



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

CESAD-RBT

30 September 2019

MEMORANDUM FOR Commander, Jacksonville District, 701 San Marco Boulevard,  
Jacksonville, Florida 32207

SUBJECT: Approval of the Review Plan for the Rio Puerto Nuevo, Contracts 2D and 2E,  
San Juan, Puerto Rico

1. References:

a. Memorandum, CESAJ-EN-Q, subject as above.

b. Engineering Circular (EC) 1165-2-217, Water Resources Policies and Authorities  
Review Policy for Civil Works, 20 February 2018.

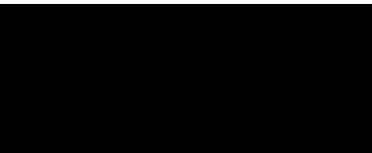
2. The Review Plan (RP) for the Rio Puerto Nuevo Project, Contracts 2D and 2E submitted by  
the Jacksonville District via reference 1.a. noted above has been reviewed by South Atlantic  
Division (SAD) and is hereby approved in accordance with reference 1.b.

3. The South Atlantic Division Office shall be the Review Management Organization for this  
project.

4. SAD concurs with the District's RP recommendation that outlines the requirements for  
District Quality Control (DQC), Agency Technical Review (ATR), and Biddability,  
Constructability, Operability, Environmental and Sustainability (BCOES) Review, and the  
conclusion that a Safety Assurance Review/Type II Independent External Peer Review is not  
required. Documents to be reviewed include the intermediate and pre-final Plans and  
Specifications and the Design Documentation Report (DDR).

5. The District should take steps to post the approved RP to its website and provide a link to  
CESAD-RBT. Before posting to the website, 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.

6. The SAD point of contact is [REDACTED].



Major General, USA  
Commanding



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT  
701 SAN MARCO BOULEVARD  
JACKSONVILLE, FLORIDA 32207-8915

CESAJ-EN-Q

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

SUBJECT: Approval of Review Plan for the Rio Puerto Nuevo Project, Contracts 2D and 2E, San Juan, Puerto Rico

1. References.

- a. Engineering Circular (EC) 1165-2-217, Review Policy for Civil Works, 20 Feb 18.
- b. Flood Control Act of 1946, Public Law 79-526, 24 Jul 46.

2. I hereby request approval of the enclosed Review Plan for the Rio Puerto Nuevo Project, Contracts 2D and 2E, San Juan, Puerto Rico and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation not to perform a Type II IEPR is based on the EC 1165-2-217 Risk Informed Decision Process as presented in the Review Plan. 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 memo, please feel free to contact me or contact [REDACTED].

Encl

[REDACTED]  
COL, EN  
Commanding

# **PROJECT REVIEW PLAN**

For

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

For

### **Rio Puerto Nuevo Flood Control Project Contracts 2D & 2E San Juan, PR**

**Project P2 number: 113454**

**Jacksonville District**

**August 2019**



**US Army Corps  
of Engineers**®

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

## TABLE OF CONTENTS

<b>1. PURPOSE AND REQUIREMENTS .....</b>	<b>2</b>
a. Purpose.....	2
b. References .....	2
c. Requirements .....	2
d. Review Plan Approval and Updates .....	2
e. Review Management Organization.....	3
<b>2. PROJECT INFORMATION .....</b>	<b>4</b>
a. Project Location .....	4
b. Project Background .....	4
c. Project Description.....	5
d. In-Kind-Contributions by Project Sponsor.....	6
e. Civil Works Cost Engineering Mandatory Center of Expertise Review and Certification .....	6
<b>3. DISTRICT QUALITY CONTROL .....</b>	<b>8</b>
a. Requirements .....	8
b. Documentation.....	8
<b>4. AGENCY TECHNICAL REVIEW .....</b>	<b>9</b>
a. Risk Informed Decision on Appropriate Level of Review .....	9
b. Agency Technical Review Scope .....	9
c. ATR Disciplines .....	9
<b>5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY REVIEW .....</b>	<b>11</b>
<b>6. INDEPENDENT EXTERNAL PEER REVIEW .....</b>	<b>12</b>
a. General.....	12
b. Type I Independent External Peer Review Determination.....	12
c. Type II Independent External Peer Review Determination (Section 2035).....	12
<b>7. POLICY AND LEGAL COMPLIANCE .....</b>	<b>14</b>
<b>8. MODEL CERTIFICATION AND APPROVAL .....</b>	<b>15</b>
<b>9. PROJECT DELIVERY TEAM DISCIPLINES.....</b>	<b>16</b>
<b>10. BUDGET AND SCHEDULE.....</b>	<b>17</b>
a. Project Milestones.....	17
b. ATR Cost.....	17
<b>11. REVIEW PLAN POINTS OF CONTACT.....</b>	<b>18</b>

ATTACHMENT A - Approved Review Plan Revisions

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 (RP) for Rio Puerto Nuevo Project, Contracts 2D and 2E, will help ensure a quality-engineering project is developed by the U.S. Army Corps of Engineers (USACE) in accordance with EC 1165-2-217, "Review Policy for Civil Works." As part of the Project Management Plan (PMP), this RP establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products and lays out a value added process and describes the scope of review for the current phase of work. The EC outlines five general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review, Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. This RP will be provided to the Project Delivery Team (PDT), and the DQC, ATR, and BCOES Teams. The technical review efforts addressed in this RP, DQC and ATR, are to augment and complement the policy review processes. The District Chief of Engineering has assessed that the life safety risk of this project is not significant; therefore, a Type II IEPR/Safety Assurance Review (SAR) will not be required, see Paragraph 6. Any levels of review not performed in accordance with EC 1165-2-217 will require documentation in the RP of the risk-informed decision not to undertake that level of review.

### **b. References**

- (1). EC 1165-2-217, Review Policy for Civil Works, 20 February 2018
- (2). ER 1110-1-12, Engineering and Design Quality Management, 31 March 2011
- (3). ER 415-1-11, Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review, 1 January 2013
- (4). 02611 – SAJ Quality Control of In-House Products: Civil Works PED, 4 December 2017
- (5). 02612 – SAJ Quality Assurance Outsourced (AE) Engineering Products: Civil Works PED
- (6). 02710 – SAJ Preparation and Submittal of Civil Works Review Plans
- (7). Project Management Plan for the Rio Puerto Nuevo Project

### **c. Requirements**

This RP was developed in accordance with EC 1165-2-217, 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 USACE decision, implementation, and operations and maintenance documents and other work products.

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

The South Atlantic Division (SAD) Commander is responsible for approving this RP. The Commander's approval reflects vertical team input as to the appropriate scope and level of review. Like the PMP, the RP is a living document and may change as the project progresses. The Jacksonville District (SAJ) is responsible for keeping the RP up to date. Minor changes to the RP since the last SAD Commander approval will be documented in Attachment A. Significant changes to the RP (such as changes to the scope and/or level of review) should be

re-approved by the SAD Commander following the process used for initially approving the plan. The latest version of the RP, along with the Commander's approval memorandum, will be posted on the SAJ's webpage. The latest RP will be provided to SAD.

**e. Review Management Organization**

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

## 2. PROJECT INFORMATION

### a. Project Location

The Rio Puerto Nuevo project site is located in San Juan, Puerto Rico. The project site includes a 1.1 mile reach of the Rio Puerto Nuevo Channel from milepost 1.7 to milepost 2.8 upstream of the river's mouth located on San Juan Harbor (Station 88+33 to Station 147+40). The site is approximately 5.25 miles due WSW from the Luis Muñoz International Airport located in the eastern part of San Juan, Puerto Rico.

### b. Project Background

The Rio Puerto Nuevo project was authorized for construction by the Flood Control Act of 1970 Section 204 (PL 91-611) and the Water Resources Development Act of 1986 Section 401 (PL 99-662). The project is located in San Juan, Puerto Rico. The Rio Puerto Nuevo Basin drains 24 square miles, 75 percent of which is highly developed with a population of 250,000 persons. The plan of improvement protects against the 100-year flood by the construction in the Puerto Nuevo River and its tributaries of 1.7 miles of earth lined channel, 9.5 miles of concrete lined channel (5.1 miles of which are high velocity), and two debris basins.

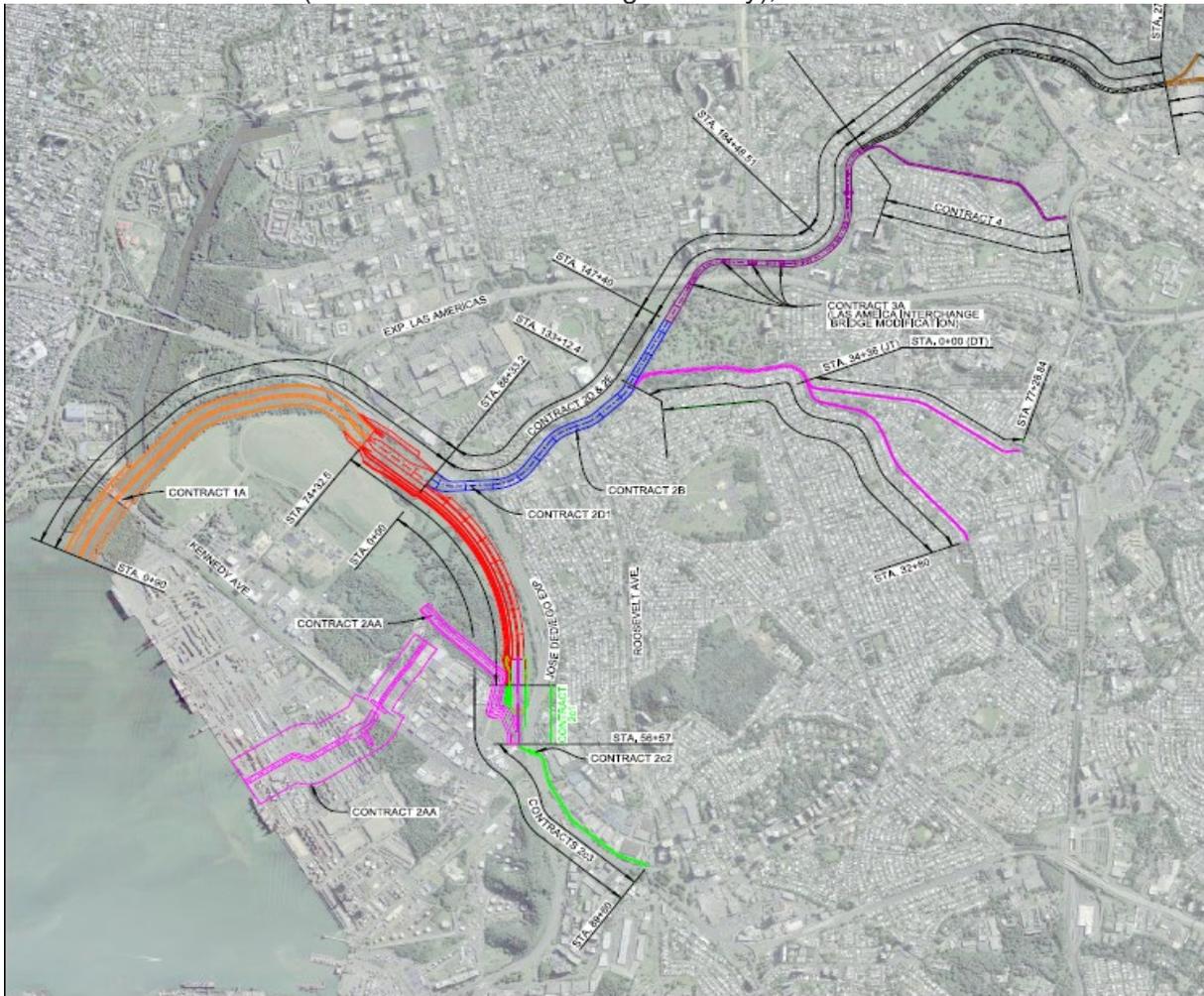


Figure 1: RPN Contract Locations

The plan will also require the construction of five new bridges, the replacement of 17 bridges, and the modification of eight existing bridges, refer to Figure 1. The areas highlighted represent the project phases which will be covered in review plans with their anticipated PED activities to occur in the next 5 to 10 years. The contracts covered in this RP are 2D and 2E.

**c. Project Description**

Contract 2D covers the construction of a wall system from the De Diego Bridge Modification to station 147+40. Contract 2E covers channel bottom improvements to Rio Puerto Nuevo, including an erosion prevention system from station 88+33 to station 147+40.

Contract 2D – Channel Walls: Construction of a wall system from Station 97+54.27 (west side) and 95+76.50 (east side) to Station 118+50, and from Station 121+00 to Station 147+40. The new channel system must tie into the existing channel wall system constructed under Rio Puerto Nuevo Contract 2D1 (De Diego Bridge Modification) at station 97+54.27 and 95+76.50, to the channel wall system at stations 118+50 and 121+00 built under contract 2B (Roosevelt Ave Bridge Replacement), and to the concrete channel section ending at station 147+00. The concrete transition will allow tie-in of the Josefina Channel, which will be built in future contracts, with the main channel. The tie-in should be a channel wall system with scour protection for the bottom of the channel with a north wall acting as a divider between Josefina Channel and the Main Channel from Josephina Station J0+00 to J1+50.

Contract 2E – Bottom of Channel: An erosion prevention system for the bottom of the channel from Station 88+33 to Station 118+50 and from Station 121+00 to Station 147+40. The erosion prevention system shall consider the velocities provided in the updated Hydrologic and Hydraulic Study for the Rio Puerto Nuevo Flood Control Project, San Juan, Puerto Rico.

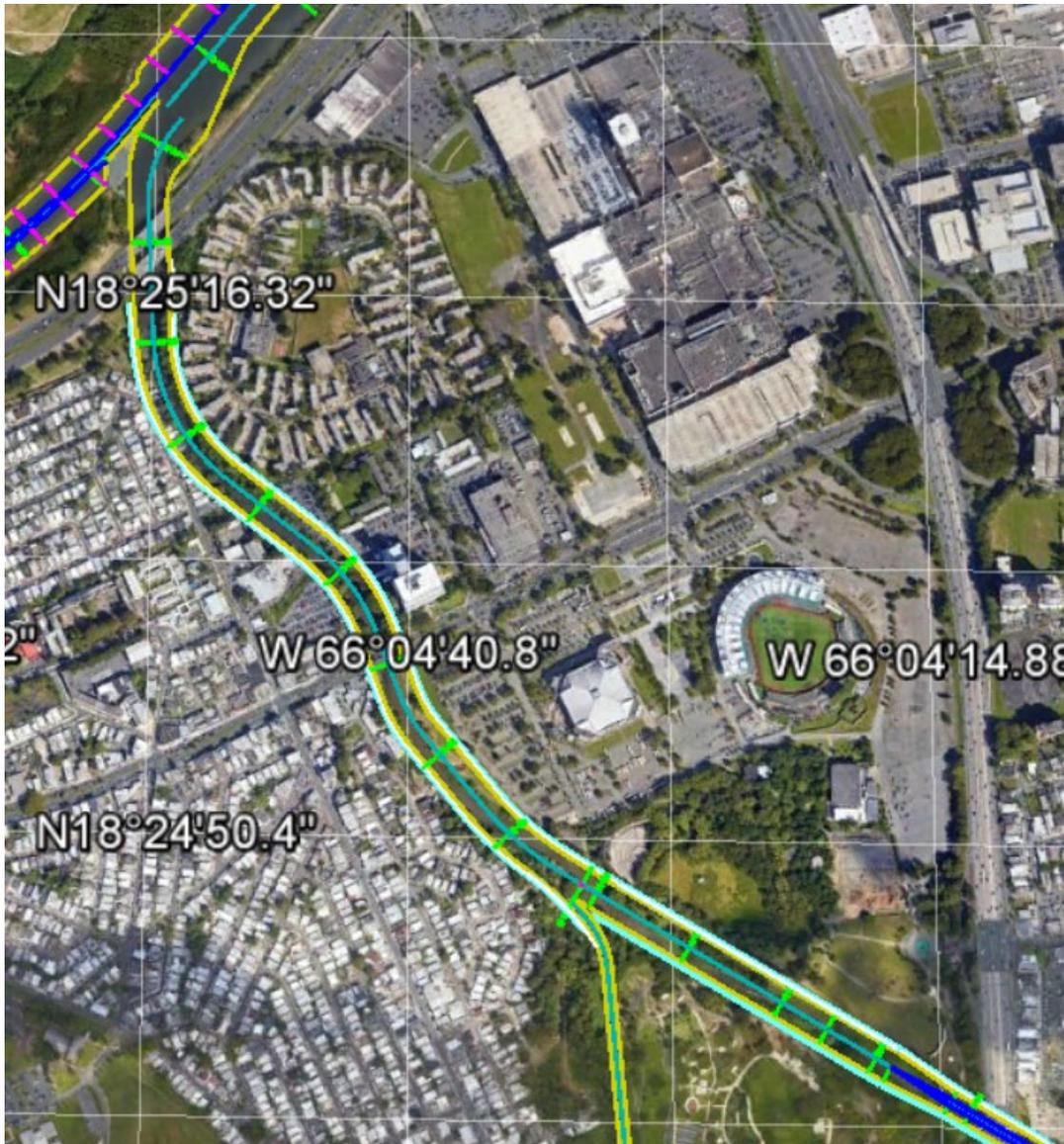


Figure 2: Contracts 2D and 2E Channel Alignment

**d. In-Kind-Contributions by Project Sponsor**

Products and analyses provided by the non-Federal sponsors as in-kind services are subject to DQC, ATR, policy and legal compliance, BCOES, and SAR reviews. There will not be in-kind contributions for this effort.

**e. Civil Works Cost Engineering Mandatory Center of Expertise Review and Certification**

The cost related documents associated with this contract do not require external peer review or certification. Therefore, no additional review requirements will be executed by the Cost

Engineering Mandatory Center of Expertise (MCX) for the implementation documents addressed by this RP.

### **3. DISTRICT QUALITY CONTROL**

#### **a. Requirements**

All implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo a DQC. A DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. DQC will be performed on the Plans and Specifications (P&S) and the Design Documentation Report (DDR) in accordance with SAJ's Engineering Division Quality Management System (EN QMS). The EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Check and 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. Certification of the DQCR is signed by the Branch Chief certifying that 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 shall assure the overall coherence and integrity of the products. Review comments and responses for this review will be documented in DrChecks<sup>sm</sup>. The PQCR shall be QC certified by the Engineering Technical Lead (ETL), all applicable Section and Branch Chiefs, and the Division Chief. This PQCR certification signifies that all DQCR Certifications are complete, as well as the PQCR.

#### **4. AGENCY TECHNICAL REVIEW**

##### **a. Risk Informed Decision on Appropriate Level of Review**

PED phase implementation documents for the project are being prepared. The design of contracts 2D and 2E were prepared by an outside Architect-Engineering firm. The intermediate and pre-final P&S and DDR documents prepared by the firm will undergo an ATR.

##### **b. Agency Technical Review Scope**

ATR is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-217 and ER 1110-1-12.

A site visit will not be scheduled for the ATR Team. If necessary, additional data and photos of the project site required by the ATR team will be gathered by PDT members during plan-in-hand site visits. This information will be disseminated to the ATR Team by the PDT.

ATR will be conducted by individuals and organizations that are external to the SAJ. The ATR Team Leader will be a USACE employee outside SAD. The required disciplines and experience are described below.

ATR comments will be documented in the DrChecks<sup>sm</sup> model review documentation database. DrChecks<sup>sm</sup> is a module in the ProjNet<sup>sm</sup> suite of tools developed and operated at ERDC-CERL ([www.projnet.org](http://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 1165-2-217, and the DrChecks<sup>sm</sup> printout of the comment resolution.

##### **c. ATR Disciplines**

As stipulated in 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 lead should be a senior professional with experience in flood risk management projects and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. ATR Team Leader may be a co-duty to one of the review disciplines. A minimum of 5 years of related project design/construction experience is required.

Civil Engineer. The team reviewer should be a registered professional engineer with experience in civil/site work that includes earthwork operations, site drainage, embankments and utilities relocations. A minimum of 10 years of related project design/construction experience is required.

Geotechnical Engineer. The team reviewer should be a registered professional with experience in design and analysis of concrete flood walls and channels, sheet pile retaining structures, bridge foundations, and revetments to support the development of the Plans and

Specifications. A minimum of 10 years of related project design/construction experience is required.

Hydraulic Engineer. The team reviewer should be a registered professional with experience in earth and concrete channel design and flood wall design to support the development of the Plans and Specifications. A minimum of 5 years of related project design/construction experience is required.

Structural Engineer. The team reviewer should be a registered professional with experience in concrete U-framed channels and walls, sheet pile type structures and bridge construction/modifications. A minimum of 10 years of related project design/construction experience is required.

## **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. BCOES review 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 02611.

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

### **a. General.**

EC 1165-2-217 provides guidance for the implementation of IEPR according to 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 RP.

### **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 1165-2-217). 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 RP, are as follows:

- (1) Does failure of the project pose a significant threat to human life?

*Contracts 2D and 2E involve the design and construction of below ground channel improvements. All construction will be to increase the cross section of the channel. The channel cross section will transition from a trapezoidal area in the downstream portion to U-shaped concrete lined channel. This phase involves excavation of the channel to the design template and construction of the concrete side walls. Failure of the project does not pose a significant threat to human life in that the constructed channel template is below existing grade, project channel widening downstream has already been constructed, and continued construction of project features expand the current level of flood protection.*

- (2) Does the project involve the use of innovative materials or techniques?

*Construction of this contract will utilize standard methods and procedures used by the Corps of Engineers on other similar work.*

- (3) Does the project design require redundancy, resiliency, or robustness?

*The project design does not require the addition of redundant project features. Resiliency or robustness incorporated into design features are a function of normal civil works design criteria and are not in excess of customary practice.*

- (4) Does the project have a unique construction sequencing or a reduced or overlapping design construction schedule?

*The design is not innovative and is not using design or construction techniques that are precedent setting; nor is the project using unique construction scheduling or Early Contractor Involvement (ECI) delivery systems.*

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

The SAJ 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**

The project does not use any engineering models that have not been approved for use by USACE. Work conducted uses Bentley MicroStation in combination of InRoads line of products to develop the set of plans shown.

**9. PROJECT DELIVERY TEAM DISCIPLINES**

<b>PDT Disciplines</b>
Project Manager
Project ETL, Structural Engineer
Civil Engineer
Geotechnical Engineer
Geologist
Hydraulic Engineer
Cost Engineer
Specification Engineer
Geomatics

Table 1: PDT Disciplines

## 10. BUDGET AND SCHEDULE

### a. Project Milestones.

Task	Date
Intermediate DQCR Complete	December 11, 2019
Intermediate ATR Review	December 12, 2019 – January 24, 2020
Intermediate ATR Certification	January 24, 2020
Intermediate BCOES Review	December 12, 2019 – January 24, 2020
Pre-Final DQCR Complete	June 17, 2020
Pre-Final ATR Review	June 18, 2020 – August 12, 2020
Pre-Final ATR Certification	August 13, 2020 – August 21, 2020
Pre-Final BCOES Review	June 18, 2020 – August 13, 2020
Final BCOES Certification	September 21, 2020 – October 5, 2020

Table 2: Project Schedule Milestones

### b. ATR Cost.

Funds will be budgeted to execute ATR and schedule as outlined above. It is envisioned that each reviewer will be afforded 30 days review plus 10 days for coordination. The estimated cost range is \$25,000 - \$30,000.

## 11. REVIEW PLAN POINTS OF CONTACT

Title	Organization	Phone
Quality Manager	CESAD-RBT	[REDACTED]
Review Manager	CESAJ-EN-Q	[REDACTED]

Table 3: Review Plan Point of Contacts

**ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS**

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

Table 4: Review Plan Revisions

**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
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EC	Engineering Circular
EA	Environmental Assessment
EN QMS	Engineering Division Quality Management System
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
NED	National Economic Development
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
RPN	Rio Puerto Nuevo Flood Control Project
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

Table 5: Abbreviations

**ATTACHMENT C:**

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

**Rio Puerto Nuevo Flood Control Project; Contracts 2D & 2E  
San Juan, PR**

**ATR REPORT OUTLINE**

- 1. Introduction:**
- 2. ATR Team Members:**
  - ATR Team Leader
  - Civil Engineer
  - Geotechnical Engineer
  - Hydraulic Engineer
  - Structural Engineer
- 3. ATR Objective:**
- 4. Documents Reviewed:**
- 5. Findings and Conclusions:**
- 6. Unresolved Issues:**

# COMPLETION OF AGENCY TECHNICAL REVIEW

---

The Agency Technical Review (ATR) has been completed for the Preconstruction, Engineering and Design Phase Implementation Documents for the Rio Puerto Nuevo Flood Control Project Contracts 2D and 2E, San Juan, Puerto Rico 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 1165-2-217 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<sup>sm</sup>.

---

NAME  
ATR Team Leader

---

Date

---

Engineering Technical Lead  
CESAJ-EN-DW

---

Date

---

Review Management Office Representative  
CESAD-RBT

---

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.

---

Chief, Engineering Division, Jacksonville District  
SAJ-EN

---

Date