

# AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE      PAGE OF PAGES  
1      1

2. AMENDMENT/MODIFICATION NO. 0002	3. EFFECTIVE DATE 17-Sep-2001	4. REQUISITION/PURCHASE REQ. NO. W32CS5-1121-7581	5. PROJECT NO.(If applicable)
6. ISSUED BY USA ENGINEER DISTRICT, JACKSONVILLE 400 WEST BAY STREET CESAJ-CT (ROOM 867) JACKSONVILLE FL 32202-4412	CODE DACW17	7. ADMINISTERED BY (If other than item 6)      CODE  <b style="text-align: center;">See item 6</b>	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)	X	9A. AMENDMENT OF SOLICITATION NO. DACW17-01-B-0011
CODE	X	9B. DATED (SEE ITEM 11) 16-Jul-2001
FACILITY CODE		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)

**11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer  is extended,  is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods:  
 (a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted;  
 or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. **FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER.** If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.  
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

CENTRAL AND SOUTHERN FLORIDA ECOSYSTEM, CRITICAL PROJECT RESTORATION, WESTERN C-11 BASIN PHASE 2, SPILLWAY 381, BROWARD COUNTY, FLORIDA.

THE BID OPENING DATE IS CHANGED FROM 9/18/01 AT 14:00 TO 9/27/01 AT 14:00.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)	17-Sep-2001

EXCEPTION TO SF 30  
APPROVED BY OIRM 11-84

30-105-04

STANDARD FORM 30 (Rev. 10-83)  
Prescribed by GSA  
FAR (48 CFR) 53.243

SF 30 CONTINUATION SHEET

SPECIFICATIONS:

The following changes have been made:

SECTION 00010 -

Page 00010-1. Item 13.A: Bid Opening Date has been changed.

Page 00010-4 (Bid Schedule): Line Item No. 10 has been deleted.

Pages 00010-5 thru 00010-7 (Wage Rates): These pages have been replaced in their entirety.

SECTION 01330 -

APPENDIX B (Submittal Register): Additional submittal has been added for Section 01410; therefore, the Submittal Register has been replaced in its entirety.

The following sections have also been revised. All changes to these sections have been made as follows: Insertions are underlined; deletions are crossed out. The Tables of Contents have been revised to reflect the changes, if applicable.

SECTION 01270.

SECTION 01410. (Appendices have not changed)

SECTION 01411.

DRAWINGS:

Sheet 6/2, Zone D-4: Delete Note "Note: Top Seal Not Shown For Clarity, For Details See Dwg".

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. DACW17-01-B-0011	2. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 02-Aug-2001	PAGE OF PAGES 1 OF
	<b>IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.</b>			

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO. W32CS5-1121-7581	6. PROJECT NO.
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7. ISSUED BY USA ENGINEER DISTRICT, JACKSONVILLE 400 WEST BAY STREET CESAJ-CT (ROOM 867) JACKSONVILLE FL 32202-4412	CODE DACW17	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> IF BY HAND, DELIVER TO "ISSUED BY" USAED JACKSONVILLE, P.O. BOX 4970, ATTN: CESAJ-CT JACKSONVILLE FL 32232-0019	CODE DACW17
TEL:	FAX:	TEL:	FAX:

9. FOR INFORMATION CALL:	A. NAME BARBARA V BYAM	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> 904-232-1120
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**SOLICITATION**

**NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".**

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

CENTRAL AND SOUTHERN FLORIDA ECOSYSTEM, CRITICAL PROJECT RESTORATION, WESTERN C-11 BASIN PHASE 2, SPILLWAY 381, BROWARD COUNTY, FLORIDA

Drawing D.O. File No. 402-38,198 dated April 2001

Description of Work: See attached page 00010-3  
Magnitude of construction is between \$1,000,000.00 and \$5,000,000.00.  
THIS PROCUREMENT IS 100% SET-ASIDE FOR SMALL BUSINESS CONCERN. ALL SMALL BUSINESS CONCERNS ARE ENCOURAGED TO SUBMIT A BID.

YOU MUST BE REGISTERED IN THE CENTRAL CONTRACTOR REGISTRATION IN ORDER TO BE ELIGIBLE TO RECEIVE AN AWARD FROM THIS SOLICITATION. CALL 1-888-227-2423 FOR MORE INFORMATION.

11. The Contractor shall begin performance within 30 calendar days and complete it within 365 calendar days after receiving  award,  notice to proceed. This performance period is  mandatory,  negotiable. *(See Section 00800 \_\_\_\_\_ .)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 10
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 14:00:00 (hour) local time 9/27/01 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee  is,  is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

**SOLICITATION, OFFER, AND AWARD (Continued)**

*(Construction, Alteration, or Repair)*

**OFFER (Must be fully completed by offeror)**

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*

15. TELEPHONE NO. *(Include area code)*

16. REMITTANCE ADDRESS *(Include only if different than Item 14)*

**See Item 14**

CODE

FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within \_ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS

SEE SCHEDULE OF PRICES

18. The offeror agrees to furnish any required performance and payment bonds.

**19. ACKNOWLEDGMENT OF AMENDMENTS**

*(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)*

AMENDMENT NO.

DATE

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

20B. SIGNATURE

20C. OFFER DATE

**AWARD (To be completed by Government)**

21. ITEMS ACCEPTED:

**SEE SCHEDULE**

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)*

**ITEM 26**

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO  
 10 U.S.C. 2304(c)  41 U.S.C. 253(c)

26. ADMINISTERED BY  
SOUTH FLORIDA AREA OFFICE  
U.S. ARMY CORPS OF ENGINEERS  
4400 PGA BLVD., SUITE 203, CESAJ-C0-W  
PALM BEACH GARDENS, FL 33410

CODE

27. PAYMENT WILL BE MADE BY  
USACE FINANCE CENTER  
5722 INTEGRITY DRIVE, CEFC-A0-P  
MILLINGTON, TENN 38054-5005

CODE

**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE**

28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return \_\_\_\_\_ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

29. AWARD *(Contractor is not required to sign this document.)*  
Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*

31A. NAME OF CONTRACTING OFFICER *(Type or print)*

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA  
BY

31C. AWARD DATE

DESCRIPTION OF WORK:

Work includes the construction of a two-bay spillway with vertical lift-gates, needle dams and service bridge, intake and discharge basins, control house, with a LPG-driven generator for backup power and infrastructure to accommodate a manatee protection system. Site work includes paving, fencing, graded and sodded areas, bypass canal and disposal area. Electrical work includes services for the vertical lift gates and communication equipment.

## SECTION 00010

## SUPPLIES OR SERVICES AND PRICES/COSTS

WESTERN C-11 BASIN, PHASE 2  
SPILLWAY 381

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
0001	Earth Work	1	Lump Sum		\$_____.
0002	Diversion Canal	1	Lump Sum		\$_____.
0003	Cofferdam	1	Lump Sum		\$_____.
0004	Spillway Structure	1	Lump Sum		\$_____.
0005	Pre-Fabricated Concrete Control Building	1	Lump Sum		\$_____.
0006	Sheetpile (Wingwalls)	1	Lump Sum		\$_____.
0007	Mechanical	1	Lump Sum		\$_____.
0008	Electrical Utilities	1	Lump Sum		\$_____.
0009	Site Improvements	1	Lump Sum		\$_____.
0010	DELETED				
0011	Tremie Concrete	1,800	Cubic Yard	\$_____.	\$_____.
TOTAL BID (LINE ITEMS 0001 THRU 0011)					

NOTE: ALL BIDS MUST BE FOR THE ENTIRE WORK AND MUST HAVE EACH BLANK SPACE COMPLETED

FAILURE TO COMPLETE AND RETURN ALL REQUIRED SUBMISSIONS (SF-1442, SECTION 00010 AND SECTION 00600) COULD RENDER YOUR BID NONRESPONSIVE

SEE SECTION 00100, "INSTRUCTIONS, CONDITIONS AND NOTICE TO BIDDERS."

**General Decision Number FL010032**

General Decision Number **FL010032**  
 Superseded General Decision No. FL000032

State: **Florida**  
 Construction Type:  
 HEAVY

County(ies):  
 BROWARD                    LEE                                    ST LUCIE  
 COLLIER                    MARTIN  
 DADE                        PALM BEACH

HEAVY CONSTRUCTION PROJECTS (Excluding Sewer & Water Lines)

Modification Number	Publication Date
0	03/02/2001
1	03/16/2001
2	05/25/2001
3	06/01/2001
4	07/06/2001
5	09/07/2001

COUNTY(ies):  
 BROWARD                    LEE                                    ST LUCIE  
 COLLIER                    MARTIN  
 DADE                        PALM BEACH

CARP1026D	02/01/1998		
		Rates	Fringes
PILEDRIVERMEN		17.75	3.85

ELEC0323C	09/05/1993		
		Rates	Fringes
MARTIN, PALM BEACH, AND ST LUCIE COUNTIES			
ELECTRICIANS		15.88	21.5%

* ELEC0349B	09/01/2001		
		Rates	Fringes
DADE COUNTY			
ELECTRICIANS:			
Electrical contracts including			
materials that are less than			
\$2,000,000		20.50	3.10+8%
Electrical contracts including			
materials that are \$2,000,000			
and over		22.96	3.10+8%

ELEC0728A	09/01/2000		
		Rates	Fringes
BROWARD AND COLLIER COUNTIES			
ELECTRICIANS		22.96	3%+5.43

ELEC0915B 12/01/2000

	Rates	Fringes
LEE COUNTY		
ELECTRICIANS	20.09	27%+.25
-----		
ENGI0487B 04/01/2001		
DADE COUNTY		
POWER EQUIPMENT OPERATORS:		
Backhoes, Bulldozers	17.95	3.40
Cranes	21.38	3.40
Oilers	15.80	3.40
-----		
ENGI0487C 07/01/2001		
BROWARD, COLLIER, LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
POWER EQUIPMENT OPERATORS:		
All Tower Cranes and all Cranes with boom length 150 ft and over	21.64	5.50
Cranes with boom length less than 150 ft, Backhoes, and Bulldozers	20.92	5.50
Oilers	17.69	5.50
-----		
PLUM0630A 07/01/2001		
LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
PIPEFITTERS	25.56	5.66
-----		
PLUM0725B 01/16/2001		
BROWARD AND DADE COUNTIES		
PIPEFITTERS	23.10	5.90
-----		
SUFL2016A 01/26/1990		
CARPENTERS	12.71	2.71
CEMENT MASONS	10.50	
LABORERS	5.72	
POWER EQUIPMENT OPERATORS:		
Loaders	11.25	2.55
-----		
WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.		
=====		
Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).		
-----		
In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.		

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01270

MEASUREMENT AND PAYMENT

**02/94**

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

- 1.1.1 Earth Work
- 1.1.2 Diversion Canal
- 1.1.3 Cofferdam
- 1.1.4 Spillway Structure
- 1.1.5 Pre-Fabricated Concrete Control Building
- 1.1.6 Sheet Pile (Wing Walls)
- 1.1.7 Mechanical
- 1.1.8 Electrical Utilities
- 1.1.9 Site Improvements

1.2 UNIT PRICE PAYMENT ITEMS

- 1.2.1 Tremie Seal
  - 1.2.1.1 Payment
  - 1.2.1.2 Measurement
  - 1.2.1.3 Unit of Measure

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section Table of Contents --

## SECTION 01270

MEASUREMENT AND PAYMENT  
02/94

## PART 1 GENERAL

## 1.1 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

## 1.1.1 Earth Work

Payment will be made for actual costs associated with blasting, safety barrier, temporary floating turbidity barrier, clearing and grubbing, excavation for diversion canal, temporary riprap, spoil site/dewatering, and earthen work platform (compacted backfill).

## 1.1.2 Diversion Canal

Payment will be made for costs associated with furnishing and installing sheet pile walls for the diversion canal. Payment shall cover all cost of furnishing, handling, storing and installing piling including placing, driving, cutting holes and other materials, and work incident thereto. Miscellaneous materials needed for complete installation shall be considered incidental to sheet pile walls and separate payment will not be made.

## 1.1.3 Cofferdam

Payment will be made for costs associated with the design of the Contractor's selected cofferdam systems, excavation, furnishing and installing sheet piling, concrete seals (excluding tremie concrete under unit price payment items) as required, wales, struts, safety handrails, stairs, and other miscellaneous items required to complete sheet piling cofferdam. Payment shall cover all costs of furnishing, handling, storing and installing piling including placing, driving, and other materials and work incident thereto.

## 1.1.4 Spillway Structure

Payment will be made for costs associated with the construction of the spillway structure, including but not necessarily limited to rock anchors, rock anchor test, dewatering, reinforced concrete foundation slab, reinforced concrete training walls, reinforced concrete center pier, reinforced concrete ogee weir, reinforced concrete bridge, reinforced concrete columns, reinforced operating platform, metal inserts, two (2) -

23.0' (clear opening) x 10.8' - steel gates and two (2) needle beams.

#### 1.1.5 Pre-Fabricated Concrete Control Building

Payment will be made for costs associated with the furnishing and installing pea gravel and limerock foundation layers, pre-fabricated concrete building, concrete sidewalks and ramp, door frames, louvers and other inserts, doors and hardware and exhaust fans.

#### 1.1.6 Sheet Pile (Wing Walls)

Payment will be made for costs associated with the furnishing and installing of coated steel sheet pile wing walls with "king" piles, and required backfill material. Payment shall cover all cost of furnishing, handling, storing and installing steel sheet piles, king piles and other materials and work incident thereto, removal of cofferdam and south wall of diversion canal, cutting of north wall of diversion canal, and placement and compaction of backfill. Miscellaneous materials needed for complete installation shall be considered incidental and separate payment will not be made.

#### 1.1.7 Mechanical

Payment will be made for costs associated with completing the mechanical work including furnishing and installing LP gas tank, piping and foundation, operating mechanisms for two (2) gates, structural steel supports for operating mechanisms, operating mechanisms for two (2) gates, and steel covers for two (2) operating mechanisms.

#### 1.1.8 Electrical Utilities

Payment will be made for costs associated with the furnishing and installing electrical utilities, including buried conduit and conductors, lighting (warning signs and site), embedded (in concrete) conduit, conductors, electrical panels, disconnects, interior lighting, electrical generator and appurtenances, grounding, and antenna and pole.

#### 1.1.9 Site Improvements

Payment will be made for costs associated with the furnishing and for installation of railings atop wing walls, railings atop operating platforms, ladders, grading and drainage, reinforced concrete approach slabs, stabilized sub-base, bedding stone (limerock base), bituminous pavement, hydro-seeding, two (2) stilling wells, permanent riprap, chain link perimeter fencing and gates, two (2) staff gages, four (4) warning signs and pile supports, four (4) 3-pile timber dolphins, two (2) permanent safety barriers, and two (2) gate position indicator assemblies.

#### ~~1.2.10 S-13A Manatee Barrier~~

~~Payment will be made for costs associated with the furnishing of all required materials and installation of a manatee barrier at structure S-13A.~~

#### 1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor,

materials, and equipment, and performing any associated Contractor quality control, turbidity monitoring, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.2.1 Tremie Seal

1.2.1.1 Payment

Payment will be made for costs associated with furnishing all plant, labor, materials and equipment and performing all operations necessary for the installation of tremie seal concrete. This will include excavation for the tremie seal from Elevation -14.5 to the top of sound rock, as determined by the Contracting Officer.

1.2.1.2 Measurement

Tremie concrete will be measured for payment based on the actual volume of tremie concrete within the pay lines of the tremie concrete seal indicated on the drawings.

1.2.1.3 Unit of Measure

Unit of measure: cubic yard.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

**SUBMITTAL REGISTER**

CONTRACT NO.

TITLE AND LOCATION

Western C-11-Basin, Spillway 381

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE			DATE OF ACTION
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01000	SD-01 Preconstruction Submittals														
			Contractor-Furnished Equipment	1.11	FIO												
			Letter Appointing Superintendent	1.26.1	FIO												
			Power of Attorney and Certified	1.26.1	FIO												
			Copy of Resolution for local representatives														
			Certificate of Insurance	1.26.1	FIO												
			Affirmative Action Plan	1.26.1	FIO												
			Drug-Free Workplace	1.26.1	FIO												
			List of Subcontractors	1.26.1	FIO												
			Accident Prevention Plan	1.26.1	FIO												
			Critical Lift Plan Operation	1.26.1	FIO												
			Hazard Communication Program	1.26.1	FIO												
			Confined Space Entry Plan	1.26.1	FIO												
			Hurricane and Severe Storm Plan	1.25	FIO												
			Hurricane and Severe Storm Plan	1.26.1	FIO												
			Diving Plan	1.26.1	FIO												
			Quality Control Plan	1.26.1	FIO												
			Manufacturer's Literature for Equipped Boat, Trailer, and Hand-Held Radios	1.26.1	FIO												
			Completed Electronic Submittal Register	1.26.1	FIO												
			Progress Charts	1.26.1	FIO												
			Environmental Protection Plan	1.26.1	FIO												
			Traffic Control Plan	1.26.1	FIO												

**SUBMITTAL REGISTER**

CONTRACT NO.

TITLE AND LOCATION

Western C-11-Basin, Spillway 381

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY					REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		MAILED TO CONTR/ DATE RCD FRM APPR AUTH
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01000	SD-02 Shop Drawings														
			As-Built Shop Drawings	1.7.5	FIO												
			As-Built Contract Drawings	1.7.6	FIO												
			Electronic As-Built Files	1.7.7	FIO												
			Working As-Built Drawings	1.7.1	G												
			Construction Drawings	1.8	G												
			SD-08 Manufacturer's Instructions														
			Equipment Operating Instructions and Parts Identification	1.10	G												
			SD-09 Manufacturer's Field Reports														
			Hurricane and Severe Storm Plan	1.25	G												
			Hurricane and Severe Storm Plan	1.26.1	G												
		01410	SD-01 Preconstruction Submittals														
			Bird Nesting Monitoring Qualifications		G												
			Environmental Protection Plan	1.8	G												
			SD-07 Certificates														
			Eastern Indigo Snake Observer		G PD												
			SD-11 Closeout Submittals														
			Eastern Indigo Snake Monitoring Report		FIO												
			Project Environmental Summary Sheet	3.10	FIO												
			Logs/Final Summary Report		FIO												
			Logs/Summary of Monitoring		FIO												

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		01410	Final Comprehensive Report		FIO												
		01411	SD-06 Test Reports														
			Test Reports		FIO												
			SD-08 Manufacturer's Instructions														
			Calibration Standard		FIO												
		02164	SD-02 Shop Drawings														
			Load Test Set-Up		FIO												
			SD-07 Certificates														
			Employee Experience		FIO												
			Threadbars	2.1.1	G												
			Grout Ingredients		G												
			Test Jacks and Gages		G												
			SD-06 Test Reports														
			Grouting Records		FIO												
			Anchor Test Results		G												
			Core Log of Each Hole		FIO												
			Grout Compression Tests		G												
		02230	SD-01 Preconstruction Submittals														
			Materials Other Than Salable	3.4.1	G												
			Timber														
		02300	SD-03 Product Data														
			Earthwork		G												
			Operational Blasting Plan	1.6.1	FIO												
			Vibration Control Plan	1.7.1	G												
			SD-06 Test Reports														
			Monitoring Report		FIO												

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		02300	Monitoring Location Set-Up		FIO												
			Daily Instrument Logs		FIO												
			Post-Construction Structural Survey		FIO												
			Testing	3.12	G												
			SD-07 Certificates														
			Testing	3.12	G												
			Qualifications for Structural Inspection/Evaluation and Vibration Monitoring Personnel		G												
			Earthwork		G												
		02316	SD-06 Test Reports														
			Field Density Tests	3.4.2	FIO												
			Testing of Backfill Materials	3.4.1	FIO												
		02378	SD-04 Samples														
			Geotextile	2.1.1.1	FIO												
			SD-07 Certificates														
			Geotextile	2.1.1.1	FIO												
		02395	SD-04 Samples														
			Stone Samples		G												
			SD-07 Certificates														
			Stone		G												
			Stone Placement Plan		G												
		02457	SD-02 Shop Drawings														
			Installation	3.1	FIO												
			Pile Driving	3.1.2	FIO												

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		02457	SD-03 Product Data Pile Driving Equipment	3.2	FIO												
		02464	SD-02 Shop Drawings Metal Sheet Piling Driving	2.1 3.1.2.2	G FIO												
			SD-03 Product Data Pile Driving Equipment Pulling and Redriving Interlocked Joint Strength in Tension Test	3.1.1 3.1.5 2.3.2	G G G												
			SD-06 Test Reports Materials Tests	2.3.1	FIO												
		02741	SD-03 Product Data Job Mix Formula Results of Asphalt Testing		FIO FIO												
		02821	SD-07 Certificates Chain Link Fence	2.1.1	FIO												
		02897	SD-03 Product Data Gage Strips and Figure Plates SD-07 Certificates Lumber Preservatives	2.1 2.2 2.2.1	G G G												
		02921	SD-01 Preconstruction Submittals Equipment SD-03 Product Data Equipment		FIO FIO												

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		02921	Surface Erosion Control Material	2.8	FIO												
			Chemical Treatment Material	1.4.3	FIO												
			SD-06 Test Reports														
			Equipment Calibration	3.1.2	FIO												
			Soil Test	3.1.3	FIO												
			SD-07 Certificates														
			Delivery	1.4.1	FIO												
			Finished Grade and Topsoil	3.2.1	FIO												
			Topsoil	2.2	FIO												
			Topsoil	2.2	FIO												
			Seed	2.1	FIO												
			pH Adjuster	2.3.1	FIO												
			Fertilizer	2.3.2	FIO												
			Organic Material	2.3.4	FIO												
			Soil Conditioner	2.3.5	FIO												
			Mulch	2.4	FIO												
			Asphalt Adhesive	2.5	FIO												
			Pesticide	2.7	FIO												
			SD-04 Samples														
			Delivered Topsoil	1.4.1.1	FIO												
			Soil Amendments	2.3	FIO												
			Mulch	2.4	FIO												
			SD-11 Closeout Submittals														
			Quantity Check	3.5	FIO												
			Seed Establishment Period	3.9	FIO												
			Maintenance Record	3.9.3.5	FIO												

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		02921	Application of Pesticide	3.6	FIO												
		03101	SD-02 Shop Drawings														
			Shop Drawings	1.4	FIO												
			SD-03 Product Data														
			Materials	2.1	FIO												
			SD-06 Test Reports														
			Inspection	3.3	FIO												
		03151	SD-03 Product Data														
			Splicing Waterstops	2.2.2	G												
			SD-04 Samples														
			Field Molded Sealants and Primer	2.1.2.1	G												
			Waterstops	2.1.3	G												
			SD-06 Test Reports														
			Premolded Expansion Joint Filler Strips	2.1.1	G												
			Compression Seals and Lubricant	2.1.2.2	G												
		03201	SD-02 Shop Drawings														
			Fabrication and Placement	3.1	G												
			Materials	2.1	G												
			SD-06 Test Reports														
			Material	2.2	G												
			Tests, Inspections, and Verifications	2.2	G												
		03301	SD-03 Product Data														
			Concrete Mixture Proportioning	2.2	G												
			Batch Plant	3.1.1	FIO												

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		03301	Concrete Mixers	3.1.2	FIO												
			Capacity	3.1.2	FIO												
			Conveying Equipment	3.1.3	FIO												
			Placing Equipment		G												
			Tests and Inspections	3.7	G												
			Testing Technicians	3.7.1	G												
			Concrete Transportation	3.7.1	G												
			Construction Inspector (CTCI)														
			Construction Joint Treatment	3.2.3	G												
			Curing and Protection	3.5	G												
			Cold-Weather Placing	3.3.4	G												
			Hot-Weather Placing	3.3.5	G												
			Finishing	3.4	G												
			SD-04 Samples														
			Aggregates	1.3.1.1	G												
			Cementitious Materials, Admixtures, and Curing Compound		G												
			SD-06 Test Reports														
			Quality of Aggregates	3.7.2.3	G												
			Mixer Uniformity	3.7.2.13	G												
			Tests and Inspections	3.7	G												
			SD-07 Certificates														
			Cementitious Materials	2.1.1	G												
			Impervious-Sheet Curing Materials	2.1.4.1	G												
			Air-Entraining Admixture	2.1.3.1	G												

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		03301	Other Chemical Admixtures	2.1.3.4	G												
			Membrane-Forming Curing Compound	2.1.4.2	G												
			Epoxy Resin	2.1.8	G												
			Latex Bonding Compound	2.1.7	G												
			Nonshrink Grout	2.1.6	G												
		05055	SD-02 Shop Drawings														
			Detail Drawings	1.3	G												
			SD-03 Product Data														
			Welding of Structural Steel	2.2.2.1	G												
			Welding of Aluminum	2.2.2.3	G												
			Structural Steel Welding Repairs	2.3.4	G												
			Materials Orders	2.1.1	FIO												
			Materials List	2.1.2	G												
			Shipping Bill	2.1.3	FIO												
			SD-06 Test Reports														
			Tests, Inspections, and Verifications	2.3	G												
			SD-07 Certificates														
			Qualification of Welders and Welding Operators	1.4	G												
			Application Qualification for Steel Studs	2.2.2.4	G												
			Welding of Aluminum	2.2.2.3	G												
		05502	SD-02 Shop Drawings														
			Shop Fabricated Metal Items	2.2	G												

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		05502	SD-03 Product Data														
			Miscellaneous Metals and Standard Metal Articles	2.1	G												
			Shop Fabricated Metal Items	2.2	G												
			SD-04 Samples														
			Miscellaneous Metals and Standard Metal Articles	2.1	G												
			Shop Fabricated Metal Items	2.2	G												
			SD-06 Test Reports														
			Miscellaneous Metals and Standard Metal Articles	2.1	G												
			Shop Fabricated Metal Items	2.2	G												
		07600	SD-02 Shop Drawings														
			Materials	2.1	G												
		08120	SD-03 Product Data														
			Aluminum Doors and Frames Installation	2.1	G												
			Cleaning	3.1.2	G												
			Cleaning	3.1.3	G												
			SD-04 Samples														
			Finishes	2.1.1	G												
			SD-06 Test Reports														
			Aluminum Doors	2.3	G												
		08700	SD-02 Shop Drawings														
			Exit Devices	2.5	G												
			SD-03 Product Data														
			Exit Device Accessories	2.5	G												

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		08700	Hardware Schedule		G												
		09965	SD-03 Product Data														
			Inspections and Operations		G												
			Qualifications	1.4	G												
			Safety and Health Provisions	1.6	G												
			Ventilation	1.6.6.1	G												
			Respirators	1.6.7.1	G												
			Airborne Sampling Plan		G												
			Paint Application	1.6.6	G												
			Medical Status	1.7	G												
			Waste Classification, Handling, and Disposal Plan		G												
			SD-04 Samples														
			Special Paint Formulas	2.1	G												
			Thinners	1.8	G												
			SD-06 Test Reports														
			Specification and Proprietary Paints		G												
		13200	SD-03 Product Data														
			Shop drawings and catalog data		G												
		13300	SD-02 Shop Drawings														
			Shop and erection drawings		G												
			SD-03 Product Data														
			Manufacturer's standard design data		G												
			SD-07 Certificates														

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		13300	Warranty		G												
			Written documentation		G												
		13854	SD-03 Product Data														
			Manufacturer's Catalog Data	2.1	FIO												
			SD-07 Certificates														
			Listing of Product Installations	3.1	FIO												
			SD-10 Operation and Maintenance Data														
			Operation and Maintenance Manual	1.3	FIO												
		14611	SD-01 Preconstruction Submittals														
			Motor nameplates	2.1.9	G												
			SD-02 Shop Drawings														
			Vertical Lift Gate Operating System		G												
			Hoist Motor	2.1	FIO												
			Brake Enclosing Case	2.2.6	FIO												
			SD-03 Product Data														
			Calculations and Drawings		G												
			Catalog Data		FIO												
			Hoist Motor	2.1	G												
			Brake	2.2	FIO												
			Limit Switch	2.5	FIO												
			SD-06 Test Reports														
			Tests	2.15	FIO												

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																		(g)
		14611	SD-10 Operation and Maintenance Data															
			Vertical Lift Gate Operating System		G													
		15895	SD-03 Product Data															
			Components and Equipment	2.1	G													
			Similar Services		G													
			SD-10 Operation and Maintenance Data															
			Operating and Maintenance Instructions		FIO													
		16264	SD-02 Shop Drawings															
			Layout and Shop Drawings		G													
			As-Built Drawings		G													
			SD-03 Product Data															
			Equipment Performance		FIO													
			Generator Data		FIO													
			Power Factor Capability Curve		FIO													
			Heat Rejected to Engine-Generator Space		FIO													
			Alarm Setpoints		FIO													
			Cooling Equipment and Performance		FIO													
			Manufacturer's Catalog Data		FIO													
			Vibration-Isolation	1.3.7	FIO													
			SD-06 Test Reports															

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																		(g)
		16264	Onsite Test	1.6	G													
			SD-07 Certificates															
			Component Manufacturer	1.3.8	FIO													
			Manufacturer/Assembler	1.3.8	FIO													
			Cooling System	2.5	FIO													
			Field Engineer		FIO													
			Welder Qualification	1.3.6	FIO													
			Installation Procedures		FIO													
			Torsional Vibration		FIO													
			Prototype Tests		FIO													
			Reliability and Durability		FIO													
			Emissions	2.9	FIO													
			Sound limitation	2.6	FIO													
			Site Visit		FIO													
			Flywheel Balance		FIO													
			Standards Compliance		FIO													
			Factory Tests	2.23	FIO													
			Functional Facilities		FIO													
			SD-08 Manufacturer's Instructions															
			Posted Data		G													
			Instructions	3.7	G													
		16410	SD-02 Shop Drawings															
			Switches		G													
			Equipment	1.3.1	G													
			Installation	3.1	G													
			SD-03 Product Data															

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		16410	Material	1.3.1	G												
			Equipment	1.3.1	G												
			SD-06 Test Reports														
			Tests	2.3.1	FIO												
			GE		FIO												
			SD-07 Certificates														
			Equipment	1.3.1	G												
			Material	1.3.1	G												
			Switching Equipment		G												
			SD-10 Operation and Maintenance														
			Data														
			Switching Equipment		G												
			Instructions	3.2	G												
		16415	SD-02 Shop Drawings														
			Interior Electrical Equipment		G												
			As-Built Drawings		FIO												
			SD-03 Product Data														
			Manufacturer's Catalog		G												
			Material, Equipment, and Fixture		G												
			Lists														
			Installation Procedures		FIO												
			SD-07 Certificates														
			Onsite Test		G												
			Materials and Equipment		G												
		16905	SD-01 Preconstruction Submittals														
			Conductors	2.6.1	FIO												

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ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				REMARKS		
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	SECTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE		DATE OF ACTION	MAILED TO CONTR/ DATE RCD FRM APPR AUTH
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		16905	Terminal Leads		FIO												
			Terminal Blocks	2.2.7.2	FIO												
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			SD-02 Shop Drawings														
			Controller	2.2	G												
			Controller	2.2	G												
			As-Built Drawings		FIO												
			Limit Switch	2.4	FIO												
			Control Stations	2.3	FIO												
			Instruments and Controls		FIO												
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			Control Stations	2.3	G												
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SECTION 01410

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06/99

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## SECTION 01410

## ENVIRONMENT PROTECTION

06/99

## PART 1 GENERAL

## 1.1 SCOPE

This section covers prevention of environmental pollution and damage as the result of construction operations under this contract and for those measures set forth in other Technical Requirements of these specifications.

For the purpose of this specification, environmental pollution and damage are defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

## 1.2 REFERENCES

## 1.2.1 Miscellaneous Environmental Laws And Regulations

There are numerous environmental laws and regulations. At the Federal level, the applicable laws and regulations include compliance with the Clean Water Act (CWA); Clean Air Act (CAA); Coastal Zone Management Act (CZMA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Endangered Species Act (ESA); Fish and Wildlife Coordination Act (FWCA); Marine Protection, Research, and Sanctuaries Act (MPRSA); National Environmental Policy Act (NEPA); National Historic Preservation Act (NHPA); National Pollution Discharge Elimination System (NPDES); Research and Sanctuaries Act; Native American Graves Protection and Repatriation Act (NAGPRA); Resource Conservation and Recovery Act (RCRA); Rivers and Harbors Act (R&H); Safe Drinking Water Act (SDWA); Toxic Substance Control Act (TSCA); Wild and Scenic Rivers Act (WSRA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Code of Federal Regulations (CFRs); Executive Orders; and, Environmental Protection Agency (EPA) requirements. NEPA compliance measures specified in an Environmental Assessment (EA) or Environmental Impact Statements (EIS) are also applicable with regard to compliance.

## 1.2.2 Publication Reference(s)

The publication listed below forms a part of this specification to the extent referenced. The publication is referred to in the text by basic designation only.

## CODE OF FEDERAL REGULATIONS (CFR)

40 CFR 261	Identification and Listing of Hazardous Waste
49 CFR 173	Shippers - General Requirements for Shipments and Packagings

## ENGINEERING MANUALS (EM)

EM 1110-2-1003

(1 Aug 96) NAVSTAR Global Positioning  
System Surveying

## 1.3 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

## 1.4 PERMITS AND AUTHORIZATIONS

The Contractor shall comply with all requirements under the terms and conditions set out in the following permit(s) and authorization(s) obtained by the Corps of Engineers listed below. These permit(s) and authorization(s) are available for review by contacting the Jacksonville District, Operations and Technical Support Section at 904-232-2539.

a. Florida Department of Environmental Protection ~~Permit No. \_\_\_\_\_; Effective Date: \_\_\_\_\_; Expiration Date: \_\_\_\_\_ and Modifications issued on \_\_\_\_\_.~~ Note: The Florida Department of Environmental Protection (WDEP) Water Quality Certification (WQC) permit for this project is currently pending; a Draft Permit, subject to change, is attached as Appendix \_\_\_\_\_ for reference. No construction shall commence prior to review and inclusion of any applicable WQC General Conditions and pending permit requirements. has granted a water quality certification for construction only.

The Contractor shall comply with all requirements under the terms and conditions set out in all permit(s).

## 1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

## SD-01 Preconstruction Submittals

Bird Nesting Monitoring Qualifications; G.

Within 20 calendar days after the date of Notice of Award, the Contractor shall furnish to the Contracting Officer for approval, the qualifications of the bird monitor/observer. Appropriate qualifications for bird monitor/observer shall be a demonstrated ability to find and/or identify bird species, nesting behavior, eggs and nests, and habitat requirements.

Environmental Protection Plan; G.

Within 20 calendar days after the date of Notice of Award, the Contractor shall submit in writing an Environmental Protection Plan. Approval of the Contractor's plan will not relieve the

Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures.

The Environmental Protection Plan shall include but not be limited to the following:

a. A list of Federal, State, and local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.

b. Methods for protection of features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources.

c. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the environmental protection plan.

d. A permit or license for and the location of the solid waste disposal area.

e. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossing, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

f. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.

g. Traffic control plan.

h. Methods of protecting surface and ground water during construction activities.

i. Oil spill prevention.

j. Oil spill contingency plan.

k. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas.

l. Plan of borrow area(s).

m. A statement as to the person who will be responsible for implementation of the Environmental Protection Plan. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.

n. Steps to be taken to construct the dike in such a manner as not to impact migratory birds or induce their nesting.

o. Steps to be taken to construct the project in such a manner as not to impact gopher tortoises.

#### SD-07 Certificates

##### Eastern Indigo Snake ObserverG|PD

Within 20 calendar days after the date of Notice of Award, the Contractor shall furnish to the Contracting Officer for approval the qualifications of the eastern indigo snake observer.

#### SD-11 Closeout Submittals

##### Eastern Indigo Snake Monitoring Report

Contractor shall submit an Eastern indigo snake monitoring report to the appropriate U.S. Fish and Wildlife (FSWS) Field Office within 60 days of the conclusion of clearing phases. The report shall be submitted whether or not Eastern indigo snakes are observed. The report shall contain any sightings of Eastern indigo snakes, summaries of any relocated snakes if relocation was approved for the project (e.g., locations of where and when they were found and relocated), and other obligations required by the State that may or may not be stipulated in the permit.

##### Project Environmental Summary Sheet

Contractor shall submit within 30 days following completion of the project, a written report of the absence or occurrence of environmental incidents. In addition, for construction activities whose anticipated duration is more than one calendar year, the Contractor shall complete a sheet each May 31st (plus/minus 14 days).

##### Logs/Final Summary Report

Contractor shall submit as specified, logs and final summary report of sightings and incidents with endangered species.

##### Logs/Summary of Monitoring

Contractor shall submit as specified, logs and summary of monitoring detailing nesting and nesting success.

##### Final Comprehensive Report

Contractor shall submit as specified, a compilation of all data and maps prepared during the surveys and all information regarding relocation of gopher tortoises.

## 1.6 SUBCONTRACTORS

Assurance of compliance with this section by subcontractors will be the responsibility of the Contractor.

## 1.7 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the aforementioned Federal, State, or local laws or regulations, permits and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.

#### 1.8 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL

The Contractor shall train his personnel in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment, and shall be thoroughly knowledgeable of Federal, State, and local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with Section 01451 CONTRACTOR QUALITY CONTROL.

#### PART 2 PRODUCTS (NOT APPLICABLE)

#### PART 3 EXECUTION

##### 3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications.

Environmental protection shall be as stated in the following subparagraphs.

###### 3.1.1 General Project Environmental Design and Installation Criteria

Some project sites have features that shall not be impacted in any way, including cultural, historic, or archeological features. At all sites, project plans should minimize disturbance to existing features at the site to the extent possible, including vegetative, topographic, and drainage pattern features. Wetland impacts (temporary access, detours, staging areas, and other work area impacts) to project sites should be avoided and may require separate permitting action. Any wetlands temporarily impacted shall have its soil restored upon project completion. Expansion of previously permitted project footprints may likewise require separate permitting action.

In all cases, the design and/or installation of project system shall provide for protection of the environment during handling, installing, storing, utilizing, transporting, servicing, testing, refilling, transferring, pumping, processing, removing waste products, repairing and maintaining systems and their components. Necessary design protection shall also be considered that would prevent contamination of the environment from impacts to the system caused by storm water runoff and flooding. Retrofit of connected systems on project sites to modern

environmental protection design standards shall also be considered.

In the event environmental protection measures fail, the Contractor shall implement procedures to control and correct environmental damage.

#### 3.1.1.1 Petroleum-Based Systems Environmental Design and Installation Criteria

For petroleum-based systems, a statement of site suitability shall be provided and shall include what would be necessary to prevent adverse impact to water quality; natural resources; habitat; historic, cultural, and archeological sites; and fragile local resources in the event of a fuel spill. Human error and mechanical/electrical failure of components without human intervention shall also be considered in the design with regard to spills. Additionally, appropriate noise and emissions controls shall be incorporated into the design, including vapor and exhaust controls.

At a minimum, environmental protection design requirements shall also include the following: (1) stationary tanks and piping shall have secondary containment features; (2) approved materials and corrosion protection systems shall be utilized; (3) system leaks shall be readily detected and contained without human intervention; and, (4) overfill containment systems shall be provided.

Applicable Federal, State and local codes and requirements shall be strictly adhered to in the design, including those of the U.S. Environmental Protection Agency (EPA), the State of Florida, the South Florida Water Management District (SFWMD), and other local governing agencies such as those of counties and municipalities. In the case of the State, requirements include Chapter of the Florida Administrative Code (FAC) such as 62-17 (Approved Materials), 62-252 (Vapor Emissions), 62-296 (Emissions), 62-761 (Underground Storage Tanks), and 62-762 (Aboveground Tanks). Note that Chapters 62-761 and 62-762 of the FAC may be combined into one Chapter. Best Management Practices from the applicable agencies shall also be adhered to in the design.

#### 3.1.1.2 Sewage-Based Systems Environmental Design and Installation Criteria

In general, there shall be no waste or debris discharges of any kind for a project unless authorized by the Contracting Officer. This shall include the Contractor's providing sufficient temporary sanitary equipment and facilities for the project. The design and/or installation of temporary or permanent sewage systems shall ensure that waters will be free of effects of sewage discharges. Applicable Federal, State, or local codes and requirements regarding sewage shall be strictly adhered to in the design, such as those of the EPA and, in the case of the State, Chapter 62-620 (Wastewater Facilities) of the FAC. Best Management Practices from the applicable agencies shall also be adhered to in the design.

#### 3.1.2 Protection of Land Resources

Prior to the beginning of any construction, the Contractor shall identify all land resources to be preserved within the Contractor's work area. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, top soil, and land forms without special permission from the Contracting Officer. Engage a qualified tree surgeon to perform all tree surgery. Repair injuries to bark, trunk, branches, and roots of protected trees by dressing, cutting, and painting as specified for Class I Fine Pruning, of the National Arborist Association

Pruning Standards for Shade Tree or as per State's Agricultural Extension Agency Guidelines, immediately as occurrences arise. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

#### 3.1.2.1 Work Area Limits

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

#### 3.1.2.2 Protection of Landscape

Trees and their roots, shrubs, vines, grasses, land forms, and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified and protected by fencing or any other approved techniques as illustrated in the Tree Protection Plan Detail appended to the end of Section 01410 ENVIRONMENT PROTECTION. Place tree protection fencing before excavation or grading is begun and maintain in place until construction is complete. Remove branches of protected trees, if required, to clear for construction and extend pruning operation to restore the natural shape of the entire tree. Cut branches or roots, if required, with sharp pruning instruments; do not break or chop. Fertilize protected trees to compensate for root loss with 6-6-6 as per manufacturer's application direction. Repair any damage to tree crowns or roots promptly after damage occurs.

- a. Trench or Bore Under Trees. Where trenching for utilities is required within tree driplines, hand dig under and around roots or bore under them. Roots shall be protected from drying. Cover exposed roots within an hour as specified in subparagraph "Excavation for Structures" below. Cut no lateral roots which interfere with new construction. Boring is permitted.
- b. Excavation for Structures. Where excavating for new construction is required within tree drip lines, hand excavate to minimize damage to root systems. Use narrow tine pitchforks and comb soil to expose roots. Relocate roots in backfill areas. If large, main lateral roots are encountered, expose beyond excavation limits, bend and relocate without breaking or girdling. If encountered immediately adjacent to new construction and relocation is not practical, saw roots approximately 3" back from new construction, seal with tree wound dressing, and protect exposed embankment of roots from drying by covering with straw and black plastic. Irrigate daily until final grade conditions are established and the exposed roots are backfilled properly for continued plant growth.

- c. Replacement. Remove dead or damaged protected trees determined, by the Government, to be incapable of restoration to normal health growth. Replace each removed tree up to 4" caliper with tree of equal specie and size. For each tree above 4" caliper, replace with one 4" caliper tree per 4" caliper increment or fraction thereof.

#### 3.1.2.3 Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in instances where the constructed feature obscures borrow areas, quarries, and waste material areas, these areas shall not initially be totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the areas developed as approved by the Contracting Officer.

#### 3.1.2.4 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

- a. Retardation and Control of Runoff. Runoff from the construction site shall be controlled by construction of diversion ditches, benches, and berms to retard and divert runoff to protected drainage courses, and any measures required by area wide plans approved under paragraph 208 of the Clean Water Act.
- b. Sediment Basins. Sediment from construction areas shall be trapped in temporary or permanent sediment basins in accordance with basin plans shown on the drawings. The basins shall accommodate the runoff of a local 5-year storm. After each storm, the basins shall be pumped dry and accumulated sediment shall be removed as necessary to maintain basin effectiveness. Overflow shall be controlled by paved weir or by vertical overflow pipe, draining from the surface. The collected topsoil sediment shall be reused for fill on the construction site, and/or conserved (stockpiled) for use at another site(s). The Contractor shall institute effluent quality monitoring programs as required by Federal, State, and local environmental agencies.
- c. Erosion and Sedimentation Control Devices. The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as directed by the Contracting Officer's Representative. Temporary velocity dissipation devices shall be placed along drainage courses to as to provide for non-erosive flows. Temporary erosion and sediment control measures such as berms, dikes, drains, sediment traps, sedimentation basins, grassing, mulching, baled hay or straw, and silt fences shall be maintained until permanent drainage and erosion control facilities are completed and operative. For silt fences, the filter fabric is to be of nylon, polyester, propylene or ethylene yarn of at least 50 lb/in strength and able to withstand a flow rate of at least 0.3 gal/sq ft /minute. The fabric should contain ultraviolet ray inhibitors and stabilizers and be a minimum of 45 inches in width. The toe of the fence shall be buried at least 8 inches deep to prevent undercutting and

shall be secured to posts by suitable staples, tie wire, or hog rings. Posts shall have a cross section of at least 2" x 4 ft in length. Fence shall be overlapped to the next post if fabric joints are necessary.

#### 3.1.2.5 Location of Field Offices, Storage, and Other Contractor Facilities

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings. Temporary movement or relocation of Contractor facilities shall be made only on approval by the Contracting Officer.

#### 3.1.2.6 Borrow Areas on Government Property

Areas shall be managed to minimize erosion and to prevent sediment from entering nearby watercourses or lakes

#### 3.1.2.7 Disposal Areas on Government Property

Areas shall be managed and controlled to limit disposal to areas designated on the drawings and prevent erosion of soil or sediment from entering nearby watercourses or lakes. Disposal areas shall be developed in accordance with the grading plan indicated on the drawings.

#### 3.1.2.8 Temporary Excavations and Embankments

Areas for work areas shall be controlled to protect adjacent areas from despoilment.

#### 3.1.2.9 Disposal of Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination.

- a. Disposal of Solid Waste by Removal from Government Property. The Contractor shall transport all solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal.
- b. Disposal of Solid Waste on Government Property. Waste materials shall be hauled to the Government landfill site shown on the drawings. The Contractor shall comply with State and local regulations pertaining to the use of landfill areas.

#### 3.1.2.10 Dispensing of Fuel

Fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately recover the contaminated ground and dispose of it offsite in an approved area.

#### 3.1.2.11 Hazardous Waste

Hazardous wastes are defined in 40 CFR 261. The Contractor shall ensure

that hazardous wastes are stored and disposed of in accordance with 40 CFR 261 and State and local regulations. The Contractor shall ensure that hazardous wastes are packed, labeled, and transported in accordance with 49 CFR 173 and State and local regulations.

#### 3.1.2.12 Hazardous Materials

The Contractor shall ensure that hazardous materials are labeled, stored, and transported in accordance with 49 CFR 173, State and local regulations.

#### 3.1.2.13 Disposal of Other Materials

Other materials than previously discussed (Construction and Demolition, vegetative waste, etc.) shall be handled as directed.

### 3.1.3 Preservation and Recovery of Historic, Archeological, and Cultural Resources

#### 3.1.3.1 New Resources

If, during construction activities, the Contractor observes items that may have historic or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

#### 3.1.4 Protection of Water Resources

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities which are included in this contract.

##### 3.1.4.1 Washing and Curing Water

Wastewaters directly derived from construction activities shall not be allowed to enter water areas. These wastewaters shall be collected and placed in retention ponds where suspended materials can be settled out or the water evaporates so that pollutants are separated from the water.

##### 3.1.4.2 Cofferdam and Diversion Operations

The Contractor shall plan his operation and perform all work necessary to minimize adverse impact or violation of the water quality standard. Construction for dewatering, removal of cofferdams, tailwater excavation, and closure shall be controlled at all times to limit the impact of water turbidity on the habitat for wildlife and impacts on water quality for downstream use.

##### 3.1.4.3 Stream Crossings

Stream crossings shall be controlled during construction. Crossings shall provide movement of materials or equipment which do not violate water pollution control standards of the Federal, State, or local government.

#### 3.1.4.4 Monitoring of Water Areas

Monitoring of water areas affected by construction activities shall be the responsibility of the Contractor. All water areas affected by construction activities shall be monitored by the Contractor.

#### 3.1.4.5 Turbidity

The Contractor shall conduct his dredging and disposal operations in a manner to minimize turbidity and shall conform to all water quality standards as prescribed by Chapter 62-302, State of Florida, Department of Environmental Protection.

#### 3.1.4.6 Oil Spill Prevention

Prevent oil or other hazardous substances from entering the ground, drainage, or local bodies of water. Provide containment, diversionary structures, or equipment to prevent discharged oil from reaching a watercourse. Take immediate action to contain and clean up any spill of oily substances, petroleum products, and hazardous substances. Immediately report such spills to the Contracting Officer. Provide one or more of the following preventive systems at each oil storage site. The provision of such preventive systems shall be approved by the Contracting Officer prior to tank installation and use.

- a. Dikes, berms, or retaining walls shall be capable of containing the contents of the largest single tank.
- b. Culverting, curbing, guttering, or other similar structures shall be capable of containing the contents of the largest single tank.
- c. Spill diversion ponds shall be capable of containing the contents of the largest single tank.
- d. Absorbent materials shall be capable of absorbing the contents of the largest single tank.

#### 3.1.4.7 Oil Storage Tank Installation

All oil storage tank installation shall be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank. Dikes and other structures shall be impervious to spilled oil to prevent infiltration into the ground. Mobile or portable oil storage tanks shall be positioned or located so as to provide a secondary containment identical to that required for non-mobile storage tanks. Storage tanks shall be located where they will not be subject to flooding or washout. When it is determined that the installation of containment structures or equipment to prevent discharged oil from reaching a watercourse is not practicable, a clear demonstration of such impracticability shall be submitted to the Contracting Officer for approval prior to installation or use of the storage tank. The following shall also be provided to the Contracting Officer for approval prior to installation or use of the storage tank:

- a. An oil spill contingency plan strictly following the criteria of 40 CFR, Part 109.
- b. A written certification of commitment of manpower, equipment, and materials required to expeditiously control and remove the

discharge oil.

### 3.1.5 Liabilities

The Contractor shall be liable in the amounts established in 40 CFR, Part 113 when it can be shown that oil was discharged as a result of willful negligence or willful misconduct. The penalty for failure to report the discharge of oil shall be in accordance with the provision of 33 CFR, Part 153.

### 3.1.6 Protection of Fish and Wildlife Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection will be listed in the Contractor's Environmental Protection Plan prior to the beginning of construction operation.

#### 3.1.6.1 Manatee Protection

The Contractor shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees.

- a. Civil and Criminal Penalties. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. The Contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.
- b. Siltation Barriers. If siltation barriers are used, they will be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.
- c. Manatee Sighting. If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment will be shut down and all construction activities will cease to ensure protection of the manatee. Construction activities will not resume until the manatee has departed the project area.
- d. Manatee Signs. Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" will be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN

50 FEET OF OPERATION" will be posted at the ~~dredge operator control station and~~ at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction. Sample Manatee Caution Signs are appended to the end of Section 01410 ENVIRONMENT PROTECTION.

- e. Manatee Sighting Reports. Any collisions with a manatee or sighting of any injured or incapacitated manatee will be reported immediately to the Corps of Engineers. The order of contact within the Corps of Engineers will be as follows:

Order of Contact of Corps Personnel for Dredging  
Contractor to Report Manatee Death or Injury

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Corps, Inspector Mr. George Cooper South Florida Area Resident Engineer, (CESAJ-CO-P)	561-626-5299	Will be provided
<del>Dr. Hanley K. Smith, Acting Chief</del> Environmental Branch, Planning Division (CESAJ-PD-E)	321-873-8702	Will be provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO)	904-232-1685	Will be provided
Mr. Gordon Butler, Chief, Construction-Operations Division (CESAJ-CO)	904-232-1122	Will be Provided
	904-232-3765	Will be Provided

The Contractor shall also immediately report any collision with and/or injury to a manatee to the Florida Marine Patrol "Manatee Hotline" 1-800-342-5367 as well as the U.S. Fish and Wildlife Service, Vero Beach Field Office at 561-562-3909 for South Florida.

- f. Report Submission. The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. The data shall be recorded on forms provided by the Contracting Officer (sample Daily Manatee Reporting Log is appended to the end of Section 01410 ENVIRONMENT PROTECTION). All data in original form shall be forwarded directly to ~~Dr. Hanley K. Smith, the Acting Chief~~ Environmental Branch, P. O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of collection and copies of the data will be supplied to the Contracting Officer. Following project completion, a report summarizing the above incidents and sightings will be submitted to the following:

Florida Fish and Wildlife Conservation Commission  
Bureau of Protected Species Management  
620 South Meridian Street  
Tallahassee, Florida 32399-1600

Chief, Environmental Branch  
U.S. Army Corps of Engineers (CESAJ-PD-E)  
P.O. Box 4970  
Jacksonville, Florida 32232-0019

Area Engineer,  
South Florida Area Office  
4400 PGA Blvd, Suite 203  
Palm Beach Gardens, Florida 33410

U.S. Fish and Wildlife Service  
P. O. Box 2676  
Vero Beach, Florida 32961-2676

### 3.1.6.2 Endangered Species Observer(s)

~~NMFS approved firms shall provide and manage the endangered species observer(s). A list of acceptable firms can be obtained by contacting NMFS (Mr. Charles Oravetz) in St. Petersburg, Florida at 727-570-5312. The trained observer(s) shall require quarters on board the dredge.~~ A qualified manatee observer will be on site during construction activities. An observer is qualified by watching an instructional video which can be obtained from the Florida Fish and Wildlife Commission (850-922-4330)

### 3.1.6.3 Protection of Migratory Bird Species

The Contractor shall keep construction activities under surveillance, management, and control to prevent impacts to migratory birds and their nests. All construction personnel shall be advised that migratory birds are protected by the Florida Endangered and Threatened Species Act of 1977, Title XXVIII, Chapter 372.072, and the U.S. Fish and Wildlife Service pursuant to the Migratory Bird Treaty Act of 1918 and the Endangered and Threatened Species Act of 1982, as amended. The Contractor may be held responsible for harming or harassing the birds, their eggs or their nests as a result of the construction.

- a. Monitoring of Construction Area. In order to meet these responsibilities, the Contractor shall conduct monitoring of the construction area beginning 1 April through 31 August, if construction activities occur during that period. Daily monitoring using the attached forms will be conducted during the dawn or dusk time frames by a bird monitor approved by the Contracting Officer or the Contracting Officer's Representative. (Caution will be taken by the monitor to avoid disturbance to the nesting birds.) The Contractor shall maintain a daily log detailing monitoring and nesting activity. Within 30 days after completion of construction, a summary of monitoring shall be submitted to the Corps detailing nesting and nesting success/failure including species, number of nests created, location, number of eggs, number of offspring generated during the project and reasons for nesting success or failure, if known.
- b. Presence/Absence Survey. At least 3 visits must be made to each site during April-July. A 6-minute point count (variable circular plot) should be conducted between sunrise and 3 hours after or 1 hour prior to sunset. If breeding birds are encountered, nests shall be located and observed without disturbance to the nesting activity. Nests shall be marked and visited every 3-5 days to determine fate.
- c. Nesting Activity Notification. Any nesting activity observed by the Contractor will be reported immediately to the Contracting Officer or the Contracting Officer's Representative who shall have

sole authority for any work stoppages, creation of the buffer area, or restart of construction activities. In addition, the following personnel will be notified:

Order of Contact of Corps Personnel  
to Report Bird Nesting Activities

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Corps, Inspector Mr. George Cooper South Florida Area Resident Engineer, (CESAJ-CO-P)	561-626-5299	Will be provided
<del>Dr. Hanley K. Smith, Acting</del> Chief Environmental Branch, Planning Division (CESAJ-PD-E)	321-873-8702	Will be provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO)	904-232-1685	Will be provided
Mr. Gordon Butler, Chief, Construction-Operations Division (CESAJ-CO)	904-232-1122	Will be Provided
	904-232-3765	Will be Provided

c. Nesting Within Construction Area.

1) Should nesting begin within the construction area, a temporary, 200-foot buffer will be created around the nests and marked to avoid entry (the Contracting Officer will provide signs). The area will be left undisturbed until nesting is completed or terminated, and the chicks fledge. The decision to allow construction in a former nesting site will be determined by the Contracting Officer in consultation with the U.S. Fish and Wildlife Service and the Florida Game and Freshwater Fish Commission. Access to the nesting sites by humans (except limited access when accompanied by the bird monitor or Contracting Officer), equipment or pets under control of the Contractor is prohibited.

2) If nesting occurs within the construction area, a bulletin board will be placed and maintained by the Contractor in the contracting shed with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE FEDERAL MIGRATORY BIRD TREATY ACT".

3) Birds will find the top of the dike or the flat interior desirable nesting habitat. If construction activity ceases for any period of time, nesting may occur before work can resume. Any stoppage of activity could induce nesting, subsequently, construction could be altered or stopped to avoid impacting the birds unless the State of Florida and the U.S. Fish and Wildlife Service authorizes the interruption of nesting and/or destruction of the eggs. (NOTE: This authorization is highly unlikely.) Areas which are potentially suitable for nesting can be altered to make the area undesirable. One approved method is the placement

of stakes at 10- to 15-foot intervals and tie flagging between the stakes in a web fashion. This may dissuade bird nesting until construction can be resumed. In addition, the disposal area basin can be flooded prior to the beginning of nesting season to the elevation required for displacement from the disposal of dredged material in order to make the basin undesirable for bird nesting.

- d. Bird Monitoring Qualifications. The Contractor's Environmental Protection Plan shall contain the qualifications of the bird monitor and the steps to be taken to construct the project in such a manner as not to impact migratory birds or induce their nesting. The qualifications of the bird monitor are a demonstrated ability to identify bird species, general and nesting behavior characteristics, nests and eggs, and a knowledge of habitat requirements. In addition, references must be provided to verify non-educational experience.
- e. Work Delay. Delays in work due to the fault of negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

#### 3.1.6.4 Protection of Gopher Tortoise (GT) Populations (*Gopherus polyphemus*)

The Contractor shall keep construction activities under surveillance, management, and control to prevent impacts to GTs and their burrows. All construction personnel shall be advised that GTs are listed by the State of Florida as a Species of Special Concern and protected by the Florida Administrative Code, Chapter 39-27.002(4). The Contractor may be held responsible for taking, harming, or harassing the tortoises, their eggs or their burrows as a result of the construction. The destruction of GT burrows constitutes taking under this law except as authorized by specific permit.

- a. General. In order to meet these responsibilities, the Contractor shall conduct GT surveys prior to the beginning of construction activities. The surveys shall be conducted by a qualified GT biologist. A list of qualified individuals may be obtained from the FF&WCC. The Contractor shall stay at least 25 feet from entrances of individual burrows.
- b. Relocation Permit Requirements. If five or fewer tortoises will be affected and adequate habitat will exist on the site following construction, tortoises may be captured and released back onto the site in an area where they can move freely. A special permit is required. If more than five (5) GTs are to be relocated, a capture/release/relocation permit is required from the Florida Game and Fresh Water Fish Commission (FG&FWFC); contact the FG&FWFC for a list of GT relocation contacts.
- c. Taking. If the work will probably kill tortoises, a taking permit is required from the State for the taking of any tortoises. Taking includes the entombment or killing of GTs as a result of bulldozing, grading, paving, or building construction.
- d. State Permit Applications. Pursuant to the requirements of Rules 39-25.002 and 39-27.002 of the Wildlife Code of the State of

Florida (Title 39, F.A.C.), a permit for a GT capture/relocation/release project must be secured from the FG&FWFC prior to initiating any relocation work. Applications shall be submitted at least 30 days prior to the time needed from Office of Environmental Services, Division of Wildlife, Florida Game and Fresh Water Fish Commission, 620 S. Meridian Street, Tallahassee, Florida 32399-1600, ATTN: Mr. Don Wood, Endangered Species Coordinator, telephone 850-488-3831. Permits to capture and release GTs on site will be issued by regional Division of Wildlife or Office of Environmental Services personnel based on telephone requests (field verifications may be conducted by FG&FWFC personnel if deemed necessary).

- e. Relocation Window. GT relocation within the State of Florida can occur year-round in the geographic area below State Highway 50. Relocation of GTs between State Highway 50 and the counties bordering the State of Georgia, excluding Duval and Suwannee Counties, can only occur between 1 March and 1 December. Relocation within the counties bordering the State of Georgia, including Duval and Suwannee Counties, can only occur between 1 April and 1 October.
- f. Application Information. The application will contain, but not be limited to, aerial photography of the donor and recipient sites, a detailed map showing the location of the active and inactive burrows sites, the location and number of acres of GT habitat, the carrying capacity of the recipient site and any management plans for the recipient site.
- g. Applicant Qualifications. Applicants for relocation permits shall be suitably trained or experienced in such work. Copies of applicant credentials demonstrating such shall be appended to applications. A list of qualified individuals may be obtained from the FG&FWFC.
- h. Temporal Considerations. During summer months, releases shall not be made during the hottest part of the day at sites where shade is limited.
- i. Donor Site Surveys. No more than four weeks prior to relocation, all potential GT habitat on a given development site shall be thoroughly and systematically surveyed using appropriate, biologically sound methodology. Permit applicants are to submit preliminary estimates of the total number of tortoises on a subject site, size of that portion of the site which is potential tortoise habitat, and a general characterization of the habitat. Recommended survey techniques for estimating population density and classification systems for GT habitat types are available from the FG&FWFC.
  - 1) All burrows found to be "active" or "inactive" shall be plotted on maps to facilitate efficient future relocation. Criteria for determining the status of GT burrows may be obtained from the FG&FWFC.
- j. Recipient Site Selection and Treatment. Sites selected to receive relocated tortoises shall be either of similar habitat character and quality as corresponding donor sites, or demonstrated to be otherwise suitable for GT occupancy.

- 1) Sites already occupied by tortoises at or near carrying capacity shall not be selected as recipient sites. In some instances, especially at sites of marginal habitat quality, certain habitat manipulation measures (such as burning) could be employed to improve habitat quality and thereby increase carrying capacity, rendering the site acceptable as a recipient site. In those cases, continuous, periodic management treatments would normally be necessary to maintain carrying capacity at the elevated levels. Permit applications opting for this course shall append their applications with a proposed long-term management plan for recipient sites. Carrying capacity may be determined by the FG&FWFC.
  - 2) Relocation of 20 or fewer tortoises shall be to recipient sites already occupied. Relocation of more than 20 should be to recipient sites either vacant or occupied at population levels substantially below carrying capacity. Carrying capacity criteria may be obtained from FG&FWFC.
  - 3) Recipient sites shall be situated any distance east or west of donor sites, but no more than 50 miles north or south of donor sites unless appropriately justified.
  - 4) Recipient sites should not overlap or abut sites supporting genetically unique or discrete tortoise populations, or sites supporting populations which otherwise merit protection from genetic swamping. Genetically unique or discrete populations will be determined by the FG&FWFC. In instances where such a potential exists, the FG&FWFC shall be consulted for a determination as to the site's acceptability.
  - 5) Recipient sites already occupied by tortoises shall be thoroughly surveyed prior to relocation and all encountered burrows plotted on maps and categorized as "active," "inactive" or "old" per the criteria of the FG&FWFC.
- k. Capture Methodology. Tortoises will be excavated from burrows (i.e., with backhoe), trapped, or otherwise captured by non-harmful means. If trapped, five-gallon pitfall bucket traps will be buried at burrow entrances, shaded and covered with paper or cheesecloth overlain with a thin layer of soil. A hole at least one inch in diameter should be drilled into the bottom of each bucket for drainage. Each bucket shall be checked at least once per day for at least 28 consecutive days. Capture methodology may be modified on persistently wet sites or during periods of heavy rainfall.
1. Transport and Release Methodology. Captured tortoises must be transported without undue delay and under shaded and sanitary conditions. Care shall be taken to avoid any physical damage (i.e., abrasion) to tortoises in transit.
    - 1) Prior to release, each relocated tortoise shall be sexed (adults only), measured and permanently and uniquely marked by scute-notching. Criteria for marking and measuring relocated GTs may be obtained from the FG&FWFC.
    - 2) On unoccupied recipient sites, relocated individuals shall be

released in groups of no more than 20 in the same general vicinity with access to shade nearby. On already occupied sites, relocated tortoises shall be distributed throughout the site and, when possible, individuals shall be released at "old" or "inactive" burrows, criteria of which is available through the FG&FWFC.

- m. Reporting. Any tortoise mortality or debilitating injury occurring during the capture, relocation and release phases of a relocation is to be reported to:

Order of Contact of Corps Personnel  
to Report Gopher Tortoise Activities

<u>Title</u>	<u>Telephone Number</u>	
	<u>Work Hours</u>	<u>After Hours</u>
Corps, Inspector Mr. George Cooper South Florida Area Resident Engineer, (CESAJ-CO-P)	561-626-5299	Will be provided
<del>Dr. Hanley K. Smith, Acting Chief</del> Environmental Branch, Planning Division (CESAJ-PD-E)	321-873-8702	Will be provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO)	904-232-1685	Will be provided
Mr. Gordon Butler, Chief, Construction-Operations Division (CESAJ-CO)	904-232-1122	Will be Provided
	904-232-3765	Will be Provided

- n. Report Submission. Within 30 days of the final survey, a detailed and comprehensive final report is to be prepared and submitted to the Division of Wildlife, FG&FWFC and U.S. Army Corps of Engineers (~~Dr. Hanley K. Smith, Acting Chief~~, Environmental Branch, P.O. Box 4970, Jacksonville, Florida 32232-0019), such report to include a compilation of all data and all maps prepared during the surveys and all information regarding relocation of the GTs.
- o. Qualifications. The Contractor's Environmental Protection Plan shall contain the qualifications of the GT survey/relocation contract and the steps to be taken to construct the project in such a manner as not to impact GTs.
- p. Work Delay. Delays in work due to the fault or negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the provisions of the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

### 3.1.6.5 Protection of Eastern Indigo Snake Populations

#### a. Monitoring of Construction Area

The requirements of this paragraph only apply if Eastern indigo snakes (indigo snakes) are observed in the construction area. The Contractor shall coordinate with the Jacksonville District Corps of Engineers, Environmental Studies Section (CESAJ-PD-ES) and the U.S. Fish and Wildlife Service's (FWS) South Florida Field Office during the establishment and implementation of an indigo snake protection/education plan.

#### b. Qualified Observer

A qualified observer shall be present on site to watch for indigo snakes during all construction and clearing phases of the project. The name(s) and qualifications of the proposed observer shall be submitted to the

Contracting Officer for approval. The information shall be submitted to the Contracting Officer for approval. The information submitted should indicate what experience the individual has that would qualify the person to act as an indigo snake observer.

c. Indigo Snake Protection/Education Plan

An indigo snake protection/education plan shall be developed for all construction crews to follow. The plan shall be provided to the Contracting Officer for review and approval at least 30 days prior to any construction or clearing activities. The education materials for the plan could consist of a combination of postes or videos, pamphlets, and lectures and should include the following information:

- (1) Description of the indigo snake, its habits, and protection under Federal Law;
- (2) Instructions not to injur, harm, harass, or kill this species;
- (3) Directions to notify the qualified observer(s) if an indigo snake is sighted;
- (4) Directions to cease construction activity, notify the qualified observer, and allow the indigo snake sufficient time to move away from the site on its own before resuming construction (only a qualified individual, who has been either authorized by a Section 10(a)(1)(A) permit issued by the FWS, or designated as an agent of the State of Florida by the FF&WCC for such activities, is permitted to come in contact with an indigo snake); and
- (5) Telephone numbers of pertinent agencies to be contacted if a dead indigo snake is encountered.
- (6) Instructions that, if necessary, indigo snakes shall be held in captivity only long enough to transport them to a release site; at no time shall two snakes be kept in the same container during transportation.

d. Gopher Tortoise Burrows

If gopher tortoise burrows are present, refer to subparagraph "Protection of Gopher Tortoise (GT) Populations (Gopherus polyphemus)" above. If gopher tortoise burrows are present, the requester should coordinate with the FF&WCC for information on the relocation program for gopher tortoises. As a part of the relocation program, the FF&WCC reviews and approves preserve areas for gopher tortoises. These same areas may be used for the release of indigo snakes. Therefore, prior to any construction or clearing activities in areas where gopher tortoise burrows have been identified the following measures should be incorporated into the indigo snake plan:

- (1) A qualified individual should map and flag the locations of all gopher tortoise burrows on the site. Prior to actual clearing, the qualified individual should update that initial survey no more than two weeks prior to clearing. These maps should be made available to all construction crews.
- (2) In some circumstances, an underground camera may be needed to investigate gopher tortoise burrows for indigo snakes. If an indigo snake is found, and the burrow will be destroyed by

construction activity then the burrow should be carefully excavated with a backhoe while monitoring the snake's position and condition with the underground camera. In burrows that are suitable for camera sue, the burrow will be carefully excavated with a combination of backhoe and hand excavation. Before excavating any burrow, it is recommended that a strong, flexible tue or hose be inserted into the burrow to the end to mark the course of the entire burrow in case it collapses during excavation. If a backhoe is used, the bucket should be equipped with a straight blade, not a blade iwth teeth. The excavation must be done with caution to prevent potential injury to an indigo snake.

(3) An indigo snake found in a burrow may be captured and released (by a qualified individual who has been either authorized by a Section 10(a)(1)(A) permit issued by the FWS, or designated as an agent of the State of Florida by the FF&WCC for such activities) immediately into a FF&WCC approved preserve area for gopher tortoises near a marked inactive or abandoned gopher tortoise burrow. Indigo snakes shall be held in captivity only long enough to transport them to a release site; at no time shall two snakes be kept in the same container during transportation. A map of marked inactive or abandoned burrow should be made available to the qualified individual. This will allow for prompt release of an indigo snake.

e. Reporting

Refer to subparagraph "Protection of Gopher Tortoise (GT) Populations (Gopherus polyphemus)" above. Reporting of indigo snake mortality or debilitating injury occurring during the capture, relocation, and release phases of a relocation will be reported as required in referenced subparagraph.

3.1.7 Protection of Air Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Florida (Florida Statue, Chapter 403 and others) Commonwealth Territorial and all Federal emission and performance laws and standards.

3.1.7.1 Particulates

Particulates, such as dust, shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and work areas within or outside the project boundaries free from particulates that would cause air pollution standards to be exceeded or that would cause a hazard or nuisance. The Contractor shall have the necessary equipment and approved methods to control particulates as the work proceeds and before a problem develops.

3.1.7.2 Burning

All burning shall be subject to State and local requirements, including

requirements for burn permits and bans during certain conditions such as droughts.

3.1.7.3 Odors

Odors shall be controlled at all times for all construction activities.

3.1.8 Protection of Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise.

3.2 POSTCONSTRUCTION CLEANUP

The Contractor shall clean up any area(s) used for construction.

3.3 PRESERVATION AND RESTORATION OF LANDSCAPE AND MARINE VEGETATION DAMAGES

The Contractor shall restore all landscape features and marine vegetation damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be a part of the Environmental Protection Plan as defined in subparagraph "Environmental Protection Plan" of paragraph SUBMITTALS above. This work will be accomplished at the Contractor's expense.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed facilities and portable pollution control devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.5 DAILY MIGRATORY BIRD MONITORING REPORT

See APPENDIX A at the end of this Section (3 pages).

3.6 SAMPLE - BIRD MONITOR QUALIFICATION SHEET

See APPENDIX B at the end of this Section (1 page).

3.7 TREE PROTECTION PLAN DETAIL

See APPENDIX C at the end of this Section (1 page).

3.8 SAMPLE - DAILY MANATEE REPORTING LOG

See APPENDIX D at the end of this Section (1 page).

3.9 SAMPLE - MANATEE CAUTION SIGNS

See APPENDIX E at the end of this Section (2 pages).

3.10 PROJECT ENVIRONMENTAL SUMMARY SHEET

See APPENDIX F at the end of this Section (2 pages).

-- End of Section --

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SECTION 01411

TURBIDITY MONITORING

06/99

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SECTION 01411

TURBIDITY MONITORING  
06/99

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all work required to obtain, analyze, and report the results of monitoring for turbidity.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-06 Test Reports

Test Reports

All required turbidity test reports shall be submitted (preferably by electronic mail) to the COR, the Environmental Quality Section (CESAJ-PD-ES), and the Florida Department of Environmental Protection (FDEP) within 24 hours after completion of each test.

SD-08 Manufacturer's Instructions

Calibration Standard.

The Contractor shall furnish to the Contracting Officer Representative (COR) a copy of the operating instructions and standards used in calibrating equipment used in collecting samples for turbidity.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 MONITORING REQUIREMENTS

3.1.1 General

Water samples shall be obtained and analyzed for turbidity. Sampling shall be conducted in accordance with techniques described in the latest edition of "Standard Methods" published by the American Public Health Association (APHA), American Waterworks Association (AWWA), and Water Pollution Control Federation (WPCF), and other current techniques recognized by the scientific community and approved by the Jacksonville District, Corps of Engineers. Samples obtained for turbidity analysis shall be analyzed within 30 minutes of collection. Samples shall be taken with a sampler obtaining samples uncontaminated by water from any other depth.

3.1.1.1 Turbidity Monitoring Equipment

Monitoring required for turbidity shall be measured in Nephelometric Turbidity Units (NTU) using a standard Nephelometer.

3.2 TURBIDITY TESTS

3.2.1 Testing

The Contractor shall provide the Government with a certification, attesting to the accuracy of his testing equipment and procedure. The Contractor shall also provide the Government with a duplicate of the standard used to calibrate his testing instrument as well as a complete set of operating instructions for the turbidity testing equipment. The Contractor and the Corps will use this standard throughout the project to maintain the calibration of the equipment. Whenever there is doubt as to the adequacy of the testing or validity of the results, the COR may direct that additional tests be performed at no additional cost to the Government.

3.2.1.1 Location of Monitoring Point

- Compliance Point: 150 meters downstream of construction activity.
- Background Point: 450 meters upstream of construction activity.

Text

3.2.1.2 Frequency

Turbidity monitoring shall occur twice a day (a.m. and p.m.) when there is construction activity in the water.

3.2.2 Reporting

The monitoring data shall be recorded on forms that contain the pertinent information in the following paragraphs. Example forms are appended to the end of this Section. Other data shall be submitted in the form supplied by the laboratory chosen to do the analysis. All data shall be forwarded (preferably electronically) to the COR, Environmental Quality Section (CESAJ-PD-EE), and FDEP within 24 hours of collection. Electronic mail addresses of the Corps and FDEP personnel to receive these reports are provided below. Reports shall be provided in a common format such as Excel Spreadsheet (.xls) files, Word (.doc) files, and Web Graphics (Joint Photographic Group or .jpg) files.

NAME	ORGANIZATION	E-MAIL ADDRESS
John Cooper	USACE COR	john.g.cooper@usace.army.mil
Jose Carrio	USACE COR	jose.r.carrio@usace.army.mil
Diana Gerland	USACE COR	diana.r.gerland@usace.army.mil
<del>Matt Miller</del> Jim Riley	USACE PD-EE	<del>matthew.j.miller</del>
<del>james.m.riley@usace.army.mil</del>		
Keith Mille	FDEP	Keith.Mille@dep.state.us.fl
Martin Seeling	FDEP	Martin.Seeing@dep.state.us.fl

3.2.3 Reporting

The monitoring data shall be recorded on forms provided by the Contracting Officer (sample Turbidity Monitoring form forms is are appended to the end

of Section 01411 TURBIDITY MONITORING). Other data shall be submitted in the form supplied by the laboratory chosen to do the analysis. All data in original form and 4 copies shall be forwarded directly to the COR within 24 hours of collection.

### 3.2.3.1 Report Contents

#### a. Cover Letter

All data shall be submitted under a cover letter containing the following information:

- (1) ~~Permit application number~~ n/a
- (2) Dates of sampling and analysis.
- (3) A statement describing the methods used in collection, handling, storage, and quality control methods used in the analysis of the samples.
- (4) A map indicating the sampling location.
- (5) A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, and accuracy of the data.
- (6) Results of the analyses.
- (7) A description of any factors influencing the dredging operation or the sampling program.

#### b. Monitoring Reports

Monitoring reports shall also include the following information for each day that samples are taken:

- (1) Time of day and date samples were taken.
- (2) Depth of water body.
- (3) Depth of sample.
- (4) Antecedent weather conditions.
- (5) Tidal stage and direction of flow.
- (6) Salinity (provided for heavy metal and ammonia analysis only).
- (7) pH (provided for heavy metal and ammonia analysis only).
- (8) Water temperature, degrees C (heavy metal and ammonia analysis only).
- (9) Dredge location (station location and map).
- (10) Water sample location.
- (11) Wind direction and velocity.

### 3.2.3.2 Notification

If turbidity exceeds background levels by more than 29 NTU, the Contractor shall immediately notify Dr. Smith at 904-232-1685 and the COR, or on the morning of the following work day if it occurs after normal work hours. In addition, all dredging activity shall cease immediately and all measures to reduce turbidity shall be taken. Dredging shall not resume until corrective measures have been taken and turbidity has returned to acceptable levels as determined by proper testing described in subparagraph "Dredging Location" above.

### 3.2.3.3 Work Delay

Delays in work due to the fault or negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the provisions of the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

-- End of Section --

PROJECT: STRUCTURE S-381 BROWARD COUNTY, FLORIDA

DEP PERMIT NUMBER: \_\_\_\_\_

TURBIDITY MONITORING

DATE: \_\_\_\_\_ ; TIME: \_\_\_\_\_ ; COLLECTOR: \_\_\_\_\_

LOCATION: DREDGE STATUS: WORKING (\_\_\_\_\_) NOT WORKING (\_\_\_\_\_)
STATION: \_\_\_\_\_
RANGE: \_\_\_\_\_
CUT: \_\_\_\_\_

WEATHER AND WATER OBSERVATIONS

WIND VELOCITY: \_\_\_\_\_, DIRECTION FROM: \_\_\_\_\_, CURRENT DIRECTION TO: \_\_\_\_\_
TIDAL STAGE: HIGH \_\_\_\_\_ LOW \_\_\_\_\_ (PREDICTED) EST

WEATHER CONDITIONS: \_\_\_\_\_

Table with 4 columns: Station Data, Two Feet Below Surface, Mid-Depth, Two Feet Above Bottom. Rows include Collection Depth, Depth of Water Body, Collection Time, Analysis Time, Turbidity (NTU), and Analysis Date for both Station and Background data.

STATION LOCATIONS AND PLUME CONFIGURATION IF ANY, ARE PRESENTED ON THE REVERSE SIDE OF THIS DATA FORM.

REMARKS: