribute copies of reviewed schedules to:
 - 1. Engineer (Two Copies)

2. Job Site File
3. Subcontractors
4. Other Concerned Parties
5. Owner (Two Copies)

- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedule.

PART 2 – PRODUCTS

(NOT USED).

PART 3 – EXECUTION

(NOT USED)

END OF SECTION

SECTION 01340

SUBMITTALS AND SUBSTITUTIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Make submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

1.02 RELATED SECTIONS

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
- B. Individual requirements for submittals also may be described in pertinent Sections of these Specifications.
- C. Work not included:
 - 1. Submittals which are not required will not be reviewed by the Engineer.
 - 2. The Contractor may require his subcontractors to provide drawings, setting diagrams, and similar information to help coordinate the Work, but such data shall remain between the Contractor and his subcontractors and will not be reviewed by the Engineer.

1.03 SUBMITTALS FOR REVIEW

- A. Make submittals of Shop Drawings, Samples, substitution requests, and other items in accordance with the provisions of this Section.

1.04 QUALITY ASSURANCE

- A. Coordination of submittals:
 - 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
 - 2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
 - 3. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.
- B. Substitutions:
 - 1. The Contract is based on the standards of quality established in the Contract Documents. Substitutions will be considered only after the Bidding period, up to 30 days after date of Notice to Proceed, the Engineer will consider written requests from Contractor for proposed substitutions of products. Subsequent requests will only be considered when proof is given to the Engineer of product unavailability or other condition beyond control of the Contractor.
 - 2. The following products do not require further approval except for interface within the Work:
 - a. Products specified by reference to standard specifications such as ASTM and similar standards.

- b. Products specified by manufacturer's name and catalog model number.
 - 3. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved in writing for this Work by the Engineer.
- C. "Or Equal":
- 1. Where the phrase "or equal," or "or equal as approved by the Engineer," appears in the Contract Documents, do not assume that the materials, equipment, or methods will be approved as equal unless the item has been specifically so approved for this Work by the Engineer.
 - 2. The decision of the Engineer shall be final.

PART 2 - PRODUCTS

2.01 SHOP DRAWINGS

- A. Scale and Measurements: Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
- B. Review comments of the Engineer will be shown on the shop drawings when these are returned to the Contractor. The Contractor may make and distribute such copies as are required for his purposes. The Engineer will retain at least one copy of the reviewed shop drawings; therefore, submit the number of copies that are required to be returned, plus one additional copy.

2.02 MANUFACTURER'S LITERATURE

- A. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents is being submitted for review.
- B. Submit the number of copies which are required to be returned, plus one copy which will be retained by the Engineer.

2.03 SAMPLES

- A. Provide Samples identical to the precise materials proposed to be utilized in the Work. Identify as described under "Identification of Submittals" below.
- B. Number of Samples required:
 - 1. Unless otherwise specified, submit Samples, in the quantity, which is required to be returned, plus one which will be retained by the Engineer.
 - 2. By prearrangement in specific cases, a single Sample may be submitted for review and, when approved, be installed in the Work at a location agreed upon by the Engineer.

PART 3 - EXECUTION

3.01 IDENTIFICATION OF SUBMITTALS

- A. Consecutively number all submittals.
 - 1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with a new transmittal number.
 - 2. On resubmittals, cite the original submittal number for reference.
- B. Accompany each submittal with a letter of transmittal showing all information required for

identification and checking.

- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the appropriate submittal number.
- D. Maintain an accurate submittal log for the duration of the Work, showing current status of all submittals at all times. Make the submittal log available to the Engineer for his review upon request.

3.02 GROUPING OF SUBMITTALS

- A. Unless otherwise specified, make submittals in groups containing all items associated with the particular portion of the Work to assure that all necessary information is available for checking each item when it is received.
 - 1. Partial submittals may be rejected as not complying with the provisions of the Contract.
 - 2. The Contractor may be held liable for delays so occasioned.

3.03 TIMING OF SUBMITTALS

- A. Make submittals far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and re-submittals, and for placing orders and securing delivery.
- B. In scheduling, allow at least ten working days for review by the Engineer following his receipt of the submittal.

3.04 ENGINEER'S REVIEW

- A. Review by the Engineer does not relieve the Contractor from responsibility for errors, which may exist in the submitted data.
- B. Revisions:
 - 1. Make revisions required by the Engineer.
 - 2. If the Contractor considers any required revision to be a change, he shall so notify the Engineer within ten calendar days in writing. **IF** after the review of the Engineer it is determined that the required revisions are in fact a legitimate change in work or time the procedures set forth in the General Conditions shall be followed.
 - 3. Make only those revisions directed or approved by the Engineer.
- C. Reimbursement of Engineer's costs:
 - 1. In the event substitutions are proposed to the Engineer after the Contract has been awarded, the Engineer will record all time used by him and by his consultants in evaluation of each such proposed substitution.
 - 2. Whether or not the Engineer approves a proposed substitution, the Contractor promptly upon receipt of the Engineer's billing shall reimburse the Engineer at the rate of three times the direct cost to Engineer and his consultants for all time spent by them in evaluating the proposed substitution.

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit to the Engineer a Schedule of Values allocated to the various portions of the Work, within 10-days after the effective date of the Agreement.
- B. Upon request of the Engineer, support the values with data which will substantiate their correctness.
- C. The Schedule of Values, unless objected to by the Engineer, shall be used only as the basis for the Contractor's Applications for Payment.

1.02 RELATED REQUIREMENTS

- A. General Terms and Conditions of the Contract
- B. Section 01152: Applications for Payment

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on an 8-1/2- inch x 11-inch or 8-1/2- inch x 14-inch white paper furnished by the Contractor; Contractor's standard forms and automated printout will be considered for approval by the Engineer upon Contractor's request. Identify schedule with:
 - 1. Title of Project and location
 - 2. Engineer and Project number
 - 3. Name and Address of Contractor
 - 4. Contract designation
 - 5. Date of submission
- B. Schedule shall list the installed value of the component part of the Work in sufficient detail to serve as a basis for computing values for progress payment during construction.
- C. Identify each line item with the number and title of the respective major section of the specifications.
- D. For each major line item, list sub-values of major products or operations under the item.

- E. For the various portions of the Work:
 - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials, delivered and unloaded, with taxes paid. Paid invoices are required for materials upon request by the Engineer.
 - b. The total installed value.

- F. The sum of all values listed in the schedule shall equal the total Contract Sum.

PART 2 – PRODUCTS

NOT USED

PART 3 – PRODUCTS

NOT USED

END OF SECTION

01380

CONSTRUCTION PHOTOGRAPHS

PART 1 - GENERAL

1.01 GENERAL

- A. Employ competent photographer to take construction record photographs periodically, monthly at a minimum, during course of the work.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01720: Project Record Documents.

1.03 PHOTOGRAPHY REQUIRED

- A. Provide photographs taken on cutoff date for each scheduled application for Payment.
- B. Provide photographs taken at each major stage of construction.
- C. Provide photographs taken of change order work.
- D. Provide five prints of each view.
- E. Negatives:
 - 1. Remain property of photographer.
 - 2. Require that photographer maintain negatives for a period of two years from Date of Substantial Completion of entire Project.
 - 3. Photographer shall agree to furnish additional prints to OWNER and the ENGINEER at commercial rates applicable at time of purchase.

1.04 COSTS OF PHOTOGRAPHY

- A. CONTRACTOR shall pay costs for specified photography and prints.
 - 1. Parties requiring additional photography or prints will pay photographer directly.

1.05 DIGITAL PHOTOGRAPHY

- A. At OWNER and ENGINEER's discretion, digital photography may be used for all construction photographs except aerial progress photographs.

PART 2 PRODUCTS

2.01 PRINTS

A. Color:

1. Paper: Single weight, color print paper.
2. Finish: Smooth surface, glossy.
3. Size: 8-inch x 10-inch.

B. Identify each print on back, listing:

1. Name of Project.
2. Specific Location.
3. Date and time of exposure.
4. Name and address of photographer.
5. Photographer's numbered identification of exposure.

PART 3 - EXECUTION

3.01 TECHNIQUE

A. Factual presentation.

B. Correct exposure and focus.

1. High resolution and sharpness.
2. Maximum depth-of-field.
3. Minimum distortion.

3.02 VIEWS REQUIRED

A. Photograph from locations to adequately illustrate condition of construction and state of progress.

B. Photographs shall include aerial photographs showing the entire construction area.

3.03 DELIVERY OF PRINTS

A. Deliver prints to the ENGINEER to accompany each Application for Payment.

B. Distribution of prints as soon as processed, is anticipated to be as follows:

1. OWNER (one set).
2. ENGINEER (two sets).
3. Project Record File (one set to be stored by CONTRACTOR).
4. CONTRACTOR (one set).

3.04 MEASUREMENT AND PAYMENT

- A. There shall be no special measurement or payment for the work under this section, it shall be included in the price of all other work.

END OF SECTION 01380

SECTION 01410

TESTING AND TESTING LABORATORY SERVICES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall employ and pay for the services of an Independent Testing Laboratory to perform testing as required by the Owner to verify conformity with the Contract Documents.
 - 1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
 - 2. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the Work of the Contract.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract: Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities.
- B. Testing laboratory, sampling and testing is required for, but not limited to foundations, concrete walls, concrete slabs, soil densities, and soil compaction and any materials requiring testing.

1.03 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents
 - 2. Approve or accept any portion of the Work
 - 3. Perform any duties of the Contractor
 - 4. Release reports or analysis to other than Owner, Engineer and Contractor.

1.04 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel, and provide access to Work and pay for testing.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.
- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other materials mixes which require control by the testing laboratory.
- D. Materials and equipment used in the performance of work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents. The Engineer may require the Contractor to provide statements or certificates from the manufacturers and fabricators that the materials and equipment provided by them are manufactured or fabricated in full accordance with the standard specifications for quality and workmanship indicated in the Contractor Documents. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Owner shall be allowed on account of such testing and certification.

- D. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested
 - 3. To facilitate inspections and tests
 - 4. For storage and curing of test samples
- F. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
- G. Employ and pay for the services of the same or a separate, equally qualified independent testing laboratory to perform additional inspections, sampling and testing required for the Contractor's convenience.

1.05 TESTING

- A. The Contractor shall obtain the services of a professional testing laboratory approved by the Engineer to perform the following type of tests and test frequencies. Copies of all reports are to be sent to the Engineer as soon as possible.
- B. Concrete compression-strength tests.
- C. Laboratory Proctor and LBR tests; one per material type.
- D. Density tests for any backfill at the rate of three tests per lift.
- E. Density tests for subgrade compaction.
- F. Density tests for limerock base compaction.
- G. If in the opinion of the Engineer, suitable compaction has not been achieved around structures, density tests may be required.
- H. Should the above test results indicate deficiencies, the Engineer may order additional tests at the Contractor's expense, and all reworked areas shall be re-tested at the Contractor's expense.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 PAYMENT

- A. Payment for testing shall be included in the cost for each individual pay item requiring testing as specified in the bid schedule.

END OF SECTION

01410-2

SECTION 01505

CONTROL OF WORK

PART 1 - GENERAL

1.01 QUALITY OF WORK

- A. The Contractor shall furnish personnel and equipment which will be efficient, appropriate and large enough to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Proposal. If at any time such personnel appear to the Engineer to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor shall conform to such order. Failure of the Engineer to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

- A. The Contractor shall not enter or occupy private land outside of easements, except by written permission of the private property owner.

1.03 PIPE LOCATIONS

- A. Pipeline shall be located substantially as indicated on the Drawings, but the Engineer reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.04 OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access to private property during construction shall be removed when no longer required. The length of open trench will be controlled by the particular surrounding conditions, but shall always be confined to the limits prescribed by the Engineer. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Engineer may require special construction procedures such as limiting the length of open trench, prohibiting stacking excavated material in the street, and requiring that the trench shall not remain open overnight.
- B. The Contractor shall take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be well lighted at night.

1.05 TEST PITS

- A. Test pits for the purpose of locating underground pipeline or structures in advance of the construction shall be excavated and backfilled by the Contractor at his cost at the direction of the Engineer. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Engineer.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the General Contractor and his subcontractors or trades, and shall assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching, drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Engineer.

3.02 PROTECTION OF CONSTRUCTION AND EQUIPMENT

- A. All newly constructed work shall be carefully protected from damage in any way. No wheeling or walking or placing of heavy loads on it shall be allowed and all portions damaged shall be reconstructed by the Contractor at his own expense.
- B. All structures shall be protected in a manner approved by the Engineer. Should any of the floor or other parts of the structures become heaved, cracked or otherwise damaged, all such damaged portions of the work shall be completely repaired and made good by the Contractor at his own expense and to the satisfaction of the Engineer. Special attention is directed to substructure bracing requirements described in Section 02220. If, in the final inspection of work, any defects, faults or omissions are found, the Contractor shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation for the materials and labor required. Further, the Contractor shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for at least the guarantee period described in the contract.
- C. Further, the Contractor shall take all necessary precaution to prevent damage to any structure due to water pressure during and after construction and until such structure is accepted and taken over by the Owner.

END OF SECTION

SECTION 01510

TEMPORARY UTILITIES

PART 1 GENERAL

1.01 DESCRIPTION

- A. Temporary Utilities: The Contractor shall provide for electricity, ventilation, water, and sanitary facilities as noted below. The Contractor shall furnish, install and maintain all temporary utilities during the Contract period including removal upon completion of work.

1.02 TEMPORARY ELECTRICITY

- A. Cost: Contractor to make separate arrangements with Florida Power & Light and make provisions for all electrical power needs during construction. Contractor shall make, and pay for, any modifications to the existing power service.
- B. Exercise measures to conserve energy

1.03 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.

1.04 TEMPORARY WATER SERVICE

- A. Provide, maintain and pay for suitable quality water service required for construction operations at time of project mobilization.
- B. Exercise measures to conserve water.
- C. Extend branch piping with outlets located so water is available by hoses with threaded connections.

1.05 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01520
CONSTRUCTION AIDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain required construction aids, remove on completion of Work

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work

PART 2 – PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

2.02 CONSTRUCTION AIDS

- A. Provide construction aids and equipment required by personnel and to facilitate execution of the Work; Scaffolds, staging, ladders, stairs, ramps, runways, platforms, railings, hoists, cranes, chutes and other facilities and equipment. Refer to respective sections for particular requirements for each trade.
- B. Maintain facilities and equipment in first-class condition.

2.03 TEMPORARY ENCLOSURES

- A. Provide temporary weather-tight enclosure of exterior walls for storage of materials as work progresses, as necessary to, provide weather protection for materials, and to prevent entry of unauthorized persons.
 - 1. Provide temporary exterior doors with self-closing hardware and padlocks.
 - 2. Other enclosures shall be removable as necessary for work and for handling of materials.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Consult with the Engineer, review site conditions and factors which affect construction procedures and construction aids, including adjacent properties and public facilities which may be affected by execution of the Work.

3.02 GENERAL

- A. Comply with applicable requirements specified in sections of Division 2 through 16.
- B. Relocate construction aids as required by progress of construction, by storage or work requirements, and to accommodate legitimate requirements of Owner and other contractors employed at the site.

3.03 REMOVAL

- A. Completely remove temporary materials, equipment and services:
 - 1. When construction needs can be met by use of permanent construction.
 - 2. At completion of Work.
- B. Clean and repair damage caused by installations for construction aids.
 - 1. Remove foundations and underground installations for construction aids.
 - 2. Grade areas of site affected by temporary installations to required elevations and slopes, and clean the area.
- C. Restore permanent facilities used for temporary purposes to specified condition or in kind if not specified.

END OF SECTION

SECTION 01540

SECURITY

PART 1 - GENERAL

1.01 SECTIONS INCLUDES

- A. Security Program
- B. Entry Control
- C. Personnel Identification
- D. Guard Service
- E. Miscellaneous Restrictions

1.02 RELATED SECTIONS

- A. Section 01010 – Summary of Work
- B. Section 01510 – Temporary Utilities

1.03 SECURITY PROGRAM

- A. Protect Work, existing premises and Owner's operations from theft, vandalism and unauthorized entry.
- B. Initiate program in coordination with Owner's security system at job mobilization.
- C. Maintain program throughout construction period until Owner occupancy as directed by Engineer.

1.04 ENTRY CONTROL

- A. Restrict entrance of persons and vehicles into project site existing facilities.
- B. Allow entrance only to authorized persons with proper identification.
- C. Maintain log of workmen and visitors, make available to Owner on request.
- D. Coordinate access of Owner's personnel to site in coordination with Owner's security forces.

1.05 PERSONNEL IDENTIFICATION

- A. Become familiar with Owner and Engineer representatives.
- B. Restrict access to job site to these representatives.

1.06 GUARD SERVICE

- A. When required, employ guard service to provide watchmen at site during all non-working hours, seven days a week.

PART 2 – PRODUCTS Not Used

PART 3 – EXECUTION Not Used

END OF SECTION

01540-1

SECTION 01550

MAINTENANCE OF TRAFFIC

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall furnish all equipment, supplies, personnel, labor and services to accomplish maintenance of traffic at all locations required to complete this project and as authorized by the Engineer.
- B. The intent is to maintain safe and expeditious movement of traffic around every work area where the public may be exposed to the potential hazards of the contract operations.
- C. The term "Maintenance of Traffic" as used in the contract drawings or in these Specifications shall mean the maintenance of traffic movement through and/or around any work site within a public right-of-way in a manner such as to provide minimum disruption and maximum safety to both the public and project personnel and equipment.
- D. General:
 - 1. The Contractor shall be responsible for the proper maintenance control and detour of traffic in the area of construction, during the course of construction. All traffic control and maintenance procedures shall be in accordance with the requirements of either the Florida Department of Transportation or the Owner.
 - 2. Traffic shall be maintained at all times where practical and as more particularly specified hereinafter. No traffic shall be detoured without prior knowledge and approval of the respective traffic control agency having jurisdiction. The Contractor shall notify such agencies 48-hours in advance of such time he proposes to detour traffic.
 - 3. The Contractor shall keep all law enforcement, fire protection and ambulance agencies informed, in advance, of his construction schedules, and shall notify all such agencies, 48-hours in advance, in the event of detour of any roadway.
 - 4. All traffic control signs and devices, barricades, flashers, flambeaus and similar devices shall be furnished and maintained by the Contractor.
 - 5. Excavated or other material stored adjacent to or partially upon a roadway pavement shall be adequately marked for traffic and pedestrian safety at all times. Necessary access to adjacent property shall be provided at all times.
 - 6. The work shall be conducted in a manner to cause the least possible interruption to traffic. Where traffic must cross excavations, the Contractor shall provide suitable bridges at street intersections and driveways.
- E. Traffic Lanes:
 - 1. At least one lane of traffic shall be maintained at all times; coordination is required with the Owner and all applicable governmental agencies, within their respective area of jurisdiction.
 - 2. In the event the Contractor must detour or close off residential street traffic, he shall submit a plan (or field sketch) for approval depicting a method of providing one way operation or run-around detour route to the respective traffic agency having jurisdiction a minimum of five days prior to any street closing.

F. BARRICADES AND PROTECTION OF WORK

1. The Contractor shall protect his work throughout its length by the erection of suitable barricades and handrails, where required. He shall further indicate this work at night by the maintenance of suitable lights or flares, especially along or across through-fares. Wherever it is necessary to cross a public walk, he shall provide suitable safe walkways with hand railings. He shall also comply with all laws or ordinances covering the protection of such work and the safety measures to be employed therein. The Contractor shall carry out his work so as not to deny access to private property. All utility access manholes, valves, fire hydrants and letter boxes shall be kept accessible at all times.
2. No trenches or holes near walkways, in roadways or road shoulders are to be left open during night hours without the permission of the Owner.

1.2 QUALITY ASSURANCE

- A. Maintenance of Traffic in the public rights-of-way shall be in strict accordance with the manual of uniform traffic control devices (M.U.T.C.D.).
- B. Maintenance of Traffic on F.D.O.T. roads shall be as indicated on the contract drawings and as specified in F.D.O.T. index 600.
- C. All traffic control and warning devices so specified; which are not on F.D.O.T. roadways, shall unless otherwise specified by the Department of Traffic and Transportation, be furnished, installed according to the Owner Public Works Manual, and maintained by the Contractor involved.
- D. The traffic control and safety plan shall be submitted to the Owner for approval and shall be furnished by the Contractor without cost to the Owner. The Contractor is required to retain the services of the Owner Officers for the supervision, as required. Further, any and all additional traffic measures deemed necessary by such offices shall be carried out by the Contractor without cost to the Owner.

1.3 ADDITIONAL REQUIREMENTS

- A. All open trenches and holes adjacent to roadway or walkways shall be properly marked and barricaded to assure the safety of both vehicular and pedestrian traffic.
- B. No trenches or holes near walkways, in roadways or their shoulders are to be left open during night-time hours without express permission of the Owner, Public Works Department, and the Engineer, in writing. Trenches shall be backfilled or covered with steel plates and spiked.
- C. Flagmen will be used during this project when traffic is reduced to single lanes or special detours are employed. Only certified flaggers will be accepted, in accordance with the M.U.T.C.D.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION (Not Used)

END OF SECTION

SECTION 01560

TEMPORARY CONTROLS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Temporary Controls to protect the Work during construction and until final acceptance of the Work.

1.02 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas to allow for Owners use of site, and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- B. Provide protection for plant life designated to remain. Replace damaged plant life.
- C. Protect vehicular traffic, stored materials, site, and structures from damage.

1.03 FENCING

- A. Provide commercial grade chain link fence or other similar type fencing as needed to protect work.
- B. If required in the plans, provide 4 foot high fence around construction site; equip with vehicular gates with lock

1.04 DRAINAGE CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water.

1.05 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual Sections of these Specifications.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. If traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material

manufacturer.

- F. Prohibit traffic from landscaped areas.

1.06 SECURITY

- A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.
- B. Coordinate with Owners security program.

1.07 DUST CONTROL

- A. Execute Work by methods to minimize dust generation from construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere.

1.08 EROSION AND SEDIMENT CONTROL

- A. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas. Prevent erosion and sedimentation.
- B. Minimize amount of bare soil exposed at one time.
- C. Provide temporary measures as needed to prevent water flow into the Work.
- D. Construct fill and waste areas by selective placement to avoid erosive surface silts or clays.
- E. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

1.09 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise from noise produced by construction operations.

1.10 POLLUTION CONTROL

- A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01570

TRAFFIC REGULATIONS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide, operate and maintain equipment, services and personnel, with traffic control and protective devices, as required to expedite vehicular traffic flow on haul routes, at site entrances, on-site access roads, and parking areas.
- B. Remove temporary equipment and facilities when no longer required, restore grounds to original, or specified conditions.

1.02 RELATED REQUIREMENTS

- A. All applicable sections of the Specifications.
- B. Conditions of the Contract.

1.03 TRAFFIC SIGNALS AND SIGNS

- A. Provide and operate traffic control and directional signals or signs required to direct and maintain an orderly flow of traffic in all areas under CONTRACTOR's control, or affected by CONTRACTOR's operations.

1.04 FLAGPERSON

- A. Provide qualified and suitably equipped flagperson when construction operations encroach on traffic lanes, as required for regulation of traffic.

1.05 FLARES AND LIGHTS

- A. Provide flares and lights during periods of low visibility:
 - 1. To clearly delineate traffic lanes and to guide traffic
 - 2. For use of flagperson in directing traffic
- B. Provide illumination of critical traffic and parking areas.
 - 1. Maintain free vehicular access to and through parking areas.
 - 2. Prohibit parking on or adjacent to access roads, or in non-designated areas.

1.06 HAUL ROUTES

- A. Consult with OWNER and governing authorities, establish public thoroughfares which will be used as haul routes and site access.
- B. Confine construction traffic to designated haul routes.

- C. Provide traffic control at critical areas of haul routes to expedite traffic flow, to minimize interference with normal public traffic.

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. There shall be no special measurement and payment for work under the section, it shall be included in the lump sum price bid for Maintenance of Traffic.

END OF SECTION 01570

**SECTION 01580
PROJECT IDENTIFICATION AND SIGNS**

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain project identification sign(s).
- B. Provide temporary on-site informational signs to identify key elements of construction facilities.
- C. Remove signs on completion of construction.
- D. Allow no other signs to be displayed.

1.02 RELATED REQUIREMENTS

- A. All applicable sections of the Specifications.
- B. Conditions of the Contract.

1.03 PROJECT IDENTIFICATION SIGN

- A. One painted sign, of not less than 18 square feet area per the Project Identification Sign Detail shown in the Construction Plans, with painted graphic content to include:
 - 1. The phrase "YOUR TAX DOLLARS WORKING FOR YOU"
 - 2. Title of project.
 - 3. Name of Funding Source(s)
 - 4. Names and titles of:
 - a. Mayor.
 - b. Council Members.
 - 2. Name of OWNER.
- B. Graphic design, style of lettering, and colors: As designated by CITY.
- C. Erect on the site at a lighted location of high public visibility, adjacent to main entrance to site, as approved by CITY.

1.04 INFORMATIONAL SIGNS

- A. Painted signs and painted lettering, or standard products.

1. Size of signs and lettering: As required by regulatory agencies, or as appropriate to usage.
 2. Colors: As required by regulatory agencies, otherwise of uniform colors throughout project.
- B. Erect at appropriate locations to provide required information.

1.05 QUALITY ASSURANCE

- A. Sign Painter: Professional experience in type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading for scheduled construction period.

PART 2 - PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: May be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
 1. Thickness: As required by standards to span framing members, to provide even, smooth surface without wave or buckles.
- C. Rough Hardware: Galvanized
- D. Paint: Exterior quality.
 1. Use Bulletin colors for graphics.
 2. Colors for structure, framing, sign surfaces and graphics: As selected by CITY.

PART 3 - EXECUTION

3.01 PROJECT IDENTIFICATION SIGN

- A. Paint exposed surfaces of supports, framing and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, sizes and colors selected.
- C. Location as specified by CITY or CITY's Representative.

3.02 INFORMATIONAL SIGNS

- A. Paint exposed surfaces: One coat of primer and one coat of exterior paint.

- B. Paint graphics in styles, sizes and colors selected.
- C. Install at a height for optimum visibility, on ground-mounted poles or attached to temporary structural surfaces.

3.03 MAINTENANCE

- A. Maintain signs and supports in a neat, clean condition; repair damages to structure, framing or sign.
- B. Relocate informational signs as required by progress of the work.

3.04 REMOVAL

- A. Remove signs, framing, supports and foundations at completion of project.

3.05 MEASUREMENT AND PAYMENT

- A. There shall be no special measurement or payment for the work under this section, it shall be included in the lump sum price bid for mobilization.

END OF SECTION 01580

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.

1.03 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
 2. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 3. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
 4. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 5. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.04 SUBMITTALS

- A. Product List: Prepare a list showing products specified in tabular form acceptable to the Engineer. Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
 1. Coordinate product list with the Contractor's Construction Schedule and the Schedule of Submittals.
 2. Form: Prepare product list with information on each item tabulated under the following column headings:
 - a. Related Specification Section number.

- b. Generic name used in Contract Documents.
 - c. Proprietary name, model number, and similar designations.
 - d. Manufacturer's name and address.
 - e. Supplier's name and address.
 - f. Installer's name and address.
 - g. Projected delivery date or time span of delivery period.
3. Initial Submittal: Within 30-days after date of commencement of the Work, submit 3-copies of an initial product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.
 - a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.
 4. Completed List: Within 60-days after date of commencement of the Work, submit 3-copies of the completed product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.
 5. Engineer's Action: The Engineer will respond in writing to Contractor within two weeks of receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with Contract Documents. The Engineer's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.05 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the Engineer to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producing products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project; the product selected shall be compatible with products previously selected, even if previously selected products were also options.
 1. Each sub-contractor is responsible for providing products and construction methods that are compatible with products and construction methods of other sub-contractors.
 2. If a dispute arises between sub-contractors over concurrently selectable, but incompatible products, the Engineer will determine which products shall be retained and which are incompatible and must be replaced.
- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:
 1. No available domestic product complies with the Contract Documents.
 2. Domestic products that comply with the Contract Documents are available only at prices or terms substantially higher than foreign products that comply with the Contract Documents.
- D. Locate Labels and Nameplates according to the following:

1. Labels: Locate required product labels and stamps on accessible surfaces that are not conspicuous.
2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
 6. Store heavy materials away from the immediate Project area in a manner that will not endanger the supporting construction.
 7. Store products subject to damage by the elements above ground, under cover in a weather-tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 - PRODUCTS

2.01 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
 1. Provide products complete with accessories, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: The Contract Documents and Specifications govern product selection. Procedures governing product selection include the following:

1. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
2. Semi-proprietary Specification Requirements: Where Specifications name two or more products or manufacturers, provide one of the products indicated. No substitutions will be permitted.
 - a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
3. Nonproprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.
 - a. Manufacturer's recommendations may be contained in published product literature or by the manufacturer's certification of performance.
6. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.
7. Visual Matching: Where Specifications require matching an established Sample, the Engineer's decision will be final on whether a proposed product matches satisfactorily.
 - a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.
8. Visual Selection: Where specified product requirements include the phrase "... as selected from manufacturer's standard colors, patterns, textures ..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Engineer will select the color, pattern, and texture from the product line selected.

PART 3 - EXECUTION

3.01 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
- B. Install all equipment as indicated in the Contract Documents, and according to the manufacturer's recommendation to assure proper alignment and operation.

END OF SECTION

SECTION 01640

PRODUCT HANDLING

PART 1 GENERAL

1.01 DESCRIPTION

- A. General: Protect products scheduled for use in the Work by means including, but not necessarily limited to, those described in this Section.
- B. Related Work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions and Sections in Division 1 of the Specifications.
 - 2. Additional procedures also may be prescribed in other Sections of these Specifications.

1.02 QUALITY ASSURANCE

- A. Include within the Contractor's quality assurance program such procedures as are required to assure full protection of all work and materials.

1.03 MANUFACTURER'S RECOMMENDATIONS

- A. Except as otherwise approved by the Engineer determine and comply with manufacturer's recommendations on product handling, storage, and protection.

1.04 PACKAGING

- A. Deliver products to the job site in their manufacturer's original packaging with labels intact and legible.
 - 1. Maintain packaged materials with seals unbroken and labels intact until time of use.
 - 2. Promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements at no additional cost to the Owner.
- B. The Engineer may reject as non-complying such material and products that do not bear identification satisfactory to the Engineer as to manufacturer, grade, quality, and other pertinent information.

1.05 PROTECTION

- A. Protect all finished work, including access lids or hatches, and other structure openings through which equipment and materials are handled.
- B. Maintain finished surfaces clean, unmarred, and suitably protected until accepted by the Owner.

1.06 REPAIRS AND REPLACEMENTS

- A. In the event of damage, promptly make replacements or repairs to the approval of the Engineer and at no additional cost to the Owner.
- B. Additional time required to secure replacements and to make repairs will not be considered by the Engineer to justify an extension in the Contract Time of Completion.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01700

PROJECT CLOSE OUT

PART 1 GENERAL

1.01 DESCRIPTION

- A. Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the work.
- B. The items listed in this Section shall not be considered as a complete listing and shall in no way limit requirements that may be stated in other parts of the Contract Documents, but rather should be considered as an aid in preparing for final inspection and project close out.

1.02 RELATED REQUIREMENTS

- A. All applicable sections of the Specifications.
- B. Conditions of the Contract.

1.03 SUBSTANTIAL COMPLETION

- A. When CONTRACTOR considers the work is substantially complete, CONTRACTOR shall submit to OWNER's Representative.
 - 1. A written notice that the work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, OWNER's Representative and ENGINEER will make an inspection to determine the status of completion.
- C. Should OWNER's Representative determine that the work is not substantially complete:
 - 1. OWNER's Representative will promptly notify the CONTRACTOR in writing, giving the reasons therefore.
 - 2. CONTRACTOR shall remedy the deficiencies in the work, and send a second written notice of substantial completion to the OWNER's Representative.
 - 3. OWNER's Representative and ENGINEER will reinspect the work.
- D. When OWNER's Representative and ENGINEER concur that the work is substantially complete, OWNER's Representative will:
 - 1. Prepare a Certificate of Substantial Completion form accompanied by CONTRACTOR's list of items to be completed or corrected, as verified and amended by the OWNER's Representative.
 - 2. Submit the Certificate to the OWNER and the CONTRACTOR for their written acceptance of the responsibilities assigned to them in the Certificate.

1.04 FINAL INSPECTION

- A. When CONTRACTOR considers the work is complete, CONTRACTOR shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. Equipment and systems have been tested in the presence of the OWNER's Representative and are operational.
 - 5. Work is completed and ready for final inspection.
- B. OWNER's Representative and ENGINEER will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should OWNER's Representative and ENGINEER consider that the work is incomplete and defective:
 - 1. OWNER's Representative will promptly notify the CONTRACTOR, in writing, listing the incomplete or defective work.
 - 2. CONTRACTOR shall take immediate steps to remedy the stated deficiencies, and send a second written certification to OWNER's Representative that the work is complete.
 - 3. OWNER's Representative and ENGINEER will reinspect the work.
- D. When the OWNER's Representative find that the work is acceptable under the Contract Documents, CONTRACTOR shall request the CONTRACTOR to make closeout submittals.

1.05 REINSPECTION FEES

- A. Should OWNER's Representative perform re-inspections due to failure of the work to comply with the claims of status of completion made by the CONTRACTOR:
 - 1. OWNER will compensate OWNER's Representative and ENGINEER for such additional services.
 - 2. OWNER will deduct the amount of such compensation from the final payment to the CONTRACTOR.

1.06 CONTRACTOR'S CLOSEOUT SUBMITTALS TO OWNER'S REPRESENTATIVE

- A. Evidence of compliance with requirements of governing authorities.
 - 1. Certificate of Occupancy.
 - 2. Certificates of Inspection.

- (a) Mechanical
- (b) Electrical
- (c) Other, as may be required.

- B. Project Record Documents: To requirements of Section 01720.
- C. Warranties and Bonds: To requirements of Section 01740.
- D. Evidence of Payment and Release of Liens: To requirements of General and Supplementary General Conditions.
- E. Certificate of Insurance for Products and Completed Operations.

1.07 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to OWNER's Representative.
- B. Statement shall reflect all adjustments to the Contract Sum:

- 1. The original Contract Sum.
- 2. Additions and deductions resulting from:
 - (a) Previous Change Orders.
 - (b) Allowances.
 - (c) Unit Prices.
 - (d) Deductions for uncorrected work.
 - (e) Penalties and Bonuses.
 - (f) Deductions for liquidated damages.
 - (g) Deductions for re-inspection payments.
 - (h) Other adjustments.
- 3. Total Contract Sum, as required.
- 4. Previous payments.
- 5. Sum remaining due.

- C. OWNER's Representative will prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.08 FINAL APPLICATION FOR PAYMENT

- A. CONTRACTOR shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

SECTION 01710

CLEANING

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Execute cleaning, during progress of the Work, and at completion of the Work, as required by General Conditions.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract.
- B. Each Specification Section: Cleaning for specific Products or work.

1.03 DISPOSAL REQUIREMENTS

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations, and anti-pollution laws.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Use only equipment and cleaning materials which will not create hazards to health or property and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by the manufacturer, installer or engineer for all materials and areas to be cleaned.

PART 3- EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute periodic cleaning to keep the Work, the site and adjacent properties, free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris and rubbish.
- C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished.

- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly-coated surfaces.
- C. Site work to be kept dust free by watering with use of water truck daily as needed. Engineer shall direct the Contractor as necessary.

3.03 FINAL CLEANING

- A. Employ skilled workmen for final cleaning.
- B. All areas adjacent to project shall be re-established to equal or better conditions than was existing prior to construction. As a minimum, the contractor shall replace all sod, plants, shrubs and irrigation damaged during construction.
- C. The City and Engineer shall have final approval of site cleanup and shall direct contractor during punch list inspections to make all necessary repairs.

END OF SECTION

DOCUMENT 01720

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintain at the site for Owner review one record copy of:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other Modifications to the Contract
 - 5. Engineer's Field Orders or Written Instructions
 - 6. Approved Shop Drawings, Working Drawings, and Samples
 - 7. Field Test Reports

1.02 RELATED REQUIREMENTS

- A. Section 01340: Submittals and Substitutions
- B. Section 01700: Project Closeout

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
- B. File documents and samples in accordance with CSI format number system.
- C. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the Engineer.
- E. As a prerequisite for monthly progress payments, the Contractor is to exhibit the currently updated "record documents" for review by the Engineer and the Owner.

1.04 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress.
- C. Drawings; Legibly mark record actual construction:
 - 1. Field changes of dimensions and details.
 - 2. Changes made by Field Order or by Change Order.
 - 3. Details not on original contract drawings.

- D. Specifications and Addenda; legibly mark 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 field order or by Change Order.
- E. Shop Drawings (after final review and approval):
 - 1. One set of record shop drawings for each process equipment, piping, (including casings) electrical system and instrumentation system.
- F. Certified site survey and line elevations, and stationing at increments by registered surveyor.

1.05 SUBMITTAL

- A. At close-out, deliver Record Documents to the Engineer for the Owner.
- B. Accompany submittal with transmittal letter in duplicate, containing:
 - 1. Date
 - 2. Project Title and Number
 - 3. Contractor's Name and Address
 - 4. Title and Number of each Record Document
 - 5. Signature of Contractor or his Authorized Representative

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

(Not Used)

END OF SECTION

SECTION 01740

WARRANTIES AND BONDS

PART 1 -GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds.
- B. Co-execute submittals when so specified.
- C. Review submittals to verify compliance with Contract Documents.
- D. Submit to the Engineer for review and transmittal to Owner.

1.02 RELATED REQUIREMENTS

- A. Instructions to Bidders: Bid Bonds
- B. Conditions of the Contract: Performance Bond and Payment Bond
- C. Section 01700: Project Closeout

1.03 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bond, service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item
 - 2. Firm, with name of principal, address and telephone number
 - 3. Scope
 - 4. Date of beginning of Warranty, bond or service and maintenance contract
 - 5. Duration of warranty, bond or service maintenance contract
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure
 - b. Instances which might affect the validity of warranty or bond
 - 7. Contractor, name of responsible principal, address and telephone number

1.03 FORM OF SUBMITTALS

- A. Prepare in duplicate packets

- B. Format:
 - 1. Size 8 ½-inches x 11-inches, punch sheets for standard 3-post binder
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
 - a. Title of Project
 - b. Name of Contractor
- C. Binders: Commercial quality, three-post binder, with durable and cleanable plastic covers and maximum post width of 2-inches.

1.04 WARRANTY SUBMITTAL REQUIREMENTS

- A. For all major pieces of equipment, submit a 1-year warranty from the equipment manufacturer. The manufacturer's warranty period shall be concurrent with the Contractor's for 1- year commencing at the time of acceptance by the Owner.
- B. The Contractor shall be responsible for obtaining certificates for equipment warranty for all major equipment specified under Division 15 and which has a 1/4 HP motor or which lists for more than \$500. The Engineer reserves the right to request warranties for equipment not classified as major. The Contractor shall still warrant equipment not considered to be "major" in the Contractor's 1-year warranty period even though certificates of warranty may not be required.
- C. In the event that the equipment manufacturer or supplier is unwilling to provide a 1-year warranty commencing at the time of Owner acceptance, the Contractor shall obtain from the manufacturer a 2-year warranty commencing at the time of equipment delivery to the job site. This 2-year warranty from the manufacturer shall not relieve the Contractor of the one-year warranty starting at the time of Owner acceptance of the equipment.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 02010
SUBSURFACE INVESTIGATION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. All applicable provisions of the bidding and Contract Requirements, and Division 1 - General Requirements shall govern the work under this Section.

1.02 WORK INCLUDED

- A. Provide all labor, materials, necessary equipment and services to complete the subsurface investigation work, as indicated on the drawings, as specified herein or both.
- B. The subsurface investigation for conditions of the project site is the sole responsibility of the CONTRACTOR. In preparing the Proposal, the CONTRACTOR shall make all subsurface or surface investigations necessary to provide proper background and knowledge to determine the nature and extent of work required.
- C. OWNER or OWNER's Representative has provided subsurface information at the end of this section, and makes no warranties or guarantees concerning the nature of materials to be encountered on the site.

1.03 RELATED WORK

- A. Section 02110 – Clearing and Grubbing.
- B. Section 02200 - Earthwork.
- C. Section 02720 - Storm Drainage Facilities.
- D. All applicable sections under Divisions 1, 2, and 3.

1.04 MEASUREMENT AND PAYMENT

- A. There shall be no special measurement or payment for the work under this section, it shall be included in the lump sum price bid for mobilization.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END SECTION 02010