

# PLANNING & DESIGN GUIDELINES

Qetaifan Islands





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## INTRODUCTION

The masterplan for Lusail has evolved since 2006 and comprises detailed proposals for a new coastal city quarter to the north side of Doha's city centre.

The Lusail Development covers 19 separate Districts with over 4,000 development parcels. It is a complex real estate construction project for 200,000 residents, overseen by Lusail Real Estate Development Company (LREDC) as Master Developer and involving many Agencies and Sub-Developers all with a mutual interest in delivering a vibrant and successful world class coastal city. The development will feature State-of-the-Art Mass Transit Networks, Infrastructure services and a range of Residential, Mixed-Use, Hospitality, Sports, Retail & Entertainment venues and districts. With an over-riding sustainability-driven development strategy LREDC is a key part of delivering Qatar's forward thinking, Global vision for a sustainable approach that befits our times.

To help guide and ensure integrated and high quality delivery of all development, a suite of integrated design guidelines and controls has been prepared for each district.

These documents provide a single series of design codes and guidelines that explain the masterplan intent, its districts and respective parcels as well as the design guidelines for a variety of development typologies across the masterplan. Each district document has its own brand colour to make the family of documents more legible to use.

Each document is comprised of two sections:

- > Section 1: Masterplan Overview
- > Section 2: District Overview / Design Guidelines & Controls

## Document Organisation

### Section 1: Masterplan Overview

This section introduces the project, its vision and development strategy and its overall significance to Doha and Qatar.

It confirms the status of the development within the national and municipal planning frameworks and shows how the guidance fits into the planning and construction process.

This section also sets out the rationale behind the overall masterplan for the Lusail development, including:

- > The Vision for the area's development
- > The character of its component parts, including retail and employment, centres, residential suburbs
- > The transport and green space networks that link its different districts
- > The overall guidelines applicable to all development



Image by others

## Section 2: District Design Guidelines & Controls

This section provides two layers of design guidance:

- > District Wide Guidelines: Set out a series of urban design frameworks to explain the design context for individual or multiple plot developments.
- > Parcel & Plot Guidelines: Explain the design parameters and approach to be used by the sub-developers at the parcel and plot levels.

The District wide guidelines explain the key development and planning principles for each neighborhood within a district, together with any district distinguishing features and treatments to be applied.

The sub-developer will need to carefully read and understand the District wide context to ensure that their parcel or plot developments are contributing to the overall success of the District.

The Parcel & Plot guidelines explain the typical & mandatory plot controls along with the guidance on the design intent such as the expected form, style and material treatments for a development.

Section 2 emphasises the importance of the street composition and public realm design. It is important that all sub-developers consider the street and adjacent plots so that their development contributes to the overall District, Neighbourhood and Street intended sense of character.

The Section 2 guidelines cover:

- > Character Guidelines
- > Parcel Typology Design Guidelines
- > Parcel Architectural Guidelines
- > Parcel Landscape Guidelines

## Building Regulation Sheets

The Plot Building Regulation sheets provide the legal basis for development, setting the conditions of permissible development for each plot and parcel. These are issued to the plot owners at the time of purchase as separate documentation to the Design Guidelines & Controls.

Sections 1 and 2 of the Design Guidelines & Controls are the supplementary documents to the Plot Building Regulation Sheets and provide additional information on how the Plot Building Regulation conditions should be used and understood.

# SECTION 1

MASTERPLAN OVERVIEW

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Aerial photo of the site area - October 2013

# 1.1 PURPOSE OF SECTION 1

## 1.1.1 PURPOSE OF SECTION 1

Section 1 sets out the broad principles for the Lusail Masterplan together with an overview of the Character and Design Framework for each District.

Section 1 is to be read in conjunction with Section 2 and the Plot Building Regulation sheets.

Together these sections provide all the development and design guidance required for Investors, Owners and Sub-developers to understand and comply with the design / development quality, aspiration and requirements of Lusail City.

The guidance ensures that there is sufficient scope for design and development expression so that each plot can meet sub-developer / owner expectations. Section 1 will help ensure that each plot within the Lusail Development meets the overall masterplan expectations.

Section 1 describes the significance of the Lusail Development along with the overarching principles and concepts within the city-wide masterplan.

Section 1 explains city-wide development aspects that integrate all the districts such as highway and utility infrastructure, key features and landmarks, principle boulevards and promenades, key amenities and overall open space network.

Section 1 sets out the general development rules, standards and constraints for the development, including general design principles to be observed at district, street / neighbourhood and parcel / plot level.

## 1.1.2 OTHER REFERENCE PUBLICATIONS

It is expected and required that all Sub-Developers refer to and comply with other statutory documents / codes issued by The Ministry of Municipality and Urban Planning (MMUP) as well as other Government Departments and Agencies.



## 1.2 MASTERPLAN OVERVIEW

**Lusail is a 38 square kilometer development for 200,000 residents and planned by Qatari Diar Real Estate Investment Company (the “Master Developer”) on a land located on the north of the city of Doha**

### 1.2.1 LUSAIL LOCATION & CONTEXT

Lusail is located north of Doha (Figure 1), capital of Qatar. Lusail is one of the most significant developments planned for Qatar, providing a hub for new growth and a new waterfront setting for living, working, and recreation.

The city has a projected population of 200,000 with approximately 170,000 transit work force and 80,000 visitors. It includes land bounded by the sea to the East, the Al Khor expressway to the West, and extends approximately 7km North of the Ritz Carlton Hotel / Pearl Development Area (Figure 1). The development will be a new, vibrant and world class master-planned city district and urban environment with a coherent and self-sustaining mix of residential, commercial, retail, recreation, sports, education, leisure and hospitality uses. Lusail city includes significant resorts and

entertainment venues, that will attract international visitors and expatriate residents as well as Qatari nationals.

The existing coastal area will be transformed through a controlled development strategy that will create a range of waterfront, island and inland environments and characters. Lusail City will provide an environment for businesses and families. It will attract discerning investors seeking freehold property opportunities. Lusail City will be professionally managed and procured to the highest levels of quality via the Master Developer’s property development & management company - Lusail Real Estate Development Company (LREDC).



Figure 1- location plan (Image by others)



Figure 2 (image by others)

### 1.2.2 VISION

The Vision for Lusail is for a complete 21st Century Capital City Quarter, offering a broad array of quality leisure facilities, with a range of well-planned neighbourhoods designed to appeal to families, couples and individuals with different needs and aspirations.

The illustration above, Fig. 2 shows the extent of the development.

Lusail City will provide a regional focus for sports and leisure entertainment, with shops and value-added employment activities providing unrivalled diversity across the 38 square kilometres of the site. Lusail City will become one of Doha's most sought-after addresses with a range of villas, townhouses and apartments designed in a variety of styles. The development will be served by a comprehensive highways and path systems, integrated with engineered utility services, within a green network of parks, promenades and waterfront spaces which link the neighbourhoods with destinations and community facilities.

Each neighbourhood cluster will have its own facilities, including shops, schools, parks, healthcare and places of worship, each scaled to suit its catchment.

Lusail Development will be sold as a series of serviced land parcels and plots, for corporations, development companies, families and individuals to purchase and develop to their own needs. In-addition to Plot Building Regulation Sheets, these needs will be guided through design codes in Sections 1 and 2.

### 1.2.3 GUIDING PRINCIPLES

Lusail has been developed as a holistic masterplan, featuring low to medium density development comprising a number of different communities designed and planned to complement Doha's existing facilities and features.

It is held together within a well-conceived framework of luxuriant boulevards, parks, waterside drives and informal spaces which lend character and appeal to each part of the plan.

The guiding principles relate to the communities the masterplan will ultimately serve, as well as the networks underlying the masterplan for site-wide access and utility provision. These are scaled to fit with the density of Lusail's urban form. The principles are reviewed in summary below:

- > Identifiable, self-contained clusters - ensuring each neighbourhood and cluster has its own sense of place and special character, by virtue of its landscape and architectural form. Planned to operate in isolation, while contributing to the wider masterplan.
- > Complete communities - providing the necessary facilities for each neighbourhood including public transport facilities, local shops, estate management, schools, clinics, parks & recreation facilities and places of worship.
- > Fixed densities - the capacity of the masterplan's infrastructure is finite and has been scaled to accommodate the profile of uses and densities proposed. For this reason the density limits of

the Plot Building Regulation sheets must be strictly observed so that the completed development can operate within its means.

- > Green communities - extensive use of soft landscape is made possible through the creative reuse of available recycled water. This relies upon the participation of developers & occupiers to plant and maintain low demand (xeriscape) species & adopt a conservative approach to water use.
- > Hierarchical infrastructure - roads and access infrastructure have been designed as an efficient and legible series of connected routes designed to service the needs of residents, businesses and visitors.
- > Landmark waterfront - world-class attractions and vibrant outdoor spaces connecting the marinas, promenades, beaches and waterfront residential areas as a cohesive edge to the development.
- > Gateway identity - key vehicular entrances to Lusail and its districts are marked with high quality built form and landscape to promote the project.
- > Cohesive urban design - a simple system of codes are applied to the built form and landscape of the development to ensure each parcel meets the masterplan's intent.
- > Climatically responsive - planned and designed according to the national GSAS code for sustainable construction, ensuring resource and energy consumption is minimised while maximising quality of life.

## 1.3 MASTERPLAN DISTRICTS

**Lusail is composed of a number of different districts, each placed to reinforce the other, and designed to reflect the latest best practice**

### 1.3.1 THE DISTRICTS

The masterplan shown in Figure 3, is made up of 19 main districts, each with its own character and purpose.

The 19 districts are:

- > GOLF DISTRICT
- > NORTH & WATERFRONT RESIDENTIAL VILLAS
- > AL KHARAEJ
- > WATERFRONT COMMERCIAL – SEEF LUSAIL
- > FOX HILLS NORTH
- > FOX HILLS SOUTH
- > AL ERKIYAH
- > STADIUM DISTRICT
- > BOULEVARD COMMERCIAL + LUSAIL TOWERS
- > ENERGY CITY 1 - CORPORATE
- > ENERGY CITY 2 - RESIDENTIAL
- > ENTERTAINMENT CITY
- > ENTERTAINMENT ISLAND
- > MEDICAL EDUCATION 1 (SOUTH)
- > MEDICAL EDUCATION 2 (NORTH)
- > MARINA DISTRICT
- > QETAIFAN ISLANDS NORTH
- > QETAIFAN ISLANDS SOUTH
- > WATERFRONT RESIDENTIAL

A description of each district is provided on the following pages.



Figure 3 - Illustrative Masterplan (image by others)

### 1.3.2 LUSAIL DISTRICTS DESCRIPTIONS

#### GOLF DISTRICT

The Golf District is comprised of one 18-hole golf course and luxury housing with large shaded patios, open gardens and landscaping, reflecting an outdoor, leisure oriented lifestyle.

**Density/Height:** Low

##### Development Summary

Land Area	366 Ha
Population	29,000
Total	22,000 Residents
GFA	1,800,000m <sup>2</sup>
Building Heights	2-5 levels



#### NORTH RESIDENTIAL VILLAS + WATERFRONT RESIDENTIAL VILLAS

The North Residential Villas and the Waterfront Residential Villas is a community planned to serve the local population with a total of 895 large villas in high quality vernacular or contemporary style architecture.

**Density/Height:** Low

##### Development Summary

Land Area	126 Ha + 52 Ha
Population	7,100
Total	5,400 Residents
GFA	950,000m <sup>2</sup>
Building Heights	2 levels



#### AL KHARAEJ

Located strategically between the Golf course and the Waterfront Residential area, the Al Kharaej is designed to accommodate 42 residential towers. The architecture is a regionally influenced Arabic style blended with contemporary international design.

**Density/Height:** Medium - High

##### Development Summary

Land Area	29 Ha
Population	11,000
Total	10,500 Residents
GFA	550,000m <sup>2</sup>
Building Heights	15-20 levels



## STADIUM DISTRICT

Centred on the venue for the opening and closing ceremonies of the FIFA 2022 games to be held in Doha, this stadium will have a seating capacity of up to 87,000 spectators.

**Density/Height:** As required

### Development Summary

Land Area	100 Ha
Total Population	87,000 Event Visitors
GFA	TBD
Building Heights	TBD

## BOULEVARD COMMERCIAL + LUSAIL TOWERS

The heart of Lusail City, comprised of a central boulevard with mixed use developments of high end retail at the lower levels and offices above. The scale of the street and the buildings are modelled on the Champs-Élysées with a focus on branded mega stores and a range of commercial and cultural activities.

**BC- Density/Height:** Medium - Low  
**LT - Density/Height:** High

### Boulevard Commercial Summary

Land Area	52 Ha
Population	20,900
Total	5,500 Residents
GFA	760,000m <sup>2</sup>
Building Heights	3 - 6 levels (F.Center 7-12)

### Lusail Towers Summary

Land Area	16 Ha
Population	19,300
GFA	620,000m <sup>2</sup>
Building Heights	55-80 levels

## ENERGY CITY 1 - CORPORATE

Energy City 1 is the first energy business centre to exclusively fulfil the commercial, technical and human resource needs of the oil and gas industry in the region. All buildings in this development will be designed with GSAS criteria to achieve high quality and sustainable "Green Buildings".

**Density/Height:** Medium

### Development Summary

Land Area	72 Ha
Population	25,000 employees
GFA	1,000,000m <sup>2</sup>
Building Heights	4 levels



### WATERFRONT COMMERCIAL – SEEF LUSAIL

The Waterfront Commercial District is a retail and an entertainment destination with boutique and lifestyle shopping, combined with residential and office space. Pedestrian connectivity between the developments will lead to the contiguous waterfront public realm.

**Density/Height:** Medium - High

#### Development Summary

Land Area	54 Ha
Population	29,700
Total	9,600 Residents
GFA	690,000m <sup>2</sup>
Building Heights	3-15 levels



### FOX HILLS NORTH AND FOX HILLS SOUTH

The Fox Hills Districts are a medium density residential development intersected by a landscaped framework of linear parks radiating from the Crescent Park. The main commercial spine running North-South together with pocket parks organizes the district into smaller precincts. Mixed uses are located on the central axis and surrounded by residential blocks.

**Density/Height:** Medium

#### Development Summary

Land Area	168 Ha
Population	50,000
Total	38,600 Residents
GFA	2,100,000m <sup>2</sup>
Building Heights	5-8 levels



### AL ERKYAH

The Al Erkyah district is an integration of mixed-use residential interlinked with open space networks and unique commercial and medical land use. The vision for this medium-density district is to maintain a healthy environment by minimizing internal traffic and congestion and to provide a unique landmark along Al Khor highway.

**Density/Height:** Medium

#### Development Summary

Land Area	26 Ha
Population	12,000
Total	10,600 Residents
GFA	640,000m <sup>2</sup>
Building Heights	8-10 levels



## ENERGY CITY 2 - RESIDENTIAL

Energy City 2 is a high density residential development to cater for the housing needs of the population working in Lusail and particularly in the Corporate District. Contemporary international design with a focus on harmony between users and its surroundings will characterize this development.

**Density/Height:** Medium

### Development Summary

Land Area	46 Ha
Population	20,700
Total	18,000 Residents
GFA	980,000m <sup>2</sup>
Building Heights	5-7 levels

## ENTERTAINMENT CITY

The Entertainment City is designed to accommodate 2,000 residential units, 11 hotels, a cineplex, nightclubs, theme parks and shopping areas.

**Density/Height:** Medium

### Development Summary

Land Area	98 Ha
Population	32,400
Total	8,400 Residents
GFA	1,020,000m <sup>2</sup>
Building Heights	4-13 levels

## ENTERTAINMENT ISLAND

Linked to the Entertainment City, this island will provide entertainment facilities and hotels with a recreational theme.

**Density/Height:** Medium

### Development Summary

Land Area	23 Ha
Population	4,200
GFA	220,000m <sup>2</sup>
Building Heights	2-12 (for hotel only)



## MEDICAL & EDUCATION (NORTH AND SOUTH)

A Community District with schools, hospitals and associated medical suites and staff accommodation nested amongst a lineal parkland. Lusail City and its neighboring residents will be well catered for, with a range of amenities including schools, mosques, local retail establishments, state-of-the-art hospitals and medical facilities.

**Density/Height:** TBD

### Development Summary (North)

Land Area	164 Ha
Population	TBD
GFA	1,150,000m <sup>2</sup>
Building Heights	TBD

Also, medium density residential developments will be arranged in a park-like setting with road connections that unite the natural and man-made 'green' surroundings.

### Development Summary (South)

Land Area	55 Ha
Population	TBD
GFA	457,000m <sup>2</sup>
Building Heights	TBD

## MARINA DISTRICT

This is the Downtown of Lusail comprising high-rise towers for office, residential, hotel and retail uses connected to a continuous boardwalk. The buildings will be designed in an international contemporary style and served by a light rail transit network.

**Density/Height:** High

### Development Summary

Land Area	188 Ha
Population	103,900
Total	31,000 Residents
GFA	3,600,000m <sup>2</sup>
Building Heights	15-60 levels



### QETAIFAN ISLAND NORTH AND QETAIFAN ISLANDS SOUTH

The Qetaifan Islands are a group of 4 islands just off the Lusail Waterfront. The islands are master planned to create the best natural beaches in Doha with a choice of resort type villa developments and medium density terraced apartments. Tourist resorts/ boutiques, hotels, traditional Souqs and a marina for 400 large boats will be accommodated along its waterfront.

**Density/Height:** Low

#### Development Summary

Land Area	256 Ha
Population	37,500
Total	15,000 Residents
GFA	1,980,000m <sup>2</sup>
Building Heights	2-4 levels

### WATERFRONT RESIDENTIAL

The Waterfront Residential District is an exclusive high-rise residential development with luxury towers and private beaches with outward views across the Gulf.

**Density/Height:** Low-High

#### Development Summary

Land Area	53 Ha
Population	19,000
Total	17,000 Residents
GFA	940,000m <sup>2</sup>
Building Heights	20-36 levels



## 1.4 MASTERPLAN STRATEGIES

**The land use framework for Lusail Development has evolved since 2006. The latest land use framework incorporates new sporting attractions to accommodate World Cup events for 2022**

### 1.4.1 LAND USE STRATEGY

The physical and economic impacts of the Lusail Development will be significant and strategic - it will be the home to more than 200,000 residents with further significant employment provided by a range of offices, leisure, entertainment, retail and education facilities.

In addition, Lusail City's Stadium District has been designated as the focal site to accommodate the Premier 2022 FIFA World Cup Flagship Stadium venue that will feature the Opening Ceremony and final play-off matches.

Strategically, this stadium with the others Several World Cup stadia will give Lusail City an International destination status that will ensure positive implications for the residents, businesses and visitors alike.

The latest Land Use Strategy Plan for Lusail City is illustrated in Figure 4.

The development will incorporate the following elements:

- > Residential: Luxury villas & apartments.
- > Community services: Civic offices, schools, clinics, mosques, parks and open spaces.
- > Hospitality: Hotels, residents' clubs.
- > Entertainment: Arenas, stadia, theme parks and water-related venue activities.
- > Commercial development: Open retail (boutique shops & restaurants), local/ neighbourhood shops, corporate offices and mixed use development.
- > Amenities: beaches, golf, marina berths.



Figure 4 - Land Use Plan

**Lusail will be defined by its verdant open spaces network and the quality of its waterfront featuring sandy beaches, vibrant promenades and prestigious marina facilities**

#### 1.4.2 OPEN SPACE STRATEGY

Lusail has been planned with consideration for open space and access to parks, recreation areas and waterfront at its very heart. Lusail recognises the importance of quality open space and public realm in the creation of superb liveable Districts and Neighbourhoods.

Lusail's open space network will not only provide public spaces for general outdoor enjoyment but is also critical to supporting a general sense of pride and place for residents and visitors alike.

Parks and open-spaces in the District will be provided for community focus and local identity and will support localized neighbourhood activities.

The open space network is also an integral part of Lusail's sustainability-driven precepts and a fundamental part of the movement strategy across the City. A comprehensive system of walks and bicycle routes link all neighbourhoods to all major parks and waterfront areas. All residents, workers and visitors will have easy access to Lusail's amenities without the need to rely on vehicles.

The Master Developer is investing in the overall open space and public realm. Sub-developers and investors will have the benefit of a high-quality network of streets and open spaces that their developments can use.

The plan in Figure 5 sets out the respective open space components, with their relationship to their immediate context and the waters of the Gulf.



Figure 5 - Open Space Plan

**The transport strategy makes provision for all modes and facilitates comprehensive access by road and by sustainable transport**

#### **1.4.3 TRANSPORTATION STRATEGY**

Lusail features a range of city-wide transport and infrastructure initiatives to ensure its seamless connection with greater Doha and elsewhere.

This includes LRT tram, bus and ferry networks, as well as facilities for cyclists and pedestrians. This transit network will provide for interconnected circulation between home, work, open space and recreation areas. The plan in Figure 6 illustrates the fully developed transport network that will serve Lusail generally and each district and parcel.

Lusail's proposed road network will form the spine for its utility infrastructure, by incorporating its electrical, water supply, surface water drainage, irrigation, sewerage and telecommunications distribution networks and systems. All services will be available at the boundary limits of each subdivision parcel.

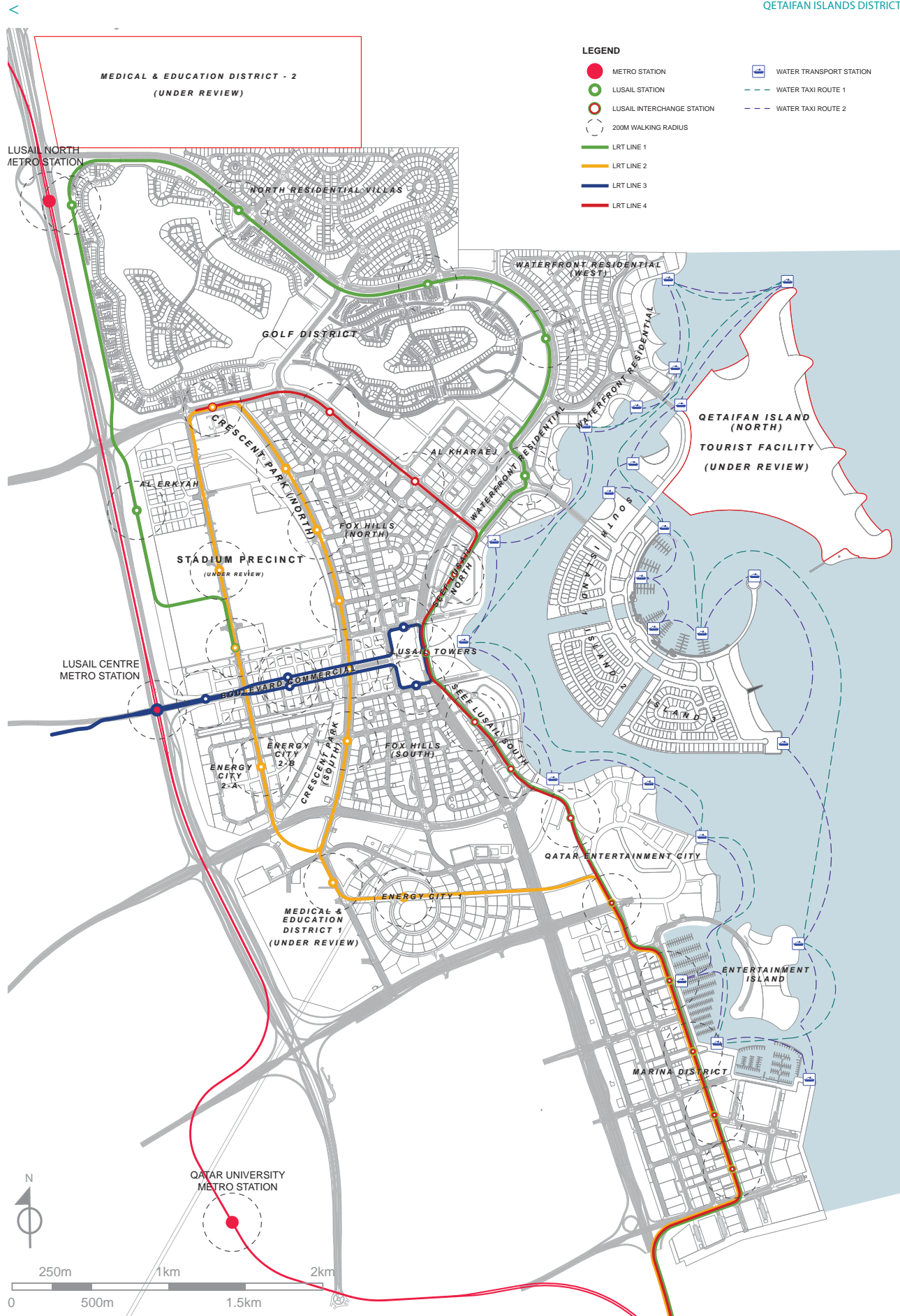


Figure 6 - Transportation Strategy

## 1.5 MASTERPLAN REGULATIONS

**The requirements described in this section are mandatory and must be incorporated into all development proposals**

### 1.5.1 LAND USE

#### Permitted Land uses

The land-use distribution and quantum for Lusail City has been carefully developed to ensure that the predicted resident and worker population are served by world class transit, infrastructure, amenities and open space networks. The overall masterplan land-use zoning and quantum of development is to be maintained and respected. It is expected that all sub-developer proposals will be in accordance with the masterplan described in “1.4 Masterplan Strategies” above.

Permitted land-uses include mixed-uses, residential, offices, commercial, hospitality, entertainment, cultural, religious, health and education. The zoning of the permitted Land use for Lusail City is shown in Figure 4.

#### Non Permitted Land-Uses

These include, but are not limited to; industrial, manufacturing, warehousing activities and any use which produces excessive noise, odour, light or environmental nuisance.

### 1.5.2 GENERAL STANDARDS

#### Building Design

All building works must meet all local required and applicable building codes, submissions, approvals and permits. It is a requirement that all development within the Master Community “Lusail” respects the architectural styles defined by the Master Developer for each district and land use and cultural traditions of the region.

All designs submitted as part of the statutory approvals procedure will be required to demonstrate conformity to the ideal which is intended to unify the whole development and to establish clear identity and distinctive character. Aesthetically pleasing developments of high quality shall be created, which harmonise with the environment and local cultural traditions.

Innovative sustainable building design is encouraged. Buildings shall have a carefully considered identity and appearance, reflecting the character spirit and cultural background of Lusail with modern and contemporary building techniques.

Buildings should create at the pedestrian and street level a high quality public and private landscape environment. Building design shall encompass all structures on site, including those for maintenance, storage and servicing.

### Landscape and Public Realm

A high quality Private and Public Realm is of great importance to the success of Lusail City. Developers are expected to prepare and deliver high quality landscape design.

In-addition to Architectural design all development proposals will be expected to include high quality landscape design showing details of all landscaped areas to the parcel / plot not limited to but including planting areas, hard areas, walls, landscape features, pools, lighting, shade structures must.

The landscape design must also indicate treatments for private plot to public area interfaces not limited to but including interfaces with side-walks, points of access, streets, open spaces and all other public areas.

### Sustainable Design

All buildings and landscape areas are expected to meet GSAS requirements of GORD and Lusail City. This applies to building performance -that should be designed to minimize energy-, to water consumption and to landscape areas tolerant plant species and low water use irrigation systems.

Where proposals better these minimums and can demonstrate significant sustainable improvements, the Master Developer may offer incentives including GFA gains. These will be considered on a project by project basis.

### Waterfront Design

Lusail City includes extensive areas of waterfront. All development that interacts or faces water or beachfront must be of the highest quality. Significant investment has been made to all waterfront areas to meet the masterplan intent.

Completed and constructed beach and shoreline protection are not to be modified. Any modifications proposed will be required to meet all necessary Authority standards and permits as well as the design aspirations of the Master Developer. This includes any proposals which project beyond the waterfront boundary line such as jetties, walkways, pontoons or other boat landing and mooring facilities.

Boat maintenance, fuelling or storage of fuel and oil are strictly forbidden on the waterfront of any property except where designated for particular sites.

No waterfront development is permitted that will adversely impact on the privacy, use or character of adjacent plots or public areas.

### Access, Servicing & Parking Design

Vehicle access to plots and building plots is permitted only from the access roads and points indicated in the Plot Building Regulation sheets unless otherwise agreed with Master Developer and subject relevant Authority standards and permits.

Access and service areas for delivery, garbage collection and other service traffic should be separated from other traffic movement.

Plot owners must provide all required parking on site. At least two parking spaces or 2% of the required parking shall be for the disabled.

Surface Parking areas shall be landscaped to a high quality and should include adequate shading. All parking areas are to connect with the local pedestrian path system. This connection must be clearly visible and accessible to all.

Typical Parking spaces are to be minimum 2.65m x 5.8m with minimum aisle width for perpendicular parking to be 6.7m unless otherwise agreed and subject to Authority requirements and standards.

Parking shall also be provided in appropriate locations for bicycles, motorbikes, and motorcycles.

### Universal Access Design

The aspiration for Lusail City is to maximise opportunities for universal (disabled / handicapped) access for all disabilities. All proposals should provide for barrier-free access in accordance with recognised best international practice. All development proposals will be expected to include and show universal access details including but not limited to access paths, ramps and building entrances.

#### Security

Building security should be provided at the building perimeter rather than at the site perimeter. Protection of grounds and landscaping should be by means of dwarf walls, berms, planters, etc.

Where a pedestrian path lies within the site, free public access must be provided at all times. If security gates, high boundary walls and guard posts are to be installed, they must be included in the design drawings and specifications and approved by the Master Developer.

#### Security Design

Security Design should be integrated into all development proposals as required. Where special high security measures are required such special gates, special boundary walls, special guard posts, etc., these will be expected to be well integrated into the overall design in such a way that they are not obtrusive and do not adversely impact on adjacent plots and public areas.

### Design of Levels and Drainage

All development proposals will be expected to integrate seamlessly into the levels of their surroundings and meet relevant Authority standards and permits. Site and context levels must be carefully checked and referenced.

At grade levels within the plots must be designed to integrate well with external levels, especially side-walk and street levels without the requirement for steps and ramps.

All plot generated surface water run-off, storm drainage and roof drainage must be disposed off within the site boundaries and not directed into adjacent roads or properties or beach, or into the sanitary sewer system.

#### Garbage / Refuse Storage

Storage areas for waste material must be carefully designed to allow required access for waste collection whilst being screened from building users, adjacent buildings and public streets and areas. Provisions must also be made to minimise bad odours and control pests.

#### Integration of Services

All service connections will be subject to compliance to the relevant Authority standards and to obtaining the required permits. It is also of critical importance that service connections are well integrated into the overall building and site design. It is expected that all service connections design will be to a high quality so that services are not visible and do not affect the quality or appearance of the site or building.

### Site Lighting Design

Development proposals will be expected to include high quality lighting design showing details of all lighting to the parcel / plot.

Exterior lighting fixtures including high intensity lighting shall be mounted such that light does not adversely affect adjoining sites and public spaces. Landscaped and parking areas should be provided with adequate lighting so as to ensure safety and security.

### 1.5.3 BUILDING CODES

#### Qatar Building Codes & Regulations

All Designs must be in accordance and compliant with applicable regulations and standards of all relevant Qatar Government Authorities and Agencies.

#### International Standards & Codes

Relevant International Codes and guidance documents for each design discipline may be applied subject to Master Developer agreement and approval by relevant Qatar Government Departments and Agencies.

## 1.6 REVIEW & APPROVAL PROCESS

**All Development & Design Proposals by Sub-Developers must obtain the approval of the Master Developer.**

**The Plot Building Regulations are mandatory; the guidelines in Sections 1 & 2 provide supplementary controls and guidance that are to be adhered to in order to meet the overall masterplan and design intent and expectation of Lusail City**

### 1.6.1 STATUS

The Lusail Planning & Design Guidelines comprise 2 Sections which set out the Master Developer's regulations and design intent for Lusail City.

The Plot Building Regulation sheets are augmented by Sections 1 and 2 which set out the guidelines for the development of the overall masterplan and the design principles for each district, parcel and plot.

Sections 1 and 2 are to be read and used in conjunction with the Plot Building Regulation sheets. This will ensure that Owners, Sub-Developers and other Stakeholders have a full understanding of the mandatory regulations and the design intent, principles and guidance that are required by the Master Developer.

### 1.6.2 SUPERSEDED GUIDANCE

From time to time LREDC may make changes to rules, regulations or guidelines that apply to development in Lusail.

The Lusail Planning & Design Guidelines contained herein replace the Site Specific Planning & Design Regulations (SPA documents) issued as part of the sales and purchase agreement between LREDC and the owners of Lusail plots.

Please note that the Plot Building Regulation sheets issued to owners are retained. Section 1 and 2 provide supplementary guidance to the regulations indicated on the Plot Building Regulation Sheets.

### 1.6.3 THE APPROVING AUTHORITY

#### Lusail City Administration Complex

The Lusail City Administration Complex (CAC), a department within LREDC, will act as the development control authority for Lusail City districts, hereinafter referred to as CAC.

CAC will be responsible for:

- > Ensuring compliance with the Planning and Design Guidelines and Controls for Lusail City, and administering any amendments to the said rules.
- > Establishing an internal Architectural Review Committee to consider and make decisions on development applications and design concepts;
- > In making its determination and exercising any discretion allowed under the Planning and Design Guidelines and Controls, CAC will take into consideration:
  - > *The Lusail Masterplan and other plans in use by the Master Developer for Lusail City development; and*
  - > *All other applicable rules, technical codes, design guides and regulations in use by the Master Developer.*

It should be noted that the Planning and Design Guidelines and Controls are not intended to retract, annul, impair or interfere with existing by-laws, decrees, regulations, or limitations running with the land.

#### CAC Powers and Duties

Lusail City Administration Complex (CAC) has a number of powers and duties as follows:

- > CAC shall administer and enforce the Design Regulations and Guidelines.
- > CAC shall be responsible for issuing Concept Design, DC-1, Services Review and DC-2 approvals.
- > Al Daayen Municipality shall be responsible for the issuance of Building Permits for developments which have received approval from CAC.
- > CAC shall have the power to interpret these Design Guidelines and Controls and to clarify any ambiguities contained therein.
- > CAC's decision shall be final and binding on the Developer.

#### Interpretation

If a question arises concerning discrepancies, inconsistencies or ambiguities within the Design Guidelines and Controls, CAC shall interpret the rules and shall render a decision to clarify the question. CAC's decision shall be final and binding.

#### Relevant Authorities and Approvals

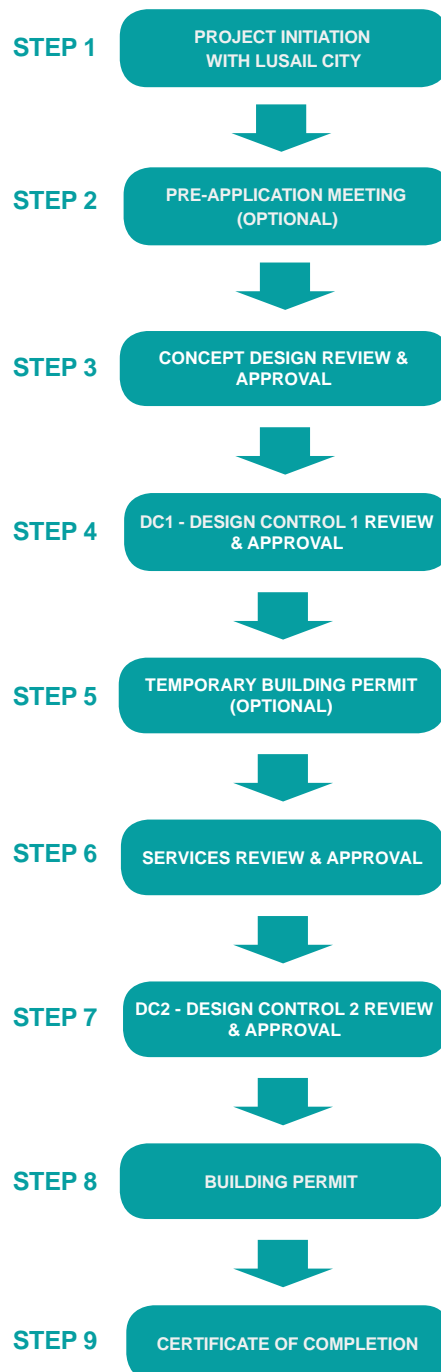
Nothing in these Design Guidelines and Controls shall relieve the Developer of the responsibility for also meeting the technical requirements of, and securing relevant approval(s), NOC(s) or permit(s) from, any government agency or entity or other third party having jurisdiction over the development activities and the use of land at Lusail, including but not limited to:

- > MMUP
- > Al Daayen Municipality
- > Karahmaa
- > Ashgal
- > Ooreedoo
- > Marafeq (SNG, District Cooling, Vacuum Waste)
- > The Department of Civil Defense
- > Ministry of the Environment
- > Civil Aviation
- > Ministry of the Interior (Mol)
- > Gulf Organization for Research & Development (GORD)

Written evidence of such approvals, permits, NOCs, or other permissions (if required) must be submitted to CAC prior to the start of the construction.

#### 1.6.4 OVERVIEW OF REVIEW & APPROVAL PROCESS

The overall development and design review and approval process is summarized by the following steps and described in detail in the subsequent paragraphs.



### STEP 1 PROJECT INITIATION WITH LUSAIL CITY

The Plot owner must initiate a project with LREDC by submitting a letter to the CAC director, appointing a qualified local registered consultant to act his behalf.

### STEP 2 PRE-APPLICATION MEETING OPTIONAL

All Parcel / Owners are recommended to initiate a pre-application meeting with CAC. A meeting will be held upon Developer request.

This is especially important where 3<sup>rd</sup> party Developers and Design teams are:

- > New to the Lusail City Project
- > Dealing with medium to large developments (small proposals such as single villa applications will not require pre-application)
- > Dealing with complex development proposal.

If a 3<sup>rd</sup> party Developer and Design team is unclear whether the pre-application stage is needed then they should contact CAC for clarification.

It is the responsibility of the Owners / Sub-Developers Project Team to initiate this.

- > The purpose of the pre-application meeting is to have dedicated CAC staff time to answer questions regarding a project proposed in Lusail City before a project is formally submitted for review.
- > These meetings can be used to identify and resolve key issues related to the development site, and highlight project opportunities and constraints.

- > The Project Team will be expected to provide sufficient project vision information such that development and design queries or ideas can easily be responded by the CAC team. Ideally this information will be summarised in a short presentation. If required this will include submission of Vision Computer Generated Images (CGIs).
- > Pre-application meetings help consultants better understand the expectations that LREDC has for development in its Master Plan. This will ensure that a complete development application is submitted by the project team and this will help save time in the design and approval process.
- > No formal approvals are granted at vision and pre-application stage. A record of any meetings / presentations will be prepared by the Project Team and issued to CAC. CAC reserves the right to clarify any item in the submitted record.

#### Early Ideas & Vision CAC Support

At the pre-application meeting CAC will explain the development review process and outline the Lusail Master Plan development controls and design guidelines that are applicable to the parcel and / or plot.

CAC will provide information on new or emerging initiatives (eg. new policies, infrastructure and utility investments, sustainability, circulars) that could influence or affect the site development or design processes.

CAC can also give some guidance on vision options that the Project team may have prepared prior to the pre-application meeting.

### STEP 3 CONCEPT DESIGN REVIEW & APPROVAL

CAC will review Concept Design applications against the Lusail City Master Plan, Plot Building Regulations and District Design Guidelines.

Concept Design proposals are to consist mainly of 3D rendering day and night images, illustrating desired character and outcome of the development.

These elements are presented to the CAC Architectural Review Committee.

The Committee will provide feedback on the project and direct the design team to either modify the proposed concept design or to proceed to DC-1 the next stage in the development review process.

### STEP 4 - DC-1 DESIGN CONTROL 1 REVIEW & APPROVAL

DC-1 is the first Architectural approval design step for a proposed development in Lusail City. In the DC-1 stage, CAC Development and Technical teams will evaluate the project's consistency with Lusail City's Master Plan, Plot Building Regulations and Design Guidelines.

Initial fire safety approvals are also required at this stage from Qatar Civil Defense Department.

DC-1 endorsement provides assurance to the developer and design team that the project is consistent with the Lusail City Master Plan.

CAC's endorsement of the DC-1 allows the project's design development to proceed to the next design stage.

It is important that the Architectural / Design proposals show preliminary consideration for other key aspects including infrastructure, utilities, access and parking as well as landscape design aspects.

The interface between Lusail infrastructure conditions and the proposed project will be evaluated to identify potential clashes; and, any such utility clash or connection clearance or dimensional issue should be resolved in principle at this stage.

In addition to regulatory requirements under the Master Plan, CAC Development and Technical teams will evaluate architectural design details such as parking layout, façade design and materials, space planning for services and landscape concept.

#### **STEP 5 - TEMPORARY BUILDING PERMIT (OPTIONAL)**

A temporary building permit can be obtained after the DC-1 stage for enabling works subject to Lusail approval.

Access to site for enabling works must follow LREDC's Site Access for Construction procedures.

#### **STEP 6 - SERVICES REVIEW**

At this stage the consultants will obtain approvals from relevant agencies for electrical, telecommunications, water & irrigation and drainage.

Marafeq engineers will advise on gas, district cooling, pneumatic waste collection and Mol will advise on CCTV and civil defense. Engineers will review plans against the standards, guidelines and codes imposed by the relevant authorities.

All authorizations shall be obtained from relevant agencies prior to DC-2 submittal.

#### **STEP 7 - DC 2 - DESIGN CONTROL 2 REVIEW & APPROVAL**

DC-2 is the final architectural design step in the approval process of a proposed development in Lusail City.

The DC-2 stage generally corresponds with the design industry's detailed architectural design phase that coordinates and resolves all architectural design issues that surface in the Services Review Stage.

At DC-2 CAC planners will evaluate the project's consistency with approved DC-1 and will verify that services drawings are coordinated with the architectural drawings.

DC-2 endorsement allows the project owner to pursue a building permit for the proposed project.

A letter of undertaking will be provided by the Project Owner / Consultant Team for the Structural Design and where needed GSAS, Landscape Design and other key aspects.

#### **STEP 8 - BUILDING PERMIT**

Upon receiving design approval the project developer can apply for a building permit.

CAC will administer the building permit application and fees. Al Daayen Municipality will issue a building permit based upon a DC-2 approval from CAC.

Building permits will be issued by Al Daayen Municipality and received from CAC.

Access to site for enabling works must follow LREDC's Site Access for Construction Procedures

#### **Site Access for Construction**

Once the Building Permit is approved and issued the developer must apply for authorization for site access prior to commencement of construction.

The application will be reviewed for consistency with LREDC standards for enabling works, HSE and logistics requirements and land hand over requirements.

#### **STEP 9 - CERTIFICATE OF COMPLETION**

## **PLANNING & DESIGN GUIDELINES CHECKLIST**

A planning & design guidelines checklist has been prepared to assist Owner / Developer project teams in assessing and adhering to relevant planning and design guidelines.

All project teams will be expected to read, refer to and use the Lusail Planning & Design Guidelines documentation in the preparation of their development and design proposals.

## **GSAS IN LUSAIL**

Lusail City is committed to the principles of sustainability and green buildings. As such, all projects in Lusail must attain a GSAS two-star rating under the Gulf Organization for Research & Development's (GORD) GSAS rating system.

All projects should be conceived as "green" buildings early on in the design process and sustainability strategies carried forward in the project's design development and execution.

Demonstration of this is required in all stages of the CAC's development review and approval process.

GORD administers GSAS and is the entity that determines a building's star rating.

GORD works hand-in hand with CAC during the development review process and should be consulted early on to determine the requirements for the star-rating the project is seeking to achieve.

# SECTION 2

DISTRICT GUIDELINES & CONTROLS  
RESIDENTIAL & NON RESIDENTIAL

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## 2.1 HOW TO USE THE DESIGN GUIDELINES & CONTROLS

**This document provides an overview of the Island, as a subdivision level framework for plot owners, developers and their advisors, allowing compliant designs to be developed for individual plots.**

**The Design Guidelines document is a set of development rules and conditions established to ensure the intent of the master plan for Qetaifan Islands is maintained.**

### PURPOSE OF THE DESIGN GUIDELINES

The Qetaifan Islands design guidelines are meant to serve as an advisory document for the LREDC, other agencies and private parties on development aspects for public and private projects. Building on urban design principles and principles established in the master plan, these design guidelines are developed to help steward the development of Qetaifan Islands so that it can convey its significance for generations to come. The purposes and use of the design guidelines are to:

- > Ensure that new construction is consistent with the overall vision and design intent
- > Encourage designs that complement the existing development characteristics
- > Promote context sensitive designs that create a sense of place and uniqueness to Qetaifan Islands
- > Provide property owners with an appreciation of the design intent for the built environment

### AUGMENTATION OF BUILDING REGULATIONS

Site-Specific Planning Guidelines for areas, issued with the Sales and Purchase Agreement (SPA) at point of sale define mostly the general parameters. In turn, individual Plot Building Regulation sheets validate land use, boundaries, area, coordinates and access, in addition to the development parameters relating to building density, FAR, setbacks and heights. To support the above documents, each Precinct Planning and Design Guideline document further augments, clarifies issues in more narrative and details. The Guidelines clarify the overall urban design vision, key planning principles, objectives, building relationships, and specific building envelope and stylistic character guidance unique to each neighborhood and plot location.

Related documents germane to each precinct will enable:

- > Cohesive approach to massing, form and materiality
- > Appropriate distribution of uses and forms by cluster and within each plot
- > Sound and considerate inter-plot relationships
- > Appropriate strategies for access and utility infrastructure provision
- > Flexibility to cope with contemporary needs and demands, including parcel aggregation and alternative approaches to design expression.

### Mandatory status

For the purpose of this document, the term “Guidelines” is a suggested preference intended to assist the design process. The term “Controls” refers to mandatory rules which must be adhered to by the owners in order to obtain permission to build their proposals.

### HOW DO THE DESIGN GUIDELINES & CONTROLS WORK?

The guidelines provide an authoritative source book of forms suitable for each available plot within the precinct. The Guidelines assist owners to identify and comply with the relevant design advice that best meet their needs.

### Guide for plot owners

Existing title holders will have reviewed the master plan and wide context. The design guidelines detail the key features and clarify the rationale behind its subdivision into individual parcels and plots. The Guidelines & Controls provide help on a number of subjects such as privacy, treatment of boundary wall and advice on architectural styles, treatments and the application of materials.



## 2.2 DISTRICT OVERVIEW & KEY DESIGN STRATEGIES

### 2.2.1 LUSAIL MASTERPLAN CONTEXT & VISION

**The Qetaifan Islands project is conceived to become the first choice to live, work, and relax. Envisioned to offer a globally unique style and character, this development will be the exemplar of Qatari lifestyle and a showpiece to the world. The islands will be family-oriented, highly exclusive, and embrace the leisurely quality of island lifestyle.**

The Qetaifan Islands site, a jewel in the crown of Lusail City, is located 7 km north of Doha. Qetaifan Islands will present a unique opportunity for an exemplary residential lifestyle incorporating aesthetic excellence and environmental sensibility. The overarching design objective is to create an exclusive elegant and family-oriented lifestyle, distinctly different from any other community in Qatar. The site offers wonderful views to the mainland and to the sea, with the terrain providing the possibility of different local characters. The villas are located to maximize views over the surrounding landscape, the coastline and the exclusive beaches. Areas of Premier Waterfront Villas are embraced by Hillside Villas and Waterfront residences that overlook the magnificent new marina that ties the islands and the community together. A unique retail development along the marina in the south islands creates a vibrant and diverse waterfront promenade. The public space provision with the marina promenade includes a magnificent Beach Club to be enjoyed by residents and visitors. The road network and hierarchy plays an integral role in reinforcing orientation, and in preserving and creating different characters in particular neighborhoods. The main roads from the highway enter the site and ramify into secondary routes to serve other areas of the development, facilitating connectivity while creating a sense of controlled accessibility and security. The neighborhood character areas draw their inspiration from the existing landscape. The individuality of each island's character help to shape the ordering framework of the landscape structural elements and the neighborhood concept themes.

#### SOUTH ISLAND 1

South Island One will have a major civic presence at one of the main gateways into the community. The heart of Qetaifan Islands will have major retail offering within the souq, civic facilities, the beach club and residences to create a vibrant synergy with each urban element.

#### SOUTH ISLAND 2

South Island Two has a promenade which shares both high quality waterfront bridges that connect all three islands. It will also have a Souq, and a wide offering of residences which create a community with a diversity in urban form, landscape and residential typologies.

#### SOUTH ISLAND 3

South Island Three has the Premier Waterfront Villas on its eastern beaches, connecting with the waterfront promenade that links the three southern islands. It has a souq and a wide range of residences.

#### NORTH ISLAND

North Island includes the Officers Club at the western side of the island and the Yacht Reception.



FOX HILLS DISTRICTS

Under review

Under review

FOX HILLS DISTRICT

Under review

Under review

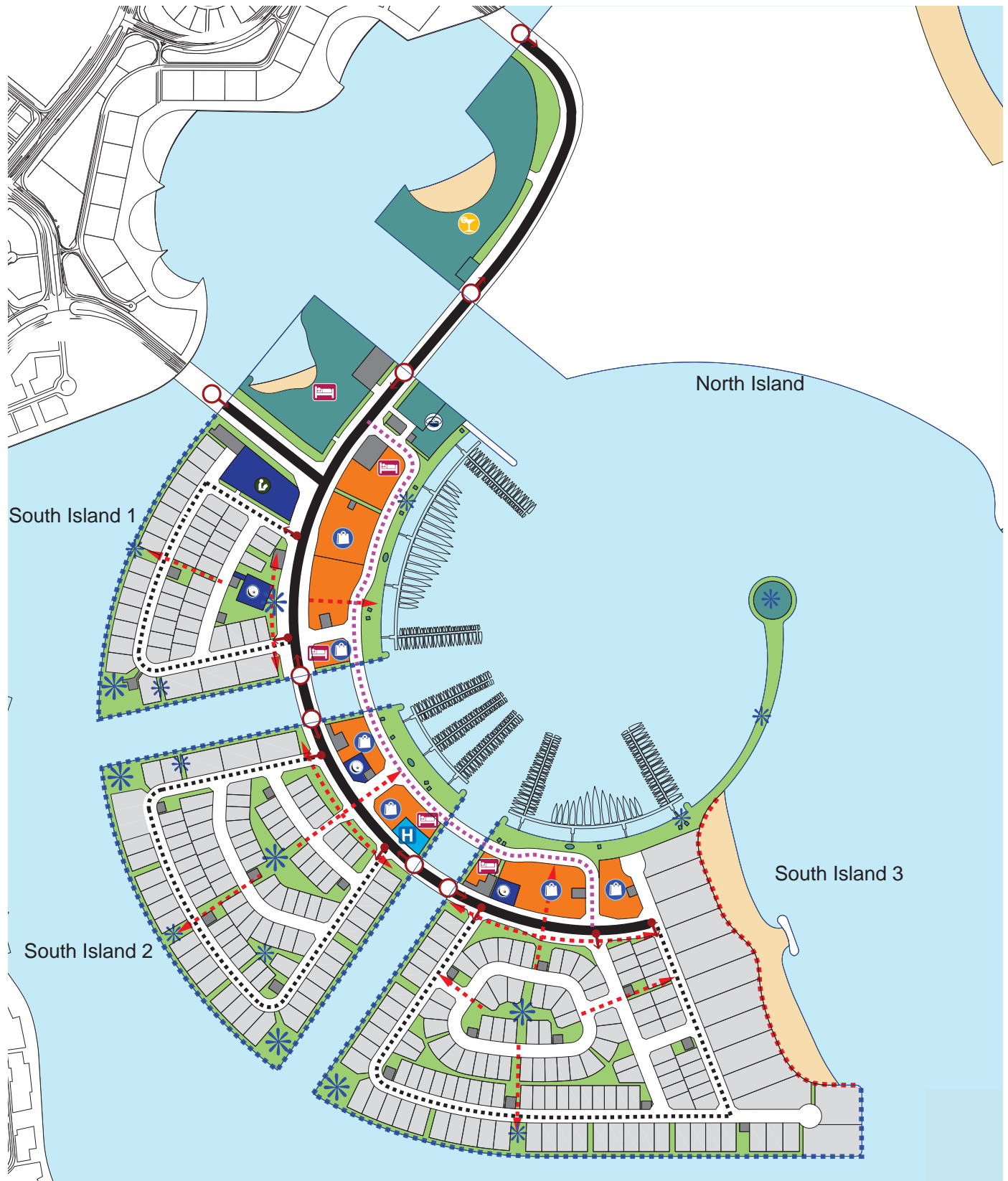


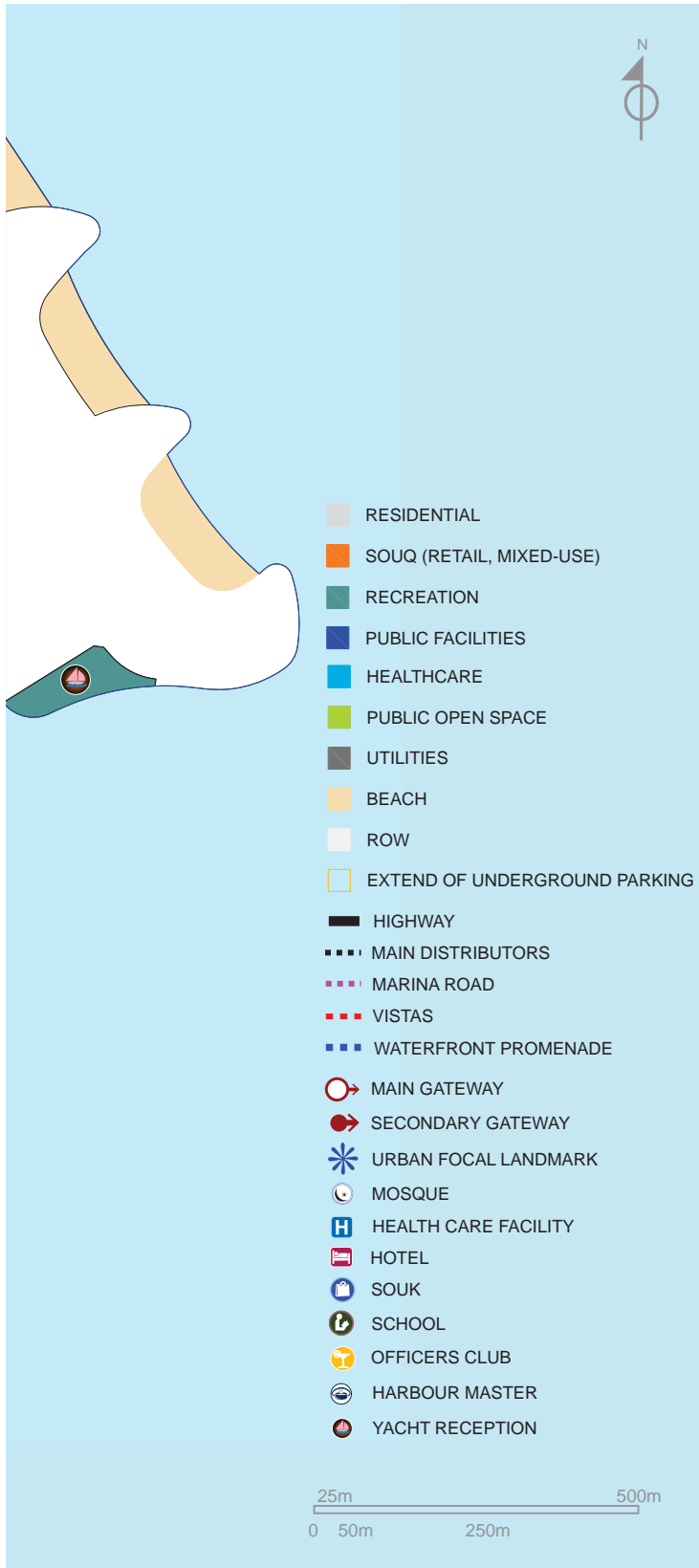
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Figure 3 - Illustrative Masterplan (image by others)

## 2.2.2 MASTERPLAN STRATEGIES

### URBAN DESIGN FRAMEWORK





District Location Plan

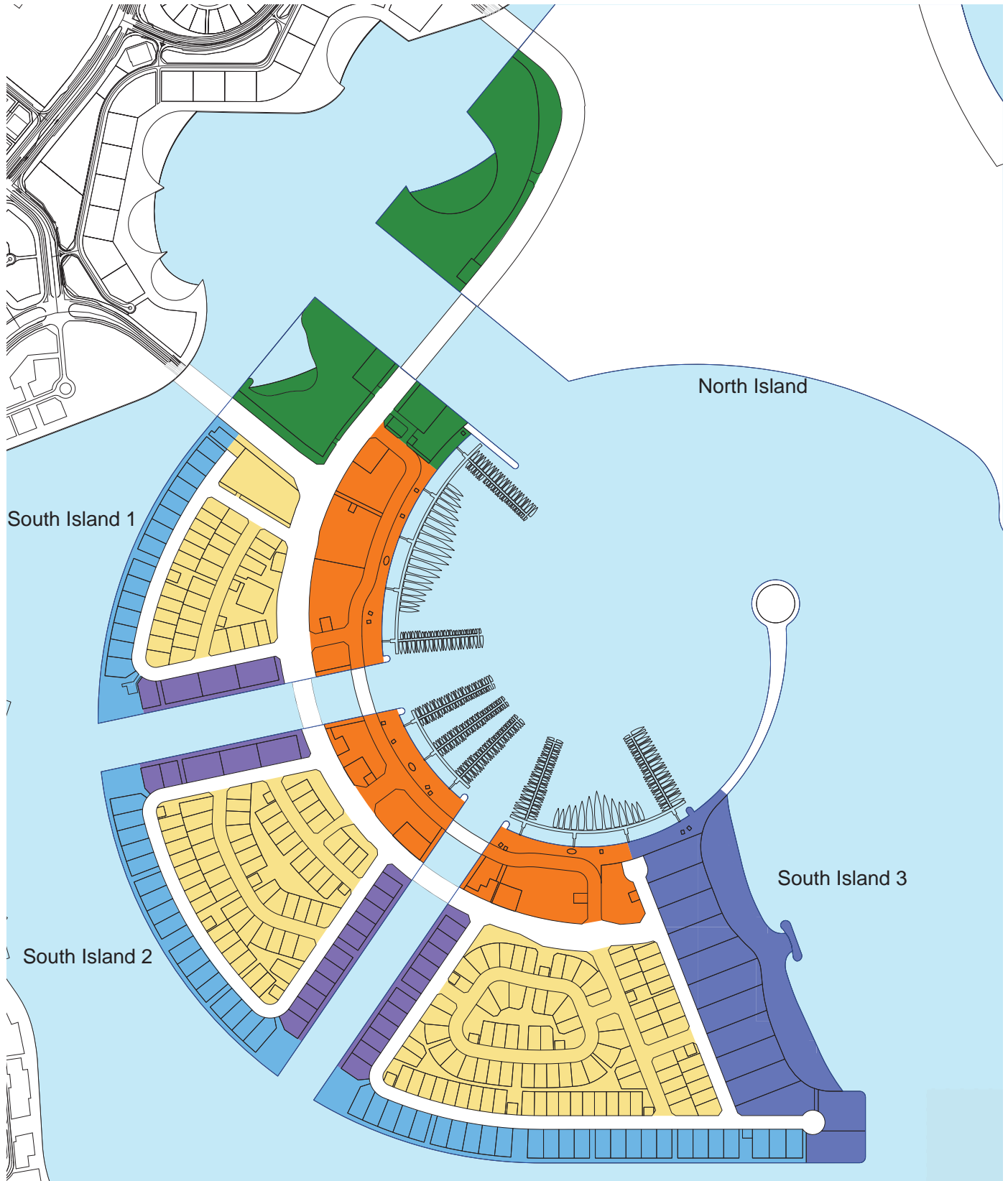
## URBAN DESIGN FRAMEWORK

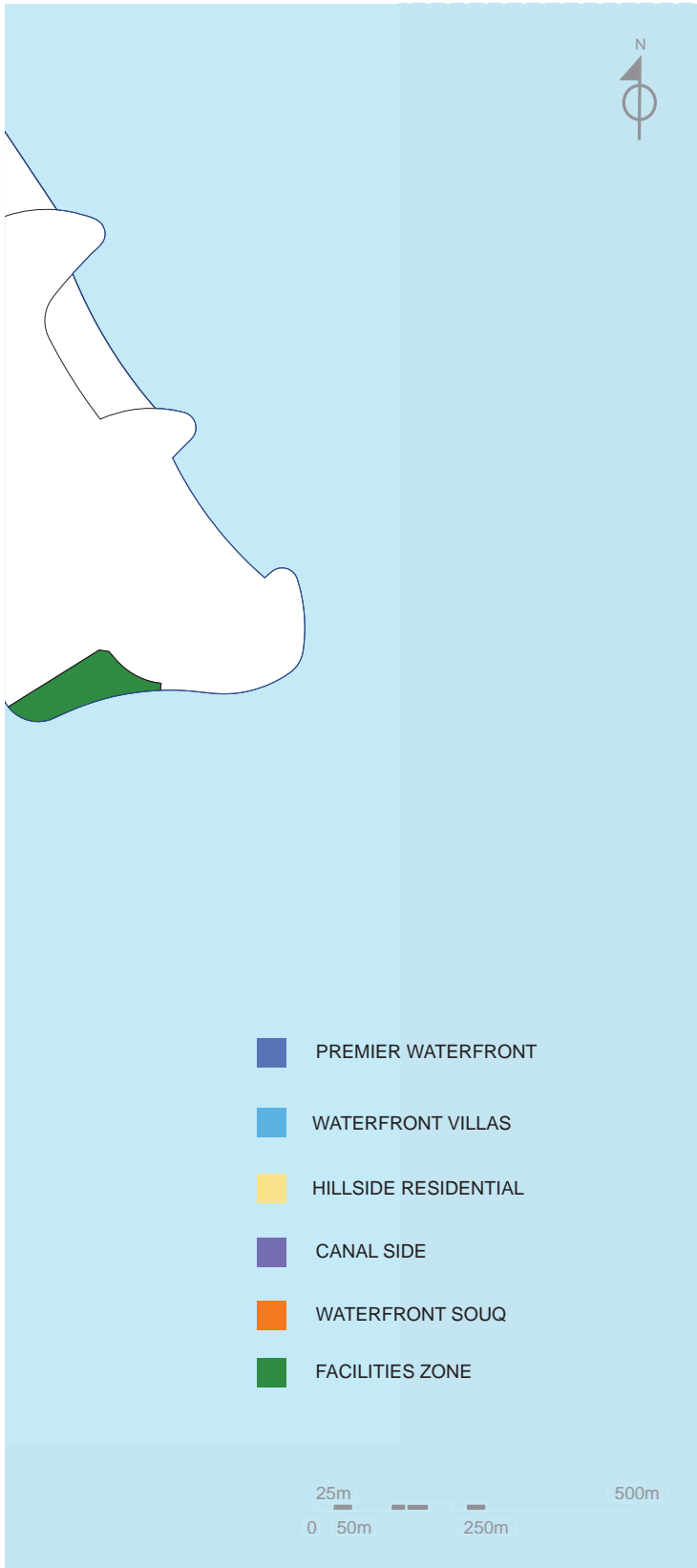
The overall urban design framework intent is to create a legible and comfortable setting with a unique “sense of place” It is envisaged that the place will become an ideal setting to live, work and do business. The salient features of the urban design framework envisaged for Qetaifan Islands include:

- > Creation of a strong relationship with strategic approaches and main gateways to the Island
- > Proposed built form to create strong gateway introduction to the Island
- > Creation of a hierarchy of hubs on the South Islands
- > Main hub to define the “center edge” of each Island community by creating a major mixed use component within each island
- > Secondary hubs within each island including neighborhood parks on the top of the hills, marina promenade and facilities such as VVIP buildings
- > Connection of primary view corridors with areas of interest/ anchors
- > Helps to give clarity and identity to the urban structure; assists in wayfinding and character
- > Utilisation of landmark locations on the island to create points of interest, defines the skyline of the island
- > Make elevated areas visually connected with secondary view corridors

## 2.2.2 MASTERPLAN STRATEGIES

### CHARACTER AREAS / PRECINCTS





District Location Plan

### CHARACTER AREAS / PRECINCTS

While it is important that Qetaifan Islands evolve as a coherent entity, the sense of place will be defined by the individual character areas/precincts established in the master plan.

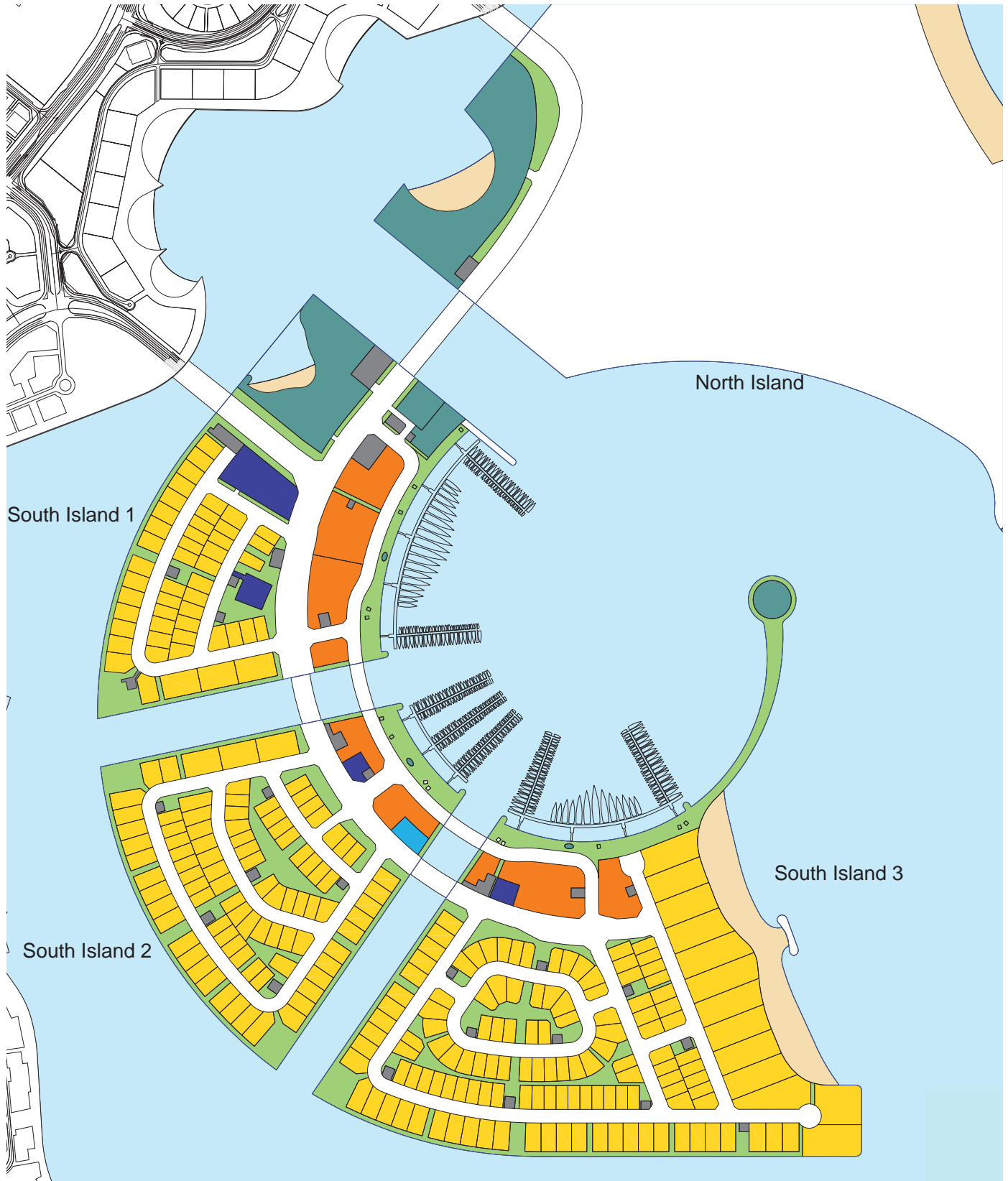
The concept master plan is organized in several principal land use based character areas/precincts where the inspiration for the architecture will be informed by the landscape, and the architecture will create and inform the open spaces and streets within the context of the site's physical and environmental setting. These character areas/precincts are:

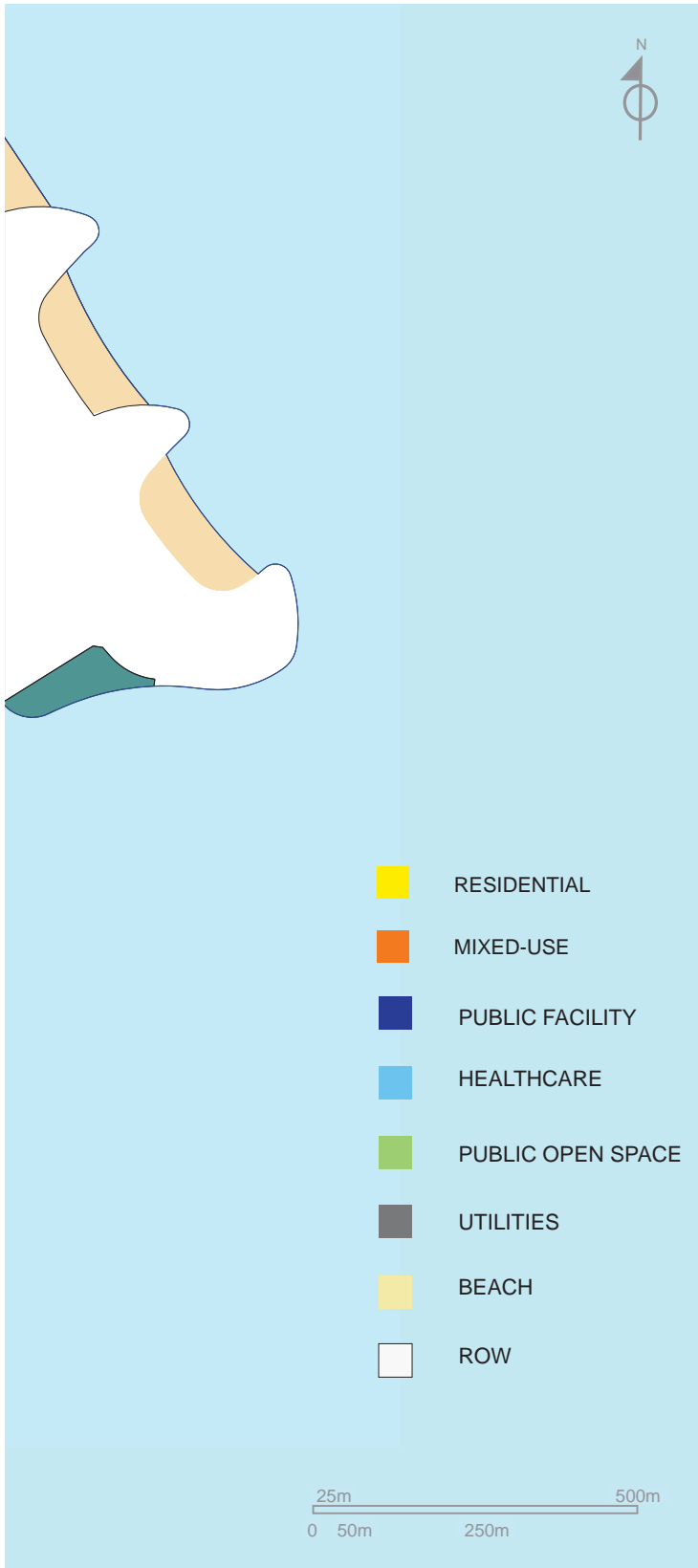
- > Premier Waterfront
- > Waterfront Villas
- > Hillside Residential
- > Canal Side
- > Waterfront Souq
- > Facilities Zone

An architectural hierarchy is envisaged for the site's development areas, from the grand public and central function buildings, to the range of residential types. The density distribution of the residential development defines the character of the neighborhoods, while the landscape creates an ordering framework for the community.

## 2.2.2 MASTERPLAN STRATEGIES

### LAND USE STRATEGY





District Location Plan

### LAND USE STRATEGY

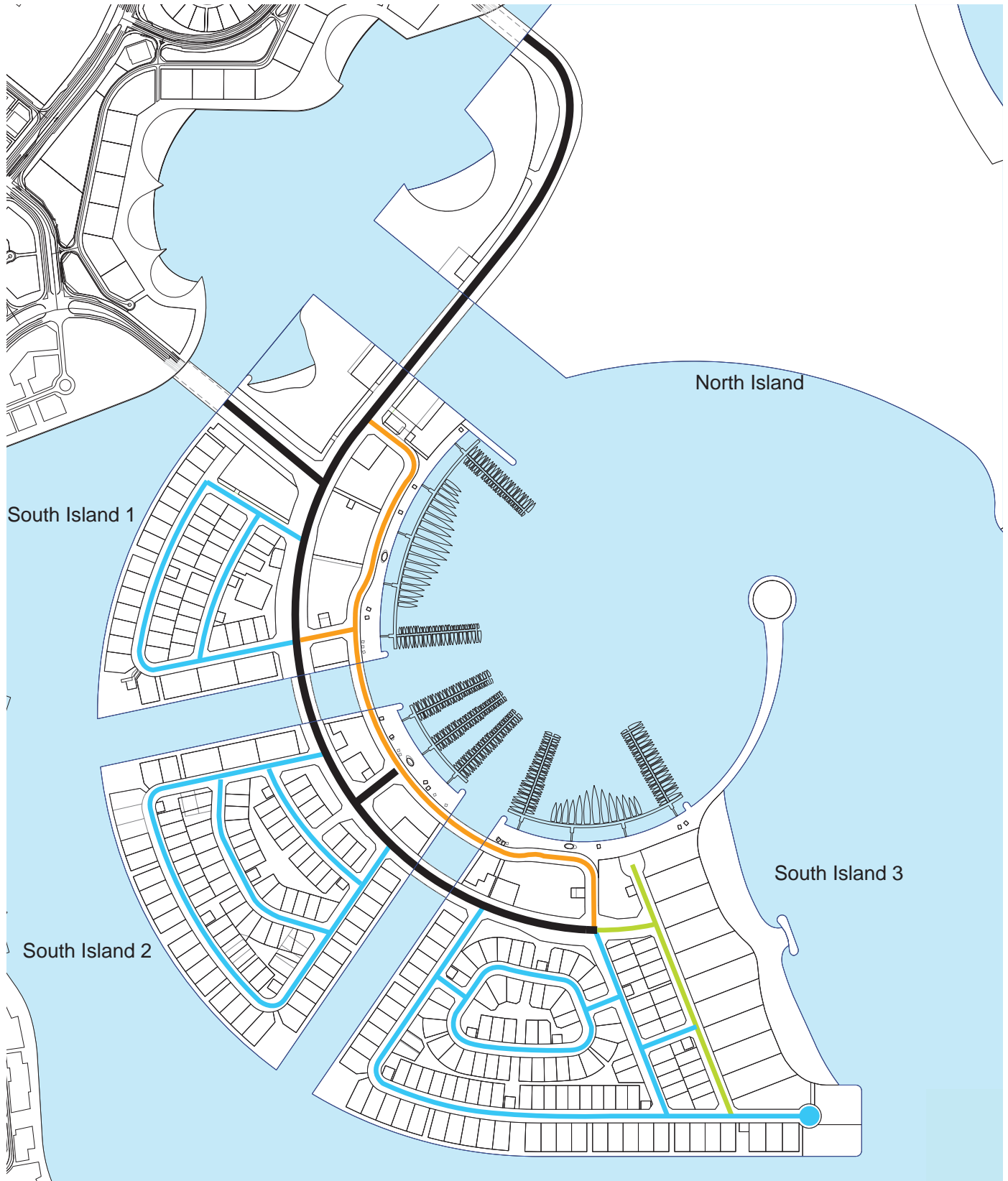
While it is important that Qetaifan Islands evolve as a coherent entity, the sense of place will be defined by the individual character areas/precincts established in the master plan.

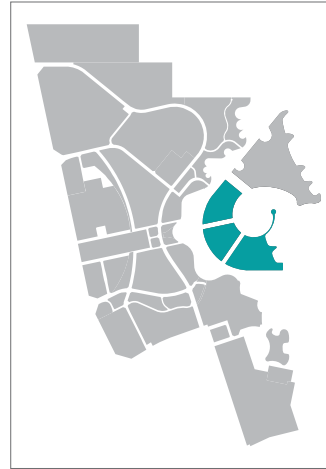
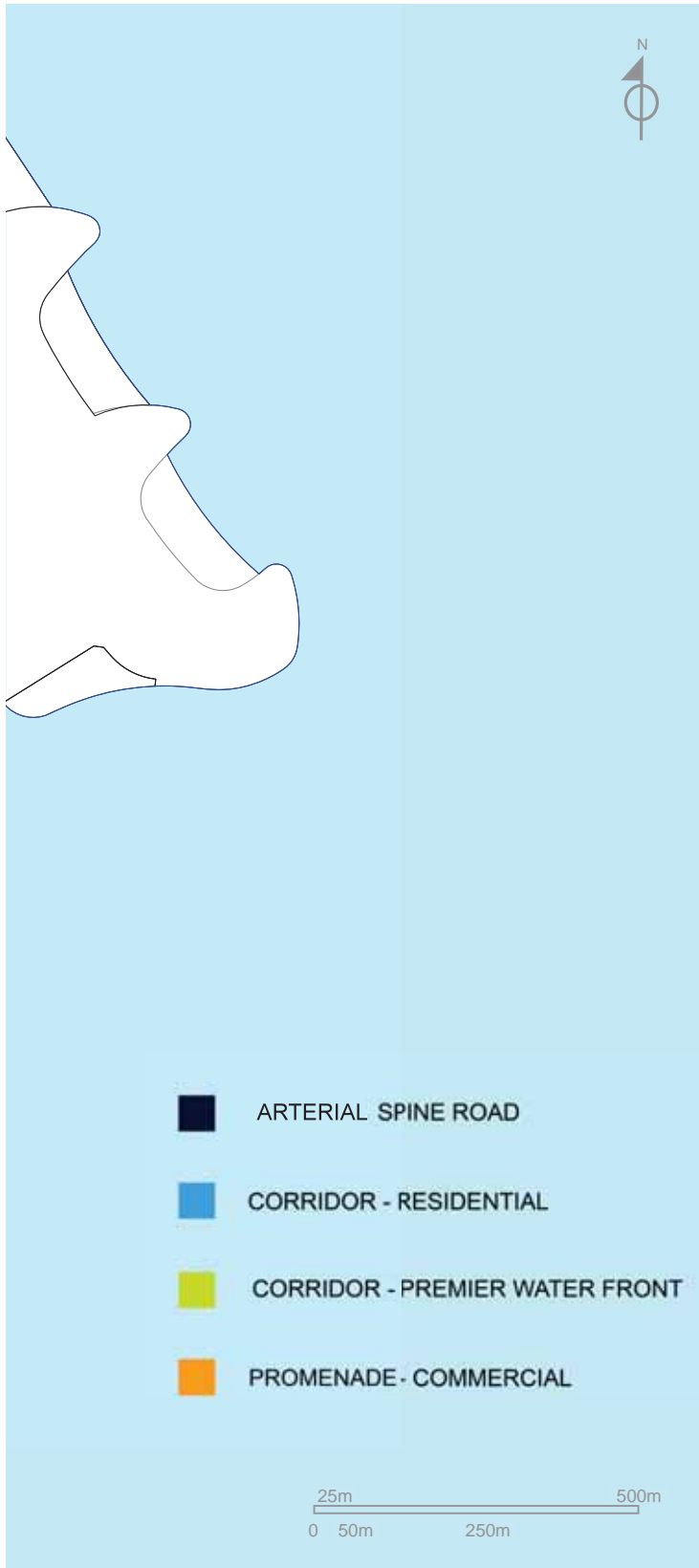
The concept master plan is organized in several principal land use based character areas/precincts where the inspiration for the architecture will be informed by the landscape, and the architecture will create and inform the open spaces and streets within the context of the site's physical and environmental setting. These character areas/precincts are:

- > Residential
- > Mixed use (including either Retail with other uses, or Hotel/Retail and other uses)
- > Recreation
- > Public Facility
- > Healthcare
- > Public Open Space
- > Utilities
- > Beach
- > Right of Way (ROW)

## 2.2.2 MASTERPLAN STRATEGIES

### ROAD HIERARCHY STRATEGY





District Location Plan

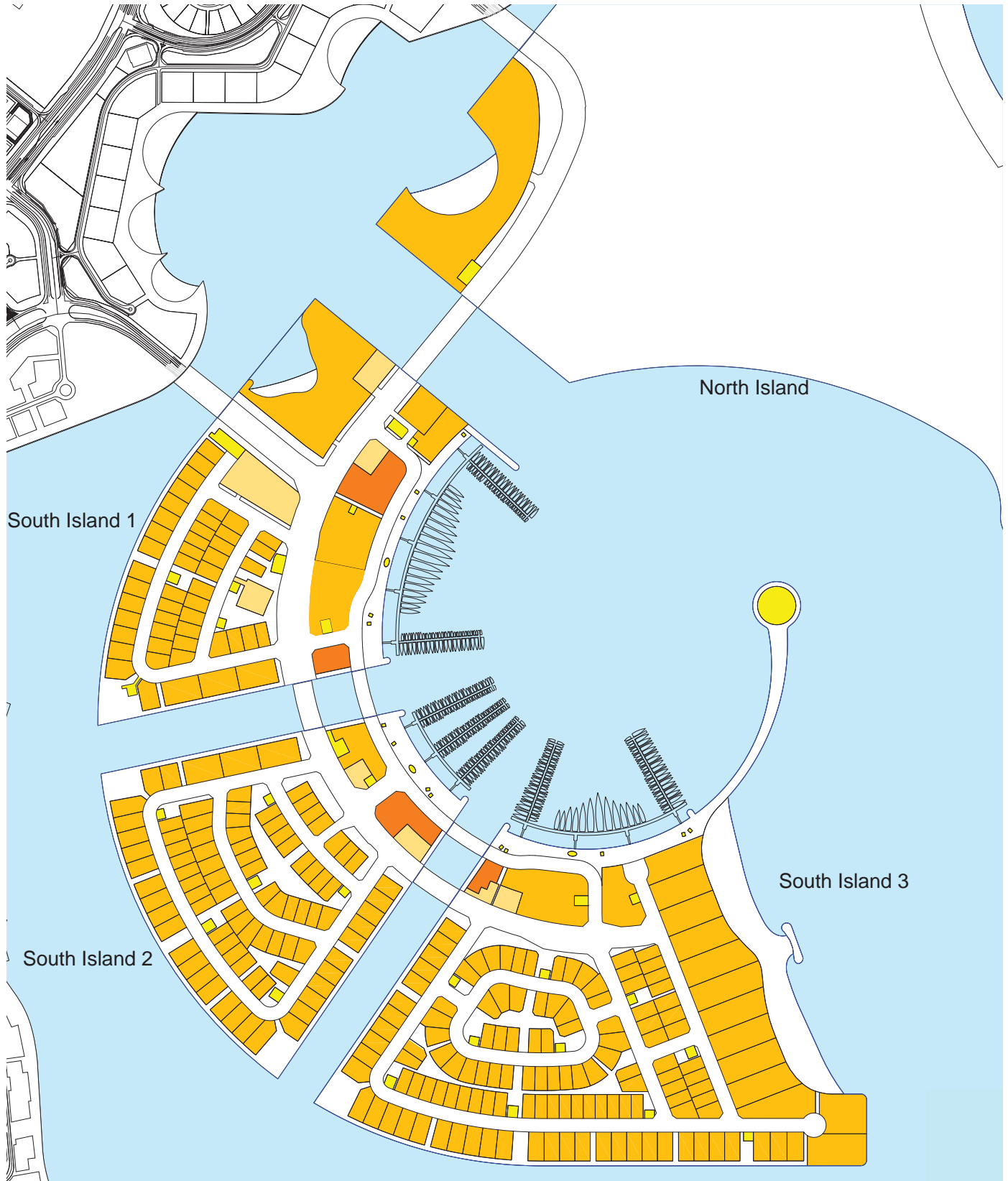
### ROAD HIERARCHY STRATEGY

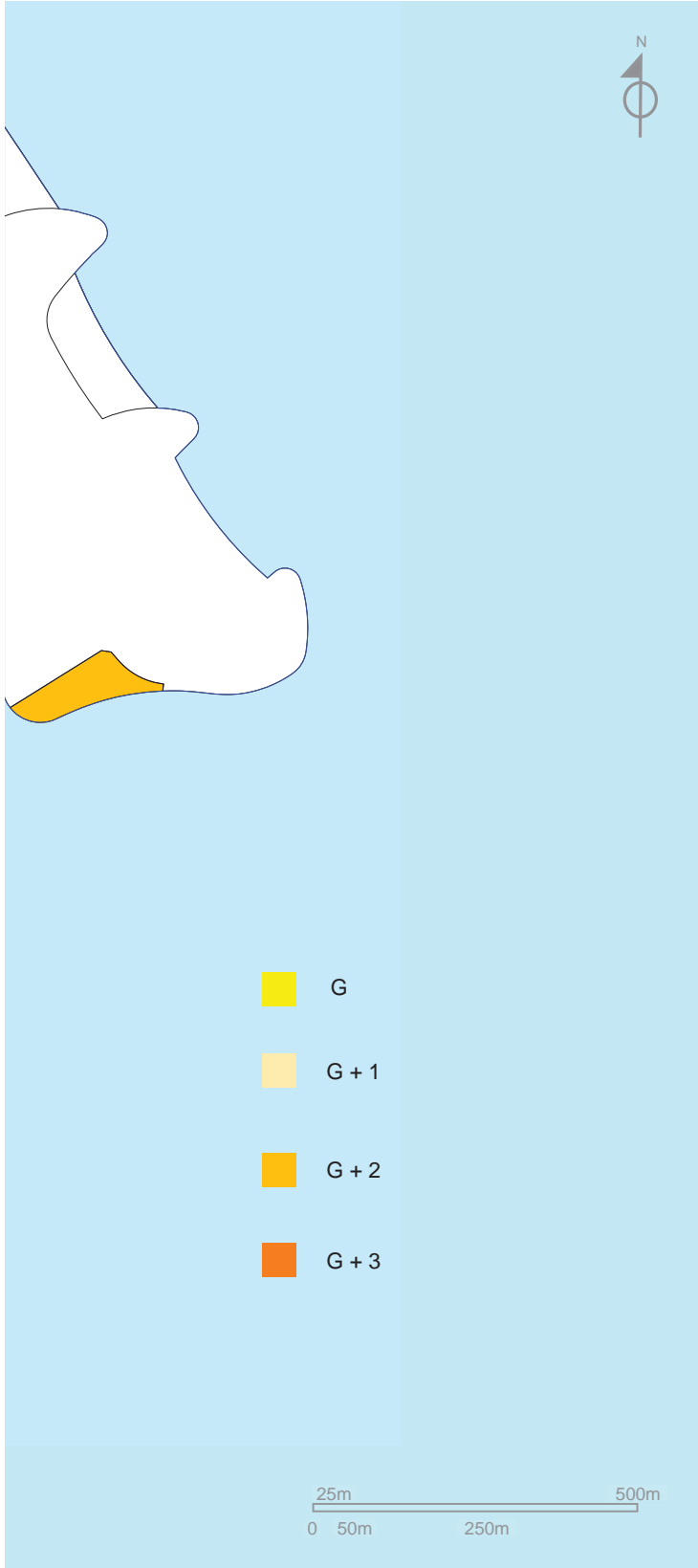
The highway and access network consists of a simple hierarchy of roads to complement the land use. The district distributor links Lusail City with the North Island and then to South Island 3. This has been adjusted to take a more direct route through the various Qetaifan Islands. By adjusting this access route in this manner, traffic is immediately directed away from the heart of the North Island.

- > **ARTERIAL SPINE ROAD** - The road corridor provides both the primary and visual entry point to Qetaifan Islands and the link between Qetaifan and Lusail. The ROW offers a 4m wide public access path on either side that acts as a shared surface between pedestrian and bicycle traffic. A planting corridor of 5.5m in width separates the footpath route from the carriageway.
- > **CORRIDOR - RESIDENTIAL** - The road corridor provides a link between the primary and secondary collector roads and an entry threshold to the neighbourhoods. It is conceived that this road will provide a double line of low level planting creating a "green" marker at the entry of each community.
- > **CORRIDOR - PREMIER WATERFRONT VILLAS** - The road corridor provides the entry gesture and threshold to the premium plots. The corridor provides a 2m wide public domain on one side of the road.
- > **PROMENADE - COMMERCIAL** - The road corridor provides access and on-street parking to the souq area within the development in addition to a link between the primary and secondary collector roads. The corridor provides a 3.3m wide public domain on both sides of the road.

## 2.2.2 MASTERPLAN STRATEGIES

### BUILDING HEIGHTS STRATEGY





District Location Plan

### BUILDING HEIGHTS STRATEGY

Qetaifan Islands Districts are envisaged as low-density, low-rise developments.

All residential types will have the same height (G+1+P).

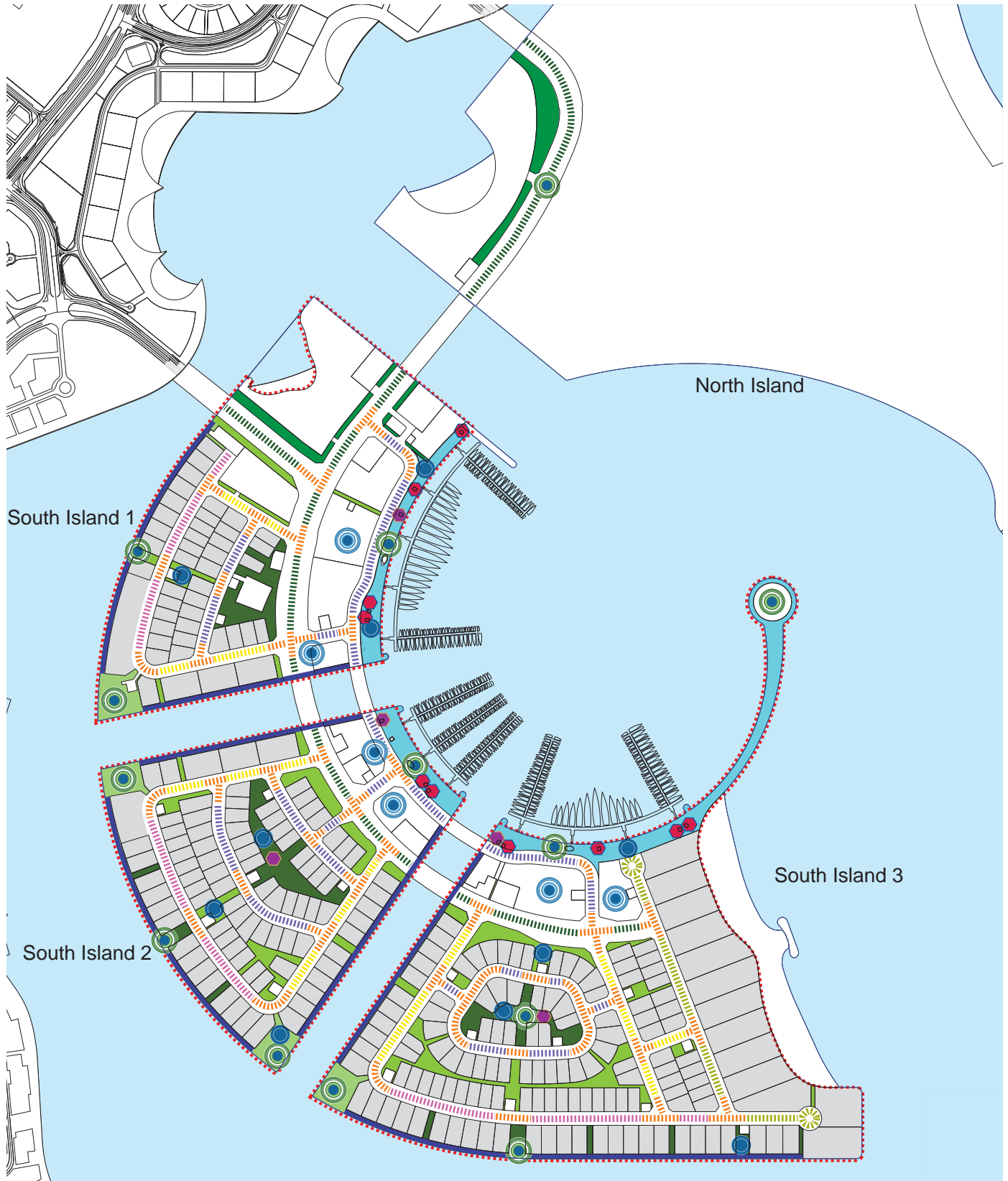
Retail and Hotels within the Souq area buildings will be built on multiple platforms depending on the difference of level due to the topographic conditions of the site.

Heights will vary from 2 to 3 levels based on the location and access.

Other non residential buildings' heights will vary from G+1 to G+2 floors.

## 2.2.2 MASTERPLAN STRATEGIES

### OPEN SPACE STRATEGY





District Location Plan

## OPEN SPACE STRATEGY

The establishment of public open space destinations is recognized as a crucial driver in the creation of a vibrant, active and dynamic public realm. Destinations have been created throughout the Qetaifan Residential Community as a mechanism to promote activity and movement throughout the public open space network and activate the public realm. Furthermore, the public open space network has been developed in conjunction with the overall built form programme such that each is complementary to the other. Public gathering points and plazas are focused around high use areas whilst more passive spaces are associated with lower intensity residential uses.

The Neighbourhood Park is a major recreation space hosting many passive recreational opportunities.

Extensive areas of land on Qetaifan Islands are reserved as Public Open Space. An emphasis is placed upon the creation of connections from one open space to the other and between community facilities and centres. This is achieved mainly by providing pedestrian and cycle connectivity through the development and maximizing opportunities for interactions between the built form elements and the open space.

## 2.3 STREETSCAPE GUIDELINES

### 2.3.1 STREETSCAPE CONTEXT

REF: LQID-RSF- Sheet 1/2

**Managing the composition of different elements of residential streetscape is of foremost importance to ensure a high quality development.**

**The streetscape character is governed by the quality and maintenance of planting along boundary walls, scale and style of the pedestrian and vehicular access and parking bays, the architectural features of villas and tree planting in the front gardens.**

#### PLANTING

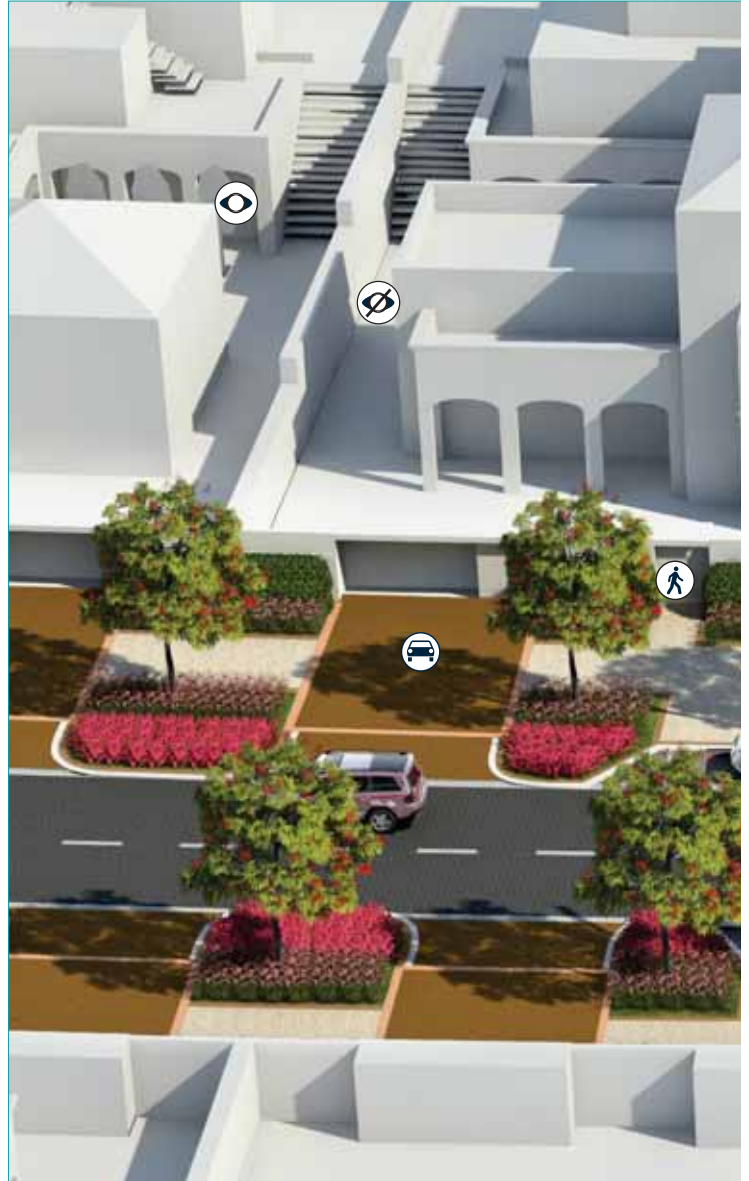
The tree corridor will host the district's street trees, providing useful shade, special character and a verdant foil to the succession of villas fronting the street. A specific palette of tree species has been selected to suit each location to create a strong and cohesive effect, irrespective of villa architecture. This is referred to in the **landscape palette and schedule**.

#### LIGHTING

Streetlight columns are located at regular spaced intervals, staggered along both sides of each street and positioned along tree line in the planting areas at specific interval. This avoids street clutter, reduces night time glare and avoids tree canopy shade.

#### PLOT PRIVACY

Enclosing street walls and party walls create a privacy screen around each villa plot. Building setbacks also reinforce the sense of plot privacy.



#### STREET ARTICULATION

The boundary wall designs, tree planting, light column spacing, driveways and pedestrian and vehicular entrances combine as a series of spatial elements to provide a sense of articulation and rhythm along each street, as a cohesive and consistent language to aid legibility and sense of place.

GLOSSARY OF TERMS 

An aerial view of a city block with various icons indicating different types of buildings and infrastructure. The icons include a house, a school, a hospital, a fire station, a police station, a bus stop, a parking lot, a pedestrian crossing, a car, a truck, a boat, and a plane. The city block is divided into several sections by streets and sidewalks. The buildings are mostly white and have different shapes and sizes. The streets are paved with asphalt and have white lines. The sidewalks are paved with concrete and have trees and bushes. The overall scene is a 3D rendering of a city block.

The architectural codes allow for modern interpretations of Mediterranean styles and plot owners are free to work within these guidelines to create their own building designs, producing a range of possible streetscape elevations and maintaining an interesting urban environment.

Visitor parking bays are allocated in front of each villa to a predetermined layout. Access driveways are incorporated and owners are required to provide for general parking needs within their plot(s).

## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRC- Sheet 1/14

### STREET PARCEL GUIDANCE

The street parcel guide seeks to create a cohesive composition for each parcel to ensure that owners optimise their investment value to attract a settled residential community.

Plot owner / consultant must contact with LCAC landscape architect before preparing the concept of the private plot to receive drawings of the surrounding public landscape.

Plot Owner / Consultant must consult and adhere to all Civil Defense Authority's relevant Codes and Regulations which pertain to Fire Truck Access and Hardstanding requirements for each Plot.



### STREETSCAPE HIERARCHY

A clear hierarchy of road rights-of-way ensures that an appropriate level of service and spatial balance is provided for the development. Particular emphasis has been placed on correlating the road right-of-way width with the land use to ensure the design aligns with the specific purpose. Streets are important connective spaces and have been designed for pedestrians, public transport, cyclists and cars.

Streetscape open space refers to the public domain component within each right-of-way as well as buffer open space areas between the right-of-way and the adjacent development. The program of the road rights-of-way vary but typically incorporates:

- > Shared and / or separate pedestrian and bicycle circulation;
- > Tree planting to provide visual amenity and shading;
- > Passive rest areas within widened areas of the Rights-of-Way (ROW); and,
- > Tree pits, with curb cut details designed to trap critical sediment loads and an inlet system devised to infiltrate water through tree pits and infiltration media.

The following pages detail the proposals for the landscape treatment on the four road corridor types of Qetaifan Islands. The highway Corridor is part of the overall Lusail Masterplan.



#### Key

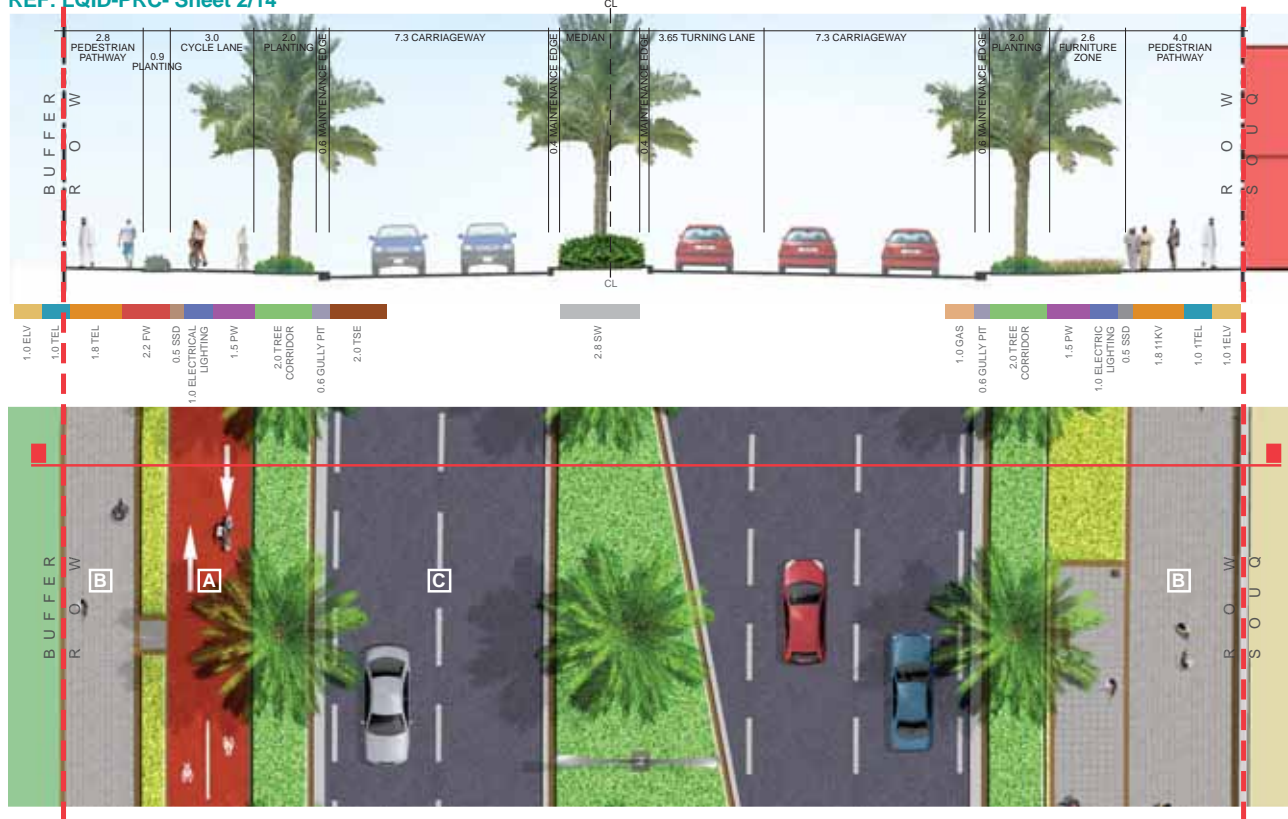
- Spine Road (Q1, Q10, D7 / 40m ROW)
- Commercial Road (Q2 / 28.6m ROW)
- Premier Waterfront Villas Road (Q17 / 28.25m ROW)
- Residential Road (Q1-9, Q11-18 / 28.45m)



Key Plan



REF: LQID-PRC- Sheet 2/14



**SPINE ROAD CORRIDOR**

**ROAD NAMES: Q1, Q10, D7**

The road corridor provides both the primary physical and visual entry point to Qetaifan Islands and the link between Qetaifan and Lusail. Three rows of palms define the road accentuating the corridor, enclosure and scale definition. The corridor provides a public domain on either side of the road responding to the scale of the built form; providing opportunities for spill out areas from food and beverage or retail along souq area. It also provides a furniture zone, areas for low level planting, pedestrian and dedicated bicycle paths along buffer area. Pedestrian crossings along 40m ROW is highlighted with sculptural groundcovers, seasonal and shade trees.

**SOFTSCAPE**



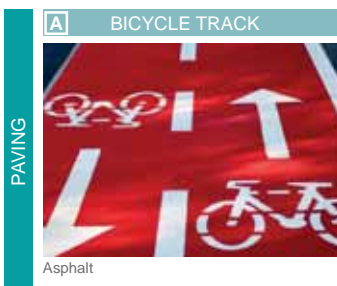
Palms



Ornamental grass

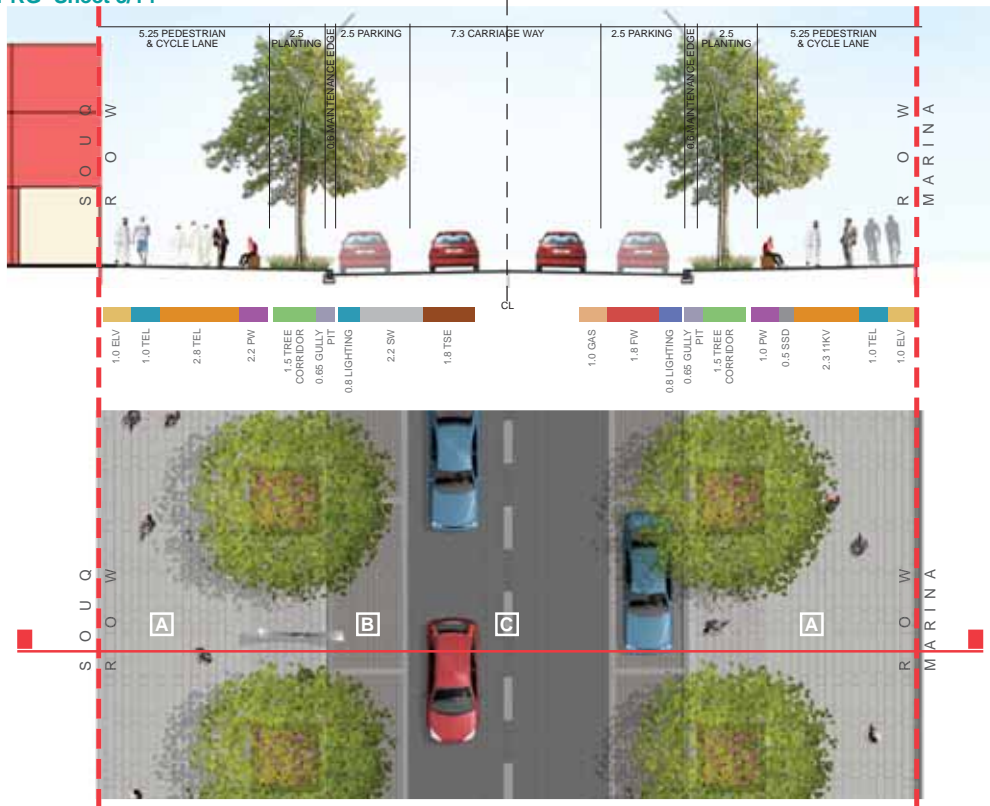


Shrubs & groundcovers



## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRG- Sheet 3/14



### COMMERCIAL ROAD CORRIDOR

#### ROAD NAME: Q2

The road corridor provides access and on-street parking areas to souq area within the development in addition to a link between the primary and secondary collector roads. The corridor provides a 5.25m wide public domain on either side of the road responding to the scale of the built form and providing an enlarged footpath to accommodate greater density of pedestrian movements. Trees will provide shade, enclosure and scale definition. Public domain provides opportunities for shared space for retail spillover spaces, pedestrian and bicycle movement.

#### SOFTSCAPE



Trees



Seasonals

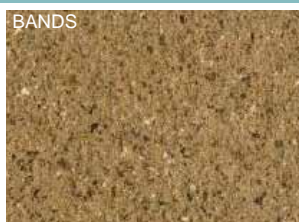


Shrubs & groundcovers

#### A PUBLIC DOMAIN

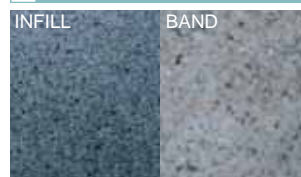


300x300/600/900x50mm Granite paver, Light grey colour, Flamed finish



100x200x60mm Concrete paver, Dark beige colour, Shot blasted finish

#### B PARKING

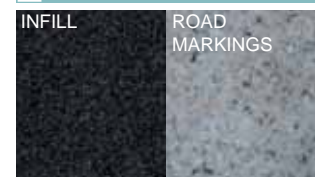


200x200x50mm Granite paver, Mid-grey colour, Flamed finish

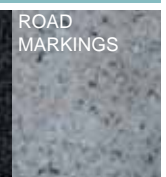


100x100x50mm Granite paver, Light grey colour, Flamed finish

#### C ROAD



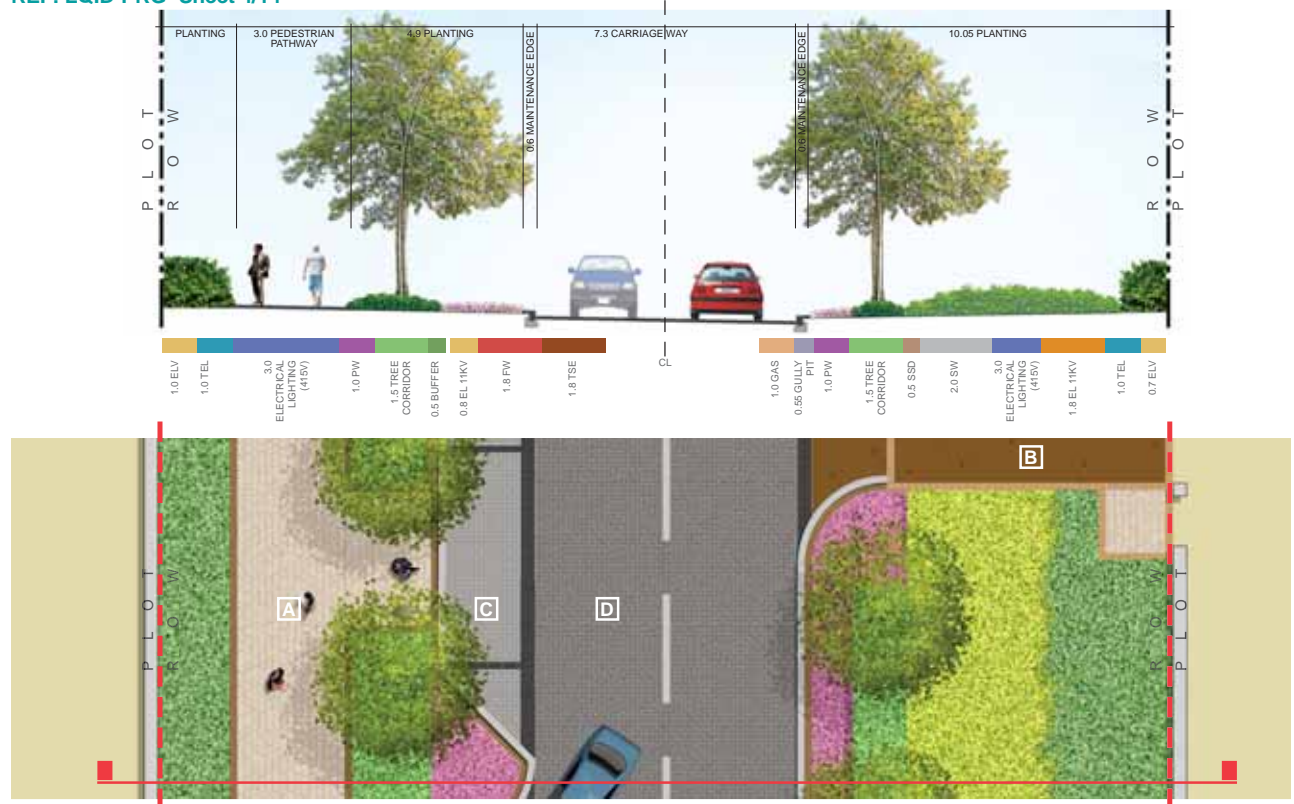
200x200x50mm Granite paver, Dark grey colour, Flamed finish



100x100x50mm Granite paver, Light grey colour, Flamed finish



REF: LQID-PRG- Sheet 4/14



**PREMIER WATERFRONT VILLAS ROAD CORRIDOR**

**ROAD NAME: Q17**

The road corridor provides the entry gesture and threshold to the premium plots. The road right-of-way is oversized to create a structured tree-lined boulevard, with generous tropical foliage planting and water feature. The corridor provides a 3m wide public domain on one side of the road. This area will be primarily filled with planting, water feature and land form. It is proposed that this road right-of-way will only be used in this particular location.

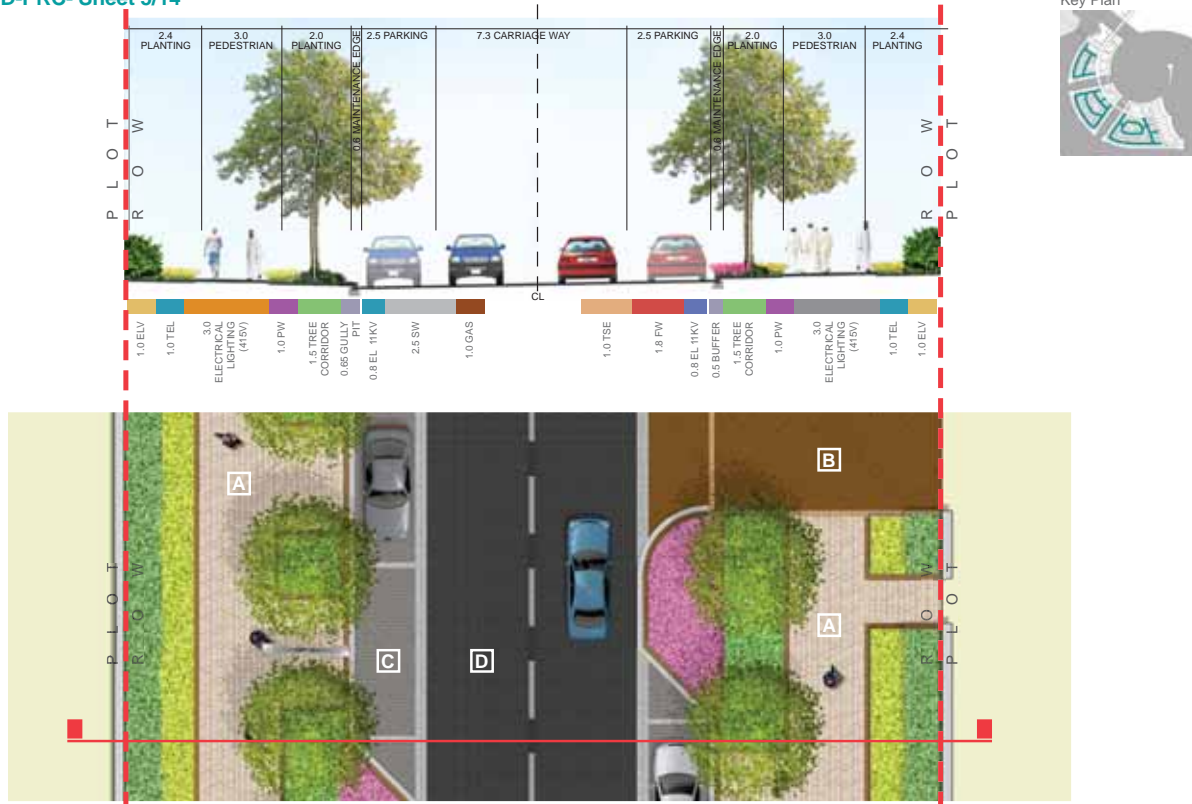
**SOFTSCAPE**



PAVING	A PEDESTRIAN FOOTPATH		B DRIVEWAY		C PARKING		D ROAD	
	BAND	INFILL	INFILL	BAND	INFILL	BAND	INFILL	ROAD MARKINGS
	100x200x60mm Concrete paver, Dark beige colour, Shot blasted finish	200x200/400/600x60mm Concrete paver, Light beige colour, Shot blasted finish	100x100x50mm Granite paver, Mid-red colour, Honed finish	200x200x50mm Granite paver, Light-red colour, Flamed finish	100x200x80mm Concrete paver, Mid-grey colour, Flamed finish	100x200x80mm Concrete paver, Light grey colour, Flamed finish	100x200x80mm Concrete paver, Dark grey colour, Shot blasted finish	100x200x80mm Concrete paver, Light grey colour, Shot blasted finish

## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRC- Sheet 5/14



### RESIDENTIAL ROAD CORRIDOR

ROAD NAMES: Q1-9, Q11-18

The road corridor provides a main thoroughfare throughout the neighbourhood community. It is conceived that this road will provide a double line of low level planting, creating a “green” marker throughout the community. Canopy tree planting will provide shade, enclosure and scale definition. Public domain provides opportunities for shared space for pedestrian and bicycle movement.

#### SOFTSCAPE



Trees



Ornamental grass



Seasonals



Shrubs & groundcovers



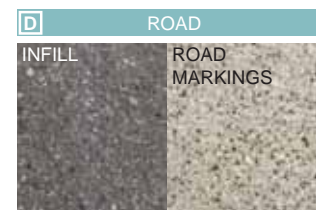
100x200x60mm Concrete paver, Dark beige colour, Shot blasted finish  
200x200/400/600x60mm Concrete paver, Light beige colour, Shot blasted finish



100x100x80mm Concrete paver, Mid-red colour, Shot blasted finish  
200x200x80mm Concrete paver, Light-red colour, Shot blasted finish



100x200x80mm Concrete paver, Mid-grey colour, Flamed finish  
100x200x80mm Concrete paver, Light grey colour, Flamed finish






100x200x80mm Concrete paver, Dark grey colour, Shot blasted finish  
100x200x80mm Concrete paver, Light grey colour, Shot blasted finish

REF: LQID-PRC- Sheet 6/14

## ROAD JUNCTIONS &amp; RAISED PEDESTRIAN CROSSINGS

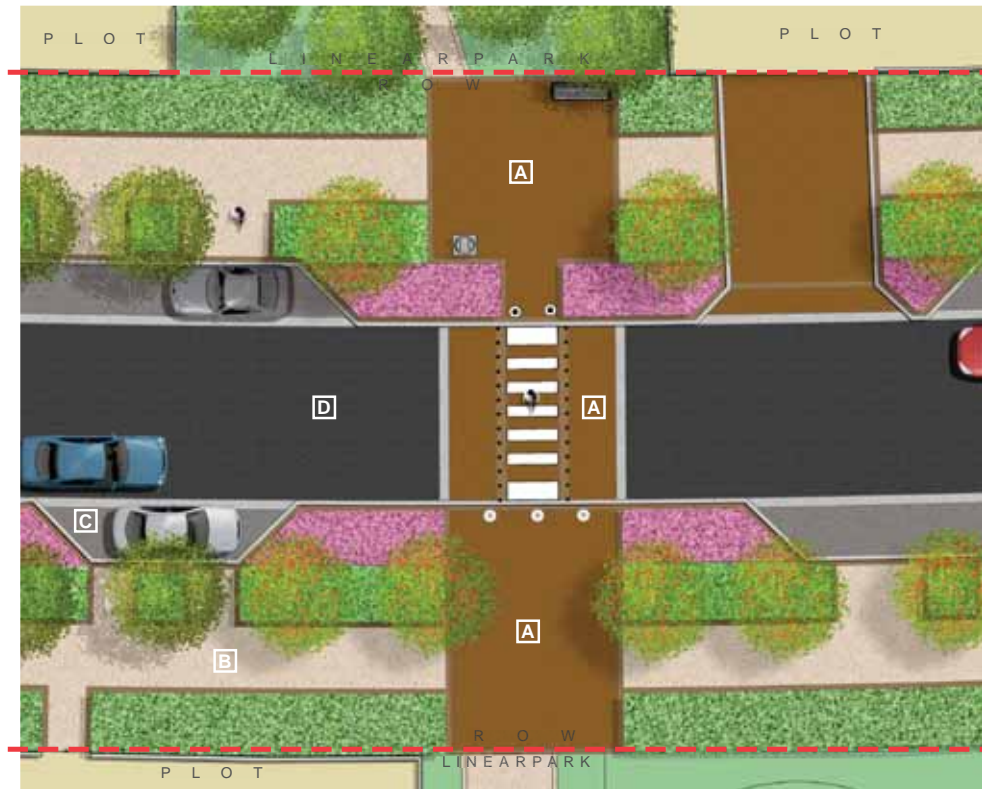
**Key**

-  Q1 Spine Road Junction At-grade Crossings
-  Q2, Q5, Q9, Q11 At-grade Pedestrian Crossings
-  Q2, Q3-5, Q7-9, Q11-18 Raised Pedestrian Crossings

## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRC- Sheet 7/14

Key Plan



### Q8 RESIDENTIAL ROAD TYPICAL RAISED PEDESTRIAN CROSSING

This junction is located along the residential corridor, and will be highlighted with a series of feature trees. A raised pedestrian crossing, marked with seasonal flowers, links both sides of the right-of-way.

SOFTSCAPE



Tree



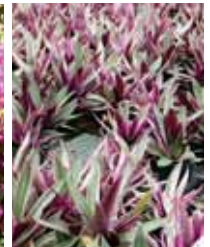
Ornamental grass



Seasonal



Shrubs & groundcovers



PAVING	A PEDESTRIAN CROSSING			B PEDESTRIAN FOOTPATH		C PARKING		D ROAD	
	BAND	INFILL	ACCENT	BAND	INFILL	INFILL	BAND	INFILL	ROAD MARKINGS
	100x200x60/80mm Concrete paver, Dark beige colour, Shotblasted finish	100x100x60/80mm Concrete paver, Dark red colour, Shotblasted finish	100x100x60/80mm Concrete paver, Light red colour, Shotblasted finish	100x200x60mm Concrete paver, Dark beige colour, Shotblasted finish	200x200/400/600x60mm Concrete paver, Light beige colour, Shotblasted finish	100x200x80mm Concrete paver, Mid-grey colour, Flamed finish	100x200x80mm Concrete paver, Light grey colour, Flamed finish	100x200x80mm Concrete paver, Dark grey colour, Shotblasted finish	100x200x80mm Concrete paver, Light grey colour, Shotblasted finish

REF: LQID-PRC- Sheet 8/14



Key Plan



### Q9 RESIDENTIAL ROAD TYPICAL RAISED PEDESTRIAN CROSSING AT T-JUNCTION

This T-junction lies along the residential road. It stands out with a series of feature trees and seasonal planting. A raised pedestrian crossing continues from one side to the other, for a smooth flow of pedestrian movement.

SOFTSCAPE



Trees



Ornamental grass



Seasonal



Shrubs &amp; groundcovers



PAVING	A PEDESTRIAN CROSSING			B PEDESTRIAN FOOTPATH		C PARKING		D ROAD	
	BAND	INFILL	ACCENT	BAND	INFILL	INFILL	BAND	INFILL	ROAD MARKINGS
	100x200x60/80mm Concrete paver, Dark beige colour, Shotblasted finish	100x100x60/80mm Concrete paver, Dark red colour, Shotblasted finish	100x100x60/80mm Concrete paver, Light red colour, Shotblasted finish	100x200x60mm Concrete paver, Dark beige colour, Shotblasted finish	200x200/400/600x60mm Concrete paver, Light beige colour, Shotblasted finish	100x200x80mm Concrete paver, Mid-grey colour, Shotblasted finish	100x200x80mm Concrete paver, Light grey colour, Shotblasted finish	100x200x80mm Concrete paver, Dark grey colour, Shotblasted finish	100x200x80mm Concrete paver, Light grey colour, Shotblasted finish

## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRC- Sheet 9/14



Key Plan



### Q1 SPINE ROAD

#### TYPICAL AT-GRADE PEDESTRIAN CROSSING

Located along the spine road, this junction has a pedestrian crossing at-grade, flanked with a series of feature trees and marked with seasonal flowers.

SOFTSCAPE



Trees



Ornamental grass



Groundcovers & seasonals



Shrubs



PAVING	PEDESTRIAN PLAZA		
	BAND	INFILL	ACCENT
	100x200x50mm Granite paver, 200x200x50mm Granite paver, 200x200x50mm Granite paver, Light red colour, Flamed finish Light beige colour, Honed finish Dark red colour, Flamed finish		

ROAD	
INFILL	ROAD MARKINGS
200x200x50mm Granite paver, Dark grey colour, Natural split finish 100x200x50mm Granite paver, Light grey colour, Natural split finish	

REF: LQID-PRC- Sheet 10/14



Key Plan



### Q17 PREMIER BEACH VILLA ROAD TYPICAL PEDESTRIAN CROSSING AT T-JUNCTION

Marked with a raised pedestrian crossing, a series of feature trees and seasonal planting, this T-junction will link the Spine Road with the Premier Waterfront Villa road.

SOFTSCAPE



Trees



Ornamental grass



Groundcovers & seasonals



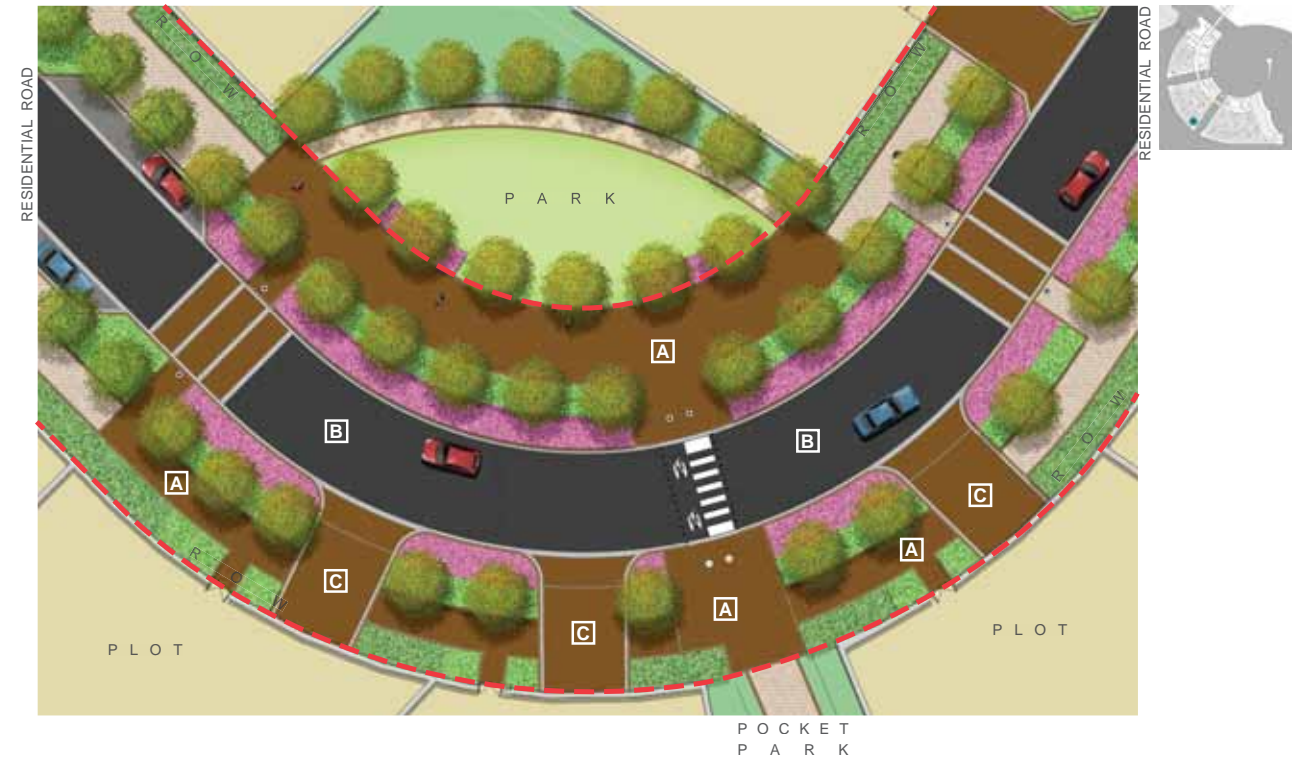
Shrubs



PAVING	[A] PEDESTRIAN CROSSING			[B] PEDESTRIAN PLAZA			[C] PEDESTRIAN FOOTPATH		[D] DRIVEWAY	
	BAND	INFILL	ACCENT	BAND	INFILL	ACCENT	BAND	INFILL	INFILL	BAND
	100x200x60/80mm Concrete paver, Dark beige colour, Shotblasted finish	100x100x60/80mm Concrete paver, Dark red colour, Shotblasted finish	100x100x60/80mm Concrete paver, Light red colour, Shotblasted finish	100x200x50mm Granite paver, Light red colour, Flamed finish	200x200x50mm Granite paver, Light beige colour, Honed finish	200x200x50mm Granite paver, Dark red colour, Flamed finish	100x200x60mm Concrete paver, Dark beige colour, Shotblasted finish	200x200/400/600x60mm Concrete paver, Light beige colour, Shotblasted finish	100x100x80mm Concrete paver, Mid-red colour, Shotblasted finish	200x200x80mm Concrete paver, Light-red colour, Shotblasted finish

## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRC- Sheet 11/14



### Q9 RESIDENTIAL ROAD TYPICAL CORNER ROAD

This type of junction is situated on the corner of the residential road corridor. It is highlighted with seasonal planting, pedestrian plaza and feature trees.

SOFTSCAPE



Trees



Ornamental grass



Groundcovers & seasonals



Shrubs

PAVING	PEDESTRIAN PLAZA		
	BAND	INFILL	ACCENT
	100x200x60/80mm Concrete paver, Dark beige colour, Shotblasted finish	100x100x60/80mm Concrete paver, Dark red colour, Shotblasted finish	100x100x60/80mm Concrete paver, Light red colour, Shotblasted finish

ROAD	
INFILL	ROAD MARKINGS
100x200x80mm Concrete paver, Dark grey colour, Shotblasted finish	100x200x80mm Concrete paver, Light grey colour, Shotblasted finish











DRIVEWAY	
INFILL	BAND
100x100x80mm Concrete paver, Mid-red colour, Shotblasted finish	200x200x80mm Concrete paver, Light-red colour, Shotblasted finish

REF: LQID-PRC- Sheet 12/14

## TREE CANOPY STRATEGY



## Key

SPINE ROAD		COMMERCIAL ROAD		PREMIER WATERFRONT VILLA ROAD		RESIDENTIAL ROAD			
ROW	Junction	ROW	Junction	ROW	Junction	ROW			Junction
									
Phoenix dactylifera	Delonix regia	Bucida buceras	Delonix regia	Millingtonia hortensis	Delonix regia	Bucida buceras	Peltophorum inerme	Terminalia catappa	Delonix regia

## 2.3.2 PUBLIC REALM CONTEXT

REF: LQID-PRC- Sheet 13/14

### STREET FURNITURE

Street furniture was design by HUB Street Furniture Design Consultants and will be included in the design packages of all right-of-way and other public realm projects.



Bench



Trash bin

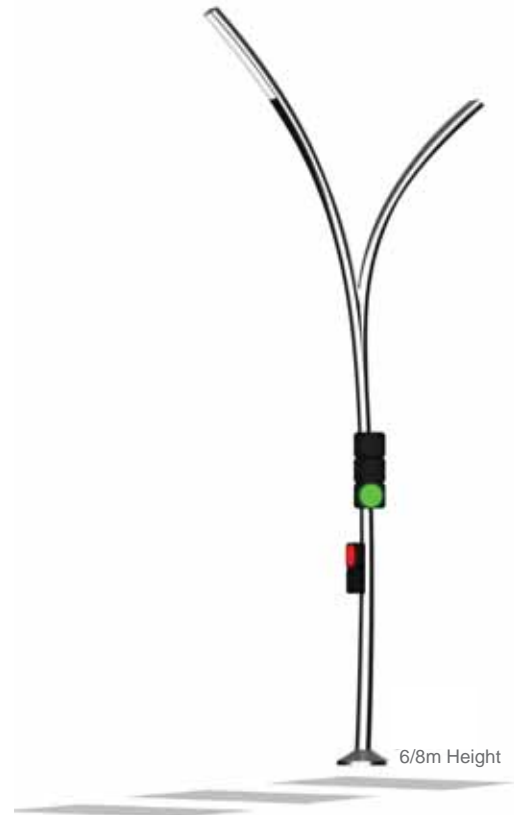
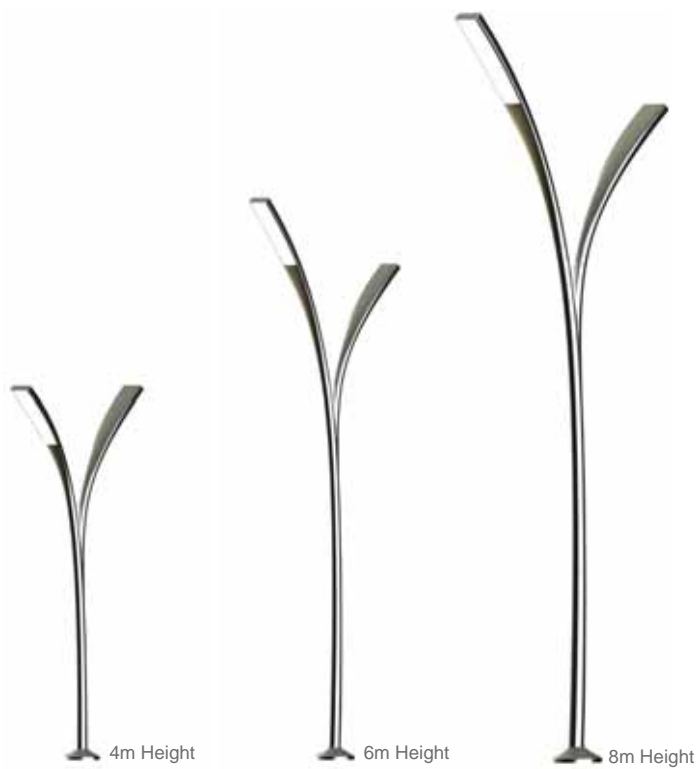


Bike rack



Bollard

### PROPOSED FEATURE LIGHT POLES AND LUMINAIRES



REF: LQID-PRC- Sheet 14/14

## WAY FINDING

**Island Entry Sign (Island Specific)**

Form  
Totem Sign, Ground Mounted

Materials  
Powdercoated Aluminium  
Silkscreen Graphics  
Etched Graphics

Lighting  
Ground Based Up Lighting

**Direction Sign (High Level)**

Form  
Totem Sign, Ground Mounted

Materials  
Powdercoated Aluminium  
Silkscreen Graphics  
Etched Graphics

Lighting  
Ground Based Up Lighting

**Direction Sign (Low Level)**

Form  
Monolith Sign, Ground Mounted

Materials  
Powdercoated Aluminium  
Silkscreen Graphics  
Etched Graphics

Lighting  
Ground Based Up Lighting

**Park Entry Sign**

Form  
Totem Sign, Ground Mounted

Materials  
Powdercoated Aluminium  
Pre-cut Graphics  
Silkscreen Graphics

Lighting  
Ground Based Up Lighting

**Information Sign**

Form  
Totem Sign, Ground Mounted

Materials  
Powdercoated Aluminium  
Pre-cut Graphics  
Silkscreen Graphics  
Print Map

Lighting  
Ground Based Up Lighting

**Fingerpost Sign**

Form  
Pole With Blades, Ground Mounted

Materials  
Stainless Steel Pole  
Powdercoated Aluminium Blades  
Silkscreen Graphics

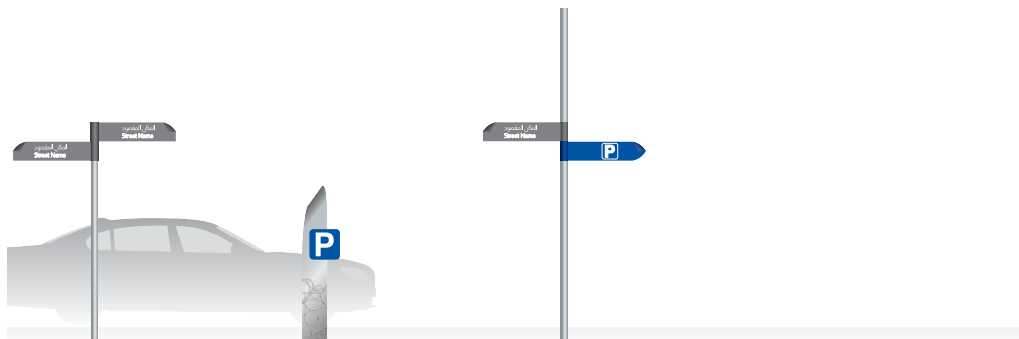
Lighting  
Ground Based Up Lighting

**Bike Path/Jogging Path Sign**

Form  
Ground Mounted

Materials  
Stainless Steel  
Incorporated Into Paving

Lighting  
Ambient Lighting

**Street Name Sign**

Form  
Pole With Blades, Ground Mounted

Materials  
Stainless Steel Pole  
Powdercoated Aluminium Blades  
Silkscreen Graphics

Lighting  
Ground Based Up Lighting

**Parking Sign**

Form  
Totem Sign, Ground Mounted

Materials  
Powdercoated Aluminium  
Silkscreen Graphics  
Etched Graphics

Lighting  
Ground Based Up Lighting

**Street Name Sign Blades And Parking Sign  
Incorporated With Street Light Poles When Possible**

## 2.4 PLOT TYPOLOGY GUIDELINES & CONTROLS

### 2.4.1 OVERVIEW



ARCHITECTURAL GUIDELINES & CONTROLS	➔
BOUNDARY WALLS GUIDELINES & CONTROLS	➔
LANDSCAPE GUIDELINES & CONTROLS	➔



District Location Plan

## PLOT TYPOLOGIES

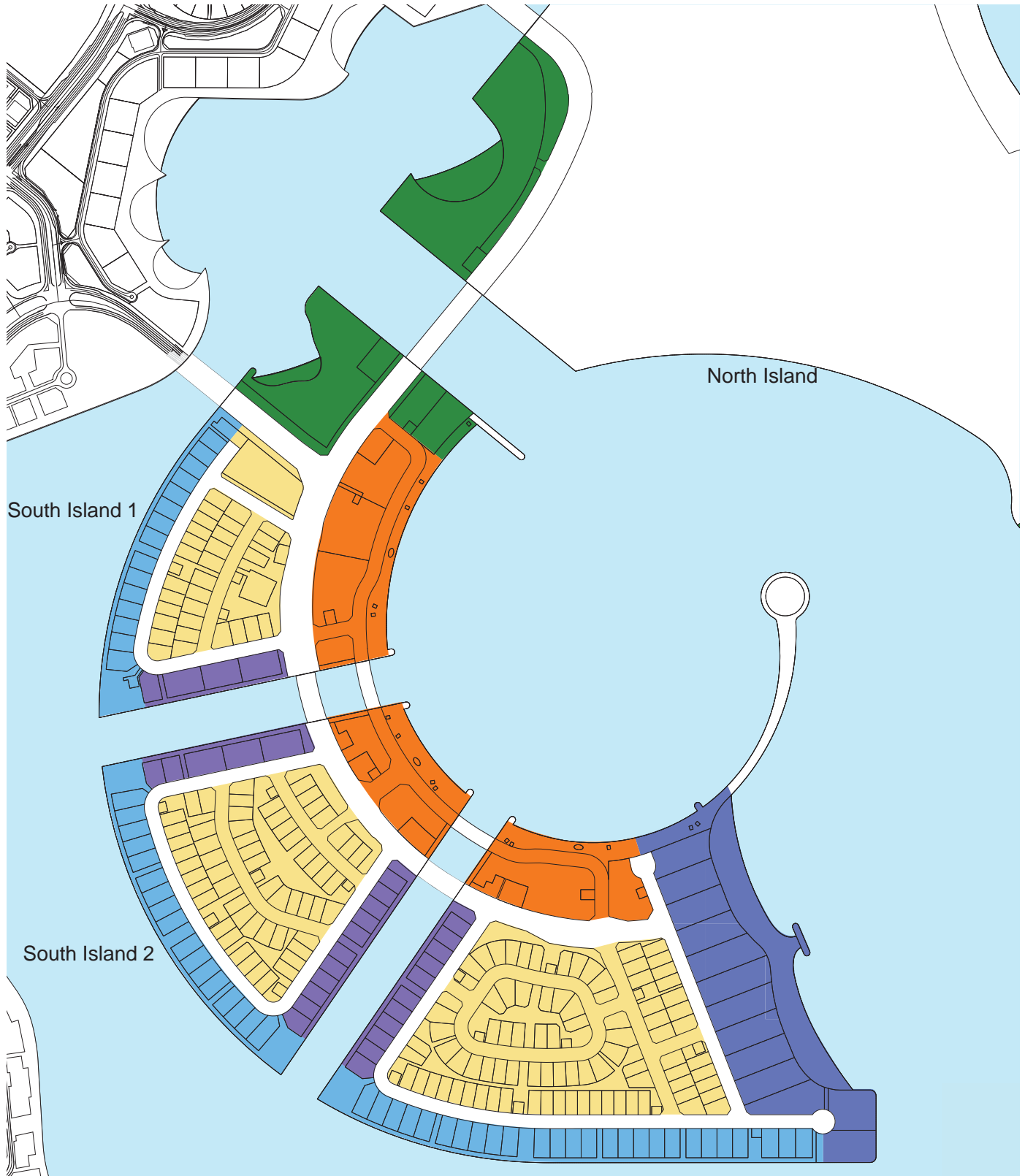
Plots are divided into two categories: residential plots and non-residential plots.

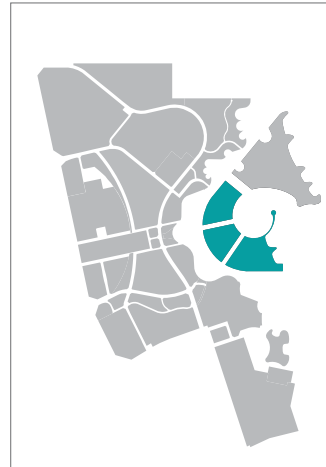
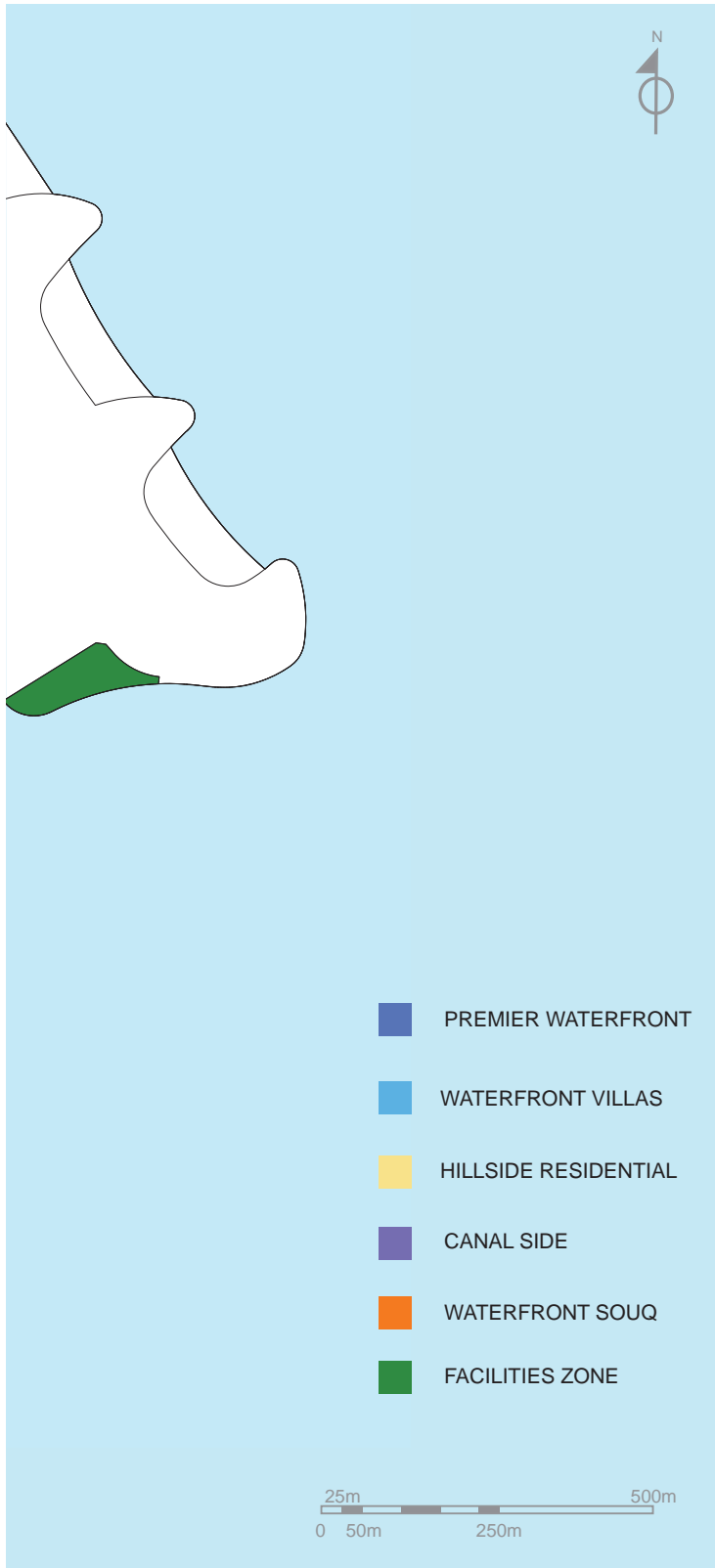
Residential uses include the Garden and Middle Villas in the Hillside precinct, the Waterfront Villas, the Premier Waterfront Villas, and the Apartment buildings at the Canal side.

Non residential uses include, in addition to the Souq, the mosques, the school, recreation facilities (Harbour Master, Beach Club Hotel, Officers Club, Sailing Club and Yacht Club), marina buildings and utility buildings.

## 2.4 PLOT TYPOLOGY GUIDELINES & CONTROLS

### 2.4.1 OVERVIEW





District Location Plan

## PRECINCTS

The major land use planning precincts within Qetaifan have been established reflecting the primary the uses and the common design elements that link them. The regulatory plan consists of a zoning/land use precincts map which shows the geographical location of these zones within Qetaifan Islands, supported by a table depicting the allowable permitted and conditional uses in these precincts. This is followed by the design guidelines described in Sections 2.4, 2.5 and 2.6 which indicate specific development conditions and design objectives within each zone.

- > Premier Waterfront
- > Waterfront Villas
- > Hillside Residential
- > Canal Side
- > Waterfront Souq
- > Facilities Zone

The plots guidelines and controls provided in this section relate to the coded Plot Typology Plan. The following have been considered as the main drivers for the plot typologies:

- > Plot typologies based on land uses within each precinct
- > Topography

The prescribed code references are set out in the key which refer to specific guidelines sheets in the following pages.



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## 2.4 PLOT TYPOLOGY

# GUIDELINES & CONTROLS

### 2.4.1 OVERVIEW

---

## TOPOGRAPHY

**Due to the topographic conditions and the high visibility within Qetaifan Islands, special design is required for site development. Each plot has unique features of topography, slope, drainage and access that need to be analyzed in the design process.**

**The intent is to minimize the visual impact, maintain privacy of sloping plots, build villas that nestle into the natural terrain, and harmonize with the overall island character.**

Typically, improvements should be nestled into the land remaining as close as possible to its natural topography, so as to be part of the site rather than being perched on it. Improvements should step down slopes, using multi-level solutions wherever possible to follow existing contours and minimize cut and fill situations and thus reduce the height of the retaining walls, and allow for the villas to nestle into the existing site and appear as an extension of the natural landforms.

Wherever needed, significant cut and fill conditions should be contained within retaining walls. Conditions to retaining walls between back to back plots, side plots, plots/park limits and plots/street limits are described in section 2.5, Boundary Treatment Guidelines and Controls.

When construction is completed, the finished grade around the villa and site walls should lie against the walls as nearly as possible to the original angle of slope.

# <

## 2.4 PLOT TYPOLOGY

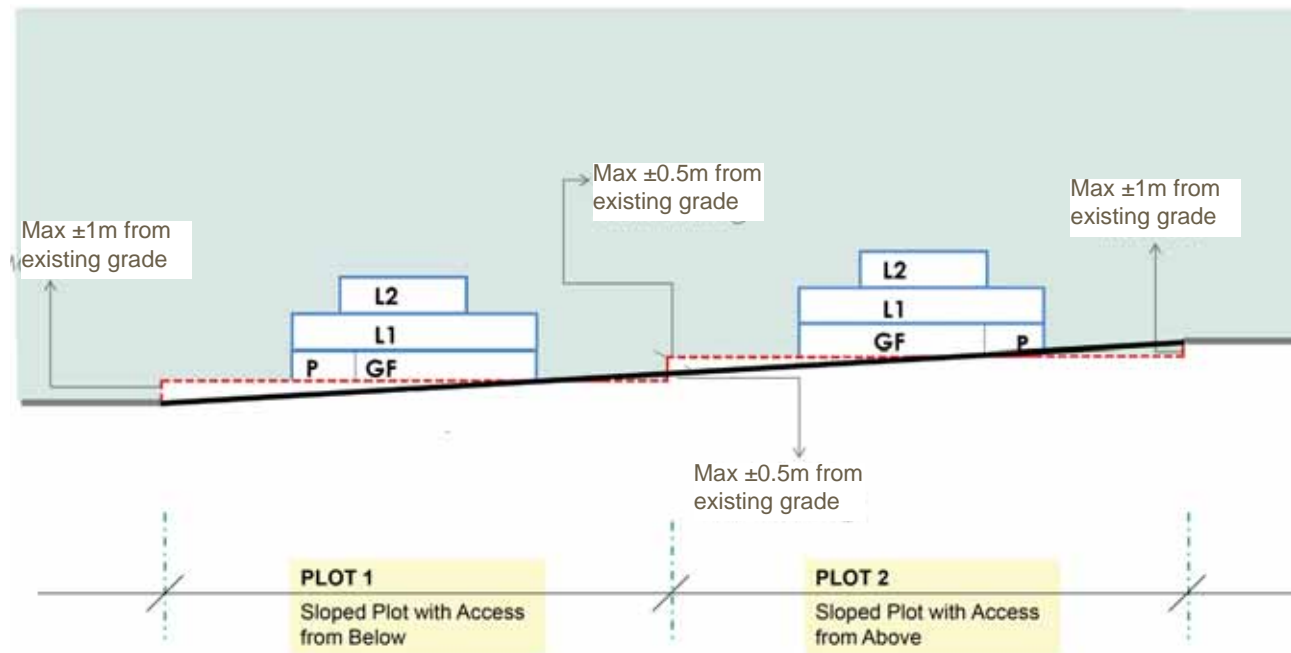
### GUIDELINES & CONTROLS

#### 2.4.1 OVERVIEW

#### TOPOGRAPHY

Terrain slope of villas within the Hillside district will vary between gentle slopes (0-3%) and major slopes (more than 3%).

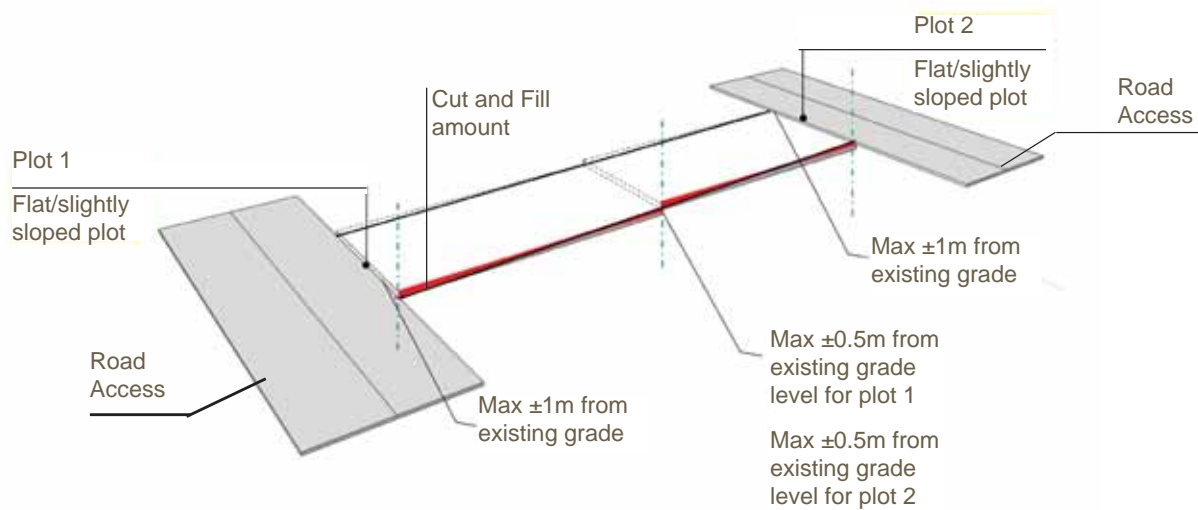
##### TYPICAL PLOT WITH GENTLE SLOPE



##### EXAMPLE OF A TYPICAL PLOT WITH GENTLE SLOPE.

A slope of less than 3% may be considered as flat. Retaining wall height in these instances would be limited to 1m max.

### TYPICAL PLOT WITH GENTLE SLOPE



Each plot can be graded based on the design of the villa and the landscape. Conditions for plots grading have been set to maintain consistency along boundary walls heights, limit the height of the retaining walls and maintain privacy of each villa.

The height limit of the retaining wall shall be limited to 1m, measured vertically from the lowest point at existing finished grade adjacent to the wall. Each owner can raise or lower the plot at the street side and at the park side by a maximum of 1m, and by half a meter between two adjacent plots.

Further details to retaining walls are described in section 2.5, Boundary Treatment guidelines and Control.

# <

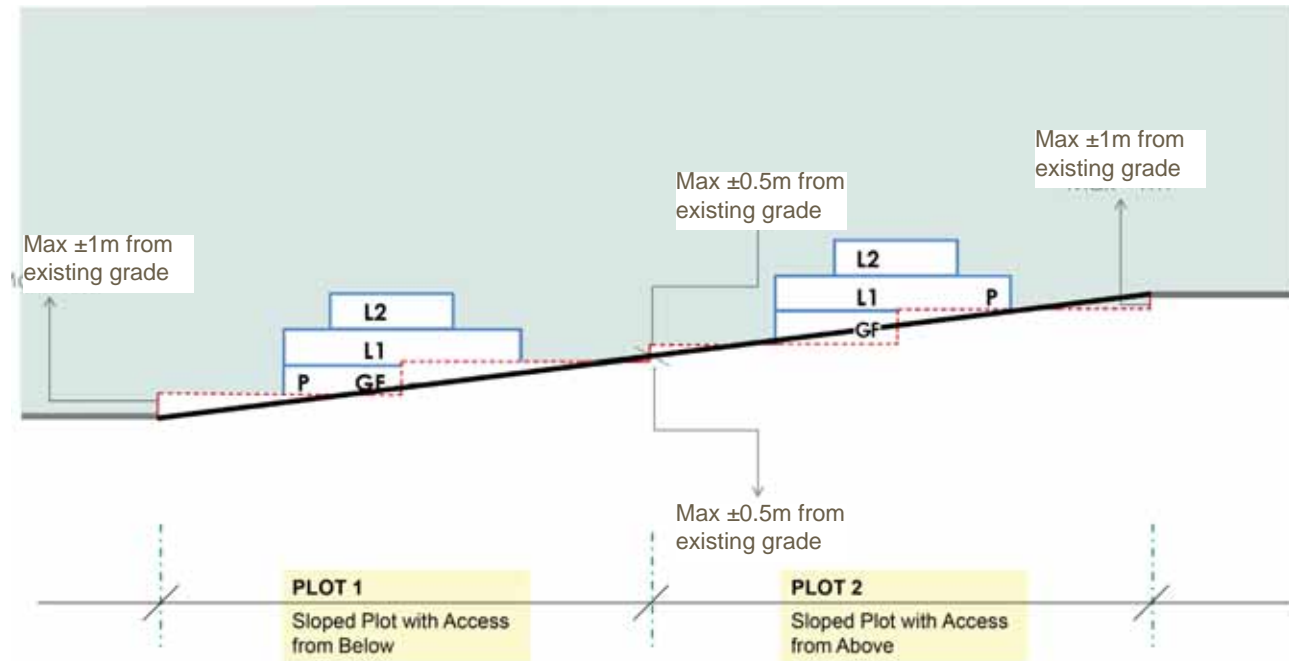
## 2.4 PLOT TYPOLOGY

### GUIDELINES & CONTROLS

#### 2.4.1 OVERVIEW

#### TOPOGRAPHY

##### TYPICAL PLOT WITH MAJOR SLOPE

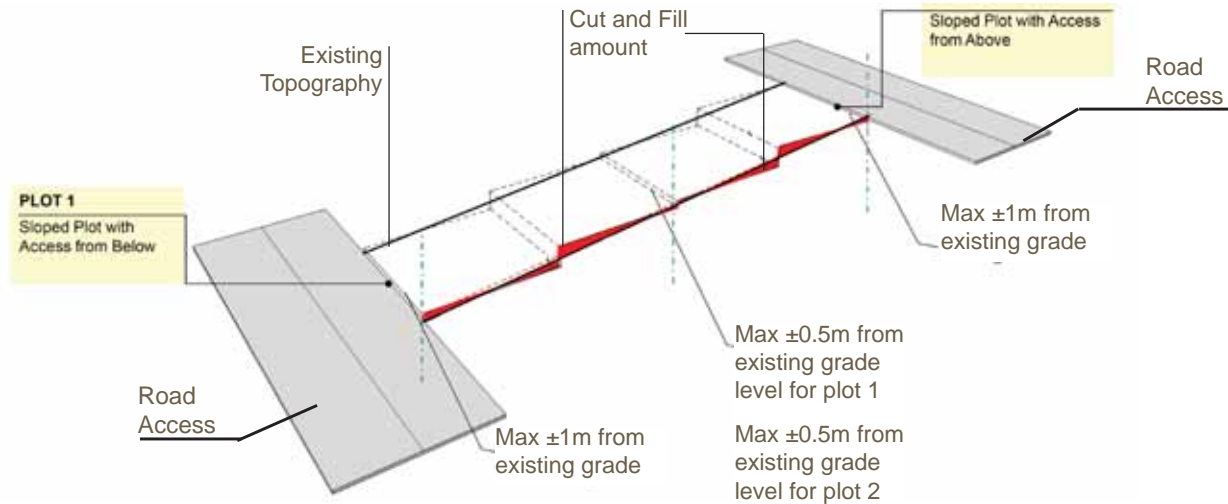


##### EXAMPLE OF A TYPICAL PLOT WITH MAJOR SLOPE

A slope within a plot greater than 3% would be regarded as a steep slope with different set of conditions to be applied in terms of buildings layout. In such instances, plots may be terraced with split-level buildings in order to maintain height conditions to ensure privacy of adjacent properties and to avoid unreasonably high retaining walls.

It's recommended to maintain the natural slope of the land and limit the grading in the buildings location. The diagram above is indicative of maximum grading in a plot.

## TYPICAL PLOT WITH MAJOR SLOPE



The same conditions of retaining wall height limitation for a gentle slope site apply to steep sites.

In addition, those sites could have intermediate platforms, where the designers should take into consideration the regulations for boundary walls along steep sites.

If the site will be stepped, the interface between the boundary walls and the site platforms is critical. Further measures to reduce retaining walls heights and limit the amount of cut and fill are described in section 2.5, Boundary Treatment Guidelines and Control.

ARCHITECTURAL GUIDELINES &amp; CONTROLS

BOUNDARY WALLS GUIDELINES &amp; CONTROLS

LANDSCAPE GUIDELINES &amp; CONTROLS

## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 1/19

### GARDEN/MIDDLE VILLAS

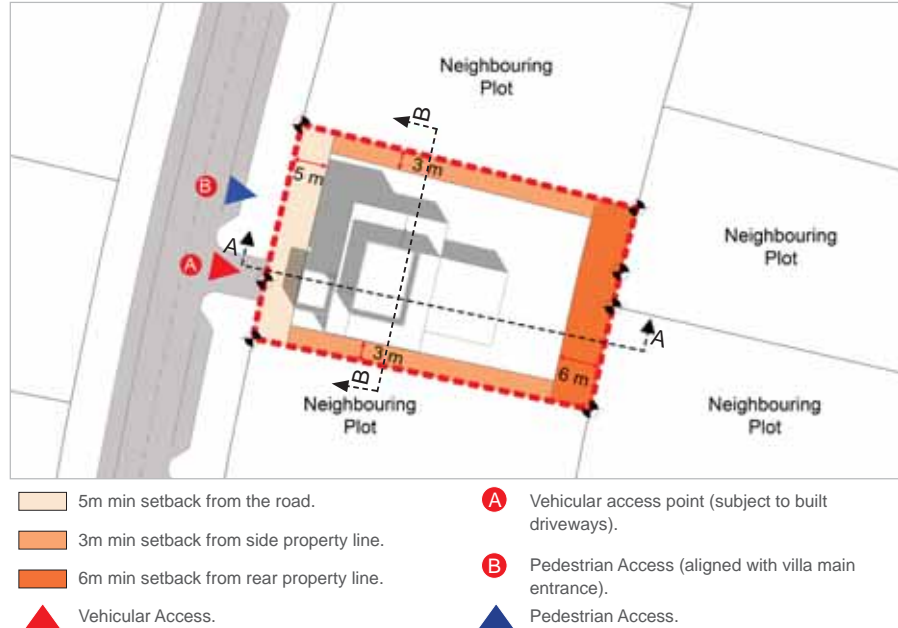
GLOSSARY OF TERMS

Middle / Garden Villa Plot - Plan

These sheets support and clarify the existing Building Regulations issued to the current plot owners and is supplemental to all existing documentation.

The sheets comprise mandatory controls and guidelines suggestions to assist plot owners and their advisors in preparing compliant proposals.

The objective is to foster best design practice for liveable neighbourhoods within Qatar's cultural context. The guidelines and controls are an outcome of a detailed review by the Lusail Planning Authority.



The following conditions within Building Regulations sheets for individual villa plots remain unchanged:

To safeguard quality, the following regulations are amended to augment and add to the Building Regulations:

#### EXISTING REGULATIONS SUMMARY:

Permitted Land Use	Residential
Plot Area	As per individual Building Regulations Sheet
Max. FAR	80 %
Max. Plot Coverage	40 %
Penthouse Coverage	30% of first floor area with a minimum 3.0m from the first floor front side
Max. Number of Floors	G + 1 + P (Penthouse)
Basement	One level of basement is allowed not to extend beyond villa footprint
Max. Heights	15m to top of Penthouse roof
	3.5m for service block
	4.5m for majlis
	Boundary Wall: 2.4m/ Max 3.4 m
Min. Setbacks Criteria	3m from the side property line
	5m from the street entry property line
	6m from rear property line
	Penthouse: 3m from the first floor front side
	Majlis: 2m from the internal face of front boundary wall
Min. Car Parking Provision	Min 2 spaces per dwelling

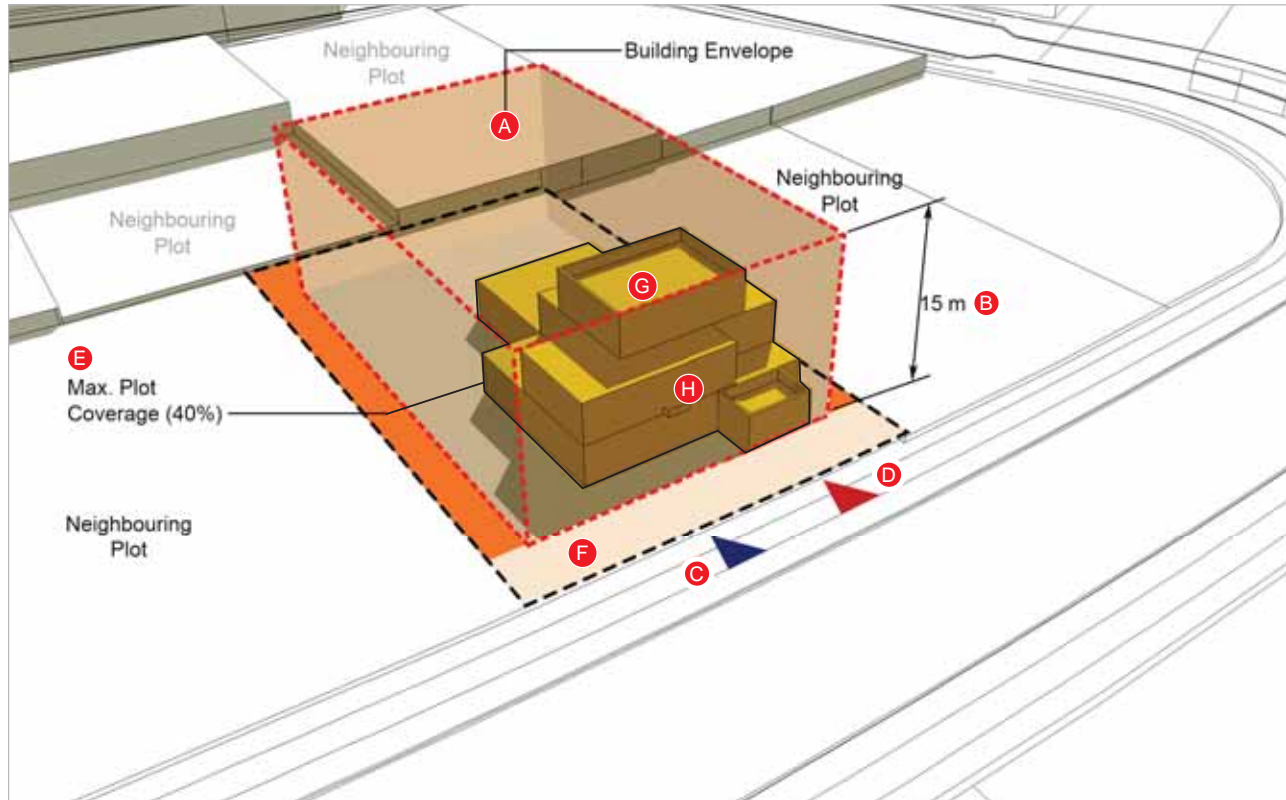
#### ADDITIONAL REGULATIONS:

BOUNDARY WALL	Perimeter walls and entrances to comply with boundary wall design guidelines & controls. boundary walls heights are variable due to slope conditions
OPENINGS	Side setback: openings (eg. windows, balconies and terraces) are allowed in walls between 3.0m and 6.0m setback but should be screened for visual privacy from neighboring properties
	Front setback: Openings in front elevations must be setback min 5.0m and do not have to be screened
	Rear setback: Openings are allowed in GF rear and above levels. Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy
	Balconies & terraces: All balconies & terraces open to sky whose sides face neighboring plots must have 1.8m high solid screen parapet for privacy
	Penthouse openings: on facades facing neighbors, openings are not allowed in Penthouse unless it's minimum 3.0m setback from roof boundary with a 1.8m high solid screen parapet for privacy
ANCILLARY BUILDINGS	Driver building: can locate on front of boundary wall; however, no openings are allowed on front boundary wall facing the street buildings.
	Other Ancillary Buildings (excluding majlis) must be setback from the front plot boundary at least as far as the main villa
	Ancillary Structure length: Maximum cumulative length of all ancillary buildings must be less than 50% of front road side or 75% of neighbor side wall length
	Basements of any type not allowed under any ancillary
ROOFTOP MECHANICAL EQUIPMENT	Rooftop mechanical equipment to be set to the rear of the building and screened from view from all sides
LANDSCAPE	Front gardens to incorporate at least 2 mature trees in line with landscape guidelines and controls as a contribution to streetscape character

REF: LQID-RTPG- Sheet 2/19

**GARDEN/MIDDLE VILLAS**

Middle / Garden Villa Plot - Volume

**KEY PARAMETERS:**

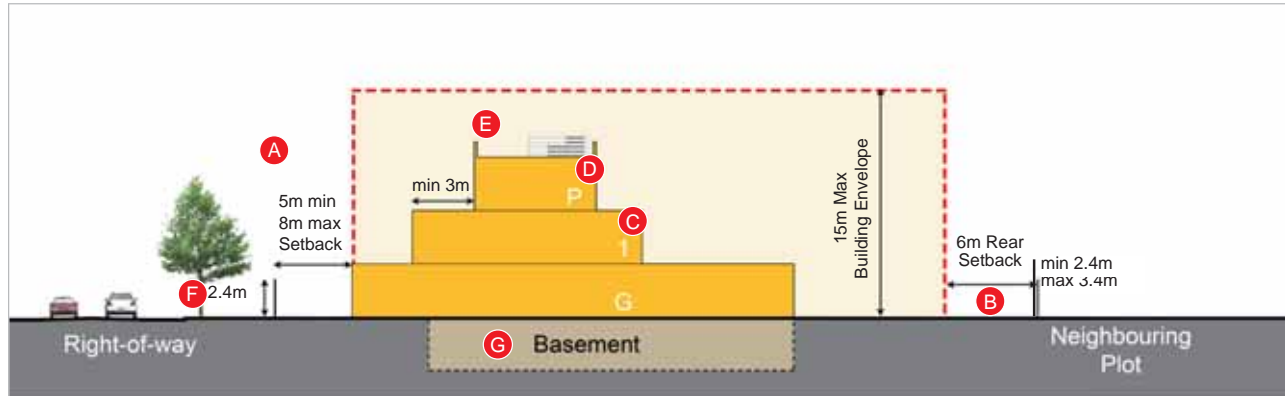
- |  |   |   |  |
|--|---|---|--|
| <p><b>A</b> The Building Envelope is the total area within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions.</p>                 | <p><b>B</b> Maximum Building Height: measured from the lowest side of the plot to top of parapet and must not exceed +15m including all parapets and roof structures</p>  | <p><b>C</b> Pedestrian entrance may be aligned with villa main doorway or adjacent to vehicular access. Refer to villa Plot Boundary Treatment Guidelines and Controls for further information.</p> | <p><b>D</b> Vehicular access must be via defined driveway locations. Refer to Villa Plot Boundary Treatment Guidelines and Controls for further information.</p> |
| <p><b>E</b> Max. Plot Coverage: the portion of a plot that is occupied by any building or structure expressed as a percentage of occupied footprint area to total plot area. Must not exceed 40%</p> | <p><b>F</b> Front Setback: min setback 5m and max setback 8m for main villa building. This is to maintain a cohesive street alignment. Majlis may be setback 2m from the front plot boundary. All other ancillary must be setback as far as the main villa.</p> | <p><b>G</b> Penthouse position: penthouses must be within a minimum 3.0m from the first floor front side.</p>   | <p><b>H</b> Cantilevered projections such as balconies should remain within setback limits</p>   |

## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 3/19

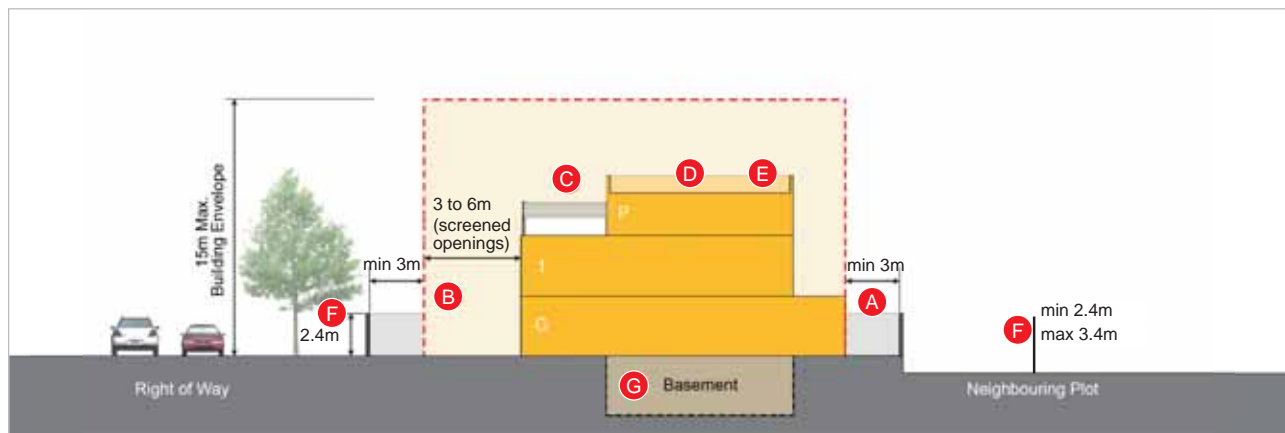
### GARDEN/MIDDLE VILLAS

Typical Middle / Garden Villa Plot - Section A-A



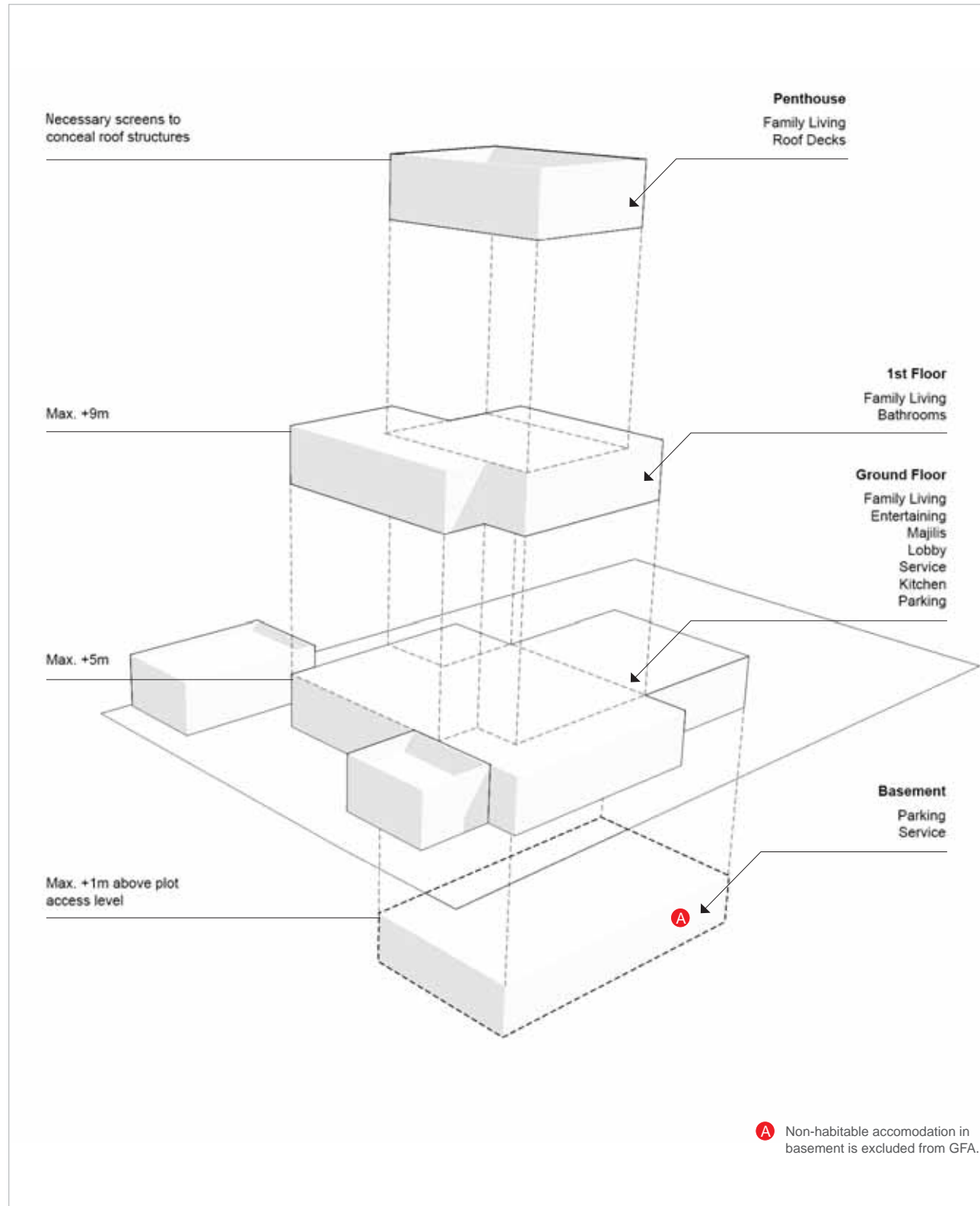
- |   |   |
|---|---|
| <p>(A) Min 5m - Max 8m setback from front plot boundary</p> <p>(B) Min. 6m setback from rear property line with no openings</p> <p>(C) Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy</p> <p>(D) Penthouses must be within a minimum 3.0m from the first floor front side</p> | <p>(E) Roof top equipment should be adequately screened from view</p> <p>(F) Boundary wall: 2.4m high; max 3.4m including retaining wall</p> <p>(G) Basement: max 1 level whose maximum area is no greater than ground floor footprint. Area is excluded from GFA only if both naturally ventilated and non-habitable. habitable spaces cannot collectively exceed a maximum 50% of basement footprint.</p> |
|---|---|

Typical Middle / Garden Villa Plot - Section B-B



- |   |   |
|---|---|
| <p>(A) Min 3m setback from side plot boundary</p> <p>(B) Min. 6m setback from rear property line with no openings</p> <p>(C) Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy</p> <p>(D) Penthouses must be within a minimum 3.0m from the first floor front side</p> | <p>(E) Roof top equipment should be adequately screened from view</p> <p>(F) Boundary wall: 2.4m high; max 3.4m including retaining wall</p> <p>(G) Basement: max 1 level whose maximum area is no greater than ground floor footprint. Area is excluded from GFA only if both naturally ventilated and non-habitable. habitable spaces cannot collectively exceed a maximum 50% of basement footprint.</p> |
|---|---|

REF: LQID-RTPG- Sheet 4/19

**GARDEN/MIDDLE VILLAS**

## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 5/19

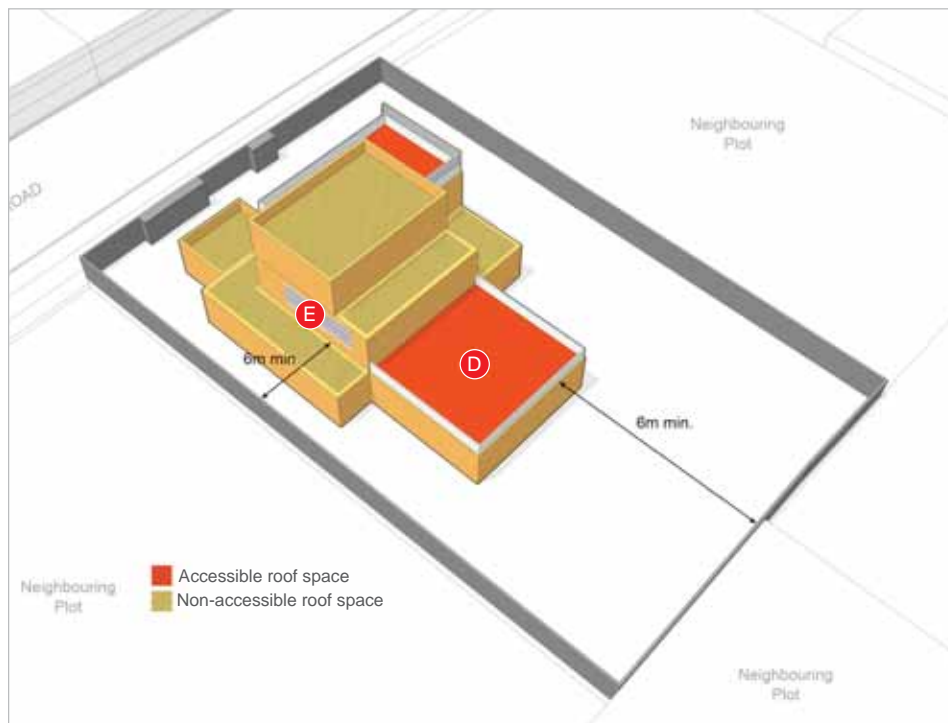
### GARDEN/MIDDLE VILLAS



**Privacy is an important issue for plot owners so controlling overlooking of neighboring plots needs particular attention.**

Elevations that include openings (windows, balconies & terraces) are to adhere to 3m min. setback from the plot boundary. Openings within 6m of the plot boundary on rear and side elevations must be screened 100% up to a minimum height of 2m. Windows may additionally be angled or recessed for additional privacy.

- A** No roof terrace is permitted in this area due to inadequate screening. Access to this roof space should be restricted.
- B** Roof terrace is permitted here as this elevation has adequate screening from neighboring plots
- C** No screening to windows or terraces is required on front elevations

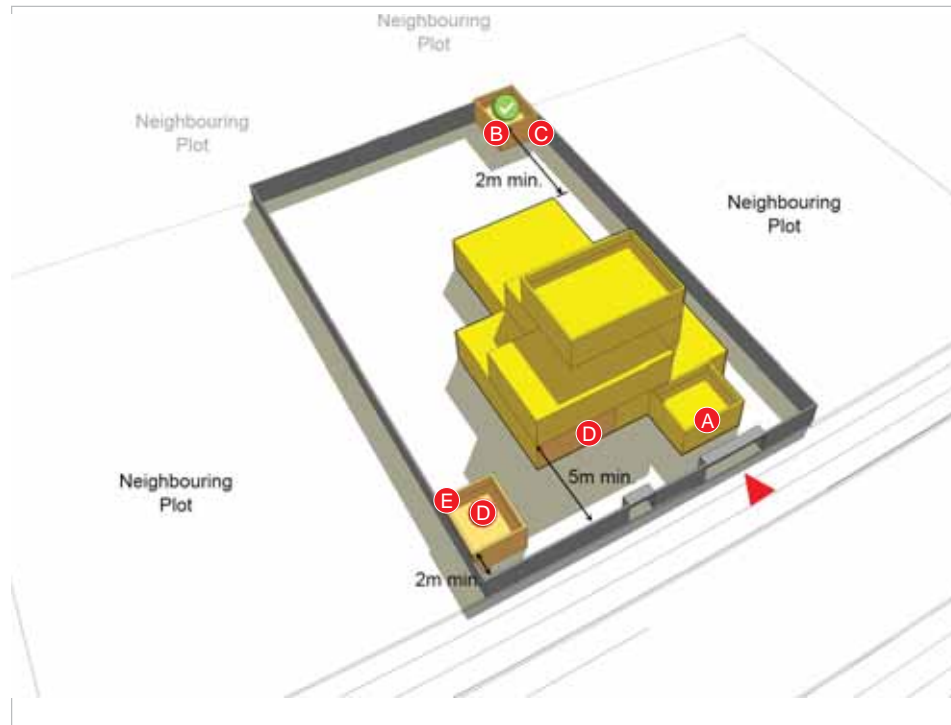


**Roof areas created through the articulation of the building massing can only be accessible if appropriate screening requirements are in place.**

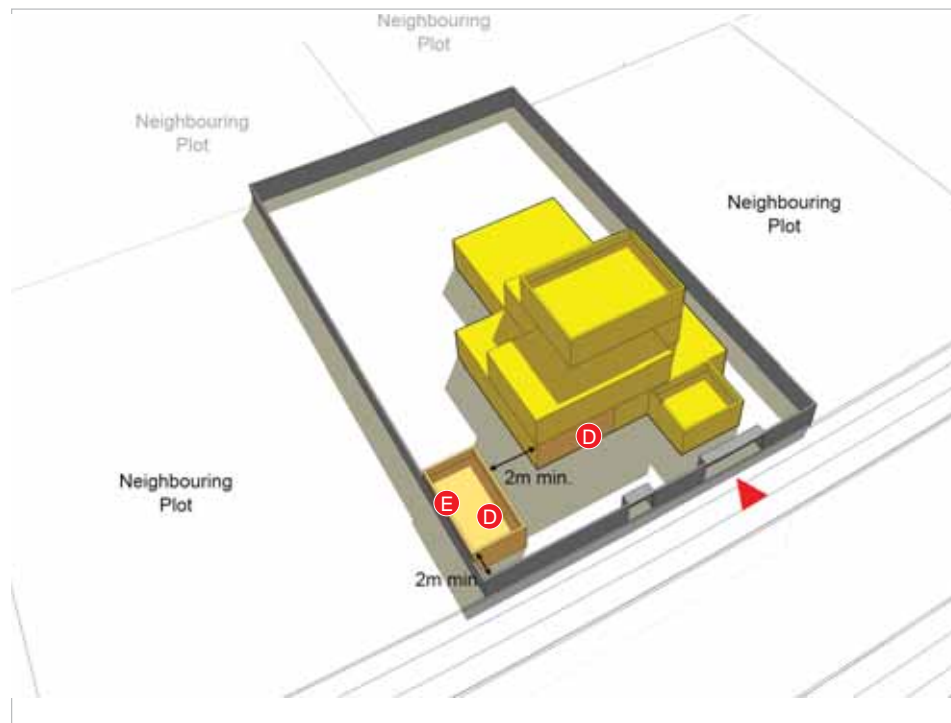
If screening requirements do not apply, access should be restricted by prohibiting patio doors or full height windows from opening onto these spaces. Non accessible roofs should be designed with materials and finishes that discourage their habitable use.

- D** Roof terrace is permitted here as it is at least 6m away from side and rear plot boundaries
- E** Side and rear openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy

REF: LQID-RTPG- Sheet 6/19

**GARDEN/MIDDLE VILLAS****PARKING & ANCILLARY BUILDINGS**

**An ancillary building is a support building such as an outside kitchen, servant's quarters, storage, pool room etc. Ancillary buildings must be included in the overall GFA.**



**The Majlis has different Setback requirements than other ancillary buildings. The Majlis may also be incorporated as part of the main villa or built freestanding at the front of the plot, 2m min from the street wall and (if required) abutting the party wall.**

- D** The Majlis may be incorporated or placed outside the villa footprint. If placed outside the villa footprint:
  - > there should be a minimum distance of 2m between the Majlis and the main building.
  - > Minimum of 2.0m setback from front wall if Majlis front facade width is less than 6.0m.
  - > Minimum of 3.0m setback from front wall if majlis front facade is more than 6.0m wide.
- E** Walls within 3m of the side plot boundary must not contain any openings. Small windows for the purpose of ventilating bathrooms will be allowed

## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 7/19

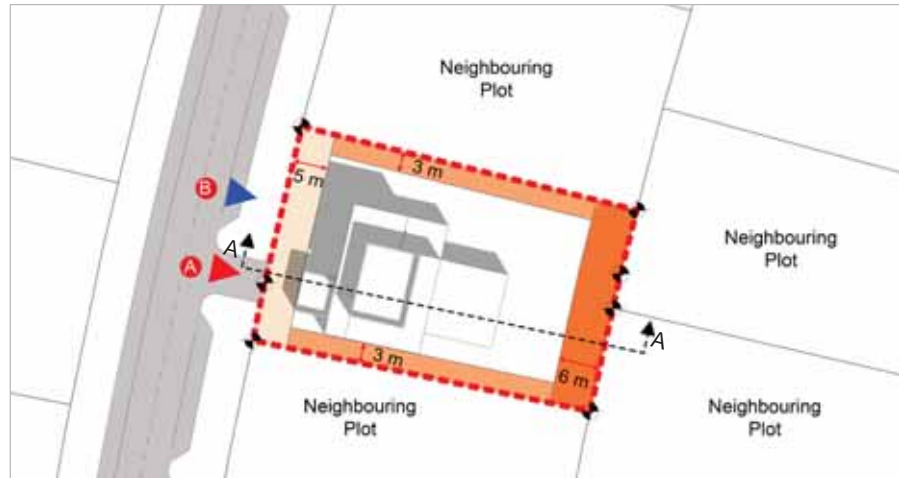
### SLOPE VILLAS

#### SLOPE CONDITION - ACCESS FROM THE UPPER SIDE

Sloping sites are present all along Qetaifan Islands, and mainly on the Hillside District. They benefit from increased views and access to cooling breezes.

However they require more design consideration than a flat block in order to balance house design, excavation with potential amenity impacts on neighboring properties.

These Slope plot sheets add to the guidelines of a typical villa plot in order to respond to these particular challenges. They should be therefore read in conjunction with the Typical Villa Plot Guidelines & Controls.

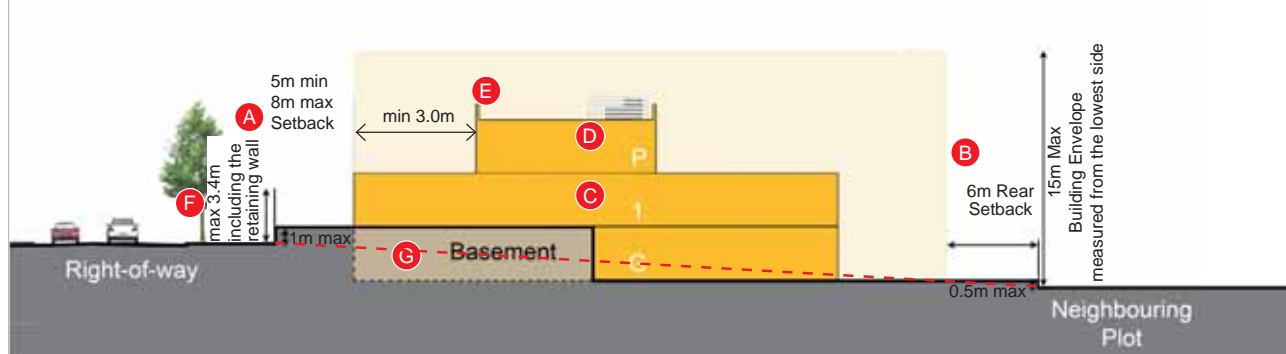


- 5m min setback from the road.
- 3m min setback from side property line.
- 6m min setback from rear property line.
- ▲ Vehicular Access.
- A Vehicular access point (subject to built driveways).
- B Pedestrian Access (aligned with villa main entrance).
- ▲ Pedestrian Access.

Building Height	Maximum building height will be measured from the lowest side of the plot, based on the existing plot levels, to avoid overimposing onto lower level neighboring plot
Plot Grading	Plots can be raised or lowered compared to existing grade level. The maximum is 1m at the park and street side, and 0.5m between adjacent plots, so the total between 2 adjacent plots can never exceed 1m.
Basement	1 basement is allowed, with a maximum area not exceeding the ground floor footprint. The basement is allowed at the street entrance side.

#### SAMPLE SECTION FOR A MAJOR SLOPE VILLA, ACCESSIBLE FROM THE UPPER SIDE

Typical Middle / Garden Villa Plot at sloped site with access from the upper side- Section A-A



- A Min 5m - Max 8m setback from front plot boundary
- B Min. 6m setback from rear property line with no openings
- C Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy
- D Penthouses must be within a minimum 3.0m from the first floor front side
- E Roof top equipment should be adequately screened from view
- F Boundary wall: 2.4m high; max 3.4m including retaining wall
- G Basement: max 1 level whose maximum area is no greater than ground floor footprint. Area is excluded from GFA only if both naturally ventilated and non-habitable. Habitable spaces cannot collectively exceed a maximum 50% of basement footprint.

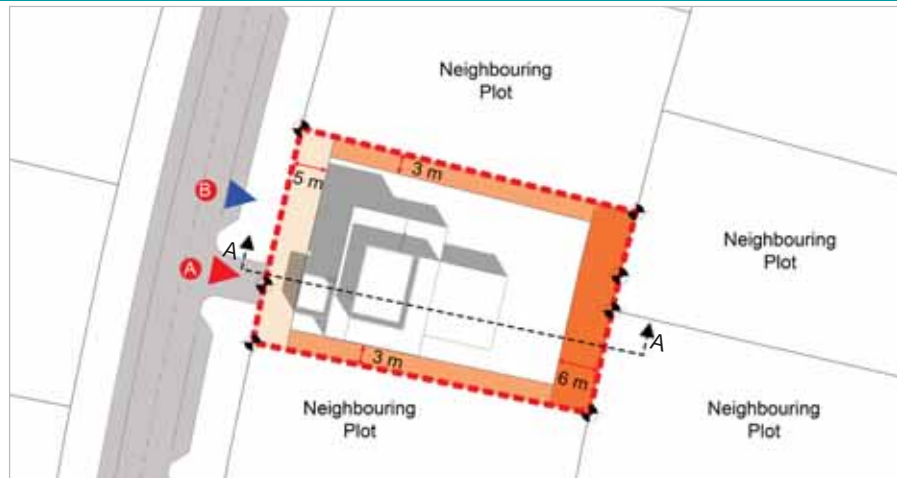
REF: LQID-RTPG- Sheet 8/19

**SLOPE VILLAS****SLOPE CONDITION - ACCESS FROM THE LOWER SIDE**

The natural shape of the land should be preserved wherever possible, on all grading for buildings.

To minimize the need for grading and to avoid high retaining walls, cut is preferable to fill in the formation of building pads. Drainage across neighboring properties is prohibited. Side boundary wall to step down following site grade.

Side Boundary wall should slope down to follow site grade (Refer to Boundary wall treatment guidelines).



5m min setback from the road.

3m min setback from side property line.

6m min setback from rear property line.

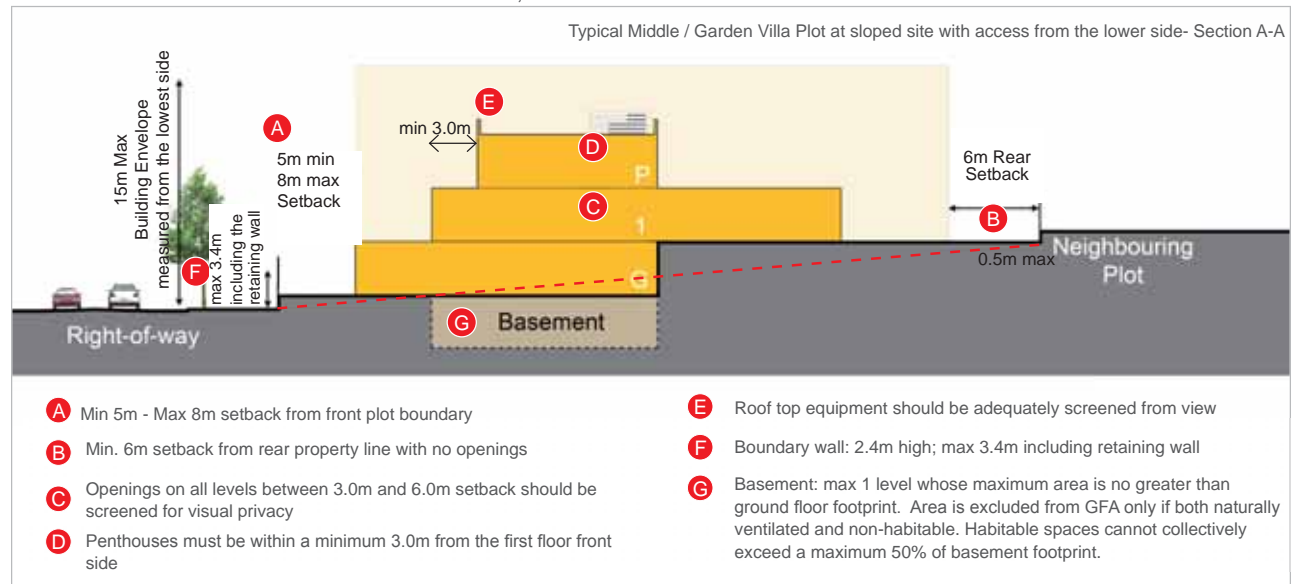
▲ Vehicular Access.

▲ Vehicular access point (subject to built driveways).

▲ Pedestrian Access (aligned with villa main entrance).

▲ Pedestrian Access.

Building Height	Maximum building height will be measured from the lowest side of the plot, based on the existing plot levels, to avoid overimposing onto lower level neighboring plot
Plot Grading	Plots can be raised or lowered compared to existing grade level. The maximum is 1m at the park and street side, and 0.5m between adjacent plots, so the total between 2 adjacent plots can never exceed 1m.
Basement	1 basement is allowed, with a maximum area not exceeding the ground floor footprint. The basement is allowed at the street entrance side.

**SAMPLE SECTION FOR A MAJOR SLOPE VILLA, ACCESSIBLE FROM THE LOWER SIDE**

ARCHITECTURAL GUIDELINES &amp; CONTROLS

BOUNDARY WALLS GUIDELINES &amp; CONTROLS

LANDSCAPE GUIDELINES &amp; CONTROLS

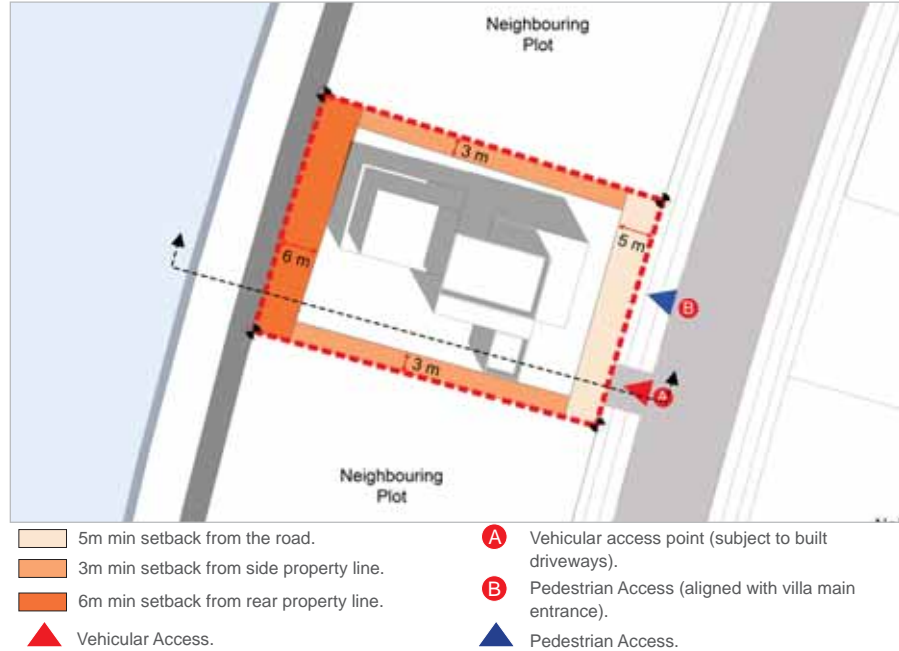
## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 9/19

### WATERFRONT VILLAS

GLOSSARY OF TERMS

Waterfront Villa Plot - Plan



The following conditions within Building Regulations sheets for individual villa plots **remain unchanged**:

#### EXISTING REGULATIONS SUMMARY:

Permitted Land Use	Residential
Plot Area	As per individual Building Regulations Sheet
Max. FAR	80 %
Max. Plot Coverage	40 %
Penthouse Coverage	30% of first floor area with a minimum 3.0m from the first floor front side from all sides
Max. Number of Floors	G + 1 + P (Penthouse)
Basement	One level of basement is allowed not to extend beyond villa footprint
Max. Heights	15m to top of Penthouse roof
	3.5m for service block
	4.5m for majlis
	Boundary Wall: Min 2.4/ Max 3,4 m
Min. Setbacks Criteria	3m from the side property line
	5m from the street entry property line
	6m from rear property line
	Penthouse: 3m from the first floor front side
	Majlis: 2m from the internal face of front boundary wall
Min. Car Parking Provision	Min 2 spaces per dwelling

To safeguard quality, the following regulations **are amended to augment and add** to the Building Regulations:

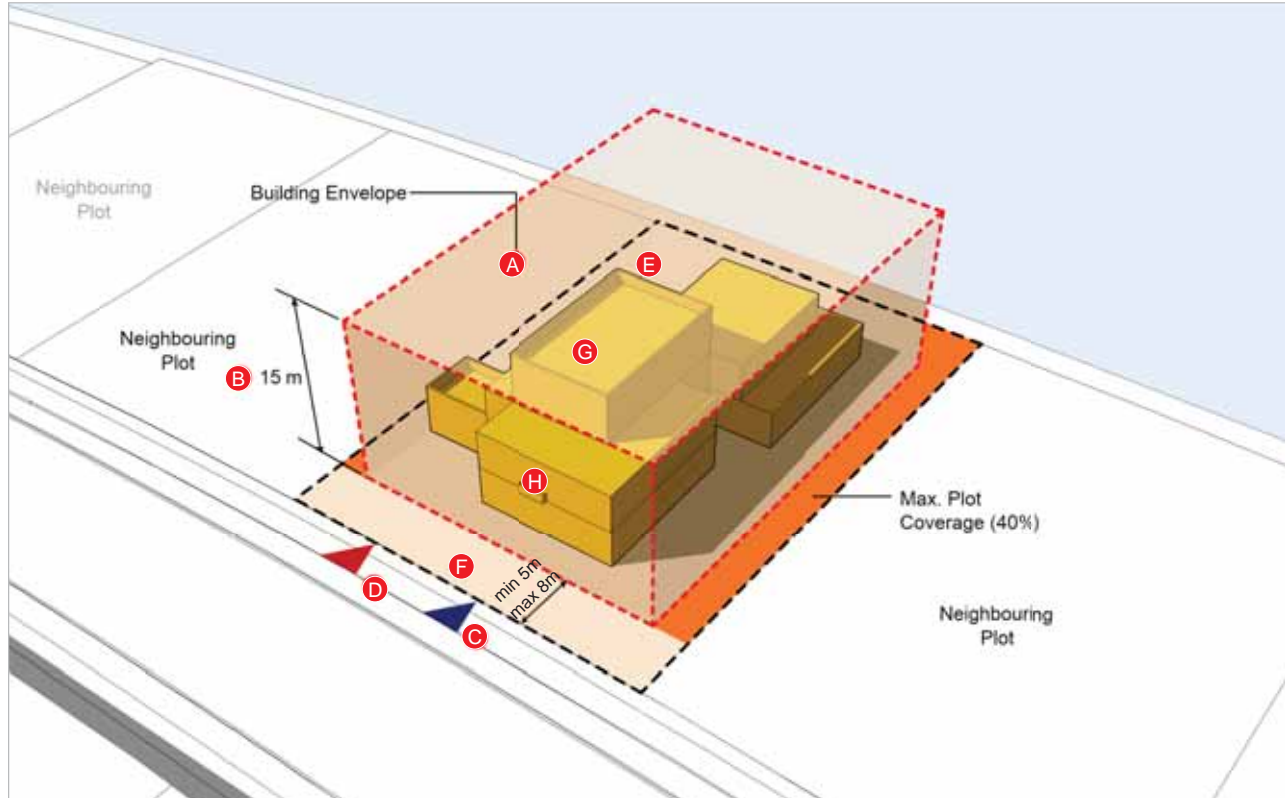
#### ADDITIONAL REGULATIONS:

BOUNDARY WALL	Perimeter walls and entrances to comply with boundary wall design guidelines & controls
OPENINGS	Side setback: openings (eg. windows, balconies and terraces) are allowed in walls between 3.0m and 6.0m setback but should be screened for visual privacy from neighboring properties
	Front setback: Openings in front elevations must be setback min 5.0m and do not have to be screened
	Rear setback: Openings are allowed in GF rear and above levels. Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy
	Balconies & terraces: All balconies & terraces open to sky whose sides face neighboring plots must have 1.8m high solid screen parapet for privacy
	Penthouse openings: on facades facing neighbors, openings are not allowed in Penthouse unless it's minimum 3.0m setback from roof boundary with a 1.8m high solid screen parapet for privacy
ANCILLARY BUILDINGS	<u>Driver building</u> : can locate on front of boundary wall; however, no openings are allowed on front boundary wall facing the street buildings.
	<u>Other Ancillary Buildings</u> (excluding majlis) must be setback from the front plot boundary at least as far as the main villa
	<u>Ancillary Structure length</u> : Maximum cumulative length of all ancillary buildings must be less than 50% of front road side or 75% of neighbor side wall length
	Basements of any type not allowed under any ancillary
ROOFTOP MECHANICAL EQUIPMENT	Rooftop mechanical equipment to be set to the rear of the building and screened from view from all sides
LANDSCAPE	Front gardens to incorporate at least 2 mature trees in line with landscape guidelines and controls as a contribution to streetscape character

REF: LQID-RTPG- Sheet 10/19

**WATERFRONT VILLAS**

Waterfront Villa Plot - Volume



- A** The Building Envelope is the total area within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions.
- B** Maximum Building Height: measured from the lowest side of the plot to top of parapet and must not exceed +15m including all parapets and roof structures
- C** Pedestrian entrance may be aligned with villa main doorway or adjacent to vehicular access. Refer to villa Plot Boundary Treatment Guidelines and Controls for further information.
- D** Vehicular access must be via defined driveway locations. Refer to Villa Plot Boundary Treatment Guidelines and Controls for further information.
- E** Max. Plot Coverage: the portion of a plot that is occupied by any building or structure expressed as a percentage of occupied footprint area to total plot area. Must not exceed 40%
- F** Front Setback: min setback 5m and max setback 8m for main villa building. This is to maintain a cohesive street alignment. Majlis may be setback 2m from the front plot boundary. All other ancillary must be setback as far as the main villa.
- G** Penthouse position: penthouses must be within a minimum 3.0m from the first floor front side.
- H** Cantilevered projections such as balconies should remain within setback limits

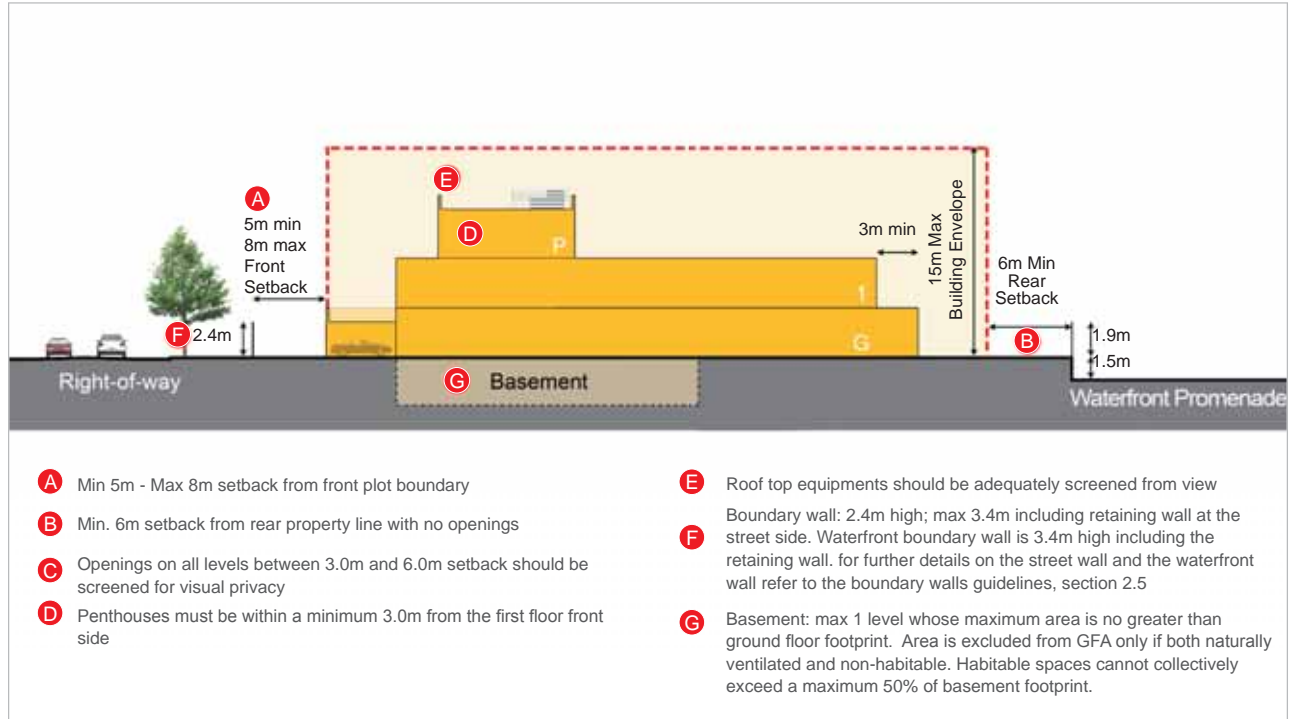
## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 11/19

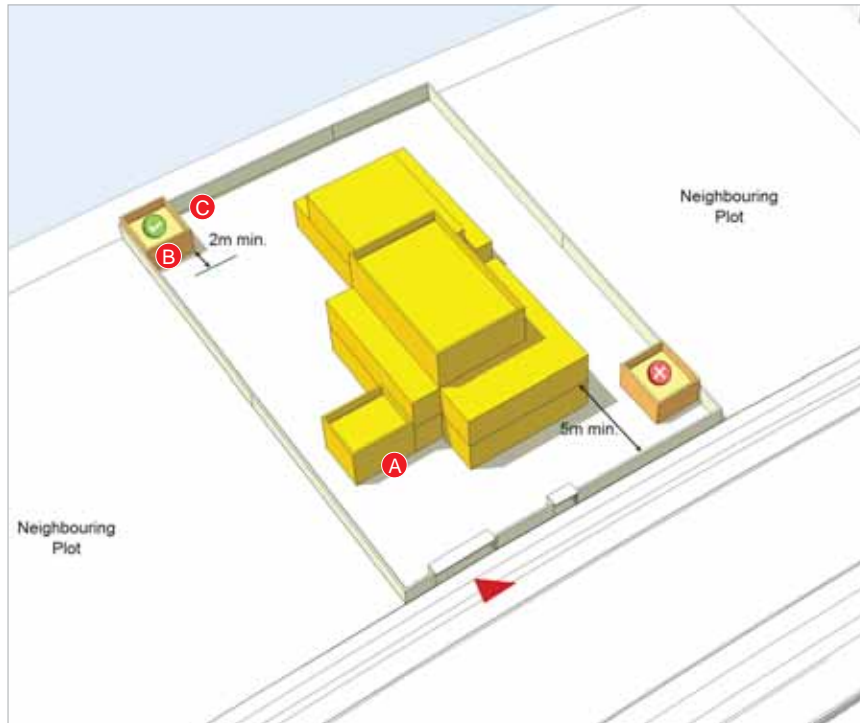
### WATERFRONT VILLAS

#### SECTIONS THROUGH VILLA PLOT

Waterfront Villa Plot- Section A-A

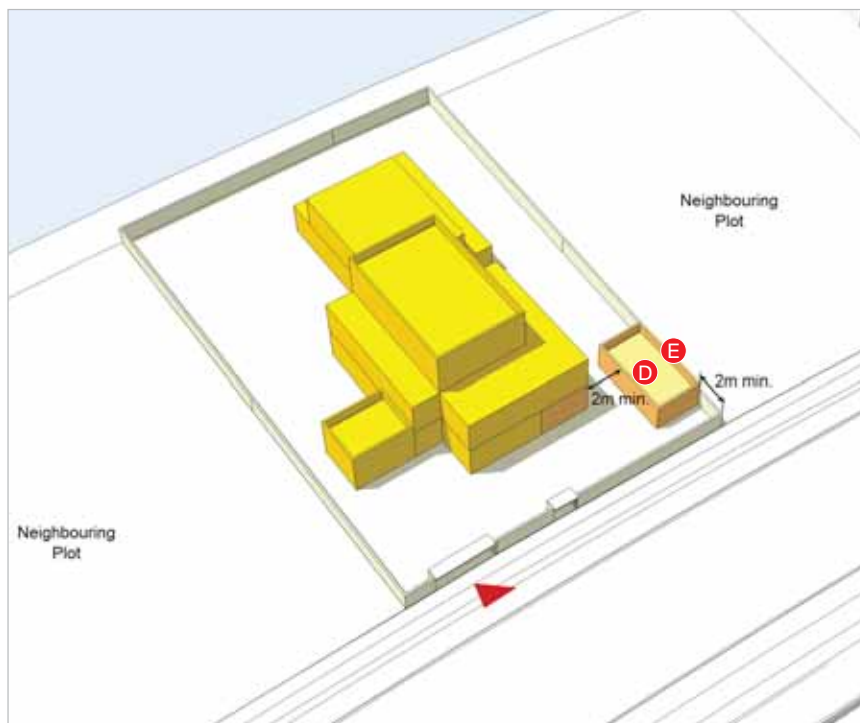


REF: LQID-RTPG- Sheet 12/19

**WATERFRONT VILLAS****PARKING & ANCILLARY BUILDINGS**

**An ancillary building is a support building such as an outside kitchen, servant's quarters, storage, pool room etc. Ancillary buildings must be included in the overall GFA.**

- A** Garage to be aligned with driveway. Minimum 2 parking spaces to be provided on-plot.
- B** Ancillary buildings may abutt side and rear walls and maintain a 2m separation from the main villa.  
Fire hazard uses like kitchens should be referenced to local Civil Defense code requirements and other International standards that mandate proper fire-resistant construction between such uses and the main villa.
- C** Max. parapet height for ancillary buildings is 0.4m. Ancillary buildings (except Majlis and Driver buildings) should adhere to the same front setback requirements as the main villa



**The Majlis has different Setback requirements than other ancillary buildings. The Majlis may also be incorporated as part of the main villa or built freestanding at the front of the plot, 2m min from the street wall and (if required) abutting the party wall.**

- D** the Majlis may be incorporated or placed outside the villa footprint. If placed outside the villa footprint:
  - > there should be a minimum distance of 2m between the Majlis and the main building.
  - > Minimum of 2.0m setback from front wall if Majlis front facade width is less than 6.0m.
  - > Minimum of 3.0m setback from front wall if majlis front facade is more than 6.0m wide.
- E** Walls within 3m of the side plot boundary must not contain any openings. Small windows for the purpose of ventilating bathrooms will be allowed

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



## 2.4.2 RESIDENTIAL PLOTS

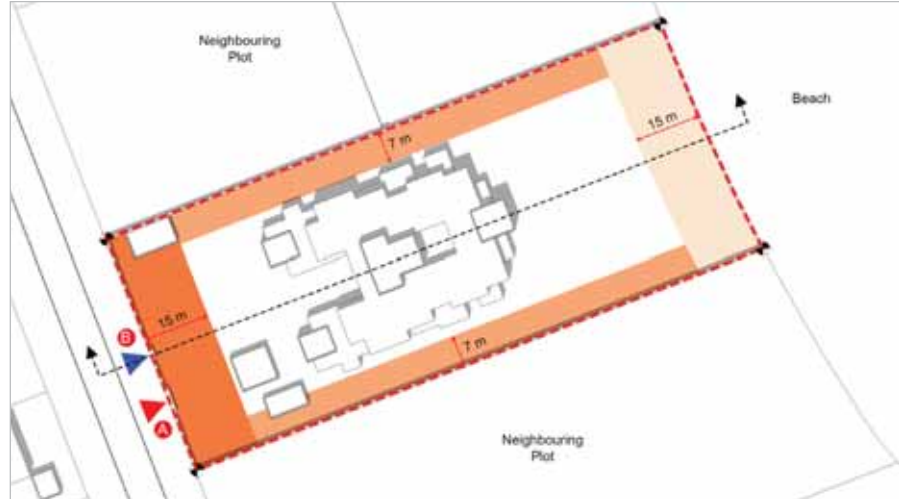
REF: LQID-RTPG- Sheet 13/19





### PREMIER WATERFRONT VILLAS




GLOSSARY OF TERMS



Premier Waterfront Villa Plot - Plan



-  15m min setback from the road.
-  7m min setback from side property line.
-  15m min setback from rear property line.
-  Vehicular Access.

-  Vehicular access point (subject to built driveways).
-  Pedestrian Access (aligned with villa main entrance).
-  Pedestrian Access.

The following conditions within Building Regulations sheets for individual villa plots **remain unchanged**:

#### EXISTING REGULATIONS SUMMARY:

Permitted Land Use	Residential
Plot Area	As per individual Building Regulations Sheet
Max. FAR	80 %
Max. Plot Coverage	50 %
Penthouse Coverage	25% of first floor area with a minimum 3.0m from the first floor front side from all sides
Max. Number of Floors	G + 1 + P (Penthouse)
Basement	One level of basement is allowed not to extend beyond villa footprint
Max. Heights	16m to top of Penthouse roof
	3.5m for service block
	5m for majlis
	Boundary Wall: Min 2.4/ Max 3,4 m
Min. Setbacks Criteria	7m from the side property line
	15m from the street entry property line
	15m from rear property line
	Penthouse: 3m from the first floor front side
	Majlis: 2m from the internal face of front boundary wall
Min. Car Parking Provision	Min 3 spaces per dwelling

To safeguard quality, the following regulations **are amended to augment and add** to the Building Regulations:

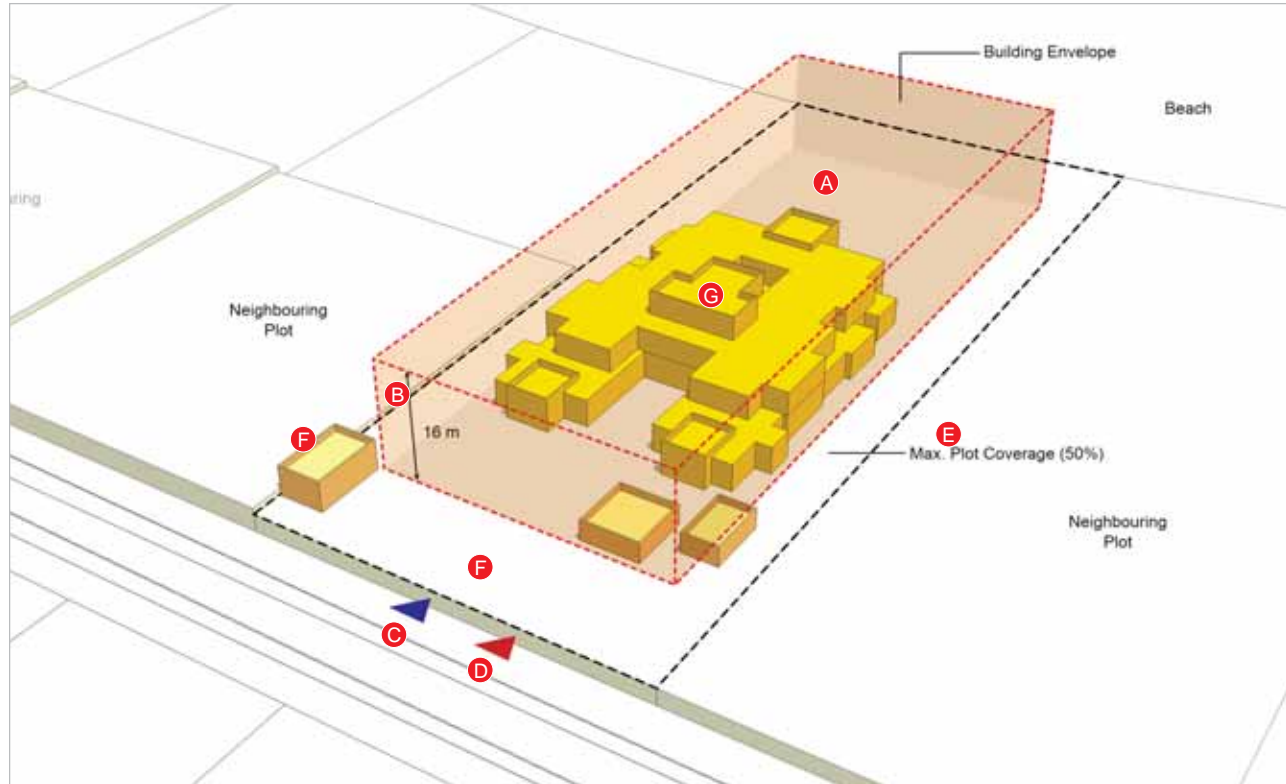
#### ADDITIONAL REGULATIONS:

BOUNDARY WALL	Perimeter walls and entrances to comply with boundary wall design guidelines & controls
ANCILLARY BUILDINGS	<u>Driver building</u> : can locate on front of boundary wall; however, no openings are allowed on front boundary wall facing the street buildings.
	<u>Other Ancillary Buildings</u> (excluding majlis) must be setback from the front plot boundary at least as far as the main villa
	<u>Ancillary Structure length</u> : Maximum cumulative length of all ancillary buildings must be less than 50% of front road side or 75% of neighbor side wall length
	Basements of any type not allowed under any ancillary
ROOFTOP MECHANICAL EQUIPMENT	Rooftop mechanical equipment to be set to the rear of the building and screened from view from all sides
LANDSCAPE	Front gardens to incorporate at least 2 mature trees in line with landscape guidelines and controls as a contribution to streetscape character

REF: LQID-RTPG- Sheet 14/19

## PREMIER WATERFRONT VILLAS

Premier Waterfront Villa Plot - Volume



### KEY PARAMETERS:

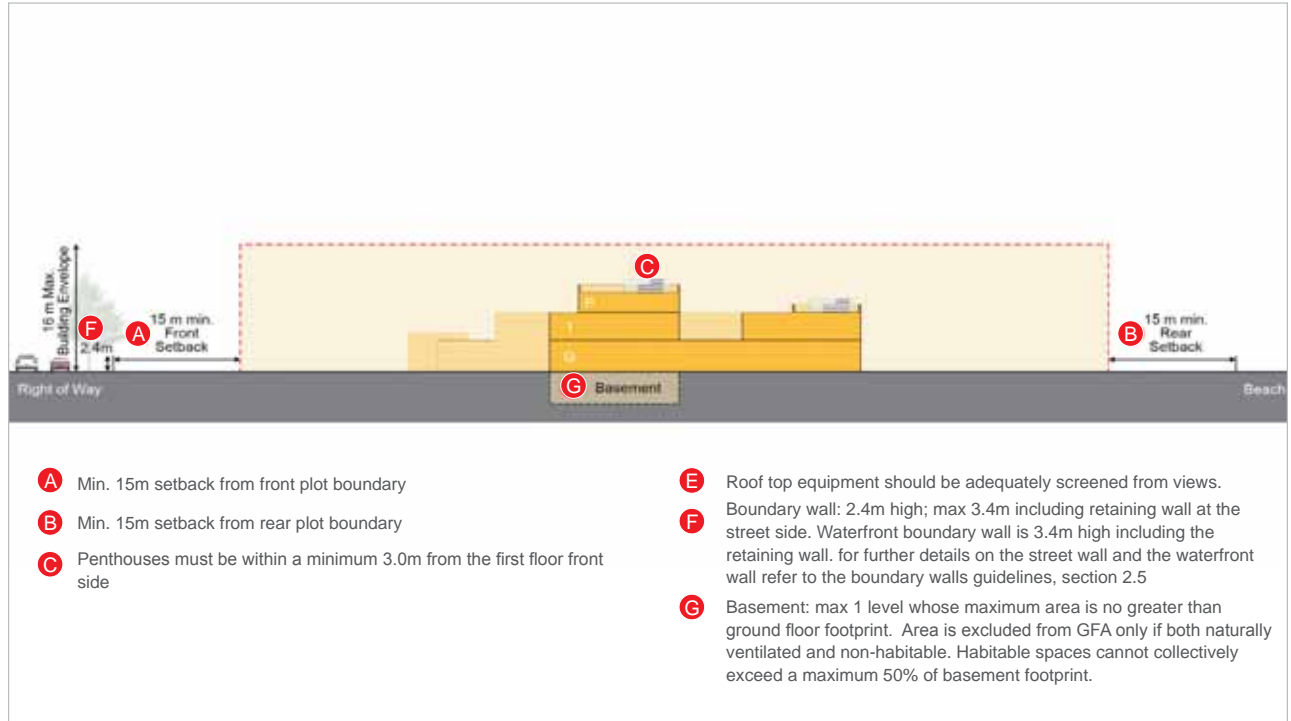
- A** The Building Envelope is the total area within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions.
- B** Maximum Building Height: measured from the lowest side of the plot to top of parapet and must not exceed +16m including all parapets and roof structures
- C** Pedestrian entrance may be aligned with villa main doorway or adjacent to vehicular access. Refer to villa Plot Boundary Treatment Guidelines and Controls for further information.
- D** Vehicular access must be via defined driveway locations. Refer to Villa Plot Boundary Treatment Guidelines and Controls for further information.
- E** Max. Plot Coverage: the portion of a plot that is occupied by any building or structure expressed as a percentage of occupied footprint area to total plot area. Must not exceed 50%
- F** Front Setback: min setback 15m.  
Majlis may be setback 2m from the front plot boundary. All other ancillary must be setback as far as the main villa.
- G** Penthouse position: penthouses must be within 3.0m minimum from the first floor front side.
- H** Cantilevered projections such as balconies should remain within setback limits

## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 15/19

### PREMIER WATERFRONT VILLAS

Villa Plot - Section A-A



REF: LQID-RTPG- Sheet 16/19

**PREMIER WATERFRONT VILLAS****Z & ANCILLARY BUILDINGS**

**An ancillary building is a support building such as an outside kitchen, servant's quarters, storage, pool room etc. Ancillary buildings must be included in the overall GFA.**

- A** Garage to be aligned with driveway. Minimum 2 parking spaces to be provided on-plot.
- B** Ancillary buildings may abut side and rear walls and maintain a 2m separation from the main villa. Fire hazard uses like kitchens should be referenced to local Civil Defense code requirements and other International standards that mandate proper fire-resistant construction between such uses and the main villa.
- C** Max. parapet height for ancillary buildings is 0.4m. Ancillary buildings (except Majlis and Driver buildings) should adhere to the same front setback requirements as the main villa.

**Majlis have different Setback requirements to other ancillary buildings. Majlis may also be incorporated as part of the main villa or built freestanding at the front of the plot, 2m min from the street wall and (if required) abutting the party wall.**

- D** Majlis may be incorporated or placed outside the villa footprint. If placed outside the villa footprint:
  - > there should be a minimum distance of 2m between the Majlis and the main building.
  - > Minimum of 2.0m setback from front wall if Majlis front facade width is less than 6.0m.
  - > Minimum of 3.0m setback from front wall if Majlis front facade is more than 6.0m wide.
- E** Walls within 3m of the side plot boundary must not contain any openings. Small windows for the purpose of ventilating bathrooms will be allowed.

## 2.4.2 RESIDENTIAL PLOTS








REF: LQID-RTPG- Sheet 17/19

## CANAL SIDE APARTMENTS

## GLOSSARY OF TERMS

### Apartment Plot - Plan



- |   |   |   |   |
|---|---|---|---|
|  | 5m min setback from the road.           |  | Vehicular access point (subject to built driveways).  |
|  | 3m min setback from side property line. |  | Pedestrian Access (aligned with villa main entrance). |
|  | 6m min setback from rear property line. |  | Pedestrian Access.                                    |
|  | Vehicular Access.                       |   |   |

The following conditions within Building Regulations sheets for individual villa plots **remain unchanged**:

## EXISTING REGULATIONS SUMMARY:

Permitted Land Use	Apartments
Plot Area	As per individual Building Regulations Sheet
Max. FAR	150 %
Max. Plot Coverage	60 %
Max. Number of Floors	B + G + 2
Basement	Car park area in basement is not included in FAR Basement area will be FAR accountable if used in any way as habitable space
Max. Heights	Building Height: max 15m to top of roof including parapet
	Service block: 3.5m total including parapet
	Boundary Wall: 1m for the street wall 2.4 for the canal side and party walls
Min. Setbacks Criteria	3m from the side plot boundary
	5m from the road side
	6m rear setback
Min. Car Parking Provision	1/175m <sup>2</sup> GFA or Minimum 1 car park per 1 bedroom unit Minimum 1.5 car park for 2 bedroom unit or more

To safeguard quality, the following regulations **are amended to augment and add** to the Building Regulations:

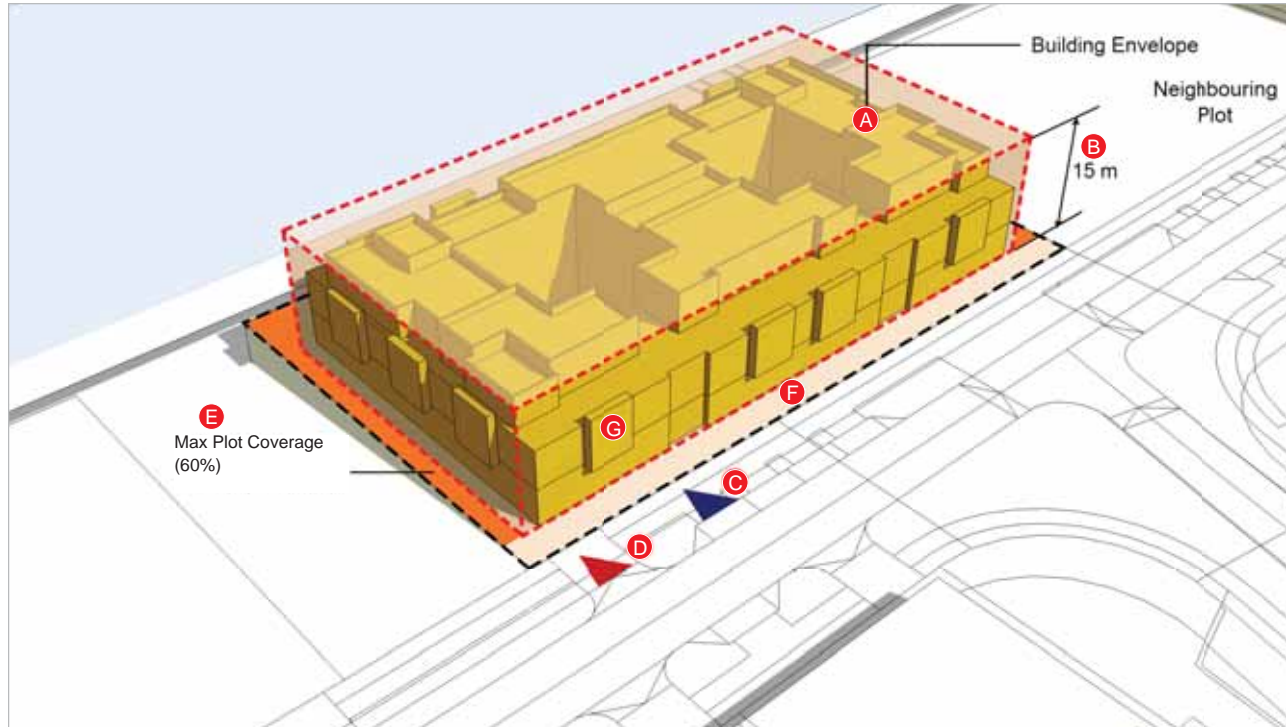
### ADDITIONAL REGULATIONS:

<p><b>BOUNDARY WALL</b></p>	<p>Perimeter walls and entrances to comply with boundary wall design guidelines.</p> <p>Special condition for canal wall is elaborated in section 2.5, taking into consideration the fact the difference of level between the plot and the promenade along the canal</p>
<p><b>ROOFTOP MECHANICAL EQUIPMENT</b></p>	<p>Rooftop mechanical equipment to be set to the rear of the building and screened from view from all sides</p>
<p><b>LANDSCAPE</b></p>	<p>Front gardens to incorporate at least 2 mature trees in line with landscape guidelines and controls as a contribution to the streetscape character; min 20% of plot area to be softscaped</p>

REF: LQID-RTPG- Sheet 18/19

## CANAL SIDE APARTMENTS

Apartment Plot - Volume



## KEY PARAMETERS:

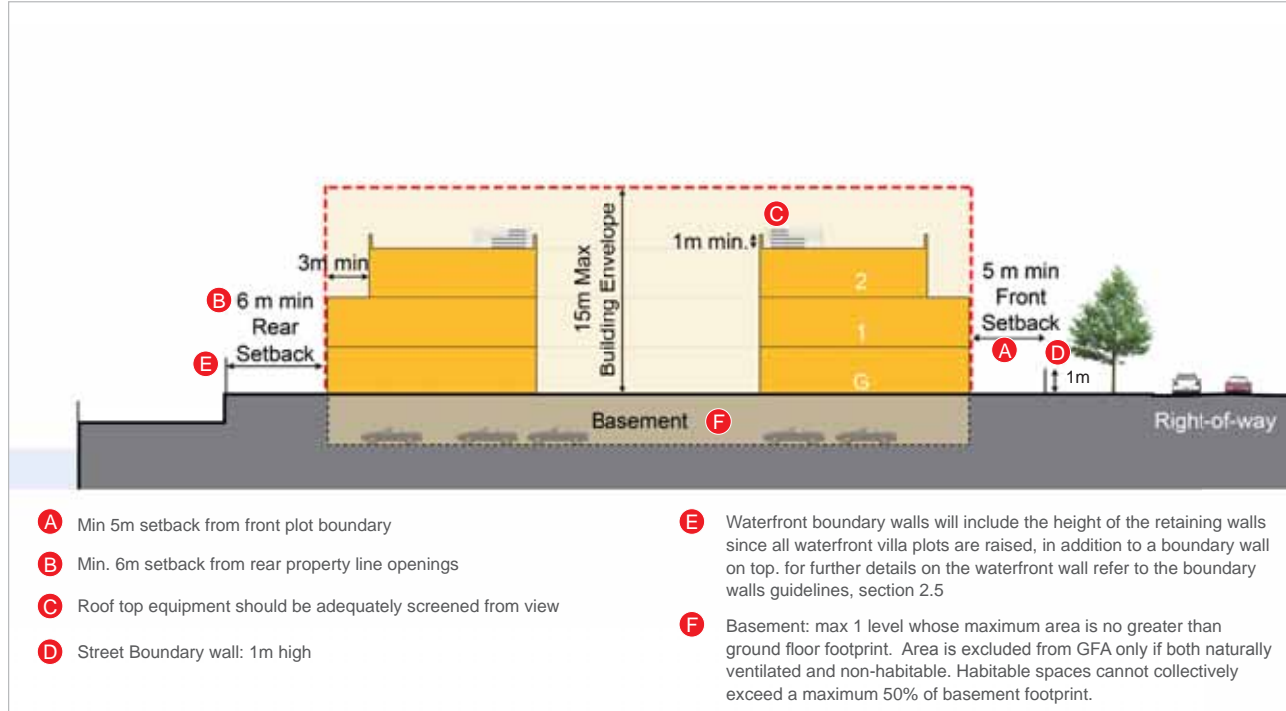
- A** The Building Envelope is the total area within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions.
- B** Maximum Building Height: measured from the lowest side of the plot to top of parapet and must not exceed +15m including all parapets and roof structures
- C** Pedestrian entrance may be aligned with villa main doorway or adjacent to vehicular access. Refer to villa Plot Boundary Treatment Guidelines and Controls for further information.
- D** Vehicular access must be via defined driveway locations. Refer to Villa Plot Boundary Treatment Guidelines and Controls for further information.
- E** Max. Plot Coverage: the portion of a plot that is occupied by any building or structure expressed as a percentage of occupied footprint area to total plot area. Must not exceed 60%
- F** Front Setback: min setback 5m.
- G** Cantilevered projections such as balconies should remain within setback limits

## 2.4.2 RESIDENTIAL PLOTS

REF: LQID-RTPG- Sheet 19/19

### CANAL SIDE APARTMENTS

Apartment Plot - Section A-A

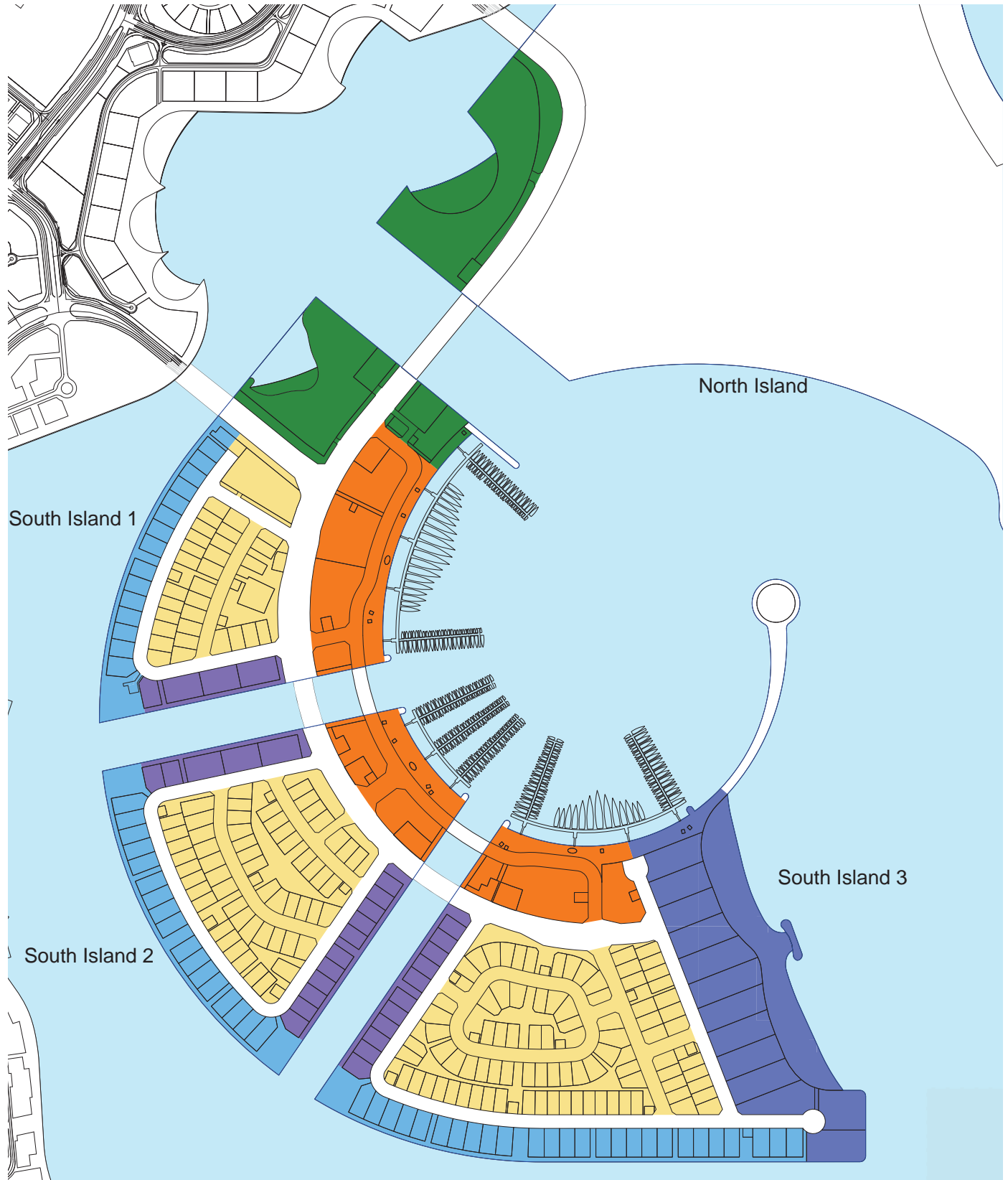


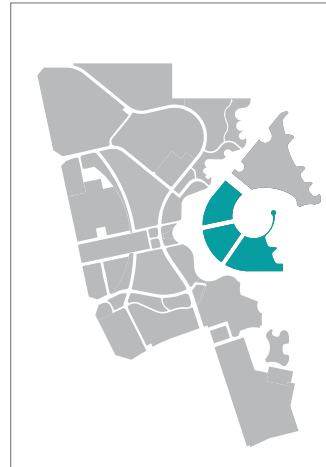
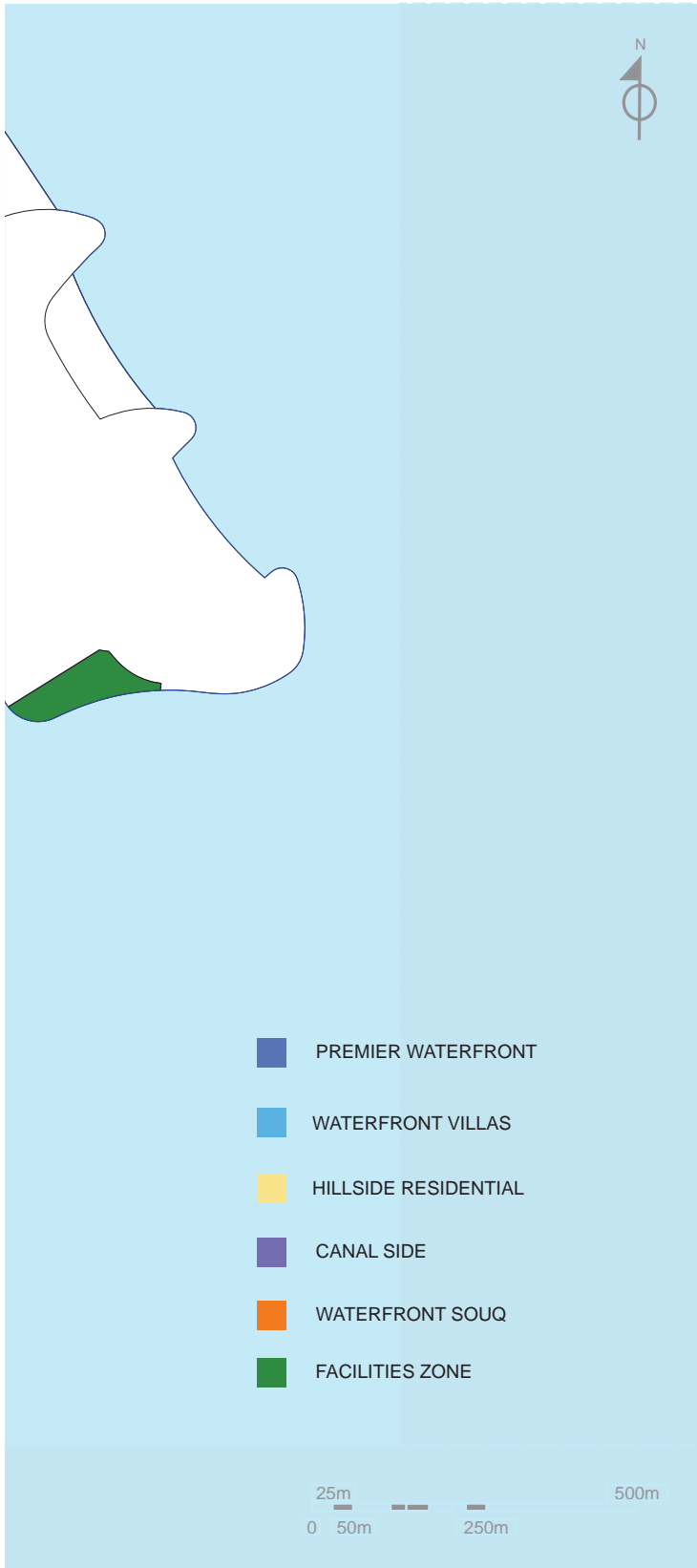


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## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### GENERAL OVERVIEW





District Location Plan

### WATERFRONT SOUQ PRECINCTS

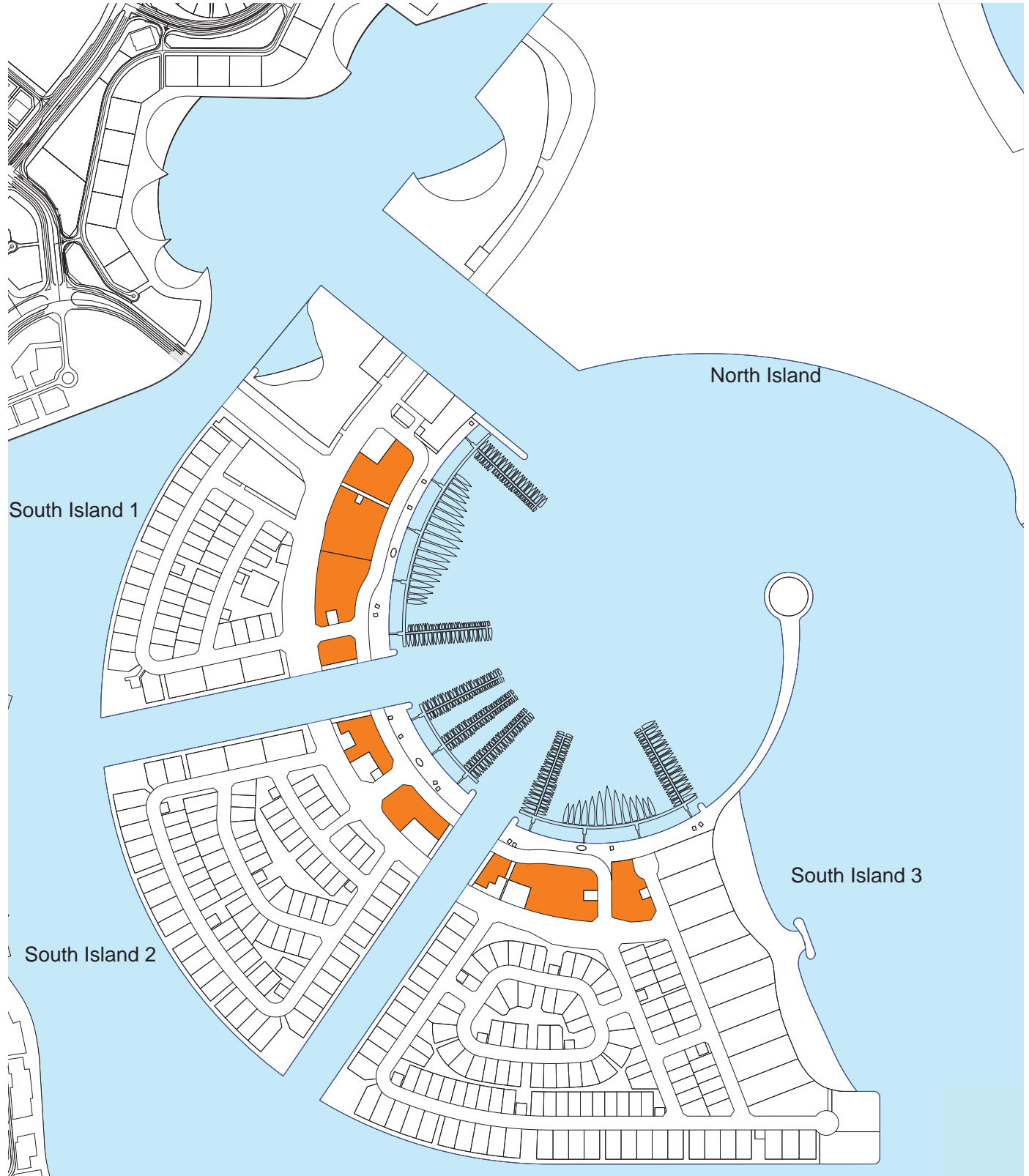
The waterfront souq precincts extend on the 3 southern islands of Qetaifan.

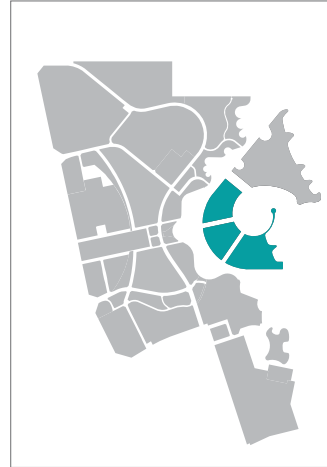
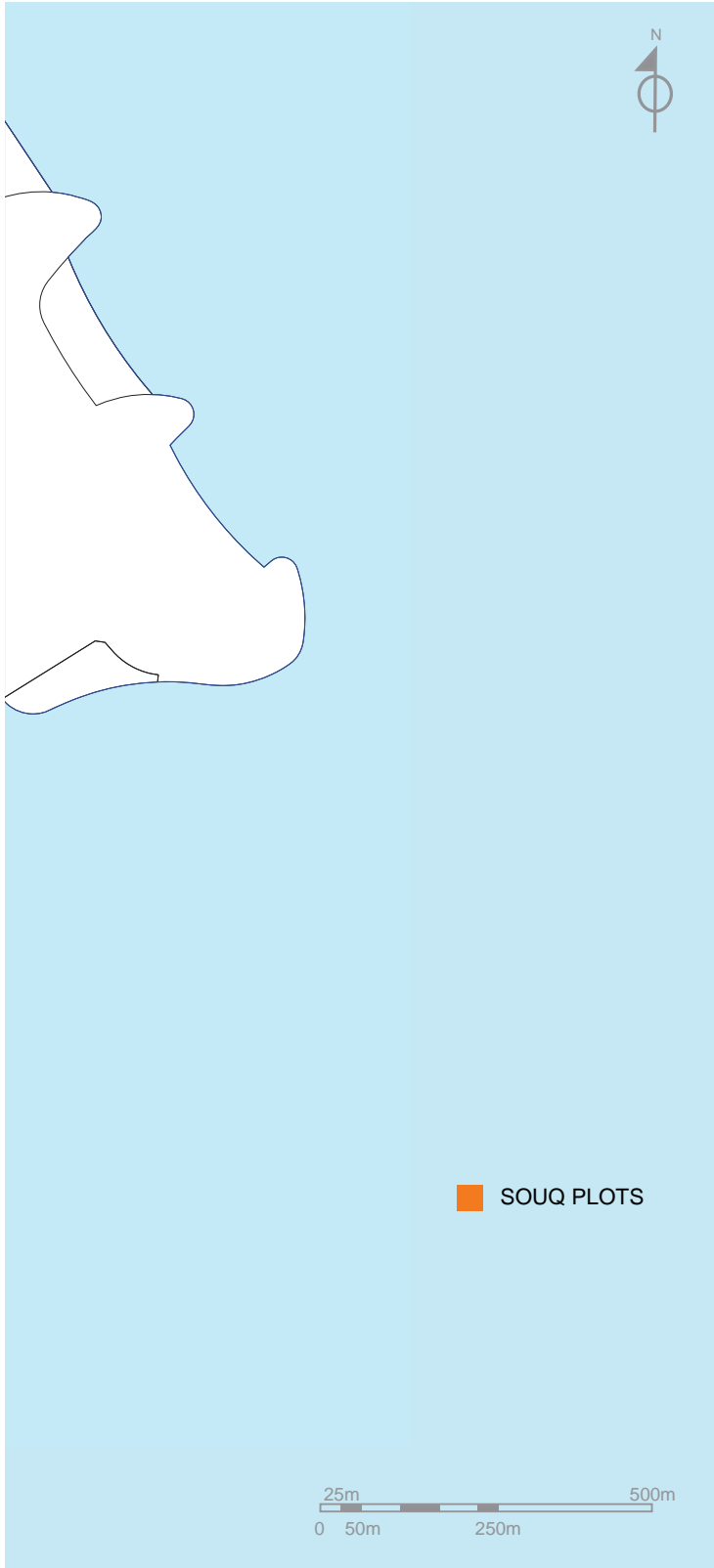
In addition to the retail and hotels, they include the adjacent facilities (mosques and healthcare buildings), utility buildings, and the waterfront promenade.

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

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### GENERAL OVERVIEW





District Location Plan

## GENERAL OVERVIEW

The information outlined within the Souq plots guidelines and controls section seek to define the general principles and parameters to be used by the different developers for the Souq development.

Planning regulations within the Building Regulations Sheets for the individual mixed use plots provide the regulatory requirements regarding permitted uses, FAR and plot coverage, setbacks, heights, habitable spaces, basements, arcades, open spaces, vehicular and pedestrian accesses and connections.

The key parameters considered for these regulatory requirements include:

- > Access, servicing and parking
- > Massing
- > Pedestrian circulation
- > Facade treatment

Furthermore Plot Owners/Consultants must adhere to all Civil Defense Authority's relevant Codes and Regulations, especially those relating to Fire Truck Access and Hardstanding requirements for each Plot.

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### GENERAL OVERVIEW

#### KEY PARAMETERS

##### BUILDING REGULATION SHEET

Building regulations cover the major planning requirements for the mixed use plots, including:

- > Land Use
- > FAR
- > Max. covered area
- > Minimum setbacks
- > Heights
- > Habitable spaces
- > Basement floors
- > Parking requirements
- > Drop-off requirements
- > Open Space requirements
- > Arcade

##### MASSING

The heights of the Souq and the hotel are determined based on the view corridors needed for the residential units and on the main focal entry points to the Souq.

The souq heights range between G+1 and G+2. In general, the second floor is located at the waterfront side where the road is relatively lower than the boulevard side and it won't create a visual obstruction. Pedestrian entrances to the souq can be emphasized with higher structures.

The hotels, located at both edges of Island 1, at the southern canal side on Island 2 and at the western canal side on Island 3, are allowed to have a height of G+3 as they are away from the view corridor of the villas.

The maximum buildings heights are measured from the adjacent ROW boundary. At the Canal side, buildings ground floor should be at the same level of the promenade.

##### ACCESS, SERVICING & PARKING

Car entries are predefined by the Master Developer. Each plot parking will have an independant access, and provision for a connection between all souq plots within each island should be made in the indicated locations.

Service activity for the souq and the souq hotels must be accessed through the basement outside the souq operational hours.

All required parking spaces should be provided within the souq basement. Additional parking for visitors to be provided in each plot as indicated in the plot sheets.

Provision should be made for turning and access of the service vehicles within the basement. Accordingly, the basement height and circulation scheme should take into account the size of the service vehicle.

No access to parking shall be allowed at the marina side. Hotel drop-off at the marina side in Islands 2 and 3 is allowed in indicated locations, however no access to basement parking in these locations shall be provided.

##### PEDESTRIAN CIRCULATION

The intent is to create an "open area" within the Souq which will offer a pedestrian experience that will take the visitors on a unique journey far beyond the shopping mall experience.

The idea is to have a unified urban fabric, provide convenient pedestrian circulation connecting all areas within the Souq and easy accessibility from all sides with limited number of steps. The created pedestrian environment which is comprised of the following components, shall be easy, safe and comfortable to walk through.

##### Central Pedestrian spine:

The pedestrian spine will have a city street ambiance with commercial uses, fronting the pedestrian walkway, and including shops and Food and Beverages outlets with outdoor cafés and seating areas.

The spine may be covered, fully enclosed or open and its width, set to a minimum of 5m, will change along its length to add visual interest along the urban street promenade.

##### Pedestrian connections:

Pedestrian Connections between plots and Souq entry points have to be maintained as specified in the individual plot sheets. Approval must be obtained from the Master developer in case of an intention to relocate any connection or entry point. The central spine ensures connection between adjacent plots at specific locations which are defined by the Master Developer.

##### Pedestrian entries:

The pedestrian entries, which must be convenient and clearly defined, connect all sides of the Souq to the central pedestrian spine.

## KEY PARAMETERS

### Courtyards:

Courtyards within the Souq are encouraged at the intersections with the outdoor pedestrian network or at locations where anchor retail providers are envisaged. Courtyards, as intermediate zones, differ greatly from the outer environment and represent one way of responding to the context. In addition to providing an enjoyable semi-private space, they allow excellent ventilation and natural light all year round.

### FACADE TREATMENT

The intent is to create a visual integrity along the streets by maintaining consistent building facades. The sides of the buildings in the public view should have visual interest and continuity of pedestrian-oriented building scale. The comfort level and sense of security for the pedestrian at the street level is determined by the ease with which a consistent human scale can be seen or sensed along the facades.

#### Facade Parameters:

This can be achieved through a coordinated building composition that uses a very readable system of building divisions and different parameters which include articulation, rhythm, proportion and modulation.

#### Articulation:

Facades that front a street should be articulated to improve the quality of the building design. This can be obtained through the incorporation of a combination of different appropriate methods of articulation (breaks, setbacks and many other elements).

#### Rhythm:

Buildings should provide a visual and structural framework for the orderly presentation of street level activities. This sense of rhythm will both modulate the pedestrian travel along the street, providing discrete visual fields of focus.

#### Proportion

The overall facade proportions as well as the proportions of individual elements comprising the facades (opening, solid, void, etc.) will need to be considered.

#### Modulation

Facades shall be divided horizontally by means of columns, engaged pilasters, etc. into modules which, once established can be repeated along the entire facade. The modular division may be accomplished simply by the fenestration pattern in case of upper storeys. Vertically, the same module established on the first floor must be used for the upper floors.

### Facade Types:

Four different types of facade are identified in the Souq area; these are defined as follows:

#### Facade A: Marina Side

Marina side facade consists of all building facades facing the waterfront.

Pedestrian interaction and connection to marina areas is encouraged through the use of an optional open 5m deep arcade all along the waterfront side.

Since no setback for the souq is required at ground floor level, this arcade will also serve as an external extension for the F&B facilities, and a shaded corridor at the front side of the souq.

Pedestrian continuity shall be required where two buildings with arcades connect

#### Facade B: Spine Road Side

Facade B consists of the buildings' elevations on the back side of the souq, facing the main spine road.

Since this side of the souq will include most of the parking entries, careful consideration is required for the facade treatment. Buildings shall avoid large expanses of blank walls. The intent is to create a pedestrian oriented active edge along the main spine road of Qetaifan South Islands.

#### Facade C: Canal Side

This side of the souq at the canal side will be treated as an active wateredge. Owners and designers should take into consideration the drop in level along the bridge side. Both sides of this plot should be directly accessible from the Ground level.

#### Facade D: Premier Waterfront Villas Side

Facade D includes the souq facades facing the premier waterfront villas. This side of the souq should be designed without compromising on the privacy of the adjacent residential plots. Access to the souq at this side is not encouraged.

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

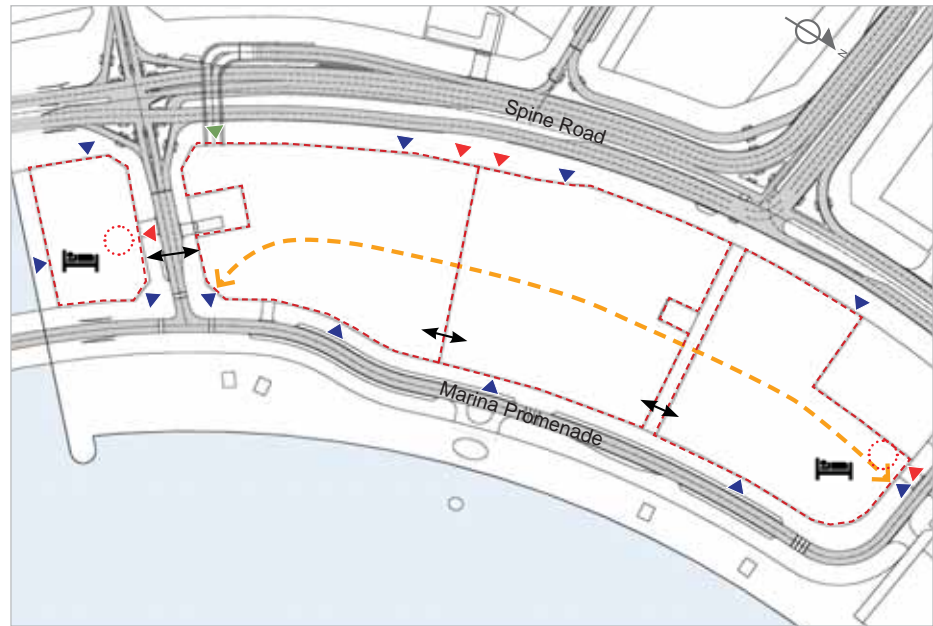
### SOUTH ISLAND 1

This sheet defines the general principles & parameters to inform the retail providers on the approach to the Island development.

The provided information supplements the Building Regulation sheets. It clarifies a number of points and lists the various relevant mandatory requirements.

The objective is to foster best design practice to result in a liveable neighbourhood.

The guidelines and controls are an outcome of Lusail Planning Authority's detailed review of the approval process.



- Indicative central pedestrian spine (min 5m wide)
- Plot boundary
- ↔ Vehicular basement connection
- Hotel location
- ▲ Parking entrance (subject to built driveways)
- ▲ Parking entrance at basement level (subject to built driveways)
- ▲ Pedestrian entrance
- Hotel drop-off

The following is a summary of the conditions within Building Regulations sheets for individual mixed use plots:

Permitted Land Use	Mixed Use
Max. FAR	Varies (1.80 to 2.00)
GFA Distribution	Varies (either 100% Retail, or Retail + Hotel)
Max. Covered Area	80%
Setbacks	<p>No setback required for any part of buildings above ground level</p> <p>Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the</p> <p>1st basement level: 5m at street side; 1.5m from adjacent plots</p> <p>2nd and 3rd basement level: 1.5m at all sides</p>
Habitable Spaces	<p>Habitable spaces in basement and mezzanine are FAR accountable</p> <p>Non habitable spaces include parking, storages, utility areas and waste rooms</p>
Basement Floors	<p>Max. number of basement floors: 3</p> <p>Connection between basements of adjacent plots to be provided as indicated</p> <p>Retail and hotel servicing to be provided in the basement</p> <p>Basement height and circulation scheme should allow for service vehicle for maneuvering</p>

Parking Requirements	<p>1/50 sqm GFA for the retail</p> <p>1.06/40 sqm GFA for the hotel</p> <p>Public parking to be provided as indicated in individual plot sheets</p> <p>Vertical connections and emergency exits to follow Authorities requirements</p>
Drop-off Requirements	<p>Wherever there are hotel uses within the plots, drop-off to be provided as indicated in individual plot sheets</p>
Open Space Requirements	<p>Pedestrian connections between plots to be linked by a minimum 5m wide pedestrian spine</p> <p>Pedestrian spine to be linked to pedestrian entrances along the roads Q1 and Q2.</p>
Arcade	<p>Arcade is optional in the indicated location</p> <p>Min Arcade height is 7m and max height is 8.5m</p> <p>Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary</p> <p>Min Arcade width is 3.5m</p>
Screening	<p>Stairwells, vents, utility equipment to be recessed away from the street and screened from view.</p> <p>Equipment on roof must be screened</p>

## KEY PARAMETERS

### MASSING

Island 1 buildings heights range between G+1 at the spine road side, to G+2 at the waterfront side and key souq entrances, and G+3 for the hotels at both edges of the mixed use plots.

Maximum buildings heights are measured from the adjacent ROW boundary. At the Canal side, buildings ground floor should be at the same level of the promenade.

Island 1 - Indicative Massing



**A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

- ▲ Pedestrian entrance
- ▲ Parking entrance (subject to built driveways)
- ▲ Parking entrance at basement level (subject to built driveways)

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 1

#### KEY PARAMETERS

##### ACCESS, SERVICING & PARKING

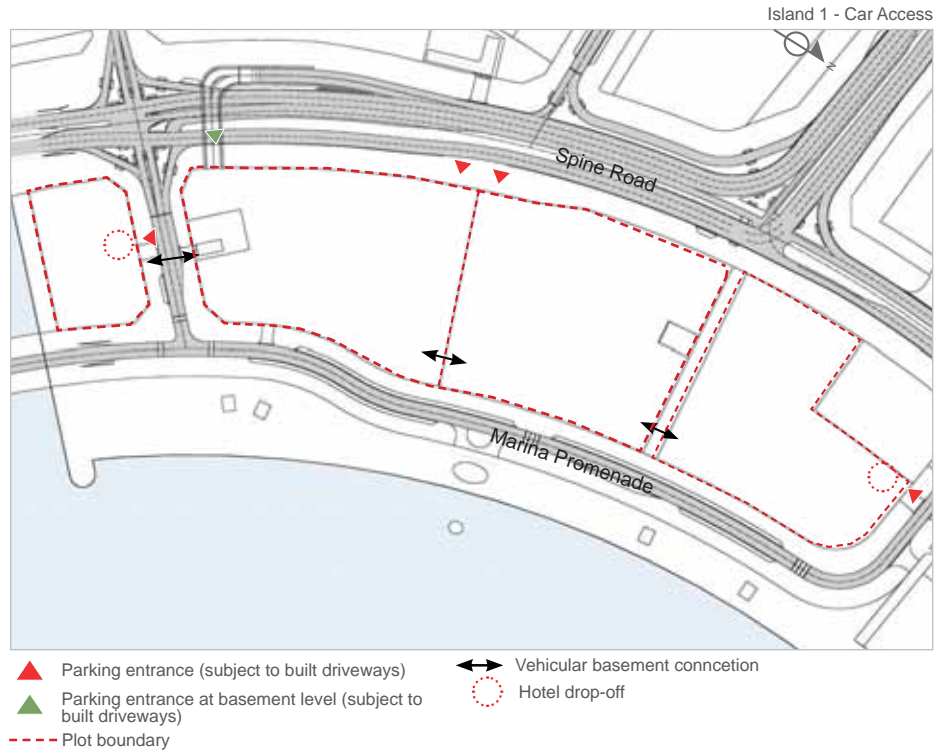
Car entries are predefined by the Master Developer. Each plot parking will have an independent access, and provision for a connection between all souq plots within each island should be made in the indicated locations.

Only two basement entries are proposed at the spine road side, on the ground floor level. The purpose is to minimize pedestrian exposure to moving traffic.

Service activity for the souq and the souq hotels must be accessed through the basement outside the souq operational hours. Therefore proper vehicular maneuvering and basement beight should be considered.

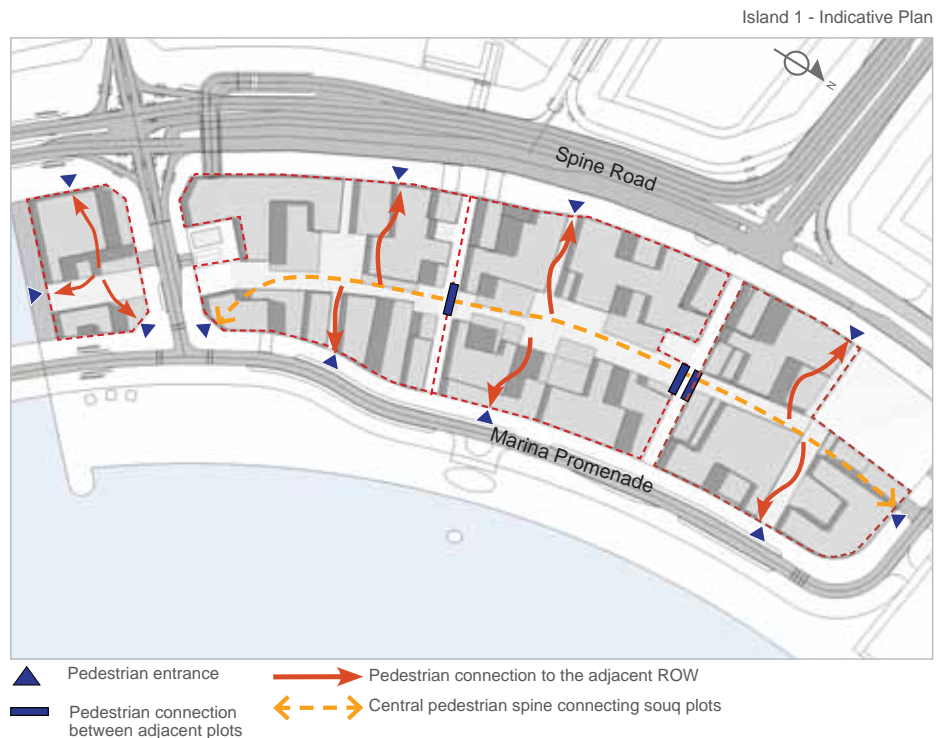
Setbacks at the basement level are variable.

At the first basement, 5m setback is required at the road side, and 1.5m between adjacent plots. At the 2nd and 3rd basements, 1.5m setback on all sides is required.



##### PEDESTRIAN MOVEMENT

A central pedestrian spine is required at the 3 adjacent plots within island 1. It creates a central pedestrian walkway that connects both edges of the mixed use component on Island 1, providing a link between the promenade at the Southern side of the Island, to the Hotel and Marina facilities (Sailing Club and Harbour Master) at the Northern side of the Island.



## KEY PARAMETERS

### FACADE TREATMENT

Souq facade treatment on Island 1 varies on each side of the plots.

#### Facade A: Marina Side

All building facades facing the waterfront shall be articulated with a rhythm by repeating design elements at regular spacing along the length of the facade so as to give a distinctive character to the frontage of the building along the Marina side thus providing an attractive identity to the district.

Provision of an arcade along this side is encouraged to give the sense of continuity along the multiple souq plots, and provide shaded walkways and external seating areas.

#### Facade B: Spine Road Side

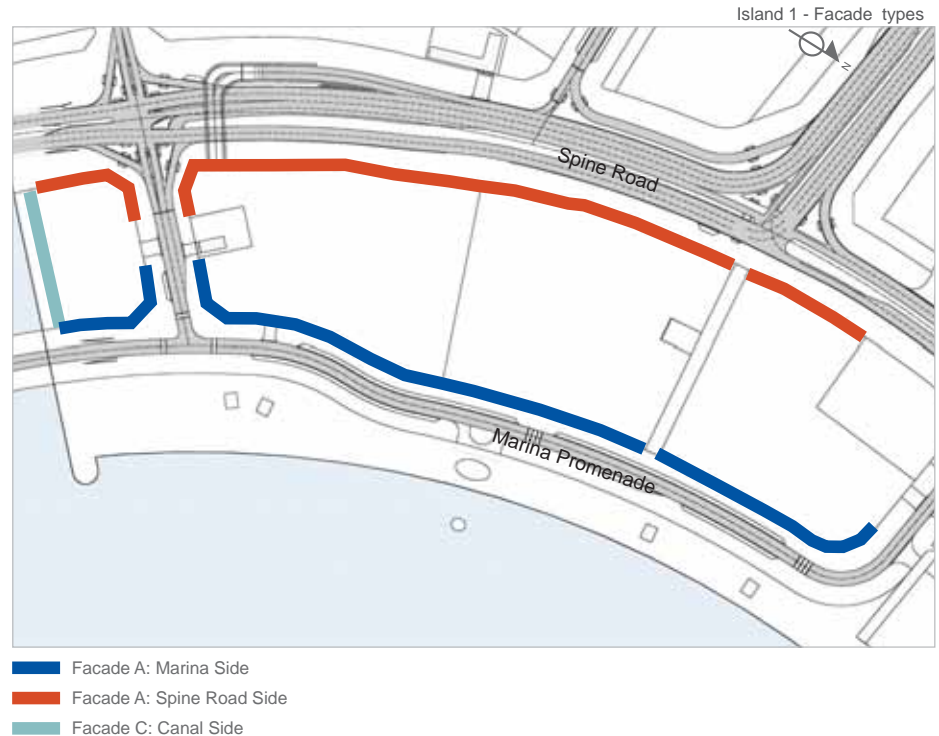
In general, all building elevations on the back side of the Souq shall provide a minimum of 20% fenestration to promote a safe, visually interesting pedestrian environment. The ground floor should be animated with retail, and directly accessible from the sidewalk.

Providing services and storage facilities along this facade should be avoided.

#### Facade C: Canal Side

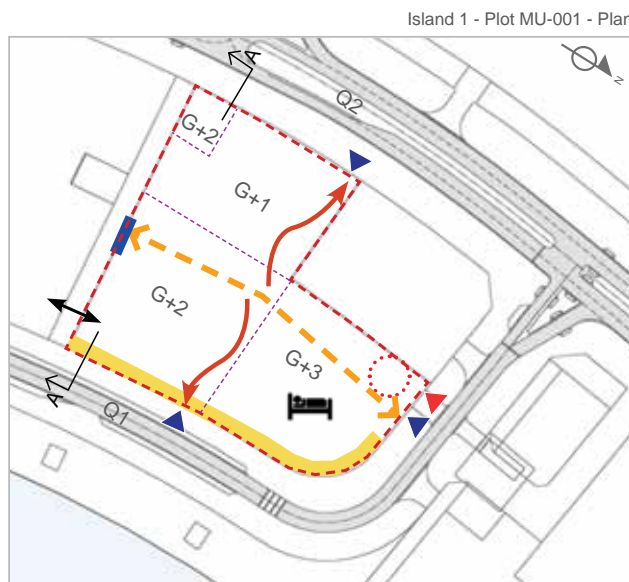
Canal side facade on Island 1 is located at the southern side of the Island. Owners and designers should take into consideration the drop in level along the bridge side. Direct access to the ground floor should be provided at both the Canal Side and the Marina Side.

Other facades inside the plot and facing the adjacent plots are considered internal. The design should consider the overarching design character of the souq.



## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 1 - PLOT MU-001



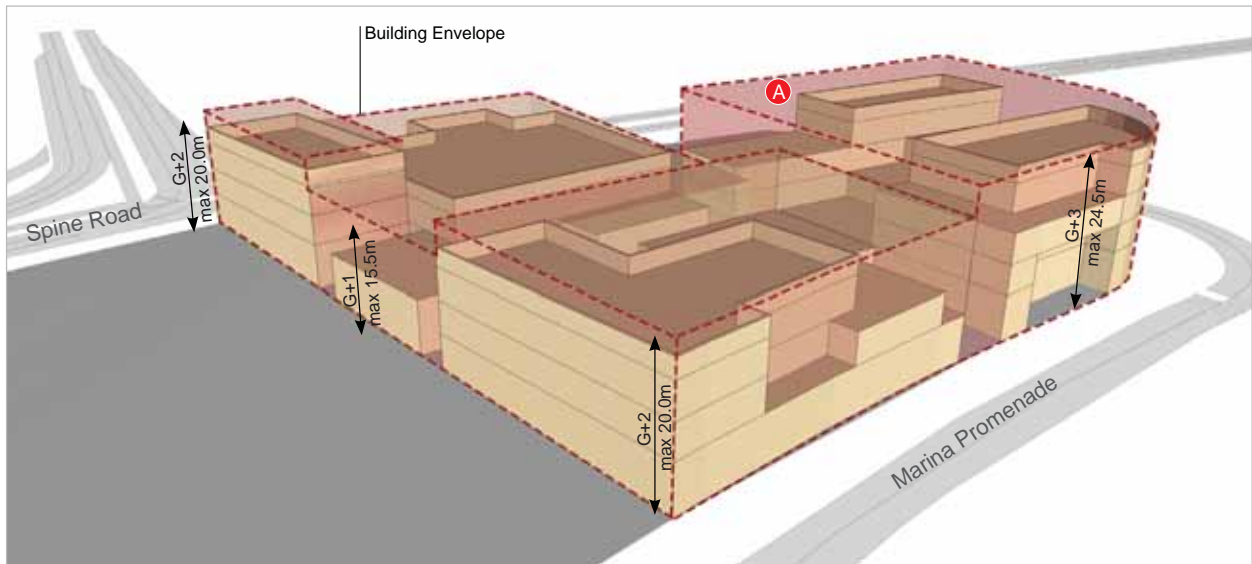
- Plot boundary
- Optional arcade
- ▲ Parking entrance
- Hotel drop-off
- Indicative central pedestrian spine (min 5m wide)
- Indicative massing
- ▲ Pedestrian entrance
- Pedestrian connection at GF level
- Pedestrian connection to the adjacent ROW
- ↔ Vehicular basement connection
- Hotel location

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Mixed Use (Hotel; retail and other uses)
Plot Area	10,285 m <sup>2</sup>
Max. FAR	1.90
Max. Plot Coverage	80%
Setbacks	No setback required for any part of buildings above ground level
	Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot
Maximum Heights	1st basement level: 5m at street side; 1.5m from adjacent plots
	2nd and 3rd basement level: 1.5m at all sides
Habitable Spaces	Up to G+3; as indicated Min ground floor height is 7.0m, maximum is 8.5m Max. building height in G+3 buildings is 24.5m including the parapet Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet Max. height is measured from the existing grade level of the adjacent Right of Way boundary
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable Non habitable spaces include parking, storages, utility areas and waste rooms

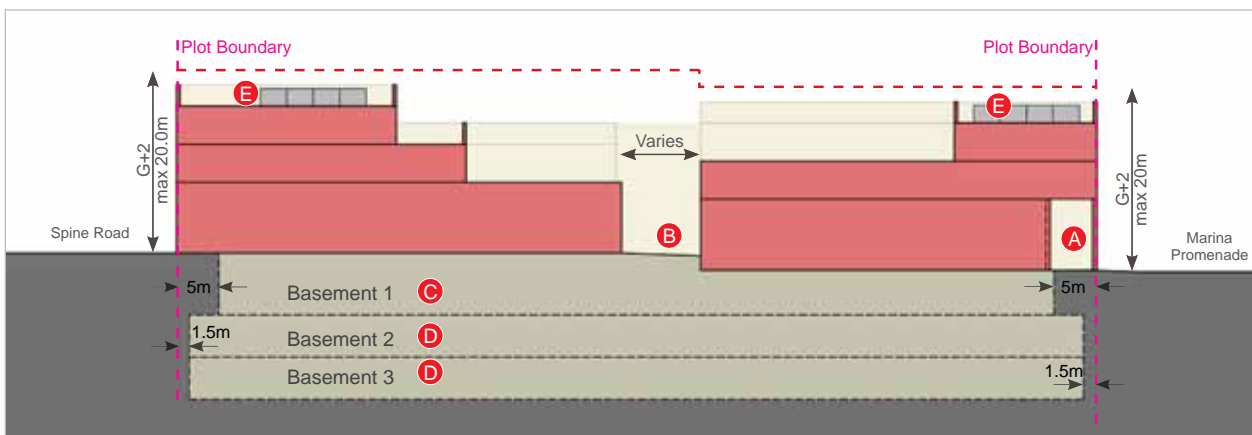
Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail and hotel servicing to be provided in the basement Basement height and circulation scheme should allow for service vehicle for maneuvering
Parking Requirements	1/50 sqm GFA for the souq. 1.06/40sqm GFA for the hotel Provision for public parking to be considered Vertical connections and emergency exits to follow authorities requirements
Drop off requirements	Hotel drop off to be provided as indicated in individual plot sheets
Open Space Requirements	Minimum 5m central pedestrian spine to be provided as indicated. Pedestrian spine to be linked to roads Q1 and Q2. Pedestrian connection between plots to be
Arcade	Arcade is optional in the indicated location Min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

Island 1 - plot MU-001 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 1 - Plot MU-001 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

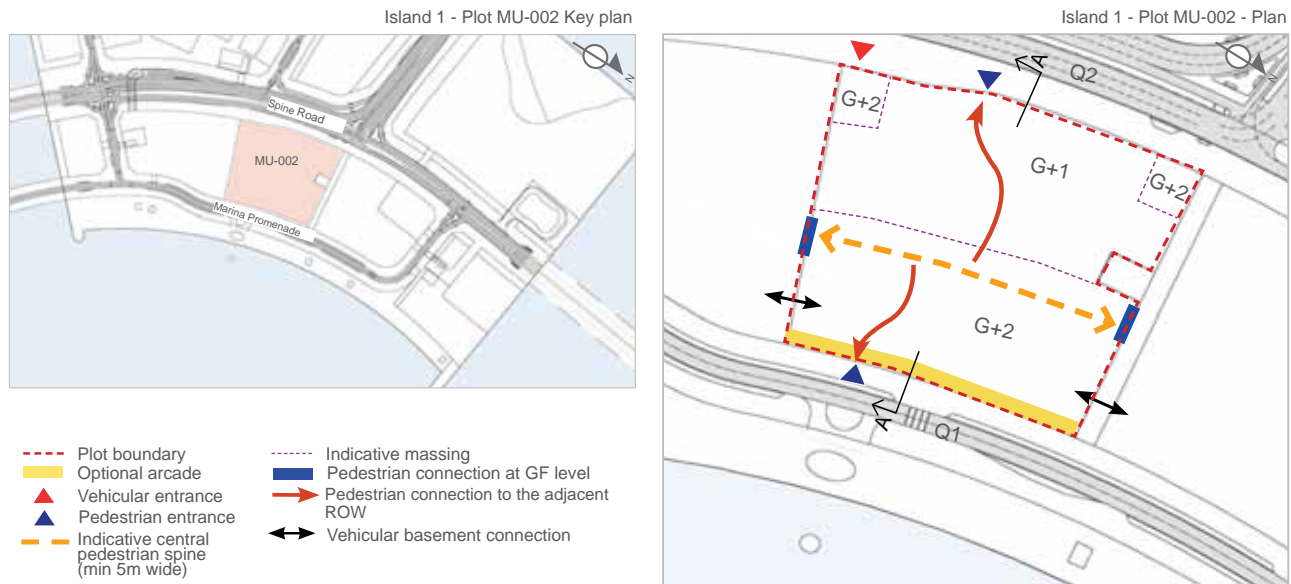
**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

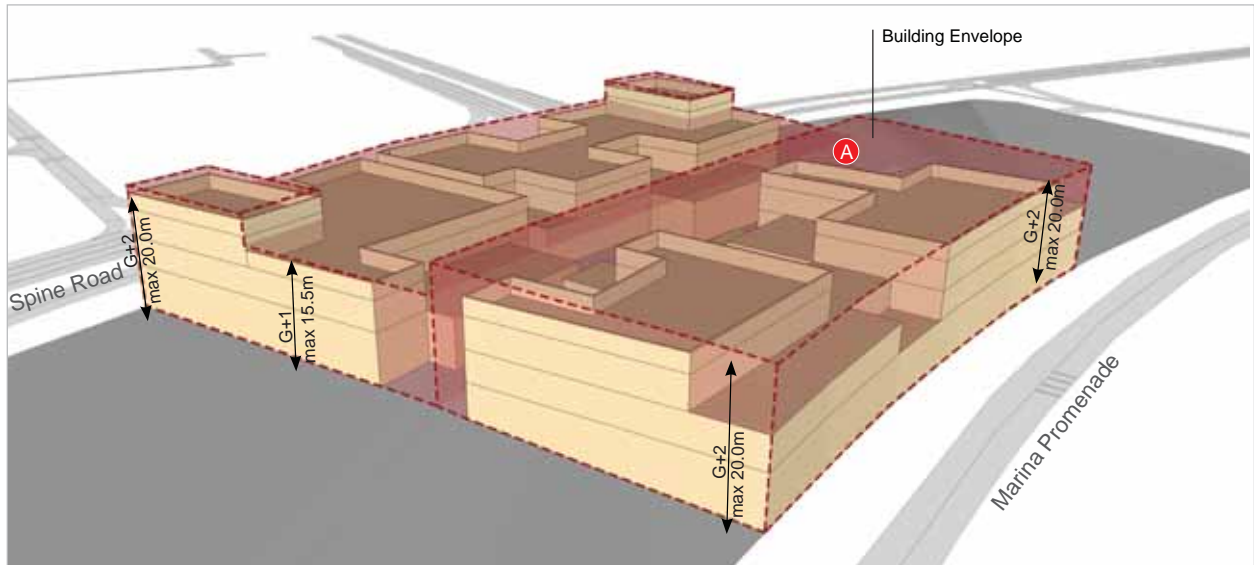
### SOUTH ISLAND 1 - PLOT MU-002



#### PLOT REGULATIONS SUMMARY:

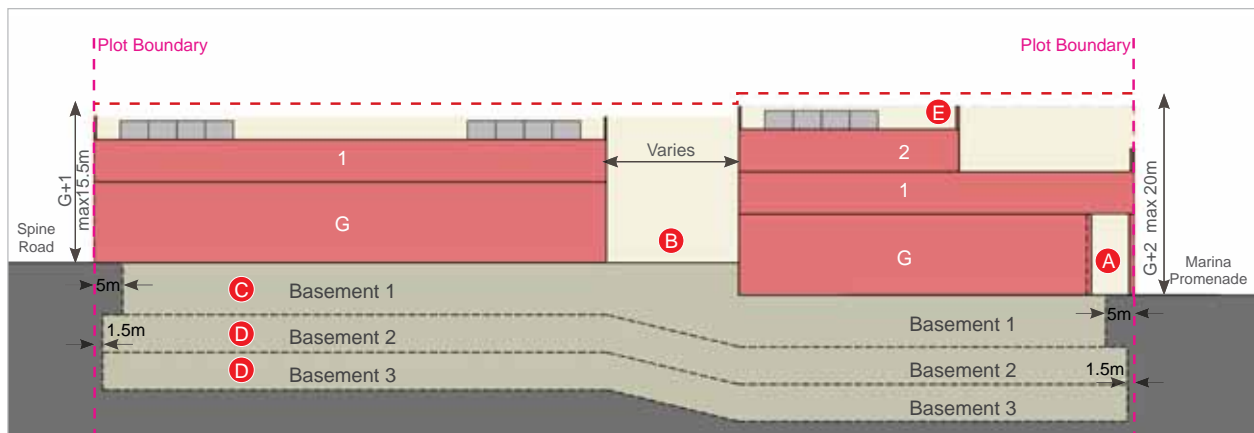
Permitted Land Use	Mixed Use (Retail and other uses)	Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail servicing to be provided in the basement Basement height and circulation scheme should allow for service vehicle for maneuvering
Plot Area	13,616 m <sup>2</sup>	Parking Requirements	1/50 sqm gfa for the souq. Provision for public parking to be considered Vertical connections and emergency exits to follow authorities requirements
Max. FAR	1.80	Open Space Requirements	Minimum 5m central pedestrian spine to be provided as indicated. Pedestrian spine to be linked to roads q1 and q2. Pedestrian connection between plots to be maintained as indicated.
Max. Plot Coverage	80%	Arcade	Arcade is optional in the indicated location Min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary
Setbacks	No setback required for any part of buildings above ground level Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot 1st basement level: 5m at street side; 1.5m from adjacent plots 2nd and 3rd basement level: 1.5m at all sides	Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened
Maximum Heights	Up to G+2; as indicated Min ground floor height is 7.0m, maximum is 8.5m Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet Max. height is measured from the existing grade level of the adjacent Right of Way boundary		
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable Non habitable spaces include parking, storages, utility areas and waste rooms		

Island 1 - plot MU-002 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 1 - Plot MU-003 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

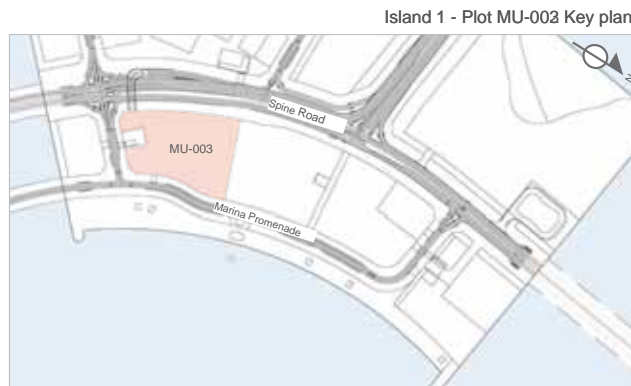
**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

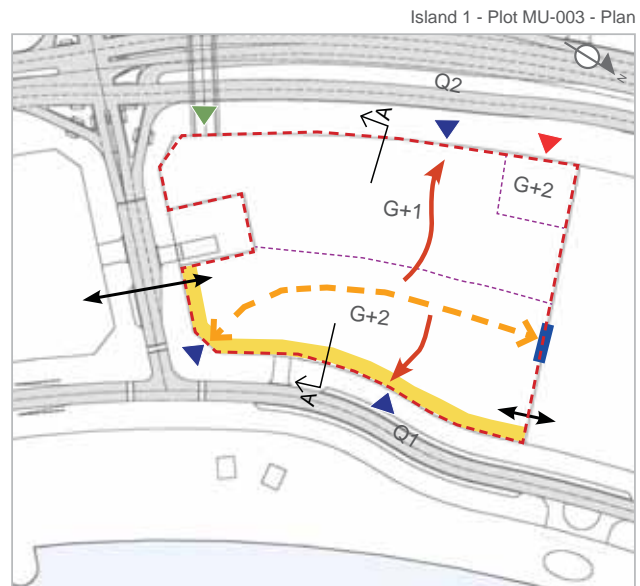
**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 1 - PLOT MU-003



- Plot boundary
- Optional arcade
- ▲ Vehicular entrance
- ▲ Underground vehicular entrance
- ▲ Pedestrian entrance
- Indicative central pedestrian spine (min 5m wide)
- Indicative massing
- Pedestrian connection at GF level
- Pedestrian connection to the adjacent ROW
- Vehicular basement connection

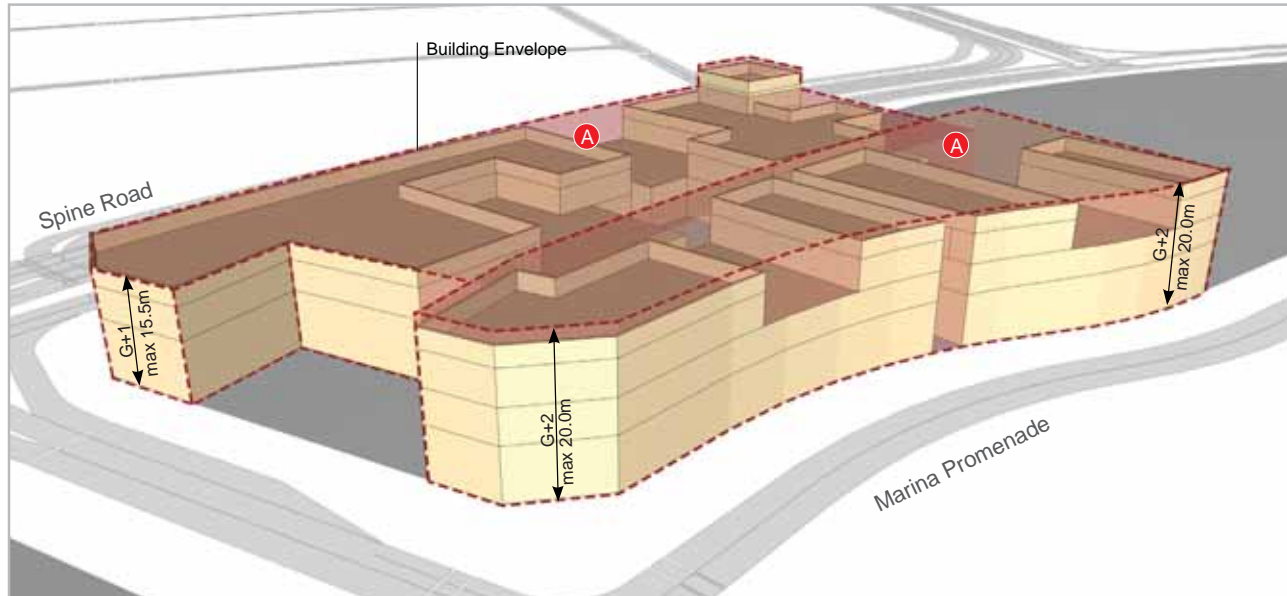


#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Mixed Use (Retail and other uses)
Plot Area	12,412 m <sup>2</sup>
Max. FAR	1.90
Max. Plot Coverage	80%
Setbacks	No setback required for any part of buildings above ground level
	Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot
Setbacks	1st basement level: 5m at street side; 1.5m from adjacent plots
	2nd and 3rd basement level: 1.5m at all sides
Maximum Heights	Up to G+2; as indicated Min ground floor height is 7.0m, maximum is 8.5m Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet Max. height is measured from the existing grade level of the adjacent Right of Way boundary
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable Non habitable spaces include parking, storages, utility areas and waste rooms

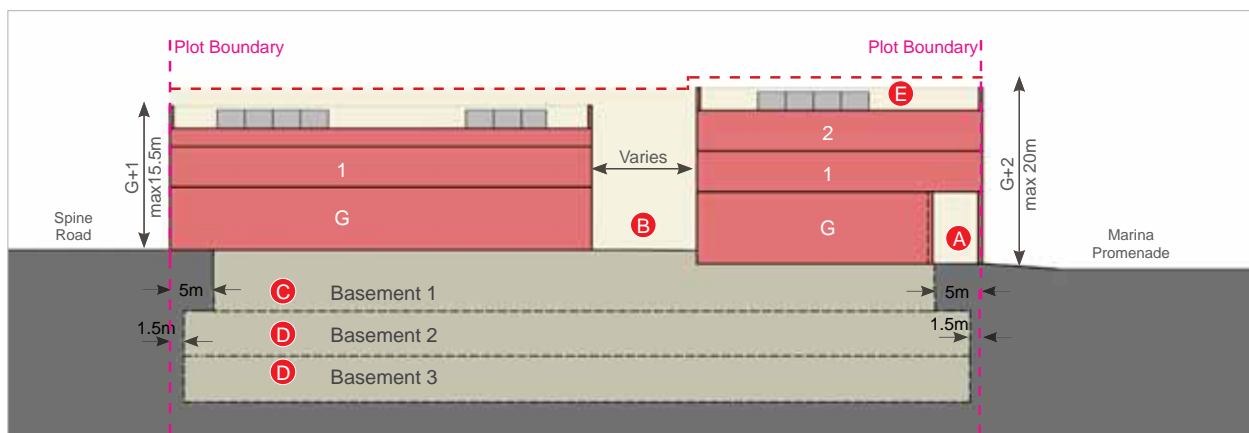
Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail servicing to be provided in the basement Basement height and circulation scheme should allow for service vehicle for maneuvering
Parking Requirements	1/50 sqm gfa for the souq. Provision for public parking to be considered Vertical connections and emergency exits to follow authorities requirements
Open Space Requirements	Minimum 5m central pedestrian spine to be provided as indicated. Pedestrian spine to be linked to roads q1 and q2. Pedestrian connection between plots to be maintained as indicated.
Arcade	Arcade is optional in the indicated location Min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

Island 1 - plot MU-003 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 1 - Plot MU-003 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

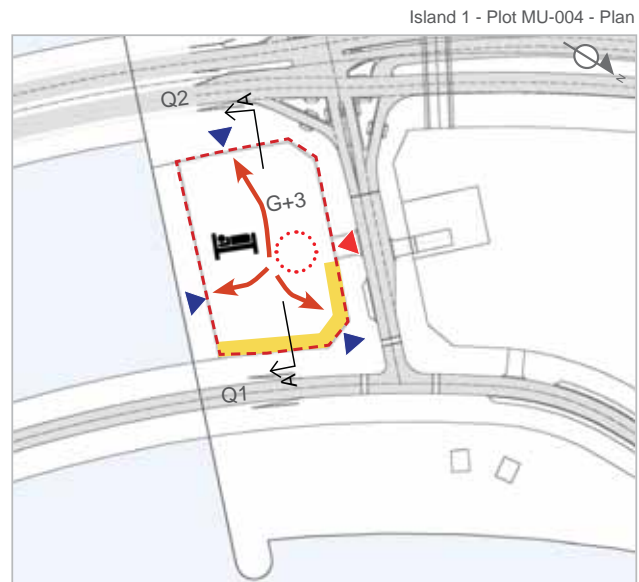
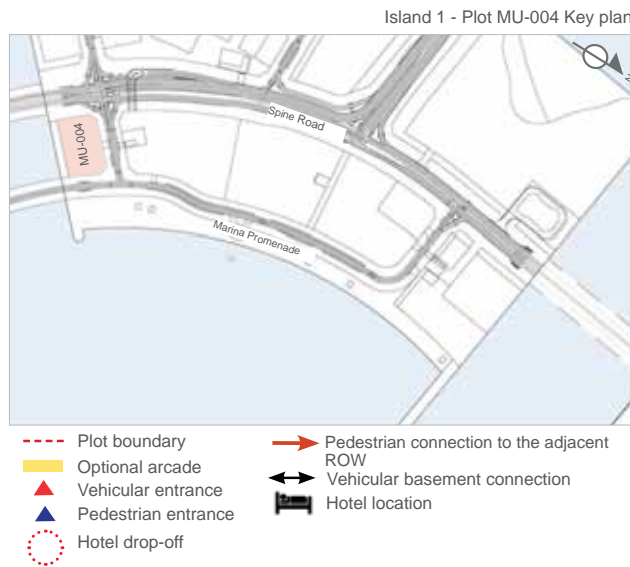
**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 1 - PLOT MU-004

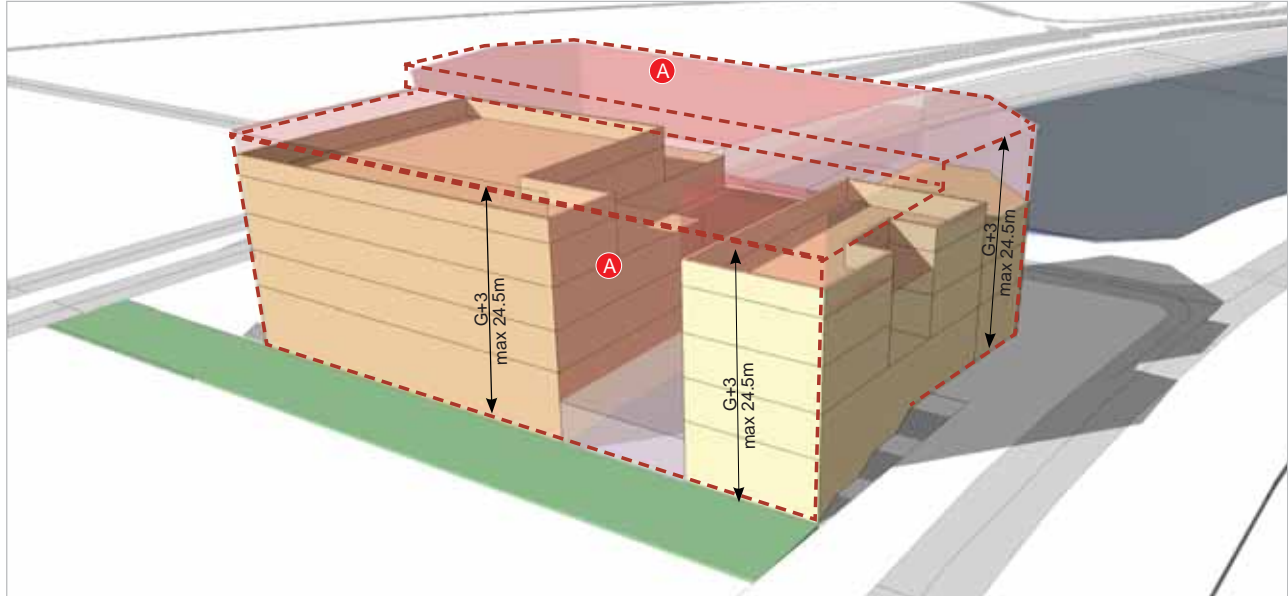


#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Mixed Use (Hotel; Retail and other uses)
Plot Area	3,791 m <sup>2</sup>
Max. FAR	2.00
Max. Plot Coverage	80%
Setbacks	No setback required for any part of buildings above ground level
	Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot
Setbacks	1st basement level: 5m at street side; 1.5m from adjacent plots
	2nd and 3rd basement level: 1.5m at all sides
Maximum Heights	Up to G+3; as indicated Min ground floor height is 7.0m, maximum is 8.5m Max. building height in G+3 buildings is 24.5m including the parapet Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet Max. height is measured from the existing grade level of the adjacent Right of Way boundary
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable Non habitable spaces include parking, storages, utility areas and waste rooms

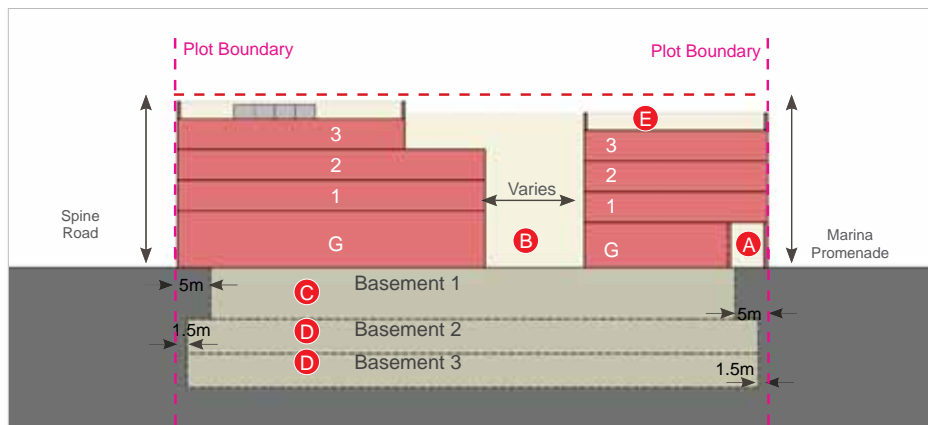
Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail and hotel servicing to be provided in the basement Basement height and circulation scheme should
Parking Requirements	1/50 sqm GFA for the retail 1.06/40sqm GFA for the hotel Provision for public parking to be considered Vertical connections and emergency exits to follow authorities requirements
Drop off requirements	Hotel drop off to be provided as indicated in individual plot sheets
Open Space Requirements	Minimum 5m central pedestrian spine to be provided as indicated. Pedestrian spine to be linked to roads Q1 and Q2. Pedestrian connection between plots to be maintained as indicated.
Arcade	Arcade is optional in the indicated location min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

Island 1 - plot MU-004 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 1 - Plot MU-004 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 2

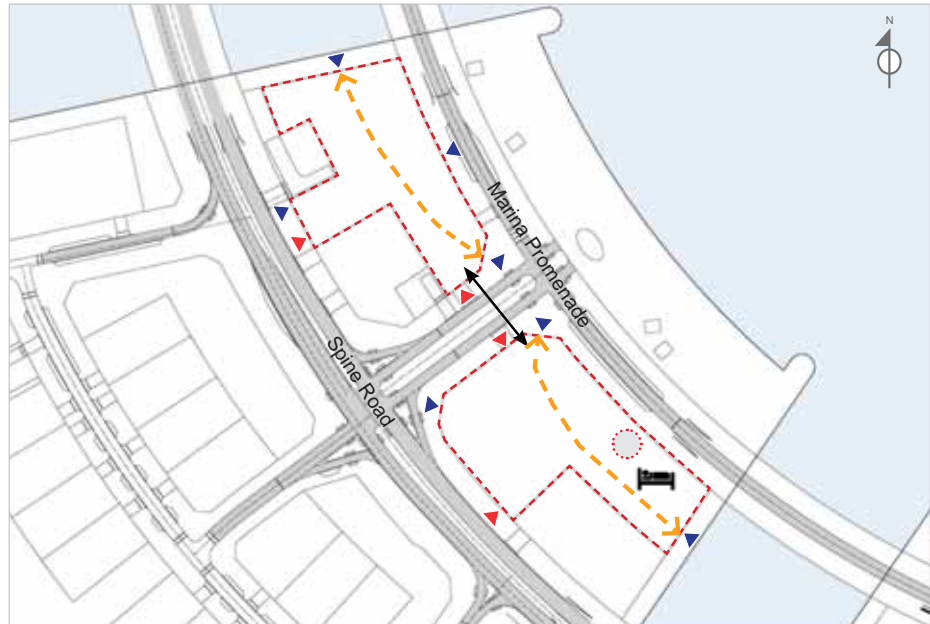
Island 2 - Plan

This sheet defines the general principles & parameters to inform the retail providers on the approach to the Island development.

The provided information supplements the Building Regulation sheets. It clarifies a number of points and lists the various relevant mandatory requirements.

The objective is to foster best design practice to result in a liveable neighbourhood.

The guidelines and controls are an outcome of Lusail Planning Authority's detailed review of the approval process.



- Indicative central pedestrian spine (min 5m wide)
- Plot boundary
- ↔ Vehicular basement connection
- Hotel location
- ▲ Parking entrance (subject to built driveways)
- ▲ Pedestrian entrance
- Hotel drop-off, no access to basement parking

The following is a summary of the conditions within Building Regulations sheets for individual mixed use plots:

Permitted Land Use	Mixed Use
Max. FAR	1.90
GFA Distribution	Varies (either 100% Retail, or Retail + Hotel)
Max. Covered Area	80%
Setbacks	No setback required for any part of buildings above ground level
	Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the
	1st basement level: 5m at street side; 1.5m from adjacent plots 2nd and 3rd basement level: 1.5m at all sides
Maximum Heights	Up to G+3; as indicated
	Min ground floor height is 7.0m, maximum is 8.5m
	Max. building height in G+3 buildings is 24.5m including the parapet
	Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable
	Non habitable spaces include parking, storages, utility areas and waste rooms

Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail and hotel servicing to be provided in the basement Basement height and circulation scheme should allow for service vehicle for maneuvering
Parking Requirements	1/50 Sqm GFA for the retail 1.06/40 Sqm GFA for the hotel Public parking to be provided as indicated in individual plot sheets Vertical connections and emergency exits to follow Authorities requirements
Drop-off Requirements	Wherever there are hotel uses within the plots, drop-off to be provided as indicated in individual plot sheets
Open Space Requirements	Pedestrian connections between plots to be linked by a minimum 5m wide pedestrian spine pedestrian spine to be linked to pedestrian entrances along the roads Q1 and Q2.
Arcade	Arcade is optional in the indicated location Min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary min Arcade width is 3.5m
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

## KEY PARAMETERS

### MASSING

Island 2 buildings heights range between G+1 at the spine road side, to G+2 at the waterfront side and key souq entrances, and G+3 for the hotel at the eastern canal side.

Maximum buildings heights are measured from the adjacent ROW boundary. At the Canal side, buildings ground floor should be at the same level of the promenade.

Island 2 - Indicative Massing



**A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

- ▲ Pedestrian entrance
- ▲ Parking entrance (subject to built driveways)

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 2

#### KEY PARAMETERS

##### ACCESS, SERVICING & PARKING

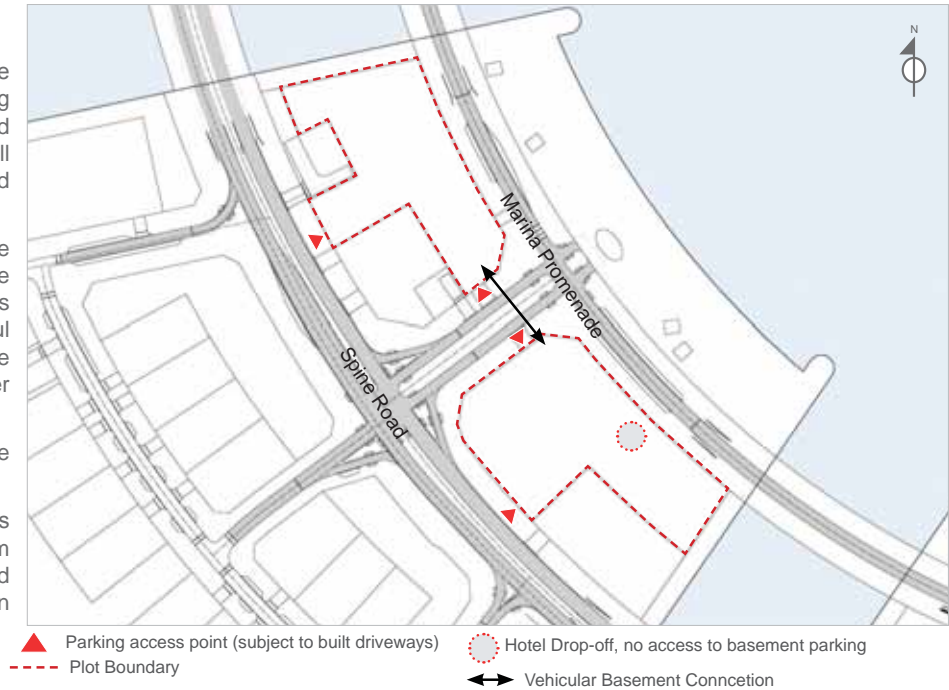
Car entries are predefined by the Master Developer. Each plot parking will have an independent access, and provision for a connection between all souq plots within each island should be made in the indicated locations.

Service access to Souq and to the hotels must be made through the basement and outside the Souq's operational hours. Therefore careful attention should be made to the height and turning radius for proper maneuvering.

Setbacks at the basement level are variable.

At the first basement, 5m setback is required at the road side, and 1.5m between adjacent plots. At the 2nd and 3rd basements, 1.5m setback on all sides is required.

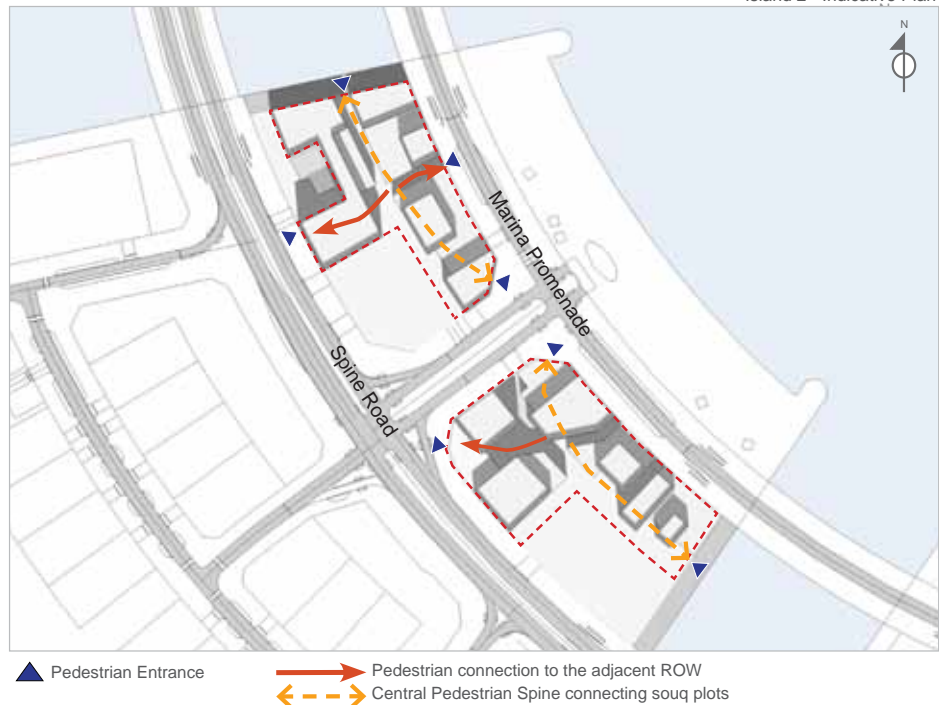
Island 2 - Car Access



##### PEDESTRIAN MOVEMENT

A central pedestrian spine is required to be created through the Souq and connect each edge of the Island.

Island 2 - Indicative Plan



## KEY PARAMETERS

### FACADE TREATMENT

Souq facade treatment on Island 2 varies on each side of the plots.

#### Facade A: Marina Side

All building facades facing the waterfront shall be articulated with a rhythm by repeating design elements at regular spacing along the length of the facade so as to give a distinctive character to the frontage of the building along the Marina side thus providing an attractive identity to the district.

Provision of an arcade along this side is encouraged to give the sense of continuity at both sides of the souq, and provide shaded walkways and external seating areas.

#### Facade B: Spine Road Side

In general, all building elevations on the back side of the Souq shall provide a minimum of 20% fenestration to promote a safe, visually interesting pedestrian environment.

Providing services and storage facilities along this facade should be avoided.

#### Facade C: Canal Side

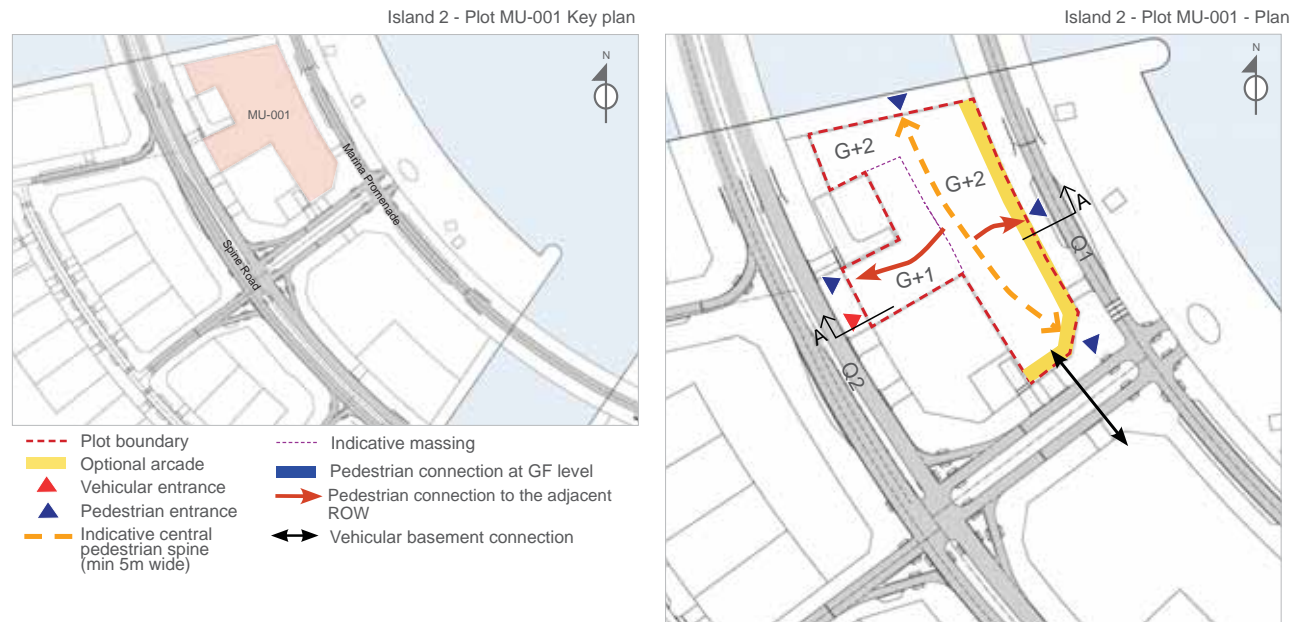
Souq on Island 2 has access to the Canal at its northern side, and south-eastern side. Owners and designers should take into consideration the drop in level along the bridge side. Direct access to the ground floor should be provided at both the canal side and the marina side.

Other facades inside the plot and facing the adjacent plots are considered internal. The design should consider the overarching design character of the souq.



## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 2 - PLOT MU-001

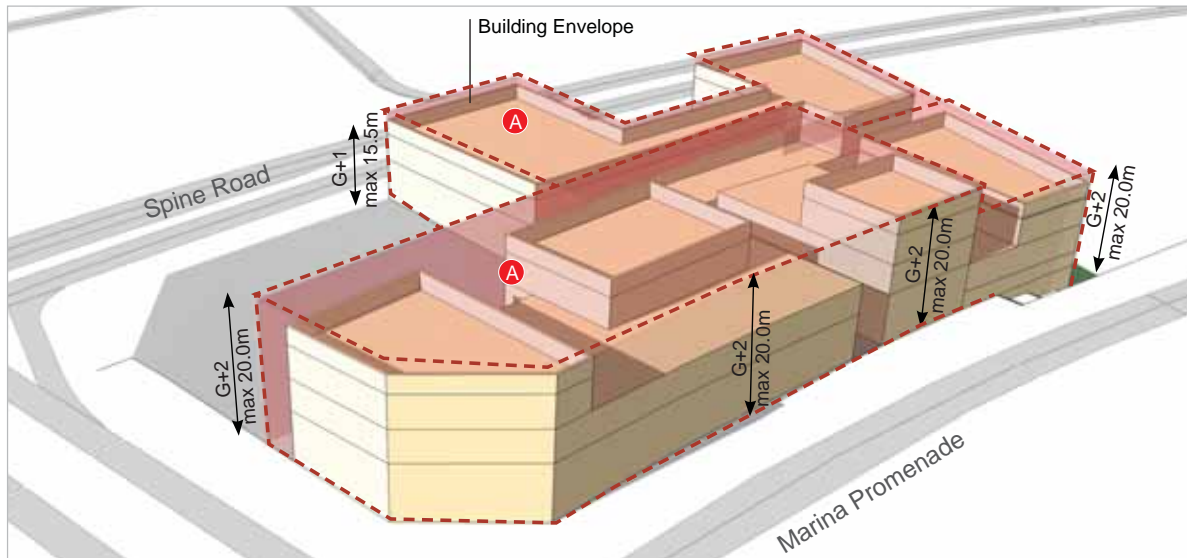


#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Mixed Use (Retail and other uses)
Plot Area	6,812 m <sup>2</sup>
Max. FAR	1.90
Max. Plot Coverage	80%
Setbacks	<p>No setback required for any part of buildings above ground level</p> <p>Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot</p> <p>1st basement level: 5m at street side; 1.5m from adjacent plots</p> <p>2nd and 3rd basement level: 1.5m at all sides</p>
Maximum Heights	<p>Up to G+2; as indicated</p> <p>Min ground floor height is 7.0m, maximum is 8.5m</p> <p>Max. building height in G+2 buildings is 20m including the parapet</p> <p>Max. building height in G+1 buildings is 15.5m including the parapet</p> <p>Max. height is measured from the existing grade level of the adjacent Right of Way boundary</p>
Habitable Spaces	<p>Habitable spaces in basement and mezzanine are FAR accountable</p> <p>Non habitable spaces include parking, storages, utility areas and waste rooms</p>

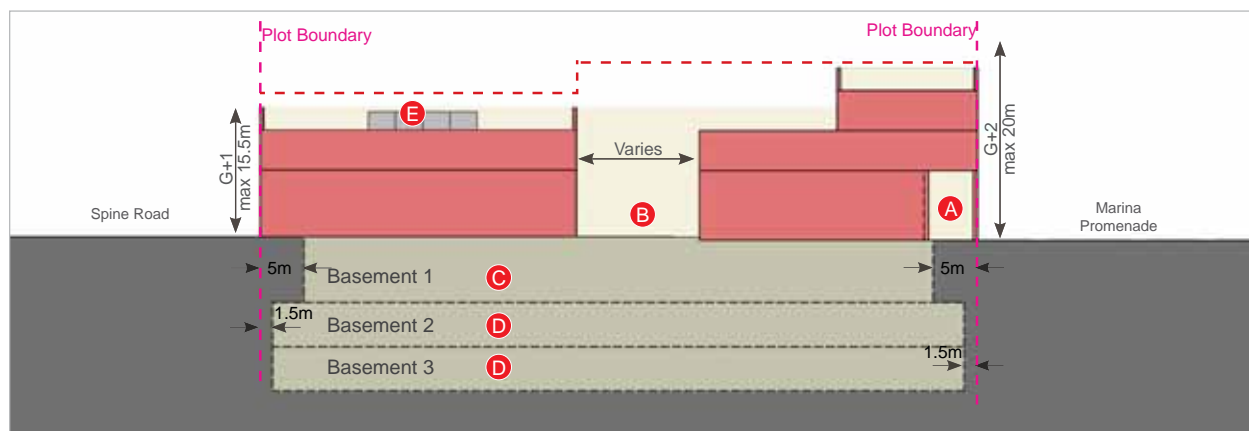
Basement Floors	<p>Max. number of basement floors: 3</p> <p>Connection between basements of adjacent plots to be provided as indicated</p> <p>Retail servicing to be provided in the basement</p> <p>Basement height and circulation scheme should allow for service vehicle for maneuvering</p>
Parking Requirements	<p>1/50 sqm gfa for the souq.</p> <p>Provision for public parking to be considered</p> <p>Vertical connections and emergency exits to follow authorities requirements</p>
Open Space Requirements	<p>Minimum 5m central pedestrian spine to be provided as indicated.</p> <p>Pedestrian spine to be linked to roads q1 and q2.</p> <p>Pedestrian connection between plots to be maintained as indicated.</p>
Arcade	<p>Arcade is optional in the indicated location</p> <p>Min Arcade height is 7m and max height is 8.5m</p> <p>Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary</p>
Screening	<p>Stairwells, vents, utility equipment to be recessed away from the street and screened from view.</p> <p>Equipment on roof must be screened</p>

Island 2 - Plot MU-001 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 2 - Plot MU-001 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

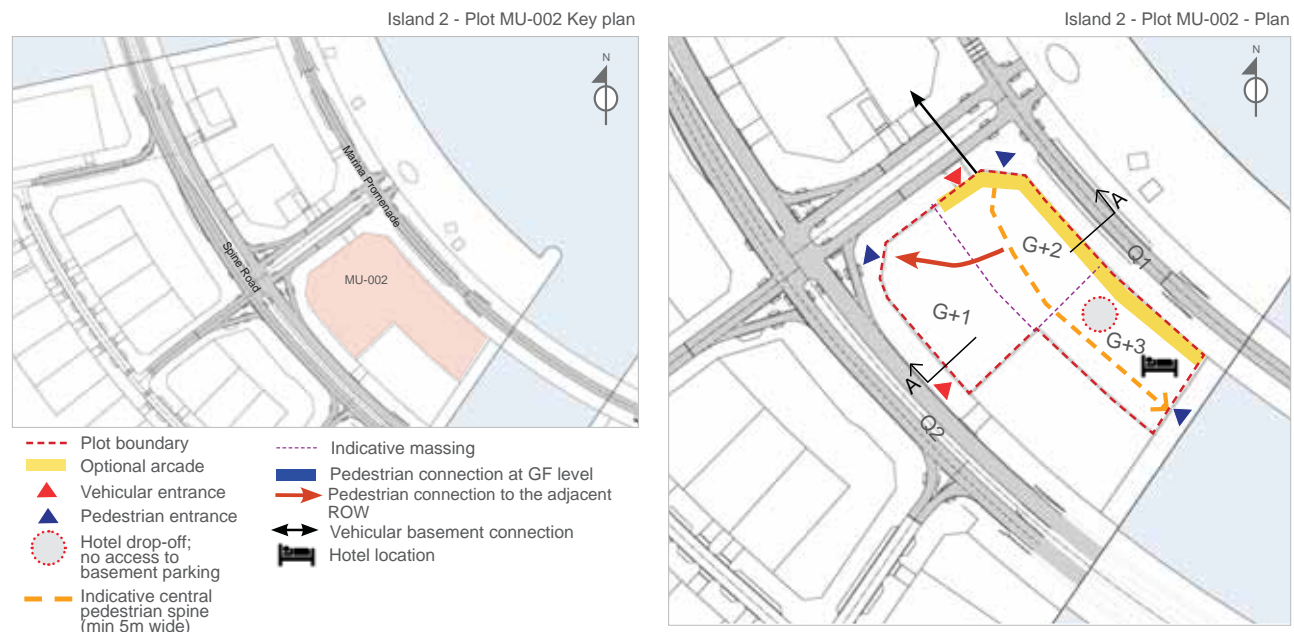
**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

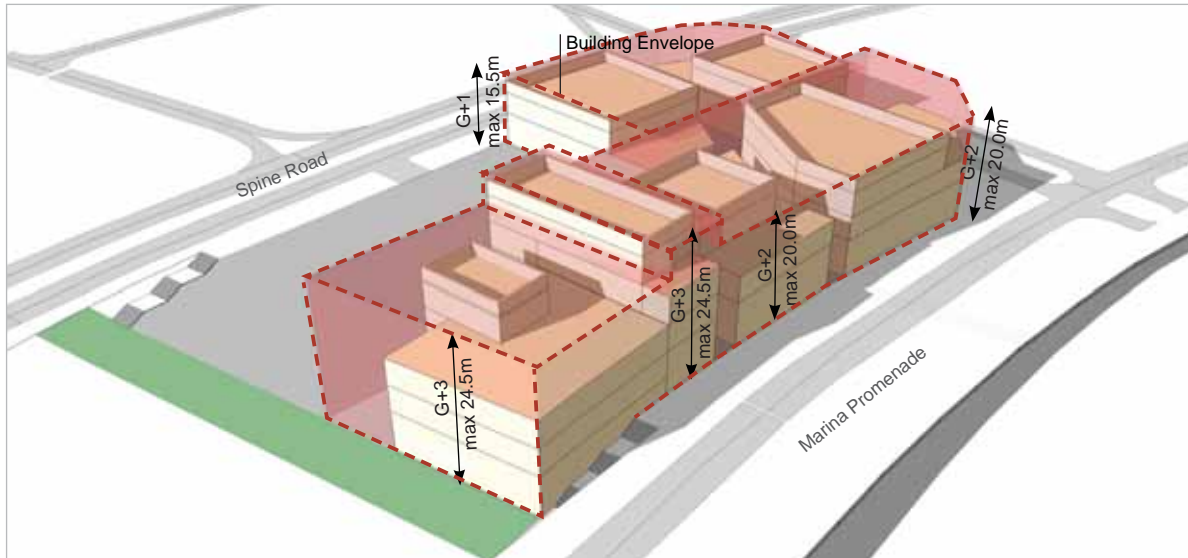
### SOUTH ISLAND 2 - PLOT MU-002



#### PLOT REGULATIONS SUMMARY:

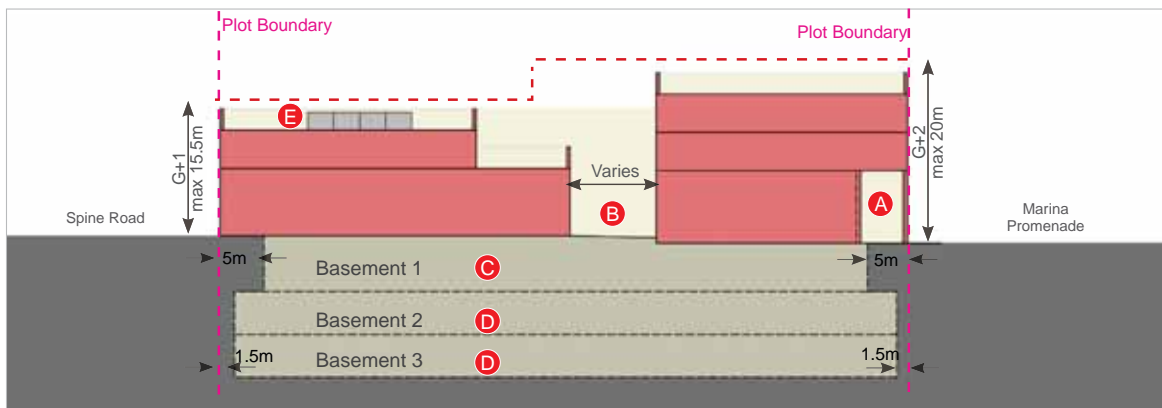
Permitted Land Use	Mixed Use (Hotel; Retail and other uses)
Plot Area	7,889 m <sup>2</sup>
Max. FAR	1.90
Max. Plot Coverage	80%
Setbacks	<p>No setback required for any part of buildings above ground level</p> <p>Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot</p> <p>1st basement level: 5m at street side; 1.5m from adjacent plots</p> <p>2nd and 3rd basement level: 1.5m at all sides</p>
Maximum Heights	<p>Up to G+3; as indicated</p> <p>Min ground floor height is 7.0m, maximum is 8.5m</p> <p>Max. building height in G+3 buildings is 24.5m including the parapet</p> <p>Max. building height in G+2 buildings is 20m including the parapet</p> <p>Max. building height in G+1 buildings is 15.5m including the parapet</p> <p>Max. height is measured from the existing grade level of the adjacent Right of Way boundary</p>
Habitable Spaces	<p>Habitable spaces in basement and mezzanine are FAR accountable</p> <p>Non habitable spaces include parking, storages, utility areas and waste rooms</p>
Basement Floors	<p>Max. number of basement floors: 3</p> <p>Connection between basements of adjacent plots to be provided as indicated</p> <p>Retail and hotel servicing to be provided in the basement</p> <p>Basement height and circulation scheme should allow for service vehicle for maneuvering</p>
Parking Requirements	<p>1/50 sqm gfa for the souq.</p> <p>1.06/40m<sup>2</sup> GFA for hotel.</p> <p>Provision for public parking to be considered</p> <p>Vertical connections and emergency exits to follow authorities requirements</p>
Drop off requirements	Hotel drop off to be provided as indicated in individual plot sheets
Open Space Requirements	<p>Minimum 5m central pedestrian spine to be provided as indicated.</p> <p>Pedestrian spine to be linked to roads q1 and q2.</p> <p>Pedestrian connection between plots to be maintained as indicated.</p>
Arcade	<p>Arcade is optional in the indicated location</p> <p>min Arcade height is 7m and max height is 8.5m</p> <p>Arcade height to be measured from the existing</p>
Screening	<p>Stairwells, vents, utility equipment to be recessed away from the street and screened from view.</p> <p>Equipment on roof must be screened</p>

Island 2 - Plot MU-002 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 2 - Plot MU-002 - Indicative Section A-A



- Building envelope
- A** Optional waterfront arcade, 5m wide
- B** Central pedestrian spine connecting the souq plots
- C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides
- D** Basement 2 and 3 - min 1.5m setback at all sides
- E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 3

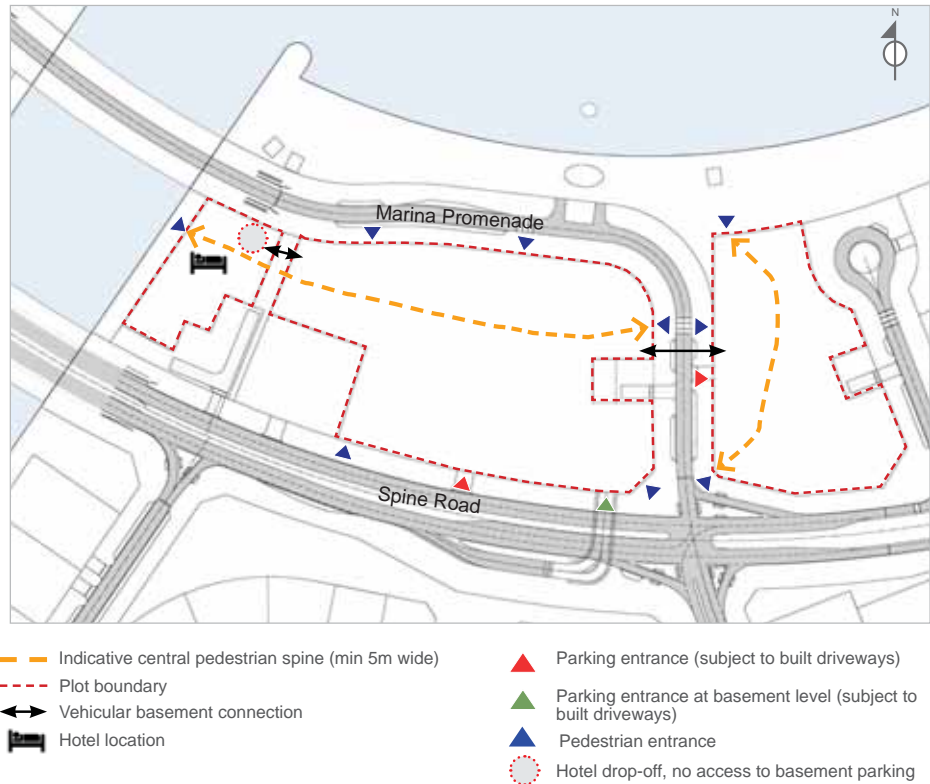
This sheet defines the general principles & parameters to inform the retail providers on the approach to the Island development.

The provided information supplements the Building Regulation sheets. It clarifies a number of points and lists the various relevant mandatory requirements.

The objective is to foster best design practice to result in a liveable neighbourhood.

The guidelines and controls are an outcome of Lusail Planning Authority's detailed review of the approval process.

Island 1 - Indicative Plan



The following is a summary of the conditions within Building Regulations sheets for individual mixed use plots:

Permitted Land Use	Mixed Use		
Max. FAR	Varies (1.80 to 2.00)	Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail and hotel servicing to be provided in the basement Basement height and circulation scheme should allow for service vehicle for maneuvering
GFA Distribution	Varies (either 100% Retail, or Retail + Hotel)	Parking Requirements	1/50 Sqm GFA for the retail 1.06/40 Sqm GFA for the hotel Visitors parking to be provided as indicated in individual plot sheets Vertical connections and emergency exits to follow Authorities requirements
Max. Covered Area	80%	Drop-off Requirements	Wherever there are hotel uses within the plots, drop-off to be provided as indicated in individual plot sheets
Setbacks	No setback required for any part of buildings above ground level Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot 1st basement level: 5m at street side; 1.5m from adjacent plots 2nd and 3rd basement level: 1.5m at all sides	Open Space Requirements	Pedestrian connections between plots to be linked by a minimum 5m wide pedestrian spine pedestrian spine to be linked to pedestrian entrances along the roads Q1 and Q2.
Maximum Heights	Up to G+3; as indicated Min ground floor height is 7.0m, maximum is 8.5m Max. building height in G+3 buildings is 24.5m including the parapet Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet Max. height is measured from the existing grade	Arcade	Arcade is optional in the indicated location min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary min Arcade width is 3.5m
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable Non habitable spaces include parking, storages, utility areas and waste rooms	Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. equipment on roof must be screened

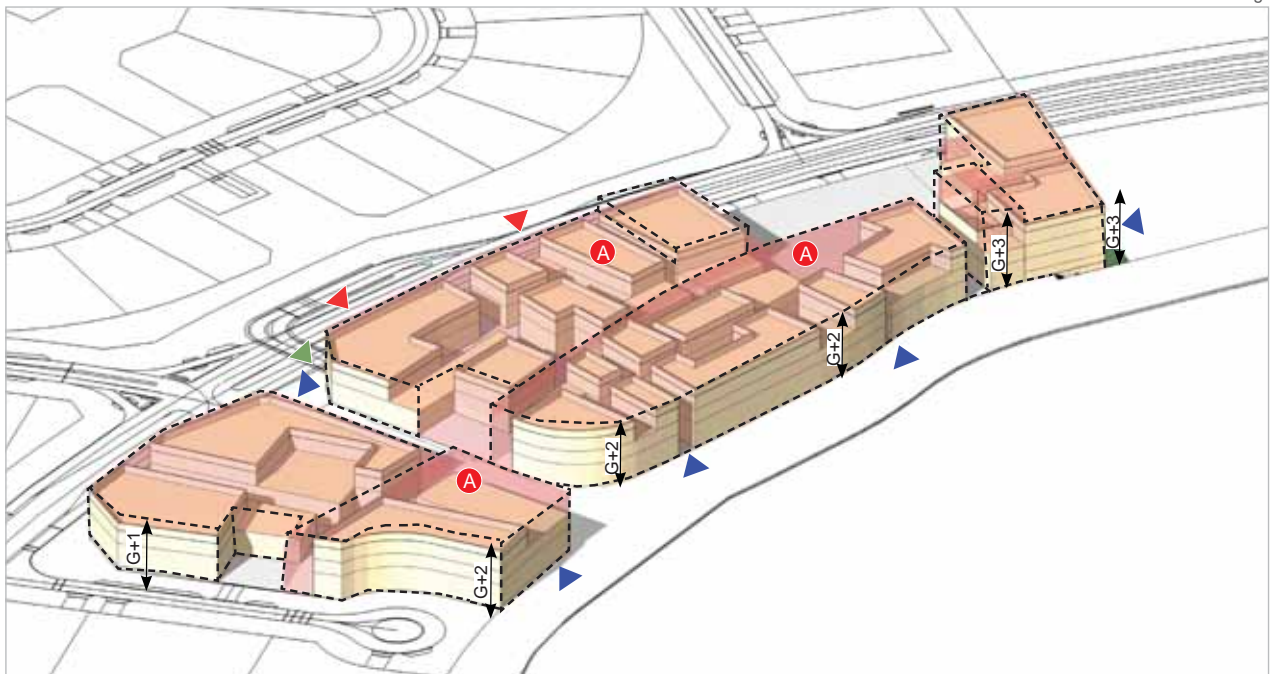
## KEY PARAMETERS

### MASSING

Island 1 buildings heights range between G+1 at the spine road side, to G+2 at the waterfront side and key souq entrances, and G+3 for the hotels at both edges of the mixed use plots.

Maximum buildings heights are measured from the adjacent ROW boundary. At the Canal side, buildings ground floor should be at the same level of the promenade.

Island 1 - Indicative Massing



- A** The Building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

- ▲ Pedestrian entrance
- ▲ Parking entrance (subject to built driveways)
- ▲ Parking entrance at basement level (subject to built driveways)

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 3

#### KEY PARAMETERS

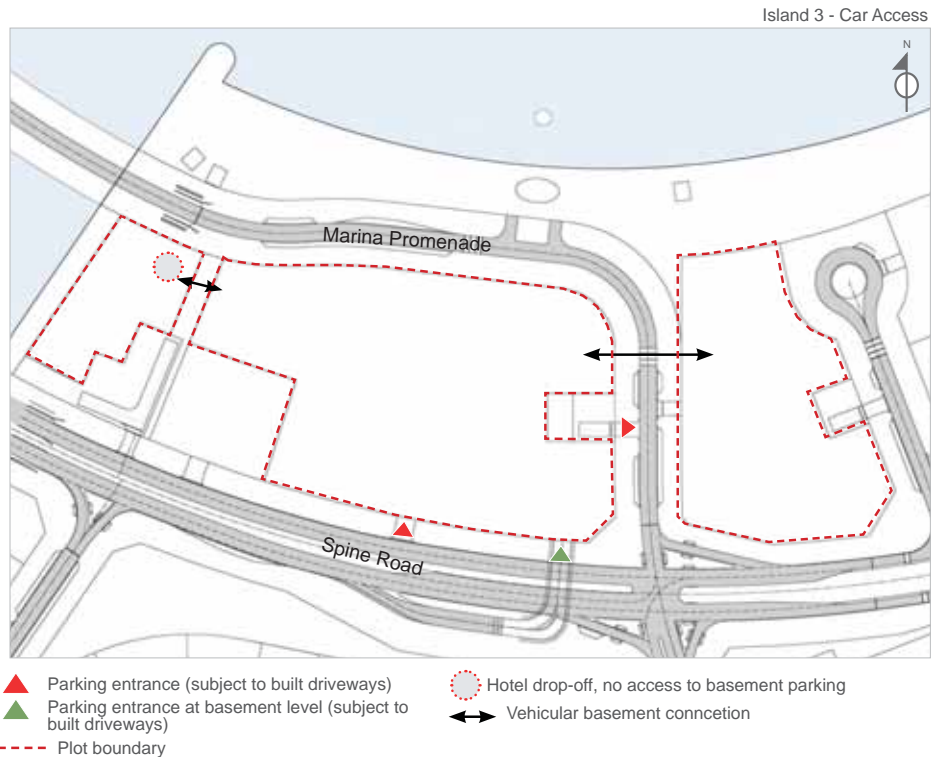
##### ACCESS, SERVICING & PARKING

Car entries are predefined by the Master Developer. Each plot parking will have an independent access, and provision for a connection between all souq plots within each island should be made in the indicated locations.

Service activity for the souq and the souq hotels must be accessed through the basement outside the souq operational hours. Therefore proper vehicular maneuvering and basement height should be considered.

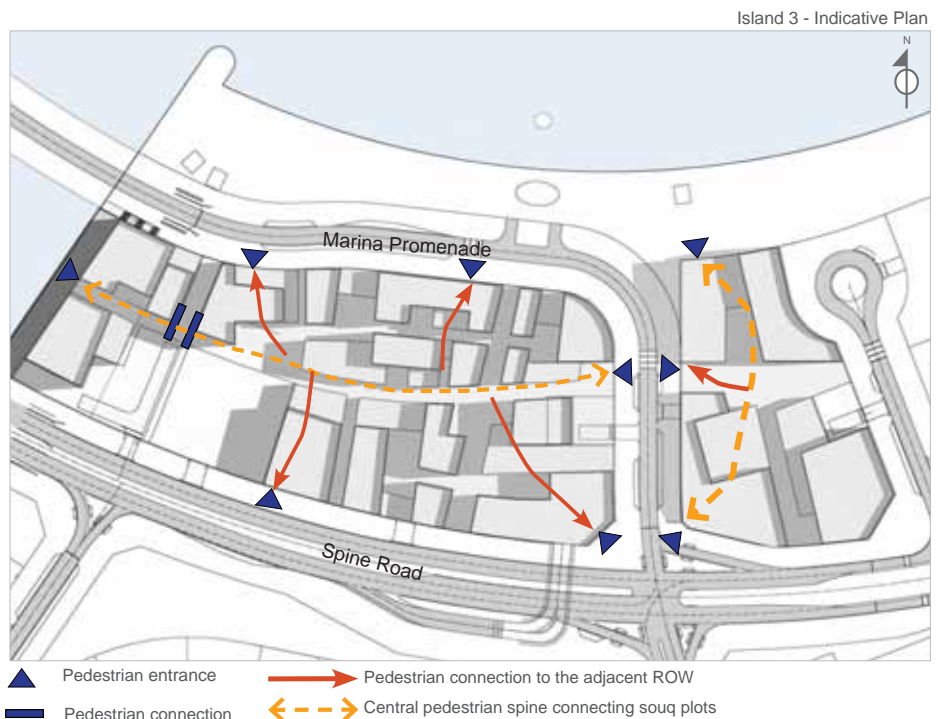
Setbacks at the basement level are variable.

At the first basement, 5m setback is required at the road side, and 1.5m between adjacent plots. At the 2nd and 3rd basements, 1.5m setback on all sides is required.



##### PEDESTRIAN MOVEMENT

A central pedestrian spine is required within island 3. It creates a central pedestrian walkway that connects both edges of the mixed use component on Island 3.



## KEY PARAMETERS

### FACADE TREATMENT

Souq facade treatment on Island 3 varies on each side of the plots.

#### Facade A: Marina Side

All building facades facing the waterfront shall be articulated with a rhythm by repeating design elements at regular spacing along the length of the facade so as to give a distinctive character to the frontage of the building along the Marina side thus providing an attractive identity to the district.

Provision of an arcade along this side is encouraged to give the sense of continuity at both sides of the souq, and provide shaded walkways and external seating areas.

#### Facade B: Spine Road Side

In general, all building elevations on the back side of the Souq shall provide a minimum of 20% fenestration to promote a safe, visually interesting pedestrian environment.

Providing services and storage facilities along this facade should be avoided.

#### Facade C: Canal Side

Souq on Island 3 has access to the Canal at its western side. Owners and designers should take into consideration the drop in level along the bridge side. Direct access to the ground floor should be provided at both the canal side and the marina side.

#### Facade D: Premier Waterfront Villas Side

This side faces the premier waterfront villas on Island 3. Retail should be restricted to uses that are quiet in nature (No food and beverage uses are permitted on this side and thus no sitting areas)  
- Openings should be minimized to preserve the privacy of the villas on the opposite side.

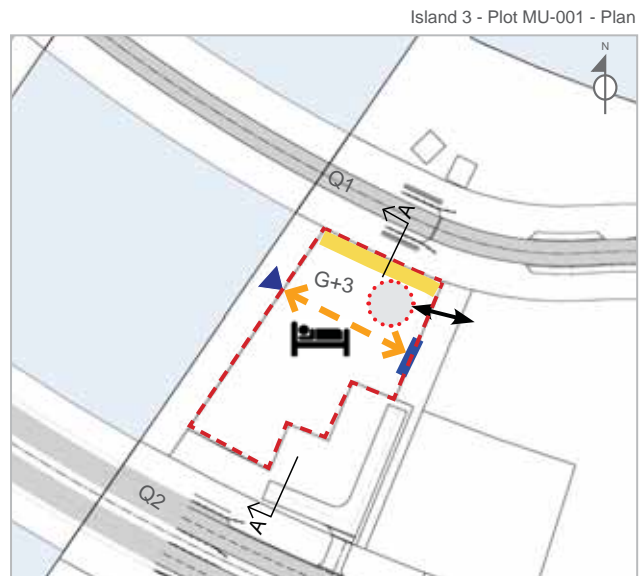
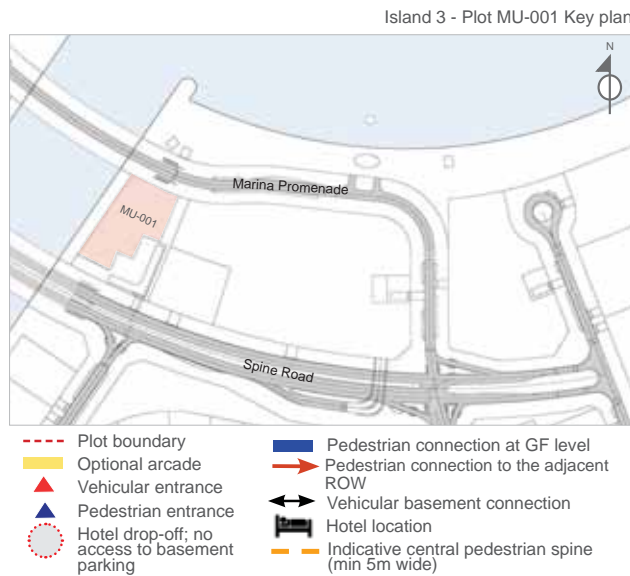
Island 3 - Facade types



Other facades inside the plot and facing the adjacent plots are considered internal. The design should consider the overarching design character of the souq.

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 3 - PLOT MU-001

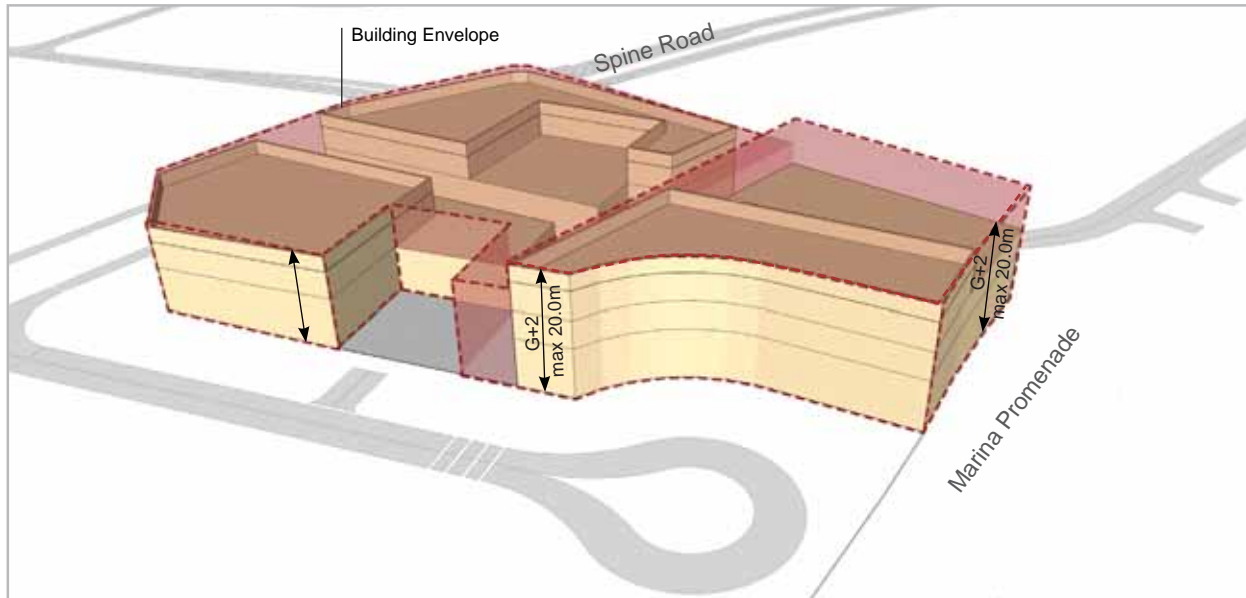


#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Mixed Use (Hotel; Retail and other uses)
Plot Area	2,696 sqm
Max. FAR	1.80
Max. Plot Coverage	80%
Setbacks	<p>No setback required for any part of buildings above ground level</p> <p>Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot</p> <p>1st basement level: 5m at street side; 1.5m from adjacent plots</p> <p>2nd and 3rd basement level: 1.5m at all sides</p>
Maximum Heights	<p>Up to G+3; as indicated</p> <p>Min ground floor height is 7.0m, maximum is 8.5m</p> <p>Max. building height in G+3 buildings is 24.5m including the parapet</p> <p>Max. building height in G+2 buildings is 20m including the parapet</p> <p>Max. building height in G+1 buildings is 15.5m including the parapet</p> <p>Max. height is measured from the existing grade level of the adjacent Right of Way boundary</p>
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable

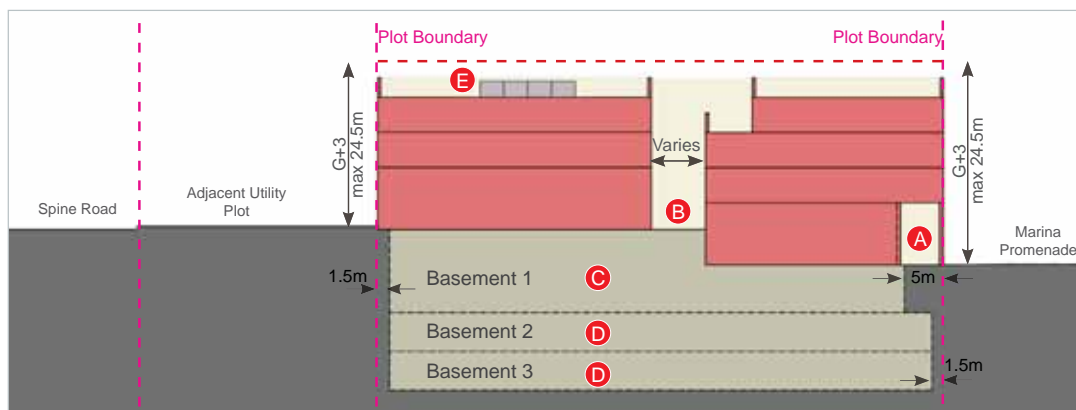
Basement Floors	<p>Max. number of basement floors: 3</p> <p>Connection between basements of adjacent plots to be provided as indicated</p> <p>Retail and hotel servicing to be provided in the basement</p> <p>Basement height and circulation scheme should allow for service vehicle for maneuvering</p>
Parking Requirements	<p>1/50 sqm gfa for the retail</p> <p>1.06/40 Sqm GFA for the hotel</p> <p>Provision for public parking to be considered</p> <p>Vertical connections and emergency exits to follow authorities requirements</p>
Drop off requirements	Hotel drop off to be provided as indicated in individual plot sheets
Open Space Requirements	<p>Minimum 5m central pedestrian spine to be provided as indicated.</p> <p>Pedestrian spine to be linked to roads q1 and q2.</p> <p>Pedestrian connection between plots to be maintained as indicated.</p>
Arcade	<p>Arcade is optional in the indicated location</p> <p>min Arcade height is 7m and max height is 8.5m</p> <p>Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary</p>
Screening	<p>Stairwells, vents, utility equipment to be recessed away from the street and screened from view.</p> <p>Equipment on roof must be screened</p>

Island 3 - plot MU-001 - Indicative Massing



- A** The Building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 3 - Plot MU-001 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

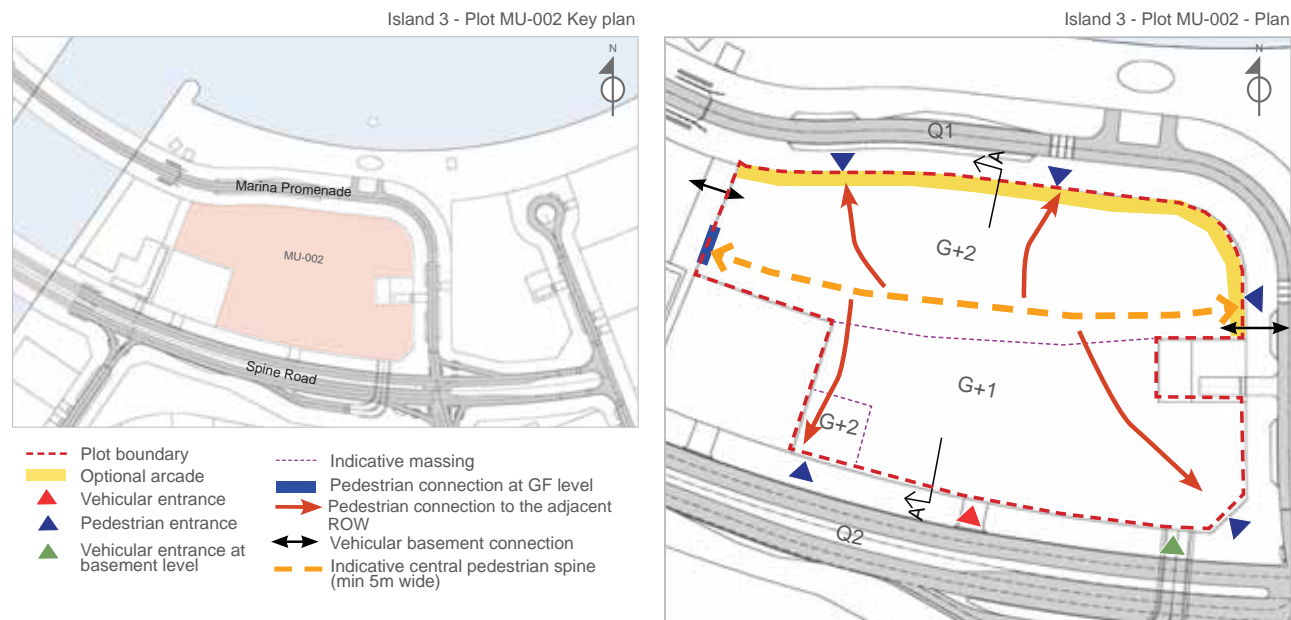
**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### SOUTH ISLAND 3 - PLOT MU-002

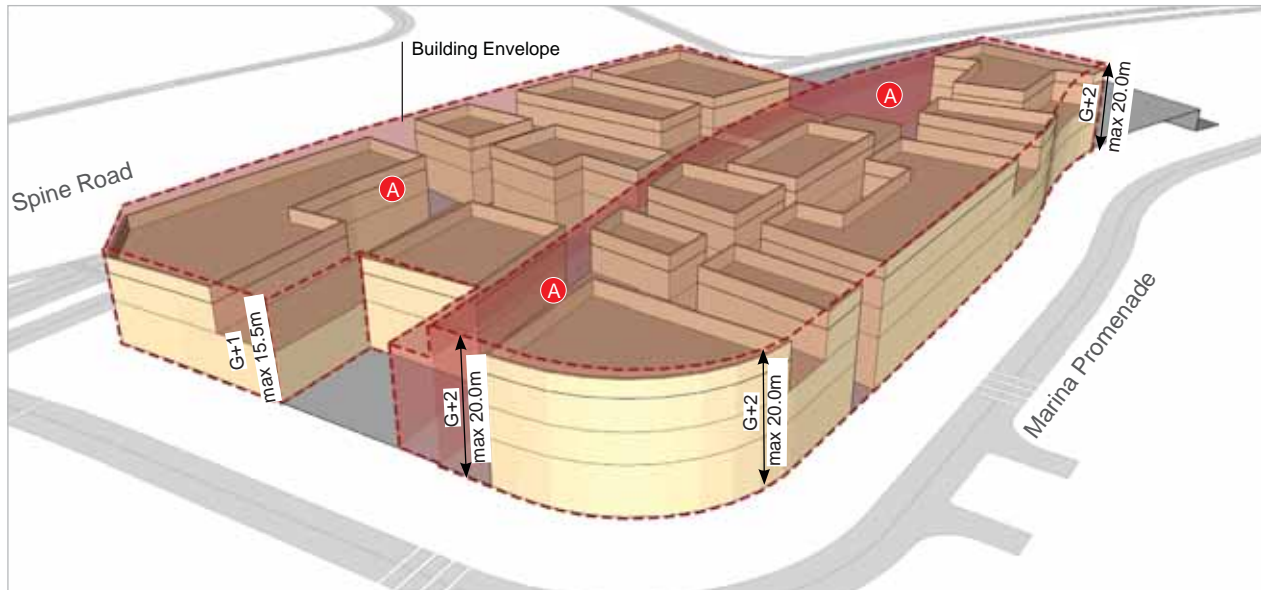


#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Mixed Use (Retail and other uses)
Plot Area	15,817m <sup>2</sup>
Max. FAR	2.00
Max. Plot Coverage	80%
Setbacks	<p>No setback required for any part of buildings above ground level</p> <p>Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot</p> <p>1st basement level: 5m at street side; 1.5m from adjacent plots</p> <p>2nd and 3rd basement level: 1.5m at all sides</p>
Maximum Heights	<p>Up to G+2; as indicated</p> <p>Min ground floor height is 7.0m, maximum is 8.5m</p> <p>Max. building height in G+2 buildings is 20m including the parapet</p> <p>Max. building height in G+1 buildings is 15.5m including the parapet</p> <p>Max. height is measured from the existing grade level of the adjacent Right of Way boundary</p>
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable

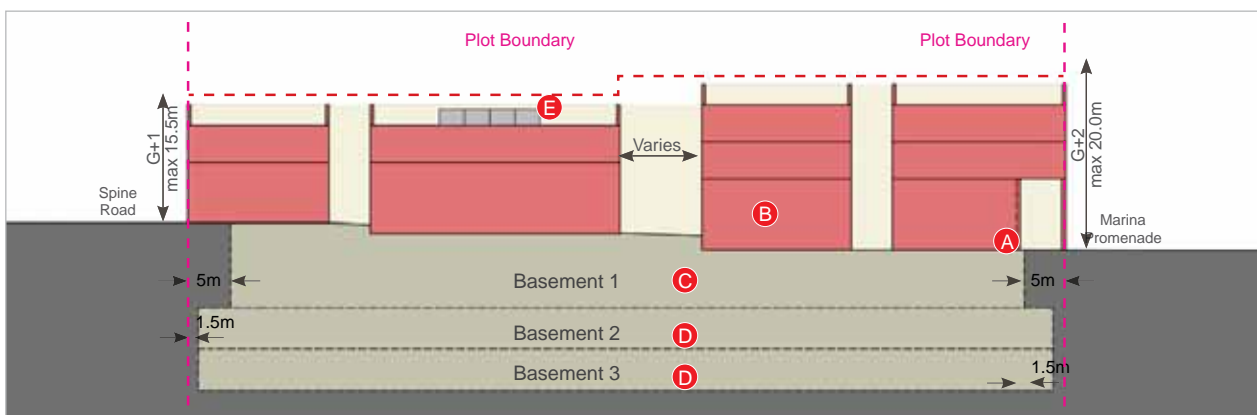
Basement Floors	<p>Max. number of basement floors: 3</p> <p>Connection between basements of adjacent plots to be provided as indicated</p> <p>Retail servicing to be provided in the basement</p> <p>Basement height and circulation scheme should allow for service vehicle for maneuvering</p>
Parking Requirements	<p>1/50 sqm gfa for the souq.</p> <p>Additional public parking to be provided within basement</p> <p>Vertical connections and emergency exits to follow authorities requirements</p>
Open Space Requirements	<p>Minimum 5m central pedestrian spine to be provided as indicated.</p> <p>Pedestrian spine to be linked to roads q1 and q2.</p> <p>Pedestrian connection between plots to be maintained as indicated.</p>
Arcade	<p>Arcade is optional in the indicated location</p> <p>min Arcade height is 7m and max height is 8.5m</p> <p>Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary</p>
Screening	<p>Stairwells, vents, utility equipment to be recessed away from the street and screened from view.</p> <p>Equipment on roof must be screened</p>

Island 3 - plot MU-002 - Indicative Massing



- A** The Building Envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 3 - Plot MU-002 - Indicative Section A-A



--- Building Envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

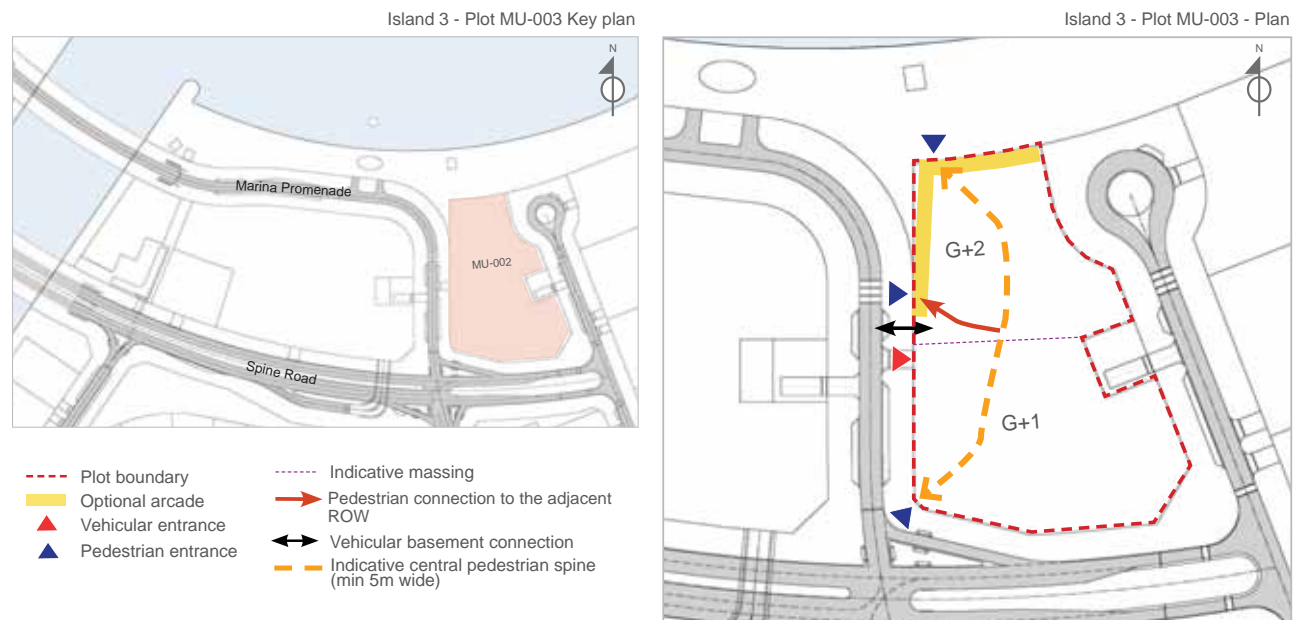
**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

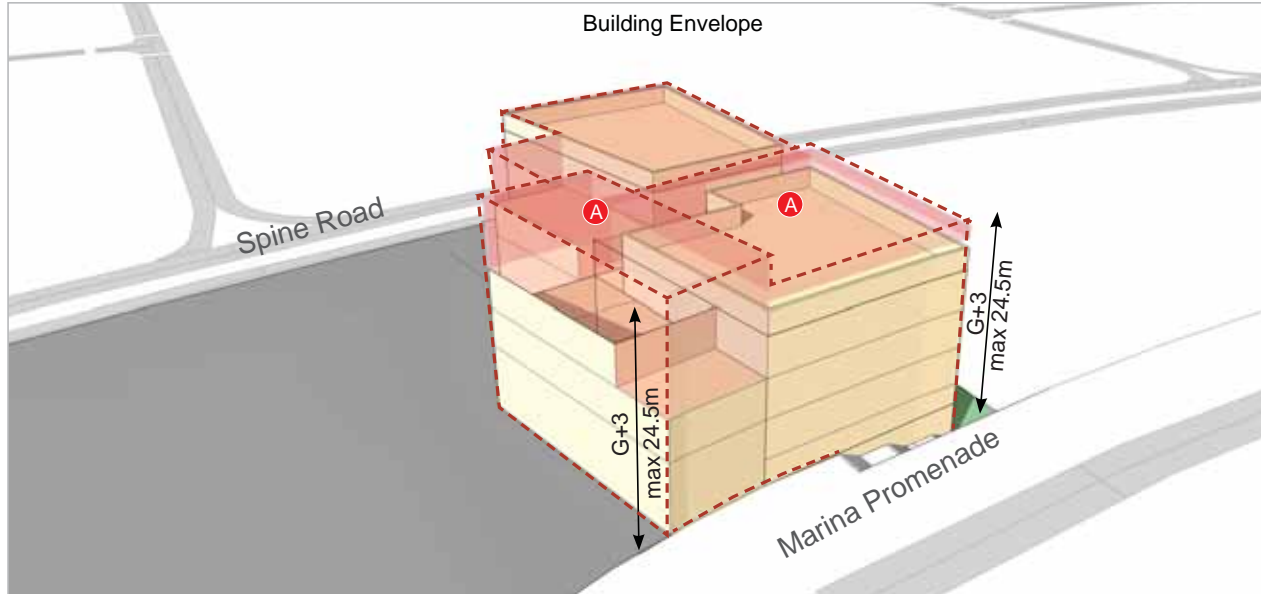
### SOUTH ISLAND 3 - PLOT MU-003



#### PLOT REGULATIONS SUMMARY:

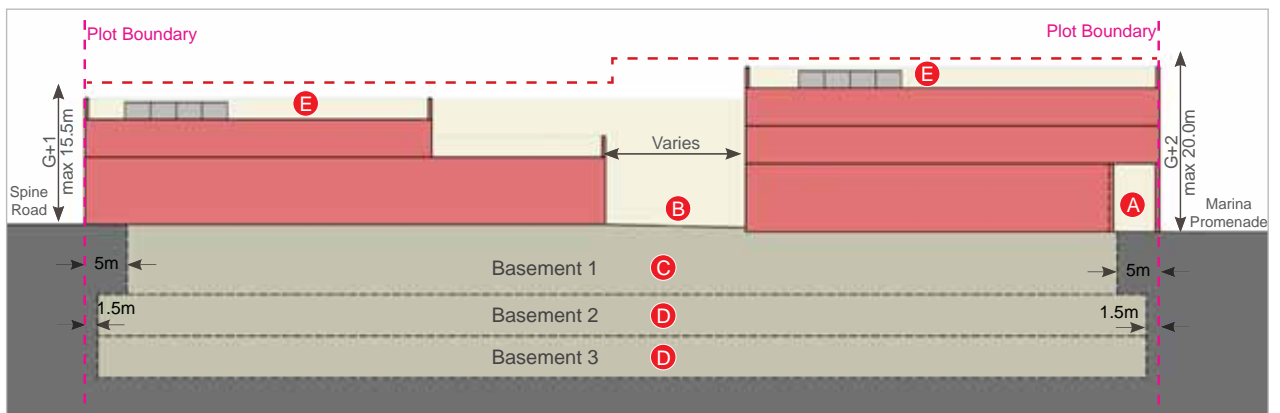
Permitted Land Use	Mixed Use (Retail and other uses)		
Plot Area	8,368 m <sup>2</sup>	Basement Floors	Max. number of basement floors: 3 Connection between basements of adjacent plots to be provided as indicated Retail servicing to be provided in the basement Basement height and circulation scheme should allow for service vehicle for maneuvering
Max. FAR	2.00	Parking Requirements	1/50 sqm gfa for the souq. Additional public parking to be provided within basement Vertical connections and emergency exits to follow authorities requirements
Max. Plot Coverage	80%	Open Space Requirements	Minimum 5m central pedestrian spine to be provided as indicated. Pedestrian spine to be linked to roads q1 and q2. Pedestrian connection between plots to be maintained as indicated.
Setbacks	No setback required for any part of buildings above ground level  Provision to be made for utility connections on road side of an area up to 1.5m x 1.5m within the plot  1st basement level: 5m at street side; 1.5m from adjacent plots  2nd and 3rd basement level: 1.5m at all sides	Arcade	Arcade is optional in the indicated location min Arcade height is 7m and max height is 8.5m Arcade height to be measured from the existing grade level of the adjacent Right of Way boundary
Maximum Heights	Up to G+2; as indicated Min ground floor height is 7.0m, maximum is 8.5m Max. building height in G+2 buildings is 20m including the parapet Max. building height in G+1 buildings is 15.5m including the parapet Max. height is measured from the existing grade level of the adjacent Right of Way boundary	Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened
Habitable Spaces	Habitable spaces in basement and mezzanine are FAR accountable		

Island 3 - plot MU-003 - Indicative Massing



- A** The building envelope is the total volume within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum height varies according to the allowed number of floors, and is measured from the adjacent ROW boundary.

Island 3 - Plot MU-002 - Indicative Section A-A



--- Building envelope

**A** Optional waterfront arcade, 5m wide

**B** Central pedestrian spine connecting the souq plots

**C** Basement 1 - min 5m setback at street side; 1.5m setback at other sides

**D** Basement 2 and 3 - min 1.5m setback at all sides

**E** Screening of equipment on roof is mandatory

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

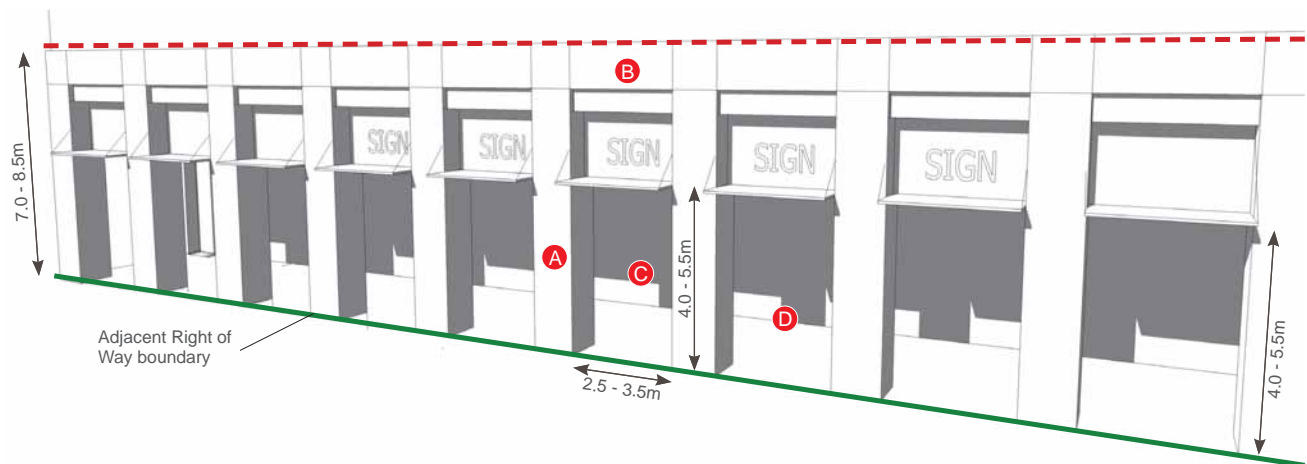
### FACADE TREATMENT

#### ARCADE

##### Facade Treatment Option: Arcade

Provision of an arcade along the facade A is encouraged. The width of the covered walkway is to be determined on individual merits but a 5.0 m width inclusive of column is to be used as a guide.

The arcade will provide an external extension to the shops and food and beverage outlets along the waterfront, since no setbacks will be provided at the ground level. It will also be a positive visual feature of the area. A cohesive design palette is required, with agreed codes that define the location, range of dimensions.



	Components	GUIDELINES	MANDATORY CONTROLS
<b>A</b>	Columns	<ul style="list-style-type: none"> <li>&gt; Consistent size and module spacing</li> <li>&gt; First and last column aligned to building edge</li> <li>&gt; Continuous along building facade</li> </ul>	> SPAN MINIMUM 3.5M
<b>B</b>	Expression Line	<ul style="list-style-type: none"> <li>&gt; Continuous trim along top of arcade</li> </ul>	> TO MATCH STYLE OF UPPER FLOORS
<b>C</b>	Retail Frontage	<ul style="list-style-type: none"> <li>&gt; To suit shopfront solution</li> </ul>	> SHOPFRONT TO BE ALIGNED WITH COLUMNS
<b>D</b>	Arcade Interior	<ul style="list-style-type: none"> <li>&gt; Space to be kept clear for pedestrian movement</li> </ul>	> INTERIOR WIDTH 5M (2M TO BE KEPT CLEAR) HEIGHT 7M

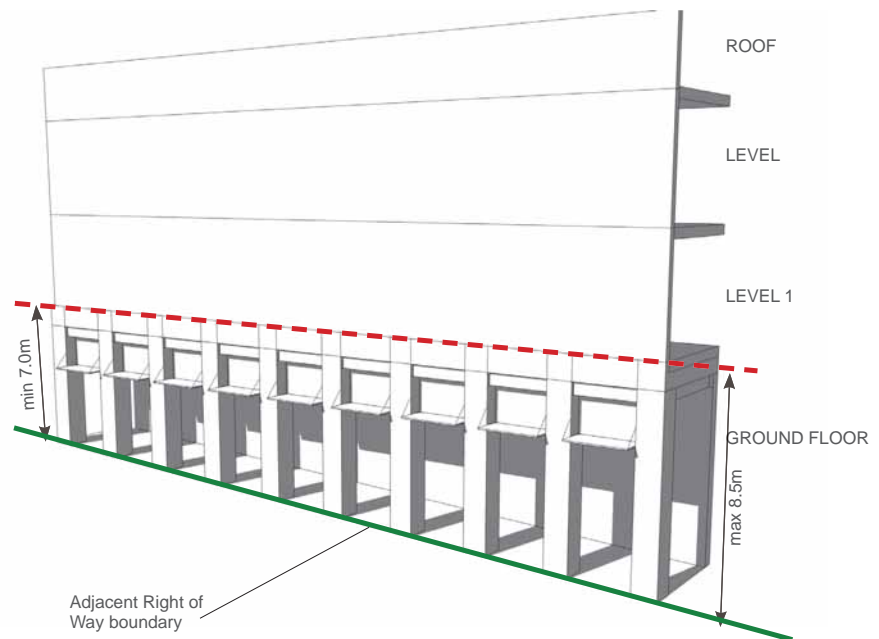
## FACADE TREATMENT

### SLOPE CONDITION

ar

Most of Qetaifan souq plots are located along sloping roads. Careful treatment of the arcade is required to ensure continuity of the expression line, and maintain the proportions of the arcade.

The minimum height for the arcade is 7.0m, and the maximum allowed height is 8.5m. Ground floor slab might step along the right of way slope taking into consideration accessibility and constructability.



Example of arcade treatment in sloping condition

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### FACADE TREATMENT

#### REFERENCE IMAGES

The proposed theme for Qetaifan souq will offer a transition from the Mediterranean residential precincts to the modern marina structures at the promenade.

The introduction of modern elements along the facade will give place identity along the various sections of the souq. Harmony between those elements and the overwhelming Mediterranean theme of the Islands, and a careful choice of material that reflect the architectural theme should be observed.



Souq entrances to be clearly marked by raised volumes and special features



Level transition within souq



Screening equipment at all sides of the buildings is mandatory. Roof screens should cover the equipment from all sides, as well as on top. Panels used for screening should run vertically or horizontally to mesh with surrounding facades and architectural lines.



Applying modern patterns that create areas of interest is encouraged, especially at long stretches of blank walls



Building façades should be articulated to provide visual interest, while contributing to the character of the street.



Examples of modern elements introduced in traditional facades

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS THE SOUQ

### FACADE TREATMENT

#### REFERENCE IMAGES



Various arcade treatment samples. The intent is to create a sense of continuity, and shaded walkways



Rhythmic facade articulation



The pedestrian spine might be covered, fully enclosed or open. It will have a city street ambiance with shops and commercial uses fronting the pedestrian walkway.



Wherever the upper floors are setback, terrace decks will serve as extended seating for food and beverage outlets,



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## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

#### RECREATION PLOTS

#### HARBOUR MASTER

The Harbour Master will include office facilities with function rooms, outdoor deck areas and associated administration, small retail units if required and car parking facilities.

Due to its location at the corner of a wide harbour bay, the building should be considered as significant landmark within Qetaifan Project.

Further detailed guidelines and control regulations are provided in the plot sheets.

Harbour Master Plot - Plan



- 3m min setback from side property line
- 5m min setback from the road
- 10m min setback from the canal side
- Vehicular entrance
- Preferable location for pedestrian entrance

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Recreation (Harbour Master)		
Plot Area	5,944 m <sup>2</sup>		
Max. FAR	0.6		
Max. Plot Coverage	40%		
Setbacks	5.0m from street entry property line 3.0m from side property line 10.0m from waterfront side property line easement for utilities to be provided within waterfront setback		
Maximum Heights	Max building height 20m to top of the roof including parapet		
	Max boundary wall height 2.4m to top of the wall		
Habitable Spaces	Ground + 2 Floor (G+2)		
Basement Parking	Max. number of basement floors: 2 Max 80% of plot area Car park area in basement is not included in FAR not to extend beyond plot setback lines		
Parking Requirements	2.15/100 sq.m. of GFA Additional 32 bays required for yacht storage Basement parking for 32 mega yachts		
Landscape Requirements	Min 15% of plot to be soft landscaped with irrigated vegetation		
Boundary wall	Boundary walls are optional Waterfront and beach boundary walls are not allowed		
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened		

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



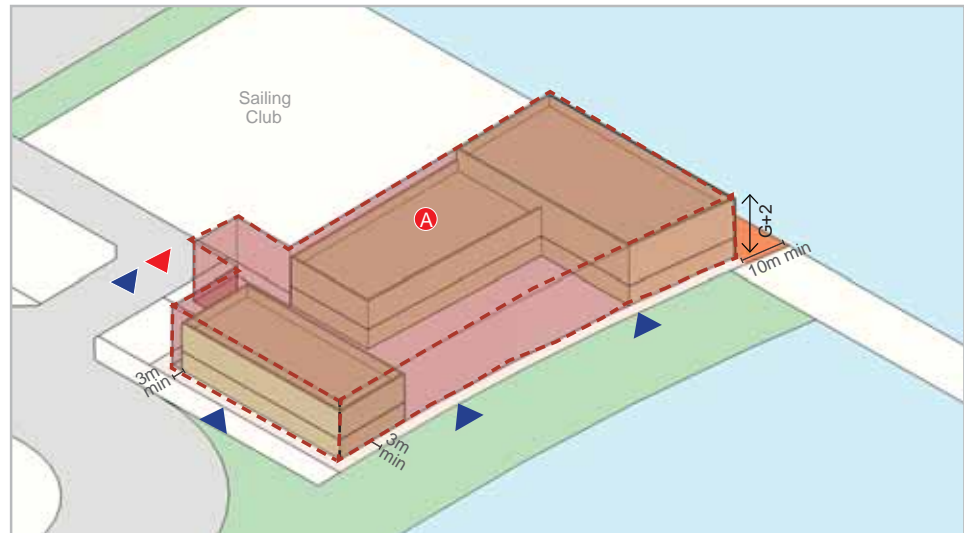
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



Harbour Master Plot - Indicative Massing



A Building Envelope

▲ Preferable pedestrian entrance

▲ Vehicular entrance

- > The plot has a prime location within Qetaifan. It's envisaged to be a landmark. The design should make a distinctive statement to its surrounding
- > The GFA should be achieved within a maximum of G+2 floors, and a maximum height of 20m
- > The orientation of building(s) shall take into account solar path analysis and minimize infiltration of prevailing winds

**ACCESS ARRANGEMENTS**

- > One vehicular entry point has been allocated for the Harbour master.
- > Multiple preferred pedestrian entries are also proposed.

**REFERENCE IMAGES**

Unique design that responds to Islands theme and creates a landmark that makes a distinctive statement to its surroundings



Outdoor amenities overlooking waterfront areas



Contemporary forms and materials

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

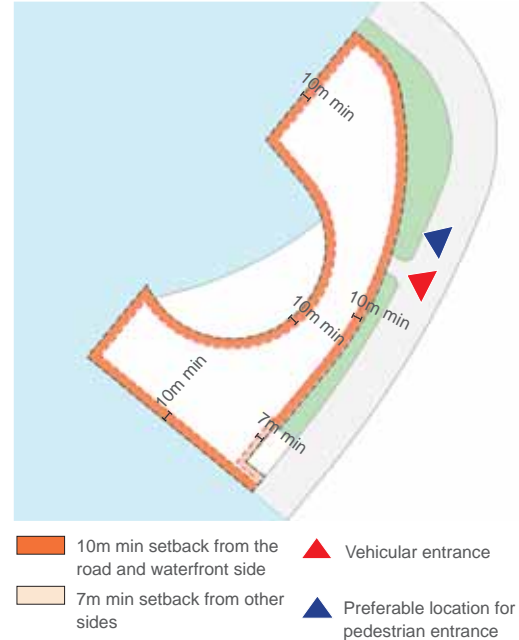
#### RECREATION PLOTS

#### OFFICERS' CLUB

The officers' Club is considered a significant landmark on the Qetaifan North Island that will enhance make substantial contribution to the leisure facilities. The complex shall adopt a high quality contemporary design. It will include restaurants, banquet halls, world class recreational facilities with advanced equipment, outdoor deck areas, small retail units if required and associated administration

Further details related to planning regulations are provided in the relevant plot sheets.

Officers Club Plot - Plan



#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Recreation (Officers Club)
Plot Area	55,395 m <sup>2</sup>
Max. FAR	0.8
Max. Plot Coverage	40%
Setbacks	10.0 m from street entry property line 10.0m from waterfront side property line 7.0m from side property line
Maximum Heights	Max building height 16.0m to top of the roof including parapet
	Max boundary wall height 2.5 m to top of the wall
Habitable Spaces	Ground + 2 Floors (G+2)

Basement Parking	Max 2 floor below grade (max depth 7.0m) Basement to be provided within plot setback Max area is 40% of plot area
Parking Requirements	Commercial: 1 space/ 50 sq.m. of total GFA Paved driveway required from street to parking area Max 20% surface parking
Landscape Requirements	Boulevard side to be landscaped min 15% of plot to be landscaped with irrigated vegetation
Boundary wall	Boundary walls are optional waterfront and beach boundary walls are not allowed
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



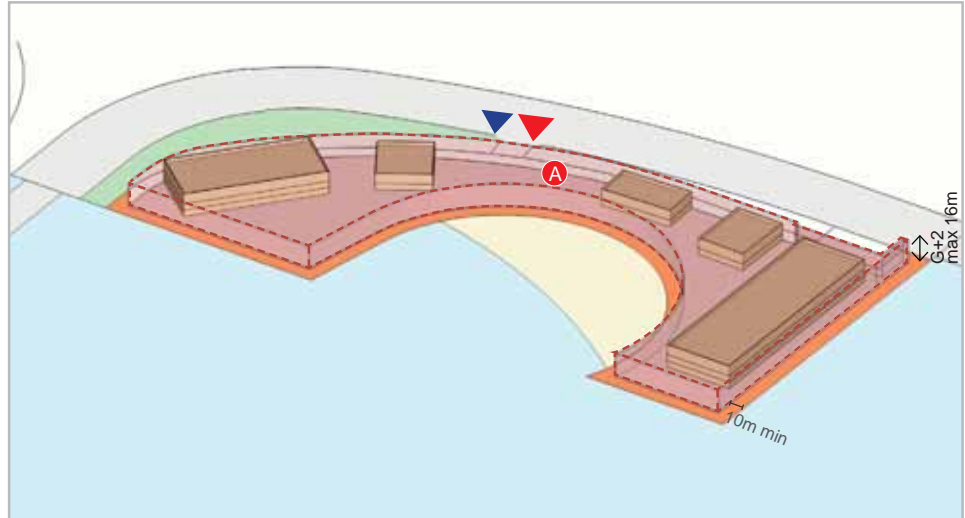
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



Officers' Club Plot - Indicative Massing

**A** Building Envelope

Preferable pedestrian entrance

Vehicular entrance

- > The GFA should be achieved within a height limit of G+2. The building maximum height is 16m
- > The orientation of building(s) shall take into account solar path analysis and minimize infiltration of prevailing winds
- > The plot has a prime location within Qetaifan, and has a private beach. Architectural design should take into consideration the fact that this will be a landmark in Qetaifan, and develop a unique design that connects to the water and responds to the overarching theme of the Islands.
- > Minimal design that values concepts of light, idea and space to achieve simplicity is encouraged

**ACCESS ARRANGEMENTS**

- > One vehicular entry point has been allocated for the Officers Club

**REFERENCE IMAGES**

Resort style massing which creates generous green outdoor areas



Minimal design with maximized vistas to the waterfront



Modern design with transparent facades



Grandiose entrance, iconic structure

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

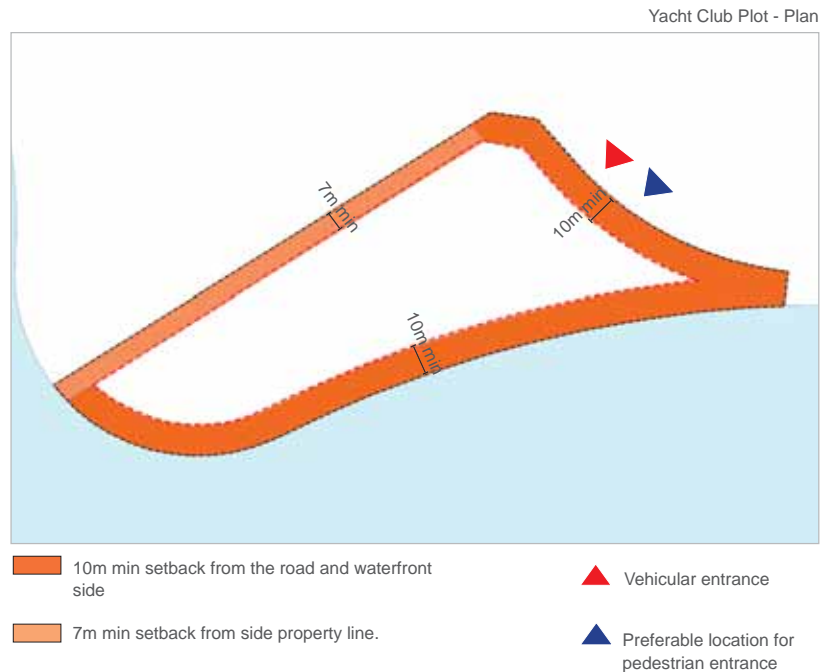
#### RECREATION PLOTS

#### YACHT CLUB

The Yacht Club is envisaged to be an iconic landmark on southern side of Qetaifan North Island. It will include various yacht club facilities with high quality contemporary interiors including restaurants, bars, lounges, function rooms, outdoor deck areas and associated administration, retail and car parking components.

The Yacht Club should be designed to excite, inspire and strengthen the concept of Qetaifan through dynamic forms that link the building to the nautical theme, and the new character of Qetaifan Island.

Further details related to planning regulations are provided in the relevant plot sheets.



#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Recreation (Yacht Club Reception)		
Plot Area	11,688 m <sup>2</sup>	Basement Parking	Max 1 floor below grade (max depth 7.0m) Basement to be provided within plot setback Max area is 40% of plot area
Max. FAR	0.8	Parking Requirements	1/150 sq.m. GFA Boat users: 1 space per berth 1 trailer space per 10 berths Paved driveway required - street to parking/garage area
Max. Plot Coverage	40%	Landscape Requirements	Min 15% of plot to be landscaped with irrigated vegetation
Setbacks	10.0 m from street entry property line 10.0m from waterfront side property line 7.0m from other sides	Boundary wall	Boundary walls are optional Waterfront and beach boundary walls are not allowed
Maximum Heights	Max building height 20.0m to top of the roof including parapet  Max boundary wall height 2.5 m to top of the wall	Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened
Habitable Spaces	Ground + 2 Floors (G+2)		

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



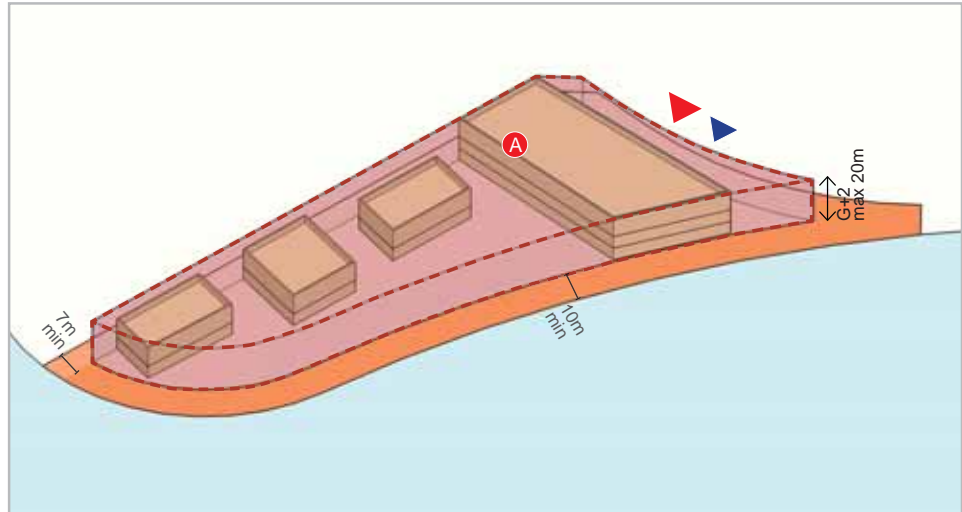
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



Yacht Club Plot - Indicative Massing

**A** Building Envelope

Preferable pedestrian entrance

Vehicular entrance

- > The GFA should be achieved within a height limit of G+2
- > The orientation of building(s) shall take into account solar path analysis and minimize infiltration of prevailing winds
- > Dynamic, fluid forms are encouraged to respond to the iconic nature of the building

**ACCESS ARRANGEMENTS**

- > One entry point has been allocated for the Yacht Club

**REFERENCE IMAGES**

Dynamic form inspired from the nautical theme



Weather protection for pedestrians may be provided by arcades, roof pergolas, verandas, overhangs or similar elements



Contemporary design and materials

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

#### RECREATION PLOTS

#### SAILING CLUB

The Sailing Club is the symbolic centrepiece of Qetaifan South Islands. The club will be home to large variety of watersports including dhow sailing, yachting, dinghy sailing, surfing, rowing and kayaking. It may also host events for these sports on the local, regional & international level. The club will include training facilities to develop these sports to the highest level.

The scheme can also introduce shops and other amenities at quay level to animate the harbour.

Further details related to planning regulations are provided in the relevant plot sheets.

Sailing Club Plot - Plan



- 3m min setback from side property line
- 5m min setback from the road
- 10m min setback from the canal side
- Vehicular entrance
- Preferable location for pedestrian entrance

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Recreation (Sailing Club)
Plot Area	5,427 m <sup>2</sup>
Max. FAR	0.6
Max. Plot Coverage	40%
Setbacks	5.0 m from street entry property line 3.0m from side property line 10.0m from waterfront side property line Easement for utilities to be provided within waterfront setback
Maximum Heights	Max building height 20.0m to top of the roof including parapet
	Max boundary wall height 2.5 m to top of the wall
Habitable Spaces	Ground + 2 Floor (G+2)

Basement Parking	1 basement floor Car park area in basement is not included in FAR Not to extend beyond plot setback lines Max area is 40% of plot area
Parking Requirements	2.15/100 sq.m. of GFA
Landscape Requirements	Min 15% of plot to be soft landscaped with irrigated vegetation
Boundary wall	Boundary walls are optional Waterfront and beach boundary walls are not allowed
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



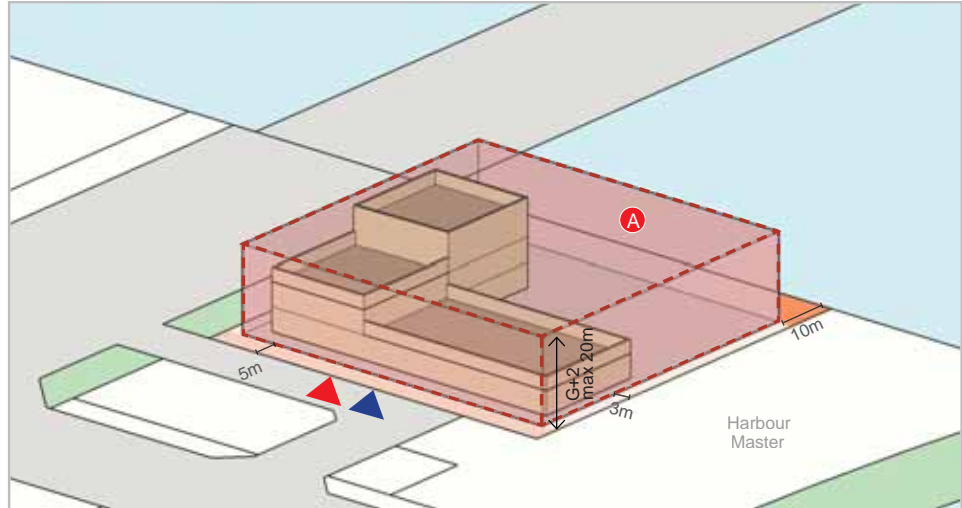
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



Sailing Club Plot - Indicative Massing



A Building Envelope

▲ Preferable pedestrian entrance

▲ Vehicular entrance

- > The GFA should be achieved within a height limit of G+2
- > The orientation of building(s) shall take into account solar path analysis and minimize infiltration of prevailing winds
- > The design should encourage activities to spread out on to the quayside
- > Provision to be made for at least one boat launching ramp
- > Minimalistic design that values concepts of light, idea and space to achieve simplicity is encouraged

**ACCESS ARRANGEMENTS**

- > One vehicular entry point has been allocated for the Sailing Club

**REFERENCE IMAGES**

Easy and frequent accesses to waterfront area to be provided; Contemporary architectural style inspired by maritime theme



Encouraging design that will create setting for students as well as for spectators of sailing events



Contemporary design and materials; Large interiors for exhibition purposes

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

#### RECREATION PLOTS

#### BEACH CLUB HOTEL

The Beach Club Hotel has a prime location at the Northern side of Qetaifan South Island 1. It's envisaged to be a luxury retreat within Qetaifan Islands. The massing will comprise low-rise resort buildings, taking into consideration a maximized opening towards the waterfront at the northern and western sides of the plot.

In addition to exclusive hotel units, the project will include a number of amenities, such as retail, recreational facilities, playgrounds, pools, spa and banquet halls.

Further details related to planning regulations are provided in the relevant plot sheets.

Beach Club Hotel Plot - Plan



- 10m min setback from the main boulevard and waterfront side
- 7m min setback from side property line.

- ▲ Vehicular entrance
- ▲ Preferable location for pedestrian entrance

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Hotel/ Recreation/ Retail (Beach Club Hotel)
Plot Area	50,666 m <sup>2</sup>
Max. FAR	0.8
GFA Breakdown	Hotel: not less than 95% of total GFA Retail/ Recreation: not to exceed 5% of total GFA
Max. Plot Coverage	40%
Setbacks	10.0 m from street entry property line 10.0m from waterfront side property line 7.0m from side property line
Maximum Heights	Max building height 16.0m to top of the roof including parapet
	Max service block height 3.5m total including parapet
	Max boundary wall height 2.5 m to top of the wall
Habitable Spaces	Ground + 2 Floors (G+2)

Basement Parking	Basement parking are to be maximum 40% of plot area and within plot setback lines
Parking Requirements	Hotel: 1bay/ 100 sq.m. of GFA Retail: 1 bay/ 50 sq.m. of GFA Paved driveway required from street to parking/ garage area Maximum 15% surface parking allowed
Landscape Requirements	Min 20% of plot to be soft landscaped with irrigated vegetation
Boundary wall	Boundary walls are optional Waterfront and beach boundary walls are not allowed
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

ARCHITECTURAL GUIDELINES & CONTROLS	➔
BOUNDARY WALLS GUIDELINES & CONTROLS	➔
LANDSCAPE GUIDELINES & CONTROLS	➔

## GLOSSARY OF TERMS ➔

Beach Club Hotel Plot - Indicative Massing



A Building Envelope

▲ Preferable pedestrian entrance

▲ Vehicular entrance

- > The GFA should be achieved within a height limit of G+2. Maximum allowed height is 16m
- > The design shall consider local environmental conditions such for example as: solar radiation, high humidity, strong desert winds, and others if any relevant for that particular location.
- > The plot has a prime location within Qetaifan, and has a private beach. Its location offers panoramic views towards the water and to the wider Lusail Development. While transparency and maximised vistas should be considered at the northern sides of the plot, privacy measures will be required at the southern sides of the plot due to adjacency to the bridge and the main spine road

**ACCESS ARRANGEMENTS**

- > One entry point has been allocated for the Beach Club Hotel.
- > Two vehicular entrance/ exit points are encouraged to minimise the conflicts between services and visitors movements on the site; Second vehicular entry point is subject to Lusail Approval

**REFERENCE IMAGES**

Minimal architectural detailing; Homogeneity of colours, textures, materials and finishes



Orientation of the building to enhance the views as well as reduce energy consumption

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

#### CIVIC PLOTS

#### SCHOOL

This sheet is to be read in conjunction with the Development Control Regulations issued by LREDC and the regulations, standards and guidelines issued by the Supreme Education Council (SEC) and Ministry of Education and Doha Municipality. All documentation is deemed to fall in line with Lusail City Education Strategy.

Further details related to planning regulations are provided in the relevant plot sheets.

School Plot - Plan



5m min setback from the road.

▲ Vehicular entrance

▲ Preferable location for pedestrian entrance

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Community Facilities (School)
Plot Area	12,467 m <sup>2</sup>
Max. FAR	0.8
Max. Plot Coverage	40%
Setbacks	5.0 m from street entry property line 5.0m from side property line
Maximum Heights	Max building height 13.5m to top of the roof including parapet
	Max boundary wall height 2.5 m to top of the wall
Habitable Spaces	Ground + 1 Floor (G+1)

Basement Parking	N/A
Parking Requirements	Max 25% of plot area for surface parking or min 35 bays surface parking 1/300 sq.m. GFA
Landscape Requirements	Min 15% of plot to be soft landscaped with irrigated vegetation
Boundary wall	Boundary walls are mandatory
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



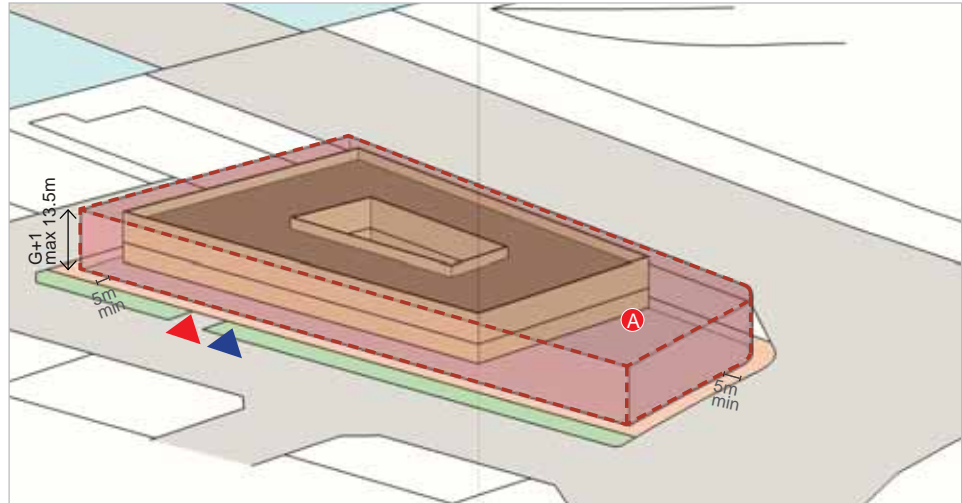
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



School Plot - Indicative Massing

**A** Building Envelope

Preferable pedestrian entrance

Vehicular entrance

- > The required GFA should be achieved within a height limit of G+1
- > Building programme to comply with School Development Committee standards.
- > Where possible, provide the open spaces and sports facilities as a shared community resource outside of the normal school timetable.
- > If required, gender separation can be achieved by separating the campus blocks, located on each side of a combined parents' drop-off facility. Sports fields can be screened from view with landscape elements.

**ACCESS ARRANGEMENTS**

- > Access for vehicles separated from general pedestrian access.
- > Two vehicular entrance/ exit points are advised to minimise the conflicts between parents and drop-off movements on the site; Second vehicular entry point is subject to Lusail Approval

**REFERENCE IMAGES**

provide spaces for gathering, sitting, presenting, reading, studying



provide environment visually comfortable and stimulating through use of natural lighting and colors; encourage contemporary design and materials



provide easy access from classrooms to gardens and other outdoor areas

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

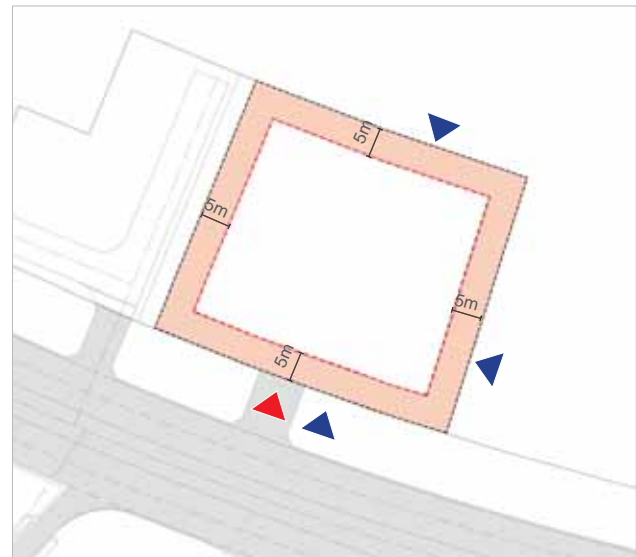
#### CIVIC PLOTS

#### MOSQUES

Qetaifan South Islands include 3 mosques. The mosque on Island 1 is located along the neighborhood park, within the hillside residential district, while the mosques on islands 2 and 3 are within the waterfront souq districts. The design of each mosque should take into consideration the character of the respective district.

Further details related to planning regulations are provided in the relevant plot sheets.

Mosque Plot - Plan



5m min setback from all sides.

▲ Vehicular entrance

▲ Preferable location for pedestrian entrance

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Community Facilities (Mosque)
Plot Area	As per individual plot regulation sheet
Max. FAR	0.5
Max. Plot Coverage	50%
Setbacks	5.0 m from street entry property line 5.0m from side property line
Maximum Heights	8.0 m total including dome, excluding minaret
	Max boundary wall height 1.2 m to top of the wall
Habitable Spaces	Ground (G) on islands 1 and 3; G+1 on island 2

Basement Parking	N/A
Parking Requirements	35% of plot area for surface parking
Landscape Requirements	N/A
Boundary wall	Boundary walls are optional
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



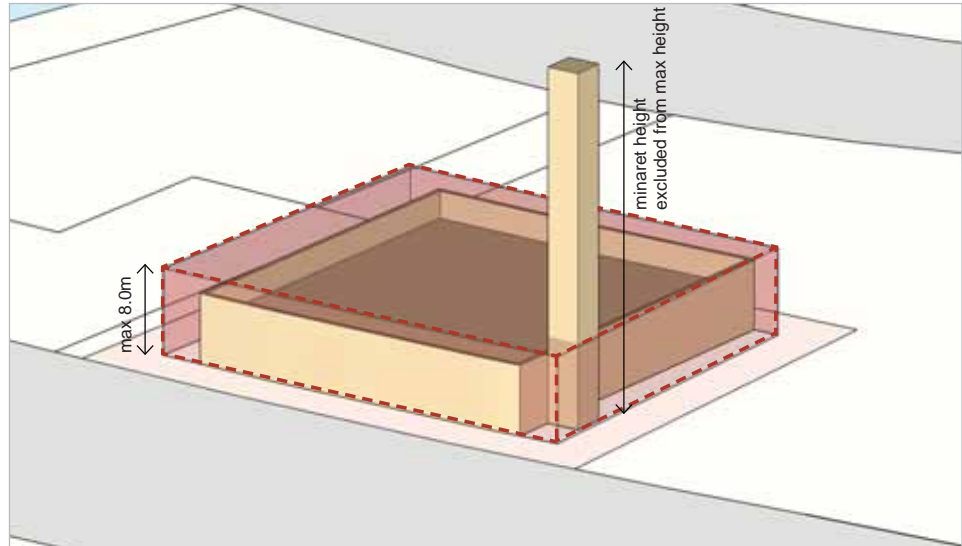
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



Mosque Plot - Indicative Massing



Building Envelope

Preferable pedestrian entrance

Vehicular entrance

- > Mosque orientation should be in accordance with Qibla.
- > Building programme to comply with Mosque Development Committee standards.
- > Mosques to feature the following: main prayer room for men, women's only prayer area with separate access, place of ablution and toilets, library and Quran room.
- > Design to ensure separation of vehicle, bus and pedestrian movements.
- > Mosque site to accommodate all anticipated parking.
- > Architectural treatment for the souq should be in compliance with the envisaged theme for the respective district

**ACCESS ARRANGEMENTS**

- > Vehicular access to be provided as per the Regulation Sheets.
- > For the mosques on Islands 2 and 3, an optional connection to the souq pedestrians to be considered

**REFERENCE IMAGES**

Mosques with mediterranean inspiration



Modern, minimal architectural detailing for the mosques along the souq. Homogeneity of colour, texture, materials and finishes

## 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS CIVIC PLOTS

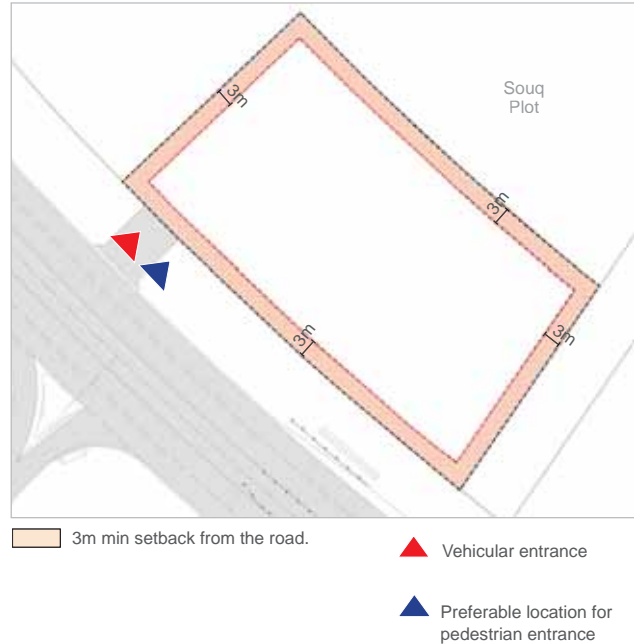
### HEALTHCARE

The healthcare plot is located within the waterfront souq district on Island 2.

Harmony with the adjacent souq buildings is required and therefore the designers should consider the mood images proposed for the souq theme. In order to become an icon and be well appreciated by the community, the design should be neat and simple.

Further details related to planning regulations are provided in the

Healthcare Center Plot - Plan



### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Healthcare (Healthcare Center)
Plot Area	2,955 m <sup>2</sup>
Max. FAR	0.8
Max. Plot Coverage	60%
Setbacks	3.0 m from street entry property line 3.0m from side property line
Maximum Heights	Max building height 15.5 m to top of roof including parapet
	Heights to match with the souq massing Min ground floor height 7.0m and max is 8.5m, depending on the slope of the site
Habitable Spaces	Ground+ 1 Floor (G+1)

Basement Floors	Basement setback to be 3.0m from street boundary and 1.5m from side boundary Car park area in basement is not included in FAR Basement not to extend beyond setback lines Basement area will be FAR accountable if used in any way as usable space except services/ storage Max 2 basements allowed
Parking Requirements	1/150 sq.m. of GFA Max 25% of plot area for surface parking or min 23 parking bays
Landscape Requirements	N/A
Boundary wall	Boundary walls are optional max 1.2 height
Screening	Stairwells, vents, utility equipment to be recessed away from the street and screened from view. Equipment on roof must be screened

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



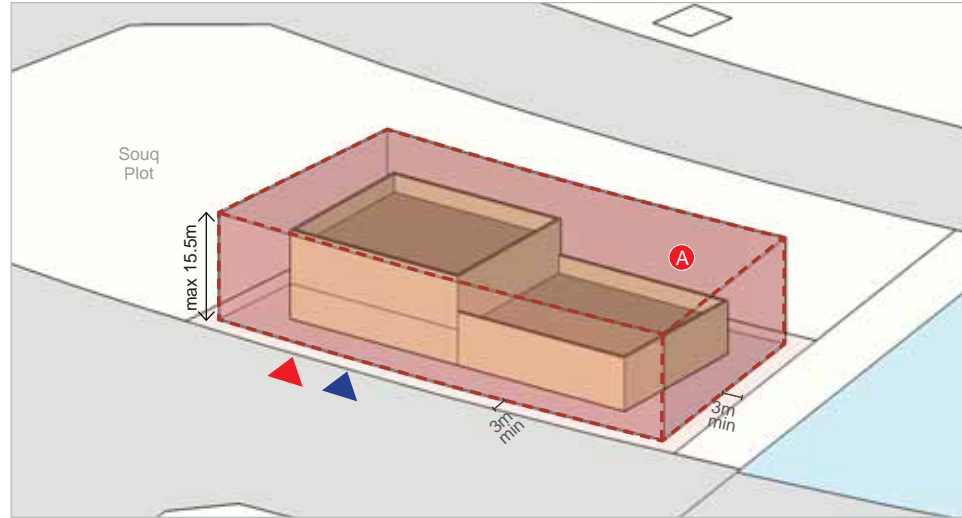
LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



Healthcare Center Plot - Indicative Massing



A Building Envelope

▲ Preferable pedestrian entrance

▲ Vehicular entrance

- > The required GFA should be achieved within a height limit of G+1
- > Facade treatment should be in compliance with the proposed souq theme
- > The same height strategy proposed to the souq should be implemented in the healthcare facility in order to fit the facility within the wider souq district
- > Rhythmic facade treatment as proposed for the souq
- > As in the souq, the ground floor of the healthcare facility should be higher than the upper floor. Distinctive facade treatment is required. The ground floor should be accessible and transparent.

**ACCESS ARRANGEMENTS**

- > One entry point has been allocated for the healthcare facility

**REFERENCE IMAGES**

Facade treatment and material selection should be in compliance with the proposed souq theme



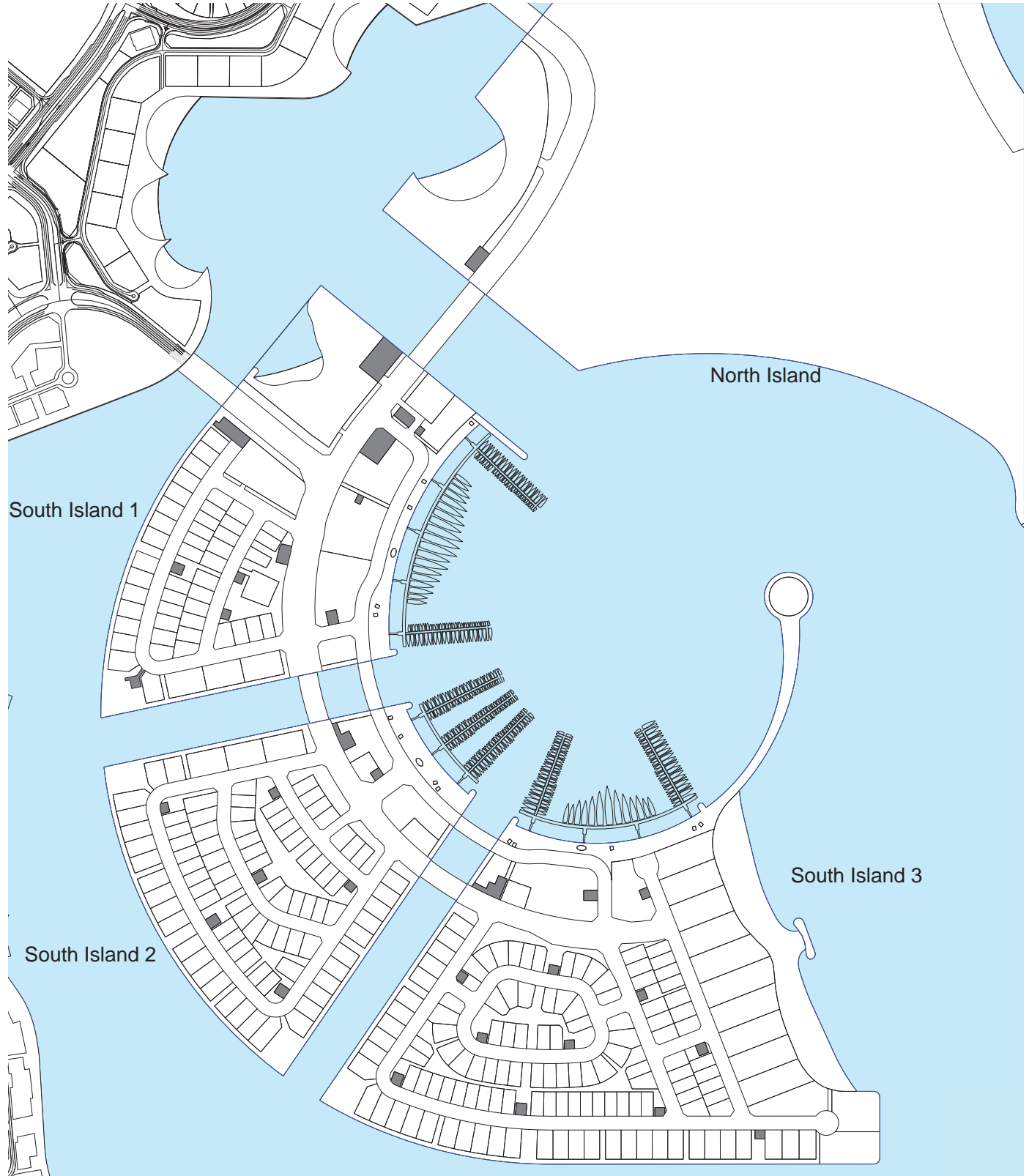
Articulation with the souq facades is essential, through the alignment with the souq massing and reference to the proposed mood images for the souq.

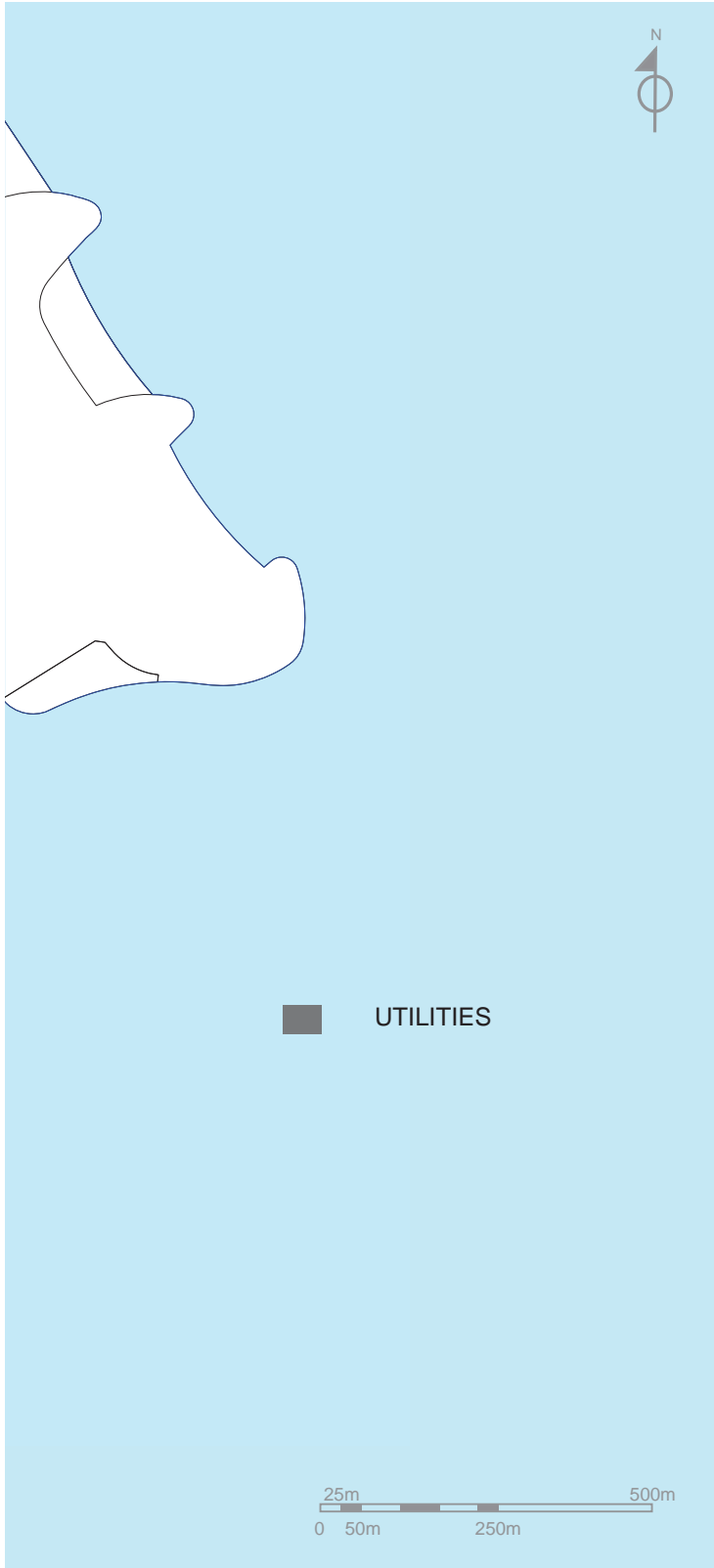
Distinctive treatment for the ground floor level

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS UTILITY PLOTS

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### GENERAL OVERVIEW





District Location Plan

### UTILITY BUILDINGS

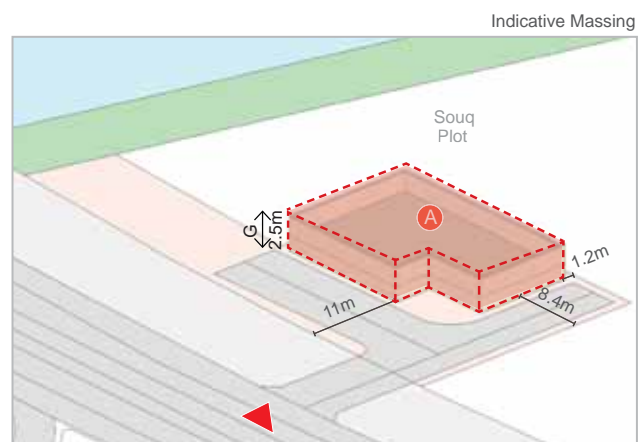
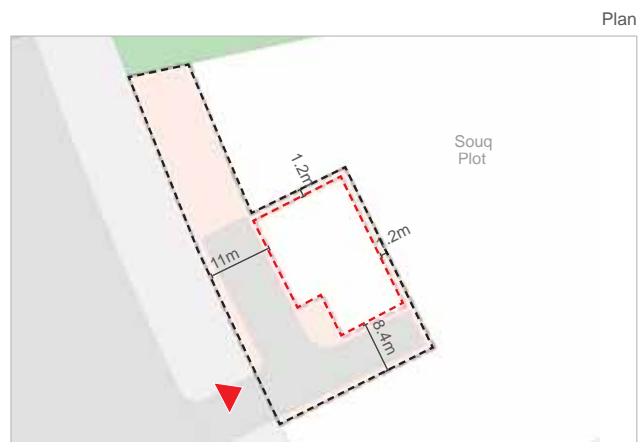
These buildings are spread in major locations like parks, around residential plots, next to major recreational facilities and in between the souq plots. Therefore the exterior treatment of these utility buildings should take into consideration the urban experience of the character areas surrounding them.

## 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

#### UTILITY PLOTS

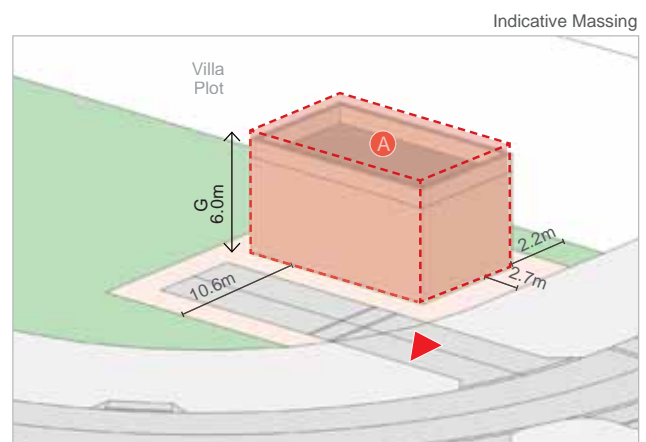
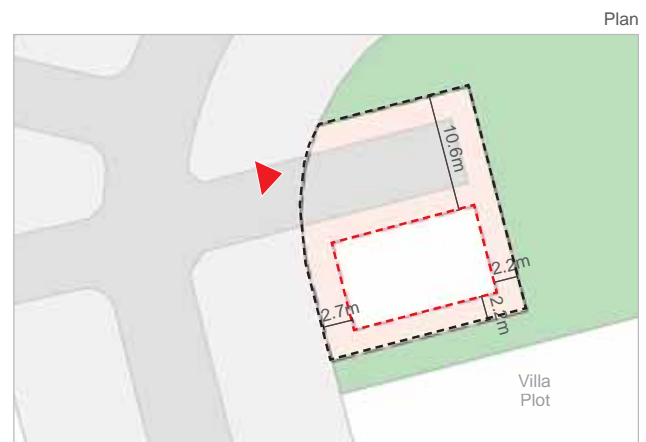
#### PUMPING STATION



A Building Envelope

▲ Vehicular Access

#### ELECTRICAL SWITCHING SUSTATION (11KV)



A Building Envelope

▲ Vehicular Access

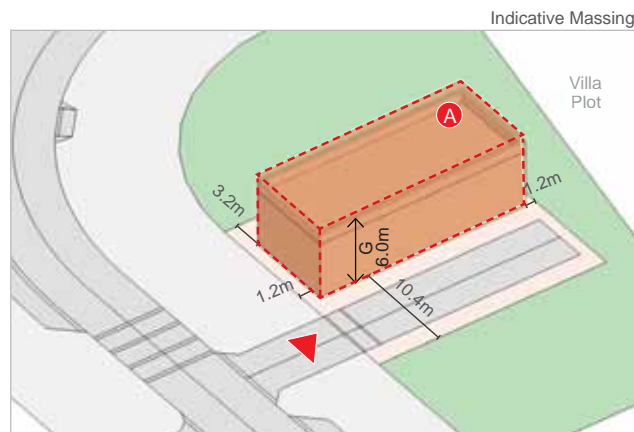
#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Utilities (Pumping Station)
Plot Area	As per individual plot regulation sheet
Setbacks	As indicated on the drawing
Maximum Heights	max building height 2.5 m to top of facility
Max Number of Floors	1 Floor
Access Road Car Park	6.0m wide access road parking 1 bay per plot
Additional Requirements	Screening required at all elevations Roofing is mandatory All equipment must be screened

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Utilities (Electrical Switching Substation - 11kV)
Plot Area	As per individual plot regulation sheet
Setbacks	As indicated on the drawing
Maximum Heights	Max building height 6.0 m to top of facility
Max Number of Floors	1 Floor
Access Road Car Park	6.0m wide access road parking 1 bay per plot
Additional Requirements	Screening required at all elevations Roofing is mandatory All equipment must be screened

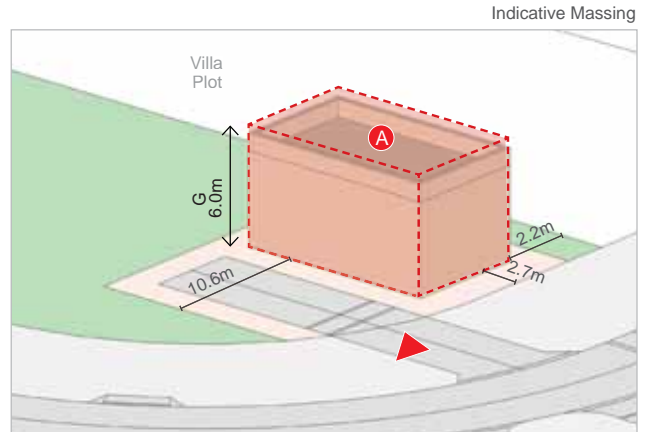
## SWST



**A** Building Envelope

▲ Vehicular Access

## ELECTRICAL SWITCHING SUSTATION (11KV)PUMPING



**A** Building Envelope

▲ Vehicular Access

### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Utilities (SWST)
Plot Area	As per individual plot regulation sheet
Setbacks	As indicated on the drawing
Maximum Heights	Max building height 6.0m to top of facility
Max Number of Floors	1 Floor
Access Road Car Park	6.0m wide access road parking 1 bay per plot
Additional Requirements	Screening required at all elevations Roofing is mandatory All equipment must be screened

### PLOT REGULATIONS SUMMARY:

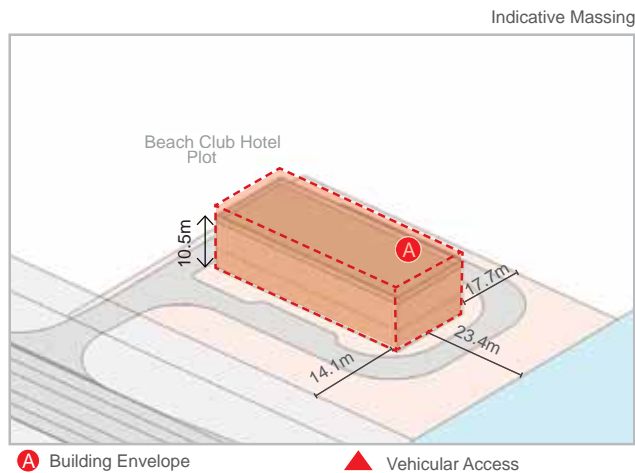
Permitted Land Use	Utilities (11kV Electrical Switching Substation+Pumping Station)
Plot Area	As per individual plot regulation sheet
Setbacks	As indicated on the drawing
Maximum Heights	Max building height 6.0m to top of facility for 11kV ESS 2.5m to top of facility for pumping station
Max Number of Floors	1 Floor
Access Road Car Park	6.0m wide access road parking 1 bay per plot
Additional Requirements	Screening required at all elevations Roofing is mandatory All equipment must be screened

## 2.4.3 NON RESIDENTIAL PLOTS

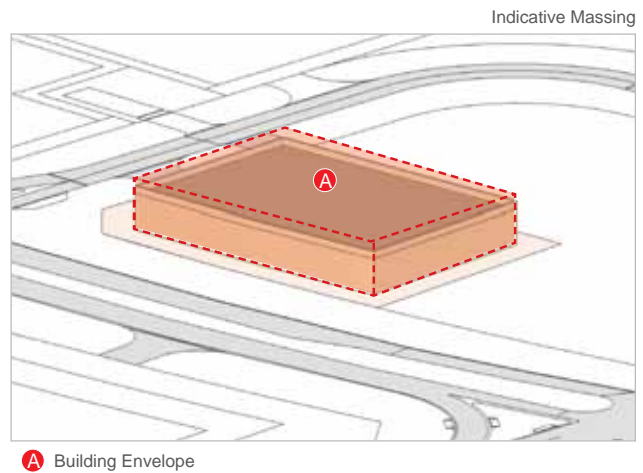
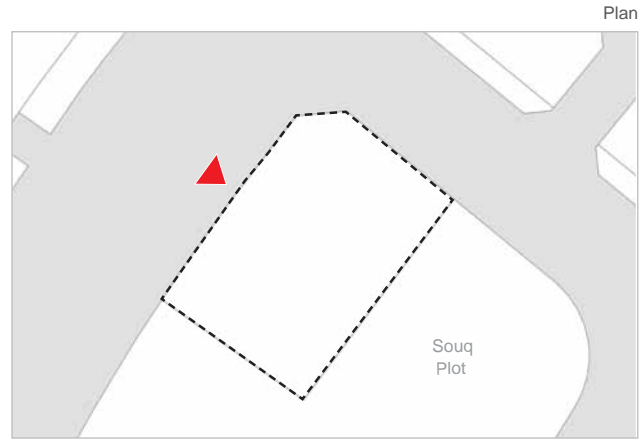
### GUIDELINES AND CONTROLS

#### UTILITY PLOTS

#### TELECOM EXCHANGE BUILDING



#### ELECTRICAL SWITCHING SUBSTATION (66KV)



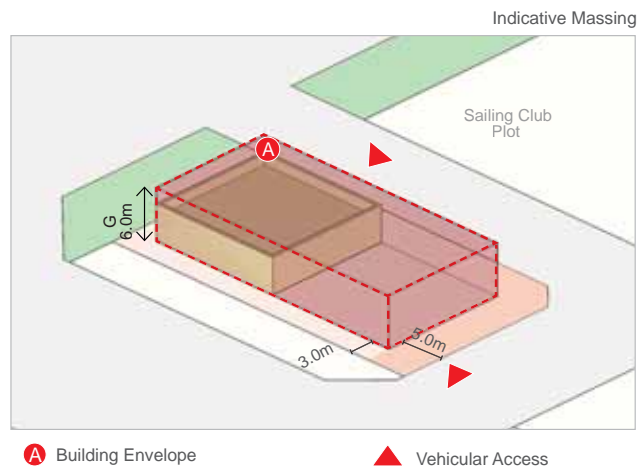
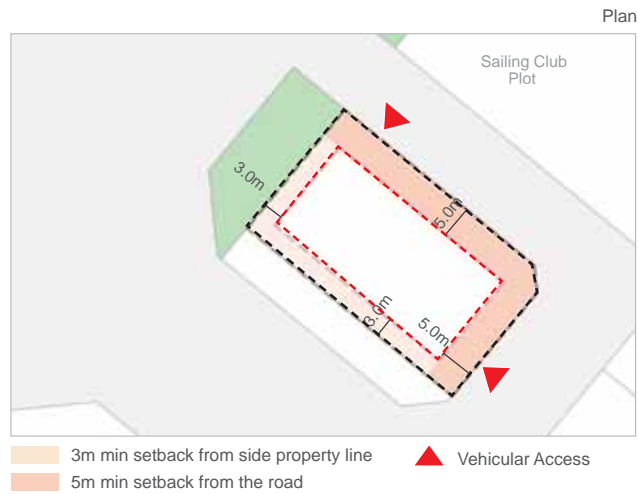
#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Utilities (Telecom Exchange Building)
Plot Area	As per individual plot regulation sheet
Setbacks	As indicated on the drawing
Maximum Heights	Max building height 10.5m to top of facility
Max Number of Floors	3 Floors (B+G+1)
Access Road Car Park	6.0m wide access road parking 1 bay per plot
Additional Requirements	Screening required at all elevations roofing is mandatory All requirements must be screened

#### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Utilities (Electrical Switching Substation - 66kV)
Plot Area	2,996 sqm
Max. FAR	As per MEP design - indicative to be decided based on serviced demands
Setbacks	As indicated on the drawing
Maximum Heights	Max building height 14.0m to top of facility
Additional Requirements	Screening required at all elevations roofing is mandatory All requirements must be screened

## FUEL DEPOT



### PLOT REGULATIONS SUMMARY:

Permitted Land Use	Utilities (Fuel Depot)
Plot Area	926 m2
Max. FAR	30% indicative to be decided based on service demand
Setbacks	5.0m from street entry property line 3.0m from side property line
Maximum Heights	Max building height 6.0m to top of facility Max boundary wall height 2.4 to top of wall
Max Number of	G
Parking Requirements	1/100 sq.m of admin/area
Additional Requirements	Fuel tank to be underground Depot to have facilities to service both land and sea vehicles

### REFERENCE IMAGES



## < 2.4.3 NON RESIDENTIAL PLOTS

### GUIDELINES AND CONTROLS

#### UTILITY PLOTS

Education Plot - Plan

The utility buildings are spread in major locations like parks, around residential plots, next to major recreational facilities and in between the souq plots. Therefore the exterior treatment of these utility buildings should take into consideration the urban experience of the character areas around them.

The following approaches are recommended for screening and facade treatments of utility buildings:

- > As a general rule, no equipment or machinery should be left exposed. Roof of substations should be covered at all times, considering the natural topography of the islands and the possible vista from higher plots.
- > A combination of materials and textures can help make the buildings appear rugged and elegant at the same time, and integrate it with the rest of the Islands
- > When utility buildings are located in the residential districts, next to recreational facilities and along parks, screening with green walls is required
- > For utility buildings within the souq, 2 options are proposed:
  - either the building facade treatment, forms, materials and texture should match with the character of the souq
  - enclosing it in a structure that conforms to the utility provider requirements for safety/ventilation

#### REFERENCE IMAGES



Screening with low maintenance framed green walls



Enclosing in a structure



Enclosing in a structure

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



## REFERENCE IMAGES



Choice of materials and facade details



Facade treatment of utility buildings can not only contribute to the overall character of the development, but it can also add landmark structures



Facade treatment that match with surrounding character and theme



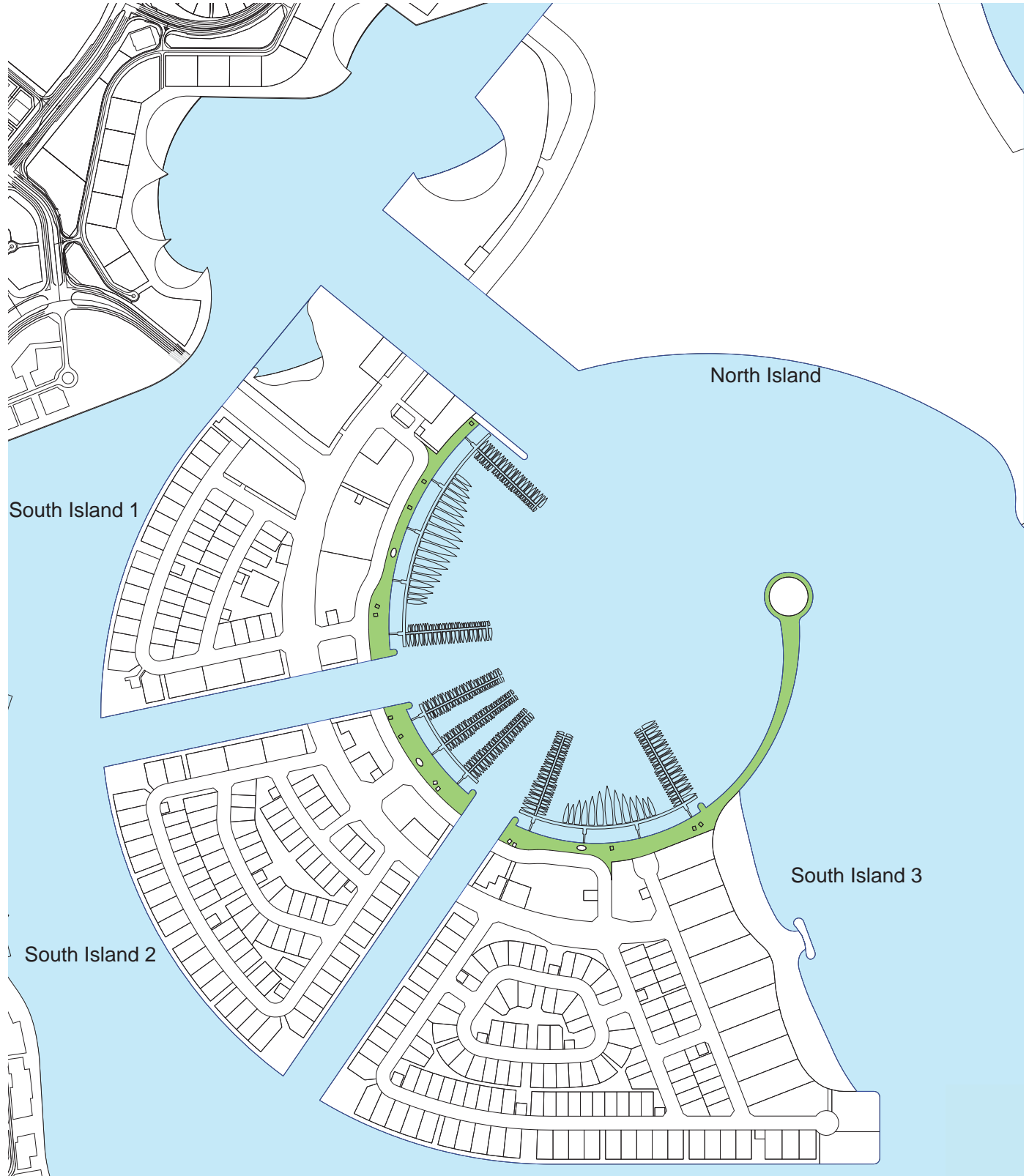
Screening with landscape elements reduces the visual impact of utility buildings



## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS MARINA BUILDINGS

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### GENERAL OVERVIEW



ARCHITECTURAL GUIDELINES &amp; CONTROLS



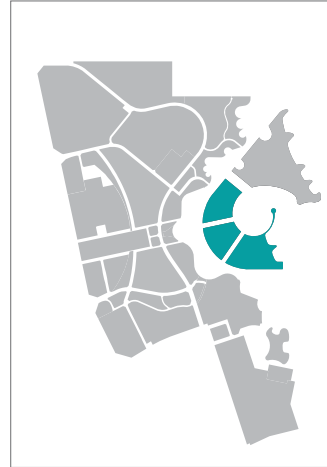
BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



District Location Plan

## MARINA BUILDINGS

Marina buildings are the amenity buildings located along the marina area. They are located within the Souq waterfront district.

These structures are meant to serve the marina area. The design should blend with the surroundings through simple geometry and the use of light materials (light steel structure, glass, green walls, etc...).

## < 2.4.3 NON RESIDENTIAL PLOTS GUIDELINES AND CONTROLS MARINA BUILDINGS

### REFERENCE IMAGES FOR THE MARINA STRUCTURES

#### ACCESS ARRANGEMENTS

- > Basement Parking in the marina area covers the requirements for the VVIP building parking
- > drop off and access to pedestrian is provided
- > design of the VVIP building to act as focal point on each part of the marina area where it is located.
- > The height of the VVIP building should not exceed 9m
- > The kiosk & toilet height should not exceed 4m
- > The shade structure height should not exceed 6m
- > A clearance for vehicular access shall be provided all along the marina area.



### REFERENCE IMAGES FOR THE VVIP BUILDINGS





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## 2.4.4 PLOT AMALGAMATION GUIDELINES & CONTROLS

ARCHITECTURAL GUIDELINES &amp; CONTROLS

BOUNDARY WALLS GUIDELINES &amp; CONTROLS

LANDSCAPE GUIDELINES &amp; CONTROLS

REF: LQID-AG- Sheet 1/9

GLOSSARY OF TERMS

### INTRODUCTION

Villa Amalgamation Guidelines & Controls have been provided to ensure the quality of the development and attractive street environment is delivered, while the individual plots are being amalgamated into single, larger villa plot. The review process recognised the ongoing trend of amalgamation of the allowed GFA within those plots, often leading to combined GFA (and BUA) of villa exceeding 2,000m<sup>2</sup>.

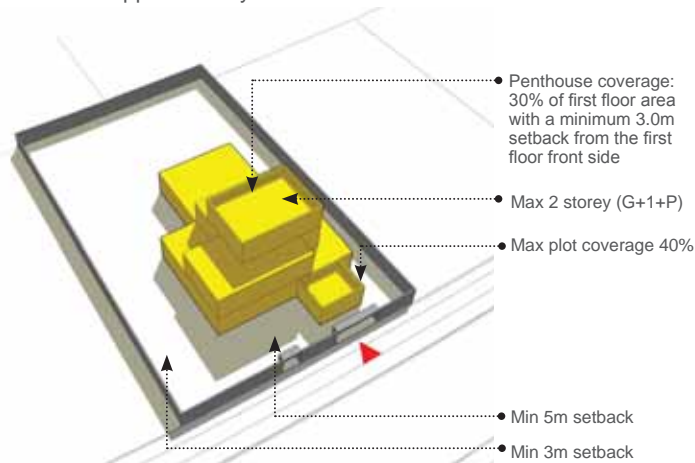
The following 12 sheets outline:

- The key objectives and aspirations of the guidelines, summarising the most important design elements to be protected within the scale of the residential street
- The key permutation of the amalgamations and the differences of the relevant guidelines
- The illustrative examples of amalgamation of plots within a typical residential street.

### EXAMPLES OF AMALGAMATION

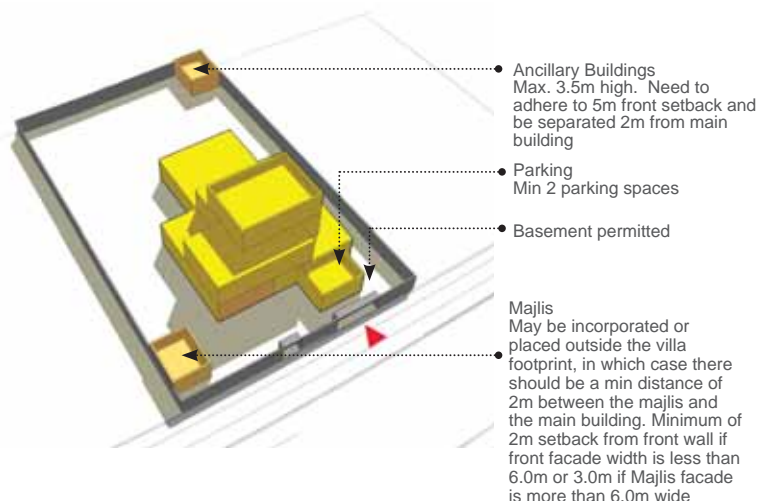
PLOT: Residential Villa

PLOT SIZE: approximately 1250 m<sup>2</sup>



Additional components / ancillary buildings:

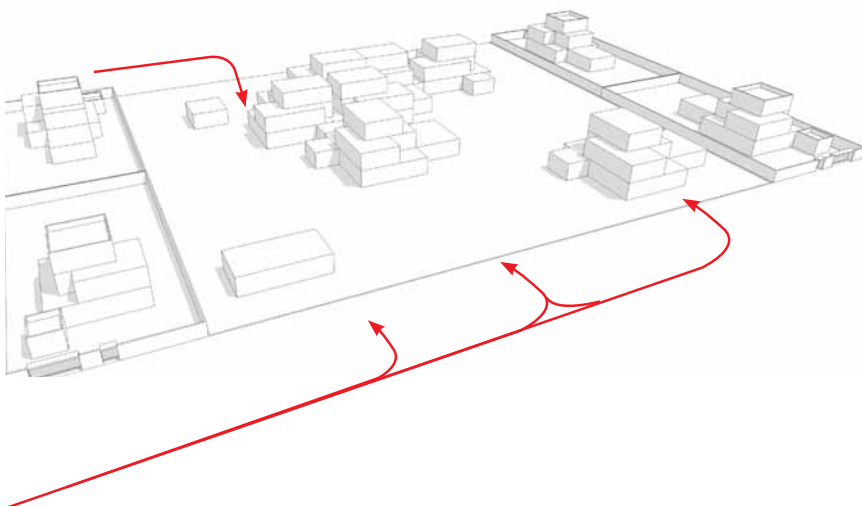
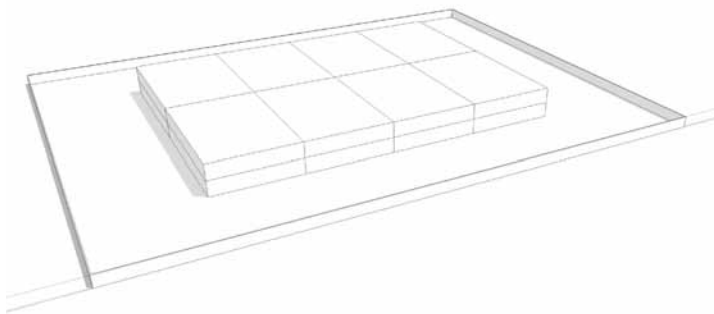
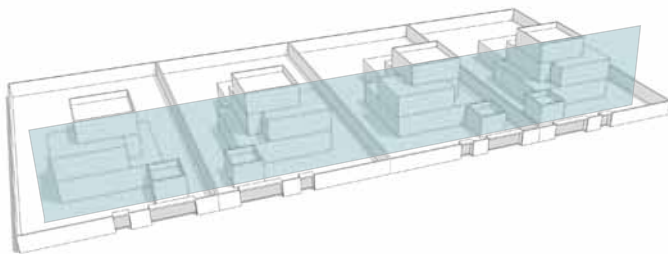
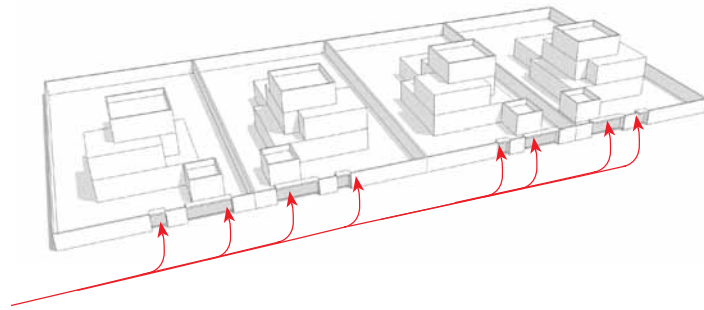
Car Park Structure/Majlis/Gym/Outdoor Kitchen/Servant's Quarter



Key approaches used to ensure high quality design & construction to safeguard the value of the development:

- > Street Frontage / Elevation - through setback controls and build- to lines
- > Rhythm - through setback controls and streetscape modulation
- > Access - through location principles for vehicle & pedestrian entry points
- > Amalgamated plots retain all plot parameters - maximum covered area (CA), floor area ratio (FAR) and gross floor area (GFA)
- > No unaccountable floorspace - by including basement areas, garage parking, balconies, terraces within BUA limits
- > Aspect / orientation of front & rear - to match street hierarchy level
- > Sustainable development - application of GSAS criteria to appropriate score
- > Massing and form - following best practice
- > Building heights - setting an appropriate maximum parapet level
- > Open space activation - avoiding blank elevations and requiring windows & doorways
- > Scale of boundary walls - matching adjacent street hierarchy
- > Materiality - through best practice examples
- > Landscape - through recommendations and best practice examples

REF: LQID-AG- Sheet 2/9



### PEDESTRIAN EXPERIENCE PERIMETER WALL CONDITION RHYTHM OF OPENINGS

Pedestrian gates, vehicular entry points, as well as articulated boundary walls add to the pedestrian experience through introduction of variety of scales and treatments. Regular openings and facade breaks alleviate continuous boundary walls to improve the public realm experience.

### STREET ELEVATION SETBACKS

Rigorously enforced frontage build-to lines and setbacks help define the street elevation. Careful positioning of key buildings frames the street to enhance its enclosure and composition.

### SIZE

AMALGAMATION OF GFA & BUA

### MASSING

Buildings Heights should match with single villa heights

### PLOT RATIO

AMALGAMATION OF PLOT AREAS

Amalgamated BUA of multiple plots can have a significant impact on the adjacent plots as well as the streetscape. Appropriate parameter regulations governing floor area ratio, footprint as a proportion of the plot and building height limits can be used to enhance quality and variety of development throughout the scheme.

### FRONT & REAR

PRIMARY & SECONDARY ADDRESS

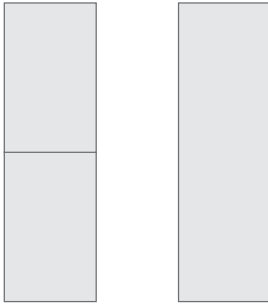
Parcel amalgamation across two rows of plots urban blocks poses the dilemma of fronting two residential streets. Where this occurs it is important to ensure both roads are used for access and that the front be accorded to the more prominent street.

# AMALGAMATION SCENARIOS AND EXAMPLES

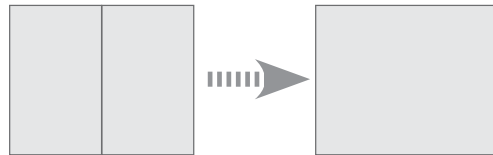
REF: LQID-AG- Sheet 3/9

## AMALGAMATION SCENARIOS

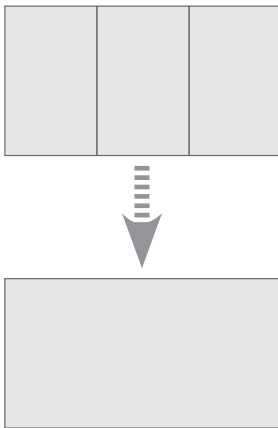
- 1** AMALGAMATION OF 2 VILLA PLOTS / ADJACENT REAR  
(Refer to Typical Villa Plot Guidelines for setback, heights and controls)



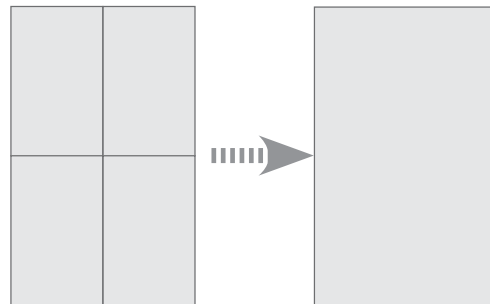
- 2** AMALGAMATION OF 2 VILLA PLOTS / ADJACENT SIDES/LINEAR



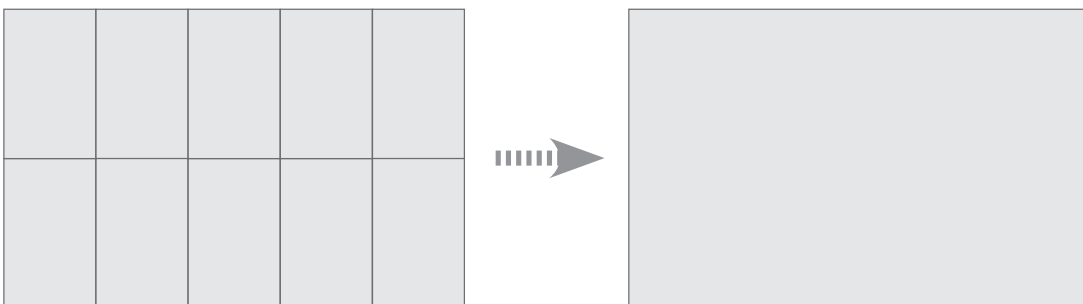
- 3** AMALGAMATION OF UP TO 3 VILLA PLOTS / LINEAR



- 4** AMALGAMATION OF 4 AND MORE VILLA PLOTS/  
CLUSTER



- 5** AMALGAMATION OF SEVERAL VILLA PLOTS / EXTENDED GROUP  
(Special condition, subject to approval)

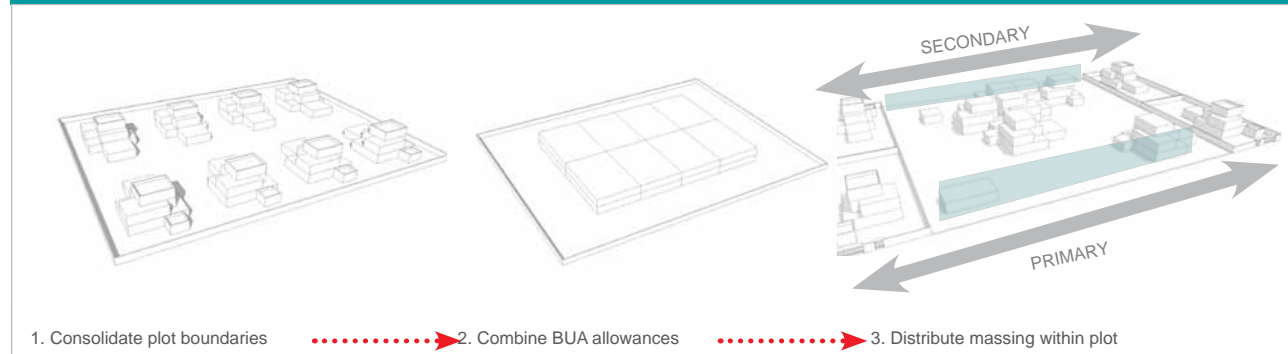


REF: LQID-AG- Sheet 4/9

## EXAMPLES OF LINEAR AMALGAMATION



## EXAMPLES OF ADJACENT SIDE &amp; REAR AMALGAMATION



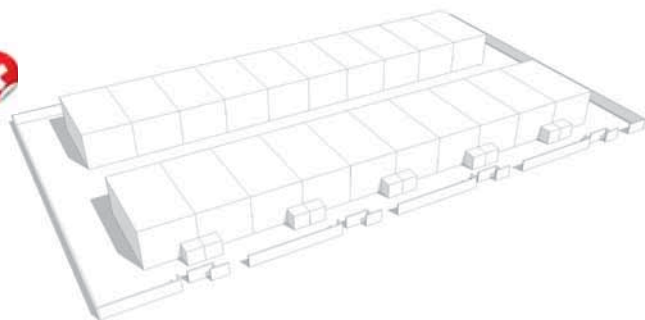
## KEY CONTROL ON AMALGAMATION SCENARIOS

Qetaifan Island Villas will thrive on their high quality, low density single housing lifestyle. In order to protect that vision, it is key to control the amount and type of residential units at offer on the sites.

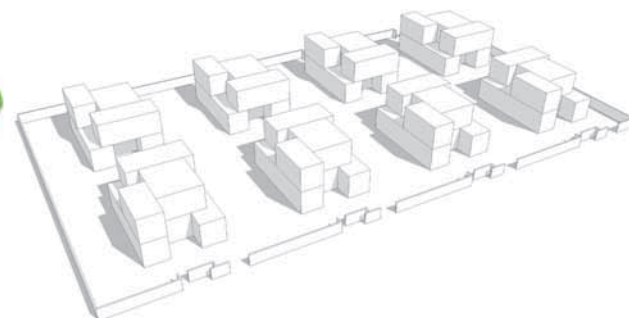
**Therefore it is key that, on plot amalgamation, is strictly forbidden to implement housing complexes of any sort.**

Maximum number of housing units will be that of the number of plots that are amalgamated, and those units must be implemented as single detached buildings. Ancillary support buildings are allowed collectively up to maximum FAR and cumulative GFA.

Standard setbacks and regulations apply to all villas on the amalgamated plot, except those that are in excess of 2000 sqm which have specific regulations.



Housing Complexes not allowed



Amalgamation of 8 plots equals max 8 Villa Buildings

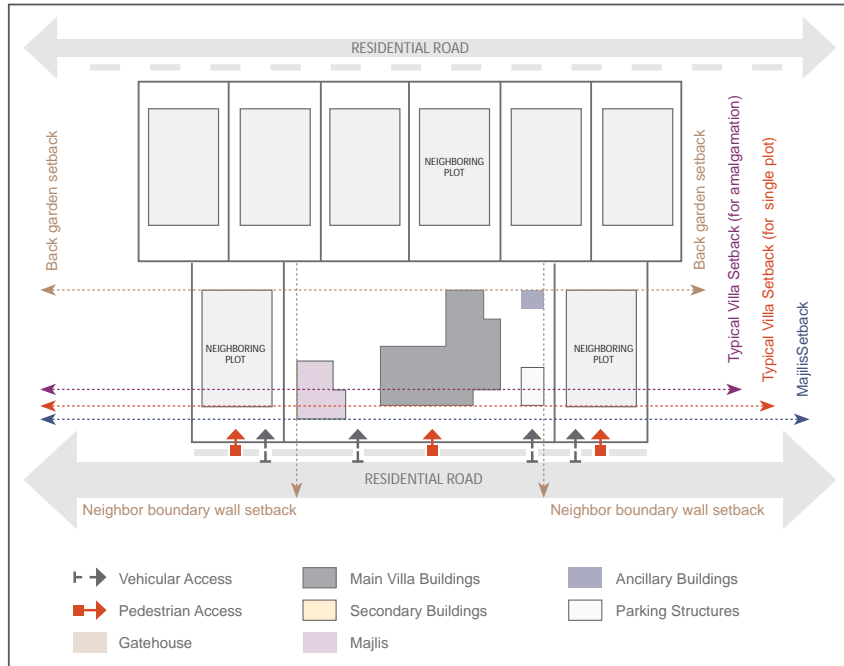
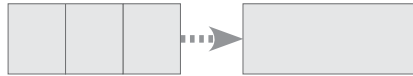
# TWO & MORE VILLA PLOTS ADJACENT SIDES

REF: LQID-AG- Sheet 5/9

## GENERAL COMMENTS

The objective of the amalgamated villa plot guidelines is to ensure the overall quality of the street frontage is not compromised and the massing and building height do not negatively impact on adjacent neighbours or impoverish streetscape quality.

Supplementary guidelines for villa plot amalgamation apply to those who wish to combine Individual plots into a larger villa plot entity.



Amalgamation scenario in the context of the street.

The following conditions within Building Regulations Sheet for the Residential Plots **remain unchanged**

## EXISTING REGULATIONS SUMMARY:

Land Use	<ul style="list-style-type: none"> <li>&gt; Residential &amp; Ancillary uses</li> <li>&gt; Allocated and amalgamated GFA (BUA)</li> <li>&gt; Allocation of single-family per plot (with understanding it can accommodate, large, extended family)</li> </ul>
Covered Area Ratio	<ul style="list-style-type: none"> <li>&gt; Maximum FAR: 80%</li> <li>&gt; Maximum 40% of Plot Coverage</li> <li>&gt; Penthouse: 30% of 1st floor area</li> </ul>
Car Park	<ul style="list-style-type: none"> <li>&gt; Allocated and amalgamated parking provision</li> </ul>
Plot Boundary	<ul style="list-style-type: none"> <li>&gt; Allocated and amalgamated overall plot boundary</li> </ul>
Setbacks	<ul style="list-style-type: none"> <li>&gt; 5m from road side</li> <li>&gt; 3m from sides</li> <li>&gt; 6m rear setback</li> <li>&gt; 3m from external face of 1st floor wall on all sides</li> </ul>
Height	<ul style="list-style-type: none"> <li>&gt; Main Villa: Maximum +15m (G+1+P)</li> <li>&gt; Majlis: Maximum +4.5m (top of parapet)</li> <li>&gt; Ancillary Buildings: +3.5m (top of parapet)</li> </ul>

To safeguard quality, the following regulations are **amended to augment and add** to the Building Regulations for buildings with over 2,000 sqm BUA , sitting on a plot of over 2,500 sqm

## ADDITIONAL REGULATIONS:

HEIGHT	Maximum 16m to top of parapet wall
COVERED AREA RATIO	Penthouse: max 30% of the first floor footprint, with a 3m setback from the first front side
SETBACKS	<ul style="list-style-type: none"> <li>Minimum 5m from front plot boundary</li> <li>Minimum 5m from side boundary</li> <li>Minimum 6m from the rear plot boundary (unscreened windows)</li> <li>Gateway house can abut plot boundary wall</li> </ul>
STREET FRONTAGE	<ul style="list-style-type: none"> <li>35% of building frontage to be setback 5m from front plot boundary for continuity with neighboring plots.</li> <li>This can be achieved through positioning of the parts of the main villa massing, ancillary buildings or positioning of the majlis.</li> </ul>
ACCESS POINTS	Minimum of 2 vehicular entry points
BOUNDARY WALL	Guideline applied to safeguard the quality of residential street (please refer to the <b>Boundary Wall Guidelines</b> )
HOUSING UNIT	<ul style="list-style-type: none"> <li>Max. number of housing units equal to the number of amalgamated plots.</li> <li>Units to be implemented as detached villas</li> </ul>

REF: LQID-AG- Sheet 6/9

## MASSING &amp; STREET ARTICULATION

## FRONTAGE CONTINUITY

Maximum 15% of the length of boundary wall at the road side should be animated by Majlis or/and ancillary buildings (gym, servants quarter, outside kitchen) following the 5m setback of the singular plot to safeguard street alignment coherence

## MAIN VILLA BUILDING

Setting an appropriate maximum height sensitive to the neighbourhood character and look and feel

## MASSING CONTROL

If the amalgamated plot has a plot area of more than 2500m<sup>2</sup> and the main building a BUA of min 2,000m<sup>2</sup> specific controls are applied



## SECONDARY BUILDING

The maximum BUA can be distributed through careful positioning of the villa family buildings with massing and form following best practices

## PERIMETER WALL CONDITION

Pedestrian gates, vehicular entry points, as well as articulated boundary walls add to the pedestrian experience through introduction of variety of scales and treatments. Regular openings alleviate continuous boundary walls to improve the public realm experience

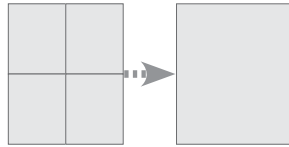
# FOUR & MORE VILLA PLOTS ADJACENT SIDES & REAR

REF: LQID-AG- Sheet 7/9

## GENERAL COMMENTS

The objective of the amalgamated villa plot guidelines is to ensure the overall quality of the street frontage is not compromised and the massing and building height do not negatively impact on adjacent neighbours or impoverish streetscape quality.

Supplementary guidelines for villa plot amalgamation apply to those who wish to combine individual plots into a larger villa plot entity.



The following conditions within Building Regulations Sheet for the Residential Plots **remain unchanged**

### EXISTING REGULATIONS SUMMARY:

Land Use	<ul style="list-style-type: none"> <li>&gt; Residential &amp; Ancillary uses</li> <li>&gt; Allocated and amalgamated GFA (BUA)</li> <li>&gt; Allocation of single-family per plot (with understanding it can accommodate, large, extended family)</li> </ul>
Covered Area Ratio	<ul style="list-style-type: none"> <li>&gt; Maximum FAR: 80%</li> <li>&gt; Maximum 40% of Plot Coverage</li> <li>&gt; Penthouse: 30% of 1st floor area</li> </ul>
Car Park	<ul style="list-style-type: none"> <li>&gt; Allocated and amalgamated parking provision</li> </ul>
Plot Boundary	<ul style="list-style-type: none"> <li>&gt; Allocated and amalgamated overall plot boundary</li> </ul>
Setbacks	<ul style="list-style-type: none"> <li>&gt; 5m from road side</li> <li>&gt; 3m from sides</li> <li>&gt; 6m rear setback</li> <li>&gt; 3m from external face of 1st floor wall on all sides</li> </ul>
Height	<ul style="list-style-type: none"> <li>&gt; Main Villa: Maximum +15m (G+1+P)</li> <li>&gt; Majlis: Maximum +4.5m (top of parapet)</li> <li>&gt; Ancillary Buildings: +3.5m (top of parapet)</li> </ul>



Amalgamation scenario in the context of the street.

To safeguard quality, the following regulations are amended to augment and add to the Building Regulations for buildings with over 2,000 sqm BUA, sitting on a plot of over 2,500 sqm

### ADDITIONAL REGULATIONS:

HEIGHT	Maximum 16m to top of parapet wall
COVERED AREA RATIO	Penthouse: max 30% of the first floor footprint, with a 3m setback from the first front side
SETBACKS	<ul style="list-style-type: none"> <li>Minimum 5m from front plot boundary</li> <li>Minimum 5m from side boundary</li> <li>Minimum 6m from the rear plot boundary (unscreened windows)</li> <li>Gateway house can abut plot boundary wall</li> </ul>
STREET FRONTAGE	<ul style="list-style-type: none"> <li>35% of building frontage to be setback 5m from front plot boundary for continuity with neighboring plots.</li> <li>This can be achieved through positioning of the parts of the main villa massing, ancillary buildings or positioning of the majlis.</li> </ul>
ACCESS POINTS	Minimum of 2 vehicular entry points
BOUNDARY WALL	Guideline applied to safeguard the quality of residential street (please refer to the <a href="#">Boundary Wall Guidelines</a> )
HOUSING UNIT	<ul style="list-style-type: none"> <li>Max. number of housing units equal to the number of amalgamated plots.</li> <li>Units to be implemented as detached villas</li> </ul>

REF: LQID-AG- Sheet 8/9

## MASSING &amp; STREET ARTICULATION

## FRONTAGE CONTINUITY

Maximum 15% of the length of boundary wall at the road side should be animated by Majlis or/and ancillary buildings (gym, servants quarter, outside kitchen) following the 5m setback of the singular plot to safeguard street alignment coherence

## MAIN VILLA BUILDING

Setting an appropriate maximum height sensitive to the neighbourhood character and look and feel

## MASSING CONTROL

If the amalgamated plot has a plot area of more than 2500m<sup>2</sup> and the main building a BUA of min 2,000m<sup>2</sup> specific controls are applied



## SECONDARY BUILDING

The maximum BUA can be distributed through careful positioning of the villa family buildings with massing and form following best practices

## PERIMETER WALL CONDITION

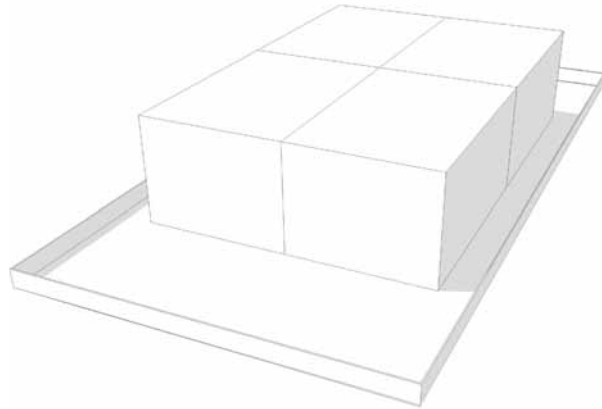
Pedestrian gates, vehicular entry points, as well as articulated boundary walls add to the pedestrian experience through introduction of variety of scales and treatments. Regular openings alleviate continuous boundary walls to improve the public realm experience

# AMALGAMATION AT MAJOR SLOPE CONDITION

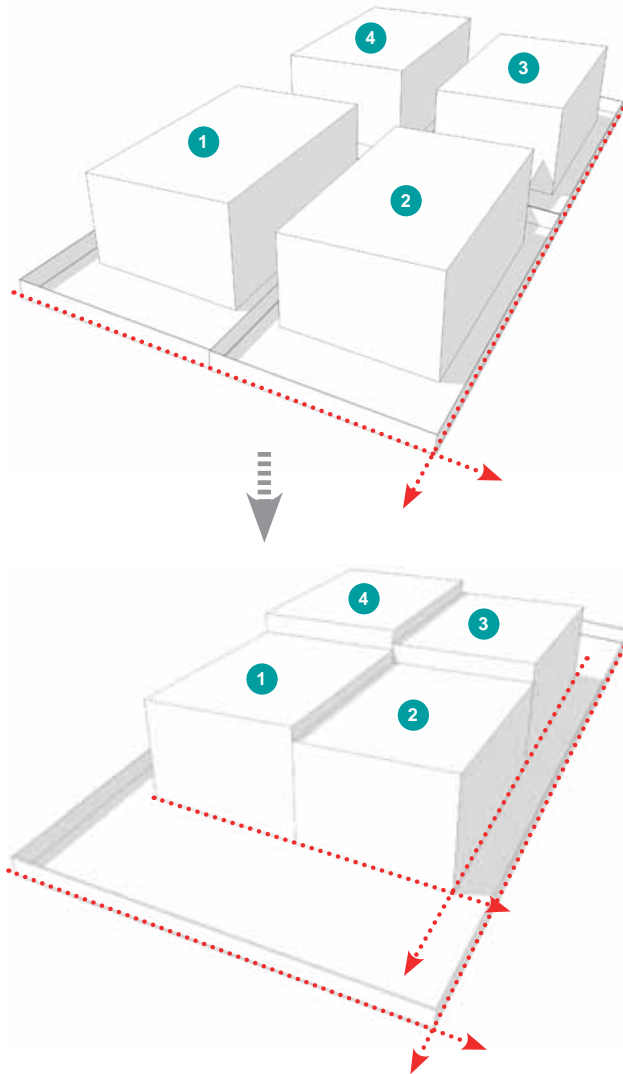
REF: LQID-AG- Sheet 9/9

## GENERAL COMMENTS

The purpose of this study is to regulate the building envelope in major slope conditions. Sites could slope in both directions, and accordingly the condition applies to both linear amalgamation and cluster amalgamation scenario. The general rule is that for a sloping site, the maximum building height is always measured at the lowest side of the plot. Accordingly, building envelopes for individual plots are added up to form the building envelope for the amalgamated plot. The purpose is to encourage the building mass to step down the slope, increase views, and maintain privacy of the lower sides. Setback conditions for linear amalgamation and cluster amalgamation are to be maintained.



Example of Cluster Amalgamation on a flat site



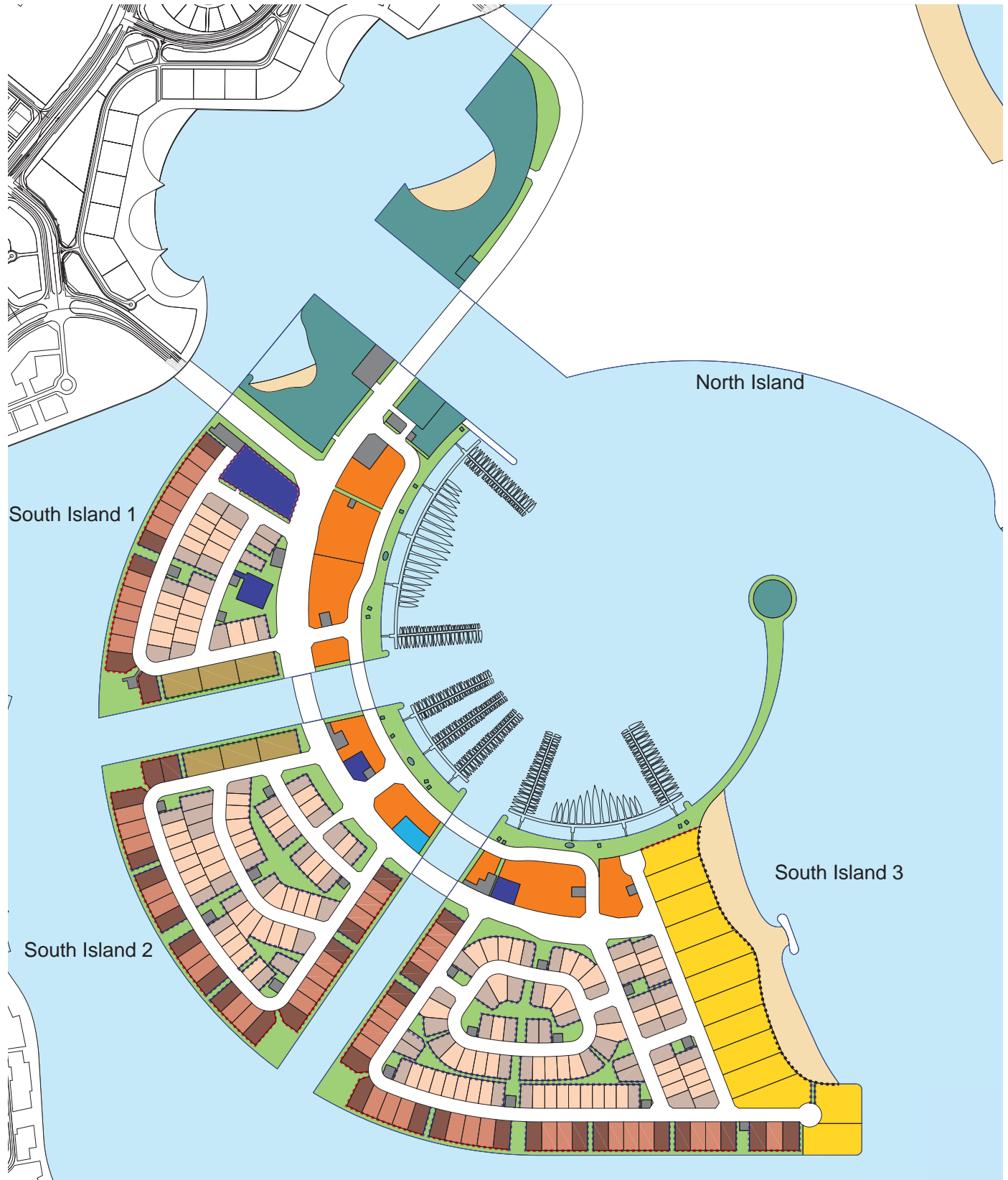
Example of Cluster Amalgamation on a sloping site



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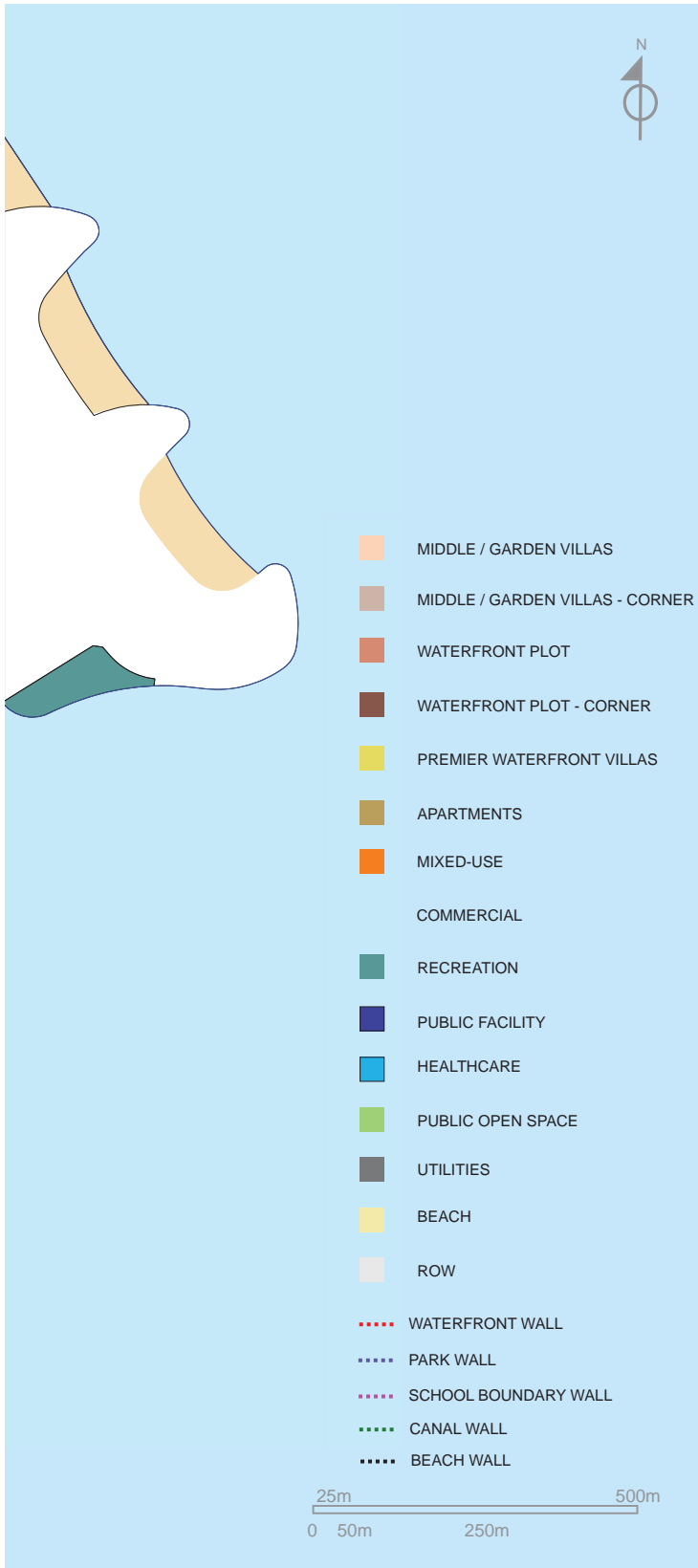
# 2.5 BOUNDARY TREATMENT GUIDELINES & CONTROLS

## BOUNDARY WALLS LOCATION PLAN



ARCHITECTURAL GUIDELINES & CONTROLS	➔
BOUNDARY WALLS GUIDELINES & CONTROLS	➔
LANDSCAPE GUIDELINES & CONTROLS	➔

## GLOSSARY OF TERMS



Inct Location Plan

### The Boundary Treatment Guidelines & Control Sheets clarify the Building Regulations

Residential plots include the Garden and Middle Villas in the Hillside Precinct, the Waterfront Villas, Premier Waterfront Villas and Canal Apartments.

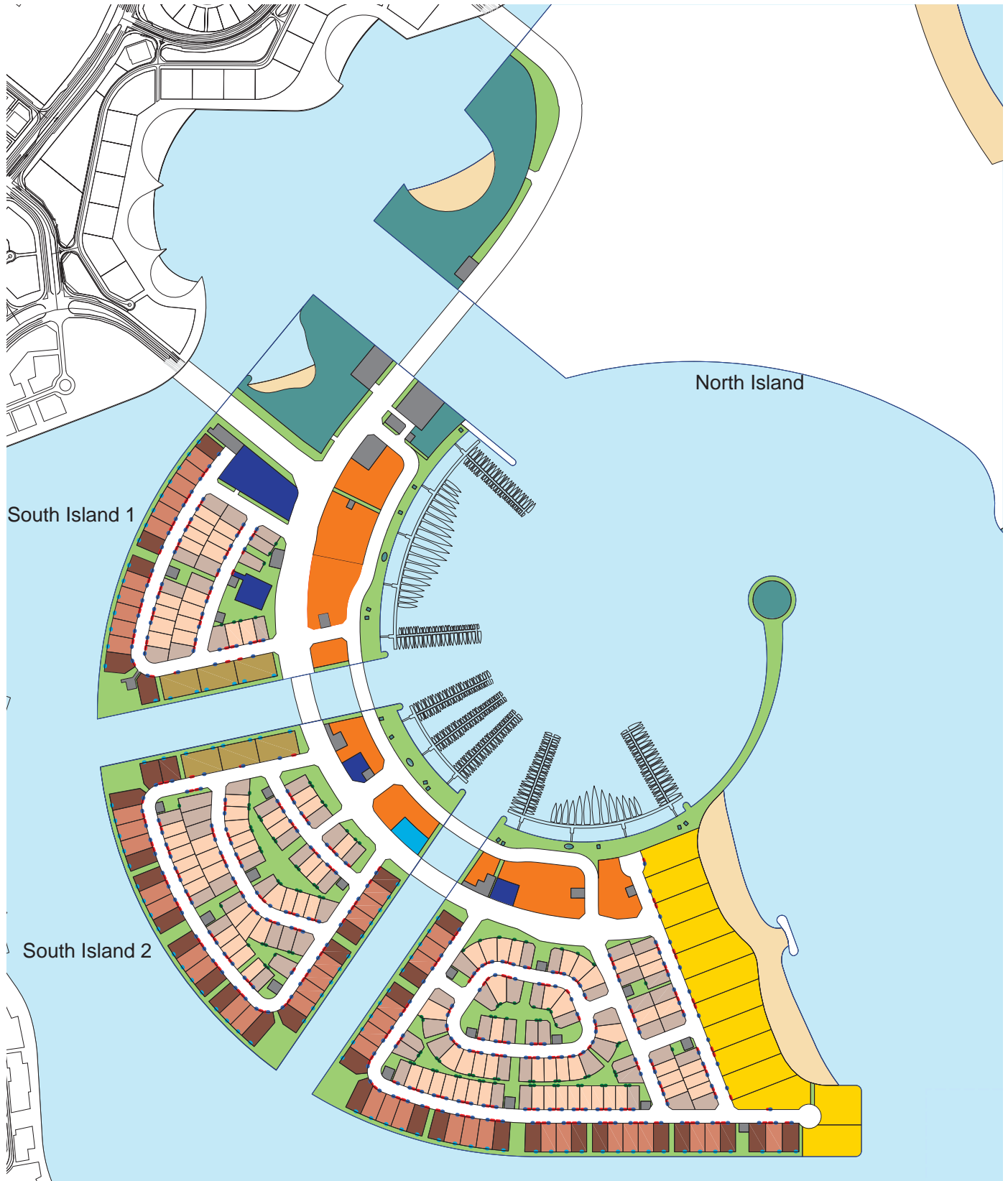
Terrain slope of villas within the Hillside Precinct will vary between gentle slopes (0-3%) and major slopes (more than 3%) where party walls between villas will step along the slope.

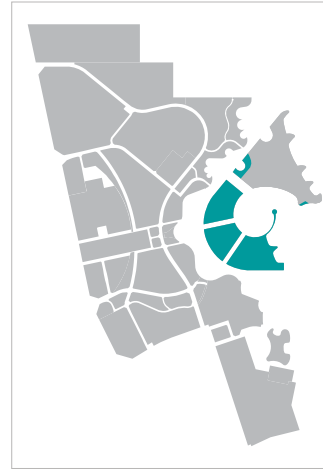
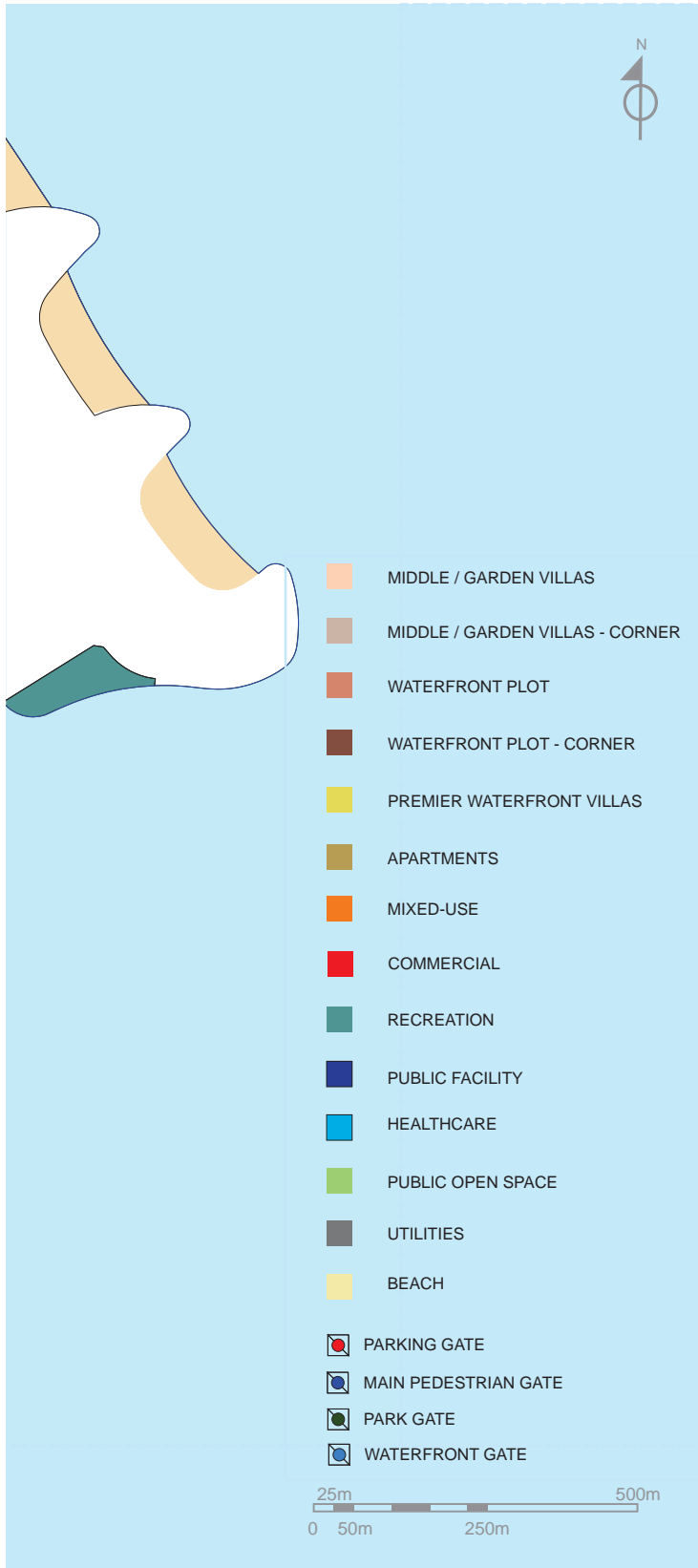
Non Residential include the souq; mosques; healthcare; recreation facilities; Marina buildings and school.

In this section, boundary walls' heights specified in individual plot sheets have been further detailed.

# BOUNDARY TREATMENT GUIDELINES & CONTROLS

## GATES LOCATION PLAN





District Location Plan

### The Boundary Treatment Guidelines & Control Sheets clarify the Building Regulations

Gates locations are predefined for all plots. The following are the various types of gates within Qetaifan Islands:

- > Parking Gate
- > Main Pedestrian Gate
- > Park Gate
- > Waterfront Gate

## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LQID-BTG- Sheet 1/13

### RATIONALE

The Boundary Treatment Guidelines & Controls Sheets support the existing Building Regulations to provide privacy, security, safety, visual amenity

#### Key Principles:

- > Establish a cohesive modular rhythm in terms of height and width
- > Provide privacy and security
- > Ensure adequate structural capacity
- > Reflect architectural theme
- > Design and dimensions vary in each precinct
- > High quality, durable, prestige finishes
- > Coordinate with streetscape and public realm design

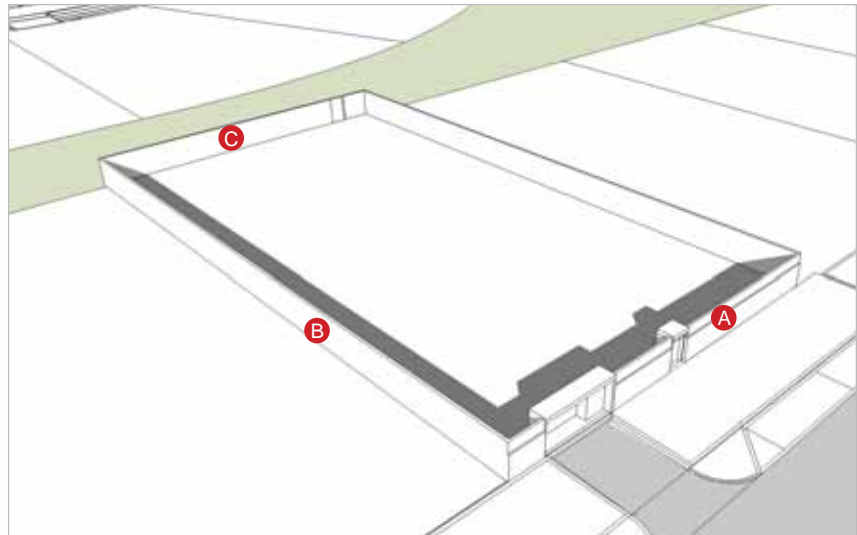
As a way of demarcating the plot limit in residential areas, the upper portion of the wall is allowed to have an ornamental character. Tenants will also have the freedom to design the entrance gate, park gate, waterfront gate and parking gate blocks, to match with the building's design.

The design of these elements should take into consideration the overarching design principles related to the project theme.

It's important to note that, regardless of the site slope, all boundary walls' top should be orthogonal.

The layout of boundary walls will need to take into consideration site topography and privacy of adjoining buildings. The following are indicative arrangements for each boundary wall type.

### TYPICAL RESIDENTIAL: GARDEN/MIDDLE VILLA FLAT PLOT

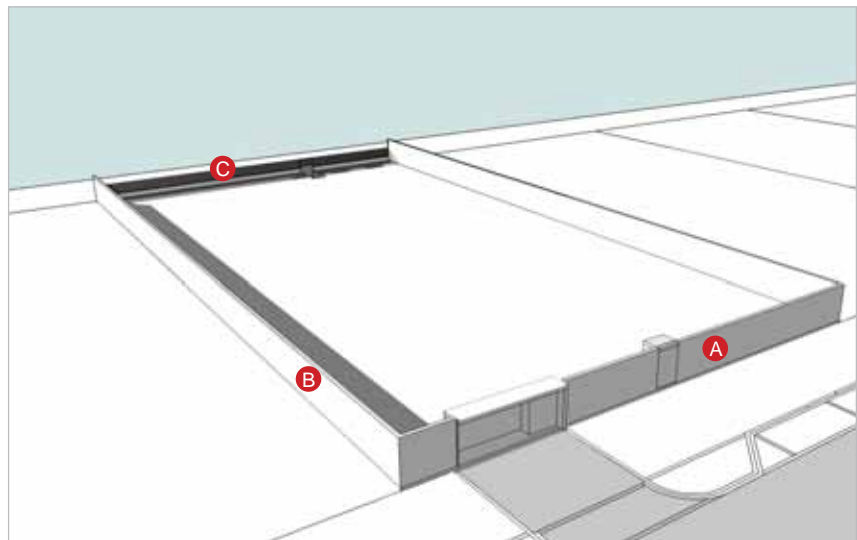


Flat Garden and Middle Plot - Key Components

- A Street Wall
- B Party Wall

- C Park Wall

### TYPICAL RESIDENTIAL - WATERFRONT PLOT



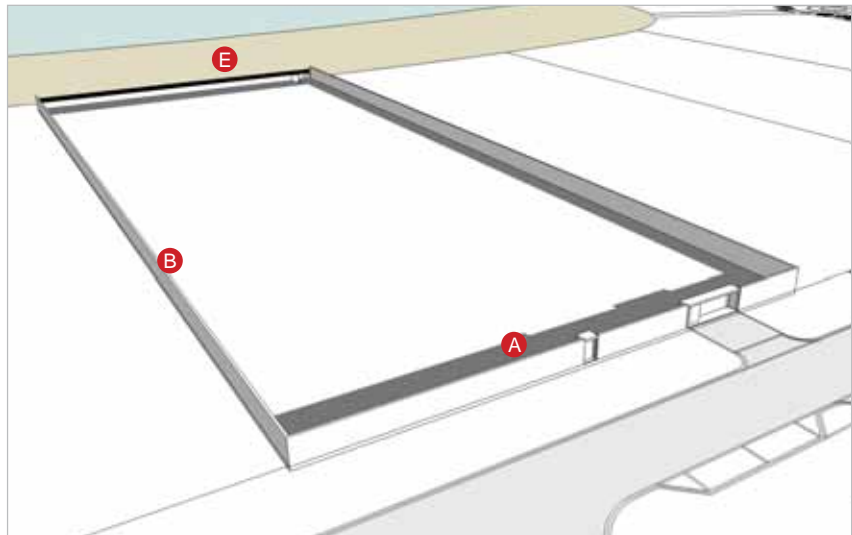
Waterfront Plot - Key Components

- A Street Wall
- B Party Wall

- D Waterfront Wall

REF: LQID-BTG- Sheet 2/13

## TYPICAL RESIDENTIAL - PREMIER WATERFRONT PLOT



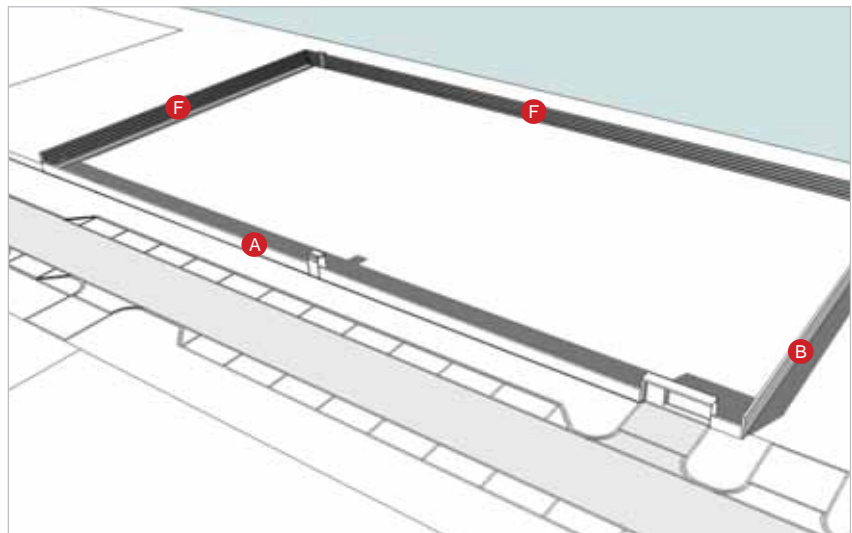
Premier Waterfront Plot - Key components

A Street Wall

E Beach Wall

B Party Wall

## TYPICAL RESIDENTIAL - APARTMENT BUILDINGS



Key Components: Premier Waterfront Plot

A Street Wall

F Canal Wall

B Party Wall

## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

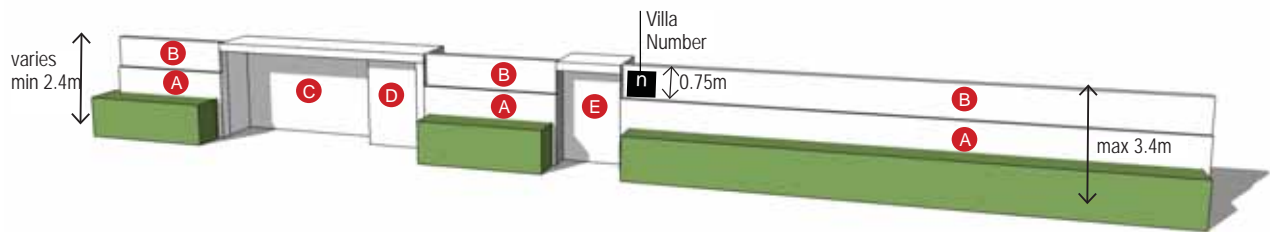
REF: LQID-BTG- Sheet 3/13

### SUMMARY OF BOUNDARY WALLS

	Components	MANDATORY CONTROLS
<b>A</b>	Street Wall - <i>at Street Side</i>	<ul style="list-style-type: none"> <li>&gt; APPROVED STREET WALLS COMPRISE PIERS, PLINTHS, COPING, INSET PANELS, PEDESTRIAN ENTRANCE, VEHICLE ENTRANCE</li> <li>&gt; WALL MIN HEIGHT 2.4M, MAX IS 3.4M IF MEASURED FROM THE LOWER SIDEWALK SIDE; OPACITY/STYLE TO FOLLOW THE OVERARCHING THEME OF QETAIFAN ISLANDS. FOR APARTMENT BUILDINGS, WALL HEIGHT IS 1M MAX.</li> <li>&gt; PEDESTRIAN ENTRANCE LOCATED IN THE MIDDLE OF THE PLOT, SEPARATE FROM VEHICLE ENTRY. LOCATION PREDEFINED BY MASTER DEVELOPER. HEIGHT SHOULD NOT EXCEED THE BOUNDARY WALL HEIGHT. ANOTHER PEDESTRIAN ENTRY MIGHT BE ADJOINED TO VEHICLE ENTRY. TO INCORPORATE HOUSE NUMBER PANEL. DESIGN TO MATCH WITH VILLA DESIGN</li> <li>&gt; VEHICLE ENTRANCE IS PREDEFINED BY MASTER DEVELOPER. RECESSED AREA SETBACK 1M. MAX 6M WIDE, HEIGHT IS 2.8M TO 3M. TO INCORPORATE UTILITY SERVICE PANEL.</li> </ul>
<b>B</b>	Party Wall - <i>between adjacent plots</i>	<ul style="list-style-type: none"> <li>&gt; APPROVED WALL TO SIT WITHIN AND DEFINED PLOT BOUNDARY, BEFORE INTERNAL PLOT CONSTRUCTION CAN START</li> <li>&gt; PARTY WALLS TO COMPRISE SINGLE WALL ON EACH ADJACENT PLOT, ALIGNED ON BOUNDARY LINE, INCLUDING FOOTINGS/ FOUNDATIONS.</li> <li>&gt; PEDESTRIAN ENTRANCE PREDEFINED BY MASTER DEVELOPER. HEIGHT SHOULD NOT EXCEED THE BOUNDARY WALL HEIGHT</li> <li>&gt; MANDATORY 2.4M HEIGHT, AND UP TO A MAXIMUM OF 3.4M IF MEASURED FROM ADJACENT LOWER PLOT</li> <li>&gt; PARTY WALLS TO STEP ALONG THE SLOPE TO FOLLOW THE SITE GRADIENT</li> <li>&gt; DESIGN AND FINISH TO SUIT PARCEL OWNER REQUIREMENTS</li> </ul>
<b>C</b>	Park Wall - <i>adjacent to open space</i>	<ul style="list-style-type: none"> <li>&gt; WALL HEIGHT IS 2.4M MEASURED FROM INSIDE THE PLOT. MAX HEIGHT FROM PARK SIDE IS 3.4M</li> <li>&gt; OPTIONAL INCLUSION OF PEDESTRIAN ENTRANCE. LOCATION PREDEFINED BY MASTER DEVELOPER. IF LOCATION IS MODIFIED AND APPROVED BY MASTER DEVELOPER, TO INCLUDE PARK PATH ACCESS BUILT AT OWNER'S EXPENSE</li> </ul>
<b>D</b>	Waterfront Promenade Wall - <i>adjacent to waterfront promenade</i>	<ul style="list-style-type: none"> <li>&gt; WALL HEIGHT IS 1.9M MEASURED FROM INSIDE THE PLOT. MAX HEIGHT FROM WATERFRONT SIDE IS 3.4M</li> <li>&gt; OPTIONAL INCLUSION OF PEDESTRIAN ENTRANCE. LOCATION PREDEFINED BY MASTER DEVELOPER.</li> </ul>
<b>E</b>	Beach Wall - <i>for premier waterfront villas, at the beach side</i>	<ul style="list-style-type: none"> <li>&gt; WALL HEIGHT IS 2.4M</li> <li>&gt; OPTIONAL INCLUSION OF PEDESTRIAN ACCESS GATE TO THE BEACH</li> </ul>
<b>F</b>	Canal Wall - <i>for apartment buildings, at the Canal side</i>	<ul style="list-style-type: none"> <li>&gt; WALL HEIGHT IS 1.9M MEASURED FROM INSIDE THE PLOT. MAX HEIGHT FROM CANAL SIDE IS 3.4M</li> <li>&gt; OPTIONAL INCLUSION OF PEDESTRIAN ENTRANCE. LOCATION PREDEFINED BY MASTER DEVELOPER. IF LOCATION IS MODIFIED AND APPROVED BY MASTER DEVELOPER, TO INCLUDE PROMENADE PATH ACCESS BUILT AT OWNER'S EXPENSE</li> </ul>

REF: LQID-BTG- Sheet 4/13

## STREET WALL



Typical design of Street Wall

	Components	GUIDELINES	MANDATORY CONTROLS
<b>A</b>	Wall Lower Part	<ul style="list-style-type: none"> <li>&gt; Linear recess along wall separates upper part from lower part</li> </ul>	<ul style="list-style-type: none"> <li>&gt; HEIGHT VARIES ACCORDING TO SLOPE; OVERALL WALL HEIGHT IS 2.4M MEASURED FROM INSIDE THE PLOT, AND MAX 3.4 MEASURED FROM LOWER STREET SIDE</li> <li>&gt; PLAIN WALL WITH EARTH TONE COLOR. COLOR TO BE DECIDED BY MASTER DEVELOPER PER PRECINCT</li> <li>&gt; IN SLOPING CONDITIONS, WALLS UPPER SIDE SHOULD BE ORTHOGONAL AND STEP DOWN ACCORDING TO HEIGHT LIMITATION. WALL STEPS TO START AFTER GATES (PEDESTRIAN GATE OR PARKING GATE)</li> </ul>
<b>B</b>	Wall Upper Part	<ul style="list-style-type: none"> <li>&gt; Linear recess along wall separates upper part from lower part</li> </ul>	<ul style="list-style-type: none"> <li>&gt; DESIGN TO BE SIMPLE; MATERIALS TO MATCH WITH LOWER PART OF THE ALL</li> <li>&gt; HEIGHT IS FIXED AT 0.75M</li> <li>&gt; SIGNAGE TO BE PLACED WITHIN B NEXT TO THE MAIN PEDESTRIAN ENTRANCE GATE</li> </ul>
<b>C</b>	Vehicular Access Secondary Pedestrian Entrance (Optional)	<ul style="list-style-type: none"> <li>&gt; Reserved area dedicated for vehicle access (and service access)</li> <li>&gt; Incorporate refuse collection point</li> <li>&gt; Incorporate utility technical point</li> </ul>	<ul style="list-style-type: none"> <li>&gt; RECESSED AREA SETBACK 1M; PARKING GATE LOCATION IS PREDEFINED BY MASTER DEVELOPER; 2.8 TO 3.0M HIGH</li> <li>&gt; DESIGN TO REFLECT VILLA ARCHITECTURE</li> </ul>
<b>D</b> <b>E</b>	Pedestrian Entrance	<ul style="list-style-type: none"> <li>&gt; Distinctive feature</li> <li>&gt; Range of optional elements styled and finished to suit villa design type - up lit address panel, mailbox, bench planter and tree; porch canopy etc.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; RECESSED AREA SETBACK 1M; MAX 3M WIDE; HEIGHT SHOULD NOT EXCEED THE BOUNDARY WALL HEIGHT</li> <li>&gt; LOCATED IN THE MIDDLE OF THE PLOT. LOCATION PREDEFINED BY MASTER DEVELOPER</li> <li>&gt; DESIGN TO REFLECT VILLA ARCHITECTURE</li> </ul>

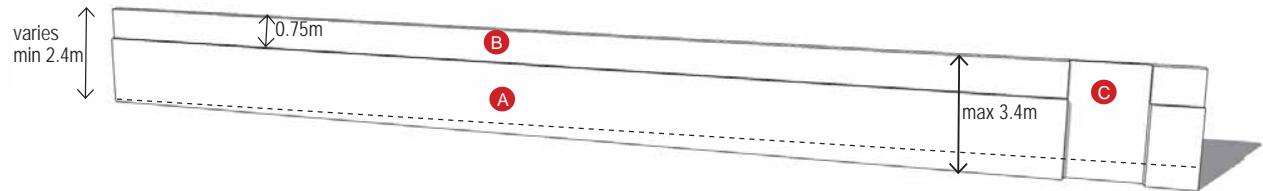
Note: For apartment buildings, street wall height is 1m max.

## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LQID-BTG- Sheet 5/13

### PARK WALL

Guidelines pertaining to boundary walls other than street walls



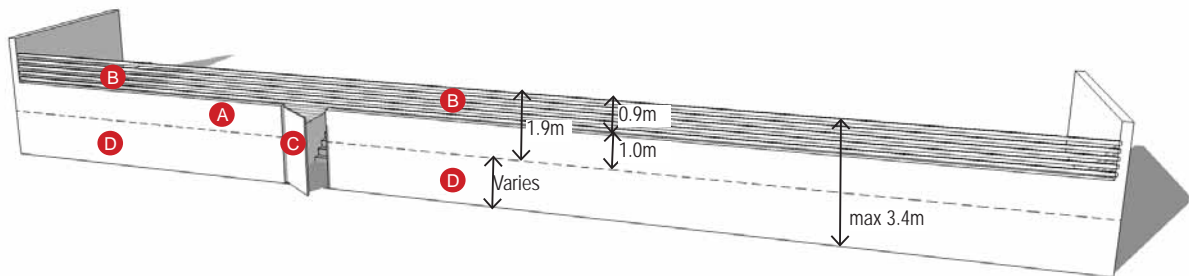
Typical design of Park Wall

	Components	GUIDELINES	MANDATORY CONTROLS
A	Wall Lower Part	<ul style="list-style-type: none"> <li>&gt; Linear recess along wall separates upper part from lower part</li> </ul>	<ul style="list-style-type: none"> <li>&gt; HEIGHT VARIES ACCORDING TO SLOPE; OVERALL WALL HEIGHT IS 2.4M MEASURED FROM INSIDE THE PLOT, AND MAX 3.4 MEASURED FROM LOWER STREET SIDE</li> <li>&gt; PLAIN WALL WITH EARTH TONE COLOR / STONE. COLOR/MATERIAL SPECIFICATIONS TO BE DECIDED BY MASTER DEVELOPER ACCORDING TO PRECINCTS</li> </ul>
B	Wall Upper Part	<ul style="list-style-type: none"> <li>&gt; Linear recess along wall separates upper part from lower part</li> </ul>	<ul style="list-style-type: none"> <li>&gt; DESIGN TO BE SIMPLE; MATERIALS SHOULD MATCH WITH LOWER PART</li> <li>&gt; HEIGHT IS FIXED AT 0.75M</li> </ul>
C	Pedestrian Entrance	<ul style="list-style-type: none"> <li>&gt; Optional</li> </ul>	<ul style="list-style-type: none"> <li>&gt; HEIGHT SHOULD NOT EXCEED THE BOUNDARY WALL HEIGHT</li> <li>&gt; IF LOCATION IS MODIFIED AND APPROVED BY MASTER DEVELOPER, TO INCLUDE PARK PATH ACCESS BUILT AT OWNER'S EXPENSE</li> </ul>

REF: LQID-BTG- Sheet 6/13

**WATERFRONT PROMENADE AND BEACH WALL**

Guidelines pertaining to boundary walls other than street walls

*Typical design of Waterfront Wall and Beach Wall*

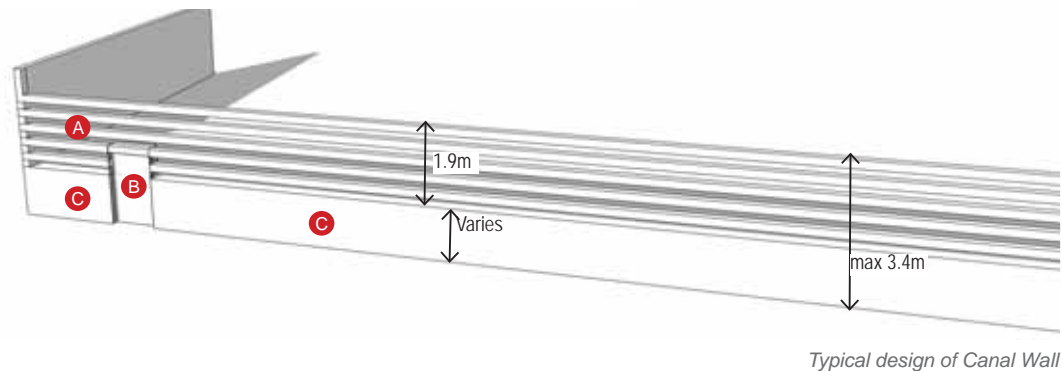
	Components	GUIDELINES	MANDATORY CONTROLS
<b>A</b>	Wall Lower Part	<ul style="list-style-type: none"> <li>&gt; Linear recess along wall separates upper part from lower part</li> </ul>	<ul style="list-style-type: none"> <li>&gt; HEIGHT VARIES ACCORDING TO SLOPE; OVERALL WALL HEIGHT IS 2.4M MEASURED FROM INSIDE THE PLOT, AND MAX 3.4M MEASURED FROM WATERFRONT PROMENADE</li> <li>&gt; PLAIN WHITE WALL</li> <li>&gt; INWARD FINISH TO SUIT OWNER'S PREFERENCES</li> </ul>
<b>B</b>	Wall Upper Part	<ul style="list-style-type: none"> <li>&gt; Linear recess along wall separates upper part from lower part</li> <li>&gt; Upper part comprises wooden louvres; distances between bars should not allow visibility to the inside of the villa garden from the waterfront promenade</li> </ul>	<ul style="list-style-type: none"> <li>&gt; IN KEEPING WITH DESIGN STYLE OF THE VILLA</li> <li>&gt; LINEAR/HORIZONTAL LOUVRES; MATERIALS AS SPECIFIED IN THE ARCHITECTURAL SECTION; SUBJECT TO MASTER DEVELOPER APPROVAL</li> </ul>
<b>C</b>	Pedestrian Entrance	<ul style="list-style-type: none"> <li>&gt; Optional</li> </ul>	<ul style="list-style-type: none"> <li>&gt; HEIGHT SHOULD NOT EXCEED THE BOUNDARY WALL HEIGHT</li> <li>&gt; IF LOCATION IS MODIFIED AND APPROVED BY MASTER DEVELOPER, TO INCLUDE PARK PATH ACCESS BUILT AT OWNER'S EXPENSE</li> </ul>
<b>D</b>	Retaining Wall	<ul style="list-style-type: none"> <li>&gt; Height is variable depending on location</li> </ul>	<ul style="list-style-type: none"> <li>&gt; WALL FINISHES TO MATCH WITH WALL LOWER PART; PLAIN WHITE WALL</li> </ul>

## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LQID-BTG- Sheet 7/13

### CANAL WALL

Guidelines pertaining to boundary walls other than street walls



	Components	GUIDELINES	MANDATORY CONTROLS
<b>A</b>	Canal Wall	> Horizontal wooden panels	> HEIGHT VARIES ACCORDING TO SLOPE; OVERALL WALL HEIGHT IS 1.9M MEASURED FROM INSIDE THE PLOT, AND MAX 3.4 MEASURED FROM THE CANAL SIDE > HORIZONTAL WOODEN PANELS. MATERIALS AND SPECIFICATIONS TO BE DECIDED BY MASTER DEVELOPER
<b>B</b>	Pedestrian Entrance	> Optional	> HEIGHT SHOULD NOT EXCEED THE BOUNDARY WALL HEIGHT > IF LOCATION IS MODIFIED AND APPROVED BY MASTER DEVELOPER, TO INCLUDE PARK PATH ACCESS BUILT AT OWNER'S EXPENSE
<b>C</b>	Retaining Wall	> Height is variable	> PLAIN WALL WITH WHITE COLOR

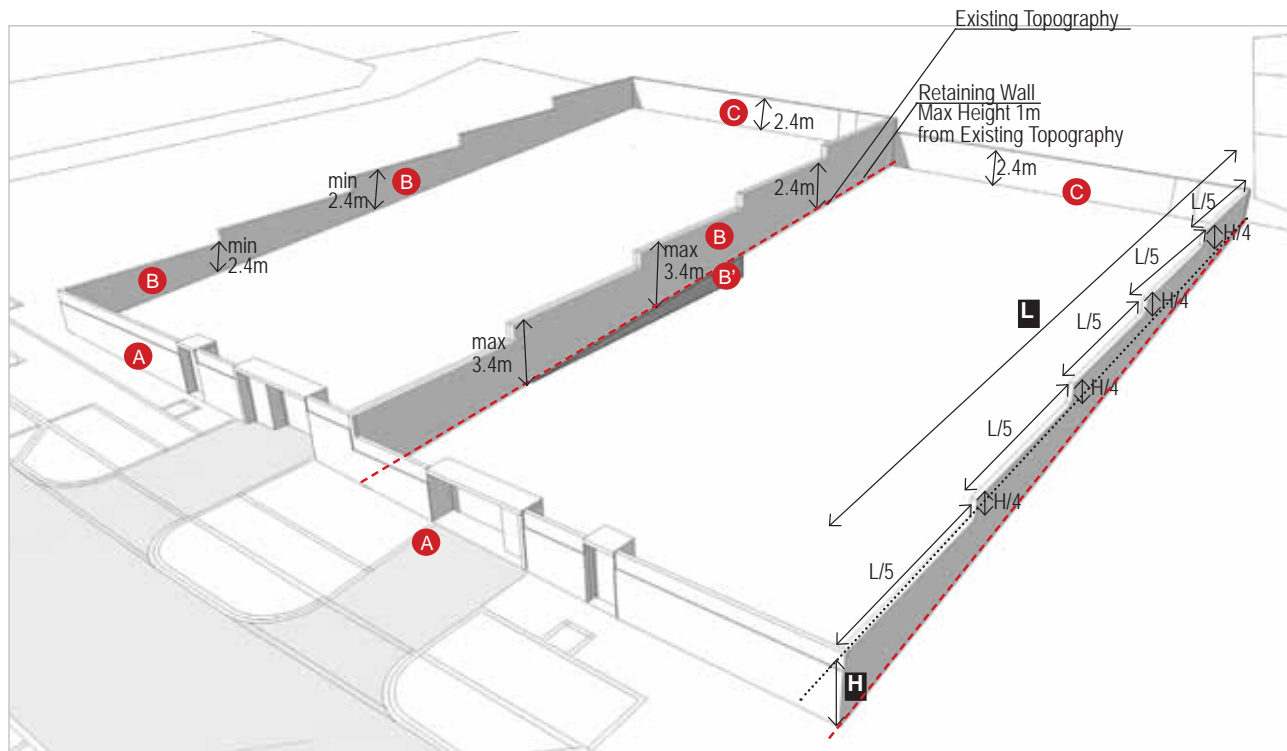
REF: LQID-BTG- Sheet 8/13

**SLOPE PARITY WALLS**

**Boundary walls at slope conditions follow the natural gradient and step along the slope. Steps length and height are fixed to ensure consistency on both sides of each plot.**

Privacy of adjoining buildings is a key factor in determining the height and layout of boundary walls. At no location, the boundary wall can be lower than 2.4m at each side of adjoining plots.

Furthermore, the layout of boundary walls in the Hillside Precinct will need to take into consideration site topography. Wherever retaining walls are needed, their height will be added to the height of party wall, and the party wall height measured from the finished grade of the lower plot shall not exceed 3.4m.



Example of party wall between plots at slope condition

**A** Street Wall

**B** Party Wall

**C** Park Wall

**L** Plot Depth

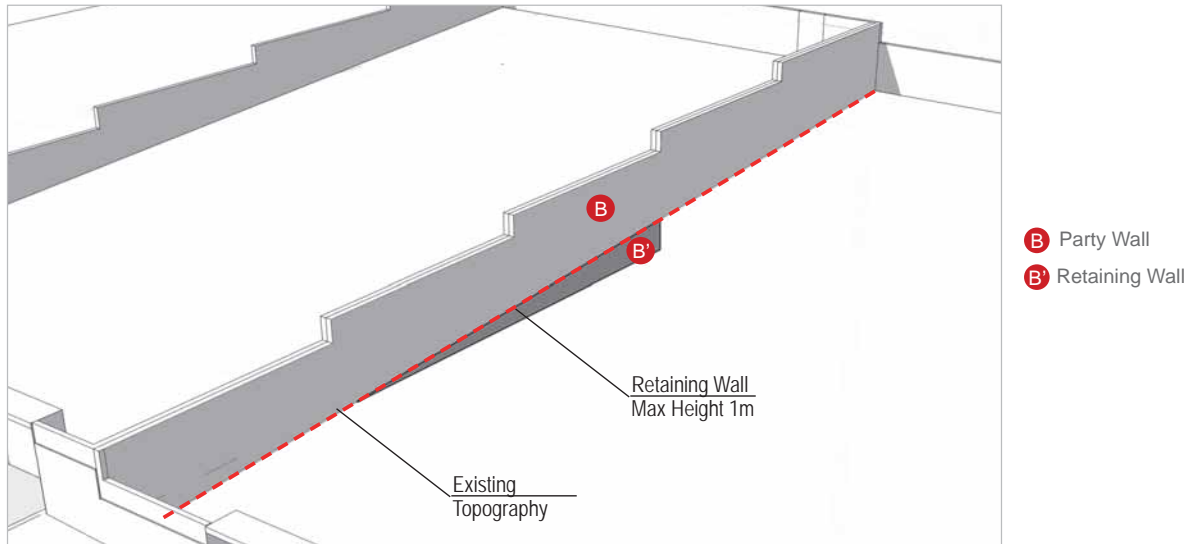
**B'** Retaining Wall

**H** Difference of Level along Plot Edges as per Topography

## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LQID-BTG- Sheet 9/13

### SLOPE WALL



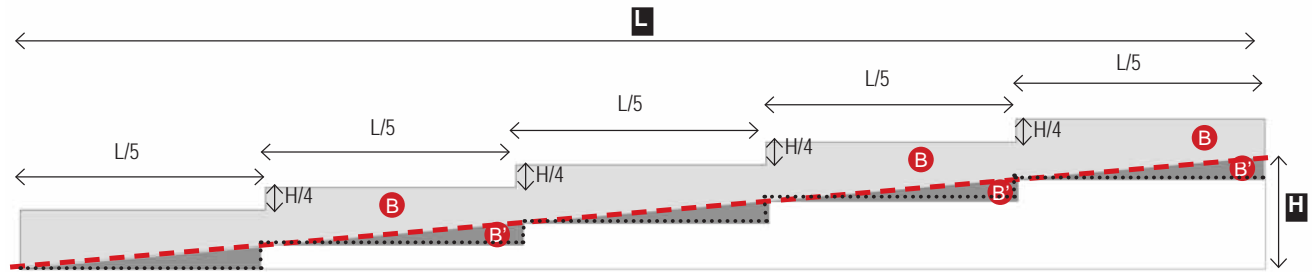
Detail of junction between two adjacent party walls at slope condition

	Components	GUIDELINES	MANDATORY CONTROLS
B	Slope Party Wall	<ul style="list-style-type: none"> <li>&gt; Design and finish to suit parcel owner requirements</li> <li>&gt; Inward finish to match with the villa design theme</li> </ul>	<ul style="list-style-type: none"> <li>&gt; PARTY WALL TO SIT WITHIN AND DEFINE PLOT BOUNDARY, INCLUDING FOOTINGS/FOUNDATIONS</li> <li>&gt; SHALL BE STEPPED ALONG THE SLOPE</li> <li>&gt; HEIGHT IS FIXED AT 2.4M HIGH</li> </ul>
B'	Retaining Wall	<ul style="list-style-type: none"> <li>&gt; Design and finish to suit parcel owner requirements</li> <li>&gt; Inward finish to match with the villa design theme</li> </ul>	<ul style="list-style-type: none"> <li>&gt; MAXIMUM HEIGHT IS 1M</li> </ul>
B B'	Overall Slope Party Wall	<ul style="list-style-type: none"> <li>&gt; Design and finish to suit parcel owner requirements</li> <li>&gt; Inward finish to match with the villa design theme</li> </ul>	<ul style="list-style-type: none"> <li>&gt; WHEN RETAINING WALL IS ADDED TO SLOPE WALL HEIGHT, THE MAXIMUM TOTAL PARTY WALL HEIGHT IS 3.4M</li> <li>&gt; OVERALL SLOPE PARTY WALL TO STEP ALONG THE NATURAL GRADIENT WITH A FIXED STEP HEIGHT/LENGTH</li> </ul>

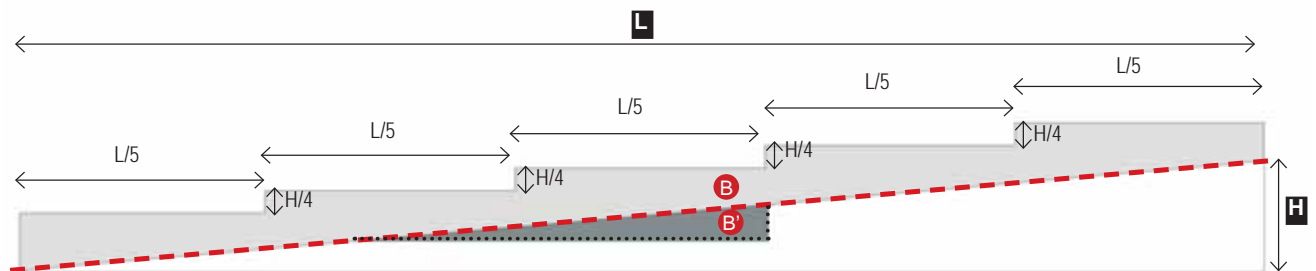
**REF: LQID-BTG- Sheet 10/13**

The following are examples of retaining wall conditions.

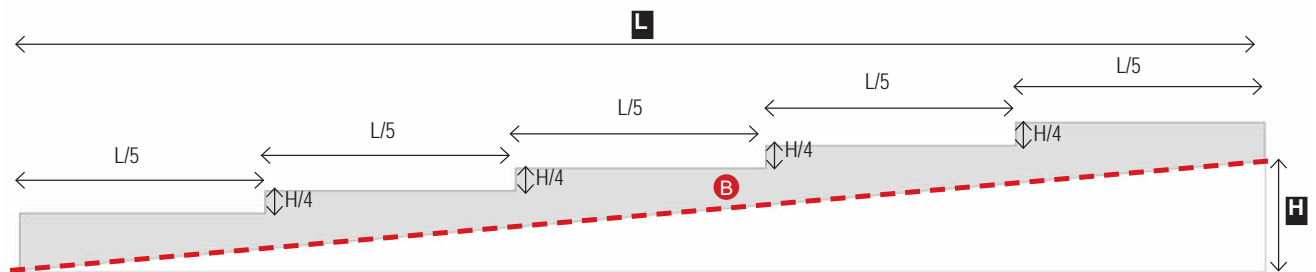
The natural shape of the land should be preserved wherever possible, to reduce the amount of cut and fill and limit the retaining walls.



Example of site grading, where the site steps along the natural gradient creating multiple platforms, while maintaining the retaining wall condition.



Limited grading area and therefore limited cut and fill conditions.



Grading is limited to building footprint. No grading along the site edges, and therefore no need for any retaining walls.

- B Party Wall
- B' Retaining Wall
- L Plot Depth
- H Difference of Level along Plot Edges as per Topography

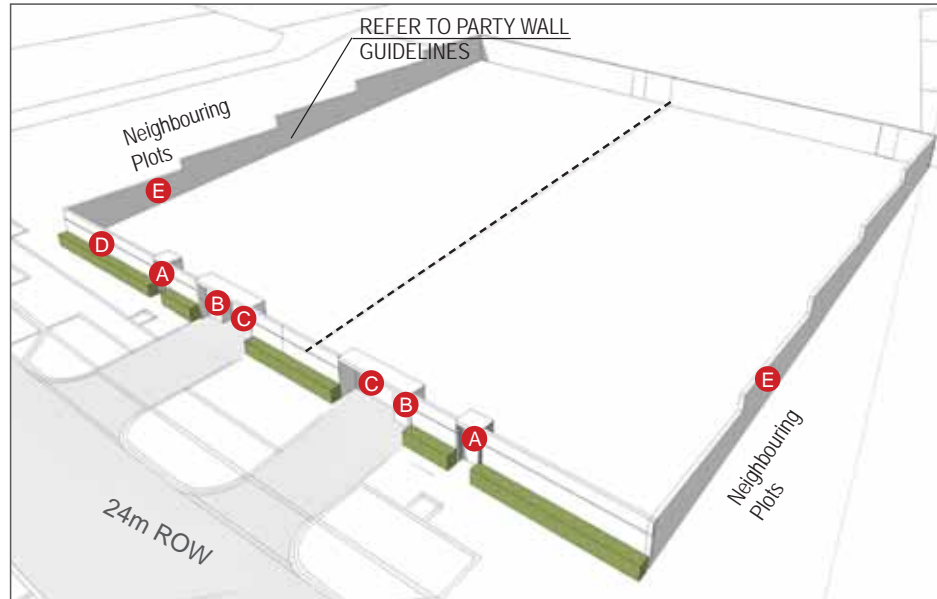
## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LQID-BTG- Sheet 11/13

### PLOT AMALGAMATION

#### Key Principles:

- > **Modulate entrances to accord with streetscape with regular openings and matching wall treatments**
- > **Up to two vehicular and one primary pedestrian entrances per street, but undisclosed secondary entrances permitted**
- > **Once primary and undisclosed secondary pedestrian entrances permitted**
- > **Owners to fund reinstatement of redundant driveways**
- > **Plot owners to wall plot before commencing works**



Example of villa amalgamation plot boundary treatment

	Components	GUIDELINES	MANDATORY CONTROLS
<b>A</b>	Primary Pedestrian access	<ul style="list-style-type: none"> <li>&gt; One of the pedestrian entrances of amalgamated plots</li> <li>&gt; Select design to suit villa architecture style</li> </ul>	<ul style="list-style-type: none"> <li>&gt; FOLLOW TYPICAL VILLA CONTROLS</li> <li>&gt; OBSERVE ACCESS LIMITATIONS: UP TO TWO VEHICULAR AND ONE PRIMARY PEDESTRIAN ENTRANCES PER STREET, BUT UNDISCLOSED SECONDARY ENTRANCES PERMITTED</li> </ul>
<b>B</b>	Secondary Pedestrian entrance (Optional)	<ul style="list-style-type: none"> <li>&gt; One of the pedestrian entrances of amalgamated plots</li> <li>&gt; Select design to suit villa architecture style</li> </ul>	<ul style="list-style-type: none"> <li>&gt; FOLLOW TYPICAL VILLA CONTROLS</li> </ul>
<b>C</b>	Vehicular access Access drive	<ul style="list-style-type: none"> <li>&gt; Up to two vehicular access points for each street</li> </ul>	<ul style="list-style-type: none"> <li>&gt; REFER TO STREET WALL GUIDELINES AND CONTROLS</li> <li>&gt; REDUNDANT DRIVES REINSTATED BY LUSAIL, FUNDED BY PLOT OWNER</li> </ul>
<b>D</b>	Street Wall	<ul style="list-style-type: none"> <li>&gt; Select design to suit villa architecture style</li> </ul>	<ul style="list-style-type: none"> <li>&gt; REFER TO STREET WALLS GUIDELINES AND CONTROLS</li> </ul>
<b>E</b>	Party Walls	<ul style="list-style-type: none"> <li>&gt; Select design to suit villa architecture style</li> </ul>	<ul style="list-style-type: none"> <li>&gt; REFER TO PARTY WALLS GUIDELINES AND CONTROLS</li> </ul>

REF: LQID-BTG- Sheet 12/13

## STREET WALL



## PARK WALL



## 2.5.1 RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LQID-BTG- Sheet 13/13

### WATERFRONT AND BEACH WALL



### CANAL WALL



## 2.5.2 NON RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES

REF: LQID-NBTG- Sheet 1/9

### RATIONALE

#### The Boundary Treatment Guidelines & Control Sheets clarify the Building Regulations

Non Residential include the souq; mosques; health care centre; schools and recreation facilities (officers club, harbour master, yacht club and beach club hotel).

No boundary wall is allowed for the souq.

#### Key objectives:

- > No boundary wall is allowed for the souq
  - > Except for the school plot, boundary wall might be omitted
  - > Promote accessibility of amenity functions, while concealing private/ service functions
  - > Provide cohesive treatments to street and park elevations
  - > Complement the neighbourhood
- and reflect the function/ style of the amenity
  - > Street wall design to reflect the project theme
  - > Modulate continuous walls with entrances, piers, panels and planting
  - > Apply Lusail approved design palette
  - > High quality, durable finishes which are fit for purpose

## 2.5.2 NON RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES

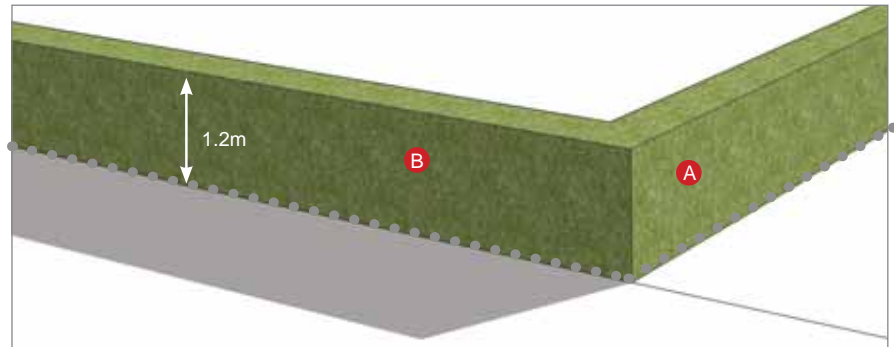
REF: LQID-NBTG- Sheet 2/9

### TYPICAL MOSQUE BOUNDARY TREATMENT

Boundary walls for mosques are optional.

Walls should be constructed within plot boundary line.

High visibility boundary treatment, appearance and texture of boundary walls shall complement the mosque design.



Mosque Plot Treatment

.....PROPERTY BOUNDARY

	Components	GUIDELINES
<b>A</b>	Street Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 1.2m high</li> <li>Transparent or green; a solid base is allowed, with a height not exceeding 50cm</li> <li>Encourage visibility by using railings or clipped hedges</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>
<b>B</b>	Park Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 1.2m high</li> <li>Transparent or green; a solid base is allowed, with a height not exceeding 50cm</li> <li>May be lower in height or can comprise soft landscape treatment</li> <li>Optional pedestrian gates links facilitate informal access where approved</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>
<b>C</b>	Party Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 1.2m high</li> <li>Transparent or green; a solid base is allowed, with a height not exceeding 50cm</li> <li>Encourage visibility by using gates, railings or clipped hedges</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>

REF: LQID-NBTG- Sheet 3/9



Boundary walls can be either transparent, or partially transparent or fully green



Landscape elements can be integrated with the boundary wall design. e

## 2.5.2 NON RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES

REF: LQID-NBTG- Sheet 4/9

### TYPICAL SCHOOL BOUNDARY TREATMENT

Schools and nurseries require controlled access to buildings and privacy from neighboring plots, while offering permeable access to park space. Drop-off facilities can be integrated into the street wall treatment at the front of the school, while enclosing the buildings and external spaces to the rear.

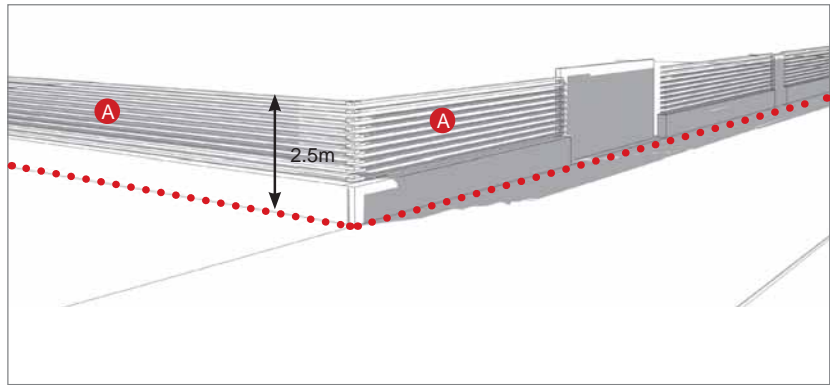
Walls and fencing shall be integrated into architectural designs to enhance and complement campus character.

Designers are encouraged to apply appropriate and innovative texture and colour to perimeter walls.

Service access for kitchens and ancillary functions to be located adjoining street access. Gates to match height of walls and open full width of access drives.

There are additional security measures which should be part of the design that enhance the boundary walls and access points such as security lighting, locks, CCTV monitoring systems, and signage.

The design of the boundary walls should allow for the provision of these items.



.....PROPERTY BOUNDARY

*School Plot Boundary Treatment*

	Components	GUIDELINES
A	Street Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 2.5m high</li> <li>Solid or transparent with greenery (a solid base is allowed) as visual and acoustic barrier</li> <li>Open drop-off permissible if building entrances incorporate secure concierge</li> <li>Service entry to be separate from pedestrian and visitor access and service gates to match height of walls and open full width of access drives</li> <li>Include opaque boundaries that prohibit views to recreational and sports areas.</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>

## REF: LQID-NBTG- Sheet 5/9



Visible entrance, drop off and pick up area



The upper part of the wall can consist of louvres with landscape which provide street enclosure and shaded playspace



Design can include an upper semi-transparent portion

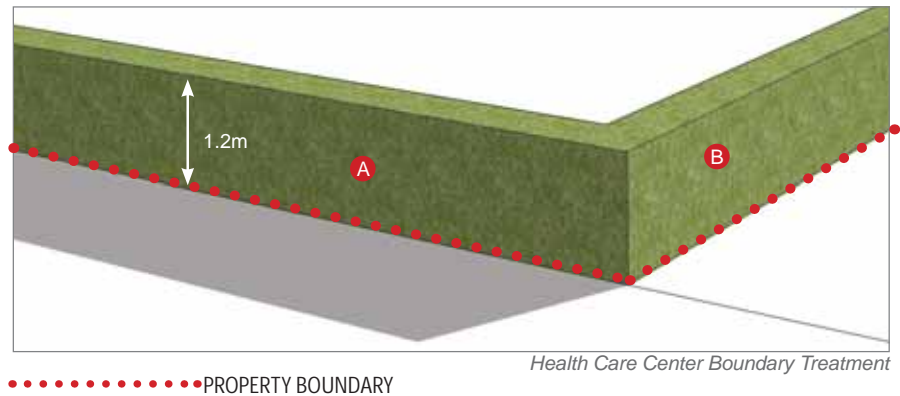


## 2.5.2 NON RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES

REF: LQID-NBTG- Sheet 6/9

### TYPICAL HEALTH CARE CENTER BOUNDARY TREATMENT

Boundary walls for health care center are optional.  
Walls should be constructed within plot boundary line.  
Appearance and texture of boundary walls shall complement the boundary walls within district.



	Components	GUIDELINES
<b>A</b>	Street Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 1.2m high (height is measure from existing ROW edge)</li> <li>Partially transparent, fully transparent or solid</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>
<b>B</b>	Waterfront Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 1.2m high (height is measure from existing promenade edge)</li> <li>Partially transparent, fully transparent or solid</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>
<b>C</b>	Party Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 1.2m high (height is measure from existing ROW edge)</li> <li>Partially transparent, fully transparent or solid</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>

## REF: LQID-NBTG- Sheet 7/9



Transparent boundary wall integrated with landscape



Solid boundary wall with height following existing ROW edge



Solid boundary wall integrated with landscape



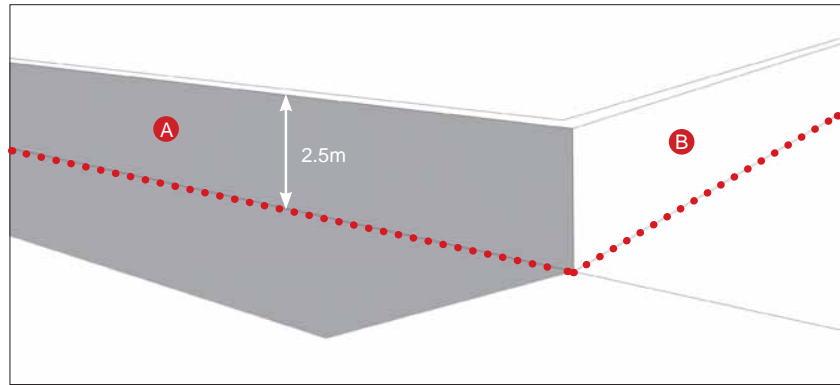
Partially transparent boundary wall

## 2.5.2 NON RESIDENTIAL PLOT BOUNDARY TREATMENT GUIDELINES

REF: LQID-NBTG- Sheet 8/9

### TYPICAL BOUNDARY TREATMENT FOR RECREATIONAL FACILITIES

Recreational facilities include: officers club, harbour master, yacht club and beach club hotel. Boundary walls for recreational facilities are optional. Waterfront and beach boundary walls are not allowed. Walls should be constructed within plot boundary line. Appearance and texture of boundary walls shall complement the boundary walls within district.



.....PROPERTY BOUNDARY

*Recreational Facility Boundary Treatment*

	Components	GUIDELINES
<b>A</b>	Street Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 2.5m high</li> <li>Partially transparent, fully transparent or solid</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>
<b>B</b>	Party Wall	<ul style="list-style-type: none"> <li>Design consistent with facility design, and with boundary walls within the district</li> <li>max 2.5m high</li> <li>Partially transparent, fully transparent or solid</li> <li>Can be integrated with landscape and public realm solutions</li> </ul>

REF: LQID-NBTG- Sheet 9/9



Transparent boundary wall integrated with landscape



Partially transparent boundary wall integrated with landscape



Green boundary wall integrated with landscape



Solid boundary wall integrated with landscape

## 2.6 ARCHITECTURAL GUIDELINES & CONTROLS

### INTRODUCTION & BACKGROUND

**The Architectural Design Guidelines form the basis for a consistent approach to creating a new, ground-breaking, sustainable, high-end development for Qetaifan Islands.**

The development theme for both the architectural elements of the built form and the neighborhood character that extends throughout the different zones were based on the considerations identified in the site analysis undertaken by Parsons and on LREDC's preferences. Various themes and styles including the 2007 Design Guidelines, the 2012 Qetaifan Islands marketing document and the proposed Contemporary Maritime Arabesque theme have been analyzed to come out with the preferred theme to be proposed for Qetaifan Islands. The final direction was given to go with the Mediterranean architecture while respecting the maritime context.

The design guidelines approach is to provide an overview of the architectural character envisioned for the development through a selection of illustrations depicting the vision for the islands. This approach allows design flexibility while focusing the planning and design controls on the plot regulations and the thematic design guidelines.

The overarching Mediterranean theme is the basis for the design of these developments. Variation in design approaches and features applicable to districts are accommodated through the flexibility provided in the toolbox of elements. These guidelines will be used to assist property owners and designers in preparing their designs and the Lusail Design Review Board in evaluating development proposals.

Those constructing a villa on Qetaifan islands should be able to build their 'dream home' and not be restricted. Variations are welcomed, however the 'Design Guidelines' should be followed to ensure that the envisioned 'island lifestyle' is materialized.

#### PURPOSE OF THE DESIGN GUIDELINES

The Qetaifan Islands design guidelines is meant to serve as an advisory document for the LREDC, other agencies and private parties on development aspects for public and private projects. Building on the urban design and master plan principles, these design guidelines are developed to help steward the development of Qetaifan Islands so that it can convey its significance for generations to come. The purpose and use of the design guidelines are to:

- > Ensure that any new construction is consistent with the overall vision and design intent
- > Encourage designs that complement the existing development characteristics
- > Promote context sensitive designs that create a sense of place and uniqueness to Qetaifan Islands
- > Provide property owners with an appreciation of the design intent for the built environment

The architectural Guidelines have been drafted to follow a simple format that defines the translation of the proposed theme within various buildings and districts of the development.

Mood images for non residential uses (mosques, recreation facilities, Marina buildings, healthcare, school and utility buildings) are provided in "Plots & Typology Guidelines & Controls" section.

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



GLOSSARY OF TERMS



**The architectural principles for the preliminary design guidelines are synchronized with the concept master plan principles. They include:**

## CONTEXT/SENSE OF PLACE

Located in Doha, which has a hot climate, the architecture of Qetaifan shall create a contemporary spirit of place that is sustainable and adaptive to its climatic, cultural and social context. It shall have a balance of an architecture that respects the traditions of the region, using design principles that reinforce the urban design of Qetaifan.

Buildings shall respect the topography of the site, and enjoy views towards the ocean and across the hilly landscape of Qetaifan. The Design of spaces shall be oriented to the views and the volumes must allow the houses and the steep terrain to blend in harmony.

## OVERARCHING PRINCIPLES

Maximized orientation towards the waterfront is essential for Qetaifan Villas.

Cooling strategies shall first be addressed through passive means. Building facades should be designed in a way to minimize heat gain and deal with their specific orientation, while using the appropriate screening, orientation, and detailing appropriate to the architectural style.

Sustainable and energy-conscious design elements and techniques shall be encouraged.

## THEMATIC CHARACTER

The Mediterranean theme is the overarching design character for Qetaifan Islands. It is characterized by the use of tiled roofs with large overhangs to provide shade.

## KEY DESIGN ELEMENTS

Various design elements for the residential component of Qetaifan Islands, as well as the Souq, are detailed in this section, including the appropriate usage, aesthetics and feel.





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# THEMATIC CHARACTER: MEDITERRANEAN

## STYLE DESCRIPTION

The selected theme for Qetaifan is the Mediterranean Style. Buildings are slightly formal in appearance. Influences of “Mediterranean Style” architecture, as well as inspiration from North African architecture should be reflected in the details, proportions and materials.

The style must be interpreted in a contemporary way that reflects its historical roots, yet conforming to modern day building practices.

Qetaifan living should also reflect a maritime architecture with maximized views towards the waterfront.

## STYLE INTERPRETATION

### POSITIVE INTERPRETATION



- > Respect of proportions for traditional Mediterranean Style elements
- > Maximized orientation towards the waterfront

### NEGATIVE INTERPRETATION



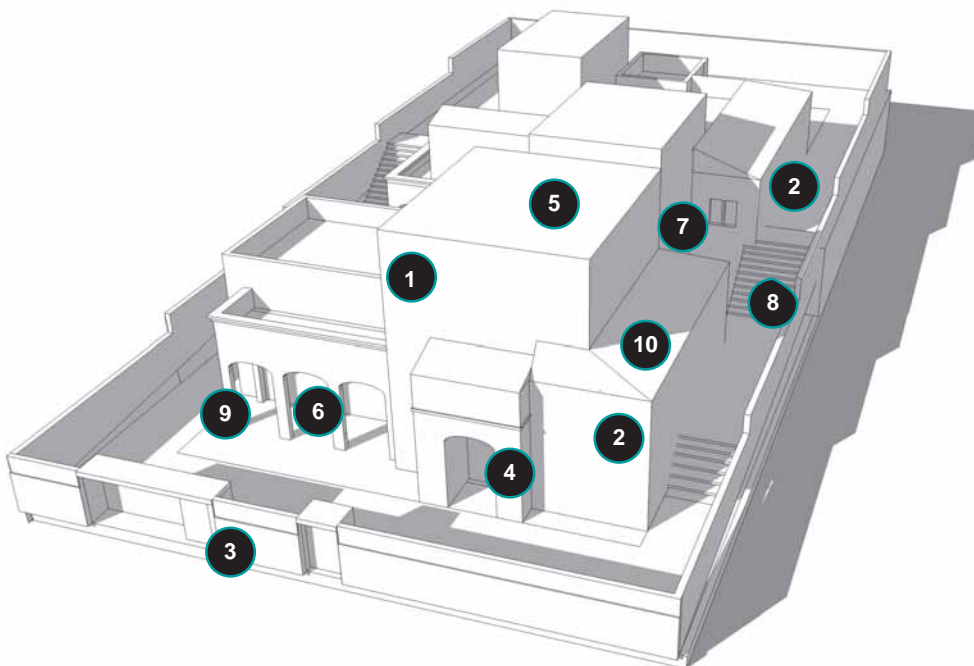
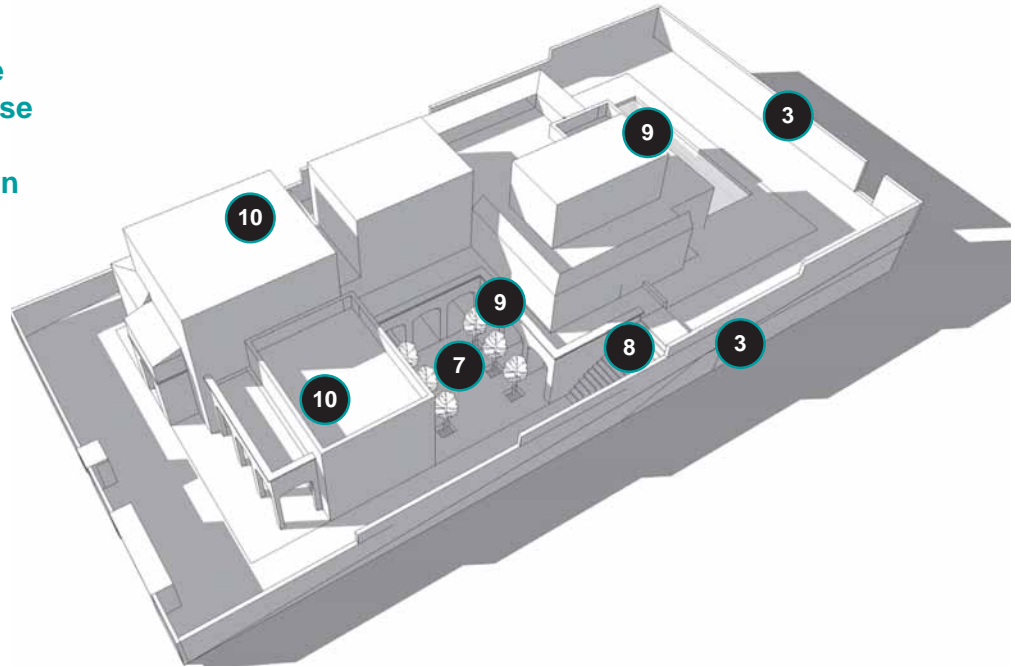
- > Excessive decorative elements and a hybrid style diluted from its historical precedents.
- > Too much sloped roof and terracotta roof tiles
- > Loss of proportion
- > Massive volumes and no volume terracing

## 2.6.1 RESIDENTIAL DISTRICTS - DESIGN GUIDELINES & CONTROLS

REF: LQID-DGC- Sheet 1/9

### KEY DESIGN ELEMENTS

The guidelines for the architectural style are broken down into separate components for ease of identification of relevant information when designing buildings.



- 1 FAÇADES
- 2 MATERIALS & COLOURS
- 3 FENCES & GATES
- 4 OPENINGS
- 5 BALCONIES & TERRACES
- 6 SHADE STRUCTURES
- 7 COURTYARDS/LOGGIA
- 8 EXPOSED STAIRS
- 9 ARCADE
- 10 ROOF COMPONENTS

REF: LQID-DGC- Sheet 2/9

## 1. FAÇADES

## GENERAL

Building façades should be articulated to provide visual interest, while contributing to the character of the street.

The following design parameters should be considered:

- > Number, size, depth and orientation of window openings
- > Offset or change in the direction of wall planes
- > Stepping back of upper stories
- > Feature windows, bay windows, pergolas, screens, overhanging roofs, trellis etc.
- > Articulation in depth, detail and treatment of roof parapets
- > Use of balconies for amenities and architectural detail
- > Careful control of decorative elements, recesses, recessed patterns, beams or scupper extensions
- > Window solid to void ratios: 60% solid to 40% void including minimum 10% with external screening in front of glazing
- > Where larger expanses of curtain walling are created, screening, loggia, and recesses must be incorporated into the design solution



*Building façades should be articulated to provide visual interest*

## BUILDING ILLUMINATION

- > The night image of the building should be a coherent composition in which are clearly recognizable the architectural components of the structure
- > Lighting fixture typology should be carefully chosen in order to minimize the visibility of fixtures and cabling on the façades
- > Lighting of façades is encouraged to accentuate architectural features and reinforce the architectural language.
- > Structural illumination to key elements of the façade reinforces the architectural intent and provides a visual statement of the building
- > Ground level illumination provides lighting in scale to the observer that draws the eye toward key elements in the façade such as points of access, balconies etc.
- > Site and building lighting should be located and directed to prevent impact of glare to adjacent buildings, streets, properties and open spaces
- > For further detail on architecture lighting levels, refer to Lusail Nightscape Master Plan Strategy



*Building illumination*

## MASSING

- > Massing should take into consideration the theme for the Islands. Avoid flat massive elevations that do not reflect the Mediterranean style
- > Massing should also show harmony with site topography



*Cascading façades along with the topography*



*Separation of floors with balconies and arcades*



*The building massing decreases as the building goes higher*

## 2. MATERIALS & COLOURS

### GENERAL

Selection of materials and colours will be influenced by the overall theme of the island (Mediterranean, Islands feel), and by their contribution to the sustainable goals of Qetaifan Islands. Plain walls without decorative joints are encouraged.



### SECONDARY MATERIALS

Secondary materials that are consistent with the local vernacular architecture are encouraged, designed as a feature element. Appropriate building materials can include:

- > Concrete
- > Natural stone in limited areas of the façade
- > Timber

A change in material on the same plane is not permitted unless broken by a recess detail to define a clear separation.

### PRECAST CONCRETE

Precast concrete shall have no exposed aggregate. Highly textured surfaces are not appropriate. Precast concrete is better suited for large applications

### MASONRY BLOCKS

Exposed unfinished or unglazed concrete masonry units and glazed masonry units are not permitted.

### TIMBER

Stained or painted wood of various types/species is permitted as accent elements of a façade. Precautions should be taken to mitigate against climatic damage.

### STUCCO

The finish coat must have a colour coat integral to the stucco.

Only smooth or sandy stucco textures are permitted. Hard coating the finish coat (where additional materials such as glass chunks are mixed in) is not permitted.

### NATURAL STONE

Stone can only be utilized in limited areas. The façade should be read as a uniform plan, with no visible joints. The application should be horizontal.

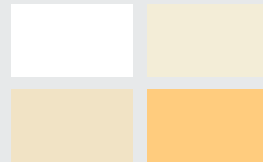
Veneer stone wall materials may encompass both natural and manufactured types. Use of local indigenous stone is encouraged.

### SOLAR PANELS

Individual modular units attached to wall surfaces are prohibited. If modular solar panels are used, they must be installed on the roof.

### COLOURS

In addition to white, bright natural colours are encouraged.



- > White should be the dominant colour of Qetaifan Islands
- > Muted earth tone colours in light shades of pale brown and pale yellow are allowed with limited use.
- > Glazing for doors and windows in shades of grey, brown or clear.
- > Reflective glass is not permitted



*White is the dominant colour for Qetaifan villas*



*Use of light colours*

REF: LQID-DGC- Sheet 4/9

## 3. BOUNDARY WALLS &amp; GATES

## BOUNDARY WALLS

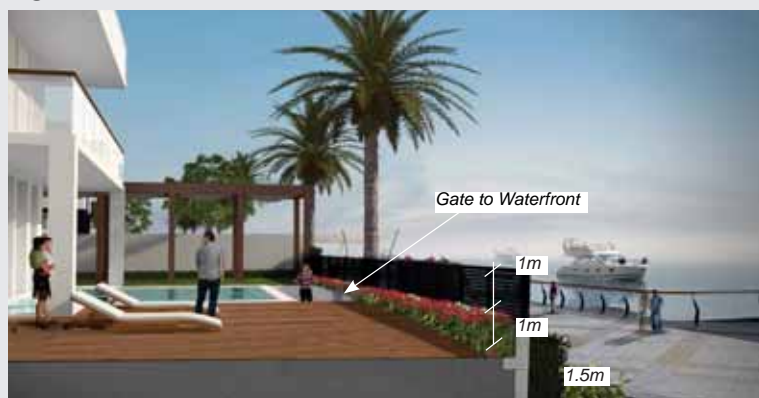
- > Boundary walls to incorporate fenestrations, built-in relief, copings, metal grills, trellises and other features as appropriate
- > Boundary wall design and details are related to their location and plot type. Six categories of boundary walls have been identified:
  - > Street Walls
  - > Party Walls
  - > Park Walls
  - > Waterfront Walls
  - > Beach Walls
  - > Canal Walls
- > Privacy is a key issue between adjacent plots, and at boundary walls separating residential plots from public spaces
- > Further details are provided in Section 2.5: boundary wall guidelines



sample street boundary walls



sample waterfront boundary wall for premier waterfront villas



Privacy along waterfront walls



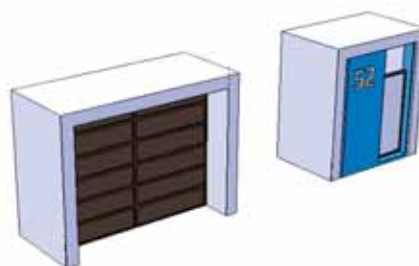
Privacy along park walls

## GATES

- > Parking gates will be aligned with parking location at 3m setback from the plot limit
- > Parking gates can be either combined with main entry gates or a separate structure
- > Heights and dimensions of gates, colours and styles are detailed in the boundary walls section



Parking gate combined with main entry gate



Parking gate &amp; main entry gates as separate structures



Various Mediterranean gates

## 4. OPENINGS

The design of windows and openings shall provide a connection between indoor spaces and outdoor environments through the introduction of sunlight and views into the occupied areas of the building.

As a standard and where applicable, all buildings shall be designed with the followings:

- > Percentage of openings should not exceed 40% of building façades
- > Building windows shall demonstrate a generally consistent design
- > Windows shall follow a proportioning system consistent with the overall building mass and layout
- > Shading devices over windows to reduce glare yet still allow sufficient air circulation are allowed
- > Windows to be placed in a way to ensure cross ventilation
- > Use of high performance, low reflectivity, selective low emissivity glazing on exposed windows to reduce heat gain/loss and noise transmission. All external glazing shall be double glazed
- > Openings shall not allow views into other dwellings and adjacent properties.
- > Use of operable windows to allow breezes and night time cooling of floors and walls is encouraged
- > Use of highly reflective mirrored glazing is prohibited



1 BAY WINDOW

2 ARCADE

3 WALL RECESS

4 EXTERNAL DOORS



Bay Windows



Variety of opening samples



External Doors

REF: LQID-DGC- Sheet 6/9

## 5. BALCONIES &amp; TERRACES

## GENERAL

- > Roof over the balcony can be solid or wooden shading panels
- > Avoid solid balustrades that block the views

## TYPES OF BALCONIES

Below are various types of balconies which can be allowed in Qetaifan Islands:

- > Deep overhangs: Projecting balconies should not have supportive columns. Balconies that both project beyond the adjacent wall surface and recess into the building are Partially Recessed Balconies.
- > Recessed balconies
- > Corner balconies: Corner Balconies shall be bound on either end by building mass and may project beyond the adjacent wall surface when adhering to Partially Recessed Balconies
- > Roof terraces

## RAILING

- > Railing should reflect the Mediterranean feel of the Development, which could be reflected through the simplicity of the design, and choice of materials
- > Railing should reflect the maritime theme and allow for maximized views
- > Stone balustrades are encouraged; wrought iron railing with limited use shall be permitted



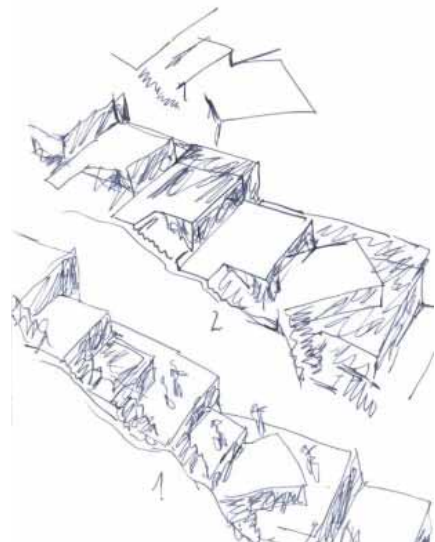
Stone balustrades reflecting the Mediterranean style

## STEPPED TERRACES

Stepped terraces and building recesses shall be encouraged following the topography of the land to create further visual interest towards the water's edge



Terraces oriented towards the waterfront



1 DEEP OVERHANG BALCONY

3 PROJECTED BALCONY

2 RECESSED BALCONY

4 ROOF TERRACE

## 6. COURTYARDS / LOGGIAS

Qetaifan villas should take climatic and social factors into consideration. Courtyards are one way of responding to the context; in addition to providing an enjoyable private open space, they allow excellent ventilation and natural light all-year round, by creating intermediate zones that can differ greatly from the outer climate.

Open courtyards should avoid opening to the North-west quadrant (prevailing wind direction) for protection from sand and dust.

If open courtyards need to face the non-optimal orientation due to plot conditions or other, protection should be provided at the opening by architectural or landscape elements.



*The micro climatic characteristics of open air courtyards can be enhanced with green and water elements, that provide evaporative cooling.*



*Due to the natural topography of the site, courtyard could be one way of providing private open spaces within the villa*



REF: LQID-DGC- Sheet 8/9

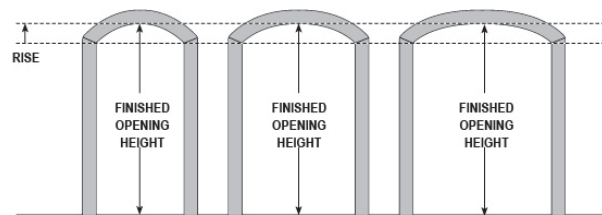
## 7. EXPOSED STAIRS

Qetaifan Villas should blend with the site, especially in steep plots. External stairs leading to exposed terraces, or connecting the site to the villa are encouraged to respond to site challenges.



## 8. ARCADES

Segmental arches are to be used for the openings, doors and windows of the first storey façades; the upper storey windows are usually smaller and less elaborate than those on the main floor. Recessed doors and windows on the main floor can be of rectangular shape as long as they are framed by an arched opening. A harmonious and homogenous result is insured by maintaining the same rise height for arches of different width.



*Openings and windows of different width should have the same rise height in order to achieve a harmonious style.*



*Roof tiles covering all the masses of the villa, along with the balconies and the deep terraces.*

## 9. ROOF COMPONENTS

The overall massing will be mostly covered by a combination of low pitched roofs and flat accessible roof tops. The semi-cylindrical barrel design is to be applied for the roof tiling, which is also a characteristic element of the Mediterranean architecture.

### SCREENING

Property owners and Architects designing Qetaifan Islands residential components should be aware of the special topographic conditions of the site and the visibility of the lower villas roofs from the upper villas, and therefore should be responsible for screening any HVAC equipment of the villas and apartment buildings from views, ideally by enclosing them in rooftop penthouse enclosures.

### EXHAUST

In roof gardens or rooftop terrace locations, exhaust vents shall not occur less than 2.5m above the terrace.



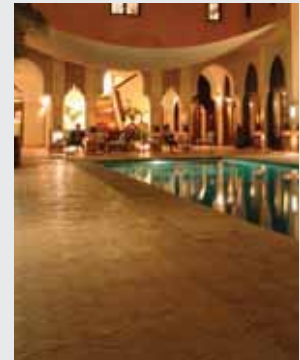
*Different styles for main floor windows and the upper level windows*

## 10. SHADE STRUCTURES & SCREENS

Shade structures are to complement the overall design of the building façade as permanent structures.

If used, overhangs should be made from appropriate materials, including:

- > Roof tiles
- > Canvas (with wood or metal framing) with permanent structures
- > Concrete.



Shading, projection and overhangs are encouraged to provide solar protection and increase the 3 dimensional effect on façades.

Windows (especially those with a high amount of sun exposure), balconies, porches, courtyards, and patios should be designed with measures to protect them from solar heat and prevailing winds.

Appropriate measures include:

- a) Screens / brise-soleils
- b) Shutters
- c) Protective walls
- d) Overhangs



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## 2.7 LANDSCAPE GUIDELINES

### OBJECTIVE AND PURPOSE

The purpose of the landscape guidelines is to provide a comprehensive overview of landscape standards for development of the villa plots. These guidelines will help in a seamless amalgamation of the overall landscape character of the public realm and privately owned residential spaces within Qetaifan island.

The guidelines should conform with the following basic landscape approach:

- > Seamless Interface: Develop well connected hierarchy in open spaces with required discern ability.
- > Design character: strengthen overall neighborhood landscape character and a sense of place by adopting established design elements.
- > Privacy and safety: create safe and pedestrian friendly open spaces without compromising visual and physical privacy.
- > Quality: use of durable landscape materials along with adopting best practices and maintenance guidelines to ensure permanence of these materials.
- > Sustainability: maximize use of trees as shading device for outdoor thermal comfort and reduction in maintenance by selecting naturalized, native and adaptive plant materials.
- > Landscape details to show all the tie-in points with public realm.

Private Landscape Requirements:

MINIMUM DRAWING SUBMITTALS:
GENERAL ARRANGEMENT PLAN
GRADING AND DRAINAGE PLAN
HARDSCAPE LAYOUT
SOFTSCAPE LAYOUT
FIXTURE & FURNITURE LAYOUT
LIGHTING LAYOUT
IRRIGATION PLANS
ELEVATIONS
CROSS SECTIONS WITH LEVELS
HARDSCAPE DETAILS
SOFTSCAPE DETAILS
FIXTURE DETAILS
LIGHTING DETAILS
IRRIGATION DETAILS

- > A qualified landscape architect (LA) should be employed for the landscape design of the plot, the preparation of plans and for the submission to CAC.
- > Adjoining public realm drawings to be referred to by the landscape architect before commencement of a concept design for the private villa plot. Landscape architect to also consult with LCAC LAs before commencement of design.
- > All Civil Defence Authority's rules and regulations and relevant codes to be adhered to while designing, with special care given to fire truck access.
- > Landscape details to show soil depths. Minimum soil requirement for trees and palms on slabs is 1.2m, 600mm for shrubs and 400mm for lawns.
- > Grading and levels of the private plots to match with the public realm achieving a seamless interface with the same.
- > Landscape materials to follow typology presented in the following pages.
- > Driveways and entrances in the plots to be coordinated with the allowed

## PUBLIC AND PRIVATE INTERFACE

### LANDSCAPE FRAMEWORK WITHIN THE DEVELOPMENT

#### General Remarks

The open spaces developed within the neighborhood units maintain a Mediterranean residential landscape character merging gradually to a maritime waterfront. These open spaces act as primary pedestrian links across each island, providing safe, walkable access to the community and recreational spaces. Walkways and cycle tracks form the main mode of movement.

#### Streetscape

Landscape elements along residential and commercial streetscape should be carefully controlled and coordinated to maintain required landscape character and design standards. These landscape elements include water features, hardscape and softscape materials, way finding and signage units, and street furniture such as litter bins, seating, bollards, cycle racks etc.

Landscaping should provide a positive response to the functionality of open spaces. For example:

Streetscape within neighborhood should provide pedestrian friendly environment by introducing safe pedestrian crossings, well shaded walkways and resting areas with sufficient width and buffer.

Landscape elements along road network should enhance easy perception, navigation and movement from moving vehicle without compromising the privacy and safety of residents.

### Public Realm and Community Open Space Landscapes

Landscaping for all public open spaces like Marina Boulevard, residential waterfront promenade, parks and plazas should be carefully coordinated with landscape design and product selection to achieve the approved design intent.

Public open space should provide clear sense of space, functionality and ensure ease of pedestrian circulation.

The following uses are considered to be part of the public open space framework:

- > Parks (Neighborhood, Linear and Pocket Parks)
- > Marina Boulevard
- > Residential Waterfront Promenade
- > Kids play areas
- > Walkways and sikkas
- > Bicycle paths
- > Buffer areas

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



## 2.7.1 LANDSCAPE ZONING

### RESIDENTIAL AND MIXED USE

GLOSSARY OF TERMS



REF: LFHD-LZ- Sheet 1/2

#### RATIONALE

The key objective of the Landscaping Zoning is to influence towards an overall cohesive streetscape ambiance, providing privacy to the residents as well as a pleasant and high quality street environment. Landscape buffering solutions work as secondary layers of privacy opportunity, by creating natural screenings.

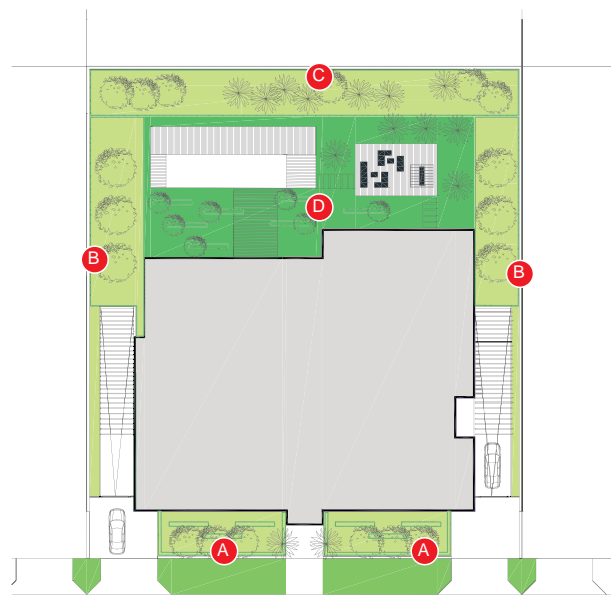
Key objectives are to provide:

- > privacy,
- > screening to avoid overlooking of the private gardens,
- > unifying streetscape through the control of private front buffers.

- > Landscape buffers work as secondary layers of privacy, in addition to boundary walls, by creating natural screens
- > Defined landscaped zones respond to function and privacy issues, as well as aesthetic aspects
- > Proposed landscaped solutions reflect a sustainable approach, attend to climate / water sensitive design solutions, by reinforcing the use of native materials and endemic plants. Plant palettes to be defined for all zones
- > Front and rear buffer planting must create a quality visual amenity when facing the park or other facilities. The objective is to create a pleasant streetscape experience for residents and visitors.
- > When plots are adjacent to other plots, side and rear buffers should reinforce privacy
- > Private gardens to be located on the most visually controlled part of the plot, allowing for private living areas. May include facilities like swimming pool, playground area, or any external seating/dining or children's playground areas

#### SUMMARY OF TYPICAL RESIDENTIAL PLOT LANDSCAPE ZONES

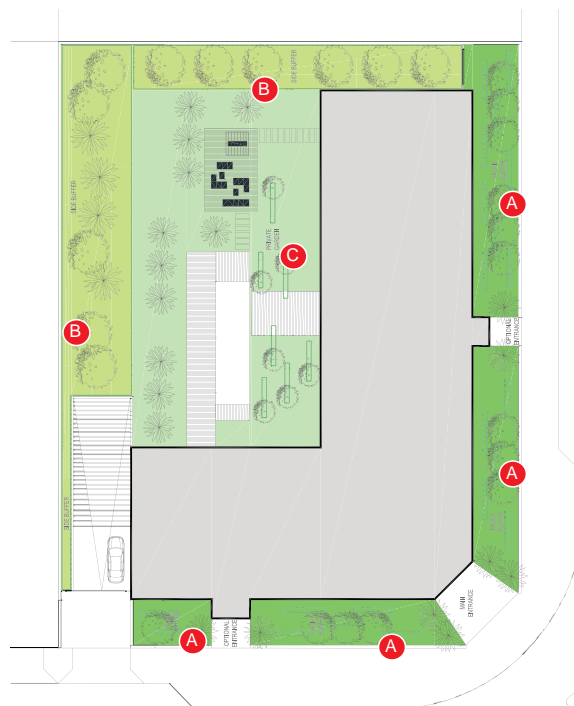
	Compounds	Guidelines and Controls
<b>A</b>	Front Buffer	Refer to mandatory <a href="#">plant palette</a>
<b>B</b>	Side Buffer	Refer to indicative <a href="#">landscape palette</a>
<b>C</b>	Rear Buffer	Refer to indicative <a href="#">landscape palette</a> for abutting plots
<b>D</b>	Private Garden	Refer to indicative <a href="#">landscape palette</a> Refer to <a href="#">landscape guidelines</a> for preferred landscape styles <a href="#">LFHD-LCT-Sheet 1-2/2</a>



## REF: LFHD-LZ- Sheet 2/2

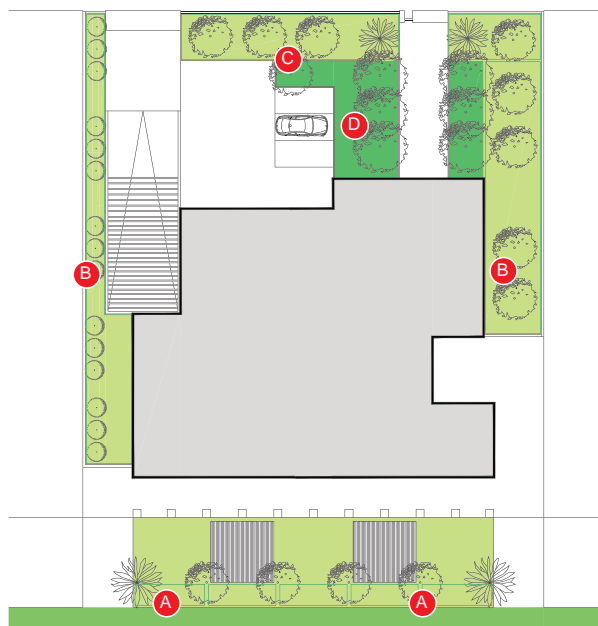
## SUMMARY OF CORNER RESIDENTIAL PLOT LANDSCAPE ZONES

	Compounds	Guidelines and Controls
<b>A</b>	Front Buffer	Refer to <a href="#">mandatory plant palette</a>
<b>B</b>	Side Buffer	Refer to indicative <a href="#">landscape palette</a>
<b>C</b>	Private Garden	Refer to indicative <a href="#">landscape palette</a> Refer to landscape guidelines for preferred landscape styles <a href="#">LFHD-LCT-Sheet 1-2/2</a>



## SUMMARY OF MIXED USE PLOT LANDSCAPE ZONES ( BOULEVARD, SQUARE AND OTHER)

	Compounds	Guidelines and Controls
<b>A</b>	Front Buffer	Refer to <a href="#">mandatory plant palette</a>
<b>B</b>	Side Buffer	Refer to indicative <a href="#">landscape palette</a> Not applicable to square mixed use plots with 0m setbacks
<b>C</b>	Rear Buffer	Refer to indicative <a href="#">landscape palette</a> for abutting plots
<b>D</b>	Private Garden	Refer to indicative <a href="#">landscape palette</a> Refer to landscape guidelines for preferred landscape styles <a href="#">LFHD-LCT-Sheet 1-2/2</a>



## 2.7.2 PREFERRED LANDSCAPE CHARACTER TYPES

REF: LFHD-LCT- Sheet 1/3

### CONTEMPORARY INTERPRETATION OF CLASSIC STYLES

**A contemporary interpretation of a classical style should reflect a refined opulence, utilizing the very highest quality materials in their most simple forms. Modern gardens should rely on hardscaping and structural elements to achieve a minimalist look, with plants used as accents to provide contrast and colour.**

#### Key Design Elements:

- > Highest quality materials;
- > Stonework including walls and paths;
- > Richness of design detailing;
- > Introduction of art and sculpture as focal points in the landscape;
- > Lush vegetation and shade;
- > Privacy walls and gates;
- > Integration of water and water features;
- > Minimal use of traditional forms, details or elements.



### TYPICAL HARDSCAPE TREATMENT

- > Extensive use of natural stone – both honed and aggregate;
- > Bold, interpretive geometric patterns;
- > Sophisticated, well crafted detailing;
- > Shading and outdoor thermal comfort achieved with structural elements more than softscape;
- > Controlled and subtle use of water and water features.



Use of honed finished natural stones



Geometric pattern and minimal furniture



Elements with well crafted detailing



Controlled use of water



Shading with structural elements

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



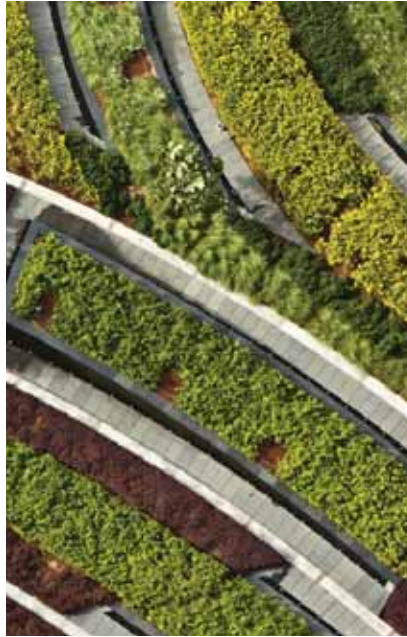
REF: LFHD-LCT- Sheet 2/3

GLOSSARY OF TERMS

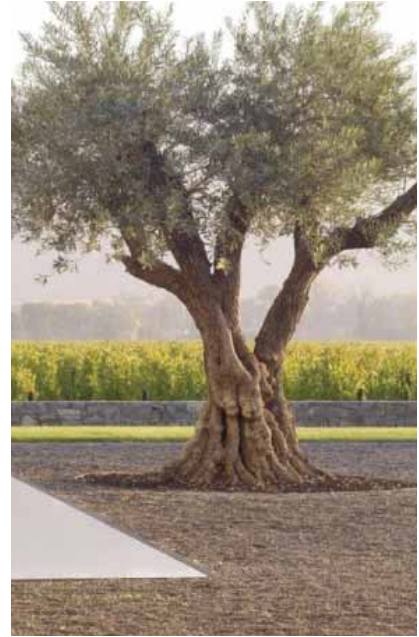


## TYPICAL SOFTSCAPE TREATMENT

- > Trees and palms utilized as focal points, and primarily for visual effects;
- > Careful selection of plant materials for desired colour and textural effects;
- > Softscape is typically lush and green, but restricted to limited areas for powerful contrast against hardscape;
- > Mature plant material utilized in limited areas to add an established character and timeless quality.



Powerful planting contrast



Mature trees as focal points



Controlled use of lawns



Textural planting effects



Water sensitive planting



Trimmed hedges and colourfull ground covers



Colourful ground covers

## REF: LFHD-LCT- Sheet 3/3

## TYPICAL LANDSCAPE LIGHTING TREATMENT

- > Stands out patterns and shapes
- > Increases security sensation avoiding large dark areas
- > Enhances materiality and colour
- > Mature plant material highlighted to produce ambient light helps to recognize spaces
- > Enhances architectural structures
- > Points out key landscape elements



Highlighted mature trees as landscape markers



Enhancing texture, colour and elements



Stands out shapes and forms



Night scenery enrichment



Highlight key architectural structures



Point out key landscape elements



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## 2.7.3 LANDSCAPE COMPONENTS GUIDELINES

ARCHITECTURAL GUIDELINES &amp; CONTROLS



BOUNDARY WALLS GUIDELINES &amp; CONTROLS



LANDSCAPE GUIDELINES &amp; CONTROLS



REF: LFHD-LCG- Sheet 1/12

GLOSSARY OF TERMS



### PLANTING PALETTES FOR KEY ZONES

- > The master developer (CAC) shall review and approve all landscape plans, proposed hardscape materials, plant materials and site furnishing. CAC may approve the use of alternative softscape materials if such materials would result in a superior design and/or improve the appearance of the overall district;
- > The Plant Palette is categorized by the Landscape Zone type and the Plant type (trees, shrubs, groundcovers and grasses and their respective water requirements);
- > The proposed trees should provide adequate shade to the building, footpaths and outdoor living spaces. Mature specimens with high, dense, evergreen canopies should be considered, and planted as early as possible in the development of the site;
- > Drought-tolerant or evergreen desert succulent landscaping, that requires minimal maintenance is strongly encouraged;
- > All landscapes should be adequately maintained in a healthy and attractive state and, if necessary replaced by the property owner, to guarantee the overall quality image of the district;
- > Extensive grass and natural lawn areas should be avoided, and may be considered for approval as an exception, providing that there is a clearly defined use, purpose and minimal area;
- > Irrigation demand is determined by peak water requirements for plant material arranged in groupings;

Tress & Palms	Botanical Name	Common Name	Locally Occuring Species
	<i>Albizia lebeck</i>	Lebeck	
	<i>Ficus cordata</i>	Wadi cordata salicifolia	*
	<i>Millingtonia hortensis</i>	Indian Cork Tree	
	<i>Phoenix dactylifera</i>	Date Palm	*
	<i>Plumeria obtusa</i>	White Frangipani	
	<i>Punica granatum</i>	Pomegranate	
	<i>Spathodea campanulata</i>	African Tulip Tree	

## REF: LFHD-LCG- Sheet 2/12

## Irrigation Classification:









Low Irrigation Required  
 Medium-Low Irrigation Required  
 Medium Irrigation Required  
 High Irrigation Required

Indicative Install Height (m)	Indicative Calliper @ 1m (cm)	Indicative Clear Trunk (m)	Indicative Install Spread (m)	Indicative No Plants per m2	Irrigation Classification	Key Zones			General Guidelines
						Front Buffer	Side Buffer	Rear Buffer	
4-5	14-16	3	4	NA					Plant palette considered to be located on Front Buffers is to be considered as mandatory; Trees the minum calliper indicated are to be full-bodied trees with a shape characteristic of the species; Minimum number of trees to be considered are 3 - a minimum of 1 tree per 10m should be considered except for Mixed Use plots with arcade that should follow arcade guidelines; Miminum soil depth to be considered for planting is 1.0m
4	14-16	2,5	4	NA					
4	14-16	2,5	3	NA					
6	30-32	3,5	3	NA					
						(only to be used as feature tree)		(only to be used as feature tree)	
4	12-14	2,5	3	NA					
						(only for plots along Local Roads)			
3	12-14	2,5	3	NA					
4-5	14-16	3	4	NA					
						(only for plots along Boulevard)			

REF: LFHD-LCG- Sheet 3/12

## PLANTING PALETTES FOR KEY ZONES

































- > Mulch - Trees and Palms shall be installed with Coco Husk Chips and shrubs with Mulch Mat for water retention;
- > Plants to be used shall follow the updated and approved Lusail particular plant palette. New varieties (suggested by consultants) should be proposed and pre-approved prior to planting design drawings are developed and demonstrated to be adoptable to the local Qatar climate condition;
- > Similar Water demand planting zones should be maximized (high and low water planting beds should not be combined in the same irrigation zone);
- > Quality of plants has to follow International standards (e.g. European technical & quality standards for nursery stock);
- > Trees shall have clear trunks of 2.5 m; minimum size of the trunk shall be 120 mm circumference measured at 1 m from ground;
- > General minimum 'on-center' tree spacing requirements: Palms @ 5 m, Shade Trees @ 6 m, Ornamental Trees @ 3 m, Conical trees @ 3 m. Succulents shall be minimum 800 mm centre of plant to edge of pedestrian pavement, seat walls, lawn areas, etc.
- > Staking of trees shall be of stakes 100 mm Ø x 3 m; three stakes in a triangle, fixed together next to the upper end.

Shrubs & Ornamental Grasses	Botanical Name	Common Name	Locally Occuring Species
	<i>Agave americana</i>	Century plant	
	<i>Caesalpinia pulcherrima</i>	Dwarf poinciana/ Peacock flower	
	<i>Carissa macrocarpa</i>	Natal plum	
	<i>Dodonea viscosa</i>	Desert hopseed/ hopbush	*
	<i>Pennisetum setaceum</i>	African Fountain grass	*
	<i>Pennisetum setaceum rubrum</i>	Purple fountain grass	
	<i>Yucca recurvifolia</i>	Yucca / Adams needle	
	<i>Zamia furfuraceae</i>	Cardboard Cycad	

## REF: LFHD-LCG- Sheet 4/12

## Irrigation Classification:




 Low Irrigation Required  
  Medium-Low Irrigation Required  
  Medium Irrigation Required  
  High Irrigation Required

Indicative Install Height (cm)	Indicative Calliper @ 1m (cm)	Indicative Clear Trunk (m)	Indicative Install Spread (m)	Indicative No Plants per m2	Irrigation Classification	Key Zones			General Guidelines
						Font Buffer	Side Buffer	Rear Buffer	
40-50	NA	NA	60-80	1					Plant palette considered to be located on Front Buffers is to be considered as mandatory; Minimum soil depth for planting 0,60m
40-50	NA	NA	40-50	3					
20-30	NA	NA	30-40	8					
40-50	NA	NA	40-50	5					
30-40	NA	NA	30-40	6					
30-40	NA	NA	30-40	6					
50-60	NA	NA	60-80	2					
30-40	NA	NA	40-50	5					

REF: LFHD-LCG- Sheet 5/12

## PLANTING PALETTES FOR KEY ZONES













- > Landscape plans submitted to CAC are to be prepared by a qualified Landscape Architect.
- > The standard list of drawings for approval are to include:
  - General arrangements plan in context with the public realm;
  - site plan inclusive of levels to match the boundary levels;
  - sections through the site indicating depths of soil;
  - hardscape details including planter walls, boundary walls, paving selection, lighting and signage;
  - Softscape details including planting plan and approved planting schedule and Irrigation details.

Ground Covers	Botanical Name	Common Name	Locally Occuring Species
	<i>Adenium obesum</i>	Desert rose	*
	<i>Jasminum sambac</i>	Arabian jasmine	
	<i>Perovskia atriplicifolia</i>	Russian sage	











## REF: LFHD-LCG- Sheet 6/12

## Irrigation Classification:

 Low Irrigation Required 
  Medium-Low Irrigation Required 
  Medium Irrigation Required 
  High Irrigation Required












Indicative Install Height (m)	Indicative Calliper @ 1m (cm)	Indicative Clear Trunk (m)	Indicative Install Spread (m)	Indicative No Plants per m2	Irrigation Classification	Key Zones			General Guidelines
						Font Buffer	Side Buffer	Rear Buffer	
20-30	NA	NA	30-40	8					Plant palette considered to be located on Front Buffers is to be considered as mandatory; Minimum soil depth for planting 0,40m
30-40	NA	NA	30-40	8					
20-30	NA	NA	30-40	10					

## HARDSCAPE MATERIALS

Components	Guidelines	Reference Images	
<b>Hardscape Materials</b>	> pavings should relate to paving selected for adjacent public areas.		
		Wooden deck : composit timber	Wooden landscape elements
			
		Sandstone : Honned finish	Sandstone : Teakwood finish
			
		Granite : Honned finish	Granite : natural finish cobbles
			
		Concrete pavers : shotb lasted	Gravels
			
		Screening : green walls	Screening : corten steel







REF: LFHD-LCG- Sheet 8/12

## STREET FURNITURE

Components	Guidelines	Reference Images
Landscape Furniture	<ul style="list-style-type: none"> <li>&gt; Landscape furniture for spillout spaces can be selected from the indicative material and character palette.</li> <li>&gt; Landscape furniture elements (benches, bollards, bins, etc.) should relate to street furniture selected for adjacent public areas.</li> </ul>	          








REF: LFHD-LCG- Sheet 9/12

## WATER FEATURES / POOLS



















Components	Guidelines	Reference Images
<b>Pools</b>	<ul style="list-style-type: none"> <li>&gt; Within the buildings.</li> <li>&gt; Pools located above ground to be treated as balconies – screened for privacy, enclosed and overlooking.</li> <li>&gt; Consideration to be given to swimming pool plant location and noise control with regard to adjacent buildings.</li> </ul>	 
<b>Water Features</b>	<ul style="list-style-type: none"> <li>&gt; Water features are beneficial to create visual impacts and cooling ability.</li> </ul>	   

REF: LFHD-LCG- Sheet 10/12

## SHADING STRUCTURES






Components	Guidelines	Reference Images
Shading	<ul style="list-style-type: none"> <li>&gt; Whenever there are good planting conditions, trellises should be covered with climbers or vines.</li> <li>&gt; A minimum of 80% of continuous shade should be provided to all primary walkways.</li> <li>&gt; A minimum of 60% of continuous shade should be provided to secondary walkways.</li> <li>&gt; A minimum of 80% of car park spaces within private plots should have shade structures.</li> <li>&gt; 90% of shade coverage should be considered for all primary play areas.</li> <li>&gt; A minimum of 40% of shade coverage should be provided to informal play areas.</li> </ul>	   
Parasols and Pergolas	<ul style="list-style-type: none"> <li>&gt; Parasols and Pergolas on the spillout spaces can be selected from the indicative materials and characters palette.</li> </ul>	   

## LIGHTING

Components	Guidelines	Reference Images
Lighting	<p>External lighting within Neighbourhood plots should consider the following elements:</p> <ul style="list-style-type: none"> <li>&gt; help to recognise spaces like external living areas, driveways, entrances, stairs, steps and walls considering privacy and security of neighbouring villas</li> <li>&gt; Enhance materiality texture and colour of Architectural and Landscape elements avoiding light pollution.</li> </ul>	     
	<p>External lighting along waterfront development should consider the following elements</p> <ul style="list-style-type: none"> <li>&gt; help to enrich night scenery by highlighting plot boundaries, entrances, viewing decks, and landscape focal points</li> </ul>	  
	<p>Lighting fixtures within private plots should follow the approved LUSAIL materials</p>	  
	<p>Use of low-level or pedestrian lighting such as bollards, in-ground lights, steps and wall lights is encouraged</p> <p>Treats, risers and any other differences of level along pathways should be illuminated</p> <p>Use of LED and high efficiency lighting should be prioritized</p>	     

REF: LFHD-LCG- Sheet 12/12

## IRRIGATION

Components	Guidelines	Reference Images
Irrigation	<ul style="list-style-type: none"> <li>&gt; Irrigation systems are required for all planting areas and must be fed by a dedicated supply tank and operated automatically. Plans and proposals for utilising potable/ or non-potable water for landscaping are to be included in the landscape design and submitted for review and approval.</li> <li>&gt; Provision of water irrigation storage should be considered for all plots - preferably located below the ground level. This should collect roof drainage, floodwater, and grey water from household waste systems. The quality of the water should be monitored and chemically balanced.</li> <li>&gt; Irrigation water consumption must be kept to an absolute minimum, as determined by the appropriate plant material and irrigation method/ system selection.</li> <li>&gt; Efficient drip irrigation systems are preferable, and should be employed and included in the landscape design. The use of spray and flood irrigation systems is discouraged, and should not be considered. Only in instances where drip and other water-efficient irrigation systems are proven not feasible, may spray and flood irrigation systems be proposed and reviewed as an exception. In such instances, the landscape architect must demonstrate that other systems are not feasible. Irrigation is not permitted within 65 cm of any building foundation.</li> </ul>	    

## 2.8 SUSTAINABILITY GUIDELINES

### OBJECTIVES AND PURPOSE

**This section provides good practice environmental sustainability guidelines to the design of energy and resource efficient buildings and thermally comfortable outdoor spaces**

**Sustainability guidelines are defined based on the following Design Principles:**

This section provides good practice advice for the design of sustainable buildings. The advice given is indented to minimise the energy demand, CO2 emissions and the environmental pollution associated with building construction and operation.

It focuses primarily on the bioclimatic design of the architectural components that have the greatest impact on building energy efficiency and human thermal comfort and secondly, on the wider requirements of the sustainable selection of building materials, of water conservation and waste management.

The bioclimatic design advice is based on the analysis of the climate in Doha, using the standard historical weather data for building thermal performance simulation available for that location.

The climate analysis includes the psychrometric chart, the solar trajectory, daily temperature variation, seasonal solar radiation intensity and wind frequency.

The design advice provided is intended to reduce the thermal stress associated with solar radiation exposure, maximise the potential for natural ventilation and daylight of buildings and maximise comfort in outdoor spaces, using passive strategies.

The sustainability advice relating to building materials, water and waste is based on international building sustainability standards.

### CLIMATE

#### General

The climate of Doha is hot and mostly dry with solar radiation excess all year round. There is a need for cooling from April to mid-November and a mild need for heating in January and February. The temperature is above the comfort zone from mid-May to October. During this period shading of buildings and open spaces can greatly reduce the need for mechanical cooling and promote thermal comfort. During the transition seasons, when the Relative Humidity rises above average for this location, natural ventilation can also partly offset the need for mechanical cooling.

Wind is predominantly from Northwest all year round. The south-westerly continental winds bring the highest temperatures.

#### Passive Design Strategies

There is a significant potential to use passive design strategies to offset the need for mechanical cooling in this climate.

A degree of thermal mass combined with night-time purge ventilation can be used to reduce indoor peak temperatures. This strategy is effective all year round except during the hottest summer months (July - August).

Natural ventilation can provide comfort in the mid-season, mainly in March, April, May, October and November.

Passive solar heating is applicable in January and February. This strategy is effective if south-facing glazing combined with a degree of thermal mass for heat storage is provided.

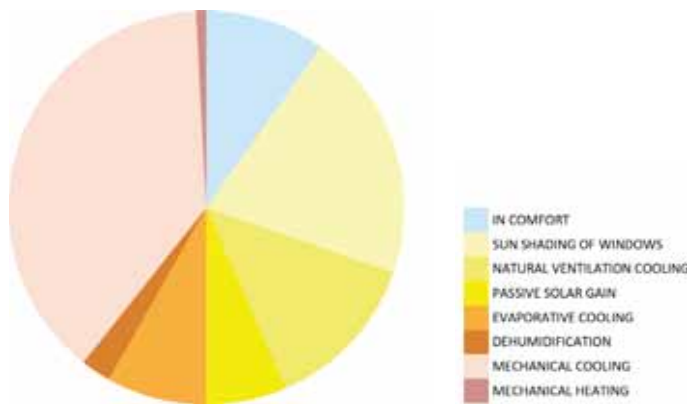
Evaporative cooling, the reduction of the ambient temperature by the addition of water, can effectively increase comfort in the mid-season particularly in April, May, June, October and November.

Finally, the significant temperature difference between night and day in this location can be used to promote night-time radiative and convective cooling.

## HOW TO READ THE SUSTAINABILITY GUIDELINES

### DESIGN COMPONENT

Describes the design requirements and strategies for an architectural component to meet good practice energy and environmental targets.

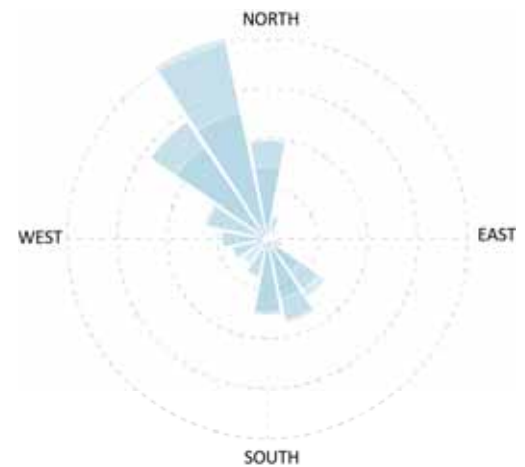


### Active and Passive cooling strategies for Doha

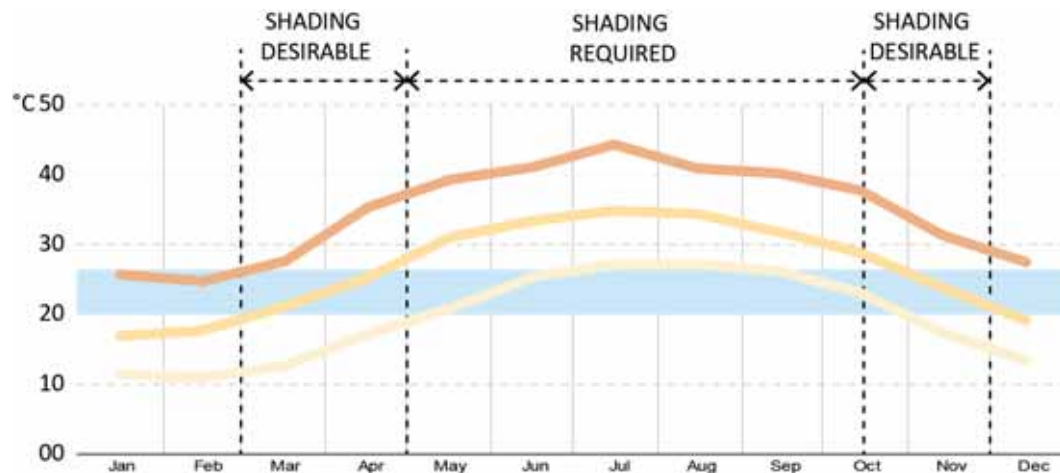
This chart shows a summary of the psychrometric analysis. It shows that passive design strategies (shading of windows, passive solar gain and natural ventilation) can provide comfort for 40% of the year in this climate. Strategies such as evaporative cooling and dehumidification that can be provided by active or passive means can deliver comfort during 11% of the year. There is a need for active cooling during 39% of the year.

### DIAGRAM

Shows illustrative diagrams of the design requirements and strategies for an architectural element.



Annual Wind Frequency in Doha



Temperature and shading requirements

In Doha the average temperature is above the comfort zone from March to November. Shading should be provided particularly when the maximum temperature is above the comfort zone (critical period).

## 2.8.1 SUSTAINABILITY GUIDELINES & CONTROLS

ARCHITECTURAL GUIDELINES &amp; CONTROLS

BOUNDARY WALLS GUIDELINES &amp; CONTROLS

LANDSCAPE GUIDELINES &amp; CONTROLS

REF: LFHD-SG- Sheet 1/6

GLOSSARY OF TERMS

### BUILT FORM

#### Orientation

- > Building position and orientation within each plot is defined by plot size and by the architectural guidelines of this document.

#### Massing

- > Promote compact building forms, with low surface envelope to building volume ratio. (Fig.1)
- > Courtyards, basements, pools and wind catchers can be used to provide passive pre-cooling and reduce convective heat gains from ventilation.
- > Building form can be used to increase permeability to sea breezes, and provide protection of outdoor spaces from solar radiation, adverse winds and sand storms.

### DIAGRAM

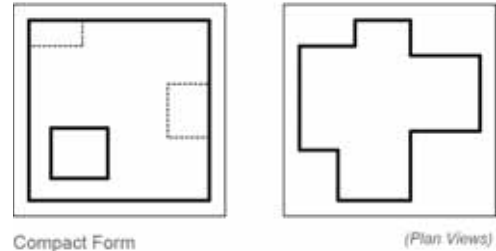


Fig. 1 - Compact form.

### PLAN DEPTH

#### Daylight and natural ventilation

Typically, rooms can be naturally lit and naturally ventilated up to a 6m plan depth.

To maximise daylight and natural ventilation of rooms, the building's maximum plan depth should not exceed the plan depths recommended in Fig.2.

- > 9 to 13m for double-sided buildings, and
- > 8m for single-sided buildings.

When the building plan depth exceeds the above values, consider the creation of a courtyard to increase daylight and natural ventilation penetration should be considered.

Examples of possible massing options for the recommended building's plan depth are provided in Fig.3.

#### Plan depth for views out

In order to maximise the opportunity for views out, the highest percentage of regularly occupied floor space should be within the building's 7m perimeter zone (from the façade).

### DIAGRAM

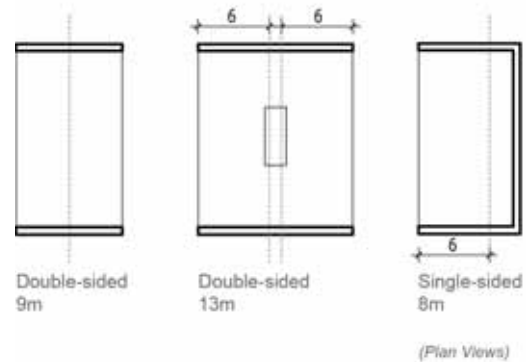


Fig. 2 Recommended building's floor depth.

### FACADES

The facades of a building should be primarily designed to avoid solar gain at all times, for all building types. Additionally, the facades of residential buildings should be designed to take advantage of the benefit of passive solar gain in winter time.

- > Whenever possible, preference should be given to maximise south and southeast façade surface area and minimise west and southwest facade surface area.
- > Whenever possible, blind walls to prevent overlooking should be located west and/or north, to reduce the overall building facade exposure to sun.

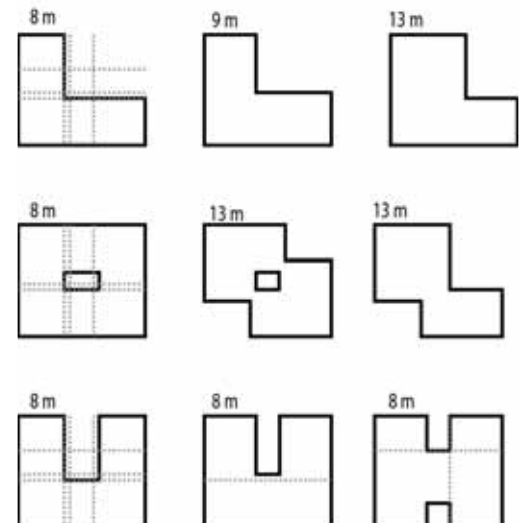


Fig.3 Possible massing options for recommended building's floor depth.

## REF: LFHD-SG- Sheet 2/6

## WINDOWS

Windows have a significant impact on the thermal, daylight and natural ventilation performance of buildings.

**Percentage of window to wall**

To reduce the need for mechanical cooling, the percentage of window to wall area should be defined based on the window glass properties and the presence of shading devices.

A small window area can have the same performance as a larger window area with a lower G- value (solar transmittance) and lower U- value (thermal transmittance). A small window area can also have the same performance as a larger window, as far as the later is protected by a shading device (Fig.4).

In this location, the non-shaded window area should not exceed the following values, for a medium quality double-glass with a G-value of 0.4.

- > South = 35%
- > North = 40 %
- > West = 25 %
- > East = 35%

These percentage values can be used as a reference of good practice for this climate.

**Daylight and views out**

When combined with the recommended building plan depths, the percentages of window glazing recommended above will allow reasonable levels of daylight.

Due to the coastal location of several Lusail districts, it is expected an increase of the window area to maximise the views out.

Shading of windows should be provided whenever the window area is increased above the levels recommended above.

Table 1 provides information regarding the degree of shading required for different glazing percentages and the percentages of glazing to avoid, per façade orientation.

For a building's maximum window area, maximum infiltration rate, window G-value and window U-value, refer to the requirements established in *Gord, 2014, Lusail City GSAS 2 Star Rating*.

## DIAGRAM

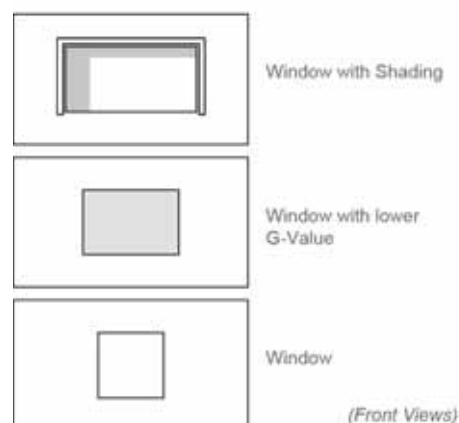


Fig. 4 - Possible variations of window size for the same performance

Orientation	Glazing Ratio																			
	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%	100%
North																				
Northwest																				
West																				
Southwest																				
South																				
Southeast																				
East																				
Northeast																				

	Possible without shading
	Provide shading
	Provide higher degree of shading
	Avoid

Table 1 - Shading requirement based on glazing percentage and façade orientation

## SHADING DEVICES

Shading devices can greatly reduce the need for mechanical cooling of buildings in this location.

## Need for shading

- > Solar protection should be provided to all window orientations by shading devices or by window encroaching (balconies, loggias).
- > All facades should have some degree of vertical (side) shading, for protection from low sun angles.
- > All facades apart from north need horizontal shading. Open balconies are not recommended.
- > A degree of frontal shading (screens) should be provided when the vertical and horizontal shading devices, or the degree of encroaching of a window, cannot provide enough protection (Fig. 5).

## Type and size

- > East and west windows need detached frontal shading (screens, mashrabiya, louvers). These can be fixed or movable.
- > South-facing windows need horizontal and vertical shading. Depth of horizontal elements should be  $0.3H$  (min) to  $0.5H$  (best), where  $H$  is the height of the window. Alternatively, provide frontal shading with movable screens and louvers.
- > North-facing windows should have vertical shading with depth of  $W/3$ , where  $W$  is the width of the window (Fig.6).

## Daylight and natural ventilation

- > All frontal shading devices (screens) should be permeable to light and air. Porosity to light and air should be defined according to the size of any other shading elements and the room plan depth.

## DIAGRAM

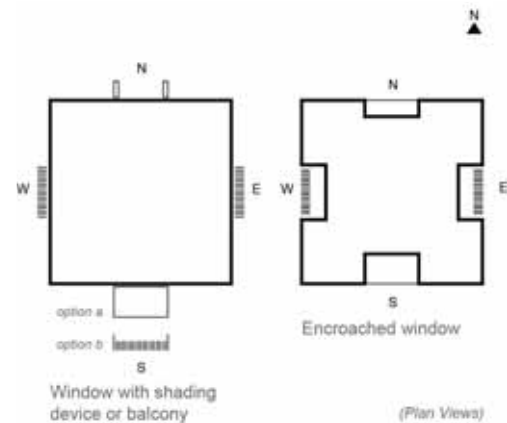


Fig.5 - Recommended shading device type per orientation

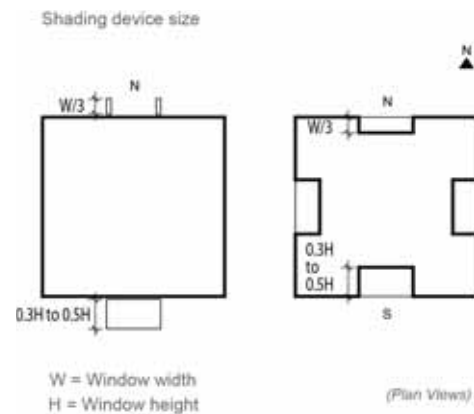


Fig.6 - Recommended shading device sizes

REF: LFHD-SG- Sheet 4/6

## ROOFS AND ROOF TERRACES

### Roof shading

Roofs are the building surfaces that are the most exposed to solar radiation and for that reason they have a significant impact on the thermal performance of buildings and on the local microclimate.

Roofs also assist in the building's night-time radiative cooling process by long-wave radiation to the cold sky.

Ideally rooftop surfaces should be protected from sun to prevent heat built-up. However, shading devices at roof level should also be permeable to allow for night-time radiative cooling (e.g. pergolas, trellises) (Fig.7).

### Materials and finishes

In order to minimize heat island effect, roof materials and finishes should be reflective, particularly in non-shaded areas (Fig.7). However, care should be taken to avoid glare, particularly in areas that are directly visible from other buildings.

The ground and rooftop surfaces reflectance should be higher than the reflectance of the building site pre-development (estimated as 29% for desert soil). This is generally achieved with light-coloured paints and finishes.

For roof U-values and absorption coefficients refer to the requirements established in *Gord, 2014, Lusail City GSAS 2 Star Rating*.

## DIAGRAM

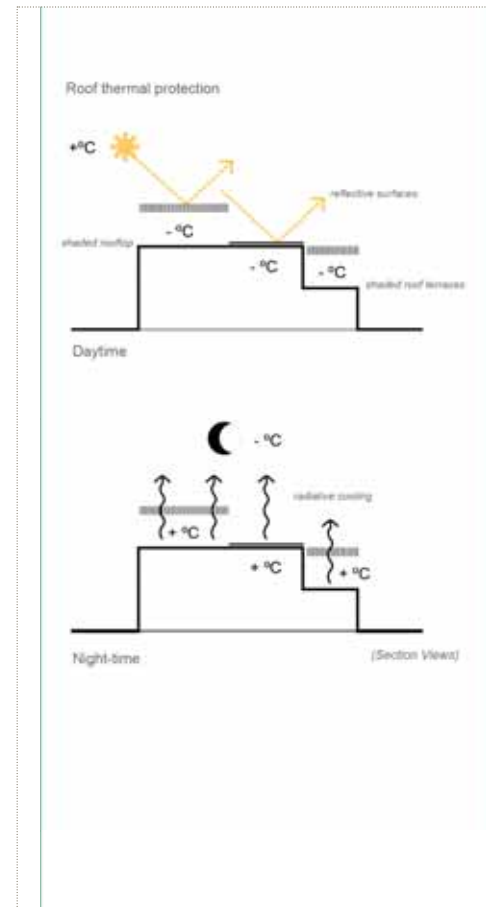


Fig.7 - Roofs and roof-terraces.

## LANDSCAPING

The landscape design has a great impact on the thermal performance and water consumption of the buildings and on the comfort of outdoor spaces.

### Irrigation

Use low-impact vegetation to reduce irrigation demand by maximising the use of native species and by reducing lawn areas.

### Shading

Landscape elements should be articulated with the massing, particularly by assisting in the protection of outdoor areas from sand, dust and solar radiation. Trees, in particular, should be planted taking the solar trajectory into consideration in order to provide shading to pedestrian walkways and outdoor spaces, particularly in the spaces where some permanence is expected (Fig. 8).

### Wind protection:

Whenever possible, the proposed landscape should act as wind barrier and placed in the northwest prevailing wind direction.

## DIAGRAM

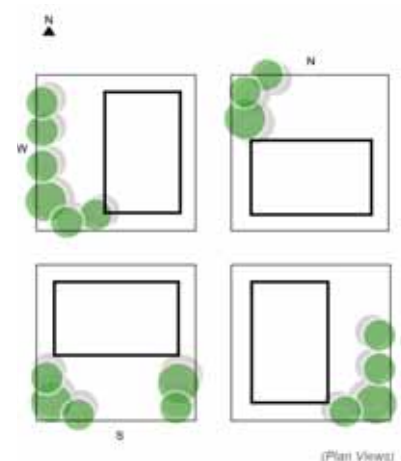


Fig.8 Outdoor space: providing shading with Trees

## MATERIALS

Building material extraction, manufacture, transport maintenance and disposal have a significant impact on the environment. Materials selected and specified should not contribute to the depletion of natural resources, particularly of non-renewable natural resources.

### Extraction and manufacture

- > Use regionally manufactured and assembled materials and building elements. Materials should be preferably sourced within a 200 kilometre distance from project site (Fig.9).
- > Use responsibly sourced materials for primary infrastructure elements in order to minimize the depletion of non-renewable materials. Responsibly sourced materials follow the standards established in ISO 26000, originated from sources with ISO 9001 accreditation and adhere to the principles covered by ISO 14001. Aim at a minimum 20% (of the total materials cost) of responsibly sourced materials and at a desirable > 50%, for best performance
- > Use materials made from recycled content in order to reduce the need for virgin materials. Aim at a minimum 5% (of the total materials cost) of recycle content and at a desirable > 20%, for best performance.

## DIAGRAM



Fig.9 - Regional Materials.



Fig.10 Responsible sourced material standards.

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REF: LFHD-SG- Sheet 6/6

### OTHER RECOMMENDATIONS

Other design recommendations to be considered during the design and planing of buildings that will promote sustainability are:

#### External Lighting

The design strategy for external lighting has an impact on the energy consumption of buildings and on the visual quality of the local night-sky.

- > External lighting fixtures should be oriented to the elements to illuminate and be of limited power density (w/m<sup>2</sup>).

#### Water

- > Specify water efficient equipment and fixtures (e.g. low-flush and dual flush toilets).
- > Consider collection and re-use of non-potable water for irrigation.
- > Consider treating sewage on site.
- > Use native & adaptive plants only (with nominal or no-irrigation requirements).
- > Minimise the use of potable water for irrigation by recycling rainwater and/or grey water, and by using low-water irrigation systems.

#### Waste

- > Provide capacity to compost or recycle on site.
- > Provide a location for composting/recycling facilities with adequate capacity.
- > Create and implement a waste collection system.

#### Rainwater

- > Design all external pavement for improved infiltration (including external parking).
- > Create and implement a rainwater drainage and storage plan.
- > Create and implement a rainwater treatment and reuse plan.

## 2.9 GLOSSARY OF TERMS & CHECKLIST

### GLOSSARY

#### ACCESS POINT

Place or way by which pedestrians and / or vehicles have a safe access (ingress and egress) to a the plot / parcel.

#### ACCESSIBLE AREA

Any built area whether internal or external that is intended for use and occupation by residents, workers or other users.

#### ARTICULATION

An expression given to architectural components (windows, balconies, facades layering, height variations etc.) brought together to create a complementary & variety of massing, rhythm or pattern, modulation and detail of building facades.

#### ARCHITECTURAL FEATURE

An architectural component(s) (including windows, balconies, facades, height variations or other devices) used for emphasising the landmark position or status of a building or structure.

#### ACTIVE STREET FRONTAGE

The portion of a building at ground floor occupied by visible active uses (such as retail, food & beverage, lobby areas, community facilities and other publically accessible uses) and facing a public space and/or public street.

#### AMALGAMATED PLOTS

A group of individually purchased plots collected to form a single development plot.

#### ANCILLARY BUILDING

An ancillary building is a support building, such as: outside kitchen, Majlis, servant's quarters, storage, gate house etc. Different setback rules apply to different ancillary buildings (see Individual Guidelines Sheets).

#### AREA

The surface extent, measured in square units, of a building, a site or a neighbourhood. In residential design

this term is used to indicate a function, such as work area, recreation area, etc.

#### ASPECT

Compass orientation of building or plot in relation to due south.

#### AUTHORITY

The local body having jurisdiction over the matter referred to.

#### BALCONY

An accessible open platform enclosed by a parapet wall or balustrade that extends out from a building elevation, with access from a door or window.

#### BASEMENT

A room or rooms or area, under a building, in part or wholly below ground level. Habitable room or rooms or area are permitted in a basement, subject to natural lighting and air conditioning provisions. All habitable areas are included in the GFA unless stated otherwise (see GFA description).

#### BOUNDARY LINE (PLOT)

The line or plane indicating the limit or extent of the plot area.

#### BAY WINDOW

A window forming a bay and which projects outwards from the wall of the room.

#### BOUNDARY WALL

A structure that defines an area, demarcating the property line and providing security.

#### BUILDING ENVELOPE

The building envelope is the total 3-dimensional area in which the buildings are permitted and defined by the minimum setback lines and the maximum building height restrictions.

#### BUILDING HEIGHT

Building height is the vertical distance measured from the base of the elevation defined within each Plot's Regulation to

the top of roof slab above the building's highest habitable level.

#### BUILDING LINE

The line formed by the main external face of the building, excluding any balcony or bay window projects.

#### BUILDING ROOF

Accessible and / or Non-Accessible roof areas that form a cover over the highest point of the building that is above any habitable area.

#### BUILDING SETBACK

The minimum required distance between a plot line and the furthestmost projection of a building or a structure.

#### BUILD TO LINE

An alignment established by a certain distance from the right-of-way line to a line along which a designated façade of a building must be built on.

#### BUILT-UP AREA (BUA)

See FAR.

#### CANOPY

A roofed shelter projecting over an outdoor parking space, driveway, entry zone, window, or similar area that may be wholly or partially supported by columns.

#### COMMUNITY FACILITIES

Facilities (such as schools, churches, hospitals, theatres, etc.) provided either by government or non-government agencies for the benefit and use of the community.

#### DESIGN CONTROLS

Set of mandatory rules provided by the Master Developer to the Purchasers and their design teams. These might be at the overall Masterplan, District or individual Plot level.

#### DESIGN GUIDELINES

Set of guidelines provided by the Master Developer to the Purchasers and their

design teams, to assist and guide them and ensure development proposals meet best design practice in line with the high-quality development vision of LREDC at the overall Masterplan, District or individual Plot levels.

### EASEMENT

A non-possessory right to use a land owned by others for the purposes of providing pedestrian, emergency or other access, public accessible open space, utility equipment, reserves and accesses and any other provision required by the Master Developer, Utility Provider and/or Government Agencies.

### FLOOR AREA RATIO (FAR)

The ratio used to control the size of a building in relation to the size of the plot. The ratio is calculated by dividing building's total GFA by the plot area.

### GROSS FLOOR AREA (GFA)

Gross floor area is the total of the horizontal areas of each floor of a building or structure, measured from the exterior face of the exterior walls or from the centerline of a common wall separating two buildings or structures, above the finished grade. The finished grade is the final level of the ground surface after grading. When the finished grade has two or more different levels, the final level shall be established by the lowest point of the building relative to the plot line and kerb line subject to the satisfaction of LREDC. Open and non-conditioned terraces set-back from the elevation maybe excluded from the GFA at the discretion of LREDC.

#### Included in Gross Floor Area:

- > Any enclosed habitable space above or below finished grade level that is used by residents, customers or employees.
- > The floor area directly below any atrium shall only be counted once;
- > Enclosed habitable areas on a

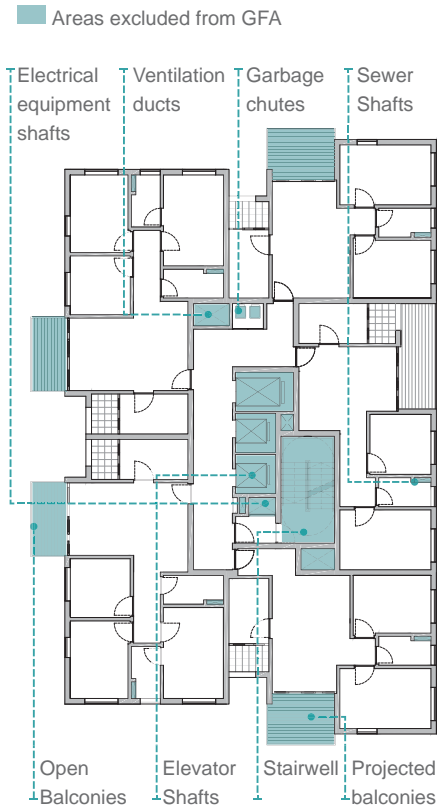
rooftop such as a penthouse or similar enclosed space used by residents, customers or employees;

- > Balconies enclosed on three sides, recessed in or projected from the facade plane of the building.

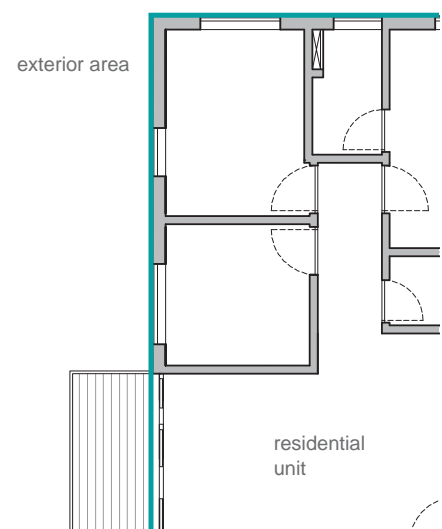
#### Excluded from Gross Floor Area:

- > Open Balconies
- > Balconies open on 2 sides
- > Storage, mechanical equipment shafts, electrical equipment shafts, sewer pipe shafts, garbage collection areas and chutes
- > Stairwells and elevator shafts
- > Any space permanently open to the sky;
- > Projecting architectural and shading devices such as fins, shades or louvers;
- > Rooftop terraces and rooftop equipment enclosures;
- > Parking areas, above and below ground

For more clarity, a schematic illustration of GFA exclusions and measurement line is provided on the right.



GFA measured from exterior face of exterior walls



**GSAS**

Global Sustainability Assessment System.

**HABITABLE ROOMS**

Any enclosed room, area or space intended for use and occupation by residents, workers or other users.

**LATTICEWORK**

A panel consisting of a crisscrossed pattern of strips of building material, typically wood, metal or stone. The main purpose of the latticework is ornamental as well as a privacy provision.

**MASHRABIYA**

Type of projected bay window enclosed with carved wood latticework. It is a component of traditional Arabic architecture style, mainly associated with residential but also public buildings. The key objective of Mashrabiya is to provide the privacy.

**MEZZANINE**

An elevated and part floor structure of maximum 60% of the total area of the floor immediately below, used for retail, commercial or service facility. Its entrance shall be from the ground floor level and its height shall not be more than 3m, provided that the height of the ground floor including the mezzanine floor shall not be more than 6m. It shall have a minimum of 2 means of egress and adequate means of fire escape that meet recognised best international construction, building and safety practice and codes.

**PALACE**

A residential building on a minimum plot size of 3,000m<sup>2</sup> and minimum 2,000m<sup>2</sup> of BUA (including ancillary buildings and structures). Could be created on the plots as the result of an amalgamation of individual plots and their respective, allowed GFA.

**PARKING SPACE**

A physical space used exclusively for parking of vehicles.

**PARTY WALL**

A dividing partition between two adjoining plots that is shared by the tenants of each residence or business. The wall is positioned along a property line dividing two plots, so that one half of the wall's thickness lies on each property. This type of wall is usually structural.

**PENTHOUSE**

An apartment built on a portion of the roof or top floor of a building. Typically, such units are larger and more luxurious than most apartments.

**PIER (IN THE CONTEXT OF THE BOUNDARY WALL)**

A pier is an upright support for a structure.

**PLINTH (IN THE CONTEXT OF THE BOUNDARY WALL)**

Plinth is the base or platform upon which a column or structure (panel) rests. The plinth usually rests directly on the ground.

**PLOT**

A single or multi- ownership plot.

**PLOT COVERAGE**

Portion of a plot or building site that is occupied by any building or structure, typically expressed as a percentage of occupied footprint area to total plot area.

**RIGHT OF WAY (ROW)**

A strip of land that is granted, through an easement or other mechanism, for transportation purposes. A right-of-way is reserved for the purposes of maintenance or expansion of existing services within the right-of-way.

**REGULATIONS**

Set of mandatory rules provided by Master Developer to Purchaser

and their design team. These might be at overall Masterplan, District or individual Plot level.

**SETBACK**

A regulated, minimum required distance between a plot boundary line and the furthestmost projection of a building or a structure.

**SURFACE PARKING (WITHIN THE PLOT)**

Parking spaces provided within a plot at ground level.

**STREET FRONTAGE**

The linear extent of the front of the buildings helping to visually define the street's edge.

**TERRACE**

An enclosed platform above ground level that is open to the air and accessible from a door or window.

**UTILITIES**

Drainage of soil and water and supply of water, chilled water for air-conditioning purpose (if applicable), electricity, gas (if applicable), telecommunications, garbage clearance system (if applicable) or other similar services.

## CHECKLIST

The checklist is to be used by owners, developers and design teams to review their proposals against the specific planning and design guidance in Section 2. Before completing the Checklist, it is expected that the Guidance will have been reviewed and where required adjustments made to the proposal to ensure compliance. The appropriate boxes in the checklist must be “ticked” to indicate compliance with the guidelines. In a case of non-compliance, a comment indicating the reason for not following the guidance must be provided. The Checklist should be submitted to the CAC Planning review team in accordance with the Proposal Review procedures indicated in Section 1.

PLOT REF:	
OWNER/DESIGN TEAM:	
PLOT DESCRIPTION:	
DATE:	
SIGNATURE:	



SECTION	GUIDELINE SHEET	COMPONENT	COMPLIES
2.4	PLOT TYPOLOGY GUIDELINES & CONTROLS		
2.4.1	LFHD-RTPG- SHEET 1/8	GENERAL PARAMETERS	
	or LFHD-MUPBG- SHEET 1/8	Setbacks	
	or LFHD-MUPRVG- SHEET 1/8	Building Heights	
	or LFHD-MUPOG- SHEET 1/8	Built Up Area (BUA)	
		Plot Coverage	
		Site Levels	
		Access and Servicing	
		Basement and Parking	
	LFHD-OPG- SHEET 1/2	OPPORTUNITY PLOTS	
		Heights	
		Setbacks	
		Levels	
2.4.2	LFHD-AG-Sheets 1-10	AMALGAMATION CONTROLS	N/A
		Residential Plots	
		Mixed Use Plots	
2.5	BOUNDARY WALL TREATMENT GUIDELINES & CONTROLS		
2.5.1	LFHD-BTG-Sheets 1-10	BOUNDARY TREATMENT	
		Street Wall (height & appearance)	
		Side/Rear Wall (height & appearance)	
		Highway Wall (height & appearance)	
	LFHD-ATG-Sheets 1-8	Arcade Treatment (only for MU plots)	
2.6	PLOT ARCHITECTURAL GUIDELINES & CONTROLS		
2.6.1	LFHD-GDG-Sheets 1-10	GENERAL DESIGN GUIDELINES	
		Facades	
		Material & Colours	
		Openings	
		Projections	
		Shading & Privacy	
		Arcades	
		Roof Components	
		Lighting Design	
		Building Signage	
		ARCHITECTURAL CHARACTER	N/A
2.6.2	LFHD-RDP-Sheets 1-6	Residential	
2.6.3	LFHD-MUDP-Sheets 1-6	Mixed Use	
2.7	LANDSCAPE GUIDELINES		
2.7.1	LFHD-LZ-Sheets 1-2	LANDSCAPE ZONING	
2.7.2	LFHD-LCT-Sheets 1-2	LANDSCAPE CHARACTER	
2.7.3	LFHD-LCG-Sheets 1-12	LANDSCAPE COMPONENTS	
2.8	GLOBAL SUSTAINABILITY ASSESSMENT SYSTEM (GSAS)		
2.8.1	LFHD-SG-Sheets 1-6	SUSTAINABILITY GUIDELINES	



**PARSONS**

