

**Carawatha Primary School Redevelopment
North Lake Road, Willagee**

Draft Design Guidelines

Prepared for the City of Melville

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1.0 INTRODUCTION

1.1 PURPOSE OF THE DESIGN GUIDELINES

These Design Guidelines describe the design vision for Carawatha, and they state what designers need to consider when realising the vision.

The Design Guidelines include a suite of general and precinct-specific elements to guide design outcomes, as well as information on the relationship between the developer approval process and the statutory planning approval process.

Development proposals that are considered to be consistent with the Statement of Intent and comply with the mandatory provisions, will be deemed to have achieved the overall vision and the intended design quality for the enjoyment of residents, visitors and the broader community.

1.2 VISION AND OBJECTIVES

Carawatha is bound by Carawatha Park and the tree-lined streets of North Lake Road and Archibald Street. A number of existing mature trees will be retained within the development. Future residents living here may walk to a local neighbourhood centre and to public transport stops. All these attributes suggest that Carawatha is a unique opportunity to craft a development with its own character and identity that integrates with the adjacent vegetated landscape and provides a range of opportunities for people to live close to local amenities.

The vision for the Carawatha development is: ***integrated suburban living at its best.***



Examples of the overall vision and intent

'Integrated suburban living' is a careful fusion of architecture and landscape to create a new residential community with a range of housing types, tree-lined streets, and open spaces such as green walkways and parks.

Carawatha offers a diversity of lots and housing types that includes large family homes, terraces and apartments. Buildings will be characterised by their contemporary design features, visually appealing colours and materials, responsiveness to environmental conditions such as north-facing indoor and outdoor living spaces, as well as outlooks to streets and open spaces that encourage neighbourliness and a sense of safety to people in those spaces.

The vision for Carawatha is supported by the following Objectives:

1. Create a sustainable, attractive and contemporary design for Carawatha on a landmark corner site.

2. Provide a diversity of residential types for different household sizes and demographics.
3. Locate the diversity of lot and residential types within the site to suit the context of existing streets, residential development and Carawatha Park.
4. Integrate the built form, street and open space network to enhance human interaction, activity and walkability.
5. Promote innovative two-storey designs for single dwellings and three to four-storey apartment buildings.
6. Create legible and characterful streetscapes through the use of distinctive architectural and landscape features.
7. Provide a diversity of spaces within the park and greenways for residents to enjoy, including smaller, intimate spaces for contemplation and reflection, and larger communal spaces for socialising and interaction.
8. Provide opportunities for a safe and secure pedestrian friendly public environment through the provision of building frontages with habitable rooms and opportunities for passive surveillance from associated openings and private outdoor areas.
9. Integrate services and utilities to ensure these elements are in the least visually obtrusive location and do not detract from the attractiveness of the public realm.
10. Ensure environmental comfort and amenity for residents and visitors by managing climatic considerations within the design of the built form and landscape.
11. Deliver sustainable and robust design to help with the conservation of natural resources, longevity of the building construction and adaptable use.

The Vision for Carawatha is illustrated indicatively in **Figure 1: Development concept plan**.



Figure 1: Development concept plan

1.3 PRECINCTS

Carawatha includes three Precincts with the following characteristics:

Precinct A: Street lots (wider frontage lots)

The lots in Precinct A are located on the western side of the North-South entry road and on both sides of the central East-West street. All of the Street lots have a second frontage to either Carawatha Park or the two 'greenways' that run through the development. Whilst the houses on these lots will have a primary address to the street, the rear of these lots shall provide an outlook and establish an attractive interface with the adjacent open space in Carawatha Park or the 'Greenways'.

The lots typically have a width of 10m (except for corner lots) to accommodate houses with a minimum of two storeys with vehicle access from the street.

Precinct B: Mews lots (narrow frontage lots)

The lots in Precinct B are located between the 'greenways' and the Mews Streets. The houses on these lots will have a primary address to the 'greenways' that also provide an outlook and establish an attractive interface with the adjacent open space. Vehicle access is at the rear of these lots via the Mews Streets.

The lots are typically 6m wide (except for corner lots) with terraced building forms. Buildings on the corner lots will be designed to address both the 'greenway' and the secondary frontage street or Mews Street.

Precinct C: Apartment lots

The lots in Precinct C are located adjacent to North Lake Road and Archibald Street and are intended to accommodate apartment buildings of between three and four storeys in height. For the lots adjacent to North Lake Road, the principal address will be to the Mews Street and the adjacent 'greenways', with apartments at upper levels having an outlook to North Lake Road.

Car parking will be contained within the apartment buildings, secured and screened from public view from North Lake Road and Archibald Street behind sleeving apartments, communal spaces, decorative screens and landscape.

In the event that apartment development is deemed not to be viable, the lots in Precinct C may be developed with a terraced building form similar to Precinct B.

The Precincts are identified in **Figure 2: Precincts**

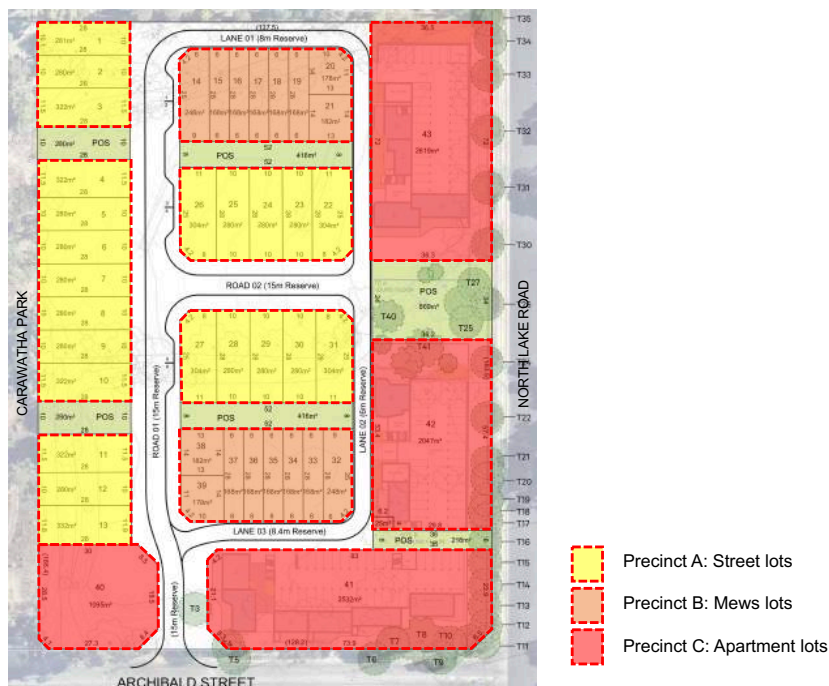


Figure 2: Precincts

2.0 PROCESS FOR DEVELOPER ENDORSEMENT

2.1 PLANNING CONTEXT FOR AN APPROVAL

The City of Melville has adopted these Design Guidelines as a Local Planning Policy to guide development at Carawatha and ensure adequate control to achieve a high-quality of design for the streets, buildings and public open space.

For single lots, the Carawatha Estate Architect will assess each application for development on a lot in accordance with the vision, objectives, Statements of Intent and the Mandatory Requirements of the Design Guidelines and, subject to compliance, provide Developer Endorsement.

Where a statutory Development Approval is required to be obtained under the City of Melville Local Planning Scheme No. 6, the City of Melville will assess a Development Application in accordance with these Design Guidelines and all other relevant statutory planning documents. If there is inconsistency between these Design Guidelines and any other relevant planning document, such as the Willagee Structure Plan, other Local Planning Policy or the R-Codes, the Design Guidelines will prevail.

Where a development is of a scale that requires input from the City of Melville's Architectural and Urban Design Advisory Panel (AUDAP), a developer will be required also to present the proposed design to the AUDAP prior to lodgement of a Development Application in accordance with the City of Melville's Architectural and Urban Design Advisory Panel (Policy No. LPP1.2).

The Design Guidelines are largely performance based. Each of the design elements with Design Guidelines includes a Statement of Intent that provides a degree of design flexibility to encourage innovative design.

The Design Guidelines include a number of Mandatory Requirements that, if satisfied where relevant, are one way to achieve deemed compliance with the Statement of Intent. In addition to the Mandatory Requirements, a range of Recommendations is included that will further assist in meeting the Statement of Intent.

An Applicant may provide an alternate design solution to a Mandatory Requirement only if it can be demonstrated to the satisfaction of the Carawatha Estate Architect that the Statement of Intent is clearly met or exceeded in design quality. However, any variation to the Mandatory Requirement will require the proposal to be considered as a Development Application.

2.2 DEVELOPER ENDORSEMENT PROCESS

The Carawatha Estate Architect reviews and assesses a development proposal in accordance with the Design Guidelines. The process is:

Step 1: The Applicant submits concept plans for initial design review and comment.

Step 2: Further to any requirement to modify the design, the Applicant submits detailed plans for design review. The Carawatha Estate Architect will either endorse the plans or request additional modification or information to finalise the endorsement.

Step 3: Following completion of Step 2, the Applicant will be required to submit a Development Application to the City of Melville should the design propose a variation to the Mandatory Requirements of these Design Guidelines. An Applicant should seek advice from the City of Melville as to whether a Development Application is required. In the event that a Development Application is required, a copy of the plans endorsed by the Carawatha Architect must be included in the application to the City.

Note: all development requires the approval of a Building Permit from the City of Melville prior to construction.

2.3 INFORMATION REQUIREMENTS

The Applicant submits the following information to the Carawatha Estate Architect:

- A site plan, which must include adjacent context and any existing site features including existing trees; existing and proposed ground levels; proposed building and carparking structure/bays; all lot boundary setback and outdoor living area dimensions; utility areas and bin store; and any new retaining walls or other structures
- All floor plans, the roof plan with the location of any solar/PV panels, mechanical plant and services
- All building elevations
- A minimum of one cross-section through the building
- A schedule of materials and colours (such as wall, roof, frame, glazing, details, garage door or carpark entry gate, fences, driveway)
- Landscape design, showing proposed plant species and their location, quantities and pot sizes, and the design of any fences not otherwise provided by the land developer.

Drawings shall include a north point, annotation, and a scale bar.

Note: The Applicant is responsible for checking the site conditions prior to a design, particularly levels, the location and design of any existing site features and infrastructure such as existing trees, retaining walls, landscape, fences, steps, services and utilities.

3.0 GENERAL PROVISIONS (Applies to all lots)

A. SITE PLANNING AND BUILDING DESIGN

3.1 SUSTAINABLE DESIGN

Statement of Intent

Development aims to be more sustainable than previous developments by making efficient use of non-renewable and natural resources; optimising opportunities for recycling; incorporating durable materials and detailing; and creating buildings and landscape that can adapt as future needs evolve. Certain elements are part of the design and build process, whereas other recommended items may be installed separately by the building owner to improve sustainability.

Mandatory requirements

General

- *Design apartment developments to be capable of achieving a minimum 4-star Greenstar rating or other equivalent.*

Passive design

- *Orientate the building and outdoor spaces on the lot to allow, where practical, access for northern winter sun to naturally warm at least one internal living area via a major opening and at least one private outdoor living area.*
- *Include shade elements, such as awnings, pergolas or overhanging eaves, for the climate protection of any west facing openings and associated spaces during summer.*
- *Orientate the building and outdoor spaces on the lot to allow breezes to naturally ventilate internal living areas, bathrooms and toilets, as well as any roof voids and outdoor living areas.*
- *For corner habitable rooms, include openings on both walls for cross ventilation.*

Note: There is no maximum overshadowing requirement applicable to development.

Waste management

- *Include storage space for bins for household waste management and recycling, behind the building line and screened from public view.*

Adaptability

- *Include an entry door width of minimum 820mm and level (step free) entry for ease of access.*

Recommendations

General

- In regard to apartment design, refer to the draft Design WA Apartment Design guidelines for additional guidance on sustainability for apartment design.
- Utilise light-coloured roofs and light colours for walls with long periods of exposure to the sun.

Renewable energy

- Install a solar hot water system and an array of photo voltaic panels for electricity generation.
- Incorporate PV solar panels on roof areas with long periods of exposure to the sun.

Resource efficient appliances

- Install high star rated and energy and water efficient domestic appliances and an air-conditioner unit only if required.
- Install fixtures such as ceiling fans in habitable rooms, LED lights, motion sensors in outdoor areas and low-use spaces, and a gas or induction hob.

Water re-use and conservation

- Connect a rainwater tank to provide non-potable water for landscape use, or for other uses subject to relevant health legislation.
- Adopt waterwise landscape design principles and select plants that reduce water use and time consumptive maintenance.
- Utilise paving materials that enable infiltration of stormwater into the ground.

Adaptability

- At the ground level, include minimum corridor width of 1m and minimum of 820mm width for the doors to all rooms, and locate the positions of door handles and electrical switches at minimum 900mm above the floor level.

Durability

- Select materials and colours for longevity and ensure the building design and details can be maintained to a high-quality finish.

Stormwater drainage

- Refer to Appendix 3 for guidance on lot stormwater drainage.

3.2 BUILDING INTERFACE WITH THE PUBLIC REALM

Statement of Intent

Buildings define the edges of the network of streets, mews streets, 'greenways', parks and other open spaces in a manner that is attractive, creates an interactive interface and appears friendly, to ensure that the public realm is legible, comfortable and safe to use at all times.



Examples of a good interface with streets and other public spaces

Mandatory requirements

- *For each dwelling, provide at least one major opening to a habitable room with an outlook to each adjacent street or public open space.*
- *Ensure the front door to the building is clearly visible from an adjacent street or public open space.*

Recommendations

- Articulate and detail all publicly visible elevations for visual interest and a consistent high quality of design.
- Within the building, locate habitable rooms and associated major openings to optimise opportunities for passive surveillance of the public realm by occupants.
- Design a building on a corner lot to acknowledge the corner with a habitable room/s, openings and architectural expression, such as through a material, colour or design element.
- The incorporation of a veranda and balcony on an elevation that addresses the public realm to facilitate outdoor living and community engagement.
- Locate any bathroom and toilet window with obscure glazing away from public view.

3.3 LANDMARK BUILDINGS

Statement of Intent

The legibility of Carawatha's layout is enhanced through the strategic location of landmark buildings at identified entry points and on street corners. A landmark building is sufficiently different in design and prominence from neighbouring buildings and, therefore, is more recognisable and memorable.



Examples of buildings that responds to a corner location and establishes a landmark feature

Mandatory requirements

- Incorporate a distinctive architectural element or feature, such as a contrast in form, material or colour, where the lot has a corner to adjacent streets, laneways or public open space, and as identified in Fig 3. Landmark locations below.

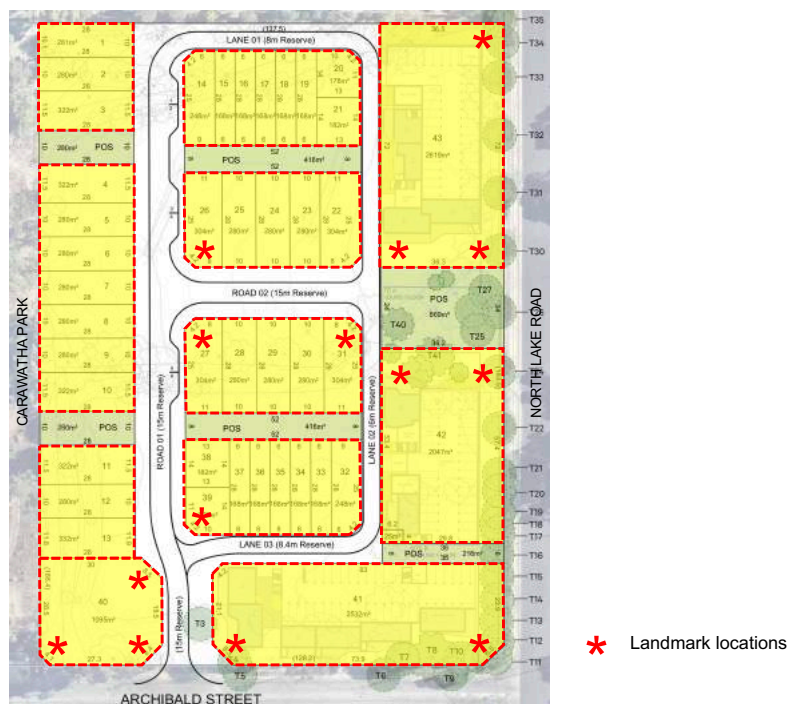


Fig 3. Landmark locations

Recommendations

- Design the building to relate to the function and scale of the entry space.
- Present the building's point of difference in the environment through, for example, subtle detailing, materials and colours or the use of a unique architectural form.

3.4 ARCHITECTURAL FORM AND CHARACTER

Statement of Intent

The character of buildings is uniquely recognisable since they all are part of the same family. The character derives from a response to the context, use of common building elements, roof types, the proportions of openings, the integration of landscape and a carefully selected palette of materials and colours.



Examples of the general intent for architectural character

Mandatory requirements

- *Incorporate at least one of the following architectural features on the primary frontage – a porch, balcony, veranda, bay window or tower. **
- *All openings visible from adjacent streets and public open spaces shall be of a square or vertical proportion or composed of square or vertically proportioned glazing panes.*

**For the purpose of the above, a porch or bay window shall have a minimum overall width of 1.8m and a projection of at least 0.6m from the wall in which it is set.*

Recommendations

- Develop an architectural identity based on the local character of tree-lined streets and mews streets, and beautifully landscaped 'greenways' and parks.
- Design the building using a modern 'rustic' suburban language expressed through an elegant and simple building form, fine detailing and bold use of a carefully considered combination and proportion of different materials and textures in earthy colours of the land - ensure there is variation, but not clutter.

- Utilise expansive balconies and predominantly vertically orientated openings and areas of glazing for windows and doors that face the public realm.

3.5 MATERIALS AND COLOURS

Statement of Intent

Buildings are finished with a selected palette of durable materials and colours that provide texture, visual interest and develop a mellow patina over time. The palette of materials and colours is derived from the earthy tones of the land and is warm and harmonious. Refer to **Appendix 1: Materials and colours schedule**.



Examples of the use of colour and materials to provide visual interest

Mandatory requirements

- Incorporate a minimum of two wall materials to all street elevations.
- Painted and rendered masonry shall be used only as a secondary material and shall not exceed 25% of any wall elevation to an adjacent street or public open space.
- A roof shall be metal (no zincalume) or a flat profile shingle/interlocking tile. Metal shall be in a light colour with a solar absorptance of maximum 0.65; tile colour shall be of a similar hue to the selected metal colours.
- No reflective or colour tinted glass is to be visible from the public realm.
- No external roller security shutter is to be visible from the public realm.
- Driveway finish shall be a light colour (avoid black and very dark shades of red, brown and grey).
- Where a pedestrian footpath crosses a driveway, the footpath shall be reinstated with the footpath material that is common to the estate.

Recommendations

Wall

- For a wall visible from the public realm, use a combination of materials - such as brick, limited areas of painted render, timber or vertical metal cladding, weatherboard, tiles, concrete or stone - in a variety of warm, natural and earthy colours of the land, and combine with lighter colours, such as white and cream, for details.

Roof

- The use of innovative contemporary standing seam flat roof sheeting is encouraged.

Windows

- Use timber or commercial-grade aluminium window frames in white, silver, dark grey or black.

Garage door (sectional)

- Use timber, timber-style, or metal with a solar absorbance of maximum 0.65.

Balcony balustrade

- Use glass or vertical rails in metal or timber that complement the architectural character and colours of the building.
- Consider balcony balustrades as an opportunity for creative expression.
- Include in-built planter boxes as part of a balustrade to integrate landscape and architecture.

Driveway and crossover

- Utilise segmented pavers, cobblestones, or exposed aggregate in-situ concrete to provide a visually appealing textured finish.

3.6 ROOF

Statement of Intent

Buildings are designed with a combination of pitched and flat roofs, and with a limited palette of roofing materials and colours as per Section 3.5. The approach to roof design varies between the precincts as identified in the precinct-specific guidelines in Section 4.



Examples of the different roof pitched and flat roof forms

Mandatory requirements

- *No curved roof is permitted.*
- *No skillion roof is permitted, unless it is screened from public view by a parapet wall.*

Recommendations

- Use roofs to accentuate entrances, rooms or other important spaces within the building.

3.7 PRIVATE OPEN SPACE

Statement of Intent

Buildings includes attractively designed open spaces for solace and entertainment, such as a garden, courtyard or balcony, with direct access from a main living area (not a bedroom). The open space has provision for shade in summer and is oriented, where possible, to receive northern winter sun.

Note: Overlooking of adjoining front and rear setback areas is a natural consequence of development of two storeys or more. As such, the deemed-to-comply provisions of Clause C.1.1 (Visual Privacy) of the R-Codes for front and rear setback areas are recognised by these Design Guidelines as not applicable except where they apply to adjacent dwellings outside of the Carawatha Primary School redevelopment area.

Mandatory requirements

- *Locate at least one area of open space to receive sunlight at an angle of between northeast and northwest.*

Recommendations

- Ensure the space is attractive and comfortable to use by locating any clothes drying line or air conditioner compressor unit in a visually unobtrusive location.
- Include vertical moveable screens on the balcony perimeter for climate protection.
- Provision of paving or decking to allow for outdoor seating and entertaining.
- Incorporate roof terraces to provide additional amenity and access to sun and daylight.

3.8 VEHICULAR ACCESS AND PARKING

Statement of Intent

In Carawatha, pedestrian amenity is prioritised over convenience for car drivers. Streets include narrowed crossovers to front loaded garages to maximise the length of the footpath and areas for soft landscape in the verge; or vehicular access is from the quieter Mews Street at the rear of terraced housing lots and the apartment buildings.

All of the required vehicle parking bays for residents are screened from public view from adjacent streets parks and other open spaces. However, visitor parking may be available on streets, private driveways or in dedicated locations.

Mandatory requirements

- *The required number of residents' vehicle bays on each lot are screened from public view and in a secure area such as a garage, gated enclosure or in a basement or undercroft.*

Recommendations

- Include provision for the charging of an electric vehicle.
- Where visitor bays are located in the open, provide shade by means of trees or structures integrated with the building design.

3.9 BUILDING UTILITIES AND SERVICES

Statement of Intent

The building's mechanical services are screened from public view from the adjacent streets, parks and other open spaces wherever possible. Essential utility and service infrastructure is integrated in a visually unobtrusive manner as part of the design of the building or the associated landscape.

Mandatory requirements

- *Install any air conditioning unit, communication device, and piped and wired services out of public view or in as visually unobtrusive a location as possible.*
- *Install the clothes line, waste bin store, rainwater tanks, and garden equipment (such as compost bins and hose reels) out of public view.*
- *Align PV or solar hot water panels with the roof pitch or, if on a flat roof, screened behind a parapet wall.*

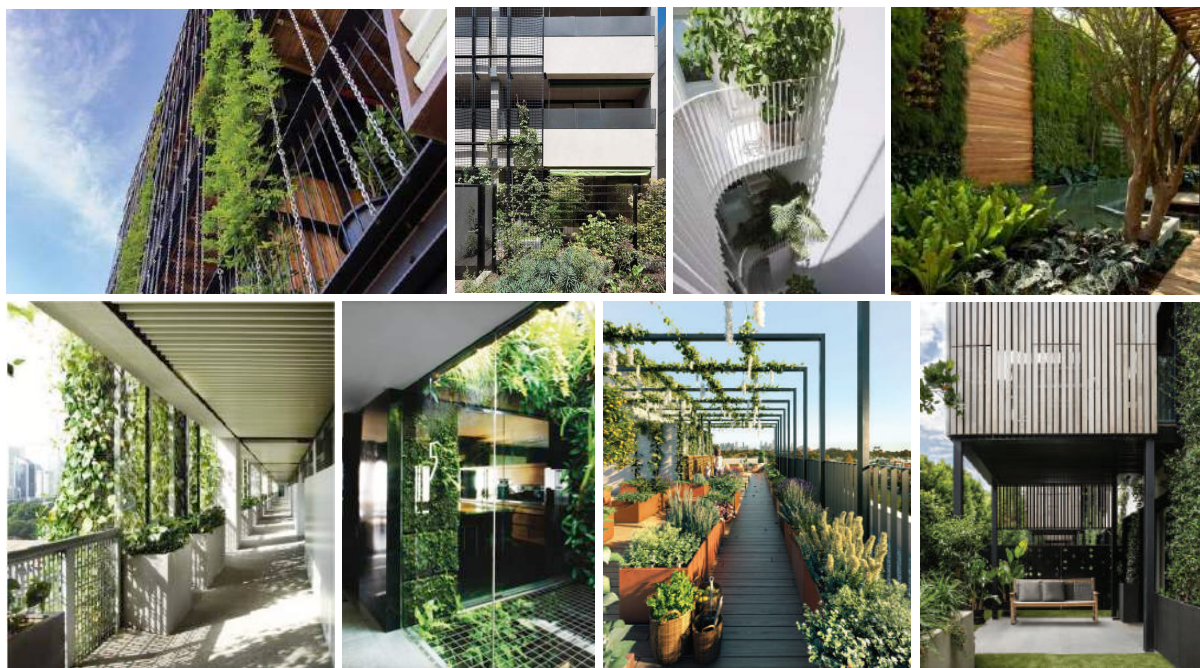
Recommendations

- Locate utility meters to be visually unobtrusive on, for example, a side wall and not on the front elevation, and colour match the meters with the wall surface on which they are mounted.
- Locate air-conditioning units where they minimise noise and exhaust impact on private open spaces or neighbouring properties.
- Install a split system solar hot water system (storage tank elsewhere) if the panel installation is on a roof visible from the public realm.

3.10 ON-SITE LANDSCAPE

Statement of Intent

Landscape on individual lots contributes to the overall character of the development, and architecture and landscape are integrated into a cohesive composition where on-site landscape is adjacent to, or visible from, streets, parks and other open spaces.



Examples of the integration of landscape into the design of buildings

Mandatory requirements

- *Setback area to the primary frontage shall consist of at least 50% vegetation.*
- *Avoid planting dense, tall shrubs adjacent to the footpath to minimise 'hiding' opportunities.*
- *Landscape design is to include at least one small to medium size tree (at maturity) in the front garden. Species selection and tree position is to take account of sun and shade control through the seasons, and in consideration of the impact on adjoining neighbours.*

Recommendations

- Maximise use of drought tolerant species to reduce water use.
- Utilise opportunities for 'vertical' landscaping through the use of climbing plants, pergolas and other supporting structures, or planter boxes integrated with the upper levels of buildings.
- Use deciduous trees and climbing plants to provide for summer shading to windows and private spaces whilst also enabling access to winter sun.
- Use of shrubs and groundcovers to assist with softening spaces and/or contributing to privacy while still allowing passive surveillance of public spaces and encouraging community interaction.
- Planting palette is to be sympathetic with planting used in the public realm.
- Use a shade structure, such as a pergola or arbour integrated with the house design for provision of shade and to add visual interest to external use spaces.
- Use planter pots on paved terraces and balconies to add visual interest and softening of spaces.
- Include at least one small to medium size tree (at maturity) in the back garden.

3.11 FENCES

Statement of Intent

Fences contribute to the overall character of the development and are constructed in a limited palette of materials and colours. Generally, where fences are adjacent to pedestrian paths in streets, parks and other open spaces, the fences are low in height or visually permeable to provide an outlook to these public spaces.

The design approach to fences for each precinct is provided in the precinct-specific guidelines in Section 4.



Examples of fencing types that enables visual permeability

Mandatory requirements

- *Where not otherwise provided by the land developer, fencing to streets and public open spaces shall achieve a minimum of 50% visual permeability. No supplementary screening (such as shade cloth or bamboo screen) shall be installed on boundary fencing to further reduce the visual permeability.*
- *No fencing provided by the land developer shall be removed without the land developer's written consent.*
- *Fencing to side boundaries shall not project forward of the adjacent front building line, unless otherwise provided by the land developer.*
- *Common boundary fencing behind the building line shall be to the land developer's standard estate specification.*

Recommendations

- Fencing, other than that provided by the land developer or common boundary fencing, should complement the design and aesthetic of the building on the lot.

3.12 LIGHTING

Statement of Intent

The safety and security of public spaces is enhanced by the provision of lighting that sufficiently illuminates the space.

Mandatory requirements

- *Provide lighting to illuminate the front door and pedestrian path to the building entrance from adjacent streets, laneways or public open spaces.*

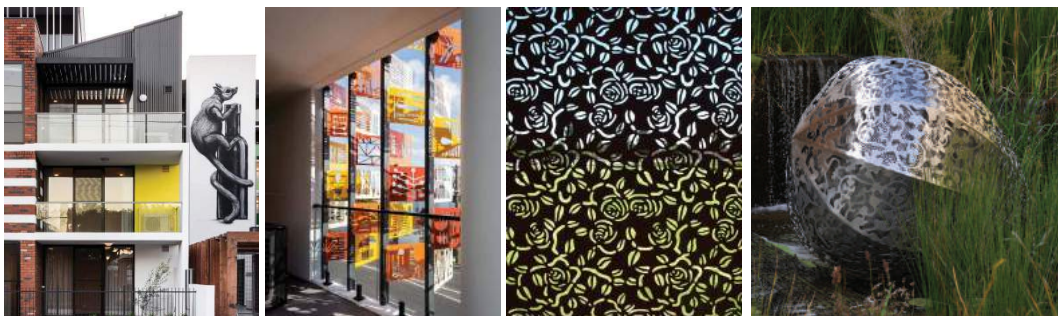
Recommendations

- Utilise lighting that spills light on to adjacent streets, laneways or public open space to enhance illumination levels in the public realm.

3.13 PUBLIC ART

Statement of Intent

Public art that is required for development with a value of \$1 million or more, is integrated into the design of the building and landscape in a form that contributes to the overall character or history of the area.



Examples of public art integrated into building and landscape

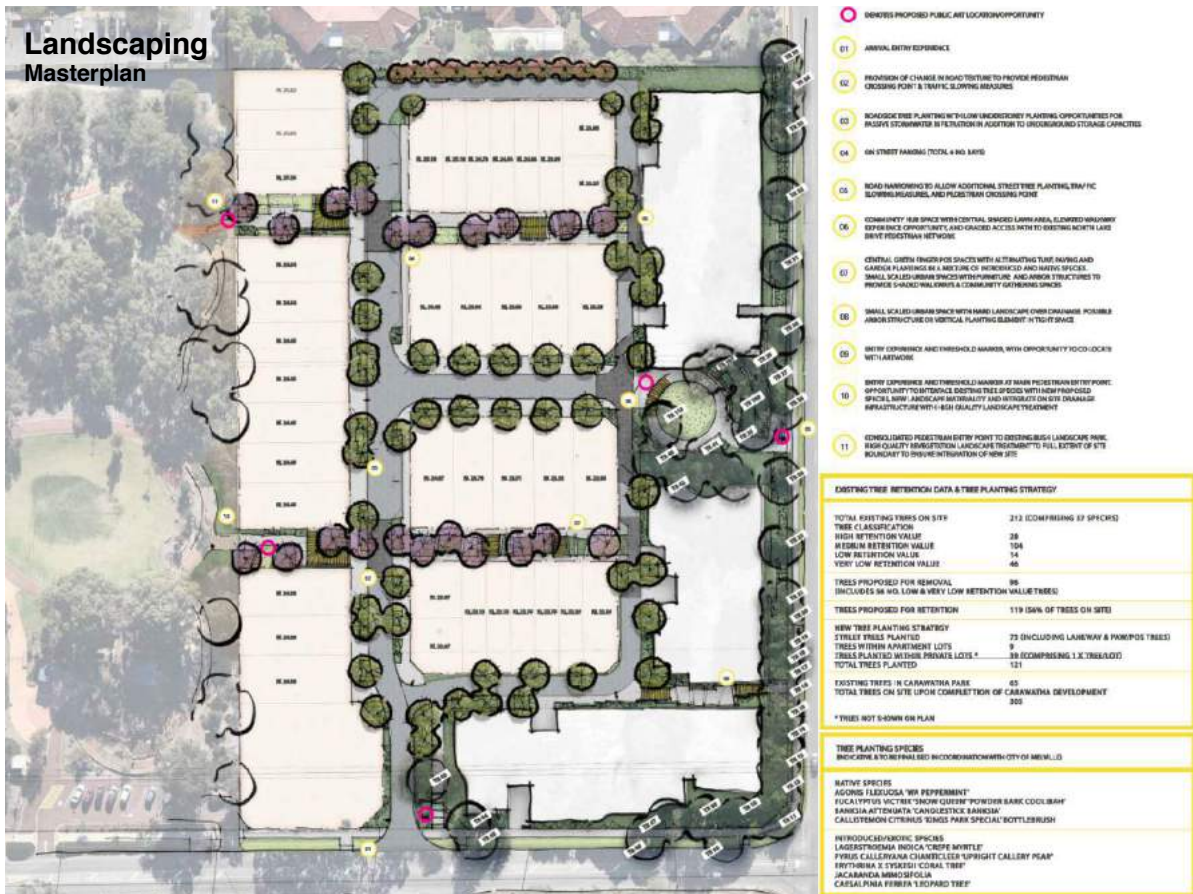
Mandatory requirements

- *For multiple dwelling development with a value of \$1 million or more, public art, or a public art cash-in-lieu contribution, shall be provided to a value of 1% of the cost of development, consistent with the City of Melville's Provision of Public Art in Development Proposals (Policy No. LPP1.4).*
- *In the development of all public art opportunities, the City of Melville's Public Art Strategy and Masterplan, must be considered, in particular the City's Guiding Principles (page 14), Willagee Local Character and Precinct Aspirations (page 74).*

Recommendations

- Integrate public art into the built form and landscape so that it contributes positively to, and enhances, the public realm.
- Ensure the public art contribution is considered by the project team at the early stages of design to ensure authentic integration.
- Draw on the unique qualities of the site, including its history as a school, location alongside remnant bushland, and the surrounding residential community, to guide and inspire artworks that contribute to a sense of place and identity.
- Locate public art where it will remain clearly visible from the public domain, and in a manner that is recognisable as a public art component.
- Consider maintenance and longevity in the development of artwork, including considering locating the work so it is not susceptible to deliberate or accidental damage.
- Public art should consider the residential scale of the site and reflect this through work that integrates fine grain details when viewed from a close proximity.

B. PUBLIC LANDSCAPE





Examples of the general landscape intent

3.14 STREETS

Statement of Intent

The two Streets are the main north-south entry street from Archibald Street and the central east-west street leading to the park next to North Lake Road. The streets are generally defined by Precinct A wider frontage lots with two-storey houses and front-loaded garages.

The landscape in the Street includes trees and rain gardens for managing stormwater. The location and narrowed width of a crossover to a driveway optimises the area of soft landscape in the verge.

Key principles for landscape design

- Create a pedestrian friendly environment through the use of subtle but interesting paving treatments combined with soft landscaping to downplay roads and car dominance.
- Maximise street tree planting, with the use of medium-sized deciduous trees to provide sun and shade control and enhance visual amenity.
- Use a simple and robust palette of materials to achieve a timeless and elegant feel.
- Incorporate passive stormwater design through the use of rain gardens and drainage catching tree wells.
- Use waterwise plant species.
- Use a mix of native and exotic species to achieve a colourful, garden-style landscape with contrasting textures and forms that create an interesting, human-scale landscape.

3.15 MEWS STREETS

Statement of Intent

The Mews Streets form a looped laneway within Carawatha that provides vehicular access to the on-lot car bays of terraced housing in Precinct B and the carparking for the apartment buildings in Precinct C.

The Mews Streets include areas of attractive landscape and paving treatments that 'soften' the otherwise utilitarian appearance of a conventional laneway.

Key principles for landscape design

- Create a pedestrian friendly environment through the use of subtle but interesting paving treatments combined with pockets of soft landscaping to soften paving and built form.
- Incorporate street tree planting in selective locations, with the use of small to medium-sized deciduous trees to enhance visual amenity.

- Use a simple and robust palette of materials to achieve a timeless and elegant feel.
- Use waterwise plant species.
- Use a mix of native and exotic species to achieve a colourful, garden-style landscape with contrasting textures and forms that create an interesting, human-scale landscape.

3.16 GREENWAYS (Public Access Ways) AND PARK (Public Open Space)

Statement of Intent

The Greenways consist of two fingers of open space that lead from Carawatha Park to the apartment lots adjacent to North Lake Road and are abutted by the fronts of terraced housing and the backs or side fences of wider frontage lots. As defining elements of the vision for Carawatha, the Greenways integrate landscape and architecture. Effectively extending the existing landscape of Carawatha Park into the development, the Greenways provide an appealing pedestrian route as well as an attractive open place for neighbours to meet.

The Greenways are complemented by a park at the end of the central East-West Street adjacent to North Lake Road. In addition to providing an outlook to the adjacent apartment lots, this central park retains a number of existing trees.

Common principles for landscape design

- Incidental public art objects and bespoke outdoor furniture to provide elements of surprise and interest.
- Arbours and/or shade structures to help define spaces and provide enclosure and shelter.
- Use a simple and robust palette of materials to achieve a timeless and elegant feel.
- Use waterwise plant species.
- Use a mix of native and exotic species to achieve a colourful, garden-style landscape with contrasting textures and forms that create an interesting, human-scale landscape.

Specific principles for greenways

- Create a variety of seating nodes of different sizes to encourage resident use of the spaces and a social life.
- Paths to provide pedestrian linkages through the greenways to Carawatha Park.
- Tree planting of medium-sized deciduous trees to provide sun and shade control and enhance visual amenity.

Specific principles for parks

- Retention of existing mature trees, where possible, will provide instant visual and environmental amenity, as well as providing a sense of containment.
- Utilise the natural slope across the park to provide contouring and terracing of the landscape to help define use areas and create visual interest.
- A central lawn area to provide an attractive communal space for informal play and gathering.
- A variety of seating areas, small and large, to cater to individuals and larger groups.

4.0 PRECINCT SPECIFIC ELEMENTS (Applies to lots in the relevant precinct)

4.1 PRECINCT A: PARK AND STREET FRONT LOTS

Statement of Intent

Precinct A includes premium housing with a typical lot width of 10m and a minimum height of a two-storey frontage to the street. The house presents an attractive frontage to the street with the garage setback beneath a projecting element, such as a balcony or cantilevered upper floor, that casts a shadow on the garage door to reduce its visual impact on the streetscape.

The house is built to both side boundaries of the lot at the ground level (except for a corner lot), while the upper level is setback from one side boundary to visually separate the house from its neighbour.

As part of Carawatha's architectural character, each house has a distinctly visible pitched roof to help identify the individual house on the streetscape.

The rear of the house has views either to Carawatha Park or the Greenway. In response, the house presents an outlook to these open spaces from habitable rooms and openings at each floor level and from a well-landscaped rear garden.

The driveway to each house is 'narrowed' at the crossover to create verges for substantial areas of soft landscape in the street.

The street and side boundaries of the lot in the front setback area are unfenced to create an open aspect for the house and for the landscape in the front garden to contribute to the character of the street.



Examples of the general intent for Precinct A: Street lots

Mandatory requirements

Height and setbacks

- Buildings shall present a minimum height of two-storeys to the primary frontage.
- Buildings shall be set back at least 3m from the primary street setback with a minimum garage setback of 4.5m. Notwithstanding the above, the garage shall be setback by a minimum of 1m from the front of the building to lessen the visual impact of the door on the streetscape.
- A two-storey height parapet wall is permitted only up to one common side boundary of the lot for up to 50% of the lot boundary, contained between the front and rear setback lines, with any other portion of an upper storey set back by a minimum 1.5m setback from a side boundary.
- A single storey boundary wall up to 3.5m in height is permitted to both side boundaries between the front and rear setback lines, except for a corner lot where a 1.5m setback shall apply to a boundary with a secondary street or greenway.
- Buildings shall be set back by a minimum of 4m from the rear boundary.

Roof

- The building form shall include a pitched roof visible from the street for at least 50% of the front two-storey element of the house.
- Roof pitch shall be between 21 degrees minimum and 30 degrees maximum. Exceptions may be considered on design merit.
- Roof eaves shall have a minimum width of 450mm, except on common lot boundaries.

Front elevation

- At least three different vertical planes, inclusive of the garage, shall be included on the front elevation for articulation.

Rear elevation

- Buildings shall provide at least one major opening from a habitable room (with a minimum area of 1.5sqm), including a main living area, at each floor level with an outlook to the Greenway or Carawatha Park.

Garages and crossovers

- Garages shall not exceed an external width of 6m.
- Driveway width shall be reduced to a maximum width of 4m across the street reserve.

Fence

- Rear boundary fence shall be provided by the land developer and be a maximum 1.8m overall height above lot ground level, with a solid maximum 0.9m base and visually permeable panels (minimum 50% visual permeability) above and between solid piers. The rear boundary fence includes a gate for pedestrian access to the Greenways.
- Fencing to side boundary fences to streets or an open space is permitted to be solid only where abutting the primary outdoor living area to a maximum length of 50% of the boundary length contained between the front and rear setback. The remainder of the fencing shall be and be a maximum 1.8m overall height, with a solid maximum 0.9m base and visually permeable panels (minimum 50% visual permeability) above and between solid piers.

Recommendations

- Building height shall be emphasised through details such as a raised roof, parapet or other architectural form, or a vertical material such as vertical timber or metal cladding.
- Front gardens should be landscaped to a high quality for visual interest from the Street.

- For lots facing Carawatha Park and Greenways, rear gardens should be landscaped to a high quality for visual interest from the park/greenways.
- Include a ground level toilet and bathroom with a step-free shower, and a room useable as a bedroom to allow ageing in place or a person with mobility difficulties.

4.2 PRECINCT B: MEWS LOTS

Statement of Intent

Precinct B includes a more compact terraced housing option based on lots with a typical frontage of 6m; there is also smaller duplex housing on the corner lots. A house frontage and front door faces a Greenway that runs through Carawatha and, like a house in Precinct A, has a minimum height of two-storeys at the front of the lot to form a strong edge to the Greenway.

The house has a well-landscaped front garden and an outlook to the Greenway from habitable rooms and major openings at both floor levels.

Vehicle access to the rear of the lot is from the Mews Street, with the car park structure having the potential for an additional room above.

A house is built to both side boundaries at each floor level (except for a corner lot) to create a terraced house type. Because of the length of the terrace form, the front elevation to the Greenway is articulated to provide visual interest and avoid monotony and excessive repetition.

The house form is largely rectangular but may include a pitched roof to provide additional articulation and to identity the individual house within the terrace. Other elements on the frontage may include a cantilevered upper floor, variation in parapet height, and at least two different materials and colours on different vertical planes.

An innovative approach to site planning enables multiple usable outdoor spaces including 'front gardens' to the adjacent Greenway, private courtyards at the 'rear' of the house, dual use of garaging as al-fresco spaces and roof terraces.



Examples of the general intent for Precinct B: Mews lots

Mandatory requirements

Height and setbacks

- *Buildings shall present a minimum height of a two-storey frontage to the adjacent Greenway.*
- *Buildings shall be set back from the adjacent Greenway by 2m.*
- *A two-storey high parapet wall is permitted on both common side boundaries of the lot for up to 100% of the lot boundary between the setback lines.*
- *A three-storey high parapet wall is permitted on both common side boundary boundaries of the lot for up to 50% of the lot boundary between the front and rear setback lines.*
- *For corner lots, buildings shall be set back by minimum 1m from the secondary street boundary.*

Roof

- *Where a pitched roof is visible from the primary frontage, the roof pitch shall be between 21 degrees minimum and 30 degrees maximum, with a minimum eaves width of 450mm other than on a lot boundary. For the purpose of assessment, any elevation to the Greenway will be considered as the primary frontage.*

Front elevation

- *At least two different vertical planes shall be included on the primary elevation for articulation.*
- *Buildings shall include at least one major opening from a habitable room (with a minimum area of 1.5sqm), including a main living area, at each floor level with an outlook to the adjacent Greenway and, where relevant, the North-South Mews.*

Fence

- *Boundary fencing to the Greenway shall be provided by the land developer and be a maximum 1.5m overall height above lot ground level, with a solid maximum 0.9m base and visually permeable panels (minimum 50% visual permeability) above and between solid piers. The fence shall include a gate for pedestrian access to the Greenway.*
- *Fencing to side boundary fences to streets or an open space is permitted to be solid only where abutting the primary outdoor living area to a maximum length of 50% of the boundary length contained between the front and rear setback. The remainder of the fencing shall be and be a maximum 1.8m overall height, with a solid maximum 0.9m base and visually permeable panels (minimum 50% visual permeability) above and between solid piers.*

Recommendations

- Include a habitable room over the rear car parking structure.
- Allow the private outdoor space at the rear of the lot to extend into an open-sided carport to enable the carport to double as covered open space.
- Building height shall be emphasised through details such as a raised roof, parapet or other architectural form, or a material such as vertical timber or metal cladding.
- Front gardens should be landscaped to a high quality for visual interest from the Greenway.
- Include a ground level toilet and bathroom with a step-free shower, and a room useable as a bedroom to allow ageing in place or a person with mobility difficulties.

4.3 PRECINCT C: APARTMENT LOTS

Statement of Intent

Precinct C includes lots for apartment buildings that are located at the edges of Carawatha and face North Lake Road and Archibald Street. The three to four-storey height apartment buildings accommodate a range of apartment types that add to the diversity of the housing mix in Carawatha.

Each apartment building is modulated to break up the perceived bulk of the buildings, the form is well proportioned and includes some repetition and grouping of smaller elements on the elevations. The buildings are clearly articulated horizontally, so the elements of the ground floor, volume of the middle floor/s and the uppermost floor are distinct; furthermore, any fourth floor is setback from the floor below.

The form of each apartment building includes a shallow pitched roof with a distinctive eaves overhang that appears to 'float' over the building and evoke an architecture that is distinctly residential in character.

The main front door to each apartment building is clearly articulated, 'entrancing' and visible from the street.

Each of the apartment buildings accommodates residents' car parking securely within the building with all bays being hidden from public view from North Lake Road and Archibald Street. Car parking is accessed via a single entrance from the adjacent Mews.



Examples of the general intent for Precinct C: Apartment lots

North Lake Road

There are two lots for apartment buildings adjacent to North Lake Road.

The apartment buildings adjacent to North Lake Road have an outlook from each floor to North Lake Road to the east, and to the Mews Street to the west. The apartment buildings also provide an outlook to the park between the two apartment lots.

Next to North Lake Road, the apartment buildings are set back from the lot boundary to retain the row of existing mature trees. The building setback area is densely landscaped to create an attractive, soft edge; a visually permeable fence at the boundary with North Lake Road provides a defined edge and security. Ground floor car parking is screened from view by the use, wherever possible, of 'sleeving' apartments that face towards North Lake Road (refer to **Fig 4: North Lake Road indicative apartment cross section**).

Next to the Mews Street, ground floor car parking is screened from view by the use of 'sleeving' apartments, wherever possible, that face the Mews Street (refer to **Fig 4: North Lake Road indicative apartment cross section**).

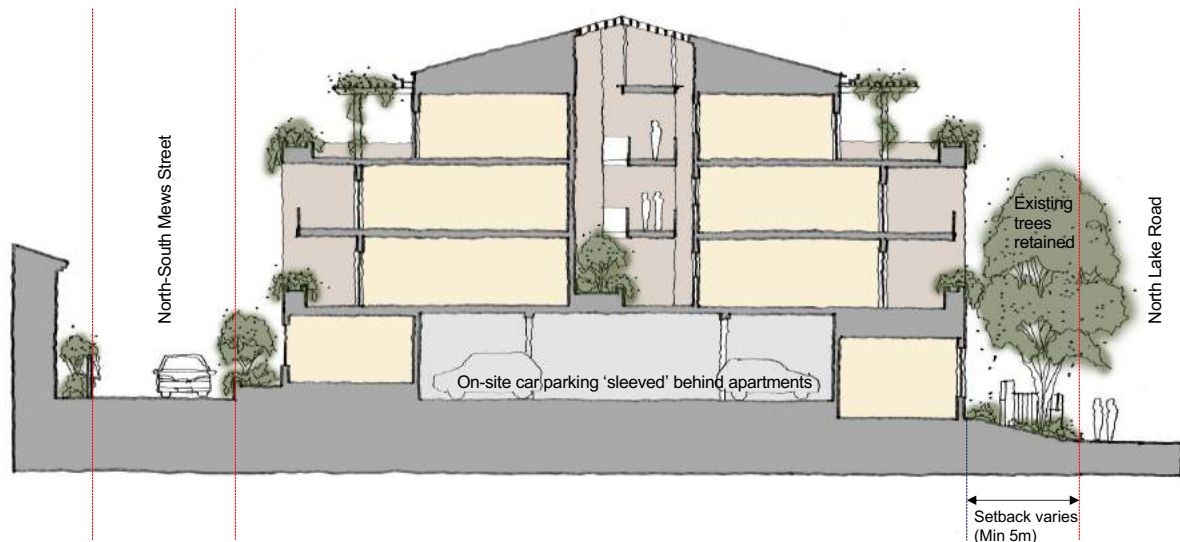


Fig 4: North Lake Road indicative apartment cross section

Archibald Street

There are two lots for apartment buildings adjacent to Archibald Street.

On the eastern lot, the apartment building addresses Archibald Street and the entry street to the Carawatha development. The apartment building is set back from Archibald Street to allow landscape in the front garden to add character to this street and to provide a degree of privacy to ground floor residents. Next to the Mews Street frontage, the building has a modest setback that allows for a planted screen to the ground floor undercroft car park and to add visual interest to the street.

The western lot for an apartment building has an outlook to Archibald Street, the entry street and Carawatha Park at all levels. The apartment building is set back from the corner of Archibald Street and the entry street to allow landscape in the front garden to add character at the intersection and to provide a degree of privacy to ground floor residents.

Note: The above Statement of Intent (and the subsequent mandatory requirements and recommendations) assumes apartment development. In the event that apartment development is deemed to be unviable, the alternative development form is likely to be similar to that of Precinct B, and the Design Guidelines, therefore, will be modified accordingly.

Mandatory requirements

Height and setbacks

- Buildings shall be a minimum of two storeys and a maximum of four storeys above ground level.
- Any fourth level shall not exceed 50% of the building footprint and shall be located to emphasise a building corner or the main building entrance or both.
- Any fourth-floor level shall be set back from the floor below by a minimum of 3m.
- Buildings shall be set back 3m minimum from Archibald Street and 5m minimum from North Lake Road.

Roof

- Buildings shall incorporate a pitched roof of between 12 to 18 degrees in pitch, with a minimum eaves width of 450mm.

Elevation

- All elevations shall include at least three different wall planes and two different wall materials for articulation.
- Apartments shall provide a major opening from at least two habitable rooms with an outlook to any adjacent streets, Mews Street or areas of public open space.

- *Buildings along North Lake Road shall screen on-site car parking from public view, and present apartments at ground level, wherever possible, to both North Lake Road the adjacent north-south Mews Street.*
- *Buildings along Archibald Street shall present apartments to Archibald Street at ground level.*

Fence

- *Boundary fencing to Archibald Street, North Lake Road, Carawatha Park and the main entry road to the estate shall be provided by the land developer and be a maximum 1.8m overall height, with a solid maximum 0.9m base and visually permeable panels above and between solid piers. The fence shall include gates for pedestrian access to Archibald Street from each adjacent ground floor apartment.*

Landscape

- *Any setbacks to the adjacent Mews shall be vegetated to a minimum of 50% of the setback area.*

Recommendations

- Apartment development should be consistent with the requirements of the draft WAPC Apartment Design guidelines.
- Provide a diversity of residences within the apartment building.
- Retain existing trees wherever practicable.
- Articulate the ground floor and top floor using materials and colours that clearly layers a building into three parts – a base, middle and top.
- Modulate the building bulk and group smaller elements on the elevation to create an attractive pattern.
- Setback the gate to the carpark entry to reduce its visual dominance.
- Incorporate moveable balcony screens and louvres for the personalisation of privacy, solar control and to help further articulate the elevations.

APPENDICES

APPENDIX 1: MATERIALS AND COLOURS SCHEDULE

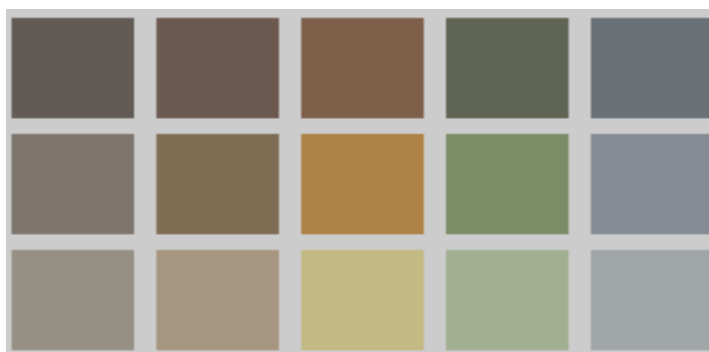
Wall

For a wall visible from the public realm, use a combination of at least two different materials, such as:

- brick
- painted render (no more than 25% of the elevation)
- timber
- metal cladding
- weatherboard
- tiles
- concrete
- stone.

The indicative colour palette for walls consists of natural, earthy and generally warm colours of the land, that may be combined with lighter colours, such as white and cream, for details.

The indicative colours shown are typical examples of warm, natural and earthy land-based colours that include brown, yellow/brown ochre, grey, tan, Venetian red, burnt umber, Cyprus green, burnt Sienna and slate grey.



Roof

For the roof use metal (corrugated or contemporary standing seam sheeting) or a flat profile tile (shingle or flat interlocking).

Metal shall be in light colour with a solar absorptance of maximum 0.65

A tile colour shall be of a similar hue. The colours shown below are examples of acceptable metal colours (Colorbond range) with tile colours being similar.



Surfmist

Evening Haze

Paperbark



Shale grey

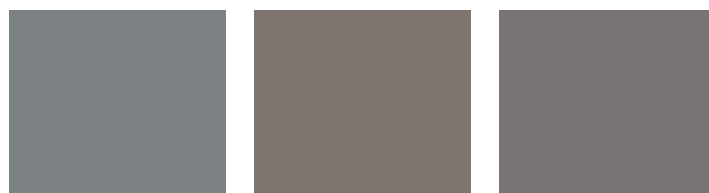
Dune

Cove

Garage door

For the sectional garage door, use natural timber, timber-style or metal.

A metal door shall match one of Colorbond colours as selected for the roof.



Windspray

Gully

Wallaby

Windows and glazing

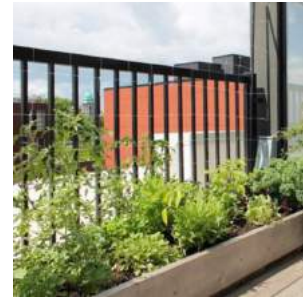
For the windows use timber or commercial-grade aluminium window frames in white, silver, dark grey or black.

For the glazing, clear or solar performance glass only shall be seen from the public realm. Reflective and colour tinted glass is not permitted.

Balcony balustrade

For the balustrade, use glass or vertical rails in metal or timber that complement the architectural character and colours of the building.

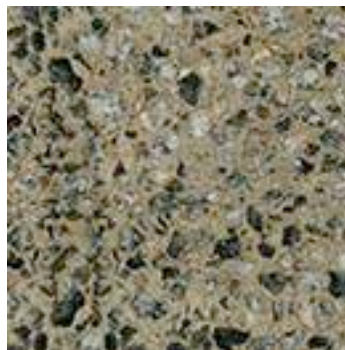
Solid balustrades facing the public realm are encouraged where the balustrade incorporates an in-built planter box to integrate landscape and architecture.



Driveway and crossover

For the driveway use segmented pavers, cobblestones, or exposed aggregate in-situ concrete to provide a visually-appealing textured finish.

The finish shall be light coloured to minimise heat absorption (avoid black and charcoal and very dark shades of red and brown and grey concrete).



APPENDIX 2: CHECKLIST OF MANDATORY REQUIREMENTS

General provisions (applicable to all precincts)

No.	Requirement	Complies
3.1	Sustainable design	
	Design apartment developments to be capable of achieving a minimum 4-star Greenstar rating or other equivalent.	
	Building and outdoor spaces oriented for winter sun to warm min. one internal living area via a major opening and min. one private outdoor living area.	
	West facing openings and associated spaces include shade elements for climate protection.	
	Building and outdoor spaces oriented for breezes to ventilate internal living areas, bathrooms and toilets, any roof voids and outdoor living areas.	
	Corner habitable room includes openings on both walls for cross ventilation.	
	Storage space for bins for household waste management and recycling, behind the building line and screened from public view	
	820mm min width and level door entry for ease of access.	
3.2	Building Interface with the public realm	
	At least one major opening to a habitable room with an outlook to each adjacent street or public open space.	
	Front door to be clearly visible from an adjacent street or public open space.	
3.3	Landmark buildings	
	Distinctive architectural element or feature on the building where the lot has a corner to adjacent streets, laneways or public open space.	
3.4	Architectural form and character	
	Incorporate min. one architectural feature on the primary frontage: porch, balcony, veranda, bay window or tower.	
	Square or vertical proportion for all openings visible from adjacent streets and public open spaces, or glazing panes are square or vertically proportioned.	
3.5	Materials and colours	
	Min. two different wall materials to all street elevations.	
	Painted and rendered masonry as a secondary material only, and max 25% area on an elevation facing an adjacent street or public open space.	
	Roof - metal or a flat profile shingle tile in a light colour. Maximum 0.65 solar absorbency for metal.	
	No reflective or colour tinted glass seen from the public realm.	
	No external roller security shutter seen from the public realm.	
	Driveway finish in a light colour (avoid black and dark shades of red, brown and grey).	
	Where a pedestrian footpath crosses a driveway, footpath reinstated in the estate material/colour.	
3.6	Roof	
	No curved roof.	
	Skillion roof screened from public view by a parapet wall.	
3.7	Private open space	
	Locate at least one area of private open space to receive northern winter sunlight at an angle of between northeast and northwest.	
3.8	Vehicular access and car parking	
	Residents' on-site vehicle bays screened from public view in a secure area.	
3.9	Building utilities and services	
	Air conditioning unit, communication device, piped and wired services out of public view or in a visually unobtrusive location.	
	Clothes line, bin store and garden equipment out of public view.	
	Align PV/solar hot water panels with the roof pitch or screened behind a parapet wall.	
3.10	On-site landscape	
	Setback area to the primary frontage has min. 50% vegetation.	
	Avoid dense, tall shrubs adjacent to the footpath.	
	Include at least one small to medium size tree (at maturity) in the front garden. Species selection and tree position considers sun and shade control through the seasons, and impact on adjoining neighbours.	
3.11	Fences (by lot owner)	
	Fence to streets and public open spaces has min. 50% visual permeability. No supplementary screening shall be installed on boundary fencing to further reduce the visual permeability.	
	No existing fencing to be removed without the land developer's written consent.	
	Fence to side boundary not to project forward of the adjacent front building line.	
	Dividing fence behind the building line to be as per land developer's standard specification.	
3.12	Lighting	
	Lights located to illuminate the front door and pedestrian path to the building entrance from the adjacent public area.	
3.13	Public art	
	Development value of \$1 million or more, - public art, or a public art contribution, to be provided consistent with the City of Melville's public art policy and all other relevant documents.	

Precinct A: Park and street front lots

4.1	Precinct A	
	Requirement	Complies
	Height and setbacks	
	Minimum two-storeys building height to the primary frontage.	
	Building set back min. 3m from the primary street boundary. Garage setback min. 4.5m from the front boundary and setback min. 1m from the front of the building.	
	Two-storey height parapet wall permitted only to one common side boundary for up to max. 50% of the lot boundary length, between the front and rear setbacks, with any other portion of an upper storey set back min. 1.5m from a side boundary.	
	Single storey wall max. 3.5m height permitted to both side boundaries, between the front and rear setbacks, except for a corner lot where a min. 1.5m setback applies to a boundary with a secondary street or greenway.	
	Building set back min. 4m from the rear boundary.	
	Roof	
	Building includes a pitched roof seen from the street for at least 50% of the front two-storey element.	
	Roof pitch between min 21 degrees and max. 30 degrees. Exception considered on design merit.	
	Roof eaves min. 450mm width, except on common lot boundaries.	
	Front elevation	
	At least three different vertical planes, inclusive of the garage, included on the front elevation.	
	Rear elevation	
	Min. one major opening to a habitable room, including a main living area, at each floor level to overlook the Greenway or Carawatha Park.	
	Garages and crossovers	
	Garages shall not exceed an external width of 6m.	
	Driveway crossover max. 4m width across the street reserve.	
	Fence	
	Land developer provides rear boundary fence max. 1.8m height. Design to include a solid max. 0.9m base and visually permeable panels (50% minimum visual permeability) above and between solid pier.	
	Fencing to side boundary fences to streets or an open space is permitted to be solid only where abutting the primary outdoor living area to a maximum length of 50% of the boundary length contained between the front and rear setback. The remainder of the fencing shall be and be a maximum 1.8m overall height, with a solid maximum 0.9m base and visually permeable panels (minimum 50% visual permeability) above and between solid piers.	

Precinct B: Mews lots

4.2	Precinct B	
	Requirement	Complies
	Height and setbacks	
	Minimum two-storeys height to the building frontage facing the Greenway.	
	Building set back min. 2m from the lot boundary with the Greenway.	
	Two-storey height parapet wall permitted to both common side boundaries of the lot for 100% of the lot boundary between the setback lines.	
	Three-storey height parapet wall permitted to both common side boundaries of the lot for max. 50% of the lot boundary between the setback lines.	
	For a corner lot, building set back min. 1m from the secondary street boundary.	
	Roof	
	For a pitched roof visible from the Greenway primary frontage, roof pitch min. 21 degrees minimum and max. 30 degrees, with eaves min. width 450mm except for a lot boundary.	
	Front elevation	
	At least two different vertical planes included on the primary elevation.	
	At least one major opening from a habitable room (with a minimum area of 1.5sqm), including a main living area, at each floor level with an outlook to the adjacent Greenway and, where relevant, the North-South Mews.	
	Fence	
	Land developer provides boundary fence to Greenway max. 1.5m height. Design to include a solid max. 0.9m base and visually permeable panels (50% minimum visual permeability) above and between solid piers; fence includes a gate for access to the Greenways.	
	Fencing to side boundary fences to streets or an open space is permitted to be solid only where abutting the primary outdoor living area to a maximum length of 50% of the boundary length contained between the front and rear setback. The remainder of the fencing shall be and be a maximum 1.8m overall height, with a solid maximum 0.9m base and visually permeable panels (minimum 50% visual permeability) above and between solid piers.	

Precinct C: Apartment lots

4.3	Precinct C	
	Requirement	Complies
	Height and setbacks	
	Minimum two-storeys building height and max. four-storeys building above ground level.	
	A fourth level not to exceed 50% of the building footprint, with the location of this level to emphasise a building corner or the main building entrance or both.	
	A fourth level set back min. 3m from the floor below.	
	Building set back min. 3m from the Archibald Street boundary and min. 5m from the North Lake Road boundary.	
	Roof	
	Pitched roof min. 12 degrees to max. 18 degrees, with eaves min. 450mm width.	
	Elevation	
	All elevations to include at least three different wall planes and two different wall materials.	
	Min. one major opening for min. two habitable rooms that overlook the adjacent street, Mews Street or public open space.	
	Buildings along North Lake Road shall present apartments at ground level, wherever possible, to both North Lake Road and the adjacent north-south Mews Street.	
	Archibald Street buildings to include ground level apartments facing Archibald Street.	
	Fence	
	Boundary fence by developer to Archibald Street, North Lake Road, Carawatha Park and the main entry road to the estate to be max. 1.8m height, with a solid max. 0.9m height base and visually permeable panels above and between solid piers. Fence to include gates from each adjacent ground floor apartment for pedestrian access to Archibald Street.	
	Landscape	
	Min. 50% vegetation in the setback area to the adjacent Mews Street.	

Precinct A – Park and Street Front Lots

- Installation and operation of soakwells will be in accordance with the City of Melville guidelines.
- Soakwells sized to store the 1:20 ARI 1 hr duration storm event (34 mm).
- Calculation of soakwell storage capacity = $0.034A_c m^3$ (Where A_c is the connected impervious area in m^2)
- Soakwells must be backfilled with clean free draining sand.
- The roof catchment must be correctly distributed to the soakwells proportional to the capacity of each soakwell.
- Any rainwater tanks installed must be provided an overflow connection to the soakwells.

Property owners should be aware that it is normal for the capacity of the soakwells to be exceeded during infrequent (high intensity or long duration) rainfall events. It is the property owner's responsibility to manage excess stormwater by providing pervious area near downpipes to soak stormwater surcharge and/or provide a suitable overland flow path to direct excess stormwater away from the residence and neighbouring properties.

Precinct B – Mews Lots

- Installation and operation of soakwells will be in accordance with the City of Melville guidelines.
- Soakwells sized to store the 1:20 ARI 1 hr duration storm event (34 mm).
- Calculation of soakwell storage capacity = $0.034A_c m^3$ (Where A_c is the connected impervious area in m^2)
- Soakwells must be backfilled with clean free draining sand.
- The roof catchment must be correctly distributed to the soakwells proportional to the capacity of each soakwell.
- Any rainwater tanks installed must be provided an overflow connection to the soakwells.

Property owners should be aware that it is normal for the capacity of the soakwells to be exceeded during infrequent (high intensity or long duration) rainfall events. It is the property owner's responsibility to manage excess stormwater by providing pervious area near downpipes to soak stormwater surcharge and/or provide a suitable overland flow path to direct excess stormwater away from the residence and neighbouring properties.

Precinct C – Apartment Lots

- Installation and operation of soakwells will be in accordance with the City of Melville guidelines.
- Soakwells sized to store the 1:100 ARI 1 hr duration storm event (46 mm).
- Calculation of soakwell storage capacity = $0.046A_c m^3$ (Where A_c is the connected impervious area in m^2)
- Soakwells must be backfilled with clean free draining sand.
- The catchment must be correctly distributed to the soakwells proportional to the capacity of each soakwell.
- Any rainwater tanks installed must be provided an overflow connection to the soakwells.

Property owners should be aware that it is normal for the capacity of the soakwells to be exceeded during infrequent (high intensity or long duration) rainfall events. It is the property owner's responsibility to manage excess stormwater by providing pervious area near downpipes to soak stormwater surcharge and/or provide a suitable overland flow path to direct excess stormwater away from the residence and neighbouring properties.