



**ENGINEERING DESIGN STANDARDS FOR
WATER RESOURCE FACILITIES**

**SCADA Stilling Well/Platform Replacement (STA)
District-Wide Locations, FLORIDA
PROJECT ID#: 100905**

TECHNICAL SPECIFICATIONS

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGES
DIVISION 1: GENERAL REQUIREMENTS		
01050	Field Engineering	2
01300	Submittals	5
01310	Cost Loaded Construction Schedules	3
DIVISION 2: SITE WORK		
02050	Demolition	3
02367	Foundation Piling (Prestressed Concrete)	7
02435	Turbidity Control And Monitoring	7
02436	Environmental Protection	12
02781	Staff Gauges	2
DIVISION 3: CONCRETE		
03100	Concrete Formwork and Accessories	5
03200	Concrete Reinforcement	4
03300	Cast-In-Place Concrete	12
03600	Grout	9
DIVISION 5: METALS		
05070	Bolted Fasteners	4
05100	Structural Steel	4
05120	Steel	5
05210	Steel Joists	3
05521	Handrails	3
DIVISION 7: THERMAL AND MOISTURE PROTECTION		
07900	Sealants	3
DIVISION 8: DOORS AND WINDOWS		
Not Used		
DIVISION 9: FINISHES		
Not Used		
DIVISION 10: SPECIALTIES		
Not Used		
DIVISION 11: EQUIPMENT		
Not Used		
DIVISION 13: BUILDING		
Not Used		
DIVISION 15: MECHANICAL		
Not Used		
DIVISION 16: ELECTRICAL		
16050	Basic Materials Methods	7
16110	Raceway Boxes Fittings Support	11
16120	Wires Cables	6
16140	Wiring Devices	4
16450	Grounding	4

SECTION

DESCRIPTION

PAGES

END OF DIRECTORY

SECTION 02435 TURBIDITY CONTROL AND MONITORING

PART 1 - GENERAL

1.01 SCOPE:

- A. Summary of Work: The CONTRACTOR shall furnish all necessary equipment, labor and materials and utilize appropriate means and methods of turbidity controls necessary and sufficient to ensure that the more restrictive and protective of the following are achieved at all times: (1) all applicable State water quality standards, as prescribed in Chapter 62-302.530, Florida Administrative Code (F.A.C.), incorporated by reference, (2) all applicable environmental permit conditions, as prescribed in the permits appended to the Contract, and (3) all stormwater and erosion control shall be in accordance with the Florida Department of Environmental Protection (FDEP) Florida Stormwater Erosion and Sedimentation Control Inspector's Manual.
- B. Related Work Specified Elsewhere:
 - 1. SECTION 01300 – Submittals

1.02 APPLICABLE STANDARDS AND PUBLICATIONS:

- A. Standards or Codes: The edition of the standards or codes of the organizations listed below in effect at the time of the advertisement for bids form a part of this SECTION to the extent referenced.
- B. The environmental protection rules and standards in the applicable sections of the Florida Administrative Code (F.A.C.) incorporated herein by reference are:
 - 1. <http://www.dep.state.fl.us/legal/Rules/rulelistnum.htm>.
 - 2. Design and Performance Standards - 62-25.025 F.A.C.
 - 3. Quality Assurance - 62-160 F.A.C.
 - 4. Surface Waters of the State - 62-301 F.A.C.
 - 5. Surface Water Quality Standards - 62-302 F.A.C.
 - 6. Generic Permits - 62-621.300(2)&(4) F.A.C.
- C. Florida Department of Environmental Protection (FDEP)
 - 1. Florida Stormwater Erosion and Sedimentation Control Inspector's Manual
- D. Florida Department of Transportation (FDOT)
 - 1. Standard Specification for Road and Bridge Construction - Sections 104-1, 2, 3, 4, 6 and 7
- E. U.S. Army Corps of Engineers (USACE)

1.03 SUBMITTALS: The CONTRACTOR shall make submittals for the turbidity control and monitoring system in accordance with SECTION 01300 and the requirements herein.

- A. Provide details of the turbidity controls proposed.
- B. Provide proposed layout of the turbidity controls and monitoring system on the Site plan.
- C. Obtain the monitoring data and prepare quarterly reports in accordance with Paragraph 3.03B.

1.04 QUALIFICATIONS:

- A. The CONTRACTOR shall have at least one (1) employee, on-site, certified by the Florida Department of Environmental Protection as a Stormwater Erosion and Sedimentation Control Inspector. The certification shall be submitted to the DISTRICT for review prior to the installation, inspection, maintenance, repair or replacement of any erosion or sedimentation control Best Management Practices, including but not limited to the turbidity controls. The turbidity monitoring shall be conducted according to the FDEP-approved procedures.

1.05 INSPECTION COORDINATION:

- A. The CONTRACTOR shall provide access to the WORK for the DISTRICT as requested for inspection. The CONTRACTOR shall provide at least 48 hours advance notice of its intention to begin new WORK activities.

PART 2 - PRODUCTS

2.01 FABRIC:

- A. The CONTRACTOR shall provide floating turbidity barriers with fabric that is flexible and of sufficiently fine mesh to prevent passage of suspended material through the fabric. The floating turbidity barriers shall extend to within a foot of the bottom of the canal except in the areas with the potential for the presence of manatees the barriers shall be two (2) feet above the bottom.

2.02 FLOATS:

- A. The CONTRACTOR shall provide floats for the turbidity barriers of sufficient buoyancy to prevent the top of the barrier from submerging under any water and wind conditions. If the top of the barrier becomes submerged for any reason, the CONTRACTOR shall suspend construction operations until the condition is corrected.

2.03 ANCHORS AND WEIGHTS:

- A. The CONTRACTOR shall provide and maintain an anchor system to secure the turbidity barrier in position. Attach weights to the barrier as necessary to keep the fabric at an angle to the vertical of 30 degrees or less. Fabric material shall not be attached to the canal bottom.

PART 3 - EXECUTION

3.01 TURBIDITY BARRIERS:

- A. The CONTRACTOR shall install and maintain the turbidity barriers as noted in the Drawings and where necessary to maintain turbidity releases at or below the permit compliance levels. Turbidity barriers shall be installed prior to any backfilling, clearing and grubbing, dredging, or excavation and maintained in place until construction is complete and turbidity from construction has dissipated. All barriers shall be adequately marked and appropriate signage erected to identify them as obstructions to navigation.
- B. The turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. The barriers must not impede manatee movement.
- C. The applicable U.S. Army Corps of Engineers in-water work protection guidelines for the endangered West Indian Manatee incorporated herein by reference are: http://www.saj.usace.army.mil/Portals/44/docs/regulatory/sourcebook/endangered_species/Manatee/2011_StandardConditionsForIn-waterWork.pdf Any rips or tears that occur in the turbidity barrier material during use shall be repaired or replaced immediately by the CONTRACTOR at its expense. Rips or tears that occur in the turbidity barrier material in use that are not repaired or replaced immediately by the CONTRACTOR will result in a suspension of excavation and/or construction operations, and shall require repairs and replacements as a prerequisite to the resumption of WORK.
- D. The CONTRACTOR shall keep in place and maintain all barriers until the WORK is complete (construction areas stabilized with vegetation) and turbidity levels return to the background levels based on the monitoring results. Upon completion of use, the CONTRACTOR shall remove the turbidity barriers and associated items to an off-site location at its own expense.
- E. The CONTRACTOR shall conduct its operations at all times in a manner that minimizes turbidity. The CONTRACTOR is required to conform to the State Water Quality standards as prescribed in Chapter 62-302.530, F.A.C., and to meet the special requirements of any environmental permits that have been

issued.

- F. The turbidity controls shall be inspected by the CONTRACTOR every work day, after every rainfall event of 0.5 inches or greater in a 24 hour period, and after every extreme weather event that could dislodge or damage the turbidity controls, to assure that the turbidity controls remain properly installed, undamaged, and fully functional at all times.

3.02 EROSION CONTROL:

- A. The CONTRACTOR shall prevent and control erosion, sedimentation and water pollution as per the Florida Department of Transportation (FDOT) Specification Sections 104-1, 2, 3, 4, 6 and 7 and FDEP regulations and permit conditions.

3.03 MONITORING:

- A. The CONTRACTOR shall conduct and record the results of turbidity monitoring appropriate to the conditions and at the locations, times, and frequencies specified below. An FDEP approved Turbidity Monitoring Log is attached (Appendix A) for the CONTRACTOR's use.

- 1. Background Monitoring Location: At least 100 feet (or as specified in the applicable environmental permit) upstream of any construction activities that may generate turbidity within a canal or conveyance feature outside the construction area, in the middle of the canal, at mid-depth in the water column, and outside of any visible turbidity plume.

- 2. Compliance Monitoring Location: Located in the canal or water body adjacent to each WORK area, downstream or radial to the construction or maintenance work area, directly outside of the turbidity barriers, and within the densest portion of any visible plume.

- 3. Sampling Time:

- a. During Activities or Environmental Conditions that Can Generate Construction-Related Turbidity: Water samples for the turbidity measurement shall be collected beginning no sooner than one (1) hour after and no later than two (2) hours after construction activity commences (or as specified in the applicable environmental permit) and every four (4) hours thereafter until the work day ends. Water samples shall be collected at the same time(s) every work day according to this schedule. Any substantial deviation from this schedule must be approved by the DISTRICT, unless otherwise compelled by force majeure, in which case, an explanation must be provided verbally as soon as possible and in writing within 48 hours of the deviation.

- b. During Activities and Conditions That Cannot Generate Construction-Related Turbidity: Once daily at 10:00 AM or as specified in the applicable environmental permit.

- 4. Equipment: The turbidity monitoring equipment shall meet the specifications and be calibrated, maintained, repaired, and replaced according to the methods, procedures, and frequencies set forth in Chapter 62-160, F.A.C.

- 5. Records Management: The individual conducting the turbidity monitoring shall transcribe the readings to the approved Daily Turbidity Monitoring Log form (Appendix A) and sign and date the form at the close of each monitoring day. The notebook containing the signed and dated daily turbidity monitoring log forms shall be accessible at the construction Site during the work day.

- B. The CONTRACTOR shall submit the quarterly monitoring data (Turbidity Monitoring Log forms), to the DISTRICT. Documents submitted shall contain the following information:

- 1. Permit number
- 2. Project name
- 3. Dates of sampling and analysis

4. A statement describing the methods used in collection, handling, storage and analysis of the samples
 5. A map indicating the sampling locations
 6. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.
- C. The CONTRACTOR shall submit monitoring reports that also include the following information for each sample that is taken:
1. Date and time of the day samples were taken
 2. Depth of the water body
 3. Depth of the sample
 4. Antecedent weather conditions
 5. Water level stage
 6. Direction of flow

3.04 EXCEEDANCES OF WATER QUALITY STANDARDS

- A. If at any time, monitoring reveals the turbidity level, at the compliance sampling station is greater than 29 NTUs above the corresponding background sample in Class I or III receiving waters or greater than 0 NTU above background samples in receiving waters classified as OFW (Outstanding Florida Waters), construction activities shall cease immediately and not resume until corrective measures have been taken and turbidity has returned to an acceptable level. Turbidity violations and corrective measures shall be documented in the monitoring reports.
1. The CONTRACTOR must notify the DISTRICT Construction Manager and the DISTRICT's Permitting and Compliance Staff immediately who then, per the permit, must notify the permitting agency of the exceedance. If known, the CONTRACTOR may also contact the DISTRICT's assigned Permitting and Compliance Staff for the Project directly.

END OF SECTION

APPENDIX A

DAILY TURBIDITY MONITORING LOG

**Multiple work areas that may contribute to turbidity in receiving waters must be monitored separately.
A Site map depicting sampling locations must accompany the quarterly turbidity monitoring reports.**

Project Name:	Permit No.:
Collector Name:	Collection Date:
Meter/Sonde Identification No.	

Water Observations	Weather Observations
Water Level Stages	Temperature:
Direction of Flow	Conditions:
Water Depth	

Activity Taking Place During Sampling	Yes	No
Excavation or Filling within 50 ft radius of surface waters or wetlands?		
Please describe:		
Other In-Water Work? (e.g., dewatering; installing piling or forms; injecting concrete; sand blasting; painting)		
Please describe:		
Other Activity? (e.g., materials transfer; washdown; interim stabilization)		
Please describe:		

Turbidity Monitoring Data						
Background Location Description:	Background	Compliance	Background	Compliance	Background	Compliance
	A.M. Mid-Depth		Mid-Day Mid-Depth		P.M. Mid-Depth	
Compliance Location Description:						
Collection Time						
Analysis Time						
Turbidity (NTU)						
Did Compliance Sample exceed 29 NTU's above Background Sample?	<input type="checkbox"/> Yes* <input type="checkbox"/> No		<input type="checkbox"/> Yes* <input type="checkbox"/> No		<input type="checkbox"/> Yes* <input type="checkbox"/> No	
*If the 29 NTU limitation is exceeded, please describe cause and corrective actions taken on reverse side of this form. Immediately stop activities contributing to turbidity and notify the SFWMD Construction Manager and Permit Compliance Staff.						
Explanation of gaps in sampling activity (e.g., rained out, phased activity, etc.):						
Construction activity complete and slopes stabilized? <input type="checkbox"/> Yes <input type="checkbox"/> No						

Statement of Authenticity	
I certify this test was performed as required by Chapter 62-160, F.A.C., conducted with an approved instrument calibrated in accordance with the appropriate FDEP-SOPs. The results are complete and accurate.	
Print Name:	
Signature:	Date:

PART 1 - GENERAL

1.01 SCOPE:

- A. Summary of Work: The CONTRACTOR shall provide all labor, equipment and materials necessary for the prevention of environmental damage as the result of construction operations under this Contract and for those measures set forth in other requirements of the Technical Specifications.
- B. Related Work Specified Elsewhere:
 - 1. SECTION 01300 - Submittals

1.02 APPLICABLE STANDARDS AND PUBLICATIONS:

- A. Standards or Codes: The edition of the standards or codes of the organizations listed below in effect at the time of the advertisement for bids form a part of this specification to the extent referenced. The CONTRACTOR shall comply with all applicable environmental laws and regulations.
 - 1. Environmental Protection Agency (EPA)
 - a. Clean Air Act (CAA)
 - b. Clean Water Act (CWA)
 - c. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
 - d. Executive Orders and EPA requirements, as appropriate; and all general and specific Federal Permit Conditions as applicable.
 - e. Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
 - f. National Environmental Laboratory Accreditation Conference (NELAC)
 - g. National Environmental Policy Act (NEPA)
 - h. National Pollution Discharge Elimination System (NPDES)
 - i. Resource Conservation and Recovery Act (RCRA)
 - j. Safe Drinking Water Act
 - k. Toxic Substance Control Act (TSCA)
 - 2. Code of Federal Regulations (CFR)
 - a. 40 CFR - Parts 109, 261.10, 260-268, 273, 279
 - 3. Florida Department of Environmental Protection (FDEP)
 - a. Florida Administrative Code (FAC)
 - i. 62-770, 62-780
 - b. Florida Stormwater, Erosion and Sedimentation Control Inspector's Manual
 - 4. Florida Department of Transportation (FDOT)
 - a. Standard Specification for Road and Bridge Construction - Sections 104-1, 2, 3, 4, 6 and 7
 - 5. Florida Statutes
 - a. Chapter 403
 - 6. National Oceanic and Atmospheric Administration (NOAA)
 - a. Coastal Zone Management Act (CZMA)
 - 7. National Park Service (NPS)
 - a. Native American Graves Protection and Repatriation Act (NAGPRA)
 - b. National Historic Preservation Act (NHPA)
 - 8. U.S. Army Corps of Engineer (USACE)
 - 9. U.S. Fish & Wildlife Service (FWS)
 - a. Endangered Species Act (ESA)
 - b. Fish and Wildlife Coordination Act (FWCA)
 - c. Migratory Bird Treaty Act (MBTA)

- B. State and local codes, permits, regulations and ordinances as applicable.

1.03 DEFINITIONS:

- A. For the purpose of this SECTION, environmental damage is defined as the presence of hazardous, physical, or biological elements or agents which alter the physical, chemical or biological integrity of the environment in such a way that it represents an unacceptable risk to public health, safety or welfare; unfavorably alter ecological balances; affect other species, biological communities, or ecosystems; or degrade the quality of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental damage requires consideration of land, water, and air, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

1.04 SUBMITTALS: Within 20 calendar days after the Notice to Proceed (NTP), the CONTRACTOR shall submit an Environmental Protection Plan (Plan) for review and acceptance by the DISTRICT in accordance with SECTION 01300. Approval of the Plan shall not relieve the CONTRACTOR of its responsibility for adequate and continuing control of pollutants and appropriate environmental protection measures. Approval of the Plan is conditional and predicated on satisfactory performance during construction. The DISTRICT reserves the right to require the CONTRACTOR to modify the Plan if it is determined that environmental protection requirements are not being met. No physical WORK at the Site shall begin prior to acceptance of the Plan. The Plan shall include, but not be limited to the following:

- A. A list of the Federal, State and Local laws, regulation and permits concerning environmental protection, pollution control and abatement that are applicable to the CONTRACTOR's proposed operations and the requirements imposed.
- B. Methods for protection of features to be preserved within the authorized WORK areas: The CONTRACTOR shall prepare a listing of methods to protect resources needing protection (trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil and historical, archeological and cultural resources).
- C. Procedures to be implemented are to provide all necessary environmental protection and to comply with applicable laws and regulations: The CONTRACTOR shall provide written assurance that immediate corrective action will be taken to correct any environment damage due to accident, natural causes or failure to follow the procedures set out in accordance with the Plan.
- D. Environmental monitoring plans, if applicable.
- E. Traffic control plan, if applicable.
- F. Drawings showing locations of proposed temporary activities, such as material storage areas or stockpiles of excess spoil or materials.
- G. Erosion and sediment control methods, for protecting surface waters, wetlands, and groundwater during construction. All stormwater and erosion control methods shall be in accordance with the FDEP Florida Stormwater, Erosion and Sedimentation Control Inspector's Manual. The CONTRACTOR shall prevent and control erosion and water pollution as per FDOT Specification Sections 104-1, 2, 3, 4, 6 and 7 and all applicable FDEP regulations and permit conditions.
- H. Spill Prevention Methods: The CONTRACTOR shall identify any hazardous or potentially hazardous substances to be used on the Site and indicate intended actions to prevent accidental or intentional introduction of these materials into the air, ground, water, wetlands or drainage areas. The Plan shall specify the actions that will be taken to meet the federal, state and local laws regarding labeling, storage, removal, transport and disposal of all hazardous or potentially hazardous substances.
- I. Spill Contingency Plan for hazardous, toxic or petroleum material.
- J. A WORK area plan, showing proposed activities and identifying areas of limited use or non-use, and including measures that will be taken for field identification of these areas.
- K. Identification of the person who shall be responsible for implementation of the Plan. This person shall have authority to respond for the CONTRACTOR in all environmental protection matters.
- L. A recycling and waste management plan. The CONTRACTOR shall include waste minimization efforts in the Plan.

1.05 QUALIFICATIONS:

- A. The CONTRACTOR shall provide access to the WORK for the DISTRICT as requested for inspection. The CONTRACTOR shall provide at least 48 hours advance notice of its intention to begin new WORK activities.
- B. When the Eastern Indigo Snake is identified as a species of concern in the environmental permits the CONTRACTOR shall supply qualified eastern indigo snake observers during ground clearing activities. Qualified Observers are defined as individuals who have been instructed by the DISTRICT on proper techniques and protocols for protection of the Eastern Indigo Snake during site activities. The observer's names and documentation showing completion of the DISTRICT's instruction shall be provided to the DISTRICT at least two (2) weeks prior to the commencement of ground clearing activities.

1.06 RESPONSIBILITIES:

- A. Quality Control: The CONTRACTOR shall establish and maintain quality control for the 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 applicable laws, regulations and ordinances, and corrective action(s) taken.
- B. Permits and Authorizations: The CONTRACTOR shall apply for and obtain all necessary permits or licenses unless the DISTRICT has already acquired them. The CONTRACTOR shall be responsible for implementing and complying with all terms, conditions and requirements of all permits issued for construction of the Project. The CONTRACTOR shall install speed limit signs for off-road and improved road travel for construction equipment and employee vehicles that identify speeds protective of wildlife. The CONTRACTOR shall also provide all necessary signage describing all Threatened and/or Endangered species which are identified in applicable environmental permits.
- C. Training: Prior to the onset of construction activities the CONTRACTOR and all personnel shall be trained on how to identify and implement the Standard Protection Measures and Guidelines for the Threatened and Endangered Species and ground-nesting birds. The Standard Protection Measures for the Eastern Indigo Snake dated August 12, 2013, is attached in Appendix C.

1.07 CERTIFICATIONS AND TESTINGS:

- A. All physical, chemical, and biological measurements and analyses that are necessary to comply with the monitoring requirements in all applicable permits or in this Contract must be performed according to approved methods and procedures by a commercial laboratory that is certified to perform the required analyses according to the approved methods and procedures by the National Environmental Laboratory Accreditation Conference (NELAC).

1.08 INSPECTION COORDINATION:

- A. The CONTRACTOR shall provide access to the WORK for the DISTRICT as requested for inspection. The CONTRACTOR shall provide to the DISTRICT at least 48 hours advance notice of its intention to begin new WORK activities.

PART 2 - PRODUCT (ENVIRONMENTAL PROTECTION PLAN)

2.01 NOTIFICATION:

- A. In the event that the DISTRICT notifies the CONTRACTOR of any non-compliance with federal, state or local laws, permits or other elements of the CONTRACTOR's Environmental Protection Plan, the CONTRACTOR shall without delay inform the DISTRICT of the proposed correction action and take such action as approved.
- A. The CONTRACTOR shall notify the DISTRICT immediately of any warnings or notices of noncompliance, fines, citations or tickets issued directly to the CONTRACTOR by any federal, state, or local environmental protection, waste management, code enforcement, or fire, police, or public health agency.
- B. If the CONTRACTOR fails to comply, the DISTRICT may order all WORK to cease until corrective action has been taken. No time extensions shall be granted or damages allowed for the suspension of WORK under this circumstance.

- C. A Notice of Termination (NOT) shall be sent to the applicable federal, state, and local permit-issuing authorities with a copy to the DISTRICT within fourteen (14) days of final stabilization

2.02 SUMMARY:

- A. The CONTRACTOR shall submit a written report within 30 days of completion of the Project. This report shall delineate the absence, or occurrence, of reported or unreported environmental incidents during the course of the Project.

2.03 TRAINING:

- A. The CONTRACTOR shall train its personnel in relevant phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, and careful installation and monitoring of the Project to ensure continuous environmental pollution control.
- B. Due to the probability that wildlife species of concern, including but not limited to Threatened and/or Endangered species and Protected Migratory Bird species may be present within or adjacent to construction sites, prior to initiation of construction activities, the CONTRACTOR(s) will be trained by the DISTRICT and/or U.S. Fish & Wildlife Service on how to identify and implement appropriate protection measures for each species.

PART 3 - EXECUTION (PROTECTION OF ENVIRONMENTAL RESOURCES)

3.01 GENERAL:

- A. During the entire period of the Contract, the CONTRACTOR shall protect environmental resources within the Project boundaries and those affected outside the limits of construction. The CONTRACTOR shall confine its activities to the areas defined by the Drawings and specifications. Any deviations from the Drawings including, but not limited to borrow areas, disposal areas, staging areas, and alternate access routes will require additional review by the DISTRICT to ensure compliance with applicable environmental rules and regulations prior to implementation/or commencement of those deviations.

3.02 PROTECTION OF LAND RESOURCES:

- A. Prior to the beginning of any construction the CONTRACTOR shall delineate, install protection and be responsible for preservation of all land resources that are to be preserved or avoided within the WORK area. The CONTRACTOR shall not remove, cut, deface, injure, or destroy any land resources (trees, shrubs, vines, grasses, topsoil, or land forms) unless indicated in the Drawings or specifically authorized by the DISTRICT. All damaged areas shall be restored to original or better condition, to the satisfaction to the DISTRICT.

3.03 DISTURBED AREAS:

- A. The CONTRACTOR shall effectively prevent erosion and control sedimentation through approved materials and methods as identified in the Environmental Protection Plan. Disturbed areas will include areas of ingress and egress, construction materials storage, staging, washdown areas, and toxic, hazardous, and solid materials/waste storage areas. Disturbed areas shall be temporarily stabilized within seven (7) days of cessation of phased construction activity and permanently stabilized within fourteen (14) days of cessation of all phases of construction activity. Temporary Best Management Practices (BMPs) shall remain in place and in effect until the final Site inspection is complete and Site is certified as stabilized.

3.04 PROTECTION OF WATER RESOURCES:

- A. The CONTRACTOR shall conduct all activities in a manner to avoid pollution of surface water, ground water and wetlands. The CONTRACTOR's construction methods shall protect wetland and surface water areas from damage due to mechanical grading, erosion, sedimentation and turbid discharges. No storage or stockpiling of equipment shall be allowed within any wetland area unless specifically authorized under a permit for the Project.
- B. Water directly derived from construction activities shall not be allowed to directly discharge to water areas, but shall be collected in retention areas to allow settling of suspended materials. The CONTRACTOR shall monitor water quality of dewatering discharge into water bodies or leaving the Site in accordance with applicable environmental permits. All monitoring of any water areas that are affected by construction activities shall be the responsibility of the CONTRACTOR.

3.05 OIL, FUEL AND HAZARDOUS SUBSTANCE SPILL PREVENTION:

- A. The CONTRACTOR shall prepare a spill contingency plan in accordance with 40CFR, Part 109. The CONTRACTOR shall prevent oil, fuel or other hazardous substances from entering the air, ground, drainage, and local bodies of water or wetlands. In the event that a spill occurs, despite design and procedural controls, the CONTRACTOR shall take immediate action to contain and clean up the spill and report the spill immediately to the DISTRICT and to other appropriate federal, state, and local agency contacts. Reportable quantities (greater than 25 gallons) of petroleum-based fluids must be reported within 1 hour to the National Response Center (800-424-8802) and State Warning Point (800-320-0519) if it reaches the waters of the state or, if not, within 24 hrs to State Warning Point. Toxic and hazardous substance spills directly into waters of the state, in any quantity, must be reported immediately to the DISTRICT and those federal and state points of contact listed above.
- B. The CONTRACTOR shall submit a written report to the DISTRICT and to the State of Florida Bureau of Emergency Response providing certification of commitment of manpower, equipment and materials necessary to prevent the spread and effect expeditious cleanup and disposal. This report shall be submitted within 48 hours of the spill event.

3.06 MATERIALS AND WASTE MANAGEMENT:

- A. For sanitary waste management, the CONTRACTOR shall ensure that portable restrooms will be anchored on level ground with at least a 15-foot set-back from water bodies or banks or slopes thereto. For solid waste management, dumpster(s) will either be outfitted with a water-tight cover or be covered with a tarpaulin when not in use to minimize infiltration and leaching of rain with at least a 15-foot set-back from water bodies, conveyances thereto, or banks or slopes thereto. Hazardous materials storage areas and liquid refuse and hazardous waste collection and storage areas shall be denoted on the Plan.
- B. The CONTRACTOR shall ensure toxic substances and hazardous materials are stored in a locked, blast-resistant shed anchored to a bermed concrete or asphalt pad on level ground with at least a 15-foot setback from any water bodies, conveyances thereto, or banks or slopes thereto.
- C. For solid and/or hazardous waste disposal involving lead-based paint, the CONTRACTOR shall ensure containers with Toxicity Characteristic Leaching Procedure – Tetraphenylborate (TCLP TPb) concentrations in excess of the Resource Conservation and Recovery Act (RCRA) action level will be transported by a licensed hazardous waste hauler to a licensed hazardous waste disposal facility within the time limit appropriate to the generation rate and accumulated volume of hazardous waste material. Containers with TCLP TPb concentrations less than the RCRA action level shall be transported by a licensed solid waste hauler to a licensed Class I solid waste disposal facility. In either case, the CONTRACTOR shall obtain and transmit signed and dated copies of the transport and disposal manifests to the DISTRICT's for records retention.
- D. The CONTRACTOR is prohibited from the on-site burning of hazardous wastes (aerosol cans, oil filters, etc.). All hazardous wastes shall be disposed of as required by law. Copies of relevant Material Safety Data Sheets (MSDSs) shall be appended to the Environmental Protection Plan, Safety Plan, Spill Prevention Plan, and Stormwater Pollution Prevention Plan (SWPPP).
- E. The CONTRACTOR is responsible for the materials and processes where wastes may be generated under the contracted activities. The CONTRACTOR is responsible for providing the materials in order to implement the Contract and is responsible for operating and maintaining any processes from which waste material may be generated.
- F. The CONTRACTOR is deemed to be the "generator" as defined in 40 CFR 261.10 for any hazardous wastes or spill residue that is generated during the activities encompassed in this Contract. It is recognized that it is the CONTRACTOR's or a subcontractor of the CONTRACTOR whose act first causes a hazardous waste to become subject to regulation. The CONTRACTOR is a different legal entity from the owner/operator of the physical location/property where the contracted activities will be conducted. CONTRACTOR is a "person" within the meaning of Section 403.031(5), Florida Statutes.
- G. The CONTRACTOR is responsible for compliance with applicable standards of 40 CFR 260-268 and 40 CFR 273 and 279 and state regulations which adopt or reference these federal standards.
- H. The CONTRACTOR is responsible for the generation and retention of records associated with waste management practices and disposition. All records shall be maintained for a minimum of three (3) years from

the date of generation. All records will be made available to the DISTRICT or regulatory agencies upon request.

- I. In the event of any chemical discharges associated with CONTRACTOR's or subcontractor's activities, CONTRACTOR shall be responsible for reporting, assessment and remediation of such discharges in accordance with applicable federal, state or local regulations and/or guidelines including, but not limited to, 40 CFR 264/265, Chapter 62-770, Florida Administrative Code (F.A.C.) and Chapter 62-780, F.A.C.

3.07 FISH AND WILDLIFE RESOURCE PROTECTION: The CONTRACTOR shall control and minimize interference with, disturbance to, and damage of fish and wildlife resources.

- A. If adverse impacts occur to fish and wildlife species of concern, including but not limited to Threatened and/or Endangered Species and Protected Migratory Bird Species, the CONTRACTOR shall immediately notify the DISTRICT and provide details of adverse impacts for determination of further action that may be required. Adverse impact is defined as any harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, collecting, or attempting to engage in any such activity. Threatened and/or Endangered Species that require specific protection measures as identified in the environmental permits shall be listed in the Environmental Protection Plan.
- B. In the event that the DISTRICT determines that an adverse impact to species of concern, including but not limited to Threatened and/or Endangered Species and Protected Migratory Bird Species occur as a result of the construction activities, the DISTRICT shall notify the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service for determination of further action and possibly to determine if seasonal or daily timing restrictions on construction activities is needed.
- C. The CONTRACTOR and all personnel shall be familiar with the Plan shall be able to identify the threatened and endangered species listed in the Plan. Any activity observed by the CONTRACTOR that may result in adverse impact to threatened or endangered species shall be reported immediately to the DISTRICT, who shall have sole authority for any WORK stoppages, creation of a buffer area, or restart of construction activities.
- D. Any Threatened and/or Endangered Species and species of concern observed at the Site will be recorded and logged. The logs shall be provided to the DISTRICT on a bi-weekly basis. See attached Wildlife Log, Appendix A. If nesting activity is detected within and/or adjacent to the Site, the CONTRACTOR shall immediately contact the DISTRICT for determination of further action and possibly to determine if seasonal or daily timing restrictions on construction activities is needed.
- E. The CONTRACTOR shall keep construction activities under surveillance, management, and control to prevent impacts to migratory birds and their nests. The CONTRACTOR may be held responsible for harming or harassing the birds, their eggs or their nests as a result of the construction. Any nesting activity observed by the CONTRACTOR shall be reported immediately to the DISTRICT's Construction Manager who shall have sole authority for any work stoppages, creation of the buffer area, or restart of construction activities.

3.08 ENVIRONMENTAL PROTECTION RETENTION RECORD RETENTION:

- A. The CONTRACTOR shall retain a copy of all required permits, the Plan, the SWPPP, the Spill Prevention Plan, and all associated reports, records and documentation required by these permits or the Contract at the construction Site or an appropriate alternative location as specified in the Notice of Intent (NOI) from NTP through Notice of Termination (NOT). Such documentation includes but is not limited to soil disturbance and stabilization logs, inspection and corrective action logs, turbidity monitoring logs, wildlife observation logs and reports, TCLP and Synthetic Precipitation Leaching Procedure (SPLP) assay results, sanitary, solid, and hazardous waste transport and disposal manifests, spill reports, material safety data sheets, and any warnings, citations or notices of noncompliance, or fees, levees, fines or penalties. A copy of all such records shall be submitted to the DISTRICT at the time of Contract close-out.

3.09 PROTECTION OF AIR RESOURCES:

- A. The CONTRACTOR shall minimize pollution of air resources. All activities, equipment, processes and work operated or performed in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Florida (F.S. Chapter 403 – Environmental Control and F.A.C. Section 200 – Recirculation Chiller) and all Federal emission and performance laws and standards as applicable. This includes, but is not limited to, control of particulates, dust generated by or incidental to construction activities, burning and odors.

3.10 PRESERVATION AND RECOVERY OF HISTORIC, ARCHEOLOGICAL, AND CULTURAL RESOURCES: If applicable, known historic, archeological and cultural resources within the CONTRACTOR's WORK area(s) will be designated as a "Sensitive Environmental Area" on the Drawings or other documents. If so designated, the CONTRACTOR shall install protection for these resources and shall be responsible for their preservation during the Contract's duration. The CONTRACTOR shall not distribute maps or other information on these resource locations except for distribution among the CONTRACTOR's staff with a "need to know" technical responsibility for protecting the resources.

- A. Inadvertent Discoveries: If, during construction or other activities, the CONTRACTOR observes items that may have historic or archeological value, such observations shall be reported immediately to the DISTRICT so that the appropriate staff may be notified and a determination made for what, if any, additional action is needed. Examples of historic, archeological and cultural resources are bones, remains, artifacts, shell, midden, charcoal or other deposits, rocks or coral, evidences of agricultural or other human activity, alignments, and constructed features. The CONTRACTOR shall cease all activities that may result in the destruction of these resources and shall prevent his employees from further removing, or otherwise damaging, such resources.
- B. Claims for Downtime due to Inadvertent Discoveries: Upon discovery and subsequent reporting of a possible inadvertent discovery of cultural resources, the CONTRACTOR shall seek to continue WORK well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the Contract. Should an Inadvertent Discovery be of the nature that substantial impact(s) to the WORK schedule are evident; such delays shall be coordinated with the DISTRICT.

END OF SECTION

**Appendix A
Wildlife Log**

For Threatened and/or Endangered Species and Species of Concern Listed in Permit

Wood Storks Sightings, since they are so abundant, will be logged on a bi-weekly basis in coordination with Bi-weekly Construction Progress Meetings and will be reported quarterly along with other sightings.

<input type="checkbox"/> Eastern Indigo Snake <input type="checkbox"/> Bald Eagle <input type="checkbox"/> Wood Stork <input type="checkbox"/> Florida Panther <input type="checkbox"/> Caracara <input type="checkbox"/> Gopher Tortoise <input type="checkbox"/> Other _____	
Project Name	
Date of Sighting	
Time of Sighting	
Temperature	
Wind (mph)	
Weather Conditions (ex: note sky cover, raining, humid, cloudy, sunny, cool, hot, etc)	
Construction Activity Occurring	
Equipment being Used	
Condition of Animal (ex: injured, unharmed, etc)	
Behavior of Animal (ex: disoriented, aggressive, etc)	
Actions taken after sighting	
Size of Animal	
GPS Coordinates/Specific Location	
Pictures Taken (Attach pictures)	
Date this form was completed	
Observers Company/Agency	
Observers Name	Print Name:
	Signature:
Observers Contact Info	Office:
	Cell:
	Email:

**EXAMPLE FORM
Wildlife Log**

For Threatened and/or Endangered Species and Species of Concern Listed in Permit

Wood Storks Sightings, since they are so abundant, will be logged on a bi-weekly basis in coordination with Bi-weekly Construction Progress Meetings and will be reported quarterly along with other sightings.

<input checked="" type="checkbox"/> Eastern Indigo Snake <input type="checkbox"/> Bald Eagle <input type="checkbox"/> Wood Stork <input type="checkbox"/> Florida Panther <input type="checkbox"/> Caracara <input type="checkbox"/> Gopher Tortoise <input type="checkbox"/> Other	
Project Name	C-44 Reservoir
Date of Sighting	Tuesday, January 29, 2008
Time of Sighting	0900
Temperature	75°
Wind (mph)	5-10 mph
Weather Conditions (ex: note sky cover, raining, windy, humid, cloudy, sunny, cool, hot, etc)	Partial cloud/Sunny
Construction Activity Occurring	Demobilization of Construction Trailers, nothing near the area snakes were sighted
Equipment being Used	n/a
Condition of Animal (ex: injured, unharmed, etc)	Good
Behavior of Animal (ex: disoriented, aggressive, etc)	under a door in an abandoned citrus office
Actions taken after sighting	Determined sex, took photos, estimated size
Size of Animal	Approx 6'
GPS Coordinates/Specific Location	N 27 05 33.59 W 80 26 59.90 NE Corner of Project along Eastern Levee
Pictures Taken (Attach pictures)	Yes, attached
Date this form was completed	Tuesday, February 5, 2008
Observers Company/Agency	Land Clearing Inc.
Observers Name	Print Name:
	Signature:
Observers Contact Info	Office:
	Cell:
	Email:



Appendix B

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

LEGAL STATUS: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.



August 12, 2013

ATTENTION:

**THREATENED EASTERN INDIGO
SNAKES MAY BE PRESENT ON
THIS SITE!!!**



Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.

**IF YOU SEE A LIVE EASTERN
INDIGO SNAKE ON THE SITE:**

- Cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site without interference.
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate U.S. Fish and Wildlife Service (USFWS) office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

**IF YOU SEE A DEAD EASTERN
INDIGO SNAKE ON THE SITE:**

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida ES Office – (904) 731-3336

Panama City ES Office – (850) 769-0552

South Florida ES Office – (772) 562-3909

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

Appendix C
STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013



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PROTECTION:	The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

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August 12, 2013