



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

REPLY TO
ATTENTION OF

16 AUG 2017

CESAD-RBT

MEMORANDUM FOR COMMANDER, JACKSONVILLE DISTRICT

SUBJECT: Approval of the Review Plan for the Sand Key, Treasure Island and Long Key Segment of the Pinellas County Shore Protection Project 2017 Beach Periodic Nourishment, Pinellas County, Florida

1. References:

a. Memorandum, CESAJ-EN-Q, 14 July 2017, subject: Approval of Review Plan for Shore Protection Project, Pinellas County, Florida, Beach Renourishment 2017, Sand Key, Treasure, and Long Key Segments (Encl).

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

2. The Review Plan (RP) for the Pinellas County Shore Protection Beach Project 2017 periodic nourishment submitted by the Jacksonville District via reference 1.a has been reviewed by this office. Some minor clarification edits to the RP were coordinated with [REDACTED] your point of contact. The enclosed RP, with the coordinated edits incorporated, is hereby approved in accordance with reference 1.b above.

3. As indicated in the RP, this Pinellas County Shore Protection Project 2017 periodic nourishment is within the authorized, permitted and previously constructed template limits and also follows the same means and methods as the 2013 Sand Key and the April 2014 Treasure Island and Long Key periodic nourishments. Therefore, the South Atlantic Division (SAD) concurs with the District's RP recommendation that Agency Technical Review is not needed on this design effort. We also 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. The primary basis for our IEPR concurrence is that the failure or loss of the features associated with this periodic nourishment will not pose a significant threat to human life.

4. The District should take steps to post the approved 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 the Review Plan Sand Key, Treasure Island and Long Key Segment of the Pinellas County Shore Protection 2017 Beach Periodic Nourishment, Pinellas County, Florida

5. The SAD point of contact is

[REDACTED]

Encl

[REDACTED]

CF:

[REDACTED]



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

REPLY TO
ATTENTION OF

14 JUL 2017

CESAJ-EN-Q

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

SUBJECT: Approval of Review Plan for Shore Protection Project, Pinellas County, Florida, Beach Renourishment 2017, Sand Key, Treasure Island, and Long Key Segments

1. References:

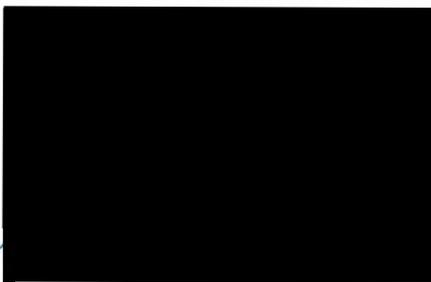
- a. EC 1165-2-214, Civil Works Review, 15 Dec 12.
- b. Rivers and Harbors Act of 1966, PL 89-789, 7 Nov 66.

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 the plans, specifications, and design documentation report. The Review Plan complies with applicable policy 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 you may contact [REDACTED]

Encl



PROJECT REVIEW PLAN

For

Preconstruction, Engineering and Design Phase Implementation Documents

For

Pinellas County Shore Protection Project FY17 Renourishment

**Pinellas County, Florida
Project P2 Number: 116684**

**Jacksonville District
July 2017**



**US Army Corps
of Engineers®**

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ATTACHMENT A - Approved Review Plan Revisions

ATTACHMENT B - Partial List of Acronyms and Abbreviations

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope and level of review activities for the Pinellas County Shore Protection Project, FY17 Renourishment, in Pinellas County, Florida. As discussed below, the review activities consist of a District Quality Control (DQC) effort and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review. Also as discussed below, an Independent External Peer Review (IEPR) and an Agency Technical Review (ATR) are 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, Pinellas County Shore Protection Beach Renourishment Project, Pinellas County, Florida, P2 Number 116684.

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).

2. PROJECT INFORMATION

a. Project Background

Pinellas County is located on the southwest Gulf of Mexico Coast of Florida. The Pinellas County coast consists of numerous keys or barrier islands extending almost north-south in the northerly half and northwest-southeast in the southerly half of the county. The barrier islands are narrow and low, ranging in width from about 200 to 2,000 feet.

Sand Key is a 13.9 mile barrier island separated by Clearwater Pass to the north and John’s pass to the south. Treasure Island is a 3.5 mile barrier island south of Johns Pass and north of Blind Pass, and Long Key is south of Blind Pass and north of Pass-a-grille and is approximately 4.1 miles.

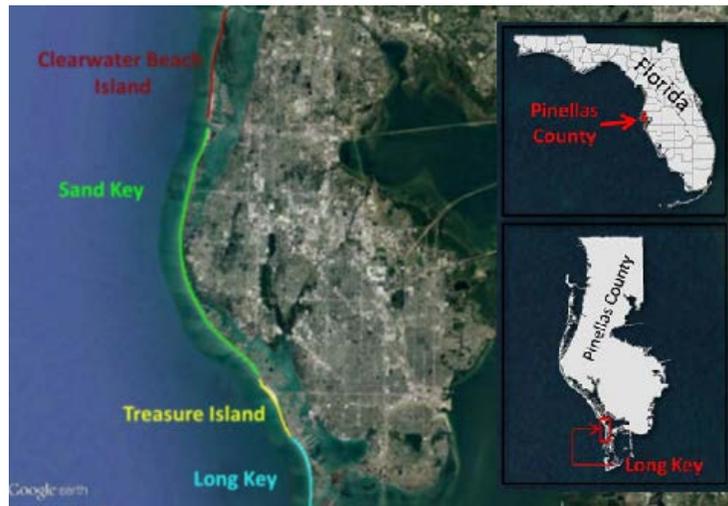


Figure 1: Project Overview of Pinellas County Beaches

b. Project Authorization

The project was authorized by Section 101 of the Rivers and Harbors Act of 1966 (Public Law (PL) 89-789) in accordance with the report of the Chief of Engineers dated 14 September 1966.

The original authorization allowed for improvements for beach erosion control for Clearwater Beach Island, Sand Key, Treasure Island, and Long Key by beach restoration, periodic nourishment, and revetments. Provisions of Section 156 of Water Resources Development Act (WRDA) 76 (PL 94-587) extended the period of Federal participation from 10 years to 15 years. The project authority was further amended by Section 501(b) of the WRDA of 1986 (PL 99-662) which authorized, subject to a favorable Chief's Report, the construction of the recommendations of the *Report of the Board of Engineers for Rivers and Harbors*, dated April 23, 1985. A favorable Chief's Report, signed July 27, 1987 recommended the project plan as formulated except that Federal participation in periodic nourishment should be limited to the 50-year economic life of the project.

The authorized plan for the Sand Key Segment consists of initial beach restoration and advance nourishment along 14.2 miles of shoreline. The Sand Key Segment Design Memorandum with Environmental Assessment, dated November 1996, (revised March 1997) provides detailed modifications to the 1994 LRR, and a total of 14.2 miles along Sand Key is authorized for periodic renourishment until December 31, 2043. The project has an estimated 5-year renourishment interval, with design berm width of 40 feet, to a height of 6 feet mean low water level (MLW) with a foreshore slope of 1 vertical (V) on 20 horizontal (H) to MLW and a nearshore slope of 1V on 30H from MLW to the intersection with the existing bottom. The Egmont Shoal Borrow area will be utilized for all future renourishments in addition to adjacent passes as needed and available.

For Treasure Island and Long Key, the authorized berm is similar to Sand Key and consists of a level berm 40 feet wide at elevation +6.0 referenced to MLW with a foreshore slope of 1 vertical (V) on 20 horizontal (H) to MLW and a nearshore slope of 1V on 30H from MLW to the intersection with the existing bottom. The specified berm height represents the 10-year storm surge elevation as described in the 1997 Design Memorandum; however, it is designed per Engineering Manual (EM) 1110-2-1100 (Coastal Engineering Manual) which stipulates that the construction berm elevation should be the same or slightly less than the natural berm crest elevation. The specified 40-foot project berm width optimizes the annual storm damage reduction net benefits and were based on economic analysis per ER 1105-2-100 (Planning Guidance Notebook). The amount of advance nourishment placed in front of the design berm allows for 7 years of average annual erosion losses; thus allowing the design berm to function as protection for the upland development.

c. Current Project Description

The contract is divided into base and optional work. Base work is the renourishment for the majority of Sand Key whereas other optional work will include the south part of Sand Key, Sunshine Beach on Treasure Island, and Upham Beach on Long Key.

Renourishment of Sand Key will occur between R-59 to R-66 and R-71A to R-107 with berm crest elevation of 4.3 ft NAVD88 and foreshore slope of 1V:20H.

- Option A: Renourishment of Sand Key from R-107 to R-109 with all fill placed above MHWL (+0.65 ft NAVD88) by non-hydraulic placement on 1V:10H slope up to +4.3 ft NAVD88.
- Option B: Renourishment of Sunshine Beach on Treasure Island between R-126.5 to R-128.5 with berm crest elevation of +4.8 ft NAVD88.
- Option C: Renourishment of Sunset beach on Treasure Island between R-135 to R-143 with berm crest elevation of +4.8 ft NAVD88.

- Option D: Renourishment of Upham Beach on Long Key from approximately R-144 to R-146 with berm crest elevation of +4.8 ft NAVD88.

For base and all options, A half-a-foot (0.5') fill tolerance above the required berm will applied and a foreshore slope of 1V:20H. The sediment source for the Sand Key portion of the project will be Egmont East Borrow Area which is located adjacent to Tampa Harbor entrance channel and is approximately 25 miles south of Clearwater Beach renourished area. The Sediment source for the Treasure Island – Sunrise Beach and portion of Sunset beach will be Johns Pass until the channel is cleared. Once 90% cleared, the contractor will obtain the remaining material from the Egmont East Borrow Area.

Project work will also include the following: beach tilling, pipeline corridor hardbottom mapping, construction and vibration controls and turbidity monitoring, and environmental species observers and monitors for the protection of marine turtles, manatees, shorebirds, hardbottom, seagrasses and their habitats.

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. 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 by Jacksonville District personnel. SAJ EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Control Review (DQCR) and Product Quality Control Review (PQCR).

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. Certifications of the Discipline Quality Check and Review are signed by the Engineering Division Branch Chiefs certifying that the DQCR on all design analyses and products have been completed in accordance with the EN QMS process prior to release from their 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 Lead Engineer and all applicable Engineering Division 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

The current contract with base and four options (A, B, C, and D) is within the authorized limits and do not present any technical challenges. The Base and Options B, C, and D mirror the periodic nourishments that were successfully constructed on March 2013 for Sand Key and April 2014 for Treasure Island and Long Key. The beach template for these areas have not changed in any way (e.g. berm width, elevation, alongshore limits, etc.) nor the borrow for either segment. Option A has not been established with dredged sediments due to the benefits this area received from past fill projects when renourishing Sand Key. However, Hurricane Hermine reduced the profile enough to require the beach to be nourished. The inclusion of Option A is considered insignificant due to its very small length, which is less than 2000 feet, and small volume, which is approximately 7,500 cubic yards. Furthermore, the construction techniques employed to build Option A are the same as the work performed for the 2013 Broward County segment II work successfully performed in 2014. An ATR was performed for the Broward Segment with no critical comments being submitted during ATR nor claims submitted during construction. Therefore, the Base and four options for the Pinellas County Shore Protection Project FY17 Renourishment are routine and utilize a proven design. An ATR is therefore not recommended.

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. 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. No decision documents are addressed/covered by this Review Plan. Therefore, 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 this Review Plan's applicability statements follow.

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

This project will perform a periodic nourishment that will re-establish a beach. The beach is designed to protect structures through its sacrificial nature and is continually monitored and renourished in accordance with program requirements and constraints. Failure or loss of the beach fill will not pose a significant threat to human life.

In addition, the prevention of loss of life within the project area from hurricanes and severe storms is via public education about the risks, warning of potential threats, and evacuations before hurricane landfall.

- (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.

- (3) The project design lacks redundancy.

The project features are not complex in nature and do not require a concept of redundancy. However, the beach fill design is in accordance with the USACE Coastal Engineering Manual.

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

This project's construction does not have unique sequencing or a reduced or overlapping design. The construction sequence and schedule has been used successfully by the Corps of Engineers on other similar works.

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

PDT Disciplines
Civil/Dredge Engineering
Construction Management
Coastal Geology

10. SCHEDULE

Milestone	Task	Start Date	End Date
CW310	Draft P&S Complete	3-MAR-2017	31-MAY-2017
	DQCR	1-JUN-2017	5-JUN-2017
	PQCR/DQC*	6-JUN-2017	3-JUL-2017
	BCOES Review	5-JUL-2017	8-AUG-2017
CW320	BCOES Certification	8-AUG-2017	8-AUG-2017
CW400	Advertisement **	24-JUL-2017	22-AUG-2017
CC800	Award	29-SEP-2017	29-SEP-2017

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

** Concurrent BCOES and advertisement in order to meet FY17 award date.

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
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