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MASTER OF ARTS IN LANDSCAPE ARCHITECTURE AND GARDEN ART

PUBLIC URBAN PARK DESIGN OF THE LANDSCAPE

IN SALINAS, ECUADOR

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INTRODUCTION

Cities are in constant development, which implies a territorial growth in different areas such as industrial, commercial, residential, recreational, among others. With this growth of the urban grey area, the need to implement more green and recreational spaces for the well-being and good quality of life of the inhabitants is growing.

Gardens, urban parks, wooded areas are spaces that favour the social and economic part, as well as the conservation of sustainable cities, health and nature conservation, since these areas produce oxygen, reduce noise pollution caused by vehicular traffic, provide different recreational activities and also create an urban ecosystem that helps the conservation of biodiversity.

The regeneration and planning of public urban parks provides society with greater safety and comfort, likewise, with the implementation of recreational activities, society becomes part of the space and, by participating in it, helps with its preservation and maintenance. This is an important factor for long-term economic investment.

This research and landscape design document propose the design of an Urban Park located in the Alberto Enrique Gallo neighbourhood, in the city of Salinas, Ecuador, this site was chosen because the city lacks green spaces for the population. Therefore, this proposal is a tool to improve the quality of life for the inhabitants, through the empowerment of the park with different activities proposed in it, a low-maintenance design, thus helping the care of this space.

1. Urban Parks Introduction

Urban Parks

We can say that an Urban Park, is a recreational area (parks, recreational areas, natural centers, wildlife refuges) located in the main city area.

“Urban parks are community assets. They provide a convenient setting for a broad variety of leisure and recreational activities, as well as enhancing the image and perceived value of the community. Urban parks can serve the needs and interests of all kinds of people and many subgroups of the population: young and old, groups and individuals, affluent and poor, male and female, athletic or not, and all ethnic and cultural groups. This wide appeal makes city parks a tremendous asset-in a social and behavioral sense as well as a physical sense-to the quality of urban life.” (Hayward , 1989, pág. 193).

It is also known as municipal parks, open spaces, public spaces/parks, spaces that provide recreational activities and green spaces for the different residents and inhabitants of the city.

Characteristics of Urban Park

One of the most important characteristics of the urban parks is to focus on preserving natural resources while creating environments that are inviting to human and wildlife populations.

Urban landscapes today feature spaces that focus on preserving natural resources while creating environments that are inviting to human and wildlife populations. This is especially important in this time of global change. Urban landscapes must be designed to meet the needs of today and the growth of tomorrow.

Parks can be divided into active and passive recreation areas. Active recreation is that which has an urban character and requires intensive development. It often involves cooperative or

team activity, including playgrounds, ball fields, swimming pools, gymnasiums, and skateparks. Active recreation such as team sports, due to the need to provide substantial space to congregate, typically involves intensive management, maintenance, and high costs.

Passive recreation, also called "low-intensity recreation" is that which emphasizes the open-space aspect of a park and allows for the preservation of natural habitat. It usually involves a low level of development, such as rustic picnic areas, benches, and trails. Passive recreation typically requires little management and can be provided at very low costs. Some open space managers provide nothing other than trails for physical activity in the form of walking, running, horse riding, mountain biking, snowshoeing, or cross-country skiing; or sedentary activity such as observing nature, bird watching, painting, photography, or picnicking. Limiting park or open space use to passive recreation over all or a portion of the park's area eliminates or reduces the burden of managing active recreation facilities and developed infrastructure. Many ski resorts combine active recreation facilities (ski lifts, gondolas, terrain parks, downhill runs, and lodges) with passive recreation facilities (cross-country ski trails) (Excellence, 2015)

Urban Parks Benefits

The Urban Parks, play an important role in the social, economic, health, and physical well-being, of the societies, according the article of the of the Alliance City Parks, some of the most important benefits are:

The city parks encourage **active lifestyles,** physical activity can reduce or prevent many physical and mental health problems. Parks also reduce the costs of healthcare: maintaining a healthy weight, “..lower obesity, less type two diabetes, lower blood pressure, reduced heart disease, lower rates of asthma and respiratory disease, faster recovery from illness, and from fatigue”. (Ulmer , y otros, 2016). Property uplift in the retail sector and reduced vacancy: influenced by urban greenery, walkability, public realm quality, external appearance, street

connectivity, frontage continuity; all leading to increased retail viability. (Place Value Wiki, s.f.).

The city parks strengthen **local economies** and create **job opportunities,** parks attract residents and businesses, increase revenue for cities, spur private investment, and increase job opportunities. "Property uplift in the retail sector and reduced vacancy: influenced by urban greenery, walkability, public realm quality, external appearance, street connectivity, frontage continuity; all leading to increased retail viability" (Benson, Hansen, Schwartz Jr., & Smersh, 1998).

City parks make cities more resilient; cities are integrating parks with their infrastructure plans to manage stormwater and mitigate flooding. Cost-sharing across agencies can save money on park creation, maintenance and programming allowing cities to fully leverage the many benefits of parks to cities and residents.

Another is the city parks **increase community engagement and reduce crime, p**lanning and programming that engages residents in the design and of their local parks fosters a sense of community and helps ensure that the parks reflect the needs of the community. Community involvement and greening of vacant urban land, for example, has been shown to decrease crime and generate additional support for nearby park projects.

Property uplift in the residential sector: influenced by access to views, trees, and open space, lower pollution, mixed use (up to a point), walkability, neighbourhood character, access to public transport (if not too close to homes), external appearance, public realm quality, connectivity, and vitality (Place Value Wiki, s.f.)

The city parks help clean the air and improve **public health.** The trees in urban parks remove up to 7,111,000 tons of toxins from the air annually. Green spaces also filter rain, reducing

water pollution, protecting drinking water, and decreasing the rates of waterborne illness. Green spaces in cities also help cool our cities, reducing the heat-island effect.

“The finding shows how urban green spaces improved mental health, reduced cardiovascular morbidity and mortality, obesity and risk of type two diabetes, and improved pregnancy outcomes. Mechanisms leading to these health benefits include psychological relaxation and stress alleviation, increased physical activity, reduced exposure to air pollutants, noise and excess heat” (World Health Organisation)

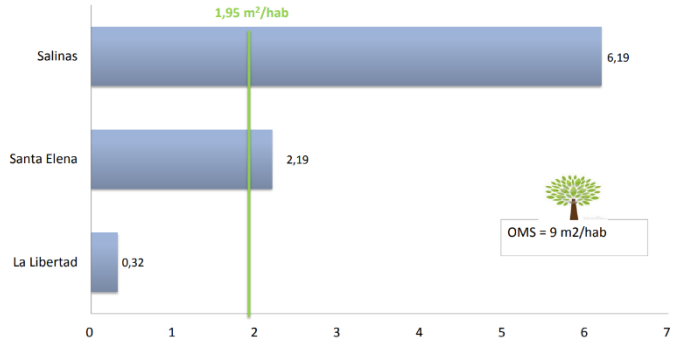
The city parks are a tool for cities to achieve their **equity goals,** vibrant parks and green spaces are at the centre of resilient and equitable cities, and increasingly, agencies and public officials are leveraging the many benefits of parks to meet their city-wide equity goals. Through community engagement and applying an equitable approach to park funding, park leaders, public, private, civic, and philanthropic partners are directing investments to communities in greatest need.

Urban Green Index

The World Health Organisation recommends an international benchmark, for all cities, of 9 square metres per inhabitant. of 9 square metres per inhabitant. (WHO, 2000). In the case of Ecuador, there are 4.69 square metres of green space per person. square metres of green space per person, which means that there is a deficit of 4.31 square metres per inhabitant. inhabitants of 4.31 square metres. There are only 10 municipalities in Ecuador that comply with this international recommendation:

In relation to its population, the province of Pichincha is the only province that complies with the WHO recommendation. recommendation, as it has 18.85 m2 of green areas per inhabitant, while Los Ríos has the lowest green index in the country. (INEC,2012)

As we can see in the following graphic of Santa Elena province, Salinas has the highest Urban Green Index value with 6.19 m2 /habitant, while La Libertad has the lowest value with 0.32 m2 /hab.



Urban Green Index of Salinas
Source: National institute of statistics and census, 2012.

Maintenance of green areas

The responsible entity for the maintenance intervention for green areas, flowerbeds and sports fields, is the Decentralised Autonomous Governments (Cantonal Municipalities).

The Directorate of Public Works made up of the following units:

Roads, Transit and Transport, Cost and Evaluation, Execution and Safety of Works, Green Areas. (Municipality, 2010)(https://www.salinas.gob.ec/images/Descargas/Gacetas/21-30/Gaceta_29.pdf)

- **Green Areas Department**

  Prepare studies and proposals for contracting the maintenance and preservation of green areas.

  Processes of construction of green areas green areas or complementary works,

supervised.

Rehabilitation, planting and maintenance of species.

a. Projects reference

For the projects reference, was choose one from a national reference from the Ecuador country and another international in another country in south America which is Colombia. The references were chosen of different criteria like the scale of design of the park, the location of it and how it affects in the well-being of the local people and the area, another aspect is the maintenance of these sites, also what kind of activities happen there according the design scale. In the specific case the Local park chosen was analysed by the aspect of how it enhanced the area of the neighbour because it used to be a very dangerous area. Regarding the international reference, one specific thing from this place is about the climate aspect, which is located in a place with tropical weather.

i. Local Project Reference:

Local Urban Park (Quito, Ecuador) (https://www.archdaily.pe/pe/906820/espacio-publico-seguro-parque-6-de-junio-alcaldia-de-quito-epmmop)

Park "6 de Junio".

Architects: Municipality of Quito

Year: 2018

Area: 14000 m2

Location: Quito

This project is located in the capital of Ecuador, Quito, the architects for this project was the Municipality of the city in the 2018, the main area of the park is the 14 000 m2.

The "Parque 6 de Junio" is a project carried out with a methodology that aims to emphasise the socio-environmental conditions of the place. The aim is to transform this public space into a tool to combat insecurity, violence, disorder and un healthiness. (Archdaily, 2018). This park aims to become a space for community entertainment, with all facilities for people of all ages. The park will benefit 16,000 residents of the sector.

- The design process of the park involved the participation of the community.
- Socialisations, exploratory walks and workshops were part of the activities carried out prior to the construction of this public space, which in turn generated a starting point for the appropriation of the project.
- Different pavement uses.
- Pathways defined by activities
- Native vegetation
- Drainage water system
- Low energy sanitary batteries
- Solar lighting
- Preservation of the existing trees

As a design strategy (vegetation and topography):

- use of small reliefs in the park to generate different user experiences

- development of small hills that generate entertainment spaces

Content: Areas of the Park 6th of June
Source: ArchDaily.

ii. International Project Reference:

The 29th of July, Citadel Park (Colombia, Santa Marta)

The project is part of the Manzanares River Master Plan in which 9 centralities were conceived as parks that would be used as meeting points and public space for the community, integrated to the river. This allows the public space to be sustainable and activated, according to the identities and needs of each neighborhood. (BAQ, 2016).

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Content: Areas of the Park 29th of July
Source: ArchDaily.

2. Site selection

a. Salinas City

i. Introduction about “Salinas city”

The area for the project design is located in Salinas city located in the south of the coastal region of Ecuador, in south America. The canton of Salinas is an Ecuadorian sub national territorial entity in the province of Santa Elena.

The canton of Salinas was founded as a canton on 22 December 1937. One of the main sources of income for the inhabitants is the daily artisanal and industrial fishing, as well as the State Oil Refinery of La Libertad and the exploitation of the salt wells (Visita Ecuador, 2001). Salinas is also called the "Capital of the Sun" thanks to its privileged location and the beautiful beaches that surround it, thanks to this it has become a tourist power, with hotels, bars, restaurants, clubs, sports centres, among others.

Santa Elena is divided into six parishes, four urban parishes and two urban parishes; the urban parishes are Enrique Gallo (where the area of the design is located), Carlos Espinoza Larea, Vicente Rocafuerte and Santa Rosa, and for the rural parishes there are José Luis Tamayo, which is also called Muey, and Anconcito.

Within the cantonal capital of Salinas there are parks that fulfil the function of green areas and public recreation. function of green areas and public recreation, which are distributed along the cantonal and parish distributed throughout the cantonal and parish headwaters. Although there are parks and green areas, it should be considered to implement more green areas. more green areas as there is currently a deficit. (Participatory Strategic Plan, 2008).

ii. Urban context of “Salinas”

It presents an accelerated demographic growth establishing an urban settlement. One of the most important economic, financial and commercial centers.

The city's main activities are tourism, fishing, construction and salt production. It offers one of the best real estate investment markets in the country and one of the most popular and exclusive beach lifestyles.

“Historically and socially it has always been there, in the Punta, la Puntilla, and has always had a harmonious relationship with the sea and its ecological environment. always had a harmonious relationship with the sea and its ecological environment.”. (Cisneros, 2019) It is precisely this determination, this function and social relationship with the maritime geography, the sand, as a community, history and legend are what must be understood in order not to reduce it to a place for holidays or to believe that it is only a tourist experience.

iii. Population of the city

According the last census on 2010, the habitants of Salinas is 68.675 habitants.

The canton of Salinas has a population of 68,675 inhabitants, which represents 22.25% of the total population of the province of Santa Elena. of the total population of the province of Santa Elena; in the urban area there are 34,789 inhabitants and in the rural sector 33,886 people, which represents 34,789 inhabitants and in the rural sector 33,886 people, representing 50.66% and 49.34% respectively of the total population of the province 49.34% respectively of the total population of the canton of Salinas. (INEC, 2019)

From the territorial point of view, the population of the canton of Salinas has a high rural content, as it has a high proportion of inhabitants in the rural sector. rural, as this population segment is only 1.12% less than the total population of the canton of Salinas. 1.12% less than the total population living in the urban area. (Cisneros, 2019) This factor is directly related to the orographic and natural characteristics of the canton, which present This factor is directly related to the orographic and natural characteristics of the canton, which present various alternatives of bathing resorts or beaches. development of hamlets that are located within the rural territory.

En relación a la composición de la población de acuerdo a la presencia dentro del territorio de grupos étnicos, en el cantón Salinas el 81,56 % de la población es de raza mestiza; seguido de

las razas afroecuatoriana y blanca que representan el 8,21% y 5,17% del total de la población respectivamente. In the rural parishes of José Luis Tamayo and Anconcito, after the Mestizo and Afro-American population, the mestizo and Afro-American population, the Montubio population is the third largest ethnic group in these territories with 3.60% and 3.70% respectively. of these territories with 3.60% and 3.70% respectively. (INEC, 2019).

iv. Cultural aspects of the population.

When we talk about the culture of the population of Salinas, we refer to the culture and tradition of the Coast, called them “costeños”. In order to understand it, a comparison will be made with the culture of the highlands.

“The person from the Sierra tends to lead a life with "inward-looking" characteristics and behaviours, which have their origins in aspects such as the habit of sheltering from the cold in their homes (especially in the afternoon and evening); while the "costeño", on the contrary, projects an "outward-looking" lifestyle; A way of life that becomes more evident the lower the level, where the lack of comforts (such as air conditioning or the limited physical space of the houses), makes it common to see them gathering on the pavements, leaning out of windows, playing football in the streets, etc.” (MERCAPER, 2014). The previous paragraph, accurately explains the behaviour of the population in this area. Another of its characteristics is the novelty and the tendency to live by appearances, as previously mentioned, to live "on the outside". We can also add that the costeños are more spontaneous and their planning is short term.

The analysis of this behaviour is at the general level of the two cultures, with these results being the most noticeable within the society “…inward" (sierra) and "outward" (costa) behaviour is projected both in the cities and in the villages.” (MERCAPER, 2014)

b. Geography aspects

i. Climate

The coast region is characterised by arid tropical climate in the southwest, dry to wet from the centre to the south. The wet season (high temperatures and heavy rain) between April and may because of the warm current of El Niño (The Kid) and the Intertropical Convergence Zone. The dry season with low temperatures and low rainfall, lasts from June until November/December. The general temperature in all the region ranges from 24-25C.

Rainfall decreases from east to west, being lowest at the Salinas point, where less than 250 mm of rain falls per year. In most of the Ecuadorian coast, rainfall is concentrated in the months of January to April. Ecuadorian coast, rainfall is concentrated in the months of January to April, with the months of July to December being almost completely dry. The long dry season and low rainfall low rainfall, especially in the south-west sector of the province, are the main limitations for the are the main limitations for the implementation of forest vegetation. (Salinas Municipality, 2018)

ii. Topography and Soil type

Plains and undulations characterized by fairly low reliefs of clayey to sandy sedimentary hills. This peninsula is totally exposed to the decertifying effects of the cold Humboldt Current. As shows in the graphic below the topographic elevation of Salinas is between 0 and 400 meters. (PUCE University, 2022). La Puntilla de Santa Elena is the westernmost part of the Ecuadorian coast, and lies 6.5 miles northwest of Canton La Libertad. 6.5 miles to the northwest of Canton La Libertad; this point separates the Bay of Santa Elena from the Gulf of Guayaquil. separates the Bay of Santa Elena from the Gulf of Guayaquil. Its almost entirely flat topography topography is almost entirely flat, forming a plateau whose height above sea level is between

10 to 20 m. to 20 m, but in some places, it is below sea level, with a big difference at the end of La Puntilla.

difference at the end of La Puntilla where it is in the form of an elevated promontory with a flat promontory with a height of 96m at the top (INOCAR, 2005).

At the northwest end of La Puntilla, there are three military bases: the Ecuadorian Air Force (FAE), the Army and the National Navy.

Ecuadorian Air Force (FAE), the Army and the Navy. The uses of this area are oriented towards the defence of national security. However, within the military bases there are

However, there are sites within the military bases with rich landscapes that are currently tourist attractions (Participatory Strategic Plan, 2008).

Around La Puntilla and Punta Brava, there are low cliffs (less than 10m) consisting of poorly cemented sandstones with carbonate, shales and clays. In this area we find the site known as La Chocolatera, under the jurisdiction of the Naval Base.

These cliffs are subject to erosion by the action of the sea and in fact the physiognomy of the The appearance of La Chocolatera has changed considerably over the last 30 years.

Continuing southeastwards, we find a raised barrier (beach) as far as Punta Carnero, which is considered to be a Carnero, which is considered a high cliff (over 10 m).

iii. Land use of Salinas

The Canton Salinas has a tourist reserve area, due to its soil characteristics and its natural beauty, in it there is an estuary that flows into the bay of Punta Carnero, specified in the Zoning Plan of Planning Units, also includes areas of green areas; this area borders the natural lake "Velasco Ibarra" is endowed with lush vegetation with flora and fauna typical of the area, due to its proximity to Lake Velasco Ibarra, maintains these characteristics and can be constituted

in the very short term in an area of unparalleled beauty that will attract great tourist influence and will serve as a tourist attraction and will serve as an area of great tourist influence.

The green areas considered as parks in the Canton of Salinas are comprised of an area of 0.8 km2, with a total of 18 parks an area of 0.8 km2, with a total of 18 parks, which are located in the parish of Enríquez Gallos, the Central Park "La Merced", the in the parish of Enríquez Gallos, Central Park "La Merced", Enríquez Gallos Park, Evaristo Enríquez Gallos Park, Evaristo Montenegro Park, Francisco Rodríguez Park, in the parish of Vicente Rocafuerte Parroquia Vicente Rocafuerte Parque 23 de Mayo Parque Frank Vargas, Parroquia Carlos Espinoza Larrea, Parque Carlos Espinoza Larrea, Pueblo Nuevo Park, Sindicato Park, Polideportivo San Lorenzo, San Lorenzo Park, San Lorenzo Park, Sindicato Park, Polideportivo San Lorenzo, San Lorenzo Park, Los Matías Park, Santa Rosa Parish, Parque Santa Rosa, José Luis Tamayo, Parque Central, Parque Vicente Rocafuerte, Parque Santa Paula, Parroquia Anconcito, Parque Central, Parque Carmen Buchelli, Barrio Manabí Park.

c. Site.

i. Location

The name of the city "Salinas", since colonial times, originates from its great sources of iodized salt, which are extensive mines called Salinas. “It was formerly a small fishing village, until 30 June 1929, when it was created as a rural parish of the canton of Santa Elena, to which it belonged until 22 December 1937, when by Official Decree signed by the then Supreme Chief, General Alberto Enriquez Gallo, and published in the Official Register No. 52 of 27 December of that year, it was elevated to the category of canton. Its cantonal capital is the modern and progressive seaside resort town of Salinas, the main tourist attraction on the Ecuadorian coast” (Visita Ecuador, 2001).

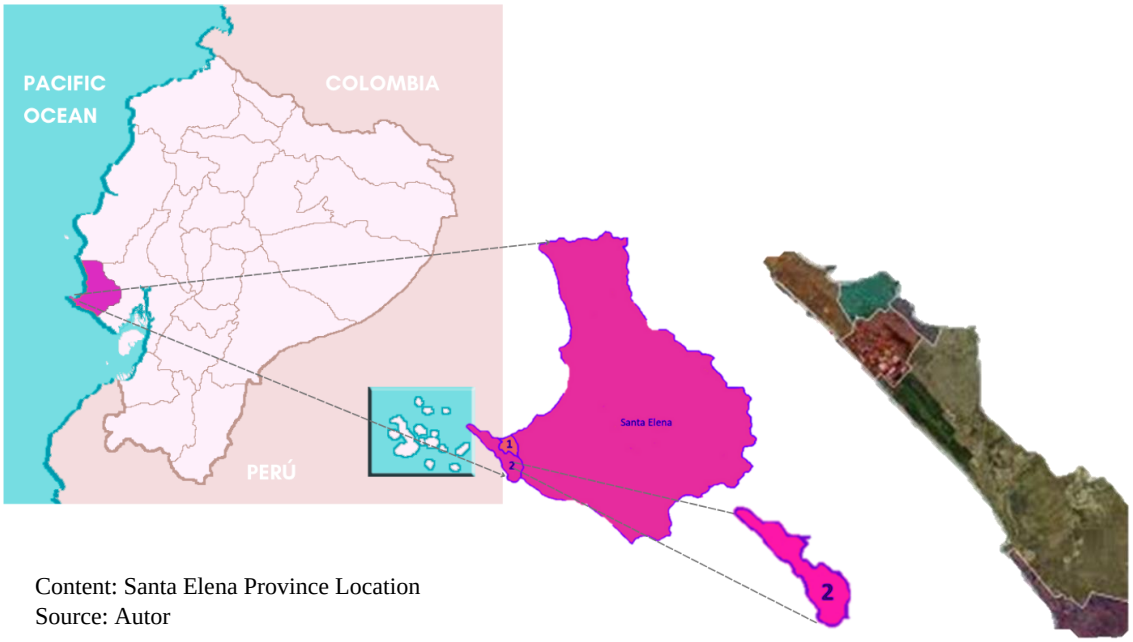
6. SITE ANALYSIS

a. Actual Situation

Is necessary to analyse the different needs of the population in the area, the following analyse will be made by three different scales, analysing the urban context and the surroundings of the area, so we can understand the social, economic, and cultural aspects.

i. Macro scale

1. City Surroundings.



Content: Santa Elena Province Location
Source: Autor

The design area is located in the coast west of Ecuador, in the province of Santa Elena, in the east of Salinas city, this area is located 3 km from the centre city and 1,5 km from the most tourist area, we can find some different areas and places like:

- Mar Bravo, which was one of the most tourist places in the area, but because of the risk of high tide they needed to close, so now they replaced for shrimp farm laboratories all along the coast.

- The salt pools from the Ecuasal company which is one of the most important and biggest companies of salt in the country (in the south of the place), these pools use an area around 20 hectares.
- The Salinas Golf and Tennis Club which is a private place for sports and social private events, is located just next to the plot in the east side.

Content: Salinas City Location
Source: Autor

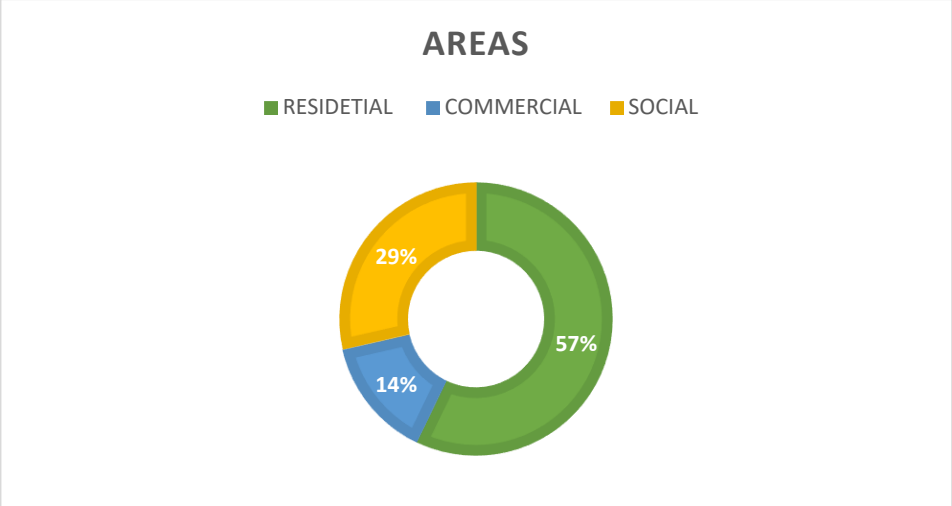
ii. Meso scale

1. Urban context

For the analysis in the Meso scale, we can divide around the place different activities, which we can divide them in three big groups: Residential, Social and Commercial area.

Around the study are we find a high presence of residential zones in the surroundings of the area; the commercial area is located more far close to the most frequent zone in a high way with high traffic flow 22th of December Avenue.

Content: Urban Context of the Design Area
Source: Autor



Content: Percentage of Activities in the Area
Source: Autor

2. Visual Connections.

The design area has a strong connection with the private sports complex as it is located next to it, and 460 meters facing it, being a strong element to connect it with the activities to be proposed.

Another of the places with which it is connected is with the Cemetery of the parish, located only 130m away.

iii. Micro scale

1. Surroundings context

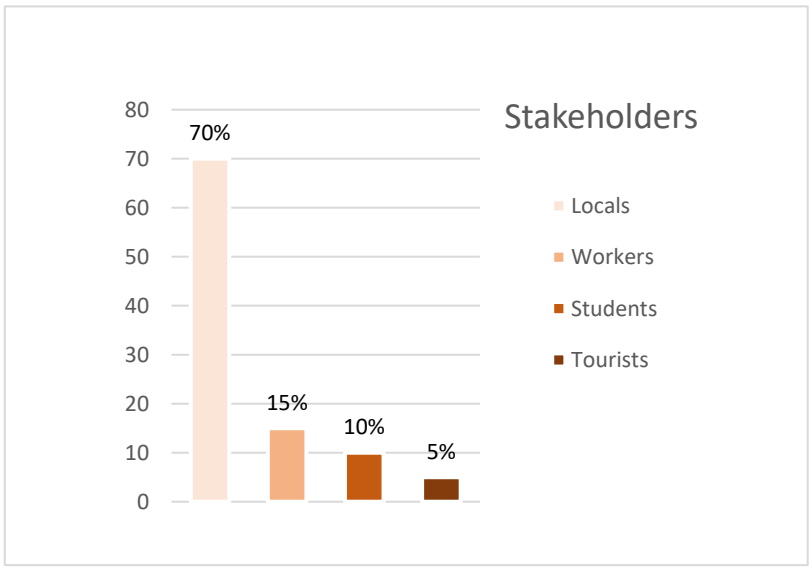
For the surroundings context as we can find a high presence of residential buildings, most of them houses with one, two with a maximum of three floors, the houses are made with cement blocks with an unfinished look, also some of these houses they have an empty area in their plots, so people usually use it for do sports like football or volleyball. The commercial area which is located 2 km from the area, we can find some informal markets around, restaurants with local food.

For the social we can find two places, the Cemetery of the city located at 50 meters of the place and the private club the Salinas Golf and tennis club.

Content: Analysis of surroundings
Source: Autor

2. Stakeholders

We can define the stakeholders for the area, which area the participants of the place, we can find: Local people, tourist, workers and students, analysing the frequency of them in the site we can say that the locals have the most highest presence in the place with a 70% percentage, next to it is the workers with a 15%, using the area just for a crossing way, third we can find the students with the 10%, and with a very low presence of tourist just with the 5%.



Content: Stakeholders Average
Source: Autor

3. Roads and Traffic Analysis

OCTAVIO PEÑA DAVILA

AGUSTIN FEBRES CORDERO TYLRES

LACK OF BUS STATIONS

Content: Roads Analysis
Source: Autor

4. Existing Photographic Survey

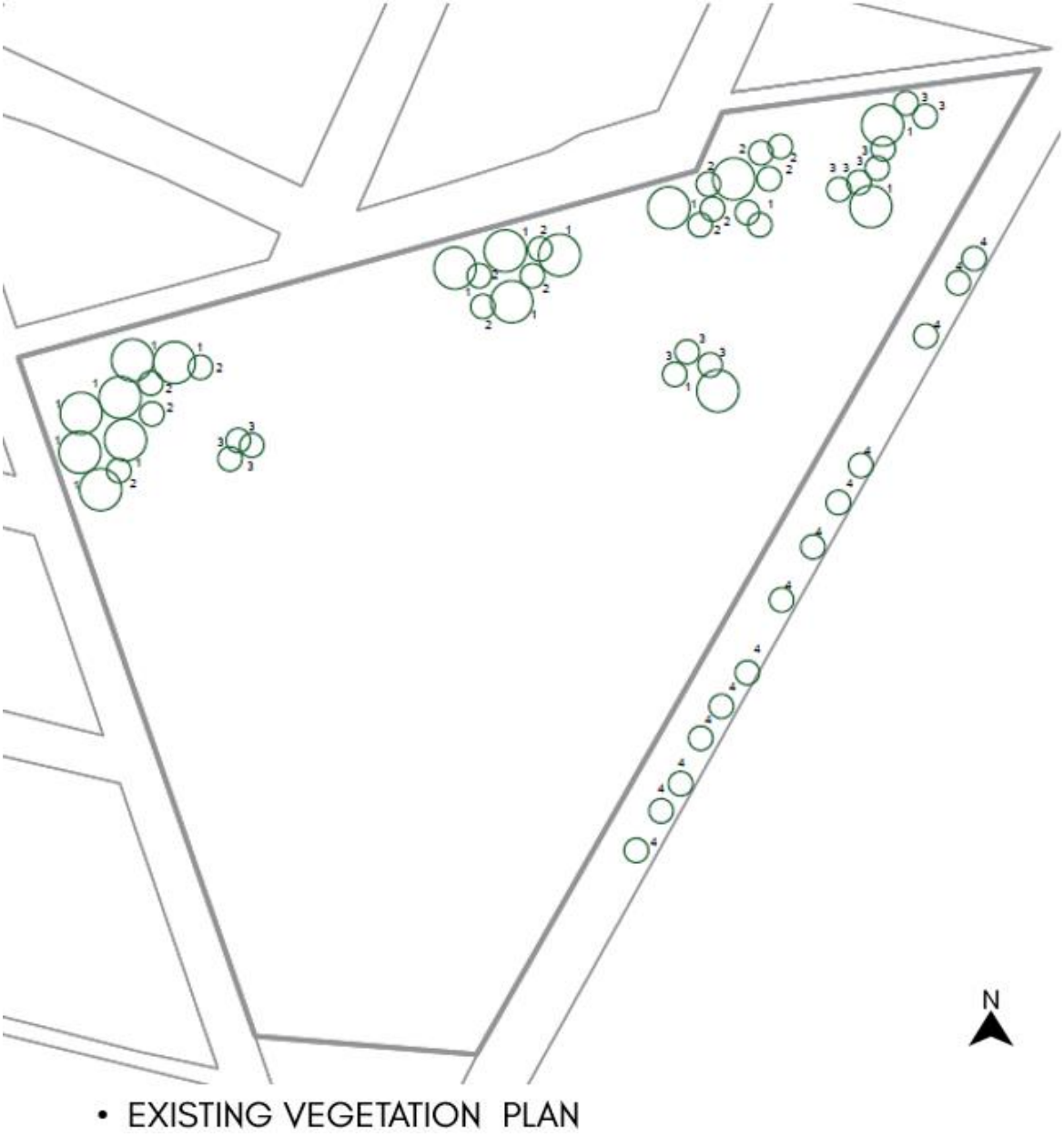




Content: Photos of Actual Situation
Source: Autor

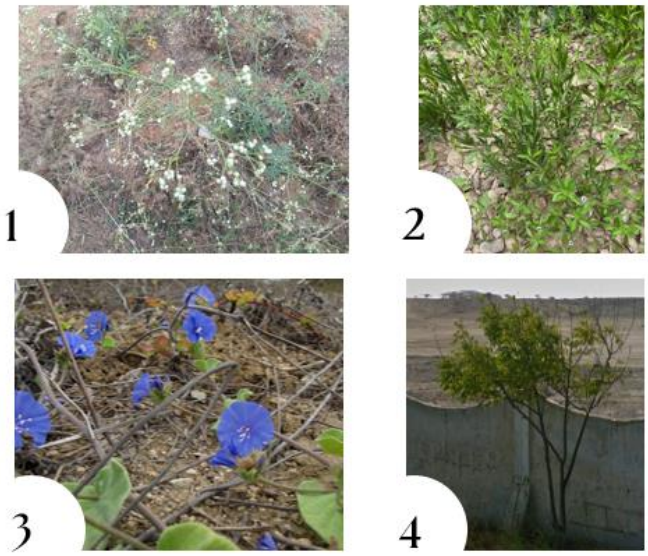
5. Tree survey (Existing Vegetation)

For the existing vegetation of the site, we can find vegetation which grew spontaneous in the site without any maintenance, and in a very bad condition. We can find different species as Jacquemontia unilateralis, Phyla lanceolata and Parthenium hysterophorus. For the vegetation in the surroundings we can find a tree line in the of Leucaena leucocephala, located in the right side in the private club of Salinas.



Content: Existing Vegetation Plan
Source: Autor

N	Specie
1	Jacquemontia unilateralis
2	Phyla lanceolata
3	Parthenium hysterophorus
4	Leucaena leucocephala



Content: Existing Vegetation Table and Photos
Source: Autor

7. DESIGN DEVELOPMENT

a. Problem Approach

After de analysis and all the information collected from the research, we can find some different problems happening in the place which is that Salinas city needs larger green areas, as the private and public entities are just focused on the of the tourist and beach area forgetting about the other areas, because it has only small parks, which is not enough for the average of population of the city, so the percentage of green areas need to increase.

The actual situation of the plot is totally abandoned, without any maintenance from the municipality because is a public plot. The area around it does not have any illumination, which is a big problem as the surroundings are residential houses, because of the lack of illumination, the people do not like to walk over there, so is totally desolated, which gives a lot of insecurity to the neighbourhood.

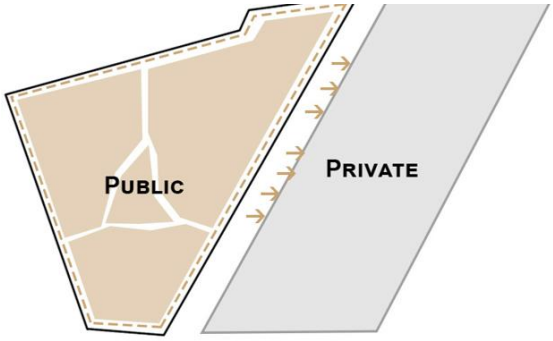
Another consequence for being an abandoned plot, the people use it to throw their garbage in the place, as this place is not cleaned, so is accumulated every time, creating hills full of trash,

giving a very low-poor sanity conditions, which gives diseases like dengue fever, animal pests like rats, mosquitoes and environmental pollution.

b. Project Objectives (Main goals)

After detecting the issues from the site, this project proposes solutions to these problems, through the main objective to propose a green open area with low maintenance by the social aspect like recreational areas and gardening activities which will involve the local people, and also by the climate aspects like illumination, surface materials.

Another Objective with this project is to propose a Public place for everyone to come to make sports, as just next to the area there is the Private Club for Sports, which is not allowed for all the population, proposing this area we give the opportunity to the people to practice and do the recreational activities, providing a better quality of life and better health and all of this, just by a public open space.



Content: Diagram
Source: Autor

c. Design Strategy

In order to fulfil the main objective proposed in this project, an Urban Park will be designed for the neighbourhood Alberto Enrique Gallo. Through the tool of the “Low Maintenance” applying in the materials, vegetation and involving the stakeholders.

With Low Maintenance we can say that is easy to please, does not require constant pampering, attention or gifts or things done "their way or no way" (Urban Dictionary, 2023). Applying this

concept (strategy) to the design, we will have more easy ways to keep and preserve the park, as the municipality do not have enough sources for keep the maintenance frequently this tool will help to keep it with a good look for long time.

Low-maintenance materials will be proposed, like the concrete, concrete blocks, rubber coating, PWC (wood Plastic Composite), tinted asphalt. They will not have early damage they will keep as new for more time, have a good durability and resistance to the climate changes.

The vegetation proposal will be also by the tree, shrubs with low-maintenance, applying Drought-Tolerant Perennials because of the weather conditions, Ornamental Grass.

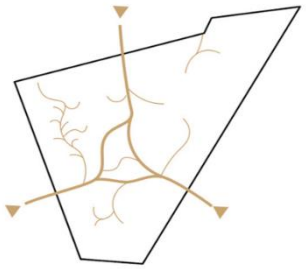
And by involving the stakeholders with activities in the park, they will start to feel part of the site taking care of it, preserving, and maintaining. The activities to propose is the Gardening with a specific area for a Vegetable Garden, and with a market where the people can sell the vegetables during the weekends. Another activity is the recreational, by the different sports area enhancing the physical and mental health, providing a better quality of life for the users.

d. Proposal Areas

For the areas proposal, after all of the differtent analysis, we can start from a macro scale for the main activities proposed in this green area which is the Social and Recreational activitie. Those will bring the main neccesities that the local people need, providing them a better quality of urban space.

Content: Proposal Areas
Source: Autor

e. Bubble Diagram



Content: Diagram
Source: Autor

After define the main activities, we can define the different areas proposed which is going to be for the recreational: Sports area, Playground, Meeting area. And for the Social activities: Urban Garde, Resting Area, and the Pavilion. Around the place we can define three different entrance, connecting the different ways around the plot, for the circulation inside the place, we define three main roads which them are connected each other and they meet in a point which the centre of the park.

The main entrance was located on the Agustin Febres Cordero Street, has this road is the biggest around the area and also is located just next to the private club, which is creating a strong connection between the two different spaces.

Content: Bubble Diagram
Source: Autor

f. Materials proposal

MATERIALS PLAN

APPLIED MATERIALS

The materials proposed in the design were thinking about the low-maintenance strategy, as we explained before, we can find the following materials proposed:

- Concrete: Concrete is a versatile, durable material, being inert, compact and non-porous, it does not attract mould and does not lose its properties over time. The application of concrete in construction is inexpensive, which makes it very affordable. Naturally fire resistant as concrete forms a highly effective barrier to the spread of fire. It has an adaptability to achieve different architectural form and has the characteristic of achieving ductility.
- Rubber coating: Rubber, a remarkably durable raw material, demonstrates its longevity benefits over the product's long-life cycle, its dense, non-porous surface makes the use of coatings completely unnecessary, which translates into incredible savings in maintenance costs.
- PWC (Wood Plastic Composite): It is a superior alternative to wood, made from wood and recycled plastic, inherits the advantage of elegant and comfort of the original wood, easy to install, good anti-slip, also UV friendly, withstanding even the harshest environmental conditions, the availability of the same in different colours helps versatility and better handling in the proposals of the same, water resistant and is ten times more durable than the common wood products. (Co, 2022)
- Asphalt: “Asphalt has low initial costs, lasts a long time, and due to its recyclability, has a higher residual value than other pavements. Recycled asphalt contains a large amount of bitumen, can be reheated and is easy to reuse.” (Arkiplus) Asphalt pavements are quick to construct and highly durable, because asphalt effectively needs no curing time, they can be easily opened and quickly resealed almost immediately.

g. Vegetation.

VEGETATION PLAN

VEGETATION

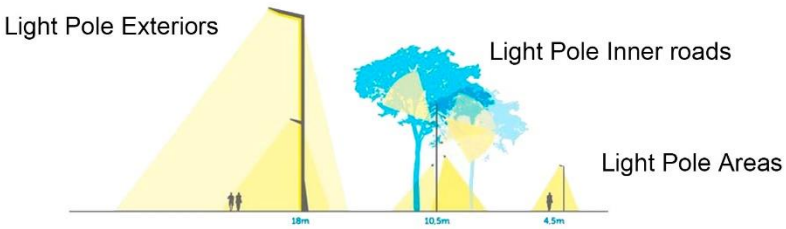
8. TECHNICAL DESIGN INFORMATION

a. Master Plan


0
20
40
80

ILUMINATION PLAN

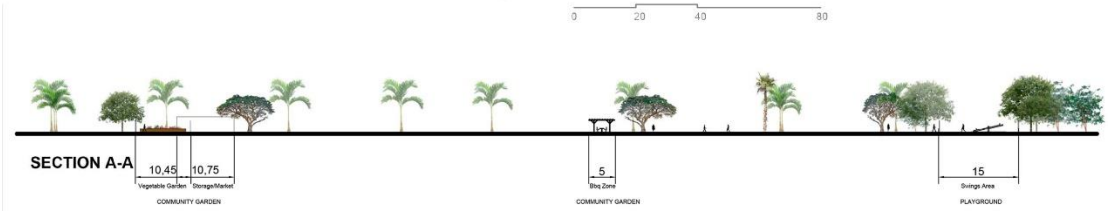
LUMINAIRES

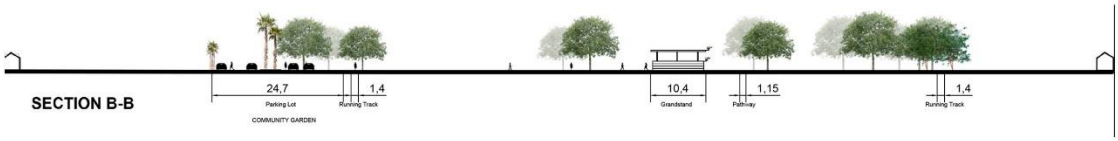


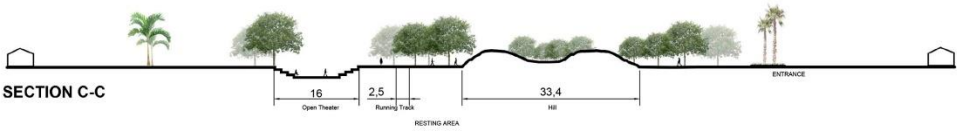
b. Sections

SECTIONS


A
B
C
0
20
40
80


SECTION A-A
10,45
Vegetable Garden
10,75
Storage/Market
COMMUNITY GARDEN
5
Bbq Zone
COMMUNITY GARDEN
15
Swings Area
PLAYGROUND


SECTION B-B
24,7
Parking Lot
1,4
Running Track
COMMUNITY GARDEN
10,4
Grandstand
1,15
Pathway
1,4
Running Track


SECTION C-C
16
Open Theater
2,5
Running Track
33,4
Hill
RESTING AREA
ENTRANCE

c. **Detailed Areas**

DETAILED AREAS

MEETING AREA

ELEMENTS

1. Pergola

Tables

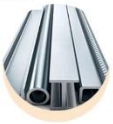
Benches

2. BBQ

MATERIALS

Concrete

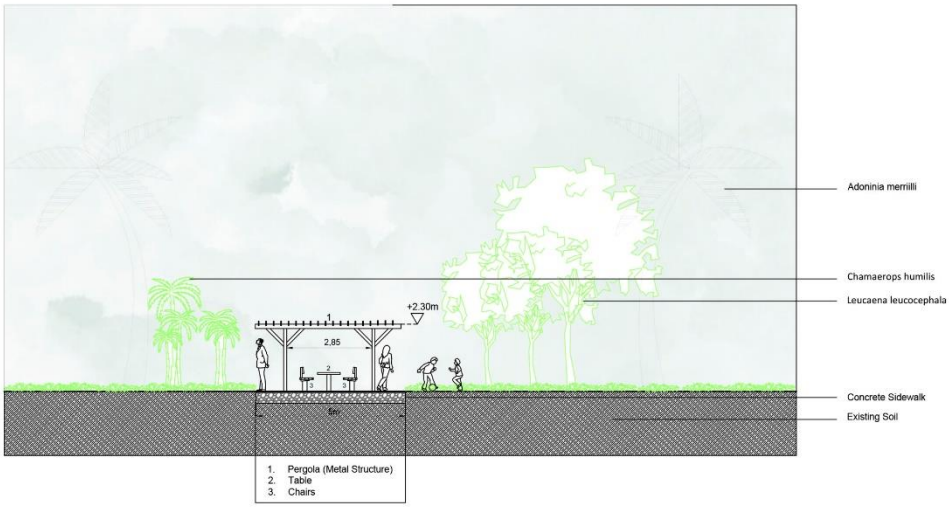
Stainless Steel



VEGETATION

1. Adonidia merrilii
2. Leucaena leucocephala
3. Washingtonia filifera
4. Hibiscus rosa-sinensis
5. Azadirachta indica

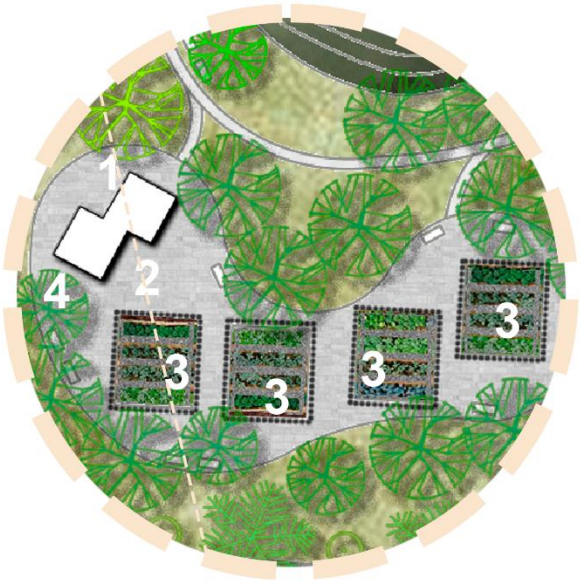
SECTION



VISUALIZATION

DETAILED AREAS

COMMUNITY GARDEN



ELEMENTS

1. Market
2. Storage
3. Vegetable Garden

4. Toilets

VEGETATION

1. **Adonidia merrilii**
2. **Acacia macracantha**
3. **Erythrina crista-galli (Ceibo)**

Vegetales: Tomates, Pepper, cucumber, eggplant

Fruits: Watermelon, melon

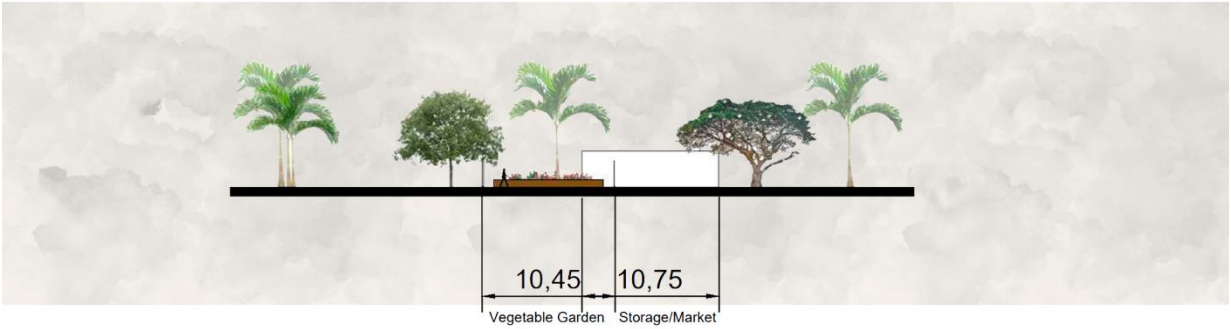
Spices: Parsley, basil, jasmine

MATERIALS

Concrete

Stabilizer gravel

SECTION



COMMUNITY GARDEN

Detailed Areas

Pavilion

ELEMENTS

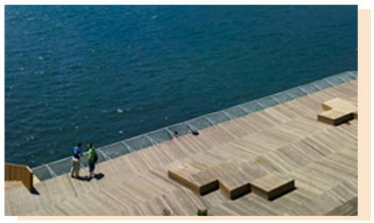
1. Pavilion

   Cafe place

   Toilets

2. Water Element

   Platform



MATERIALS

Concrete

PWC (Wood Plastic Composite)

Concrete Blocks

VEGETATION

1. **Adonidia merrilii**
2. **Chamaerops humilis**
3. **Erythrina crista-galli (Ceibo)**

VISUALIZATION

Detailed Areas

Resting Area

ELEMENTS

1. Open teather

2. Hill

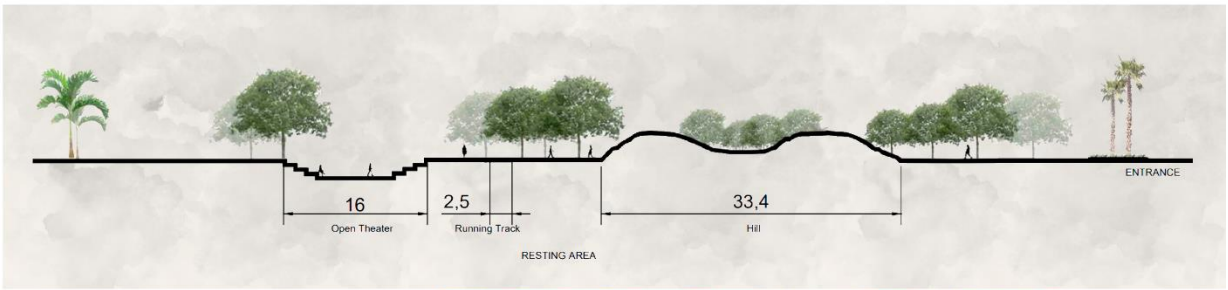
MATERIALS

Concrete

VEGETATION

1. **Muhlenbergia rigens**
2. **Azadirachta indica**
3. **Acacia macracantha**

SECTION



VISUALIZATION

Detailed Areas

Sports Area

ELEMENTS

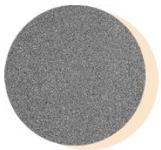
1. Basketball Court (1)
2. Football Pitch (2)
3. Voleyball Court (2)
4. Grandstand (5)
5. Open Gym
6. Running Track - 600m

MATERIALS

Concrete

Rubber Coating

Tinted Asfalt



Concrete Blocks

VEGETATION

1. **Acacia macracantha**
2. **Adonidia merrilii**
3. **Hibiscus rosa-sinensis**

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- **ANNEXES**

DECLARATION

on authenticity and public assess of final essay/thesis/mater's thesis/portfolio[1]

Student's name: Camila Fernanda Salinas Vélez.
Student's Neptun ID: WYJVV5
Title of the document: Public Urban Park design of the landscape in Salinas, Ecuador.
Year of publication: 2023
Department: Garden Art and Landscape Design.

I declare that the submitted final essay/thesis/master's thesis/portfolio[2] is my own, original individual creation. Any parts taken from an another author's work are clearly marked, and listed in the table of contents.

If the statements above are not true, I acknowledge that the Final examination board excludes me from participation in the final exam, and I am only allowed to take final exam if I submit another final essay/thesis/master's thesis/portfolio.

Viewing and printing my submitted work in a PDF format is permitted. However, the modification of my submitted work shall not be permitted.

I acknowledge that the rules on Intellectual Property Management of Hungarian University of Agriculture and Life Sciences shall apply to my work as an intellectulal property.

I acknowledge that the electric version of my work is uploaded to the repository sytem of the Hungarian University of Agriculture and Life Sciences.

Place and date: Budapest, 2023 year May month 08 day

Camila Salinas
Student's signature

[1]Please select the one that applies, and delete the other types.
[2]Please select the one that applies, and delete the other types.

STATEMENT ON CONSULTATION PRACTICES

As a supervisor of Camila Salinas Velez (Student's name) WYJVV5 (Student's NEPTUN ID), I here declare that the final essay/thesis/master's thesis/portfolio[1] has been reviewed by me, the student was informed about the requirements of literary sources management and its legal and ethical rules.

I recommend/don't recommend[2] the final essay/thesis/master's thesis/portfolio to be defended in a final exam.

The document contains state secrets or professional secrets: yes no*[3]

Place and date: Budapest, 2023 year May month 08 day

Internal supervisor

[1] Please select applicable and delete non-applicable.
[2] Please underline applicable.
[3] Please underline applicable.

URBAN PUBLIC PARK DESIGN

FOR THE ALBERTO ENRIQUE GALLO NEIGHBOURHOOD IN SALINAS, ECUADOR.

STUDENT: CAMILA SALINAS
TUTTOR: ÁDÁM WEIZER, PHD

INTRODUCTION URBAN PARKS

Urban Park, is a recreational area (parks, recreatiootal areas, natural centers, wildlife refuges) located in the main city area.We can say that an Urban Park, is a recreational area (parks, recreational areas, natural centers, wildlife refuges) located in the main city area.

"Urban parks are community assets. They provide a convenient setting for a broad variety of leisure and recreational activities, as well as enhancing the image and perceived value of the community. Urban parks can serve the needs and interests of all kinds of people and many subgroups of the population: young and old, groups and individuals, affluent and poor, male and female, athletic or not, and all ethnic and cultural groups. This wide appeal makes city parks a tremendous asset-in a social and behavioral sense as well as a physical sense-to the quality of urban life.

Characteristics of Urban Park

One of the most important characteristics of the urban parks is to focus on preserving natural resources while creating environments that are inviting to human and wildlife populations.

Urban landscapes today feature spaces that focus on preserving natural resources while creating environments that are inviting to human and wildlife populations. This is especially important in this time of global change. Urban landscapes must be designed to meet the needs of today and the growth of tomorrow.

Benefits of Urban Park

Some of the benefits of the Urban Parks are: The parks encourage active lifestyles and reduce health problems. It make cities more resilient. Help clean the air and improve public health. Is a tool for cities to achieve their equity goals.

The city parks strengthen local economies and create job opportunities and increase community engagement and reduce crime.

Maintenance of Gren Areas

The responsible entity for the maintenance intervention for green areas, flowerbeds and sports fields, is the Decentralised Autonomous Governments (Cantonal Municipalities). The Directorate of Public Works made up of the following units: Roads, Transit and Transport, Cost and Evaluation, Execution and Safety of Works, Green Areas.

Green Areas Department

Prepare studies and proposals for contracting the maintenance and preservation of green areas. The processes of construction of green areas or complementary works, supervised. Rehabilitation, planting

PROJECT REFERENCE

"6TH OF JUNE" PARK

Architects: Municipality of Quito
Area: 14000 m2
Location: Quito, Ecuador.
Year: 2018

This project is located in the capital of Ecuador, Quito, the architects for this project was the Municipality of the city in the 2018, the main area of the park is the 14 000 m2.

The "Parque 6 de Junio" is a project carried out with a methodology that aims to emphasise the socio-environmental conditions of the place. The aim is to transform this public space into a tool to combat insecurity, violence, disorder and un healthiness. (Archdaily, 2018). This park aims to become a space for community entertainment, with all facilities for people of all ages. The park will benefit 16,000 residents of the sector

29TH OF JULY CITADEL PARK

Architects: MAZZANTI, AEV ARCHITECTS
Location: Santa Marta, Colombia.
Year: 2013-2014

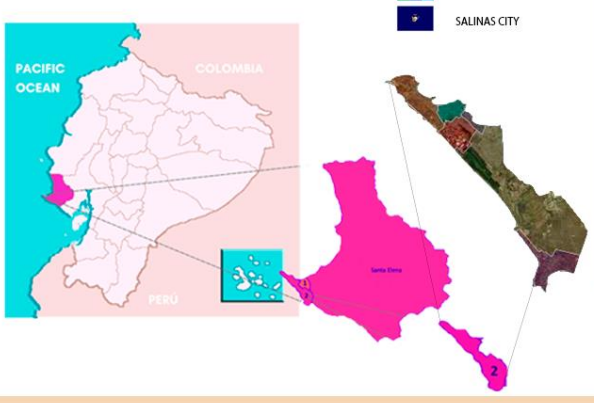
The project is part of the Manzanares River Master Plan in which 9 centralities were conceived as parks that would be used as meeting points and public space for the community, integrated to the river. This allows the public space to be sustainable and activated, according to the identities and needs of each neighborhood. (BAQ, 2016).

The project is part of the Manzanares River Master Plan in which 9 centralities were conceived as parks that would be used as meeting points and public space for the community, integrated to the river. This allows the public space to be sustainable and activated,

INTRODUCTION ABOUT SALINAS

Salinas City

The design area is located in the south of the ecuadorian Coastal Region, in the canton which is a sub-national territorial entity in the province of Santa Elena. Salinas city is divided into six parishes: Urban parishes: Alberto Enrique Gallo, Carlos Espinoza Larrea, Vicente Rocafuerte and Santa Rosa Rural parishes: José Luis Tamayo "Muey" and Anconcito.



Cultural and History information.

Late 19th century, the population of the area consisted of artisanal fishermen.

From the 1940s onwards, settlement of American military personnel, is when the development starts

The population is mestizo, whic is a mix between Amerindian and white race.

Urban Context of Salinas City

It presents an accelerated demographic growth establishing an urban settlement.

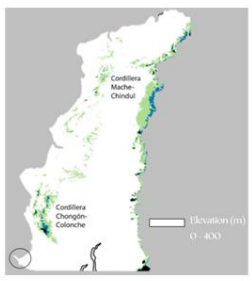
One of the most important economic, financial and commercial centres.

The city's main activities are tourism, fishing, construction and salt production.

GEOGRAPHY ASPECTS OF SALINAS

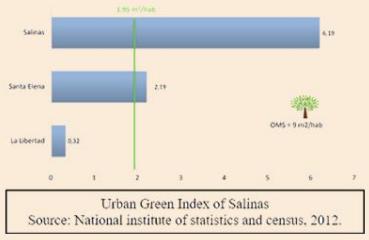
Climate

- The coast region is characterised by arid tropical climate in the southwest, dry to wet from the centre to the south.
- The wet season (high temperatures and heavy rain) between April and may because of the warm current of El Niño (The Kid) and the Intertropical Convergence Zone.
- The dry season with low temperatures and low rainfall, lasts from June until November/December.
- The general temperature in all the region ranges from 24-25C.
- It offers one of the best real estate investment markets in the country and one of the most popular and exclusive beach



Urban Green Index

The World Health Organisation recommends an international benchmark, for all cities, of 9 square metres per inhabitant. of 9 square metres per inhabitant. (WHO, 2000). In the case of Ecuador, there are 4.69 square metres of green space per person. square metres of green space per person, which means that there is a deficit of 4.31 square metres per inhabitant. inhabitants of 4.31 square metres.



Urban Green Index of Salinas
Source: National institute of statistics and census, 2012.

Population

According the last census on 2010, the habitants of Salinas is 68.675 habitants.
The canton of Salinas has a population of 68,675 inhabitants, which represents 22.25% of the total population of the province of Santa Elena.
From the territorial point of view, the population of the canton of Salinas has a high rural content, as it has a high proportion of inhabitants in the rural sector. rural, as this population segment is only 1.12% less than the total population of the canton of Salinas. 1.12% less than the total population living in the urban area.

Land Use

Its cantonal capital is the modern and progressive seaside resort town of Salinas, the main tourist attraction on the Ecuadorian coast

Topography and Soil type

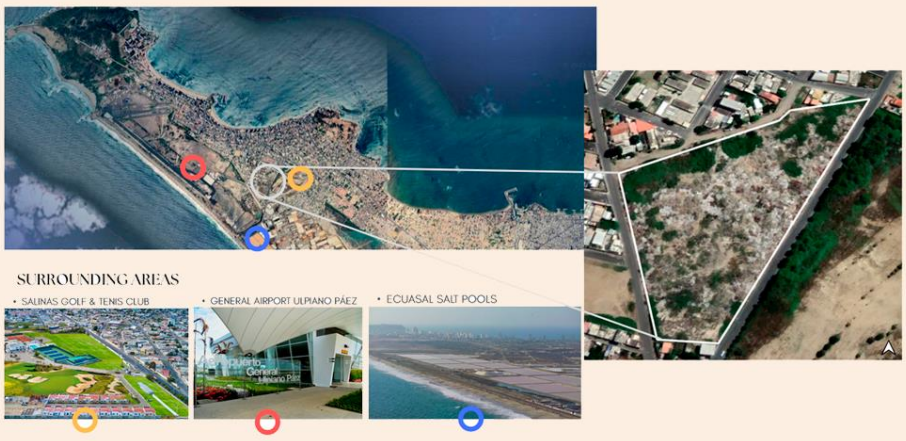
- Plains and undulations characterised by fairly low reliefs of clayey to sandy sedimentary hills.
- This peninsula is totally exposed to the decertifying effects of the cold Humboldt Current.
- The topographic elevation of Salinas is between 0 and 400 meters

SITE ANALYSIS

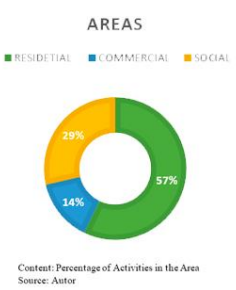
MACRO SCALE

The design area is located in the coast west of Ecuador, in the province of Santa Elena, in the east of Salinas city, this area is located 3 km from the centre city and 1,5 km from the most tourist area, we can find some different areas and places like:

- Mar Bravo, which was one of the most tourist places in the area, but because of the risk of high tide they needed to close, so now they replaced for shrimp farm laboratories all along the coast.
- The salt pools from the Ecuasal company which is one of the most important and biggest companies of salt in the country (in the south of the place), these pools use an area around 20 hectares.
- The Salinas Golf and Tennis Club which is a private place for sports and social private events, is located just next to the plot in the east side.



MESO SCALE

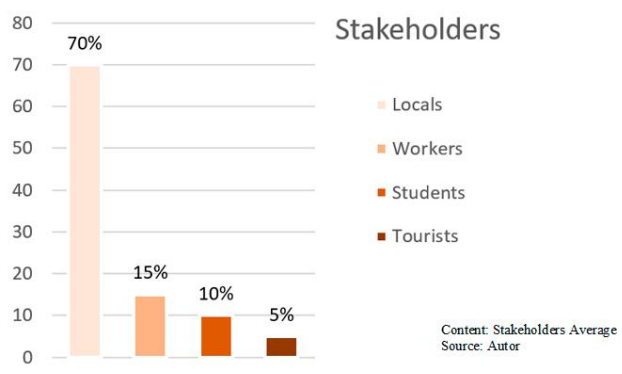


Content: Percentage of Activities in the Area
Source: Autor

For the analysis in the Meso scale, we can divide around the place different activities, which we can divide them in three big groups: Residential, Social and Commercial area.
Around the study are we find a high presence of residential zones in the surroundings of the area; the commercial area is located more far close to the most frequent zone in a high way with high traffic flow 22th of December Avenue.

Stakeholders

We can define the stakeholders for the area, which area the participants of the place, we can find: Local people, tourist, workers and students, analysing the frequency of them in the site we can say that the locals have the most highest presence in the place with a 70% percentage, next to it is the workers with a 15%, using the area just for a crossing way, third we can find the students with the 10%, and with a very low presence of tourist just with the 5%. For the social we can find two places, the Cemetery of the city located at 50 meters of the place and the private club the Salinas Golf and tennis club.



Content: Stakeholders Average
Source: Autor

SITE ANALYSIS

MICRO SCALE

Surroundings context

For the surroundings context as we can find a high presence of residential buildings, most of them houses with one, two with a maximum of three floors, the houses are made with cement blocks with an unfinished look, also some of these houses they have an empty area in their plots, so people usually use it for do sports like football or volleyball. The commercial area which is located 2 km from the area, we can find some informal markets around, restaurants with local food.

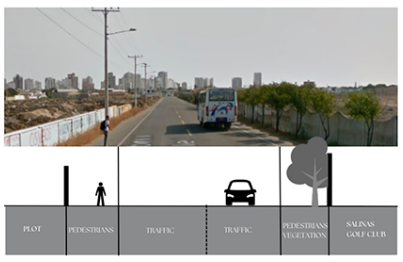
Content: Analysis of surroundings
Source: Autor

Roads and Traffic Analysis


OCTAVIO PEÑA DAVILA


AGUSTIN FEBRES CORDERO TYLRES

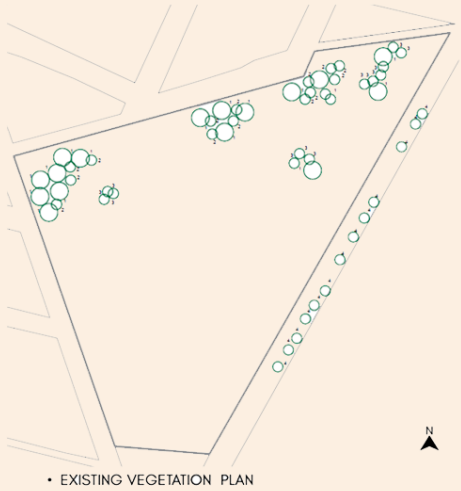
VIEW



SECTION

Existing Vegetation

For the existing vegetation of the site, we can find vegetation which grew spontaneous in the site without any maintenance, and in a very bad condition. We can find different species as Jacquemontia unilateralis, Phyla lanceolata and Parthenium hysterophorus. For the vegetation in the surroundings we can find a tree line in the of Leucaena leucocephala, located in the right side in the Private Salinas Golf Club.



• EXISTING VEGETATION PLAN

N	Specie
1	Jacquemontia unilateralis
2	Phyla lanceolata
3	Parthenium hysterophorus
4	Leucaena leucocephala

Content: Existing Vegetation Table and Photos
Source: Autor

Existing Photographic Survey of the Site

DESIGN DEVELOPMENT

PROBLEM APPROACH

After de analysis and all the information collected from the research, we can find some different problems happening in the place which is that Salinas city needs larger green areas, as the private and public entities are just focused on the of the tourist and beach area forgetting about the other areas, because it has only small parks, which is not enough for the average of population of the city, so the percentage of green areas need to increase.

The actual situation of the plot is totally abandoned, without any maintenance from the municipality because is a public plot. The area around it does not have any illumination, which is a big problem as the surroundings are residential houses, because of the lack of illumination, the people do not like to walk over there, so is totally desolated, which gives a lot of insecurity to the neighbourhood.

Another consequence for being an abandoned plot, the people use it to throw their garbage in the place, as this place is not cleaned, so is accumulated every time, creating hills full of trash, giving a very low-poor sanity conditions, which gives diseases like dengue fever, animal pests like rats, mosquitoes and environmental pollution.

PROJECT OBJECTIVES

After detecting the issues from the site, this project proposes solutions to these problems, through the main objective to propose a green open area with low maintenance by the social aspect like recreational areas and gardening activities which will involve the local people, and also by the climate aspects like illumination, surface materials.

Another Objective with this project is to propose a Public place for everyone to come to make sports, as just next to the area there is the Private Club for Sports, which is not allowed for all the population, proposing this area we give the opportunity to the people to practice and do the recreational activities, providing a better quality of life and better health and all of this, just by a public open space.

DESIGN STRATEGY

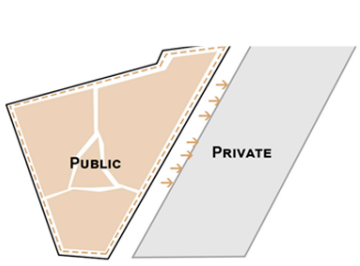
In order to fulfil the main objective proposed in this project, an Urban Park will be designed for the neighbourhood Alberto Enrique Gallo. Through the tool of the “Low Maintenance” applying in the materials, vegetation and involving the stakeholders.

With Low Maintenance we can say that is easy to please, does not require constant pampering, attention or gifts or things done "their way or no way" (Urban Dictionary, 2023). Applying this concept (strategy) to the design, we will have more easy ways to keep and preserve the park, as the municipality do not have enough sources for keep the maintenance frequently this tool will help to keep it with a good look for long time.

Low-maintenance materials will be proposed, like the concrete, concrete blocks, rubber coating, PWC (wood Plastic Composite), tinted asphalt. They will not have early damage they will keep as new for more time, have a good durability and resistance to the climate changes.

The vegetation proposal will be also by the tree, shrubs with low-maintenance, applying Drought-Tolerant Perennials because of the weather conditions, Ornamental Grass.

And by involving the stakeholders with activities in the park, they will start to feel part of the site taking care of it, preserving, and maintaining. The activities to propose is the Gardening with a specific area for a Vegetable Garden, and with a market where the people can sell the vegetables during the weekends. Another activity is the recreational, by the different sports area enhancing the physical and mental health, providing a better quality of life for the users.



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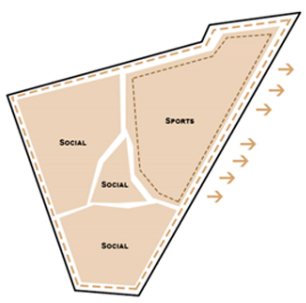
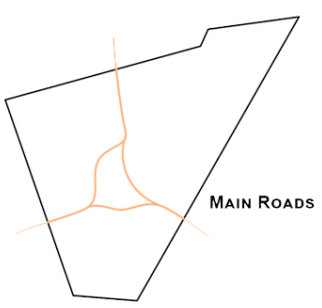
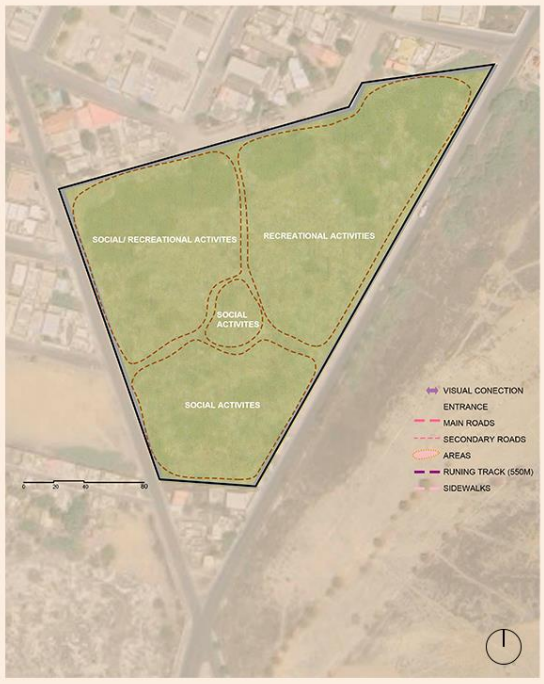




SITE ANALYSIS

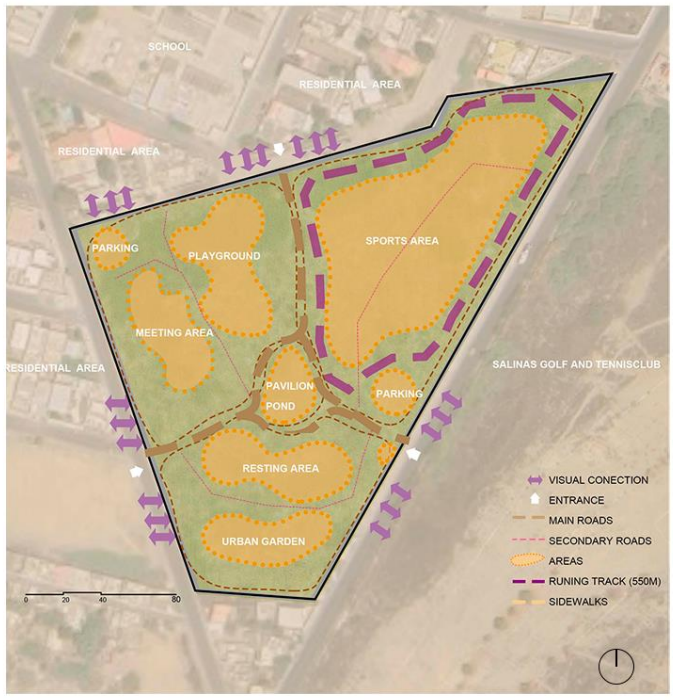
PROPPOSAL AREAS

For the areas proposal, after all of the differtent analysis, we can start from a macro scale for the main activities proposed in this green area which is the Social and Recreational activitie. Those will bring the main neccesities that the local people need, providing them a better quality of urban space.



BUBBLE DIAGRAM

After define the main activities, we can define the different areas proposed which is going to be for the recreational: Sports area, Playground, Meeting area. And for the Social activities: Urban Garde, Resting Area, and the Pavilion. Around the place we can define three different entrance, connecting the different ways around the plot, for the circulation inside the place, we define three main roads which them are connected each other and they meet in a point which the centre of the park.
The main entrance was located on the Agustin Febres Cordero Street, has this road is the biggest around the area and also is located just next to the private club, which is creating a strong connection between the two different spaces.



TECHNICAL DESIGN INFORMATION

MATERIALS PLAN

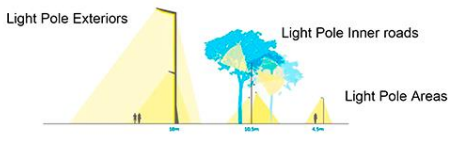
VEGETATION PLAN

APPLIED MATERIALS

VEGETATION

Ilumination Plan

Luminaires

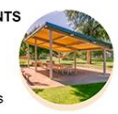


Detailed Areas

Meeting Area

ELEMENTS

1. Pergola
   Tables
   Benches



2. BBQ

MATERIALS

Concrete

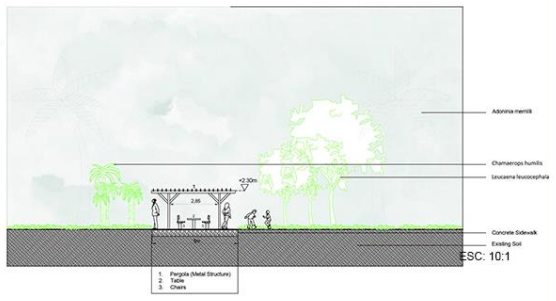
Stainless Steel

VEGETATION

1. Adonidia merrilii
2. Leucaena leucocephala
3. Washingtonia filifera
4. Hibiscus rosa-sinensis
5. Azadirachta indica

Section

BBQ AREA



Visualization

BBQ AREA

Detailed Areas

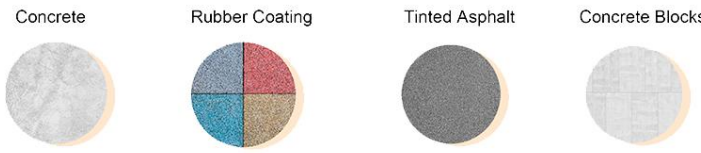
Sports Area

ELEMENTS

1. Basketball Court (1)
2. Football Pitch (2)
3. Voleyball Court (2)
4. Grandstand (5)
5. Open Gym
6. Running Track - 600m

MATERIALS

Concrete | Rubber Coating | Tinted Asphalt | Concrete Blocks

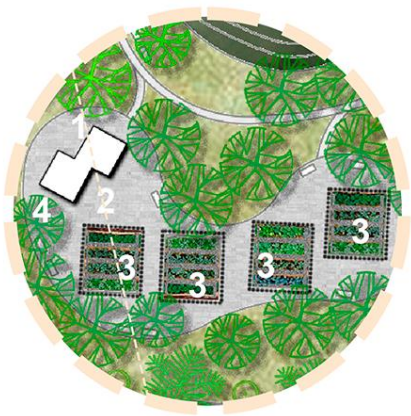


VEGETATION

1. Acacia macracantha
2. Adonidia merrilii
3. Hibiscus rosa-sinensis

Detailed Areas

Community Garden



ELEMENTS

1. Market
2. Storage
3. Vegetable Garden

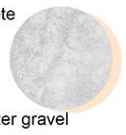
4. Toilets

VEGETATION

1. Adonidia merrilii
2. Acacia macracantha
3. Erythrina crista-galli (Ceibo)

MATERIALS

Concrete



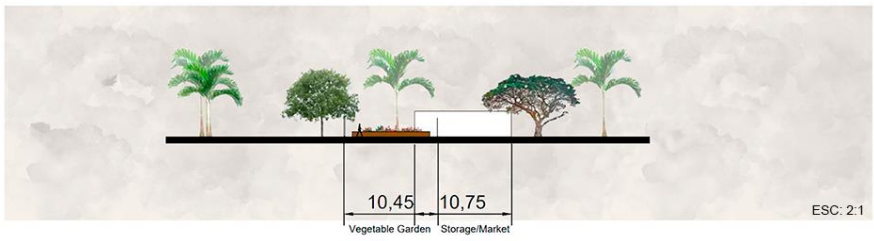
Stabilizer gravel

Vegetales: Tomates, Pepper, cucumber, eggplant

Fruits: Watermelon, melon

Spices: Parsley, basil, jasmine

SECTION COMMUNITY GARDEN



Detailed Areas

Pavilion

ELEMENTS

1. Pavilion
   - Cafe place
   - Toilets

2. Water Element
   - Platform

MATERIALS

Concrete | PWC (Wood Plastic Composite) | Concrete Blocks

VEGETATION

1. Adonidia merrilii
2. Chamaerops humilis
3. Erythrina crista-galli (Ceibo)

VISUALIZATION PAVILION

Detailed Areas

Resting Area

ELEMENTS

1. Open teather

2. Hill

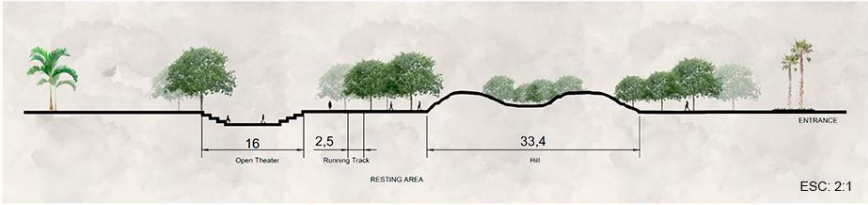
MATERIALS

Concrete

VEGETATION

1. Muhlenbergia rigens
2. Azadirachta indica
3. Acacia macracantha

SECTION RESTING AREA



VISUALIZATION RESTING AREA