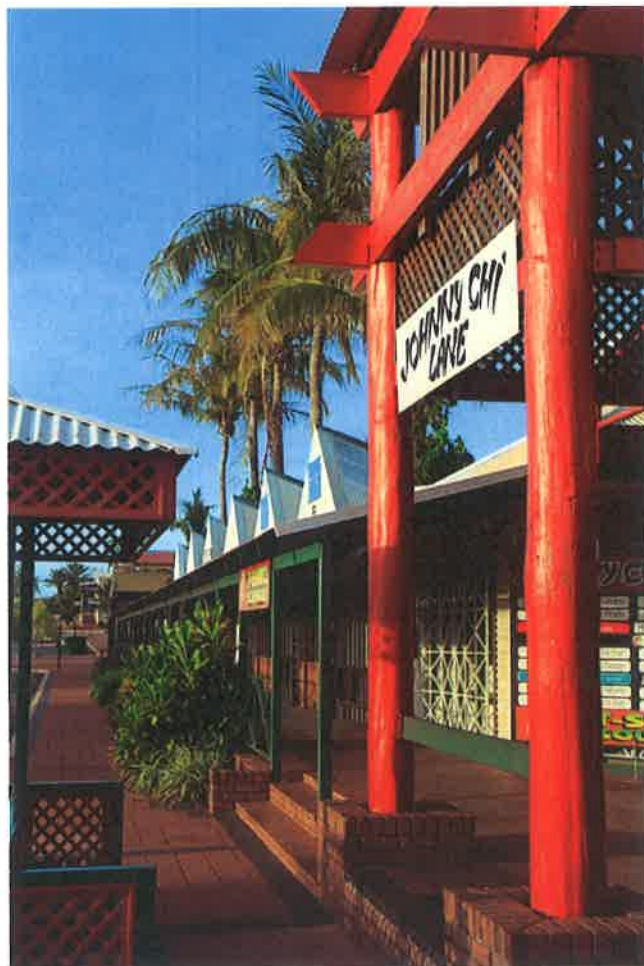


DESIGN GUIDELINES

CHINATOWN



Contents

Design Guidelines – Chinatown.....	4
1. Purpose and Structure.....	4
1.1. Purpose.....	4
1.2. Structure and Use.....	4
2. Context.....	5
2.1. Land Tenure.....	5
2.2. Existing Character.....	5
2.3. Existing Provisions.....	5
3. Desired Character.....	6
3.1. Desired Character.....	6
Objectives	6
4. Urban Design	8
4.1. Crime Prevention through Environmental Design	8
4.2. Pedestrian Friendly Streets	9
4.3. Active Edges	10
4.4. Setbacks.....	12
4.5. Light Spill	12
4.6. Plot Ratio and Site Coverage	13
4.7. Floor Levels and Floor Protection.....	13
5. Built Form Design	14
5.1. Height	14
5.2. Building Depth.....	15
5.3. Floor Levels.....	15
5.4. Heritage	15
5.5. Facades.....	16
5.6. Roof Forms	16
5.7. External Colours and Materials	18
5.8. Mechanical Services	18
5.9. Noise and Odour.....	19
6. Environmental Design	21
6.1. Solar Design	21
6.2. Ventilation	22
6.3. Landscape Design	26

7. Checklist	28
--------------------	----

Design Guidelines – Chinatown

1. PURPOSE AND STRUCTURE

1.1. Purpose

The Chinatown Town Centre Design Guidelines form part of the Chinatown Development Strategy (Adopted February 2013), which replaces the 2003 Chinatown Development Strategy. They comprise design objectives, Development Control and design guidance for the Town Centre – Chinatown Zone defined in the Shire of Broome Planning Scheme, and supplement the development requirements for the Zone in the Scheme.

1.2. Structure and Use

These Design Guidelines will replace the Chinatown Town Centre Design Guidelines which form part of the Chinatown Development Strategy (Adopted February 2013).

DESIGN OBJECTIVES

The Design Objectives outline the design intent or philosophy of, and explain the desired outcomes to be achieved by Development Control and Design Guidance criteria.

DEVELOPMENT CONTROL

Development must be consistent with the Development Control OR apply alternative design solutions which demonstrably meet or exceed all of the Objectives. Meeting the Development Control will generally ensure that the Objectives are met.

DESIGN GUIDANCE

The Design Guidance section describes ways in which a development may meet or exceed the intent of Development Control and Objectives. It also provides some alternative design solutions to the Development Control.

It is encouraged that developments have regard to Design Guidance as well as addressing Development Control. Satisfying the Design Controls will mean the Policy provisions have been met.

2. CONTEXT

2.1. Land Tenure

A mix of private and publicly owned properties, with private commercial, Yawuru land owners and a limited amount of government and Council land.

2.2. Existing Character

Most of the Town Centre zone is located within Chinatown. Due to its low lying coastal location, Chinatown is vulnerable to inundation. A large part of Chinatown is deemed to be flood prone land in the Planning Scheme. Roebuck Bay is a wetland of national importance and part of the West Kimberley National Heritage area, due to its ecological values.

Much of Broome's rich cultural heritage is expressed in Chinatown. Several buildings are on the WA Register of Heritage Places or the Municipal Heritage Inventory and most of the town centre is within the State-registered Chinatown Conservation Area.

The original / heritage-listed buildings in Chinatown are sometimes mixed with more recent development, sometimes contiguous. Chinatown is representative of the types of construction designed to suit the climatic conditions of the tropics, "typified by small single and two-storey structures, symmetrical facades with small windows, vertically and horizontally lined corrugated galvanised iron wall and roof coverings, storm shutters, lattice screens, verandahs across the facade, balcony additions, and criss-cross timber balustrade infill" – refer Statement of Significance on Heritage WA website.

The Shire of Broome Municipal Heritage Inventory lists and describes buildings that make a 'considerable' or 'some' contribution to the post-European heritage values of the Chinatown Conservation Area.

The Chinatown, Roebuck Bay foreshore and Kennedy Hill area is highly significant to the Yawuru people, and contain a number of registered Aboriginal heritage sites.

2.3. Existing Provisions

HEIGHT RESTRICTIONS NEAR AIRPORT

Applications may need to be referred to Broome International Airport to ensure that the Obstacle Limitation Surface is not penetrated by buildings or structures and therefore affect the integrity of airspace near the airport.

AUSTRALIAN NOISE EXPOSURE FORECASTS

Building types in areas expected to be subject to significant levels of aircraft noise based on published Australian Noise Exposure Forecasts (ANEFs) will be assessed against criteria in State Planning Policy 5.1.

3. DESIRED CHARACTER

3.1. Desired Character

To continue to be the major centre in Broome, the Town Centre zone needs to be the focus for the most important (highest level) administrative, retail, commercial and cultural land uses.

The main Government and commercial administrative offices, high-end shops (specialist boutiques, department store, etc), short term accommodation for tourists and business visitors, entertainment, restaurants, museums and galleries should be positioned within Chinatown.

A diversity of land uses is important to ensure that the streets and public areas of Chinatown are activated for extended periods. This will increase the attractiveness of the area to a wide range of people, and enhance public safety by ensuring there are more people in the area, doing a wider variety of things, for more of the time.

The Town Centre streets and parks should also regularly host a range of unique activities that will attract visitors (and hence, potential customers), such as markets, fairs and festivals, outdoor concerts and alfresco dining.

Chinatown must retain and enhance its uniqueness as a business, entertainment and tourist centre with a shopping experience emphasis on specialist retail, such as pearls and jewellery, souvenirs and high-end boutiques with a particular appeal to tourists and locals looking for something different. Daily needs will be catered for, but these will not be the primary retail focus. The Town Centre should be offering a unique, desirable and alternative experience (Chinatown Development Strategy 2012).

Objectives

- To achieve better visual connection from Chinatown to Roebuck Bay.
- To reveal, interpret and conserve the natural and cultural values of Chinatown and Roebuck Bay.
- A secure town centre with buildings and public realm spaces designed and orientated to allow for casual surveillance.
- To promote pedestrian-friendly streets with weather-protected, shaded footpaths along street frontages, alfresco seating areas and public seating.
- To promote a legible movement network through new and extended laneways.
- To create active frontages and other edges which contribute to the liveliness, vitality, amenity and security of the public realm.
- To reinforce Chinatown's character and add visual interest through appropriate public art.
- To ensure simple, flexible building forms configured for adequate natural ventilation, daylight and privacy.

- Development which is sensitive to the heritage significance and original character of Chinatown, whilst contributing to the centre's vitality and viability.
- To ensure built heritage is conserved and interpreted in new developments without mimicking and creating a 'fake' heritage.
- To maintain the human scale of development in Chinatown.
- To protect the integrity of air space in the vicinity of the airport.
- To provide interesting, well proportioned facades, especially at ground level.

Development Control

- 3.1.1. Development must retain a clear vista at ground level along Short Street and Napier Terrace to Roebuck Bay.
- 3.1.2. Development should front and engage with both Dampier Terrace and Roebuck Bay.

Design Guidance

- 3.1.3. Development must retain a clear vista at ground level along Short Street and Napier Terrace to Roebuck Bay. Development should promote the conservation and interpretation of the natural and cultural values of Chinatown and Roebuck Bay.
- 3.1.4. Openings providing vistas from Dampier Terrace to Roebuck Bay are encouraged in redevelopment on the east side of Dampier Terrace. Where possible these vistas should be aligned with laneways and other significant openings on the west side of Dampier Terrace and provide a pedestrian connection to a foreshore pedestrian network and future boardwalk.

4. URBAN DESIGN

Objectives:

- A secure precinct day and night with buildings and public realm spaces designed and orientated to allow for casual surveillance.
- Active frontages and other edges which contribute to the liveliness, vitality, amenity and security of the public realm.
- Pedestrian-friendly streets with shading, mainly through landscaping of verge and near-verge areas, and public seating where appropriate.
- To add visual interest where appropriate through appropriate public art.
- To conserve heritage places.

4.1. Crime Prevention through Environmental Design

Development Control

- 4.1.1. Along frontages and other pedestrian areas, development must incorporate and operate lighting underneath the canopy at ground level to promote after-hours security of areas under verandahs and awnings that are insufficiently lit by existing street lighting.
- 4.1.2. Development must not incorporate the use of reflective or dark glazing, permanent window coverings, opaque film, signage or any device that prevents views into non-residential buildings and hides the presence of activity within the building.
- 4.1.3. Building designs must provide clear sightlines from living spaces, balconies, hospitality and commercial areas to public spaces and vice-versa.
- 4.1.4. Opportunities for casual surveillance must be provided from inside buildings to the public realm.
- 4.1.5. Building entrances must optimise visibility and safety through being positioned in a prominent location within clear view of the street frontage, orientated towards the street with lighting.
- 4.1.6. Fencing in front of the facade must be of an open style (visually permeable) to allow passive surveillance between public and private realms.

Design Guidelines

- 4.1.7. In large format retail stores or complexes, activity within the building should be organised to foster natural surveillance for the public environment for as long as possible each day.
- 4.1.8. Fencing in front of the facades of buildings is discouraged and if required 75% permeability in fencing is preferred.
- 4.1.9. Articulated street facing facades need to balance recessed areas (potential blind spots) with optimum visibility.
- 4.1.10. Design buildings so activity areas within a building foster natural surveillance to the public realm.

4.2. Pedestrian Friendly Streets

Raised ground floor levels with attached post structure verandah's are a strong streetscape element of the Broomestyle within established commercial areas.

Development Control

- 4.2.1. All non-residential buildings fronting the street must provide continuous weather protection and shading along footpaths through the use of awnings, upper level building overhangs, colonnades and verandahs of a minimum width of 3 metres for the full length of the street frontage between the building and the street.

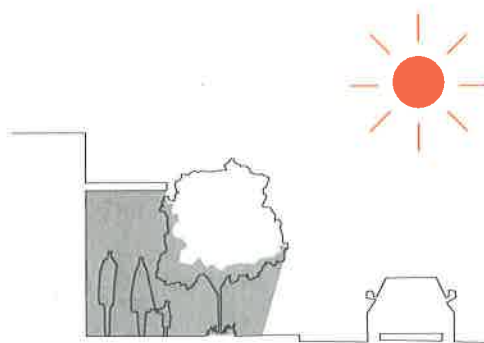


Figure 1: Provide continuous weather protection and shading along footpaths

- 4.2.2. Pedestrian laneways and courtyards must be at least 3 metres in width and be provided with at least 2.8 metres vertical clearance above the finished level of the laneway or courtyard.
- 4.2.3. In any development making use of public land such as the street verge, eg. for alfresco dining, the developer must install shade trees within the verge to assist in providing shaded verge areas for pedestrian comfort.
- 4.2.4. All verandahs, awnings and other overhangs are to have a minimum vertical clearance of 2.8 metres above finished footpath level.
- 4.2.5. Verandah posts to be setback a minimum of 0.5m from travel lanes and parking areas.
- 4.2.6. All verandahs, awnings and other overhangs must be designed to ensure they do not inhibit trees in the public domain achieving full mature canopies.
- 4.2.7. Alfresco structures within verge areas must provide integrated public access ways through the alfresco area.

Design Guidance

- 4.2.8. Where appropriate bicycle racks should be provided at the front of the development.
- 4.2.9. Commercial and retail development should provide end-of-use facilities to encourage people to ride to work.
- 4.2.10. Street front verandahs with a post structure are preferred to awnings and cantilevered structures.
- 4.2.11. Lighting on the underside of awnings, verandahs or other overhangs are appropriate to ensure outdoor areas and street frontages are well lit for security and pedestrian safety.
- 4.2.12. Increasing the minimum vertical clearance specified in the above Development Control is appropriate to provide for signs that under the relevant local law will require 2.7 metres vertical clearance.

4.3. Active Edges

Development Control

- 4.3.1. Buildings must directly address streets and public places.
- 4.3.2. Development must provide clearly delineated building entries and associated elements to emphasise their visible presence from various approaches to the building.
- 4.3.3. Development must avoid or minimise blank walls presenting flat surfaces without detailing, openings or activity as viewed from the street and public spaces.

- 4.3.4. Development must ensure that car parking structures, building plant and service areas are screened from streets and thoroughfares by suitable development and/or landscaping.
- 4.3.5. Vehicle entries to premises including car parking areas must be located and designed so that they do not detract from street plantings or the safety, convenience and quality of the pedestrian environment.
- 4.3.6. Separate pedestrian entrances must be provided for residential and commercial uses.
- 4.3.7. Buildings must directly address streets and public places including Male Oval, laneways and Roebuck Bay.
- 4.3.8. Development must establish and maintain relatively continuous edges of built form along street frontages with gaps coinciding with important vistas, and any 'at grade' car parking areas and entries located and designed to minimise interruption of the built-form facing these streets.
- 4.3.9. On-site car parking must not be located between facades and the street boundary.
- 4.3.10. Edges of large-format retail stores or complexes must ensure that there are active frontages to all public streets with the active frontage flanked by smaller-scale premises, active uses and other features that promote street activation and passive surveillance of the street.

Design Guidance

- 4.3.11. Soft-landscaped frontages and verges may be alternated with hard, active frontages that cater for dining, shopping and other street-level active uses.
- 4.3.12. Development is encouraged to provide multiple pedestrian entries along frontages to activate the street edge.
- 4.3.13. Off-street car parking between facades and the street boundary is generally discouraged. It should be limited in extent and not result in building setbacks greater than 5m.
- 4.3.14. Development including more than one unit at ground level should provide multiple entries along frontages to activate the street edge.
- 4.3.15. Ground floor uses fronting Carnarvon Street, Dampier Terrace, Short Street and Napier Terrace should be predominantly small shops, restaurants or cafes, and other uses which generate high levels of pedestrian activity.
- 4.3.16. New development along the east side of Dampier Terrace should be designed to enable active uses to address the Roebuck Bay foreshore.
- 4.3.17. Development that includes liner buildings to screen or reduce the visual impact of existing off-street car parks and provide greater enclosure of the public realm is encouraged.

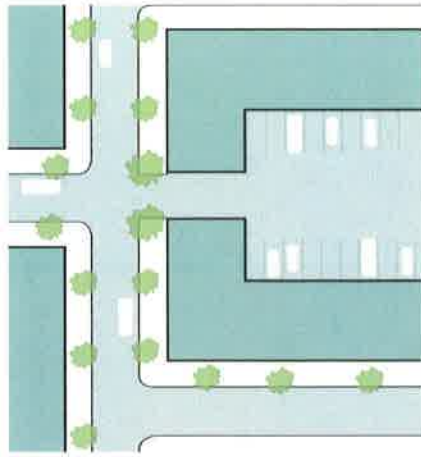


Figure 2: Car park sleeved with liner buildings to screen new or existing car parks

4.4. Setbacks

Development Control

- 4.4.1. Buildings must be setback 0-2 metres from the street boundary.
- 4.4.2. Buildings seeking a setback of 0 metres to the boundary must incorporate a weather protection/shading structure as detailed under 4.2.1.

Design Guidance

- 4.4.3. Setbacks (measured from the street property boundary to the front wall of the building) of zero metres along frontages to all streets within the area is preferred in combination with weather protection over the verge.
- 4.4.4. A zero setback to any adjacent laneway boundary is preferred.

4.5. Light Spill

Development Control

- 4.5.1. Outdoor lighting must be directed downwards with no light spill above the horizontal plane.
- 4.5.2. Lighting must not pose risk to aviation.

Design Guidance

- 4.5.3. Chinatown lighting should be installed in accordance with MOS Part 139 Section 9.21: Lighting in the Vicinity of Aerodromes.”

4.6. Plot Ratio and Site Coverage

Development Control

- 4.6.1. Non-residential development should not exceed a plot ratio of 1 and a site coverage of 75%.

Design Guidance

- 4.6.2. Site coverage may be varied upwards to accommodate outdoor dining areas abutting streets, lanes, courtyards or the waterfront.
- 4.6.3. Plot ratio may be varied upward to provide for panoramic views of open space from a substantial viewing area within the development such as a balcony or deck.

4.7. Floor Levels and Floor Protection

Development Control

- 4.7.1. Development must comply with an absolute minimum fill level of 5.3m A.H.D. and a minimum floor level of 5.7m A.H.D., or, levels as may be varied by the Scheme based on new research and the relevant State Planning Policy.

Design Guidance

- 4.7.2. Consider locating residential on upper levels in flood prone areas.
- 4.7.3. Locate essential services well above the minimum floor level to minimise risk in a severe flood event.
- 4.7.4. Use flood resilient materials to minimise property damage and extend the life of buildings in a severe flood event.

5. BUILT FORM DESIGN

Objectives:

- To encourage innovative and imaginative developments that reflects the Broomestyle.
- To ensure simple, flexible building forms configured for adequate natural ventilation, daylight and privacy.
- To ensure that new buildings are designed to be adaptable to a wide variety of activities, without requiring significant reconstruction.
- To maintain the human scale of development
- To provide interesting, well-proportioned facades, especially at ground level.
- To provide attractive elevations to all public areas and minimise the perceived bulk of buildings.
- Climate-responsive buildings that reflect a restrained range of building materials and colours appropriate in Broome.
- To achieve a reasonably expected level of amenity in a mixed use area by avoiding, reducing or mitigating effects of noise and odour.

5.1. Height

Development Control

- 5.1.1. Building height and the bulk of upper levels must maintain a compatible scale with adjacent development, and in any case, the height of buildings must not exceed a wall height of 10 meters and a building height of 14 metres.
- 5.1.2. The Obstacle Limitation Surface for Broome International Airport must not be penetrated by any building or structure.

Design Guidance

- 5.1.3. Differences in building height between existing buildings and adjacent new development are not more than one storey when viewed from the street.
- 5.1.4. In three storey development, compatibility with the scale of adjoining buildings may be achieved if the third storey floor area is setback 6 metres from the façade and/or confined to lofts or mezzanines within the roof form where the third storey floor area (excluding voids) does not exceed 30% of the floor area of the building at ground level.
- 5.1.5. An additional floor of the third storey is permissible if incorporated into the roofline and additional bulk and scale is not created.

5.2. Building Depth

Building depth means the dimensional measurement from the front wall to back wall of the shorter axis of a building and by providing guidance it will enable greater opportunity for natural lighting and ventilation.

Development Control

- 5.2.1. Residential apartments (multiple dwellings) or multi-storey accommodation units must have a building depth of no greater than 18 metres.

Design Guidance

- 5.2.2. Maximum building depth may be varied where the function demands a larger dimension.
- 5.2.3. Non-residential floors may be of greater depth than 18m when their use is for commercial or retail functions or the provision of above ground parking.

5.3. Floor Levels

Development Control

- 5.3.1. To promote adaptability for future uses, any residential development the ground floor to first floor height must be at least 4.2 metres, with a floor-to-floor height of at least 3.2 metres in each upper storey of a multi-storey building.

Design Guidance

- 5.3.2. Third floor areas may penetrate roof area or utilise a dormer style feature in mixed use buildings.

5.4. Heritage

“Heritage place” refers to buildings and other places included on the Register of State Heritage Places or on the Local Heritage List in the Shire of Broome Municipal Inventory. The MI lists and describes the buildings which are considered to make ‘considerable’ or ‘some’ contribution to the heritage values of the Chinatown Conservation Area.

Development Control

- 5.4.1. Alterations and additions to places of heritage value must enhance the established heritage value and be compatible with the design, siting, scale, built form, materials and external finishes.
- 5.4.2. New and original developments must be able to be clearly identified as of a different development period but compatible in form, colour, materials, height, bulk, scale and relationship to adjacent heritage buildings.
- 5.4.3. Development must conserve, maintain, enhance and reinforce the existing streetscape and the historic character of individual buildings, exhibiting architectural and roof forms, designs, street frontage widths, materials, finishes, fences and landscape settings which complement without attempting to reproduce historic buildings or their detailing.

5.5. Facades

Development Control

- 5.5.1. Buildings on corners must address both street frontages.
- 5.5.2. Buildings must incorporate articulation and other facade variations adjacent to street frontages and other significant public realm spaces to reduce their visual bulk and improve their appearance.
- 5.5.3. Other than in ground floor retail or commercial premises along an active frontage, openings should be small and with a strong vertical axis.
- 5.5.4. Colourbond is recommended for the external surfaces of buildings in Chinatown.
- 5.5.5. Structures should be simple in form.
- 5.5.6. Handrails and building trim should be very simple in detail.

Design Guidance

- 5.5.7. The second Development Control above may be achieved by punctuation of the building wall by window and door openings, verandahs, balconies or wall offsets and/or variation in building plane, colours and textures.
- 5.5.8. 50% visual permeability in security shutters or screens on facades is preferred.

5.6. Roof Forms

The type, shape, materials and details of a roof's design can have a significant impact on its appearance and integration with adjacent buildings. Traditionally, the roof forms in Broome were simple hipped or gable. These forms are suitable for new single and two storey developments. However, three storey buildings may need to reduce bulk and scale through an alternative roof form or slightly lower pitch.

Development Control

- 5.6.1. Large floor areas must be roofed by means of a series of smaller-scale individually roofed units that are linked to each other in order to reduce the perceived bulk of the roof form.

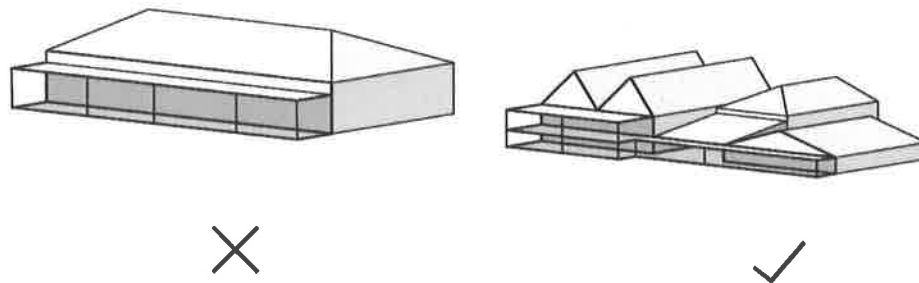


Figure 3: Break down a large roof form by smaller scale roof units

- 5.6.2. Roof forms that are not reflective of the character of original buildings such as flat, curved, pagoda, hexagonal or octagonal are not permitted.
- 5.6.3. Typical roof forms as found on original buildings such as simple hipped and gable forms with gable facing either front or side elevations must be used for single and two storey developments.

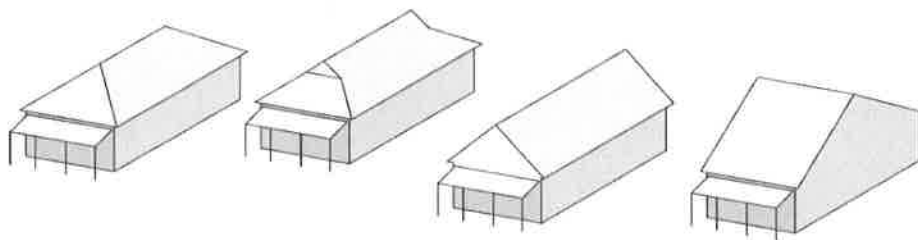


Figure 4: Typical roof forms

- 5.6.4. Unless varied to conform with flight path restrictions or a roof which is not visible from a public place, the roof pitch over the internal floor area must be between a minimum of 26 degrees and maximum of 40 degrees for hipped and gable roof forms.
- 5.6.5. The roof pitch over the internal floor area must be a minimum of 17.5 degrees for skillion roof forms.
- 5.6.6. Mono-skillion roof forms (a singular skillion roof) are not permitted.

Design Guidance

- 5.6.7. Use the shape and construction of the roof to improve the building's ability to resist direct heat ingress and provide natural ventilation.
- 5.6.8. Roof ventilation for all roof spaces in the form of vented gables, 'E' vent or similar appropriate types to suit the cyclonic category for Broome is encouraged.
- 5.6.9. Building details characteristic of Broome such as ventilated Dutch gables and wind scoops may be incorporated where they are appropriate and perform the function of their design.

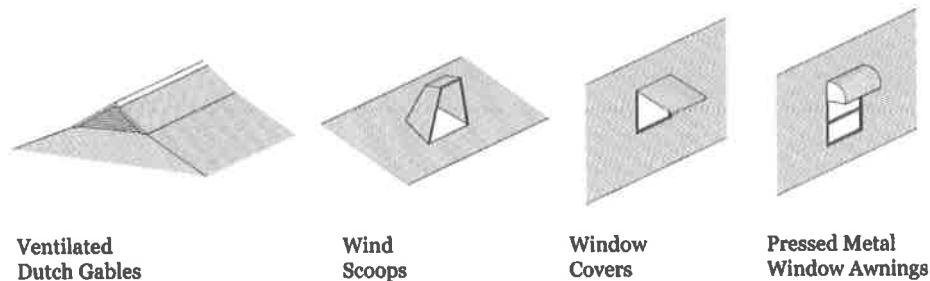


Figure 5: Building details characteristic of Broome

5.7. External Colours and Materials

A limited and appropriate palette of materials and colours reflects the Broomestyle.

Development Control

- 5.7.1. Primary cladding materials must be light coloured to reduce heat gain and the colours of external surfaces visible from the street or a public space must be no more than three (excluding colours of approved signage).
- 5.7.2. External colours must not pose risk to aviation due to glare.

Design Guidance

- 5.7.3. Colour palettes should include at least one of the colours which has traditionally been used to paint buildings in Broome: off white, green, red or black.

5.8. Mechanical Services

Development Control

- 5.8.1. Piped and wired services must be concealed from public view.
- 5.8.2. Services, including air conditioning units, satellite dishes and other plant and equipment, must be located to minimise visual and acoustic impact on neighbouring properties and the street and public realm.
- 5.8.3. All service meters must be contained within development lots, and screened and integrated into the overall development.
- 5.8.4. Air conditioning must not be visible from the street and must not be visible above the roof line of buildings on street facing elevations.

Design Guidance

- 5.8.5. Air conditioning units should be located where hot air expelled from them will not affect pedestrians or outdoor activities such as dining.

5.9. Noise and Odour

Development Control

- 5.9.1. Noise generating services such as air conditioning units must be remotely located or utilise noise control measures to minimise impacts on adjacent users.
- 5.9.2. Development, such as entertainment venues, with potential to emit significant noise must incorporate appropriate noise attenuation measures in their design to prevent noise from causing unreasonable interference with the amenity, also having regard to any adjoining residential areas.
- 5.9.3. Noise sensitive development must be located and/or incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity having regard to noise sources such as entertainment premises, service areas for retail premises, and other activities contemplated in the Zone.

Design Guidance

- 5.9.4. A range of methods can be used to mitigate amenity impacts of noise or odour. These include:
 - Building design and room layout, such as locating outdoor living areas and indoor habitable rooms away from noise sources.
 - Building construction techniques and upgraded treatment to facades, such as double glazing, window frame and ceiling insulation and sealing of air gaps.
 - Where upgraded glazing is required, the benefit is only realised when windows are kept closed and, as such, mechanical ventilation should also be considered in these circumstances.

- 5.9.5. In mixed-use developments, accommodation should be appropriately designed so occupants are not adversely affected by noise sources such as from early morning truck delivery and waste collection and odours (eg. from cooking exhausts and bin storage).

6. ENVIRONMENTAL DESIGN

Given Broome's climate, significant improvements in environmental performance, thermal comfort and lifestyle can be achieved by good design which takes advantage by shading the external walls from direct solar radiation and maximising prevailing breezes by responding specifically to the unique characteristics of each site.

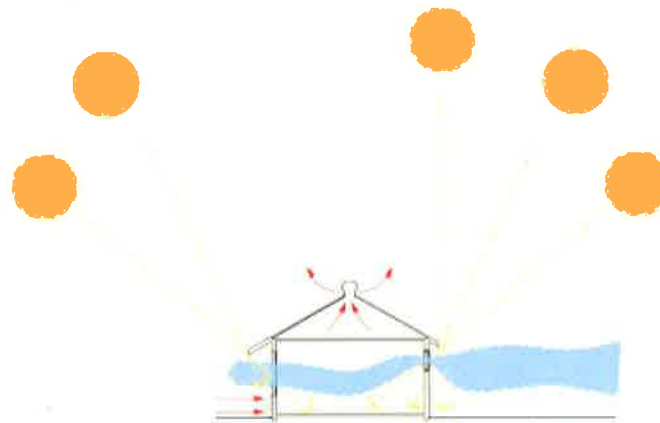


Figure 6: Shading & Ventilation Principles. Source: 'Your Home, Design for Lifestyle and the Future 3rd Edition

Objectives:

- To minimise heat gain to buildings and their internal spaces.
- To achieve thermal comfort in buildings and primary outdoor living areas (like balconies) through optimal use of breezes.
- To reduce reliance on mechanical ventilation, air conditioning and associated energy consumption.
- To promote outdoor living in a tropical climate by providing adequately shaded, functional primary outdoor living areas.
- To support the benefits of outdoor spaces through landscape design that supports outdoor activity and improves microclimate and the energy performance of adjacent buildings.
- To soften the appearance of the urban environment including non-activated frontages, car parking and service areas.

6.1. Solar Design

In Broome shading is required at all times of the year, even during rain events, shade outdoor living areas are essential for the Broome climate and lifestyle.

General Development Control

- 6.1.1. Glazing within east and west facing walls must be shaded either by a neighbouring building, adjustable vertical shading structures or awning or similar structure or a combination of the above.
- 6.1.2. North facing and south facing openings must all be provided with a horizontal fixed or moving shading device with a minimum width of 750mm.

Residential/Tourist Development Control

- 6.1.3. All windows not shaded by a 900mm eave overhang, such as along a gable wall, or windows with a sill height of less than 0.5m above floor level, must be shaded by a device (e.g.: awning, pergola, louver or approved alternative) at the head of the opening with a minimum projection of 600mm suitable to cyclonic conditions.

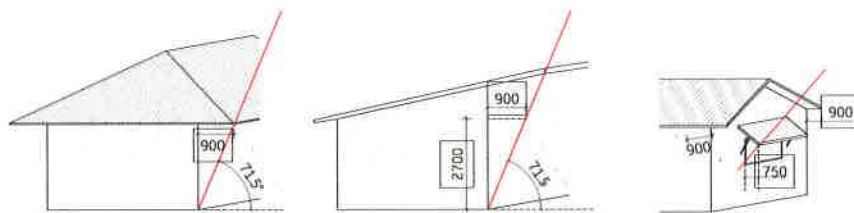


Figure 7: Eave overhang and window shading device measurements

General Design Guidance

- 6.1.4. A narrow plan form orientated to have its longest walls facing north and south if possible.
- 6.1.5. Screens help to partially enclose porches and verandahs providing sun control and a sense of depth and layering to facades. External feature screens may take the form of fixed battens, framed panels of louvers etc.
- 6.1.6. Large roof overhangs to provide significant shade to upper floors are preferred.

Residential /Tourist Development Control

- 6.1.7. In multi-residential developments, maximise the amount of dwellings that have their outdoor living areas located to the south.

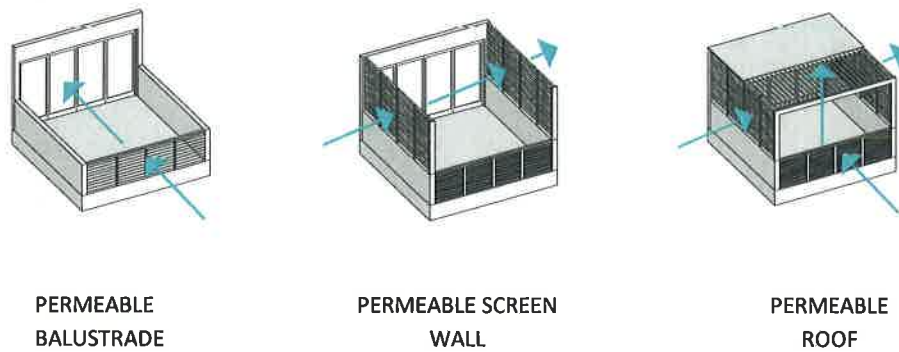
6.2. Ventilation

Optimising cross ventilation by well-placed window openings and minimising barriers to air circulation through the interior of the dwelling helps to cool the dwelling, and reduces the need for air conditioning. These guidelines work on the basis of the most beneficial cooling breezes being, in order of priority: west, north-west and south-west.

General Development Control

- 6.2.1. Principal living areas and major openings must be designed and located to enable cross-ventilation to effectively cool internal spaces.
- 6.2.2. Development should be designed to maximise cross ventilation by providing direct breeze paths for optimised cooling and air circulation.
- 6.2.3. Balustrades must be at least 75% breeze permeable.

Figure 8: Maximise cross-ventilation with permeable elements



Residential/Tourist Development Control

- 6.2.4. Habitable rooms must have at least one window with 50% openable area on all external walls.

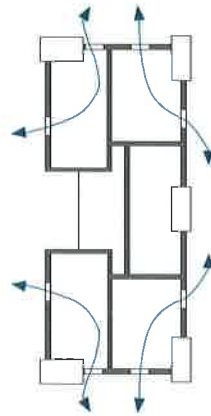
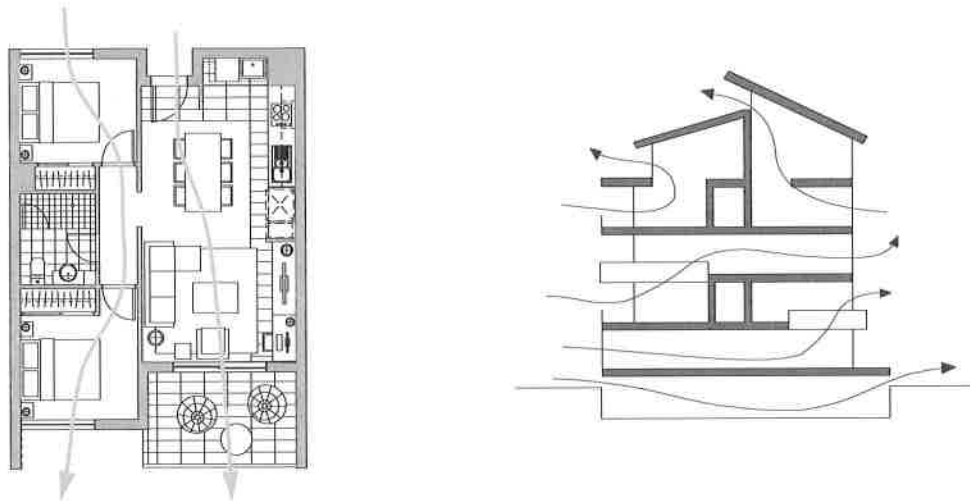


Figure 9: For habitable rooms enhance cross ventilation with openings on all external walls

- 6.2.5. Habitable rooms must have, per window, a minimum openable area of 1 metre square.
- 6.2.6. Primary outdoor living areas (including a space between more than two walls) must be covered by a roof, with a covered area of minimum dimension of 3.0 metres.
- 6.2.7. Flat ceilings to all habitable rooms must be a minimum of 2700mm.
- 6.2.8. Raked ceilings to habitable rooms must achieve an average of 2700mm with a minimum pitching plate of 2500mm.
- 6.2.9. A minimum of one ceiling fan must be provided to all habitable rooms.
- 6.2.10. Multiple and group dwelling developments must demonstrate effective cross-ventilation in communal access corridors and other circulation spaces.
- 6.2.11. Multiple dwelling developments must demonstrate the ability for cross-ventilation to each unit.

Figure 10: Multiple developments must demonstrate the ability to cross-ventilate each unit.



General Design Guidance

- 6.2.12. Maximise external wall areas (plans with one room depth are ideal) to encourage movement of breezes through the building (cross-ventilation).
- 6.2.13. Site buildings for exposure to breezes.
- 6.2.14. Permeable fencing and screens are encouraged to permit good ventilation.
- 6.2.15. Non-glazed ventilation openings are encouraged.
- 6.2.16. Buildings should accommodate and maximise use of ceiling fans to cool indoor spaces.
- 6.2.17. Night-time ventilation/flushing (night purging of hot air) - either manual or automated (eg. install security screens in conjunction with 'hold-open' devices) are encouraged in commercial / retail developments.

Residential/Tourist Design Guidance

- 6.2.18. Primary outdoor living areas should be designed and located to optimise the cooling effect of westerly, north-westerly and south-westerly breezes during the hotter months of the year.
- 6.2.19. Provide screened, shaded, insulated outdoor living areas.
- 6.2.20. Consider creating sleep out spaces and larger outdoor or balcony areas.
- 6.2.21. When breeze-blocked areas are unavoidable, locate non-habitable rooms in these areas.
- 6.2.22. In multi-residential developments, outdoor living areas to the south are preferred.
- 6.2.23. Where possible, options for vertical shading devices, such as adjustable louver or screens to the east and west of outdoor areas are recommended.
- 6.2.24. Opportunities for outdoor cooking are encouraged to enable residents to utilise outdoor spaces.
- 6.2.25. Larger balconies can be used as additional living areas and are encouraged in all developments.



Figure 11: Optimise living in Broome's climate with larger outdoor balconies

6.3. Landscape Design

Development Control

- 6.3.1. A landscaping plan must be submitted for any development application (with exception of single residential development) detailing plant types, number, irrigation and mulch type to demonstrate that the development will meet the above Objectives.
- 6.3.2. Landscaping will be designed with a view to crime prevention through environmental design, and allow development to take advantage of views over open space while assisting with creation of an attractive urban edge with landscaping on verge and near-verge areas to soften the appearance of buildings and provide shade.
- 6.3.3. Landscaping must be designed to complement building design solutions to optimize climate-control benefits of ventilation and shading in an integrated way.
- 6.3.4. Unless shading has been provided by a building or structure, shade trees in car parking areas should be provided at a rate of not less than one per four parking spaces.

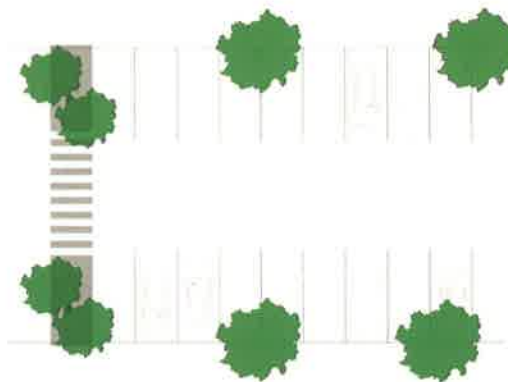


Figure 12: 1 in 4 shade trees in car parking areas

Design Guidance

- 6.3.5. Maximise opportunities for each development to include trees of a scale appropriate to the built form scale that facilitates growth to a mature canopy and long term health.
- 6.3.6. Ensure a soil depth and volume plus unpaved area sufficient to ensure the health and vigour of plantings.
- 6.3.7. Integrate landscape design with water and stormwater management including provision of opportunity for on-site detention and infiltration.

- 6.3.8. Use permeable paving.
- 6.3.9. Select plant species appropriate to context and the specific microclimate within the development, maximising use of endemic and native species and opportunities for urban biodiversity.
- 6.3.10. Select shade trees that have bare trunks and foliage at a height that do not impede natural breezes into the building.
- 6.3.11. Locate dense shrubs or trees where they will not impede breezeways.
- 6.3.12. Minimise hard stand areas.

7. CHECKLIST

The purpose of the checklist is to allow a quick assessment of whether a development proposal meets the development controls expressed elsewhere in this document.

SHIRE OF BROOME TOWN PLANNING SCHEME No. 4 (TPS4)-LOCAL PLANNING POLICIES

This Policy is a Local Planning Policy adopted under the provisions of Clause 2.5 of TPS4. TPS4 is administered by the Council of the Shire of Broome as the responsible authority under the Scheme. TPS4 was gazetted and came into operation on the 21st December 1999. Planning policies adopted under TPS4 may only be amended or rescinded after the procedures set out in Clause 2.5 and 2.6 have been completed.

Checklist

DEVELOPMENT IN CHINATOWN

ADDRESS:			
OWNER:			
APPLICANT:		LOT AREA:	

Chinatown Design Guidelines

The design Guidelines Chinatown is a statutory planning tool. These guidelines were originally developed as the Chinatown Town centre Design Guidelines as part of the Chinatown Development Strategy (2013). The guidelines comprise design objectives, development controls and design guidance for the Town centre – Chinatown zone defined within the Shire of Broome Planning Scheme and supplements the development requirements for the zone within the Scheme.

This check list will be used by planning officers in assessing development applications. This is a tool only and proponents should always refer to the particular elements of the strategy for further information.

Urban Design Guidelines - Chinatown		Y	N	N/A	P	Comments
3.0 DESIRED CHARACTER						
3.1 Desired Character						
3.1.1	Development must retain a clear vista at ground level along Short Street and Napier Terrace to Roebuck Bay.					
3.1.2	Development should front and engage with both Dampier Terrace and Roebuck Bay.					
4.0 URBAN DESIGN						
4.1 Crime Prevention through Environmental Design						
4.1.1	Along frontages and other pedestrian areas, development must incorporate and operate lighting underneath the canopy at ground level to promote after-hours security of areas under verandahs and awnings that are insufficiently lit by existing street lighting.					
4.1.2	Development must not incorporate the use of reflective or dark glazing, permanent window coverings, opaque film, signage or any device that prevents views into non-residential buildings and hides the presence of activity within the building.					
4.1.3	Building designs must provide clear sightlines from living spaces, balconies, hospitality and commercial areas to public spaces and vice-versa.					
4.1.4	Opportunities for casual surveillance must be provided from inside buildings to the public realm.					
4.1.5	Building entrances must optimise visibility and safety through being positioned in a prominent location within clear view of the street frontage, orientated towards the street with lighting.					
4.1.6	Fencing in front of the facade must be of an open style (visually permeable) to allow passive surveillance between public and private realms.					
4.2 Pedestrian Friendly Streets						
4.2.1	All non-residential buildings fronting the street must provide continuous weather protection and shading along footpaths through the use of awnings, upper level building overhangs, colonnades and verandahs of a minimum width of					

<p>3 metres for the full length of the street.</p> <p>4.2.2 Pedestrian laneways and courtyards must be at least 3 metres in width and be provided with at least 2.8 metres vertical clearance above the finished level of the laneway or courtyard.</p> <p>4.2.3 In any development making use of public land such as the street verge, eg. for alfresco dining, the developer must install shade trees, or shade structures, within the verge to assist in providing shaded verge areas for pedestrian comfort.</p> <p>4.2.4 All verandahs, awnings and other overhangs are to have a minimum vertical clearance of 2.8 metres above finished footpath level.</p> <p>4.2.5 Verandah posts to be setback a minimum of 0.5m from travel lanes and parking areas.</p> <p>4.2.6 All verandahs, awnings and other overhangs must be designed to ensure they do not inhibit trees in the public domain achieving full mature canopies.</p> <p>4.2.7 Alfresco structures within verge areas must provide integrated public access ways through the alfresco area.</p>					
<p>4.3 Active Edges</p>					
<p>4.3.1 Buildings must directly address streets and public places.</p> <p>4.3.2 Development must provide clearly delineated building entries and associated elements to emphasise their visible presence from various approaches to the building.</p> <p>4.3.3 Development must avoid or minimise blank walls presenting flat surfaces without detailing, openings or activity as viewed from the street and public spaces.</p> <p>4.3.4 Development must ensure that car parking structures, building plant and service areas are screened from streets and thoroughfares by suitable development and/or landscaping.</p> <p>4.3.5 Vehicle entries to premises including car parking areas must be located and designed so that they do not detract from street plantings or the safety, convenience and quality of the pedestrian environment.</p> <p>4.3.6 Separate pedestrian entrances must be provided for residential and commercial uses.</p> <p>4.3.7 Buildings must directly address streets and public places including Male Oval, laneways and Roebuck Bay.</p> <p>4.3.8 Development must establish and maintain</p>					

<p>relatively continuous edges of built form along street frontages with gaps coinciding with important vistas, and any 'at grade' car parking areas and entries located and designed to minimise interruption of the built-form facing these streets.</p> <p>4.3.9 Off-street car parking must not be located between facades and the street boundary.</p> <p>4.3.10 Edges of large-format retail stores or complexes must ensure that there are active frontages to all public streets with the active frontage flanked by smaller-scale premises, active uses and other features that promote street activation and passive surveillance of the street.</p>					
<p>4.4 Setbacks</p>					
<p>4.4.1 Buildings must be setback 0-2 metres from the street boundary.</p> <p>4.4.2 Buildings seeking a setback of 0 metres to the boundary must incorporate a weather protection/shading structure as detailed under 4.2.1.</p>					
<p>4.5 Light Spill</p>					
<p>4.5.1 Outdoor lighting must be directed downwards with no light spill above the horizontal plane.</p> <p>4.5.2 Lighting must not pose risk to aviation.</p>					
<p>4.6 Plot Ratio</p>					
<p>4.6.1 Non-residential development should not exceed a plot ratio of 1 and a site coverage of 75%.</p>					
<p>4.7 Flood Levels and Floor Protection</p>					
<p>4.7.1 Development must comply with an absolute minimum fill level of 5.3m A.H.D. and a minimum floor level of 5.7m A.H.D., or, levels as may be varied by the Scheme based on new research and the relevant State Planning Policy.</p>					
<p>5.0 BUILT FORM</p>					
<p>5.1 Height</p>					
<p>5.1.1 Building height and the bulk of upper levels must maintain a compatible scale with adjacent development, and in any case, the height of buildings must not exceed a wall height of 10</p>					

5.1.2	<p>meters and a building height of 14 metres.</p> <p>The Obstacle Limitation Surface for Broome International Airport must not be penetrated by any building or structure.</p>					
5.2	Building Depth					
5.2.1	Residential apartments (multiple dwellings) or multi-storey accommodation units must have a building depth of no greater than 18 metres.					
5.3	Floor Levels					
5.3.1	To promote adaptability for future uses, any residential development the ground floor to first floor height must be at least 4.2 metres, with a floor-to-floor height of at least 3.2 metres in each upper storey of a multi-storey building.					
5.4	Heritage					
5.4.1	Alterations and additions to places of heritage value must enhance the established heritage value and be compatible with the design, siting, scale, built form, materials and external finishes.					
5.4.2	New and original developments must be able to be clearly identified as of a different development period but compatible in form, colour, materials, height, bulk, scale and relationship to adjacent heritage buildings.					
5.4.3	Development must conserve, maintain, enhance and reinforce the existing streetscape and the historic character of individual buildings, exhibiting architectural and roof forms, designs, street frontage widths, materials, finishes, fences and landscape settings which complement without attempting to reproduce historic buildings or their detailing.					
5.5	Facades					
5.5.1	Buildings on corners must address both street frontages.					
5.5.2	Buildings must incorporate articulation and other facade variations adjacent to street frontages and other significant public realm spaces to reduce their visual bulk and improve their appearance.					
5.4.4	Other than in ground floor retail or commercial premises along an active frontage, openings should be small and with a strong vertical axis.					
5.4.5	Colorbond is recommended for the external surfaces of buildings in Chinatown.					
5.4.6	Structures should be simple in form.					
5.5.3	Handrails and building trim should be very simple in detail.					
5.6	Roof Forms					

5.6.1	Large floor areas must be roofed by means of a series of smaller-scale individually roofed units that are linked to each other in order to reduce the perceived bulk of the roof form.				
5.6.2	Roof forms that are not reflective of the character of original buildings such as flat, curved, pagoda, hexagonal or octagonal are not permitted.				
5.6.3	Typical roof forms as found on original buildings such as simple hipped and gable forms with gable facing either front or side elevations must be used for single and two storey developments.				
5.6.4	Unless varied to conform with flight path restrictions or a roof which is not visible from a public place, the roof pitch over the internal floor area must be between a minimum of 26 degrees and maximum of 40 degrees for hipped and gable roof forms.				
5.6.5	The roof pitch over the internal floor area must be a minimum of 17.5 degrees for skillion roof forms.				
5.6.6	Mono-skillion roof forms (a singular skillion roof) are not permitted.				
5.7	External Colours				
5.7.1	Primary cladding materials must be light coloured to reduce heat gain and the colours of external surfaces visible from the street or a public space must be no more than three (excluding colours of approved signage).				
5.7.2	External colours must not pose risk to aviation due to glare.				
5.8	Mechanical Services				
5.8.1	Piped and wired services must be concealed from public view.				
5.8.2	Services, including air conditioning units, satellite dishes and other plant and equipment, must be located to minimise visual and acoustic impact on neighbouring properties and the street and public realm.				
5.8.3	All service meters must be contained within development lots, and screened and integrated into the overall development.				
5.8.4	Air conditioning must not be visible from the street and must not be visible above the roof line of buildings on street facing elevations.				
5.9	Noise and Odour				
5.9.1	Noise generating services such as air conditioning units must be remotely located or utilise noise control measures to minimise impacts on adjacent users.				

5.9.2	Development, such as entertainment venues, with potential to emit significant noise must incorporate appropriate noise attenuation measures in their design to prevent noise from causing unreasonable interference with the amenity, also having regard to any adjoining residential areas.				
5.9.3	Noise sensitive development must be located and/or incorporate adequate noise attenuation measures into their design and construction to provide occupants with reasonable amenity having regard to noise sources such as entertainment premises, service areas for retail premises, and other activities contemplated in the Zone.				
6.0	ENVIRONMENTAL DESIGN				
6.1	Solar Design				
6.1.1	Glazing within east and west facing walls must be shaded either by a neighbouring building, adjustable vertical shading structures or awning or similar structure or a combination of the above.				
6.1.2	North facing and south facing openings must all be provided with a horizontal fixed or moving shading device with a minimum width of 750mm.				
	Residential/Tourist Development Controls:				
6.1.3	All windows not shaded by a 900mm eave overhang, such as along a gable wall, or windows with a sill height of less than 0.5m above floor level, must be shaded by a device (e.g.: awning, pergola, louver or approved alternative) at the head of the opening with a minimum projection of 600mm suitable to cyclonic conditions.				
6.2	Ventilation				
6.2.1	Principal living areas and major openings must be designed and located to enable cross-ventilation to effectively cool internal spaces.				
6.2.2	Development should be designed to maximise cross ventilation by providing direct breeze paths for optimised cooling and air circulation.				
6.2.3	Balustrades must be at least 75% breeze permeable.				
	Residential/Tourist Development Controls:				
6.2.4	Habitable rooms must have at least one window with 50% openable area on all external walls.				
6.2.5	Habitable rooms must have, per window, a minimum openable area of 1 metre square.				
6.2.6	Primary outdoor living areas (including a space between more than two walls) must be covered by a roof, with a covered area of minimum dimension of 3.0 metres.				
6.2.7	Flat ceilings to all habitable rooms must be a minimum of 2700mm.				

6.2.8	Raked ceilings to habitable rooms must achieve an average of 2700mm with a minimum pitching plate of 2500mm.				
6.2.9	A minimum of one ceiling fan must be provided to all habitable rooms.				
6.2.10	Multiple and group dwelling developments must demonstrate effective cross-ventilation in communal access corridors and other circulation spaces.				
6.2.11	Multiple dwelling developments must demonstrate the ability for cross-ventilation to each unit.				
6.3	Landscaping				
6.3.1	A landscaping plan must be submitted for any development application (with exception of single residential development) detailing plant types, number, irrigation and mulch type to demonstrate that the development will meet the above Objectives.				
6.3.2	Landscaping will be designed with a view to crime prevention through environmental design, and allow development to take advantage of views over open space while assisting with creation of an attractive urban edge with landscaping on verge and near-verge areas to soften the appearance of buildings and provide shade.				
6.3.3	Landscaping must be designed to complement building design solutions to optimize climate-control benefits of ventilation and shading in an integrated way.				
6.3.4	Unless shading has been provided by a building or structure, shade trees in car parking areas should be provided at a rate of not less than one per four parking spaces.				