PLANNING & DESIGN GUIDELINES

North Residential Villas &
Waterfront Residential Villas
Districts

LUSAIL CITY

REV 1
MARCH 2016

CONTENTS

INTRODUCTION

The masterplan for Lusail has evolved since 2006 and comprises detail 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 Lusail 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 of the districts. 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 of the documents, comprises 2 sections:

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

Document Organisation

Section 1:
Masterplan Overview

Section 1 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.

Section 1 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
> Overall guidelines applicable to all development within Lusail Masterplan.

Image by others

Section 2:
District Design Guidelines & Controls

Section 2 provides 2 layers of design guidance:

- District Wide: These guidelines set out a series of District wide urban design frameworks explaining the design context for individual or multiple plot development
- Parcel & Plot: These guidelines explain the design parameters and approach to be used by sub-developers at parcel and plot level.

The District wide guidelines explain the key development and planning principles for each neighbourhood 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

Plot 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

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

SECTION 1

MASTERPLAN OVERVIEW

CONTENTS

Aerial photo of the site area - October 2013

1.1 PURPOSE OF SECTION 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 over arching 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.

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 land located just north of the city of Doha

1.2.1 LUSAIL LOCATION & CONTEXT

Lusail is located north of Doha (see 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 (see 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, mixed-use, 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 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 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 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 compliment 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:

> **Id**entifiable, 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

THE DISTRICTS

Lusail features a number of different districts, each placed to reinforce the next, and designed to reflect latest best practice

The masterplan shown in Figure 3, is made up of 19 Main Districts, each with their own character and purpose.

The 19 Districts are:

> GOLF DISTRICT

> NORTH RESIDENTIAL VILLAS + WATERFRONT RESIDENTIAL VILLAS

> AL KHARAEJ

> WATERFRONT COMMERCIAL – SEEF LUSAIL

> FOX HILLS (NORTH DISTRICT AND SOUTH DISTRICT)

> AL ERKIYAH

> STADIUM DISTRICT

> BOULEVARD COMMERCIAL + LUSAIL TOWERS

> ENERGY CITY 1 - CORPORATE

> ENERGY CITY 2 - RESIDENTIAL

> ENTERTAINMENT CITY

> ENTERTAINMENT ISLAND

> MEDICAL EDUCATION

> QATAR PETROLEUM

> MARINA DISTRICT

> QETAIFAN ISLANDS (NORTH DISTRICT AND SOUTH DISTRICT)

> WATERFRONT RESIDENTIAL

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

Figure 3 - Illustrative Masterplan (image by others)

LUSAIL DISTRICT DESCRIPTIONS

GOLF DISTRICT

The Golf District comprises 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	1,800,000m²
Building Heights	2-5 levels

NORTH RESIDENTIAL VILLAS + WATERFRONT RESIDENTIAL VILLAS

Villas (North and West) is a planned community to serve the local population with large villas in high quality vernacular or contemporary style architecture. A total of 895 villas are planned.

Density/Height: Low

Development Summary

Land Area	126 Ha + 52 Ha
Population	7,100
Total	5,400 Residents
GFA	950,000m²
Building Heights	2 levels

AL KHARAEJ

Located strategically between the Golf course and the Waterfront Residential area, the Al Kharaej Towers are 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	550,000m²
Building Heights	15-20 levels

STADIUM DISTRICT

The Lusail Stadium District will be the host venue for the opening-closing ceremonies and centrepiece of the 2022 FIFA World Cup, Qatar. With a net capacity of 80,000 spectators, the stadium and support facilities with other mixed uses will occupy 100 Ha. of land within Lusail City. It will be served by the Lusail LRT system and have pedestrians links to the Doha Metro.
The architecturally innovative stadium design will incorporate latest sustainable technologies and maintain its sporting functionality beyond the main events. Other uses within the site will complement and fully integrate with the rest of Lusail City.

Density/Height: As required

Development Summary

Land Area	100 Ha
Total Population	87,000 Event Visitors
Expected GFA	750,000m²
Building Heights	TBD

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	940,000m²
Building Heights	20-36 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	1,000,000m²
Building Heights	4 levels

LUSAIL DISTRICT DESCRIPTIONS

WATERFRONT COMMERCIAL – SEEF LUSAIL

The Waterfront Commercial District is a retail and 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	690,000m²
Building Heights	3-15 levels

FOX HILLS (NORTH DISTRICT AND SOUTH DISTRICT)

The Fox Hills District is 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	2,100,000m²
Building Heights	5-8 levels

AL ERKYAH

The Al Erkyah master plan is an integration of a mixed-use residential district interlinked with open space networks and unique commercial and medical land use. The vision for this district is to maintain a healthy environment by minimizing internal traffic and congestion. This medium-density district will 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	640,000m²
Building Heights	8-10 levels

ENERGY CITY 2- RESIDENTIAL

Energy City 2 is a high density Residential Development to cater to the housing needs for 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 hallmark this development.

Density/Height: Medium

Development Summary

Land Area	46 Ha
Population	20,700
Total	18,000 Residents
GFA	980,000m²
Building Heights	5-7 levels

ENTERTAINMENT CITY

The Qatar Entertainment City accommodates 2,000 residential units, 11 hotels, a cineplex, nightclubs, theme parks and shopping spaces.

Density/Height: Medium

Development Summary

Land Area	98 Ha
Population	32,400
Total	8,400 Residents
GFA	1,020,000m²
Building Heights	4-13 levels

ENTERTAINMENT ISLAND

Linked to the Qatar Entertainment City, this island caters to providing entertainment facilities and hotels with a recreational theme.

Density/Height: Medium

Development Summary

Land Area	23 Ha
Population	4,200
GFA	220,000m²
Building Heights	2-12 (for hotel only)

LUSAIL DISTRICT DESCRIPTIONS

MEDICAL & EDUCATION

A Community District with schools, hospitals and associated medical suites and staff accommodation nested amongst lineal parkland.
Lusail City and its neighbouring 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.

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

Density/Height: TBD

Development Summary

Land Area	164 Ha
Population	TBD
GFA	1,150,000m²
Building Heights	TBD

QATAR PETROLEUM DISTRICT

Within the 45 Ha. site, the district will be developed as a corporate office campus and regional headquarters of Qatar Petroleum, with numerous public and private spaces connecting the iconic forms of the buildings. The site will be served by the Lusail LRT system and is located in close proximity to Al-Khor highway and the Lusail Marina Interchange. The cluster of office buildings of Energy City-1 and Qatar Petroleum will together create renewed business synergy for the energy sector in Qatar.

Density/Height: TBD

Development Summary

Land Area	45 Ha
Population	TBD
GFA	447,550m²
Building Heights	TBD

MARINA DISTRICT

This is the Downtown of Lusail comprising high-rise towers for office, residential, mixed-use, hotel and retail uses connected to a continuous boardwalk.
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	3,600,000m²
Building Heights	15-60 levels

QETAIFAN ISLANDS (NORTH DISTRICT AND SOUTH DISTRICT)

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/ boutique hotels, traditional Souks and a marina for 400 large boats will be accommodated along its waterfront.

BOULEVARD COMMERCIAL + LUSAIL TOWERS

This is the heart of Lusail City comprising 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 Elysées with a focus on branded mega stores and a range of commercial and cultural activities.

Density/Height: Low

Development Summary

Land Area	256 Ha
Population	37,500
Total	15,000 Residents
GFA	1,980,000m²
Building Heights	2-4 levels

BC - Density/Height: Medium / Low

Boulevard Commercial Summary

Land Area	52 Ha
Population	20,900
Total	5,500 Residents
GFA	760,000m²
Building Heights	3 - 6 levels (F.Center 7-12)

LT - Density/Height: High

Lusail Towers Summary

Land Area	16 Ha
Population	19,300
GFA	620,000m²
Building Heights	55-80 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 accommodating the Premiere 2022 FIFA World Cup Flagship Stadium venue that will feature the 2022 World Cup Opening Ceremony and final play-off matches.

Strategically, this ensures that Lusail City will achieve an International destination status that will ensure positive implications for Lusail's residents, businesses and visitors alike.

Several World Cup stadia are in Lusail which will become an international destination for the city's visitors, businesses and residents.

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, mixed use development.

> Amenities: beaches, golf, marina berths.

Figure 4 - Land Use Plan

1.4 MASTERPLAN STRATEGIES (CONT.)

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 provide 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. This means 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. This means 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

1.4 MASTERPLAN STRATEGIES (CONT.)

The transport strategy makes provision for all modes and facilitates comprehensive access by road and by sustainable transport as well as fully integrated infrastructure

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.

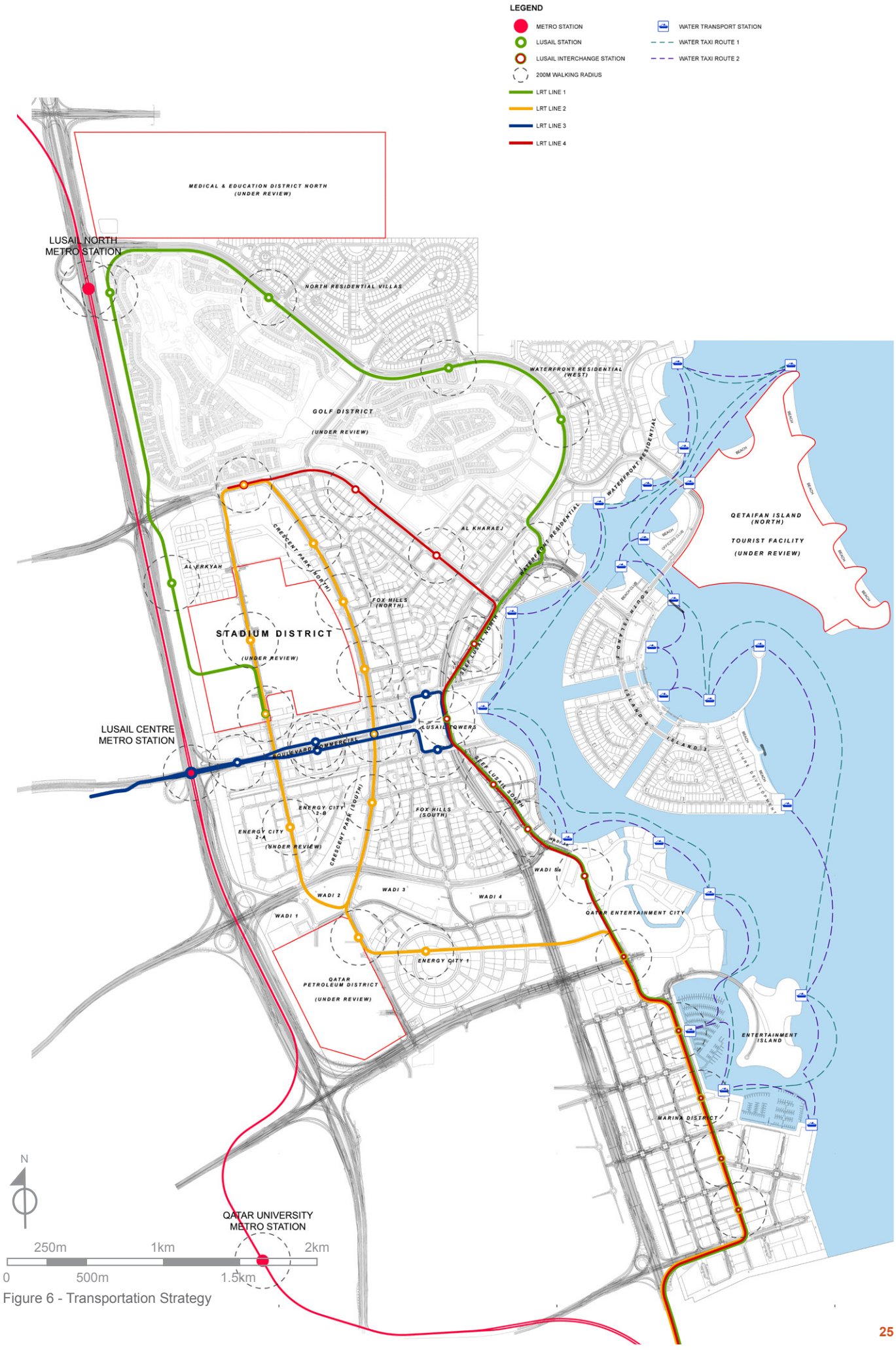


Figure 6 - Transportation Strategy

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 Design

A high quality Private and Public Realm is a 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 detail of all landscaped areas to the parcel / plot not limited 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 minimise energy and to water consumption to landscape areas that should use native and drought 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 beach front 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 the storage of fuel and oil is 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.

1.5 MASTERPLAN REGULATIONS (CONT.)

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 to parking spaces. 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 provision shall also be made for access and parking of bicycles, motorbikes, and motorcycles in appropriate locations.

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 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 Design

Storage areas for waste material must be carefully design 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 relevant Authority standards and 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 be visible and do not affect 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 area should be provided with adequate lighting so as to ensure safety and security.

1.5.3 BUILDING CODES

Qatar Building Codes & Regulations

All Design 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 maybe 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 are subject to Master Developer Approval.

The Plot Building Regulations are mandatory, the guidelines in Sections 1 & 2 provide supplementary controls and guidance that are to be adhered 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 with the Plot Building Regulation sheets are to be read and used in conjunction. This will ensure that Owners and Sub-Developers and other Stakeholders in the project have a full understanding of the mandatory regulations and the design intent, principles and guidance that is 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

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 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 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 (MoI)
- Gulf Organization for Research & Development (GORD)

Written evidence of all such approvals, permits, No Objection Certificates (NOCs), or other permissions (if required) must be submitted to CAC in advance of construction.

1.6 REVIEW & APPROVAL PROCESS (CONTD.)

1.6.4 OVERVIEW OF REVIEW AND APPROVAL PROCESS

The following paragraphs describe the overall development and design review and approval process that includes the following key steps:

Step 1 . Project Initiation with Lusail City

Step 2 . Pre-Application Meeting (Optional)

Step 3 . Concept Design Review & Approval

Step 4 . DC1 - Design Control 1 Review & Approval

Step 5 . Temporary Building Permit (Optional)

Step 6 . Services Review

Step 7 . DC2 - Design Control 2 Review & Approval

Step 8 . Building Permit

Step 9 . Certificate of Completion

PLANNING & DESIGN GUIDELINE CHECKLIST

A planning & design 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 Guideline 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 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 requirements for the star–rating the project is seeking to achieve.

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 3rd 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 3rd 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 and 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 critical that proposed Architectural Designs identify and consider realities of its interface with infrastructure, city utilities and tie-in methodology. Each Plot's specific infrastructure conditions will help determine constructability of underground structures, preferred enabling works system (shoring or open excavation), and extent of basement parking setbacks. They may further impact on above grade Public Realm or neighbouring plot construction, pedestrian / vehicular access and driveways, and internal landscape design.

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.

1.6 REVIEW & APPROVAL PROCESS (CONT.)

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 MoI 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.

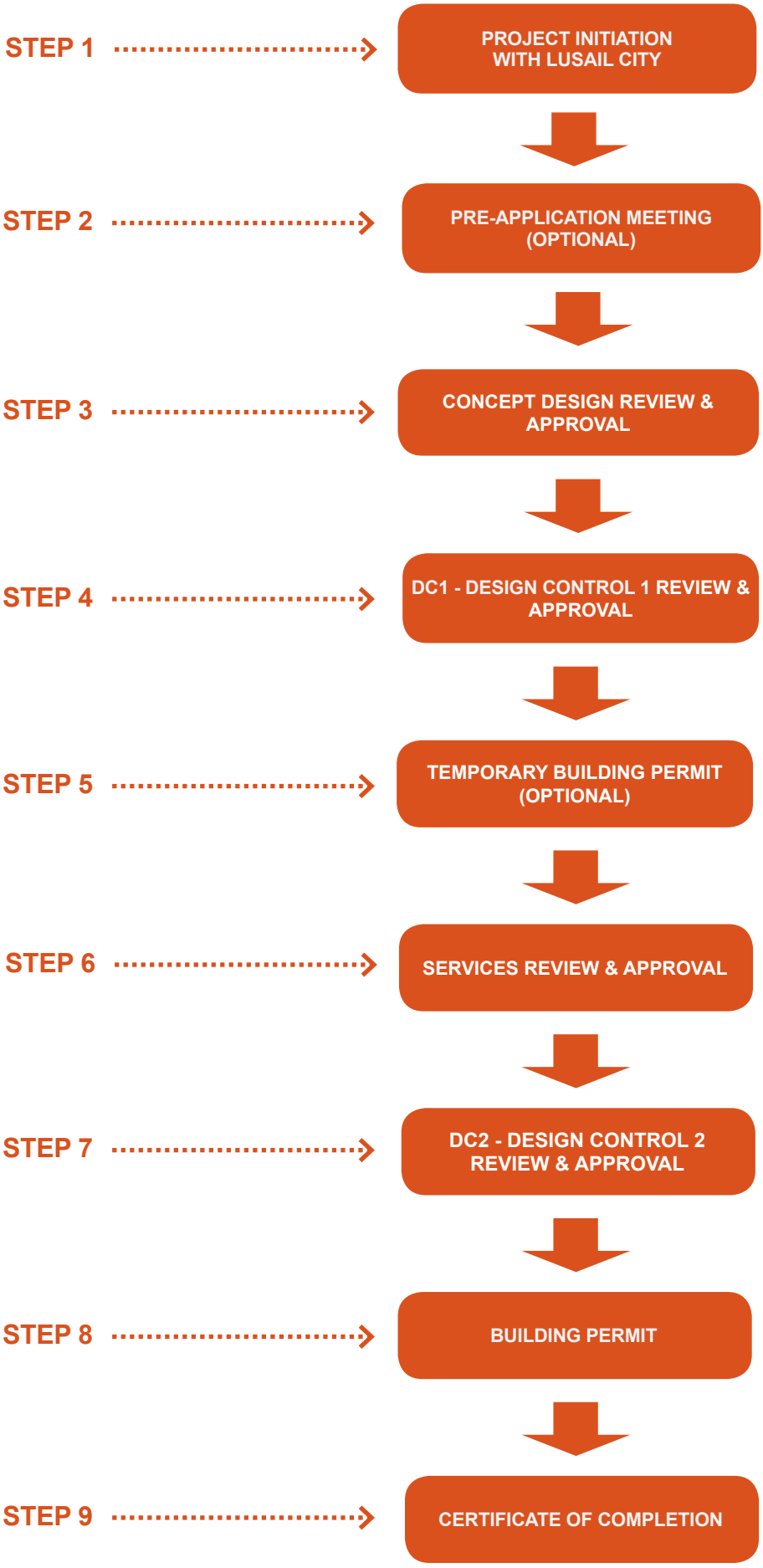
Access to site for enabling works must follow LREDC's Site Access for Construction Procedures

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


STEP 1
PROJECT INITIATION WITH LUSAIL CITY
STEP 2
PRE-APPLICATION MEETING (OPTIONAL)
STEP 3
CONCEPT DESIGN REVIEW & APPROVAL
STEP 4
DC1 - DESIGN CONTROL 1 REVIEW & APPROVAL
STEP 5
TEMPORARY BUILDING PERMIT (OPTIONAL)
STEP 6
SERVICES REVIEW & APPROVAL
STEP 7
DC2 - DESIGN CONTROL 2 REVIEW & APPROVAL
STEP 8
BUILDING PERMIT
STEP 9
CERTIFICATE OF COMPLETION

SECTION 2

DISTRICT GUIDELINES & CONTROLS

CONTENTS

2.1 HOW TO USE THE DESIGN GUIDELINES & CONTROLS

This document provides an overview of the district, outlined through a number of layered design frameworks. Detailed Design Guidelines & Controls included in the sections of this document will guide owners, sub-developers and their advisors, allowing compliant designs to be developed for individual plots.

THE DISTRICT OVERVIEW

To ensure good understanding of the context, the summary of the key urban design strategies has been included within this Section. These will inform the designers about the overall strategies related to land use distribution, access, massing and other strategies.

THE NEED FOR DESIGN GUIDELINES & CONTROLS

The guidelines are to ensure that quality of construction remains in line with the ambition and expectations of the masterplan. In particular they are conceived to bring about a positive and cohesive urban character, through a comprehensive package of agreed codes that reflect local needs and current international construction standards. These are to be read in conjunction with the Building Regulations Sheets issued on purchase of each plot.

Improving on previous controls

It has been decided to prepare a single family of related documents that will enable all parties to understand the potential offered by the development opportunity, and the standards by which the design and construction work will be set against.

Key objectives

> Cohesive approach to massing, form and materiality
> Appropriate distribution of uses and form within each plot
> Sound inter-plot relationships
> Appropriate strategies for access and utility provision
> Flexibility to cope with contemporary needs and demands, including plot aggregation.

Mandatory status

For the purpose of this document, the term **Guidelines** is a suggestion, made to assist the design process, for information purposes only. The term **Controls** refers to rules which are mandatory and must be adhered to, these are highlighted in black for immediate clarity.

HOW DO THE DESIGN GUIDELINES & CONTROLS WORK?

The guidelines provide an authoritative source book of building forms suitable for each plot within the district. Section 2 can assist the owner in selecting the design advice that best suits their functional needs in terms of size/ capacity, accessibility, outlook, privacy and proximity to facilities.

Guide for plot owners

Existing title holders will have reviewed the masterplan in Section 1 to select the most appropriate district for their needs. They can refer to Section 2 for further clarification of the structure of their chosen district. It contains overall district strategies such as: land use designation, open space provision, connectivity and massing. Having understood the context of the district, they will use Design Guidelines & Controls section in conjunction with the existing Building Regulations, to guide them through the design process.
The Guidelines & Controls provide clarity on aspects such as privacy, boundary walls, architectural materials and styles and landscape treatments.

Navigation

The digital version of the Section 2 can be downloaded from **www.lusail.com**. Hyperlinks connect the Content Page with the key sections of the document and guidelines and the design Check List.

2.2 DISTRICT OVERVIEW AND KEY DESIGN STRATEGIES

2.2.1 LUSAIL MASTERPLAN CONTEXT & VISION

North Residential Villas & Waterfront Residential Villas Districts comprise two adjoining low-density residential community districts of the Lusail development, providing distinctive and well-appointed family orientated neighbourhoods.

North Residential Villas District will be a tranquil, affluent self-contained residential suburb. Waterfront Residential Villas District aims to become the Beverly Hills of the development with outward views of the Gulf beyond.

NORTH RESIDENTIAL VILLAS & WATERFRONT RESIDENTIAL VILLAS DISTRICTS

The Districts are located in the Northern part of the Lusail masterplan and are predominately residential neighbourhoods featuring low density family-friendly districts with ample amenities including schools, sport facilitates, mosques and local shops served by a network of open spaces and shaded routes to encourage walkability and social interaction.

NORTH RESIDENTIAL VILLAS

This will become a prestigious residential enclave, positioned with ready access to the full range of facilities at Lusail including its golf courses, business districts, waterfront hotels and beaches.
The district will appeal to families with a range of reputable schools for all ages, with walkable access and cycle ways via verdant parks and green spaces.
The district forms a self-contained enclave with distinctive boundary wall treatments and landmark buildings framing its gateway approach to evoke a pride of place.
The villas feature a range of different possible design styles to cater for a range of tastes, with boundless opportunities for each parcel owner and resident to create their own living environment.

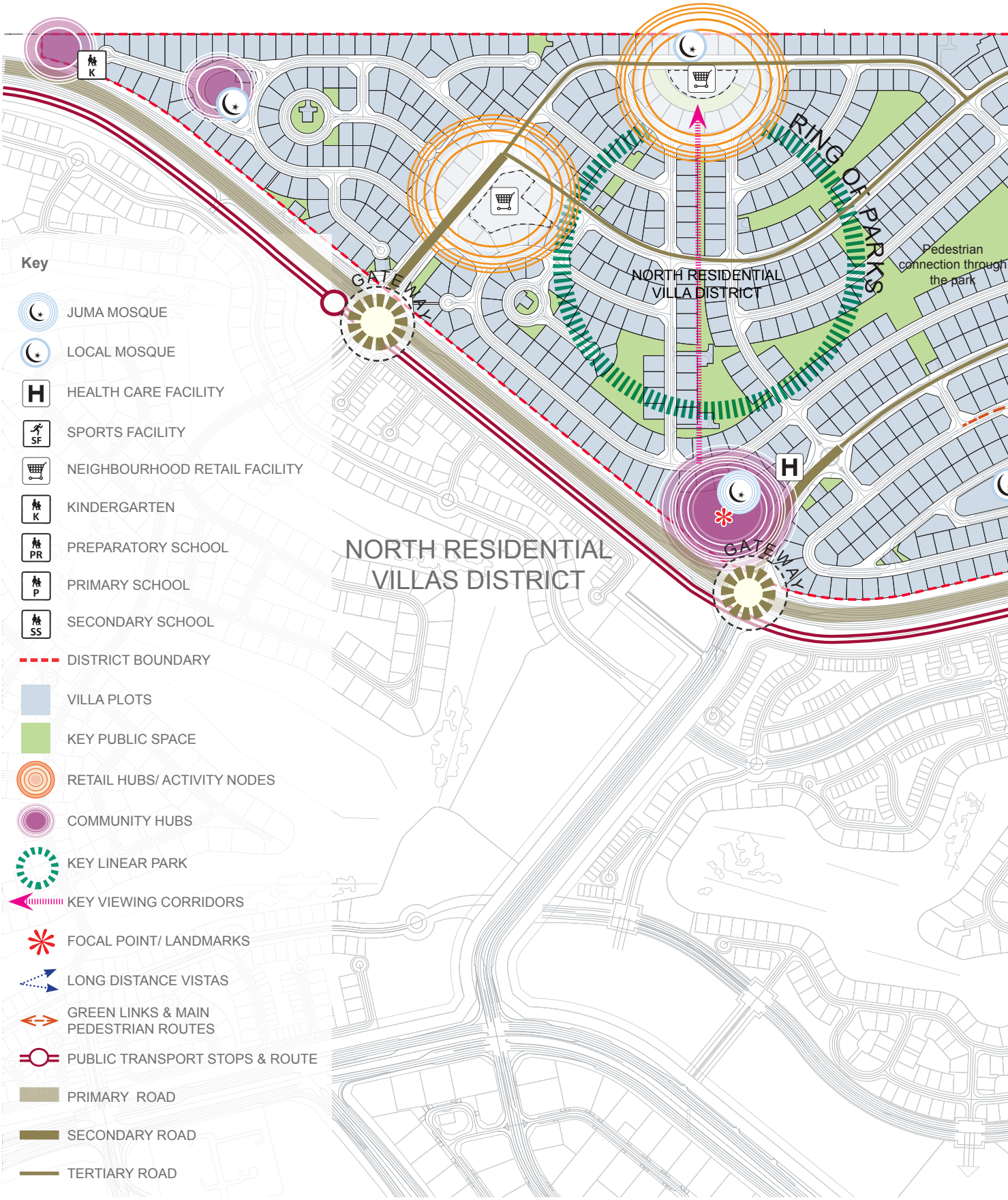
WATERFRONT RESIDENTIAL VILLAS

With its undulating topography and elevated views of the Gulf, the district is intended to become the Beverly Hills of the region, combining a sense of grandeur and glamour with the essential elements that forms a well-serviced community. Winding residential streets and larger exclusive properties add to the area's character, while it offers high quality sports facilities within the site, as well as ready access to the city's new waterfront and beaches, its golf course, marina and mixed use leisure developments that will make it the envy of the region.
The upper slopes of the district will attract gentle coastal breezes to cool the ambience and create a liveable environment.

Figure 3 - Illustrative Masterplan (image by others)

2.2.2 KEY STRATEGIES

URBAN DESIGN FRAMEWORK



URBAN STRUCTURE

The layout is designed to provide a curvilinear access route to each villa plot, while offering a range of community facilities connected via a network of green spaces.

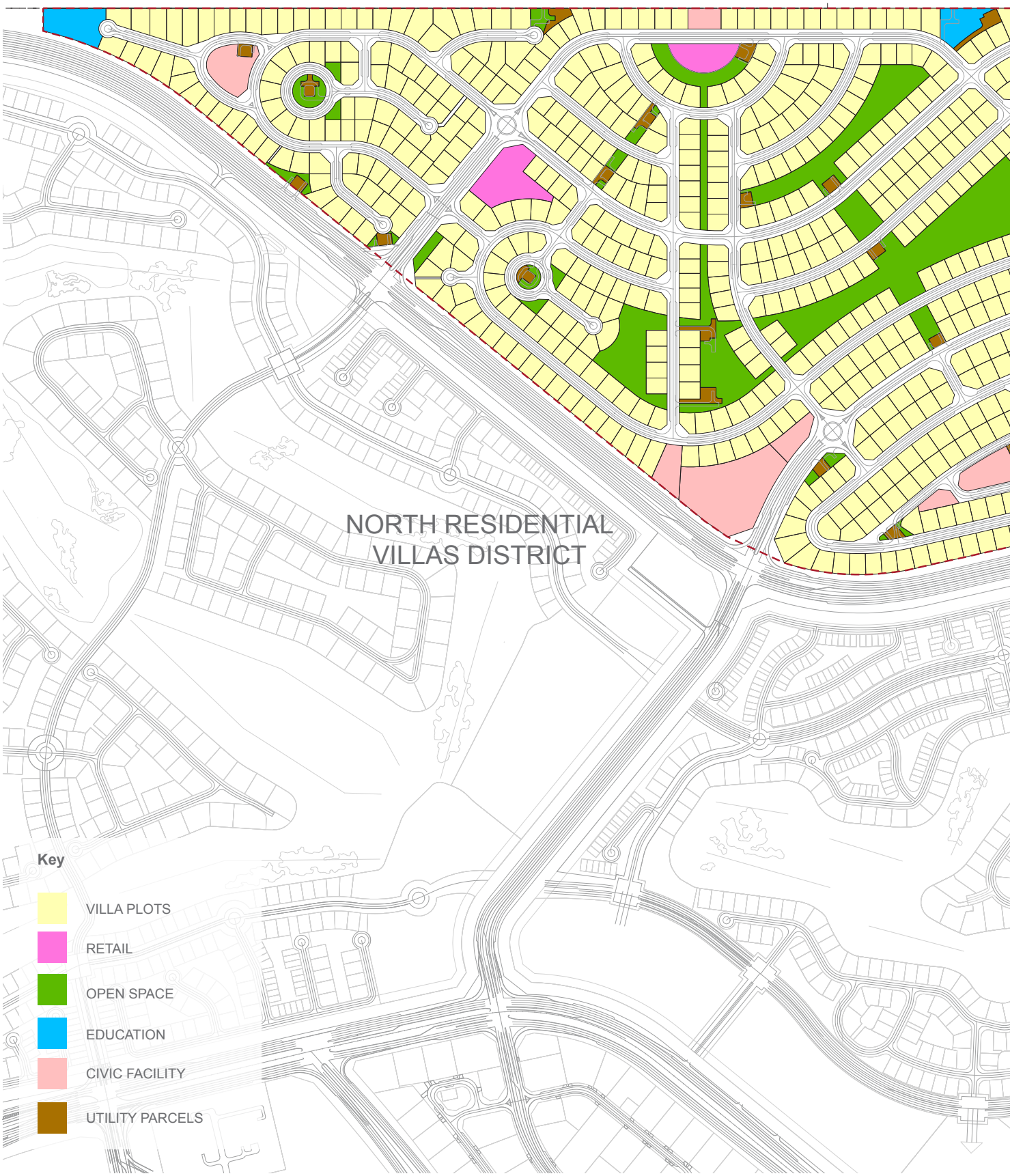
The two communities are separated by shared infrastructure and enclosed by a branded boundary wall with entrances that are framed by landmark community buildings. The network of amenities is used to structure the development forming strong axial links into and within each community.

This amenity backbone engenders a high quality of life aspiration, while the key access points connect outwards to adjoining infrastructure and neighbouring facilities.

District Location Plan

2.2.2 KEY STRATEGIES

LAND USE STRATEGY



LAND USE DISTRIBUTION

The plot subdivision plan provides a detailed land use framework for the two residential villa communities.

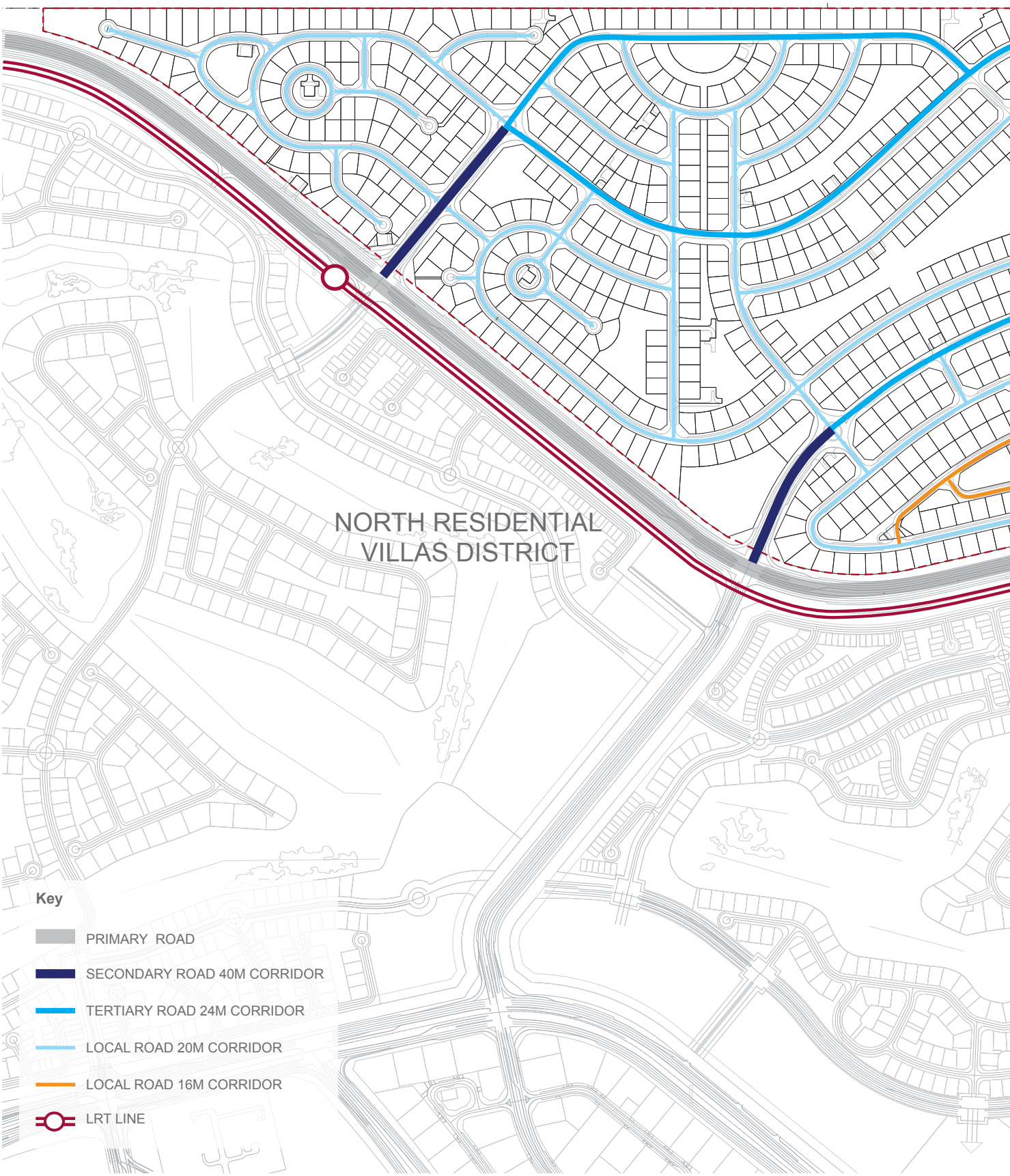
Social amenity and utility functions punctuate the open space network and will be provided under license as the development progresses.

All roads and utilities will be in place prior to the villa plots being made available.

District Location Plan

2.2.2 KEY STRATEGIES

ROAD HIERARCHY STRATEGY

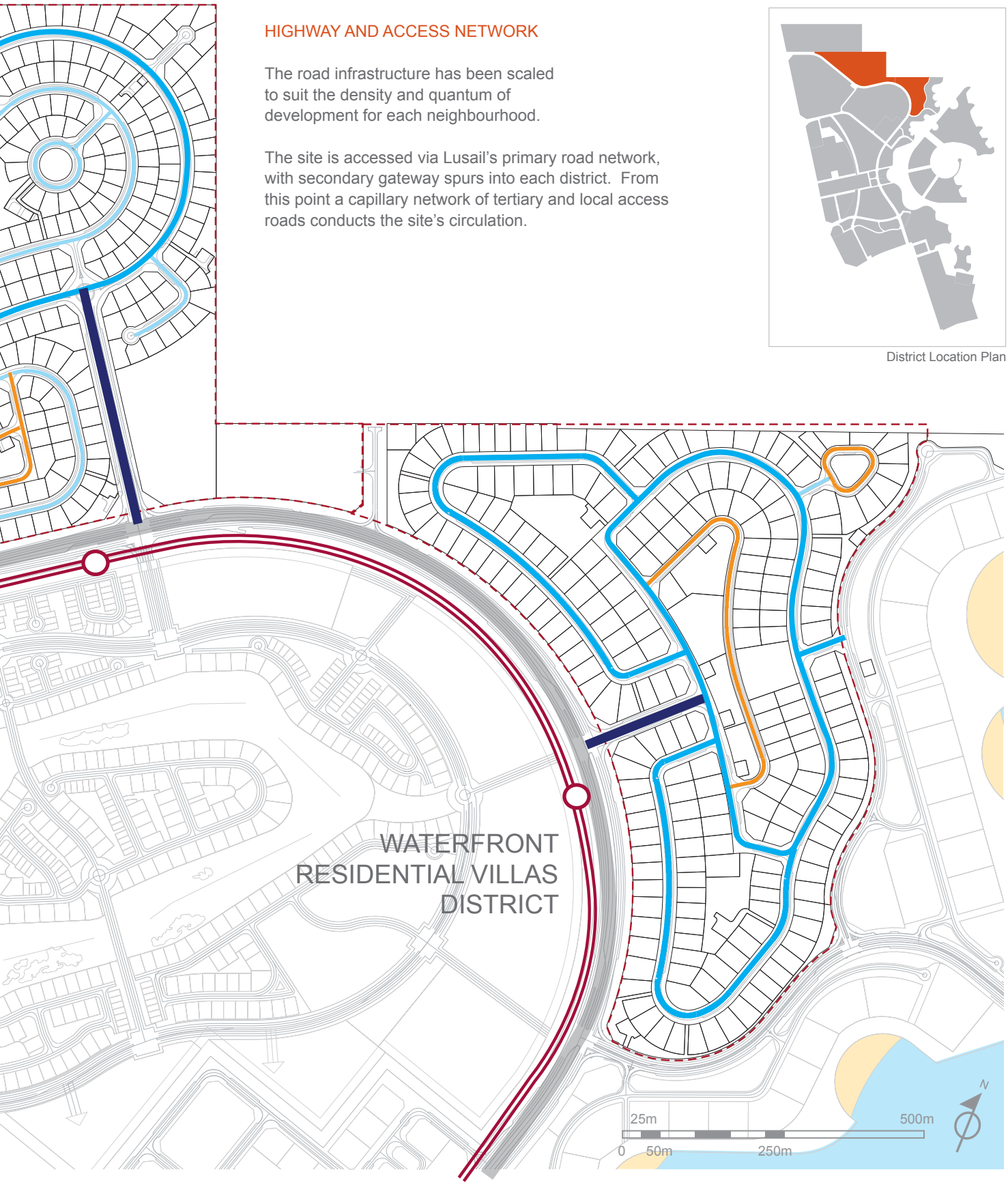


HIGHWAY AND ACCESS NETWORK

The road infrastructure has been scaled to suit the density and quantum of development for each neighbourhood.

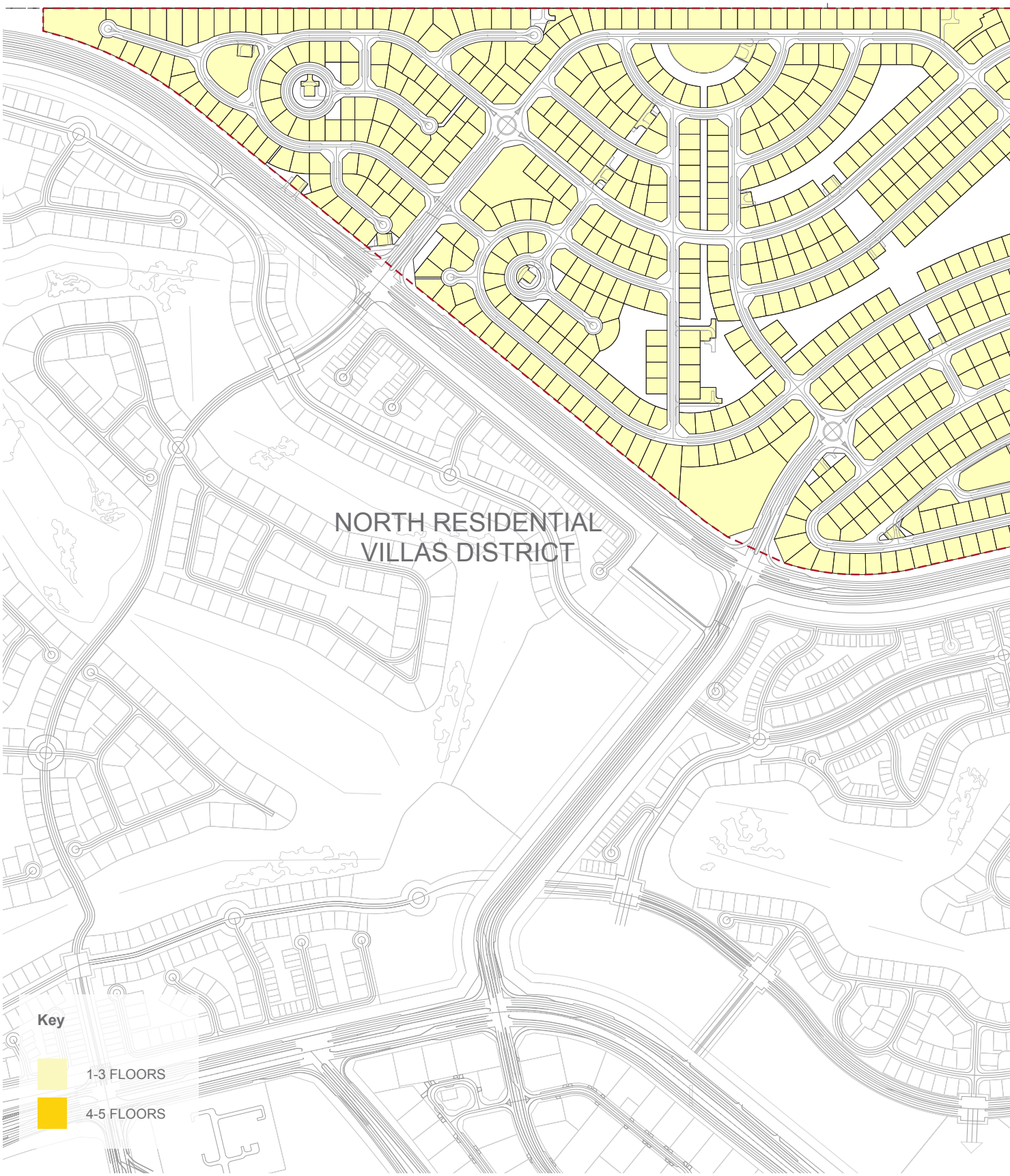
The site is accessed via Lusail's primary road network, with secondary gateway spurs into each district. From this point a capillary network of tertiary and local access roads conducts the site's circulation.

District Location Plan



2.2.2 KEY STRATEGIES

BUILDING HEIGHTS STRATEGY



BUILDING HEIGHTS

Both districts are envisaged as low density, low-rise developments. All villa plots have the same height restriction limit (G+1+P), max. 15m, basement can protrude 1m above ground level.

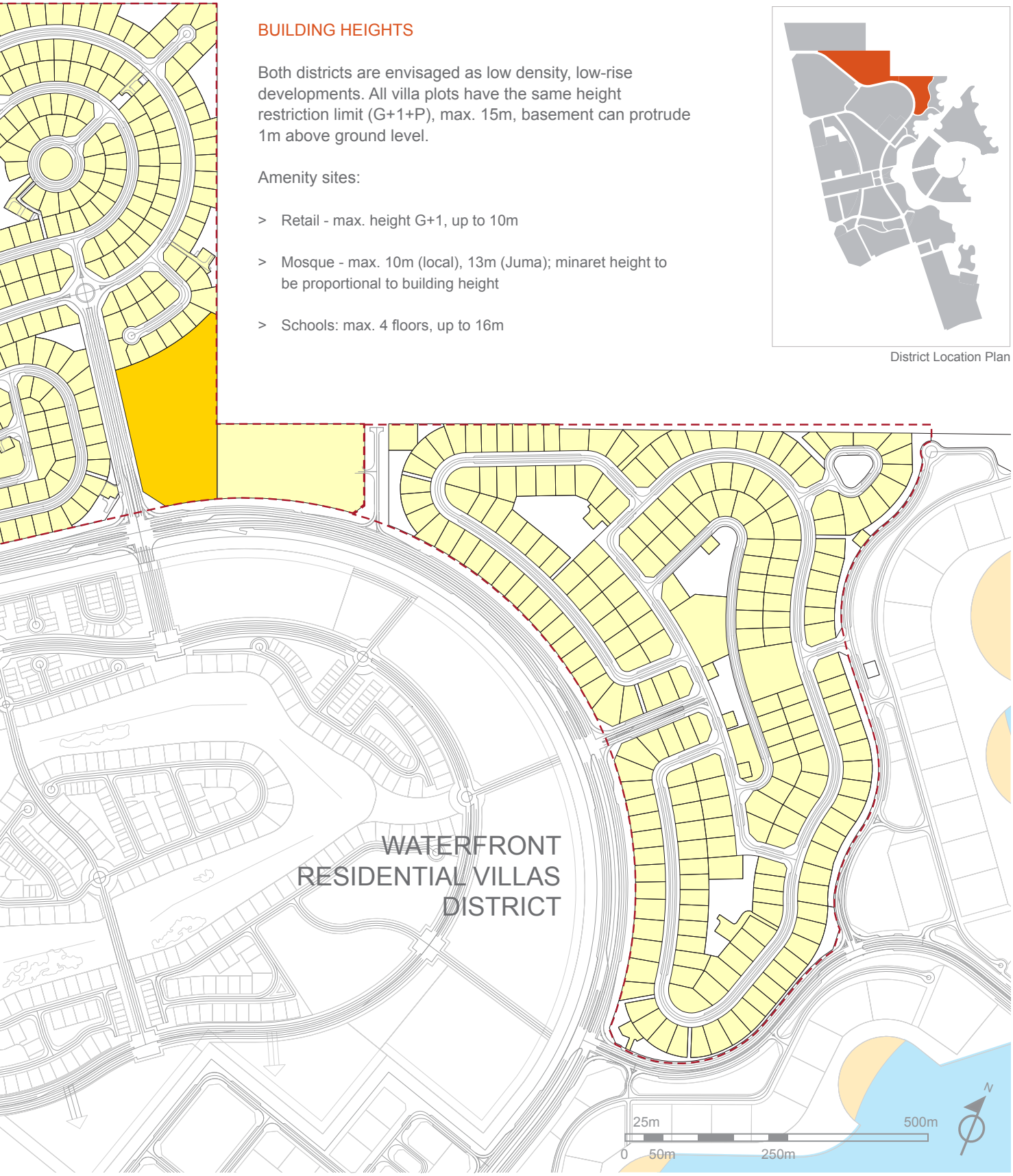
Amenity sites:

> Retail - max. height G+1, up to 10m

> Mosque - max. 10m (local), 13m (Juma); minaret height to be proportional to building height

> Schools: max. 4 floors, up to 16m

District Location Plan



2.2.2 KEY STRATEGIES

OPEN SPACE DISTRIBUTION STRATEGY

LANDSCAPES FOR TWO COMMUNITIES

North Villas & Waterfront Villas are two distinct communities which adopt different approaches to the public realm design.

In each case the palette of street trees and public art differs - Waterfront features palm trees, grasses, cacti, rock features, uplit fountains and pools; North district is characterised by its colourful, flowering, broad crowned native and evergreen pine trees, sculpted landform and land-art features.

The parks and entrances for each community thus distinguished to instil quality of place and enhanced legibility.

District Location Plan

2.3 RESIDENTIAL STREETSCAPE GUIDELINES

2.3.1 STREETSCAPE CONTEXT

REF: LNWD-RSG- Sheet 1/6

Managing the composition of the different elements of the residential streetscape is of foremost importance in North Residential Villas and Waterfront Residential Villas districts to ensure a high quality development.

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

PLANTING

The front gardens 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 style. This is referred to in the landscape palette and schedule.

LIGHTING

Light columns are located at regularly spaced intervals, staggered along both sides of each street and positioned at shared boundary lines in the planting areas at the end of parking bays. This avoids street clutter, reduces night time glare and avoids tree canopy shade.

For further detail on lighting on public streets please refer to Lusail Nightscape Strategy.

PLOT PRIVACY

Enclosing street walls and party walls create a privacy screen around each villa plot. Gateways may be railed or opaque to suit owner preference. Building setbacks also reinforce the sense of plot privacy.

STREET ARTICULATION

The boundary wall designs, tree planting, light column spacing, driveways, 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.

PLEASE ALSO SEE:

ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN
VILLA PLOT TYPOLOGIES

REFER TO PRIVACY GUIDELINES
REF: LNWD-TVP- Sheet 5/8

REF: LNWD-RSG- Sheet 2/6

VARIETY & INTEREST

The codes allow four contrasting architectural styles and plot owners are free to work within these guidelines to create their own villa designs, producing a range of possible streetscape elevations and maintaining an interesting living environment. These styles are reflected in the designs of the boundary walls which directly influence the character of the street, within the parameters set by the codes.

PARKING

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).

<

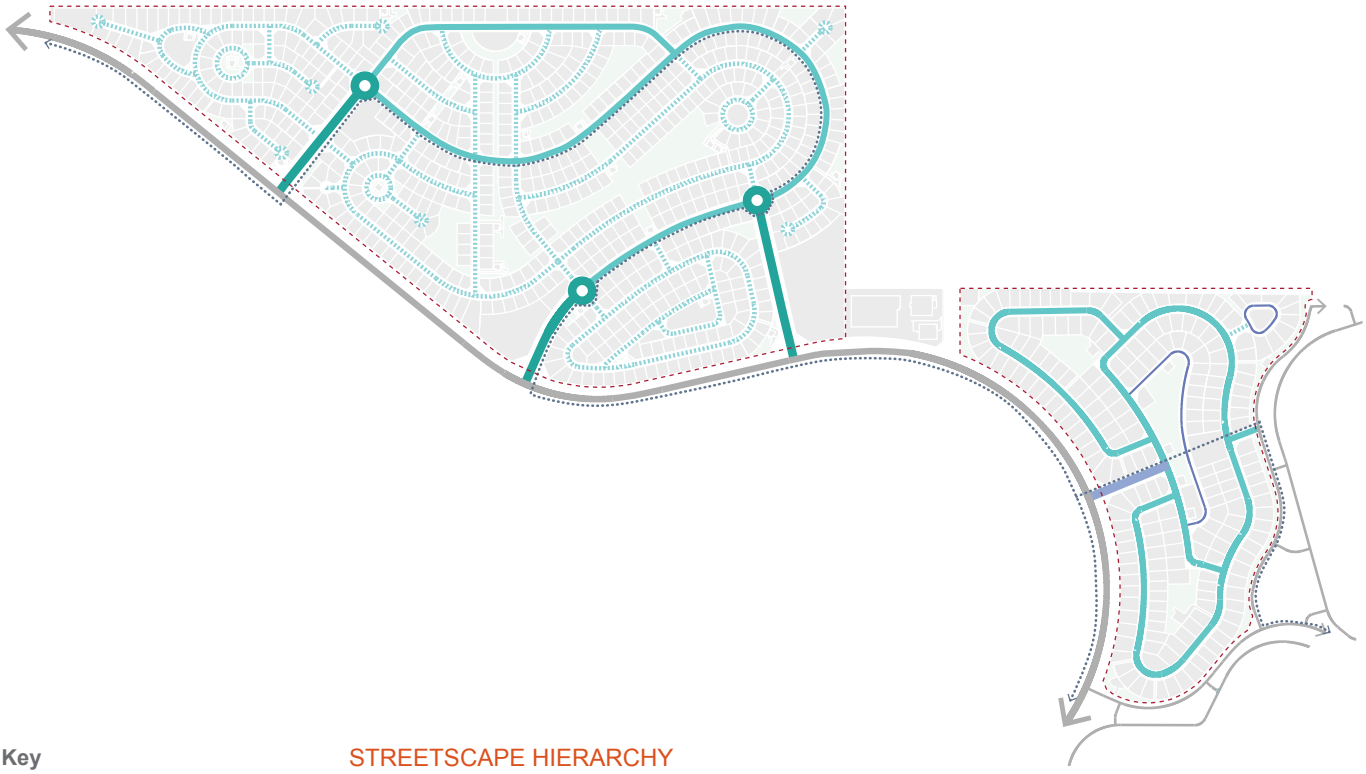
PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.3.2 PUBLIC REALM CONTEXT

REF: LNWD-RSG- Sheet 3/6

STREET PARCEL GUIDANCE

The character of each street is governed by its spatial enclosure, level of use by pedestrians and vehicles, the design of the public realm adjoining the parcels, the proximity and location of local social amenities and the sense of segregation or seclusion brought about by the position of the street in the wider highway network. The street parcel guidance seeks to address these aspects to create a cohesive composition for each villa plot to ensure parcel owners optimise their investment value to attract a settled residential community.
A guidance sheet is provided assessing each street within the district's highway network to highlight measures to guarantee streetscape environmental quality across the district.



Key

- Site Boundary
- 40m Corridor
- 32m Corridor
- 24m Corridor
- 20m Corridor
- 16m Corridor
- Cycle Path

STREETSCAPE HIERARCHY AND CYCLE PATH

The following pages show the details of the proposals for the landscape treatment on the five road corridor types of the two residential sites. This reflects the incorporations of the city-wide cycle path network in the 40m, 32m and 24m road corridors.

REF: LNWD-RSG- Sheet 4/6

40M ROAD CORRIDORS

The 40m road corridors form the gateways to the North Residential Villa District. The gateway experience will be emphasised by a line of feature lighting columns along the central median where tree planting and street lighting has been accommodated by the site wide primary infrastructure.

The entrances to both sites are framed by palms and tree planting and clusters of feature lighting columns. The lighting is to look dramatic and appropriate for a gateway entrance, using feature columns and up lighters.

Sculptural groundcover, grasses and shrub planting frames the road and forms a buffer between the traffic and the combined footpath and cycle route on one side of the road and footpath on the opposite side.
Where villa drives intersect the street, a swathe of granitic sand in the softscaping will offer the opportunity to accommodate overflow parking for the villas.

Palms framing the entrances

Canopy trees on main road corridors

Sculptural groundcover

Examples of street furniture for the district

Grasses and shrub planting along the footpath

2.3.2 PUBLIC REALM CONTEXT

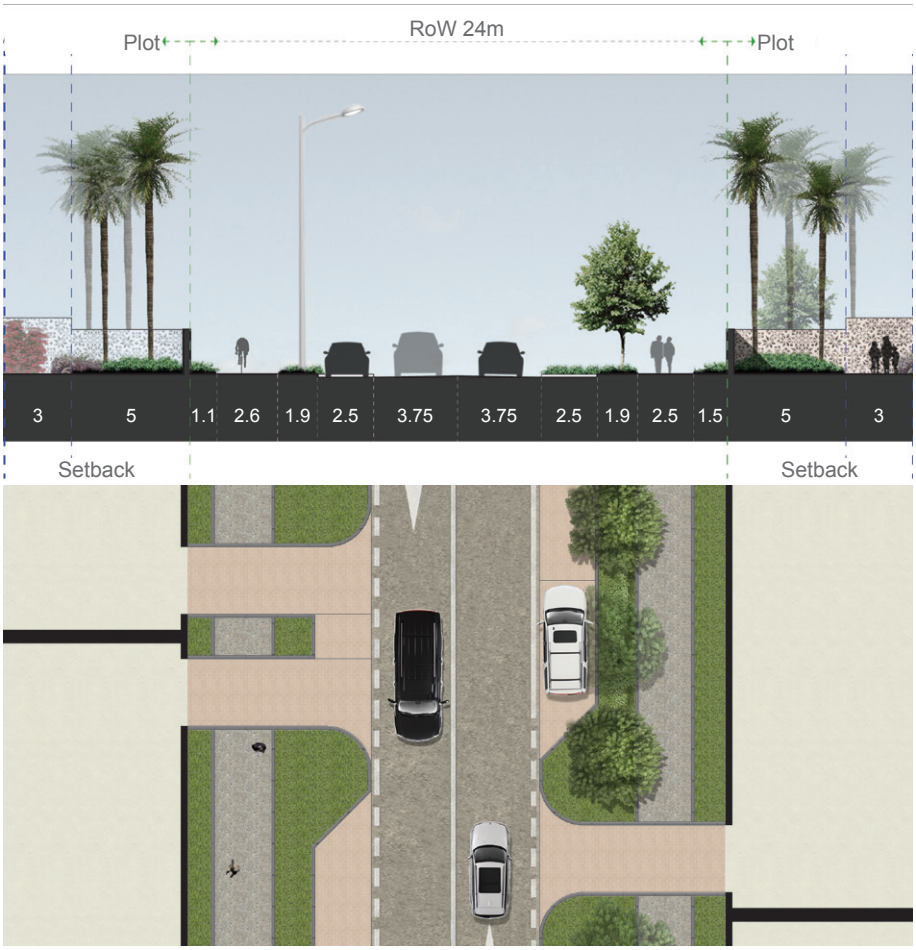
REF: LNWD-RSG- Sheet 5/6

24M ROAD CORRIDORS

The 24m corridors are the main internal thoroughfares through the site.

Street tree planting has been provided for one side of the road, with the street lighting corridor on the opposite side per the sidewide primary infrastructure layouts.

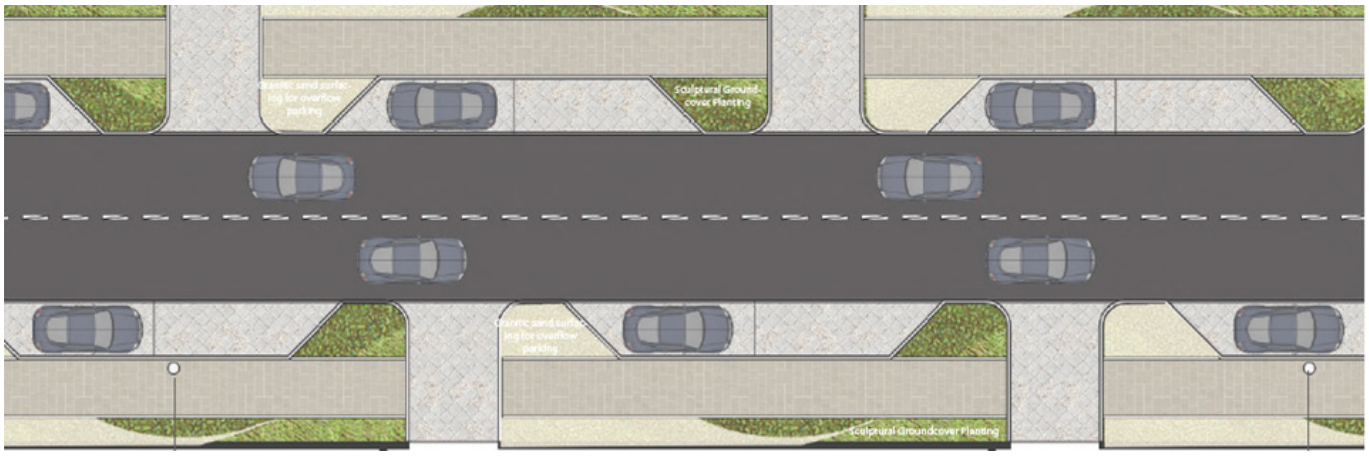
Sculptural groundcover, grasses and shrub planting alternates with swathes of granitic sand in the softscape shoulder to accommodate overflow parking.



Road curbs (sandblasted concrete)

Footpath pavement/cycle path (seeded concrete aggregate - buff colour)

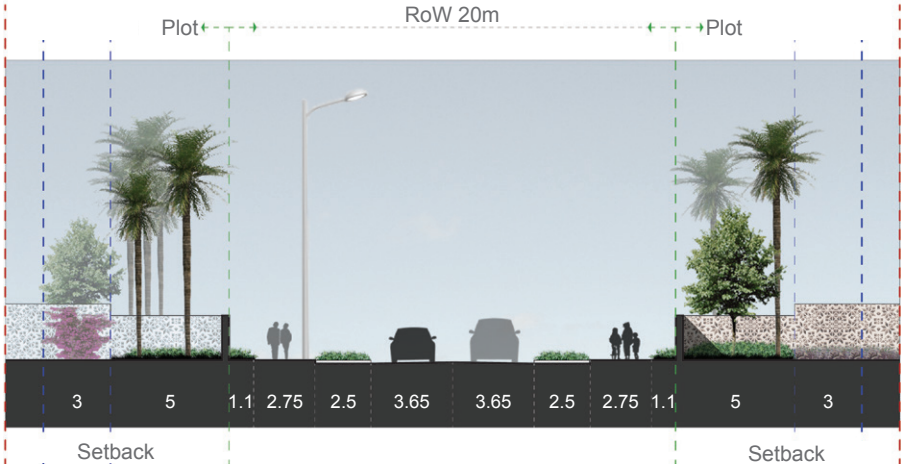
On-street parking pavement (precast concrete pavers - buff colour)

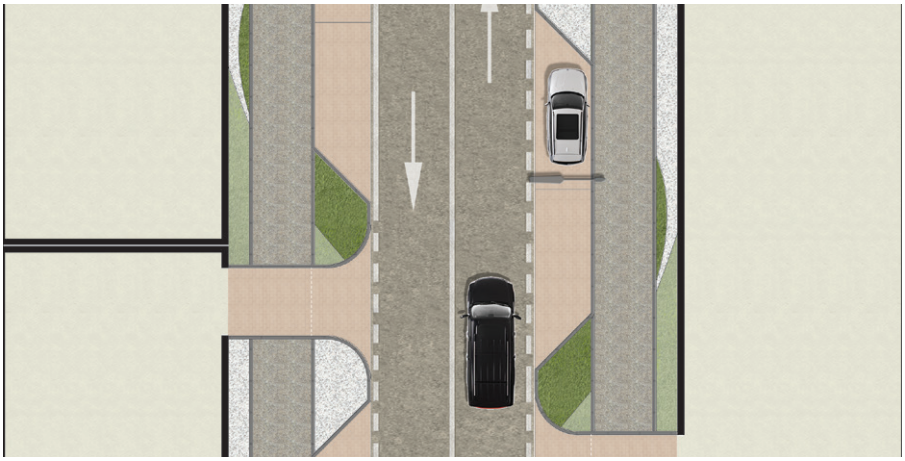


REF: LNWD-RSG- Sheet 6/6

20M ROAD CORRIDORS

The secondary 20m road corridors follow a similar treatment to the 24m road corridors, with alternating swathes of sculptural planting and granitic sand for overflow parking.





Ground cover planting

Ground cover planting

Sculptural ground cover along footpath

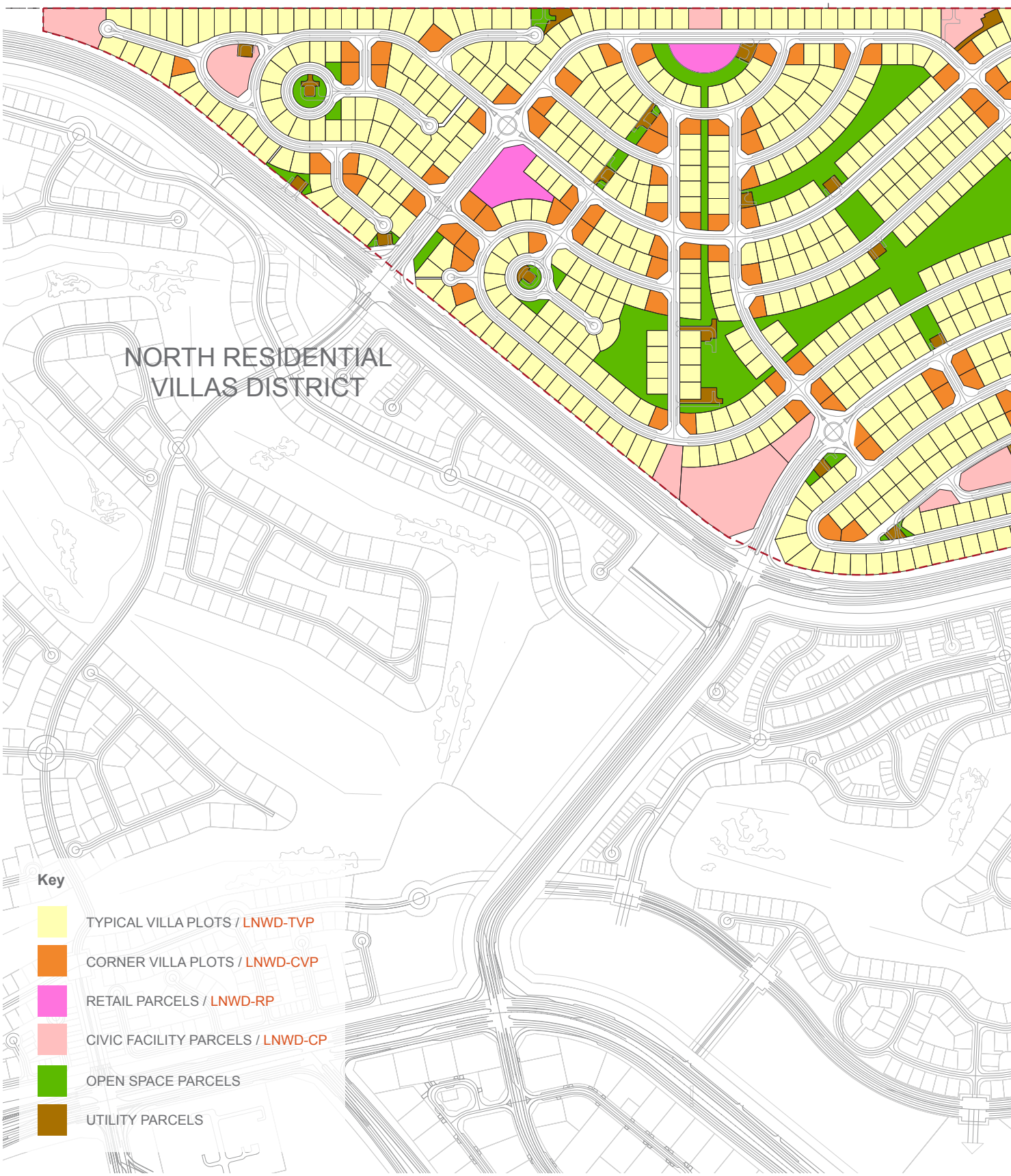
Public planting area along private plot boundaries

Ground cover planting

Shrubs and ground cover planting

Ground cover planting

2.4 PLOT TYPOLOGY GUIDELINES & CONTROLS



2.4.1 PLOT TYPOLOGY LOCATION PLAN

OWNERS' GUIDE TO PLOT TYPE

The following guides and controls relate to the coded plan below. This differentiates between typical villa plots, corner villa plots and the parcels designated for different amenities.

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

District Location Plan

PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.4.1 TYPICAL VILLA PLOT GUIDELINES & CONTROLS

REF: LNWD-TVP- Sheet 1/8

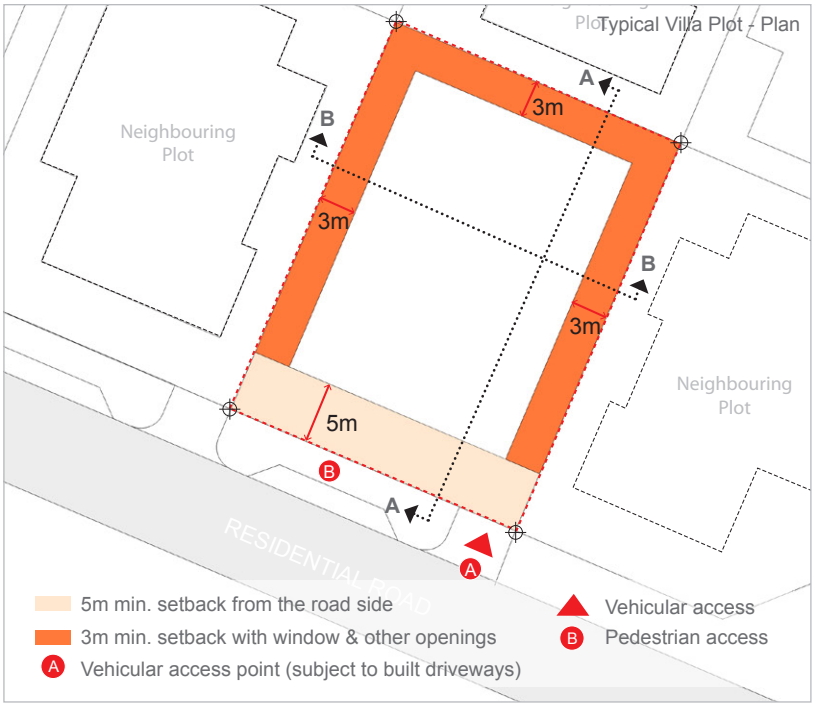
GLOSSARY OF TERMS

GENERAL COMMENTS

This guideline sheet has been prepared to support the Plot Regulation sheet issued to each plot owner.
The guidelines intend to promote good urban design and will be enforced by LREDC.
Plot owners must demonstrate compliance with the guidelines to ensure rapid acceptance of their proposals.

Due to continued implementation of building developments and related Utility and Landscape infrastructure, based on Lusail City's Master Plan, Sub-developers and Consultants need to preconfirm with LREDC all current infrastructure implications on their specific plot.

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



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

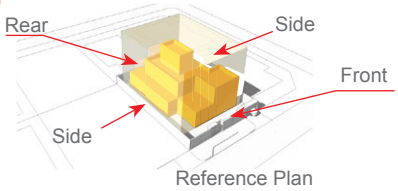
EXISTING REGULATION SUMMARY:

Permitted Land Use	Residential with ancillary buildings	
Plot Area	As per individual Building Regulation Sheets	
Max. FAR	0.85	
Max. Plot Coverage	50%	
Penthouse Coverage	40% of 1st floor	
Max. Number of Floors	G+1+P (penthouse)	
Max. Heights	Main Villa: 15m to top of parapet	
	Majlis: 5m to top of parapet	
	Ancillary Building: 4m to top of parapet	
Min Setbacks Criteria	3m from side plot boundary	
	5m from road side	
	Penthouse: 3m from all sides of 1st floor (*)	
	Majlis: 2m from internal face of front boundary wall	
Majlis and Ancillary building side and rear wall relationship to party wall	Adjacent to Villa plot	Coincident with rear or side party wall
	Adjacent to Open space	Inside / behind the side or rear boundary wall
Min. Car Parking Provision	2 spaces per dwelling	

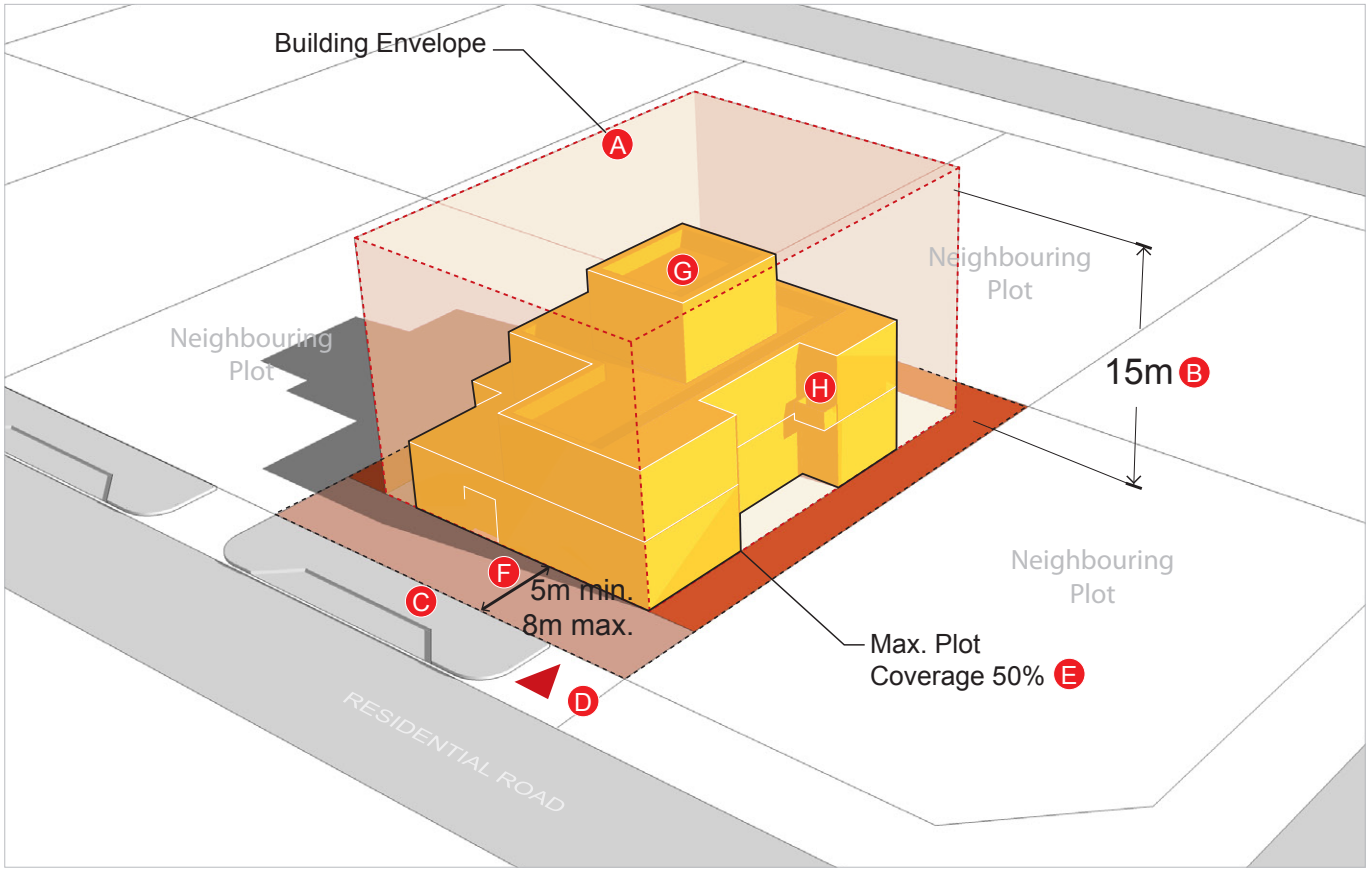
To safeguard quality, the following regulations are amended to augment and add to the Building Regulations:

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 and terraces open to sky whose sides face neighboring plots must have 1.8m high solid screen parapet wall for full privacy.
	Penthouse openings: on facades facing neighbours, openings are not allowed in Penthouse unless it is minimum 3.0m setback from roof boundary with a 1.8m high solid screen wall parapet for privacy.
ANCILLARY BUILDINGS	Driver Building: Can be located on front of boundary wall; however, no openings are allowed on front boundary wall facing the street.
	Other ancillary buildings (excluding majlis) must be setback from the front plot boundary a min of 5min, ideally aligned with the main villa.
	Ancillary Structure Length: Maximum cumulative length of all ancillary buildings must be max. 50% of rear wall length and 75% of neighbour side wall length.
	Basements of any type not allowed under any Ancillary Building.
ROOF MECHANICAL EQUIPMENTS	Roof 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: LNWD-TVP- Sheet 2/8



KEY PARAMETERS

A 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 top of curb at point of entry to top of parapet and must not exceed +15m including all parapets and roof structures

C Pedestrian entrance: to be aligned with villa main doorway. Please refer to Villa Plot Boundary Treatment Guidelines & Controls for further information.

D Vehicular access: must be via the defined driveway locations. Please refer to Villa Plot Boundary Treatment Guidelines & 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 need exceed 50%.

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 a minimum of 5m, ideally aligned with the main villa.

G Penthouse position: penthouses must be setback 3m from at least two sides of the first floor extents. Setback from front is mandatory.

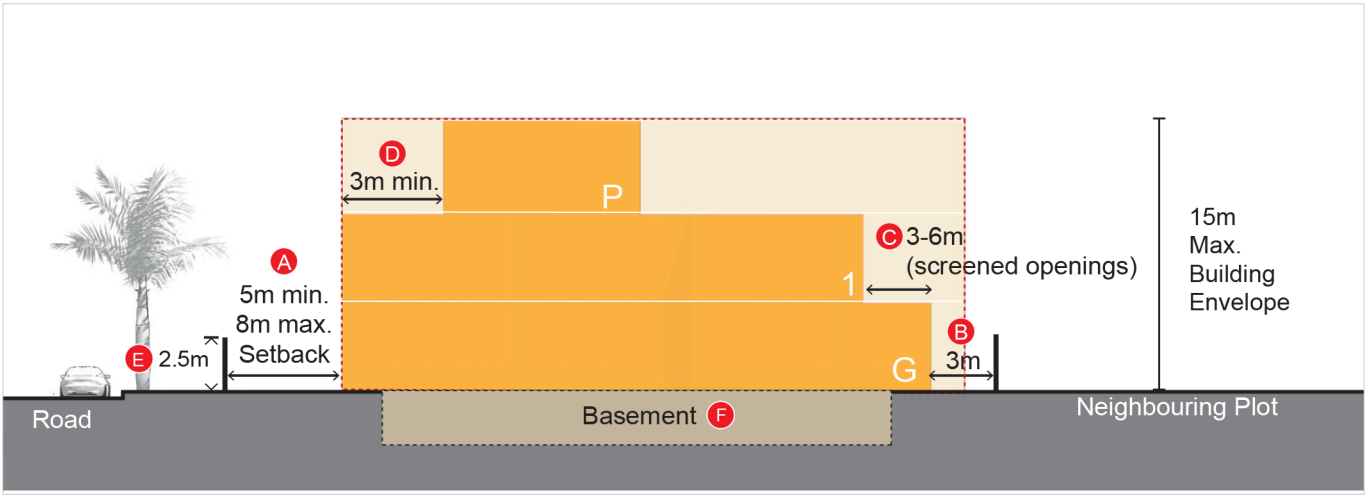
* Other positions (such as at the front or front corner) of the building) may be considered but this is at the discretion of the planning department at LREDC.

H Cantilevered projections such as balconies should remain within setback limits.

TYPICAL VILLA PLOT GUIDELINES & CONTROLS

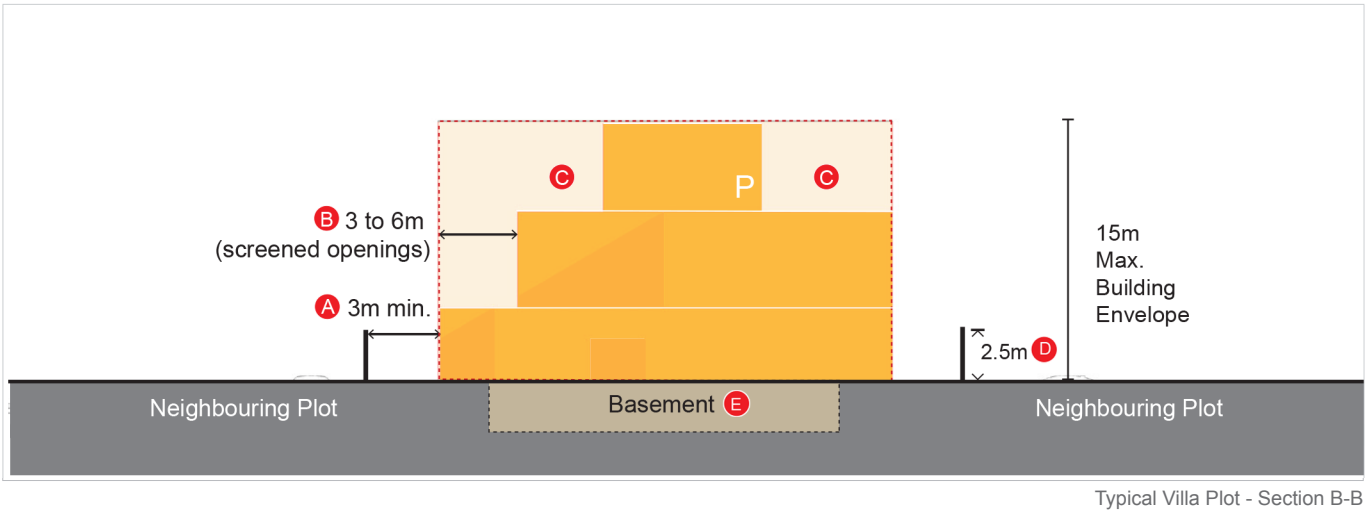
REF: LNWD-TVP- Sheet 3/8

SECTIONS THROUGH VILLA PLOT



Typical Villa Plot - Section A-A

A 5m min. - 8m max. setback from front plot boundary
B 3m min. setback from rear plot boundary.
C Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy
D Penthouse has a min. 3m setback from 1st floor roof edge on at least 2 sides (front setback is mandatory; stair towers excluded) *Other positions may be considered but this is at the discretion of the planning department at LREDC
E Boundary Wall: max. 2.5m high
F 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.

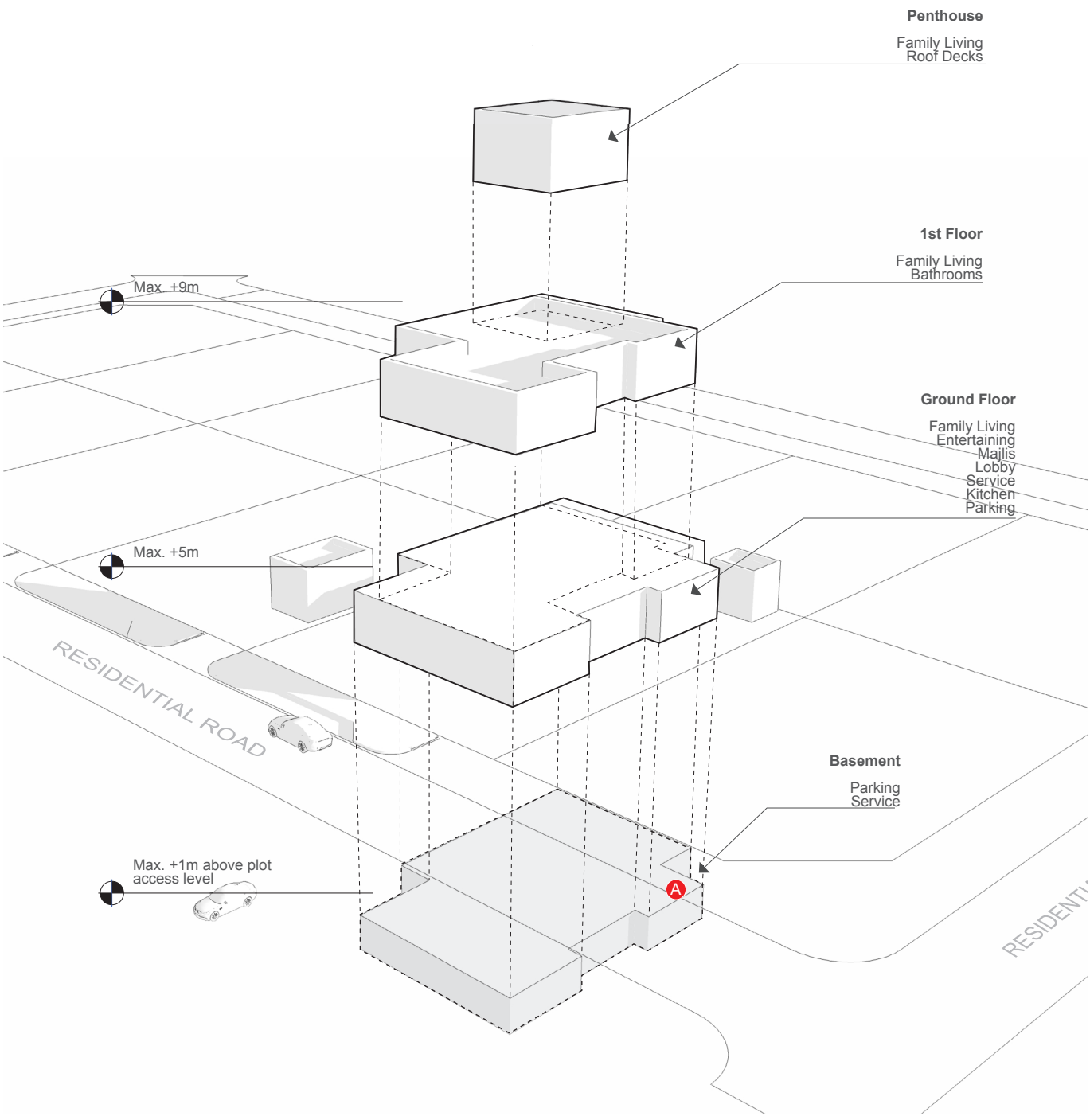


Typical Villa Plot - Section B-B

A 3m min. setback from rear plot boundary.
B Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy
C Penthouse has a min. 3m setback from 1st floor roof edge on at least 2 sides (only front setback is mandatory; stair towers excluded) *Other positions may be considered but this is at the discretion of the planning department at LREDC
D Boundary Wall: 2.5m to 3m high.
E 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: LNWD-TVP- Sheet 4/8

SECTIONAL SUMMARY

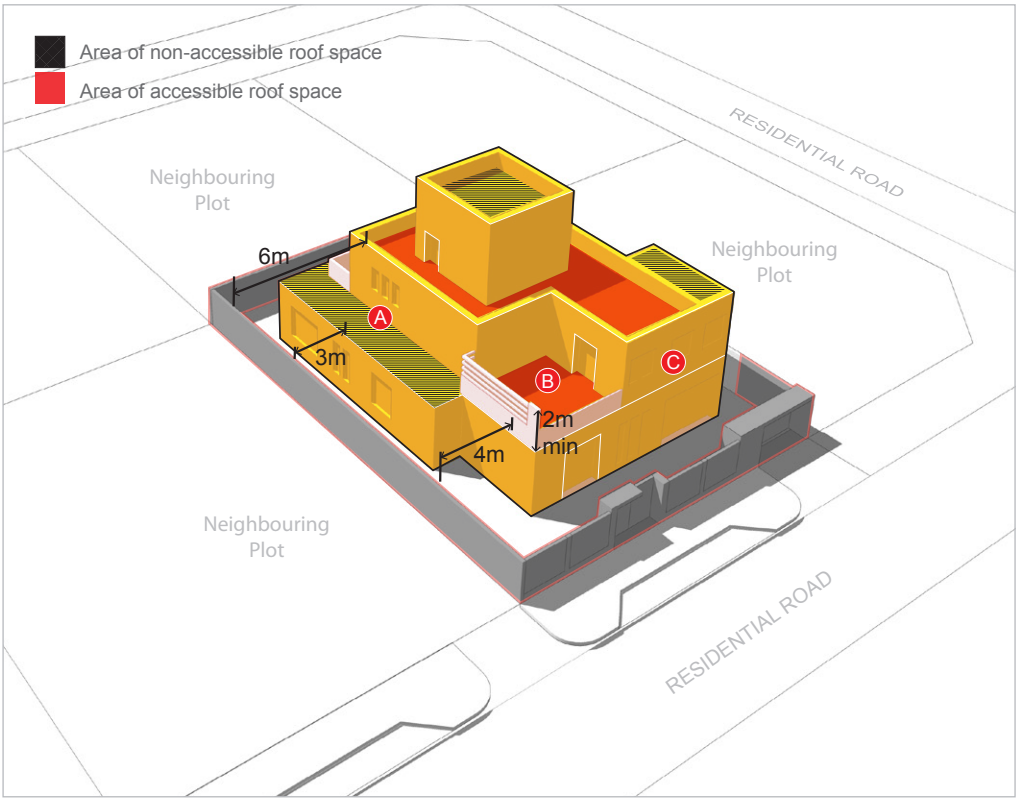


A Non-habitable accommodation in basement is excluded from GFA

TYPICAL VILLA PLOT GUIDELINES & CONTROLS

REF: LNWD-TVP- Sheet 5/8

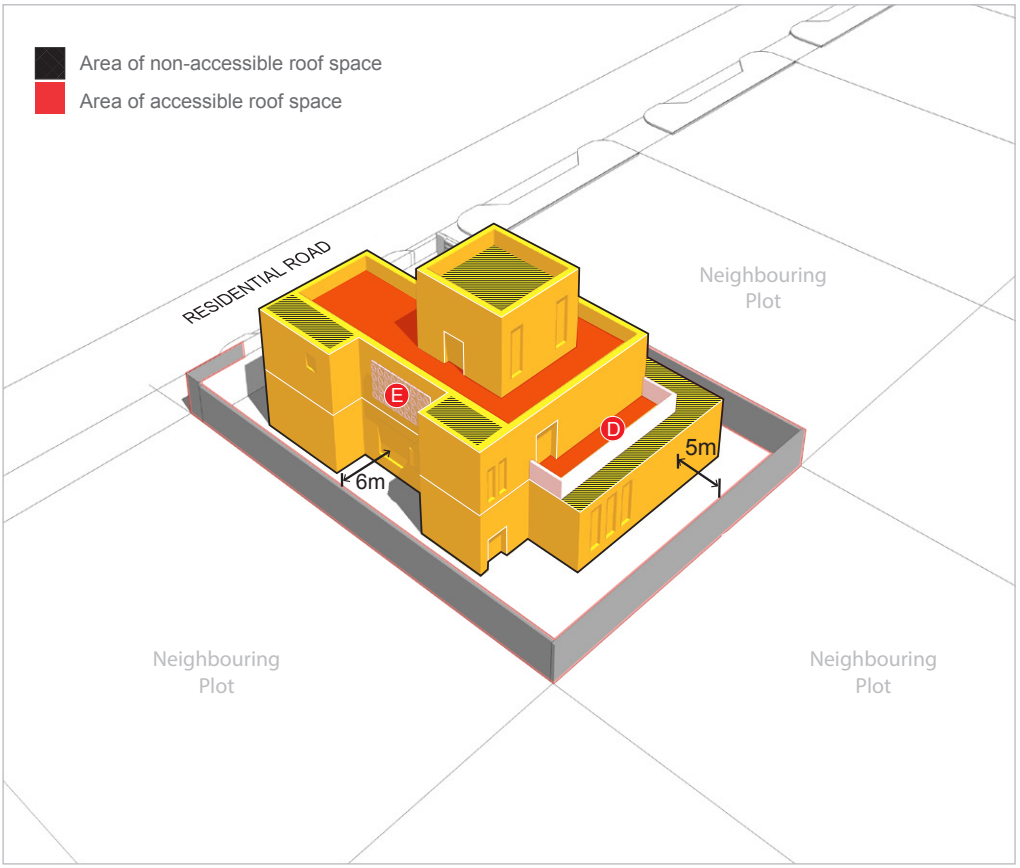
PRIVACY



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

Elevations that include openings (windows, balconies & terraces) are to adhere to 3m min. setback from the plot boundary. Openings on all levels between 3.0m and 6.0m setback should be screened for visual privacy, except on front elevations, where screening is not required.

- 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 neighbouring plots.
- C No screening to windows or terraces is required on front elevations



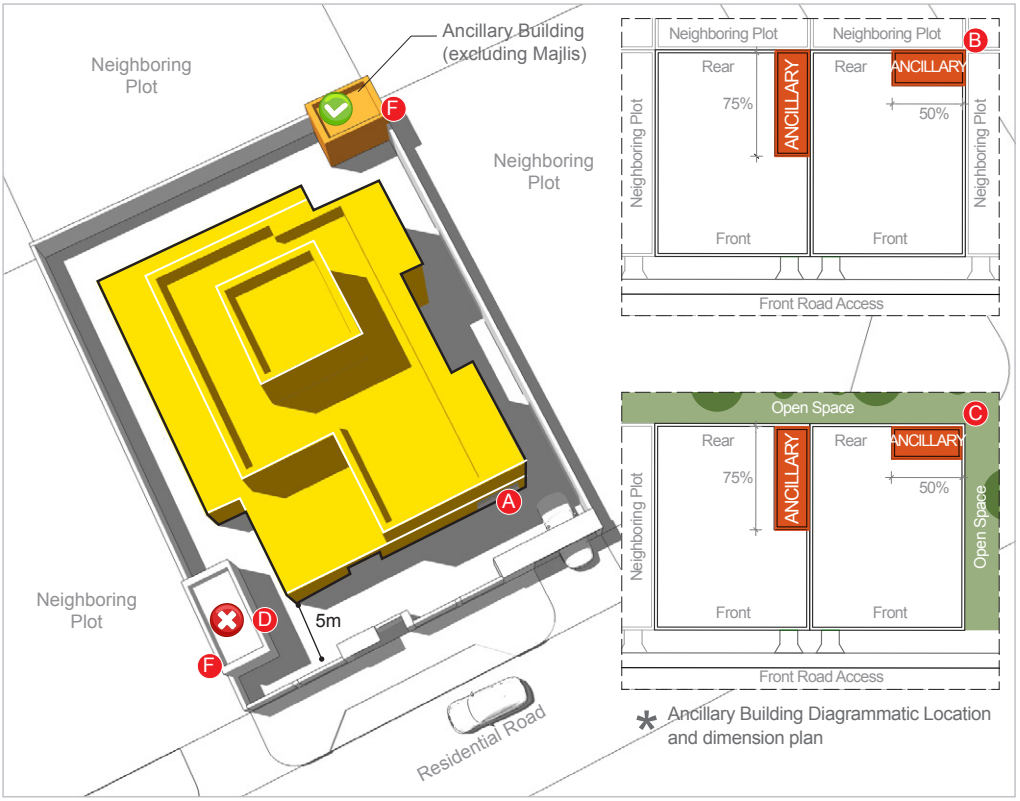
Roof areas created through the articulation of the building massing can only be accessible if appropriate screening requirements are in place.

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: LNWD-TVP- Sheet 6/8

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 and Majlis side and rear wall should be coincident with party wall when there is an adjacent Villa plot.
- C Ancillary buildings and Majlis side and rear wall should be inside/behind the demising wall when there is only open space beyond.
  Fire hazard uses like kitchens should be referenced to local Civil Defense code requirements and other International standards.
- D Ancillary buildings (except Majlis and Driver buildings) should adhere to the same front setback requirements as the main villa (min 5m).
- * Ancillary buildings will occupy a max. of 75% of the side boundary wall and 50 % of the rear boundary wall.

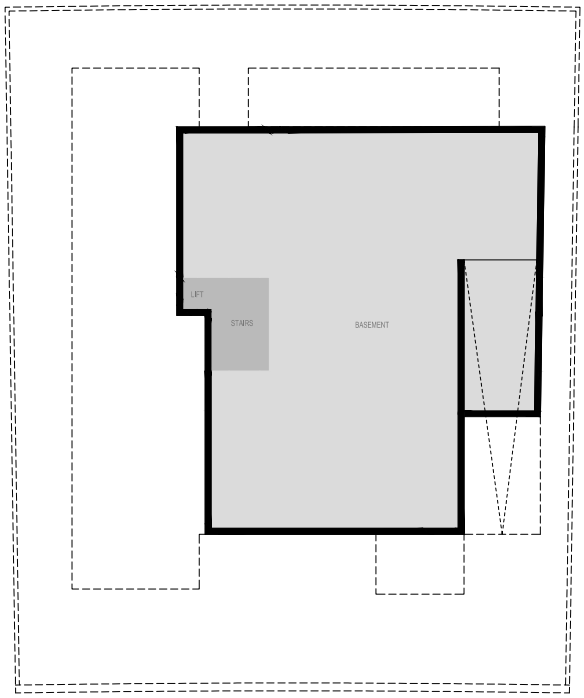
Majlis have different setback requirements to other ancillary buildings. Majlis may be incorporated as part of the main villa or built free-standing at the front of the plot, and (if required) abutting the party wall.

- E 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.
- F Walls within 3m of the side plot boundary must not contain any openings. Small windows for the purpose of ventilating bathrooms will be allowed.

TYPICAL VILLA PLOT ILLUSTRATIVE LAYOUTS

REF: LNWD-TVP- Sheet 7/8

FOR ILLUSTRATION PURPOSES ONLY



Typical Villa Layout - basement

Typical Villa Layout - ground floor

TYPICAL VILLA ILLUSTRATIVE LAYOUT

This is intended as an example to illustrate the spatial arrangements for a villa and is a schematic guideline for information.

The villa shows formal functions at the front and private family areas to the rear.

Servicing activities are grouped near the garage, with separate entrances: main entrance for residents and their guests; secondary for staff and the car entrance.

The double height entrance lobby is centred on the main façade, with side link to the majlis.

Family areas overlook the rear garden. The family rooms and spaces link to the main stair at the core of the house in a double-height hallway.

Bedrooms are provided at first floor and penthouse levels.

The recessed penthouse has terraces with screened views ensuring neighbours do not feel overlooked.

REF: LNWD-TVP- Sheet 8/8

NOTES

> Massing & layout is illustrative

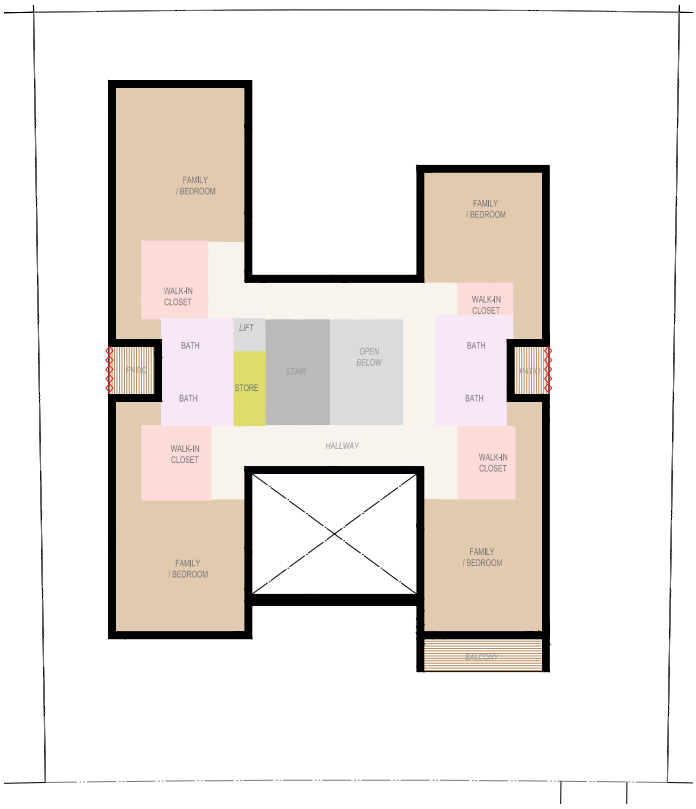
> Owner must co-ordinate provision and requirements for utilities,

> All LRDEC and MMUP guidelines and requirements are to be complied with.

> Basement level and penthouse levels are optional

> Refer to Architectural Guidelines & Controls for further design information

> Figures subject to revision in accordance with project entitlements and refinement.



Typical Villa Layout - first floor

Key

- Basement
- Majlis
- Lobby / Circulation
- Service / Kitchen
- Family / Entertaining
- Family / Living
- Formal Dining
- Store
- Family / Bedroom
- Walk-in Closet
- Bath / WC
- Maids Room
- Family / Living Room / Library
- Laundry
- Screening

Typical Villa Layout - penthouse

PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.4.1 CORNER VILLA PLOT GUIDELINES & CONTROLS

REF: LNWD-CVP- Sheet 1/2

GLOSSARY OF TERMS

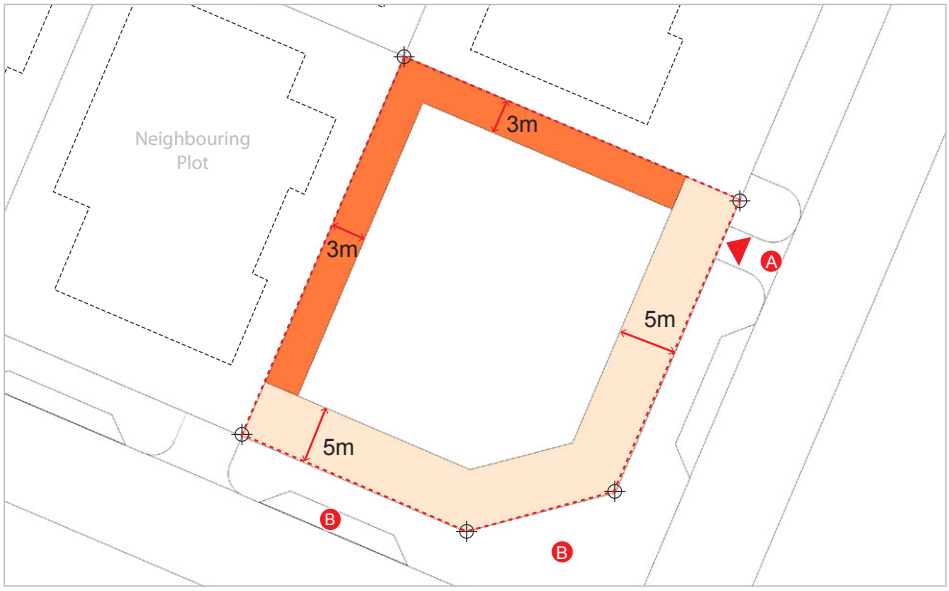
GENERAL COMMENTS

Corner villas provide an anomaly condition as they face outwards in two or sometimes three directions. This requires the linear plot villa typology to be adapted in the following aspects:

- Access (main, service and pedestrian)
- Views and outlook
- Screening and prominence
- Boundary wall articulation

These corner plot sheets add to the guidelines of a typical villa plot. They should be read in conjunction with the Typical Villa Plot Guidelines & Controls.

Some Corner Plots have a critical setback implications due to multiple street frontages, each with a minimum 5.0m Street Setback. Relaxation of Building Setbacks (to minimum 3.0m) can be considered at discretion of the Master Developer; however, plot street frontages having vehicular drive entries must remain at a minimum 5.0m setback.



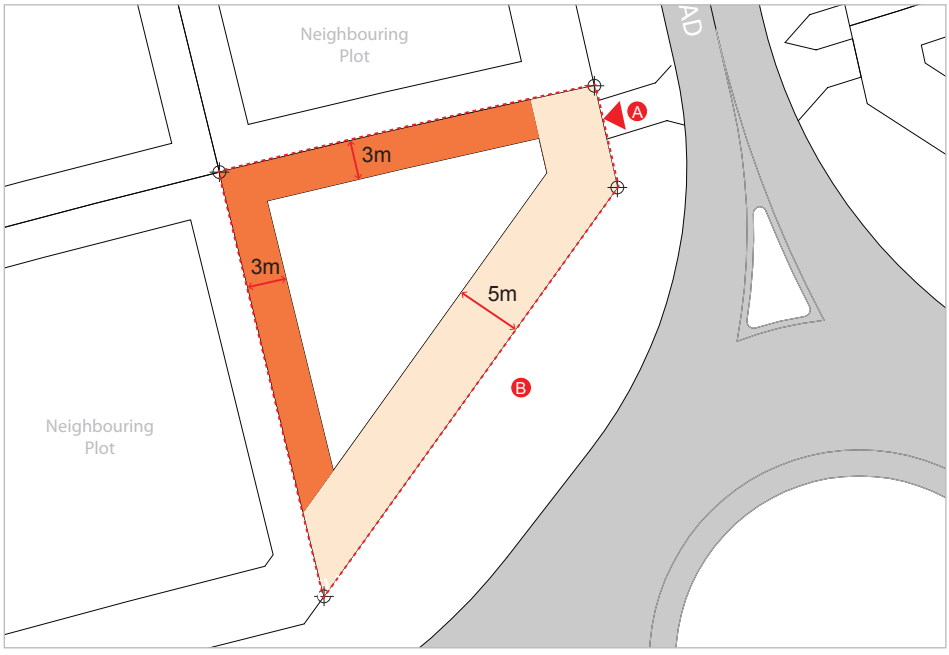
Regular Corner Plot - Plan

5m minimum. setback from the road side
3m minimum setback for window & other openings
A Vehicular access point subject to the built driveways
B Pedestrian access points
Vehicular access

To safeguard quality, the following regulations are amended to augment and add to the Typical Villa Plot Guidelines & Controls:

ADDITIONAL REGULATIONS:

ACCESS
vehicular access point subject to built driveways
Maximum two pedestrian gateways, one aligned with villa entrance, other on secondary street
PENTHOUSE
Penthouse, when present, should be located in central position to articulate the corner and enhance prominence of building
Penthouse is not required to have frontal setback from external face of the 1st floor
LANDSCAPE
Front gardens to incorporate at least 2 mature trees on each street in line with landscape guidelines and controls as a contribution to the streetscape character



Irregular Triangular Plot - Plan

5m min. setback from the road side
3m min. setback with window & other openings
A Vehicular access point subject to the built driveways
Vehicular access
B Pedestrian entrance to be aligned with villa main doorway.

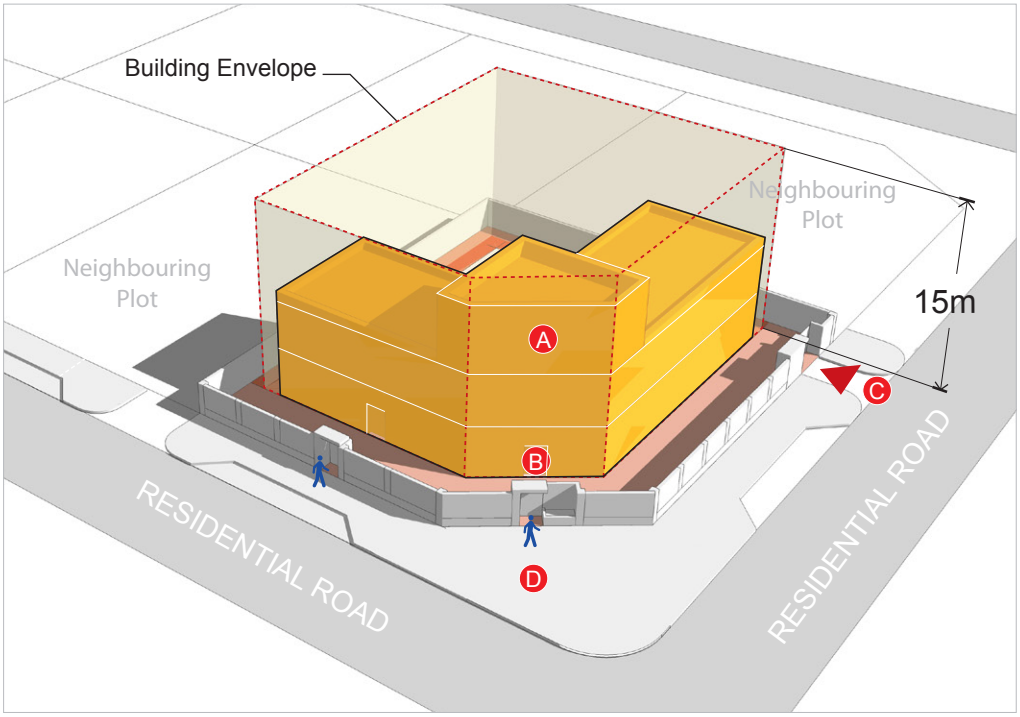
REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-CVP- Sheet 2/2

MASSING STRATEGY

Corner Villa Plots, while benefiting from an increased front façade, have the added responsibility of addressing both streets and respecting the alignment of the typical villas on either end.

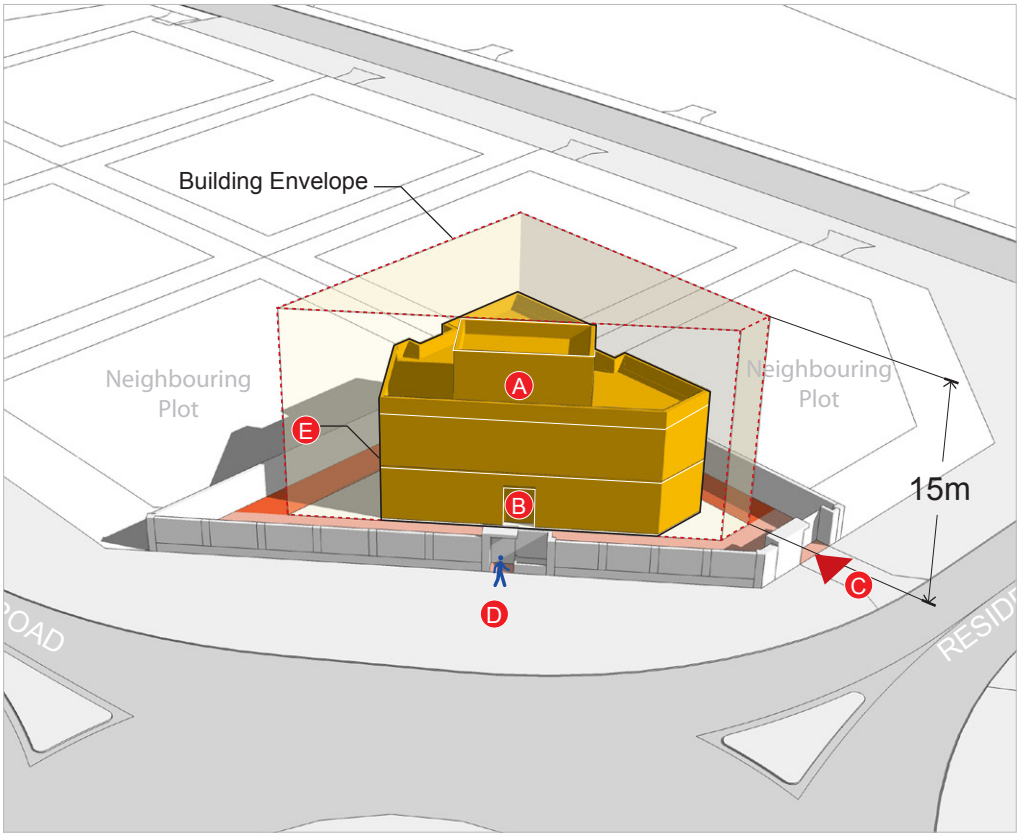
Regular corner plots, represent an opportunity for added architectural expression, by having the possibility to articulate 2 front façades. These also have the advantage of increased views, and are only restricted for visibility on 2 sides .



Standard Corner Plot

Irregular triangular plots, are very challenging plots, and demand bespoke architectural solutions to achieve quality designs. If possible these plots should be amalgamated with adjacent typical plots to achieve a more regular plot configuration.

- A Penthouse located at the corner to enhance prominence. Front Setback from external wall of 1st floor is not required
- B Main building entrance to be located on the main facade
- C Vehicular access must be via the defined driveways.
- D Pedestrian entrance to be aligned with villa main doorway. Standard 3 frontage Plots may include more than one pedestrian entrance.
- E Whenever possible side façades should be perpendicular to main façade.



Irregular Triangular Plot

PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.4.1 SLOPE VILLA PLOT GUIDELINES & CONTROLS

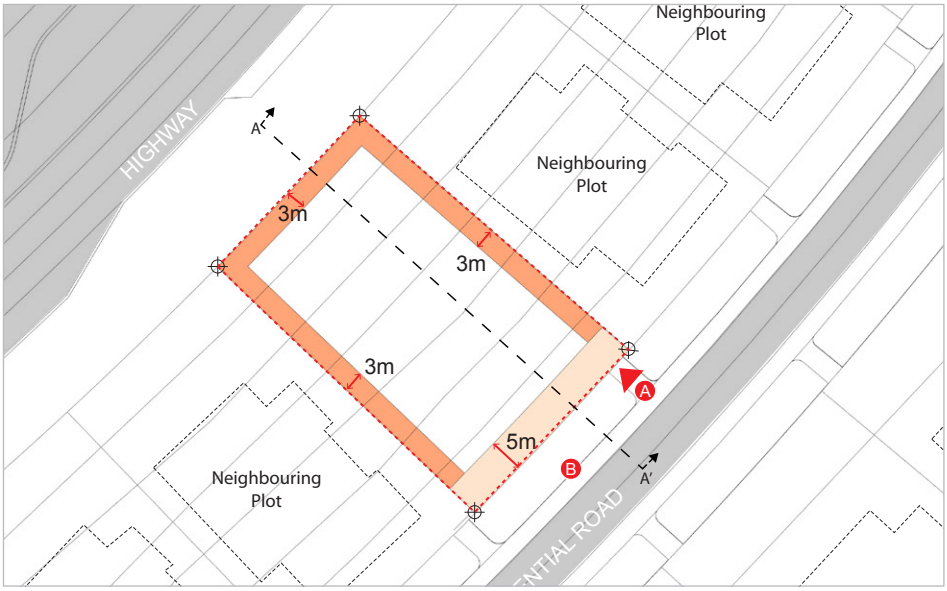
REF: LNWD-SVP- Sheet 1/2

GLOSSARY OF TERMS

GENERAL COMMENTS

Sloping sites are present mainly on Waterfront Residential Villas 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 and excavation with potential amenity impacts on neighbouring 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



Regular Slope Plot - Plan

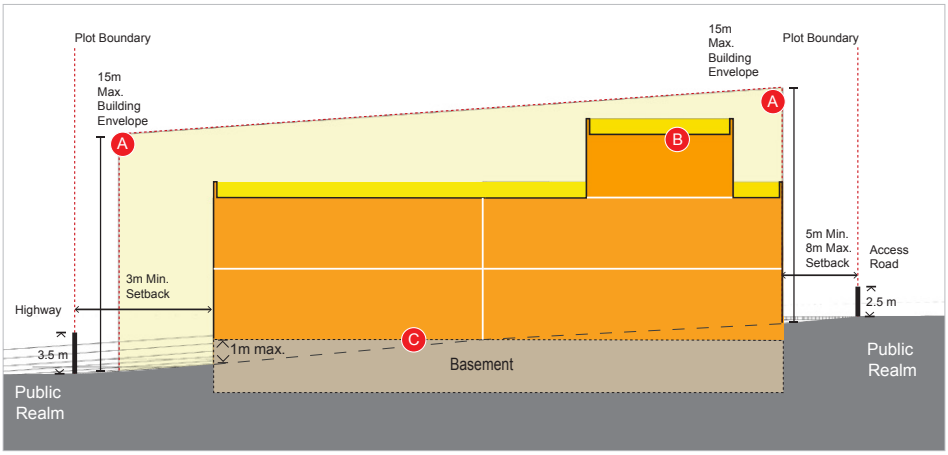
- 5m min. setback from the road side
- 3m min. setback with window & other openings
- A Vehicular access point subject to the built driveways
- Vehicular access
- B Main Pedestrian access point

TYPICAL SECTION

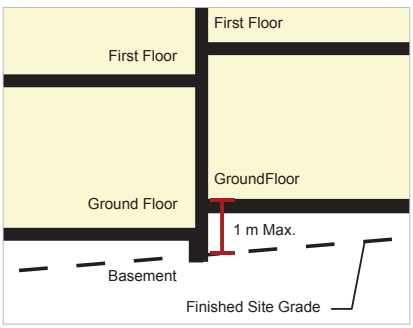
To safeguard quality, the following regulations are amended to augment and add to the Typical Villa Plot Guidelines & Controls:

ADDITIONAL REGULATIONS:

BUILDING HEIGHT
Maximum building height to be measured from mean grade adjacent to structure on all sides of the main Villa, to avoid overimposing onto lower level neighbouring plot
FLOORPLATE
Ground level Floorplate shall not exceed 1m height above finished grade of the site
For Plots that are over 6% inclination, a split level solution is encouraged to reduce cut and fill
PENTHOUSE
Penthouse, when present, should be located at the front side to mitigate level conflicts with neighbouring back plots



Slope Villa Plot - Section A-A



Split level Solution

- A 15 m max. building height measured from mean grade adjacent to structure on all sides of Main Villa building
- B Penthouse to be located preferably on front side of Villa
- C Ground Level Floorplate shall not exceed 1m height above finished grade of site

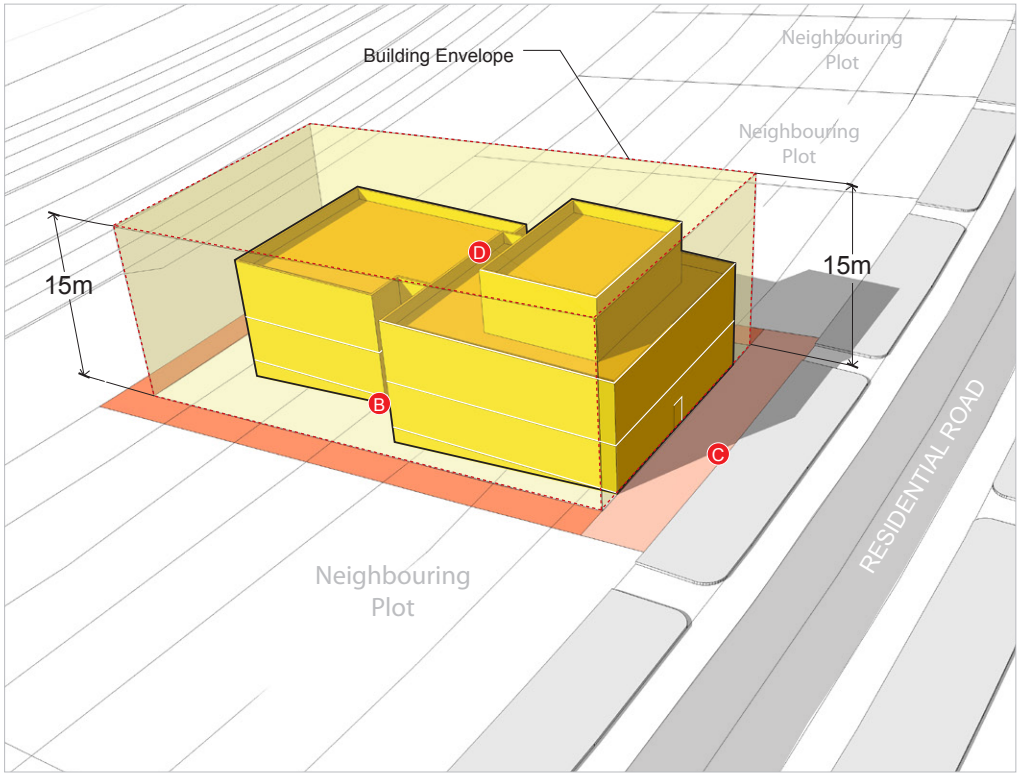
REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-SVP- Sheet 2/2

KEY CONSIDERATIONS

Designs which have reduced building footprints and allow the mass to step down the slope, benefit from reduced bulk, increased views over the lower side, reduced need for cut and fill, and less need for grading from curb entry.

- A Building Footprint to be reduced to avoid excessive cut and fill
- B Design that steps down the slope reduces need for cut and fill
- C Positioning at the front of the plot reduces need for grading from curb entry
- D Less bulk and building height on lower slope level allows for increased views from upper floors



Volumes - Slope Villa Plot

MASSING STRATEGY

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 .

- A Landscape solutions should integrate differences of levels to mitigate earth movements.
- B Side Boundary wall should slope down to follow site grade. Please check Boundary wall treatment guidelines

PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.4.1 TYPICAL RETAIL PLOT GUIDELINES & CONTROLS

REF: LNWD-TRP- Sheet 1/4

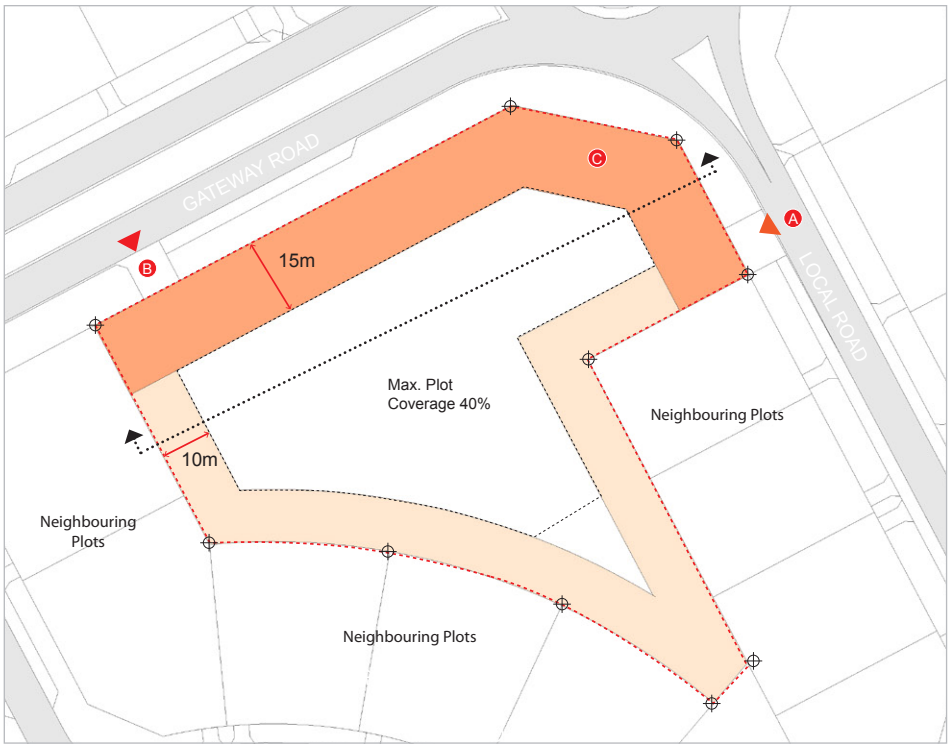
GLOSSARY OF TERMS

GENERAL COMMENTS

This sheet defines the general principles & parameters to inform the retail provider's approach to the parcel's development.
This 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.



Retail Plot - Plan

- 15m min. setback along roadside
- 10m min. setback elsewhere as indicated
- Visitor vehicular access
- Servicing access
- A Servicing from the road with less traffic circulation
- B Visitor vehicular access for drop-off and parking
- C Pedestrian access separated from vehicular access

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

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

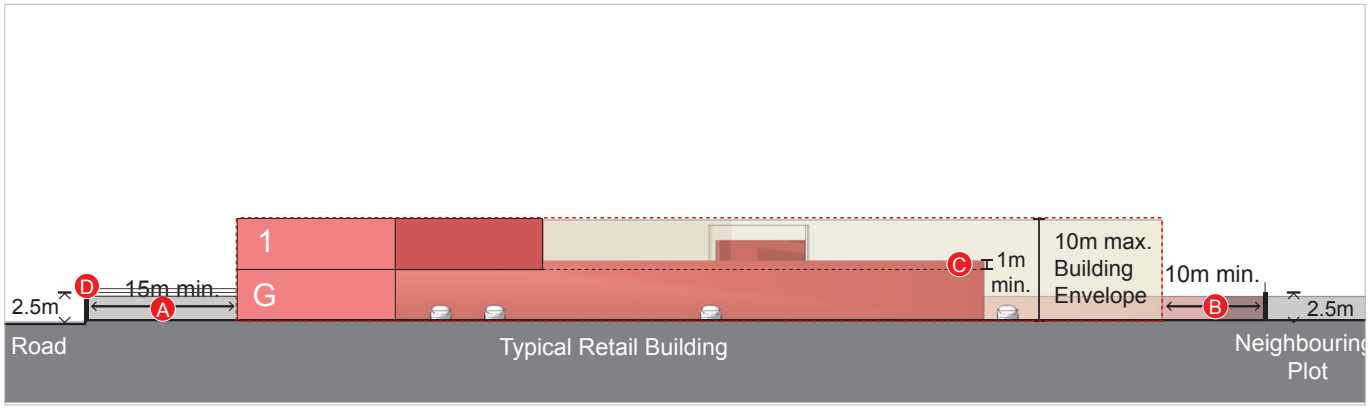
EXISTING REGULATION SUMMARY:

Permitted Land Use	Retail (neighbourhood)
Plot Area	As per individual Building Regulation Sheets
Max. FAR	0.40
Max. Plot Coverage	40%
Max. Number of Floors	G+1
Max. Heights	10m height
Min Setbacks Criteria	15m from road side
	10m elsewhere
Min. Car Parking Provision	1 space per 50m² of retail GFA space
Car Park Location	Subject to LREDC Approval

ADDITIONAL REGULATIONS:

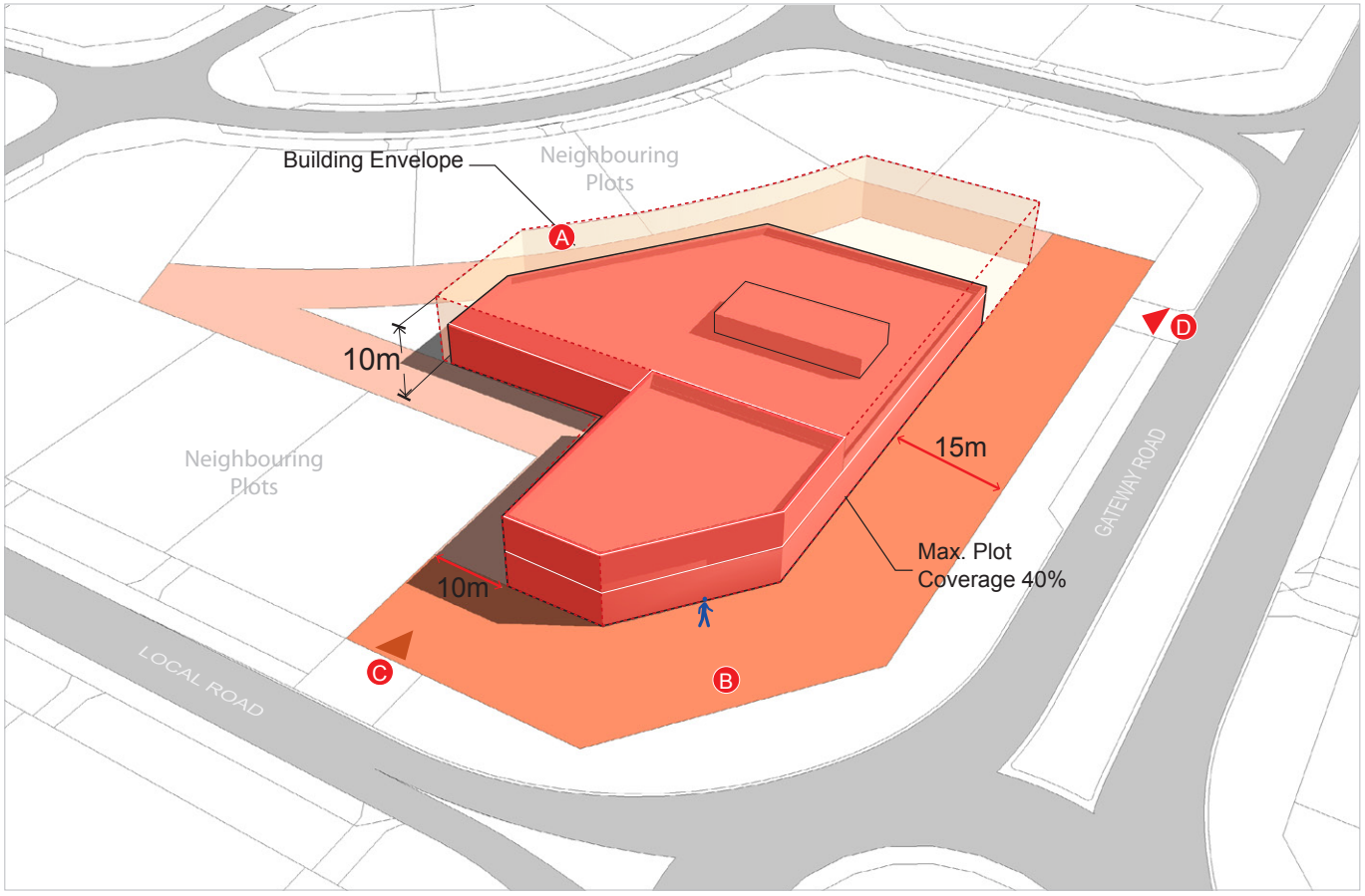
BOUNDARY WALL	Party walls to be 2.5m high, extending a further 0.5m when adjacent to residential plots.
ACCESS	Servicing to be separate from general traffic & pedestrian movement.
PARKING	Plot owners to provide all parking on site.
SCREENING	Refuse and general external storage to be screened from view with enclosures of 2m min height.
	Stairwells, vents, utility equipment to be recessed away from the street and screened from view.
	Rooftop parapets to be provided to 1.2m min. height

REF: LNWD-TRP- Sheet 2/4



Typical Retail Plot - Section

A Min. 15m setback from the roadside
B Min. 10m setback for property boundary all around
C Min. 1m roof parapet
D 2.5m boundary wall



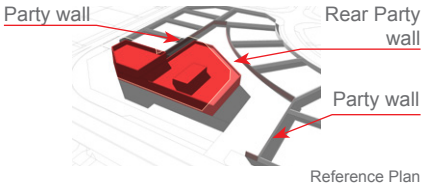
Typical Retail Plot - Sections

10m min. setback
15m min. setback from the roadside

A The building envelope is the total Section within which permissible construction may occur and is defined by the minimum setback lines and maximum height restrictions. The maximum building height is 10m (ground level to top of parapet).

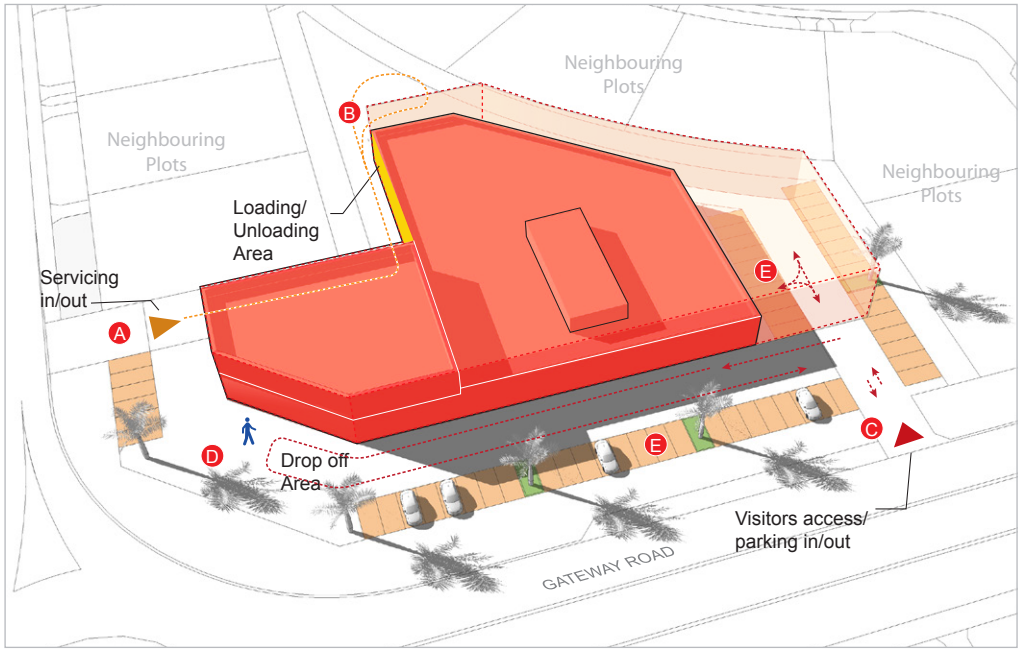
B Pedestrian access separated from service and other traffic where possible.
C Service access from side street to have 3m min clearance from adjacent plot(s).
D General vehicular access.

TYPICAL RETAIL PLOT GUIDELINES & CONTROLS



REF: LNWD-TRP- Sheet 3/4

ACCESS, SERVICING & PARKING

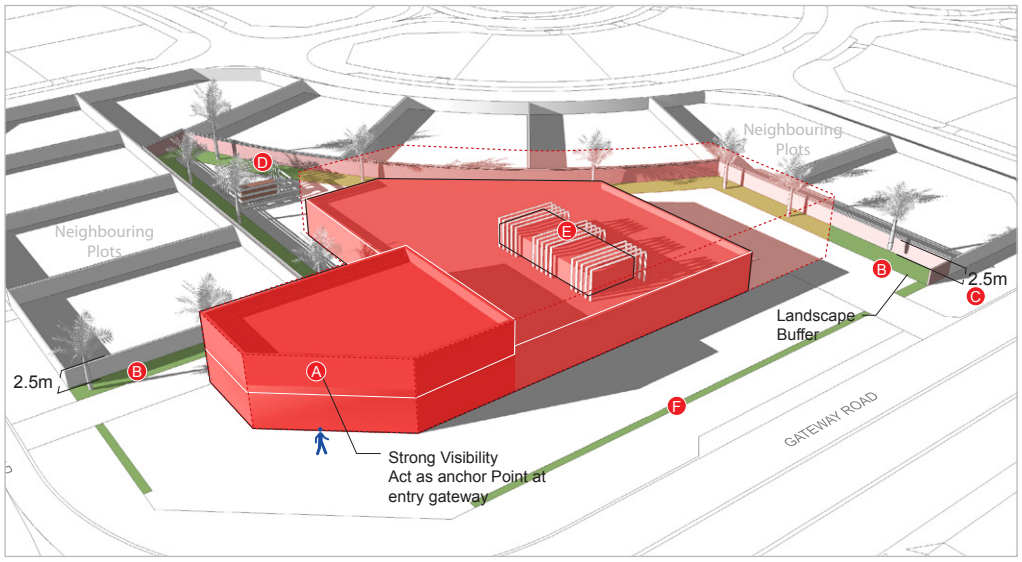


A Service access, in/out.
B Servicing encouraged at rear of parcel, maintaining 3m minimum clearance from residential plot(s). Provision for on-site turning of service vehicles at GF level.
C Parking access, circulation & drop off.
D Pedestrian entrance separated from vehicular routing
E Parking bays split to reduce impact of parking, add shade and improve streetscape.

Service traffic to be separated from all other traffic & pedestrian access. All parking to be provided on site.

Vehicular access should be from the rear/side of the plot. Servicing for retail must be accessed from the road with less traffic circulation and encouraged to serve the back of the retail building for deliveries, separating servicing traffic from all other traffic & pedestrians' access, maintaining a pleasant streetscape and retail frontage at the main road (especially where residential uses overlook).
Plot owners must provide all required parking on site. Owners are encouraged to group driveways with neighbouring plots to reduce the disruption to pedestrian movement.

VISIBILITY, PRIVACY & BOUNDARY WALL



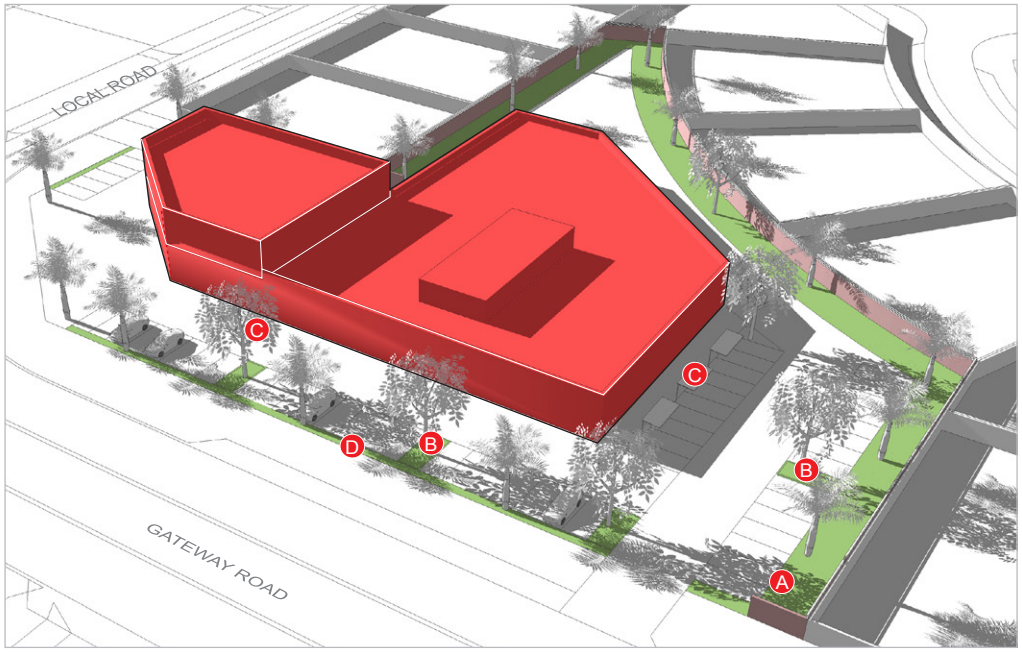
A Increase presence of building at entrance and corner to improve legibility/ visibility on approach.
B 3m (min) landscape buffer to residential plots to mitigate operational impacts.
C 2.5m party wall to residential plots.
D Refuse storage to be screened, secured and made accessible for collection.
E 1m min roof parapet conceal mechanical plant.
F Shrub planted margin to parking area.

Enhance visibility of the district. Delivery, storage and service areas to be screened from residential units

Retail plots are envisioned to provide strong visibility and image identity at the entry portal of the District, help pedestrian orientation and promote community interaction and activity.
Rear party walls with residential uses must comply with a min. 2.5m height
Service areas and deliveries should be at the rear and must be screened from residential units
All outside storage must be screened from parking spaces and pedestrians.

REF: LNWD-TRP- Sheet 4/4

LANDSCAPE & SHADING



Parking to be shaded and screened from roads and residential units

Within the parcel 50% of surface parking to be shaded.

9 shade trees per 100sqm of parking space area.

Parking to be screened from roads by planting, earth berms, walls or fences subject to approval.

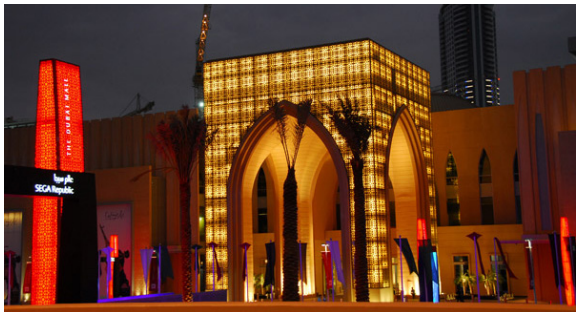
A Landscape buffer of 3m (min) to residential plots to mitigate operations.

B 1m (min) planted strip per 10no. (min) parking spaces.

C Trees encouraged in lieu of parking canopies.

D Planting to screen parking from major roads

REFERENCE IMAGES



PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.4.1 CIVIC PLOT GUIDELINES & CONTROLS (EDUCATION)

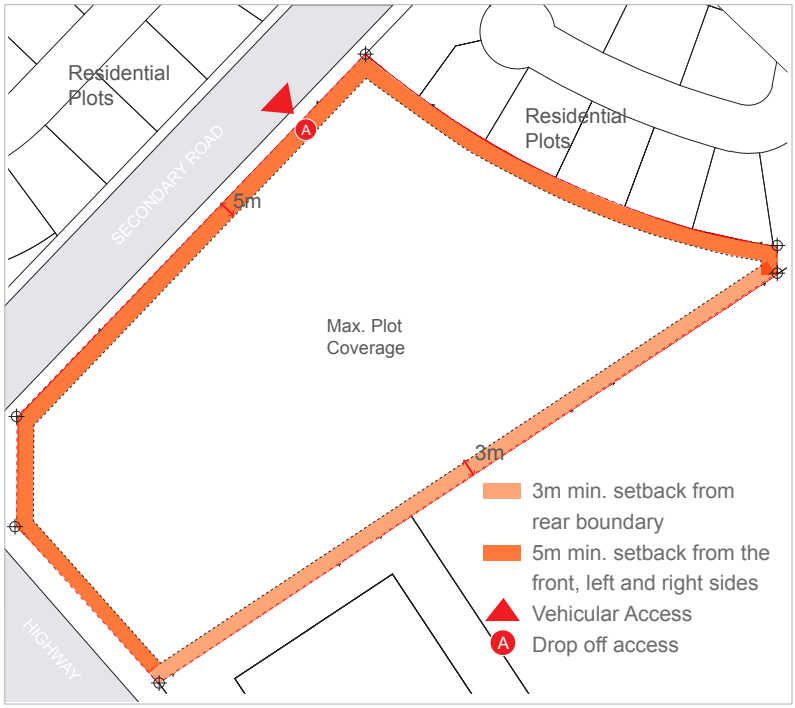
REF: LNWD-CP(E)- Sheet 1/1

GLOSSARY OF TERMS

GENERAL COMMENTS

These sheets supplement the Building Regulations, to clarify key principles and enhance provision for security & design quality to instil a liveable neighbourhood.

The sheets are 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 the Lusail City Education Strategy.



Education Plot - Plan

CONSIDERATIONS

> The developing agency should assume a G+2 height limit.

> Larger plots can accommodate community sports facilities.

ACCESS ARRANGEMENTS

> Pedestrian access to be separated from student drop-off.

> Student entrance / exit points should minimise conflicts between parent and bus drop-off movements on site.

> Boundary walls are mandatory, must control access to plots and ensure privacy from neighbouring areas, while offering permeable access to park space.

ARCHITECTURAL CONSIDERATIONS

> General character of buildings should be international contemporary style.

> Screening elements should be used to control privacy and views from the surrounding plots.

> Large building facades should have visual breaks by using shifts in horizontal/vertical planes, material changes, transparency, etc.

> Colour may be used for accents and highlights.

> Use of patterns and textures addressing cultural aspirations are encouraged, but should be limited to accents and highlights.

> All equipment on rooftops should be covered with metal trellis, louvres, etc.

REFERENCE IMAGES

RECOMMENDED MATERIALS

Coloured Panels

Translucent panels

Screening

Coloured highlights

CIVIC PLOT GUIDELINES & CONTROLS (MOSQUE)

REF: LNWD-CP(M)- Sheet 1/1

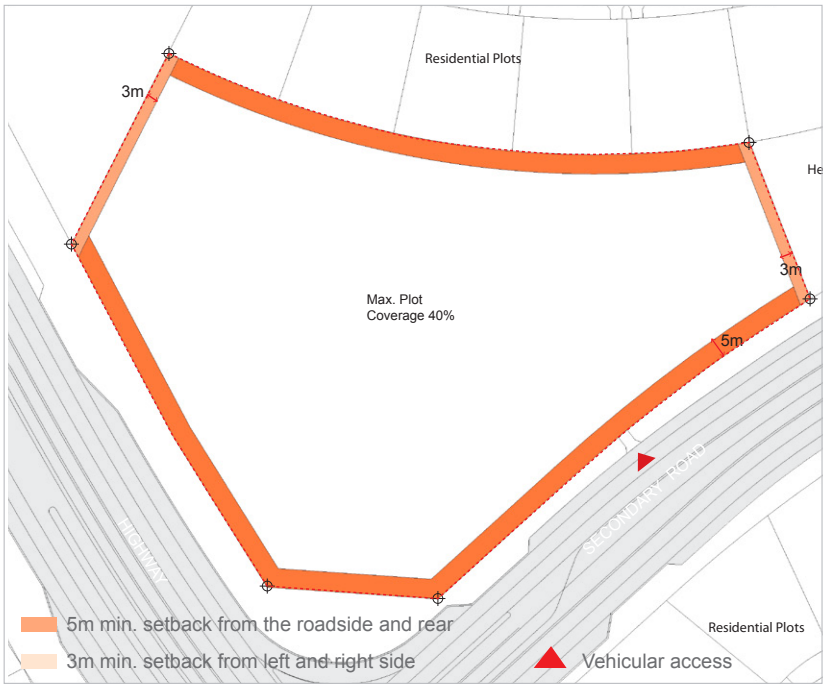
GLOSSARY OF TERMS

GENERAL COMMENTS

The purpose of the *Civic (Mosque) Plot Guidelines & Control Sheets* is to support and supply additional information to the existing Building Regulations, providing further clarifications and guidance to promote urban design quality.

The example site shown is for illustrative purposes only. For specific plot location please refer to original Building Regulations Guidelines.
For additional regulations please refer to the Private Engineering Office's requirements for the approval of mosques and government buildings' elevations.

It is mandatory to receive the Private Engineering Office´s approval on all types of mosque elevations as well as elevations of mosques' ancillary buildings.



Mosque Plot - Plan

CONSIDERATIONS

- As per the direction in the Qur'an all mosques shall be oriented towards Qibla.
- The building programme should comply with standards set out by The Mosque Architectural Design Committee.
- The max. overall height for a local mosque should not exceed 7m, or 10m in cases of justified exceptions.
- The max. overall height for a Juma mosque should not exceed 10m, or 13m in cases of justified exceptions.

ACCESS ARRANGEMENTS

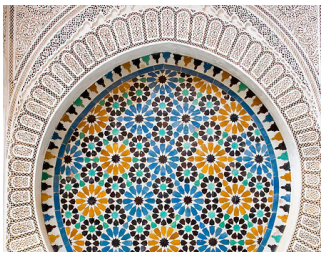
- Access for vehicles should respect designated driveways.
- It is recommended that subsequent separation of entrance / exit points is provided on the plot enabling a separation of vehicle flows and bus drop-off within the site.

ARCHITECTURAL CONSIDERATIONS

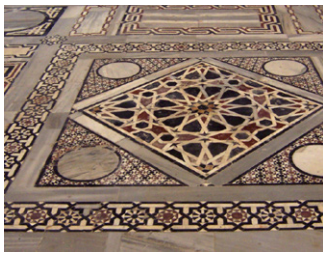
- Location of Mosque and Minaret should reference main visual corridors and enhance the relation with surrounding areas.
- Architecture design should follow the Qatari Heritage.
- Any type or form of domes is not allowed in the design.
- Design should allow for one minaret only, to be designed proportionately to the Mosque's height.

REFERENCE IMAGES

RECOMMENDED MATERIALS



Decorative tiles



Ornamental floor tiles

Textured stone wall

Stone cladding

PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

2.4.2 VILLA AMALGAMATION GUIDELINES & CONTROLS

REF: LNWD-AG- Sheet 1/12

GLOSSARY OF TERMS

INTRODUCTION

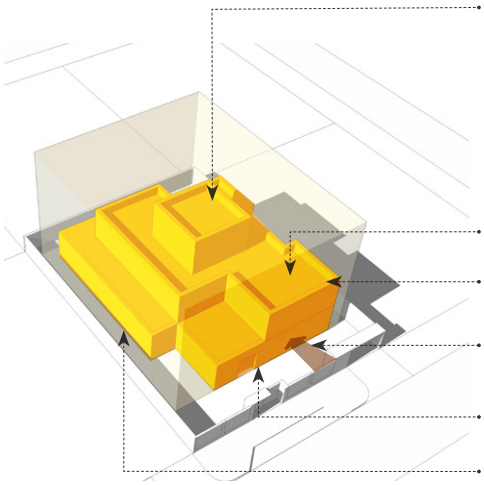
Villa Amalgamation Guidelines & Controls have been provided to ensure the quality of the development and attractive street environment is delivered, while the individual plots are being amalgamated into single, larger villa plot. The review process recognised the ongoing trend of amalgamation of the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

The following 12 sheets outline:

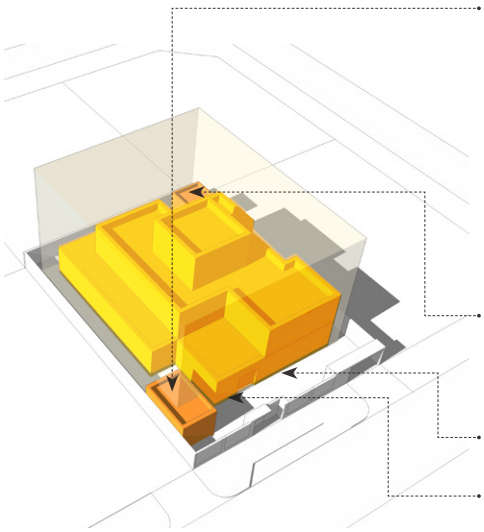
- **the key objectives and aspirations of the guidelines, summarising the most important design elements to be protected within the scale of the residential street;**
- **the key permutation of the amalgamations and the differences of the relevant guidelines**
- **the illustrative examples of amalgamation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

BASELINE ELEMENTS (STARTING POINT):

PLOT: Residential Villa / Single Family Villa per Plot
PLOT SIZE: approximately 950m^2



Additional components / Ancillary Buildings:
Car Park Structures, Majlis, Gym, Outdoor Kitchen, Servant's Quarter

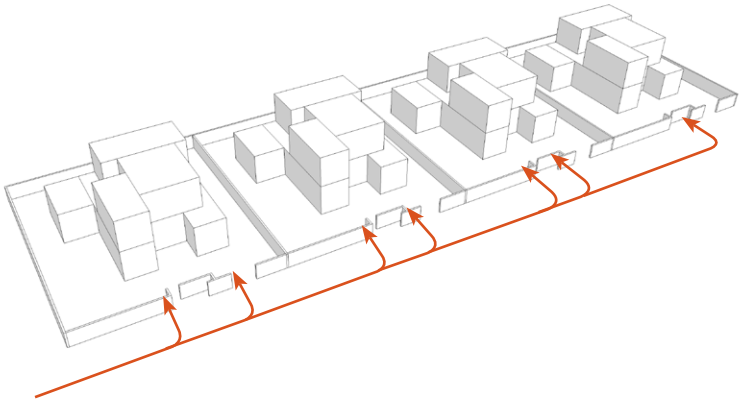


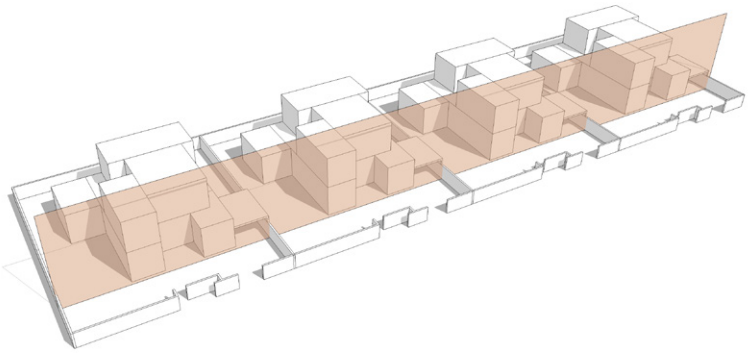
Key approaches used to ensure high quality design & construction to safeguard the value of the development:

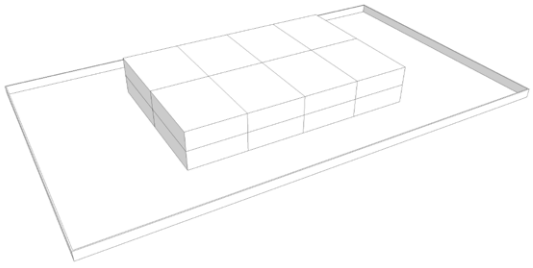
- Street Frontage/ Elevation - through setback controls and build-to lines
- Rhythm - through setback controls and streetscape modulation
- Access - through location principles for vehicle & pedestrian entry points
- Amalgamated plots retain all Plot parameters - maximum covered area (CA), Floor Area ratio (FAR)and Built Up Area (BUA)
- No unaccountable floorspace - by including habitable basement areas, balconies and 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 practise examples
- Landscape - through recommendations and best practice examples

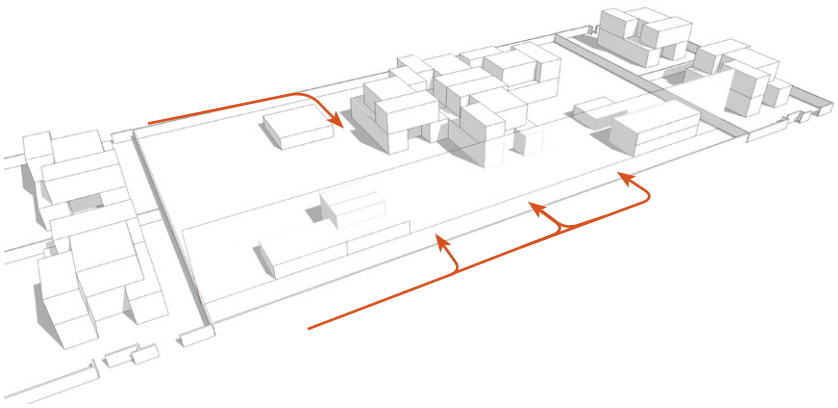
REF: LNWD-AG- Sheet 2/12

KEY CONSIDERATIONS - AMALGAMATION APPROACH









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 façade 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
BUILDING HEIGHTS /
SECTIONS & PROPORTIONS

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

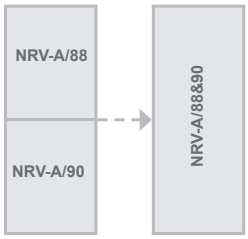
Parcel amalgamation across two rows of plots urban blocks poses the dilemma of fronting two residential streets. Where this occurs it is important to ensure both roads are used for access and that the front be accorded to the more prominent street.

VILLA AMALGAMATION GUIDELINES & CONTROLS

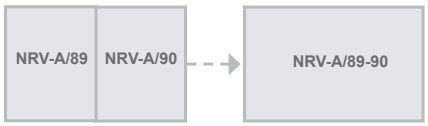
REF: LNWD-AG- Sheet 3/12

AMALGAMATION SCENARIOS

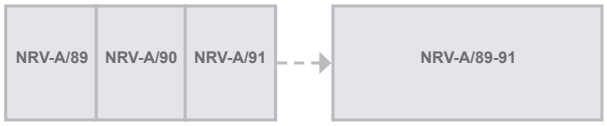
1 AMALGAMATION OF 2 VILLA PLOTS / ADJACENT REAR
(Refer to Typical Villa Plot Guidelines for setbacks, heights and controls)



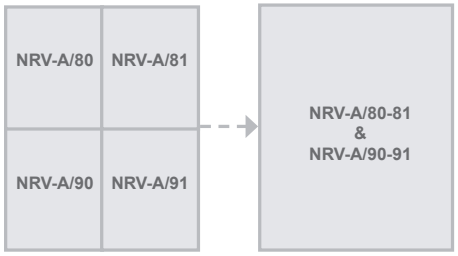
2 AMALGAMATION OF 2 VILLA PLOTS / ADJACENT SIDES
(Refer to Typical Villa Plot Guidelines for setbacks, heights and controls)



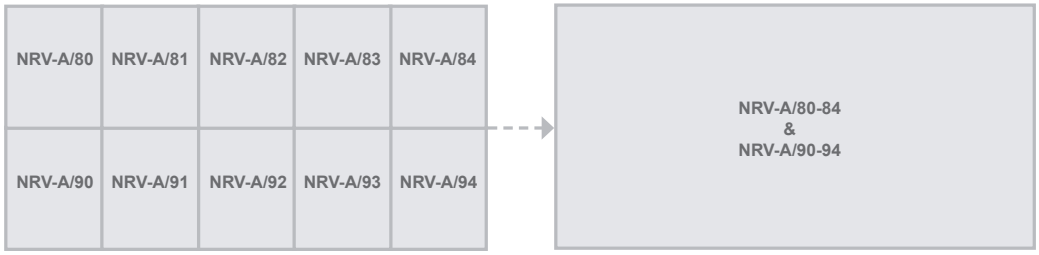
3 AMALGAMATION OF 3 OR MORE VILLA PLOTS / LINEAR



4 AMALGAMATION OF 4 OR MORE VILLA PLOTS / CLUSTER



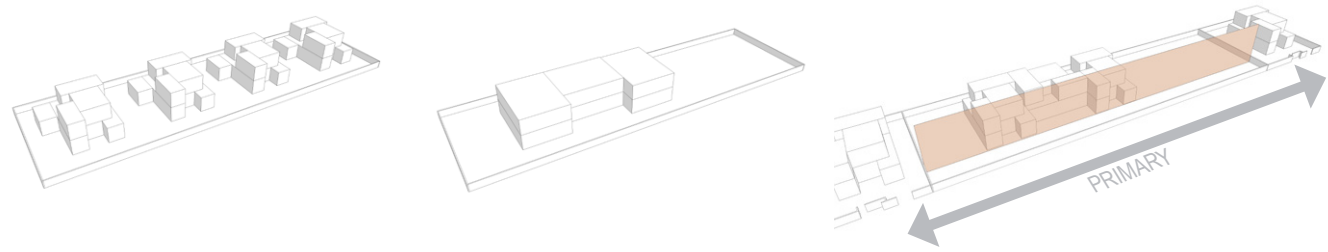
5 AMALGAMATION OF LARGE NUMBER OF VILLA PLOTS / EXTENDED GROUP
(*Special condition, subject to approval)



*Plot reference use here as example only

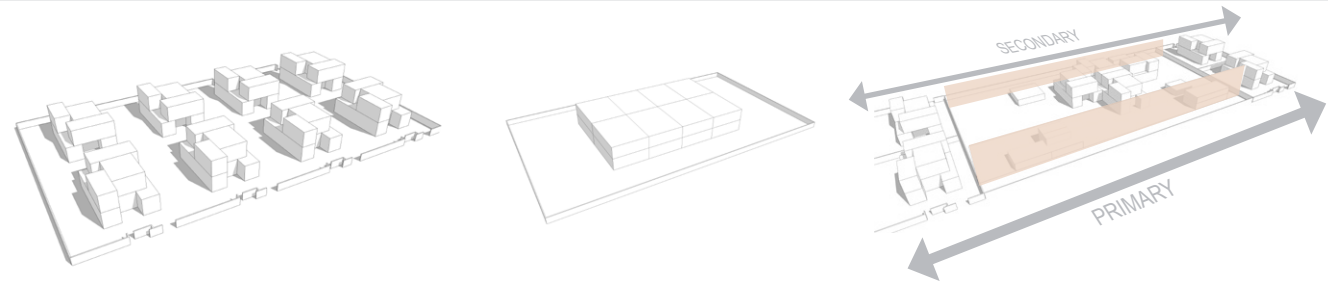
REF: LNWD-AG- Sheet 4/12

EXAMPLES OF LINEAR AMALGAMATION



1. Consolidate plot boundaries ····► 2. Combine BUA allowances ····► 3. Distribute massing within plot

EXAMPLES OF ADJACENT SIDE & REAR AMALGAMATION



1. Consolidate plot boundaries ····► 2. Combine BUA allowances ····► 3. Distribute massing within plot

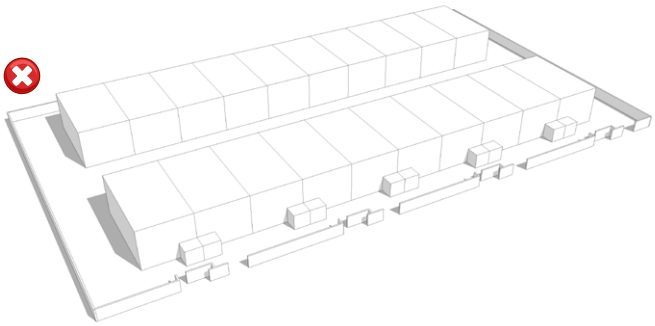
KEY CONTROL ON AMALGAMATION SCENARIOS

The North and Waterfront Residential 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.

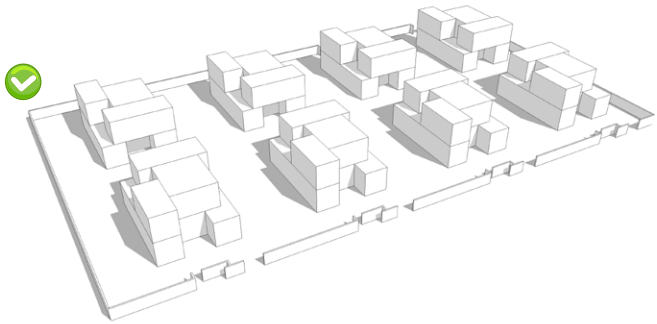
Therefore it is key that, on plot amalgamation, is strictly forbidden to implement housing complexes of any sort.

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

<

PLEASE ALSO SEE:
ARCHITECTURAL DESIGN
BOUNDARY WALLS
LANDSCAPE DESIGN

3 & MORE VILLA PLOTS: LINEAR

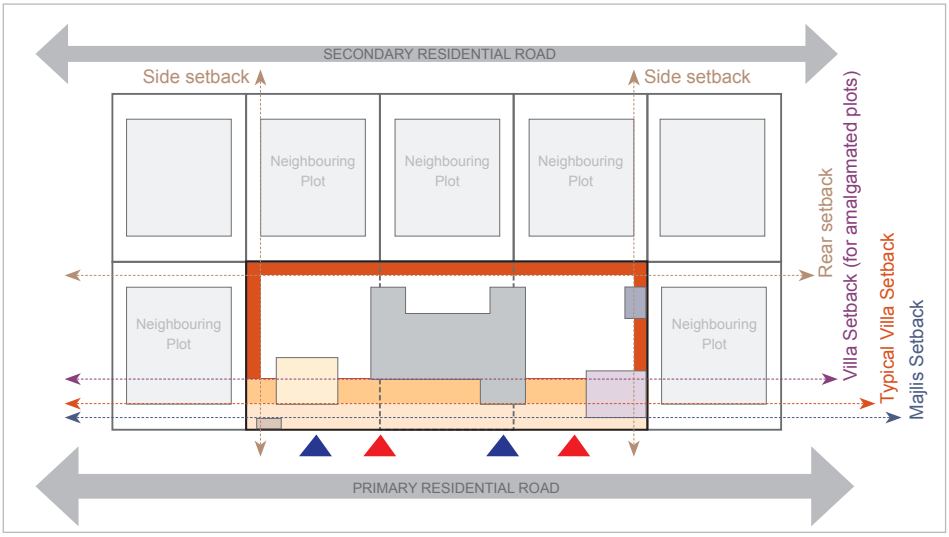
REF: LNWD-AG- Sheet 5/12

GLOSSARY OF TERMS

GENERAL COMMENTS

The objective of the Amalgamated Villa Plot Guidelines is to ensure the overall quality of the street frontage is not compromised; massing and building height does 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.



Linear amalgamation scenario in the context of the street

*Plot reference use here as example only

- 3m setback (side & rear)
- 5m setback (typical villa)
- 10m setback (amalgamated villas)
- Main Villa Building
- Secondary Villa
- Majlis
- Ancillary Buildings
- Gatehouse
- Vehicular Access
- Pedestrian Access

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

EXISTING REGULATION SUMMARY:

LAND USE:	> Residential & Ancillary uses > Allocated and amalgamated GFA (BUA) > Allocation of single-family per plot (with understanding it can accommodate, large, extended family)
COVERED AREA RATIO:	> Maximum FAR: 85% > Maximum 50% of Plot Coverage > Penthouse: 45% of 1st floor area
CAR PARK:	> Allocated and amalgamated parking provision
PLOT BOUNDARY:	> Allocated and amalgamated overall Plot boundary
SETBACKS:	> 5m from road side > 3m from back and neighbour sides > 3m from external face of 1st floor wall on all sides
HEIGHT:	> Main Villa: Maximum +15m (G+1+P) > Majlis: Maximum +5m (top of parapet) > Ancillary Buildings: +4m (top of parapet)
	For further details, refer to original Plot Building Regulations

To safeguard quality, the following regulations **are amended to augment and add** to the Building Regulations for buildings with over 2000 sqm BUA, sitting on a plot of over 3,000 sqm:

ADDITIONAL REGULATIONS:

HEIGHT	Maximum 16m to top of parapet wall
COVERED AREA RATIO	Penthouse : Maximum 45% of the first floor footprint
SETBACKS	> Minimum 10m from front plot boundary > Minimum 6m from front and rear plot boundary (unscreened windows) > Minimum 3m from front and rear plot boundary (with screened windows) > Gatehouse house can abut plot boundary wall
STREET FRONTAGE	35% of building frontage to be setback 5m from front plot boundary for continuity with neighbouring plots. This can be achieved through positioning of the parts of the main villa massing, ancillary buildings or positioning of the Majlis.
ACCESS POINTS	Minimum of 2 vehicular entry points
BOUNDARY WALL	Guidelines applied to safeguard the quality of residential street (please refer to the Boundary Wall Guidelines)
HOUSING UNITS	Max. number of housing units equal to the number of amalgamated plots. Units to be implemented as detached villas

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-AG- Sheet 6/12

MASSING & STREET ARTICULATION

MAIN BUILDING

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

MASSING CONTROLS

If the amalgamated plot has a plot area of more the 3,000m²and the main building a BUA of min.2000 sqm specific controls are applied.

Example of concept resolution

SECONDARY BUILDING

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

FRONTAGE CONTINUITY

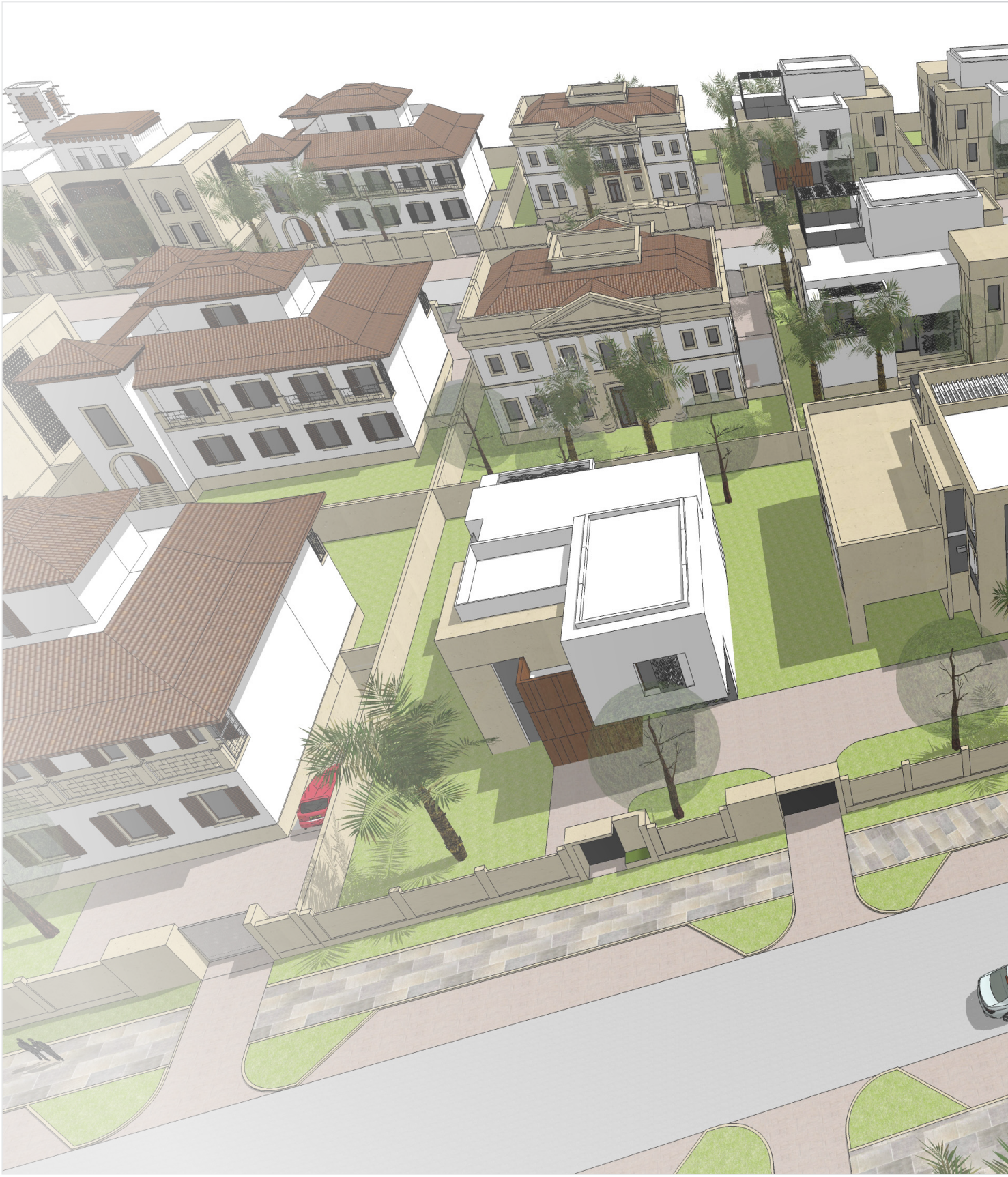
Minimum 35% of the length of boundary wall from the primary road should be animated by parts of main villa, ancillary buildings or positioning of the Majlis) following the 5m setback of the singular villa plot to safeguard street alignment coherence.

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 and façade breaks alleviate continuous boundary walls to improve the public realm experience.

3 & MORE VILLA PLOTS: LINEAR ILLUSTRATIVE AMALGAMATION SCENARIO

REF: LNWD-AG- Sheet 7/12



REF: LNWD-AG- Sheet 8/12

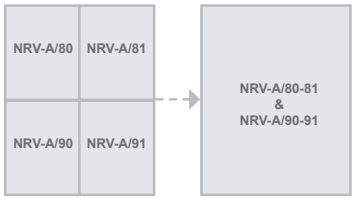
4 & MORE VILLA PLOTS: CLUSTER

REF: LNWD-AG- Sheet 9/12

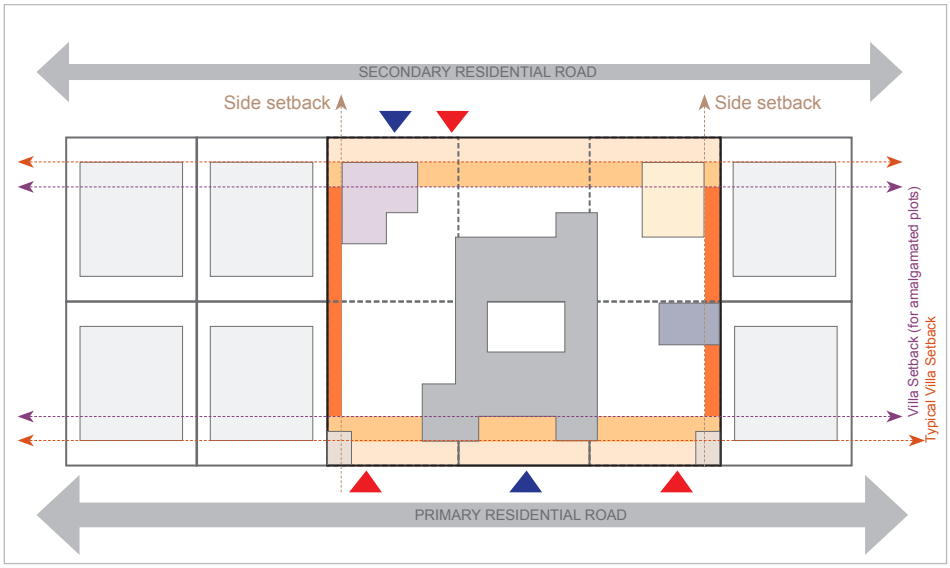
GLOSSARY OF TERMS

GENERAL COMMENTS

The objective of the Amalgamated Villa Plot Guidelines is to ensure the overall quality of the street frontage is not compromised; massing and building height does 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.



*Plot reference use here as example only



Adjacent sides and rear amalgamation scenario in the context of the street

- 3m setback (side)
- 5m setback (typical villa)
- 10m setback (amalgamated villas)
- Main Villa Building
- Secondary Villa
- Majlis
- Ancillary Buildings
- Gatehouse
- Vehicular Access
- Pedestrian Access

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

EXISTING REGULATION SUMMARY:

LAND USE:
> Residential & Ancillary uses
> Allocated and amalgamated GFA (BUA)
> Allocation of single-family per plot (with understanding it can accommodate, large, extended family)

COVERED AREA RATIO:
> Maximum FAR: 85%
> Maximum 50% of Plot Coverage
> Penthouse: 40% of 1st floor area

CAR PARK:
> Allocated and amalgamated parking provision

PLOT BOUNDARY:
> Allocated and amalgamated overall Plot boundary

SETBACKS:
> 5m from road side
> 3m from back and neighbour sides
> 3m from external face of 1st floor wall on all sides

HEIGHT:
> Main Villa: Maximum +15m (G+1+P)
> Majlis: Maximum +5m (top of parapet)
> Ancillary Buildings: +4m (top of parapet)

For further details, refer to original Plot Building Regulations

To safeguard quality, the following regulations **are amended to augment and add** to the Building Regulations for buildings with over 2000 sqm BUA, sitting on a plot of over 3,000 sqm:

ADDITIONAL REGULATIONS:

HEIGHT	Maximum 16m to top of parapet wall
COVERED AREA RATIO	Penthouse : Maximum 45% of the first floor footprint
SETBACKS	> Minimum 10m from front plot boundary > Minimum 3m from front and rear plot boundary > Anywhere from 3m to 6m setback, windows must be screened. > Gatehouse house can abut plot boundary wall
STREET FRONTAGE	35% of building frontage to be setback 5m from front plot boundary for continuity with neighbouring plots. This can be achieved through positioning of the parts of the main villa massing, ancillary buildings or positioning of the Majlis.
ACCESS POINTS	Minimum of 2 vehicular entry points
BOUNDARY WALL	Guidelines applied to safeguard the quality of residential street (please refer to the Boundary Wall Guidelines)
HOUSING UNITS	Max. number of housing units equal to the number of amalgamated plots. Units to be implemented as detached villas

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-AG- Sheet 10/12

MASSING & STREET ARTICULATION

FRONTAGE CONTINUITY

Minimum 15% of the length of boundary wall from secondary road should be animated by Majlis or/and ancillary buildings (gym, servants quarters, outside kitchen) following the 5m setback of the singular villa plot to safeguard street alignment coherence.

MAIN BUILDING

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

MASSING CONTROLS

If the amalgamated plot has a plot area of more the 3,000m²and the main building a BUA of min.2000 sqm specific controls are applied.

Example of concept resolution

SECONDARY BUILDING

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

FRONTAGE CONTINUITY

Minimum 35% of the length of boundary wall from the primary road should be animated by parts of main villa, ancillary buildings or positioning of the Majlis following the 5m setback of the singular villa plot to safeguard street alignment coherence.

PERIMETER WALL CONDITION

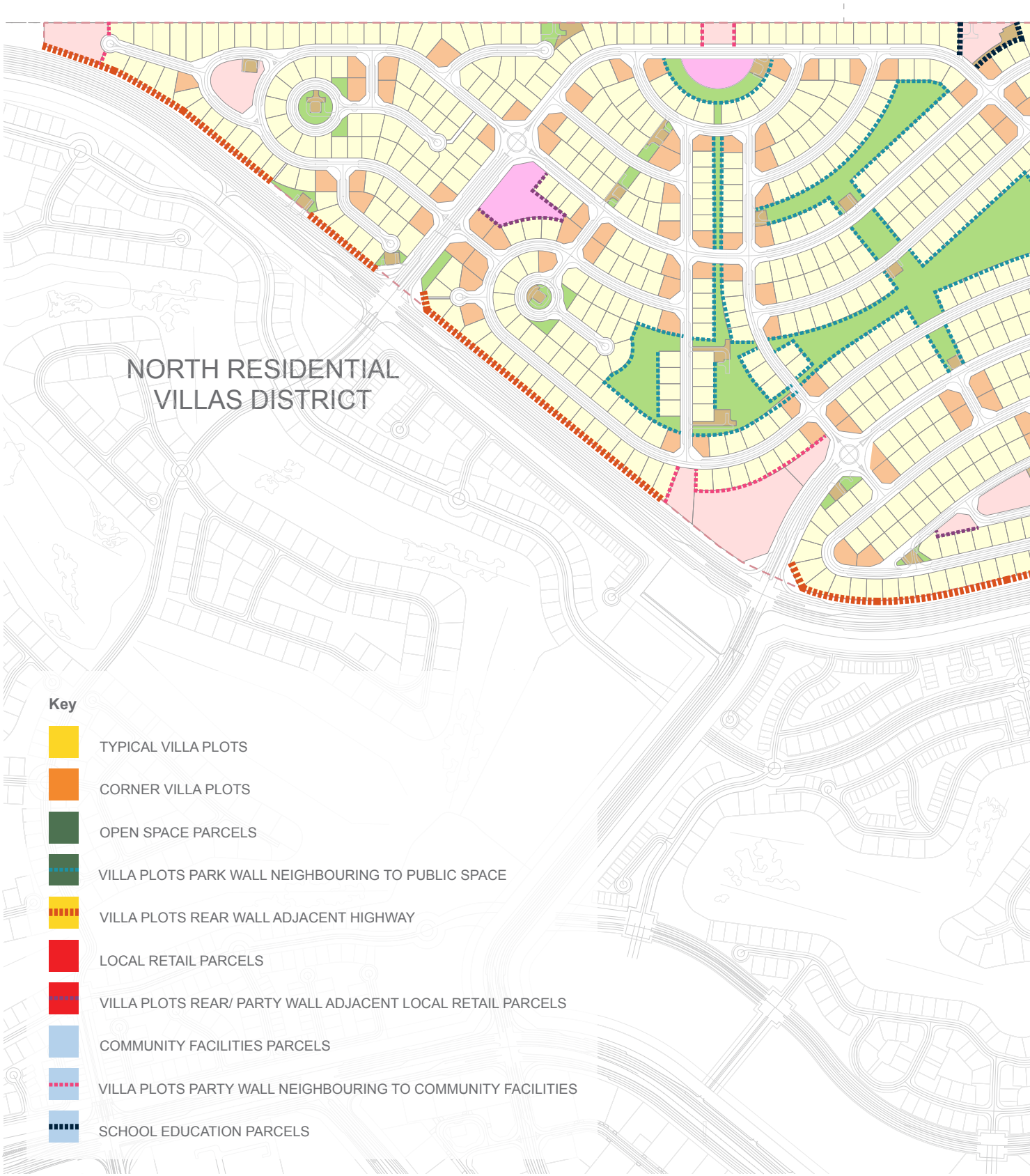
Pedestrian gates, vehicular entry points, as well as articulated boundary walls add to the pedestrian experience through introduction of variety of scales and treatments. Regular openings and façade breaks alleviate continuous boundary walls to improve the public realm experience.

4 & MORE VILLA PLOTS: CLUSTER ILLUSTRATIVE AMALGAMATION SCENARIO

REF: LNWD-AG- Sheet 11/12

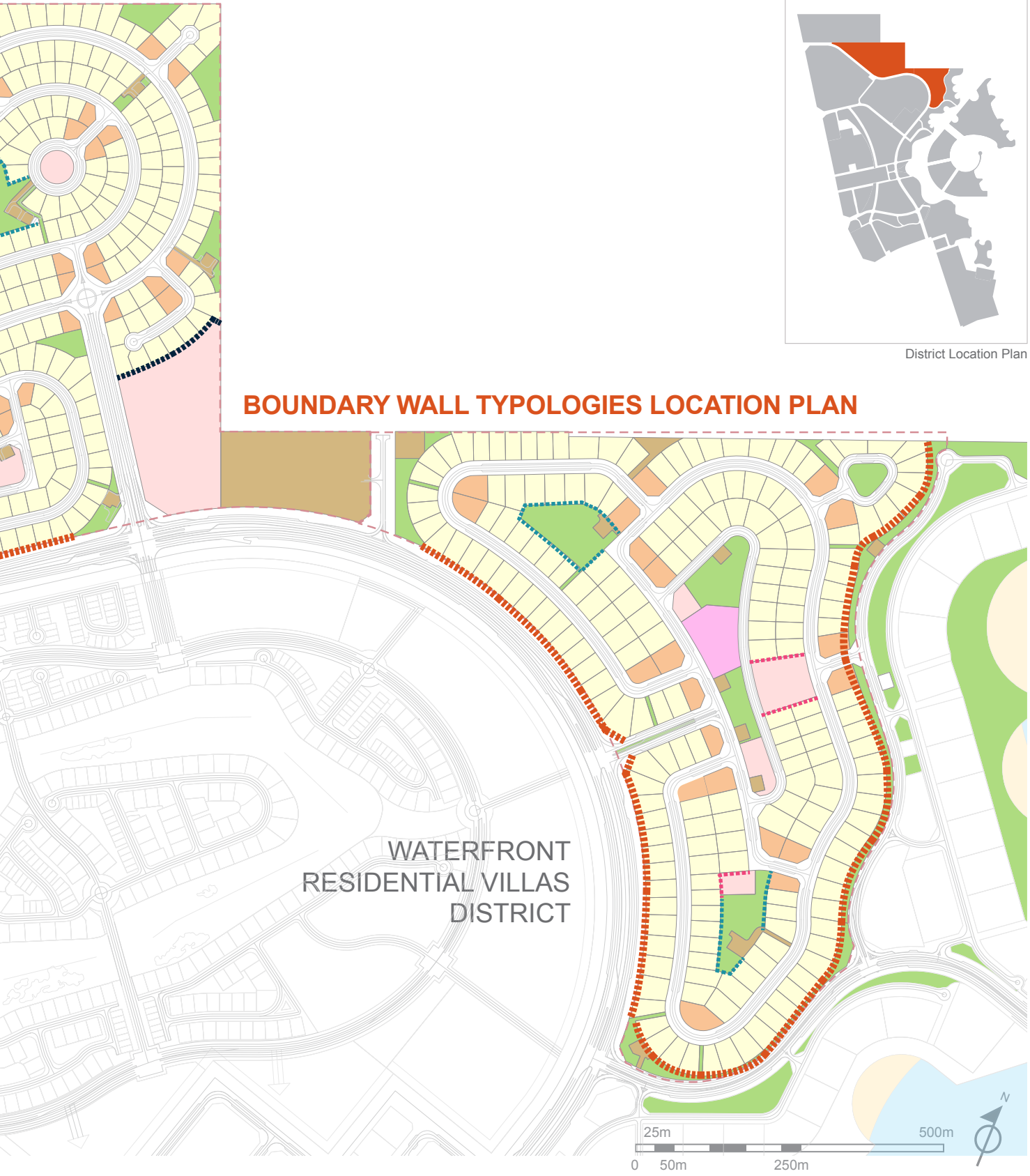
REF: LNWD-AG- Sheet 12/12

2.5 BOUNDARY TREATMENT GUIDELINES & CONTROLS



District Location Plan

BOUNDARY WALL TYPOLOGIES LOCATION PLAN



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PLEASE ALSO SEE:
VILLA PLOT TYPOLOGY
ARCHITECTURAL DESIGN
LANDSCAPE DESIGN
GLOSSARY OF TERMS

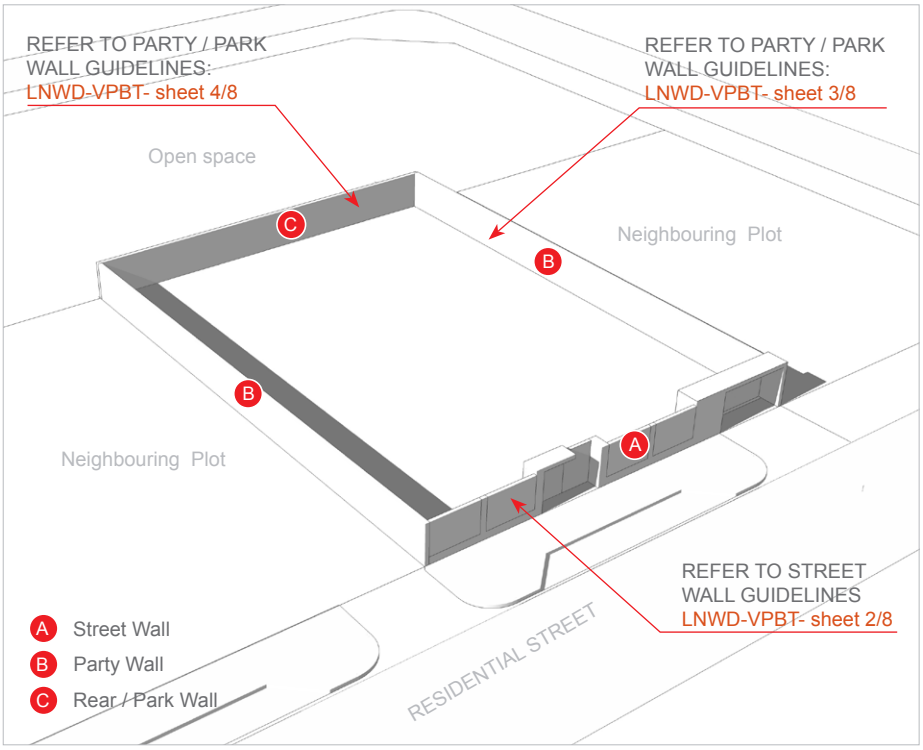
VILLA PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LNWD-VPBT- Sheet 1/8

RATIONALE

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

In the North and Waterfront Villa District boundary treatments will provide plot privacy and security. As a mandatory component Lusail wishes to make the walls a positive visual feature of the area. A cohesive design palette is required, with agreed codes that define the location, dimensions and physical appearance of each boundary. The walls are to be built to ensure a common standard.



Typical Villa Plot Boundary - Key Components

Key objectives:

- **Distinctive street wall finishes**
- **Modulate continuous walls with entrances, piers, panels and planting**
- **Standardised design palette**
- **High quality, durable finishes**
- **Technically robust**

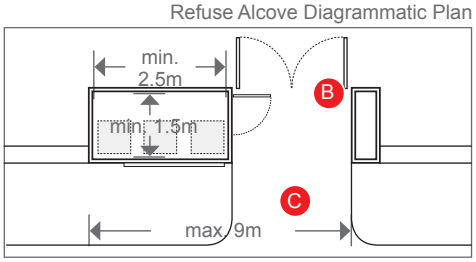
SUMMARY OF TYPICAL VILLA BOUNDARY WALL

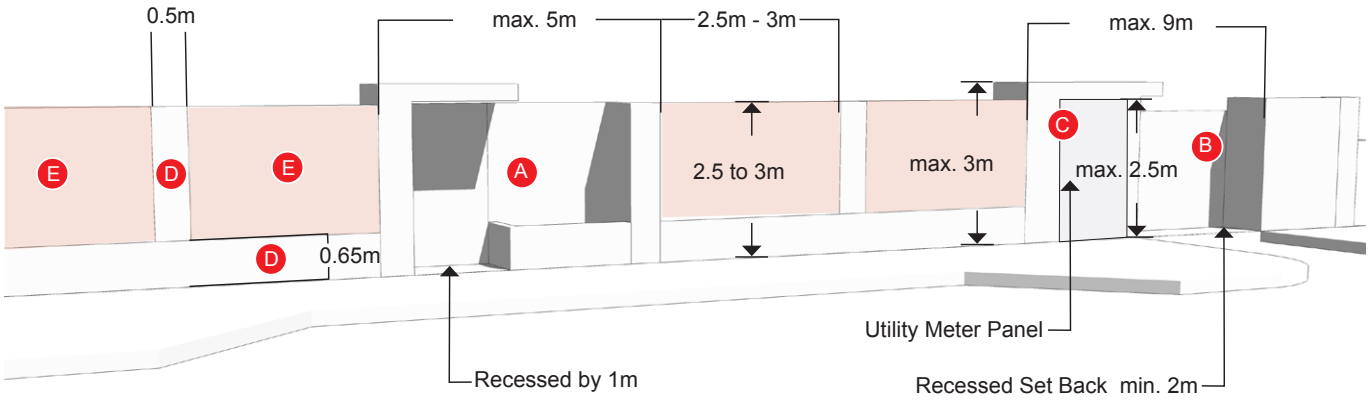
	Components	MANDATORY CONTROLS
A	Street Wall	> Approved street walls comprise: piers, plinths, coping, inset panels, pedestrian entrance, vehicle entrance > Wall height 2.5m to 3m, opacity/style governed by inset panel and portal designs > Pedestrian entrance separate from vehicle entrance. Piers set back 1m from plot edge, recessed area to be max 5m wide, 2.8m high. To incorporate house number panel > Vehicular entrance aligned with access drive and garaging. Recessed area set back 1m, max 9.0m wide, 2.8m high. To incorporate utility service panel and refuse collection point.
B	Party Wall	> Approved wall to sit within and define plot boundary, before internal plot construction can start > 2.5m to 3m high, to approved system
C	Park Wall	> Wall heights can vary from 0.65 - 3m to suit plot requirements > Optional inclusion of rear pedestrian entrance, if approved by Master Developer, to include park path access built at owners' expense.

REF: LNWD-VPBT- Sheet 2/8

STREET WALL

Refuse Alcove Diagrammatic Plan





	Components	Guidelines	MANDATORY CONTROLS
A	Pedestrian entrance	> Range of optional elements styled and finished to suit villa design type - uplit panel, mailbox, bench planter and tree;	> Recessed area set back 1m; max 5m wide, 2.8 to 3m high > Designed to reflect villa architectural style
B	Vehicular access	> Reserved area dedicated for vehicle access (and service access)	> Recessed area set back min. 2.0m; max 9m wide, 2,8 to 3m high > Designed to reflect villa architectural style > Incorporates refuse alcove and utility panel.
C	Refuse Alcove & Utility Panel	> To be defined to give clear access to meters and bins	> Refuse alcove cannot be higher than adjacent Boundary wall height; > Refuse alcove to be enclosed, ventilated and covered with construction material & finish consistent w/ the Boundary wall > Must have a self-closing door to visually screen refuse bins and be accessible from outside the gate or wall enclosure. > Alcove dimensions to be Minimum 1.5m x 2.5m clear, to accommodate multiple bins. > Flooring should be an appropriate epoxy or tiled surface with a slope or drain connection to prevent dirty water egress into public realm; > The alcove should be appropriately lit to allow correct material placement and safe bin emptying; > The required bins will be of standard 240L design and dimensions, and supplied by the builder / resident. > Utility Technical Meter location needs to coordinate to Authority Metering & Equipments. according to standard installation parameters.
D	Wall structure	> Modular system matching plot architectural style	> Boundary wall 2.5m to 3m high, 0.5m wide piers, 0.65m high plinth > Structural frame for inset panels to suit geometry of plot boundary and distance between piers/ entrances
E	Inset panels	> Distinctive feature of each style	> In keeping with design style of the house

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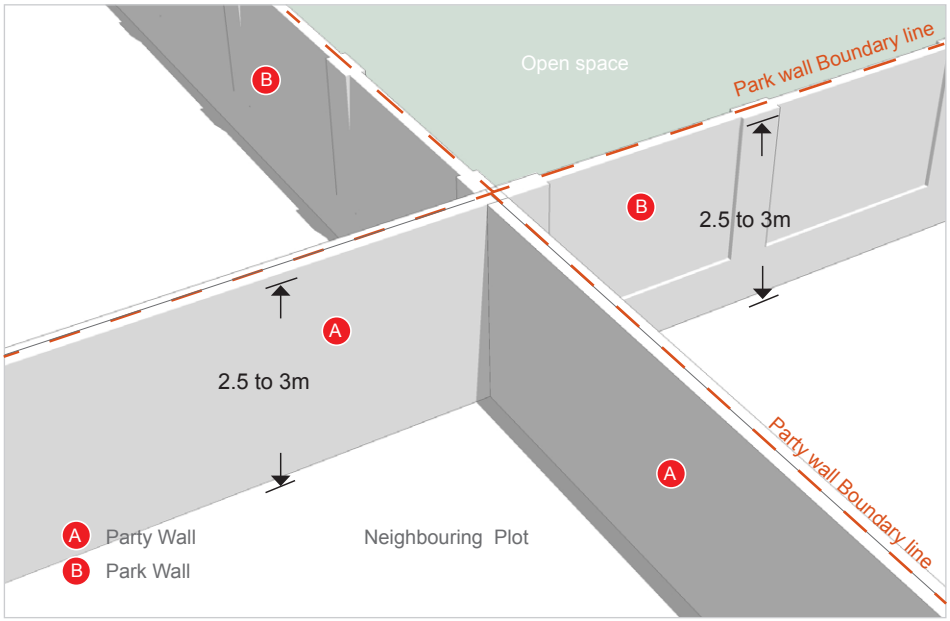
VILLA PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LNWD-VPBT- Sheet 3/8

PARTY & PARK WALLS

Key Principles:

- **Provide privacy and security**
- **Adequate structural capacity**
- **Cohesive finishes**
- **Reflect architectural style if required**
- **High quality, durable, prestige finishes**
- **Robust and fit for purpose**



Typical Villa Plot Party & Park Wall Boundary Treatment

	Components	Guidelines	MANDATORY CONTROLS
A	Party Wall	> Design and finish to suit parcel owner requirements	> Party walls to be defined by two parallel and abutting walls, aligned on the boundary line, including footings/ foundations > Mandatory 2.5m to 3m high > Wall to be freestanding, not retaining earth
B	Park Wall	> Arabic styled finishes face park > Inward finishes to suit owner's preferred style > Optional pedestrian access, if consented by Master Developer	> Construct within plot boundary line, including footings/ foundations > Mandatory 2.5m to 3m high > Wall to be freestanding, not retaining earth
C	Slope Wall	> Design and finish to suit parcel owner requirements > Inward finishes to suit owner's preferred style	> Slope walls to be defined by two parallel and abutting walls, aligned on the boundary line, including footings/ foundations > Shall be stepped along the slope > Minimum height 2.5m high measured from adjacent finished site grade > Maximum height 3.5m high measured from adjacent finished site grade > Wall to be freestanding, not retaining earth

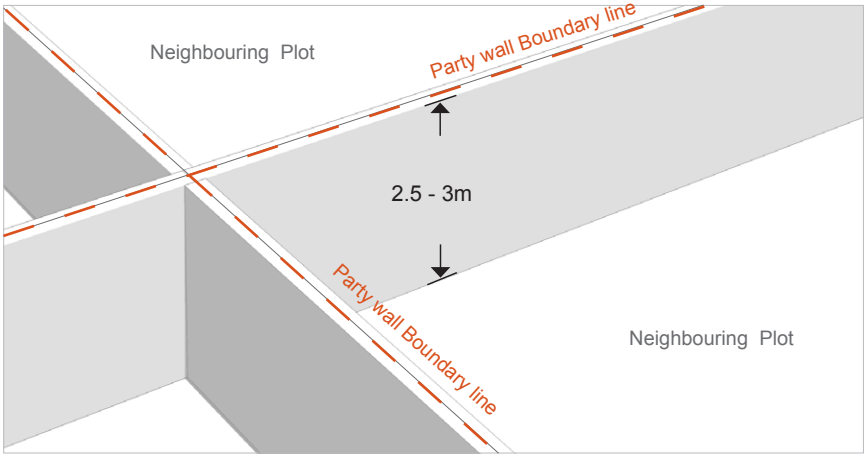
REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-VPBT - Sheet 4/8

TYPICAL VILLA PARTY WALL CONDITION

Back to back villa plots :

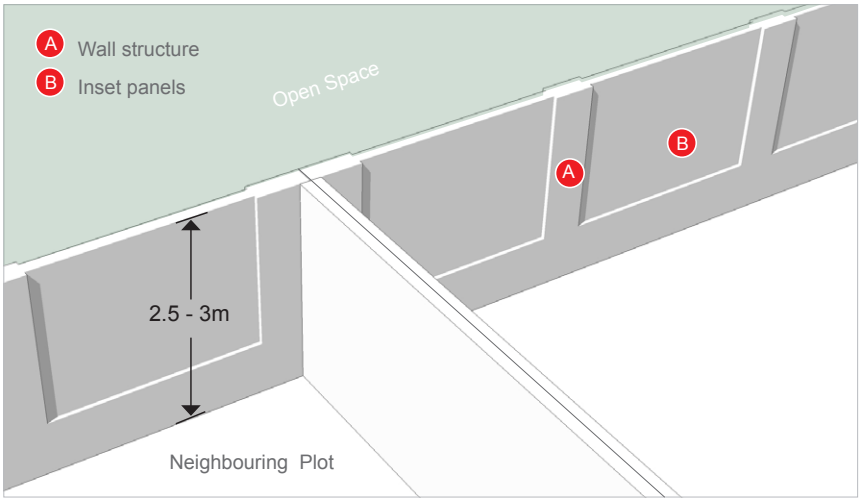
> Each plot owner to construct 1 party wall aligned to the boundary line.
> Boundary between plots to be defined by two parallel and abutting walls
> Walls to fall within plot boundary line, including footings/ foundations
> Walls to be 2.5m to 3m high
> Façade treatment to owners' requirements



TYPICAL PARK WALL CONDITION

Park wall boundary with key Open Spaces:

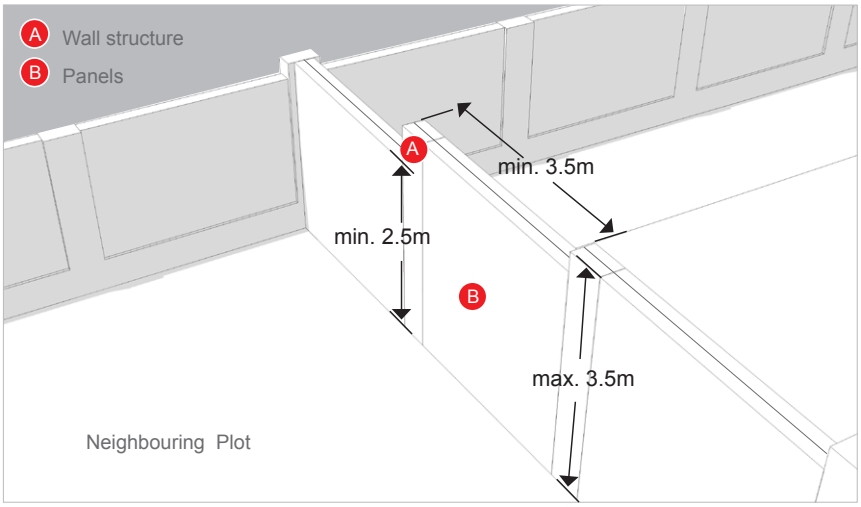
> Park wall design follows similar basis as street walls
> Arabic styled finishes face park
> Inward finishes to suit owner's preferred style
> Parcel owner to build wall within plot boundary, 2.5m to 3m high
> Single 2.8m high pedestrian access gate to park (subject to approval)



TYPICAL SIDE BOUNDARY SLOPE WALL CONDITION

Side Boundary Wall between Plots

> Side Walls shall be stepped along the slope to avoid overly high walls on lower level
> Minimum height for wall is 2.5m measured from top of wall to adjacent finished site grade
> Maximum Wall height is 3.5m measured from top of wall to adjacent finished site grade
> Minimum width of panel between steps is 3.5m
> Junction between wall tops shall be orthogonal



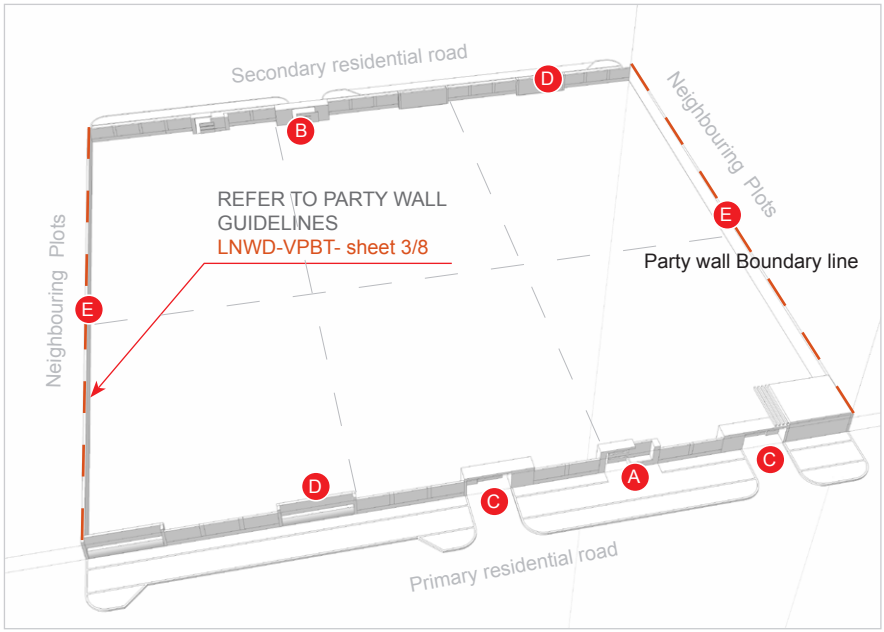
VILLA PLOT BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LNWD-VPBT- Sheet 5/8

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**
- **> One primary and undisclosed secondary pedestrian entrances permitted**
- **> Gates to align with entrances**
- **> Owners to fund reinstatement of redundant driveways**
- **> Plot owner to wall plot before commencing works**



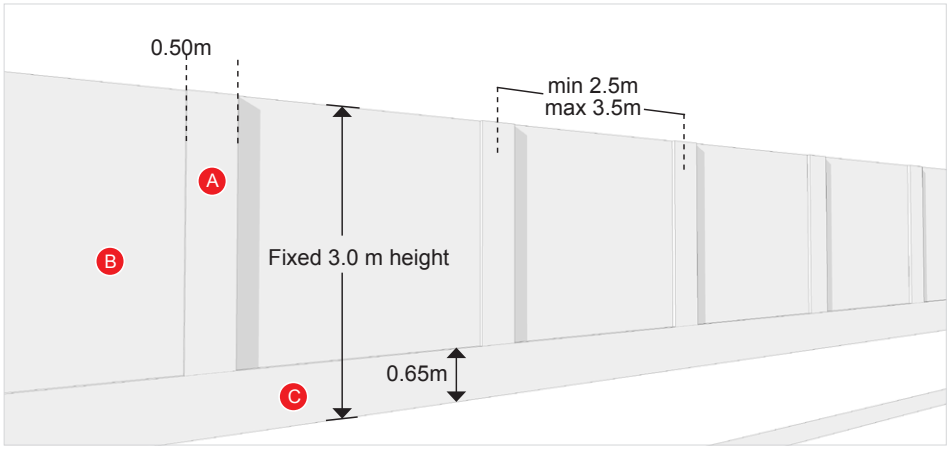
Typical Villa Amalgamation plot Boundary Treatment

	Components	Guidelines	MANDATORY CONTROLS
A	Primary Pedestrian entrance	Locate on main street and centred on main villa entrance to establish hierarchy of the larger plot.	> Select design to suit villa architecture style > Follow typical villa controls > Observe access limitations: Up to two vehicular and one primary pedestrian entrances per street, but undisclosed secondary entrances permitted
B	Secondary Pedestrian entrance	> Allow at least one secondary pedestrian access to primary residential road > Undisclosed number of secondary entrances of the secondary street > No minimum width	> Select design to suit villa architecture style
C	Vehicular access	Allow at least two vehicular access points for each street	> REFER TO STREET WALL GUIDELINES & CONTROLS
	Access drive		> Redundant drives reinstated by Lusail, funded by plot owner
D	Street Wall	Select design to suit villa architecture style REFER TO ARCH GUIDELINES SECTION	> REFER TO STREET WALL GUIDELINES & CONTROLS
E	Party Walls	Select design to suit villa architecture style REFER TO ARCH GUIDELINES SECTION	> REFER TO PARTY WALL GUIDELINES & CONTROLS

REF: LNWD-VPBT - Sheet 6/8

HIGHWAY WALL

Defines the image of the districts along the main routes.
To have fixed 3m height, width of panel and range of finishes, accommodating each individual plot owner architectural styles.
Built inside the plot boundary and to the plot owner's expense.
Lusail's public realm strategy to include landscaped area adjacent to exterior of wall, ensuring consistency of image throughout.



Highway plot Boundary Components

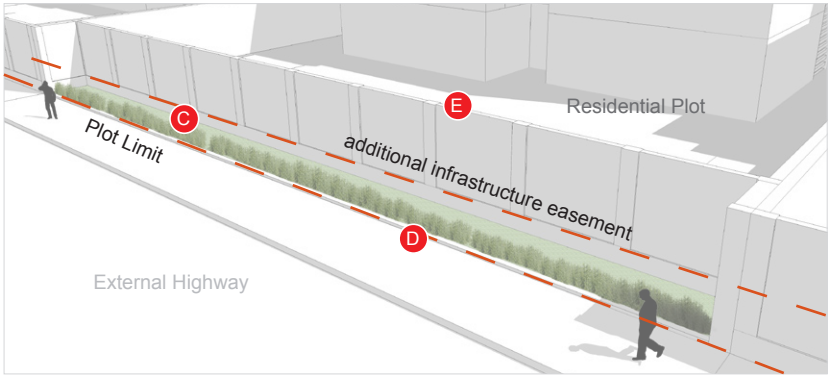
	Components	Guidelines	MANDATORY CONTROLS
A	Piers	• Part of structural frame of modular system • Defines rhythm of boundary wall, adjusted to plot length, within approved range.	> Fixed 3m height from kerb line, 0.50m width > Finish to be paint or clad in stone, and respect image of villa plot (refer to architectural guidelines - materials)
B	Inset Panel	• Distinctive feature • Range of finishes, suited to architectural style	> Fixed 2,35m height from plinth to top > Width to respect module of 2,5m to 3,5m for consistency and adjustment to plot length > Finish to be masonry painted or clad in stone, and respect image of villa plot (refer to architectural guidelines - materials)
C	Plinth	• Part of structural frame of modular system • Receives and separates panel from landscaped area	> Fixed 0,65m height from kerb line > Finish to be masonry painted or clad in stone, and respect image of villa plot (refer to architectural guidelines - materials)

INFRASTRUCTURE EASEMENTS

Certain Plots along arterial highways may need to accommodate additional below-grade Infrastructural utility corridors within varying easements encroaching into individual rear Plot boundaries.

The Sub-developer is responsible for landscaping this easement portion of their Plot; and, that Landscape must incorporate relevant Authority utility access requirements.

Sub-developers must verify all Infrastructural requirements, existing easements and Public Realm Landscape plans with LREDC prior to planning and design. Easement areas of plot to be landscaped in coordination with specified Public Realm plant species and all required utility access per relevant Authority.



C Easement area of plot to be fully landscaped with drought tolerant low level grasses. as per approved LREDC Public Realm Landscape pallet

D Plot limit can be demarcated with low level shrubs, as per approved LREDC Public Realm Landscape pallet

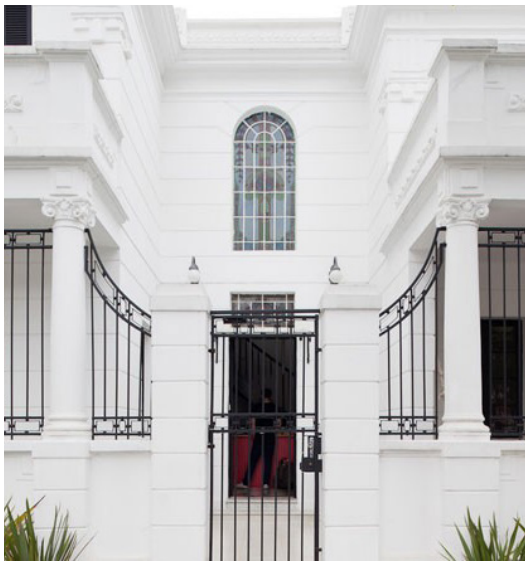
E Plot Boundary walls and other structures must all be located and constructed totally inside the extent of the current easement incursion.

REF: LNWD-VPBT- Sheet 7/8

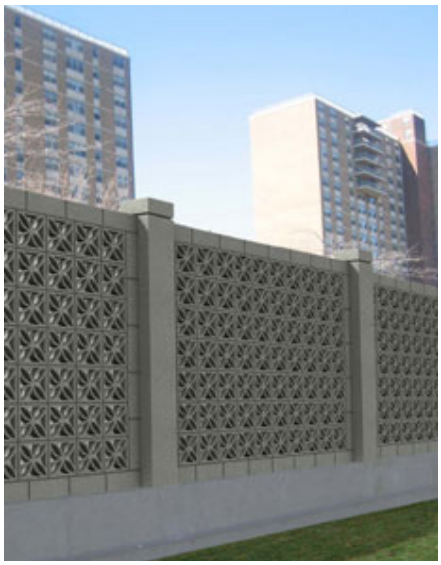
PRIMARY PEDESTRIAN ENTRANCE



SECONDARY PEDESTRIAN ENTRANCE

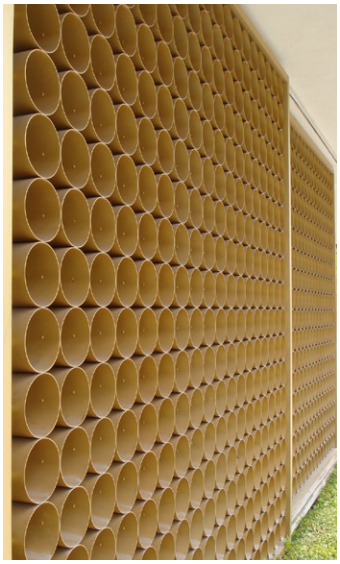


WALL / PANELS

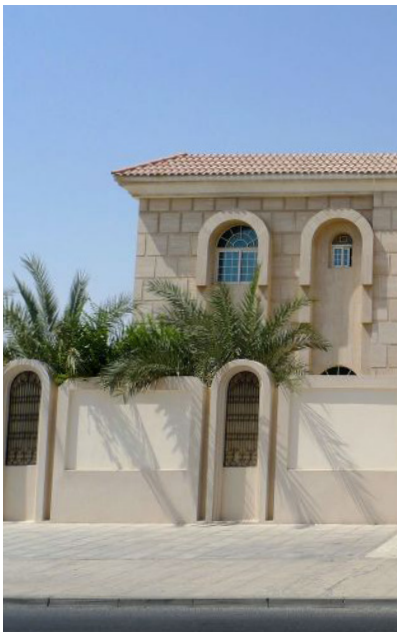


REF: LNWD-VPBT - Sheet 8/8

UTILITY PANELS



PARK WALLS



COMMUNITY FACILITIES AND PARK PARCELS BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LNWD-CFPBT- Sheet 1/2

RATIONALE

The Boundary Treatment Guidelines & Control Sheets further clarify the Building Regulations.

Community facilities include Mosques; health centre; sports and recreation facilities; local shops and education facilities including schools. Parks include all non-private public areas and spaces that due to function such as a neighbourhood park may require a boundary wall.

Key objectives:

> Promote accessibility of amenity functions, whilst concealing private/ service functions

> Provide cohesive treatments to street and park elevations

> Provide solutions that compliment the neighbourhood and reflect the function/style of the amenity

> All amenities to have Arabic-inspired street wall/ planting styles

> Modulate continuous walls with entrances, piers, panels and planting

> Apply LREDC approved design palette

> High quality, durable finishes which are fit for purpose

> Where appropriate develop solutions with high opacity such as railings or soft landscape treatments where appropriate

> Public realm and park frontages can omit street and park wall treatments if appropriate

TYPICAL MOSQUE BOUNDARY TREATMENT

Typical Mosque - three different conditions:

1. Street wall:

> Where applicable, piers to be consistent with adjoining street walls
> Encourage visibility by use of gates and railings or clipped hedges
> Trees and hedges may be used in lieu of piers and wall panels if appropriate

Integrated with landscape/ Public realm solution

2. Party wall with villa plots:

> As per villa wall
> Constructed within plot boundary line

3. Park wall/edge:

> May be lower in height or can comprise soft landscape treatment
> Optional pedestrian gates links facilitate informal access where appropriate
> Integrated with landscape & public realm solutions

High visibility boundary treatment

High visibility boundary treatment with consistent boundary wall height

REF: LNWD-CFPBT- Sheet 2/2

OTHER FACILITIES BOUNDARY TREATMENT

Health care & sport facilities with two different conditions:

> Piers consistent with adjacent villa street wall
> High visibility boundary treatment where appropriate, including railings and/or landscape
> Party wall consistent with neighbour and constructed within the plot boundary line

Application of pattern to reflect Arabic character in amenity facility.

Use of decorative panels to strengthen local character and identity.

High quality wall treatment integrated with lighting

Landscape and railings softens the streetscape and improves perception of amenity facilities

PARK AND LOCAL RETAIL BOUNDARY TREATMENT

Park and Retail with three different conditions :

1. Park and Street Wall:

> Where appropriate, piers should be consistent with adjacent plots

> Possible landscape solutions - hedges, railings to offer a more open environment

> High visibility boundary treatment with pedestrian gates where appropriate

> Integrated with landscape & public realm solutions

2. Party wall with villa plot:

> As typical villa boundary

Legible gateway providing street enclosure with a strong identity.

Low railings integrated with landscape planting

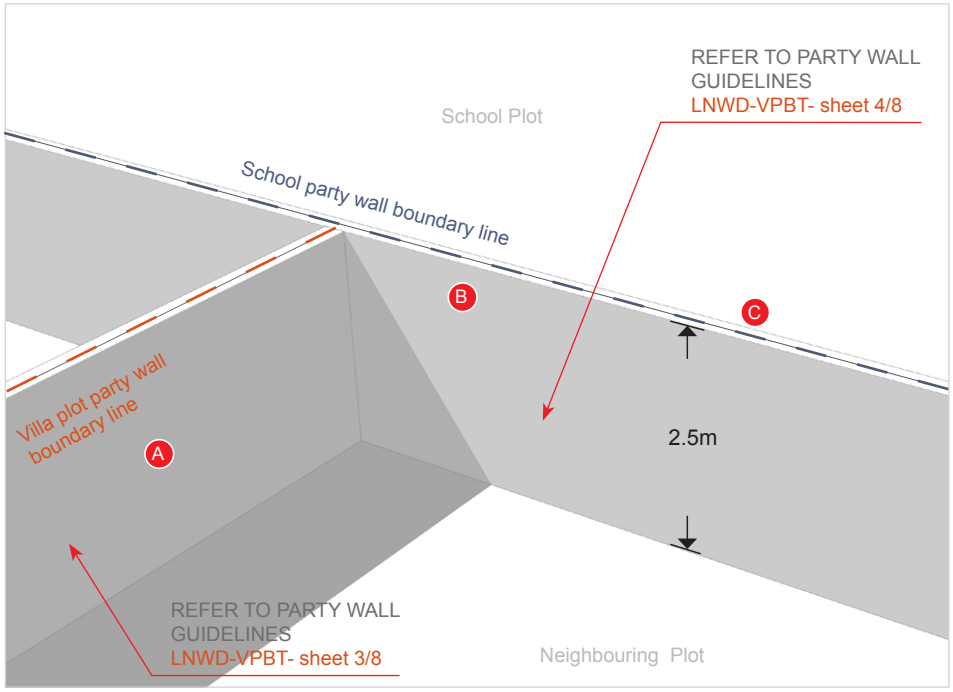
Connectivity between park and community retail.

EDUCATION BOUNDARY TREATMENT GUIDELINES & CONTROLS

REF: LNWD-EBT- Sheet 1/2

RATIONALE

Schools require controlled access to buildings and privacy from neighbouring 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.



School Plots Boundary Wall Treatment

A Villa Plot Party Wall
B Villa Plot Rear Party Wall
C School Parcels Rear Wall

	Components	Guidelines	MANDATORY CONTROLS
A	Villa Plot Party Wall	Refer to Party wall Guidelines & Controls: REF: LNWD-VPBT - Sheet 3/8	> Refer to Party wall Guidelines & Controls: REF: LNWD-VPBT - Sheet 3/8
B	Villa Plot Rear Party Wall	Refer to Rear Party wall Guidelines & Controls: REF: LNWD-VPBT - Sheet 4/8	> Refer to Rear Party wall Guidelines & Controls: REF: LNWD-VPBT - Sheet 4/8
C	School Party Wall	> As villa boundary walls, to facilitate privacy, security and to mitigate noise > Internal face can be decorated to school requirements > Possible applied landscape treatment - up to 0.5m trellis can be added to further enhance privacy if required	> As villa boundary walls
*	School Street Wall	> Design as Mosque guidelines > Open drop-off permissible if building entrances incorporate secure concierge > Piers consistent with adjacent street walls > Can be integrated with landscape & public realm solutions	> As Mosque street walls

REF: LNWD-EBT- Sheet 2/2

SCHOOL BOUNDARY WALL CONDITIONS

Walls and fencing shall be integrated into architectural designs to enhance and compliment 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 on adjoining street access.

Gates to match height of walls and open the full width of the access drive.

Service entry to be separated from pedestrian and visitor access.

School parcels with two different conditions:

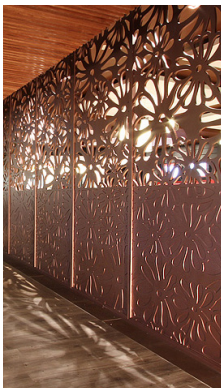
1. **Street wall:**
> As mosque

2. **Party wall with villa plot:**
> As villa

Design should encourage innovation and inspiration.

Railings and with landscape provide street enclosure and shaded playspace

Visible entrance/ drop off & pick up area



Inspirational design & material applications

2.6 VILLA PLOT ARCHITECTURE GUIDELINES & CONTROLS

OBJECTIVES AND PURPOSE

These guidelines form the basis of a coherent architectural vision that will inform and drive the design process, and improve the quality of the architectural language and environment throughout North and Waterfront Residential Villas Districts

This section of the document serves as a point of reference for the architectural DNA of a development. Its aim is to improve the character of new projects and reinforce the architectural character of the district.

Good urban design principles and massing controls will, most of the time, ensure a high quality streetscape and external environment. However, you cannot underestimate the negative impact of poorly designed buildings.

With the objective of driving the design of the future villa projects, it was agreed to define suitable styles for the intended character of the district. These styles will be detailed further in the subsequent sections.

In order to respond to the challenge of devising controls for architectural expression, a structure of Design Principles is available for each style. These principles identify the key drivers for each typology.

As a way of dissecting a building down to its component parts we have identified and grouped several elements that compose a villa type building, and then created pattern books and guidelines to exemplify each typology. They should be read in conjunction with the Plot Typology Guidelines & Controls section of this document and the urban regulations defined in each plot's regulation sheet.

The following list of elements have been defined as the key design elements for designing a villa:

Façades

LNWD-GVD-Sheet 1/16

Materials and Colours

LNWD-GVD-Sheet 2/16

Signage

LNWD-GVD-Sheet 3/16

Openings, Shading and Privacy Structures

LNWD-GVD-Sheet 15/16

Building Elements

LNWD-GVD-Sheet 16/16

For these we will define general guidelines and controls and style specific guidelines, in order to best achieve an appropriate interpretation of the intended style.

PREFERRED ARCHITECTURAL CHARACTER TYPES

ARCHITECTURAL STYLES

General Remarks

Each project should be an outward expression of identity through the use of the defined architectural styles, complementing surrounding development. The guidelines defined here should act in essence as visual aid and inspiration for developers, therefore the images displayed in this document are intended as visual references best-practice but serve as a guide only.

Selected Styles

Understanding Lusail's vision for the North and Waterfront residential Villas Districts as a high quality residential community for Qatari families, 4 key styles have been identified as desirable by the development. The guidelines stated here identify 4 key architectural typologies which will act as the foundation of the architectural guidelines and control documents.
It is envisaged that these styles will be interpreted in a contemporary way but reflect its historical roots, yet conforming to modern day building practices.

These are:

- A Gulf Arabic - LNWD-AVD-Sheet 1-8
- B Mediterranean - LNWD-MVD-Sheet 1-8
- C Classic - LNWD-CVD-Sheet 1-8
- D Contemporary - LNWD-CMVD-Sheet 1-8

These styles will also be developed in the landscape treatment guidelines to ensure the character of the plot is coherent with the selected style.

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
BOUNDARY WALLS
LANDSCAPE DESIGN

2.6.1 GENERAL VILLA DESIGN GUIDELINES & CONTROLS

REF: LNWD-GVD- Sheet 1/16

GLOSSARY OF TERMS

FAÇADES

General Remarks

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, beam or scupper extensions (particularly Arabic designs)

> Façades should avoid large expanses of blank wall or glass curtain wall.

> Solid to void should be 30% void, 70% solid to a maximum of 50% void.

Where larger expanses of curtain walling are created screening, loggia, colonnades, and recesses must be incorporated into the design solution.

Façade Ornamentation

Façades may accommodate historical details where appropriate to add visual interest and depth to the façade.
These may include:

> Recessed geometrical Patterns, relevant to Gulf heritage

> Wood projections as “Danjals” mangrove poles or “Shandal” timber roof joists. These should be located above expressed column location typical of the region.

> Wall and floor tiles (ceramic, glazed and patterned

> Ornamental iron work. Finely crafted wrought iron work on doors, gates, window grilles. Wooden doors and gates can feature iron details

> Screens including geometrical patterns.

Building Illumination

The night image of the building should be a coherent composition in which are clearly recognizable the single architecture components typical 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.

High level illumination to the roofline ‘crowns’ the structure and provides a point of recognisable visual destination for the long view.

Structural illumination to key elements of the façade reinforces the architectural intent and provides a visual statement of the building on the mid view approach.

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 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 please refer to Lusail Nightscape Masterplan Strategy.

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-GVD- Sheet 2/16

MATERIALS AND COLOURS

Primary Materials

Render

Plaster should be used as a primary building materials on all building façades. The plaster should contain different textures and finish definitions, according to the different architectural typologies. Plain walls without decorative joints are encouraged. Where recessed patterns are incorporated into the design of the façade, a secondary material is preferable. If plaster is used then this should be a contrasting texture and/or colour.
Textures: smooth; light sand and course.

Stone

Stone can be used as an alternative to plaster as the primary building material this can be as an integral structural component or applied as surface finish cladding tiles.
Recesses and rebates within the stone façade must use a contrasting stone finish to the main body of the façade.
Finishes: Bush hammered; Honed; Riven; Chiselled; Punched;
Polished is not permitted

Render finishes

Secondary Materials

Secondary materials that are consistent with the local vernacular architecture are encouraged, designed as a feature element. Appropriate building materials to include (according the different architectural typologies)

> Concrete
> Natural stone
> Timber
> Decorative tiles
> Metal Sheet or cast material (non reflective) cladding.

Material Changes

Changes in material should occur, when there is a change in plane of the façade. The change in material and colour must occur on the inside corner of a building, recess etc. A change in material on the same plane is not permitted unless broken by a recess detail to define a clear separation.

Paint

Walls and roofs to be painted to minimise solar heat absorption. Refer to colour charts for permitted colourway ranges.

Colours

Shades of pale and pastel colours are encouraged.
Brighter colours are encouraged as highlights on the return face of doors and window openings.
Single colour applications are to be avoided where façade projections occur.
Dark accent colour should only be used in small amounts.
Reflective, luminescent or similar finishes are not permitted.

GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 3/16

RATIONALE

The intent of the signage and wayfinding guidelines is to establish identification standards for retail establishments, single family housing and civic facilities in the district. Guidelines are meant to promote creative and innovative approaches to signage that serve to enhance the overall character of the district while discouraging visual clutter and design incompatibilities.

The signage design for North Residential Villas and Waterfront Residential Villas District will focus on clarity, simplicity and functionality along with aesthetics. Signage type will vary according to the different landuse in the district. Each landuse illustrated in the signage location plan on the right should only use a set of mandatory categories of signage type described in the table below. These categories are described in detail in the following pages. The broad categories of signage types identified are -

> High level building signage
> Wall mounted signage
> Building Identification Signage
> Awning and Canopy Signage
> Projecting Signage
> Hanging Signage
> Free Standing Monument signage
> Boundary Wall Signage

SIGNAGE GENERAL GUIDELINES

The general signage guidelines to be followed for the whole district are -

> Signage should be designed respecting the proportions of the facade, building size, scale, mass, height, rhythm and dimensions of window or door openings.
> Advertising signs for lease and/or product sales are not permitted within this district.
> Font styles and sizes should compliment the overall character of the building facade.
> The type of sign used should reinforce the calm character of single family residential development. Signs should be designed with similar aesthetic sensibilities as the architectural design, incorporating similar colours and materials that reinforce the design and style of the project.
> Signs on roofs are not allowed.
> On big box uses, signage guidelines will be alleviated to allow for brand expression. These uses must submit detailed signage information for review and approval.

All building signage elements are subject to LREDC review and approval. All approvals are subject to discretionary review by LCAC.

Civic facility high level sign

Freestanding retail sign

Boundary wall sign

Signage	No.	Type	Definition
HIGH LEVEL BUILDING SIGNAGE	1	High level Building Signage	> High level signs should be located on the uppermost part of the building, generally on the main facade, to a maximum number of 1 sign per elevation. These are usually used on buildings with multiple floors.
LOW LEVEL SIGNAGE	2	Wall Mounted signage	> Wall signs are mounted flush and parallel to the building wall. It is fixed securely projecting not more than 30cm from the face of the wall. It is located on ground floor level of a building, easily seen by pedestrian and cars and not extending sideways beyond the building face.
	3	IDB (Building Identification Signage)	> Building identification signs are positioned on all buildings on the ground floor level. The key information on these plates are identical to that included on standard national addressing system plates (QARS) There are two sign types IDB and IDBN referring to Building Identification Plate and Number respectively, both installed near building entrances or boundary wall.
	4	Awning and Canopy signage	> These signs are printed / painted or attached to an awning or canopy above a business door or window. They generally serve to bring shade and highlight the entrances of shopping and business environment and are oriented toward pedestrians
	5	Projecting signage	> Projecting signs are affixed to the face of a building or a structure. It projects out perpendicular from the wall surface to which it is mounted. Projecting signs should not be mounted above the first floor window-sill in multi- storied buildings and could be mounted in the arcade zone wherever applicable.
	6	Hanging signage	> Hanging signs are suspended below a marquee, arcade or under a canopy and are generally smaller than projecting signs due to their lower mounting height. Hanging signs shall be used only at ground floor locations except for upper floor businesses with covered entry porches and balconies.
	7	Free standing Monument	> Free standing signs or monument signs refer to ground level signs located to compensate for buildings less visible to the viewer from the main access area.
	8	Boundary Wall	> This signage will be of a particular importance to all residential plots having front facing boundary walls. They will carry the identification of the building as well as other permitted singular signs.

REF: LNWD-GVD- Sheet 4/16

SIGNAGE GENERAL GUIDELINES

LAND USE AND SIGNAGE TYPE DESIGNATION

The table below shows application of different signage category in different location of the North and Waterfront Villa district illustrated in the plan above.

Location	Guidelines	Signage Category to be Applied
RESIDENTIAL	> Signages used for these plots will be contained only to the outer boundary wall of the plot. Only IDBN (Building Identification Signage) is used in this for residential villas.	3
RETAIL	> Neighbourhood retail will have more expanded signage allowances, in order to be able to communicate its use. It will however maintain a calm and sober aesthetic values, to respect the low density residential surroundings.	1 2 3 4 5 6 7 8
CIVIC FACILITY	> Civic facilities will have subdued and conservative signage according to their institutional character. Use of limited signage elements are preferred for civic facilities.	1 2 3 7 8

GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 5/16

HIGH LEVEL BUILDING GUIDELINES

Signage for this district is divided into 2 broader categories; high level, and low level signages depending on its position on a building. Detailed guidelines describing location, position and dimension of all signage categories are described below.

1 High Level Building Signage

High Level signages are large scale signs, intended to be visible from long distance, mounted on the uppermost section of a building and preferably illuminated.

Multiple brands are not allowed to be communicated at high level on any single building. No third party advertising is permissible. Only one 'business sign' is allowed that could show:

> The identity or a logo of the place or premises;

> The particulars of any business or occupation of the place or premises, including any logo or symbol that identifies the business or occupation;

> In situations where the accommodation is mixed use and is shared between a number of companies, either the principle tenant within the building is allowed to display their brand on the building or the building identification name.

Location and Dimensions

> High level signs should always be located on the uppermost part of the building, generally on the main facades facing the major roads, to a maximum of 2 facades.

> A maximum of 1 sign per facade is permissible

> Additional signs for very large buildings with multiple building entry points on street elevations may be considered subject to LREDC review and approval.

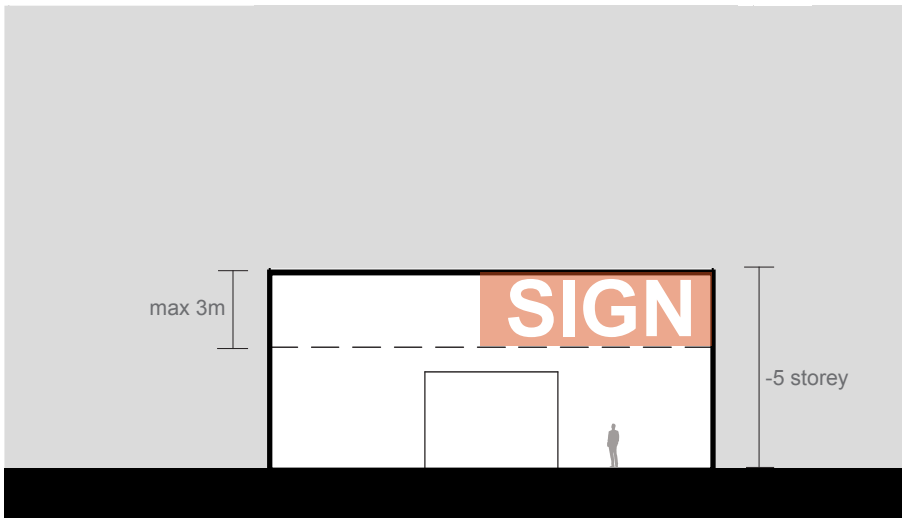
> The signage should be located preferably off centred on one side of the building corner, and occupying a maximum area of 12% of the building elevation;

> The signage or text height should be a maximum of 3m and minimum of 0.5m (under 5 storey buildings)

> Placement should respect the design of the building, including arrangement of bays and openings.

> The signage should preferably have individually wall mounted and face illuminated letters and or logos fixed directly to the skin or structure of the building.

> This signage is not allowed on residential plots.



High Level Signage - Crown Top Signage location and dimensions

1

Off-centre placement on the facade

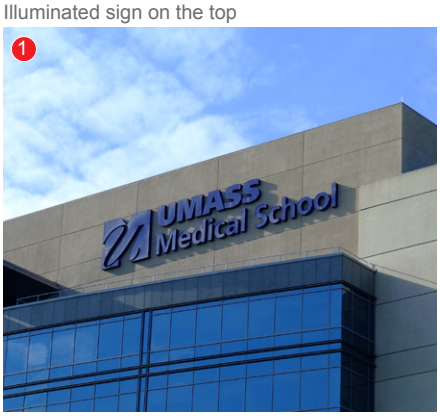
1

Preference for basic background and contrasting colours for increased legibility

1

Illuminated sign on the top

1



Preference for basic background and contrasting colours for increased legibility

REF: LNWD-GVD- Sheet 6/16

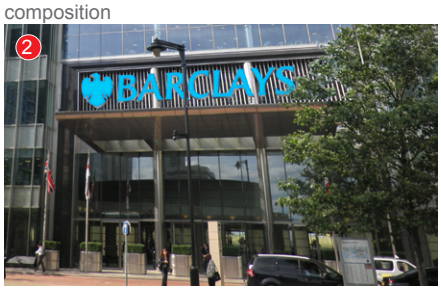
LOW LEVEL SIGN TYPES

Creative lettering solutions are encouraged

Fascias are accepted as part of logo and brand

Extruded lettering improves legibility and visibility

Sign located to one side, gives interest to facade composition



Entrance portal with signage

Low Level Signage

Low level signs assist with identification of the building at ground level and are helpful for visitors arriving on foot or by car. They are indispensable to the building expression and identity of the tenant.

> Individual letters mounted directly to the wall of a building or the screens in case of arcades are the preferred method of low level signing

> No fascias are allowed except if used as a part of logo or brand.

> No third party advertising is permissible.

LOW LEVEL SIGN TYPES

Low level signage can assume a number of different solutions that are detailed further on this section. Architects/ Developer should follow all the guidelines stated below unless stated otherwise.

2 Wall / Screen Mounted Signage

Wall signs shall be placed within a clear signable area. Signable areas are defined as an architecturally continuous wall surface uninterrupted by doors, windows or architectural detail.

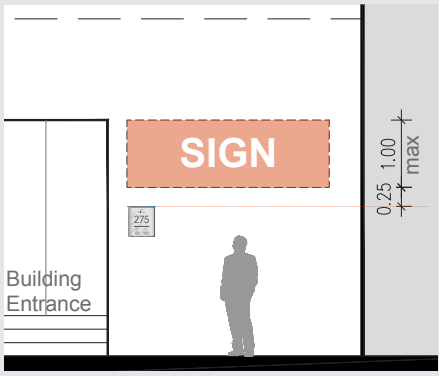
Location & Dimension

> Wall signs are mounted flush and parallel to the building wall. They are fixed securely, projecting no more than 0.3m from the face of the wall., with a minimum of 0.30m text size and a maximum of 0.80m. not extending sideways beyond the building face or above the highest line of the building to which it is attached.

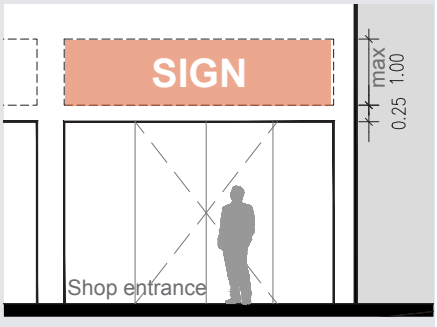
> On civic facilities a single wall sign is allowed, that is coordinated in balance with the designated IDB entry sign location with minimum gap of 0.25m. It is located on the main elevation, on the top or side of the main entrance to the building, with a maximum height of 1m to a maximum area of 3sqm.

> On residential villas, no wall mounted signage is allowed.

> Neighbourhood retail will be allowed 1 wall mounted sign per individual pedestrian entrance.



Sign next to building entrance



Sign over retail building entrance

GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 7/16

LOW LEVEL SIGN TYPES

❸ IDB & IDBN (Building Identification Signage)

Building Identification Plate (IDB) and Numbers (IDBN) are positioned on all buildings. The key information on the plates is identical to that included on standard national addressing system plates QARS (Qatar Area Referencing System) being implemented across Qatar.

Location & Dimension

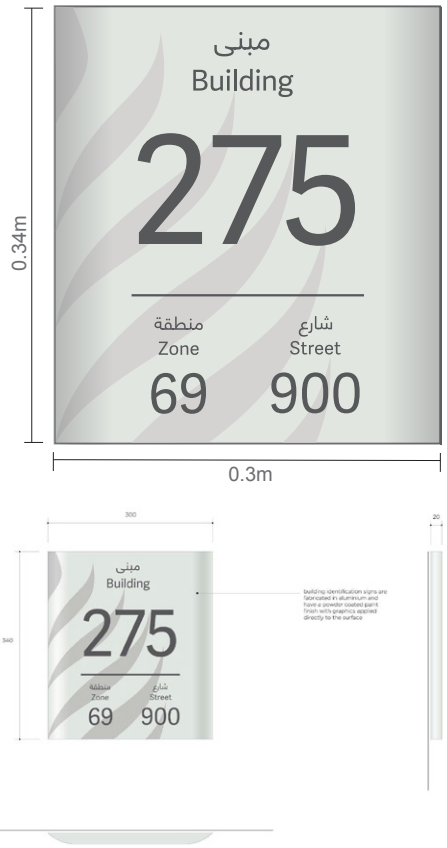
> **Identification plates -** should be more legible than the standard QARS plates to clearly identify the building number from up to 26 meters away.

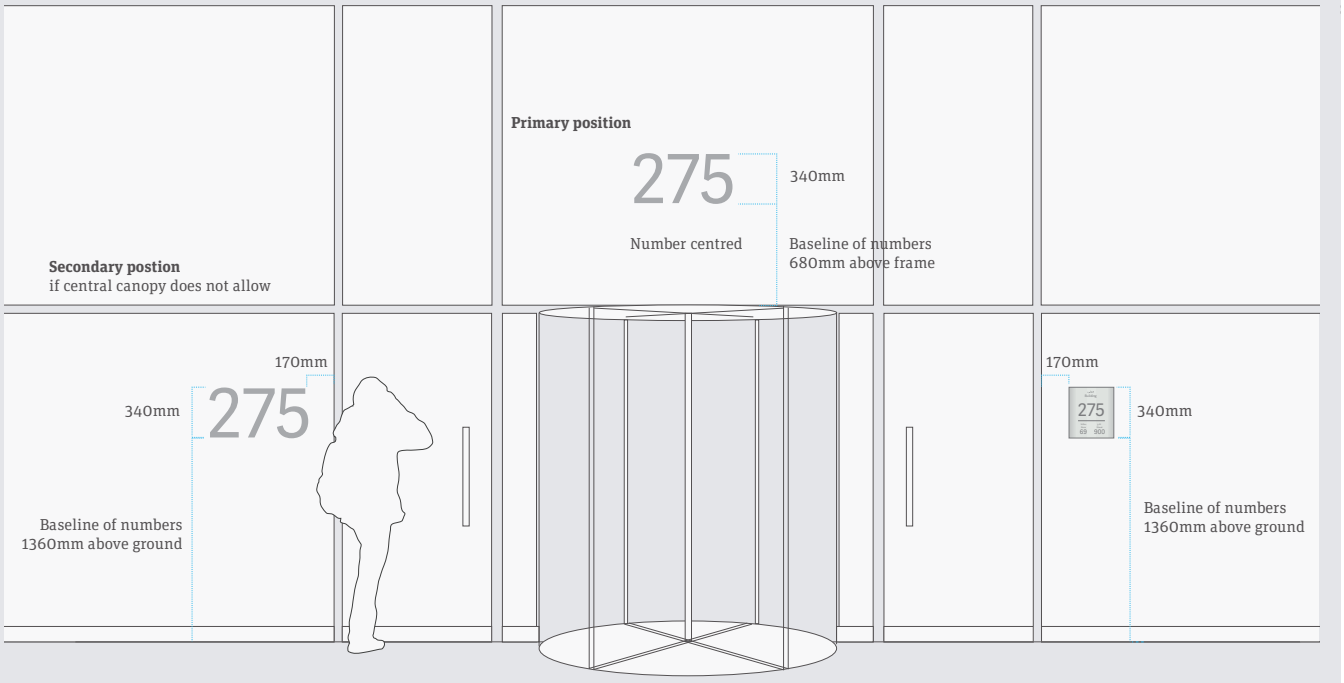
> **Identification number** - A large building number should be mounted at the main entrance to all buildings. This is sized to be visible from up to 100m away. Positioning rules are shown here briefly, however for further details please refer to the latest signage drawings and specification from LREDC.

> IDB signage location should relate to the other wall mounted signages on the entrance of any building or on boundary wall. The wall mounted signages should be placed at a minimum distance of 0.25m from the IDB signages. They can be placed above, below or adjacent to the IDB signages.

> Consistent positioning of the building identification plate and number is paramount as shown in the image below.

The IDB signage design has been developed and detailed in line with the rest of the wayfinding system by LREDC. Each Architect / Developer should abide to the colour, material, size and other design specifications. Refer to the latest signage specifications from LREDC for further details.





IDB signage drawing showing position and dimension, Please refer to the latest technical drawings from LREDC for further details

REF: LNWD-GVD- Sheet 8/16

LOW LEVEL SIGN TYPES

Sign integrated into canopy

Solid colour awning with contrasting logo

Projected vertical sign expands brand visibility

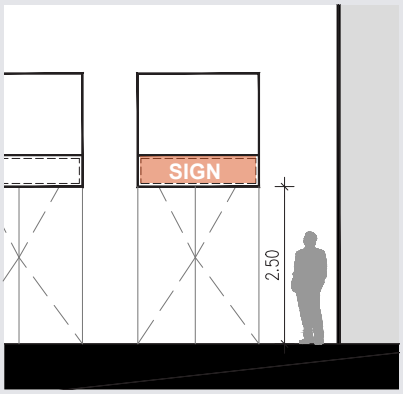
Different sign forms are accepted as long as they respect the permitted area

4 Awning and Canopy Signs

Awning and canopy signs are printed, painted on, or attached to an awning or canopy above a business door or window. They generally serve to bring shade and highlight the entrance of a shopping or business environment. It also brings vibrancy to a shopping area and are oriented toward pedestrians.

Location & Dimension

- Awnings and canopies must be permanently attached to a building.
- Signage text and/or logo shall compromise not more than 30% of the total exterior surface of an awning or canopy with maximum text height of 0.5m and minimum of 0.3m to ensure legibility.
- There should be a minimum clearance height of 2.5m from ground level sidewalk to the lowest point of the awning.
- Open-ended awnings are preferred.
- Awnings and canopies shall be mounted on the horizontal framing element separating the storefront window from the transom (a crosspiece separating a doorway from a window). Awnings shall be designed to project over individual window and door openings and not project as a single continuous feature extending over masonry piers or arches.
- Awnings shall be mounted on the wood or metal framing within a door or window opening, not on the wall surrounding the opening.
- Awning with back-lit graphics or other kinds of interior illuminations are not permitted. Matte finish canvas, glass or metal are appropriate materials for awning or canopies.
- Lettering should be placed on the valance portion of the awning.
- Awnings with a solid colour are preferred. Striped awnings may be appropriate for some buildings without ornamental facades. Striped awnings with highly contrasting, bright colours may be visually jarring and inappropriate.



Awning Sign location and dimensions

5 Projecting Signs

Projecting signs are affixed to the face of a building or structure and project in a perpendicular manner out from the wall surface to which it is mounted.

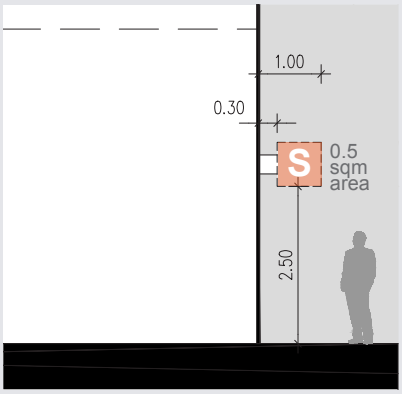
Location & Dimension

- Projecting signs should not be mounted above the first floor window-sill in multi-storied buildings.
- The design of the sign should consider visually interesting elements such as square or rectangular shapes with painted or applied letters, two or three dimensional symbols or icons, irregular outlines, and / or internal cut-outs.
- Projecting signs shall be small in scale and provide a vertical clearance of 2.5m along pedestrian areas.
- Projecting signs shall be oriented to pedestrians passing on the sidewalk in front of the buildings or pedestrians on the far side of the street rather than to automobiles. This can be achieved by providing a minimum clearance of 0.30m between the building face and maintaining a maximum projection of 1.00m.
- Projecting signs should fit within an imaginary rectangle with a maximum area of 0.5sqm. The maximum text height to be used for primary signage should be 0.50m and minimum text height to be used is 0.30m to ensure visibility.
- Mounting hardware should be an attractive and integral part of the signage design. Simple round pipe brackets with plugged ends or added decorative elements are generally appropriate for signs.

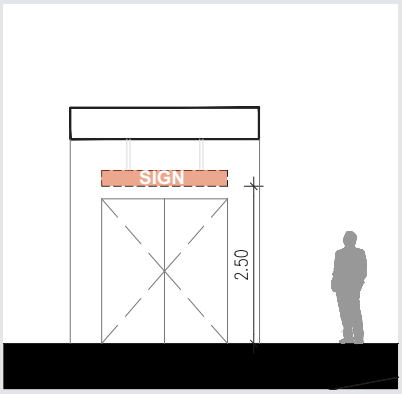
GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 9/16

LOW LEVEL SIGN TYPES



Projecting Sign location and dimensions



Hanging Sign location

6 Hanging Signs

Hanging signs are suspended below a marquee or under a canopy and are generally smaller than projecting signs due to their lower mounting height.

Location and Dimensions

> Hanging signs shall be used only at ground floor locations except for upper floor businesses with covered entry porches and balconies.

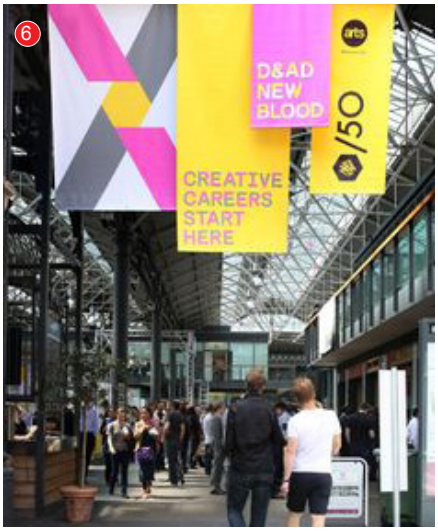
> Hanging signs shall be treated similar to projecting signs. These signs, excluding supporting rods, chains or similar hangers, shall fit within an imaginary rectangle with a maximum area of 0.50 square meters with a maximum text height of 0.50m and minimum text height of 0.30m to ensure visibility.

> Hanging signs shall be oriented towards the pedestrian and impart a sense of creativity in their design.

Hanging sign on building entry

Hanging signs on arcades

Hanging signs on arcades



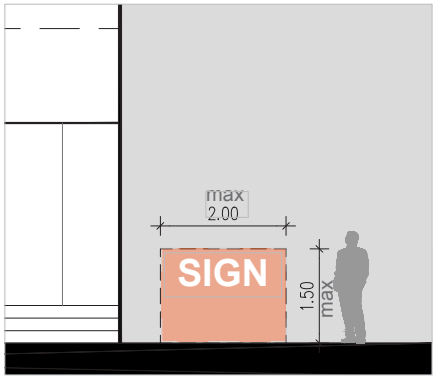
Creative hanging signs on arcades, retail or mixed use developments

REF: LNWD-GVD- Sheet 10/16

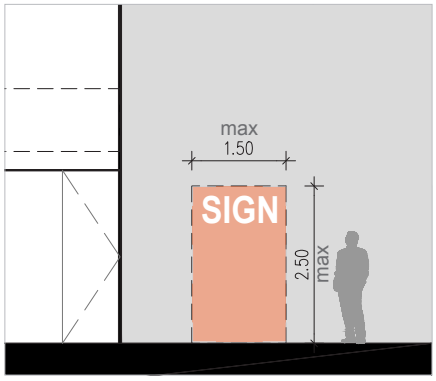
LOW LEVEL SIGN TYPES

Freestanding signs to be integrated into landscape design

Detailed tenant information on freestanding sign



Civic Freestanding Sign dimensions



Retail Freestanding Sign dimensions

7 Free Standing/ Monument Signage

Free standing or monument signage refer to ground level sign located to compensate for buildings less visible to the viewer. For example at the entrance to the parking of a neighbourhood retail, identification of school or other civic uses etc.

Typically in this situation, the building is set back from the road, partially obscured by trees or entirely invisible from the entrance to the premises. These identification signs bring the name of the destination to the roadside in order to facilitate wayfinding for potential customers.

The free standing identification sign must not contain advertising. These signs are intended to carry the name of the property and/or the brand identity of the relevant business and other wayfinding information such as ‘entry’ or ‘exit’.

Low profile signs should be constructed from materials that compliment the building structure and its use and the landscape setting in which it is placed. Architectural elements which compliment the building design should be incorporated, especially towards the top portion of the signage.

Location and Dimensions

> Free standing identification sign must be located entirely inside the plot line. No projections into, on, or over the public realm are allowed. The sign must be setback a minimum 1.5m from the plot limit.

> On civic uses, a single free standing sign is allowed, with a maximum permissible dimension of 1.5m in height to 2.0m in width and a minimum height of 0.8m. If required, more than one sign can be allowed on different streets if the plot abides more than one street. This is only allowed by pre-approval and discretion of LREDC.

> On retail plots maximum permissible dimension for free standing sign is 2.5m in height to 1.5m in width with minimum height of 0.8m

> No freestanding sign should be placed in a manner that obstructs the pedestrian walkway.

> The minimum text height of the main signage text should not be less than 0.25m to a maximum of 0.8m.

GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 11/16

LOW LEVEL SIGN TYPES

8 Boundary Wall Signage

Boundary wall signage is relevant and mainly used for civic plots with more private uses like schools, hospitals, police station etc. These plots are more likely to have boundary walls for demarcating plot boundaries and for privacy.

Location and Dimensions

> Due to the residential nature of the district, signage is highly controlled to maintain a clear and uncluttered streetscape.

> Advertising signs are not allowed.

> IDB - Identification number and name sign will be accepted, located on the main pedestrian entrance. This will respond to the standard national addressing system plates QARS (Qatar Area Referencing System) being implemented across Qatar. The sign design and location is detailed in the Lusail City wayfinding and signage system design document.

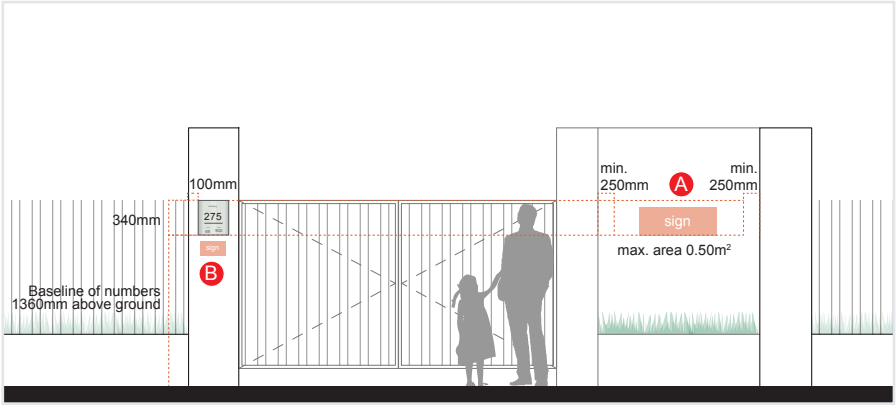
> Besides the IDB sign, all plots could have one bigger name sign type (A) and / or one small name sign type (B) near to the pedestrian entrance as shown in the graphic below. This sign should refer to the name or occupation of the plot.

> The bigger name sign (A) is allowed on the boundary wall and shall fit within an imaginary area of 0.50 square meters. This should be located at a minimum distance of 0.25m from the wall edge towards the main pedestrian entrance gate. The text height should be a maximum of 0.8m and minimum 0.15m to ensure visibility.

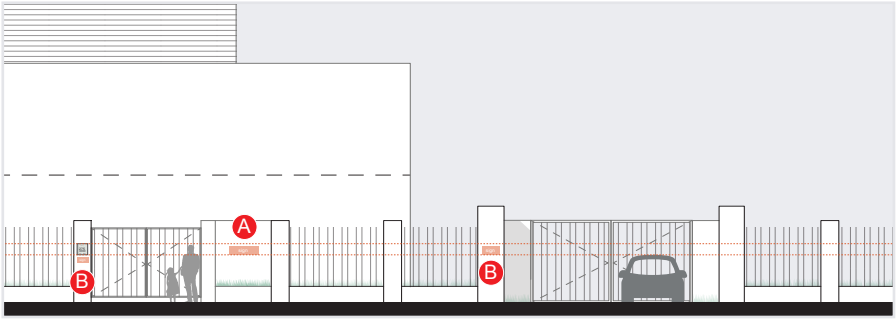
> The smaller sign (B) shall fit within an imaginary rectangle with a maximum area of 0.15 square meters, should be placed 0.1m below the IDB signage plate if placed at the main pedestrian entrance. If required it can also be placed at the secondary entrance. The text height should be a maximum of 0.3m and minimum 0.07m to ensure visibility.

> Lettering style should respect the architectural style of the project.

> Signages should be coordinated and aligned with the adjacent plot signs.



Sign location on retail & civic plots



Continuity in signage dimension and positioning with adjacent plots

Example of a boundary wall sign

Individually cut letters are preferred which can be placed on a backing panel or on the main wall

Creative approach to the boundary wall and signage design

Creative approaches to name design

REF: LNWD-GVD- Sheet 12/16

SIGN MATERIALS & COLOURS

Strong and Durable high quality materials

Finish and material similar to building structure

Sign cut out on high quality material

Materials and colours to stand out against facade

- Exterior materials, finishes, and colours should be the same or similar to those of the building or structures on site;
- Signs should be professionally constructed using high-quality materials such as metal, stone, hard wood, and glass. The selected materials should also contribute to the legibility of the sign.
- Individual letter mounted directly to the fabric of the building are the preferred method of signing for low level signage.
- Sign materials should be durable and should withstand a hot, sunny, humid and windy climate.
- The colours and lettering styles should compliment the building façade and harmonize with neighbouring businesses.
- Excessively bright colours or overscaled letters shall not be used as a means to attract attention.
- Projecting light fixtures used for externally illuminated signs should be simple and unobtrusive in appearance. They should not obscure the graphics of the sign.
- Fixtures must be mounted in such a manner that its cone of light does not cross any property line of the site.
- Signs painted directly onto walls are prohibited.
- Signs must be fixed to the building in a secure, permanent manner. Signs that move or rotate, either by mechanical or wind power, are not permitted.
- Blinking or flashing signs are not permitted.
- Exposed neon signs are not recommended however if used should be restricted to retail and entertainment portions of the district, facing away from residential neighbourhoods and buildings. All signs using neon as a source must be visually subtle, restrained and not overbearing in implied motion or colour. Neon signs if used are subject to LREDC review and final approval will be at LREDC discretion.
- Signs should be in good repair, clean and free of vegetative overgrowth, such as weeds and vines. Signs that have been designed to be illuminated should be fully operational.

GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 13/16

SIGN ILLUMINATION

Signage Illumination

> Illumination should not interfere or distract from the message conveyed by the sign and should strive to avoid excessive light pollution.

> For optimum efficiency, LED technology or equivalent should be used on all signage illumination.

> Lighting for signs shall not create a hazardous glare for pedestrians or vehicles either in a public street or on any private premises.

> Lighting for all exterior signs, whether lettering is internally back-lit or light is cast onto the face of the sign, shall comply with the lighting standards established on the Lusail Nightscape Strategy.

> Lighting colour shall preferably be white. Buildings should have lighting implemented in one consistent colour throughout all signage instances.

> Different colour selections will be considered and reviewed by LREDC.

Face Illumination

> Face illumination is one of the most common methods for lighting signs and is the preferred solution for wall mounted letters. No interior light source shall be visible to the exterior.

> On all internally illuminated freestanding, wall mounted and projecting signs, light shall be transmitted only through the material that comprise the letters located within the display area.

> No sign shall contain copy which consists of illuminated bulbs or individual lights or light sources.

Halo Illumination

> Back-lit, halo-lit illumination, or reverse channel letters with halo illumination are highly encouraged for lighting purposes. Such signs convey a subtle and attractive appearance and are very legible under moderate ambient lighting conditions.

> Halo illumination allows the sign letter to be opaque while lighting the sign from the interior, making this the preferred solution for cut out letters.

> No interior light source shall be visible to the exterior.

> Hallo illumination should not be used where the backing material is of reflective nature to avoid excessive glare.

Flood-lit Signs

> Flood lighting of an area on a building which carries a brand identity is permitted and encouraged whenever it brings added value to the building facade and design.

> The source of the flood-lit signs must be concealed from view as much as possible and should be focused directly at the sign it is intended to illuminate.

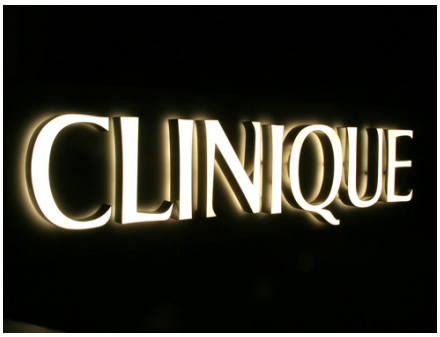
> Flood-lighting should preferably be directed downwards on low level locations, and when close to pedestrian areas, be controlled to result in a gentle wash of light.

Light boxes

> Internally illuminated light boxes are only permitted when the light box shape is either the whole, or an integral part of the brand identity which the sign represents.

> Internally illuminated light boxes that are not an integral part of the brand identity are not permitted.

> Light boxes cannot exceed a maximum of 0.5m projection from the main facade.



Face Illumination

Halo Illumination


Flood Lighting

Light Boxes

REF: LNWD-GVD- Sheet 14/16

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GENERAL VILLA DESIGN GUIDELINES & CONTROLS CONT.

REF: LNWD-GVD- Sheet 15/16

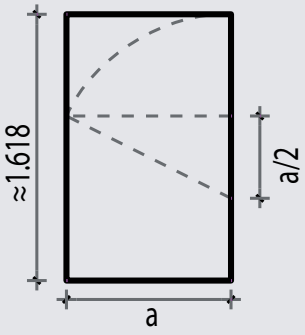
OPENINGS, SHADING & PRIVACY STRUCTURE

Windows

Proportions

Careful consideration should be given to the design, size, shape and orientation of windows and window openings.
Where interior layouts do not permit or dictate the location of a window, architectural devices should be used to control the overall appearance and aspect of the design. Such devices such as, but not limited to the following:

> Window recess (border) to retain proportion to the façade
> Locate a window within screen(s)
> Behind a perforated wall
> Addition of bay window, loggia or arcade to conceal the window in part.
> - All openings/voids should follow the proportion of the gold rectangle (1 x 1.618). This defines the module for the subsequent guidelines.



Module Illustration

General Conditions

No mirrored/reflected, heavily tinted or Black glass is permitted in any typology.
Where a window in the side façade cannot be avoided, then obscured glass is to be utilised.

Material

Dark framed windows are encouraged
White window frames are only permitted if the main body material of the façade is also in white.

Bay Windows

Bay windows may be incorporated to enhance the building façade.
The definition of the bay window defines the interior space of the building projecting beyond the main façade.
Exterior conditions refer to Balconies, terraces etc.
Bay windows should not project more than 1 meter subject to setback requirements.
For façades with multiple bay windows, at least 1.5 meters should be provided between each bay window.
Openings on the lateral sides of the bay windows are not allowed.

Doors

Doors should be in dark wood matching the windows or the finish of the entry gates.
Wooden doors and gates can feature iron details.

Shading Structures

Shade structures should enhance the overall design of the building façade as permanent structures which compliment the architectural language of the building.
If used, overhangs should be made from appropriate materials, including:

> Timber
> Canvas (with wood or metal framing) with permanent structures
> Metal
> Concrete (only on Contemporary).

Solar shading, projection and overhangs are encouraged to provide solar protection and increase the 3 dimensional effect on a given façade.
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 soleil
b) Shutters
c) Protective walls
d) Overhangs or trellises.

Screens

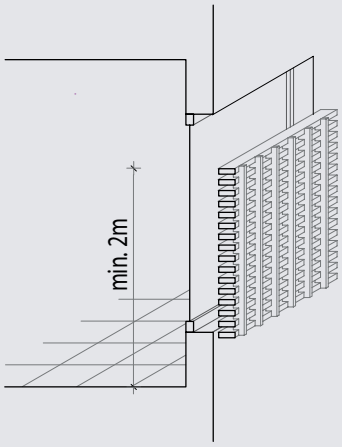
Screens should reflect the Arabic architectural vernacular patterns, geometrical patterns are encouraged.

Screen elements should be used to control privacy and views to the surrounding plots. Visibility must be prevented on the upper floors. The overlapping of planes/elements is encouraged to control visibility.

The area of screening must comply with the sustainability considerations of shading and ventilation, maintaining the design used for visibility control. The overlapping of planes/ elements allows to increase the ventilation and light permeability.

Back lighting of screen walls is encouraged to create depth and interest in the façade during the hours of darkness.

Screens Illustration



Privacy control on windows facing neighbourhood plots

REF: LNWD-GVD- Sheet 16/16

BUILDING ELEMENTS

Roof Components

Possible roof components include: Gargoyles, Parapets, Cupolas, Domes, Pergolas, Cornice, Chimneys.

Parapets

Flat roofs to have parapets to enclose and accommodate roof terraces where these are to be accessible.
Local regulations to prevail for safe height requirements.
The design of the parapet should be a continuation of the main façade plane.

Scuppers (Mirzam)

Flat roofs to be designed with scuppers features to discharge accumulated storm water from the roof.
Scuppers projecting more than 300mm (600mm encouraged) from the building elevation to be in contrasting material to the façade.
Scuppers which project less than 300mm may be the same colour and/or material as the façade.

Cupolas & Domes

Where cupolas and or domes are expressed above the parapet level of the roof, these should be in the same material as the façade colour.
This may reflect the main body colour or material of the building.
Highly decorated, contrasting, reflective materials are discouraged.

Skylights

Skylights must be in keeping with the architectural language of the building.
Solar protection should be provided.

Chimneys

Chimneys or 'wind towers' to respect vernacular, in terms or scale, proportion and materiality to the overall design.
Refer to materials for permissible finishes.

Balconies

Balconies are encouraged to add depth and interest to the building façade.
The design of balconies should reflect the architectural language of the building.

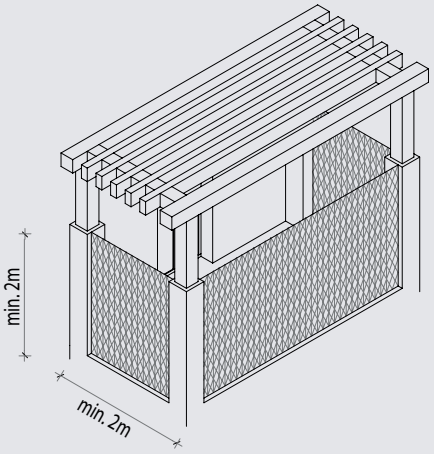
These features and resultant outside space should be integral to the design, and not appear as tacked-on or an afterthought.
Where possible single materials should be avoided and at least one side of the balcony should be open sided with a balustrade feature.

Projected Balconies are not allowed except for Contemporary where they should extend a min. 2m from the main façade.
No enclosed balconies are allowed (even with glass), all sides should be open.

Balustrades

Balustrades to contrast to the main body material and colour of the building and should be 1.2m high.
If glass balustrades are proposed, the fixing method must be invisible, clamping systems, bolts, channels etc. are not permitted

Balconies Illustration



Privacy control on balconies facing neighbourhood plots

External Stairways

External stairways should be integral to the mass of the building, and compatible with the architectural style of the building.

Stairways must not have a tacked on appearance, or feel like the design was an addition or afterthought.
Industrial metal (chequer plate) staircase will not be permitted.

Porches

Porches should promote the sense of arrival and reflect the vernacular and materiality of a given design.

Over, out of scale, or stretched interpretations of a vernacular are not permitted. Care and attention should be given to historical preferences in terms of scale and proportion.

Arcades & Loggias

If used, arcades and loggias should extend along the entire length of the building façade. On corner buildings, arcades and loggias may wrap the corner and sides.

Arcades and loggias to be compatible with the style and form of the building.
Arcades and loggias should be made from appropriate materials, including plaster/stucco or stone

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
BOUNDARY WALLS
LANDSCAPE DESIGN

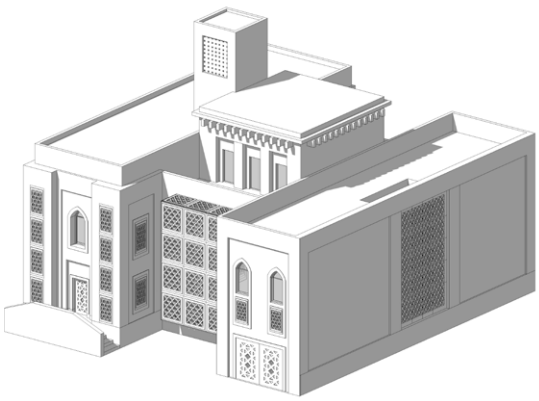
2.6.2 ARCHITECTURAL CHARACTER TYPES

COMPARATIVE STYLE REFERENCES

GLOSSARY OF TERMS

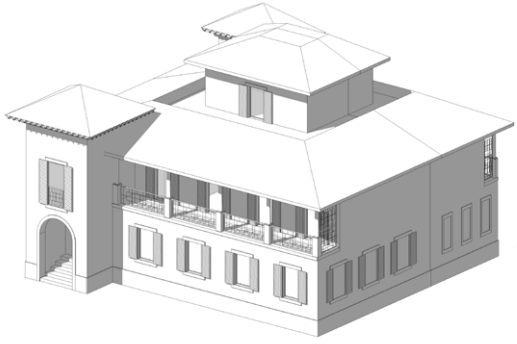
GULF ARABIC

> Monolithic in appearance
> Framed openings with variation of depth
> Monochromatic use of pallet of desert colours



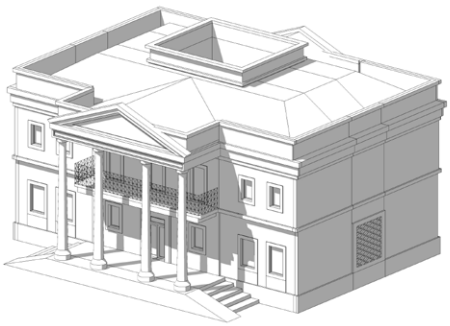
MEDITERRANEAN

> Villa sits within the garden landscape
> Symmetrical or Asymmetrical
> Breaking down of main volumetric mass into smaller elements,
> Shallow roof pitch
> Loggias, terraces and semi courtyards



CLASSICAL

- Use of historical precedents to avoid misinterpretation of the key architectural language elements
- Symmetrical
- Fine balance of scale and proportion
- Base, middle and top defining classical order.



CONTEMPORARY

- Simple and Minimal
- Little or no use of ornamentation
- Strong expression and juxta-position of building forms
- Large scale walls of glazing (windows) between forms
- Use of natural materials, to a timeless quality

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
BOUNDARY WALLS
LANDSCAPE DESIGN

GULF ARABIC VILLA DESIGN PRINCIPLES

REF: LNWD-AVD- Sheet 1/8

GLOSSARY OF TERMS

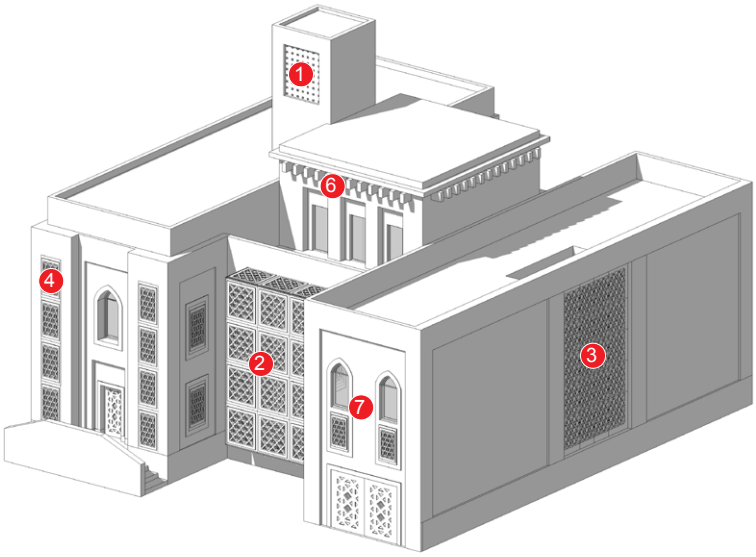
STYLE DESCRIPTION

The Gulf Arabic style reflects a more conservative/introspective way of living the spaces.

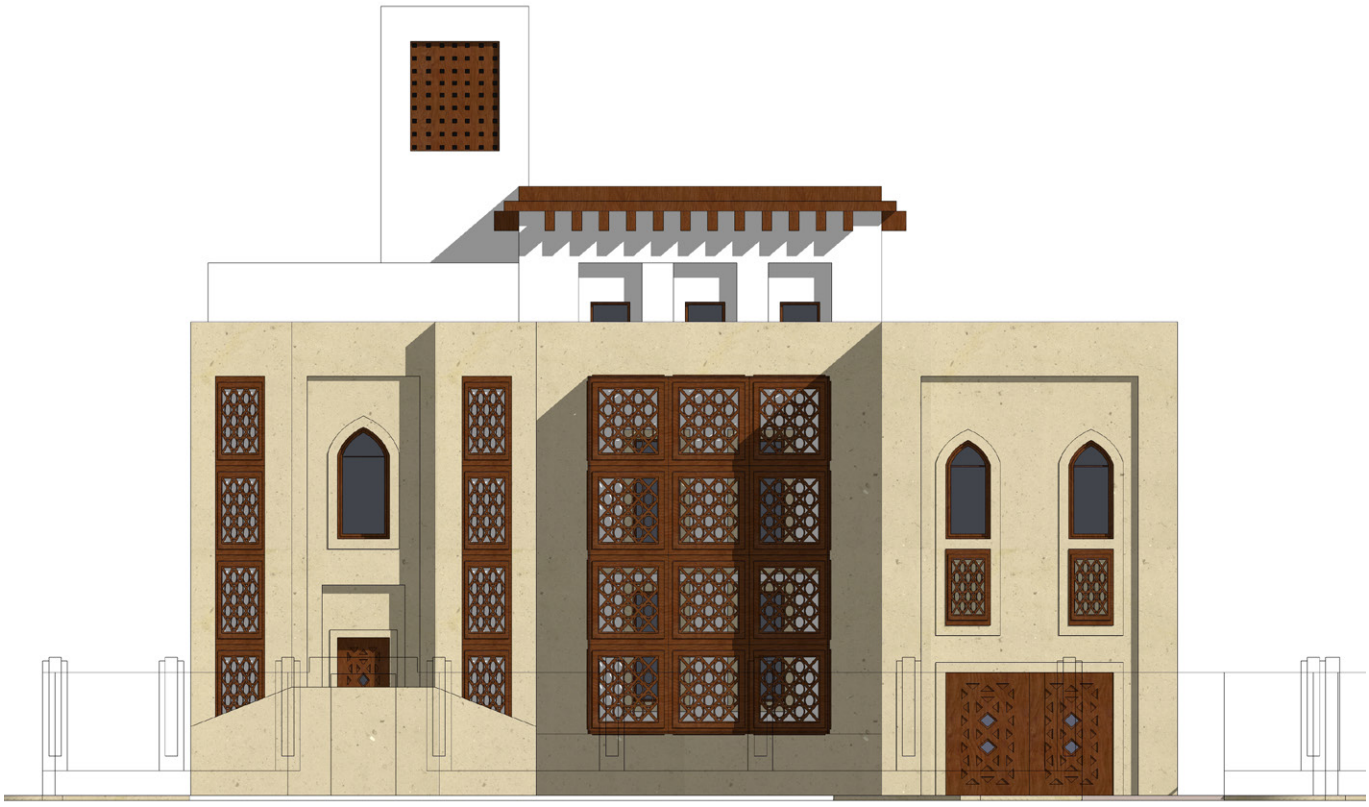
Based on the traditional way of designing the Arabic Houses, the volumetry is characterized by a more massive design, promoting the internal over the external, most of the times articulated with internal patios.

The articulation of shadow and light plays a very important role on the design. The decorative elements are defined by their vertical design and the use of shading devices with geometrical patterns.

ILLUSTRATIVE MASSING



ILLUSTRATIVE ELEVATION



REF: LNWD-AVD- Sheet 2/8

STYLE INTERPRETATION

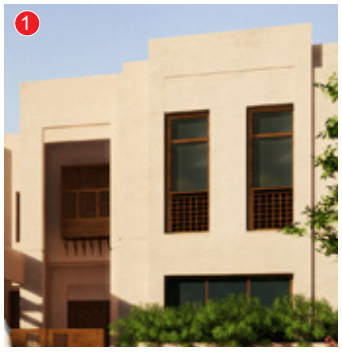
POSITIVE INTERPRETATION

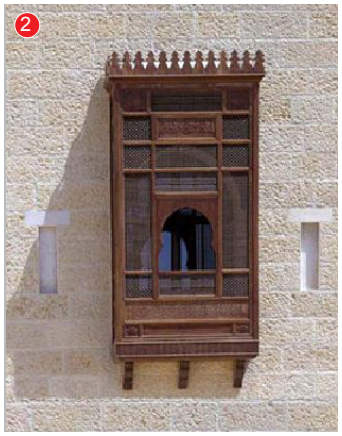
> Monolithic in appearance
> Expression of wind tower with correct proportion to its historical predecessors
> Monochromatic use of appropriate colours

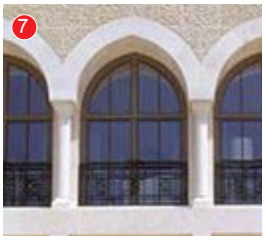
NEGATIVE INTERPRETATION

> Lacks same sense of monolithic mass
> Hybrid of other styles diluted from its historical precedents
> Modern, low quality windows

KEY ELEMENTS







1. Vertical design - volumes defined with depth variations in the elements that compose the façade
2. Projected boxes - typically of timber, highly decorative, with Arabic screens
3. Screens - modern interpretation of screen, colour and form
4. Screens -Arabic screens (historic or modern interpretations) reinforce the architectural language.
5. Composition of timber elements with a monolithic volume - balustrades, pergolas, screens
6. Arcs, screens and simple details on the parapet to complement the style
7. Arches - Arabic pointed arch for windows and openings

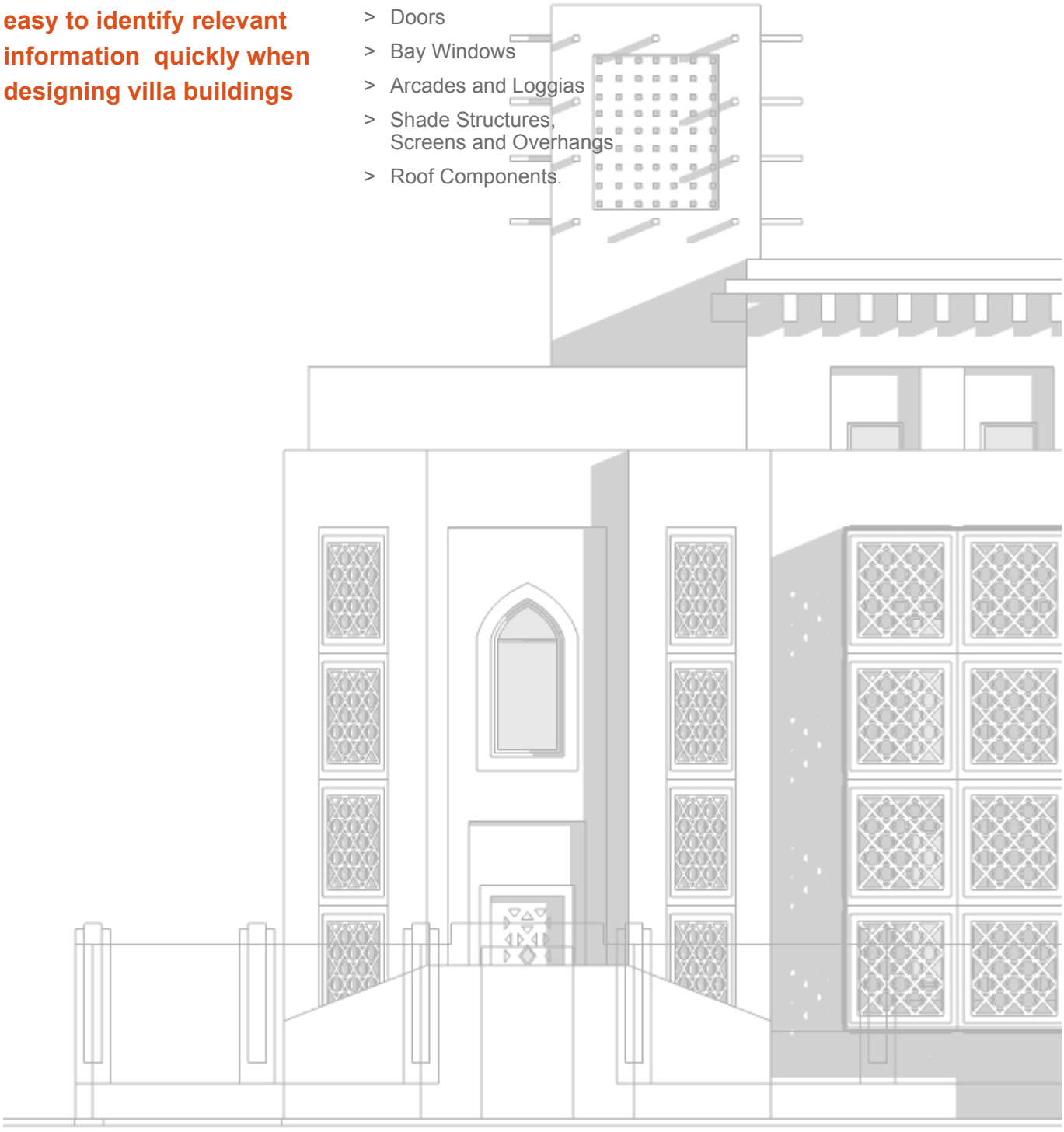
GULF ARABIC VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-AVD- Sheet 3/8

KEY GUIDELINES

The architectural style guidelines are broken down into separate components so that it is easy to identify relevant information quickly when designing villa buildings

- > Façade
- > Material
- > Colour
- > Windows
- > Doors
- > Bay Windows
- > Arcades and Loggias
- > Shade Structures, Screens and Overhangs
- > Roof Components.



REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-AVD- Sheet 4/8

FAÇADE

More conservative/introspective

> Façades must have a more solid design, with predominant vertical elements.

> Arabic design details are allowed.

> Window solid to void ratios: – 70% solid to 30% void

Solid feeling + Articulations of volumes

Vertical design + Arabic details + Variation on the material finish creating diversity maintaining the harmony

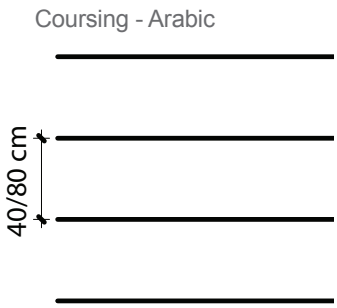
MATERIAL

> Material Palette – Render + Stone (non polished) + Terracotta bricks

> Colour Palette – White + Light greys + Light Terracotta

> Finishes: Render – Texture can be from rough to soft

> Stone – Strong Solid feeling + Definition of volumes integrating both floors (the material should be continuous on the corner). Horizontal predomination for the joints (between 40-80cm)



Simple finishes conferring robustness and harmony

Solid design + Material continuity with varying the finish on the different recesses and façade details + Accentuation of the openings with material differentiation

GULF ARABIC VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-AVD- Sheet 5/8

COLOUR

> Colours Palette – White + Light greys + Light Terracotta

RAL colour Codes

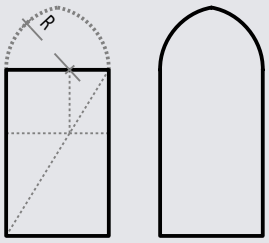
Light Terracotta colour in facade recesses to emphasize the depth variations and decoration details

Mixture of white tones with light greys elements together with wood details

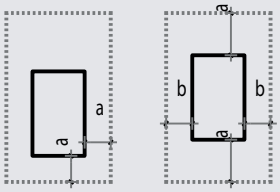
Wood Screens give more interest to the design

WINDOWS

> Vertical orientation + single openings separated by 0.5 of the small dimension of the Module + Arc is allowed on the top of the opening in addition to the top of the Module
> Can be integrated in larger recessed frames maintaining the Module



Openings proportions



Recess proportions and alignment

Opening integrated in larger recess + Screens in continuity of the opening

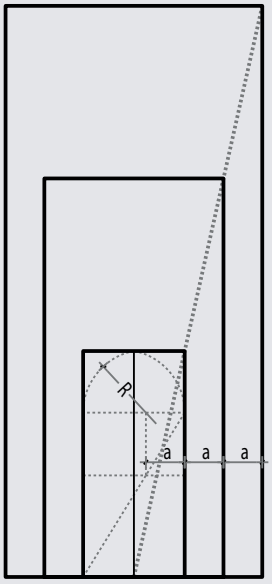
Vertical proportion of the openings + Integration of arcs in the top of the opening

Dark colour material for the window + Windows recess to the depth of the plan + Arc in the openings

REF: LNWD-AVD- Sheet 6/8

DOORS

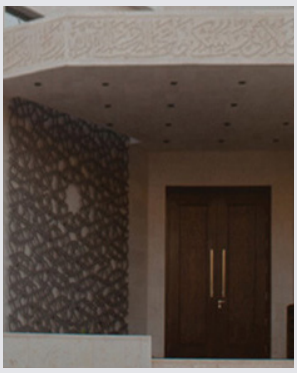
> Framed door – Vertical orientation;
> Doors proportion must follow the Module, with an extra dimension on the top equal to the arc formation of the style (see diagram);
> Geometric pattern details (related to the Arabic style) should be incorporated in the timber of the door;
> Must be integrated in larger recessed frames maintaining the proportion of the door, to add depth and monumentality to the door/entrance. The recess can be in wood, extending the door perception, or in a consonant material with the façade (following the rules for recess in the façades);
> Finely crafted wrought iron work can be applied, Geometric pattern details (related to the Arabic style) are preferable;
> Glass elements aren't allowed.



Frame and door proportion

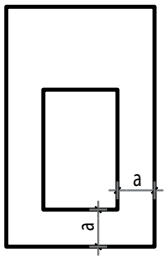

Vertical orientation + Arabic patterns details graved on the wood


Framed door + Recess to add depth + Sense of entrance

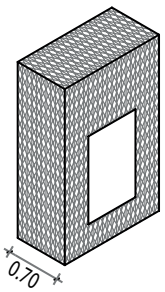

Dark wood + Metal details to add identity

BAY WINDOWS

> Maximum projection of 0.70m;
> Proportions must be suitable to the opening and the projected volume (Module);
> Geometric pattern details (related to the Arabic style) should be incorporated in the solid part of the bay window;
> For façades with multiple bay windows, at least 1.5 meters should be provided between each bay window.



Possible locations for the openings inside the bay windows



Projection of the bay window


Vertical orientation + Contrast material with the façade accentuation the projection + Dark wood

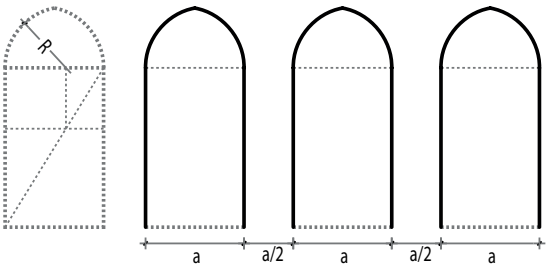

Integration of openings in the bay window + Arabic patterns details engraved on the wood

GULF ARABIC VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-AVD- Sheet 7/8

ARCADES AND LOGGIAS

> Arcades proportion should follow the 'Module', with the arc on top of the opening as and addition at the top of the 'Module'.
> Only Islamic pointed arcs are allowed.
> Distance between arcades should be half of the 'Module'.
> The arcades can only have a maximum height of one floor. Superimposed arcades are allowed, occupying two floors.



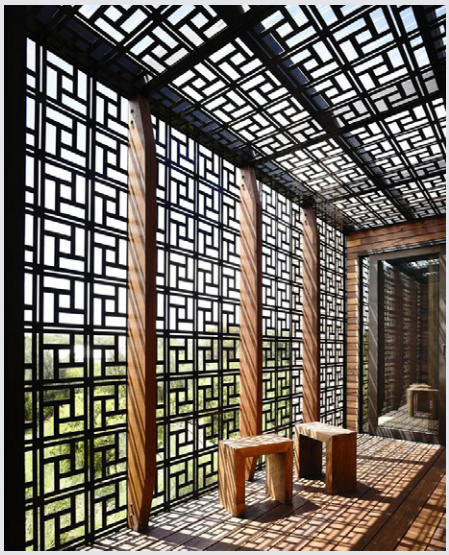
Arcades proportions (the 'Module)

Pointed arcs arcade + Solid feeling + Continuity of material with the façade

Wood screens added to the arcades to provide shading

SHADING & SCREENS

> Vertical screens are preferred. Horizontal screens should only be used on pergolas, and should not connect with the building (should be independent structures).
> The patterns should relate to the Arabic culture, with more traditional and organic designs.
> Only timber or metal (dark colour) is allowed.
> The vertical screen should preferably attach to the volume of the building, as a continuity of the massing of the building, and not appear as isolated elements – the solid feeling should be maintained.
> Maximum 15% visibility allowed on the vertical screens, and each perforation should not have more than 0.005m² (only counts the free area of overlaps, with direct visibility).
> Overhangs should be avoided to maintain the solid feeling of the style.



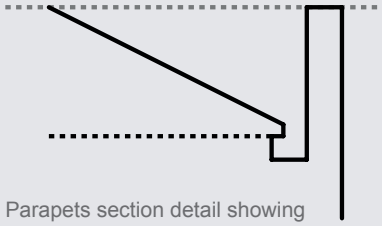
Timber structures to provide shading to the interior open-air spaces

Horizontal screens detach from the building + Vertical screens attached to the façades + Arabic patterns with organic designs + Contrasting colour/material to the façades

REF: LNWD-AVD- Sheet 8/8

ROOF COMPONENTS

- No visible roofs are allowed.
- Inclined or pitched roofs are discouraged, if an inclined roof is required for technical reasons, the roof form must be concealed from view through the use of a parapet.
- Simple roofline edge, with no cornice.
- Wind Towers are allowed: – Where four sided openings are not required then the remaining sides must have recesses to match the openings; – Where the design permits towers should be expressed with (danjal) mangrove poles or similar interpretation; – Towers must have a vertical emphasis to mimic historical precedents.



Parapets section detail showing hidden roof line

Integration of geometric details to differentiate the massing + Recesses in the parapets to add depth to the façade

No visible roofs + Simple detailed parapets, with the same materiality of the façades

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PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
BOUNDARY WALLS
LANDSCAPE DESIGN

MEDITERRANEAN VILLA DESIGN PRINCIPLES

REF: LNWD-MVD- Sheet 1/8

GLOSSARY OF TERMS

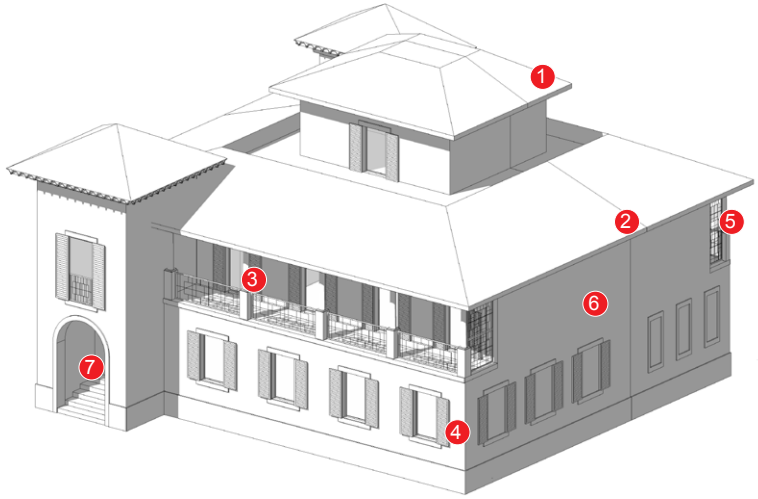
STYLE DESCRIPTION

The Mediterranean style uses the combination of larger windows with long balconies and arcades to give a more contemplative and emotional house. It´s characterised by the use of tiled roofs with large overhangs, to provide shade.

The roofs, together with pergolas and open arches forming loggias, allow for breezes to flow freely through the house becoming a natural cooling system typical of the style.

This style is typified by the use of strong earthy tones, reflecting the local terrain, combined with the use of natural stone, wood and terracotta pan tiles.

MASSING PRINCIPLE



ILLUSTRATIVE ELEVATION

REF: LNWD-MVD- Sheet 2/8

STYLE INTERPRETATION

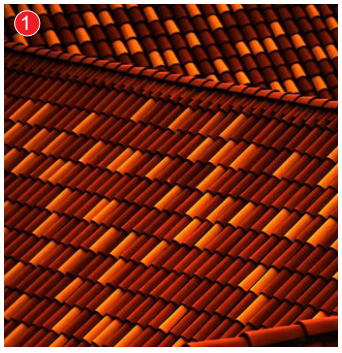
POSITIVE INTERPRETATION

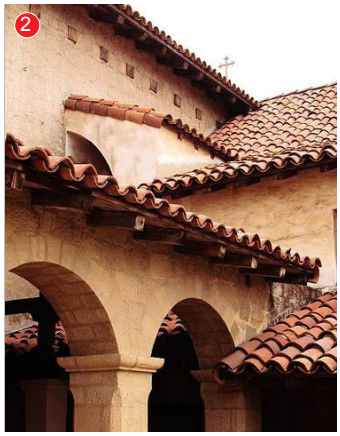
> Villa sits within the garden landscape
> Can be symmetrical or asymmetrical
> Feature entrance with strong detailing
> Breaking down of main volumetric mass into smaller areas, accented with tiled roofs helping to create a more romantic roof line.
> Shallow roof pitch
> Loggias, terraces and open spaces, semi courtyards
> Use of pergolas to provide shading and interest.

NEGATIVE INTERPRETATION

> Diluted or confused sense of architectural language with misuse of classical elements.
> Lack of proportion and loss of romantic roof line.
> Inappropriate use and type of windows and openings

KEY ELEMENTS





1. Roof Tiles- terracotta pan tiles
2. Roof Line - shallow and inclined
3. Loggias - add depth and interest to the façade
4. Shutters - to dress window openings
5. Pergolas - integrated as architectural and shading elements
6. Colours - earthy tones emblematic of the local terrain
7. Feature door

MEDITERRANEAN VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-MVD- Sheet 3/8

KEY GUIDELINES

The architectural style guidelines are broken down into separate components so that it is easy to identify relevant information quickly when designing villa buildings

- > Façade
- > Material
- > Colour
- > Windows
- > Doors
- > Bay Windows
- > Arcades and Loggias
- > Shade Structures, Screens and Overhangs
- > Roof Components.

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-MVD- Sheet 4/8

FAÇADES

More contemplative/vibrant/emotional

> Separation of floors integrating balconies and arcades, in articulation with tile roofs.
> Predominant horizontal orientation.
> Simply detailed façades with more impact for the openings.
> Symmetry and repetition used on the design of openings.
> Window solid to void ratios: – 60% solid to 40% void including minimum 10% with external screening in front of the glazing (this area of screening must comply with the sustainability considerations of shading devices, and only apply for Front and Back Façades)

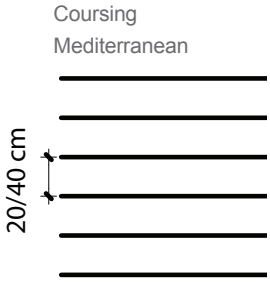
Separation of floors with balconies and arcades + The building mass decreases as the building goes higher

Accentuation of the roof line with projected tiles and wood cornice

Simple façade + Accentuation of the roof line with projected tiles and wood cornice

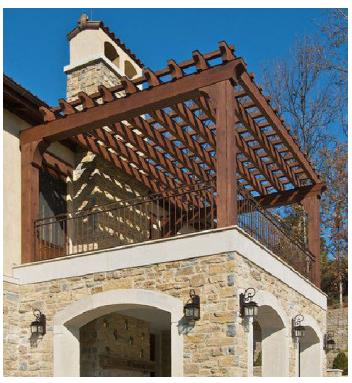
MATERIAL

> Material Palette – Render + Stone (not polished) or Ceramic (imitation of stone)
> Colours Palette – White + Greys + Terracotta (more vibrant colours allowed)
> Finishes: Render – Texture can be from median rough to soft
> Stone – Medium Solid feeling + Definition of volumes predominant on the ground floor. Horizontal predomination for the joints (between 20-40cm)



Stone in the frames to contrast with the façade finish (render)

Continuity of materials with differentiation on the design details of the style (timber): balustrades, cornice and openings



Contrast of timber in the pergolas and stone in the lower floor to graduate the massing of the building of the building

MEDITERRANEAN VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-MVD- Sheet 5/8

COLOUR

> Colours Palette – White + Greys + Terracotta (more vibrant colours allowed)

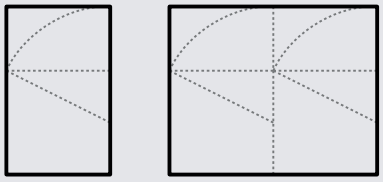
RAL colour Codes

Vibrant pastel colours for a more emotional design + Design details in a contrasting colour to add depth to the façade

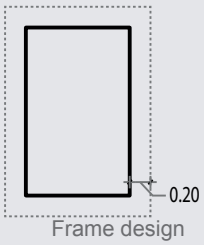
Pastel white colours emphasizing reds from the roof tiles and browns from the timber details in the cornices and openings

WINDOWS

> Vertical orientation + Playing with Double 'Module' is allowed only in fenestrations inside arcades and balconies + No arcs allowed
> Stone frames are encouraged



Openings proportions (the 'Module')



Frame design

Framed windows using the double 'Module' + Timber windows in combination with timber cornices on the roofs

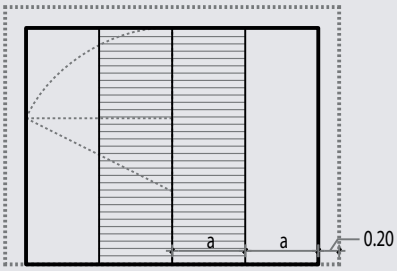
Windows colours in continuity of the façade + Integration of shutters for shading

Vertical orientation + Same proportion between upper and lower windows

REF: LNWD-MVD- Sheet 6/8

DOORS

> Squared proportion for the door frame (see diagram).
> Double 'Module' for the frame – Single 'Module' for the door, placed in the centre + No arcs allowed
> Sidings are preferable in glass, but can also be in timber, extending the door perception
> Stone frames are encouraged
> The door frame should relate to the adjacent openings, in terms of alignment and materiality.



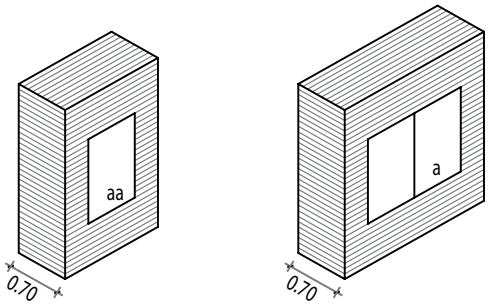
Door proportion (the 'Module')


Squared proportion frame with glass sidings + Timber door with geometrical details


Glass sidings integrated in the door design with timber patterns + Metal details on the door

BAY WINDOWS

> Maximum projection of 0.70m.
> Proportions must be suitable to the opening and the projected volume ('Module'), double 'Module' allowed
> For façades with multiple bay windows, at least 1.5 meters should be provided between each bay window.



Projection and proportion for the bay windows


Contrasting material to the façade + no lateral openings

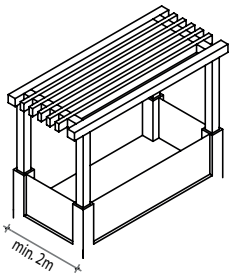
MEDITERRANEAN VILLA DESIGN GUIDELINE & CONTROLS

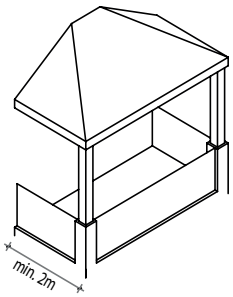
REF: LNWD-MVD- Sheet 7/8

BALCONIES, PORCHES AND STOOPS

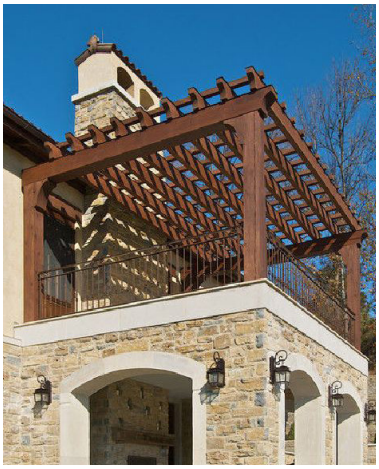
> Arcades should usually have a balcony over them.
> Roof can be solid or pergola (in timber).
> Glass balustrades are discouraged.

Balcony with tiled roof + Upper floor has different materiality/mass

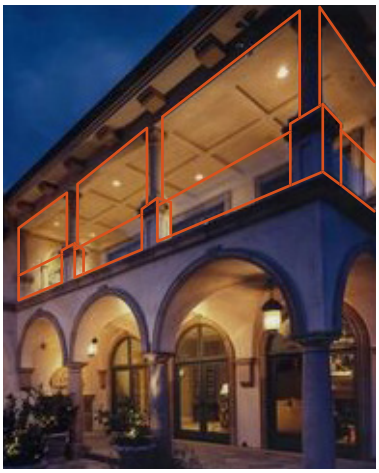




Possible roof for the balconies



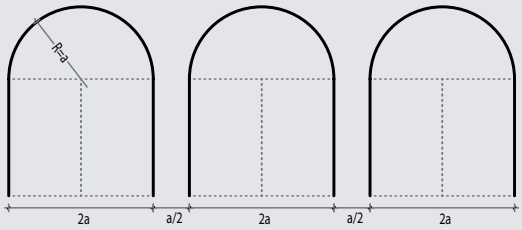
Pergola in timber covering the balcony providing shading



Balcony over the arcade maintaining the alignment of the interior façade

ARCADES AND LOGGIAS

> Arcade proportion should follow a double 'Module', with arcs at the top of the opening;
> Only 'perfect' arcs are allowed;
> Distance between arcades should be half of the Module;
> Only one floor arcade is allowed, and on the ground floor; Maximum height is one floor.



Arcade proportions (the 'Module')

Arcade with columns separating the arc from the column + Arc in continuity of the façade material

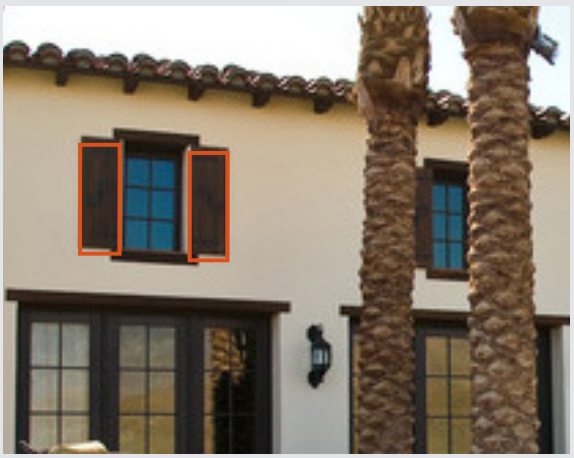
'Perfect' arc arcade

More enclosed arcade to provide shading + Balcony over the arcade

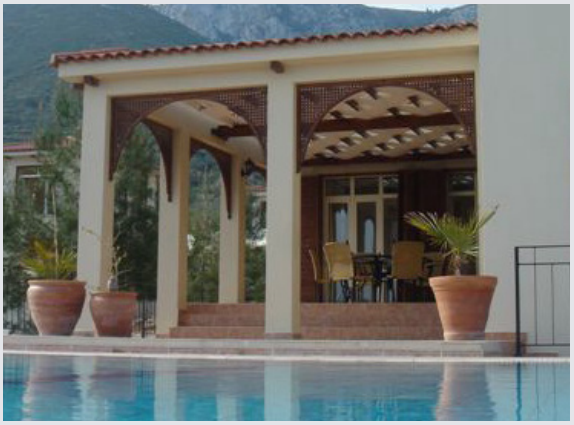
REF: LNWD-MVD- Sheet 8/8

SHADING & SCREENS

> Vertical and horizontal screens are allowed.
> Only timber or metal (dark colour) is allowed.
> The vertical screens should preferably be detached from the façade of the building, and be associated to the balconies (to provide privacy control and block visibility to adjacent plots). Can be used as shutters for the windows.
> Maximum 20% visibility allowed on the vertical screens, and each perforation should not have more than 0.0075m² (only counts the free area of overlaps, with direct visibility).
> Overhangs are only permitted as projected roofs (should be with ceramic tiles in continuity of the main roofs of the building). These elements cannot project over two or more floors.



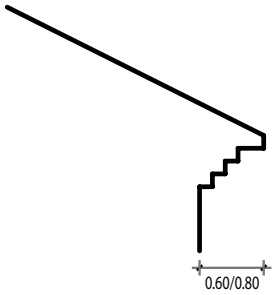
Shutters as screens for the windows + Wood material



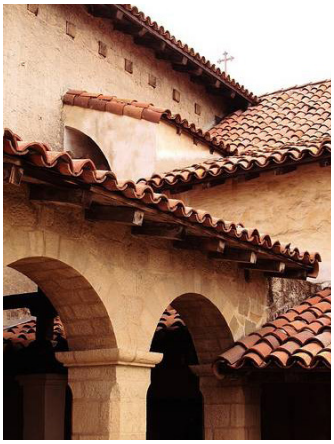
Screens detach from the façade + Geometrical patterns + Wood in contrast with the façade material

ROOF COMPONENTS

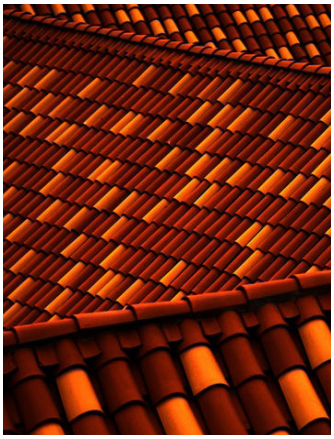
> Inclined or pitched roofs are preferable. Flat roofs are discouraged and only permitted in small terraces (should have a pergola covering the terrace).
> The use of roof tiles is mandatory in pitched roofs.
> Cornice details below the roofline edge are permitted, in timber.
> Chimneys are allowed (can work as wind towers)



Cornice extending the roof edge in the same colour as the rest of the design details of the façades



Exposed roof tiles edge with timber cornice



Colours of the tiles to give differentiation to the design

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PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
BOUNDARY WALLS
LANDSCAPE DESIGN

CLASSICAL VILLA DESIGN PRINCIPLES

REF: LNWD-CVD- Sheet 1/7

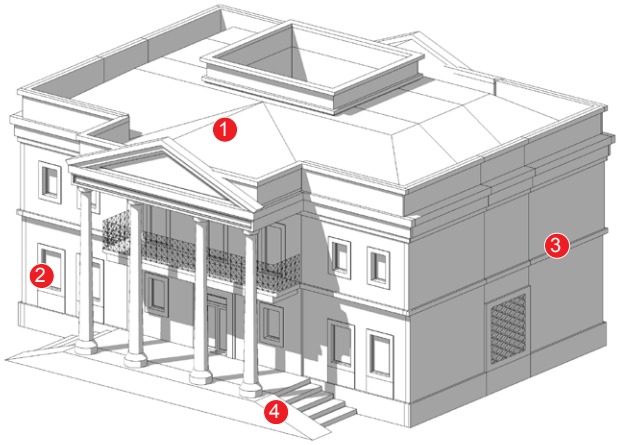
GLOSSARY OF TERMS

STYLE DESCRIPTION

The Classical style is defined by incorporating the classical philosophy of order, proportion and repetition.

The main façade is predominant in the design, using the values of the formal classical temple architecture of the Ancient Greeks and Romans, such as pedimented façade and equally proportioned fenestrations, to transmit a more monumental scale, together with sensitive ornamentation design details.

MASSING PRINCIPLE



ILLUSTRATIVE ELEVATION

REF: LNWD-CVD- Sheet 2/7

STYLE INTERPRETATION

POSITIVE INTERPRETATION

> Use of historical precedents to avoid misinterpretation of the key architectural language elements
> Symmetrical
> Fine balance of scale and proportion
> Base, middle and top defining classical order.
> Use of stone cladding to principal façade
> Restrained use of ornamentation
> Parapet to obscure inclined roof line

NEGATIVE INTERPRETATION

> Loss of the sense of scale and proportion
> Over and under scaled elements, disjoint the overall appearance
> Fenestration out of scale to classical order norms
> Transoms designs breaking the cornices changes the classical design and competes with the pediment in the entrance

KEY ELEMENTS

1. Scale - maintaining a well balanced scale and proportion of key architectural elements

2. Fenestration - scale & proportion and location are key to achieving the right balance

3. Language - stripped back classical language, can still capture the spirit of the period

4. Materials - Use of stone and colour strengthen façades presence.

CLASSICAL VILLA DESIGN GUIDELINES & CONTROLS

REF: LNWD-CVD- Sheet 3/7

KEY GUIDELINES

The architectural style guidelines are broken down into separate components so that it is easy to identify relevant information quickly when designing villa buildings

- > Façade
- > Material
- > Colour
- > Windows
- > Doors
- > Bay Windows
- > Arcades and Loggias
- > Shade Structures, Screens and Overhangs
- > Roof Components

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-CVD- Sheet 4/7

FAÇADES

More intellectual/sensitive

> Monumental design of the façades, integrating the classical elements. Proportion and composition are fundamental, following the design principals of the Palladian architecture
> Symmetry in the design is desirable.
> Pedimented façade is allowed, in articulation with columns, on the front entrance.
> Equally proportioned fenestration design
> Simple ornamentation and design details, following the traditional classical elements: architrave and cornice.
> Window solid to void ratios: – 50% solid to 50% void including minimum 20% with external screening in front of the glazing (this area of screening must comply with the sustainability considerations of shading devices, and only apply for Front and Back Façades)

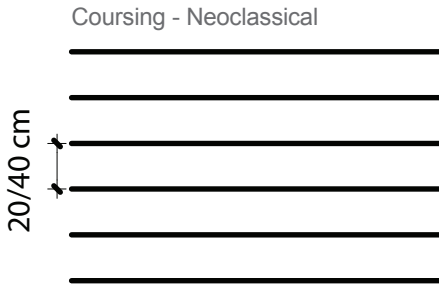
Symmetrical design + Simple ornamentation

Monumental entrance with a higher volume

Pediment: front entrance + Proportional openings + Classical elements: frieze and cornice

MATERIAL

> Material Palette – Render + Stone (not polished) or Ceramic (imitation of stone)
> Colours Palette – White + Light greys (brighter colours)
> Finishes: Render – Only soft
> Stone – Medium Solid feeling + Definition of volumes predominant on the ground floor (the material should be continuous on the corner) + Continuity between floors. Horizontal predomination for the joints (between 20-40cm)



Stone details with horizontal orientation + Soft finishes for a more classical design

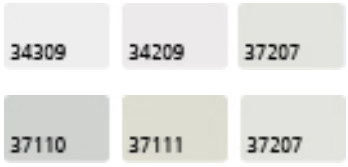
Material continuity in the different planes of the façade + No material contrast in the façade details

CLASSICAL VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-CVD- Sheet 5/7

COLOUR

> Colours Palette – White + Light greys (brighter colours)



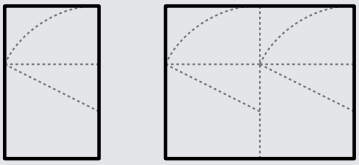
RAL colour Codes

Light grey colour in all the façade with variation only to mark the entrance (wood)

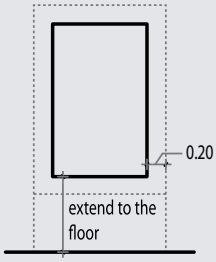
Continuous colour in the façade (white tones) + Details integrated in the same colour to maintain harmony

WINDOWS

> Vertical orientation + Playing with Double 'Module' is allowed only in fenestrations inside arcades and balconies + Arc is not allowed
> Proportion and symmetry must be maintained on all openings
> Stone frames are recommended + Frames should extend to the floor on the ground floor



Openings proportions (the 'Module')



Frame design

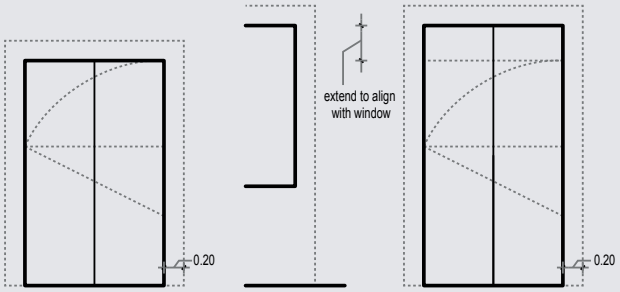
Dark colour windows + Frame extended to the floor

Symmetry and composition + Horizontal and vertical alignment

REF: LNWD-CVD- Sheet 6/7

DOORS

> Framed door – Vertical orientation
> Minimum size for the door is a single 'Module', extra dimension on the top can be added to relate to the adjacent openings (see diagram).
> Arc is not allowed
> No sidings are allowed
> Stone frames are mandatory and should have 20cm width
> The door frame should relate to the adjacent openings, in terms of alignment and materiality.



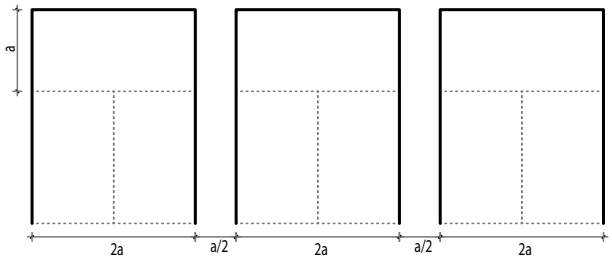
Doors proportion (the 'Module')

Alignment with the adjacent openings

Vertical wooden doors + Stone frame + Monumental proportions to emphasise the entrance

ARCADES AND LOGGIAS

> Arcade proportion should follow a double 'Module', with an extra dimension of the 'Module' in addition at the top (see diagram).
> No arcs are allowed. Should read as a colonnade.
> Distance between openings should be half of the Module.
> Superimposed arcades are not allowed. Maximum height is two floors.



Arcade proportions

No arcs on the arcade + Equal proportions + Symmetrical design

Arcade as a colonnade + Design details on frieze + Different material on the columns to stand out from the façade

CLASSICAL VILLA DESIGN GUIDELINE & CONTROLS

REF: LNWD-CVD- Sheet 7/7

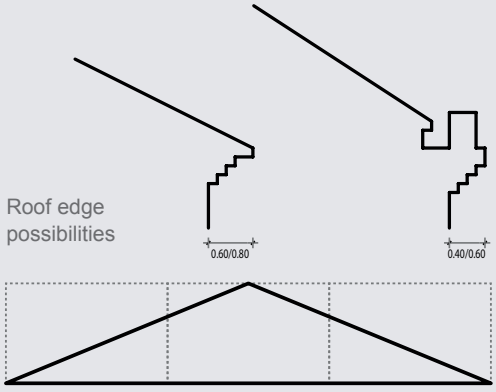
SHADING AND SCREENS

> Screens are only allowed in shutters for the windows. Overhangs are forbidden.
> The patterns should be simple (preferably with only one direction, vertical or horizontal lines to be used).
> Only timber or metal (dark colour) is allowed.
> Maximum 20% visibility allowed on the vertical screens, and each perforation should not have more than 0.0075m² (only counts the free area of overlaps, with direct visibility).

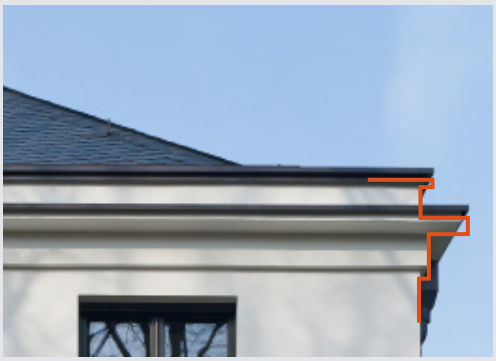
Shutters in the windows to provide shading and control privacy + Dark colour contrasting with the façade

ROOF COMPONENTS

> No flat roofs are allowed.
> Inclined or pitched roofs are mandatory.
> Pediment is allowed, only on the front entrance. Recommended proportion is triple 'Module'.
> Cornice details below the roofline edge are permitted, matching the main body colour and or material of the façade, overhanging the roof between 60/80cm
> The roof edge can be hidden if a cornice is applied. But the roof should be visible.



Pediment proportions



Visible roof with cornice (hidden roof edge)

Pediment on the front entrance + Use of classic details like cornice and frieze

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PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
BOUNDARY WALLS
LANDSCAPE DESIGN

CONTEMPORARY VILLA DESIGN PRINCIPLES

REF: LNWD-CMVD- Sheet 1/8

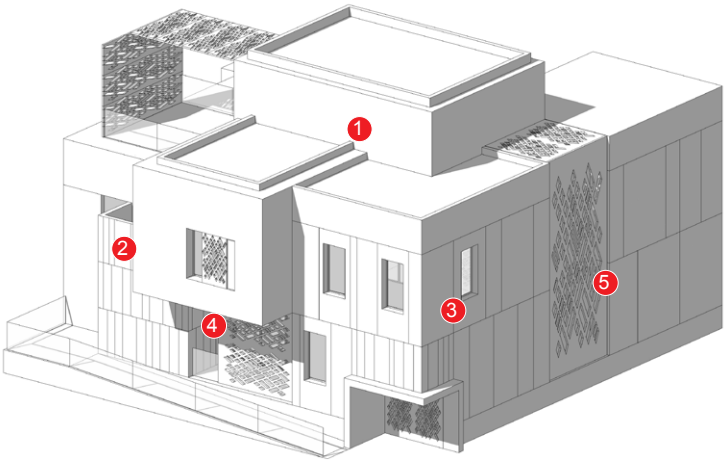
GLOSSARY OF TERMS

STYLE DESCRIPTION

The Contemporary is typified by simplified forms, stripped of ornamentation. The use of natural light and the connection between inside and outside, via walls of glazing are more common than the traditional punched window.

This style uses a more subtle and sophisticated juxtaposition of planes, volumes and materials. These are often expressed with a more horizontal bias, with each volume controlling views in and out. This creates a sense of openness yet at the same time privacy.

MASSING PRINCIPLE



ILLUSTRATIVE ELEVATION

REF: LNWD-CMVD- Sheet 2/8

STYLE INTERPRETATION

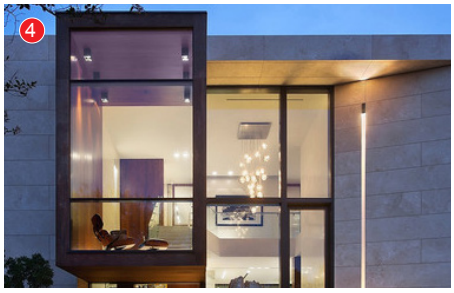
POSITIVE INTERPRETATION

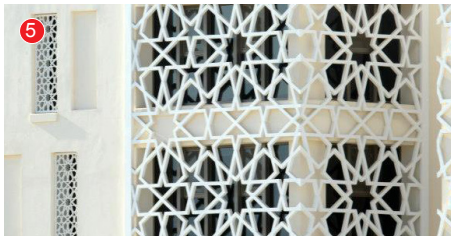
> Simple and Minimal
> Little or no use of ornamentation
> Strong expression and juxtaposition of building forms
> Large scale walls of glazing (windows) between forms
> Use of natural materials, to a timeless quality

NEGATIVE INTERPRETATION

> Forms lack strength and simplicity
> Lack of rigour in the design of the façade and spaces
> Used of man made, processed artificial coloured materials
> Mixed-confused architectural language

KEY ELEMENTS





1. Form - Simple and clean
2. Materials - Change of material to reinforce massing and form
3. Materials - Minimal and simple use of materials
4. Windows - expressed as glazed walls or forming part of the architectural language of the wall.
5. Interpretation - Arabic screen in a modern context

CONTEMPORARY VILLA DESIGN GUIDELINES & CONTROLS

REF: LNWD-CMVD- Sheet 3/8

KEY GUIDELINES

The architectural style guidelines are broken down into separate components so that it is easy to identify relevant information quickly when designing villa buildings

> Façade
> Material
> Colour
> Windows
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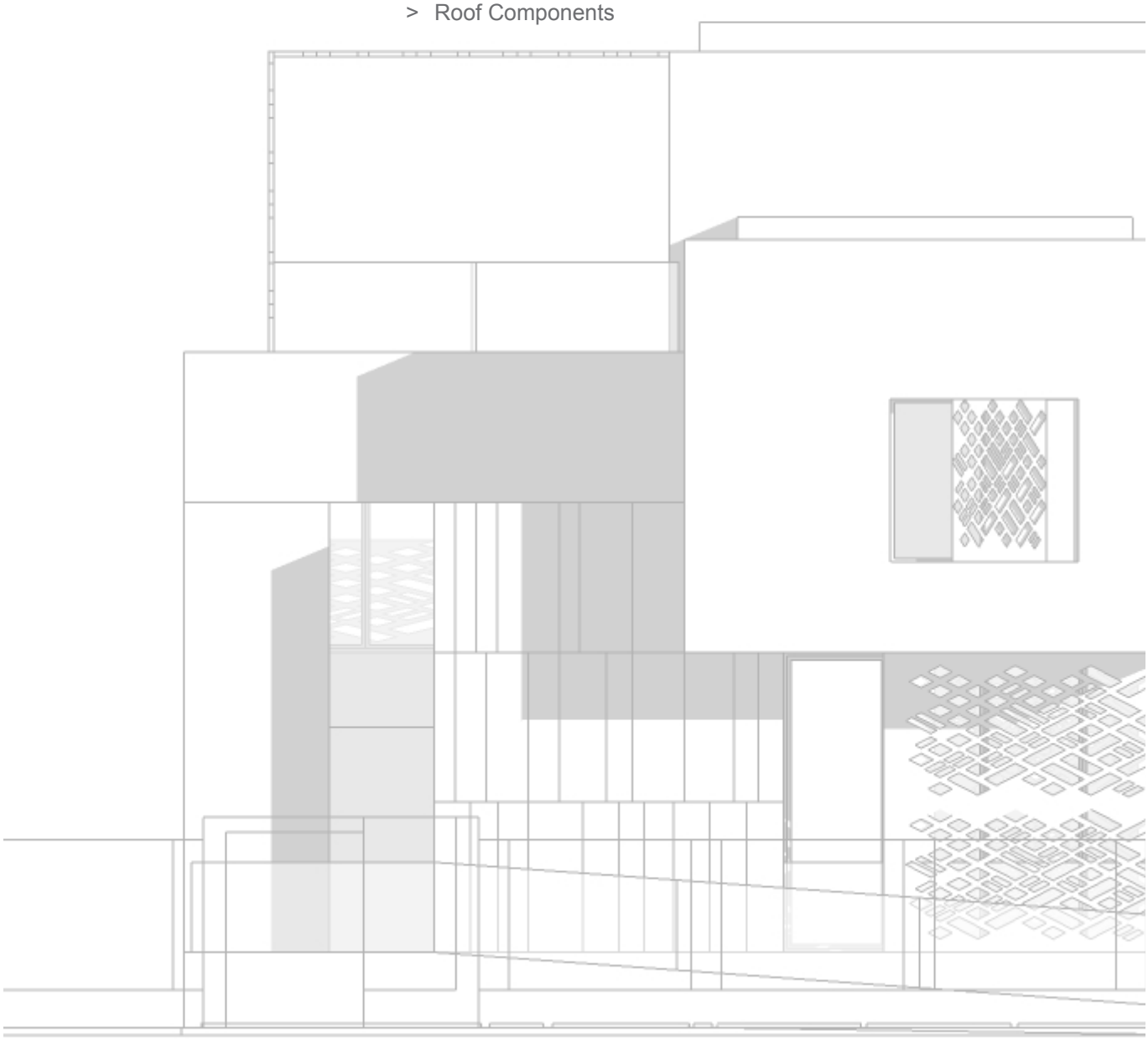
> Shade Structures, Screens and Overhangs
> Roof Components



REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-CMVD- Sheet 4/8

FAÇADES

More sophisticated/exposed

> Volumetric definition of the façade.
> Simple forms, integrating larger openings, making the articulation between internal spaces and the surrounding landscape.
> Absence of decorative elements.
> Window solid to void ratios: – 50% solid to 50% void including minimum 30% with external screening in front of glazing (this area of screening must comply with the sustainability considerations of shading devices, and only apply for Front and Back Façades).

Integration of shading components as main elements composing the façade + absence of decorative elements

Big planes defining the volume + Transition of materiality between elements + Different depths to differentiate elements

MATERIAL

> Material Palette – Render + Stone (not polished) + Concrete (only single walls)+ Natural Dark Timber
> Colour Palette – White + Greys + Light Terracotta + Natural concrete or pigmented concrete + Dark Timber
> Finishes: Render – Only soft
> Stone – Abstract feeling + The façade is read as a uniform plan. No visible joints. The emphasis should be horizontal.
> Timber – Only natural dark timber + Stripes (like deck) application + Vertical and horizontal allowed (diagonal excluded) but only one direction for each wall
> Concrete – Decorative patterns are discouraged; Construction joints and plugs are accepted as part of the material, and construction process. Horizontal feeling on each wall (longer dimension horizontal). Smooth textures are encouraged; highly polished finishes are not permitted.

No decorative joints + Volumetric definition of materials + Transitions made in the edges to define plans and volumes

Blend of different materiality to define the volumetric variation + No joint expression and only one direction for each volume

CONTEMPORARY VILLA DESIGN GUIDELINES & CONTROLS

REF: LNWD-CMVD- Sheet 5/8

COLOUR

> Colour Palette – White + Greys + Light Terracotta + Natural concrete or pigmented concrete + Dark Wood

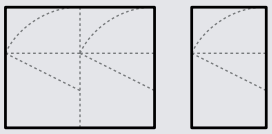
RAL colour Codes

Colours in consequence of materials, defining volumes + combination of terracotta tones with a neutral white highlights the building composition

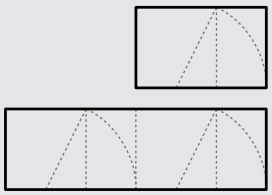
Blend of different greys with variation of materiality + timber on the openings

WINDOWS

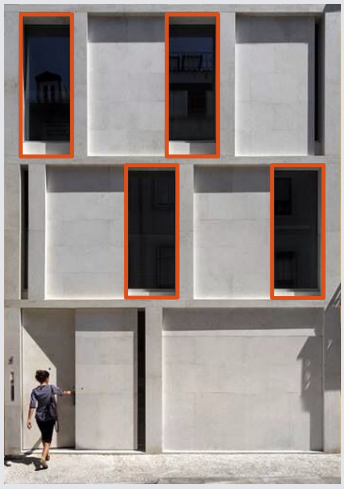
> Vertical and horizontal orientation allowed + Playing with Double 'Module' is allowed on both orientations.



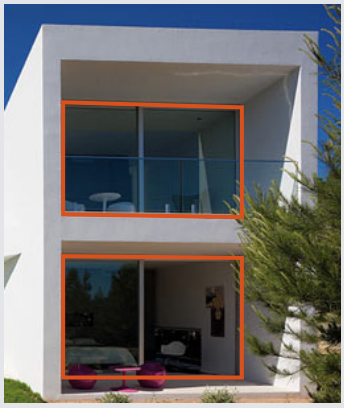
Openings proportions vertical (the 'Module')



Openings proportions horizontal (the 'Module')



Abstract composition with the same proportion window



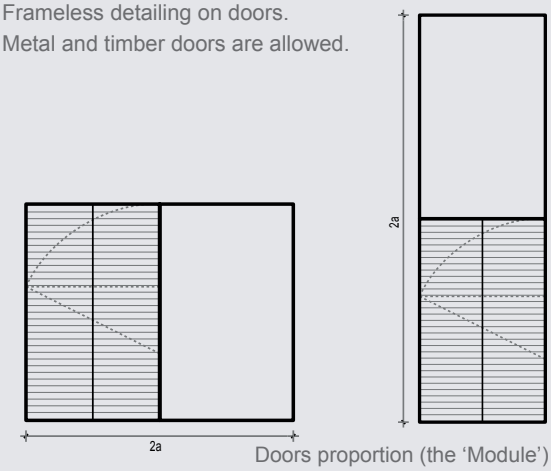
Recces of bigger openings to provide shading

Different openings proportion, maintaining the same design detail for continuity

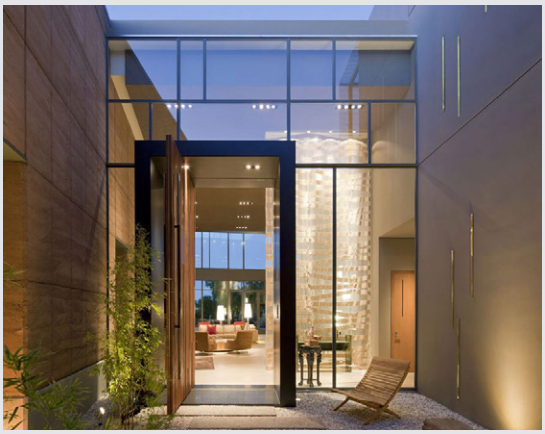
REF: LNWD-CMVD- Sheet 6/8

DOORS

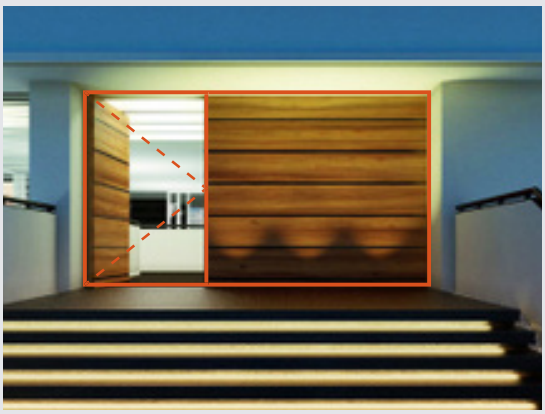
> Vertical and horizontal orientation allowed
> Double 'Module' is recommended – can be on both orientations (see diagrams)
> Door usually on the side (central alignment discouraged)
> Sidings are preferable in glass, but can also be in timber, extending the door perception
> Frameless detailing on doors.
> Metal and timber doors are allowed.



Doors proportion (the 'Module')



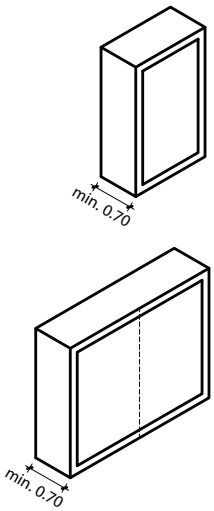
Glass sidings with solid door + simple design door



Double Module door with wood siding to enhance the entrance perception

BAY WINDOWS

> Minimum projection of 0.70m.
> Proportions must be suitable to the opening and the projected volume (Module)
> Glazed element must be maximized to transform the projected plane in a void. Equal distances in the horizontal and vertical frames



Projection for the bay windows

Maximum glass possible + Vertical orientation

Double Module proportion + differentiation from the façade with a different material

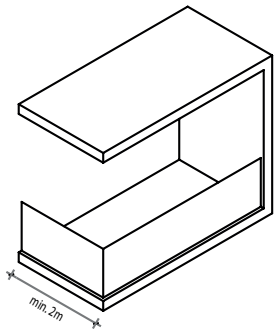
Abstract composition of bay windows + Projection variation

CONTEMPORARY VILLA DESIGN GUIDELINES & CONTROLS

REF: LNWD-CMVD- Sheet 7/8

BALCONIES, PORCHES AND STOOPS

> Projected balconies are allowed, supportive columns are forbidden.
> The balconies should always be covered in the same material as the walls. Minimum one side should be closed, also in the same material as other walls (it should read as a single volume)
> Balustrades in glass are encouraged



Balcony with continuous material in the solid parts + One side closed

Projected Balcony with no supportive columns + Glass balustrade with concealed fixings

ARCADES AND LOGGIAS

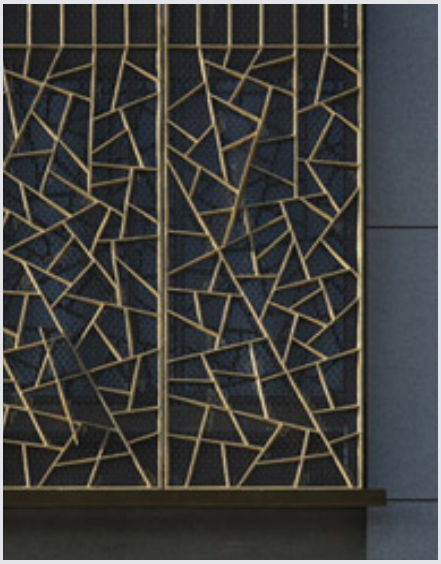
> No arcs are allowed. Should read as a colonnade.

Colonnades creating a filter for the façade and providing shading for the openings + Vertical design

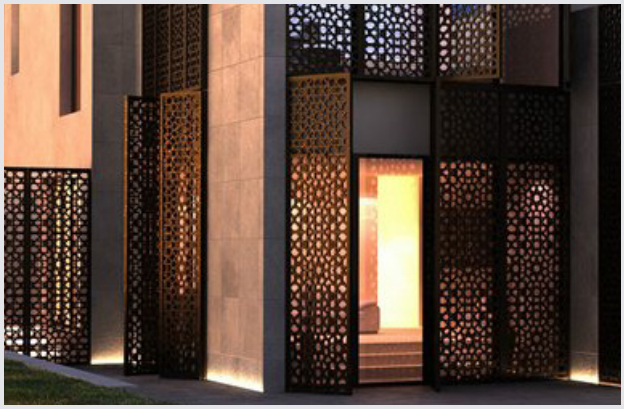
REF: LNWD-CMVD- Sheet 8/8

SHADING AND SCREENS

> Vertical and horizontal screens are allowed.
> The patterns should relate to the Arabic culture, with an interpretive design based on abstract patterns (only straight lines to be used in the composition of the patterns).
> Materials can be timber or metal (dark colour) or tinted. Overhangs are also allowed.
> The vertical screens and the overhangs should preferably work as independent elements, forming planes that interact with the volumes that compose the building.
> Can be associated to windows, to provide privacy control and block visibility to adjacent plots.
> Maximum 20% visibility allowed on the vertical screens, and each perforation should not have more than 0.0075m² (only counts the free area of overlaps, with direct visibility). If tinted glass is used the visibility parameters should be penalized in 25%



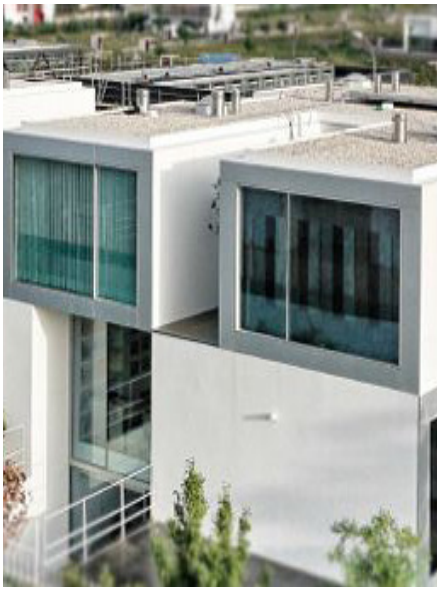
Metallic screen with abstracted Arabic pattern + Detach from the façade to gain depth



Screen structure with abstract patterns (overlapping of pieces)

ROOF COMPONENTS

> The roof should be in the continuity of the volumes from the façades.
> Visible roofs are discouraged and roof tiles are not in keeping with the style.
> Roofline edge should be concealed.



Flat roofs + No tiles + Hidden roof edges

No visible roof lines + Roofs in continuity of the façade volumes

2.7 VILLA PLOT LANDSCAPE TREATMENT GUIDELINES

OBJECTIVES AND PURPOSE

These guidelines form the basis of a coherent landscape vision that will crucially improve the quality of the design concepts and ensure a high quality private landscape environment throughout Lusail

Landscape guidelines are defined based on the following Key Design Principles:

> Character – articulates how the landscape presents a strong identity and sense of place;

> Continuity and Enclosure – ensure public, private and semi-private landscape spaces are easily distinguished with clear transitions from one to another;

> Ease of movement – a place that facilitates pedestrian mobility;

> Legibility – a place that people can intuitively navigate, read and move through;

> Safety – create open spaces that feel safe to walk or cycle through, due to their orientation, lighting and natural surveillance;

> Quality – apply best practice design principles adapted to the site, creating attractive outdoor spaces that reflect open space hierarchy;

> Durability – use of resilient materials to ensure low maintenance and a permanent quality image over time;

> Sustainability – maximize the conservation of natural resources (soil and water), and consider the use of local materials, including native, naturalized and adaptive plant species, to minimize maintenance and irrigation requirements.

Private Landscape Requirements:

MINIMUM DRAWING SUBMITTALS:
GENERAL ARRANGEMENT PLAN
GRADING AND DRAINAGE PLAN
HARDSCAPE PLAN
SOFTSCAPE PLAN
FIXTURES PLAN
LIGHTING PLAN
IRRIGATION PLAN
ELEVATIONS
SECTIONS WITH LEVELS
HARDSCAPE DETAILS
SOFTSCAPE DETAILS
FIXTURES DETAILS
LIGHTING DETAILS
IRRIGATION DETAILS

> Landscape plans submitted to LCAC are to be prepared by a qualified Landscape Architect.

> Landscape designer is to consult 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 and relevant Codes and Regulations which pertain to Fire Truck Access and Hardstanding requirements for each Plot.

> Landscape soil depths are to be shown on drawings, minimum depths of planting on slab is 1.2m for Palms and trees, 600mm for shrubs and 400mm for turf

> Materials and Topographic Elevation Levels of private plots are to match the public domain

> Driveways in the private plots are to align with the exact location in the public domain

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

PUBLIC AND PRIVATE INTERFACE

General Remarks

Large areas of landscaped community open space are provided throughout the District. Such areas are designed to provide a linked system of walkways and cycle ways.

Boulevard Landscape and Streetscape

Landscaped road verges, medians, edges, surfaces and softscape areas are carefully controlled and coordinated to meet approved product selection and design standards. These landscape elements include:

> Street lighting
> Signage and way finding elements
> Water features
> Irrigation systems
> Street furniture
> Waste collection points
> Road markings.

Public / Community Open Space Landscapes

All Public Open Space landscaping is carefully controlled and coordinated to meet a approved design standards. These landscape elements include:

> Parks;
> Promenades;
> Hard and soft landscaping;
> Walkways;
> Cycle ways;
> Playgrounds;
> Sports pitches etc.

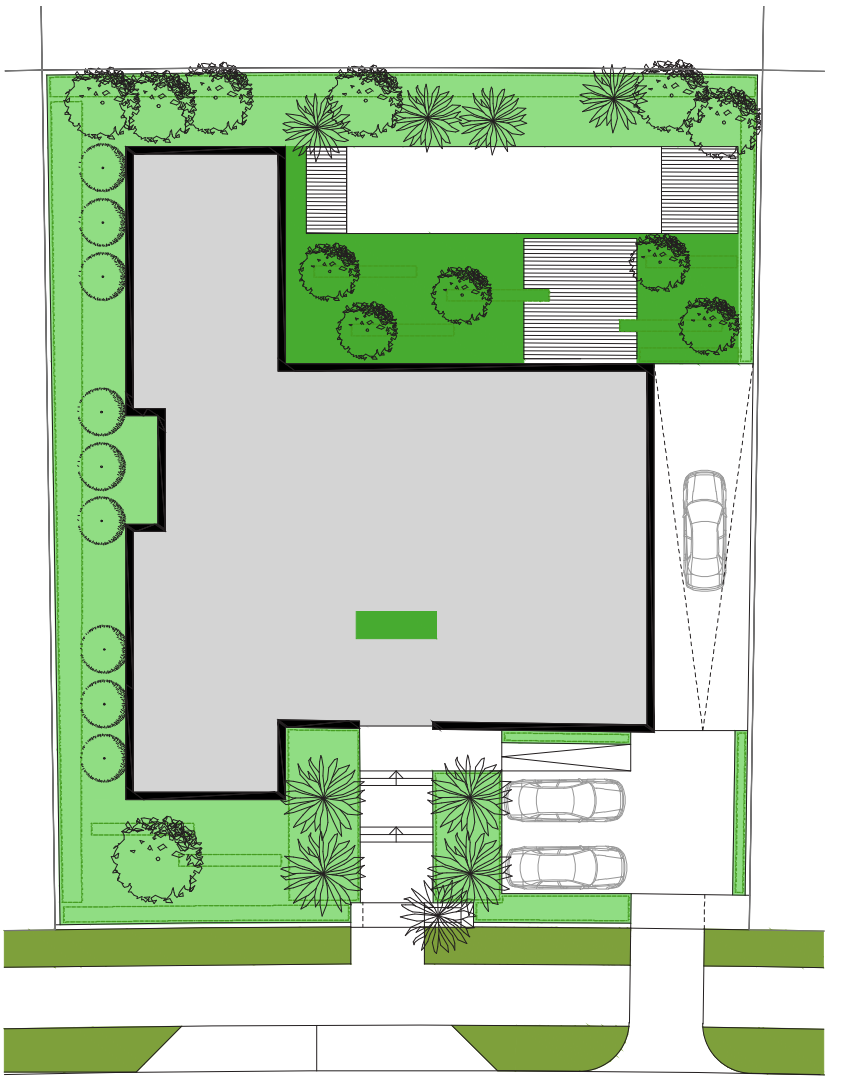
The public open space should provide a clear hierarchy of uses, and fosters ease of movement and create places that facilitate activity and pedestrian mobility.

The following uses are considered to be a part of the public open space framework:

> Pocket Parks;
> Recreation Lawns;
> Play Areas;
> Shade Grooves;
> Plazas; and
> Garden Walks

Private Landscapes

The master developer shall provide appropriate guidance for coordinating the landscape design within private plots. This should include direction regarding acceptable hard and soft landscape palettes, irrigation systems, shading provision, landscape lighting, screening and buffering strategies, boundary wall treatments and signage.



Illustrated example of a coordinated interface between public realm and private plot landscapes

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
ARCHITECTURAL DESIGN
BOUNDARY WALLS

2.7.1 LANDSCAPE ZONING

REF: LNWD-LZ- Sheet 1/2

GLOSSARY OF TERMS

RATIONALE

The key objective of the Landscaping Zoning within the private plots is to influence cohesive streetscape ambiance for pleasant and quality streets.

Key objectives are to: provide privacy/screening to avoid overlooking of the private gardens and to unify the streetscape through the control of private front buffers.

> Landscape buffers work as a secondary layer of privacy, in addition to the boundary walls, by creating natural screens.

> Proposed landscape solutions reflect a sustainable approach and attend to climate/water sensitive design solutions by reinforcing the use of native materials and endemic plants.

> Front buffer planting (as well as the rear buffer planting when facing the park or other facility) must create a quality visual amenity. The objective is to create a pleasant streetscape experience for residents and visitors.

> Side and rear buffers should reinforce privacy.

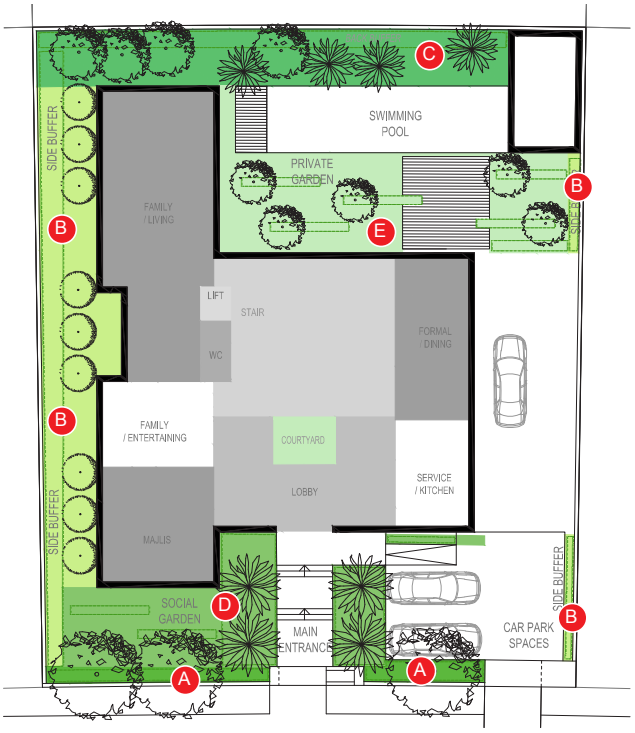
> Social gardens are located and related to the semi-private part of the house, allowing for visual interest and amenity to the social/visitors spaces of the villas

> Private garden to be located on the most visually controlled part of plot, allowing for privacy and family living. Could include facilities like swimming pool, playground area or any external seating/dining areas.

REF: LNWD-LZ- Sheet 2/2

SUMMARY OF TYPICAL VILLA LANDSCAPE ZONES

	Compounds	Guidelines and Controls
A	Front Buffer	Refer to mandatory plant pallet LNWD-LG-Sheet 1/10
B	Side Buffer	Refer to indicative landscape pallet LNWD-LG-Sheet 2/10
C	Rear Buffer	Refer to mandatory plant pallet for plots facing the park or facilities LNWD-LG-Sheet 3/10 Refer to indicative landscape pallet for plots abutting plots LNWD-LG-Sheet 3/10
D	Social Garden	Refer to indicative landscape pallet LNWD-LG-Sheet 4/10 Refer to landscape guidelines for preferred landscape styles LNWD-LCT-Sheet 1/4
E	Private Garden	Refer to indicative landscape pallet LNWD-LCT-Sheet 5-6/10 Refer to landscape guidelines for preferred landscape styles LNWD-LCT-Sheet 1/4



SUMMARY OF CORNER VILLA LANDSCAPE ZONES

	Compounds	Guidelines and Controls
A	Front Buffer	Refer to mandatory plant pallet LNWD-LG-Sheet 1/10
B	Side Buffer	Refer to indicative landscape pallet LNWD-LG-Sheet 2/10
C	Rear Buffer	Refer to indicative landscape pallet LNWD-LG-Sheet 3/10
D	Social Garden	Refer to indicative landscape pallet LNWD-LG-Sheet 4/10 Refer to landscape guidelines for preferred landscape styles LNWD-LCT-Sheet 1/4
E	Private Garden	Refer to indicative landscape pallet LNWD-LCT-Sheet 5-6/10 Refer to landscape guidelines for preferred landscape styles LNWD-LCT-Sheet 1/4

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
ARCHITECTURAL DESIGN
BOUNDARY WALLS

2.7.2 PREFERRED LANDSCAPE CHARACTER TYPES

REF: LNWD-LCT- Sheet 1/4

GLOSSARY OF TERMS

GULF ARABIC

Arabic/ Islamic gardens should be a cool place of rest and reflection, and a reminder of paradise. The garden may present and earthly analogue of the holy Qur'an's notion of paradise.

The general theme of a traditional Arabic/ Islamic garden is water and shade, in direct response to the hot and arid local climate. Arabic/ Islamic gardens should be intended for siting, rest and contemplation rather than active recreation.

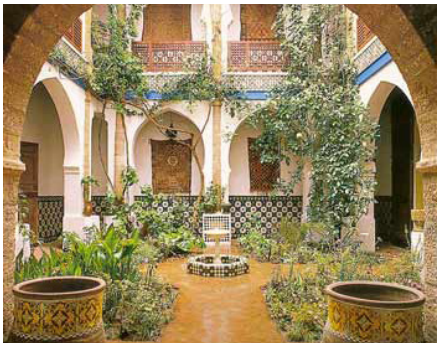
Key Design Elements:

> Integration of water and water features
> Reflection of garden as paradise
> Inward focus
> Areas for quiet sitting and relaxing
> Symbolic four-part quadrant layout
> Lush vegetation and shade
> Landscape pavilions and
> Privacy walls and gates

TYPICAL HARDSCAPE TREATMENT

> Mosaic tiles pavements
> Geometric paving patterns
> Use of central water feature or reflective pool

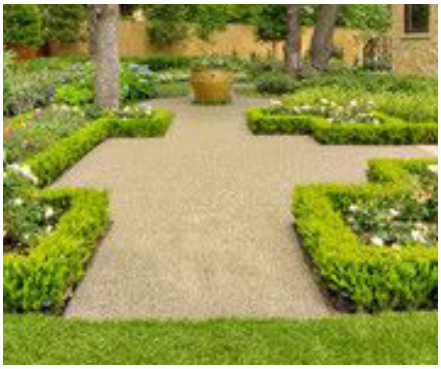
Mosaic tiles pavement and controlled water feature elements



Internal courtyards

TYPICAL SOFTSCAPE TREATMENT

> Lush shrubs and ground cover vegetation
> Tree shade for cooling (eg. rows of date palms)
> Water sensitive selection of species
> Trimmed hedges and clean alignment of shrubs with scented plants
> Bright colours on ground covers



Trimmed hedges and alignments of scented shrubs

Lush shrubs and ground cover vegetation

REF: LNWD-LCT- Sheet 2/4

MEDITERRANEAN

Mediterranean gardens should be formal close to the residence, and become more informal as they extend into the landscape. These gardens should consider sustainability and limit or avoid large lawn areas and plant species with high irrigation water demands.

Mediterranean gardens should make use of native and naturalized plants that are suited to the local climate – ideally plants that thrive with little water and maintenance and that can be encouraged to grow in their natural growth habit.

Key Design Elements:

> Stonework including walls and paths
> Richness of design detailing
> Extensive use of built shade elements
> Use of water features as focal elements and for environmental cooling
> Limited planted areas
> Mediterranean plant palettes
> Aromatic plant species
> Boxed hedges
> Terracotta pots & urns
> Potted plants
> Gravel

TYPICAL HARDSCAPE TREATMENT

> Stonework on walls and paths
> Richness of detail in built elements (gates, pavements, benches, etc)
> Use of water features as focal elements

Terracotta and tiled paving details

Water features as focal elements

TYPICAL SOFTSCAPE TREATMENT

> Use of shade trees
> Alignment of trees to reinforce garden design
> Limited planted areas and water sensitive plant pallet
> Terracotta potted plants
> Low level planting to and fragrance, colour and texture

Water sensitive plant palette

Alignments of trees and limited planted areas

2.7.2 PREFERRED LANDSCAPE CHARACTER TYPES

REF: LNWD-LCT- Sheet 3/4

CONTEMPORARY

Modern gardens should rely on hardscaping and structural elements to achieve a minimalist look, with plants used as accents to provide contrast and colour.

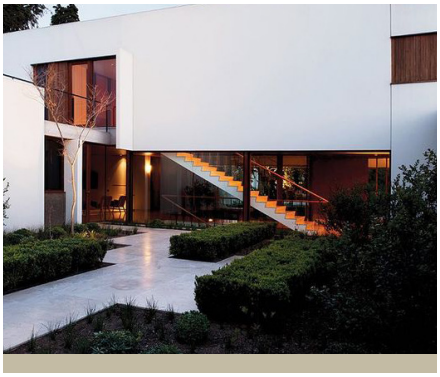
Key Design Elements:

- Minimal use of traditional forms, details or elements;
- Planting and softscape treated as an architectural element
- Adaptable spaces
- Sleek, streamlined and sophisticated style
- Simplicity of layout and form
- More focus on the architecture and materials than on the plants and greenery
- Incorporation of geometric shapes and repeating patterns
- Controlled and organized appearance

TYPICAL HARDSCAPE TREATMENT

- Geometric shapes and repeating patterns on pavements
- Layered walls or other elements to define gathering spaces
- Controlled and organized appearance of elements, sharp details and attention to finishes

Layered elements to define outdoor spaces



Controlled appearance of elements

TYPICAL SOFTSCAPE TREATMENT

- Contrasting textures to harmonize with the hardscape
- Planting treated as architectural elements – plant masses
- Simplicity of layout of the soft landscape enhanced by the use of a few landscape feature elements

Contrasting textures on planted buffers

Attention to detailing and finishes

REF: LNWD-LCT- Sheet 4/4

CLASSICAL

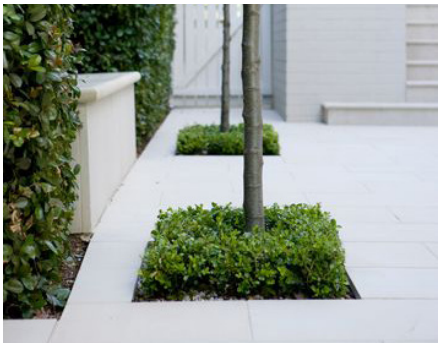
Formal garden design relates directly to the classical architecture of Greece and Italy. Ordered gardens originally provided a setting for the villas of the wealthy or powerful across Europe, echoing the symmetry of their grand houses, reflecting a sense of control. Symmetry about a central axis is crucial to emphasize the focus of the garden.
Planting and construction are geometric and simple, with lawn, clipped hedges, and avenues forcing planting into order, and balustrades, steps, terraces, and wide gravel pathways all conspiring to unify the garden space.

Key Design Elements:

> Symmetry-Focal points or a parterre form a focal point in a circle that intersects the pebbled and paved central path
> Sculpture - Gods and mythological creatures were the original subjects of statuary in formal gardens. In modern designs abstract sculptures function as focal points
> Topiary - Clipped hedging, typically box or yew for evergreen structure, is used to define space.
> Natural stone and Gravel - Natural stone slabs can create regular patterns, or they can be used to edge gravel paths.

TYPICAL HARDSCAPE TREATMENT

> Use of natural stone and gravel paved paths
> Use of fountains and water features as central elements
> Sculptures and ornamental elements to reinforce the symmetry of the garden
> Paving provides an architectural element for pathways and terraces



Natural stone slabs with regular patterns

Geometric paving patterns and ornamental elements

TYPICAL SOFTSCAPE TREATMENT

> Trimmed hedges and topiary tress
> Box hedges as evergreen structures used in parterres with ground cover colourful plants
> Contrast in texture as colour in soft landscape
> Rich flowering ornamental ground cover plants

Boxed hedges as evergreen structure

Contrasting colours in parterres

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
ARCHITECTURAL DESIGN
BOUNDARY WALLS

2.7.3 LANDSCAPE COMPONENTS GUIDELINES

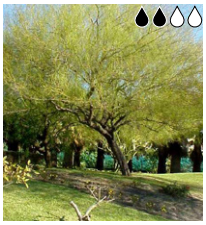
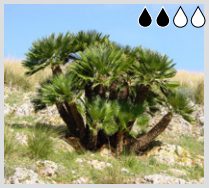
REF: LNWD-LCG- Sheet 1/10

GLOSSARY OF TERMS

PLANTING PALETTES FOR KEY ZONES

> The master developer (LCAC) shall review and approve all landscape plans, proposed hardscape materials and plant materials and site furnishings. LCAC may approve the use of alternative softscape materials if such materials would result in a superior design and/or enhance the appearance of the overall district;
> A minimum area of 40% of soft landscape should be considered within the plot area assuring permeability;
> The Plant Palette is categorized by Landscape Zone type and Plant Type, (trees, shrubs, groundcovers and grasses and their water requirements) - All planting should be checked against GSAS requirements and approved list;
> Proposed trees should provide adequate shade to the building, footpath 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.

FRONT BUFFER

	Guidelines	Mandatory Botanical Selection
Trees / Palms	The min. suggested plant material sizes and specification are: Deciduous Trees: 5 - 7 cm calliper; Evergreen Trees: 2.5 - 3.5 meter height; Ornamental Trees: 4 - 5 cm calliper; Deciduous trees shall have a minimum clear trunk height of 2.0m, and a minimum calliper (as noted above) measured 15 cm above the ground; Trees with the min. calliper are full-bodied trees with a shape characteristic of the species and with a minimum size of 3-3.5 meters in height, 2-2.5 meters in canopy width with a single trunk calliper; and Multi-stem trees may have a smaller calliper measurement. Min. number of trees to be considered are 3 - a min. of 1 tree per 10m should be considered. Trees should be at a max dist. of 2m from the boundary wall.	 *Delonix regia*  *Plumeria obstusa*  *Peltophorum pterocarpum*  *Phoenix dactylifera*
Shrubs	The minimum suggested plant material sizes and specification are: Shrubs: 0.4 - 0.8 meters;	 *Agave attenuata*  *Caesalpinia pulcherrima*  *Callistemon viminalis*  *Chamaerops humilis*  *Dodonea viscosa*
Ground Cover and Ornamental Grasses	The minimum suggested plant material sizes and specification are: Ground Cover and Ornamental Grasses: 0.2 - 0.6 meters	 *Yucca baileyi*  *Yucca brevifolia*  *Zamia furfuracea*

Irrigation Classification:

Low Irrigation Required | Medium-Low Irrigation Required | Medium Irrigation Required | High Irrigation Required

REFER TO PRIVACY GUIDELINES REF: LNWD-TVP- Sheet 5/8

REF: LNWD-LCG- Sheet 2/10

> Drought-tolerant or evergreen desert succulent landscaping, that requires minimal maintenance is strongly encouraged;

> To provide adequate pedestrian and vehicular clearance, trees should be pruned in initial years to guarantee a minimum clear trunk height of 2.0m, assuring the vertical clearance between the tree canopy and the adjacent footpath, parking bay or open space;

> 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;

> Use of ornamental grasses and evergreen groundcovers is encouraged to add visual interest and winter texture;

> Irrigation demand is determined by peak water requirements for plant material arranged in groupings; and

> Mulch - Trees and Palms shall be installed with Coco Husk Chips and shrubs with Mulch Mat for water retention.

SIDE BUFFER

	Guidelines	Indicative Botanical Selection			
Trees / Palms	The minimum suggested plant material sizes and specification are: Deciduous Trees: 5 - 7 cm calliper; Evergreen Trees: 2.5 - 3.5 meter height; Ornamental Trees: 4 - 5 cm calliper; Deciduous trees shall have a minimum clear trunk height of 2.0m, and a minimum calliper (as noted above) measured 15 cm above the ground; Trees with the minimum calliper are full-bodied trees with a shape characteristic of the species and with a minimum size of 3-3.5 meters in height, 2-2.5 meters in canopy width with a single trunk calliper; and Multi-stem trees may have a smaller calliper measurement.	 *Plumeria obstusa*	 *Punica granatum*		
Shrubs	The minimum suggested plant material sizes and specification are: Shrubs: 0.4 - 0.8 meters;	 *Caesalpinia pulcherrima*	 *Callistemon viminalis*	 *Chamaerops humilis*	 *Dodonea viscosa*
Ground Cover and Ornamental Grasses	The minimum suggested plant material sizes and specification are: Ground Cover and Ornamental Grasses: 0.2 - 0.6 meters	 *Zamia furfuracea*	 *Carissa macrocarpa*	 *Dalea frutescens*	 *Ipomoea pes caprae*

Irrigation Classification:

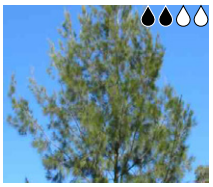
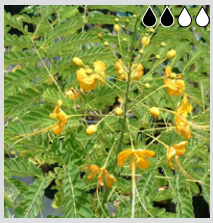
Low Irrigation Required | Medium-Low Irrigation Required | Medium Irrigation Required | High Irrigation Required

2.7.3 LANDSCAPE COMPONENTS GUIDELINES

REF: LNWD-LCG- Sheet 3/10

PLANTING PALETTES FOR KEY ZONES CONT.

REAR BUFFER

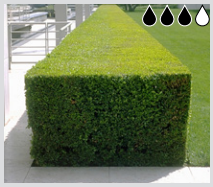
	Guidelines	Indicative Botanical Selection
Trees / Palms	The minimum suggested plant material sizes and specification are: Deciduous Trees: 5 - 7 cm calliper; Evergreen Trees: 2.5 - 3.5 meter height; Ornamental Trees: 4 - 5 cm calliper; Deciduous trees shall have a minimum clear trunk height of 2.0m, and a minimum calliper (as noted above) measured 15 cm above the ground; Trees with the minimum calliper are full-bodied trees with a shape characteristic of the species and with a minimum size of 3-3.5 meters in height, 2-2.5 meters in canopy width with a single trunk calliper; and Multi-stem trees may have a smaller calliper measurement. Minimum number of trees to be considered are 3 - a minimum of 1 tree per 10m should be considered.	 *ALCACia arabica*  *Bucida buceras*  *Caesalpinia pulcherrima*  *Delonix regia*  *Eucalyptus ridus*  *Plumeria obstusa*  *Terminalia catappa*  *Terminalia catappa*
Shrubs	The minimum suggested plant material sizes and specification are: Shrubs: 0.4 - 0.8 meters;	 *Caesalpinia pulcherrima*  *Callistemon viminalis*  *Chamaerops humilis*  *Dodonea viscosa*
Ground Cover and Ornamental Grasses	The minimum suggested plant material sizes and specification are: Ground Cover and Ornamental Grasses: 0.2 - 0.6 meters	 *Zamia furfuracea*  *Ipomoea pes caprae*  *Dalea frutescens*  *Carissa macrocarpa*

Irrigation Classification:

Low Irrigation Required | Medium-Low Irrigation Required | Medium Irrigation Required | High Irrigation Required

REF: LNWD-LCG- Sheet 4/10

SOCIAL GARDEN

	Guidelines	Indicative Botanical Selection
Trees / Palms	The minimum suggested plant material sizes and specification are: Deciduous Trees: 5 - 7 cm calliper; Evergreen Trees: 2.5 - 3.5 meter height; Ornamental Trees: 4 - 5 cm calliper; Deciduous trees shall have a minimum clear trunk height of 2.0m, and a minimum calliper (as noted above) measured 15 cm above the ground; Trees with the minimum calliper are full-bodied trees with a shape characteristic of the species and with a minimum size of 3-3.5 meters in height, 2-2.5 meters in canopy width with a single trunk calliper; and Multi-stem trees may have a smaller calliper measurement. Minimum number of trees to be considered are 3 - a minimum of 1 tree per 10m should be considered.	 *Plumeria obstusa*  *Punica granatum*  *Olea europaea*
Shrubs	The minimum suggested plant material sizes and specification are: Shrubs: 0.4 - 0.8 meters;	 *Agave attenuata*  *Callistemon viminalis*  *Chamaerops humilis*  *Hibiscus rosa-sinensis*  *Myrtus communis*
Ground Cover and Ornamental Grasses	The minimum suggested plant material sizes and specification are: Ground Cover and Ornamental Grasses: 0.2 - 0.6 meters	 *Zamia furfuracea*  *Cymbopogon citratus*  *Yucca baileyi*  *Ipomoea pes caprae*

Irrigation Classification:

Low Irrigation Required | Medium-Low Irrigation Required | Medium Irrigation Required | High Irrigation Required

2.7.3 LANDSCAPE COMPONENTS GUIDELINES

REF: LNWD-LCG- Sheet 5/10

PLANTING PALETTES FOR KEY ZONES CONT.

PRIVATE GARDEN

	Guidelines	Indicative Botanical Selection
Trees / Palms	The minimum suggested plant material sizes and specification are: Deciduous Trees: 5 - 7 cm calliper; Evergreen Trees: 2.5 - 3.5 meter height; Ornamental Trees: 4 - 5 cm calliper; Deciduous trees shall have a minimum clear trunk height of 2.0m, and a minimum calliper (as noted above) measured 15 cm above the ground; Trees with the minimum calliper are full-bodied trees with a shape characteristic of the species and with a minimum size of 3-3.5 meters in height, 2-2.5 meters in canopy width with a single trunk calliper; and Multi-stem trees may have a smaller calliper measurement. Minimum number of trees to be considered are 3 - a minimum of 1 tree per 10m should be considered.	 *Callistemon viminalis*  *Citrus sinensis*  *Olea europaea*  *Plumeria obstusa*  *Punica granatum*
Shrubs	The minimum suggested plant material sizes and specification are: Shrubs: 0.4 - 0.8 meters;	 *Agave attenuate*  *Chamaerops humilis*  *Hibiscus rosa-sinensis*  *Myrtus communis*
Ground Cover and Ornamental Grasses	The minimum suggested plant material sizes and specification are: Ground Cover and Ornamental Grasses: 0.2 - 0.6 meters	 *Cymbopogon citratus*  *Lavandula stoechas*  *Zamia furfuracea*  *Pennisetum setaceum*

Irrigation Classification:

Low Irrigation Required | Medium-Low Irrigation Required | Medium Irrigation Required | High Irrigation Required

REF: LNWD-LCG- Sheet 6/10

PATIO/COURTYARDS

	Guidelines	Indicative Botanical Selection
Trees / Palms	The minimum suggested plant material sizes and specification are: Deciduous Trees: 5 - 7 cm calliper; Evergreen Trees: 2.5 - 3.5 meter height; Ornamental Trees: 4 - 5 cm calliper; Deciduous trees shall have a minimum clear trunk height of 2.0m, and a minimum calliper (as noted above) measured 15 cm above the ground; Trees with the minimum calliper are full-bodied trees with a shape characteristic of the species and with a minimum size of 3-3.5 meters in height, 2-2.5 meters in canopy width with a single trunk calliper; and Multi-stem trees may have a smaller calliper measurement. Minimum number of trees to be considered are 3 - a minimum of 1 tree per 10m should be considered.	 *Plumeria obstusa*  *Punica granatum*  *Citrus sinensis*  *Ficus carica*
Shrubs	The minimum suggested plant material sizes and specification are: Shrubs: 0.4 - 0.8 meters;	 *Agave attenuate*  *Hibiscus rosa-sinensis*  *Myrtus communis*
Ground Cover and Ornamental Grasses	The minimum suggested plant material sizes and specification are: Ground Cover and Ornamental Grasses: 0.2 - 0.6 meters	 *Cymbopogon citratus*  *Cyperus alternifolius*  *Pennisetum setaceum*

Irrigation Classification:

Low Irrigation Required | Medium-Low Irrigation Required | Medium Irrigation Required | High Irrigation Required

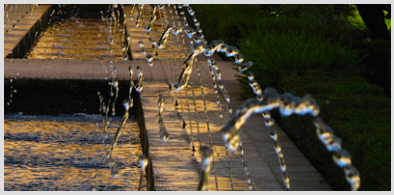
PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
ARCHITECTURAL DESIGN
BOUNDARY WALLS

2.7.3 LANDSCAPE COMPONENTS GUIDELINES

REF: LNWD-LCG- Sheet 7/10

GLOSSARY OF TERMS

WATER FEATURES / POOLS

	Guidelines	Reference Images
Pools	It's allowed to have outdoor or indoor pool at villas, however the following condition would apply : > Minimum setback of 2m from the outdoor swimming pool to the plot boundary. > Minimum of 2m distance from the outdoor swimming pool to any buildings (villa or ancillary buildings) > Any building of the swimming pool is subject to ancillary conditions describe on this document > In terms of security and safety all swimming pools have to comply with local regulations	  
Water Features	> Water features are beneficial to create visual impact and cooling ability > Water features in courtyards are encouraged to provide evaporative cooling > Water features with low level consumption are strongly encouraged. > Water consumption for all water features should comply with GSAS rating requirements	  

REF: LNWD-LCG- Sheet 8/10

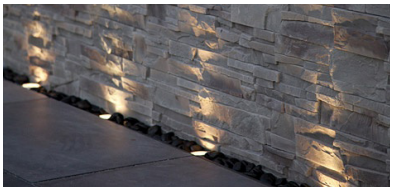
SHADE STRUCTURES

	Guidelines	Reference Images
Shade Structures	> Whenever there are good planting conditions trellises should be covered with climbers or vines > Shading percentages have to comply with GSAS requirements	  

2.7.3 LANDSCAPE COMPONENTS GUIDELINES

REF: LNWD-LCG- Sheet 9/10

LIGHTING

	Guidelines	Reference Images
Lighting	External lighting should consider the following elements: > Driveways; > Footpath and pedestrian connections inside the plot; > Courtyards, patios and other external living areas; > Front entrances; > Stairs, steps and low level walls; and > Feature trees or elements in the landscape design (i.e. textured walls, art & sculpture, furniture, water features). Only low level lighting is to be considered. No lighting on top of fences, and light projection should be kept within each private plot.	    

REF: LNWD-LCG- Sheet 10/10

IRRIGATION

	Guidelines	Reference Images
Irrigation	> Irrigation systems are required for all planting areas, and must be fed by a dedicated supply tank, and operated by an automatic irrigation system. Plans and proposals for utilising potable/or non-potable water for landscaping are to be included with the landscape design and submitted for review and approval; > 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; > Irrigation water consumption must be kept to an absolute minimum, as determined by appropriate plant material and irrigation method/ system selection; > 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 be not considered. Only in instances where drip and other water-efficient irrigation systems are proven not feasible, may spray and flood irrigation systems may be proposed and reviewed as an exception. If such instances, the landscape architect must demonstrate that other systems are not feasible; and > Irrigation is not permitted within 65 cm of any building foundation.	    

2.8 SUSTAINABILITY GUIDELINES

OBJECTIVES AND PURPOSE

This guideline explains the importance of a sustainability mind set for the development of a modern and intelligent community

Sustainability guidelines are defined based on the following Key Design Principles:

We aim at developing architectural design guidelines for the villas and surrounding open spaces that fully comply with the GSAS minimum 2 star rating, as required, to promote high levels of energy efficiency and a sense of belonging and well-being to its residents.

The GSAS Qatar Sustainability Assessment System is a sustainability rating system supported by a set of performance based standards that address the specific regional needs and environment of Qatar. GSAS provides assessment criteria for:

> Urban Connectivity
> Site
> Energy
> Water
> Material
> Indoor Environment
> Cultural & Economic Value
> Management & Operations

Of these, Energy (24%), Water (16%) and Indoor Environment (16%) receive the highest scores.
For the purpose of these Guidelines, we will mainly address the architectural design aspects that contribute to each of the GSAS categories of credits.

Our approach involves the creation of a solid bioclimatic design framework based on future-proof passive design principles that can easily integrate with efficient active systems for maximum levels of comfort at low environmental cost.

The bioclimatic design guidance should provide direction regarding the potential for natural ventilation, daylight availability, solar gain and solar protection issues at massing, façade design, typology and open space provision.

CLIMATE

General

> Severe hot climate with solar radiation excess all year around.
> Mostly dry. But average minimum Relative Humidity dropping below 40% only between April and September.
> Cooling season from April to mid November.
> There is a mild need for Heating in January and February.
> The shading period (requirement for shading) is from mid-May to October.

Wind

> Wind predominantly from Northwest all year round.
> South-westerly continental winds bring the highest temperatures.

Passive Design Strategies

> Thermal Mass can be used to reduce indoor peak temperatures. It won't be effective in reducing the cooling load during the hottest summer months (July to August), when night-time temperature is too high.
> 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.
> Provide evaporative cooling in the mid-season, mainly in April, May, June, October and November.
> Promote night-time radiative and convective cooling.

HOW TO READ THE SUSTAINABILITY GUIDELINES

FENESTRATION

Glazing area percentage should be related to the window glass properties and the presence of shading devices .

Percentage of glazing per façade orientation, considering a window glass G-value of 0.4 is:

- South = 35%
- North = 40 %
- West = 25 %
- East = 35%

Recommended G-values and U-values to be included in the Guidelines, in accordance with the requirements of a the 2-star GSAS rating.

GSAS CREDIT

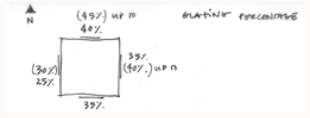
The design strategies for Fenestration have an impact on the thermal performance, potential for cross-ventilation and potential for daylight of buildings.

These strategies contribute to GSAS credits:

- E.1-EnergyPerformance
- IE.2-Natural Ventilation
- IE.5-Daylight
- IE.7-Views

DIAGRAM

Glazing percentage.



Describes the design requirements and strategies for an architectural element to meet good practice energy targets.

Describes how the strategies contribute to energy efficiency and to which GSAS credits the strategies apply to.

Shows illustrative diagrams of the design requirements and strategies.

PLEASE ALSO SEE:
VILLA PLOT TYPOLOGIES
ARCHITECTURAL DESIGN
LANDSCAPE DESIGN

2.8.1 SUSTAINABILITY GUIDELINES

REF: LNWD-SG- Sheet 1/4

GLOSSARY OF TERMS

FAÇADES

Compact Form:
Promote low surface envelope to building volume ratio.

Orientation:
Building position and orientation within each plot is already defined by plot size and other conditions.

Façades:
Façades should be primarily designed to avoid solar gains at all times and take advantage of the mild benefit of passive solar gain in winter time.
Whenever possible preference should be given to maximise South and South-east façade surface area and minimise West and South-west façade surface area.

Building floor depths:
Maximum floor depth should be between 9 and 13m, for double aspect buildings.
If building exceeds 13m depth, consider creating a courtyard.
Single-aspect buildings
should not exceed 8m.
These floor depths allow for a room depth of 6m. Typically, rooms can be naturally lit and naturally ventilated up to a 6m floor depth.

Blind Walls:
Whenever possible, blind walls to prevent overlooking should complement the need for solar protection by being located preferably West and/or North.

Other architectural elements:
Due to the need to control convective heat gains from ventilation for most of the cooling season, façades can be combined with other architectural elements - courtyards, basements, pools and wind catchers - to ensure basic airflow rates and precooling.

Open space:
Massing to take into consideration protection of outdoor spaces from sand storms, permeability to sea breezes and solar protection.

GSAS CREDIT

The design strategies for Façades and Massing have an impact on the thermal performance, potential for cross-ventilation and potential for daylight of the building.

These strategies contribute to GSAS credits:

> S.5-Desertification

> S.11-Shading of Adjacent

> Properties

> S.7-Adverse Wind Conditions

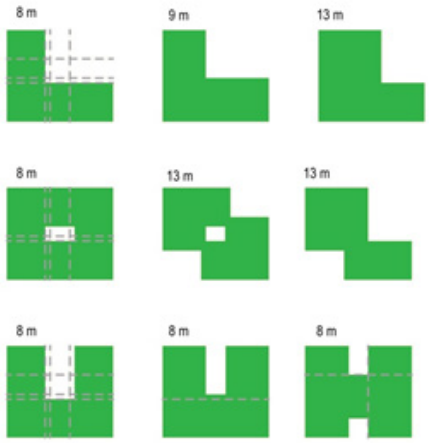
> E.1-EnergyPerformance

> IE.2-Natural Ventilation

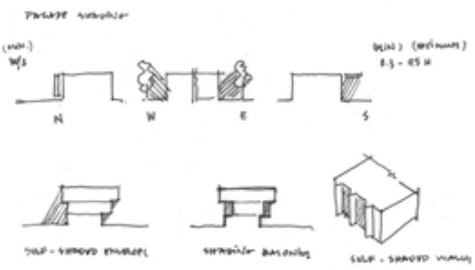
> IE.5-Daylight

DIAGRAM

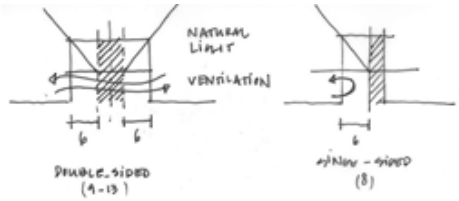
Possible Massing Options for Building's Floor Depth
Compact forms



Façades and self-shaded envelops.



Maximum floor depth.



Other architectural elements.

REF: LNWD-SG- Sheet 2/4

FENESTRATION

Glazing area percentage should be related to the window glass properties and the presence of shading devices.

Percentage of glazing per façade orientation, considering a window glass G-value of 0.4 is:

> South = 35%
> North = 40 %
> West = 25 %
> East = 35%

Recommended G-values and U-values to be included in the Guidelines, in accordance with the requirements of a the 2-star GSAS rating.

GSAS CREDIT

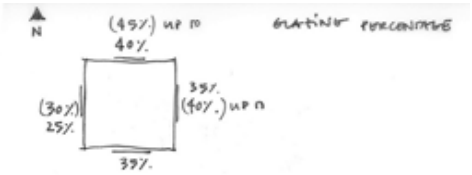
The design strategies for Fenestration have an impact on the thermal performance, potential for cross-ventilation and potential for daylight of buildings.

These strategies contribute to GSAS credits:

> E.1-EnergyPerformance
> IE.2-Natural Ventilation
> IE.5-Daylight
> IE.7-Views

DIAGRAM

Glazing percentage.



ROOFS

Roofs are the building surfaces that are most exposed to solar radiation.
Roofs also assist in the building's night-time cooling process by long-wave radiation to the cold sky.

Ideally all horizontal surfaces facing the sky, such as roof terraces should be protected from sun to prevent heat built-up. However roof shading devices should be permeable (pergolas, trellises) to allow night-time cooling.

Roof materials should be reflective, particularly in non-shaded areas. Care should be taken regarding glare, particularly in areas that are adjacent to the penthouses. Recommended roof U-values to be included in the Guidelines, in accordance with the requirements of a the 2-star GSAS rating.

Wind Catchers:
Traditional wind catchers combined with courtyards can provide a significant degree of cooling in the mid-season. Wind catcher design should be designed to admit wind from all orientations (with 4 internal partitions).

GSAS CREDIT

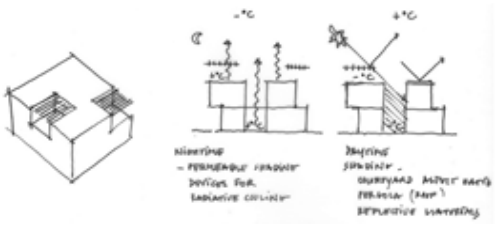
The design strategies for Roofs have an impact on the thermal performance and potential for natural ventilation and natural cooling of the building.

The strategies mainly contribute to GSAS credits:

> E.1-Energy Demand Performance.
> S.6-Heat Island Effect.

DIAGRAM

Roof shading performance.



2.8.1 SUSTAINABILITY GUIDELINES

REF: LNWD-SG- Sheet 3/4

AWNINGS, OVERHANGS AND TRELLISES

Adequate shading:
Shading to be provided to all window orientations by shading devices or other (balconies and loggias).

All façades need some degree of vertical (side) shading, to protect from low sun angles. All façades apart from North need horizontal shading. Open balconies are not recommended.

A degree of frontal shading (screens) should be provided if the vertical and horizontal shading devices, or the degree of encroaching of a window, doesn't provide enough protection.

Shading device depth and type:
East and west windows need detached front shading (screens, mashrabiyas, louvres). These can be fixed.

South-facing windows need horizontal and vertical shading. Depth of horizontal elements should be 0.3H (min) to 0.5 (optimum), where H is the height of the window. Alternatively, owners can provide front shading with movable screens and louvres.

North-facing windows should have vertical shading with depth of W/3, where W is the width of the window.

Light and ventilation considerations:
All front 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 (vertical, horizontal, balconies) and the room depth.

GSAS CREDIT

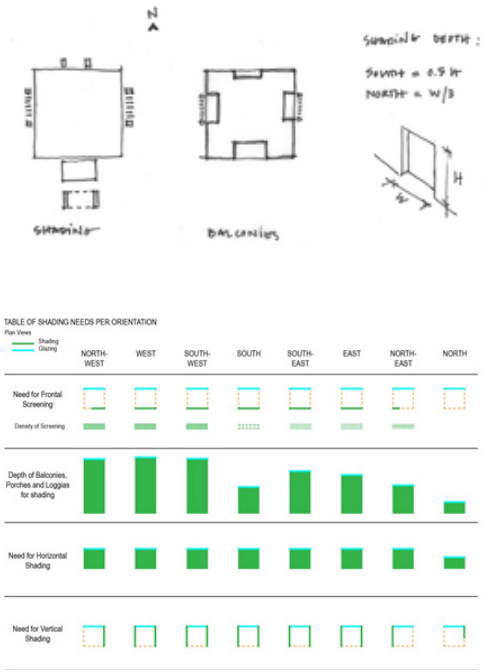
The design strategies for Awnings, Overhangs and Trellises have an impact on the thermal performance and in the potential for daylight of the building.

These strategies contribute to GSAS credits:

> E.1-EnergyPerformance
> IE.2-Natural Ventilation
> IE.5-Daylight
> IE.7-Views

DIAGRAM

Shading Depth



LANDSCAPING

Landscape elements to be articulated with the massing, particularly by assisting in the protection of outdoor areas from sand, dust and solar exposure.

GSAS CREDIT

These strategies contribute to GSAS credits:

> S.13-Shading
> S.6-Heat Island Effect
> S.11-Shading of Adjacent Properties
> S.7-Adverse Wind Conditions
> W.1-Water Consumption

DIAGRAM

Location of trees and shrubs to provide shading of open spaces, by orientation.

REF: LNWD-SG- Sheet 4/4

COURTYARDS AND PATIOS

Courtyards in this climate are mainly used to introduce natural light and assure basic ventilation rates. Air flow inside courtyards in very hot weather (closed building) are mainly thermally-driven.

In the mid-season courtyards can work as part of a cross ventilation strategy (wind-driven).
Courtyards to be primarily designed to keep the sun and wind out, with a small aperture to the sky.
They can be wider in the first floor.

> Enclosed courtyards: Height-to-width ratio should be >=1, eg. Height = 12m Width <= 12m
> Open courtyards “U”: Opening – Northwards, Northeasterly
> “L” courtyards: Opening - Eastwards

Open courtyards should avoid opening to the North-west quadrant (prevailing wind direction) for sand and dust protection.
If open courtyards need to face the non-optimal orientation due to plot conditions or other, provide protection at the opening by architectural or landscape elements.

The micro climatic characteristics of courtyards can be enhanced with green and water elements, that provide evaporative cooling.

GSAS CREDIT

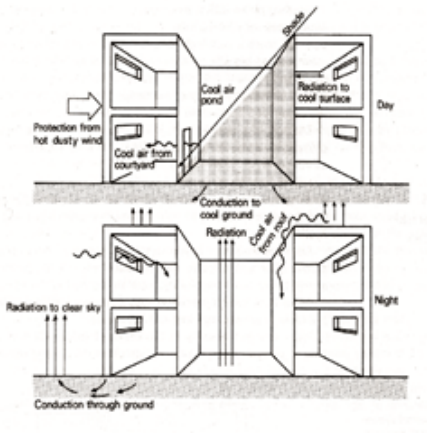
The design strategies for Courtyards and Patios have an impact on the solar, thermal performance, potential for cross-ventilation and potential for daylight of the buildings.

These strategies contribute to GSAS credits:

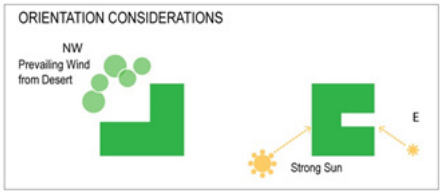
> IE.2-Natural Ventilation
> IE.5-Daylight
> E.1-EnergyPerformance

DIAGRAM

Courtyard Performance



Courtyard Orientation considerations



MATERIALS / COLOURS / FINISHES

Walls should be of non-reflective and light-coloured materials only.

Roof materials should have a high Solar Reflection Index (SRI), i.e. high reflection and emissivity, in accordance with the requirements of a the 2-star GSAS rating.

Finishes:

Textured materials reduce overall surface temperatures and increase outdoor comfort.

A percentage of locally sourced materials and a percentage of materials with recycled content to be recommended in the Guidelines, in accordance with the requirements of a the 2-star GSAS rating.

GSAS CREDIT

The design strategies for Materials / Colours / Finishes have an impact on the thermal performance of the Villas, microclimate of open spaces

These strategies contribute to GSAS credits:

> M.1-Regional Materials
> M.2-Responsible Sourcing of Materials
> IE.6-Glare Control
> S.6-Heat Island Effect.
> E.1-Energy Demand Performance.

DIAGRAM

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2.8.2 GORD CHECKLIST

REF: LNWD-GC- Sheet 1/2

This section defines the minimum requirements for achieving 2 star rating for Villa buildings on North Residential Villas and Waterfront Residential Villas districts.

GSAS 2-STAR Minimum Requirements For North Residential Villas and Waterfront Residential Villas:

The minimum requirements for achieving 2 STAR rating for villa buildings are falling under two groups as follows:

Group (1) Inherited Scores (Conditional to Master Plan Assessment):

Based on the assessment of North and Waterfront Residential Villas masterplan, several criteria scores can be inherited for all buildings without the need for any further due diligence review for any villa seeking building permit.

Expected Inherited Criteria Scores:

- UCl Proximity to Infrastructure
- UC2 Load on local traffic conditions
- UC3 Public transportation
- UCS Sewer and Water contamination
- UC7 Proximity to amenities
- 51 Land preservation
- 52 Water Body preservation
- 53 Habitat preservation

Group (2) Energy & Water Minimum Requirements:

(A) Energy Requirements:

All villas must adhere to the following:

- Glazing ratio not to exceed 30% of all facades regardless of building orientation
- Double glazing is to be used for all windows
- A/C should be spilt unit type or better
- All other requirements as per existing KAHRAMAA regulations

(B) Water Requirements:

- Landscape area should not exceed 10% of the individual plot area
- Automatic system for irrigation is to be used
- All other requirements as per existing KAHRAMAA regulations

NOTE:
Palaces built on amalgamated plots with more than 2000 sqm. built up area should go through Energy and Water assessment only. No need for GSAS third party consultation.

LUSAIL CITY

REF: LNWD-GC- Sheet 2/2

COMPONENT	REQUIREMENTS	COMPLIES
ENERGY REQUIREMENTS		
Glazing	Glazing ratio not to exceed 30% of all facades	
	Double glazing on all windows	
Air Conditioning	A/C to be spilt unit type or better	
Other	All other requirements as per existing KAHRAMAA regulations	
WATER REQUIREMENTS		
Landscape	Landscape area should not exceed 10% of the individual plot area	
Irrigation	Automatic system for irrigation is to be used	
Other	All other requirements as per existing KAHRAMAA regulations	

PLOT REF:	
OWNER/DESIGN TEAM:	
PLOT DESCRIPTION:	
DATE:	
SIGNATURE:	

LUSAIL CITY

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2.9 GLOSSARY OF TERMS & CHECKLIST

The Design Guidelines & Controls contain a number of diverse specialist terms the definition of which is clarified in alphabetical order below

ACCESS POINT

Place or way by which pedestrians and / or vehicles have a safe access ingress and egress to a Plot / Parcel.

ACCESSIBLE AREA

Accessible area/s are 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 component/s (including windows, balconies, façades layering, height variations etc.) brought together to create a complementary & variety of massing, rhythm or pattern, modulation and detail of building façades.

ARCHITECTURAL FEATURE

An architectural component/s (including windows, balconies, façades, height variations or other devices) used for emphasising the landmark position or status of a building or structure subject to the satisfaction of LREDC.

ACTIVE STREET FRONTAGE

The portion of a building at ground floor that is occupied by visible active uses (such as retail, food & beverage, lobby areas, community facilities and other publicly accessible uses) and faces onto 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.
Please note: Different setback rules apply to varied 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 function, 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 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, 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 areas forming part of a structure that 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 furthermost 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)

Sum of horizontal area of each floor in a building above and below grade measured

to exterior face of exterior façade walls. This differs from GFA calculations in that no exclusions are considered in the BUA calculation (see definition of GFA).

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 provided either by government or non-government agencies for the benefit of, and use of, the community (such as schools, places of worship, hospitals and theatres).

DESIGN CONTROLS

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.

DESIGN GUIDELINES

Set of guidelines provided by Master Developer to a Purchaser and their design team, to assist, guide and ensure development proposals meet best design practice in line with the high-quality development vision of LREDC and whether at overall Masterplan, District or individual Plot level.

EASEMENT

A non-possessory right to use land owned by others for purposes of pedestrian, emergency or other access, providing publicly accessible open space, of providing utility equipment, reserves and access and any other provision required by the Master Developer, Utility Provider, and/or Government Agency.

FLOOR AREA RATIO (FAR)

Ratio used to determine the amount of Gross Floor Area permitted on a particular plot based on the plot's size. This ratio is represented as a percentage in Lusail City. For instance, on a 5.000 m2 plot with FAR of 200%, a building with a maximum Gross Floor Area of 10.000 m2 (5.000x2) would be permitted.

GLAZING RATIO

Is the percentage of the building facade taken up by glazing surfaces, including windows and translucent surfaces such as glass bricks. It does not include glass surfaces used ornamentally or as cladding, In general it should not exceed 50%.to limit full glazed curtain wall facades, not consistent with the architectural heritage of Qatar.

GROSS FLOOR AREA (GFA)

Sum of horizontal area of each floor in a building above and below grade measured to exterior face of exterior façade walls:

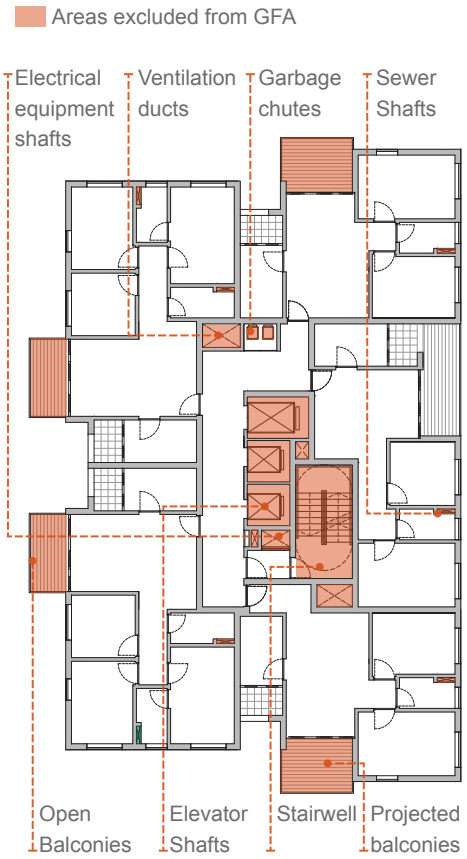
Included in Gross Floor Area:

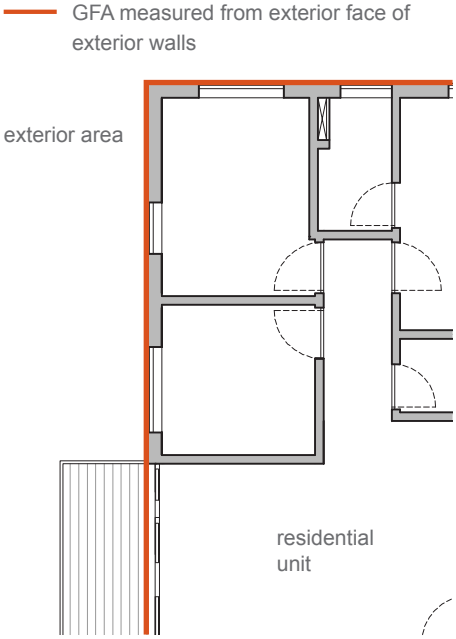
> Any enclosed habitable space above or below finished grade that is used by residents, customers, or employees;
> Enclosed habitable areas on rooftops, such as a penthouse or similar enclose space used by residents, customers, or employees;customers, or employees;
> Balconies enclosed on three sides.

Excluded from Gross Floor Area:

> Projected balconies or terraces that are open on three exterior facing sides;
> Parking areas above and below Grade;
> Open Vent riser shafts;
> Stairwells Elevator shafts;
> Areas for mechanical or electrical services;
> Garbage chutes;
> Open Atrium floor openings.

For clarity please check schematic illustration of GFA exclusions and measurement line on image to the right.





2.9 GLOSSARY OF TERMS & CHECK LIST

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 privacy screening.

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, partial floor of a preferred maximum of 60% of the ground floor area immediately below; and, within whose volume it is fully contained. The Mezzanine should be set back a preferred minimum of 6m from the front façade, to orient the higher volume space outward. Counted as GFA, its allowable uses are same as ground floor. Mezzanine floor heights are not limited, provided finished ceiling heights meet the minimum allowable by local code.
A Mezzanine's means of egress and fire-resistive construction must, at the minimum, comply to prevailing local building codes and best practice standards of life safety design.

PALACE

Residential building on minimum plot size of 3,000m² and minimum 2,000m² 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 parcel of land.

PLOT COVERAGE RATIO

Ratio used to determine the maximum total amount of area on a plot that can be occupied by a building(s) versus area open to the sky.
For example, a plot coverage ratio of 50% would permit the building(s), as viewed from above, to occupy no more than half of the plot area.
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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

Regulated, minimum required distance between a plot boundary line and the furthermost projection of a building or a structure.

SURFACE PARKING (WITHIN THE PLOT)

Parking spaces provided within a parameters of the plot at ground level

STREET FRONTAGE

The linear extent of the front of the buildings helping to visually definite street's edge

TERRACE

An accessible and purpose-built enclosed platform above ground level that is open to the air and accessible from a door or window.

UTILITIES

Public service infrastructure including the supply of: Electricity, telecommunications, potable water, chilled water for air-conditioning, drainage, gas (if applicable), garbage clearance system (if applicable) or other similar services.

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DESIGN GUIDELINES CHECK LIST

The checklist is to be used by any owner, developer and / or design team 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. If the proposal is compliant please “tick” the box, if non-compliant please provide a comment indicating the reason for not following the guidance. 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:	

LUSAIL CITY

DESIGN GUIDELINES CHECKLIST

SECTION	GUIDELINE SHEET	COMPONENT	COMPLIES	
2.4	**VILLA PLOT TYPOLOGY GUIDELINES & CONTROLS**			
2.4.1	LNWD-TVP Sheets 1-8	**GENERAL PARAMETERS**		
	or LNWD-CVP Sheets 1-2	Set backs		
	or LNWD-SVP Sheets 1-2	Building Height		
		Built Up Area (BUA)		
		Plot Coverage		
		Site Levels		
		Position and form of access		
		Penthouse (position and size)		
		Basement		
	LNWD-TVP-Sheet 5	**OVERLOOKING & PRIVACY**		
		Side		
		Rear		
		Front		
	LNWD-TVP-Sheet 6	**ANCILLARY BUILDINGS**		
		Ancillary Buildings (position and size)		
2.4.2	LNWD-AG-Sheets 1-12	**AMALGAMATION CONTROLS**		N/A
2.5	**BOUNDARY WALL TREATMENT GUIDELINES & CONTROLS**			
2.5.1	LNWD-VPBT-Sheets 1-8	**BOUNDARY TREATMENT**		
		Street wall (height & appearance)		
		Side/Rear wall (height & appearance)		
		Slope Side Wall (height & appearance)		
		Highway Wall (height & appearance)		
2.6	**VILLA PLOT ARCHITECTURAL GUIDELINES & CONTROLS**			
2.6.1	LNWD-GVD-Sheets 1-16	**GENERAL VILLA DESIGN**		
		Facades		
		Material & Colours		
		Signage		
		Openings		
		Projections		
		Shading & Privacy		
		Arcades & Loggias		
		Roof Components		
		ARCHITECTURAL CHARACTER		
2.6.2	LNWD-AVD-Sheets 1-8	Arabic		N/A
	LNWD-MVD-Sheets 1-8	Mediterranean		N/A
	LNWD-CVD-Sheets 1-7	Classical		N/A
	LNWD-CMVD-Sheets 1-8	Contemporary		N/A
2.7	**VILLA LANDSCAPE GUIDELINES**			
2.7.1	LNWD-LZ-Sheets 1-2	**LANDSCAPE ZONING**		
2.7.2	LNWD-LCT-Sheets 1-8	**LANDSCAPE CHARACTER**		
2.7.3	LNWD-LCG-Sheets 1-10	**LANDSCAPE COMPONENTS**		
2.8	**GLOBAL SUSTAINABILITY ASSESSMENT SYSTEM (GSAS)**			
2.8.1	LNWD-SG-Sheets 1-4	**SUSTAINABILITY GUIDELINES**		
2.8.2	LNWD-SGC-Sheets 1-2	**GORD CHECKLIST**		

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