



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

26 JUL 2017

CESAD-RBT

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT

SUBJECT: Approval of Review Plan for the Implementation Documents for Palm Beach Harbor Maintenance Dredging, 33 Foot Project, Entrance Channel, Settling Basins, and Southern Turning Basin, Palm Beach County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 29 June 2017, subject: Approval of Review Plan for the Preconstruction, Engineering, and Design Phase Implementation Documents for Palm Beach Harbor Maintenance Dredging, 33-Foot Project, Entrance Channel, Settling Basins, and Southern Turning Basin, Palm Beach 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 Specifications for this dredging effort. The primary basis for our concurrence is that the failure or loss of these project features 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.

5. The SAD point of contact is [REDACTED]

Encl

[REDACTED]
Brigadier General, USA
Commanding

CF:

[REDACTED]



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207

REPLY TO
ATTENTION OF

CESAJ-EN-Q

29 JUN 2017

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT), 60 Forsyth Street SW 10M15, Atlanta, GA 30303

SUBJECT: Approval of Review Plan for the Preconstruction, Engineering, and Design Phase Implementation Documents for Palm Beach Harbor Maintenance Dredging, 33-Foot Project, Entrance Channel, Settling Basins, and Southern Turning Basin, Palm Beach County, Florida

1. References:

- a. EC 1165-2-214, Civil Works Review, 15 December 2012
- b. WRRDA 2014, Public Law 113-121, 10 June 2014

2. I hereby request approval of the enclosed Review Plan and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation to exclude Type II IEPR is based on the EC 1165-2-214 Risk Informed Decision Process as presented in the Review Plan. Documents to be reviewed include plans, specifications, and design documentation. The Review Plan complies with applicable policy, provides for Agency Technical Review and has been coordinated with the CESAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by CESAD.

3. The district will post the CESAD approved Review Plan to its website and provide a link to the CESAD for its use. Names of Corps/Army employees will be withheld from the posted version, in accordance with guidance.

4. If you have any questions regarding the information in this letter, please feel free to contact me or contact [REDACTED]

Encl

[REDACTED]
Colonel, EN
Commanding

PROJECT REVIEW PLAN

For

Preconstruction, Engineering and Design Phase

Implementation Documents

For

**Palm Beach Harbor Maintenance Dredging
33-Foot Project
Entrance Channel, Settling Basins,
and Southern Turning Basin**

**Palm Beach County, Florida
Project P2 number: 114293**

Jacksonville District

June 2017



**US Army Corps
of Engineers®**

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ATTACHMENT B - Partial List of Acronyms and Abbreviations

ATTACHMENT C - ATR Report Outline and Completion of Agency Technical Review Form

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope and level of review activities for the Palm Beach Harbor FY17 Maintenance Dredging. 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 design phase, and the related documents including Plans and Specifications (P&S) and a Design Documentation Report (DDR) are the implementation documents. Upon approval, this review plan will be included into the Project Management Plan for this project as an appendix to the Quality Management Plan.

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"

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, Independent External Peer Review, Policy and Legal Review, and a Biddability, Constructability, Operability, Environmental, and Sustainability 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) should 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 selected by the Jacksonville District US Army Corps of Engineers (CESAJ). CESAJ will assist SAD with management of the ATR and will develop the charge to reviewers.

2. PROJECT INFORMATION

a. Project Location

Palm Beach Harbor is located on the east coast of southern Florida and serves as the primary deep-draft harbor for Palm Beach County and the surrounding region. See Figure 1 for project location map.

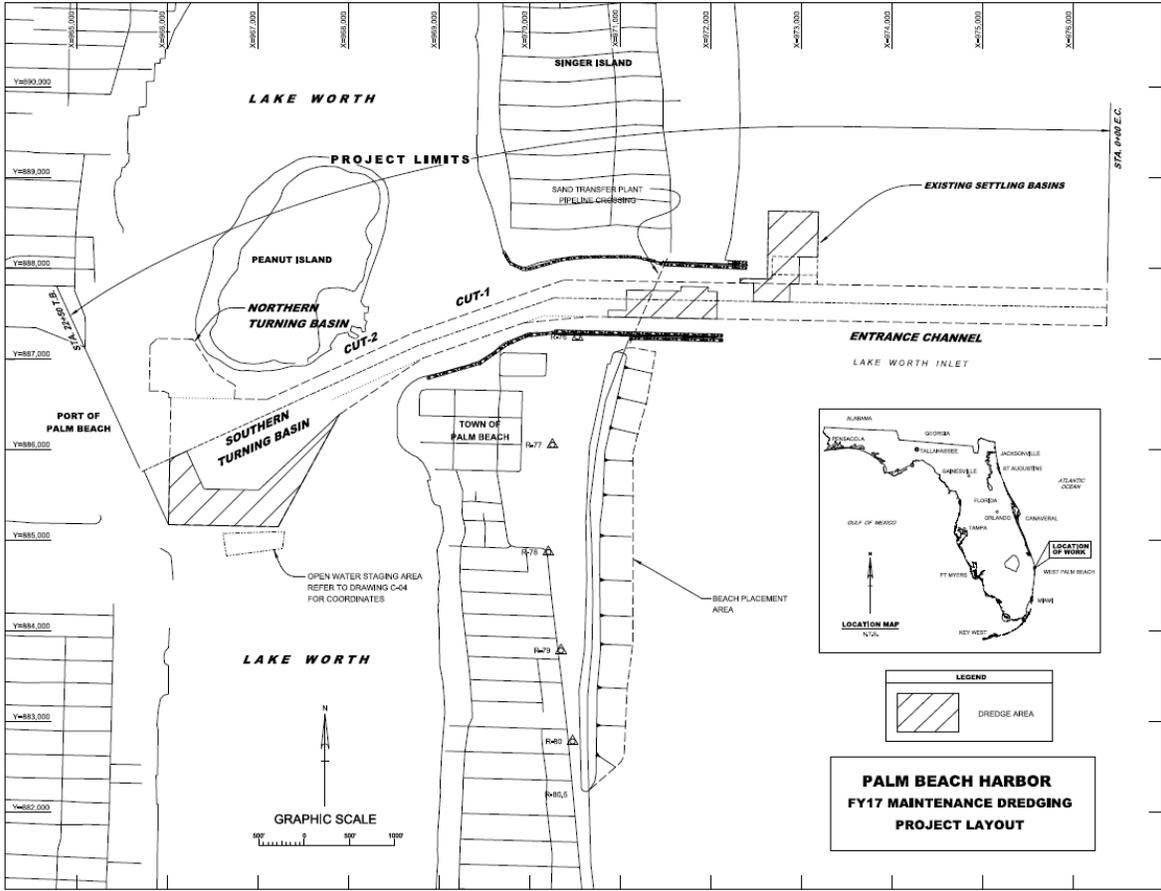


Figure 1: Project Map

b. Project Authorization

The project is authorized in the River and Harbor Act of 1960 (Public Law (PL) 86-645), Section 202(a) of Water Resources Development Act of 1986 (PL 99-662), Section 7002(1)(7) of Water Resources Reform and Development Act of 2014 (PL 113-121).

c. Project Description

Palm Beach Harbor provides an entrance channel 35 feet deep, 400 feet wide, and 0.8 miles long, merging with an inner channel 33 feet deep, 300 feet wide, and 0.3 miles long, then flaring into a turning basin with a 1,200 foot turning diameter, and jetties on the north and south sides of the inlet. Palm Beach Harbor is home to the Port of Palm Beach. Maintenance dredging of critical shoals in the harbor is required every 12-24 months on average. The Ports major commodities are sugar, molasses, cement, and petroleum.

The FY17 project work consists of maintenance dredging shoal material from Palm Beach Harbor. The work includes maintenance dredging of the Entrance Channel to depths varying from 37 to 39 feet plus 2 feet of allowable overdepth; the settling basin, extended settling basin and expanded settling basin to depths varying from 33 to 35 feet plus 2 feet of allowable overdepth; and the southern turning basin to 33 feet plus 2 feet of allowable overdepth. Material will be placed on the beach immediately south of the southern jetty.

The beach placement area utilized in previously maintenance dredging work has been expanded approximately 1500 feet in the FY17 work in order to accommodate material dredged from the Federally Authorized Entrance Channel, Turning Basins, and Settling basins in Palm Beach Harbor. Extending the beach placement are is beneficial to the shoreline that is subject to erosion from wave attack.

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. In-Kind-Contributions by Project Sponsor

There are no in-kind sponsor contributions related to the P&S and DDR that will affect this review plan or related reviews.

f. Civil Works Cost Engineering Mandatory Center of Expertise Review and 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

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.

4. AGENCY TECHNICAL REVIEW

a. Risk Informed Decision on Appropriate Level of Review

The project contains an area of new work consisting of a continuation of beach fill placement of the historic beach design template for an additional 1500 feet. PED phase implementation documents are being prepared and an ATR of the P&S and DDR documents will be required.

b. Agency Technical Review Scope.

Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-214 and ER 1110-1-12. An ATR will be performed on the P&S and DDR pre-final submittals.

ATR will be conducted by individuals and organizations that are external to the Jacksonville District. The ATR Team Leader will be a Corps of Engineers employee outside the South Atlantic Division. The required disciplines and experience are described below.

ATR comments are documented in the DrCheckssm model review documentation database. DrCheckssm is a module in the ProjNetsm suite of tools developed and operated at ERDC-CERL (www.projnet.org). At the conclusion of ATR, the ATR Team Leader will prepare an ATR Review Report that summarizes the review. An outline for an ATR Review Report is in Attachment C. The report will include at a minimum the Charge to Reviewers, ATR Certification Form from EC 1165-2-214, and the DrCheckssm printout of the comments.

c. ATR Disciplines.

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.

ATR Team Leader. The ATR Team Leader will be from outside SAD and should have a minimum of 10 years of experience and can also serve as a co-duty to one of the review disciplines.

Coastal Engineering. The team member should have minimum of 10 years of experience in littoral processes, beach renourishment, and the handling and beach placement of dredged material in the environs found along the southeastern coast of the United States.

NEPA Compliance. The NEPA compliance reviewer shall be a senior environmental resources specialist with 5 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.

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 08550-SAJ, BCOES Reviews.

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 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 (Section 2035).

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 the applicability statements for this Review Plan are as follows:

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

This project consists of dredging and beach disposal and failure of the beach berm 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 commonly used by the Corps of Engineers on other similar works.

(3) The project design lacks redundancy.

The concept of redundancy does not apply to such 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 this and 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. Once approved, SAJ will post the approved review plan on the SAJ web site for viewing by the public.

8. MODEL CERTIFICATION AND APPROVAL

The project does not use any engineering models that have not been approved for use by USACE.

9. PROJECT DELIVERY TEAM DISCIPLINES

Discipline/Expertise
Geomatics & Survey
Civil Site Design / Construction
Geotechnical Engineering
Environmental Engineering
Geology

10. BUDGET AND SCHEDULE

a. Project Milestones.

Milestone	Task	Start Date	End Date
CW310	P&S Revisions for Beach Placement	28 Feb 17	18 Mar 17
	DQCR	19 Mar 17	21 Mar 17
	PQCR/DQC*	22 Mar 17	23 Apr 17
	ATR Review	8 May 17	22 May 17
	Evaluate/Backcheck ATR Comments	23 May 17	7 Jun 17

	ATR Certification	5 Jul 17	5 Jul 17
	BCOES Review	5 Jul 17	14 Jul 17
CW320	BCOES Certification	7 Aug 17	7 Aug 17

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

b. ATR Cost.

Funds will be budgeted to execute ATR and schedule as outlined above. It is envisioned that each reviewer will be afforded 20 hours review plus 8 hours for coordination. ATR Leader will be funded for 20 hours. The estimated cost range is \$12,000 - \$15,000.

ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

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
EA	Environmental Assessment
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

<u>Acronyms</u>	<u>Defined</u>
PMP	Project Management Plan
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

Palm Beach Harbor Maintenance Dredging

Palm Beach County Florida

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

ATR REPORT OUTLINE :

- 1. Introduction:**
- 2. Project Description:**
- 3. ATR Team Members:**
 - Coastal Engineering.**
 - ATR Team Leader.**
- 4. ATR Objective:**
- 5. Documents Reviewed:**
- 6. Findings and Conclusions:**
- 7. Unresolved Issues:**

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for Palm Beach Harbor Maintenance Dredging, Palm Beach 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