



**Responses to USACE Comments for Emergency Shoreline  
Stabilization Measures at Asociación Condómines Azure Beach, Calle  
Almendro, Punta Las Marías, Puerto Rico  
DNER Joint Permit No. 1664  
O-BD-CZM01-SJ-00790-08032019  
USACE SAJ-2019-00816 (SP-CGR)**

On behalf of the Asociación Condómines Azure Beach, Tetra Tech filed Joint Permit Application No. 1664, on March 8, 2019. On March 27, 2019, Ms. Carmen Gisela Román sent comments on behalf of the USACE. This document constitutes the responses to the March 27, 2019 USACE comments on the Emergency Shoreline Stabilization Measures at Asociación Condómines Azure Beach, Calle Almendro, Punta Las Marías, Puerto Rico. As requested, Engineering Form 4345, February 2019 has been completed and hereby submitted (See Attachment 1). The bold text refers to the textual comment from the USACE letter, each with its respective response in italics.

## **1.0 U.S. Army Corps of Engineers: Responses to USACE letter SAJ-2019-00816 (SP-CGR)**

- 1. Revise item 23 of permit application to provide a statement showing how the proposed impacts to waters of the U.S. (i.e. surface waters) have been avoided and minimized. Please explain the need to have 12 feet – 15 feet wide rip-rap as proposed instead of a short width. Consider, if the width of rip-rap would be reduced to approximately 10 feet wide from the existing vertical headwall, and no steeper than 2:1 horizontal for the proposed site to minimize impacts on the aquatic environment. Also, a brief description to show how the proposed impacts have been compensated or a description of why you believe mitigation is not required.**

*The proposed revetment has been designed taking into consideration the least environmentally impacting cross-section while maintaining an appropriate armor stone size of 2.5 tons to withstand the design significant wave height; and minimizing impacts to waters of the U.S. The USACE Coastal Engineering Manual requires a minimum of two (2) stone layers to maintain structural stability. The crest elevation is established by the size of the rock from the maximum scour depth (-2 ft MLLW) to an elevation of +5 feet (ft) Mean Lower Low Water (MLLW). From this elevation, using a 2:1 slope, the base of the revetment varies from 12 ft to 15 ft. This distance coincides with an existing sandstone slab which provides an appropriate scour protection along the toe of the revetment without having to excavate further below -2 ft MLLW. In order for the revetment not to exceed a width of 10 feet and maintain an appropriate crest elevation, its slope would have to be steeper than 2:1 which would compromise the stability of the structure.*

*As explained in the Biological Evaluation Study performed on March 30 and April 2, 2019 (see Attachment 2), the total mean biotic cover within the area is 0% which represents an extremely low presence of biological diversity in the project footprint area. Also, no listed coral species are present in the project area. For this and all the other reasons explained in the report we conclude that no mitigation is required.*

**2. Revise item 25 of permit application to provide complete postal address of adjoining property owners, lessees, etc.**

*Table 1. Adjoining Properties Owners, Lessees, Etc.*

<b>Cardinal</b>	<b>Address</b>	<b>Owner</b>	<b>Postal Address</b>
South	Cond. Los Almendros Terrace, Apartment 6C	Luis F. Saldana Boine	5 Calle Almendro Apt. 6C, San Juan, PR, 00913
South	Cond. Los Almendros Terrace, Apartment 3C	Ricardo Carrillo	5 Calle Almendro Apt. 3C, San Juan, PR, 00913
South	Cond. Los Almendros Terrace, Apartment 2B	Pedro Gomez	5 Calle Almendro Apt. 2B, San Juan, PR, 00913
South	Cond. Los Almendros Terrace, Apartment 1A	Francisco Pereyo	5 Calle Almendro Apt. 1A, San Juan, PR, 00913
South	Cond. Los Almendros Terrace, Apartment 4A	Joe Seizmore	5 Calle Almendro Apt. 4A, San Juan, PR, 00913
South <b>Note:</b> Abandoned (May be in foreclosure)	Cond. Los Almendros Terrace, Apartment 5B	Jose de Miguel	5 Calle Almendro Apt. 5B, San Juan, PR, 00913
West	Calle Almendro No. 2	Manuel Dalmau Roig	2 Calle Almendro, Apt.1, San Juan, PR, 00913
West	Calle Almendro No. 2, Apartment #2	Carolina Sabater	2 Calle Almendro, Apt.2, San Juan, PR, 00913
West	Calle Almendro No. 2, Apartment #4	Barry Beasley	2 Calle Almendro, Apt.4, San Juan, PR, 00913
West	Calle Almendro No. 2, Apartment #5	Jonathan Ulmer	2 Calle Almendro, Apt.5, San Juan, PR, 00913
East	Bucare 1, Apartment #4	John Rovani	1 Calle Bucare, San Juan, PR, 00913
East	Bucare 1, Apartment #5	Eugenia Ortega	1 Calle Bucare, San Juan, PR, 00913
East	Bucare 1, Apartment #6	Tony Lopez	1 Calle Bucare, San Juan, PR, 00913
East	Bucare 2, 4, 6, and 8	Rafael Guillermeti Matienzo	2, 4, 6, and 8 Calle Bucare, San Juan, PR, 00913



3. Indicate the average amount of fill material in cubic yard per running foot, measured along the length of the treated shoreline, below the plane of the high tide line.

*The average amount of fill material in cubic yard per running foot along the length of the treated shoreline below the plane of the high tide line is **0.92 cy/lf**.*

4. Provide any information in reference to the presence or absence of submerged aquatic vegetation or resources, which could be adversely affected by this project. Please include the dates and times of any survey or site review work, and any maps that depict the locations of any submerged aquatic vegetation or resources.

*A Biological Evaluation Study for the Proposed Emergency Shoreline Protection Measure was conducted on March 30 and April 2, 2019 and is included herein as Attachment 2. The report concludes that the total mean biotic cover within the area is 0%.*

5. Updated ENG 4345 Form (Feb 2019)

*Please see Attachment 1 for the updated ENG 4345 February 2019.*

## Attachments

1. **ENG FORM 4345, February 2019.**
2. **Biological Evaluation Study. Proposed Emergency Shoreline Protection Measure. Asociación Condómines Azure Beach, San Juan, Punta Las Marías, Puerto Rico.**