

# Madinah Rural

Architectural Design Guidelines



## Application Handbook - Low-rise Buildings





Madinah Rural Architectural Character Area



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# Application Handbook - Low-rise Buildings

## Madinah Rural - Architectural Design Guidelines



Khaybar Historic Fort Settlement

Al Rawan Village

## I Introduction

The purpose of this document is to help designers and builders of low-rise mixed-use buildings apply the architectural character of Madinah Rural to their projects.

The architectural character of Madinah Rural is characterized by agricultural villages and hill-top settlements like Khaybar. Traditional houses are constructed of mud bricks and lava stone, with roofs comprised of palm tree rafters and thatching. Buildings are relatively low, with simple orthogonal forms and small openings. Set near palm oasis, the settlement has a strong connection with the natural landscape.

The urban form is compact and defensive in nature, created by the grouping and connecting of multiple, simpler orthogonal forms into a varied richer whole. This grouped character can strongly inform the design of low-rise buildings today. The compact urban form also results in a smaller and more intimate public realm, with networks of narrow shaded paths; this can inform the peripheral exterior spaces of low-rise buildings.

This handbook is a supplement to the Madinah Rural Architectural Design Guidelines. Designers are recommended to read the full version of the Architectural Design Guidelines to gain a comprehensive understanding of all aspects of the character. Please also consult regulating plans that may describe which styles are applicable to your project area.

To access these resources please use the links below



[Link to Full Guidelines](#)



[Link to Regulating Plans](#)



Example of elevation of Low-rise mixed-use building in Madinah Rural

## II Low-rise buildings

Low-rise buildings form a large part of the built environment across the Kingdom, and strongly influence people's experience and the character of a place.

Ranging from 1-4 stories, typically in a linear fashion along roads and accommodating a mix of uses, low-rise buildings are a common building type found everywhere. Addressing their design is an important part of the implementation of the architectural design guidelines.

This building type emerges predominantly from contemporary development patterns: larger rectangular plots of land typically accessed by car from a street on one edge, and interfacing with adjacent properties on the other boundaries. These buildings tend to exhibit a horizontal, rectilinear form and a clear orientation to the street, with distinct sides and backs. This introduces inherent differences from historical building types that are the source of architectural characters, and is a primary challenge to their implementation, to be addressed in the compositional rules of this handbook.

### Low-rise mixed-use buildings

Low rise mixed-use buildings are usually subdivided into multiple units that often create a diversity to the facade, particularly where the ground floor use is commercial or retail.

The establishment of a consistent character for the whole building is another important objective of this handbook. This extends to the neighborhood: the consistent character of the streetscape, and the support of the public realm in conjunction with other low-rise buildings is a high priority.

### Low-rise apartment buildings

Where low-rise buildings are primarily comprised of apartments, the relationship between public and private spaces become paramount. In addition to the low-rise building application guidelines, please also observe the guidelines focused on apartment buildings, in Appendix A.

**This handbook will implement the Madinah Rural Architectural Design Guidelines in low-rise building types by harmonizing the needs described above with the requirements of the guidelines.**

### III How to use the guidelines

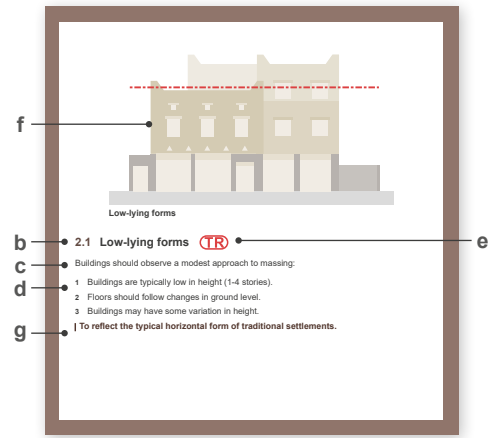
Follow these instructions to create a building that supports the architectural character of Madinah Rural.

- 1 Consult the regulating plan to determine which architectural style options (Traditional, Transitional, or Contemporary) are permitted at your project location.
- 2 Select from the permitted architectural styles, and review the list of general guidelines on the style start pages (Pages 5, 6 and 7).
- 3 Assess your design according to each of the following guideline categories:
  - **Composition:** do your building massing and facade design follow compositional principles? (Section 2)
  - **Elements:** do the individual parts of your building properly interpret the architectural character for your style? (Section 3)
  - **Materials and Colors:** does your building use acceptable materials and colors in the proportions defined? (Section 4)
  - **Patterns:** do any elements show inspiration from local craftsmanship and culture? (Section 5)
  - **Public Realm:** does your building contribute to the quality and character of the street and the neighborhood? (Section 6)
  - **Dos and Don'ts:** have you avoided common mistakes that lower the quality and character of buildings? (Section 7)
  - **Worked examples:** these are illustrations showing one possibility of how the guidelines can be applied, provided for inspiration. (Section 8)

4 Throughout the document, **mandatory guidelines** for each character style will be marked with the following symbols. Where a guideline is mandatory for all styles, all three symbols will be present:

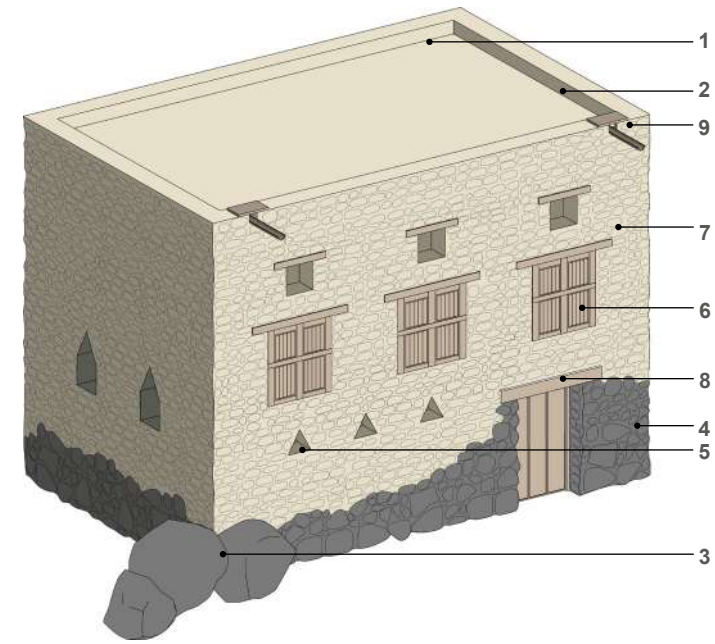
- TR** Mandatory for Traditional style
- TN** Mandatory for Transitional style
- C** Mandatory for Contemporary style

- 5 Guidelines are organized according to the following parts:
  - a. **Section heading:** identifies the general guideline category
  - b. **Header:** identifies the guideline topic
  - c. **Description:** expands upon the topic
  - d. **Instructions:** provides rules and design principles to observe
  - e. **Mandatory symbol:** indicates high priority guidelines that must be complied with
  - f. **Illustration:** non-regulatory diagrams that help visually explain guidelines
  - g. **Rationale:** objective of the guideline, to allow for alternative approaches to fulfillment



Typical guideline structure.

The illustration below is a general character reference model taken from the Madinah Rural Architectural Character Guideline and is labeled to indicate the summarized key features of the Madinah Rural architecture.



**Key features:**

- 1 Simple, low-lying building forms with steps in roof profile within building groups.
- 2 Buildings are typically constructed to create an enclosed block with an internal courtyard.
- 3 Stone boulders incorporated at the base of buildings.
- 4 Gray stone lower walls and earth tone upper walls.
- 5 Triangular and triangular-topped vent openings and niches, arranged in rows.
- 6 Simple small windows, typically with four subdivisions and expressed lintels above.
- 7 Informal facades with horizontal character and elements with squarish proportions.
- 8 Timber tone window and door frames and panels.
- 9 Flat parapets with rare use of parapet finials at the corners of upper volumes
- 10 Minimal ornamentation.



**Traditional TR**  
The most conservative and faithful effort at interpreting traditional architectural form.  
START AT PAGE 5



**Transitional TN**  
A style suitable to help create gradual transitions between areas of different character style.  
START AT PAGE 6



**Contemporary C**  
This style keeps the essence of the architectural character that makes it distinct from contemporary architecture of other places.  
START AT PAGE 7

# 1.0 Traditional style

Start here to review the general guidelines of the traditional style low-rise buildings.

Traditional style buildings should observe as many architectural character guidelines as strictly and as faithfully as possible. The traditional style is suitable for projects near heritage assets and parts of town closer to historic cores.

Note - guideline numbers below correspond to sections 2 through 5 of this Handbook and are not sequential: only the key features relevant to the application of the Traditional style to low-rise buildings are shown on this page.

## COMPOSITIONAL RULES

### 2.1 Low-lying forms

Buildings are, typically, low in height (1-4 stories). Floors should follow changes in ground level. Parapet heights may be subdivided and have variation in height.

### 2.2 Asymmetrical buildings

To achieve the look of asymmetrical buildings, long low-rise buildings should be subdivided into a connected series of compact orthogonal forms. Orthogonal forms may vary in height, window types, and minor shifts in color and material.

Strict, large, homogeneous contemporary grids should be avoided.

### 2.3 Solid facades

Building facades are typically solid walls with simple punched openings that should have 'Opening' proportions of 35% or less of the total front facade area, or 20% or less of the total side facade area. 'Opening' area includes the full extent of all openings, windows, doors and storefronts.

Side facades should be subordinate to front facades, with predominantly smaller/narrower windows and no shop fronts.

### 2.4 Simple openings

Openings should be simple punched openings that are predominantly rectangular or, for smaller windows, triangular-topped above rectangular form.

Windows may have localized symmetry within single compact orthogonal forms.

### 2.5 Flat parapets

The parapet line and roof silhouette must be flat and rectangular, and stepped at least once on each facade.



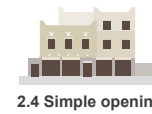
2.1 Low-lying forms



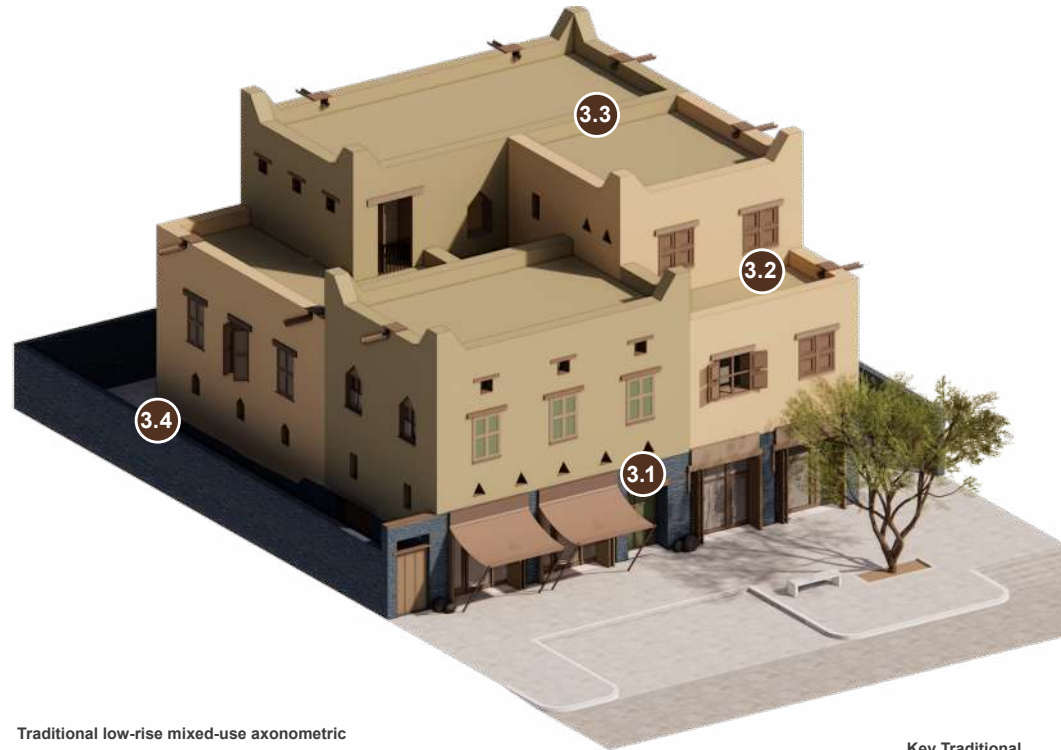
2.2 Asymmetrical buildings



2.3 Solid facades



2.4 Simple openings

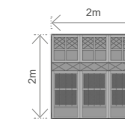


Traditional low-rise mixed-use axonometric

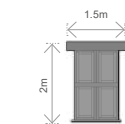


Traditional low-rise mixed-use front elevation

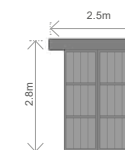
### Key Traditional architectural features



3.2 Windows



3.2 Windows



3.1 Entrance door

## TRADITIONAL ELEMENTS

### 3.1 Doors and entrances

Clearly articulate primary entrances with size and recessing deeply into wall. Doors should use traditional materials and craftsmanship.

Shop front openings should have proportions between 1:1 to 1:5 (width:height) and use traditional vertical shutters with exterior wood finish.

### 3.2 Windows and openings

Windows on the main facade should be simple with minimal ornamentation. Windows should be relatively square or rectangular in proportion with expressed lintels above. Provide shutters.

Smaller openings, traditionally for ventilation, may be featured above windows.

Use traditional materials and craftsmanship where feasible.

Avoid locating windows directly across from existing windows on neighboring buildings.

### 3.3 Rooftop elements

Roofs on traditional style buildings are normally inaccessible.

Angled parapet finials can be used on corners, particularly on taller forms.

### 3.4 Other elements

Walls accommodating secondary entrances, which meet the public realm, should be made of the same material as the base of the building.

Vehicular gates should use vertical shutters with pattern, finish, and panel proportions compatible with traditional storefront shutters.

## COLORS, MATERIALS AND PATTERNS

### 4.1 Colors

The colors used should be consistent with the Madinah Rural architecture. For appropriate colors refer to Section 4 of this handbook. Accent colors should not comprise more than 5% of the facade area.

### 4.2 Materials

The primary wall surface should be matte-finish render. For appropriate colors refer to Section 4 of this handbook. The render is to be continuous above the gray base to the top of the parapet.

Windows, doors, and shutters should generally be timber.

### 5.0 Patterns

Create timber screen patterns and door panel patterns based upon existing historical patterns. Refer to Section 5.

# 1.0 Transitional style

Start here to review the general guidelines of the transitional style low-rise buildings.

Transitional style buildings help integrate traditional architecture with the larger urban context and steer design towards new interpretations of traditional form.

Note - guideline numbers below correspond to sections 2 through 5 of this Handbook and are not sequential; only the key features relevant to the application of the Transitional style to low-rise buildings are shown on this page.

## COMPOSITIONAL RULES

### 2.1 Low-lying building forms

Buildings are typically low in height (1-4 stories). Floors should follow changes in ground level. Parapet heights may be subdivided and have variation in height.

### 2.2 Asymmetrical buildings

To achieve the look of asymmetrical buildings, long low-rise buildings should be subdivided into a connected series of compact orthogonal forms. Orthogonal forms may vary in height, window types, and minor shifts in color and material.

Strict, large, homogeneous contemporary grids should be avoided.

### 2.3 Solid facades

Building facades are typically solid walls with simple punched openings that should have 'Opening' proportions of 35% or less of the total front facade area, or 20% or less of the total side facade area. 'Opening' area includes the full extent of all openings, windows, doors and storefronts.

Side facades should be subordinate to front facades, with predominantly smaller/narrower windows and no shop fronts.

### 2.4 Simple openings

Openings should be simple punched openings that are predominantly rectangular or, for smaller windows, triangular-topped above rectangular form.

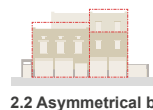
Windows may have localized symmetry within single compact orthogonal forms.

### 2.5 Flat parapets

The parapet line and roof silhouette must be flat and rectangular, and stepped at least once on each facade.



2.1 Low-lying forms



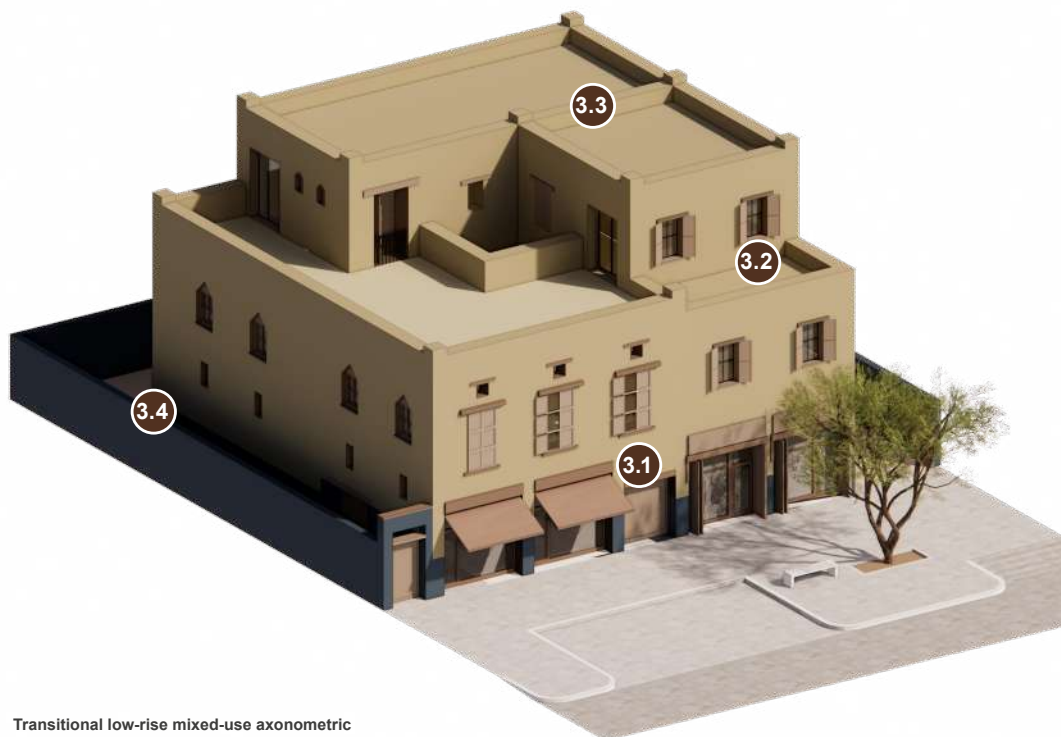
2.2 Asymmetrical buildings



2.3 Solid facades



2.4 Simple openings

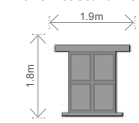


Transitional low-rise mixed-use axonometric

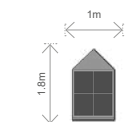


Transitional low-rise mixed-use front elevation

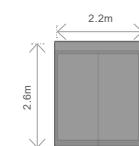
### Key Transitional architectural features



3.2 Windows



3.2 Windows



3.1 Entrance door

## TRANSITIONAL ELEMENTS

### 3.1 Doors and entrances

Clearly articulate primary entrances. Door framing and recessing can add depth and create a sense of entry.

Shop front openings should be fully glazed with timber frames and use traditional vertical shutters with exterior wood finish.

### 3.2 Windows and openings

Windows on the main facade should be simple with minimal ornamentation. Windows should be relatively square or rectangular in proportion with expressed lintels above. Provide suitable shutters with glazing sat behind. Smaller openings, traditionally for ventilation, are also a feature of this area.

Avoid locating windows directly across from existing windows on neighboring buildings within 6m.

### 3.3 Rooftop elements

Front facades must have one rooftop element with a step up from main parapet line.

Where accessible roof space is provided, protect the privacy of inhabitants with high parapet walls that are extended as part of the facade. This also helps to mitigate overlooking of neighbors and between different residential dwellings.

### 3.4 Other elements

Walls accommodating secondary entrances, which meet the public realm, should be made of the same material as the base of the building.

Vehicular gates should use vertical shutters with pattern, finish, and panel proportions compatible with transitional storefront shutters.

## COLORS, MATERIALS AND PATTERNS

### 4.1 Colors

The colors used should be consistent with the Madinah Rural architecture. For appropriate colors refer to Section 4 of this handbook. Accent colors should not comprise more than 10% of the facade area.

### 4.2 Materials

The primary wall surface should be matte-finish render. However more contemporary materials can also be utilized. For appropriate colors refer to Section 4 of this handbook. The render is to be continuous above the gray base to the top of the parapet (see 2.9 for base detail).

Windows, doors, and shutters should generally be timber or other material that closely resembles timber in appearance, color, and texture.

### 5.0 Patterns

If used, patterns should be inspired by existing historical patterns. Refer to Section 5.

# 1.0 Contemporary style

Start here to review the general guidelines of the contemporary style low-rise buildings.

Buildings of this style should aim to retain the essence of the architectural character by skillful and knowledgeable interpretation of traditional forms into contemporary expression.

Note - guideline numbers below correspond to sections 2 through 5 of this Handbook and are not sequential; only the key features relevant to the application of the Contemporary style to low-rise buildings are shown on this page.

## COMPOSITIONAL RULES

### 2.1 Low-lying building forms

Buildings are typically low in height (1-4 stories). Floors should follow changes in ground level. Parapet heights may be subdivided and have variation in height.

### 2.2 Asymmetrical buildings

To achieve the look of asymmetrical buildings, long low-rise buildings should be subdivided into a connected series of compact orthogonal forms. Orthogonal forms may vary in height, window types, and minor shifts in color and material.

Strict, large, homogeneous contemporary grids should be avoided.

### 2.3 Solid facades

Building facades are typically solid walls with simple punched openings that should have 'Opening' proportions of 40% or less of the total front facade area, or 25% or less of the total side facade area. 'Opening' area includes the full extent of all openings, windows, doors and storefronts.

Side facades should be subordinate to front facades, with predominantly smaller/narrower windows and no shop fronts.

### 2.4 Simple openings

Openings should be simple punched openings that are predominantly rectangular or, for smaller windows, triangular-topped above rectangular form.

Windows may have localized symmetry within single compact orthogonal forms.

### 2.5 Flat parapets

The parapet line and roof silhouette must be flat and rectangular, and stepped at least once on each facade.



2.1 Low-lying forms



2.2 Asymmetrical buildings



2.3 Solid facades



2.4 Simple openings

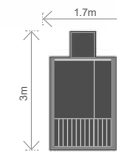


Contemporary low-rise mixed-use axonometric

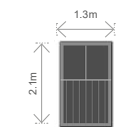


Contemporary low-rise mixed-use front elevation

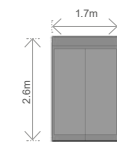
### Key Contemporary architectural features



3.2 Windows



3.2 Windows



3.1 Entrance door

## CONTEMPORARY ELEMENTS

### 3.1 Doors and entrances

Clearly articulate primary entrances. Door framing and recessing can add depth and create a sense of entry.

Glazed shopfronts with timber or metal frames paired with simple awnings and/or shutters are to be used.

### 3.2 Windows and openings

Windows on the main facade should be simple with minimal ornamentation. Windows should be relatively square or rectangular in proportion. In some cases window openings can be combined with over panel openings (see example). Provide suitable shutters / shading to windows, as appropriate.

Avoid locating windows directly across from existing windows on neighboring buildings.

### 3.3 Rooftop elements

Front facades must have one rooftop element with a step up from main parapet line.

Where accessible roof space is provided, protect the privacy of inhabitants with high parapet walls that are extended as part of the facade. This also helps to mitigate overlooking of neighbors and between different residential dwellings.

Further privacy and shading can be provided by pergola structures of a simple form and structure using wood or metal and with appropriate shading fabrics.

### 3.4 Other elements

Walls accommodating secondary entrances, which meet the public realm, should be made of the same material as the base of the building.

Vehicular gates should use vertical shutters with pattern, finish, and panel proportions compatible with contemporary shutters.

## COLORS, MATERIALS AND PATTERNS

### 4.1 Colors

The colors used should be consistent with the Madinah Rural architecture. For appropriate colors refer to Section 4 of this handbook. Accent colors should not comprise more than 15% of the facade area.

### 4.2 Materials

Contemporary materials of a similar language to that of the traditional example should be utilized. For appropriate colors refer to Section 4 of this handbook.

### 5.0 Patterns

If used, patterns should be abstracted from existing historical patterns. Refer to Section 5.

## 2.0 Compositional rules

The following guidelines provide compositional rules for building design with the Madinah Rural architectural character, adapted for the residential Low-rise Building type.

The rules apply generally to all three styles (Traditional, Transitional, and Contemporary), with mandatory requirements for specific styles identified by the relevant symbol.



Low-lying forms

### 2.1 Low-lying forms

Buildings should observe a modest approach to massing:

- 1 Buildings are typically low in height (1-4 stories).
- 2 Floors should follow changes in ground level.
- 3 Buildings may have some variation in height.

**| To reflect the typical horizontal form of traditional settlements.**



Asymmetrical buildings

### 2.2 Asymmetrical buildings

The buildings of Madinah Rural created by groupings of basic orthogonal forms, conjoined together.

- 1 Subdivide longer buildings into more compact orthogonal forms.
- 2 Orthogonal forms may vary in height.
- 3 In plan, the orthogonal forms should align along their frontage.

**| To create the assemblage of simple forms as found in Madinah Rural architecture**



Solid facades

### 2.3 Solid facades

Buildings in the Madinah Rural character area express a rustic sturdiness and solidity:

- 1 A building's elevation should have a low proportion of window to wall.
- 2 The solid nature of the external walls should be expressed. Openings within them should be small.
- 3 The walls at the base of the building should be composed of a material that expresses a heavier quality.
- 4 **TR** The bases of buildings were traditionally a gray stone (basalt). Designs should interpret and reflect this local tradition.

**| To express the solidity and weight of traditional buildings.**



Simple openings

### 2.4 Simple openings

Openings should be simple and modest in size:

- 1 Windows should be relatively square in proportion with expressed lintels above.
- 2 Windows and doorways should have minimal ornamentation.
- 3 Panels and frames should, generally, be of timber finish with a natural tone.
- 4 Doorways should be recessed within thick walls, and set to one side of the building asymmetrically.
- 5 **TR** Openings should have expressed lintels above, in traditional style.

**| To evoke the simple character of vernacular facades in Madinah Rural.**



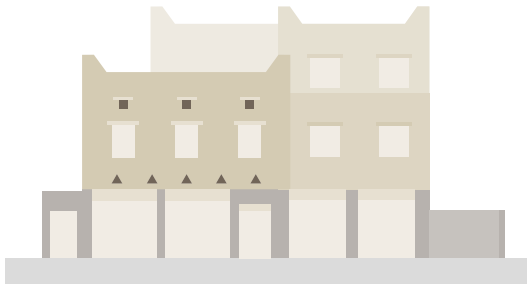
Flat parapets

### 2.5 Flat parapets

Parapets should observe the following guidelines:

- 1 Simple flat parapets.
- 2 Parapet finials may be used on the corners, generally applied to taller elements.
- 3 **TIN C** Parapet finials may be simplified and abstracted on transitional and contemporary styles.

**| To reflect the rural condition of flat and stepped conjoined rooflines.**



Ventilation openings

### 2.6 Ventilation openings

Ventilation openings are one of the features of Madinah Rural. Ventilation openings, if used, should be applied with the following guidance considered.

- 1 Vary groupings of ventilation openings, arranged in rows.
- 2 Appropriate styles include, triangular-topped vent openings and niches, and square openings with expressed lintels.
- 3 Centre the ventilation openings above windows.
- 4 Ground floors may have high level vents without need for windows below.

**| To utilize a key feature of rural architecture.**



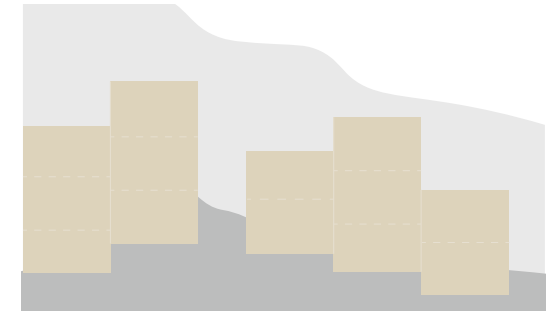
Continuous streetwalls

### 2.7 Continuous streetwalls

Buildings should contribute to forming continuous streetwalls in conjunction with their neighbors:

- 1 Individual buildings should be able to be read as part of a clear 'group' when seen alongside their neighbors.
- 2 In plan, some elements should have common frontage alignments with neighboring frontages.
- 3 Public-facing walls should have a pleasing variety of parapet heights and roofscape.

**| To ensure that individual buildings work as a group, fitting into the overall townscape.**



Responding to landscape

### 2.8 Responding to landscape

Buildings in Madinah Rural should respond to the topography and natural qualities of the landscape:

- 1 General asymmetry and stepped volumes across building groups is preferred
- 2 Buildings should reflect the surrounding topography and respond to natural variations in the existing ground levels.
- 3 Design should be sensitive to solar orientation, hydrology, wind and the physical characteristics of the soil.

**| To respond to the natural environment and landscape context.**

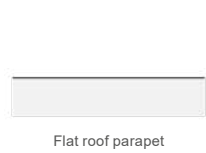
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### 3.0 Traditional elements

The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



Top



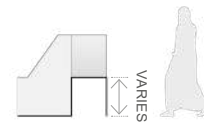
Flat roof parapet



Projecting rainwater spout



Angled corner finial

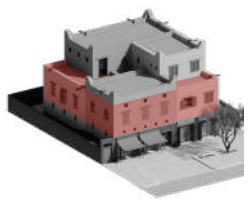


VARIES

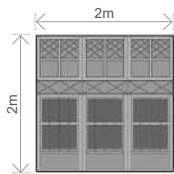
### 3.3 Rooftop elements

- 1 Use flat parapets predominantly.
- 2 Use of a rectilinear staggered roofscape across broader roofscapes / larger buildings.
- 3 Typically no rooftop activation.
- 4 Sometimes use stepped /angled parapet finials on the corners. This would generally apply to taller elements.

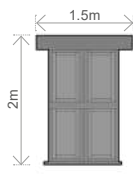
To express the organic form and character of the traditional roofscapes of the Madinah Rural region.



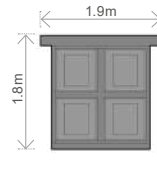
Middle



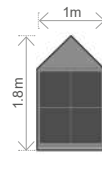
Window



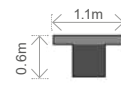
Window



Window



Window



Vent hole



Vent hole



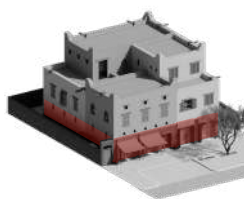
Vent hole



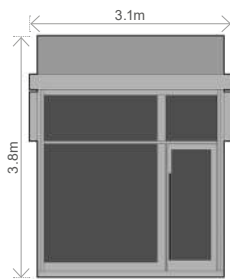
### 3.2 Windows and openings

- 1 Windows should generally be simple and rectangular in shape.
- 2 Occasionally triangular topped openings can be used as special elements.
- 3 Small openings, predominantly for ventilation purposes, are sometimes used traditionally. They are located centrally above windows. These are often rectangular and sometimes triangular in form.
- 4 Simple, openable, rustic shutters are generally incorporated on windows.

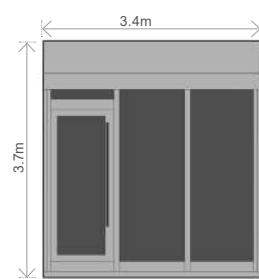
To respond to climatic and environmental factors and to create facades which are recognizably of the local area.



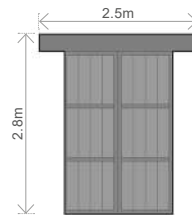
Base



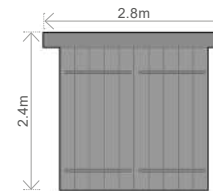
Retail entrance



Retail entrance



Private entrance



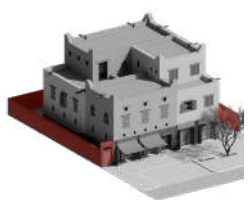
Private entrance



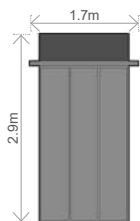
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- 2 Typically doors and entrances have relatively simple plain detail.
- 3 Consider the articulation of entrances and openings using wood and stone, and using local materials where possible.
- 4 Generally be asymmetrically arranged on the building.

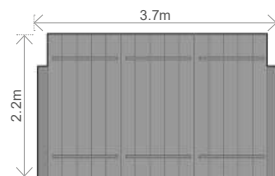
To create legible entrances which are carefully integrated within the base of the building, responding to the area's character.



Other elements



Pedestrian access gate



Vehicular access gate



### 3.4 Other elements

In addition to the elements above, buildings often incorporate other elements (for example gates and stone plinths).

Boundary walls should utilize materials consistent with the building and be from the local material palette, if possible. Gates, portals and openings in the boundary walls should be complementary to the building's detail, and follow traditional detail.

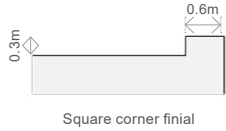
To consider other elements which are frequently part of the overall composition of buildings.

### 3.0 Transitional elements

The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



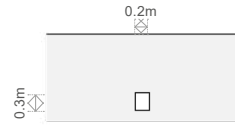
Top



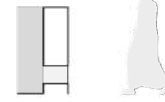
Square corner finial



Flat roof parapet



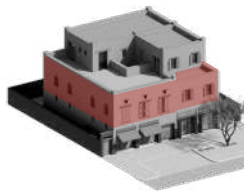
Parapet with opening



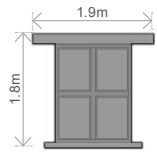
### 3.3 Rooftop elements

- 1 Use flat parapets predominantly.
- 2 Use of a rectilinear staggered roofscape across broader roofscapes / larger buildings.
- 3 Some rooftop activation protected by higher parapets.
- 4 Very limited use of smaller simple rectangular parapet finials on the corners. This would generally apply to taller elements.

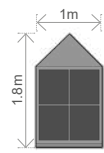
To express the organic form and character of the traditional roofscapes of the Madinah Rural region.



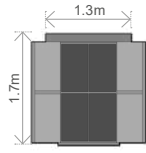
Middle



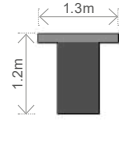
Window



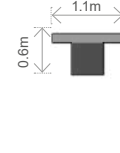
Window



Window



Vent hole



Vent hole

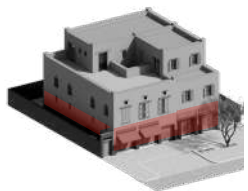


Vent hole

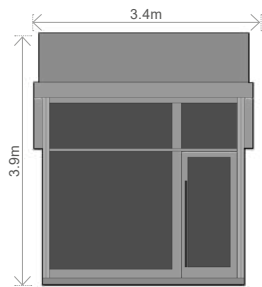
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- 4 Simple, openable, rustic shutters are generally incorporated on windows.

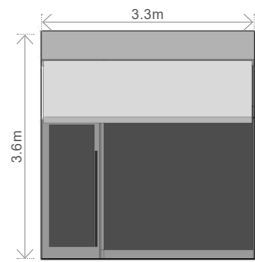
To respond to climatic and environmental factors and to create facades which are recognizably of the local area.



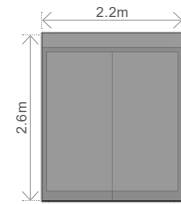
Base



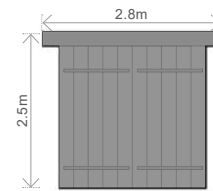
Retail entrance



Retail entrance



Private entrance



Private entrance

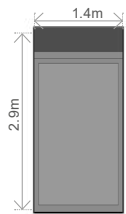
### 3.1 Doors and entrances

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- 4 Generally be arranged asymmetrically on the building.

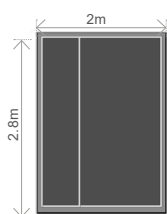
To create legible entrances which are carefully integrated within the base of the building, responding to the area's character.



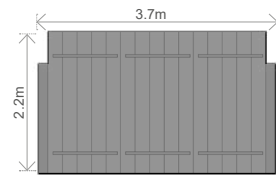
Other elements



Pedestrian access gate



Glazed door



Vehicular access gate

### 3.4 Other elements

In addition to the elements above, buildings often incorporate other elements (for example gates, stone plinths etc).

Boundary walls should utilize materials consistent with the building and be from the local material palette, if possible. Gates, portals and openings in the boundary walls should be complementary to the building's detail.

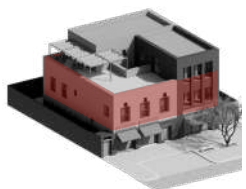
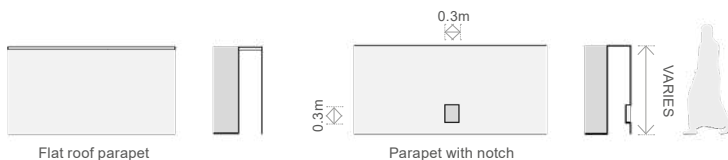
To consider other elements which are frequently part of the overall composition of buildings.

### 3.0 Contemporary elements

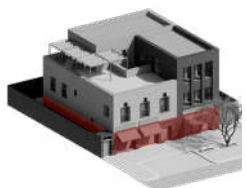
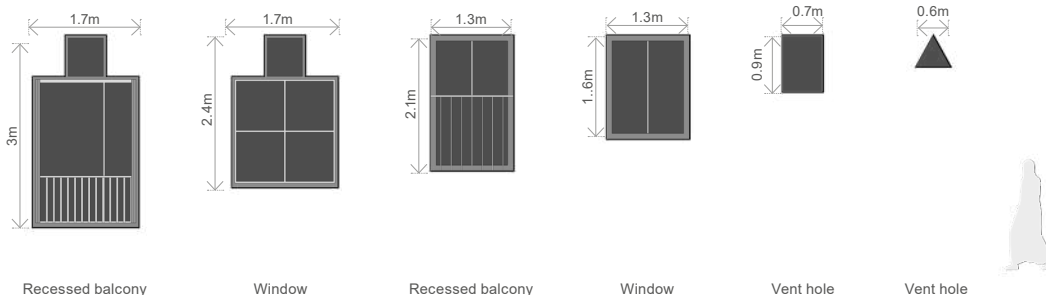
The elements illustrated are examples and should not limit other possible design solutions that follow guideline principles and historic precedents. Element measurements are illustrative and provided to indicate general proportions only.



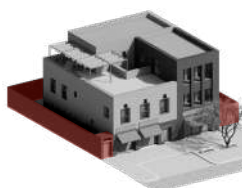
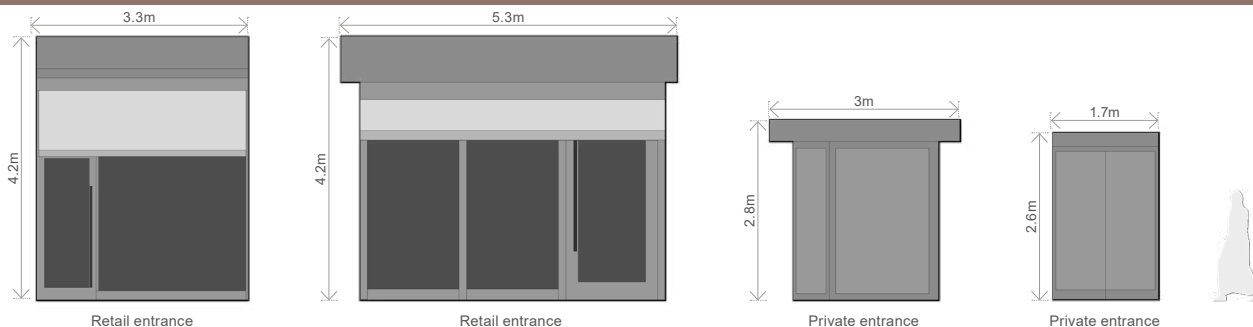
Top



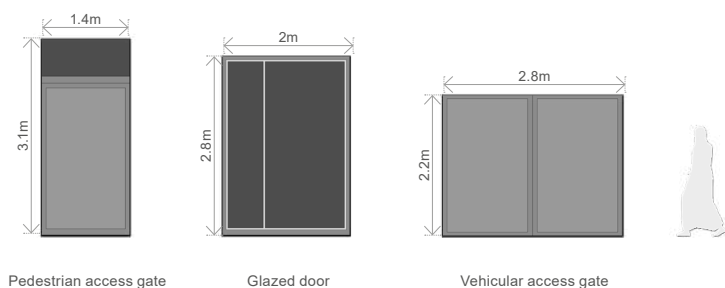
Middle



Base



Other elements



### 3.3 Rooftop elements

- 1 Use flat parapets predominantly.
- 2 Use of a rectilinear staggering roofscape across broader roofscapes / larger buildings.
- 3 Some rooftop activation protected by higher parapets.
- 4 Preferably no use of finials on the corners. If used they should be simplified or abstracted and only apply taller elements.

**To express the organic form and character of the traditional roofscapes of the Madinah Rural region.**

### 3.2 Windows and openings

- 1 Windows should generally be simple and rectangular in shape.
- 2 Occasionally triangular topped openings can be used as special elements.
- 3 Small openings, composite with the windows may be used in some instances. They can be located centrally above windows. These may be generally rectangular in form.
- 4 Simple shutters, which are openable, are generally incorporated on windows.

**To respond to climatic and environmental factors and to create facades which are recognizably of the local area.**

### 3.1 Doors and entrances

- 1 Clearly define primary entrances as part of a well-ordered street frontage. Door framing and recessing can add depth and create a sense of entry.
- 2 Typically doors and entrances have relatively simple plain detail.
- 3 Consider the articulation of entrances and openings using wood and stone, using local materials where possible.
- 4 Generally be asymmetrically arranged on the building.

**To create legible entrances which are carefully integrated within the base of the building, responding to the area's character.**

### 3.4 Other elements

In addition to the elements above, buildings often incorporate other elements (for example gates and stone plinths).

Boundary walls should utilize materials consistent with those used for the building. Those materials should be from the local material palette, if possible, or approved equivalent. Gates, portals and openings in the boundary walls should be complementary to the building's detail and contemporary in style.

**To consider other elements which are frequently part of the overall composition of buildings.**

# 4.0 Colors and materials

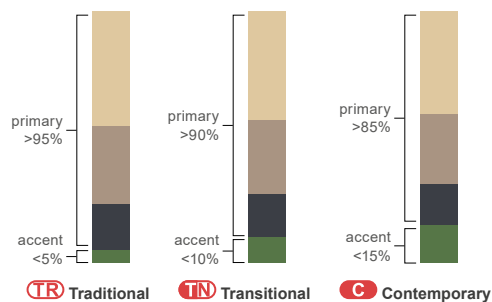
## 4.1 Colors

The color palette of Madinah Rural is closely linked to traditional building materials such as stone, wood and off-white render. The surrounding landscape and geology is also an important influence.

- TR** The base should have a darker band of color, or of similar in town to basalt lava stone, changing to rendered light off-white walls above the ground level.
- Generally use natural colors and finishes for the main body of the building with occasional use of brighter colors for accents on specific elements.
- A maximum percentage of accent color, measured as an approximate percentage of the total facade area, is allowed for each style:
  - TR** <5%
  - TN** <10%
  - C** <15%
- The use of reflective glass of bright colors in windows should be avoided as it may contrast the local architectural character.

**To create a townscape in harmony with the surrounding landscape and architectural character.**

### Approximate color proportions



### RAL Color codes

RAL codes are part of a universal color-matching system used to provide consistency in architectural finishes. It is recommended that teams verify colors with a physical fan deck. For more information visit [www.ral-farben.de/en/](http://www.ral-farben.de/en/)


primary colors

accents colors



Lava stone



Stone cladding



Re-constituted stone blocks



Re-constituted stone cladding



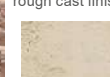
Mud brick



Render smooth finish



Colored render rough cast finish



Lime render finish



Stained timber



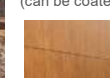
Painted timber



Painted timber



Metal panels (can be coated)



Timber panels

## 4.2 Materials

This palette summarizes the prevalent materials found in the architecture of Madinah Rural

**TR** The four large images reflect materials used in traditional architecture; new traditional style buildings should employ these materials as faithfully as possible.

- Precious or no-longer available materials may entail the need for substitutions. The smaller images reflect a range of feasible substitutions for the primary images above them, acceptable for use in transitional or contemporary buildings, and, in a more cautious manner, in traditional buildings.
- Local and sustainable sourced materials are preferred.

- When designers can't utilize original materials, they might utilize materials that closely resemble the original materials present in the area while taking into account material quality in terms of sustainability and durability aspects as much as possible. Poor interpretations or applications of the materials should be avoided.

**To create buildings in harmony with the surrounding landscape and architectural character.**

**To enhance architectural character through the support of local craftsmanship.**

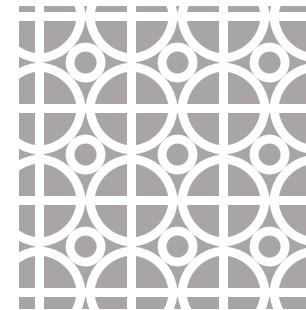
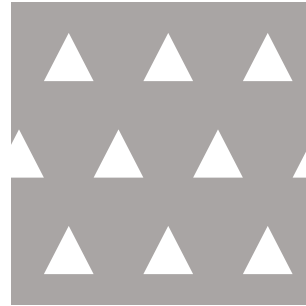
**To create buildings with tactile and visual richness.**

## 5.0 Patterns

This section provides advice on the interpretation and use of traditional patterns in new projects.

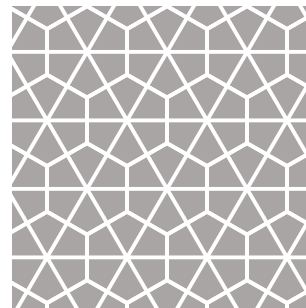
New buildings should:

- 1 Create patterns through the use of local materials and craftsmanship.
- 2 Where multiple decorative patterns are applied across a single facade, these should be consistent.
- 3 **TR** Focus the use of surface patterns to doors, window screens and shutter doors.
- 4 **TR** Refer directly to historic precedents and be limited to geometric and floral patterns.
- 5 **C** The contemporary use of patterns should involve interpretation and abstraction: a selective emphasis of characteristics to create meaning and beauty in its new context. Designers can selectively use formal characteristics such as:

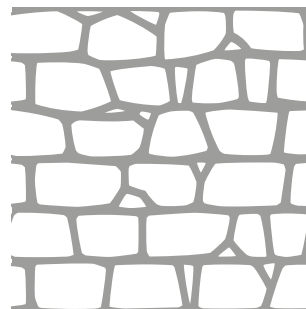
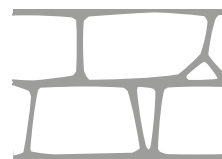


- Color (hue, tonality, tint)
- Shape (figure, outline, 2-D geometry)
- Form (volume, 3-D geometry)
- Texture (physical surface quality)
- Line (verticals, horizontals, diagonals, zigzags, curves, dashes, etc.)
- Value (lightness to darkness)

- 6 Patterns can be further transformed in the way they relate to one another. Designers can play with compositional rules such as:



To express the spirit and essence of the original architecture in new yet familiar ways.



Patterns



Stone patterns



Pattern on face of door



Pattern on window opening



Repeated pattern on window openings



Repeated openings



Repeated pattern on face of balcony



Openings



Palm fronds



Palm trunk



Bamboo



Boulders



Stacked layers

## 6.0 Public realm

This section focuses on the contributions of low-rise buildings to the surrounding streetscape and public spaces, creating strong character and high quality spaces.

The guidelines apply both to 'semi-public' spaces (public space built by private owners) and 'semi-private' spaces (private space that is generally accessible to the public).

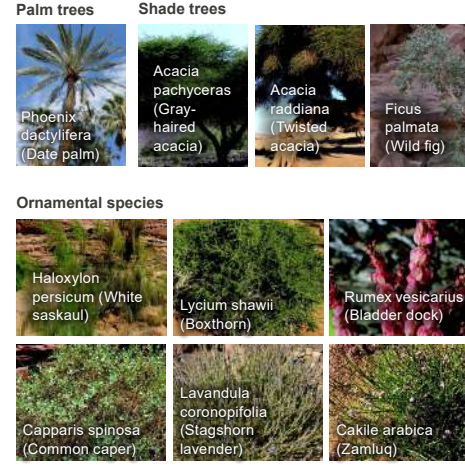
**NOTE:** The application of these guidelines should be tailored to the specific project type, scale, and need. Ensure that any modifications or additions to the public-owned spaces are co-ordinated and approved by relevant authorities.

**To enhance the character and quality of publicly used spaces around and in between low-rise buildings.**



### 6.1 Paving materials

- 1 Co-ordinate finish levels of pedestrian pathways and vehicular surfaces for smooth and visually co-ordinated transitions with neighboring buildings.
- 2 Use materials that are complementary to the Madinah Rural architectural material palette (Section 4.2)



### 6.2 Planting

- 1 Prioritize the use of native species suited for the local climate and minimize the need for artificial irrigation.
- 2 Use planting to enhance privacy for ground level windows of residential occupancies.
- 3 Integrate and co-ordinate landscape and architectural design to better root the building in its surroundings.



Well-integrated planter and furniture elements



Protruding steps



Neglected sides

### 6.3 Public realm interface

- 1 Steps and ramps should not protrude into the public realm. Transitions should be located within property lines.
- 2 Provide active frontages and passive surveillance to enhance safety for surrounding public realm.
- 3 Avoid neglected sides and dead frontages; design should enhance sense of ownership and ease of maintenance for all spaces around it.



Subtle architectural lighting articulates the building features  
Muscat - Oman



Luminaries mounted at consistent height and casting warm ambient light  
Tunis - Tunisia



Undesirable lighting

### 6.4 Lighting

- 1 Architectural lighting should target color temperatures in the 2200K-2700K range for comfort and good color rendering.
- 2 Light bulbs should be shielded from direct view of pedestrians and drivers to avoid nuisance glare.
- 3 Light bulbs should be shielded from shining directly into the night sky to minimize light pollution.



Solid lettering



Back-lit box signage

### 6.5 Signage

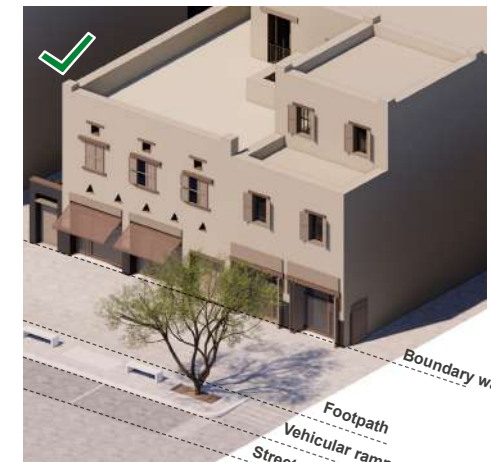
- 1 Retail signage should be integrated with the building design, with a preference for solid lettering.
- 2 Avoid the use of back-lit perspex-box surface mounted signage.



Well-integrated parking bays

### 6.6 Parking

- 1 The design of parking bays should be integrated with the landscape design, with co-ordinated surface materials.
- 2 Intersperse parking spots with planting and seating areas.
- 3 Sufficient clearance for pedestrian movement should be provided between parking bays and buildings.



### 6.7 Vehicular access

- 1 Vehicular ramps should not protrude into public roadways.
- 2 Vehicular gates and service access to buildings should be provided on secondary facades where possible; avoid locating service access on the primary facade.
- 3 Integrate vehicular gates with the architectural design of the buildings.

## 7.0 Dos and don'ts

This section focuses on basic design moves to improve architectural quality and character.

They identify common mistakes that cause visual pollution and hostile environments so that designers can eliminate or minimize them.

**To raise the overall quality and character of buildings by avoiding common design mistakes.**



### 7.1 Inappropriate materials

- 1 Do not use large expanses of glass that increase cooling demand. Use building materials appropriate for the climate.
- 2 Do not use large expanses of mirrored glazing that can be a source of nuisance glare to pedestrians and drivers.
- 3 Do not use large expanses of materials that weather poorly or require high maintenance.



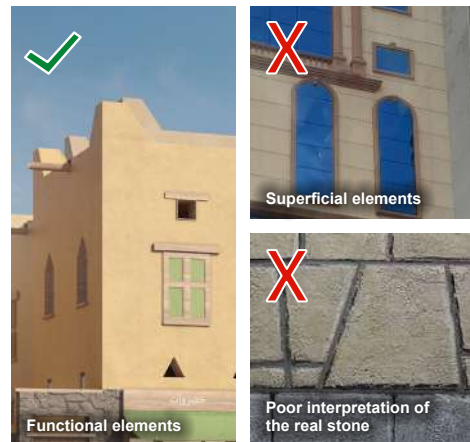
### 7.2 Saturated colors and brand architecture

- 1 Do not use large expanses of artificial, highly-saturated colors on buildings as they detract from the natural landscape and create a visually loud urban environment.
- 2 The architectural character of Madinah Rural should take priority over corporate character and branding. Company logos should be modest and fit into surrounding context.



### 7.3 Screens and security

- 1 Integrate the design of screens and security features with the architecture.
- 2 Do not extend walls with unfinished corrugated metals and other raw sheet materials.
- 3 Do not use razor or barbed wires for typical buildings; utilize deterrents that are inconspicuous or visually appealing.



### 7.4 Superficial elements

- 1 Where historical motifs are used, the function and scale of the original elements should be respected. Avoid superficial application or the undisciplined resizing of features.
- 2 Avoid the use of non-functional elements such as fake mullions.
- 3 Reflect and interpret traditional elements sensitively. Have a selective emphasis of characteristics to create meaning and beauty in its new context.



### 7.5 Exposed roller shutters

Because they are everywhere, roller shutters have a large impact on the quality of the adjacent public realm. Poorly designed and installed shutters mask the quality of buildings behind them.

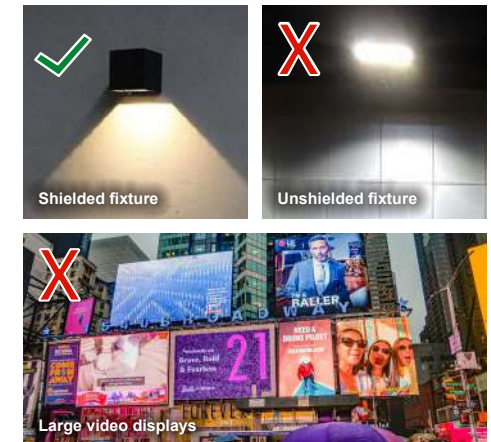
- 1 Do not use surface mounted roller shutters. Use recessed and hidden roller shutters instead.
- 2 Do not use unshoused roller shutters. Provide integrated housing for the roller shutters in their storage position.



### 7.6 Exposed service elements

Ordinary building service elements such as water tanks, air conditioning units and satellite dishes create visual pollution and undermine the character of a building.

- 1 Service elements should be screened and located in places not visible to the public.
- 2 Avoid surface mounting associated conduits, ducts, pipes and wiring. Integrate their location within the facade design.



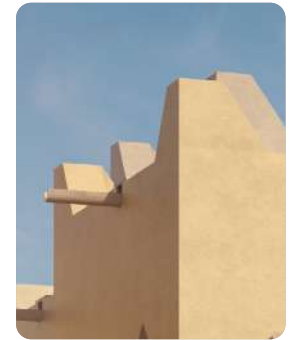
### 7.7 Light pollution

Avoid excessive light and light pollution.

- 1 Do not use fixtures with bare bulbs (that create glare).
- 2 Use fixtures with cutoff shields to prevent upward light pollution.
- 3 Do not use large video displays.



Examples demonstrate one possible application to the guidelines and are for illustration only.



1 Flat roof parapet with angled finials at the corners.



2 Timber framed and shuttered windows with high level vents.



3 Base with timber details to openings.



4 Retail entrance with timber detailing and appropriately colored awning.

## 8.0 Traditional mixed-use worked example

The traditional worked example features a strong application of the guidelines to the low-rise building type. This is particularly evident in the simplicity of massing and detail of windows, privacy screens, and doorways.

Traditional buildings are characterized by strong articulation of the base. The base is finished with a material like dark gray lava stone or an approved equivalent. The upper levels use a finish from the local palette.

General massing is informal with a horizontal character.

Facades display localized symmetries using a variety of opening types. Windows are deeply recessed to maximize solar shading. Timber window frames, shutters and doors are flush with the wall. Appropriate accent colors (see 4.1) may be used in these elements. Square ventilation openings are located above upper floor windows. Triangular ventilation openings

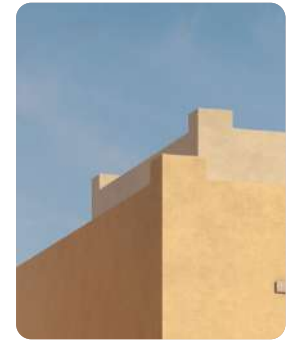
may be used more informally, generally above or within the stone base.

Rooftop inhabitation is discouraged in the traditional style.

Parapets are short, flat and continuous, stepping between adjacent buildings in conjoined groups. Angled finials are used at the corners of the tallest building masses.



Examples demonstrate one possible application to the guidelines and are for illustration only.



1 Flat roof parapet with square finials at the corners.



2 Larger timber framed and shuttered windows with high level vents.



3 Stone base with smoother texture.



4 Retail entrance with larger display window.

## 8.0 Transitional mixed-use worked example

The transitional model is a step towards the contemporary while maintaining a strong reference to traditional forms. General forms, proportions, and compositional arrangements are maintained while patterns, materials and craftsmanship may be simplified for modern methods and modest budgets.

Articulation of the stone finished base may be more subtle, with a smoother texture used. The height this base may be reduced on occasion to balance proportion.

Openings retain the informality and localized symmetries of the traditional form. The sizing of these may be slightly larger, with simpler detailing of the timber elements.

Roof parapets remain flat and continuous with square finials used at the corners of the tallest building masses.



Examples demonstrate one possible application to the guidelines and are for illustration only.

## 8.0 Contemporary mixed-use worked example

The contemporary model aims for architectural innovation and expression, while retaining a strong formal resemblance to Transitional and Traditional buildings.

Contemporary buildings abstract elements and patterns of Traditional forms to create this family resemblance, whilst observing most compositional rules. They may also synthesize the application of traditional elements in new building typologies.

Articulation of the stone finished base may be more playful, with greater compositional abstraction.

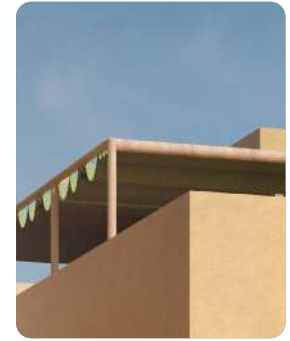
Window openings may be larger, with deeper reveals. High level vents, if appropriate, may be abstracted and incorporated into the window design. Recessed balconies and galleries may be introduced, adding depth to the facade. Detailing of these elements may incorporate the abstraction of traditional patterns.

Metalwork may be introduced for uses such as balustrades.

Rooftop inhabitation is encouraged by the provision of simple timber shading canopies. Retail entrances have fully integrated signage, awnings and concealed security shutters.

Roof parapets remain flat and continuous without the use of finials.

1 Flat roof parapet with no finials.



2 Large, recessed windows with abstraction of traditional vents.



3 Simple entrances, emphasized by a change in material.



4 Retail entrance with larger display window.



## A.0 Appendix

### Low-rise apartment buildings

This appendix focuses on design issues important to low rise apartment buildings, for example, the relationship between public and private spaces, access to individual units, ground floor facade design, the provision of outdoor amenity, and the design of boundary treatments and rooftops.

Apartment building design should follow the guidelines for traditional, transitional and contemporary style in the rest of this handbook, but also observe the guidance notes in this appendix.

#### Massing scale

Apartment buildings should break down their mass into volumes of a scale that is relatable to the local traditional architecture (not monolithic blocks).

#### Entrances

Apartments' communal, shared entrances should be clearly identifiable, and distinct from other entrances. Where individual units are provided entrances with direct street access (for example, in duplexes), the design of those entrances should be subordinate to the communal shared entrances. Service doors should be discrete and subordinate to all residential entrances and should not be located on the primary frontage, where possible.

#### Privacy

Ground floor windows on street frontage should maintain privacy and security for residents. This may be achieved by using smaller windows, elevated windows, adjustable attractive security screens, and by setting back from the boundary with planted buffer zones and landscaping details.

Windows used on all levels should be equipped with appropriate shutters to provide shade and privacy. Windows on side facades, or facing nearby neighbors should not be located directly across from windows on neighboring buildings, except where the distance between buildings is greater than 12m. Windows on side facades should be chosen from subordinate sizes within the window hierarchy, and feature privacy screens where needed.

Recessed and appropriately screened balconies can be used.

#### Roofscape

Roof terraces should be located in a manner that provides privacy between different units. Avoid overlooking of neighboring buildings within 12m of wall line; use higher parapet walls to mitigate direct sight lines.

Mitigate views from public realm to rooftop building elements (for example, air conditioning units and watertanks) with appropriate tall parapets, setbacks and enclosures. Mitigate noise pollution with enclosures.

#### Other elements

Side yards can provide usable outdoor amenity space to ground floor units as appropriate.

Boundary walls should be of equivalent quality and materiality as the main building walls.

Attractive car parking is important. Where off-street parking is provided, use vehicular gates that are in character with the rest of the architecture and integrated with boundary wall design.

Access ramps should not obstruct the public realm; level changes should be managed within the property.



Illustrative example: Apartment building axonometric



Illustrative example: Apartment building front elevation

1 Enhance usefulness of roof terraces with shading.



2 Maintain privacy between neighbors on side facades.



3 Maintain privacy and security at ground level, street-facing windows.



4 Emphasize primary shared entrances





Examples demonstrate one possible application to the guidelines and are for illustration only.

## A.0 Traditional apartment worked example

The traditional apartment example features a strong application of the guidelines, most evident in the simplicity of massing and detail of windows, privacy screens, and doorways.

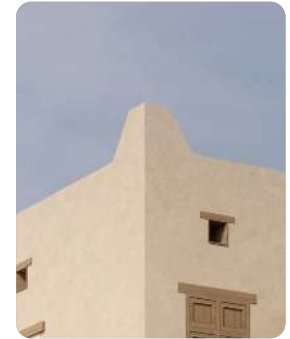
There is a strong articulation of the base which is finished with a dark gray lava stone material or an approved equivalent. The upper levels use a finish from the local palette.

Recessed balconies may be synthesized in a traditional manner for the apartment building type, designed in such a way that is consistent in style with the standard windows used here. Rooftop inhabitation is discouraged for apartments of the traditional style.

The main communal entrance is prominently placed and simply emphasized by its size and detail.

Parapets are short, flat and continuous, stepping between adjacent buildings in conjoined groups. Angled finials are used at the corners of the tallest building masses. Rooftop plant is concealed behind a tall parapet wall.

1 Flat roof parapet with angled finials at the corners.



2 Timber framed and shuttered windows with high level vents.



3 Recessed balconies synthesized in a traditional style.



4 Lava stone base with clearly emphasized communal entrance.





Examples demonstrate one possible application to the guidelines and are for illustration only.

## A.0 Transitional apartment worked example

The transitional apartment is a step towards the contemporary while maintaining a strong reference to traditional forms.

Articulation of the lava stone, or equivalent, base may be more subtle, with a smoother, more contemporary texture used.

Recessed balconies still retain an aesthetic consistency with the standard windows. Timber shutters may now extend the full opening height

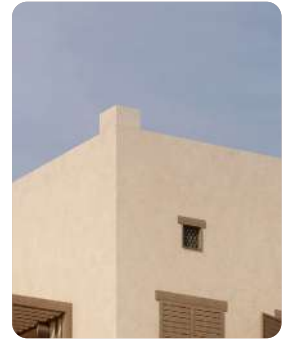
and incorporate a metal balustrade. Rooftop inhabitation may be introduced using simple timber shading canopies.

The main communal entrance is prominently placed and incorporates glazed panels alongside its doors. Simple timber shutters and landscape features provide privacy to ground floor windows.

Roof parapets remain flat and continuous with

square finials used at the corners of the tallest building masses. Rooftop plant is concealed behind a tall parapet wall.

1 Flat roof parapet with square finials at the corners.



2 Introduction of full height shutters and balconies.



3 Introduction of simple timber rooftop shading structures.

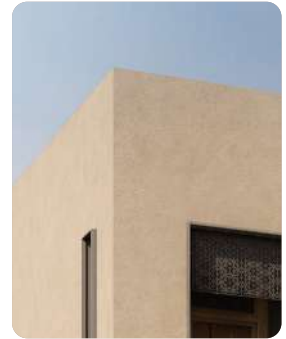


4 Smoother stone base with clearly emphasized communal entrance.





Examples demonstrate one possible application to the guidelines and are for illustration only.



1 Flat roof parapet with no finials.



2 Large, recessed windows with abstraction of traditional vents.



3 Introduction of perforated metal shading screens.



4 Emphasized communal entrance with hidden lintel detail.

## A.0 Contemporary apartment worked example

The design of contemporary buildings can incorporate architectural innovation while retaining a strong family resemblance to Transitional and Traditional buildings.

Articulation of the stone finish base may be more playful, with greater compositional abstraction.

Recessed balconies and galleries are used more frequently, adding depth to the facade. Traditional patterns are abstracted and used

on perforated metal shutters and balustrades. Rooftop inhabitation is now encouraged with a more expansive timber canopy providing shading.

The main communal entrance is prominently placed and emphasized with simple contemporary detailing.

Ground floor windows are small and utilize perforated metal screening for privacy.

Roof parapets remain flat and continuous without the use of finials. Rooftop plant is concealed behind a large parapet wall.