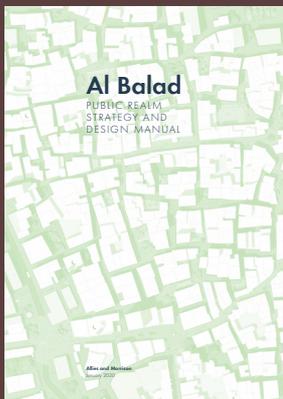


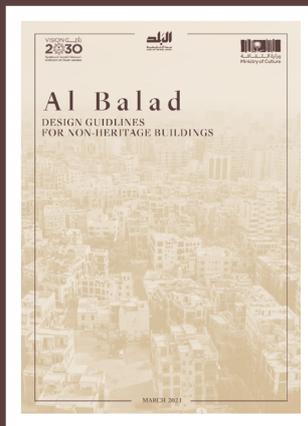
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DESIGN GUIDELINES  
FOR NON-HERITAGE BUILDINGS

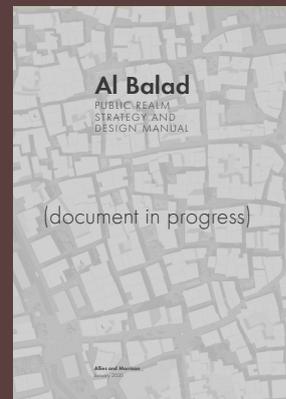
OCTOBER 2021



Al Balad Public Realm Strategies and Design Manual



Al Balad Design Guidelines for Non-heritage Buildings



Al Balad Design Guidelines for Heritage Buildings

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This report has been prepared for the sole benefit, use and information of Jeddah Historic District for the sole purposes set out in the report

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# INTRODUCTION

## PURPOSE

The **Al Balad Design Guidelines for Non-heritage Buildings** have been made to help designers and developers create good buildings that support the strategic masterplan vision for Al Balad and help protect its UNESCO world heritage site status.

These guidelines belong to a three-volume suite of documents. The two other volumes are the **Al Balad Public Realm Strategies and Design Manual**, focusing on the design of streets, parks, squares and other spaces in the public domain, and the **Al Balad Design Guidelines for Heritage Buildings**, focusing on the heritage buildings of Al Balad as defined in the UNESCO nomination document.

The three documents work together to deliver the vision for Al Balad. To determine the applicability of these guidelines to a project, please refer to the application flow chart on the facing page. Where a development contains a mix of heritage, Non-heritage and public realm components, each Design Guideline/Manual applies to their respective parts.

## GUIDELINE STRUCTURE

The **Al Balad Design Guidelines for Non-heritage Buildings** are organised into five sections:

**Introduction:** provides an overview of the purpose and the application of the guidelines.

**Chapter 1: General principles** summarize the core values and principles that must be supported by all new development in Al Balad.

**Chapter 2: Development parameters** list massing controls, applied on an area-by-area basis. These guidelines ensure the integration of new development within Al Balad at an urban scale.

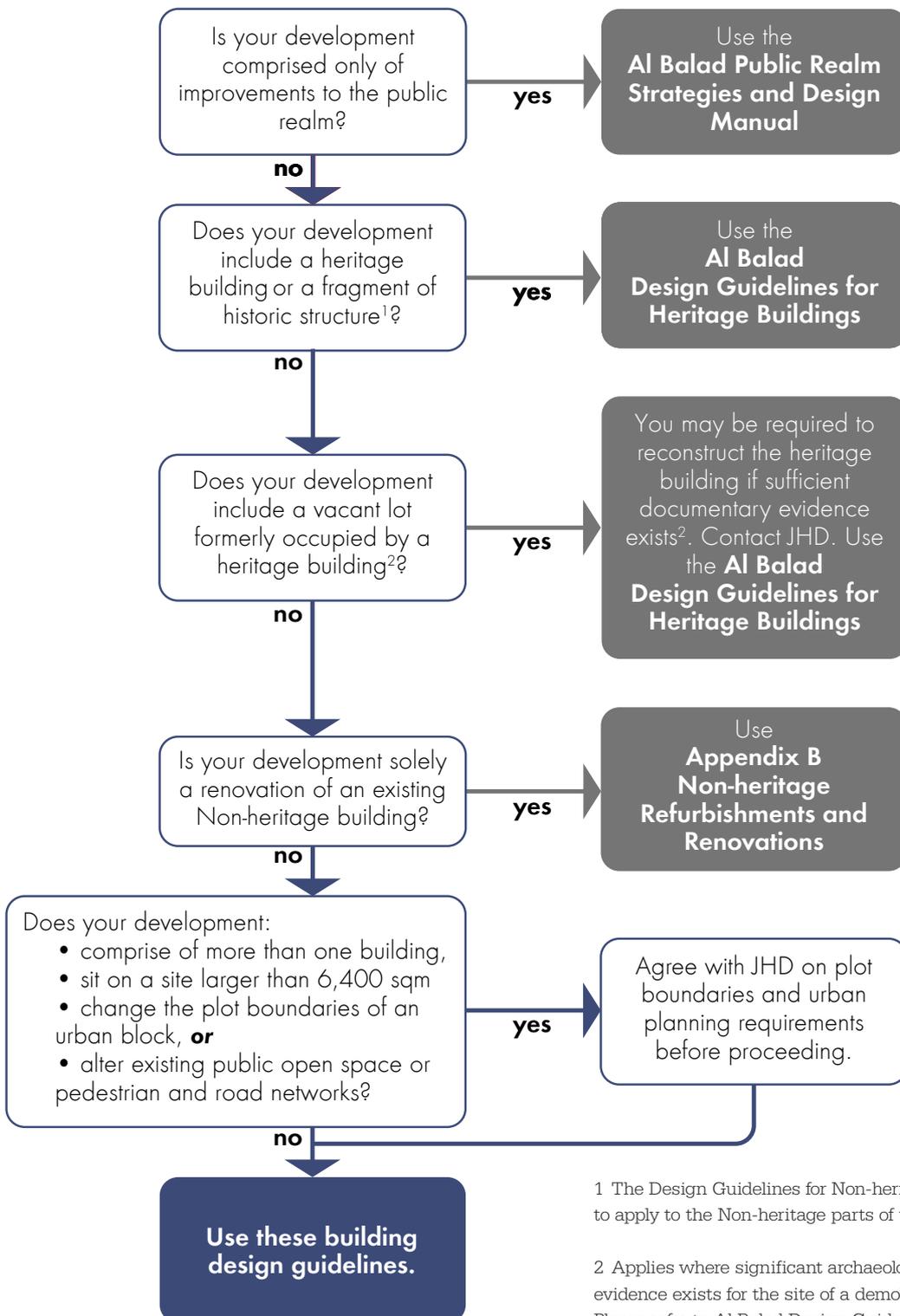
**Chapter 3: Architectural design** outlines a process for architectural assessment and proposes a suitable design language for new architecture in Al Balad. They leverage the existing character and quality of Al Balad to maintain a distinct sense of the place.

**Chapter 4: Inappropriate development** gathers together undesirable design outcomes to anticipate and avoid, to set a minimum threshold for design quality in Al Balad.

**Appendices:** Resources, background studies and references that support the guidelines, gathered for the applicant's use.

Together, these guidelines work towards the harmonious co-existence of past, present and future developments in Al Balad, to protect the legacy of this internationally significant place for generations to come.

### APPLICATION FLOW CHART



1 The Design Guidelines for Non-heritage Buildings continue to apply to the Non-heritage parts of the development.

2 Applies where significant archaeological and photographic evidence exists for the site of a demolished heritage building. Please refer to AI Balad Design Guidelines for Heritage Buildings for the full rules of applicability.

## GUIDELINE SUMMARY

### 1 GENERAL PRINCIPLES

#### Does the project support all the objectives and values of Al Balad?

- Does the project protect and enhance Al Balad's status as a world heritage site?
- Does the project improve the urban design and townscape qualities of Al Balad?
- Does the project use sustainable design strategies suitable for the local climate?
- Does the project use heritage features in an appropriate, educated and skilful manner?
- Does the project interact with the historic layout of Al Balad in a positive way?
- Does the project create a better waterfront for Al Balad?

### 3 ARCHITECTURAL DESIGN

#### Does the project demonstrate well-considered architectural design?

- Is the character of the building suitable for its location, supported by research and design?
- Is the design sustainable and sensible for the local climate?
- Are all architectural elements real and functional?
- Does the building contribute positively to the townscape and setting of Al Balad?
- Are materials and ornamentation handled skilfully?
- Is the general impact of the architectural design positive?

### 2 DEVELOPMENT PARAMETERS

#### Does the project complement the historic setting and improve the general urban fabric?

- Does the project create appropriate block dimensions and street patterns?
- Does the project set appropriate heights, street wall tops and roofscapes in character with Al Balad? Does it properly take into account:
  - Defining heights
  - Nasseif House datums
  - Height relation to heritage buildings
  - Street wall top maximums
  - Variety of height rule
  - Rooftop elements
- Do buildings frame streets and public spaces with appropriate scale, grain, projections and recesses?
- Do building fronts support the city-wide hierarchy of streets and public spaces?

### 4 INAPPROPRIATE DEVELOPMENT

#### Does the project avoid design elements that are detrimental to the setting of Al Balad?

- Does the project create inappropriate urban massing such as plateaus or podia?
- Does the project degrade the quality of the public realm by poor ground level design?
- Does project undermine the value of local heritage through poorly executed imitation?
- Does the project use building materials inappropriate to the local character and climate?
- Does the project ignore the effect that ordinary building details can have on design quality?

## GUIDELINE FORMAT

To aid its use, the text formatting of guidelines observe the following rules.

- Guideline titles are enumerated and bolded:  
**D1. Guideline title**
- Guideline action items or rules are enumerated with a decimal number. There may also be sub-clauses indicated with bullets under the main clause:
  - 1 Guideline clause one.
  - 2 Guideline clause two.
    - Sub-clause.
    - Sub-clause.
- Guideline rationales are presented in italics:

*Guideline rationales state the objectives and the reasons why guideline prescriptions are made. This offers the applicant an opportunity to propose design alternatives that meet the rationale by other means. Alternative proposals require the approval of JHD.*

All diagrams and images in this document are illustrative. Parameters and quantum provided in guideline text and tables take precedent over those in diagrams and images.

Geographic diagrams are representative of full scale digital drawings held by JHD, and are included in this document for convenience only. The digital drawing should be used for the determination of project location and guideline applicability.



**Link to Al Balad  
Compliance Checklist**

*To clarify the approvals process, all applications will be assessed according to a checklist (Microsoft xls format). The digital version can be downloaded through this link, and a print version is included in Appendix A.*

## REQUIRED DOCUMENTATION

The following drawing and documents are required for applicants pursuing projects within Al Balad (This list is subject to update and revision. Please consult JHD for the most up-to-date requirements):

### Initial discussion

- Site plan 1:500
- Statement of development intent

### Pre-application meeting

- Site plan 1:500
- Concept diagram
- Basic height and massing proposal

### Design review and final submission

- Compliance checklist (with applicant section filled)
- Location plan 1:1,000
- Site plan 1:500
- Floor plans 1:200 all floors, showing entrances, openings, uses, and servicing locations
- Elevations showing context 1:200 (minimum 1 neighbouring building in each direction from project)
- Section showing context 1:200 (minimum 1 neighbouring building in each direction from project)
- Accurate 3D visualisations in context (including views from street, and aerial views)
- Any specific detailed drawings as required by guidelines, such as projections and recessed soffits
- Other supporting information or reports detailing design development, such as climate response, shading, sample materials or standards of craftsmanship
- Additional submissions or drawings at larger scale may be required beyond the list above, in response to specific review comments



# GENERAL PRINCIPLES

## Does the project support all the objectives and values of Al Balad?

- G1** Does the project protect and enhance Al Balad's status as a world heritage site?
- G2-3** Does the project improve the urban design and townscape qualities of Al Balad?
- G4** Does the project use sustainable design strategies suitable for the local climate?
- G5-7** Does the project use heritage features in an appropriate, educated and skilful manner?
- G8** Does the project interact with the historic layout of Al Balad in a positive way?
- G9** Does the project create a better waterfront for Al Balad?

# 1 GENERAL PRINCIPLES

All new development in Al Balad should begin with the same core of values and principles, to promote the long-term flourishing of this unique and remarkable place.

The principles outlined here establish a basic attitude towards building and development, to ensure that each individual part of Al Balad contributes to the greater whole.

## G1. Protect and enhance heritage

The heritage structures of Al Balad are its urban essence, giving it a unique character and setting it apart from any other place on earth. New development should:

- 1 Work closely with the Heritage Buildings Guidelines
- 2 Design simple buildings that do not visually compete with the heritage buildings
- 3 Build new infill development that enhances the setting of heritage buildings and fragments
- 4 Remnants of the historic city wall and gates are not considered as heritage buildings; for their treatment see G8.



## G2. Repair the urban fabric

The beautiful historic character of Al Balad has been diminished in quality by subsequent roadworks and insensitive development. New development should:

- 1 Re-establish lost edges of historic buildings through new buildings or landscape
- 2 Re-establish lost pedestrian connections across major streets such as Dahab Street
- 3 Follow an evidence-based historic approach for urban repair using historic maps to reinstate urban blocks
- 4 Anticipate a future for Al Balad with a strong connection to water.



## G3. Engage with the public realm

Good buildings look beyond themselves and contribute to their surroundings. New development should:

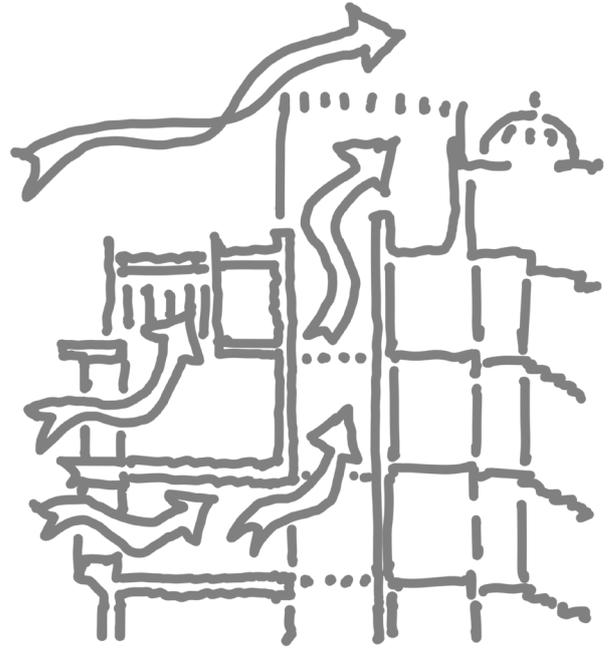
- 1 Build on the principles of the Public Realm Strategy and Manual
- 2 Contribute to the life and quality of the surrounding streets, lanes, and barahat (see D16-19)
- 3 Encourage common design responses to key routes and open spaces
- 4 Prioritise retail frontage along the traditional souqs
- 5 Create active frontage along streets (Dahab and King Abdul Aziz)



#### G4. Respond to the climate

Al Balad is situated in a special environment that has directly affected its architectural patrimony. New development should follow suit and:

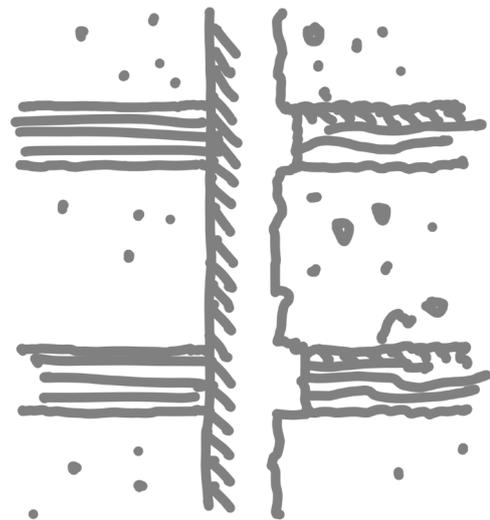
- 1 Build on the urban qualities of Al Balad: compactness, walkability and climate adaptation
- 2 Use compact building types that learn from the historical buildings of Al Balad
- 3 Prioritise low water and energy consumption for building design
- 4 Employ passive climatic design. See also A4.



#### G5. Make new and old legible

Buildings should confidently express their historical provenance and clearly distinguish new elements from old.

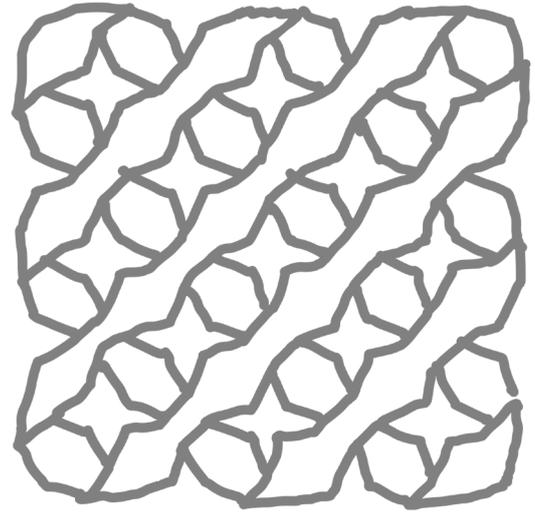
- 1 When a historic approach to design is used, it should not seek to create literal copies
- 2 Learn from the heritage buildings craft, economy of means
- 3 Ensure that new buildings are clearly distinguishable from heritage ones.



## G6. Support craftsmanship

New buildings should play an active part in the transmission of Al Balad's cultural legacy. The quality of new development should merit its appreciation by future generations. New development should:

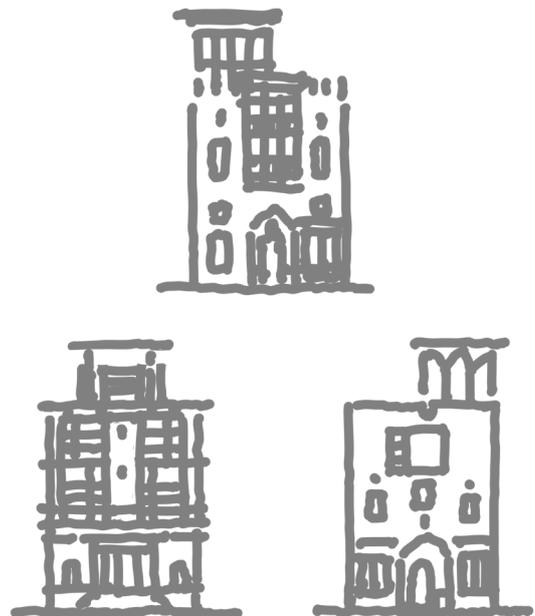
- 1 Create an opportunity for traditional craft revival
- 2 Promote traditional construction methods where possible
- 3 Aim to adapt and evolve traditional construction methods.



## G7. Accommodate appropriate architectural languages

Al Balad sits at the crossroads of cultures and has always exhibited a vibrant eclecticism in its urban form. New development should avoid dogmatic formula and fossilized senses of style. Instead, new development should:

- 1 Engage in a living language of architecture that is conversant with relevant sources
- 2 Respond to the immediate architectural context
- 3 Evoke traditional elements and massing
- 4 Evolve a new vernacular for Al Balad in the 21st century
- 5 Work with the appropriate language as per the geographic areas. See Chapter 3 for further details.



## G8. Respond to historic walls and gates

Al Balad was once surrounded by historic walls and gates. New developments near these location should acknowledge their former presence and alignments.

- 1 Respond to the wall in the layout and design of buildings and open spaces
- 2 Use a variety of approaches in the response, including materiality, setbacks, articulation and alignments to express its former existence
- 3 Where archaeological remnants of walls and gates exist, do not undermine their structural integrity



## G9. Respond to the waterfront

The pre-eminence of Al Balad is related to its position on the Red Sea and its function as a maritime gateway to Makkah.

- 1 Development in close proximity to the waterfront should contribute to the character of the area and the quality of the public realm along the waterfront.
- 2 Views to the water should be shared amongst the urban blocks nearest the waterfront through deferential stepping of massing.



## **G10. Promote inclusive design**

Al Balad should be a welcoming place for people of all ages and abilities. New development should:

- 1 Consider the accessibility and user experience of the project by people of different physical abilities.
- 2 Provide for universal access to give a clear sense of inclusion; design solutions with equal provision for all users.
- 3 Consult and apply relevant national and international accessibility standards during design. All buildings should comply with all relevant local building codes.
- 4 Consider consultation with representative of local disabled groups for design feedback.

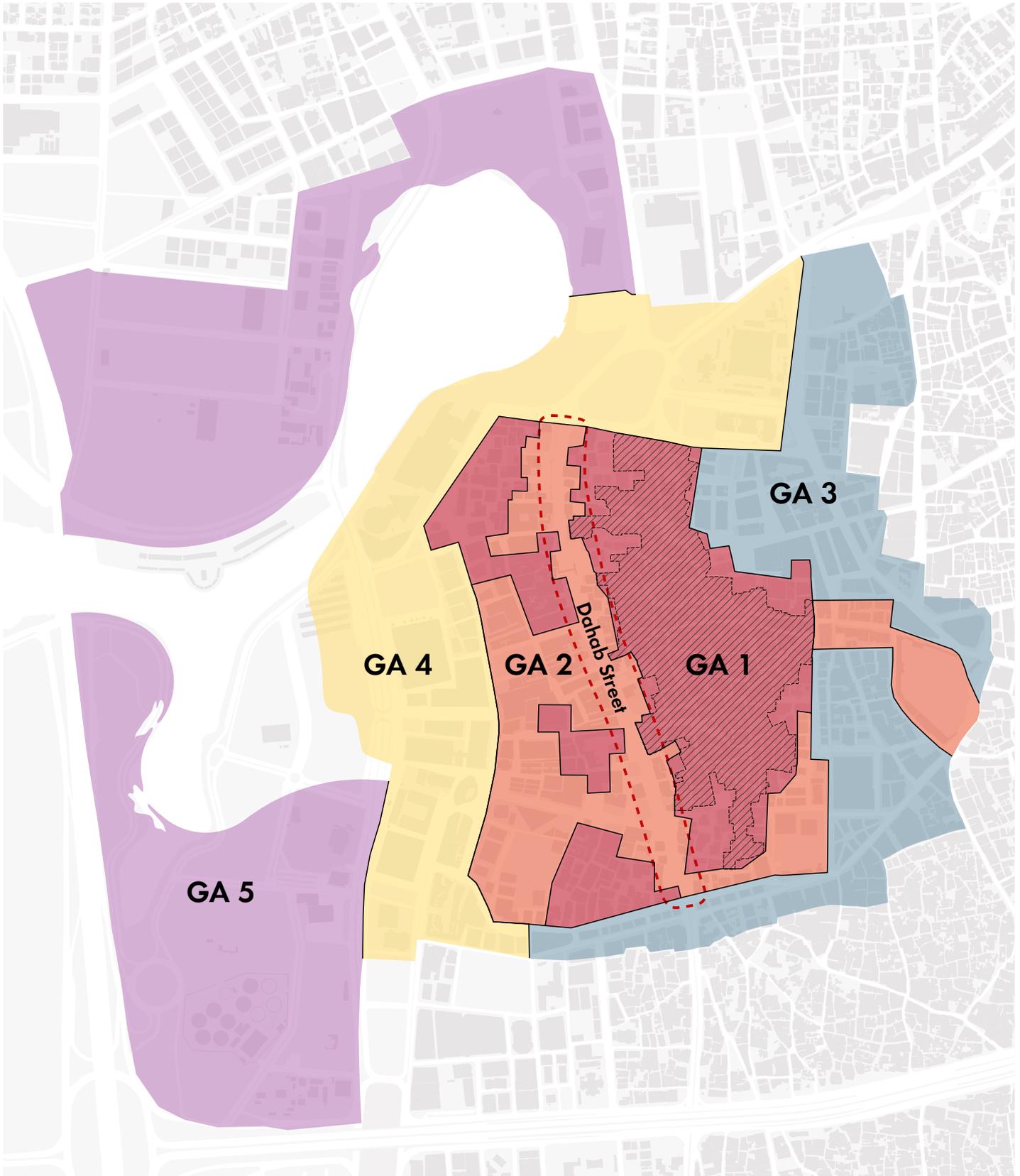


# DEVELOPMENT PARAMETERS

**Does the project complement the historic setting and improve the general urban fabric?**

- D1-4** Does the project create appropriate block dimensions and street patterns?
- D5-10** Does the project set appropriate heights, street wall tops and roofscapes in character with Al Balad?
- D11-15** Do buildings frame streets and public spaces with appropriate scale, grain, projections and recesses?
- D16-19** Do building fronts support the city-wide hierarchy of streets and public spaces?

## 2 DEVELOPMENT PARAMETERS



**Development parameters are the controls that set limits to massing: a building’s relationship to adjacent buildings, its property boundaries, and the overall heights allowable. Development parameters also ensure co-ordination between buildings to protect urban grain, movement networks, and the quality of the public realm.**

**The Al Balad Design Guidelines assigns development parameters on an area-by-area basis. The geographic areas are described in section 2.1, the parameter definitions outlined in section 2.2, and the control values listed in tables in section 2.7.**

**Where a development sits on more than one GA the lowest number GA should take precedent.**

## 2.1 Geographic Areas

### Geographic Area 1 (GA1)

GA1 begins with the UNESCO Nominated Property (NP) at its core. It contains the most restrictive of development controls to preserve and protect the heart of Al Balad, the world heritage site. GA1 expands upon the NP area slightly by also including significant pockets of heritage assets, previously considered under the quality threshold of the NP buildings. GA1 is important nonetheless, as heritage buildings are a limited resource under threat. In many cases they are also contiguous with the NP area and contribute to the setting of NP buildings.

### UNESCO Nominated Property

### Geographic Area 2 (GA2)

GA2 includes most areas outside GA1 but within the original city walls, as well as an important eastward extension following the pilgrimage route from Bab Makkah. The historical fabric of GA2 is heavily eroded, particularly along Dahab Street. The primary mandate of GA2 is to improve the public realm and reinstate the historical fabric where possible.

### Dahab Street

**Design guidance for this area applies to all plots or buildings with a frontage on Dahab Street.**

Overlapping a large portion of GA2 and points along GA1 is Dahab Street, an automotive route introduced in the 1960s that severed the historical urban fabric into two parts. This area merits special consideration to heal the divide.

### Geographic Area 3 (GA3)

GA3 is comprised of the first line of development to the east and to the south of the original walls of Al Balad (with the exception of the north west quadrant, which used to be an unbuilt area within the walls). Development parameters within GA3 are geared toward general improvements of the public realm and built fabric.

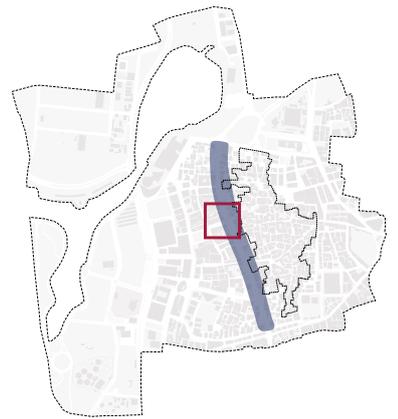
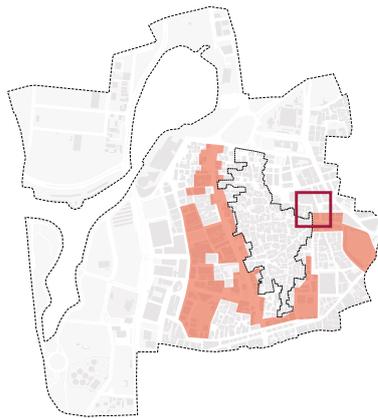
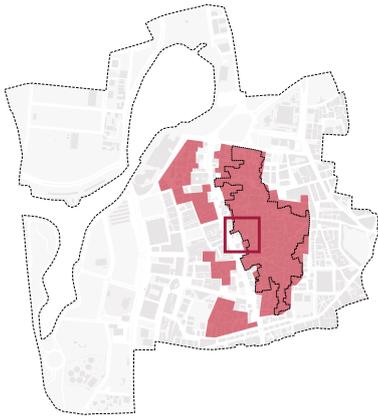
### Geographic Area 4 (GA4)

GA4 sits upon artificial land reclaimed from the lagoon, featuring many large plots and tall buildings. Development parameters in GA4 are relatively permissive, though support of the setting of nearby heritage areas and improvement to the public realm remains important.

### Geographic Area 5 (GA5)

GA5 are the development areas of the waterfront, to be developed following the reshaping of the lagoon. The development parameters for this area aims to create an attractive urban backdrop along the waterfront, and to promote connectivity with existing parts of the city.

Extracts from illustrative masterplan and aerial photography



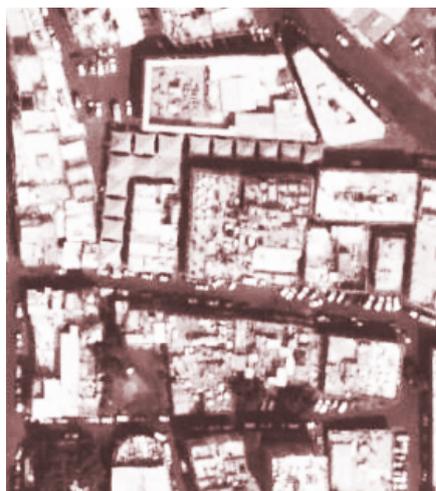
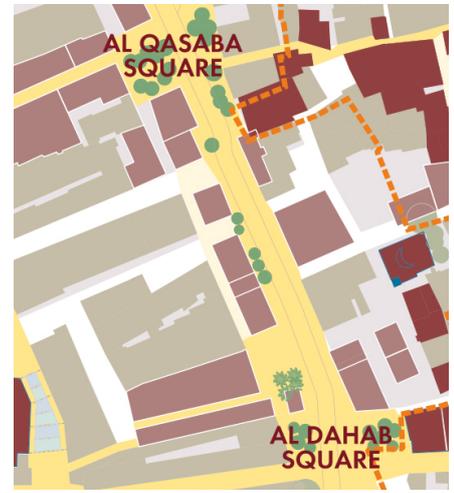
GA 1



GA 2

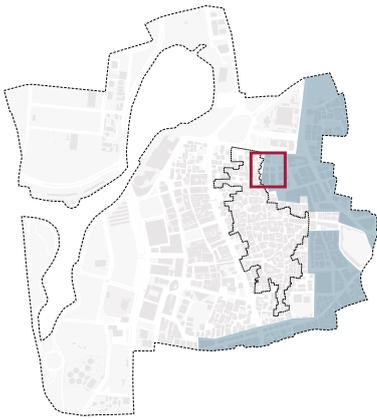


Dahab Street

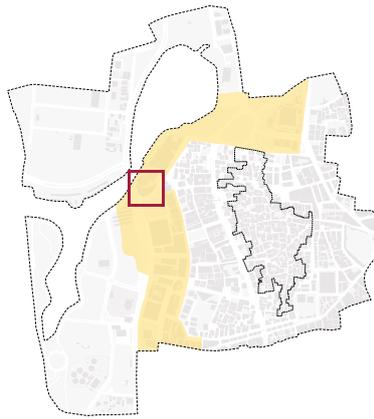


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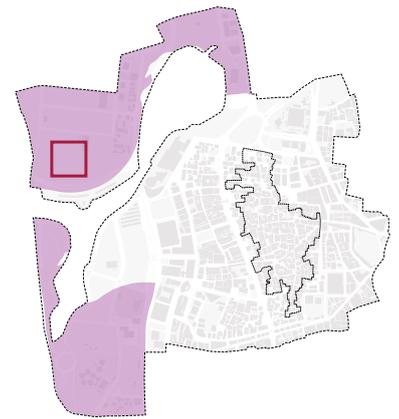
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|  | Proposed Building |  | Secondary Routes   |
|  | Existing Building |  | Historic Wall Area |



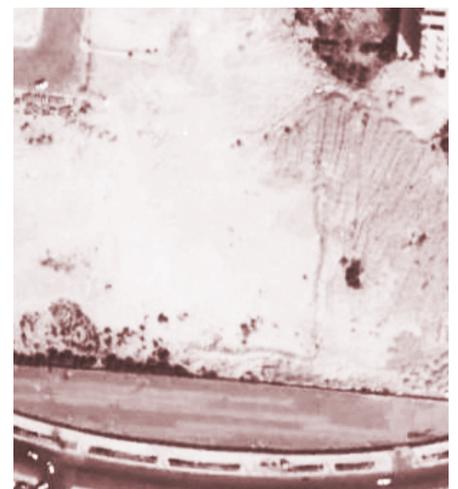
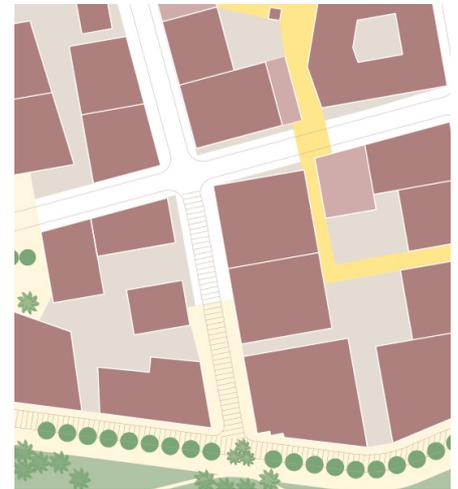
GA 3



GA 4

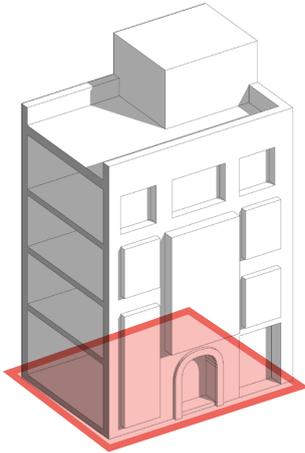


GA 5



## 2.2 Parameter Overview and Glossary

The list of terms below describe the Development Parameters in Sections 2.3 to 2.6, and the Geographic Area specific criteria Tables in Section 2.7



### URBAN BLOCK DEFINITION

#### D1 Plot boundary

Property interface with adjacent properties or public realm. Defined by ownership boundaries and/or the Al Balad masterplan work.

#### D2 Urban blocks

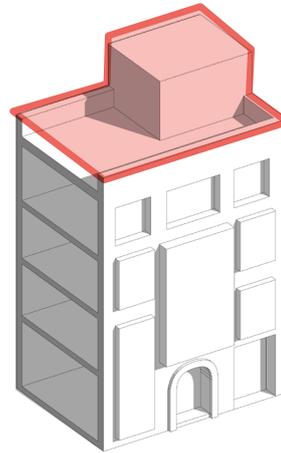
A contiguous area of city bounded on all sides by public realm, made up of both pedestrian and vehicular streets.

#### D3 Street wall alignment

The outside edge of an urban block, facing the public realm, defining the enclosure of the street. Typically formed of multiple building façades.

#### D4 Plot coverage

The permitted footprint of building(s), expressed as a percentage of the total area within the plot boundary.



### DEVELOPMENT HEIGHT

#### D5 Street wall top (SWT)

The main height control for development is stipulated in relationship to the Street wall top (SWT): the primary parapet line belonging to the main mass of a building.

#### D6 Nasseif House datum

The pinnacle for new development in Al Balad will be Nasseif House, which sets an absolute limit for the height of street wall tops and rooftop elements.

#### D7 Height relation to heritage buildings

The height of new development will be limited by nearby heritage buildings, depending on their size and the closeness to the development site.

#### D8 Geographic Area SWT maximums

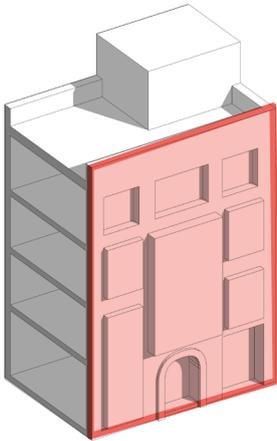
Specific SWT height limits set according to geographic area.

#### D9 Variety of height rule

A guideline ensuring the local variation of height between neighbouring buildings.

#### D10 Rooftop elements

Elements built on the rooftop, projecting above the street-wall top with a reduced footprint area; they do not count towards the height of the Street wall top.



## **BUILDING FRONTAGE**

### **D10 Development frontage**

Overall length of new development block, extruded to the street-wall top, measured from corner to corner of new development.

### **D11 Vertical breaks**

A significant vertical articulation in a block frontage that breaks its form into separate building façades.

### **D12 Building façades**

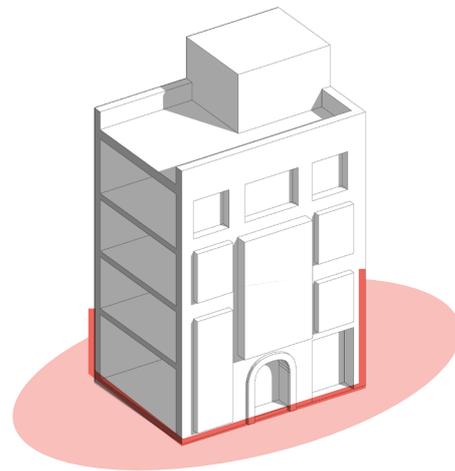
Established along the block frontage by applying vertical breaks, creating building wall planes. Measured from vertical break to vertical break.

### **D13 Projecting elements**

Elements that project from the building façade, including bays, roshan, balconies, verandas or other architectural elements.

### **D14 Recessed elements**

Elements that are recessed from the building façade, and extend access or perception of the public realm inside the plot boundary.



## **URBAN SETTING**

### **D15 Response to urban setting**

The manner in which a building supports the character of adjacent streets and public spaces.

### **D16 Frontage hierarchy**

The order of importance between different façades of a building, based upon their urban setting.

### **D17 Parking and servicing**

Provision for vehicular parking associated with a particular site. Access point for utilities, infrastructure and building logistics.

### **D18 Public realm integration**

Establishes how buildings should interface with public realm.

## 2.3 Urban Block Definition

The following guidelines strengthen the coherence of urban block patterns in Al Balad by controlling the ground level footprint of developments, through the definition of plots and streetwalls.

### D1. Plot boundary

The plot boundary is usually defined by existing ownership. However, where new plots are proposed in the Al Balad Masterplan, they should be used as a reference.

- 1 If the plot boundary has any edge over 80m long, the site needs to establish new urban blocks within the plot (see D2).
- 2 If a project intends to change a plot boundary from the existing ownership boundary or the Al Balad Masterplan, the new plot boundaries must be agreed with JHD prior to the commencement of project design.
- 3 When plot boundaries are changed, any existing usable public space within the boundaries must be measured, and the same area provided within the new development proposal. The measurement of existing usable public space should not include areas where a building has collapsed.

*To apply development parameters consistently to building plots.*



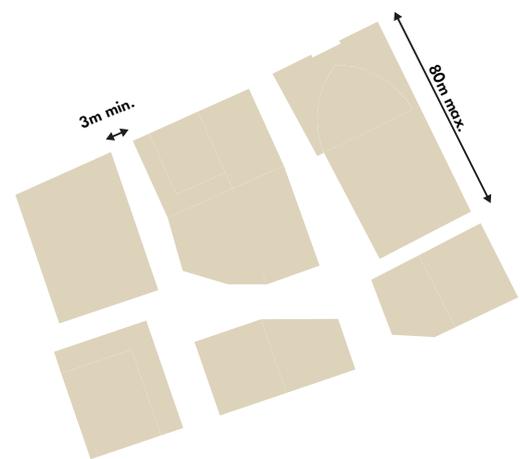
D1.1: Urban block definition

## D2. Urban block

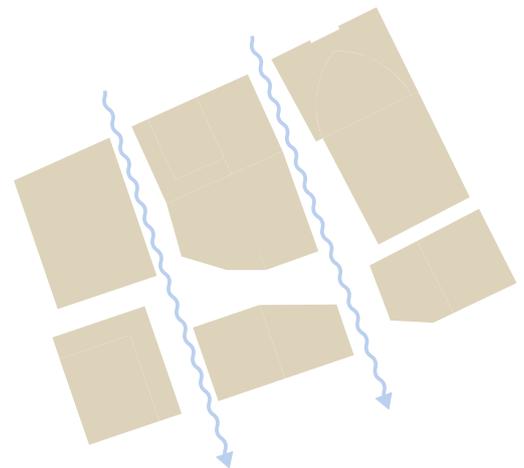
An urban block is an area of city bounded on all sides by public realm.

- 1 Urban blocks should respect and observe the historic alignments of the city wherever possible, using the Ottoman map (appendix H). Any historic alignments, such as the historic walls, should be respected. Wherever evidence of lost historical routes and barahas are available, new development should re-establish them. Refer to the historic route alignment maps.
- 2 Where historic evidence is not available, the development should define the edges of existing streets, as well as establishing new routes that can be created through the plot.
- 3 For new urban blocks, the distance between public routes should not exceed 80m. Splitting a plot into urban blocks less than 80m is permitted as long as they are surrounded on all sides by public realm.
- 4 The width of public realm between urban blocks should not be less than 3m wide.
- 5 In GA5, where new urban blocks are being created, they should be orientated in a NW/SE direction to accommodate the prevailing wind and improve the pedestrian micro-climate of the street. The Al Balad Masterplan should be used as a reference.
- 6 In GA5, infrastructure and storage structures located alongside highways are exempt from D2.3; they may have urban block distance between public routes up to 100m max.

*To strengthen historic urban block patterns where they exist, and create amenable new urban fabric where they don't.*



D2: Urban block definition



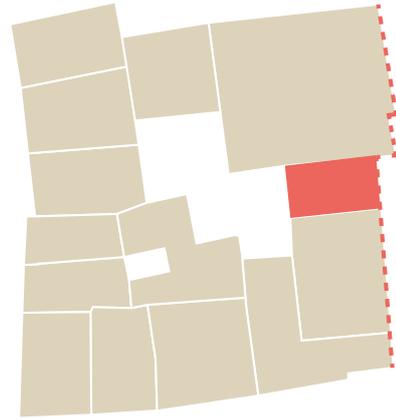
D2.5: Accommodate prevailing winds in new urban block design in GA5

### D3. Street wall alignment

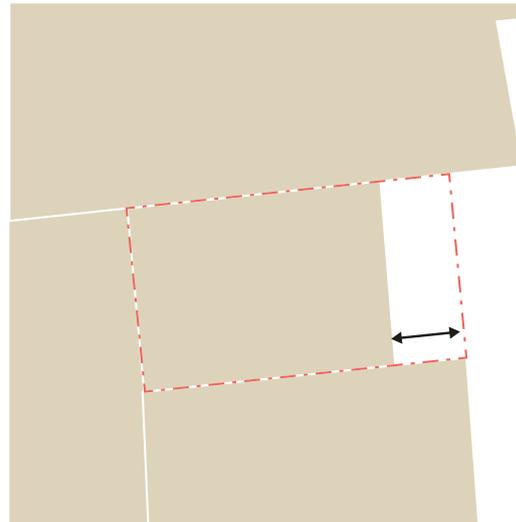
The street wall is the outside edge of an urban block, facing the public realm, formed of multiple buildings.

- 1 New development footprints should define the edge of public streets, following the historical footprint of buildings wherever possible, to reinforce the street wall alignment.
- 2 The built area of the development cannot protrude outside of the street wall alignment, except for permitted projecting elements. (see D14)
- 3 If the design intent is for the development footprint to set-back from the existing street-wall, evidence must be provided of the public benefit of the new space that will be created, including details on the design and maintenance. The maximum permissible set back from the street wall is 6m.
- 4 Articulation undertaken through clause D12 is exempt from clause D3.3.

*To carefully define the enclosure of the public realm.*



D3: Respect historical footprints to reinforce street wall alignment



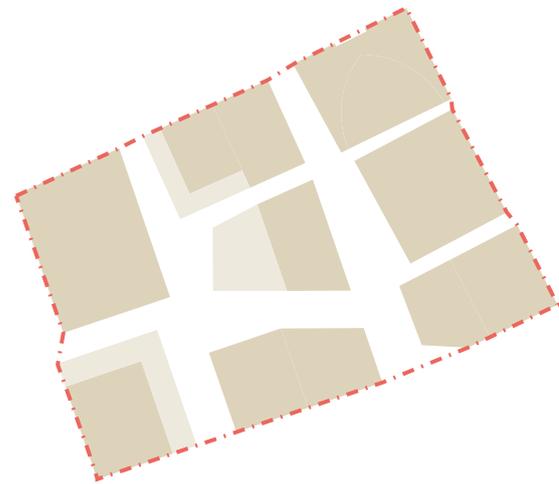
D3.3 Give evidence for public benefit of setback space

## D4. Plot coverage

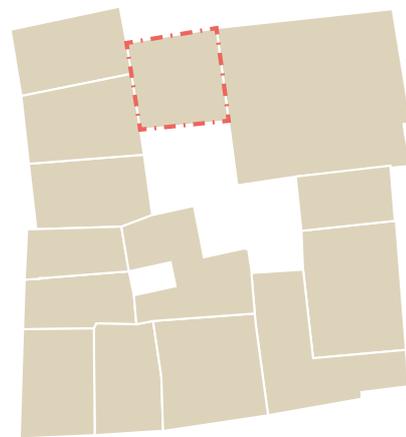
The plot coverage is the permitted footprint of built development, expressed as a percentage of area within the plot boundary.

- 1 Depending on the scale of the development the plot may include 1 building or 1 or more urban blocks, as such plot coverage is expressed as a recommended percentage with flexibility, defined by geographic area in the parameter tables. (See “2.7 Parameter Tables”)
- 2 If a plot is adjacent to an existing building with openings overlooking the development plot, the proposed development should set back from these elevations in order to preserve privacy and prevent overlooking, as well as to maintain existing daylighting to their interiors. Applicants should demonstrate how this has been achieved in drawings submitted with their application.

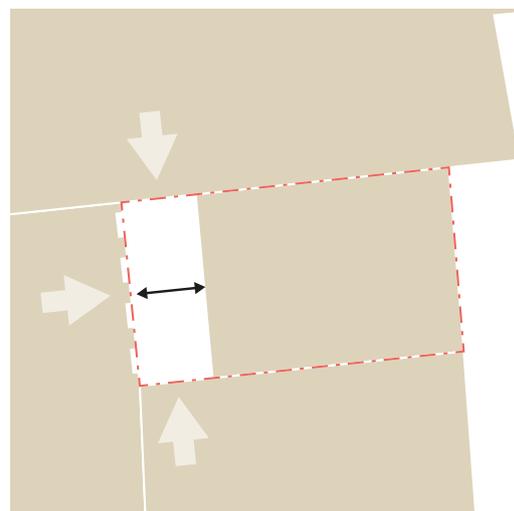
*To strengthen historic urban block patterns where they exist. To preserve privacy and prevent overlook.*



D4 Plot coverage where plot has created new urban blocks



D4 Plot coverage where plot is within an existing urban block



D4 Privacy setbacks adjacent to existing buildings with openings.

## 2.4 Development Height

The following guidelines control the overall height and roofscape massing of new development, to reinforce the stepping street wall and roofscape character of Al Balad. For full rationale see Appendix E.

### How to define massing and height maximums for your project:

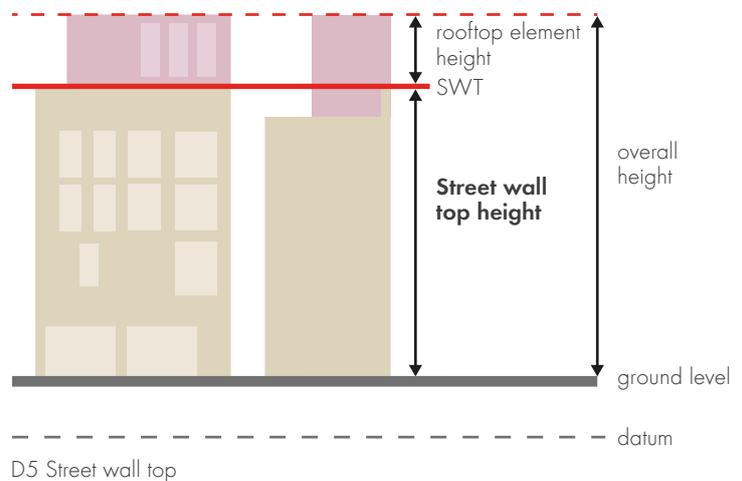
- 1** **DEFINING HEIGHTS:** Understand the main building feature to which height controls apply.
- 2** **NASSEIF HOUSE DATUM:** Nasseif House sets an absolute limit for the height of Street wall tops and rooftop elements.
- 3** **HEIGHT RELATION TO HERITAGE BUILDINGS:** Heritage buildings limit the height of new development, depending on their size and closeness to the site.
- 4** **STREET WALL TOP MAXIMUMS:** Check SWT height limits according to geographic area.
- 5** **VARIETY OF HEIGHT RULE:** Ensure the local variation of heights between neighbouring blocks.
- 6** **ROOFTOP ELEMENTS:** Contribute to the stepping roofscape of Al Balad by adding rooftop elements above the SWT.

## D5. Defining heights: Street walls

The scale and sense of enclosure of a street is predominantly defined by the height of the street wall: the façade up to the primary parapet line of a building. As such, the primary height control in Al Balad relates to the Street wall top (SWT).

- 1 The SWT height is measured from ground level at the lowest corner of the new development to the top of the highest parapet that is part of the main building mass.
- 2 SWT parapets must be a minimum of 1.1m measured from the finished roof.
- 3 The height of Rooftop Elements (RE) is not counted as part of SWT. A separate height allowance is permitted for rooftop elements as specified in D10.

*To use a height control method that makes the most impact on perceptions and experiences of the public realm at street level.*

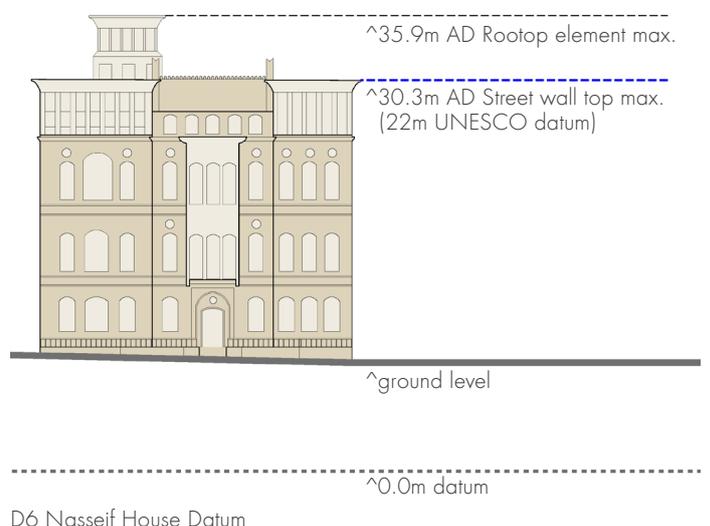


## D6. Nasseif House Datums

The basis for guideline height limits is the UNESCO management plan, and the use of Nasseif House as the benchmark for two absolute horizontal datums.

- 1 **Nasseif House street wall datum:** No SWT may be higher than 30.3m above the 0.0m datum.
- 2 **Nasseif House rooftop element datum:** No rooftop element may be higher than 35.9m above the 0.0m datum. See also D8.
- 3 The Nasseif House Datum applies to all new development in geographic areas GA1 - GA4. They do not apply to GA5.

*To protect the prominence of Nasseif House within the nominated property and all UNESCO buffer zones.*



## D7. Height relation to heritage buildings

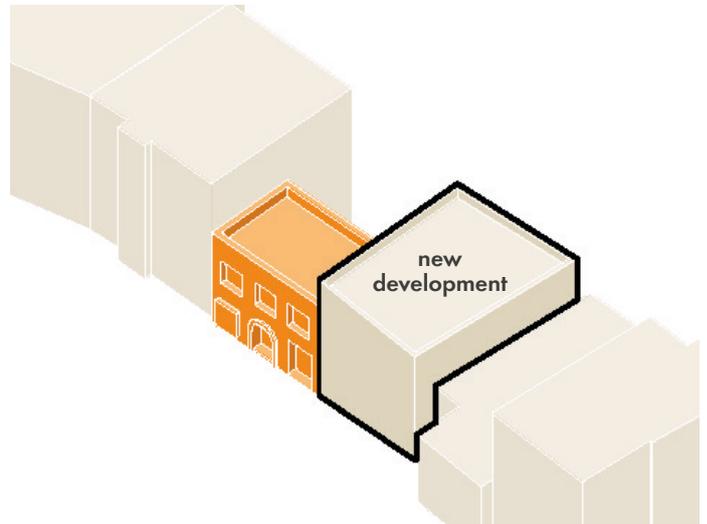
The primary mandate of these guidelines is to protect the value of heritage buildings and the irreplaceable character they give to Al Balad.

As such new development should always defer to heritage buildings in their height where possible. The height limit and the extent of application depends on the height and the distance of the heritage building to the new development, classified as **Adjacent** (0 to 5m, inclusive)\* or **Proximate** (above 5m to 30m)\*.

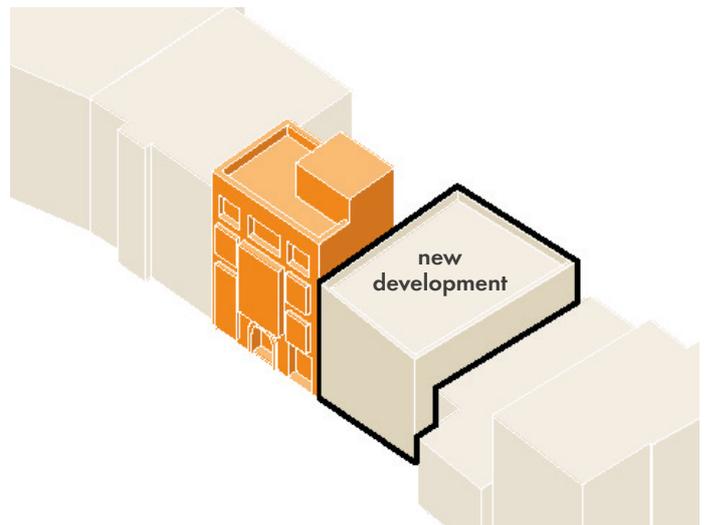
1 **Adjacent Heritage Buildings.** Heritage buildings are considered adjacent if they are within 5m\* of the footprint of the new development. The height limits are as follows:

- 1 - 3 storey\*\* heritage buildings: the new development SWT maximum is 14m.
- 4+ storey\*\* heritage building: the new development SWT maximum is 3m less than the heritage building or 14m, whichever is greater.
- Extent of application: these height limits apply to the 12m of new development closest to the heritage building.
- If a new development is adjacent to more than one heritage building, the lower building determines the height constraints for the plot.
- New development must not encroach upon the curtilage of a heritage building, including oversailing the airspace above a heritage building.
- Where heritage buildings contribute to defining significant public spaces it may be appropriate to require new development to comply with D7.1 even for heritage beyond the 5m adjacency distance, to preserve the setting. This is at the discretion of the design review panel.

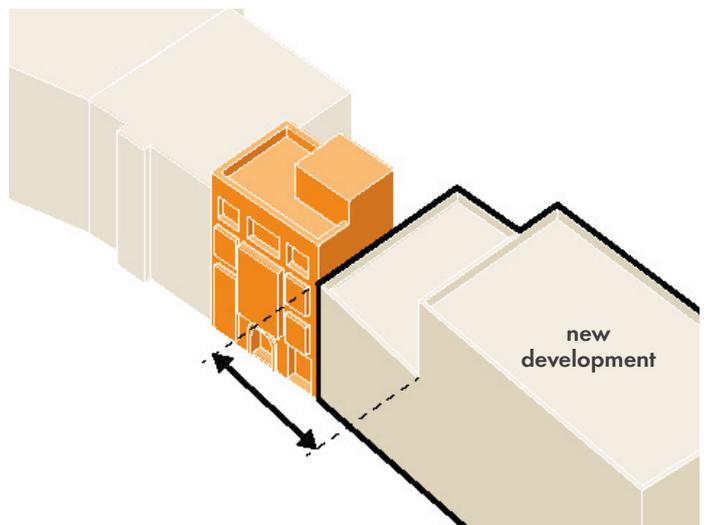
*To match lower 'background' heritage buildings (1-3 storeys) and defer to taller 'landmark' heritage buildings (4+ storeys), when located directly adjacent to new development.*



D7.1 Plot beside a 3+ storey heritage building



D7.1 Plot beside a 4+ storey heritage building



D7.1 Height limits apply to 12m of new development

2 **Proximate Heritage Buildings.** Heritage buildings are considered proximate if they are between 5m and 30m\* of the footprint of the new development. The height limits are as follows:

- 1 - 3 storey\*\* heritage buildings: the new development SWT maximum is 14m.
- 4+ storey\*\* heritage building: the height of new development SWT may match, but not exceed the SWT height of the tallest of these heritage buildings or 14m, whichever is greater.
- If a new development is in close proximity to more than one heritage building, the tallest building determines the SWT height limit.
- Extent of application: these height limits apply to the 40m of new development closest to the heritage building.
- GA Dahab Street is exempt from D7.2

*To match lower 'background' heritage buildings (1-3 storeys), but enable taller new development where proximate but non-adjacent taller heritage buildings exist (4+ storeys).*

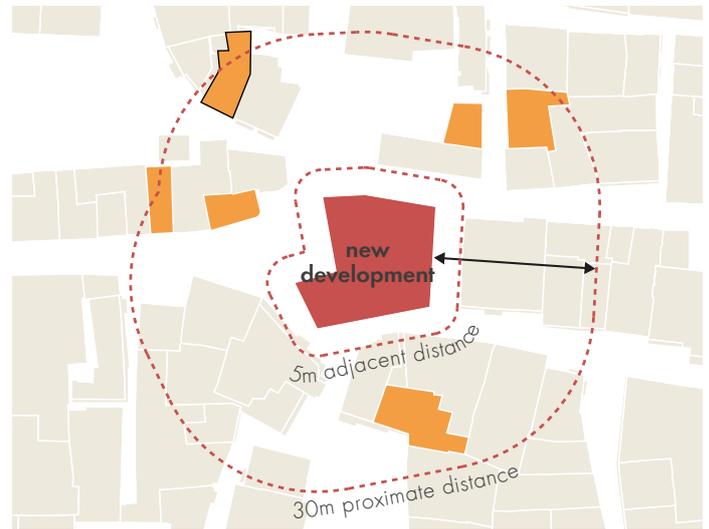
3 No adjacent or proximate new development should compete with the prominence of heritage buildings wherever they occur.

*To promote spatial deference to heritage buildings in Al Balad and strengthen their prominence.*

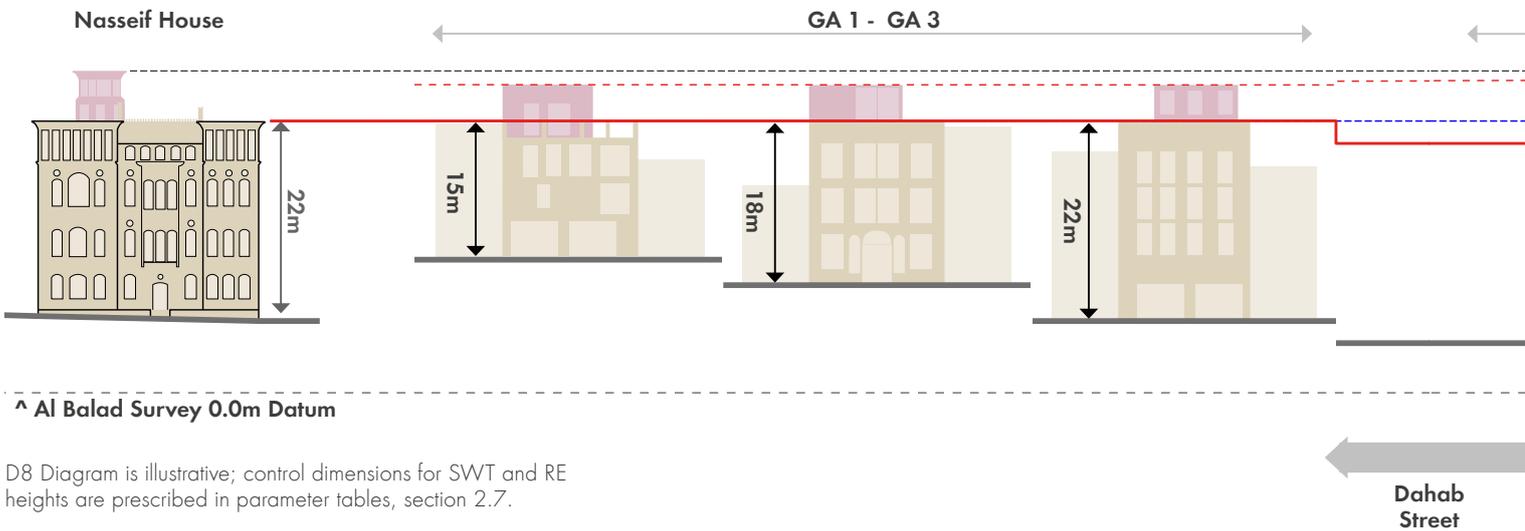
\* When offsetting the development footprint to assess the presence of adjacent or proximate heritage buildings, the offset from footprint corners should be radiused. This process may require successive testing if the development footprint changes.

\*\*Heritage buildings should be assessed in terms of storeys, but when being referenced as a datum for the new development SWT height they should be accurately measured on site (from ground to SWT) to provide the datum in metres.

*'Heritage buildings' does not include the historic city wall, gates, towers.*



D7.2 Illustration of adjacent and proximate distances



D8 Diagram is illustrative; control dimensions for SWT and RE heights are prescribed in parameter tables, section 2.7.

## D8. Street wall top maximums

The basis for guideline height limits is the UNESCO management plan, which identified the average height of heritage buildings in Al Balad at 14m above ground, with a maximum at 22m above ground.

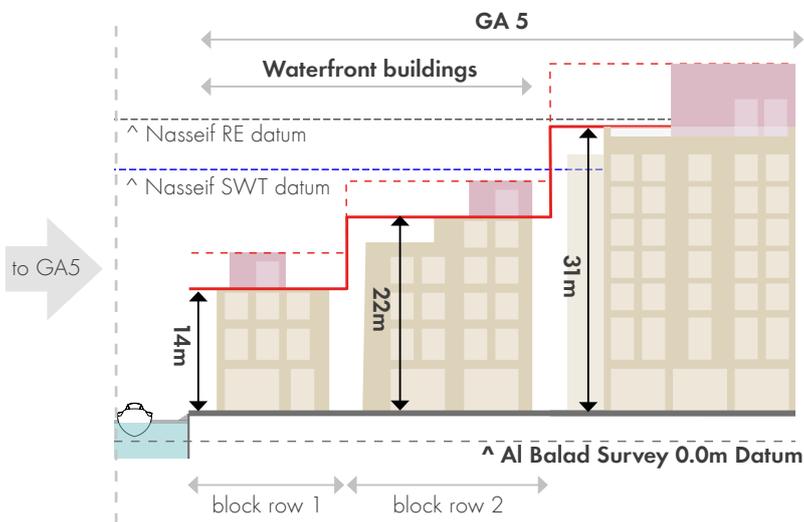
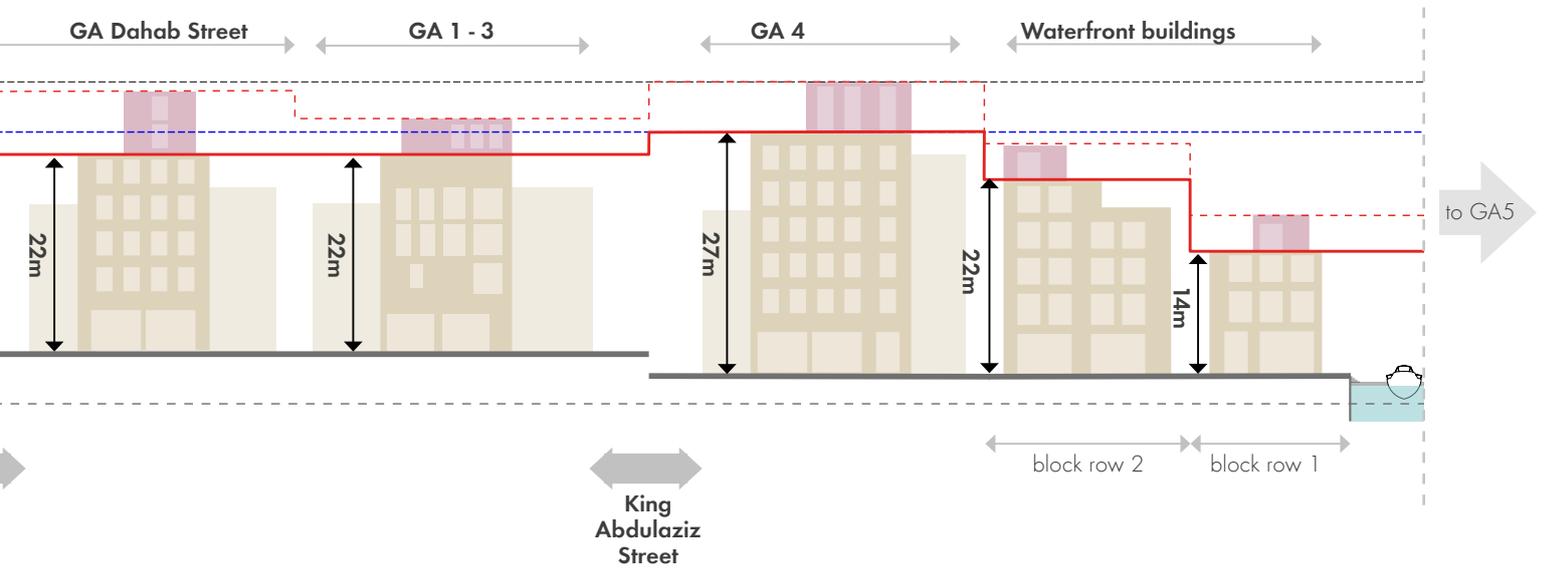
- 1 The allowable SWT height is specified by Geographic Area, based on topography and proximity to the historic core. See 2.7 Parameter Tables.
- 2 Where these SWT height limits conflict with Nasseif House SWT datum (D6), the lower level applies.
- 3 Where these SWT height limits conflict with relation to heritage rules (D7), the lower level applies.

*To reinforce the stepping street wall and roofscape character of Al Balad.*

The illustrative section below shows the maximum heights allowed based on the variable topography of Al Balad. each site should be assessed individually to ensure they comply.

- 4 **Waterfront sites:** SWT height of new development should be lower along the waterfront, to create a stepped skyline. This is applied to two block rows, the first and closest to the waterfront being 14m max, and the second row 22m max.

*To create a stepped profile for waterfront development, and to permit waterfront views from more buildings.*



D8.4 Abstract section illustrating height rules across GA5. This diagram is illustrative only, and is not drawn to scale.

- Nasseif Rooftop datum 35.6m AD
- - - Nasseif SWT datum 30.3m AD
- - - Rooftop element height limit (by GA)
- Street wall top max (by GA)

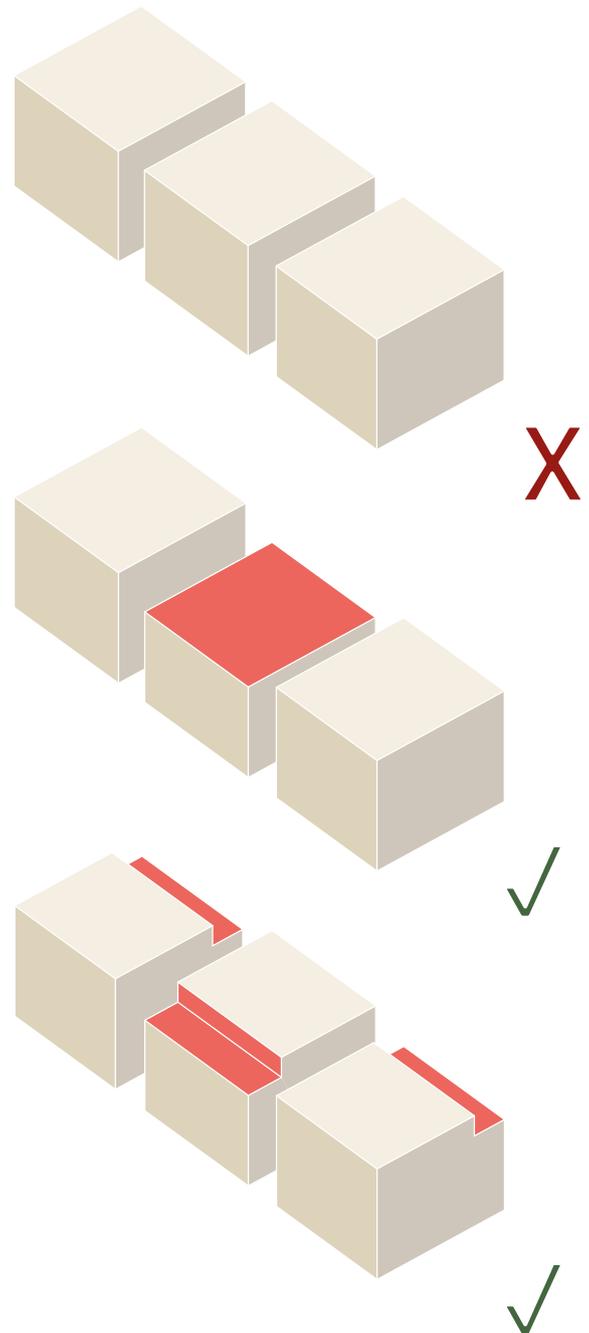
## D9. Variety of street wall top height

The streetwall of historic Al Balad is characterised by a variety of height. In response, new development should provide comparable variety. Long extents of monolithic horizontal SWT datums across multiple urban blocks are out of character and are discouraged.

- 1 Multi-block developments: Developments which are creating more than one urban block (i.e. subject to D1.1) must vary SWT height on frontages between neighbouring urban blocks (both along street elevations and across streets).
  - 1-3 storey buildings: the minimum variation in SWT height is 1m.
  - 4+ storey buildings: the minimum variation in SWT height is 3m.
  - The SWT height variation may be applied across an entire block. Alternatively it may be acceptable to provide variety through more localised SWT reductions and setbacks, which should be a minimum of one full edge of the block. Setbacks should have a minimum depth of 25% of the perpendicular frontage.
  - Adjacent blocks must be arranged to ensure there is a good variety of SWT height between neighbours.

*To create the varied streetwall parapet line that is characteristic of Al Balad.*

- 2 New development should carefully consider the relationship to the public realm, height variation may be used to address significant spaces. Additional guidance is provided under D16 of this document.



D9.1 Options for achieving varied SWT between urban blocks

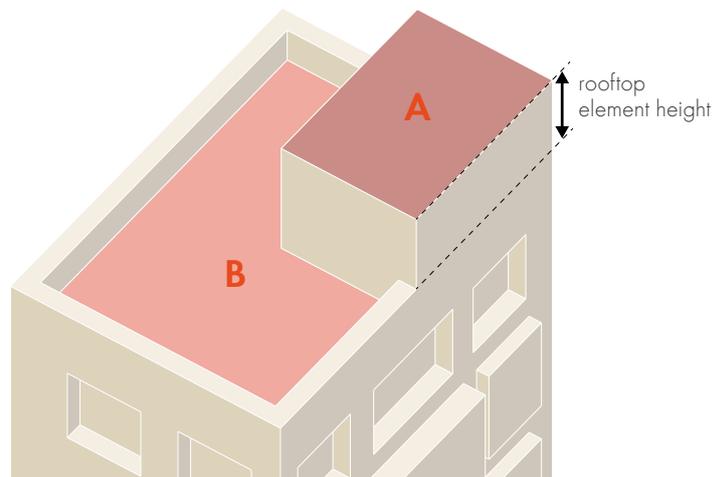
## D10. Rooftop elements (RE)

Rooftop elements are smaller areas of enclosed occupiable space above the main building mass; they are perceived as pop-ups or pavilions above main rooftop or parapet lines.

- 1 The rooftop element has a footprint maximum (A) which is expressed as a percentage of the floorplate directly below (B). This maximum is defined by Geographic Area; see 2.7. The footprint area may be split into different volumes if required.
- 2 The height of rooftop elements do not count towards the height of the Street wall top.
- 3 No building servicing or plant should be located on top of rooftop elements. These should be incorporated within rooftop elements or on the adjacent roof space (B).
- 4 Rooftop elements should not seek to increase the apparent height of the SWT.
- 5 Though rooftop elements may be located flush with the street wall façade, this condition should not continue across numerous blocks in new development, as the SWT will appear taller and plateau'd. Location of the rooftop elements should be varied to maintain a stepping massing, characteristic of Al Balad.
- 6 Rooftop elements may be articulated differently from the building below, through materiality, solid to void ratio, or other means.

*To maintain the stepping characteristic of the Al Balad roofscape. and express to the overall picturesque stepping roofscape of Al Balad, avoiding height plateaus across urban blocks. The roofscapes should encourage day-to-day use.*

\*Additional massing controls affecting individual buildings are applied in D11 and D12 of these guidelines.



D10.1 Percentage footprint of rooftop element.

## 2.5 Frontages and Façades

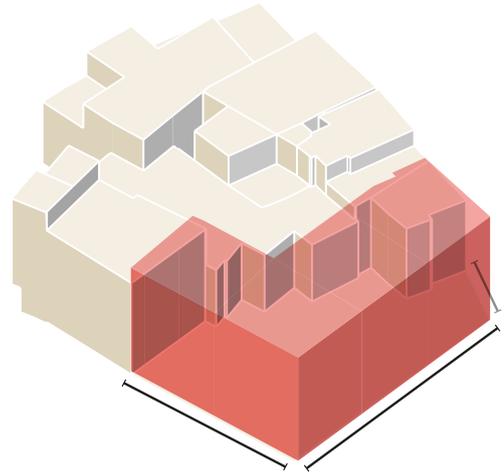
The following guidelines control the length and proportions of block frontages and building façades, to establish appropriate urban grain, visual interest, and to improve people’s experiences of the streetscape.

### D11. Development frontages

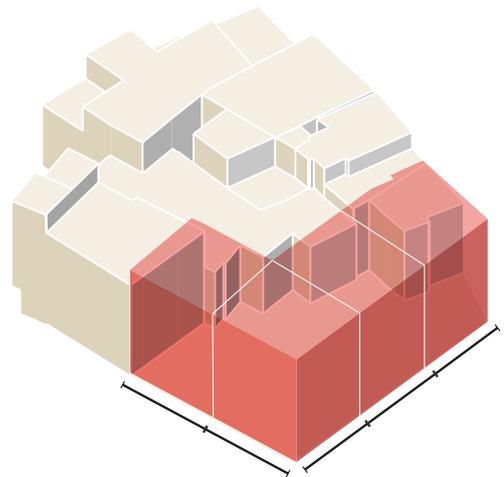
The development frontage is the overall length of any edge of new development.

- 1 Development frontages are measured from corner to corner of new development. Corners are wherever frontages change orientation.
- 2 Frontages must create an urban grain sympathetic to Al Balad in new development; where frontages exceed a maximum segment length prescribed by GA (see 2.7 Parameter Tables), they must be subdivided into frontage segments under this length.
- 3 Vertical breaks should be applied to the points where frontages are subdivided (see D12).
- 4 Variety of frontage segments within new development is desirable. Segments smaller than the maximum length are encouraged, particularly when based on studies of the surrounding urban grain. For an example see Appendix F. The use of references such as the Historical Area Documentation Report (HAK 2019) are encouraged.
- 5 Large floorplate buildings, such as storage or multi-storey car parking (see D2.6), are still subject to development frontage segment and vertical break requirements. They may be set back from the public realm behind finer grain buildings, which adhere to frontage length requirements, or have contiguous floor plates behind varied building façades.

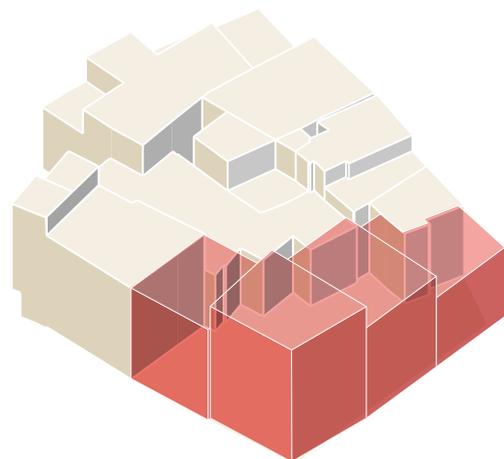
*To establish urban grain appropriate to the geographic area of the development.*



D11.1 Development frontages.



D11.2 Divide development frontage into allowable frontage segments.



D11.3 Vertical breaks locations applied to divided frontage lengths

## D12. Vertical breaks

Vertical breaks are significant articulations and meaningful changes in the orientation or definition of the development frontage. They are used to improve the granularity of the urban fabric. There are two components to a vertical break:

- 1 Wherever there is a vertical break, a meaningful change in SWT height should be applied:
  - The minimum variation is 0.5m
  - For larger buildings a greater variation may be necessary (for buildings above 4 storeys a variation of 3m is recommended).
- 2 A second articulation should be applied to the vertical break in addition to D12.1:
  - a defined corner
  - a change in façade or expression of a party wall
  - a channel setback
  - an alignment shift
  - a change in wall angle

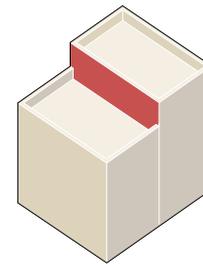
*To introduce a visually rich urban grain and opportunity for views within the streetscape of Al Balad, breaking urban form down to a human scale.*

## D13. Building façades

Building façades are frontage segments where they define a discrete building behind the street wall.

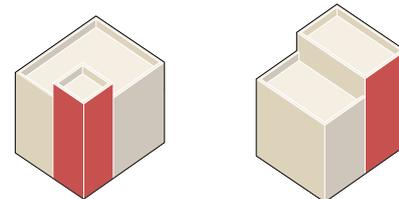
The following guidelines on element location and frontage hierarchy (D14 to D17) are defined in relation to the building façade.

*To set the compositional context for guidelines D14 to D17.*



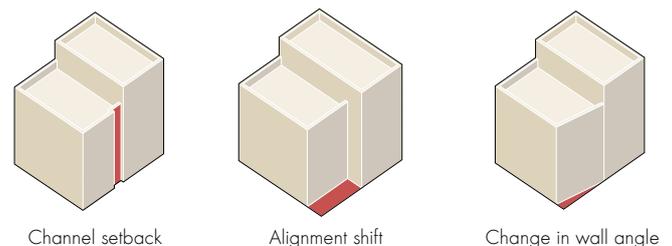
SWT height change

### D12.1 Vertical breaks, primary articulation



Defined corner

Change of façade

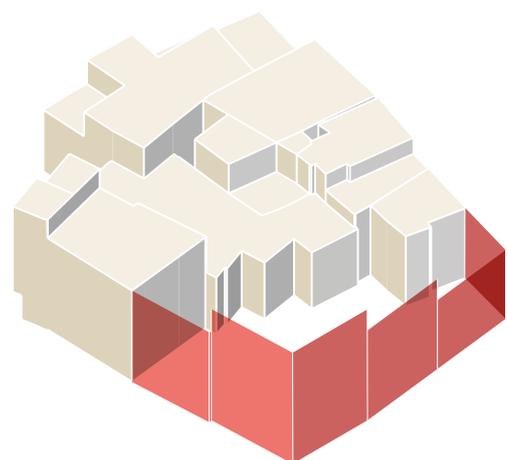


Channel setback

Alignment shift

Change in wall angle

### D12.2 Vertical breaks, secondary articulation



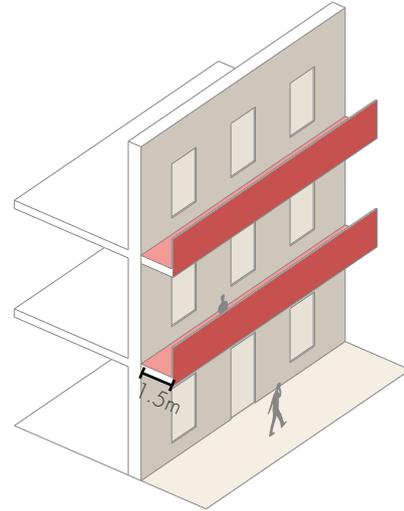
D13 Building façades

## D14. Projecting elements

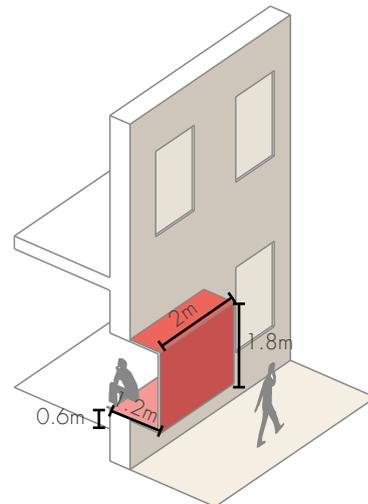
Elements which project from the building façade. This may include: roshan, balconies, verandas and cornices.

- 1 The proportions of projecting elements should be appropriate to the overall proportion of the building façade. Where possible proportion should be drawn from research of historic examples, though these may re-interpreted in a manner suitable to the building character.
- 2 The maximum distance of projection from the building façade for balconies, verandas and overhangs is 1.5m.
- 3 Roshan should have enough depth to be used for internal seating. Typically the projection required from the building façade is 600mm. Roshan should be functional: they should be long enough to lie in, deep enough to sit in, and tall enough to stand in. When located at ground floor they may project from a raised ground floor to maintain privacy.
- 4 Projecting elements should be sufficiently drawn and detailed in the application document to show all soffits, surfaces, elevations and back faces to enable design review and ensure high quality design.
- 5 Projecting elements are not permitted to infringe the air space above historic buildings.

*To maintain the complex and individual nature of building façades within Al Balad.*



D14.2 Maximum projection from building façade.



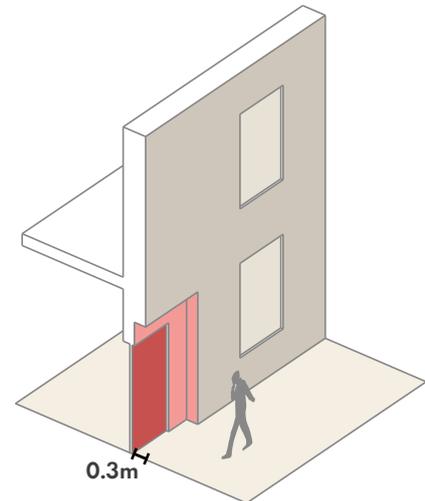
D14.3 Minimal typical functional dimensions of roshan

## D15. Recessed elements

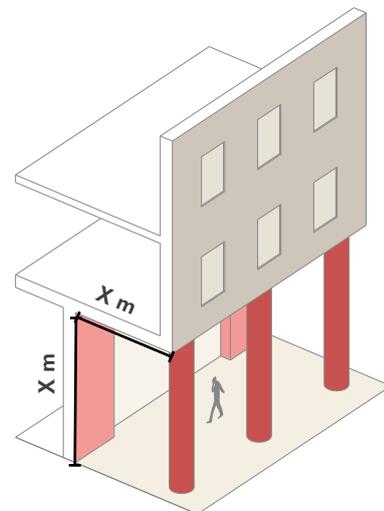
Recessed elements are set inwards from the building façade; they extend access or perception of the public realm inside the plot boundary. This may include: recessed entrances, colonnades, overhangs and corbelled corners.

- 1 Building entrances should be recessed from the frontage by at least 0.3m, in order to distinguish them from the street wall.
- 2 Retail openings should have minimal recesses in order to create juxtaposition between them and the buildings main entrance(s). All retail openings should have shutters that when closed are flush with the building façade.
- 3 The suitability of colonnades are controlled by GA. Where used, they should be of sufficient dimensions to meet pedestrian flow and should have a width to height ratio of 1:1.5. Columns should be spaced to maintain a vertical proportion of open space between them. Colonnades are encouraged on Dahab street, where there are existing colonnades. (See “2.7 Parameter Tables”)
- 4 Corbelled/chamfered corners are permitted where a building has primary façades at a corner of important routes, and where it will improve pedestrian flows. The chamfer should cut into the development plot, and the space be given to the public realm.
- 5 Hardscape interfaces between recessed elements and public realm surfaces should be compliant with the Al Balad Public Realm Design Manual.
- 6 Recessed elements should be sufficiently drawn and detailed in the application documents to show all soffits, surfaces, elevations and back faces (behind colonnades) to enable design review and ensure high quality design.

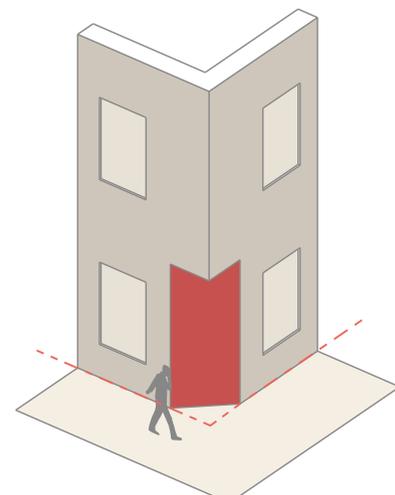
*To ensure a high quality public realm.*



D15.1 Main building entrance recessed with typical dimensions



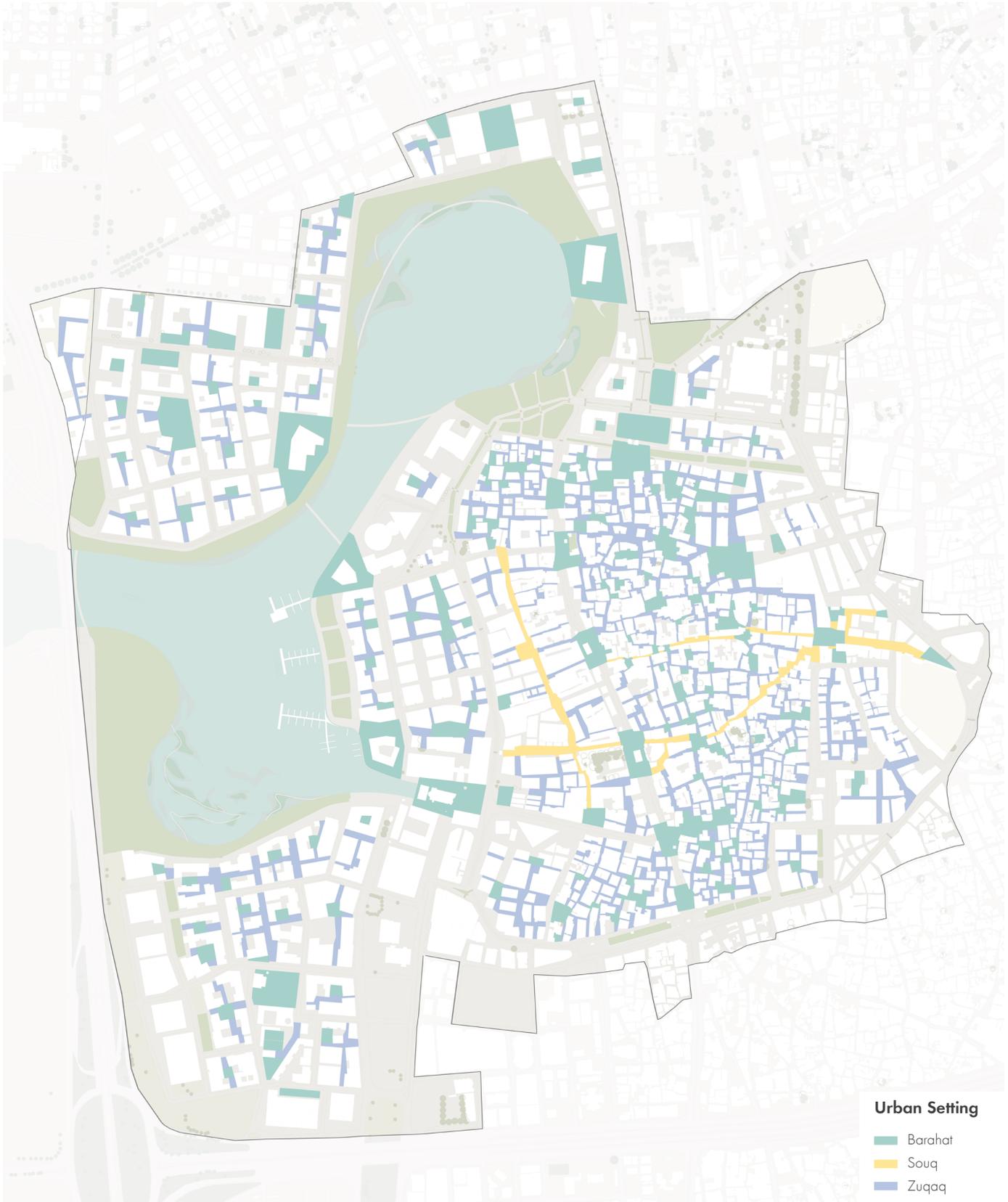
D15.3 Colonnade with 1:1.5 ratio



D15.4 Corbelled/chamfered corners, taken from the plot area.

## 2.6 Urban Setting

The following guidelines require buildings to support the public realm according to their urban setting (adjacent street and open space types). These guidelines apply across all geographic areas.



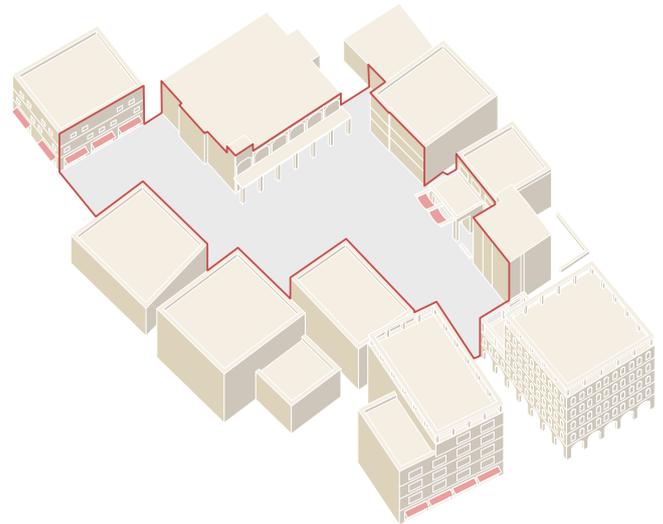
Urban Setting, based on Route Typology Drawing (Al Balad Public Realm Strategy and Design Manual, p.183)

## D16. Response to urban setting

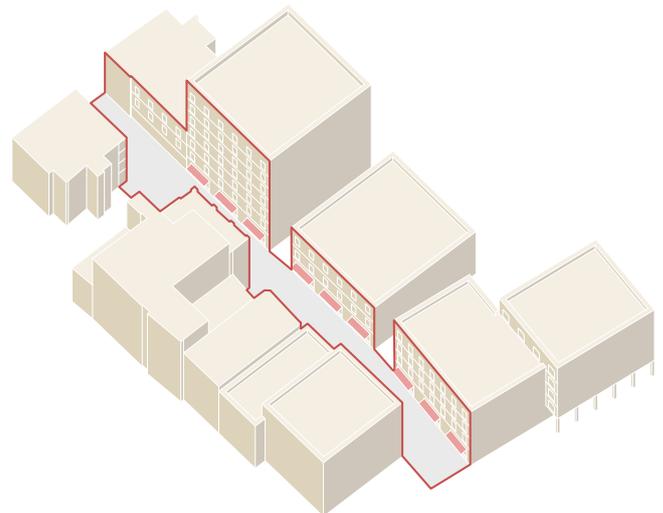
All buildings must respond to their local urban setting. They should support the character of different street and space types.

- 1 Consider the scale, proportion and design of neighbouring buildings, streets and open spaces. Document and consider existing horizontal datums, vertical breaks, massing patterns and prevalent building types.
- 2 On key historic routes, souqs, or in proximity to heritage buildings, new development should employ simple and modern architecture, which does not distract from the quality of historic routes and buildings, nor compete with them.
- 3 **Barahats**- These widenings in the street fabric create urban rooms with a strong sense of frontality and high visibility for buildings situated on them.
  - No service access permitted from barahats.
- 4 **Souqs**- These predominantly retail streets are linear in form, with a consistent rhythm and typological form.
  - Souq frontages should have active ground floor uses. Retail frontages can be complemented by food and beverage, galleries, shops, libraries and other cultural and community oriented uses.
  - No service access permitted from souqs.
- 5 **Zuqaqs**- modest in scale, deferring to souqs and barahats in civic importance.
  - Entrances on zuqaqs should be discrete.
  - Architectural expression should be straightforward and modest.
  - Service access of all types is permitted.

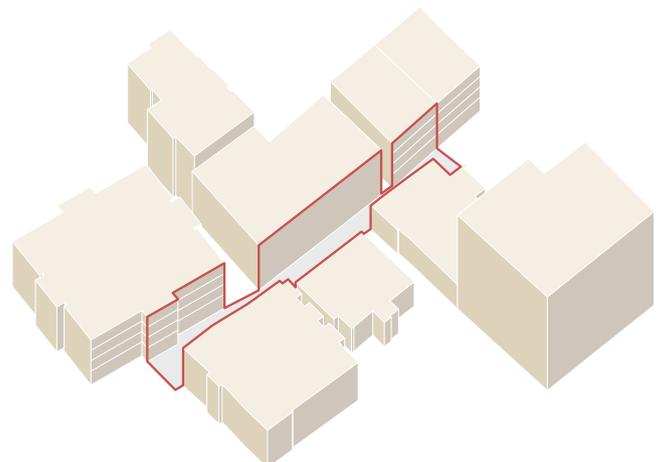
*To create buildings that respond to and support the historic pattern of streets in Al Balad.*



D16.3 Proposed Barahat Bangash



D16.4 Proposed Souq Al Alawi



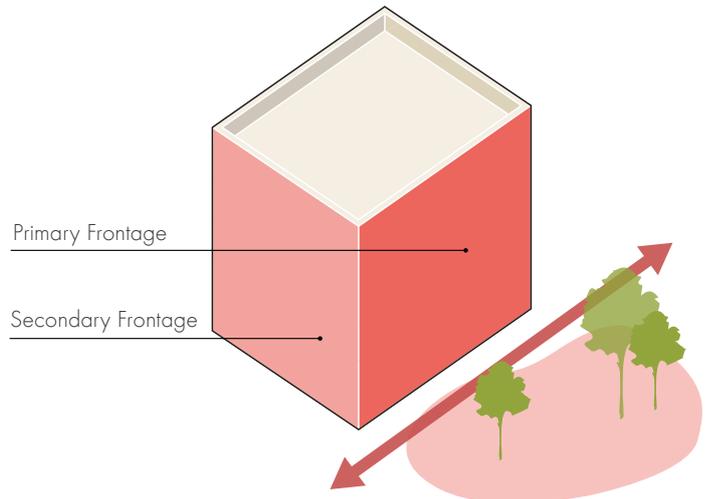
D16.5 Proposed Zuqaq within new waterfront

## D17. Frontage hierarchy

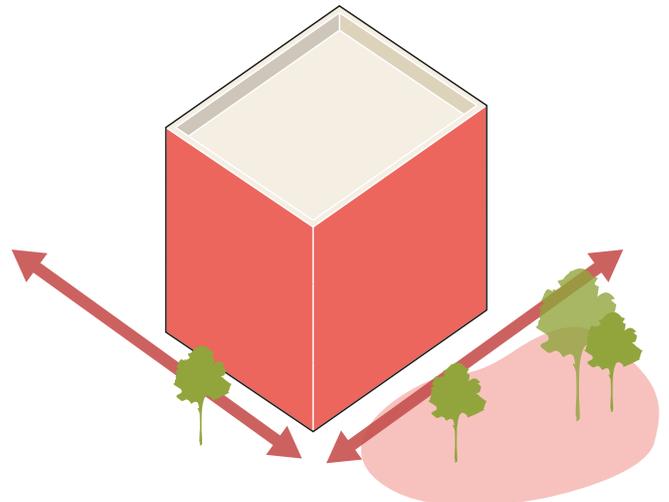
Buildings must have a deliberate and well considered orientation towards the public realm, expressed through a hierarchy of frontages. These should primarily be informed by the urban setting and the importance of spaces that they front onto.

- 1 Primary frontages should have design priority and the most detailed composition, addressing the busiest streets and key routes. Primary frontages should have the largest apertures. Where possible, they should minimise incidental elements (servicing, utilities) that will detract from the overall composition.
- 2 Buildings on block corners or with presence on multiple streets may have more than one primary frontage.
- 3 Secondary frontages should be noticeably subservient to the primary frontage in terms of composition and the number of openings. They may often be interior to urban blocks.

*To create buildings that respond to and support the public realm through a collective sense of orientation.*



D17.1 Denoting primary frontages along key routes or public space

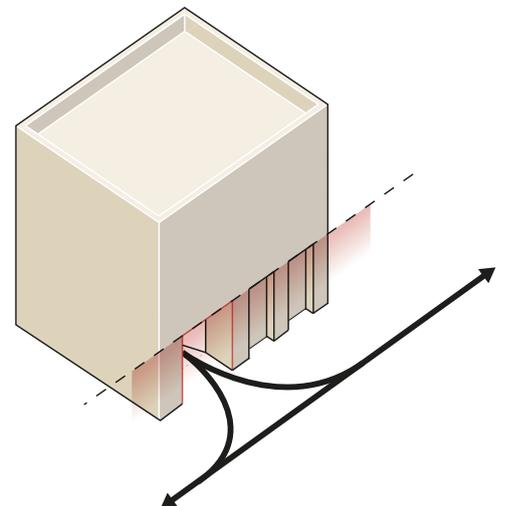


D17.2 Primary frontages on urban block corners, defined by key routes

## D18. Parking and Servicing

Parking and servicing affect the quality of buildings and the streets around them.

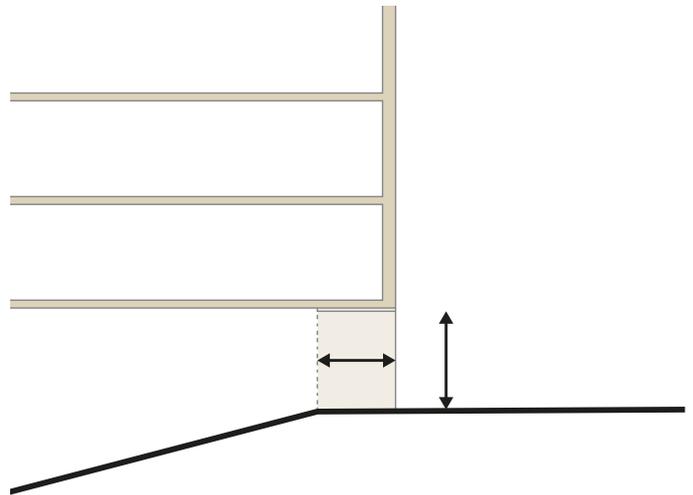
- 1 No new at grade parking is permitted.
- 2 Parking is not permitted adjacent to, or facing Geographic Area 1.
- 3 Where new parking is permitted, basement car parking is encouraged, where possible. Ramp or vehicular access should be integrated into built form to minimise impact on the public realm.
- 4 Parking that compromises pedestrian routes and/or pedestrian permeability with its layout or access is not permitted.
- 5 Large multi-storey car parking buildings, where permitted, should comply with the frontage rules or be surrounded with smaller buildings which reflect frontage rules. (see D11)



D18.3 Basement ramp access integrated into ground floor built form

- 6 Service access should be from secondary or tertiary frontages. Vehicular movements should not compromise the public realm. Reference should be made to the Public Realm Design Manual.
- 7 Any parking visible from the public realm should be screened. Basement parking entrances should return the ground floor façade material into the throat of the ramp to improve the quality of their presentation to the public realm.
- 8 Observe prohibitions in D16.

*To support frontage hierarchy and the quality of the public realm.*



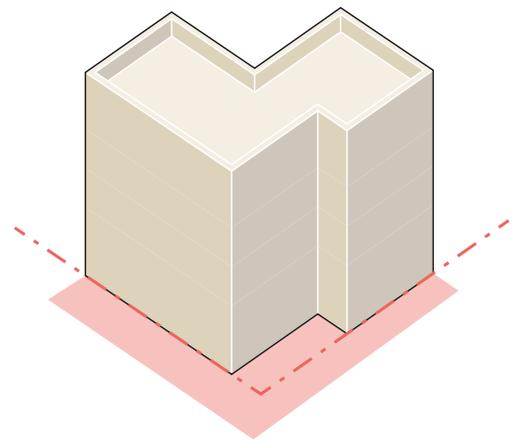
D18.7 Material return around reveal of basement opening. Height matched to the ground floor of the built form.

## D19. Public realm integration

Developments should be well integrated with the surrounding public realm. Unless the proposed landscape is isolated in visual and/or access terms with agreement from the JHD, the following points apply:

- 1 Hardscape materiality between public and private realms should be compatible and complementary.
- 2 Steps, slopes, curbs and other vertical transitions should be well-integrated and free of safety hazards.
- 3 All integration with the public realm should be seamless, demarcation of public and private space if required, should be minimal.
- 4 The base of buildings and private on-plot landscaping should make a co-ordinated transition to the public realm.
- 5 Large developments may need to contribute to the improvement of the surrounding public realm, at the discretion of JHD.

*To improve the coherence of the private realm with the public realm.*

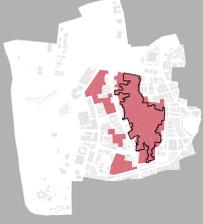
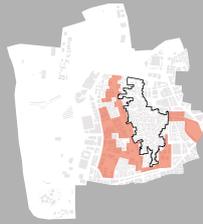


D19.3 Seamless integration of the public realm up to the building façade.

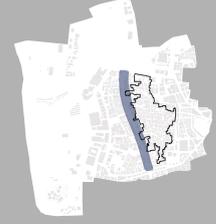
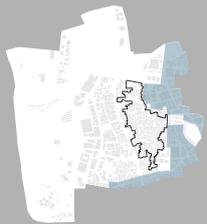
## 2.7 Parameter Tables

These tables summarize the parameter requirements for each geographic area. Details of each are given in Sections 2.3-2.7.

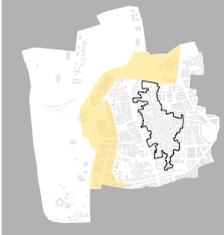
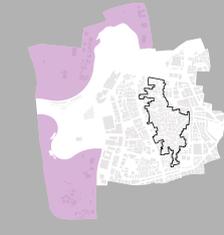
**Table 1** Parameters for Geographic Areas 1 and 2

ID	PARAMETER	GA 1 REQUIREMENTS	GA 2 REQUIREMENTS
			
D1	<b>Plot boundary</b>	Established by ownership boundaries, or Al Balad masterplan work. Any variation agreed with JHD.	Established by ownership boundaries, or Al Balad masterplan work. Any variation agreed with JHD.
D2	<b>Urban block</b>	Should adhere to historic or Al Balad masterplan. 80m max length.	Should adhere to historic or Al Balad masterplan. 80m max length.
D3	<b>Street wall alignment</b>	Should adhere to historic.	Should adhere to historic or Al Balad masterplan.
D4	<b>Plot coverage</b>	Minimum 80% of plot area (+/- 5%).	Minimum 70% of plot area (+/- 5%).
D5	<b>Defining heights</b>	D7 takes precedence over D8.	D7 takes precedence over D8.
D6	<b>Nasseif House Datums</b>	No additional metrics.	No additional metrics.
D7	<b>Height relation to heritage buildings</b>	No additional metrics.	No additional metrics.
D8	<b>Street wall top maximums</b>	Maximum of 22m above ground, or Nasseif House SWT datum, whichever is lower.	Maximum of 22m above ground, or Nasseif House SWT datum, whichever is lower.
D9	<b>Variety of street wall top height</b>	No additional metrics.	No additional metrics.
D10	<b>Rooftop elements</b>	Maximum 30% of floorplate area below. Maximum 4m above SWT (1 storey), or Nasseif House Rooftop element datum, whichever is lower.	Maximum 45% of floorplate area below. Maximum 4m above SWT (1 storey), or Nasseif House Rooftop element datum, whichever is lower.
D11	<b>Development frontages</b>	Frontage segment 15m maximum.	Frontage segment 20m maximum.
D12	<b>Vertical breaks</b>	All permitted, subject to adhering to appropriate architectural language.	All permitted, subject to adhering to appropriate architectural language.
D13	<b>Building façades</b>	No additional metrics.	No additional metrics.
D14	<b>Projecting elements</b>	Roshan/ Bay projection 0.5m minimum - 1.2m maximum Veranda and balconies 1.5m maximum	Roshan/ Bay projection 0.5m minimum - 1.2m maximum Veranda and balconies 1.5m maximum
D15	<b>Recessed elements</b>	Main entrances should be recessed. No colonnades or overhangs permitted.	Main entrances should be recessed. No colonnades or overhangs permitted.
D16	<b>Response to urban setting</b>	No additional metrics.	No additional metrics.
D17	<b>Frontage hierarchy</b>	No additional metrics.	No additional metrics.
D18	<b>Parking and servicing</b>	Grade parking not permitted. Underground parking allowed if vehicular access is located outside boundary of GA1. Servicing not permitted on primary façades.	Parking not permitted facing GA 1. Basement car parking encouraged. Servicing located away from primary façades.
D19	<b>Public realm integration</b>	No additional metrics.	No additional metrics.

**Table 2** Parameters for Dahab Street and Geographic Area 3

ID	PARAMETER	DAHAB STREET REQUIREMENTS	GA 3 REQUIREMENTS
			
D1	<b>Plot boundary</b>	Established by ownership boundaries, or Al Balad masterplan work. Any variation agreed with JHD.	Established by ownership boundaries, or Al Balad masterplan work. Any variation agreed with JHD.
D2	<b>Urban block</b>	Should adhere to historic or Al Balad masterplan. 80m max length.	Should adhere to historic or Al Balad masterplan. 80m max length.
D3	<b>Street wall alignment</b>	Should adhere to historic or Al Balad masterplan.	Should adhere to historic where possible
D4	<b>Plot coverage</b>	Minimum 80% of plot area (+/- 5%).	Minimum 70% of plot area (+/- 5%).
D5	<b>Defining heights</b>	D7 takes precedence over D8.	D7 takes precedence over D8.
D6	<b>Nasseif House Datums</b>	No additional metrics.	No additional metrics.
D7	<b>Height relation to heritage buildings</b>	D7.2 does not apply.	No additional metrics.
D8	<b>Street wall top maximums</b>	Maximum of 22m above ground, or Nasseif House SWT datum, whichever is lower.	Maximum of 22m above ground, or Nasseif House SWT datum, whichever is lower.
D9	<b>Variety of street wall top height</b>	No additional metrics.	No additional metrics.
D10	<b>Rooftop elements</b>	Maximum 60% of floorplate area below. Maximum 8m above SWT (2 storeys), or Nasseif House Rooftop element datum, whichever is lower.	Maximum 45% of floorplate area below. Maximum 4m above SWT (1 storey), or Nasseif House Rooftop element datum, whichever is lower.
D11	<b>Development frontages</b>	Frontage segment 20m maximum.	Frontage segment 35m maximum.
D12	<b>Vertical breaks</b>	All permitted, subject to adhering to appropriate architectural language.	All permitted, subject to adhering to appropriate architectural language.
D13	<b>Building façades</b>	No additional metrics.	No additional metrics.
D14	<b>Projecting elements</b>	Roshan/ Bay projection 0.5m minimum - 1.2m maximum Veranda and balconies 1.5m maximum	Roshan/ Bay projection 0.5m minimum - 1.5m maximum Veranda and balconies 1.5m maximum
D15	<b>Recessed elements</b>	Colonnades encouraged.	Main entrances should be recessed.
D16	<b>Response to urban setting</b>	No additional metrics.	No additional metrics.
D17	<b>Frontage hierarchy</b>	No additional metrics.	No additional metrics.
D18	<b>Parking and servicing</b>	Parking not permitted facing GA 1. Basement car parking encouraged. Servicing located away from primary façades.	Parking permitted without compromising pedestrian routes, basement parking encouraged Servicing not permitted on primary façades.
D19	<b>Public realm integration</b>	No additional metrics.	No additional metrics.

**Table 3** Parameters for Geographic Areas 4 and 5

ID	PARAMETER	GA 4 REQUIREMENTS	GA 5 REQUIREMENTS
			
D1	<b>Plot boundary</b>	Established by ownership boundaries, or Al Balad masterplan work. Any variation agreed with JHD.	Established by ownership boundaries, or Al Balad masterplan work. Any variation agreed with JHD.
D2	<b>Urban block</b>	Should adhere to historic or Al Balad masterplan. 80m max length.	Should adhere to Al Balad masterplan. 80m max length, see D2.5. Exemption see D2.6.
D3	<b>Street wall alignment</b>	Should adhere to historic where possible.	Should adhere to historic where possible.
D4	<b>Plot coverage</b>	Minimum 50% - 60% of plot area (+/- 5%).	Minimum 50% - 60% of plot area (+/- 5%).
D5	<b>Defining heights</b>	D7 takes precedence over D8.	D7 takes precedence over D8.
D6	<b>Nasseif House Datums</b>	No additional metrics.	No additional metrics.
D7	<b>Height relation to heritage buildings</b>	No additional metrics.	No additional metrics.
D8	<b>Street wall top maximums</b>	27m max above ground, or Nasseif House SWT datum, whichever is lower.	31m max above ground.
D9	<b>Variety of street wall top height</b>	No additional metrics.	No additional metrics.
D10	<b>Rooftop elements</b>	Maximum 60% of floorplate area below. Maximum 8m above SWT (2 storeys), or Nasseif House Rooftop element datum, whichever is lower.	Maximum 60% of floorplate area below. Maximum 8m above SWT (2 storeys).
D11	<b>Development frontages</b>	Frontage segment 35m maximum.	Frontage segment 40m maximum.
D12	<b>Vertical breaks</b>	All permitted, subject to adhering to appropriate architectural language.	All permitted, subject to adhering to appropriate architectural language.
D13	<b>Building façades</b>	No additional metrics.	No additional metrics.
D14	<b>Projecting elements</b>	Roshan/ Bay projection 0.5m minimum - 1.5m maximum Veranda and balconies 1.5m maximum	Roshan/ Bay projection 0.5m minimum - 1.5m maximum Veranda and balconies 1.5m maximum
D15	<b>Recessed elements</b>	No additional metrics.	No additional metrics.
D16	<b>Response to urban setting</b>	No additional metrics.	No additional metrics.
D17	<b>Frontage hierarchy</b>	No additional metrics.	No additional metrics.
D18	<b>Parking and servicing</b>	Parking permitted without compromising pedestrian routes, basement parking encouraged Servicing not permitted on primary façades.	Parking permitted without compromising pedestrian routes, basement parking encouraged Servicing not permitted on primary façades.
D19	<b>Public realm integration</b>	No additional metrics.	No additional metrics.

- 1 GENERAL PRINCIPLES
- 2 DEVELOPMENT PARAMETERS**
- 3 ARCHITECTURAL DESIGN
- 4 INAPPROPRIATE DEVELOPMENT
- APPENDICES



# ARCHITECTURAL DESIGN

**Does the project demonstrate well-considered architectural design?**

- A1-3** Is the character of the building suitable for its location, supported by research and design?
- A4** Is the design sustainable and sensible for the local climate?
- A5** Are all architectural elements real and functional?
- A6-8** Does the building contribute positively to the townscape and setting of Al Balad?
- A9** Are materials and ornamentation handled skilfully?
- A10** Is the general impact of the architectural design positive?

## 3 ARCHITECTURAL DESIGN

### 3.1 Evaluating Design

This section lists the general requirements of architectural design and describes the evaluation criteria for approval.

#### A1. Appropriate location

The chosen architectural character for a project should conform to the recommendations in Section 3.2, Table 3.2. which describes the suitability of each character to each Geographic Area.

- 1 Characters recommended for a Geographic Area are indicated by a solid circle.
- 2 Characters indicated by a hollow circle are permissible in a Geographic Area, after site-specific assessment and agreement with JHD. Proposals should be of exceptional architectural quality, especially in zone 1 and the Nominated property.
- 3 Characters with an X indicator in a row should not be used in that Geographic Area.

*To clarify and differentiate the urban fabric around Al Balad, and to preserve the quality of the UNESCO nominated property.*

#### A2. Faithful expression

There should be a focussed application of character to each specific project.

- 1 Do not mix multiple characters in an eclectic fashion. Choose one character only.
- 2 Observe and comply with the general characteristics described in the introduction of the relevant character (see guideline E0 in sections 3.4, 3.5 and 3.6).

*To prevent the dilution of character and the proliferation of historical pastiche in Al Balad.*

#### A3. Background research

Designers should be well informed on the historical character and building types to which their proposal belongs.

- 1 Justify the design proposal by providing high-quality precedents in photographic form, and citation of authoritative documents and studies.
- 2 Justify the design proposal by illustrating assessments of alternative options and provide the rationale for the chosen proposal.

*To raise the level of design discussions in the approvals process.*

#### A4. Responsive design

The design of buildings must be suitable to the regional climate of Al Balad, minimizing the use of energy and resources in the delivery of comfortable buildings.

- 1 Observe specific methods of climate response described in each character type (see guideline section E0.6).
- 2 Refer to recommendations and strategies in 'Chapters 5-9: Environment' of the [Al Balad Regeneration and Development Plan, Part 3: Masterplan Infrastructure](#) (2019).

*To promote the sustainable use of resources in Al Balad.*

## A5. Functional elements

All architectural elements should be functional and non-superfluous.

- 1 Architectural elements should have real purpose, contributing to the climatic or technical performance of a building. For example, shutters should be operable, providing shading and privacy for interiors.
- 2 Architectural elements should not engage in fakery or be applied in a superficial manner. For example, the use of imitation materials or fake masonry coursing to convey artificial status upon a building.

*To reinforce the substance and authenticity of architecture in Al Balad.*

## A6. Building base element review

Buildings should be systematically and comprehensively assessed from bottom to top. The ground level of a building has the most impact on the quality of the public realm.

- 1 Building base design should be robust, civic-minded, and of the highest design priority.
- 2 Where they are used, the requirements of base elements E4 to E7 should be met.

*To contribute to the character and quality of pedestrian experience in the surrounding streets.*

## A7. Building middle element review

The second segment of the bottom-to-top review. Middle elements form the bulk of building façades and the major visual component of streetwalls.

- 1 The composition of façades should consider the character and composition of neighbouring buildings, to contribute positively to the cumulative effect on the street-wall and townscape.
- 2 Where they are used, the requirements of middle elements E11 to E15 should be met.

*To create attractive and coherent streetwalls and townscapes.*

## A8. Building top element review

The third segment of the bottom-to-top review. The tops of buildings interface with the sky, creating skylines and roofscapes that define urban character.

- 3 The composition of roof elements should consider the roofs of the surrounding buildings, to contribute positively to the cumulative effect on the overall roofscape.
- 4 Where they are used, the requirements of top elements E16 to E19 should be met.
- 5 Comfortable, well proportioned amenity spaces should be provided.

*To create an attractive and coherent roofscape that reinforces the character of Al Balad.*

## A9. Materials and ornament review

Appropriate use of materials and ornamentation reinforce the unique character of a place.

- 1 Material restrictions applicable to specific architectural characters and building elements should be carefully observed.
- 2 Materials chosen should be appropriate for the regional climate.
- 3 Traditional methods of craftsmanship should be revived where appropriate.
- 4 Where they are used, the requirements of elements E20 and E21 should be met.
- 5 Colour palettes used should make reference to and be complementary with the heritage buildings of Al Balad.

*To contribute to the authenticity, the substance, and the material richness of Al Balad.*

## A10. General composition

An assessment should be made on the overall design merits of the project, as well as its impact on the surrounding context.

- 1 Buildings should comply with overall proportion and openings guidance (E0-E3).
- 2 Visual assessments should be made from important views and panoramas through contextual renderings and drawings. Locations should be agreed with JHD.
- 3 Opportunity should be made for more than one iteration of peer review, either through the design review panel or another agreed mechanism.
- 4 All drawings submitted should have sufficient inclusion and accurate representation of the surrounding context to allow proper assessment.

*To improve the quality and quantity of information within application materials. To enable feedback on overall design quality. To encourage local discourse on architecture.*



## 3.2 Architectural Language

Architectural language is comprised of building elements and patterns arranged together to tell the story of a place. The collective story becomes even stronger when it connects with history and geography.

The Al Balad Design Guidelines gathers together a design vocabulary from the living, growing architectural language of Al Balad. It is summarized in three predominant characters as resources for the designer: Vernacular (3.4), Early Modern (3.5) and Contemporary Contextual (3.6). Supporting studies are included in Appendix G.

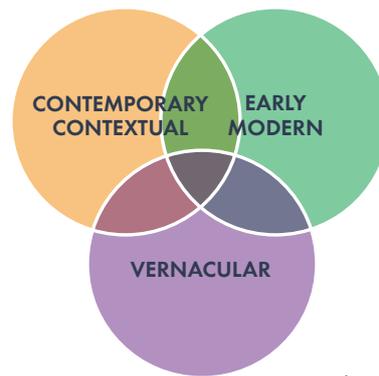
Because the control of architectural elements varies by location and character, compliance with guidelines E0 to E21 are captured within the review process prescribed in Section 3.1, and in compliance checklist items A6 to A10.

### The Living Language of Al Balad

The character of Al Balad cannot be isolated to a single style, method, or historical period. It is the outcome of a rich history of international exchange, intermingling with local craft and climate.

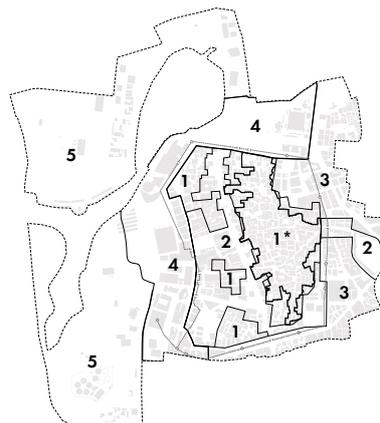
Cultural cross-fertilization and trade has always been evident in the architecture of Al Balad, from the appearance of exotic materials and decor in vernacular buildings, to regional expressions of early modernism, to the international outlook of contemporary design.

With such mixing the norm, this chapter presents three overlapping characters that are prevalent in Al Balad. The characters are explored as a set of elements and compositional principles that future designers can take inspiration from, reshape and adopt. The characters are found in different concentrations depending on geographic area, and so should be applied judiciously according to context; **Table 5** indicates the suitability of each character to each GA. Where a character is not predominant but permissible, it is subject to exceptional design quality and review processes to preserve the value of the surrounding character.



	Vernacular	Early Modern	Contemporary Contextual	
Geographic Area 1	●	○	○	● permitted ○ permitted, subject to exceptional quality X not permitted
Geographic Area 2	●	●	●	
Geographic Area 3	○	●	●	
Geographic Area 4	X	X	●	
Geographic Area 5	X	X	●	

Table 4 Suitability of character in geographic areas



Geographic Areas

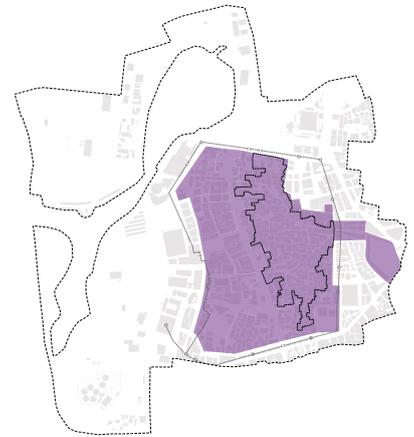


Al Balad accommodates a range of architectural languages

## Three characters of Al Balad

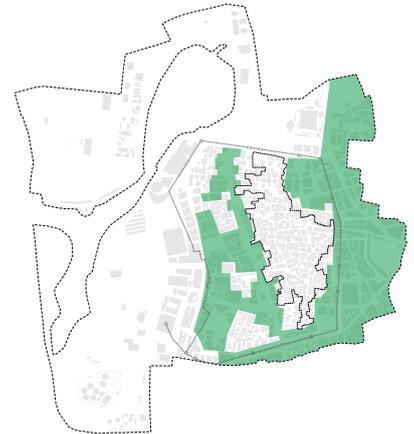
### Vernacular

The core character of Al Balad, stemming from its pre-eminent position on the Red Sea as the gateway to Makkah, leading to distinct building types and architectural expressions related to pilgrimage.



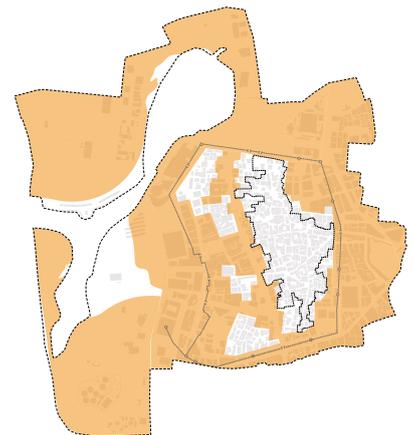
### Early Modern

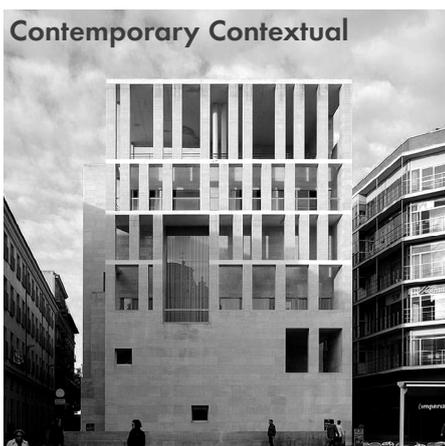
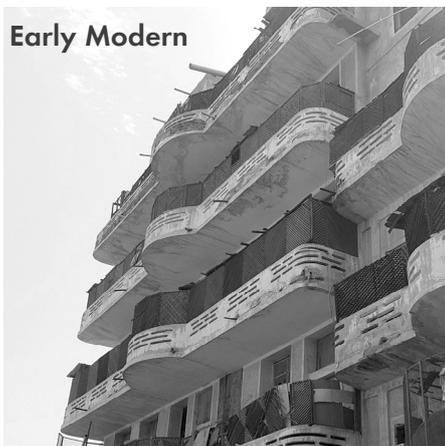
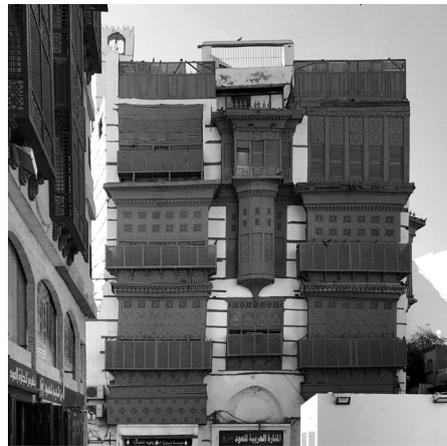
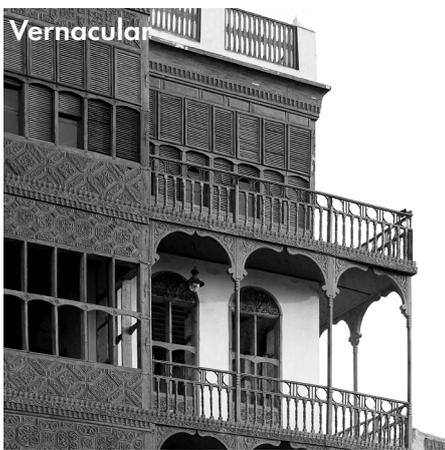
A more recent yet highly significant period of Jeddah's history, early modern architecture captures regional expressions of an international movement and its understanding of progress and advancement.



### Contemporary Contextual

The current state of best-practice when developing near heritage assets and historic artefacts. Contemporary contextual marries deep respect for historic, geographic, cultural and environmental contexts with contemporary methods of design and construction.





## Hijazi Architecture of the Red Sea coast

The western region of Al Hijaz is home to a distinct vernacular style of architecture. It was born out of a long tradition of cultural exchange built on centuries of prosperous trade and pilgrimage to the holy cities of Makkah and Madinah, and honed through adaptations to local geographies and climates.

Historically, the Hijazi style was prevalent in the prominent holy cities of Makkah and Madinah, the port city of Jeddah, and other smaller port towns of the Red Sea. Located between the Hejaz mountains and the Red Sea eastern coast, these places were connected to networks of pilgrimage and trade across the sea and beyond.

These settlements have always been a melting pot where cultures from Asia and Africa met with Arabia. The traditional urban pattern and architecture<sup>1</sup> of Al Hijaz bear notable similarities not only to each other, but to more distant places in Africa and the Arabian Peninsula. Sharing in common the flow of materials and trades, the craftsmanship of the *mashrabiya* of Cairo finds new expression in the *roshan*, and the use of the *giddah* construction module surfaces throughout the region. Most apparent in Jeddah's tower houses, Hijazi architecture is influenced by the brick tower house type found in Yemen.

The local geology and climate helped shape Hijazi architecture. Locally quaried coral '*mangabi*' was the main traditional building material, interspersed with timber '*taklilat*' horizontals providing tensile stability for the walls. However, because of the salty humid coastal air and the brittle nature of the coral stones, it was prone to erosion, and so was typically protected by lime renders and plasters. The render extended the life of the wall, and provided a creamy or white colour that naturally reflected heat from exterior walls.

Though architectural variations exist between towns, dependent upon patronage, topography, materiality and status, sufficient commonalities exist to establish a distinct Hijazi character as summarised on these pages. Understanding the cultural context and the environmental climate is essential for reviving the traditional building culture of the towns and cities along the Red Sea coast.

<sup>1</sup> A wide variety of traditional building types exist in the Hijaz region, ranging from rural tents, stone and adobe buildings. However, with the guideline focus on towns, this section is primarily concerned with urban expressions of Hijazi architecture.



Noorwali House in Jeddah



Al Khateeb House in Yanbu (prior to restoration)



Decorative plaster on the main entrance of a house in Jeddah

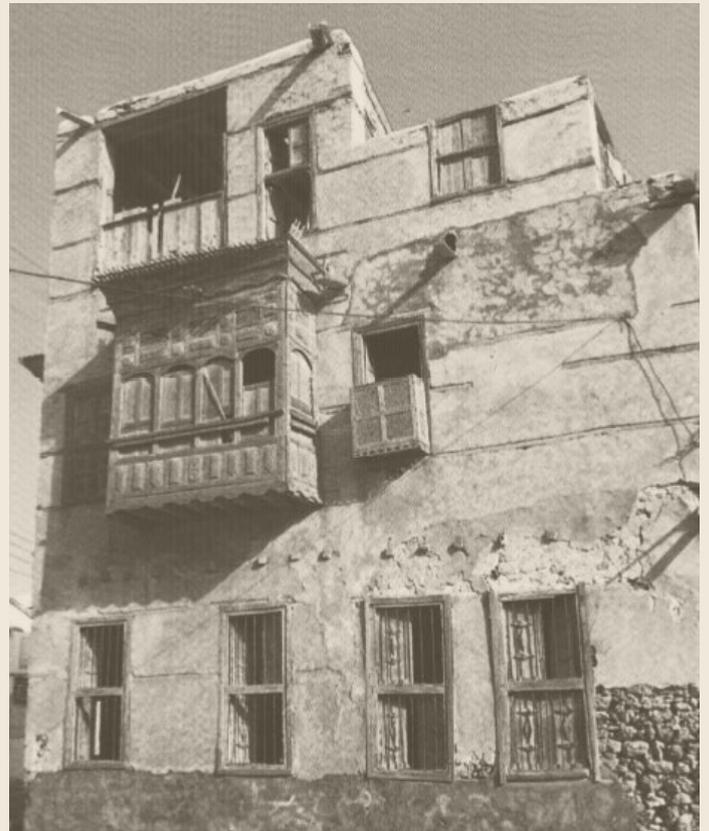
### General characteristics of Hijazi architecture:

- A unique Arab stone building type based on extroverted structures and multi-layered façades often decorated and protected by *roshans* and sometimes reaching seven storeys in height. This is distinct from the courtyard houses of Cairo, Baghdad and Damascus or the brick towers of Sana'a and Shibam.
- Compact building footprints and closely knit urban blocks, creating shaded streets and cooler internal building temperatures.
- Taller buildings and narrow streets, when orientated to the prevailing wind, that draw cool air through the streets, as notable in Jeddah.
- Decorative main entrances, usually arched and recessed, and often surrounded with richly carved plaster reflecting the prominence of the household and of the town.
- Timber projections or *roshans*, often highly decorative with carved privacy screens and structural elements. Wood was a precious commodity imported from afar; its extensive use was a symbol of status.
- Habitable roof spaces, ranging from simple massing with terraces to elaborate *al mabeet* roof-top rooms. Roof spaces were typically protected by tall parapets.

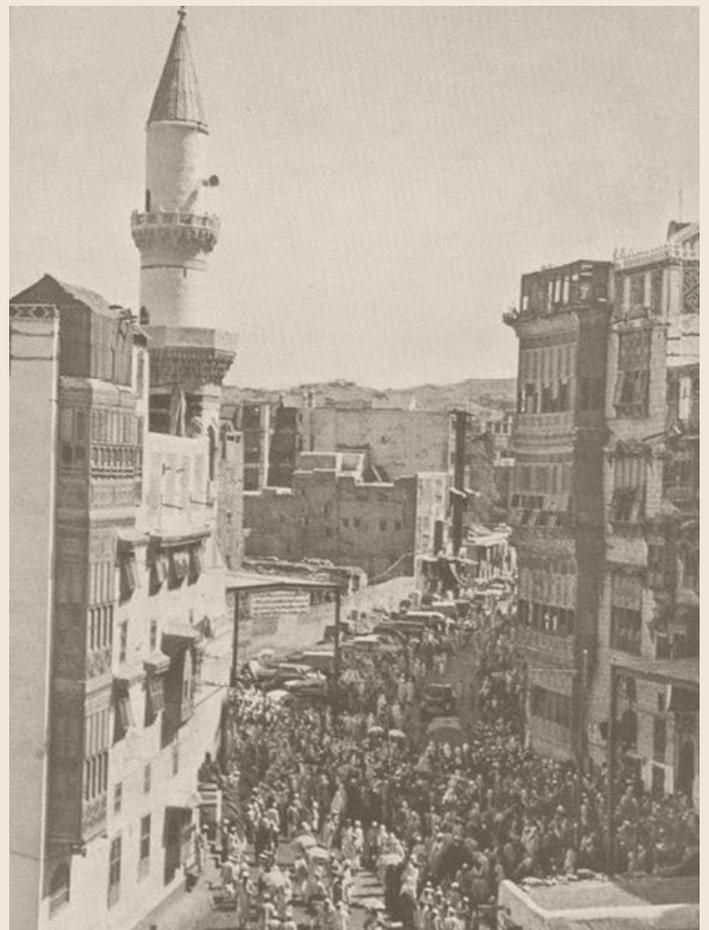
### Local variations:

- The larger Hijazi cities of Makkah and Jeddah had tower-like buildings of up to seven storeys, with vertical layering of private spaces above semi-public and public spaces below.
- Detailed characterisations of historic Hijazi architecture in Jeddah are available from UNESCO nomination files (see select bibliography at the end of this document) and the Al Balad Design Guidelines for Heritage buildings, referred to at the beginning of this document.
- The expression of features in smaller towns are often more modest in scale and detail, though the finest *roshan* in Yanbu compares with those in Jeddah.

*Designers of new buildings must go beyond the superficial application of motifs of the Hijazi vernacular, by understanding the function, craft and climate appropriateness of traditional elements, reinterpreted to suit new functions and types while fitting within its surrounding scale and context.*



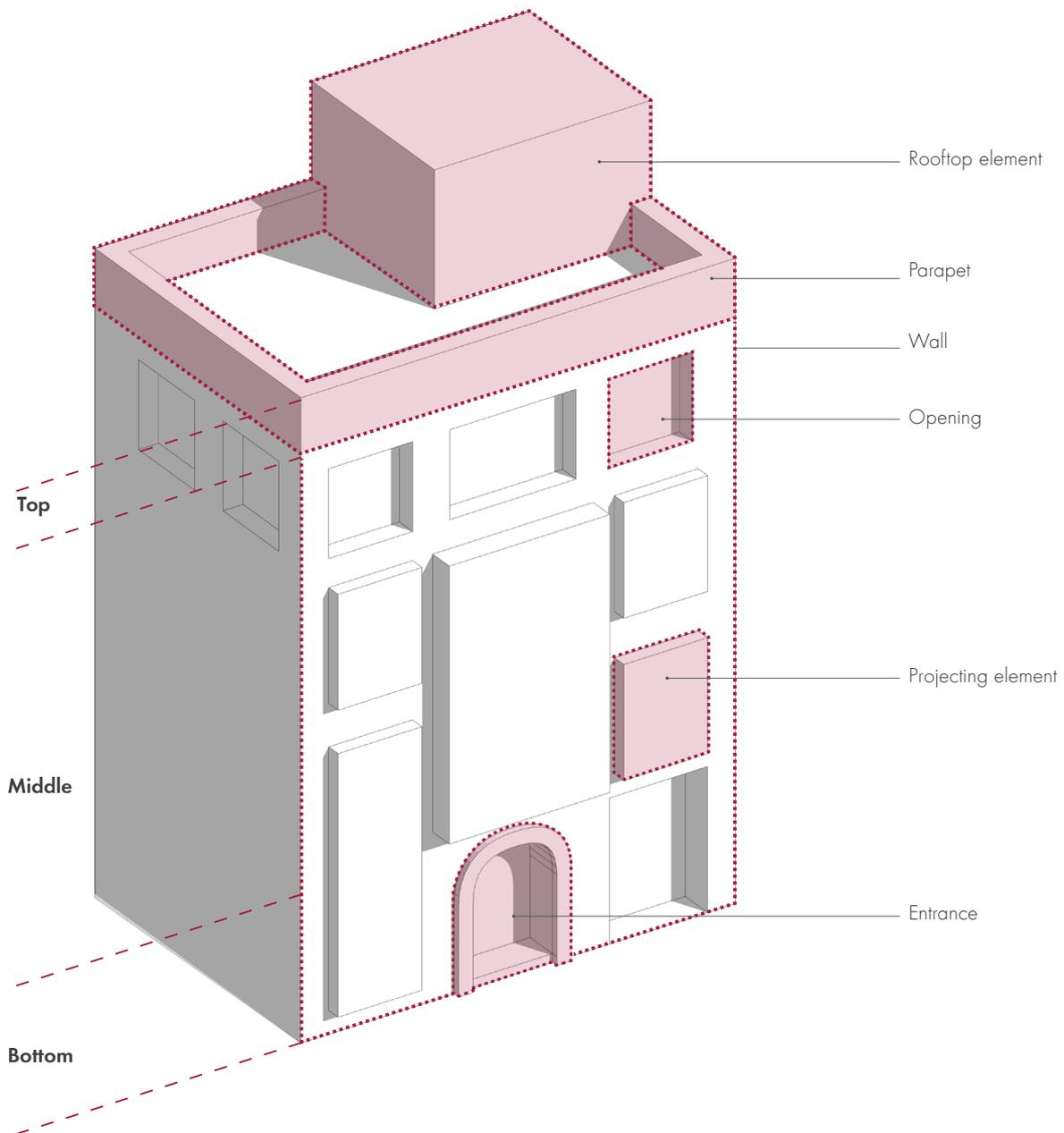
Traditional House in Al Wajh - 1984



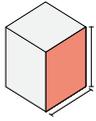
Houses of old Makkah

### 3.3 Architectural Elements Overview and Glossary

Each architectural character (sections 3.4 to 3.6) will be described as a set of architectural elements. The diagram below indicates the general location of these elements on buildings, and the glossary of terms on the facing page provide definitions to be used in the interpretation and application of the guidelines.



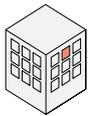
## Overall



**E1 Building proportion**  
 The ratio of building width to building height.

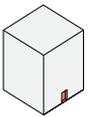


**E2 Window-to-wall %**  
 The percentage of a building façade containing openings, projecting windows, or entrances.

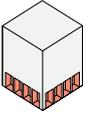


**E3 Opening proportions**  
 The ratio of opening width to opening height.

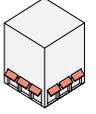
## Base elements



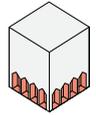
**E4 Entrances**  
 Thresholds between public and private spaces, or exterior and interior spaces.



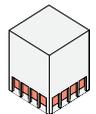
**E5 Shop fronts**  
 Retail or commercial façades, typically at ground level.



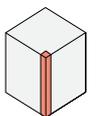
**E6 Awnings/ Shades**  
 Shade structures to reduce solar exposure of windows and doors.



**E7 Arches**  
 Round, pointed, or triangular openings that divert static load of walls above to columns or piers below.



**E8 Colonnades**  
 Protected exterior space formed by a roof or building overhang supported by a row of columns.



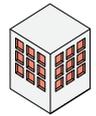
**E9 Corner features**  
 The junction of two exterior walls.

**E10 Building services**  
 Access point needed for building utilities or logistics.

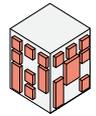
## Middle elements



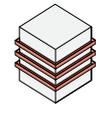
**E11 Wall articulation**  
 Exterior building façade.



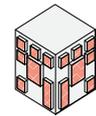
**E12 Fenestration**  
 Openings within the wall.



**E13 Projecting bays**  
 Habitable space projecting outwards from the wall.

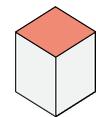


**E14 Projecting verandas**  
 Occupiable exterior space projecting outwards from the wall.

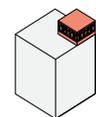


**E15 Shutters/Shading**  
 Decorative infill screen for doors and windows, usually made of interlocking wooden elements.

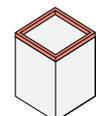
## Top elements



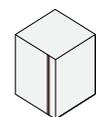
**E16 Roofscape**  
 General massing and roof profile of the top level of buildings.



**E17 Rooftop element**  
 Rooftop pavilions or structures, usually of a lighter construction material than the base building.

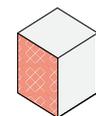


**E18 Parapets**  
 Extensions of perimeter wall above roof level.



**E19 Rainwater management**  
 Spouts, pipes, gutters and leaders on or within façades for the redirection of rainwater.

## Materials and ornamentation

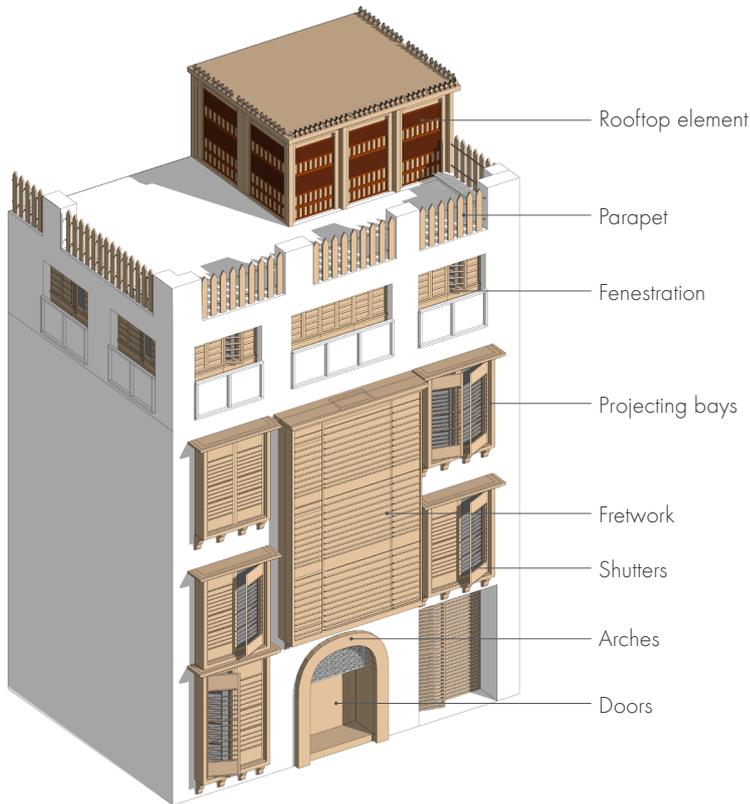


**E20 Pattern**  
 A decorative design applied to a material or element.



**E21 Materiality and Colour**  
 The substance of which a thing is made.

## 3.4 Vernacular



Examples of Vernacular elements, for illustrative purposes only



Nasseif House



Examples of vernacular architecture in Al Balad

### E1. Character summary

The vernacular character of Al Balad owes as much to international elements as to local ones. This pan-geographic condition is embedded within the matrix of its walls. Set in the coral stone from the Red Sea are ornate screens crafted of woods from places as distant as the islands of Java.

Moreover, the form and style of the Al Balad vernacular are a fusion of north, south, east and west. Traces of Egyptian and Persian craft mingle with influences from across the Arabian peninsula. As such, vernacular in Al Balad is not so much a return to a rustic origin, as it is a vibrant synthesis of many cultures brought to by Jeddah's historic role as the maritime gateway to Makkah.

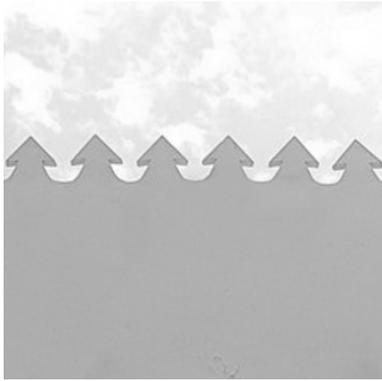
Buildings that wish to connect with the vernacular character of Al Balad should:

- 1 Be informed by the traditional response to the local climate, including the use of passive cooling, natural cross-ventilation, shading and naturally insulating material such as coral stone.
- 2 Be formed of a fine grain of individual buildings that are typically embedded in larger urban blocks.
- 3 Have building façades with an upright, vertical proportion.
- 4 Be composed of simple, solid orthogonal forms extruded directly from the ground, with masonry walls rendered in a light colour.
- 5 Have vertical openings with projecting Roshans or flush shutters and screens, in a dark contrasting colour (typically in lacquered wood).
- 6 Invest in traditional building methods and fine timber craftsmanship.

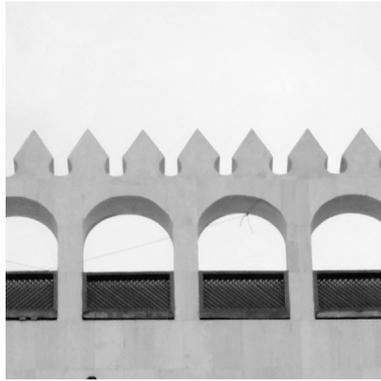
**Table 5** Vernacular elements, character and application

ID	ELEMENT	REQUIREMENTS
<b>GENERAL</b>		
E1	<b>Building proportion</b>	Vertical proportion ranging from: 1:1.2 to 1:1.7. Horizontal proportion by exception ranging from 5:1 to 2:1, if referring to heritage building types of Ribats, Mosques and Souq single storey retail.
E2	<b>Window-to-wall %</b>	30 - 60% of the primary façade should be openings with timber screening and/or Roshan
E3	<b>Opening proportions</b>	Square and vertically rectangular, with width to height ratio between 1:1 and 1:3. Roshans may extend vertically to connect between different floors, or extend horizontally across different openings on the same floor. Roshans may also connect with projecting verandas. Refer to façade studies in appendix G.
<b>BASE</b>		
E4	<b>Entrances</b>	Main entrances may be arched. Entrances should not exceed the ground floor storey, including the surround. Timber should be used for doors and jambs, and may be patterned/carved. Timber ventilation screens and fanlights may be included.
E5	<b>Shop fronts</b>	No rolling shutters. Sideways folding shutters preferred.
E6	<b>Awnings and Shades</b>	Timber. Shades should be sideways folding. Awnings are not permitted.
E7	<b>Arches</b>	Permitted on the main building entrance only.
E8	<b>Colonnades</b>	Not permitted
E9	<b>Corner features</b>	Chamfered and corbelled corners at ground floor level on narrow or busy street intersections are encouraged to improve pedestrian flow.
E10	<b>Building services</b>	To be subservient to main entrances, and located off primary façades.
<b>MIDDLE</b>		
E11	<b>Wall articulation</b>	Timber bands evoking traditional structural articulation is permitted. Conceal conduits, pipes, wiring, junctions and service boxes.
E12	<b>Fenestration</b>	Only timber permitted for frames and screening. Reveals should match historic reveal depths.
E13	<b>Projecting bays</b>	Scale of roshan should reference historic examples, being appropriately sized for the rooms they serve. Non-functional Roshan are not permitted.
E14	<b>Projecting verandas</b>	Timber columns, beams and platforms. Balance between vertical and horizontal emphasis.
E15	<b>Shutters and Shading</b>	Should follow the vernacular language as illustrated within this section. Projecting timber or metal awnings are not permitted.
<b>TOP</b>		
E16	<b>Roofscape</b>	Use as amenity space encouraged.
E17	<b>Rooftop elements</b>	Rooftop rooms (Al Mabeet) encouraged. These should have a high proportion of louvred timber walls to encourage air movement. Temporary fabric shading also permitted. Rooftop elements usually extend across no more than 33% of the frontage
E18	<b>Parapets</b>	May be; Crenelated, decorated, extension of external walls. Could have; Timber fretwork panels. Arched openings etc. For height refer to Development Parameters.
E19	<b>Rainwater management</b>	Integrated rainwater spouts, following the detail of vernacular language, or in internal downpipes within accessible risers.
<b>ORNAMENTATION AND OTHER ELEMENTS</b>		
E20	<b>Pattern</b>	Many elements may incorporate pattern including but not limited to, in timber: projecting bays, and Roshan, projecting verandas, fretwork, doors and surrounds. In plaster: sgraffito focussed on top 2/3rds of GF exterior walls facing busy streets, around main entrances, highlighting features on upper levels, and may be used on decorative string course bands aligned with the building floors, particularly appropriate on high status buildings.
E21	<b>Materiality</b>	Light coloured gypsum finish of external walls with contrasting dark timber work on openings. Building materials should generally be matte finished.

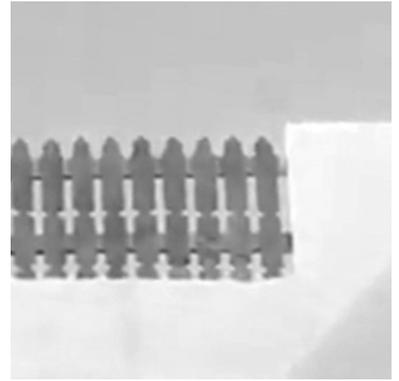
Top



Traditional parapet denticulations



Arched parapet with denticulations



Timber fence parapet



Traditional rooftop element



Traditional rooftop element



Traditional rooftop element

Middle



Typical roshan



Arched fenestration



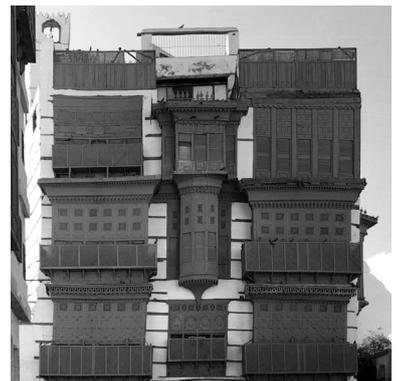
Typical fenestration



Horizontally articulated fenestration



Discretely articulated fenestration



Vertically articulated and projecting fenestration

**Base**



Typical entrance



Ornamented arched entrance



Typical arched entrance



Traditional arch details



Entrance with roshan

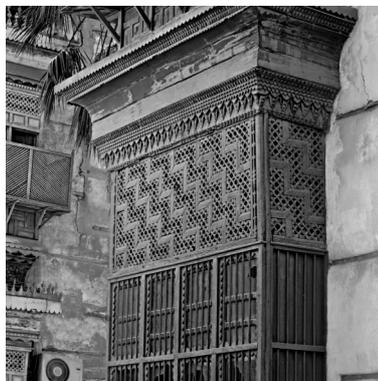


Shop front

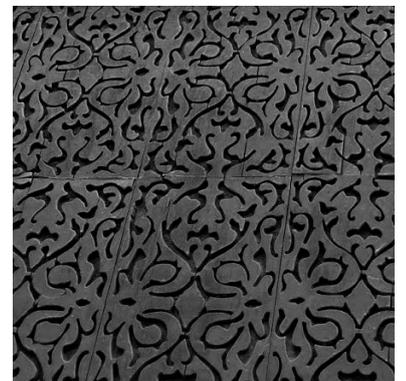
**Ornamentation  
 and other  
 elements**



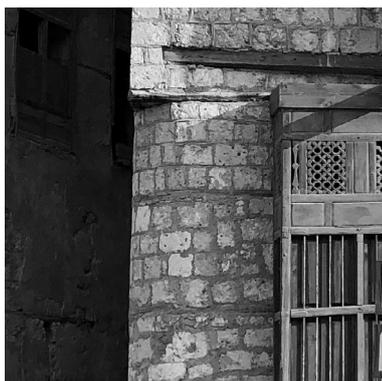
Projecting veranda



Roshan ornamentation



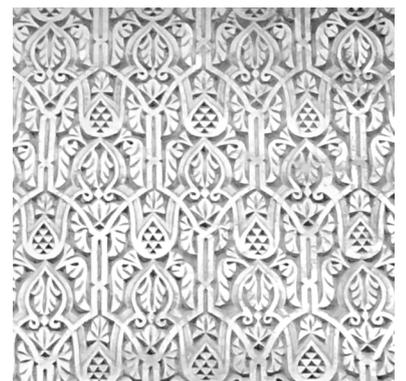
Example fretwork detail



Example corbel detail

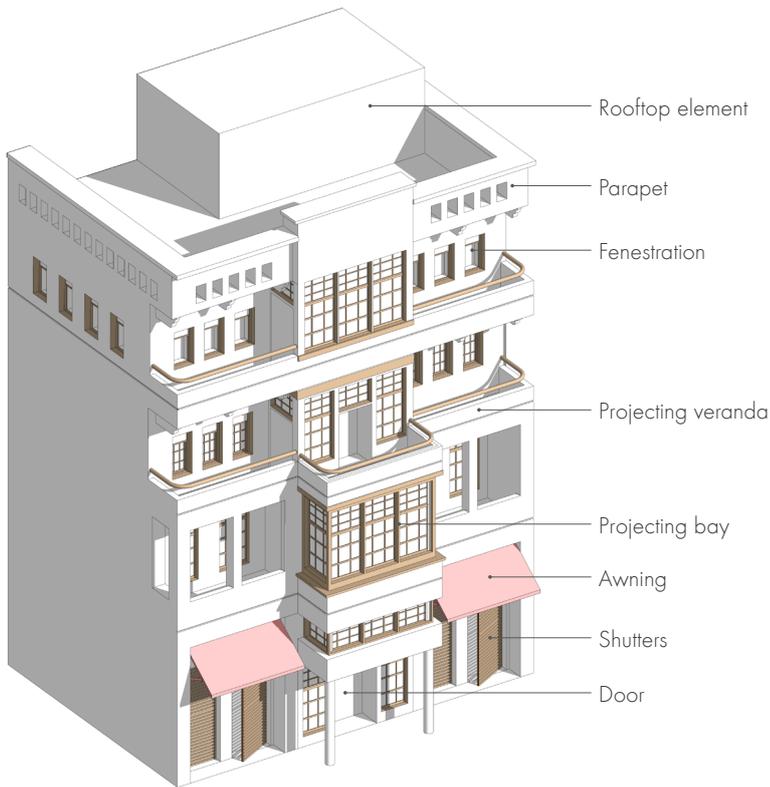


Ornamented entrance



Example masonry detail

## 3.5 Early Modern



Examples of Early Modern elements, for illustrative purposes only



Examples of early modern architecture in Al Balad

### E2. Character summary

The economic expansion driven by the development of the energy sector in the early twentieth century brought along with it buildings with an optimistic, progressive flavour.

Like vernacular buildings before it, the architecture of Islamic modernism is an important historical record of cultural interaction, artefacts of an international movement with unique regional inflections. Despite their more recent provenance, throughout the world buildings of this period are increasingly being recognized for their historical significance and for their formal beauty.

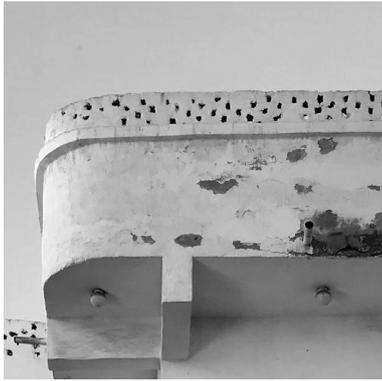
Buildings that wish to connect with the early modern character of Al Balad should:

- 1 Respond to the local climate, including the use of shading screens and projecting cantilevers.
- 2 Typically designed with multiple fronts, as part of urban blocks or as stand alone buildings.
- 3 Have building façades with a horizontal proportion.
- 4 Typically express the structural frame of the building, with an emphasis on the horizontal achieved through ground floor overhangs and cantilevered balconies.
- 5 Have vertical openings that employ framed windows, flush shutters and screens, in a variety of colours from dark wood to light greens and blues.
- 6 Invest in fine timber craftsmanship for shutters, screens and main doors.

**Table 6** Early modern elements, character and application

ID	ELEMENT	REQUIREMENTS
<b>GENERAL</b>		
E1	<b>Building proportion</b>	Generally horizontal proportion ranging from: 2:1 to 4:3, balanced with vertically proportioned openings. In exceptional cases buildings can have a vertical proportion of up to 1:1.25, in cases where the development plot is limited in its width relative to the height of the proposed development.
E2	<b>Window-to-wall %</b>	30 - 50% of the primary façade should have openings
E3	<b>Opening proportions</b>	Vertically rectangular with width to height ratio between 1:1 and 1:3.5. Windows can be occasionally square. Refer to façade studies in appendix G.
<b>BASE</b>		
E4	<b>Entrances</b>	Delineated with columns often in conjunction with projecting verandas/balconies creating a porch.
E5	<b>Shop fronts</b>	No rolling shutters. Sideways folding shutters preferred.
E6	<b>Awnings and Shades</b>	Projecting canopies and awnings
E7	<b>Arches</b>	Not appropriate.
E8	<b>Colonnades</b>	Permitted only along Dahab Street. Columns may be circular or square.
E9	<b>Corner features</b>	Large radius quadrant corners. Minimalist corbels or chamfered when used to facilitate pedestrian flow on busy routes.
E10	<b>Building services</b>	Locate service access on secondary frontages.
<b>MIDDLE</b>		
E11	<b>Wall articulation</b>	Plain, or with horizontal projecting cornices and relief mouldings. Plain projecting string courses may be used to accentuate the horizontal. Conceal conduits, pipes, wiring, junctions and service boxes.
E12	<b>Fenestration</b>	Typically timber window frames and shutters. Window reveal depths to follow historical precedent of Early Modern buildings.
E13	<b>Projecting bays</b>	Bay definition achieved through subdivision of the balconies.
E14	<b>Projecting verandas</b>	Cantilevered verandas and balconies along primary façades encouraged giving horizontal emphasis that is expressed on every floor. May have square or curved corners, may incorporate curved protrusions to delineate the main entrance of the building.
E15	<b>Shutters and Shading</b>	Typically timber inset panels and side hung louvred shutters.
<b>TOP</b>		
E16	<b>Roofscape</b>	Use as amenity space encouraged.
E17	<b>Rooftop elements</b>	Rooftop elements encouraged, to be designed as an extension of the building mass. Light weight shading structures encouraged to support the use of the roof space.
E18	<b>Parapets</b>	Masonry with horizontal emphasis. Projecting cornice or cantilevered masonry shades, may include perforations in the masonry. Metal and timber balustrades may be used in addition to the masonry parapet.
E19	<b>Rainwater management</b>	Well integrated rainwater spouts or internal downpipes within accessible risers.
<b>ORNAMENTATION AND OTHER ELEMENTS</b>		
E20	<b>Pattern</b>	Minimal pattern, masonry may include perforations in parapets at roof level or along verandas and balconies. Decorative painting may be used.
E21	<b>Materiality</b>	Light rendered masonry with timber windows, doors and shutters. Building materials should generally be matte finished.

Top



Example parapet



Example parapet



Example parapet



Example rooftop element



Example rooftop element



Example rooftop element

Middle



Example projecting veranda



Example projecting veranda



Example projecting veranda



Example façade composition



Example façade composition



Example façade composition

Base



Example colonnade



Example colonnade



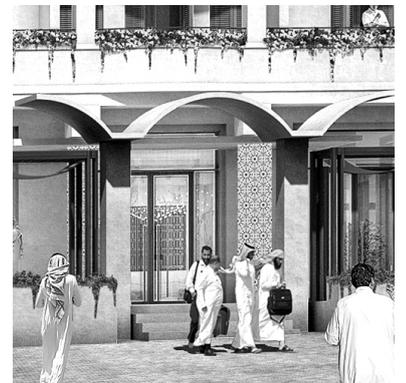
Example colonnaded entrance



Example shop front



Example shop front

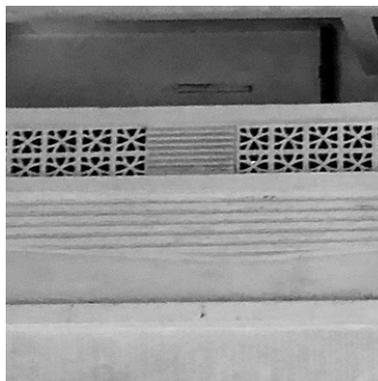


Example entrance

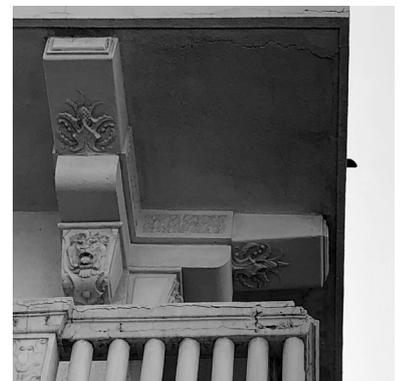
Ornamentation  
and other  
elements



Example balustrade



Example balustrade



Example veranda detail



Example corbel

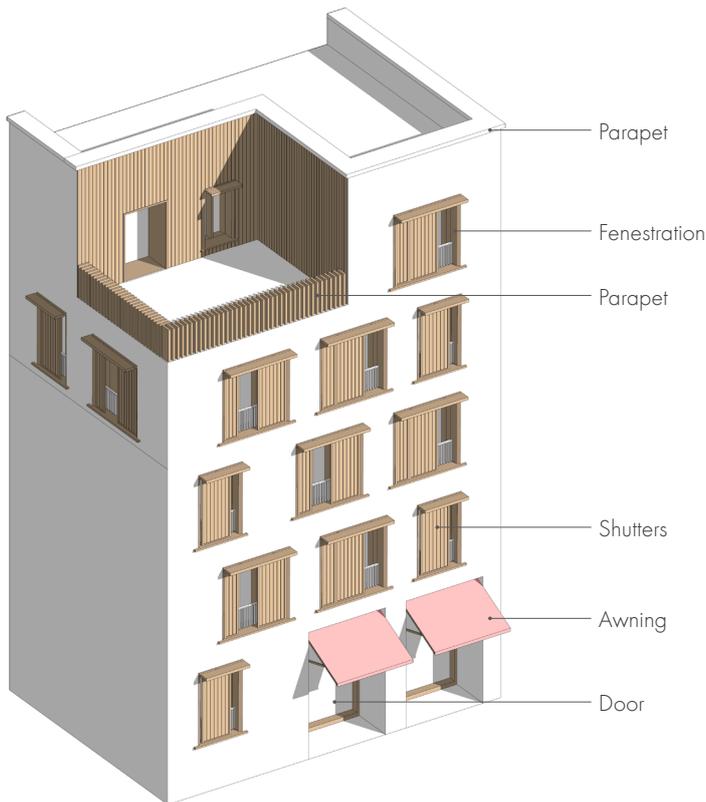


Example veranda detail



Example ornamentation

## 3.6 Contemporary Contextual



Examples of Contemporary Contextual elements, for illustrative purposes only



Paris Housing by Exploration Architects



Visualisation of Contemporary contextual

### E3. Character summary

When creating new buildings near historic artefacts of international significance, the contemporary imagination should be kept in check by a deep respect for all that precedes it.

Due diligence should be made to investigate the potential impact of a development, applying to physical contexts (urban, climatic, topographic, infrastructural) and also social and cultural contexts.

Contemporary contextual developments should:

- 1 Respond to the local climate, including the use of sustainable strategies such as passive cooling, shading and high performance building envelopes.
- 2 Be informed by the grain of the urban setting, as part of urban blocks or as stand alone buildings.
- 3 Have building proportions complementary with the urban setting and the traditional architectural character of Al Balad.
- 4 Inspiration should be taken from traditional Vernacular and Early Modern characters; these references should be abstracted and interpreted in composition, elements and materials.
- 5 Have vertical openings that employ framed windows, shutters and screens.
- 6 Interpret traditional elements with contemporary materials, methods and craftsmanship.

**Table 7** Contemporary contextual elements, character and application

ID	ELEMENT	REQUIREMENTS
<b>GENERAL</b>		
E1	<b>Building proportion</b>	Should be generally vertical, to take reference from adjoining buildings and heritage examples.
E2	<b>Window-to-wall %</b>	Approximately 30-60% of the façade should have openings, drawing on the proportion of precedent buildings in Al Balad. No large areas of glazing permitted.
E3	<b>Opening proportions</b>	Should be generally vertically rectangular, may be occasionally square.
<b>BASE</b>		
E4	<b>Entrances</b>	Entrances should not exceed the ground floor storey, including the surround, can be set in deep reveals, where appropriate.
E5	<b>Shop fronts</b>	Sideways folding shutters preferred.
E6	<b>Awnings and Shades</b>	As required. Awning and housing should be concealed within the façade when in storage position.
E7	<b>Arches</b>	Should reinterpret the traditional use in Al Balad. Should be used to communicate hierarchy, and take reference from existing examples, most appropriate around main building entrances. Should not be over-used resulting in diluting the language.
E8	<b>Colonnades</b>	As required. Encouraged on Dahab Street, contributing to the existing pattern of colonnades along Dahab Street.
E9	<b>Corner features</b>	Square corners, unless at intersection of key routes where chamfered corners at ground floor may be used to improve pedestrian flow, making reference to historic buildings in Al Balad.
E10	<b>Building services</b>	Locate service access on secondary frontages where possible.
<b>MIDDLE</b>		
E11	<b>Wall articulation</b>	Typically plain. Conceal conduits, pipes, wiring, junctions and service boxes. No wall mounted air conditioning units permitted, all plant should be located on the roof. (see A1)
E12	<b>Fenestration</b>	Timber/ aluminium / bronze frames. Potentially using Deep reveals. Screened for solar protection and internal privacy.
E13	<b>Projecting bays</b>	Timber or masonry preferred, square corners. Should reinterpret historic examples rather than reproduce, must be functional.
E14	<b>Projecting verandas</b>	Timber or masonry preferred, square corners.
E15	<b>Shutters and Shading</b>	Screens for solar protection and internal privacy, may be timber, aluminium or bronze. Should employ local craftsmanship wherever possible.
<b>TOP</b>		
E16	<b>Roofscape</b>	Use as amenity space encourage. Conceal rooftop plant and ductwork behind architectural screens; set back from the roof edge to reduce visibility from the street.
E17	<b>Rooftop elements</b>	Rooftop elements encouraged. Light weight shading structures encouraged to support the use of the roof space.
E18	<b>Parapets</b>	Should be well integrated and part of the overall façade composition.
E19	<b>Rainwater management</b>	Well integrated rainwater spouts or internal downpipes within accessible risers.
<b>ORNAMENTATION AND OTHER ELEMENTS</b>		
E20	<b>Pattern</b>	Any pattern should utilise the skills of local craftspeople, and reflect traditional locations for pattern on buildings.
E21	<b>Materiality</b>	Re-stained material palette, rendered masonry, timber, metal. Building materials should generally be matte finished.

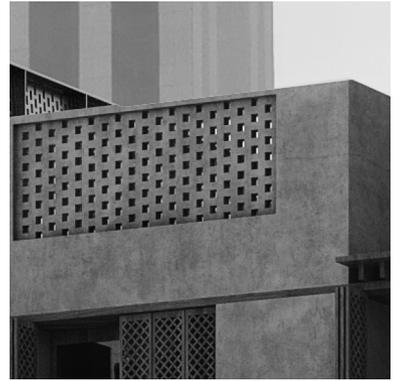
Top



Example framed roofspace



Example parapet with cornice



Example parapet



Example framed rooftop



Example carved rooftop element



Example timber rooftop element

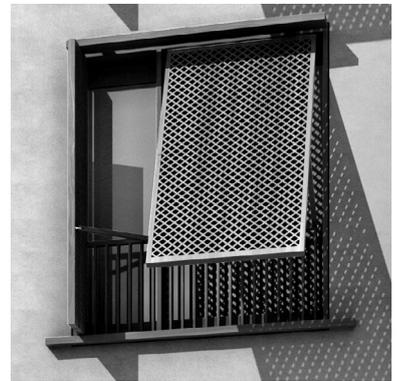
Middle



Example arched fenestration



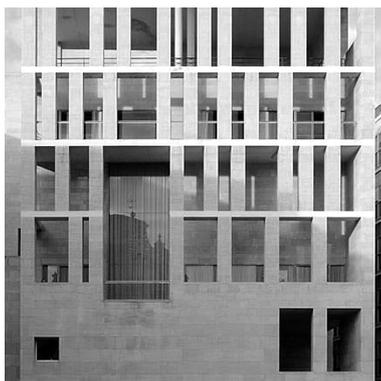
Example fenestration with shutters



Example fenestration with shutter



Example façade composition



Example façade composition



Example façade composition

**Base**



Example active frontage



Example entrance



Example active frontage



Example shop front



Example shop front shutters



Example fixed shade

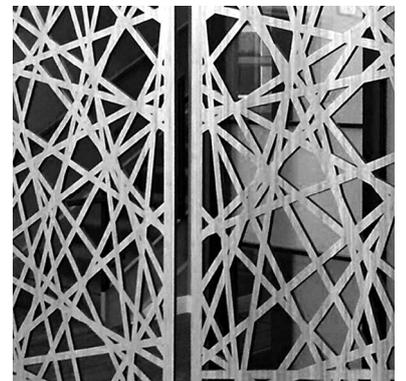
**Ornamentation  
and other  
elements**



Example screen and shading structures



Example shading



Example metal screen



Example screen



Example shutters



Example screen



# INAPPROPRIATE DEVELOPMENT

**Does the project avoid design elements that are detrimental to the setting of Al Balad?**

- X1-2** Does the project create inappropriate urban massing such as plateaus or podia?
- X3-6** Does the project degrade the quality of the public realm by poor ground level design?
- X7** Does project undermine the value of local heritage through poorly executed imitation?
- X8-10** Does the project use building materials inappropriate to the local character and climate?
- X11-13** Does the project ignore the effect that ordinary building details can have on design quality?

## 4 INAPPROPRIATE DEVELOPMENT

This section sets out negative architectural outcomes to avoid, describing the detrimental urban impacts that the design guidelines are working to eliminate.

### X1. Flat urban massing

An urban plateau of uniform building tops is undesirable and works against the stepping roofscape that gives character to Al Balad.

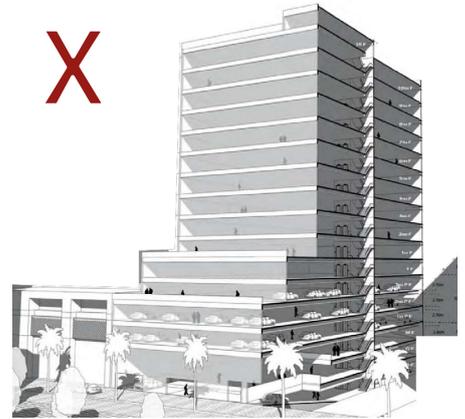
- 1 Guidelines promoting the variation of rooftop massing should be carefully observed.
- 2 Maximum height parameters should never be exploited to their fullest extent across an entire building footprint.



### X2. Podium effect

Though a permitted building type under previous planning rules, large podium buildings have a negative effect on streetscape. The split between base buildings and taller elements disengage the latter from the street and promotes the construction of buildings that are out of human scale.

- 1 Buildings should land on the ground in a straightforward manner and have a proportional relationship with the streetscape.



### X3. Dead frontage

Large extents of blank wall can hinder active street life and feelings of safety. Mitigate dead frontage by:

- 1 Introducing passive surveillance through windows, building entrances, and store fronts.
- 2 Reducing the extent of blank walls and blind corners.
- 3 Providing good lighting design for night-time safety.



#### X4. Extra-long buildings

The presentation of a single, homogeneous, extra-long building frontage on the street can harm the public realm. The monotony of such frontages ignores the historical grain of Al Balad's urban blocks and dulls the pedestrian experience of the street.

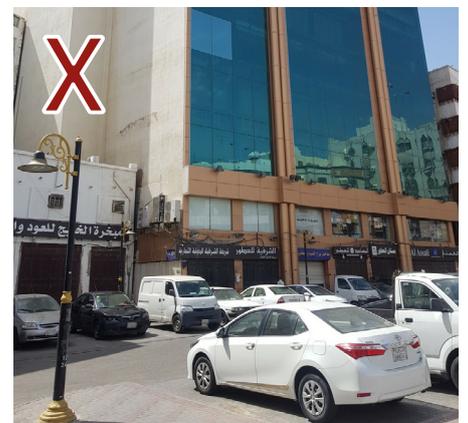
- 1 Observance of block frontage and building façade guidelines should mitigate the impact of extra-long buildings.



#### X5. Front lot parking

The provision of surface parking lots in front of primary building façades is discouraged. Such land use separates building entrances from the public realm and hides them behind a barrier of vehicles.

- 1 Underground, back lot and off-site multi-storey car parking is preferred.



#### X6. Neglected sides

The design neglect of side façades can create disorderly alleyways between buildings that may deteriorate the quality of the public realm and encourage littering and vandalism.

- 1 Buildings should design their side façades with care, in consideration of neighbouring buildings and contributing to a better public realm.



#### X7. Inappropriate traditional elements

The careless copying and poor execution of traditional building elements can undermine the integrity of the UNESCO site.

- 1 All use of traditional building elements should be done with due diligence, backed up by reference to authoritative research and local precedents.
- 2 Fake, non-functioning traditional elements are strictly prohibited (e.g. blind or non-occupiable roshans).



## X8. Glass buildings

Glass buildings and large glass façades are environmentally irresponsible. Reflective surfaces are foreign to the architectural language of Al Balad.

- 1 Avoid the use of large areas of glass in the design of buildings.
- 2 Mitigate the direct exposure of glass to solar radiation by various means of shading.



Mirrored windows and spandrels

## X9. Saturated colours

Al Balad has a distinct colour palette created by local materials, climate and culture. New buildings should respect this palette.

- 1 Avoid highly saturated, artificial colours that create sharp contrasts with the surrounding environment.

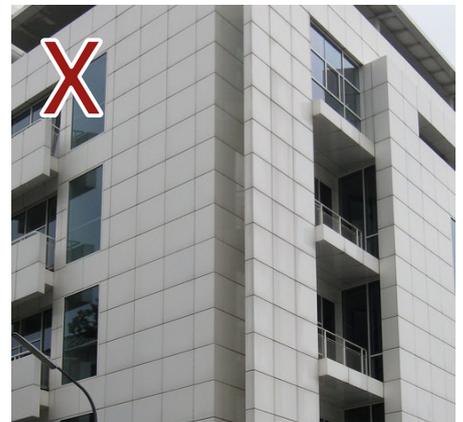


Saturated colour building cladding

## X10. Metal panels

Metal panels fare poorly in maritime conditions and when exposed to extreme solar radiation. They are also foreign to the architectural language of Al Balad.

- 1 Avoid the use of large areas of metal panel in the design of buildings.



Metal clad building façade

## X11. Rolling shutters

Surface mounted rolling shutters and protruding roller housings degrade the architectural quality of street frontages. They are also foreign to the vernacular architectural language of Al Balad.

- 1 In heritage sites and historic areas, use vertical folding shutters.
- 2 Where necessary elsewhere, recessed and hidden rolling shutters should be used.



Exterior surface-mounted rolling shutter

## X12. Exposed building services

Exposed air conditioners and service panels contribute to dead frontages, poor façade design, and rooftop blight.

- 1 Do not install air conditioning units on public frontages at street level; properly drain condensate of overhead units away from the public realm.
- 2 Sufficient on-plot bin storage should be provided, and located away from primary façades. Bin storage should be screened from public view. Screen design should be integrated with the overall façade design.
- 3 Drainage systems should be hidden where possible; When necessary, exposed drainage systems should be located in co-ordination with the overall façade design.
- 4 Service panels should be well integrated into the design and composition of the architecture and landscaping. Visually shield service elements with appropriate materials. Hide or recess conduits.
- 5 Service access should be located on secondary façades.
- 6 Roof plant should be screened from the public realm. Screen design should be of good quality and integrated with the composition of the architecture.



Ad hoc air conditioning units



Surface mounted conduits and pipes



Exposed rooftop plant

## X13. Billboards and large signage

Billboards and large signage impose a commercial quality on the public realm. Their illumination systems contribute to light pollution.

- 1 Billboards and large signage should not be used in Al Balad.





# APPENDICES

**Has the project used all available reference material for the support of good design?**

- A Compliance checklist**
- B Non-heritage refurbishment and renovations**
- C Worked example**
- D Geographic area rationale**
- E Heights rationale**
- F Frontages rationale**
- G Architectural character rationale**
- H Ottoman Map**
- I Select bibliography**

# APPENDICES

## A Compliance Checklist

The compliance checklist is the means by which development proposals will be assessed in a transparent and systematic way.

It provides full coverage of the issues raised in the guidelines to structure review discussions, and clearly indicates the status of the application at each stage of review.

### A.1 Compliance

The following four pages contains a visual specimen of the compliance checklist form that will be used by JHD for the design review of development proposals.

The actual form to be used is an editable Microsoft Excel file, embedded within the link in Chapter 1, page 6; a copy of the checklist can be downloaded by clicking on this link.

The checklist mirrors the structure of the design guidelines. Each guideline has a status box that can be set to one of the following conditions:

- **Compliant**- the project fulfils the requirements of this guideline.
- **Compliant, subject to comments**- the project will fulfil this guideline if the comments are addressed, satisfied and documentary proof submitted to JHD.
- **Non-compliant**- the project fails to meet the requirements of this guideline. Re-design to address these requirements and re-submit.
- **N/A**- this particular guideline is not applicable to this project, and will be ignored in the calculation for design compliance.

The compliance checklist automatically calculates a pass or fail in each of the sections. All four sections must be passed to achieve an overall compliant status.

Guidelines A6, A7 and A8 assess groups of architectural elements, and are approved of or rejected as a group, though comments can be applied to specific elements.

A single compliance checklist should be used for the full duration of a project application. Design review can be an iterative process, with multiple reviews when needed to achieve the desired outcome.

Review panels or JHD officers should fill out the submission and review dates in the Approvals Information section, as these generate time-stamped comment boxes in the checklist.

Comments by the review panel should be entered in the appropriately time-stamped box so that progression can be tracked in subsequent design reviews.

Comments from the review panel are a crucial element of the approvals process, as they may indicate feedback and steps towards achieving compliance for the project.

**Al Balad Design Guidelines for Non-heritage Buildings**  
**Compliance Checklist** (Rev 1.0)

**Insert project name here**

**Project Information** *(filled by applicant)*

Project Address:

Latitude:

Longitude:

Architect:

Applicant:

Geographic Area:

Arch. Language:

**Approvals Information** *(filled by JHD officer)*

Application no: **00000**

Status: **Non-Compliant** Rev. by:

Submission Date:

Review Date 1:

Review Date 2:

Review Date 3:

Approval Date:

ID	Guideline Requirement	Status	Date	Comment	By
----	-----------------------	--------	------	---------	----

1 General Principles					
G1	Protect and enhance heritage				
G2	Repair the urban fabric				
G3	Engage with the public realm				
G4	Respond to the climate				
G5	Make legible the new and the old				
G6	Support craftsmanship				
G7	Accommodate appropriate architectural characters				
G8	Respond to historic elements				
G9	Respond to the waterfront				
G10	Promote inclusive design				

ID	Guideline Requirement	Status	Date	Comment	By
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## 2 Development Parameters

D1	Plot boundary				
D2	Urban block				
D3	Streetwall alignment				
D4	Plot coverage				
D5	Defining heights: street walls				
D6	Nassief House Datums				
D7	Height relation to heritage buildings				
D8	Street wall top maximums				
D9	Variety of street wall top height				
D10	Rooftop elements				
D11	Development frontages				
D12	Vertical breaks				
D13	Building facades				
D14	Projecting elements				
D15	Recessed elements				
D16	Response to urban setting				

ID	Guideline Requirement	Status	Date	Comment	By
<b>3 Architectural Design</b>					
<b>A1</b>	<b>Appropriate location</b>				
<b>A2</b>	<b>Faithful expression</b>				
<b>A3</b>	<b>Background research</b>				
<b>A4</b>	<b>Climate responsive design</b>				
<b>A5</b>	<b>Functional elements</b>				
<b>A6</b>	<b>Base element review</b>				
	E4 Entrances				
	E5 Shop fronts				
	E6 Awnings and shades				
	E7 Arches				
	E8 Colonnades				
	E9 Corner features				
	E10 Building Services				
<b>A7</b>	<b>Middle element review</b>				
	E11 Wall articulation				
	E12 Fenestration				
	E13 Projecting Bays				
	E14 Projecting verandas				
	E15 Shutters and shading				
<b>A8</b>	<b>Top element review</b>				
	E16 Roofscape				
	E17 Rooftop element				
	E18 Parapets				
	E19 Rainwater management				
<b>A9</b>	<b>Materials and ornament review</b>				

ID	Guideline Requirement	Status	Date	Comment	By
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## 4 Inappropriate Development

X1	Flat urban massing				
X2	Podium effect				
X3	Dead frontage				
X4	Extra-long buildings				
X5	Front lot parking				
X6	Neglected sides				
X7	Inappropriate traditional elements				
X8	Glass buildings				
X9	Saturated colours				
X10	Metal panels				
X11	Rolling shutters				
X12	Exposed building services				
X13	Billboards and large signage				

### Summary (for officer use only)

## **B Non-heritage Refurbishments and Renovations**

**Refurbishment and restoration projects are defined as projects where the structure and the envelope of the building already exist and will be retained or upgraded, with no area or height expansions.**

### **B.1 Guideline exemptions**

Refurbishment and renovation projects can be exempt from non-relevant parts of the guidelines. However, exemptions need to be agreed on a case-by-case basis with JHD, depending on the extent of refurbishment and the impact on the surrounding urban context.

For example, a re-cladding project that does not change its massing relationship to the surrounding block may be subject to the following guidelines:

**Section 1-** General Principles: FULL SECTION.

**Section 2-** Development Parameters:

- **D11-** Development frontage
- **D12-** Vertical breaks
- **D16-** Response to urban setting
- **D17-** Frontage hierarchy
- **D18-** Parking and servicing
- **D19-** Public realm integration

**Section 3-** Architectural Language: FULL SECTION

**Section 4-** Inappropriate architecture: FULL SECTION.

The above list is illustrative only; applicable guidelines should be agreed with JHD.

If there are any expansions of area or height to the existing building, the new area of the project must comply with all sections of the Al Balad Design Guidelines for Non-heritage Buildings.

### **B.2 Additional clauses**

Refurbishment and renovation projects are also subject to the following design guideline clauses:

- 1 Demolition should only occur when a building can be shown to be unsuitable for refurbishment or renovation, and if there is no historical merit in it being retained. The retention of existing built structure is preferred.
- 2 Where refurbishments change the architectural character of the building, the character should be appropriate to the geographic area as defined in Chapter 2, and be executed faithfully.
- 3 Refurbishments of modern structures should not use literal recreations of vernacular character elements. For example, the insertion of Roshan structures is inappropriate in refurbishments of modern buildings.
- 4 Where the retained building is of a mass incongruence to Al Balad, a layered façade design can help ameliorate the proportions of the building to its surroundings.

## c Worked Example

The following example shows, step-by-step, how the Development Parameters would be applied to a hypothetical site to determine its maximum building envelope and massing requirements.

The process is illustrated for applicants here to enable them to create contextually sensitive and well integrated developments in Al Balad.

### c.1 Site assessment

**Ensure that you are using the right guidelines for your area.**

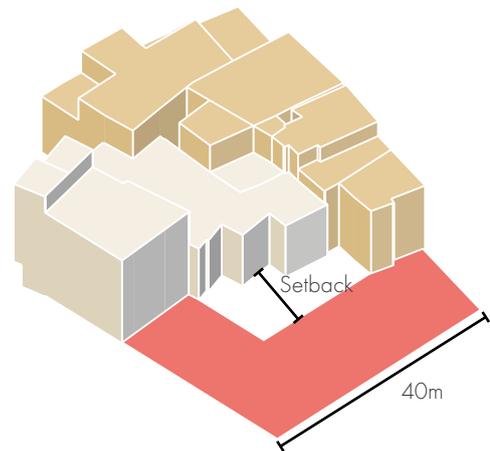
When commencing site design, the applicant must assess which Geographical Area it is located in, as set out in Section 2.1. The example proposal is located on the boundary of GA1 and GA2, and so must follow guidance for the more stringent of the two: GA1, and refer to its criteria as set out in 2.7 Parameter Tables.



### c.2 Urban block definition

**Strengthen the urban block patterns of Al Balad.**

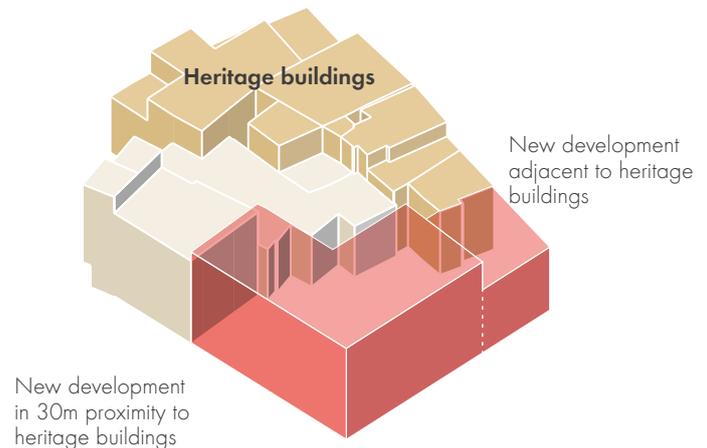
The plot boundary seeks to respect the historic city alignment by completing the urban block (D1 and D2). The development continues the street wall alignment of the adjacent buildings and does not protrude into the public realm (D3). The plot has a reduced plot coverage to create a setback from openings on the adjacent buildings (D4).



### c.3 Height in relation to heritage buildings

**Ensure the proposal respects the heritage buildings of Al Balad.**

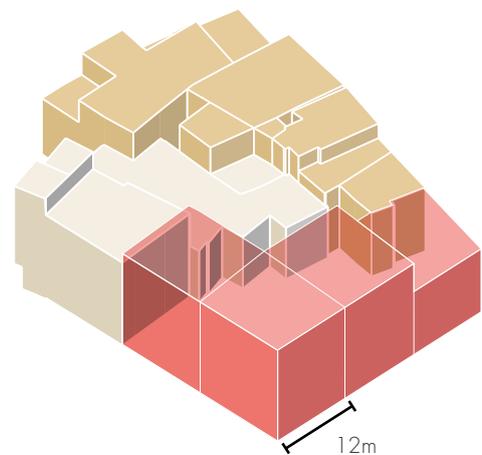
An assessment of adjacent heritage buildings is carried out. Since the development adjoins a 3 storey heritage building, the adjacent building must be a maximum of 3 storeys (D7.1). The area of the development greater than 12m from the adjacent heritage building is allowed to increase in height to match the tallest heritage buildings within 30m (D7.2).



## C.4 Development frontages

### **Integrate your development frontages with the existing urban grain.**

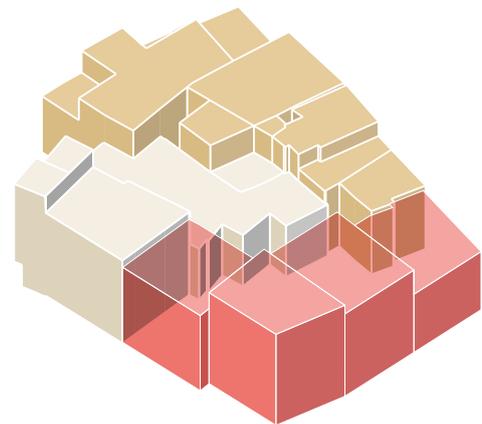
The development is broken up into allowable frontage segments, up to a maximum of 15m for GA1 (D11). Consideration is made to create a variety of frontage segments that match the surrounding urban grain of Al Balad.



## C.5 Vertical breaks

### **Break down the urban form to a human scale.**

The building's massing is further articulated by the emphasis of vertical breaks (D12). For example the corner building's façade steps back on one side and has a change of angle on the other providing additional space to the public realm.

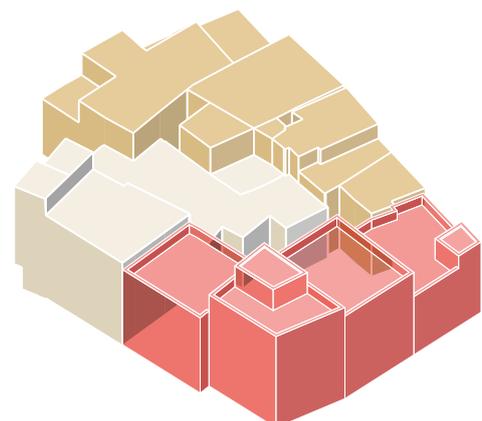


## C.6 Projecting and recessed elements

### **Add visual interest to the pedestrian experience of the streetscape.**

Projecting and recessed elements help create variety along the roofscape and streetwall. Rooftop elements are added according to the guidance in D10.

This process forms a compliant massing envelope within which to develop appropriate architecture.



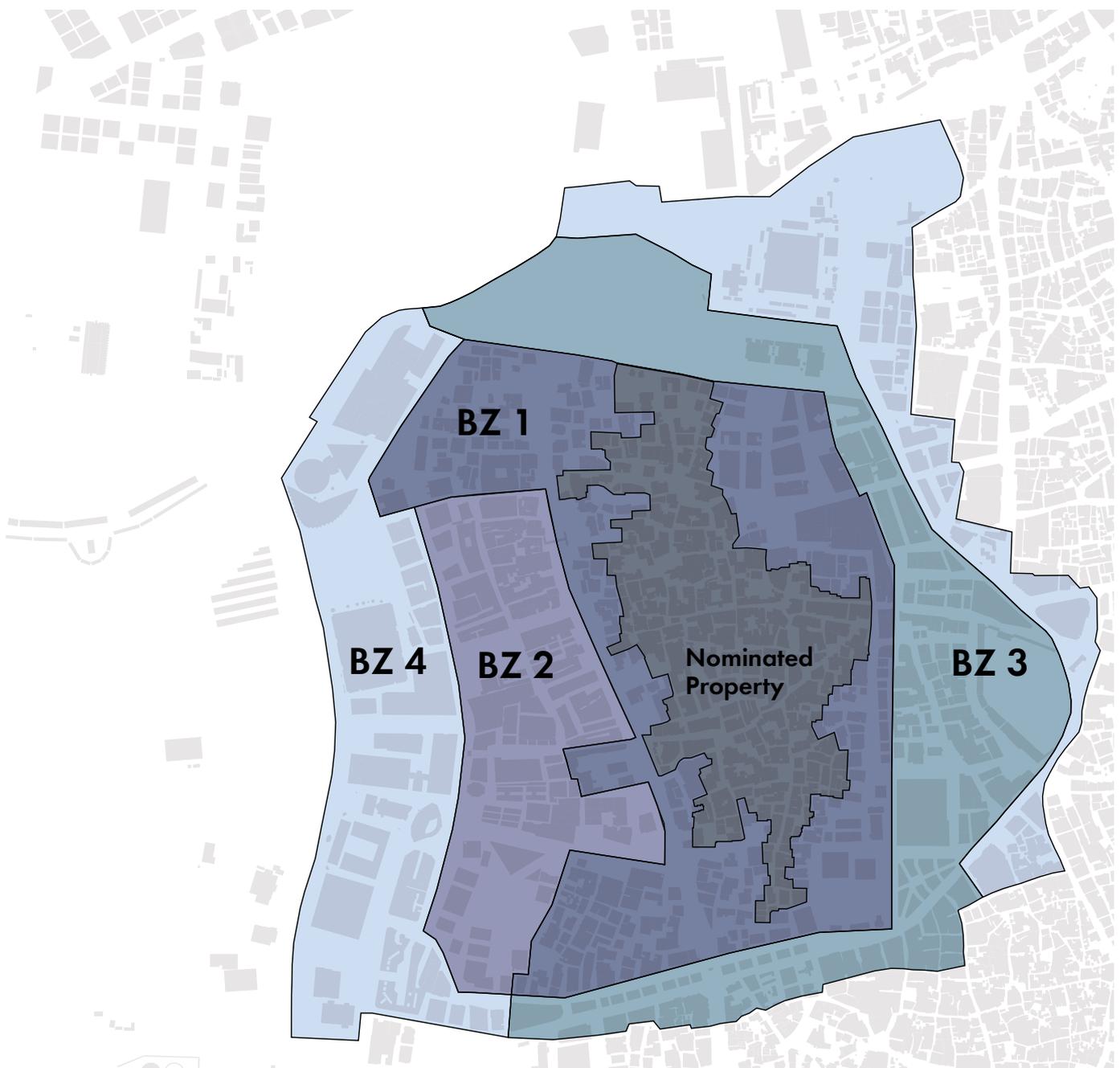
## D Geographic Area Rationale

The Geographic Areas defined for the application of these guidelines are based upon the UNESCO Nominated Property (NP) and Buffer Zones (BZ), with important refinements in boundary definition and organizational rationale.

The UNESCO areas are a series of concentric zones centred upon the Nominated Property containing the highest priority heritage assets in Al Balad. BZ1 and BZ2 are the intramural areas of the old town, with BZ1 containing more extant heritage than BZ2. BZ3 contains extramural urban fabric, with notable

historic assets near Bab Makkah. BZ4 contains newer development, including reclaimed land in the lagoon.

The Geographic Areas (GA) build upon the UNESCO boundaries as follows: GA1 corresponds to the NP, but enlarges upon it by focussing on contiguous

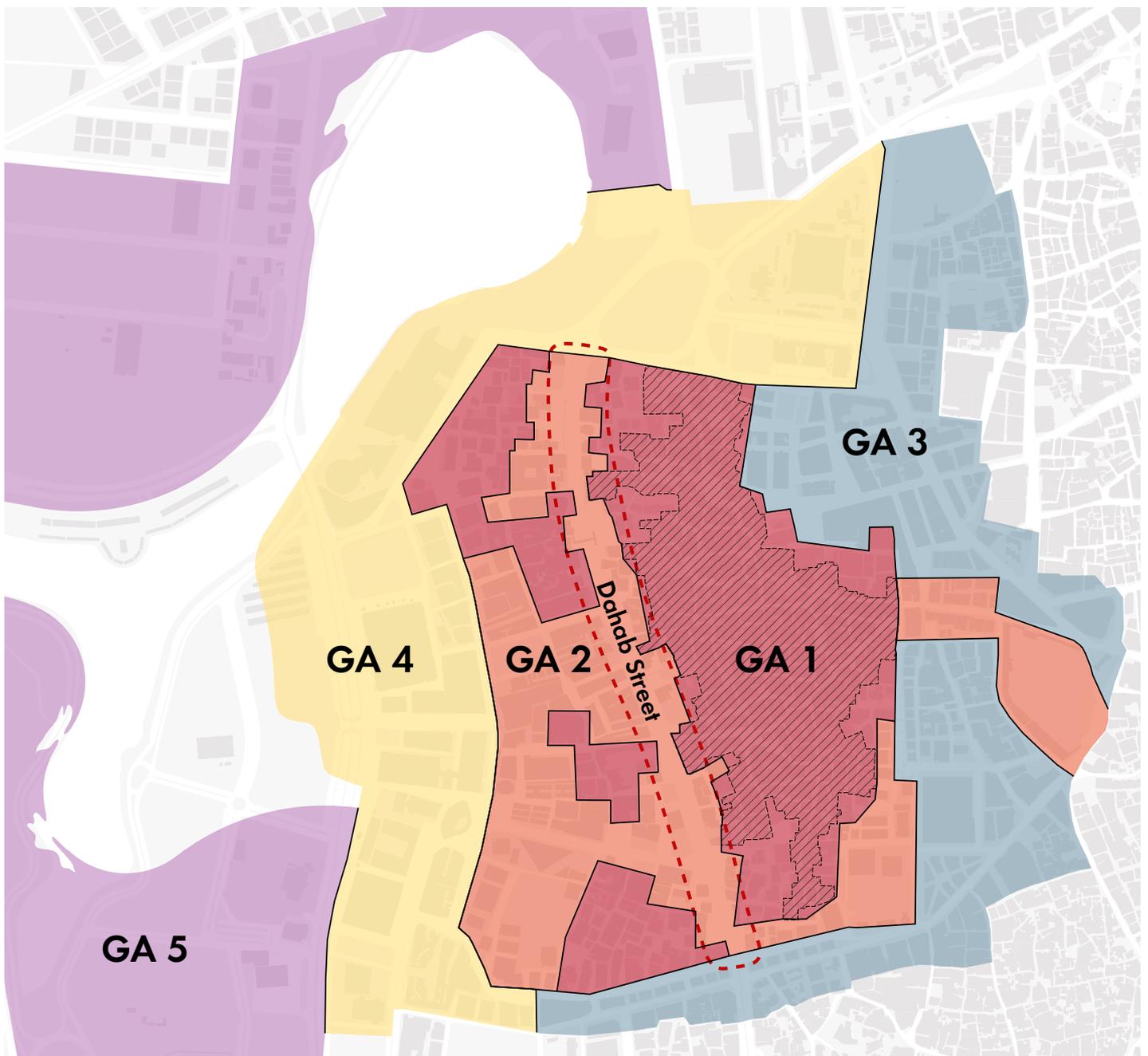


UNESCO Buffer Zones

urban blocks rather than individual properties, and by including important clusters of heritage outside of the NP. GA2 includes area with strong documentary evidence of historic urban fabric, a quality that should be reinstated where possible. Within GA2 is Dahab Street, an area of special design focus to heal the urban divide. GA3 corresponds loosely with BZ3, but now includes areas of significant early modern buildings to the north-east. GA4 has been refined to group larger blocks, contiguous with the old city, facing the waterfront. GA5 contains speculative areas

of development further away across the lagoon. For evidence and further analysis, please refer to the Historical Area Documentation Report (HAK 2019).

GA definition is not intended to replace UNESCO but to allow clearer implementation of the design guidelines.



Al Balad Non-heritage Building Design Guidelines, Geographic Areas

## E Heights Rationale

The basis for height controls in Al Balad are the UNESCO height recommendations and the horizontal datums established by Nasseif House, with modifications according to the character and topography of each Geographic Area.

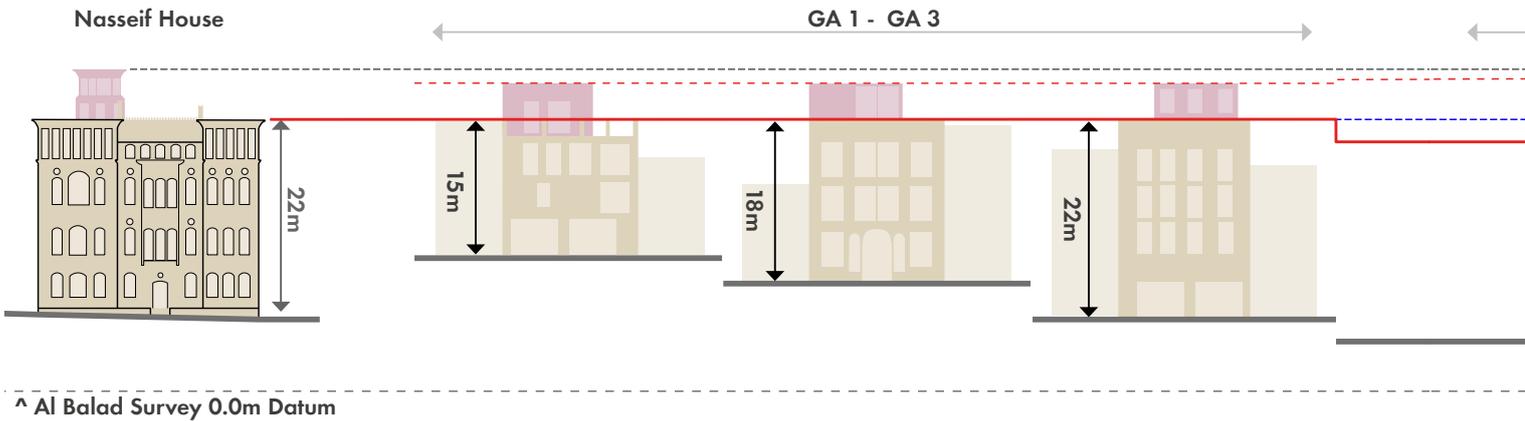


Diagram is illustrative; control dimensions for SWT and RE heights are prescribed in parameter tables, section 2.7.

Development parameters D5-D10, which guide the height of new development, are based on research and previous work by Robert Matthews (1981) and the UNESCO management plan (2013). In these works, the typical range of heights for heritage buildings in Al Balad is stated as 14m-22m, with Nasseif House being the most prominent at 22m to street wall top and its rooftop element at 27.6m above ground.

To maintain the pre-eminence of Nasseif House, it forms an absolute datum height limit across GA1-4, for street walls (30.3m AD) and rooftop elements (35.9m AD). The Nasseif House datums do not apply to GA5.

To maintain the historic scale of streets and the layering effect of buildings set against topography, a street wall height limit of 22m relative to ground levels applies in GA1-3. Higher street walls are permitted in GA4 and GA5, because they are further from the historic core, and because their topographic level is generally lower.

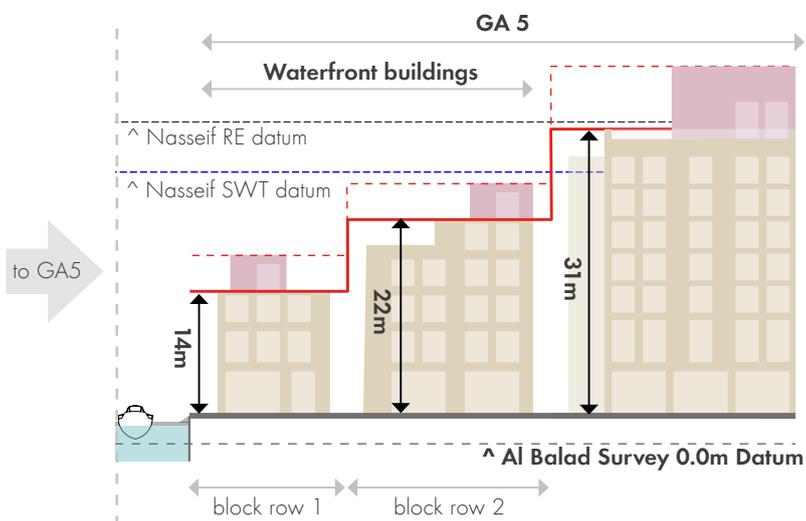
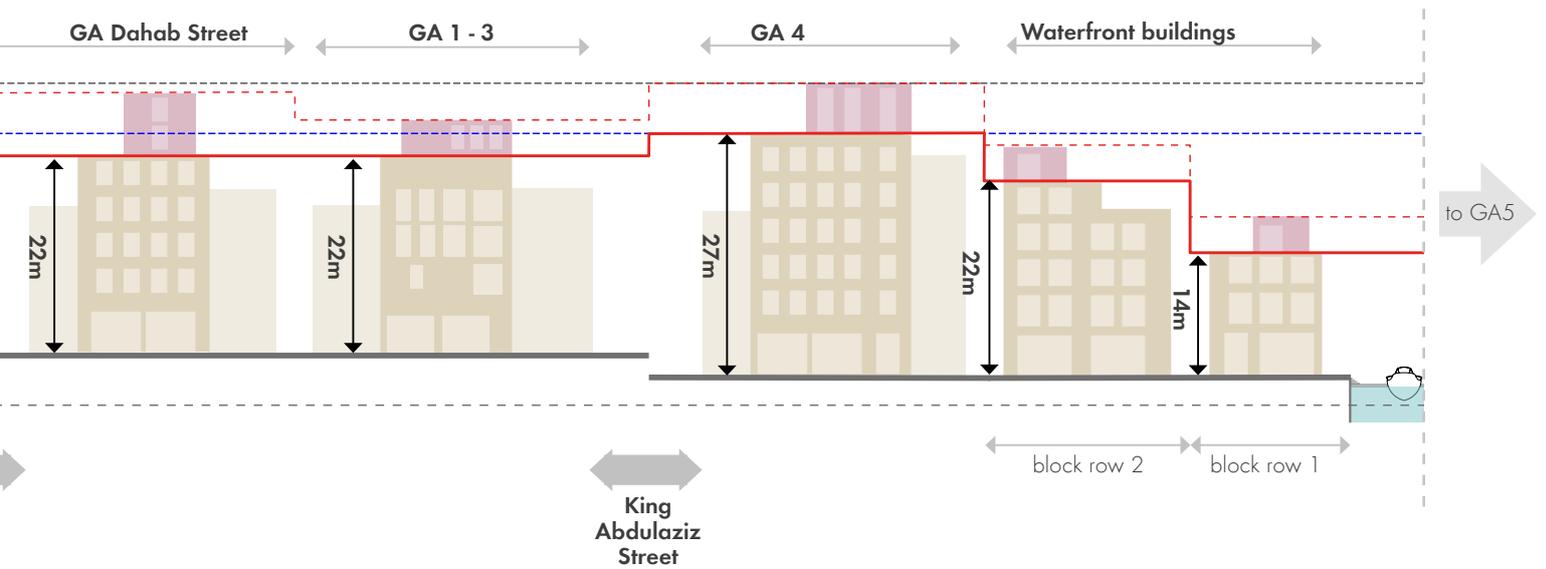
To encourage variation in roofline and a dynamic, stepping roofscape in character with Al Balad, rooftop elements have a smaller footprint and are permitted to go above the street wall top. These allowances are

set in relation to the street wall top, and again, must respect the Nasseif House rooftop element datum in GA1-4 where there is a conflict.

Finally a series of lower street wall limits apply to waterfront buildings in the first two rows of blocks next to the lagoon. This is to create a stepped roofline along the waterfront and to share views of the lagoon deeper into the city.



Topography plan of Al Balad, with Nasseif House highlighted



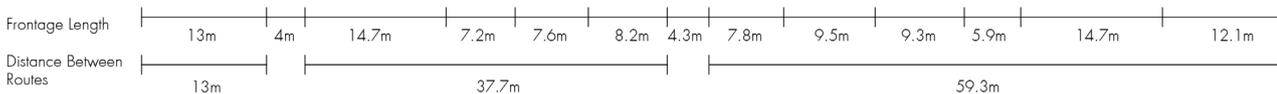
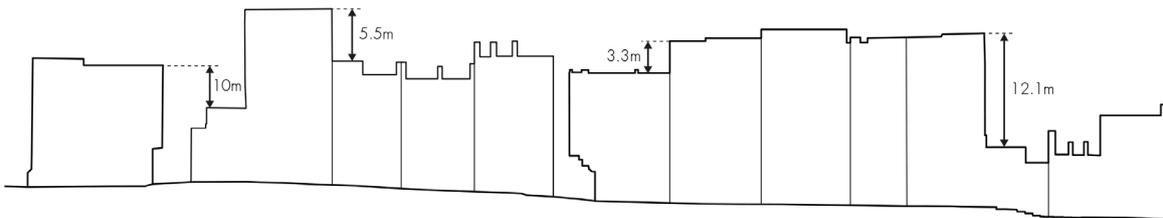
Abstract section illustrating height rules across GA5. This diagram is illustrative only, and is not drawn to scale.

- Nasseif Rooftop datum 35.6m AD
- - - Nasseif SWT datum 30.3m AD
- - - Rooftop element height limit (by GA)
- Street wall top max (by GA)

## F Frontages Rationale

Urban grain varies across Al Balad in relation to its historic provenance, patterns of land division, and predominant building types. As such the development frontage subdivision criteria (see D11) are based on analysis of existing and proposed conditions to create contextually suitable design parameters.

FRONTAGE STUDY - GA1

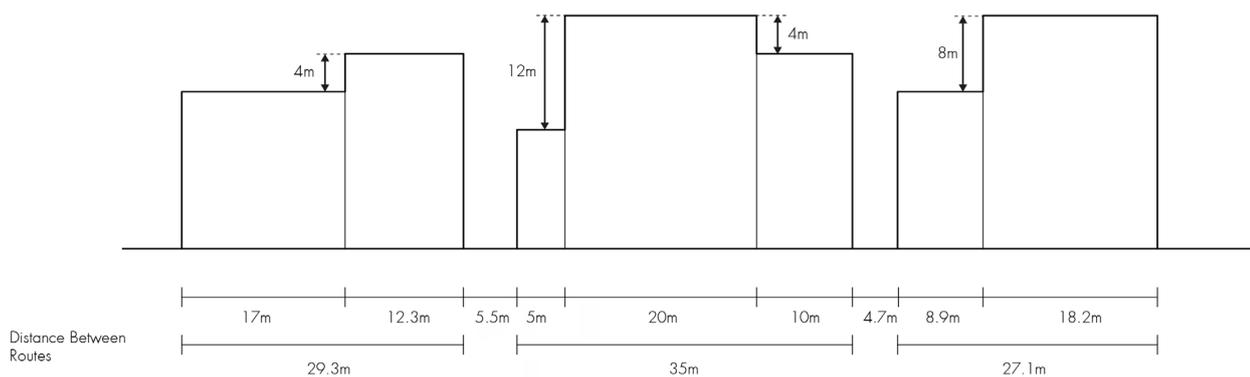
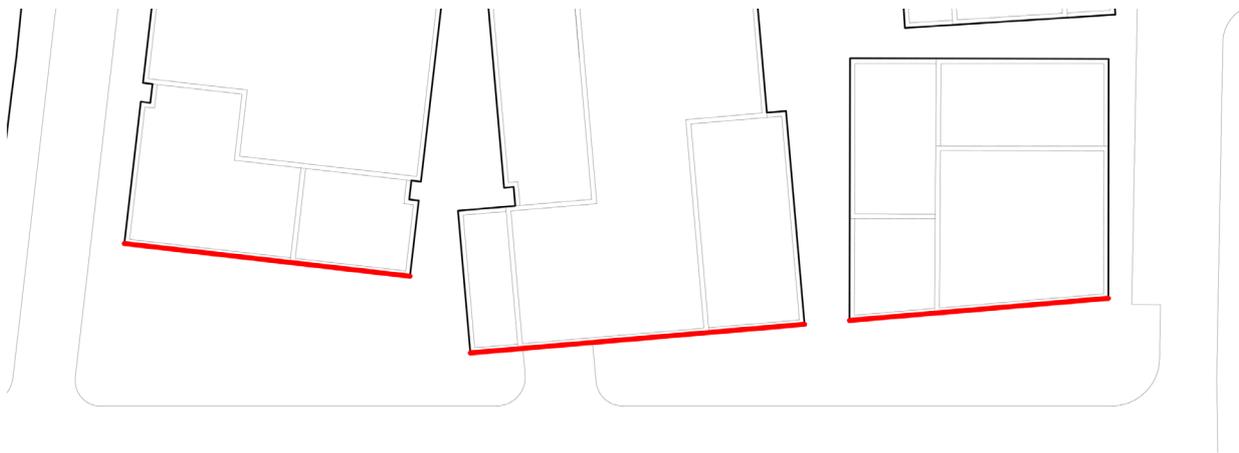


**Average Frontage Segment:** 10m  
**Average Frontage Length:** 36.6m

Where historic urban fabric has a strong presence, frontage lengths are shorter and the degrees of variation more subtle. Generally, the tighter scale of streets means that the observer is closer to the urban fabric so that they are aware of even nuanced differences. The refined variation in frontages also corresponds to more modest variations in street wall heights (see D9 and D12.1).

Conversely, the larger development blocks in the outer geographic areas (GA4 and GA5) have fewer such contextual constraints, and higher development pressure for larger building types. In these locations, the principle of variation for the improvement of urban grain still apply, but the frontage segment lengths are relaxed to enable these development types.

### FRONTAGE STUDY - GA4



**Average Frontage Segment:** 13.1m  
**Average Frontage Length:** 30.5m

## G Architectural Character Rationale

The following studies provide the rationale for assessing aspects of architectural character as described in Chapter 3. These drawings are referenced from the Historical Area Documentation Report (HAK 2019).

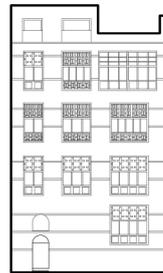
To find objective characterizations of Vernacular and Early Modern architecture in Al Balad, elevation studies were conducted to assess overall building proportions and the solid-to-opening ratio of building façades. A sample of representative buildings, including a range of different use types were selected for each character to arrive at meaningful ranges for each statistic.

Vernacular residential buildings are marked by strong vertical proportions, indicated by a width-to-height ration between 1:1.25 to 1.73. The façades are surprisingly open\*, with walls often taking on the appearance of a frame around entrances and fenestration, rather than a surface with punched openings; the 33% - 60% opening percentage substantiate this observation.

Vernacular institutional buildings such as ribats and mosques are emphatically horizontal with a width-to-height ratio well under 1:0.5, and significantly more opaque wall surfaces in the range of 5% - 44% openings.

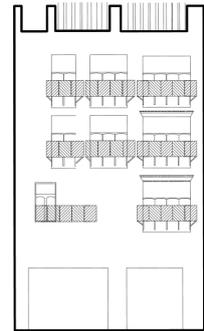
Early Modern structures are modestly horizontal in proportion (1:0.6 to 1.25), and slightly less open façades than vernacular residential (38% - 40%) probably from the prevalence of opaque continuous balcony structures.

*\*for the purpose of these formal studies, openings refer not to transparent glazing or void, but to non-masonry and non-rendered 'infill' surfaces such as screens and roshans.*



Discrete Flat

116087  
Khamees



Discrete Projected

113013  
Nour Wally



Width to Height Ratio  
1:1.69



Width to Height Ratio  
1:1.73



Facade area: 178sqm

Masonry - 114sqm  
Timber - 64sqm

33% void



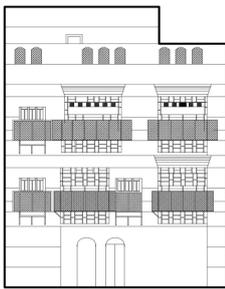
Facade area: 252sqm

Masonry - 151sqm  
Timber 101sqm

40% void

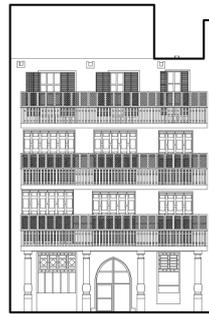
## VERNACULAR FAÇADE STUDIES

### Vertical Proportion



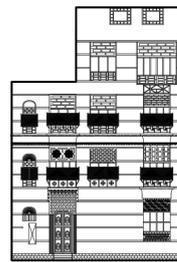
Horizontally Segmented

108099  
Aldafah



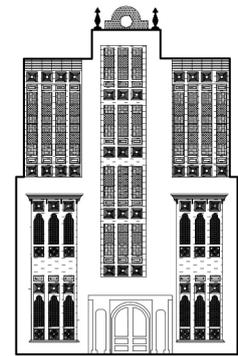
Horizontally Continuous

103004  
Albattarji



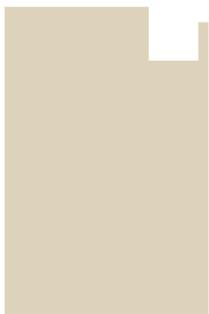
Vertically Segmented

107064  
Muhammad Farsi



Vertically Continuous

102026  
Alashgar



Width to Height Ratio  
1:1.25



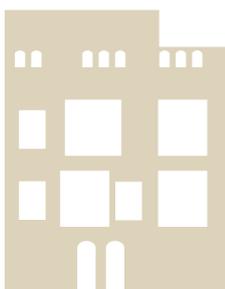
Width to Height Ratio  
1:1.27



Width to Height Ratio  
1:1.49



Width to Height Ratio  
1:1.47



Facade area: 261sqm

Masonry - 184sqm  
Timber - 77sqm

30% void



Facade area: 261sqm

Masonry - 119sqm  
Timber - 142sqm

54% void



Facade area: 168sqm

Masonry - 107sqm  
Timber - 61sqm

36% void



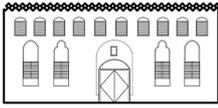
Facade area: 286sqm

Masonry - 114sqm  
Timber - 1721sqm

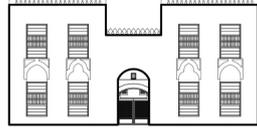
60% void

## VERNACULAR FAÇADE STUDIES

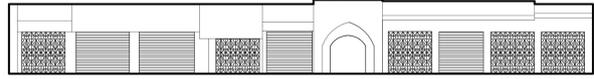
### Horizontal Proportion



Ribat  
102037  
Banaja



Ribat  
103035  
Alalkhunji Alkabeer



Shops/Retail/Souk  
206023  
Unknown



Width to Height Ratio:  
2:0.47



Width to Height Ratio:  
2:0.5



Width to Height Ratio:  
10:1



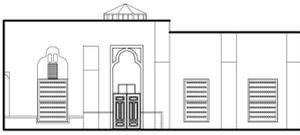
Facade area: 89 sqm  
 Masonry - 69 sqm  
 Timber - 21 sqm  
 26% void



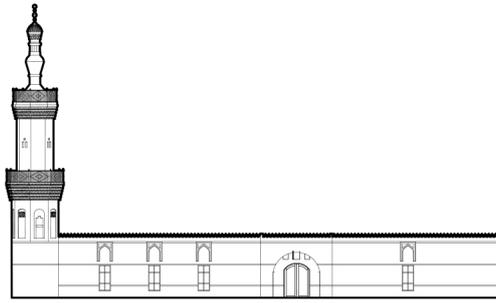
Facade area: 128 sqm  
 Masonry - 96 sqm  
 Timber 32 sqm  
 25% void



Facade area: 181 sqm  
 Masonry - 101 sqm  
 Timber - 80 sqm  
 44% void



Mosque  
 109066  
 Alhanfi



Mosque  
 107056  
 Alshafie



Width to Height Ratio:  
 2.7:1



Width to Height Ratio: 7:1  
 Minaret Ratio: 1:10



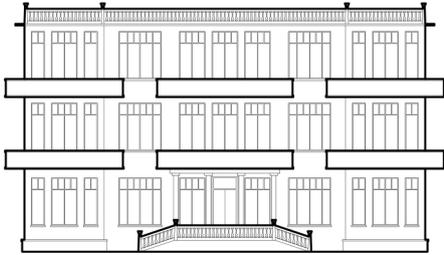
Facade area: 135 sqm  
 Masonry - 114 sqm  
 Timber - 22 sqm  
 16% void



Facade area: 166 sqm  
 Masonry - 157 sqm  
 Timber - 9 sqm  
 5% void

## EARLY MODERN FAÇADE STUDIES

### Horizontal Proportion



Early Modern  
 104014  
 Saudi Aramco Building



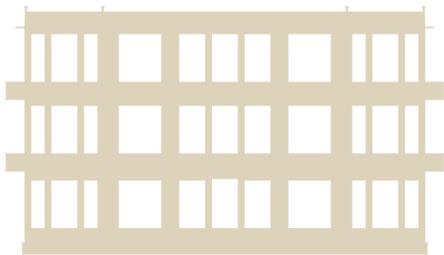
Early Modern  
 107016  
 Unknown



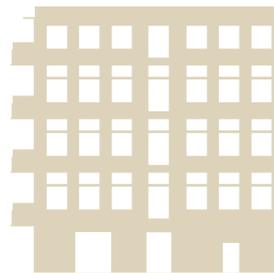
Width to Height Ratio:  
 1:0.6



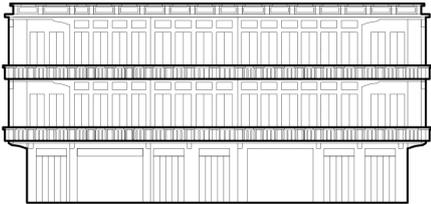
Width to Height Ratio:  
 1:1.25



Facade area: 431 sqm  
 Masonry - 265 sqm  
 Timber - 66 sqm  
 38% void



Facade area: 318 sqm  
 Masonry - 222 sqm  
 Timber - 96 sqm  
 30% void



Early Modern

118018  
Unknown



Width to Height Ratio:  
1:0.5



Facade area: 343 sqm

Masonry - 182 sqm  
Timber - 161 sqm

47% void

## H Ottoman Map

Below is the Ottoman map of Al Balad, extracted from work by HAK. This drawing also shows the position of the historic wall. A geo-located cad copy of this drawing is issued with these guidelines.

This plan should for the basis of defining plots where possible, in order to reinstate the historic street pattern of Al Balad.



## I Select Bibliography

Documents mentioned in the Al Balad Design Guidelines are listed in this section for reference and onward guidance.

This compilation is provided for convenience only. Designers and developers should verify their work in accordance with civil codes.

**Historic Jeddah the Gate to Makkah, Volume 1 and 2, Nomination Document for the Inscription on the World Heritage List.** Saudi Commission for Tourism and Antiquities  
January 2013.

UNESCO nomination file prepared by the Saudi Commission for Tourism and Antiquities. Includes materials on the identification, description, justification, state of conservation, management and monitoring strategy for historic Jeddah. Volume 2 contains management documents from 2008 and 2012.

**Jeddah Historic Development, Stage A3, Heritage Documentation, Assessment and Strategy, Final Reports.** HAK/RCH/HYDEA  
December 2019.

Collated reports documenting the historical area, restoration strategy, heritage conservation, on-going works, and building assessments. The Historical Area Documentation Report provides an in-depth assessment of urban morphology that informs the configuration of Geographic Areas in the Non-heritage Building Design Guidelines.

**Al Balad Public Realm Strategy and Design Manual.** Allies and Morrison  
January 2020.

Guidance on the design of streets, parks, plazas and play areas, towards a cohesive public realm in Al Balad. Includes strategic statements as well as a design manual with specific recommendations on space typologies, landscaping, public realm elements, delivery and phasing.

**Al Balad, Regeneration and Development Plan. Parts 1 to 3.** Allies and Morrison  
October 2019.

**Part 1 - Masterplan.** A summary of regeneration strategies, including the UNESCO nominated property, its buffer zones and the wider regeneration of the waterfront.

**Part 2 - Masterplan drawings.** A compilation of relevant masterplan drawings including schematic plans, Al Balad Regeneration plans, Priority Zones, computer graphic images, Wider Regeneration Plans and Area Schedules.

**Part 3 - Masterplan infrastructure.** A report on the supporting infrastructure of the masterplan, including transport, environment and sustainability, security and utilities.

**Forthcoming work on the 11 opportunity sites.**  
Title to be confirmed.

