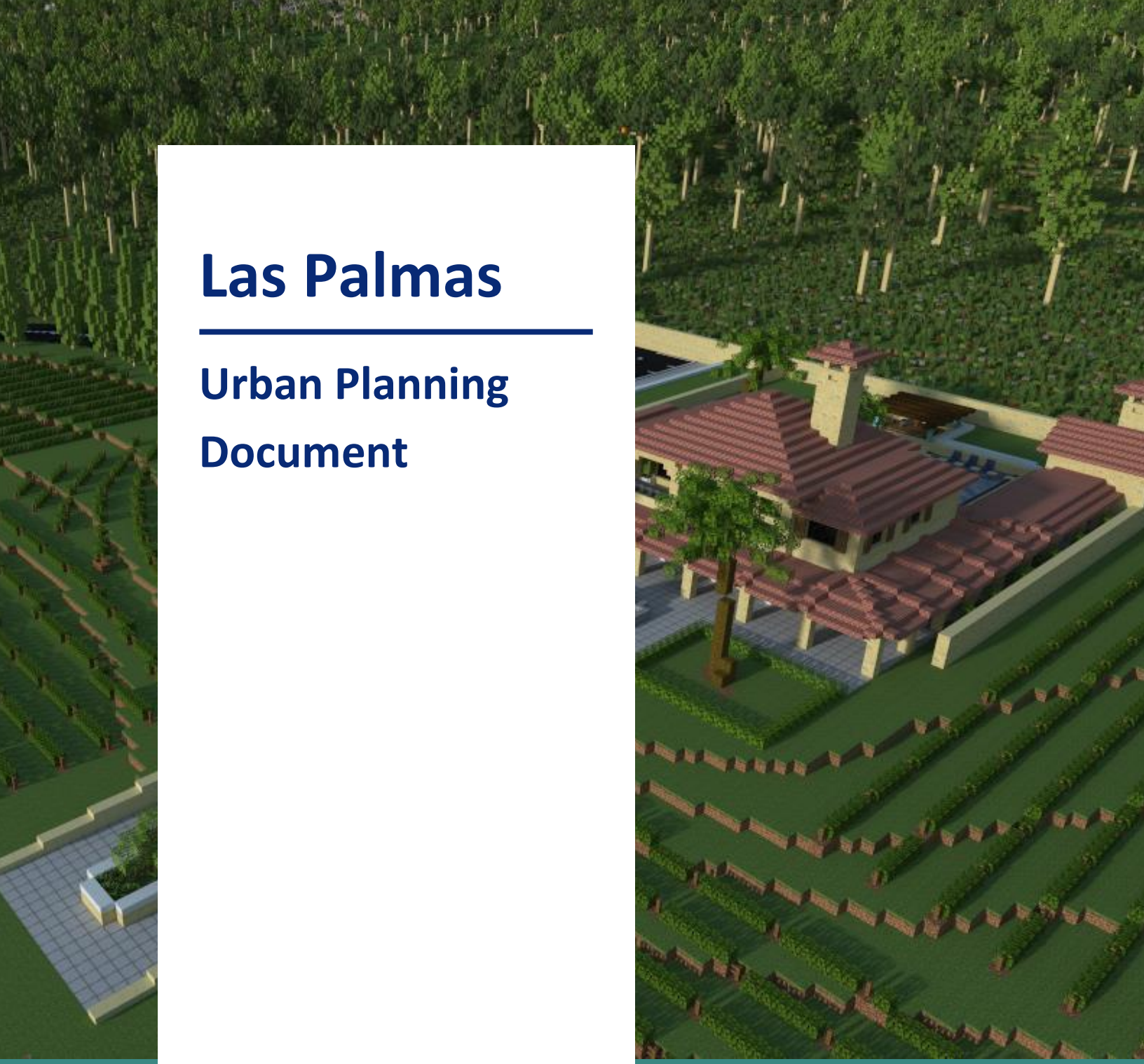

Las Palmas

Urban Planning Document

17 December 2023

Las Palmas City Council and Las Palmas Board of City Planning

Las Palmas
City Council

Table of Contents

Vision

Our vision for Las Palmas centres on cultivating a walkable, urban environment, particularly within the downtown core and waterfront, where vibrant streets lined with a fusion of old and new architectural styles beckon residents and visitors alike to explore and engage. Nestled against the lush hills found along the mediterranean, our city embraces its maritime identity with a bustling marina and inviting beachfront. By prioritizing accessibility, connectivity and a rich blend of international design elements, our vision aims to grow the city into a dynamic and culturally diverse haven where people can live, work and enjoy a sustainable and vibrant coastal community. We aspire to create a harmonious urban landscape that seamlessly blends the achitectural styles of Madrid, San Sebastian, Los Angeles, New York, and Monaco.

Geography

Las Palmas is located on the eastern peninsula of a fictional island off the coast of France, between Corsica and the Balearic Islands. The city set between the ocean to the west and the lush hills found along the mediterranean coast. The climate of the area is mediterranean, with a hot, dry summer and cool, wet winter. To the east of the map, the terrain becomes flatter with less tree coverage. Typical ground cover consists of a mix of evergreen shrubs, bushes, small trees, usually less that 4m and tall eucalyptus trees, between 10 and 30m.

Figure 0.1: Satellite view of Las Palmas and the surrounding area

History

Las Palmas has a rich history spanning almost a millennium, influencing the modern-day architecture and planning of the city.

Early History

The city was founded around the 1100s as a French military outpost, which quickly developed into a small fishing and trading town. The old fort on the eastern peninsula of the map was built in the 1400s to defend from foreign naval powers. In the early 1500s, the Spanish navy besieged the town and port, seeing it as a threat to their naval might in the area. After heavy bombardment, the town surrendered and the port fell to Spanish control. The fort was later rebuilt, however due to the Spanish only seeing the port for its strategic military influence, the town disregarded and many of the buildings remained ruined.

Revitalisation Era

Towards the late 19th century, the town saw a revitalisation as wealthy businessmen and their families, mostly of British and American origin, began to see the area as a potential holiday destination in the summer. Due to much of the town still being uninhabitable, houses and villas began to be constructed on the slopes of the mountain. However, many of these families began to see the new interest in the town as a business opportunity and new money was poured into the main town.

Formation of Modern Government

While the flow of new money into the town seemed to bring new life to the area, much of it remained unchecked and uncontrolled, mainly due to the lack of an

official local government. People quickly noticed the “power vacuum” in the area, and anarchy ensued. Note that the anarchic conditions were not a state of violence or chaos, but that there was a lack of formal governance and no control of development, taxation or commerce.

A few years later, one influential and powerful family, the Faraday Family, took it upon themselves to fill the “power vacuum” and establish a formal local government. At this time, the town received its name of Las Palmas. After extensive talks, negotiations and lobbying, an agreement was formed between the Faraday’s temporary acting governance and the then acting Spanish government. This agreement was signed in 1920 in Valencia, following the end of the First World War, and is known as the Valencia Agreement of 1920.

This arrangement outlined the terms of local governance, and, more importantly, allowed Las Palmas to operate as a self-governing sovereign territory of Spain, as a sort of micro-state. One of the conditions of this autonomy, is that Las Palmas must have a formal military, such that, if Spain ever found itself at war with another country, the state of Las Palmas would aid its parent country.

Current

Since then, Las Palmas has remained a popular tourist destination and playground for the wealthy. Boasting low taxes and very high living standards, Las Palmas has a steadily growing population. While the population is predominantly wealthy, the city also has an extensive working-class population. In order to protect these residents from hyper-inflation and high cost of living, the city council has introduced significant safety nets, including rent capping, and extensive unemployment aids and opportunities.

Zoning

General Zoning

Google Maps is the main inspiration for the urban planning of Las Palmas, while Google Street View the reference for the architecture of the city. The architecture of Las Palmas is inspired by cities such as Madrid, San Sebastian, Los Angeles, Barcelona, Paris and Monaco.

Figure 1.1 shows the approved zoning for the city and the surrounding area. Exact locations of large projects such as the airport and container port may be amended in the future depending on the needs of the city.

The zoning colours are as follows:
Red – main city
Blue – international airport
Green – rural housing and agriculture

Special exceptions may be given, for construction or restorations projects outside of these areas.

Figure 1.1: Approved general zoning of Las Palmas City and Las Palmas Airport

City Zoning

The main city will be split into 3 main areas, shown by Figure 1.2, distinguished by their differing architectural styles. The northern city, depicted by the green area, will mainly be comprised of low and mid-rise buildings, with inspiration from Barcelona, Madrid, San Sebastian and Monaco. Closer to the sea, buildings will be a mix of low and mid-rise, while the further up the mountain you travel, the lower the buildings will become, comprising of low-rise and standalone houses. The blue area, which will be the financial heart of the city, will comprise of mostly mid-rise buildings, with some high-rise buildings, heavily influenced by downtown Los Angeles and other developed western cities. Lastly, the red area, which will also include the city's cargo port, will be comprised of old industrial style buildings, influenced by Brooklyn Heights and Upper Manhattan in New York, redeveloped into residential and office spaces.

There will be a city-wide maximum building height of 100m in order to maintain the traditional architecture, blend into the natural landscape and support the vision for the city. However, special exceptions may be made in the financial district, if the building design proves not to be an irregularity in the skyline and is able to build on the architecture of the city. The following table outlines the general heights for each building category:

Building Category	Total height	Floors
Standalone houses	Up to 30m	Up to 3 floors
Low-rise	Up to 30m	Up to 5 floors
Mid-rise	Between 30 and 70m	Between 5 and 20 floors
High-rise	Greater than 70m	Greater than 20 floors

Figure 1.2: Architectural zoning of Las Palmas main city

Building Regulation

Some building regulations which are important for the safety of buildings are summarised below. It is important to note that further considerations must be taken depending on the specific requirements of a building.

Parapets

Buildings greater than 30m must include a parapet around the edge of the building's roof, and for buildings greater than 60m, this parapet must extend out 1m from the side of the building. This is to ensure safety for workers on the roof, as well as pedestrians on the street below.

Fire safety

For all buildings proper fire safety best practices must be followed. Some practices are outlined below, however, there are further regulations that must be adhered to. For this reason, before the construction of a building, its plan must be reviewed by the Board of City Planning.

For buildings with a total floor area (total floor area of each floor or level in a building) of less than 300m^2 and total height less than 20m (usually low-density buildings), dedicated fire escapes are not necessary, however, quick and easy exiting from the building is still necessary. All buildings taller than 20m must have 2 dedicated fire escapes serving opposite sides of the building. The number and type of fire escapes must be proportional to the floor area and height of the building.

Shear walls

There is no minimum height for buildings where shear walls become necessary; the use of shear walls depends on the design and construction of the building.

Shear walls should always include at least 1 elevator shaft and 1 staircase which can serve as a fire escape, however, in order to comply with fire safety

regulations, multiple shear walls may be constructed such that the 2 fire escapes may serve opposite sides of the building, or in the case that 1 fire escape is blocked.

User comfort

To ensure the comfort of the building occupants, various factors must be considered, for example, lighting, temperature and noise levels.

Lighting

The lighting of the building must be carefully planned to maximise user comfort; too little light or too much light will cause discomfort. Moreover, natural lighting is more comfortable than artificial lighting, and should therefore be maximised. Natural light can usually be maximised with multiple and/or large windows.

The optimum daylight factor is 2 – 3% for a well-lit room, such as an office or kitchen, or 1.5 – 2.5% for less-lit rooms, such as bedrooms and living rooms.

It is important to note that daylight only provides lighting during the day; between sunset and sunrise, artificial lighting will be needed. Building lighting should combine the two to maximise occupancy comfort.

Indoor air quality and temperature

Comfort can be affected by the quality of the ventilation in a building. Ventilation is necessary in buildings to remove ‘stale’ air and replace it with ‘fresh’ air, as well as to prevent overheating.

Moreover, when people are dissatisfied with their thermal environment, not only is a potential health hazard, it also impacts their ability to work effectively, their satisfaction or likelihood to remain in the building.

While natural ventilation is preferrable, mechanical ventilation may be necessary where:

- The building is too deep to ventilate from the perimeter. This may also be caused by internal partitions.
- The local urban structure is too dense and shelters the building from wind.
- Privacy, security and/or safety requirements may prevent windows from being opened.

For most of these cases a HVAC system may be used to provide the necessary air quality for the building.

It is suggested that for a building to achieve 'reasonable comfort', at least 80% of it's occupants must be comfortable.

Noise levels

Noise nuisance is excessive noise or disturbance that may have a negative effect on quality of life or health.

The degree of disturbance caused by noise depends on factors such as:

- Volume.
- Duration.
- Repetition.
- Frequency.
- Time of day.

Depending on these factors, measures may be implemented to reduce the disturbance caused.

Airport

Planning for an international airport has been approved to the South-West of the map, as outlined under General Zoning.

For more information see Las Palmas International Airport Planning Document.
(This document will become available in the near future).

Cargo Port

Planning for a cargo port and small ferry terminal has been approved on the West coast of the map, as outlined under General Zoning.

For more information see Port of Las Palmas Planning Document.
(This document will become available in the near future).

Road Network

General Road Standards

Road type

The main consideration for the width, geometry and speed of a road is the kind of vehicles which will be using the road. However, in order to standardise the road layout of the city, roads will be split into the following different types: Type 1, through to Type 5 (see Figure 2.1 for dimensions).

Minimum curve radius

The minimum curve radius is defined as the shortest allowable design radius for the centreline of the innermost lane in a road. This is an important design consideration for roads, particularly high-speed roads, to ensure safety for drivers. While on slower roads, such as collector and access roads, the speed limit may not be high enough to have a major impact on the geometry of the road, it should still be considered in the design.

The minimum curve radius is given by the following equation:

$$R = \frac{V^2}{g \tan(\theta)}$$

Where:

R = Minimum curve radius (in metres)

V = Maximum speed of the road

g = Acceleration due to gravity ($9.81 ms^{-2}$)

θ = Maximum angle of superelevation (in radians)

Road type	Description	Lane width (m)	No. of lanes (per direction)	Speed limit (kph)
Type 1	Major highway, serving all kinds of vehicles. Exit-ramps are also included under Type 1 roads.	6	3 – 4	120 (80 for exit-ramps)
Type 2	High-capacity urban road, delivering traffic from local collector roads to highways.	5	2 – 3	80
Type 3	Local collector road. Low to moderate capacity road acting as local main roads. These serve key functions such as school, recreational facilities and city services.	4 – 5	1 – 3	50
Type 4	Local access road, serving residential areas as well as providing access to goods vehicles to commercial zones.	4	1 – 2	35
Type 5	Rural, country roads, found outside the city. Speed varies by curvature of road.	4 – 5	1	35 – 80 (depending on curvature of road)

Figure 2.1: Table outlining different road types and where each should be used

Inner City Network

Discouraging driving

In order to keep with the vision of a walkable city, the inner-city road network should be used for travel into and out of the city. Residents and visitors should be discouraged from driving within the city, and encouraged to walk and use public transport as the main means of travel within the city.

This is achieved in the following ways:

- Zoning areas for pedestrian use only.
- Inner-city vehicle tax (not applicable to goods vehicles)
- Providing plenty of alternative methods of transport, such as bus routes

While driving is discouraged, it is important to note that it is unavoidable, and hence must also be accounted for in the planning of the city:

- Where roads are unavoidable, on street parking should be avoided where possible. This is to conserve the space available in the city.
- The city network must be designed to balance space used and maximising traffic flow.
- Moreover, in order to maintain the atmosphere of the city, particular importance should be given to view corridors around the city.

Parking

Parking should be provided in high traffic areas of the city, such as points of interest. However, in order to maximise the use of the limited space in the city, underground parking is preferable.

However, should ground level parking be necessary, measures should be taken to alleviate any social and environmental impacts posed. For example, in order to

reduce the heating effect of large areas of asphalt, trees and other greenery should be planted at regular intervals.

Highways

There is only 1 highway on the map, running from the East to the West of the map, providing a quick connection from Las Palmas to the airport and the West side of the island (not included in the map). A single interchange will be built near the airport, connecting it to the main highway.

Further planning information will be given for when this project begins.

Public Transport

Discouraging driving in the city is of utmost importance to the vision of the city. In order to achieve this vision, plenty of alternative means of transport must be provided. Public transport is one of these alternatives. Due to space constraints and very old infrastructure, metro lines (both above and below ground) and not possible.

Further planning information will be given for when this begins to be implemented in the near future.

Architectural references for building

A street view in Monaco (Source: https://www.montecarlosbm.com/en/inspiration/sunny-stroll-condamine-district-monaco)

Views from 2 different streets in the old town of San Sebastian (Source: screenshots taken of Google Maps Street View)

A view of San Sebastian's marina (Source: https://www.bora.com/int/en/trends-solutions/story/san-sebastians- extraordinary-architecture/)

Baiona De a Guarda, Galicia (Source: https://www.traveler.es/experiencias/articulos/baiona-guarda-ruta-rias-baixas/12256)