

**ENVIRONMENTAL REVIEW FOR ACTIVITY/PROJECT THAT IS CATEGORICALLY  
EXCLUDED SUBJECT TO SECTION 58.5  
PURSUANT TO 24 CFR 58.35(a)**

**Project Information**

**Project Name:** Rotonda PR-867 int. entradas Urbs. Campanillas y Pabellones, Sabana Seca, Toa Baja (PR-CRP-000991)

**Responsible Entity:** Puerto Rico Department of Housing (PRDOH)

**Grant Recipient:** Municipality of Toa Baja

**State/Local Identifier:** Puerto Rico/Municipality of Toa Baja

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**Consultant:** Metric Engineering of Puerto Rico, PSC

**Direct Comments to:** Puerto Rico Department of Housing (PRDOH) at  
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**Project Location:** PR-867, Km 3.8, at entrance to Urb. Campanilla and Pabellones,  
Bo. Sabana Seca, Toa Baja  
Roundabout coordinates (lat., long.): 18.439342°, -66.215816°  
Roundabout Cadaster Number: 720-137-008-67

Staging Area coordinates (lat., long.): 18.425291°, -66.229143°  
Staging Area Cadaster Number: 060-000-009-86-000



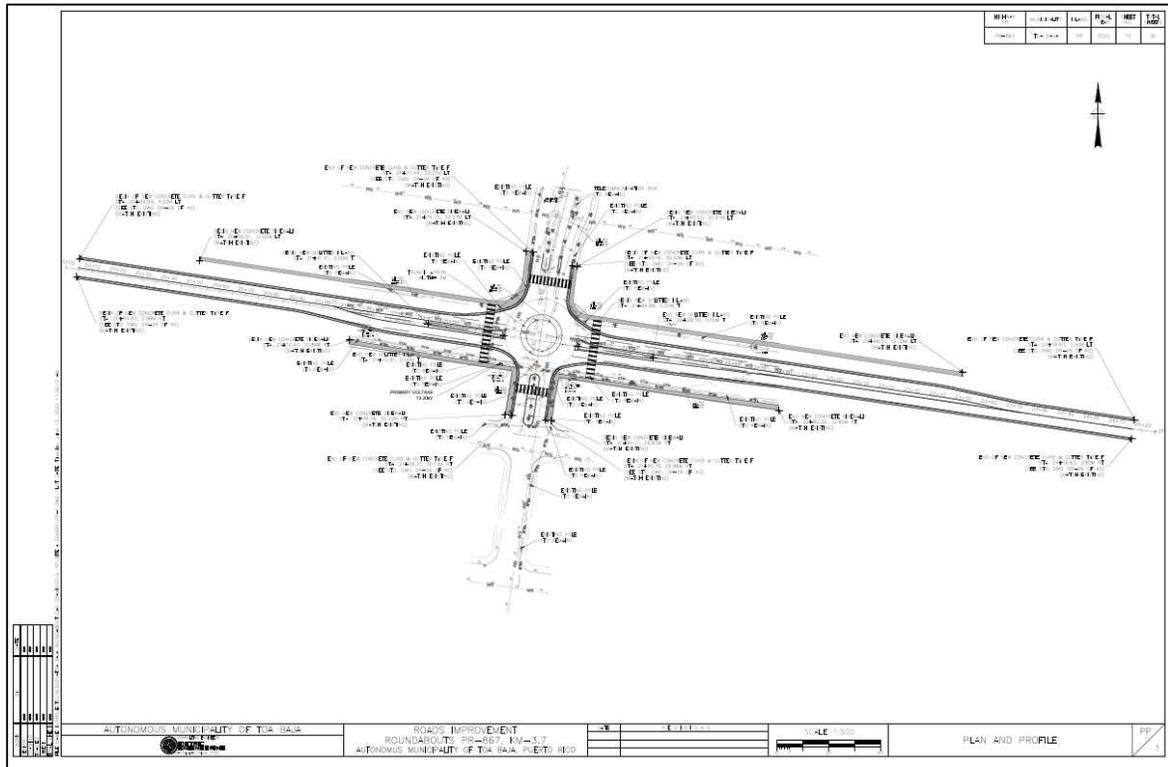


Figure 3: Proposed drawing with layout of intersection

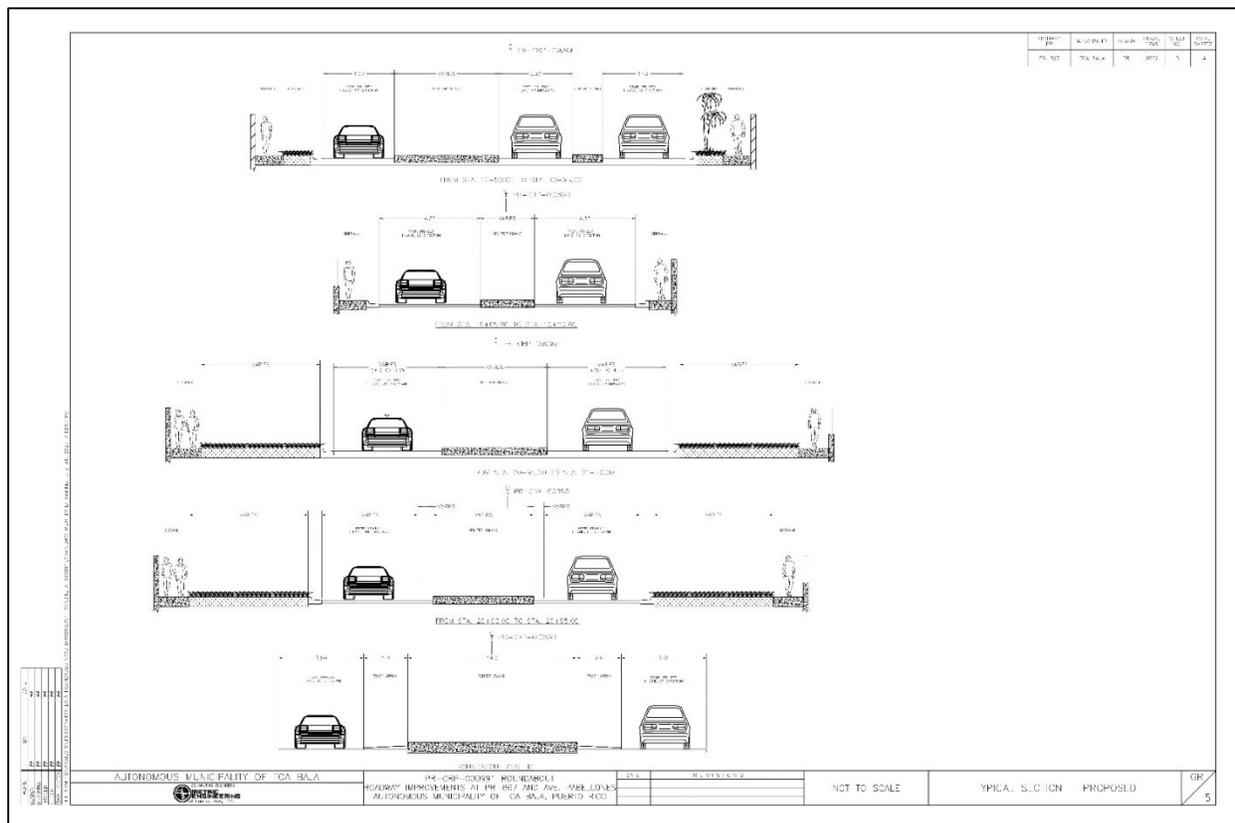


Figure 4: Proposed drawing with roundabout cross sections

## **Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:**

The Puerto Rico Department of Housing (PRDOH) is proposing the reorganization of the unsignalized intersection on PR-867, at the entrance of the Campanillas and Pabellones residential developments, replacing it with a single lane roundabout. The goals of this project are to enhance mobility along the road, reduce vehicular points of conflict due to the entrance and exit of the residential developments, provide safe, convenient, and attractive crossings for pedestrians and bicyclists, and improve connectivity and circulation between PR-867 and the Campanilla Avenue area. A site has been identified for use as a staging area, currently used as the machinery yard of the Public Works Department of the Municipality of Toa Baja. It is located on Campanilla Avenue at 18.425291, -66.229143 and it covers an area of approximately 5.25 acres. For location of project sites see **Appendix A.1.a and A.1.b**.

The project footprint will cover 8,127 square meters (approximately 2.52 acres) (see **Figures 1-3**). The project will result in minimal ground disturbance, as construction is confined to existing roadways and sidewalks. Sidewalk preservation and reconstruction will be limited to areas where existing sidewalks are damaged or absent, ensuring ADA compliance with the installation of accessible ramps and crosswalks. Excavation for the roundabout will be minimal, focusing primarily on milling and resurfacing existing asphalt. The staging area will be limited to the machinery yard of the Public Works Department of the municipality of Toa Baja located 1.0 miles southwest of the roundabout (see **Figure 4**).

### **Roundabout Benefits:**

- Saves lives by:
  - Reduction in fatalities,
  - Reduction in injury crashes,
  - Reduction in pedestrian crashes,
  - Reduction in conflict points.
- Slower vehicle speed,
- Efficient traffic flow,
- Reduction in pollution and fuel use,
- Potential money saved,
- Improve Aesthetic landscaping.

### **Project will consist of:**

1. Pavement rehabilitation (Cold Milling and Asphalt Resurfacing. The repaving will match the existing depth of the asphalt roadway and will not require excavations below the current base.)
2. Improvements in road signs (Remove and replace damaged road signs; New Installation of signs related to roundabout intersection and pedestrian crossing.)
3. Transition of signalized intersection to roundabout.
4. Pedestrian improvements replacing existing sidewalks and crossing (Installation of handicapped curb ramps; Raised crosswalk. The new sidewalks will be approximately 1.55m wide and 0.10cm deep)
5. Construction and Modification of medians (New Installation of medians due to the roundabout geometry, Modification of existing medians)



6. Improvements and/or installation of new curbs and curbs & gutter where there is a drainage problem and to address new geometry. The curb will have a maximum width of approximately 0.45cm and will be deepened by 0.2cm.
7. Improves road light features to solar features. The new poles to be installed will have a maximum diameter of 25 cm and a maximum subsurface depth of 40 cm.
8. Maintenance of Traffic (MOT)
9. Construction of a roundabout. The roundabout will have a diameter of approximately 15.24m and a maximum depth of 20cm below the surface.
10. Improvements to storm runoff system, repairing drains & sewer system.
11. Replacement of pavement markings and use of retroreflective devices (raised pavement markers,
12. Speed reduction at pedestrian crossings,
13. Solar lighting poles system,
14. Urban landscape improvements,
15. Evaluation of electrical design improvements that comply with current codes and regulations.

**Funding Information**

Grant Numbers	HUD Program	Funding Amount
B-17-DM-72-0001	Community Development Block Grant - Disaster Recovery (CDBG-DR)	\$11,938,162,230
B-18-DP-72-0001		
B-19-DP-78-0002		
B-18-DE-72-001		

**Estimated Total HUD Funded Amount:** \$470,187.10

**Estimated Total Project Cost** (HUD and non-HUD funds) [24 CFR 58.32(d)]: \$470,187.10

**Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities**

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 &amp; 58.6</b>		
<b>Airport Hazards</b>  24 CFR Part 51 Subpart D	Yes    No <input type="checkbox"/> <input checked="" type="checkbox"/>	The nearest airport civilian airport, Fernando Luis Ribas Dominicci (SIG), is approximately 40,392 ft from the project site. The nearest military airport, Luis Muñoz Marín (SJU), is approximately 71,332 ft from the project site. Therefore, the project location is not within



		<p>15,000 feet of military airport or 2,500 feet of a civilian airport and outside of an Accident Potential Zone (APZ) or Runway Protection Zone/Clear Zone (RPZ/CZ), thus the proposed action is in compliance with Airport Hazards requirements.                  Refer to:  <b>Appendix A.2. Airport Hazard Map</b></p>
<p><b>Coastal Barrier Resources</b>                   Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The closest resource units are located:</p> <ul style="list-style-type: none"> <li>• The Punta Salinas Unit PR 86-P (labelled as an Otherwise Protected Area) is located 2.30 miles north of the project site.</li> <li>• The Punta Vacia Talega Unit PR-87P (labelled as an Otherwise Protected Area) and PR-87 are located 16.4 miles east of the project site.</li> </ul> <p>The proposed project is not located within a Coastal Barrier Resources Unit. Therefore, this project has no potential to impact a CBRS Unit and is in compliance with the Coastal Barrier Resources Act.                  Refer to:  <b>Appendix A.3.Coastal Barrier Resources Map</b></p>
<p><b>Flood Insurance</b>                   Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the project site is largely located in "Areas of Minimal Flood Hazard" [FIRM Panel 72000C0330J with effective date: 11/18/2009]. A small portion of the project boundary will intercept the 500-yr floodplain to the north, at the entrance to Pabellones development, and to the west end of the project extension, where the activities will intercept the 500-yr (Zone X shaded) and will be adjacent to 100-yr (Zone AE) floodplains, which are areas subject to a 0.2% and 1% annual chance of flood, respectively. Given the nature of the project, obtaining insurance for project elements is unnecessary. The project will take place on a state road that does not require flood insurance. Moreover, the adjacent structures are not anticipated to be adversely affected by the project's implementation, as the stormwater management infrastructure in the area will remain unchanged.                  Refer to:  <b>Appendix A.4. Flood Insurance Map</b></p>



		Appendix D. 8 Step Documentation
<b>STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 &amp; 58.5</b>		
<p><b>Clean Air</b></p> <p>Clean Air Act, as amended, particularly section 176(c) &amp; (d); 40 CFR Parts 6, 51, 93</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to the U.S. Environmental Protection Agency's (USEPA) Online Green Book (refer to <b>Appendix E.1.EPA Green Book</b>), Toa Baja, Sabana Seca Ward has been designated as "Non-attainment for Sulfur Dioxide (2010) for 1-hour SO<sub>2</sub>. The sources of these emissions are: PREPA: 1)San Juan and 2)Palo Seco. This coincides with information from the US Environmental Protection Agency (EPA) that indicates that the largest source of sulfur dioxide comes fuel use from power plants and other industrial sources (<a href="https://www.epa.gov/so2-pollution/sulfur-dioxide-basics">https://www.epa.gov/so2-pollution/sulfur-dioxide-basics</a>). Sulfur emissions may also be produced by heavy equipment in the road, or other vehicles that burn fuel with high sulfur content, which is not the case for individually owned cars or vehicles which mostly use low sulfur gasoline.</p> <p>Emissions associated with the proposed project are estimated to be well below the threshold when compared to the federal General Conformity Rule de minimis thresholds.</p> <p>Typically, construction activities such as cleaning, grubbing, earth movement and the demolition of road structures produce particulates and conditions in which soil could be exposed to wind erosion and airborne particulates. During construction the proposed action could generate emissions (particulate material, hydrocarbons, nitrogen oxide, sulfur dioxide, among others) in addition to those produced during the operation of the existing roads of the area. For the most part those emissions would be produced by the operation of the heavy equipment and machinery used during the construction process.</p> <p>Potential air quality impacts are primarily short-term construction related. Implementation construction related air pollution controls (fugitive dust control and heavy equipment emissions controls) would reduce potential impacts. This temporary</p>



		<p>effect is not significant and would not have an adverse impact on the residential, institutional, and commercial properties located near the project area. In terms of vehicle emissions, the Department of Transportation indicates that, in general, roundabouts experience lower emission from vehicles due to less stop-and-go traffic patterns                  (<a href="https://safety.fhwa.dot.gov/intersection/roundabouts/fhwasa15071.pdf">https://safety.fhwa.dot.gov/intersection/roundabouts/fhwasa15071.pdf</a>). Other sources point to similar determinations                  (<a href="https://www.sciencedirect.com/science/article/pii/S2352146517305057/pdf?md5=48bc0e79fce92e085de792cfe63ab7ca&amp;pid=1-s2.0-S2352146517305057-main.pdf">https://www.sciencedirect.com/science/article/pii/S2352146517305057/pdf?md5=48bc0e79fce92e085de792cfe63ab7ca&amp;pid=1-s2.0-S2352146517305057-main.pdf</a>), which leads to the conclusion that the proposed roundabout will not adversely impact the air quality in the area but could improve it. The proposed project is not expected to have an adverse impact on the air quality and is not expected to result in non-attainment levels. The project will have no impact on air quality and is in compliance with the Clean Air Act.</p> <p>Refer to:  <b>Appendix A.5. Clean Air Act Map</b></p>
<p><b>Coastal Zone Management</b>                   Coastal Zone Management Act, sections 307(c) &amp; (d)</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The proposed project is located approximately 910 feet outside the Coastal Zone delineation. Therefore, the project complies with the Coastal Zone Management Act.</p> <p>Refer to:  <b>Appendix A.6. Coastal Zone Management Act Map</b></p>
<p><b>Contamination and Toxic Substances</b>                   24 CFR Part 50.3(i) &amp; 58.5(i)(2)</p>	<p>Yes    No  <input checked="" type="checkbox"/>    <input type="checkbox"/></p>	<p>There are three EPA facilities located within the buffer zone of the proposed project. The EPA facilities are:</p> <ol style="list-style-type: none"> <li>1) Caribbean Primate Research Center of PR</li> <li>2) Quality Concrete Mix, Inc</li> <li>3) Sky Lights Rico Plastic</li> </ol> <p>None of these facilities have an identified compliance violation, and none are within or adjacent to the project area. The facilities will not be impacted, nor will the project development and intended use be impacted as a result of these facilities, as</p>



		<p>there will be no ground disturbance outside of existing roadways. The project does not propose development, construction, or rehabilitation that will increase residential densities. Thus, no further analysis is required.</p> <p>A survey to identify the presence of Lead Based Paint (LBP) and Asbestos Containing Materials (ACM) was conducted at the project site. The lead report results indicate that "LBP components were not found", referring to concentrations at or above 1.0 mg/cm<sup>2</sup>, which is the "hazard level of lead in paint" as "determined by the Department of Housing and Urban Development" and measured in the field with calibrated instruments (see page 2 of the report). However, the conclusion also indicates that "some painted surfaces may contain levels of lead below 1.0 mg/cm<sup>2</sup>, which could create lead dust, or lead contaminated soil hazards if the paint is turned into dust by abrasion, scraping, or sanding." Depending on the construction methods implemented by the contractor, mitigation may be necessary. The required mitigation will be determined prior to the start of construction, in which case the construction contractor will need to use the services of a certified and licensed professional in lead management and disposal to implement a mitigation plan. Any suspected LBP dust must be properly handled, following the certified and licensed professional recommendations per applicable regulations. Mitigation measures, including controlled removal and proper disposal, will be required to prevent lead-dust hazards during the project, and this will be done following the certified and licensed professional recommendations per applicable regulations.</p> <p>Related to the ACM, the report indicates that "no suspected materials were observed during the inspection and accordingly samples were not collected." Site inspections were conducted in July 2023 by certified professionals and followed established protocols.</p> <p>Historically, PR-867 has been a long-established roadway without indicating prior structures or environmental issues that could impact the current project. The assessments show no environmental concerns related to past land use. Therefore, there are no contaminations or substances in or near the site that may</p>
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		<p>affect health, safety of the occupants or conflict with the intended use of the site. The project is in compliance with 24 CFR Part 50.3(i) &amp; 58.5(i)(2).                  Refer to:  <b>Appendix A.7 EPA Facility Map,</b>  <b>Appendix E.2. Lead and Asbestos Reports,</b>  <b>Appendix E.3. ECHO Reports.</b></p>
<p><b>Endangered Species</b></p> <p>Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402</p>	<p>Yes    No  <input checked="" type="checkbox"/>    <input type="checkbox"/></p>	<p>According to the US Fish and Wildlife Service's (USFWS) Information for Planning and Consulting (IPaC) tool, there may be federally listed species nearby or within the proposed project site:</p> <ul style="list-style-type: none"> <li>• Roseate Tern (<i>Sterna dougallii dougallii</i>) Bird</li> <li>• Puerto Rican Boa (<i>Chulabothrus Inornatus</i>)</li> </ul> <p>There is Critical Habitat for the Coqui Llanero near to the staging area (357 ft/0.07 mi) <b>(Appendix A.8.)</b>. However, no critical habitat is within the staging area, which will be limited to the machinery yard of the Public Works Department of the municipality of Toa Baja, located approximately 1.0 mile southwest of the project location. No adverse impacts are anticipated since the proposed project's activities will be performed in the right of way and within a previously developed area.</p> <p>According to the tree inventory and mitigation planting plan included in Appendix G, eight trees will be removed as a result of project activities. None of the species are federally listed. However, one native tree, the Puerto Rico royal palm tree (<i>Roystonea borinquena</i>) will need to be removed to develop the project. Mitigation will be required for all tree removal per local regulations. Mitigation details are being discussed and will follow the applicable regulations.</p> <p>A determination memo was prepared to meet compliance with Section 7 of the Endangered Species Act. The memo is included in Appendix B. As such, the project is in compliance with ESA and is not likely to adversely affect (NLAA) federally-listed species. The USFWS provided concurrence on September 30, 2024, and stated that "For the roseate tern, since the project will be conducted within the ROWs, the Service believes that the proposed project has NE on this species. Therefore, the Service recommends PRDOH LLC to reconsider its NLAA determination for this species to a NE due to the lack of suitable habitat. As for the</p>



		<p>Puerto Rican boa and palo de rosa, we have reviewed the information provided in your letter and in our files and concur with your determination that the proposed project may affect but is not likely to adversely affect these species with the implementation of the conservation measures".</p> <p>If a Puerto Rican Boa is found in the project action site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the contractor shall contact the Puerto Rico Department of Natural and Environmental Resources (DNER) and ask for them to relocate the Boa.</p> <p>Refer to:  <b>Appendix B. USFWS Documentation</b>  <b>Appendix A.8. Critical Habitat Maps</b></p>
<p><b>Explosive and Flammable Hazards</b></p> <p>24 CFR Part 51 Subpart C</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project does not involve the development, construction, or rehabilitation that will increase residential density or conversion. Examination of aerial views and site visits show no above ground storage tanks within the acceptable separation distance that would not be blocked by intervening public infrastructure. Thus, the project is in compliance with explosive and flammable hazard requirements. It is important to note that the project would involve temporary tasks during construction that possibly require the use of a power generator, heavy machinery, and diesel tanks. During construction the project shall meet requirements for fuel management and spill containment. The project is in compliance with Explosive and Flammable Hazards.</p>
<p><b>Farmlands Protection</b></p> <p>Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to data from the National Resources Conservation Service's Web Soil Survey, the proposed project is located within the classification of "Prime farmland if drained". However, the project area is already developed, consisting of an existing road, and is situated within an urban area (there are 40 structures within a 30 acre density). Therefore, there will be no impacts on prime farmlands, as the proposed project will remain within the existing footprint. Since the area is already being used as a roadway and not as farmland, no further impact to farmland area will occur. Furthermore, based on the areas Land Use Plans, developed by the Puerto Rico Planning Board, the project site soil is classified as urban/residential. This supports the</p>



		<p>determination of no impacts to farmland areas.</p> <p>The project does not involve any activities that could convert farmland to non-farmland use, such as new construction, acquisition of undeveloped land, or land conversion. Thus, the proposed project complies with the Farmland Protection Policy Act.</p> <p>Refer to:  <b>Appendix A.9.a-c Farmlands Classification Map; Appendix A.9.b Las Use Plan Soil Classification Map</b></p>
<p><b>Floodplain Management</b></p> <p>Executive Order 11988, particularly section 2(a); 24 CFR Part 55</p>	<p>Yes    No</p> <p><input checked="" type="checkbox"/>    <input type="checkbox"/></p>	<p>According to the Federal Emergency Management Agency's (FEMA) Advisory Base Flood Elevation (ABFE) map, the project area is within the 1% Annual Chance of Flood (Zone A, which is the FFRMS floodplain). Therefore, the decision-making process "8-step Analysis" of the direct and indirect impacts associated with the construction, occupancy, and modification of the floodplain was performed.</p> <p>An 8-Step Process was conducted to analyze alternatives, including relocating the project outside the floodplain and taking no action. Relocating the project was deemed impractical because 63% of Toa Baja is within flood zones, making relocation ineffective in achieving the municipality's goals of revitalization and increased resilience. Similarly, the no-action alternative was impractical as it would fail to improve the intersection's infrastructure, thus not contributing to a safer and more efficient community. The proposed project, despite being in Zone A, includes measures to mitigate floodplain impacts, such as allowing stormwater to percolate naturally and following the terrain's contours. The Step 2 Public Notice – Early Notice and Public Review of a Proposed Activity in the 100-Year Floodplain was published on February 10, 2024, and the Step 7 Public Notice – Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain was published on June 6, 2024. No comments were received on either publication.</p> <p>The project does not increase population density or pose additional risks to human life; instead, it reduces vehicular conflict points by 75% and vehicular-to-pedestrian conflict</p>



		<p>points by 66.7%, improving connectivity and circulation between Campanilla Avenue, PR-867, and PR-865. Additionally, the area is characterized by 40 structures within a 30-acre density, which further demonstrates that the project is located in an urban area. The project will not modify the current floodplain or the base flood elevation, and it will not alter the area's hydraulic characteristics because it will occupy the current streets footprint. Therefore, while the relocation and no-action alternatives are impracticable, the proposed project supports the municipality's efforts to create a more resilient and safer community without negatively impacting the floodplain's management.</p> <p>The project is in compliance with flood insurance requirements and the floodplain management regulations according to E.O. 11988, as amended by E.O. 13690.</p> <p>Refer to:  <b>Appendix A.10. ABFE Map</b>  <b>Appendix D. 8-Step Documentation</b></p>
<p><b>Historic Preservation</b></p> <p>National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>Consultation was made with the Puerto Rico State Historic Preservation Office (SHPO) related to the proposed activities. Via letter dated December 15, 2023, SHPO concurred with the determination of "no historic properties affected within the project's areas of potential effects." Therefore, the proposed action is in compliance with Section 106 of the NHPA. This project complies with National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800.</p> <p>Refer to:  <b>Appendix C. Cultural Resources Documentation</b></p>
<p><b>Noise Abatement and Control</b></p> <p>Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B</p>	<p>Yes    No  <input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The proposed actions are not expected to result in a permanent increase in the noise level of the area. During construction, temporary increases in noise levels may occur due to the use of heavy machinery. However, these noise levels are not anticipated to be excessive or significantly disturb the surrounding environment. Nearby residential neighborhoods will not be affected, because traffic density and other noise contributors are not expected to increase. Noise assessment is required only if</p>



		the project is for new construction or rehabilitation for residential use. Thus, no noise assessment is required for this project and the project is in compliance with the Noise Control Act.
<p><b>Sole Source Aquifers</b></p> <p>Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>There are no EPA sole source aquifers in Puerto Rico. The closest sole source aquifer is 1,023 miles to the northwest of the project site in Florida. Furthermore, the project consists of activities that are unlikely to have an adverse impact on groundwater resources. The project is in compliance with Sole Source Aquifer requirements.</p> <p>Refer to:  <b>Appendix A.11. Sole Sources Aquifer Map</b></p>
<p><b>Wetlands Protection</b></p> <p>Executive Order 11990, particularly sections 2 and 5</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project site is not located within designated wetland units and is situated at least 20 feet from the nearest wetland areas delineated by USFWS's National Wetland Mapper. Also, no wetlands are identified within the staging area. Consequently, the proposed actions are not expected to have any adverse impacts on nearby wetlands. Erosion and sediment control measures will be implemented to mitigate any potential adverse effects from stormwater. This project complies with Executive Order 11990</p> <p>Refer to  <b>Appendix A.12. Wetland Maps</b></p>
<p><b>Wild and Scenic Rivers</b></p> <p>Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>The project is not located within or near any designated Wild and Scenic Rivers in Puerto Rico. Notably, Puerto Rico has only three designated Wild and Scenic Rivers—Río de la Mina, Río Icacos, and Río Mameyes—situated at least 31 miles east of the project site. While Puerto Rico has approximately 5,385 miles of rivers, only 8.9 miles are classified as wild and scenic, representing less than 0.2% of the island's river miles. Consequently, this project will not impact any designated Wild and Scenic Rivers and is in compliance with the Wild and Scenic Rivers Act.</p> <p>Refer to:  <b>Appendix A.13. Wild Scenic River Map</b></p>
<b>ENVIRONMENTAL JUSTICE</b>		



<p><b>Environmental Justice</b></p> <p>Executive Order 12898</p>	<p>Yes    No</p> <p><input type="checkbox"/>    <input checked="" type="checkbox"/></p>	<p>According to EPA's EJScreen, the residential neighborhood within a one-mile radius of the project area is very similar to the demographic makeup of Puerto Rico as a whole. 99% of the population are people of color, and 71% are low-income individuals. The unemployment rate is 17%. In comparison, across Puerto Rico, the average percentage of people of color is 97%, with 70% of the population classified as low-income, and the unemployment rate stands at 14%. No adverse environmental impacts were identified in any other compliance review portion of this project that may disproportionately be high for low-income and/or minority communities. Therefore, the project complies with Executive Order 12898.</p> <p><b>Appendix A.14. EJScreen Map and Report</b></p>
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**Field Inspection:**

Field inspection was completed on March 22, 2023, and completed by Ing. Wilfredo R. Cordero  
 Refer to: **Appendix F: Site Inspection** for details and photos.

**Summary of Findings and Conclusions:**

The proposed project involves road improvements in Toa Baja, Puerto Rico, and has been evaluated for compliance with relevant statutes, executive orders, and regulations. The staging area will be limited to the machinery yard of the Public Works Department of the municipality of Toa Baja to avoid risk of impacts on nearby wetlands and critical habitat. The project is expected to yield several beneficial impacts, including improved traffic flow, enhanced safety, reduced vehicle emissions due to the implementation of a roundabout, and better stormwater management.

However, there will be minor and temporary nuisances incidental to the construction process, such as increased emissions from heavy machinery, traffic impact and noise levels increase due to heavy machinery. These impacts will be mitigated through equipment maintenance, dust and emissions controls.

The removal of eight trees, including one native Puerto Rican royal palm, will require mitigation measures per local regulations. Additional measures will be needed to comply with regulations for the Puerto Rican Boa and floodplain management. If a Puerto Rican Boa is found on-site, work will cease until the Boa moves off on its own, or the Puerto Rico Department of Natural and Environmental Resources will be contacted for relocation. Post-construction monitoring will assess ongoing impacts, and standard construction best management practices (BMPs) will control erosion and runoff.

The project does not have any adverse environmental effects and does not require further consultation with federal agencies. No additional formal compliance steps are needed. Overall, the project complies with applicable statutes, executive orders, and regulations, with necessary mitigations to avoid significant adverse impacts. The project will enhance mobility along the road, reduce vehicular conflict points at residential developments, provide safe and attractive crossings



for pedestrians and bicyclists, and improve connectivity and circulation between PR-867 and the Campanilla Avenue area.



**Mitigation Measures and Conditions [40 CFR 1505.2(c)]**

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
Endangered Species	<p>If a Puerto Rican Boa is found in the project action site, work shall cease until the Boa moves off on its own. If the Boa does not move off, the CM shall contact the Puerto Rico Department of Natural and Environmental Resources and ask them to relocate the Boa.</p> <p>The removal of eight trees, including one native Puerto Rican royal palm, will require mitigation measures per local regulations. See Appendix G for a full tree inventory and mitigation planting plan.</p>
Clean Air	<p>Implementation of construction related air pollution controls such as fugitive dust control and heavy equipment emissions controls would reduce potential impacts. Contractors will be required to use establish best management practices (BMPs) during construction to reduce and control air emissions.</p>
Floodplain Management	<p>The design of the roundabout shall prioritize green infrastructure. This could involve planting native vegetation and incorporating wildlife-friendly features into the designs and construction equipment will have a designated staging area.</p> <p>The project will adhere to state and local floodplain regulations and will be designed to preserve the natural and beneficial values of the floodplain. The location within the floodplain will not modify the current floodplain footprint.</p> <p>Standard Construction BMPs will be implemented for erosion and sedimentation control during construction.</p>
Contamination and Toxic Substances	<p>According to the Lead-based Paint (LBP) assessment performed for the project area, if the paint tested is turned into dust, mitigation will be necessary. The handling of the paint will be determined prior to intervention with it, in which case the construction contractor will need to use the services of a certified and licensed professional to implement a mitigation plan. Any suspected LBP dust will need to be properly handled and disposed of at a verified disposal facility, following all regulations. Mitigation measures, including controlled removal and proper disposal, will be required to prevent lead-dust hazards.</p>

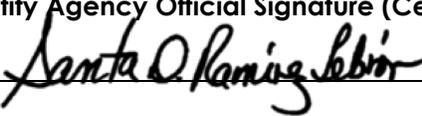


**Determination:**

- This categorically excluded activity/project converts to Exempt, per 58.34(a)(12) because there are no circumstances which require compliance with any of the federal laws and authorities cited at §58.5. **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project; OR
- This categorically excluded activity/project cannot convert to Exempt because there are circumstances which require compliance with one or more federal laws and authorities cited at §58.5. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain "Authority to Use Grant Funds"** (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR
- This project is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

**Preparer Signature:**  **Date:** October 28, 2024  
Eng. Armando Gonzalez Bonilla, EIT; Metric Engineering of Puerto Rico, PSC

**Name/Title/Organization:** Rico, PSC

**Responsible Entity Agency Official Signature (Certifying Officer):**  
 **Date:** November 8, 2024

**Name/Title:** Santa D. Ramirez Lebron / Permits and Environmental Compliance Specialist

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

## List of attachments

- 1 **Appendix A. Maps and Figures**
  1. Location Maps
  2. Airport Hazards Map
  3. Coastal Barrier Resources Map
  4. Flood Insurance Map
  5. Clean Air Act Map
  6. Coastal Zone Management Act Map
  7. EPA Facilities Map:
  8. Critical Habitat Maps
  9. Farmlands Protection Policy Act Maps
    - a. Farmland Classification Map
    - b. Land Use Plan Soil Classification Map
    - c. Land Use Plan Soil Rating Map
  10. Advisory Base Flood Elevation (ABFE) Map
  11. Sole Source Aquifers Map
  12. Wetlands Protection Maps
  13. Wild and Scenic Rivers Map
  14. EJ Screen Map and Report
- 2 **Appendix B. USFWS Documentation**
- 3 **Appendix C. Cultural Resources Documentation**
  1. SHPO Concurrence Letter
  2. Cultural Resource Report
  3. Project Conceptual Plans
- 4 **Appendix D. 8 Step Documentation**
- 5 **Appendix E. Contamination and Toxic Substances**
  1. EPA Green Book
  2. Lead and Asbestos Report
  3. Summary Table EPA Facilities and ECHO Reports
- 6 **Appendix F Site Visit Report**
- 7 **Appendix G Tree Inventory and Mitigation Planting Plan**

## Appendix A: Maps and Figures

1. Location Map
2. Airport Hazards Map
3. Coastal Barrier Resources Map
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City Revitalization Program  
PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



Google Earth

Location Map  
&  
Project Footprint

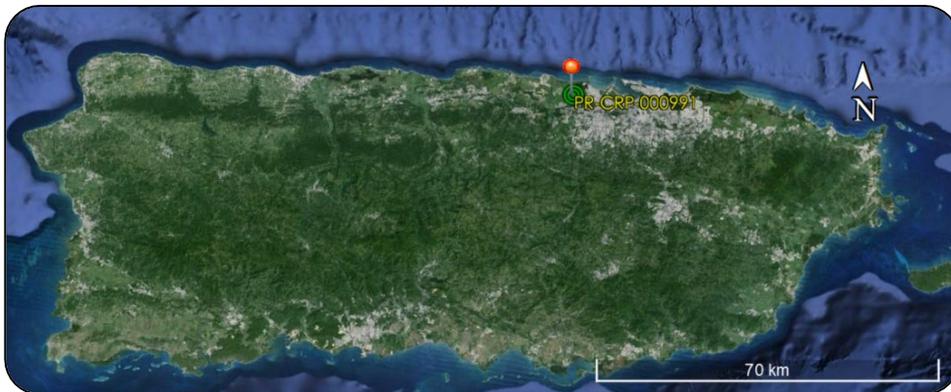
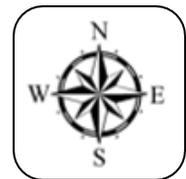
Legend

 Project site

 Project Footprint

**Project Location:**

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: Google Earth Image Landsat Copernicus Data SIO, NOAA, US. Navy, GEBCO Image date: 04/08/2016  
Google Earth Url: <https://earth.google.com/web/@18.43933864,-66.21559787,3.3858443a,1000.00114247d,30y,0h,0t,0r/data=OgMKATA>



## Appendix A.1b. Staging Area Map

PR-CRP-000991 Rotonda PR-865 int. Ave. Campanilla, Campanilla

Coord: 18.439342° -66.215816°

Address: PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca Toa Baja, PR 00949



Source: Google Earth (Spatial Reference: WGS84), accessed October 16, 2024 at URL <https://earth.google.com/>

City Revitalization Program

PR-CRP-000991

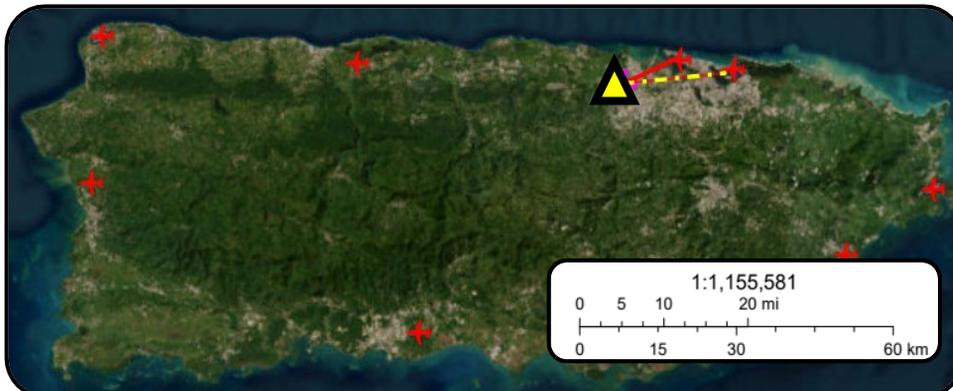
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



**Airport Map**

Legend:

- Luis Munoz Marin Airport 13.51 mi
- SIG Airport 7.65 mi
- Project Buffer
- PR-CPR-000991
- + Search Result (point)
- + Airport Points
- Airport Polygons
- Railroads
- ▲ Project Site



**Project Location:**

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
NEPAassist Url: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=Toa+Baja>

City Revitalization Program  
PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



**USFWS**

**Coastal Barrier System**

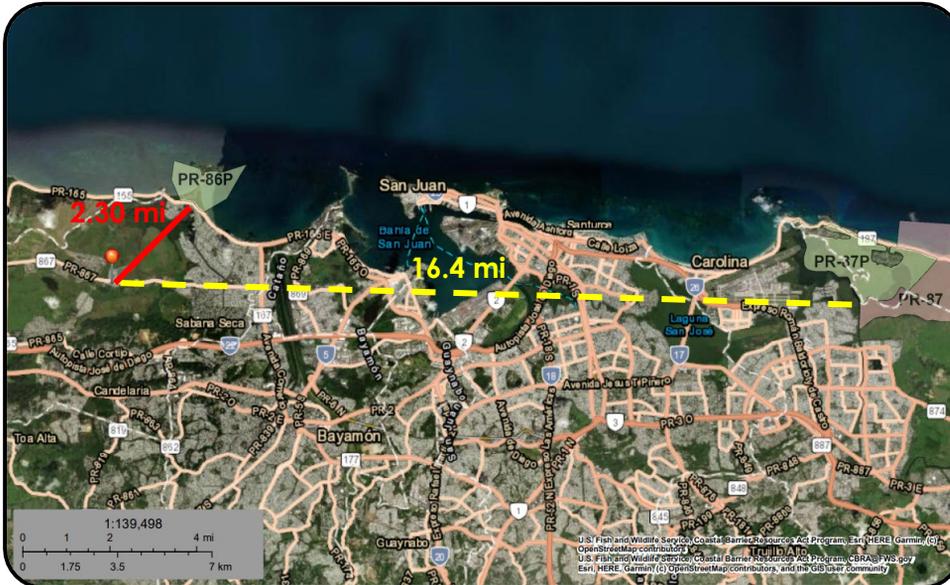
**LEGEND**

**CBRS Units**

-  Project site
-  CBRS Buffer Zone
-  CBRS Prohibitions
-  Otherwise Protected Area
-  System Unit

**Project Location:**

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: Mapper v2 <https://fwprimary.wim.usgs.gov/CBRSMapper-v2/>

City Revitalization Program  
PR-CRP-000991  
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca

## National Flood Hazard Layer FIRMette



66°13'16"W 18°26'39"N



### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
    - Without Base Flood Elevation (BFE) Zone A, V, AS9
    - With BFE or Depth Zone AE, AO, AH, VE, AR
    - Regulatory Floodway
  - OTHER AREAS OF FLOOD HAZARD**
    - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
    - Future Conditions 1% Annual Chance Flood Hazard Zone X
    - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
    - Area with Flood Risk due to Levee Zone D
  - OTHER AREAS**
    - NO SCREEN Area of Minimal Flood Hazard Zone X
    - Effective LOMRS
    - Area of Undetermined Flood Hazard Zone D
  - GENERAL STRUCTURES**
    - Channel, Culvert, or Storm Sewer
    - Levee, Dike, or Floodwall
  - CROSS SECTIONS**
    - 20.2 Cross Sections with 1% Annual Chance
    - 17.8 Water Surface Elevation
    - Coastal Transect
    - Base Flood Elevation Line (BFE)
    - Limit of Study
    - Jurisdiction Boundary
  - OTHER FEATURES**
    - Coastal Transect Baseline
    - Profile Baseline
    - Hydrographic Feature
  - MAP PANELS**
    - Digital Data Available
    - No Digital Data Available
    - Unmapped
- The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/23/2024 at 11:18 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

0 250 500 1,000 1,500 2,000 Feet 1:6,000  
Basemap Imagery Source: USGS National Map 2023

**Project Location:**  
PR-867 entradas Urbs. Campanillas  
y Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439403°

Source: FEMA, accessed 10/23/24, <https://gis-r2-fema.hub.arcgis.com>



City Revitalization Program  
PR-CRP-000991

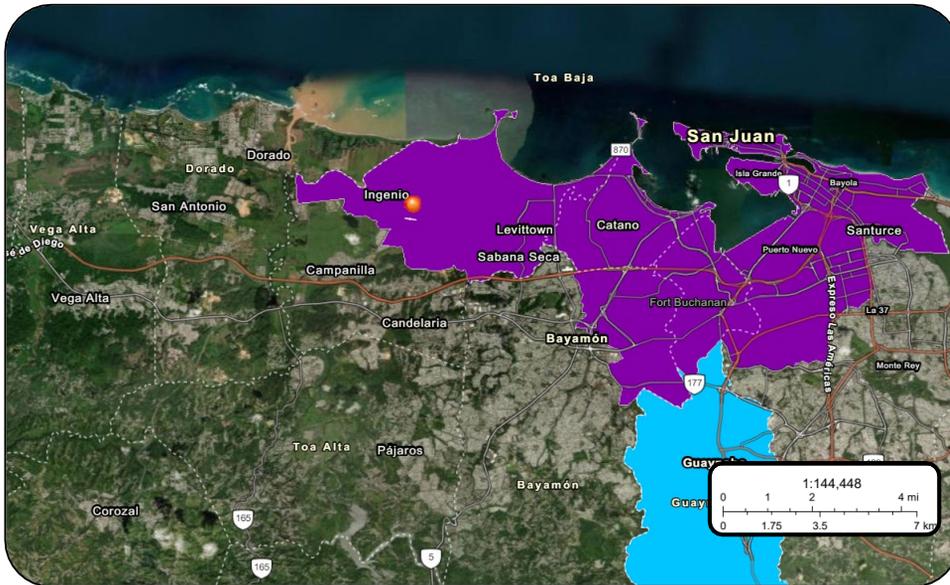
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



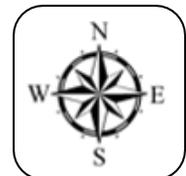
Nonattainment, attainment,  
and maintenance Map

Legend

-  Project site
-  SO<sub>2</sub> (2010 Standard) Nonattainment
-  PM<sub>10</sub> (1987 Standard) Maintenance
-  Lead (2008 Standard) Nonattainment



**Project Location:**  
PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
NEPAassist Url: <https://nepassistool.epa.gov/nepassist/nepamap.aspx?wheresfr=Toa+Baja>

City Revitalization Program

PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



Programa de Manejo de la Zona Costanera  
Coastal Zone Management Program

Coastal Zones Inland Map

Legend: Map (1)&(2)

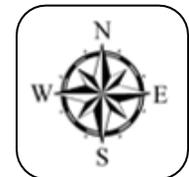
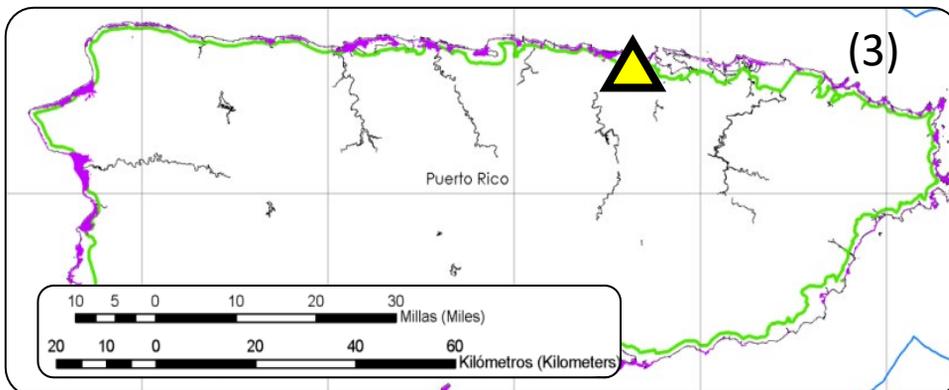
-  Project site
-  CZMA Boundary
-  Project Footprint

Legend: Map (3)

-  Project site
-  Límite de Zona Costanera  
Tierra adentro – Coastal  
Zone Inland Boundary
-  Zona de Riesgo a  
Tsunamis – Tsunami  
Hazard Zones

**Project Location:**

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: US National Oceanic and Atmospheric Administration <https://koordinates.com/layer/20522-us-coastal-zone-management-act-boundary/>

Appendix A.6. Coastal Zone Management Act Map

City Revitalization Program  
 PR-CRP-000991  
 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
 Sabana Seca



**EPA Facilities Map**

**Legend: Map (1)&(2)**

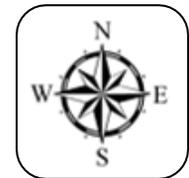
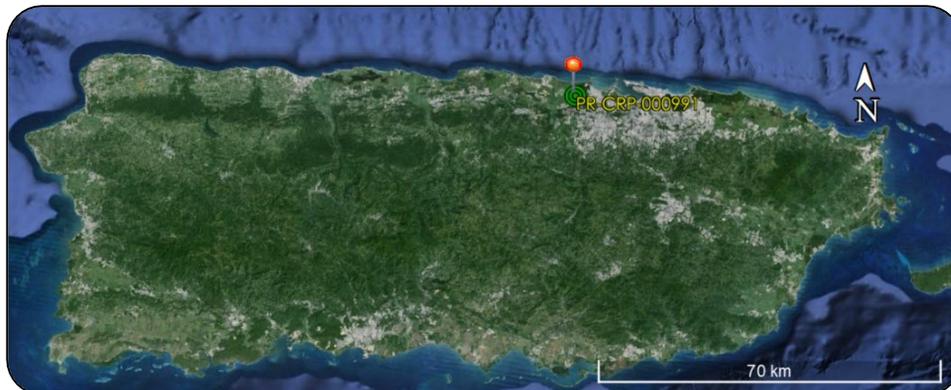
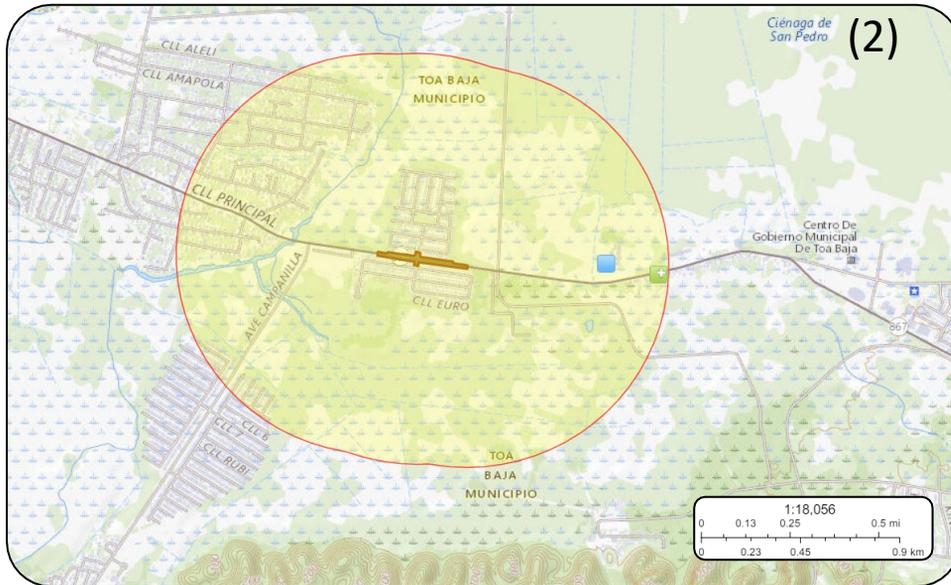
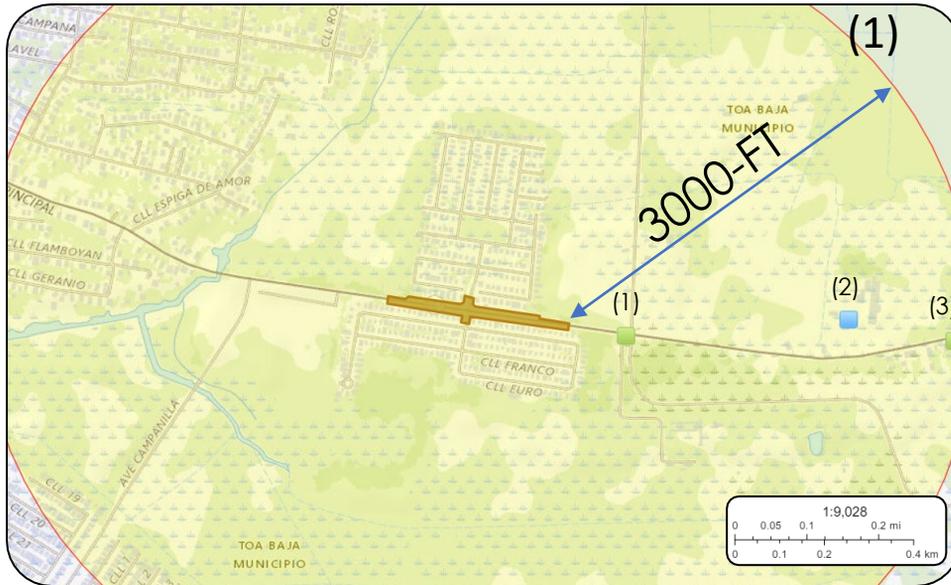
-  Project site
-  3000-FT Project Buffer
-  Hazardous Waste (RCRA)
-  Water Discharge (NPDES)

**EPA Facilities:**

- (1) Caribbean Primate Research Center of PR Medical Sciences Campus  
~461-FT from the Project
- (2) Quality Concrete Mix, Inc  
~2,238-FT from the Project
- (3) Sky Lights Rico Plastic  
~2,980-FT from the Project

**Project Location:**

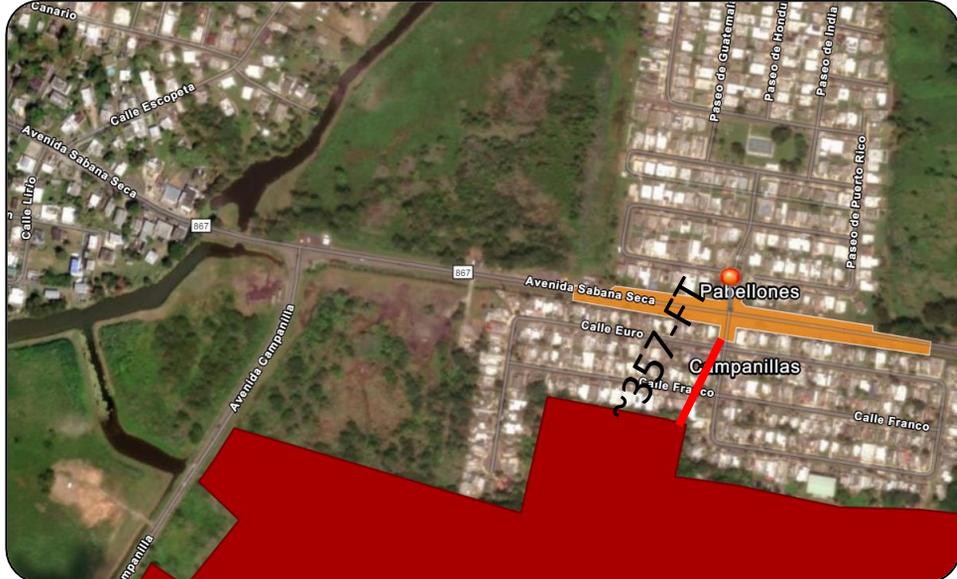
PR-867 entradas Urbs.  
 Campanillas y  
 Pabellones, Sabana Seca  
 Toa Baja, PR 00949  
 Latitude: 18.439342°,  
 Longitude: -66.215816°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
 NEPAassist Url: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wheresfr=Toa+Baja>

City Revitalization Program  
PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



**Legend**

-  Project site
-  Critical Habitat- Coqui Llanero
-  ~357-FT from the Project



**Project Location:**  
PR-867 entradas Urbs.  
Campanillas y Pabellones,  
Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
NEPAassist Url: <https://nepassistool.epa.gov/nepassist/nepamap.aspx?wheresfr=Toa+Baja>

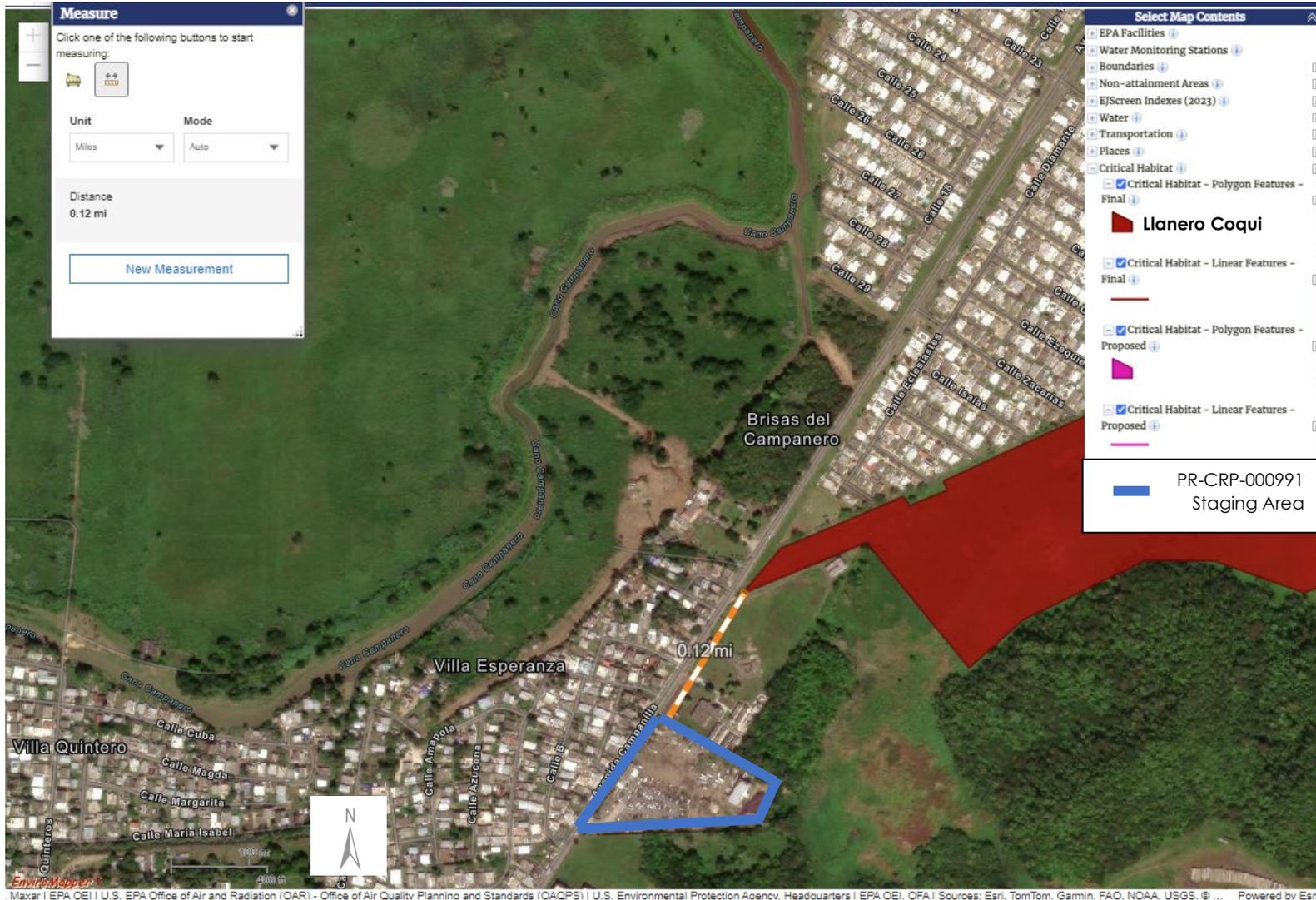
**Appendix A.8a. Project Critical Habitat Map**

# Appendix A.8b. Staging Area Critical Habitat Map

PR-CRP-000991 Rotonda PR-865 int. Ave. Campanilla, Campanilla

Coord: 18.439342° -66.215816°

Address: PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca Toa Baja, PR 00949



Source: EPA NEPAassist (Spatial Reference: GRS80), accessed October 16, 2024 at URL <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>



City Revitalization Program  
PR-CRP-000991  
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



Farmland Soil  
Classification Map

Legend: Map (1)&(2)

Project site

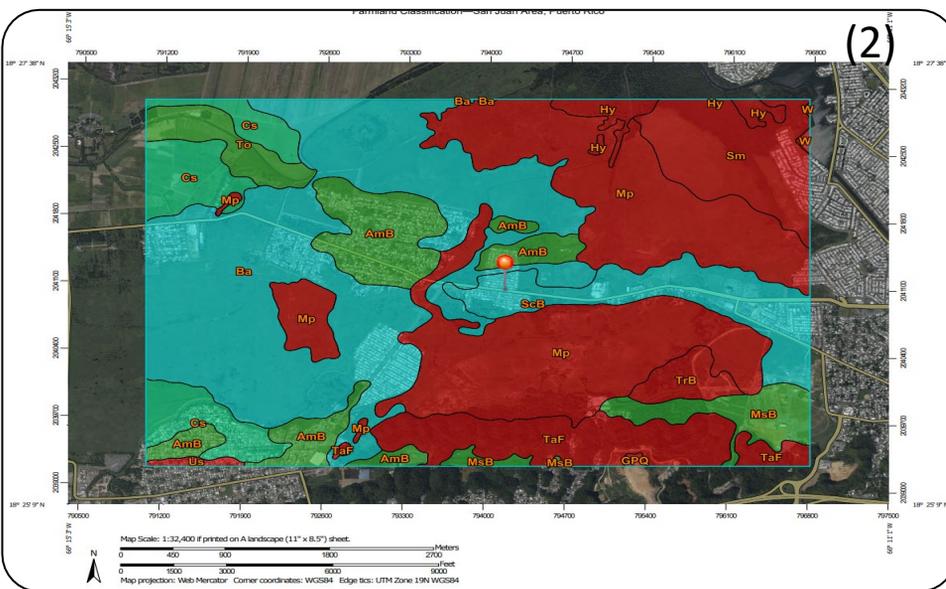
Area of Interest (AOI)

Area of Interest (AOI)

Soils

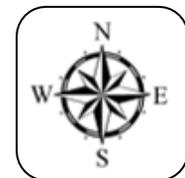
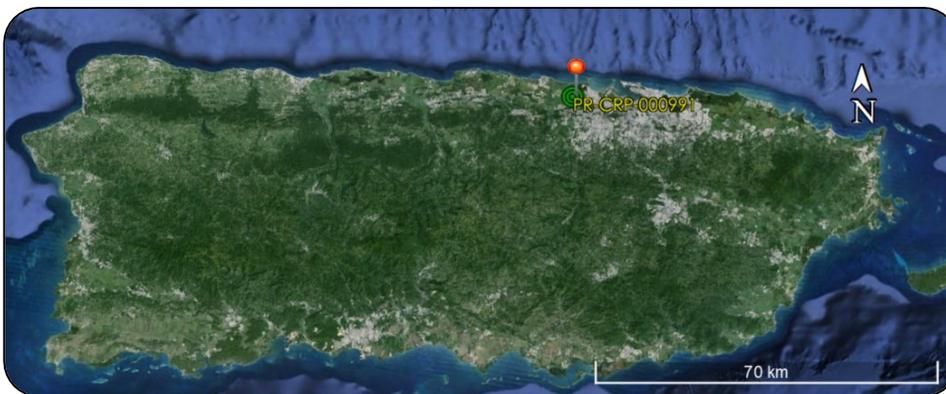
Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season



Project Location:

PR-867 entradas Urbs.  
Campanillas y Pabellones,  
Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: Web Soil Survey <https://websoilsurvey.nrcs.usda.gov/app/>

City Revitalization Program  
PR-CRP-000991  
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



Land Use Plan Soil  
Classification Map

Clasificación

- Suelo Rústico Especialmente
- Protegido-Ecológico
  - Protegido
  - Protegido-Agrícola
  - Protegido-Ecológico/Agrícola
  - Suelo Urbano
  - Suelo Rústico Común

Elemento geográfico

- Sistema Vial
- Cuerpo de Agua

Red Vial

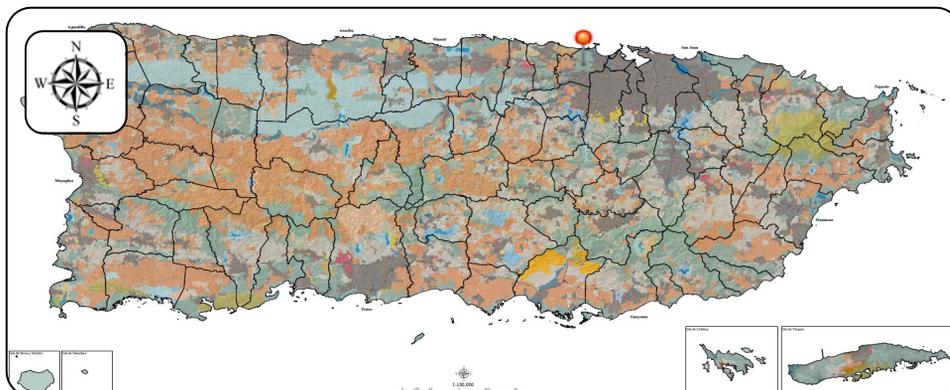
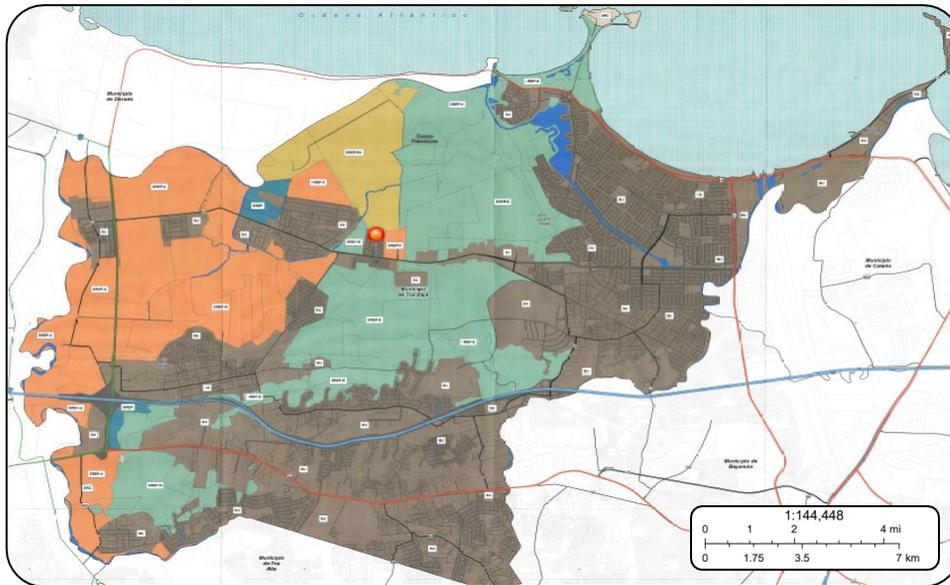
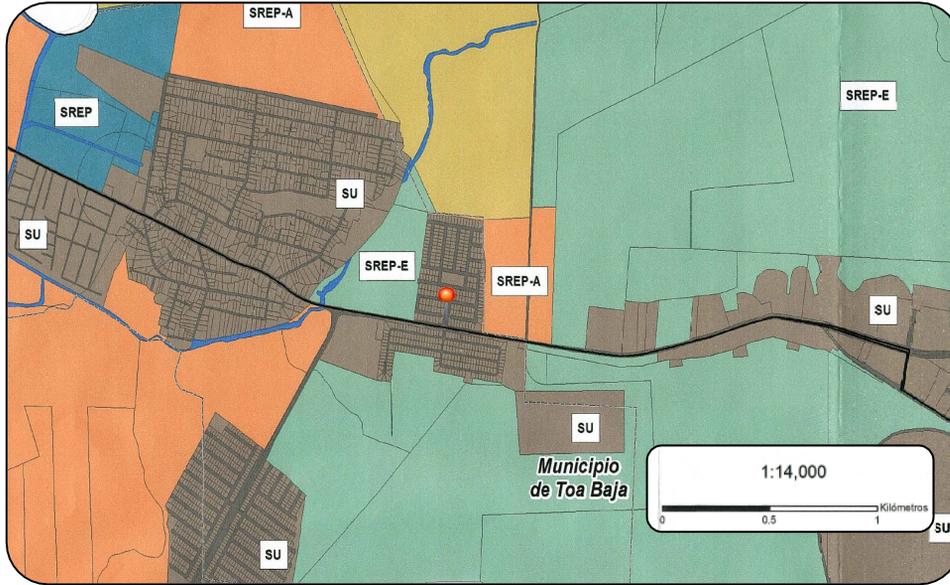
- Autopista
- Red Primaria
- Red Pimaria Urbana
- Red Secundaria
- Red Terciaria

- Limite de Municipio
- Limite de Barrio

- Project Site

Project Location:

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: Junta de Planificación <https://jp.pr.gov/plan-de-usos-de-terrenos/>

City Revitalization Program  
PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



Land Use Plan Soil  
Rating Map

Calificación

- A-P: Agrícola Productivo
- C-I: Comercial Intermedio
- C-L: Comercial Liviano
- CRH: Conservación y Restauración
- CR: Conservación de Recursos
- DT-G: Dotacional General
- DT-P: Dotacional Parque
- IL: Industrial Liviano
- I-P: Industrial Pesado
- PF: Propiedad Federal
- PP: Playas Públicas
- PR: Preservación de Recursos
- R-A: Residencial de Alta Densidad
- R-I: Residencial Intermedio
- RC-E: Recreación Comercial Extensa
- RC-M: Residencial Comercial Mixto
- SH: Sitio Histórico

Elemento geográfico

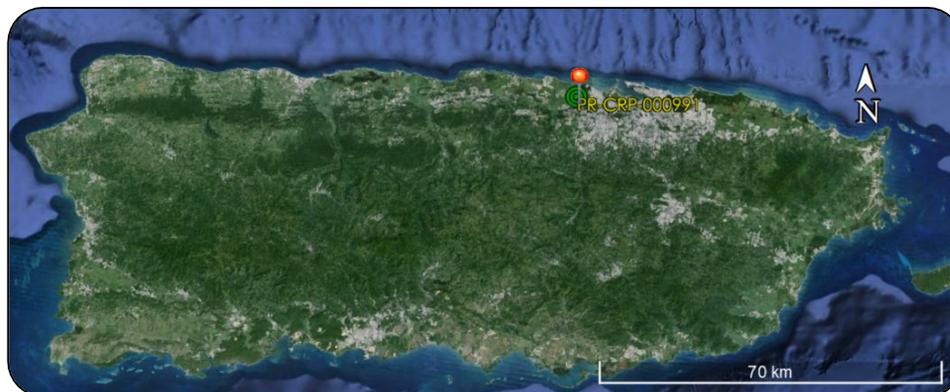
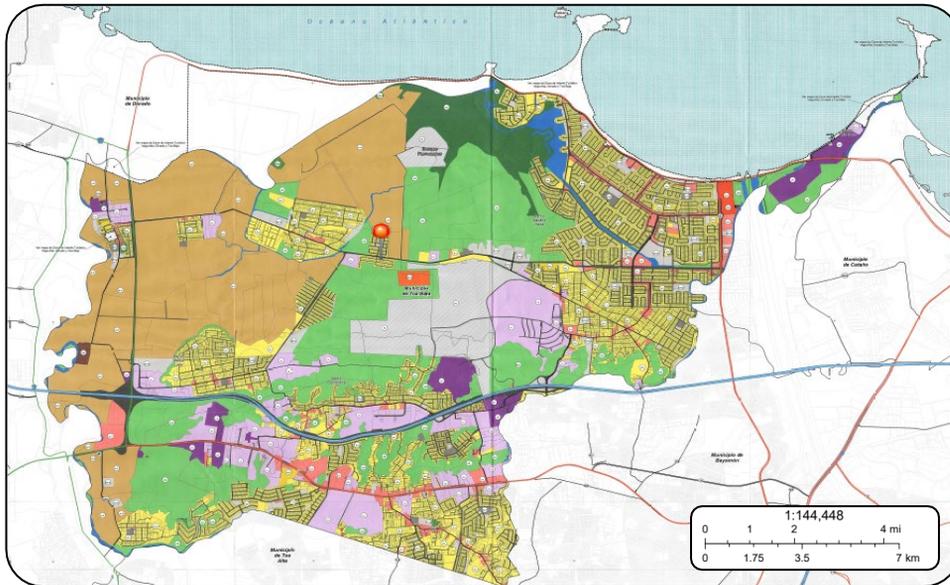
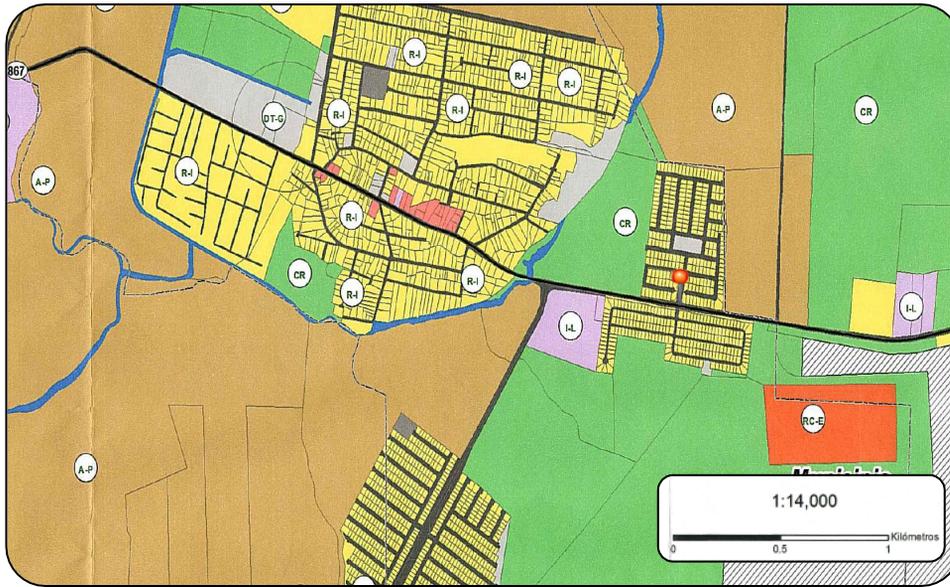
- Cuerpo de Agua
- Sistema Vial

Red Vial

- Autopista
- Red Primaria
- Red Primaria Urbana
- Red Secundaria
- Red Terciaria
- Límite de Municipio
- Límite de Barrio
- Límite de ZIT



Project Site  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: Junta de Planificación <https://jp.pr.gov/plan-de-usos-de-terrenos/>

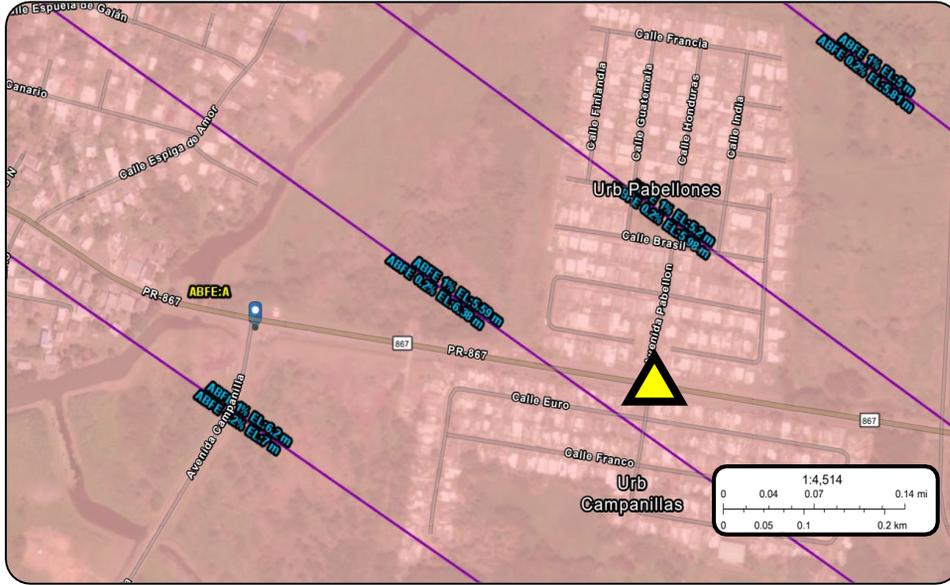
City Revitalization Program  
PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



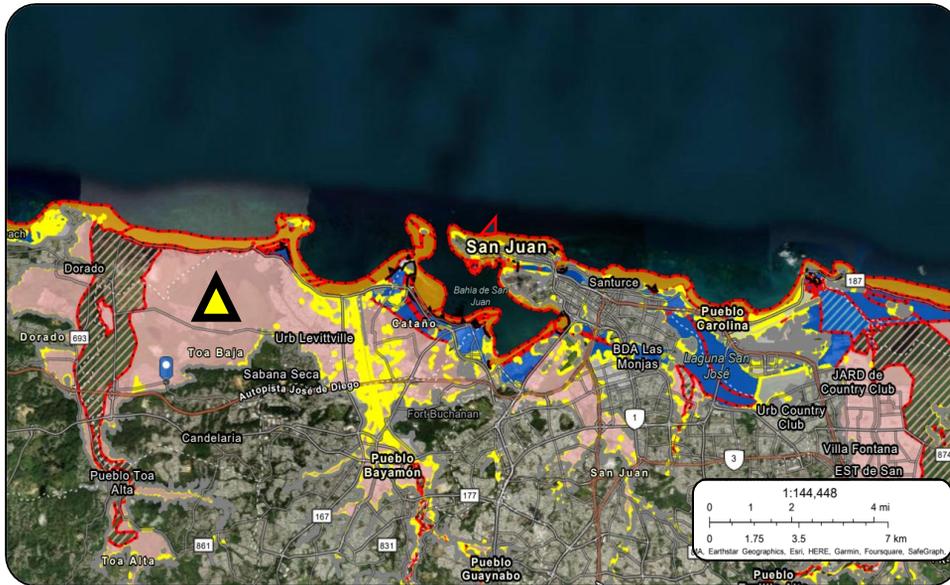
FEMA

ABFE Map



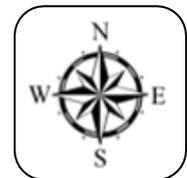
**Puerto Rico ABFE 1PCT**

- Streamline (zoom in to make visible)
- Advisory Base Flood Elevation (zoom in to make visible)
- Flood Hazard Boundary (zoom in to make visible)
  - Limit of Moderate Wave Action (LiMWA)
- Flood Hazard Extent
  - 1% Annual Chance Flood
  - 0.2% Annual Chance Flood
- Zone/BFE Boundary
- Flood Hazard Area (zoom in to make visible)
  - A
  - AO
  - AE
  - Coastal A Zone
  - VE
  - 0.2% Annual Chance Flood Zone
  - A-Floodway
  - AE-Floodway
  - Coastal A Zone and Floodway



Project Site

**Project Location:**  
PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



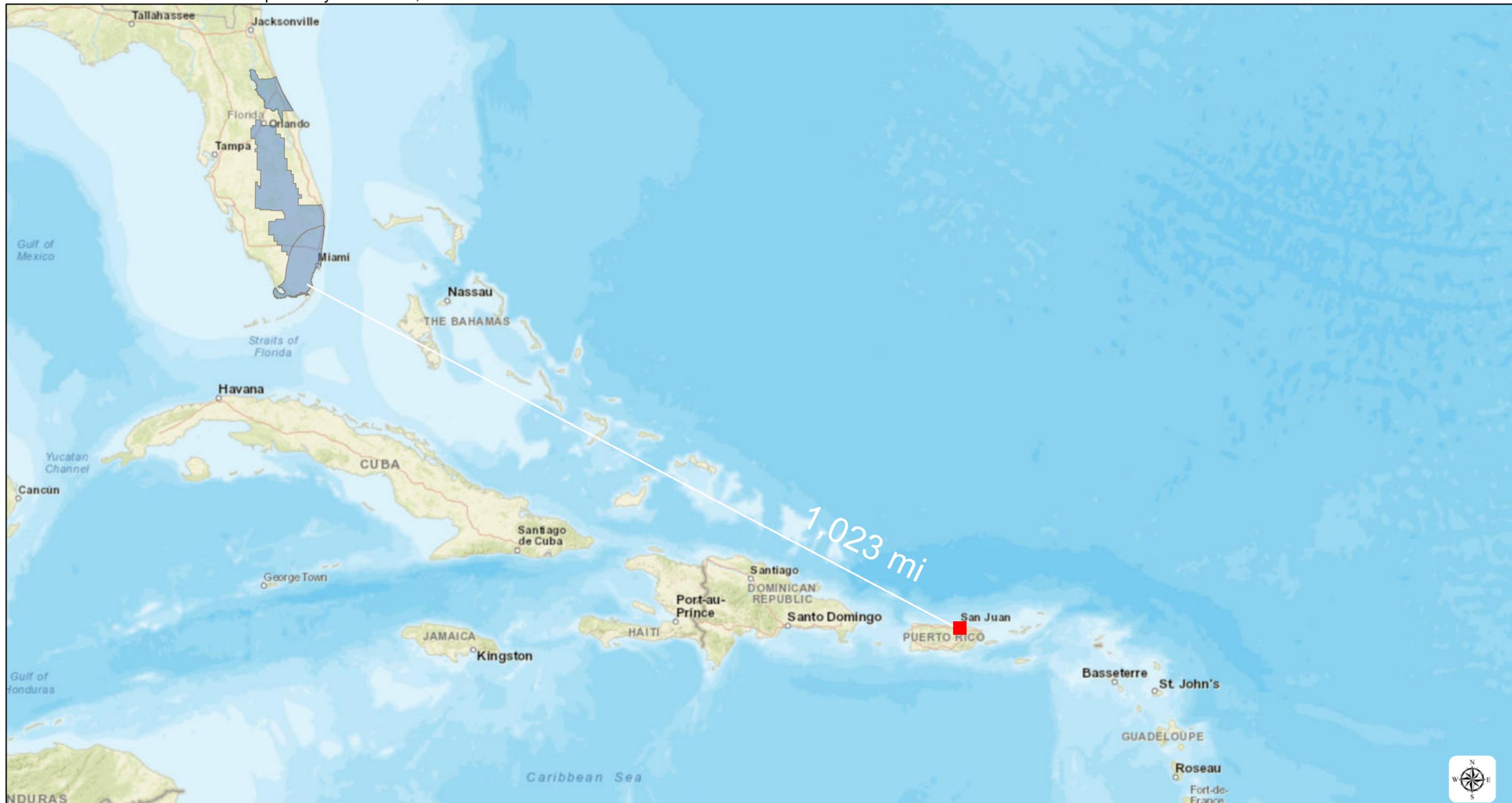
Source: Advisory Base Flood Elevation: <https://gis-2-fema.hub.arcgis.com/apps/FEMA::puerto-rico-advisory-base-flood-elevations-cbfe/explore>

# Appendix A.11. Sole Source Aquifer Map

City Revitalization Program

PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca



9/16/2024, 5:57:54 PM

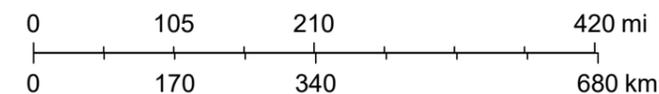
 Sole\_Source\_Aquifers

 Project Site

### Project Location:

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°

1:9,244,649



Esri, HERE, Garmin, NGA, USGS, NPS

Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI NEPAassist  
Url: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wherestr=Toa+Baja>

U.S. Environmental Protection Agency

City Revitalization Program

PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca

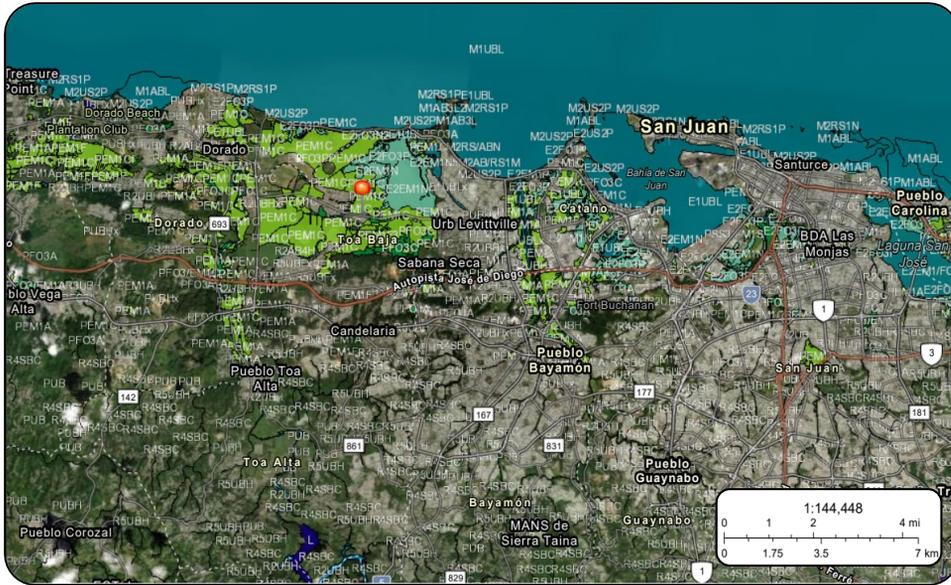


Wetland Map

Legend:

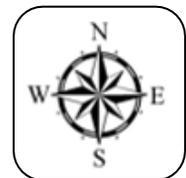
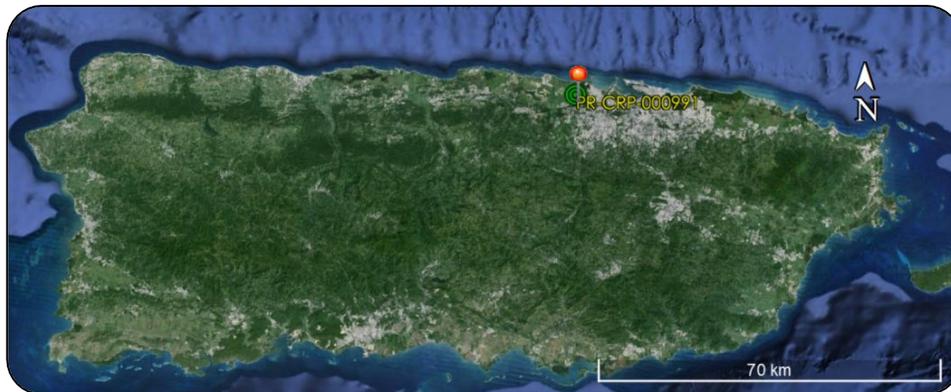
Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Other
-  Riverine
-  Project Footprint
-  Project Site



Project Location:

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
NEPAassist Url: <https://nepassistool.epa.gov/nepassist/nepamap.aspx?wheresrf=Toa+Baja>

# Appendix A.12b. Staging Area Wetland Map

PR-CRP-000991 Rotonda PR-865 int. Ave. Campanilla, Campanilla

Coord: 18.439342° -66.215816°

Address: PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca Toa Baja, PR 00949



Source: USFWS National Wetlands Inventory (NWI) (Spatial Reference: WGS84), accessed October 16, 2024 at URL <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/>

City Revitalization Program  
PR-CRP-000991

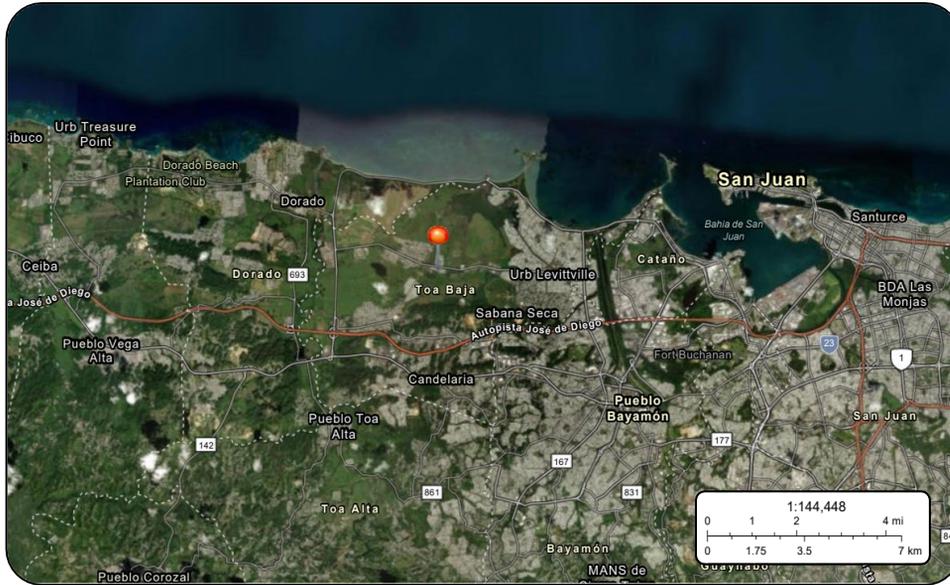
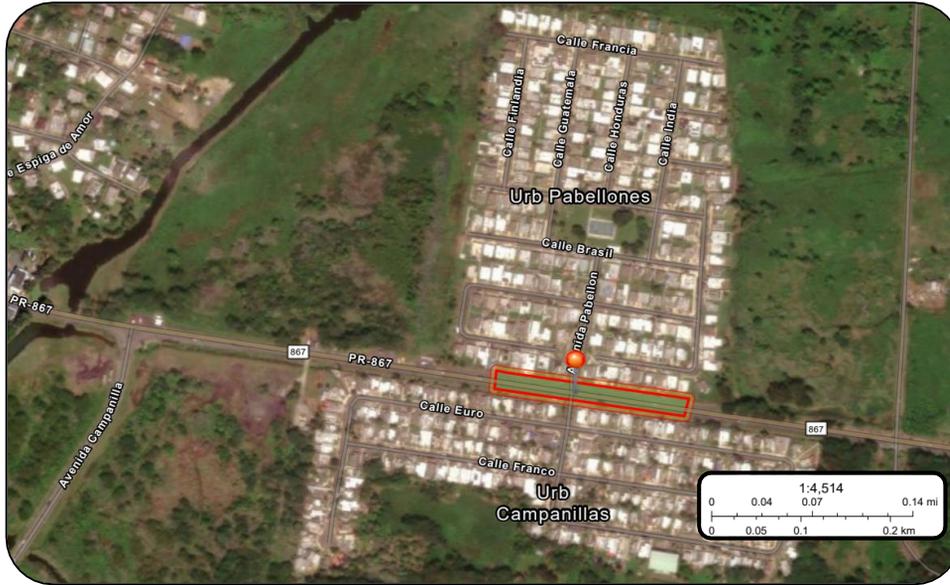
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca



**Wild and Scenic River  
Map**

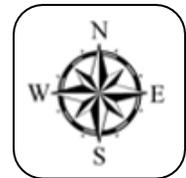
**Legend**

-  Project site
-  Wild and Scenic River
-  ~31 miles from the Project



**Project Location:**

PR-867 entradas Urbs.  
Campanillas y Pabellones,  
Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439342°,  
Longitude: -66.215816°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
NEPAassist Url: <https://nepassisttool.epa.gov/nepassist/nepamap.aspx?wheresfr=Toa+Baja>



# EJScreen Community Report

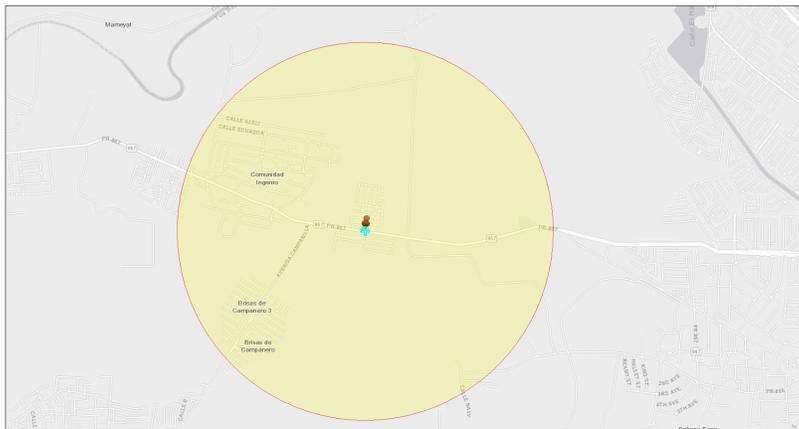
This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

## PR-CRP-000991

1 mile Ring Centered at 18.439417,-66.215807

Population: 7,163

Area in square miles: 3.14



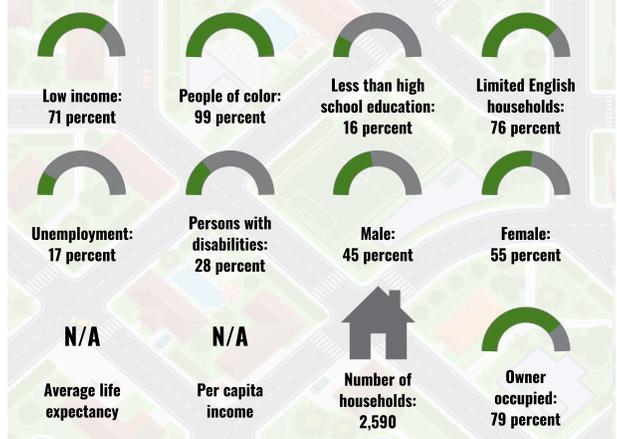
August 19, 2024  
PR-CRP-000991

1:118,000  
0 0.2 0.4 0.8 mi  
0 0.33 0.65 1.3 km  
Map data © OpenStreetMap contributors, Imagery © Mapbox, © HERE, HERE, Garmin, GeoTechnologies, Inc., USGS, Esri, HERE

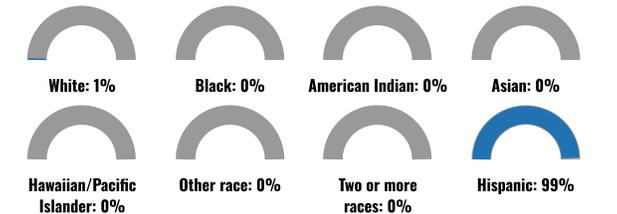
### LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
English	2%
Spanish	98%
Total Non-English	98%

### COMMUNITY INFORMATION



### BREAKDOWN BY RACE



### BREAKDOWN BY AGE



### LIMITED ENGLISH SPEAKING BREAKDOWN



Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race. Source: U.S. Census Bureau, American Community Survey (ACS) 2018-2022. Life expectancy data comes from the Centers for Disease Control.

Report for 1 mile Ring Centered at 18.439417,-66.215807  
Report produced August 19, 2024 using EJScreen Version 2.3

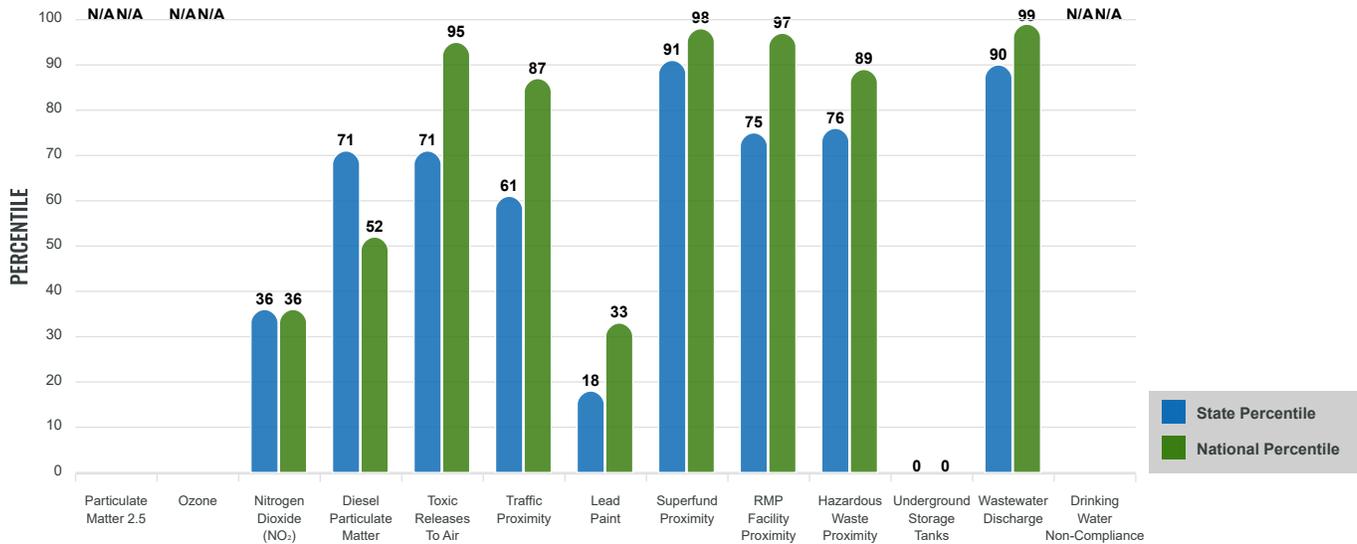
# Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the [EJScreen website](#).

## EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

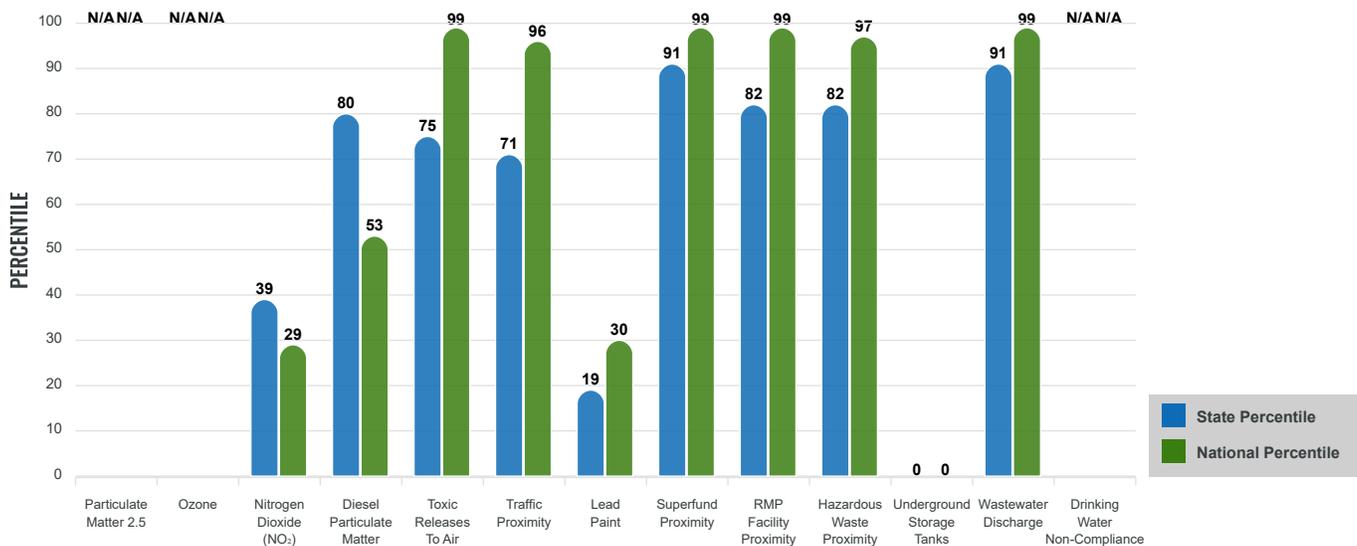
### EJ INDEXES FOR THE SELECTED LOCATION



## SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low income, percent persons with disabilities, percent less than high school education, percent limited English speaking, and percent low life expectancy with a single environmental indicator.

### SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



Report for 1 mile Ring Centered at 18.439417,-66.215807

Report produced August 19, 2024 using EJScreen Version 2.3

# EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
<b>ENVIRONMENTAL BURDEN INDICATORS</b>					
Particulate Matter 2.5 (µg/m <sup>3</sup> )	N/A	N/A	N/A	8.45	N/A
Ozone (ppb)	N/A	N/A	N/A	61.8	N/A
Nitrogen Dioxide (NO <sub>2</sub> ) (ppbv)	3.4	5.5	36	7.8	9
Diesel Particulate Matter (µg/m <sup>3</sup> )	0.0706	0.0618	67	0.191	16
Toxic Releases to Air (toxicity-weighted concentration)	1,600	4,300	73	4,600	68
Traffic Proximity (daily traffic count/distance to road)	910,000	1,100,000	60	1,700,000	52
Lead Paint (% Pre-1960 Housing)	0.017	0.16	19	0.3	18
Superfund Proximity (site count/km distance)	0.65	0.23	93	0.39	87
RMP Facility Proximity (facility count/km distance)	1	0.66	72	0.57	80
Hazardous Waste Proximity (facility count/km distance)	1.7	1.2	74	3.5	55
Underground Storage Tanks (count/km <sup>2</sup> )	0	0	0	3.6	0
Wastewater Discharge (toxicity-weighted concentration/m distance)	2600000	670000	90	700000	99
Drinking Water Non-Compliance (points)	N/A	N/A	N/A	2.2	N/A
<b>SOCIOECONOMIC INDICATORS</b>					
Demographic Index USA	3.23	N/A	N/A	1.34	97
Supplemental Demographic Index USA	4.45	N/A	N/A	1.64	99
Demographic Index State	4.71	4.63	39	N/A	N/A
Supplemental Demographic Index State	2.95	2.72	57	N/A	N/A
People of Color	99%	97%	22	40%	96
Low Income	71%	70%	40	30%	94
Unemployment Rate	17%	14%	67	6%	93
Limited English Speaking Households	77%	66%	68	5%	99
Less Than High School Education	16%	20%	40	11%	75
Under Age 5	4%	3%	64	5%	41
Over Age 64	13%	23%	16	18%	38

\*Diesel particulate matter index is from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

**Sites reporting to EPA within defined area:**

Superfund .....	0
Hazardous Waste, Treatment, Storage, and Disposal Facilities .....	0
Water Dischargers .....	1
Air Pollution .....	0
Brownfields .....	0
Toxic Release Inventory .....	0

**Other community features within defined area:**

Schools .....	1
Hospitals .....	0
Places of Worship .....	0

**Other environmental data:**

Air Non-attainment .....	Yes
Impaired Waters .....	Yes

Selected location contains American Indian Reservation Lands* .....	No
Selected location contains a "Justice40 (CEJST)" disadvantaged community .....	Yes
Selected location contains an EPA IRA disadvantaged community .....	Yes

Report for 1 mile Ring Centered at 18.439417,-66.215807  
 Report produced August 19, 2024 using EJScreen Version 2.3

## EJScreen Environmental and Socioeconomic Indicators Data

### HEALTH INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	N/A	N/A	N/A	20%	N/A
Heart Disease	N/A	N/A	N/A	5.8	N/A
Asthma	N/A	N/A	N/A	10.3	N/A
Cancer	N/A	N/A	N/A	6.4	N/A
Persons with Disabilities	27.5%	22.7%	77	13.7%	97

### CLIMATE INDICATORS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	N/A	N/A	N/A	12%	N/A
Wildfire Risk	N/A	N/A	N/A	14%	N/A

### CRITICAL SERVICE GAPS

INDICATOR	VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	28%	29%	54	13%	89
Lack of Health Insurance	7%	7%	65	9%	54
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access Burden	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Report for 1 mile Ring Centered at 18.439417,-66.215807

Report produced August 19, 2024 using EJScreen Version 2.3

# Appendix B: USFWS Documentation



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Caribbean Ecological Services Field Office  
Bayamón | Mayagüez | Maricao | Río Grande | St Croix  
P.O. Box 491  
Boquerón, Puerto Rico 00622



In Reply Refer to:  
FWS/R4/CESFO/72137-Gen

Submitted Via Electronic Mail: [jcperez@vivienda.pr.gov](mailto:jcperez@vivienda.pr.gov)

Juan Carlos Pérez-Bofill, PE, MEng.  
Director – Disaster Recovery CDBG-DR Program  
Puerto Rico Department of Housing  
P.O. Box 21365  
San Juan, P.R 00928-1365

Re: PR-CRP-000991 Roundabout PR-867 Int. Urb.  
Campanillas & Pabellones, Toa Baja, Puerto Rico

Dear Mr. Pérez-Bofill

Thank you for your letter dated September 03, 2024, requesting informal consultation on the above referenced project. As per your request, our comments are provided under the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The Puerto Rico Department of Housing (PRDOH) proposes the transformation of an intersection into a roundabout at PR-867, intersection of the entrance to the Urb. Campanillas and Pabellones (18°26'21.9"N 66°12'57.0"W) in the municipality of Toa Baja, Puerto Rico. The proposed scope of work (SOW) consist of the following:

- Asphalt pavement rehabilitation through cold milling and resurfacing.
- Replacement of pavement markings and the use of retroreflective devices, such as raised pavement markers.
- Measures to reduce speed at pedestrian crossings.
- Installation of a solar-powered lighting poles system.
- Installation of traffic signs.
- The project footprint will cover 8,127 square meters.
- The staging area for the project will be limited to the machinery yard of the Public Works Department of the municipality of Toa Baja, located 1.28 miles southwest of the roundabout.
- There will be no ground disturbance outside of the existing roadways, aside from the temporary disturbance required at the staging area which is already disturbed and used as a machinery yard.

- Roundabout construction.

Using the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system, PRDOH has determined that the proposed project lies within the range of the Puerto Rican Boa (*Chilabothrus inornatus*), roseate tern (*Sterna dougallii dougallii*) and palo de rosa (*Ottoschulzia rhodoxylon*).

Since the majority of the project will be conducted within the existing right of ways (ROWs), the PRDOH has determined that the proposed actions may affect but are not likely to adversely affect (NLAA) the Puerto Rican boa, roseate tern and palo de rosa. Conservation measures will be implemented to avoid and minimize impacts to these species.

For the roseate tern, since the project will be conducted within the ROWs, the Service believes that the proposed project has NE on this species. Therefore, the Service recommends PRDOH LLC to reconsider its NLAA determination for this species to a NE due to the lack of suitable habitat.

As for the Puerto Rican boa and palo de rosa, we have reviewed the information provided in your letter and in our files, and concur with your determination that the proposed project may affect, but is not likely to adversely affect these species with the implementation of the conservation measures.

In view of this, we believe that requirements of section 7 of the Endangered Species Act (Act) have been satisfied. However, obligations under section 7 of the Act must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner that was not previously considered; (2) this action is subsequently modified in a manner not previously considered in this assessment; or, (3) a new species is listed, or critical habitat determined that may be affected by the identified action.

Please be advised that there are possible wetlands both north and south of PR 867. Any expansion, temporary or permanent, outside of the existing roadway footprint may require a US Army Corps of Engineers permit.

Thank you for the opportunity to comment on this project. If you have any questions or require additional information, please contact us via email at [caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov) or by phone at (786) 244-0081.

Sincerely,

LOURDES  
MENA

Digitally signed by  
LOURDES MENA  
Date: 2024.09.30  
18:57:30 -04'00'

Lourdes Mena  
Field Supervisor

drr

cc:  
DNER  
HUD  
PRHTA  
COE



September 3, 2024

Lourdes Mena  
Acting Field Supervisor  
Caribbean Ecological Services Field  
Office United States Fish and Wildlife  
Service Office Park I, Suite 303  
State Road #2 Km 156.5  
Mayagüez, Puerto Rico 00680  
Email: [caribbean\\_es@fws.gov](mailto:caribbean_es@fws.gov), [Lourdes\\_Mena@fws.gov](mailto:Lourdes_Mena@fws.gov)

**Re: Puerto Rico Department of Housing / City Revitalization Program  
PR-CRP-000991 – Rotonda PR-867 int. entradas Urbs. Campanillas y Pabellones,  
Sábana Seca  
Endangered Species Concurrence for NLAA Determination**

Dear Ms. Mena:

The Puerto Rico Department of Housing (PRDOH) is requesting an informal consultation under Section 7 (a)(2) of the Endangered Species Act (Act) (87 Stat. 884, as amended; 16 United States Code 1531 et seq.), and in accordance with the Fish and Wildlife Coordination Act (47 Stat. 401, as amended; 16 U.S.C. 661 et seq.) for the proposed project PR-CRP-000991, located on PR-867 Road at the intersection of the entrance to Campanillas and Pabellones developments, Sábana Seca, Toa Baja, PR 00949. The project site location coordinates are latitude 18.439403, and longitude -66.215829. A map of the project site location can be found in Appendix A: Figure 1a.

The proposed project is part of the City Revitalization Program (CRP) that establishes a fund for municipalities to enable a variety of critical recovery activities aimed at reinvigorating urban centers and key community corridors to focus investments, reduce sprawl, and create a symbiotic environment to nurture complimentary investments from the private sector.

The proposed activities for PR-CRP-000991 will consist of the transformation of an intersection into a roundabout. The intersection is located on PR-867 Road at the intersection of the entrance to the Campanillas and Pabellones developments. The roundabout will optimize vehicular traffic and all necessary movements for vehicles, lower the vehicular speed of vehicles that cross the PR-867 Road, improve the entry and exit of vehicles from or to the developments, and enhance the experience for both pedestrians and cyclists that use the intersection. The project will also include sidewalks improvements that comply with ADA guidelines, planting areas, utilities work

(PRASA, PREPA, communications, etc.) and maintenance of traffic (MOT) plans to minimize congestion levels during construction.

To carry out the improvement project the potable water, stormwater, sewer, power and communications infrastructure located in the sector will be impacted. The project includes asphalt pavement rehabilitation through cold milling and resurfacing. It also includes the replacement of pavement markings and the use of retroreflective devices, such as raised pavement markers. Measures to reduce speed at pedestrian crossings, the installation of a solar-powered lighting poles system, and the installation of traffic signs are also part of the scope of work. Lastly, the project scope ensures that electrical design improvements are made to comply with current codes and regulations.

The project footprint will cover 8,127 square meters (approx. 2 acres). The staging area for the project will be limited to the machinery yard of the Public Works Department of the municipality of Toa Baja, located 1.28 miles southwest of the roundabout (latitude: 18.425291, longitude: -66.229143) (Appendix A: Figure 1b). There will be no ground disturbance outside of the existing roadways, aside from the temporary disturbance required at the staging area. Similar to the roadways, this staging area is previously disturbed and used as a machinery yard. The Field Observation Form depicting and clarifying the extent and location of project activities is included in Appendix B.

The project area where activities will be taking place consists of approximately 2 acres of land and an approximately five-acre temporary staging area 1.28 miles southwest of the project area. According to the land and soil classification maps, the project area lands are classified as urban and residential with some resource conservation and agricultural lands outside of the project area. According to historic imagery on the U.S. Topographic Viewer, the project area has been developed as a roadway since the earliest available topographic map (1941). A topographic map is included in Appendix A: Figure 3.

The project site is situated over 20 feet from the nearest wetland area delineated by USFWS's National Wetland Mapper, a freshwater emergent wetland. No wetlands are within the staging area. The project activities will not occur within natural or manmade wetlands, and no direct or indirect impacts are anticipated as a result of the project activities.

Using the Information for Planning and Consultation (IPaC) system and Critical Habitat map, we have determined that the proposed project and staging area lies within the ranges of the following federally listed species.

Name of the species	Threatened/Endangered/Candidate	Area
Roseate Tern ( <i>Sterna dougallii</i> )	Threatened	Project Area
Puerto Rican Boa ( <i>Chilabothrus inornatus</i> )	Endangered	Project Area and Staging Area
Palo De Rosa ( <i>Ottoschulzia rhodoxylon</i> )	Threatened	Staging Area
<b>Critical habitat</b>		
There are no critical habitats at this location.		

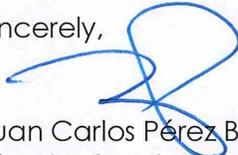
Based on the nature of the project, scope of work, information available, and a careful analysis of the IPAC, USFWS Puerto Rican Boa Conservation Measures 2024, and Roseate Tern and Wetland Delimitation, we have made the following effects determinations:

Name of the Species	Effect Determination	Conservation Measures that will be implemented
Puerto Rican Boa ( <i>Chilabothrus inornatus</i> )	Not Likely to Adversely Affect (NLAA)	USFWS Puerto Rican Boa Conservation Measures 2024
Roseate Tern ( <i>Sterna dougallii dougallii</i> )	Not Likely to Adversely Affect (NLAA)	Nationwide Standard Conservation Measures
Palo De Rosa ( <i>Ottoschulzia rhodoxylon</i> )	Not Likely to Adversely Affect (NLAA)	Nationwide Standard Conservation Measures

In order to complete the informal consultation process, we are requesting your concurrence for the NLAA determinations for the Puerto Rican Boa, Roseate Tern and Palo De Rosa included in this letter. Attached to this letter, we are including the documents used to reach our effect determinations for the listed species.

Thank you in advance for your consideration of this issue.

Sincerely,



Juan Carlos Pérez Bofill, PE, MEng.  
Director for Disaster Recovery, CDBG-DR/MIT Program  
[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527 ext. 4320

**Attachments:**

Appendix A

- Figure 1a: Project Area Map and Photos
- Figure 1b: Staging Area Map
- Figure 2a: Project Area Critical Habitat Map
- Figure 2b: Staging Area Critical Habitat Map
- Figure 3: Topographic Map
- Figure 4: Land Classification Map
- Figure 5: Soil Rating Map
- Figure 6: NLCD Map
- Figure 7a: Wetland Maps
- Figure 7b: Wetland Maps

Appendix B: Field Observation Form

Appendix C: Project Area IPaC Information for Planning and Consultation

Appendix D: Staging Area IPaC Information for Planning and Consultation

Appendix E: Site Photos

Appendix F: USFWS Puerto Rican Boa Conservation Measures

C: Angel G. López-Guzmán, MSEM  
Deputy Director  
Permits and Environmental Compliance Division

## Appendix A: Figures

City Revitalization Program  
PR-CRP-000991  
Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca  
Autonomous Municipality of Toa Baja, Puerto Rico



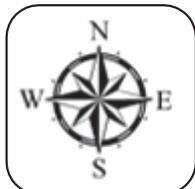
Google Earth



Location Map



**Project Location:**  
PR-867 entradas Urbs.  
Campanillas y Pabellones,  
Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439403°,  
Longitude: - 66.215829°



Source: Google Earth Image Landsat Copernicus Data SIO, NOAA, US. Navy, GEBCO Image date: 04/08/2016

Figure 1a: Project Area Map

### Figure 1b. Staging Area Map

PR-CRP-000991 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Coord: 18.439403°, - 66.215829°

Address: Int. PR-867 Km 3.9 Bo. Sabana Seca, Toa Baja, PR 00949



Prepared by ICF

Source: Google Earth (Spatial Reference: WGS84), accessed August 21, 2024 at URL <https://earth.google.com/>



# Figure 2b. Staging Area Critical Habitat Map

PR-CRP-000991 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Coord: 18.439403°, - 66.215829°

Address: Int. PR-867 Km 3.9 Bo. Sabana Seca, Toa Baja, PR 00949



Source: EPA NEPassist (Spatial Reference: GRS80), accessed August 21, 2024 at URL <https://nepassisttool.epa.gov/nepassist/nepamap.aspx>

Prepared by ICF

Figure 3.

Topographic Map

PR -CRP-000991 –Rotanda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Coord: 18.439409°, -66.215839°

Address: PR-867 Km 3.9 Bo. Sabana Seca, Toa Baja Puerto Rico 00949



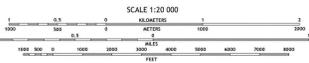
U.S. DEPARTMENT OF THE INTERIOR  
U.S. GEOLOGICAL SURVEY



BAYAMÓN QUADRANGLE  
PUERTO RICO  
7.5-MINUTE SERIES



Produced by the United States Geological Survey  
World Geodetic System of 1984 (WGS84)  
North American Datum of 1983 (NAD83) Projection and  
1983 datum ellipsoid (GRS80) Spheroid. Since 1983  
This map is not a legal document. Boundaries may be  
generalized for map scale. Please check with government  
agencies for legal boundaries. Major corrections apply  
where they exist.



CONTOUR INTERVAL: 5 FEET  
BASED ON LOCAL MEAN SEA LEVEL  
National map was produced in conformance with the  
American National Map Accuracy Standards, 2010.  
A revision may be associated with this product to date 06/01/13

ROAD CLASSIFICATION

Dominant	Local Connector
Secondary	Local Road
Minor	RD
Interstate	SR Road
	State Road

**Legend**

PR-CRP-000991

BAYAMÓN, PR  
2018



City Revitalization Program  
 PR-CRP-000991  
 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
 Sabana Seca



Land Use Plan Soil  
 Classification Map

Clasificación

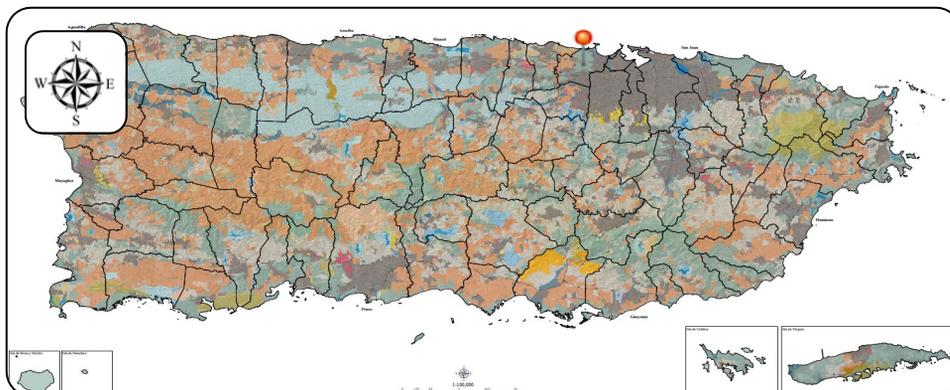
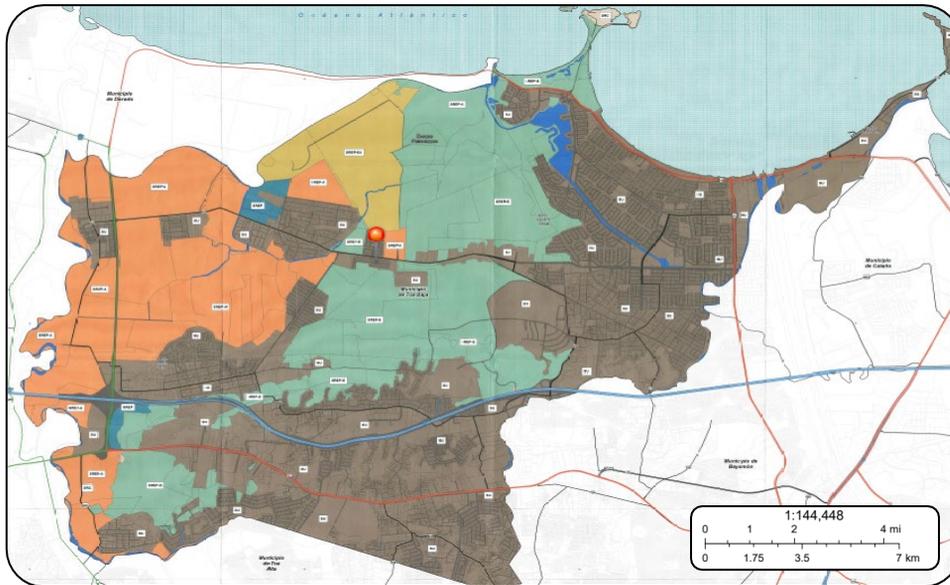
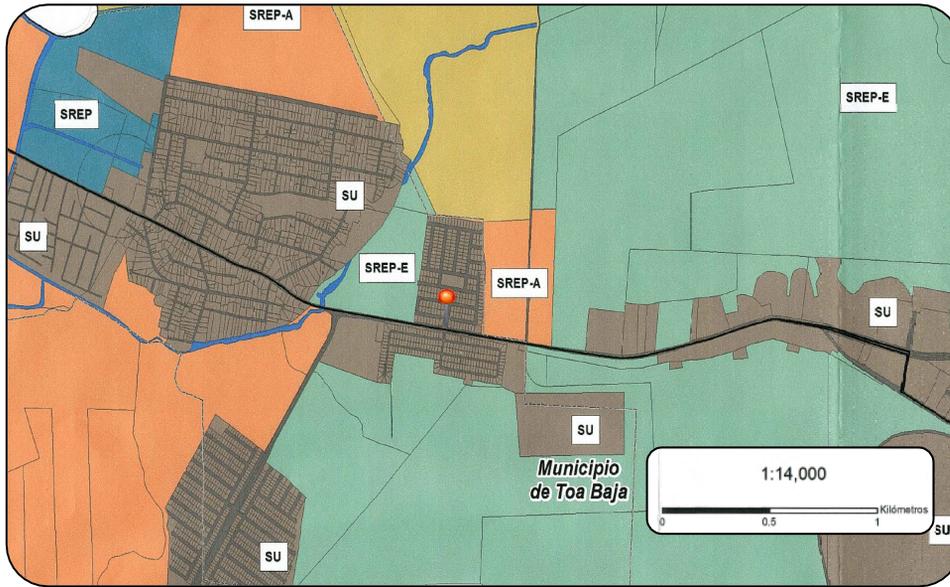
- Suelo Rústico Especialmente
- Protegido-Ecológico
  - Protegido
  - Protegido-Agrícola
  - Protegido-Ecológico/Agrícola
  - Suelo Urbano
  - Suelo Rústico Común

Elemento geográfico

- Sistema Vial
- Cuerpo de Agua

Red Vial

- Autopista
- Red Primaria
- Red Pimaria Urbana
- Red Secundaria
- Red Terciaria
- Limite de Municipio
- Limite de Barrio
- Project Site



Project Location:

PR-867 entradas Urbs.  
 Campanillas y  
 Pabellones, Sabana Seca  
 Toa Baja, PR 00949  
 Latitude: 18.439403°,  
 Longitude: - 66.215829°



Source: Junta de Planificación <https://jp.pr.gov/plan-de-usos-de-terrenos/>

Figure 4. Land Use Plan Soil Classification Map

City Revitalization Program  
 PR-CRP-000991  
 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
 Sabana Seca



**Land Use Plan Soil Rating Map**

**Calificación**

- A-P: Agrícola Productivo
- C-I: Comercial Intermedio
- C-L: Comercial Liviano
- CRH: Conservación y Restauración
- CR: Conservación de Recursos
- DT-G: Dotacional General
- DT-P: Dotacional Parque
- IL: Industrial Liviano
- I-P: Industrial Pesado
- PF: Propiedad Federal
- PP: Playas Públicas
- PR: Preservación de Recursos
- R-A: Residencial de Alta Densidad
- R-I: Residencial Intermedio
- RC-E: Recreación Comercial Extensa
- RC-M: Residencial Comercial Mixto
- SH: Sitio Histórico

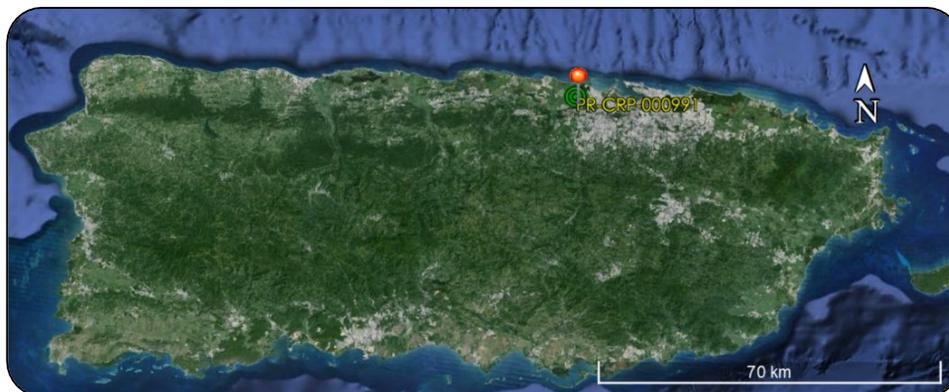
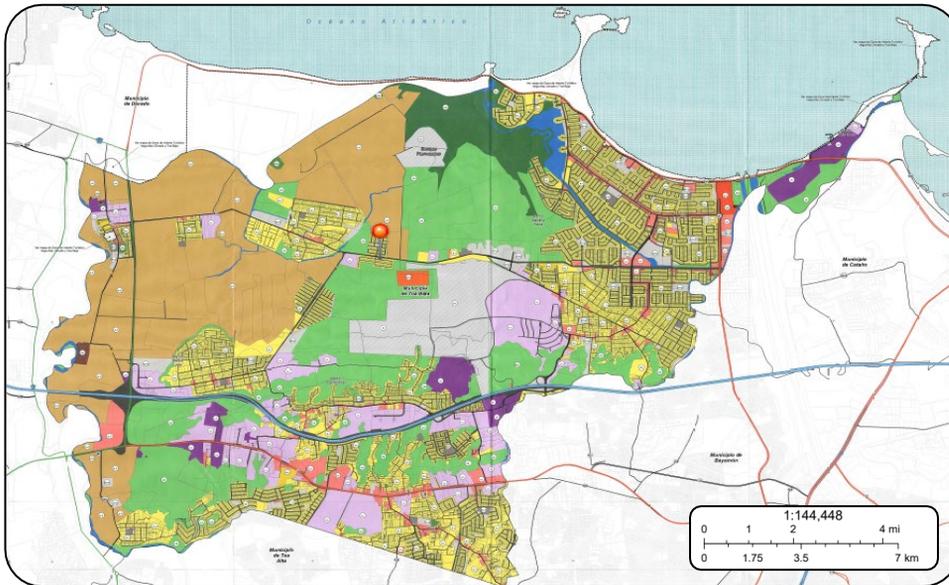
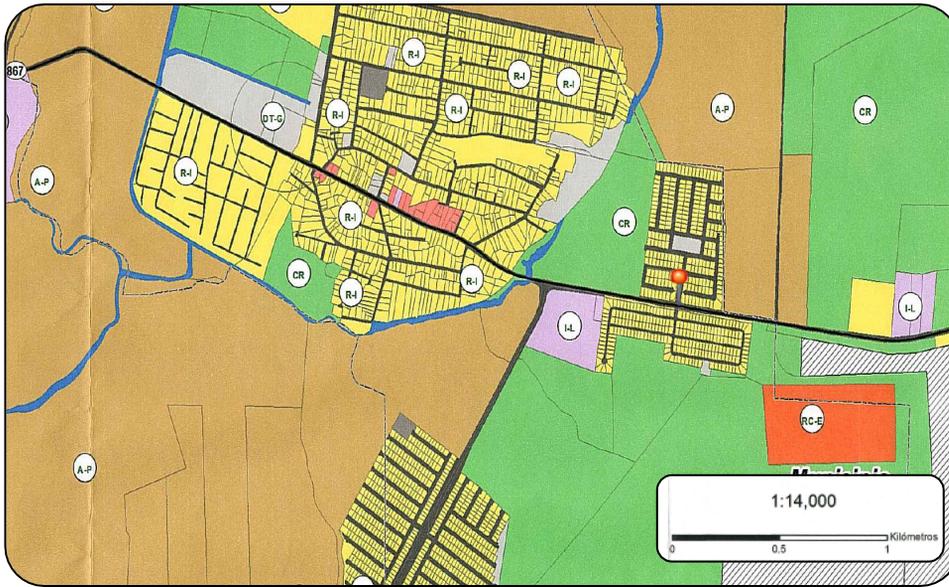
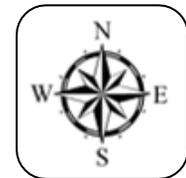
**Elemento geográfico**

- Cuerpo de Agua
- Sistema Vial

**Red Vial**

- Autopista
- Red Primaria
- Red Primaria Urbana
- Red Secundaria
- Red Terciaria
- Límite de Municipio
- Límite de Barrio
- Límite de ZIT

Project Site



Source: Junta de Planificación <https://jp.pr.gov/plan-de-usos-de-terrenos/>

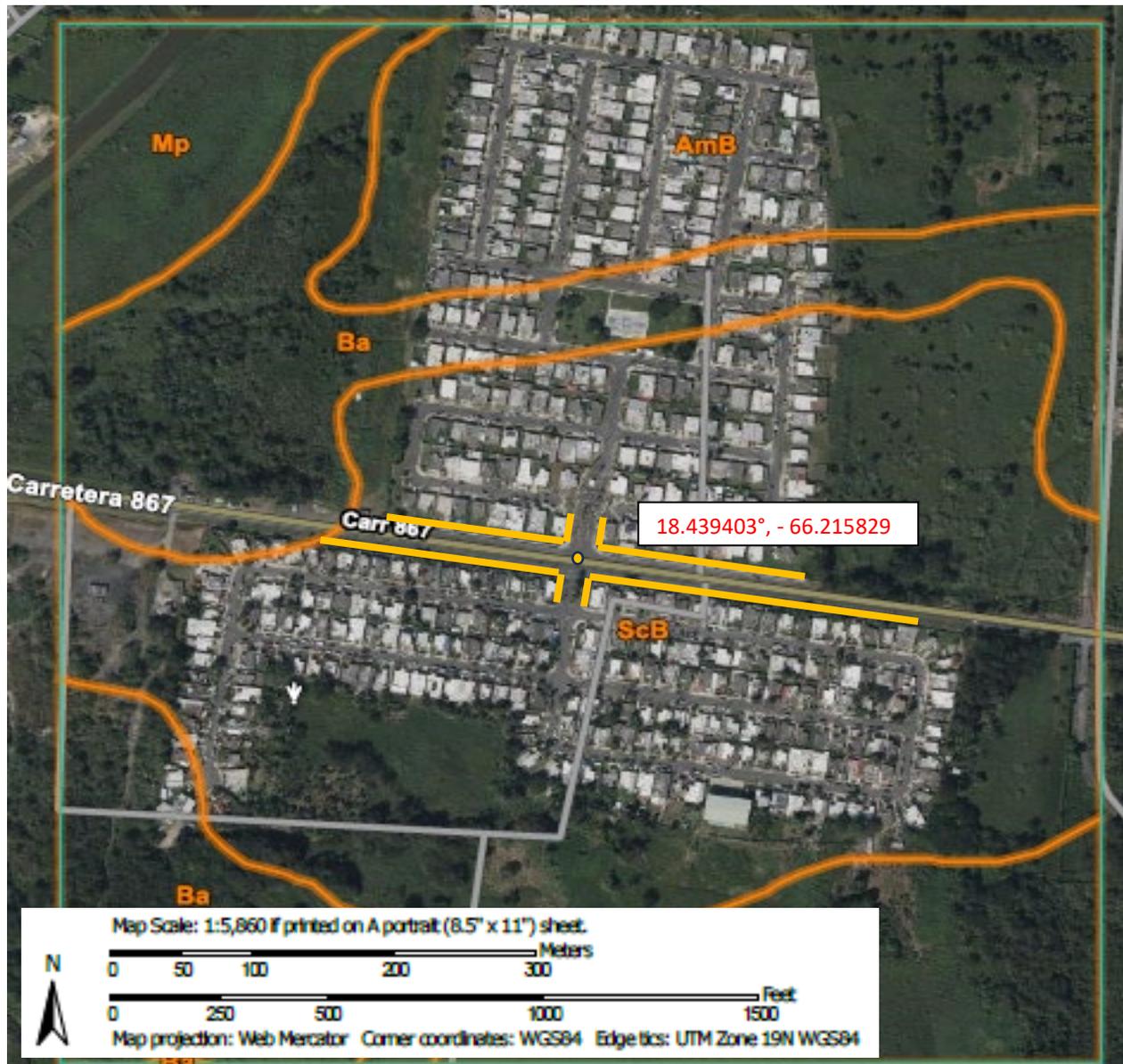
**Figure 5. Land Use Plan Soil Rating Map**

### Figure 6. National Land Cover Database (NLCD) Map

PR-CRP-000991 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Coord: 18.439403°, - 66.215829°

Address: Int. PR-867 Km 3.9 Bo. Sabana Seca, Toa Baja, PR 00949



 PR-CRP-000991

 17.978371, -66.297307

*Legend on following page*

Source: U.S. Department of Agriculture (USDA) Web Soil Survey (Spatial Reference: WGS84), accessed August 27, 2024 at URL <https://websoilsurvey.nrcs.usda.gov/>

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

### Water Features



Streams and Canals

### Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

### Background



Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Juan Area, Puerto Rico

Survey Area Data: Version 17, Sep 13, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AmB	Almirante clay, 2 to 5 percent slopes	23.8	15.6%
Ba	Bajura clay, 0 to 2 percent slopes, frequently flooded	33.7	22.1%
Mp	Martin Pena muck	26.6	17.4%
ScB	Sabana Seca clay, 2 to 8 percent slopes	68.5	44.9%
<b>Totals for Area of Interest</b>		<b>152.6</b>	<b>100.0%</b>

City Revitalization Program  
PR-CRP-000991

Rotanda PR-867 entradas Urbs. Campanillas y Pabellones,  
Sabana Seca

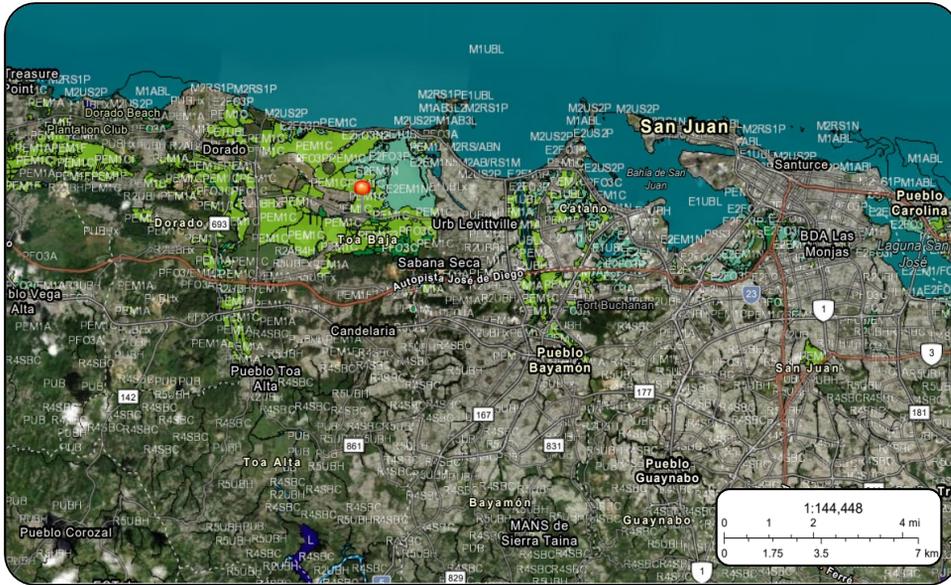


**Wetland Map**

**Legend:**

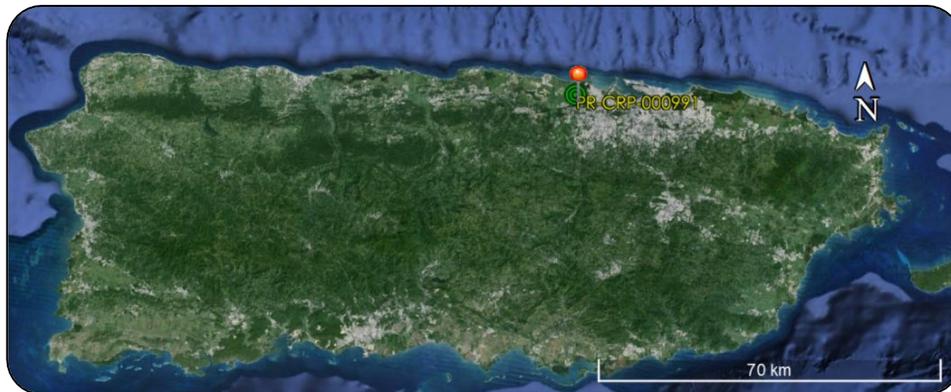
Wetlands

-  Estuarine and Marine Deepwater
-  Estuarine and Marine Wetland
-  Freshwater Emergent Wetland
-  Freshwater Forested/Shrub Wetland
-  Freshwater Pond
-  Lake
-  Other
-  Riverine
-  Project Footprint
-  Project Site



**Project Location:**

PR-867 entradas Urbs.  
Campanillas y  
Pabellones, Sabana Seca  
Toa Baja, PR 00949  
Latitude: 18.439403°  
Longitude: - 66.215829°



Source: NEPAassist, Esri, HERE, Garmin, Foursquare, SafeGraph, METI/NASA, USGS, NPS, EPA OEI  
NEPAassist Url: <https://nepassistool.epa.gov/nepassist/nepamap.aspx?wheresrf=Toa+Baja>

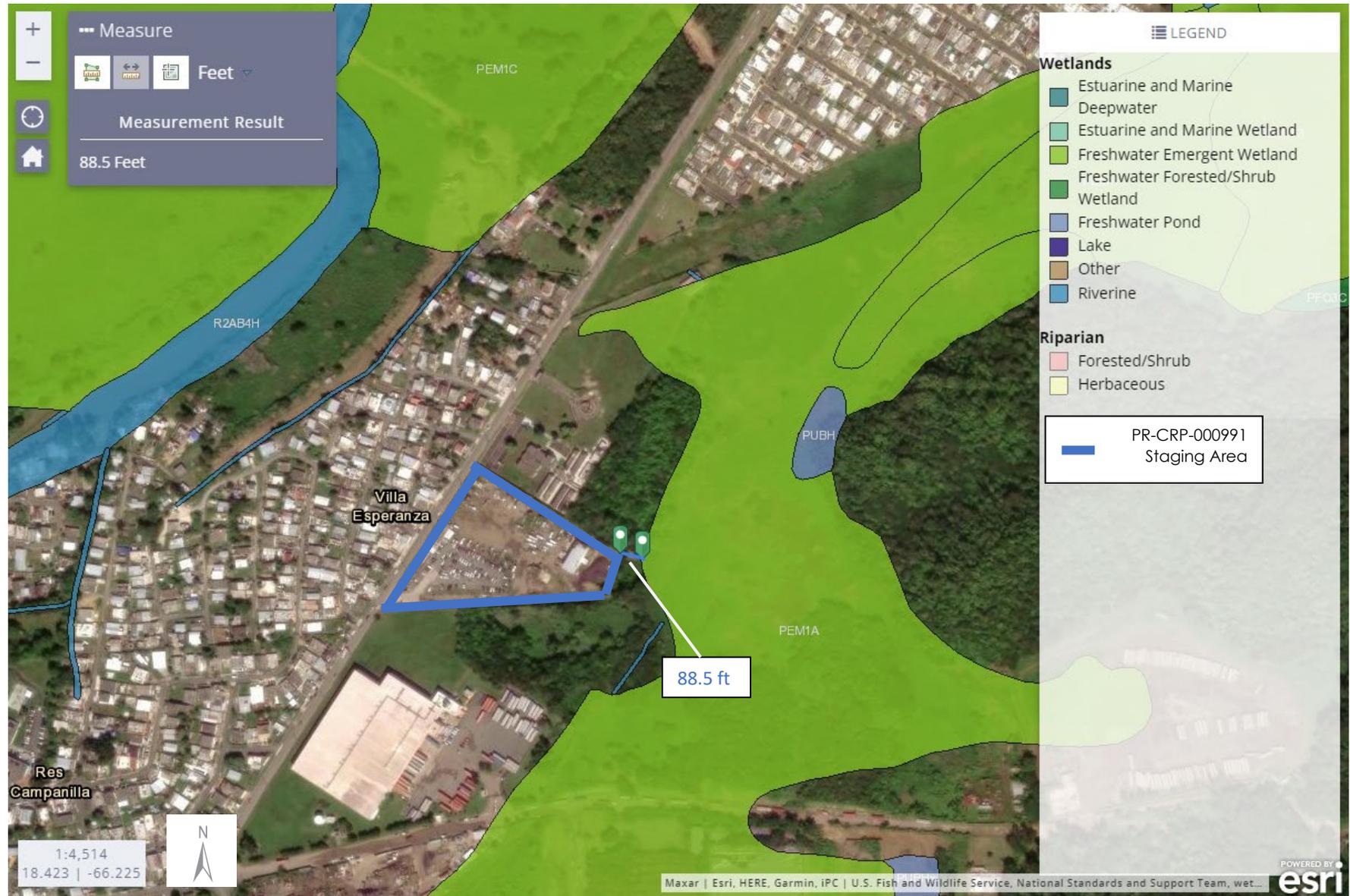
**Figure 7a. Wetland Map**

# Figure 7b. Staging Area Wetland Map

PR-CRP-000991 Rotanda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Coord: 18.439403°, - 66.215829°

Address: Int. PR-867 Km 3.9 Bo. Sabana Seca, Toa Baja, PR 00949



Source: USFWS National Wetlands Inventory (NWI) (Spatial Reference: WGS84), accessed August 21, 2024 at URL <https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper> Prepared by ICF

Appendix B:  
Field Observation Form

## Toa Baja - Intersections

# SITE SURVEY

Date and time: **Mar 22, 2023, 10:21:00 AM**

- Chose Intersection Name: **PR-867 & URBANIZACIONES (PR-CRP-000991)**
- Pin Location: **Lat: 18.439415 Lon: -66.215833**



Earthstar Geographics | Esri, HERE, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census Bureau

## Contents

UTILITIES.....	3
PREPA.....	3
PRASA.....	4
TELECOMMUNICATION.....	4
INTERSECTION.....	5
Unsignalized.....	5
Legs.....	5
Leg 1.....	6
Leg 2.....	6
Leg 3.....	7
Leg 4.....	7
INTERSECTION - GENERAL.....	8
Curbs .....	9
Lightning .....	10
Transit.....	10
Peds and Bikes .....	11

# UTILITIES

## PREPA



## PRASA

**PR-867 KM.HM 3.7**

**Was not found in the field visit.**

## TELECOMMUNICATION



## INTERSECTION

### UNSIGNALIZED

- Current traffic control device: **Stop control minor roads. No signage or pavement marking.**



### LEGS

- How many? **4**

## LEG 1



- Have sidewalks? **Yes, on both sides.**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **4**
- Space to open comment: **Sidewalk looks in average condition.**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## LEG 2



- Have sidewalks? **Yes on both sides**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **5**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## LEG 3



- Have sidewalks? **Yes on both sides**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **5**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## LEG 4



- Have sidewalks? **Yes on both sides**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **5**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## INTERSECTION - GENERAL

- Pavement Marking: **Missing**
- Signs: **Missing**
- There is general visibility issues? **No**



- Any restriction on turning movements? **None**
- Based on your perspective, is there enough time to cross? **No gaps to cross.**

## CURBS

- Are curbs ramps present? **Yes**
- How many? **6** Are they ADA compliant? Curb 1 **No**; Curb 2 **No**; Curb 3 **No**; Curb 4 **No**

CURB 1



CURB 2



CURB 3



CURB 4



## LIGHTNING

- Is the lighting adequate at all corners? **Yes**
- Space to open comment: **Daylight at time of inspection. Unsure if the lights are working properly.**



## TRANSIT

- Are there any transit stop? **Yes – Both**





## PEDS AND BIKES

- Are peds and bikes waiting for gaps?  
**No pedestrian at inspection. However, the inspection crew attempted to cross the intersection without success. The major road vehicles travel at high speeds.**
- Are drivers expecting crossing peds or bikes? **No**



- Space to open comment: **It's difficult for minor road to make left and right turns because of speed and volume of major road. No peds will be expected crossing even that there are two bus stops.**



- Peds and bike facilities accommodate users with disabilities? **Yes**
- If no, explain (space to open comment) **There's sidewalks and curb ramps. No crosswalk and high speeds. Curb ramps are not ADA compliant but there's still ramps.**



Appendix C:  
Project Area IPaC

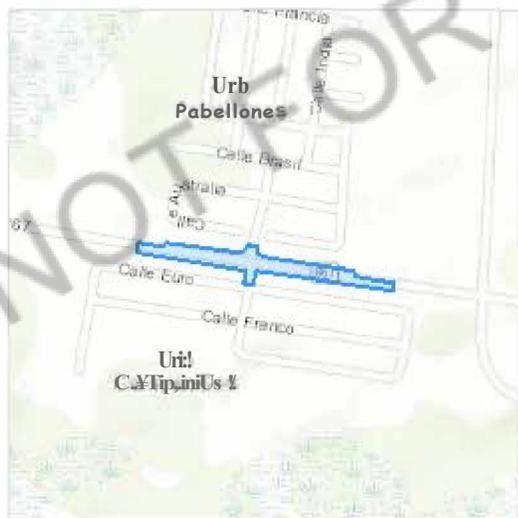
# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NM Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Toa Baja County, Puerto Rico



## Local office

Caribbean Ecological Services Field Office

\. (939) 320-3135

li (787) 851-7440

■ [CARIBBEAN\\_ES@FWS.GOV](mailto:CARIBBEAN_ES@FWS.GOV)

MAILING ADDRESS

Post Office Box 491

Boqueron, PR 00622-0491

PHYSICAL ADDRESS

Office Park I

State Road #2 Km 156.5, Suite 303}

Mayaguez, PR 00680

NOT FOR CONSULTATION

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>1</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [Species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status Page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2 [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Birds

NAME	STATUS
Roseate Tern <i>Sterna dougallii dougallii</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/eq/sgeci/es/2083">https://ecos.fws.gov/eq/sgeci/es/2083</a>	Threatened

## Reptiles

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecg/sgpecies/6628">https://ecos.fws.gov/ecg/sgpecies/6628</a>	Endangered

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

## Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/P-rogram/eagle-management>

- Measures for avoiding and minimizing impacts to birds  
[https://www.fws.gov/library/\\_collections/avoiding-and-minimizing-incident-take-migratory-birds](https://www.fws.gov/library/_collections/avoiding-and-minimizing-incident-take-migratory-birds)
- Nationwide conservation measures for birds  
<https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC  
<https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

### **What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?**

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BOC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [RaPid Avian Information Locator \(RAIL\) Tool](#).

### **What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#), and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [RaPid Avian Information Locator \(RAIL\) Tool](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>6</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <http-s://www.fws.gov/P-rogram/eagle-management>
- Measures for avoiding and minimizing impacts to birds <http-s://www.fws.gov/librarY./collections/avoiding-and-minimizing-incidenta-take-migratorY.-birds>
- Nationwide conservation measures for birds <http-s://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.P-df>
- Supplemental Information for Migratory Birds and Eagles in IPaC <http-s://www.fws.gov/media/suP-P-lemental-information-migratorY.-birds-and-bald-and-golden-eagles-maY.-occur-P-roject-action>

The [data](#) in this location indicates there are no migratory [birds of conservation concern](#) expected to occur in this area.

There may be migratory birds in your project area, but we don't have any survey data available to provide further direction. For additional information, please refer to the links above for recommendations to minimize impacts to migratory birds or contact your local FWS office.

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Iggie Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [RaPid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

## Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area *off* the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping Log of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

## What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a Permit](#) to avoid violating the Eagle Act should such impacts occur.

## Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

## Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does not replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or

submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

**Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Appendix D:  
Staging Area IPaC

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NM Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Toa Baja County, Puerto Rico



## Local office

Caribbean Ecological Services Field Office

\. (939) 320-3135

li (787) 851-7440

■ [CARIBBEAN\\_ES@FWS.GOV](mailto:CARIBBEAN_ES@FWS.GOV)

MAILING ADDRESS

Post Office Box 491

Boqueron, PR 00622-0491

PHYSICAL ADDRESS

Office Park I

State Road #2 Km 156.5, Suite 303}

Mayaguez, PR 00680

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# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>1</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [Species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status Page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

- 2 [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Reptiles

NAME	STATUS
Puerto Rican Boa <i>Chilabothrus inornatus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecRISRecies/6628">https://ecos.fws.gov/ecRISRecies/6628</a>	Endangered

## Flowering Plants

NAME	STATUS
Palo De Rosa <i>Ottoschulzia rhodoxylon</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecRISRecies/5741">https://ecos.fws.gov/ecRISRecies/5741</a>	Threatened

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

## Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management <http-s://www.fws.gov/P-rogram/eagle-management>
- Measures for avoiding and minimizing impacts to birds  
[http-s://www.fws.gov/library/\\_collections/avoiding-and-minimizing-incidenta- take- migratory\\_-birds](http-s://www.fws.gov/library/_collections/avoiding-and-minimizing-incidenta- take- migratory_-birds)
- Nationwide conservation measures for birds  
<http-s://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation- measures.P-df>
- Supplemental Information for Migratory Birds and Eagles in IPaC  
[http-s://www.fws.gov/media/sup\\_P-lemental-information-migratory\\_-birds-and-bald-and- golden-eagles-may\\_-occu r-P-roject-action](http-s://www.fws.gov/media/sup_P-lemental-information-migratory_-birds-and-bald-and- golden-eagles-may_-occu r-P-roject-action)

**What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?**

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Ragid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BC\)](#), and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Ragid Avian Information Locator \(RAIL\) Tool](#).

**What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>6</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

- 1 The [Migratory Birds Treaty Act](#) of 1918.
- 2 The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Eagle Management <http-s://www.fws.gov/P-rogram/eagle-management>
- Measures for avoiding and minimizing impacts to birds <http-s://www.fws.gov/librarY./collections/avoiding-and-minimizing-incidental-take-migratorY.-birds>
- Nationwide conservation measures for birds <http-s://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.P-df>
- Supplemental Information for Migratory Birds and Eagles in IPaC <http-s://www.fws.gov/media/suP-P-lemental-information-migratorY.-birds-and-bald-and-golden-eagles-maY.-occur-P-roject-action>

The [data](#) in this location indicates there are no migratory [birds of conservation concern](#) expected to occur in this area.

There may be migratory birds in your project area, but we don't have any survey data available to provide further direction. For additional information, please refer to the links above for recommendations to minimize impacts to migratory birds or contact your local FWS office.

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Iggie Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern \(BCC\)](#) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

## Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area *off* the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping-Log of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

## What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a Permit](#) to avoid violating the Eagle Act should such impacts occur.

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# Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

## Fish hatcheries

There are no fish hatcheries at this location.

## Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

This location did not intersect any wetlands mapped by NWI.

NOTE: This initial screening does not replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or

submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

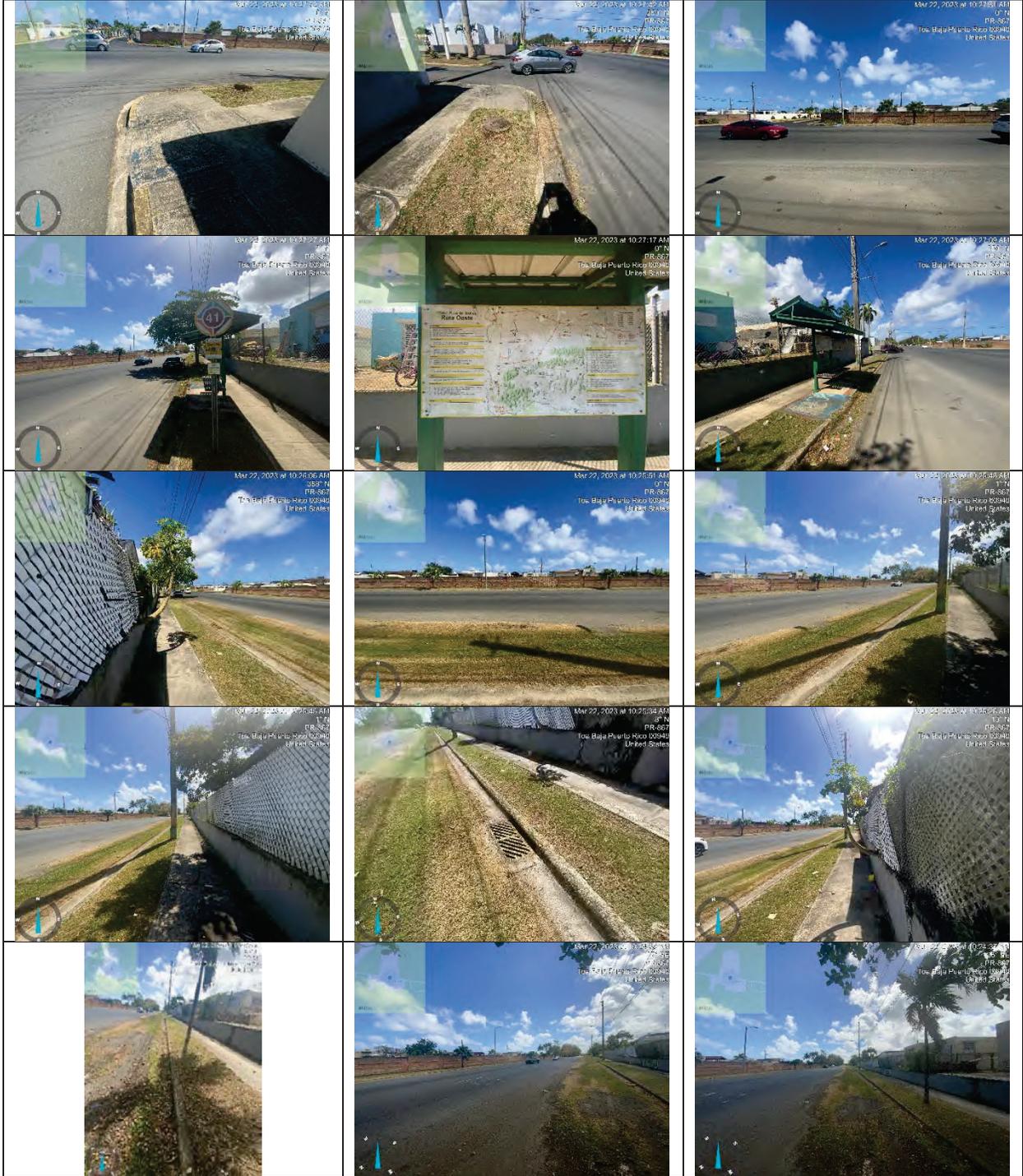
### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

## Appendix E: Site Photos

# Photos: PR-CRP-000991





Appendix F:  
USFWS Puerto Rican Boa Conservation Measures 2024

# General Project Design Guidelines (1 Species)

Generated August 28, 2024 03:55 PM UTC, IPaC v6.114.0-rc2



# Table of Contents

Species Document Availability .....	<a href="#">1</a>
Puerto Rican Boa - Caribbean Ecological Services Field Office .....	<a href="#">2</a>

# Species Document Availability

## Species with general design guidelines

Puerto Rican Boa *Chilabothrus inornatus*

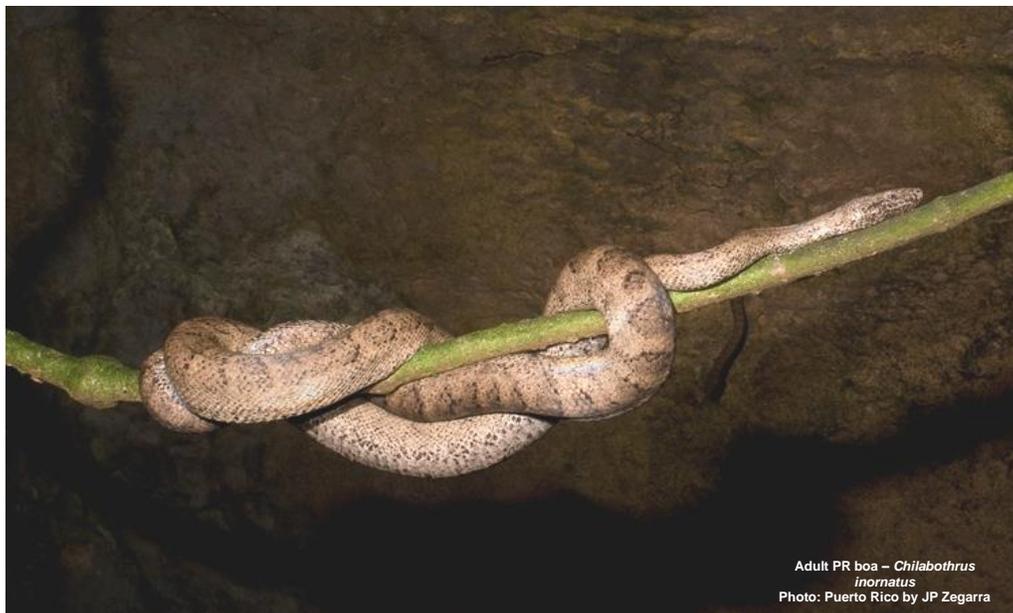


## U.S. FISH AND WILDLIFE SERVICE CARIBBEAN ECOLOGICAL SERVICES FIELD OFFICE

### Conservation Measures for the Puerto Rican boa (*Chilabothrus inornatus*)

Section 7 (a)(1) of the Endangered Species Act (ESA) charges Federal agencies to aid in the conservation of listed species, and section 7 (a)(2) requires the agencies, through consultation with the U.S. Fish and Wildlife Service (Service), to ensure their activities are not likely to jeopardize the continued existence of listed species or adversely modify designated critical habitats. Section 7 applies to the management of Federal lands as well as Federal actions that may affect federally listed species, such as Federal approval of private activities through the issuance of Federal funding, permits, licenses, or other actions. Any person that injures, captures, or kills a Puerto Rico boa is subject to penalties under the ESA. If Federal funds or permits are needed, the funding or permitting agency should initiate Section 7 consultation with the Service. To initiate a consultation under the Section 7 of the ESA, you must submit a project package with the established minimum requirements. These conservation measures should be incorporated into the project plans to minimize possible impacts to the species.

The endangered Puerto Rican (PR) boa (*Chilabothrus inornatus*, formerly *Epicrates inornatus*) is the largest endemic snake species that inhabits Puerto Rico. The PR boa is non-venomous and does not pose any life threatening danger to humans, but some individuals may try to bite if disturbed or during capture or handling. Its body color ranges from tan to dark brown with irregular diffuse marking on the dorsum, but some individuals lack marking and are uniformly dark. Juveniles may have a reddish color with more pronounced markings. In general, as they mature, their body color tends to darken.



The PR boa was federally listed in 1970. Currently, the species has an island-wide distribution and occurs in a wide variety of habitat types, ranging from wet montane to subtropical dry forest and can be found from mature forest to areas with different degrees of human disturbance such as roadsides or houses, especially if near their habitat in rural areas. The PR boa is considered mostly nocturnal, remaining less active, concealed or basking under the sun during the day.

The Service has developed the following conservation measures with the purpose of assisting others to avoid or minimize adverse effects to the PR boa and its habitat. These recommendations may be incorporated into new project plans and under certain circumstances into existing projects. Depending on the project, additional conservation measures can be implemented besides the ones presented in this document.

#### Conservation Measures:

1. Inform all project personnel about the potential presence of the PR boa in areas where the proposed work will be conducted. A pre-construction meeting should be conducted to inform all project personnel about the need to avoid harming the species as well as penalties for harassing or harming PR boas. An educational poster or sign with photo or illustration of the species should be displayed at the project site.
2. Prior to any construction activity, including removal of vegetation and earth movements, the boundaries of the project and areas to be excluded and protected should be clearly marked in the project plan and in the field in order to avoid further habitat degradation into forested and conservation areas.
3. Once areas are clearly marked, and prior to the use of heavy machinery and any construction activity (including removal of vegetation and earth movement), a biologist or project personnel with experience on this species should survey the areas to be cleared to verify the presence of any PR boa within the work area.
4. If a PR boa is found within any of the working or construction areas, activities should stop at that area and information recorded (see #5). **Do not capture the boa.** If boas need to be moved out of harm's way, designated personnel shall immediately contact the Puerto Rico Department of Natural and Environmental Resources (PRDNER) Rangers for safe capture and relocation of the animal (PRDNER phone #: (787) 724-5700, (787) 230-5550, (787) 771-1124). **If immediate relocation is not an option, project-related activities at that area must stop until the boa moves out of harm's way on its own.** Activities at other work sites, where no boas have been found after surveying the area, may continue.
5. For all boa sightings (dead or alive), record the time and date of the sighting and the specific location where it was found. PR boa data should also include a photo of the animal (dead or alive), site GPS coordinates, the time and date, and comments on how the animal was detected and its behavior.

6. If a PR boa is captured by PRDNER personnel, record the name of that person and information on where the PR boa will be taken. This information should be reported to the Service.
7. Measures should be taken to avoid and minimize PR boa casualties by heavy machinery or motor vehicles being used on site. Any heavy machinery left on site (staging) or near potential PR boa habitat (within 50 meters of potential boa habitat), needs to be thoroughly inspected each morning before work starts to ensure that no boas have sheltered within engine compartments or other areas of the equipment. If PR boas are found within vehicles or equipment, do not capture the animal, and let it move on its own or call PRDNER Rangers for safe capture and relocation of the animal (see #4). If not possible, the animal should be left alone until it leaves the vehicle on its own.
8. PR boas may seek shelter in debris piles. Measures should be taken to avoid and minimize boa casualties associated with sheltering in debris piles as a result of project activities. Debris piles should be placed far away from forested areas. Prior to moving, disposing or shredding, debris piles should be carefully inspected for the presence of boas. If debris piles will be left on site, we recommend they be placed in areas that will not be disturbed in the future.
9. If a dead PR boa is found, immediately cease all work in that area and record the information accordingly (see #5). If the PR boa was accidentally killed as part of the project actions, please include information on what conservation measures had been implemented and what actions will be taken to avoid further killings. A dead boa report should be sent by email (see contacts below) to the Service within 48 hours of the event.
10. Projects must comply with all state laws and regulations. Please contact the PRDNER for further guidance.

If you have any questions regarding the above conservation measures, please contact the Service:

- José Cruz-Burgos, Endangered Species Program Coordinator
  - Email: [jose\\_cruz-burgos@fws.gov](mailto:jose_cruz-burgos@fws.gov)
  - Office phone (305) 304-1386
- Jan Zegarra, Fish and Wildlife Biologist
  - Email: [jan\\_zegarra@fws.gov](mailto:jan_zegarra@fws.gov)
  - Office phone (786) 933-1451

# Appendix C: Cultural Resource Documentation



## GOVERNMENT OF PUERTO RICO

### STATE HISTORIC PRESERVATION OFFICE

Executive Director | Carlos A. Rubio-Cancela | [carubio@prshpo.pr.gov](mailto:carubio@prshpo.pr.gov)

December 15, 2023

### Lauren Bair Poche

HORNE - Architectural Historian Manager  
10000 Perkins Rowe, Suite 610 Bldg C  
Baton Rouge, LA 70810

SHPO: 12-12-23-03 PUERTO RICO DISASTER RECOVERY, CDBG-DR CITY REVITALIZATION PROGRAM (CRP), PR-CRP-000991, ROTONDA PR-867 ENTRADAS URBS. CAMPANILLAS Y PABELLONES, BO. SABANA SECA, TOA BAJA, PUERTO RICO

Dear Ms. Poche,

Our Office has received and reviewed the above referenced project in accordance with 54 USC 306108 (commonly known as Section 106 of the *National Historic Preservation Act, as amended*) and 36 CFR Part 800: *Protection of Historic Properties* from the Advisory Council on Historic Preservation.

Our records support your finding of **no historic properties affected** within the project's area of potential effects.

Please note that should the Agency discover any historic properties at any point during project implementation, you should notify the SHPO immediately. If you have any questions concerning our comments, do not hesitate to contact our Office.

Sincerely,

Carlos A. Rubio-Cancela  
State Historic Preservation Officer  
CARC/GMO/LGC





October 20, 2022

**Arch. Carlos A. Rubio Cancela**

Executive Director

State Historic Preservation Officer

Cuartel de Ballajá Bldg.

San Juan, Puerto Rico

**Re: Authorization to Submit Documents**

Dear Arch. Rubio Cancela:

The U.S. Department of Housing (HUD) approved the allocations of Community Development Block Grant (CDBG-DR) funds on February 9, 2018. It also approved the allocation of Community Development Block Grant Mitigation (CDBG-MIT) funds on January 27, 2020. The purpose of these allocations is to address unsatisfied needs as a result of Hurricanes Irma and Maria in September 2017; and to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

To comply with the environmental requirements established by HUD, the Department of Housing of Puerto Rico (PRDOH) contracted Horne Federal LLC to provide environmental registry review services, among others, that will support the objectives of the agenda for both CDBG-DR and CDBG -MIT Programs.

In line to expedite the processes, Horne Federal LLC, is authorized to submit to the State Historic Preservation Officer, documentation of projects related to both the CDBG-DR and CDBG-MIT on behalf of PRDOH.

Cordially,

A handwritten signature in blue ink, appearing to be 'JB', is written over the typed name.

Juan C. Pérez Bofill, P.E. M.Eng

Director of Disaster Recovery

CDBG DR-MIT

December 13, 2023

Carlos A. Rubio Cancela  
State Historic Preservation Officer  
Puerto Rico State Historic Preservation Office  
Cuartel de Ballajá (Tercer Piso)  
San Juan, PR 00902-3935

### **Puerto Rico Disaster Recovery, CDBG-DR City Revitalization (City-Rev) Program**

#### **Section 106 NHPA Effect Determination Submittal for PR-CRP-000991: Rotonda PR-867 int. entradas Urbs. Campanillas y Pabellones, Sábana Seca, Toa Baja, Puerto Rico – *No Historic Properties Affected***

Dear Architect Rubio Cancela,

On February 9, 2018, an allocation of Community Development Block Grant - Disaster Recovery (CDBG-DR) funds was approved by the United States Department of Housing and Urban Development (HUD) under the Federal Register Volume 83, No. 28, 83 FR 5844, to assist the Commonwealth of Puerto Rico in meeting unmet needs in the wake of Hurricanes Irma and Maria. On August 14, 2018, an additional \$8.22 billion recovery allocation was allocated to Puerto Rico under the Federal Register Volume 83, No. 157, 83 FR 40314. With these funding allocations, the Puerto Rico Department of Housing (PRDOH) aims to lead a comprehensive and transparent recovery for the benefit of Puerto Rico residents. To faithfully comply with HUD's environmental requirements, the Puerto Rico Department of Housing contracted Horne Federal, LLC (HORNE) to provide environmental records review services that will support the Department's objectives Puerto Rico Housing (PRDOH) for CDBG-DR.

On behalf of PRDOH and the subrecipient, the Municipality of Toa Baja, we are submitting documentation for the proposed Rotonda PR-867 int. entradas Urbs. Campanillas y Pabellones, Sábana Seca Project, part of the City Revitalization Program. The proposed project will consist of the conversion of an intersection into a roundabout, southeast of the National Register of Historic Places eligible Toa Baja Traditional Urban Center. Activities for the project consist of the construction of one roundabout, sidewalks improvements that comply with ADA Guidelines, planting areas, utility work (PRASA, PREPA, communications, etc.) and maintenance of traffic (MOT) plans to minimize congestion levels during construction. The full scope of the project is described in detail within the submitted documentation, which includes mapping, photographs, and 30% design plans. Based on the provided documentation, the Program requests a concurrence with a determination that no historic properties affected is appropriate for this undertaking.

Please contact me with any questions or concerns by email at [lauren.poche@horne.com](mailto:lauren.poche@horne.com) or phone at 225-405-7676.

Kindest regards,



**Lauren Bair Poche. M.A.**

Architectural Historian, EHP Senior Manager  
Attachments

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

<b>Project Location:</b> PR-867 Km 3.8 Intesection with entrance to Campanillas and Pabellones Urbanizations, Bo. Sabana Seca, Toa Baja, Puerto Rico	
<b>Project Coordinates:</b> 18.439342 -66.215816, 18.426325 -66.228731	
<b>TPID (Número de Catastro):</b> Staging área 060-000-009-86-000	
<b>Type of Undertaking:</b> <input checked="" type="checkbox"/> Substantial Repair <input type="checkbox"/> New Construction	
<b>Construction Date (AH est.):</b> ca. N/A	<b>Property Size (acres):</b> 14.22

<b>SOI-Qualified Architect/Architectural Historian:</b> N/A
<b>Date Reviewed:</b> N/A
<b>SOI-Qualified Archaeologist:</b> Jaqueline López Meléndez
<b>Date Reviewed:</b> July 20, 2023, October 4, 2023-REVISED

In compliance with Section 106 of the National Historic Preservation Act (NHPA), the Program is responsible for identifying historic properties listed in the NRHP and any properties not listed that would be considered eligible for listing that are located within the geographic area of potential effects (APE) of the proposed project and assessing the potential effects of its undertakings on these historic properties.

### Project Description (PR-CRP-000991 Undertaking)

The proposed improvement will consist of the transformation of an intersection into a roundabout. The intersection is located on PR-867 Km. 3.8 intersecting Campanillas and Pabellones urbanizations. The roundabout will optimize vehicular traffic and all necessary movements for vehicles, lower the vehicular speed of vehicles that cross the PR-867, improve the entry and exit of vehicle from or to the urbanizations, and enhance the experience for both pedestrians and cyclists that attend the intersection. The project will also include sidewalks improvements that comply with ADA Guidelines, planting areas, utilities work (PRASA, PREPA, communications, etc.) and maintenance of traffic (MOT) plans to minimize congestion levels during construction. To carry out the improvement project, it will be necessary to impact the potable water, stormwater, and sewer, power and communications infrastructure located in the sector. The proposed project is located outside the traditional urban area delimitation of Toa Baja at approximately 2.40 miles southeast.

The project activities:

- a. Pavement Rehabilitation
  - a. Cold Milling
  - b. Asphalt Resurfacing,  
The repaving will match the existing depth of the asphalt roadway and will not require excavations below the current base.
- b. Improvements in road signs,

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

- a. Remove and replace damaged road signs,
- b. New Installation of Signs related to roundabout intersection and pedestrian crossing,
- c. Pavement marking
  - a. Remove and replace damaged pavement marking,
  - b. New Installation related to the roundabout and crosswalk compliance,
  - c. Installation of retroreflective devices,
- d. Transition of signalized intersection to roundabout,
- e. Pedestrian improvements replacing existing sidewalks and crossing,
  - a. Installation of handicapped curb ramps,
  - b. Raised crosswalk,

The new sidewalks will be approximately 1.55 meters wide and 0.10 centimeters deep.
- f. Construction and Modification of medians
  - a. New Installation of medians due to the roundabout geometry,
  - b. Modification of existing medians,
- g. Improvements and/or installation of new curbs and curbs & gutter where there is drainage problem and to address new geometry. The curbs will have a maximum width of approximately 0.45 centimeters and will be deepened by 0.20 centimeters.
- h. Improves road light feature to solar features. The new poles to be installed will have a maximum diameter of 25 centimeters and a maximum subsurface depth of 40 centimeters.
- i. Maintenance of Traffic (MOT)
- j. Construction of a roundabout. The roundabout will have a diameter of approximately 15.24 meters and a maximum depth of 20 cm below surface.

The project area covers an area of 2.52 acres. A site has been identified for use as a staging area. This property is located 1.07 miles southwest of the roundabout. It is 11.7 acres in size. The staging area is divided into two areas: to the north is the Toa Baja municipal mausoleum and to the south is the machinery yard of the Public Works Department of the municipality of Toa Baja. In the mausoleum area there is an empty lot to the north and in the Public Works lot there is a section at the southern end that could be used as a staging area.

### Area of Potential Effects

As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the Undertaking, the Program has determined that the direct APE for this project is PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, parcel to be used as staging area and the visual APE is the viewshed of the proposed project

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

(Figures 1-2). Campanillas and Pabellones urbanizations have high concrete gates. The roofs of some houses are visible above the gates. Both developments were built between 2002 and 2003, so neither structure is eligible for the NRHP.

**Identification of Historic Properties-Archaeology**

The PR-867 road appears in the itinerary from Bayamón to Toa Baja made in 1886 by the Army Corps (Figure 7). In this plan we can see that the alignment of the road in this part towards the urban center of Toa Baja is almost the same. This plan shows few structures on the roadside, none in the project area. The PR-867 road appears in the 1941 topographic quadrangle (Figure 8). It has the same alignment as it does today. To the south of the road is the railroad line, identified in the topographic as American R.R. (American Railroad). Several small, scattered roadside structures are visible mostly to the north on the survey. Wetlands and various canals are observed approximately 0.51 miles northeast, 0.19 miles southeast and 0.32 miles northwest of the project.

By 1957 (Figure 9) is where the road is first identified as PR-867 and the railroad line south of the road is no longer present, and fewer roadside structures are observed. They are mostly concentrated to the northwest, where the Ingenio community is observed, which for this year expands in all directions. The Ingenio community appears in the 1941 topographic survey as a small community located north of PR-867. In the 1957 topographic survey, the community expanded to the south of PR-867 and additional structures and streets are observed to the north.

The next significant change observed in the project area is the construction of two communities adjacent to the project, one to the south and the other to the north. According to neighbors in the area the communities Pabellones to the north and Campanillas to the south of the traffic circle were constructed between 2002 and 2003. We understand that the construction of both communities involved the widening of the PR-867 road and the installation of various utilities such as sanitary, electric power, potable water, telephone and internet, most likely installed under the road.

According to aerial photos available online, the use of the staging area as a public works site and mausoleum occurred sometime between 1994 and 2004.

The area that now occupies the municipality of Toa Baja has been populated since before the European colonization. Near twenty-nine (29) pre-Columbian sites have been reported within this municipality.

The town of Toa Baja was officially organized in 1745. The Toa Baja Traditional Urban Center is 2.40 miles northwest of the proposed project area. Historically, this region was dedicated to the cultivation and processing of sugar cane, and cattle.

There are two (2) cultural resources within a 0.25-miles radius of the proposed project site: Tramo Sabana Seca (SHPO: TB0200045) located adjacent to the south; and SS-1 (SHPO: TB0100019), located 0.14 miles northeast (see table). Site TB0200045 is the railroad track that

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	 <small>GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING</small>
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

passed south of the project area and site TB0100019 is a Pre-Columbian site. No remains of site TB0200045 were encountered during our walkover and site TB0100019 is below ground about 0.14 miles northeast of the project area. Neither of these two sites will be affected by the project.

Two (2) archaeological surveys have been conducted within a 0.25-miles distance from the proposed project area, all of them with negative results (see table). These two archaeological evaluations are important for case PR-CRP-000991 because they were conducted to the north and south adjacent to the project. Both yielded negative results.

In the 1941 topographic quadrangle we observed that the railroad line passed to the south of the PR-867 road where the project will be developed. This site is identified as Sabana Seca Section (TB0200045) in SHPO. It is possible that this site is located under PR-867 because the road has been widened since its construction. In many cases the train line is located on a hill. We understand that the train line in this area was on the surface because during our surface survey of the PR-867 road we did not observe the hill of the train line. In the worst case, it could have been where the Campanillas community is today.

There is one (1) cultural resource within a 0.25-miles radius of the proposed staging area project site: Hacienda Providencia (SHPO: TB0200031), located 0.02 miles west of the west border of staging area parcel (see table). According to site form TB0200031, this was located by Antonio Daubón for the Levitown Head Start project (SHPO# 03-30-09-01). Daubon located Hacienda Providencia using the 1939 topographic quadrangle. Daubon found a description of the site in the Land Registry. However, this hacienda is not identified in the 1941 topographic survey. In the site form we have the following description: Rustic: farm called Providencia before Bernarda, located in the Sabana Seca neighborhood, composed of 234 and a half acres, divided in two portions, with buildings on said land, a house, trapiche, stoves, warehouses, bagaceras, equipment and useful to the cultivation of sugar cane and the elaboration of sugar. Where the site is located there are housing and commercial structures. There is no archaeological evidence of any remains of the Providencia hacienda.

Three (3) archaeological surveys have been conducted within a 0.25-miles distance from the staging area, all of them with negative results (see table).

The archaeological potential for Pre-Columbian and historic archaeological resources in the project area is low. The expansion of the road, the installation of the necessary utilities for the residential developments located to the north and south of the project such as storm drains, electrical and sanitary piping, cable TV, and electric lighting, among others, make the potential for finding any cultural resources under the road low. There are no bridges, sewers or water crossings in the area. Older topographic surveys and the 1886 plan show no structures in the area.

The archaeological potential for Pre-Columbian and historic archaeological resources in the staging area is low. The earliest images we have of the area do not show anything in the area. It is currently used as a municipal mausoleum and the southern part is a machinery

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	 <small>GOVERNMENT OF PUERTO RICO DEPARTMENT OF HOUSING</small>
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

depot. In any case, this area will only be used to deposit equipment and materials. No excavations will be carried out in the area.

**DETERMINATION**

The following historic properties have been identified within the APE:

- Direct Effect:
  - The proposed Project “Road Improvements Roundabout PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations” will not have negative effect on cultural resources.

We identified a historic resource within the Project's direct APE. Adjacent to the project, to the south is identified in SHPO as the Sabana Seca Tract (SHPO: TB0200045) the railroad tracks possibly destroyed during the construction of PR-867 or the housing developments located to the north and south of the project. The direct effect of the project is positive because it involves necessary improvements in the area.

- Indirect Effect:
  - The proposed Project “Road Improvements Roundabout PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations” will have a positive indirect effect on the project Visual APE, since it involves improvements to the lighting, sidewalks and pavement of the PR-867 road and the entrance of the Pabellones and Campanillas communities.

The archaeological potential of the proposed project area is low. Within the 0.25-miles radius of the PR-CRP-000991 project we have two reported archaeological sites (see table). These are the Sabana Seca Section (TB0200045) adjacent to the project and the Pre-Columbian site, SS-1 (TB0100019) located 0.08 miles northeast of the project. Within the project area we have the Tramo Sabana Seca site (SHPO: TB0200045) located according to the 1941 topographic survey, adjacent to the south of the PR-867 highway. The PR-867 road where the roundabout will be built and improvements will be made was severely impacted over the years but especially in late 2002 and late 2003 when the residential complexes located adjacent to the project, to the north and south were built. The construction of housing and the installation of necessary utilities for these communities impacted the area. Although PR-867 is more than fifty years old, the main element to consider for inclusion in the NRHP is that the road has lost integrity due to changes that have occurred over time.

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

Two archaeological surveys have been conducted within the 0.25-mile radius, both with negative results. Projects conducted by Font (1999) and Rodriguez (1999) for adjacent communities yielded negative results.

The project area has various impacts due to the widening of the road, the construction of structures and the installation of the necessary public services in a developing and constantly changing urban area. In the area we observed lighting poles, electrical wiring poles, manholes of all types, storm drains, sidewalks, etc. We can assume that the potential for finding resources with integrity within the project area is low. We understand that it is unlikely that remains of the Providencia hacienda will be found in the staging area. In any case, no excavations will be carried out in the area, only materials and equipment necessary for the construction of the project will be deposited.

**Recommendation (Please keep on same page as SHPO Staff Section)**

The Puerto Rico Department of Housing requests that the Puerto Rico SHPO concur that the following determination is appropriate for the undertaking (Choose One):

- No Historic Properties Affected
- No Adverse Effect  
Condition (if applicable):
- Adverse Effect  
Proposed Resolution (if applicable)

**This Section is to be Completed by SHPO Staff Only**

The Puerto Rico State Historic Preservation Office has reviewed the above information and:  <input type="checkbox"/> <b>Concurs</b> with the information provided. <input type="checkbox"/> <b>Does not concur</b> with the information provided.	
<b>Comments:</b>   	
Carlos Rubio-Cancela State Historic Preservation Officer	Date:

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

**Table of archaeological sites, historic properties and historic districts located within the project area or within a 0.25-miles radius**

Name	SHPO id #	IPRC id #	Distance/Direction	Description	NRHP (listed, eligible, non-eligible, no data)
Tramo Sabana Seca	TB0200045	-	Adjacent	20th Century Train track	No data
SS-1, TTB-20	TB0100019	-	0.08 mi NE	Pre-Columbian site 19 <sup>th</sup> and 20 <sup>th</sup> Century site	No data
PR-867	-	-	Within	19 century road	Non-Eligible

**Table of cultural resources surveys conducted within the project area or within a 0.25-miles radius.**

Author	Phase/Title	Year	SHPO / IPRC code	Results	Distance/Direction
Aramis Font	IA-IB/ Pabellones	1999	ICP/CAT-TB-99-06-03, SHPO: 02-22-99-05	Negative	Adjacent
Miguel Rodriguez	IA-IB/ Finca Campanillas I, Nuevo Hogar Seguro	1999	ICP/CAT-TB-99-06-04, SHPO: 11-13-98-01	Negative	Adjacent

<b>PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM</b> <b>CITY REVITALIZATION PROGRAM (CRP)</b> <b>Section 106 NHPA Effect Determination</b>	
<b>Subrecipient:</b> Toa Baja Municipality	
<b>Project Name:</b> Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca	
<b>Project Number:</b> PR-CRP-000991	

**Table of archaeological sites, historic properties and historic districts located within the staging area or within a 0.25-miles radius**

Name	SHPO id #	IPRC id #	Distance/Direction	Description	NRHP (listed, eligible, non-eligible, no data)
Hacienda Providencia	TB0200031	-	0.02 mi W	19th Century Hacienda/Central	No data

**Table of cultural resources surveys conducted within the staging area or within a 0.25-miles radius.**

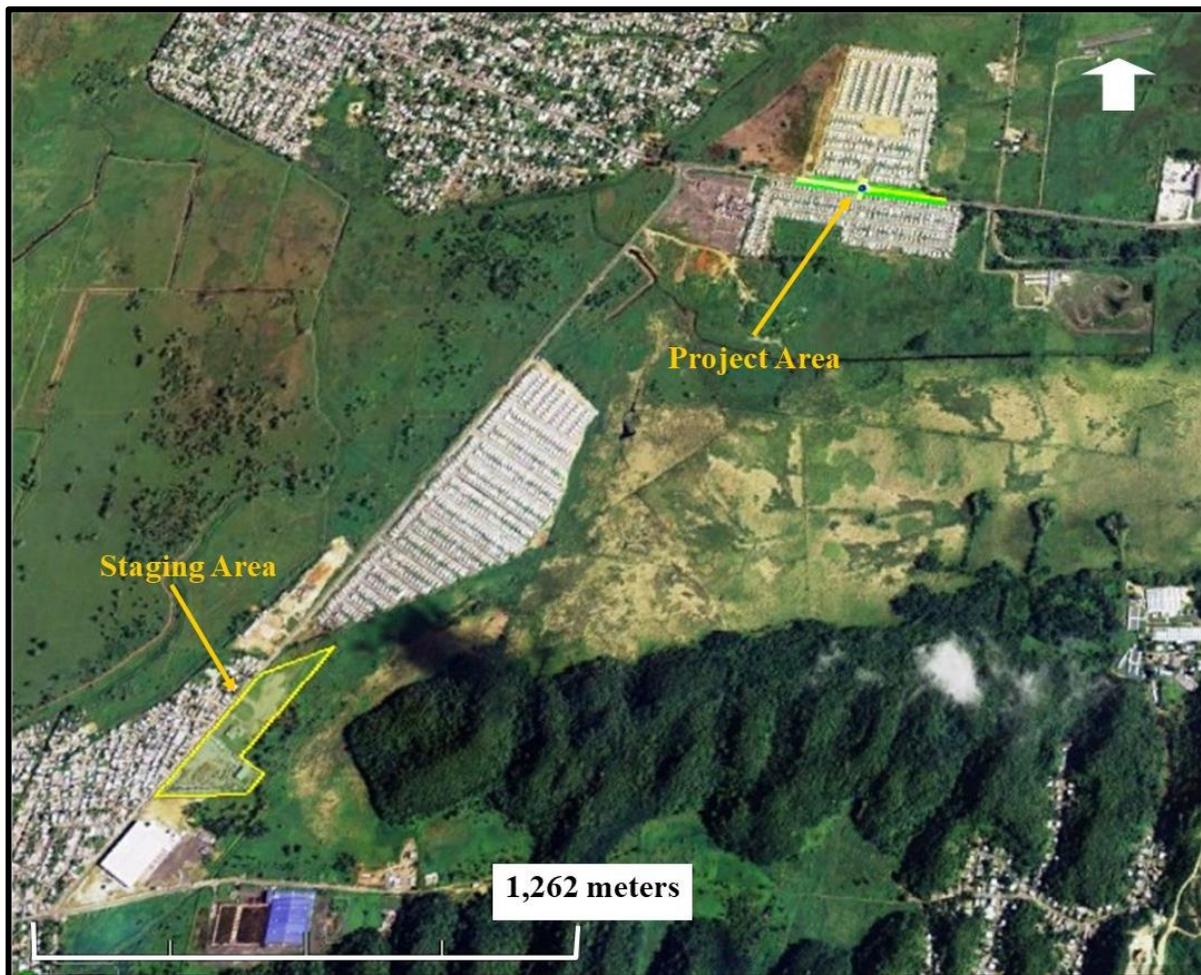
Author	Phase/Title	Year	SHPO / IPRC code	Results	Distance/Direction
Antonio Daubón	IA-IB/ Urb. Brisas de Campanero	1997	ICP/CAT-TB-97-05-01, SHPO: 10-21-97-08	Negative	0.04 mi W
Jaime Vélez	IA-IB/ Reciclaje y Composta	1995	ICP/CAT-TB-95-03-05	Negative	0.02 mi S
Jaime Vélez	IA-IB/ Planta de Vidrio	1998	ICP/CAT-TB-98-05-04	Negative	0.08 mi SE

Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 1. Project (Parcel) Location - Aerial Photo,  
Coordinates 18.439342 -66.215816, 18.426325 -66.228731  
Photo: Google Earth, Jaqueline López**

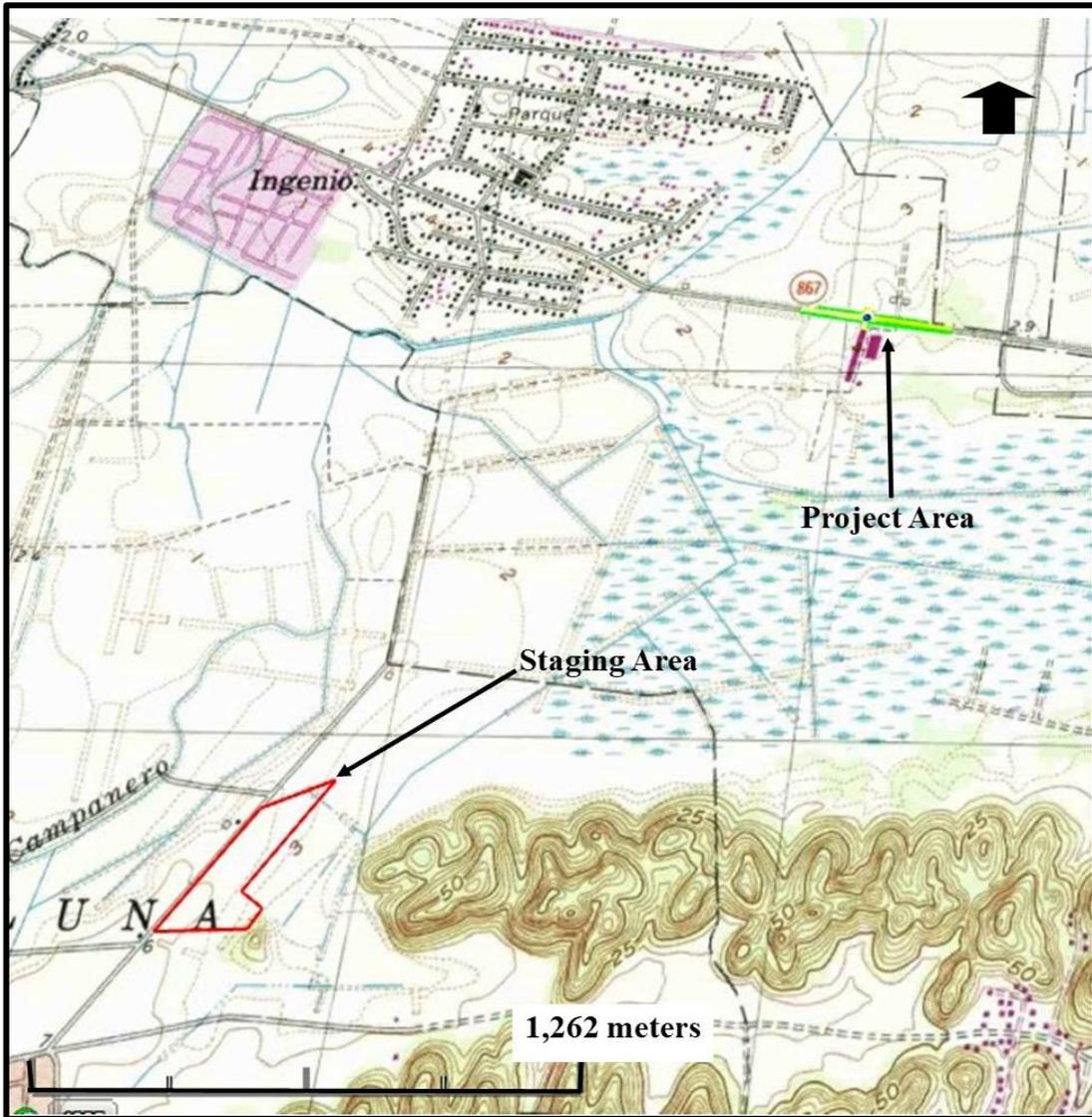


Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 2. Project (Parcel) Location - USGS Topographic Map 1966 edited 1988**  
Coordinates 18.439342 -66.215816, 18.426325 -66.228731  
Source: Topoview, Jaqueline López



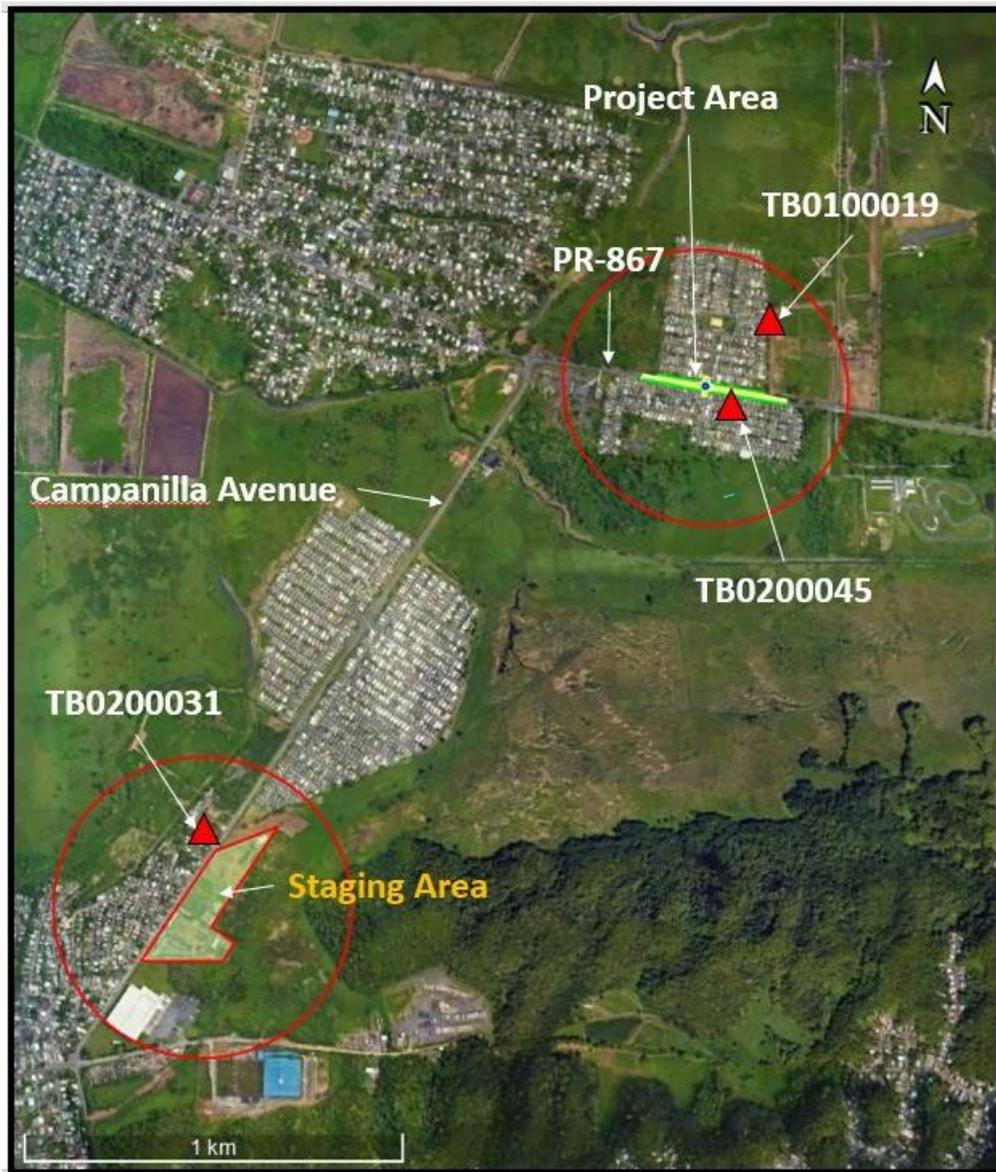
Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 3. Project (Parcel) Location with Previously Recorded Cultural Resources 0.25 mi radius**  
**Coordinates 18.439342 -66.215816, 18.426325 -66.228731**

Source: Google Earth - Aerial Photo, Metric



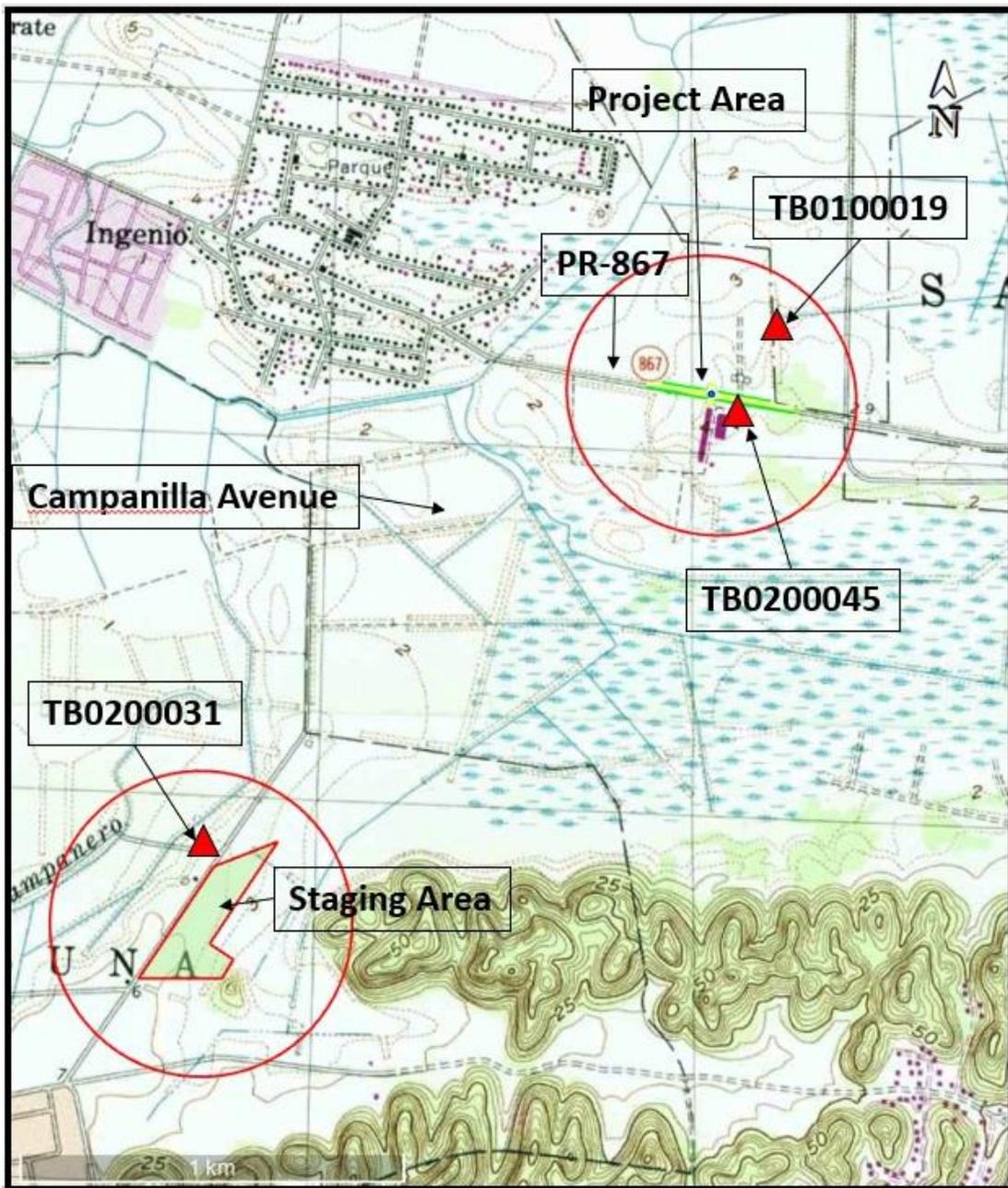
Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 4. Project (Parcel) Location with Previously Recorded Cultural Resources 0.25 mi radius- Coordinates 18.439342 -66.215816, 18.426325 -66.228731**

Source: Topoview - USGS Topographic Map, Metric



Subrecipient: Toa Baja Municipality

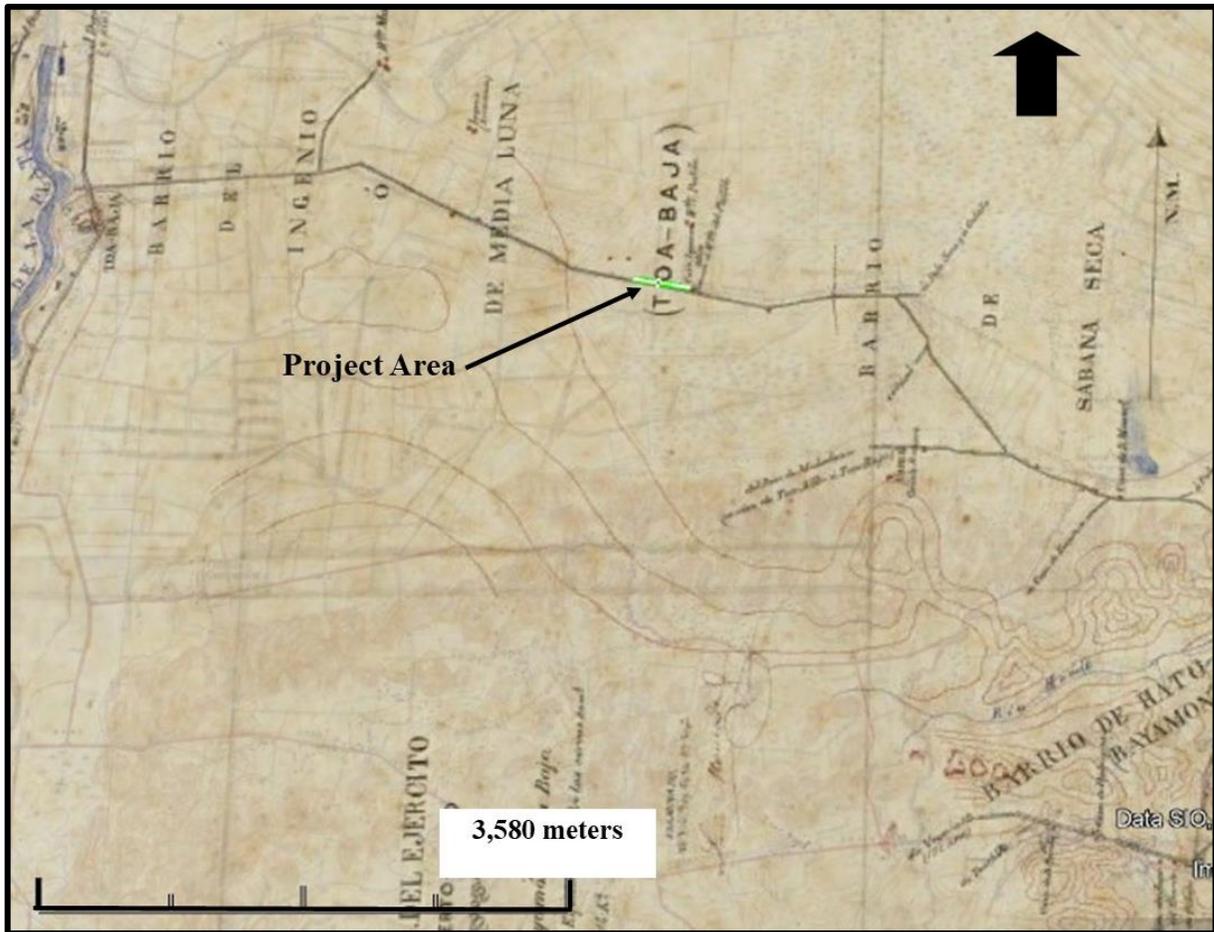
Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 5. Project (Parcel) Location – Detail 1886 Map**  
**Itinerario Carretera de Bayamón a Toa Baja por el barrio Sabana Seca**

Coordinates 18.439342 -66.215816, 18.426325 -66.228731

Source: <http://archivonacional.com/PL/1/1/1217>, Jaqueline López

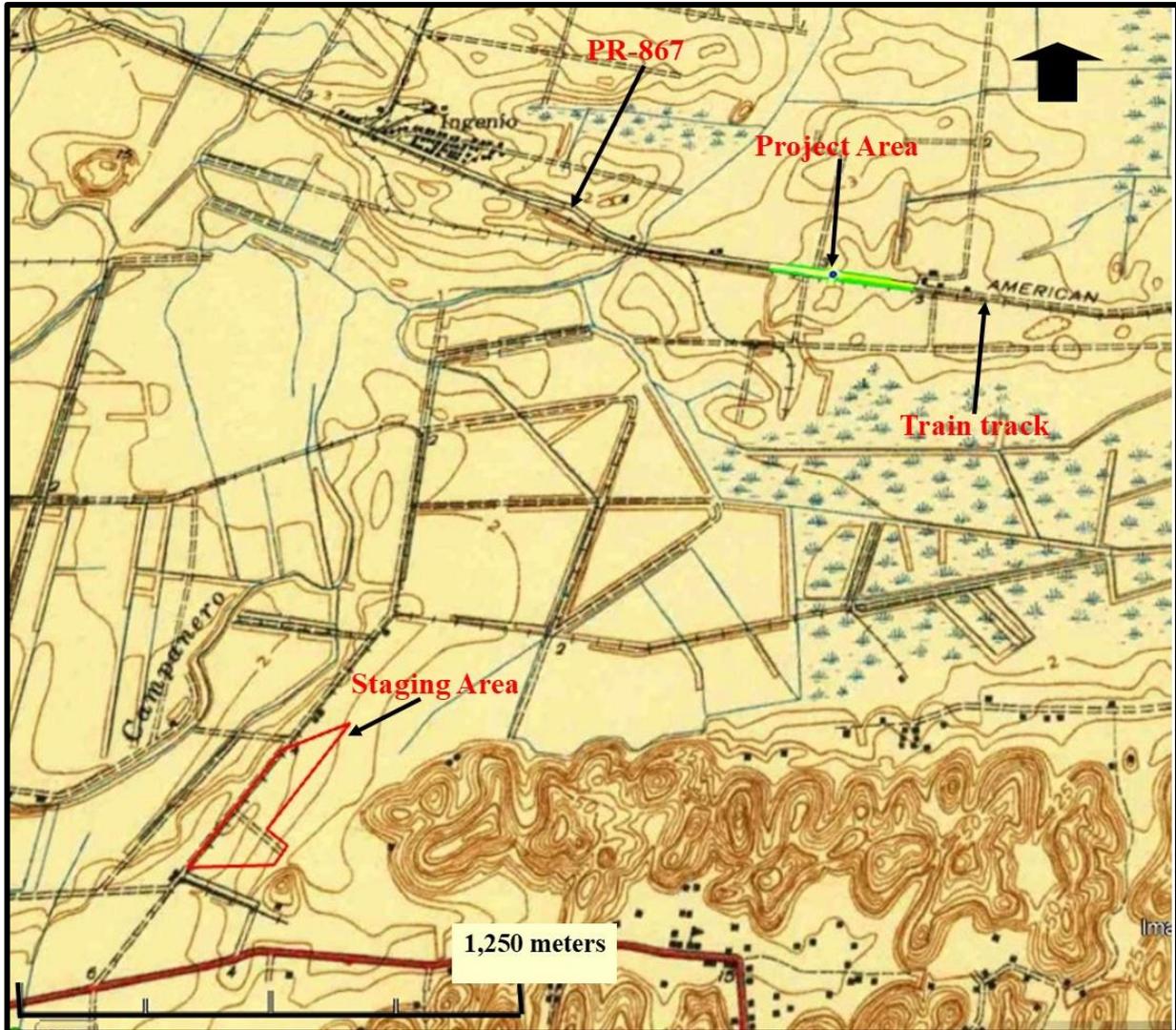


Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 6. Project (Parcel) Location - USGS Topographic Map 1941**  
Coordinates 18.439342 -66.215816, 18.426325 -66.228731  
Source: Topoview, Jaqueline López

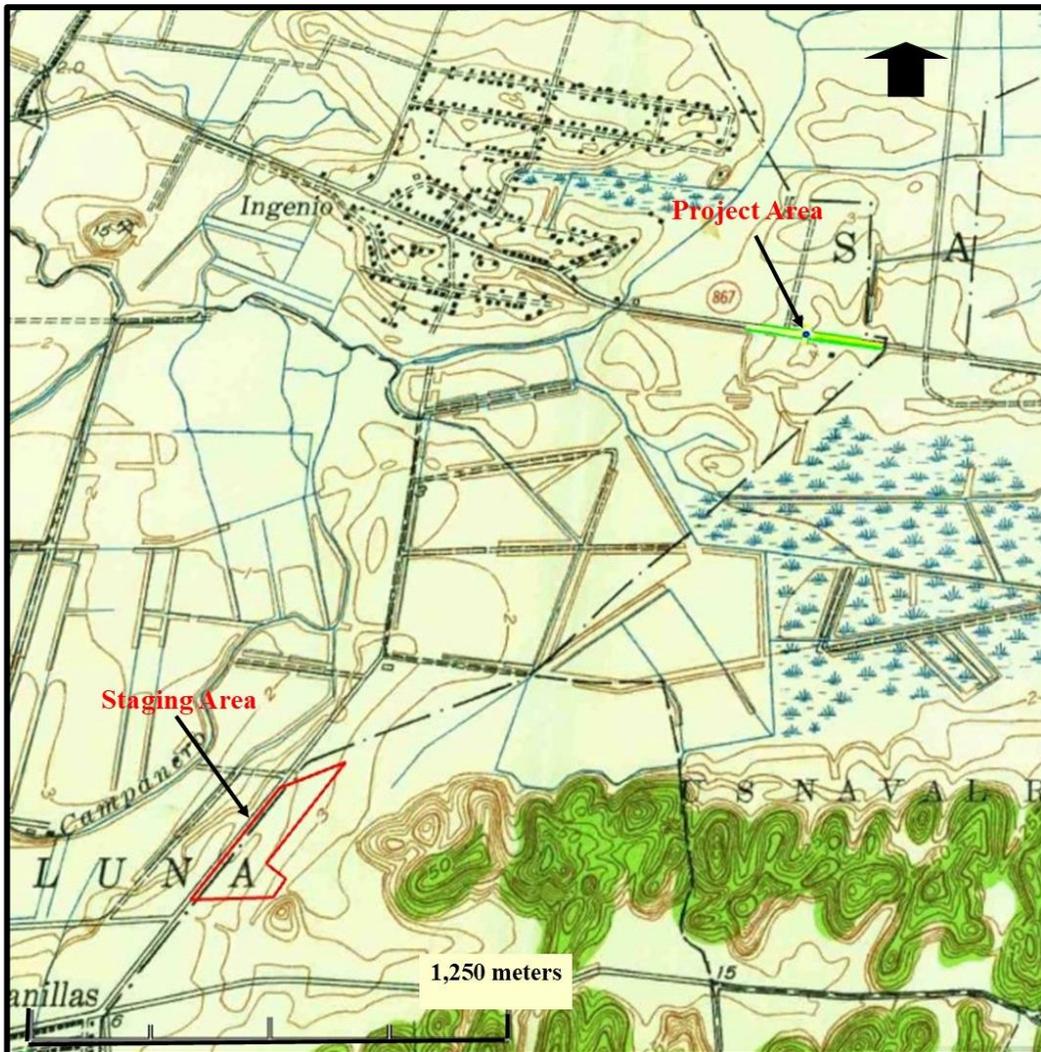


Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 7. Project (Parcel) Location - USGS Topographic Map 1957**  
Coordinates 18.439342 -66.215816, 18.426325 -66.228731  
Source: Topoview, Jaqueline López

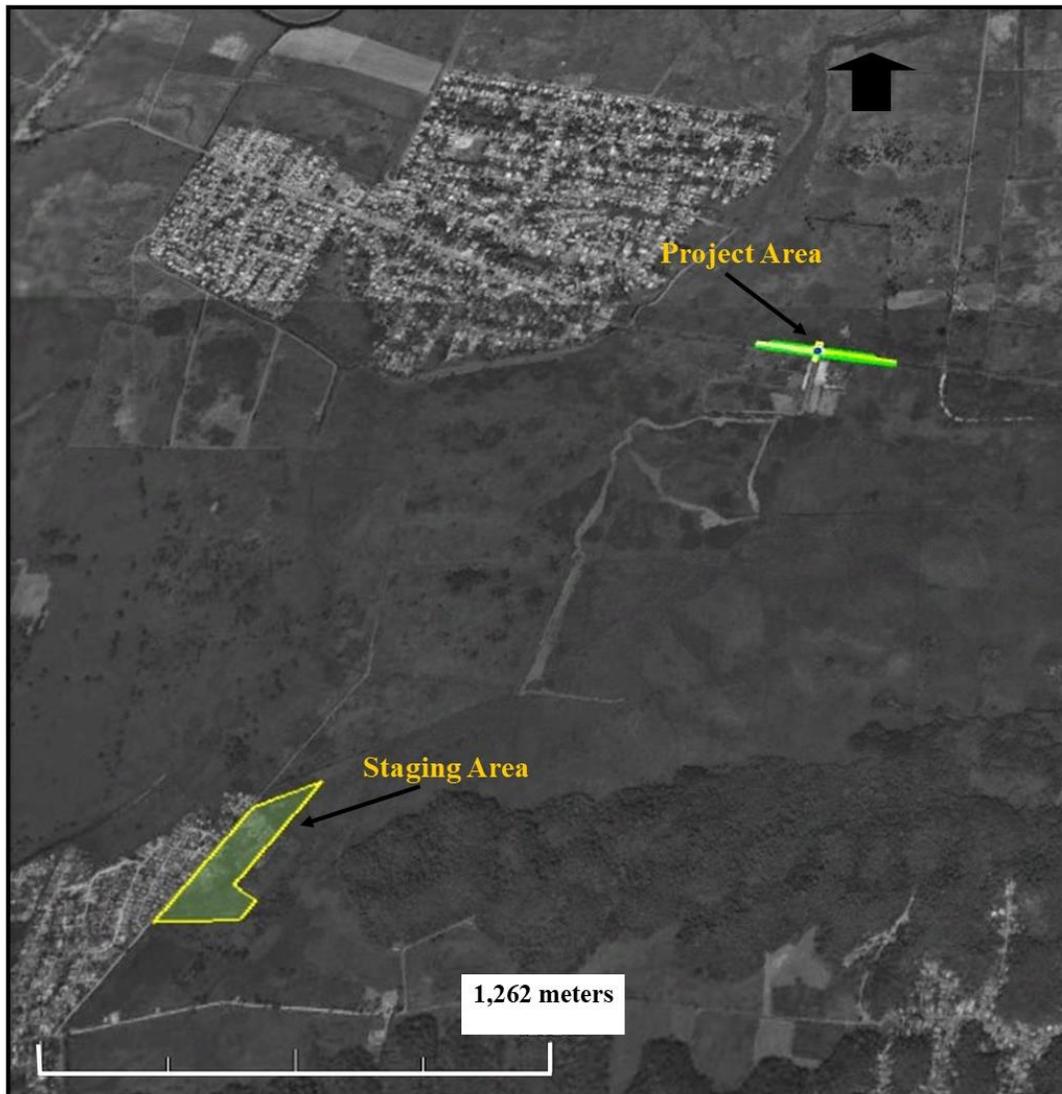


Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 8. Project (Parcel) Location - Aerial Photo 1994,  
Coordinates 18.439342 -66.215816, 18.426325 -66.228731  
Photo: Google Earth, Jaqueline López Meléndez**



Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 9. Photography Key Project Area**  
**Source: Aerial photo**  
**Coordinates 18.439342 -66.215816, 18.426325 -66.228731**  
**Jaqueline Lopez**

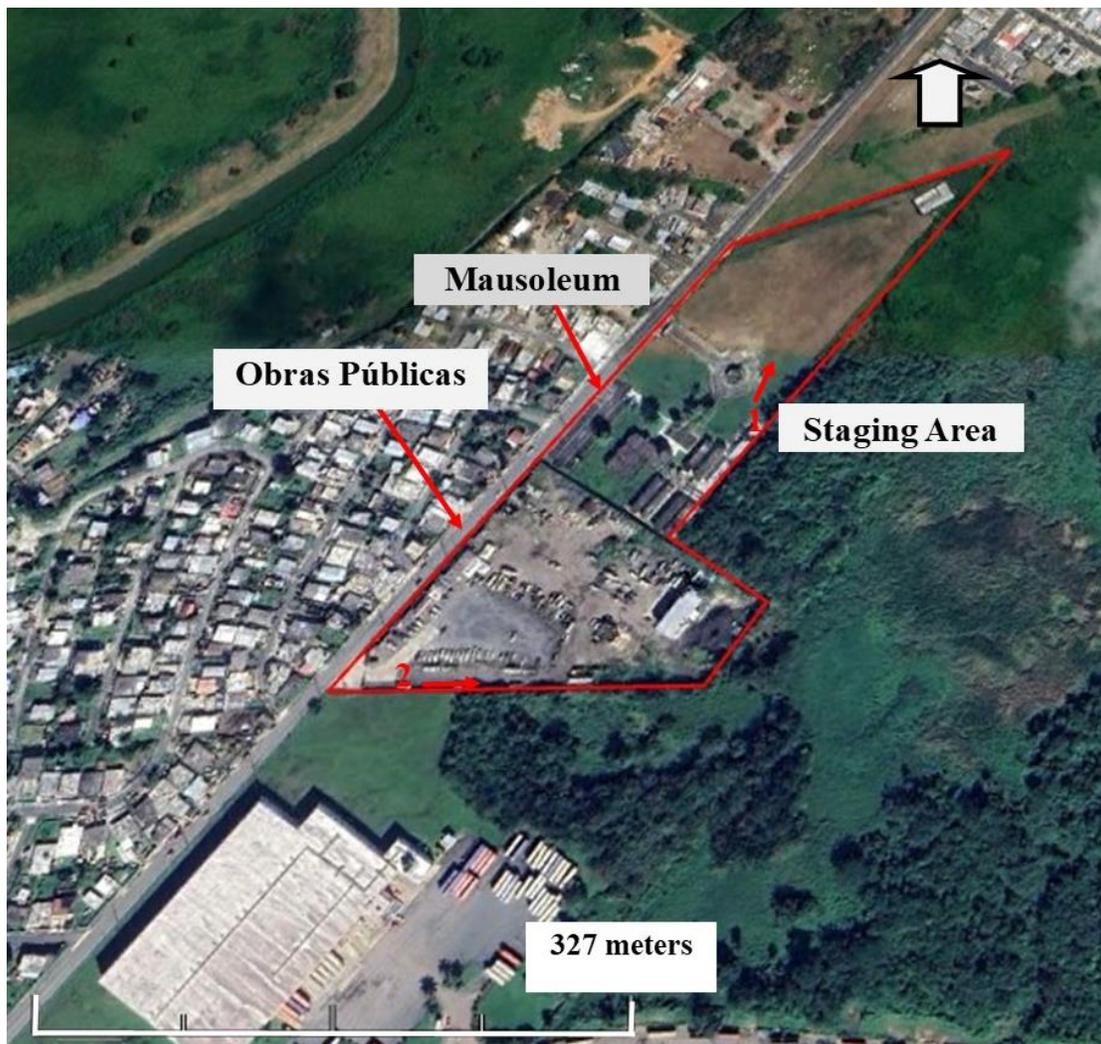


Subrecipient: Toa Baja Municipality

Project Name: Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

Project Number: PR-CRP-000991

**Figure 10. Photography Key Staging area**  
Source: Aerial photo  
Coordinates 18.439342 -66.215816, 18.426325 -66.228731  
Jaqueline Lopez



**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM**  
**CITY REVITALIZATION PROGRAM (CRP)**  
**Section 106 NHPA Effect Determination**



**Subrecipient:** Toa Baja Municipality

**Project Name:** Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

**Project Number:** PR-CRP-000991



**Photo #: 1**

**Description (include direction):** General view, project area, looking northwest.

**Date:** August 21, 2023



**Photo #: 2**

**Description (include direction):** Area where the roundabout will be built, looking southeast.

**Date:** August 21, 2023

**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM**  
**CITY REVITALIZATION PROGRAM (CRP)**  
**Section 106 NHPA Effect Determination**



**Subrecipient:** Toa Baja Municipality

**Project Name:** Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

**Project Number:** PR-CRP-000991



**Photo #: 3**

**Description (include direction):** PR-167, looking southeast.

**Date:** August 21, 2023



**Photo #: 4**

**Description (include direction):** PR-167, looking northwest.

**Date:** August 21, 2023

**PUERTO RICO 2017 DISASTER RECOVERY, CDBG-DR PROGRAM  
 CITY REVITALIZATION PROGRAM (CRP)  
 Section 106 NHPA Effect Determination**



**Subrecipient:** Toa Baja Municipality

**Project Name:** Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca

**Project Number:** PR-CRP-000991



**Photo #: 5**

**Description (include direction):** Staging area to the north of the mausoleum, looking northeast.

**Date:** August 21, 2023



**Photo #: 6**

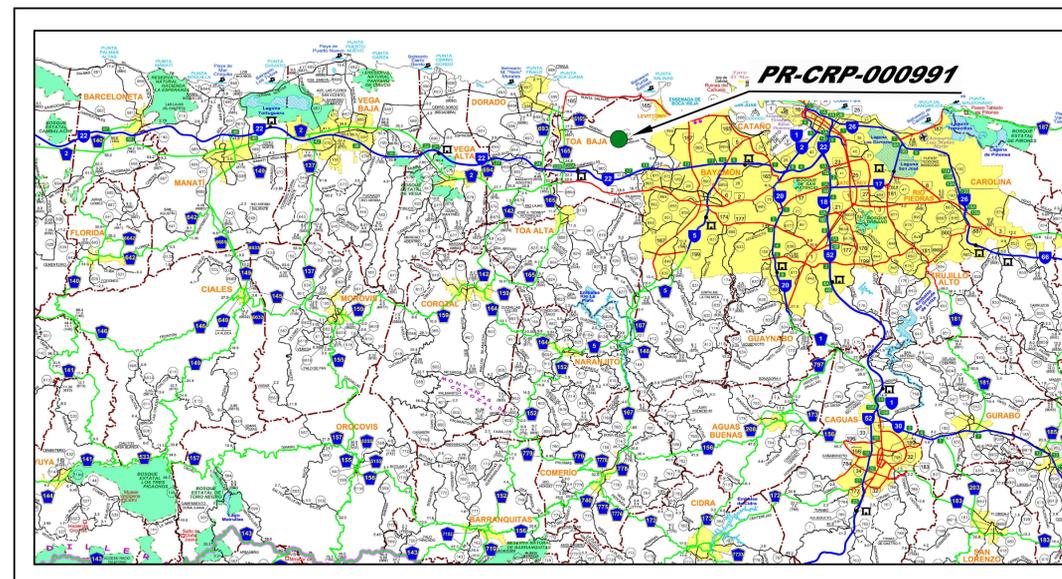
**Description (include direction):** Staging area to the south of Obras Públicas of Toa Baja, looking east.

**Date:** August 21, 2023

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	1	32

## INDEX OF DRAWINGS

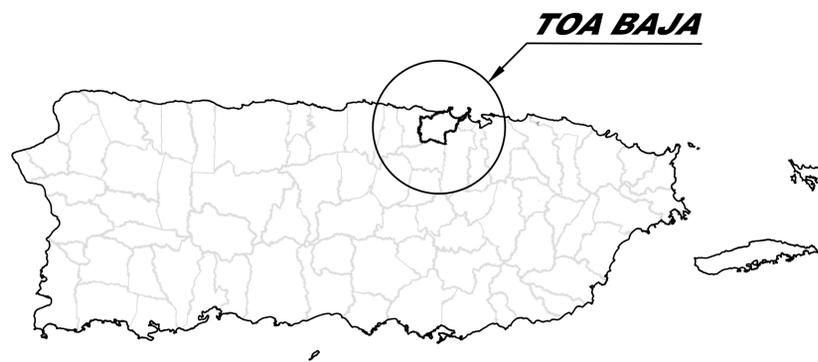
SHEET NO.	DESCRIPTION	DWG. NO.
1	TITLE SHEET	GR/1
2	GENERAL NOTES AND LEGEND	GR/2
3	KEY PLAN	GR/3
4	TYPICAL SECTION – EXISTING	GR/4
5	TYPICAL SECTION – PROPOSED	GR/5
6	CENTER LINE, VERTEX DATA AND SURVEY TIES TABLES	GR/6
7	EXISTING CONDITION	GR/7
8 – 9	SOIL EROSION AND SEDIMENT CONTROL PLAN	EC/1 – EC/2
10	PLAN	PP/1
11	P.R.A.S.A. UTILITIES PLANS	UTW/1
12	P.R.E.P.A. UTILITIES PLANS	UTE/1
13	TELECOMMUNICATION PLANS	UTT/1
14	TREE INVENTORY PLANS	RD/1



LOCATION PLAN  
SCALE.....1: 20,000

### GENERAL DESIGN CRITERIA

<b>PR-867</b>	
HIGHWAY DESIGN CODE	- PR HIGHWAY DESIGN DIRECTIVES, 2012/ PRHTA STANDARD DRAWINGS LAST EDITION - AASHTO-A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS (2011)
STRUCTURES DESIGN CODE	- AASHTO LRFD BRIDGE SPECIFICATIONS, 9TH ED/2020
DESIGN CLASS CODE (PRHTA GENERAL DESIGN STANDARDS)	- RE-2
FUNCTIONAL HIGHWAY CLASSIFICATION (AASHTO)	- RURAL EXPRESSWAY
FUNCTIONAL HIGHWAY CLASSIFICATION (PRHTA)	- MINOR ARTERIAL ROAD
CONTROL OF ACCESS (FULL, PARTIAL, NONE)	- NONE
AVERAGE DAILY TRAFFIC (ACTUAL)	- 15,200 (2023)
AVERAGE DAILY TRAFFIC (FUTURE, YEAR)	- 18,550 (2043)
DESIGN HOURLY VOLUME (DHV)	- 1,855
DIRECTIONAL DISTRIBUTION (D)	- 50/50
PERCENT OF TRUCK (T)	- NOT AVAILABLE
DESIGN SPEED (V)	- 35MPH
MAXIMUM GRADE	- 3%
TYPE OF TERRAIN (LEVEL, ROLLING, MOUNTAINOUS)	- LEVEL
MINIMUM CURVE RADIUS	- 140M
MAXIMUM SUPERELEVATION	- 8%
DESIGN LOAD FOR STRUCTURES	- HL-93



### NOTE :

"ALL WORK ON THIS PROJECT SHALL BE PERFORMED AND ALL MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND GENERAL PROVISIONS APPROVED BY THE PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY IN 2005 AND SUBSEQUENT AMENDMENTS, THE MUTCO LATEST EDITION AND THE PRHTA STANDARD DRAWINGS IN EFFECT AT THE TIME OF BIDDING, WITH THE STANDARD DRAWINGS, WITH THESE PLANS AND WITH ALL SPECIAL PROVISIONS AND INSTRUCTIONS INCLUDED IN THE CONTRACT BOOK"

30% Submittal  
07/31/2023

PREPARED BY:



1250 AVENIDA PONCE DE LEON  
SAN JOSE BUILDING, SUITE 809  
HATO REY, PUERTO RICO  
00907 Tel: (939)-545-1510

ENG. FELIPE LUYANDA-ANDINO  
NO. 14344

PE.

DATE

**PROJECT**  
**PR-CRP-000991**

**ROADWAY IMPROVEMENTS**  
**HIGHWAY PR-867 AND AVE. PABELLONES**

**ROUNDBOUTS**

**MUNICIPALITY OF TOA BAJA, PUERTO RICO**

EXCEPTIONS	APPROVAL DATE BY PRHTA
1	
2	
3	

WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

FILE NAME: I:\PROJECTS\16.5001-TOA BAJA ROUNDABOUT\CAD DRAWINGS\1. GR\SITE A. 000991\GR-1.DWG; PLOT DATE: Monday, July 31, 2023 7:11:29 PM

ABBREVIATIONS

STANDARD SYMBOLS

GENERAL NOTES

ABUT.	ABUTMENT	L.P.	LIGHT POLE
AGG.	AGGREGATE	M.B.	MAIL BOX
AH.	AHEAD	M.L.	MAIN LINE
AL.	ALUMINUM	M.H.	MANHOLE
ASB.	ASBESTOS	MAX.	MAXIMUM
ASPH.	ASPHALT	M.H.W.	MEAN HIGH WATER
BK.	BACK	M.S.L.	MEAN SEA LEVEL
B.L.	BASE LINE	MIN.	MINIMUM
B.W.F.	BARBED WIRE FENCE	MON.	MONUMENT
B.V.	BEARING VALUE	O.C.	ON CENTERS
B & S	BELL AND SPIGOT	O.D.	OUTSIDE DIAMETER
B.M.	BENCH MARK	O. TO O.	OUTSIDE TO OUTSIDE
BIT.	BITUMINOUS	PVMT.	PAVEMENT
CONC.	CONCRETE	P.C.C.	POINT OF COMPOUND CURVATURE
B.C.C.M.P.	BITUMINOUS COATED CORRUGATED METAL PIPE	PC.	POINT OF CURVATURE
BLDG.	BUILDING	PI.	POINT OF INTERSECTION
C.I.	CAST IRON	PRC	POINT OF REVERSE CURVE
C.I.P.	CAST IRON PIPE	PT.	POINT OF TANGENCY
C.B.	CATCH BASIN	P.C.C.	PORTLAND CEMENT
C.L.	CENTER LINE	PWR.	CONCRETE POWER
C. TO C.	CENTER TO CENTER	P.P.	POWER POLE
CTD.	COA TED	P.L.	PROPERTY LINE
COL.	COLUMN	PROP.	PROPOSED
COM.	COMMUNICATIONS	P.G.	PROPOSED GRADE
CONC.	CONCRETE	P.V.I.	POINT OF VERTICAL INTERSECTION
C.O.A.	CONTROL OF ACCESS	R	RADIUS OF CURVATURE
COORD.	COORDINATES	RR.	RAILROAD
C.M.	CORRUGATED METAL	R.C.P.	REINFORCED CONCRETE PIPE
C.M.P.	CORRUGATED METAL PIPE	RET.	RETAINING
C.U.M.	CUBIC METER	RT	RIGHT
CULV.	CULVERT	R.O.W.	RIGHT OF WAY
CS. C.	CURVE TO SPIRAL CUT	RD.	ROAD
DEG.	DEGREE	RDWAY.	ROADWAY
DIA.	DIAMETER	SAN.S	SANITARY SEWER
DIM.	DIMENSION	S.M.H.	SANITARY SEWER MANHOLES
DWG.	DRAWING	SHDR.	SHOULDER
DWY.	DRIVEWAY	SW.	SIDEWALK
ELEV.	ELEVATION	SC.	SPIRAL TO CURVE
E. TO E.	END TO END	ST.	SPIRAL TO TANGENT
ENGR.	ENGINEER	SQ.M.	SQUARE METER
EST.	ESTIMATE	STA.	STATION
EXC.	EXCAVATION	S.S.	STORM SEWER
EXIST.	EXISTING	STR.	STRUCTURE
E.G.	EXISTING GROUND	S.G.	SUBGRADE
EXP.	EXPANSION	S.L.	SURVEY LINE
EXT.	EXTERNAL	T	TANGENT DISTANCE OF CURVE
E	EXTERNAL DISTANCE	TS.	TANGENT TO SPIRAL
E.H.W.	EXTREME HIGH WATER	TEL	TELEPHONE
F. TO F.	FACE TO FACE	T.P.	TELEPHONE POLE
FA.	FEDERAL AID	T.E.	TOP ELEVATION
FAP	FEDERAL AID PRIMARY	T.G.	TOP OF GRATE
F.A.S.	FEDERAL AID SECONDARY	UG.	UNDERGROUND
F.	FILL	V.C.	VERTICAL CURVE
F.L.	FLOW LINE	VERT.	VERTICAL
FWD.	FORWARD	W.M.	WATER MAIN
G.I.	GALVANIZED IRON	W.MTR.	WATER METER
G.	GAS	W.V.	WATER VALVE
G.V.	GAS VALVE	W.W.	WING WALL
GRAV.	GRAVEL	W.M.F.	WIRE MESH FENCE
GRD.	GROUND	W.I.	WROUGHT IRON
H.W.	HIGH WATER		
HOR	HORIZONTAL		
HYD.	HYDRANT		
I.E.	INVERT		
J.B.	INVERT ELEVATION		
LT.	JUNCTION BOX		
L.	LEFT		
	LENGTH OF CURVE		

FEATURE	S Y M B O L	
	PROPOSED	EXISTING
CENTER LINE	---	---
SURVEY MONUMENT		△ STA-1
SPOT ELEVATION		134.25
BENCH MARK		B.M. X NO.3
HORIZONTAL P.I.		△ V-3
NORTH ARROW		⊕
CONTOUR LINES		
PAVEMENT		
GUARD RAIL		
BARRIER		
BARRICADE		
CONC. PARAPETS		
FENCE	-X-X-	-X-X-
PROPERTY LINE	---PL---	---PL---
R.O.W. LINE & MON.		
WATER LINE	---WS---	---WS---
STORM LINE	---STM---	---STM---
SANITARY LINE	---S---	---S---
TELEPHONE LINE	---TEL---	---TEL---
ELECTRIC LINE	---E---	---E---
T/E LINE	---TEL/E---	---TEL/E---
GUY CABLE	(---)	(---)
WATER MANHOLE		⊙
STORM MANHOLE		⊙
SANITARY MANHOLE		⊙
TELEPHONE MANHOLE		⊙
ELECTRIC MANHOLE		⊙
INLETS		
HEADWALLS	∩ or ∪ or ∩	∩ or ∪ or ∩
WATER COURSE		
PAVED DITCH		
WATER METER		⊙
WATER VALVE		⊙
FIRE HYDRANT		⊙
UTILITY POLE		⊙
TELEPHONE POLE		⊙
WOODEN POWER POLE		⊙
WOODEN LIGHT POLE		⊙
CONC. LIGHT POLE		⊙
CONC. POWER POLE		⊙
CABLE TV BOX		⊙
TELEPHONE BOOTH		⊙
ELECTRIC BOX		⊙
RIP RAP PAVING		
EARTH		
ROCK		
BUILDING		
BLDG. TO DEMOLISH		
SIGNS, GROUND, MTD.		
TREES		

- METRIC SYSTEM HAS BEEN USED THROUGHOUT THE PROJECT UNLESS OTHERWISE SPECIFIED.
- ALL ELEVATIONS ARE REFERRED TO MEAN SEA LEVEL AND SHOWN IN METERS.
- ALL COORDINATES USED ARE LAMBERT SYSTEM.
- NORTH INDICATOR POINTS TO THE TRUE NORTH.
- ARROW ON CULVERTS, DITCHES AND STREAMS SHOW THE DIRECTION OF FLOW.
- FLATTENING OF SLOPES SHALL BE PERFORMED WHEREVER POSSIBLE AS DIRECTED BY THE ENGINEER.
- NEW CONSTRUCTION WORK SHALL MATCH EXISTING HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING FACILITIES.
- STANDARD DRAWINGS SHALL FOLLOW THE LATEST DRAWINGS ADOPTED BY THE PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY.
- ANY DAMAGE TO EXISTING PAVEMENT AS CONSEQUENCES OF CONSTRUCTION WORKS SHALL BE REPAIRED BY THE CONTRACTOR AS A SUBSIDIARY OBLIGATION UNDER SPECIFICATION 401 AND ITS PAY ITEMS.
- EXISTING PIPES AND DRAINAGE STRUCTURES TO REMAIN SHALL BE CLEANED. ANY DRAINAGE STRUCTURE THAT REQUIRES AN ADJUSTMENT TO MEET THE PROPOSED ELEVATION SHALL BE A SUBSIDIARY OBLIGATION UNDER SPECIFICATION 603 AND ITS PAY ITEMS.
- CONSTRUCTION WORK RELATED TO EXCAVATION AND STRUCTURES SHALL BE PERFORMED UNDER THE INSPECTION OF A GEOTECHNICAL ENGINEER OR AS INSTRUCTED BY THE SOIL ENGINEERING OFFICE OF THE PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY.
- THE CONTRACTOR SHALL BE CAREFUL NOT TO AFFECT EXISTING UTILITIES TO REMAIN AND SHALL COORDINATE WITH UTILITY OWNERS THE LOCATION OF ANY UTILITY WITHIN PROJECT LIMITS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION WORKS.

WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

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AUTONOMOUS MUNICIPALITY OF TOA BAJA



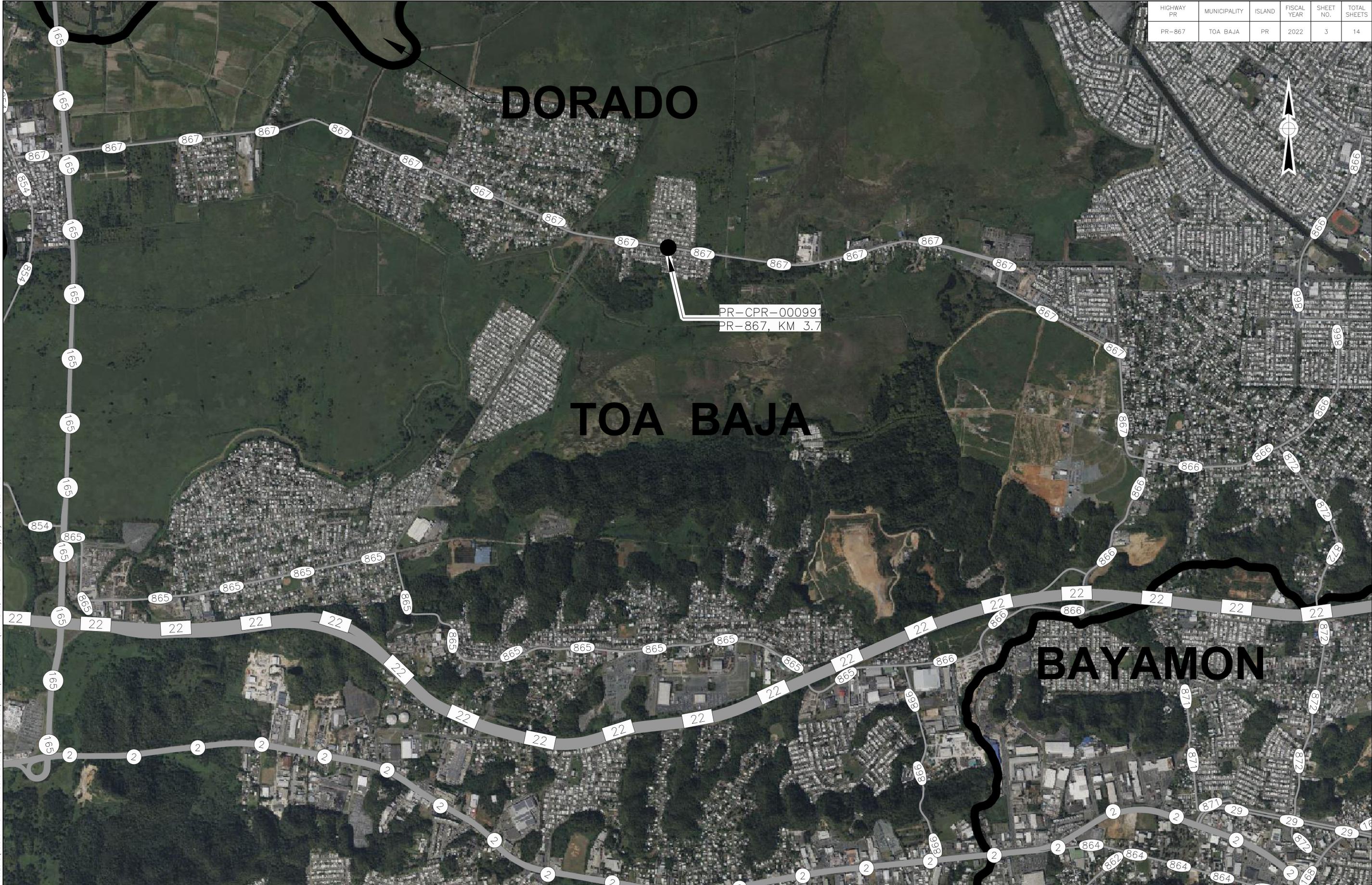
PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS

NOT TO SCALE

GENERAL NOTES, LEGEND AND SYMBOLS

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	3	14



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TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

AUTONOMOUS MUNICIPALITY OF TOA BAJA



PR-CRP-000991 ROUNDABOUT ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
 AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

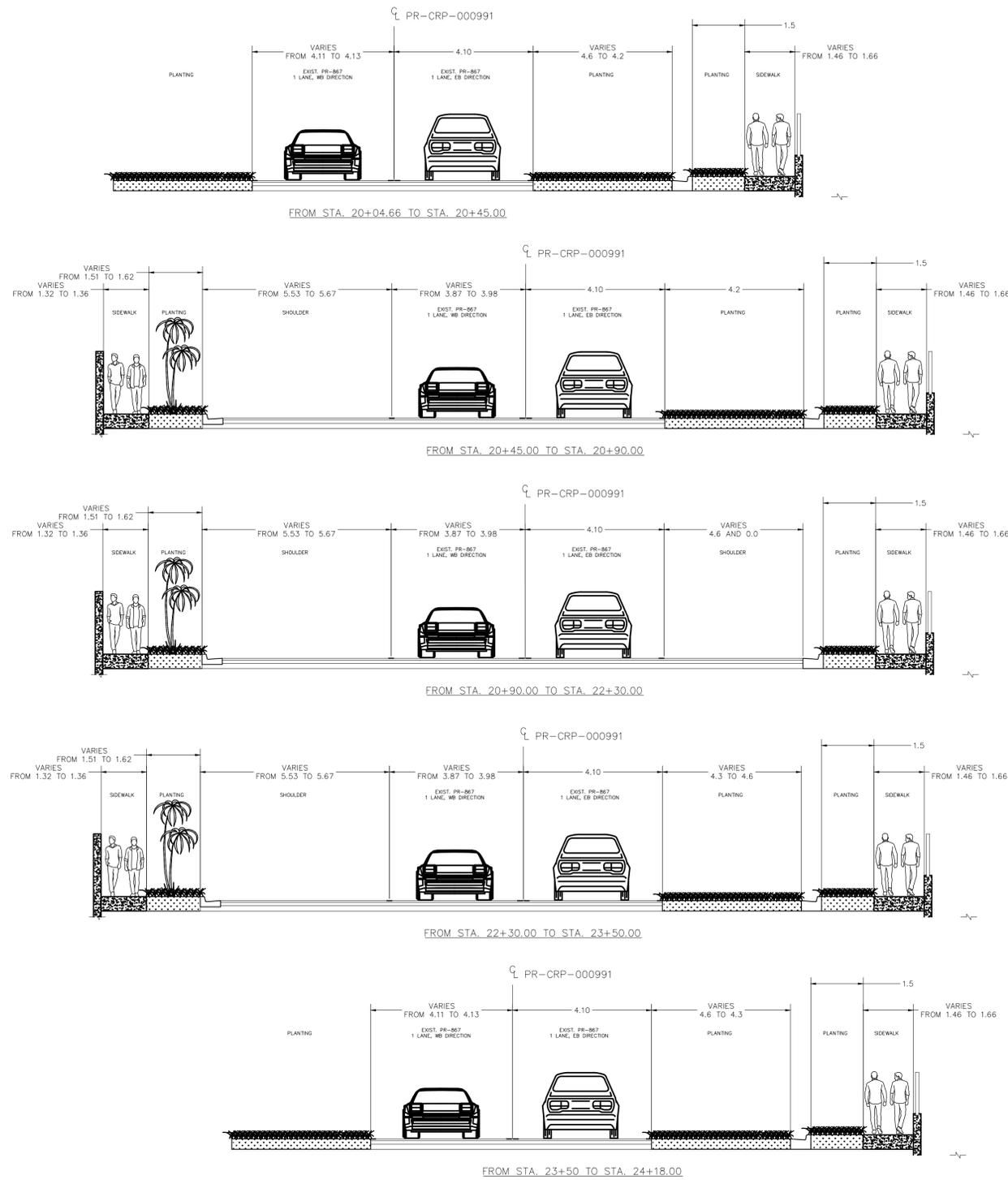
DATE	REVISIONS



KEY PLAN

GR  
3

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	4	14



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DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

AUTONOMOUS MUNICIPALITY OF TOA BAJA



PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS

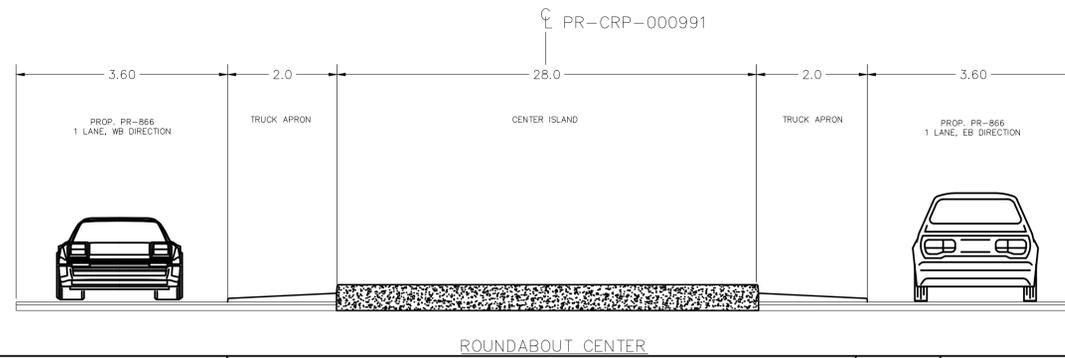
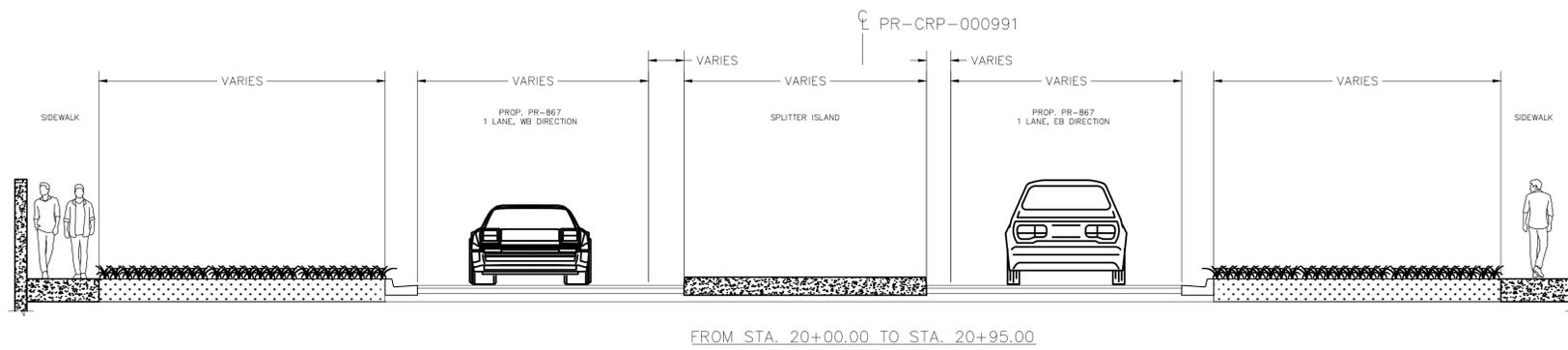
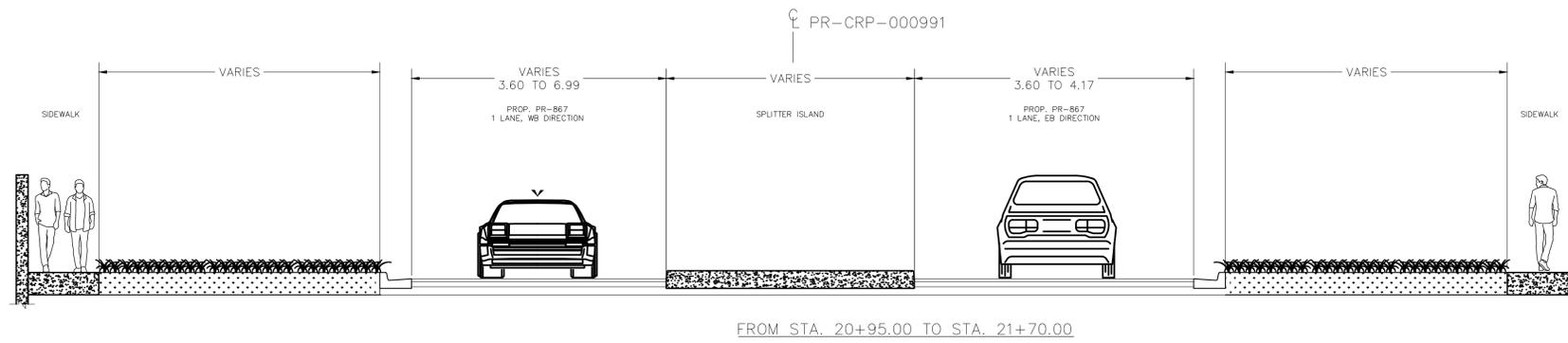
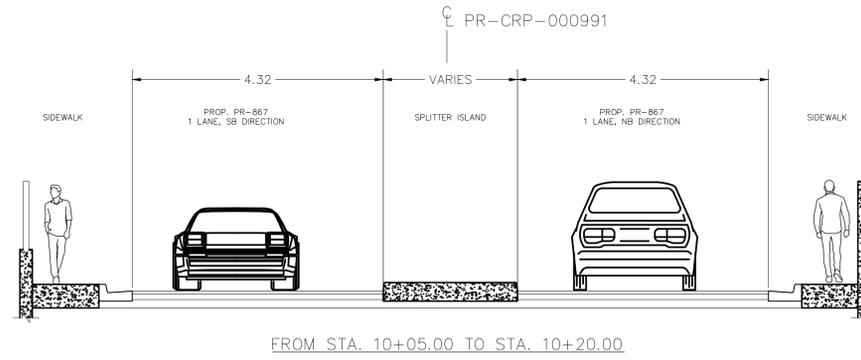
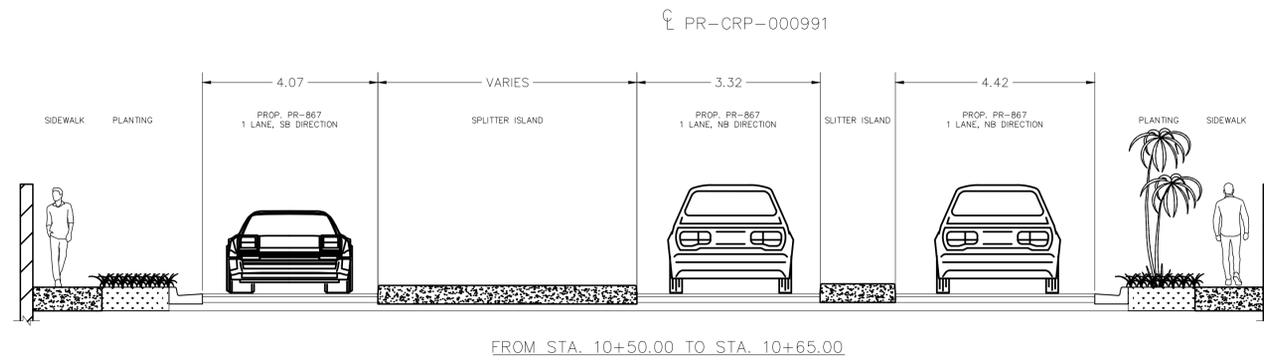
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TYPICAL SECTION - EXISTING

GR

4

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	5	14



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TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

AUTONOMOUS MUNICIPALITY OF TOA BAJA

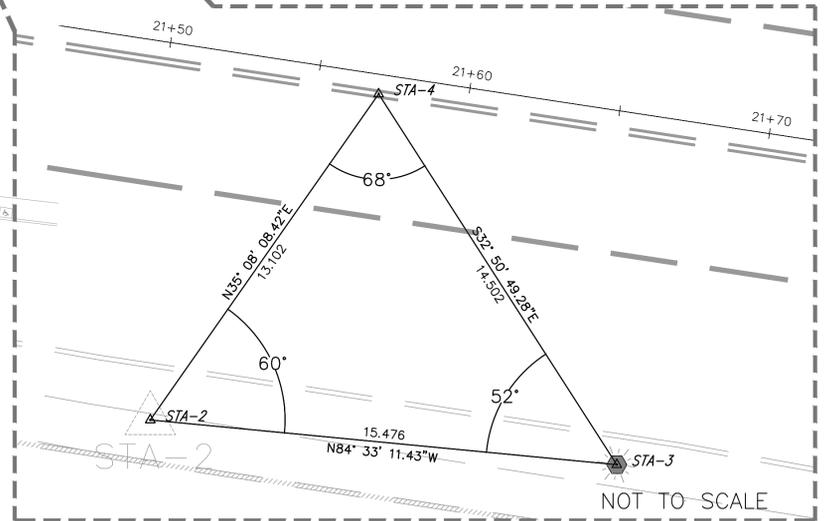
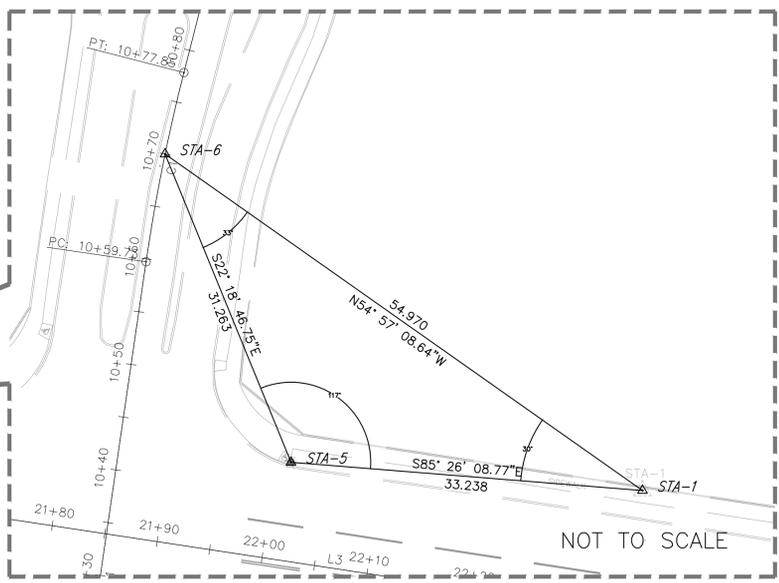
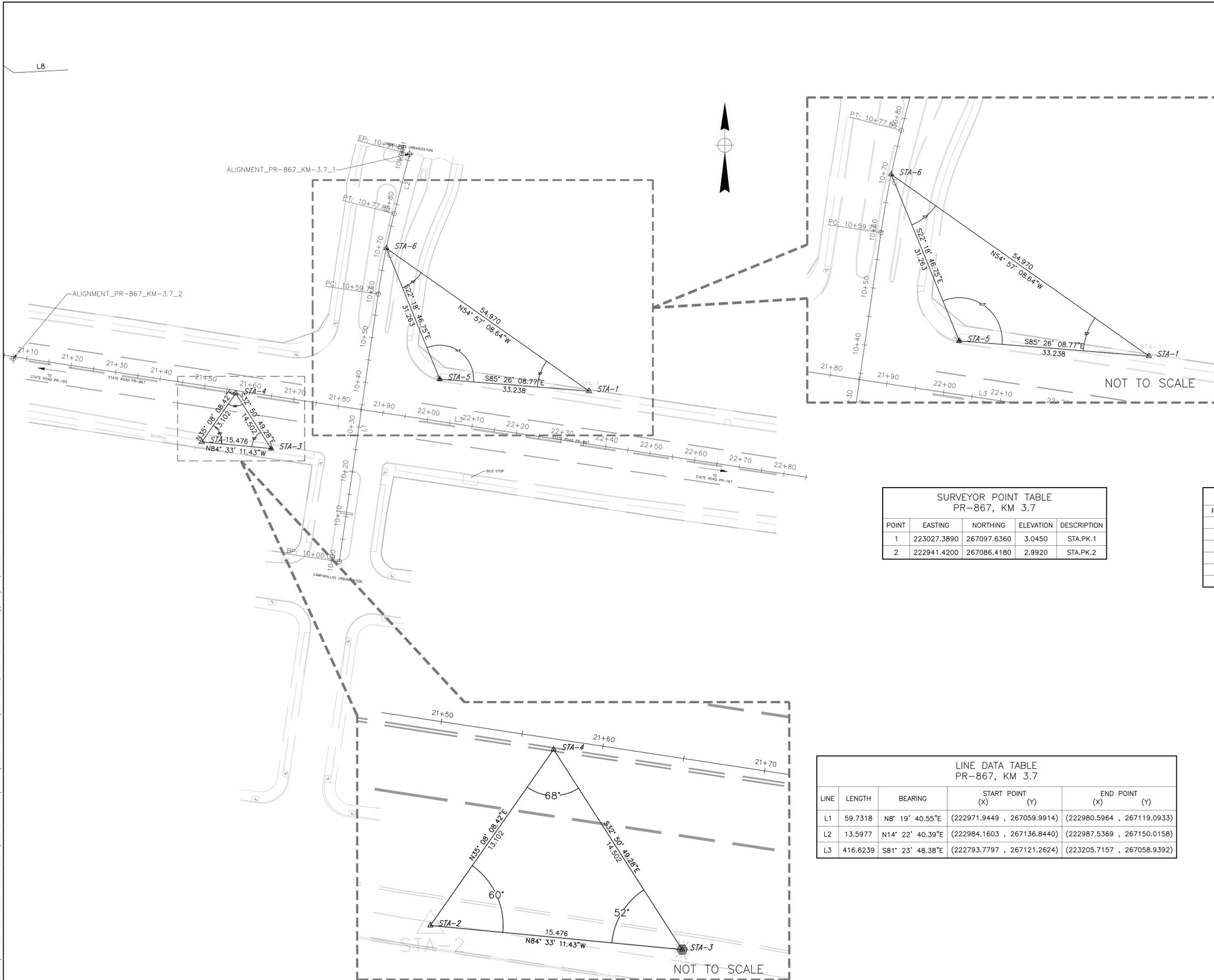


PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS

NOT TO SCALE

TYPICAL SECTION - PROPOSED



LEGEND:

	LIGHT POLE
	CONTROL POINTS

SURVEYOR POINT TABLE  
PR-867, KM 3.7

POINT	EASTING	NORTHING	ELEVATION	DESCRIPTION
1	223027.3890	267097.6360	3.0450	STA.PK.1
2	222941.4200	267086.4180	2.9920	STA.PK.2

HORIZONTAL & VERTICAL CONTROL POINT TABLE PR-867, KM 3.7

POINT	EASTING	NORTHING	ELEVATION	DESCRIPTION
1	222948.9602	267097.1324	2.7800	STA. 20+50.00
2	222941.4200	267086.4180	2.9920	STA.PK.2
3	222956.8260	267084.9490	2.9250	EXISTING POLE
4	222982.3867	267129.2027	3.0800	STA. 10+70.00
5	222994.2560	267100.2810	2.9240	EXISTING POLE
6	223027.3890	267097.6360	3.0450	STA.PK.1

LINE DATA TABLE  
PR-867, KM 3.7

LINE	LENGTH	BEARING	START POINT (X) (Y)	END POINT (X) (Y)
L1	59.7318	N8° 19' 40.55"E	(222971.9449 , 267059.9914)	(222980.5964 , 267119.0933)
L2	13.5977	N14° 22' 40.39"E	(222984.1603 , 267136.8440)	(222987.5369 , 267150.0158)
L3	416.6239	S81° 23' 48.38"E	(222793.7797 , 267121.2624)	(223205.7157 , 267058.9392)

CURVE DATA TABLE  
PR-867, KM 3.7

CURVE	RADIUS	LENGHT	CHORD DIRECTION	DELTA	TANGENT
C1	171.5416	18.1134	N11° 21' 10.47"E	6.0500	9.0651

WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

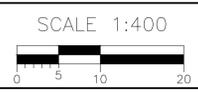
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AUTONOMOUS MUNICIPALITY OF TOA BAJA



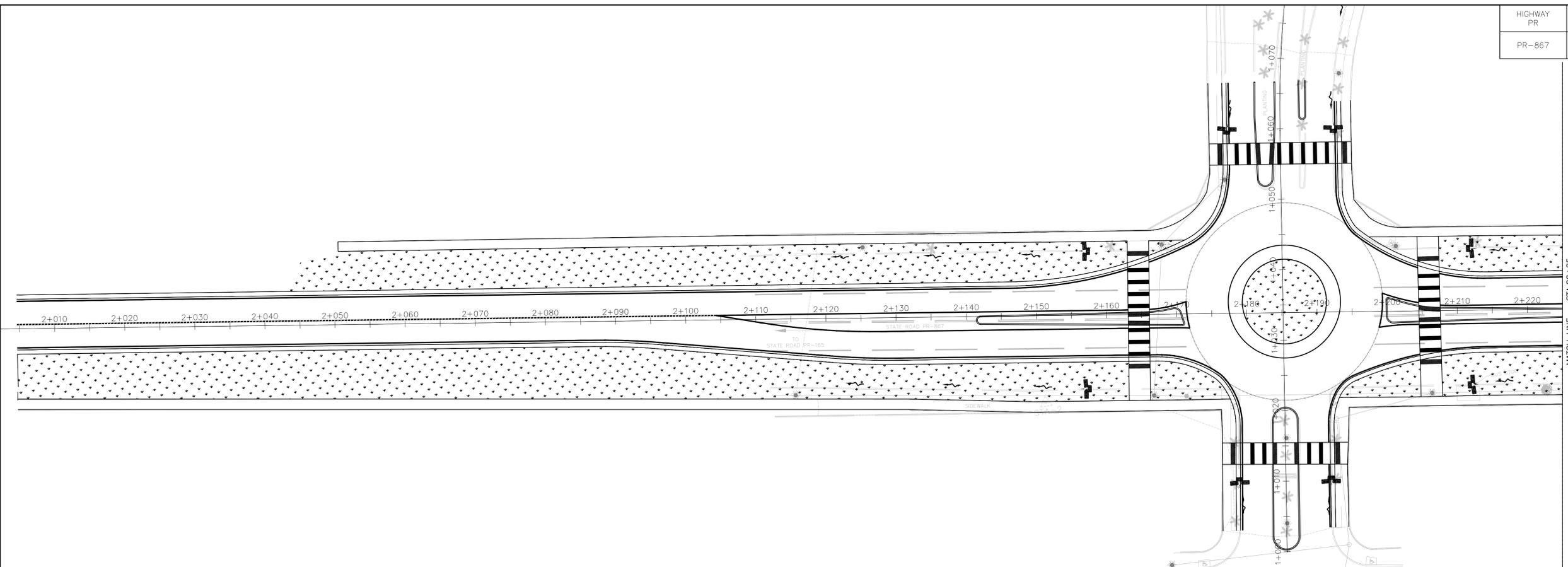
PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS

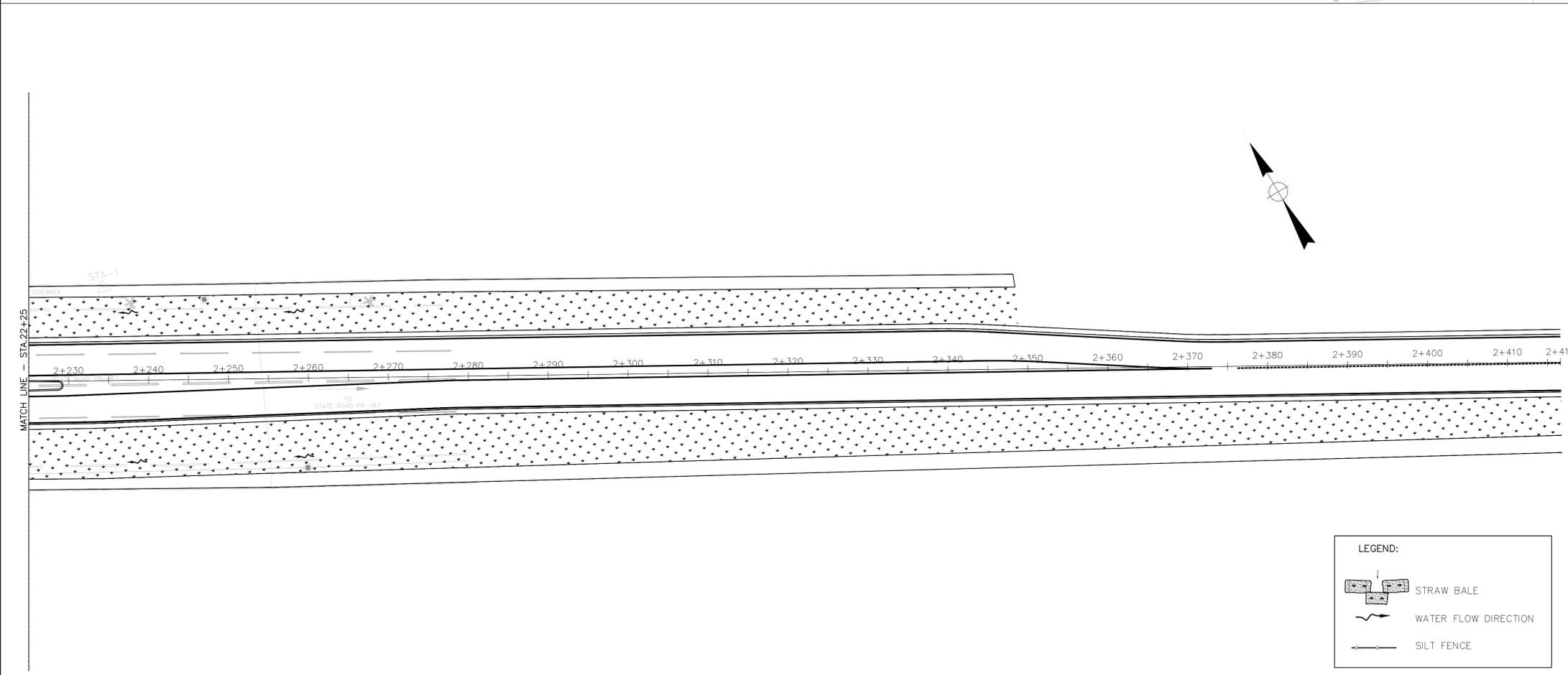


CENTER LINE, VERTEX DATA AND SURVEY TIES  
TABLE

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	8	14



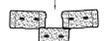
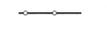
MATCH LINE - STA.22+25



**CES PLAN NOTES:**

1. THE CONTRACTOR SHALL PROTECT ALL CATCH BASINS, SWALES AND CHANNELS NEAR THE PROJECT AREA THAT COULD BE POTENTIALLY IMPACTED PRIOR TO START ANY EXCAVATION. ALL MEASURES CAN BE REMOVED WHEN CONSTRUCTION IS COMPLETED.
2. ALL DISTURBED AREAS SHALL BE PROTECTED BY THE GENERAL CONSOLIDATED PERMIT MEASURES EVEN THOUGH CONSTRUCTION ONLY INCLUDES PART OF THE PARCEL.
3. CONTRACTOR SHALL INSPECT SEDIMENT BARRIERS AFTER EACH RAIN EVENT. REPAIRS SHALL BE DONE AS SOON AS POSSIBLE. SEDIMENT SHALL BE REMOVED FROM THE BARRIERS WHEN THEY REACH HALF THE HEIGHT OF THE BARRIER.
4. THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF THE ESTABLISHED CONSTRUCTION ENTRANCE AS DETAILED ON DWG. EC-2.
5. THE CONTRACTOR SHALL MAINTAIN A WATER TANK TRUCK TO SPRAY THE WORKING AREAS WHEN NEEDED OR WHEN THE PROJECT INSPECTOR REQUIRES IT. A WATER HOSE SHALL BE INSTALLED NEAR ESTABLISHED CONSTRUCTION ENTRANCE TO WASH THE CONSTRUCTION VEHICLES WHEELS.
6. THE CONTRACTOR SHALL STRICTLY FOLLOW THE GUIDELINES STATED IN THE GENERAL CONSOLIDATED PERMIT APPROVED BY THE ENVIRONMENTAL QUALITY BOARD.
7. THE CONTRACTOR SHALL DISPOSE ALL WASTE MATERIALS AT AN APPROVED LANDFILL.
8. THE CONTRACTOR SHALL RESTORE PAVED AREAS AND RE-SEED GRASS AREAS AS SOON POSSIBLE OR AS INSTRUCTED BY THE PROJECT INSPECTOR.
9. ANY MODIFICATION PROPOSAL TO THE GENERAL CONSOLIDATED PERMIT SHALL BE CONSULTED WITH THE DESIGNER IN ORDER TO AMEND THE APPROVED PLAN.
10. A SIGN SHALL BE INSTALLED AT EACH PROJECT ENTRANCE AS PER CONSOLIDATED GENERAL PERMIT CONDITION NUMBER 2.
11. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN THE CONSOLIDATED GENERAL PERMIT IN ACCORDANCE WITH THE DEPARTMENT OF NATURAL RESOURCES REGULATIONS.

**LEGEND:**

-  STRAW BALE
-  WATER FLOW DIRECTION
-  SILT FENCE

WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

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AUTONOMOUS MUNICIPALITY OF TOA BAJA



PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

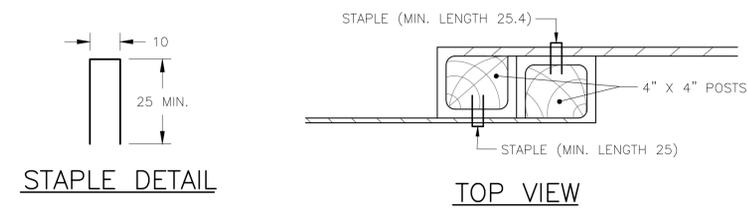
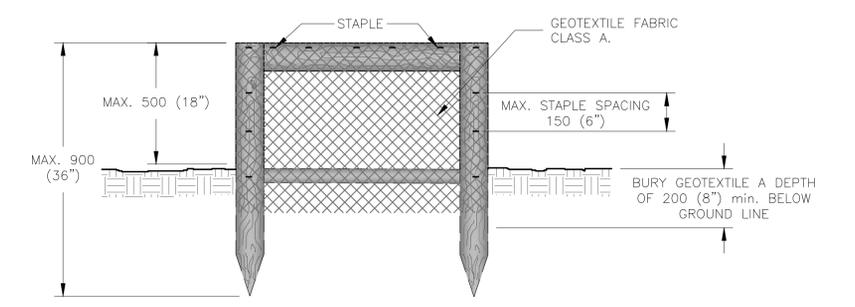
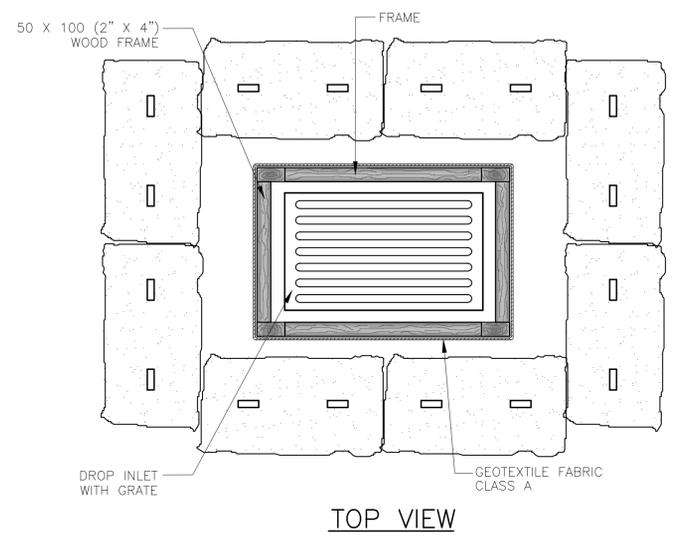
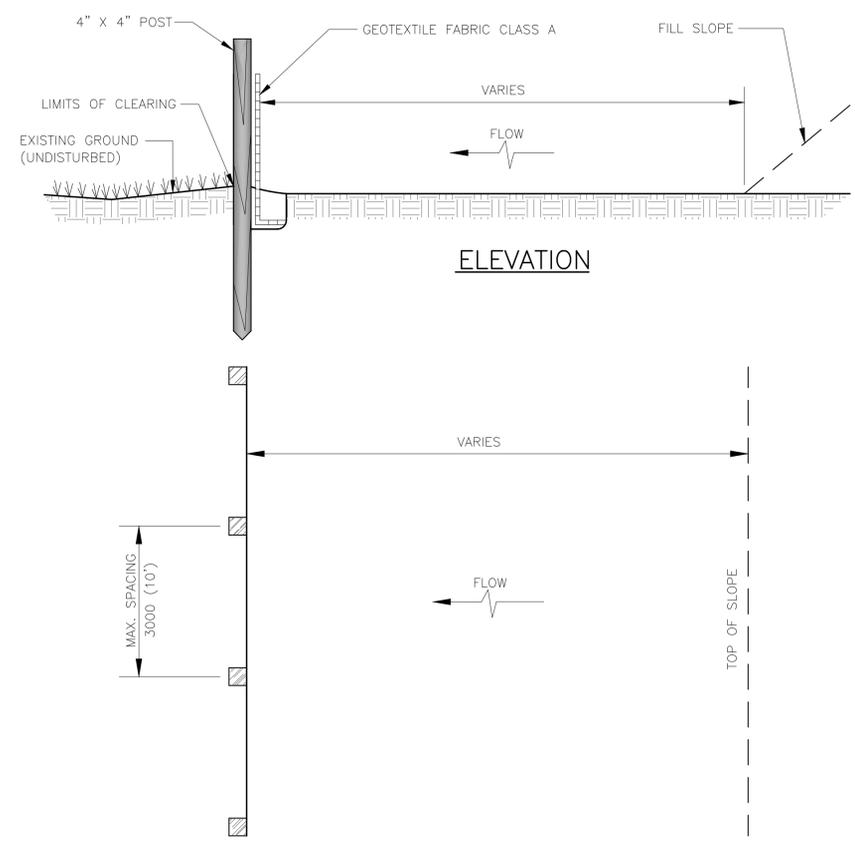
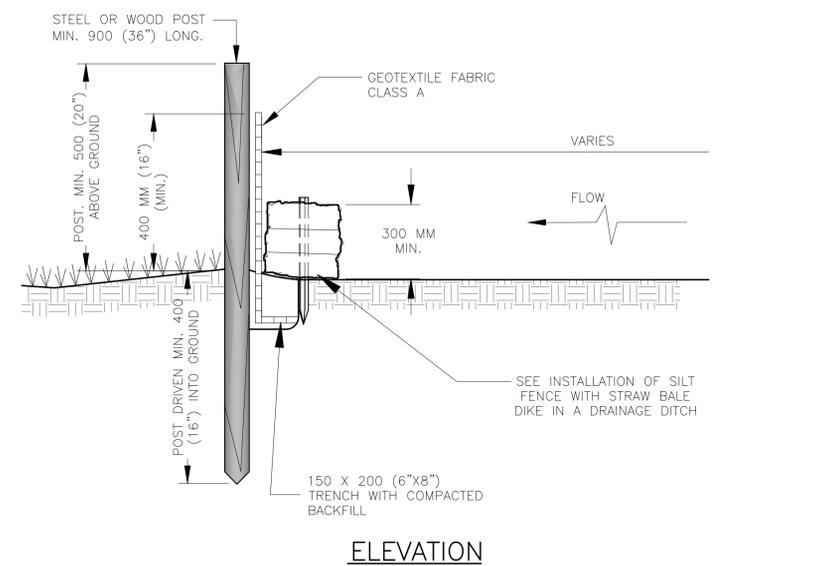
DATE	REVISIONS

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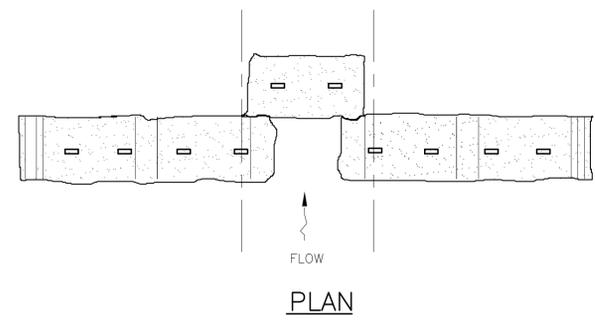
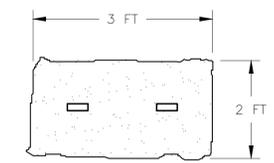
EROSION CONTROL PLAN

EC  
1

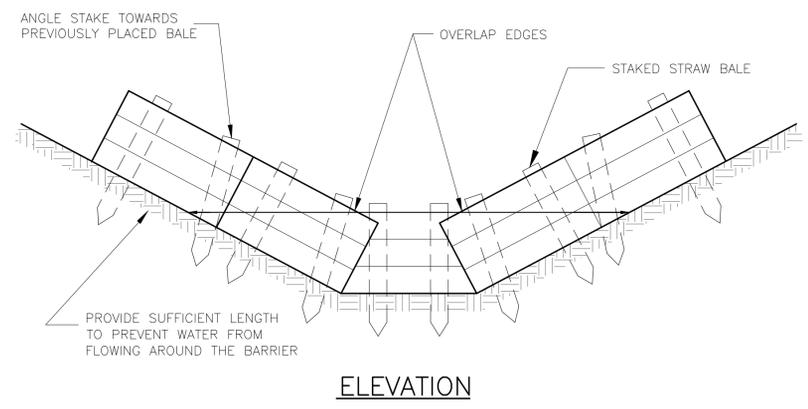
HIGHWAY PR-867	MUNICIPALITY TOA BAJA	ISLAND PR	FISCAL YEAR 2022	SHEET NO. 9	TOTAL SHEETS 14
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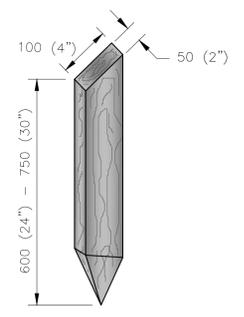
INSTALLATION OF SILT FENCE AT TOE OF FILL



INSTALLATION OF SILT FENCE WITH STRAW BALE DIKE IN A DRAINAGE DITCH



WOOD STAKE DETAIL



NOTES:

- SILT FENCES SHALL BE CONSTRUCTED AT THE LOCATION INDICATED IN THE EROSION CONTROL PLAN SHEET (EC-1).
- ALTERNATE PRE-ASSEMBLED SILT FENCE OPTIONS WILL BE ALLOWED AS LONG AS SPECIFIED MINIMUMS ARE SATISFIED. FOLLOW MANUFACTURER'S INFORMATION FOR INSTALLATION PROCEDURES.
- EXCAVATION, BACKFILL, STAPLES AND POSTS ARE SUBSIDIARY OBLIGATIONS.
- THE SILT FENCE GEOTEXTILE FABRIC SHALL COMPLY WITH AASHTO M266.
- SILT FENCE SHALL BE INSPECTED FOR DAMAGE WEEKLY. AFTER RAINFALL ANY DAMAGE FENCE SHALL BE REPAIRED IMMEDIATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAINFALL EVENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR SUCH MAINTENANCE WORK.
- WHEN THE DISTRIBUTED AREA HAVE BEEN PROPERLY STABILIZED THE FENCE MAY BE REMOVED AND ANY REMAINING AREAS STABILIZED. THIS WORK WILL BE PERFORMED AS DIRECTED BY THE ENGINEER AS A SUBSIDIARY OBLIGATION.
- 'TOP VIEW' AND 'STAPLE DETAIL' APPLY TO ALL APPLICATIONS SHOWN IN THIS SHEET.
- FOR ALL APPLICATIONS, THE MAXIMUM STAPLE SPACING SHALL BE 6FT (1.83M)
- ALL DIMENSIONS SHOWN ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.

WORK	BY	DATE
DESIGN	##	##
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TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

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AUTONOMOUS MUNICIPALITY OF TOA BAJA



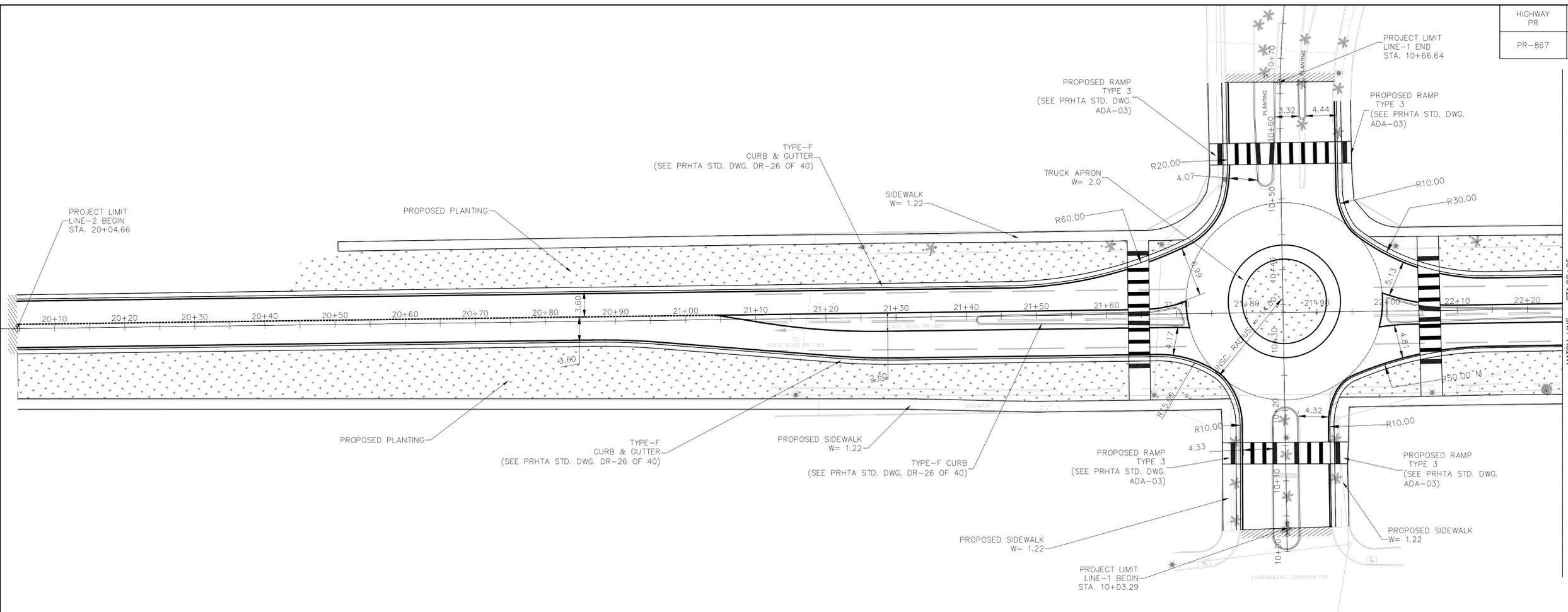
PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS

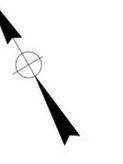
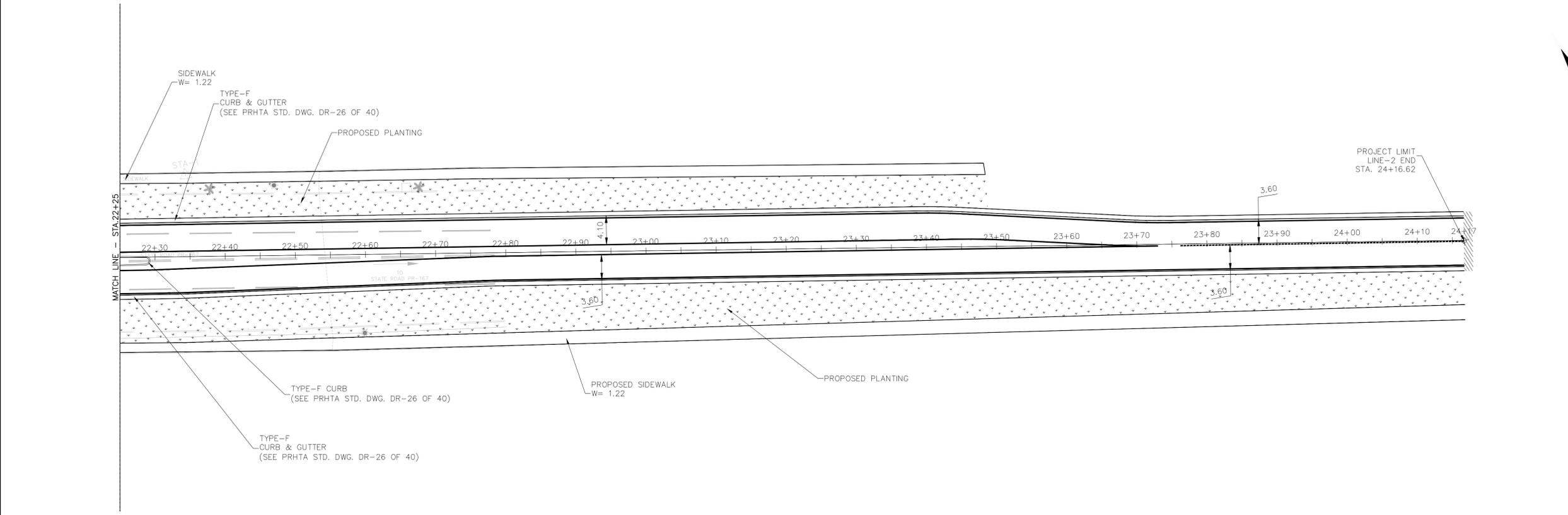
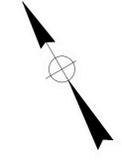
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EROSION CONTROL DETAILS

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	10	14



MATCH LINE - STA.22+25



WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

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AUTONOMOUS MUNICIPALITY OF TOA BAJA



PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

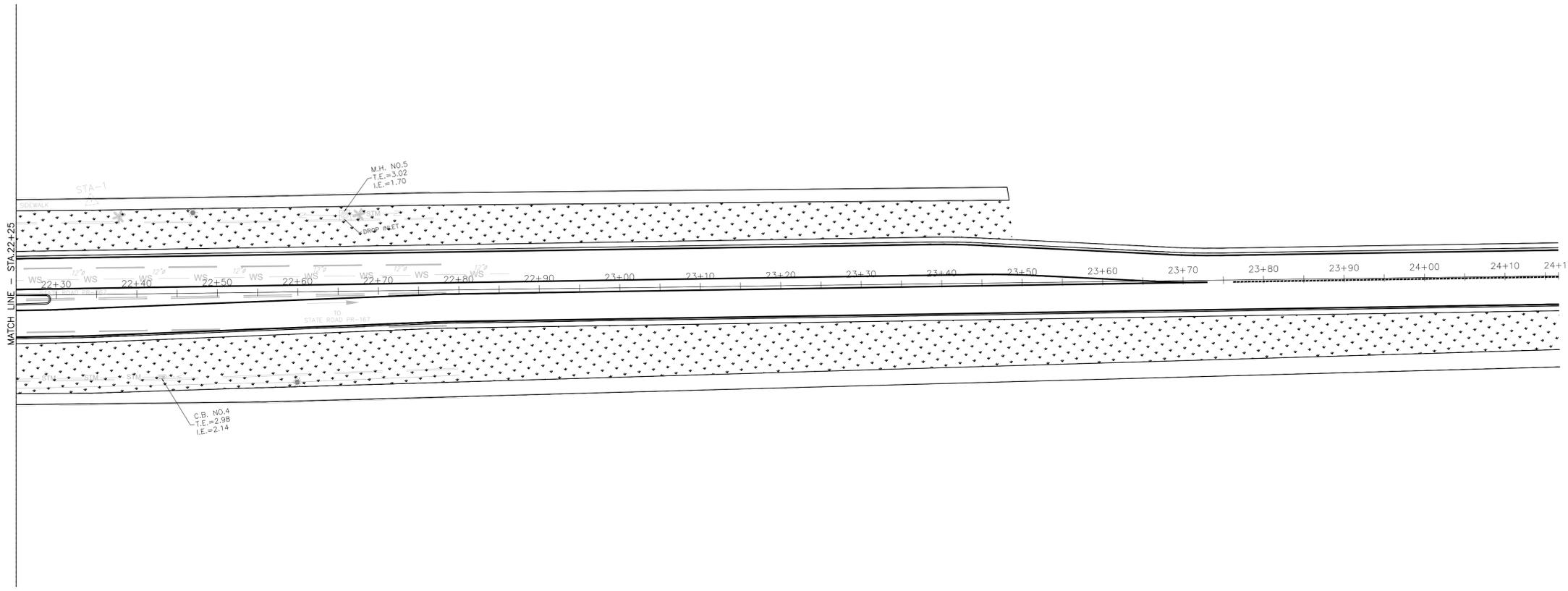
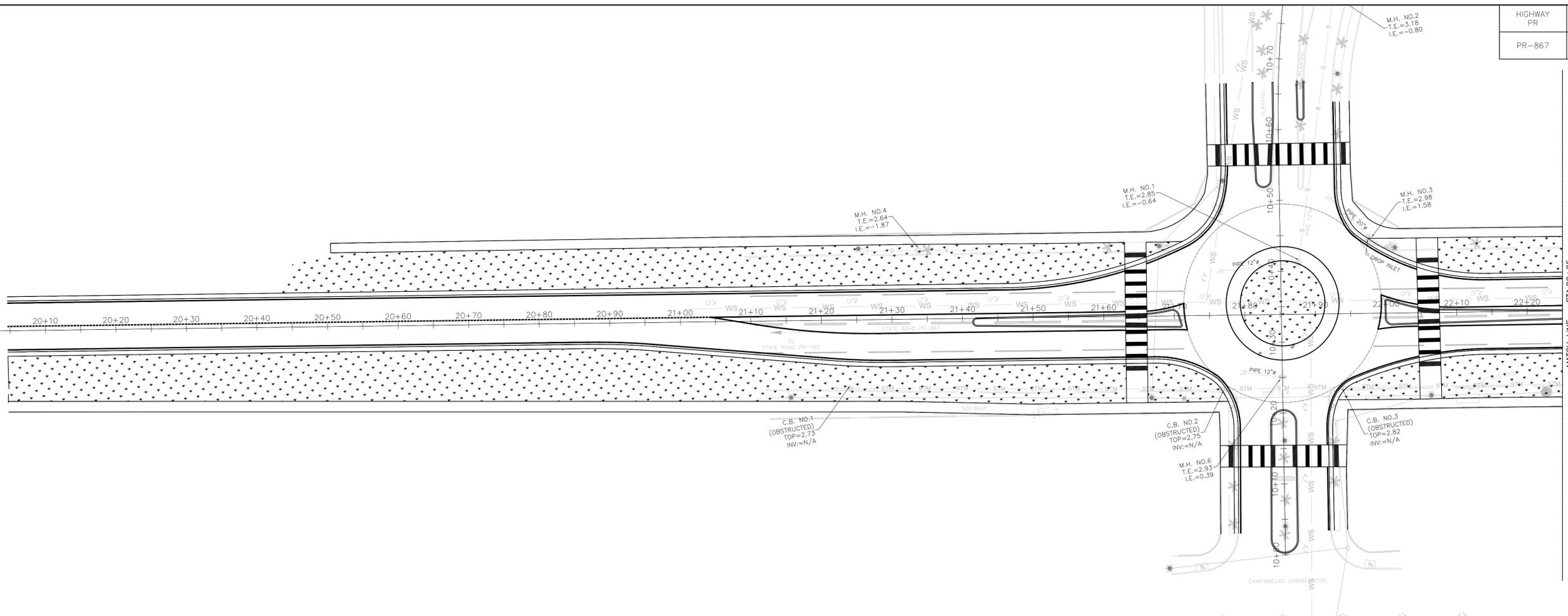
DATE	REVISIONS



PLAN

PP  
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HIGHWAY PR	MUNICIPALITY TOA BAJA	ISLAND PR	FISCAL YEAR 2022	SHEET NO. 11	TOTAL SHEETS 14
PR-867					



WORK	BY	DATE
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AUTONOMOUS MUNICIPALITY OF TOA BAJA



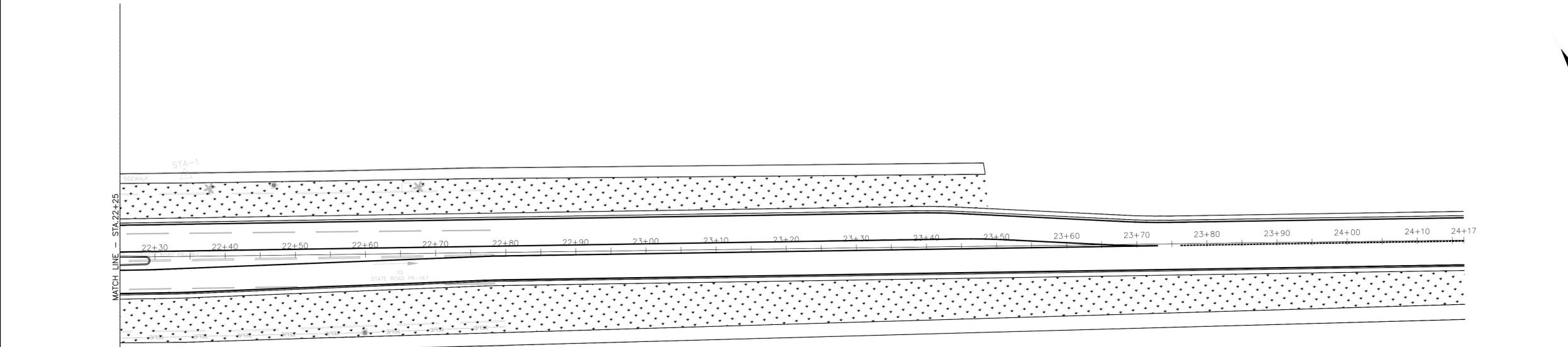
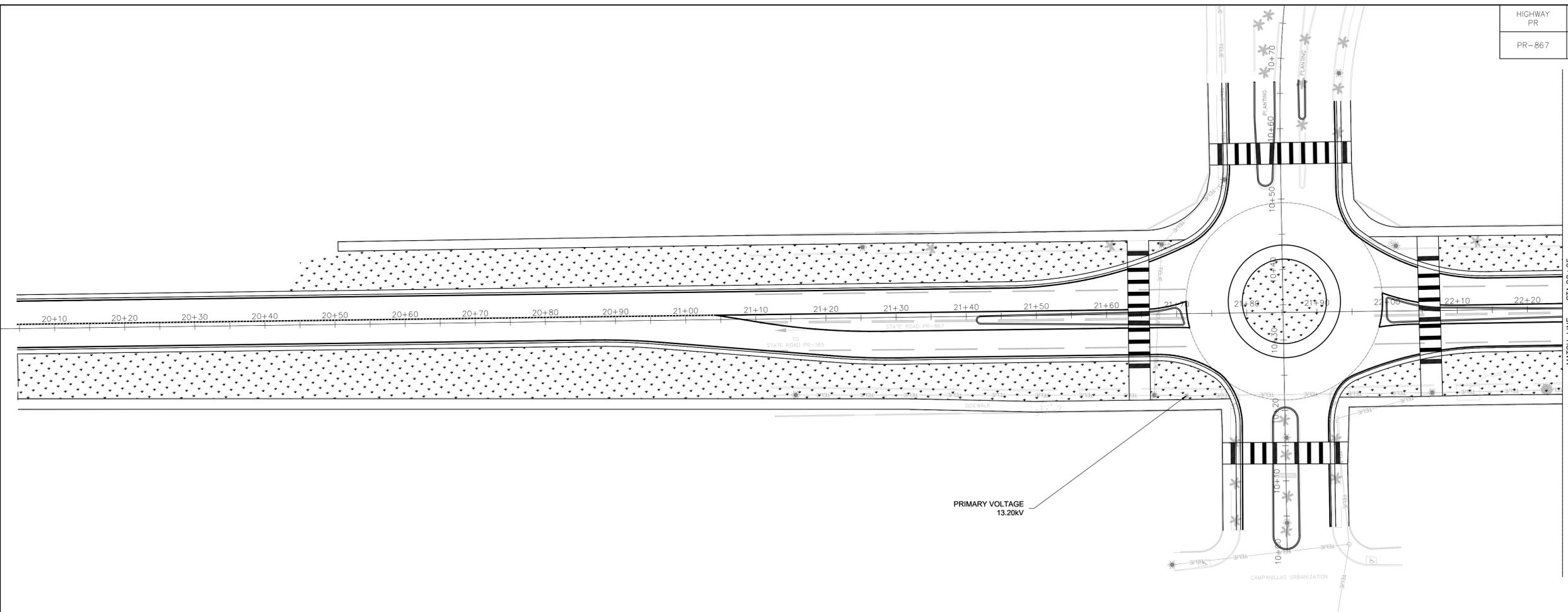
PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS



EXISTING P.R.A.S.A UTILITY PLAN

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	12	14



**SPECIAL UTILITIES NOTE TO CONTRACTOR:**

1. THIS SHEET IS FOR INFORMATION ONLY.
2. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXISTING P.R.E.P.A.'S UTILITIES AND COORDINATE WITH THE P.R.E.P.A.'S REGIONAL OFFICE TO AVOID ANY DAMAGE TO EXISTING INFRASTRUCTURE.
3. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED AT HIS OWN COST AT NO EXPENSE TO THE P.R.H.T.A. THIS WORK SHALL BE CONSIDERED SUBSIDIARY OBLIGATION OF THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH P.R.E.P.A.'S REGIONAL OFFICE AS NECESSARY.

FOR INFORMATION ONLY

WORK	BY	DATE
DESIGN	##	##
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AUTONOMOUS MUNICIPALITY OF TOA BAJA



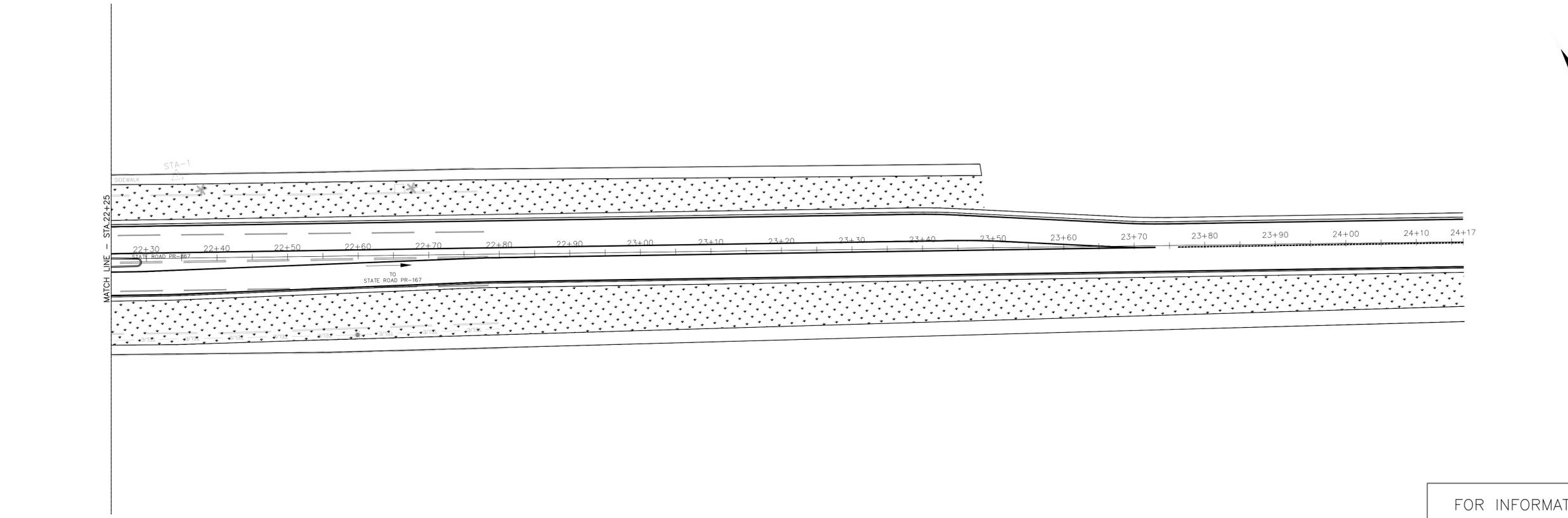
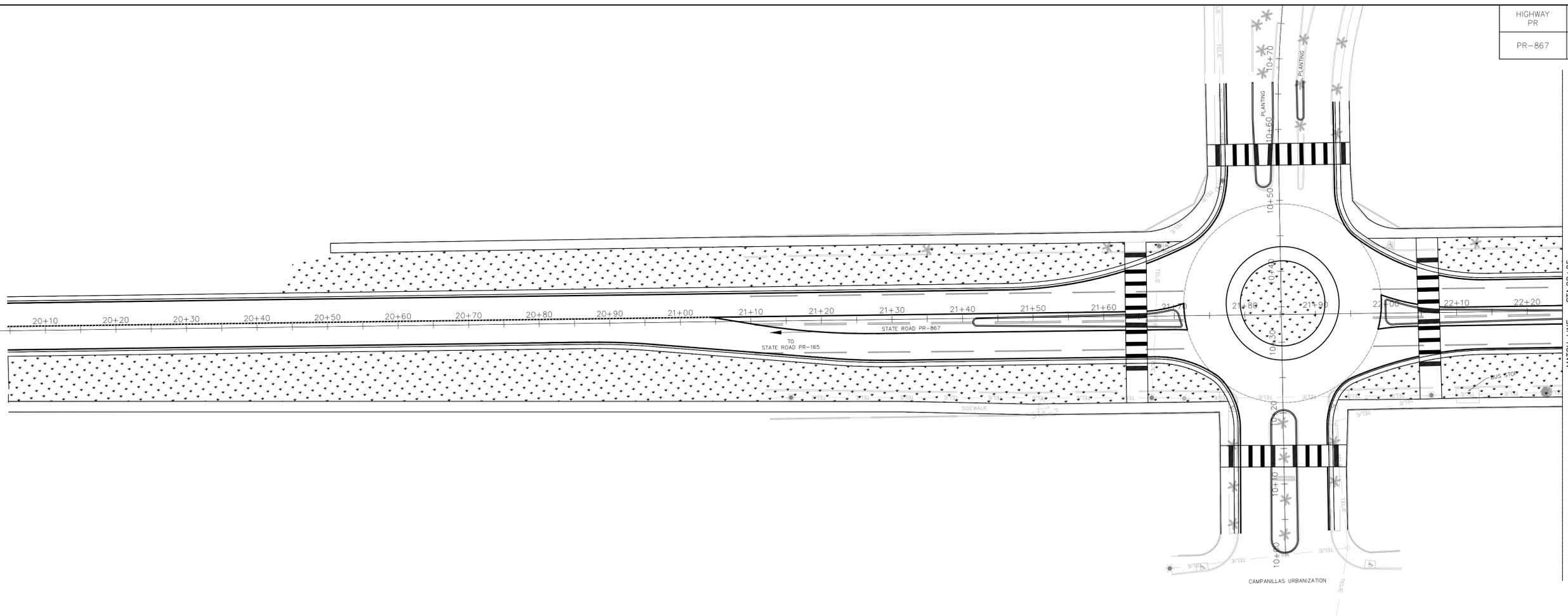
PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS



EXISTING P.R.E.P.A UTILITY PLAN

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2022	13	14



WORK	BY	DATE
DESIGN	##	##
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AUTONOMOUS MUNICIPALITY OF TOA BAJA



PR-CRP-000991 ROUNDABOUT  
ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

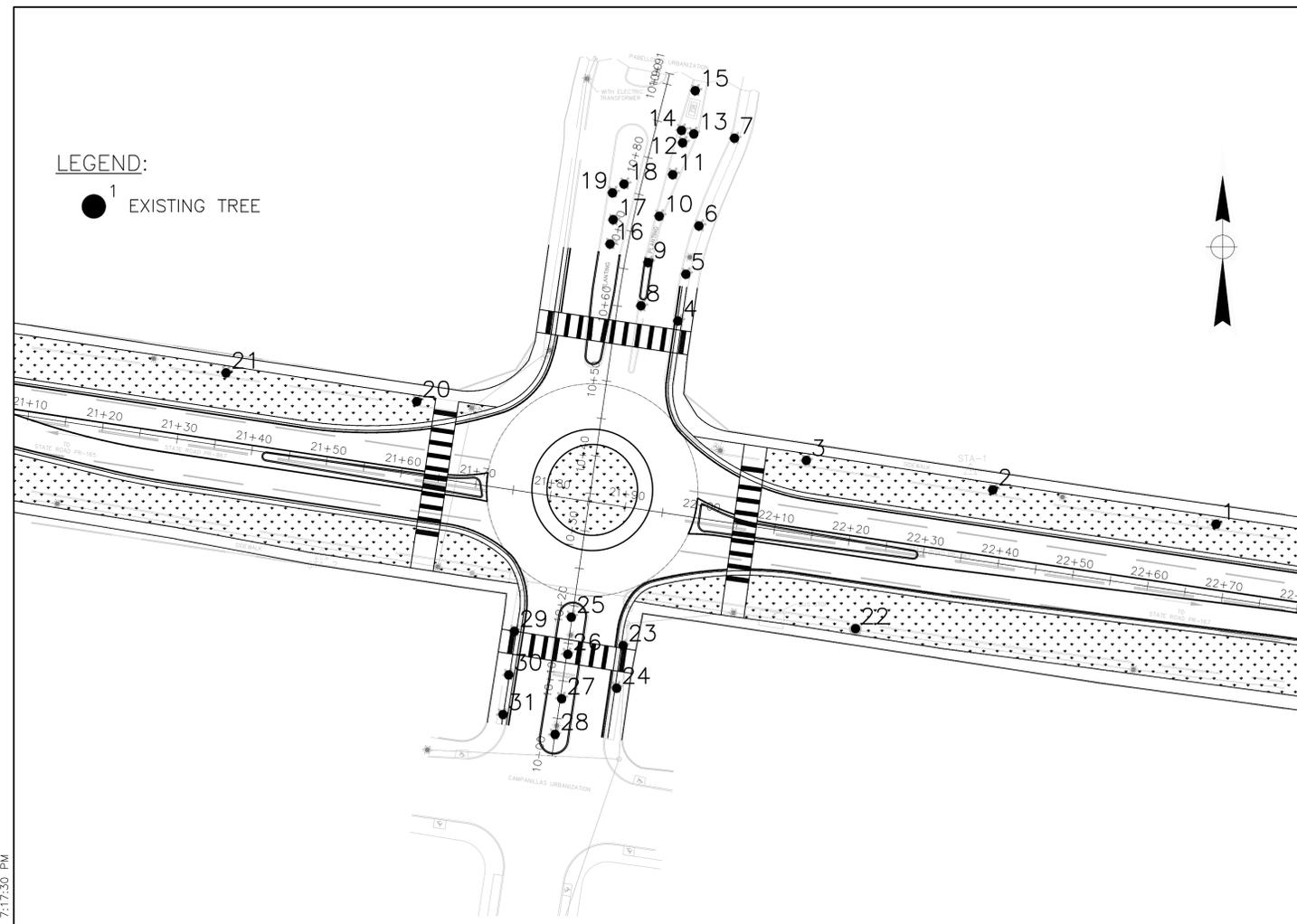
DATE	REVISIONS



EXISTING TELECOMMUNICATION PLAN

FOR INFORMATION ONLY

TREE INVENTORY TABLE, PR-867, KM-3.7



**LEGEND:**  
 ● 1 EXISTING TREE

NO. ID	COMMON NAME	SCIENTIFIC NAME	DBH (IN.)	APPROX. HEIGHT (FT)	CONDITION	RECOMMENDATION	MITIGATION RATE
1	PALMERA	***	***	***	***	REMAIN	***
2	PALMERA	***	***	***	***	REMAIN	***
3	PALMERA	***	***	***	***	REMAIN	***
4	PALMERA	***	***	***	***	REMOVAL	***
5	PALMERA	***	***	***	***	REMOVAL	***
6	PALMERA	***	***	***	***	REMOVAL	***
7	PALMERA	***	***	***	***	REMOVAL	***
8	PALMERA	***	***	***	***	REMOVAL	***
9	PALMERA	***	***	***	***	REMAIN	***
10	PALMERA	***	***	***	***	REMAIN	***
11	PALMERA	***	***	***	***	REMAIN	***
12	PALMERA	***	***	***	***	REMAIN	***
13	PALMERA	***	***	***	***	REMAIN	***
14	PALMERA	***	***	***	***	REMAIN	***
15	PALMERA	***	***	***	***	REMAIN	***
16	PALMERA	***	***	***	***	REMAIN	***
17	PALMERA	***	***	***	***	REMAIN	***
18	PALMERA	***	***	***	***	REMAIN	***
19	PALMERA	***	***	***	***	REMAIN	***
20	PALMERA	***	***	***	***	REMAIN	***
21	PALMERA	***	***	***	***	REMAIN	***
22	TREE	***	***	***	***	REMAIN	***
23	PALMERA	***	***	***	***	REMOVAL	***
24	PALMERA	***	***	***	***	REMOVAL	***
25	PALMERA	***	***	***	***	REMAIN	***
26	PALMERA	***	***	***	***	REMOVAL	***
27	PALMERA	***	***	***	***	REMAIN	***
28	PALMERA	***	***	***	***	REMAIN	***
29	PALMERA	***	***	***	***	REMOVAL	***
30	PALMERA	***	***	***	***	REMOVAL	***
31	PALMERA	***	***	***	***	REMOVAL	***

**DATA:**

- 31 TOTAL
- 23 REMAIN
- 8 REMOVAL

**TREES TO BE AFFECTED**

- 8 TREE

**REQUIRED MITIGATION**

- PER "DRNA" AND "ACT" AGREEMENT 2023-000079 MONETARY COMPENSATION OF \$65 WILL ALWAYS BE PROVIDED FOR EACH AFFECTED TREE (TREE MITIGATION OF 2:1) NO MATTER THE DIAMETER AT BREST HEIGHT OF THE AFFECTED TREE.

- TOTAL = 16 TREES

**PROPOSED PLANTING**

- -- TREES (PROJECT)

**COMPENSATORY MITIGATION:**

- TREES X \$65 = \$ 1,040.00

**TREE CONDITION RATING:**

- 1- VERY POOR
- 2- POOR
- 3- FAIR
- 4- GOOD
- 5- EXCELLENT

**NOTES:**

1. SURVEY INFORMATION AS PROVIDED BY PROJECT LAND SURVEYOR.
2. THE INVENTORY DATA WAS COLLECTED ON \*\*\*\*\* 2023.
3. FOR EXISTING TREE DESCRIPTIONS AND RECOMMENDATIONS, SEE TREE INVENTORY TABLE ON SHEET.
4. TREES LOCATION IS APPROXIMATED.
5. ALL ELEVATIONS ARE EXPRESSED IN METERS AND ARE REFERRED TO MEAN SEA LEVEL INDICATED ON THE TOPOGRAPHIC PLAN.

**CERTIFICATION:**

I CERTIFY THAT THIS INVENTORY HAS BEEN ADEQUATELY PREPARED.

NAME:\*\*\*\*\*

OGPE AUTHORIZED PLANTING AND REFORESTATION INSPECTOR (\*\*\*\*\*-ISF-\*\*\*\*\*)

WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
TRACED	##	##
CHECK	##	##
FINAL CHECK	##	##

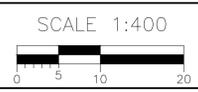
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AUTONOMOUS MUNICIPALITY OF TOA BAJA



PR-CRP-000991 ROUNDABOUT ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS



TREE INVENTORY PLAN

# Appendix D: 8 Step Documentation

**PUERTO RICO DEPARTMENT OF HOUSING  
CDBG-DR PROGRAM - CITY REVITALIZATION PROGRAM  
8-Step Decision-making Process**

**Project Information**

**Project Name:** Rotonda PR-867 entradas Urbs. Campanillas y Pabellones  
Sabana Seca

**Project ID:** PR-CRP-000991

**Responsible Entity:** Puerto Rico Department of Housing (PRDOH)

**Grant Recipient:** Municipality of Toa Baja

**State/Local Identifier:** Puerto Rico

**Preparer:** Eng. Marvic Carmona De Jesus, Engineer in Training  
Metric Engineering of Puerto Rico, PSC  
[marvic.carmona@metricpr.com](mailto:marvic.carmona@metricpr.com)  
(939) 835-1985

**Certifying Officer Name and Title:** Director: Juan Carlos Pérez  
Director: Aldo Rivera Vázquez  
Deputy Director: Angel G. Lopez-Guzman  
Manager: María T. Torres Bregón

Certifying Officers:  
Pedro de León Rodriguez  
Ivelisse Lorenzo Torres  
Santa Ramírez Lebrón  
Janette I. Cambrelen  
Limary Vélez Marrero  
Mónica Machuca Ríos  
Sally Z. Acevedo-Cosme

**Consultant:** Metric Engineering of Puerto Rico, PSC

**Direct Comments to:** Puerto Rico Department of Housing,  
environmentcdbg@vivienda.pr.gov

**Project Location:** Road PR-867, Km. 3.8, at intersection of entrances to  
Campanillas and Pabellones suburbs  
Sabana Seca Ward, Toa Baja, Puerto Rico  
Coordinates: 18.439403°, - 66.215829°  
Refer to Figure 1 and Figure 2.

## **Introduction:**

The responsible entity is working on the restoration, reconstruction, and the implementation of future vision of their communities that were adversely affected by Hurricane Irma and Maria. The responsible entity is proposing road improvement of multiple roads and intersections through the City Revitalization Program (CRP) of the Puerto Rico Department of Housing (PRDOH) that will reinvigorate, connect, and integrate communities with each other. The proposed actions will dynamically integrate vehicle users with pedestrians by reconstructing intersections and making them safer and users friendly to the nearby communities. As part of the federal funded project, these proposed actions are required to comply with all environmental and historic preservation laws. In this case, we will be evaluating the Executive Orders 11988 which is directed to Floodplain Management through the U.S. Department of Housing and Urban Development (HUD).

The application of Executive Order 11988 will consist in assessing the FEMA Flood Insurance Rate Map (FIRM) and the Advisory Base Flood Elevation (ABFE) maps for Puerto Rico to determine if the project is within the flood-prone areas. The ABFE for this review was recently updated by FEMA on December 11, 2018, after the major hurricanes Irma and María hit Puerto Rico.

This report will initiate the Decision-Making Process<sup>1</sup> also known as the 8-Steps Process as a consequence of the possible long and short-term adverse impact with the floodplain in Toa Baja. In the future, this report will provide a complete review of the 8-Step Process that will include the analysis of multiple alternatives for the proposed projects and review of their benefits and impacts to the floodplain and the communities.

## **Project Description:**

The responsible entity is proposing the reconstruction of an intersection and replacing it with a roundabout. The project is identified as PR-CRP-000991, is an unsignalized intersection on PR-867 at the entrance of Urb. Campanillas and Pabellones in Sabana Seca Ward. The primary goal of the road improvements is to improve the mobility and safety of the road users by providing safer speed and safer roads. The roundabout will reduce the vehicular conflict points from 32 to 8, representing a reduction of 75%. Also, the roundabout will provide a reduction of vehicular-to-pedestrian conflict points from 24 to 8, representing a reduction of 66.7%. Overall, the roundabout will improve the connectivity and circulation between PR-867 and urbanization entrances.

The project will remain within the pre-existing footprint of the right of way of the roads and intersection.

### **Roundabout Benefits:**

- Saves lives:
  - Reduction in fatalities,
  - Reduction in injury crashes,
  - Reduction in pedestrian crashes,
  - Reduction in conflict points.
- Slower vehicle speed,
- Efficient traffic flow,
- Reduction in pollution and fuel use,
- Potential money saved,
- Improve Aesthetic landscaping.
- Does not require energy source.

<sup>1</sup> 24 CFR Part Floodplain Management and Protection of Wetlands- required the Decision-Making Process to actions that have the potential to impact the floodplain and modification of the wetlands. (<https://www.law.cornell.edu/cfr/text/24/part-55>)

**Generally, road improvements will consist of:**

1. Pavement preservation and/or reconstruction,
  - a. Asphalt pavement rehabilitation by means of cold milling and resurfacing of existing asphalt pavement,
2. Roundabout construction
3. Sidewalk preservation and/or construction
  - a. Reconstructed sidewalk or construct them when it is required,
  - b. Project will meet with ADA codes,
4. Maintenance of Traffic (MOT),
5. Project Footprint = 8,127.78 sq. m.
6. Improvements to storm runoff system, repairing drains & sewer system,
7. Replacement of pavement markings and use of retroreflective devices (raised pavement markers,
8. Speed reduction at pedestrian crossings,
9. Solar lighting poles system,
10. Installation of traffic signs,
11. Urban landscape improvements,
12. Evaluation of asphalt surfaces, crosswalks, and handicapped ramps, and electrical design improvements that comply with current codes and regulations. The project will also include sidewalk improvements to meet ADA codes.

**Studies:**

The following studies were conducted in order to evaluate road conditions:

- Evaluation of Cultural Resources (Archeological Study), Environmental Evaluation, Title Clearance, Geotechnical study, Survey to determine the presence of asbestos and lead, Tree inventory and mitigation planting plan.



Figure 1. Project Location PR-CRP-000991 - Existing Conditions – Aerial Photo. GPS Coordinates: 18.439403°, - 66.215829°.Photo: Google Earth - Image Date: 04/08/2016.

City Revitalization Program  
 PR-CRP-000991 Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca, Toa Baja



Figure 2. Project Location PR-CRP-000991 – Overlays of the existing conditions (light gray layer) and the proposed project (yellow and green layers)– Aerial Photo. GPS Coordinates: 18.439403°, - 66.215829°. Photo: Google Earth - Image Date 04/08/2016

City Revitalization Program  
 PR-CRP-000991 Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca, Toa Baja

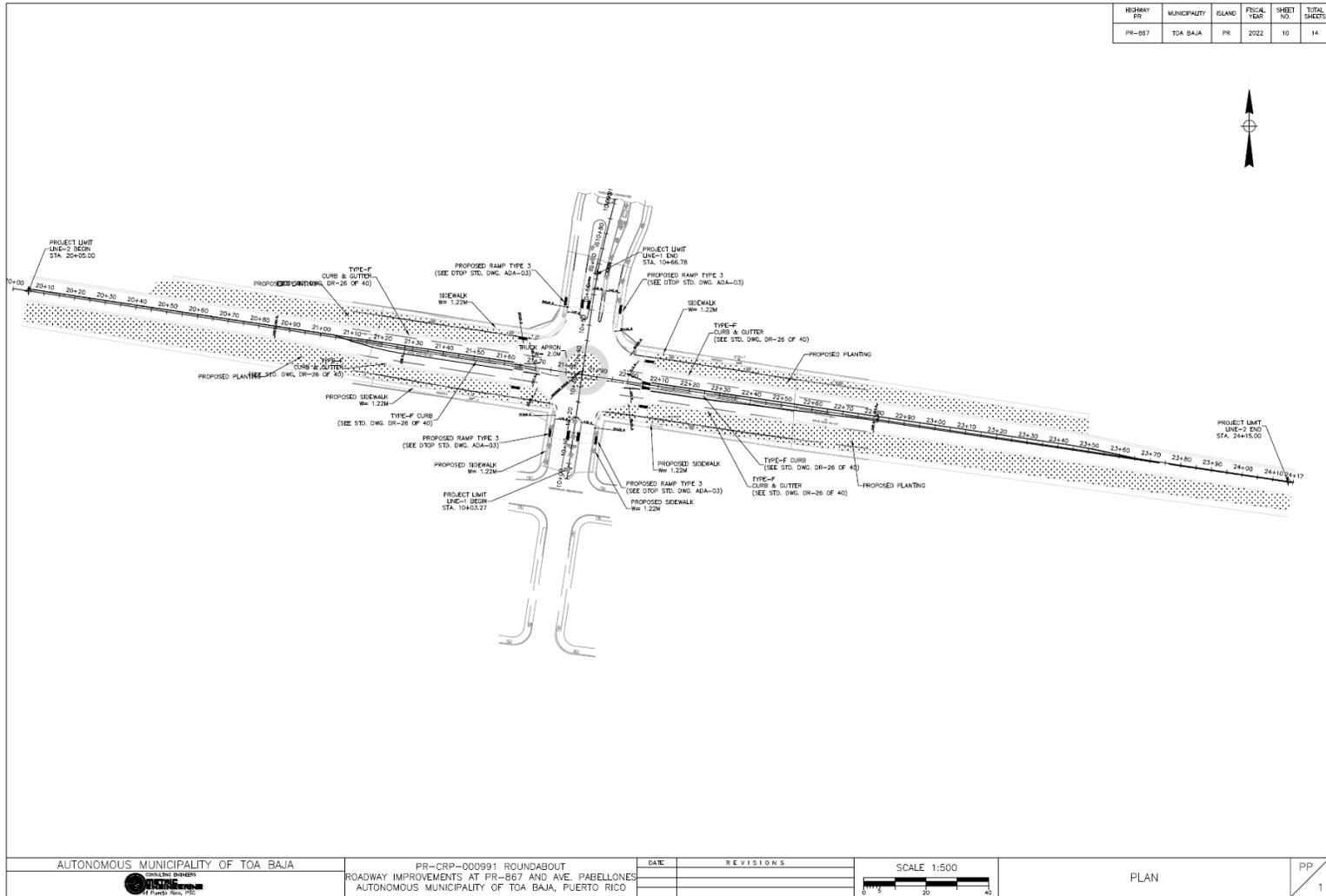


Figure 3. Proposed Project Plan PR-CRP-000991 – Conceptual Model 30%. GPS Coordinates: 18.439403°, - 66.215829°.



Figure 4. Proposed Project PR-CRP-000991– Rendering View. GPS Coordinates: 18.439403°, - 66.215829°.

### Step 1: Determine whether the action is located in a 100-year floodplain.

The Municipality of Toa Baja is known as “La Ciudad Bajo Agua” (the underwater city<sup>2</sup>). Most of their lands are prone to high flood risk, 63% of them are within the floodplain<sup>2</sup>. Toa Baja is a low coastal plain town between the two river mouths, Rio Bayamon and the longest river in Puerto Rico, Rio Grande de la Plata, which born 60.5 miles in the Municipality of Guayama. The coastal zone, low plain, and the river mouths made Toa Baja high risk flood-prone area (see Figure 5). The Figure 5 shows that the proposed project PR-CRP-000991 seems to be within the floodplain the but in accordance with the FIRM map (see Figure 6) the project is outside the floodplain. The Figure 5 and Figure 6 are based on the Flood Insurance Rate Map<sup>3</sup> (FIRM). Panel 72000C0330J (panel 330 of the 2160, effective date 11/18/2009) for project PR-CRP-000991.

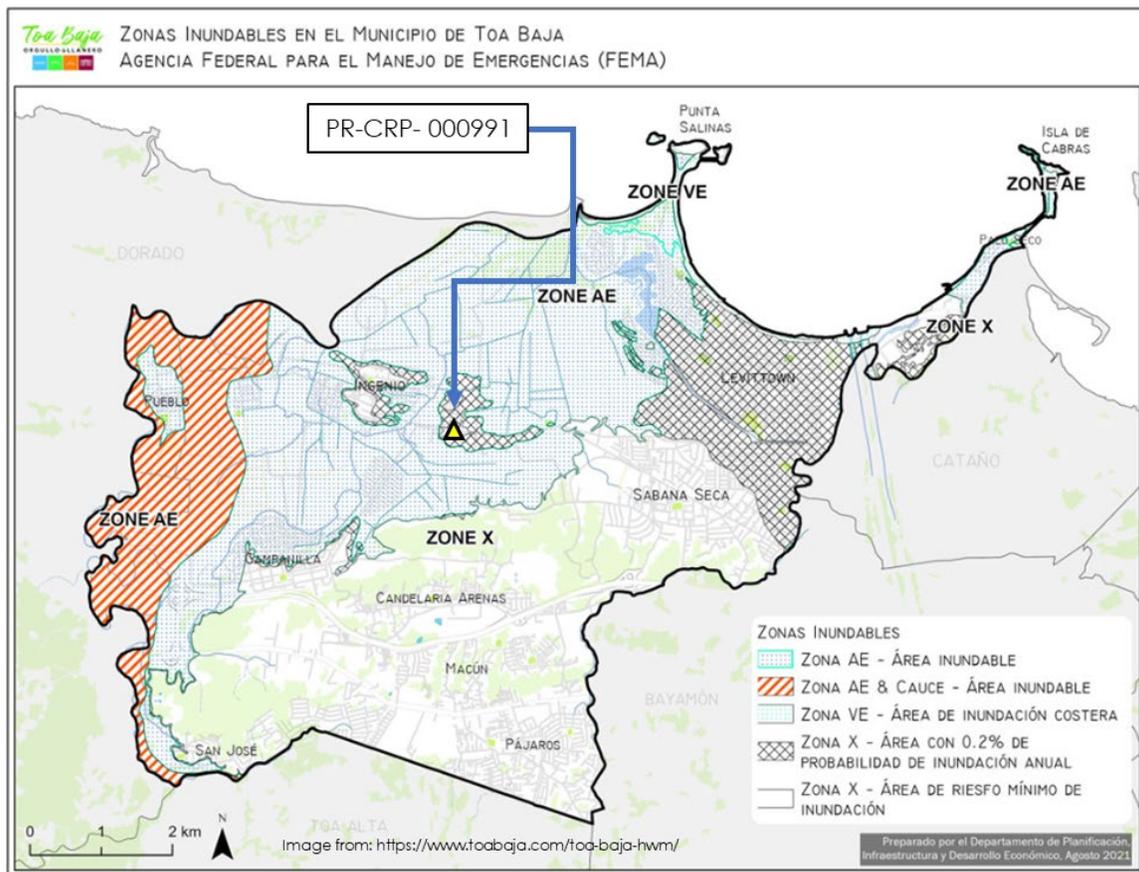


Figure 5. Floodplain of the Municipality of Toa Baja.

According with the FIRM maps, the proposed action, PR-CRP-000991, is outside of the flood-prone areas of Toa Baja (see Figure 6). This visual determination is based on the FIRM map where most of these maps were reviewed decades ago and possibly does not collect the updated information related to the floodplain. Therefore, we will be using the FEMA Advisory Base Flood Elevation<sup>4</sup> (ABFE) to compare them with the FIRM map, which is a more precise and accurate

<sup>2</sup> NASA funded research (<https://develop.larc.nasa.gov/2020/spring/ToaBajaDiasters.html>)

<sup>3</sup> FIRM maps were obtained from FEMA portal (<https://msc.fema.gov/portal/home>)

<sup>4</sup> Advisory Base Flood Elevation maps were obtained from (<https://gis-r2-fema.hub.arcgis.com/apps/31dfa15671944086b54b55bfc03344d7/explore.>)

tools to determine the flood-prone area because integrate new methods and updated information after a major disaster.

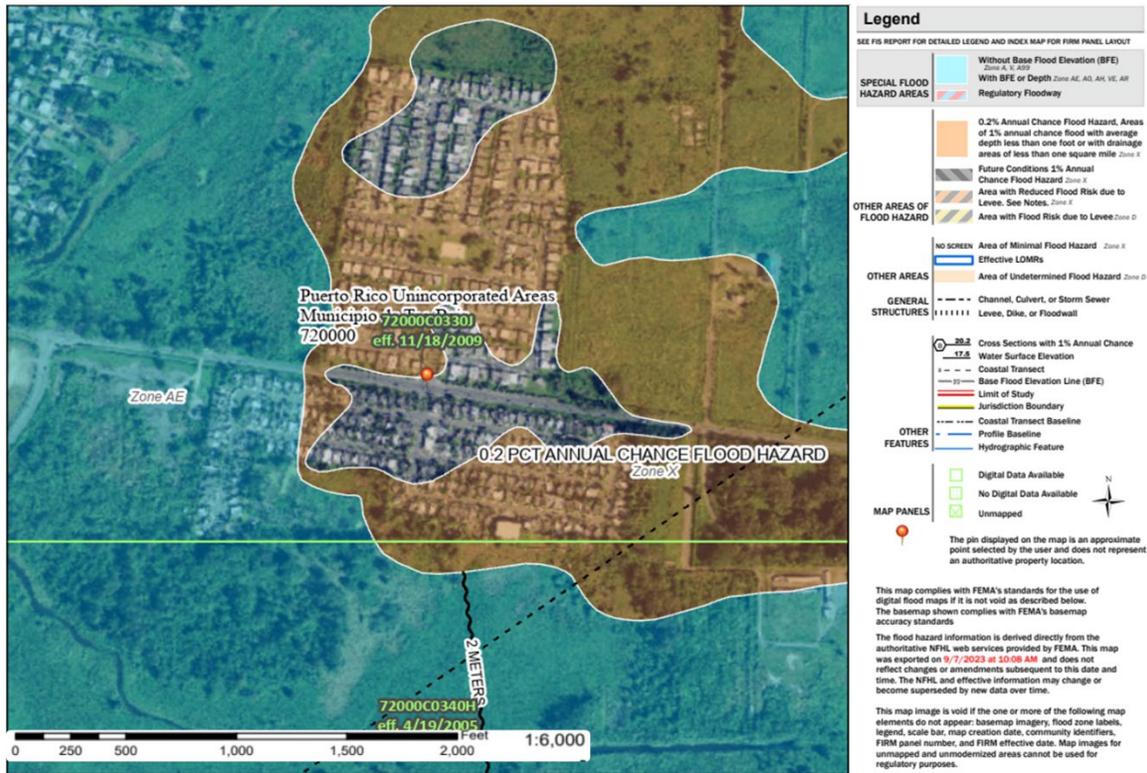


Figure 6. Flood Insurance Rate Map (FIRM) for the proposed project's intersection.,

Generally, the ABFE maps (from December 11, 2018) shows an increase in the floodplain of Toa Baja (Figure 7 and Figure 8). On the contrary of the FIRM maps, the ABFE indicates that project PR-CRP-000991 is within the SFHA which represented the inundated areas of 100-year event. This additional information changes the determination for the floodplain in this project. But being conservative, this report adopts the rigorous indication which in this case is provided by the ABFE. It should be noted that this is not always the case. Sometimes the FIRM maps include areas that are not covered by the ABFE. On those cases, it is recommended to use the FIRM maps.

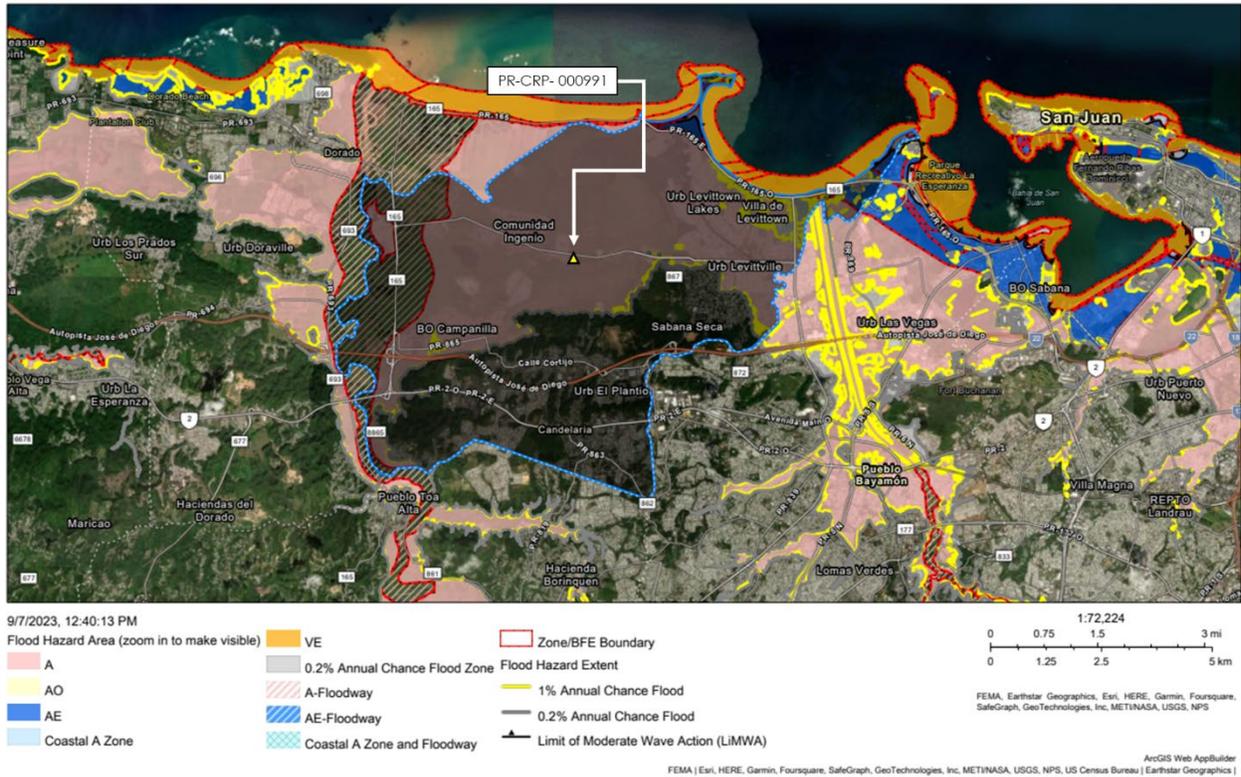


Figure 7. The FEMA Advisory Base Flood Elevation for the Municipality of Toa Baja.

Another information gathered by the ABFE maps is the Base Flood Elevation<sup>5</sup> (BFE) which is shown in the Figure 8 with a magenta line. The BFE related to the project is summarized on the Table 1. To obtain the BFE average of the project we ratio the BFEs with the distance between BFE lines to the project. The BFEs is 7.8 meter for PR-CRP-000991 (see Table 1).

Table 1. Base Flood Elevation Information of the project sites.

Project ID	GPS Coordinates	Area of project (s.q. m.)	ABFE (m)
(1)PR-CRP-000991	18.439403°, - 66.215829	8,127.78	BFE: 5.49m

<sup>5</sup> Base Flood Elevation - The elevation of surface water resulting from a flood that has a 1% chance of equalling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1- A30, AR/AH, AR/AO, V1-V30 and VE. (<https://www.fema.gov/node/404233>)

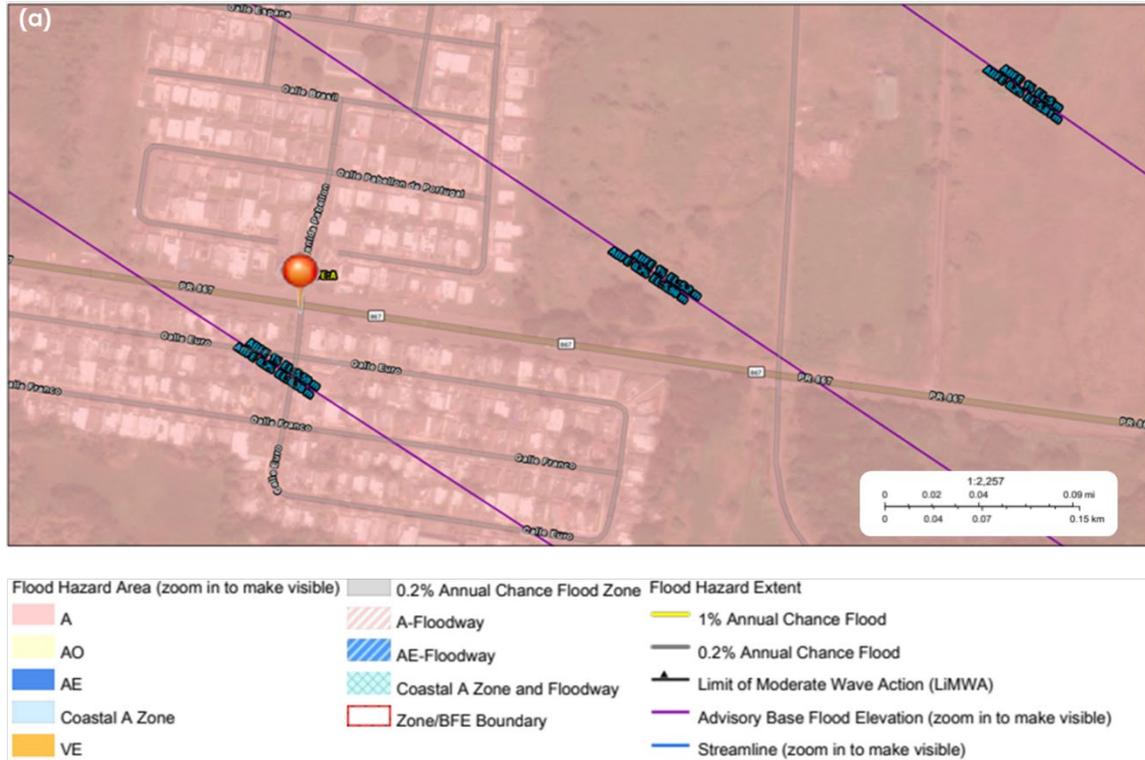


Figure 8. Advisory Base Flood Elevation Maps for the proposed project, PR-CRP-000991.

Floodplain Determination:

According to the current Advisory Base Flood Elevation, three out of four projects are within the 1% Annual Change of Flood, Zone A, which is PR-CRP-000991 (Figure 8). Therefore, the project is under the 24 CFR 55.12(c)(1) and therefore require the decision-making process "8-step Analysis" of the direct and indirect impacts associated with the construction, occupancy, and modification of the floodplain Executives Orders 11988.

## **Step 2: Involve Public in Decision-Making Process (First Public Notice).**

A public notice describing the project was published on February 10, 2024, in the El Nuevo Día newspaper. This newspaper has circulation throughout the entire island of Puerto Rico. The ad was directed at interested agencies, groups and individuals and was published in Spanish and English. The notice also included the name, proposed location, a brief description of the activity, and the responsible entity's contact information, which in this instance is the Puerto Rico Department of Housing. The notice also included the location at which a full description of the proposed action could be viewed. A copy of the published notification is attached to this document (see attachment 1).

The required 15 calendar days were allowed for public comment, thus the comment period ended on February 25, 2024. An additional day was reserved to allow comments to come through in the event they were sent via regular mail. At the end of the waiting period, no comments were received.

### **Step 3: Determine if there is a Practicable Alternative.**

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The Municipality of Toa Baja has evaluated important criteria for the development of this project, which comprised the road improvements and the reconstruction of roundabout in floodplain area. An important criterion for developing this project in floodplain will consist of evaluating the adverse and beneficial effects of the different alternatives. This step will consist of a practicable alternative to avoid or mitigate the possible adversely impact to the flood zones.

In the evaluation of the alternatives, the following were considered:

#### **I. Re-locate the project outside the floodplain (Alternative I).**

Alternative I consist of relocating the project outside the floodplain.

Given that 63% of the Municipality of Toa Baja lies within the floodplain, relocating the project would entail several steps. Firstly, it would require identifying a new location outside the floodplain, assessing its feasibility, and planning the relocation process. Additionally, social impact assessments would need to be conducted to understand the implications for the community. However, this relocation may not effectively serve the same community that the project is intended to benefit. Moreover, relocating the project to a new area would not address the current challenges faced by the floodplain at this intersection. Therefore, the feasibility of relocating the project appears questionable, as it would involve extensive planning and may not achieve the desired outcomes to serve the community as intended to benefit.

#### **II. Locate the project within the floodplain (Alternative II).**

Alternative II will consist in the reconstruction of the intersection as discussed above in the project description.

The proposed project aims to enhance the existing conditions within the Municipality of Toa Baja, an area already impacted by the current road infrastructure. The suggested action involves converting the intersection into a roundabout. The primary objective of these improvements is to boost mobility along the road, reduce vehicular conflict points, provide safe, convenient, and visually pleasing crossings for pedestrians and bicyclists, and improve connectivity and circulation among different sectors in Toa Baja and additionally to help shape and implement the future vision of communities that were affected by Hurricanes Irma and María to undertake a variety of recovery activities aimed at reinvigorating downtown areas, urban centers, and key community corridors. This project will promote the redevelopment, re-greening and restoration of Toa Baja, and further incentivize private investments in restored nearby urban areas.

Despite the proposed project improvements being within the floodplain, they are anticipated to bring substantial benefits to the sector this project will serve. Moreover, it's important to note that the road improvements do not intend to alter the floodplain characteristics of the areas. Therefore, we expect that these activities will not have an adverse impact on the floodplain. This alignment with the CRP-CBBR program's goals ensures that the project contributes positively to the recovery and resilience efforts in the affected communities.

#### **III. No action (Alternative III)**

Alternative III is the "No action Alternative".

Alternative III, referred to as the 'No-action Alternative,' would result in the applicant not receiving funding, thus impeding their ability to modernize intersections, including those along PR-867, Campanilla Avenue, and PR-865. This lack of funding would prevent the integration of communities along these routes, providing no tangible benefits to the local community.

City Revitalization Program

PR-CRP-000991 Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca, Toa Baja

Consequently, the project sites would remain unchanged, with no foreseeable improvements. The anticipated impacts outlined in this document would not materialize, and positive outcomes, such as enhancing community integration through modernized intersections, such as providing a safer intersection and a street crossing for pedestrians in an area that lacks one, would not be achieved. It is currently uncertain whether another development offering similar benefits for both area residents and visitors will emerge in the future.

## **Step 4: Identify Adverse and Beneficial Impacts Associated with Floodplain.**

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The Municipality of Toa Baja has conducted a thorough evaluation of essential criteria for the development of this project, encompassing road improvements and the construction of a roundabout in a flood-prone area. An integral aspect of this project in the floodplain involves assessing both the adverse and beneficial effects of the chosen alternative in the floodplain. The analysis of beneficial impacts will center on improved traffic flow, reduced emissions, and enhanced safety for pedestrians and bicyclists. The HUD-funded CRP program is for projects that contribute to economic revitalization throughout Puerto Rico. PRDOHs regulations limit what actions can be considered under the CRP program, including prohibition of any construction in the floodway. Descriptions of the potential impacts from the proposed actions are below:

### **I. Alternative I - Re-locate the project outside the floodplain.**

The proposal to relocate the proposed infrastructures outside the floodplain implies that the current intersection will remain unchanged. As a result, the local community and traffic, which rely on this intersection for transit and commute, may not experience the potential benefits of a roundabout.

The main goal of these improvements is to enhance mobility along the road, minimize vehicular conflict points, ensure safe, convenient, and aesthetically pleasing crossings for pedestrians and bicyclists, and improve connectivity and circulation among the various sectors commuting along this route in Toa Baja. These objectives are best achieved by implementing the roundabout at the current intersection, as originally planned.

Furthermore, relocating the projects to a new location will not ameliorate the current conditions of the floodplain at this intersection. The issues related to flood risk and safety will persist regardless of the project's location within the floodplain. Therefore, it is crucial to proceed with the planned improvements at the current intersection to fulfill the project's intended benefits and address the needs of the community and traffic flow effectively.

### **II. Alternative II - Locate the project within the floodplain.**

The proposed modification of the intersection to a roundabout will seamlessly fit within the existing road footprint. Consequently, there will be no increase in impervious surfaces; instead, the roundabout will introduce new green areas that aid in managing low-frequency rainfall. While this may not lead to a significant decrease in flood effects in the areas, it will certainly not contribute to an increase or creation of additional flood-prone areas. The proposed projects will be constructed within the existing road infrastructure's footprint.

Roundabouts offer an excellent solution for integrating pedestrians and bicyclists into the traffic flow. Unlike traditional intersections, roundabouts provide designated crosswalks and pathways for pedestrians and cyclists, enhancing safety and convenience. Pedestrians can utilize marked crosswalks at the entry and exit points of the roundabout, with refuge islands in the center for safer crossings. Bicyclists have the option to ride with the flow of traffic or use designated bike lanes, promoting a smoother and more organized flow for all road users. This integration not only improves safety but also encourages more sustainable modes of transportation. Additionally, the slower speeds within roundabouts create a safer environment for pedestrians and cyclists, reducing the likelihood of severe accidents. Overall, roundabouts are an effective way to enhance mobility and safety for all road users, including pedestrians and bicyclists.

Roundabouts offer numerous advantages, primarily centered around safety, efficiency, cost-effectiveness, and space utilization. Studies consistently demonstrate that roundabouts significantly reduce accidents and injuries compared to traditional intersections. This is achieved through lower travel speeds, continuous traffic flow, and one-way travel that eliminates hazardous collision types. Moreover, roundabouts enhance traffic flow by reducing delays and vehicle stops, evidenced by a 20% reduction in delays after installation. While roundabouts are initially comparable in cost to traffic signals, their long-term maintenance costs are notably lower due to the absence of hardware and electrical expenses. They also perform effectively during power outages without requiring police direction.

Furthermore, although roundabouts may require more space within the intersection, they generally occupy less space on approaching streets due to needing fewer lanes. Engineers meticulously consider factors such as accident history, intersection operation, types of vehicles, and costs when determining suitable locations for roundabouts. In conclusion, roundabouts provide a comprehensive solution to intersection challenges, offering safer, more efficient, and cost-effective traffic management while optimizing space utilization.

### **III. Alternative III – No Action**

This "No Action" alternative, while maintaining the status quo of the road infrastructure, falls short of addressing the critical issues faced by the community. By choosing this alternative, the opportunity to enhance the resilience and sustainability of the area is missed, hindering the overall progress and recovery efforts after the devastation of Hurricanes Irma and María. Additionally, the absence of action means the Municipality will not receive the necessary funding to revitalize and improve the city of Toa Baja, impacting its long-term growth and development. Therefore, it is imperative to consider the proposed project's potential benefits and its alignment with the goals of the City Revitalization Program to ensure the continued progress and prosperity of the community.

Environmental Factor Analysis:

#### **(1) Natural environment (topography, habitat, hazards);**

The proposed project that comprises the change from a traditional intersection to a roundabout within the right of way can indeed impact various aspects of the natural environment. Here's how:

Topography:

The construction of a roundabout may necessitate terrain modifications, such as leveling or grading the land to accommodate the circular layout. It's important to note that in this project, there are no planned changes in elevation or land alterations that could potentially impact water drainage patterns or soil stability.

Habitat:

The proposed project may have a significant impact on the local habitat, particularly during construction and ongoing maintenance of the roundabout. Activities such as clearing vegetation or disrupting ecosystems could disturb the natural environment, potentially causing habitat fragmentation or loss and affecting local plant and animal species.

To mitigate these effects, the design of the roundabout shall prioritize green infrastructure. This could involve planting native vegetation and incorporating wildlife-friendly features into the designs and construction equipment will have a designated staging area.

Hazards:

To minimize the environmental impact of transitioning to a roundabout, the proposed project shall include:

Implement erosion control measures and best management practices during construction to protect soil and water quality.

Incorporate landscaping and habitat enhancements into the roundabout design to promote biodiversity and ecological connectivity.

Monitor the site post-construction to assess any ongoing impacts and implement mitigation measures as needed.

By considering the natural environment throughout the planning and implementation process, it's possible to create roundabouts that not only improve traffic flow and safety but also enhance the overall environmental quality of the area.

**(2) Social concerns (aesthetics, historic and cultural values, land use patterns);**

Switching an intersection to a roundabout within the existing right of way can indeed have various social implications, particularly concerning aesthetics, historic and cultural values, and land use patterns.

Aesthetics:

Roundabouts can often be aesthetically pleasing compared to traditional intersections. They can incorporate landscaping, sculptures, or other features that enhance the visual appeal of the area.

However, some people may have concerns about the initial disruption during construction or potential ongoing maintenance issues that could affect the appearance of the roundabout.

Historic and Cultural Values:

The intersection is not in a historically or culturally significant area, the change to a roundabout will not impact the character of the surroundings.

Land Use Patterns:

Roundabouts have the potential to reshape land use patterns by modifying traffic flow and enhancing accessibility. This redesigned infrastructure, along with surrounding development, is poised to stimulate diverse forms of development and enhance property values along these road corridors, thereby attracting economic growth to the area.

Businesses or residents adjacent to the intersection may initially have concerns about how the change will impact their accessibility or visibility, given the importance of these factors to their economic viability. However, with this thoughtful design and effective communication, the new roundabout can actually enhance accessibility and visibility, ultimately bolstering economic opportunities for these stakeholders.

Addressing these concerns requires thoughtful planning and engagement with stakeholders. Conducting community meetings, soliciting feedback, and collaborating with locals can help ensure that the proposed roundabout respects the area's social fabric and enhances its overall livability. Additionally, integrating design elements that reflect the area's heritage or cultural identity can help mitigate any perceived loss of historical or cultural values.

### **(3) Economic aspects (costs of construction, transportation, and relocation); and**

Proposing a change from a traditional intersection to a roundabout can indeed have significant economic implications. Here are some key factors to consider:

#### Construction Costs:

Constructing the roundabout will involve substantial investment, encompassing expenses such as excavation, paving, landscaping, signage, and lighting. However, approval of these costs under the CRP-CDBG program promises to deliver the community significant benefits through the implementation of a roundabout.

While roundabouts generally demand less maintenance compared to traditional intersections with traffic lights or stop signs, ongoing upkeep remains necessary, particularly concerning landscaping, signage, and occasional repairs. It's important for the Municipality to factor in these maintenance expenses during economic analysis when budgeting for the upkeep of the new intersection.

#### Transportation Efficiency:

The roundabouts can improve traffic flow and reduce congestion compared to traditional intersections. This can result in economic benefits such as reduced travel time for users, lower fuel consumption, and decreased vehicle emissions. These potential savings should be weighed against the initial construction and maintenance costs.

#### Relocation Costs:

The proposed roundabout may be relocating utilities, property boundaries, or other infrastructure. Relocation costs can vary greatly depending on the extent of the required changes and any potential disruptions to existing services.

#### Safety Benefits:

Roundabouts are often associated with improved safety outcomes compared to traditional intersections, as they reduce the potential for high-speed, right-angle collisions. There is an economic value of these safety benefits, such as reduced healthcare costs and property damage.

In summary, while converting an intersection to a roundabout can involve significant upfront costs, it may also offer long-term economic benefits such as improved transportation efficiency and safety.

#### (4) Legal considerations (deeds, leases).

The proposed project will occur entirely within the footprint of the current intersection and does not encroach upon any additional land, the legal considerations related to deeds and leases may be less complex compared to if new land were needed. However, it's still important to consider potential legal implications:

#### Property Rights within the Right of Way:

Even if the roundabout construction stays within the existing right of way, property deeds will still be reviewed to ensure that there are no specific provisions or restrictions that could affect the project. While the land may be designated for public use, there could be conditions attached to its use that need to be considered.

#### Leases and Easements:

Similarly, existing leases or easements within the right of way should be examined to confirm that the proposed construction won't interfere with any agreements. While it's less likely to be an issue if the project remains within the current footprint, it's still important to ensure compliance with any relevant contractual obligations.

#### Government Regulations and Permits:

Legal considerations related to government regulations and permits remain important. The project will follow any requirements for obtaining permits or approvals from local authorities. Compliance with zoning laws, transportation regulations, and any other relevant regulations shall be confirmed.

#### Public Consultation and Participation:

While the physical footprint of the construction may not extend beyond the existing intersection, stakeholders such as nearby residents, businesses, and community organizations may still have concerns or interests that need to be addressed. The 8 STEP process ensures that the stakeholder stays informed about the scope of the project, environmental, social, and economic concerns.

Overall, while the legal considerations may be somewhat simplified if the roundabout construction remains within the current intersection footprint, it's still essential to conduct thorough due diligence.

**Step 5: Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.**

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(a) **Preserving Lives:** The proposed actions do not entail a direct increase in population density in the area. Consequently, in the event of a flood, the infrastructure modifications are unlikely to pose a significant threat to human life or may only pose minimal risk. Additionally, one of the primary objectives of the project is to enhance safety at the intersection for both residents and visitors.

(b) **Preserving Property:** Given the nature of the project and its need to withstand climate events, floodproofing, elevation adjustments, or obtaining insurance for project elements are unnecessary. The project will take place on a state road that does not require flood insurance. Moreover, the adjacent structures are not anticipated to be adversely affected by the project's implementation, as the stormwater management infrastructure in the area will remain unchanged.

(c) **Preserving Natural Values and Minimizing Impacts:** The project aims to improve existing infrastructure while minimizing impacts on natural, undeveloped areas. To achieve this, erosion and sedimentation controls will be implemented during construction, and efforts will be made to avoid exposed soil during the operation phase. Impact on water resources will be minimal, as all areas will incorporate elements allowing percolation and limiting erosion. Landscaping practices will prioritize the use of native vegetation resilient to climate events, contributing to soil erosion prevention.

(d) **Restore and Preserve the Values of the Floodplain:** While the proposed action may not restore floodplain values, the design is intended to preserve them. This preservation will be partly achieved through the renovation and utilization of existing facilities such as roads, sidewalks, and green areas, which will reduce the creation of impermeable surfaces. The design does not include new structures that might impede floodwater movement. Furthermore, the design aims to maximize water percolation by incorporating permeable surfaces and enhancing existing vegetation with new landscaping. The area's topography will remain unchanged.

## **Step 6. Reevaluate the Alternatives**

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Alternative I (Re-locate the project outside the floodplain) and alternative III (No Action) would involve making no improvements to the facility. Therefore, these options would not contribute to the Municipality's efforts to revitalize and provide for a more resilient community. These options were not considered an acceptable alternative. Therefore, these alternatives are no practicable alternatives to the proposed project. The project's intention is to provide a resilience, safer and more efficient intersection. The relocation and no action alternatives are impracticable because it will not satisfy the need to provide a more efficient intersection on PR-865 intersection with Ave. Campanilla at Toa Baja.

Despite the Alternative II being in a floodplain, measures will be taken to preserve the floodplain values. Stormwaters will be allowed to percolate naturally, following the terrain's contours. Moreover, the project does not pose an additional risk to human life as it does not involve an increase in population density, such as that of a housing project by the contrary the modification of the intersection will reduce the vehicular conflict points from 32 to 8, representing a reduction of 75%. Also, the roundabout will provide a reduction of vehicular-to-pedestrian conflict points from 24 to 8, representing a reduction of 66.7%. Overall, the roundabout will improve the connectivity and circulation between Campanilla Avenue, PR-867, PR-865 areas and will create a safer intersection. The project will not modify the current floodplain footprint. Therefore, is it not expected to have an adverse impact in the base flood elevation.

There are no practicable alternatives to develop the proposed project outside the floodplain. The project intention is to provide a safer and more efficient intersection. The no action alternative is impracticable because it will not satisfy the need to provide a more efficient intersection.

### ***Step 7: Determination of No Practicable Alternative***

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It is our determination that there is no practicable alternative to locating the project in the floodplain. This decision is based on several factors:

- 1) The project is entirely situated within the 100-year floodplain, and 63% of the Municipality of Toa Baja falls within this floodplain zone.
- 2) There is a strong desire to revitalize the Municipality of Toa Baja through the CRP program, which necessitates locating the project within the floodplain.
- 3) We have the capability to effectively mitigate and minimize impacts on human health, public property, and natural floodplain values.
- 4) The proposed actions will not expand the infrastructure footprint, and therefore, are not expected to modify the base flood elevation.

A final notice detailing the reasons why the modified project must be located in the floodplain was published on **June 6, 2024**, and posted in accordance with prior notices. This notice outlines the rationale for siting the modified project in the floodplain, provides a list of alternatives considered at various stages, and describes the mitigation measures identified to minimize adverse impacts and preserve the natural floodplain values.

The attached publication notice indicates that no concerns were expressed by the public regarding the final notice.

## **Step 8: Implement the Proposed Action**

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The Municipality is committed to implementing the plan outlined above to manage and mitigate impacts on the floodplain to the greatest extent possible. These activities will be carried out as described, and the necessary language will be included in all agreements with participating parties. Additionally, the city will take an active role in monitoring the construction process to prevent any unnecessary impacts and avoid taking unnecessary risks. This proactive approach will ensure that the project is executed in a manner that safeguards the floodplain while achieving its intended objectives.

City Revitalization Program  
Rotanda PR-867 entradas Urbs. Campanillas y  
Pabellones, Sabana Seca, Toa Baja

**Attachment 1 – Initial notice publication (Step 2) and “no comment”  
confirmation letter**

## Andrea Curbelo-Marty

---

**From:** environmentcdbg <environmentcdbg@vivienda.pr.gov>  
**Sent:** Monday, February 12, 2024 11:33 AM  
**To:** Jose.A.CedenoMaldonado@hud.gov; Mahon, Donna M; Caribbean\_es@fws.gov; Lourdes\_Mena@fws.gov; Rodriguez.elias@epa.gov; Guerrero.carmen@epa.gov; PublicMail.CESAJ-CC@usace.army.mil; Rich.Okulski@noaa.gov; Noah.Silverman@noaa.gov; nmfs.ser.esa.consultations@noaa.gov; FEMA-R4EHP@fema.dhs.gov; carubio@prshpo.pr.gov; comunicaciones@ddec.pr.gov; secretario@ddec.pr.gov; jannira.colon@ddec.pr.gov; Rivera\_r1@jp.pr.gov; comentarios@jp.pr.gov; pmzc@drna.pr.gov; eortega@drna.pr.gov; ayudaciudadano@drna.pr.gov; anais.rodriguez@drna.pr.gov  
**Subject:** Public Notice – Early Notice and Public Review of a Proposed Activity in the 100-Year Floodplain\_PRDOH Case PR-CRP-000991  
**Attachments:** Early Notice\_El Nuevo Día\_PR-CRP-000991.pdf

Concerned agencies,

Enclosed please find a **Public Notice – Early Notice and Public Review of a Proposed Activity in the 100-Year Floodplain** the Puerto Rico Department of Housing (as the Responsible Entity) published as part of HUD's requirements for the release of CDBG-DR funds to undertake the project *Rotonda PR-897 entradas Urbs. Campanillas y Pabellones, Sabana Seca* (PR-CRP-000991). The Early Notice was published in the *El Nuevo Día* newspaper of Puerto Rico on February 10, 2024.

Respectfully,

### Permits and Environmental Compliance Division

Disaster Recovery Office

[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527

Visit us: [recuperacion.pr.gov](http://recuperacion.pr.gov)

Contact us: [infocdbg@vivienda.pr.gov](mailto:infocdbg@vivienda.pr.gov)

DEPARTAMENTO DE LA  
**VIVIENDA**



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## aviso público

### Aviso Preliminar y Revisión Pública de una Actividad Propuesta en un valle inundable de 100 años

Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca PR-CRP-000991

Para: Todas las partes interesadas, grupos e individuos

Este aviso notifica que el Departamento de la Vivienda de Puerto Rico (Vivienda, en adelante) ha determinado que la siguiente acción propuesta bajo el Programa de Revitalización de la Ciudad, Subvención en Bloque para el Desarrollo Comunitario – Recuperación ante Desastres (CDBG-DR), número de subvención B-17-DM-72-0001, B-18-DP-72-0001 y B-19-DP-78-0002, se encuentra en un valle inundable de 100 años. Vivienda está evaluando e identificando alternativas prácticas para realizar la acción propuesta y el impacto potencial en el valle inundable debido a la acción propuesta, según establecido por la Orden Ejecutiva 11988, de acuerdo con las regulaciones de HUD en 24 CFR 55.20 Subparte C - Procedimientos para tomar determinaciones sobre el manejo de llanuras aluviales y la protección de humedales. El proyecto propuesto, **PR-CRP-000991**, está localizado en la carretera PR-867 km 3.8, intersección de las entradas a las urbanizaciones Campanillas and Pabellones, bo. Sabana Seca, Toa Baja, Puerto Rico, coordenadas 18.439409, -66.215839. El proyecto consiste en la realización de mejoras geométricas, mejoras al sistema pluvial, reparación y construcción de rampas, instalación de postes de iluminación y señales de tránsito energéticamente eficientes, medidas de reducción de velocidad, mejoras al paisaje urbano, y pavimentación de calles. También incluirá la construcción de una rotonda con un diámetro aproximado de 15.24 metros. La rotonda optimizará el tráfico vehicular, reducirá la velocidad vehicular en la intersección PR-867, mejorará la entrada y salida hacia o desde las urbanizaciones, y mejorará la seguridad tanto para los peatones como para los ciclistas que utilicen la intersección. El proyecto contribuirá a los valores recreativos al proporcionar aceras nuevas y reconstruidas, así como mejoras en cumplimiento de la Ley de Estadounidenses con Discapacidades (ADA), lo que permitirá caminar y andar en bicicleta de manera segura. La huella total del proyecto es de 2.0 acres (8,127.78 metros cuadrados). La actividad propuesta está ubicada en un valle inundable de 100 años, zona de inundación A y el área del proyecto se puede encontrar en el mapa de niveles de inundación base (ABFE, por sus siglas en inglés), cómo se indica en el Nivel de Inundación Base Recomendado de FEMA para Puerto Rico en Puerto Rico Advisory Base Flood Elevations (ABFE's) | FEMA Region II Hub ([arcgis.com](http://arcgis.com)).

Este aviso tiene tres propósitos principales. En primer lugar, las personas que puedan verse afectadas por las actividades en el valle inundable y aquellos que tengan interés en la protección del ambiente natural deben tener la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Se exhorta a la comunidad a ofrecer ubicaciones alternas fuera del valle inundable, métodos alternos para cumplir el mismo propósito del proyecto y métodos para minimizar y mitigar los impactos. Segundo, un programa adecuado de avisos públicos puede ser una herramienta importante para la educación pública. La divulgación de información sobre el valle inundable puede facilitar y mejorar los esfuerzos federales por reducir los riesgos e impactos asociados con la ocupación y alteración de estas zonas especiales. Tercero, como materia de justicia, cuando el gobierno federal determine participar en acciones ubicadas en el valle inundable, debe informárselo a quienes puedan ser expuestos a un riesgo mayor o similar al presente.

Vivienda considerará todos los comentarios recibidos en o antes de 25 de febrero de 2024. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918-8461, Atención: Santa D. Ramírez-Lebrón, Especialista en Permisos y Cumplimiento Ambiental. Una descripción completa del proyecto está disponible al público para revisión de 8:30 a.m. a 4:00 p.m. en el Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918. El número para obtener información es (787)274-2527 ext. 4320. Como alternativa, también pueden enviar los comentarios a Vivienda por medio electrónico a [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov).

Fecha: 10 de febrero de 2024

  
Lcdo. William O. Rodríguez Rodríguez  
Secretario del Departamento de la Vivienda

Autorizado por la Oficina del Contralor Electoral OCE-SA-2023-00076

## public notice

### Early Notice and Public Review of a Proposed Activity in a 100-Year Floodplain

Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca PR-CRP-000991

To: All Interested Parties, Groups & Individuals

This is to give notice that the Puerto Rico Department of Housing (PRDOH) has determined that the following proposed actions under the Community Development Block Grant – Disaster Recovery (CDBG-DR), City Revitalization Program, Grant number B-17-DM-72-0001, B-18-DP-72-0001 and B-19-DP-78-0002, is located in a 100-year floodplain. PRDOH will be identifying and evaluating practicable alternatives to locate the action in the floodplain and the potential impacts on the floodplain from the proposed actions, as required by Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. The proposed project, **PR-CRP-000991**, is located at PR-867 Road Km 3.8, intersection of the entrances to the Campanillas and Pabellones suburbs, Sabana Seca Ward, Toa Baja, Puerto Rico, coordinates 18.439409, -66.215839. The project consists of carrying out geometric improvements, stormwater system improvements, repair and construction of ramps, installation of energy-efficient lighting and traffic signal posts, speed reduction measures, streetscape improvements, and street paving. It will also include the construction of a roundabout with a diameter of approximately 15.24 meters. The roundabout will optimize vehicular traffic, reduce vehicular speed at the PR-867 intersection, improve entry and exit to or from developments, and improve safety for both pedestrians and cyclists using the intersection. The project will contribute to recreational values by providing new and reconstructed sidewalks, as well as improvements in compliance with the American with disabilities Act (ADA), allowing safe walking, and cycling. The total footprint of the project is 2.0 acres (8,127.78 square meters). The proposed activity is located in a 100-year floodplain, flood zone A and the project area can be found at the Advisory Base Flood Elevation Map (ABFE), as indicated on the FEMA Advisory Base Flood Elevation for Puerto Rico at Puerto Rico Advisory Base Flood Elevations (ABFE's) | FEMA Region II Hub ([arcgis.com](http://arcgis.com)).

There are three primary purposes for this notice. First, people who may be affected by activities in the floodplain and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative sites outside of the floodplain, alternative methods to serve the same project purpose, and methods to minimize and mitigate impacts. Second, an adequate public notice program can be an important public educational tool. The dissemination of information and request for public comment about the floodplain can facilitate and enhance Federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in the floodplain, it must inform those who may be put at greater or continued risk.

PRDOH will consider all comments received on or before February 25, 2024. Written comments can be sent to the following address: Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918-8461, Attention: Santa D. Ramírez-Lebrón, Permits and Environmental Compliance Specialist. A complete description of the project is available to the public for review from 8:30 am to 4:00 pm at the Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918. The number to get information is (787)274-2527 ext. 4320. In the alternative, comments may also be sent to PRDOH by email at [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov).

Date: February 10, 2024.

  
William O. Rodríguez Rodríguez, Esq.  
Secretary of the Department of Housing

Autorizado by the Office of the Electoral Comptroller OCE-SA-2023-00076

# NUESTROS NIÑOS Y JÓVENES SON TALLADOS SEGÚN TUS ACCIONES Y SU ENTORNO SOCIAL.

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TEL.: 787-728-3939 [WWW.JUVENTUDPR.ORG](http://WWW.JUVENTUDPR.ORG)



February 28, 2024

To whom it may concern,

This letter is to validate that no comments were received in the Permits and Environmental Compliance Division e-mail: [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov), for the project *Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca (PR-CRP-000991)*, as part of the CDBG-DR City Revitalization Program. The Early Notice and Public Review of a Proposed Activity in a 100-Year Floodplain was published in the *El Nuevo Día* newspaper of Puerto Rico on February 10, 2024, with a comment period that concluded on February 25, 2024.

Cordially,

Permits and Environmental Compliance Division  
Disaster Recovery Office  
[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527 ext. 4320

## Andrea Curbelo-Marty

---

**From:** Kenneth M. Garcia-De Leon  
**Sent:** Wednesday, February 28, 2024 11:42 AM  
**To:** environmentcdbg  
**Subject:** RE: Comentarios - Aviso Preliminar PR-CRP-000991

Saludos:

Por correo postal no llegaron comentarios para mencionado proyecto.

Atentamente;

### Kenneth M. García De León

Especialista en Control de Documentos / Operaciones

Oficina Recuperación de Desastres

[kgarcia@vivienda.pr.gov](mailto:kgarcia@vivienda.pr.gov) | [787.274.2527](tel:787.274.2527) Ext. 4013

Visítanos: [recuperacion.pr.gov](http://recuperacion.pr.gov)

Contactanos: [infocdbg@vivienda.pr.gov](mailto:infocdbg@vivienda.pr.gov)

DEPARTAMENTO DE LA  
**VIVIENDA**



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**From:** environmentcdbg <[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov)>  
**Sent:** Wednesday, February 28, 2024 9:48 AM  
**To:** Kenneth M. Garcia-De Leon <[kgarcia@vivienda.pr.gov](mailto:kgarcia@vivienda.pr.gov)>  
**Subject:** Comentarios - Aviso Preliminar PR-CRP-000991

Saludos Kenneth,

Con respecto a la publicación del Aviso Preliminar y Revisión Pública de una Actividad Propuesta en un valle inundable de 100 años (Paso 2) para el proyecto **Rotonda PR-867 entradas Urbs.**

**Campanillas y Pabellones, Sabana Seca (PR-CRP-000991)**, ¿habrá llegado algún comentario a través del correo postal? De ser así, por favor nos lo hace llegar.

Cordialmente,

## Permits and Environmental Compliance Division

Disaster Recovery Office

[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527

Visit us: [recuperacion.pr.gov](http://recuperacion.pr.gov)

Contact us: [infocdbg@vivienda.pr.gov](mailto:infocdbg@vivienda.pr.gov)

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City Revitalization Program  
Rotanda PR-867 entradas Urbs. Campanillas y  
Pabellones, Sabana Seca, Toa Baja

**Attachment 2 – Final notice publication (Step 7) and “no comment” confirmation  
letter**

**From:** [environmentcdbg](mailto:environmentcdbg)  
**To:** [Jose.A.CedenoMaldonado@hud.gov](mailto:Jose.A.CedenoMaldonado@hud.gov); [Mahon\\_Donna M](mailto:Mahon_Donna_M); [Caribbean\\_es@fws.gov](mailto:Caribbean_es@fws.gov); [Tawes\\_Robert](mailto:Tawes_Robert); [Rodriguez.elias@epa.gov](mailto:Rodriguez.elias@epa.gov); [Guerrero.carmen@epa.gov](mailto:Guerrero.carmen@epa.gov); [PublicMail.CESAJ-CC@usace.army.mil](mailto:PublicMail.CESAJ-CC@usace.army.mil); [Rich.Okulski@noaa.gov](mailto:Rich.Okulski@noaa.gov); [Noah.Silverman@noaa.gov](mailto:Noah.Silverman@noaa.gov); [nmfs.ser.esa.consultations@noaa.gov](mailto:nmfs.ser.esa.consultations@noaa.gov); [FEMA-R4EHP@fema.dhs.gov](mailto:FEMA-R4EHP@fema.dhs.gov); [carubio@prshpo.pr.gov](mailto:carubio@prshpo.pr.gov); [comunicaciones@ddec.pr.gov](mailto:comunicaciones@ddec.pr.gov); [secretario@ddec.pr.gov](mailto:secretario@ddec.pr.gov); [jannira.colon@ddec.pr.gov](mailto:jannira.colon@ddec.pr.gov); [Rivera\\_r1@jp.pr.gov](mailto:Rivera_r1@jp.pr.gov); [comentarios@jp.pr.gov](mailto:comentarios@jp.pr.gov); [pmzc@drna.pr.gov](mailto:pmzc@drna.pr.gov); [eortega@drna.pr.gov](mailto:eortega@drna.pr.gov); [ayudaciudadano@drna.pr.gov](mailto:ayudaciudadano@drna.pr.gov); [anais.rodriguez@drna.pr.gov](mailto:anais.rodriguez@drna.pr.gov)  
**Subject:** Public Notice – Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain \_PRDOH Case PR-CRP-000991  
**Date:** Thursday, June 6, 2024 10:46:54 AM  
**Attachments:** [Final Notice Primera Hora PR-CRP-000991.pdf](#)  
[image003.png](#)

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Concerned agencies,

Enclosed please find a **Public Notice – Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain** the Puerto Rico Department of Housing (as the Responsible Entity) published as part of HUD's requirements for the release of CDBG-DR funds to undertake the project *Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca* (PR-CRP-000991). The Final Notice was published in the *Primera Hora* newspaper of Puerto Rico on June 6, 2024.

Respectfully,

### Permits and Environmental Compliance Division

Disaster Recovery Office

[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527

Visit us: [recuperacion.pr.gov](http://recuperacion.pr.gov)

Contact us: [infocdbg@vivienda.pr.gov](mailto:infocdbg@vivienda.pr.gov)

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# avisos Y subastas

## CIERRE DE PRACTICA MEDICA

**Dr. Luis M. Dorta Hernández, Psiquiatra**

**Dra. María T. Mojica Torres, Psicóloga Clínica**

Se informa a todos los pacientes el cierre de su práctica médica Localizada en Plaza Iturregui, Suite #17, 1134 Ave. 65 de infantería Río Piedras, P.R. 00924.

Todos los pacientes interesados en recoger su expediente (Dr. Dorta), o Resumen del mismo (Dra. Mojica), pueden pasar por la oficina para Solicitarlo en los próximos 30 días a partir de este comunicado de lunes a jueves de 1:00 PM a 5:00 PM.

Al transcurrir el término, se podrá disponer de los expedientes médicos según dispone la orden administrativa, Número 365 del Departamento de Salud.

Favor de llamar o dejar mensaje al 787-281-0032  
Lunes a jueves de 1:00 PM a 5:00 PM.

## US TREASURY DEPARTMENT ONLINE AUCTIONS



\*\*\* BID ONLINE TUE. JUNE 18, 2024 \*\*\*



**Land w/Structure  
186-B Calle 45,  
Hill Brothers**

**Multi-Family Bldg  
626 Calle Julio Andino,  
Villa Prades**



**2 Single Family Homes  
326-B & 326-C Calle 28  
Parcelas Falu, Hill Brothers**



**Book appt online to inspect in person on  
THURS. JUNE 13, 2024**

DETAILS & TERMS @

[https://www.cwsmarketing.com/?page\\_id=14513](https://www.cwsmarketing.com/?page_id=14513)

**703-273-7373**

## aviso público

### Aviso Final y Explicación Pública de una Actividad Propuesta en un valle inundable de 100 años

Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca  
PR-CRP-000991

Para: Todas las partes interesadas, grupos e individuos

Este aviso notifica que el Departamento de la Vivienda de Puerto Rico (Vivienda, en adelante) completó una evaluación según establece la Orden Ejecutiva 11988, de acuerdo con los reglamentos de HUD en 24 CFR 55.20 Subparte C - Procedimientos para hacer determinaciones sobre el manejo del valle inundable y la protección de humedales. La actividad está subvencionada con fondos del Programa de Revitalización de la Ciudad, Subvención en Bloque para el Desarrollo Comunitario - Recuperación ante Desastres (CDBG-DR), número de subvención B-17-DM-72-0001, B-18-DP-72-0001 y B-19-DP-78-0002. El proyecto propuesto, **PR-CRP-000991**, está localizado en la carretera PR-867 km 3.8, intersección de las entradas a las urbanizaciones Campanillas y Pabellones, barrio Sabana Seca, Toa Baja, PR 00949; coordenadas 18.439409, -66.215839. El proyecto consiste en mejoras geométricas, mejoras al sistema pluvial, reparación y construcción de rampas, instalación de postes de iluminación y señales de tránsito energéticamente eficientes, medidas de reducción de velocidad, mejoras del paisaje urbano, y pavimentación de calles. También incluirá la construcción de una rotonda con un diámetro aproximado de 15.24 metros. La rotonda optimizará el tráfico vehicular, reducirá la velocidad vehicular en la intersección de la PR-867, mejorará la entrada y salida desde o hacia las urbanizaciones, y mejorará la seguridad tanto para los peatones, como para los ciclistas que utilicen la intersección. El proyecto contribuirá a los valores recreativos al proporcionar aceras nuevas y reconstruidas, así como mejoras en cumplimiento de la Ley de Estadounidenses con Discapacidades (ADA), lo que permitirá caminar y andar en bicicleta de manera segura. La huella total del proyecto es de 8,127.78 metros cuadrados (2.0 acres). La actividad propuesta está ubicada en un valle inundable de 100 años, zona de inundación A y el área del proyecto se puede encontrar en el mapa de niveles de inundación base (ABFE, por sus siglas en inglés), cómo se indica en el Nivel de Inundación Base Recomendado de FEMA para Puerto Rico en Puerto Rico Advisory Base Flood Elevations (ABFE's) | FEMA Region II Hub (arcgis.com).

Vivienda ha considerado las siguientes alternativas y medidas de mitigación para minimizar los impactos adversos y restaurar y preservar los valores naturales y beneficiosos: (1) ubicar el proyecto dentro del valle inundable, (2) ubicar el proyecto fuera del valle inundable, y (3) no tomar ninguna acción. Las alternativas 2 y 3 no son factibles ya que el proyecto es necesario para crear una intersección más segura, preservará los valores del valle inundable, no representa un riesgo adicional para la vida humana ya que no implica un aumento en la densidad de población, y no modificará la huella actual del valle inundable. La ubicación del proyecto en el valle inundable es esencial para abordar las deficiencias de la intersección existente. Durante la construcción se implementarán medidas de control de erosión y sedimentación y cumplirá con las regulaciones estatales y locales sobre los valles inundables.

Vivienda reevaluó las alternativas para construir en el valle inundable y determinó que no cuenta con alternativas prácticas. La documentación ambiental que evidencia el cumplimiento con los pasos 3 al 6 de la Orden Ejecutiva 11990, está disponible para inspección, revisión y reproducción de parte del público, de ser solicitado, en el horario y lugar indicado en el último párrafo sobre recibo de comentarios de este aviso.

Este aviso tiene tres propósitos principales. Primero, las personas que pueden verse afectadas por actividades en el valle inundable y aquellos que tengan interés en la protección del ambiente natural deben recibir la oportunidad de expresar sus inquietudes y proveer información sobre estas áreas. Segundo, un programa adecuado de avisos públicos puede ser una importante herramienta de educación pública. La divulgación de información y solicitud de comentarios sobre los valles inundables puede facilitar y mejorar los esfuerzos federales para reducir los riesgos e impactos asociados con la ocupación y alteración de estas áreas especiales. Tercero, como materia de justicia, cuando el gobierno federal determine participar en acciones ubicadas en el valle inundable, debe informárselo a quienes puedan ser expuestos a un riesgo mayor o similar al presente.

Vivienda considerará todos los comentarios recibidos en o antes del 13 de junio de 2024. Pueden enviar los comentarios de forma impresa a la siguiente dirección: Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918-8461, Atención: William O. Rodríguez Rodríguez. Una descripción completa del proyecto está disponible al público para revisión de 8:30 a.m. a 4:00 p.m. en el Departamento de la Vivienda de Puerto Rico, edificio Juan C. Cordero Dávila, 606 avenida Barbosa, Río Piedras, PR 00918. El número para obtener información es (787)274-2527 ext. 4320. Como alternativa, también pueden enviar los comentarios a Vivienda por medio electrónico a [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov).

Fecha: 6 de junio de 2024

Lcdo. William O. Rodríguez Rodríguez

Secretario del Departamento de la Vivienda

Autorizado por la Oficina del Contralor  
Electoral OCE-SA-2023-00076

## public notice

### Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain

Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca  
PR-CRP-000991

To: All Interested Parties, Groups & Individuals

This is to give notice that the Puerto Rico Department of Housing (PRDOH) has conducted an evaluation as required by the Executive Order 11988, in accordance with HUD regulations at 24 CFR 55.20 Subpart C - Procedures for Making Determinations on Floodplain Management and Wetlands Protection. The activity is funded under the City Revitalization Program, Community Development Block Grant - Disaster Recovery (CDBG-DR), Grant number B-17-DM-72-0001, B-18-DP-72-0001 and B-19-DP-78-0002. The proposed project, **PR-CRP-000991**, is located at PR-867 Road Km 3.8, intersection of the entrances to the Campanillas and Pabellones neighborhoods, Sabana Seca Ward, Toa Baja, PR 00949; coordinates 18.439409, -66.215839. The project consists of carrying out geometric improvements, stormwater system improvements, repair and construction of ramps, installation of energy-efficient lighting and traffic signal posts, speed reduction measures, streetscape improvements, and street paving. It will also include the construction of a roundabout with a diameter of approximately 15.24 meters. The roundabout will optimize vehicular traffic, reduce vehicular speed at the PR-867 intersection, improve entry and exit to or from neighborhoods, and improve safety for both pedestrians and cyclists using the intersection. The project will contribute to recreational values by providing new and reconstructed sidewalks, as well as improvements in compliance with the American with disabilities Act (ADA), allowing safe walking, and cycling. The project will have a total footprint of 8,127.78 square meters (2.0 acres). The proposed activity is located in a 100-year floodplain, flood zone A and the project area can be found at the Advisory Base Flood Elevation Map (ABFE), as indicated on the FEMA Advisory Base Flood Elevation for Puerto Rico at Puerto Rico Advisory Base Flood Elevations (ABFE's) | FEMA Region II Hub (arcgis.com).

PRDOH has considered the following alternatives and mitigation measures to be taken to minimize adverse impacts and to restore and preserve natural and beneficial values: (1) locate the project within the floodplain, (2) locate the project outside of the floodplain, and (3) take no action. Alternatives 2 and 3 are not feasible as the project is necessary to create a safer intersection, will preserve the floodplain values, does not pose an additional risk to human life as it does not involve an increase in population density, and will not modify the current floodplain footprint. The project's location in the floodplain is essential to address the existing intersection's deficiencies. Erosion and sedimentation control measures will be implemented during construction and will adhere to state and local floodplain regulations.

PRDOH has reevaluated the alternatives to building in the floodplain and has determined that it has no practicable alternative. Environmental files that document compliance with steps 3 through 6 of 24 Executive Order 11988 are available for public inspection, review and copying upon request at the times and location delineated in the last paragraph of this notice for receipt of comments.

There are three primary purposes for this notice. First, people who may be affected by activities in the floodplain and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Second, an adequate public notice program can be an important public education tool. The dissemination of information and request for public comment about floodplains can facilitate and enhance Federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in the floodplain, it must inform those who may be put at greater or continued risk.

PRDOH will consider all comments received on or before June 13, 2024. Written comments can be sent to the following address: Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918-8461, Attention: William O. Rodríguez Rodríguez. A complete description of the project is available to the public for review from 8:30 am to 4:00 pm at the Puerto Rico Department of Housing, 606 Barbosa Avenue, Juan C. Cordero Dávila Building, Río Piedras, PR 00918. The number to get information is (787)274-2527 ext. 4320. In the alternative, comments may also be sent to PRDOH by email at [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov).

Date: June 6, 2024

William O. Rodríguez Rodríguez, Esq.  
Secretary of the Department of Housing

Autorizado by the Office of the Electoral  
Comptroller OCE-SA-2023-00076

**From:** [Kenneth M. Garcia-De Leon](#)  
**To:** [environmentcdbg](#)  
**Subject:** RE: Comentarios - Aviso Final PR-CRP-000991  
**Date:** Friday, June 14, 2024 4:49:16 PM  
**Attachments:** [image002.png](#)  
[image003.png](#)

---

Saludos:

Por correo postal no llegaron comentarios para mencionado proyecto.

Cordialmente,

**Kenneth M. García De León**

Especialista en Control de Documentos / Operaciones

Oficina Recuperación de Desastres

[kgarcia@vivienda.pr.gov](mailto:kgarcia@vivienda.pr.gov)|[787.274.2527](tel:787.274.2527) Ext. 4013

Visítanos: [recuperacion.pr.gov](http://recuperacion.pr.gov)

Contactanos: [infocdbg@vivienda.pr.gov](mailto:infocdbg@vivienda.pr.gov)

DEPARTAMENTO DE LA  
**VIVIENDA**



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**From:** environmentcdbg <[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov)>

**Sent:** Friday, June 14, 2024 4:31 PM

**To:** Kenneth M. Garcia-De Leon <[kgarcia@vivienda.pr.gov](mailto:kgarcia@vivienda.pr.gov)>

**Subject:** Comentarios - Aviso Final PR-CRP-000991

Saludos Kenneth,

Con respecto a la publicación del Aviso Final y Explicación Pública de una Actividad Propuesta en un valle inundable de 100 años (Paso 7) para el proyecto **Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca (PR-CRP-000991)** ¿habrá llegado algún comentario a través del correo postal? De ser así, por favor nos lo hace llegar.

Cordialmente,

**Permits and Environmental Compliance Division**

Disaster Recovery Office

[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527

Visit us: [recuperacion.pr.gov](http://recuperacion.pr.gov)

Contact us: [infocdbg@vivienda.pr.gov](mailto:infocdbg@vivienda.pr.gov)

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## Validation Letter

June 14, 2024

To whom it may concern,

This letter is to validate that no comments were received in the Permits and Environmental Compliance Division e-mail: [environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov), for the project **Rotonda PR-867 entradas Urbs. Campanillas y Pabellones, Sabana Seca (PR-CRP-000991)**, as part of the CDBG-DR City Revitalization Program. The Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain was published in the *Primera Hora* newspaper of Puerto Rico on June 6, 2024, with a comment period that concluded on June 13, 2024.

Cordially,

Permits and Environmental Compliance Division  
Disaster Recovery Office  
[environmentcdbg@vivienda.pr.gov](mailto:environmentcdbg@vivienda.pr.gov) | 787.274.2527 ext. 4320

# Appendix E: Contamination and Toxic Substances

1. EPA Green Book
2. Lead and Asbestos Report
3. Summary Table EPA Facilities and ECHO Reports



You are here: EPA Home > Green Book > >National Area and County-Level Multi-Pollutant Information >Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

## Puerto Rico Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants

Data is current as of May 31, 2024

Listed by County, NAAQS, Area. The 8-hour Ozone (1997) standard was revoked on April 6, 2015 and the 1-hour Ozone (1979) standard was revoked on June 15, 2005.

\* The 1997 Primary Annual PM-2.5 NAAQS (level of 15 µg/m<sup>3</sup>) is revoked in attainment and maintenance areas for that NAAQS. For additional information see the PM-2.5 NAAQS SIP Requirements Final Rule, effective October 24, 2016. (81 FR 58009)

Change the State:

Important Notes

Download National Dataset: [dbf](#) | [xls](#) | [Data dictionary \(PDF\)](#)

County	NAAQS	Area Name	Nonattainment in Year	Redesignation to Maintenance	Classification	Whole or Part County	Population (2010)	Count
<b>PUERTO RICO</b>								
Arecibo Municipio	Lead (2008)	Arecibo, PR	11 12 13 14 15 16 17 18 19 20 21 22 23 24	//		Part	32,185	7
Bayamon Municipio	Sulfur Dioxide (2010)	San Juan, PR	18 19 20 21 22 23 24	//		Part	22,921	7
Catano Municipio	Sulfur Dioxide (2010)	San Juan, PR	18 19 20 21 22 23 24	//		Whole	28,140	7
Guaynabo Municipio	PM-10 (1987)	Mun. of Guaynabo, PR	929394959697989900010203040506070809	02/11/2010	Moderate	Part	90,470	7
Guaynabo Municipio	Sulfur Dioxide (2010)	San Juan, PR	18 19 20 21 22 23 24	//		Part	23,802	7
Salinas Municipio	Sulfur Dioxide (2010)	Guayama-Salinas, PR	18 19 20 21 22 23 24	//		Part	23,401	7
San Juan Municipio	Sulfur Dioxide (2010)	San Juan, PR	18 19 20 21 22 23 24	//		Part	147,963	7
Toa Baja Municipio	Sulfur Dioxide (2010)	San Juan, PR	18 19 20 21 22 23 24	//		Part	52,441	7

Important Notes

Discover.

Connect.

Ask.

Follow.

2024-05-31



**ENVIRONMENTAL SURVEY  
FOR  
LEAD BASED PAINT (LBP)  
AND  
ASBESTOS CONTAINING MATERIALS (ACM)  
FOR  
ROAD PR-867 INTERSECTION WITH ENTRANCE TO  
CAMPANILLAS AND PABELLONES URBANIZATIONS,  
SÁBANA SECA, TOA BAJA, PR  
(CASE#: PR-CRP-000991)**

Prepared For:  
Metric Engineering of PR

July 2023

Analytical Environmental  
Services International, Inc.  
611 Monserrate Street  
2<sup>nd</sup> Floor, Santurce, P.R. 00907  
(787)722-0220 / Fax (787) 724-5788



# LEAD



# TABLE OF CONTENTS

## **I. SUMMARY**

### **1.0 INTRODUCTION**

### **2.0 TESTING PROCEDURES**

### **3.0 LEAD BASED PAINT TESTING METHODOLOGY**

### **4.0 RESULTS**

### **5.0 CONCLUSIONS**

### **6.0 REPORT CERTIFICATION**

APPENDIX I - AESI Credentials

APPENDIX II - PCS Information

APPENDIX III - XRF Data

APPENDIX IV - Selective Photos

# I. SUMMARY

A survey for Lead Based Painted (LBP) components was conducted by Analytical Environmental Services International (AES International), Inc. for road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991). (Lat: 18.439409°, Lon: -66.215839°) as part of three (3) roundabout intervention projects.

The inspection was conducted on July 20, 2023, by Elme Rivera, a Puerto Rico Department of Natural and Environmental Resources (PRDNER) certified lead risk assessor, using an XRF instrument manufactured by Heuresis (serial number 2385). The survey was conducted using HUD protocol of 2012.

LBP components were not detected in the components tested.

## **1.0 INTRODUCTION**

AES International performed an LBP survey for road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991). (Lat: 18.439409°, Lon: -66.215839°) as part of three (3) roundabout intervention projects. Components inspected include floor lines, curbs, ramps and concrete posts (refer to Appendix IV for photos). The purpose of this activity is to reduce environmental liabilities and comply with NESHAP and DRNA regulations prior to roundabout intervention.

The investigation was conducted on July 20, 2023, by Elme Rivera, an PRDNER/EPA certified lead risk assessor. The credentials of AESI are attached in Appendix I. The survey, performed with an X-Ray Fluorescence (XRF) instrument manufactured by Heuresis, Model Pb200i (serial #2385), was conducted using U.S. Department of Housing and Urban Development (HUD) protocol of 1997, revised in 2012. The results are presented herein.

## **2.0 TESTING PROCEDURES**

The testing was performed with an XRF instrument manufactured by Heuresis, Model Pb200i. Performance characteristic sheet (PCS) is attached in Appendix II. The selected mode allows reference to the abatement level set at 1.0 mg/cm<sup>2</sup>. The results are reported at 95% confidence levels.

## **3.0 LEAD BASED PAINT TESTING METHODOLOGY**

The hazard level of lead in paint has been determined by the department of Housing & Urban development as 1.0 mg/cm<sup>2</sup>, as measured by XRF, or AAS (Atomic Absorption Spectroscopy), or 0.5% by weight (or 5000 ppm) as measured by AAS, or Inductive Coupled Plasma (ICP). The same level was adopted by EPA regulations published in 1992, under Title X.

The only lead-based paint testing protocol officially available at this time was published by HUD initially in 1990, revised in 1991 and finalized in 1995 (see above HUD reference). A revised chapter 7 was published in 1997 and 2012. In accordance to the new protocol, almost all surfaces present in the units have to be tested. The above guidelines were used to perform lead based-paint testing for this project.

The main steps involved in a modified single-family protocol are:

1. Perform inventory of all testing combinations
2. Select painted area to be tested
3. Perform XRF testing (including calibration checks)
4. Collect and analyze paint chip samples, for inconclusive results.

5. Classify XRF and paint chips results
6. Review and evaluate the data
7. Report findings

AES International personnel classify each XRF lead reading as positive, negative, or inconclusive. This classification is based on manufacturer XRF performance characteristic sheet (PCS), for each substrate. Samples and/or additional readings are taken from inconclusive areas. Calibration verification of the instrument was performed prior to beginning of daily task, when the instrument was turned on, and at the end of the day. The verification was conducted on a NIST standard of 1.0 mg/cm<sup>2</sup>. Acceptance criteria used was  $\pm 0.3$  mg/cm<sup>2</sup>. The data for calibration verification is attached in Appendix III.

At the completion of the testing, ten (10) surfaces were retested as to assess precision of the testing. Retesting and final calibration data is presented in Appendix III, Case # PR-CRP-000994 report. Statistical calculations performed on test-retest results suggest that the results are within the tolerance limits and therefore acceptable.

## 4.0 RESULTS

Twenty (20) XRF readings were collected. The results of the tested components are shown in Appendix III. LBP components were not found.

## 5.0 CONCLUSIONS

An LBP survey was conducted for road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991). No LBP components were detected.

Some painted surfaces may contain levels of lead below 1.0 mg/cm<sup>2</sup>, which could create lead dust, or lead contaminated soil hazards if the paint is turned into dust by abrasion, scraping, or sanding. Reported results are valid for the day of testing indicated in the reports. According to PRDNER the LBP study is valid for a period of five years.

The LBP survey relates to surfaces accessible and not covered by rigid barriers. Should any hidden surfaces or components be present, they must be assumed to be painted with LBP.

## 6.0 REPORT CERTIFICATION

This report was done in conformance with the protocols listed in Chapter 7 of the HUD guidelines, 2012.



Elme Rivera, PRDNER Lead Inspector  
Lic#: LBPRA-21223-234

# Appendix I





**AIHA Laboratory Accreditation Programs, LLC**  
*acknowledges that*  
**Analytical Environmental Services International, Inc.**  
**611 Monserrate St. Suite 2 Santurce, PR 00907**  
**Laboratory ID: LAP-102702**

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

**LABORATORY ACCREDITATION PROGRAMS**

<input checked="" type="checkbox"/>	<b>INDUSTRIAL HYGIENE</b>	Accreditation Expires: July 01, 2025
<input checked="" type="checkbox"/>	<b>ENVIRONMENTAL LEAD</b>	Accreditation Expires: July 01, 2025
<input type="checkbox"/>	<b>ENVIRONMENTAL MICROBIOLOGY</b>	Accreditation Expires:
<input type="checkbox"/>	<b>FOOD</b>	Accreditation Expires:
<input type="checkbox"/>	<b>UNIQUE SCOPES</b>	Accreditation Expires:
<input type="checkbox"/>	<b>BERYLLIUM FIELD/MOBILE</b>	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP, LLC website ([www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)) for the most current Scope.

A handwritten signature in cursive script that reads 'Cheryl O. Morton'.

Cheryl O Morton  
Managing Director, AIHA Laboratory Accreditation Programs, LLC



## GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

Este certificado es otorgado a:

### **Analytical Environmental Services International (AESI)**

Por haber cumplido con los requisitos establecidos en el Capítulo VI, Regla 127 del Reglamento para el Manejo Adecuado de Actividades de Pintura con Base de Plomo. Se le otorga esta certificación como **Firma** para llevar a cabo actividades relacionadas a Mitigación de Pintura con base de plomo en la jurisdicción de Puerto Rico.

Número de Certificado

**LBPF-07323-012**

Fecha de emisión: Abril 6, 2023

Fecha de Expiración: Abril 5, 2024



  
\_\_\_\_\_  
José Roque Juliá  
Jefe  
División Desperdicios Tóxicos

## Lead Risk Assessor Credentials





# GOBIERNO DE PUERTO RICO

Departamento de Recursos Naturales y Ambientales

División Desperdicios Tóxicos

Requisitos para Radicar una Solicitud de Certificación de Individuos

(Evaluador de Riesgos)

Hoja de cotejo

#Carnet nuevo

LBPRA-21223-234

1. Información del Solicitante		
Nombre	Elme Rivera Pérez	
Empresa para la cual trabaja	AES International	
Núm. de Teléfono	Núm. de Fax	Correo Electrónico
787-722-0220		rivieraelme19@gmail.com
2. Documentos incluidos con la solicitud		Cotejo de documentos recibidos por la JCA
1. Presentar evidencia de que satisface o excede los siguientes requisitos de educación o experiencia: a) grado universitario de bachiller y un (1) año de experiencia en un campo relacionado incluyendo pero sin limitarse a, plomo, asbestos, trabajos de remediación ambiental o construcción; o b) grado asociado y dos (2) años de experiencia en un campo relacionado, incluyendo, pero sin limitarse a, plomo, asbestos o trabajos de remediación ambiental o construcción, o c) certificación como higienista industrial, ingeniero profesional, arquitecto registrado y/o una certificación en campos relacionados con la ingeniería, salud y el ambiente, incluyendo, pero sin limitarse a, profesional de la salud y/o científico ambiental; o, d) diploma de escuela superior (o su equivalente) y un mínimo de tres (3) años de experiencia en campos relacionados, incluyendo, pero sin limitarse a, plomo, asbestos, trabajos de remediación ambiental o construcción.		RENOV.
2. Presentar una solicitud de certificación completada en los formularios provistos por la DRNA (Rev 2019), acompañada de dos (2) fotos originales.		/
3. Presentar un certificado original y copia de terminación del curso en la disciplinas de inspector y evaluador de riesgos. En la alternativa, se someterá una carta original y copia del programa de adiestramiento que confirme que el solicitante terminó dicho curso de adiestramiento, en papel timbrado del programa.		/
4. Presentar original y copia de la carta confirmando aprobación del examen estatal de parte de la entidad administradora del examen correspondiente en las disciplinas de inspector y evaluador de riesgos.		
6. Someter cuota de radicación de veinticinco dólares (\$25) y una cuota de certificación por la suma de ciento veinticinco dólares (\$125) mediante cheque certificado o giro postal pagadero al Secretario de Hacienda. La cuota de radicación no será reembolsable.		\$150.00 chk
Para Uso Exclusivo del Area. Certifico que he recibido y cotejado los documentos que arriba se detallan y así lo hago constar con mi firma en el espacio provisto.		
Cantidad del cheque	Núm. cheque	Fecha Recibido
\$150.00	23983	7/13/23
Certificado por:	Núm de Control	
	PB-07-23-266	
Para uso de Pagaduría		
Recibido por	Núm. de Recibo	Fecha:

Rev 2019



# Appendix II



## Performance Characteristic Sheet

**EFFECTIVE DATE:** December 1, 2015

**MANUFACTURER AND MODEL:**

Make: *Heuresis*  
Models: *Model Pb200i*  
Source: *<sup>57</sup>Co, 5 mCi (nominal – new source)*

### FIELD OPERATION GUIDANCE

**OPERATING PARAMETERS:**

Action Level mode

**XRF CALIBRATION CHECK LIMITS:**

0.8 to 1.2 mg/cm <sup>2</sup> (inclusive)
---

**SUBSTRATE CORRECTION:**

Not applicable

**INCONCLUSIVE RANGE OR THRESHOLD:**

<b>ACTION LEVEL MODE READING DESCRIPTION</b>	<b>SUBSTRATE</b>	<b>THRESHOLD (mg/cm<sup>2</sup>)</b>
Results not corrected for substrate bias on any substrate	Brick	1.0
	Concrete	1.0
	Drywall	1.0
	Metal	1.0
	Plaster	1.0
	Wood	1.0

## BACKGROUND INFORMATION

### EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in November 2015, with two separate instruments running software version 2.1-2 in Action Level test mode. The actual source strength of each instrument on the day of testing was approximately 2.0 mCi; source ages were approximately one year.

### OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

### XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm<sup>2</sup> in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm<sup>2</sup> film).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

### SUBSTRATE CORRECTION VALUE COMPUTATION:

Chapter 7 of the HUD Guidelines provides guidance on correcting XRF results for substrate bias. Supplemental guidance for using the paint film nearest 1.0 mg/cm<sup>2</sup> for substrate correction is provided:

XRF results are corrected for substrate bias by subtracting from each XRF result a correction value determined separately in each house for single-family housing or in each development for multifamily housing, for each substrate. The correction value is an average of XRF readings taken over the NIST SRM paint film nearest to 1.0 mg/cm<sup>2</sup> at test locations that have been scraped bare of their paint covering. Compute the correction values as follows:

Using the same XRF instrument, take three readings on a bare substrate area covered with the NIST SRM paint film nearest 1 mg/cm<sup>2</sup>. Repeat this procedure by taking three more readings on a second bare substrate area of the same substrate covered with the NIST SRM.

Compute the correction value for each substrate type where XRF readings indicate substrate correction is needed by computing the average of all six readings as shown below.

For each substrate type (the 1.02 mg/cm<sup>2</sup> NIST SRM is shown in this example; use the actual lead loading of the NIST SRM used for substrate correction):

$$\text{Correction value} = (1\text{st} + 2\text{nd} + 3\text{rd} + 4\text{th} + 5\text{th} + 6\text{th Reading})/6 - 1.02 \text{ mg/cm}^2$$

Repeat this procedure for each substrate requiring substrate correction in the house or housing development.

### EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below.

Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. Do not correct the original or retest results for substrate bias. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

**TESTING TIMES:**

In the Action Level paint test mode, the instrument takes the longest time to complete readings close to the Federal standard of 1.0 mg/cm<sup>2</sup>. The table below shows the mean and standard deviation of actual reading times by reading level for paint samples during the November 2015 archive testing. The tested instruments reported readings to one decimal place. No significant differences in reading times by substrate were observed. These times apply only to instruments with the same source strength as those tested (2.0 mCi). Instruments with stronger sources will have shorter reading times and those with weaker sources, longer reading times, than those in the table.

<b>Mean and Standard Deviation of Reading Times in Action Level Mode by Reading Level</b>		
<b>Reading (mg/cm<sup>2</sup>)</b>	<b>Mean Reading Time (seconds)</b>	<b>Standard Deviation (seconds)</b>
< 0.7	3.48	0.47
0.7	7.29	1.92
0.8	13.95	1.78
0.9 – 1.2	15.25	0.66
1.3 – 1.4	6.08	2.50
≥ 1.5	3.32	0.05

**CLASSIFICATION OF RESULTS:**

XRF results are classified as **positive** if they are **greater than or equal** to the stated threshold for the instrument (1.0 mg/cm<sup>2</sup>), and *negative* if they are *less than* the threshold.

**DOCUMENTATION:**

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to construct the data in the sheets, and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at <http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997>.

This XRF Performance Characteristic Sheet (PCS) was developed by QuanTech, Inc., under a contract with the XRF manufacturer.

# Appendix III



ANALYTICAL ENVIRONMENTAL SERVICES INTERNATIONAL, INC.  
611 Monserrate Street, 2nd. Floor, Santurce, P. R. 00907

**LEAD BASED PAINT TESTING DATA SHEET**

**Client Name:** Metric Engineering PR  
**Project Name:** LBP Survey for PR-867 intersection with entrance to Campanilla and Pabellones Urbanizations, Sabana Seca (PR-CRP-000991)  
**Address:** Toa Baja, Puerto Rico

**Date:** 7/20/23  
**Inspector:** Elme Rivera  
**XRF Serial No.:** 2385

Reading #	Case #	Road	Substrate	Color	Component & Location	XRF Reading (mg/cm <sup>2</sup> )	Laboratory Result (% or mg/cm <sup>2</sup> )
1					Calibration (9:05am)	1.0	
2					Calibration (9:06am)	1.0	
3					Calibration (9:07am)	1.1	
4	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Asphalt	Yellow	Floor Line Center	0.3	
5	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Asphalt	White	Floor Line Right	0.1	
6	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Curb Right	0.3	
7	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Blue	Handicap Ramp Right	0.2	
8	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Curb Right	0.3	
9	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Curb Right	0.2	
10	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Asphalt	White	Floor Line Right	0.1	
11	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Asphalt	Yellow	Floor Line Center	0.3	

**Date:** 7/20/23

**Approved by: Ady Padan, Ph.D.**

ANALYTICAL ENVIRONMENTAL SERVICES INTERNATIONAL, INC.  
611 Monserrate Street, 2nd. Floor, Santurce, P. R. 00907

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**Address:** Toa Baja, Puerto Rico

**Date:** 7/20/23  
**Inspector:** Elme Rivera  
**XRF Serial No.:** 2385

Reading #	Case #	Road	Substrate	Color	Component & Location	XRF Reading (mg/cm <sup>2</sup> )	Laboratory Result (% or mg/cm <sup>2</sup> )
12	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Curb Left	0.3	
13	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Blue	Handicap Ramp Left	0.1	
14	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Asphalt	White	Floor Line Left	0.1	
15	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Island Curb Left	0.3	
16	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Blue	Handicap Ramp Left	0.3	
17	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Curb Left	0.3	
18	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Asphalt	White	Floor Line Left	0.1	
19	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Island Curb Right	0.3	
20	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Green	Lower Light Post Left	0.4	
21	PR-CRP-000991	PR-867 Km. 3.9 (Dir. Bayamon to Toa Baja)	Concrete	Yellow	Upper Light Post Left	0.1	

**Date:** 7/20/23

**Approved by: Ady Padan, Ph.D.**



ANALYTICAL ENVIRONMENTAL SERVICES INTERNATIONAL, INC.  
611 Monserrate Street, 2nd. Floor, Santurce, P. R. 00907

**LEAD BASED PAINT TESTING DATA SHEET**

**Client Name:** Metric Engineering PR  
**Project Name:** LBP Survey for PR-864 intersection with PR-866, Candelaria (PR-CRP-000994)  
**Address:** Toa Baja, Puerto Rico

**Date:** 7/20/23  
**Inspector:** Elme Rivera  
**XRF Serial No.:** 2385

Reading #	Case #	Road	Substrate	Color	Component & Location	XRF Reading (mg/cm <sup>2</sup> )	Laboratory Result (% or mg/cm <sup>2</sup> )
1					Calibration (13:40)	1.1	
2					Calibration (13:41)	1.0	
3					Calibration (13:42)	1.0	
4	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.1	
5	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	Yellow	Floor Line Center	0.3	
6	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.1	
7	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Exit Floor Line Right	0.2	
8	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Metal	Yellow	Guardrail Exit	0.1	
9	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Exit Floor Line Right	0.3	
10	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Metal	Yellow	Guardrail Exit	0.1	
11	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Concrete	Green	Lower Light Post	0.2	
12	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Concrete	Yellow	Upper Light Post	0.1	
13	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.1	

**Date:** 7/20/23

**Approved by: Ady Padan, Ph.D.**

ANALYTICAL ENVIRONMENTAL SERVICES INTERNATIONAL, INC.  
611 Monserrate Street, 2nd. Floor, Santurce, P. R. 00907

**LEAD BASED PAINT TESTING DATA SHEET**

**Client Name:** Metric Engineering PR  
**Project Name:** LBP Survey for PR-864 intersection with PR-866, Candelaria (PR-CRP-000994)  
**Address:** Toa Baja, Puerto Rico

**Date:** 7/20/23  
**Inspector:** Elme Rivera  
**XRF Serial No.:** 2385

Reading #	Case #	Road	Substrate	Color	Component & Location	XRF Reading (mg/cm <sup>2</sup> )	Laboratory Result (% or mg/cm <sup>2</sup> )
14	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	Yellow	Floor Line Center	0.3	
15	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.1	
16	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.1	
17	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	Yellow	Floor Line Center	0.1	
18	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.2	
19	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.1	
20	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	Yellow	Floor Line Center	0.2	
21	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.1	
22	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Concrete	White	Curb Left	0.2	
23	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.1	
24	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.3	

**RE-TESTING**

**Approved by: Ady Padan, Ph.D.**

**Date: 7/20/23**

ANALYTICAL ENVIRONMENTAL SERVICES INTERNATIONAL, INC.  
611 Monserrate Street, 2nd. Floor, Santurce, P. R. 00907

**LEAD BASED PAINT TESTING DATA SHEET**

**Client Name:** Metric Engineering PR  
**Project Name:** LBP Survey for PR-864 intersection with PR-866, Candelaria (PR-CRP-000994)  
**Address:** Toa Baja, Puerto Rico

**Date:** 7/20/23  
**Inspector:** Elme Rivera  
**XRF Serial No.:** 2385

Reading #	Case #	Road	Substrate	Color	Component & Location	XRF Reading (mg/cm <sup>2</sup> )	Laboratory Result (% or mg/cm <sup>2</sup> )
25	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.1	
26	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.2	
27	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	Yellow	Floor Line Center	0.1	
28	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.2	
29	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Right	0.1	
30	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	Yellow	Floor Line Center	0.2	
31	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.1	
32	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Concrete	White	Curb Left	0.1	
33	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.1	
34	PR-CRP-000994	PR-864 Int. PR-866 Candelaria	Asphalt	White	Floor Line Left	0.2	
35					Calibration (14:33)	1.0	
36					Calibration (14:34)	1.1	

**Approved by: Ady Padan, Ph.D.**

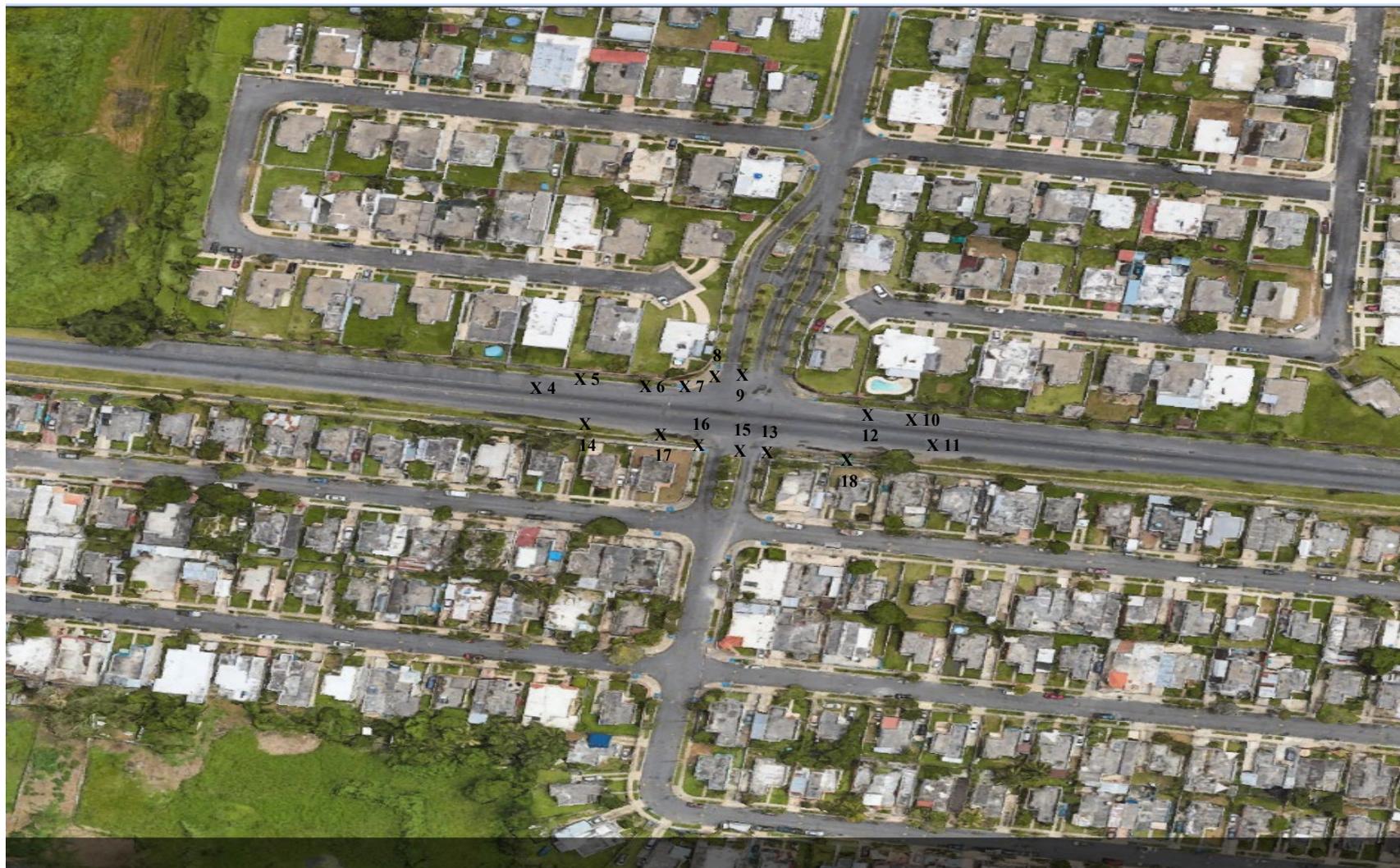
**Date: 7/20/23**



# Appendix VI



**XRF Readings Sampling Points from PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca (PR-CRP-000991). (Lat: 18.439409°, Lon: -66.215839°)**



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



# ASBESTOS



# **TABLE OF CONTENTS**

## **I. SUMMARY**

### **1.0 INTRODUCTION**

### **2.0 GENERAL BACKGROUND**

### **3.0 PROJECT IDENTIFICATION/DESCRIPTION**

### **4.0 METHODS OF BUILDING INSPECTIONS**

### **5.0 SAMPLING METHODS**

### **6.0 INSPECTION RESULTS AND CONCLUSIONS**

### **7.0 CONCLUSIONS**

APPENDIX I - AESI Certifications and Accreditations

APPENDIX II - Hazard Assessment

APPENDIX III- Selective Photos

## I. SUMMARY

A survey for Asbestos Containing Materials (ACM) was conducted by Analytical Environmental Services International (AES International), Inc. for road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991). (Lat: 18.439409°, Lon: -66.215839°) as part of three (3) roundabout intervention projects.

The inspection for this road segment was conducted on July 20, 2023 by Elme Rivera, an EQB/AHERA certified asbestos inspector.

No suspected materials were observed during the inspection and accordingly samples were not collected.

# 1.0 INTRODUCTION

A survey for Asbestos Containing Materials (ACM) was conducted by Analytical Environmental Services International, Inc. (AES International) road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991). (Lat: 18.439409°, Lon: -66.215839°) as part of three (3) roundabout intervention projects.

The survey for this road segment was conducted on July 20, 2023 by Elme Rivera, an EQB/AHERA certified asbestos building inspector (see Appendix I for credentials).

The inspection was performed based on AHERA protocol, according to the following scenario:

- The Road was divided in functional spaces (in Km).
- Visual inspection was performed.

Suspected materials were not observed during visual inspection.

## 2.0 GENERAL BACKGROUND

Asbestos was used in the construction industry from 1900 to 1989. It is still being used today in various products. The health effects of asbestos have been studied since the 1930's. More health studies have been conducted in asbestos than any other natural substance. The mere presence of asbestos containing materials does not necessary constitute a health hazard. However, when these materials become disturbed from building renovation, maintenance, or other everyday activities that allow fibers to be released into the environment, a potential hazard does exist.

The relationship between exposure level and health risk is very complex. Although this relationship is not completely understood, asbestos exposure has been associated with various types of lung diseases including a debilitating lung disease called ASBESTOSIS; a rare cancer of chest called MESOTHELIOMA; and cancers of the esophagus, stomach, colon and other organs. Asbestosis is not fatal; it is however incurable. One who has it cannot breathe easily and physical activity becomes limited. MESOTHELIOMA is 100% fatal, as there is no cure. These diseases can be directly linked to asbestos because of the mineral particles that can be found in the lining of the lungs and stomach, since the body cannot absorb these minerals. Tests have determined that asbestos can cause cancer, but scientists disagree on the amount of asbestos fibers that must be inhaled to cause cancer. The nose filters out all visible particles. Therefore, only the microscopic fibers are the one who cause the problems.

Studies indicate different health effect resulting from exposure to chrysotile asbestos versus exposure to the amphibole form of asbestos. The later, which include tremolite,

amosite, actinolite, anthophyllite and crocidolite have more significant health impact than chrysotile.

Some scientists cite studies concluding that is the size of the fibers deposited in the lungs that result in cancer. Long, thin fibers, greater than 8 microns in length and less than 0.25 microns in diameter show the highest potential of cancer development.

## **2.1 National Emission Standards for Hazardous Air Pollutants (NESHAP)**

The EPA's rules concerning the application, removal, and disposal of ACM, as well as manufacturing, spraying and fabricating of ACM were issued under the asbestos NESHAP regulation (U.S. EPA National Emission Standards for Hazardous Air Pollutants, 40 CFR 61 Subpart M, October 30, 1987). The asbestos NESHAP regulation governs asbestos demolition and renovation projects in all facilities. The NESHAP rule usually requires owners or operators to have all friable ACM removed before the building is demolished and may require its removal before renovation. If friable ACM shall be disturbed, the NESHAP rule may require appropriate work practices, or procedures for emission control. The rule states that any ACM, which may become friable, poses a potential hazard that should be addressed.

A revised NESHAP ruling was released on November 20, 1990, effective February 20, 1991 which includes as the responsibility of the owner, or operator, to "prior to the commencement of the demolition or renovation, thoroughly inspect the affected facility or part of the facility where demolition or renovation operation will occur for the presence of asbestos, including Category I and Category II non-friable ACM." (40 CFR, Part 61, National Emission Standards for hazardous Air Pollutants, Asbestos NESHAP Revision, Final Rule, November 20, 1990).

## **3.0 PROJECT IDENTIFICATION/DESCRIPTION**

Project consist of three (3) roundabout interventions required in an approximate segment of 2,790 meters. One of the road segment to be impacted with the roundabout construction is the road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR.

## **4.0 METHODS OF BUILDING INSPECTION**

Each sample, if collected, should have been classified according to the condition of Asbestos Containing Materials (ACM) in that location and the potential for material disturbance. All the area was visually inspected.

## 5.0 SAMPLING METHODS

Samples were not collected, as no suspect ACM were observed during the visual inspection.

## 6.0 INSPECTION RESULTS

Suspected materials were not observed during visual inspection.

## 7.0 CONCLUSIONS

A survey for ACM was conducted for road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR. The materials surveyed were described above. No ACM were detected.

The ACM survey results do not include materials which are non-accessible, non-visible and may be present behind/inside the walls or hidden inside the structures. These materials must be assessed at the time of the modernization.



---

Elme Rivera, EQB Asbestos Inspector  
Lic#: ASB-1122-0471-SI

# Appendix I



**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

**AES International**

611 Monserrate

Santurce, PR 00907

Mr. Ady Padan

Phone: 787-722-0220 Fax: 787-724-5788

Email: yotal@bellsouth.net

<http://www.aesipr.org>

**ASBESTOS FIBER ANALYSIS**

**NVLAP LAB CODE 200051-0**

**Bulk Asbestos Analysis**

**Code**

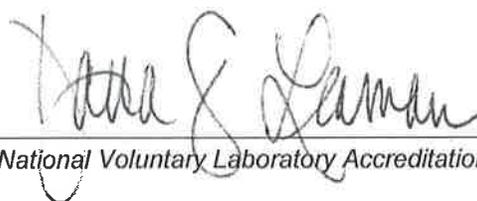
**Description**

18/A01

EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples

18/A03

EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials



*For the National Voluntary Laboratory Accreditation Program*

United States Department of Commerce  
National Institute of Standards and Technology



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# Certificate of Accreditation to ISO/IEC 17025:2017

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NVLAP LAB CODE: 200051-0

**AES International**  
Santurce, PR

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:

## **Asbestos Fiber Analysis**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

---

2023-01-01 through 2023-12-31

Effective Dates



A handwritten signature in black ink, appearing to read 'Peter S. Samaha'.

For the National Voluntary Laboratory Accreditation Program

## Asbestos Inspector Credentials

	<p>TARJETA DE REGISTRO PARA LA REMOCION DE ASBESTO</p>
	<p>Esta tarjeta autoriza a:</p>
	<p><b><i>Elme Rivera Pérez</i></b></p>
	<p><b>Inspector</b></p>
	<p>A trabajar en la remoción de asbesto en Puerto Rico. Esta persona <b>NO</b> es un empleado del DRNA.</p>
<p><b>ASB-1122-0471-SI</b></p>	
<p>Número de Registro</p>	<p>Firma Autorizada - Departamento Recursos Naturales y Ambientales</p>
<p><b>7-nov-2023</b></p>	
<p>Fecha de vencimiento</p>	

# Appendix II



**ASBESTOS SAMPLE INSPECTION FORM FOR PHYSICAL & HAZARD ASSESSMENT**

Client Name **Metric Engineering PR**  
 Project Name: ACM Surveys for PR-867 intersection with entrance to Campanilla and Pabellones Urbanizations, Sabana Seca (PR-CRP-000991), Toa Baja, PR  
 Inspection Date: 7/20/2023

Case #: PR-CRP-000991  
 Road/Km: PR-867  
 Page: 1 of 1

Homogeneous Material Description		Material Category	Asbestos Content	Friability	Location of Materials	Asbestos Contents	Total Square Feet of ACM	AHERA Assessment Category (1-7,X, None)	Hazard Ranking (1-7)
I.D. Number	Material Description								
	<b>No Suspect ACM</b>								

Inspected by: Elme Rivera

Date: 7/20/2023

Friability: F = friable, NF = nonfriable, X = not applicable (material is non-ACBM)

AHERA Assessment Category: 1 = Damaged or significantly damaged TSI ACBM; 2 = Damaged friable surfacing ACBM; 3 = Significantly damaged friable surfacing ACBM; 4 = Damaged or significantly damaged friable miscellaneous ACBM; 5 = ACBM with potential for damage; 6 = ACBM with potential for significant damage; 7 = Any remaining friable ACBM or friable suspected ACBM; X = Not applicable (material is non-ACBM or non-friable surfacing or miscellaneous materials); None = No assessment category provided in original inspection.

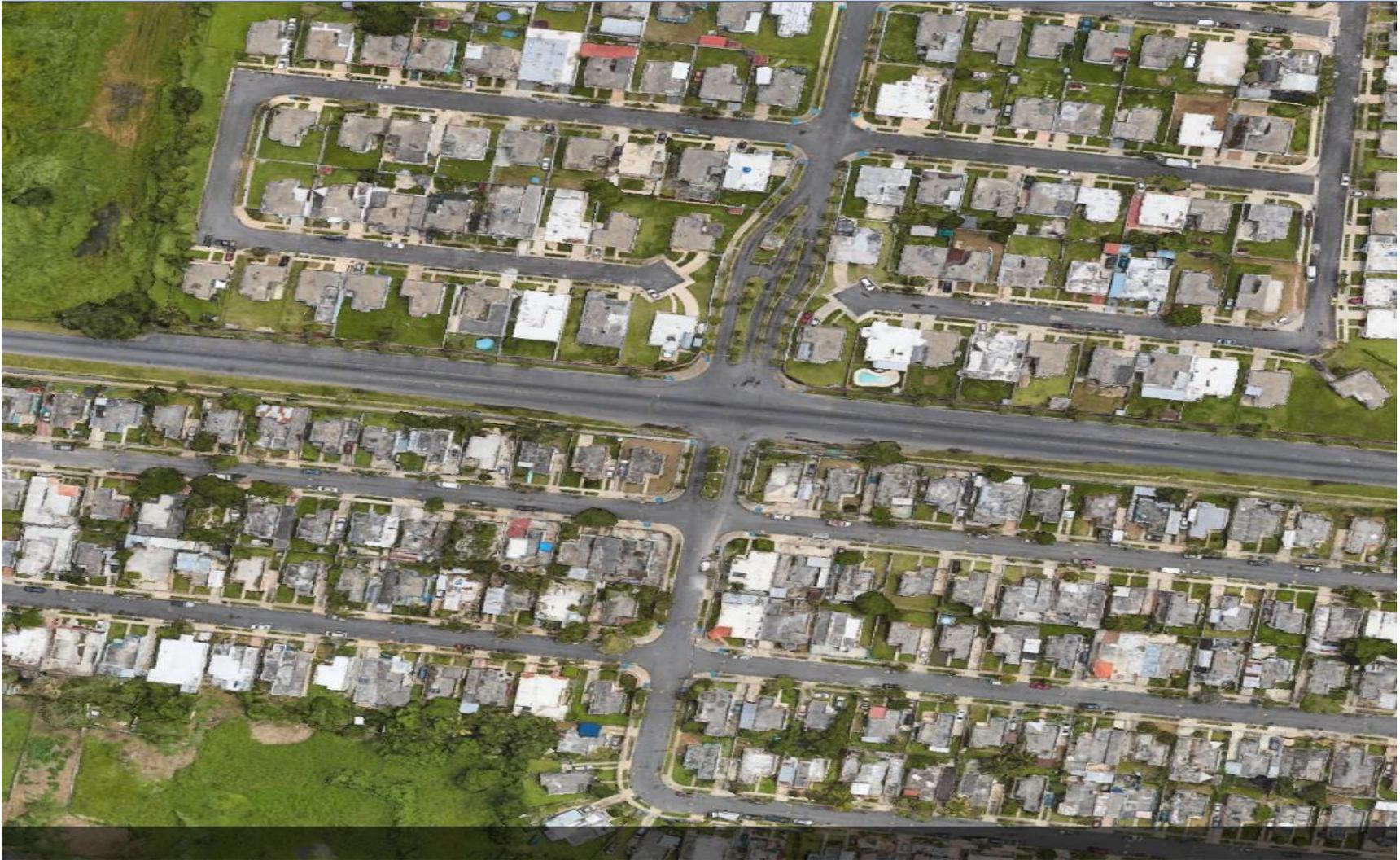
Hazard Ranking Category: 1 = Significantly damaged; 2 = Damaged and potential of significant damage; 3 = Damaged and potential for damage; 4 = Damaged; 5 = Potential for significant damage; 6 = Potential for damage; 7 = All remaining ACBM

\* - Unless Specified, the Asbestos Type is Chrysotile; ND - None Detected

# Appendix III



**Aerial View of PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations,  
Sábana Seca, Toa Baja, PR (PR-CRP-000991).  
(Lat: 18.439409°, Lon: -66.215839°)**



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



Selective Photos from road PR-867 intersection with entrance to Campanillas and Pabellones Urbanizations, Sábana Seca, Toa Baja, PR (Case#: PR-CRP-000991)



**Summary Table of EPA Facilities**  
**PR-CRP-000991**  
(3000-FT Buffer Zone)

Item	Facility	FRS ID#	Distance from the Project (FT)	Latitude	Longitude	Industry	Locational Data Source	Compliance Status	RCRA	CWA
1	CARIBBEAN PRIMATE RESEARCH CENTER OF PUERTO RICO MEDICAL SCIENCES CAMPUS	110007804527	461	18.43886	-66.21245	Educational Services	RCRAINFO	No Violation Identified	PRD000691022	
2	QUALITY CONCRE MIX, INC. TOA BAJA	110067030769	2,238	18.4392	-66.2077	--	NPDES	No Violation Identified		PRR053212
3	SKY LIGHTS RICO PLASTIC	110015588096	2980	18.43876	-66.20544	--	RCRAINFO	No Violation Identified	PRN008012759	



# Detailed Facility Report

---

## Facility Summary

**CARIBBEAN PRIMATE RESEARCH CENTER OF  
PUERTO RICO MEDICAL SCIENCES CAMPUS**

**CARR 867 KM 3.5 BO INGENIO, TOA BAJA, PR 00949**

**FRS (Facility Registry Service) ID:** 110007804527

**EPA Region:** 02

**Latitude:** 18.438861

**Longitude:** -66.212447

**Locational Data Source:** RCRAINFO

**Industries:** Educational Services

**Indian Country:** N

## Enforcement and Compliance Summary

Statute	RCRA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
<b>Compliance Status</b>	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

## Regulatory Information

**Clean Air Act (CAA):** No Information

**Clean Water Act (CWA):** No Information

**Resource Conservation and Recovery Act (RCRA):** Active VSQG,  
(PRD000691022)

**Safe Drinking Water Act (SDWA):** No Information

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

## Other Regulatory Reports

**Air Emissions Inventory (EIS):** No Information

**Greenhouse Gas Emissions (eGGRT):** No Information

**Toxic Releases (TRI):** No Information

**Compliance and Emissions Data Reporting Interface (CEDRI):** No Information

# Facility/System Characteristics

## Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110007804527					N	18.438861	-66.212447
RCRAInfo	RCRA	PRD000691022	VSQG	Active (H)			N	18.438861	-66.212447

## Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110007804527	CARIBBEAN PRIMATE RESEARCH CENTER OF PUERTO RICO MEDICAL SCIENCES CAMPUS	CARR 867 KM 3.5 BO INGENIO, TOA BAJA, PR 00949	Toa Baja Municipio
RCRAInfo	RCRA	PRD000691022	CARIBBEAN PRIMATE RESEARCH CENTER OF PUERTO RICO MEDICAL SCIENCES CAMPUS	CARR 867 KM 3.5 BO INGENIO, TOA BAJA, PR 00949	Toa Baja Municipio

## Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
No data records returned			

## Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
RCRAInfo	PRD000691022	54171	Research and Development in the Physical, Engineering, and Life Sciences
RCRAInfo	PRD000691022	611310	Colleges, Universities, and Professional Schools

## Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

# Enforcement and Compliance

# Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
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No data records returned

*Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy activities or because they are not counted as inspections within EPA's Annual Results* <https://www.epa.gov/compliance/compliance-monitoring-programs> <https://www.epa.gov/enforcement/enforcement-data-and-results>.

# Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	PRD000691022	No	04/06/2024	0	04/05/2024

# Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA	(Source ID: PRD000691022)	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation Identified											
	Violation												
	Agency												

# Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date
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No data records returned

*Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.*

## Formal Enforcement Actions

Last 5 Years

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
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No data records returned

## Environmental Conditions

### Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)- listed Aquatic Species?
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No data records returned

### Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
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No data records returned

### Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
Ozone	No	--	No	--
Lead	No	--	No	--
Particulate Matter	No	--	No	--
Carbon Monoxide	No	--	No	--
Sulfur Dioxide	Yes	Sulfur Dioxide (2010)	No	--

## Pollutants

## Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
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No data records returned

## Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
---------------

No data records returned

## e-Manifest Hazardous Waste History (Public)

### Hazardous Waste Shipped in Kilograms by Year (Through 1/6/2024)

Source ID	Waste Description	2021	2022	2023	2024
PRD000691022	Hazardous Waste	--	73	--	--
PRD000691022	Acute Hazardous Waste	--	0	--	--
PRD000691022	Pharmaceutical Hazardous Waste	--	0	--	--

“Pharmaceutical Hazardous Waste” refers to quantities managed under 40 CFR part 266 subpart P and thus excluded from the Hazardous and Acute Hazardous Waste quantities shown above.

## Community

# Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

## EJScreen Indexes Shown

Compare to  US  State

Index Type  Environmental Justice  Supplemental

## Related Reports

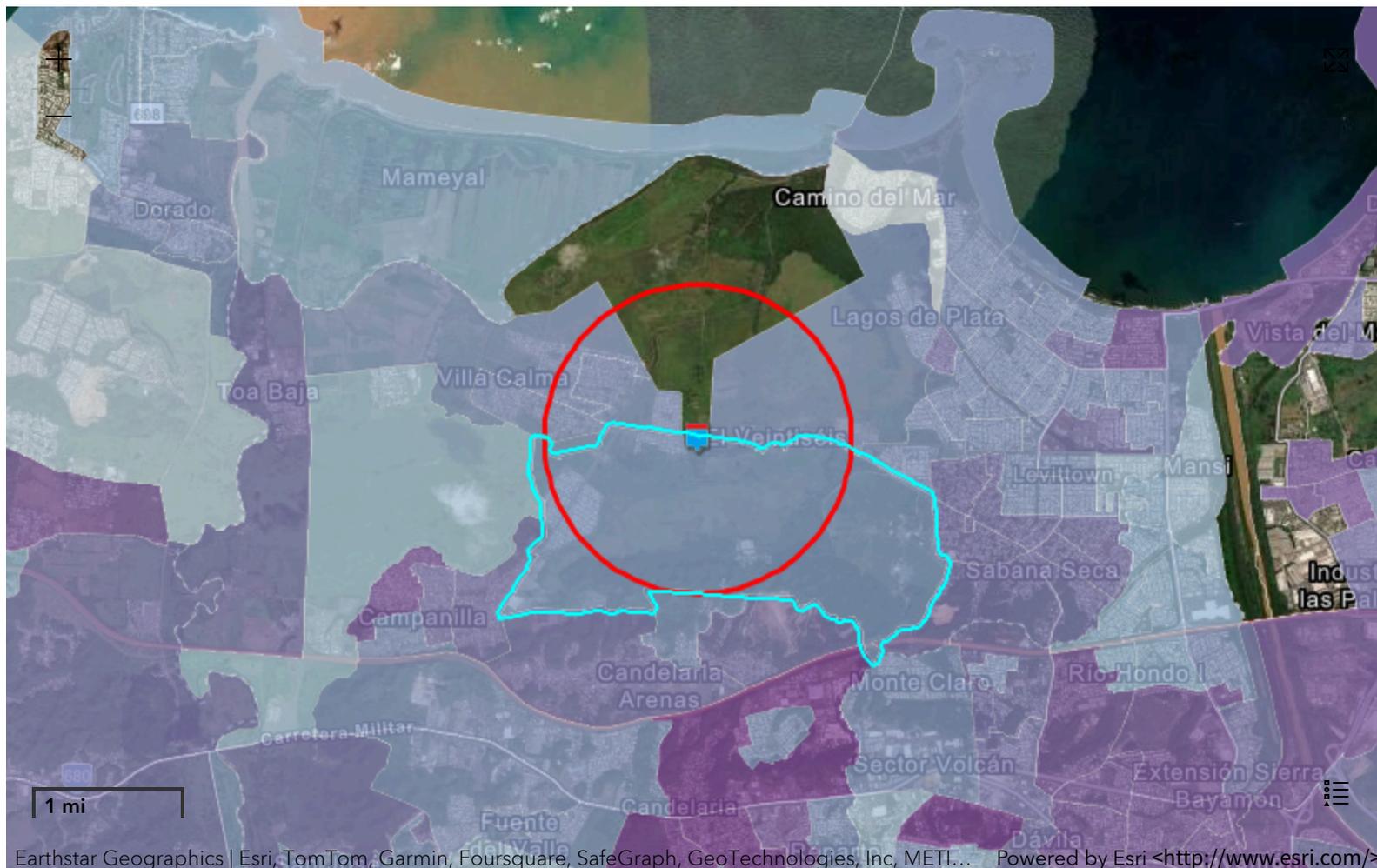
EJScreen Community Report

Download Data

Census Block Group ID: 721371217011	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
<b>Count of Indexes At or Above 80th Percentile</b>	<b>6</b>	<b>6</b>
Particulate Matter 2.5	--	--
Ozone	--	--
Diesel Particulate Matter	53	77
Air Toxics Cancer Risk	52	54
Air Toxics Respiratory Hazard Index	33	37
Toxic Releases to Air	 98	 99
Traffic Proximity	 88	 98
Lead Paint	0	75
Risk Management Plan (RMP) Facility Proximity	 88	 96
Hazardous Waste Proximity	 88	 97
Superfund Proximity	 99	 99
Underground Storage Tanks (UST)	0	--

Census Block Group ID: 721371217011	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Wastewater Discharge	99	99

○ Facility 1-mile Radius    □ Facility Census Block Group



## Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

### General Statistics (U.S. Census)

Total Persons	6,324
Population Density	2,068/sq.mi.
Housing Units in Area	2,308

### General Statistics (ACS (American Community Survey))

Total Persons	5,532
Percent People of Color	99%
Households in Area	1,885
Households on Public Assistance	36
Persons With Low Income	3,844
Percent With Low Income	69%

### Geography

Radius of Selected Area	1 mi.
Center Latitude	18.438861
Center Longitude	-66.212447
Land Area	100%
Water Area	0%

### Income Breakdown (ACS (American Community Survey)) - Households (%)

Less than \$15,000	607 (32.22%)
\$15,000 - \$25,000	315 (16.72%)
\$25,000 - \$50,000	531 (28.18%)

### Age Breakdown (U.S. Census) - Persons (%)

Children 5 years and younger	473 (7%)
Minors 17 years and younger	1,970 (31%)
Adults 18 years and older	4,354 (69%)
Seniors 65 years and older	547 (9%)

### Race Breakdown (U.S. Census) - Persons (%)

White	4,209 (67%)
African-American	1,072 (17%)
Hispanic-Origin	6,267 (99%)
Asian/Pacific Islander	11 (0%)
American Indian	46 (1%)
Other/Multiracial	986 (16%)

### Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)

Less than 9th Grade	341 (9.35%)
9th through 12th Grade	254 (6.96%)
High School Diploma	1,019 (27.93%)
Some College/2-year	660 (18.09%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	840 (23.03%)

Income Breakdown (ACS (American Community Survey)) - Households (%)	
\$50,000 - \$75,000	246 (13.06%)
Greater than \$75,000	185 (9.82%)

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# Detailed Facility Report

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## Facility Summary

**QUALITY CONCRE MIX, INC. TOA BAJA**

**CARRETERA 867 KM 2.6, TOA BAJA, PR 00951**

**FRS (Facility Registry Service) ID:** 110067030769

**EPA Region:** 02

**Latitude:** 18.4392

**Longitude:** -66.2077

**Locational Data Source:** NPDES

**Industries:** --

**Indian Country:** N

## Enforcement and Compliance Summary

Statute	CWA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
<b>Compliance Status</b>	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

## Regulatory Information

**Clean Air Act (CAA):** No Information

**Clean Water Act (CWA):** Non-Major, Permit Effective (PRR053212)

**Resource Conservation and Recovery Act (RCRA):** No Information

**Safe Drinking Water Act (SDWA):** No Information

## Other Regulatory Reports

**Air Emissions Inventory (EIS):** No Information

**Greenhouse Gas Emissions (eGGRT):** No Information

**Toxic Releases (TRI):** No Information

**Compliance and Emissions Data Reporting Interface (CEDRI):** No Information

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

# Facility/System Characteristics

## Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110067030769					N	18.4392	-66.2077
ICIS-NPDES	CWA	PRR053212	Non-Major: General Permit Covered Facility	Effective	Industrial Stormwater	02/28/2026	N	18.4392	-66.2077

## Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110067030769	QUALITY CONCRE MIX, INC. TOA BAJA	CARRETERA 867 KM 2.6, TOA BAJA, PR 00951	
ICIS-NPDES	CWA	PRR053212	QUALITY CONCRE MIX, INC. TOA BAJA	CARRETERA 867 KM 2.6, TOA BAJA, PR 00951	Toa Baja Municipio

## Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-NPDES	PRR053212	3273	Ready-Mixed Concrete

## Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
No data records returned			

## Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description
No data records returned		

## Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned			

# Enforcement and Compliance

## Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
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No data records returned

*Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <<https://www.epa.gov/compliance/compliance-monitoring-programs>> activities or because they are not counted as inspections within EPA's Annual Results <<https://www.epa.gov/enforcement/enforcement-data-and-results>>.*

## Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CWA	PRR053212	No	12/31/2023	0	04/05/2024

## Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+
CWA (Source ID: PRR053212)		01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-04/05/24
	Facility-Level Status	No Violation Identified	Undetermined											
	Quarterly Noncompliance Report History													

## Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date
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No data records returned

*Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.*

## Formal Enforcement Actions Last 5 Years

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
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No data records returned

## Environmental Conditions

### Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210100050714	Rio de la Plata to Cienaga de San Pedro Coastal Drainage Watersheds	CAÑO CAMPANERO	No	No	--	Yes

### Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
PR	2020	PREE10A	RIO LA PLATA ESTUARY	Impaired - With Restoration Plan	PATHOGENS	--	Insufficient Information	--	Not Supporting	--

### Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
Ozone	No	--	No	--
Lead	No	--	No	--
Particulate Matter	No	--	No	--
Carbon Monoxide	No	--	No	--
Sulfur Dioxide	Yes	Sulfur Dioxide (2010)	No	--

# Pollutants

## Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
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No data records returned

## Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
---------------

No data records returned

## CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

DMR and TRI Multi-Year Loading Report

NPDES ID	Description
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No data records returned

# Community

## Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

### EJScreen Indexes Shown

Compare to  US  State

Index Type  Environmental Justice  Supplemental

### Related Reports

EJScreen Community Report

### Download Data

Census Block Group ID: 721371214003	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
<b>Count of Indexes At or Above 80th Percentile</b>	<b>6</b>	<b>6</b>
Particulate Matter 2.5	--	--
Ozone	--	--
Diesel Particulate Matter	39	53
Air Toxics Cancer Risk	50	53
Air Toxics Respiratory Hazard Index	30	36
Toxic Releases to Air	! 93	! 99
Traffic Proximity	! 85	! 98
Lead Paint	67	75
Risk Management Plan (RMP) Facility Proximity	! 95	! 96
Hazardous Waste Proximity	! 91	! 95
Superfund Proximity	! 97	! 99
Underground Storage Tanks (UST)	0	--
Wastewater Discharge	! 82	! 99

Facility 1-mile Radius  Facility Census Block Group





## Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA’s spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)		Age Breakdown (U.S. Census) - Persons (%)	
Total Persons	3,511	Children 5 years and younger	264 (8%)

<b>General Statistics (U.S. Census)</b>	
Population Density	1,135/sq.mi.
Housing Units in Area	1,295
<b>General Statistics (ACS (American Community Survey))</b>	
Total Persons	5,155
Percent People of Color	99%
Households in Area	1,742
Households on Public Assistance	32
Persons With Low Income	3,250
Percent With Low Income	63%

<b>Geography</b>	
Radius of Selected Area	1 mi.
Center Latitude	18.4392
Center Longitude	-66.2077
Land Area	100%
Water Area	0%

<b>Income Breakdown (ACS (American Community Survey)) - Households (%)</b>	
Less than \$15,000	504 (28.95%)
\$15,000 - \$25,000	258 (14.82%)
\$25,000 - \$50,000	461 (26.48%)
\$50,000 - \$75,000	275 (15.8%)
Greater than \$75,000	243 (13.96%)

<b>Age Breakdown (U.S. Census) - Persons (%)</b>	
Minors 17 years and younger	1,116 (32%)
Adults 18 years and older	2,395 (68%)
Seniors 65 years and older	305 (9%)
<b>Race Breakdown (U.S. Census) - Persons (%)</b>	
White	2,339 (67%)
African-American	592 (17%)
Hispanic-Origin	3,471 (99%)
Asian/Pacific Islander	6 (0%)
American Indian	31 (1%)
Other/Multiracial	543 (15%)

<b>Education Level (Persons 25 &amp; older) (ACS (American Community Survey)) - Persons (%)</b>	
Less than 9th Grade	264 (7.78%)
9th through 12th Grade	177 (5.21%)
High School Diploma	929 (27.36%)
Some College/2-year	571 (16.82%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	936 (27.57%)



# Detailed Facility Report

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## Facility Summary

**SKY LIGHTS RICO PLASTIC**

**CARR 867 KM 5, TOA BAJA, PR 00951**

**FRS (Facility Registry Service) ID:** 110015588096

**EPA Region:** 02

**Latitude:** 18.438758

**Longitude:** -66.205442

**Locational Data Source:** RCRAINFO

**Industries:** --

**Indian Country:** N

## Enforcement and Compliance Summary

Statute	RCRA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	09/27/2005
<b>Compliance Status</b>	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

## Regulatory Information

**Clean Air Act (CAA):** No Information

**Clean Water Act (CWA):** No Information

**Resource Conservation and Recovery Act (RCRA):** Inactive Other, (PRN008012759)

**Safe Drinking Water Act (SDWA):** No Information

Go To Enforcement/Compliance Details

Known Data Problems <<https://epa.gov/resources/echo-data/known-data-problems>>

## Other Regulatory Reports

**Air Emissions Inventory (EIS):** No Information

**Greenhouse Gas Emissions (eGGRT):** No Information

**Toxic Releases (TRI):** No Information

**Compliance and Emissions Data Reporting Interface (CEDRI):** No Information

# Facility/System Characteristics

## Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110015588096					N	18.438758	-66.205442
RCRAInfo	RCRA	PRN008012759	Other	Inactive ( )			N	18.438758	-66.205442

## Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110015588096	SKY LIGHTS RICO PLASTIC	CARR 867 KM 5, TOA BAJA, PR 00951	Toa Baja Municipio
RCRAInfo	RCRA	PRN008012759	SKY LIGHTS RICO PLASTIC	CARR 867 KM 5, TOA BAJA, PR 00951	Toa Baja Municipio

## Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
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No data records returned

## Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
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No data records returned

## Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)
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No data records returned

# Enforcement and Compliance

## Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
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No data records returned

*Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> activities or because they are not counted as inspections within EPA's Annual Results <https://www.epa.gov/enforcement/enforcement-data-and-results>.*

## Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
RCRA	PRN008012759	No	04/06/2024	0	04/05/2024

## Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: PRN008012759)		04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	<b>Facility-Level Status</b>	No Violation Identified											
	<b>Violation</b>												
	<b>Agency</b>												

## Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date
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No data records returned

*Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.*

## Formal Enforcement Actions

Last 5 Years

Statute	System	Law/Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/Filed Date	Settlements/Actions	Settlement/Action Date	Federal Penalty Assessed	State/Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
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No data records returned

## Environmental Conditions

### Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
--	---	---	---------------------------------	--------------------------------------	--	---

No data records returned

### Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
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No data records returned

### Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)
Ozone	No	--	No	--
Lead	No	--	No	--
Particulate Matter	No	--	No	--
Carbon Monoxide	No	--	No	--
Sulfur Dioxide	Yes	Sulfur Dioxide (2010)	No	--

## Pollutants

### Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
-----------------	------	---------------	--------------------------	--	------------------------	------------------	------------------------	--------------------------

No data records returned

# Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name
No data records returned

## Community

### Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

#### EJScreen Indexes Shown

Compare to  US  State

Index Type  Environmental Justice  Supplemental

#### Related Reports

EJScreen Community Report

Download Data

Census Block Group ID: 721371214003	US (Percentile)	
	Facility Census Block Group	1-mile Max
<b>Supplemental Indexes</b>		
<b>Count of Indexes At or Above 80th Percentile</b>	<b>6</b>	<b>6</b>
Particulate Matter 2.5	--	--
Ozone	--	--

Census Block Group ID: 721371214003	US (Percentile)	
Supplemental Indexes	Facility Census Block Group	1-mile Max
Diesel Particulate Matter	39	53
Air Toxics Cancer Risk	50	53
Air Toxics Respiratory Hazard Index	30	36
Toxic Releases to Air	! 93	! 99
Traffic Proximity	! 85	! 97
Lead Paint	67	75
Risk Management Plan (RMP) Facility Proximity	! 95	! 96
Hazardous Waste Proximity	! 91	! 95
Superfund Proximity	! 97	! 99
Underground Storage Tanks (UST)	0	--
Wastewater Discharge	! 82	! 99

Facility 1-mile Radius     Facility Census Block Group





## Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. EPA’s spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <<https://epa.gov/help/reports/dfr-data-dictionary#demographic>>.

General Statistics (U.S. Census)	
Total Persons	3,323
Population Density	1,047/sq.mi.
Housing Units in Area	1,218

General Statistics (ACS (American Community Survey))	
Total Persons	5,488
Percent People of Color	99%
Households in Area	1,855
Households on Public Assistance	32
Persons With Low Income	3,217
Percent With Low Income	59%

Geography	
Radius of Selected Area	1 mi.
Center Latitude	18.438758

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	255 (8%)
Minors 17 years and younger	1,074 (32%)
Adults 18 years and older	2,249 (68%)
Seniors 65 years and older	272 (8%)

Race Breakdown (U.S. Census) - Persons (%)	
White	2,309 (69%)
African-American	510 (15%)
Hispanic-Origin	3,276 (99%)
Asian/Pacific Islander	6 (0%)
American Indian	35 (1%)
Other/Multiracial	463 (14%)

Education Level (Persons 25 & older) (ACS (American Community Survey)) - Persons (%)	
Less than 9th Grade	259 (7.25%)

<b>Geography</b>	
Center Longitude	-66.205442
Land Area	100%
Water Area	0%
<b>Income Breakdown (ACS (American Community Survey)) - Households (%)</b>	
Less than \$15,000	516 (27.82%)
\$15,000 - \$25,000	243 (13.1%)
\$25,000 - \$50,000	455 (24.53%)
\$50,000 - \$75,000	315 (16.98%)
Greater than \$75,000	326 (17.57%)

<b>Education Level (Persons 25 &amp; older) (ACS (American Community Survey)) - Persons (%)</b>	
9th through 12th Grade	129 (3.61%)
High School Diploma	925 (25.89%)
Some College/2-year	592 (16.57%)
B.S./B.A. (Bachelor of Science/Bachelor of Arts) or More	1,142 (31.96%)

# Appendix F: Site Inspection

## Toa Baja - Intersections

# SITE SURVEY

Date and time: **Mar 22, 2023, 10:21:00 AM**

- Chose Intersection Name: **PR-867 & URBANIZACIONES (PR-CRP-000991)**
- Pin Location: **Lat: 18.439415 Lon: -66.215833**



Earthstar Geographics | Esri, HERE, Garmin, Foursquare, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, NPS, US Census Bureau

## Contents

UTILITIES.....	3
PREPA.....	3
PRASA.....	4
TELECOMMUNICATION.....	4
INTERSECTION.....	5
Unsignalized.....	5
Legs.....	5
Leg 1.....	6
Leg 2.....	6
Leg 3.....	7
Leg 4.....	7
INTERSECTION - GENERAL.....	8
Curbs.....	9
Lightning.....	10
Transit.....	10
Peds and Bikes.....	11

# UTILITIES

## PREPA



## PRASA

**PR-867 KM.HM 3.7**

**Was not found in the field visit.**

## TELECOMMUNICATION



## INTERSECTION

### UNSIGNALIZED

- Current traffic control device: **Stop control minor roads. No signage or pavement marking.**



### LEGS

- How many? **4**

## LEG 1



- Have sidewalks? **Yes, on both sides.**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **4**
- Space to open comment: **Sidewalk looks in average condition.**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## LEG 2



- Have sidewalks? **Yes on both sides**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **5**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## LEG 3



- Have sidewalks? **Yes on both sides**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **5**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## LEG 4



- Have sidewalks? **Yes on both sides**
- Right Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (right) **5**
- Left Sidewalk current condition: **Average**
- Provide an average width of the sidewalk (left) **5**
- Asphalt condition: **Average**
- Have crosswalks? **No**

## INTERSECTION - GENERAL

- Pavement Marking: **Missing**
- Signs: **Missing**
- There is general visibility issues? **No**



- Any restriction on turning movements? **None**
- Based on your perspective, is there enough time to cross? **No gaps to cross.**

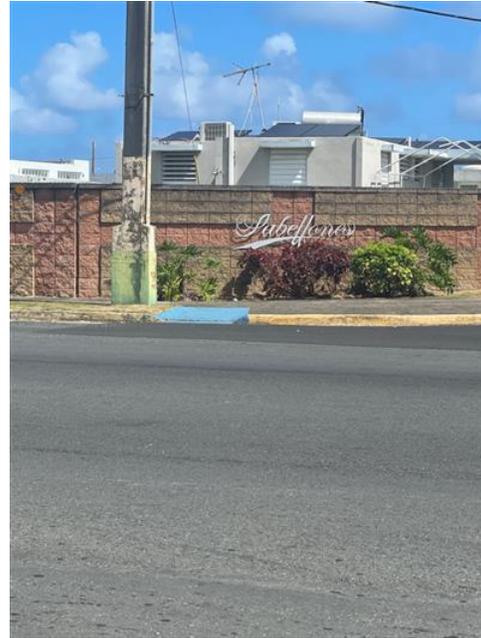
## CURBS

- Are curbs ramps present? **Yes**
- How many? **6** Are they ADA compliant? Curb 1 **No**; Curb 2 **No**; Curb 3 **No**; Curb 4 **No**

CURB 1



CURB 2



CURB 3



CURB 4



## LIGHTNING

- Is the lighting adequate at all corners? **Yes**
- Space to open comment: **Daylight at time of inspection. Unsure if the lights are working properly.**



## TRANSIT

- Are there any transit stop? **Yes – Both**





## PEDS AND BIKES

- Are peds and bikes waiting for gaps?  
**No pedestrian at inspection. However, the inspection crew attempted to cross the intersection without success. The major road vehicles travel at high speeds.**
- Are drivers expecting crossing peds or bikes? **No**



- Space to open comment: **It's difficult for minor road to make left and right turns because of speed and volume of major road. No peds will be expected crossing even that there are two bus stops.**

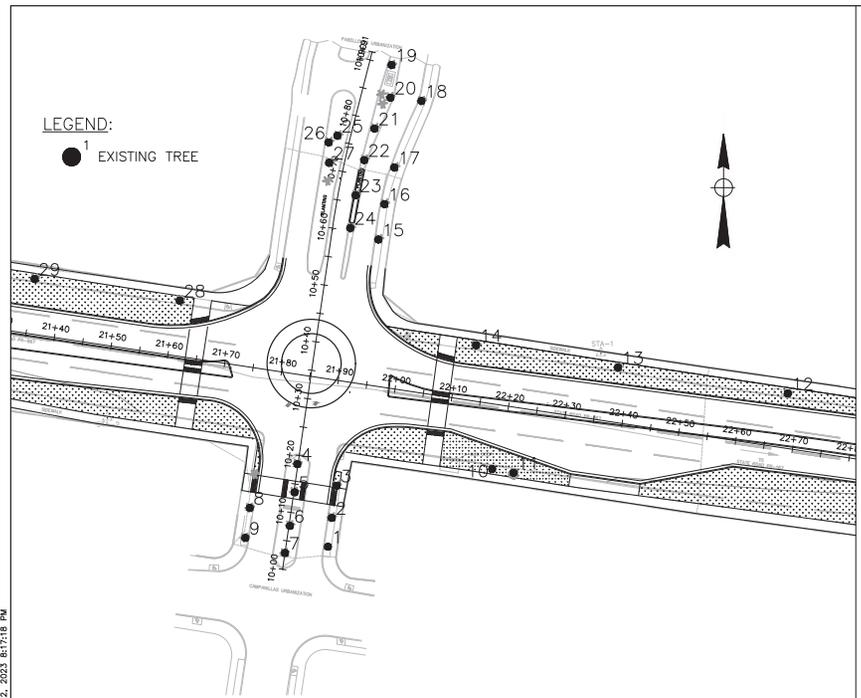


- Peds and bike facilities accommodate users with disabilities? **Yes**
- If no, explain (space to open comment) **There's sidewalks and curb ramps. No crosswalk and high speeds. Curb ramps are not ADA compliant but there's still ramps.**



# Appendix G: Tree Inventory and Mitigation Planting Plan

HIGHWAY PR	MUNICIPALITY	ISLAND	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
PR-867	TOA BAJA	PR	2023	25	27



TREE INVENTORY TABLE, PR-CPR-000991

NO. ID	COMMON NAME	SCIENTIFIC NAME	DBH (IN.)	APPROX. HEIGHT (FT)	CONDITION	RECOMMENDATION
1	PALMA ARECA	DYSPIS LUTESCENS	CEPA	11.0	REASONABLE	REMOVAL
2	PALMA ARECA	DYSPIS LUTESCENS	CEPA	9.0	REASONABLE	REMOVAL
3	PALMA ARECA	DYSPIS LUTESCENS	CEPA	15.0	REASONABLE	REMOVAL
4	PALMA REAL	ROYSTONEA BORINGUENA	15.0	28.0	REASONABLE	REMAIN
5	PALMA REAL	ROYSTONEA BORINGUENA	20.0	40.0	REASONABLE	REMOVAL
6	PALMA REAL	ROYSTONEA BORINGUENA	21.0	32.0	REASONABLE	REMAIN
7	PALMA REAL	ROYSTONEA BORINGUENA	17.0	34.0	REASONABLE	REMAIN
8	PALMA ADONIDIA	ADONIDEA MERRILLII	6.0	7.0	REASONABLE	REMOVAL
9	PALMA ADONIDIA	ADONIDEA MERRILLII	6.0	10.5	REASONABLE	REMOVAL
10	ALMENDRO	TERMINALIA CATAPA	13.0	31.0	REASONABLE	REMAIN
11	PALMA ADONIDIA	ADONIDEA MERRILLII	7.0	10.0	REASONABLE	REMAIN
12	PALMA CHINENSIS	LIVSTONA CHINENSIS	6.5	4.3	REASONABLE	REMAIN
13	PALMA CHINENSIS	LIVSTONA CHINENSIS	14.5	5.0	REASONABLE	REMAIN
14	PALMA CHINENSIS	LIVSTONA CHINENSIS	13.5	4.3	REASONABLE	REMAIN
15	PALMA CHINENSIS	LIVSTONA CHINENSIS	16.0	4.3	REASONABLE	REMAIN
16	PALMA CHINENSIS	LIVSTONA CHINENSIS	14.0	5.0	REASONABLE	REMAIN
17	PALMA CHINENSIS	LIVSTONA CHINENSIS	13.5	4.3	REASONABLE	REMAIN
18	PALMA CHINENSIS	LIVSTONA CHINENSIS	15.0	4.3	REASONABLE	REMAIN
19	PALMA MCARTHUR	PTYCHOSPERMA MACARTHURII	13.0	13.0	REASONABLE	REMAIN
20	PALMA MCARTHUR	PTYCHOSPERMA MACARTHURII	CEPA	14.0	REASONABLE	REMAIN
21	PALMA CHINENSIS	LIVSTONA CHINENSIS	13.5	4.4	REASONABLE	REMAIN
22	PALMA CHINENSIS	LIVSTONA CHINENSIS	10.0	4.5	REASONABLE	REMAIN
23	PALMA CHINENSIS	LIVSTONA CHINENSIS	7.5	4.3	REASONABLE	REMOVAL
24	PALMA CHINENSIS	LIVSTONA CHINENSIS	8.0	4.3	REASONABLE	REMOVAL
25	PALMA MCARTHUR	PTYCHOSPERMA MACARTHURII	5.9	12.0	REASONABLE	REMAIN
26	PALMA MCARTHUR	PTYCHOSPERMA MACARTHURII	CEPA	12.0	REASONABLE	REMAIN
27	PALMA MCARTHUR	PTYCHOSPERMA MACARTHURII	CEPA	10.0	REASONABLE	REMAIN
28	PALMA CHINENSIS	LIVSTONA CHINENSIS	14.0	4.3	REASONABLE	REMAIN
29	PALMA CHINENSIS	LIVSTONA CHINENSIS	14.0	5.0	REASONABLE	REMAIN

**LEGEND:**  
 ● 1 EXISTING TREE

**DATA:**  
 - 29 TOTAL  
 - 21 REMAIN  
 - 8 REMOVAL

**TREES TO BE AFFECTED**  
 - 8 TREE

**PROPOSED PLANTING**  
 - -- TREES (PROJECT)

- NOTES:**
- SURVEY INFORMATION AS PROVIDED BY PROJECT LAND SURVEYOR.
  - THE INVENTORY DATA WAS COLLECTED ON OCTOBER 19, 2023.
  - FOR EXISTING TREE DESCRIPTIONS AND RECOMMENDATIONS, SEE TREE INVENTORY TABLE ON SHEET.
  - TREES LOCATION IS APPROXIMATED.
  - ALL ELEVATIONS ARE EXPRESSED IN METERS AND ARE REFERRED TO MEAN SEA LEVEL INDICATED ON THE TOPOGRAPHIC PLAN.

**CERTIFICATION:**

I CERTIFY THAT THIS INVENTORY HAS BEEN ADEQUATELY PREPARED.

NAME:  
 OGPPE AUTHORIZED PLANTING AND REFORESTATION INSPECTOR ( -ISF- )

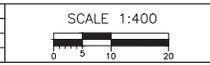
WORK	BY	DATE
DESIGN	##	##
DRAWING	##	##
CHECK	##	##
FINAL CHECK	##	##

AUTONOMOUS MUNICIPALITY OF TOA BAJA

CONSULTING ENGINEERS  
 OF Puerto Rico, PSC

PR-CRP-000991 ROUNDABOUT  
 ROADWAY IMPROVEMENTS AT PR-867 AND AVE. PABELLONES  
 AUTONOMOUS MUNICIPALITY OF TOA BAJA, PUERTO RICO

DATE	REVISIONS



TREE SURVEY PLAN

FILE NAME: I:\PROJECTS\16.56071-TOA BAJA ROUNDABOUT\CAD DRAWINGS\25. RD SITE A COOR91A\RD-1.DWG, PLOT DATE: Wednesday, November 22, 2023 8:17:18 PM