An urban and commercial revitalization project

Project description for U.S. E 2014.04.23

IIII PASEO PUERTA DE TIERRA

Project description for U.S. Department of Transportation TIGER GRANT Funding









Master Plan



Paseo Puerta de Tierra

Project description for DOT Tiger Grant Funds

This project consists of infrastructure and environmental improvements to create an orderly subsequent development of the area known as "Puerta de Tierra" in the islet of San Juan, which leads to the historical walled city of Old San Juan, an UNESCO World Heritage Site.

The Paseo Puerta de Tierra project's basic objective is to provide a safe route for pedestrians and cyclists for their physical exercise and recreational activities, but the main goal envelops a much more important purpose: bringing vitality to a neglected but very significant part of the city of San Juan and thus spawn similar initiatives in all neighboring areas. The Puerta de Tierra zone has always had very promising commercial, residential, recreational and touristic potentials, but they have never been fully explored nor capitalized on. Its terrain still holds traces of historical ruins and its northern strip possesses one of the most beautiful panoramic views of the Atlantic Ocean of the whole island of Puerto Rico because of the height of its natural limit. Puerta de Tierra is also linear in shape, which makes it an ideal configuration for a sequence-based entryway to Old San Juan in which different points of interest can be discovered along the route. Several design strategies have been taken into account to obtain new benefits for the local islet population, as well as for the rest of the capital city of San Juan and the country. The entirety of the project will comply with ADA standards and applicable code regulations. A more thorough project description of its components, objectives and construction phases follows:

Pro	ject components:	8.
1.	An expansive and interesting pedestrian route	
2.	Safe bicycle lanes	
3.	Realignment of all the Metropolitan Bus Authority routes along	

the same roadway for better user safety and orientation 4. Reconfiguration of existing automobile traffic lanes

San Agustín neighborhood infrastructure and street 5. improvements

- 6. New buildings for recreation, relaxation, view appreciation, historic information and food and refreshments concessions 7. New parking spaces
 - New general landscaping
 - Improvements to infrastructure and traffic systems
- 10. Wayfinding

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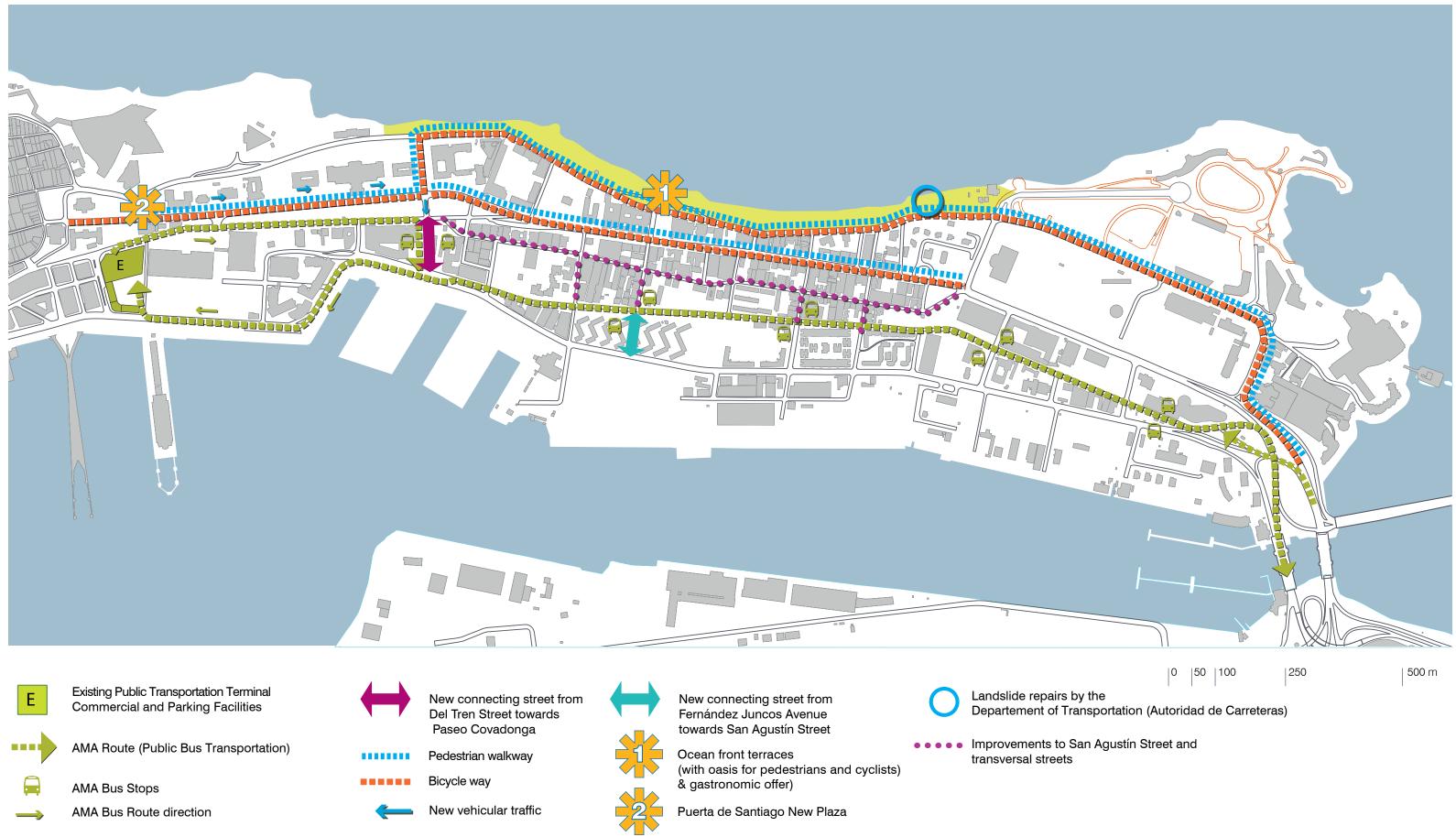
6.

7.

Project objectives:

- 1. Strengthen, reinforce and boost the individual identity of the Puerta de Tierra district by enhancing its historic, cultural and geographic characteristics
 - Encourage the creation of safe recreational and relaxation zones using clearly marked pedestrian and cycling routes in order to separate them from vehicular traffic
 - Defining the route to the historical walled city of Old San Juan by generating anticipation
 - Awaken interest in visiting and rediscovering sectors of the zone that had remained veiled for different reasons but that contain particular kinds of merits of their own
 - Reveal the cultural validity of a stretch of land that witnessed significant scenarios of the history of the city of San Juan
 - Encourage the commercial and residential revitalization of the Puerta de Tierra district while increasing land value by using the route of the project as a primary component of the process Define and organize the vehicular and pedestrian circulation patterns, including those of public transportation, by strengthening the district blocks's demarcations and recovering and forming memorable spaces
 - Motivate the local population by acknowledging the importance of the neighborhood and helping to stimulate the social and communal coexistence of its different sectors. Bring greater degrees of safety, well being and livability enhancement to the local neighborhoods.
- 9. Add vegetation and landscaping elements to improve the existing urban condition by providing variety and a better sense of scale. These elements will equally emphasize the scenic potential of the coastal zone to the north.

Master Plan







Description		No. of Employees	Key Personnel	Title / Position
ARCHITECTURE, SPACE PLANNING, & INTERIOR ARCHITECTURE	SCF Architects, LLC 13 Calle 2 Metro Office Park Guaynabo, Puerto Rico 00968-1712 www.scf-pr.com 787.781.9090	21	Segundo Cardona, FAIA Clemente González Eduardo Bermúdez Alberto Fernández, AIT Luis Félix, AIT Teresa Hermida, AIA Jesús Trías Reinaldo Plaza	Partner in charge of project & design Partner Project Architect Architect Architect / Permits Architect / Graphics Illustrator CAD Operator/ 3d visualizations
INFRASTRUCTURE, TRANSPORTATION, CIVIL, STRUCTURAL & HYDRAULIC ENGINEERING	BARRETT HALE & ALAMO, LL Consulting Engineers Calle del Parque 207, Piso 6 San Juan, PR 00912 www.bhapr.net 787.982.7050	19 .C	Herminio Alamo, PE Carlos Clausell Patrick Laide, PE José Francisco Lazo, PE Vanessa Amado César Collazo José Coll, PE	Civil & Structural Manager Civil Design Structural Design Traffic Utilities (AAA, Sewers & Drains, PRTC, Gas Electrical utilities

o Cardona, FAIA e González Bermúdez Fernández, AIT x, AIT Iermida, AIA rías	Partner in charge of project & design Partner Project Architect Architect Architect / Permits Architect / Graphics Illustrator CAD Operator/ 3d visualizations
) Plaza	CAD Operator/ 3d visualizations

Historic Documentation PASEO rta de tierr

Historical Background of the San Juan Islet: site of the Paseo de Puerta de Tierra

Geographic Description

The San Juan islet is a stretch of land approximately 4.25 kilometers long and 500 meters wide with an area of 450 acres. The topography varies from 0 to 38 meters high above mean sea level. Its limits are the Atlantic Ocean to the north, the San Juan Bay and San Antonio Channel to the east and south and the rest of the mainland by way of the Condado area to the west. It has a rocky terrain to the north and originally had marshes and mangrove expansions to the south which had long been substituted by landfill to accommodate piers, vehicular and train accesses and multi-use expansion.

The Old San Juan colonial walled city founded in the XVI century is located to the west of the islet, and a collective area known as Puerta de Tierra runs from the entrance of the old city to the east. Puerta de Tierra actually consists of several small neighborhoods, the most prominent of which is called San Agustín because of its residential and commercial character.

Historic Description

The earliest traces of the first settlers of the San Juan islet belong to the Saladoid (Salanoide) culture, a pre-Columbian indigenous culture originally from the territory of the present-day Venezuela that flourished from 500 BCE to 450 CE along the lowlands of the Orinoco River. They displaced the pre-ceramic Ortioroid people of its native lands and began migrating to the Lesser Antilles, Puerto Rico and Hispaniola between 450-280 BCE or maybe even earlier. The Saladoid were in turn displaced by the Ostionoid, potterymaking horticulturists of contemporary origin which somewhere in time broke ties with the South American continent. These cultures shared similar languages with an Arawak origin.

Contrary to popular belief then, the Taino people were not the first inhabitants of the islet. This culture spread throughout the Bahamas, Greater Antilles and the Lesser Antilles and even though its origin is still debated, it can be traced to South America (either the Orinoco

The first fort, La Fortaleza, was not much more than a simple tower and it was located in what is now the governor's mansion, overlooking the bay to the south. This location proved to be very inefficient because the attacking ships could enter the bay without prior resistance. The next built fort was the modest beginning of what later was to become the San Felipe del Morro fortification, placed at the west tip of the islet. As the attacks became more frequent, the Spanish Crown decided finally to protect the islet and the wall system started in 1634 from El Morro to the south, toward the Bay. The complete fortification system eventually consisted of



Valley or the Colombian Andes. Since their language derived from the Arawak they are classified as belonging to the same group of descendants. They eventually took hold of the island of Puerto Rico, and were the people found by Columbus when he arrived in 1493.

Both Saladoid and Ostionoid remnants have been found, as well as Spanish defense building parts, in the archeological area known as SJ-2, an area now occupied by the National Guard Headquarters parking lot along the Estéves street, between the Ponce de León (to the south) and the Muñoz Rivera (to the north) avenues. More remnants can be also found to the north of the avenue, in a small paved and green flat area overlooking the Atlantic Ocean. SJ-2 is the only pre-colonial archeological area sufficiently studied in Puerta de Tierra with a big scientific potential. The total indigenous population of the island of Puerto Rico may have reached 100,000 individuals but by the end of the XVIII century only less than 2,500 had survived the Spanish abuse and the maladies brought with them. Mixed ethnicity is still evident today.

Christopher Columbus claimed the island in 1493 but it was not until the XVII Century that the city began to develop its present shape with the construction of an extensive surrounding walled defense system after several attacks by the British and Dutch fleets took place in the beginning of the XVI century. These walls remain as the best-kept defense system of all of the Caribbean even though a significant part of it was demolished in 1897.

three lines of defense. The first one was located at the extreme east of the islet with small batteries, parapets and a powder magazine. The second one consisted of parapets and the Queen Isabel II bastion and ran the width of the islet from the northern beach to the south shore. The third and final line of defense had two fronts. The first one included parapets and ditches and also ran the width of the islet, and also an observation bastion at sea level on the northern shore called "Tajamar", located at the middle of the islet's length. The second front was much more complicated, with actual defense walls with merlons and cannon embrasures of different heights and the San Cristóbal Fort.

The wall system had several gates. The oldest one, La Puerta de San Juan, is still standing and can be visited at the south, in front of the Bay. This gate was for many years the main disembarking point of the city, next to La Fortaleza and in line, not far from it, with the Cathedral. The only real land gate, built between 1635 and 1641, was named La Puerta de Santiago, which gave access to the rest of the islet through hard terrain, the reason for which it was nicknamed "Puerta de Tierra (literally, Land Gate)", the name later adopted for the part of the islet that lead to the old city.

At the beginning of the XVIII century, the land outside the city gate was distributed to former slaves from neighboring colonies and to the city's poorest classes. The slaves were trained by the military to defend the island. By 1771 the shacks from the extramural growing population already reached the proximities of the San Cristóbal Fort's walls. In 1810 the main circulation artery leading to the city through the islet's length was built and named "Camino Real (Royal Path)". This way was later to become the "Carretera Central (Central Road)" and, even later, the Ponce de León Avenue, in honor of the island's first governor. It later became the main fostering element for the city's expansion. Later, in 1838, a new accessway was built, named "Paseo Puerta de Tierra" as a further effort to establish some order to the urban expansion. In 1867, an earthquake demolished many houses of the city and parts of the walls fell, opening an escape route for the citizens that ran for their lives. Many of these decided to stay in the Puerta de Tierra area, increasing the already crowded population of the zone. In 1865, a resolution for an urban plan was approved as well as the demolition of the eastern city walls, although this didn't happen until 1897. In 1867 a royal order permitted that government owned lots to the south of the Camino Real, now improved and renamed "Carretera Central", could be sold or rented and in 1872 a public auction was held in which the majority and best lots were acquired by the commercial sector.

New projects began emerging as the construction of the tramway was already underway in 1879 to connect San Juan with Río Piedras. To the south of the Paseo de Puerta de Tierra a new cobblestone paved boulevard named "Paseo de Nuestra Señora de Covadonga" with three small round open spaces was built in 1866, as well as a church, and a year later, a hospital. For the tramway, a new bridge was built to connect with the new Santurce area of the now expanding city and in the decade of 1880 a railroad line was begun which by 1890 was inaugurated to soon later reach the city of Ponce. The Train Company planned a terminal building which eventually was completed in 1913.

Since 1851, new piers began appearing along the San Antonio Channel, most of them private, until in 1984 the Board of Piers prepared a plan for dredging and filling the southern part of Puerta de Tierra, and new storage sheds were built and cranes installed to handle heavy loads and artillery. San Juan started to become a major regional port in the Caribbean and gave Puerta de Tierra an important role in the city' modernization process. In 1886, the Parish of San Agustín was founded with a modest temple and since 1988, the old way that lead to the Santiago Gate was already been called "San Agustín street" which later also became the name of the borough that sprout around it.

However, the most significant event in the urban development of the Puerta de Tierra district started with the demolition of the part of the walled system that faced it from the city and its land gate. As mentioned above, this demolition took place in 1897 and, although not well judged today from a historic preservation point of view, it made sense to the population of that age. The city was overpopulated and needed better sanitation and commercial and residential expansion. It gave the inhabitants a sense of liberation and renewal.

In that same year, large landfills were undertaken to gain more land for people coming from the rural areas, which inevitably gave rise to slums. In 1899, hurricane San Ciriaco struck the island and the little amount of what was left contributed to the extremely poor existing conditions with epidemic outbreaks, hunger, illiteracy, premature deaths, prostitution and crime. Since the best land lots still belonged to the military, the population still had to deal with marshy grounds.

In 1989 the United States of America took control of Puerto Rico and started a series of works to create a better environment for the area. However, Puerta de Tierra had its share of epidemic outbreaks such as influenza, meningitis, malaria and the bubonic plague, and also social upheavals in the form of labor strikes. During the first three decades of the past century more than once the suggestion of burning its worst areas because of health concerns was presented only to recover sooner than expected.

Nevertheless, all this didn't stop progress. Amongst the most important urban works the Carretera Central was realigned and new institutional, religious and cultural buildings began to appear. The Muñoz Rivera Park was created in 1918 and in 1926 the new Fernández Juncos Avenue marked a geographical limit to the ports district. Puerta de Tierra continued growing without an adequately defined urban plan. Instead of using a reticular arrangement, common in the XV-XVI centuries, the dominant form was that of a linear character more in tune with the functional separation of more modern cities. This fact made its territory one of continuous transition from the mainland to the Old San Juan city without a strong and unified context even to this day.

Puerta de Tierra: Timeline of events and buildings

400-600/1000	Fist settlers: Saladoids, a pre-Columbian indigenous culture that arrived in Puerto Rico ca. 500 BCE from the northern region of the Orinoco River valley, present- day Venezuela. These horticulturists and ceramists inhabited the Puerta de Tierra area since ca. 400 CE, where they established a village, characterized by a series of horseshoe-shaped mounded middens facing a central open space that functioned as a plaza and as a burial site.
700 -1300	Second settlers: the Ostionoids. A new social, cultural and social configuration emerged, recognizable in the appearance of new ceramic styles, changes in settlement patterns, architectural and development of domestic ritual spaces.
1100-1500	The Taínos. By about 1100 CE, the Ostionoid series developed into what is commonly known as the Taino, or Chican Ostionoid subseries, the groups that represented the climax of development of the pre-colonial cultures of the West Indies. These were supposedly organized in a complex system of chiefdoms supported by the development of large villages. These villages were controlled by centralized political systems and supported by intensive agriculture, highly developed fishing technologies and a stratified societal system.
1493	Christopher Columbus claims the island of Puerto Rico for the Spanish Crown
1521/1776/1925	Puente del Agua, 1925 Guillermo Estévez Bridge, 1927 expansion
1568	San Antonio Fort (later connected to First Line of defense)
1595	British attack: Sir Francis Drake and John Hawkins
1596	British attack: Sir Francis Drake
1598	British attack: George Clifford/Count Cumberland
1625	Battle of San Juan, Dutch attack/ Boudewijn Hendricksz

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1634-1861	Lines of defense
	First Line: San Jerónimo Fort, El Escambrón Battery, San Ramón battery, San Jerónimo powder magazine (1749), San Antonio Fort, parapets
	Second Line of Defense: Queen Elizabeth II Bastion, 1794, parapets
	Third Line of Defenese: Tajamar observation bastion, parapets and ditches San Cristóbal Fort and wall complex, 1634/1678/1765/1809
1714	Governor Juan de Rivera cedes land from the San Cristóbal Fort to the San Antonio Bridge to slaves who had escaped from neighboring British, Dutch and Danish colonies. In exchange, they are militarily trained and form a militia corps.
1797	British attack: Sir Ralph Abercromby
1810	Camino Real (Royal road) construction to join Old San Juan to the mainland
1838	Paseo Covadonga (originally "Paseo de Puerta de Tierra")
1840/1961	Construction of piers along the San Antonio Channel
1851	First Private Pier. More private and government owned piers begin construction.
1867	An earthquake demolishes part of the defense walls. San Narciso Storm. Land sale to the south of the Carretera Central approved.
1877	(Originally destined to be the Civil Hospital) Jail and School of Arts, in 1905 Porto Rican-American Tobacco Co., in 1910 Orphanage, 1939 Bacardí Corporation of America Headquarters, 1973 National Library and Archive belonging to the Institute of Puerto Rican Culture
1880	Ubarri Tramway
1881	Tramway Bridge

1886	Paseo de Nuestra Señora de Covadonga open leisure area
1888	Construction and official naming of San Agustín street (1907 sewage system installed, 1908, electrical lighting installed)
1889	The San Agustín parsish was established
1892	Asilo de Ancianos Desamparados building
1894/1917/1920	Dredging and land filling San Antonio Channel
1895	Puerta de Tierra Women Launderers Guild strike
1897	Walls/Santiago Gate (Puerta de Tierra) demolition
1899	San Ciriaco, category 5 hurricane, devastates the area
1903	U. S. Navy Radio Station, now Casa Cuna-Care House for abused and abandoned children
1907	José Julián Acosta School
1908	Realignment of the Carretera Central (central Road)
1910	First distributed movies shown in Puerto Rico in a "theater" ("Tres Banderas") under a tent, in front of the Casino building. New York architect Prentince Sanger proposes an ambitious urban plan for which all of Puerta de Tierra's small and insignificant buildings had to be demolished.
1912	YMCA (in the present: Casa Olímpica, Olympic Committee Headquearters). Bubonic plague epidemic. The San Juan Central Workers Union proposes to burn and destroy the zone, but it took only 92 to control it, setting a world record by that year.
1913	Hipódromo La Feria, Train terminal (Paseo Covadonga St.), Masonic Temple
1914	San Agustín School and Convent building. The "Great Tobacco Workers strike" joined by the Puerta de Tierra Women Launderers Guild
1915	San Agustín Church

1916	St. Paul Lutheran Church, Carnegie Library building. Infant paralysis epidemic.	
1917	Casino de Puerto Rico building (in the present,	1936
	Reception Center of the Government of Puerto Rico). Tobacco, pier and transportation workers strike demanding better salaries	1937
1918	Luis Muñoz Rivera Park. Influenza epidemic.	1938
1919	Baptist Church building, Ponce de León Avenue	1940
1920	Malaria and Meningitis epidemic. San Antonio Channel and the San Juan Bay dredged. 150,000 cubic yards of mud used to fill mangroves to the south.	1942
1921	Puerta de Tierra big fire, 800 houses burned down. Father Charles Hoff convinces the government to build	1949
	a clinic for children, brought sewing machines from the USA and organized women labor	1950
1923	Ateneo Puertorriqueño building	1954
1925	New San Antonio Bridge. Streets of Puerta de Tierra repaired and paved with asphalt by the Union Administration of San Juan	
1926	Tropical Medicine School (in the present, Capitol	1955
	Superintendency). Construction of what was to become known as the Fernández Juncos Avenue.	1956
1928	San Felipe category 5 hurricane	1966
1929	State Capitol building	1968
1930	Weather Bureau building (in the present, National Guard Museum)	1969
1932	Escambrón Beach Club building, Train Bridge	1994
1933	Series of strikes by Sugar and Pier workers, which lasted until 1938, the year in which it provoked a stop in the commercial sector activities. Violence amongst moderate and radical workers and the police spread.	
1934	Club Náutico building	
1935	El templo del Maestro, Sixto Escobar Baseball Stadium,	

Casa de España social club, Canódromo (Dog Race Track),

Capital City Jail building

El Falansterio, National Guard Headquarters, Lara (Sylvia Rexach) Theater

Methodist Church, Muñoz Rivera Avenue

San Agustín and San Antonio public housing projects.

Normandie Hotel, US Corps of Engineers building. First Police Academy start training behind the General Headquarters in Puerta de Tierra.

Caribe Hilton Hotel building

Pier workers strike because of the Sea Land cargo system (Puerto Rico was the first destination away from USA shores)

WKAQ Radio and TV Station, WAPA TV Station. Fisrst TV transmission by WKAQ in January 28, first regular TV programming in March 28.

First residential condominium built in Puerto Rico: "San Luis", in Puerta de Tierra.

Supreme Court building built

El Escambrón Olympic Pool building built

Oil tanker "Ocean Eagle" splits and spills 9 million liters of oil into the San Juan Bay

Department of the Treasury building built

Morris J. Berman oil ship hits reef and spills 798,000 gallons of oil into the San Juan Bay.

Reference: www.Puerta de Tierra.info



The following pages depict the zone's development since the 1700's via maps, photographs and aerial views.

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De Hostos, Adolfo, Historia de San Juan: Ciudad Murada. (Editorial Corripio República Dominicana, 1948)1

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Vivoni, Enrique, San Juan siempre nuevo: arquitectura y modernización en el siglo XX (San Juan: Universidad de Puerto Rico, 2000)

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Puerta de Tierra: Maps and images

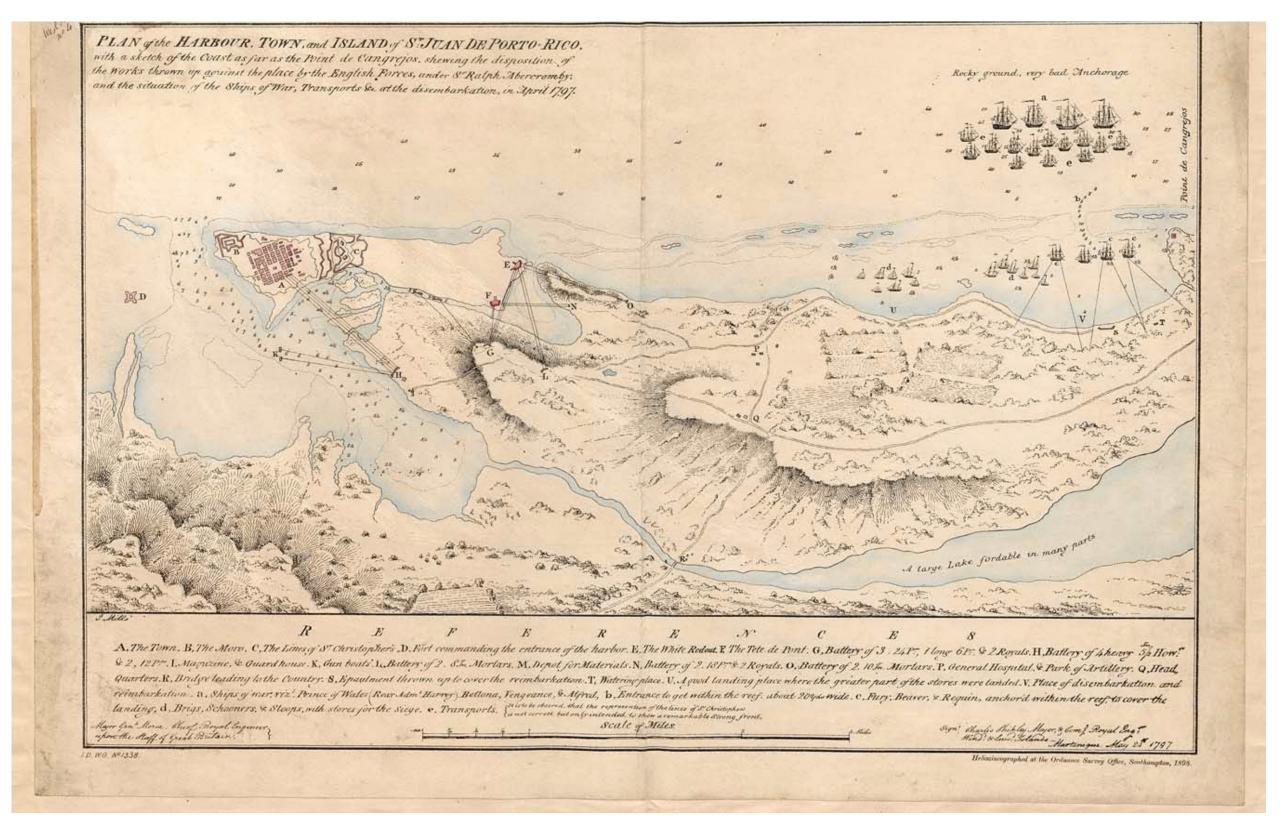


1772. Plaza of San Juan Plan. .5748, Madrid.ASR from: ([CON] textos El Parque Muñoz Rivera y el Tribunal Supremo de Puerto Rico, Andrés Mignucci)

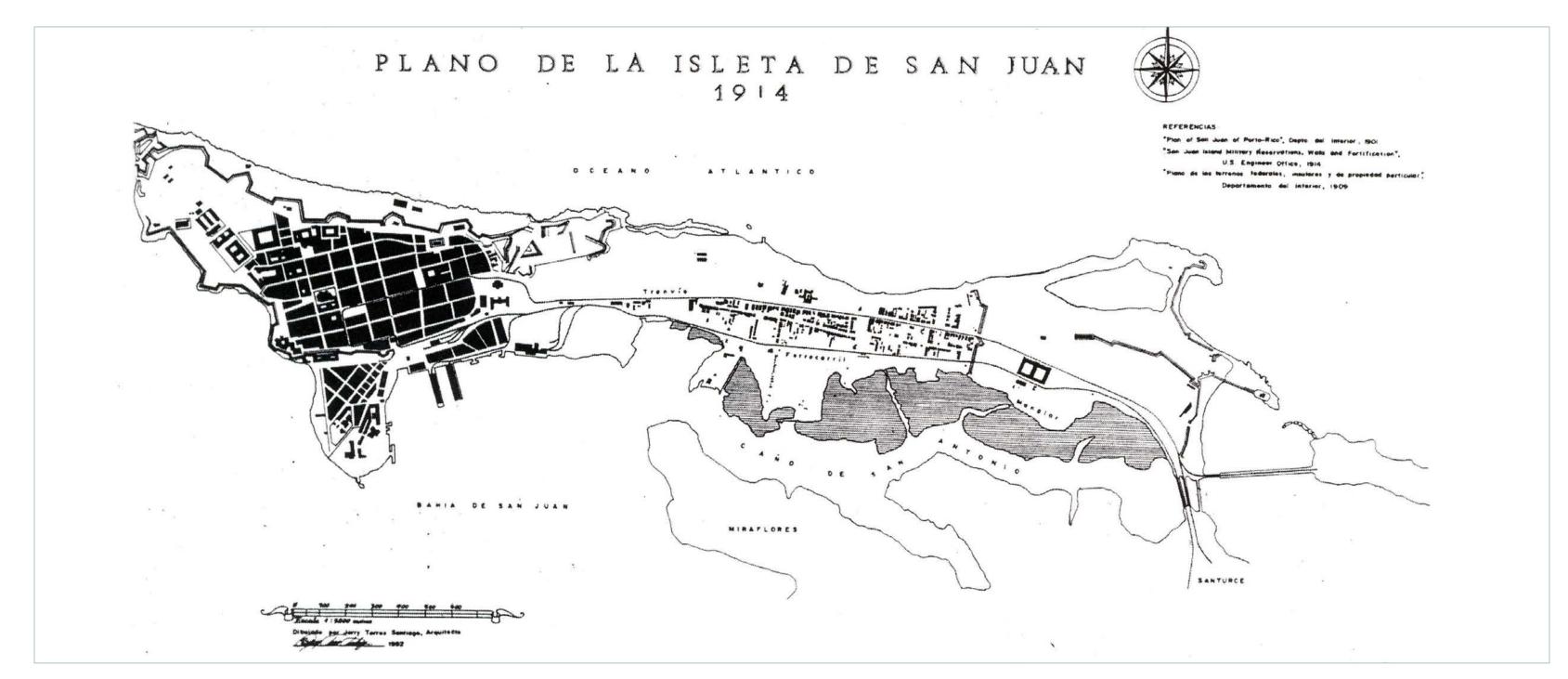


1792. Fortressed city of San Juan. Manuscript by Juan Francisco Mestre. Servicio Histórico Militar, núm.5795, Madrid.ASR. From: ([CON] textos El Parque Muñoz Rivera y el Tribunal Supremo de Puerto Rico, Andrés Mignucci)



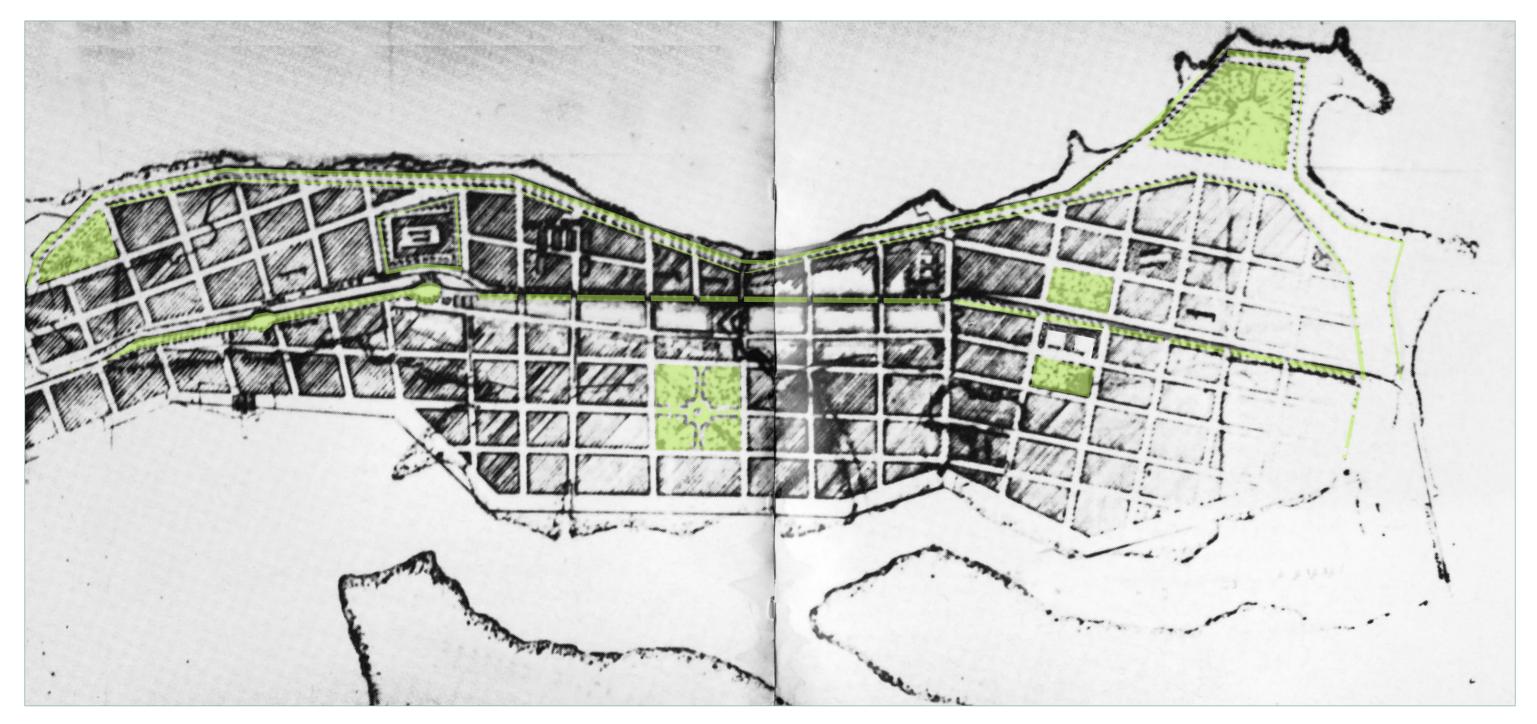


1797. Map of the Islet of San Juan

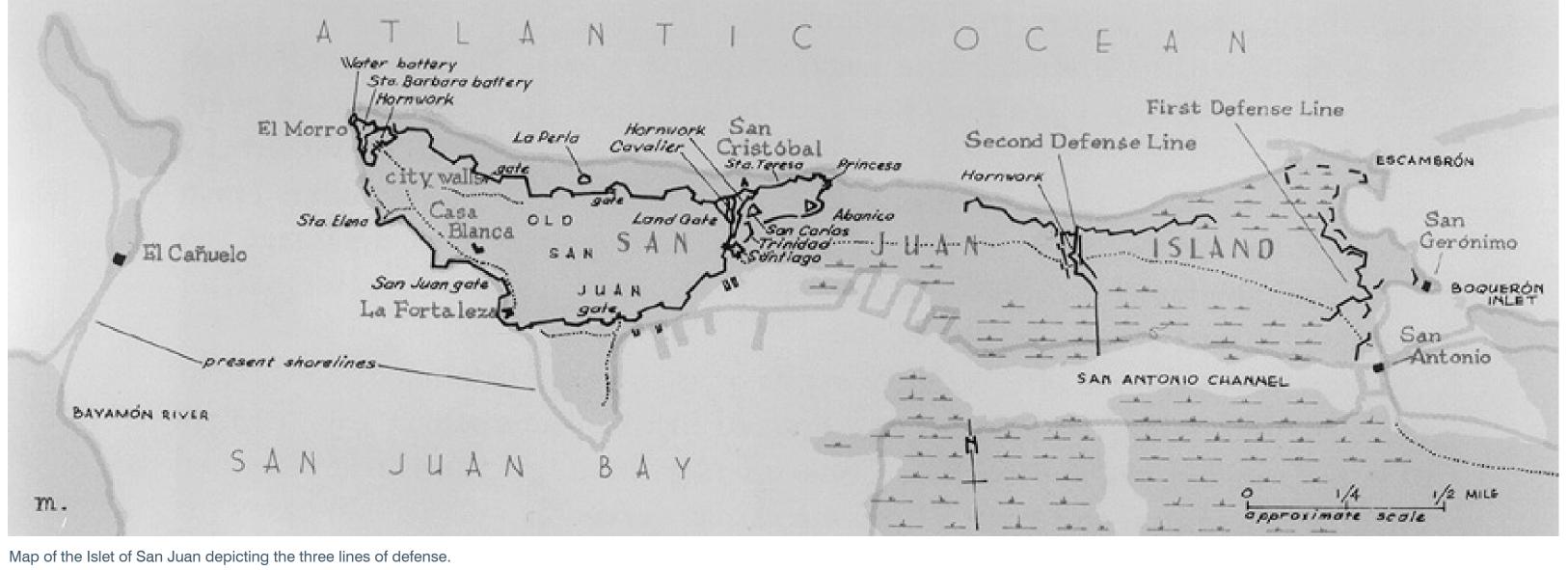


Plan of the San Juan Islet, 1914. Plan showing the fortressed city and in it's outskirts, the slums in the banks of the San Antonio Canal. AACUPR. ([CON] textos El Parque Muñoz Rivera y el Tribunal Supremo de Puerto Rico, Andrés Mignucci)





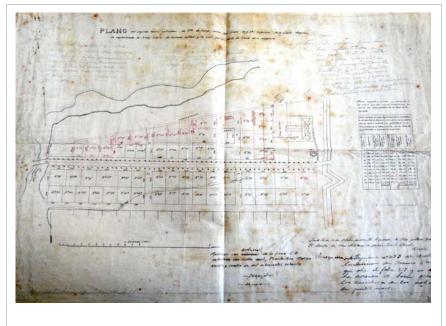
1881. Expansion plan for the City of San Juan. Highlighted areas show the plan's designated public spaces. Manuscript by Pedro Cobreros. Archivo Histórico Nacional, Ultramar Fomento. From: ([CON] textos El Parque Muñoz Rivera y el Tribunal Supremo de Puerto Rico, Andrés Mignucci)



http://www.nps.gov/nr/twhp/wwwlps/lessons/60sjspanish/60locate2.htm



Historical PASEO & Images PUERTA DE TIERRA



Plan showing Second Line of Defense and bordering lots

Fortifications and lines of defense



Santiago Entryway



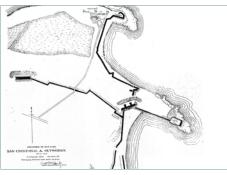
Revellín del Príncipe



Santiago Entrance



Vista desde San Cristobal (1899)



1901 Plan of the First Line of Defense. From: "Defenses of San Juan San Cristobal & Outworks". National Park Service San Juan. ASR/JC ([CON]textos Andrés Mignucci)



Santiago Entrance



Fuerte de San Cristóbal



Second line of defense



Tajamar Ruins (1954)



San Gerónimo Fort (1909)



Bastión Isabel II (1950)



Second line of defense

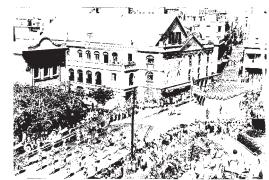
Ponce de León Avenue and Muñoz Rivera Avenue Views



Puerta de Tierra and San Juan (1824) Library of Congress, Washington D.C. ASR ([CON]textos Andrés Mignu



YMCA (1914-1920)



View of Tapia Theatre



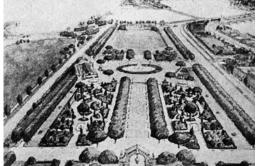
Club Náutico (1940)



Carnegie Library



Tapia Theater during repairs (1900)



LMR Park, view West (1925) Bennett, Parsons, Frost, Arguitectos, AACUPR. ([CON ON]textos Andrés Mignucci)



Capitolio Building (1929)



Capitolio from Ponce de León Ave.



San Agustín School and Parish (1910)



LMR Park under construction (1929) Revista de Obras Públicas, AGPR. (ICONItextos Andrés Micrucci)



Casa España (1940)



Tropical School of Medicine (1940)



Red Cross



Caribe Hilton Hotel (1951)



Casino de Puerto Rico (1920)



LMR Park, view West (1930) es Mianucci)



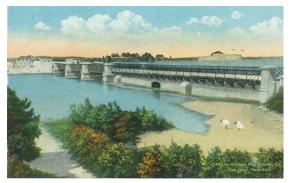


Ponce de León Avenue (1937)





Ponce de León Avenue (1930)



San Antonio Bridge



Colón Plaza (c.1950)



View from San Cristóbal Fort



San Cristóbal Fort (c.1950)



Panoramic view of the Bay of San Juan from the San Cristóbal Fort



Panoramic View of the Escambrón Beach Club



Puerta de Tierra Views



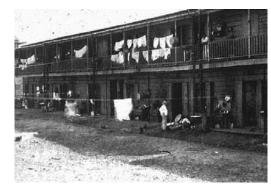
Puerta de Tierra (1910)



Puerta de Tierra (1925) AGPR. ([CON]textos Andrés Mignucci)



Slums in Puerta de Tierra



Slums in Puerta de Tierra



Puerta de Tierra, aerial view post card



Puerta de Tierra Post Card (1912) Waldrop Photographiic Co. AGPR. ([CON]textos Andrés Mignucci)



Puerta de Tierra (1925) AGPR. ([CON]textos Andrés Mignucci)



Muñoz Rivera Park (1965)



Sixto Escobar Sports Park (1955)



Falansterio Construction (1937)



Falansterio Construction (1937)



Falansterio Public Housing Project



San Antonio Canal Slums (1950) Photo by Luke Birky. Thomas Lehman Collection AGPR.



Puerta de Tierra, Miranda Slum (c1920) View of Miranda Slum, in the banks of the San Antonio Canal AGPR. [CON]textos Andrés Mignucci.



Escambrón Beach Club (c.1950)





Escambrón Olympic Pool (1970)

Railway track Views



Trolley tracks





Trolley tracks in Ponce de León Ave.



Train cars



Train tracks (1917)



Bridge for train(1925)



Ponce de León Ave. and Trolley Tracks

Puerta de Tierra Trolley (1910)



Trolley Bridge (c1910)



Covadonga Train Station (1952)



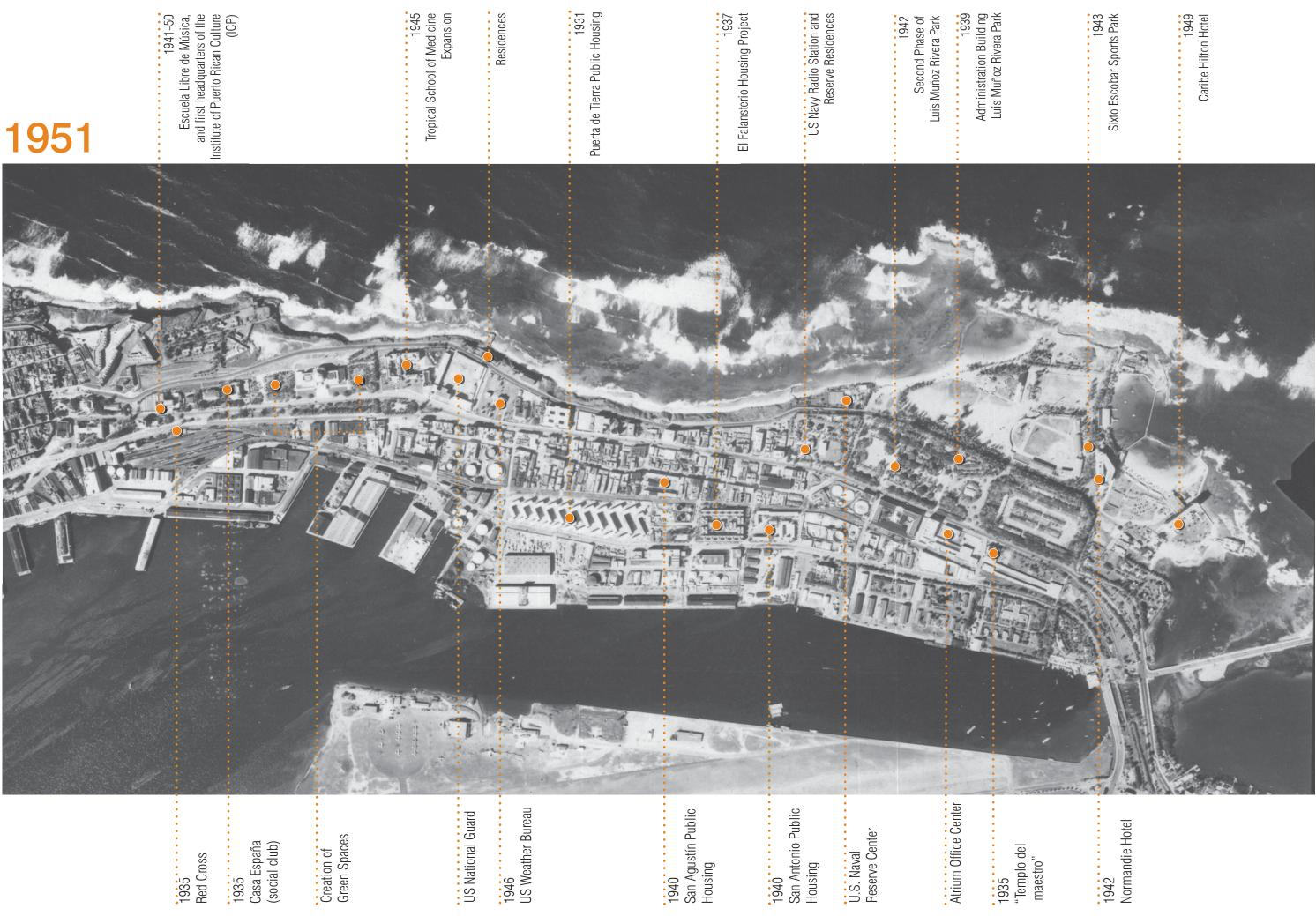
Puerta de Tierra Satellite imagery

Shell Company Gas storage tanks 1932 Natural History Museum (previously: "El Polvorín" gun powder storage)





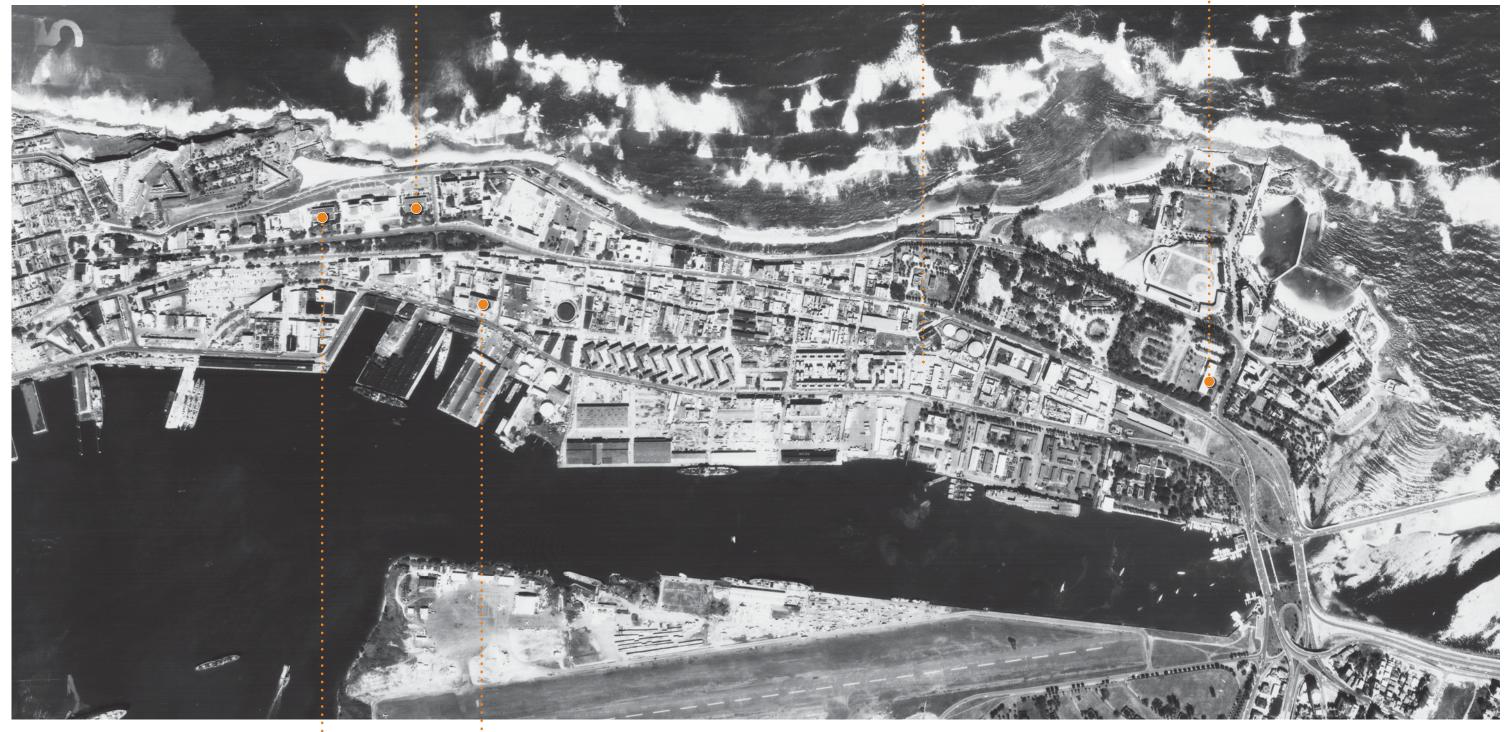
1931 Train bridge at San Antonio Canal



Shell Company Gas storage tanks

1958 Ernesto Ramos Antonini Building House of Representatives of Puerto Rico

1962



1958 Edificio Rafael Martínez Nadal	(JUD	1961 Salvation Armv

1956 Supreme Court Building

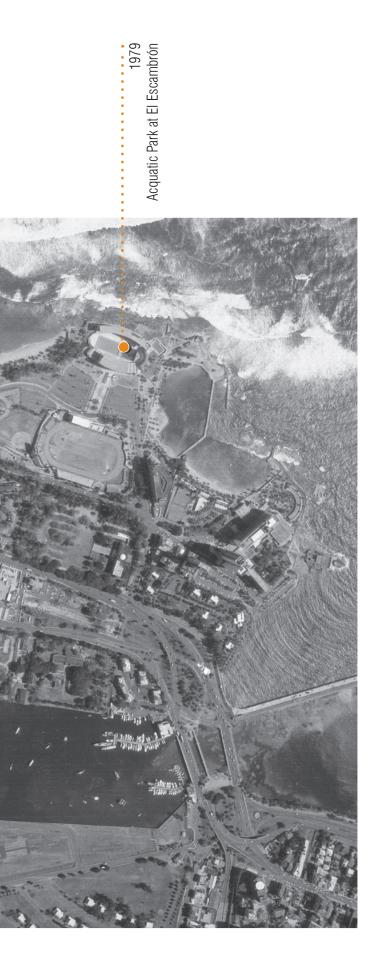


Expansion of Coast Guard Facilities

Public Housing Midrise



(22)





AMA Bus Terminal (former Train Station site)

Renovation works to Luis Muñoz Rivera Park by Arch. Otto Reyes

Millenium Condominium built

Remodeling of the "Mirador"

Public Housing Project Demolition





Third Millenium Park (Parque del Tercer Milenio) in Escambrón area

Olympic Natatorium Facilities demolished

War Memorial Monument Demolition of three buildings Puerta de Tierra Public Housing Project

2009



2009 Monument to US Presidents (Paseo de los Presidentes)

2006 Renovation works to School of Tropical Medicine Building 2007 Casa Cuna Project Municipal Temporary Shelter for abused children 2007 Pedestrian connector (steps) in between Luis Muñoz Rivera and Third Millenium Parks 2011 New Library Building, Supreme Court of Puerto Rico

2007 Paseo Caribe Condominium built

Paseo Puerta de Tierra · Master Plan: Development Phases I through VII



Phase I: Realignment of bus lines along the old train way/Calle del Tren

Objective

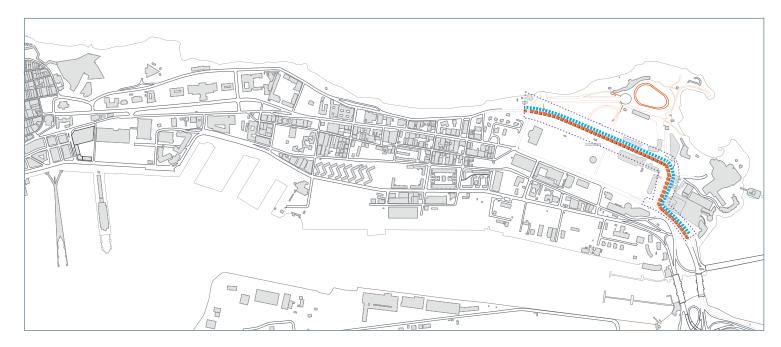
The first step for defining a route for the pedestrians and cyclists to traverse the zone of Puerta de Tierra consists of reprogramming the Metropolitan Bus Authority lines in such a way that all of those that run across the district do so along the same roadway. This reconfiguration allows the use of the dedicated bus lanes of the avenues to be used as part of the new automobile and bycicle lanes by allocating more space for this new use.

In the present, several bus routes run along the old train way, converted years ago to a dedicated road for such use, and now called "Calle del Tren" (Street of the Train). By realigning the routes, a better sense of orientation is achieved (since the only means of mass transportation available in the islet is located in the same place), the heightened intensity of use and bringing all the bus lines closer to the neighborhood ensures better safety for the users (not having to walk to reach other bus lines), the traffic patterns of the district achieve a clearer organization and helps in the revitalization of the San Agustín's sector.

Strategic components

- 1. Bus routes realignment
- 2. Dedicated bus roadway (Calle del Tren) improvements to lighting, signing and signal systems, traffic lights, camera surveying and road and sidewalk surfaces
- 3. New bus stop shelters placed in new and fewer locations in corners for better visibility and safety

(Construction procedures of this phase have already begun)



Phase II: From the Dos Hermanos bridge to the Third Millenium Park vehicular entrance

Objective

Beginning of the pedestrian and cycling routes in a westward direction from the Dos Hermanos Bridge, which connects the El Condado area to the San Juan islet, to the southeast corner of the Luis Muñoz Rivera Park and to the vehicular entrance of the Third Millenium Park.



Strategic components

- 1. Start of the pedestrian and cycling route along the Paseo Caribe project
- 2. Realignment of traffic lanes along the Muñoz Rivera Avenue with new semaphore. New medians configurations
- 3. Pedestrian crossing from Paseo Caribe to the southeast corner of Luis Muñoz Marín Park. Future bycicle connection to Ponce de León avenue
- 4. Improvements to road and sidewalk surfaces, lighting an other infrastructure



Phase III:

Muñoz Rivera Avenue from the vehicular entrance to the Third Millenium Park to the Reverendo Dávila Street between the State Capitol and the Old School of Tropical Medicine, going west

Objective

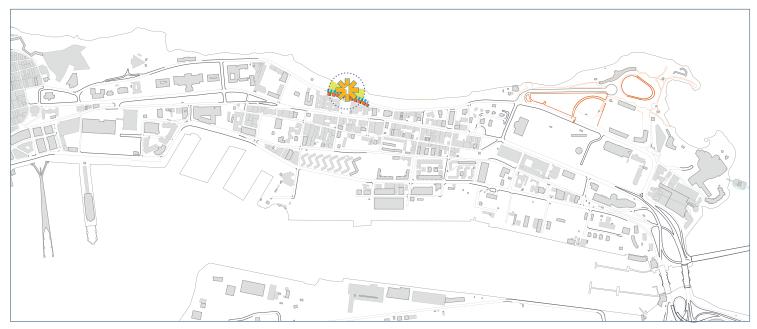
Continuation of the pedestrian and cycling routes along the Muñoz Rivera Avenue, to the north of the district, providing a better view of the Atlantic Ocean's shore and horizon.

Strategic components

- 1. Continuation of the pedestrian and cycling route along the Paseo Caribe project
- 2. Realignment of traffic lanes along the Muñoz Rivera Avenue
- 3. New relaxation contemplation areas towards the Atlantic Ocean, with landscaping, seating surfaces, observation balconies and variations in pedestrian and cycling route configurations to add variety and interest to the route's sequence

Area cubierta

por fase



Phase IV: Terraza al Mar building

Objective

Creation of a built milestone in the route's sequence in the location of an existing short marginal road used originally as an observation space but rarely visited today



Strategic components

The third line of defense of the wall system of the islet of San Juan was composed of parapets and trenches that ran in a north-south direction in the middle of the islet with an observation bastion at sea level called "Taiamar" and farther to the west a complex of walls of different heights and widths with merlons and cannon embrasures which were annexed to the San Cristóbal Fort still standing. The fort's walls eventually joined the walls that surrounded and defined the original old San Juan city limits.

This phase consists of a new two-story building for contemplation, relaxation and food and beverages concession. The building rests on what might have been part of the historic third line of defense parapets, still to be confirmed by the archeology studies underway, following a similar geometry as shown in historic drawings. So as not to disrupt the possible remnants of the historic parapets, the building's lower level does not alter the existing elevations. The construction around the building provides open areas and the pedestrian and bicycle ways.

Paseo Puerta de Tierra · Master Plan: Development phases I-VII



Phase V: Rev. Dávila St. and Muñoz Rivera Ave. from the Capitol to Plaza Colón, Puerta de Santiago building, and improvements to Constitution Ave.

From the Capitol to Plaza Colón

Objective and Strategic Components

Improvements to the Reverendo Gerardo Dávila street (between the State Capitol and the Old School of Tropical Medicine (now the Capitol's superintendency headquarters) including a new extension to connect Paseo Covadonga street to Fernández Juncos avenue to the south of the islet to facilitate new traffic patterns. The Old San Juan bus terminal is located at the corner of Paseo Covadonga St. and Harding St., the latter of which connects Paseo Gilberto Concepción de Gracia St. (the street in front of the islet's tourist piers) with Paseo Covadonga St. The new extension will make possible a loop for the bus routes from the Calle Paseo Covadonga St. to the Fernández Juncos Avenue at the intersection where the Calle del tren St. ends and merges with Fernández Juncos Avenue. This connection is crucial to implement the realigning of the bus lines so that they will no longer run along the Ponce de León Avenue.

Also, the improvements of the Reverendo Dávila street and its intersection with the Muñoz Rivera Avenue to the north will include the new pedestrian and cycling routes in order to connect with the Ponce de León Avenue on its way to the old city limits in the Plaza Colón.

An additional benefit of these actions will ease the traffic congestion of the Ponce de León Avenue away from Old San Juan by adding the option of exiting the islet through the Fernández Juncos Avenue in an eastward direction.

Puerta de Santiago building

Objective

Creation of a built milestone in the route's sequence in the location of an existing short street ("La Borinqueña") with very few transit

Strategic Components

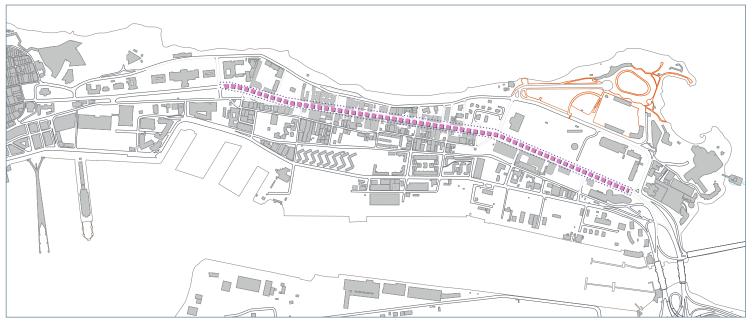
The wall complex that surrounded the city, referred to in the Phase IV description above, had several gates. One of them, the Puerta de Santiago (Gate of James - the apostle), led to the rest of the islet's land expanse and because of that it was nicknamed "Puerta de Tierra" (Land Gate). Part of these walls were demolished in 1897 to open the city for sanitary, commercial and expansion purposes, and with this action the Puerta de Santiago was also torn down. The place where the gate was located is today under the Old Casino building (now the Reception Center of the Government of Puerto Rico), built in 1917.

As an act of remembrance, the building which comprises this phase attempts to awaken the lost memory of the gate and the demolished city walls. Since the original location is occupied, the new building will be located to the east of this location, but hinting at it through a similar orientation (see renderings elsewhere in this document). The two-story building proposed



makes use of the proportions of the historic gate and abstract them to crate a façade for a new portal, which will be its main component. Other parts of the building will include an exhibition wall in an open space at the upper level (Muñoz Rivera Avenue) and a food and beverage concession in the lower level (Ponce de León Avenue). The general character of the building is sober and contemporary since an attempt to figuratively reproduce the gate could look cartoonish.

Another feature related to the lost city walls to be added will consist of different pavement textures on sidewalks and the surrounding avenues, used as markings of the original walls locations. This effect will not only be visibly distinguishable, but also felt by drivers though their car's suspension systems as a metaphorical sign of entering the city's original limits.



Phase VI: Improvements to Constitution (former Ponce de León) Avenue from the Old School of Tropical Medicine-Capitol SuperintendencySantiago building, and improvements to Constitution Ave.

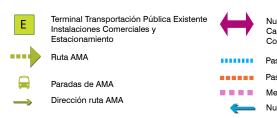
Objective

Ponce de León Avenue was used originally to enter the historic Old San Juan site (see the historical background section of the document and its addenda). It now only runs from west to east along all of the Puerta de Tierra area, connecting Old San Juan to the rest of the mainland in this direction. It has parking spaces set in a 45° angle to the south, and contains important institutional buildings and a variety of retail businesses. The institutional and emblematic buildings include the San Agustín church, the underprivileged senior citizens nun care convent, the National Guard headquarters and museum, the Casa Cuna (care home for abandoned and abused children, schools, a theater which will be remodeled by the City's administration, the southern front of the Luis Muñoz Marín's park, the ruins of the historic Spanish second line of defense's Isabel II bastion and the National Archives.

Improvements to Constitution Avenue

Objective and Strategic Components

The portion of the Ponce de León Avenue before (going east) and in front of the Capitol building was not long ago renamed "Constitution Avenue". As part of the project and the general infrastructure improvements, this stretch of roadway will undergo similar changes as the rest of them: dedicated two-way bicycle lane, better and distinct pedestrian surfaces, better road markings and surface, medians with vegetation (royal palms in front of the Capitol building to match the existing ones in the same area), improved drainage and lighting. This stretch of road also contains the most emblematic buildings of the zone, between the Plaza Colón and the Capitol and Capitol's Superintendency's buildings. These buildings have played a very important role in the cultural and social history of the city of San Juan and the rest of the country. They are the Antiguo Casino (Government of Puerto Rico's Reception Center), the Casa Olímpica (Puerto Rico's Olympic Committee's headquearters, the Ateneo de Puerto Rico (cultural-historic institution), Carnegie Library and the Casa de España (cultural and social institution). To the south, along the parallel Paseo Covadonga street, there also exist the bus terminal and parking building and the Treasury Department headquarters.



- Nueva calle conectora desde Calle del Tren hacia Paseo Covadonga Paseo Lineal Peatonal Paseo Lineal Bicicleta
- Paseo Lineal Bicicleta Mejoras a aceras Nuevo tránsito vehicular

Nueva calle conectora desde Ave. Fernández Juncos hacia Calle San Agustín Terrazas hacia el mar (con punto de hidratación y oferta gastronómica)

Plaza Puerta de Santiago

Reparación de derrumbe por la Autoridad de Carreteras
Area cubierta
por fase

Ver detalles de una selección de vistas actuales y propuestas

Strategic Component

This phase will contain similar general infrastructure improvements to the mentioned above with some variants. The traffic pattern of the avenue will be divided into two directions to exit (as it exclusively exists now) and enter Old San Juan and the two-way bicycle lane will be divided into two (one for each direction) to run along parallel parking spaces north and south, benefiting both sides and encouraging new retail establishments to the north.



Phase VII:

Improvements to San Agustín and perpendicular streets and neighborhood. Tropical Medicine, Capitol Superintendency, Santiago building, and improvements to Constitution Ave.

Objective

The San Agustín borough is a mixed-use area of residences and commercial shops. The heart of the area is the San Agustín street, which in turn, defines it. To the south runs the Calle del Tren (see Phase I). Because of traffic limitations, isolation urban condition and social factors, abandoned buildings and general deterioration abound, making it a favorable area for illicit activities. Improvements can be made to aid in rescuing the well being of the community and raising its quality of life.

Strategic Components

The Calle del Tren inhibits the borough of San Agustin's potential by making most of its perpendicular streets (the same streets that cross San Agustín street) effective cul-de-sacs because of its use as a dedicated bus roadway. Also, most of these streets do not reach Fernández Juncos Avenue to the south of the islet, which is now underused as an alternate entry and exist route to and from Old San Juan. As a result, further development and the livability enhancement of the community is hindered. San Agustín and its perpendicular streets are also very narrow and improvised parking is a common problem. The sidewalks are also tight and infrastructure elements such as electricity, lighting and telephone posts proliferate in a disorderly manner, in some cases obstructing the passage of pedestrians and the handicapped. Aerial cables are plentiful and some are seemingly non-functional anymore. Because of the Calle del Tren's exclusive traffic condition, not all of the borough streets's traffic can't turn to it and residents have put barriers on some of them. Two of the central ones do not connect with Fernández Juncos Avenue and therefore are not efficient enough to be used as routes to divert and lighten traffic in the islet. The project proposes to extend these streets not only to aid in said condition, but also to help bring visitors to the area and therefore make the area safer and more economically viable.

The San Agustín borough can also be made more welcoming if its main artery's environment is improved. There is not enough space to make big gestures, but sometimes a handful of them can add up and, in conjunction with the rest of the project, work together to meet the goals to achieve a livability enhancement for the community. Cleaning and ordering the electrical, sewer and drainage infrastructure, demolishing abandoned buildings and occupying empty lots for allocating parking spaces and suggesting some uniformity to the streetscapes can go a long way. The accessibility factor is also a big stimulator for economic growth.

San Agustín street meets the Ponce de León Avenue besides a triangular lot that contains the ruins of the bastion of Queen Isabel II. These remnants stood in more or less good enough shape until the early second half of the past century, but are now covered with vegetation and hardly recognizable. The project proposes the closing of this junction and divert traffic through Fernández Street (see maps and diagrams) to join the lot with another piece of land and build a square with the restored ruins and other amenities so that the community and the visitors can use it for leisure and coming-together activities.





32

Key Areas

Key areas, according to particular conditions in each sector

Calle del Tren

- del Tren Street and transversal connector: Matías Ledesma Street **ct01**
- del Tren Street and transversal connector/extension: Pelayo Street **ct02**

Luis Muñoz Rivera Avenue

Muñoz Rivera Avenue: Intersection with Ponce de León Avenue **mr01** Muñoz Rivera Avenue: Entrance to Escambrón **mr02** Muñoz Rivera Avenue: between San Juan Bautista and Lugo Viñas Streets **mr04** Muñoz Rivera Avenue: Matías Ledesma Street intersection vicinity **mr05** Muñoz Rivera Avenue: Terraza al mar building / Pelayo Street intersection vicinity **mr06** Muñoz Rivera Avenue: Tajamar Fort and Estévez Street intersection vicinity **mr07** Muñoz Rivera Avenue: School of Tropical Medicine vicinity **mr08**

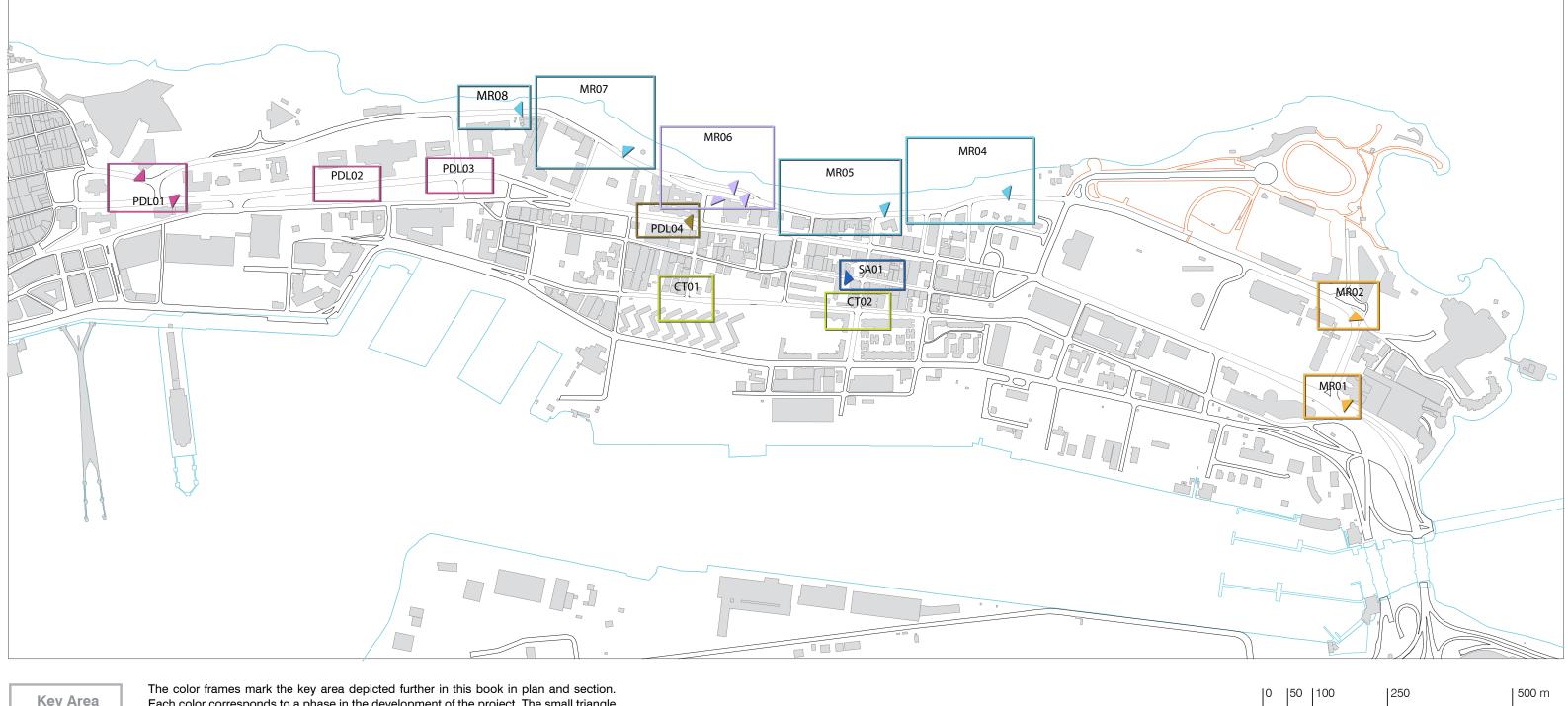
Juan Ponce de León Avenue

- pdl01 Ponce de León Avenue: Puerta de Santiago New Plaza
- **pdl02** Ponce de León Avenue: Capitolio South
- pdl03 Ponce de León Avenue: Reverendo Gerardo Dávila Street intersection
- **pdl04** Ponce de León Avenue: mixed-use sector (San Agustín Church vicinity)

San Agustín Street

San Agustín Street: typical segment sa01

Diagram of Key Areas





Each color corresponds to a phase in the development of the project. The small triangle within each frame indicates the direction of the perspective view for that specific area.

Phase I Phase II Phase III Phase IV Phase V Phase VI Phase VI

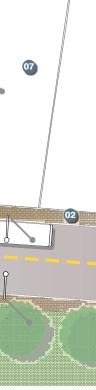


34)



Proposed perspective view for *del Tren* Street intersections





Proposed plan

- 01 parking
- 02 pedestrian walkway
- 03 bus stop
- 04 signage system / digital screens / bus stop lighting system
- 05 green areas
- 06 pedestrian crossing
- 07 existing building

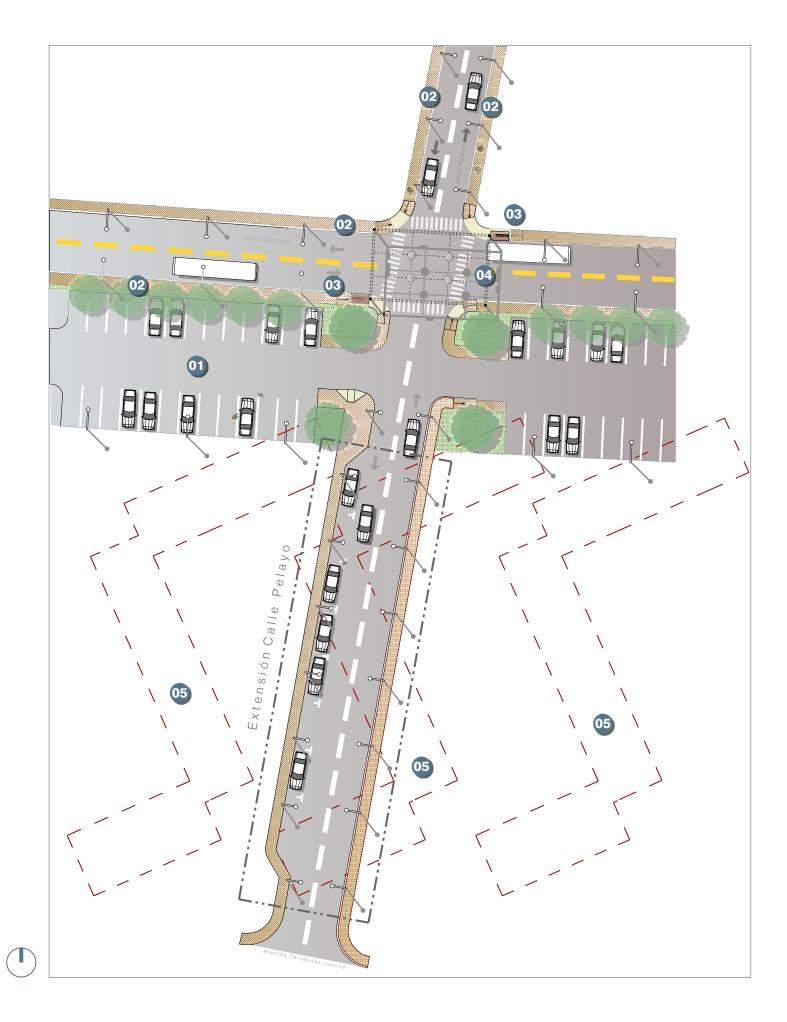


Site plan

- 01 parking
- 02 sidewalks
- 03 bus stop
- 04 signage system / digital screens / bus stop lighting system
- 05 unoccupied buildings to be demolished

0 10' 25'

50′







36



Proposed perspective view for the new intersection



- 01 bicycle way (both ways)
- 02 pedestrian walkway
- 03 car lane
- 04 green areas
- 05 pedestrian crossing
- 06 existing building







Proposed perspective view for the renovated access



Proposed plan

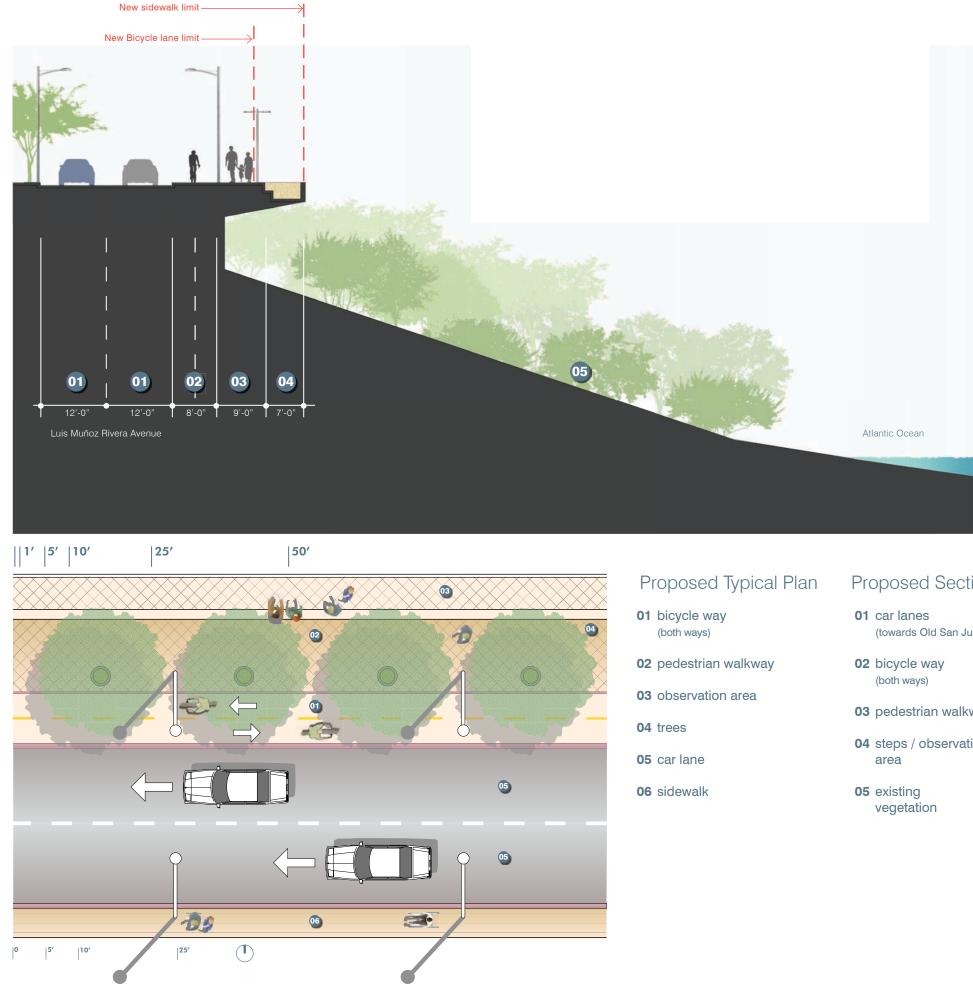
- 01 bicycle way (both ways)
- 02 pedestrian walkway
- 03 car lane
- 04 green areas
- 05 pedestrian crossing
- **06** existing building Normandie)
- 07 existing plaza



Luis Muñoz Rivera Avenue (**37**)



38



Proposed Section B

- (towards Old San Juan)
- 03 pedestrian walkway
- 04 steps / observation





Proposed perspective view



- 01 bicycle way (both ways)
- 02 pedestrian walkway
- 03 car lane
- 04 green areas
- 05 steps and green terraces
- 06 existing building
- **07** beach
- 08 existing vegetation









Terraza al Mar / street level proposed view, with bicycle lane









restaurant level proposed view

key area mr07 Avenue Tajamar Fort and Estévez Street intersection vicinity



Proposed perspective view



- 01 bicycle way (both ways)
- 02 pedestrian walkway
- **03** car lane (one direction)
- 04 green areas
- 05 green terraces
- 06 steps
- 07 Tajamar Fort
- 08 existing vegetation





key area mr**08** Muñoz Rivera Avenue

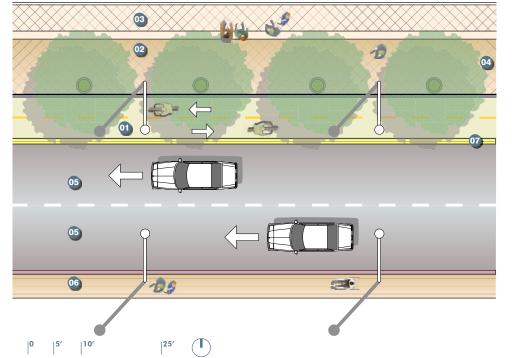
segmento frente a la antigua Escuela de Medicina Tropical

42

key area pdl**03** Avenida Ponce de León Intersección con calle

Reverendo Gerardo Dávila

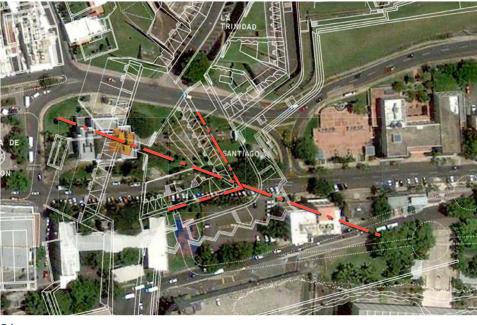




- 01 bicycle way (both ways)
- 02 pedestrian walkway
- 03 observation area
- 04 trees
- 05 car lane (one direction)
- 06 sidewalk
- **07** cycle lane segregator



between Muñoz Rivera & Ponce de León Avenues



01 Diagram showing location of demolished fortress walls on a recent satellite photograph. Marked in red: Puerta de Santiago's original axis and bastion's exterior marker. Marked in yellow: original location of the Puerta de Santiago.



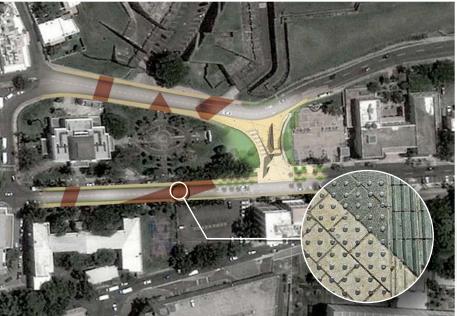
02 Displacement of the axis and of the bastion's exterior wall, in order to locate the new plaza outside the perimeter of the Antiguo Casino de Puerto Rico.







03 Tracing of the location of the old fortress walls (demolished c.1897) highlighted when it overlaps existing streets and sidewalks.



04 Proposed markers as a memory device for the demolished walls. Blow-up detail shows how the pavement surface can me marked to show the trace of the walls.



Luis Muñoz Rivera Avenue (43



Proposed plaza / perspective view from Ponce de León Avenue



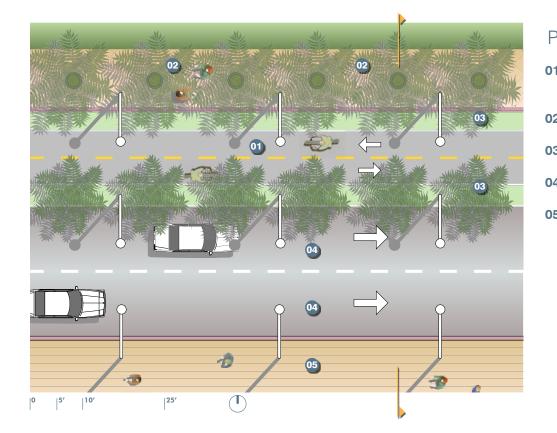
Proposed plaza / perspective view from Muñoz Rivera Avenue

(44)





Proposed perspective view of the Capitolio vicinity, Ponce de León Avenue.



- 01 bicycle way (both ways)
- 02 pedestrian walkway
- 03 green area
- 04 car lane
- 05 Paseo de Covadonga

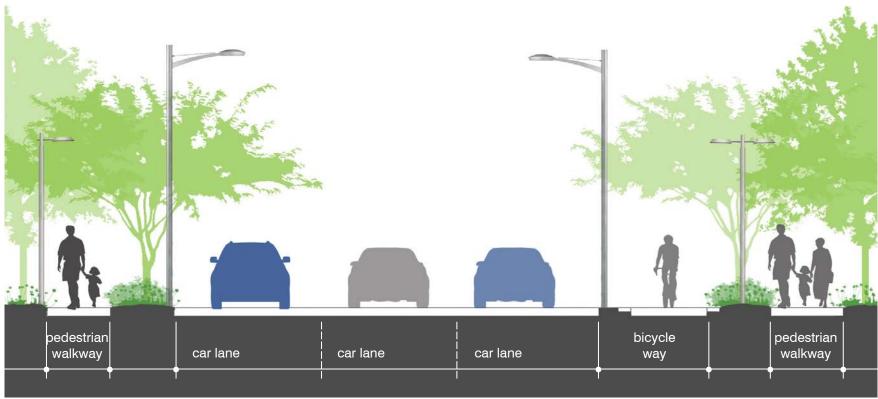




key area pdl**03** Ponce de León Avenue

Reverendo Gerardo Dávila Street intersection

key area mr**08** Avenida Muñoz Rivera School of Tropical Medicine vicinity



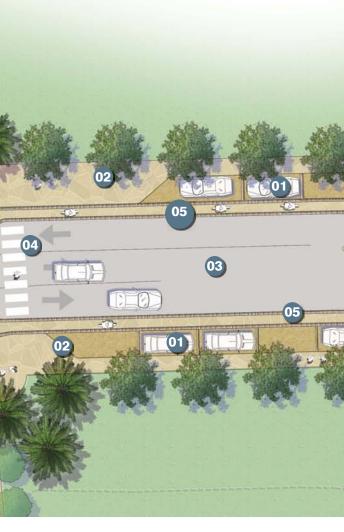
|6m

Proposed Section

|1.5m |3m

0

Proposed Plan 01 parking 02 pedestrian walkway 03 car lanes 04 pedestrian crossing 05 bicycle way (both ways) 008 06 two car lanes (see Key Area PDL.02) 05) 00 00 03 Ponce de León Avenue 06 D 03



0

|4m |8m

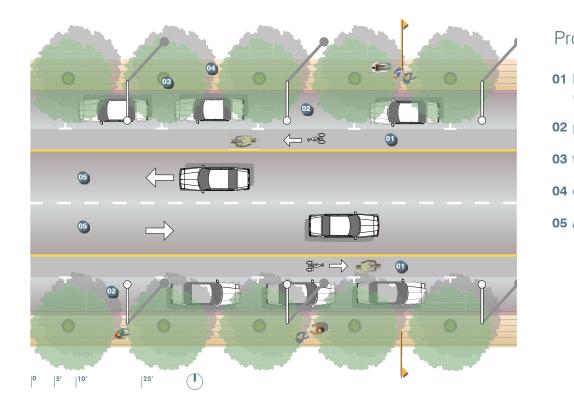
|16m







Proposed perspective, Ponce de León Avenue



- 01 bicycle way (both ways)
- 02 parallel parking
- 03 trees
- 04 car lane
- 05 Paseo de Covadonga







Proposed perspective view





SCF Arquitectos 13 Calle 2 Metro Office Park Guaynabo, Puerto Rico 00968-1712

T 787.781.9090 **F** 787.781.9095

www.scf-pr.com