

APPENDIX A: Scope of Work

Request For Proposals Architecture And Engineering (A&E) Services Villa Pesquera Santa Isabel



Event: FEMA DR-4671PR

Applicant: Department of Agriculture (000-U90WC- 00)

Project No. 690094: Fishing Villages - Various Locations

DI No.: 1260658 - Fishing Village - Pescaderia Sotomayor - Ramp and Pier

Category G: Parks, Recreational Facilities, and Other Items

I. Introduction:

The Department of Agriculture is seeking responsible, qualified and duly licensed Architecture and Engineering (A&E) firm(s) to provide design and structural assessment services for Project No. 690094, specifically targeting Damage Inventory ("DI") No. 260658 at the Pescadería Sotomayor - Ramp and Pier. This project, categorized under FEMA Category G for the DR-4671-PR (Fiona) event, focuses on the recovery and restoration of the fishing village in Santa Isabel.

The current FEMA-approved Scope of Work ("SOW") proposes the in-kind replacement of the boat ramp, docking pier, and pier walking path concrete slabs, along with localized patchwork on the concrete piles. While the restoration of these elements is considered technically feasible without a full-scale redesign, the Department of Agriculture has identified the need for specialized technical oversight to ensure long-term structural integrity and regulatory compliance.

The primary objective of this procurement is to secure responsible and qualified A&E firm(s) to perform the following:

- **Structural Assessment:** Conduct a specialized structural study to determine the full extent of any latent or additional structural damages not fully captured in the initial Damage, Description and Dimensions ("DDD") inspection.
- **Method of Repair ("MOR"):** Develop a detailed and code-compliant Method of Repair that aligns with the approved "in-kind" parameters while addressing current structural deficiencies.
- **Technical Specifications:** Draft comprehensive technical specifications to be used during the construction procurement phase, ensuring that all materials and methods meet the required federal and local standards.

This Scope includes A&E design services, and related Construction Bid Development activities. The selected Proponent(s) must furnish all required key personnel, technical expertise, analyses, deliverables, and professional services necessary to fully perform the work described herein and in the applicable Appendices.

The selected Proponent(s) will be responsible for the preparation of complete, coordinated, and procurement-ready design and construction documents. Said documents shall include, but are not limited to, plans, specifications, drawings, technical reports, and other materials necessary to support the solicitation, bidding, and procurement of construction services.

All work products shall comply with federal and state applicable codes, standards, regulations, and procurement requirements and shall be suitable for use in the issuance of construction bid packages without the need for material revision.



II. Geographical Scope

The awarded Proponent(s) will be responsible for and required to perform all Services under this Scope of Work within Santa Isabel's Villa Pesquera. **Refer below for the specific location within the Project.**

Location Map:





Site Map:



III. Scope of Services: A&E Design & Structural Evaluation

The selected A&E firm shall provide specialized technical services to validate the existing Scope Of Work for Project No. 690094 (DI No. 1260658), design services, permitting and regulatory coordination and environmental and historic preservation ("EHP") compliance, in accordance with federal, state, and local laws and regulations. The primary goal is to transition the approved "In-Kind" replacement concepts into executable construction documents. **This procurement is limited solely to professional A&E and pre-construction services.**

A. Overview

1. Specialized Structural Assessment

- **Sub-Surface/Structural Analysis:** Perform a specialized study of the concrete piles to determine if the "patchwork" repair method currently approved is structurally sufficient or if latent damages require a more intensive restoration method.
- **In-Depth Inspection:** Conduct a comprehensive evaluation of the boat ramp, docking pier, and walking path slabs to verify the damage extent recorded in the FEMA SOW.
- **Damage Confirmation:** Provide a report confirming whether the approved SOW is technically sound or if a Scope of Work Change is required due to structural instability or damages not initially captured.

2. Development Method of Repair ("MOR")

- Develop a detailed MOR for the approved SOW while ensuring compliance with the 2018 Puerto Rico Building Code.
- Evaluate and integrate Section **406 Hazard Mitigation** measures directly into the MOR and technical specifications.

3. Regulatory and EHP Compliance

- **Licensing:** Proponents must submit within its Proposal legible copies of all company, organization, and/or key personnel licenses and permits, required by applicable law and this RFP to perform this Scope of Work. This includes but is not limited to licensing requirements set forth in Act No. 173 of August 12, 1988, as amended.

Licenses, permits, and certifications must be current, valid, and in good standing at the time of Proposal Submission date, and throughout performance. Failure to provide copies of required active licenses, permits,



and/or certifications by the Proposal Submission deadline will render the Proposal non-responsive and result in the Proponent's disqualification.

- **Environmental Alignment:** Incorporate all FEMA Environmental and Historic Preservation ("EHP") conditions into the design, specifically regarding sedimentation controls and marine habitat protection during the boat ramp replacement.
- **Permitting Assistance:** Identify all required local and federal permits (e.g., OGPe, Department of Natural and Environmental Resources, USACE etc.) necessary for construction.

B. Tasks

The awarded Proponent(s) will be responsible for the following tasks:

1. STUDIES AND DESIGN

Preparation of Studies:

- Proposer shall deliver to the PRDA a list of all required studies that will be necessary to develop the design.
- The list of studies shall include a description of the work necessary for each study including the schedule for each deliverable.
- Proposer will notify the PRDA before commencing any work related to studies.
- Proposer shall expect comments and revisions from the PRDA that may require revision of deliverable studies.
- **Service and Deliverables required:** Studies required for the development of the Project's design as established in list provided by Proposer.

Preparation of Drawings and Specifications

The Proposer **must:**

- Deliver to the PRDA a list of all required drawings that will be necessary to develop the construction drawing set. The list shall include a general description of the work necessary for developing the drawings, including a schedule for deliverables.
- Consider submitting deliveries of progress drawings at 30%, 60%, 90% and 100% of the completion of the construction set of drawings. For each delivery, the Proposer shall expect revisions and comments from the PRDA that may require updates, changes or modifications to the set of drawings.
- Address comments and revision requirements before submitting next set of progress drawings.
- **Service and Deliverables required:** Provide progress drawings deliveries at 30%, 60%, 90% and 100% required for the development of the Project's construction drawings package as established in list provided by Proposer.



- Proposer shall deliver to the PRDA a list of all required specifications that will be necessary to present Project requirements during construction process. The list shall include a general description of the work necessary for developing the specifications including a schedule for deliverables.
- Proposer shall consider submitting deliveries of progress specifications at 30%, 60%, 90% and 100% with the completion of the construction set of drawings. For each delivery, the Proposer shall expect revisions and comments from the PRDA that may require updates, changes or modifications to the set of specifications.
- Proposer shall address comments and revision requirements before submitting next set of progress specifications.
- **Service and Deliverables required:** Set of specifications deliveries at 30%, 60%, 90% and 100% required for the development of the Project's construction as established in list provided by Proposer.

2. ENVIRONMENTAL REVIEW

- Review the approved scope of work and evaluate key environmental considerations to prepare a summary analysis that aligns with FEMA's existing EHP, and additional Environmental Factors included in this Scope of Services. This analysis shall identify any conditions, mitigation requirements, or compliance actions that must be incorporated into the project's design and implementation.
- Review and apply all applicable environmental laws, regulations, and standards to avoid or minimize adverse impacts on floodplain and wetland resources. The Proposer must ensure full consideration of all local and federal environmental requirements governing FEMA Public Assistance projects.
- The PRDA is responsible for final design, placement, configuration, procurement, permits and compliance with all regulatory codes and standards. FEMA eligibility and funding for the mitigation of the projects included in this RFP will be subject to the compliance of all environmental laws, regulations, and executive orders applicable to the site(s). The Proposer must ensure the PRDA is in compliance of all environmental laws, regulations, and executive orders applicable to the site(s).
- **Service and Deliverables required:**
 - Proposer shall identify and evaluate direct and indirect impacts associated with occupancy or modification of the floodplain or wetland, as well as any direct or indirect support of floodplain or wetland development of the proposed activity. Prepare documentation on the impacts and potential support of floodplain or wetland development.
 - Proposer shall identify any environmental conditions, mitigation requirements, or compliance actions that must be incorporated into the project's design and implementation.



- Proposer shall monitor the implementation of the project to ensure that environmental mitigation measures for the floodplain or wetland are implemented.

3. CONSTRUCTION BID PACKAGE

- After the 100% development of the progress drawings is reached, the Proposer must deliver procurement-ready design and complete set of specifications containing all necessary information for the construction of the Project in compliance with all requirements of applicable codes and regulations. Said documents shall include, but are not limited to, plans, specifications, drawings, technical reports, and other materials necessary to support the solicitation, bidding, and procurement of construction services.
- Proposer shall expect comments and revisions from the PRDA that may require revision of construction specifications.
- Proposer shall provide all necessary information to the PRDA for the preparation of the construction scope of work.

4. CONSTRUCTION BID SUPPORT

The PRDA may require that the successful Proponent(s) to:

- Participate during meetings of the construction bid process of the Project, as required by the PRDA.
- Prepare and/or present all necessary graphical or descriptive information to be presented for the construction bidders during the bid process.
- Prepare or review all necessary deliverables to be included in addendum documentation to be provided to the construction bidders during the bid process.
- Prepare or review all comments and/or questions submitted by the construction bidders during the bid process.

5. PREPARATION OF AS-BUILT DRAWINGS

- The **Proposer** must prepare and submit to the PRDA the complete the final as-built drawings set of the Project including all the changes or modifications implemented during the construction of the Project.
- **Services and Deliverables Required:** As-built drawings set. Said drawings must be aligned with the DDD and the FEMA Approved SOW included in **Section VI. FEM Project No. 690094 (DI No. 1260658)**.

IV. Timeline and Period of Performance

The selected A&E firm shall adhere strictly to the project completion schedule as established under the approved Period of Performance ("POP"), including any formally authorized POP extensions issued by FEMA. The A&E activities must be completed no later than **October 18, 2026**, as specified in the most recent FEMA-approved POP documentation. The POP is not subject to modification by the A&E firm or the Subrecipient under any circumstance; it may only be altered through a formal, written, and FEMA-approved POP extension. All scope of services must be completed on or before the FEMA-approved POP end date to maintain full compliance with FEMA requirements.

V. A&E Deliverables & Milestone Schedule

The selected firm shall submit the following deliverables for review and approval by the Department of Agriculture and COR3/FEMA as required:

- Technical assessment reports with findings and recommendations.
- A fully detailed MOR design for the SOW with integrated 406 Hazard Mitigation measures.
- Environmental data collection requirements, sufficient to satisfy FEMA review and approval.
- Within 30 days of the kick-off meeting date, provide an updated Phase 1 milestone schedule showing estimated completion dates for each activity.

VI. FEMA Project No. 690094 (DI No. 1260658)

The Department of Agriculture provides below the applicable FEMA Damage Description and Dimensions ("DDD") documentation and corresponding FEMA approved Scope of Work as reference materials to assist Proponents clearly understand the required services.

A. Damage, Description and Dimensions: Damage #1260658; Fishing Village - Pescaderia Sotomayor - Ramp and Pier

- **General Facility Information:**
 - Facility Type: Parks, Cemeteries, and Recreational Facilities
 - Facility: Pescaderia Sotomayor
 - Facility Description: Fishing Village Ramp and Pier. Property owned by Port Authority/Municipality but managed by the local fishing village organization.
 - Approx. Year Built: 1980



- Location Description: Calle 6 Parcelas Playa Santa Isabel, Santa Isabel, PR
- Start GPS Latitude/Longitude: 17.95614, -66.41056
- End GPS Latitude/Longitude: 17.95695, -66.41096

- **General Damage Information:**

- Date Damaged: 9/17/2022 to 9/21/2022
- Cause of Damage: During Hurricane Fiona event began in Puerto Rico on September 17 – 21, 2022. The severe hurricane force winds and rain through the event caused great damage to Puerto Rico's infrastructure within the disaster declared areas.

- **Facility Damage:**

Pescaderia Sotomayor Boat Ramp: Start 17.95672, -66.41093 Stop 17.95693, -66.41003:

- Boat Ramp, 24.6074 CY of Reinforced concrete slab boat ramp. , 60.4 FT long x 22 FT wide x 6 IN deep, Applicant states that the ramp extended further into the water and was swept away during the event by wave action from wind driven rain., 0% work completed.

Pescaderia Sotomayor Pier Edge: Start 17.95637, -66.4102 Stop 17.95660, -66.41045:

- Piers, 23.6111 SY of South side reinforced concrete slab pier edge, Plaster Repair SY, Per Applicant, wind driven rain damaged surface of pier causing cracking and surface failure. (85 Ft long x 18 IN)/9 = 14.1667 SY (85 ft long x 1 ft wide)/9 = 9.4444 SY Total 23.6111 SY, 0% work completed.

Pescaderia Sotomayor Pier Edge: Start 17.95638, -66.41080 Stop 17.95634, -66.41081:

- Piers, 7.7778 SY of West side reinforced concrete slab pier edge, 25 FT long x 2.8 FT high, Per Applicant, wind driven rain damaged surface of pier causing cracking and surface failure. , 0% work completed.

Pescaderia Sotomayor Pier: Start 17.95679, -66.4114 Stop 17.95690, -66.41100:

- Piers, 10 each of Iron dock boat cleat, Applicant states that boat dock cleats were washed away during Fiona, 0% work completed.
- Piers, 1 each of Electrical junction box with combination 110--volt connection., 110 Amp, Applicant states that electrical box and water fixtures were washed away during Fiona, 0% work completed.



- Piers, 1 each of Electrical junction box with combination 220-volt connection., 220 Amp, Applicant states that electrical box and water fixtures were washed away during Fiona, 0% work completed.
- Piers, 1 each of Water fixture for boat connection, Water fixture, Applicant states that electrical box and water fixtures were washed away during Fiona, 0% work completed.
- Piers, 11.8519 CY of Walking path: Reinforced concrete slab pier., 60 FT long x 4 FT wide x 16 IN deep, Applicant states that pier and attachments were damaged during Fiona. See sketch for additional dimensions. , 0% work completed.
- Piers, 9.6296 CY of Docking Platform: Reinforced concrete slab pier., 15 FT long x 13 FT wide x 16 IN deep, Applicant states that pier and attachments were damaged during Fiona. See sketch for additional dimensions. , 0% work completed.

Pescaderia Sotomayor Restaurant Piles: Start 17.95638, -66.41066 Stop 17.955936, -66.4102040:

- Piers, 14 each of Piles under large pier with restaurant buildings and deck on top. , 10 FT long x 12 IN wide x 12 IN deep, Per applicant, 12 in x 12 in x 10 ft H piles were damaged from boats attached during storm., 0% work completed.

B. Scope of Work: Work to be completed

Pescadería Sotomayor Boat Ramp; Start 17.95672, -66.41093 Stop 17.95693, -66.41003:

A. Remove and replace, **24.6074 CY** Reinforced concrete, slab, Boat ramp, 60.4 FT Long x 22 FT Wide x 0.5 FT Thick.

Pescadería Sotomayor Pier Edge; Start 17.95637, -66.4102 Stop 17.95660, -66.41045:

B. Remove and replace, **23.6111 SY** of Concrete plaster, Pier edge.

Pescadería Sotomayor Pier Edge; Start 17.95638, -66.41080 Stop 17.95634, -66.41081:

C. Remove and replace, **7.7778 SY** of Concrete plaster, Pier edge, 25 FT Long x 2.8 FT High.

Pescadería Sotomayor Pier; Start 17.95679, -66.4114 Stop 17.95690, -66.41100:

D. Remove and replace, **10 each** Cleat, Iron, Dock boat.

E. Remove and replace, **1 each** Electrical junction box, Combination 110V connection.



F. Remove and replace, **1 each** Electrical junction box, Combination 220V connection.

G. Remove and replace, **1 each** Water fixture, Boat connection.

H. Prepare and repair, **11.8519 CY** of Reinforced concrete, Slab, Walking path, Pier, 60 FT Long x 4 FT Wide x 16 IN Deep.

I. Prepare and repair, **9.6296 CY** of Reinforced concrete, Slab, Docking platform, Pier, 15 FT Long x 13 FT Wide x 16 IN Deep.

Pescadería Sotomayor Restaurant Piles; Start 17.95638, -66.41066 Stop 17.955936, -66.4102040:

J. Repair, **14 each** Piles, (Exposed concrete), (Patching), 12 IN long x 12 IN wide, x 10 FT High.

C. Hazard Mitigation Proposal (HMP) Scope of Work:

The A&E firm should evaluate and integrate Section 406 Hazard Mitigation measures directly into the Method of Repair (MOR) and technical specifications.

Mitigation consists of:

1) Install 40 S.Y. of geotextile fabric over damaged left side of the **Boat Ramp (Approx. Dimension: 30' x 12')** to prevent future erosion from heavy rains and/or runoff. Installing geotextile fabric over slopes will allow plantings to set root as well as prevent future erosion from heavy rains and runoff.

2) Install 7 C.Y. of Riprap and rock lining not grouted over damaged left side of the **Boat Ramp (Approx. Dimension: 30' x 12' at left side)** to reduce the erosion and the risk of similar damage in the future. "Use this item combined with Live Stakes/Deep Rooted Grass and Rip Rap for a comprehensive mitigation if necessary and cost effective.

3) Install 40 S.Y. of Live Stakes and Deep-Rooted Grass(Approx. **Dimension: 12' x 12' at left side**) over damaged left side of the **Boat Ramp** to prevent future erosion from heavy rains/runoff/stream water. Live stakes and Deep- Rooted Grass will help anchor geotextiles and hardscaping along slopes, which in turn mitigates future losses. These efforts may require following environmental regulations.

4) Add 241 SY (**148 S.Y. for Pier Edge** Start 17.95637, -66.4102 Stop 17.95660, -66.41045; **8 S.Y. for Pier Edge**; Start 17.95638, -66.41080 Stop 17.95634, -66.41081; **3 S.Y. for Electrical Junction Box, 220V, 14 S.Y. for Water Fixture Concrete Pedestal**; and **5 S.Y. for Slab, Walking Path, Pier**) of concrete admixture to the mortar mix to enhance the performance and bonding of the concrete mix for plastering. Consider adding a concrete admixture to the mortar mix such as Crossco Acryl-B-60 A or similar to enhance the performance and bonding of



the concrete mix for plastering. In order to prevent or significantly reduce future damages from similar event.

5) Install **1 Ea.** Facility Power Surge Protection Device to protect equipment of a facility from failure caused by power surges resulting from a heavy rain and high velocity wind event. Comprehensive mitigation alternative to protect equipment of a facility from failure caused by power surges resulting from a heavy rain and high velocity wind event.