



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
US ARMY CORPS OF ENGINEERS  
SOUTH ATLANTIC DIVISION  
60 FORSYTH STREET SW, ROOM 10M15  
ATLANTA, GA 30303-8801

15 JUN 2016

CESAD-RBT

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT

SUBJECT: Approval of Review Plan for Preconstruction, Engineering and Design Phase Implementation Documents for the Port Everglades Navigation Improvements Project, Broward County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 16 May 2016, subject: Approval of Review Plan for Preconstruction, Engineering, and Design Phase Implementation Documents for the Port Everglades Navigation Improvements Project, Broward County, Florida (Encl).

b. EC 1165-2-214, Civil Works Review, 15 December 2012.

2. The enclosed subject Review Plan (RP) submitted by the Jacksonville District via reference 1.a has been reviewed by this office and is hereby approved in accordance with reference 1.b above.

3. We concur with the determination of the District Chief of Engineering and conclusion in the RP that a Type II Independent External Peer Review (IEPR) is not required on the Design Documentation Report and Plans and Specification for the channel dredging and widening and construction of the environmentally friendly bulkheads on this navigation project. The primary basis for our concurrence is that the failure or loss of the features associated with this navigation project effort will not pose a significant threat to human life.

4. The District should take steps to post the RP to its web site and provide a link to CESAD-RBT. Before posting to the web site, the names of Corps/Army employees should be removed. Subsequent significant changes to this RP, such as scope or level of review changes, should they become necessary, will require new written approval from this office.

CESAD-RBT

SUBJECT: Approval of Review Plan for Preconstruction, Engineering and Design  
Phase Implementation Documents for the Port Everglades Navigation Improvements  
Project, Broward County, Florida

5. The SAD point of contact is

[REDACTED]

Encl

[REDACTED]

Brigadier General, USA  
Commanding

CF:

[REDACTED]



# **PROJECT REVIEW PLAN**

For

## **Preconstruction, Engineering and Design Phase Implementation Documents**

For

## **Port Everglades Navigation Improvements Project**

**Broward County, Florida  
Project P2 Number: 452862**

**Jacksonville District  
May 2016**



**US Army Corps  
of Engineers®**

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ATTACHMENT B - Partial List of Acronyms and Abbreviations

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## **1. PURPOSE AND REQUIREMENTS**

### **a. Purpose**

This Review Plan defines the scope and level of review activities for the Port Everglades Navigation Improvements Project, Broward County, Florida. As discussed below, the review activities consist of a District Quality Control (DQC) effort, an Agency Technical Review (ATR), and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review. Also as discussed below, an Independent External Peer Review (IEPR) is not recommended. The project is in the Pre-Construction, Engineering and Design (PED) phase. The implementation documents to be reviewed are Plans and Specifications (P&S) and a Design Documentation Report (DDR). Upon approval, this Review Plan will be included into the Project Management Plan (PMP) for this project as an appendix to the Quality Management Plan (QMP).

### **b. References**

- (1). ER 1110-2-1150, "Engineering and Design for Civil Works Projects", 31 August 1999
- (2). ER 1110-1-12, "Engineering and Design Quality Management", 31 March 2011
- (3). EC 1165-2-214, "Civil Works Review", 15 December 2012
- (4). ER 415-1-11, "Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review", 1 January 2013
- (5). SAJ EN QMS 02611, "SAJ Quality Control of In-House Products: Civil Works PED", 21 November 2011
- (6). SAJ EN QMS 08550, "BCOES Reviews", 21 September 2011
- (7). Enterprise Standard (ES) 08025, "Government Construction Quality Assurance Plan and Project/Contract Supplements"
- (8). Enterprise Standard (ES) 08026, "Three Phase Quality Control System"
- (9). Project Management Plan, Port Everglades Navigation Improvements Project, Broward County, Florida, P2 Number 452862

### **c. Requirements**

This Review Plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R). The EC provides the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and other work products. The EC outlines five levels of review: District Quality Control (DQC), Agency Technical Review (ATR), and an Independent External Peer Review (IEPR), Policy and Legal Review, and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review.

### **d. Review Plan Approval and Updates**

The South Atlantic Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and

HQUSACE members) as to the appropriate scope and level of review. Like the PMP, the Review Plan is a living document and may change as the project progresses. The Jacksonville District is responsible for keeping the Review Plan up to date. Minor changes to the Review Plan since the last MSC Commander approval are documented in Attachment A. Significant changes to the Review Plan (such as changes to the scope and/or level of review) will be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Jacksonville District's webpage. The latest Review Plan will be provided to the RMO and home MSC.

#### **e. Review Management Organization**

The South Atlantic Division (SAD) is designated as the Review Management Organization (RMO). The RMO, in cooperation of the vertical team, will approve the ATR team members. CESAJ will assist SAD with management of the ATR and development of the charge to reviewers.

## **2. PROJECT INFORMATION**

### **a. Project Location**

The Port Everglades Harbor is a major seaport located on the southeast coast of Florida in Broward County. It is located in the cities of Hollywood, Dania Beach and Fort Lauderdale, with immediate access to the Atlantic Ocean. The entrance of the Port is approximately 27 nautical miles north of Miami Harbor, Florida, 31 nautical miles south of the Port of Palm Beach, and 301 nautical miles south of Jacksonville Harbor, Florida.

### **b. Project Authorization**

The Feasibility Study was authorized by a May 9, 1996 resolution of the House Committee on Transportation. The resolution reads, in part, as follows:

"Resolved by the Committee on Transportation and Infrastructure of the United States House of Representatives, That, the Secretary of the Army is requested to review the reports of the Chief of Engineers on Port Everglades Harbor, Florida, published as House Document 126, 103rd Congress, 1st Session, and House Document 144, 93rd Congress, 1st Session, and other pertinent reports to determine whether any modifications of the recommendations contained therein are advisable at the present time in the interest of navigation and related purposes, with particular reference to navigation into and within the part of the project known as the Southport Channel."

The Chief of Engineers report was submitted to the Secretary of the Army on June 25, 2015. The Secretary of the Army (Civil Works) endorsed and submitted the report to Congress on January 29, 2016, where it currently awaits authorization.

### **c. Current Project Description**

The Recommended Plan is the locally preferred plan (LPP) of 48-feet as identified in the June 25, 2015, Chiefs Report. This plan includes deepening from the existing 42-foot mean lower low water (MLLW) channel to 48 feet MLLW from the outer entrance channel through the Southport Access Channel (SAC). The Outer Entrance Channel will be deepened to 55 feet MLLW due to environmental conditions and vessel underkeel clearance requirements. The following areas of widening are included as part of the new channel footprint for the recommended plan:

- Outer Entrance Channel: widen from the existing 500-foot channel width to 800 feet and extend 2,200 feet seaward

- Main Turning Basin: widen by 300 feet, referred to as the widener, including reconfiguration of the U.S. Coast Guard (USCG) facility easterly on USCG property
  - The reconfiguration requires several USCG structures, facilities and utilities to be shifted to the east onto adjacent federally owned property.
  - This feature will be designed and constructed separately through the IIS group and will not be covered under this Review Plan.
- SAC: widen by 250 feet and shift the existing 400-foot wide channel 65 feet to the east;
- Turning Notch (TN): widen by 100 feet parallel to the channel on the eastern edge of the SAC and widen the western edge of the SAC to access the TN from the existing federal channel edge to a width of 130 feet at the north edge of the TN.

Construction of the recommended plan involves dredging of approximately 5.5 million cubic yards of material. Material will be removed using a cutter head dredge or blasting with cutter head or mechanical dredge removal and placed in the approved ocean disposal area. The proposed Ocean Dredged Material Disposal Site (ODMDS) is of sufficient capacity to include material from the 48-foot project and future operations and maintenance (O&M), with no impact to long-term disposal capacity. All material dredged for construction is assumed to go to the ODMDS pending EPA Section 103 Concurrence.

The mitigation plan consists of creation of approximately 5 acres of artificial reef with the transplantation of 11,502 corals from the impact site to the artificial reef, as well as enhancement of additional acreage through the outplanting of approximately 103,000 nursery raised corals to existing reefs. Additional mitigation will be provided for any direct and indirect impacts caused by dredging or increased turbidity/sedimentation and will be refined through the Water Quality Certification application process.

#### **d. Public Participation**

The Jacksonville District Corporate Communications Office continually keeps the affected public informed on Jacksonville District projects and activities. There are no planned activities, public participation meetings or workshops that could generate issues needing provision to review teams. The approved Review Plan will be posted on the Jacksonville District Internet. Any comments or questions regarding the Review Plan will be addressed by the Jacksonville District.

#### **e. Project Sponsor**

A Memorandum of Understanding (MOU) between the Department of the Army and Broward County, Florida was signed on September 19, 2015. The MOU states that the proposed work consists of: (1) topographic land surveying and mapping; (2) sediment transport and depositional modeling to refine environmental impacts; (3) environmental investigations in support of water quality certification, including, but not limited to, baseline reef, coral, hardbottom, and seagrass surveys; and (4) providing an independent facilitator for stakeholder meetings to comply with the Endangered Species Act. The MOU also states that the "Proposed Work shall be subject to a review by the Government to verify that all engineering, real estate, and environmental analyses or other items performed or provided are accomplished in a satisfactory manner and in accordance with applicable Federal laws, regulations, and policies".

**f. Civil Works Cost Engineering Mandatory Center of Expertise Certification**

The cost related documents associated with the P&S and DDR and the associated contract do not require external peer review or certification by the Cost Engineering Mandatory Center of Expertise (MCX).

**3. DISTRICT QUALITY CONTROL**

**a. Requirements**

District Quality Control and Quality Assurance activities for DDRs and P&S are stipulated in ER 1110-1-12, Engineering & Design Quality Management and SAJ EN QMS 02611. The subject project DDR and P&S will be prepared by the Jacksonville District using ER 1110-1-12 procedures and will undergo District Quality Control. SAJ EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Control Review (DQCR) and Product Quality Control Review (PQCR). Product Quality Control Review Certification is the DQC Certification and will precede ATR.

**b. Documentation**

DQCRs occur during the design development process and are carried out as a routine management practice by each discipline. Checklists are utilized by each discipline to facilitate the review and to document the DQCR review comments. Certification of the Discipline Quality Check and Review is signed by the Branch Chief certifying that the DQCR on all design analyses and products have been completed in accordance with the EN QMS process prior to release from the Branch.

The PQCR shall ensure consistency and effective coordination across all disciplines and to assure the overall coherence and integrity of the products. Review comments and responses for this review will be documented in DrChecks. The Product Quality Control Review shall be QC certified by the Engineering Technical Lead (ETL) and all applicable Section and Branch Chiefs. This PQCR certification signifies that all Discipline Specific Quality Checks and Review Certification are complete, as well as the Product Quality Control Reviews.

**4. AGENCY TECHNICAL REVIEW**

**a. Requirements**

ATR is mandatory for all implementation documents (including supporting data, analyses, environmental compliance documents, etc.). This project will include a Final Design Phase ATR.

The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct, went through robust DQC, and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. The PDT should obtain ATR agreement on key data such as hydraulic and geotechnical parameters early in design process. The goal is to have early involvement of ATR team, especially when key decisions are made. The ATR Lead should be invited virtually to all PDT meetings, in order to understand the design efforts and to know when to engage other ATR members for key decisions. Value added Lessons Learned from the ATR team should be shared early on to have the best chance of being adopted by the PDT. Most of the ATR effort should be accomplished midway through the design effort; after completion of design the ATR effort will check that the effort agreed to at mid-point was accomplished. This

is consistent with the requirement that the ATR members shall not be involved in the day-to-day production of the project/product. A site visit will not be scheduled for the ATR Team.

**b. Documentation of ATR**

DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments will be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

**c. Comment Resolution**

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist. The ATR documentation in DrChecks includes the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

**d. Products to Undergo ATR**

Products scheduled to undergo ATR shall include project P&S and DDR.

**e. Required ATR Team Expertise and Requirements**

As stipulated ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS); subject matter experts (SME) certified in CERCAP; senior level experts from other districts; Center of Expertise staff; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels. Experience with navigation projects that involve blasting and blast plans is desired but not required for ATR members unless stated otherwise.

ATR Team Leader. The ATR Team Leader shall be a registered professional from outside SAD and shall have a minimum of 15 years of experience with navigation projects. The ATR Team Leader can also serve as a co-duty to one of the review disciplines.

Civil Engineering/Dredging Operations. The team member shall be a registered professional and shall have at least 7 years of civil/site work project experience that includes rock pretreatment, dredging and disposal operations, and navigation project features.

Construction Management. The team member shall have 7 years of construction management experience with dredging and disposal operations, channels, and navigation project features. Experience with navigation projects that involve blasting and blast plans is required.

Structural Engineering. The team member shall be a registered professional and shall have 7 years of experience encompassing marine design and analyses for coastal structures. Experience with environmentally friendly bulkheads is desired.

Geotechnical Engineering and Engineering Geology. The team member shall be a registered professional and shall have a minimum of 7 years of experience in geologic and geotechnical analyses used to support the development of Plans and Specifications for navigation projects with rock pretreatment and potential blasting. Experience with navigation projects that involve blasting and blast plans is required.

NEPA Compliance. The NEPA compliance reviewer should be a senior environmental resources specialist with 7 years of experience in NEPA compliance activities associated with navigation and marine ecology projects. For reference, NEPA and other environmental documents will be submitted to the ATR team with the DDR and Plans and Specifications to aid in performing ATR.

**f. Completion and Certification of the ATR**

At the conclusion of the ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- (1) Identify the document(s) reviewed and the purpose of the review;
- (2) Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- (3) Include the charge to the reviewers;
- (4) Describe the nature of their review and their findings and conclusions;
- (5) Identify and summarize each unresolved issue (if any); and
- (6) Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR lead will prepare a completion of ATR and Certification of ATR. The Certification will certify that the issues raised by the ATR team have been resolved (or elevated to the vertical team). The completion and certification should be completed based on the work reviewed to date for the project. A Sample Completion of ATR and Certification of ATR are included in Attachment C.

## **5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY REVIEW**

The value of a BCOES review is based on minimizing problems during the construction phase through effective checks performed by knowledgeable, experienced personnel prior to advertising for a contract. Biddability, constructability, operability, environmental, and sustainability requirements must be emphasized throughout the planning and design processes for all programs and projects, including during planning and design. This will help to ensure that the government's contract requirements are clear, executable, and readily understandable by private sector bidders or proposers. It will also help ensure that the construction may be done efficiently and in an environmentally sound manner, and that the construction activities and projects are sufficiently sustainable. Effective BCOES reviews of design and contract documents will reduce risks of cost and time growth, unnecessary changes and claims, as well as support safe, efficient, sustainable operations and maintenance by the facility users and maintenance organization after construction is complete. A BCOES Review will be conducted for this project. Requirements and further details are stipulated in ER 1110-1-12, ER 415-1-11, and SAJ EN QMS 08550.

## **6. INDEPENDENT EXTERNAL PEER REVIEW**

### **a. General.**

EC 1165-2-214 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design and Construction Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be managed and conducted outside the Corps of Engineers.

### **b. Type I Independent External Peer Review Determination.**

A Type I IEPR is primarily associated with decision documents. A Type I IEPR is not applicable to the implementation documents covered by this Review Plan.

### **c. Type II Independent External Peer Review Determination.**

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-214), and therefore, a review under Section 2035 is not required. The factors in determining whether a review of design and construction activities of a project are necessary as stated under Section 2035 along with this Review Plan's applicability statements follow.

- (1) The failure of the project would pose a significant threat to human life.

*This project consists of channel dredging and widening and construction of environmentally friendly bulkheads. Failure of the navigation channel will not pose a significant threat to human life.*

- (2) The project involves the use of innovative materials or techniques.

*This project will utilize methods and procedures used by the Corps of Engineers on other similar works. The "environmentally friendly" aspect of the bulkhead structures means that the upper portion of the structure within the tidal prism (MLLW to MHHW) must be made permeable to allow for tidal exchange. The current conceptual design is based on a double sheetpile wall with a rubble mound cap covering the tidal prism. These construction materials and methodology are not unique or innovative.*

(3) The project design lacks redundancy.

*The concept of redundancy does not apply to channel dredging projects.*

(4) The project has unique construction sequencing or a reduced or overlapping design construction schedule.

*This project's construction sequence and schedule have been used successfully by the Corps of Engineers on other similar works. Construction schedules do not have unique sequencing and activities are not reduced or overlapped.*

Based on the discussion above, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of the P&S and DDR.

## **7. POLICY AND LEGAL COMPLIANCE**

The Jacksonville District Office of Counsel reviews all contract actions for legal sufficiency in accordance with Engineer Federal Acquisition Regulation Supplement 1.602-2 Responsibilities. The subject implementation documents and supporting environmental documents will be reviewed for legal sufficiency prior to advertisement.

## **8. MODEL CERTIFICATION AND APPROVAL**

This project will not use any engineering models that have not been approved for use by USACE.

## **9. PROJECT DELIVERY TEAM DISCIPLINES**

<b>PDT Disciplines</b>
Civil/Dredge Engineering
Hydrogeology and Geology
Structural Engineering
Geotechnical Engineering
Cost Engineering
Environmental

## 10. BUDGET AND SCHEDULE

### a. Project Schedule.

Milestone	Task	Start Date	End Date
CW310	Final Draft P&S Complete	TBD	TBD
	Final DQCR	TBD	TBD
	Final PQCR/DQC*	TBD	TBD
	Final ATR Review	TBD	TBD
	Final ATR Certification	July 2017	July 2017
	Final BCOES	TBD	TBD
CW320	Final BCOES Certification	October 2017	October 2017
CW400	Advertisement	February 2018	February 2018

\* SAJ EN QMS 02611 defines DQC as the sum of DQCR and PQCR.

### b. ATR Cost.

Funds will be budgeted for the ATR as outlined above. It is envisioned that each reviewer will be afforded 32 hours for the review plus 8 hours for coordination. The estimated cost range is \$30,000 - \$35,000.

**ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

**ATTACHMENT B: PARTIAL LIST OF ACRONYMS AND ABBREVIATIONS**

<u>Acronyms</u>	<u>Defined</u>
AFB	Alternatives Formulation Briefing
ATR	Agency Technical Review
BCOES	Biddability, Constructability, Operability, Environmental, and Sustainability Review
CAP	Continuing Authorities Program
CERCAP	Corps of Engineers Reviewer Certification and Access Program
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EC	Engineering Circular
EA	Environmental Assessment
ER	Engineering Regulation
ERDC-CERL	Engineer Research and Development Center – Construction Engineering Research Laboratory
ESA	Endangered Species Act
ETL	Engineering Technical Lead
FDEP	Florida Department of Environmental Protection
FONSI	Findings of No Significant Impacts
FSCA	Feasibility and Cost Sharing Agreement
FY	Fiscal Year
GRR	General Reevaluation Report
IEPR	Independent External Peer Review
LPP	Locally Preferred Plan
MCX	Mandatory Center of Expertise
MLLW	Mean Low Low Water
MSC	Major Subordinate Command
NAS	National Academy of Sciences
NEPA	National Environmental Policy Act
ODMDS	Ocean Dredged Material Disposal Site
OMB	Office of Management and Budget
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
P&S	Plans and Specifications
PED	Preconstruction Engineering and Design
PDT	Project Delivery Team
PM	Project Manager
PMP	Project Management Plan

<u>Acronyms</u>	<u>Defined</u>
PPA	Project Partnering Agreement
PQCR	Product Quality Control Review
QA	Quality Assurance
QCP	Quality Control Plan
QMP	Quality Management Plan
QMS	Quality Management System
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
RTS	Regional Technical Specialist
SAJ	South Atlantic Jacksonville District Office
SAD	South Atlantic Division Office
SAR	Safety Assurance Review (also referred as Type II IEPR)
SME	Subject Matter Expert
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources and Development Act

## **ATTACHMENT C**

### **ATR REPORT OUTLINE AND COMPLETION OF AGENCY TECHNICAL REVIEW**

**Port Everglades Navigation Improvements Project  
Broward County, Florida**

**Review of Plans and Specifications (P&S), Design Documentation Report (DDR)**

**ATR REPORT OUTLINE (Unneeded items, such as ATR Team Member Disciplines that are not identified as needed in the Review Plan, shall be deleted from the ATR Report.)**

- 1. Introduction:**
- 2. Project Description:**
- 3. ATR Team Members:**
  - ATR Team Leader**
  - Geotechnical Engineering and Engineering Geology**
  - Construction Management**
  - Civil Engineering/Dredging Operations**
  - Structural Engineering**
  - NEPA Compliance**
- 4. ATR Objective:**
- 5. Documents Reviewed:**
- 6. Findings and Conclusions:**
- 7. Unresolved Issues:**

**Enclosures:**

- 1. ATR Statement of Technical Review**
- 2. ATR Comments (DrChecks)**
- 3. Project Review Plan**
- 4. Charge to Reviewers**
- 5. Certification of District Quality Control Review**

## COMPLETION OF AGENCY TECHNICAL REVIEW

---

The Agency Technical Review (ATR) has been completed for the Port Everglades Navigation Improvements Project, Broward County, Florida, including the design documents, plans and specifications and DDR. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214 and ER 1110-1-12. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks.

\_\_\_\_\_  
NAME  
ATR Team Leader

\_\_\_\_\_  
Date

\_\_\_\_\_  
NAME  
Project Manager

\_\_\_\_\_  
Date

\_\_\_\_\_  
NAME  
Review Management Office Representative

\_\_\_\_\_  
Date

### CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

\_\_\_\_\_  
NAME  
Chief, Engineering Division  
SAJ-EN

\_\_\_\_\_  
Date